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Stewart L. Udall, Secretary

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Iron and Steel Scrap
Monthly

IRON AND STEEL SCRAP IN APRIL 1964 (Final Data)

There was a 2-percent increase in total consumption of scrap in April 1964, according to data compiled by the Bureau of Mines, U.S. Department of the Interior. The increase in scrap consumption was more than double the increase in steel and blast furnace production. Domestic consumption of pig iron increased less than one-half percent above that for March but was 2-percent greater than one year ago. The total metallics charge increased over 1 percent.

Steelmaking furnaces (open-hearth, electric, basic oxygen converter, and Bessemer) also consumed 2 percent more scrap in April than in March 1964, but very little more pig iron. The total metallics charge increased about 1 percent and was 46 percent scrap. The use of scrap in the open-hearth increased to 42 percent. Electric furnace scrap consumption increased 2 percent over March 1964 and 4 percent over April 1963.

The gradual 2-percent increase held also for scrap consumption in gray iron foundries, although their pig iron consumption increased nearly 4 percent.

U.S. consumers' stocks of iron and steel scrap dropped 4 percent, as they did in March, and represented 30 days' supply at the estimated daily consumption rate of 245,000 tons.

The 7.1 million tons of home scrap produced plus purchased scrap received was 4 percent more than the previous month. Dealers furnished 77 percent of the total scrap purchased. (Purchased scrap is a net figure computed by deducting scrap shipped, transferred, or otherwise disposed of by consumers from total scrap received from dealers and all others during the month.)

Table 1.--Production, receipts, consumption, and consumers' stocks of ferrous scrap and pig iron, November 1963 through April 1964, in short 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>
Nov. 1963--	3,512,890	2,384,813	5,897,703	5,970,622	5,587,378	7,962,246	2,826,844
Dec. 1963--	3,535,369	2,337,186	5,872,555	5,944,026	5,949,488	7,937,166	2,806,046
Jan. 1964--	3,876,302	2,486,918	6,363,220	6,530,138	6,415,053	7,778,368	2,729,970
Feb. 1964--	3,841,421	2,524,484	6,365,905	6,560,456	6,306,011	7,598,848	2,654,204
Mar. 1964--	4,263,048	2,550,133	6,813,181	7,161,550	7,029,755	7,301,731	2,569,105
Apr. 1964--	4,444,677	<u>2/</u> 2,623,868	7,068,545	7,339,946	7,057,719	7,030,178	2,492,762

1/ Suppliers' stocks included with consumers' stocks.

2/ Excludes 433,517 short tons of scrap shipped, transferred, or otherwise disposed of during the month.

Table 2.--Production and receipts of ferrous scrap by major consuming industries plants, November 1963 through April 1964, in short 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 miscellaneous users	Mfgs. of steel ingots and castings	Mfgs. of steel castings	Iron foundries and miscellaneous users
Nov.---	2,914,211	108,248	490,431	1,661,006	139,249	584,558
Dec.---	2,944,499	111,902	478,968	1,585,165	147,752	604,269
Jan.---	3,249,141	117,630	509,531	1,719,793	168,268	598,857
Feb.---	3,238,008	115,122	488,291	1,713,497	167,051	643,936
Mar.---	3,607,600	127,237	528,211	1,703,523	171,132	675,478
Apr.---	3,773,423	130,397	540,857	1,766,132	175,851	681,885

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

Table 3.--Consumer stocks, production, receipts, consumption and shipments of iron and steel scrap, by grades, April 1964, in short tons

Grades of scrap	Stocks at beginning of month <u>1/</u>	Home scrap produced	Purchased scrap received <u>2/</u>	Consumption	Shipments	Stocks at end of month
Steel scrap, excludes rerolling rails:						
Carbon-----	5,554,160	3,363,688	2,416,854	5,677,301	334,567	5,322,834
Alloy, excludes stainless-----	355,055	205,396	44,317	255,745	9,661	339,362
Stainless-----	110,914	45,356	25,414	74,505	2,735	104,444
Cast iron, includes borings-----	1,281,450	830,237	570,800	1,332,395	86,554	1,263,538
Total-----	7,301,579	4,444,677	3,057,385	7,339,946	433,517	7,030,178

1/ Revised.

