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Q — Quarterly

M — Monthly

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IRON AND STEEL MILLS

1965

For statistical purposes the industry titled Iron and Steel Mills in the revised Standard Industrial Classification covers four main types of establishments:

- (1) Establishments primarily engaged in manufacturing pig iron and ferro-alloys.
- (2) Steel plants primarily engaged in manufacturing ingots and steel castings and continuous casting of steel.
- (3) Rolling mills primarily engaged in hot and cold rolling of steel into primary shapes.
- (4) Coke ovens operates in connection with blast furnaces. In some instances, the blast furnace, steel mill, rolling mill and coke oven or some combination of two or more of them are carried on as one integrated operation and the manufacturing processes may be carried on beyond the rolling mill stage.

Value of shipments and other revenue of the Iron and Steel Mills totalled \$1,251 million, an increase of \$122 million over 1964. This amount included Coke, Gas and By-products valued at \$11.6 million, Sinter Plant and Blast Furnace products valued at \$28.4 million, steel ingots and Steel Castings valued at \$92.0 million, Rolled Steel Products valued at \$1,047.2 million, Ferro-Alloy products valued at \$26.5 million, shipments of other products (secondary products) valued at \$26.0 million, and other revenue of \$19.3 million.

This industry's shipments of rolled steel products represented 85 per cent of its manufacturing revenue. Secondary products shipped by this industry in 1965 included carbon and graphite, electrodes, lytic electrodes, cathode blocks and oil well sucker rods, washers, etc.

The cost of materials and supplies, etc. used in the production of goods of own manufacture increased by \$70 million. Cost of materials and supplies, etc. (inputs) in 1965 represented 48.7 per cent of the value of shipments of own manufacture (outputs), compared to 49.7 per cent in 1964.

SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

.. figures not available.

... figures not appropriate or not applicable.

— nil or zero.

— amount too small to be expressed.

p preliminary figures.

r revised figures.

x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. Principal Statistics, 1961-65

| Year and province | Estab-lish-ments | Manufacturing activity | | | | | | | Total activity | | | | |
|---------------------------------|------------------|--------------------------------|----------------|---------|-------------------------------|--------------------------------|---|-------------|-----------------------------|--------------|-----------|--------------------|-------------|
| | | Production and related workers | | | Cost of fuel and elec-tricity | Cost of materials and supplies | Value of shipments of goods of own manu-facture | Value added | Working owners and partners | | Employees | | Value added |
| | | Number | Man-hours paid | Wages | | | | | Number | With-drawals | Number | Salaries and wages | |
| | No. | | '000 | | | \$'000 | | | | \$'000 | | \$'000 | |
| 1961 | | | | | | | | | | | | | |
| Totals | 41 | 28,408 | 59,336 | 152,529 | 29,670 | 351,055 | 774,748 | 397,331 | - | - | 34,749 | 193,712 | 405,187 |
| 1962 | | | | | | | | | | | | | |
| Totals | 41 | 30,101 | 63,319 | 165,556 | 31,639 | 391,866 | 860,755 | 445,501 | - | - | 36,593 | 209,171 | 451,549 |
| 1963 | | | | | | | | | | | | | |
| Totals | 39 | 31,112 | 66,924 | 180,359 | 35,082 | 436,597 | 963,206 | 499,303 | - | - | 38,196 | 228,217 | 505,747 |
| 1964 | | | | | | | | | | | | | |
| Newfoundland | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Prince Edward Island | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Nova Scotia | 2 | x | x | x | x | x | x | x | - | - | x | x | x |
| New Brunswick | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Quebec | 11 | 2,939 | 6,734 | 15,563 | 4,856 | 39,563 | 79,250 | 38,088 | - | - | 3,604 | 19,466 | 38,451 |
| Ontario | 18 | 26,496 | 55,962 | 157,514 | 31,594 | 413,233 | 914,056 | 472,132 | - | - | 32,332 | 199,317 | 478,664 |
| Manitoba | 2 | x | x | x | x | x | x | x | - | - | x | x | x |
| Saskatchewan | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Alberta | 3 | x | x | x | x | x | x | x | - | - | x | x | x |
| British Columbia | 6 | 636 | 1,325 | 3,634 | 952 | 11,651 | 20,794 | 8,391 | - | - | 817 | 4,868 | 8,385 |
| Yukon and Northwest Territories | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Totals | 42 | 33,911 | 73,408 | 200,756 | 41,442 | 512,009 | 1,108,152 | 561,049 | - | - | 41,505 | 253,039 | 568,680 |
| 1965 | | | | | | | | | | | | | |
| Newfoundland | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Prince Edward Island | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Nova Scotia | 2 | x | x | x | x | x | x | x | - | - | x | x | x |
| New Brunswick | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Quebec | 12 | 3,223 | 7,443 | 18,524 | 5,678 | 54,386 | 98,996 | 43,415 | - | - | 4,096 | 23,452 | 43,855 |
| Ontario | 16 | 28,155 | 59,083 | 173,672 | 36,843 | 448,168 | 1,012,278 | 550,103 | - | - | 34,044 | 217,800 | 556,032 |
| Manitoba | 2 | x | x | x | x | x | x | x | - | - | x | x | x |
| Saskatchewan | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Alberta | 3 | x | x | x | x | x | x | x | - | - | x | x | x |
| British Columbia | 6 | 653 | 1,390 | 3,824 | 1,045 | 12,613 | 21,625 | 8,301 | - | - | 805 | 4,924 | 8,253 |
| Yukon and Northwest Territories | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Totals | 41 | 36,434 | 77,202 | 221,232 | 47,703 | 565,741 | 1,231,765 | 646,100 | - | - | 44,274 | 277,126 | 653,743 |

TABLE 2. Principal Statistics classified by Size Group based on Value of Shipments of Goods of Own Manufacture, 1964 and 1965

| Size group | Estab- lish- ments | Manufacturing activity | | | | | | | Total activity | | | | |
|--|--------------------------|-----------------------------------|-----------------------|---------|---|---|---|----------------|--------------------------------|------------------|-----------|--------------------------|----------------|
| | | Production and related workers | | | Cost of fuel and elec- tricity | Cost of materials and supplies | Value of shipments of goods of own manu- facture | Value added | Working owners and partners | | Employees | | Value added |
| | | Number | Man- hours paid | Wages | | | | | Number | With- drawals | Number | Salaries and wages | |
| | No. | | '000 | | | \$'000 | | | | \$'000 | | \$'000 | |
| 1964 | | | | | | | | | | | | | |
| Under \$10,000 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| \$ 10,000 to \$ 24,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 25,000 " 49,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 50,000 " 99,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 100,000 " 199,999 | 3 | 52 | 127 | 247 | 44 | 268 | 820 | 398 | — | — | 75 | 424 | 679 |
| 200,000 " 499,999 | | 157 | 314 | 784 | 104 | 641 | 2,111 | 1,393 | — | — | 179 | 939 | 1,393 |
| 500,000 " 999,999 | | 2,047 | 4,583 | 9,867 | 1,728 | 15,671 | 38,145 | 21,554 | — | — | 2,502 | 12,592 | 21,602 |
| 1,000,000 " 4,999,999 | | 31,655 | 68,384 | 189,857 | 39,567 | 495,428 | 1,067,075 | 537,704 | — | — | 38,678 | 238,559 | 545,035 |
| 5,000,000 and over | 21 | | | | | | | | | | | | |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 71 | 525 | (29) |
| Totals | 42 | 33,911 | 73,408 | 200,756 | 41,442 | 512,009 | 1,108,152 | 561,049 | — | — | 41,505 | 253,039 | 568,680 |
| 1965 | | | | | | | | | | | | | |
| Under \$10,000 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| \$ 10,000 to \$ 24,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 25,000 " 49,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 50,000 " 99,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 100,000 " 199,999 | 6 | 299 | 650 | 1,530 | 177 | 1,315 | 3,855 | 2,415 | — | — | 338 | 1,792 | 2,404 |
| 200,000 " 499,999 | | 1,597 | 3,474 | 7,996 | 1,383 | 11,952 | 28,703 | 15,954 | — | — | 1,853 | 9,734 | 15,965 |
| 500,000 " 999,999 | | 34,538 | 73,078 | 211,706 | 46,143 | 552,474 | 1,199,207 | 627,730 | — | — | 42,000 | 265,001 | 635,398 |
| 1,000,000 " 4,999,999 | | | | | | | | | | | | | |
| 5,000,000 and over | 24 | | | | | | | | | | | | |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 83 | 599 | (24) |
| Totals | 41 | 36,434 | 77,202 | 221,232 | 47,703 | 565,741 | 1,231,765 | 646,100 | — | — | 44,274 | 277,126 | 653,743 |

TABLE 3. Principal Statistics classified by Size Group based on Manufacturing Value Added, 1964 and 1965

| Size group | Estab- lish- ments | Manufacturing activity | | | | | | | Total activity | | | | |
|--|--------------------------|-----------------------------------|-----------------------|---------|------------------------------------|---|---|----------------|--------------------------------|------------------|-----------|--------------------------|----------------|
| | | Production and related workers | | | Cost of fuel and electricity | Cost of materials and supplies | Value of shipments of goods of own manu- facture | Value added | Working owners and partners | | Employees | | Value added |
| | | Number | Man- hours paid | Wages | | | | | Number | With- drawals | Number | Salaries and wages | |
| | No. | | '000 | | | | | | | \$'000 | | | \$'000 |
| 1964 | | | | | | | | | | | | | |
| Under \$10,000 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| \$ 10,000 to \$ 24,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 25,000 " 49,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 50,000 " 99,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 100,000 " 199,999 | 5 | 147 | 314 | 732 | 120 | 763 | 2,186 | 1,224 | — | — | 179 | 976 | 1,508 |
| 200,000 " 499,999 | | 754 | 1,699 | 4,105 | 1,088 | 14,842 | 18,984 | 6,186 | — | — | 951 | 5,372 | 6,319 |
| 500,000 " 999,999 | | 3,004 | 6,677 | 15,078 | 4,329 | 54,178 | 100,527 | 45,388 | — | — | 3,739 | 19,589 | 45,425 |
| 1,000,000 " 4,999,999 | | 30,006 | 64,718 | 180,840 | 35,905 | 442,227 | 986,455 | 508,251 | — | — | 36,565 | 226,577 | 515,457 |
| 5,000,000 and over | 11 | | | | | | | | | | | | |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 71 | 525 | (29) |
| Totals | 42 | 33,911 | 73,408 | 200,756 | 41,442 | 512,009 | 1,108,152 | 561,049 | — | — | 41,505 | 253,039 | 568,680 |
| 1965 | | | | | | | | | | | | | |
| Under \$10,000 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| \$ 10,000 to \$ 24,999 | 5 | — | — | — | — | — | — | — | — | — | — | — | — |
| 25,000 " 49,999 | | 327 | 714 | 1,811 | 406 | 5,089 | 6,609 | 1,125 | — | — | 379 | 2,173 | 1,116 |
| 50,000 " 99,999 | | | | | | | | | | | | | |
| 100,000 " 199,999 | | | | | | | | | | | | | |
| 200,000 " 499,999 | 3 | 253 | 600 | 1,245 | 349 | 9,848 | 9,871 | 454 | — | — | 394 | 1,638 | 447 |
| 500,000 " 999,999 | 19 | 3,169 | 7,038 | 16,448 | 4,569 | 53,374 | 100,065 | 45,227 | — | — | 3,883 | 21,045 | 45,426 |
| 1,000,000 " 4,999,999 | 14 | 32,685 | 68,850 | 201,728 | 42,378 | 497,431 | 1,115,220 | 599,294 | — | — | 39,535 | 251,671 | 606,779 |
| 5,000,000 and over | | | | | | | | | | | | | |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 83 | 599 | (24) |
| Totals | 41 | 36,434 | 77,202 | 221,232 | 47,703 | 565,741 | 1,231,765 | 646,100 | — | — | 44,274 | 277,126 | 653,743 |

TABLE 4. Principal Statistics classified by Size Group based on Total Value Added, 1964 and 1965

| Size group | Estab- lish- ments | Manufacturing activity | | | | | | | Total activity | | | | |
|--|--------------------------|-----------------------------------|-----------------------|---------|---|---|---|----------------|--------------------------------|------------------|-----------|--------------------------|----------------|
| | | Production and related workers | | | Cost of fuel and elec- tricity | Cost of materials and supplies | Value of shipments of goods of own manu- facture | Value added | Working owners and partners | | Employees | | Value added |
| | | Number | Man- hours paid | Wages | | | | | Number | With- drawals | Number | Salaries and wages | |
| | No. | | '000 | | | \$'000 | | | | \$'000 | | \$'000 | |
| 1964 | | | | | | | | | | | | | |
| Under \$10,000 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| \$ 10,000 to \$ 24,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 25,000 " 49,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 50,000 " 99,999 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 100,000 " 199,999 | 5 | 147 | 314 | 732 | 120 | 763 | 2,186 | 1,224 | — | — | 179 | 976 | 1,508 |
| 200,000 " 499,999 | | 687 | 1,561 | 3,809 | 1,045 | 14,374 | 17,561 | 5,194 | — | — | 868 | 4,957 | 5,265 |
| 500,000 " 999,999 | | 3,071 | 6,816 | 15,374 | 4,372 | 54,645 | 101,950 | 46,380 | — | — | 3,822 | 20,004 | 46,479 |
| 1,000,000 " 4,999,999 | 19 | 30,006 | 64,718 | 180,840 | 35,905 | 442,227 | 986,455 | 508,251 | — | — | 36,565 | 226,577 | 515,457 |
| 5,000,000 and over | 11 | | | | | | | | | | | | |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 71 | 525 | (29) |
| Totals | 42 | 33,911 | 73,408 | 200,756 | 41,442 | 512,009 | 1,108,152 | 561,049 | — | — | 41,505 | 253,039 | 568,680 |
| 1965 | | | | | | | | | | | | | |
| Under \$10,000 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| \$ 10,000 to \$ 24,999 | 5 | — | — | — | — | — | — | — | — | — | — | — | — |
| 25,000 " 49,999 | | 327 | 714 | 1,811 | 406 | 5,089 | 6,609 | 1,125 | — | — | 379 | 2,173 | 1,116 |
| 50,000 " 99,999 | | | | | | | | | | | | | |
| 100,000 " 199,999 | 3 | 253 | 600 | 1,245 | 349 | 9,848 | 9,871 | 454 | — | — | 394 | 1,738 | 447 |
| 200,000 " 499,999 | | 3,169 | 7,038 | 16,448 | 4,569 | 53,374 | 100,065 | 45,227 | — | — | 3,883 | 21,045 | 45,426 |
| 500,000 " 999,999 | | 32,685 | 68,850 | 201,728 | 42,378 | 497,431 | 1,115,221 | 599,294 | — | — | 39,535 | 251,671 | 606,779 |
| 1,000,000 " 4,999,999 | 14 | | | | | | | | | | | | |
| 5,000,000 and over | | | | | | | | | | | | | |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 83 | 599 | (24) |
| Totals | 41 | 36,434 | 77,202 | 221,232 | 47,703 | 565,741 | 1,231,765 | 646,100 | — | — | 44,274 | 277,126 | 653,743 |

