



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 1976

Returns from 76% of reporting consumers representing 95% 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 5% and 1%, respectively, and stocks at the end of the month were essentially unchanged.

Exports of ferrous scrap during the month were 11% below those for October 1976 and 24% below those for November 1975. Japan was the largest importer of U.S. scrap, taking 17% of the total exported in November 1976. The next largest importers were the Republic of Korea and Spain, which received 16% and 13%, respectively.

The Iron Age composite price for No. 1 heavy melting steel scrap (Chicago, Pittsburgh, and Philadelphia) at the end of November was \$64.17 per long ton, up 10% from the price of \$58.50 at the end of November 1975.

Pig iron production and consumption on a daily average basis during the month were both down 5% from those of the previous month. Stocks of pig iron were essentially unchanged during November compared with those at the end of October 1976.

The recycling industry was temporarily exempted from a freight rate increase of 4% granted on December 22 by the Interstate Commerce Commission to the Nation's railroads. The rate increases on commodities shipped for the purpose of recycling will be held in abeyance until completion of the Commission's investigation of freight rates under Ex Parte 319 in February.

Prepared in the Division of Ferrous Metals, January 26, 1977.

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 1976 (PRELIMINARY) 1/						

	MFRS. OF	MFRS. OF	IRON FOUNDRIES	TOTAL FOR	FINAL	
	PIG IRON AND	STEEL	AND MISCEL-	MONTH OF	TOTAL FOR	TOTAL YEAR
	6 CASTINGS 2/	CASTINGS 3/	LANEOUS 3/	NOV 1976	OCT 1976 4/	THROUGH

SCRAP:						
RECEIPTS FROM DEALERS AND OTHER SOURCES	1,809,352	152,604	825,658	2,787,614	2,932,907	34,780,967
RECEIPTS FROM OTHER OWN COMPANY PLANTS	486,636	8,244	311,179	806,059	804,892	9,166,700
PRODUCTION RECIRCULATING SCRAP	2,982,747	80,134	447,394	3,510,275	3,803,710	43,950,757
PRODUCTION OBSOLETE SCRAP	277,804	739	3,516	282,059	309,595	2,442,886
CONSUMPTION	5,082,709	231,341	1,569,529	6,883,579	7,344,670	83,327,975
SHIPMENTS	457,633	2,157	31,337	491,127	490,458	5,737,939
STOCKS END OF MONTH	8,541,739	251,083	1,100,267	9,893,089	9,927,659	--

PIG IRON:						
RECEIPTS	458,409	4,059	185,942	648,410	571,914	7,674,704
PRODUCTION	6,384,352	--	--	6,384,352	6,970,930	80,374,194
CONSUMPTION	6,205,664	3,665	193,149	6,402,478	6,997,501	80,659,535
SHIPMENTS	626,299	8	839	627,146	559,305	7,359,931
STOCKS END OF MONTH	1,361,171	7,137	122,599	1,490,907	1,485,918	--

DIRECT-REDUCED OR PREREDUCED IRON:						
RECEIPTS	--	--	--	31,327	37,156	337,581
PRODUCTION	--	--	--	--	--	--
CONSUMPTION	--	--	--	31,260	36,583	332,780
SHIPMENTS	--	--	--	--	--	--
STOCKS END OF MONTH	--	--	--	4,420	4,625	--

