# ANALYSIS AND COUNTERMEASURE TO IMPROVE OVERALL EQUIPMENT EFFECTIVENESS (OEE) ON CHASSIS LINE AT TAN CHONG INDUSTRY

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## ANALYSIS AND COUNTERMEASURE TO IMPROVE OVERALL EQUIPMENT EFFECTIVENESS (OEE) ON CHASSIS LINE AT TAN CHONG INDUSTRY

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Thesis submitted in fulfilment of the requirements for the award of the degree of B.Eng. (Hons.) Manufacturing Engineering

Faculty of Manufacturing Engineering UNIVERSITI MALAYSIA PAHANG

DEC 2016

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I hereby declare that the work in this project is my own expect for quotations and summaries which have been duly acknowledged. The project has not been accepted for any degree and is not concurrently submitted for award of other degree.

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#### ABSTRACT

Overall Equipment Effectiveness (OEE) is a powerful metric of manufacturing performance incorporating measures of the utilization, yield and efficiency of a given process, machine or manufacturing line. When associated with the reasons for performance loss, OEE provides the means to compare and priorities improvement efforts. This project assesses the current condition of Chassis-Final Assembly lines of Nissan Tan Chong Motor Assemblies Sdn Bhd, a company of car manufacturer in order to reduce unplanned downtime due to line stoppages to maximize the productivity. Before obtaining the data to calculate the existing OEE value, the product or process that have the highest downtime rate need to be identified at Chassis-Final Assembly Department. The methods used to analyze these various causes were control chart to find the out of control point, Pareto Analysis to find the critical problem, Ishikawa diagram to find causes affecting the problem, and 5W1H to proposed the recommendation. After knowing the causes of various activities that leads to high downtime rate, then recommendations for OEE improvements are 84.35% and 84.31% for A, and B shift respectively. From the existing to world class ranking OEE there are improved by 4.51% and 4.71% for A, and B shift respectively, that could be used by Nissan Tan Chong Motor Assemblies Sdn Bhd were ready to be made.

## ABSTRAK

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Keberkesanan keseluruhan Equipment (OEE) adalah metrik kuat pembuatan langkahlangkah prestasi pemerbadanan penggunaan, hasil dan kecekapan proses, mesin atau pembuatan garis diberikan. Apabila dikaitkan dengan sebab-sebab bagi kehilangan prestasi, OEE menyediakan cara-cara untuk membandingkan dan usaha keutamaan penambahbaikan. Projek ini menilai keadaan semasa garis Perhimpunan Chassis-Final Nissan Tan Chong Motor Assemblies Sdn Bhd, sebuah syarikat pengeluar kereta untuk mengurangkan tidak dirancang kerugian masa ke atas penamatan baris kerja untuk memaksimumkan produktiviti. Sebelum mendapatkan data untuk mengira nilai OEE yang sedia ada, produk atau proses yang mempunyai tertinggi menurunkan kadar masa perlu dikenal pasti di Chassis-Final Jabatan Perhimpunan. Kaedah yang digunakan untuk menganalisis pelbagai sebab adalah carta kawalan untuk mencari titik keluar dari kawalan, Analisis Pareto untuk mencari masalah yang kritikal, gambarajah Ishikawa untuk mengesan punca utama masalah, dan 5W1H untuk mengusulkan cadangan. Setelah mengetahui punca-punca pelbagai aktiviti yang membawa kepada kadar downtime tinggi, maka cadangan untuk penambahbaikan yang boleh digunakan oleh Nissan Tan Chong Motor Assemblies Sdn Bhd bersedia untuk dibuat.

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## LIST OF ABBREVIATIONS

- OEE Overall Equipment Effectiveness
- TPM Total Productive Maintenance

## **CHAPTER 1**

### **INTRODUCTION**

## **1.1 INTRODUCTION**

This chapter discusses about the introduction, overall ideas and concepts to the Total Productive Maintenance (TPM) and Overall Equipment Effectiveness (OEE). Besides, the background of the study, problem statements, objective of the study, and scope of the study will also be described in details in the sections below.

## **1.2 BACKGROUND OF STUDY**

In a competitive market, the growing demand for quality as the most important factor for a company to survive in the global market is growing. Quality is important in determining the economic success of manufacturing companies. Total Quality Management (TQM) is an approach to improve the quality of goods and services delivered through the involvement of individuals at all levels and functions of the organization. Quality management practices also help improve in reducing scrap, rework and stabilize the production process. Thus, can reduce production costs and increase productivity.

Tan Chong Motor Assemblies Sdn. Bhd. (TCMA) was selected to be studied in this research. It is one of the largest national conglomerates involved in a myriad of business activities. The current activities of the Tan Chong Motor Assemblies Sdn. Bhd. (TCMA) are assembly and distribution of motor vehicles, provision after-sales services and motor related financial services. This study is conducted by choosing the Assembly Shop Chassis line as a research. Assembly Chassis line has 2 shifts with 7.9 hours per shift, which means the total operation per shift is 474 minutes-based. They explained that they are facing a high probability of loss of production lines for machine damage stoppage.

Through the first visit to the company in accordance Assembly Shop Chassis line, the operator were observed that they could not read the air leak tester due to failure of reading and Chassis-Final conveyor cannot running very well. In addition, the chassis assembly line downtime loss is 10 to 20 minutes by the time available of 474 minutes per shift, therefore, the operating time was decrease to 4.22 per cent, and this is due to equipment failure affected from waiting and no raw materials. Downtime losses was reflected to low availability. The number of units produced is 50 units out of total potential targets of 60 units in every shift. So that, it shown that the performance is low by 83.3 percent. This is due to minor stoppage due to speed loss because the machine not running smoothly at stable speed. Losses of speed also reflected to low performance of equipment. There are also issues of quality of the process and the vehicle, the number of defects per shift is 5 units from 50 units produced per shift. Therefore, the quality of the product decreased to 10 percent because of the product did not meet the specifications.

Any number of factors leading to low production output with machine operating time low. The maintenance department has been struggling to make a countermeasure with equipment be tracked in a problem. They have done a monthly maintenance practices in the last 3 months; however, the results did not show any significant progress in the breakdown of machinery. Given this situation, there is a need to observe and study the causes of machine damage and suggest the most appropriate method for further improvement that can benefit the production process.

## **1.3 PROBLEM STATEMENT**

From the observation made in the Assembly Shop Chassis line, there have a number of machine breakdown, line stoppage cases through the production, the productivity not achieve the target and also the low product quality and affect the Overall Equipment Effectiveness (OEE). So that, this research is to study and analyze the existing of Overall Equipment Effectiveness (OEE) and to propose on how to improve the productivity by reduced the machine breakdown, decrease the defects and increase the quality of productivity.

## **1.4 OBJECTIVE OF STUDY**

This research was carried out to:

- To identify and analyse the elements of Overall Equipment Effectiveness (OEE).
- To calculate the existing of Overall Equipment Effectiveness (OEE).
- To evaluate, analyse and proposed improvement of the revised Overall Equipment Effectiveness (OEE).

## **1.5 SCOPE OF STUDY**

The project objective is narrowed down by performing scopes of study.

- A case study will be conducted at Tan Chong Motor Assemblies Sdn. Bhd. On Assembly Shop Chassis line area.
- The study will be conducted for a period of 3 months for the latest Overall Equipment Effectiveness (OEE).

## **CHAPTER 2**

## LITERATURE REVIEW

## **2.1 INTRODUCTION**

This chapter describes the principle of Overall Equipment Effectiveness and Total Productive Maintenance in general, and the principles behind the system. All related terms, terminology and formulas will be clearly stated.

## 2.2 HISTORY OF THE MAINTENANCE

Traditionally, maintenance is considered to be carried out to repair the broken machine, and the machine is considered to be fixed, to perform the operation correctly. Maintenance tasks are include re-adjust, replace parts or components, oil change, lubrication and cleaning (Sullivan, 2004). Literature maintenance often show flow changes from three generations before World War II had begun, as shown in Figure 2.1.

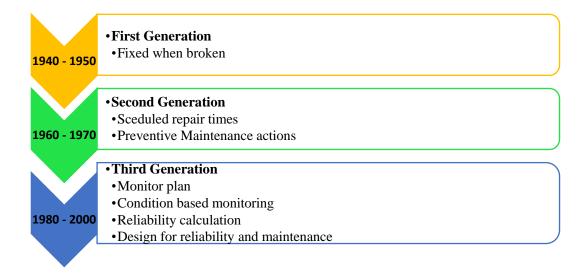


Figure 2.1: The Maintenance History

#### **2.3 TOTAL PRODUCTIVE MAINTENANCE (TPM)**

TPM is one of total quality culture that followed many good practices; it is through the use of lean principles to increase their competitiveness. The new assignment is likely to include improved equipment, repair, training, preventive maintenance, predictive maintenance. The task is transferred to production Kaizen including easy maintenance, cleaning, inspection, lubrication, and adjustments. Figure 2.2 shows schematically how TPM switch the stewardship of the Department of Production Maintenance team.

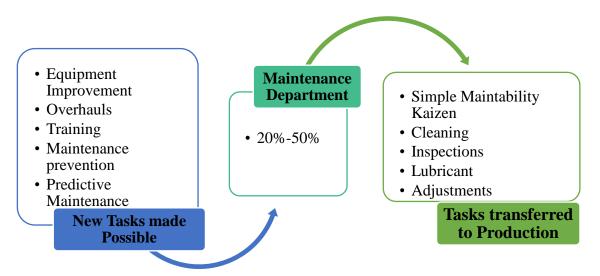


Figure 2.2: TPM Shifts Maintenance Tasks

## 2.3.1 Define Total Productive Maintenance (TPM)

Total Productive Maintenance (TPM) is a maintenance philosophy that requires total participation in the labour force. TPM combines the ease and availability of the skills of all employees with a focus on improving the overall efficiency of the facility. Efficiency is enhanced by eliminating the waste of time and resources. Typically, total productive maintenance is a concept that is easy to use for most of the manufacturing facility. Ahuja and Kamba (2008) was said that there is an eight pillar of TPM. By implementing all of these pillars, the TPM will function correctly and can absolutely help the company to achieve their goals. The eight pillars of TPM are mostly focused on proactive and preventative techniques for improving equipment reliability. The eight pillars of TPM illustrated in Figure 2.3.

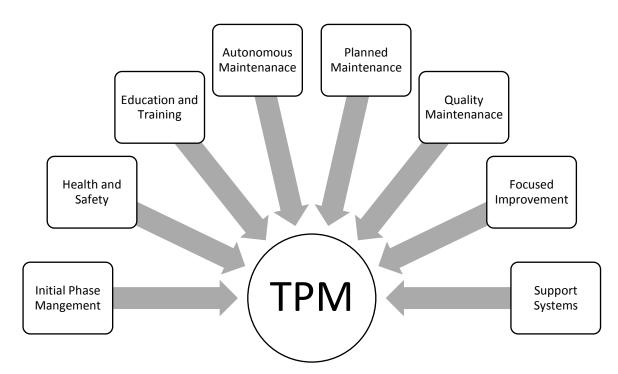


Figure 2.3: Eight Pillars Approach for TPM

## 2.4 OVERALL EQUIPMENT EFFECTIVENESS

OEE is a tools to measure and recognized that the equipment breakdown sources by production losses. OEE is a simple tool that will help managers to evaluate their effectiveness equipment. (Sermin Elevli and Birol Elevli 2010) It is the most common and important loss of productivity, which is called the six big losses and are given in Table 2.1. Equation below is to measure the equipment effectiveness.

$$OEE = Availability x Performance x Quality$$
 (2.1)

#### Table 2.1: Six Big Losses of Equipment

Category	OEE Loss	Example
Breakdowns	Availability	Tooling failures
Setup adjustment		Setup / Changeover
Small stop	Performance	Cleaning / checking
Reduced speed		Inefficient operator
Startup rejects	Quality	Incorrect assembly
Production rejects		Scrap / rework

Overall equipment effectiveness (OEE) is a hierarchy of metrics developed by Seiichi Nakajima in (by Harrington Emerson in 1960 in a way of thinking about the labor efficiency) that evaluates and demonstrates how effective manufacturing operations used.

## 2.4.1 The Elements of Overall Equipment Effectiveness

Overall equipment effectiveness is calculated by combining three factors of the availability rate, the performance rate, and the quality rate.

Availability is the ratio of the amount of time that the tool capable to running a quality product to the total time it could be running. Availability rate can be defined as follows:

Availability = 
$$(Total Operating Time - Downtime) / Total Time Available$$
 (2.2)

Performance of tools is defined as the ratio of the amount of product made to the amount of target product that could be made. Then, performance is determined as follows:

Performance = number of unit manufactured / possible number of units (target) (2.3)

Quality of the product is the ratio of the amount of good products made to the total amount of product made. The rate of quality can be determined as follows:

Quality = number of goods unit produced / number of units produced (2.4)

## 2.4.2 World Class Ranking of OEE

Generally accepted world class target for each factor different from each other. Table 2.2 below shows the percentage of world class ranking of OEE.

 Table 2.2: World Class of OEE Factor

OEE Factor	World Class
Availability	90.0%
Performance	95.0%
Quality	99.9%
Overall OEE	85.0%

## 2.5 PROCESS IMPROVEMENT TOOLS

Process improvement is important to be used to determine an ongoing process within the company to achieve target and objectives. The most used methods in the implementation process, tools and techniques will be shown as below:

- i. Pareto analysis
- ii. Cause And Effect Analysis
- iii. Statistical Process Control (SPC) Charts
- iv. 5 Whys Analysis
- v. 5W IH Analysis

#### 2.5.1 Pareto Charts

Pareto charts was invented by an economist who is Alfredo Pareto that listed that by a few people that controlled the most of the nation's wealth. Pareto charts is a simple method for identifying priority of changes to identify the problem. From this method, we can prioritize the most perfect state of individual modifications. Figure 2.4. shows the type of Pareto Charts.

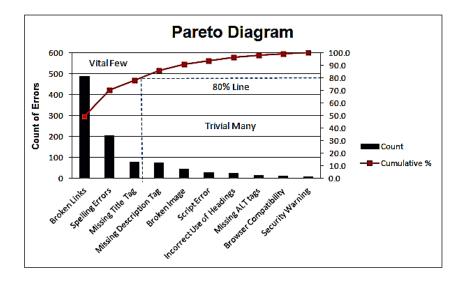


Figure 2.4: Pareto Chart

## 2.5.2 Ishikawa Diagram

Ishikawa diagram was invented by Kaoru Ishikawa. It is also called fishbone diagrams. Function of Ishikawa diagram is to identify the factors that are causes the undesired effect or defects. The major factors of the Ishikawa diagrams are Method, Man, Machine, Material and Environment. The completed Ishikawa diagram is shown in Figure 2.5.

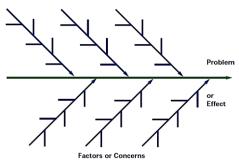


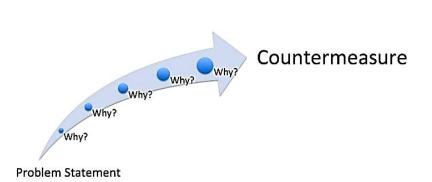
Figure 2.5: Ishikawa Diagram

## 2.5.3 Control Chart

A control chart is a graph used to study how the process of change over time. Data was plotted for the future control. Control charts always have a diameter of an average, the top line of the upper control limit and the lower line of the lower control limit.

#### 2.5.4 5Whys Method

The 5-Whys Method was invented by Toyota Founder, Kiichiro Toyoda's father Sakichi and become popular in the 1970s by the Toyota Production System. The 5Whys Method is a strategy that involve in solving problem by looking at any problem asking: "Why?" and "What causes the problem?". It is a simple tool to determine the root cause of a problem. It can be done by using an innovative and creative technique, such as brainstorming, by asking questions repeatedly as shown in Figure 2.6.



5 Why Analysis

Figure 2.6: 5Whys Method

#### 2.5.5 5W1H Method

5W1H shown in Figure 2.7 is the first problem solving tool in a team have been taught. This is the most recommended method to use initially. This method is not

depends on technical skills and it is easy to used. This method ensures a team involved in problem solving process. Another way to help is brainstorming, which more reasons are described in Table 2.3. The 5W1H simple method can also be used to simplify the analysis process.

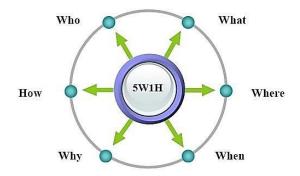


Figure 2.7: 5W1H Method

What	What should be improved? What is the purpose of the improvement?	
Where	Is the workers orientation or method correct when changing the workplace?	
When	Change the time, period or sequence of the operation.	
Who	Manpower, collaboration or task assignment. Check and discuss this issue again.	
How	Is there better method to replace the current one?	
Why	Why follow the present way. Is there any necessary change?	

## **CHAPTER 3**

### METHODOLOGY

## **3.1 INTRODUCTION**

This chapter describes the description of the methods to be used for this research. A methodology can be considered to include a various methods. It can be also defined as the study or description of methods. This study is based on observation on events happens in Tan Chong Motor Assemblies Sdn. Bhd. The flow chart in Figure 3.1 shows the steps that will be taken in this research.

#### **3.2 EXPLANATION OF FLOWCHART**

#### 3.2.1 Research Background

In a field study of any organization that involves the establishment of information and reference real and tangible by the operator in the field. It can also be defined as a set of laboratory information and settings outside the workplace. This process involves the determination of accurate data on what is important, what kind of methods used included interviews informal group of direct observation, life group discussions, self-analysis, personal files, the resulting analysis, and the history of life.

At this level, the method used was to put to direct observation in order to gather information in an overview of the problems in selected company. First of all, the company must be selected to make observations and case studies. Application letter was drafted and sent to the Tan Chong Motor Assemblies Sdn Bhd. visit the company made an appointment before visiting. During the visit, an industrial engineer and plant manager briefly describes the background of the company; the type of products manufactured, their main customer and how the product is produced. After the presentation, a visit to the Department of Maintenance been held to get an overview of how the parts are produced. Some of the problems highlighted by the engineers and all the problems that were jotted down for analysis purposes.

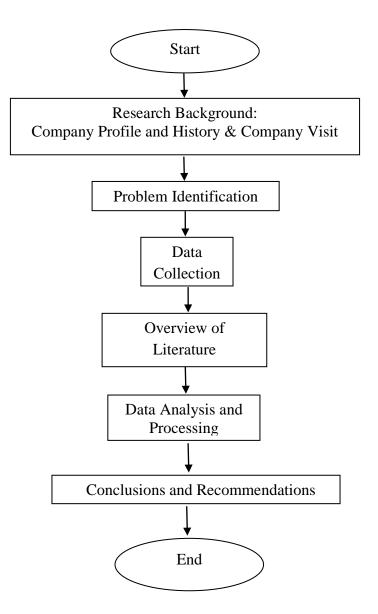


Figure 3.1: Flowchart of Study Framework

## **3.2.2 Problem Identification**

Identification of the problem is defined as identify problems before trying to solve it. In other words, it is the first strategy in problem solving. First, we must realize and accept that there is a problem. Once a problem has been identified, then made direct observations. The information collected in connection with the problem as soon as possible to begin work on a solution.

## 3.2.3 Data Collection

Collection of data is defined as data collection and processing information by measuring the variables of interest, in a systematic pattern created that can answer research questions as stated, hypothesis testing, and evaluating results. The collection of data necessary step in order to establish a consistent analytical approach to problem occurs. The method of collecting data is to use Overall Equipment Effectiveness (OEE).

## 3.2.4 Overview of Literature

The literature review is conducted after the data is collected. In the literature review, similar methods are found from other journals, thesis, published papers, and articles. From the study, all the methods and solutions are summarized and the most suitable method is selected.

#### 3.2.5 Data Analysis and Processing

The method of analysis will be carried out in the next chapter where to find the problem by using some of the tools that will be exposed. In order to find a solution, of data must be collected in accordance with the specification analysis. Analysis is the process of solving complex topic or issue into parts smaller in order to obtain a better understanding of it. In this study, of data relating collected and then move on to the next process of analyzing the of data. One of the main purposes of of data analysis is to find the cause of the problem, highlighting useful information, suggesting conclusions, and supporting decision making.

## **3.2.6 Conclusion and Recommendation**

Various issues were integrated, covered in paper, and understanding into all comment. This includes observing the discussions, proposals, and further studies are required to remove any residue. It is recommended for future solutions to improve the OEE, in order to improve the efficiency of the equipment.

## **CHAPTER 4**

## **RESULTS AND DISCUSSIONS**

## **4.1 INTRODUCTION**

This chapter will discuss the results of the study and presented the results in the industry related to real-time production monitoring system. This chapter will also show information and data to analyze and discuss.

Based on the results and information obtained from observations and records of the factory, there are a few tables, diagrams and graphs that have been built. There are several explanations for the details of the data and calculations are made to determine the availability and overall equipment per the last record.

## **4.2 DATA COLLECTION**

## 4.2.1 Company Background

Tan Chong Motor Assemblies Sdn Bhd was choosen to be study in this studies. Tan Chong Motor Assemblies Sdn Bhd (TCMA) is a subsidiary of Tan Chong Motor Holdings (TCMH). Tan Chong Motor Holdings Berhad (TCMH) was incorporated in Malaysia on 14 October 1972. From the humble beginning as the distributor of small motor vehicles by its founders back in the 1950s, TCMH Group (the Group) has grown up into one of the largest national conglomerates involved in a myriad of business activities; from the assembly and marketing of motor vehicles and auto parts manufacturing to property development as well as trading in various

heavy machineries, industrial equipment and consumer products both locally and abroad.

As part of a restructuring exercise to strengthen our foothold as an industry major player; in 1998 various business interests of TCMH abroad were eventually demerged and subsequently listed on The Stock Exchange of Hong Kong Limited under the Tan Chong International Limited flagship. This was followed by the demerger of its automotive parts division, non-motor division involving cosmetics, undergarments, and the distribution of heavy machinery as well as tourism-related businesses; which was subsequently listed on the Main Board of Bursa Malaysia Berhad in 1999 under APM Automotive Holdings Berhad and Warisan TC Holdings Berhad respectively. These exercises have enabled the Group to realign its focus on motor industry business.

TCMH is basically an investment holding company and the Group's current principal activities among others are; assembly and distribution of motor vehicles, provision of after-sales services and motor related financial services such as hire purchase, an insurance agency, and leasing.

The Group is the franchise holder and exclusive distributor of Nissan passenger and light commercial vehicles as well as Renault vehicles in Malaysia. The vehicle distribution business is operated with an extensive network of sales branches and authorized dealership outlets nationwide; supported by more than 80 after-sales service centre. We are also the franchise holder and exclusive distributor for trucks and buses under the UD Trucks and Silverbus brands, operating through an established network of sales branches and sales dealers, after-sales branches and authorized service dealers. Having achieved a notable market share for heavy commercial vehicles (HCV), light commercial vehicles (LCV) and buses, the Group is recognized as one of the leading commercial vehicle distributors in Malaysia.

The two assembly plants in Segambut (Kuala Lumpur) and Serendah (Selangor) have very close capacity; both plants together can deliver 100,000 units a year with additional shift and reasonable overtime; the Group's vehicles sales enjoyed a market

share of 12.1% for non-national cars and 6.4% for the industry-wide market as of September 2014.

## 4.2.2 Corporate Logo



Figure 4.1: Tan Chong Motor Assemblies Sdn Bhd Corporate Logo

The four Discs represent four major diverse interest groups, namely: as Shareholders, Employees, Suppliers and Public and Customers. The position of the Discs portrays the four corners of the social economics of the nation – north, south, east and west – to where our business activities extend. The four Discs represent four major diverse interest groups, namely as Shareholders, Employees, Suppliers and Public and Customers.

The position of the Discs portrays the four corners of the social economics of the nation – north, south, east and west – to where our business activities extend. The central inflated Red Cross represents the concerted efforts with which the company's businessactivities are extended to the abovementioned four diverse groups in a systematic manner towards the attainment of our corporate objectives with increased prosperity.

The red which symbolises prosperity and blue which symbolises loyalty are colours technically chosen to highlight the image of the company and its subsidiaries. The factory was awarded the ISO 9001:2000 for Quality Management Systems (QMS) and ISO 14001:2004 for Environmental Management Systems (EMS).

#### 4.2.2.1 Vision, Mission and Objective of Organization

Nissan is developing corporate activities centred on automobile manufacturing based on our vision of "enriching people's lives." In order for cars, which provide mobility, to truly become reliable partners for our customers, a number of issues including global environmental issues, traffic accidents and congestion problems must be tackled as part of a long-term vision. To realize our vision, Nissan is developing technologies based on a framework called the "Orchard" concept.Technical development encompasses a wide range of elements. It is necessary to think about how we will look at technology development and formulate strategies and plans for such development. For example, there are various technologies ranging from ones we wish to introduce onto the market right away, to basic ones that are developed slowly over time. The "Orchard" concept is an overall construct that allows us to think about these various technologies in a comprehensive manner.Nissan must have its own distinct value so that customers will choose Nissan cars. When combined, our activities to produce such value can be likened to the management of a fruit orchard in which "fruit" is planted and raised. The process is defined as having the following three phases.

#### 1. Harvest Plan

First, we develop a plan for commercializing the technology. We clarify the value the technology holds for the target customers, who have been clearly defined based on the technology's performance and functions, as well as the time frame for the provision of the technology. We are not developing technology simply for technology's sake. We must formulate plans in conjunction with social needs and market demands in order to provide in a timely fashion value that pleases customers.

## 2. Seeding & Growth

Next, we plan the strategy and implementation that will make the Harvest Plan a reality. We specify what elemental technologies are needed in order to make the Harvest Plan a reality and form strategies for developing them quickly and at a high level of quality. We plan and implement partnerships with universities and suppliers, lobby government officials, establish new organizations and structures, make regular progress reviews, and continuously improve the technology after it has been introduced.

#### 3. Soil Enrichment

This phase includes fundamental technologies and basic research, which are required competencies for continuing to create value in the long term. Some examples are technologies that improve reliability, which form the soil of the orchard; analysis and measurement technologies; and material technologies. In order to raise quality in the car manufacturing process, which runs from research and advanced development to car development, it is necessary to enrich the "soil" of the orchard with technology management that covers human resources and intrinsic company processes. Nissan's "orchard" includes a number of key technology areas, including the environment and safety. We discuss Harvest Plans for each area and plan and develop technologies for each over the mid and long terms.

#### 4.2.2.1.1 Objective

#### 4.2.2.1.1.1 Quality Policy

# Aims to maintain and improve its position as high as quality automobile assembler by following quality policy

- 1. to continually satisfy customer requirements.
- 2. Company wide Quality Management System (QMS)
- 3. Manpower development through training and education.
- 4. Achieve built-in quality at lowest cost.

#### 4.2.2.1.1.2 Environmental Policy

#### Tan Chong Motor Assemblies Sdn Bhd is committed and will endeavour

To comply and adhere to applicable law, regulations and other requirements in the interest of communities where we operate.

Continually improve environmental performance by actively pursuing pollution prevention, energy conservation and waste reduction.

#### **5S Policy**

We are committed to continuously maintain a high standard of 5S practices at our workplace though teamwork and self-discipline to improve quality, productivity and create harmonious and conducive working environment in line with Company Policy

#### 4.2.3 Organizational Chart

There are 5 divisions in Tan Chong Motor Assemblies Sdn Bhd. The divisions at Tan Chong Motor consists of Manufacturing, Engineering Services, Finance, Admin, Multimedia System, General Admin, Purchasing and Local. Figure 4.2 shows the organizational chart of Tan Chong Motor Assemblies Sdn Bhd.

In the Manufacturing section, there is 4 department under this division. There is Body Shop, Paint Shop, Assembly Line and Logistics. Each of the department have their own responsible. For the Engineering Services there are 4 departments, each of the department have their own functions for the company. There is Nissan Production Way (NPW),Quality Department (QD),Production Engineering Department (PED), Maintenance and Jig. Under the Nissan Production Way (NPW) there is 3 sections, there is IE, GK and PPC. Another department is General Admin that responsible for the human resources, payroll, safety and hostel.

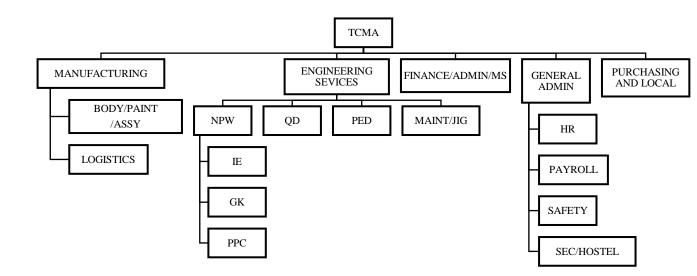


Figure 4.2: Organizational Chart of the Tan Chong Motor Assemblies Sdn Bhd

# Body shop Paint shop Assembly line

#### 4.2.4 Manufacturing process of Tan Chong Motor Assemblies Sdn Bhd

Figure 4.3: Process flow of Tan Chong Motor Assemblies Sdn Bhd Manufacturing

#### 4.2.4.1 Body shop

The Body Shop is a highly automated section of the factory with robots in operation. Pressed-panels are welded together to create complete body shells.

#### 4.2.4.2 Paint shop

Body shells are painted in a semi-clean environment using solvent-based paint. Shells are dipped in chemical tanks to cleanse them of any oils picked up on the panels during their manufacture in Body Shop. Once bodies have been dipped and cleansed, they are then immersed in an anti-corrosion paint dip called ED (Electrocoat Dip). This 'dip' coats the entire body, both inside and outside, and is the first paint coating it will receive. Once the 'dipped' body has been stoved in the ED oven, the body progresses to the 'Sealing' Booth. In this booth, the body has its interior panel joints, floor, tailgate, hood and door edges sealed with a PVC based sealant, to prevent water ingress and corrosion as the car is driven on the road. Also within this zone, sound pads are added to the floor and boot to reduce road noise (standard practice in the motor industry). The next booth it enters is the 'Underbody' Booth. In this booth, similar to 'Sealing' Booth, the body's wheel arches are sealed using the same PVC based sealant. Robots then apply the underseal to the underfloor and wheel arches. Also robots are used to apply the SGC (Stone Guard Coat) layer to the sills: this coating is designed for abrasion resistance, i.e. preventing stone chips, scuffs, etc. From here, the body proceeds into the Undercoat Oven. The next zone is 'ED Sanding' booth where the body is inspected for any minor imperfections received in the ED Coat. The next zone is the 'Surfacer' Booth, where the body receives its second coat of paint, this being the Surfacer Coat, then into the Surfacer Oven. Next is 'Surfacer Sanding' Booth: the same as ED Sanding, this zone inspects the body for any imperfections picked up within the Surfacer coating. Next comes the 'Topcoat' Booth, where the body receives its final coats of paint, these being Topcoat and Clearcoat layers. After being stoved in the Topcoat oven, the body then enters the 'Touch-up' Booth where the body has its final inspection for any imperfections picked up in the Topcoat process. Once the body leaves here, it then moves on to the PBS (Painted Body Store) above Trim and Chassis to await the next step in the production process.

