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CENTRAL INTELLIGENCE AGENCY

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COUNTRY USSR (Moscow Oblast)

REPORT

SUBJECT Internal Grinding Machine Plant, Zavod No. 221, in Moscow
(Description of) machinery, produced mainly lathes

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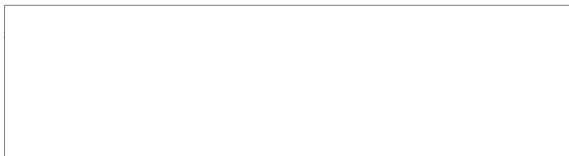
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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE

A seven-page report on the Internal Grinding Machine Plant, Zavod No. 221, in Moscow [redacted] Zavod No. 221, located on Paveletskaya naberezhnaya, was engaged in the production and assembly of various types of machinery, notably lathes; and Machine Shop No. 1, within the factory, filled orders for parts for production lathes. The plant was on two shifts, [redacted] estimated [redacted] work force [redacted] total about 3,000. This report lists some plant products and includes sketches of the layout of Machine Shop No. 1, and Zavod No. 221 as a whole.



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INTERNAL GRINDING MACHINE PLANT, ZAVOD NO. 221
IN MOSCOW

Identification

- 1. Zavod No. 221, also known as the Internal Grinding Machine Plant (Zavod Vnutreneshlifovalnykh Stankov, ZVShS), was located in Moscow on Paveletskaya naberezhnaya.¹

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the plant was located in the vicinity of the Paveletskiy railroad station. (See sketch on page 7 giving the plant's site layout.) The numerical designation of the plant was never changed officially.

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the plant was subordinate the Ministry of Machine Building (Ministerstvo Stankostroyeniya) estimated number of employees about 3,000. All plant sections observed two shifts, one from 0730 to 1600 and the other, from 1600 to 2430 hours.

Production

- 2. Zavod No. 221 was engaged primarily in the production and assembly of various types of machinery. Among these were milling, and thread-cutting lathes, and internal grinding and broaching machines. In addition, Machine Shop No. 1 and probably the other machine workshops, filled orders for many parts for production lathes which were manufactured for customers unknown to source. The final disposition of assembled lathes and spare parts was unknown

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the majority of products were shipped from the plant by truck.

- 3. Following is a list of items produced at Machine Shop No. 1

Small Shop

Large Shop

Lathe screws
Driving gears
Belt drives
Lead screws
Feed shafts
Spindle headstocks
Boring bars
Gears and gear boxes

Housings
Bed plates
Large belt drives
Large gears

- 4. the majority of parts worked on at Machine Shop No. 1 were designed for use with power-operated lathes. There were a number of parts which were produced for tractors and power-operated agricultural machines.

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Miscellaneous

- 5. the security system there as being very lax.

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Site Layout of Zavod No. 221

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6. Following is the legend for the sketch on page 7, which gives the plant's layout. The numbers in parentheses are keyed to those on the sketch.

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- (1) Paveletskaya naberezhnaya - Peveletsky Embankment. This street was never known [redacted] as ulitsa. It was always referred to by the plant personnel as Paveletskaya naberezhnaya. 50X1-HUM
- (2) Approximate location of the Moskva River.
- (3) Personnel entrance.
- (4) Vehicle entrance.
- (5) Administration building, a three-story, brick building which housed offices of the plant director and finance, bookkeeping, and other administrative personnel. [redacted] 50X1-HUM
- (6) Personnel section (otdel kadrov). This building, a two-story construction, could be entered from the side street, name unknown [redacted] 50X1-HUM
- (7) Large warehouse. This was a one-story construction at which a variety of workers' apparel, tools, and instruments were stored. Shoes, gloves, smocks and overalls were frequently issued here to plant personnel.
- (8) Laboratory, two-story brick building.
- (9) Fire department.
- (10) Construction site of a building which was not yet completed [redacted] in October 1956. 50X1-HUM
- (11) This was a two-story brick building known to plant personnel as "Obshchezhitnye" (bachelors' quarters). Several workers' families also lived there. [redacted] 50X1-HUM
- (12) Assembly Shop No. 5. The second floor of this building housed a number of workshops and offices [redacted] 50X1-HUM
- (13) Machine Shop No. 1, Small parts workshop. (For details see sketch No. 2 on page 8 .)
- (14) Machine Shop No. 2, Large parts workshop. (For details see sketch No. 2 on page 8 .)
- (15) This was a two-story, brick building. [redacted] 50X1-HUM
- (16) This building was known to source as "Kotelnyy tsekh". [redacted] this shop manufactured such large parts as lathe housings and bases, boilers, large wheels, etc. Adjacent to this building was a smokestack [redacted] 50X1-HUM

