## 44 Iron and steel (general)

This Report on the Iron and Steel (General) Industry relates to establishments engaged wholly or mainly in manufacturing wrought iron at wrought iron works including puddling furnaces, and steel. It includes establishments engaged in the production of pig iron (in integrated steel works), ferro-manganese or spiegeleisen at blast furnaces (including ore preparation plants); making alloy or carbon steel in furnaces or converters; rolling (including re-rolling and cold rolling) steel into semi-finished or finished forms; the production of castings in steel foundries; the production of railway and tramway tyres, wheels and axles, points, switches and crossings; colliery arches; bright bars and heavy forgings; steel plates and sheets (including coated and corrugated sheets) in cut lengths or coils; tinplate, terneplate and blackplate; and semi-finished material for conversion into tubes and wire. Steel rolls for metal rolling mills and for other machinery are excluded as is the production of tubes, wire, drop forgings, drop stampings and hot-pressings.

This industry corresponds to minimum list heading 311 in the Standard Industrial Classification (Revised 1968) which has been used for the first time as a basis of classification in the 1968 Census. The definition of this industry however is unchanged from the last detailed Census of Production for 1963 in which it was reported (Part 37).

There were no establishments in this industry in Northern Ireland in 1963 and 1968.

## METHOD OF CLASSIFICATION

The classification of returns to this industry followed the standard procedure as outlined in the notes on page (i). A different procedure was used in classifying returns to the sub-divisions of this industry, shown in Table 4. First those with more than half their total output comprising the characteristic products of either 'Wrought iron works, including puddling furnaces' or 'Work done on commission and other work done' were classified accordingly. The remaining returns were divided into two main groups according to whether or not firms reported that a melting process was undertaken in their production of steel at the establishments concerned. Returns reporting 'Steel manufacture with melting, that had more than half of their total output shown as steel castings were classified to the 'Castings' sub-division, the remainder being classified to the alternative sub-division '0ther' in this main group. Returns reporting 'Steel manufacture without melting' that had more than half of their total output applicable to either of the sub-divisions 'Forgings' or 'Steel sheets and tinplate' were classified accordingly, the remaining returns being classified to the third sub-division, '0ther', in this main group.

In interpreting the data in the tables, it is essential to bear in mind the notes and definitions which appear on pages (i) to (iv).
Table e
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5 Sales of principal products of the industry by 1 arger establishments, including sales by establishments cl assified to other industries,
1963 and 1968
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Sales of other than principal products by 1 arger establishments in the
industry, 1963 and 1968 industry, 1963 and 1968
8 Production of certain principal products of the industry by 1 arger establishments, 1963 and 1968

Purchases by 1 arger establishments of selected principal products of the DOES
NOT
APPLY
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12 Payments for certain services, etc by larger establishments, 1963 and 1968
13 Percentage analysis of twelve-month periods covered by returns from 1 arger

## Footnotes continued from page $44 / 3$.

(c) Including services rendered to other organisations (anounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services
rendered).
d) Administra
(e) Excluding
(f) Accuding expenditure for establishments not yet in production.
(f) Acquisitions less disposals.

TABLE 1 Industry summary, 1963 and 1968
United Kingdom (a) (b)

|  | Uni t | All establishments |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1968 |
| Number of enterprises | No. | 359 | 394 |
| Number of establishments |  | 554 | 600 |
| Gross output | £ 000 | 1,317,012 | 1,610, 156 |
| Net output |  | 405,834 | 504,185 |
| Net output per head | $£$ | 1,506 | 1,971 |
| ( ${ }^{\text {a }}$ ( | £ 000 | 1,294,529 | 1,586,006 |
| Sales and work done $\quad\left\{\begin{array}{l}\text { merchanted goods and canteen takings }\end{array}\right.$ | " | 15,875 | 15,896 |
| $\left\{\begin{array}{l} \text { materials for use in production and } \\ \text { packaging and fuel } \end{array}\right.$ | " | 853,377 | 1,054,087 |
| Purchases $\quad\left\{\begin{array}{l}\text { goods for merchanting and canteen } \\ \text { purchases }\end{array}\right.$ | " | 14,362 | 14,732 |
| $\left\{\begin{array}{l}\text { for work done on materials given out } \\ \text { for transport }\end{array}\right.$ | " | 11,593 | 13,078 |
| Payments to other organi sations $\quad\left\{\begin{array}{l}\text { by road } \\ \text { by rail and other means excluding } \\ \text { postal services }\end{array}\right.$ | " | 28,864 | 19,736 11,169 |
| Stocks and work in progress |  |  |  |
| $\begin{aligned} & \text { Total stocks and work in } \quad\left\{\begin{array}{l} \text { change during year } \\ \text { progress } \\ \text { at end of year } \end{array}\right. \end{aligned}$ | " | $+\quad 3,627$ 247,635 | $\begin{array}{r} \quad 15,085 \\ 294,131 \end{array}$ |
| Goods on hand for sale e $\quad\left\{\begin{array}{l}\text { change during year } \\ \text { at end of year }\end{array}\right.$ | " | $\begin{array}{r} 3,969 \\ 44,087 \end{array}$ | $\begin{array}{r} 2,648 \\ +\quad 57,104 \end{array}$ |
| Work in progress $\quad\left\{\begin{array}{l}\text { change during year } \\ \text { at end of year }\end{array}\right.$ | " | $\begin{array}{r} 2,640 \\ 70,218 \end{array}$ | $\begin{array}{r} 5,606 \\ +\quad 83,095 \end{array}$ |
| Material s, stores and fuel $\left\{\begin{array}{l}\text { change during year } \\ \text { at end of year }\end{array}\right.$ | " | $\begin{array}{r} -\quad 2,982 \\ -133,331 \end{array}$ | $\begin{array}{r} 6,831 \\ +\quad 153,933 \end{array}$ |
| [total, including working proprietors | Th. | 269.5 | 255.7 |
| Number employed on average during the year | " | 213.5 | 197.1 |
| during the year ${ }^{\text {other enployees (d) }}$ |  | 55.8 | 58.4 |
| Wages and salaries $\quad\left\{\begin{array}{l}\text { of operatives }\end{array}\right.$ | £'000 | 176,803 | 216,156 |
| Wages and salaries $\left\{\begin{array}{l}\text { of other employees (d) }\end{array}\right.$ |  | 51,992 | 71,449 |
| Capital expenditure (e) |  |  |  |
| Total |  | 101,636 | 68,140 |
| New building work |  | 16,780 | 8,282 |
| Land and existing buildinge (f) |  | 305 | 261 |
| Pl ant and machinery ( f ) |  | 83, 182 | 58,198 |
| Vehicles (f) |  | 1,369 | 1,398 |

