



# MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
WASHINGTON 25, D. C.



Stewart L. Udall, Secretary

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Iron and Steel Scrap,  
Monthly

## IRON AND STEEL SCRAP IN DECEMBER, 1963 (Final Data)

Total domestic consumption of iron and steel scrap for December 1963 dropped less than one-half percent, according to data compiled by the Bureau of Mines, U.S. Department of the Interior. Domestic consumption of pig iron rose 6.5 percent over that of November 1963. The total metallics charge of 11,893,514 short tons was up 2.9 percent, with the scrap and pig iron charges evenly divided at 50 percent.

Steelmaking furnaces consumed 4,452,089 short tons of iron and steel scrap, down less than one-half percent from November. Of the 9,891,622 short tons of total metallics that went in to these open-hearth, electric, Bessemer, and basic oxygen converter furnaces during December, 45 percent was iron and steel scrap. The open-hearth charge consisted of 41 percent steel scrap, while the electric furnaces consumed 992,225 short tons, 2.5 percent less than in November.

Table 1 - Production, receipts, consumption, and consumers' stocks of ferrous scrap and pig iron, July 1963 through December 1963, in short tons

| Date       | Scrap for consumption |                                |           | Consumption |           | Consumers' stocks at end of month |                        |
|------------|-----------------------|--------------------------------|-----------|-------------|-----------|-----------------------------------|------------------------|
|            | Home scrap produced   | Purchased scrap received (net) | Total     | Scrap       | Pig iron  | Scrap                             | Pig iron <sup>1/</sup> |
| July 1963  | 3,731,562             | 2,226,542                      | 5,958,104 | 5,681,168   | 5,909,026 | 8,011,055                         | 2,781,851              |
| Aug. 1963  | 3,404,164             | 2,106,721                      | 5,510,885 | 5,424,861   | 5,270,301 | 8,096,917                         | 2,803,604              |
| Sept. 1963 | 3,363,384             | 2,130,682                      | 5,494,066 | 5,272,716   | 5,224,259 | 8,012,650                         | 2,811,216              |
| Oct. 1963  | 3,670,250             | 2,516,120                      | 6,186,370 | 6,196,853   | 5,603,144 | 8,001,876                         | 2,812,965              |
| Nov. 1963  | 3,512,890             | 2,384,813                      | 5,897,703 | 5,970,622   | 5,587,378 | 7,962,246                         | 2,826,844              |
| Dec. 1963  | 3,535,369             | 2,337,186                      | 5,872,555 | 5,944,026   | 5,949,488 | 7,937,166                         | 2,806,046              |

<sup>1/</sup> Suppliers' stocks included with consumers' stocks.

<sup>2/</sup> Excludes 270,505 short tons of scrap shipped, transferred, or otherwise disposed of during month.

Prepared June 25, 1964, by R. A. Whitman, Physical Scientist.

Gray iron foundries showed a slight gain in the use of iron and steel scrap for December with a total consumption of 1,042,449 short tons. Pig iron consumption remained fairly constant at 291,261 short tons.

The slight drop in U.S. consumers' stocks of iron and steel scrap, 7,937,166 short tons, represented a 41-day supply at the December daily consumption rate of 192 thousand tons. There were 2,806 thousand short tons of pig iron in stock, down less than 1 percent from November.

The 5,872,555 short tons of home scrap plus purchased scrap received was less than one-half percent below that for November. Dealers furnished 80 percent of the total scrap purchased, with the balance from other sources. (Purchased scrap is a net figure computed by deducting scrap shipped, transferred, or otherwise disposed of by consumers, from total scrap received from dealers and all others during the month.

