

Mineral Industry Surveys

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IRON AND STEEL SCRAP IN OCTOBER 2022

In October 2022, purchased steel scrap receipts decreased by 6%, recirculating scrap production decreased by 8%, and iron and steel scrap consumption decreased by 5% compared with those in September 2022. Stocks of purchased and home scrap increased 4% from those at the end of September 2022. In October 2022, pig iron production decreased by 3% and pig iron consumption decreased by 5% from those in September 2022. Direct-reduced iron receipts decreased by 73% and consumption decreased by 26% from those in September 2022 (table 1, fig. 1).

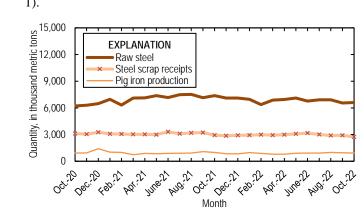


Figure 1. Monthly domestic production of raw steel, receipts of iron and steel scrap, and production of pig iron from October 2020 through October 2022. Sources: U.S. Geological Survey and American Iron and Steel Institute.

Exports of iron and steel scrap in October 2022 increased by 14% from those in September 2022 (fig. 2, table 4). In October 2022, India was the leading destination for exports, accounting for 20% of the total tonnage, followed by Malaysia and Mexico (15% each) (table 4). New York, NY, was the leading U.S. Customs district by tonnage of exports, accounting for 21% of the total, followed by Los Angeles, CA, (11%) and Seattle, WA, (8%) (table 5).

Imports of iron and steel scrap in October 2022 decreased by 7% compared with those in September 2022 (fig. 2, table 7). Canada was the leading country of origin, accounting for 75% of the total tonnage of imports, followed by Mexico (14%) and

the Netherlands (7%) (table 7). Detroit, MI, was the leading U.S. Customs district by tonnage of imports, accounting for 43% of the total, followed by Seattle, WA, (18%) and Laredo, TX, (10%) (table 8).

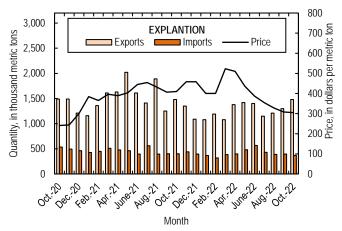


Figure 2. Monthly domestic imports and exports of iron and steel scrap and price for No. 1 heavy melting steel scrap from October 2020 through October 2022. Sources: U.S. Census Bureau and Fastmarkets AMM.

The daily average domestic raw steel production for October, as calculated from the American Iron and Steel Institute's monthly production data, was 213,000 metric tons, slightly less than that in September 2022 and an 10% decrease from that in October 2021. Raw steel production capability utilization was 73.7% in October 2022, down from 76.4% in September 2022 and down from 83.2% in October 2021 (table 10).

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TABLE 1 IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS FOR STEEL PRODUCERS, IN OCTOBER $2022^{1,2}$

(Thousand metric tons)

	October	January-October ³
Scrap:		
Receipts:		
From outside sources	2,720	29,500
From other own company plants	205	1,640
Production:		
Recirculating scrap	318	3,160
Obsolete scrap	10	103
Consumption (by type of furnace):		
Blast furnace	126	1,120
Basic oxygen process	262	2,790
Electric furnace	2,880	30,200
Other	r, 4	r, 4
Total consumption	3,270	34,100
Shipments	35	328
Stocks, end of period	3,880	3,880
Pig iron (includes hot metal):		
Receipts	109	1,400
Production	918	9,060
Consumption	1,050	10,500
Stocks, end of period	688	688
Direct-reduced iron: ⁵		
Receipts	64	2,270
Consumption	138	2,380
Stocks, end of period	268	268

Revised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes manufacturers of raw steel that also produce steel castings. October 2022 data are based on surveys, representing 53% of scrap consumption during this month, and estimates for nonrespondents of this survey.

³May include revisions to previously published data.

