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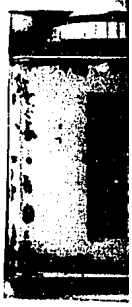

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SOURCE Newspapers as indicated.

FIGURES ON 1951 PRODUCTION, PLAN FULFILLMENT FOR USSR MACHINE TOOL INDUSTRY

OUTLINE 1951 ACCOMPLISHMENTS, 1952 ASSIGNMENTS -- Moscow, Izvestiya, 30 Jan 52

The quantity of metal-cutting machine tools produced in 1951 was 1.65 times as great as in 1940; in weight, output was 2.5 times as great. The increase in machine tool output was accompanied by an increase in the number of types (which was 3.5 times as great), and the perfection of high-speed machine tools with an automatic or semiautomatic work cycle, special, combination, and heavy machine tools, and automatic transfer machine lines.

By the end of the first postwar Five-Year Plan, machine tool builders had increased the production of automatics, semiautomatics, and precision machine tools more than four times; of heavy machine tools, more than six times; and of combination and special machine tools, more than ten times as compared with 1940. The machine tool building industry exceeded its postwar Five-Year Plan.

The Report of the Central Statistical Administration attached to the Council of Ministers USSR noted that in 1951 the machine tool building industry achieved new goals, fulfilling the state plan for gross production. In 1951, approximately 150 new types of high-duty metal-cutting machine tools and press and forging machines were perfected, as well as a significant quantity of new types of hard-alloy tools.

For machine tool builders, 1951 was a year of struggle for further technical progress. The output of heavy machine tools increased as compared with 1950; the production of automatics, semiautomatics, and precision machine tools increased more than one third. Simultaneously, the degree of automatization and mechanization of series-produced general-purpose machine tools increased. These factors simplify machine tool control, assure more accurate machining of parts, ease the labor of the worker, and increase his productivity.

In 1951, machine tool builders mastered the production of several very important models of heavy and universal machine tools for leading branches of the national economy including the metallurgical, petroleum, and automobile and

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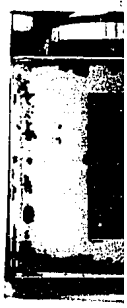


tractor industries, and heavy machine building. Thus, the /Yegor'yevsk/ Komsomolets Plant perfected several new high-precision gear-processing machines which had not been produced earlier. The Moscow Krasnyy Proletariy Plant imeni A. I. Yefremov put out a series of high-speed semiautomatic lathes and high-duty precision screw-cutting lathes. The Leningrad Automatics Plant perfected high-duty automatic turret lathes; the Odessa Milling Machine Plant mastered the series production of jig boring machines. New types of machine tools were also perfected by the Kolomna Heavy Machine Tool Building Plant, Gor'kiy Milling Machine Plant, and the Kramatorsk Plant. In 1951, other unique and heavy machine tools up to 180 tons in weight were developed. A portion of these will machine parts for aggregates for construction projects. An increase in the number of types of machine tools and the expansion of production of combination machine tools and automatic transfer machine lines has made it possible for the country to free itself completely from importing metal-cutting machine tools.

The increased production of machine tools, presses, hammers, tools, and abrasive products was accompanied by higher qualitative indexes. The assignment for labor productivity was exceeded; it was 116 percent of the 1950 figure. The state plan for lowering the cost of production and the accumulation plan were also exceeded.

By 1952, the number of high-speed workers at plants of the Ministry of Machine Tool Building had reached 7,235.

The work done by a number of outstanding designers on the development of new machines must be noted. A group of designers under the leadership of Z. I. Koval'chuk designed a series of heavy gear-milling machines and a vertical boring mill. New heavy lathes were designed under the leadership of N. A. Bondarchik, engineer-designer of the Kramatorsk Heavy Machine Tool Building Plant. A group of designers of the Komsomolets Plant under the leadership of S. A. Mosolov developed high-duty, high-precision gear-processing machines.

Many machine tool building plants exceeded the 1951 plan and attained outstanding success in improving their economic indexes. Among these plants are the Krasnyy Proletariy Plant imeni A. I. Yefremov, the /Leningrad/ Plant imeni Il'ich, the Moscow Frezer Plant imeni Kalinin, the Leningrad Tool Plant, and the /Kirov/ Krasnyy Instrumental'shchik Plant.

However, many shortcomings still exist. Press and forging machine plants fell short in the production of very important press and forging machines and automatics. A number of machine tool building plants did not fulfill their plans for gross and commodity production. The /Novosibirsk/ Tyazhstankogidropress Plant, the Kramatorsk Heavy Machine Tool Building Plant, the Kiev Automatics Plant, and the Saratov Gear Shaper Plant are lagging seriously.

