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PRODUCTION STATISTICS

GERMAN STEEL INDUSTRY 1943 and 1944

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COMBINED INTELLIGENCE OBJECTIVES
SUB-COMMITTEE

LONDON—H.M. STATIONERY OFFICE

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PRODUCTION STATISTICS

GERMAN STEEL INDUSTRY

1943 and 1944

July 28, 1945

REPORTED BY

Mr. J. D. Dickerson, U. S. Ord.

CIOS Item No. 21

METALLURGY

COMBINED INTELLIGENCE OBJECTIVES SUB-COMMITTEE
G-2 DIVISION, SHAREF (REAR) APO 415

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PERSONNEL OF TEAM

Mr. J. D. Dickerson, U. S. ORD.

I EXPLANATION

The attached appendices indicate numerous production statistics of the German Iron and Steel Industry. Several pertinent facts are brought out in these charts:

1. Steel production in the later years of the war approximated 30 million tons per year. The production of Czechoslovakia is included in that total.
2. It is evident that steel production in the occupied territories, including Italy, averaged between 4 to 5 million tons per year. This amount is far below the normal total peace time capacity of Poland, Belgium, France, the Netherlands, Luxembourg, and Italy. It must be concluded that the Reich either did not operate the total potential producing capacity, or there was a definite and successful slow-down policy in these areas.
3. Pig iron production averaged 23 million to 24 million tons per year in Germany including Czechoslovakia.
4. Pig iron production in the occupied areas, including Italy, approximated 3,500,000 tons to 3,800,000 tons annually. Again the total productive capacity was well below the normal peace time production.
5. Appendix "C" gives statistics on the total production of finished rolled steel products.
6. Appendix "D" indicates the tonnage used in May 1944 in the forging industry.

Development of Steel Ingot Production

(Sheet 1 of 5)

Total Ingot Production by Districts

	Year		February		March		April		May		June	
	1943	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944
1. North West	13,442,431	1,107,600	1,197,396	1,120,275	1,112,444	1,106,130						
2. South West	7,478,227	602,052	643,946	590,128	529,925	566,736						
3. Central	4,075,541	313,842	338,368	327,114	357,324	369,119						
4. Silesia	2,821,308	233,370	249,716	229,909	247,525	240,850						
5. Protectorate (Czech)	1,732,318	146,808	154,892	136,773	143,154	142,364						
6. South East	1,053,451	81,079	90,247	87,258	88,425	91,794						
I. Total 1 thru 6	30,603,276	2,484,751	2,674,565	2,491,457	2,478,727	2,516,993						
7. Central Poland	-	20,265	20,121	20,053	21,729	23,229						
8. Meurthe & Moselle	-	92,212	103,411	92,673	43,210	33,069						
9. Belgium	-	138,039	146,402	81,430	22,863	16,301						
10. North France	-	71,287	72,997	64,602	30,768	26,021						
11. Netherlands	-	10,214	13,422	11,986	13,212	9,828						
12. West Central France	-	18,596	14,759	13,972	15,304	8,547						
13. South Central France	-	25,593	26,362	20,593	15,881	5,488						
14. Italy	-	117,141	101,121	112,615	123,475	101,920						
II Total 7 thru 14	4,040,294	493,147	499,095	417,724	291,442	224,403						
III. Total 1 thru 14	34,643,570	2,977,898	3,173,660	2,909,181	2,770,239	2,741,396						

The figures for Districts 12 & 13 are in accordance with the reports from the military commander of France. The figures for District 14 are in accordance with reports from the Central Institute for Steel in Milan. All figures are in Metric Tons.

