



MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D.C. 20241



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Iron and Steel Scrap, Monthly

IRON AND STEEL SCRAP IN NOVEMBER 1977

Returns from 74% of reporting consumers representing 86% of total scrap consumption, indicated that consumption of iron and steel scrap in November on a daily average basis was 3% below that in October, according to the Bureau of Mines, U.S. Department of the Interior. Compared with October data, daily average production and net receipts were down 3% and 7%, respectively, and stocks at the end of the month were down 3%.

Exports of ferrous scrap during the month were 3% above those for October 1977, and 18% below those for November 1976. Japan was the largest importer of U.S. scrap in November 1977, taking 20% of the total exported. The next largest importers were Spain and Republic of Korea, which received 15% and 12%, respectively.

The Iron Age composite price for No. 1 heavy melting steel scrap (Chicago, Pittsburgh, and Philadelphia) at monthend was \$49.17 per long ton, down 23% from the price of \$63.83 1 year earlier. The monthend price reflected a gain of \$2.34 per ton from the 1977 low of \$46.83 reached in the first week of November. The composite price continued to rise in December and was \$66.17 on December 31.

Pig iron production and consumption in November, on a daily average basis, were both down 5% from those of the previous month. Monthend stocks of pig iron decreased 4% compared with those at the end of October.

TABLE 1. - U.S. RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP AND PIG IRON, BY TYPE OF MANUFACTURER (SHORT TONS)

NOVEMBER 1977 (PRELIMINARY) 1/						
	MFRS. OF	MFRS. OF	IRON FOUNDRIES	TOTAL FOR	FINAL	TOTAL YEAR
	PIG IRON AND	STEEL	AND MISCEL-	MONTH OF	TOTAL FOR	THROUGH
	8 CASTINGS 2/	CASTINGS 3/	LANEOUS USERS	NOV 1977	OCT 1977 4/	NOV 1977 5/
SCRAP:						
RECEIPTS FROM DEALERS AND OTHER SOURCES	1,874,633	177,331	838,714	2,890,678	3,169,690	34,978,877
RECEIPTS FROM OTHER OWN COMPANY PLANTS-	519,298	9,997	359,099	888,394	923,707	9,256,015
PRODUCTION RECIRCULATING SCRAP-----	3,172,387	81,298	514,690	3,768,375	4,025,474	43,202,668
PRODUCTION OBSOLETE SCRAP-----	208,303	1,759	6,659	216,721	218,731	2,356,800
CONSUMPTION-----	5,521,055	249,685	1,732,787	7,502,527	7,985,319	84,796,914
SHIPMENTS-----	509,854	1,257	24,028	535,139	493,967	5,233,697
STOCKS END OF MONTH-----	8,032,717	251,601	1,128,315	9,412,633	9,732,884	--
PIG IRON:						
RECEIPTS-----	426,014	3,688	193,923	623,625	687,746	7,969,633
PRODUCTION-----	6,121,252	--	--	6,121,252	6,635,722	74,695,771
CONSUMPTION-----	6,041,170	3,900	183,390	6,228,460	6,753,322	75,525,309
SHIPMENTS-----	612,877	--	373	613,250	681,206	7,310,362
STOCKS END OF MONTH-----	1,225,657	5,858	124,585	1,356,100	1,418,110	--
DIRECT-REDUCED OR PREREDUCED IRON:						
RECEIPTS-----	--	--	--	21,989	20,128	408,589
PRODUCTION-----	--	--	--	--	--	--
CONSUMPTION-----	--	--	--	22,087	20,013	406,868
SHIPMENTS-----	--	--	--	--	--	--
STOCKS END OF MONTH-----	--	--	--	3,648	3,734	--

1/ BASED ON RETURNS FROM 74% OF REPORTING CONSUMERS, REPRESENTING 86% OF SCRAP CONSUMPTION.

2/ INCLUDES ONLY THOSE MANUFACTURERS OF STEEL CASTINGS THAT ALSO PRODUCE INGOTS.

3/ EXCLUDES COMPANIES THAT PRODUCE BOTH STEEL INGOTS AND CASTINGS.

4/ BASED ON RETURNS FROM 82% OF REPORTING CONSUMERS, REPRESENTING 97% OF SCRAP CONSUMPTION.

5/ CUMULATIVE TOTALS MAY NOT AGREE WITH SUM OF MONTHLY REPORTS BECAUSE OF ADDITION OF REPORTS FROM LATE RESPONDENTS.