(a) For 1968 , estimates for establishments not making satisfactory returns and for small establishments, (a) For 1968 , est imates for establich only employment data were collected, accounted for 1 per cent of the total figures
from which ond
which they were incorporated: of this, unsatisfactory returns were negligible. A similar which they were incorporated
situation existed for 1963 .
b) The following information relates to small establishments (employing fewer than 25 persons) in this

The following information relates to small establishments (employing fewer than 25 persons,
industry. It includes an estimate for small establishments not making satisfactory returns
Number of establ ishments
Average number employed:
Working proprietors
Other persons employed
169
1,598
1,598
1968
215
215

44/2.

TABLE 2 Analysis by size of establishment within the industry, 1968 (i) Output and employment

All establishments: United Kingdom

| Number employed on average during th est abl 1 ishment ( (a) | $\begin{aligned} & \text { Est ab- } \\ & \text { li sh- } \\ & \text { men't } \end{aligned}$ | $\begin{aligned} & \text { Enter- } \\ & \text { prises } \\ & \text { (b) } \end{aligned}$ | Total number employed on average during the year (a) | Gross output | Net | Net output per head |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Number | Number | £'000 | $£^{\prime} 000$ | £ |
| 1-5 | 54 | 54 | 177 |  |  |  |
| 6-10 | 36 | 36 | 282 |  |  |  |
| 11-24 | 77 | 74 | 1,380 |  |  |  |
| 25-49 | 53 | 49 | 1,978 | 11,455 | 3,724 | 1,883 |
| 50-99 | 72 | 57 | 5,139 | 35,564 | 11,033 | 2,147 |
| 100-199 | 82 | 71 | 11,787 | 77,017 | 22,547 | 1,913 |
| 200-299 | 41 | 32 | 10,197 | 62.437 | 17,991 | 1,764 |
| 300-399 | 19 | 17 | 6,715 | 55,590 | 13,551 | 2,018 |
| 400-499 | 18 | 15 | 7,980 | 46,545 | 12,427 | 1,557 |
| 500-749 | 17 | 15 | 10, 168 | 37,049 | 16,426 | 1,615 |
| 750-999 | 11 |  | 9,406 | 52,994 | 17,391 | 1,849 |
| 1,000-1,499 | 12 | 6 | 14,957 | 102,829 | 26,044 | 1,741 |
| 1,500-1,999 | 10 | 6 | 16,703 | 101,049 | 37,625 | 2,253 |
| 2,000 and over | 33 | 6 | 157,721 | 1,008,782 | 319,507 | 2,026 |
| Unsat isfactory returns | 65 | 63 | 1,159 |  |  | . |
| Total | 600 | 394 | 255, 749 | 1,610, 156 (c) | 504,185 (c) | 1,971(c) |

(ii) Employees, wages and sal aries

All establishments: United Kingdom

| Number employed on average during the est abl i shment (a) | Employees |  | Wages and salaries |  | Wages and salaries per head |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Operatives | $\begin{aligned} & \text { Others } \\ & \text { (d) } \end{aligned}$ | Operatives | Others (d) | Operatives | 0 thers (d) |
|  | Number | Number | £’000 | £'000 | £ | £ |
| 1-5 | . | .. | . | . | $\cdots$ | $\cdots$ |
| 6-10 | $\cdots$ | $\cdots$ | $\cdots$ |  | $\cdots$ |  |
| $11-24$ $25-49$ | 1,511 | 444 | 1,514 | 537 | 1,002 | 1,209 |
| 50-99 | 4,037 | 1,081 | 4,213 | 1,396 | 1,044 | 1,292 |
| 100-199 | 9,157 | 2,613 | 9,486 | 3,166 | 1,036 | 1,212 |
| 200-299 | 8,029 | 2,167 | 8,113 | 2,362 | 1,010 | 1,090 |
| 300-399 | 5,341 | 1,374 | 5,845 | 1,499 | 1,094 | 1,091 |
| 400-499 | 6,115 | 1,865 | 6,094 | 2,169 | 997 | 1,163 |
| 500-749 | 7,853 | 2,315 | 7,674 | 2,464 | 977 | 1,064 |
| 750-999 | 7,205 | 2,201 | 7,590 | 2,311 | 1,053 | 1,050 |
| 1,000-1,499 | 11,762 | 3,195 | 13,314 | 3,890 | 1,132 | 1,218 |
| 1,500-1,999 | 12,746 | 3,957 | 14,441 | 4,535 | 1,133 | 1,146 |
| 2,000 and over | 121,179 | 36,542 | 135,524 | 46,320 | 1,118 | 1,268 |
| Unsatisfactory returns | .. | .. | .. |  | .. |  |
| Total | 197,093(c) | 58,417(c) | 216,156(c) | 71,449 (c) | 1,097(c) | 1,223 (c) |