1/ BASED ON RETURNS FROM 76% OF REPORTING CONSUMERS, REPRESENTING 95% 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 84% OF REPORTING CONSUMERS, REPRESENTING 98% 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 1976 (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	RECYCLATING SCRAP (INCLUDES INGOT MOLD, STOOLES, HOME SCRAP AND SCRAP FROM CURRENT OPERATIONS BUILDINGS, ETC.)	SCRAP (INCLUDES INGOT MOLD, STOOLES, HOME SCRAP AND SCRAP FROM OLD EQUIPMENT, CIRCULATING BUILDINGS, ETC.)	OF BOTH PURCHASED AND	SHIPMENTS	
SCRAP:							
CARBON STEEL-							
LOW-PHOSPHORUS PLATE AND PUNCHINGS	61,713	1,430	12,139	105	89,484	1,139	134,781
CUT STRUCTURAL AND PLATE	20,484	--	14,489	294	37,917	3,005	32,603
NO.1 HEAVY MELTING STEEL	341,016	229,856	1,322,571	7,563	1,703,982	253,023	2,555,072
NO.2 HEAVY MELTING STEEL	143,826	10,363	99,098	108	257,479	9,024	562,487
NO.1 AND ELECTRIC FURNACE BUNDLES	500,514	49,641	215,934	252	711,834	1,403	1,582,510
NO.2 AND ALL OTHER BUNDLES	132,187	27,559	9,737	--	176,293	10,604	374,066
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)	10,246	--	4,496	--	10,384	--	31,816
RAILROAD RAILS	8,266	--	--	--	5,547	--	9,444
TURNINGS AND BORINGS	72,547	4,781	26,780	84	99,905	4,797	108,028
SLAG SCRAP (FE CONTENT 70 PERCENT)	96,552	7,932	236,254	--	307,695	5,487	302,010
SHREDDER OR FRAGMENTIZED	91,319	41,934	--	--	144,142	1,213	168,174
ALL OTHER CARBON STEEL SCRAP	195,688	14,995	711,759	116,203	960,010	70,274	957,445
STAINLESS STEEL SCRAP							
ALLOY STEEL (EXCEPT STAINLESS)	26,136	3,251	49,126	12	86,721	2,917	98,009
INGOT MOLD AND STUOL SCRAP	11,377	17,354	122,028	448	133,951	7,505	282,649
MACHINERY AND CUPOLA CAST IRON	38,601	52,624	68,156	146,370	231,401	45,766	1,041,890
CAST IRON BORINGS	293	--	--	--	1,171	--	5,069
MOTOR BLOCKS	14,290	9,605	22,902	4,077	40,413	4,406	76,472
OTHER IRON SCRAP	628	--	--	--	352	--	537
OTHER MIXED SCRAP	27,992	10,335	52,899	2,280	56,594	28,804	135,279
	15,677	4,976	14,379	8	27,434	8,266	83,398
TOTAL SCRAP	1,809,352	486,636	2,982,747	277,804	5,082,709	457,633	8,541,739
TOTAL SCRAP THROUGH NOVEMBER 1976	24,016,447	5,618,136	37,956,373	2,400,203	63,484,292	5,388,708	8,541,739
PIG IRON							
	458,409		6,384,352		6,205,664	626,299	1,361,171
PIG IRON THROUGH NOVEMBER 1976	5,063,304		80,374,194		78,022,857	7,351,188	1,361,171

1/ INCLUDES ONLY THOSE MANUFACTURERS OF STEEL CASTINGS THAT ALSO PRODUCE INGOTS.
2/ BASED ON RETURNS FROM 92% OF REPORTING CONSUMERS, REPRESENTING 99% 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 1976 (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	FROM SCRAP RESULTING FROM CURRENT OPERATIONS	RECYCLING OBSOLETE SCRAP (INCLUDES INGOT AND SCRAP FROM OLD EQUIPMENT, BUILDINGS, ETC.)	SCRAP (INCLUDES INGOT AND SCRAP FROM OLD EQUIPMENT, BUILDINGS, ETC.)	HOME SCRAP (INCLUDES RE-SCRAP)	SHIPMENTS OF SCRAP						
SCRAP:													
CARBON STEEL-													
LOW-PHOSPHORUS PLATE AND PUNCHINGS---													
CUT STRUCTURAL AND PLATE-----	49,988	565	14,768	122	61,161	6	81,980						
NO.1 HEAVY MELTING STEEL-----	15,943	1,561	1,436	--	18,438	60	20,941						
NO.2 HEAVY MELTING STEEL-----	8,509	283	5,525	--	17,801	--	29,929						
NO.1 AND ELECTRIC FURNACE BUNDLES---	3,772	--	1,201	--	4,320	--	3,723						
NO.2 AND ALL OTHER BUNDLES-----	3,901	--	--	--	4,004	--	3,723						
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)-----	241	--	--	--	127	--	518						
RAILROAD RAILS-----	5,006	36	921	--	5,699	70	4,835						
TURNINGS AND BORINGS-----	23	--	--	--	14	--	136						
SLAG SCRAP (FE CONTENT 70 PERCENT)---	5,483	594	2,142	--	6,554	748	5,770						
SHREDDED OR FRAGMENTIZED-----	362	--	442	--	820	16	29						
ALL OTHER CARBON STEEL SCRAP-----	6,767	1,336	--	--	8,220	--	7,554						
	37,673	2,257	27,022	614	66,262	325	38,590						
STAINLESS STEEL SCRAP-----													
ALLOY STEEL (EXCEPT STAINLESS)---	1,486	419	2,139	--	3,906	250	5,386						
INGOT MOLD AND STUOL SCRAP-----	5,054	797	11,449	--	13,175	--	20,600						
MACHINERY AND CUPOLA CAST IRON ---	518	--	16	--	440	--	760						
CAST IRON BORINGS-----	964	386	926	--	1,566	392	2,402						
MOTOR BLOCKS-----	4,144	--	5,754	--	9,961	--	3,321						
OTHER IRON SCRAP-----	115	--	--	--	70	--	234						
OTHER MIXED SCRAP-----	2,588	10	6,096	3	8,475	290	20,593						
	67	--	297	--	328	--	59						
TOTAL SCRAP-----	152,604	8,244	80,134	739	231,341	2,157	251,083						
TOTAL SCRAP THROUGH NOVEMBER 1976---	1,665,650	96,345	900,508	13,667	2,619,323	38,191	251,083						
PIG IRON-----													
	4,059	--	--	--	3,665	8	7,137						
PIG IRON THROUGH NOVEMBER 1976-----													
	43,189	--	--	--	43,693	118	7,137						

