



MINERAL INDUSTRY SURVEYS

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Iron and Steel Scrap
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FERROUS SCRAP IN NOVEMBER 1959

The quantity of domestic ferrous scrap stocks held by consumers on November 30, 1959, showed an increase for the sixth consecutive month and was the largest since this series of statistics was inaugurated in July 1941, according to the Bureau of Mines, United States Department of the Interior. These stocks totaled 8,863,911 gross tons and were equivalent to a 55-day supply at the November daily consumption rate of 159,897 gross tons. Stocks of pig iron held by consumers and suppliers totaled 2,725,067 gross tons, a decrease of 9 percent from those of October 31 and 21 percent less than at the end of November 1958.

Table 1 - Summary of production, receipts, consumption, and consumers' stocks of ferrous scrap and pig iron, June 1959 to November 1959, 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 1959	3,865,664	2,431,824	6,297,488	6,322,404	6,586,062	8,214,592	3,064,057
July 1959	2,052,457	1,627,466	3,679,923	3,584,931	3,193,458	8,311,839	3,132,458
Aug. 1959	825,543	1,206,767	2,032,310	1,875,165	895,659	8,472,823	3,121,644
Sept. 1959	954,424	1,319,320	2,273,744	2,114,015	971,040	8,610,706	3,057,662
Oct. 1959	987,039	1,460,243	2,447,282	2,266,709	1,046,052	8,790,755	3,003,601
Nov. 1959	2,608,179	2,258,157 ^{2/}	4,866,336	4,796,896	3,999,430	8,863,911	2,725,067

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

^{2/} Excludes 163,928 gross tons of scrap shipped, transferred or otherwise disposed of during the month.

Prepared by James E. Larkin, James C.O. Harris, and Selma D. Harris, Feb. 12, 1960, under the supervision of H.G. Iverson, Chief, Branch of Ferrous Metals and Ferroalloys, Division of Minerals.

Table 2 - Production and receipts of ferrous scrap by major consuming industries plants, in gross tons

Date	Home scrap produced			Purchased scrap received (net) <u>1/</u>		
	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
June 1959-----	3,325,669	110,515	429,480	1,790,576	154,483	486,765
July 1959-----	1,595,284	87,196	369,977	1,066,173	123,788	437,505
Aug. 1959-----	395,116	87,339	343,088	645,511	126,166	435,090
Sept. 1959-----	451,050	98,265	405,109	692,541	137,860	488,919
Oct. 1959-----	498,025	93,154	395,860	815,551	144,752	499,940
Nov. 1959-----	2,223,873	84,522	299,784	1,719,305	124,290	414,562

1/ Excludes scrap shipped, transferred or otherwise disposed of during the month.

DEALERS, BROKERS, AND AUTOMOBILE WRECKERS FOR NOVEMBER 1959

The 872 identical companies reporting for October and November indicated that at the end of November, stocks of ferrous scrap in their yards had decreased 7 percent from the end of October. During November, receipts decreased 6 percent from October, however, shipments increased 49 percent over the preceding month. Receipts in November were 34 percent less than shipments. Of the scrap handled during November, six grades (No. 1 and No. 2 heavy melting steel, No. 1 and electric furnace bundles, No. 2 and all other bundles, low phosphorous and cast iron scrap other than borings) represented 70 percent of the total shipments and 45 percent of the stocks on hand November 30. Unprepared scrap stocks held in dealers and automobile wreckers yards at the end of November constituted 44 percent of the total.

Table 5 - Dealers, brokers, and automobile wreckers, receipts, shipments, and stocks of ferrous scrap, for November 1959, in gross tons