In 1952, the machine tool building industry must further increase the output of products, develop heavy machine tool building, and increase the production of automatics and semiautomatics, precision machine tools, automatic transfer machine lines, and automatic shops. In particular, heavy machine tool building plants must supply modern machine tools to enterprises manufacturing hydroturbines and hydrogenerators for the large construction projects, and set up the output of heavy and unique lathes, vertical boring mills, duplicating and milling, boring, and gear-processing machines for machine building.

Machine tool builders have developed automatic transfer machine lines for the production of parts for internal-combustion engines. In the course of several years, these lines have shown high operational qualities. It can be stated positively that the way to complex automatization of production processes has been found. Now the task is to utilize the experience acquired. In

1952, machine tool builders must supply machine builders with automatic lines for the production of moldboards and plowshares. Automatic lines for the manufacture of bolts and nuts must be built for the metallurgical industry.

To complement the already mastered series production of high-speed lathes, milling, drilling, and boring machines, new high-speed grinding machines which can achieve a cutting speed of up to 50 meters per second, and high-speed gear-milling machines must be developed.

In this way, wide utilization of high-speed methods will be possible in most diversified operations, and conditions for rhythmic work in all metal-working sections will be created.

The volume of production in machine tool building in 1952 must be increased considerably, for the most part by increasing the output of heavy machine tools and large press and forging machines. For example, the average weight of a machine tool in 1952 must be increased 25.3 percent and of press and forging machines, 43.6 percent, with a simultaneous increase in efficient utilization of metal and a significant technical improvement of aggregates. In 1952, the degree of automatization and mechanization of series-produced universal machine tools will be higher: the output of special and specialized machine tools will increase. This will permit the perfection of technological processes, an increase in labor productivity, and a decrease in labor consumption.

The basic trend in the development of machine tool building in 1952 must be along the following lines: the manufacture of experimental models of machines, the designs of which have already been completed, and their introduction into series production; a greater degree of unification of machine tools, units, and parts; a decrease in the total number of parts in a combination machine tool and the saving of metal in its construction.

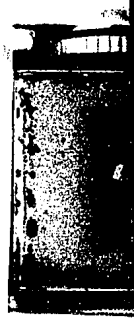
The improved quality of domestic machine tools is making great demands upon tool makers. This branch of industry will increase the production of hard-alloy cutting tools for further development of high-speed cutting. High-speed workers will receive new high-precision automatic and semiautomatic checking and measuring instruments which will measure parts while they are being machined at high speeds.

In the abrasives industry, in addition to an increase in the output of products, the quality of grinding wheels will be improved.

Besides solving these problems, machine tool builders will continue their work in the development of automatic shops for mass production of parts and in setting up the second section of the automatic plant for the production of automobile pistons.

To improve the over-all standing of machine tool building, special attention will be given to bringing lagging machine tool building and press and forging machine building plants up to expectations. This refers to casting shops and foundries. Pourers are attempting to make thin-wall castings, decrease allowances, increase the relative proportion of machine molding and chill casting, and decrease the number of reject castings. A great deal of importance is being placed on the introduction of making patterns in separate operations. Forming of parts instead of forging will be done to a greater extent in 1952.

Further improvement in technical and economic indexes must also be made by the machine tool building industry in 1952. This includes a reduction in the consumption of metal, heat, and electric power; an increase in labor



productivity; better utilization of equipment; a decrease in overhead expenses; and elimination of rejects and all types of nonproductive expenditures. -- A. Kostousov, Minister of Machine Tool Building USSR

PLANTS COMPLETE 1951 YEAR PLAN -- Moscow, Izvestiya, 3 Jan 52

The Minsk Machine Tool Building Plant imeni Kirov completed its 1951 program ahead of schedule.

In 1952, it must produce 19 new types of machine tools.

Minsk, Sovetskaya Belorussiya, 11 Dec 51

The Minsk Tool Plant of the Ministry of Machine Tool Building USSR completed its 1951 plan on 4 December 1951. The 1951 plan for gross production was fulfilled 100 percent. Labor productivity in 11 months of 1951 was increased 22 percent.

Minsk, Sovetskaya Belorussiya, 22 Dec 51

The Minsk Tool Plant of the Ministry of Local Industry Belorussian SSR completed the 1951 production program 100.3 percent.

In 11 months of 1951, the plan for labor productivity was exceeded 4.4 percent; cost of production was decreased 4.3 percent.

Moscow, Izvestiya, 17 Nov 51

The Irkutsk Machine Tool Building Plant has completed its 1951 plan.

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