

Mineral Industry Surveys

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IRON AND STEEL SCRAP IN SEPTEMBER 2022

In September 2022, purchased steel scrap receipts were unchanged, recirculating scrap production increased by 9%, and iron and steel scrap consumption increased by 5% compared with those in August 2022. Stocks of purchased and home scrap increased slightly from those at the end of August 2022. In September 2022, pig iron production decreased by 4% and pig iron consumption was unchanged from those in August 2022. Direct-reduced iron receipts increased by 25% but consumption decreased slightly from those in August 2022 (table 1, fig. 1).

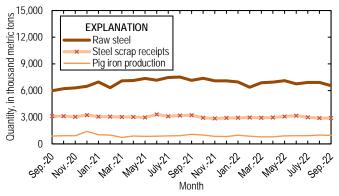


Figure 1. Monthly domestic production of raw steel, receipts of iron and steel scrap, and production of pig iron from September 2020 through September 2022. Sources: U.S. Geological Survey and American Iron and Steel Institute.

Exports of iron and steel scrap in September 2022 increased by 7% from those in August 2022 (fig. 2, table 4). In September 2022, Mexico was the leading destination for exports, accounting for 19% of the total tonnage, followed by Turkey and India (16% each) (table 4). Los Angeles, CA, was the leading U.S. Customs district by tonnage of exports, accounting for 17% of the total, followed by New York, NY, (14%) and Laredo, TX, (10%) (table 5).

Imports of iron and steel scrap in September 2022 increased slightly compared with those in August 2022 (fig. 2, table 7). Canada was the leading country of origin, accounting for 71% of the total tonnage of imports, followed by Mexico (15%) and Sweden (12%) (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, (15%) and Charleston, SC, (12%) (table 8).

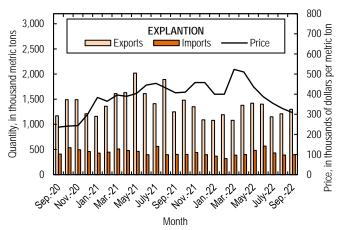


Figure 2. Monthly domestic imports and exports of iron and steel scrap and price for No. 1 heavy melting steel scrap from September 2020 through September 2022. Sources: U.S. Census Bureau and Fastmarkets AMM.

The daily average domestic raw steel production for September, as calculated from the American Iron and Steel Institute's monthly production data, was 218,000 metric tons, slightly less than that in August 2022 and an 8% decrease from that in September 2021. Raw steel production capability utilization was 76.4% in September 2022, down from 78.0% in August 2022 and down from 83.3% in September 2021 (table 10).

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TABLE 1 IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS FOR STEEL PRODUCERS, IN SEPTEMBER $2022^{1.2}$

	September	January–September ³
Scrap:		
Receipts:		
From outside sources	2,910	26,800
From other own company plants	183	1,430
Production:		
Recirculating scrap	346	2,840
Obsolete scrap	10	93
Consumption (by type of furnace):		
Blast furnace	121	994
Basic oxygen process	271	2,530
Electric furnace	2,990	26,700
Other	53	550
Total consumption	3,440	30,800
Shipments	28	294
Stocks, end of period	4,030	4,030
Pig iron (includes hot metal):		
Receipts	181	1,290
Production	950	8,140
Consumption	1,100	9,450
Stocks, end of period	738	738
Direct-reduced iron: ⁴		
Receipts	238	2,200
Consumption	187	2,190
Stocks, end of period	433	433

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. September 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.

⁴Includes 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 SEPTEMBER $2022^{1.2}$

		September				January-September 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	14	W	16	10	124	W	143
Cut structural and plate	255	28	284	339	2,230	261	2,580
No. 1 heavy melting steel	269	54	345	214	2,530	429	3,010
No. 2 heavy melting steel	329	28	388	248	3,010	235	3,450
No. 1 and electric furnace bundles	96		113	114	969		972
No. 2 and all other bundles	 67	W	61	46	611	W	617
Electric furnace 1 foot and under (not bundles)	W		W	W	W		W
Railroad rails	18	7	19	97	164	66	167
Turnings and borings	131	W	138	208	1,220	W	1,250
Slag scrap	27	25	60	61	246	192	466
Shredded and fragmentized	887	W	966	1,530	8,310	W	8,840
No. 1 busheling	349	25	375	394	2,980	206	3,200
Steel cans (post consumer)	W	W	10	293	81	W	94
All other carbon steel scrap	173	114	292	244	1,680	979	2,750
Stainless steel scrap	42	19	62	32	366	170	545
Alloy steel scrap	23	8	31	50	208	75	283
Ingot mold and stool scrap	W	W	6	5	W	W	W
Machinery and cupola cast iron	4		4	W	42		44
Cast iron borings			12	W	107	W	111
Other iron scrap	52	11	56	80	480	85	466
Other mixed scrap	150	17	197	55	1,390	76	1,770
Total	2,910	346	3,440	4,030	26,800	2,840	30,800