⁴One company updated survey to correct furnace type. Included in electric furnace.

⁵Includes direct-reduced iron, hot-briquetted iron, and iron carbide. Domestic production data are included in "Receipts."

 $TABLE\ 2$ RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, CONSUMPTION, AND STOCKS OF IRON AND STEEL SCRAP, BY GRADE, FOR STEEL PRODUCERS, IN OCTOBER 2022 $^{1,\,2}$

(Thousand metric tons)

		October			January–October ³			
	Receipts of scrap	Production of		Ending	Receipts of scrap	Production of		
Item	from outside sources	recirculating scrap	Consumption ⁴	stocks	from outside sources	recirculating scrap	Consumption ⁴	
Carbon steel:								
Low-phosphorus plate and punchings		W	16	10	138	W	159	
Cut structural and plate	230	24	268	327	2,460	285	2,850	
No. 1 heavy melting steel	260	55	328	209	2,790	484	3,340	
No. 2 heavy melting steel	331	26	386	242	3,340	261	3,840	
No. 1 and electric furnace bundles	98		104	109	1,070		1,080	
No. 2 and all other bundles	61	W	62	46	672	W	680	
Electric furnace 1 foot and under (not bundles)	W		W	W	W		W	
Railroad rails	18	7	19	97	182	74	185	
Turnings and borings	131	W	137	206	1,360	25	1,390	
Slag scrap		25	63	51	273	217	530	
Shredded and fragmentized	803		892	1,500	9,120	W	9,730	
No. 1 busheling	279	12	306	320	3,260	218	3,510	
Steel cans (post consumer)	W	W	10	293	90	W	104	
All other carbon steel scrap	167	115	311	237	1,850	1,090	3,060	
Stainless steel scrap	42	19	62	32	417	188	618	
Alloy steel scrap	23	8	31	50	231	83	314	
Ingot mold and stool scrap	W	W	W	W	W	W	W	
Machinery and cupola cast iron	4		4	W	46		48	
Cast iron borings			12	W	119	W	123	
Other iron scrap		8	57	69	533	92	523	
Other mixed scrap	153	11	188	66	1,540	87	1,950	
Total	2,720	318	3,270	3,880	29,500	3,160	34,100	

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes manufacturers of raw steel that also produce steel castings.

³May include revisions to previously published data.

⁴Includes recirculating scrap and home-generated obsolete scrap.

TABLE 3 RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, AND CONSUMPTION OF IRON AND STEEL SCRAP, BY REGION AND STATE, FOR STEEL PRODUCERS, IN OCTOBER $2022^{1.2}$

(Thousand metric tons)

		October			January–October ³	
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴
Region and State						
Mid-Atlantic and New England,						
New Jersey, New York,						
Pennsylvania	169	38	242	2,090	380	2,600
North Central:						
Illinois and Indiana	350	76	456	3,690	767	4,750
Iowa, Minnesota, Nebraska,						
Wisconsin	221	6	238	2,220	65	2,390
Michigan	38	5	43	380	47	431
Ohio	368	89	485	3,760	750	4,450
Total	976	176	1,220	10,000	1,630	12,000
South Atlantic:						
Georgia, North Carolina,						
South Carolina	246	W	277	2,520	W	W
Virginia, West Virginia	83	W	92	980	W	1,100
Total	329	W	369	3500	172	W
South Central:						
Alabama, Kentucky,						
Mississippi, Tennessee	542	34	605	6,420	418	7,130
Arkansas and Texas	408	35	504	4,510	370	5,210
Total	950	70	1,110	10,900	788	12,300
Mountain and Pacific:						
California, Colorado,						
Oregon, Utah, Washington	300	18	325	2,980	188	3,290
Grand total	2,720	318	3,270	29,500	3,160	34,100

W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes manufacturers of raw steel that also produce steel castings.

³May include revisions to previously published data.

⁴Includes recirculating scrap and home-generated obsolete scrap.