Table 2 - Production and receipts of ferrous scrap by major consuming industries plants, July 1963 through December 1963, in short tons

| Date       | Home scrap produced                |                         |                                        | Purchased scrap received (net) 1/  |                         |                                        |
|------------|------------------------------------|-------------------------|----------------------------------------|------------------------------------|-------------------------|----------------------------------------|
|            | Mfgs. of steel ingots and castings | Mfgs. of steel castings | Iron foundries and miscellaneous users | Mfgs. of steel ingots and castings | Mfgs. of steel castings | Iron foundries and miscellaneous users |
| July-----  | 3,239,151                          | 91,458                  | 400,953                                | 1,626,339                          | 109,492                 | 490,711                                |
| Aug.-----  | 2,858,111                          | 117,461                 | 428,592                                | 1,492,648                          | 134,320                 | 479,753                                |
| Sept.----- | 2,775,202                          | 107,496                 | 480,686                                | 1,450,613                          | 139,351                 | 540,718                                |
| Oct.-----  | 3,010,489                          | 122,932                 | 536,829                                | 1,706,030                          | 163,485                 | 646,605                                |
| Nov.-----  | 2,914,211                          | 108,248                 | 490,431                                | 1,661,006                          | 139,249                 | 584,558                                |
| Dec.-----  | 2,944,499                          | 111,902                 | 478,968                                | 1,585,165                          | 147,752                 | 604,269                                |

1/ Excludes scrap shipped, transferred or otherwise disposed of during the month.

Table 3 - Consumer stocks, production, receipts, consumption and shipments of iron and steel scrap, by grades, December 1963

| Grades of scrap                        | Stocks at beginning of month 1/ | Home scrap produced | Purchased scrap received2/ | Consumption | Shipments | Stocks at end of month |
|----------------------------------------|---------------------------------|---------------------|----------------------------|-------------|-----------|------------------------|
| Steel scrap, excludes rerolling rails: |                                 |                     |                            |             |           |                        |
| Carbon-----                            | 6,108,241                       | 2,583,809           | 2,101,011                  | 4,582,258   | 160,710   | 6,050,093              |
| Alloy, excludes stainless-----         | 389,356                         | 180,622             | 35,185                     | 195,387     | 12,839    | 396,937                |
| Stainless-----                         | 122,791                         | 38,531              | 17,514                     | 53,288      | 3,880     | 121,668                |
| Cast iron, includes borings-----       | 1,388,249                       | 732,407             | 453,981                    | 1,113,093   | 93,076    | 1,368,468              |
| Total-----                             | 8,008,637                       | 3,535,369           | 2,607,691                  | 5,944,026   | 270,505   | 7,937,166              |

1/ Revised.

2/ Purchased scrap received from dealers and all others.

Table 4 - Home scrap produced by source, by type of manufacturers, during December, 1963, in short tons

|                                                 | Source of scrap     |             |                          | Total     |
|-------------------------------------------------|---------------------|-------------|--------------------------|-----------|
|                                                 | Recirculating<br>1/ | Obsolete 2/ | Other, including<br>slag |           |
| Manufacturers of steel ingots and castings----- | 2,618,400           | 217,472     | 108,627                  | 2,944,499 |
| Manufacturers of steel castings-----            | 111,701             | 178         | 23                       | 111,902   |
| Iron foundries and miscellaneous users-----     | 476,513             | 1,992       | 463                      | 478,968   |
| Total-----                                      | 3,206,614           | 219,642     | 109,113                  | 3,535,369 |

1/ Includes home, plant, or recycled iron and steel scrap.

2/ Includes molds, stools, machinery, and buildings; excludes rerolling rails.

Table 5 - Consumption of iron and steel scrap at major consuming industries' plants during December 1963, and consumption year to date, by grades, in short tons.

| Grades of scrap                        | Mfgs. of<br>steel ingots<br>and castings | Mfgs. of<br>steel<br>castings | Iron foundries<br>and miscel-<br>laneous users | Total<br>consumption | Total<br>consumption<br>year to date |
|----------------------------------------|------------------------------------------|-------------------------------|------------------------------------------------|----------------------|--------------------------------------|
| Steel scrap, excludes rerolling rails: |                                          |                               |                                                |                      |                                      |
| Carbon-----                            | 4,020,956                                | 218,603                       | 342,699                                        | 4,582,258            | 57,592,481                           |
| Alloy, excludes stainless-----         | 173,880                                  | 10,332                        | 11,175                                         | 195,387              | 2,655,187                            |
| Stainless-----                         | 49,469                                   | 2,035                         | 1,784                                          | 53,288               | 716,156                              |
| Cast iron, includes borings-----       | 376,326                                  | 27,825                        | 708,942                                        | 1,113,093            | 13,656,906                           |
| Total-----                             | 4,620,631                                | 258,795                       | 1,064,600                                      | 5,944,026            | 74,620,730                           |