Raw Steel Production in the Districts 1 to 6 (1.) in Order of Type

	February 1944	March 1944	April 1944	May 1944	June 1944
1. Thomas steel incl. air-refined sub. steel:					
A. Thomas Steel Ingots	581,513	610,867	577,769	544,847	573,884
1. Mild (min. strength less than 50 kg.)	208,119	229,682	219,428	215,774	221,019
2. Hard (min. strength (shell steel 50 kg. and more)	96,789	105,969	90,178	84,470	88,012
Total	(304,908)	(335,651)	(309,606)	(301,244)	(309,031)
Total of Thomas Steel Ingots	(886,421)	(946,518)	(887,395)	(846,091)	(882,915)
B. Air-refined substitute steel ingots	74,365	84,897	77,573	68,025	72,342
1. Hamborn Pho-Hydrogen Steel	33,973	38,661	33,109	33,059	24,009
2. Alum. Thomas Steel	(108,338)	(123,558)	(110,682)	(101,084)	(96,351)
Air-Refined substitute steel ingots-total	994,759	1,070,076	998,057	947,175	979,266
a. Ingots (total of A & B)	57	61	47	56	78
b. Steel-mold casting ¹	994,816	1,070,137	998,104	947,231	979,344
Thomas Steel incl. air-refined sub. steel. Total	208,326	242,897	210,841	235,377*	219,093
2. Open Hearth Steel					
a. Ingots	690,216	737,858	698,047	695,795*	703,780
1. O.H. Steel with permissible amt. of F. & S. of ea. more than 0.05% and the sum of more than 0.09%	219,875	238,183	223,946	225,531*	229,990
2. O.H. Steel with permissible amt. of F. & S up to max. of 0.05% and the sum max. of 0.09%	124,417	1,218,958	1,132,834	1,157,353*	1,152,863
3. Alloyed O.H. Steel	34,614	57,358	51,736	53,912	54,610
Ingots (Total 1 to 3)	1,173,081	1,278,296	1,134,570	1,211,265*	1,207,473
B. Steel-mold casting					
O.H. Steel, Total					

APPENDIX "A"

Raw Steel Productions in the Districts 1 to 6 (1) in Order of Type (Sheet 3 of 5)

	February 1944	March 1944	April 1944	May 1944	June 1944
3. Electric Furnace Steel					
a. Ingots	193,386	201,125*	195,301	199,853*	206,178
b. Steel-mould castings ¹	54,589**	60,311	54,030	58,316*	59,207
Electric Steel, Total	247,975*	261,436*	249,331	258,169*	265,385
4. Bessemer-, Crucible-, Welding Steel					
a. Ingots, incl. welding steel	1,905	2,159	2,148	2,087	2,262
b. Steel-mould castings ¹	61,024	64,537*	57,304*	60,045*	62,529
Bessemer-, Crucible-, Welding Steel, Total	62,929	66,696*	59,452*	62,132*	64,791
I. Sum of the Districts 1 to 6					
Ingots, incl. welding steel	2,314,467	2,492,298*	2,328,340	2,395,468*	2,340,569
Steel-mould castings ¹	170,284*	182,267*	163,117*	172,323*	176,424
Raw Steel Totals	2,484,751*	2,674,565*	2,491,457*	2,478,797*	2,516,993

* Corrected figures; ¹ Fluid Weight.

APPENDIX "A"

Raw Steel Production in the Districts 7 to 14 (II) in Order of Type

	February 1944	March 1944	April 1944	May 1944	June 1944
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1. Thomas Steel incl. air-refined sub-steels

A. Thomas Steel Ingots	187,895	197,853	146,799	48,633	.
1. Mild (min. strength less than 50 kg.)	1,558	3,553	2,176	454	.
2. Hard (min. strength (shell steel 50 kg. and more)	7,993	11,310	8,774	8,669	.
(Total	(9,551)	(14,863)	(10,950)	(9,123)	(.)

Total of Thomas Steel Ingots	(197,446)	(212,716)	(157,749)	(57,756)	(.)
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B. Air-refined substitute steel ingots

1. Hamborn Pho-Nitrogen Steel	6,323	7,393	1,856	488	.
2. Alum. Thomas Steel	-	-	-	-	.
Air-refined substitute steel ingots-total	(6,323)	(7,393)	(1,856)	(488)	(.)

a. Ingots (Total of A+B)

203,769	220,103*	159,605	58,244	.
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143	171	105	18	.
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b. Steel-mould casting¹
Thomas steel incl. air-refined sub-
steel. Total

203,912	220,280*	159,710*	58,262	48,581
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2. Open Hearth Steel

a. Ingots

- O.H. Steel with permissible amt. of P & S, of enc. more than 0.05% and the sum of more than 0.09%
- O.H. Steel with permissible amt. of P & S up to max. of 0.05% and the sum max. of 0.09%
- Alloyed O.H. Steel

196,606	195,407	175,490	152,012	.
5,019	5,536	5,536	2,184	.

a. Ingots (Total 1 to 3)

201,625	200,943*	181,026*	154,196	109,206
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b. Steel-mould casting¹
O.H. Steel Total.

