



## MINERAL INDUSTRY SURVEYS

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DOUGLAS McKAY, Secretary

J. J. FORBES, Director

Iron and Steel Scrap  
Monthly Report No. 168

### IRON AND STEEL SCRAP IN OCTOBER 1954

Steel production during October was 13 percent greater than during September, being reflected in increased consumption of ferrous materials (scrap and pig iron) in steel-making furnaces, according to the Bureau of Mines, United States Department of the Interior. Scrap and pig iron so used in October totaled 3,627,338 gross tons and 3,985,725 gross tons, respectively, each 13 percent above September. The total melt (7,613,063 tons) in steel-making furnaces, consisted of 48 percent scrap and 52 percent pig iron. Electric furnaces used 528,432 tons of scrap during October, an increase of 6 percent over the previous month.

Scrap consumed for all purposes totaled 4,782,488 gross tons, an increase of 11 percent over the previous month, and pig iron consumption totaled 4,518,770 tons, an increase of 13 percent. The daily consumption rate of ferrous materials (scrap and pig iron) was 300,041 gross tons, an increase of 8 percent over September; the total melt (9,301,258 gross tons) consisted of 51 percent scrap and 49 percent pig iron, compared with 52 and 48 percent, respectively, during September.

Table 1 - Summary of production, receipts, consumption and consumers' stocks of iron and steel scrap and pig iron, May 1954 to October 1954, in gross tons

Date	Scrap for Consumption			Consumption		Consumers' Stocks at end of month	
	Home Scrap Produced	Purchased Scrap Received (Net)	Total	Scrap	Pig iron	Scrap	Pig iron <sup>1/</sup>
May 1954--	2,634,441	1,910,350	4,544,791	4,776,603	4,188,269	5,638,100	2,436,334
June 1954--	2,647,515	2,011,637	4,659,152	4,664,561	4,297,531	5,638,318	2,339,580
July 1954--	2,351,004	1,717,506	4,068,510	3,909,336	3,990,431	5,798,311	2,465,967
Aug. 1954--	2,411,599	1,846,944	4,258,543	4,164,703	4,013,552	5,891,822	2,538,723
Sept. 1954--	2,426,328	1,795,827	4,222,155	4,298,495	4,005,578	5,812,356	2,448,914
Oct. 1954--	2,623,832	2,163,398 <sup>2/</sup>	4,787,230	4,782,488	4,518,770	5,811,262	2,357,134

<sup>1/</sup> Suppliers' stocks included with consumers' stocks.

<sup>2/</sup> Excludes 179,924 gross tons of scrap shipped, transferred or otherwise disposed of during month.

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Stocks of ferrous materials (scrap and pig iron) held by consumers at the end of October totaled 8,168,396 tons, a slight decrease from the previous month. Stocks of scrap at the end of October totaled 5,811,262 tons, virtually unchanged from September; pig iron stocks totaled 2,357,134 tons, a decrease of 4 percent.

The use of scrap by gray iron foundries during October totaled 710,127 gross tons, an increase of 5 percent. Pig iron consumption by this industry increased 6 percent and totaled 367,063 gross tons.

Total scrap for consumption (home scrap produced plus purchased scrap received) totaled 4,787,230 gross tons during October, compared with 4,222,155 tons in September; home scrap accounted for 2,623,832 tons and purchases 2,163,398 tons. Of the purchases 85 percent was received from dealers and 15 percent from other sources. Receipts of purchased scrap is a net figure, computed by deducting consumers scrap shipped, transferred or otherwise disposed of during the month from total scrap received from dealers and all others.