1/ EXCLUDES COMPANIES THAT PRODUCE BOTH STEEL INGOTS AND CASTINGS.
2/ BASED ON RETURNS FROM 77% OF REPORTING CONSUMERS, REPRESENTING 84% 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 1976 (PRELIMINARY) 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	RECYCLING SCRAP (INCLUDES INGOT RESULTING FROM CURRENT OPERATIONS BUILDINGS, ETC.)	RECYCLING SCRAP (INCLUDES INGOT MOLD, STOOLES, HOME SCRAP AND SCRAP FROM OLD EQUIPMENT, CIRCULATING OF SCRAP BUILDINGS, ETC.)	RECYCLING SCRAP (INCLUDES INGOT MOLD, STOOLES, HOME SCRAP AND SCRAP FROM OLD EQUIPMENT, CIRCULATING OF SCRAP BUILDINGS, ETC.)	RECYCLING SCRAP (INCLUDES INGOT MOLD, STOOLES, HOME SCRAP AND SCRAP FROM OLD EQUIPMENT, CIRCULATING OF SCRAP BUILDINGS, ETC.)	RECYCLING SCRAP (INCLUDES INGOT MOLD, STOOLES, HOME SCRAP AND SCRAP FROM OLD EQUIPMENT, CIRCULATING OF SCRAP BUILDINGS, ETC.)	RECYCLING SCRAP (INCLUDES INGOT MOLD, STOOLES, HOME SCRAP AND SCRAP FROM OLD EQUIPMENT, CIRCULATING OF SCRAP BUILDINGS, ETC.)		
SCRAP:										
CARBON STEEL-										
LOW-PHOSPHORUS PLATE AND PUNCHINGS----	61,273	11,621	7,815	11	75,232	404	69,015			
CUT STRUCTURAL AND PLATE-----	113,866	8,482	9,073	281	132,928	436	100,158			
NO.1 HEAVY MELTING STEEL-----	16,638	9,122	4,967	2	32,033	7,793	62,828			
NO.2 HEAVY MELTING STEEL-----	3,709	386	1,112	13	10,201	21	5,562			
NO.1 AND ELECTRIC FURNACE BUNDLES----	12,628	21,202	3,392	49	35,588	--	12,235			
NO.2 AND ALL OTHER BUNDLES-----	45,596	12,824	584	--	54,633	--	34,079			
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)-----	35,002	7,727	1,166	--	42,804	--	12,517			
RAILROAD RAILS-----	10,032	--	24	--	9,454	24	11,249			
TURNINGS AND BORINGS-----	59,937	12,236	1,247	207	61,586	4,071	110,086			
SLAG SCRAP (FE CONTENT 70 PERCENT)----	3,449	--	54	--	3,880	54	8,066			
SHREDDED OR FRAGMENTIZED-----	66,907	10,590	100	--	74,711	--	36,281			
ALL OTHER CARBON STEEL SCRAP-----	83,449	68,894	10,387	297	164,857	3,868	125,308			
STAINLESS STEEL SCRAP-----	87	--	497	2	528	--	4,154			
ALLOY STEEL (EXCEPT STAINLESS)-----	4,221	831	590	87	6,351	122	14,131			
INGOT MOLD AND STUOL SCRAP-----	17,620	--	2,302	387	21,933	419	27,200			
MACHINERY AND CUPOLA CAST IRON -----	62,610	12,665	54,836	203	133,692	1,968	86,791			
CAST IRON BORINGS-----	64,905	45,571	21,394	30	117,322	3,605	99,028			
MOTOR BLOCKS-----	48,692	4,149	42,322	--	101,855	--	58,421			
OTHER IRON SCRAP-----	78,389	15,983	264,890	498	358,585	8,350	180,554			
OTHER MIXED SCRAP-----	36,648	68,896	20,842	1,449	131,356	202	42,604			
TOTAL SCRAP-----	825,658	311,179	447,394	3,516	1,569,529	31,337	1,100,267			
TOTAL SCRAP THROUGH NOVEMBER 1976----	9,098,870	3,452,219	5,099,876	29,016	17,224,360	311,040	1,100,267			
PIG IRON-----										
PIG IRON THROUGH NOVEMBER 1976-----										
1/ BASED ON RETURNS FROM 72% OF REPORTING CONSUMERS, REPRESENTING 84% OF SCRAP CONSUMPTION.										