TABLE 5. Principal Statistics classified by Size Group based on Total Employed, 1964 and 1965

| Size group | Estab- lish- ments | Manufacturing activity | | | | | | | Total activity | | | | |
|---|--------------------------|-----------------------------------|-----------------------|---------|---|---|---|----------------|--------------------------------|------------------|-----------|--------------------------|----------------|
| | | Production and related workers | | | Cost of fuel and elec- tricity | Cost of materials and supplies | Value of shipments of goods of own manu- facture | Value added | Working owners and partners | | Employees | | Value added |
| | | Number | Man- hours paid | Wages | | | | | Number | With- drawals | Number | Salaries and wages | |
| | No. | | '000 | | | \$'000 | | | | \$'000 | | \$'000 | |
| 1964 | | | | | | | | | | | | | |
| Under 5 employed..... | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 5- 14 employed..... | 4 | 88 | 197 | 434 | 86 | 608 | 1,535 | 777 | — | — | 113 | 620 | 1,067 |
| 15- 49 "..... | | 313 | 648 | 1,644 | 263 | 5,701 | 10,273 | 4,378 | — | — | 391 | 2,211 | 4,424 |
| 50- 99 "..... | | 12 | 1,398 | 3,148 | 7,267 | 1,956 | 35,067 | 53,621 | 19,192 | — | — | 1,757 | 9,417 |
| 100-199 "..... | 11 | 2,541 | 5,871 | 13,632 | 3,949 | 39,852 | 75,800 | 35,207 | — | — | 3,073 | 16,941 | 35,395 |
| 200-499 "..... | 10 | 29,571 | 63,543 | 177,779 | 35,188 | 430,781 | 966,924 | 501,494 | — | — | 36,100 | 223,326 | 508,702 |
| 500 employed and over..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 71 | 525 | (29) |
| Head offices, sales offices and auxiliary units..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Totals..... | 42 | 333,911 | 73,408 | 200,756 | 41,442 | 512,009 | 1,108,152 | 561,049 | — | — | 41,505 | 253,039 | 568,680 |
| 1965 | | | | | | | | | | | | | |
| Under 5 employed..... | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 5- 14 employed..... | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 15- 49 "..... | 5 | 205 | 448 | 1,074 | 142 | 880 | 3,084 | 2,088 | — | — | 233 | 1,292 | 2,081 |
| 50- 99 "..... | 14 | 1,614 | 3,488 | 8,813 | 2,151 | 40,216 | 68,259 | 23,918 | — | — | 1,951 | 11,186 | 23,992 |
| 100-199 "..... | 12 | 2,987 | 6,910 | 17,128 | 5,603 | 64,995 | 109,734 | 45,266 | — | — | 3,781 | 21,730 | 45,460 |
| 200-499 "..... | 10 | 31,628 | 66,357 | 194,217 | 39,806 | 459,648 | 1,050,687 | 574,827 | — | — | 38,226 | 242,318 | 582,235 |
| 500 employed and over..... | | 31,628 | 66,357 | 194,217 | 39,806 | 459,648 | 1,050,687 | 574,827 | — | — | 38,226 | 242,318 | 582,235 |
| Head offices, sales offices and auxiliary units..... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 83 | 599 |
| Totals..... | 41 | 36,434 | 77,202 | 221,232 | 47,703 | 565,741 | 1,231,765 | 646,100 | — | — | 44,274 | 277,126 | 653,743 |

TABLE 6. Principal Statistics classified by Type of Organization, 1964 and 1965

| Type of organization | Estab- lish- ments | Manufacturing activity | | | | | | | Total activity | | | | |
|---|--------------------------|--------------------------------|--------------------|----------------|-----------------------------------|--------------------------------|---|----------------|-----------------------------|------------------|---------------|--------------------|----------------|
| | | Production and related workers | | | Cost of fuel and elec- tricity | Cost of materials and supplies | Value of shipments of goods of own manu- facture | Value added | Working owners and partners | | Employees | | Value added |
| | | Number | Man- hours paid | Wages | | | | | Number | With- drawals | Number | Salaries and wages | |
| | No. | | '000 | | | \$'000 | | | | \$'000 | | \$'000 | |
| 1964 | | | | | | | | | | | | | |
| Individual ownerships | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Partnerships | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Incorporated companies | 42 | 33,911 | 73,408 | 200,756 | 41,442 | 512,009 | 1,108,152 | 561,049 | — | — | 41,434 | 252,514 | 568,709 |
| Co-operatives | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 71 | 525 | (29) |
| Totals | 42 | 33,911 | 73,408 | 200,756 | 41,442 | 512,009 | 1,108,152 | 561,049 | — | — | 41,505 | 253,039 | 568,680 |
| 1965 | | | | | | | | | | | | | |
| Individual ownerships | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Partnerships | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Incorporated companies | 41 | 36,434 | 77,202 | 221,232 | 47,703 | 565,741 | 1,231,765 | 646,100 | — | — | 44,191 | 276,527 | 653,768 |
| Co-operatives | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Head offices, sales offices and auxiliary units | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 83 | 599 | (24) |
| Totals | 41 | 36,434 | 77,202 | 221,232 | 47,703 | 565,741 | 1,231,765 | 646,100 | — | — | 44,274 | 277,126 | 653,743 |

TABLE 7. Calculation of Output, Input and Value Added, 1964 and 1965

| | Manufacturing activity | | Non-manufacturing activities | | Total activity | |
|--|------------------------|----------------|------------------------------|--------------|----------------|----------------|
| | 1964 | 1965 | 1964 | 1965 | 1964 | 1965 |
| \$'000 | | | | | | |
| Output | | | | | | |
| 1. Shipments and other revenue | 1,108,152 | 1,231,765 | 21,174 | 19,119 | 1,129,326 | 1,250,884 |
| Inventories—Goods of own manufacture: | | | | | | |
| Add closing—Goods in process | 51,301 | 69,354 | ... | ... | 51,301 | 69,354 |
| Finished goods | 44,029 | 52,487 | ... | ... | 44,029 | 52,487 |
| Deduct opening—Goods in process | 44,786 | 50,806 | ... | ... | 44,786 | 50,806 |
| Finished goods | 44,195 | 43,256 | ... | ... | 44,195 | 43,256 |
| 2. Net inventory change | 6,349 | 27,779 | ... | ... | 6,349 | 27,779 |
| 3. Gross output (1 + 2) | 1,114,501 | 1,259,544 | 21,174 | 19,119 | 1,135,675 | 1,278,663 |
| Input | | | | | | |
| 4. Purchases of goods not of own manufacture | ... | ... | 9,597 | 9,063 | 9,597 | 9,063 |
| Inventories—Goods not of own manufacture: | | | | | | |
| Add opening | ... | ... | 1,232 | 375 | 1,232 | 375 |
| Deduct closing | ... | ... | 561 | 1,145 | 561 | 1,145 |
| 5. Cost of goods sold (not of own manufacture) | ... | ... | 10,268 | 8,293 | 10,268 | 8,293 |
| 6. Materials, supplies, etc. | 512,009 | 565,741 | 3,274 | 3,182 | 515,283 | 568,923 |
| 7. Fuel and electricity | 41,442 | 47,703 | ... | ... | 41,442 | 47,703 |
| 8. Gross input (5 + 6 + 7) | 553,451 | 613,444 | 13,542 | 11,475 | 566,993 | 624,919 |
| Value added (3 - 8) | 561,049 | 646,100 | 7,631 | 7,643 | 568,680 | 653,743 |

TABLE 8. Employment and Payroll, 1964 and 1965

| Year and province | Employees | | | | | | | | | | Salaries and wages | | | | |
|--|--------------------------------|--------|-------|--------|-----------------------------------|--------|------------------------------|--------|--------|--------|-----------------------------------|-------|---|-----------------------------------|---------|
| | Production and related workers | | | | Adminis- trative and office | | Sales and distribution | | Total | | Production and related workers | | Admin- istra- tive and office | Sales and distri- bution | Total |
| | Manufacturing | | Other | | | | | | | | | | | | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Manufac- turing | Other | | | |
| number | | | | | | | | | | \$'000 | | | | | |
| 1964 | | | | | | | | | | | | | | | |
| Newfoundland | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Prince Edward Island | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Nova Scotia | x | x | — | x | x | x | x | x | x | x | x | x | x | x | x |
| New Brunswick | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Quebec | 2,935 | 4 | — | — | 552 | 85 | 24 | 4 | 3,511 | 93 | 15,563 | — | 3,730 | 172 | 19,466 |
| Ontario | 26,290 | 206 | 606 | 9 | 3,904 | 862 | 333 | 122 | 31,133 | 1,199 | 157,514 | 3,923 | 34,793 | 3,087 | 199,317 |
| Manitoba | x | x | x | — | x | x | x | x | x | x | x | x | x | x | x |
| Saskatchewan | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Alberta | x | — | — | — | x | x | x | x | x | x | x | — | x | x | x |
| British Columbia | 636 | — | — | — | 134 | 22 | 23 | 2 | 793 | 24 | 3,634 | — | 1,059 | 174 | 4,868 |
| Yukon and Northwest Terri- tories | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Totals | 33,695 | 216 | 657 | 9 | 5,306 | 1,077 | 404 | 141 | 40,062 | 1,443 | 200,756 | 4,200 | 44,424 | 3,659 | 253,039 |
| 1965 | | | | | | | | | | | | | | | |
| Newfoundland | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Prince Edward Island | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Nova Scotia | x | x | x | — | x | x | x | x | x | x | x | x | x | x | x |
| New Brunswick | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Quebec | 3,215 | 8 | — | — | 723 | 91 | 49 | 10 | 3,987 | 109 | 18,524 | — | 4,540 | 387 | 23,452 |
| Ontario | 27,956 | 199 | 562 | 9 | 3,981 | 887 | 312 | 138 | 32,811 | 1,233 | 173,672 | 3,896 | 37,109 | 3,123 | 217,800 |
| Manitoba | x | x | x | — | x | x | x | x | x | x | x | x | x | x | x |
| Saskatchewan | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Alberta | x | — | — | — | x | x | x | x | x | x | x | — | x | x | x |
| British Columbia | 653 | — | — | — | 124 | 12 | 14 | 2 | 791 | 14 | 3,824 | — | 994 | 106 | 4,924 |
| Yukon and Northwest Terri- tories | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Totals | 36,209 | 225 | 582 | 9 | 5,583 | 1,101 | 401 | 164 | 42,775 | 1,499 | 221,232 | 4,006 | 48,036 | 3,852 | 277,126 |

TABLE 9. Production and Related Workers, — Manufacturing Activity, 1964 and 1965

| Month | 1964 | | 1965 | |
|--|--------|--------|--------|--------|
| | Male | Female | Male | Female |
| | number | | | |
| Establishments reporting monthly detail (large establishments only): | | | | |
| January | 31,511 | 212 | 34,345 | 204 |
| February | 31,828 | 205 | 35,093 | 204 |
| March | 32,286 | 218 | 35,328 | 208 |
| April | 32,911 | 219 | 35,350 | 205 |
| May | 33,676 | 218 | 36,065 | 212 |
| June | 34,389 | 221 | 36,316 | 218 |
| July | 34,558 | 224 | 37,135 | 224 |
| August | 35,022 | 225 | 37,422 | 226 |
| September | 35,015 | 218 | 37,472 | 224 |
| October | 34,600 | 209 | 37,187 | 263 |
| November | 34,182 | 208 | 36,622 | 255 |
| December | 34,320 | 200 | 36,130 | 246 |
| Averages | 33,695 | 216 | 36,209 | 225 |
| Establishments reporting annual averages (small establishments only) | — | — | — | — |
| Average for all establishments | 33,695 | 216 | 36,209 | 225 |