Table 2 - Scrap produced and received during October, and stocks at consumers' plants October 31, 1954, in gross tons

	Home Scrap Produced	Scrap received		Scrap stocks October 31
		From Dealers	From Others	
No. 1 heavy melting steel-----	1,037,273	378,396	62,945	1,460,042
No. 2 heavy melting steel-----	146,292	304,971	22,107	718,702
Bundles-----	83,280	474,304	79,648	862,286
Low phosphorous scrap-----	94,190	152,538	23,835	423,762
Cast iron scrap, other than borings	434,329	252,660	40,867	812,870
Turnings and/or borings, alloy free	34,017	207,434	26,439	231,444
Rerolling rails-----	450	39,326	29,974	151,652
Scrap rails-----	3,017	23,591	4,069	77,043
High speed steel-----	1,300	343	243	5,889
Stainless steel-----	29,271	11,089	2,736	67,460
All other alloy iron and steel-----	101,067	13,766	10,109	230,261
All other prepared scrap-----	412,121	102,866	25,497	434,026
Unprepared scrap-----	247,225	40,793	12,676	335,825
Total scrap-----	2,623,832	2,002,177*	341,145*	5,811,262

\* Includes 179,924 gross tons of scrap shipped, transferred or otherwise disposed of during month.

Stocks of iron and steel scrap at the end of October totaled 5,811,262 gross tons, compared with 5,812,356 tons on September 30, and were equivalent to a 38-day supply at the October consumption rate.

Table 3 - Stocks of iron and steel scrap and pig iron on hand at major consuming industries plants, at end of month, in gross tons

Date	Scrap Stocks				Pig Iron Stocks		
	Mfgs. of Steel Ingots and Castings	Mfgs. of Steel Castings	Iron Foundries and Miscel-laneous Users	Total	Mfgs. of Steel Castings	Iron Foundries and Miscel-laneous Users	Total
May 31 1954-	4,477,256	342,156	818,688	5,638,100	1,898,112	492,515	2,436,334
June 30 1954-	4,463,397	340,659	834,262	5,638,318	1,759,503	529,696	2,339,580
July 31 1954-	4,618,123	342,766	837,422	5,798,311	1,880,081	536,973	2,465,967
Aug. 31 1954-	4,726,110	333,616	832,096	5,891,822	1,977,538	514,852	2,538,723
Sept. 30 1954-	4,643,292	332,806	836,258	5,812,356	1,910,580	494,755	2,448,914
Oct. 31 1954-	4,638,245	337,822	835,195	5,811,262	1,826,245	485,265	2,357,134

Table 4 - Consumption of iron and steel scrap in the United States during September and October, by grades, in gross tons

	September	October	Year to date
No. 1 heavy melting steel-----	1,323,964	1,504,631	13,925,640
No. 2 heavy melting steel-----	409,860	461,081	4,338,911
Bundles-----	517,576	601,730	5,153,279
Low phosphorous scrap-----	253,433	289,734	2,631,027
Cast iron scrap other than borings-----	695,231	710,150	6,971,289
Turnings and/or borings, alloy free-----	205,470	244,426	2,090,359
Rerolling rails-----	49,913	49,241	445,562
Scrap rails-----	25,880	25,661	276,346
High speed steel-----	1,572	1,873	19,819
Stainless steel-----	44,763	43,344	391,475
All other alloy iron and steel-----	106,344	117,904	1,144,764
All other prepared scrap-----	518,384	573,484	5,766,451
Unprepared scrap-----	446,105	159,229	1,621,423
Total (all grades)-----	4,298,495	4,782,488	44,776,345

# DEALERS AND BROKERS'

Companies reporting during October, indicated that by the end of the month, stocks had decreased 7 percent from September. During October, dealers and automobile wreckers received 12 percent more scrap in their yards than during September, while shipments increased 37 percent. Receipts in October, however, were 14 percent less than shipments. Of the scrap handled by dealers during October, five grades (No. 1 and No. 2 heavy melting steel, bundles, low phosphorous, and cast iron scrap, other than borings), represented 50 percent of the receipts, 75 percent of the shipments and 31 percent of the stocks at the end of the month. Unprepared scrap received in dealers and automobile wreckers yards and stocks held in their yards constituted 36 and 57 percent, respectively, of total receipts and stocks.