2/ Purchased scrap received from dealers and all others.

Table 4.--Home scrap produced by source, by type of manufacturers, during April 1964, in short tons

	Source of scrap			Total
	Recirculating <u>1/</u>	Obsolete <u>2/</u>	Other, including slag	
Manufacturers of steel ingots and castings-----	3,392,962	274,004	106,457	3,773,423
Manufacturers of steel castings-----	130,028	336	33	130,397
Iron foundries and miscellaneous users-----	537,313	3,541	3	540,857
Total-----	4,060,303	277,881	106,493	4,444,677

1/ Includes home, plant, or recycled iron and steel scrap.

2/ Includes molds, stools, machinery, and buildings; excludes rerolling rails.

Table 5.--Consumption of iron and steel scrap at major consuming industries' plants during April 1964, and consumption year to date, by grades, in short tons

Grades of scrap	Mfgs. of steel ingots and castings	Mfgs. of steel castings	Iron foundries and miscellaneous users	Total consumption	Total consumption year to date
Steel scrap, excludes rerolling rails:					
Carbon-----	5,011,377	263,442	402,482	5,677,301	21,242,807
Alloy, excludes stainless-----	229,485	12,233	14,027	255,745	945,210
Stainless-----	69,254	2,522	2,729	74,505	272,429
Cast iron, includes borings-----	488,161	33,884	810,350	1,332,395	5,131,644
Total-----	5,798,277	312,081	1,229,588	7,339,946	27,592,090

Table 6.--Stocks of iron and steel scrap and pig iron on hand at major consuming industries' plants,
at end of month, in short 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
Nov. 30, 1963-	6,741,883	344,028	876,335	7,962,246	25,595	428,718
Dec. 31, 1963-	6,698,411	346,593	892,162	7,937,166	31,396	405,053
Jan. 31, 1964-	6,590,244	352,907	835,217	7,778,368	30,638	402,260
Feb. 29, 1964-	6,399,833	363,961	835,054	7,598,848	28,601	392,804
Mar. 31, 1964-	6,090,379	365,345	846,007	7,301,731	29,666	358,910
Apr. 30, 1964-	5,834,879	356,025	839,274	7,030,178	28,971	336,457

Table 7.--Consumers' receipts and total consumption of iron and steel scrap,
by grades, during April 1964, in short tons

Grades of scrap (excludes rerolling rails)	Receipts during the month			Total consumption
	From dealers	From others	Total	
Carbon steel:				
Low phosphorus plate and punchings-----	220,218	63,269	283,487	358,128
Cut structurals and plate-----	76,218	3,956	80,174	95,408
Steel car wheels-----	11,266	4,182	15,448	14,264
No. 1 heavy melting-----	377,111	188,200	565,311	2,593,465
No. 1 and electric furnace bundles-----	359,863	133,338	493,201	581,191
No. 2 and all other bundles-----	373,952	38,728	412,680	533,149
Turnings and borings-----	173,128	10,200	183,328	225,062
Slag scrap (Fe content)-----	15,940	31,717	47,657	193,290
All other carbon steel scrap-----	256,693	78,513	335,206	1,083,344
Alloy steel, excludes stainless-----	26,916	17,453	44,369	255,745
Stainless steel-----	21,390	4,024	25,414	74,505
Cast iron: Borings-----	83,614	36,457	120,071	142,679
All other cast iron scrap-----	355,007	96,032	451,039	1,189,716
Total-----	2,351,316	706,069	3,057,385	7,339,946

TABLE 8.--Consumers' production, receipts, consumption and stocks of iron and steel scrap, and consumption of pig iron in the United States, by districts and States, April 1964, in short tons

