THE STOCKS PLANNING IN THE SUPPLY PROCESS OF CAR REPAIR BUSINESSES

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Keywords: Stocks Planning; Supply process; Stock Management; Optimum Stock; Safety Stock.

Abstract: The paper refers to the planning of inventory management of spare parts and usable materials for a car service. Between the regularity of production, the sale of goods and regularity of supply units is necessary to have a permanent synchronization.

The supply of raw materials is intermittent due to the volume and diversity of the resources necessary for the carrying out the territorial spread of the suppliers, while the production process is continuous.

INTRODUCTION

For this I will try to define below some specialized terms from the Production Systems Engineering. The Production system - is a set of activities in a given period of time and leading to the foundation of goods and services from changes taking place on the work object.

A repair shop / Service - is a production system because all the activities take place here transforming a good activity affected by defects in a good remedy.

The most important resource of a production system is the human resource as it is represented by many physical and intellectual characteristics.

Sometimes it is impossible and uneconomic to supply raw materials when required in the repair shop.

On the other hand, the receiving unit can be found in another location than the unit that supplies and in this case it is impossible for material to arrive in the company even when it should be consumed in the production process.

These economic considerations are necessary to establish a stock in the company’s warehouses, representing a volume of temporarily unused materials.

The stock production is the consumption of all the resource materials intended for production that belong in the store of the consuming enterprises (businesses).

The stock production is made of:
- current stock
- safety stock
- stock for domestic transport
- winter stock/ seasonal stocks

The current stock is the amount of materials needed to ensure the purchasing process between two consecutive suppliers.

The safety stock is the amount of materials needed to ensure the continuity of production in case of possible interruptions in supply, due to irregularities in the production or transport provider, and if the average daily consumption is increased, the current stock being used up faster.

The safety stock changes over time, depending on the nature and structure of production, features in the production technology, supply conditions, the form being differentiated by type of raw material, semi fabricated.

Winter stock includes the amount of materials needed to ensure continuity of production during the winter season when the management of material is not possible due to adverse weather conditions.

The sizing of production stocks at higher levels than the actual needs of production, lead to redundant stocks, causing capital property trained in buying materials or finished products stored and still unsold.
The Sizing at lower levels than the real needs of enterprise may endanger the continuity of the production process and therefore causing reduction in labor productivity and increasing costs. Among the factors on which stock size depends on may include:

- uncertainty of deliveries
- available storage space
- company policy to cover storage costs

The Warehouses
The warehouse is a system with inputs and outputs (Fig. 11.1). Inputs and outputs consist of object movements and of information transmission. The goal of the warehouse is to balance the differences between inputs and outputs. Differences may be of time, quantities, of ranks and local. To equalize differences in time is required as deposit (warehouse) entries to occur at certain moments of time and exit at other moments of time. The warehouse is called from this point of view time transfer device. The disproportion between the quantities is necessary because the quantities of items / information entering and leaving a given time differences. Just because of that the warehouse acts as a “tampon (buffer)”. In terms of destination storages (warehouses) include: storage buffers speculative storages, or technological storages
Storage buffer have regular inputs which creates a pool of objects stored in the output then feeds occurring within a period of time, Destination warehouse is speculative when inputs and outputs are in favorable conditions, at times when objects are placed in storage costs less and those leaving the warehouse are sold at a more expensive price. After the status of stored materials, storages(warehouses) can be:
- for storage in pieces (ordered state)
- bulk (unordered condition), for liquids.
Process Description:

The management of this process is achieved through the continuous application of PDCA cycle (Plan-Perform-Check-Act”). The steps of this cycle are further documented.

The steps of this cycle are documented:

1. Establishing the need for products supplied.
2. Approval of applications for materials.
4. Development of applications offer.
5. Inquiry provides.

Fig. 11.1 Depozitul ca sistem _Storage as a system
Receive offer from suppliers contact

Evaluation and ranking of bids technically, economically. Choosing the best offers.

Made the supply order

Need to conclude a supply agreement/contract?

- Yes: Reception draft supply contract
  - Yes: Review and acceptance clauses
    - Yes: Signing the supply contract
    - No: Re-negotiation
      - Yes: Order to supply transmission provider
      - No: Approval Order

- No: Consider the following proposals in order of hierarchy
matters

The supplied products meet the

Yes

Storage products supplied

No

Completion of contract/order

Reception quality and quantity of products supplied

R: DGTI/DGME, SBAprov

Establishment of compensatory clauses

No

Yes

Delivery by supplier of other products

No

Solving problems through legal proceedings

Yes

Rezilierea contractului/ anularea comenzii

Consider the following proposals in order

Removal provider

Updating new suppliers

Fig. 1
CONCLUSION

Sometimes it is impossible and uneconomic to supply raw materials when required in the repair shop. On the other hand, the receiving unit can be found in another location than the unit that supplies and in this case it is impossible for material to arrive in the company even when it should be consumed in the production process. These economic considerations are necessary to establish a stock in the company’s warehouses, representing a volume of temporarily unused materials.

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