

Mineral Industry Surveys

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IRON AND STEEL SCRAP IN AUGUST 2021

In August 2021, purchased steel scrap receipts and recirculating scrap production were nearly unchanged, and iron and steel scrap consumption increased slightly compared with those in July. Stocks of purchased and home scrap were nearly unchanged from those at the end of July. In August, pig iron production increased slightly and consumption increased by 21% from those in July (table 1, fig. 1). Direct-reduced iron receipts increased by 31% and consumption increased by 16%.

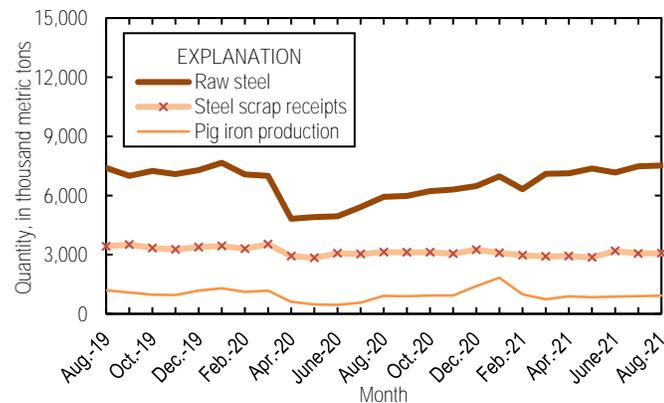


Figure 1. Monthly domestic production of raw steel, receipts of iron and steel scrap, and production of pig iron from August 2019 through August 2021. Sources: U.S. Geological Survey and American Iron and Steel Institute.

Exports of iron and steel scrap in August increased by 35% from those in July (fig. 2). Mexico and Turkey were the leading destinations for exports, each accounting for 21% of the total tonnage, followed by Bangladesh (17%) and Taiwan (7%) (table 4). New York, NY, was the leading U.S. Customs district by tonnage of exports, accounting for 15% of the total, followed by Los Angeles, CA, (14%) and San Francisco (10%) (table 5).

Imports of iron and steel scrap decreased by 29% in August from those in July (fig. 2). Canada was the leading country of origin, accounting for 80% of the total tonnage of imports, followed by Mexico (12%) and Sweden (8%) (table 7). Detroit,

MI, was the leading U.S. Customs district by tonnage of imports, accounting for 41% of the total, followed by Seattle, WA, (19%) and New Orleans, LA, (8%) (table 8).

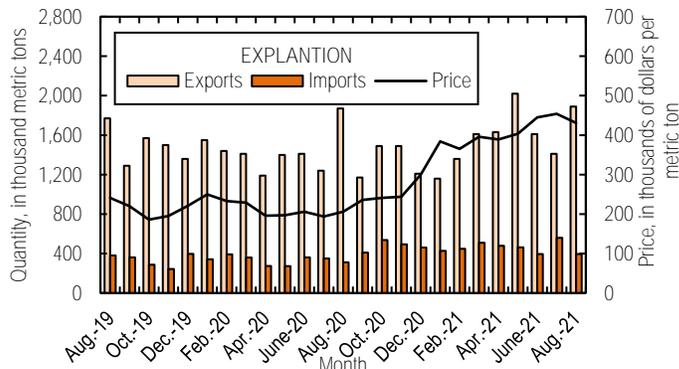


Figure 2. Monthly domestic imports and exports of iron and steel scrap and price for No. 1 heavy melting steel scrap from August 2019 through August 2021. Sources: U.S. Census Bureau and Fastmarkets AMM.

The daily average domestic raw steel production for August, as calculated from the American Iron and Steel Institute’s monthly production data, was 243,000 metric tons, essentially unchanged from that in July 2021 and a 27% increase from that in August 2020. Raw steel production capability utilization was 84.8% in August, up from 84.4% in July and 65.9% in August 2020 (table 10). Increases in capability utilization and steel production were attributed to the industry’s recovery from the affects of COVID-19 on lower rates of iron and steel consumption in mid-2020.

