



MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D. C. 20240



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Iron and Steel Scrap,
Monthly

IRON AND STEEL SCRAP IN SEPTEMBER 1968

Iron and steel scrap consumption averaged 192,900 tons per day in September, a slight increase over that for August, according to the Bureau of Mines, U.S. Department of the Interior. Net receipts of ferrous scrap, on an average daily basis, increased 6 percent despite a 7-percent drop in the daily rate of steel production. Exports of iron and steel scrap increased 21 percent to nearly 750,000 short tons, the highest monthly total since June 1967. An increase of almost 100,000 tons in exports to Japan was largely responsible for the improved export picture.

New developments among manufacturers of scrap processing equipment were noted during the month. The Proler Steel Corp., Houston, Texas, manufacturers of large-capacity automobile shredders, announced plans to enter the metal chemicals field. The first phase of this diversification calls for construction of a highly-automated metal chemicals plant and laboratory on the site of the company's metal products facility in Houston. Initial products will be noferrous; zinc dust and powder, copper, nickel, and tin products, will be made using scrap and scrap by-products as raw materials.

Newell Manufacturing Co., San Antonio, Texas, designers and builders of the Newell hammer mill, is building a new manufacturing facility which will increase the output of hammer mill units and component parts. The new plant will be located in San Antonio adjacent to the headquarters of the Newell Salvage Co., the scrap processing arm of the Newell organization.

In a study completed earlier in the year, engineers at General Motors Corporation concluded that the use of a "ripper-shredder" system for processing auto scrap resulted in a lower contamination level than could be obtained using conventional shredding operation. One contribution to this concept is a scrap ripper called the Auto Preshredder, manufactured by Ripsteel Corporation, Milwaukee, Wisconsin. The company claims that the machine will rip apart a car, minus motor and transmission, in 48 seconds. Ripping action is provided by two interference patterns of 32 and 68 feet-per-minute, respectively, which are setup by the differential rotation of three gear wheels.

The results of a Bureau of Mines study of a new use for shredded auto scrap was published in September as R. I. 7182, "Copper Cementation Using Automobile Scrap in a Rotating Drum." Although cost evaluation is not conclusive, the report indicates that the rotary drum method, which uses relative low-cost shredded auto scrap, is competitive with the conventional launder method, which uses relatively high-cost shredded, detinned, tinplate scrap.

Prepared February 28, 1969, in Mineral Resource Evaluation.

TABLE 1. - U.S. receipts, production, consumption, shipments and stocks of iron and steel scrap and pig iron, by type of manufacturer, September 1968
(Short tons)

	Mfgs. of steel ingots and castings 1/	Mfgs. of steel castings 2/	Iron foundries and miscel- laneous users	Total	Total Year to date 3/
SCRAP:					
Receipts-----	1,765,877	150,038	724,600	2,640,515	29,831,434
Production-----	2,964,425	85,052	456,091	3,505,568	41,557,630
Consumption by grades:					
Low phosphorous plate and punchings	20,861	60,690	56,860	138,411	1,383,563
Cut structural and plate-----	28,125	15,637	71,115	114,877	1,060,186
No. 1 heavy melting steel-----	1,567,337	20,291	23,732	1,611,360	20,879,092
No. 2 heavy melting steel-----	147,619	642	17,126	165,387	2,271,484
No. 1 and electric furnace bundles	438,072	6,291	36,629	480,992	5,554,177
No. 2 and all other bundles-----	211,072	2,212	46,377	259,661	3,171,774
Turnings and borings-----	128,701	5,743	42,334	176,778	2,106,836
Slag scrap (Fe content)-----	258,168	487	1,566	260,221	2,537,783
Shredded or fragmented-----	43,136	3,830	4,735	51,701	505,328
All other carbon steel scrap-----	943,820	62,781	135,744	1,142,345	12,775,982
Stainless steel-----	51,686	2,267	2,974	56,927	663,762
Alloy steel (except stainless)-----	164,492	10,915	7,850	183,257	2,273,450
Cast iron (include borings)-----	395,615	23,655	664,898	1,084,168	10,702,474
Other grades of scrap-----	18,404	10,200	32,293	60,897	654,752
PIG IRON:					
Total consumption-----	4,417,108	225,641	1,144,233	5,786,982	66,540,643
Shipments-----	415,814	5,525	35,514	456,853	4,281,530
Stocks end of month-----	7,217,354	321,914	800,266	8,339,534	-
PIG IRON:					
Receipts-----	411,239	5,070	300,810	717,119	6,818,008
Production-----	5,453,452	-	-	5,453,452	69,084,834
Consumption-----	5,364,926	10,288	290,750	5,665,964	70,520,845
Shipments-----	563,058	-	175	563,233	5,558,420
Stocks end of month-----	2,249,695	23,167	310,856	2,583,718	-

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

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

3/ Year to date totals may not agree with a summation of prior monthly totals due to revisions after publication of monthly data.