[^0](b) The sum of the figures for the size groups exceeds the total for the industry to
the extent that enterprises made returns for establishments in more than one size grou
(c) Including estimates for establishments employin
(d) Administrative, technical and clerical employees

TABLE 3 Percentage analysis of employees, by age and sex, 1969 (a)
All establishments: United Kingdom

| Ages | Mal es | Fenal es | All employees |
| :--- | :---: | :---: | :---: |
| Under 18 | Per cent. | Per cent. | Per cent. |
|  | 2 | 1 | 3 |
|  | 89 | 8 | 97 |
|  | 91 | 9 | 100 |

Source: Department of Employment
(a) The percentages rel ate to the numbers employed (excluding working proprietors) at June 1969, the earliest date fo
which the information is available on the basis of the which the information is avail able on the basis of

Footnotes to Table 4.
(a) Some establishments employing fewer than 25 persons wer included in returns for larger establishments. These
imounted to 14 establishments in 1968 and 12 in 1963 .
The method of classifying returns to sub-divisions of the
he method of classifying returns to
industry is explained in the notes.
c) The sum of the figures for the sub-divisions exceeds the returns for more than one sub-division.
(d) Including services rendered to other organisations (amount charged for hiring out plant, machinery or other goods, providing transport, for technical or other services

Direct sales of goods (excluding canteen takings) made to,
and work done for, the general public by larger establishments are included. These amounted to $£ 62,000$ in 1968 . Similar information is not available for 1963.
(f) Including sales of products characterist ic of other subdivisions besides those characteristic of the sub-division (see the Note on Method of Classification)
(g) Characteristic products relate only to sub-divisions of the industry.
(h) For sub-divisions of the industry, this is the ratio of sales of the characteristic products to total sales of
goods produced and work done. For the industry as a goods produced and work done. For the industry as a
whole, this is the ratio of total sales of principal products by the industry to total sales of goods produced and work done.
(i) Administrative, technical and clerical employees.
(j) Excluding ex
k) Acquisitions less disposals

TABLE 4 Analysis of larger establishments, 1963 and 1968
Establishments employing 25 or more persons: Analysis of returns received, United Kingdom (a)

## Number of enterprises (c) <br> Number of establishments

Gross output
Net output
Net output per head
Sales and work done Sales of characteristic products
Index of specialisation (h)
$\left\{\begin{array}{l}\text { materials for use in production and } \\ \text { packaging, and fuel }\end{array}\right.$
Purchases

## Payments to ot rganisations

goods for merchanting and canteen
purchases
$\int$ for work done on materials given out for transpor
by road
by rail and other means excluding
postal services
tocks and work in progress
Goods on hand
for sale $\quad\left\{\begin{array}{l}\text { change during year }\end{array}\right.$
Goods on hand
for sale $\left\{\begin{array}{l}\text { at end of year }\end{array}\right.$
Work in progress $\left\{\begin{array}{l}\text { change during year } \\ \text { at end of year }\end{array}\right.$
Materials, stores
and fuel \{ change during year
Number employed
average
he year

## total, including working proprietors

Wages and salaries
other employees (i)
\{ of operatives

Wages and salaries
per head $\left\{\begin{array}{l}\text { operatives }\end{array}\right.$
other employees (i)
New building work
Land and existing
buildings $\left\{\begin{array}{l}\text { acquisitions } \\ \text { disposals }\end{array}\right.$
Plant and
machinery $\quad\left\{\begin{array}{l}\text { acquisitions } \\ \text { dis }\end{array}\right.$
machinery $\quad\{$ disposals
Vehicles $\left\{\begin{array}{l}\text { acquisitions } \\ \text { disposals }\end{array}\right.$

| Unit | Sub-divisions of the industry (b) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Steel manufacture with melting |  |  |  |
|  | $\begin{gathered} \text { Cast ings } \\ 21 \end{gathered}$ |  | 0ther than castings 22 |  |
|  | 1963 | 1968 | 1963 | 1968 |
| No. | 50 | 46 | 50 | 28 |
|  | 61 | 59 | 112 | 96 |
| £'000 | 36,860 | 58,129 | 900,899 | 1,085,436 |
|  | 19,792 | 32,686 | 306,771 | 369,238 |
| £ | 1,216 | 1,649 | 1,534 | 2,010 |
| £'000 | 34,140 | 54,910 | 886,985 | 1,073,015 |
|  | 2,437 | 2,910 | 8,135 | 5,657 |
|  | 29,192 | 45,832 | 806,680 (f) | 997, 489 ${ }^{\text {¢ }}$ |
| Per cent. | 86 | 83 | 91 | 93 |
| £'000 | 13,313 | 20,665 | 552,996 | 685,786 |
| " | 2,596 | 2,679 | 7, 204 | 5,338 |
|  | 716 | 1,585 | 8,030 | 8,065 |
|  | $\} 369\{$ | 463 50 | \} $21,648\{$ | 11,467 9,508 |
| " | - 22 | - 46 | + 4,248 | + 3,179 |
| " | 179 | 620 | 32,639 | 41,725 |
|  | + 305 | + 355 | + 1,532 | + 3,584 |
| " | 3,757 | 5,172 | 51,980 | 61,146 |
| " | - 73 | - 1 | - 4,250 | + 3,965 |
| " | 1,761 | 2,904 | 99,466 | 115,833 |
| No. | 16,272 | 19,820 | 199,938 | 183,702 |
| " | 12,922 | 15,396 | 158, 269 | 141,683 |
| " | 3,343 | 4,417 | 41,665 | 42,014 |
| £'000 | 9,878 | 15,820 | 132,973 | 156,686 |
| " | 3,210 | 5,276 | 38,852 | 51,828 |
| £ | 764 | 1,028 | 840 | 1,106 |
| " | 960 | 1,194 | 932 | 1,234 |
| $£^{\prime} 000$ | 473 | 476 | 13,584 | 6,223 |
| " | 37 | 292 | 428 | 192 |
|  | 121 | 56 | 264 | 612 |
|  | 1,314 | 1,904 | 75,641 | 47,321 |
|  | 65 | 48 | 1,438 | 641 |
| " | 127 | 253 | 1,152 | 882 |
|  | 35 | 61 | 141 | 206 |