District and State	Home scrap produced	Total purchased scrap received ^{1/}	Consumption by grades					Scrap stocks Apr. 30	Pig iron consumption
			Carbon steel (excludes re-rolling rails)	Alloy steel (excludes stainless)	Stainless steel	Cast iron (includes borings)	Total scrap		
New England:									
Connecticut, Massachusetts, Rhode Island-----	18,408	23,196	17,110	984	2,572	22,635	43,301	37,743	11,901
Maine, New Hampshire, Vermont-----	1,243	1,841	713	-----	-----	2,218	2,931	1,787	707
Total-----	19,651	25,037	17,823	984	2,572	24,853	46,232	39,530	12,608
Middle Atlantic:									
New Jersey-----	19,873	48,793	34,102	1,083	510	31,703	67,398	74,208	11,874
New York-----	183,560	98,833	238,672	7,908	5,499	53,946	306,025	488,563	359,813
Pennsylvania (East) ^{2/} -----	254,002	166,647	344,229	48,255	2,814	59,076	454,374	497,769	461,000
Pennsylvania (West)-----	710,321	355,049	756,366	70,141	30,822	133,653	990,982	1,096,570	1,249,207
Total-----	1,167,756	669,322	1,373,369	127,387	39,645	278,378	1,818,779	2,157,110	2,081,894
East North Central:									
Illinois-----	393,861	356,429	589,774	18,951	4,465	142,654	755,844	725,437	472,556
Indiana-----	553,521	309,078	705,097	9,101	1,902	92,415	808,515	644,043	951,087
Michigan-----	361,712	357,075	455,092	3,777	9,262	239,794	707,925	408,123	619,061
Ohio (East) ^{3/} -----	590,048	377,086	784,962	70,346	8,309	107,708	971,325	856,492	1,044,262
Ohio (West)-----	194,373	97,217	169,697	1,665	207	80,256	251,825	205,549	199,438
Wisconsin-----	54,758	40,425	46,834	369	311	44,646	92,160	40,316	17,582
Total-----	2,148,273	1,537,310	2,751,456	104,209	24,456	707,473	3,587,594	2,879,960	3,303,986
West North Central:									
Iowa-----	19,040	28,839	27,199	-----	-----	23,730	51,149	47,995	7,492
Kansas and Nebraska-----	4,318	8,850	9,817	-----	-----	3,575	13,394	12,148	482
Minnesota-----	23,025	13,982	30,037	1,102	335	13,037	43,574	60,351	40,061
Missouri-----	20,632	61,076	75,726	-----	-----	14,804	91,245	172,383	3,372
Total-----	67,015	112,747	142,779	1,102	335	55,146	199,362	292,877	51,407
South Atlantic:									
Delaware and Maryland-----	356,372	35,728	318,483	1,652	(4)	12,680	339,667	233,317	452,826
Florida and Georgia-----	10,248	33,586	43,024	-----	-----	3,273	46,297	43,818	1,244
North Carolina and South Carolina-----	3,433	8,270	1,127	-----	-----	9,526	11,047	10,751	4,547
Virginia and West Virginia-----	78,522	88,143	154,141	1,063	-----	17,410	172,220	135,303	196,165
Total-----	448,575	165,727	516,775	2,715	(4)	42,889	569,231	423,189	654,782
East South Central:									
Alabama-----	148,151	132,004	190,610	1,509	(4)	70,305	262,425	269,037	317,742
Kentucky, Mississippi, Tennessee-----	75,832	113,463	139,938	8,160	(4)	44,171	192,527	205,295	107,244
Total-----	223,983	245,467	330,548	9,669	(4)	114,476	454,952	474,332	424,986
West South Central:									
Arkansas, Louisiana, Oklahoma-----	4,614	13,481	16,269	2,629	-----	3,646	19,940	24,526	1,066
Texas-----	92,430	84,171	148,045	-----	(4)	38,625	189,400	164,933	95,180
Total-----	97,044	97,652	164,314	2,629	(4)	42,271	209,340	189,459	96,246
Rocky Mountain:									
Arizona, Colorado, Idaho, Montana, Nevada, Utah-----	124,663	50,163	148,893	3,434	-----	29,402	181,729	181,895	234,292
Total-----	124,663	50,163	148,893	3,434	-----	29,402	181,729	181,895	234,292
Pacific Coast:									
California and Hawaii-----	135,657	112,751	186,527	2,413	103	34,759	223,802	265,481	195,824
Oregon and Washington-----	12,060	41,209	44,817	1,203	157	2,748	48,925	126,345	1,694
Total-----	147,717	153,960	231,344	3,616	260	37,507	272,727	391,826	197,518
U.S. Total-----	4,444,677	3,057,385	5,677,301	255,745	74,505	1,332,395	7,339,946	7,030,178	7,057,719

^{1/} Includes 433,517 short 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.

