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SOURCE Newspapers as indicated.

DESIGN NEW EXCAVATORS, BULLDOZERS

USE OF INTERCHANGEABLE PARTS CUTS LABOR CONSUMPTION -- Moscow, Moskovskaya Pravda, 23 Jan 52

The Dmitrov Excavator Plant, whose products are used throughout the country for reclaiming bogs, extracting peat, laying cables, and other purposes, has been steadily increasing its production volume, while improving the design of its products and the technology of their manufacture. The 1951 plan was met on 3 December.

Ten multiple-bucket excavators were made of saved metal, 700,000 rubles were saved through reducing production costs below the plan, and over 600,000 rubles in above-plan profits were realized.

The plant puts out five types of excavators, each one of which consists of 800-900 original parts. These parts must be turned out in small groups, which means that much time is lost in tooling up. Thus, one of the most important problems confronting the plant is unification of design /designing interchangeable parts/. A great deal has already been done in the way of unification: 40 percent of the parts going into the EP-352 excavator, for example, are now interchangeable with those of the EP-251. The number of these parts turned over to the machine shop can now be doubled, and labor consumption in building a new machine has been cut nearly 15 percent.

Another problem to which the plant is devoting considerable attention is that of increasing the durability of parts and simplifying the design of separate units. Simplification of crawler units has reduced 2½ times the metal required for their manufacture. Designers are now planning to reduce the number of gears and shafts in gear trains, a measure which should cut labor consumption in their manufacture 25-30 percent.

Certain changes in design have greatly sped up production. Separate units were designed so that each unit could be assembled in parallel progression; the excavator would then be assembled from these units. This procedure reduced the assembly time for the excavators from 8 days to 8 hours.

- 1 -

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50X1-HUM

The closed technological cycle was established for the machining of parts. Under this system, a single group of machinists handles only one type of part: one group machines housings; a second group machines gears and pinions; a third, shafts and axles; and so forth. This form of specialization makes it easier to supervise production and to plan and carry out the supply of material and tools to the machinists themselves become more proficient and more productive.

High-speed methods are being pushed, and one half the lathes and milling machines are now operated under high-speed methods. Automatic and semiautomatic welding and cutting are applied.

A new, heavy hydraulic press has been installed in the forge shop. Molding machines from the Moscow Krasnaya Presnya Plant have been set up in the foundry.

Work is now going on which should result in increasing the guaranteed service limits of the excavator $1\frac{1}{2}$ times. It is also planned to render them adaptable to loading-machine rigs so that they can be utilized in the winter months when the excavators would be idle otherwise. -- P. Shinkarenko, director, Daitrov Excavator Plant

NEW MACHINE TO BE USED FOR IRRIGATION WORK -- Moscow, Izvestiya, 1 Nov 51

The Kiev Krasnyy Ekskavator Plant has put out the first of a group of new excavators designed for use in irrigation and reclamation work.

WILL PUT OUT NEW MODEL IN FIRST QUARTER -- Moscow, Moskovskiy Stroitel', 27 Nov 51

The Kovrov Excavator Plant has developed a new excavator, the E-507. This model is actually a modernized version of the E-505. The bucket capacity of the new machine has been increased from 0.5 to 0.75 cubic meters, while the machine's over-all weight has been increased only 2 tons. It can be rigged as a trench hoe or hoisting crane. The durability of many parts of the new machine has been increased.

Builders will get the first E-507 excavators in the first quarter of 1952.

Leningradskaya Pravda, 8 Jan 52

The Kovrov Excavator Plant, which regularly has been meeting order from the great construction projects ahead of time, shipped out an early consignment of excavators in the first week of 1952.

The excavators which the plant put out in 1952 differ markedly from those it produced in 1951. The carriage has been modernized and the welded bucket replaced with a cast one. Important gears, which formerly quickly wore out, are now subjected to high-frequency heat treatment.

SEND CANAL BUILDERS EXCAVATORS -- Stalinabad, Kommunist Tadzhikstana, 21 Dec 51

Over 50 industrial enterprises of the Donbass are contributing products to the great construction projects. Outstanding among them is the Novo-Kramatorsk Plant imeni Stalin, which has sent dozens of 3-cubic-meter excavators.

- 2 -

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COMPLETE GIANT MODEL FOR MINERS -- Tashkent, Pravda Vostoka, 21 Dec 51

The Novo-Kramatorsk Plant imeni Stalin has completed its second giant 15-cubic-meter-capacity excavator. It consists of 58,000 parts and is powered by 44 electric motors. Designed for operation in open-pit coal mines, the excavator has a yearly productivity of 4,500,000 cubic meters.