| Sub-divisions of the industry (b) |  |  |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Steel manufacture without melting |  |  |  |  |  | Wrought iron works including puddling furnaces. Work done on commission and other work done 10 and 26 |  |  |  |
| Forgings <br> 23 |  | Steel sheets and tinplate 24 |  | ```0ther than forgings, steel sheets and tinplate 25``` |  |  |  |  |  |
| 1963 | 1968 | 1963 | 1968 | 1963 | 1968 | 1963 | 1968 | 1963 | 1968 |
| 28 | 21 | 12 | 10 | 93 | 90 | 21 | 23 | 208 | 186 |
| 37 | 33 | 18 | 18 | 147 | 150 | 25 | 26 | 400 | 382 |
| 25, 204 | 16,183 | 105,665 | 111,146 | 233,628 | 316,205 | 3,767 | 5,592 | 1,306,023 | 1,592,691 |
| 7,401 | 6,185 | 17,900 | 20,841 | 48,121 | 66, 202 | 2,463 | 3,565 | 402,448 | 498,717 |
| 1,518 | 1,748 | 1,751 | 2,265 | 1,403 | 1,887 | 1,452 | 2,189 | 1,506 | 1,971 |
| 23,318 | 14,638 | 105,974 | 110,316 | 230,435 | 310,807 | 3,778 | 5,118 | 1,283,727 | 1,568,804 |
| 1,936 | 1,337 | 410 | 988 | 2,813 | 4,411 | 12 | 420 | 15,742 | 15,723 |
| 21,518 | 13,780 | 102,522 | 103,053 | 210,522 (f) | 289,830(f) | 3,448 | 4,139 | (g) | (g) |
| 92 | 94 | 98 | 93 | 91 | 93 | 91 | 81 | 93 | 94 |
| 15,503 | 8,623 | 85,935 | 87,573 | 177, 360 | 238,447 | 1,149 | 1,558 | 846, 256 | 1,042,654 |
| 1,591 | 1,171 | 365 | 867 | 2,479 | 4,120 | 7 | 396 | 14,242 | 14,572 |
| 314 | 363 | 183 | 181 | 2,205 | 2,702 | 48 | 39 | 11,496 | 12,936 |
| $202\{$ | 212 19 | \} $1,345\{$ | $\begin{aligned} & 908 \\ & 236 \end{aligned}$ | \} $5,002\{$ | 6,411 1,234 | $56\{$ | 60 | 28,623 $\{$ | 19,522 11,048 |
| 15 | + 39 | - 30 | - 685 | - 267 | + 94 | - 8 | + 39 | + 3,936 | + 2,619 |
| 190 | 308 | 4,134 | 4,972 | 6,553 | 8,734 | 22 | 125 | 43,719 | 56,485 |
| 64 | + 169 | + 211 | + 528 | + 649 | + 894 | - 15 | + 15 | + 2,618 | + 5,545 |
| 1,153 | 1,007 | 7,176 | 5,351 | 5,475 | 9,432 | 91 | 85 | 69,632 | 82,193 |
| 193 | + 391 | + 63 | - 539 | + 1,540 | + 2,913 | - 45 | + 28 | - 2,957 | + 6,757 |
| 2,366 | 2,166 | 7,573 | 6,910 | 20,830 | 24,156 | 221 | 295 | 132,218 | 152,263 |
| 4,869 | 3,538 | 10,223 | 9, 200 | 34,289 | 35,086 | 1,695 | 1,629 | 267,286 | 252,975 |
| 3,891 | 2,708 | 7,968 | 6,839 | 27,327 | 27,118 | 1,504 | 1,346 | 211,881 | 195,090 |
| 967 | 823 | 2,253 | 2,356 | 6,941 | 7,937 | 185 | 276 | 55,354 | 57,823 |
| 2,995 | 2,714 | 7,147 | 7,879 | 21,240 | 29,372 | 1,152 | 1,488 | 175,384 | 213,959 |
| 1,004 | 1,007 | 1,964 | 2,913 | 6,378 | 9,348 | 202 | 349 | 51,609 | 70,723 |
| 770 | 1,002 | 897 | 1,152 | 777 | 1,083 | 766 | 1,105 | 828 | 1,097 |
| 1,039 | 1,224 | 872 | 1,236 | 919 | 1,178 | 1,090 | 1,264 | 932 | 1,223 |
| 189 | 15 | 697 | 695 | 1,645 | 774 | 52 | 10 | 16,640 | 8,193 |
|  | 1 |  | 190 | 273 | 457 | 15 | 1 | 760 | 1,133 |
| 15 (k) | - | 2(k) | 4 | 49 | 201 | - | - | 457 | 874 |
| 761 | 483 | 579 | 3,517 | 6,038 | 4,903 | 97 | 298 | 84,430 | 58,427 |
| 15 | 22 | 294 | 16 | 127 | 128 | 3 | 5 | 1,942 | 860 |
| 52 | 79 | 10 | 122 | 300 | 464 | 32 | 58 | 1,674 | 1,858 |
| 27 | 25 | 4 | 23 | 103 | 153 | 6 | 8 | 316 | 476 |

