This Report on the Locomotives and Railway Track Equipment Industry relates to establishments engaged wholly or mainly in manufacturing and repairing locomotives of all types, railway signals, turntables and automatic couplings. Passenger coaches embodying a motive unit are excluded. Light repairs carried out in railway running sheds are also excluded.

This industry corresponds to minimum list heading 384 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 65).

With the exception of Table 4 , which shows separate details, this report combines the information for railway workshops and other manufacturers. Returns in full detail were obtained for all railway workshops and from other manufacturers employing twenty-five or more persons.

The output of railway workshops is valued at cost, ie a sum calculated to cover the cost of labour and materials together with such a proportion of the general establishment charges properly applicable to the output concerned but without any allowance for profit. The output of other manufacturers is, however valued at selling prices and therefore includes profit.

There were no establishments in this industry in Northern Ireland in 1963 or 1968.
METHOD OF CLASSIFICATION
The classification of returns to this industry followed the standard procedure as outlined in the notes which appear on page (i) but in classifying returns to the sub-divisions of the industry establishments of British Rail were allocated to the group headed 'Railway Workshops' and all other establishments to the other group.

[^0]LIST OF TABLES

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

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

(a) For 1968 , estimates for establishments not making sat isfactory returns and for small establishments, from which only employment data were collected, accounted for less than 1 per cent. of the total figures
in which they were incorporated: of this, unsat isfactory returns accounted for a negligible proportion.
Asimilar situation existed for 1963 . Aimilar situation existed for 1963 .
 Industry. For 1968 it includes an estimate for small e
There were no unsatisfactory returns recorded for 1963 .

|  | 1963 | 1968 |
| :---: | :---: | :---: |
| Number of establishments | 10 | 10 |
| Average number employed |  |  |
| Working proprietors | 16 |  |
| Other persons employed | 95 | 68 |

Footnotes continued on page $85 / 2$.

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

All establishments: United Kingdom

| Number employed on average during the year by the establishment (a) establishment (a) | Estabments | $\begin{aligned} & \text { Enter- } \\ & \text { prises } \\ & \text { (b) } \end{aligned}$ | Total number employed on average during th | Gross output | Net | Net output per head |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Number | Number | £'000 | $£^{\prime} 000$ | £ |
| 1-5 | 5 | 5 | 17 |  |  |  |
| 6-24 | 4 | 3 | 51 | . | . |  |
| 25-99 | 3 | 3 | 184 | 1,197 | 276 | 1,498 |
| 100-199 | 3 | 3 | 377 | 981 | 607 | 1,609 |
| 200-399 | 3 | 3 | 867 | 1,765 | 922 | 1,064 |
| 400-749 | 3 | 3 | 1,710 | 4,824 | 2, 186 | 1,278 |
| 1,000-1, 499 | 1 | 1 | 1,055 | 2,382 | 1,055 | 1,000 |
| 2,000-2,499 | 2 | 1 | 4, 279 | 8,745 | 4,512 | 1,054 |
| 3,000-3,999 | 1 | 1 | 3, 273 | 7,359 | 3,333 | 1,018 |
| 5,000 and over | 1 | 1 | 5,141 | 13, 119 | 5,569 | 1,083 |
| Unsatisfactory returns | 2 | 2 | 49 |  | .. | . . |
| Total | 28 | 21 | 17,003 | 40,652(c) | 18,587(c) | 1,093(c) |

(ii) Employees, wages and sal aries

All establishments: United Kingdom

| Number employed on average during the year by theestablishment | Employees |  | Wages and sal aries |  | Wages and salaries per head |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Operatives | 0 thers (d) | Operatives | 0 thers (d) | Operatives | 0 thers <br> (d) |
|  | Number | Number | £'000 | £'000 | $£$ | £ |
| 1-5 | .. | . | . | . |  | .. |
| 6-24 | .. | .. | . | . | .. | . |
| 25-99 | 113 | 68 | 87 | 85 | 771 | 1,256 |
| 100-199 | 275 | 102 | 257 | 111 | 936 | 1,093 |
| 200-399 | 648 | 219 | 542 | 248 | 836 | 1,133 |
| 400-749 | 1,207 | 503 | 1,176 | 605 | 974 | 1,203 |
| 1,000-1,499 | 884 | 171 | 882 | 214 | 998 | 1,251 |
| 2,000-2,499 | 3,652 | 627 | 3,766 | 738 | 1,031 | 1,177 |
| 3,000-3,999 | 2,720 | 553 | 2,675 | 613 | 983 | 1,109 |
| 5,000 and over | 4,451 | 690 | 4,618 | 762 | 1,038 | 1,104 |
| Unsatisfactory returns | .. | . | . | . . | .. | 1, |
| Total | 14,045(c) | 2,953(c) | 14,096(c) | 3,400(c) | 1,004(c) | 1,151(c) |

(a) Including working proprietors.
(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 the extent that enterprises made returns for establishments in more than one
Including
(c) Including estimates for establishments employing fewer than 25 persons and for
(d) Adninistrative, technical and clerical employees.