Table 6. - Stocks of iron and steel scrap and pig iron on hand at major consuming industries' plants,  
at end of month, in short tons

| Date           | Scrap stocks                             |                               |                                                | Pig iron stocks |                               |                                                |
|----------------|------------------------------------------|-------------------------------|------------------------------------------------|-----------------|-------------------------------|------------------------------------------------|
|                | Mfgs. of<br>steel ingots<br>and castings | Mfgs. of<br>steel<br>castings | Iron foundries<br>and miscel-<br>laneous users | Total           | Mfgs. of<br>steel<br>castings | Iron foundries<br>and miscel-<br>laneous users |
| July 31, 1963  | 6,793,061                                | 350,321                       | 867,673                                        | 8,011,055       | 2,348,188                     | 404,891                                        |
| Aug. 31, 1963  | 6,917,675                                | 341,414                       | 837,828                                        | 8,096,917       | 2,390,642                     | 385,069                                        |
| Sept. 30, 1963 | 6,834,025                                | 335,072                       | 843,553                                        | 8,012,650       | 2,385,316                     | 398,456                                        |
| Oct. 31, 1963  | 6,801,303                                | 344,427                       | 856,146                                        | 8,001,876       | 2,380,230                     | 406,600                                        |
| Nov. 30, 1963  | 6,741,883                                | 344,028                       | 876,335                                        | 7,962,246       | 2,372,531                     | 428,718                                        |
| Dec. 31, 1963  | 6,698,411                                | 346,593                       | 892,162                                        | 7,937,166       | 2,369,597                     | 405,053                                        |

Table 7 - Consumers receipts and total consumption of iron and steel scrap,  
by grades, during December 1963, in short tons

| Grades of scrap<br>(excludes rerolling rails) | Receipts during the month |                |           | Total<br>consumption |
|-----------------------------------------------|---------------------------|----------------|-----------|----------------------|
|                                               | From<br>dealers           | From<br>others | Total     |                      |
| Carbon steel:                                 |                           |                |           |                      |
| Low phosphorus plate and punchings----        | 191,743                   | 58,446         | 250,189   | 289,115              |
| Cut structurals and plate-----                | 71,802                    | 7,851          | 79,653    | 76,863               |
| Steel car wheels-----                         | 5,481                     | 4,219          | 9,700     | 11,783               |
| No. 1 heavy melting-----                      | 341,850                   | 97,477         | 439,327   | 1,996,711            |
| No. 1 and electric furnace bundles----        | 351,336                   | 117,856        | 469,192   | 578,997              |
| No. 2 and all other bundles-----              | 358,861                   | 35,029         | 393,890   | 461,900              |
| Turnings and borings-----                     | 133,700                   | 12,686         | 146,386   | 163,197              |
| Slag scrap (Fe content)-----                  | 11,251                    | 21,564         | 32,815    | 140,625              |
| All other carbon steel scrap-----             | 219,387                   | 59,182         | 278,569   | 859,347              |
| Alloy steel, excludes stainless-----          | 22,909                    | 11,901         | 34,810    | 195,048              |
| Stainless steel-----                          | 15,166                    | 2,333          | 17,499    | 53,288               |
| Cast iron: Borings-----                       | 48,431                    | 41,977         | 90,408    | 101,885              |
| All other cast iron scrap-----                | 314,593                   | 50,660         | 365,253   | 1,015,267            |
| Total-----                                    | 2,086,510                 | 521,181        | 2,607,691 | 5,944,026            |

Table 8. - Consumers' production, receipts, consumption and stocks of iron and steel scrap, and consumption of pig iron in the United States, by districts and States, December 1963, in short tons.

