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DOUGLAS McKAY, Secretary

J. J. FORBES, Director

Iron and Steel Scrap Monthly Report No. 169

IRON AND STEEL SCRAP IN NOVEMBER 1954

Continued high steel production during November, 5 percent greater than October, reflected 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 increased 3 percent and 6 percent, respectively, over October. The total melt (7,944,032 gross tons) in steel-making furnaces, 4 percent greater than the previous month, consisted of 47 percent scrap and 53 percent pig iron. Electric furnaces used 573,298 tons of scrap during November, an increase of 8 percent over October.

Scrap consumed for all purposes totaled 4,928,850 gross tons, an increase of 3 percent over October, and pig iron consumption totaled 4,764,215 tons, an increase of 5 percent. The daily consumption rate of ferrous materials (scrap and pig iron) was 323,102 gross tons, an increase of 8 percent over October; the total melt (9,301,258 gross tons), an increase for the fourth consecutive month, consisted of 51 percent scrap and 49 percent pig iron, the same as during October.

Table 1 - Summary of production, receipts, consumption and consumers' stocks of iron and steel scrap and pig iron, June 1954 to November 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 ^{1/}
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	4,787,230	4,782,488	4,518,770	5,811,262	2,357,134
Nov. 1954--	2,737,402	2,500,293 ^{2/}	5,237,695	4,928,850	4,764,215	6,117,512	2,261,366

^{1/} Suppliers' stocks included with consumers' stocks.

^{2/} Excludes 174,475 gross tons of scrap shipped, transferred or otherwise disposed of during month.

Prepared by James E. Larkin and James C.O. Harris, February 11, 1955, under the supervision of Norwood B. Melcher, Chief, Branch of Ferrous Metals and Ferroalloys, Division of Minerals.

Stocks of ferrous materials (scrap and pig iron) held by consumers at the end of November totaled 8,378,878 tons, an increase of 3 percent over the previous month. Stocks of scrap at the end of November totaled 6,117,512 tons, an increase of 5 percent over October; pig iron stocks totaled 2,261,366 tons, a decrease of 4 percent, and the third consecutive month in which these stocks have decreased.

The use of scrap by gray iron foundries during November totaled 737,286 gross tons, an increase of 4 percent. Pig iron consumption by this industry increased 2 percent and totaled 375,526 gross tons.

Total scrap for consumption (home scrap produced plus purchased scrap received) totaled 5,237,695 gross tons during November, compared with 4,787,230 tons in October; home scrap accounted for 2,737,402 tons and purchases 2,500,293 tons. Of the purchases 88 percent was received from dealers and 12 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 November, and stocks at consumers' plants November 30, 1954, in gross tons

	Home Scrap Produced	Scrap received		Scrap stocks November 30
		From Dealers	From Others	
No. 1 heavy melting steel-----	1,096,260	422,575	47,595	1,546,763
No. 2 heavy melting steel-----	147,236	350,449	31,898	761,103
Bundles-----	84,951	603,896	58,168	942,546
Low phosphorous scrap-----	82,981	184,150	24,110	416,088
Cast iron scrap, other than borings	454,514	302,921	42,939	853,734
Turnings and/or borings, alloy free	36,996	226,616	28,609	252,137
Rerolling rails-----	505	36,642	27,082	166,249
Scrap rails-----	2,228	22,442	3,709	79,474
High speed steel-----	1,541	533	384	6,057
Stainless steel-----	30,727	13,952	3,741	64,727
All other alloy iron and steel-----	107,254	13,522	11,414	235,624
All other prepared scrap-----	424,122	126,369	24,925	459,696
Unprepared scrap-----	268,087	51,597	14,530	333,314
Total scrap-----	2,737,402	2,355,664*	319,104*	6,117,512

* Includes 174,475 gross tons of scrap shipped, transferred or otherwise disposed of during month.