TABLE 2. - U.S. salient iron and steel scrap and pig iron statistics, September 1968
(Short tons)

STATE	Receipts	Production	Consumption	Shipments	Stocks end of month	Pig iron consumption
Alabama-----	120,304	120,084	223,489	14,129	312,704	244,796
Arizona-----	W	W	W	W	W	-
Arkansas-----	W	-	W	-	W	-
California----	101,105	120,655	222,790	7,629	271,513	213,059
Colorado-----	21,030	25,781	54,375	-	25,443	70,444
Connecticut---	4,676	4,241	7,763	233	12,711	1,850
Delaware-----	W	W	W	-	W	W
Florida-----	W	W	W	-	W	W
Georgia-----	2,993	4,481	18,527	162	34,000	910
Illinois-----	229,383	280,480	489,830	22,560	983,724	377,146
Indiana-----	183,152	462,720	535,710	113,981	1,024,328	765,012
Iowa-----	34,290	19,105	57,316	90	58,301	4,696
Kansas-----	3,838	3,446	8,265	-	3,433	212
Kentucky-----	40,535	64,641	112,742	1,702	146,564	100,969
Louisiana-----	658	329	1,030	91	1,611	7
Maine-----	W	W	W	-	W	W
Maryland-----	18,284	144,496	135,561	21,222	270,108	338,960
Massachusetts--	4,228	5,758	9,727	203	7,201	2,593
Michigan-----	328,610	269,459	552,903	7,392	406,696	446,896
Minnesota-----	19,174	15,402	28,492	3,145	57,810	33,880
Mississippi---	W	W	W	-	W	-
Missouri-----	72,058	21,857	82,823	562	171,624	1,979
Montana-----	W	W	W	-	W	-
Nebraska-----	W	W	W	W	W	W
Nevada-----	W	-	W	-	W	W
New Hampshire--	W	W	W	-	W	W
New Jersey----	42,356	12,102	64,007	1,123	70,416	7,050
New York-----	97,601	139,250	227,362	5,497	475,218	284,524
North Carolina	11,265	3,609	10,857	W	12,902	3,003
Ohio-----	504,576	566,887	963,542	104,279	1,119,235	884,834
Oklahoma-----	15,001	4,591	16,220	-	33,894	1,197
Oregon-----	W	W	W	W	W	W
Pennsylvania--	473,207	852,359	1,231,043	130,957	1,911,620	1,482,785
Rhode Island--	7,460	4,581	12,524	457	14,723	1,030
South Carolina	1,727	W	3,569	-	W	W
Tennessee-----	17,666	13,689	32,350	1,127	10,148	9,005
Texas-----	102,143	108,124	214,791	7,386	239,359	61,340
Utah-----	7,345	63,841	86,242	522	303,024	119,010
Vermont-----	1,259	785	2,079	-	1,803	581
Virginia-----	19,941	W	36,413	W	22,538	W
Washington----	28,606	9,233	37,296	1,546	77,850	1,421
West Virginia--	43,063	W	164,234	W	126,816	W
Wisconsin-----	34,489	44,930	74,598	7,876	40,015	13,296
Undistributed--	48,492	118,652	68,512	2,982	92,202	193,479
TOTAL U.S.--	2,640,515	3,505,568	5,786,982	456,853	8,339,534	5,665,964

W Withheld to avoid disclosing individual company confidential data; included in Undistributed.

TABLE 3. - U.S. consumption of iron and steel scrap by grades, September 1968
(Short tons)

