An organisation study in apollo tyres company

Business



A Project Report Submitted to Calicut University In partial fulfillment of the requirement for the award Of the Degree of BACHELOR OF BUSINESS ADMINISTRATION By SAJA. K. A Registration no: Under the guidance of SREEJA MISS Department Of Commerce& Management Studies ANSAR WOMEN'S COLLEGE PERUMPILAVU CERTIFICATE This is to certify that the mini project entitled "Organizational Study" is a bonafide record of the work done by SAJA.

PLACE: PERUMPILAVU DATE: ACKNOWLEDGEMENT I wish to express my sincere gratitude to SREEJA MISS In-charge, [ANSAR WOMEN'S COLLEGE, PERUMPILAVU] for giving me the guidance and supervision for the accomplishment of the project. I would like to thank Prof A. V MOIDEENKUTTY and Mr. PRASAD [HEAD OF COMMERCE; MANAGEMENTSTUDIES] for giving permission to do my project work in Apollo tyres Ltd Perambra. I would like to sincerely thank Mr. K.

https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

Balachandran, HR head, Mr. V. Satheesan Safety Manager, other management staff and employees of Apollo Tyres Ltd, Perambra for giving me an opportunity to carry out my study, and giving me adequate support and required information. Above all I am thankful 'Almighty God' for making this possible. SAJA. K.

A CONTENTS CHAPTER NO: TITLE page no:- 1 INTRODUCTION 1 2 PROFILES: INDUSTRY PROFILE 6 ? COMPANY PROFILE 10 ? PRODUCT PROFILE 17 3 DEPARTMENTS:- • HUMAN RESOURCE 23 • PRODUCTION:- ? PURCHASE 37 ? STORES 40 ? anufacturing process 50 ? QUALITY ASSURANCE 58 ? ppc 60 ? ENGINEERING 63 ? INDUSTRIAL ENGINEERING 66 • FINANCE 71 • SYSTEMS 76 SWOT ANALYSIS 78 5 FINDINGS SUGGESTIONS & CONCLUSIONS 82 BIBLIOGRAPHY LIST OF CHARTS | Chart | Title | page | | 1 | Market share 9 | | 2 | Organization chart | 20 | | 3 | Structure of HR department | 24 | | 4 | Production process | 50 | | 5 | Tyre manufacturing process | 57 | | 6 | Process flow- production planning & control | 60 | LIST OF TABLES Table | Title | page | | 1 | Domestic rank | 8 | | 2 | Market share of companies | 9 | | 3 | Milestones of Apollo tyres | 13 | | 4 | Turnover of Apollo | 16 | | 5 | Global tyre company rating | 16 | | 6 | Product profile | 17 | | 7 | Key financials | 72 | | 8 | Turnover and net profits | 73 | | 9 | Financial performance | 74 | CHAPTER 1 INTRODUCTION The organizational study at Apollo tyres Ltd , Perambra in Thrissur is a humble effort to understand and comprehend about the organization. The organizational study is intended to access and to acquire the knowledge regarding the functional as well as the management aspects of the firm. Apollo tyres is one of the largest tyre manufacturing companies in India. The company was incorporated in 1972 and commenced its

production in 1977. It was the first company to receive ISO 9001 accreditation in the Indian tyre industry. The organizational study is done in partial fulfillment of the requirement of the degree of Master of Business Administration.

Objective of the study The organizational study is to familiarize ourselves with the working of various departments for a particular period , so that one can have an exposure to the practical side. The objective is to: 1. To understand the structure of Apollo tyres. . To understand the functions of different departments.

3. To find out the strength & weakness of the company. Scope of the study The scope of the study is to understand the overall working of an organization. Methodology To conduct the studies different methodologies have been adopted. The study was undertaken by visiting the plant for a period of one month. Both primary and secondary data are used.

Primary data were collected by conducting personal interviews with the departmental heads and secondary data were collected from the organization manuals. Data collection Primary sourcesDirect interview with the departmental heads, detailed interview with the divisional heads and by interaction with workers in the company. The data is also collected by observing the functions of the organization. Secondary sources The secondary sources of data are: 1. Organization documents. 2.

Departmental manuals. 3. Annual reports 4. Periodicals, books etc. published by the company.

Period of study The period of study was for a period of one month started from 1'st may to 31'st may. Limitations of the study 1. The time allotted for completing the organizational study is only 30 days. It's not enough for understanding about the organization in detail. 2.

The company was reluctant to reveal some of its official documents; reports which are confidential to them. 3. The study was limited only during the day hours. The working conditions of the employees of the employees in the night shift are not studied. CHAPTER 2 INDUSTRY PROFILE History of tyres The most important application of rubber relates to the transport sector of which tyre industry consumes over 60% of the total rubber produce.

During the last 20 years tyre has been virtually reinvented with most modern technologies like steel radial tyres, a milestone in the tyre technology. Tyre sector is experiencing a rapid improvement with the advent of newer technologies. The tyre industry begin to grow in India during 1930's. The growth of tyre industry in India may be divided into 3 phase. In the first phase, multinational came to India and started selling tyres. The first among them was Firestone followed by multinational like Good year Dunlop etc.

In the second phase multinationals started their production in India. Then they become the first generation tyre company. Dunlop was the first company started the production. The third phase of tyre industry began, where Indian company's started producing tyres, which come to be called second generation tyres. The important among them are MRF tyres, Good Year, CEAT etc. The main third generation tyres are Apollo tyres, Vikrant tyres, JK tyres, Modi tyres etc.

The entire tyre companies which started after 1970's and the companies, which are yet to start production are classify under the head fourth generation tyres. Ranking of Indian tyre companies on the basis of production 1. MRF Tyres Limited 2. Apollo Tyres Limited 3. JK Tyres Limited 4. CEAT Tyres Limited 5.

Modi Rubber Tyres Limited 6. Birla Tyres Limited 7. Good Year India Limited 8. Vikrant Tyres Limited Global positioning Year Rank 2004. 17 2005.