TABLE 2. - MANUFACTURERS OF PIG IRON AND STEEL INGOTS AND CASTINGS 1/ - RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS AND STOCKS OF PIG IRON AND IRON AND STEEL SCRAP, BY GRADE, NOVEMBER 1977 (PRELIMINARY) 2/ (SHORT TONS)

ITEM	RECEIPTS OF SCRAP			PRODUCTION OF HOME SCRAP			CONSUMPTION			ENDING STOCKS
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS	RECYCLING OR OBSOLETE SCRAP (INCLUDES INGOT MOLD, STUOLS, AND SCRAP FROM OLD EQUIPMENT, BUILDINGS, ETC.)	RESULTING FROM CURRENT OPERATIONS BUILDINGS, ETC.)	SCRAP (INCLUDES INGOT MOLD, STUOLS, HOME SCRAP AND SCRAP FROM RE- SHIPMENTS OF SCRAP)	OF BOTH PURCHASED AND HOME SCRAP				
SCRAP:										
CARBON STEEL -										
LOW-PHOSPHORUS PLATE AND PUNCHINGS----	42,778	1,242		2,449		1,031	40,681	3,147		110,938
CUT STRUCTURAL AND PLATE-----	15,531	9		27,926		--	50,670	--		57,170
NO.1 HEAVY MELTING STEEL-----	385,934	272,186		1,411,887		5,961	1,918,880	226,269		2,496,131
NO.2 HEAVY MELTING STEEL-----	133,472	15,085		79,372		232	256,125	2,428		443,921
NO.1 AND ELECTRIC FURNACE BUNDLES---	462,223	67,119		209,274		776	736,867	28,563		1,600,030
NO.2 AND ALL OTHER BUNDLES-----	88,376	6,949		25,436		--	137,015	11,564		280,968
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)-----	2,648	--		1		--	2,855	--		5,314
RAILROAD RAILS-----	6,825	254		--		--	5,069	66		3,445
TURNINGS AND BORINGS-----	101,812	7,029		28,443		134	136,013	10,039		94,845
SLAG SCRAP (FE CONTENT 70 PERCENT)---	116,194	194		206,126		801	327,130	8,891		195,886
SHREDDED OR FRAGMENTIZED-----	108,907	31,577		--		--	147,035	--		214,870
NO. 1 RUSHELING-----	121,533	4,013		2,675		--	125,831	3,740		173,312
ALL OTHER CARBON STEEL SCRAP-----	161,080	16,811		833,214		39,873	984,747	49,807		1,000,232
STAINLESS STEEL SCRAP-----										
ALLOY STEEL (EXCEPT STAINLESS)---	27,163	3,363		51,386		35	81,906	4,169		94,359
INGOT MOLD AND STUOL SCRAP-----	15,919	21,245		126,426		253	147,429	31,169		290,800
MACHINERY AND CUPOLA CAST IRON---	20,796	54,968		89,232		142,962	276,572	85,363		712,284
CAST IRON BORINGS-----	1,230	--		--		--	922	--		4,216
MOTOR BLOCKS-----	10,179	5,617		22,734		9,951	43,505	8,497		73,618
OTHER IRON SCRAP-----	--	--		26		--	20	--		1,563
OTHER MIXED SCRAP-----	21,315	11,468		42,116		6,283	56,948	36,589		123,755
	30,698	129		13,664		11	45,235	1,553		55,056
TOTAL SCRAP-----	1,874,633	519,298		3,172,387		208,303	5,521,055	509,454		8,032,717
TOTAL SCRAP THROUGH NOVEMBER 1977---	23,608,681	5,504,527		36,686,026		2,243,892	63,508,137	4,929,970		8,032,717
PIG IRON-----										
	426,014			6,121,252			6,041,170	612,877		1,225,657
PIG IRON THROUGH NOVEMBER 1977---	5,503,415			74,695,771			73,071,223	7,305,583		1,225,657

1/ INCLUDES ONLY THOSE MANUFACTURERS OF STEEL CASTINGS THAT ALSO PRODUCE INGOTS.
2/ BASED ON RETURNS FROM 89% OF REPORTING CONSUMERS, REPRESENTING 95% OF SCRAP CONSUMPTION.