Grades of scrap	Receipts during month		Shipments ¹ /during month		Stocks	
	November 1959	Change from previous month (percent)	To domestic consumers	For export	Nov. 30 1959	Change from end of previous month (percent)
No. 1 heavy melting steel-----	82,517	+36	111,132	45,553	158,584	+ 8
No. 2 heavy melting steel-----	65,443	- 2	88,168	32,777	182,501	- 4
No. 1 and electric furnace bundles-----	6,082	-41	43,023	4,649	13,709	-31
No. 2 and all other bundles-----	63,328	+ 8	120,915	26,229	242,713	-10
Low phosphorous scrap-----	9,901	- 4	31,679	47	29,911	- 5
Cast iron scrap other than borings-----	41,283	- 5	63,185	2,836	77,599	+ 7
Turnings and/or borings, alloy free-----	16,402	-14	33,750	216	80,273	- 4
Rerolling rails-----	1,706	+31	3,476	-	11,421	+11
Scrap rails-----	3,301	-29	4,753	-	17,125	+ 2
Highspeed steel-----	72	+26	197	-	115	-10
Stainless steel-----	2,615	+52	3,090	76	4,627	- 9
All other alloy iron and steel-----	1,152	+12	1,867	-	3,296	+23
All other prepared scrap-----	8,971	-31	42,401	39,901	50,081	-18
Unprepared scrap-----	236,990	-17	99,960	14,461	694,557	-10
Total (all grades)-----	539,763	- 6	647,596	166,745	1,566,512	- 7

¹/ Includes shipments from yards, and direct shipments by dealers and brokers from other than yard operations.

CONSUMPTION OF FERROUS SCRAP AND PIG IRON

Consumption of scrap in November totaled 4,796,896 gross tons which was at an average daily rate of 159,897 tons or 16 percent greater than for the year 1958.

In November, open-hearth furnaces used 63 percent of the total scrap and 84 percent of the pig iron; electric furnaces in November used 9 percent of the combined total of ferrous scrap and pig iron charged to all furnaces with open-hearth using 72 percent. During 1958, these percentages were 7 and 73 percent, respectively. Blast furnaces used 3 percent of the total scrap; the corresponding percentage for the year 1958 was 5.

During November, steel-making furnaces (open-hearth, Bessemer, basic oxygen converter, and electric) accounted for 80 percent of the total scrap and 89 percent of the pig iron consumed. In 1958, steel-making furnaces used 76 percent of the total scrap and 90 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 ferrous scrap and pig iron by manufacturers of ingots, steel castings and iron foundries during November 1959, 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-----	2,950,358	3,336,007	54,368	11,916	-	-	3,004,726	3,347,923
Basic oxygen converter-----	35,833	97,097	-	-	-	-	35,833	97,097
Bessemer converter-----	11,379	92,637	637	44	128	26	12,144	92,707
Electric ^{3/} -----	681,301	24,387	104,624	2,099	15,630	1,745	801,555	28,231
Total steel-making furnaces-----	3,678,871	3,550,128	159,629	14,059	15,758	1,771	3,854,258	3,565,958
Cupola-----	50,116	33,914	29,326	1,364	534,791	240,890	614,233	276,168
Air-----	1,700	597	16,225	3,170	64,859	12,583	82,784	16,350
Blast ^{4/} -----	159,540	-	-	-	-	-	159,540	-
Direct casting-----	-	75,086	-	-	-	65,868	-	140,954
Ferro-alloy-----	-	-	-	-	27,119	-	-	-
Miscellaneous-----	17,372	-	-	-	41,590	-	58,962	-
Total November 1959-----	3,907,599	3,659,725	205,180	18,593	684,117	321,112	4,796,896	3,999,430
Total October 1959-----	1,166,955	685,131	223,428	18,448	876,326	342,473	2,266,709	1,046,052
Total September 1959-----	1,018,486	629,033	220,316	14,557	875,213	327,450	2,114,015	971,040
Total August 1959-----	912,458	596,504	201,227	14,170	761,480	284,985	1,875,165	895,659
Total July 1959-----	2,590,818	2,848,583	199,181	14,506	794,932	330,369	3,584,931	3,193,458
Total June 1959-----	5,132,019	6,114,359	263,611	18,158	926,774	453,545	6,322,404	6,586,062

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

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

^{3/} Includes crucible furnaces.

^{4/} Includes consumption in all blast furnaces producing pig iron.