16 2006. 15 Domestic Rank Companies | Segment | | | Truck | Light Commercial Vehicle | | Apollo Tyres | 1 | 2 | | JK Tyres | 2 | 4 | | MRF | 3 | 3 | | CEAT | 4 | 1 | Market share of Companies in the Indian Tyre Industry Companies |% share | | MRF | 24 | | Apollo Tyres | 22 | | JK Tyres | 17 | | CEAT | 14 | | GOOD year | 6 | | Others | 17 | [pic]COMPANY PROFILE The history of Apollo tyres can be traced back 70's when MNC's and Indian tyre major's dominated the tyre industry. Apollo Tyres Ltd a leader in the Indian tyre industry and a significant global player, providing customer delight and enhancing share holder value was registered in 1972. The license was firstly given to Ruby Rubber works to start a tyre factory at Changanassery . In 1975 Raunaq Singh purchased the license from Ruby Rubber works. It is one of the flagship companies of Raunaq group.

The plant is situated at Perambra 50 km north of Cochin. Total area covered where 97 acres which was bought from people who stayed there by, at cheaper rate. At the starting time the production capacity was 54 tones per day. The Apollo tyre Itd owned by Raunaq group of industries place an important rolling world tyre industry. The products include tyres, tubes and

flaps for all vehicles. The head office of company is at New Delhi and registered office is at cochin.

The main marketing activities are concentrated in New Delhi and around 2400 exclusive dealers for Apollo cover the entire area of India. During 1977 to 1981 the company was under heavy loss. The capacity utilization was only 40 to 50 % capacity. The emphasis is given on growth quality and objectives are redefined when Mr. Onkar S Kanwar took over the company's affairs. Company began to earn profit and accumulated losses of 26 crores could be wiped out with short spam of time.

There second plant was installed at Limda village at Baroda in Gujarat, which started production in 1991 having capacity of 6. 5 lakh tyre/annum. This is most modern plant. The R&D centre is also functioning at this location. The third plant at kalamassery was taken over by Apollo from Premier tyres.

While take over this plant was a sick unit. After the take over Apollo spent a good amount in modernizing the plant and now it is profit earning unit. The fourth plant was commissioned in 1996 at pune for manufacturing tubes. The entire requirement of tubes for all plants of Apollo is done from here. VISION "A leader in the Indian tyre industry and a significant global player, providing customer delight and enhancing stakeholder value." The one word that symbolizes all that we believe is CREATE.

C - CARE FOR CUSTOMERS. R - RESPECT FOR ASSOCIATES. E - EXCELLENCE THROUGH TEAM WORK. A - ALWAYS LEARNING. T - TRUST MUTUALLY.

E - ETHICAL PRACTICES. GOALS • Creating Social Responsibility. • Learning & Development. • Family Focus. Hygienic Factors.

• Employee Involvement & Cultural Building. DREAM To become a nine thousand crore company by the year 2010. BOARD OF DIRECTORS Mr. Onkar S Kanwar Chairman & managing director Mr. Neeraj Kanwar Joint managing director Mr K Jacob Thomas Director Mr Jose Cyriac Kerala Government Nominee Mr.

M R B Punja Director Mr Nimesh N Kampani "Mr Raaja Kanwar "Mr Robert Steinmentz "Mr S Narayan "Mr Shardul S Shroff "Mr Sunam Sarkar "Mr T Balakrishnan "Mr U S Oberoi "Company Secretary Mr P N Wahal Auditors Fraser & Ross MILESTONES OF APOLLO TYRES | 1972 | The company's license was obtained by Mr. Mathew T. Marattukalam, Jacob Thomas and associates. | 1974 | The company was taken over by Dr. Raunaq singh and his associates. | 1975 | April 13, foundation stone of the Perambra plant was laid.

| | 1976 | Apollo Tyres was registered. | 1977 | Plant commissioned in Kerala with 49 TPD capacities. | | 1982 | Manufacturing of Passenger Car Radial Tyres in Kerala | | 1991 | Second plant commissioned in Baroda. | | 1995 | Acquired Premier Tyres Ltd in Kerala. | | 2000 | Exclusive radial capacity established in Baroda.

| | 2003 | Radial Capacity expanded to 6600 Tyres per day. | | | November 17, Joint Venture withMichelin. | | 2004 | Launch of Apollo Aclere-' H' Speed Rated Car Radials. | | 2005 | April 13, Perambra plant completes 30 years.

| | 2006 | January 30, Acquires Dunlop South Africa. | | August 7, Announced the launch of new plant in Chennai. | BANKS OF THE COMPANY • State Bank of India • Bank of India • Bank of Baroda • Punjab National Bank • State Bank of Mysore • Building State Bank of Patiala • State Bank of Travancore • ICICI Bank Ltd • Union Bank of India MANUFACTURING CENTRES Corporate office-Gurgaon Other plants in India:- - Baroda - Pune - Perambra - Kalamassery International plants:- Zimbabwe - Bulawayo South Africa - Ladysmith, - Durban Perambra Plant (in Focus) ? Single largest truck tyre plant in India. ? Fastest growing plant in Apollo family. ? It is known as the mother plant.

? Continuous expansion. ? Total employee involvement. Apollo key

Differentiation to Other Firms: ? Superior product Quality. ? Strong Brand

Equity. ? Committed Marketing Team. ? High Consumer Loyalty ? Product

Segmentation in Truck Tyres.

? Benched marked for planning efficiency parameters. ? Power consumption. ? Quick response to market needs. ? Fuel efficiency. ? Least scrap generation.

Highlights of Apollo Tyres Ltd ? 7th fastest growing Tyre Company in the world. ? 17th largest Tyre Company in the world. ? First Tyre Company in India to obtain ISO9001 certification for all its operations. ? First Company to introduce packaging for tubes, two wheeler Tyres and Car Tyres. TURNOVER OF APOLLO AS A WHOLE (IN TYRS) YEARS | TURNOVER IN CRORES | | 2001-2002 | 1710. 14 | | 2002-2003 | 2025.

62 | | 2003-2004 | 2314. 31 | | 2004-2005 | 2656. 81 | | 2005-2006 | 3002. 2 | | 2006-2007 | 4733. 00 | GLOBAL TYRE COMPANY RATINGS | YEAR | RANK OF ATL | | 2005 | 17 | | 2006 | 16 | PRODUCT PROFILE 1.