TABLE 5. - CONSUMPTION OF IRON AND STEEL SCRAP AND PIG IRON IN THE UNITED STATES
IN NOVEMBER 1976 (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	
BLAST FURNACE 3/-	293,820	--	--	--	--	--	--	--	--	--	--	--	293,820	--
BASIC OXYGEN PROCESS 4/-	1,975,941	5,027,563	--	--	--	--	--	--	--	--	--	--	1,975,941	5,027,563
OPEN-HEARTH FURNACE	767,594	936,859	--	--	7,296	470	--	--	--	--	--	--	774,890	937,329
ELECTRIC FURNACE	1,949,636	47,848	--	--	210,012	2,922	--	--	413,745	18,578	--	--	2,573,393	69,348
CUPOLA FURNACE	30,418	17,872	--	--	12,319	46	--	--	1,096,445	80,338	--	--	1,139,182	98,256
OTHER (INCLUDING AIR FURNACE) 5/	65,300	18,438	--	--	1,714	227	--	--	59,339	3,152	--	--	126,353	21,817
DIRECT CASTINGS 6/-	--	157,084	--	--	--	--	--	--	--	--	91,081	--	--	248,165
TOTAL	5,082,709	6,205,664	231,341	3,665	1,569,520	193,149	6,883,579	6,402,478						

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 1976 (FINAL) 2/ (SHORT TONS)