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- (17) Die-stamping shop (Stampovochnyy tsekh).
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- (18) Warehouse, two stories high.
- (19) Assembly workshop No. 4.
- (20) A two-story, brick building. The lower floor contained a mechanical workshop [redacted] called the turret lathe shop (Revolvernnyy tsekh). The top floor was occupied by a shop making molds and models. 50X1-HUM
- (21) Tempering shop (Termicheskiy tsekh).
- (22) The lower floor of this building was occupied by a carpentry shop. The top floor housed the plant's large messhall capable of accommodating 500 or more at one sitting. There were three to four sittings per day beginning at 1100 hours. The last sitting was close to 1500 hours.
- (23) Electric or heating plant. [redacted] 50X1-HUM
- (24) Foundry. Items cast at this shop were for use of the plant's workshops.
- (25) Machine Shop No. 3 50X1-HUM
- (26) Possible outline of fence around the plant.

Layout of Machine Shop No. 1 (Tsekh No. 1)

4. Following is the legend for the sketch on page 8, giving the layout of Machine Shop No. 1 which consisted of two sections, a small (malyy) parts and a large (bolshoy) parts workshop, employing a total of between 100 and 120 persons. [redacted]

[redacted] there were many machines of various types. The lathes were of German, [redacted] and Soviet origin; source was unable to indicate the types [redacted] The numbers in parentheses are keyed to those on the sketch. 50X1-HUM

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A. Small Parts Workshop

- (1) Entrance into the small workshop.
- (2) Mechanical workshop (slesarnaya). This section, staffed with four or five Soviet mechanics, had the responsibility for repair and maintenance of all mechanical equipment at the small workshop. Several Soviet and German lathes were located in this corner.
- (3) One turret (revolvernnyy) and several standard turning lathes, D-200 and D-300 type.
- (4) A large work table at which one or two mechanics traced or punched the outlines on metal blocks, molds, and parts to be worked on in the various sections of the shop. These Soviets [redacted] called master mechanics (mastera), did their tracing in accordance with blueprints supplied to them by the chief mechanic of the section. 50X1-HUM

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- (5) Turning lathes, D-200 (Tokarnyye stanki)
- (6) Milling machine (frezernyy stanok)
- (7) Planing lathe (Strovalnyy stanok)
- (8) Grooving machine (Dolbezhnyy stanok)
- (9) OTK section, staffed with one or two inspectors and two assistants, this group performed the technical control of all finished products. [redacted] 50X1-HUM
about the system of inspection performed there, but said that approved items were stamped with a small triangular stamp which, to the best of his recollection, either had the letters OTK or Tekh Kontrol within the small triangle, as illustrated below. One triangle was stamped for approved items and two for those rejected (Zabakovannyye).
- (10) Passage from the small to the large workshop.
- (11) Stairs leading to the second floor of this building. The broken lines on this sketch denote the space occupied by the second floor which contained a number of offices.
[redacted] 50X1-HUM
The "x" marks denote the approximate position of metal support columns within the shop. There were no other partitions than the one separating the small from the large workshop.
- (12) Two small internal grinding lathes.
- (13) Surface grinding machine (Ploskoshlifovalnyy stanok)
- (14) Thread-cutting machine (Rezboshlifovalnyy stanok)
- (15) Two internal grinding lathes.
- (16) Gear-cutting machines (Zuboreznyye stanki)
- (17) Design and measuring table.
- (18) Surface grinding machine.
- (19) OTK Office. Additional work on inspection and measuring was performed there (Izmeryali detali).
- (20) Two turret lathes and two standard turning lathes, D-200.
- (21) Broaching lathe, for boring holes (Stanok dlya protyazhki detaley).
- (22) Thread-cutting lathes.
- (23) Turning lathes, D-200.
- (24) Hall passage.
- (25) Turning lathes, D-200.
- (26) Broaching machine (Krugloshlifovalnyy stanok).
- (27) Grinder (Tochilnyy stanok).
- (28) Drilling (Sverlilnyye stanki).
- (29) Drilling machine (Sverlilnaya mashina).
- (30) Broaching machines.
- (31) Milling machines.
- (32) Two overhead cranes, six to ten tons.