TABLE 10. Inventories, 1965

| Province | Manufacturing | | | | Non-manufacturing | Total inventories |
|---------------------------------------|---------------------------|------------------|-----------------------------------|---------|--|-------------------|
| | Materials, supplies, etc. | Goods in process | Finished goods of own manufacture | Total | Products or materials purchased for resale | |
| | book value \$'000 | | | | | |
| Opening: | | | | | | |
| Newfoundland | — | — | — | — | — | — |
| Prince Edward Island | — | — | — | — | — | — |
| Nova Scotia | x | x | x | x | x | x |
| New Brunswick | — | — | — | — | — | — |
| Quebec | 7,084 | 8,083 | 2,933 | 18,819 | 13 | 18,833 |
| Ontario | 91,975 | 37,971 | 36,237 | 166,183 | 82 | 166,265 |
| Manitoba | x | x | x | x | — | x |
| Saskatchewan | — | — | — | — | — | — |
| Alberta | x | x | x | x | x | x |
| British Columbia | 1,203 | 233 | 1,229 | 2,665 | 109 | 2,775 |
| Yukon and Northwest Territories | — | — | — | — | — | — |
| Totals | 118,457 | 50,806 | 43,256 | 212,519 | 375 | 212,894 |
| Closing: | | | | | | |
| Newfoundland | — | — | — | — | — | — |
| Prince Edward Island | — | — | — | — | — | — |
| Nova Scotia | x | x | x | x | x | x |
| New Brunswick | — | — | — | — | — | — |
| Quebec | 11,657 | 10,952 | 5,266 | 27,876 | 484 | 28,360 |
| Ontario | 109,131 | 55,411 | 41,634 | 206,175 | 446 | 206,621 |
| Manitoba | x | x | x | x | — | x |
| Saskatchewan | — | — | — | — | — | — |
| Alberta | x | x | x | x | x | x |
| British Columbia | 1,563 | 153 | 1,643 | 3,359 | 49 | 3,408 |
| Yukon and Northwest Territories | — | — | — | — | — | — |
| Totals | 141,395 | 69,354 | 52,487 | 263,236 | 1,145 | 264,380 |

TABLE 11. Purchased Fuel and Electricity Used, 1964 and 1965

| Description | 1964 | | 1965 | |
|---|------------|---------------|------------|---------------|
| | Quantity | Cost | Quantity | Cost |
| | | \$'000 | | \$'000 |
| I. Large establishments reporting commodity detail: | | | | |
| Bituminous coal: | | | | |
| (a) From Canadian mines | ton | 50,996 | 416 | 40,724 |
| (b) Imported | " | 135,909 | 1,441 | 177,303 |
| Sub-bituminous coal (from Alberta mines only) | " | — | — | — |
| Anthracite coal | " | — | — | — |
| Lignite coal | " | — | — | — |
| Coke | " | 425 | 10 | 3,785 |
| Gasoline (including gasoline used in cars and trucks) | Imp. gal. | 1,072,360 | 304 | 1,169,052 |
| Fuel oil including kerosene or coal oil | " | 199,361,774 | 16,671 | 211,584,007 |
| Wood | cord | 272 | 3 | 231 |
| Gas: | | | | |
| (a) Liquefied petroleum gases | Imp. gal. | 498,460 | 112 | 497,684 |
| (b) Other manufactured gas | M cu. ft. | — | — | — |
| (c) Natural gas | " | 10,457,642 | 4,893 | 13,387,152 |
| Other fuel | — | — | — | — |
| Electricity purchased | kwh. | 3,369,758,110 | 17,592 | 3,345,187,605 |
| Steam purchased | — | — | — | — |
| 2. Small establishments not reporting commodity detail: | | | | |
| Estimate for fuel and electricity | — | — | — | — |
| 3. All establishments: | | | | |
| Total fuel and electricity used | ... | 41,442 | ... | 47,703 |

TABLE 12. Materials and Supplies — Manufacturing Activity, 1964 and 1965

| Description | | 1964 | | 1965 | |
|---|-----------|-----------|--------|-----------|--------|
| | | Quantity | Cost | Quantity | Cost |
| | | | \$'000 | | \$'000 |
| 1. Materials used: | | | | | |
| Coke, gas and by-products section | | | | | |
| Bituminous coal carbonized in ovens or retorts: | | | | | |
| From Canadian mines | ton | 459,820 | 4,837 | 262,921 | 2,766 |
| Imported | " | 4,865,783 | 54,458 | 5,033,297 | 54,978 |
| Absorbing and wash oil | imp. gal. | 350,351 | 90 | 228,924 | 60 |
| Caustic soda | lb. | 2,422,670 | 65 | 2,196,681 | 60 |
| Sodium nitrate | " | 5,200 | -- | -- | -- |
| Sulphur | ton | 2 | -- | 1 | -- |
| Sulphuric acid, 100%: | | | | | |
| Purchased | " | 19,881 | 375 | 15,473 | 280 |
| Own make | " | 563 | -- | 521 | -- |
| Sinter plant and blast furnace section | | | | | |
| Sinter plant: | | | | | |
| Crude iron ore: | | | | | |
| From Canadian mines | " | 488,964 | 4,335 | 547,924 | 4,927 |
| Imported | " | 936,760 | 9,589 | 778,489 | 7,693 |
| Pyrite cinder | " | -- | -- | 5,215 | 35 |
| Mill cinder, scale, flue dust, etc. (not sintered, pelletized, etc.): | | | | | |
| Purchased | " | 5,345 | 67 | 8,755 | 93 |
| Own make | " | 655,483 | -- | 594,768 | -- |
| Scrap iron and steel (own make) | " | 45,829 | -- | -- | -- |
| Limestone (including fines) | " | 88,611 | 331 | 73,857 | 240 |
| Dolomite (including fines) | " | 92,241 | 147 | 84,843 | 247 |
| Coke (including breeze): | | | | | |
| Purchased | " | 13,267 | 120 | 13,939 | 119 |
| Own make | " | 53,102 | -- | 62,229 | -- |
| Blast furnace: | | | | | |
| Crude iron ore: | | | | | |
| From Canadian mines | " | 548,954 | 5,213 | 442,786 | 4,309 |
| Imported | " | 1,290,956 | 14,829 | 1,375,407 | 15,155 |
| Iron ore (sintered, pelletized, etc.): | | | | | |
| From Canadian mines | " | 2,571,241 | 34,011 | 3,157,365 | 41,701 |
| Imported | " | 3,637,373 | 52,831 | 3,714,208 | 53,651 |
| From own processing (does not include mine sinter plant) | " | 1,816,699 | -- | 1,701,493 | -- |
| Mill cinder, roll scale, slag and flue dust (not sintered, pelletized, etc.): | | | | | |
| Purchased | " | 45,529 | 373 | 47,766 | 408 |
| Own make | " | 198,513 | -- | 298,320 | -- |
| Scrap iron and steel: | | | | | |
| Purchased | " | 62,508 | 513 | 91,056 | 792 |
| Own make | " | 19,138 | -- | 15,635 | -- |
| Limestone: | | | | | |
| From Canadian quarries | " | 413,237 | 1,102 | 448,234 | 1,139 |
| Imported | " | 331,107 | 606 | 309,536 | 531 |
| Dolomite | " | 480,446 | 852 | 544,740 | 911 |
| Coke: | | | | | |
| Purchased | " | 213,766 | 4,614 | 403,358 | 9,454 |
| Own make | " | 3,524,355 | -- | 3,544,042 | -- |
| Firebrick, fireclay and other refractories, n.e.s. | " | -- | 818 | -- | 791 |
| Steel ingots and steel castings section | | | | | |
| Pig iron: | | | | | |
| Purchased | ton | 12,697 | 612 | 25,968 | 1,227 |
| Own make | " | 5,665,363 | -- | 6,154,753 | -- |
| Scrap iron and steel: | | | | | |
| Purchased | " | 1,844,821 | 62,373 | 1,963,180 | 68,906 |
| Own make | " | 2,480,459 | -- | 2,969,248 | -- |
| Coke (charged to furnace; not for fuel): | | | | | |
| Purchased | " | 1,240 | 39 | 1,446 | 54 |
| Own make | " | 1,046 | -- | 1,202 | -- |
| Ferromanganese: | | | | | |
| High carbon (over 3 per cent carbon): | " | 57,525 | 8,967 | 61,799 | 9,941 |
| Medium carbon | " | 6,784 | 1,894 | 7,091 | 2,042 |
| Low carbon (maximum 0.75 per cent carbon) | " | 427 | 184 | 364 | 165 |
| Silico manganese | " | 12,111 | 2,333 | 14,916 | 2,931 |
| Ferrosilicon: | | | | | |
| Low silicon grade (under 45 per cent silicon) | " | 159 | 15 | 205 | 25 |
| Medium silicon grade | " | 15,294 | 2,293 | 17,774 | 2,693 |
| High silicon grade (over 55 per cent silicon) | " | 1,987 | 557 | 3,326 | 896 |
| Sil-x | " | 71 | 20 | 94 | 26 |
| Ferrochrome (including chrom-X): | | | | | |
| High carbon | " | 2,994 | 839 | 7,479 | 2,165 |
| Low carbon (maximum 2 per cent carbon) | " | 7,554 | 2,735 | 6,911 | 2,245 |
| Ferromolybdenum | " | 133 | 434 | 330 | 972 |
| Ferrophosphorus | " | 452 | 63 | 585 | 74 |
| Ferroselenium | " | 5 | 41 | 5 | 39 |
| Ferrotitanium | " | 129 | 93 | 96 | 74 |
| Ferrotungsten | " | 58 | 83 | 99 | 235 |
| Ferrovandium | " | 306 | 862 | 300 | 1,122 |
| Ferrozirconium | " | 58 | 30 | 72 | 36 |
| Calcium silicon | " | 442 | 198 | 742 | 361 |
| Calcium manganese silicon | " | 184 | 104 | 247 | 138 |

TABLE 12. Materials and Supplies - Manufacturing Activity, 1964 and 1965 - Concluded

| Description | | 1964 | | 1965 | |
|--|-----------|------------|----------------|------------|----------------|
| | | Quantity | Cost | Quantity | Cost |
| | | | \$'000 | | \$'000 |
| 1. Materials used - Concluded: | | | | | |
| Steel ingots and steel castings section - Concluded | | | | | |
| Other ferro-alloys..... | ton | 3,032 | 898 | 1 | 1,170 |
| Iron ore, crude..... | " | 162,672 | 2,603 | 113,884 | 1,716 |
| Iron ore, calcined, roasted or treated..... | " | 186,338 | 2,952 | 179,952 | 2,872 |
| Chrome ore..... | " | 286 | 21 | 272 | 20 |
| Tungsten ore..... | " | 76 | 88 | 95 | 247 |
| Aluminum ingots, shot, etc..... | " | 3,332 | 1,756 | 3,862 | 2,090 |
| Copper ingots, cakes, shot, etc..... | " | 413 | 260 | 1,130 | 921 |
| Nickel ingots, cathodes, shot, etc..... | " | 3,133 | 5,213 | 3,646 | 6,111 |
| Other metals..... | " | ... | 301 | ... | 376 |
| Charcoal..... | ton | 488 | 28 | 115 | 9 |
| Bentonite..... | " | 7,144 | 288 | 8,801 | 349 |
| Dolomite: | | | | | |
| Raw, crushed..... | " | 151,768 | 401 | 130,505 | 346 |
| Calcined..... | " | 103,609 | 2,635 | 120,249 | 3,090 |
| Fluorspar..... | " | 41,533 | 1,374 | 37,399 | 1,373 |
| Ganister..... | " | 925 | 9 | 519 | 9 |
| Graphite..... | " | 1,253 | 72 | 1,584 | 108 |
| Lime..... | " | 222,679 | 3,399 | 215,901 | 3,131 |
| Limestone..... | " | 255,570 | 629 | 323,416 | 726 |
| Linseed oil..... | Imp. gal. | 21,038 | 27 | 8,440 | 9 |
| Magnesite..... | ton | 14,262 | 951 | 12,337 | 789 |
| Electrodes..... | " | .. | 2,834 | .. | 3,764 |
| Silica sand: | | | | | |
| For moulds..... | ton | 134,946 | 1,011 | 112,200 | 1,165 |
| Other foundry sands..... | " | .. | 272 | .. | 277 |
| Sulphur..... | ton | 236 | 35 | 263 | 41 |
| Firebrick, fireclay and other refractories, n.e.s..... | " | .. | 16,754 | .. | 18,649 |
| Molybdenum trioxide (molybdic oxide) briquettes..... | ton | 486 | 1,516 | 736 | 2,321 |
| Ingot moulds (including hot tops) and stools..... | " | .. | 12,474 | .. | 13,963 |
| Rolled steel products section | | | | | |
| Steel ingots: | | | | | |
| Purchased..... | ton | 105,510 | 7,015 | 85,646 | 5,000 |
| Own make..... | " | 8,578,176 | .. | 9,457,010 | .. |
| Steel billets and slabs..... | " | 117,947 | 11,674 | 201,814 | 18,188 |
| Steel bars..... | " | 60,075 | 9,252 | 68,247 | 10,972 |
| Wire rods..... | " | 3,666 | 571 | 4,038 | 673 |
| Rails, old (include reject rails)..... | " | 116,658 | 5,222 | 91,229 | 4,833 |
| Steel sheet and strip..... | " | 43,926 | 6,804 | 102,180 | 11,717 |
| Scrap iron and steel incl. old axles..... | " | 14,906 | 712 | 20,810 | 819 |
| Tin..... | " | 2,762 | 8,393 | 2,634 | 10,186 |
| Zinc spelter..... | " | 30,156 | 8,079 | 31,148 | 9,047 |
| Acids: | | | | | |
| Chromic..... | lb. | 266,900 | 76 | 227,500 | 66 |
| Hydrochloric (muriatic)..... | " | 1,005,406 | 77 | 3,184,268 | 175 |
| Sulphuric, 100%..... | ton | 47,452 | 1,030 | 44,972 | 951 |
| Cleaners (Pennsalt, etc.)..... | " | .. | 371 | .. | 345 |
| Inhibitors (Rodine, etc.)..... | " | .. | 4 | .. | .. |
| Phenone..... | lb. | 97,000 | 106 | 42,620 | 45 |
| Rolling oils..... | Imp. gal. | 2,998,566 | 1,371 | 3,669,054 | 1,581 |
| Zinc ammonium chloride..... | ton | 218 | 59 | 234 | 63 |
| Firebrick, fireclay and other refractories, n.e.s..... | " | .. | 4,651 | .. | 1,155 |
| Rolls and dies..... | " | .. | 6,242 | .. | 9,351 |
| Silica sand..... | ton | 5,513 | 20 | 7,822 | 32 |
| Ferro-alloys section | | | | | |
| Coal: | | | | | |
| Anthracite..... | " | 14,688 | 261 | 18,808 | 316 |
| Bituminous..... | " | 48,767 | 799 | 48,099 | 793 |
| Coke: | | | | | |
| Petroleum..... | " | 36,695 | 599 | 41,088 | 685 |
| Other..... | " | .. | 797 | 34,048 | 978 |
| Dolomite..... | " | 5,059 | 15 | 5,619 | 16 |
| Electrodes..... | " | .. | 1,260 | .. | 1,278 |
| Firebrick, fireclay and other refractories, n.e.s..... | " | .. | 41 | .. | 126 |
| Lime..... | ton | 3,727 | 53 | 4,646 | 66 |
| Limestone..... | " | 3,301 | 13 | 3,060 | 12 |
| Linseed oil..... | Imp. gal. | 13,598 | 30 | 14,076 | 33 |
| Magnesite..... | ton | 338 | 30 | 141 | 13 |
| Millscale..... | " | 11 | .. | 8 | .. |
| Pitch..... | " | 10,564 | 484 | 10,189 | 461 |
| Quartzite..... | " | 142,552 | 880 | 153,574 | 938 |
| Silica sand..... | " | 3,232 | 37 | 3,742 | 35 |
| Steel scrap (borings, turnings, etc.)..... | " | 44,143 | 960 | 42,199 | 1,061 |
| Woodchips..... | " | 44,728 | 352 | 43,385 | 339 |
| All other materials and components used..... | " | .. | 15,367 | .. | 17,660 |
| 2. Containers and other packaging materials and supplies used..... | | .. | 5,180 | .. | 6,020 |
| 3. Operating, maintenance and repair supplies used (excluding fuel)..... | | .. | 67,612 | .. | 76,578 |
| 4. Amount paid out to others for work done on materials owned by establishments..... | | .. | 11,765 | .. | 10,774 |
| Totals..... | | ... | 512,009 | ... | 565,741 |