APPENDIX "A"

Raw Steel Production in the Districts 7 to 14 (II) in Order of Type (Sheet 5 of 5)

	February 1944	March 1944	April 1944	May 1944	June 1944
3. Electric Furnace Steel					
a. Ingots	72,882	63,537	67,676	69,589	.
b. Steel-mould casting ¹	6,076	6,085	4,306	6,822	.
Electric Steel, Total	78,958	69,622*	71,982	76,411	64,132
4. Bessemer-, Crucible-, Welding Steel					
a. Ingots, incl. welding steel	3,094	2,643	1,214	756	.
b. Steel-mould casting ¹	5,558	5,695	3,792	1,187	.
Bessemer-, Crucible-, Welding Steel, Total	8,652	8,338*	5,006	2,573	2,484
I. Sum of the Districts 7 to 14					
Ingots, incl. welding steel	476,351	481,696*	403,985	*280,601	2) 216,056
Steel-mould casting ¹	16,796	17,487*	13,739	*10,841	2) 8,347
Raw Steel Totals	492,147	499,182*	417,724	*291,442	224,403

* Corrected Figures; 1 Fluid Weight; 2) Estimated.

Development of Pig Iron Production
in Metric Tons

Total Pig Iron Production by Districts

	Year	April	May	June	July
	1943	1944	1944	1944	1944
1. North West	10,834,860	886,642	850,170	818,375	893,290
2. South West	7,290,907	563,700	493,867	517,419	542,075
3. Central	2,571,768	210,575	225,523	218,504	231,360
4. Silesia	1,334,291	105,994	110,936	107,577	106,884
5. Protectorate (Czech)	1,200,599	97,550	99,485	101,721	95,025
6. South East	1,012,237	87,524	95,055	91,805	82,038
I. Total 1 thru 6	24,234,662	1,951,785	1,875,036	1,855,401	1,949,680
7. Central Poland	-	9,763	10,657	6,635	3,440
8. Meurthe & Moselle	-	104,017	50,726	37,542	53,848
9. Belgium	-	91,343	33,461	21,360	30,160
10. North France	-	41,208	24,838	18,588	21,145
11. Netherlands	-	10,018	10,356	8,194	9,773
12. West Central France	-	1,498	1,797	1,790	-
13. South Central France	-	10,446	9,814	8,015	-
14. Italy	-	20,734	41,325	37,595	-
II. Total 7 thru 14	3,770,433	289,027	182,974	139,719	118,364 ¹
III. Total 1 thru 14	28,005,095	2,240,812	2,058,010	1,995,120	2,068,044 ²

(1) Includes only Districts 7 to 11. (2) Includes only Districts 1 to 11.
Statistics for Districts 8 to 10 in July 1944 are estimated.

APPENDIX "B"

(Sheet 2 of 5)

Pig Iron Production by Qualities in the Districts 1 - 6 (I)

