



## MINERAL INDUSTRY SURVEYS

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FRED A. SEATON, Secretary

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Iron and Steel Scrap  
Monthly Report No. 192

### IRON AND STEEL SCRAP IN OCTOBER 1956

Steel production for October, an all-time high, 6 percent greater than September and 1 percent greater than March, the previous record month, resulted in record consumption of iron and steel scrap and pig iron in steel-making furnaces (open-hearth, Bessemer and electric), according to the Bureau of Mines, United States Department of the Interior. A new monthly high was established for the use of both scrap and pig iron, in steel furnaces, each increased 6 percent over September. Open-hearth and electric furnaces used more ferrous materials, scrap and pig iron, during October than any previous month. The total steel furnace melt consisted of 48 percent scrap and 52 percent pig iron.

Consumption in steel-making furnaces:	October	September
Scrap (gross tons)	5,259,069	4,971,457
Pig iron (gross tons)	<u>5,724,387</u>	<u>5,425,683</u>
Total melt	10,983,456	10,397,140

Consumption of ferrous materials, scrap and pig iron, totaled 13,172,724 gross tons, an increase of 7 percent over September, and a new high. Scrap consumed for all purposes during October totaled 6,722,320 gross tons, an increase of 8 percent over September, but slightly less than the high set during March. Pig iron consumption established a monthly record during October, and increased 7 percent over the previous month. The total charge of these materials consisted of 51 percent scrap and 49 percent pig iron, unchanged from September.

Table 1 - Summary of production, receipts, consumption and consumers' stocks of iron and steel scrap and pig iron, May 1956 to October 1956, 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 1956—	3,524,212	3,249,004	6,773,216	6,491,567	6,064,632	6,298,618	2,046,446
June 1956—	3,282,993	2,605,309	5,888,302	5,994,989	5,642,004	6,191,341	2,066,708
July 1956—	882,703	1,174,551	2,057,254	1,986,613	963,749	6,261,368	2,159,930
Aug. 1956—	2,919,528	2,550,736	5,470,264	5,453,927	4,618,718	6,274,545	2,076,382
Sept. 1956—	3,352,689	2,658,911	6,011,600	6,231,017	6,053,147	6,059,165	2,139,236
Oct. 1956—	3,716,308	3,126,537 <sup>2/</sup>	6,842,845	6,722,320	6,450,404	6,181,076	2,124,841

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

<sup>2/</sup> Excludes 197,249 gross tons of scrap shipped, transferred or otherwise disposed of during month.

Prepared by James E. Larkin and James C.O.Harris, January 22, 1957, under the supervision of H. G. Iverson, Chief, Branch of Ferrous Metals and Ferroalloys, Division of Minerals.

The use of scrap by gray iron foundries during October totaled 890,389 gross tons, an increase of 21 percent over the 738,824 tons used during September. Pig iron consumed by this industry totaled 446,449 gross tons compared with 366,848 tons during the previous month.

Stocks of scrap and pig iron held by consumers at the end of October totaled 8,305,917 gross tons, an increase of 1 percent over the previous month. Stocks of scrap at the end of October totaled 6,181,076 gross tons, an increase of 2 percent over September. Pig iron stocks held by consumers and suppliers were slightly less than at the end of September.

Total scrap for consumption (home scrap produced plus purchased scrap received) totaled 6,842,845 gross tons during October; home scrap accounted for 3,716,308 tons and purchases 3,126,537 tons. Of the purchases 87 percent was received from dealers and 13 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, 1956, in gross tons

	Home scrap produced	Scrap received		Scrap Stocks October 31
		From dealers	From others	
No. 1 heavy melting steel	1,549,758	550,667	66,416	1,578,750
No. 2 heavy melting steel	166,472	397,016	36,783	893,548
Bundles	122,229	678,732	101,089	1,038,814
Low phosphorous scrap	135,353	329,654	25,876	450,049
Cast iron scrap, other than borings	575,020	359,501	71,268	884,698
Turnings and/or borings, alloy free	55,220	218,761	39,033	173,988
Rerolling rails	2,357	37,862	21,849	108,877
Scrap rails	3,740	31,669	3,637	79,805
High speed steel	1,910	614	1,857	5,776
Stainless steel	45,929	22,823	5,087	64,877
All other alloy iron and steel	154,497	40,710	12,083	172,106
All other prepared scrap	585,952	149,814	43,022	456,157
Unprepared scrap	317,871	66,098	11,865	273,631
Total scrap	3,716,308	2,883,921*	439,865*	6,181,076

\* Includes 197,249 gross tons of scrap shipped, transferred or otherwise disposed of during month.