#### 4.2.4.3 Assembly Line

There are two parallel assembly lines in TCMA: Line A currently handles the P32R and J32Q; Line B handles the L02B and M11X. Painted bodies are stored in a large holding area called PBS (Painted Body Store), and are released in a specific scheduled sequence. They are brought into Trim & Chassis on suspended cradles. Each body moves through the assembly line and is fitted with interior (Trim), and exterior (Chassis) components. At one point in the process, the bodies are 'married' to a sub-assembled engine and subframe. Completed vehicles are sent down a Final Line, where all aspects of the car, from brakes to waterproofing, are tested. The car is then driven off-line to a holding area, ready to be distributed to a dealer

#### 4.2.5 Process Flow in Chassis Line

Figure 4.4 shows the process happening in Chassis line, there are 12 sections for each process. After a trim line settles down, next to be chassis process that begins with process Underfloor 1 and 2 which include the process to fix the pipe, hose, and band assy fuel tank mounting into the front floor by using insulin heat and set control card. Next process of rear Axle sub 1 and 2 which is the process to fix and fit the component

such ABS assy shock, hoist, tube assy brake and drive shaft at the rear beam. After that, Rear and Front Disc subprocess which install the front brake, adjust beam at brake assy and set hub at rear brake assy. Next, the process of engine mounting 1, 2 and 3 which include fix engine on left and right side, then fix the bracket assy torque and propeller shaft. After that, process engine sub 1 and 2 which include a process to fix the gearbox and assemble cable with harness and hose. Next, engine sub 3 added with engine drop which process include fixing alternator, compressor and motor assy, then mounting the engine with the front strut and tighten with oil disc. And then, process steering member combined with engine drop which is set the engine with the lifter and set drive shaft and rear disc and fix with struts. And then front axle with steering link which is the process to fix the engine frame with struts. Proceed into undercarriage process which is to assemble propeller shaft with disc stopper and adjust at the front disc, and then assemble extractor, cover the assay and exhaust sensor with gasket. Next process goes to engine room 1 and 2 and the engine room 3 which is fix torque road, duct assy air, battery bracket and front bumper. Lastly, process tire fitting which includes inserting tire and fixes the machine and runs the machine, after that install valve into tire lastly removes the tire from the machine . After chassis process done, it will next transfer into final line process.

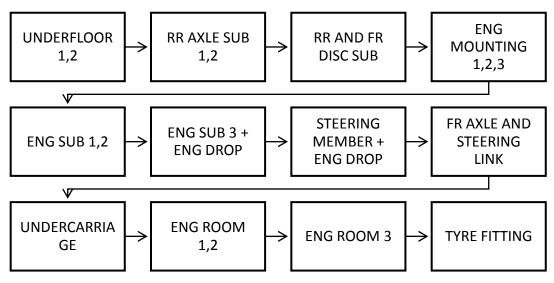


Figure 4.4: Process in Chassis Line

#### **4.3 CURRENT CONDITION**

In the beginning, data is recorded to identify any problems during the machine has been set up. Higher down time occurred during the preparation of the machine on which it will indicate the problem. The data will identify and count to get the OEE, availability, quality and performance. It intends to examine the problems affecting the OEE. In order to produce a better product at a lower damage, the company wants to cut their losses. The best products means that it comply with the specifications given.

Attribute data are typical for the size of the data or the sample size in the range of 50-10 per sample, it signifies a qualitative sample and good or bad. Using the p type of chart will calculate the percentage of defects in the sample. P chart will be built using Microsoft excel. Out of control chart, identify processes that are out of control. The process needs to be stabilized before it can improve the process of dealing with the problem.

Special causes require immediate analysis of cause and effect to eliminate variation. Once out of the control samples are removed (revised), attention will go to the control samples were sampled within the control limits. Then remove the samples will be carried out under the control limits (target). So last chart shows the maximum value of each of availability, performance, quality and overall equipment effectiveness. The investigation using Ishikawa diagrams necessary to determine whether a special reason will be changed. So from the same cause, it will use to solve problems in the production line.

# 4.3.1 Calculating Existing OEE

Table 4.1: Example of machine production data for sample on 01/07/2015 for
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Production data	
Shift length	545 minutes
Tea breaks	15 minutes
Lunch break	35 minutes
Meeting, walking, 5S	21 minutes
Down time	71 minutes
Actual cycle time	7.18 minutes/unit
Total output	55 units
Offline unit	2 units
Net operation time = Total output per shift $\times$ actual cycle time	55 units × 7.18 minutes/unit = 395 minutes

 Table 4.2: Processing data

Support variable	Calculation	Result
Planned	Total operating hours per shift -	453 minutes – 71 minutes =
production time	planned downtime per shift	474 minutes
Operation time	Planned production time – downtime loss- speed loss	474  minutes - 0  minute - 0 minute = $474 \text{ minutes}$
OK product	Total output per shift – offline unit per day	55  units - 2  units = 53  units

OEE factor	Calculation	OEE	%OEE
Availability	Operation time / planned production time	474 / 474 = 1.00	100
Performance	net operation time / operation time	395 / 474 = 0.833	83.3
Quality	OK product / total output	53 / 55 = 0.964	96.4
Overalll OEE	Availability × Performance × Quality	$1.00 \times 0.833 \times 0.964$ = 0.803	80.3

Table 4.1 shows the example of machine production data for sample on 01/07/2015 for Shift A in Chassis final, table 4.2 shows the processing data to calculate the support variable and table 4.3 shows the calculation to calculate the factor of availability, performance and quality to find the percentage of OEE factor.

#### 4.4 DATA ANALYSIS

The process of evaluating data using analytical and logical reasoning to examine each component of the data provided. This form of analysis is just one of the many steps that must be completed when conducting a research experiment. Data from various sources is gathered, reviewed, and then analyzed to form some sort of finding or conclusion. There is a variety of specific data analysis method, some of which include data mining, text analytics, business intelligence, and data visualizations.

#### 4.4.1 Current Condition Control Chart

Control chart is constructed to find the percentage value for each component in OEE of Availability, Performance and Quality. The pattern was observed in the control chart by supporting information gathered from the data collected.

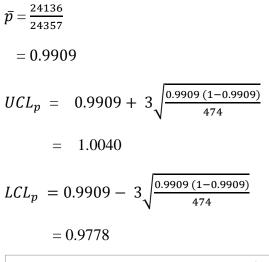
#### 4.4.1.1 Availability

#### 4.4.1.1.1 Shift A

Table 4.4 shows the availability data get from plant and calculate using the p chart equation to get percentage of availability for shift A and shows the out of control point in the data. Above shows the calculation for availability factor on July 1st 2015 for Shift A for existing condition. Figure 4.5 shows the availability control chart for Shift A and constructed to find the percentage of availability pattern. Average value is 0.9909, while UCL and LCL value is vary based on their n number.

Table 4.4: control chart data for Availability in shift A

DAY		PLANNED PRODUCTION TIME				LCL	SIGMA P BAR	7
	OPERATION TIME		AVAILABILITY (p)	CENTER (P-BAR)	UCL 1.0040	-		=
1-Jul-15	474	474	1.00	0.9909		0.9778	0.0044	3.0000
2	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
3	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
6	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
7	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
8	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
9	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
10	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
11	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
13	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
14	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
22	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
23	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
24	472	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
27	463	474	0.98	0.9909	1.0040	0.9778	0.0044	3.0000
28	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
29	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
30	465	474	0.98	0.9909	1.0040	0.9778	0.0044	3.0000
3-Aug-15	534	534	1.00	0.9909	1.0032	0.9786	0.0041	3.0000
4	534	534	1.00	0.9909	1.0032	0.9786	0.0041	3.0000
5	534	534	1.00	0.9909	1.0032	0.9786	0.0041	3.0000
6	534	534	1.00	0.9909	1.0032	0.9786	0.0041	3.0000
7	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
10	448	474	0.95	0.9909	1.0040	0.9778	0.0044	3.0000
13	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
15	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
17	435	474	0.92	0.9909	1.0040	0.9778	0.0044	3.0000
18	525	534	0.98	0.9909	1.0032	0.9786	0.0041	3.0000
19	534	534	1.00	0.9909	1.0032	0.9786	0.0041	3.0000
20	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
21	534	534	1.00	0.9909	1.0032	0.9786	0.0041	3.0000
22	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
24	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
25	437	474	0.92	0.9909	1.0040	0.9778	0.0044	3.0000
26	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
27	474	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
3-Sep-15	523	534	0.98	0.9909	1.0032	0.9786	0.0041	3.0000
4	514	534	0.96	0.9909	1.0032	0.9786	0.0041	3.0000
10	466	474	0.98	0.9909	1.0032	0.9778	0.0044	3.0000
10	400	456	0.98	0.9909	1.0040	0.9776	0.0044	3.0000
12	447	430	1.00	0.9909	1.0042	0.9778	0.0044	3.0000
12	474	474	0.99	0.9909	1.0040	0.9780	0.0044	3.0000
14	473	484	0.99	0.9909	1.0038	0.9780	0.0043	3.0000
17	534	534	1.00	0.9909	1.0040	0.9786	0.0044	3.0000
18	534	534	0.99	0.9909	1.0032	0.9786	0.0041	3.0000
21	475	479	0.99	0.9909	1.0032	0.9786	0.0041	3.0000
21	475	479	1.00	0.9909	1.0039	0.9779	0.0043	3.0000
		474	0.99				0.0044	
28-Sep	470			0.9909	1.0040	0.9778		3.0000
29	460	474	0.97	0.9909	1.0040	0.9778	0.0044	3.0000
30	472	474	1.00	0.9909	1.0040	0.9778	0.0044	3.0000
	24136	24357	0.9909					



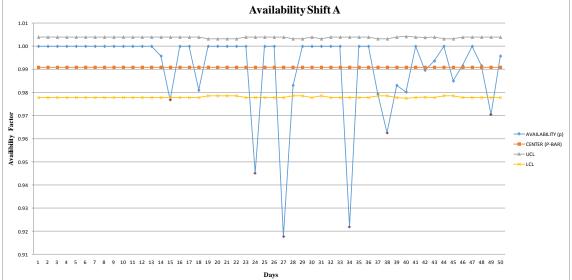


Figure 4.5: Control Chart for Availability in Shift A

#### 4.4.1.1.2 Shift B

Figure 4.6 shows the availability control chart for Shift B and constructed to find the percentage of availability pattern. Average value is 0.999, while UCL and LCL value is varying based on their n number.

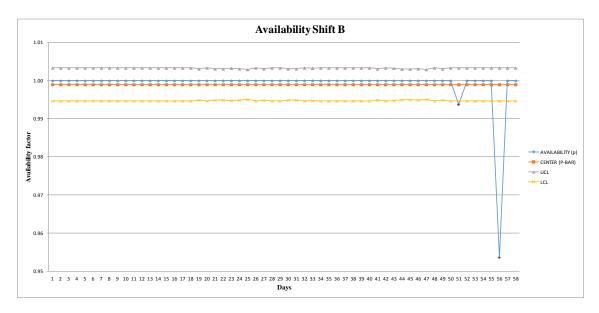


Figure 4.6: Control Chart for Availability in Shift B

Referring to figure 4.5 and figure 4.6, the process is out of control because there are points exceeding the control limit. However, point below the lower control limit are investigated and studied to help to increase the percentage in the future. The assignable cause responsible for the condition indicated that daily mechanical problems in this line, including machine breakdown and process quality problems.

### 4.4.1.2 Performance 4.4.1.2.1 Shift A

Table 4.5 shows the performance data get from plant and calculate using the p chart equation to get percentage of performance for shift A and shows the out of control point in the data. Above shows the calculation for performance factor on July 1st 2015 for Shift A for existing condition. Figure 4.7 shows the performance control chart for Shift A and constructed to find the percentage of availability pattern. Average value is 0.8507, while UCL and LCL value is vary based on their n number.

DAY	NET OPERATION TIME (np)	OPERATION TIME (n)	PERFORMANCE (p)	CENTER P BAR	UCL	LCL	SIGMA P BAR	Z
1-Jul-15	395	474	0.833	0.8507	0.8998	0.8016	0.0164	3
2	395	474	0.833	0.8507	0.8998	0.8016	0.0164	3
3	359	474	0.757	0.8507	0.8998	0.8016	0.0164	3
6	431	474	0.909	0.8507	0.8998	0.8016	0.0164	3
7	409	474	0.863	0.8507	0.8998	0.8016	0.0164	3
8	452	474	0.954	0.8507	0.8998	0.8016	0.0164	3
9	359	474	0.757	0.8507	0.8998	0.8016	0.0164	3
10	359	474	0.757	0.8507	0.8998	0.8016	0.0164	3
10	373	474	0.787	0.8507	0.8998	0.8016	0.0164	3
13	373	474	0.804	0.8507	0.8998	0.8010	0.0164	3
15	395	474	0.833	0.8507	0.8998	0.8016	0.0164	3
22	409	474	0.863	0.8507	0.8998	0.8016	0.0164	3
22	409	474	0.848	0.8507	0.8998	0.8016	0.0164	3
-								-
24	402	472	0.852	0.8507	0.8999	0.8015	0.0164	3
27	373	463	0.806	0.8507	0.9004	0.8010	0.0166	3
28	402	474	0.848	0.8507	0.8998	0.8016	0.0164	3
29	402	474	0.848	0.8507	0.8998	0.8016	0.0164	3
30	395	465	0.849	0.8507	0.9003	0.8011	0.0165	3
3-Aug-15	503	534	0.942	0.8507	0.8970	0.8044	0.0154	3
4	416	534	0.779	0.8507	0.8970	0.8044	0.0154	3
5	474	534	0.888	0.8507	0.8970	0.8044	0.0154	3
6	445	534	0.833	0.8507	0.8970	0.8044	0.0154	3
7	445	474	0.939	0.8507	0.8998	0.8016	0.0164	3
10	373	448	0.833	0.8507	0.9012	0.8002	0.0168	3
13	460	474	0.970	0.8507	0.8998	0.8016	0.0164	3
15	359	474	0.757	0.8507	0.8998	0.8016	0.0164	3
17	408	435	0.938	0.8507	0.9020	0.7994	0.0171	3
18	352	525	0.670	0.8507	0.8974	0.8040	0.0156	3
19	394	534	0.738	0.8507	0.8970	0.8044	0.0154	3
20	422	474	0.890	0.8507	0.8998	0.8016	0.0164	3
21	493	534	0.923	0.8507	0.8970	0.8044	0.0154	3
22	465	474	0.981	0.8507	0.8998	0.8016	0.0164	3
24	444	474	0.937	0.8507	0.8998	0.8016	0.0164	3
25	429	437	0.982	0.8507	0.9018	0.7996	0.0170	3
26	458	474	0.966	0.8507	0.8998	0.8016	0.0164	3
27	352	474	0.743	0.8507	0.8998	0.8016	0.0164	3
3-Sep-15	452	523	0.864	0.8507	0.8975	0.8039	0.0156	3
4	359	514	0.698	0.8507	0.8979	0.8035	0.0150	3
10	395	466	0.848	0.8507	0.9002	0.8033	0.0157	3
10	330	400	0.738	0.8507	0.9002	0.8012	0.0165	3
11	438	447	0.924	0.8507	0.9013	0.8001	0.0169	3
12	438	474	0.924	0.8507	0.8998	0.8018	0.0164	3
14	409	479 471	0.854	0.8507	0.8996	0.8018	0.0163	3
17	401 493	534	0.923	0.8507	0.9000	0.8014	0.0164	3
19	500	526	0.951	0.8507	0.8973	0.8041	0.0155	3
21	429	475	0.903	0.8507	0.8998	0.8016	0.0164	3
22	401	474	0.846	0.8507	0.8998	0.8016	0.0164	3
28-Sep	416	470	0.885	0.8507	0.9000	0.8014	0.0164	3
29	431	460	0.937	0.8507	0.9005	0.8009	0.0166	3
30	294	472	0.623	0.8507	0.8999	0.8015	0.0164	3

Table 4.5: control chart data for Performance in shift A

$$\bar{p} = \frac{20533}{24136}$$

= 0.8507

$$UCL_p = 0.8507 + 3\sqrt{\frac{0.8507 (1 - 0.8507)}{474}}$$

$$LCL_p = 0.8507 - 3\sqrt{\frac{0.8507 (1 - 0.8507)}{474}}$$
$$= 0.8016$$



Figure 4.7: Control Chart for Performance in Shift A

#### 4.4.1.2.2 Shift B

Figure 4.8 shows the performance control chart for Shift B and constructed to find the percentage of performance pattern. Average value is 0.8227, UCL and LCL value is varying because the n value is variable.

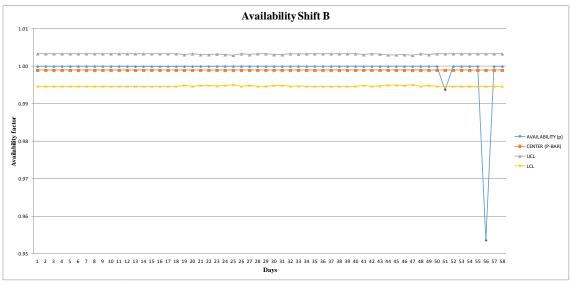


Figure 4.8: Control Chart for Performance in Shift B

Referring to figure 4.7 and figure 4.8, the process is out of control because there are points exceeding the control limit. However, point upper and lower control limit are investigated and studied to help to increase the percentage in the future. The assignable cause responsible for the condition indicated that daily mechanical problems in this line, including machine breakdown and process quality problems.

# 4.4.1.3 Quality 4.4.1.3.1 Shift A

Table 4.6 shows the quality data get from plant and calculate using the p chart equation to get percentage of quality for shift A and shows the out of control point in the data. Above shows the calculation for quality factor on July 1st 2015 for Shift A for existing condition. Figure 4.9 shows the quality control chart for Shift A and constructed to find the percentage of quality pattern. Average value is 0.9541, while UCL and LCL value is vary based on their n number.

DAY	OK PRODUCT PER SHIFT (np)	TOTAL OUTPUT PER SHIFT (n)	QUALITY (p)	CENTER (P-BAR)	UCL	LCL	SIGMA P-BAR	z
1-Jul-15	53	55	0.9636	0.9541	1.0388	0.8694	0.0282	
2	54	55	0.9818	0.9541	1.0388	0.8694	0.0282	
3	50	50	1.0000	0.9541	1.0429	0.8653	0.0296	
6	58	60	0.9667	0.9541	1.0351	0.8731	0.0270	
7	56	57	0.9825	0.9541	1.0373	0.8709	0.0277	
8	57	63	0.9048	0.9541	1.0332	0.8750	0.0264	
9	47	50	0.9400	0.9541	1.0429	0.8653	0.0296	
10	48	50	0.9600	0.9541	1.0429	0.8653	0.0296	
11	50	52	0.9615	0.9541	1.0412	0.8670	0.0290	
13	53	53	1.0000	0.9541	1.0403	0.8679	0.0287	
14	55	55	0.9818	0.9541	1.0388	0.8694	0.0282	
22	55	55	0.9649	0.9541	1.0373	0.8709	0.0232	
22	54	56	0.9643	0.9541	1.0373	0.8702	0.0277	
23	54	56	0.9643	0.9541	1.0380	0.8702	0.0280	
24	52	52	1.0000	0.9541	1.0380		0.0280	
			1.0000	0.9541	1.0412	0.8670	0.0290	
28	56	56				0.8702		
29	54	56	0.9643	0.9541	1.0380	0.8702	0.0280	
30	54	55	0.9818	0.9541	1.0388	0.8694	0.0282	
3-Aug-15	68	70	0.9714	0.9541	1.0291	0.8791	0.0250	
4	57	58	0.9828	0.9541	1.0365	0.8717	0.0275	
5	64	66	0.9697	0.9541	1.0314	0.8768	0.0258	
6	61	62	0.9839	0.9541	1.0338	0.8744	0.0266	
7	58	62	0.9355	0.9541	1.0338	0.8744	0.0266	
10	49	52	0.9423	0.9541	1.0412	0.8670	0.0290	
13	60	64	0.9375	0.9541	1.0326	0.8756	0.0262	
15	45	50	0.9000	0.9541	1.0429	0.8653	0.0296	
17	52	58	0.8966	0.9541	1.0365	0.8717	0.0275	
18	48	50	0.9600	0.9541	1.0429	0.8653	0.0296	
19	53	56	0.9464	0.9541	1.0380	0.8702	0.0280	
20	57	60	0.9500	0.9541	1.0351	0.8731	0.0270	
21	66	70	0.9429	0.9541	1.0291	0.8791	0.0250	
22	64	66	0.9697	0.9541	1.0314	0.8768	0.0258	
24	61	63	0.9683	0.9541	1.0332	0.8750	0.0264	
25	59	61	0.9672	0.9541	1.0345	0.8737	0.0268	
26	62	65	0.9538	0.9541	1.0320	0.8762	0.0260	
27	45	50	0.9000	0.9541	1.0429	0.8653	0.0296	
3-Sep-15	62	63	0.9841	0.9541	1.0332	0.8750	0.0250	
4	45	50	0.9000	0.9541	1.0332	0.8653	0.0294	
4	45	55	1.0000	0.9541	1.0429	0.8694	0.0296	
10	46	46	1.0000	0.9541	1.0388	0.8694	0.0282	
11	46	40	1.0000	0.9541	1.0467	0.8615	0.0309	
12	57	57	1.0000	0.9541	1.0345	0.8737	0.0268	
	43	57	0.7544	0.9541			0.0277	
17					1.0373	0.8709		
18	64	70	0.9143	0.9541	1.0291	0.8791	0.0250	
19	66	71	0.9296	0.9541	1.0286	0.8796	0.0248	
21	55	61	0.9016	0.9541	1.0345	0.8737	0.0268	
22	55	57	0.9649	0.9541	1.0373	0.8709	0.0277	
28-Sep	53	58	0.9138	0.9541	1.0365	0.8717	0.0275	
29	60	60	1.0000	0.9541	1.0351	0.8731	0.0270	
30	35	41	0.8537	0.9541	1.0521	0.8561	0.0327	
-	2746	2878	0.9541					

Table 4.6: control chart data for Quality in shift A

$$\bar{p} = \frac{2746}{2878}$$

$$= 0.9541$$

$$UCL_p = 0.9541 + 3\sqrt{\frac{0.9541(1-0.9541)}{55}}$$

$$= 1.0388$$

$$LCL_p = 0.9541 - 3\sqrt{\frac{0.9541(1-0.9541)}{55}}$$

$$= 0.8694$$

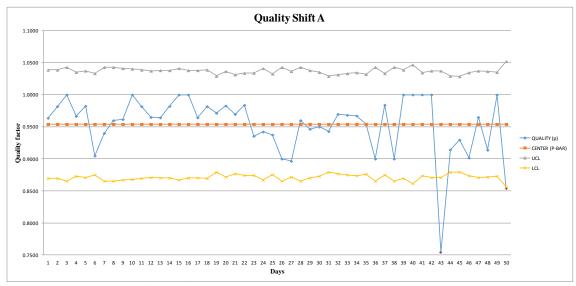


Figure 4.9: Control Chart for Quality in Shift A

#### 4.4.1.3.2 Shift B

Figure 4.10 shows the quality control chart for Shift B and constructed to find the percentage of quality pattern. Average value is 0.9748, UCL and LCL value is varying because the n value is variable.



Figure 4.10: Control Chart for Quality in Shift B

Referring to figure 4.9 and figure 4.10, the process is out of control because there are points exceeding the control limit. However, point below the lower control limit are investigated and studied to help to increase the percentage in the future.

The assignable cause responsible for the condition indicated that daily mechanical problems in this line, including machine breakdown and process quality problems.

# 4.4.1.4 OEE 4.4.1.4.1 OEE shift A

Figure 4.11 shows the existing OEE in A shift compare with world class OEE. As it shown, it shows that there is a assignable cause in the control chart.

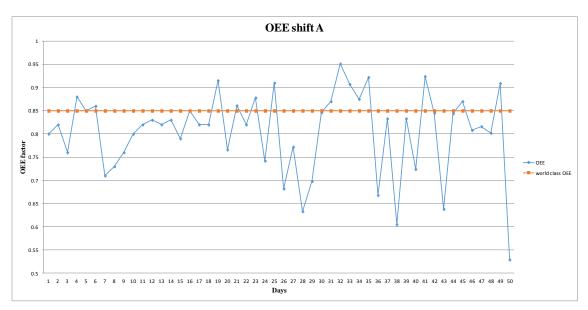


Figure 4.11: Control Chart for OEE Percentage in A Shift

#### 4.4.1.4.2 OEE shift B

Figure 4.12 shows the existing OEE in B shift compare with world class OEE. As it shown, it shows that there is a assignable cause in the control chart.

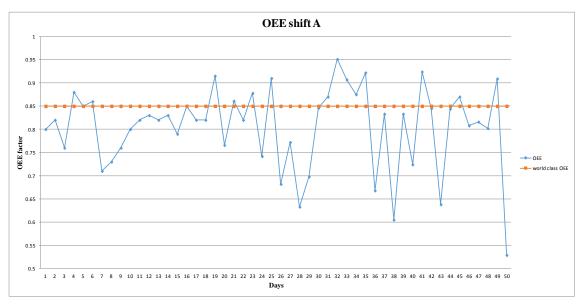


Figure 4.12: Control Chart for OEE Percentage in B Shift

#### 4.4.1.5 Detailed explanation of point of out of control in control charts

#### 4.4.1.5.1 Availability Factor

Based on Figure 4.5, it is noted that on date July 27<sup>th</sup> the availability percentage falls below the lower control limit of 97.78%.Besides, it also noted that on date August 10<sup>th</sup>, 17<sup>th</sup>, and 25<sup>th</sup>, the availability percentage falls below lower control limit of 97.78%. Similarly, it also noted that on date September 4<sup>th</sup> and 29<sup>th</sup> with availability percentage falls below lower limit of 97.86% and 97.78%. Although high percentage is preferable, the process aims to achieve a stable pattern. Therefore, the points are investigated before they are eliminated.

Based on figure 4.6, it is noted that on date September 17<sup>th</sup> and 28<sup>th</sup> the availability percentage falls below the lower control limit of 99.00%.

Based on the observation there is machine breakdown due to line stoppage reduction. Item to be countermeasure was door manipulator and air leak tester. First equipment is door manipulator than can't push up and down, this factor causes by hose leaking. Second equipment is air leak tester indicate a NG reading this phenomena is causes by hose bend. Countermeasure that can take action is to check, repair and properly layout the air hose of the equipment.

#### 4.4.1.5.2 Performance Factor

Based on Figure 4.7, it is noted that on date July 3rd<sup>•</sup> 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> with performance percentage falls below control limits of 80.22%. On July 6<sup>th</sup>, and 8th with performance percentage falls upper control limits of 90.02%. Although high percentage is preferable, the process aims to achieve a stable pattern. Besides, it is also noted that on date August 4<sup>th</sup>, 15<sup>th</sup>, 18<sup>th</sup>, 19<sup>th</sup>, and 27<sup>th</sup> with performance percentage falls below the lower control limit of 80.50%, 80.22%, 80.46%, 80.50% and 80.22%. on 3<sup>rd</sup>, 7<sup>th</sup>, 13<sup>th</sup>, 17<sup>th</sup>, 21<sup>th</sup>, 22<sup>th</sup>, 24<sup>th</sup>,25<sup>th</sup>, and 27<sup>th</sup> with performance percentage falls above the upper control limit of 89.74%, 90.02%, 90.02%, 90.24%, 89.74%, 90.02%,

90.02%,90.23 and 90.02%. Similarly, on September 4<sup>th</sup>, 11<sup>th</sup>, and 30<sup>th</sup> with performance percentage falls below the lower control limit of 80.41%, 80.07% and 80.21%. Therefore, the points are investigated before they are eliminated.

Similarly, based on Figure 4.8, it is noted that on date July 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, with performance percentage falls above the upper control limit of 87.65%. On July 10<sup>th</sup>, 11<sup>th</sup>, 23th, 24<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> with performance percentage fall below the lower control limit of 77.15%. Besides, it is also noted that on date August 3<sup>rd</sup>, 7<sup>th</sup>, 13<sup>th</sup>, 14<sup>th</sup>, 20<sup>th</sup>, 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup> the performance percentage respectively falls above the upper control limit of 87.34%, 87.57%, 87.65%, 87.34%, 87.65%, 87.65%, 87.65%, 87.65% and 87.655%. On date August 10<sup>th</sup>, 15<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> with performance percentage falls below the lower control limit of 77.46%, 77.15%, 77.46% and 77.46%. on September 4<sup>th</sup>, 7<sup>th</sup>, 12<sup>th</sup>, 14<sup>th</sup>, 19<sup>th</sup> and 30<sup>th</sup> with performance percentage falls above the upper control limit of 87.65%, 87.57%, 87.65%, 87.34%, 87.65% and 87.65%. on September 1<sup>st</sup>, 3<sup>rd</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 15<sup>th</sup>, 18<sup>th</sup> and 29<sup>th</sup> with performance percentage falls below the lower control limit of 77.15%, 77.46%, 77.51%, 77.46%, 77.64%, 77.15%,77.15%, and 77.15%. Therefore, the points are also investigated before they are eliminated.

Based on observation, there is problem with operator that has a bad attendance, factor of this situation is problem among operator. Secondly, miscommunication between operator and leader. Most of the operator is from outside from Malaysia, and it takes more than 3 months to teach them the language. Thirdly, some operator has to attend a training to improve their knowledge. This situation can be decrease by making a schedule to attend a training to prevent the operator missing from their workstation.

#### 4.4.1.5.3 Quality Factor

Based on Figure 4.9, it is noted that on date 17<sup>th</sup> and 30<sup>th</sup> with quality percentage falls below the lower control limit of 87.06% and 85.57%.. Although high percentage is preferable, the process aims to achieve a stable pattern. Similar process pattern is also observed in Figure 4.10 on date September 28th with quality percentage falls below the

lower control limit of 94.78%. These out-of-control points are investigated before they are eliminated.

Based on observation, there is downtime loss happen. This factor occur when there is machine breakdown and process quality issues. This issue happen when new operator operate the machine without supervised from leader. This issue can be reduced by attend a training to handle the machine.

# 4.4.2 1<sup>st</sup> Revised control chart

When a process is out of control, the assignable cause responsible for the condition must be found. Remove any points from the calculations that have been corrected. Revise the control charts with the remaining points. A new average can be obtained and set as a target value to make an improvement which can reduce downtime that affect OEE value.

Figure below shows the revised control chart for Chassis Assembly line in each shift and constructed to find average percentage in the process. The mean value in control chart is used as a value to propose a new target each OEE factor.

# 4.4.2.1 Availability 4.4.2.1.1 Shift A

Table 4.7 shows the data after revising the out of control point from the existing condition. Below shows the establish revised central line and control limits. Figure 4.13 shows the first revision of availability control chart for Shift A and constructed to find the percentage of availability pattern. Average value is 0.9966, while UCL and LCL value is vary based on their n number.

DAY	OPERATION TIME	PLANNED PRODUCTION TIME	AVAILABILITY (p)	CENTER (P-BAR)	UCL	LCL	SIGMA P BAR	Z
1-Jul-15	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
2	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
3	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
6	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
7	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
8	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
9	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
10	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
11	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
13	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
14	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
22	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
23	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
24	472	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
28	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
29	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
30	465	474	0.98	0.9966	1.0046	0.9886	0.0027	3.0000
3-Aug-15	534	534	1.00	0.9966	1.0042	0.9890	0.0025	3.0000
4	534	534	1.00	0.9966	1.0042	0.9890	0.0025	3.000
5	534	534	1.00	0.9966	1.0042	0.9890	0.0025	3.000
6	534	534	1.00	0.9966	1.0042	0.9890	0.0025	3.000
7	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
13	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000
15	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
18	525	534	0.98	0.9966	1.0042	0.9890	0.0025	3.000
19	534	534	1.00	0.9966	1.0042	0.9890	0.0025	3.000
20	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
21	534	534	1.00	0.9966	1.0042	0.9890	0.0025	3.000
22	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
24	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
26	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
27	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
3-Sep-15	523	534	0.98	0.9966	1.0042	0.9890	0.0025	3.000
10	466	474	0.98	0.9966	1.0046	0.9886	0.0027	3.000
11	447	456	0.98	0.9966	1.0048	0.9884	0.0027	3.000
12	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
14	479	484	0.99	0.9966	1.0045	0.9887	0.0026	3.000
17	471	474	0.99	0.9966	1.0046	0.9886	0.0027	3.000
18	534	534	1.00	0.9966	1.0042	0.9890	0.0025	3.000
19	526	534	0.99	0.9966	1.0042	0.9890	0.0025	3.000
21	475	479	0.99	0.9966	1.0046	0.9886	0.0027	3.000
22	474	474	1.00	0.9966	1.0046	0.9886	0.0027	3.000
28-Sep	470	474	0.99	0.9966	1.0046	0.9886	0.0027	3.000
30	472	474	1.00	0.9966	1.0046	0.9886	0.0027	3.0000

Table 4.7: revised control chart data for Availability in shift A

$$\bar{p} = \frac{21379}{21453}$$

= 0.9966

$$UCL_p = 0.9966 + 3\sqrt{\frac{0.9966(1 - 0.9966)}{474}}$$
$$= 1.0046$$

$$LCL_p = 0.9966 - 3\sqrt{\frac{0.9966 (1 - 0.9966)}{474}}$$
$$= 0.9886$$

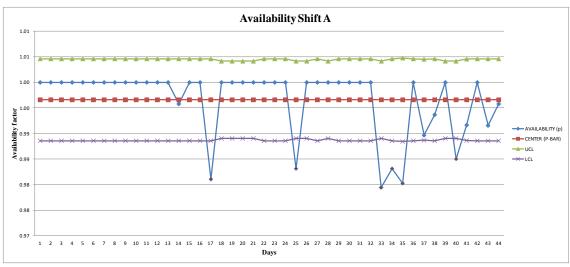


Figure 4.13: Control Chart for Revised Availability in Shift A

#### 4.4.2.1.2 Shift B

Figure 4.14, shows the first revision of availability control chart for Shift B and constructed to find the percentage of availability pattern. Average value is 1.000, while UCL and LCL value is varying based on their n number.

