

Mccall diesel motor works

Business



**ASSIGN
BUSTER**

Works manufactures a range of diesel engines for use in marine applications, manufacturing plants and agricultural applications. The company has always tried to be progressive in terms of product design and in fact pioneered the development of a particular type of internal combustion engine. Originally, they only manufactured large marine diesel engines but have now diversified into small stationary type engine. About the Company's design, many of the engines designed were one-off products and made specifically to order.

Although this type of work still represent 60 percent of those manufactured, there has been a move towards standardizing many of the component parts to reduce the variety of parts. This allows a degree of interchangeability, especially for small components such as studs, bolts, and spring, or as mechanical fasteners. There also has been reduction in the variety of engine sizes available with introduction of a standard range of three sizes: 20, 40, and 60 HP. The company has always been advanced in terms of its product engineering, in the development and design of their product. The production phase on the other hand, has not been so advanced.

The heritage of production in the type of Job shop operation persists, and despite the tendency of standardization, the company is still continues largely on a made-to-order basis. The Increasing popularity of diesel engines meant that competition has been tight because it brought many new entrants to the market.

High manufacturing cost and poor service have been reflected in the loss of orders. Customer complaints together with pressure from sales department prompted management to call in a consulting engineer to make survey of

the Manufacturing department and recommend a plan of action for improvement.

The engineer showed the report from the manufacturing methods, Machinery and equipment, and production control. The senior management recognizes that in order to service, there is an urgent need for change. However, they are having difficulty in convincing the workforce of this and implementing any change. In the main, the management sees the problem as the resistance of the workforce to change their working practices.

However, the workforce see the main problem as being the fact that the senior management are essentially sales minded and don't understand the eroded AT production planning and maturing.

From the start of the case study, it was already stated in the title that McCall diesel motor works need a complete system of production control. Also the engineers also notice that the production planning and control of the company have no formal system. In fact there is resistance from the production manager to implementing any such formal system. The lack of any such formal system has resulted in high work in process and failure to meet delivery times due to lack of work in process monitoring and information on manufacturing lead times.

Production planning has also failed to take advantage of the economies of scale afforded by the use of standard parts.

There is also lack of formal approach to lot sizing and how the lots are processed through the shop floor. This has led to lots being lost and the

order being reissued only for the lot to turn up. Short range Limit bottleneck area Long range Maximize efficiency and utilization of machine Extreme line of production process Ensure customer satisfaction by meeting the delivery date

Advancement in engineering development and design Made-to-order type of business Weaknesses Obsolete machines Absence of any record concerning the production process Failure off piecemeal manufacture Lack of definite sequence of manufacturing operations Lack of information regarding overall manufacturing time Arbitrary delivery dates by the sales department High production cost Low-level of customer service Opportunities Location that allows them to have easy access to the customer Customer requires engines that are made-to-order Increasing popularity of diesel engines Threats

Many new producing companies are emerging Inordinate number of order Calamities and other forms of natural disasters : Determine the sequence of manufacturing process including the time it takes for each production process to be done. Advantages Management will know the overall manufacturing time, this will enable them to estimate the time it will take for the product to finish so that it will be determined on time This will determined possible areas of bottlenecks thus, these will be eliminated Reduce in process inventory of parts Disadvantages

This may require changes in the process, that may be readily accepted by the workers This in-process parts cannot be easily use the service department to supply for their emergency repairs CA: Limit made-to-order orders and instead concentrate to the sale of standard- line of the

agricultural engine This will greatly help in the simplification and standardization of the production process This may result to decline in sales as 60% of the company's sales are generated through made-to-order engines CA: Set an exact delivery time/date for each product This will inhibit any disruption in the manufacturing process Dilettantes

This may cause a customer dissatisfaction as rush order will not be allowed veil. We recommend the first alternative course of action which to determine the sequence of manufacturing process including the time it takes for each production process to be done. Which have a advantages and disadvantages of the following: Though the engineer recommendation in the study is to have a simple, straightforward program that would provide adequate control over production and could be instituted gradually and logically, it still answer it because if we already know the sequence, we will have a adequate control over the production.