B. Large Parts Workshop

- (1) Drilling machine.
- (2) Broaching machines.
- (3) Planing lathes.
- (4) OTK.
- (5) Tracing section, similar to (4) in small workshop.
- (6) Internal grinding machines.
- (7) Planing lathe.
- (8) Drilling machine.
- (9) Large cylinder and broaching machine.
- (10) Thread-cutting lathes.

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- (11) **Small planing lathe.**
- (12) **Vertical boring and turning machine (Karuselnyy stanok).**
- (13) **Overhead traveling crane, tonnage unknown.**

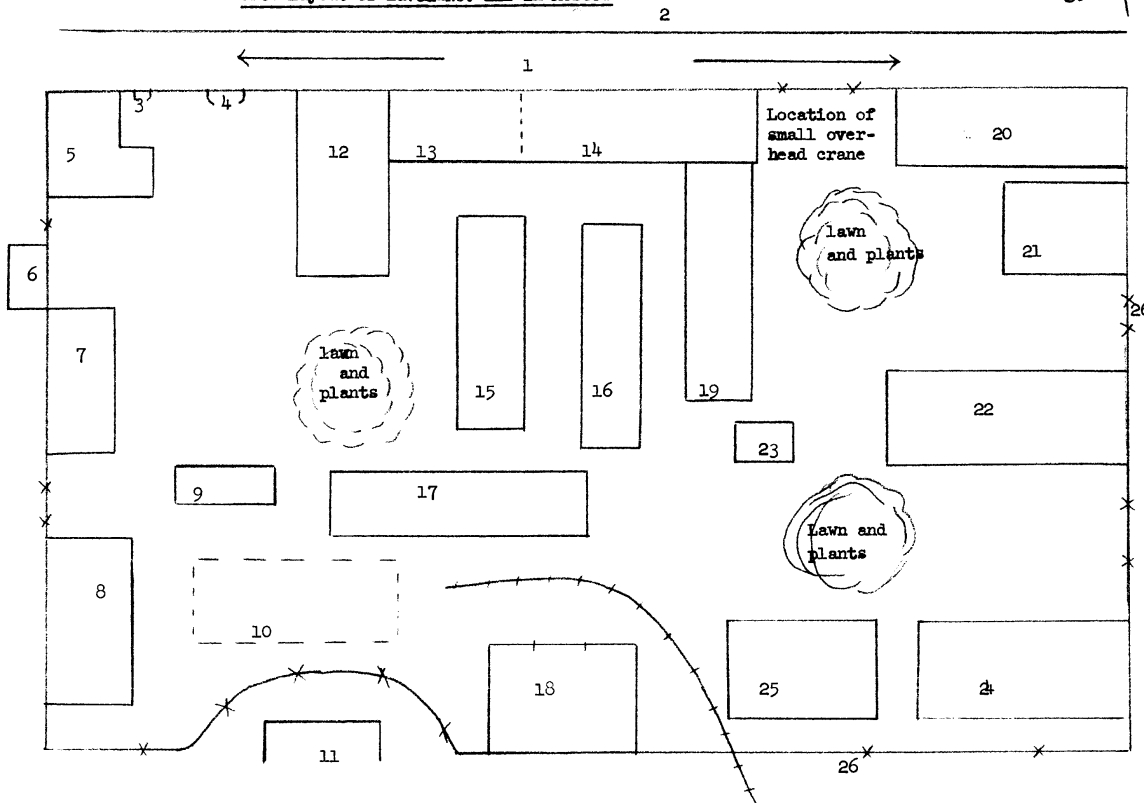
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Site Layout of Zavod No. 221 in Moscow



