

Mineral Industry Surveys

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MANGANESE IN JULY 2015

Preliminary estimates for July 2015 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 42,700 metric tons (t) (gross weight). This was a slight decrease compared with the amount consumed in June 2015. Manganese ore consumption during the first 7 months of 2015 was about 321,000 t, 23% more than the amount consumed during the same period of 2014 (262,000 t) (fig.1). This year-over-year increase was primarily the result of resumed production at Felman Production, LLC's silicomanganese production facility in Letart, WV, in July 2014. Industry stocks of ore at the end of July 2015 were estimated to be 169,000 t, which was slightly more than the amount at the end of June 2015 (165,000 t).

Combined U.S. imports of manganese dioxide and manganese ore (contained weight) were 52% and 16% lower, respectively, in July 2015 compared to the average monthly amounts imported during the first and second quarters of 2015 (table 2). This was mainly a result of the continued delay in the restart of one of two idled furnaces at Felman Production's silicomanganese plant.

Industry News

Manganese ferroalloys production in the second quarter of 2015 by Brazil's Vale S.A. was down by 28.6% compared with the same period in 2014. Vale temporarily closed its Barbacena and Ouro Preto plants in the State of Minas Gerais, owing to unsustainable higher electricity costs (Evans, 2015). U.S. imports of ferromanganese from Brazil during the first 7 months of 2015 were 485 t, which was 65% less than the amount imported during the same period in 2014 (1,400 t). There were no U.S. imports of silicomanganese from Brazil during the first

7 months of 2015, down from 7,550 t during the same period in 2014.

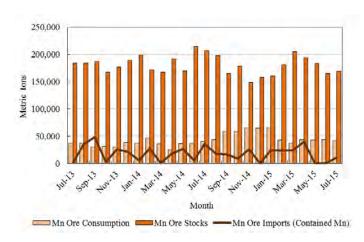


Figure 1. Monthly domestic consumption, stocks, and imports of manganese (Mn) ore from July 2013–July 2015. Sources: U.S. Census Bureau and U.S. Geological Survey.

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Reference Cited

Evans, John, 2015, Vale ferro-alloys output continues to suffer from electricity price hike: Metal-Pages, July 23. (Accessed July 23, 2015, via http://www.metal-pages.com/.)

 ${\it TABLE~1}$ PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN JULY 2015

		High	Low	Average	Average low, mid, and high
Manganese ferroalloys: ¹					-
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	900.00	840.00	873.00	XX
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	95.00	94.00	94.50	XX
Silicomanganese, 65% manganese	do.	50.00	48.00	49.00	XX
Manganese metal, 99.9% manganese flake ²	cents per pound	115.00	112.00	XX	112.00-113.50-115.00
Manganese ore: ^{3, 4}					
36%–39% manganese	dollars per metric ton unit contained manganese	2.70	2.65	XX	2.65-2.68-2.70
44% manganese	do.	3.05	2.80	XX	2.80-2.93-3.05
46% manganese	do.	3.35	3.25	XX	3.25-3.30-3.35

do. Ditto. XX Not applicable.

¹Platts Metals Week; in U.S. warehouse; average prices reported for all transactions during the month.

²CRU Ryan's Notes North American transaction prices, electrolytic manganese metal flake, 99.99% manganese, free-on-board producing point or Chicago/Pittsburgh warehouse; average prices reported for the price range.

³CRU Ryan's Notes, cost and freight, China; average prices reported for the price range.

⁴To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 46 when the manganese content is 46%.

 $\label{eq:table 2} \textbf{TABLE 2}$ SELECTED U.S. FOREIGN TRADE IN MANGANESE 1

(Metric tons, manganese content)²

	Impor	ts for consump	tion		Exports	
	Ore and	Ferroalloy				
	dioxide	and metal	Total	Ore	and metal	Total
2014:						
July	37,100	37,900	75,000	9	965	974
January-July	127,000	353,000	480,000	306	5,770	6,080
2015:						
January	25,200	53,800	78,900	9	894	903
February	24,300 ³	44,300	68,600 ³	27	378	405
March	24,600	32,800	57,300	56	292	348
April	40,700	40,900	81,500	9	582	591
May	745	67,900	68,600	25	235	260
June	526	30,700	31,200	36	337	373
July	11,700	49,000	60,700	8	866	875
January-July	128,000	319,000	447,000	170	3,590	3,750

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

Source: U.S. Census Bureau.

 ${\bf TABLE~3} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~SILICOMANGANESE~IN~JULY~2015}^1$

(Metric tons)

					January-Jul	y
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value ²	weight	content	value ²
Australia				35,800	23,500	\$38,700,000
China				10	7	20,100
Georgia	15,600	11,200	\$15,000,000	62,400	45,200	63,600,000
India				2,340	1,430	3,760,000
Indonesia				23	15	24,800
Korea, Republic of	2,000	1,400	1,980,000	2,000	1,400	1,980,000
Mexico	3,750	2,450	3,670,000	18,900	12,300	18,900,000
Norway	2,310	1,320	3,130,000	12,600	7,770	17,500,000
South Africa	7,770	5,070	7,680,000	65,000	42,200	68,100,000
Spain	1,580	1,030	1,550,000	9,820	6,400	9,580,000
Zambia				3,300	2,150	3,200,000
Total	33,000	22,500	33,000,000	212,000	142,000	225,000,000

⁻⁻ Zero.

²As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

³Revised based on U.S. Geological Survey inquiry to the U.S. Census Bureau.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

 ${\it TABLE~4} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~FERROMANGANESE~IN~JULY~2015}^1$

(Metric tons)

				January–July		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value ²	weight	content	value ²
Low carbon:						
China	923	827	\$1,770,000	8,800	8,120	\$19,200,000
Germany	28	27	79,000	126	117	344,000
Korea, Republic of	905	739	1,920,000	2,410	2,000	5,160,000
Mexico				400	315	631,000
Norway	2,990	2,430	4,330,000	14,700	11,900	23,200,000
South Africa	152	144	394,000	330	313	854,000
Total	5,000	4,170	8,500,000	26,700	22,700	49,400,000
Medium carbon, 1%–2% C:						
Australia				1,300	1,040	1,040,000
China				80	61	177,000
Egypt				298	242	444,000
Korea, Republic of	11,200	8,920	17,500,000	23,800	19,000	38,500,000
Mexico	519	392	982,000	1,710	1,310	3,060,000
Norway	600	489	759,000	6,140	5,000	8,700,000
South Africa	2,590	1,990	3,870,000	13,600	10,900	21,900,000
Total	15,000	11,800	23,100,000	47,000	37,500	73,800,000
Medium carbon, 2%–4% C:		•		•		
China	3	3	7,640	16	13	36,100
Norway				36	29	64,000
South Africa				424	333	1,200,000
Spain	1	1	3,190	1	1	3,190
Vietnam			·	54	42	76,100
Total		4	10,800	532	419	1,380,000
High carbon:						
Australia				15,700	11,700	13,200,000
Brazil	162	120	120,000	485	361	378,000
Canada				39	27	55,500
France				49	37	40,700
Korea, Republic of	3,240	2,430	2,440,000	4,970	3,750	3,910,000
Norway	1,000	817	1,280,000	3,000	2,390	2,960,000
South Africa	5,890	4,300	4,450,000	86,100	64,400	77,800,000
Spain		,	· · ·	812	551	774,000
Ukraine		18	38,400	16,700	12,900	13,900,000
Zambia	<u> </u>			20	13	29,600
Total	10,300	7,690	8,340,000	128,000	96,000	113,000,000
Grand total	30,300	23,600	40,000,000	202,000	157,000	238,000,000
Zero	20,200	20,000	.0,000,000	202,000	107,000	_20,000,000

⁻⁻ Zero.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the material into the United States.

 ${\rm TABLE~5}$ U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN JULY 2015^1

(Metric tons)

					January-July	
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value ²	weight	content	value ²
han 20%, but less than 47% manganese:						
on	9,050	3,890	\$1,040,000	32,600 ³	14,000 ³	\$3,850,000 3
ico	1,510	694	357,000	1,510	694	357,000
h Africa				40,000	14,700	4,290,000
tal	10,600	4,590	1,400,000	74,100 ³	29,400 ³	8,490,000 3
r more manganese:						
ralia				19,800	9,830	5,840,000
il				3,570	1,840	1,160,000
ıda				60	31	12,500
ıa				8	4	7,840
ce				15	8	19,600
on	10,100	5,200	2,690,000	158,000 ³	81,700 3	$40,100,000^{-3}$
/ Coast				18	8	19,400
ico	3,000	1,410	870,000	3,000	1,410	870,000
эссо	39	34	51,100	77	68	102,000
erlands				(4)	(4)	23,900
h Africa	80	40	20,400	1,120	558	299,000
tal	13,200	6,690	3,640,000	186,000 ³	95,400 ³	48,400,000 ³
ıd total	23,800	11,300	5,040,000	260,000	125,000	56,900,000

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

ms value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other s incurred in bringing the material into the United States.

ions made to prior months data based on U.S. Geological Survey inquiry to the U.S. Census Bureau. han $\frac{1}{2}$ unit.

:: U.S. Census Bureau.

 ${\bf TABLE~6}$ U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN JULY 2015^1

(Metric tons, gross weight)

			January–July		
		Customs		Customs	
Source	Quantity	value ²	Quantity	value ²	
Belgium			39	\$179,000	
China	120	\$92,600	197	210,000	
Germany	2	9,600	11	38,900	
India			(3)	8,640	
Japan	604	1,380,000	3,800	8,800,000	
Korea, Republic of			(3)	3,880	
Mexico			(3)	4,220	
Netherlands			89	73,900	
Poland			(3)	4,320	
Singapore	23	39,300	106	181,000	
South Africa			275	468,000	
Spain			4	13,600	
Turkey			156	266,000	
Total	748	1,520,000	4,680	10,200,000	

⁻⁻ Zero.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

³Less than ½ unit.

 ${\it TABLE~7} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~METAL~IN~JULY~2015}^1$

(Metric tons)

			Janua	ry–July
	Gross	Customs	Gross	Customs
Source	weight	value ²	weight	value ²
Unwrought flake:				
China	569	\$1,020,000	5,610	\$11,000,000
Japan	32	110,000	236	804,000
Mexico	18	60,400	27	89,400
South Africa	826	1,920,000	5,610	14,300,000
Total	1,450	3,110,000	11,500	26,200,000
Unwrought powder:				
China			285	675,000
Mexico			123	380,000
South Africa	277	861,000	1,180	3,830,000
Total	277	861,000	1,590	4,880,000
Unwrought, other:				
China	795	1,540,000	5,420	11,800,000
Germany	48	117,000	194	453,000
Russia			12	12,200
South Africa	38	103,000	173	442,000
Spain	191	462,000	351	849,000
United Kingdom			(3)	2,790
Total	1,070	2,220,000	6,150	13,500,000
Other manganese, wrought:				
France			2	29,500
Germany			125	1,330,000
India			4	18,000
Japan			(3)	27,500
Korea, Republic of			515	1,170,000
Mexico			90	309,000
Sweden			(3)	4,500
United Kingdom	9	102,000	9	102,000
Total	9	102,000	745	2,990,000
Metallic waste and scrap, Canada			435	113,000
Grand total	2,800	6,290,000	20,400	47,700,000

⁻⁻ Zero.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

³Less than ½ unit.

TABLE~8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN JULY 2015 $^{1,\,2}$

			January–July		
	Gross weight	F.a.s. ³ value	Gross weight	F.a.s. ³ value	
Source	(metric tons)	(thousands)	(metric tons)	(thousands)	
Ore and concentrates with 20% or more manganese:					
Israel			1	\$8	
Mexico			5	17	
Netherlands	17	\$69	145	579	
Poland			15	10	
United Kingdom			173	138	
Total	17	69	339	753	
Ferromanganese:					
2% or less carbon:					
Canada	332	482	1,120	1,680	
France			8	15	
Mexico		15	9	25	
United Kingdom			5	9	
Venezuela	1	3	1	3	
Total	339	500	1,140	1,730	
More than 2% carbon:		200	1,110	1,750	
Angola			2	3	
Canada	261	248	578	575	
Congo			7	14	
Denmark	 7	19	7	19	
Equatorial Guinea			9	20	
Germany			4	11	
Israel		21	7	21	
Italy	/		22	38	
Mexico		31	19	31	
Venezuela	19	31	2	6	
		6	3	10	
Other (3 countries) Total	297	328	659	747	
		328	039	747	
Silicomanganese: Canada		25	340	421	
India	14	25	20	18	
Mexico				229	
Venezuela			155		
Total	<u>1</u> 15	30	1	5	
	15	30	515	673	
Metal, including alloys and waste and scrap ^{:4} Canada		19	38	99	
China					
			100	241	
Germany			26	108	
Japan	46	154	143	500	
Malaysia	277	147	1,170	683	
Netherlands		 574	81	325	
Norway	13	574	32	1,430	
Pakistan			120	50	
Taiwan			40	21	
United Kingdom	7	39	24	130	
Other (8 countries)	5	59	53	620	
Total	354	992	1,820	4,210	
Grand total Zero.	1,020	1,920	4,480	8,110	

⁻⁻ Zero.

¹Presentation of monthly data is based on the "January–July" quantities of the leading countries.

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

³Free alongside ship.

⁴Includes manganese-aluminum, other alloys, and waste and scrap.

TABLE 9 $\mbox{U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS } \\ \mbox{IN JULY 2015, BY CLASS}^1$

					ary–July	
	Gross weight	Value ²	Principal sources and destinations: gross weight (metric tons);	Gross weight	Value ²	Principal sources and destinations: gross weight (metric tons);
Class	(metric tons)	(thousands)	value ² (thousands)	(metric tons)	(thousands)	value ² (thousands)
Imports for consumption:	((* * * * * * * * * * * * * * * * * * *	varae (mousaires)	(,, , , , , , , , , , , , , , , , , ,	(* * * * * * * * * * * * * * * * * * *	varae (mousanas)
Manganese oxides other than dioxide	988	\$873	Korea, Republic of 583; \$517	6,690	\$5,270	Korea, Republic of 2,830; \$2,290
Manganites, manganates, and						*
other permanganates				123	376	China 120; \$318
Potassium permanganate	18	48	India 18; \$48	585	1,540	India 576; \$1,520
Sodium permanganate	214	500	China 214; \$500	1,320	2,980	China 1,320; \$2,980
Sulfates, basket category,						
including manganese sulfate	3,530	3,090	Mexico 1,510; \$1,460	39,400	34,200	Mexico 12,600; \$11,200
Exports:						
Manganese dioxide	258	683	Canada 109; \$124	1,750	4,140	Canada 503; \$536
Manganese oxides other than dioxide	710	1,360	Belgium 226; \$272	4,960	8,370	United Arab Emirates 732; \$864
Manganites, manganates, and						
other permanganates	8	18	Canada 8; \$15	83	332	Canada 77; \$161
Potassium permanganate	209	528	Belgium 90; \$212	2,350	5,870	Belgium 1,400; \$3,190
Sodium permanganate	33	60	Mexico 19; \$42	509	1,510	Mexico 248; \$932
Sulfates, basket category,						
including manganese sulfate	1,790	1,420	Canada 1,530; \$688	15,400	11,100	Canada 13,200; \$5,460

⁻⁻ Zero.

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

²For imports, customs value; for exports, free alongside ship value.