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 SEPTEMBER $2022^{1,2}$

		September		January–September 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	177	39	261	1,910	342	2,340	
North Central:							
Illinois and Indiana	361	77	472	3,340	691	4,290	
Iowa, Minnesota, Nebraska,							
Wisconsin	221	6	238	1,970	59	2,120	
Michigan	38	5	43	342	42	388	
Ohio	388	84	478	3,390	661	3,960	
Total	1,010	173	1,230	9,070	1,450	10,800	
South Atlantic:							
Georgia, North Carolina,							
South Carolina	245	W	268	2,270	W	2,490	
Virginia, West Virginia	83	W	97	896	W	1,010	
Total	330	28	365	3,160	156	3,490	
South Central:							
Alabama, Kentucky,							
Mississippi, Tennessee	663	49	758	5,880	384	6,520	
Arkansas and Texas	440	38	490	4,100	335	4,700	
Total	1,100	88	1,250	9,980	719	11,200	
Mountain and Pacific:							
California, Colorado,							
Oregon, Utah, Washington	297	19	333	2,680	170	2,970	
Grand total	2,910	346	3,440	26,800	2,840	30,800	

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 SEPTEMBER $2022^{1,2}$

(Thousand metric tons and thousand dollars)

	Septen	nber	January–September ³		
Region and country or locality	Quantity	Value	Quantity	Value	
Australia			33	15,700	
Bangladesh	101	37,100	1,380	603,000	
Belgium	1	1,100	21	13,700	
Brazil	(4)	31	4	2,800	
Canada	43	15,700	407	156,000	
China	7	4,810	176	51,700	
Ecuador	34	10,400	136	65,700	
Germany	1	408	27	8,260	
Greece	29	10,800	254	121,000	
Hong Kong	1	366	11	11,500	
India	209	107,000	804	509,000	
Indonesia	1	1,300	14	11,300	
Japan	1	1,320	33	19,100	
Korea, Republic of	13	5,960	337	184,000	
Malaysia	150	14,300	282	161,000	
Mexico	247	59,600	2,110	604,000	
Pakistan	27	16,700	341	209,000	
Peru	100	36,100	422	194,000	
Philippines	2	1,520	21	22,400	
Switzerland			33	20,300	
Taiwan	76	27,700	769	329,000	
Thailand	18	18,000	151	113,000	
Turkey	213	82,400	2,510	1,100,000	
United Arab Emirates	1	552	8	5,320	
United Kingdom	(4)	56	2	2,120	
Vietnam	23	9,040	511	241,000	
Other ⁵	2	2,970	397	189,000	
Total	1,300	466,000	11,200	4,970,000	

⁻⁻ 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. Export valuation is on a free-alongside-ship basis.

³May include revisions to previously published data.

⁴Less than ½ unit.

 $^{^5\}mbox{Includes}$ countries with quantities of less than 500 metric tons for the current year.

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

(Thousand metric tons and thousand dollars)

	Septem	ber	January–September ³		
Region and customs district	Quantity	Value	Quantity	Value	
Canada–United States border:					
Buffalo, NY	8	6,780	73	48,300	
Detroit, MI	18	5,680	199	74,800	
Duluth, MN	(4)	85	83	2,570	
Ogdensburg, NY	1	325	16	4,580	
Pembina, ND	4	1,210	72	11,600	
Other	8	1,580	73	12,100	
Total	39	15,700	515	154,000	
East coast:					
Baltimore, MD	121	51,600	486	245,000	
Boston, MA	29	9,820	614	273,000	
Charleston, SC	6	4,060	51	42,100	
Miami, FL	22	9,070	280	135,000	
New York City, NY	187	78,300	1,690	852,000	
Norfolk, VA	41	18,400	392	263,000	
Philadelphia, PA	72	27,500	780	337,000	
Portland, ME	2	535	37	18,000	
Providence, RI	26	8,770	335	147,000	
Savannah, GA	95	13,700	213	112,000	
St. Albans, VT	2	463	17	5,220	
Wilmington, NC			(4)	95	
Total	603	222,000	4,890	2,430,000	
Gulf coast and Mexico-United States					
border (includes Caribbean territories):					
El Paso, TX	(4)	141	4	2,240	
Houston-Galveston, TX	18	15,600	325	200,000	
Laredo, TX	136	19,200	1,230	222,000	
Mobile, AL	(4)	517	5	4,210	
New Orleans, LA	(4)	254	30	16,300	
San Juan, PR	6	1,730	127	53,000	
Tampa, FL	81	30,200	301	116,000	
Other	(4)	44	2	656	
Total	240	67,800	2,020	614,000	
West coast and Hawaii:					
Columbia–Snake, OR	34	14,200	517	255,000	
Honolulu, HI, and Anchorage, AK	2	873	105	47,500	
Los Angeles, CA	221	90,400	1,500	730,000	
San Diego, CA	16	4,690	150	54,800	
San Francisco, CA	56	20,400	1,060	481,000	
Seattle, WA	86	29,300	438	202,000	
Total	414	160,000	3,770	1,770,000	
Grand total	1,300	466,000	11,200	4,970,000	