TABLE 3. - MANUFACTURERS OF STEEL CASTINGS 1/ - RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS AND STOCKS OF PIG IRON AND IRON AND STEEL SCRAP, BY GRADE, NOVEMBER 1977 (PRELIMINARY) 2/ (SHORT TONS)

ITEM	RECEIPTS OF SDRAP				PRODUCTION OF HOME SCRAP				CONSUMPTION				ENDING STOCKS	
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS	RECYCLATING OR SOLTF SCRAP (INCLUDES INGOT CHASED AND MOLDS, STOOLS, AND SCRAP FROM CURRENT OPERATIONS BUILDINGS, ETC.)	RESULTING FROM	RECYCLATING OR SOLTF SCRAP (INCLUDES INGOT CHASED AND MOLDS, STOOLS, AND SCRAP FROM CURRENT OPERATIONS BUILDINGS, ETC.)	OF ROTH PUR-CHASED AND HOME SCRAP	RE- SHIPMENTS OF SCRAP							
SCRAP:														
CARBON STEEL-														
LOW-PHOSPHORUS PLATE AND PUNCHINGS	49,975	357	16,726	--	67,947	--	--	64,513						
CUT STRUCTURAL AND PLATE	19,831	1,454	2,574	--	18,416	--	85	20,860						
NO.1 HEAVY MELTING STEEL	13,093	5	5,443	12	14,009	--	78	33,233						
NO.2 HEAVY MELTING STEEL	5,428	--	1,524	--	7,118	--	--	3,474						
NO.1 AND ELECTRIC FURNACE BUNDLES	5,275	--	249	--	5,388	--	--	3,428						
NO.2 AND ALL OTHER BUNDLES	337	--	--	--	152	--	--	1,194						
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)	4,862	--	1,595	--	7,067	--	90	4,945						
RAILROAD RAILS	--	--	--	--	7	--	--	224						
TURNINGS AND BORINGS	4,909	852	1,734	--	6,259	--	391	6,250						
SLAG SCRAP (FE CONTENT 70 PERCENT)	--	--	624	--	634	--	22	65						
SHREDDER OR FRAGMENTIZED	6,686	1,871	--	--	7,632	--	--	3,841						
NO. 1 BUSHING	4,897	913	1,035	--	5,390	--	--	7,105						
ALL OTHER CARBON STEEL SCRAP	47,494	2,735	25,935	1,715	72,551	--	125	47,056						
STAINLESS STEEL SCRAP-														
ALLOY STEEL (EXCEPT STAINLESS)	2,098	376	2,155	--	4,617	--	308	4,434						
INGOT MOLD AND STUOL SCRAP	4,134	967	9,809	--	11,162	--	--	22,444						
MACHINERY AND CUPOLA CAST IRON	558	--	6	--	452	--	8	688						
CAST IRON BORINGS	596	--	594	--	1,177	--	--	2,176						
MOTOR BLOCKS	3,530	468	4,468	--	8,535	--	33	4,738						
OTHER IRON SCRAP	32	--	--	--	107	--	--	111						
OTHER MIXED SCRAP	3,589	19	6,463	32	9,701	--	117	20,819						
	3	--	364	--	364	--	--	9						
TOTAL SCRAP	177,331	9,997	81,298	1,759	248,485	--	1,257	251,601						
TOTAL SCRAP THROUGH NOVEMBER 1977	1,717,614	109,833	909,615	13,820	2,697,391	--	18,643	251,601						
PIG IRON														
	RECEIPTS				PRODUCTION				CONSUMPTION				STOCKS	
	3,688				--				3,900				5,858	
PIG IRON THROUGH NOVEMBER 1977	40,890				--				40,611				5,858	

1/ EXCLUDES COMPANIES THAT PRODUCE BOTH STEEL INGOTS AND CASTINGS.

2/ BASED ON RETURNS FROM 77% OF REPORTING CONSUMERS, REPRESENTING 85% OF SCRAP CONSUMPTION.

TABLE 4. - IRON FOUNDRIES AND MISCELLANEOUS USERS - RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF PIG IRON AND IRON AND STEEL SCRAP, BY GRADE, NOVEMBER 1977 (PRELIMINARY) 1/ (SHORT TONS)