TRUCK. | Overload Technology | Loadstar Super. | | Loadstar Super Gold. | | | Loadstar Super Hercules. | | | Kaizen 50L.

| | Load & Mileage Technology | XT7. | | | XT7 Gold. | | | XT7 Haulug. | | | Amar Delux. | | | Amar. | | | Commando.

| | Kaizen 36L | | | Kaizen 99R plus | | | Kaizen 77R | | Premium Mileage Technology | XT9 | | | XT9 Gold | | | Amar Gold | | | Kaizen XTD | | Mileage Technology Segment | Champion | | | Champion Gold | | | Champion DXL | | | Amar AT Rib | | | Kaizen 27L | 2. LIGHT COMMERCIAL VEHICLE | Overload Technology | Loadstar Super. | Load & Mileage Technology | Milestar | | Premium Mileage Technology | Amar Delux | | | Amar Gold Rib | | | XT9 | | | XT9 Gold(lug) | | | Duramile (radial) | | Regular Mileage | Champion | 3. PASSENGER CAR RADIALS Tubeless Radial Passenger Car | Amazer XL | | | Acelere | | Tubeless Radial MUV & SUV | Hawks | | Tube type Radial for Passenger Car | Amar | | | Amazer XL | | | Quantum | | Tube type Radial MUV & SUV Amar | | | Amazer XL | | | Storm | | | Hawks | | Passenger Car & Jeep Bias | Armour | | | Panther | | | Gripper Maha Trooper | 4. FARM Cultivation | Krishak Super | | | Sarpanch | | Haulage | Power Haul | | Multipurpose | Farm King (Radial) | | | Krishak Premium (bias) | | Tractor Trailer Types | Dhruv | | | Hunter | CHAPTER 3 DEPARTMENTS HUMAN RESOURCE DEPARTMENTHuman Resources and Administration department is one, which facilitates smooth working of the organization by looking into the human resource side and also the overall administration of organization It is divided into three sections namely Industrial Relations, Security and Administration. Heads of each section are in direct contact with the department head.

Among the three sections, industrial Relations is the biggest section having four subsections looking into personnel and industrial relations, employees arrival and departure, time, health and safety. HR MISSION • To create HR policies and processes which are employee friendly. • To build a culture which is warm forthcoming and professional with a sense of ownership & pride. To encourage innovative thinking. • To encourage transparency & teamwork. • To develop leaders at all levels with general management skills.

• To create a learning organization. • To develop competencies & skills through training and development. • To constantly raise levels of employee productivity. • To be a change agent • To create HR brand • To work towards attaining & sustaining the best employer status STRUCTURE OF HR DEPARTMENT [pic] The major functions of this department are:- 1. Recruitment 2.

Training 3. Industrial Relations 4. Welfare 5. Time office 6. Security and Safety 7. Other Administrative activities 1.

RecruitmentRecruitment is done through advertisement and a good opportunity is given to the child of worker. This increases family loyalty towards the company. They are called for the interview and the chief executive take final decision. Selection 1. Management Staff.

Technical- B. Tech, Graduate Engineer Trainee. Non Technical-CA/ICWA/MSW/MBA/MA (PM); Executive Trainee After training, they are absorbed as officer. Criteria include: a) Consistency in academic performance b) Group Discussion c) Personal interview 2. Employee children skill development scheme a) One year training in production b) Dependant of employees c) Minimum qualification- 10th standard d) Physical fitness [height-165 cm, weight-50 kg] Induction Plan Workers - 2 days induction training • Management staff - 15 days induction 2. Training The organization provides training for both managers and workers.

Training programme for managers consist of both internal and external programme. The workers have internal programmes. The training system includes: a) Need identification b) Validation of needs c) Annual training plan d) Selection and preparation e) Post training programme f) Training impact assessment Areas covered include: 1. For management staff: a. Conceptual b.

Functional c. Cross-functional d. Behaviour 2. For workers: e. Systems f. Technical aspects g.

Work culture h. Specialized training for trade unionThe amount spend by the company for the training of their employees for a period of one year is five lakh rupees. Training programmes • Training on communication and interpersonal skill- programmes for assoc. Managers and managers. • Training on jyothirgamaya for blue collared employees.

• Safety and fire training conducted for blue collared workmen. . • With a view to develop multi skill among engineering trainees , they are given https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

exposure to engineering, production & technical fields. 3. INDUSTRIAL

RELATIONS Union management relation:- Mutual trust + Understanding =

Teamwork..

A good industrial relation exists in the organization. The management and the employees jointly find the solutions for the problems. There exists a well relation between employer and employees. There are four main trade unions recognized by the company are: i. ATSWN (Apollo Tyres Staff and Worker Union). ii.

ATEU (Apollo Tyres Employees Union). iii. ATMS (Apollo Tyres Mazdoor Sangh). iv. ATWM (Apollo Tyres Workers Movement) The trade unions which get at least 20% of vote of total strength are recognized by the management.

The management has introduced a long-term settlement (LTS) plan, which is nothing but a collective bargaining agreement. The decisions taken jointly by the trade union and the management. Also a part of the HR initiative employee involving them in productivity relied issues such as quality circles and professional circle, a social gathering such as factory day and other celebrations encourage participation. Among the four unions the recognized unions are ATWM & ATEU. 4. WELFARE DEPARTMENT The organization provides good welfare services to its employer.

The company runs a subsidized canteen on contract basis. Rest rooms with locker and washing facility, arts and sports club, well maintained library are other facilities provided. A well transportation facility is given to all the employees from different destinations for which they have to pay a very less https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

amount. All employees drawing a salary below Rs. 6000 are covered under group accidental policy and mediclaim policy.

Taking the health aspects of employees those who in the night shift get 200ml of milk packets for every night shift worked. It is given to retain their lost energy in the night shifts as it is motivation to the employees to come for night shifts. Apart from its soaps is distributed for the cleanliness of employees. Each worker gets soap fully off cost and those who work in the production units 3 in number per month. Management staff 1.

Group hospitalization scheme 2. Group personal accident policy 3. 2 wheeler scheme-40% borne of the company 4. car scheme- Asst. manager and above -40% borne of company 5. Super annuation-Asst.

manager and above 6. Employee self development scheme. Workers 1. Group personal accident policy 2. Mediclaim 3.

Housing loan interest subsidy-50% 4. 2 wheeler loan interest subsidy -70% 5. Financial assistance -co -operative society 6. Periodically medical checkup 5. Time Office This is concerned with registering the time in and out of the workers. Other activities related to payment of wages, incentives, leaves etc.

different registers are kept for different shifts for the effective functioning.