^{4/} Figures withheld to avoid disclosing individual company confidential data; included in U.S. total.

CONSUMPTION OF IRON AND STEEL SCRAP AND PIG IRON

Consumption of scrap in April totaled 7,339,946 short tons which was at an average daily rate of 244,665 tons or 20 percent greater than for the year 1963.

In April, open-hearth furnaces used 52 percent of the total scrap, and 76 percent of the pig iron compared with 53 and 77 percent, respectively, in March; electric furnaces in April used 9 percent of the combined total of iron and steel scrap and pig iron charged to all furnaces, with open-hearth using 64 percent. During 1963, these percentages were 10 and 66 percent, respectively. Blast furnaces used 6 percent of the total scrap; the corresponding percentage for the year 1963 was 6.

During April, steelmaking furnaces (open-hearth, Bessemer, basic oxygen converter, and electric) accounted for 75 percent of the total scrap, and 91 percent of the pig iron consumed, compared with 76 and 91 percent, respectively, during March. In 1963, steelmaking furnaces used 76 percent of the total scrap, and 91 percent of the pig iron. The remainder was used in ironmaking furnaces, principally the cupola. Consumption by type of furnace during April is shown in the following table:

Table 9.--Consumption of iron and steel scrap and pig iron by type of manufacturers and furnaces during April 1964, in short tons

Type of furnace or equipment	Steel ingots and castings 1/ 2/		Steel castings 2/ 3/		Iron foundries and miscellaneous users		Total	
	Scrap	Pig iron	Scrap	Pig iron	Scrap	Pig iron		
Basic oxygen converters 3/----	419,663	949,312	-----	-----	-----	-----	419,663	949,312
Bessemer converters-----	7,922	79,659	1,236	7	131	18	9,289	79,684
Open-hearth furnaces-----	3,783,075	5,353,949	68,634	7,840	-----	-----	3,851,709	5,361,789
Electric furnaces 4/-----	1,030,045	20,236	192,311	3,715	21,643	3,646	1,243,999	27,597
Total steelmaking furnaces-	5,240,705	6,403,156	262,181	11,562	21,774	3,664	5,524,660	6,418,382
Blast furnaces 5/-----	433,582	-----	-----	-----	-----	-----	433,582	-----
Cupola furnaces-----	115,867	30,244	28,252	1,291	1,052,865	313,089	1,196,984	344,624
Air furnaces-----	3,831	1,045	21,648	4,093	105,987	10,561	131,466	15,699
Direct castings-----	-----	229,306	-----	-----	-----	49,708	-----	279,014
Ferroalloy-----	-----	-----	-----	-----	35,609	-----	35,609	-----
Miscellaneous-----	4,292	-----	-----	-----	13,353	-----	17,645	-----
Total Apr. 1964-----	5,798,277	6,663,751	312,081	16,946	1,229,588	377,022	7,339,946	7,057,719
Total Mar. 1964-----	5,667,083	6,657,344	297,281	14,829	1,197,186	357,582	7,161,550	7,029,755
Total Feb. 1964-----	5,155,084	5,966,677	273,176	14,359	1,132,196	324,975	6,560,456	6,306,011
Total Jan. 1964-----	5,081,304	6,069,528	282,070	16,935	1,166,764	328,590	6,530,138	6,415,053
Total Dec. 1963-----	4,620,631	5,622,372	258,795	15,456	1,064,600	311,660	5,944,026	5,949,488
Total Nov. 1963-----	4,667,832	5,268,056	249,274	12,550	1,053,516	306,772	5,970,622	5,587,378

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

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

3/ Includes scrap and pig iron processed in metallurgical blast cupola and used in oxygen converter.

4/ Includes crucible furnaces.

5/ Includes consumption in all blast furnaces producing pig iron.