ITEM	RECEIPTS OF SCRAP				PRODUCTION OF HOME SCRAP				CONSUMPTION			
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS	FROM RECYCLATING SCRAP (INCLUDES INGOT MOLD, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	FROM RESULTING MOLD, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	FROM CURRENT OLD EQUIPMENT, CIRCULATING OPERATIONS BUILDINGS, ETC.)	FROM RECYCLATING SCRAP (INCLUDES INGOT MOLD, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	FROM RESULTING MOLD, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	FROM CURRENT OLD EQUIPMENT, CIRCULATING OPERATIONS BUILDINGS, ETC.)	FROM RECYCLATING SCRAP (INCLUDES INGOT MOLD, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	FROM RESULTING MOLD, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	FROM CURRENT OLD EQUIPMENT, CIRCULATING OPERATIONS BUILDINGS, ETC.)	FROM RECYCLATING SCRAP (INCLUDES INGOT MOLD, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP
SCRAP:												
CARBON STEEL-												
LOW-PHOSPHORUS PLATE AND PUNCHINGS----												
CUT STRUCTURAL AND PLATE-----	58,598	8,185	6,355	26	73,760	100	67,719					
NO.1 HEAVY MELTING STEEL-----	117,150	12,070	12,341	68	149,847	3,234	99,240					
NO.2 HEAVY MELTING STEEL-----	14,259	14,175	6,074	--	34,268	4,464	54,527					
NO.1 AND ELECTRIC FURNACE BUNDLES----	625	374	552	44	4,754	68	9,373					
NO.2 AND ALL OTHER BUNDLES-----	15,390	17,288	5,617	27	34,783	--	16,202					
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)-----	52,514	15,125	--	--	69,416	--	50,980					
RAILROAD RAILS-----	5,125	--	1,727	--	6,975	--	6,061					
TURBINES AND BORINGS-----	9,885	--	24	--	9,038	173	13,356					
SLAG SCRAP (FE CONTENT 70 PERCENT)----	54,412	11,186	1,291	52	63,053	2,502	91,174					
SHREDDER OR FRAGMENTIZED-----	5,556	--	40	--	4,470	40	32,230					
NO. 1 BUSHING-----	59,312	6,755	--	--	84,047	48	51,446					
ALL OTHER CARBON STEEL SCRAP-----	39,042	11,415	982	--	48,499	--	17,682					
	81,741	81,696	12,799	7	174,137	1,325	132,254					
STAINLESS STEEL SCRAP-----												
ALLOY STEEL (EXCEPT STAINLESS)-----	533	--	716	3	1,282	47	8,987					
INGOT MOLD AND STOKS SCRAP-----	10,039	8	357	43	6,556	20	9,671					
MACHINERY AND COPOLA CAST IRON -----	12,222	--	10,498	315	21,822	341	23,341					
CAST IRON BORINGS-----	71,251	13,136	74,280	588	163,110	425	85,778					
MOTOR BLOCKS-----	48,401	73,923	30,341	21	145,253	4,188	101,083					
OTHER IRON SCRAP-----	60,528	4,068	37,053	--	103,180	--	56,473					
OTHER MIXED SCRAP-----	85,694	9,514	285,629	4,918	389,854	6,542	165,809					
	36,437	80,341	28,014	507	144,683	511	41,933					
TOTAL SCRAP-----	838,714	359,099	514,690	6,659	1,732,787	24,028	1,128,315					
TOTAL SCRAP THROUGH NOVEMBER 1977----	9,652,582	3,641,655	5,607,027	99,088	18,591,386	286,084	1,128,315					
PIG IRON-----												
	181,923	--	--	--	181,398	373	124,585					
PIG IRON THROUGH NOVEMBER 1977-----	2,425,328	--	--	--	2,413,475	4,732	124,585					
1/ BASED ON RETURNS FROM 69% OF REPORTING CONSUMERS, REPRESENTING 58% OF SCRAP CONSUMPTION.												

TABLE 5. - CONSUMPTION OF IRON AND STEEL SCRAP AND PIG IRON IN THE UNITED STATES
IN NOVEMBER 1977 (PRELIMINARY), BY TYPE OF CONSUMER AND TYPE OF FURNACE OR OTHER USE
(SHORT TONS)

TYPE OF FURNACE OR OTHER USE	MANUFACTURERS OF PIG IRON AND STEEL INGOTS AND CASTINGS 1/				MANUFACTURERS OF STEEL CASTINGS 2/				IRON FOUNDRIES AND MISCELLANEOUS USERS				TOTAL ALL TYPES	
	SCRAP		PIG IRON		SCRAP		PIG IRON		SCRAP		PIG IRON		SCRAP	PIG IRON
BLAST FURNACE 3/-	280,222	--	--	--	--	--	--	--	--	--	--	--	280,222	--
BASIC OXYGEN PROCESS 4/-	1,928,494	4,928,407	--	--	--	--	--	--	--	--	--	--	1,928,494	4,928,407
OPEN-HEARTH FURNACE	854,679	878,488	--	--	4,821	381	--	--	--	--	--	--	859,500	878,869
ELECTRIC FURNACE	2,333,069	53,129	--	--	224,786	2,994	--	--	489,087	26,075	--	--	3,046,942	82,198
CUPOLA FURNACE	25,661	9,082	--	--	15,864	67	--	--	1,199,982	81,747	--	--	1,241,507	90,896
OTHER (INCLUDING AIR FURNACE) 5/	98,930	28,507	--	--	3,214	458	--	--	43,718	2,588	--	--	145,862	31,553
DIRECT CASTINGS 6/-	--	143,557	--	--	--	--	--	--	--	72,980	--	--	--	216,537
TOTAL	5,521,055	6,041,170	--	--	248,685	3,900	--	--	1,732,787	183,390	--	--	7,502,527	6,228,460

