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Iron and Steel Scrap
Monthly Report No. 204

IRON AND STEEL SCRAP IN OCTOBER 1957

Domestic consumption of ferrous materials, scrap and pig iron, during October, increased 3 percent over the previous month, but was 5 percent less than for the corresponding month of 1956, according to the Bureau of Mines, United States Department of the Interior. Iron and steel scrap consumed for all purposes during October increased 6 percent over September, with pig iron increasing slightly. The total charge of these materials (11,003,391 gross tons) consisted of 48 percent scrap and 52 percent pig iron, compared with 47 percent scrap and 53 percent pig iron during September.

Table 1 - Summary of production, receipts, consumption, and consumers' stocks of iron and steel scrap and pig iron, May 1957 to October 1957, 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 <u>1/</u>
May 1957--	3,436,791	2,255,712	5,692,503	5,753,435	5,862,966	6,524,031	2,420,139
June 1957--	3,239,403	2,194,422	5,433,825	5,430,607	5,672,086	6,525,916	2,491,952
July 1957--	3,115,042	2,277,650	5,392,692	4,897,752	5,558,702	7,023,107	2,878,719
Aug. 1957--	3,341,628	2,428,579	5,770,207	5,299,543	5,769,995	7,493,892	3,086,853
Sept. 1957--	3,192,926	2,288,864	5,481,790	5,033,998	5,645,036	7,941,835	3,242,471
Oct. 1957--	3,385,672	2,141,461 ^{2/}	5,527,133	5,333,767	5,669,624	8,135,372	3,309,569

1/ Suppliers' stocks included with consumers' stocks.

2/ Excludes 210,090 gross tons of scrap shipped, transferred or otherwise disposed of during the month.

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Steel production and ferrous materials used in steel-making furnaces each increased 2 percent over September. The use of ferrous materials in these furnaces (open-hearth, Bessemer, and electric) totaled 4,061,947 gross tons of scrap, an increase of 5 percent over September, and 5,090,817 tons of pig iron, a slight decrease from the previous month. The total steel furnace melt (9,152,764 gross tons) consisted of 44 percent scrap and 56 percent pig iron. Electric furnaces used 718,791 tons of scrap during October, an increase of 7 percent over September.

The use of scrap by gray iron foundries totaled 817,338 gross tons, an increase of 13 percent over the 721,125 tons used during September. Pig iron consumed by this industry totaled 354,364 tons, an increase of 10 percent over the previous month.

Stocks of iron and steel scrap held by consumers and stocks of pig iron held by consumers and suppliers at the end of October exceeded the quantities of these materials on hand at the end of any previous month since these data have been compiled by the Bureau of Mines. Stocks of iron and steel scrap were equivalent to a 47-day supply at the October consumption rate and totaled 8,135,372 gross tons, an increase of 2 percent over September. Pig iron stocks totaled 3,309,569 tons, 2 percent higher than at the end of the previous month.

Total scrap for consumption (home scrap produced plus purchased scrap received) totaled 5,527,133 gross tons during October; home scrap accounted for 3,385,672 tons and purchases 2,141,461 tons. Of the purchases 84 percent was received from dealers and 16 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, received, and consumed during October, stocks at consumers' plants
October 31, 1957, and consumption year-to-date, by grades, in gross tons

Grade of scrap	Home scrap produced	Purchased scrap received		Total scrap consumed	Scrap stocks Oct. 31	Consumption Year-to-date
		From dealers*	From others*			
No. 1 heavy melting steel-----	1,403,880	347,767	78,370	1,685,055	2,561,783	17,927,640
No. 2 heavy melting steel-----	158,551	230,729	20,706	445,738	870,918	5,035,985
Bundles-----	106,754	472,081	84,175	628,989	1,363,325	7,399,042
Low phosphorous scrap-----	102,804	198,211	27,491	334,877	490,670	3,526,682
Cast iron scrap other than borings	513,002	303,451	56,372	826,586	1,031,828	8,073,454
Turnings and/or borings, alloy free	44,019	135,461	32,481	183,085	211,745	2,176,696
Rerolling rails-----	485	28,630	23,611	37,939	129,944	409,554
Scrap rails-----	2,758	29,984	1,198	31,118	67,412	310,889
High speed steel-----	1,729	520	371	2,868	5,390	27,354
Stainless steel-----	31,192	15,015	5,956	46,602	91,090	509,698
All other alloy iron and steel-----	136,461	34,284	8,926	155,469	212,936	1,624,970
All other prepared scrap-----	554,024	133,885	32,438	755,791	763,032	7,550,622
Unprepared scrap-----	330,013	36,924	12,514	199,650	335,299	1,956,103
Total (all grades)-----	3,385,672	1,966,942	384,609	5,333,767	8,135,372	56,528,689

* Includes 210,090 gross tons of scrap shipped, transferred, or otherwise disposed of during month.

