Abstract

Warehouse management makes a whole in a series of tasks that are one of the activities that are regularly repeated in which are engaged all employees in the warehouse.

The purpose is to formalize the tasks and to bring in some clear rules to which the employees of the warehouse must stick to. During the organization, it is very important to explain every step of the process, from the moment the goods enters the warehouse, the discharge, making of the input documents, placing of goods on the positions in the warehouse and issuance of received goods. The central (main) warehouse is consisted of spatially united warehouses in one location, that is a warehouse for groups of goods which are going to defined and were primarily intended for the parent company, but in exceptional cases for external customers too, if that is in the interest of the company.

When organizing, one of the main goals was to rationally speed up the flow of the goods, in order to shorten the business process and, therefore, to accelerate the activity ratio of the means associated with the supplies and to affect the increase of the work organization’s competitive abilities.

This paper demonstrates organizational methodologies, problems and solutions for organization of central warehouse in Belje d.d. PC Remont.

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1. INTRODUCTION

When organizing storage service, it is important to determine its place in the organizational structure of the company in accordance with the firm’s size, location, assortment and level of information technology, as well as the appropriate form of its internal organization in order to perform all tasks quickly, efficiently and rationally at the lowest cost. Larger companies can arrange storage function as a standalone service. In commercial enterprises important decisions are related to the degree of centralization of the storage service. Centralized storage organization unites all warehousing activities in one place. By internal organization of storage service, optimal security for storing goods has to be ensured, which has been presented in the paper on the example of Belje d.d. PC Remont. The central warehouse of PC Remont holds spare parts of agricultural machinery, tires, oils, lubricants and other consumable materials. The main reason why the storage was reorganized was to gain better control over the group of goods stored there, as well as to make saving on the number of employees and stock. The goal of this paper is to present the structure of PC Remont’s central warehouse, problems that can occur and the way they are solved.

2. ORGANIZATIONAL FORMS OF A WAREHOUSE

Storage is a point in the logistic network where the object of storing is either accepted or forwarded in another direction within the network (Habek, 2002, p.1). There are several phases when designing a warehouse or improving one: defining initial data, forming warehousing zones, solutions for each zone, sizing technical solutions, costs and specifications and value analysis (Oluć, 1997., p. 23).

Common forms of internal organization of the storage service are functional, commodity, territorial and combined. The functional form carries out the analysis based on the tasks of the storage service which are conducted by minor organizational units or individuals who specialize in these types of jobs. However, if only one person or a part of the organization fails, it has a negative impact on the entire warehouse management system. In the storage service organized into commodity groups, each stockman or an individual organizational unit performs all tasks, concerning storing, related to a particular group of similar goods. The advantage is a greater specialization in certain commodity groups, but the efficiency of warehousing in whole is reduced and it is harder to apply it in companies with a wider selection. The territorial form divides the storage service into regions, depending on
where the warehouses are located. This type of organization requires more staff, but also fulfills the needs of storing on certain territory in a much better way. In reality, in most cases combined forms of organization of the storage service are applied, based on the functions and commodity groups. This form is also used in Belje d.d. PC Remont.

Commercial company strives to create an optimal development programme on the basis of the information about the internal (subjective) and external (objective) factors. Therefore, according to factors within and outside the company, the information can be divided into external and internal (Segetlija, Lamza-Maronić, 1995., p. 111).

3. PROCEDURAL DETAILS ON THE MANAGEMENT OF PC REMONT’S WAREHOUSE

Based on the purchase order, the supplier is obliged to load the transport vehicle of the carrier with ordered goods, which have to be expertly packed in the appropriate containers. Supervision should be done by a person in charge of the shipping and storing or a connoisseur from the technical control, while the warehouse personnel packing the commodity must be familiar with their type and quality, since it is a significant contributor to proper handling with the purpose of preserving the quality and quantity of the goods transported. Certain documentation, which the carrier hands over at the warehouse, must be enclosed with the merchandise (dispatch/receipt or an invoice by the supplier, etc.).