	April 1944	May 1944	June 1944	July 1944
Thomas Pig Iron	1,241,126	1,169,780	1,161,280	1,236,774
Vanadium Pig Iron	74,574	61,429	83,373*	72,566
(Thomas and Vanadium Pig Iron Total)	(1,315,700)	(1,231,209)	(1,244,653*)	(1,309,340)
Open Hearth Pig Iron up to 6% Mn (original)	384,180	365,162	349,317*	358,268
Spiegeleisen above 6 - 14% Mn.	32,075	40,328	29,243	32,835
Spiegeleisen above 14 - 30% Mn.	23,669	14,485	19,457	21,037
Blast-Furnace Ferro-Manganese above 30-60% Mn.	5,858	8,074	5,965	7,399
Blast-Furnace Ferro-Manganese above 60% Mn.	4,468	3,513	1,996	3,447
Herzite Pig Iron	((((
Hard Pig Iron	99,997	92,530	88,944	94,395
Foundry Pig Iron I	28,875	26,945	33,338*	35,258
Foundry Pig Iron III	18,102	32,944	23,200*	37,679
Foundry Pig Iron IVA	9,725	8,621	11,716*	8,827
Foundry Pig Iron IV B	91	4,517	5,933	6,952
Special Pig Iron from Stegerland	8,414	7,277	6,791	7,020
Other Pig Iron from Coke Blast Furnace	11,229	28,983*	18,565*	15,201
Other Pig Iron not from Coke Blast Furnace	950*	1,853*	2,092	3,116
Blast Furnace Ferro-Silicon	8,452	8,595	14,241	8,906
1. Total for the Districts 1 - 6	1,951,756*	1,875,036*	1,855,401*	1,949,680

* Corrected Figures

Pig Iron Production by Qualities in the Districts 7 - 14 (II) *

	April 1944	May 1944	June 1944	July 1944
Thomas Pig Iron	300,268	85,465	.	.
Vanadium Pig Iron	7,418	4,457	.	.
(Thomas and Vanadium Pig Iron Total)	(207,686)	(89,922)	(.)	(.)
Open Hearth Pig Iron up to 6% Mn (Original)	22,811	60,866*	.	.
Spiegeleisen above 6 - 14% Mn.	-	898	.	.
Spiegeleisen above 14 - 20% Mn.	-	513	.	.
Blast Furnace Ferro-Manganese above 30-60% Mn.	960	785	.	.
Blast Furnace Ferro-Manganese above 60% Mn.	978	273	.	.
Hematite Pig Iron	(6,645	(10,304*	(.)	(.)
Hard Pig Iron	((((
Foundry Pig Iron I	5,075*	7,942*	.	.
Foundry Pig Iron III	609*	1,299	.	.
Foundry Pig Iron IV A	6,935	2,609	.	.
Foundry Pig Iron IV B	4,345	723	.	.
Special Pig Iron from Siegerland	-	-	-	-
Other Pig Iron from Coke Blast Furnace	290	1,309	.	.
Other Pig Iron not from Coke Blast Furnace	15	-	.	.
Blast Furnace Ferro-Silicon	-	-	.	.
II. Total for the Districts 7 - 14	256,349	177,443*	.	.

* Corrected figures. *) Temporarily Dist : ts 7 - 14

APPENDIX "B"

Pig Iron Production by Qualities in Districts 1 - 14 (III) ** (Sheet 4 of 5)

	April 1944	May 1944	June 1944	July 1944
Thomas Pig Iron	1,441,394	1,255,245*	.	.
Vanadium Pig Iron	81,992	65,886	.	.
(Thomas and Vanadium Pig Iron Total)	(1,523,386)	(1,321,131*)	(. .)	(. .)
Open Hearth Pig Iron up to 6% Mn. (Original)	406,991	426,028*	.	.
Spiegeleisen above 6 - 14% Mn.	32,075	41,226	.	.
Spiegeleisen above 14 - 30% Mn.	23,669	14,998	.	.
Blast Furnace Ferro-Manganese above 30-60% Mn.	6,818	8,859	.	.
Blast Furnace Ferro-Manganese above 60% Mn.	5,446	3,756	.	.
Hematite Pig Iron	((((
Hard Pig Iron	((((
Foundry Pig Iron I	33,950*	34,887*	.	.
Foundry Pig Iron III	19,711*	34,243	.	.
Foundry Pig Iron IVA	16,660	11,230	.	.
Foundry Pig Iron IVB	4,436	5,240	.	.
Special Pig Iron from Siegerland	8,414	7,277	.	.
Other Pig Iron from Coke Blast Furnace	11,519	30,292*	.	.
Other Pig Iron not from Coke Blast Furnace	965*	1,853*	.	.
Blast Furnace Ferro-Silicon	8,452	8,595	.	.
III. Total for the Districts 1 - 14	2,208,134*	2,052,479*	.	.

