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HEADQUARTERS
U.S. STRATEGIC BOLBING SURVEY
APO 234
C/O POSTMASTER, SAN FRANCISCO

INTERROGATION NO. 4
(Obtain from G-2)

PLACE: TOKYO
DATE: 30 Sept.

Division of Origin: Aircraft Division.

SUBJECT: Japan Steel Structural Co., Funabashi Plant,
Production Data.

Personnel interrogated and background of each:

ISHI ORI, Yonekishi, Plant Manager.

Where interviewed: At the Fanabashi Plant.

Interrogator: Lt.(jg) Leonard S. TYSON, USNR.

Summary:

This plant was a major producer of fuselage components, engine cowlings, engine cooler and wings on sub contract from Nakijima, Mitsubishi and Kawanishi. By 1941 the plant had reached full size and was used entirely for war production. Total employment was 9,000 (some part time). Defense measures included countersinking of key machines and wide dispersal of small units (sometimes a single machine) which resulted in considerable decline in production. No camouflaging was employed.

Production was never held up by lack of raw material. The plant was never attacked but many man hours were lost because of air raids. The required level of production remained constant although some of the contracting firms had been destroyed.

Production records are available at the head office of Japan Structural Steel Co., Tokyo.

I-PRODUCTION DETAILS:

1. Products: Plant was a major producer of fuselage components, engine cowlings, complete wings and engine coolers. All production was on sub-contract from Nakijima, Mitsubishi and Kawaishi. The wings were for the Japanese Navy's new fighter, George. Production of coolers was at the rate of around 500 per month. Other statistics were not readily available and would be gladly produced upon request. This plant was stated to be one of Japan's largest components plants.

2. Production History: Plant was built in 1935 and produced steel sashes and shutters until the China incident. The plant was quite small then. From 1937 to 1941 the plant was expanded and a/c components were manufactured along with the former products. The plant reached full size in 1941 and completely devoted itself to war production.

3. Operations: The plant worked a single shift of ten hours. Total employment, excluding office personnel, came to around 9,000, but about 3,000 of this number were students and other part-time workers. Subject stated that employee efficiency remained constant even with the influx of new labor. All movement of materials within the plant was done by hand. There were no trolleys or overhead cranes.

4. Counter-Measures: About one-fourth of the more important machine tools were placed in deep pits cut in the floor of the plant. Only about one or two feet of the machine extended above the level of the floor. There was room for only one worker alongside the machine, and all material had to be handed down to him manually. Unnecessary buildings had been torn down to make a firebreak, but there was no attempt to camouflage the plant. There were no AA batteries in the plant, but there was a heavily defended Navy transmitting station about a quarter of a mile to the east of the plant.

Most noteworthy of all was the attempt at dispersal. Large numbers of key machines were removed to small wooden shacks scattered over the surrounding fields and nearby forests. They had great numbers of these and sometimes a single machine constituted the entire factory. As a result of this dispersal, total production had fallen off. This was due not only to the long period of time during which the machines were being moved and therefore inoperative, but also to the general decline in efficiency resulting from such decentralized production.

5. Shortages: Production was never held up because of a lack of raw materials. It was pointed out, however, that newer machine tools were badly needed but were unobtainable. Those observed in the plant were, for the most part, quite primitive when judged by American standards. There were, however, a few machines of the most modern type. Oil (probable lubricating oil since the plant was heated by coal and run by electricity) and also carbides were mentioned as being difficult to obtain. The plant had to reduce its consumption of electric power by 10% but this requirement was not easily and never interfered with production. The supply of aluminum never presented difficulty.

6. Effect of Air Raids: The plant received air raid

warnings by phone and over the radio." The workers stayed in the plant until the planes could either be seen or heard. They remained in their shelters until all the planes had passed. It was stated that this often lasted from two to three hours. It was claimed that towards the end of the war air raids were almost a daily occurrence and a considerable number of man hours were lost as a result.

7. Volume of Output: All operations were on subcontract and the required level of production was transmitted to them each month by each of the firms. This level remained almost constant even though the principal plants of the firms involved had been destroyed by bombing. This leads to the presumption that the parts produced by this sub-contracting firm must have been stockpiled by the recipients. All parts sent to Nakajima were delivered to Koizumi even though the Koizumi plant itself had been destroyed. Subject stated that presumably Nakajima then transshipped the parts to other plants where they could be used. The Mitsubishi shipments were all to the Mitsubishi Nagoya plant even though this plant too had been destroyed. The parts for Kawanishi were sent to Aichi.

8. Records: Records of plant operation and production are readily available at the head office of Japan Structural Steel Co. (Nihon Kent-etsu K.K.) at Tokyo, Arakawa Ku, Mikawajima Cho, 7 Chome #750. The man in charge there is Iaki, Akira. Should the head office be unable to furnish all the necessary data, the plant offices would be glad to supply them from their own original records. Some data was never sent to the head office and would, if required, be available only at the plant. This information was only of the most detailed type and all the necessary material should be available at the head office. The company had another and smaller plant in Tokyo, but this plant only produced steel products and was not in any way affiliated with aircraft production.

II RECOMMENDED FOLLOW-UP:

1. No field investigation of this plant would be necessary. The operational records should, however, be obtained from the head office. Further inquiry is desirable on the means by which the firm received their raw materials.