Stocks of iron and steel scrap at the end of October were equivalent to a 29-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 Ingots and Castings	Mfgs. of Steel Castings	Iron Foundries and Miscel- laneous Users Total
May 31, 1956-	5,082,460	336,931	879,227	1,305,453	71,560	669,433
June 30, 1956-	5,004,910	330,431	856,000	1,196,343	84,294	786,071
July 31, 1956-	5,084,785	337,403	839,180	1,286,453	81,987	791,490
Aug. 31, 1956-	5,131,756	333,230	809,559	1,288,178	71,526	716,678
Sept. 30, 1956-	4,897,394	339,536	822,235	1,382,266	70,358	686,612
Oct. 31, 1956-	4,984,582	347,250	849,244	1,390,532	66,102	668,207
			6,181,076			2,046,446
			6,191,341			2,066,708
			6,261,368			2,159,930
			6,274,545			2,076,382
			6,059,165			2,139,236
			6,181,076			2,124,841

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	2,062,508	2,186,728	17,884,288
No. 2 heavy melting steel	586,538	578,151	5,864,395
Bundles	800,659	855,163	7,544,648
Low phosphorous scrap	386,482	439,491	4,037,624
Cast iron scrap other than borings	845,027	943,261	8,750,327
Turnings and/or borings, alloy free	254,164	277,845	2,617,660
Rerolling rails	45,844	60,806	511,121
Scrap rails	30,678	35,118	355,729
High speed steel	3,610	4,542	44,972
Stainless steel	65,904	68,759	557,599
All other alloy iron and steel	174,662	198,842	1,743,045
All other prepared scrap	777,051	854,763	7,232,557
Unprepared scrap	197,890	218,851	1,994,622
Total (all grades)	6,231,017	6,722,320	59,138,587

# DEALERS AND BROKERS

Data on shipments and stocks of iron and steel scrap for October 1956 were submitted on a voluntary basis by 676 dealers which represented approximately 34 percent of those that reported during January 1953. Based on data reported by 647 identical dealers during these two period, shipments of iron and steel scrap in October, increased 39 percent with stocks increasing 40 percent, over those in January 1953.

Table 5 - Reported 1/ shipments and stocks of iron and steel scrap on hand at dealers' and automobile wreckers yards October 1956, in gross tons

	Shipments during October 1956	Stocks  October 31, 1956
No. 1 heavy melting steel	118,341	53,500
No. 2 heavy melting steel	139,894	49,060
Bundles	148,233	45,329
Low phosphorous scrap	47,109	8,737
Cast iron scrap other than borings	80,318	59,091
Turnings and/or borings, alloy free	39,018	16,011
Rerolling rails	1,803	838
Scrap rails	5,016	7,656
High speed steel	6	29
Stainless steel	1,469	685
All other alloy iron and steel	3,117	405
All other prepared scrap	24,411	18,918
Unprepared scrap	60,511	284,118
Total (all grades)	669,246	544,377

1/ Reported by a combined total of 676 dealers and automobile wreckers.

# CONSUMPTION OF SCRAP IRON AND STEEL AND PIG IRON

Consumption of scrap in October totaled 6,722,320 gross tons which was at an average daily rate of 216,849 tons or 9 percent greater than for the year 1955.

In October, open-hearth furnaces used 64 percent of the total scrap, and 83 percent of the pig iron compared with 66 and 84 percent, respectively, in September; electric furnaces in October used 7 percent of the ferrous materials (scrap and pig iron) charged to all furnaces, with open-hearth using 73 percent. During 1955, these percentages were 6 and 73, respectively. Blast furnaces used 5 percent of the total scrap; the corresponding percentage for the year 1955 was 6.