* Corrected figures. **) Temporarily Districts 1 - 11.

Operational Condition of the Blast Furnaces on the Last of the Month

April	May	June	July
1944	1944	1944	1944

I. Districts 1 - 6 Total

1. In Operation	238	219	226	236
2. Out of Operation	6	16	10	9
3. Ready to Start Up	7	6	9	8
4. In Repairs or Expecting Parts	34	38	38	37
5. Banked	14	20	17	10
I. Number of Blast Furnace in District 1 - 6	299	299	300	300

II. Districts 7 - 14 Total *)

1. In Operation	55	26	.	.
2. Out of Operation	10	32	.	.
3. Ready to Start Up	18	21	.	.
4. In Repairs or Expecting Parts	15	16	.	.
5. Banked	38	41	.	.
6. Position not given but Plant is not Laid Up	-	-	.	.
II. Number of Blast Furnace in District 7 - 14	136	136	.	.

III. Districts 1 - 14 Total ***)

1. In Operation	293	245	.	.
2. Out of Operation	16	48	.	.
3. Ready to Start Up	25	27	.	.
4. In Repairs or Expecting Parts	49	54	.	.
5. Banked	52	61	.	.
6. Position not given but Plant is not Laid Up	-	-	.	.
III. Number of Blast Furnace in District 1 - 14	475	475	.	.

*) Temporarily Districts 7 - 11; **) Temporarily Districts 1 - 11

APPENDIX "C"

Development of Production of the Hot Rolling Mills

Total Production of Finished Rolled Steel Products Divided by Districts

	March 1944	April 1944	May 1944	June 1944
1. North West	668,792	617,485	596,693	613,967
2. South West	377,282	324,014	268,452	305,145
3. Central	159,389	146,775	166,059	162,426
4. Silesia	111,158	108,427	108,829	106,242
5. Protectorate (Czech)	93,909	81,033	94,294	91,095
6. South East	49,512	47,349	47,627	48,034
I. Total 1 thru 6	1,460,042	1,325,083	1,282,014	1,326,969
7. Poland	10,826	8,126	10,381	10,447 7)
8. Meurthe-Moselle (France)	50,407	41,747	24,340	20,000 6)
9. Belgium	106,303	65,852	15,510	12,663 6)
10. Northern France	51,950	38,501	21,727	15,627
11. Holland	9,980	8,854	10,437	9,101 7)
12. Central West (France)	20,737	16,823	10,909	9,000 7)
13. Central Middle (France)	15,800	13,049	11,952	10,000 7)
14. Italy	67,405	68,794	81,729	63,157
II. Total 7 thru 14	333,408	261,746	187,085	149,995
III. Total 1 thru 14	1,793,450	1,586,829	1,469,099	1,476,964

2) - Census method from 1942. 4) - Report from the Military Commander from France.

6) - Preliminary Statistics. 7) - Estimated.

APPENDIX "C"

Production of Finished Rolled Steel Products Divided in Steel Qualities (Sheet 2 of 6)

	March 1944	April 1944	May 1944	June 1944
I.				
Thomas Steel	622,630	541,456	494,218	533,108
Air-cooled Substitute Steels	54,827	54,216	47,958	46,693
Open Hearth Steels	685,472	636,928	650,643	655,114
1 thru 6 Electric Steel 1)	95,428	90,518	87,774	89,866
Bessemer-, Crucible steel, Welding Ingots	1,685	1,965	1,421	2,188
Total of I.	1,460,042	1,325,083	1,282,014	1,326,969
II.				
Thomas Steel	151,438 ³⁾	103,613 ³⁾	.	.
Air-cooled Substitute Steels	.	.	.	.
Open Hearth Steels	.	.	.	.
1 thru 14 Electric Steel 1)	.	.	.	.
Bessemer-, Crucible steel, Welding Ingots	.	.	.	.
Total of II.	151,438 ³⁾	103,613 ³⁾	.	.
III.				
Thomas Steel	774,068 ³⁾	645,069 ³⁾	.	.
Air-cooled Substitute Steels	.	.	.	.
Open Hearth Steels	.	.	.	.
1 thru 14 Electric Steel 1)	.	.	.	.
Bessemer-, Crucible steel, Welding Ingots	.	.	.	.
Total of III.	774,068 ³⁾	645,069 ³⁾	.	.

