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FRED A. SEATON, *Secretary*

MARLING J. ANKENY, *Director*

Iron and Steel Scrap
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IRON AND STEEL SCRAP IN NOVEMBER 1957

Steel production during November, the lowest month to date for 1957, was 20 percent less than November 1956, and reflected a 9 percent decrease from October in the use of ferrous materials, scrap and pig iron, in steelmaking furnaces, according to the Bureau of Mines, United States Department of the Interior. The quantities of scrap and pig iron consumed in steel furnaces (open-hearth, Bessemer, and electric) during November, were lower than during any uninterrupted monthly operation since October 1954 and February 1955, respectively. The total steel furnace melt (8,301,115 gross tons) consisted of 45 percent scrap and 55 percent pig iron. Electric furnaces used 589,879 tons of scrap during November, a decrease of 18 percent from October.

Table 1 - Summary of production, receipts, consumption, and consumers' stocks of iron and steel scrap and pig iron, June 1957 to November 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>
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	5,527,133	5,333,767	5,669,624	8,135,372	3,309,569
Nov. 1957--	2,990,946	1,733,128 ^{2/}	4,724,074	4,858,489	5,073,898	8,007,423	3,298,738

1/ Suppliers' stocks included with consumers' stocks.

2/ Excludes 166,308 gross tons of scrap shipped, transferred or otherwise disposed of during month.

Prepared by James E. Larkin and James C.O. Harris, February 12, 1958, under the supervision of H. G. Iverson, Chief, Branch of Ferrous Metals and Ferroalloys, Division of Minerals.

Consumption of iron and steel scrap for all purposes decreased 9 percent from October, and was 23 percent less than during the corresponding month in 1956; pig iron consumption was 11 percent less than during the previous month and 19 percent lower than during November 1956. The total charge of these materials (9,932,387 gross tons) consisted of 49 percent scrap and 51 percent pig iron, compared with 48 percent scrap and 52 percent pig iron during October.

The use of scrap by gray iron foundries totaled 716,095 gross tons, a decrease of 12 percent from the 817,338 tons used during October. Pig iron consumed by this industry totaled 309,674 tons, a decrease of 13 percent from 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 November were the second highest quantities of these materials on hand at the end of any previous month. Stocks of iron and steel scrap were equivalent to a 49-day supply at the November consumption rate and totaled 8,007,423 gross tons, a decrease of 2 percent from the end of October. Pig iron stocks totaled 3,298,738 tons, a slight decrease from the end of the previous month.

Total scrap for consumption (home scrap produced plus purchased scrap received) totaled 4,724,074 gross tons during November; home scrap accounted for 2,990,946 tons and purchases 1,733,128 tons. Of the purchases 82 percent was received from dealers and 18 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 November, stocks at consumers' plants
November 30, 1957, and consumption year-to-date, by grades, in gross tons

Grades of scrap	Home scrap produced	Purchased scrap received		Total scrap consumed	Scrap stocks Nov. 30	Consumption Year-to-date
		From dealers*	From others*			
No. 1 heavy melting steel-----	1,267,815	250,825	58,964	1,572,940	2,579,570	19,500,580
No. 2 heavy melting steel-----	151,092	175,059	20,340	405,155	808,735	5,441,140
Bundles-----	89,263	386,739	78,937	596,394	1,324,202	7,995,436
Low phosphorous scrap-----	85,352	183,926	23,111	276,068	495,955	3,802,750
Cast iron scrap other than borings----	449,313	221,278	50,315	735,774	994,929	8,809,228
Turnings and/or borings, alloy free----	38,513	124,719	26,741	173,822	213,803	2,350,518
Rerolling rails-----	586	17,528	17,674	35,992	129,220	445,546
Scrap rails-----	2,226	20,654	1,522	25,694	64,508	336,583
High speed steel-----	1,573	769	161	2,056	5,771	29,410
Stainless steel-----	28,958	12,415	4,716	42,546	91,840	552,244
All other alloy iron and steel-----	114,860	25,283	11,184	148,943	210,295	1,773,913
All other prepared scrap-----	470,894	117,969	27,435	660,337	776,577	8,210,959
Unprepared scrap-----	290,501	29,207	11,965	182,768	312,018	2,138,871
Total (all grades)-----	2,990,946	1,566,371	333,065	4,858,489	8,007,423	61,387,178