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

| Ages | Males | Females | All employees |
| :--- | :---: | :---: | :---: |
| Under 18 <br> 18 and over | Per cent. | Per cent. | Per cent. |
|  | 4 | 1 | 5 |
|  | 90 | 5 | 95 |

(a) The percentages relate to the numbers employed (excluding working proprietors) at June 1969, the earliest date fo Standard Industrial Classification (Revised 1968).

Footnotes to Table
(a) The method of classifying returns to sub-divisions the industry is explained in the notes.
(b) Including services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered)
(c) Characteristic products relate only to the sub-divisions
d) This is the rat
d) the industry to io total sales of principal products by done. (e) 0 wing to the risk of disclosure of information relating
to individual firms particulars of progress payments received for work in progress at the beginning and the end of 1968 cannot
collected for 1963.
(f) Administrative, technical and clerical employees.
(g) Excluding expenditure for establishments not yet in
production.
(h) Acquisitions less disposals.

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

notes to this table - see page $85 / 5$

ABLE 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 Kingdon

|  | 1963 |  |  | 1968 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity |  | Value | Quantity |  | Value | Enter prises | Entries |
| ocomotives complete (including complete phicles exported in parts) <br> With internal combustion engines <br> Hydraulic (torque converter) transmission <br> 200 b.h.p. and over <br> Under 200 b.h.p. <br> 0 ther mechanical transmissions <br> Under 200 b.h.p. <br> 200 b.h.p. and over <br> Electric transmission <br> Electric (including battery types) <br> Under 40 tons light weight <br> 40 tons light weight and over Parts of locomotives (excluding brake gear, axles, tyres and wheels, and internal combustion engines and electric motors) <br> Railway signals, mechanical | Number | Th.tons | £'000 | Number | Th.tons | £'000 | Number | Number |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | 43 | 1.7 | 999 | 5 | 5 |
|  | 112 | 6.7 | 5,699 | 43 | 1.7 | 999 | 5 | 5 |
|  |  |  |  |  | 665 | 312 | * | * |
|  | 136 | 1.1 | $\left.\begin{array}{l} 689 \\ 349 \end{array}\right\} \mid$ |  |  |  |  |  |
|  | 69 | 4.7 | 4,068 | \}- | - | - | - | - |
|  | 84 | 5.5 | 4,564 | - | - |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 20 | 0.2 | ${ }_{125}^{123} 8$ (a) |  |  |  |  |  |
|  | 13 | 1.0 | 1,086 |  | .. | 688 | 5 | 5 |
|  | .. |  | 14,321 |  | .. | 10,887 | 14 | 20 |
|  | . | . | 372 |  | $\ldots$ | 424 | * |  |
|  | Th.tons |  |  | Th.tons |  |  |  |  |
| Railway signalling apparatus, electrical lexcluding electronic railway signalling equipment) |  |  | 3,745 |  | .. | 6,859 | 11 | 15 |
| furntables and other and unclassified railway and tramway equipment |  |  | 1,881 |  | .. | 1,973 | 27 | 28 |
| Other products |  | . | 1,245 |  | . | 388 | 5 | 7 |
| laste products |  |  |  |  |  |  |  |  |
| Scrap metals |  |  |  |  |  |  |  |  |
| Iron and steel |  | 16 | 2,141 |  | . 6 | 294 | 8 | 14 |
| Brass |  | . 7 | 610 |  | 0.2 | 53 | 6 | 11 |
| Copper |  | 6.1 | 1,201 |  | . 2 | 53 | 5 | 10 |
| Other scrap metals |  | 5. 8 | 428 |  | . 5 | 69 | * | 9 |
| Other waste products |  |  | 219 |  |  | 90 | * | 6 |
| lork done |  |  |  |  |  |  |  |  |
| Repair work done including repairing contracts |  |  |  |  |  |  |  |  |
| Locomotives |  |  |  |  |  |  |  |  |
| Internal combustion engines with mechanical transmission (including hydraul ic transmission) |  |  | 1,575 |  |  | 3,368 | 7 | 11 |
| Internal combustion engines with electrical transmission |  |  | 6,116 |  |  | 16,225 | * | 8 |
| Steam |  |  | 11,369 |  |  |  |  |  |
| Electric (including battery types) |  |  | -145 |  |  | 1,093 | 4 | 7 |
| Other repair work |  |  | 1,759 |  |  | 403 | * | 7 |
| Other work done (eg machining and turning) |  |  | 2,655 |  |  | 359 | * | 8 |
| Total |  |  | 74,224 |  |  | 44,539 |  |  |
| Sales in other industries (see Table 6) |  |  | 16,645 |  |  | 12,370 |  |  |
| Principal products of this industry sold by establishments in the industry |  |  | 57,579 |  |  | 32,170 | 11 | 17 |