| District and State                                   | Home scrap produced | Total purchased scrap received <sup>1/</sup> | Consumption by grades                    |                                  |                 |  | Cast iron (includes borings) | Total scrap      | Scrap stocks December 31 | Pig iron consumption |
|------------------------------------------------------|---------------------|----------------------------------------------|------------------------------------------|----------------------------------|-----------------|--|------------------------------|------------------|--------------------------|----------------------|
|                                                      |                     |                                              | Carbon steel (excludes re-rolling rails) | Alloy steel (excludes stainless) | Stainless steel |  |                              |                  |                          |                      |
| <b>New England:</b>                                  |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| Connecticut-----                                     | 15,599              | 22,740                                       | 12,895                                   | 830                              | 2,158           |  | 22,127                       | 38,010           | 42,625                   | 9,639                |
| Rhode Island-----                                    | 1,194               | 1,668                                        | 656                                      | ---                              | ---             |  | 2,311                        | 2,967            | 1,976                    | 634                  |
| Maine, New Hampshire, Vermont-----                   | 16,793              | 24,408                                       | 13,551                                   | 830                              | 2,158           |  | 24,438                       | 40,977           | 44,601                   | 10,273               |
| <b>Middle Atlantic:</b>                              |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| New Jersey-----                                      | 13,341              | 47,397                                       | 22,774                                   | 919                              | 290             |  | 31,691                       | 55,674           | 70,252                   | 9,975                |
| New York-----                                        | 163,636             | 85,084                                       | 211,423                                  | 6,137                            | 3,368           |  | 37,139                       | 298,067          | 536,594                  | 340,553              |
| Pennsylvania (East) <sup>2/</sup> -----              | 207,485             | 152,047                                      | 253,070                                  | 32,649                           | 2,010           |  | 42,179                       | 329,908          | 620,206                  | 376,298              |
| Pennsylvania (West)-----                             | 527,190             | 214,689                                      | 560,598                                  | 50,721                           | 24,153          |  | 88,890                       | 724,362          | 1,289,637                | 973,222              |
| <b>Total-----</b>                                    | <b>911,652</b>      | <b>499,217</b>                               | <b>1,047,865</b>                         | <b>90,426</b>                    | <b>29,821</b>   |  | <b>199,899</b>               | <b>1,368,011</b> | <b>2,516,689</b>         | <b>1,700,048</b>     |
| <b>East North Central:</b>                           |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| Illinois-----                                        | 322,040             | 317,224                                      | 508,507                                  | 15,541                           | 2,738           |  | 128,448                      | 655,234          | 833,357                  | 404,668              |
| Indiana-----                                         | 424,543             | 246,844                                      | 639,566                                  | 10,961                           | 1,348           |  | 58,606                       | 710,481          | 742,300                  | 845,411              |
| Michigan-----                                        | 355,664             | 332,018                                      | 418,418                                  | 3,569                            | 7,439           |  | 236,264                      | 665,690          | 476,231                  | 597,498              |
| Ohio (East) <sup>3/</sup> -----                      | 469,884             | 367,962                                      | 625,484                                  | 54,359                           | 4,576           |  | 89,029                       | 773,448          | 805,902                  | 787,810              |
| Ohio (West)-----                                     | 171,831             | 61,429                                       | 141,793                                  | 1,294                            | 41              |  | 61,779                       | 204,907          | 254,925                  | 192,049              |
| Wisconsin-----                                       | 49,200              | 37,508                                       | 39,732                                   | 356                              | 214             |  | 37,986                       | 76,288           | 51,972                   | 14,153               |
| <b>Total-----</b>                                    | <b>1,793,162</b>    | <b>1,362,985</b>                             | <b>2,373,590</b>                         | <b>86,080</b>                    | <b>16,356</b>   |  | <b>612,112</b>               | <b>3,088,048</b> | <b>3,164,687</b>         | <b>2,841,589</b>     |
| <b>West North Central:</b>                           |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| Iowa-----                                            | 19,000              | 33,378                                       | 28,342                                   | ---                              | ---             |  | 19,968                       | 48,330           | 44,905                   | 7,052                |
| Kansas and Nebraska-----                             | 4,034               | 8,257                                        | 8,871                                    | ---                              | ---             |  | 2,533                        | 11,406           | 13,520                   | 526                  |
| Minnesota-----                                       | 19,143              | 15,710                                       | 29,445                                   | 891                              | 155             |  | 11,362                       | 41,202           | 66,416                   | 37,818               |