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, 1959	Pig iron consumed
	Home scrap produced	Purchased scrap received	Consumed		
United States, total-----	2,608,179	2,422,085 ^{1/}	4,796,896	8,863,911	3,999,430
New England, total-----	20,512	23,123	39,630	52,473	12,081
Connecticut-----	6,214	8,214	12,352	16,555	2,298
Maine and New Hampshire-----	542	845	1,231	1,259	320
Massachusetts-----	9,918	10,235	17,962	27,200	5,809
Rhode Island-----	3,177	3,065	6,693	5,914	3,136
Vermont-----	661	764	1,392	1,545	518
Middle Atlantic, total-----	776,859	651,619	1,326,874	2,557,487	1,287,651
New Jersey-----	11,720	43,012	40,354	85,433	8,631
New York-----	109,105	152,001	204,868	663,638	211,484
Pennsylvania (East) ^{2/} -----	193,210	202,170	382,878	669,660	342,065
Pennsylvania (West)-----	462,824	254,436	698,774	1,138,756	725,471
East North Central, total-----	1,247,810	1,015,728	2,218,536	3,677,639	1,741,009
Illinois-----	234,502	270,192	472,736	880,866	292,694
Indiana-----	297,625	153,576	481,787	1,015,412	438,510
Michigan-----	168,444	147,228	309,990	447,794	238,036
Ohio (East) ^{3/} -----	402,816	316,129	713,979	913,662	590,873
Ohio (West)-----	107,042	89,614	178,475	353,036	162,641
Wisconsin-----	37,381	38,989	61,569	66,869	18,255
West North Central, total-----	37,874	134,070	137,722	362,919	44,631
Iowa-----	8,630	21,135	30,649	32,332	5,117
Kansas and Nebraska-----	3,048	7,168	9,413	14,182	291
Minnesota-----	14,719	29,431	33,048	125,881	29,994
Missouri-----	11,477	76,336	64,612	190,524	9,229
South Atlantic, total-----	211,658	148,387	355,540	529,867	428,373
Delaware, District of Columbia, and Maryland-----	139,444	48,257	201,107	269,548	238,534
Florida and Georgia-----	1,749	24,761	28,686	15,886	1,130
North Carolina-----	2,025	4,176	4,840	4,294	1,991
South Carolina-----	1,290	724	2,347	2,178	1,175
Virginia and West Virginia-----	67,150	70,469	118,560	237,961	185,543
East South Central, total-----	111,671	139,515	245,257	482,527	219,621
Alabama-----	79,182	79,973	156,269	280,061	172,818
Kentucky, Mississippi, and Tennessee-----	32,489	59,542	88,988	202,466	46,803
West South Central, total-----	43,491	91,331	134,809	308,767	40,260
Arkansas, Louisiana, and Oklahoma-----	2,979	13,660	11,451	13,040	536
Texas-----	40,512	77,671	123,358	295,727	39,724
Rocky Mountain, total-----	58,051	41,550	98,975	256,683	114,974
Arizona and Nevada-----	826	4,062	5,358	16,993	2
Colorado and Utah-----	57,198	37,446	93,554	234,262	114,939
Idaho and Montana-----	27	42	63	5,428	33
Pacific Coast, total-----	100,253	176,762	239,553	635,549	110,830
California-----	92,399	149,104	199,953	478,847	110,171
Oregon-----	3,052	11,099	15,036	42,653	378
Washington-----	4,802	16,559	24,564	114,049	281

^{1/} Includes 163,928 gross tons that was shipped, transferred, or otherwise disposed of during the month.

^{2/} Pennsylvania is divided into East and West by the eastern boundary of the following counties: McKean, Cameron, Clearfield, Cambria, and Somerset.

^{3/} Ohio is divided into East and West by the eastern boundary of the following counties: Ottawa, Sandusky, Seneca, Crawford, Morrow, Delaware, Franklin, Pickaway, Ross, Pike, and Scioto.