Apart from it, a punching system is maintained. Each employee has to punch his badge in the electronic punching system while arriving for duty. The same is repeated while leaving the factory premises. Attendance is cross checked with the attendance report of the workman and the attendance

register maintained at various sections for the staff and managerial persons.

Performance reports are maintained in each section.

These are done with a view to reduce the absenteeism in employees and motivate them to increase production. A leave book is maintained and it contains leave balance, leave credited and leave awaited. The daily attendance report is verified by the supervisor, shift engineer and shift superintendent department head. Working hours: A – Shift 6 a. m. to 2 p.

m. B - Shift 2 p. m. to 10 p. m.

C - Shift 10 p. m. to 6 a. m. D - Shift 9 a.

m. to 5 p. m. (Trainees will be generally put in the general shift) 6. SECURITY & safety Safety The organization follows all the provision under the Factories Act 1948. The plant is well equipped with safety machines and directions are given for the same.

Safety directions are placed at noticeable points in and around the plant premises. Fire extinguishers are placed reachable points and employees are well trained to use if necessary comes. Those who work in production departments are given masks, safety gowns and shoes. In Apollo , a separate book is given to each employee, which prescribes certain rules and procedures in order to create a working environment free of accidents. No major accident was occurred in the plant for past 10 years. ABC of Safety Always Be Careful Security The security is concerned with the physical movement of men and material.

Security staff headed by the chief security officer works at all the shifts. To facilitate the security measures, single point entry is adopted to control visitors. For materials, separate gate passes are issued. Job description:- - Be responsible for security of men, machinery, finished goods, raw materials, process materials, highly sophisticated equipment etc. Their inward outward movement is monitored as per the system prevailing. Developments of security staffs in line with the requirement of the organization & to keep a high morale of the forces.

Event management:- The security department plays a significant role in factory day, safety day, onam / Christmas celebrations and plant visit by important officials. 7. Other administrative activities Absenteeism Management Absenteeism among workmen has been a cause for concern for the company; production has suffered heavily in this account recently. It has therefore been decided to fight against the absenteeism contains among the regular workman and production apprentices through attendance monitoring mechanism. Control Measures (a)Attendance, Discipline & Development ProgrammeIntroduction of ADD programme effective in ATL at April 2006. - An effort to improve the attendance of chronic absentees.

-To maintain consistent production Operations of the scheme • Chronic absentees numbering 192 are brought under small group of 5 person • 192 workmen are brought under 23 groups, under each mentor, drawn from purchasing and other financial areas, on a daily basis oversee attendance to ensure availability of his group members for work. • H R department monitor the attendance and stops those who absent from duty continuously for 3 days. • After 15th of each month, attendance data of the group members are https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

generated and circulated among the groups. H R department publishes list of absentees during the 1st half of the month to give them a chance for improvement during the second half of the month. • In the 1st half of the succeeding month, the attendance for the previous month is published and committee meets and decides the course of action against defaulters. • Advisory/warning letters/suspension pending enquiry, etc.

are issued based on the gravity of each case. • Individual appreciation letters signed by the mentors are sent to the residence in cases where remarkable improvement is shown. (b) System i. Daily follow up ii. Three days – meet HR iii.

Six days – stoppage iv. Ten days – home visit v. Twenty days (accident) home visit (c) Task Force i. 12 task forces for 116 members ii. Constitution (1 HR + Line Personnel) iii. Achievements: 10 absentees were converted to 100% attendance iv.

Individual problem solving v. 34% habitual absentees shows improvement
(d) Training and counseling 2 days training module i. Individual counseling
(e) Leave Planner i. Leave planner ii. 12% permissible limit or work station iii.
Festival leave plan iv.

Leave sanctioning and monitoring • Mentoring -Handholding extended to budding youngsters by senior managers. Performance Appraisal i. Employees development review (April- March) ii. Three tier systems ii. Helps in setting individual/team goals iv. Rated in respect of the achievements v.

Mid year review of the goals vi. Personal attributes considered Salary
Payment All supervising personnel are required to open an SB Account with
the South Indian Bank, Perambra and intimate the account number to the
accounting department who in turn will remit the salary in case of non
supervisory personnel, cash payment is done in the following days; (a) Staff
and service staff – last working day of the month (b)Production/engineering
workmen-7th working day of succeeding month No of employees
Management staff – 270 Permanent staff -1819Workmen trainees – 248
Contract workmen – 453 Total -2790 PRODUCTION DEPARTMENT The
production department has various divisions such as:- 1. PURCHASE
DEPARTMENT The main function of purchase department is to provide right
material at right time in right place at right quantity. This department is
concerned with the purchase of both indigenous and imported materials. It
covers procurement of indigenous Engineering spares, general engineering
and miscellaneous items othern than raw materials.

This department is headed by senior manager and under him there are a number of officers and staff. The department is provided with the latest communication facilities and computers. The main items of purchase are 1. Engineering spares 2. Consumables 3.

Furnace oil 4. Diesel 5. Chemicals 6. Lubricants 7. Some raw materials The purchase may be corporate purchase or plant purchase.

Under corporate purchase the raw material is purchased after considering what the market require for the month. Under plant purchase, purchase may be of stock item or of non stock item. Stock items are purchased for

regular use. They are having material codes. They are purchased after considering the reordering level, reorder quantity, lead time etc.

For non stock items their is no regular purchase. Different departments have to prepare purchase requisitions. The items purchased are Engineering item, oils & lubricants, local raw material, import of spares etc. VENDOR SELECTION This includes a list of steps involved in selecting the right vendor for stack items identified as critical by the department to enable a smooth functioning of the plant. Vendors are generally identified as 1. Manufacturers 2.

Dealers 3. Firms offering various services Manufacturers are divided into two:

1. OEM (Original Equipment Manufacturers): The OEM shall be identified as a vendor for the supply of equipment, spares, components etc. . OCM (Original Component Manufacturers): For all spares, components and consumables, attempts are made to identify the manufacturer and source the items directly from them so as to get quality products or services at optimum cost.