TABLE 4 U.S. EXPORTS OF IRON AND STEEL SCRAP BY SELECTED REGION AND COUNTRY OR LOCALITY, IN OCTOBER $2022^{1,2}$

(Thousand metric tons and thousand dollars)

	Octob	er	January–October ³		
Region and country or locality	Quantity	Value	Quantity	Value	
Australia			33	15,700	
Bangladesh	98	38,900	1,480	642,000	
Belgium	1	1,410	22	15,100	
Brazil	(4)	281	4	3,080	
Canada	46	14,800	453	171,000	
China	6	4,320	182	56,000	
Ecuador			136	65,700	
Germany	2	684	29	8,940	
Greece	29	9,380	283	131,000	
Hong Kong	1	449	11	12,000	
India	293	128,000	1,100	637,000	
Indonesia	1	302	15	11,600	
Japan	1	1,030	34	20,100	
Korea, Republic of	24	10,100	361	194,000	
Malaysia	225	17,800	506	178,000	
Mexico	224	59,400	2,340	664,000	
Pakistan	26	18,400	367	228,000	
Peru	68	22,500	491	217,000	
Philippines	2	1,290	23	23,700	
Switzerland			33	20,300	
Taiwan	85	34,600	854	363,000	
Thailand	22	23,200	174	136,000	
Turkey	176	64,000	2,690	1,170,000	
United Arab Emirates	1	609	9	5,930	
United Kingdom	(4)	35	2	2,150	
Vietnam	59	22,900	570	264,000	
Other ⁵	89	34,100	486	223,000	
Total	1,480	509,000	12,700	5,480,000	

⁻⁻ Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

³May include revisions to previously published data.

⁴Less than ½ unit.

⁵Includes countries with quantities of less than 500 metric tons for the current year.

${\it TABLE 5} \\ {\it U.S. EXPORTS OF IRON AND STEEL SCRAP BY REGION AND SELECTED CUSTOMS DISTRICT, IN OCTOBER 2022^{1,2}}$

(Thousand metric tons and thousand dollars)

	Octob	er	January-O	ctober ³
Region and customs district	Quantity	Value	Quantity	Value
Canada-United States border:				
Buffalo, NY	7	3,640	80	52,000
Detroit, MI	21	7,880	220	82,600
Duluth, MN			83	2,570
Ogdensburg, NY	2	516	19	5,090
Pembina, ND	4	1,270	76	12,900
Other	10	1,250	83	13,400
Total	44	14,600	559	169,000
East coast:				
Baltimore, MD	64	21,300	550	267,000
Boston, MA	75	24,800	689	297,000
Charleston, SC	7	5,720	58	47,900
Miami, FL	22	11,000	302	146,000
New York City, NY	305	126,000	1,990	977,000
Norfolk, VA	73	22,200	465	285,000
Philadelphia, PA	50	18,000	830	355,000
Portland, ME	1	152	37	18,200
Providence, RI	49	16,900	384	163,000
Savannah, GA	52	13,100	265	125,000
St. Albans, VT	2	431	18	5,650
Wilmington, NC	(4)	43	(4)	138
Total	700	260,000	5,590	2,690,000
Gulf coast and Mexico-United States				
border (includes Caribbean territories):				
El Paso, TX	1	411	5	2,650
Houston-Galveston, TX	74	20,200	399	220,000
Laredo, TX	86	20,300	1,320	243,000
Mobile, AL	1	1,490	6	5,700
New Orleans, LA	(4)	328	30	16,600
San Juan, PR	14	4,400	141	57,400
Tampa, FL	37	12,600	339	128,000
Other	(4)	74	2	729
Total	213	59,900	2,240	674,000
West coast and Hawaii:				
Columbia–Snake, OR	98	39,600	615	295,000
Honolulu, HI, and Anchorage, AK	2	901	107	48,400
Dallas-Forth Worth, TX	(4)	4	(4)	4
Los Angeles, CA	159	56,400	1,660	786,000
San Diego, CA	38	4,450	188	59,200
San Francisco, CA	99	38,900	1,150	520,000
Seattle, WA	123	34,400	561	237,000
Total	519	175,000	4,290	1,940,000
Grand total	1,480	509,000	12,700	5,470,000

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

³May include revisions to previously published data.