Receiving the commodity in the warehouse consists of:

- commercial control of receiving merchandise and materials (quantitative reception) is under the jurisdiction of the central department in charge of the purchase in Belje d.d.,

- technical control of the goods and materials (qualitative reception) is the responsibility of the person who ordered the merchandise and/or of the Quality management system,

- taking over of the ordered or contracted goods from the supplier into the warehouse, if it qualitatively or quantitatively matches the order of the company or the contract; the process of purchase is informally completed, while the process of warehousing begins,
- the central department for purchase in Belje d.d., when ordering, is obliged to submit a copy of the purchase order if the commodity is intended to be unloaded in the central warehouse of PC Remont, and if the goods are ordered for the purposes of Belje d.d., a requisition or an order to the purchase department should also be submitted, along with the purchase order, but in case the merchandise is bought for companies within the concern or for external clients, it should be delivered with the purchase form from the customer and the supplier’s offer as well, so the stockman could put the goods in order according to those documents and submit the attachments with the shipping list,

- the purchasing officer’s duty is to familiarize the stockman with information about the time of arrival, name of the supplier, type of transport and type of the commodity or material (based on the purchase order or contract),

- if, for any reason, the stockman is not familiar with the shipment, when accepting the delivery documentation (dispatch/receipt; invoice; waybill and the like), he must establish whether the supplier alludes to the number of our order, because it is a legal document related to the transaction and it determines the content of the package that should be taken over and can be withdrawn only in case of justified reasons.

The supervision should be done by a stockman whose job is to compare the purchase order with the dispatch. He is obliged to compare the number, name and quantity (weight) of the delivered goods with the information written on the shipping list (dispatch or an invoice by the supplier).

If needed, the stockman weighs, measures and counts the delivered merchandise.

He can conduct the control inside the transport vehicle or when the goods are unloaded. He chooses the option that will be quicker and more efficient when determining the quantity of the supplied goods.

The stockman follows the standard procedure while examining the objects and is, according to Treaty on the economy, article 25 of the Law on obligations, obliged to report the shortage to the purchasing officer immediately or not later than eight days after he had noticed it, and the warehouse manager must also be familiarized with the situation.

The purchasing officer acts according to the procedures of Reclamation (reclamation record).
The stockman examines the goods, depending on the type, either immediately after the unloading in the reception area in the warehouse or turns to the service responsible for controlling the quality.

If the stockman, during the first examination, had not noticed a fault on the object but has determined it later on, he must inform the purchasing officer about it by sending him an e-mail and tagging the warehouse manager in the attachment.

The purchasing officer is obliged to inform the seller about the fault within eight days since the stockman noticed it and not later than 6 (six) months since the object was bought.

The stockman has to, during the six-month period, pay attention to the occurrence of hidden faults and, right after they have been spotted, determine their content, along with the warehouse manager, because the right to reclamation is related to those eight days, unless it has been agreed otherwise.

The documentation for returning goods is filled up by the stockman, based on the reclamation record on the faults of received goods, that is shortage or surplus, in four copies.

4. RECEIVING THE GOODS

If all conditions for taking over the shipment are satisfied, the stockman, based on the dispatch and/or a receipt, writes out all relevant elements of delivered/received goods on a receipt.

After that, the stockman transports and puts the merchandise in order in the appropriate place in the warehouse, if they are intended to be stored.

What the stockman has to take into account while stacking the goods:
- the merchandise has to be put in the appropriate place
- every product has to have its card with its code number (password)
- products have to be specifically placed on shelves so that it is easy to read the necessary data from their packagings
- goods with shelf-life or objects that can obsolete should be arranged using the FIFO method (first in, first out) so there would not be any accumulation
If the merchandise is not intended to be stored but redistributed, the stockman has to put the goods in order according to the purchase form or requisitions from the purchase department.

After the order picking to different distribution centers, the stockman is obliged to inform the purchasing officer by e-mail about that group of goods (he must tag the warehouse manager in the attachment) and that it is, according to the document, prepared to be taken over from the warehouse.

The stockman must not make a dispatch or a transfer note for the merchandise if the warehouse manager had not already given his approval.

By putting the commodity in the appropriate place in the warehouse, writing out and sending the receipt, the process of receiving or entering the goods into the warehouse is over.

5. GOODS ISSUE FROM THE WAREHOUSE

The stockman issues goods based on the requisition or an order to the purchase department, if the commodity is to be issued to another warehouse within Belje d.d., and writes out a transfer note.

The transfer note is an accompanying document used when transferring different objects from one warehouse to another within the company, so called inter-warehouse transfer.

The transfer note can be signed by any person authorized by PC for writing off objects from the central warehouse.

The stockman writes out the transfer note into two copies, legibly signed in printed letters with initials by both him and the person authorized by PC for writing off objects from the central warehouse.