Table 5 - Dealers and automobile wreckers, receipts, shipments and stocks of iron and steel scrap as percentage of previous month

	Receipts during October 1954	Shipments during October 1954	Stocks  Oct. 31, 1954
No. 1 heavy melting steel-----	97	160	94
No. 2 heavy melting steel-----	120	132	91
Bundles-----	108	150	77
Low phosphorous scrap-----	106	150	93
Cast iron scrap other than borings-----	110	112	108
Turnings and/or borings, alloy free-----	115	108	93
Rerolling rails-----	19	78	53
Scrap rails-----	208	100	114
High speed steel-----	-	-	54
Stainless steel-----	126	104	115
All other alloy iron and steel-----	78	59	112
All other prepared scrap-----	91	119	99
Unprepared scrap-----	118	168	94
Total (all grades)-----	112	137	93

CONSUMPTION OF SCRAP IRON AND STEEL AND PIG IRON

Consumption of scrap in October totaled 4,782,488 gross tons which was at an average daily rate of 154,274 tons or 18 percent less than for the year 1953.

In October, open-hearth furnaces used 64 percent of the total scrap, and 83 percent of the pig iron compared with 63 and 82 percent, respectively, in September; electric furnaces in October used 6 percent of the ferrous materials (scrap and pig iron) charged to all furnaces, with open-hearth using 73 percent. During 1953, these percentages were 6 and 73, respectively. Blast furnaces used 6 percent of the total scrap; the corresponding percentage for the year 1953 was 6.

During October, steel-making furnaces (open-hearth, Bessemer and electric) accounted for 76 percent of the total scrap, and 88 percent of the pig iron consumed, compared with 75 and 88, respectively, during September. In 1953, steel-making furnaces used 77 percent of the total scrap, and 88 percent of the pig iron. The remainder was used in iron-making furnaces, principally the cupola. Consumption by type of furnace during October is shown in the following table:

Table 6 - Consumption of iron and steel scrap and pig iron by manufacturers of ingots, steel castings and iron foundries during October 1954, by type of furnace, in gross tons

Type of furnace or equipment	Steel Ingots and castings <sup>1/</sup>		Steel Castings <sup>2/</sup>		Iron Foundries and Miscellaneous Users		Total	
	Scrap		Scrap		Scrap		Scrap	
	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron
Open-hearth-----	3,042,984	3,730,900	37,028	5,677	-	-	3,080,012	3,736,577
Bessemer-----	17,507	237,776	1,294	50	93	15	18,894	237,811
Electric-----	434,373	8,523	80,017	1,546	14,042	1,238	528,432	11,307
Total steel-making furnaces-----	3,494,864	3,977,199	118,339	7,273	14,135	1,253	3,627,338	3,985,725
Cupola-----	45,869	42,078	37,801	14,944	626,457	310,041	710,127	367,063
Blast <sup>3/</sup> -----	285,558	-	-	-	-	-	285,558	-
Direct castings-----	-	83,969	-	-	46,866	65,827	67,678	149,796
Al-----	1,831	693	18,981	3,916	25,365	11,577	25,365	16,186
Ferro-alloy-----	-	-	-	-	45,555	-	66,422	-
Miscellaneous-----	20,867	-	-	-	758,378	388,698	4,782,488	4,518,770
Total October 1954-----	3,848,989	4,103,939	175,121	26,133	718,211	358,457	4,298,495	4,005,578
Total September 1954-----	3,403,651	3,620,936	176,633	26,185	707,859	360,559	4,164,703	4,013,552
Total August 1954-----	3,277,656	3,626,462	179,188	26,531	595,435	292,047	3,909,336	3,990,431
Total July 1954-----	3,178,491	3,674,777	135,410	23,607	763,637	385,424	4,604,561	4,297,531
Total June 1954-----	3,709,483	3,888,744	191,441	23,363	738,982	372,058	4,776,603	4,188,269
Total May 1954-----	3,849,886	3,794,091	187,735	22,120	-	-	-	-

<sup>1/</sup> Includes only those castings made by companies producing steel ingots.