For notes to this table - see page $44 / 5$

TABLE 5 Sales of principal products of the industry by larger establishments, including sales by establishments classified to other industries, 1963 and 1968 Establishments employing 25 or more persons
Analysis of returns received, United Kingdo


TABLE 5 (continued)


TABLE 5 (continued)

(a) Rolls for metal rolling mills are included in the report on the General Mechanical Engineering Industry (Part 66)
(b) Not separately distinguished for 1963.
(c) For 1963 not specified as being other than of alloy steel
(d) For 1963 described as 'Hoop and strip under 18 inches in width,
(e) For 1963 described as 'Tinplate, terneplate and sheets'.
(f) Revised figures.
(g) Drop forgings are included in the report on the Drop Forgings, etc, Industry (Part 95).
(h) This figure represents the total number of returns made for larger establishments in this industry which ing less than the total number of establishments shown in Table 4 on account of combined returns

TABLE 6 Sales of principal products of the industry by larger establishments classified to other industries, 1963 and 1968
Establishments employing 25 or more perons:
Analysis of returns received, United Kingdom

|  | 1963 |  | 1968 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quant ity | Value | Quantity | Value | Entries | Princ ipal industries in which produced (a) |
|  | Th.tons | £ 000 | Th.tons | £ 000 | Number |  |
| Spiegeleisen and blast furnace ferro-manganese | 1.1 | 72 | 1.6 | 82 | * | 49,125 |
| Steel ingots | 138 | 5,222 | 117 | 4,398 | 6 | 45,48,66 |
| Steel castings (excluding rolls for metal rolling mills) of alloy steel and other than alloy steel, and steel blooms, billets and slabs (including sheet/plate, mill slabs and sheetbars) | 65.5 | 6,794 | 37.5 | 6,187 | 22 | 45,46,65,66 |
| Cold rolled steel sections, cold finished bars (bright bars) and angles, shapes and sections, girders, joists and columns (unfabricated) and bars and rods (including tube rounds and squares) |  |  |  |  |  |  |
| Of alloy steel | 19.3 | 2,180 | 6.1 | 1,967 | 14 | 71,87,91,95 |
| Other than of alloy steel Wire rods |  |  |  |  |  |  |
| 0ther wire rods and bars in coil (including reinforcement bars) | \} 3.8 | 225 | 12.5 | 716 | 9 | 91,97 |
| Bright bars, channels, girders, beams, joists and pillars (rolled), flats, rounds, hexagons and squares 0ther than of alloy steel | 25.9 | 2,909 | 40.2 | 3,053 | 12 | 45,87,91, 136 |
| Steel arches, cambered joists, sol id plain pit props, benk or header bars and accessories | 17.7 | 874 | 32.2 | 2,931 | 9 | 56,58,63,66 |
| Total cold rolled steel sections, cold finished bars (bright bars) and angles, shapes and sections, girders, joists and columns (unfabricated) and bars and |  |  |  |  |  |  |
| and squares) | 66.7 | 6,189 | 91.0 | 8,667 | .. |  |
| Railway, etc, materials |  |  |  |  |  |  |
| Steel rails, new (including grooved for trams and conductor rails for electric traction), points, switches and crossings | .. | 590 | . | 405 | * | 56, 151 |
| Sleepers, fishplates and soleplates and railway spikes | .. | 952 | 2.8 | 171 | 5 | 86,90 |
| Other railway track equipment | .. | 185 | . | 134 | * | 54,77,79 |
| Axles, tyres, wheels and wheelpairs for locomotives, carriages, railcars, wagons, trucks (all gauges) and tramways | 1.9 | 380 | 5.8 | 1,391 | 7 | 53,85,86 |
| Total railway, etc, material |  | 2,107 |  | 2,101 | . |  |

TABLE 6 (continued)


[^1]TABLE 7 Sales of other than principal products by larger establishments in the industry, 1963 and 1968
Establishments employing 25 or more persons
Analysis of returns received, United Kingdo

(a) The data shown for 1963 is not comparable with that for 1968 . Because of a change in the method of collection, the dat a for 1968 includes goods made by firms and incorporated in the ir
building and civil eng ineering work, whereas the data for 1963 excludes such goods. For 1963 the value of goods made and used in building and civil engineering work amount ing to $£ 207,000$ has been deducted from the gross figure for building and civil engineering ( $£ 1,130,000$ ) in
order to avoid duplication which arises because they have been included against the appropriat order to avoid duplication which arises because they have been included against the appropriat
sales headings elsewhere in the Report. For 1968 duplication does not arise since goods made and used in building and civil engineering work were not shown additionally as sales elsewhere in the Report; it is est imated that these goods amounted to $£ 718,000$.
(b) Amounts charged for hiring out plant, machinery, or other goods, for providing transport, or
for technical or other services rendered to other organisations.

TABLE 8
Production of certain principal products of the industry by larger establishments 1963 and 1968

This table is not applicable to this industry.