ITEM	RECEIPTS OF SCRAP		PRODUCTION OF HOME SCRAP		CONSUMPTION OF BOTH PURCHASED AND RECYCLED SCRAP		ENDING STOCKS
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS	FROM SCRAP RESULTING FROM CURRENT OPERATIONS	FROM OBSOLETE SCRAP (INCLUDES INGOTS, MOLDS, STOKES, HOME SCRAP AND SCRAP FROM OLD EQUIPMENT, CIRCULATING BUILDINGS, ETC.)	FROM PURCHASED SCRAP	FROM RECYCLED SCRAP (INCLUDES RECYCLED SCRAP, OLD EQUIPMENT, CIRCULATING BUILDINGS, ETC.)	
SCRAP:							
CARBON STEEL--							
LOW-PHOSPHORUS PLATE AND PUNCHINGS----	70,646	654	12,265	172	86,372	1,179	150,775
CUT STRUCTURAL AND PLATE-----	20,573	--	14,667	464	31,506	3,554	38,144
NO.1 HEAVY MELTING STEEL-----	439,412	259,468	1,477,125	7,718	1,885,760	249,849	2,596,143
NO.2 HEAVY MELTING STEEL-----	180,856	3,770	102,960	164	287,731	8,201	374,414
NO.1 AND ELECTRIC FURNACE BUNDLES----	447,111	43,295	241,308	358	754,443	903	1,258,949
NO.2 AND ALL OTHER BUNDLES-----	130,863	5,288	28,094	--	183,055	14,559	392,178
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)-----	9,426	--	5,308	--	13,081	--	32,299
RAILROAD RAILS-----	6,338	--	--	--	4,956	--	6,724
TURNINGS AND BORINGS-----	78,969	7,497	29,274	88	108,807	5,499	106,296
SLAG SCRAP (FE CONTENT 70 PERCENT)----	99,213	22,416	224,298	--	328,073	8,184	274,246
SHREDDED OR FRAGMENTIZED-----	110,030	46,259	614	--	179,587	3,617	188,013
ALL OTHER CARBON STEEL SCRAP-----	206,576	10,997	791,141	114,871	1,023,535	71,125	963,274
STAINLESS STEEL SCRAP-----	31,115	2,973	47,544	22	70,322	2,916	112,449
ALLOY STEEL (EXCEPT STAINLESS)-----	12,585	18,423	133,665	1,432	152,743	8,973	272,999
INGOT MOLD AND STOK SCRAP-----	18,522	51,478	63,221	177,960	267,749	43,246	1,013,197
MACHINERY AND CUPOLA CAST IRON -----	130	--	--	--	1,724	--	5,947
CAST IRON BORINGS-----	10,252	5,771	24,951	917	44,552	5,396	70,768
MOTOR BLOCKS-----	823	--	--	--	815	41	261
OTHER IRON SCRAP-----	35,482	7,041	44,995	948	62,487	25,256	126,914
OTHER MIXED SCRAP-----	18,567	6,008	18,740	867	29,817	9,956	83,806
TOTAL SCRAP-----	1,927,489	491,338	3,260,170	305,981	5,517,115	462,454	8,567,796
TOTAL SCRAP THROUGH OCTOBER 1976----	22,207,095	5,131,500	34,973,626	2,122,399	58,401,583	4,931,075	8,567,796
PIG IRON-----	347,787		6,970,930		6,768,551	558,472	1,351,257
PIG IRON THROUGH OCTOBER 1976-----	4,604,895		73,989,842		71,817,193	6,724,889	1,351,257

1/ INCLUDES ONLY THOSE MANUFACTURERS OF STEEL CASTINGS THAT ALSO PRODUCE INGOTS.
2/ BASED ON RETURNS FROM 94% 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 1976 (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 SCRAP RESULTING FROM CURRENT OPERATIONS	FROM RECYCLATING OBSOLETE SCRAP (INCLUDES INGOT MOLDS, STTOOLS, HOME SCRAP AND SCRAP FROM (INCLUDES RE-OLD EQUIPMENT, CIRCULATING BUILDINGS, ETC.) SCRAP)	224	16,037	1,816	6,224	1,079	66,407	18,685	20,745		5,162	3,485	348	5,469	19	6,745	1,350	9,128	66,820	3,953	14,171	402	1,735	8,706	75	9,981	360	2,240	36,034	246,284
SCRAP:																																	
CARBON STEEL-																																	
LOW-PHOSPHORUS PLATE AND PUNCHINGS	55,423	506																															
CUT STRUCTURAL AND PLATE	13,175	1,925																															
NO.1 HEAVY MELTING STEEL	12,050	359																															
NO.2 HEAVY MELTING STEEL	4,623																																
NO.1 AND ELECTRIC FURNACE BUNDLES	3,060																																
NO.2 AND ALL OTHER BUNDLES	335																																
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)	4,607	71																															
RAILROAD RAILS																																	
TURNINGS AND BORINGS	5,136	896																															
SLAG SCRAP (FE CONTENT 70 PERCENT)	419																																
SHREDDED OR FRAGMENTIZED	6,339	1,765																															
ALL OTHER CARBON STEEL SCRAP	32,715	1,996																															
STAINLESS STEEL SCRAP	1,759	453																															
ALLOY STEEL (EXCEPT STAINLESS)	3,840	834																															
INGOT MOLD AND STUOL SCRAP	359																																
MACHINERY AND CUPOLA CAST IRON	1,291																																
CAST IRON BORINGS	3,559																																
MOTOR BLOCKS	57																																
OTHER IRON SCRAP	1,731	185																															
OTHER MIXED SCRAP	25																																
TOTAL SCRAP	150,503	8,990																															
TOTAL SCRAP THROUGH OCTOBER 1976	1,913,046	88,101																															
PIG IRON																																	
	3,687																																
PIG IRON THROUGH OCTOBER 1976	39,130																																
1/ EXCLUDES COMPANIES THAT PRODUCE BOTH STEEL INGOTS AND CASTINGS.																																	
2/ BASED ON RETURNS FROM 87% OF REPORTING CONSUMERS, REPRESENTING 94% OF SCRAP CONSUMPTION.																																	