TABLE 13. Shipments of Selected Goods of Own Manufacture - All Industries, 1964 and 1965

(includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

| Product | Total tonnage made | Factory sales | |
|---|----------------------------|--|-----------------------------|
| | | Tonnage sold in Canada or for export | Income from tonnage sold |
| | | net tons | \$'000 |
| 1964 | | | |
| A. Hot-rolled products | | | |
| Semi-finished rolled forms: | | | |
| All semi-finished forms intended for further rolling, including blooms, billets, slabs and sheet bars: | | | |
| For sale in Canada | .. | 236,010 | 19,844 |
| For export | 107,270 | 108,152 | 7,730 |
| Blooms, billets and axle blanks for forging purposes only, whether for own use or for sale to others | | | |
| including export | 255,536 | 249,002 | 28,518 |
| Rounds or billets for seamless tubes including export | 362 | | |
| Total semi-finished rolled forms | 362,806^f | 593,164 | 56,092 |
| Rails | 253,674 | 270,807 | 30,856 |
| Wire rods, No. 5 gauge to 47/64 inch in diameter (excluding straight lengths over 5/16 inch in diameter) | 442,023 | 446,509 | 58,888 |
| Structural steel shapes: | | | |
| Heavy, including sheet piling, beams, angles, channels, tees, zeos, etc., having one leg or web of 3" and over, and a thickness of 1/8" and over | 441,235 | 458,816 | 57,383 |
| Light, including light shapes, angles, channels, etc., having a section smaller than that provided under previous item | 119,371 | 118,792 | 15,543 |
| Total structural steel shapes | 560,606 | 577,608 | 72,926 |
| Bars: | | | |
| Bars, hot-rolled, of all grades and of all sections, including bolt, nut, rivet, spike, chain, horseshoe and other miscellaneous bars, but omitting all bars reported immediately below | 667,552 | 591,108 | 95,503 |
| Bars for concrete reinforcing, including twisted and other deformed bars | 534,451 | 555,770 | 65,366 |
| Long angle splice bars, tie plate bars and all other long rail joint bars | 78,546 | .. | .. |
| Total hot-rolled bars | 1,280,549 | 1,146,878 | 160,869 |
| Plates (excluding plate for pipes and tubes) | 622,419 | 621,124 | 79,352 |
| Skelp ¹ (hot and cold-rolled plate, sheets, strip and bars for pipes and tubes) | 550,691 | 502,241 | 58,304 |
| Other hot-rolled sheets and strip including material for further cold reduction and all other hot-rolled forms | 2,739,084 | 765,657 | 94,816 |
| B. Cold-rolled and coated products¹ | | | |
| Bars, cold-rolled and cold-drawn | 72,839 | 72,854 | 21,906 |
| Cold-rolled strip | 71,585 | 72,700 | 22,570 |
| Other cold-rolled and coated products, including cold-reduced sheets, black plate for tinning and other black plate, galvanized sheets and strip, tin plate, silicon sheet and strip, but excluding cold-rolled skelp | 2,696,675 ^f | 1,726,099 ^f | 280,715 ^f |
| C. Other products | | | |
| Rail fastenings: | | | |
| Rail joints, including splice bars and fish plates | 13,937 | 13,310 | 2,006 |
| Tie plates | 59,035 | 58,359 | 8,034 |
| 1965 | | | |
| A. Hot-rolled products | | | |
| Semi-finished rolled forms: | | | |
| All semi-finished forms intended for further rolling, including blooms, slabs and sheet bars: | | | |
| For sale in Canada | .. | 345,234 | 32,347 |
| For export | 76,026 | 68,321 | 4,879 |
| Blooms, billets and axle blanks for forging purposes only, whether for own use or for sale to others | | | |
| including export | 291,193 | 282,648 | 33,824 |
| Rounds or billets for seamless tubes including export | | | |
| Total semi-finished rolled forms | 367,219 | 696,203 | 71,051 |
| Rails | 228,209 | 220,611 | 26,458 |
| Wire rods, No. 5 gauge to 47/64 inch in diameter (excluding straight lengths over 5/16 inch in diameter) | 433,482 | 440,178 | 59,239 |
| Structural steel shapes: | | | |
| Heavy, including sheet piling, beams, angles, channels, tees, zeos, etc., having one leg or web of 3" and over, and a thickness of 1/8" and over | 458,588 | 443,001 | 58,144 |
| Light, including light shapes, angles, channels, etc., having a section smaller than that provided under previous item | 127,071 | 122,882 | 16,643 |
| Total structural steel shapes | 585,659 | 565,883 | 74,787 |
| Bars: | | | |
| Bars, hot-rolled, of all grades and of all sections, including bolt, nut, rivet, spike, chain, horseshoe and other miscellaneous bars but omitting all bars reported immediately below | 791,728 | 663,357 | 107,207 |
| Bars for concrete reinforcing, including twisted and other deformed bars | 608,093 | 569,795 | 68,707 |
| Long angle splice bars, tie plate bars and all other long rail joint bars | 32,308 | .. | .. |
| Total hot-rolled bars | 1,432,129 | 1,333,152 | 175,914 |
| Plates (excluding plate for pipes and tubes) | 794,639 | 734,124 | 98,420 |
| Skelp ¹ (hot and cold-rolled plate, sheets, strip and bars for pipes and tubes) | 576,187 | 515,223 | 61,516 |
| Other hot-rolled sheets and strip including material for further cold reduction and all other hot-rolled forms | 3,026,304 | 832,831 | 106,069 |
| B. Cold-rolled and coated products¹ | | | |
| Bars, cold-rolled and cold-drawn | 81,932 | 80,690 | 24,018 |
| Cold-rolled strip | 72,284 | 72,347 | 21,976 |
| Other cold-rolled and coated products, including cold-reduced sheets, black plate for tinning and other black plate, galvanized sheets and strip, tin plate, silicon sheet and strip, but excluding cold-rolled skelp | 2,945,939 | 1,866,996 | 316,856 |
| C. Other products | | | |
| Rail fastenings: | | | |
| Rail joints, including splice bars and fish plates | 5,590 | 5,795 | 902 |
| Tie plates | 43,399 | 43,799 | 6,272 |

¹ Note that skelp as listed provides for both hot-rolled and cold-rolled material.

TABLE 14. Production¹ of Pig Iron and Sales¹ by Producers - All Industries,² 1964 and 1965

| Grade | Total tonnage made | Sales | |
|----------------------------|--------------------------|----------|----------------------|
| | | Quantity | Income from sales |
| | net tons | | \$'000 |
| 1964 | | | |
| Basic | 5,668,176 | 76,509 | 4,373 |
| Foundry ³ | 436,374 | 453,191 | 20,284 |
| Malleable | 446,285 | 301,043 | 18,137 |
| Totals | 6,550,835 | 830,743 | 42,794 |
| 1965 | | | |
| Basic | 6,315,576 | 98,817 | 5,736 |
| Foundry ³ | 492,610 | 491,956 | 22,170 |
| Malleable | 271,253 | 318,849 | 18,034 |
| Totals | 7,079,439 | 909,622 | 45,940 |

¹ Includes the output from smelting of titanium ores.

² Includes data from other industries which manufacture, as a secondary activity, the commodities listed here.

³ Includes silvery pig.

TABLE 15. Production¹ of Pig Iron by Grades, 1956 - 65

| Year | Basic | Foundry | Malleable | Total |
|-------------------------|-----------|---------|-----------|-----------|
| | net tons | | | |
| 1956 | 2,990,222 | 150,354 | 427,627 | 3,568,203 |
| 1957 | 3,209,411 | 104,830 | 404,109 | 3,718,350 |
| 1958 | 2,665,705 | 43,755 | 350,119 | 3,059,579 |
| 1959 ² | 3,552,926 | 228,843 | 401,006 | 4,182,775 |
| 1960 | 3,598,595 | 290,050 | 410,204 | 4,298,849 |
| 1961 | 4,203,578 | 386,644 | 355,799 | 4,946,021 |
| 1962 | 4,561,273 | 254,807 | 460,672 | 5,276,752 |
| 1963 | 5,095,081 | 312,651 | 525,538 | 5,933,270 |
| 1964 | 5,668,176 | 436,374 | 446,285 | 6,550,835 |
| 1965 | 6,315,576 | 492,610 | 271,253 | 7,079,439 |

¹ Includes silvery pig.

² Commencing with 1959, Includes the output from smelting of titanium ores.

TABLE 16. Production¹ of Pig Iron by Months, 1964 and 1965

| Month | 1964 | | | 1965 | | |
|-----------------|----------------|----------|-----------|----------------|----------|-----------|
| | For own use | For sale | Total | For own use | For sale | Total |
| | net tons | | | | | |
| January | 489,753 | 31,293 | 521,046 | 570,243 | 31,433 | 601,676 |
| February | 481,238 | 29,002 | 510,240 | 479,045 | 34,574 | 513,619 |
| March | 526,103 | 38,786 | 564,889 | 480,724 | 62,015 | 542,739 |
| April | 487,745 | 72,853 | 560,598 | 447,782 | 88,975 | 536,757 |
| May | 485,636 | 83,746 | 569,382 | 535,688 | 101,461 | 637,149 |
| June | 441,463 | 104,734 | 546,197 | 503,278 | 89,352 | 592,630 |
| July | 484,257 | 72,065 | 556,322 | 549,090 | 75,907 | 624,997 |
| August | 484,021 | 91,123 | 575,150 | 574,782 | 59,823 | 634,605 |
| September | 487,101 | 67,328 | 554,429 | 491,364 | 94,380 | 585,744 |
| October | 436,709 | 78,347 | 515,056 | 516,621 | 97,295 | 613,916 |
| November | 401,755 | 109,380 | 511,135 | 497,202 | 95,332 | 592,534 |
| December | 498,328 | 57,907 | 556,235 | 513,497 | 74,647 | 588,594 |
| Totals | 5,703,915 | 836,764 | 6,540,679 | 6,159,686 | 905,194 | 7,064,880 |

¹ See footnotes to Table 14.

Note: Above breakdown developed from a special monthly report on primary iron and steel and does not reconcile precisely with total shown on Table 8 or 9 because of the preliminary status of monthly figures.

TABLE 17. Sales¹ of Pig Iron by Producers, 1956 - 65

| Year | Tonnage sold | Income from sales | Year | Tonnage sold | Income from sales |
|------------|-----------------|----------------------|------------|-----------------|----------------------|
| | net tons | \$'000 | | net tons | \$'000 |
| 1956 | 649,213 | 34,501 | 1961 | 783,188 | 39,963 |
| 1957 | 734,353 | 40,953 | 1962 | 814,843 | 42,977 |
| 1958 | 429,708 | 24,878 | 1963 | 758,513 | 38,311 |
| 1959 | 662,341 | 36,280 | 1964 | 830,743 | 42,794 |
| 1960 | 676,964 | 36,160 | 1965 | 909,622 | 45,940 |

¹ See footnotes to Table 14.

TABLE 18. Stocks of Pig Iron at Year end by Producers in Canada, 1956-65

| Year | Net tons | Year | Net tons |
|------|----------|------|----------|
| 1956 | 113,629 | 1961 | 369,547 |
| 1957 | 233,569 | 1962 | 212,353 |
| 1958 | 239,598 | 1963 | 197,630 |
| 1959 | 246,742 | 1964 | 184,616 |
| 1960 | 318,063 | 1965 | 102,360 |

Note: See also data in Table 14.

TABLE 19. Consumption of Pig Iron in Canada by Industries and by Regions, 1964 and 1965
(As Reported by Consumers)

| | 1964 | 1965 |
|---|------------------|------------------|
| | net tons | |
| By industries | | |
| Agricultural implements | 6,792 | 7,444 |
| Boiler and plate works | 433 | 493 |
| Electrical products | 6,983 | 9,403 |
| Fabricated structural metal | 500 | 536 |
| Hardware, tool and cutlery | 127 | 136 |
| Heating equipment | 6,066 | 4,689 |
| Iron and steel mills | 5,678,060 | 6,180,721 |
| Iron foundries | 180,062 | 221,711 |
| Miscellaneous machinery | 18,744 | 22,407 |
| Miscellaneous metal fabricating | 27,729 | 18,020 |
| Motor vehicles | 2,911 | — |
| Motor vehicle parts and accessories | 36,622 | 20,686 |
| Railroad rolling stock | 15,911 | 12,480 |
| Shipbuilding and repair | 440 | 369 |
| Miscellaneous | 79,194 | 93,886 |
| Totals | 6,064,614 | 6,592,981 |
| By regions | | |
| Atlantic | 579,583 | 525,152 |
| Quebec | 39,227 | 56,455 |
| Ontario | 5,431,034 | 5,984,374 |
| Prairies | 10,868 | 23,602 |
| British Columbia | 3,902 | 3,398 |
| Canada | 6,064,614 | 6,592,981 |

Note: Data in Table 19 by industry reflect classification in accordance with revised Standard Industrial Classification adopted in 1960 and the New Establishment Concept adopted in 1961.