1) - Inclusive O. H. Electric Mixed Steel. 3) - For District 12 - 14 not calculated.

APPENDIX "C"

Manufacture of Finished Rolled Steel Products Divided in Qualities
in Districts 1 - 6

	March 1944	April 1944	May 1944	June 1944
Railway Super-Structure Material	62,779	53,889	46,981	47,211
Sections	37,174	48,374	49,833	41,581
Bored Flange Steel	12,135	9,897	7,822	10,474
Sheet Piling	2,145	1,361	1,310	1,176
Steel for Beams (without Steel and Case Steel)	489,532	406,765	393,486	419,187
Shell Steel in Bar Form	27,216	30,752	28,758	24,377
Case Steel	1,769	2,486	2,650	2,691
Rolled Wire	142,907	129,586	116,889	126,350
Heavy Plate from 4.76 mm and above (w/o steel case)	217,048	198,826	184,926	184,273 3)
Case Steel in Heavy Plate Form	1,950	1,607	1,931	1,702
Medium Plates from 3 to below 4.76 mm.	44,387	41,421	42,861	37,478
Sheets from 1 to below 3 mm.	90,954	86,454	86,799	92,325
Sheets from 0.32 to below 1 mm.	60,378	53,876	61,943	66,527
Sheets to and below 0.32 mm.	14,746	10,526	8,826	8,904
Strips including skelp	107,429	102,595	90,724	96,077
Broad Flat Steel (without case steel)	33,654	28,866	33,435	30,500
Case Steel in Broad Flat Steel Form	7,240	7,724	7,053	8,267
Seamless Hot Rolled,) To and including 318 mm.				
Hot Pressed and) outside ϕ	89,959	79,443	81,750	88,161
Drawn in Tubes) Above 318 mm outside ϕ	9,508	7,072	10,522	8,043
Railway Rolling Stocks, Unfinished Axles, Rims of Wheels and Wheel Discs	21,948	18,878	19,292	17,678
Other Finished Products from Hot Rolling Plants 1)	5,784	5,154	4,436	4,987
Total of Rolled Steel Finished Products	1,460,642	1,325,083	1,282,014	1,326,969

1) without the production of tube welding plants, who do not own steel plants.

3) From that 356 tons case steel in medium plate form.

Manufacture of Workshop Products in Hot Rolled Plants where the preliminary products are already mentioned in the foregoing Rolled Steel Finished Products.

	March 1944	April 1944	May 1944	June 1944
Sleepers from Sheet Metal, Flat and Broad Flat Steel	767	129	234	109
Welded Broad Flange Girders	-	-	-	-
Sheet Piling	-	-	-	-
Tin Plate and Tin Plate Substitute	4,586	4,122	4,248	5,843
Welded Tubes 1) (To & incl. 318 mm outside ϕ)	13,147	11,829	11,642	11,953
Welded Tubes 1) (Above 318 mm outside ϕ)	2,663	2,417	2,389	3,000
Seamless Steel Bottles	2,760	2,544	3,526	3,515
Seamless Containers	239	129	96	132
Welded Boilers, Drums and other Welded Containers and also Boiler Tubes	1,948	1,412	1,390	1,456
Railway Rolling Material, Raw Axles, Hubs and Ring Springs, etc.	2,422	1,602	1,379	1,329
Seamless welded 1) tubes and Total	115,277	100,762	106,109	111,157

Manufacture of Round Tube Steel (Result from census form No. Semi Steel Material)

Raw Forged Rods:	59,731	50,293	49,156	52,468
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Round Bars under 250 mm, 2)

Square Bars under 250 mm in square,

Flat Rods under 50,000 mm² in cross cut from fine

steel (Result from census PH: Production of the Press and Forging Plants

	7,027	7,093	6,503	6,728
--	-------	-------	-------	-------

1) Without the production of tube welding plants, who do not own steel plants.

2) Inclusive Hexagonal and Octagonal.

3) From that 356 tons case steel in medium plate 1 mm.