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TABLE 1
 IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS
 FOR STEEL PRODUCERS, IN AUGUST 2021^{1,2}

(Thousand metric tons)

	August	January–August ³
Scrap:		
Receipts:		
From outside sources	3,070	23,900
From other own company plants	200	1,550
Production:		
Recirculating scrap	307	2,450
Obsolete scrap	12	86
Consumption (by type of furnace):		
Blast furnace	127	972
Basic oxygen process	397	2,500
Electric furnace	2,990	23,200
Other	--	651
Total consumption	3,520	27,400
Shipments	36	362
Stocks, end of period	3,860	3,860
Pig iron (includes hot metal):		
Receipts	526	1,830
Production	924	7,170
Consumption	1,310	8,710
Stocks, end of period	613	613
Direct-reduced iron: ⁴		
Receipts	251	1,960
Consumption	248	1,860
Stocks, end of period	309	309

-- 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. August 2021 data are based on surveys, representing 54% 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 AUGUST 2021^{1,2}

(Thousand metric tons)

Item	August				January–August ³		
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴	Ending stocks	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴
Carbon steel:							
Low-phosphorus plate and punchings	14	W	15	W	111	W	121
Cut structural and plate	256	W	294	288	2,030	270	2,350
No. 1 heavy melting steel	242	41	288	157	1,900	300	2,230
No. 2 heavy melting steel	329	19	379	255	2,660	164	3,020
No. 1 and electric furnace bundles	118	--	114	138	886	--	882
No. 2 and all other bundles	71	W	68	39	551	W	554
Electric furnace 1 foot and under (not bundles)	3	W	W	W	W	W	W
Railroad rails	18	7	18	96	130	W	133
Turnings and borings	146	W	145	199	1,170	W	1,200
Slag scrap	26	25	53	78	241	256	433
Shredded and fragmented	963	W	1,040	1,520	7,500	W	8,060
No. 1 busheling	367	W	386	368	2,850	W	2,950
Steel cans (post consumer)	W	W	W	W	W	W	W
All other carbon steel scrap	218	96	329	257	1,610	813	2,530
Stainless steel scrap	54	27	82	38	435	214	659
Alloy steel scrap	24	8	32	55	190	64	257
Ingot mold and stool scrap	W	W	3	2	W	W	25
Machinery and cupola cast iron	2	--	2	W	W	--	W
Cast iron borings	12	W	12	5	94	W	98
Motor blocks	W	--	W	--	W	--	W
Other iron scrap	75	15	66	89	425	100	462
Other mixed scrap	129	W	172	32	1,050	31	1,290
Total	3,070	307	3,520	3,860	23,900	2,450	27,400

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 AUGUST 2021^{1,2}

(Thousand metric tons)

Region and State	August			January–August 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
Mid-Atlantic and New England:						
New Jersey, New York, Pennsylvania	241	40	287	1,890	320	2,260
North Central:						
Illinois and Indiana	396	74	491	3,080	592	3,870
Iowa, Minnesota, Nebraska, Wisconsin	216	7	232	1,730	58	1,850
Michigan	38	4	44	443	148	500
Ohio	417	86	479	3,030	590	3,580
Total	1,070	171	1,250	8,280	1,390	9,800
South Atlantic:						
Georgia, North Carolina, South Carolina	272	W	281	2,220	W	2,350
Virginia, West Virginia	109	W	120	806	W	948
Total	381	11	401	3,030	124	3,300
South Central:						
Alabama, Kentucky, Mississippi, Tennessee	629	39	744	4,830	272	5,470
Arkansas and Texas	477	28	524	3,670	221	4,170
Total	1,110	68	1,270	8,500	492	9,640
Mountain and Pacific:						
California, Colorado, Oregon, Utah, Washington	278	17	312	2,210	124	2,380
Grand total	3,070	307	3,520	23,900	2,450	27,400

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 AUGUST 2021^{1,2}

(Thousand metric tons and thousand dollars)