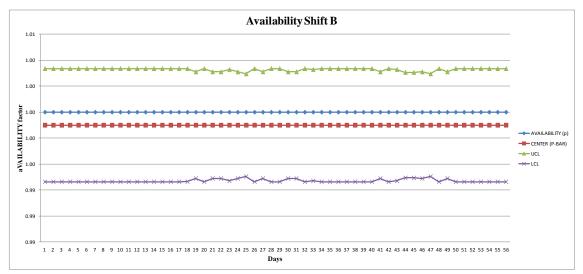


Figure 4.14: Control Chart for Revised Availability in Shift B

Apparently, the average value of availability percentage has increased after revising. Therefore, it is highly recommended to eliminate the assignable causes in the process in order to achieve the OEE value. Some of the point still out of control, however, this control chart can be revised again in order to achieve a stable level of process.

## 4.4.2.2 Performance 4.4.2.2.1 Shift A

Table 4.8 shows the data after revising the out of control point from the existing condition. Below shows the establish revised central line and control limits. Figure 4.15, shows the first revision of performance control chart for Shift A and constructed to find the percentage of performance pattern. Average value is 0.8490, UCL and LCL value is varying because the n value is variable.

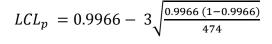
DAY	NET OPERATION TIME (np)	OPERATION TIME (n)	PERFORMANCE (p)	CENTER P BAR	UCL	LCL	SIGMA P BAR	Z
1-Jul-15	395	474	0.833	0.8490	0.8983	0.7997	0.0164	3
2	395	474	0.833	0.8490	0.8983	0.7997	0.0164	3
7	409	474	0.863	0.8490	0.8983	0.7997	0.0164	3
13	381	474	0.804	0.8490	0.8983	0.7997	0.0164	3
14	395	474	0.833	0.8490	0.8983	0.7997	0.0164	3
22	409	474	0.863	0.8490	0.8983	0.7997	0.0164	3
23	402	474	0.848	0.8490	0.8983	0.7997	0.0164	3
24	402	472	0.852	0.8490	0.8984	0.7996	0.0165	3
27	373	463	0.806	0.8490	0.8989	0.7991	0.0166	3
28	402	474	0.848	0.8490	0.8983	0.7997	0.0164	3
29	402	474	0.848	0.8490	0.8983	0.7997	0.0164	3
30	395	465	0.849	0.8490	0.8988	0.7992	0.0166	3
5	474	534	0.888	0.8490	0.8955	0.8025	0.0155	3
6	445	534	0.833	0.8490	0.8955	0.8025	0.0155	3
10	373	448	0.833	0.8490	0.8997	0.7983	0.0169	3
20	422	474	0.890	0.8490	0.8983	0.7997	0.0164	3
3-Sep-15	452	523	0.864	0.8490	0.8960	0.8020	0.0157	3
10	395	466	0.848	0.8490	0.8988	0.7992	0.0166	3
14	409	479	0.854	0.8490	0.8981	0.7999	0.0164	3
17	401	471	0.851	0.8490	0.8985	0.7995	0.0165	3
22	401	474	0.846	0.8490	0.8983	0.7997	0.0164	3
28-Sep	416	470	0.885	0.8490	0.8985	0.7995	0.0165	3
	8948	10539	0.8490					

Table 4.8: revised control chart data for Performance in shift A

$$\bar{p} = \frac{21379}{21379}$$

$$UCL_p = 0.9966 + 3\sqrt{\frac{0.9966(1 - 0.9966)}{474}}$$

= 1.0046





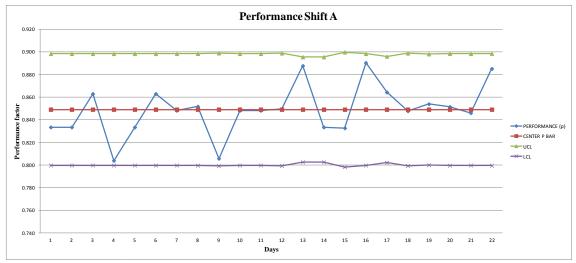


Figure 4.15: Control Chart for Performance in Shift A

#### 4.4.2.2.2 Shift B

Figure 4.16, shows the first revision of performance control chart for Shift B and constructed to find the percentage of performance pattern. Average value is 0.8287, UCL and LCL value is varying because the n value is variable.



Figure 4.16: Control Chart Revised for Performance in Shift B

Apparently, the average value of performance percentage has increased after revising. Therefore, it is highly recommended to eliminate the assignable causes in the process in order to achieve the OEE value.

# 4.4.2.3 Quality 4.4.2.3.1 Shift A

Table 4.9 shows the data after revising the out of control point from the existing condition. Below shows the establish revised central line and control limits. Figure 4.17 shows the first revision of quality control chart for Shift A and constructed to find the percentage of quality pattern. Average value is 0.9597, UCL and LCL value is varying because the n value is variable.

DAY	OK PRODUCT PER SHIFT (np)	TOTAL OUTPUT PER SHIFT (n)	QUALITY (p)	CENTER (P-BAR)	UCL	LCL	SIGMA P-BAR	Z
1-Jul-15	53	55	0.9636	0.9597	1.0393	0.8801	0.0265	3
2	54	55	0.9818	0.9597	1.0393	0.8801	0.0265	
3	50	50	1.0000	0.9597	1.0431	0.8763	0.0278	3
6	58	60	0.9667	0.9597	1.0359	0.8835	0.0254	3
7	56	57	0.9825	0.9597	1.0378	0.8816	0.0260	3
8	57	63	0.9048	0.9597	1.0340	0.8854	0.0248	3
9	47	50	0.9400	0.9597	1.0431	0.8763	0.0278	3
10	48	50	0.9600	0.9597	1.0431	0.8763	0.0278	3
11	50	52	0.9615	0.9597	1.0415	0.8779	0.0273	
13	53	53	1.0000	0.9597	1.0407	0.8787	0.0270	3
14	54	55	0.9818	0.9597	1.0393	0.8801	0.0265	3
22	55	57	0.9649	0.9597	1.0378	0.8816	0.0260	3
23	54	56	0.9643	0.9597	1.0385	0.8809	0.0263	3
24	55	56	0.9821	0.9597	1.0385	0.8809	0.0263	3
27	52	52	1.0000	0.9597	1.0415	0.8779	0.0273	3
28	56	56	1.0000	0.9597	1.0385	0.8809	0.0263	3
29	54	56	0.9643	0.9597	1.0385	0.8809	0.0263	3
30	54	55	0.9818	0.9597	1.0393	0.8801	0.0265	3
3-Aug-15	68	70	0.9714	0.9597	1.0302	0.8892	0.0235	-
4	57	58	0.9828	0.9597	1.0372	0.8822	0.0258	3
5	64	66	0.9697	0.9597	1.0323	0.8871	0.0242	-
6	61	62	0.9839	0.9597	1.0346	0.8848	0.0250	3
7	58	62	0.9355	0.9597	1.0346	0.8848	0.0250	3
10	49	52	0.9423	0.9597	1.0415	0.8779	0.0273	-
13	60	64	0.9375	0.9597	1.0334	0.8860	0.0246	3
15	45	50	0.9000	0.9597	1.0431	0.8763	0.0278	3
17	52	58	0.8966	0.9597	1.0372	0.8822	0.0258	
18	48	50	0.9600	0.9597	1.0431	0.8763	0.0278	3
19	53	56	0.9464	0.9597	1.0385	0.8809	0.0263	3
20	57	60	0.9500	0.9597	1.0359	0.8835	0.0254	3
21	66	70	0.9429	0.9597	1.0302	0.8892	0.0235	3
22	64	66	0.9697	0.9597	1.0323	0.8871	0.0242	
24	61	63	0.9683	0.9597	1.0340	0.8854	0.0248	3
25	59	61	0.9672	0.9597	1.0352	0.8842	0.0252	3
26	62	65	0.9538	0.9597	1.0329	0.8865	0.0244	3
27	45	50	0.9000	0.9597	1.0431	0.8763	0.0278	3
3-Sep-15	62	63	0.9841	0.9597	1.0340	0.8854	0.0248	3
4	45	50	0.9000	0.9597	1.0431	0.8763	0.0278	3
10	55	55	1.0000	0.9597	1.0393	0.8801	0.0265	3
11	46	46	1.0000	0.9597	1.0467	0.8727	0.0290	3
12	61	61	1.0000	0.9597	1.0352	0.8842	0.0252	3
14	57	57	1.0000	0.9597	1.0378	0.8816	0.0260	
18	64	70	0.9143	0.9597	1.0302	0.8892	0.0235	3
19	66	71	0.9296	0.9597	1.0297	0.8897	0.0233	
21	55	61	0.9016	0.9597	1.0352	0.8842	0.0252	
22	55	57	0.9649	0.9597	1.0378	0.8816	0.0260	
28-Sep	53	58	0.9138	0.9597	1.0372	0.8822	0.0258	
29	60	60	1.0000	0.9597	1.0359	0.8835	0.0254	
	2668	2780	0.9597					

**Table 4.9**: revised control chart data for Quality in shift A

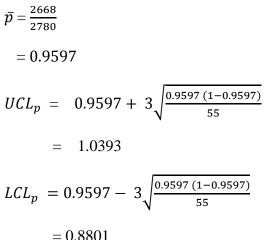




Figure 4.17: Control Chart Revised for Quality in Shift A

#### 4.4.2.3.2 Shift B

Figure 4.18 shows the first revision of quality control chart for Shift B and constructed to find the percentage of quality pattern. Average value is 0.9777, UCL and LCL value is varying because the n value is variable.



Figure 4.18: Control Chart Revised for Quality in Shift B

Apparently, the average value of quality percentage has increased after revising. Therefore, it is highly recommended to eliminate the assignable causes in the process in order to achieve the OEE value.

# 4.4.3 2<sup>nd</sup> Revised Control Chart

Figure below shows the  $2^{nd}$  revised control chart for Chassis Assembly line in each shift and constructed by eliminate the assignable cause point to get a stable control chart. The mean value in control chart is used as a value to propose a new target each OEE factor.

#### 4.4.3.1 Availability

#### 4.4.3.1.1 Shift A

Table 4.10 shows the data after eliminated the below point of central line to get a stable control chart. Below shows the establish central line and control limits for  $2^{nd}$ 

revised. Figure 4.19 shows the second revision of availability control chart for Shift A and constructed to find the percentage of availability pattern. Average value is 0.99, UCL and LCL value is varying because the n value is variable.

DAY	OPERATION TIME	PLANNED PRODUCTION TIME	AVAILABILITY (p)	CENTER (P-BAR)	UCL	LCL	SIGMA P BAR	Z
1-Jul-15	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
2	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
3	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
6	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
7	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
8	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
9	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
10	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
11	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
13	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
14	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
22	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
23	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
28	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
29	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
3-Aug-15	534	534	1.00	0.9900	1.0029	0.9771	0.0043	3.0000
4	534	534	1.00	0.9900	1.0029	0.9771	0.0043	3.0000
5	534	534	1.00	0.9900	1.0029	0.9771	0.0043	3.0000
6	534	534	1.00	0.9900	1.0029	0.9771	0.0043	3.0000
7	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
13	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
15	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
19	534	534	1.00	0.9900	1.0029	0.9771	0.0043	3.0000
20	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
21	534	534	1.00	0.9900	1.0029	0.9771	0.0043	3.0000
22	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
24	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
26	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
27	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
12	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
18	534	534	1.00	0.9900	1.0029	0.9771	0.0043	3.000
22	474	474	1.00	0.9900	1.0037	0.9763	0.0046	3.0000
	15588	15588	1.0000					

Table 4.10: 2nd revised control chart data for Availability in shift A

$$\bar{p} = \frac{15588}{15588}$$

= 1.000

$$UCL_p = 1.000 + 3\sqrt{\frac{1.000(1-1.000)}{474}}$$
$$= 1.0037$$

$$LCL_p = 1.000 - 3\sqrt{\frac{1.000(1-1.000)}{474}}$$

$$= 0.9763$$



Figure 4.19: Control Chart 2<sup>nd</sup> Revised for Availability in Shift A

#### 4.4.3.1.2 Shift B

Figure 4.20 shows the second revision of availability control chart for Shift B and constructed to find the percentage of availability pattern. Average value is 0.99, UCL and LCL value is varying because the n value is variable.

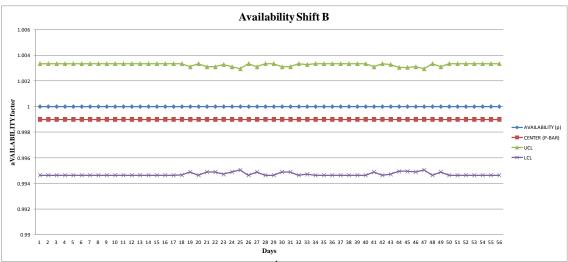


Figure 4.20: Control Chart 2<sup>nd</sup> Revised for Availability in Shift B

#### 4.4.3.2.1 Shift A

Table 4.11 shows the data after eliminated the below point of central line to get a stable control chart. Below shows the establish central line and control limits for  $2^{nd}$  revised. Figure 4.21 shows the second revision of performance control chart for Shift A and constructed to find the percentage of performance pattern. Average value is 0.8611, UCL and LCL value is varying because the n value is variable.

Table 4.11: 2nd revised control chart data for Performance in shift A

DAY	NET OPERATION TIME (np)	OPERATION TIME (n)	PERFORMANCE (p)	CENTER P BAR	UCL	LCL	SIGMA P BAR	Z
7	409	474	0.863	0.8611	0.9088	0.8134	0.0159	3
22	409	474	0.863	0.8611	0.9088	0.8134	0.0159	3
23	402	474	0.848	0.8611	0.9088	0.8134	0.0159	3
24	402	472	0.852	0.8611	0.9089	0.8133	0.0159	3
28	402	474	0.848	0.8611	0.9088	0.8134	0.0159	3
29	402	474	0.848	0.8611	0.9088	0.8134	0.0159	3
30	395	465	0.849	0.8611	0.9092	0.8130	0.0160	3
5	474	534	0.888	0.8611	0.9060	0.8162	0.0150	3
20	422	474	0.890	0.8611	0.9088	0.8134	0.0159	3
3-Sep-15	452	523	0.864	0.8611	0.9065	0.8157	0.0151	3
10	395	466	0.848	0.8611	0.9092	0.8130	0.0160	3
14	409	479	0.854	0.8611	0.9085	0.8137	0.0158	3
17	401	471	0.851	0.8611	0.9089	0.8133	0.0159	3
28-Sep	416	470	0.885	0.8611	0.9090	0.8132	0.0160	3
	5790	6724	0.8611					

$$\bar{p} = \frac{5790}{6724}$$

= 0.8611

$$UCL_p = 0.8611 + 3\sqrt{\frac{0.8611(1-0.8611)}{474}}$$
$$= 0.9088$$

$$LCL_p = 0.8611 - 3\sqrt{\frac{0.8611(1-0.8611)}{474}}$$
$$= 0.8134$$

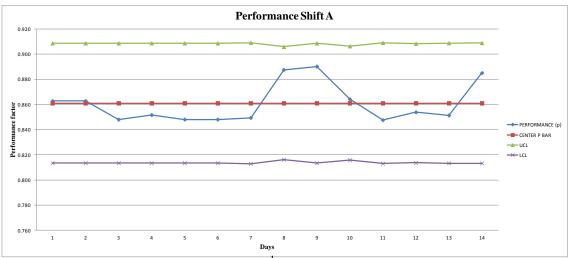


Figure 4.21: Control Chart 2<sup>nd</sup> Revised for Performance in Shift A

#### 4.4.2.2 Shift B

Figure 4.22 shows the second revision of performance control chart for Shift B and constructed to find the percentage of performance pattern. Average value is 0.9497, UCL and LCL value is varying because the n value is variable.

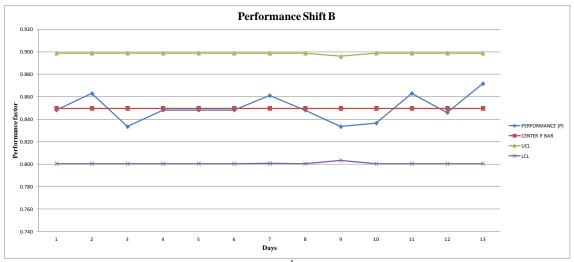


Figure 4.22: Control Chart 2<sup>nd</sup> Revised for Performance in Shift B

#### 4.4.3.3 Quality

4.4.3.3.1 Shift A

Table 4.12 shows the data after eliminated the below point of central line to get a stable control chart. Below shows the establish central line and control limits for  $2^{nd}$  revised. Figure 4.23 shows the second revision of quality control chart for Shift A and constructed to find the percentage of quality pattern. Average value is 0.9797, UCL and LCL value is varying because the n value is variable.

DAY	OK PRODUCT PER SHIFT (np)	TOTAL OUTPUT PER SHIFT (n)	QUALITY (p)	CENTER (P-BAR)	UCL	LCL	SIGMA P-BAR	z
1-Jul-15	53	55	0.9636	0.9797	1.0367	0.9227	0.0190	
2	54	55	0.9818	0.9797	1.0367	0.9227	0.0190	
3	50	50	1.0000	0.9797	1.0395	0.9199	0.0199	
6	58	60	0.9667	0.9797	1.0343	0.9251	0.0182	
7	56	57	0.9825	0.9797	1.0357	0.9237	0.0187	
10	48	50	0.9600	0.9797	1.0395	0.9199	0.0199	
11	50	52	0.9615	0.9797	1.0384	0.9210	0.0196	
13	53	53	1.0000	0.9797	1.0378	0.9216	0.0194	
14	54	55	0.9818	0.9797	1.0367	0.9227	0.0190	
22	55	57	0.9649	0.9797	1.0357	0.9237	0.0187	
23	54	56	0.9643	0.9797	1.0362	0.9232	0.0188	
24	55	56	0.9821	0.9797	1.0362	0.9232	0.0188	
27	52	52	1.0000	0.9797	1.0384	0.9210	0.0196	
28	56	56	1.0000	0.9797	1.0362	0.9232	0.0188	
29	54	56	0.9643	0.9797	1.0362	0.9232	0.0188	
30	54	55	0.9818	0.9797	1.0367	0.9227	0.0190	
3-Aug-15	68	70	0.9714	0.9797	1.0303	0.9291	0.0169	
4	57	58	0.9828	0.9797	1.0353	0.9241	0.0185	
5	64	66	0.9697	0.9797	1.0318	0.9276	0.0174	
6	61	62	0.9839	0.9797	1.0334	0.9260	0.0179	
18	48	50	0.9600	0.9797	1.0395	0.9199	0.0199	
22	64	66	0.9697	0.9797	1.0318	0.9276	0.0174	
24	61	63	0.9683	0.9797	1.0330	0.9264	0.0178	
25	59	61	0.9672	0.9797	1.0339	0.9255	0.0181	
3-Sep-15	62	63	0.9841	0.9797	1.0330	0.9264	0.0178	
10	55	55	1.0000	0.9797	1.0367	0.9227	0.0190	
11	46	46	1.0000	0.9797	1.0421	0.9173	0.0208	
12	61	61	1.0000	0.9797	1.0339	0.9255	0.0181	
14	57	57	1.0000	0.9797	1.0357	0.9237	0.0187	
22	55	57	0.9649	0.9797	1.0357	0.9237	0.0187	
29	60	60	1.0000	0.9797	1.0343	0.9251	0.0182	
	1734	1770	0.9797					

Table 4.12: 2nd revised control chart data for Quality in shift A

$$\bar{p} = \frac{1734}{1770}$$

$$UCL_{p} = 0.9797 + 3\sqrt{\frac{0.9797 (1 - 0.9797)}{55}}$$
$$= 1.0367$$
$$LCL_{n} = 0.9797 - 3\sqrt{\frac{0.9797 (1 - 0.9797)}{55}}$$

$$CL_p = 0.9797 - 3\sqrt{\frac{55}{55}}$$
  
= 0.9227

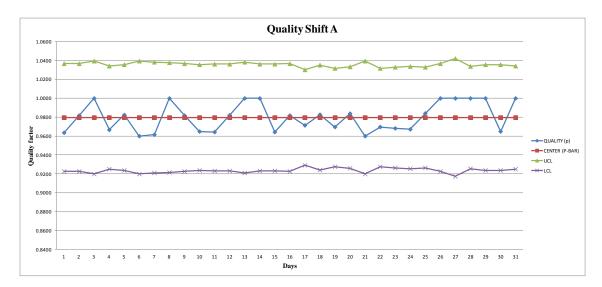


Figure 4.23: Control Chart 2<sup>nd</sup> Revised for Quality in Shift A

#### 4.4.3.3.2 Shift B

Figure 4.24 shows the second revision of quality control chart for Shift B and constructed to find the percentage of quality pattern. Average value is 0.9922, UCL and LCL value is varying because the n value is variable.

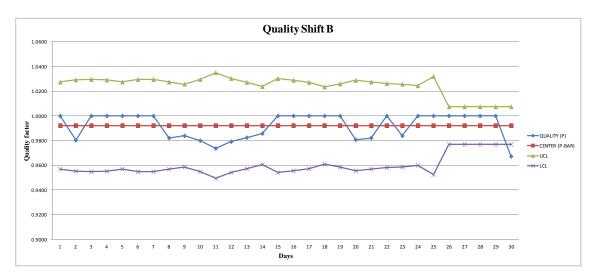


Figure 4.24: Control Chart 2<sup>nd</sup> Revised for Quality in Shift B

# 4.4.4 Comparisons between the existing OEE with 1st and 2nd revised OEE and world class OEE in each shift

Figure 4.25 shown the comparison of existing,  $1^{st}$  revised and  $2^{nd}$  revised OEE with world class OEE.OEE value improved by 0.0089% after  $1^{st}$  revised with existing OEE value.  $2^{nd}$  revised improved by 0.0458% with existing OEE value.

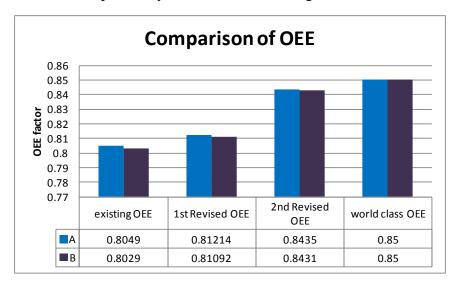


Figure 4.25: the comparisons between the existing OEE with 1st and 2nd revised OEE and world class OEE in each shift

#### 4.4.5 Pareto diagram

Through production data, the downtime rate is analyzed and categorized into 8 types of causes. Table 4.13 below shows the downtime causes including machine breakdown (A), logistics (B), waiting hanger (C), process quality issue (D), operator downstation (E), others (F), and vehicle quality issue (G).

issue	frequent	cumulative frequency	cumulative %	
machine breakdown	896	896	59.46	
logistics	222	1118	74.19	
waiting hanger	217	1335	88.59	
process quality issue	95	1430	94.89	
operator downstation	32	1462	97.01	
others	28	1490	98.87	
vehicle quality issue	17	1507	100.00	

 Table 4.13: Downtime Causes Calculation

The Pareto Chart shows the relative frequency of issues in rank-order. Figure 4.26 shows is a Pareto chart of issues due to line stoppage in Chassis-Final Assembly line. It shows that machine breakdown has the higher frequency issues on line stoppage.

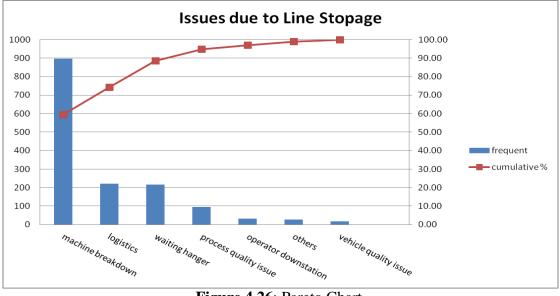
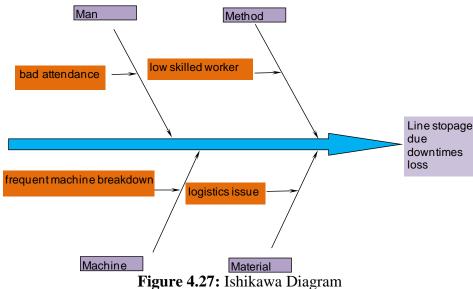


Figure 4.26: Pareto Chart

#### 4.4.6 Ishikawa Diagram

Ishikawa diagram is used to identify the root cause of high downtime losses. Figure 4.27 shows the Ishikawa diagram to analyze why downtime rate is higher. There are five major possibilities that lead to this problem. There are machine, man, method, materials, and environment.



#### 4.4.6.1 Man

#### - Bad attendance

This factor mostly happens to Malaysian citizen, they came to work not every day. They left the workstation without support operator and this cause machine cannot run properly. This is indicated at 1<sup>st</sup> July 2015 for 55 times.

#### 4.4.6.2 Method

- Low skilled operator

This happen only to new operator. They handling the machine without supervised from the leader and cannot understand the language used. This situation can be eliminate by sent them to training in the company.

#### 4.4.6.3 Machine

- Frequent machine breakdown

Door manipulator cannot push up and down .This failure cause by hose leaking for about 12 times. This factor can be control by check, repair and properly layout air hose in the line. Air leak tester indicate NG reading. This failure cause by hose bend for about 9 times. This factor can be reduced by check, repair and properly layout air hose in the line. This factor indicated on 11 July 2015 for 62 times.

#### 4.4.6.4 Material

- Logistics issue

Order from customer changing, and the changeover process delaying the process flow in the Chassis final Assembly Line. It also connected to logistics department to supply the parts from logistics department. This indicated on 1<sup>st</sup> July 2015 for 63 times.

#### 4.4.7 Improvement using 5W1H Method

From the Table 4.6 above, the problems are identified. 5W1H method was used to improve problems happened Chassis Final Assembly Line. The information are gathered through What, Why, When, Who, Where and How question. For the first 5W is used to specify more details on the root cause while 1H is used to propose a solution to eliminate or reduce the problem. It will be shown in Table 4.7.

Question	Answer
Problem	Downtime loss
What?	Frequent machine breakdown due to line stoppages
Who?	Maintenance teams and operator
When?	Almost everyday
Where?	Chassis-Final Assembly Line
Why?	There is no preventive maintenance work performed in Chassis- Final Assembly Line because there is no proper schedule for preventive maintenance. TCMA practice reactive maintenance where they only fix the machine when breakdown happen.
How?	Implementation and monitor of Planned Scheduled Maintenance for the machines to reduce the downtime rate in Chassis-Final Assembly Line so that the parts and supplies can be ready to go.

Table 4.14: 5W1H Method

#### **CHAPTER 5**

#### CONCLUSION AND RECOMMENDATION

#### 5.1 INTRODUCTION

In this chapter, the conclusion will be based on research done in previous chapters. There are also a few recommendations given to strengthen and improve the performance of the production system in TCMA Chassis-Final Assembly Line .

#### 5.2 CONCLUSION

As a conclusion, the value of OEE can be measured by finding the three elements of OEE itself; availability, performance and quality. These three elements must be balance with each other in order to get stable value of OEE. In this study, Chassis-Final Assembly Line section was chosen because the higher downtime rate and solution is needed to solve the problem. Results from the existing graph collected from company was out of control and below World Class OEE benchmarking, because there are some point that out of control limit and there is out of control patterns exist.

Analyzing was done by revised the existing control chart by eliminate the point that out of control by calculating the existing OEE value to see if there any improvement. OEE value could be improved from 80.49% to 81.21%, and 80.29% to 81.09% for A, and B shift respectively. 2<sup>nd</sup> revised was done by eliminating the point which below control limit and taking the best point between central limit and upper control limit and calculating based on the best point and OEE value can improved from 81.21% to 84.35%, and 81.09% to 84.31%, for A, and B shift respectively. This shown that 2<sup>nd</sup> revised OEE value nearly to World Class Ranking about 0.65% and 0.69% for

shift A and B respectively. This is possible to improve the OEE value by eliminating the problem occurred on Pareto Diagram such as machine breakdown, logistics issues and waiting hanger.. Based on the problem occurred, there are causes affecting the problem in Ishikawa Diagram such as Bad attendance, low skilled worker and frequent machine breakdown. From this problem and causes it was proposed in 5W1H method to find the solution as shown in below.

#### **5.3 RECOMMENDATIONS**

There is always space for improvement for every completed studies and research. As in the future, there are several recommendations to be proposed for making an improvement. An improvement can be proposed from 5W1H method that has been done in previous chapter. To eliminate the problem occurred in Chassis final Assembly line, TCMA should implemented and monitor of Planned Scheduled Maintenance to decrease the downtime rate, so that the part and supplies can be ready to go in order to prevent zero spare parts of machine components. Scheduled maintenance tasks should be performed based on predicted and measured failure rates in previous history. Consequently, it will reduce the instances of unplanned downtime and enables most maintenance to be planned for times when equipment is not scheduled for production. It will also reduce inventory through better control of wear-prone and failure-prone parts.

The suggested future OEE value for this company is 84.35%, and 84.31% for, A, and B shift respectively. Since these values are calculated based on the existing value of OEE elements in this company, hence it means that it is a possible for them to achieve this target OEE in the future if suggestions and methods analyzed are implemented for continuous improvement.