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
May 31, 1957--	5,391,647	340,931	791,453	6,524,031	67,910	472,175
June 30, 1957--	5,417,790	345,527	762,599	6,525,916	72,335	549,211
July 31, 1957--	5,859,391	363,554	800,162	7,023,107	75,612	588,655
Aug. 31, 1957--	6,307,244	376,401	810,247	7,493,892	68,787	553,851
Sept. 30, 1957--	6,730,362	379,564	831,909	7,941,835	62,879	526,772
Oct. 31, 1957--	6,918,377	376,799	840,196	8,135,372	59,258	514,240

DEALERS, BROKERS, AND AUTOMOBILE WRECKERS

The 1,007 identical companies reporting for September and October indicated that at the end of October, stocks of iron and steel scrap in their yards had increased slightly over September 30th; however, receipts, and shipments decreased 14 percent and 8 percent, respectively. Receipts in October, however, were slightly greater than shipments. Of the scrap handled during October, five grades (No. 1 and No. 2 heavy melting steel, bundles, low phosphorous, and cast iron scrap other than borings), represented 75 percent of the shipments and 41 percent of the stocks at the end of the month. Unprepared scrap stocks held in dealers and automobile wreckers yards at the end of October constituted 46 percent of the total stocks.

Table 4 - Dealers, brokers and automobile wreckers 1/, receipts, shipments, and stocks of iron and steel scrap, for October, as percent of change from September 1957, in gross tons

	Receipts during month		Shipments during month to consumers and others		Stocks	
	October 1957	Change from previous month (percent)	October 1957	Change from previous month (percent)	October 31, 1957	Change from end of previous month (percent)
No. 1 heavy melting steel-----	48,201	-21	96,949	+ 4	88,346	- 2
No. 2 heavy melting steel-----	60,654	-22	98,139	-12	61,272	+ 3
Bundles-----	63,200	-18	116,692	-18	87,547	+18
Low phosphorous scrap-----	15,290	2/	34,724	- 3	17,777	2/
Cast iron scrap other than borings-----	44,247	- 4	79,808	+10	64,127	- 6
Turnings and/or borings, alloy free-----	28,228	+ 2	34,459	+29	43,801	+ 4
Rerolling rails-----	1,673	+25	2,353	-18	1,426	+22
Scrap rails-----	4,017	+16	5,819	+29	11,150	+ 3
Highspeed steel-----	30	+30	28	-28	115	+ 2
Stainless steel-----	2,482	+16	2,543	+13	3,924	- 4
All other alloy iron and steel-----	2,978	-11	5,843	+46	1,884	- 4
All other prepared scrap-----	10,281	-11	23,430	-24	38,555	+17
Unprepared scrap-----	290,187	-13	68,016	-26	354,224	- 4
Total-----	571,468	-14	568,803	- 8	774,148	3/

1/ As reported by 1,007 identical dealers and automobile wreckers for September and October.

2/ Less than 0.05 percent decrease.

3/ Less than 0.05 percent increase.

CONSUMPTION OF SCRAP IRON AND STEEL AND PIG IRON

Consumption of scrap in October totaled 5,333,767 gross tons which was at an average daily rate of 172,057 tons or 12 percent less than for the year 1956.

In October, open-hearth furnaces used 62 percent of the total scrap, and 86 percent of the pig iron compared with 63 and 85 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 74 percent. During 1956, these percentages were 7 and 73, respectively. Blast furnaces used 5 percent of the total scrap; the corresponding percentage for the year 1956 was 5.