| Missouri-----                                        | 15,879              | 71,992                                       | 52,266                                   | ---                              | ---             |  | 18,587                       | 71,482           | 202,756                  | 3,056                |
| <b>Total-----</b>                                    | <b>58,056</b>       | <b>129,337</b>                               | <b>118,924</b>                           | <b>891</b>                       | <b>155</b>      |  | <b>52,450</b>                | <b>172,420</b>   | <b>327,597</b>           | <b>48,452</b>        |
| <b>South Atlantic:</b>                               |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| Delaware and Maryland-----                           | 187,082             | 33,455                                       | 169,387                                  | 2,580                            | 4/              |  | 17,438                       | 193,184          | 312,326                  | 398,494              |
| Florida and Georgia-----                             | 9,961               | 34,975                                       | 33,113                                   | ---                              | 4/              |  | 3,102                        | 36,215           | 63,640                   | 946                  |
| <b>North Carolina and South Carolina-----</b>        | <b>2,957</b>        | <b>6,191</b>                                 | <b>1,068</b>                             | <b>693</b>                       | <b>4/</b>       |  | <b>7,294</b>                 | <b>8,926</b>     | <b>9,484</b>             | <b>3,539</b>         |
| Virginia and West Virginia-----                      | 65,175              | 73,493                                       | 142,431                                  | ---                              | 4/              |  | 13,948                       | 156,509          | 120,443                  | 167,074              |
| <b>Total-----</b>                                    | <b>265,175</b>      | <b>148,114</b>                               | <b>345,999</b>                           | <b>3,273</b>                     | <b>4/</b>       |  | <b>41,782</b>                | <b>394,834</b>   | <b>505,893</b>           | <b>570,053</b>       |
| <b>East South Central:</b>                           |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| Alabama-----                                         | 126,994             | 101,888                                      | 156,584                                  | 390                              | 4/              |  | 60,524                       | 217,498          | 287,551                  | 265,876              |
| Kentucky, Mississippi, Tennessee-----                | 62,080              | 73,550                                       | 106,247                                  | 4,900                            | 4/              |  | 32,768                       | 144,351          | 201,063                  | 95,293               |
| <b>Total-----</b>                                    | <b>189,074</b>      | <b>175,438</b>                               | <b>262,831</b>                           | <b>5,290</b>                     | <b>4/</b>       |  | <b>93,292</b>                | <b>361,849</b>   | <b>488,614</b>           | <b>361,169</b>       |
| <b>West South Central:</b>                           |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| Arkansas, Louisiana, Oklahoma-----                   | 4,091               | 10,731                                       | 13,374                                   | 1,861                            | ---             |  | 3,666                        | 17,042           | 28,652                   | 724                  |
| Texas-----                                           | 63,430              | 64,586                                       | 90,220                                   | ---                              | 4/              |  | 26,399                       | 119,292          | 190,464                  | 76,672               |
| <b>Total-----</b>                                    | <b>67,521</b>       | <b>75,317</b>                                | <b>104,294</b>                           | <b>1,861</b>                     | <b>4/</b>       |  | <b>30,065</b>                | <b>136,334</b>   | <b>219,116</b>           | <b>77,396</b>        |
| <b>Rocky Mountain:</b>                               |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| Arizona, Colorado, Idaho, Montana, Nevada, Utah----- | 104,039             | 59,676                                       | 115,076                                  | 3,139                            | ---             |  | 24,302                       | 142,517          | 228,099                  | 177,767              |
| <b>Total-----</b>                                    | <b>104,039</b>      | <b>59,676</b>                                | <b>115,076</b>                           | <b>3,139</b>                     | <b>---</b>      |  | <b>24,302</b>                | <b>142,517</b>   | <b>228,099</b>           | <b>177,767</b>       |
| <b>Pacific Coast:</b>                                |                     |                                              |                                          |                                  |                 |  |                              |                  |                          |                      |
| California and Hawaii-----                           | 119,104             | 102,898                                      | 166,146                                  | 2,360                            | 142             |  | 31,355                       | 200,003          | 334,204                  | 161,686              |
| Oregon and Washington-----                           | 10,193              | 30,341                                       | 34,072                                   | 1,237                            | 326             |  | 3,398                        | 39,033           | 107,666                  | 1,055                |
| <b>Total-----</b>                                    | <b>129,297</b>      | <b>133,199</b>                               | <b>200,218</b>                           | <b>3,597</b>                     | <b>468</b>      |  | <b>34,753</b>                | <b>239,036</b>   | <b>441,870</b>           | <b>162,741</b>       |
| <b>U.S. Total-----</b>                               | <b>3,535,369</b>    | <b>2,607,691</b>                             | <b>4,582,258</b>                         | <b>195,387</b>                   | <b>53,288</b>   |  | <b>1,113,093</b>             | <b>5,944,026</b> | <b>7,937,166</b>         | <b>5,949,488</b>     |