* Includes 166,308 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 ingots and castings	Mfgs. of steel castings	Iron foundries and miscel- laneous users Total
June 30, 1957-----	5,417,790	345,527	762,599	6,525,916	1,870,406	72,335	549,211
July 31, 1957-----	5,859,391	363,554	800,162	7,023,107	2,214,452	75,612	588,655
Aug. 31, 1957-----	6,307,244	376,401	810,247	7,493,892	2,464,215	68,787	553,851
Sept. 30, 1957-----	6,730,362	379,564	831,909	7,941,835	2,652,820	62,879	526,772
Oct. 31, 1957-----	6,918,377	376,799	840,196	8,135,372	2,736,071	59,258	514,240
Nov. 30, 1957-----	6,829,407	371,480	806,536	8,007,423	2,737,912	52,876	507,950
							2,491,952
							2,878,719
							3,086,853
							3,242,471
							3,309,569
							3,298,738

DEALERS, BROKERS, AND AUTOMOBILE WRECKERS

The 999 identical companies reporting for October and November indicated that at the end of November, stocks of iron and steel scrap in their yards had increased 7 percent over October 31st; however, receipts, and shipments decreased 23 percent and 30 percent, respectively. Receipts in November, however, were 14 percent greater than shipments. Of the scrap handled during November, five grades (No. 1 and No. 2 heavy melting steel, bundles, low phosphorous, and cast iron scrap other than borings), represented 76 percent of the shipments and 42 percent of the stocks at the end of the month. Unprepared scrap stocks held in dealers and automobile wreckers yards at the end of November 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 November, as percent of change from October 1957, in gross tons

Grades of scrap	Receipts during month		Shipments during month to consumers and others		Stocks	
	November 1957	Change from previous month (percent)	November 1957	Change from previous month (percent)	November 30, 1957	Change from end of previous month (percent)
No. 1 heavy melting steel-----	37,594	-15	62,407	-37	94,704	+19
No. 2 heavy melting steel-----	45,522	-22	60,902	-35	69,436	+15
Bundles-----	50,098	-20	85,583	-27	93,873	+13
Low phosphorous scrap-----	13,804	- 8	29,513	-14	19,451	+12
Cast iron scrap other than borings-----	35,917	-18	57,918	-27	60,019	2/
Turnings and/or borings, alloy free-----	26,427	- 2	23,323	-32	47,769	+22
Rerolling rails-----	1,792	+ 7	2,392	+ 4	2,861	+105
Scrap rails-----	3,402	-14	3,823	-32	10,887	- 2
Hightspeed steel-----	32	-11	71	+184	423	- 1
Stainless steel-----	1,671	-14	2,185	-18	2,925	-10
All other alloy iron and steel-----	1,230	- 1	4,345	- 8	1,779	+31
All other prepared scrap-----	13,273	+37	15,560	-29	34,686	+ 2
Unprepared scrap-----	214,938	-31	42,551	-33	372,573	+ 2
Total (all grades)-----	445,700	-23	390,573	-30	811,386	+ 7

1/ As reported by 999 identical dealers and automobile wreckers for October and November.
2/ Less than 0.05 percent increase.

CONSUMPTION OF SCRAP IRON AND STEEL AND PIG IRON

Consumption of scrap in November totaled 4,858,489 gross tons which was at an average daily rate of 161,950 tons or 17 percent less than for the year 1956.

In November, open-hearth furnaces used 64 percent of the total scrap, and 86 percent of the pig iron compared with 62 and 86 percent, respectively, in October; electric furnaces in November used 6 percent of the ferrous materials (scrap and pig iron) charged to all furnaces, with open-hearth using 75 percent. During 1956, these percentages were 7 and 73, respectively. Blast furnaces used 6 percent of the total scrap; the corresponding percentage for the year 1956 was 5.

During November, steel-making furnaces (open-hearth, Bessemer, and electric) accounted for 77 percent of the total scrap, and 90 percent of the pig iron consumed, compared with 76 and 90, respectively, during October. 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 November 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 November 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		Scrap		Scrap		Scrap	
	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron	Pig iron
Open-hearth-----	3,045,559	4,373,144	52,584	10,390	-	-	3,098,143	4,383,534
Bessemer*-----	29,876	181,368	853	49	174	40	30,903	181,457
Electric-----	472,995	13,916	105,366	2,005	11,518	1,278	589,879	17,199
Total steel-making furnaces-----	3,548,430	4,568,428	158,803	12,444	11,692	1,318	3,718,925	4,582,190
Cupola-----	48,791	36,706	36,082	1,504	631,222	271,464	716,095	309,674
Air-----	2,044	883	16,260	3,231	54,567	10,772	72,871	14,886
Blast 3/-----	271,448	-	-	-	-	-	271,448	-
Direct casting-----	-	111,257	-	-	-	55,891	-	167,148
Ferro-alloy-----	-	-	-	-	25,888	-	25,888	-
Miscellaneous-----	12,955	-	-	-	40,307	-	53,262	-
Total November 1957-----	3,883,668	4,717,274	211,145	17,179	763,676	339,445	4,858,489	5,073,898
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