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### APPENDIX A A1: GANTT CHART

	FYP 1		SEPT				ОСТ					NOV		DEC	
No.	Project Activities	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14
1	Identify suitable company for project														
2	Study the current maintenance system														
3	Verify the project title														
4	Drafting Chapter 1: Introduction														
5	Finalize and Submit draft Chapter 1														
6	Drafting Chapter 2: Literature Review														
7	Finalize and Submit draft Chapter 2														
8	Verify suitable selection method														
9	Drafting Chapter 3: Methodology														
10	Finalize and Submit Draft Chapter 3														
11	Compile and Submit Chapter 1, 2, and 3														
12	Prepare for final presentation														
13	FYP 1 Final Presentation														

# A2: GANTT CHART (Continued)

	FYP 2	FEB		MAR					APR				MAY		
No.	Project Activities	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14
1	Data collection and analyze data														
2	Drafting Chapter 4: Results and Discussions														
3	Finalize and Submit Draft Chapter 4														
4	Drafting Chapter 5: Conclusions and Recommendations														
5	Finalize and Submit Draft Chapter 5														
6	Prepare Poster														
7	Poster Presentation														
8	Compiling Chapter 1, 2, 3, 4, and 5														
9	Submit Final Report														

Remarks:

Planned progress



Actual progress

## **APPENDIX B**

# **B1: Chassis-Final Assembly Line Production Data for July 2015**

| Shift A  |   
   | _   |  |   |  
   |   
  |   |  
   |  |  
  |   |  |  |   |   |  |   |   |   
 _  |   |   |  |  |   |   |  |  |  |   |  |   |
--
---|--|---
--
--|---
--
--
---|---|--|--
---|---|--|---|---|---|--|---|---|--|--|---|---|--|--|--|---|--|---|
| CHASSIS-FINAL LINE   | 1   
   | 2   | 3  | 4   | 5  
   | 6   
  | 7   | 8  
   | 9  | 10   
  | 11  | 12   | 13   | 14  | 15  | 16   | 17  | 18  | 19  
 20   | 21  | 22  | 23   | 24   | 25  | 26  | 27   | 28   | 29   | 30  | 31   | Cum   |
| Planned downtime per Shift   | 71  
   | 71  | 71   | 0   | 0  
   | 71  
  | 71  | 71   
   | 71   | 71   
  | 71  | 0  | 71   | 71  | 0   | 0  | 0   | 0   | 0   
 0  |   | 71  | 71   | 71   | 0   | 0   | 71   | 71   | 71   | 71  | 71   | 134   |
| Downtime Loss  | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 2  | 0   | 0   | 11   | 0  | 0  | 9   | 0  | 22  |
| Machine breakdown (G)  | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 2  | 0   | 0   | 11   | 0  | 0  | 9   | 0  | 22  |
| - Tools / Jig (J)  | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
| Speed Loss   | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
|  | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
| Process quality issue (Q)     Vehicle quality issue (I)  | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
|  | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 10  | 0  
   | 0  | 7  
  | 28  | 0  | 0  | 16  | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 15  | 5  | 0  | 0   | 0   | 0  | 32   | 19   | 0   | 0  | 13  |
| - Logistics (D)  | 0   
   | 0   | 0  | -   | 0  
   | 0   
  | 10  | -  
   | -  |  
  |   | -  |  |   | -   | -  | -   | -   |   
  | 0   |   |  |  |   |   |  |  |  |   | 0  |   |
| - PPC (H)  | •   
   | · ·   | •  | 0   | •  
   | •   
  | •   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | •  | 0   |
| Chassis jammed (C)   | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
| <ul> <li>Operator downstation (P)</li> </ul>   | 23  
   | 16  | 0  | 0   | 0  
   | 19  
  | 5   | 5  
   | 0  | 2  
  | 0   | 0  | 0  | 20  | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 21  | 0  | 2  | 0   | 0   | 10   | 16   | 18   | 16  | 57   | 23  |
| <ul> <li>New operator under training (N)</li> </ul>  | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
| <ul> <li>Bad attendance (A)</li> </ul>   | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
| - Waiting hanger (W)   | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 44  | 0  
   | 0  | 27   
  | 16  | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 51   | 0  | 0   | 0   | 0  | 20   | 3  | 2   | 0  | 16  |
| - Others (B)   | 0   
   | 0   | 0  | 0   | 0  
   | 0   
  | 0   | 0  
   | 0  | 0  
  | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 0   | 0  | 0  | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0   |
| Offline Unit per day   | 2   
   | 1   | 0  | 0   | 0  
   | 2   
  | 1   | 6  
   | 3  | 2  
  | 2   | 0  | 0  | 1   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 2   | 2  | 1  | 0   | 0   | 0  | 0  | 2  | 1   | 0  | 28  |
| Total operating hours per Shift  | 545   
   | 545   | 545  | 0   | 0  
   | 545   
  | 545   | 545  
   | 545  | 545  
  | 545   | 0  | 545  | 545   | 0   | 0  | 0   | 0   | 0   
 0  |   | 545   | 545  | 545  | 0   | 0   | 545  | 545  | 545  | 545   | 545  | 103   |
| Planned Production Time = (4) - (1)  | 474   
   | 474   | 474  | 0   | 0  
   | 474   
  | 474   | 474  
   | 474  | 474  
  | 474   | 0  | 474  | 474   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 474   | 474  | 474  | 0   | 0   | 474  | 474  |  | 474   | 474  | 900   |
| Operation Time = (5) - (2A) - (2B)   | 474   
   | 474   | 474  | 0   | 0  
   | 474   
  | 474   | 474  
   | 474  | 474  
  | 474   | 0  | 474  | 474   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 474   | 474  | 472  | 0   | 0   | 463  | 474  | 474  | 465   | 474  | 898   |
| Total Output Per Shift   | 55  
   | 55  | 50   | 0   | 0  
   | 60  
  | 57  | 63   
   | 50   | 50   
  | 52  | 0  | 53   | 55  | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 57  | 56   | 56   | 0   | 0   | 52   | 56   | 56   | 55  | 50   | 103   |
| OK Product per Shift = (7) - (3)   | 53  
   | 54  | 50   | 0   | 0  
   | 58  
  | 56  | 57   
   | 47   | 48   
  | 50  | 0  | 53   | 54  | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 55  | 54   | 55   | 0   | 0   | 52   | 56   |  | 54  | 50   | 101   |
| Actual cycle time  | 7.18  
   | 7.18  | 7.18   | 7.18  | 7.18   
   | 7.18  
  | 7.18  | 7.18   
   | 7.18   | 7.18   
  | 7.18  | 7.18   | 7.18   | 7.18  | 7.18  | 7.18   | 7.18  | 7.18  | 7.18  
 7.18   | 7.18  | 7.18  | 7.18   | 7.18   | 7.18  | 7.18  | 7.18   | 7.18   | 7.18   | 7.18  | 7.18   | 7.1   |
| Net Operation Time = $(7) \times (9)$  | 395   
   | 395   | 359  | 0   | 0  
   | 431   
  | 409   | 452  
   | 359  | 359  
  | 373   | 0  | 381  | 395   | 0   | 0  | 0   | 0   | 0   
 0  | 0   | 409   | 402  | 402  | 0   | 0   | 373  | 402  | 402  | 395   | 359  | 74  |
| Availability (%) = (6) / (5) x 100%  | 100.0   
   | 100.0   | 100.0  | #DIV/0!   |  
   | 100.0   
  | 100.0   | 100.0  
   | 100.0  | 100.0  
  | 100.0   | #DIV/0!  | 100.0  | 100.0   |   |  |   |   |   
 #DIV/0!  | #DIV/0!   | 100.0   | 100.0  | 99.6   |   |   | 97.7   |  |  |   | 100.0  |   |
|  |   
   |   |  |   |  
   |   
  |   |  
   |  |  
  |   |  |  |   |   |  |   |   |   
  |   |   |  |  |   |   |  |  |  |   |  |   |
| Performance (%) = (10) / (6) x 100%  | 83.3  
   | 83.3  | 75.7   | #DIV/0!   | #DIV/0!  
   | 90.9  
  | 86.3  | 95.4   
   | 75.7   | 75.7   
  | 78.8  | #DIV/0!  | 80.3   | 83.3  | #DIV/0!   | #DIV/0!  | #DIV/0!   | #DIV/0!   | #DIV/0!   
 #DIV/0!  | #DIV/0!   | 86.3  | 84.8   | 85.2   | #DIV/0!   |   | 80.6   | 84.8   | 84.8   | 84.9  | 75.7   | 83  |
|  |   
   | 98.2  | 100.0  | #DIV/0!   | #DIV/0!  
   | 96.7  
  | 98.2  | 90.5   
   | 94.0   | 96.0   
  | 96.2  | #DIV/0!  | 100.0  | 98.2  | #DIV/0!   | #DIV/0!  | #DIV/0!   | #DIV/0!   | #DIV/0!   
 #DIV/0!  | #DIV/0!   | 96.5  | 96.4   | 98.2   | #DIV/0!   | #DIV/0!   | 100.0  | 100.0  | 96.4   | 98.2  | 100.0  | 97  |
| Overall Equipment Effectiveness (OEE) %  | 96.4<br>80.3  
   | 81.8  | 75.7   |   |  
   | 87.9  
  | 84.8  |  
   |  | 72.7   
  | 75.7  |  | 80.3   |   |   |  |   | #DIV/0!   | #DIV/0!   
 #DIV/0!  | #DIV/0!   |   | 81.8   | 83.3   | #DIV/0!   | #DIV/0!   | 78.8   | 84.8   | 81.8   | 81.8  | 75.7   | 8   |
| Overall Equipment Effectiveness (OEE) %  |   
   |   |  |   |  
   |   
  | 84.8  |  
   |  |  
  | 75.7  |  |  |   |   |  |   | #DIV/0!   | "#DIV/0!  
 #DIV/0!  | #DIV/0!   |   | 81.8   | 83.3   | #DIV/0!   |   | 78.8   | 84.8   | 81.8   |   |  |   |
| Overall Equipment Effectiveness (OEE) % Shift B CHASSIS-FINAL LINE   | 80.3  
   | 81.8  | 75.7   | #DIV/0!   | #DIV/0!  
   | 87.9<br>6   
  | 7   | 86.3   
   | 71.2   | 72.7   
  | 11  | #DIV/0!  | 80.3   | 81.8  | #DIV/0!   | #DIV/0!  | #DIV/0!   |   |   
  |   | 83.3  | 23   | 24   | 25  | 26  | 27   | 28   | 29   | 30  | 31   | Cun   |
| Overall Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>Planned downtime per Shift   | 80.3<br>1<br>71   
   | 81.8<br>2<br>71   | 75.7<br>3<br>71  | #DIV/0!   | #DIV/0!  
   | 87.9<br>6<br>71   
  | 7<br>71   | 86.3<br>8<br>71  
   | 71.2<br>9<br>71  | 72.7<br>10<br>71   
  | <u>11</u><br>71   | #DIV/0!<br>12<br>0   | 80.3<br>13<br>71   | 81.8<br>14<br>71  | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71  | 23<br>71   | 24<br>71   | 25<br>0   | 26<br>0   | 27<br>71   | 28<br>71   | 29<br>71   | <u>30</u><br>71   | <u>31</u><br>71  | Cun<br>13   |
| Overall Equipment Effectiveness (OEE) % Shift B CHASSIS-FINAL LINE Planned downtime per Shit Downtime Loss   | 80.3<br>1<br>71<br>0  
   | 81.8<br>2<br>71<br>0  | 75.7<br>3<br>71<br>0   | #DIV/0!<br>4<br>0<br>0  | #DIV/0!<br>5<br>0<br>0   
   | 87.9<br>6<br>71<br>0  
  | 7<br>71<br>0  | 86.3   
   | 71.2   | 72.7   
  | 11  | #DIV/0!<br>12<br>0<br>0  | 80.3<br>13<br>71<br>0  | 81.8<br>14<br>71<br>0   | #DIV/0!   | #DIV/0!  | #DIV/0!   | 18  | 19  
 20   | 21  | 83.3<br>22<br>71<br>0   | 23<br>71<br>0  | 24<br>71<br>0  | 25<br>0<br>0  | 26<br>0<br>0  | 27<br>71<br>0  | 28<br>71<br>0  | 29<br>71<br>0  | 30<br>71<br>0   | 31<br>71<br>0  | Cun<br>13<br>C  |
| Overall Equipment Effectiveness (OEE) % Shift B CHASSIS-FINAL LINE Planned downtime per Shit Downtime Loss Machine breakdown (G)   | 80.3<br>1<br>71<br>0<br>0   
   | 81.8<br>2<br>71<br>0<br>0   | 75.7<br>3<br>71<br>0<br>0  | #DIV/0!<br>4<br>0<br>0  | #DIV/0!<br>5<br>0<br>0<br>0  
   | 87.9<br>6<br>71<br>0<br>0   
  | 7<br>71<br>0<br>0   | 86.3<br>8<br>71<br>0<br>0  
   | 71.2<br>9<br>71<br>0<br>0  | 72.7<br>10<br>71<br>0<br>0   
  | 11<br>71<br>0<br>0  | *#DIV/0!<br>12<br>0<br>0<br>0  | 80.3<br>13<br>71<br>0<br>3   | 81.8<br>14<br>71<br>0<br>0  | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0   | 23<br>71<br>0<br>0   | 24<br>71<br>0<br>0   | 25<br>0<br>0  | 26<br>0<br>0  | 27<br>71<br>0<br>0   | 28<br>71<br>0<br>0   | 29<br>71<br>0<br>0   | 30<br>71<br>0<br>0  | 31<br>71<br>0<br>0   | Cur<br>13   |
| Planned downtime per Shift<br>Downtime Loss<br>- Machine breakdown (G)<br>- Tools / Jig (J)  | 80.3<br>1<br>71<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0  | 75.7<br>3<br>71<br>0<br>0<br>0   | #DIV/0!<br>4<br>0<br>0<br>0<br>0  | #DIV/01<br>5<br>0<br>0<br>0<br>0   
   | 87.9<br>6<br>71<br>0<br>0<br>0  
  | 7<br>71<br>0<br>0<br>0  | 86.3<br>8<br>71<br>0<br>0<br>0   
   | 71.2<br>9<br>71<br>0<br>0<br>0   | 72.7<br>10<br>71<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0  | #DIV/0!<br>12<br>0<br>0<br>0<br>0  | 80.3<br>13<br>71<br>0<br>3<br>0  | 81.8<br>14<br>71<br>0<br>0<br>0   | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0   | 23<br>71<br>0<br>0   | 24<br>71<br>0<br>0   | 25<br>0<br>0<br>0   | 26<br>0<br>0<br>0   | 27<br>71<br>0<br>0   | 28<br>71<br>0<br>0   | 29<br>71<br>0<br>0   | 30<br>71<br>0<br>0  | 31<br>71<br>0<br>0   | Cun<br>13<br>(<br>(   |
| Overall Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>Planned downtime per Shit<br>Downtime Loss<br>Machine breakdown (G)<br>- Tools / Jg (J)<br>Speed Loss  | 80.3<br>1<br>71<br>0<br>0<br>0<br>0   
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0   | 75.7<br>3<br>71<br>0<br>0<br>0   | #DIV/0!<br>4<br>0<br>0<br>0<br>0  | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0  
   | 87.9<br>6<br>71<br>0<br>0<br>0  
  | 7<br>71<br>0<br>0<br>0<br>0   | 86.3<br>8<br>71<br>0<br>0<br>0<br>0  
   | 71.2<br>9<br>71<br>0<br>0<br>0<br>0  | 72.7<br>10<br>71<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0   | #DIV/0!<br>12<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0   | 81.8<br>14<br>71<br>0<br>0<br>0   | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0  | 24<br>71<br>0<br>0<br>0  | 25<br>0<br>0<br>0<br>0  | 26<br>0<br>0<br>0<br>0  | 27<br>71<br>0<br>0<br>0  | 28<br>71<br>0<br>0<br>0  | 29<br>71<br>0<br>0<br>0  | 30<br>71<br>0<br>0<br>0   | 31<br>71<br>0<br>0<br>0  | Cur<br>13   |
| Overall Equipment Effectiveness (OEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE Planned downline per Shift Downline Loss Machine breakdown (G) Tools / Jag (J) Speed Loss Process quality lissue (Q)   | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0   
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0   | 75.7<br>3<br>71<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>4<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0  | 86.3<br>8<br>71<br>0<br>0<br>0<br>0  
   | 71.2<br>9<br>71<br>0<br>0<br>0<br>0<br>0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0   | #DIV/0!<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0  | 81.8<br>14<br>71<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0  | 24<br>71<br>0<br>0<br>0<br>0<br>0  | 25<br>0<br>0<br>0<br>0<br>0   | 26<br>0<br>0<br>0<br>0  | 27<br>71<br>0<br>0<br>0<br>0   | 28<br>71<br>0<br>0<br>0<br>0   | 29<br>71<br>0<br>0<br>0<br>0   | 30<br>71<br>0<br>0<br>0   | 31<br>71<br>0<br>0<br>0<br>0   | Cur   |
| Overall Equipment Effectiveness (OEE) % Shift B CHASSIS-FINAL LINE Planned downtime per Shit Overtime Loss Machine breakdown (G) Tools / Jag (J) Speed Loss Process quality issue (Q) - Vehicle quality issue (Q)  | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0   | 75.7<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/0!<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0   | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 71.2<br>9<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0  | <b>#DIV/0! 12 0 0 0 0 0 0 0 0 0 0</b>  | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0  | 81.8<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0  | 24<br>71<br>0<br>0<br>0<br>0<br>0  | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 27<br>71<br>0<br>0<br>0<br>0<br>0  | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0   | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0   | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0   | Cur<br>13   |
| Overall Equipment Effectiveness (OEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE Planned downline per Shit Downline Loss Tools / Jig (J) Speed Los Process quality issue (1) - Vehicia quality issue (2) - Vehicia quality issue (1) - Logistics (0)  | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>3</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/0!<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 71.2<br>9<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>72.7 10 71 0</b> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>12</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>3   | 81.8<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0   | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | Cu<br>1:  |
| Derail Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>Planned downtime per Shift<br>Downtime Loss<br>Machine breakdown (G)<br>Tools / Jig (J)<br>pered Loss<br>Process quality issue (C)<br>Vehicle quality issue (C)<br>Logistics (D)<br>PPC (H)   | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>3</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/0!<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | <b>9</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01</b><br><b>12</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 81.8<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | <u>Cu</u><br>1:   |
| Derail Equipment Effectiveness (OEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE CHASSIS-FINAL LINE Chassis (C) Chass  | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | <b>3</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>#</b> DIV/0!<br><b>4</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>9</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    |
<b>#DIV/01</b><br><b>12</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 81.8<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   | 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | Cuu<br>1:   |
| Derail Equipment Effectiveness (OEE) % Shift B CHASSIS-FINAL LINE Panned downtime per Shit Convine Loss Machine breakdown (G) Tools / Jig (J) pered Loss Process quality issue (C) Vehicle quality issue (C) Vehicle quality issue (C) Legistics (D) PPC (H) Chassis jammed (C) Quentar downstation (P)  | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>3</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/0! 4 0 0 0 0 0 0 0 0 0 0</b>  | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>17   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | <b>9</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>15<br>0  | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | Cu<br>1:  |
| CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>Construction of the construction<br>for the construction of the construction<br>machine breakdown (G)<br>Tools / Jig (J)<br>genet Loss<br>Process quality issue (O)<br>Legistica (D)<br>PPC (H)<br>Chassis jammed (C)<br>Operator downstation (P)<br>New operator under training (N)   | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 75.7<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>0<br>17<br>0  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 9           71           0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0  | #DIV/0!<br>15<br>0  | #DIV/0!  | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | Cu<br>1:  |
| Derail Equipment Effectiveness (OEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE Tenned downtime per Shit Downtime Loss Machine breakdown (G) Tools / Jig (J) peed Loss Process quality issue (C) Vehicle quality issue (C) Vehicle quality issue (C) Vehicle quality issue (C) Chassis jammed (C) Operator downstation (P) New operator under training (N) Bad attendance (A)   | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>3</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/0! 4 0 0 0 0 0 0 0 0 0 0</b>  | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>0<br>17<br>0<br>0<br>0  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | <b>9</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0  | #DIV/0!<br>15<br>0  | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | Cu<br>1:  |
| Derail Equipment Effectiveness (CEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE Teamed downtime per Shift Downtime Loss Machine breakdown (G) Tools / Jag (J) peed Loss Process quality issue (C) Vehicle quality issue (C) Logistics (D) PFC (H) Chassis jammed (C) Operator under training (N) Bed attendance (A)   | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 75.7<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>0<br>17<br>0  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 9           71           0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0  | #DIV/0!<br>15<br>0  | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     |   |
| Nerail Equipment Effectiveness (OEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE Tarned downtime per Shit Machine breakdown (5) Tools / Jg (J) peed Loss Process quality issue (0) Underline (1) Dogetator downstation (P) PPC (H) (C) Operator downstation (P) Bad attendance (A) Waiting hanger (W)  | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 75.7<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>4</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>*DIV/01 5 0 0 0 0 0 0 0 0 0 0</b>   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>0<br>17<br>0<br>0<br>0  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3<br>8<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 9           71           0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0  | #DIV/0!<br>15<br>0  | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |   |
| Derrall Equipment Effectiveness (OEE) %           Shift B           CHASSIS-FINAL LINE           Tanned downtime per Shift           Sommtime Loss           Machine breakdown (G)           Tools / Jg (J)           peed Loss           Process quality issue (C)           Vehicle quality issue (C)           Operator downstation (P)           Operator under training (N)           Bed attendance (A)           Waiting Anger (W)           Others (B)   | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 75.7<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01 5 0 0 0 0 0 0 0 0 0 0</b>   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>17<br>0<br>15  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3           8           71           0  
   | 9           71           0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0  | #DIV/0!<br>15<br>0  | #DIV/01<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!   | 18<br>0   | 19<br>0   
 20<br>0  | 21<br>0   | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |   |
| Verail Équipment Effectiveness (OEE) % CHASSIS-FINAL LINE Lanned downtime per Shit CHASSIS-FINAL LINE Lanned downtime per Shit Machine breakdown (5) Tools J/g (J) peed Loss Process quality issue (0,) Logistics (D) PPC (H) Operator downstation (P) Operator downstation (P) New operator under training (N) Bad attendance (A) Vating hanger (V) Others (B) Iffine Unit per day  | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>3</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01 5 0 0 0 0 0 0 0 0 0 0</b>   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>18<br>0<br>0<br>17<br>0<br>0<br>18<br>0<br>0<br>2   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3           8           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           4         4  
   | 9           71           0   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0  | <b>15</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>17<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 
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| verail Équipment Éflectiveness (OEE) % ChaSSIS-FINAL LINE ChASSIS-FINAL LINE Territorie downtime per Shit commine Loss Machine breakdown (G) Tools //g (J) peed Loss peed Loss Process quality issue (C) Verhicle quality issue (C) Operator downstation (C) Operator downstation (P) New operator under training (N) Bad attendance (A) Waiting hanger (W) Others (B) Iffline Unit per day  | 80.3           1           71           0   
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 75.7<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01 5 0 0 0 0 0 0 0 0 0 0</b>   
   | 87.9<br>6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>18<br>0<br>0<br>17<br>0<br>0<br>0<br>15<br>0   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3           8           71           0  
   | 71.2           9           71           0  | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0  | <pre>/ #DIV/01 / 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</pre>   | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>17<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 
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| Verail Équipment Effectiveness (OEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE larned downlime per Shit Chassis and the state of the stat | 80.3           1           71           0 <td>81.8<br/>2<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>3           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           1         545</td> <td>#DIV/01<br/>4<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01<br/>5<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>67.9<br/>671<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>7<br/>7<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>86.3         8           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           4         545           474         474</td> <td>9           71.2           0           2           545           474</td> <td><b>10</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01<br/>12<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>81.8           14           71           0           10           2           545           474</td> <td>15           0</td> <td>#DIV/0!<br/>16<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01<br/>17<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>83.3<br/>22<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td></td>   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 3           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           1         545   | #DIV/01<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 67.9<br>671<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 7<br>7<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                           | 86.3         8           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           4         545           474         474  | 9           71.2           0         
 0           0           0           0           0           2           545           474   | <b>10</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     |
#DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0           10           2           545           474   | 15           0  | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>17<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 21<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          |   |
| erail Equipment Effectiveness (OEE) % ChaStis-FinAL LINE ChAStis-FinAL LINE armed downtime per Shift writime Loss Gods / Jd (-) ever Loss ever Loss Gods / Jd (-) ever Loss Go | 80.3           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           545           474   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 3           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           1         545           474         474   | #DIV/0!<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 6           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           17         0           0         0           15         0           2         545           474         474  
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3         8           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         4           474         474  | 9           71           0        
  0           0           0           0           0           0           0           0           2           545           474   | <b>10</b><br><b>71</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  |
11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/0!<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0           10           10           11           12           13           14           14   | #DIV/01      15     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0   | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01   | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 21<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |   |
| Verail Équipment Effectiveness (OEE) % CHASSIS-FINAL LINE CHASSIS-FINAL LINE lanned downtime per Shit worktime Loss Machine breakdown (G) Tools / Jg (J) peed Loss Process quality issue (Q) Vehicle quality issue (Q) Vehicle quality issue (Q) Operator downto(C)  | 80.3           1           71           0           1           1           1           1           1           1           1           1           1           1           1 <td>81.8<br/>2<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>3           71           0           1           545           474           57</td> <td>#DIV/0!           4           0</td> <td>#DIV/01<br/>5<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>6           71           0           2           545           474           61</td> <td>7<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>86.3           8           71           0<td>9           71.2           9           71           0<td>10           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           128           127           127           128           127           127           128<td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/0!<br/>12<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>81.8           14           71           0           1           1           1           1           1           1           1           1           1           <th1< th="">           1<td>15         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0</td><td>#DIV/0!<br/>16<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01  17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>83.3           22           71           0           2           545           56</td><td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30           71           0</td><td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td></td></th1<></td></td></td></td> | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 3           71           0           1           545           474           57  | #DIV/0!           4           0   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 6           71           0           2           545           474           61   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3           8           71           0 <td>9           71.2           9           71           0<td>10           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           0           127           128           127           127           128           127           127           128<td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/0!<br/>12<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>81.8           14           71           0           1           1           1           1           1           1           1           1           1           <th1< th="">           1<td>15         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0</td><td>#DIV/0!<br/>16<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01  17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>83.3           22           71           0           2           545           56</td><td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30           71           0</td><td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td></td></th1<></td></td></td> | 9           71.2           9           71           0   
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| erail Equipment Effectiveness (OEE) % ChaStis-FinAL LINE ChAStis-FinAL LINE armed downtime por Shift writime Loss dachine breakdown (G) Cods J d) (-) evel Loss dachine breakdown (G) Cods J d) (-) evel Loss dachine breakdown (G) Cods J d) (-) evel Loss dachine breakdown (G) Cods J d) Porton downtation (G) Operator downtation (P) Operator downtation (P) Operator downtation (P) Operator downtation (P) Aussis jammed (C) Operator downtation (P) Mattine partary dat dtendance (A) Vaiting hours per Shift and operating hours per Shift and operating hours per Shift and Operation Time = (A) - (1) Evelow the Shift = (D) - (2). CB)   | 80.3           1           71           0           1           1           1           1           1           1           1           1           1           1           1 <td>81.8<br/>2<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>3           71           0           1           545</td> <td>#DIV/01<br/>4<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01<br/>5<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>6           71           0           2           59</td> <td>7<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>86.3         8           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           44         54           56         56</td> <td>9           71           0</td> <td>10           71           0           1           51</td> <td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/0!<br/>12<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>81.8           14           71           0           2           50</td> <td>#DIV/01           15           0</td> <td>#DIV/01</td> <td>#DIV/01 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>83.3<br/>22<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30           71           0</td> <td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td></td>  
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 3           71           0           1           545   | #DIV/01<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 6           71           0           2           59   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3         8           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           44         54           56         56  
   | 9           71           0   | 10           71           0           1           51   
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/0!<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0           2           50   | #DIV/01           15           0  | #DIV/01  | #DIV/01 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 
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| verall Equipment Effectiveness (OEE) % CHASSIS-FINAL LINE Covering Co | 80.3           1           71           0           1           1           1           1           1           1           1           1           1           1           1 <td>81.8<br/>2<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>3           71           0           1           545           57           56           7.18</td> <td>#DIV/01<br/>4<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01<br/>5<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>87.9           6           71           0           0           0           0           0           0           0           0           0           0           0           0           17           0           15           0           2           545           474           61           59           7.18</td> <td>7<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>86.3         8           71         0           0         0           560         560           560         566           568         7.18</td> <td>9           71.2           9           71           0<td>10           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           127           0           127           0           127           0           127           51           50           7.18</td><td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01<br/>12<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>81.8           14           71           0           10           11           11           12           13           14           14           15           15           16           <th12< th=""></th12<></td><td>15         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>#DIV/0!<br/>16<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01</td><td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>83.3<br/>22<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td></td></td>  | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 3           71           0           1           545           57           56           7.18  | #DIV/01<br>4<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 87.9           6           71           0           0           0           0           0           0           0           0           0           0           0           0           17           0           15           0           2           545           474           61           59           7.18   
   | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3         8           71         0           0         0           560         560           560         566           568         7.18   | 9           71.2           9           71           0  
        0           0           0           0           0           0           0           0           0           0           0           0           0 <td>10           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           127           0           127           0           127           0           127           51           50           7.18</td> <td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01<br/>12<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>81.8           14           71           0           10           11           11           12           13           14           14           15           15           16           <th12< th=""></th12<></td> <td>15         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>#DIV/0!<br/>16<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01</td> <td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>83.3<br/>22<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td></td>   | 10           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           127           0           127           0           127           0           127           51           50           7.18  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01<br>12<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0          
  | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0           10           11           11           12           13           14           14           15           15           16 <th12< th=""></th12<>  | 15         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | #DIV/0!<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01   | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 21<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |   |
| Dearall Equipment Effectiveness (OEE) %           Shift B           CHASSIS-FINAL LINE           Tanned downtime per Shift           Machine breakdown (G)           Tools / Jg (J)           peed Less           peed Less           Species quality issue (O)           Vehicle quality issue (O)           Operator downstation (P)           Outers (B)           Others (B)           Other S (B)           Vehice T = Vehice (P)           Vehice T = Vehice (P)           Vehice T = Operator Time = (T) x (9)   | 80.3<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           2           71           0           0           0  
        0           0 <td>3           0           1           545           56           7.18</td> <td>#DIV/01           4         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>#DIV/01           0</td> <td>87.9           6           71           0           2           545           59           7.18</td> <td>7<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>86.3         8           71         0           0         0<td>9           71           0</td><td>10           71           0           1277           0           1277           0           1277           0           1277           0           1277           0           1277           0           1277           50           7.18           366</td><td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>81.8           14           71           0           10           11           12           1373</td><td>15         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0</td><td>#DIV/01<br/>16<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>83.3<br/>22<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>Cuu<br/>1<br/>1<br/>10<br/>9<br/>9<br/>9<br/>9<br/>1<br/>1<br/>5<br/>7<br/>7<br/>7<br/>7</td></td> | 3           0           1           545           56           7.18  | #DIV/01           4         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0 | #DIV/01           0   
  | 87.9           6           71           0           2           545           59           7.18  
   | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3         8           71         0           0         0 <td>9           71           0</td> <td>10           71           0           1277           0           1277           0           1277           0           1277           0           1277           0           1277           0           1277           50           7.18           366</td> <td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>80.3<br/>13<br/>71<br/>0<br/>3<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>81.8           14           71           0           10           11           12           1373</td> <td>15         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0</td> <td>#DIV/01<br/>16<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>83.3<br/>22<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td>
<td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>Cuu<br/>1<br/>1<br/>10<br/>9<br/>9<br/>9<br/>9<br/>1<br/>1<br/>5<br/>7<br/>7<br/>7<br/>7</td>   | 9           71           0   | 10           71           0           1277           0           1277           0           1277           0           1277           0           1277           0           1277           0           1277           50           7.18           366   
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0           10           11           12           1373  | 15         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0  | #DIV/01<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 21<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 83.3<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Cuu<br>1<br>1<br>10<br>9<br>9<br>9<br>9<br>1<br>1<br>5<br>7<br>7<br>7<br>7          |
| Detrail Equipment Effectiveness (CEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>Planned downtime per Shift<br>Downtime Loss<br>Machine breakdown (G)<br>Tools / Jg (J)<br>pered Loss<br>Machine breakdown (G)<br>Tools / Jg (J)<br>pered Loss<br>Vehicle quality issue (O)<br>Urbice quality issue (O)<br>Operator downtation (O)<br>Operator downtation (P)<br>New operator under training (N)<br>Bad attendance (A)<br>Waining hanger (W)<br>Others (B)<br>Diffine Unit per day<br>iotal operator (A)<br>Manuel Production Time = (A) - (1)<br>peration Time = (S) - (2A) - (2B)<br>oid Outpur Per Shift = (7) - (3)<br>Kual action Time = (7) × (9)<br>viabability (K) = (6) - (5) × 100%   | 80.3           1           71           0           56           56           56           56           100.0   
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 3           71           0           1           545           7.18           409           100.0  | #DIV/01  4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | #DIV/0!           5         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0      
    0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 6           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           2           545           474           61           59           7.18           438           100.0   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3         8           71         0           0         0           10         0   
   | 9           71.2           0           100.0   | 10           71.           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           1127           0           127           0           127           0           127           0           127           0           127           0           127           0           11550           7.18           366           100.0   
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/0!           12         0           0         0 | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0 <td>#DIV/0!           15           0&lt;</td> <td>#DIV/01</td> <td>*#DIV/01 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>83.3<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>Cuntra 13</td>   | #DIV/0!           15           0< | #DIV/01  | *#DIV/01 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 
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| Derail Equipment Effectiveness (CEE) % Shift B CHASSIS-FINAL LINE CHASSIS-FINAL CHA | 80.3           1           71           0           100.0           84.8  | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 3         3           71         0           0         0 | #DIV/01     #DIV/01   | #DIV/01           5           0 </td <td>87.9         6           6         71         0           0         0         0         0           0         0         0         0         0           0<td>7<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>86.3         8           71         0           0  
      0           0         0           0         0           0         0           0         0</td><td>9           71           0</td><td>10           71           0           155           7.18           366           100.0           77.3</td><td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/0!</td><td>80.3         80.3           13         71           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         545           474         56           54         54           402         100.0           08.8         84.8</td><td>81.8           14           71           0           2           54           70           7.18           373           1000.78.8</td><td>#DIV/01           15           0</td><td>#DIV/01           16           0&lt;</td><td>#DIV/01<br/>17<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>83.3           22           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         545           544         54           402         100.0           84.8         84.8</td><td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>Cuu 1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1</td></td> | 87.9         6           6         71         0           0         0         0         0           0         0         0         0         0           0 <td>7<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>86.3         8           71         0           0         0</td> <td>9           71           0</td> <td>10           71           0           155           7.18           366           100.0           77.3</td> <td>11<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/0!</td> <td>80.3         80.3           13         71           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         545           474         56           54         54           402         100.0           08.8         84.8</td> <td>81.8           14           71           0           2           54           70           7.18           373           1000.78.8</td> <td>#DIV/01           15           0  
        0           0</td> <td>#DIV/01           16           0&lt;</td> <td>#DIV/01<br/>17<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>83.3           22           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         545           544         54           402         100.0           84.8         84.8</td> <td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>Cuu 1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1</td> | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3         8           71         0           0         0  | 9           71           0   
       0           0           0           0           0           0           0           0           0           0           0           0           0           0   | 10           71           0           155           7.18           366           100.0           77.3   | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | #DIV/0!   
  | 80.3         80.3           13         71           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         545           474         56           54         54           402         100.0           08.8         84.8 | 81.8           14           71           0           2           54           70           7.18           373           1000.78.8   | #DIV/01           15           0  | #DIV/01           16           0<  | #DIV/01<br>17<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 21<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 83.3           22           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         545           544         54           402         100.0           84.8         84.8   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | Cuu 1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1 |
| Derail Equipment Effectiveness (CEE) %           Shift B           CHASSIS-FINAL LINE           Planned downtime per Shitt           Downtime Loss           Machine breakdown (G)           Tools / Jig (J)           Speed Loss           Machine breakdown (G)           Operator downstation (P)           Operator under training (N)           Bad attendance (A)           Waiting hanger (W)           Opters (B)           Differs (B)           Differ Shitt           Skit Pocketor Fahrt           Skit Laucottor Time = (A) - (1)           Operator Under training (N)           Stantend Production Time = (A) - (1)           Operator Under training (N)           Stantend Production Time = (A) - (2B)           Oratio Uput Per Shitt           Via Port Shitt           Sk Product per Shitt = (7) - (3)           Kitala cycle time = (7) × (9)           Viability (K) = (6) - ((5) × (10%)   | 80.3           1           71           0   
   | 81.8<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 3           71           0           1           545           7.18           409           100.0  | #DIV/01  4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | #DIV/0!           5         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0      
    0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 6           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           2           545           474           61           59           7.18           438           100.0   
  | 7<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 86.3         8           71         0           0         0           10         0   
   | 9           71.2           0           100.0   | 10           71.           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           1127           0           127           0           127           0           127           0           127           0           127           0           127           0           11550           7.18           366           100.0   
  | 11<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/0!           12         0           0         0 | 80.3<br>13<br>71<br>0<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 81.8           14           71           0 <td>#DIV/0!           15           0&lt;</td> <td>#DIV/01           16         0           0         0</td> <td>#DIV/01           17           0&lt;</td> <td>18<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>19<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>21<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>83.3<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>23<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>27<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>31<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>Cu<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:<br/>1:</td> | #DIV/0!           15           0< | #DIV/01           16         0           0         0 | #DIV/01           17           0< | 18<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 19<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 
 20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 21<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 83.3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 23<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 24<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 27<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 31<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | Cu<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:<br>1:    |