<sup>1/</sup> Includes 270,595 short tons that was shipped, transferred, or otherwise disposed of during the month.

<sup>2/</sup> Pennsylvania is divided into East and West by the eastern boundary of the following counties: McKean, Cameron, Clearfield, Cambria, and Somerset.

<sup>3/</sup> Ohio is divided into East and West by the eastern boundary of the following counties: Ottawa, Sandusky, Seneca, Crawford, Morrow, Delaware, Franklin, Pickaway, Ross, Pike, and Scioto.

<sup>4/</sup> Figures withheld to avoid disclosing individual company confidential data; included in U.S. total.

CONSUMPTION OF IRON AND STEEL SCRAP AND PIG IRON

Consumption of scrap in December totaled 5,944,026 short tons which was at an average daily rate of 191,743 tons or 6 percent greater than for the year 1962.

In December, open-hearth furnaces used 54 percent of the total scrap, and 78 percent of the pig iron compared with 53 and 78 percent, respectively, in November; electric furnaces in December used 8 percent of the combined total of iron and steel scrap and pig iron charged to all furnaces, with open-hearth using 66 percent. During 1962, these percentages were 8 and 69 percent, respectively. Blast furnaces used 5 percent of the total scrap; the corresponding percentage for the year 1962 was 6.

During December, steelmaking furnaces (open-hearth, Bessemer, basic oxygen converter, and electric) accounted for 75 percent of the total scrap, and 91 percent of the pig iron consumed, compared with 75 and 91 percent, respectively, during November. In 1962, steelmaking furnaces used 75 percent of the total scrap, and 91 percent of the pig iron. The remainder was used in ironmaking furnaces, principally the cupola. Consumption by type of furnace during December is shown in the following table:

Table 9 - Consumption of iron and steel scrap and pig iron by type of manufacturers and furnaces during December 1963, in short tons