* 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 Nov. 30, 1957	Pig iron consumed
	Home scrap produced	Purchased scrap received	Consumed		
United States, total-----	2,990,946	1,899,436 ^{1/}	4,858,489	8,007,423	5,073,898
New England, total-----	20,250	19,321	46,063	64,986	15,730
Connecticut-----	4,418	3,708	8,115	14,603	2,565
Maine-----	297	639	619	921	246
Massachusetts-----	12,007	12,413	28,943	39,235	9,325
New Hampshire-----	467	501	1,156	1,434	215
Rhode Island-----	2,570	1,553	6,200	6,537	2,984
Vermont-----	491	507	1,030	2,256	395
Middle Atlantic, total-----	952,010	488,930	1,367,101	2,268,485	1,652,426
New Jersey-----	13,517	37,284	47,613	64,702	11,658
New York-----	142,972	142,404	269,656	510,977	280,768
Pennsylvania (East) ^{2/} -----	211,837	129,143	327,042	551,225	355,632
Pennsylvania (West)-----	583,684	180,099	722,790	1,141,581	1,004,368
East North Central, total-----	1,356,264	956,115	2,328,576	3,515,851	2,232,594
Illinois-----	234,189	212,698	432,956	966,466	371,747
Indiana-----	353,721	233,474	558,622	925,507	655,386
Michigan-----	230,243	199,169	442,489	397,030	319,111
Ohio (East) ^{3/} -----	420,738	216,103	674,925	944,135	732,525
Ohio (West)-----	89,033	69,917	170,846	225,746	139,234
Wisconsin-----	28,340	24,754	48,738	56,967	14,591
West North Central, total-----	37,993	62,204	117,981	334,531	35,007
Iowa-----	8,209	13,970	27,274	31,684	4,868
Kansas and Nebraska-----	1,723	7,561	5,877	11,691	225
Minnesota-----	15,578	7,948	31,409	120,942	26,920
Missouri-----	12,483	32,725	53,421	170,214	2,994
South Atlantic, total-----	230,157	64,734	275,783	487,230	491,883
Delaware, District of Columbia, and Maryland-----	176,960	16,526	194,799	289,723	354,877
Florida and Georgia-----	3,652	13,697	11,888	11,225	1,264
North Carolina-----	3,053	2,271	3,926	6,580	2,300
South Carolina-----	685	749	1,863	1,963	951
Virginia and West Virginia-----	45,807	31,491	63,307	177,739	132,491
East South Central, total-----	158,155	117,693	269,538	398,735	315,571
Alabama-----	119,516	82,489	185,728	253,630	249,615
Kentucky, Mississippi, and Tennessee-----	38,639	35,204	83,810	145,105	65,956
West South Central, total-----	59,902	62,617	135,608	291,234	69,016
Arkansas, Louisiana, and Oklahoma-----	2,491	8,252	7,371	13,900	539
Texas-----	57,411	54,365	128,237	277,334	68,477
Rocky Mountain, total-----	94,990	19,505	124,101	202,635	160,593
Arizona and Nevada-----	749	3,324	4,410	11,526	11
Colorado and Utah-----	93,848	15,439	118,180	183,629	160,536
Idaho-----	147	163	480	2,475	36
Montana-----	246	579	1,031	5,005	10
Pacific Coast, total-----	81,225	108,317	193,738	443,736	101,078
California-----	72,914	73,871	153,599	320,689	100,312
Oregon-----	3,190	13,907	16,165	41,837	120
Washington-----	5,121	20,539	23,974	81,210	646

^{1/} Includes 166,308 gross tons that was shipped, transferred or otherwise disposed of during November.