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. 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 SEPTEMBER 2022^{1, 2}

(Thousand metric tons and thousand dollars)

	Septem	ber	January–September ³	
Item	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	492	182,000	4,200	1,790,000
No. 2 heavy melting steel	57	24,500	553	262,000
No. 1 bundles	12	4,240	123	31,800
No. 2 bundles	1	56	24	2,830
Shredded steel scrap	352	131,000	3,730	1,690,000
Borings, shovelings, and turnings	3	844	31	9,800
Cut plate and structural	54	21,400	510	239,000
Tinned iron or steel	8	2,610	64	19,100
Remelting scrap ingots	(4)	19	4	2,430
Cast iron	48	34,100	854	325,000
Other iron and steel	3	698	33	7,760
Total carbon steel and cast iron	1,030	402,000	10,100	4,380,000
Stainless steel	24	34,800	299	283,000
Other alloy steel	244	29,400	769	302,000
Total stainless and alloy steel	268	64,100	1,070	585,000
Total carbon, stainless, alloy steel, and cast iron	1,300	466,000	11,200	4,970,000
Ships, boats, and other vessels for				
breaking up (for scrapping)			1	125
Used rails	(4)	338	1	3,560
Used rails for rerolling and other uses			1	611
Total scrap exports	1,300	466,000	11,200	4,970,000
Exports of manufactured ferrous products,				
Pig iron < or = 0.5% phosphorus	1	1,010	7	5,470
Pig iron > or = 0.5% phosphorus	(4)	43	1	53
Pig iron alloy	(4)	4	(4)	12
Total pig iron	2	1,050	7	5,530
Direct-reduced iron (DRI)			52	4,830
Granules for abrasive cleaning and other uses	2	3,250	17	29,300
Powders of alloy steel	1	6,310	10	60,700
Other ferrous powders	4	6,410	48	68,000
Total DRI, granules, powders	7	16,000	127	163,000
Grand total	1,310	483,000	11,300	5,140,000

⁻⁻ 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 SEPTEMBER $2022^{1.2}$

(Thousand metric tons and thousand dollars)

	Septem	ber	January–Sep	-September ³	
Country or locality	Quantity	Value	Quantity	Value	
Canada	280	113,000	2,720	1,450,000	
Cayman Islands	(4)	65	9	1,590	
China	(4)	188	32	21,800	
Colombia			2	4,020	
Germany	2	156	19	11,100	
Japan	4	139	21	1,160	
Mexico	60	29,100	494	329,000	
Netherlands			145	85,000	
Spain			26	15,100	
Sweden	48	19,400	146	82,700	
United Kingdom	(4)	182	115	75,900	
Other ⁵	1	1,170	14	15,500	
Total	397	164,000	3,740	2,090,000	

⁻⁻ 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 SEPTEMBER $2022^{1,2}$

(Thousand metric tons and thousand dollars)