TABLE 8. - IRON FOUNDRIES AND MISCELLANEOUS USERS - RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF PIG IRON AND IRON AND STEEL SCRAP, BY GRADE, OCTOBER 1976 (FINAL) 1/ (SHORT TONS)

ITEM	RECEIPTS OF SCRAP			PRODUCTION OF HOME SCRAP			CONSUMPTION OF BOTH PURCHASED AND HOME SCRAP			ENDING STOCKS
	FROM BROKERS, DEALERS AND OTHER OUTSIDE SOURCES	FROM OTHER OWN COMPANY PLANTS	FROM SCRAP RESULTING FROM CURRENT OPERATIONS (BUILDINGS, ETC.)	RECYCLING OBSOLETE SCRAP (INCLUDES INGOT MOLD, STOKES, AND SCRAP FROM OLD EQUIPMENT, CIRCULATING SCRAP)	CHASED AND HOME SCRAP	SHIPMENTS OF SCRAP	CONSUMPTION OF BOTH PURCHASED AND HOME SCRAP			
SCRAP:										
CARBON STEEL--										
LOW-PHOSPHORUS PLATE AND PUNCHINGS----										
CUT STRUCTURAL AND PLATE-----	56,424	9,864	8,207	10	73,919	397	73,919	64,472		
NO.1 HEAVY MELTING STEEL-----	105,709	2,798	8,628	33	119,346	657	119,346	102,983		
NO.2 HEAVY MELTING STEEL-----	28,844	10,784	8,319	--	29,068	3,813	29,068	71,856		
NO.1 AND ELECTRIC FURNACE BUNDLES----	4,383	506	1,498	13	11,804	69	11,804	10,562		
NO.2 AND ALL OTHER BUNDLES-----	12,349	17,132	3,425	49	35,415	--	35,415	10,594		
ELECTRIC FURNACE 1 FOOT AND UNDER (NOT BUNDLES)-----	25,344	11,211	1,132	--	37,727	--	37,727	23,672		
RAILROAD RAILS-----	31,641	9,477	1,075	--	43,834	--	43,834	11,659		
TURNINGS AND BORINGS-----	10,306	--	24	--	10,281	27	10,281	10,508		
SLAG SCRAP (FE CONTENT 70 PERCENT)---	60,076	12,121	1,367	191	65,835	1,322	65,835	102,670		
SHREDDED OR FRAGMENTIZED-----	3,797	--	94	--	3,711	54	3,711	8,438		
ALL OTHER CARBON STEEL SCRAP-----	56,692	9,511	--	--	63,735	--	63,735	32,625		
	94,677	83,976	11,537	297	185,291	999	185,291	129,898		
STAINLESS STEEL SCRAP-----										
ALLOY STEEL (EXCEPT STAINLESS)-----	77	--	320	2	388	31	388	4,092		
INGOT MOLD AND STOKES SCRAP-----	3,730	8	682	74	6,641	281	6,641	14,985		
MACHINERY AND CUPOLA CAST IRON -----	11,594	--	12,285	509	23,632	1,058	23,632	28,077		
CAST IRON BORINGS-----	89,482	13,503	51,148	623	154,885	429	154,885	96,941		
MOTOR BLOCKS-----	66,764	35,673	24,106	48	120,518	4,256	120,518	90,595		
OTHER IRON SCRAP-----	59,749	2,758	26,743	--	91,820	--	91,820	63,901		
OTHER MIXED SCRAP-----	96,055	7,890	273,336	680	363,398	12,106	363,398	188,862		
	37,522	81,355	23,923	261	142,961	265	142,961	46,189		
TOTAL SCRAP-----	854,915	304,564	437,729	2,810	1,583,809	25,764	1,583,809	1,113,579		
TOTAL SCRAP THROUGH OCTOBER 1976----	8,273,212	3,141,040	4,646,482	25,500	15,854,831	279,703	15,854,831	1,113,579		
	RECEIPTS			PRODUCTION			CONSUMPTION			STOCKS
PIG IRON-----	220,440			--			224,900			128,002
PIG IRON THROUGH OCTOBER 1976-----	2,382,169			--			2,399,836			128,002
1/ BASED ON RETURNS FROM 81% 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 1976 (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	
BLAST FURNACE 3/	269,873	--	5,257,102	--	--	--	--	--	269,873	--
BASIC OXYGEN PROCESS 4/	2,053,485	--	1,251,869	--	--	--	--	--	2,053,485	5,257,102
OPEN-HEARTH FURNACE	1,011,643	--	55,708	--	8,252	598	--	--	1,019,895	1,252,467
ELECTRIC FURNACE	2,071,359	--	19,736	--	222,120	3,110	419,792	19,088	2,713,361	77,906
CUPOLA FURNACE	29,407	--	23,800	--	10,920	32	1,100,961	86,014	1,141,288	105,782
OTHER (INCLUDING AIR FURNACE) 5/	81,348	--	160,336	--	2,364	310	63,056	3,597	146,768	27,707
DIRECT CASTINGS 6/	--	--	--	--	--	--	116,201	--	--	276,537
TOTAL	5,517,115	6,768,551	248,746	4,090	1,583,809	224,900	7,344,670	6,997,501		