TABLE 9 Purchases by larger establishments of selected principal products of the industry, 1968 (a)
Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

| St andard Industria Classific ation <br> Minimum List Heading | Purchasing industry (b) | Iron and steel in all forms except finished parts, wire and scrap |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pig iron, including refined pig iron, and other irons for re-melt ing |  | Iron castings |  | Steel ingots, blooms, billets slabs. and sheet and tinplate bars |  | Steel bars and rods (including wire rods), angles, shapes and sections, girders, <br> beams, joists and pillars rolled (not fabricated), including tube rounds and squares |  | Steel plates, 3 mm . thick and over |  |
|  |  | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost |
|  |  | Th.tons | £'000 | Th.tons | £ 000 | Th.tons | £'000 | Th.tons | £’000 | Th.tons | £'000 |
| 101 | Coal mining |  | (c) |  | (c) |  | (c) | 578 | 34,957 |  | (c) |
| 215 | Milk and milk products |  | (c) |  | (c) |  | (c) |  | (c) |  | (c) |
| 218 | Fruit and vegetable products |  | (c) |  | (c) |  | (c) |  | (c) |  | (c) |
| 311 | Iron and steel (general) | 1,825 | 34,175 | 208 | 6,925 | 5,721 | 212,332 |  | (d) |  | (d) |
| 312 | Steel tubes | 127 | 2,269 |  | (d) | 397 | 16,122 | 298 | 16,036 | 218 | 11,594 |
| 313 | Iron castings, etc | 1,086 | 23,447 | 41.4 | 3,873 |  | (d) |  | (d) |  | (d) |
| 331 | Agricultural machinery (except tractors) |  | (d) |  | (d) |  | (d) |  | (d) | 32.9 | 1,839 |
| 332 | Metal-working machine tools |  | (d) | 78.1 | $\begin{aligned} & 9,420 \\ & 1,269 \end{aligned}$ | \} | (d) | 90.2 | 6,437 | 37.3 | 2,209 |
| 333 | Pumps, valves and compressors | 34.2 | 779 \{ | 41.4 | 5,960 | \} | (d) | 55.9 | 6,472 |  | (d) |
| 334 | Industrial eng ines |  | (d) | .. | 6,533 |  | (d) |  | (d) |  | (d) |
| 335 | Textile machinery and accessories |  | (d) $\{$ | 27.6 | $\begin{array}{r} 3,695 \\ 471 \end{array}$ | \} | (d) |  | (d) |  | (d) |
| 336 | Construction and earth moving equipment |  | (d) | 34.4 | 4,301 |  | (d) | 93.4 | 6,149 | 111 | 6,447 |
| 337 | Mechanical handling equipment |  | (d) | 36.1 | 3,152 |  | (d) $\{$ | 112 | $\begin{aligned} & 6,705 \\ & 1,025 \end{aligned}$ | \} 74.0 | 4,017 |
| 339/1 | Mining machinery |  | (d) |  | (d) |  | (d) |  | (d) | 63.9 | 3,324 |
| 339/4 | Space heating, ventilating and airconditioning equipment |  | (d) |  | (d) |  | (d) |  | (d) | 40.1 | 2,315 |
| 339/7 | Food and drink processing machinery |  |  |  | (d) |  | (d) |  | (d) |  | (d) |
| 339/9 | Miscellaneous (non-electrical) machinery | . | 917 \{ | 39.7 | $\begin{aligned} & 4,903 \\ & 1,482 \end{aligned}$ | \} | (d) $\{$ | 87.0 | $\begin{aligned} & 6,631 \\ & 1,491 \end{aligned}$ | $\} 44.1$ | 2,773 |
| 341 | Industrial (including process) plant and steelwork |  | (d) | 19.0 | 2,198 |  | (d) | 663 | 33,636 | 527 | 28,700 |



For notes to this table - see page $44 / 17$.