⁴Less than ½ unit.

TABLE 6 U.S. EXPORTS OF IRON AND STEEL SCRAP AND OTHER FERROUS PRODUCTS BY GRADE, IN OCTOBER 2022^{1,2}

(Thousand metric tons and thousand dollars)

	Octob	er	January–October ³	
Item	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	516	198,000	4,720	1,990,000
No. 2 heavy melting steel	67	27,500	619	290,000
No. 1 bundles	4	1,530	127	33,300
No. 2 bundles			24	2,830
Shredded steel scrap	363	135,000	4,090	1,820,000
Borings, shovelings, and turnings	3	868	34	10,700
Cut plate and structural	83	30,200	593	269,000
Tinned iron or steel	6	1,510	70	20,600
Remelting scrap ingots	1	331	5	2,760
Cast iron	103	35,500	958	360,000
Other iron and steel	8	2,520	41	10,300
Total carbon steel and cast iron	1,150	433,000	11,300	4,810,000
Stainless steel	30	37,800	329	321,000
Other alloy steel	294	37,800	1,060	340,000
Total stainless and alloy steel	324	75,600	1,390	661,000
Total carbon, stainless, alloy steel, and cast iron	1,480	509,000	12,700	5,470,000
Ships, boats, and other vessels for				
breaking up (for scrapping)			1	125
Used rails	(4)	683	1	4,240
Used rails for rerolling and other uses			1	611
Total scrap exports	1,480	509,000	12,700	5,480,000
Exports of manufactured ferrous products,				
Pig iron < or = 0.5% phosphorus	1	690	8	6,160
Pig iron > or = 0.5% phosphorus			1	53
Pig iron alloy			(4)	12
Total pig iron	1	690	8	6,220
Direct-reduced iron (DRI)			52	4,830
Granules for abrasive cleaning and other uses	2	2,980	19	32,300
Powders of alloy steel	1	7,410	11	68,100
Other ferrous powders	5	7,480	52	75,500
Total DRI, granules, powders	8	17,900	135	181,000
Grand total	1,490	528,000	12,800	5,670,000

⁻⁻ Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Export valuation is on a free-alongside-ship basis.
³May include revisions to previously published data.

⁴Less than ½ unit.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP BY SELECTED COUNTRY OR LOCALITY, IN OCTOBER $2022^{1,2}$

(Thousand metric tons and thousand dollars)

	Octob	er	January–October ³		
Country or locality	Quantity	Value	Quantity	Value	
Canada	278	105,000	2,990	1,550,000	
Cayman Islands	1	198	10	1,790	
China	(4)	273	32	22,100	
Colombia			2	4,020	
Germany	11	3,790	29	14,900	
Japan	2	54	24	1,210	
Mexico	52	23,400	546	352,000	
Netherlands	24	9,950	169	94,900	
Spain			26	15,100	
Sweden			146	82,700	
United Kingdom	1	186	116	76,100	
Other ⁵	2	1,170	16	16,700	
Total	371	144,000	4,110	2,230,000	

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Import valuation is on a Customs basis.

³May include revisions to previously published data.

⁴Less than ½ unit.

⁵Includes countries with quantities of less than 500 metric tons for the current year.