Region and country or locality	August		January–August ³	
	Quantity	Value	Quantity	Value
Bangladesh	328	153,000	990	423,000
Belgium	1	1,290	6	4,290
Brazil	(4)	67	98	37,500
Canada	75	25,600	607	182,000
Cayman Islands	(4)	258	2	1,950
China	4	3,850	91	42,400
Ecuador	--	--	124	55,100
Egypt	(4)	103	397	161,000
Germany	1	596	8	4,790
Greece	29	12,400	189	64,600
Hong Kong	3	3,770	26	30,200
India	47	43,000	420	263,000
Indonesia	2	580	48	19,500
Italy	63	31,500	229	105,000
Japan	3	2,910	17	16,200
Korea, Republic of	108	51,600	446	201,000
Kuwait	--	--	12	4,170
Malaysia	61	38,100	1,210	367,000
Mexico	394	157,000	2,320	827,000
Netherlands	(4)	249	5	3,850
Pakistan	92	47,700	459	253,000
Peru	37	16,700	194	88,800
Philippines	2	2,220	27	16,800
Portugal	--	--	6	2,300
Russia	(4)	141	2	1,810
Saudi Arabia	23	10,500	147	62,100
Singapore	1	500	2	1,370
Spain	(4)	7	3	1,640
Sweden	(4)	396	2	5,700
Switzerland	--	--	47	23,900
Taiwan	124	53,300	961	382,000
Thailand	13	12,800	218	143,000
Turkey	394	185,000	2,260	935,000
United Arab Emirates	1	553	10	5,130
United Kingdom	(4)	64	1	1,160
Vietnam	86	38,100	1,080	447,000
Other ⁵	(4)	510	22	11,700
Total	1,890	895,000	12,700	5,200,000

-- Zero.

¹Includes 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.

²Data are rounded to no more than three significant digits; may not add to totals shown.

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.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF IRON AND STEEL SCRAP BY REGION AND
SELECTED CUSTOMS DISTRICT, IN AUGUST 2021^{1,2}

(Thousand metric tons and thousand dollars)

Region and customs district	August		January–August ³	
	Quantity	Value	Quantity	Value
Canada–United States border:				
Buffalo, NY	9	5,860	72	36,500
Chicago, IL	(4)	181	3	1,320
Detroit, MI	15	4,560	184	45,600
Duluth, MN	1	572	31	6,450
Great Falls, MT	7	1,070	20	5,370
Ogdensburg, NY	2	560	20	3,620
Pembina, ND	23	10,200	170	67,800
Other	9	1,100	82	9,600
Total	68	24,100	582	176,000
East coast:				
Baltimore, MD	48	26,600	382	186,000
Boston, MA	142	67,900	877	375,000
Charleston, SC	13	9,420	99	69,500
Miami, FL	40	19,100	293	138,000
New York City, NY	281	137,000	2,250	828,000
Norfolk, VA	50	32,400	277	170,000
Philadelphia, PA	127	61,300	771	319,000
Portland, ME	8	3,560	52	20,800
Providence, RI	64	28,900	301	122,000
Savannah, GA	20	14,400	125	84,800
St. Albans, VT	2	483	14	3,060
Wilmington, NC	(4)	163	2	1,280
Total	794	401,000	5,450	2,320,000
Gulf coast and Mexico–United States border (includes Caribbean territories):				
El Paso, TX	52	16,900	196	76,800
Houston–Galveston, TX	32	20,400	247	147,000
Laredo, TX	140	44,900	1,050	291,000
Mobile, AL	1	537	6	4,480
New Orleans, LA	(4)	423	98	24,900
Nogales, AZ	(4)	70	2	545
San Juan, PR	15	5,280	119	42,100
Tampa, FL	43	21,900	418	145,000
U.S. Virgin Islands	--	--	6	2,300
Total	282	110,000	2,140	734,000
West coast and Hawaii:				
Columbia–Snake, OR	170	83,600	742	337,000
Honolulu, HI, and Anchorage, AK	27	12,100	96	38,600
Los Angeles, CA	259	125,000	1,730	784,000
San Diego, CA	26	9,180	204	63,400
San Francisco, CA	197	91,400	1,160	491,000
Seattle, WA	73	37,600	573	253,000
Total	751	359,000	4,510	1,970,000
Grand total	1,890	895,000	12,700	5,200,000

-- Zero.

¹Includes 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.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN AUGUST 2021^{1,2}

(Thousand metric tons and thousand dollars)