^{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 November 1957		
	Total scrap	Pig iron	Total charge
United States, total-----	3,098,143	4,383,534	7,481,677
New England-----	14,811	6,287	21,098
Massachusetts and Rhode Island-----	14,811	6,287	21,098
Middle Atlantic, total-----	1,014,572	1,508,351	2,522,923
New Jersey and New York-----	213,413	270,276	483,689
Pennsylvania (East)-----	236,506	316,354	552,860
Pennsylvania (West)-----	564,653	921,721	1,486,374
East North Central, total-----	1,439,414	1,856,828	3,296,242
Illinois-----	255,992	306,166	562,158
Indiana-----	492,310	634,744	1,127,054
Michigan and Wisconsin-----	142,948	213,014	355,962
Ohio (East)-----	450,210	577,845	1,028,055
Ohio (West)-----	97,954	125,059	223,013
West North Central, total-----	36,955	24,748	61,703
Minnesota and Missouri-----	36,955	24,748	61,703
South Atlantic, total-----	200,008	454,884	654,892
Delaware and Maryland-----	168,616	329,876	498,492
Georgia and West Virginia-----	31,392	125,008	156,400
East South Central, total-----	119,842	231,070	350,912
Alabama, Kentucky, and Tennessee-----	119,842	231,070	350,912
West South Central, total-----	62,827	62,885	125,712
Oklahoma and Texas-----	62,827	62,885	125,712
Rocky Mountain, total-----	102,018	148,110	250,128
Colorado and Utah-----	102,018	148,110	250,128
Pacific Coast, total-----	107,696	90,371	198,067
California and Washington-----	107,696	90,371	198,067

FOREIGN TRADE 1/

According to the Bureau of the Census, exports of iron and steel scrap totaled 431,032 gross tons in November and 513,353 tons in October. The quantity of scrap licensed for export during December 1957 totaled 257,737 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 November totaled 62,502 tons and 47,620 tons in October. Imports of scrap totaled 19,479 gross tons in November compared with 24,519 tons in October. Imports of pig iron totaled 17,388 gross tons in November and 21,882 tons in October. In addition to the above imports of pig iron during November and October there were 435 tons and 384 tons of sponge iron, valued at \$51,686 and \$46,683, imported, of which 43 tons and 101 tons came from Canada and 392 tons and 283 tons from Sweden.

Table 8 - Imports of iron and steel scrap into the United States
in October and November 1957 by countries
(U. S. Department of Commerce)

Country	October 1957		November 1957		January to November 1957	
	Gross tons	Value	Gross tons	Value	Gross tons	Value
Canada and Newfoundland----	24,148	\$1,147,503	19,326	\$718,836	191,264	\$8,949,847
Cuba-----	-	-	-	-	3,082	118,971
Japan-----	-	-	-	-	23	16,764
Union of South Africa-----	-	-	-	-	130	25,193
All others-----	371	100,769	153	7,160	5,332	608,267
Total-----	24,519	\$1,248,272	19,479	\$725,996	199,831	\$9,719,042

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

Country	November 1957		January to November 1957	
	Gross tons	Value	Gross tons	Value
Argentina-----	-	-	39,279	\$2,680,200
Austria-----	-	-	49,766	2,118,792
Belgium and Luxembourg-----	24,380	\$1,201,275	227,472	12,344,667
Brazil-----	129	15,135	9,630	446,055
Canada-----	49,441	2,085,009	408,612	19,977,983
France-----	11,883	613,576	212,651	11,633,236
Italy-----	99,868	4,421,764	1,357,386	70,199,840
Japan-----	138,132	6,845,114	2,011,769	122,700,621
Mexico-----	20,491	1,146,847	274,858	14,922,545
Netherlands-----	35	4,844	22,222	1,352,728
Spain-----	29,370	1,381,536	60,529	3,109,120
Taiwan-----	5,253	241,123	43,520	2,871,142
United Kingdom-----	7,464	393,162	321,180	17,002,980
West Germany-----	43,238	2,078,770	549,696	27,584,208
Yugoslavia-----	-	-	27,389	1,751,339
All others-----	1,348	93,466	15,872	1,705,733
Total-----	431,032	\$20,521,621	5,631,831	\$312,401,189

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

	November 1957		July to November 1957	
	Gross tons	Value	Gross tons	Value
No. 1 heavy melting steel scrap	130,544	\$6,688,090	755,025	\$42,185,472
No. 2 heavy melting steel scrap	101,073	4,738,601	604,344	31,477,487
No. 1 baled sheet melting scrap	19,197	1,015,139	71,340	3,734,172
No. 2 baled sheet melting scrap	85,727	3,501,145	498,996	23,533,952
Borings, shovelings and turnings	15,969	554,766	40,732	1,589,560
Iron scrap-----	65,721	3,039,133	281,244	13,790,818
Rerolling material-----	3,838	311,939	19,799	1,595,125
All other scrap 2/-----	8,963	672,808	35,747	2,772,619
Total-----	431,032	\$20,521,621	2,307,227	\$120,679,205

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