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 536,664 short tons in November compared with 604,500 tons in October. Exports of pig iron during November totaled 5,725 tons and 3,994 tons in October. Imports of scrap totaled 49,717 short tons in November compared with 26,475 tons in October. Of the scrap imported during November, 49,018 short tons came from Canada and 699 tons from other sources. Imports of pig iron totaled 22,660 short tons in November and 22,127 tons in October. No sponge iron was imported during November.

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

Country	November 1976		Year to date	
	Short tons	Value	Short tons	Value
Argentina-----	24,007	\$1,765,479	39,998	\$3,247,299
Canada-----	60,899	2,851,676	835,895	45,762,336
China, People's Rep. of.---	--	--	51,413	4,192,618
Greece-----	38,197	2,605,736	219,278	17,068,553
Italy-----	32,989	5,688,526	716,830	63,630,245
Japan-----	92,441	7,156,103	1,058,567	79,761,269
Korea, Republic of-----	87,305	6,259,861	835,479	57,485,425
Mexico-----	19,949	1,418,452	522,660	41,288,095
Spain-----	70,625	4,331,497	1,766,325	127,582,501
Sweden-----	2,657	1,226,791	53,974	6,531,569
Taiwan-----	28,955	2,460,145	203,791	18,756,503
United Kingdom-----	28,109	2,497,168	492,290	44,091,531
Other countries-----	50,531	5,749,778	451,070	47,070,381
Total-----	536,664	44,011,212	7,247,570	556,468,325

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 1976		Year to date	
	Short tons	Value	Short tons	Value
No. 1 heavy melting steel scrap-----	131,207	\$9,312,911	1,821,987	\$135,265,305
No. 2 heavy melting steel scrap-----	68,072	4,321,738	617,859	41,225,837
No. 1 bundles-----	880	43,030	91,645	7,494,858
No. 2 bundles-----	32,188	1,635,338	796,472	45,409,531
Borings, shovelings and turnings-----	75,300	3,710,065	614,352	31,293,787
Stainless steel-----	18,444	9,707,743	99,550	45,955,177
Shredded steel scrap-----	125,385	8,834,644	2,040,378	155,660,339
Iron scrap (excluding borings and shovelings)---	35,636	2,465,093	452,658	32,610,362
All other steel scrap <u>1/</u> ----	49,552	3,980,650	712,669	61,553,129
Total-----	536,664	44,011,212	7,247,570	556,468,325
Ships, boats, and other vessels for breaking up (for scrapping)-----	--	--	49,668	2,278,419
Total-----	536,664	44,011,212	7,297,238	558,746,744

1/ Includes tinplate and terneplate.