4) Estimated.

Manufacture of Finished Rolled Steel Products Divided in Qualities
in Districts 7 - 14 (II)

	March	April	May	June
	1944	1944	1944	1944
Railway Super-Structure Material	5,500	4,766	7,559	-
Sections	10,532	5,888	3,651	-
Broad Flange Steel	-	-	-	-
Sheet Piling	-	-	-	-
Steel for Bars (Without Shell and Case Steel)	110,424	81,504	63,573	-
Steel in Bar Form	-	-	-	-
Case Steel	45,239	34,932	24,132	-
Rolled Wire	50,384	38,437	25,031	-
Heavy Plate from 4.76 mm and above (w/o steel case)	16,254	13,000	9,898	-
Case Steel in Heavy Plate Form	29,208	26,011	20,945	-
Medium Plates from 3 to below 4.76 mm	19,413	14,855	7,074	-
Sheets from 1 to below 3 mm 2)	1,239	1,139	163	-
Sheets from 0.32 to below 1 mm	19,281	17,987	9,005	-
Sheets to and below 0.32 mm.	-	-	-	-
Strips including skelp	-	-	-	-
Broad Flat Steel (without case steel)	5,248	4,558	389	-
Case Steel in Broad Flat Steel Form	-	-	-	-
Seamless Hot Rolled,) To and including 318 mm.)	15,600	14,812	13,875	-
Hot Pressed and) outside ϕ	-	-	-	-
Drawn in Tubes) Above 318 mm outside ϕ	-	-	-	-
Railway Rolling Stocks, Unfinished Axles, Rims of	4,596	3,543	2,437	-
Wheels and Wheel Discs	490	314	392	-
Other Finished Products from Hot Rolling Plants 1)	-	-	-	-
Total of Rolled Steel Finished Products	333,408	261,746	187,085	-

1) without the production of tube welding plants, who do not own steel plants.

2) Sheets from 0.32 mm to below 1 mm. for District 12 - 14 because dividing is not possible

Manufacture of Workshop Products in Hot Rolled Plants where the preliminary products are already mentioned in the foregoing Rolled Steel Finished Products

	March 1944	April 1944	May 1944	June 1944
Sleepers from Sheet Metal, Flat and Broad Flat Steel	.	.	.	.
Welded Broad Flange Girders	.	.	.	.
Sheet Piling	.	.	.	.
Tin Plate and Tin Plate Substitute	80	279	.	.
Welded Tubes 1) (To & incl. 318 mm. outside ϕ)	6,274	5,961	2,057	.
Seamless Steel Bottles	597	507	57	.
Seamless Containers	.	.	.	.
Welded Boilers, Drums and other Welded Containers and also Boiler Tubes	.	.	.	.
Railway Rolling Material, Raw Axles, Hubs and Ring Springs, etc.	.	.	.	.
Seamless welded 1) tubes & Total	21,874	20,773	15,932	.

Manufacture of Round Tube Steel (Result from census form Ha: Semi Steel Material)

Raw Forged Rods:
 Round Bars under 250 mm.,
 Square Bars under 250 mm. in square,
 Flat Rods under 50,000 mm² in cross cut from fine steel (Result from census PH: Production of the Press and Forging Plants)

1) Without the production of tube welding plants, who do not own steel plants.

APPENDIX "D"