TABLE 20. Blast Furnaces in Canada, 1963-65

| Name of company | Location of plant | Number of stacks | Total annual capacity | Number of days in blast | | |
|--|-----------------------------|------------------|-----------------------|-------------------------|------|------|
| | | | | 1963 | 1964 | 1965 |
| | | | net tons | | | |
| Dominion Foundries & Steel Ltd. | Hamilton, Ont. | 1 | 500,000 | 365 | 361 | 365 |
| | | 1 | 500,000 | 208 | 365 | 365 |
| | | 1 | 550,000 | 365 | 335 | 365 |
| Totals | | 3 | 1,550,000 | — | — | — |
| Dominion Steel & Coal Corporation, Limited | Sydney, Nova Scotia | 1 | 299,000 | 365 | 366 | 322 |
| | | 1 | 365,000 | 364 | 365 | 303 |
| Totals | | 2 | 664,000 | — | — | — |
| Canadian Furnace Company, Limited | Port Colborne, Ont. | 1 | 240,000 | 239 | 365 | 365 |
| Totals | | 1 | 240,000 | — | — | — |
| The Steel Company of Canada, Limited | Hamilton | 1 | 2,354,000 | 364 | 365 | 364 |
| | | 1 | | 360 | 365 | 331 |
| | | 1 | | 318 | 361 | 364 |
| | | 1 | | 359 | 322 | 363 |
| Totals | | 4 | 2,350,000 | — | — | — |
| Algoma Steel Corporation, Limited | Sault Ste. Marie, Ont. | 1 | 350,000 | 340 | 314 | 363 |
| | | 1 | 225,000 | 363 | 363 | 362 |
| | | 1 | 750,000 | 365 | 366 | 362 |
| | | 1 | 800,000 | 330 | 359 | 322 |
| Totals | | 4 | 2,125,000 | — | — | — |
| Totals for Canada | | 14 | 6,929,000 | — | — | — |

Note: Data in above table do not include details on other producers of pig iron in Canada as follows:

1. Electric furnace operations used in smelting titanium ores rated at approximately 403,200 tons pig iron per annum operated by Quebec Iron and Titanium Corporation at Sorel, Quebec.
2. Two electric furnaces used in direct reduction of iron ore rated at 110,000 tons pig iron per annum operated by the Consolidated Mining and Smelting Co. of Canada Ltd., Kimberley, British Columbia.

TABLE 21. Production of Steel Ingots and Steel Castings, and Sales by the Producers— All Industries,¹ 1964 and 1965

| | 1964 | | | 1965 | | |
|--|---|----------------|-------------------|---|----------------|-------------------|
| | Total tonnage of steel made (all kinds), including alloys | Sales | | Total tonnage of steel made (all kinds), including alloys | Sales | |
| | | Quantity | Income from sales | | Quantity | Income from sales |
| | net tons | | \$'000 | net tons | | \$'000 |
| Steel ingots: | | | | | | |
| Basic open-hearth ² | 8,119,811 | 80,980 | 5,230 | 8,785,476 | 140,894 | 9,126 |
| Electric | 847,707 | 131,899 | 18,901 | 1,117,883 | 118,762 | 20,126 |
| Totals, steel ingots | 8,967,518 | 212,879 | 24,131 | 9,903,359 | 259,656 | 29,252 |
| Steel castings: | | | | | | |
| Basic open-hearth | 1,351 | — | — | 251 | — | — |
| Electric | 159,590 | 148,787 | 69,334 | 164,732 | 155,232 | 77,223 |
| Totals, steel castings | 160,941 | 148,787 | 69,334 | 164,983 | 155,232 | 77,223 |
| Totals, steel ingots and castings | 9,128,459 | 361,666 | 93,465 | 10,068,342 | 414,888 | 106,475 |
| Alloy steel included in above: | | | | | | |
| Ingots | 521,543 | 25,592 | 11,178 | 714,464 | 18,071 | 13,183 |
| Castings | 42,489 | 40,807 | 34,072 | 46,896 | 45,242 | 39,478 |
| Totals | 564,032 | 66,399 | 45,250 | 761,360 | 63,313 | 52,661 |

¹ Includes details from other industries which manufacture, as a secondary activity, the commodities listed here.

² Includes production from oxygen vessels.

TABLE 22. Production of Steel Ingots and Steel Castings by Grades— All Industries,¹ 1956-65

| Year | Steel ingots | | Steel castings | | | Total steel ingots and castings |
|------------|--------------------------|-----------|----------------|-----------|----------|---------------------------------|
| | Open-hearth ² | Electric | Open-hearth | Converter | Electric | |
| | net tons | | | | | |
| 1956 | 4,628,777 | 551,644 | 32,107 | 307 | 88,367 | 5,301,203 |
| 1957 | 4,500,737 | 430,673 | 27,076 | 20 | 109,643 | 5,068,149 |
| 1958 | 3,875,470 | 386,652 | 15,880 | 20 | 81,444 | 4,359,466 |
| 1959 | 5,267,282 | 532,074 | 14,834 | 7 | 87,290 | 5,901,487 |
| 1960 | 5,089,660 | 618,943 | 2,611 | — | 97,894 | 5,809,108 |
| 1961 | 5,712,846 | 663,261 | 2,830 | — | 109,370 | 6,488,307 |
| 1962 | 6,394,451 | 653,851 | 3,125 | — | 122,107 | 7,173,534 |
| 1963 | 7,321,572 | 749,390 | 2,643 | — | 123,465 | 8,197,070 |
| 1964 | 8,119,811 | 847,707 | 1,351 | — | 159,590 | 9,128,459 |
| 1965 | 8,785,476 | 1,117,883 | 251 | — | 164,732 | 10,068,342 |

¹ Includes details from other industries which manufacture, as a secondary activity, the commodities listed here.

² Includes production from oxygen vessels.

TABLE 23. Production of Steel Ingots and Steel Castings, by Months— All Industries,¹ 1961-65

| Month | 1961 | 1962 | 1963 | 1964 | 1965 |
|---------------------|------------------|------------------|------------------|------------------|-------------------|
| | net tons | | | | |
| January | 457,388 | 576,052 | 660,215 | 719,039 | 831,170 |
| February | 472,409 | 533,788 | 590,780 | 714,465 | 742,137 |
| March | 565,198 | 602,810 | 678,248 | 784,732 | 837,221 |
| April | 554,168 | 597,659 | 702,045 | 765,993 | 799,647 |
| May | 562,067 | 603,154 | 753,625 | 799,077 | 894,343 |
| June | 565,244 | 598,708 | 681,288 | 755,232 | 844,360 |
| July | 539,337 | 611,085 | 657,443 | 737,995 | 845,269 |
| August | 582,961 | 651,274 | 700,273 | 772,432 | 875,118 |
| September | 562,306 | 618,726 | 670,246 | 748,344 | 823,749 |
| October | 588,221 | 598,331 | 698,621 | 792,461 | 876,472 |
| November | 534,325 | 607,903 | 713,685 | 770,056 | 840,098 |
| December | 482,700 | 573,985 | 683,810 | 770,937 | 819,318 |
| Totals | 6,466,324 | 7,173,475 | 8,190,279 | 9,130,763 | 10,028,899 |

¹ Includes details from other industries which manufacture these commodities, as a secondary activity.

Note: Above breakdown developed from a special monthly report on primary iron and steel and does not reconcile precisely with total shown in Table 18, 16 or 18 because of the preliminary status of monthly figures.

TABLE 24. Annual Production of Steel Ingots and Steel Castings, by Provinces - All Industries,¹ 1956-65

| Year | Nova Scotia | Quebec | Ontario | Manitoba and Saskatchewan | Alberta | British Columbia | Canada |
|------|-------------|---------|-----------|---------------------------|---------|------------------|------------|
| | net tons | | | | | | |
| 1956 | 706,264 | 131,266 | 4,267,179 | 113,056 | 31,945 | 51,492 | 5,301,202 |
| 1957 | 740,364 | 157,251 | 4,004,620 | 76,243 | 43,827 | 45,844 | 5,068,149 |
| 1958 | 597,752 | 117,907 | 3,504,215 | 68,921 | 36,046 | 34,625 | 4,359,466 |
| 1959 | 674,226 | 120,274 | 4,905,424 | 98,954 | 56,235 | 46,374 | 5,901,487 |
| 1960 | 796,878 | 169,672 | 4,609,221 | 93,921 | 68,378 | 71,038 | 5,809,108 |
| 1961 | 523,627 | 179,534 | 5,431,212 | 197,100 | 69,029 | 87,805 | 6,488,307 |
| 1962 | 661,883 | 212,825 | 5,965,215 | 176,628 | 70,218 | 86,765 | 7,173,534 |
| 1963 | 795,484 | 234,118 | 6,752,541 | 250,387 | 73,157 | 91,383 | 8,197,070 |
| 1964 | 841,982 | 292,180 | 7,581,251 | 243,581 | 77,167 | 92,298 | 9,128,459 |
| 1965 | 779,441 | 300,492 | 8,485,219 | 284,682 | 131,279 | 87,229 | 10,068,342 |

¹ Includes details from other industries which manufacture these commodities, as a secondary activity.

TABLE 25. Sales of Steel Ingots and Steel Castings by Producers - All Industries,¹ 1956-65

| Year | Tonnage sold | Income from sales | Year | Tonnage sold | Income from sales |
|------|--------------|-------------------|------|--------------|-------------------|
| | net tons | \$'000 | | net tons | \$'000 |
| 1956 | 164,288 | 55,326 | 1961 | 370,060 | 61,587 |
| 1957 | 187,806 | 65,553 | 1962 | 376,548 | 75,096 |
| 1958 | 105,251 | 42,581 | 1963 | 392,645 | 77,369 |
| 1959 | 298,249 | 59,005 | 1964 | 361,666 | 93,464 |
| 1960 | 312,989 | 59,192 | 1965 | 414,888 | 106,475 |

¹ Includes details from other industries which manufacture these commodities, as a secondary activity.

TABLE 26. Production of Alloy Steel Ingots and Castings - All Industries,¹ 1956-65

| Year | Ingots | Castings | Total |
|------|----------|----------|---------|
| | net tons | | |
| 1956 | 218,611 | 27,774 | 246,385 |
| 1957 | 213,101 | 29,110 | 242,211 |
| 1958 | 182,902 | 19,470 | 202,372 |
| 1959 | 270,991 | 22,936 | 293,927 |
| 1960 | 237,393 | 24,241 | 261,634 |
| 1961 | 252,867 | 26,268 | 279,135 |
| 1962 | 321,708 | 32,439 | 354,147 |
| 1963 | 384,957 | 34,534 | 419,491 |
| 1964 | 503,901 | 42,489 | 546,390 |
| 1965 | 714,464 | 46,896 | 761,360 |

¹ Includes details from other industries which manufacture these commodities, as a secondary activity.

TABLE 27. Metal, Ore and Flux Charged to Steel Furnaces, 1956-65

| Year | Pig iron | Ferro-manganese alloys ¹ | Other ferro-alloys | Scrap iron and steel ² | Iron ore including sinter | Lime-stone | Dolomite | Fluorspar |
|-------------------|-----------|-------------------------------------|--------------------|-----------------------------------|---------------------------|------------|----------|-----------|
| | net tons | | | | | | | |
| 1956 | 2,902,367 | 46,556 | 20,567 | 2,865,563 | 472,476 | 232,065 | 202,352 | 18,979 |
| 1957 | 2,875,324 | 46,220 | 21,787 | 2,625,963 | 421,755 | 199,681 | 190,039 | 16,935 |
| 1958 | 2,610,517 | 37,699 | 15,539 | 2,112,355 | 373,143 | 124,189 | 152,290 | 14,539 |
| 1959 | 3,511,207 | 48,230 | 22,809 | 2,951,186 | 419,945 | 140,736 | 188,041 | 20,063 |
| 1960 ³ | 3,510,892 | 46,584 | 23,083 | 2,887,566 | 393,036 | 163,362 | 164,074 | 21,029 |
| 1961 ³ | 4,056,763 | 52,116 | 20,788 | 3,183,533 | 405,893 | 137,424 | 194,054 | 24,310 |
| 1962 ³ | 4,561,952 | 58,041 | 24,631 | 3,520,481 | 377,431 | 182,058 | 203,862 | 33,824 |
| 1963 | 5,182,670 | 68,285 | 26,579 | 4,065,168 | 413,758 | 200,280 | 236,154 | 41,822 |
| 1964 | 5,678,060 | 76,847 | 32,858 | 4,629,216 ⁴ | 349,008 | 255,570 | 255,377 | 41,533 |
| 1965 | 6,180,721 | 84,170 | 38,266 | 5,236,580 | 293,836 | 323,416 | 250,754 | 37,399 |

¹ Including spiegeleisen, sillospiegeleisen, ferromanganese (all grades) and silicomanganese.

² Developed from data reported monthly on Primary Iron and Steel.

³ (a) 1960 does not include materials charged to furnaces by firms reclassified under the new Standard Industrial Classification.

(b) In addition to changes effected in 1960, (see 3 (a) above), totals (except for scrap iron and steel) for 1961 and subsequent years exclude materials charged to furnaces by firms reclassified in accordance with the New Establishment Concept.