| Standard Industrial Classificat ion <br> Minimum List Head ing | Purchasing industry (b) | Iron and steel in all forms except finished parts, wire and scrap (continued) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Steel sheets under 3 mm . thick (including electrical sheets) |  | Steel hoop and strip (including tape of all thicknesses) |  | Tin plate and blackplate |  | Steel forgings (except drop forg ings) |  | Steel castings |  | 0 ther and unclassif ied iron and steel |  |
|  |  | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost | Quantity | Cost |
|  |  | Th.tons | £'000 | Th.tons | £’000 | Th.tons | £'000 | Th.tons | £’000 | Th.tons | £'000 | Th.tons | £'000 |
| 101 | Coal mining |  | (c) |  | (c) |  | (c) |  | (c) |  | (c) |  | (d) |
| 215 | Milk and milk products |  | (c) |  | (c) $\{$ | 27.2 | 2,498 |  | (c) |  | (c) |  | (c) |
| 218 | Fruit and vegetable products |  | (c) |  | (c) | 49.0 | 4,490 |  | (c) |  | (c) |  | (c) |
| 311 | Iron and steel (general) | 179 | 9,784 | 2,223 | 95,484 |  | (d) |  | (d) |  | (d) | 621 | 35,556 |
| 312 | Steel tubes |  | (d) | 351 |  |  | (d) |  | (d) |  | (d) $\{$ | 392 | 31,510 3,106 |
| 313 | Iron castings, etc |  | (d) |  | (d) |  | (d) |  | (d) |  | (d) |  | (d) |
| 331 | Agricultural machinery (except tractors) |  | (d) |  | (d) |  | (d) |  | (d) |  | (d) |  | (d) |
| 332 | Metal-working machine tools |  |  |  |  |  | (d) | 7.4 | 1,211 $\{$ | 5.6 | 962 176 |  | (d) |
| 333 | Pumps, valves and compressors |  | (d) |  | (d) |  | (d) | 6.9 | 1,478 2 | 26.9 | 6,271 1,499 | 20.0 | 4,376 1,224 |
| 334 | Industrial engines |  | (d) |  | (d) |  | (d) $\{$ | 3.1 | 1,117 | 1.3 | 1,714 1,735 | \} | (d) |
| 335 | Textile machinery and accessories |  | (d) |  | (d) |  | (d) |  | (d) $\{$ | 2.4 | 525 192 | \} | (d) |
| 336 | Construction and earth moving equipment |  | (d) |  | (d) |  | (d) $\{$ | 9.4 | 1,355 | $\} 41.8$ | 8,281 $\{$ | 37.0 | 4,715 3,962 |
| 337 | Mechanical handling equipment |  | (d) |  | (d) |  | (d) $\{$ | 6.8 | 1,005 136 | $\} 15.3$ | 2,926 \{ | 12.9 | 1,571 2,340 |
| 339/1 | Mining machinery |  | (d) |  | (d) |  | (d) | 4.3 | 689 | 12.2 | 2,255 | 29.0 | 3,468 1,453 |
| 339/4 | Space heating, ventilating and airconditioning equipment | 87.6 |  |  | (d) |  | (d) |  | (d) |  | (c) |  | (d) |
| 339/7 | Food and drink processing machinery |  | (d) |  | (d) |  | (d) |  | (d) | . | 964 |  | (d) |
| 339/9 | Miscellaneous (non-electrical) machinery \{ | 22.0 | $\begin{array}{r} 1,755 \\ 212 \end{array}$ | \} | (d) |  | (d) | 8.0 | 1,406 | 20.4 | 3,152 | 33.9 | 3,697 |
| 341 | Industrial (including process) plant and steelwork | 54.0 | $\begin{aligned} & 3,855 \\ & 484 \end{aligned}$ | \} | (d) |  | (d) $\{$ | 14.0 | 1,531 173 | $\} 11.3$ | 1,851 $\{$ | 100 | 11,792 5,944 (d) |
| 342 | Ordnance and small arms |  | (d) |  | (d) |  | (d) |  | (d) | 9.1 9.8 | 1,344 2,021 | 33.0 | (d) 4,997 |
| 349 | General mechanical eng ineering |  |  | 52.8 | 4, 288 |  | (d) | . | 3,475 \{ | 9.8 | 2,021 |  | 4,987 3.411 |


| 364 | Radio and electronic components |
| :--- | :--- |
| 368 | Electric appliances primarily for <br> domestic use |
| 369 | Miscellaneous electrical goods |
| 370 | Shipbuilding and marine eng ineering |
| 380 | Wheeled tractor manufacturing |
| 381 | Motor vehicle manufacturing <br> 383 |
| Aerospace equipment manufacturing <br> and repairing |  |
| 385 | Railway carriages, wagons and trams |
| 390 | Engineers, small tools and gauges |
| 392 | Cutlery, spoons, forks and plated table- <br> ware, etc |
| 393 | Bolts, nuts, screws, rivets, etc |
| 394 | Wire and wire manufactures |
| 395 | Cans and metal boxes <br> $399 / 1$ |
| $399 / 5$ | Metal furniture |
| $399 / 6$ | Drop forgings, etc |
| $399 / 8$ | Metal holloware |
| 500 | Miscellaneous metal goods |
| 601 | Construction |
| Gas | 0ther industries |

[^2]TABLE 10 Purchases by larger establishments in the industry, 1963 and 1968 Establishments employing 25 or more persons: Analysis of returns received, United Kingdom
Materials for use in production
Iron ore and manganese ore
Iron
Pig iron, including refined pig iron, and other irons
for re-melting
Castings
Steel
Ingots, blooms, billets, slabs (including sheet/plate
mill slabs and sheet bars) mill slabs and sheet bars)
Hot rolled coil from wide continuous mills
Sheets under 3 mm . thick (including electrical sheets)
Iron and steel not elsewhere specified except finished
parts, wire and scrap
Iron and steel scrap
Lime, 1 imestone and dolomite
Cinder and scale
Pyrites residue
Tungsten ores and tungsten bearing residues
Other ores, concentrates and residues not elsewhere eciried
Spiegeleisen and blast furnace ferro-manganese
Other ferro-alloys
Light metals and non-ferrous metals in all forms except
finished parts, wire and scrap
Zinc and alloys of zinc
Nickel and nickel alloys (excluding nickel silver and cupro-nickel)

Tin
Other alloying and finishing materials not elsewhere spec if ied
Synthetic resins and plastics materials (excluding
Synthetic resins and plastics materials (exclud
leathercloth and reinforced plastics) (a) Polyvinyl chloride (including copolymers) Polymers and copolymers including the net resin plasticised moulding and extrusion compounds (b)
Plasticised and unplasticised sheet, film rod, Plasticised and unplasticised shee
tube, profile shapes and foam (c)
General chemicals (d)
Inorganic (including inorganic gases)
0xygen
Sulphuric acid
Phosphor ic acid
0ther
Organic (including organic gases)
Other (eg mixtures of inorganic and organic chemicals)