## **B2:** Chassis-Final Assembly Line Production Data for August 2015

Shift A CHASSIS-FINAL LINE	4	2	2	4	6	6	7	0	0	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
lanned downtime per Shift	0	0	71	71	71	71	71	0	0	71	71	71	71	126	71	0	71	71	71	71	71	71	0	71	71	71		0	0	0	
owntime Loss	0	0	0	0	0	0	0	0	0	26	62	0	0	0	0	0	39	9	0	0	0	0	0	0	37	0	0	0	0	0	0
Machine breakdown (G)	0	0	0	0	0	0	0	0	0	26	62	0	0	0	0	0	39	9	0	0	0	0	0	0	37	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	20	02	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0
ools / Jig (J)											0																				
eed Loss	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
rocess quality issue (Q)	0	0	0	0	0	0	0	0	0	0	3	0	4	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ehicle quality issue (I)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gistics (D)	0	0	18	5	14	0	0	0	0	7	0	7	18	0	13	0	0	0	8	0	5	16	0	35	0	9	0	0	0	0	0
PC (H)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hassis jammed (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
perator downstation (P)	0	0	2	15	8	3	46	0	0	5	7	6	26	9	20	0	21	4	8	6	12	4	0	2	24	36	0	0	0	0	0
ew operator under training (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ad attendance (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
aiting hanger (W)	0	0	0	22	4	11	0	0	0	26	0	0	0	0	27	0	7	58	22	15	0	22	0	2	4	0	0	0	0	0	0
thers (B)	0	0	0	5	0	0	2	0	0	0	0	0	0	0	0	0	8	11	7	6	0	0	0	11	2	0	0	0	0	0	0
ine Unit per day	0	0	2	1	2	1	4	0	0	3	2	5	4	4	5	0	6	2	3	3	4	2	0	2	2	3	5	0	0	0	0
al operating hours per Shift	0	0	605	605	605	605	545	0	0	545	545	545	545	555	545	0	545	605	605	545	605	545	0	545	545	545	545	0	0	0	0
ned Production Time = (4) - (1)	0	0	534	534	534	534	474		0	474	474	474	474	429	474	0	474	534	534	474	534	474	0	474	474	474		0	0	0	0
ration Time = (5) - (2A) - (2B)	0	0	534	534	534	534	474	0	0	448	412	474	474	429	474	0	435	525	534	474	534	474	0	474	437	474	474	0	0	0	0
Output Per Shift	0	0	70	58	66	62	62	0	0	52	63	71	64	66	50	0	58	50	56	60	70	66	0	63	61	65	50	0	0	0	0
Product per Shift = (7) - (3)	0	0	68	57	64	61	58	0	0	49	61	66	60	62	45	0	52		53	57	66	64	0	61	59	62	45	0	0	0	0
ual cycle time	7.18	7.18	7.18	7.18	7.18	7.18	7.18		7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.04		7.04	7.04	7.04	7.04	7.04	7.04	7.04	7.04		7.18	7.18	7.18	7.18
	0	0	503	416	474	445	445	0	0	373	452	510	460	474	359	0	408	352	394	422	493	465		444	429	458	352	0	0	0	0
Operation Time = (7) x (9)																							0								
lability (%) = (6) / (5) x 100%	#DIV/0!	#DIV/0!	100.0	100.0		100.0	100.0			94.5	86.9	100.0	100.0	100.0	100.0	#DIV/0!	91.8	98.3	100.0	100.0	100.0	100.0	#DIV/0!	100.0	92.2	100.0	100.0	#DIV/0!	#DIV/0!		
formance (%) = (10) / (6) x 100%	#DIV/0!	#DIV/0!	94.1	78.0	88.7	83.4	93.9			83.3	109.8	107.5	96.9	110.5	75.7	#DIV/0!	93.9	67.0	73.8	89.1	92.3	98.0	#DIV/0!	93.6	98.3	96.5	74.3	#DIV/0!	#DIV/0!	#DIV/0!	
$lity(\%) = (8) / (7) \times 100\%$	#DIV/0!	#DIV/0!	97.1	98.3	97.0	98.4	93.5	#DIV/0!		94.2	96.8	93.0	93.8	93.9	90.0	#DIV/0!	89.7	96.0	94.6	95.0	94.3	97.0	#DIV/0!	96.8	96.7	95.4	90.0	#DIV/0!	#DIV/0!	#DIV/0!	
rall Equipment Effectiveness (OEE) %		#DIV/0!	91.4	76.6	86.1	82.0	87.9	#DIV/0!	#DIV/0!	74.2	92.4	100.0	90.9	103.8	68.2	#DIV/0!	77.2	63.3	69.9	84.7	87.0	95.1	#DIV/0!	90.6	87.6	92.1	66.8	f #DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
rall Equipment Effectiveness (OEE) %			91.4	76.6	86.1	82.0	87.9	#DIV/0!	#DIV/0!																						
hift B CHASSIS-FINAL LINE	#DIV/0!		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
hift B CHASSIS-FINAL LINE nned downtime per Shift	#DIV/0!	#DIV/0! 2 0	<u>3</u> 71	4 71	5 71	6 71	7 126	8	9 0	<u>10</u> 71	<mark>11</mark> 89	12 71	13 71	14 71	15 71	<u>16</u> 0	<mark>17</mark> 71	18 71	<u>19</u> 71	20 71	21 126	22 71	23 0	24 71	25 71	26 71	27 71	28 0	<mark>29</mark> 0	30 0	31 0
hift B CHASSIS-FINAL LINE OHASSIS-FINAL LINE ned downtime per Shift writme Loss	#DIV/0!		3	4 71 0	5 71 0	6	7	8 0 0	9 0 0	10 71 0	11 89 0	12 71 0	13 71 0	14 71 0	15 71 0	16 0 0	17 71 0	18 71 0	19 71 0	20 71 0	21 126 0	22 71 0	23 0 0	24 71 0	25 71 0	26 71 0	27 71 0	28 0 0	29 0 0	30 0 0	31 0 0
hift B CHASSIS-FINAL LINE nod downtime per Shift	#DIV/0!	#DIV/0! 2 0	<u>3</u> 71	4 71	5 71	6 71	7 126	8	9 0	<u>10</u> 71	<mark>11</mark> 89	12 71	13 71	14 71	15 71	<u>16</u> 0	<mark>17</mark> 71	18 71	<u>19</u> 71	20 71	21 126	22 71	23 0	24 71	25 71	26 71	27 71	28 0	<mark>29</mark> 0	30 0	31 0
hift B CHASSIS-FINAL LINE CHASSIS-FINAL LINE ned downtime per Shift writme Loss achine breakdown (G)	#DIV/0!	#DIV/0! 2 0 0	3 71 0	4 71 0	5 71 0	6 71 0	7 126 0	8 0 0	9 0 0	10 71 0	11 89 0	12 71 0	13 71 0	14 71 0	15 71 0	16 0 0	17 71 0	18 71 0	19 71 0	20 71 0	21 126 0	22 71 0	23 0 0	24 71 0	25 71 0	26 71 0	27 71 0	28 0 0	29 0 0	30 0 0	31 0 0
nall Equipment Effectiveness (OEE) %	#DIV/0! 1 0 0	#DIV/0! 2 0 0 0	3 71 0 0	4 71 0	5 71 0 0	6 71 0 0	7 126 0 0	8 0 0 0	9 0 0 0	10 71 0 4	11 89 0 0	12 71 0 0	13 71 0 0	14 71 0 0	15 71 0 0	16 0 0 0	17 71 0 0	18 71 0 0	19 71 0 0	20 71 0 0	21 126 0 0	22 71 0 0	23 0 0 0	24 71 0 0	25 71 0 0	26 71 0 0	27 71 0 0	28 0 0	29 0 0 0	30 0 0	31 0 0 0
rall Equipment Effectiveness (OEE) % hiff B CHASSIS-FINAL LINE nned downtime per Shift mtime Loss achine breakdown (G) ols / Jg (J) ed Loss de Loss	#DIV/01 1 0 0 0 0	#DIV/0! 2 0 0 0 0 0	3 71 0 0	4 71 0 0 4	5 71 0 0	6 71 0 0	7 126 0 0	8 0 0 0 0	9 0 0 0	10 71 0 4 0	11 89 0 0	12 71 0 0	13 71 0 0	14 71 0 0	15 71 0 0	16 0 0 0	17 71 0 0 0	18 71 0 0	19 71 0 0	20 71 0 0	21 126 0 0	22 71 0 0	23 0 0 0 0	24 71 0 0	25 71 0 0	26 71 0 0	27 71 0 0	28 0 0 0 0	29 0 0 0 0	30 0 0 0 0	31 0 0 0 0
hift B CHASSIS-FINAL LINE CHASSIS-FINAL CHASSIS-FINAL LINE CHASSIS-FINAL LINE CHAS	#DIV/01 1 0 0 0 0 0 0	#DIV/0! 2 0 0 0 0 0	3 71 0 0 0	4 71 0 0 4 0	5 71 0 0 0	6 71 0 0 0	7 126 0 0 0	8 0 0 0 0	9 0 0 0 0	10 71 0 4 0 0	11 89 0 0 0	12 71 0 0 0	13 71 0 0 0	14 71 0 0 0	15 71 0 0 0	16 0 0 0 0	17 71 0 0 0	18 71 0 0 0	19 71 0 0 0	20 71 0 0 0	21 126 0 0 0	22 71 0 0 0	23 0 0 0 0	24 71 0 0 0	25 71 0 0 0	26 71 0 0 0	27 71 0 0 0	28 0 0 0 0 0	29 0 0 0 0 0	30 0 0 0 0 0	31 0 0 0 0 0
rail Equipment Effectiveness (OEE) % hiff B CHASSIS-FINAL LINE ned downtime per Shift ntime Loss schine breakdown (G) ols / Jig (J) del Loss occess quality issue (0) hicle quality issue (0)	#DIV/01 1 0 0 0 0 0 0 0 0	#DIV/0! 2 0 0 0 0 0 0 0 0	3 71 0 0 0	4 71 0 4 0	5 71 0 0 0 0	6 71 0 0 0	7 126 0 0 0 0	8 0 0 0 0 0	9 0 0 0 0 0	10 71 0 4 0 0	11 89 0 0 0 0	12 71 0 0 0	13 71 0 0 0 0	14 71 0 0 0	15 71 0 0 0 0	16 0 0 0 0 0	17 71 0 0 0 0 0	18 71 0 0 0	19 71 0 0 0 0	20 71 0 0 0 3	21 126 0 0 0 0	22 71 0 0 0	23 0 0 0 0	24 71 0 0 0 0	25 71 0 0 0	26 71 0 0 0 0	27 71 0 0 0 0	28 0 0 0 0 0	29 0 0 0 0 0	<b>30</b> <b>0</b> <b>0</b> 0 0 0	31 0 0 0 0 0 0
All Equipment Effectiveness (OEE) % All Equipment Effectiveness (OEE) % CHASSIS-FINAL LINE ned downtime per Shit Intime Loss China breakdown (G) bis / Jig (J) bid Loss Coess quality issue (O) hicle quality issue (I) pistes (D)	#DIV/01 1 0 0 0 0 0 0 0 0 0 0 0 0 0	#DIV/0! 2 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0	4 71 0 4 0 0 0	5 71 0 0 0 0 0 0	6 71 0 0 0 0	7 126 0 0 0 0 0 0	8 0 0 0 0 0 0 0	9 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5	11 89 0 0 0 0 0	12 71 0 0 0 0 0	13 71 0 0 0 0 0 11	14 71 0 0 0 0 0	15 71 0 0 0 0 0 0	16 0 0 0 0 0 0 0	17 71 0 0 0 0 0 0	18 71 0 0 0 0 0	19 71 0 0 0 0 0 0	20 71 0 0 0 0 3 0	21 126 0 0 0 0 0	22 71 0 0 0 0 0 27	23 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0	25 71 0 0 0 0 0 0 0	26 71 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0	28 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0	31 0 0 0 0 0 0 0 0
The equipment Effectiveness (OEE) %  Iniff B  CHASSIS-FINAL LINE  red downtime per Shift ritime Loss chine breakdown (G) ds/ Jig (J) ed Loss codess quality issue (0) hicle quality issue (0) pistics (D) C (H)	#DIV/0! 1 0 0 0 0 0 0 0 0 0 0 0 0 0	#DIV/0! 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0	4 71 0 4 0 0 0 0 0 0	5 71 0 0 0 0 0 0 0 0	6 71 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0	9 0 0 0 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5 0 0	11 89 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0	13 71 0 0 0 0 0 0 0 0 11 0 0	14 71 0 0 0 0 0 0 0 0 0	15 71 0 0 0 0 0 0 0 0 0 6	16 0 0 0 0 0 0 0 0 0 0 0	17 71 0 0 0 0 0 0 0 0 0	18 71 0 0 0 0 0 0 0	19 71 0 0 0 0 0 0 0 0	20 71 0 0 0 0 3 0 0	21 126 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 277 0 0	23 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 0 0 7	25 71 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 15	27 71 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0	31 0 0 0 0 0 0 0 0 0 0 0
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And Equipment Effectiveness (OEE) %  hift B  CHASSIS-FINAL LINE CHASSIS-FINAL LINE CHASSIS-FINAL LINE CHASSIS-FINAL LINE Chies beakdown (G) bis / Jig (J) ed Loss chine beakdown (G) bis / Jig (J) ed Loss Chies quality issue (I) pistics (D) C (H) assis jammed (C) entertor downstation (P) with operator funder training (N) d a tendance (A) alting hanger (W) hers (B) he Unit per day Loperation Time = (4) - (1) need Friduction Time = (4) - (2).	#DIV/01 1 0 0 0 0 0 0 0 0 0 0 0 0 0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>5</b> <b>71</b> <b>0</b> 0 0 0 0 0 0 0 0 0 12 0 0 0 11 11 0 0 2 <b>605</b> <b>534</b>	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5 5 0 0 6 6 18 0 0 3 3 0 0 2 605 534	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0	18 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 0 0 0 22 0 0 0 22 0 0 0 22 2 0 0 2 2 5 45 474	23 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 0 0 7 5 5 18 0 0 0 0 0 0 2 2 545 474 4774	25 71 0 0 0 0 0 0 0 0 0 0 15 11 11 11 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
rail Equipment Effectiveness (OEE) % hift B CHASSIS-FINAL LINE CHASSIS-FINAL LINE CHASSIS-FINAL LINE CHASSIS-FINAL CHAE chaine breakdown (G) ds / Jg (J) del Loss codess quality issue (I) hicle quality issue (I) disticts (D) CC (H) distist gammed (C) pertaint downstation (P) with operator downstation (P) with operator downstation (P) here (La) gate (La) a tendence (A) a tendence	#DIV/01           1           0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5 0 0 0 6 18 0 0 0 3 3 0 0 2 605 534	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 71 0 0 0 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 28 28 0 0 0 0 26 0 0 1 1 615 489	22 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 0 7 5 18 0 0 0 0 2 2 545 474	25 71 0 0 0 0 0 0 0 0 0 15 11 11 11 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>31</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b>
rail Equipment Effectiveness (OEE) % hiff B CHASSIS-FINAL LINE Oned downline per Shift off the second secon	#DIV/01 1 0 0 0 0 0 0 0 0 0 0 0 0 0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>5</b> <b>71</b> <b>0</b> 0 0 0 0 0 0 0 0 0 12 0 0 0 11 11 0 0 2 <b>605</b> <b>534</b>	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5 5 0 0 6 6 18 0 0 3 3 0 0 2 6 05 5 34	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0	18 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 0 0 0 22 0 0 0 22 0 0 0 22 2 0 0 2 2 5 45 474	23 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 0 0 7 5 5 18 0 0 0 0 0 0 2 2 545 474 4774	25 71 0 0 0 0 0 0 0 0 0 0 15 11 11 11 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
rail Equipment Effectiveness (OEE) % hift B CHASSIS-FINAL LINE CHASSIS-FINAL CHASSIS- CHASSIS-FINAL CHASSIS- CHASSIS-FINAL CHASSIS-FIN	#DIV/01           1           0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         605           534         534           60         58	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8           0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5 0 0 0 5 0 0 0 6 6 18 0 0 2 6 0 5 3 0 0 2 5 34 5 34 5 3 5 1	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13           71           0           2           545           74           474           66	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15           71           0           1           544           474           474	16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         605           534         534           46         46	19 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 7 5 5 18 0 0 0 7 5 5 18 0 0 0 2 2 545 474 474 474 65	25 71 0 0 0 0 0 0 0 0 0 0 15 11 11 11 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
rail Equipment Effectiveness (OEE) % hiff B CHASSIS-FINAL LINE med downline per Shift ntime Loss schne breakdown (G) ols / Jg (J) ed Loss cocess quality issue (I) pistics (D) C2 (H) assis jammed (C) peator downstation (P) we operator under training (N) d attendance (A) aiting hanger (W) hers (B) to guarting hours per Shift id operating hours per Shift id operating hours per Shift id operating hours per Shift id output Per Shift Product per Shift = (f) - (3) aud cycle time	#DIV/0!           1           0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5           71           0	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0	8         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 0 4 4 0 0 0 5 5 0 0 6 8 18 0 0 0 0 0 3 0 0 2 605 534 534 53 51 7,18	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         2           545         545           474         66           64         64           64         7.18	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 71 0 0 0 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 7 5 5 18 0 0 0 0 2 2 545 474 67 65	25 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
The second secon	#DIV/01 1 0 0 0 0 0 0 0 0 0 0 0 0 0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5           71           0           112           605           534           534           534           58           7.18           431	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5 0 0 0 6 6 6 18 0 0 0 0 2 6 05 534 534 534 534 534 531 51 7,18	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13           71           0	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15           71           0           1           545           50           49           7.16           359	16         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           10           605           534           534           48           47           7.04           338	20 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 22 0 0 0 0	23 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 7 5 5 18 0 0 0 0 0 2 5 45 474 474 474 65 7.04 472	25 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31           0
rail Equipment Effectiveness (OEE) % hiff B CHASSIS-FINAL LINE when downime per Shift when downime per Shift when downime per Shift other and the second second scheme breakdown (G) ols / Jg (J) del Loss access quality issue (I) gistics (I) CP (H) assis jammed (C) assis jammed (C) assis jammed (C) assis jammed (C) assis jammed (C) assis jammed (A) aiting hanger (W) bes (B) ne Unit per day ine direction Time = (A) - (1) ration Time = (S) - (2A) - (2B) il output Per Shift Product per Shift = (7) - (3) all cycle time Operation Time = (7) × (9) Liability (%) = (3) + (5) × 100%	#DIV/0!           1           0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 0 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0	8         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 4 0 0 5 5 0 0 0 6 5 8 0 0 0 6 5 18 0 0 0 2 2 605 534 534 53 5 1 7.18 380	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         2           545         474           66         64           7.18         474           100.0         100.0	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16           0           10           11           12           13           14           14           15           16           17           18           16           <	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0	18           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           2         605           534         48           46         7.04           338         100.0	19           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           103         0           1         605           534         48           47         7.04           338         100.0	20 71 0 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 0 0 0 7 5 5 18 0 0 0 0 0 2 2 545 4 74 474 65 7.04 472 100.0	25 71 0 0 0 0 0 0 0 0 0 15 11 11 0 0 0 0 0 2 2 545 474 67 65 7.04 472 00.0	26 71 0 0 0 0 0 0 0 0 0 15 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
hiff B CHASSIS-FINAL LINE OR ADDATE PERSING ADDATE PERSING	#DIV/01 1 0 0 0 0 0 0 0 0 0 0 0 0 0	#DIV/01 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5           71           0           112           605           534           534           534           58           7.18           431	6 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 126 0 0 0 0 0 0 0 0 0 0 0 0 0	8         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 71 0 4 0 0 0 5 0 0 0 6 6 6 18 0 0 0 0 2 6 05 534 534 534 534 534 531 51 7,18	11 89 0 0 0 0 0 0 0 0 0 0 0 0 0	12 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13           71           0	14 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15           71           0           1           545           50           49           7.16           359	16         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	17 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           10           605           534           534           48           47           7.04           338	20 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 126 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 22 0 0 0 0	23 0 0 0 0 0 0 0 0 0 0 0 0 0	24 71 0 0 0 0 0 0 0 7 5 5 18 0 0 0 0 0 2 5 45 474 474 474 65 7.04 472	25 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 71 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31         0           0         0