TABLE 28. Steel Furnaces in Canada, December 31, 1964

| | Type | Number of units | Size | Total annual capacity tons |
|--|-------------------|-----------------|-------------|-------------------------------|
| Nova Scotia: | | | | |
| Dosco Steel Ltd., Sydney | O.H. | 4 | 195 | 620,000 |
| | O.H. | 2 | 225 | 450,000 |
| | Elec. | 1 | 12 | 30,000 |
| Totals | | 7 | — | 1,100,000 |
| Enamel and Heating Products Ltd., Amherst | Elec. | 1 | 8 | 12,000 |
| Maritime Steel Foundries Ltd., New Glasgow | Elec. | 1 | 4 | 3,000 |
| Quebec: | | | | |
| Atlas Steels Company, Div. of Rio Algom Mines Ltd., Tracy | Elec. | 1 | 60 | 70,000 |
| Canadian Unitcast Steel Ltd., Sherbrooke | Elec. | 1 | 4 | 3,600 |
| Canadian Steel Foundries, Divn. of Hawker-Siddeley Canada Ltd., Montreal | O.H. | 2 | 25 | 61,500 |
| | Elec. | 1 | 30 | 82,000 |
| | Elec. | 1 | 4 | |
| | Elec. | 1 | 2½ | |
| Totals | | 5 | — | 143,500 |
| Canadian Steel Wheel Ltd., Montreal | Elec. | 2 | 60 | 145,800 |
| Abex Industries of Canada Ltd., Amsco Joliette Div., Joliette | Elec. | 1 | 3 | 32,700 |
| | Elec. | 1 | 7 | |
| Totals | | 2 | — | 32,700 |
| Dominion Engineering Works Ltd., Lachine | Elec. | 1 | 5 | 15,000 |
| | Elec. | 1 | 15 | |
| Totals | | 2 | — | 15,000 |
| Dosco Steel Ltd., Montreal | Elec. | 2 | 25 | 120,000 |
| Griffin Steel Foundries Ltd., St. Hyacinthe | Elec. | 2 | 6 | 52,500 |
| Lynn MacLeod Metallurgy Limited, Thetford mines | Elec. | 1 | 3 | 6,000 |
| Manganese Steel Castings Ltd., Sherbrooke | Elec. | 1 | 3 | 1,800 |
| Crucible Steel of Canada Ltd., Sorel | Elec. | 1 | 5 | 40,000 |
| | Elec. | 1 | 14 | |
| | Elec. | 1 | 32 | |
| Totals | | 3 | — | 40,000 |
| Sorel Steel Foundries Limited, Sorel | Elec. | 2 | 4 & 8 | 24,000 |
| Ontario: | | | | |
| Algoma Steel Corporation Limited, Sault Ste. Marie | O.H. | 4 | 180 | 575,000 |
| | O.H. | 2 | 360 | 575,000 |
| | Oxygen vessels | 3 | 110 | 1,450,000 |
| Totals | | 9 | — | 2,600,000 |
| Atlas Steels Company, Div. of Rio Algom Mines Ltd., Welland | Elec. | 1 | 6 | 5,400 |
| | Elec. | 1 | 10 | 9,000 |
| | Elec. | 2 | 30 | 69,600 |
| | Elec. | 2 | 50 | 115,200 |
| | Elec. (Induction) | 1 | — | 800 |
| Totals | | 7 | — | 200,000 |
| Burlington Steel Co. Ltd., Hamilton | Elec. | 2 | 21 | 128,000 |
| Canada Electric Castings Ltd., Guelph | Elec. | 2 | 2 | 5,000 |
| Dominion Foundries and Steel Ltd., Hamilton | Elec. | 1 | 2½ | 50,850 |
| | Elec. | 2 | 10 | |
| | Elec. | 1 | 50 | |
| | Oxygen vessels | 3 | 100 | 2,100,000 |
| Totals | | 7 | — | 2,150,850 |
| Fahralloy Canada Limited, Orillia | Elec. | 7 | ¼ - 2 | 16,000 |
| Ford Motor Co. of Canada Ltd., Windsor | Elec. | 1 | 3 | 63,000 |
| | Elec. | 3 | 6½ | |
| Totals | | 4 | — | 63,000 |
| The Indiana Steel Products Co. of Canada Ltd., Kitchener | Elec. | 3 | ¼, ½, 1 | 4,000 |
| Black - Clawson - Kennedy Ltd., Owen Sound | Elec. | 3 | 1½, 1¾, 4 | 14,000 |
| Lake Ontario Steel Co. Ltd., Whitby | Elec. | 2 | 50 | 200,000 |
| Neelon Steel Limited, Lebel | Elec. | 1 | 6 | 18,000 |
| Steel Co. of Canada Ltd., Hamilton | O.H. | 4 | 115 | 4,000,000 |
| | O.H. | 5 | 190 | |
| | O.H. | 4 | 315 | |
| | O.H. | 1 | 500 | |
| Totals | | 14 | — | 4,000,000 |
| Weimet Industries Limited, Welland | Elec. | 4 | ¾, 2, 3½, 6 | 10,500 |
| | Elec. (Induction) | 1 | 1½ | |
| | Elec. (Induction) | 1 | ¾ | |
| Totals | | 6 | — | 10,500 |

TABLE 28. Steel Furnaces in Canada, December 31, 1965 - Concluded

| | Type | Number of units | Size | Total annual capacity tons |
|--|-------|-----------------|----------|----------------------------|
| Manitoba: | | | | |
| Manitoba Rolling Mills, Selkirk | O.H. | 2 | 20 | 50,000 |
| | Elec. | 1 | 3 | 58,000 |
| | Elec. | 1 | 4½ | |
| Totals | | 4 | — | 108,000 |
| Abex Industries of Canada Ltd., Amsco Jollette Div., Selkirk | Elec. | 1 | 3 | 3,000 |
| | Elec. | 1 | 5 | 4,000 |
| Totals | | 2 | — | 7,000 |
| Griffin Steel Foundries Limited, Transcona | Elec. | 2 | 8 | 70,000 |
| Saskatchewan: | | | | |
| Interprovincial Steel and Pipe Corp. Ltd., Regina | Elec. | 2 | 32 | 150,000 |
| Alberta: | | | | |
| Irving Industries (Foothills Steel Foundry Div.) Ltd., Calgary | Elec. | 1 | 1½ | 5,800 |
| | Elec. | 1 | 2 | |
| Totals | | 2 | — | 5,800 |
| National Castings Ltd., Fort MacLeod | Elec. | 2 | 2½, 4 | 16,500 |
| Steel Company of Canada Ltd., Edmonton | Elec. | 3 | 17½ | 110,000 |
| Quality Steel Foundries Ltd., Edmonton | Elec. | 1 | 1½ | 3,000 |
| Western Canada Steel Limited, Calgary | Elec. | 1 | 20 | 30,000 |
| British Columbia: | | | | |
| A-1 Steel and Iron Foundry Ltd., Vancouver | Elec. | 1 | 1 | 4,820 |
| | Elec. | 1 | 2 | |
| Totals | | 2 | — | 4,820 |
| Consolidated Mining and Smelting Company of Canada Ltd., Trail | Elec. | 1 | ½ | 3,600 |
| | Elec. | 1 | 3 | |
| Totals | | 2 | — | 3,600 |
| Reliance Foundry Co. Ltd., Vancouver | Elec. | 1 | 1 | 2,000 |
| | Elec. | 2 | 1½ | 6,000 |
| Totals | | 3 | — | 8,000 |
| Esco Ltd., Port Coquitlam | Elec. | 1 | 3 | 4,600 |
| Victoria Machinery Depot Co. Ltd., Vancouver | Elec. | 2 | 1½, 2 | 3,000 |
| CAE Summer Ltd., Vancouver | Elec. | 2 | 1, 1 | 2,000 |
| Horton Steel Limited, Penticton | Elec. | 1 | ¼ | 2,200 |
| Western Canada Steel Limited (Vancouver Steel Div.), Vancouver | Elec. | 1 | 30 | 90,000 |

TABLE 29. Summary of Steel Furnace Capacity, December 31, 1965

| | Number of furnaces | Total annual capacity net tons |
|---|--------------------|--------------------------------|
| Basic open-hearth | 30 | 6,331,500 |
| Oxygen vessels | 6 | 3,550,000 |
| Electric | 97 | 1,916,270 |
| Totals | 133 | 1,197,770 |
| Steel ingots: | | |
| Basic open-hearth | 28 | 6,270,000 |
| Oxygen vessels | 6 | 3,550,000 |
| Electric | 34 | 1,434,650 |
| Totals | 68 | 11,254,650 |
| Steel castings | 65 | 543,120 |
| Totals ingots and castings | 133 | 11,797,770 |

TABLE 30. Summary of Steel Furnace Capacity, by Provinces, December 31, 1961-65

| | Total annual capacity | | | | |
|------------------------|-----------------------|------------------|------------------|-------------------|-------------------|
| | 1961 | 1962 | 1963 | 1964 | 1965 |
| | net tons | | | | |
| Nova Scotia | 1,006,000 | 1,003,000 | 1,003,000 | 1,023,000 | 1,115,000 |
| Quebec | 483,100 | 508,700 | 584,350 | 636,950 | 654,900 |
| Ontario | 6,452,050 | 6,546,350 | 7,361,990 | 8,634,790 | 9,409,350 |
| Manitoba | 151,000 | 185,000 | 185,000 | 185,000 | 185,000 |
| Saskatchewan | 121,600 | 128,000 | 121,600 | 128,000 | 150,000 |
| Alberta | 90,100 | 110,000 | 112,600 | 169,800 | 165,300 |
| British Columbia | 126,900 | 123,700 | 110,700 | 131,296 | 118,220 |
| Canada | 8,430,750 | 8,604,750 | 9,479,240 | 10,908,836 | 11,797,770 |

TABLE 31. Net Production¹ in Canada of Hot-rolled Steel Products, 1961-65

| Item | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|------------------|------------------------|------------------|------------------|------------------|
| | net tons | | | | |
| Blooms, billets and slabs | 318,258 | 309,723 | 314,412 | 312,806 | 367,219 |
| Rails | 197,416 | 233,067 | 342,299 | 253,674 | 228,209 |
| Bars for rail fastenings | 58,993 | 65,603 | 66,006 | 78,546 | 32,308 |
| Wire rods | 356,574 | 356,262 | 389,745 | 442,023 | 433,482 |
| Structural shapes | 329,572 | 462,442 | 509,646 | 560,606 | 585,659 |
| Bars | 840,802 | 941,421 | 1,023,991 | 1,202,003 | 1,399,821 |
| Plates (excluding plates for pipes and tubes) | 410,267 | 489,968 ^r | 560,148 | 622,419 | 794,639 |
| Sheets, hoops, bands and strips (excluding skelp) | 1,891,100 | 2,212,511 ^r | 2,533,194 | 2,739,084 | 3,026,304 |
| Other hot-rolled forms (including hot-rolled skelp) | 486,728 | 367,106 | 448,226 | 546,998 | 613,448 |
| Totals | 4,889,710 | 5,438,103 | 6,187,667 | 6,758,159 | 7,480,089 |

¹ Inter-mill shipments have been excluded.

TABLE 32. Alloy Steel Products Made and Sold by Rolling Mills, 1964 and 1965

| | 1964 | | 1965 | |
|--|----------------|----------------|----------------|----------------|
| | Tonnage made | Tonnage sold | Tonnage made | Tonnage sold |
| | net tons | | | |
| Bars | 197,024 | 194,390 | 215,059 | 205,613 |
| Other products, including plates, billets, forgings, sheet piling and wire rods, etc. | 112,082 | 102,877 | 121,899 | 107,103 |
| Total alloy steel | 309,106 | 297,267 | 336,958 | 312,716 |

TABLE 33. Products Rolled from Axles, etc., 1964 and 1965

| | 1964 | | 1965 | |
|----------------------|----------------|----------------|---------------|---------------|
| | Tonnage made | Tonnage sold | Tonnage made | Tonnage sold |
| | net tons | | | |
| Bars | 77,964 | 77,964 | 64,314 | 62,649 |
| Other products | 35,139 | 36,604 | 31,473 | 28,193 |
| Totals | 113,103 | 114,568 | 95,787 | 90,842 |

TABLE 34. Production and Factory Sales of Steel Rails, 1956-65

| Year | Tonnage made | Factory sales | |
|------------|--------------|---------------|-------------------|
| | | Tonnage sold | Income from sales |
| | net tons | | \$'000 |
| 1956 | 336,662 | 333,979 | 33,027 |
| 1957 | 393,926 | 383,174 | 39,979 |
| 1958 | 365,429 | 377,604 | 41,587 |
| 1959 | 286,989 | 286,419 | 31,637 |
| 1960 | 224,306 | 223,033 | 25,385 |
| 1961 | 197,416 | 190,760 | 21,456 |
| 1962 | 233,067 | 225,683 | 25,404 |
| 1963 | 342,299 | 334,422 | 35,707 |
| 1964 | 253,674 | 270,807 | 30,853 |
| 1965 | 228,209 | 220,611 | 26,458 |

TABLE 35. Production and Factory Sales of Finished Rail Fastenings, 1956 - 65

| Year | Tie plates | | | Fish plates and splice bars | | |
|------|---------------|---------------|-------------------|-----------------------------|---------------|-------------------|
| | Quantity made | Factory sales | | Quantity made | Factory sales | |
| | | Quantity | Income from sales | | Quantity | Income from sales |
| | net tons | | \$'000 | net tons | | \$'000 |
| 1956 | 88,590 | 86,592 | 10,103 | 18,487 | 18,675 | 2,465 |
| 1957 | 78,555 | 80,575 | 10,148 | 17,022 | 16,793 | 2,502 |
| 1958 | 56,118 | 56,189 | 7,338 | 14,078 | 14,088 | 2,066 |
| 1959 | 70,376 | 70,351 | 8,970 | 14,853 | 14,818 | 2,212 |
| 1960 | 36,028 | 36,108 | 4,787 | 11,256 | 11,133 | 1,684 |
| 1961 | 44,401 | 43,022 | 5,683 | 7,493 | 7,736 | 1,150 |
| 1962 | 53,765 | 54,554 | 7,238 | 10,613 | 10,624 | 1,586 |
| 1963 | 50,050 | 51,781 | 6,883 | 13,553 | 13,476 | 2,009 |
| 1964 | 59,035 | 58,539 | 8,034 | 13,937 | 13,310 | 2,006 |
| 1965 | 43,399 | 43,799 | 6,272 | 5,590 | 5,795 | 902 |

TABLE 36. Production and Factory Sales¹ of Wire Rods of Iron or Steel, 1956 - 65

| Year | Total tonnage made | Factory sales | |
|------|--------------------|---------------|-------------------|
| | | Tonnage sold | Income from sales |
| | net tons | | \$'000 |
| 1956 | 403,834 | 403,602 | 42,565 |
| 1957 | 291,300 | 292,563 | 34,408 |
| 1958 | 268,848 | 270,210 | 30,592 |
| 1959 | 382,106 | 380,132 | 46,182 |
| 1960 | 343,052 | 347,629 | 42,949 |
| 1961 | 356,574 | 354,119 | 46,362 |
| 1962 | 356,262 | 354,412 | 46,010 |
| 1963 | 389,745 | 392,533 | 52,421 |
| 1964 | 442,023 | 446,509 | 58,888 |
| 1965 | 433,482 | 440,178 | 59,239 |

¹ Beginning with 1954, includes shipments transferred to own mills of producing firms.