Table 10.--Consumption of iron and steel scrap and pig iron in open-hearth furnaces in the United States, by districts and States, during April 1964, in short tons

District and State	Scrap	Pig iron	Total charge
New England and Middle Atlantic:			
New Jersey and Rhode Island-----	26,840	4,842	31,682
New York-----	203,582	330,399	533,981
Pennsylvania (East)-----	307,035	410,661	717,696
Pennsylvania (West)-----	613,351	935,336	1,548,687
Total-----	1,150,808	1,681,238	2,832,046
East North Central:			
Illinois-----	346,548	397,008	743,556
Indiana-----	716,170	914,368	1,630,538
Michigan and Wisconsin-----	121,551	144,435	265,986
Ohio (East)-----	473,887	790,394	1,264,281
Ohio (West)-----	141,511	180,765	322,276
Total-----	1,799,667	2,426,970	4,226,637
West North Central:			
Minnesota and Missouri-----	30,860	36,789	67,649
Total-----	30,860	36,789	67,649
South Atlantic:			
Delaware, Maryland, West Virginia--	427,917	636,747	1,064,664
Total-----	427,917	636,747	1,064,664
East and West South Central:			
Alabama, Kentucky, Texas-----	267,563	332,489	600,052
Total-----	267,563	332,489	600,052
Rocky Mountain and Pacific Coast:			
California, Colorado, Utah-----	174,894	247,556	422,450
Total-----	174,894	247,556	422,450
United States, total-----	3,851,709	5,361,789	9,213,498

FOREIGN TRADE 1/

According to the Bureau of the Census, exports of iron and steel scrap totaled 708,200 short tons in April compared with 744,382 tons in March. During May 1964, the Office of Export Supply, U.S. Department of Commerce, issued scrap export licenses for 751,097 short tons. Exports of pig iron during April totaled 14,046 tons and 134 tons in March. Imports of scrap totaled 15,458 short tons in April compared with 22,879 tons in March. Of the scrap imported during April, 15,452 short tons came from Canada and 6 tons from other sources. Imports of pig iron totaled 27,636 short tons in April and 20,663 tons in March. In addition to the foregoing imports of pig iron during April, there were 1,169 tons of sponge iron, valued at \$154,661, imported, of which 104 tons came from Canada and 936 tons from Sweden, 110 tons from Nigeria, and 19 tons from Togo.

Table 11.--Exports 2/ of iron and steel scrap from the United States, by countries (U.S. Department of Commerce)

Country	April 1964		Jan. through April 1964	
	Short tons	Value	Short tons	Value
Argentina-----	4,869	\$154,679	23,731	\$724,193
Canada-----	98,226	2,469,040	315,502	8,507,209
France-----	-----	-----	21,661	841,409
Germany-----	23,486	795,524	46,933	1,553,314
Italy-----	78,192	1,893,182	234,103	5,440,835
Japan-----	330,951	9,634,788	1,424,699	41,939,301
Korea-----	-----	-----	17,841	726,783
Mexico-----	84,023	2,534,488	293,855	8,679,701
Spain-----	22,475	465,961	50,844	1,038,677
Sweden-----	4,480	113,792	25,551	684,217
Taiwan-----	16,966	743,407	52,932	2,293,684
All others-----	44,532	1,142,495	81,528	2,212,967
Total-----	708,200	19,947,356	2,589,180	74,642,290

Table 12.--Exports 2/ of iron and steel scrap from the United States, by grades (U.S. Department of Commerce)

Grades of scrap	April 1964		Jan. through April 1964	
	Short tons	Value	Short tons	Value
No. 1 heavy melting steel scrap---	258,173	\$8,220,701	999,138	\$32,878,886
No. 2 heavy melting steel scrap---	113,365	2,948,160	425,180	11,447,945
No. 1 baled sheet melting scrap---	60,533	1,736,495	205,805	5,933,752
No. 2 baled sheet melting scrap---	161,334	3,455,692	548,811	12,110,982
Borings, shoveling, and turnings-	19,538	353,170	85,582	1,570,654
Iron scrap-----	38,877	1,626,962	148,336	4,875,007
Rerolling material-----	47,566	1,186,063	122,498	3,577,659
All other scrap <u>3</u> /-----	8,814	420,113	53,830	2,247,405
Total-----	708,200	19,947,356	2,589,180	74,642,290

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.