

The problem organization processing of pouring the cast iron in the context of using the chain of deliveries

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Abstract

The article undertakes the attempt adaptation problems of the present logistics to requirements specialized casting works with the special regard problems to the founding of cast iron.

On the job one presented chosen problems connected with the preparation and the realization processing in the foundry of the cast iron. Became introduced manner of administering resources of materials which to the state complex connection of the row technological elements in the chain of such deliveries as: the analysis quantity of orders and time limits of deliveries, qualifying to the quantity of elements given productive party, time limits of beginning production and the manner of working warehouse economy.

Keywords: The casting trial, The foundry, Chain of deliveries, Management with the information

1. The introduction

Present challenging of the casting industry it demands from the foundry of the complex and system approach to flows material and inquiry. The flow of raw materials, materials, semi-manufactured goods and products transcend single the foundry and contribute to the creation of connections with other works. Workings target the organization in cooperation of tradesmen, producers, logistic firms, brokers and customers. Taken is here under the attention the cooperation of all firms sitting in on to delivering to the customer of the foundry peaceable article with given finished parameters. [1].

In the now, at the growing worldwide problem of the accumulation waste material, one ought seriously to take into account also the factor of warehousing and the possible utilization of potential metallurgic waste material. The analysis of these problems can contribute improvement of the efficiency and

affectivities working foundry and to raise the level of the social acceptance, especially within reach local.

The regard of the cooperation all firms is possible thanks to the introduction new manner the organization and introductions so allied „the chain of deliveries”.

2. The supply of foundry with the utilization the chain of deliveries

The chain of deliveries in present realities becomes to be well-versed in on trials, an integrated approach administrable eg. with shopping of moulding materials, with the production of casts and with their delivery to customers [2].

One ought to mark, with the chain of deliveries is a wider notion than the logistic chain.

Flows between firms as a rule have not the lineal character, but happen between many dependent with producers and with distributors which can be links of different chains deliveries. One can so say that the network of related and correlative organizations which affecting to the rule cooperation together control, direct and improve flows of materials and the information from tradesmen to the finished customer [3]. The chain of deliveries is leaning so on the integration and the coordination of three types of flows: materials, the information (the technical foundry) and money.

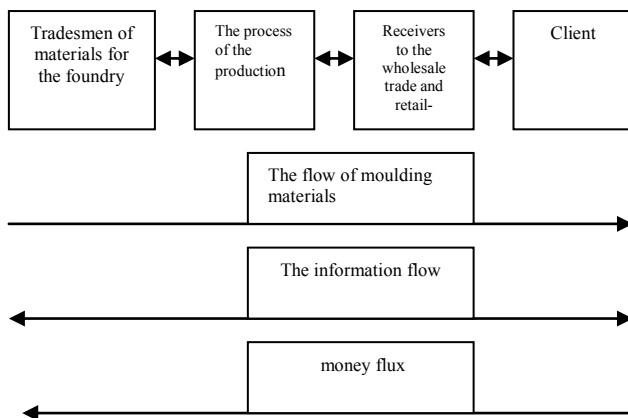


Fig. 1. Processes in the casting institution integrating the chain of deliveries

Characteristic features of the chain of deliveries they are [4]:

- the partnership and the cooperation of participants chains deliveries,
- the large persistence accounts based on partnership,
- the existence clearly prevailing link of organizational structure,
- the stabilized frequency and structure of deliveries,
- the orientation centre of distribution,
- logistic services for the foundry testified by specialized external operators.

The trial of the supply into materials and devices for the foundry of links participants to the chain of deliveries and will assure the required quality created by tradesmen in this chain. The quality of materials and services determining entry of system has the influence on quality of ready made casts determining the exit of the system. The assurance high-level quality service of customers on foundry forces high demanding in the range of time and reliabilities deliveries of casting products at minimalizing costs in the all chain of deliveries.

The describing approach to the part of supply in the chain deliveries leaning on the integration internal foundry and external with co operant important is for reaching of intentional aims. Frequent adversities in creating net of deliveries result just from the excessive concentration attention on reaching high effectively within the foundry, while it forgets itself or puts aside on the plan

the further problem cooperation with tradesmen. Because one can lately in certain aspects of casting problems observe the tendency to arousing with concerning matters of intercourse based on partnership in the sphere of supply between worker in the chain of deliveries with organizations.

The integration and the coordination of processes decision for the purpose of elevations efficiency of flows in the chain of deliveries are peaceable with an idea „of the extended casting firm” whose limits are liquid, and partners are perceived as component parts of the organization [2].

3. The problem communication in the chain of deliveries in the foundry

A main element, discriminating the management a chain of deliveries in the heavy industry from traditional systems of the supply, is the communication. The efficient communication makes possible the data transfer of technical and qualitative laboratory- findings, right immediate responsiveness on changing situations in foundry.

The efficient information flow makes possible the development organization in following areas [1]:

- technical endeavor,
- operating with the information inside the foundry,
- interdepartmental dependences.

The practical aspect using of the chain deliveries evidences dependence from:

- speeds of the information flow,
- transparencies in operation for participants the chain deliveries,
- complexities the communication.

Advanced technologies computer science and telecommunication make possible the management with transactions, given of materials and technological, with the planning and realization of operating endeavor. The information perform essential part in administering with chain deliveries.

