IMPORTANT UNTAPPED RESERVES FOR INCREASING THE
PRODUCTIVITY OF LABOR

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At the Taganrog Metallurgical Plant, the central laboratory of automation and mechanization of production processes has carried out a number of most interesting studies to improve operations in auxiliary production. Thus, the operations at the pig-iron stockyard have been completely mechanized, beginning with opening of the hatches in the railroad cars and ending with charging into the open-hearth furnaces. Works on large-scale mechanization of production processes have been performed in the impact-machine shop. Here an electromagnetic crane and a powerful baling press have been installed, and oxygen and gas lines have been laid to the job sites of the gas-cutters for cutting scrap. In the mixing plant the bridge cranes have been equipped with charging-box gripping devices, and an efficient system has been developed for receiving, cutting, processing, loading, and delivering scrap to the open-hearth shops.

The rational division of labor in combination with mechanization of labor-consuming processes has made it possible just in this shop to release more than 60 persons for other jobs.

Major works on mechanization of labor-consuming operations are underway in the railroad shop. To ease the work of the loaders, six gantry cranes have been installed and about 250 additional mechanisms have been acquired, including diesel-electric cranes, trucks, mechanized shovels for unloading bulk cargoes; the necessary number of conveyers for transporting refractories from the supply plants has been manufactured, control of the railroad switches is being centralized, control room radio communication has been introduced, and the conversion from steam to diesel locomotives is being accomplished; at present the central laboratory of automation and mechanization together with the Odessa Polytechnic Institute are designing electronic strain-meter scales which will weigh cars while moving.

Along with the works on mechanization of labor in the stockyards and in transportation, untapped reserves for reducing manpower on auxiliary operations in the main shops are constantly being sought at the plant.

For instance, in the tire shop freight handling was studied and improved and roll tables were installed for transporting the tires; in the No. 2 open-hearth shop many heavy physical operations were mechanized as a result of studying each job site in the charge-preparation department and the arrangement of the people was changed; this made it possible to release 16 persons. In the rolling-mill shop conveyer shears were installed in the sheet-mill line for trimming the edges of the sheets, a conveyer walking-beam furnace was constructed, and a machine for marking hot sheets was installed in the finishing department of the sheet mill.

During the last two years more than two million rubles have been spent at the plant for mechanizing auxiliary operations and increasing the amount of equipment for them, and the economic effect has exceeded three million.

Similar measures are being taken to increase the amount of equipment for auxiliary operations and mechanization of manual labor in the Sulinskii Metallurgical Plant, at the Zhirmovskii and Tarasovskii Mine Administrations, and at other enterprises of the Rostov region. At the Sulinskii Metallurgical Plant the loading and unloading operations when transporting refractory brick, cleaning of the settling tanks, preparation of the charge in the iron-powder production shop, and rubbish collection when repairing the open-hearth furnaces have been mechanized, a conveyor line has been started up for packing welding rods, a highly productive device has been constructed for automatic hard-surfacing of rolls under a layer of flux, a baling press has been put into service, and a mechanized cooling rack
is being built on the 240 mill and a hook conveyor on the 250 mill. Measures are being worked out at the plant which will greatly reduce the number of auxiliary workers.

Recently more funds have been allocated for the mechanization of auxiliary operations and for outfitting the auxiliary shops with new equipment when working out the plans for enterprises. We can judge how the proportion of expenditures for development of auxiliary production has changed at the Taganrog and Sulinskii metallurgical plants (in the plans for organization and technical measures) from the following data, in % of total expenditures:

<table>
<thead>
<tr>
<th>Year</th>
<th>Taganrog Plant</th>
<th>Sulinskii Plant</th>
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</thead>
<tbody>
<tr>
<td>1966</td>
<td>12.5</td>
<td>5.4</td>
</tr>
<tr>
<td>1967</td>
<td>17.0</td>
<td>47.3</td>
</tr>
<tr>
<td>1968</td>
<td>77.5</td>
<td>44.0</td>
</tr>
<tr>
<td>1969</td>
<td>70.2</td>
<td>66.4</td>
</tr>
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The effectiveness of each ruble spent for mechanization and automation of operations in auxiliary production is much higher than in the main production.

At the Taganrog Metallurgical Plant, for example, it was calculated that the productivity of labor of the workers of the auxiliary shops has increased almost twice as rapidly and the number of workers three times as slowly as that of the main shop, as a result of which the proportion of workers engaged in auxiliary production is decreasing constantly, their number in 1969 being reduced by 3%. An increase in the productivity of labor by reducing the number of workers of the auxiliary shops is an effective factor in increasing production.

The USSR Ministry of Ferrous Metallurgy recently undertook a number of specific measures for the development of specialization of repair works. The Main Administration for Repairs now includes specialized trusts and administrations - "Domnaremont" (Blast-Furnace Repairs) and "Metallurgremont" (Metallurgical Repairs) and the Main Power Supply Administration now has "Energoremont" (Power Equipment Repairs). Such specialized repair administrations are also at Taganrog, but the organization of their work leaves much to be desired. There are more than 1600 persons in these administrations and despite this the number of workers of the furnace repair shops, repair and construction shops, and power shops has not decreased at the enterprises which they service. But this is not odd. All these organizations have practically no repair bases, no mechanical equipment. The advantage from their creation is presently expressed only in that the enterprises are able to shorten the time of repairing individual units, to repair those objects for which there was no time before. However, the cost of repairs, owing to the low mechanization of labor, lack of equipment, and, consequently, the impossibility of organizing the unit-component method of repair, remains high. The All-Union Research Institute for the Organization of Production and Labor in Ferrous Metallurgy (VNIIOchermt) should study the state of affairs and work out scientifically founded plans for the organization of production and labor in these specialized enterprises, and the attitude toward them should be the same as toward the main production shops. This will greatly increase the effectiveness of specialized administrations and lower the cost of the work performed by them.

Auxiliary production is not secondary. The entire production process depends on its efficient organization; it is being increasingly more supplied with the latest equipment, the labor of the auxiliary workers is becoming complicated, their functions are changing, and the requirements imposed on their qualifications are growing. All this requires a further improvement of the organization and payment of labor and of the training of cadres of auxiliary workers.

According to the data of the census of the occupational staff, in ferrous metallurgy 26% of the workers in auxiliary production are engaged in mechanical shops in the repair and adjustment of equipment. These are the most skilled specialists who ensure the continuous operation of the equipment of the main shops. However, there is a very high turnover among this category of workers. This is largely explained by unfoundedly high differentiations in the payment of metallurgists and the granting of privileges. What's more, the wage rates of workers in auxiliary occupations is lower than those in the main occupations, and the wages of workers of the auxiliary and subsidiary shops is lower than that of workers in auxiliary occupations of the main shops.

For instance, the wage rates of repairmen for cold repairs in the auxiliary shops are much lower than for workers of this same category in the main shops, and the rates for the time-workers of the V class for cold repairs is 13% less than those for time-workers for hot repairs, and if we take into account that most time-workers for hot repairs are paid at the rates of the piece-workers, the difference reaches 20%.

The second largest group among workers of auxiliary occupations (14%) is engaged in loading, unloading, and transport operations. Among this category two-thirds are drivers, loaders, carriers, transporters, and subsidiary workers, which indicates the low level of mechanization of loading, unloading, and transport operations and the slow process of releasing persons engaged in heavy physical and unattractive work and transferring them to more skilled work.