TABLE 8 U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP BY SELECTED CUSTOMS DISTRICT, IN OCTOBER $2022^{1,2}$

(Thousand metric tons and thousand dollars)

	October		January–O	ctober ³
Customs district	Quantity	Value	Quantity	Value
Baltimore, MD	1	192	2	982
Buffalo, NY	18	10,100	214	195,000
Charleston, SC	34	13,600	280	147,000
Chicago, IL	5	989	31	7,210
Cleveland, OH	(4)	241	34	3,970
Detroit, MI	159	63,300	1,740	980,000
Duluth, MN	5	1,900	67	29,200
El Paso, TX	5	1,800	49	22,200
Great Falls, MT	6	3,180	49	26,800
Houston-Galveston, TX	1	258	7	14,600
Laredo, TX	36	17,100	373	252,000
Miami, FL	1	267	16	4,190
Mobile, AL	2	1,530	64	59,000
New Orleans, LA	4	157	224	138,000
New York City, NY	(4)	28	1	1,140
Nogales, AZ	3	1,110	25	11,200
Ogdensburg, NY	1	352	6	5,410
Pembina, ND	16	5,710	164	78,000
San Diego, CA	6	1,870	67	23,700
Seattle, WA	68	19,200	681	224,000
St. Albans, VT	1	244	14	5,540
Other	(4)	368	3	4,000
Total	371	144,000	4,110	2,230,000

 $[\]overline{}^{1}Data$ are rounded to no more than three significant digits; may not add to totals shown.

²Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats and other vessels for scrapping. Import valuation is on a Customs basis.

³May include revisions to previously published data.

⁴Less than ½ unit.

TABLE 9 U.S. IMPORTS OF IRON AND STEEL SCRAP AND OTHER FERROUS PRODUCTS BY GRADE, IN OCTOBER $2022^{1,2}$

(Thousand metric tons and thousand dollars)

	Octob	er	January–October ³		
Item	Quantity	Value	Quantity	Value	
No. 1 heavy melting steel	13	3,880	142	52,400	
No. 2 heavy melting steel	12	3,320	99	33,300	
No. 1 bundles	93	37,600	1,130	672,000	
No. 2 bundles	9	4,270	76	36,300	
Shredded steel scrap	62	24,500	627	289,000	
Borings, shovelings, and turnings	3	1,480	45	19,200	
Cut plate and structural	12	3,780	121	43,800	
Tinned iron or steel	21	8,160	195	88,700	
Remelting scrap ingots	(4)	225	1	1,390	
Cast iron	15	4,160	213	83,500	
Other iron and steel	59	19,000	704	299,000	
Total carbon steel and cast iron	300	110,000	3,350	1,620,000	
Stainless steel	13	13,300	211	355,000	
Other alloy steel	59	20,000	547	260,000	
Total stainless and alloy steel	72	33,200	758	615,000	
Total carbon, stainless, alloy steel, and cast iron	371	144,000	4,110	2,230,000	
Ships, boats, and other vessels for					
breaking up (for scrapping)			20	4,000	
Used rails	1	208	3	693	
Used rails, nonalloyed			(4)	75	
Used rails other	(4)	85	1	976	
Total scrap imports	372	144,000	4,130	2,240,000	
Imports of manufactured ferrous products:					
Pig iron > or = 0.5% phosphorus	261	198,000	3,820	2,570,000	
Pig Iron < or =0.5% phosphorus			(4)	3	
Alloy pig iron	(4)	25	(4)	93	
Total pig iron	261	198,000	3,820	2,570,000	
Direct-reduced iron (DRI)	338	139,000	3,010	1,210,000	
Spongy iron products, not DRI	(4)	216	2	5,220	
Granules for abrasive cleaning and other uses	2	3,310	17	36,800	
Powders of alloy steel	5	11,800	53	118,000	
Other ferrous powders	4	9,050	37	81,400	
Total DRI, granules, powders	350	163,000	3,110	1,450,000	
Grand total	983	505,000	11,100	6,250,000	

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Import valuation is on a Customs basis.

³May include revisions to previously published data.

⁴Less than ½ unit.