OUTPUT OF THE PRESS HD PC
(THERM) PLANT PRE
OF THE STEEL PRODUCING
DISTRICTS 1 to 6
ALTOG

Order of Groups	PRODUCTS	Line	Thomas steel	Open	Eie				
			incl. air refined steel	Hearth sub. Steels					
			t	t					
			1	2					
I Economy Group of Steel Production Industry	Free Molding Forging Parts	Wt. of pieces up to 125 kg., only of refined steel				1	2,255	3	
		Wt. of pieces over 125 kg up to 1200 kg		104	11,836	2		5	
		" " " " 1200 " " " 4000 "		14	6,569	3		4	
		" " " " 4000 " " " 20000 "			4,580	4			
		" " " " 20000 "			833	5			
		Total, Lines 1 - 5		118	26,073	6		14	
	Raw Forged Bars	Round, hexagonal, octagonal	(below 250 mm. ϕ)		25	3,518	7		2
			(250 mm to 400 mm ϕ)			3,216	8		1
		Square	(below 225 mm. square)			913	9		
			(225 mm to 400 mm square)			852	10		1
			(below 50000 sq.mm. cross section)		65	1,268	11		1
		Flat	(50000-160,000 sq.mm. cross section and to 1900 mm. width)				12		
		Other section irons					13		
		Total, Lines 7 - 13		14	91	11,024	14		7
Railway Carriages, Material	Axles, forged			209	5,347	15			
	Cranks & Pivots (Up to 125 kg. only of re- (loose) for com- (fined Steel					16		49	
	plate wheel sets (Above 125 kg. of refined of locomotives (and non-refined steel					17		122	
	in piece-weight (					18		
	Total, Lines 15 - 17		18	209	5,516	18			
Drawing Press Parts	Wt. of pieces up to 125 kg. only of re- fined steel					19		2	
	Wt. of pieces over 125 kg. of refined steel and unrefined					20	2,316	2	
	Total, Lines 19 - 20					21	2,316	5	
	I. Sum of Lines 6, 14, 18, 21					22	2,736	27	
II. Economy Group Work Material- Refining and Allied Branches of the Steel Industry	Drop-forging parts, wt. of pieces up to 125 kg. only of non-refined steel					23	1,135		
	Swagge Forging parts					24	18,562	11	
	Cranks & pivots (loose) for wheel sets of locomotives, piece-weight up to 125 kg. only of non-refined steel					25	814	1,885	
	Draw press parts, weight of parts up to 125 kg. only of non-refined steel					26	12,883	16,678	
	II. Sum of Lines 23 to 26					27	32,394	55,696	
	Total Production I & II, Lines 22 + 27					28	36,130	109,249	

2) Of these are 161 t of steel cylinders of non-refined steel in the

THE PRESS AND FOUNDRY WORKS
 (LIMITED) (INCORPORATED IN INDIA)
 STEEL PRODUCING INDUSTRY
 DISTRICTS 1 to 6

May, 1954

ALTOGETHER				Of these:			REFINED STEEL	
Open Hearth sub. Steels	Electric steel	Bessemer- Crucible Steel, Welding Bloomed	Total of Columns 1 to 4	Open Hearth Steels	Electric Steel	Bessemer- Crucible Steel, Welding Bloomed	Total of Columns 6 to 8	
t	t	t	t	t	t	t	t	
2	3	4	5	6	7	8	9	
2,255	3,345	35	5,635	2,255	3,345	35	5,635	
11,836	5,363	18	17,217	2,895	5,160	18	8,073	
6,569	4,810		11,379	2,912	4,523		7,435	
4,580	601		5,181	1,553	531		2,164	
837	221		1,058	91	223		314	
26,073	14,342	53	40,568	9,792	13,787	53	23,632	
3,518	2,667	90	6,301	1,192	2,614	86	3,892	
3,216	1,332	2	4,600	969	1,362		2,331	
913	664	17	1,594	390	659	17	1,066	
852	1,185		2,037	512	1,195		1,637	
1,268	1,060	264	2,657	653	1,050	264	1,975	
415	202	14	631	286	202	14	502	
842	64		906	299	55		354	
11,024	7,294	307	18,725	4,301	7,135	381	11,817	
5,347	199		5,755	256			259	
49			49	49			49	
122			122	42			42	
5,516	193		5,926	307	3		350	
1,276	2,991		4,267	1,115	2,991		4,106	
9,662	2,48		14,474	829	1,920		2,749	
10,938	5,485		18,771	1,574	4,911		6,355	
53,573	27,250	40	83,973	16,384	25,336	434	42,654	
4,140	25		5,300					
32,983	11,873	35	63,473	5,407	11,054		20,461	
1,885			2,699					
16,678	172		29,737					
55,696	12,070	45	101,205	9,407	11,054	-	20,461	
109,249	39,320	405	186,134	25,791	36,890	434	63,115	

and steel in the domain of the economy group of the iron producing industry.

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