# **B3:** Chassis-Final Assembly Line Production Data for September 2015

| Shift A  |  |   |  |   |   
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---|--|---|---
---|--|--|---|---|--|---|--|--|---|
| CHASSIS-FINAL LINE   | 1  | 2   | 3  | 4   | 5   
  | 6  
   | 7   
  | 8  
   | 9  | 10   | 11  | 12  | 13   | 14   
   | 15  
  | 10  |  | 8 1   |   
   | 21  | 22   | 23   | 24  | 25  | 26   | 27  | 28   | 29   | 30  |
| Planned downtime per Shift   | 71   | 71  | 71   | 71  | 0   
  | 0  
   | 126   
  |  
   | 0  | 71   | 89  | 71  | 0  | 71   
   | 71  
  |   |  | 1 7   |   
   | 126   | 71   | 0  | 0   | 0   | 0  | 0   | 71   | 71   | 71  |
| Downtime Loss  | 12   | 0   | 11   | 20  | 0   
  | 0  
   | 26  
  | 0  
   | 0  | 8  | 9   | 0   | 0  | 5  
   | 0   
  |   |  |   | 3 0   
   | 4   | 0  | 0  | 0   | 0   | 0  | 0   | 4  | 14   | 2   |
| Machine breakdown (G)  | 12   | 0   | 11   | 20  | 0   
  | 0  
   | 26  
  | 0  
   | 0  | 8  | 9   | 0   | 0  | 5  
   | 0   
  |   |  |   | 3 0   
   | 4   | 0  | 0  | 0   | 0   | 0  | 0   | 4  | 14   | 2   |
| Tools / Jig (J)  | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  |   | -  |   | ) 0   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| peed Loss  | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  |   |  |   | ) 0   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Process quality issue (Q)  | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  |   |  |   | ) 0   
   | 5   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Vehicle quality issue (I)  | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  | 0   | 0  | ) (   | ) 0   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Logistics (D)  | 63   | 0   | 0  | 49  | 0   
  | 0  
   | 3   
  | 4  
   | 0  | 8  | 24  | 33  | 0  | 21   
   | 0   
  | 0   | 2  | 3 7   | 7 0   
   | 17  | 0  | 0  | 0   | 0   | 0  | 0   | 40   | 20   | 8   |
| PPC (H)  | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  | 0   | 0  | ) (   | 0 (   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Chassis jammed (C)   | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  | 0   | 0  | ) (   | ) 0   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Operator downstation (P)   | 6  | 2   | 0  | 15  | 0   
  | 0  
   | 10  
  | 47   
   | 33   | 18   | 25  | 10  | 0  | 0  
   | 13  
  | 0   | 27   |   | 2 0   
   | 3   | 26   | 38   | 0   | 0   | 0  | 0   | 2  | 0  | 0   |
| New operator under training (N)  | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  | 0   | 0  | ) (   | 0 (   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Bad attendance (A)   | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 0   
  | 0  
   | 0  | 0  | 0   | 0   | 0  | 0  
   | 0   
  |   |  |   | 0 0   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Waiting hanger (W)   | 0  | 0   | 0  | 0   | 0   
  | 0  
   | 2   
  | 0  
   | 43   | 23   | 4   | 0   | 0  | 21   
   | 0   
  |   |  |   | 0   
   | 0   | 15   | 7  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
| Others (B)   | 0  | 2   | 0  | 0   | 0   
  | 0  
   | 11  
  | 0  
   | 0  | 4  | 0   | 0   | 0  | 0  
   | 8   
  |   |  |   |   
   | 0   | 0  | 0  | 0   | 0   | 0  | 0   | 0  | 0  | 0   |
|  | 0  | 10  | 1  | 5   | 0   
  | 0  
   | 0   
  | 0  
   | 6  | 4  | 9   | 0   | 0  | 0  
   | 0   
  | -   | -  |   | 5 0   
   | 6   | 2  | 0  | 0   | 0   | 0  | 0   | 5  | 0  | 6   |
| fline Unit per day   |  | 10  | 1<br>605   | 5<br>605  | 605   
  | 605  
   |   
  | 0  
   | 0  |  | 545   | 545   | 545  | 555  
   | 545   
  |   |  |   | | | | | | | |
   |   |  |  |   | 0   | 0  |   | 545  |  |   |
| tal operating hours per Shift  | 0  |   |  |   |   
  |  
   | 545   
  |  
   |  | 545  |   |   |  |  
   |   
  |   |  |   | 545   
   | 605   | 545  | 0  | 0   |   |  | 0   |  | 545  | 545   |
| anned Production Time = (4) - (1)  | -71  | -71   | 534  | 534   | 605   
  | 605  
   | 419   
  | 0  
   | 0  | 474  | 456   | 474   | 545  | 484  
   | 474   
  |   |  |   | 84 545  
   |   | 474  | 0  | 0   | 0   | 0  | 0   | 474  | 474  | 474   |
| peration Time = (5) - (2A) - (2B)  | -83  | -71   | 523  | 514   | 605   
  | 605  
   | 393   
  | 0  
   | 0  | 466  | 447   | 474   | 545  | 479  
   | 474   
  |   |  |   | 26 545  
   | 475   | 474  | 0  | 0   | 0   | 0  | 0   | 470  | 460  | 472   |
| tal Output Per Shift   | 50   | 63  | 63   | 50  | 0   
  | 0  
   | 63  
  | 55   
   | 51   | 55   | 46  | 61  | 0  | 57   
   | 67  
  |   | 57 7   |   | 1 0   
   | 61  | 57   | 60   | 0   | 0   | 0  | 0   | 58   | 60   | 41  |
| Product per Shift = (7) - (3)  | 50   | 53  | 62   | 45  | 0   
  | 0  
   | 63  
  | 55   
   | 45   | 55   | 46  | 61  | 0  | 57   
   | 67  
  |   |  |   | 6 0   
   | 55  | 55   | 60   | 0   | 0   | 0  | 0   | 53   | 60   | 35  |
| tual cycle time  | 7.18   | 7.18  | 7.18   | 7.18  | 7.18  
  | 7.18   
   | 7.18  
  | 7.18   
   | 7.18   | 7.18   | 7.18  | 7.18  | 7.18   | 7.18   
   | 7.18  
  |   |  |   | 04 7.04   
   |   | 7.04   | 7.04   | 7.04  | 7.04  | 7.04   | 7.04  | 7.18   | 7.18   | 7.18  |
| t Operation Time = (7) x (9)   | 359  | 452   | 452  | 359   | 0   
  | 0  
   | 452   
  | 395  
   | 366  | 395  | 330   | 438   | 0  | 409  
   | 481   
  | 0 4   | 01 4   | 3 50  | 0 0   
   | 429   | 401  | 422  | 0   | 0   | 0  | 0   | 416  | 431  | 294   |
| ailability (%) = (6) / (5) x 100%  | 116.9  | 100.0   | 97.9   | 96.3  | 100.0   
  | 100.0  
   | 93.8  
  | #DIV/0!  
   | #DIV/0!  | 98.3   | 98.0  | 100.0   | 100.0  | 99.0   
   | 100.0   
  | #DIV/0! 9   | 9.4 10   | 0.0 98  | .5 100.0  
   | 99.2  | 100.0  | #DIV/0!  | #DIV/0!   | #DIV/0!   | #DIV/0!  | #DIV/0!   | 99.2   | 97.0   | 99.6  |
| formance (%) = (10) / (6) x 100%   | -432.5   | -637.1  | 86.5   | 69.8  | 0.0   
  | 0.0  
   | 115.1   
  | #DIV/0!  
   | #DIV/0!  | 84.7   | 73.9  | 92.4  | 0.0  | 85.4   
   | 101.5   
  | #DIV/0! 8   | 5.2 92   | .3 95   | .0 0.0  
   | 90.4  | 84.7   | #DIV/0!  | #DIV/0!   | #DIV/0!   | #DIV/0!  | #DIV/0!   | 88.6   | 93.7   | 62.4  |
|  |  |   |  |   | #DIV/0!   
  | #DIV/0!  
   | 100.0   
  | 100.0  
   | 88.2   | 100.0  | 100.0   | 100.0   | #DIV/0!  | 100.0  
   | 100.0   
  |   |  | .4 93   | | | | | | | |
   |   | 96.5   | 100.0  | #DIV/0!   | #DIV/0!   | #DIV/0!  | #DIV/0!   | 91.4   | 100.0  | 85.4  |
|  |  | 84.1  | 98.4   |   |   
  |  
   |   
  |  
   |  |  |   |   |  |  
   |   
  |   |  |   |   
   |   |  |  |   |   |  |   |  |  |   |
| Quality (%) = (8) / (7) x 100%<br>Overall Equipment Effectiveness (OEE) %  | 100.0  | 84.1<br>-536.0  | 98.4<br>83.4   | 90.0<br>60.5  | #DIV/0!   
  |  
   |   
  |  
   |  | 83.3   | 72.4  | 92.4  |  | 84.6   
   |   
  |   |  | .4 87   | .0 #DIV/  
   |   | 81.7   | #DIV/0!  | #DIV/0!   | #DIV/0!   |  | #DIV/0!   | 80.3   | 90.9   | 53.0  |
| uality (%) = (8) / (7) x 100%  | 100.0  |   |  |   |   
  |  
   |   
  |  
   |  |  |   |   |  |  
   |   
  |   |  | .4 87   |   
   |   |  |  | #DIV/0!   | #DIV/0!   |  | #DIV/0!   | 80.3   |  |   |
| uality (%) = (8) / (7) x 100%<br>erall Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE  | 100.0<br>505.6   | -536.0<br>2   | 83.4   | 60.5<br>4   | #DIV/0!   
  | #DIV/0!  
   | 108.0   
  | #DIV/0!  
   | #DIV/0!  | 83.3   | 72.4  | 92.4  | #DIV/0!  | 84.6   
   | 101.5<br>15   
  | #DIV/0! 6   | 3.9 84<br>17 1   | 8 1   | .0 #DIV/<br>9 20  
   | 21  | 81.7   | #DIV/0!  | 24  | 25  | #DIV/0!  | 27  | 28   | 90.9   | 53.0<br>30  |
| uality (%) = (8) / (7) x 100%<br>verall Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE   | 100.0<br>5 -505.6  |   |  |   | #DIV/0!   
  |  
   |   
  | #DIV/0!  
   |  | 83.3   | 72.4  | 92.4  | #DIV/0!  | 84.6   
   | 101.5   
  | #DIV/0! 6   | 3.9 84<br>17 1   |   | .0 #DIV/<br>9 20  
   | ! 80.8  | 81.7   | #DIV/0!  |   |   | #DIV/0!  |   |  | 90.9   | 53.0  |
| uality (%) = (8) / (7) x 100%<br>ererall Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>anned downtime per Shift  | 100.0<br>505.6   | -536.0<br>2   | 83.4   | 60.5<br>4   | #DIV/0!   
  | #DIV/0!  
   | 108.0   
  | #DIV/0!  
   | #DIV/0!  | 83.3   | 72.4  | 92.4  | #DIV/0!  | 84.6   
   | 101.5<br>15   
  | #DIV/0! 6   | 3.9 84<br>17 1<br>71 7   | 8 <u>1</u><br>17  | .0 #DIV/<br>9 20  
   | 21  | 81.7   | #DIV/0!  | 24  | 25  | #DIV/0!  | 27  | 28   | 90.9   | 53.0<br>30  |
| uality (%) = (8) / (7) x 100%<br>verall Equipment Effectiveness (OEE) %<br>Shifft B<br>CHASSIS-FINAL LINE<br>lanned downtime per Shift<br>owntime Los  | 100.0<br>-505.6<br>1<br>71   | -536.0<br>2<br>71   | 83.4<br>3<br>71  | 60.5<br>4<br>71   | #DIV/0!   
  | #DIV/0!  
   | 108.0<br>7<br>126   
  | #DIV/0!  
   | #DIV/0!  | 83.3<br>10<br>71   | 72.4<br>11<br>89  | 92.4<br>12<br>71  | #DIV/0!<br>13<br>0   | 84.6<br>14<br>71   
   | 101.5   
  | #DIV/0! 6   | 3.9         84           17         1           71         7           3         1   | 8 1<br>1 7<br>) (   | .0 #DIV//<br>9 20<br>1 0  
   | 21<br>126   | 81.7<br>22<br>71   | #DIV/0!<br>23<br>0   | 24<br>0   | 25<br>0   | #DIV/0!<br>26<br>0   | 27<br>0   | 28<br>71<br>22   | 90.9<br>29<br>71   | 53.0<br>30<br>71  |
| Laity (%) = (8)/(7) × 100%.<br>erail Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>anned downtime per Shift<br>writime Loss<br>dachine breakdown (G)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0   | -536.0<br>2<br>71<br>0<br>0   | 83.4<br>3<br>71<br>0<br>0  | 60.5<br>4<br>71<br>0<br>0   | #DIV/0!<br>5<br>0<br>0<br>0   
  | #DIV/0!  
   | 108.0<br>7<br>126<br>0<br>0   
  | #DIV/0!<br>8<br>0<br>0<br>0  
   | #DIV/0!<br>9<br>0<br>0<br>0  | 83.3<br>10<br>71<br>0  | 72.4<br>11<br>89<br>0   | 92.4<br>12<br>71<br>0<br>0  | #DIV/0!<br>13<br>0<br>0<br>0   | 84.6<br>14<br>71<br>0<br>0   
   | 101.5<br>15<br>71<br>0<br>0   
  | #DIV/0! 6   | 3.9         84           17         1           71         7           3         1           0         1   | 8 1:<br>1 7<br>) (  | 0 #DIV/<br>9 20<br>1 0<br>0 0   
   | 21<br>126<br>0<br>0   | 81.7<br>22<br>71<br>0<br>0   | #DIV/0!<br>23<br>0<br>0<br>0   | 24<br>0<br>0  | 25<br>0<br>0  | #DIV/0!<br>26<br>0<br>0  | 27<br>0<br>0<br>0   | 28<br>71<br>22<br>22   | 90.9<br>29<br>71<br>0<br>0   | 53.0<br>30<br>71<br>0<br>0  |
| uality (%) = (8)/(7) × 109%.<br>verail Equipment Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>anned downtime per Shift<br>workime Loss<br>Machine breakdown ((5)<br>Golds / Jg (J)  | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0  | 83.4<br>3<br>71<br>0<br>0<br>0   | 60.5<br>4<br>71<br>0<br>0<br>0  | #DIV/0!<br>5<br>0<br>0<br>0<br>0  
  | #DIV/0!<br>6<br>0<br>0<br>0<br>0   
   | 108.0<br>7<br>126<br>0<br>0<br>0  
  | #DIV/0!<br>8<br>0<br>0<br>0<br>0   
   | #DIV/01<br>9<br>0<br>0<br>0<br>0   | 83.3<br>10<br>71<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0   | 92.4<br>12<br>71  | #DIV/0!<br>13<br>0<br>0<br>0<br>0<br>0   | 84.6<br>14<br>71<br>0<br>0<br>0  
   | 101.5<br>15<br>71<br>0<br>0   
  | #DIV/0! 6   | 3.9         84           17         1           71         7           3         1           3         1   | 8 1<br>1 7<br>) ()<br>) ()  | 0 #DIV/<br>9 20<br>1 0<br>0 0<br>0 0  
   | 1 80.8<br>21<br>126<br>0<br>0<br>0  | 81.7<br>22<br>71<br>0<br>0<br>0  | #DIV/0!<br>23<br>0<br>0<br>0<br>0  | 24<br>0<br>0<br>0   | 25<br>0<br>0<br>0   | #DIV/0!<br>26<br>0<br>0<br>0<br>0  | 27<br>0<br>0<br>0<br>0  | 28<br>71<br>22<br>22<br>0  | 90.9<br>29<br>71<br>0<br>0<br>0  | 53.0<br>30<br>71<br>0<br>0  |
| Iality (%) = (8) / (7) × 100%<br>erail Equipment. Effectiveness (OEE) %<br>Shift B<br>CHASSIS-FINAL LINE<br>anned downtime per Shift<br>writime Loss<br>dachine breakdown (G)<br>ools / Jg (J)<br>eved Loss  | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0   | -536.0<br>2<br>71<br>0<br>0<br>0  | 83.4<br>3<br>71<br>0<br>0<br>0   | 60.5<br>4<br>71<br>0<br>0<br>0  | #DIV/0!<br>5<br>0<br>0<br>0<br>0  
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0   
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01<br>9<br>0<br>0<br>0<br>0<br>0<br>0   | 83.3<br>10<br>71<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0  | 92.4<br>12<br>71<br>0<br>0  | *DIV/0!<br>13<br>0<br>0<br>0<br>0<br>0   | 84.6<br>14<br>71<br>0<br>0<br>0  
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0   
  | #DIV/01 6<br>16 6<br>0 7<br>0 7<br>0 7<br>0 7<br>0 7<br>0 7<br>0 7<br>0 7   | 3.9         84           17         1           71         7           3         0           0         0           0         0   | B         1           1         7           0         (())           0         ()           0         ()  | .0 #DIV/<br>9 20<br>1 0<br>0 0<br>0 0<br>0 0<br>0 0   
   | 21           126           0           0           0           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0   | #DIV/0!<br>23<br>0<br>0<br>0<br>0<br>0<br>0  | 24<br>0<br>0<br>0<br>0<br>0   | 25<br>0<br>0<br>0<br>0  | #DIV/0!<br>26<br>0<br>0<br>0<br>0<br>0   | 27<br>0<br>0<br>0<br>0  | 28<br>71<br>22<br>22<br>0<br>0   | 90.9<br>29<br>71<br>0<br>0<br>0<br>0   | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0  |
| alify (%) = (8)/(7) × 100%<br>erail Equipment Effectiveness (OEE) %<br>CHASSIS-FINAL LINE<br>Arrived downtime per Shift<br>writtine Loss<br>tachine breakdown (G)<br>oosf / Jg (J)<br>recess quality issue (Q)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0   | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0   | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0  | #DIV/0!<br>5<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | #DIV/01<br>9<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>13<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 84.6<br>14<br>71<br>0<br>0<br>0<br>0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01 6<br>16 0<br>0 0<br>0 0<br>0 0<br>0 0   | 3.9         84           17         1           71         7           3         0           0         0           0         0           0         0   | 8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0   | .0 #DIV/<br>9 20<br>1 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0  
   | 21           126           0           0           0           0           0           0           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0  | #DIV/0!<br>23<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 25<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>26<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 27<br>0<br>0<br>0<br>0<br>0   | 28<br>71<br>22<br>22<br>0<br>0<br>20   | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0  | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0   |
| Iality 1%) = (8) / (7) × 100%.<br>erail Equipment. Effectiveness (OEE) %<br>ishift B<br>CHASSIS-FINAL LINE<br>Anned downtime per Shift<br>writtine Loss<br>fachine breakdown (G)<br>cols / Jg (J)<br>eed Loss<br>Trocess quality issue (Q)<br>ehcle quality issue (Q)  | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>22  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0   | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0                                    | <b>60.5</b><br><b>4</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0                                    | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0   
  | #DIV/0!<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01<br>9<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>13  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>8   | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>5  | *DIV/0!<br>13<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 84.6<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>22  
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>55   
  | #DIV/01 6<br>16 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0   | 3.9         84           17         1           71         7           3         1           0         1           3         1           0         1           5         1   | 8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 0 #DIV/<br>9 20<br>1 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0   
   | 21           126           0           0           0           0           0           0           0           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>23<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/01<br>26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0  | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 53.0<br>30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0   |
| ality (%) = (8)/(7) × 100%<br>arall Equipment Effectiveness (OEE) %<br>hifft B<br>CHASSIS-FINAL LINE<br>Inned downtime Loss<br>lachine breakdown (G)<br>ools / Jg, ()<br>coess quality issue (Q)<br>ehicle quality issue ()<br>ehicle quality issue ()   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>22<br>0   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01<br>5<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/0!<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01<br>9<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>0   | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>5<br>0   | <b>13</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 84.6<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>22<br>0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>55<br>0   
  | #DIV/01 6<br>16 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0   | 3.9         84           17         1           71         7           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1   | 8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 9 20<br>9 20<br>1 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0  
   | 21           126           0           0           0           0           0           0           0           0           0           0           0           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/0!<br>23<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/0! 26 0 0 0 0 0 0 0 0 0 0</b>  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0   | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>17  | <b>30</b><br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>13   |
| ality (%) = (8)/ (7) x 100%<br>snall Equipment Effectiveness (OEE) %<br>hift B<br>CHASSIS-FINAL LINE<br>nned downtime per Shift<br>writime Loss<br>lachine breakdown (G)<br>oofs/ Jg (J)<br>eed Loss<br>crocess quality issue (Q)<br>ehicle quality issue (Q)<br>opisities (D)<br>PC (H)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>9   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/0!<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/0!<br>9<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>0   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>5<br>0<br>0<br>0   | <b>13</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>84.6</b><br><b>14</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>22<br>0<br>0<br>0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>55<br>0<br>0<br>0  
  | #DIV/0! 6<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 17         1           71         7           3         0           0         0           5         0           0         0  | 8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 9 20<br>1 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0  
   | 21           126           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01</b><br><b>23</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>#DIV/0! 26 0 0 0 0 0 0 0 0 0 0</b>  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 28<br>71<br>22<br>22<br>0<br>0<br>0<br>20<br>0<br>0<br>0<br>0  | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>17<br>0   | 53.0<br>30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0   |
| ality (%) = (8)/(7) × 100%<br>errall Equipment Effectiveness (OEE) %<br>chifft B<br>CHASSIS-FINAL LINE<br>anned dowrdime per Shit<br>withine Loss<br>lachine breakdown (6)<br>coss / Jg. ()<br>eed Loss<br>rocess quality issue (0)<br>ehcle quality issue (1)<br>opistics. (0)<br>PC (H)<br>hassis jammed (C)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>22<br>0<br>9<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                       | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  
  | #DIV/0!<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | <b>9</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | *#DIV/01<br>13<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>84.6</b><br><b>14</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>55<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | #DIV/0! 6   | 17         1           71         7           3         1           0         1           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1  | 8         1           7         0         0           0         0         0         0           0         0         0         0         0           0 | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0  | 21           126           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>23</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | <b>26</b><br><b>0</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0                                       | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>17<br>0<br>0<br>0  | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>0  |
| ality (%) = (8)/(7) × 100%<br>errall Equipment Effectiveness (OEE) %<br>chifft B<br>CHASSIS-FINAL LINE<br>anned dowrdime per Shit<br>withine Loss<br>lachine breakdown (6)<br>coss / Jg. ()<br>eed Loss<br>rocess quality issue (0)<br>ehcle quality issue (1)<br>opistics. (0)<br>PC (H)<br>hassis jammed (C)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>9   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/0!<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/0!<br>9<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>0   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>5<br>0<br>0<br>0   | <b>13</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>84.6</b><br><b>14</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>22<br>0<br>0<br>0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>55<br>0<br>0<br>0  
  | #DIV/0! 6   | 17         1           71         7           3         1           0         1           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1  | 8         1           7         0         0           0         0         0         0           0         0         0         0         0           0 | 9 20<br>1 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0  
   | 21           126           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01</b><br><b>23</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>#DIV/0! 26 0 0 0 0 0 0 0 0 0 0</b>  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 28<br>71<br>22<br>22<br>0<br>0<br>0<br>20<br>0<br>0<br>0<br>0  | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>17<br>0   | 53.0<br>30<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0   |
| ality (%) = (%) / (7) × 100%.<br>strail Equipment Effectiveness (OEE) %<br>hifft B<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL CHASSIS-FINAL LINE<br>CHASSIS-FINAL CHASSIS-FINAL LINE<br>CHASSIS-FINAL CHASSIS-FINAL CHASSIS<br>CHASSIS-FINAL CHASSIS<br>CHASSIS<br>CHASSIS-FINAL CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS<br>CHASSIS  | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>22<br>0<br>9<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                       | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  
  | #DIV/0!<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | <b>9</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | *#DIV/01<br>13<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>84.6</b><br><b>14</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>55<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | #DIV/01 6<br>16 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0   
  | 17         1           71         7           0         1           3         1           0         1           5         1           0         1           2         1  | 8         11         7           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0  | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 21           126           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0  
   | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>23</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | <b>26</b><br><b>0</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0                                       | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>17<br>0<br>0<br>0  | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>0  |
| ality (%) = (8)/(7) × 100%<br>errall Equipment Effectiveness (OEE) %<br>CHASSIS-FINAL LINE<br>anned downtime per Shit<br>writime Loss<br>lachine breakdown (6)<br>cools / Jg. ()<br>eed Loss<br>cools / Jg. ()<br>eed Loss<br>helic quality issue (0)<br>ehcle quality issue (1)<br>perator downstation (P)<br>perator downstation (P)  | 100.0<br>5 -505.6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>222<br>0<br>9<br>0<br>0<br>0   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>60.5</b><br><b>4</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   
   | #DIV/0!<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | <b>#DIV/01</b><br><b>9</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>13</b><br><b>0</b><br><b>0</b><br><b>13</b><br><b>0</b><br><b>0</b><br><b>4</b><br><b>4</b><br><b>2</b>   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>38  | <b>72.4 11 89 0</b> 0 0 0 0 0 0 0 0 0 10  | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>#DIV/01 13 0 0 0 0 0 0 0 0 0 0</b>  | <b>84.6</b><br><b>14</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>55<br>0<br>0<br>0<br>14  
   | #DIV/0! 6<br>16 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0  | 17         1           71         7           3         0           0         0           5         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 8         1           7         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0   | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   
  | 21           126           0  | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>23 0 0 0 0 0 0 0 0 0 0</b>  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | <b>26</b><br><b>0</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8                             | <b>90.9</b><br><b>29</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>17<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>30</b><br>71<br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>12  |
| ality (%) = (%)/(7) × 100%<br>trail Equipment Effectiveness (OEE) %<br>hift B<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>CHASSIS-FINAL LINE<br>CHASSIS (%)<br>achine breakdown (%)<br>ocess o quality issue<br>(%)<br>ocess o quality issue<br>(%)<br>constant (%)<br>provide the second of the second of the second<br>constant (%)<br>w operator under training (%)<br>a tendence (Å)  | 100.0<br>5 -505.6<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | <b>#DIV/01</b><br><b>5</b><br><b>0</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
  | #DIV/01  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/0!  
   | <b>#DIV/01</b><br><b>9</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>72.4 111 899 0</b> 0 0 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0  | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>*#DIV/01 13 0 0 0 0 0 0 0 0 0 0</b>   | 84.6<br>14<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/0!         6           16         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 17         1           71         7           3         1           0         1           5         1           0         1           2         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1  | B         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0           0         0  | 1         80.8           21         126           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>23</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | <b>*DIV/01 26 0 0 0 0 0 0 0 0 0 0</b>  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>0                             | <b>90.9</b><br><b>29</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>17<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>12<br>0<br>0<br>0  |
| ality (%) = (%)/(7) × 100%<br>trail Equipment Effectiveness (OEE) %<br>hiff B<br>ChASSIS-FINAL LINE<br>nead downtime per Shift<br>whithe Loss<br>achine breakdown (G)<br>ols/ Jg (J)<br>coess quality issue (0)<br>obicle quality issue (0)<br>obicle quality issue (0)<br>obicle quality issue (0)<br>PC (H)<br>perator downstation (P)<br>perator downstation (P)<br>perator downstation (P)<br>ad attendance (A)<br>atting hanger (M)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>22<br>0<br>9<br>9<br>0<br>0<br>0<br>0<br>55<br>50<br>10   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | <b>*DIV/01 5 0 0 0 0 0 0 0 0 0 0</b>  
  | #DIV/01  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | <b>#DIV/01</b><br><b>9</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>72.4 11 89 0 0 0 0 0 0 0 0 0 0</b>   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>*#DIV/01 13 0 0 0 0 0 0 0 0 0 0</b>   | <b>84.6</b><br><b>14</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>7   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 16  | 17         1           71         7           3         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 6         1           11         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0           0         0           0         0           0         0  | 21           126           0  | 81.7           22           71           0   | <b>23 0 0 0 0 0 0 0 0 0 0</b>  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | *DIV/01  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0    | <b>29</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>177<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0          | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>12<br>0<br>0<br>12   |
| tilling (%) = (%) (7) x 100%     rall Equipment Effectiveness (OEE) %     hiff B     CHASSIS-FINAL LINE     ned downtime per Shift     minde Loss     cocess quality issue (0)     de Loss     cocess quality issue (0)     de dissis jammed (C)     reator downstation (P)     wo operator under training (N)     di attendance (A)     aliting hanger (W)     hers (B)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | <b>*DIV/01 5 0 0 0 0 0 0 0 0 0 0</b>  
  | #DIV/01           6           0  
   | 7         126         0         18         0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | <b>9</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>0<br>0<br>0<br>0<br>38<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>11</b><br><b>89</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>92.4</b><br><b>12</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 13         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 84.6           14           71           0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 16         0           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -           0         -  | 17         1           17         1           71         7           3         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0           0         0           0         0           0         0  | 21         21           126         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 22           71           0  | <b>23</b><br><b>0</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>26</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | <b>90.9</b><br><b>29</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>17<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>17<br>2<br>32         | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>12<br>0<br>0<br>0  |
| ilitry (%) = (8)/ (7) × 100% rail Equipment Effectiveness (OEE) % hiff B CHASSIS-FINAL LINE vaid downtime per Shift retime Loss chrine breakdown (G) do / Jg (J)   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>60.5</b><br><b>4</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>*</b> DIV/01<br><b>5</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   
  | #DIV/01           6           0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | <b>#DIV/01</b><br><b>9</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>72.4 11 89 0 0 0 0 0 0 0 0 0 0</b>   | <b>92.4</b><br><b>12</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 13         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 84.6           14           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 16         0         -   
     -      | 17         1           71         7           3         1           0         1           3         1           0         1           5         1           0         1           2         1  | 8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 9         20           1         0           0         0  | I         80.8           21         126           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   
   | 81.7<br>22<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>23</b> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>26 0 0 0 0 0 0 0 0 0 0</b>  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0    | <b>90.9</b><br><b>29</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                           | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   |
| itity (%) = (8)/ (7) × 100%.  rall Equipment Effectiveness (OEE) %  hiff B  CHASSIS-FINAL LINE  read downtime per Shift  rhime Loss chine breakdown (G)  ds / Jg (J)  ed Loss cocess quality issue (Q)  hicle quality issue (Q)  cocess quality issue (Q)  cocess quality issue (Q)  cocess quality issue (Q)  reator downstation (P)  we operator under training (N)  d attendance (A)  attendance (A)  attendance (A)  to perating hours per Shift   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>60.5</b><br><b>4</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | <b>*DIV/01 5 0 0 0 0 0 0 0 0 0 0</b>  
  | #DIV/01           6           0  
   | 7         126           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           615         5   
  | <b>#DIV/01</b><br><b>8</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   
   | <b>#DIV/01 9 0 0 0 0 0 0 0 0 0 13 0 0 13 0 13 0 14 2 0 0 145 0 1545</b>  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>0<br>0<br>0<br>38<br>0<br>0<br>0<br>6<br>0<br>1<br>6<br>0<br>1<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | <b>72.4 11 89 0 0 0 0 0 0 0 0 0 0</b>   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 84.6           14           71           0           605   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | 16         0           0         -  | 17         1           71         7           3         1           0         1           5         1           0         1           2         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           10         1           2         1           46         1           2         1           445         6  | 6         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0  | 21         21           126         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 81.7           22           71           0 <td><b>23 0 0 0 0 0 0 0 0 0 0</b></td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>90.9</b><br/><b>29</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>0<br/>12<br/>2<br/>0<br/>0<br/>2<br/>2<br/>545</td>  | <b>23 0 0 0 0 0 0 0 0 0 0</b>  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | <b>90.9</b><br><b>29</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                           | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>0<br>12<br>0<br>0<br>0<br>12<br>2<br>0<br>0<br>2<br>2<br>545  |
| list (%) = (8)/(7) × 100%     rail Equipment Effectiveness (OEE) %     hiff B         ChASSIS-FINAL LINE     ved downtime per Shift     writme Loss     coses quality issue (0)     ocess quality issue (0)     ocesto quality issue (0)     ocesto quality issue (0)     ocess quali  | 100.0<br>5 505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/01           6           0  
   | 108.0           7           126           0 </td <td>#DIV/01           8           0           545</td> <td><b>#DIV/01</b><br/><b>9</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b></td> <td>83.3           10           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           1         605           534</td> <td><b>72.4 11 89 0</b> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>92.4<br/>12<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>13         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>84.6           14           71           0<td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>16         0         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -</td><td>17         1           71         7           3         1           0         1           3         1           0         1           5         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           145         64</td><td>8         1           1         7           0         0           0         1           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>9         20           9         20           1         0           0         0</td><td>21           126           0           10           10           10           10           10           10           10           10           10           10           10           10</td><td>81.7           22           71           0     
     0           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/>2<br/>545<br/>474</td></td></td>   | #DIV/01           8           0           545  
   | <b>#DIV/01</b><br><b>9</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   | 83.3           10           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           1         605           534 | <b>72.4 11 89 0</b> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 84.6           14           71           0 <td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>16         0         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -</td> <td>17         1           71         7           3         1           0         1           3         1           0         1           5         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           145         64</td> <td>8         1           1         7           0         0           0         1           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>9         20           9         20           1         0           0         0</td> <td>21           126           0           10           10           10           10           10           10           10           10           10           10           10           10</td> <td>81.7           22           71           0<td>#DIV/01           23           0          
0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/>2<br/>545<br/>474</td></td>   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 16         0         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -          
0         -         -           0         -         -           0         -         -           0         -         -  | 17         1           71         7           3         1           0         1           3         1           0         1           5         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           145         64   | 8         1           1         7           0         0           0         1           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 9         20           9         20           1         0           0         0   | 21           126           0           10           10           10           10           10           10           10           10           10           10           10           10   
  | 81.7           22           71           0 <td>#DIV/01           23           0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/>2<br/>545<br/>474</td>  | #DIV/01           23           0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0    | 90.9<br>90.9<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>12<br>0<br>0<br>12<br>0<br>0<br>2<br>2<br>545<br>474   |
| Ality (%) = (8)/ (7) × 100%     Irall Equipment Effectiveness (OEE) %     hiff B     CHASSIS-FINAL LINE     need downtime per Shift     achine breakdown (G)     ols / Jg (J)     ded Loss     occess quality issue (Q)     period of training (N)     datendrarce (A)     aliting hanger (W)     hers (B)     ner Unit per day     al operating hours per Shift     need down Ime (G)     aliting hanger (W)     hers (B)     ner Ottoper day   | 100.0<br>505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/01           6           0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01           9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           45         0           1         545           545         545   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>72.4 111 89 0 0 0 0 0 0 0 0 0 0</b>  | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0   | 84.6           14           71           0 <td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01         6           16         0           0         0</td> <td>17         1           17         1           17         1           17         7           3         1           0         1           5         1           0         1           5         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           166         1           0         1           145         6           774         5</td> <td>B         1         7           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0         0           0</td> <td>9         20           1         0           0         0 
         0         0           0         0           0         0</td> <td>21         22           126         0           0         0<td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td></td></td>   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01         6           16         0           0         0  | 17         1           17         1           17         1           17         7           3         1           0         1           5         1           0         1           5         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           166         1           0         1           145         6           774         5  | B         1         7           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0         0           0         | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0  | 21         22           126         0           0         0 <td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td></td>  | 81.7           22           71           0 <td>#DIV/01           23           0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>30</b><br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td>  | #DIV/01           23           0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | 90.9<br>90.9<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>30</b><br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   |
| ality (%) = (%) (7) × 100%<br>trail Equipment Effectiveness (OEE) %<br>hiff B<br>ChASSIS-FINAL LINE<br>med downtime per Shift<br>writime Loss<br>achine breakdown (G)<br>ocess quality issue (0)<br>ocess quality issue (1)<br>operator downstation (P)<br>perator downstation (P)<br>perator downstation (P)<br>perator downstation (P)<br>perator downstation (P)<br>there dus<br>w operator under training (N)<br>ad attendance (A)<br>aditing hanger (W)<br>thers (B)<br>ine Unit per day<br>al operating hours per Shift<br>ned Production Time - (6) - (2A). (2B)<br>al Output Per Shift   | 100.0<br>5 -505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/01           6           0  
   | 108.0           7           126           0 </td <td>#DIV/01           8           0           545</td> <td><b>#DIV/01</b><br/><b>9</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b></td> <td>83.3<br/>10<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>72.4<br/>11<br/>89<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>92.4<br/>12<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>13         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>84.6           14           71           0<td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01         6           16         0           0         -</td><td>17         1           71         7           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           10         1           10         1           10         1           10         1           11         1           12         1           145         1           145         1           145         1           145         1           15         1           15         1           16         1           17         1           16         1           17         1</td><td>B         1         7           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0         0           0   
     0         0</td><td>9         20           9         20           1         0           0         0</td><td>21           126           0           10           10           10           10           10           10           10           10           10           10           10           10</td><td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30         30           71         0           0         0           0         0           0         12           0         12           0         2           545         474           474         61</td></td></td>   | #DIV/01           8           0           545  
   | <b>#DIV/01</b><br><b>9</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 84.6           14           71           0 <td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01         6           16         0           0         -</td> <td>17         1           71         7           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           10         1           10         1           10         1           10         1           11         1           12         1           145         1           145         1           145         1           145         1           15         1           15         1           16         1           17         1           16         1           17         1</td> <td>B         1         7           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0         0           0</td> <td>9         20           9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0          
0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>21           126           0           10           10           10           10           10           10           10           10           10           10           10           10</td> <td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30         30           71         0           0         0           0         0           0         12           0         12           0         2           545         474           474         61</td></td>  | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01         6           16         0           0         -  | 17         1           71         7           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           10         1           10         1           10         1           10         1           11         1           12         1           145         1           145         1           145         1           145         1           15         1           15         1           16         1           17         1           16         1           17         1  | B         1         7           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0         0           0         | 9         20           9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0     
   0           0         0   | 21           126           0           10           10           10           10           10           10           10           10           10           10           10           10  | 81.7           22           71           0 <td>#DIV/01           23           0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30         30           71         0           0         0           0         0           0         12           0         12           0         2           545         474           474         61</td>  | #DIV/01           23           0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0    | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 30         30           71         0           0         0           0         0           0         12           0         12           0         2           545         474           474         61   |
| ality (%) = (%) (7) × 100%<br>snall Equipment Effectiveness (OEE) %<br>hift B<br>ChASSIS-FINAL LINE<br>med downtime per Shift<br>writime Loss<br>achine breakdown (G)<br>achine breakdown (G)<br>obs? / dg (.)<br>perator downstation (P)<br>perator downstation (P)<br>perator downstation (P)<br>perator downstation (P)<br>perator downstation (P)<br>there day<br>w operator under training (N)<br>ad attendance (A)<br>atting hanger (W)<br>thers (B)<br>ine Unit per day<br>al operating hours per Shift<br>node Production Time = (6) - (2A) - (2B)<br>at Output Per Shift  | 100.0<br>505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/01           6           0  
   | 108.0<br>7<br>126<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01           9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           45         0           1         545           545         545   | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>72.4 111 89 0 0 0 0 0 0 0 0 0 0</b>  | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0   | 84.6           14           71           0 <td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01         6           16         0           0         -</td> <td>17         1           71         7           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           10         1           10         1           10         1           10         1           10         1           10         1           11         1           12         1           146         1           146         1           145         1           145         1           145         1           15         1           15         1           16         1           17         1           16         1           16         1           17         1</td> <td>B         1         7           D         C         0         C           D         C         0         C           D         C         0         C           D         C         0         C           D         C         0         C           D         C         0         C         0           D         C         0         C         0         0         C         0</td> <td>9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0
          0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>21         22           126         0           0         0<td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td></td></td>  | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01         6           16         0           0         -  | 17         1           71         7           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           10         1           10         1           10         1           10         1           10         1           10         1           11         1           12         1           146         1           146         1           145         1           145         1           145         1           15         1           15         1           16         1           17         1           16         1           16         1           17         1   | B         1         7           D         C         0         C           D         C         0         C           D         C         0         C           D         C         0         C           D         C         0         C           D         C         0         C         0           D         C         0         C         0         0         C         0                         | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0  | 21         22           126         0           0         0 <td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td></td>  | 81.7           22           71           0 <td>#DIV/01           23           0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>90.9<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>30</b><br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td>  | #DIV/01           23           0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | 90.9<br>90.9<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>30</b><br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   |
| ality (%) = (%) / (7) × 100%<br>anall Equipment Effectiveness (OEE) %<br>hiff B<br>ChaSSIS-FINAL LINE<br>ChaSSIS-FINAL LINE<br>And downtime per Shit<br>whitme Loss<br>achine breakdown (6)<br>obs/ Jg (J)<br>bede Loss<br>cocess quality issue (0)<br>opicies (2)<br>perator downstation (P)<br>PC (H)<br>heasis jammed (C)<br>perator downstation (P)<br>ex opentor under training (N)<br>ad atterdance (A)<br>(aliting hanger (W)<br>thers (B)<br>me Unt per day<br>al operating hours per Shit<br>ned Production Time = (4) - (1)<br>reduct per Shit<br>Product per Shit   | 100.0<br>505.6<br>10.0<br>505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/0!           6           0  
   | 7         108.0           7         126           0         0 </td <td>#DIV/01<br/>8<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01           9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           4         2           0         0           1         1           545         545           52         51</td> <td>83.3<br/>10<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>72.4<br/>11<br/>89<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>92.4<br/>12<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>13         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0</td> <td>84.6           14           71           0           1           1           1           1           0           0           0           0           0           0           0<td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01         6           16         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         2           0         4           0         4           0         4</td><td>17         1           17         1           171         7           3         1           0         1           1         5           66         4           66         4           64         4</td><td>8         1           7         7           0         0  
        0         0           0         1           0         0           0         0           0         0           0         0           0         0</td><td>9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0</td><td>21           126           0</td><td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b></td></td></td>   | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01           9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           4         2           0         0           1         1           545         545           52         51  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0   | 84.6           14           71           0           1           1           1           1           0           0           0           0           0           0           0 <td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01         6           16         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         2           0         4           0         4           0         4</td> <td>17         1           17         1           171         7           3         1           0         1           1         5           66         4           66         4           64         4</td> <td>8         1           7         7           0         0           0         1           0         0           0         0           0         0           0         0           0         0</td> <td>9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0</td> <td>21           126           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0          
0           0</td> <td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b></td></td>  | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
  | #DIV/01         6           16         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         2           0         4           0         4           0         4  | 17         1           17         1           171         7           3         1           0         1           1         5           66         4           66         4           64         4   | 8         1           7         7           0         0           0         1           0         0           0         0           0         0           0         0           0         0   | 9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0           0         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0  | 21           126           0  | 81.7           22           71           0 <td>#DIV/01           23           0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>30</b><br/><b>71</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b><br/><b>0</b></td>  | #DIV/01           23           0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>30</b><br><b>71</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b><br><b>0</b>  |
| ality (%) = (%) / (7) × 100%<br>erail Equipment Effectiveness (OEE) %<br>hift B<br>CHASSIS-FINAL LINE<br>med downtine per Shift<br>writime Loss<br>achine breakdown (S)<br>achine breakdown (S)<br>obci / dg ()<br>bed Loss<br>achine breakdown (S)<br>obci / dg ()<br>bed Coss<br>achine breakdown (S)<br>obci / dg ()<br>bed Coss<br>achine breakdown (S)<br>obci / dg ()<br>bed Coss<br>achine breakdown (S)<br>bed Coss<br>achine breakdown (S)<br>a Coss<br>a | 100.0<br>5-505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 7           126           0           18           10           0           0           0           0           0           13           1489           489           71 <t< td=""><td>#DIV/01<br/>8<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01           9           0           133           0           0           0           0           0           0           0           1545           545           52           51           52           51</td><td>83.3<br/>10<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>72.4<br/>11<br/>89<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>92.4<br/>12<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>13         0           0         0</td><td>84.6           14           71           0</td></t<> <td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01         6           16         0           0         -</td> <td>17         1           71         7           3         1           0         1           3         1           0         1           5         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           1         1           0         1           1         1           1         1           1         1           5         1           1         1           1         1           5         1           5         1           5         1           5         1           5         5           6         4           4         4           0.04         7</td> <td>8         1         7           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         C         C           44         7         4         7           40         7         40         7.04</td> <td>9         20           1         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0         0           16         0         0         0           16         0         0         0         0           16         0         0         0         0           16         0         0         0         0           16         0         0         0         0      16         0</td> <td>21           126           0</td> <td>81.7           22           71           0    
      0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01           26           0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30         30           71         0           0         0           0         0           13         0           0         12           0         0           12         0           2         545           4774         474           61         59           7.04         7.04</td></td> | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01           9           0           133           0           0           0           0           0           0           0           1545           545           52           51           52           51               | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0   | 84.6           14           71           0   
   | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01         6           16         0           0         -   
  | 17         1           71         7           3         1           0         1           3         1           0         1           5         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           1         1           0         1           1         1           1         1           1         1           5         1           1         1           1         1           5         1           5         1           5         1           5         1           5         5           6         4           4         4           0.04         7   | 8         1         7           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         0         C           0         C         C         C           44         7         4         7           40         7         40         7.04   | 9         20           1         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0         0           16         0         0         0           16         0         0         0         0           16         0         0         0         0           16         0         0         0         0           16         0         0         0         0      16         0 | 21           126           0  
   | 81.7           22           71           0 <td>#DIV/01           23           0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01           26           0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30         30           71         0           0         0           0         0           13         0           0         12           0         0           12         0           2         545           4774         474           61         59           7.04         7.04</td>  | #DIV/01           23           0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01           26           0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 30         30           71         0           0         0           0         0           13         0           0         12           0         0           12         0           2         545           4774         474           61         59           7.04         7.04                              |
| ality (%) = (%) / (7) × 100%<br>erail Equipment Effectiveness (OEE) %<br>hifft B<br>CHASSIS-FINAL LINE<br>nined downtime per Shit<br>wittine Loss<br>lachine breakdown (6)<br>oos/s / Jg (J)<br>eed Loss<br>rocess quality issue (0)<br>ehicle quality issue (0)<br>ehicle quality issue (0)<br>ehicle quality issue (0)<br>ehicle quality issue (0)<br>episters (D)<br>PC (H)<br>hassis jammed (C)<br>perator downstation (P)<br>ew operator under training (N)<br>ad attendance (A)<br>failing hanger (W)<br>thes (B)<br>ine Unit per day<br>al operating hours per Shitt<br>and operating hours per Shitt<br>and Operation Time = (4) - (1)<br>Froducti per Shitt = (7) - (3)<br>tual cycle time  | 100.0<br>100.0<br>100.0<br>100.0<br>100.0<br>100.0<br>100<br>10  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/0!           6           0  
   | 7         126           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           71         7489           771         771           7.18         510  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 9         0           0         0           0         0           0         0           0         0           13         0           0         0           0         0           0         0           0         0           445         0           1         545           545         545           52         51           7.18         378  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>111<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                  | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 13         0           0         0   | 84.6           14           71           0 <td>101.5           15           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           311           0           0           545           54           55           56           57           58<td>#DIV/01         6           16         0           0         -</td><td>17         1           17         1           3         1           0         1           3         1           0         1           1         1           1         1           1         1           1         1           1         1           1         1           1         1           1         1</td><td>8         1           1         7           0         0           0         4           7         0           0         4           0         0</td><td>9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3      
  0           3         0           3         0           44         0           0         0         0           3         0         0           3         0         0           44         0         0         0           3         0         0         0           3         0         0         0           3         0         0         0           10         0         0         0           13         0         0         0</td><td>21         30.8           126         0           0         0<!--</td--><td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>53.0</b><br/><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>545<br/>474<br/>61<br/>59<br/><b>7.0</b><br/><b>7.1</b><br/><b>7.1</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td></td></td></td>  | 101.5           15           71           0           0           0           0           0           0           0           0           0           0           0           0           0           0           311           0           0           545           54           55           56           57           58 <td>#DIV/01         6           16         0           0         -</td> <td>17         1           17         1           3         1           0         1           3         1           0         1           1         1           1         1           1         1           1         1           1         1           1         1           1         1           1         1</td> <td>8         1           1         7           0         0           0         4           7         0           0         4           0         0</td> <td>9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           44         0           0         0         0           3         0         0           3         0         0           44         0         0         0           3         0         0         0           3         0         0         0           3         0         0         0           10         0         0         0           13         0         0         0</td> <td>21         30.8           126         0           0         0<!--</td--><td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0           0         0           0         0           0         0           0         0           0       
 0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>53.0</b><br/><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>545<br/>474<br/>61<br/>59<br/><b>7.0</b><br/><b>7.1</b><br/><b>7.1</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td></td></td> | #DIV/01         6           16         0           0         -  | 17         1           17         1           3         1           0         1           3         1           0         1           1         1           1         1           1         1           1         1           1         1           1         1           1         1           1         1  | 8         1           1         7           0         0           0         4           7         0           0         4           0         0   | 9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           44         0           0         0         0       
   3         0         0           3         0         0           44         0         0         0           3         0         0         0           3         0         0         0           3         0         0         0           10         0         0         0           13         0         0         0  | 21         30.8           126         0           0         0 </td <td>81.7           22           71           0<td>#DIV/01           23           0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>26         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>53.0</b><br/><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>545<br/>474<br/>61<br/>59<br/><b>7.0</b><br/><b>7.1</b><br/><b>7.1</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td></td>  | 81.7           22           71           0 <td>#DIV/01           23           0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>26         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>53.0</b><br/><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>13<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>0<br/>0<br/>12<br/>545<br/>474<br/>61<br/>59<br/><b>7.0</b><br/><b>7.1</b><br/><b>7.1</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td>   | #DIV/01           23           0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 26         0           0         0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>53.0</b><br><b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>13<br>0<br>0<br>12<br>0<br>0<br>12<br>0<br>0<br>12<br>545<br>474<br>61<br>59<br><b>7.0</b><br><b>7.1</b><br><b>7.1</b><br><b>0</b><br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          |
| ality (%) = (%) / (7) × 100%<br>erail Equipment Effectiveness (OEE) %<br>hift B<br>CHASSIS-FINAL LINE<br>mod downtine per Shift<br>writime Loss<br>lachine breakdown (G)<br>ools / Jg (J)<br>achine breakdown (G)<br>ools / Jg (J)<br>bede Loss<br>achine breakdown (G)<br>ools / Jg (J)<br>holice quality issue (J)<br>ools / Jg (J)<br>bede Loss<br>achine breakdown (G)<br>ools / Jg (J)<br>bede Loss<br>achine breakdown (G)<br>ools / Jg (J)<br>bede Loss<br>achine breakdown (G)<br>bede Loss<br>achine breakdown (G   | 100.0         .           -505.6         -           71         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         545           100.0         0           5444         48           7.18         345           100.0         100.0 | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0   
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 7         126         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           0         0         0         0           18         0         0         0           615         489         489         71           7.18         510         100.0         0  
  | #DIV/01<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | #DIV/01           9           0           13           0           0           0           0           0           13           0           0           15           545           52           51           373           103.0 | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4           12           71           0           1           545           474           62           61           7.18           445           100.0 | 13         0           0         0         0 | 84.6           71           0 <td>101.5           15           71           0<!--</td--><td>#DIV/01         6           16         0           0         -&lt;</td><td>17         1           171         1           171         1           171         1           171         1           171         1           171         1           13         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           1         55           66         4           1         54           4         3           9.4         3</td><td>6         1           1         7           0         0</td><td>9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           4         0           0         0</td><td>21         26.8           126         0           0         0<!--</td--><td>81.7           71           0          
100.0</td><td>#DIV/01<br/>23<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30         30           71         0           0         0           0         0           0         12           0         0           12         0           12         0           12         0           545         545           545         545           57.04         61           100.0         100.0</td></td></td>  | 101.5           15           71           0 </td <td>#DIV/01         6           16         0           0         -&lt;</td> <td>17         1           171         1           171         1           171         1           171         1           171         1           171         1           13         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           1         55           66         4           1         54           4         3           9.4         3</td> <td>6         1           1         7           0         0</td> <td>9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           4         0           0         0</td> <td>21         26.8           126         0           0         0<!--</td--><td>81.7           71           0           100.0</td><td>#DIV/01<br/>23<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30         30           71         0           0         0           0         0           0         12           0         0           12         0           12         0           12         0           545         545           545         545           57.04         61           100.0         100.0</td></td>  | #DIV/01         6           16         0           0         -<                                   
   | 17         1           171         1           171         1           171         1           171         1           171         1           171         1           13         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           1         55           66         4           1         54           4         3           9.4         3   | 6         1           1         7           0         0   | 9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           4         0           0         0  | 21         26.8           126         0           0         0 </td <td>81.7           71           0           100.0</td>
<td>#DIV/01<br/>23<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30         30           71         0           0         0           0         0           0         12           0         0           12         0           12         0           12         0           545         545           545         545           57.04         61           100.0         100.0</td>   | 81.7           71           0           100.0  | #DIV/01<br>23<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 30         30           71         0           0         0           0         0           0         12           0         0           12         0           12         0           12         0           545         545           545         545           57.04         61           100.0         100.0 |
| ality (%) = (%) / (7) x 100%<br>arall Equipment Effectiveness (OEE) %<br>hiff B<br>Chassis-FinAL LINE<br>Chassis-FinAL LINE<br>Chassis-FinAL LINE<br>achine breakdown (G)<br>ods/ Jg (J)<br>belce quality issue (0)<br>obicle quality issue (0)<br>DPC (H)<br>hassis jammed (C)<br>perator downstation (P)<br>we operator under training (N)<br>ad attendance (A)<br>adiation filme = (J) - (2A) - (2B)<br>ad Operating hours per Shift<br>and Operation Time = (J) - (3)<br>ual cycle time<br>Operator Time = (T) x (0)<br>iliability (%) = (6) / (5) x 100%.   | 100.0<br>100.0<br>5-505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           5           0 </td <td>#DIV/01           6           0<!--</td--><td>7         126           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           18         489           711         711           718         510           100.0         104.2</td><td>#DIV/01           8           0<!--</td--><td>9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           13         0           4         4           0         0           1         545           545         545           518         373           100.0         68.5</td><td>83.3<br/>10<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>72.4<br/>11<br/>89<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>92.4           12           71           0           10           93.9</td><td>13         0           0         0         0</td><td>84.6           14           71           0           100.0           90.1</td><td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01         6           16         0           0         -&lt;</td><td>17         1           171         7           3         1           0         1           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           12         1           445         6           74         5           56         4           4         3           9.4         10           3.7         54</td><td>8         1           1         7           0         0           0
        0           0         0           0         0           0         0           0         0           0         0           0         10           0         0</td><td>9         20           9         20           1         0           0         0           14         0           0         0           0         0           0         0           0         0           0         0</td><td>21         26           126         0           0         0<td>81.7           22           71           0           2           2           7           4           4           4           4           4           4           4           4           4<td>#DIV/01           23         0           0         0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01           26           0&lt;</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>113<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/><b>547</b><br/>474<br/>61<br/>0<br/>2<br/><b>545</b><br/>474<br/>61<br/>90,6</td></td></td></td></td> | #DIV/01           6           0 </td <td>7         126           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           18         489           711         711           718         510           100.0         104.2</td> <td>#DIV/01           8           0<!--</td--><td>9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           13         0           4         4           0         0           1         545           545         545           518         373           100.0         68.5</td><td>83.3<br/>10<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>72.4<br/>11<br/>89<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>92.4           12           71           0           10           93.9</td><td>13         0           0         0         0</td><td>84.6           14           71           0           100.0           90.1</td><td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01         6           16         0           0         -&lt;</td><td>17         1           171         7           3         1           0         1           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           12    
    1           445         6           74         5           56         4           4         3           9.4         10           3.7         54</td><td>8         1           1         7           0         0           0         10           0         0</td><td>9         20           9         20           1         0           0         0           14         0           0         0           0         0           0         0           0         0           0         0</td><td>21         26           126         0           0         0<td>81.7           22           71           0           2           2           7           4           4           4           4           4           4           4           4           4<td>#DIV/01           23         0           0         0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01           26           0&lt;</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>113<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/><b>547</b><br/>474<br/>61<br/>0<br/>2<br/><b>545</b><br/>474<br/>61<br/>90,6</td></td></td></td> | 7         126           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           18         489           711         711           718         510           100.0         104.2  
  | #DIV/01           8           0 </td <td>9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           13         0           4         4           0         0           1         545           545         545           518         373           100.0         68.5</td> <td>83.3<br/>10<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>72.4<br/>11<br/>89<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>92.4           12           71           0           10           93.9</td> <td>13         0           0         0         0</td> <td>84.6           14           71           0           100.0           90.1</td> <td>101.5<br/>15<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01         6           16         0           0         -&lt;</td> <td>17         1           171         7           3         1           0         1           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           12         1           445         6           74         5           56         4           4         3           9.4         10           3.7         54</td> <td>8         1           1         7           0         0           0         10           0         0</td> <td>9         20           9         20           1         0           0        
0           0         0           0         0           0         0           0         0           0         0           14         0           0         0           0         0           0         0           0         0           0         0</td> <td>21         26           126         0           0         0<td>81.7           22           71           0           2           2           7           4           4           4           4           4           4           4           4           4<td>#DIV/01           23         0           0         0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01           26           0&lt;</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>113<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/><b>547</b><br/>474<br/>61<br/>0<br/>2<br/><b>545</b><br/>474<br/>61<br/>90,6</td></td></td> | 9         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           13         0           4         4           0         0           1         545           545         545           518         373           100.0         68.5  | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4           12           71           0           10           93.9  | 13         0           0         0         0   | 84.6           14           71           0           100.0           90.1   
  | 101.5<br>15<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   
   | #DIV/01         6           16         0           0         -<   | 17         1           171         7           3         1           0         1           3         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           0         1           12         1           445         6           74         5           56         4           4         3           9.4         10           3.7         54  | 8         1           1         7           0         0           0         10           0         0  | 9         20           9         20           1         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0      
  0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           14         0           0         0           0         0           0         0           0         0           0         0  | 21         26           126         0           0         0 <td>81.7           22           71           0           2           2           7           4           4           4           4           4           4           4           4           4<td>#DIV/01           23         0           0         0</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01           26           0&lt;</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>113<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/><b>547</b><br/>474<br/>61<br/>0<br/>2<br/><b>545</b><br/>474<br/>61<br/>90,6</td></td> | 81.7           22           71           0           2           2           7           4           4           4           4           4           4           4           4           4 <td>#DIV/01           23         0           0         0</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01           26           0&lt;</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>22<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td><b>30</b><br/><b>71</b><br/><b>0</b><br/>0<br/>0<br/>0<br/>0<br/>113<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>0<br/>12<br/>0<br/>0<br/>2<br/><b>547</b><br/>474<br/>61<br/>0<br/>2<br/><b>545</b><br/>474<br/>61<br/>90,6</td> | #DIV/01           23         0           0         0 | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01           26           0<  | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>22<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | <b>30</b><br><b>71</b><br><b>0</b><br>0<br>0<br>0<br>0<br>113<br>0<br>0<br>0<br>12<br>0<br>0<br>0<br>12<br>0<br>0<br>2<br><b>547</b><br>474<br>61<br>0<br>2<br><b>545</b><br>474<br>61<br>90,6  |
| ality (%) = (8) / (7) × 100%<br>erail Equipment Effectiveness (OEE) %<br>bhift B<br>CHASSIS-FINAL LINE<br>Anned downtime per Shift<br>writtine Loss<br>lachine breakdown (G)<br>ools / Jg (J)<br>eed Loss  | 100.0<br>100.0<br>5-505.6<br>1<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | -536.0<br>2<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | 83.4<br>3<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 60.5<br>4<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                  | #DIV/01           #DIV/01           0           <   
  | #DIV/01<br>6<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  
   | 108.0           7           126           0           18           0           0           0           0           0           17           18           100.0           100.0  
  | B         0           0         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0           10         0  
   | #DIV/01           9           0           13           0           0           0           0           0           13           0           0           15           545           52           51           373           103.0 | 83.3<br>10<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 72.4<br>11<br>89<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                   | 92.4<br>12<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | #DIV/01           13         0           0         0                                   | 84.6           14           71           0 <td>101.5           15           71           0           10           100.0</td> <td>#DIV/01         6           0         -<!--</td--><td>17         1           171         1           171         1           171         1           100         1         1           100         1         1         1           100         1         1         1         1           100         1         1         1         1           100         <th1< th="">         1         1         <th1< th=""></th1<></th1<></td><td>8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         4           7         7           4         7           4         7           0         45           0.0         10           0         45           0.0         10</td><td>9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0          
3         0           3         0           3         0           3         0           3         0           3         0           3         0           4         0           0         0</td><td>21         30.8           126         0           0         0      0         0         &lt;</td><td>81.7           71           0           100.0</td><td>#DIV/01           23           0&lt;</td><td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>#DIV/01           26         0           0         0</td><td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td><td>30         30           71         0           0         0           0         0           0         12           0         0           12         0           12         0           12         0           545         545           545         545           57.04         61           100.0         100.0</td></td> | 101.5           15           71           0           10           100.0   
   | #DIV/01         6           0         - </td <td>17         1           171         1           171         1           171         1           100         1         1           100         1         1         1           100         1         1         1         1           100         1         1         1         1           100         <th1< th="">         1         1         <th1< th=""></th1<></th1<></td> <td>8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         4           7         7           4         7           4         7           0         45           0.0         10           0         45           0.0         10</td> <td>9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           4         0           0         0</td> <td>21         30.8           126         0           0         0      0         0         &lt;</td> <td>81.7           71           0           100.0</td> <td>#DIV/01           23           0&lt;</td> <td>24<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>25<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>#DIV/01           26         0           0         0</td> <td>27<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>28<br/>71<br/>22<br/>0<br/>0<br/>20<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>90.9<br/>29<br/>71<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0<br/>0</td> <td>30         30           71         0           0         0           0         0           0         12           0         0           12         0           12         0           12         0           545         545           545         545           57.04         61           100.0         100.0</td> | 17         1           171         1           171         1           171         1           100         1         1           100         1         1         1           100         1         1         1         1           100         1         1         1         1           100 <th1< th="">         1         1         <th1< th=""></th1<></th1<> | 8         1           1         7           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         4           7         7           4         7           4         7           0         45           0.0         10           0         45           0.0         10   | 9         20           1         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           3         0           4     
   0           0         0  | 21         30.8           126         0           0         0      0         0         <  | 81.7           71           0           100.0  | #DIV/01           23           0<  | 24<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 25<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | #DIV/01           26         0           0         0 | 27<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 28<br>71<br>22<br>0<br>0<br>20<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0     | 90.9<br>29<br>71<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 30         30           71         0           0         0           0         0           0         12           0         0           12         0           12         0           12         0           545         545           545         545           57.04         61           100.0         100.0 |