| Type of furnace or equipment | Steel ingots and castings 1/ |           | Steel castings 2/ |          | Iron foundries & miscellaneous users |          | Total     |           |
|------------------------------|------------------------------|-----------|-------------------|----------|--------------------------------------|----------|-----------|-----------|
|                              | Scrap                        | Pig iron  | Scrap             | Pig iron | Scrap                                | Pig iron | Scrap     | Pig iron  |
| Basic oxygen converters 3/   | 265,378                      | 688,419   | ---               | ---      | ---                                  | ---      | 265,378   | 688,419   |
| Bessemer converters          | 7,462                        | 106,289   | 1,005             | ---      | 109                                  | 13       | 8,576     | 106,304   |
| Open-hearth furnaces         | 3,130,747                    | 4,621,205 | 55,163            | 7,894    | ---                                  | ---      | 3,185,910 | 4,629,099 |
| Electric furnaces 4/         | 815,740                      | 10,479    | 162,193           | 2,952    | 14,292                               | 2,280    | 992,225   | 15,711    |
| Total steelmaking furnaces   | 4,219,327                    | 5,426,392 | 218,361           | 10,848   | 14,401                               | 2,293    | 4,452,089 | 5,439,533 |
| Blast furnaces 5/            | 296,659                      | ---       | ---               | ---      | ---                                  | ---      | 296,659   | ---       |
| Cupola furnaces              | 98,068                       | 21,538    | 24,940            | 1,007    | 919,441                              | 268,716  | 1,042,449 | 291,261   |
| Air furnaces                 | 2,599                        | 744       | 15,494            | 3,601    | 86,968                               | 9,814    | 105,061   | 14,159    |
| Direct castings              | ---                          | 173,698   | ---               | ---      | ---                                  | 30,837   | ---       | 204,535   |
| Ferroalloys                  | ---                          | ---       | ---               | ---      | 32,816                               | ---      | 32,816    | ---       |
| Miscellaneous                | 3,978                        | ---       | ---               | ---      | 10,974                               | ---      | 14,952    | ---       |
| Total Dec. 1963              | 4,620,631                    | 5,622,372 | 258,795           | 15,456   | 1,064,600                            | 311,660  | 5,944,026 | 5,949,488 |
| Total Nov. 1963              | 4,667,832                    | 5,268,056 | 249,274           | 12,550   | 1,053,516                            | 306,772  | 5,970,622 | 5,587,378 |
| Total Oct. 1963              | 4,747,051                    | 5,236,351 | 278,040           | 14,239   | 1,171,762                            | 352,554  | 6,196,853 | 5,603,144 |
| Total Sept. 1963             | 4,307,535                    | 4,893,974 | 247,117           | 13,802   | 1,018,064                            | 316,483  | 5,572,716 | 5,224,259 |
| Total Aug. 1963              | 4,224,262                    | 4,944,146 | 261,726           | 14,667   | 938,873                              | 311,488  | 5,424,861 | 5,270,301 |
| Total July 1963              | 4,604,903                    | 5,601,664 | 206,253           | 12,547   | 870,012                              | 294,815  | 5,681,168 | 5,909,026 |

1/ Includes only those castings made by companies producing steel ingots. 2/ Excludes companies that produce both steel castings and steel ingots. 3/ Includes scrap and pig iron processed in metallurgical blast cupola and used in oxygen converter. 4/ Includes crucible furnaces. 5/ Includes consumption in all blast furnaces producing pig iron.

Table 10 - Consumption of iron and steel scrap and pig iron in open-hearth furnaces in the United States, by districts and States, during December 1963, in short tons

| District and State                     | Scrap     | Pig iron  | Total charge |
|----------------------------------------|-----------|-----------|--------------|
| New England and Middle Atlantic:       |           |           |              |
| New Jersey and Rhode Island-----       | 16,218    | 3,025     | 19,243       |
| New York-----                          | 175,497   | 313,091   | 488,588      |
| Pennsylvania (East)-----               | 199,354   | 343,374   | 542,728      |
| Pennsylvania (West)-----               | 461,121   | 754,400   | 1,215,521    |
| Total-----                             | 852,190   | 1,413,890 | 2,266,080    |
| East North Central:                    |           |           |              |
| Illinois-----                          | 334,558   | 337,113   | 671,671      |
| Indiana-----                           | 638,395   | 814,310   | 1,452,705    |
| Michigan and Wisconsin-----            | 168,934   | 234,466   | 403,400      |
| Ohio (East)-----                       | 412,916   | 587,660   | 1,000,576    |
| Ohio (West)-----                       | 116,019   | 173,650   | 289,669      |
| Total-----                             | 1,670,822 | 2,147,199 | 3,818,021    |
| West North Central:                    |           |           |              |
| Minnesota and Missouri-----            | 29,850    | 34,328    | 64,178       |
| Total-----                             | 29,850    | 34,328    | 64,178       |
| South Atlantic:                        |           |           |              |
| Delaware, Maryland, West Virginia----- | 280,253   | 554,044   | 834,297      |
| Total-----                             | 280,253   | 554,044   | 834,297      |
| East and West South Central:           |           |           |              |
| Alabama, Kentucky, Texas-----          | 194,997   | 299,238   | 494,235      |
| Total-----                             | 194,997   | 299,238   | 494,235      |
| Rocky Mountain and Pacific Coast:      |           |           |              |
| California, Colorado, Utah-----        | 157,798   | 180,400   | 338,198      |
| Total-----                             | 157,798   | 180,400   | 338,198      |
| United States, total-----              | 3,185,910 | 4,629,099 | 7,815,009    |