Stocks of iron and steel scrap at the end of November totaled 6,117,512 gross tons, compared with 5,811,262 tons on October 31, and were equivalent to a 37-day supply at the November 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	Mfgs. of Steel Ingots and Castings	Mfgs. of Steel Castings	Iron Foundries and Miscel- laneous Users
				Total		Total
June 30 1954-	4,463,397	340,659	834,262	5,638,318	1,759,503	529,696
July 31 1954-	4,618,123	342,766	837,422	5,798,311	1,880,081	536,973
Aug. 31 1954-	4,726,110	333,616	832,096	5,891,822	1,977,538	514,852
Sept. 30 1954-	4,643,292	332,806	836,258	5,812,356	1,910,580	494,755
Oct. 31 1954-	4,638,245	337,822	835,195	5,811,262	1,826,245	485,265
Nov. 30 1954-	4,893,991	349,159	874,362	6,117,512	1,726,796	488,512
						2,339,580
						2,465,967
						2,538,723
						2,448,914
						2,357,134
						2,261,366

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

	October	November	Year to date
No. 1 heavy melting steel-----	1,504,631	1,490,066	15,415,706
No. 2 heavy melting steel-----	461,081	486,191	4,825,102
Bundles-----	601,730	671,784	5,825,063
Low phosphorous scrap-----	289,734	281,923	2,912,950
Cast iron scrap other than borings-----	710,150	729,108	7,700,397
Turnings and/or borings, alloy free-----	244,426	256,914	2,347,273
Rerolling rails-----	49,241	44,493	490,055
Scrap rails-----	25,661	25,533	301,879
High speed steel-----	1,873	2,218	22,067
Stainless steel-----	43,344	48,655	440,130
All other alloy iron and steel-----	117,904	121,814	1,266,578
All other prepared scrap-----	573,484	582,898	6,349,349
Unprepared scrap-----	159,229	187,223	1,808,646
Total (all grades)-----	4,782,488	4,928,850	49,705,195

DEALERS AND BROKERS

Companies reporting during November, indicated that by the end of the month, stocks had decreased 2 percent from October. During November, dealers and automobile wreckers received 16 percent more scrap in their yards than during October, while shipments increased 13 percent. Receipts in November, however, were 11 percent less than shipments. Of the scrap handled by dealers during November, five grades (No. 1 and No. 2 heavy melting steel, bundles, low phosphorous, and cast iron scrap, other than borings), represented 49 percent of the receipts, 77 percent of the shipments and 30 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 37 and 58 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 November 1954	Shipments during November 1954	Stocks Nov. 30, 1954
No. 1 heavy melting steel-----	130	119	90
No. 2 heavy melting steel-----	113	113	98
Bundles-----	106	115	89
Low phosphorous scrap-----	121	117	90
Cast iron scrap other than borings-----	107	115	103
Turnings and/or borings, alloy free-----	115	111	96
Rerolling rails-----	101	119	98
Scrap rails-----	113	135	111
High speed steel-----	-	139	116
Stainless steel-----	104	124	96
All other alloy iron and steel-----	124	105	99
All other prepared scrap-----	108	106	99
Unprepared scrap-----	120	94	99
Total (all grades)-----	116	113	98

CONSUMPTION OF SCRAP IRON AND STEEL AND PIG IRON

Consumption of scrap in November totaled 4,928,850 gross tons which was at an average daily rate of 164,295 tons or 13 percent less than for the year 1953.

In November, open-hearth furnaces used 64 percent of the total scrap, and 83 percent of the pig iron, the same as during October; electric furnaces in November 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 November, steel-making furnaces (open-hearth, Bessemer and electric) accounted for 76 percent of the total scrap, and 88 percent of the pig iron consumed, the same as during October. 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 November 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 November 1954, by type of furnace, in gross tons

Type of furnace or equipment	Steel Ingots and castings 1/		Steel Castings 2/		Iron Foundries and Miscellaneous Users		Total	
	Scrap	Pig iron	Scrap	Pig iron	Scrap	Pig iron	Scrap	Pig iron
Open-hearth	3,107,994	3,962,860	33,930	5,102	-	-	3,141,924	3,967,962
Bessemer	16,629	227,150	797	42	289	9	17,715	227,201
Electric	480,835	13,507	78,642	1,278	13,821	1,147	573,298	15,932
Total steel-making furnaces	3,605,458	4,203,517	113,369	6,422	14,110	1,156	3,732,937	4,211,095
Cupola	52,766	46,502	39,151	12,181	645,369	316,843	737,286	375,526
Blast 3/	302,283	-	-	-	-	-	302,283	-
Direct castings	-	96,086	-	-	-	65,330	-	161,416
Air	1,982	673	19,396	4,201	50,466	11,304	71,844	16,178
Ferro-alloy	-	-	-	-	22,393	-	22,393	-
Miscellaneous	20,747	-	-	-	41,360	-	62,107	-
Total November 1954	3,983,236	4,346,778	171,916	22,804	773,698	394,633	4,928,850	4,764,215
Total October 1954	3,818,989	4,103,939	175,121	26,133	758,378	388,698	4,782,488	4,518,770
Total September 1954	3,403,651	3,620,936	176,633	26,185	718,211	358,457	4,298,495	4,005,578
Total August 1954	3,277,656	3,626,462	179,188	26,531	707,859	360,559	4,164,703	4,013,552
Total July 1954	3,178,491	3,674,777	135,410	23,607	595,435	292,047	3,909,336	3,990,431
Total June 1954	3,709,483	3,888,744	191,441	23,363	763,637	385,424	4,664,561	4,297,531