| 1963 |  | 1968 |  |
| :---: | :---: | :---: | :---: |
| Quant ity | Cost | Quantity | Cost |
| Th.tons | £'000 | Th.tons | £'000 |
| 23,285 | 86,069 | 26,550 | 93,199 |
| 1,975 | 40,600 | 1,825 | 34,175 |
| 86.4 | 3,759 | 208 | 6,925 |
| 5,499 | 184, 262 | 5,721 | 212,332 |
| 1,654 | 70,987 | 2,223 | 95,484 |
| 59.6 | 3,047 | 179 | 9,784 |
| 752 | 36,012 | 621 | 35,556 |
| 6,182 | 76,189 | 8,035 | 97,305 |
| 3,885 | 7,719 | 4,592 | 10,179 |
| 300 | 1,150 | 352 | 1,394 |
| 428 | 1,721 | 344 | 1,333 |
| 0.6 | 277 | 5.0 | 3,050 |
| . | 334 | .. | 2,318 |
| 72.6 | 4,050 | 50.5 | 2,943 |
| . | 15,648 | . | 27, 360 |
| 21.4 | 1,675 | 27.7 | 3,259 |
| $\begin{gathered} 13.0 \\ \text { Th.cwt } \end{gathered}$ | 6,703 | 21.7 Th.cwt. | 15,085 |
| 203 | 8,883 | 175 | 11,324 |
| . | 4,027 | . | 5,202 |
| 31.0 | 166 | 10.7 | 111 |
| Mn.cu.ft. | $196\{$ | 36.6 Mn.cu.ft. | $\begin{aligned} & 110 \\ & 363 \end{aligned}$ |
| 2,104 $\cdots$ | $\begin{aligned} & 1,369 \\ & 4,142 \end{aligned}$ | \} 34,597 | 9,715 |
|  |  | . | 1,210 |
|  |  | . | 38 |
| . | 1,786 | .. | 3,776 |
|  |  |  | 258 |
|  | 1 |  | 225 |

TABLE 10 (continued)

(a) For 1963 leathercloth and reinforced plastics were not specifically excluded.
(b) For 1963 described as 'Resins, solutions, emulsions, dispersions, moulding and extrusion compounds':
(c) For 1963 foil was specifically included
(d) For 1963 described as 'Heavy chemicals (acids, alkalis, alcohols, other inorganic and organic
(e) Not recorded separately for 1963 .
(f) The total quantity of electricity generated in establishments employing 25 or more persons in this industry was $2,292,180 \mathrm{Th}$. kWh in 1968 and $3,534,212 \mathrm{Th} . \mathrm{kWh}$. in 1963.

TABLE 11 Transport costs and employment of larger establishments, 1963 and 1968
Establishments employing 25 or more persons:

|  | Unit | 1963 | 1968 |
| :---: | :---: | :---: | :---: |
| Average number mainly employed on transport | No. | 1,524 | 2,262 |
| Transport costs |  |  |  |
| Wages and salaries | $£^{\prime} 000$ | 1,281 | 2,498 |
| Derv fuel and motor spirit | " | 489 | 857 |
| Tyres and other spare parts for road goods vehicles | " | . | 467 |
| by road | " |  | 19,522 |
| Payments to other organisations for transport $\quad\left\{\begin{array}{l}\text { by rail and other } \\ \text { means excluding } \\ \text { postal services }\end{array}\right.$ | " | 28,623 | 11,048 |
| Costs of operating road goods vehicles |  |  |  |
| Insurance |  | 51 | 77 |
| Vehicle 1 icences | " | 73 | 198 |
| Depreciation | " | 331 | 1,166 |
| Payments to other organisations for repairs and maintenance | " | 144 | 251 |
| Total | " | 30,992(a) | 36,084 |

(a) Excluding tyres and other spare parts for road goods vehicles, not
collected separately for 1963 .

TABLE 12 Payments for certain services, etc by larger establishments, 1963 and 1968 (a)
Establ ishments employing 25 or more persons

(a) No deduction is made for these payments to arrive at the figures of net output given in this repor
(c) Excluding telex for 1963

TABLE 13 Percentage analysis of twelve-month periods covered by returns from larger per iods covered by r
establ ishments, 1968
establishments, 1968
Establishments employing 25 or more persons
Analysis of returns received, United Kingdo

| Analysis of returns received, United Kingdom |  |  |
| :--- | :---: | :---: |
| Year ended | Percentage <br> of <br> total returns <br> received | Percentage <br> of <br> total number <br> employed |
| 1968 | Per cent. | Per cent. |
| April (a) | 0.3 | 0.1 |
| May | 1.2 | 0.2 |
| June | 8.3 | 1.9 |
| July | 6.5 | 5.0 |
| August | 0.6 | 0.1 |
| September | 30.2 | 69.7 |
| October | 1.2 | 0.1 |
| November | 0.6 | 0.1 |
| December | 24.6 | 16.0 |
| 1969 |  | 0.9 |
| January | 0.2 | 0.2 |
| February | 21.5 | 5.8 |
| March | 1.9 | 0.3 |
| April (b) | 100 | 100 |

(a) From 6 April.
(b) To 5 April.


[^0]:    (a) Including working proprietors.

[^1]:    (a) The references given are to the 1 ist of industries at the front of this report. (b) Including finished wrought iron for 1963.

[^2]:    (a) The figures include purchases of imported as well as of home produced goods. The table also includes purchases of pig iron, including refined pig iron,
    and other irons for re-melting and iron castings which are principal products of the Iron Castings, etc Industry (Part 46).
    (b) Specified Census Industries for which purchases are one per cent, or more of the total of at least one of the commodities shown.
    (c) Not recorded separately.
    (d) Included in the total for '0ther Industries'.
    (e) Owing to the risk of disclosure of information relating to individual firms, separate figures cannot be given and are included in the total for 0 ther Industries'.