During October, steel-making furnaces (open-hearth, Bessemer, and electric) accounted for 78 percent of the total scrap, and 89 percent of the pig iron consumed, compared with 80 and 90, respectively, during September. In 1955, steel-making furnaces used 76 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 1956, 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		Scrap		Scrap		Scrap	
	Pig iron		Pig iron		Pig iron		Pig iron	
Open-hearth	4,215,490	5,332,728	73,317	14,330	-	-	4,288,807	5,347,058
Bessemer*	33,970	358,071	893	80	391	114	35,254	358,265
Electric	759,365	13,749	160,615	2,860	15,028	2,455	935,008	19,064
Total steel-making furnaces	5,008,825	5,704,548	234,825	17,270	15,419	2,569	5,259,069	5,724,387
Cupola	68,948	54,537	45,087	2,735	776,354	389,177	890,389	446,449
Air	2,955	1,224	22,247	4,927	76,571	16,397	101,773	22,548
Blast 3/	361,393	-	-	-	-	-	361,393	-
Direct Casting	-	145,552	-	-	-	111,468	-	257,020
Ferro-alloy	-	-	-	-	24,536	-	24,536	-
Miscellaneous	30,001	-	-	-	55,159	-	85,160	-
Total October 1956	5,472,122	5,905,861	302,159	24,932	948,039	519,611	6,722,320	6,450,404
Total September 1956	5,181,408	5,585,385	259,265	20,875	790,344	446,887	6,231,017	6,053,147
Total August 1956	4,309,470	4,158,897	289,274	23,042	855,183	436,779	5,453,927	4,618,718
Total July 1956	1,105,811	659,508	206,949	16,537	673,853	287,704	1,986,613	963,749
Total June 1956	4,873,209	5,161,326	283,420	23,319	838,360	457,359	5,994,989	5,642,004
Total May 1956	5,261,962	5,549,031	312,954	24,430	916,651	491,171	6,491,567	6,064,632

\* Includes scrap and pig iron used in Oxygen Steel Process.

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 Oct. 31, 1956	Pig Iron Consumed
	Home Scrap Produced	Purchased Scrap Received	Consumed		
United States, total—	3,716,308	3,323,786 <sup>1/</sup>	6,722,320	6,181,076	6,450,404
New England, total—	36,127	48,355	79,331	87,473	23,831
Connecticut—	11,693	15,987	26,411	17,149	4,755
Maine—	385	916	773	976	343
Massachusetts—	17,521	24,271	40,518	54,033	13,450
New Hampshire—	672	1,172	1,701	2,509	306
Rhode Island—	4,754	4,333	7,319	10,605	3,977
Vermont—	1,102	1,676	2,609	2,201	1,000
Middle Atlantic, total—	1,151,661	903,098	1,971,353	1,803,875	2,116,163
New Jersey—	18,986	45,022	62,183	65,249	19,975
New York—	174,941	184,373	353,241	484,265	333,337
Pennsylvania (East)—	267,398	311,973	575,650	464,118	464,057
Pennsylvania (West)—	690,336	361,730	980,279	790,243	1,298,794
East North Central, total—	1,770,006	1,550,452	3,153,971	2,509,233	2,917,925
Illinois—	318,176	383,295	601,721	691,825	502,241
Indiana—	434,066	306,316	735,596	632,343	763,331
Michigan—	285,578	278,105	518,720	350,967	374,648
Ohio (East)—	581,995	425,732	1,000,718	538,497	1,100,511
Ohio (West)—	106,609	114,553	219,297	234,050	155,676
Wisconsin—	43,582	42,451	77,919	61,551	21,518
West North Central, total—	53,108	134,531	174,751	367,512	56,701
Iowa—	11,660	22,998	29,358	28,986	5,269
Kansas and Nebraska—	2,310	6,418	9,179	11,211	502
Minnesota—	22,899	26,038	50,789	136,115	47,318
Missouri—	16,239	79,077	85,425	191,200	3,612
South Atlantic, total—	250,920	170,634	407,783	317,563	526,860
Delaware, District of Columbia, and Maryland—	177,061	74,665	239,433	166,751	357,487
Florida and Georgia—	6,592	20,295	26,270	5,621	1,412
North Carolina—	2,060	2,823	4,597	6,249	1,968
South Carolina—	1,122	572	2,069	2,128	1,057
Virginia and West Virginia—	64,085	72,279	135,414	136,814	164,936
East South Central, total—	198,060	181,193	354,124	239,622	452,909
Alabama—	143,766	103,171	235,038	113,257	368,096
Kentucky, Mississippi, and Tennessee—	54,294	78,022	119,086	126,365	84,813
West South Central, total—	58,881	95,065	152,871	287,777	43,006
Arkansas, Louisiana, and Oklahoma—	3,924	14,957	14,481	27,313	659
Texas—	54,957	80,108	138,390	260,464	42,347
Rocky Mountain, total—	90,453	52,374	142,530	172,045	193,793
Arizona and Nevada—	1,050	3,466	5,146	12,279	15
Colorado and Utah—	89,016	47,774	135,399	154,282	193,761
Idaho—	64	195	565	1,597	3
Montana—	323	939	1,420	3,887	14
Pacific Coast, total—	107,092	188,084	285,606	395,976	119,216
California—	95,942	147,520	233,703	319,144	117,956
Oregon—	3,575	18,053	17,696	23,251	118
Washington—	7,575	22,511	34,207	53,581	1,142