1/ INCLUDES ONLY THOSE CASTINGS MADE BY COMPANIES PRODUCING STEEL INGOTS.
2/ EXCLUDES COMPANIES THAT PRODUCE BOTH STEEL INGOTS AND STEEL CASTINGS.
3/ INCLUDES CONSUMPTION IN ALL BLAST FURNACES PRODUCING PIG IRON.
4/ INCLUDES SCRAP AND PIG IRON PROCESSED IN METALLURGICAL BLAST CUPOLAS AND USED IN OXYGEN CONVERTERS.
5/ INCLUDES VACUUM MELTING FURNACES AND MISCELLANEOUS USES.
6/ INCLUDES INGOT MOLDS AND STOOLES.

TABLE 6. - MANUFACTURERS OF PIG IRON AND STEEL INGOTS AND CASTINGS 1/ - RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS AND STOCKS OF PIG IRON AND IRON AND STEEL SCRAP, BY GRADE, OCTOBER 1977 (FINAL) 2/

(SHORT TONS)

ITEM	RECEIPTS OF SCRAP			PRODUCTION OF HOME SCRAP			CONSUMPTION			ENDING STOCKS
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS	FROM RECYCLING SCRAP RESULTING FROM CURRENT OPERATIONS	OBsolete SCRAP (INCLUDES INGOT MOLDS, STUOLS, AND SCRAP FROM OLD EQUIPMENT, BUILDINGS, ETC.)	CHASED AND HOME SCRAP (INCLUDES RE-SCRAP)	SHIPMENTS OF SCRAP				
SCRAP 3										
CARBON STEEL--										
LOW-PHOSPHORUS PLATE AND PUNCHINGS----	44,236	979	2,914	538	46,390	3,737	105,505			
CUT STRUCTURAL AND PLATE-----	21,798	10	21,270	--	46,184	--	64,068			
NO.1 HEAVY MELTING STEEL-----	447,418	276,880	1,518,894	6,679	2,037,882	231,048	2,560,139			
NO.2 HEAVY MELTING STEEL-----	146,865	15,755	92,446	249	286,471	3,077	475,016			
NO.1 AND ELECTRIC FURNACE BUNDLES----	476,852	65,739	216,577	779	789,965	36,397	1,629,183			
NO.2 AND ALL OTHER BUNDLES-----	107,403	6,111	28,971	--	162,814	10,873	312,226			
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)-----	1,762	--	4,794	--	6,479	--	5,520			
RAILROAD RAILS-----	4,940	309	--	--	8,916	--	1,501			
TURNINGS AND BORINGS-----	118,380	8,680	28,264	40	159,105	10,323	102,604			
SLAG SCRAP (FE CONTENT 70 PERCENT)----	103,071	290	242,705	446	355,318	7,763	207,825			
SHREDDER OR FRAGMENTIZED-----	160,828	35,686	105	--	187,150	--	224,291			
NO. 1 BUSHING-----	121,364	3,795	2,313	--	133,025	1,995	172,735			
ALL OTHER CARBON STEEL SCRAP-----	190,706	23,154	859,405	38,590	1,002,329	49,984	992,756			
STAINLESS STEEL SCRAP-----										
ALLOY STEEL (EXCEPT STAINLESS)-----	28,298	4,180	49,696	9	91,511	4,193	99,261			
INGOT MOLD AND STUOL SCRAP-----	15,069	19,561	131,128	78	152,306	13,686	305,833			
MACHINERY AND CUPOLA CAST IRON-----	15,157	47,445	74,113	148,357	272,665	52,657	763,745			
CAST IRON BORINGS-----	129	--	--	--	1,099	--	3,908			
MOTOR BLOCKS-----	14,496	7,827	32,134	5,460	52,164	6,031	75,310			
OTHER IRON SCRAP-----	2	--	--	--	60	--	1,557			
OTHER MIXED SCRAP-----	18,906	12,792	49,577	4,596	62,341	31,588	136,908			
	31,488	5,180	21,312	13	45,540	3,200	61,726			
TOTAL SCRAP-----	2,069,168	534,253	3,376,618	205,834	5,899,714	465,552	8,302,617			
TOTAL SCRAP THROUGH OCTOBER 1977----	21,734,048	4,985,229	33,513,639	2,035,589	57,987,082	4,420,116	8,302,617			
PIG IRON-----										
	461,944		6,635,722		6,523,899	680,797	1,295,843			
PIG IRON THROUGH OCTOBER 1977-----	5,077,401		68,574,519		67,030,053	6,692,706	1,295,843			

1/ INCLUDES ONLY THOSE MANUFACTURERS OF STEEL CASTINGS THAT ALSO PRODUCE INGOTS.