The present data system usually possesses the enough limited capacity in the quick data transfer in realized remittances intermediately. A part of principle are nowadays telecommunication networks. The development of these networks lets on the immediate transfer given by means the electronic exchange and the development of services communication broadband and immediate [5].

4. The coordination activities in the chain of deliveries

The realization intentional aims of chain deliveries it executes by the integration activity each connected subjects with the foundry. A base of the efficient cooperation is mentioned earlier compact and effective communication.

On the ground literatures from the range organization and administering [6] can be ascertained that to them is deeper the correlation, this more attentions one ought to sacrifice the coordination, efficiently to realize definite giving institution. Besides to them the greater uncertainty exercises of exacting coordination's, this the greater necessity precise information.

These considering achieving to the chain deliveries of materials the coordination refers trials of the flow goods and the information reaching between the chain link. This refers in this instance especially the account between internal customers of the foundry, in case of which the efficiency and the speed of working one shifts directly on limitations in coming into being of shuffs and diminutions of due losses with the human error.

These data are not useful in the given sphere an information, till will come across the process of converting, the selection, filtering, listings, the review in section temporary. Necessary becomes the output from them information, because only then they carry with themselves definite value. Information, presenting the considerably greater value to given, are not however sufficient. Appears the necessity of administering them for this, to retain the rightness of undertaking decision. Efficient management an information is possible at the participation of solutions computer science [7].

The efficiently working system computer science can cope with the more greater number given across the process of their converting. One takes place also the selection, filtering and listings given, so that the user be able to freely to them to run in and freely from them to profit. Then the organization of the work is more efficient. On the other hand, the requirement from workers of the average and lower rung complex knowledge is not as usual difficult. Because also the system computer science should fulfill the part „of the expert” in the chain of deliveries. Demands this also the pressure competition, as analyses which concentrate only on one aspect of working the firm, are already inadequate [4].

The materials handling

Taken into account was become by here chosen connected problems with an organization of reserve in the industrial plant. The division of the materials handling delivers tools computer science administrable with reserve in many different places of warehousing. His basic guilds are:

- multifunction the location of reserve with the possibility of informing about dislocations of reserve,
- the subsystem of checking of reserve,
- periodic history of the waste.

The production planning and needs of materials

The module (the program) of planning material requirement simulates, what will become with reserve and a productive efficiency, if acknowledging receipt the buying order, the publication the selling order, the foreseen sale and orders of the work will prove such as one planned.

The horizon of planning can be chosen separately for detailed and for total reports the order. The total report shows the treat working, while detailed reports show all orderings detailed which accumulated formed total [9] report.

The production planning ontinuous practical within this module consists in the tailing charge and efficiencies in the

weekly system for the given productive nest and to investigating of the possibility generating material requirement, if that one initiated proposing workings.

5. The planning of needs foundries materials with the regard chain of deliveries

With a trial production, especially products for needs of the heavy industry, in this of bigger casts, is connected the considerable waste of materials.

The planning and the steering with resources materials to the determines the connection into one complex system chain of deliveries of such ranges as the expectation and qualifying size magnitude orders, time-limits of deliveries materials, qualifying moments beginning the production and volumes of stocks in magazines and in the trial of producing.

An aim target of the integration is the success of the high effective chain of deliveries at keeping abilities to the development elastic reacting on needs the customer internal and external foundry.

With the point of view foundry the practical planning embraces:

- immediate productive indispensable materials execrable the planned production steel scrap-metal, alloy- additional, sand, moulding clays, binders, pins, nails,
- auxiliary necessary materials to normal working of the foundry, tools, fuels, spare parts to machines and devices, exploitive materials, office supplies etc.

At present increasingly attention sacrifices himself the integration of flows materials, inquiry and financial in the area of the supply and the all firm in the context coordination activities in the chain of deliveries.

Solution problem of the concerning settlement between a variety of products casting and higher a cost of living, reserve, materials and infrastructures is the success of the strategic equilibrium.

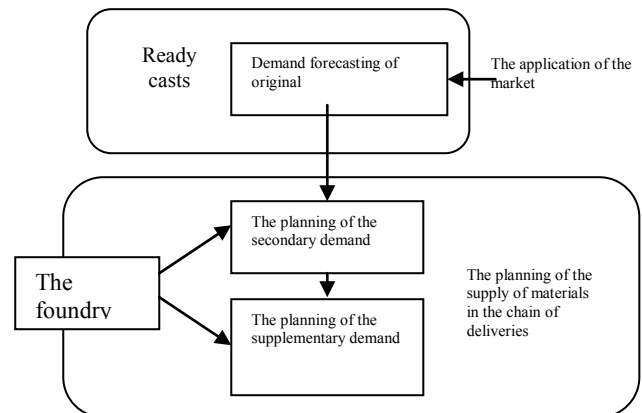


Fig. 2. Things of kinds of the demand with the supply of materials in the chain of deliveries [10]

6. Summary

Present systems production practical in the casting industry demand using among other things logistic permissive techniques to improve each workings, servants to the improvement of the quality produced casts, to improving of executing endeavor and to adapting operating costs to the permissive level efficiently to rival on the total market. One from such liable problems favorably to bear on above factors is the organization for cooperation of each individuals, in widely comprehending meaning, working in the chain of deliveries.

The idea of the chain of deliveries is a consecution of the height degree integration the flow of materials, semi manufactured goods and products casting and concurrent to them the information from places of their purchase across all indirect links, until the final receiver.

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