	Septem	ber	January-Sep	January–September ³	
Customs district	Quantity	Value	Quantity	Value	
Baltimore, MD			1	790	
Buffalo, NY	14	9,340	196	185,000	
Charleston, SC	49	19,400	247	133,000	
Chicago, IL	(4)	56	26	6,230	
Cleveland, OH	(4)	177	34	3,730	
Detroit, MI	171	72,300	1,580	917,000	
Duluth, MN	6	2,130	62	27,300	
El Paso, TX	5	1,810	44	20,400	
Great Falls, MT	9	5,160	43	23,600	
Houston-Galveston, TX	(4)	498	6	14,400	
Laredo, TX	44	22,300	337	235,000	
Miami, FL	1	186	15	3,920	
Mobile, AL	3	2,860	63	57,500	
New Orleans, LA	6	126	220	137,000	
New York City, NY	(4)	61	1	1,110	
Nogales, AZ	1	375	21	10,000	
Ogdensburg, NY	(4)	124	5	5,060	
Pembina, ND	18	7,190	148	72,300	
San Diego, CA	7	1,890	61	21,800	
Seattle, WA	61	16,900	613	205,000	
St. Albans, VT	1	311	13	5,300	
Other	(4)	294	3	3,630	
Total	397	164,000	3,740	2,090,000	

 $[\]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 SEPTEMBER $2022^{1,2}$

(Thousand metric tons and thousand dollars)

	Septem	ber	January–September ³		
Item	Quantity	Value	Quantity	Value	
No. 1 heavy melting steel	14	4,060	130	48,500	
No. 2 heavy melting steel	9	2,210	87	30,000	
No. 1 bundles	91	39,200	1,030	634,000	
No. 2 bundles	12	5,970	66	32,000	
Shredded steel scrap	94	37,600	565	264,000	
Borings, shovelings, and turnings	3	1,500	43	17,800	
Cut plate and structural	15	4,440	109	40,000	
Tinned iron or steel	20	7,470	174	80,600	
Remelting scrap ingots	(4)	116	1	1,170	
Cast iron	11	3,580	198	79,300	
Other iron and steel	60	21,400	645	280,000	
Total carbon steel and cast iron	329	128,000	3,050	1,510,000	
Stainless steel	16	15,600	198	341,000	
Other alloy steel	52	20,400	488	240,000	
Total stainless and alloy steel	67	35,900	687	582,000	
Total carbon, stainless, alloy steel, and cast iron	397	164,000	3,740	2,090,000	
Ships, boats, and other vessels for					
breaking up (for scrapping)	(4)	3	20	4,000	
Used rails	1	91	2	485	
Used rails, nonalloyed			174	75	
Used rails other	(4)	3	533	891	
Total scrap imports	397	164,000	4,470	2,090,000	
Imports of manufactured ferrous products:					
Pig iron $>$ or $= 0.5\%$ phosphorus	423	303,000	3,560	2,370,000	
Pig Iron < or =0.5% phosphorus			(4)	3	
Alloy pig iron			(4)	69	
Total pig iron	423	303,000	3,560	2,370,000	
Direct-reduced iron (DRI)	233	115,000	2,670	1,070,000	
Spongy iron products, not DRI	(4)	186	2	5,000	
Granules for abrasive cleaning and other uses	2	4,330	15	33,500	
Powders of alloy steel	5	11,900	47	106,000	
Other ferrous powders	3	7,320	33	72,400	
Total DRI, granules, powders	243	139,000	2,760	1,280,000	
Grand total	1,060	606,000	10,800	5,750,000	

⁻⁻ 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		Raw steel c		Continuous	
	thousand m	etric tons	utilization,	percent	production,	percent
		Year		Year		Year
Period	Monthly	to date ²	Monthly	to date ²	Monthly	to date ²
2021:						
September	7,151	64,216	83.3	81.0	99.8	99.8
October	7,378	71,594	83.2	81.2	99.8	99.8
November	7,095	78,689	82.7	81.3	99.8	99.8
December	7,103	85,792	80.1	81.2	99.8	99.8
2022:						
January	6,972	6,972	79.8	79.8	99.8	99.8
February	6,369	13,341	80.8	80.3	99.7	99.8
March	6,871	20,212	78.7	79.7	99.6	99.7
April	6,952	27,164	81.9	80.3	99.7	99.7
May	7,115	34,279	81.1	80.5	99.7	99.7
June	6,756	41,035	79.6	80.3	99.7	99.7
July	6,914	47,949	78.1	80.0	99.7	99.7
August	6,912	54,861	78.0	79.7	99.7	99.7
September	6,550	61,411	76.4	79.4	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	ap ¹	Pig Iro	n^2
Period	\$/lt	\$/t	\$/1t	\$/t
2021:				
September	413.33	406.80	631.97	621.99
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

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

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

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

	Receipts o	f scrap				
	from outside	e sources	Pig iron pro	oduction	DRI consu	mption
		Year		Year		Year
Period	Monthly	to date	Monthly	to date	Monthly	to date
2021: ²						
September	3,230	28,100	1,080	8,250	179	2,210
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

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

²May include revisions to previously published data.