TABLE 37. Production and Factory Sales of Blooms, Billets and Slabs, 1956 - 65

| Year | Except for forging ¹ | | | For forging ² | | |
|------|---------------------------------|---------------|-------------------|--------------------------|---------------|-------------------|
| | Total tonnage made | Factory sales | | Total tonnage made | Factory sales | |
| | | Tonnage sold | Income from sales | | Tonnage sold | Income from sales |
| | net tons | | \$'000 | net tons | | \$'000 |
| 1956 | 3,490,564 | 133,991 | 9,290 | 113,328 | 102,978 | 11,282 |
| 1957 | | 141,062 | 11,153 | 156,065 | 146,407 | 17,108 |
| 1958 | | 101,343 | 8,245 | 171,217 | 166,079 | 20,274 |
| 1959 | | 131,574 | 11,303 | 197,415 | 194,419 | 21,518 |
| 1960 | | 479,229 | 39,445 | 149,353 | 140,885 | 16,837 |
| 1961 | | 326,895 | 25,690 | 180,709 | 156,637 | 18,461 |
| 1962 | | 332,363 | 26,197 | 192,706 | 181,545 | 21,832 |
| 1963 | | 311,849 | 26,599 | 203,048 | 185,899 | 22,231 |
| 1964 | | 344,162 | 27,574 | 255,536 | 249,002 | 28,518 |
| 1965 | | 413,555 | 37,226 | 291,193 | 282,648 | 33,825 |

¹ Shipment to other Canadian Rolling mills are included.

² Includes blanks or pierced billets for seamless tubes.

³ Not collected since 1957.

TABLE 38. Production and Factory Sales of Hot-rolled Bars of All Kinds, 1956 - 65

| Year | Total tonnage made | Factory sales | |
|------|--------------------------|-----------------|----------------------|
| | | Tonnage sold | Income from sales |
| | net tons | | \$'000 |
| 1956 | 947,979 | 795,675 | 112,281 |
| 1957 | 865,533 | 718,864 | 107,391 |
| 1958 | 705,073 | 585,016 | 86,215 |
| 1959 | 949,865 | 795,274 | 116,993 |
| 1960 | 807,775 | 723,753 | 105,903 |
| 1961 | 899,795 | 783,314 | 107,439 |
| 1962 | 1,007,024 | 838,140 | 115,815 |
| 1963 | 1,089,997 | 936,734 | 132,304 |
| 1964 | 1,280,549 | 1,146,878 | 160,869 |
| 1965 | 1,399,821 | 1,233,152 | 175,914 |

TABLE 39. Production and Factory Sales of Structural Steel Shapes,¹ of All Kinds, 1956 - 65

| Year | Total tonnage made | Factory sales | |
|------|--------------------------|-----------------|----------------------|
| | | Tonnage sold | Income from sales |
| | net tons | | \$'000 |
| 1956 | 316,000 | 315,564 | 36,361 |
| 1957 | 347,693 | 341,975 | 42,823 |
| 1958 | 217,137 | 225,295 | 29,140 |
| 1959 | 268,573 | 265,194 | 34,528 |
| 1960 | 241,392 | 234,530 | 30,075 |
| 1961 | 329,572 | 318,664 | 40,412 |
| 1962 | 462,442 | 450,309 | 56,659 |
| 1963 | 509,646 | 496,334 | 62,370 |
| 1964 | 560,606 | 577,608 | 72,927 |
| 1965 | 585,659 | 565,883 | 74,809 |

¹ In 1956 this category was revised to include sheet piling. Data in above table for previous years have been revised to accommodate this change in classification.

TABLE 40. Production and Factory Sales of Steel Plate,¹ 1956 - 65

| Year | Total tonnage made | Factory sales | |
|------|--------------------------|-----------------|----------------------|
| | | Tonnage sold | Income from sales |
| | net tons | | \$'000 |
| 1956 | 326,208 | 319,666 | 36,936 |
| 1957 | 349,626 | 344,616 | 45,017 |
| 1958 | 230,309 | 226,750 | 30,618 |
| 1959 | 416,099 | 408,835 | 53,394 |
| 1960 | 387,947 | 387,993 | 52,275 |
| 1961 | 410,267 | 403,080 | 57,542 |
| 1962 | 489,968 | 491,533 | 61,815 |
| 1963 | 560,148 | 545,370 | 68,362 |
| 1964 | 622,419 | 621,124 | 79,352 |
| 1965 | 794,639 | 734,124 | 98,420 |

¹ Excludes plate for pipes and tubes.

TABLE 41. Factory Shipments of Ferro-alloys - All Industries, ¹ 1956 - 65

| Year | Net tons | Year | Net tons |
|------------|----------|------------|----------|
| 1956 | 240,000 | 1961 | 118,000 |
| 1957 | 204,000 | 1962 | 142,000 |
| 1958 | 113,000 | 1963 | 151,000 |
| 1959 | 136,000 | 1964 | 162,000 |
| 1960 | 138,000 | 1965 | 175,000 |

¹ Includes shipments from other industries which manufacture these commodities, as a secondary activity.

TABLE 42. Production and Factory Shipments of Coke Oven Products: Iron and Steel Mills, 1965

| Product | Quantity made (including amounts for own use) | Factory shipments | |
|-------------------------------|--|---------------------|---------------|
| | | Quantity shipped | Value |
| | | | \$'000 |
| Coke (including breeze) | ton | 3,899,014 | 3,637 |
| Coke oven gas | M cu. ft. | 54,890,186 | 1,220 |
| Tar | Imp. gal. | — | 3,107 |
| Xylol | " | — | 279 |
| All other products | | | 3,399 |
| Total | | | 11,642 |

Note: Comprehensive details on operations of coke plants, regardless of industrial classification, are published in a monthly report "Coal and Coke Statistics", Catalogue No. 45-002, and in an annual report "The Coal Mining Industry", Catalogue No. 26-206.

TABLE 43. Coke Ovens: Iron and Steel Mills, December 31, 1965

| Name of company and location of plant | Coke-making equipment, including reserve equipment (Rated annual capacity, in tons of coal carbonized, given in brackets) |
|--|--|
| The Algoma Steel Corporation Limited, Sault Ste. Marie, Ontario | In use—106 Wilputte ovens (837,927 tons), and 143 Koppers ovens (1,290,067 tons). |
| Dominion Foundries and Steel Limited, Hamilton, Ontario | In use—105 Koppers ovens (850,000 tons). |
| Dominion Steel and Coal Corporation Limited, Sydney, Nova Scotia | In use—114 Koppers Becker Underjet ovens (887,214 tons). |
| The Steel Company of Canada Limited, Hamilton, Ontario | In use—191 Wilputte ovens (1,770,000 tons). |

TABLE 44. Producers of Ferro-alloys, 1965

| Name of company | Plant location | Kind of ferro-alloy made |
|---|--|--|
| Canadian Carborundum Company, Limited | Niagara Falls, Ontario | Ferrosilicon (by-product) |
| Chromium Mining & Smelting Corp., Limited | Melocheville, Quebec | Ferrosilicon, silico manganese, ferromanganese, chrom-x, chrome sil-x, ferrochrome |
| Electric Reduction Company of Canada, Limited | (a) Buckingham, Quebec, b) Varennes, Qué. | Ferrophosphorus |
| Exolon Company, The | Thorold, Ontario | Ferrosilicon (by-product) |
| Lionite Abrasives Limited | Niagara Falls, Ontario | Ferrosilicon (by-product) |
| Masterloy Products Ltd. | Gloucester, Ontario | Ferrocolumbium, ferromolybdenum, ferrotungsten, ferrovanadium |
| Norton Company | Chippawa, Ontario | Ferrosilicon (by-product) |
| Stearns Canada Abrasive Co., Limited | Arvida, Quebec | Ferrosilicon (by-product) |
| Union Carbide Canada Ltd. (Metal & Carbon Div.) | (a) Beauharnois, Quebec | Ferrosilicon |
| | (b) Welland, Ontario | Ferrochrome, ferromanganese, silico manganese, ferrochrome-silicon |

List of Establishments classified to this Industry, 1965

(Does not include establishments classified to other industries, which as a secondary activity, manufacture products (types) of this industry)

| Name | Location |
|--|------------------------|
| Nova Scotia: | |
| Dosco Steel Ltd. | Sydney |
| Enamel and Heating Products Ltd. | Amherst |
| Quebec: | |
| Alex Industries of Canada Ltd. (Amsco Joliette Div.) | Joliette |
| Atlas Steels Company, Div. of Rio Algom Mines Ltd. | Tracey |
| Canadian Steel Foundries Ltd. | Montreal |
| Canadian Unitcast Steel Ltd. | Sherbrooke |
| Chromium Mining and Smelting Corp. Ltd. | Melocheville |
| Crucible Steel of Canada Ltd. | Sorel |
| Dosco Steel Ltd. | Contrecoeur |
| Dosco Steel Ltd. | Montreal |
| Lynn MacLeod Metallurgy Ltd. | Thetford Mines |
| Manganese Steel Castings Ltd. | Sherbrooke |
| Sorel Steel Foundries Ltd. | Sorel |
| Union Carbide Canada Ltd. | Beauharnois |
| Ontario: | |
| Atlas Steels Company, Div. of Rio Algom Mines Limited | Welland |
| Algoma Steel Corp. Ltd., Steel Works Division | Sault Ste Marie |
| Algoma Steel Corp. Ltd., Canadian Furnace Division | Port Colborne |
| Canada Electric Castings Ltd. | Guelph |
| Canadian Drawn Steel Co., Ltd. | Hamilton |
| Dominion Foundries and Steel Ltd. | Hamilton |
| Fahr Alloy Canada Ltd. | Orillia |
| Indiana Steel Products Co. of Canada Ltd. | Kitchener |
| Lake Ontario Steel Co. Ltd. | Whitby |
| Neelon Steel Ltd. | Sudbury |
| Slater Steel Industries Ltd., Burlington Steel Co. Div. | Hamilton |
| Stanley Steel Co., Ltd. | Hamilton |
| Steel Co. of Canada Ltd., The | Hamilton |
| Union Carbide Canada Ltd. | Welland |
| Union Drawn Steel Co., Ltd. | Hamilton |
| Welmet Industries Ltd. | Welland |
| Manitoba: | |
| Abex Industries of Canada Ltd. (Manitoba Steel Foundry Div.) | Selkirk |
| Manitoba Rolling Mills Co. Ltd., Div. of Dominion Bridge Co. Ltd. | Selkirk |
| Alberta: | |
| Foothills Steel Foundry and Iron Works Ltd. | Calgary |
| Quality Steel Foundries Ltd. | Edmonton |
| Steel Co. of Canada Ltd., The | Edmonton |
| British Columbia: | |
| A - I Steel and Iron Foundry Ltd. | Vancouver |
| Consolidated Mining and Smelting Co. of Canada Ltd. | Kimberley |
| Esco Limited, Foundry Div. | Port Coquitlam |
| Reliance Foundry Co. Ltd. | Vancouver |
| Western Canada Steel Ltd. | Vancouver |
| Western Canada Steel Ltd. | Twigg Island, Richmond |

CONCEPTS AND DEFINITIONS

Census of Manufactures

General

The Census of Manufactures is an annual mail survey covering Canada's Manufacturing Industries. It is based on the Standard Classification of Industries and full details concerning the system may be found in the Standard Industrial Classification manual, Catalogue No. 12-501 which is available from the Queen's Printer or the Dominion Bureau of Statistics. In summary, the Classification as it relates to the manufacturing industries provides for a breakdown into 140 industries arranged in 20 major industry groups. Of the 140 (3 digit) industries, 18 are further broken down into 55 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 176 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

The reporting unit for the Census is designated as the **establishment** (see definition of "Establishment" in following section) and a return is requested from every establishment classified to a manufacturing industry. Although respondents are required to submit reports covering the calendar year, financial year reports other than the calendar year are accepted in instances where respondents find it impossible to supply calendar year data from accounting records. When an establishment is operated for only part of a year a report is required covering the period of operation.