<sup>2/</sup> Excludes companies that produce both steel castings and steel ingots.

<sup>3/</sup> Includes consumption in blast furnaces by both integrated and non-integrated mills.

Table 7 - Consumers' production, receipts, consumption and stocks of ferrous scrap, and consumption of pig iron in the United States, by State and Region, in gross tons

State and Region	Scrap			Scrap Stocks Oct. 31, 1954	Pig Iron Consumed
	Home Scrap Produced	Purchased Scrap Received	Consumed		
United States, total-----	2,623,832	2,343,322 <sup>1/</sup>	4,782,488	5,811,262	4,518,770
Undistributed-----	199	3,615	5,058	29,745	---
New England, total-----	25,144	29,654	55,026	82,342	17,672
Connecticut-----	6,728	8,806	15,651	15,585	3,715
Maine-----	298	420	708	1,175	263
Massachusetts-----	13,560	17,284	30,327	56,340	9,981
New Hampshire-----	598	548	1,214	1,399	231
Rhode Island-----	3,265	2,177	5,614	4,689	2,926
Vermont-----	695	419	1,512	3,154	556
Middle Atlantic, total-----	741,307	593,196	1,271,128	1,711,779	1,357,073
New Jersey-----	14,249	34,821	47,635	57,150	16,133
New York-----	123,713	124,831	262,061	373,967	234,845
Pennsylvania (East)-----	133,015	166,999	281,941	512,779	224,361
Pennsylvania (West)-----	470,330	266,545	679,491	767,883	881,734
East North Central, total-----	1,284,069	1,086,754	2,256,809	2,618,585	2,098,746
Illinois-----	220,056	271,634	434,837	714,783	321,206
Indiana-----	334,154	212,925	527,020	540,372	607,204
Michigan-----	225,436	212,254	439,527	388,874	288,216
Ohio (East)-----	405,668	282,818	663,317	749,225	763,119
Ohio (West)-----	69,133	74,541	140,266	164,637	104,346
Wisconsin-----	29,622	32,582	51,842	60,694	14,655
West North Central, total-----	43,415	93,946	137,734	274,566	35,868
Iowa-----	10,344	19,952	29,896	27,791	5,180
Kansas and Nebraska-----	1,026	3,355	4,473	11,410	471
Minnesota-----	15,324	21,371	43,301	102,344	28,189
Missouri-----	16,721	49,268	60,064	133,021	2,028
South Atlantic, total-----	200,376	149,755	369,967	264,448	411,953
Delaware, District of Columbia and Maryland-----	138,966	63,671	206,291	123,681	295,580
Florida and Georgia-----	4,938	14,613	20,469	6,225	3,442
North Carolina-----	3,663	3,306	4,513	5,452	1,980
South Carolina-----	753	636	1,986	1,608	952
Virginia and West Virginia-----	52,056	67,529	136,708	127,482	109,999
East South Central, total-----	141,028	136,822	265,738	215,436	327,680
Alabama-----	99,096	86,716	174,911	113,535	270,371
Kentucky, Mississippi, and Tennessee-----	41,932	50,106	90,827	101,901	57,309
West South Central, total-----	41,046	67,267	116,216	176,461	53,546
Arkansas, Louisiana, and Oklahoma-----	2,708	9,565	11,206	19,162	580
Texas-----	38,338	57,702	105,010	157,299	52,966
Rocky Mountain, total-----	67,241	51,868	98,531	124,309	131,601
Arizona and Nevada-----	316	4,291	3,904	21,278	2
Colorado and Utah-----	66,705	46,851	93,161	95,757	131,572
Idaho-----	73	273	640	1,897	24
Montana-----	147	453	826	5,377	3
Pacific Coast, total-----	80,007	130,445	206,281	313,591	84,631
California-----	72,938	98,932	170,407	230,725	84,209
Oregon-----	2,285	12,086	15,152	24,995	200
Washington-----	4,784	19,427	20,722	57,871	222

<sup>1/</sup> Includes 179,924 gross tons that was shipped, transferred or otherwise disposed of during October.