State	CARBON STEEL						Stainless & alloy steel	Cast iron (include borings)	Other grades of scrap including slag
	Low phos., cut struc- tural, and plate	No. 1 & 2 heavy melt- ing steel	No. 1-2 & all other bundles	Turnings & borings	Shredded or fragmentized	All other carbon steel scrap			
Alabama-----	8,497	72,011	43,729	1,478	-	40,688	707	51,370	5,009
Arizona-----	W	-	W	-	-	W	W	W	W
Arkansas-----	-	-	-	-	-	W	-	-	-
California-----	2,310	49,046	29,463	2,186	7,633	101,628	580	27,688	2,256
Colorado-----	W	W	W	W	-	-	W	4,913	W
Connecticut-----	1,354	W	W	-	-	705	663	4,267	W
Delaware-----	W	W	W	W	-	W	W	W	-
Florida-----	W	W	W	-	-	W	-	W	-
Georgia-----	W	W	W	-	-	W	-	2,397	-
Illinois-----	37,584	145,666	68,238	15,022	4,364	116,122	13,341	83,034	6,459
Indiana-----	13,170	216,420	67,934	15,532	-	116,124	9,921	63,221	33,388
Iowa-----	6,600	W	W	W	W	W	W	16,824	W
Kansas-----	3,874	-	-	W	W	W	W	W	-
Kentucky-----	-	55,656	11,580	W	-	16,056	3,873	20,280	W
Louisiana-----	W	-	-	-	-	W	-	W	-
Maine-----	W	-	-	-	-	-	-	W	-
Maryland-----	3,409	W	18,660	W	-	W	W	9,135	W
Massachusetts-----	1,385	94	W	W	-	W	W	6,988	W
Michigan-----	21,684	16,078	108,721	W	W	153,758	5,260	198,762	21,538
Minnesota-----	1,376	11,620	W	W	-	1,986	W	8,723	W
Mississippi-----	-	W	W	-	-	W	-	-	-
Missouri-----	2,719	53,604	W	W	W	2,995	982	13,045	W
Montana-----	-	-	-	W	-	-	-	W	W
Nebraska-----	-	-	-	-	-	-	-	W	W
Nevada-----	W	-	-	-	-	-	-	W	-
New Hampshire-----	W	W	-	-	-	-	-	W	-
New Jersey-----	7,702	W	15,111	W	W	-	672	27,399	W
New York-----	4,403	75,439	15,265	7,097	313	37,076	10,480	48,289	29,000
North Carolina-----	W	W	W	-	-	W	-	W	W
Ohio-----	69,897	279,183	148,323	52,300	98	143,755	41,674	185,832	42,480
Oklahoma-----	-	W	-	W	-	W	-	W	W
Oregon-----	-	W	W	W	-	W	W	W	-
Pennsylvania-----	24,282	506,383	112,169	29,168	708	164,362	133,872	162,374	97,725
Rhode Island-----	-	W	W	-	-	2,166	W	W	W
South Carolina-----	W	-	-	W	-	W	-	2,977	-
Tennessee-----	8,136	W	W	-	-	W	-	19,599	W
Texas-----	5,652	60,552	17,323	W	W	45,415	3,103	36,177	W
Utah-----	78	47,401	3,539	W	W	13,049	4,462	17,392	321
Vermont-----	-	W	-	-	-	W	-	W	-
Virginia-----	5,543	513	W	-	-	7,275	W	18,837	-
Washington-----	2,016	16,610	W	692	W	1,930	W	3,062	W
West Virginia-----	W	11,203	W	W	-	W	W	3,124	W
Wisconsin-----	18,772	1,409	-	1,403	-	14,409	241	30,661	7,703
Undistributed-----	2,845	157,859	80,598	51,900	38,585	162,846	10,353	17,798	75,239
U.S. Total-----	253,288	1,776,747	740,653	176,778	51,701	1,142,345	240,184	1,084,168	321,118

W Withheld to avoid disclosing individual company confidential data; included in Undistributed, also included in U.S. total.

FOREIGN TRADE

Exports of iron and steel scrap totaled 749,174 short tons in September compared with 617,544 tons in August. Exports of pig iron during September totaled 944 tons and 888 tons in August. Imports of scrap totaled 14,559 short tons in September compared with 12,416 tons in August. Of the scrap imported during September, 14,192 short tons came from Canada and 367 tons from other sources. Imports of pig iron totaled 123,756 short tons in September and 90,917 tons in August. In addition to the foregoing imports of pig iron during September, there were 401 tons of sponge iron, valued at \$56,346, imported, of which 391 tons came from Canada and 10 tons from Sweden.

TABLE 4. - U.S. exports of iron and steel scrap, by countries

Country	September 1968		Year to date	
	Short tons	Value	Short tons	Value
Canada-----	42,939	\$905,808	364,353	\$8,595,968
Hong Kong-----	24	18,651	318	188,496
Italy-----	82,526	2,753,874	590,991	16,185,964
Japan-----	446,050	11,710,040	2,296,317	63,746,880
Korea-----	25,510	994,400	194,378	6,464,005
Mexico-----	28,186	906,434	415,564	14,400,057
Spain-----	29,411	738,375	191,902	4,196,625
Sweden-----	7,671	1,532,968	78,592	11,881,826
Taiwan-----	38,680	1,021,730	140,253	4,168,984
United Kingdom-----	145	42,958	1,806	214,596
West Germany-----	2,674	589,441	55,375	2,484,182
Other Countries-----	45,358	1,236,638	266,587	8,298,826
Total-----	749,174	22,451,317	4,596,436	140,826,409

TABLE 5. - U.S. exports of iron and steel scrap, by grades

Grades of scrap	September 1968		Year to date	
	Short tons	Value	Short tons	Value
No. 1 heavy melting steel scrap-----	361,363	\$10,347,015	1,740,875	\$52,289,937
No. 2 heavy melting steel scrap-----	102,220	2,458,750	572,696	15,150,562
No. 1 bundles-----	22,659	612,482	127,504	3,321,066
No. 2 bundles-----	61,429	1,055,697	746,413	14,876,300
Borings, shovelings & turnings-----	15,341	217,830	324,687	6,211,406
Iron scrap-----	51,517	1,202,383	283,936	7,247,521
Stainless steel scrap---	12,264	2,778,362	84,948	19,948,615
All other scrap 1/-----	122,381	3,778,798	715,377	21,781,002
Total-----	749,174	22,451,317	4,596,436	140,826,409

1/ Includes tin plate andterne plate.