The stockman is not allowed to send off an item from his warehouse to another one without being given the requisition by the verified person from PC to do so, and is obliged to also hand over, along with his copy, the requisition from PC.

The transfer note contains: the name and label of the input and output storage, date, number of the transfer note, name and code of the product, unit of issue and the quantity that is supplied.
The stockman issues the goods based on the received purchase form, if the goods are to be issued to other companies within Agrokor concern or to external clients, and writes out the dispatch.

A dispatch is a document on the basis of which the stockman issues the material (commodity) to the client. It follows the merchandise when changing the owner and is preceded by the purchase form from the buyer, which can be delivered by both the sales and the purchasing department.

The stockman issues goods based on an open work order, that is, on the needs recorded in the work order put together by a manager of the particular service within PC Remont.

Delivery note is a combined document that serves as a warrant for issuance of stored items and justification for exit within the central warehouse, when charging home production (per work order) and overhead spending, but based on it, it is also possible to issue material that is supposed to be, according to an open work order and cost center, within Belje d.d., while the same is, when closing, generated as transfer note and RMO or is, according to the open work order for companies within Agrokor concern or for external clients, generated into a dispatch and a receipt. That is why it can contain columns for ordered and issued items, if the delivery note is written by hand, because in PC Remont work order presents the quantity that has been ordered and the delivery note the quantity that has been issued.

The stockman, based on the open work order, that is the needs recorded, writes out the delivery note per work order.

6. ORDER PICKING OF GOODS

Issuance of the merchandise starts when the stockman begins order picking it, that is, arranging it according to the purchase form from the client.

The warehouse manager determines the time of order picking, based on the buyer's priorities and needs, taking into account the estimated amount of work that has to be done and regular issuance and receiving.

The order picking process begins the stockman when he singles out the goods, based on the type and quantity, from the storage space (shelves or floor), and puts it in the reception/issuing area - on the basis of the purchase form, requisition or
work order. The merchandise is put in order onto a pallet, a box and the like, depending on the type and quality of the goods, as well as the transport vehicle. The goods must be additionally protected by binding it with a protective film or closing the box (duct tape etc.) - it all depends on the type and quality of the merchandise.

The approval to make a shipping document in advance is given to the stockman by the warehouse manager only if the client has confirmed that they have arrived to pick up the merchandise in writing or if it is arranged for the goods to be transported to the buyer by his own vehicle. The stockman controls the order picking before the goods are loaded into the client’s vehicle by checking the compatibility of the merchandise with the issued documentation (a transfer or a delivery note) one more time.

After receiving the goods by writing out a receipt, the stockman must put the items on shelves, in case they do not have to be used right away.

He puts the goods in order based on the type and places them on the shelves and is obliged to enter positioned products into the information system.

7. EFFECTS OF CENTRALIZATION

This method of organizing the schedule of tasks and responsibilities contributes to indirect savings for the entire company.

This mainly refers to the reduction in the number of employees in profit centers related to work in the warehouse. Ordering goods is much easier, because the number of order is lower when including bulk orders. Thus you get higher rebates and need less people working in the purchase department.

When cancelling warehouses in profit centers, it is necessary to maintain only one plants where savings on overheads can be achieved. Also, by investing into the automation, that is, by introducing modern techniques into just one warehouse, the overall costs are reduced. When cancelling the warehouses in profit centers, keeping track of the inventory is more efficient, since it is in one place now, as well as keeping track of activity ratio and stock turnover, and it is much easier to introduce minimax lists. All of the above ultimately leads to a reduction in the number of positions at the central warehouse in regard to distant warehouses. Also, it should not be forgotten that former increased costs of sending off goods to different locations could be easily compensated by cutting down the price of purchase because of the delivery of the merchandise to one place.
8. CONCLUSION

All the procedures, responsibilities and powers that have been listed in the paper have significantly contributed to better organization and, ultimately, faster handling the goods in the central warehouse. Moreover, when every employee of the warehouse is familiar with the duties listed in his job description, type of merchandise under his responsibility and the range of his jurisdiction, mistakes in the paperwork have been remarkably reduced. With these procedures, the work in the warehouse is not finished, procedures are a “living” matter that need constant improvement, according to the needs of the system for which the central warehouse exists.

9. LITERATURE


Business records of Belje d.d. PC Remont


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