Item	August		January–August ³	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	577	273,000	3,660	1,560,000
No. 2 heavy melting steel	69	33,300	482	219,000
No. 1 bundles	27	9,700	198	38,600
No. 2 bundles	3	301	18	2,360
Shredded steel scrap	686	327,000	3,920	1,710,000
Borings, shovelings and turnings	1	437	12	4,050
Cut plate and structural	78	36,900	427	187,000
Tinned iron or steel	13	4,140	80	30,300
Remelting scrap ingots	(4)	56	18	1,580
Cast iron	88	39,800	1,550	355,000
Other iron and steel	212	101,000	1,520	629,000
Total carbon steel and cast iron	1,750	825,000	11,900	4,730,000
Stainless steel	54	37,100	208	204,000
Other alloy steel	86	32,600	586	258,000
Total stainless and alloy steel	140	69,700	793	462,000
Total carbon, stainless, alloy steel and cast iron	1,890	895,000	12,700	5,200,000
Ships, boats, and other vessels for breaking up (for scrapping)	--	--	(4)	11
Used rails	--	--	(4)	67
Used rails for rerolling and other uses	(4)	61	1	2,480
Total scrap exports	1,890	895,000	12,700	5,200,000
Exports of manufactured ferrous products,				
Pig iron < or = 0.5% phosphorus	(4)	55	2	1,580
Pig iron > or = 0.5% phosphorus	--	--	(4)	33
Alloy pig iron	--	--	(4)	6
Total pig iron	(4)	55	3	1,620
Direct-reduced iron (DRI)	2	6	12	677
Spongy iron products, not DRI	105	62,100	348	176,000
Granules for abrasive cleaning and other uses	2	3,080	13	22,800
Powders of alloy steel	1	6,770	12	53,800
Other ferrous powders	4	7,410	57	72,900
Total DRI, granules, powders	114	79,400	441	326,000
Grand total	2,010	974,000	13,100	5,530,000

-- Zero.

¹Export valuation is on a free-alongside-ship basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
BY SELECTED COUNTRY OR LOCALITY, IN AUGUST 2021^{1,2}

(Thousand metric tons and thousand dollars)

Country or locality	August		January–August ³	
	Quantity	Value	Quantity	Value
Bahamas	(4)	9	1	186
Belgium	(4)	283	48	15,300
Canada	316	160,000	2,480	1,110,000
Cayman Islands	(4)	103	3	780
China	(4)	114	6	1,370
Colombia	(4)	806	2	3,080
Czechia	(4)	6	2	2,660
Dominican Republic	(4)	111	1	858
Ecuador	(4)	382	1	1,610
Egypt	(4)	67	1	634
Germany	1	248	62	22,400
Japan	(4)	40	24	687
Malaysia	(4)	2	1	206
Mexico	46	31,000	367	211,000
Netherlands	(4)	10	215	100,000
New Zealand	--	--	30	16,900
Panama	(4)	13	1	355
Poland	--	--	52	28,500
Russia	(4)	114	1	2,370
Singapore	--	--	3	374
Spain	--	--	28	10,800
Sweden	30	18,300	104	54,100
United Kingdom	(4)	15	239	121,000
Other ⁵	1	425	7	6,170
Total	395	211,000	3,680	1,710,000

-- Zero.

¹Includes 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.

²Data are rounded to no more than three significant digits; may not add to totals shown.

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.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
BY SELECTED CUSTOMS DISTRICT, IN AUGUST 2021^{1,2}

(Thousand metric tons and thousand dollars)

Customs district	August		January–August ³	
	Quantity	Value	Quantity	Value
Baltimore, MD	--	--	2	1,990
Buffalo, NY	28	21,400	269	166,000
Charleston, SC	(4)	153	304	144,000
Chicago, IL	4	803	25	5,310
Cleveland, OH	(4)	88	13	2,060
Detroit, MI	163	93,100	1,290	648,000
Duluth, MN	14	6,310	116	47,200
El Paso, TX	4	2,030	34	15,000
Great Falls, MT	2	463	10	3,050
Houston–Galveston, TX	1	1,470	11	8,690
Laredo, TX	28	20,200	239	145,000
Miami, FL	1	255	7	2,700
Minneapolis, MN	--	--	1	191
Mobile, AL	5	4,860	107	71,900
New Orleans, LA	31	18,300	438	188,000
New York City, NY	(4)	137	1	1,750
Norfolk, VA	(4)	272	1	598
Nogales, AZ	3	1,460	18	7,340
Ogdensburg, NY	1	773	11	7,480
Pembina, ND	25	12,500	151	68,400
Portland, ME	(4)	110	1	776
San Diego, CA	6	2,440	40	13,100
Seattle, WA	77	23,500	576	158,000
St. Albans, VT	2	785	12	4,280
Other	(4)	54	1	710
Total	395	211,000	3,680	1,710,000

-- Zero.