During October, steel-making furnaces (open-hearth, Bessemer, and electric) accounted for 76 percent of the total scrap, and 90 percent of the pig iron consumed, compared with 77 and 90, respectively, during September. In 1956, steel-making furnaces used 78 percent of the total scrap, and 89 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 5 - Consumption of iron and steel scrap and pig iron by manufacturers of ingots, steel castings and iron foundries during October 1957, 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-----	3,247,755	4,855,227	63,611	12,749	-	-	3,311,366	4,867,976
Bessemer*-----	30,669	198,046	915	56	206	48	31,790	198,150
Electric-----	573,987	20,750	129,686	2,437	15,118	1,504	718,791	24,691
Total steel-making furnaces-----	3,852,411	5,074,023	194,212	15,242	15,324	1,552	4,061,947	5,090,817
Cupola-----	61,425	43,800	39,620	1,723	716,293	308,841	817,338	354,364
Air-----	2,468	1,065	18,992	4,027	70,306	13,374	91,766	18,466
Blast 3/-----	276,716	-	-	-	-	-	276,716	-
Direct casting-----	-	130,566	-	-	-	75,411	-	205,977
Ferro-alloy-----	-	-	-	-	28,809	-	28,809	-
Miscellaneous-----	12,149	-	-	-	45,042	-	57,191	-
Total October 1957-----	4,205,169	5,249,454	252,824	20,992	875,774	399,178	5,333,767	5,669,624
Total September 1957-----	4,026,411	5,253,883	242,794	20,206	764,793	370,947	5,033,998	5,645,036
Total August 1957-----	4,248,327	5,349,468	254,459	21,271	796,757	399,256	5,299,543	5,769,995
Total July 1957-----	4,014,044	5,201,777	196,928	16,952	686,780	339,973	4,897,752	5,558,702
Total June 1957-----	4,397,311	5,262,171	247,968	21,041	785,328	388,874	5,430,607	5,672,086
Total May 1957-----	4,612,888	5,435,112	272,982	23,410	867,565	404,444	5,753,435	5,862,966

* 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 6 - 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, 1957	Pig iron consumed
	Home scrap produced	Purchased scrap received	Consumed		
United States, total-----	3,385,672	2,351,551 ^{1/}	5,333,767	8,135,372	5,669,624
New England, total-----	23,896	30,690	50,833	73,691	17,320
Connecticut-----	6,160	3,909	9,689	14,663	2,960
Maine-----	322	547	674	992	274
Massachusetts-----	13,381	20,784	31,517	45,570	10,089
New Hampshire-----	709	980	1,667	1,672	301
Rhode Island-----	2,703	3,792	5,885	8,610	3,130
Vermont-----	621	678	1,401	2,184	566
Middle Atlantic, total-----	1,084,078	594,535	1,551,521	2,260,708	1,805,191
New Jersey-----	14,520	36,823	47,899	62,842	12,237
New York-----	168,629	166,584	315,257	500,214	315,161
Pennsylvania (East)-2/-----	237,990	156,194	371,815	540,521	398,005
Pennsylvania (West)-----	662,939	234,934	816,550	1,157,131	1,079,788
East North Central, total-----	1,550,403	1,105,840	2,475,377	3,589,461	2,566,056
Illinois-----	275,952	284,945	484,250	964,255	429,689
Indiana-----	398,100	253,934	618,488	906,201	713,221
Michigan-----	254,145	203,113	477,442	415,402	363,904
Ohio (East) 3/-----	487,391	239,135	665,797	1,003,853	889,282
Ohio (West)-----	100,937	87,851	170,297	241,510	152,980
Wisconsin-----	33,878	36,862	59,103	58,240	16,980
West North Central, total-----	44,361	85,354	138,177	353,002	36,931
Iowa-----	9,829	22,536	29,739	36,930	5,290
Kansas and Nebraska-----	1,872	4,528	6,322	8,433	262
Minnesota-----	18,477	13,173	35,794	128,518	27,902
Missouri-----	14,183	45,117	66,322	179,121	3,477
South Atlantic, total-----	260,799	88,662	324,360	471,762	537,721
Delaware, District of Columbia, and Maryland-----	197,245	20,973	199,676	291,897	367,968
Florida and Georgia-----	4,372	18,741	19,730	5,951	1,592
North Carolina-----	2,349	1,962	4,612	5,342	2,792
South Carolina-----	669	915	2,170	1,977	913
Virginia and West Virginia--	56,164	46,071	98,172	166,595	164,456
East South Central, total-----	174,903	165,897	292,154	414,052	351,149
Alabama-----	129,604	110,799	199,569	257,001	279,330
Kentucky, Mississippi, and Tennessee-----	45,299	55,098	92,585	157,051	71,819
West South Central, total-----	60,559	86,558	156,573	306,626	64,373
Arkansas, Louisiana, and Oklahoma-----	3,041	9,729	14,065	11,177	653
Texas-----	57,518	76,829	142,508	295,449	63,720
Rocky Mountain, total-----	99,601	35,878	128,701	213,770	182,971
Arizona and Nevada-----	1,021	5,306	5,956	12,042	15
Colorado and Utah-----	98,218	29,629	121,006	193,867	182,873
Idaho-----	112	394	489	2,645	75
Montana-----	250	549	1,250	5,216	8
Pacific Coast, total-----	87,072	158,137	216,071	452,300	107,912
California-----	77,771	117,337	168,330	331,961	107,277
Oregon-----	3,402	15,022	17,131	40,690	149
Washington-----	5,899	25,778	30,610	79,649	486

1/ Includes 210,090 gross tons that was shipped, transferred or otherwise disposed of during October.