### **APPENDIX C**

# C1: Control Chart Data for Availability by Shifts

		shif	t A					shif	t B		
	DAY	AVAILABILITY (p)	CENTER (P-BAR)	UCL	LCL		DAY	1	CENTER (P-BAR)	UCL	LCL
	1	1	0.9909	1.003985	0.977815		1	1	0.999	1.003355	0.994645
	2	1	0.9909	1.003985	0.977815		2	1	0.999	1.003355	0.994645
	3	1	0.9909	1.003985	0.977815		3	1	0.999	1.003355	0.994645
	6	1	0.9909	1.003985	0.977815		6	1	0.999	1.003355	0.994645
	7	1	0.9909	1.003985	0.977815		7	1	0.999	1.003355	0.994645
	8	1	0.9909	1.003985	0.977815		8	1	0.999	1.003355	0.994645
	9	1	0.9909	1.003985	0.977815		9	1	0.999	1.003355	0.994645
	10	1	0.9909	1.003985	0.977815		10	1	0.999	1.003355	0.994645
	11	1	0.9909	1.003985	0.977815		11	1	0.999	1.003355	0.994645
july	13	1	0.9909	1.003985	0.977815	july	13	1	0.999	1.003355	0.994645
	14	1	0.9909	1.003985	0.977815		14	1	0.999	1.003355	0.994645
	22	1	0.9909	1.003985	0.977815		22	1	0.999	1.003355	0.994645
	23	1	0.9909	1.003985	0.977815		23	1	0.999	1.003355	0.994645
	24	0.995780591	0.9909	1.003985	0.977815		24	1	0.999	1.003355	0.994645
	27	0.976793249	0.9909	1.003985	0.977815		27	1	0.999	1.003355	0.994645
	28	1	0.9909	1.003985	0.977815		28	1	0.999	1.003355	0.994645
	29	1	0.9909	1.003985	0.977815		29	1	0.999	1.003355	0.994645
	30	0.981012658	0.9909	1.003985	0.977815		30	1	0.999	1.003351	0.994649
	30	1	0.9909	1.003383	0.978572		30	1	0.999	1.003303	0.994897
	4	1	0.9909	1.003228	0.978572		4	1	0.999	1.003355	0.994645
	5	1	0.9909	1.003228	0.978572		5	1	0.999	1.003303	0.994897
	6	1	0.9909	1.003228	0.978572		6	1	0.999	1.003103	0.994897
	7	1	0.9909	1.003220	0.977815		7	1	0.999	1.003288	0.994712
	10	0.945147679	0.9909	1.003985	0.977815		10	1	0.999	1.003288	0.994897
	10	1	0.9909	1.003985	0.977815		10	1	0.999	1.003103	0.995049
	15	1	0.9909	1.003985	0.977815		11	1	0.999	1.002351	0.994645
	15	0.917721519	0.9909	1.003985	0.977815		13	1	0.999	1.003355	0.994645
august	17	0.983146067	0.9909	1.003985	0.97815			1	0.999	1.003103	0.994897
	18		0.9909	1.003228	0.978572	august	15 17	1	0.999	1.003355	0.994645
	20	1	0.9909	1.003228	0.978572		17	1	0.999	1.003355	0.994645
	20	1	0.9909	1.003985	0.97815		18	1	0.999	1.003103	0.994897
	21	1	0.9909	1.003228	0.978572		20	1	0.999	1.003103	0.994897
	22	1	0.9909	1.003985	0.977815		20	1	0.999	1.003355	0.994645
	25	0.921940928	0.9909	1.003985	0.977815		22	1	0.999	1.003355	0.994645
	26	1	0.9909	1.003985	0.977815		24	1	0.999	1.003355	0.994645
	27	1	0.9909	1.003985	0.977815		25	1	0.999	1.003355	0.994645
	3	0.979400749	0.9909	1.003228	0.978572		26	1	0.999	1.003355	0.994645
	4	0.962546816	0.9909	1.003228	0.978572		27	1	0.999	1.003355	0.994645
	10	0.983122363	0.9909	1.003985	0.977815		1	1	0.999	1.003355	0.994645
	11	0.980263158	0.9909	1.004241	0.977559		2	1	0.999	1.003355	0.994645
	12	1	0.9909	1.003985	0.977815		3	1	0.999	1.003103	0.994897
	14	0.989669421	0.9909	1.003849	0.977951		4	1	0.999	1.003355	0.994645
sept	17	0.993670886	0.9909	1.003985	0.977815		7	1	0.999	1.003288	0.994712
	18	1	0.9909	1.003228	0.978572		8	1	0.999	1.003062	0.994938
	19	0.985018727	0.9909	1.003228	0.978572		9	1	0.999	1.003062	0.994938
	21	0.991649269	0.9909	1.003916	0.977884		10	1	0.999	1.003103	0.994897
	22	1	0.9909	1.003985	0.977815		11	1	0.999	1.002951	
	28	0.991561181	0.9909	1.003985	0.977815	sept	12	1	0.999		0.994645
	29	0.970464135	0.9909	1.003985	0.977815		14	1	0.999	1.003103	0.994897
	30	0.995780591	0.9909	1.003985	0.977815		15	1	0.999	1.003355	0.994645
							17	0.993670886	0.999	1.003355	0.994645
							18	1	0.999	1.003355	0.994645
							19	1	0.999	1.003355	0.994645
							21	1	0.999	1.003355	0.994645
							22	1	0.999	1.003355	0.994645
							28	0.953586498	0.999	1.003355	0.994645
							29	1	0.999	1.003355	0.994645
		1					30	1	0.999	1.003355	0.994645

## C2: Control Chart Data for Performance by Shifts

		shift	A					shift	В		
	DAY	PERFORMANCE (p)	CENTER P BAR	UCL	LCL		DAY	PERFORMANCE (P)	CENTER P BAR	UCL	LCL
	1	0.833333333	0.8512	0.90024	0.80216		1	0.848101266	0.824	0.876475	0.771525
	2	0.833333333	0.8512	0.90024	0.80216		2	0.803797468	0.824	0.876475	0.771525
	3	0.757383966	0.8512	0.90024	0.80216		3	0.862869198	0.824	0.876475	0.771525
	6	0.9092827	0.8512	0.90024	0.80216		6	0.924050633	0.824	0.876475	0.771525
	7	0.862869198	0.8512	0.90024	0.80216		7	0.9092827	0.824	0.876475	0.771525
	8	0.953586498	0.8512	0.90024	0.80216		8	0.9092827	0.824	0.876475	0.771525
_	9	0.757383966	0.8512	0.90024	0.80216		9	0.833333333	0.824	0.876475	0.771525
_	10	0.757383966	0.8512	0.90024	0.80216		10	0.772151899	0.824	0.876475	0.771525
july	11	0.786919831	0.8512	0.90024	0.80216	july	11	0.757383966	0.824	0.876475	0.771525
Jury	13	0.803797468	0.8512	0.90024	0.80216	Jury	13	0.848101266	0.824	0.876475	0.771525
_	14	0.833333333	0.8512	0.90024	0.80216		14	0.786919831	0.824	0.876475	0.771525
L	22	0.862869198	0.8512	0.90024	0.80216		22	0.848101266	0.824	0.876475	0.771525
	23	0.848101266	0.8512	0.90024	0.80216		23	0.757383966	0.824	0.876475	0.771525
_	24	0.851694915	0.8512	0.900344	0.802056		24	0.772151899	0.824	0.876475	0.771525
_	27	0.805615551	0.8512	0.900819	0.801581		27	0.848101266	0.824	0.876475	0.771525
_	28	0.848101266	0.8512	0.90024	0.80216		28	0.757383966	0.824	0.876475	0.771525
	29	0.848101266	0.8512	0.90024	0.80216		29	0.757383966	0.824	0.876475	0.771525
	30	0.849462366	0.8512	0.900712	0.801688		30	0.861052632	0.824	0.87642	0.77158
Ļ	3	0.941947566	0.8512	0.897403	0.804997		3	0.941947566	0.824	0.873439	0.774561
	4	0.779026217	0.8512	0.897403	0.804997		4	0.848101266	0.824	0.876475	0.771525
-	5	0.887640449	0.8512	0.897403	0.804997		5	0.807116105	0.824	0.873439	0.774561
-	6	0.833333333	0.8512	0.897403	0.804997		6	0.833333333	0.824	0.873439	0.774561
-	7	0.938818565	0.8512	0.90024	0.80216		7	0.895705521	0.824	0.875664	0.772336
-	10	0.832589286	0.8512	0.901643	0.800757		10	0.713483146	0.824	0.873439	0.774561
-	13	0.970464135	0.8512	0.90024	0.80216		11	0.798611111	0.824	0.871603	0.776397
-	15	0.757383966	0.8512	0.90024	0.80216		13	1	0.824	0.876475	0.771525
august	17	0.937931034	0.8512	0.902391	0.800009		14	0.900749064	0.824	0.873439	0.774561
-	18	0.67047619	0.8512	0.897797	0.804603	august	15	0.757383966	0.824	0.876475	0.771525
-	19	0.737827715	0.8512	0.897403	0.804997	-	17	0.565400844	0.824	0.876475	0.771525
-	20	0.890295359	0.8512	0.90024	0.80216		18	0.632958801	0.824	0.873439	0.774561
-	21	0.923220974	0.8512	0.897403	0.804997		18	0.632958801	0.824	0.873439	0.774561
-	22	0.981012658	0.8512	0.90024	0.80216		20	0.890295359	0.824	0.876475	0.771525
-	24	0.936708861	0.8512	0.90024	0.80216		21	0.8200409	0.824	0.875664	0.772336
-	25	0.981693364	0.8512	0.902274	0.800126		22	0.801687764	0.824	0.876475	0.771525
-	26 27	0.966244726	0.8512	0.90024	0.80216		24 25	0.995780591	0.824	0.876475	0.771525
	3	0.742616034 0.864244742	0.8512	0.90024	0.80216		25	0.995780591 1.040084388	0.824	0.876475	0.771525
ŀ	4	0.69844358	0.8512	0.898293	0.804314		20	0.786919831	0.824	0.876475	0.771525
F	10	0.847639485	0.8512	0.898295	0.804107		1	0.727848101	0.824	0.876475	0.771525
F	10	0.738255034	0.8512	0.901699	0.800701		2	0.786919831	0.824	0.876475	0.771525
ŀ	11	0.924050633	0.8512	0.901099	0.800701		3	0.765917603	0.824	0.873439	0.774561
ŀ	12	0.853862213	0.8512	0.899983	0.80210		4	0.9092827	0.824	0.876475	0.771525
ŀ	14	0.851380042	0.8512	0.900396	0.802417		7	1.042944785	0.824	0.875664	0.772336
sept	18	0.923220974	0.8512	0.897403	0.804997		8	0.803669725	0.824	0.872938	0.775062
ŀ	10	0.950570342	0.8512	0.897753	0.804647		9	0.68440367	0.824	0.872938	0.775062
F	21	0.903157895	0.8512	0.900188	0.802212		10	0.752808989	0.824	0.873439	0.774561
ŀ	22	0.845991561	0.8512	0.90024	0.80216		11	0.748263889	0.824	0.871603	0.776397
F	28	0.885106383	0.8512	0.900448	0.801952		12	0.938818565	0.824	0.876475	0.771525
ŀ	29	0.936956522	0.8512		0.801419	sept	14	0.900749064	0.824	0.873439	
ŀ	30	0.622881356	0.8512		0.802056		15	0.666666666	0.824	0.876475	
	-		-				17	0.836518047	0.824		0.771525
							18	0.580524345	0.824	0.876475	
							19	0.923220974	0.824	0.876475	
							21	0.862985685	0.824	0.876475	
							22	0.845991561	0.824	0.876475	
							28	0.871681416	0.824	0.876475	0.771525
							29	0.742616034	0.824	0.876475	0.771525