Information available on supplier's manuals, catalogs, details available on the nameplates of machines etc shall be used for the purpose. APPROVAL OF VENDORS All OEM vendors who have supplied the machinery equipments and instruments are approved vendors for sourcing the respective components and spares. All original components manufacturers are treated as approved vendors. Further consideration for approval includes Vendors supplying goods satisfactorily for last 5 years • All authorized dealers of OEM/OCM shall be treated as approved vendors • For the order of finished goods specified brands are approved. PURCHASING RECORDS 1.

Purchase Order Record: - POs of all materials bought 2. Vendor Record: - List of all vendors; their complete mailing addresses 3. Blue print and specification record Drawing: - Many items are purchased by blueprint specification are kept in separate files with index showing their location and where the copies have been sent. Thus for repeat order to old supplier it is not necessary to send new copies of the specification. 4. Contract file: -Certain goods may be bought under a term contract if so, the purchasing department must maintain a record of such contract.

2. STORES DEPARTMENT Raw Material Stores Process: - Receipt, handling, storage, packaging, forwarding; delivery of material to internal and external customers with proper documentation to meet their requirements. Purpose:-To supply right material in right time to produce right quality product without any interruption. Scope :- Receipt , handling , storage ; issue of raw materials ; to the customer. SIPOC S-Supplier = corporate purchase I-Input = raw materialsP-Process = receipt handling, storage preservation; issue of raw Materials O-Output = confirming RM receipt, storage; delivery. C-Customer = manufacturing, mixing centers other unit of ATL; internal customers RAW MATERIAL HANDLING PROCESS Activity description: 1.

Upon receipt of the raw material, the document related to transporter, supply are verified for authenticity of the supply. 2. Identification of the supply with full details of material code, date of receipt, suppliers name; truck no: will be carried out and transferred to the pre identified location. 3. Upon receipt of the raw materials GR will be prepared.

4. Based on the GR, Quality assurance will collect the samples as per the pre- determined frequency and OK the material if the results are meeting the requirements by releasing the GR. 5. The materials if rejected from lab will be sent back to supplier and all accepted material will be accounted in the inventory. 6.

Issue of raw material will be carried out to internal customers; external customers based on the request received from the customers as if applicable. Various raw materials used in the manufacture of tyres are as follows 1. Polymers: - natural rubbers, synthetic rubber, (SBR, PBD, BUTYL etc) 2. Fillers, carbon black, reinforcing clays 3. Process oil 4. Curing agents/sulphur 5.

Accelerators/activators 6. Antioxidants/antiozonents (waxes) 7. Ret ardors 8. Pepticers for natural rubber mastication 9. Fabrics: nylon cord, i-ayon cord 10.

Bead wire spools 11. Solvents for cements and solutions Miscellaneous items like paints, colours, crayon, scrap flakes etc RECEIPT OF RAW MATERIALS VERIFICATION OF DOCUMENTS AT SECURITY GATE The security inspector at main gate shall verify all documents pertaining to the consignments brought to the factory before allowing entry in to factory premises and note the following details. Serial no, suppliers name, description of item, challan quantity, challan no and date or LR no and date, truck reg. no, date and time of arrival, date and time of departure. WEIGHMENT (BY THE COMPUTERISED WEIGH BRIDGE)Security shall inform raw materials stores about the arrival of the vehicles at the gate.

The security guard and a representative from RMS shall record weighment of trucks jointly. The Weighment slip shall indicate the following: Serial no, time and date of receipt, suppliers name, gross weight with materials, SIR no and date. After recording the above details in the computerized weighing balance the vehicles shall be directed to the respective unloading bay. In ATL weighment will be done in a weighbridge closer to the factory under the supervision of security and RMS personnel after ensuring that the weigh bridge posses a valid certificate from weight and measure department. Both security and RMS personnel shall sign on the computerized weighment slip. One copy of the weighment slip will be filed in RMS along with concerned delivery challan and the second copy will be returned by security department.

VERIFICATION OF DOCUMENTS AT RMS The receipt in charge shall verify the documents to ascertain the no of packages, description of materials code and weight of the material. If any discrepancy is found the same shall be orally reported to the officer concerned before unloading. He in turn will take decision suitably. The dispatch documents include: Delivery challan /invoice, sales tax papers, packing list and duplicate copy for transporter of invoice for availing MODVAT credit. In case of non receipt of any of the above documents the consignment will not be unloaded unless and otherwise instructed by the competent authorities after compliance of all conditions stated above, the materials will be unloaded as instructed by the receipt in charge and lead to the respective area.

HANDLING STORAGE AND PRESERVATION All the incoming materials except the materials coming in tankers will be unloaded manually or with the help of https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

forklift as instructed by the receipt in charge. Caged pallets or platform pallets are used for storing of materials so far as possible to facilitate easy handling at the time of issue. Each caged pallets will carry a maximum of 1500 kg of materials. Caged pallets will be stacked one over the other. PRESERVATION Carbon black and chemicals are stored in the 2 nd floor, natural rubber /SBR, wax etc in the 1st floor and fabric, bead wire, latex etc in the ground floor.

In case of space constraints in the respective floors, the materials may be kept in the ground floor and other places as directed by the storage in charge. Materials received in tankers, after checking the seal and dip reading and sample test by QA will be directly pumped into the storage tank. Before unloading the receipt in charge will make sure the availability in the storage tank. Rejection items are identified by displaying a rejection tag by technical department. In the case of rejection of voluminous quantities the materials are kept in respective areas till disposal, while small quantities will be removed and stored in the rejection area duly displayed with the rejection tag Engineering goods stores Engineering goods stores is responsible for storing the necessary spare parts, components required for smooth functioning of the plant.

On receipt of indent from production department, the engineering stores arranges for its release. The inventory management technique used is VED Analysis. Almost all the activities of this department are computerized. The purchase department is initiated whenever re order level is reached. A buffer stock is always maintained in the store. Another system followed in engineering stores is VMI-Vendor Maintain Inventory.

https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

In this The vendors supply the raw material in large quantities and payment is made only for consumed items. ENGINEERING MATERIALS At present, total number of item codes in Engineering store are 38500 approximately. Out of this 23500 items are spares and 15000 items are consumables. 1.

Consumables (General stores items) Consumables (General stores items) are standard engineering items (bearing, belt, etc).

It is decided to identify common codification scheme for all consumable items. All the items shall be brought under this codification scheme. 2.