2/ BASED ON RETURNS FROM 95% OF REPORTING CONSUMERS, REPRESENTING 99% OF SCRAP CONSUMPTION.

TABLE 7. - MANUFACTURERS OF STEEL CASTINGS 1/ - RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS AND STOCKS OF PIG IRON AND IRON AND STEEL SCRAP, BY GRADE, OCTOBER 1977 (FINAL) 2/ (SHORT TONS)

ITEM	RECEIPTS OF SCRAP			PRODUCTION OF HOME SCRAP			CONSUMPTION OF BOTH PURCHASED AND RECYCLATING OBSOLETE SCRAP (INCLUDES INGOT CHASED AND MOLODS, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE-OLD EQUIPMENT, CIRCULATING OF SCRAP OPERATIONS BUILDINGS, ETC.)			ENDING STOCKS
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS		SCRAP RESULTING FROM CURRENT OPERATIONS	RECYCLATING OBSOLETE SCRAP (INCLUDES INGOT CHASED AND MOLODS, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE-OLD EQUIPMENT, CIRCULATING OF SCRAP OPERATIONS BUILDINGS, ETC.)		CONSUMPTION OF BOTH PURCHASED AND RECYCLATING OBSOLETE SCRAP (INCLUDES INGOT CHASED AND MOLODS, STOKS, HOME SCRAP AND SCRAP FROM (INCLUDES RE-OLD EQUIPMENT, CIRCULATING OF SCRAP OPERATIONS BUILDINGS, ETC.)			
SCRAP:										
CARBON STEEL-										
LOW-PHOSPHORUS PLATE AND PUNCHINGS	55,549	576		16,559	26		68,810	--		68,026
CUT STRUCTURAL AND PLATE	17,500	1,824		2,584	--		19,168	85		15,807
NO.1 HEAVY MELTING STEEL	13,338	46		6,992	27		19,588	161		30,624
NO.2 HEAVY MELTING STEEL	4,960	--		1,712	--		6,666	--		3,726
NO.1 AND ELECTRIC FURNACE BUNDLES	5,039	--		249	--		6,202	--		3,554
NO.2 AND ALL OTHER BUNDLES	63	--		--	--		166	--		999
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)	5,441	--		1,507	--		6,941	60		5,671
RAILROAD RAILS	--	--		--	--		10	--		219
TURNINGS AND BORINGS	6,183	876		2,086	--		7,740	553		5,297
SLAG SCRAP (FE CONTENT 70 PERCENT)	--	--		419	--		350	14		97
SHREDDER OR FRAGMENTIZED	4,886	1,871		--	--		8,871	--		3,446
NO. 1 BUSHING	4,753	913		1,035	--		5,331	--		6,163
ALL OTHER CARBON STEEL SCRAP	39,054	2,854		30,076	1,338		75,161	--		42,328
STAINLESS STEEL SCRAP-										
ALLOY STEEL (EXCEPT STAINLESS)	2,315	437		2,541	--		4,732	288		4,834
INGOT MOLD AND STOK SCRAP	6,064	862		9,004	--		13,088	--		20,744
MACHINERY AND CUPOLA CAST IRON	519	--		--	--		451	4		582
CAST IRON BORINGS	564	--		623	--		1,270	--		2,154
MOTOR BLOCKS	5,153	--		5,350	--		10,305	57		4,876
OTHER IRON SCRAP	129	--		--	--		74	--		186
OTHER MIXED SCRAP	2,589	--		6,382	4		8,776	203		21,058
	3	--		293	--		292	--		9
TOTAL SCRAP	174,102	10,259		87,412	1,395		263,892	2,425		248,400
TOTAL SCRAP THROUGH OCTOBER 1977	1,540,283	99,886		828,317	12,061		2,448,706	16,386		240,400
PIG IRON										
	RECEIPTS			PRODUCTION			CONSUMPTION			STOCKS
	3,806	--		--	--		4,062	--		6,174
PIG IRON THROUGH OCTOBER 1977	37,202	--		--	--		86,711	47		6,174

1/ EXCLUDES COMPANIES THAT PRODUCE BOTH STEEL INGOTS AND CASTINGS.

