
Inventory Management & Analysis in Small Scale Fastener Industry

Kharkar Vaibhav Shekhar, Panchal Vaishnavi Pundlik, Mishra Sangam Anil, Zinge Ashwini Pundlik

Department of mechanical engineering,, Mumbai University, Mumbai

Email: KharkarVaibhavShekhar@viva technology.org

Department of mechanical engineering, Mumbai University, Mumbai Email: 17105150vaishnavi@viva-technology.org

Department of mechanical engineering,, Mumbai University, Mumbai

Email:Mishra Sangam Anil @gmail.com

Department of mechanical engineering,, Mumbai University, Mumbai

Email: ZingeAshwiniPundlik@gmail.com

Abstract—The Inventory Management System is a real-time inventory database capable of connecting multiple stores. This can be used to track the inventory of a single store, or to manage the distribution of stock between several branches of a larger franchise. However, the system merely records sales and restocking data and provides notification of low stock at any location through email at a specified interval. The goal is to reduce the strain of tracking rather than to handle all store maintenance. Further features may include the ability to generate reports of sales, but again the interpretation is left to the management. In addition, since theft does occasionally occur, the system provides solutions for confirming the store inventory and for correcting stock quantities. Project also helps to understand the system to control the inventory. At different level with different problems. It helps to give the information On Kanban, Just in Time, Enterprises Resource Planning.

Keywords (Inventory Management, Just in Time, Kanban, Restocking, Stock)

I. INTRODUCTION

Industrial Engineering Corporation is on a 1, 55,000sq.ft.site in the vasai suburbs of thane, Maharashtra. Plant converts 8000 metric tons of steel per year into millions of fasteners. Fasteners manufacture as per required standard has long been the product that IEC has been proudest to put its head mark on. IEC represent the benchmark in fasteners quality and is considered the prime source of innovation and technology in India. As world markets continue to change and issue new challenges to India's manufacturing, so IEC evolves to meet those challenges and ensure that the brand maintains the highest levels of quality and satisfaction to its customers.IEC has over 4 decades of experience in fastener manufacture. The lessons learnt over this time now go into ensuring even the most complex fasteners are forged strictly in accordance with the specifications. One advantage is that the entire fastener – including the tool design, forging heat treatment and plating is done under one roof. It is this level of security that results in high quality product.IEC is manufacturing and exporting wide range of fasteners such as Bolts, Nuts, Washers, Studs, Foundation bolts, Threaded bars, Sag rods, Tie rods, Clamps and other items conforming to rigid international standards such as DIN, ASTM, BS, ANSI, JIS, IS, AS and ISO. The company's products are used in building automobiles, Railway wagons, Ships, Agricultural Pump sets, Electronic equipment's, Setting up Steel, Cement, Paper, Petroleum, Fertilizer plants and construction of Hydroelectric, Thermal, Atomic power stations.

PROBLEM DEFINITION - In store department, store keeper has to maintain the whole inventory record properly. But in IEC store keeper has to keep the record of inventory as well as he has to maintain the record of all material which enters in to company. He has to unload the vehicle, with the help of worker, and maintain the register for material in which he keeps the record of challan no, challan date, material description, party name, sign of person who gave order for it. He has to also maintain the register for inventory in the same way, in which he has to keep the record like, date on which the material was issued to worker and in which department the worker works and the quantity that he has given to him. In store, every entry related to the material and inventory is maintained in register manually. It takes lot of time, it looks very tedious and more complicated, and the environment was not like user friendly. All the information is not placed separately, it is more time consuming, lot of paper work, slow processing, and the whole process became headache to the store keeper.

II. OBJECTIVE

The main objective of this project is to implement the proper system in store for proper inventory control.

- To keep computerized record in store.
- To Control the proper record of inventory with help of different software's or technique.
- To do proper planning for inventory.
- Try to reduce the dead investment
- Implement the proper technique which will give us all the information In one click, like overall investment beyond the process inventory per annum, month or week. What are the inventory we have in stock , in which quantity we have, what type of product we require commonly, what are the price of that products, and so on which overall help us to reduced cost of inventory.
- Try to save the time or reduced time which is required for the marinating the record of inventory.
- To keep the track record of inventory.
- To reduce the cost of inventory.
- To reduce the waste of inventory.
- To save the time.
- Save paper work

III. MATERIAL AND METHOD

IEC have many years' experience in the manufacture of fasteners in a wide range of materials. Our range of strategic bar stock gives us the ability to offer a rapid delivery response time in order to meet customer requirements. Our scope of supply includes, but is not limited to, the grades are

TABLE 1

Sr. No.	Item	Grade
1	Bolt	IS : 4.6, 4.8, 5.6, 10.9
2	Stud	ASTM : B6, B7, B7M, B16, B8, B8M
3	Nut	IS : 4, 5, 6,



FIGURE 1: Bolt



FIGURE 2: Stud



FIGURE 3: Nut



FIGURE 4: Foundation Bolt

After observing the problems in store which is already mentioned above, we try to find out the solution on it. After researching on web, books, articles we find out some solution to eliminate the problems the store department is currently facing. That is Instead of maintaining the record manually on register, keep the record in computer. Implement the software which is made for inventory control or in which there is module for control of inventory. To implement this software there is high initial investment and it also requires a proper training of six months to twelve months to operate properly. IEC has its own software which has modules as per the company requirement. We can tackle the problem of inventory control, if we add one module in which we can maintain all record of process inventory. Like Overall investment beyond the process inventory per annum, month or week. What are the inventories we have in stock, in which quantity we have, what type of product we required commonly, what are the price of that products, Period of replenishment, etc. What are the products mostly used in current month in how much quantity. It also help to create a record to who process inventory has given, in which quantity, on which date and time, in which department he work etc. It also helps to maintain the record of semi-finished product which is ordered by an engineer.

IV. CONCLUSION

Inventory management must be related to an accurate record of the finished product that is ready for shipment. This usually means posting the production of the newly completed product to the total inventory and subtracting the finished product that was last issued to the buyer. When a company has a return policy, the finished goods inventory usually contains a subcategory that describes any classified or secondary quality returns. Accurately keeping records of finished goods inventory, you can quickly communicate to sales personnel about available goods and ready to ship at any given time. Inventory management helps reduce costs while meeting regulatory requirements. Supply and demand is a delicate balance, and inventory management wants to ensure that the balance is undisturbed. Well-trained inventory management and high-quality software will help make inventory management a success. The results of inventory management investments will be reflected in the form of increased revenue and profit, a positive employee climate and overall customer satisfaction.

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