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 1959		
	Total scrap	Pig iron	Total charge
United States, total-----	3,004,726	3,347,923	6,352,649
New England and Middle Atlantic, total---	964,025	1,140,922	2,104,947
Massachusetts, New Jersey, and Rhode Island-----	15,482	4,649	20,131
New York-----	151,060	202,247	353,307
Pennsylvania (East)-----	282,708	310,175	592,883
Pennsylvania (West)-----	514,775	623,851	1,138,626
East North Central, total-----	1,379,840	1,433,016	2,812,856
Illinois-----	298,604	234,450	533,054
Indiana-----	425,305	420,440	845,745
Michigan and Wisconsin-----	122,552	165,949	288,501
Ohio (East)-----	428,151	461,187	889,338
Ohio (West)-----	105,228	150,990	256,218
West North Central, total-----	47,077	33,373	80,450
Minnesota and Missouri-----	47,077	33,373	80,450
South Atlantic, total-----	254,389	413,127	667,516
Delaware, Maryland, and West Virginia--	254,389	413,127	667,516
East and West South Central, total-----	161,423	163,036	324,459
Alabama, Kentucky, Tennessee, and Texas-----	161,423	163,036	324,459
Rocky Mountain and Pacific Coast, total--	197,972	164,449	362,421
California, Colorado, and Utah-----	197,972	164,449	362,421

FOREIGN TRADE 1/

According to the Bureau of the Census, exports of ferrous scrap totaled 445,313 gross tons in November and 380,743 tons in October. During January 1960, the Office of Export Supply, United States Department of Commerce, issued scrap export licenses for 442,490 gross tons. Exports of pig iron during November totaled 988 tons and 50 tons in October. Imports of scrap totaled 39,122 gross tons in November compared with 15,914 tons in October. Imports of pig iron totaled 115,961 gross tons in November and 46,364 tons in October. In addition to the foregoing imports of pig iron during November, there were 469 tons of sponge iron, valued at \$48,753, imported, of which 62 tons came from Canada and 407 tons from Sweden.

Table 9 - Imports 2/ of ferrous scrap into the United States
by countries
(U. S. Department of Commerce)

Country	November 1959		Jan. through Nov. 1959	
	Gross tons	Value	Gross tons	Value
Canada-----	36,601	\$1,233,167	215,403	\$8,146,935
Cuba-----	401	3,727	3,044	32,548
France-----	-	-	4,708	335,103
Japan-----	-	-	103	33,704
United Kingdom-----	236	52,871	11,721	609,033
West Germany-----	9	1,056	3,737	281,834
All others-----	1,875	109,068	21,736	1,367,292
Total-----	39,122	\$1,399,889	260,452	\$10,806,449

Table 10 - Exports 2/ of ferrous scrap from the United States, by countries
(U. S. Department of Commerce)

Country	November 1959		Jan. through Nov. 1959	
	Gross tons	Value	Gross tons	Value
Argentina-----	-	-	941	\$52,041
Canada-----	67,150	\$2,779,776	466,116	19,000,080
Italy-----	44,253	1,489,453	302,953	9,548,105
Japan-----	274,286	11,126,711	2,424,764	91,337,234
Mexico-----	33,810	1,344,148	333,960	12,678,870
Nicaragua-----	-	-	3,952	142,489
Spain-----	6,345	289,273	69,268	2,854,982
Taiwan-----	-	-	56,596	2,290,901
All others-----	19,469	741,832	164,216	5,965,852
Total-----	445,313	\$17,771,193	3,822,766	\$143,870,554

Table 11 - Exports 2/ of ferrous scrap from the United States, by grades
(U. S. Department of Commerce)

	November 1959		Jan. through Nov. 1959	
	Gross tons	Value	Gross tons	Value
No. 1 heavy melting steel scrap	165,167	\$7,396,283	1,493,436	\$61,304,886
No. 2 heavy melting steel scrap	91,946	3,638,118	968,414	35,552,125
No. 1 baled sheet melting scrap	36,229	1,682,303	155,206	6,738,583
No. 2 baled sheet melting scrap	90,473	2,625,841	643,921	17,249,937
Borings, shoveling, and turnings	8,243	219,249	63,858	1,691,049
Iron scrap-----	27,328	1,102,992	326,841	12,757,712
Rerolling material-----	3,898	255,981	34,062	2,356,156
All other scrap 3/-----	22,029	850,426	137,028	6,220,106
Total-----	445,313	\$17,771,193	3,822,766	\$143,870,554

- 1/ To conform with other data in this report, foreign trade data include tin plate scrap.
 2/ Preliminary data subject to revision. Value may differ widely because of variations in quality, classes, and grade combinations.
 3/ Includes tin plate and terne plate scrap.