2/ BASED ON RETURNS FROM 84% OF REPORTING CONSUMERS, REPRESENTING 93% OF SCRAP CONSUMPTION.

TABLE 8J - IRON FOUNDRIES AND MISCELLANEOUS USERS - RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF PIG IRON AND STEEL SCRAP, BY GRADE, OCTOBER 1977 (FINAL) 1/ (SHORT TONS)

ITEM	RECEIPTS OF SCRAP			PRODUCTION OF HOME SCRAP			CONSUMPTION			ENDING STOCKS
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP	RECYCLATING SCRAP (INCLUDES INGOT CHASED AND MOLDING STOKS, HOME SCRAP FROM AND SCRAP FROM (INCLUDES RE- SHIPMENTS OF SCRAP
SCRAP:										
CARBON STEEL-										
LOW-PHOSPHORUS PLATE AND PUNCHINGS--	65,112	8,592	6,711	32	81,278	348	61,357			
CUT STRUCTURAL AND PLATE--	130,812	11,869	14,948	96	164,864	421	106,795			
NO.1 HEAVY MELTING STEEL--	37,952	10,428	7,736	--	37,918	5,783	57,827			
NO.2 HEAVY MELTING STEEL--	4,789	434	1,756	90	6,973	65	12,535			
NO.1 AND ELECTRIC FURNACE BUNDLES--	13,662	19,367	5,771	49	37,363	--	14,991			
NO.2 AND ALL OTHER BUNDLES--	69,757	17,085	--	--	75,342	--	51,953			
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)--	5,975	--	1,473	--	5,936	--	6,249			
RAILROAD RAILS--	8,422	--	24	--	9,193	24	13,037			
TURNINGS AND BORINGS--	57,511	11,675	1,399	51	63,631	2,651	102,068			
SLAG SCRAP (FE CONTENT 70 PERCENT)--	4,171	2,800	63	--	7,854	63	30,839			
SHREDDER OR FRAGMENTIZED--	64,188	10,867	--	--	79,616	179	70,031			
NO. 1 BUSHING--	40,068	12,947	1,102	--	49,553	--	17,995			
ALL OTHER CARBON STEEL SCRAP--	93,705	82,784	14,225	7	181,886	1,497	138,747			
STAINLESS STEEL SCRAP--	374	220	712	--	996	36	9,044			
ALLOY STEEL (EXCEPT STAINLESS)--	8,025	1	273	41	9,996	39	5,451			
INGOT MOLD AND STUOL SCRAP--	8,846	--	11,078	397	22,929	762	22,732			
MACHINERY AND CUPOLA CAST IRON --	73,594	13,649	78,424	123	161,681	849	91,223			
CAST IRON BORINGS--	50,229	72,614	45,786	19	160,098	4,675	100,928			
MOTOR BLOCKS--	60,730	14,020	40,407	--	104,581	--	62,320			
OTHER IRON SCRAP--	90,959	10,594	298,296	10,358	409,112	9,328	172,177			
OTHER MIXED SCRAP--	37,539	80,129	31,260	239	150,913	270	41,988			
TOTAL SCRAP--	926,420	879,195	561,444	11,502	1,821,773	26,990	1,189,867			
TOTAL SCRAP THROUGH OCTOBER 1977--	8,813,868	3,282,556	5,092,337	92,429	16,858,599	262,056	1,189,867			
PIG IRON--	221,996	--	--	--	225,361	409	116,093			
PIG IRON THROUGH OCTOBER 1977--	2,231,405	--	--	--	2,230,085	4,359	116,093			
1/ BASED ON RETURNS FROM 79% OF REPORTING CONSUMERS, REPRESENTING 94% OF SCRAP CONSUMPTION.										

TABLE 9. - CONSUMPTION OF IRON AND STEEL SCRAP AND PIG IRON IN THE UNITED STATES
IN OCTOBER 1977 (FINAL), BY TYPE OF CONSUMER AND TYPE OF FURNACE OR OTHER USE
(SHORT TONS)