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

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

3/ 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 Nov. 30, 1954	Pig Iron Consumed
	Home Scrap Produced	Purchased Scrap Received	Consumed		
United States, total-----	2,737,402	2,674,768 ^{1/}	4,928,850	6,117,512	4,764,215
Undistributed-----	158	4,111	4,672	29,185	---
New England, total-----	24,504	36,731	58,492	82,881	18,427
Connecticut-----	7,215	8,552	15,879	15,316	3,576
Maine-----	258	671	586	1,340	236
Massachusetts-----	13,257	21,531	32,413	56,991	10,274
New Hampshire-----	663	470	1,324	1,142	236
Rhode Island-----	2,513	4,663	6,946	4,840	3,570
Vermont-----	598	844	1,344	3,252	535
Middle Atlantic, total-----	781,359	674,147	1,335,879	1,768,433	1,430,792
New Jersey-----	14,016	40,354	46,828	63,613	16,139
New York-----	143,240	182,066	291,011	404,737	272,107
Pennsylvania (East)-----	143,447	156,393	289,478	519,527	231,296
Pennsylvania (West)-----	480,656	295,334	708,562	780,556	911,250
East North Central, total-----	1,344,817	1,219,286	2,373,602	2,738,360	2,231,249
Illinois-----	236,417	313,531	491,472	757,166	338,703
Indiana-----	354,011	239,281	522,745	593,155	647,995
Michigan-----	220,381	200,395	454,273	345,662	290,180
Ohio (East)-----	428,168	362,462	711,363	814,415	819,171
Ohio (West)-----	76,677	73,215	143,134	163,377	120,698
Wisconsin-----	29,163	30,402	50,615	64,585	14,502
West North Central, total-----	45,719	124,938	147,255	294,010	40,144
Iowa-----	11,211	21,240	29,155	29,279	5,401
Kansas and Nebraska-----	1,316	3,595	5,639	10,739	471
Minnesota-----	20,781	33,978	52,221	103,540	32,246
Missouri-----	12,411	66,125	60,240	150,452	2,026
South Atlantic, total-----	202,813	176,812	347,672	291,026	442,704
Delaware, District of Columbia and Maryland-----	142,529	76,760	200,941	141,407	311,401
Florida and Georgia-----	4,383	17,323	18,452	9,406	2,695
North Carolina-----	3,186	2,753	4,586	5,633	1,578
South Carolina-----	715	702	1,880	1,625	1,097
Virginia and West Virginia-----	52,000	79,274	121,813	132,955	125,933
East South Central, total-----	141,711	158,620	251,353	242,903	313,784
Alabama-----	96,693	92,493	160,102	125,421	251,311
Kentucky, Mississippi, and Tennessee-----	45,018	66,127	91,251	117,482	62,473
West South Central, total-----	45,568	68,083	106,407	180,105	49,109
Arkansas, Louisiana, and Oklahoma-----	2,467	10,010	12,447	18,527	641
Texas-----	43,101	58,073	93,960	161,578	48,468
Rocky Mountain, total-----	74,130	49,713	102,270	145,114	158,212
Arizona and Nevada-----	288	3,914	4,275	20,528	2
Colorado and Utah-----	73,450	44,117	96,072	117,171	158,190
Idaho-----	65	539	651	1,850	12
Montana-----	327	1,143	1,272	5,565	8
Pacific Coast, total-----	76,623	162,327	201,248	345,495	79,794
California-----	69,600	131,542	169,966	257,489	79,450
Oregon-----	2,501	13,129	14,116	26,278	151
Washington-----	4,522	17,656	17,166	61,728	193

^{1/} Includes 174,475 gross tons that was shipped, transferred or otherwise disposed of during November.