(a) Included steam locomotives in 1963

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

|  | 1963 |  |  | 1968 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity |  | Value | Quant ity |  | Value | Entries | Principal <br> industries <br> in which <br> produced (a) |
| Locomot ives complete With internal combustion engines | Number | Th.tons | £'000 | Number | Th.tons | £'000 | Number |  |
| Hydraulic (torque converter) transmission Electric (including battery types) | 77 | $\ldots$ | $\left.\begin{array}{r} 7,789 \\ 405 \\ 85 \end{array}\right\}(\mathrm{c}) \mid$ | $\}$ | .. | 262 | * | 51,53,71 |
| Parts of locomotives (excluding brake gear, axles, tyres and wheels, internal combustion engines and electric motors) | $\because$ | 0.4 | $\begin{array}{r} 116 \\ 3,008 \end{array}$ |  | .. | 5,652 | 11 | 44,53,71,86 |
| Railway signals, mechanical and railway signalling apparatus, electrical (excluding electronic railway signalling equipment) | . | .. | 3,691 | .. | .. | 4,416 | 13 | 71,77,82,130 |
| Unclassified railway and tramway equipment and turntables | . | .. | 1,507 | .. | .. | 1,973 | 28 | 51,53,63, 151 |
| Repair work done on locomotives |  |  | 44 |  |  | 66 | * |  |
| Total |  |  | 16,645 |  |  | 12,370 |  |  |

(a) The references are to the 1 ist of industries at the front of this report.
(b) For 1963 locomotives complete with internal combust ion eng ines, electric and mechanical transmission
other than hydraul ic (torque converter) transmission and steam locomotives. (c) Included steam locomotives in 1963.

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 Kingdom

|  | 1963 | 1968 |
| :---: | :---: | :---: |
|  | Value | Value |
|  | £ ${ }^{0} 00$ | £'000 |
| Parts of diesel railcars | 134 | 175 |
| Engineering products | 2,940 | 548 |
| Parts of carriages, railcars, wagons and trucks, railway and locomot ive brake gear and axles, tyres and wheels for locomotives, carriages, railcars, wagons and trucks and other railway equipment of iron and steel | 543 | \} 2,481 |
| Other products | 2,977 |  |
| Repair work on machinery and plant | 1,347 | 2,633 |
| Services rendered to other organisations (a) | 3,394 | 426 |
| Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored) | 1,069 | 2,381 |
| Canteen takings | 67 | 40 |
| Total | 12,472 | 8,685 |

[^1]TABLE 8 Production of certain principal products of the industry by larger establishments, 1963 and 1968

This table is not appl icable to this industry.

TABLE 9 Purchases by larger establishments of selected principal products by the industry, 1968

This table is not applicable to this industry.

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
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)
Bars and rods (including wire rods), angles, shapes and
sections, girders, beams, joists and pillars rolled (not sections, girders, beams, joists and pillars ro
fabricated), including tube rounds and squares
Plates, 3 mm . thick and over
Sheets under 3 mm . thick (including electrical sheets)
Hoop and strip (including tape of all thicknesses)
Forgings (except drop forgings)
Castings
Axles, tyres and wheels
Drop forg ings
Iron and steel not el sewhere specif ied except finished parts,
wire and scrap
Wrought tubes and fittings for wrought tubes (including
welded, seamless, conduits, etc ${ }^{\text {) (b) }}$ (b) 0ther
Light metals and non-ferrous metals in all forms except
finished parts, wire and scrap Aluminium and aluminium alloys
Lead and alloys of lead (excluding solder)
Nickel and nickel alloys (excluding nickel silver and
cupro-nickel)
Brass and other copper alloys (including nickel silver and
cupro-nickel, but excluding all other nickel alloys and
cupro-nickel, but excluding all other nickel alloys and
cadmium copper) (c)
Copper (including cadmium copper) (d)
Tin
White metal alloys (ie alloys of $t$ in, lead, zinc, antimony,
etc not elsewhere specified)
Springs, laminated and other types
Bolts, rivets, nuts and washers, screws, nails, tacks, etc
Vehicle and machinery components and accessories for
incorporation in firms' finished products (e)
Brake gear
Diesel engines and parts thereof
Traction and other electric motors and parts thereof
Electrical equipment, including batteries and accumulators,
not elsewhere specified (f)
Automat ic couplings
Ball and roller bearings and parts thereof
All other components, not elsewhere specified
Glass (including plate and sheet)

