

RESUME DU TRAVAIL PRATIQUE DE DIPLOME

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Date de rendu : *February, 19th 1999*

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Analysis for a possible process-oriented re-engineering of the order processing of wheel loaders

This survey considers ways to enhance the competitiveness and the efficiency of order processing at Karl Schaeff GmbH.

An analysis of the weaknesses is presented and proposals of possible changes are listed. Three main weaknesses are shown:

- Breakdown of the information flow
- Bad capacity exploitation in key departments like Research and Development and Production planning.
- Loader-assembly in lots and inventories of high-value end-products.

The aim of the proposed measures is to optimize the costs and the lead time for the "standard" orders and to improve the company's flexibility and service for special client-oriented orders.

Today almost all articles are controlled with MRP II. A classification of the assembly parts is performed with the standard ABC-XYZ-analysis. New ways of purchasing and manufacturing parts are exhibited. Goals for specific parts classes are established as follow:

- Reduction of committed capital for A-parts

- Reduction of the administrative costs for the less expensive articles (C-parts).

The expensive purchased articles should be managed with overall purchase orders and supplied only in accordance to production needs. New strategies are analyzed for in-house manufactured parts. The design of a Kanban system is developed for expensive regular parts (A-parts).

The overall aim of changes in supply philosophies is to maximize the quantity of parts that are ordered according to assembly line needs since precise forecasting of market evolution is not realistic. According to analysis of the assembly parts, almost 70 % of the parts could be managed in regard to the production needs (especially A-parts and C-parts).

Finally two proposals for better and more structured demand planning and control are presented:

- Planning of end-products and their accessories using a Super-bill of material.
- End-product-oriented redesign of the bill of material structure. The effects of the new structure on the demand management is clearly shown.