Spares Spares are part of equipments. Equipments are varying from plant to plant by make and model.

It is decided to 1. Identify common equipments by same make and model 2. Assign uniform code to equipment make and model wise, which is common across plants 3. Assign respective plant spares with code of equipment. In general 1. Item code for consumables will be common across all plants 2.

Item code for spares will be plant specific with respect to common equipment code. However, material classification in SAP will be used to trace the spares to common machines. Material Master Codification will follow the external numbering Finished Goods store RECEIPT OF FINISHED GOODS All finished goods after final inspection are kept at the transferring area in each shift. The staff of final finishing will prepare a finished goods transfer-note in triplicate which will be countersigned by the staff of FGS/TTF After verification, finished goods transfer-note will be serially numbered and have the following details. Material code Description Quantity The original copy of the transfer-note will be issued to central excise wing after entering the

details in stock statement, duplicate will be given back to production as their file copy and triplicate will be issued to Production planning.

One staff each from production and FGS/TTF will separately verify the quantity, size, ply rating of the finished goods and compare against the entry in the transfer-note. REMOVAL OF FINISHED GOODS: The finished goods required for dispatch kept at the transferring area, after preparing the transferring-notes, will be removed to the loading bay and balance will be removed to stores for storage, after completing packing for required item. HANDLING AND STORAGE Method Applicable for non -OE -Finished goods store is fully covered and protected from sunlight and rainwater. The floor is cleaned to remove dust. Proper passage is left for access for periodical inventory. -All the tyres to be stored are rolled from transferring area to stores and stored size-wise.

Each stock will be maximum of ten height for truck tyres and 12 for low truck / passenger tyres. All tubes are packed in bags and brought to the storage area directly by tube production department. Flaps are bundled in ten and transferred using trollies. -All seconds tyres stored in FGS are identified using a white band and blem tyres wing a red band. - A stock statement is made as of the closing of the day. This is made based on the receipt and despatch.

After preparing the stock statement the finished goods transfer note is handed over to factory excise wing for recording and filling. Applicable for OE -Truck OE tyres if not despatched within 24 hrs should be stocked in the warehouse. Bottom most tyres will be stocked with tube valve facing upwards and for others with tube valve facing downwards, same practice to

be followed while loading the tyres in truck also. -FIFO system to be followed strictly to avoid overaging. - Truck inspection to be carried out in order to avoid FM pickup.

- Incase of high inventory levels when it is not possible to store all tyres in the godown , temporary sheds / tarpaulin sheds are resorted for storing of tyres . At such times starting norms may not be ad heard to and tyres may be kept in places other than the designed area. Stock levels of FG stores are controlled by supply chain management(SCM). Inventory management is done at head office level and FGS has the function of receiving, storing and dispatching as per SCM requirement and communicating daily stock levels. DISTRIBUTION OF FINISHED GOODS Marketing coordinator gives despatch schedule on day-to-day basis. The destination to which trucks are required is arranged by marketing coordinator one day in advance.

Load slips are prepared as per the plan made. Store-man will keep the loads as per the load slip at the loading bay. Staff of FGS, TTF, Security and representative of transporter will check the load, kept separately for size, ply and quantity. After checking the load-slip will be signed by the staff and given for preparing transport documents and goods will be loaded on to the Lorries. ASSEMBLING TYRES, TUBES AND FLAPS (TTF) Upon receipt of goods for TTF, FGS shall prepare a brought-out goods receipt report (BGRR) and it shall be forwarded to the head of QA department.

QA department shall organize for sampling and inspection of the goods received. Upon acceptance/rejection of the consignment, QA department will return the BGRR with status of inspection marked on the same. A

consignment of goods shall be used for packing after obtaining approval for use from QA department. In case a consignment is rejected, the same shall be tagged as "Rejected" by QA department. 3.

Manufacturing process PRODUCTION PROCESS Thread | The entire production system has been broadly divided in to three sections, namely Division A, Division B and Division C. DIVISION A BANBURY All polymers are mixed with filler, process oil and other chemicals to give different grades of rubber compounds in the Banbury. The mixed batch is then dropped on a batch off mill for further mixing to form the rubber compound and then in to a sheet form. The rubber in sheet form is then passed through a conveyor and stacked on skids. Each type of rubber compound is specifically compounded for tyre performance. Tyre meant for high way services and fast speed have different rubber formulation.

As compared to tyres for mining services, agricultural service etc, large bales of natural rubber are cut into smaller parts by a bale cutter, prior to mixing in the Banbury. Carbon black, process oil, and other chemicals are mixed in the Banbury along with rubber under specified temperature and time. An essential characteristic of the Banbury is to give a good mix of fillers and chemicals with the rubber polymer. Normally all rubber compounds are mixed in to two stages and natural rubber compounds in three stages, as natural rubbers being tough, requires mastication. The final stage in the Banbury is a critical stage when the sulphur and other curing agents are added. CORD DIPPING UNIT Rayon and nylon cord requires treatment in order to make them suitable for adhesion of rubber compounds.

These cord fabric are passed through a liquid rubber solution called 'latex' and is heated under tension through special ovens. Each type of fabric like rayon, Nylon, Polyester etc should be coated with specific amount of rubber latex in the cord-dipping unit. Fabric after passing through cord dipping unit is wound up in rolls and wrapped and packed in polyethylene in order to prevent absorption of moisture from the atmosphere. CALENDER All fabric is coated with specific compounds in the calendar. Cord fabric is coated on both sides with rubber layer, where as square woven fabrics are normally frictioned and then they are coated on one side or both sides.

Coating consists of applying a rubber layer to top and bottom surface of the cords. Calenders are of various types. 3 roll calenders makes a layer of rubber compound between the top and middle roll and squeezes the rubber layer on to the fabric on one side between the middle and bottom roll. The fabric is then to be run again through the three-roll calender in a similar process to get a coat on either side. The 4-roll calender can coat on both sides of the fabric with rubber layers simultaneously. After calendering, fabrics are wound in cotton liners in order to prevent sticking.

Calenders are also used to produce rubber layers to different widths and gauge that are required in the process of tyre manufacturing.