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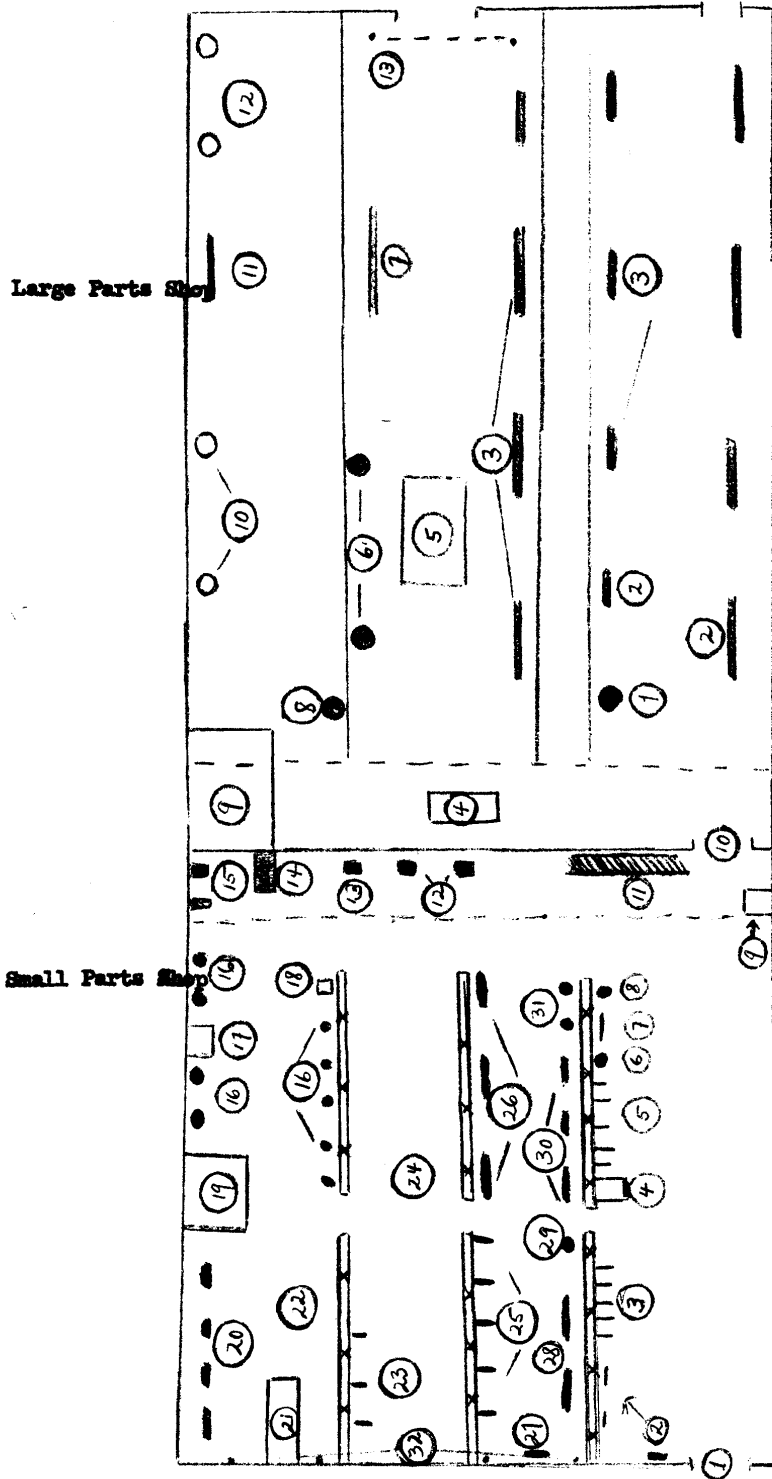
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Layout of Machine Shop No. 1 at Zaved No. 221 in Moscow



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