 ${\it TABLE~10}\\ {\it U.S.~RAW~STEEL~PRODUCTION,~RAW~STEEL~CAPABILITY~UTILIZATION,}\\ {\it AND~CONTINUOUS~CAST~STEEL~PRODUCTION}^1$

	Raw steel pr	oduction,	Raw steel c	apability	Continuous	cast steel
	thousand me	etric tons	utilization,	percent	production, percent	
		Year		Year		Year
Period	Monthly	to date ²	Monthly	to date ²	Monthly	to date ²
2021:						
October	7,380	71,600	83.2	81.2	99.8	99.8
November	7,100	78,700	82.7	81.3	99.8	99.8
December	7,100	85,800	80.1	81.2	99.8	99.8
2022:						
January	6,970	6,970	79.8	79.8	99.8	99.8
February	6,370	13,300	80.8	80.3	99.7	99.8
March	6,870	20,200	78.7	79.7	99.6	99.7
April	6,950	27,200	81.9	80.3	99.7	99.7
May	7,120	34,300	81.1	80.5	99.7	99.7
June	6,760	41,000	79.6	80.3	99.7	99.7
July	6,910	48,000	78.1	80.0	99.7	99.7
August	6,910	54,900	78.0	79.7	99.7	99.7
September	6,550	61,400	76.4	79.4	99.7	99.7
October	6,610	68,000	73.7	78.8	99.7	99.7

¹Data are rounded to no more than three significant digits.

Source: American Iron and Steel Institute.

²May include revisions to previously published data.

TABLE 11 COMPOSITE PRICES FOR STEEL SCRAP AND PIG IRON

	Steel Scr	ap¹	Pig Iro	n^2
Period	\$/lt	\$/t	\$/1t	\$/t
2021:				
October	416.67	410.09	621.36	611.55
November	465.00	457.66	525.36	517.06
December	465.00	457.66	566.23	557.29
Average, January–December	423.40	416.71	542.52	533.96
2022:				
January	406.67	400.25	517.30	509.13
February	406.67	400.25	517.30	509.13
March	531.67	523.27	513.66	505.55
April	518.33	510.14	649.12	638.87
May	443.33	436.33	566.12	557.18
June	393.33	387.12	753.47	741.57
July	360.00	354.31	742.36	730.64
August	333.33	328.07	974.43	959.04
September	313.33	308.38	618.84	609.07
October	310.00	305.11	924.99	910.38

Note: Long tons = lt; metric tons = t.

¹Prices are for No. 1 heavy melting steel scrap. Source: Fastmarkets AMM.
²Prices are Brazilian basic pig iron, free on board, New Orleans, LA. Source: U.S. Census Bureau.

 ${\it TABLE~12} \\ {\it U.S.~IRON~AND~STEEL~SCRAP~RECEIPTS~FROM~OUTSIDE~SOURCES,~PRODUCTION~OF~PIG~IRON,} \\ {\it AND~DIRECT-REDUCED~IRON~(DRI)~CONSUMPTION}^1$

(Thousand metric tons)

	Receipts of	of scrap				
	from outside	e sources	Pig iron pro	oduction	DRI consu	mption
		Year		Year		Year
Period ²	Monthly	to date	Monthly	to date	Monthly	to date
2021:						
October	2,930	31,000	990	9,240	261	2,470
November	2,860	33,900	851	10,100	257	2,730
December	2,920	36,800	836	10,900	299	3,020
2022:						
January	2,940	2,940	970	970	243	243
February	2,980	5,920	877	1,850	213	456
March	2,930	8,850	802	2,650	211	668
April	2,980	11,800	802	3,450	250	918
May	3,080	14,900	903	4,350	255	1,170
June	3,180	18,100	920	5,270	307	1,480
July	3,000	21,100	922	6,200	286	1,770
August	2,900	24,000	988	7,180	241	2,010
September	2,910	26,800	950	8,140	238	2,250
October	2,720	29,500	918	9,060	138	2,380

¹Data are rounded to no more than three significant digits.

²May include revisions to previously published data.