Vil'nyus, Sovetskaya Litva, 2 Feb 52

The last carload of parts of the recently completed 15-cubic-meter-capacity excavator today left the Novo-Kramatorsk Plant imeni Stalin on its way to an open-pit mine in Siberia. It took over 100 flat cars to move the excavator.

ASSEMBLE SIXTH WALKING EXCAVATOR -- Moscow, Pravda, 31 Dec 51

The Sverdlovsk Uralmash Plant has assembled its sixth heavy walking excavator /dragline/ and is working on a seventh. Both the sixth and seventh machines will have 14-cubic-meter buckets and 75-meter booms.

SERIES-PRODUCE MODERNIZED MODEL -- Kishinev, Sovetskaya Moldaviya, 4 Jan 52

The Kostroma Rabochiy Metallist Plant has established series production of a modernized excavator. The machine's weight has been reduced 4 tons, and the control of the traversing element has been improved.

START WORK ON PARTS -- Moscow, Pravda, 5 Jan 52

The Tashkent Excavator Plant has begun work on the parts for a new excavator designed for irrigation work.

SINGLE MOTOR RUNS NEW TRUCK SHOVEL -- Tallin, Sovetskaya Estoniya, 12 Jan 52

The Leningrad Excavator Plant has completed tests on the new E-258 truck-mounted excavator, which it developed in collaboration with the Leningrad Affiliate of the All-Union Scientific Research Institute of Construction and Road-Machine Building. The motor providing the motive power also runs the digging unit. The E-258 will be series-produced.

TURN OUT EXCAVATOR UNITS -- Moscow, Komsomol'skaya Pravda, 15 Feb 52

The Petrozavodsk Plant imeni Molotov, which produces metal structures for the great construction projects and for general industrial use, also turns out floor plates for the ESh-4/40 excavator and cabs for the ESh-1 excavator.

PUT OUT ABOVE-PLAN BULLDOZERS -- Kiev, Pravda Ukrainy, 1 Jan 52

The Khar'kov Road-Machinery Plant met the 1951 plan for production of items for the great construction projects in its entire range of products on 21 December. The plant has completed several above-plan bulldozers and other items.

- 3 -

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50X1-HUM

SHIP BULLDOZERS TO GES BUILDERS -- Leningradskaya Pravda, 8 Jan 52

The Chelyabinsk Road-Machinery Plant imeni Kolyushchenko today shipped five bulldozers to the builders of the Kuybyshev GES. Some of the machines built in the first days of 1952 were shipped to the Stalingrad GES site.

Moscow, Izvestiya, 9 Jan 52

Acting on the suggestions of workers at the construction projects, the Chelyabinsk Plant imeni Kolyushchenko has made some improvements on the shock absorbers and transverse blade supports of its scrapers.

S. M. Trarasov, the plant's chief engineer, has developed an improved bulldozer which is 910 kilograms lighter than the older model, is sturdier, and easier to operate.

DESIGN PNEUMATIC SHOVEL LOADER -- Riga, Sovetskaya Latvija, 3 Feb 52

A pneumatic-powered combination shovel and loader designed at the Riga Turbine-Machinery Plant will be used in the construction of tunnels, digging up earth, and loading it into cars. It will weigh $4\frac{1}{2}$ tons and will have a productivity of 50 cubic meters of earth per hour.

The plant has already begun work on the machine's pneumatic motor and undercarriage.

SEND EQUIPMENT TO CANAL, GES BUILDERS -- Moscow, Pravda, 13 Feb 52

The Bryansk Road-Machinery Plant has fulfilled many orders for the great construction projects this year, shipping two self-propelled multiple-bucket loading machines to the site of the Main Turkmen Canal and an asphalt mixer and a heavy grader to the Kakhovka GES site.

Among the above-plan items which the plant put out in 1951 were 10 medium and 20 heavy graders, 11 asphalt mixers, 6 self-propelled bucket loaders, and 103 bitumen pumps.

The grader elevator which the plant produces has a productivity of 600 cubic meters of earth per hour.

SEND DUMP CARS TO KUYBYSHEV -- Ashkhabad, Turkmenskaya Iskra, 15 Feb 52

The Kaliningrad Railroad-Car-Building Plant has sent a consignment of 50-ton self-unloading dump cars to the builders of the Kuybyshev GES.

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- 4 -

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