EXTRUDERSExtruders are distinguished by the diameter of their screws and are a single or dual type. a) SINGLE EXTRUDER Rubber compounds after being broken down and warmed up on Mills, are fed in to the screw of the extruders from which with the help of dies, produces a green shape of treads, side walls, and other strips as per specified dimensions and contours, width, gauge and weights. These strips are cooled in water sprayed https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

conveyors and then cut out in to specified lengths with the help of skiver (rotary cutting knife) and booked in metal trays or wrapped in cotton liners. The word green denote uncured rubber (i.

e. , non vulcanized) b) DUAL EXTRUDERTwo separate set of mills on which two different types of compounds are broken down and heated and fed separately to two different screws. The two compounds after extrusion are extruded together in a common head and with the help of performer and final dies, emerge in to a pre-determined shape. The advantage of dual extruder is that two rubber compounds of completely different composition can be extruded. DIVISION B BEAD WINDING SECTION The bead building machine manufacturers beads for all types of tyres. Beads consists of a number of strands of copper coated steel wire which is coated with a layer of rubber compound and then wound to specified diameter depending on each tyre.

Bead building machine consists of a lot of strands, for each strand of wire spools, which is brought together and coated on an extruder with a layer of rubber compound and then wound on a check which determines the final diameter. These rubber coated wire spools are then covered with rubberized cotton sq. woven fabric with necessary fillers or rubber compounds. The functions of beads in a tyre are to anchor the tyre while mounting rims of vehicles. BIAS CUTTER Fabric after coating from the calender is run through bias cutter, which cuts the fabric to, specified widths and angles. The width depends on the type of tyres and the angle of-the cut depends on the type of tyre services required. The regular bias angle tyre, the angle of the cords varies from 35inches to 45 inches from bead to bead. This is the basic https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

difference between the radial and biased angle tyres. TYRE BUILDING MACHINE All the necessary compounds like beads, plies (cord fabric), breakers, treads, sidewalls, chafer etc are brought to the tyre-building machine. The tyre-building machine has a turret for holding different numbers of plies, breaker fabric, chafer rolls besides tread applying conveyor. Tyre building machine itself consists of a shaft, which can rotate at different speeds. The direction of rotation can also be changed. According to the size of the tyre to be built specified building drum is mounted in the shaft of the tyre-building machine. The fabric layers are then applied to the drum along with the bead wire bundles, which are compressed together with the help of different types of sticher wheels. After building cord carcass on the drum, in the final stage the green tread, sidewall and chafers are applied. The green tyres, which are in cylindrical form, are removed from the drum by collapsing the same. DIVISION C TYRE CURING The green tyre from the tyrebuilding machine is prepared for vulcanization by the application of lubricants on the inner and outer surfaces for better moulding. The Bagomatic curing press which is the latest design (no separate air bags are required) consists of a thin synthetic cured bladder positioned in the center of the bottom half of the mould over which the green tyres are placed. As the press starts to close, steam pressure is applied in to the bladder, which gives the tyre a press shape, and the pressure is increased till the full shape of the tyre reached when the press is closed. (I. e., both the top and bottom halves of the moulds are in contact with each other). At this stage when the press is fully closed under high internal pressure and temperature, curing media like steam and hot water are passed through the bladder while the outer surface of the mould is heated by the steam. The internal pressure in the bladder is https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

critical for the purpose of obtaining good moulding effects. The heat or temperature applied to different locations of the tyre compounds has to be as per the specifications. Less heat or temperature will cause an under cure condition and excess heat or temperature will cause deterioration in the rubber compounding fabric. After vulcanization, the tyre is removed from the press and in the case of nylon truck tyres, as additional process of post cure inflation may be required. This process consists of moulding the tyre on specially designed rim and inflating the tyre to the required pressure while it is still hot for a period of time in order to help final process of vulcanization and maintain a proper shape. TYRE INSPECTION All cured tyres are then physically inspected for visual defects and excess rubber flashes are removed. The tyre is then checked in the balancing machine. The tyre after inspection and classification are taken to ware house Major losses during production • Break down of machineries • Loss of time for setting up of machine • Loss due to the difference of machine speed • Loss due to stoppage of production • Loss due to mistakes and correction of mistakes 4. QUALITY ASSURANCE Quality is the totality of characteristic of an entity that bears on its ability to satisfy, stated and implied needs. Quality is referred to as 'fitness for use' or 'fitness for purpose' or 'customer satisfaction' or ' conformance to requirements'. QA is the well-planned and systematic activities implemented within the quality system and demonstrated as needed to provide adequate confidence that an entity will fulfill requirements for quality. Quality assurance Labprocess control; audit Lab:- Testing and releasing raw materials and processed materials. All raw materials that come to RMS are released for production only after lab approval. For that samples of raw materials (Rubber, Carbon, Chemicals, Fabric etc.) are given to lab. https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

In lab these raw material samples are tested. If the test result are within the required specifications above material is released for production. If the result is not ok, material is rejected. In the same way processed material samples are also given to lab for testing (e.g.: Mixed rubber compound, Dipped fabric, Calendared fabric etc). These materials are released for further processing only if the test result is OK. If the test result is not OK, processed material will be held up for technical disposal. Process control; Audit In shifts, all the production areas will be audited by Quality Assurance. Q A will check whether the processing is done within the required specifications. If any abnormality is noticed, necessary corrections will be done and the defective processed materials will be held up. Finished product (cured tyres) will be also checked by QA. If any defect is noticed on finished tyre it will be held up. Only OK tyres will be released to ware house. Samples of cured tyres are tested indoors on a test wheel. The wheel simulates the running condition of a tyre, primarily used to detect carcass strength and heat generation. Tyres are also fitted on different vehicles to study the effects of different types of roads, loads and climate conditions. For Original Equipment (OE) there is 100% inspection by quality assurance. The different methods used for checking are Dimension, Pulley wheel and Puncher. 5. PRODUCTION PLANNING AND CONTROL Process flow [pic] The resources in terms of machines, men, material etc used in a tyre plant run into several crores and it is necessary to make best possible use of these resources to achieve maximum economy in production costs. The main objective of production planning control is there fore to ensure optimum utilization of those resources as well as the capital looked up in work in progress inventory. The major activities of PPC could be enumerated as follows:- 1. Scheduling of https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