TYPE OF FURNACE OR OTHER USE	MANUFACTURERS OF PIG IRON AND STEEL INGOTS AND CASTINGS 1/		MANUFACTURERS OF STEEL CASTINGS 2/		IRON FOUNDRIES AND MISCELLANEOUS USERS		TOTAL ALL TYPES	
	SCRAP	PIG IRON	SCRAP	PIG IRON	SCRAP	PIG IRON	SCRAP	PIG IRON
BLAST FURNACE 3/-	314,656	--	--	--	--	--	314,656	--
BASIC OXYGEN PROCESS 4/-	2,112,811	5,364,622	--	--	--	--	2,112,811	5,364,622
OPEN-HEARTH FURNACE	842,391	912,338	5,367	473	--	--	847,758	912,811
ELECTRIC FURNACE	2,486,887	55,075	239,756	3,151	521,201	24,736	3,247,844	82,962
CUPOLA FURNACE	29,829	10,045	16,496	67	1,258,330	87,679	1,304,655	97,791
OTHER (INCLUDING AIR FURNACE) 5/	113,140	34,413	2,273	371	42,182	3,088	157,595	37,872
DIRECT CASTINGS 6/-	--	147,406	--	--	--	109,858	--	257,264
TOTAL	5,899,714	6,523,899	263,892	4,062	1,821,713	225,361	7,985,319	6,753,322

1/ INCLUDES ONLY THOSE CASTINGS MADE BY COMPANIES PRODUCING STEEL INGOTS.

2/ EXCLUDES COMPANIES THAT PRODUCE BOTH STEEL INGOTS AND STEEL CASTINGS.

3/ INCLUDES CONSUMPTION IN ALL BLAST FURNACES PRODUCING PIG IRON.

4/ INCLUDES SCRAP AND PIG IRON PROCESSED IN METALLURGICAL BLAST CUPOLAS AND USED IN OXYGEN CONVERTERS.

5/ INCLUDES VACUUM MELTING FURNACES AND MISCELLANEOUS USES.

6/ INCLUDES INGOT MOLDS AND STOOLES.

FOREIGN TRADE

Exports of iron and steel scrap totaled 440,495 short tons in November compared with 426,087 tons in October. Exports of pig iron during November totaled 1,536 tons and 2,018 tons in October. Imports of scrap totaled 38,726 short tons in November compared with 40,419 tons in October. Of the scrap imported during November 38,338 short tons came from Canada and 388 tons from other sources. Imports of pig iron totaled 48,297 short tons in November and 53,625 tons in October. In addition to the foregoing imports of pig iron during November, there were 176 tons of sponge iron, valued at \$104,488 imported, all of which came from Canada.

Table 10. - U.S. exports of iron and steel scrap,^{1/} by country

Country	November 1977		Year to date	
	Short tons	Value	Short tons	Value
Argentina-----	30,137	\$1,772,801	110,880	\$6,569,378
Canada-----	43,655	1,960,265	498,889	22,823,118
China, People's Rep. of----	--	--	--	--
Greece-----	36,646	1,847,595	267,697	15,982,517
Italy-----	22,316	1,115,844	208,206	18,373,921
Japan-----	90,378	4,742,350	898,304	55,020,040
Korea, Rep. of-----	53,272	3,047,406	1,360,118	84,103,797
Mexico-----	29,308	1,955,665	300,213	21,281,754
Pakistan-----	--	--	54,245	3,415,493
Spain-----	66,857	3,581,994	740,047	45,183,324
Sweden-----	--	--	1,751	1,399,137
Taiwan-----	11,659	852,388	394,295	31,692,853
Turkey-----	46,680	2,397,925	293,749	19,275,209
United Kingdom-----	126	6,047	50,618	5,946,646
Other countries-----	9,461	1,662,446	226,824	23,590,598
Total-----	440,495	24,942,726	5,405,836	354,657,785

^{1/} Excludes ships, boats, and other vessels for breaking up (for scrapping) which was included in 1965-1970 figures.

Table 11. - U.S. exports of iron and steel scrap, by grade

Grade of scrap	November 1977		Year to date	
	Short tons	Value	Short tons	Value
No. 1 heavy melting steel scrap-----	100,818	\$5,747,912	1,649,472	\$101,722,073
No. 2 heavy melting steel scrap-----	25,194	1,287,316	547,502	31,493,573
No. 1 bundles-----	--	--	101,990	2,419,076
No. 2 bundles-----	24,487	857,704	317,050	13,818,984
Borings, shovelings and turnings-----	57,361	2,294,756	424,889	16,506,976
Stainless steel-----	4,938	1,959,058	69,613	34,664,449
Shredded steel scrap-----	154,358	8,402,581	1,440,716	88,806,479
Iron scrap (excluding borings and shovelings)---	19,718	1,242,797	303,337	20,008,848
All other steel scrap ^{1/} ----	53,621	3,150,602	551,267	45,217,327
Total-----	440,495	24,942,726	5,405,836	354,657,785
Ships, boats, and other vessels for breaking up (for scrapping)-----	6,115	492,503	34,540	2,612,680
Total	446,610	25,435,229	5,440,376	357,270,465

^{1/} Includes tinplate and terneplate.