

INFORMATION REPORT

COUNTRY Korea
 SUBJECT North Korean Metal Industry

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25X1X 1. The major North Korean iron and steel industries were as follows:

a. The Hwanghae Smelting Works, which was the former Nippon Seitetsu (日本製鉄), at Kyomip'o (125-38, 38-44) employed 9,860 workers in May 1950 and was managed by Ho Yong-il (胡英一). Its installations were as follows:

Item	Number	Capacity Per Day in Tons
Blast furnace	2	350 pig iron
Blast furnace	1	300 pig iron
Open hearth furnace	3	50 steel ingots
Open hearth furnace	1	60 steel ingots
Blister furnace	1	
Large rolling mill	1	235 rail steel
Thick plate rolling mill	1	330 steel plates
Thin plate rolling mill	1	33 steel sheets
Expansion rolling mill	1	26 round steel
Coke furnace	3	9.5 35
Coke furnace	1	9.5 25
Sulphuric acid plant	1	25 sulphuric acid
Ammonium sulphate plant	1	20 ammonium sulphate
Light oil plant	1	19 light oil
Benzene plant	1	18 benzene ¹
Tar plant	1	74 tar
Pitch plant	1	49 pitch
Naphthalene plant	1	9.4 naphthalene ¹
Anthracene plant	1	.74 anthracene ¹
Creosote plant	1	14.8 creosote
Slag brick plant	1	85 slag brick
Burning furnace	1	16 burnt dolomite
Burning furnace	1	62 live lime
Fire brick plant	1	chamotte brick
Oxygen separator	1	30 square meters per hour

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The products and output of the Hwanghae Smelting Works were as follows:

<u>Product</u>	<u>Yearly Output in Tons</u>	<u>Product</u>	<u>Yearly Output in Tons</u>
Pig iron	350,000	Steel ingots	175,000
Rail steel	70,000	Steel plates	100,000
Steel sheets	10,000	Round steel	8,000
Coke	368,000	Sulphuric acid	6,900
Ammonium sulphate	5,000	Light oil	4,900
Benzene	3,000	Tar	17,000
Pitch	13,000	Naphthalene	2,000
Inthracene	2,000	Creosote	3,000
Live line	15,000	Silica brick	10,000
Oxygen	30 square meters per day		

b. The Songjin Steel Works, which was the former Nippon Koshuha (日本高岡鉄), employed 4,500 workers in May 1950 and was managed by HAN Ch'ol (韓哲). Its installations were as follows:

<u>Item</u>	<u>Number</u>	<u>Capacity Per Day in Tons</u>
✓ 500 KVA L-type electric furnace	4	1 Fe-W
✓ 400 KVA L-type electric furnace	4	.08 Fe-W
✓ 600 KVA chi-ro (X) type electric furnace	1	.05 CaC ₂
✓ 300 KVA chi-ro type electric furnace	1	.03 CaC ₂
✓ 2,000 KVA L-type electric furnace	1	6 electric steel
✓ Electric steel furnace	4	5 steel ingots
✓ High-frequency induction furnace	2	1 per time
✓ High-frequency induction furnace	3	.05 per time
Steam hammer	4	3
Steam hammer	9	2
Steam hammer	4	1
Press	1	20
Press	1	6
Medium plate rolling mill	1	140
Main plate rolling mill	1	33
Small rolling mill	1	50
Electrode plant	1	130
Oxygen plant	1	30 square meters per hour
Nail factory	3	35 kilos
Medium rolling mill	2	110

The products and output of the Songjin Steel Works were as follows:

<u>Product</u>	<u>Yearly Output in Tons</u>	<u>Product</u>	<u>Yearly Output in Tons</u>
Fe-W	2,160	CaC ₂	240
✓ Electric steel	1,800	Steel Ingots	48,000
✓ Electrodes	400 per month	Oxygen	7,200 square meters per month
Nails	5,000 kilos per month		

c. The Ch'ongjin Steel Works,² which was formerly a plant of the Nippon Seitetsu, employed 3,000 workers in May 1950. Its major installations were as follows:

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<u>Item</u>	<u>Number</u>	<u>Capacity Per Day in Ton</u>
Blast furnace	2	250 pig iron
Coke furnace	2	1,200 coke
Ammonium sulphate plant	1	24 ammonium sulphate
Tar plant	1	90 tar
Pitch plant	1	58.5 pitch
Light oil plant	1	28.5 light oil
Benzene plant	1	24.5 benzene
Naphthalene plant	1	5.8 naphthalene
Anthracene plant	1	1.2 anthracene
Creosote plant	1	14 creosote

The products and output of the Ch'ongjin Steel Works were as follows:

<u>Product</u>	<u>Yearly Output in Tons</u>	<u>Product</u>	<u>Yearly Output in Tons</u>
Pig iron	156,000	Coke	760,000
Ammonium sulphate	7,300	Tar	27,000
Pitch	17,750	Light Oil	7,000
Benzene	7,200	Naphthalene	1,750
Creosote	5,000	Chamotte brick	24,000

- ✓ d. The Hangeon (平山) Steel works, which was formerly the Mitsubishi Steel Works, at Pyongyng employed 3,000 workers in February 1950 and was managed by Yi Kyu-pong (李奎鳳). Its major installation were as follows:

<u>Item</u>	<u>Number</u>	<u>Capacity Per Day in Tons</u>
✓ L-type electric furnace	3	2 FeS
✓ L-type steel furnace	3	38 steel ingots
L-type steel furnace	1	34 steel ingots
Blooming mill	1	330 steel pieces
Medium rolling mill	1	140 rail steel
Small rolling mill	1	80 rail steel
Wire mill	1	26 rail steel