## C3: Control Chart Data for Quality by Shifts

		shift	1					shift			1
	DAY	QUALITY (p)	CENTER (P-BAR)	UCL	LCL		DAY	QUALITY (P)	CENTER (P-BAR)	UCL	LCL
	1	0.963636364	0.9539	1.038729	0.869071		1	1	0.9749	1.037611	0.9121
	2	0.981818182	0.9539	1.038729	0.869071		2	0.962264151	0.9749	1.039361	0.9104
	3	1	0.9539	1.042869	0.864931		3	0.964912281	0.9749	1.037059	0.9127
	6	0.966666667	0.9539	1.035117	0.872683		6	0.967213115	0.9749	1.034986	0.9148
	7	0.98245614	0.9539	1.037227	0.870573		7	0.966666667	0.9749	1.035485	0.9143
	8	0.904761905	0.9539	1.03316	0.87464		8	0.933333333	0.9749	1.035485	0.9143
	9	0.94	0.9539	1.042869	0.864931		9	0.963636364	0.9749	1.038179	0.9116
	10	0.96	0.9539	1.042869	0.864931		10	0.980392157	0.9749	1.040613	0.9091
	11	0.961538462	0.9539	1.041141	0.866659		11	0.96	0.9749	1.041267	0.9085
july	13	1	0.9539	1.040314	0.867486	july	13	0.964285714	0.9749	1.037611	0.9121
	14	0.981818182	0.9539	1.038729	0.869071		14	0.961538462	0.9749	1.039978	0.9098
	22	0.964912281	0.9539	1.037227	0.870573		22	0.964285714	0.9749	1.037611	0.9121
	23	0.964285714	0.9539	1.037968	0.869832		23	1	0.9749	1.041267	0.9085
	24	0.982142857	0.9539	1.037968	0.869832		24	1	0.9749	1.040613	0.9091
	27	1	0.9539	1.041141	0.866659		27	1	0.9749	1.037611	0.9121
	28	1	0.9539	1.037968	0.869832		28	0.94	0.9749	1.041267	0.9085
	28	0.964285714	0.9539	1.037968	0.869832		28	1	0.9749	1.041207	0.9085
	30			1.037308			30	1	0.9749	1.041207	
		0.981818182	0.9539		0.869071			-			0.9085
	3	0.971428571	0.9539	1.029092	0.878708		3	0.971428571	0.9749	1.03099	0.918
	4	0.982758621	0.9539	1.036506	0.871294		4	0.982142857	0.9749	1.037611	0.9121
	5	0.96969697	0.9539	1.031337	0.876463		5	0.966666667	0.9749	1.035485	0.9143
	6	0.983870968	0.9539	1.033796	0.874004		6	0.983870968	0.9749	1.034499	0.915
	7	0.935483871	0.9539	1.033796	0.874004		7	0.950819672	0.9749	1.034986	0.9148
	10	0.942307692	0.9539	1.041141	0.866659		10	0.962264151	0.9749	1.039361	0.9104
	13	0.9375	0.9539	1.032538	0.875262		11	0.96875	0.9749	1.033561	0.9162
	15	0.9	0.9539	1.042869	0.864931		13	0.96969697	0.9749	1.032665	0.9171
august	17	0.896551724	0.9539	1.036506	0.871294		14	0.970149254	0.9749	1.032232	0.9175
august	18	0.96	0.9539	1.042869	0.864931	august	15	0.98	0.9749	1.041267	0.9085
	19	0.946428571	0.9539	1.037968	0.869832	aagast	17	0.973684211	0.9749	1.051028	0.8987
	20	0.95	0.9539	1.035117	0.872683		18	0.958333333	0.9749	1.042636	0.9071
	21	0.942857143	0.9539	1.029092	0.878708		18	0.979166667	0.9749	1.042636	0.9071
	22	0.96969697	0.9539	1.031337	0.876463		20	0.95	0.9749	1.035485	0.9143
	24	0.968253968	0.9539	1.03316	0.87464		21	0.98245614	0.9749	1.037059	0.9127
	25	0.967213115	0.9539	1.034449	0.873351		22	0.962962963	0.9749	1.038762	0.9110
	26	0.953846154	0.9539	1.031931	0.875869		24	0.970149254	0.9749	1.032232	0.9175
	27	0.9	0.9539	1.042869	0.864931		25	0.970149254	0.9749	1.032232	0.9175
	3	0.984126984	0.9539	1.03316	0.87464		26	0.985714286	0.9749	1.03099	0.918
	4	0.9	0.9539	1.042869	0.864931		27	0.943396226	0.9749	1.039361	0.9104
	10	1	0.9539	1.038729	0.869071		1	1	0.9749	1.042636	0.9071
	10	1	0.9539	1.046656	0.861144		2	1	0.9749	1.039978	0.9098
	11	1	0.9539	1.034449	0.873351		3	1	0.9749	1.037059	0.9127
		1					4	0.95	0.9749	1.035485	0.9127
	14		0.9539	1.037227	0.870573		7				
sept	17	0.754385965	0.9539	1.037227	0.870573			1	0.9749	1.030594	0.9192
ŀ	18	0.914285714	0.9539	1.029092	0.878708		8	1	0.9749	1.034986	0.9148
	19	0.929577465	0.9539	1.028561	0.879239		9	0.980769231	0.9749	1.039978	0.9098
	21	0.901639344	0.9539	1.034449	0.873351		10	0.982142857	0.9749	1.037611	0.9121
ļ	22	0.964912281	0.9539	1.037227	0.870573		11	1	0.9749	1.035485	0.9143
	28	0.913793103	0.9539	1.036506	0.871294	sept	12	0.983870968	0.9749	1.034499	0.9153
	29	1	0.9539		0.872683		14	1	0.9749	1.032232	
	30	0.853658537	0.9539	1.05215	0.85565		15	1	0.9749	1.045648	
							17	0.964285714	0.9749	1.001994	0.9478
							18	1	0.9749	1.001994	0.9478
							19	1	0.9749	1.001994	0.9478
							21	1	0.9749	1.001994	0.9478
							22	1	0.9749	1.001994	0.9478
							28	0.803571429	0.9749	1.001994	
							29	1	0.9749	1.001994	
							30	0.967213115	0.9749	1.001994	

## C4: Control Chart Data for OEE by Shifts

		shif	ft A					shift	В		
	DAY	OEE	CENTER (P-BAR)	UCL	LCL		DAY	OEE	CENTER (P-BAR)	UCL	LCL
	1	0.8	0.8049	0.859505	0.750295		1	0.85	0.8029	0.857716	0.748084
	2	0.82	0.8049	0.859505	0.750295		2	0.77	0.8029	0.857716	0.748084
	3	0.76	0.8049	0.859505	0.750295		3	0.83	0.8029	0.857716	0.748084
	6	0.88	0.8049	0.859505	0.750295		6	0.89	0.8029	0.857716	0.748084
	7	0.85	0.8049	0.859505	0.750295		7	0.88	0.8029	0.857716	0.748084
	8	0.86	0.8049	0.859505	0.750295		8	0.85	0.8029	0.857716	0.748084
	9	0.71	0.8049	0.859505	0.750295		9	0.8	0.8029	0.857716	0.748084
	10	0.73	0.8049	0.859505	0.750295		10	0.76	0.8029	0.857716	0.748084
	11	0.76	0.8049	0.859505	0.750295		11	0.73	0.8029	0.857716	0.748084
july	13	0.8	0.8049	0.859505	0.750295	july	13	0.82	0.8029	0.857716	0.748084
	14	0.82	0.8049	0.859505	0.750295		14	0.76	0.8029	0.857716	0.748084
	22	0.83	0.8049	0.859505	0.750295		22	0.82	0.8029	0.857716	0.748084
	23	0.82	0.8049	0.859505	0.750295		23	0.76	0.8029	0.857716	0.748084
	24	0.83	0.8049	0.85962	0.75018		24	0.77	0.8029	0.857716	0.748084
	27	0.79	0.8049	0.86015	0.74965		27	0.85	0.8029	0.857716	0.748084
	28	0.85	0.8049	0.859505	0.750295		28	0.71	0.8029	0.857716	0.748084
	29	0.82	0.8049	0.859505	0.750295		29	0.76	0.8029	0.857716	0.748084
	30	0.82	0.8049	0.860031	0.749769		30	0.86	0.8029	0.857716	0.748084
	30	0.915	0.8049	0.856346	0.753454		30	0.92	0.8029	0.857716	0.748084
	4	0.766	0.8049	0.856346	0.753454		4	0.92	0.8029	0.857716	0.748084
	5	0.861	0.8049	0.856346	0.753454		5	0.78	0.8029	0.857716	0.748084
	6	0.82	0.8049	0.856346	0.753454		6	0.82	0.8029	0.857716	0.748084
	7	0.878	0.8049	0.859505	0.750295		7	0.85	0.8029	0.857716	0.748084
	10	0.742	0.8049	0.859505	0.748733		10	0.69	0.8029	0.857716	0.748084
							-				0.748084
	13 15	0.91 0.682	0.8049	0.859505	0.750295		11 13	0.77	0.8029	0.857716	0.748084
				0.859505						0.857716	
august	17 18	0.772	0.8049	0.856785	0.7479		14 15	0.87	0.8029	0.857716	0.748084
	18	0.698	0.8049	0.856346	0.753454	august	13	0.55	0.8029	0.857716	
	20	0.846	0.8049	0.859505	0.750295		17	0.61	0.8029	0.857716	0.748084
	20	0.87	0.8049	0.856346	0.753454		18	0.62	0.8029	0.857716	0.748084
	21		0.8049	0.859505	0.750295		20	0.85	0.8029	0.857716	0.748084
	22	0.951	0.8049	0.859505	0.750295		20	0.81	0.8029	0.857716	0.748084
	25	0.875	0.8049	0.86177	0.74803		22	0.77	0.8029	0.857716	0.748084
	26	0.922	0.8049	0.859505	0.750295		24	0.97	0.8029	0.857716	0.748084
	27	0.668	0.8049	0.859505	0.750295		25	0.97	0.8029	0.857716	0.748084
	3	0.833	0.8049	0.856884	0.752916		26	1.03	0.8029	0.857716	0.748084
	4	0.605	0.8049	0.857337	0.752463		27	0.74	0.8029	0.857716	0.748084
	10	0.833	0.8049	0.859972	0.749828		1	0.73	0.8029	0.857716	0.748084
	11	0.724	0.8049	0.86113	0.74867		2	0.79	0.8029	0.857716	0.748084
	12	0.924	0.8049	0.859505	0.750295		3	0.77	0.8029	0.857716	0.748084
	14	0.845	0.8049	0.859219	0.750581		4	0.86	0.8029	0.857716	0.748084
sept	17	0.638	0.8049	0.859679	0.750121		7	1.04	0.8029	0.857716	0.748084
	18	0.844	0.8049	0.856346	0.753454		8	0.8	0.8029	0.857716	0.748084
	19	0.87	0.8049	0.856736	0.753064		9	0.67	0.8029	0.857716	0.748084
	21	0.808	0.8049	0.859447	0.750353		10	0.74	0.8029	0.857716	0.748084
	22	0.816	0.8049	0.859505	0.750295		11	0.75	0.8029	0.857716	0.748084
	28	0.802	0.8049	0.859737	0.750063	sept	12	0.92	0.8029	0.857716	0.748084
	29	0.909	0.8049	0.86033	0.74947		14	0.9	0.8029	0.857716	
	30	0.529	0.8049	0.85962	0.75018		15	0.67	0.8029	0.857716	
							17	0.8	0.8029	0.857716	
							18	0.58	0.8029	0.857716	
							19	0.92	0.8029	0.857716	
							21	0.86	0.8029	0.857716	
							22	0.85	0.8029	0.857716	
							28	0.67	0.8029	0.857716	0.748084
							29	0.74	0.8029	0.857716	0.748084
							30	0.88	0.8029	0.857716	0 748084

### **APPENDIX D**

# D1: Attribute Control Chart, p-chart Formula

<b></b>	
For finding average, Centreline:	$\bar{p} = \frac{\sum np}{\sum n}$
Upper Control Limit, UCL:	$UCL_p = \bar{p} + 3\sqrt{\frac{\bar{p}(1-\bar{p})}{n}}$
Lower Control Limit, LCL:	$LCL_p = \bar{p} - 3\sqrt{\frac{\bar{p}(1-\bar{p})}{n}}$

### **APPENDIX E**

E1: Calculation for availability factor on July 1<sup>st</sup> 2015 for Shift A for existing condition

$$\bar{p} = \frac{24136}{24357}$$

$$= 0.9909$$

$$UCL_p = 0.9909 + 3\sqrt{\frac{0.9909(1-0.9909)}{474}}$$

$$= 1.0040$$

$$LCL_p = 0.9909 - 3\sqrt{\frac{0.9909(1-0.9909)}{474}}$$

$$= 0.9778$$

**E2:** Calculation for availability factor on July  $1^{st}$  2015 for Shift A for  $1^{st}$  revised condition

$$\bar{p} = \frac{21379}{21453}$$

$$= 0.9966$$

$$UCL_p = 0.9966 + 3\sqrt{\frac{0.9966(1-0.9966)}{474}}$$

$$= 1.0046$$

$$LCL_p = 0.9966 - 3\sqrt{\frac{0.9966(1-0.9966)}{474}}$$

$$= 0.9886$$

### APPENDIX F

			shift A								shift	В			
		005047004			0511750					005047004	PLANNED		0511750		
	DAY	OPERATION	PLANNED	AVAILABILITY	CENTER	UCL	LCL		DAY	OPERATION	PRODUCTION	AVAILABILITY	CENTER	UCL	LCL
		TIME	PRODUCTION TIME	(p)	(P-BAR)					TIME	TIME	(p)	(P-BAR)		
	1-Jul-15	474	474	1.00	0.9966	1.0046	0.9886		1-Jul-15	474	474	1.00	0.999	1.00	1.00
	2	474	474	1.00	0.9966	1.0046	0.9886	1	2	474	474	1.00	0.999	1.00	1.00
	3	474	474	1.00	0.9966	1.0046	0.9886	1	3	474	474	1.00	0.999	1.00	1.00
	6	474	474	1.00	0.9966	1.0046	0.9886		6	474	474	1.00	0.999	1.00	1.00
	7	474	474	1.00	0.9966	1.0046	0.9886		7	474	474	1.00	0.999	1.00	1.00
	8	474	474	1.00	0.9966	1.0046	0.9886		8	474	474	1.00	0.999	1.00	1.00
	9	474	474	1.00	0.9966	1.0046	0.9886		9	474	474	1.00	0.999	1.00	1.00
	10	474	474	1.00	0.9966	1.0046	0.9886		10	474	474	1.00	0.999	1.00	1.00
july	11	474	474	1.00	0.9966	1.0046	0.9886	july	11	474	474	1.00	0.999	1.00	1.00
	13	474	474	1.00	0.9966	1.0046	0.9886	July	13	474	474	1.00	0.999	1.00	1.00
	14	474	474	1.00	0.9966	1.0046	0.9886		14	474	474	1.00	0.999	1.00	1.00
	22	474	474	1.00	0.9966	1.0046	0.9886		22	474	474	1.00	0.999	1.00	1.00
	23	474	474	1.00	0.9966	1.0046	0.9886		23	474	474	1.00	0.999	1.00	1.00
	24	472	474	1.00	0.9966	1.0046	0.9886		24	474	474	1.00	0.999	1.00	1.00
	28	474	474	1.00	0.9966	1.0046	0.9886		27	474	474	1.00	0.999	1.00	1.00
	29	474	474	1.00	0.9966	1.0046	0.9886		28	474	474	1.00	0.999	1.00	1.00
	30	465	474	0.98	0.9966	1.0046	0.9886		29	474	474	1.00	0.999	1.00	1.00
	3-Aug-15	534	534	1.00	0.9966	1.0042	0.9890		30	475	475	1.00	0.999	1.00	1.00
	4	534	534	1.00	0.9966	1.0042	0.9890		3-Aug-15	534	534	1.00	0.999	1.00	1.00
	5	534	534	1.00	0.9966	1.0042	0.9890		4	474	474	1.00	0.999	1.00	1.00
	6	534	534	1.00	0.9966	1.0042	0.9890		5	534	534	1.00	0.999	1.00	1.00
	7	474	474	1.00	0.9966	1.0046	0.9886		6	534	534	1.00	0.999	1.00	1.00
	13	474	474	1.00	0.9966	1.0046	0.9886		7	489	489	1.00	0.999	1.00	1.00
	15	474	474	1.00	0.9966	1.0046	0.9886		10	534	534	1.00	0.999	1.00	1.00
august	18	525	534	0.98	0.9966	1.0042	0.9890		11	576	576	1.00	0.999	1.00	1.00
	19	534	534	1.00	0.9966	1.0042	0.9890		13	474	474	1.00	0.999	1.00	1.00
	20	474	474	1.00	0.9966	1.0046	0.9886		14	534	534	1.00	0.999	1.00	1.00
	21	534	534	1.00	0.9966	1.0042	0.9890	august	15	474	474	1.00	0.999	1.00	1.00
	22	474	474	1.00	0.9966	1.0046	0.9886	august	17	474	474	1.00	0.999	1.00	1.00
	24	474	474	1.00	0.9966	1.0046	0.9886		18	534	534	1.00	0.999	1.00	1.00
	26	474	474	1.00	0.9966	1.0046	0.9886		18	534	534	1.00	0.999	1.00	1.00
	27	474	474	1.00	0.9966	1.0046	0.9886		20	474	474	1.00	0.999	1.00	1.00
	3-Sep-15	523	534	0.98	0.9966	1.0042	0.9890		21	489	489	1.00	0.999	1.00	1.00
	10	466	474	0.98	0.9966	1.0046	0.9886		22	474	474	1.00	0.999	1.00	1.00
	11	447	456	0.98	0.9966	1.0048	0.9884		24	474	474	1.00	0.999	1.00	1.00
	12	474	474	1.00	0.9966	1.0046	0.9886		25-Aug-15	474	474	1.00	0.999	1.00	1.00
	14	479	484	0.99	0.9966	1.0045	0.9887		26	474	474	1.00	0.999	1.00	1.00
sept	17	471	474	0.99	0.9966	1.0046	0.9886		27	474	474	1.00	0.999	1.00	1.00
Jept	18	534	534	1.00	0.9966	1.0042	0.9890		1-Sep-15	474	474	1.00	0.999	1.00	1.00
	19	526	534	0.99	0.9966	1.0042	0.9890	ļ	2	474	474	1.00	0.999	1.00	1.00
	21	475	479	0.99	0.9966	1.0046	0.9886	ļ	3	534	534	1.00	0.999	1.00	1.00
	22	474	474	1.00	0.9966	1.0046	0.9886	ļ	4	474	474	1.00	0.999	1.00	1.00
	28-Sep	470	474	0.99	0.9966	1.0046	0.9886	ļ	7	489	489	1.00	0.999	1.00	1.00
	30	472	474	1.00	0.9966	1.0046	0.9886		8	545	545	1.00	0.999	1.00	1.00
									9	545	545	1.00	0.999	1.00	1.00
									10	534	534	1.00	0.999	1.00	1.00
								sept	11-Sep	576	576	1.00	0.999	1.00	1.00
									12	474	474	1.00	0.999	1.00	1.00
									14	534	534	1.00	0.999	1.00	1.00
									15	474	474	1.00	0.999	1.00	1.00
									18	534	534	1.00	0.999	1.00	1.00
									19	534	534	1.00	0.999	1.00	1.00
									21	489	489	1.00	0.999	1.00	1.00
									22	474	474	1.00	0.999	1.00	1.00
									29	474	474	1.00	0.999	1.00	1.00
									30	474	474	1.00	0.999	1.00	1.00

# F1: Revised Control Chart Data for Availability by Shifts

shift A									shift B								
	DAY	NET OPERATION TIME (np)	OPERATION TIME (n)	PERFORMAN CE (p)	CENTER P BAR	UCL	LCL		DAY	NET OPERATION TIME	PERATION TIM	PERFORMANC E (P)	CENTER P BAR	UCL	LCL		
july	1-Jul-15	395	474	0.833	0.8490	0.8983	0.7997		1-Jul-15	402	474	0.848	0.8287	0.8287	0.8287		
	2	395	474	0.833	0.8490	0.8983	0.7997		2	381	474	0.804	0.8287	0.8287	0.8287		
	7	409	474	0.863	0.8490	0.8983	0.7997	july	3	409	474	0.863	0.8287	0.8287	0.8287		
	13	381	474	0.804	0.8490	0.8983	0.7997		9	395	474	0.833	0.8287	0.8287	0.8287		
	14	395	474	0.833	0.8490	0.8983	0.7997		13	402	474	0.848	0.8287	0.8287	0.8287		
	22	409	474	0.863	0.8490	0.8983	0.7997		14	373	474	0.787	0.8287	0.8287	0.8287		
	23	402	474	0.848	0.8490	0.8983	0.7997		22	402	474	0.848	0.8287	0.8287	0.8287		
	24	402	472	0.852	0.8490	0.8984	0.7996		27	402	474	0.848	0.8287	0.8287	0.8287		
	27	373	463	0.806	0.8490	0.8989	0.7991		30	409	475	0.861	0.8287	0.8287	0.8287		
	28	402	474	0.848	0.8490	0.8983	0.7997	august	4	402	474	0.848	0.8287	0.8287	0.8287		
	29	402	474	0.848	0.8490	0.8983	0.7997		5	431	534	0.807	0.8287	0.8287	0.8287		
	30	395	465	0.849	0.8490	0.8988	0.7992		6	445	534	0.833	0.8287	0.8287	0.8287		
	5	474	534	0.888	0.8490	0.8955	0.8025		11	460	576	0.799	0.8287	0.8287	0.8287		
	6	445	534	0.833	0.8490	0.8955	0.8025		21	401	489	0.820	0.8287	0.8287	0.8287		
august	10	373	448	0.833	0.8490	0.8997	0.7983		22	380	474	0.802	0.8287	0.8287	0.8287		
	20	422	474	0.890	0.8490	0.8983	0.7997		27	373	474	0.787	0.8287	0.8287	0.8287		
	3-Sep-15	452	523	0.864	0.8490	0.8960	0.8020	sept	2	373	474	0.787	0.8287	0.8287	0.8287		
sept	10	395	466	0.848	0.8490	0.8988	0.7992		8	438	545	0.804	0.8287	0.8287	0.8287		
	14	409	479	0.854	0.8490	0.8981	0.7999		17	394	471	0.837	0.8287	0.8287	0.8287		
	17	401	471	0.851	0.8490	0.8985	0.7995		21	422	489	0.863	0.8287	0.8287	0.8287		
	22	401	474	0.846	0.8490	0.8983	0.7997		22	401	474	0.846	0.8287	0.8287	0.8287		
	28-Sep	416	470	0.885	0.8490	0.8985	0.7995		28	394	452	0.872	0.8287	0.8287	0.8287		

## F2: Revised Control Chart Data for Performance by Shifts

			shift A						1	r	shift	В			
	DAY	OK PRODUCT PER SHIFT (np)	TOTAL OUTPUT PER SHIFT (n)	QUALITY (p)	CENTER (P-BAR)	UCL	LCL		DAY	OK PRODUCT PER SHIFT	TOTAL OUTPUT PER SHIFT	QUALITY (P)	CENTER (P-BAR)	UCL	LCL
	1-Jul-15	53	55	0.964	0.9597	1.0393	0.8801	-	1-Jul-15	56	56	1.000	0.9777	1.0369	0.9185
	2	54	55	0.982	0.9597	1.0393	0.8801	july	2	51	53	0.962	0.9777	1.0385	0.9169
	3	50	50	1.000	0.9597	1.0431	0.8763		3	55	57	0.965	0.9777	1.0364	0.9190
	6	58	60	0.967	0.9597	1.0359	0.8835		6	59	61	0.967	0.9777	1.0344	0.9210
	7	56	57	0.982	0.9597	1.0378	0.8816		7	58	60	0.967	0.9777	1.0349	0.9205
	8	57	63	0.905	0.9597	1.0340	0.8854		8	56	60	0.933	0.9777	1.0349	0.9205
	9	47	50	0.940	0.9597	1.0431	0.8763		9	53	55	0.964	0.9777	1.0374	0.9180
	10	48	50	0.960	0.9597	1.0431	0.8763		10	50	51	0.980	0.9777	1.0397	0.9157
	11	50	52	0.962	0.9597	1.0415	0.8779		11	48	50	0.960	0.9777	1.0403	0.9151
july	13	53	53	1.000	0.9597	1.0407	0.8787		13	54	56	0.964	0.9777	1.0369	0.9185
	14	54	55	0.982	0.9597	1.0393	0.8801		14	50	52	0.962	0.9777	1.0391	0.9163
	22	55	57	0.965	0.9597	1.0378	0.8816		22	54	56	0.964	0.9777	1.0369	0.9185
	23	54	56	0.964	0.9597	1.0385	0.8809		23	50	50	1.000	0.9777	1.0403	0.9151
	24	55	56	0.982	0.9597	1.0385	0.8809		24	51	51	1.000	0.9777	1.0397	0.9157
	27	52	52	1.000	0.9597	1.0415	0.8779		27	56	56	1.000	0.9777	1.0369	0.9185
	28	56	56	1.000	0.9597	1.0385	0.8809		28	47	50	0.940	0.9777	1.0403	0.9151
	29-Jul-15	54	56	0.964	0.9597	1.0385	0.8809		29	50	50	1.000	0.9777	1.0403	0.9151
	30	54	55	0.982	0.9597	1.0393	0.8801		30	50	50	1.000	0.9777	1.0403	0.9151
	3-Aug-15	68	70	0.971	0.9597	1.0302	0.8892		3-Aug-15	68	70	0.971	0.9777	1.0306	0.9248
august	4	57	58	0.983	0.9597	1.0372	0.8822	august	4	55	56	0.982	0.9777	1.0369	0.9185
	5	64	66	0.970	0.9597	1.0323	0.8871		5	58	60	0.967	0.9777	1.0349	0.9205
	6-Aug	61	62	0.984	0.9597	1.0346	0.8848		6	61	62	0.984	0.9777	1.0340	0.9214
	7	58	62	0.94	0.9597	1.0346	0.8848		7	58	61	0.95	0.978	1.03	0.92
	10	49	52	0.94	0.9597	1.0415	0.8779		10	51	53	0.96	0.978	1.04	0.92
	13	60	64	0.94	0.9597	1.0334	0.8860		11	62	64	0.97	0.978	1.03	0.92
	15	45	50	0.90	0.9597	1.0431	0.8763		13	64	66	0.97	0.978	1.03	0.92
	17	52	58	0.90	0.9597	1.0372	0.8822		14	65	67	0.97	0.978	1.03	0.92
	18	48	50	0.96	0.9597	1.0431	0.8763		15	49	50	0.98	0.978	1.04	0.92
	19	53	56	0.95	0.9597	1.0385	0.8809		17	37	38	0.97	0.978	1.05	0.91
	20	57	60	0.95	0.9597	1.0359	0.8835		18	46	48	0.96	0.978	1.04	0.91
	21	66	70	0.94	0.9597	1.0302	0.8892		18	47	48	0.98	0.978	1.04	0.91
	22	64	66	0.97	0.9597	1.0323	0.8871		20	57	60	0.95	0.978	1.03	0.92
	24-Aug-15	61	63	0.97	0.9597	1.0340	0.8854		21	56	57	0.98	0.978	1.04	0.92
	25	59	61	0.97	0.9597	1.0352	0.8842		22	52	54	0.96	0.978	1.04	0.92
	26	62	65	0.95	0.9597	1.0329	0.8865		24	65	67	0.97	0.978	1.03	0.92
	27	45	50	0.90	0.9597	1.0431	0.8763		25-Aug-15	65	67	0.97	0.978	1.03	0.92
	3-Sep-15	62	63	0.98	0.9597	1.0340	0.8854		26	69	70	0.99	0.978	1.03	0.92
	4	45	50	0.90	0.9597	1.0431	0.8763		27	50	53	0.94	0.978	1.04	0.92
	10	55	55	1.00	0.9597	1.0393	0.8801		1-Sep-15	48	48	1.00	0.978	1.04	0.91
	11	46	46	1.00	0.9597	1.0467	0.8727	sept	2	52	52	1.00	0.978	1.04	0.92
	12	61	61	1.00	0.9597	1.0352	0.8842		3	57	57	1.00	0.978	1.04	0.92
	14	57	57	1.00	0.9597	1.0378	0.8816		4	57	60	0.95	0.978	1.03	0.92
sept	18-Sep	64	70	0.91	0.9597	1.0302	0.8892		7	71	71	1.00	0.978	1.03	0.93
	19	66	71	0.93	0.9597	1.0297	0.8897		8	61	61	1.00	0.978	1.03	0.92
	21	55	61	0.90	0.96	1.04	0.88		9	51	52	0.98	0.978	1.04	0.92
	22	55	57	0.96	0.96	1.04	0.88		10	55	56	0.98	0.978	1.04	0.92
	28-Sep-15	53	58	0.91	0.96	1.04	0.88		11-Sep	60	60	1.00	0.978	1.03	0.92
	29	60	60	1.00	0.96	1.04	0.88		12	61	62	0.98	0.978	1.03	0.92
									14	67	67	1.00	0.978	1.03	0.92
									15	44	44	1.00	0.978	1.04	0.91
									17	54	56	0.96	0.978	1.00	0.91
									18	44	44	1.00	0.978	1.00	0.95
									19	70	70	1.00	0.978	1.00	0.95
									21	60	60	1.00	0.978	1.00	0.95
									22	57	57	1.00	0.978	1.00	0.95
									29	50	50	1.00	0.978	1.00	0.95
									30	59	61	0.967	0.978	1.003	0.952

## F3: Revised Control Chart Data for Quality by Shifts