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 7 - 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 1957		
	Total scrap	Pig iron	Total charge
United States, total-----	3,311,366	4,867,976	8,179,342
New England, total-----	14,606	6,249	20,855
Massachusetts and Rhode Island-----	14,606	6,249	20,855
Middle Atlantic, total-----	1,138,999	1,615,836	2,754,835
New Jersey and New York-----	241,161	300,257	541,418
Pennsylvania (East)-----	264,201	355,669	619,870
Pennsylvania (West)-----	633,637	959,910	1,593,547
East North Central, total-----	1,476,087	2,125,640	3,601,727
Illinois-----	266,786	343,794	610,580
Indiana-----	540,704	689,881	1,230,585
Michigan and Wisconsin-----	160,632	253,592	414,224
Ohio (East)-----	419,544	702,299	1,121,843
Ohio (West)-----	88,421	136,074	224,495
West North Central, total-----	44,377	24,765	69,142
Minnesota and Missouri-----	44,377	24,765	69,142
South Atlantic, total-----	231,698	518,675	750,373
Delaware and Maryland-----	170,490	363,701	534,191
Georgia and West Virginia-----	61,208	154,974	216,182
East South Central, total-----	115,957	258,114	374,071
Alabama, Kentucky, and Tennessee-----	115,957	258,114	374,071
West South Central, total-----	68,494	59,054	127,548
Oklahoma and Texas-----	68,494	59,054	127,548
Rocky Mountain, total-----	105,266	167,358	272,624
Colorado and Utah-----	105,266	167,358	272,624
Pacific Coast, total-----	115,882	92,285	208,167
California and Washington-----	115,882	92,285	208,167

FOREIGN TRADE 1/

According to the Bureau of the Census, exports of iron and steel scrap totaled 513,353 gross tons in October and 408,727 tons in September. The quantity of scrap licensed for export during November 1957 totaled 246,048 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. Exports of pig iron during October totaled 47,620 tons and 50,324 tons in September. Scrap and pig iron import data in October were not available for this release; these data will appear in the November release.

Table 8 - Exports of iron and steel scrap from the United States
by countries
(U. S. Department of Commerce)

Country	October 1957		January to October 1957	
	Gross tons	Value	Gross tons	Value
Argentina-----	-	-	39,279	\$2,680,200
Austria-----	-	-	49,766	2,118,792
Belgium and Luxembourg-----	27,975	1,431,006	203,092	11,143,392
Brazil-----	9,501	430,920	9,501	430,920
Canada-----	48,097	2,390,488	359,171	17,892,974
France-----	16,839	925,201	200,768	11,019,660
Italy-----	185,130	9,037,852	1,257,518	65,778,076
Japan-----	153,465	8,669,155	1,873,637	115,855,507
Mexico-----	23,536	1,263,191	254,367	13,775,698
Netherlands-----	-	-	22,187	1,347,884
Spain-----	9,787	460,362	31,159	1,727,584
Taiwan-----	-	-	38,267	2,630,019
United Kingdom-----	24,846	1,247,717	313,716	16,609,818
West Germany-----	13,304	629,037	506,458	25,505,438
Yugoslavia-----	-	-	27,389	1,751,339
All others-----	873	99,187	14,524	1,612,267
Total-----	513,353	\$26,584,116	5,200,799	\$291,879,568

Table 9 - Exports of iron and steel scrap from the United States
by grades
(U. S. Department of Commerce)

	October 1957		July to October 1957	
	Gross tons	Value	Gross tons	Value
No. 1 heavy melting steel scrap	162,627	\$8,959,781	624,481	\$35,497,382
No. 2 heavy melting steel scrap	129,815	6,806,151	503,271	26,738,886
No. 1 baled sheet melting scrap	12,864	668,434	52,143	2,719,033
No. 2 baled sheet melting scrap	115,021	5,304,641	413,269	20,032,807
Borings, shoveling and turnings	3,494	106,185	24,763	1,034,794
Iron scrap-----	83,803	4,293,147	215,523	10,751,685
Rerolling material-----	2,453	206,678	15,961	1,283,186
All other scrap 2/-----	3,276	239,099	26,784	2,099,811
Total-----	513,353	\$26,584,116	1,876,195	\$100,157,584

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

2/ Includes tinplate, circles, cobbles, strip, and scroll shear butts.