The products and output of the Hangeon Steel Works were as follows:

<u>Product</u>	<u>Yearly Output in Tons</u>
FeS	1,800
Steel ingots	55,000
Rail steel	74,000

2. During 1950 an all-out effort was made to expand iron and steel production in North Korea. The production goal was set as for 1950 at two and one-half times that of 1948. The following is a table of annual output in tons from 1946 through August 1950:

<u>Item</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>Jan-Aug 1950</u>
Pig iron	3,062	6,052	99,634	166,124	152,000
Steel ingots	5,038	61,496	116,776	145,000	124,000
Carbon steel	4,402	45,649	72,619	97,000	84,000
✓ Special steel	2,900	6,740	8,961	11,000	14,000

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3. The production quota of 1950 was reached with a disregard of the rate of plant operation in relation to capacity, and, as a result, the quality of the product deteriorated. Since 1946 over 95 percent of the steel produced was exported to the Soviet Union. After the beginning of the war on 25 June 1950, some plants were forced to cease operation because of the loss of power supplies. By November 1950 about 80 percent of the power system in North Korea was destroyed, and 80 percent of factory buildings and from 40 to 60 percent of factory installations were destroyed. Small factories and important factories were moved underground or to rural areas so that production could be continued.

4. Other metal-producing plants in North Korea were as follows:

a. Chinnamp'o Smelting Works, which was formerly a plant of Nippon Kogyo (日本工業), employed 2,800 workers in 1950. Its major installations were as follows:

<u>Item</u>	<u>Number</u>	<u>Capacity in Tons Per Day</u>
Blast furnace	7	150 copper and silver
PS rotary kiln	2	30 copper
CW sintering furnace	7	100
Pot sintering furnace	16	21
PL sintering furnace	2	20
HT sintering furnace	1	10
Pail dust collector	1	9,000 meters per day
Oil refining vat	3	10
Electrolytic vat	32	2.5
Zinc oxide plant	1	1

The products and output in tons, of the Chinnamp'o Smelting Works were as follows:

<u>Item</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>Jan-Aug 1950</u>
Electrolytic zinc	4,500	5,000	8,000	4,300
Blister copper	1,890	2,100	3,600	2,000
Zinc oxide	70	100	260	460
Arsenious acid	600	700	750	500
Zinc dust	-	360	365	300

b. The Mansu'ong Smelting Works,³ which was expanded after the opening of the Koudok (桂洞) mine in 1949, was formerly the Sumitomo (住友) Plant in Wonsan, and had 1,500 employees in May 1950. Its major installations were as follows:

<u>Item</u>	<u>Number</u>	<u>Capacity Per Day in Tons</u>
Blast furnace	1	25
Blast furnace	1	36
Blast furnace	1	13
Blast furnace	1	10.5
CW sintering furnace	4	8
Lead electrolytic vat	288	4 cathode lead
Silver electrolytic vat	8	4 kilograms silver
Gold melting pot	1	25 kilograms gold bullion
Lead arsenate	40	.8 arsenic acid

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The products and output in tons, of the Hung'yang Smelting Works were as follows:

Item	1947	1948	1949	Jan-Aug 1950
Lead bullion	1,500	2,500	3,000	3,500
Electrolytic lead	3,510	4,000	5,000	3,000
Gold bullion	1,300 kilos	1,500 kilos	2,500 kilos	640 kilos
Electrolytic silver	8,100 kilos	9,000 kilos	2,000 kilos	8,000 kilos
Electrolytic bismuth				3
Lead oxide			300	300
Lead arsenate	210	250		
Arsenious acid		(1)	70	40
Oxygen				8,000 square meters

c. The Hungnam Smelting Works was the former Hippon Nitrogen Plant and had 1,000 employees in May 1950. Its major installations were as follows:

Item	Number	Capacity per Day in Tons Each Unit
Blast furnace	3	150
PL sintering furnace	8	9
PL sintering furnace	6	5
Ma-re-su (마리수) type rotary kiln	2	60 nickel silver
Copper electrolytic vat	196	9 cathode copper
Lead electrolytic vat		9 cathode lead
Lead furnace	1	25 lead bullion
Copper furnace	1	90 copper
Pot sintering furnace	12	21
H.F. sintering furnace	1	16
Co furnace	1	600 kilos
Co furnace	1	360 kilos
De-copperization vat		900 kilos
Vitriolization furnace		10,000 kilos copper silicate

The products and output in tons, of the Hungnam Smelting Works were as follows:

Item	1947	1948	1949	Jan-Aug 1950
Electrolytic copper	1,700	1,900	2,000	1,260
Gold bullion	2,650 kilos	3,000 kilos	5,000 kilos	2,400 kilos
Electrolytic nickel			40	30
Electrolytic lead	200	400	400	150
Copper sulphate	170	250	350	120

d. The Jeju Smelting works employed 180 workers in 1950 and had the following output, in tons:

Item	1947	1948	1949	Jan-Aug 1950
Lead bullion	150	27	37	25
Antimony				
Cobalt oxide	2,100 kilos			

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1. [REDACTED] Comment. Probably used for dyes-but amounts seem large.

25X1A2. [REDACTED] Comment. For a previous report on the Ch'ongjin Steel Works, see

25X1A3. [REDACTED] ^{25X1A} Comment. For previous reports on the Munp'yong Smelting Works, see

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