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 November 1954		
	Total scrap	Pig iron	Total charge
United States, total-----	3,141,924	3,967,962	7,109,886
New England, total-----	24,170	6,665	30,835
Connecticut, Massachusetts, and Rhode Island-----	24,170	6,665	30,835
Middle Atlantic, total-----	971,407	1,255,931	2,227,338
New Jersey and New York-----	219,531	259,123	478,654
Pennsylvania (East)-----	210,830	204,190	415,020
Pennsylvania (West)-----	541,046	792,618	1,333,664
East North Central, total-----	1,441,617	1,813,866	3,255,483
Illinois-----	280,818	246,899	527,717
Indiana-----	461,407	626,713	1,088,120
Michigan and Wisconsin-----	156,994	209,507	366,501
Ohio (East)-----	469,795	623,507	1,093,302
Ohio (West)-----	72,603	107,240	179,843
West North Central, total-----	66,314	29,091	95,405
Minnesota and Missouri-----	66,314	29,091	95,405
South Atlantic, total-----	273,815	402,792	676,607
Delaware and Maryland-----	176,190	283,985	460,175
Georgia and West Virginia-----	97,625	118,807	216,432
East South Central, total-----	106,843	212,826	319,669
Alabama and Kentucky-----	106,843	212,826	319,669
West South Central, total-----	68,347	35,719	104,066
Oklahoma and Texas-----	68,347	35,719	104,066
Rocky Mountain, total-----	79,971	145,812	225,783
Colorado and Utah-----	79,971	145,812	225,783
Pacific Coast, total-----	109,440	65,260	174,700
California and Washington-----	109,440	65,260	174,700

FOREIGN TRADE 1/

According to the Bureau of the Census, exports of iron and steel scrap totaled 138,285 gross tons in November and 149,928 tons in October; exports of pig iron during November totaled 143 tons and 928 tons in October. Imports of scrap totaled 39,229 gross tons in November compared with 20,939 tons in October. Imports of pig iron totaled 18,697 gross tons in November and 21,879 tons in October. In addition to the above imports of pig iron during November there was 467 tons of sponge iron, valued at \$84,721, imported, of which 84 tons came from Canada and 383 tons from Sweden.

Table 9 - Imports of iron and steel scrap into the United States
in November 1954 and year 1954 by countries
(U. S. Department of Commerce)

Country	November 1954		January to November 1954	
	Gross tons	Value	Gross tons	Value
Canada and Newfoundland-----	37,026	\$980,043	175,290	\$4,632,235
Cuba-----	1,599	38,942	2,582	42,327
French Morocco-----	-	-	809	28,393
Japan-----	64	11,790	293	50,015
Union of South Africa-----	67	1,877	1,114	30,135
All others-----	473	19,154	6,549	301,380
Total-----	39,229	\$1,051,806	186,637	\$5,084,485

Table 10 - Exports of iron and steel scrap from the United States by countries
(U. S. Department of Commerce)

Country	November 1954		January to November 1954	
	Gross tons	Value	Gross tons	Value
Canada-----	7,184	\$253,546	37,723	\$1,237,404
Italy-----	19,050	684,134	67,338	2,137,069
Japan-----	4,883	226,493	283,072	11,390,864
Mexico-----	16,071	483,633	188,966	5,533,371
Spain-----	14,509	440,600	48,653	1,467,117
United Kingdom-----	8,549	243,710	91,029	2,662,827
West Germany-----	16,814	494,705	154,179	5,168,328
All others-----	51,225	1,892,103	190,459	7,000,202
Total-----	138,285	\$4,718,924	1,061,419	\$36,597,182

Table 11 - Exports of iron and steel scrap from the United States by grades
(U. S. Department of Commerce)

	November 1954		January to November 1954	
	Gross tons	Value	Gross tons	Value
No. 1 and No. 2 Heavy Melting Scrap-----	107,311	\$3,682,384	723,169	\$24,512,999
Baled sheet melting scrap-----	10,515	270,733	187,972	6,029,965
Borings, shoveling and turnings-----	907	27,825	13,394	357,416
Iron scrap-----	15,904	501,750	81,590	2,538,058
Rerolling material-----	512	21,590	14,260	844,001
All other scrap 2/-----	3,136	214,642	41,034	2,314,743
Total-----	138,285	\$4,718,924	1,061,419	\$36,597,182

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

2/ Includes terne plate, tin plate, circles, cobbles strip and scroll shear butts.