BLE 10 (cont inued)

|  | 1963 |  | 1968 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quant ity | Cost | Quant ity | Cost |
| aterials for use in production (cont inued) | Th.gal. | £'000 | Th.gal. | £ ${ }^{\prime} 000$ |
| Paint and varnish (including lacquers and stains) | 54.6 .. | 80 3 | \} 109 | 91 |
| Timber |  |  |  |  |
| Softwood, sawn or planed, but not further prepared or manufactured |  |  | Th.stds. $0.2$ | 27 |
| Hardwood, sawn or planed, but not further prepared or manuf act ured | .. | (a) | Th.cu.ft. | 5 |
| Plywood, including blockboard, laminboard and battenboard |  |  | Th.sq.ft. | 7 |
|  | Th.gal. <br> 654 | 115 | Th.gal. <br> 274 | 91 |
| Lubricating oils and greases (including cutting oils and emulsions) | Th.cwt. $2.8$ | 15 \{ | Th. cwt. 7.0 | 34 4 |
| Replacement parts for firms, own machinery, plant and vehicles, and accessories and consumable tools bought as repl acement | Th.tons |  | Th.tons |  |
| Tyres and other spare parts for firms, own road goods vehicles <br> 0 ther | \} .. | 1,637 | .. | 6 |
| All other materials for use in production |  | 4,125 |  |  |
| akaging materials | .. | 28 |  | 24 |
| el and electricity (g) |  |  |  | 2 |
| Coal | 119 | 539 \{ | 5.4 | 31 178 |
| Coke (including screenings) and manufactured fuel | 19.4 | $174\{$ | 1.2 | $14$ |
|  | Th.gal. |  | Th.gal. |  |
| Derv fuel and motor spirit for use in road vehicles | 105 | 18 \{ | 51.8 | $\begin{aligned} & 16 \\ & 15 \end{aligned}$ |
| Other liquid fuels (including creosote/pitch mixtures, etc and liquefied petroleum gases) | 6,631 | 261 | 5,380 | 222 |
| bas | $\begin{gathered} \text { Th.therms } \\ 3,415 \end{gathered}$ | $\begin{gathered} 244 \\ 91 \end{gathered}$ | $\}^{\text {Th.therms }} \begin{aligned} & 1,620 \end{aligned}$ | 136 |
|  | Th. kWh . |  | Th. kWh . |  |
| Mectricity | 104,973 | 653 | 60,455 | 441 |
| 111 other fuels | .. | (a) | .. | 12 |
| Total cost of materials and fuel |  | 37,070 |  | 19,414 |
| Wds purchased for merchanting |  | 849 |  | 1,834 |
| ateen purchases |  | 75 |  | 39 |
| Total cost of purchases |  | 37,995 |  | 21,287 |

(a) Not recorded separately for 1963.
b) For 1963 boiler tubes were specif ically included.
(c) For 1963 cadmium copper was not specifically excluded.
${ }^{(d)}$ (e) For 1963 blister was specifically excluded but cadmium copper was not specifically included.
(f) For 1963 described as 'Vlectric lighting equipment not els
8) The total quantity of electricity generated in establ ishments employing 25 or more persons in this
industry was $7,539 \mathrm{Th}$. kWh . in 1968 and $6,347 \mathrm{Th}$. kWh . in 1963 .

TABLE 11 Transport costs and employment of larger establ ishments, 1963 and 1968
Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

|  | Unit | 1963 | 1968 |
| :---: | :---: | :---: | :---: |
| Average number mainly employed on transport | No. | 58 | 22 |
| Transport costs |  |  |  |
| Wages and salaries | £'000 | 44 | 21 |
| Derv fuel and motor spirit | " | 18 | 31 |
| Tyres and other spare parts for road goods vehicles | " |  | 6 |
| Payments to other organisations for transport $\quad\left\{\begin{array}{l}\text { by road } \\ \text { by rail and other } \\ \text { means excluding } \\ \text { postal services }\end{array}\right.$ | " | $169\{$ | 22 61 |
| Costs of operating road goods vehicles Insurance | " | 5 | 3 |
| Vehicle licences | " | 3 | 4 |
| Depreciation | " | 20 | 20 |
| Payments to other organisations for repairs and maintenance | " | 9 | 8 |
| Total | " | 268 (a) | 177 |

(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 Payments for certain services, etc
establishments, 1963 and 1968 (a)

Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

|  | Amounts payable |  |
| :--- | ---: | ---: |
|  | 1963 | 1968 |
| Repairs and maintenance to | $£^{\prime} 000$ | $£ \prime 000$ |
| