

Mineral Industry Surveys

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MANGANESE IN SEPTEMBER 2007

Preliminary data (gross weight) for September 2007 indicate that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 9,730 metric tons (t), according to the U.S. Geological Survey. This was the same as that in August 2007. Corresponding industry stocks of ore at the end of the month were 135,000 t, which was a 43% increase from those at the end of August 2007. These data include estimates for annual respondents on the basis of 2006 data.

Domestic consumption of manganese ore during the third quarter of 2007 was 45,300 t, which was a 50% decrease from that during the second quarter of 2007, and a 47% decrease from the third quarter of 2006. Domestic consumption during the first 9 months of 2007 was 213,000 t, which was 18% lower than the consumption for the first 9 months of 2006.

U.S. trade data for August 2007 are published in this issue.

Ferroalloy Prices, manganese content

| | High-carbon ferromanganese ¹ (dollars per gross ton) | Medium-carbon ferromanganese ¹ (cents per pound) | Silicomanganese ¹ (cents per pound) | Manganese metal ² (cents per pound) |
|--------------|--|--|---|---|
| September 6 | 1,590.00-1,630.00 | 100.00-105.00 | 83.00-90.00 | 240.00-260.00 |
| September 13 | 1,590.00-1,630.00 | 95.00-105.00 | 83.00-90.00 | 240.00-260.00 |
| September 20 | 1,590.00-1,630.00 | 95.00-110.00 | 83.00-90.00 | 240.00-260.00 |
| September 27 | 1,600.00-1,650.00 | 100.00-120.00 | 83.00-90.00 | 210.00-240.00 |

Ore Prices, dollars per metric ton unit, manganese content³

| | 44% Manganese Ore ² | 48% Manganese Ore ² |
|--------------|--------------------------------|--------------------------------|
| September 6 | 7.10-7.30 | 7.40-7.80 |
| September 13 | 7.10-7.30 | 7.70-7.80 |
| September 20 | 7.40-7.60 | 7.70-7.80 |
| September 27 | 7.40-7.60 | 7.70-8.00 |

¹Source: Platts Metals Week, dealer import price.

²Source: Ryan's Notes, North American transaction price.

³To determine dollars per metric ton, multiply the manganese content percentage by the price.

TABLE 1
SELECTED U.S. FOREIGN TRADE IN MANGANESE¹

(Metric tons, manganese content)²

| | Imports for consumption | | | Exports | | |
|----------------|-------------------------|----------------------|---------|---------|----------------------|--------|
| | Ore and dioxide | Ferroalloy and metal | Total | Ore | Ferroalloy and metal | Total |
| 2006: | | | | | | |
| August | 5,710 | 54,400 | 60,100 | 36 | 838 | 874 |
| January-August | 162,000 | 358,000 | 520,000 | 492 | 18,600 | 19,100 |
| 2007: | | | | | | |
| January | 24,500 | 40,300 | 64,800 | 77 | 1,180 | 1,250 |
| February | 48,500 | 35,700 | 84,200 | 144 | 7,350 | 7,500 |
| March | 20,300 | 36,000 | 56,400 | 29 | 694 | 724 |
| April | 15,600 | 44,800 | 60,400 | 57 | 1,030 | 1,090 |
| May | 37,200 | 66,500 | 104,000 | 93 | 6,110 | 6,200 |
| June | 26,000 | 47,200 | 73,300 | 163 | 4,250 | 4,410 |
| July | 25,600 | 30,000 | 55,700 | 93 | 1,830 | 1,930 |
| August | 44,300 | 66,100 | 110,000 | 95 | 836 | 931 |
| Total | 242,000 | 367,000 | 609,000 | 751 | 23,300 | 24,000 |

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

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

Source: U.S. Census Bureau.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN AUGUST 2007¹

(Metric tons)

| Source | Gross weight | Mn content | Customs value ² | Year to date | | |
|--------------------|--------------|------------|----------------------------|--------------|------------|----------------------------|
| | | | | Gross weight | Mn content | Customs value ² |
| Australia | 4,520 | 3,020 | \$6,960,000 | 23,200 | 15,700 | \$20,100,000 |
| Canada | -- | -- | -- | 478 | 345 | 352,000 |
| China | -- | -- | -- | 34 | 33 | 115,000 |
| Georgia | 17,700 | 13,100 | 26,400,000 | 38,500 | 28,200 | 46,700,000 |
| Korea, Republic of | 1,610 | 1,050 | 1,860,000 | 4,240 | 2,650 | 5,060,000 |
| Macedonia | -- | -- | -- | 13,000 | 8,640 | 11,500,000 |
| Mexico | 1,040 | 678 | 892,000 | 10,000 | 6,580 | 7,770,000 |
| Morocco | -- | -- | -- | 20 | 20 | 6,000 |
| Netherlands | -- | -- | -- | 21 | 13 | 24,400 |
| Norway | 7,800 | 4,750 | 13,400,000 | 36,600 | 22,800 | 43,200,000 |
| Romania | 6,980 | 5,200 | 11,400,000 | 21,100 | 14,800 | 22,700,000 |
| Russia | 2,200 | 1,460 | 2,890,000 | 2,550 | 1,700 | 3,210,000 |
| South Africa | 9,700 | 6,450 | 15,600,000 | 111,000 | 73,800 | 97,600,000 |
| Total | 51,500 | 35,700 | 79,400,000 | 260,000 | 175,000 | 258,000,000 |

-- 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.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN AUGUST 2007¹

(Metric tons)

| Source | Gross weight | Mn content | Customs value ² | Year to date | | |
|--------------------------------|------------------|------------------|----------------------------|--------------|------------|----------------------------|
| | | | | Gross weight | Mn content | Customs value ² |
| Low carbon: | | | | | | |
| China | 2,810 | 2,390 | \$3,870,000 | 22,000 | 18,400 | \$30,000,000 |
| Japan | -- | -- | -- | 1,100 | 935 | 1,400,000 |
| Korea, Republic of | 200 | 162 | 620,000 | 2,200 | 1,760 | 2,850,000 |
| Mexico | 419 | 343 | 521,000 | 3,370 | 2,740 | 3,790,000 |
| Norway | -- | -- | -- | 439 | 357 | 649,000 |
| Russia | -- | -- | -- | 60 | 50 | 189,000 |
| South Africa | -- | -- | -- | 5,400 | 4,410 | 4,990,000 |
| Total | 3,430 | 2,900 | 5,010,000 | 34,500 | 28,700 | 43,800,000 |
| Medium carbon, 1%-2% C: | | | | | | |
| China | 2,770 | 2,220 | 1,300,000 | 8,950 | 7,180 | 7,870,000 |
| Japan | -- | -- | -- | 1,700 | 1,450 | 1,990,000 |
| Korea, Republic of | -- | -- | -- | 3,800 | 3,070 | 4,090,000 |
| Mexico | 436 | 356 | 524,000 | 4,710 | 3,780 | 4,350,000 |
| South Africa | 3,890 | 3,150 | 6,010,000 | 14,800 | 12,000 | 18,600,000 |
| Spain | -- | -- | -- | 60 | 48 | 107,000 |
| Turkey | -- | -- | -- | 20 | 20 | 38,000 |
| Total | 7,100 | 5,720 | 7,830,000 | 34,000 | 27,500 | 37,000,000 |
| High carbon: | | | | | | |
| Australia | -- | -- | -- | 503 | 384 | 312,000 |
| Brazil | -- | -- | -- | 1,720 | 1,340 | 1,300,000 |
| China | 1,050 | 796 | 1,460,000 | 22,000 | 16,800 | 17,100,000 |
| Egypt | -- | -- | -- | 1,470 | 1,100 | 1,440,000 |
| France | -- | -- | -- | 1,300 | 1,050 | 970,000 |
| Georgia | -- | -- | -- | 2,010 | 1,580 | 1,910,000 |
| India | 263 | 201 | 385,000 | 263 | 201 | 385,000 |
| Mexico | -- | -- | -- | 20 | 16 | 29,900 |
| Poland | -- | -- | -- | 778 | 595 | 1,090,000 |
| Saudi Arabia | 490 ³ | 261 ³ | 149,000 | 490 | 261 | 149,000 |
| South Africa | 22,400 | 17,400 | 26,800,000 | 110,000 | 85,100 | 93,100,000 |
| Spain | 1,250 | 950 | 1,830,000 | 1,250 | 950 | 1,830,000 |
| Venezuela | 290 | 226 | 406,000 | 1,040 | 715 | 909,000 |
| Total | 25,800 | 19,900 | 31,000,000 | 143,000 | 110,000 | 121,000,000 |
| Grand total | 36,300 | 28,500 | 43,800,000 | 211,000 | 166,000 | 201,000,000 |

-- 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.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN AUGUST 2007^{1,2}

(Metric tons)

| Source | Gross | | Customs value ³ | Year to date | | Customs value ³ |
|--|--------|------------|-------------------------------|-----------------|------------|-------------------------------|
| | weight | Mn content | | Gross weight | Mn content | |
| More than 20%, but less than 47% manganese: | | | | | | |
| Australia | -- | -- | -- | 27,500 | 12,500 | \$2,940,000 |
| China | -- | -- | -- | 31,500 | 7,830 | 1,060,000 |
| Gabon | -- | -- | -- | 46,600 | 20,300 | 3,860,000 |
| Mexico | -- | -- | -- | 3,110 | 1,120 | 367,000 |
| South Africa | 18,600 | 8,720 | \$1,740,000 | 60,400 | 26,900 | 4,370,000 |
| Total | 18,600 | 8,720 | 1,740,000 | 169,000 | 68,600 | 12,600,000 |
| 47% or more manganese: | | | | | | |
| Australia | -- | -- | -- | 43,000 | 22,500 | 6,300,000 |
| Brazil | 88 | 44 | 69,400 | 21,700 | 10,900 | 1,940,000 |
| China | 16 | 10 | 8,880 | 4,570 | 2,630 | 524,000 |
| Gabon | 47,200 | 25,700 | 4,690,000 | 161,000 | 96,500 | 16,800,000 |
| Mexico | -- | -- | -- | 3,040 | 1,520 | 183,000 |
| South Africa | 18,500 | 8,950 | 1,920,000 | 54,200 | 26,700 | 5,190,000 |
| Total | 65,800 | 34,800 | 6,680,000 | 288,000 | 161,000 | 30,900,000 |
| Grand total | 84,400 | 43,500 | 8,420,000 | 457,000 | 229,000 | 43,500,000 |

-- Zero.

¹Quantities for general imports and imports for consumption are identical.

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

³Customs 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.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN AUGUST 2007¹

(Metric tons, gross weight)

| Source | Quantity | Customs value ² | Year to date | |
|--------------|----------|-------------------------------|--------------|-------------------------------|
| | | | Quantity | Customs value ² |
| Australia | 653 | 817,000 | 9,860 | \$13,400,000 |
| Belgium | 36 | 84,100 | 235 | 594,000 |
| Brazil | -- | -- | 73 | 100,000 |
| China | 629 | 644,000 | 7,370 | 7,670,000 |
| Colombia | 10 | 16,700 | 54 | 39,600 |
| Germany | -- | -- | 58 | 125,000 |
| Japan | 23 | 43,600 | 3,180 | 4,360,000 |
| Mexico | -- | -- | 347 | 577,000 |
| Singapore | 7 | 12,000 | 61 | 82,400 |
| South Africa | -- | -- | 1 | 3,200 |
| Total | 1,360 | 1,620,000 | 21,200 | 26,900,000 |

-- 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.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN AUGUST 2007¹

(Metric tons)

| Source | Gross weight | Customs value ² | Year to date | |
|----------------------------------|--------------|----------------------------|---------------|----------------------------|
| | | | Gross weight | Customs value ² |
| Unwrought flake: | | | | |
| China | 485 | \$1,720,000 | 15,200 | \$35,500,000 |
| Hong Kong | -- | -- | 180 | 617,000 |
| South Africa | 95 | 236,000 | 1,140 | 2,280,000 |
| Total | 580 | 1,960,000 | 16,500 | 38,400,000 |
| Unwrought powder: | | | | |
| China | 396 | 1,690,000 | 1,740 | 4,830,000 |
| South Africa | 333 | 627,000 | 3,050 | 5,580,000 |
| Total | 729 | 2,320,000 | 4,790 | 10,400,000 |
| Unwrought, other: | | | | |
| China | 234 | 686,000 | 1,660 | 3,640,000 |
| Germany | 189 | 777,000 | 838 | 2,420,000 |
| Russia | 16 | 85,600 | 31 | 171,000 |
| Spain | 25 | 42,300 | 110 | 177,000 |
| United Kingdom | -- | -- | 11 | 51,900 |
| Total | 464 | 1,590,000 | 2,650 | 6,460,000 |
| Other manganese, wrought: | | | | |
| China | -- | -- | 354 | 878,000 |
| France | 4 | 67,900 | 36 | 529,000 |
| Japan | -- | -- | (3) | 2,100 |
| Mexico | 61 | 280,000 | 196 | 586,000 |
| Spain | -- | -- | 50 | 127,000 |
| Taiwan | -- | -- | 1 | 14,300 |
| United Kingdom | 19 | 97,800 | 75 | 376,000 |
| Total | 84 | 446,000 | 711 | 2,510,000 |
| Grand total | 1,860 | 6,310,000 | 24,600 | 57,800,000 |

-- 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.

³Less than ½ unit.

Note: Imports for consumption of metallic waste and scrap totaled 112 metric tons, all of which was from Canada, to give a year-to-date total of 833 metric tons.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,
AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN AUGUST 2007¹

(Metric tons, gross weight)

| Country | Manganese ore | | Ferromanganese, 2% or less C | | Silicomanganese | | Manganese metal ² | |
|--------------------|---------------|--------------|---------------------------------|--------------|-----------------|--------------|------------------------------|--------------|
| | August | Year to date | August | Year to date | August | Year to date | August | Year to date |
| Argentina | -- | -- | -- | -- | -- | -- | -- | 6 |
| Australia | -- | -- | -- | -- | 1 | 3 | 4 | 7 |
| Belgium | -- | 8 | -- | -- | -- | -- | 19 | 513 |
| Brazil | -- | -- | -- | -- | -- | -- | -- | 1 |
| Canada | 112 | 722 | 239 | 2,770 | 3 | 2,820 | 6 | 24 |
| Chile | -- | -- | -- | -- | -- | -- | -- | 8 |
| China | 44 | 44 | -- | -- | -- | -- | 4 | 158 |
| Colombia | -- | -- | -- | -- | -- | -- | -- | 138 |
| Dominican Republic | -- | -- | -- | -- | 32 | 32 | -- | -- |
| France | -- | -- | -- | -- | -- | -- | -- | 5 |
| Germany | 34 | 400 | -- | -- | -- | -- | 4 | 158 |
| Hong Kong | -- | -- | -- | -- | -- | -- | 14 | 230 |
| India | -- | -- | -- | -- | -- | -- | -- | 114 |
| Ireland | -- | -- | -- | 29 | -- | -- | -- | -- |
| Israel | -- | -- | -- | -- | -- | -- | -- | 8 |
| Jamaica | -- | -- | -- | -- | -- | -- | -- | (3) |
| Japan | -- | -- | -- | -- | -- | -- | -- | 394 |
| Korea, Republic of | -- | 94 | -- | -- | -- | -- | -- | 1 |
| Malaysia | -- | 5 | -- | -- | -- | -- | 6 | 11 |
| Mexico | -- | 20 | -- | -- | 38 | 224 | 46 | 63 |
| South Africa | -- | -- | -- | -- | -- | -- | -- | 5 |
| Sweden | -- | -- | -- | -- | -- | -- | -- | 26 |
| Taiwan | -- | -- | -- | -- | -- | -- | -- | 65 |
| United Kingdom | -- | -- | -- | 5 | -- | -- | -- | 3 |
| Venezuela | -- | -- | -- | -- | -- | -- | -- | 28 |
| Vietnam | -- | 209 | -- | -- | -- | -- | 28 | 28 |
| Total | 191 | 1,500 | 239 | 2,800 | 74 | 3,070 | 130 | 1,990 |

-- Zero.

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

²Includes manganese-aluminum, some other alloys, and waste and scrap.

³Less than ½ unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 593 metric tons, of which 567 metric tons went to Canada; 15 metric tons went to Malaysia; 11 metric tons went to Mexico; to give a year-to-date total of 21,570 metric tons.

Source: U.S. Census Bureau.

TABLE 8
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN AUGUST 2007, BY CLASS¹

| Class | Gross weight (metric tons) | Value ² (thousands) | Principal sources and destinations: gross weight (metric tons); value ² (thousands) | Year to date | | |
|---|-------------------------------|-----------------------------------|---|-------------------------------|-----------------------------------|---|
| | | | | Gross weight (metric tons) | Value ² (thousands) | Principal sources and destinations: gross weight (metric tons); value ² (thousands) |
| Imports for consumption: | | | | | | |
| Manganese oxides other than dioxide | 557 | \$314 | South Africa 316; \$145 | 3,550 | \$2,300 | Mexico 2,150; \$968 |
| Manganites, manganates, and other permanganates | -- | -- | -- | -- | -- | -- |
| Potassium permanganate | 36 | 85 | India 18; \$43 | 797 | 1,910 | India 410; \$993 |
| Sodium permanganate | -- | -- | -- | 169 | 282 | China 169; \$282 |
| Sulfates, basket category, including manganese sulfate | 3,330 | 2,080 | China 2,190; \$1,220 | 28,500 | 14,700 | China 14,890; \$6,520 |
| Exports: | | | | | | |
| Manganese dioxide | 711 | 527 | Canada 455; \$248 | 5,930 | 5,630 | Canada 2,930; \$1,580 |
| Manganese oxides other than dioxide | 1,820 | 1,140 | Canada 1,550; \$590 | 11,000 | 7,450 | Canada 7,720; \$3,010 |
| Manganites, manganates, and other permanganates | 7 | 19 | Canada 7; \$19 | 58 | 146 | Canada 49; \$118 |
| Potassium permanganate | 330 | 689 | Belgium 205; \$362 | 1,710 | 3,960 | Belgium 839; \$1,480 |
| Sodium permanganate | 50 | 144 | Belgium 20; \$43 | 1,070 | 2,650 | Spain 398; \$1,010 |
| Sulfates, basket category, including manganese sulfate | 2,300 | 2,320 | Canada 1,650; \$1,510 | 18,100 | 14,700 | Canada 12,100; \$7,560 |

-- Zero.

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

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

Source: U.S. Census Bureau.