

# THE PROBLEM TECHNICALLY OBSOLETE EQUIPMENT AND WAYS OF ITS SOLUTION

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**Abstract:** *This article provides an overview of the problem of technically obsolete equipment. The study suggests that this problem is serious in the workplace, as well as being the optimal way to solve it is to upgrade existing equipment.*

**Keywords:** production, technology, modernization, problems and solutions

Machine tools in the past and present time are the main means for manufacturing parts of various shapes, size and complexity. Over time, various improvements in the field of automation of control and production systems led to the expansion of the functionality of machine tools, significant simplification of the work of workers, increased productivity and, accordingly, the volume of output. The enterprises are interested in ensuring that their equipment brings the maximum income and, at the same time, take as few possible resources as possible: human, energy, time, and so on.

The company using technically obsolete equipment is significantly lower in terms of quality, in contrast to those who use new equipment. At the same time, the most significant are such indicators as accuracy, energy consumption, the speed of output of the final product, the cycle of changing or expanding the range of products.

It may seem that the problem of obsolete equipment is not very appreciable, because the enterprise nevertheless brings in revenue. But eliminating this problem in the case of large enterprises with competent management will bring significant revenue in the profits, production volume and quality of the final product and is likely to reduce the fleet of vehicles and the number of Maintenance personnel.

Thus, there is a question of finding a solution to the problem in production - with obsolete equipment. The underwater stone, which lies on the way to solve the problem, is the high cost of new equipment and not the actuality of the available equipment for sale.

Replacement of obsolete equipment by eliminating old equipment and purchasing a new expensive one. This is expensive not only because of the high prices for new equipment, but also on how quickly the technology develops. Less new machines are not only at a high price, but also in the actuality of new equipment, which is short-lived due to the constant increase in various indicators such as productivity. Thus, at the moment, a complete replacement of working, but obsolete equipment is not rational, because the invested funds do not justify the short-term relevance of new equipment. At the same time, it is worth remembering the intermediate costs of both long-term and one-time costs. For example:

- The installation of new equipment, the need to attract new employees;
- More qualified and, accordingly, more demanding in terms of payment;
- The time during which the equipment was replaced.

The difficulty of replacing equipment with more modern ones lies not only in the high cost of the equipment being purchased, but also in the complexity of selling the old one. Buyer is more profitable to buy new equipment. They mostly understand that components for older devices are harder to find, they work with a lot of failure, and they consume more energy resources, and therefore have lower revenue, compared to new equipment.

The problem has the following solution. The solution to the problem of obsolete equipment is not to completely replace the equipment, but to modernize the machines that are already available in production.

Expenses for the modernization of existing machines are much less than replacement costs, and as a result there is equipment close to the modern one. Yes, perhaps, not reaching for this, but according to the policy "Price quality" this method is the most effective for any type of productions.

In conclusion, an effective and rational solution to the problem of obsolescence of equipment is the modernization of existing machines, increasing their accuracy, productivity, reliability and reducing their time for simple maintenance and reducing their energy consumption.

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