machines 2. To ensure that machineries are bought out, required components are ordered at the right time to fit in with the plan of work schedules for the shop floor. 3. To ensure that the proper man is doing the proper work in specified time consuming specified material at specified quality. In a nutshell by n planning production procedures are set up to obtain the required quantity and control is necessary to ensure that the plan is carried out and adjustments are made when the plan falls to operate or due to exigency when external circumstances warrant. Responsibilities and Functions PPC is responsible for: a) Establishing production programme in consultation with marketing departments. b) Planning; control of production schedules. c) Ensure adequate production; inventory. Production programmeLiaison with marketing and formulation of production programme as per sales forecast. The production programme is prepared based on the following: a) Machine capacity b) Labour required c) Raw material requirements d) Equipment; other tools required for manufacturing (moulds, drums etc) Raw materials Liaison with material control; technical departments for requirement of raw materials as per the consumption pattern. Authorize RMS for issue of raw materials to production floor. Scheduling Machine scheduling includes day to day scheduling machine loading in the most optimum level. Review of progress and initiation of action to remove bottle neck planning and control of in process inventory at optimum level etc. Machines Review of machine capacity and its limitation with respect to production programme to initiate corrective actions. Access requirement of material handling equipment; storage systems and arrange for procurement whenever necessary. Scheduling in brief is determination of 1) When a job will be done 2) where to do the job (incase where there is https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

more than one machine) 3) How much to do in one lot. 6. ENGINEERING DEPARTMENT This department consists of Electrical, Mechanical and utility division. UTILITY DIVISION The Utility division is the source of steam, power, water and compressed air. The main functions of this division include: DEMINERALISATION OF WATER The water pumped from Chalakudy River is demineralised by a series of operation like filtration, passing through an ion exchange matrix etc. This is done to remove dissolved oxygen and minerals. It is then stored in a storage tank. BOILER AND UTILITY There are 3 boilers running to fulfill the present demand of steam. The capacity of two boilers is 10 TPH(Tones Per Hour) and 14 TPH. The Boilers are flat tube type and furnace oil is used as fuel. The steam generated has a pressure of 15. 5 Kg/cm2 CHILLED WATER PLANT There are 4 chillers and the medium used is FREON. The capacity of each chiller 115TR. The temperature of the chilled water 55°F. Sections which required chilled water are: TCU, Dual extruder, Banbury, Mill etc. COMPRESSOR HOUSE There are total seven compressors. It is again divided into high pressure (HP), low pressure (LP), and medium pressure (MP). All these are passed through the dryers to remove any moisture content. LP is used for instrument purpose (60psi), MP is used for Banbury, Tyre building, and Bias cutter sections (90psi) and HP is bused for Tyre curing unit and post cure inflation unit (150psi). Total electricity consumption is 105000 units. A stand by generator is available to meet the emergency. ELECTRICAL WORK SHOPThe main job of this department is electrical maintenance including electronic instrumentation. The main management hierarchy is given below. Total strength of this department is around 50. The maintenance activities mainly include break down maintenance and preventive maintenance. In the case of break down https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

maintenance, a maintenance slip is given from the respective department to this department including the date and the type of maintenance work required, so that it is possible to take necessary actions. Preventive maintenance includes developmental activities. Here pre-checking and necessary actions are done in order to avoid the break down. Spare keeping function also included under preventive maintenance. There is a programmable logic array (PLL) circuit for controlling the production process. It is actually a computer system with out the monitor and keyboard. It contains a processing unit, control unit and memory unit. The purpose of the control unit is to initiate a series of sequential steps of micro operations. During any given time, certain operations are to be initiated while all others remain idle. Thus the control variable at any given time can be represented by a string of 1's and 0's. The control memory is assumed to be ROM, with in which all control information is permanently stored. The design of a control circuit includes the following steps 1. The problem is stated 2. An initial equipment configurations is assumed 3. An algorithm is formulated 4. The data processor part is specified 7. INDUSTRIAL ENGINEERING DEPARTMENT Objective. The main objective of this department is to plan, design, implement and manage integrated production and service delivery systems that assure productivity, quality, reliability, maintainability and cost control to keep Apollo globally competitive. FUNCTIONS 1. Conduct work-studies, improvement studies in various equipment and fixation of norms. 2. Capacity calculation in various equipment from time to time consequent to various changes. 3. Design, Implementation and follow up of incentive schemes in various zones. 4. Planning and assessment of manpower requirements of various departments periodically. 5. Studying plant layout and material https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

handling systems and suggesting improvements. 6. Explore the possibilities of capacity expansion and prepare project reports. 7. Negotiations with unions regarding various issues like incentive schemes, productivity, expansion and Labour issues 8. Analysis of capital expenditure request from various departments and make recommendations to Senior Management Committee. 9. Prepare budgetary planning for capital and cash flow requirement. 10. Prepare documents for long-term settlements, bonus settlements etc. and represent the management in the meetings with the Unions /Labour Departments. 11. Visit other Industries for getting information regarding LTS methods, practices and other developments. 12. Conduct various training classes for workmen, supervisors, other officers and new recruits. 13. Apply various Industrial Engineering techniques such as job evaluation, O; M (Organization; Methods) studies, Kaizen, Line Balancing etc. 14. Suggest various cost reduction programmes and implementation. 15. Associate with professional bodies like Productivity Council, NITTIE, and Institution of Engineers etc. 16. Conduct daily audit on manpower, productivity, lost time, scrap details, absenteeism, overtime etc. 17. Furnish various other management information reports to the top management. 18. Evolve best practices and processes through global benchmarking in the context of global competitions and intense customer focus. 19. Optimize inventory levels at various stages such as Engineering Stores, work in progress and finished goods. 20. Continuous improvement of methods and equipments design compatible to the best economic standards. FINANCE DEPARTMENT The corporate office situated at Gurgaon does most of the accounting and taxation jobs of ATL. At Perambra plant there is a separate accounting and finance department. This department deals with salary, https://assignbuster.com/an-organisation-study-in-apollo-tyres-company/

wages and costing. Excise duty of the raw materials also comes under this department. Sales from operations during the financial year ended March 31, 2007 amounted to an all time high of Rs. 4, 733 crore as against Rs. 3, 002. 12 crore during the previous year, recording a growth. The strong performance of Apollo is a combination of high growth in sales along with enhanced operations management, better working capital management, aggressive marketing and overall cost reduction measures adopted by the Company.