Table 8 - Consumption of ferrous scrap and pig iron in open-hearth furnaces in the United States, by State and Region, in gross tons

State and Region	Consumption during October 1954		
	Total scrap	Pig iron	Total charge
United States, total-----	3,080,012	3,736,577	6,816,589
New England, total-----	20,678	5,587	26,265
Connecticut, Massachusetts, and Rhode Island-----	20,678	5,587	26,265
Middle Atlantic, total-----	914,461	1,188,928	2,103,389
New Jersey and New York-----	198,992	221,563	420,555
Pennsylvania (East)-----	197,341	199,635	396,976
Pennsylvania (West)-----	518,128	767,730	1,285,858
East North Central, total-----	1,397,003	1,695,902	3,092,905
Illinois-----	245,828	232,038	477,866
Indiana-----	468,689	587,965	1,056,654
Michigan and Wisconsin-----	175,049	217,640	392,689
Ohio (East)-----	432,114	565,106	997,220
Ohio (West)-----	75,323	93,153	168,476
West North Central, total-----	59,319	25,233	84,552
Minnesota and Missouri-----	59,319	25,233	84,552
South Atlantic, total-----	292,602	368,761	661,363
Delaware and Maryland-----	180,655	265,337	445,992
Georgia and West Virginia-----	111,947	103,424	215,371
East South Central, total-----	127,928	220,429	348,357
Alabama and Kentucky-----	127,928	220,429	348,357
West South Central, total-----	67,509	39,148	106,657
Oklahoma and Texas-----	67,509	39,148	106,657
Rocky Mountain, total-----	79,988	121,468	201,456
Colorado and Utah-----	79,988	121,468	201,456
Pacific Coast, total-----	120,524	71,121	191,645
California and Washington-----	120,524	71,121	191,645

# FOREIGN TRADE 1/

According to the Bureau of the Census, exports of iron and steel scrap totaled 149,928 gross tons in October and 168,945 tons in September; exports of pig iron during October totaled 928 tons and 299 tons in September. Imports of scrap totaled 20,939 gross tons in October compared with 31,151 tons in September. Imports of pig iron totaled 21,879 gross tons in October and 31,229 tons in September. In addition to the above imports of pig iron during October there was 397 tons of sponge iron, valued at \$90,563, imported, of which 101 tons came from Canada and 296 tons from Sweden.

Table 9 - Imports of iron and steel scrap into the United States in October 1954 and year 1954 by countries

Country	October 1954		January to October 1954	
	Gross tons	Value	Gross tons	Value
Canada and Newfoundland-----	20,474	\$541,205	138,264	\$3,652,192
Cuba-----	-	-	983	3,385
French Morocco-----	-	-	809	28,393
Japan-----	27	5,447	229	38,225
Union of South Africa-----	113	2,413	1,047	28,258
All others-----	325	24,369	6,076	282,226
Total-----	20,939	\$573,434	147,408	\$4,032,679

Table 10 - Exports of iron and steel scrap from the United States by countries

Country	October 1954		January to October 1954	
	Gross tons	Value	Gross tons	Value
Canada and Newfoundland-----	1,865	\$62,524	39,500	\$1,238,772
Mexico-----	14,120	410,540	172,895	5,049,738
Japan-----	755	60,039	275,693	11,051,964
All others-----	133,188	4,433,470	444,458	14,881,784
Total-----	149,928	\$4,966,573	932,546	\$32,222,258

1/ To conform with other data in this report foreign trade data include tin plate scrap.