FOREIGN TRADE 1/

According to the Bureau of the Census, exports of iron and steel scrap totaled 564,014 short tons in December compared with 427,553 tons in November. During January 1964, the Office of Export Supply, U.S. Department of Commerce, issued scrap export licenses for 592,340 short tons. Exports of pig iron during December totaled 5,867 tons and 4,636 tons in November. Imports of scrap totaled 25,747 short tons in December compared with 14,658 tons in November. Of the scrap imported during December, 25,539 short tons came from Canada and 208 tons from other sources. Imports of pig iron totaled 47,077 short tons in December and 78,966 tons in November. In addition to the foregoing imports of pig iron during December, there were 3,745 tons of sponge iron, valued at \$445,489, imported, of which 319 tons came from Canada and 3,426 tons from Sweden.

Table 11 - Exports <sup>2/</sup> of iron and steel scrap from the United States, by countries  
(U.S. Department of Commerce)

| Country         | December 1963 |            | Jan. through December 1963 |             |
|-----------------|---------------|------------|----------------------------|-------------|
|                 | Short tons    | Value      | Short tons                 | Value       |
| Argentina-----  | 3,310         | 99,300     | 13,490                     | 411,178     |
| Canada-----     | 28,510        | 944,766    | 531,925                    | 14,675,029  |
| France-----     | ---           | ---        | 6,475                      | 184,303     |
| Hong Kong-----  | ---           | ---        | 20,063                     | 972,738     |
| Italy-----      | 4,406         | 84,000     | 950,845                    | 20,729,846  |
| Japan-----      | 464,326       | 12,964,775 | 4,043,584                  | 112,644,158 |
| Korea-----      | ---           | ---        | 54,290                     | 2,073,060   |
| Mexico-----     | 46,258        | 1,381,781  | 469,056                    | 13,308,773  |
| Nicaragua-----  | ---           | ---        | 14,140                     | 461,859     |
| Spain-----      | 9,307         | 174,051    | 34,090                     | 697,853     |
| Taiwan-----     | ---           | ---        | 125,817                    | 4,089,933   |
| All others----- | 7,897         | 47,686     | 104,344                    | 2,529,919   |
| Total-----      | 564,014       | 15,696,359 | 6,368,119                  | 172,778,649 |

Table 12 - Exports <sup>2/</sup> of iron and steel scrap from the United States, by grades  
(U.S. Department of Commerce)

| Grades of scrap                     | December 1963 |            | Jan. through December 1963 |             |
|-------------------------------------|---------------|------------|----------------------------|-------------|
|                                     | Short tons    | Value      | Short tons                 | Value       |
| No. 1 heavy melting steel scrap---  | 214,725       | 6,667,574  | 2,470,068                  | 72,722,093  |
| No. 2 heavy melting steel scrap---  | 118,866       | 3,172,302  | 1,169,345                  | 29,748,358  |
| No. 1 baled sheet melting scrap---  | 18,695        | 521,288    | 371,054                    | 9,952,321   |
| No. 2 baled sheet melting scrap---  | 124,661       | 2,704,667  | 1,248,385                  | 26,597,506  |
| Borings, shovelings, & turnings---  | 17,225        | 338,650    | 199,813                    | 4,256,222   |
| Iron scrap-----                     | 18,133        | 511,994    | 345,831                    | 9,380,408   |
| Rerolling material-----             | 7,889         | 407,238    | 146,778                    | 6,922,816   |
| All other scrap <sup>3/</sup> ----- | 43,820        | 1,372,646  | 416,845                    | 13,198,925  |
| Total-----                          | 564,014       | 15,696,359 | 6,368,119                  | 172,778,649 |

1/ To conform with other data in this report, foreign trade data include tin plate scrap. <sup>2/</sup> Preliminary data subject to revision. Value may differ widely because of variations in quality, classes, and grade combinations. <sup>3/</sup> Includes tin plate and terne plate scrap.