There are four different questionnaires used in the Census of Manufactures; (a) short form (b) long form (c) head office questionnaire and (d) commodity questionnaire. The short and long forms are used to obtain principal statistics and commodities shipped from establishments classified to manufacturing industries and differ only in the amount of detail requested. The short form is a single-sheet questionnaire sent to small manufacturers generally reporting shipments of less than \$100,000; this cut-off, however, varies somewhat between industries. The head office questionnaire is generally used for company head offices and/or auxiliary units separately located from the manufacturing establishment(s), (see following notes on Head offices and auxiliary units). The Commodity questionnaire is used to survey certain establishments which are coded (on the basis of their principal activity) to industries other than manufacturing in the Standard Industrial Classification system, but which undertake some manufacturing as a subsidiary activity. This single-sheet questionnaire is designed to collect information on the quantity and value of goods of own manufacture shipped by such establishments in order to achieve full coverage of domestically manufactured commodities (see the following note under Shipments).

The results of the Census are presented in some 135 publications. In addition to these annual industry publications there are annual summary reports for Canada and the provinces and special reports giving principal statistics by detailed geographic areas, by type of ownership and size of establishment. A special annual report covering the shipments of all manufactured commodities arranged in alphabetical order is also published.

Since 1960 the following major changes have been implemented in the Census of Manufactures; (a) a revised Standard Industrial Classification (b) a new establishment definition and (c) an extension of the establishment definition to cover the non-manufacturing activities of manufacturing establishments. The statistics presented in the reports reflect the complete implementation of these changes and enable comparisons to be made back to and including 1961. For a complete description of the procedures followed in establishing the revised series, reference should be made to the Explanatory Notes included in the 1960, 1961 and 1962 industry publications. The statistical framework within which the Census of Manufactures is now carried out is based on the following concepts and definitions which have been developed as part of a general programme to achieve a fully integrated system of economic statistics.

Establishment

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. The majority of such establishments are firms but many firms have more than one establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements embodied in the following definition of the "establishment":

"The smallest unit which is a separate operating entity capable of reporting the following principal statistics:

- Materials and supplies used
- Goods purchased for resale as such
- Fuel and power consumed
- Number of employees and salaries and wages
- Man-hours worked and paid
- Inventories
- Shipments or sales."

Each establishment is required to report on all the activities carried out within its accounting boundaries (except income from investments such as rent, interest and dividends) and data on the different activities (manufacturing, trading in goods not of own manufacture, construction by own labour

force, revenue from services, etc.) are requested to be reported separately. It should be noted that the statistics for separate activities are not completely consistent since some respondents cannot distinguish, in their records, materials, shipments and inventories relating solely to their own manufacturing activities. For example, inventory of goods purchased for re-sale may not be distinguishable from inventory of own manufactured goods. Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level and for studies or statistical measures requiring accurate coordinated data, the "total" statistics should be used.

The number of establishments represents the number of operating units that are principally engaged in the activities of the manufacturing industries to which they have been classified. These units do not necessarily represent the total number engaged in the production of a commodity mainly produced in a certain industry. Some commodities are produced as secondary products in other manufacturing and non-manufacturing industries. It should be noted that head offices and auxiliary units which are surveyed separately are not included in the establishment count, (see following notes on head offices and auxiliary units).

Head Offices and Auxiliary Units

All head offices and auxiliary units of companies classified to the manufacturing industries such as sales offices, administrative offices, warehouses, laboratories, etc. are now surveyed as part of the Census of Manufactures.

These head offices and auxiliary units are either included in an establishment report or are surveyed by means of the head office questionnaire. The former is the most common case where a single establishment firm has its executive personnel, sales office, etc. located at the site of the manufacturing plant (establishment). The special head office questionnaire is generally used where a firm, regardless of the number of establishments, has separately located offices or auxiliary units. Such offices or units do not constitute establishments within the Census of Manufactures as they do not normally generate operational revenues, but give rise only to costs of operations (mainly salaries and wages) which are automatically included in the value of shipments or sales. Although not considered as establishments, and hence, not included in the "establishment" count for an industry, the operational costs are reflected in either the "Industry" statistics (3 or 4 digit level) or the "Major group" statistics (2 digit level) according to the following rules:

(a) In the case of single establishment firms, statistics for separately located offices and units are classified to the same industry (3 or 4 digit) as the establishment;

(b) In the case of multi-establishment firms, the statistics for such offices and units are coded to the same industry as the establishments of the firm, when all establishments are in the same industry (3 or 4 digit). When establishments of

such firms are coded (1) to different industries within a major group, (2) to industries in different major groups or (3) to industries in different divisions of the Standard Industrial Classification, then the statistics are included in the major group totals (2 digit level) in which the major part of the company's operations are classified. Although this may result in some distortion of major group statistics in the case of (2) and (3) the statistics at the industry (3 or 4 digit) level in all cases will be left free of these company-wide data.

Employees

(a) Production and related workers — Manufacturing activities

In addition to those engaged in production and assembling activities, they include those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees engaged in maintenance, repair, janitorial and watchman services and line supervisors (working foremen) engaged in similar work to that of the employees they supervise. For those establishments reporting on the "long" form, production and related workers engaged in manufacturing activity are reported as those receiving pay during the last pay period of each month, an average for the year being obtained by summing the monthly figures and dividing by 12. This procedure is followed even though the establishment did not operate in all months in order to arrive at equivalent annual full-time employment. The numbers are somewhat affected by turnover, in that employment is overstated when an employee changes employment during a pay period. In the case of those establishments reporting on the "short" form, respondents are requested to report average annual figures. The man-hours of production and related workers in manufacturing activity represent total man-hours paid (total hours at work during the calendar year plus hours not worked but nevertheless paid for, such as paid vacations, sick leave, statutory holidays, etc.). Data on man-hours are not collected from establishments reporting on the short form. Man-hours for these establishments are estimated on the basis of ratios derived from the 1958 census. During this census all establishments reported on the long form. In reporting overtime hours, respondents are requested to report only hours actually at work. It should be noted that the division of hours paid into production and related workers payrolls results in average hourly earnings and does not represent hourly wage rates which are collected and published by the Department of Labour and which are based on selected occupations.

(b) Production and related workers — Non-manufacturing activities

Such employees include those on manufacturing establishments' payrolls engaged in activities such as construction undertaken for the use of these establishments, some outside piece-workers employed in certain industries, logging employees who are reported as part of a sawmilling establishment and any other production workers who are not engaged in manufacturing-type operations.

(c) Administrative and office employees

This category includes all executive and supervisory officials such as presidents, vice-presidents, comptrollers, secretaries, treasurers, etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the line supervisor or working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical, etc. It should be noted that prior to 1961 this category also included working owners and partners. Also included in this category are employees located at head offices or auxiliary units separately located from the establishment; these are generally included in the figures for the province in which they are located according to the rules outlined under "Head offices and auxiliary units" above.

(d) Sales and distribution workers

This category includes office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truckdrivers and their helpers, etc. It may also include some sales employees who are reported as part of a manufacturing establishment but are not working at the establishment's location. These are generally broken down by province in cases where more than 15 employees are involved in any one province. The figures exclude persons working on a commission basis who are not considered regular employees of the establishment.

(e) Total Employees

This total comprises the foregoing categories including employees located at separately located head offices and auxiliary units. The numbers of employees included under categories (b), (c) and (d) are reported in the form of annual averages and represent as closely as possible full time employment; adjustments are made when reported figures indicate the existence of part time or seasonal employment. In all the above categories, figures on employment refer to the calendar year whether or not other establishment statistics can only be reported on a fiscal year other than the calendar year.

Working Owners or Partners

These are not now included in the statistics of employees and salaries and wages. There is some duplication in numbers when a person owns more than one establishment and is reported as a working owner on each Census return. Withdrawals of working owners are defined as amounts withdrawn by owners or partners for normal living expenses excluding withdrawals for payment of income tax.

Salaries and Wages

Salaries and wages refer to gross earnings of employees **before** deductions for income tax and employees contributions to social services such as sickness, accident and unemployment insurance, pensions, etc. They include all salaries, wages,

bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only) as well as any other allowance forming part of the worker's earnings. Payments for over-time are included. Figures on salaries and wages refer to the calendar year.

Fuel and Electricity

Figures for fuel refer to amounts actually used (including fuel used in cars, trucks, locomotives, etc.), not to purchases unless the quantities are substantially the same. **Any fuel and electricity produced by establishments for internal consumption are not included in the total cost.** Values represent laid down cost at the establishment including freight, duty, etc. Although fuel and electricity used is considered part of manufacturing activity it should be noted that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

Materials and Supplies

(a) Manufacturing activities

Figures represent quantities and laid down cost values, at the establishment, of materials, supplies and purchased components owned and used during the year in manufacturing activities and related processes. These statistics represent only commodity items or physical goods (cost of services or overhead charges such as advertising, insurance, depreciation, etc. are not included) whether purchased from others or received as transfers (in the form of materials, components or semi-processed goods) from other establishments of the reporting company. Included are maintenance and repair supplies not chargeable to fixed assets accounts and any amounts charged by other establishments for work done on materials owned by the reporting establishment. Cost of repairs or maintenance done by outside contractors and cost of returnable containers are not included.

(b) Non-manufacturing activities

1. Purchases for re-sale as such

Figures represent cost of materials or products purchased from others by the reporting establishment (or received as transfers from other establishments of the reporting company) for re-sale as such in the same condition as purchased. Included are any finished products received on consignment from other countries.

2. Other materials and supplies used

Figures represent the cost of materials and supplies, if any, used in new construction and in the production of machinery and equipment (for the use of the reporting establishment) by the establishment's own employees. Included are materials used for any capital repairs and alterations carried out by the establishment's employees. Amounts paid to outside contractors for construction and repair work are not included nor is the cost of

purchased machinery and equipment. Also included is the cost of office supplies not chargeable to fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid and medical supplies, laboratory supplies, etc.

Shipments

(a) General

The figures represent revenue from all production, sales, services and related activities of reporting establishments with shipments valued in Canadian dollars at the point at which the establishment relinquishes control. The unsold portion at year end of consignment shipments in Canada is treated as inventory and not as shipments but all shipments to foreign countries for which the form B13 "Customs Canada Export Entry" has been completed, are treated as shipments.

In those industries where work on principal products extends over a relatively long period, (Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair Industry) the value of production rather than the value of shipments is recorded. There are certain establishments in other industries which also operate on a basis of progress payments. For these establishments, shipments are also adjusted to work put in place on the basis of the net change in progress payments over the year.

(b) Shipments of goods of own manufacture

These figures represent shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishments for work done. Included are revenue from repair and custom work, amounts received in payment for work done on materials owned by other establishments and the cost (book value) of any goods shipped on a rental basis.

All products and by-products of own manufacture shipped from the establishment are covered, including transfer shipments to sales outlets, distributing warehouses or to other manufacturing plants of the reporting firm, when such units are treated as separate establishments. The value of shipments are net of returned goods, discounts, returns, allowances, sales tax and excise taxes and duties, returnable containers and charges for outward transportation by common or contract carriers. Transportation or delivery expense incurred by the reporting establishment's own carriers are included.

Shipments of goods of own manufacture of establishments which are coded to some other division of the Standard Industrial Classification (on the basis of principal activity) but which are engaged in manufacturing as a subsidiary activity

are collected by means of the Commodity questionnaire referred to earlier. Such shipments together with shipments of goods of own manufacture of establishments forming the universe of manufacturing industries are compiled and recorded in the various industry publications.

(c) Shipments of goods not of own manufacture

These figures represent the net selling value at establishment (net of discounts, returns, allowances, sales taxes and excise duties and taxes and transportation charges by common or contract carriers) of all products or materials (including products transferred from other establishments of the reporting firm) sold as such in the same condition as purchased or received as transfers. For those industries which ship such goods on a rental basis, the value of shipments represents the book value of these goods. All sales of consignment goods from other countries are included.

(d) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs, alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishment's own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishment's own employees, such as revenue from goods produced or purchased for rental (the book value of such goods are included as part of shipments of goods of own manufacture or shipments of goods not of own manufacture), servicing revenues, commissions on sales (when not included in value of sales), revenue for company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishment's own products, sale of used materials (excluding sale of used fixed assets) research and development work, etc. As mentioned previously the figures do not include non-operating revenue such as rent, dividends, interest, etc.

Inventories

(a) Manufacturing activities

Values represent the book values of manufacturing inventory owned in Canada. Inventories held for which progress payments have been received are not included. Where progress payment accounts are maintained, the change in these accounts is treated as a net adjustment to shipments. Figures consist of inventory owned at the plant and at warehouses or selling outlets which are treated as extensions of establishments for the purpose of reporting shipments. Inventory owned in transit in Canada or on consignment in Canada is included. Goods shipped abroad and held in inventory are included in shipments. Opening inventories may differ from the closing inventories of the previous year because of changes in classification, the

receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

(b) Non-manufacturing activities

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by the reporting establishments and held at plants and at any warehouses or selling outlets which are treated as extensions of establishments. Other characteristics are the same as in (a) above.

Value Added

(a) By manufacturing activities

Figures are compiled by deducting the cost of manufacturing materials, supplies, etc. and fuel and electricity consumed from the (value of shipments of goods of own manufacture adjusted for changes in the value of inventories of finished goods and goods in process).

(b) By non-manufacturing activities

The figures are compiled by deducting the cost of goods purchased for re-sale (adjusted for changes in the value of inventories of goods pur-

chased for re-sale) and the cost of non-manufacturing materials and supplies used from the value of shipments of goods not of own manufacture, plus other revenue.

(c) By Total activities

The figures consist of value added by manufacturing activities plus value added by non-manufacturing activities. This total value added figure may, in some cases, be less than value added by manufacturing activities as a result of expenditures associated with non-manufacturing exceeding revenues from such activities or because of a decrease in inventory of goods not of own manufacture exceeding the mark-up on the sale of such goods. "Value added" is sometimes referred to as net output or net production. However, to arrive at the National Accounts concept of net production, or Gross Domestic Product at "Factor cost" it would be necessary to subtract also the cost of advertising, insurance and other business expenses which are not collected as part of the annual Census of Manufactures. "Value added" figures for the primary industries, manufacturing and construction are published in DBS publication Catalogue No. 61-202, "Survey of Production".

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