¹Includes tinsplate 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.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9
U.S. IMPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN AUGUST 2021^{1,2}

(Thousand metric tons and thousand dollars)

Item	August		January–August ³	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	15	5,930	130	40,600
No. 2 heavy melting steel	13	4,470	81	26,900
No. 1 bundles	85	53,500	1,170	586,000
No. 2 bundles	6	2,680	61	23,900
Shredded steel scrap	58	24,200	399	141,000
Borings, shovelings and turnings	8	2,610	64	22,000
Cut plate and structural	13	6,330	150	54,300
Tinned iron or steel	25	12,200	167	72,800
Remelting scrap ingots	(4)	79	1	686
Cast iron	11	2,800	127	47,300
Other iron and steel	80	34,200	660	235,000
Total carbon steel and cast iron	316	149,000	3,010	1,250,000
Stainless steel	24	34,400	189	251,000
Other alloy steel	55	28,000	481	212,000
Total stainless and alloy steel	79	62,500	670	462,000
Total carbon, stainless, alloy steel and cast iron	395	211,000	3,680	1,710,000
Ships, boats, and other vessels for breaking up (for scrapping)	(4)	33,100	5	33,800
Used rails	(4)	77	1	273
Used rails for rerolling and other uses	--	--	1	997
Used rails other	(4)	68	1	1,300
Total scrap imports	395	245,000	3,680	1,750,000
Imports of manufactured ferrous products:				
Pig iron < or = 0.5% phosphorus	(4)	304	(4)	633
Pig iron > or = 0.5% phosphorus	626	387,000	4,270	2,310,000
Alloy pig iron	(4)	16	(4)	510
Total pig iron	626	387,000	4,270	2,310,000
Direct-reduced iron (DRI)	279	126,000	2,330	885,000
Spongy iron products, not DRI	(4)	1,320	2	3,790
Granules for abrasive cleaning and other uses	2	3,700	18	25,700
Powders of alloy steel	5	10,200	41	81,400
Other ferrous powders	3	6,590	29	55,400
Total DRI, granules, powders	290	148,000	2,420	1,050,000
Grand total	1,310	779,000	10,400	5,110,000

-- Zero.

¹Import valuation is on a Customs basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. RAW STEEL PRODUCTION, RAW STEEL CAPABILITY UTILIZATION,
AND CONTINUOUS CAST STEEL PRODUCTION¹

Period	Raw steel production, thousand metric tons		Raw steel capability utilization, percent		Continuous cast steel production, percent	
	Monthly	Year	Monthly	Year	Monthly	Year
		to date ²		to date ²		to date ²
2020:						
August	5,930	47,800	65.9	66.6	99.8	99.8
September	5,980	53,700	68.6	66.8	99.8	99.9
October	6,220	60,000	70.1	67.1	99.8	99.8
November	6,300	66,300	73.3	67.7	99.8	99.8
December	6,480	72,700	72.9	68.1	99.8	99.8
2021:						
January	6,970	6,970	76.6	76.6	99.8	99.8
February	6,320	13,300	76.8	76.7	99.8	99.8
March	7,100	20,400	78.0	77.1	99.8	99.8
April	7,130	27,500	80.8	78.0	99.8	99.8
May	7,370	34,900	81.0	78.7	99.8	99.8
June	7,170	42,100	83.0	79.4	99.8	99.8
July	7,480	49,500	84.4	80.1	99.8	99.8
August	7,520	57,100	84.8	80.7	99.8	99.8

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

²May include revisions to previously published data.

Source: American Iron and Steel Institute.

TABLE 11
COMPOSITE PRICES FOR STEEL SCRAP AND PIG IRON

Period	Steel Scrap ¹		Pig Iron ²	
	\$/lt	\$/t	\$/lt	\$/t
2020:				
August	209.05	205.75	327.75	322.57
September	240.24	236.45	272.50	268.20
October	244.48	240.62	272.50	268.20
November	248.28	244.36	333.35	328.09
December	304.43	299.62	333.35	328.09
Average, January–December	231.28	227.62	313.73	308.78
2021:				
January	390.18	384.02	537.00	528.52
February	371.23	365.37	508.08	500.06
March	401.96	395.61	423.17	416.49
April	394.84	388.60	479.13	471.56
May	410.08	403.60	568.14	559.17
June	452.46	445.31	568.14	559.17
July	461.67	454.38	500.00	492.10
August	438.33	431.41	581.71	572.52

¹Prices are for No. 1 heavy melting steel scrap. Source: Fastmarkets AMM.

²Basic pig iron (HTS 7201.00.0000), average unit value, free on board, from Brazil received at New Orleans, LA. Source: U.S. Census Bureau.

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