<sup>1/</sup> Includes 197,249 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 1956		
	Total scrap	Pig iron	Total charge
United States, total	4,288,807	5,347,058	9,635,865
New England, total	24,522	8,756	33,278
Connecticut, Massachusetts, and Rhode Island	24,522	8,756	33,278
Middle Atlantic, total	1,441,594	1,852,377	3,293,971
New Jersey and New York	268,161	314,655	582,816
Pennsylvania (East)	447,990	415,667	863,657
Pennsylvania (West)	725,443	1,122,055	1,847,498
East North Central, total	1,913,018	2,336,520	4,249,538
Illinois	321,243	403,139	724,382
Indiana	643,238	736,971	1,380,209
Michigan and Wisconsin	171,884	258,891	430,775
Ohio (East)	663,162	801,941	1,465,103
Ohio (West)	113,491	135,578	249,069
West North Central, total	78,856	43,706	122,562
Minnesota and Missouri	78,856	43,706	122,562
South Atlantic, total	302,684	476,367	779,051
Delaware and Maryland	206,287	322,377	528,664
Georgia and West Virginia	96,397	153,990	250,387
East South Central, total	169,843	322,711	492,554
Alabama, Kentucky, and Tennessee	169,843	322,711	492,554
West South Central, total	85,759	29,950	115,709
Oklahoma and Texas	85,759	29,950	115,709
Rocky Mountain, total	114,069	174,961	289,030
Colorado and Utah	114,069	174,961	289,030
Pacific Coast, total	158,462	101,710	260,172
California and Washington	158,462	101,710	260,172

## FOREIGN TRADE 1/

According to the Bureau of the Census, exports of iron and steel scrap totaled 583,846 gross tons in October and 487,202 tons in September. The quantity of scrap licensed for export during November totaled 488,189 gross tons, excluding Canada, to which shipments do not require an export license, according to the Office of Export Supply, United States Department of Commerce. The quantity licensed during October has been revised to total 510,519 gross tons. Exports of pig iron during October totaled 55,519 tons and 20,636 tons in September. Imports of scrap totaled 24,364 gross tons in October compared with 24,878 tons in September. Imports of pig iron totaled 21,807 gross tons in October and 20,658 tons in September. In addition to the above imports of pig iron during October there was 3,042 tons of sponge iron, valued at \$320,946, imported, of which 138 tons came from Canada and 2,904 tons from Sweden.

Table 9 - Imports of iron and steel scrap into the United States  
in October 1956 and year 1956 by countries  
(U. S. Department of Commerce)

Country	October 1956		January to October 1956	
	Gross tons	Value	Gross tons	Value
Canada and Newfoundland	22,238	\$1,072,184	166,055	\$7,846,065
Cuba	1,719	62,095	8,838	279,229
Guatemala	-	-	300	6,079
Japan	47	36,012	456	210,444
Union of South Africa	-	-	128	3,583
All others	360	75,735	3,402	508,399
Total	24,364	\$1,246,026	179,179	\$8,853,799

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

Country	October 1956		January to October 1956	
	Gross tons	Value	Gross tons	Value
Argentina	-	-	12,623	\$782,337
Austria	-	-	17,633	840,430
Belgium and Luxembourg	24,112	\$1,380,891	200,626	10,136,579
Canada	48,306	2,827,064	477,071	25,411,090
France	8,893	515,442	288,152	14,693,573
Italy	125,604	6,877,884	932,322	47,667,499
Japan	301,999	15,897,423	1,463,485	74,037,499
Mexico	25,923	1,387,473	269,896	13,091,376
Netherlands	123	13,383	24,309	1,221,157
Norway	-	-	6,000	274,848
United Kingdom	40,506	2,089,816	460,568	21,615,462
West Germany	70	5,613	185,695	9,415,418
Yugoslavia	-	-	22	1,225
All others	8,310	558,810	73,297	4,299,143
Total	583,846	\$31,553,799	4,411,699	\$223,487,636

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

	October 1956		January to October 1956	
	Gross tons	Value	Gross tons	Value
No. 1 and No. 2 heavy melting steel scrap	333,221	\$18,203,627	2,513,252	\$127,456,072
Baled sheet melting scrap	165,597	8,388,803	1,137,228	55,483,836
Borings, shovelings, and turnings	10,762	423,503	58,306	2,025,237
Iron scrap	56,458	3,201,517	554,801	28,075,028
Rerolling material	7,720	615,050	79,464	5,561,097
All other scrap 2/	10,088	721,299	68,648	4,886,366
Total	583,846	\$31,553,799	4,411,699	\$223,487,636

- 1/ To conform with other data in this report foreign trade data include tin plate scrap.  
2/ Includes tin plate, circles, cobbles, strip, and scroll shear butts.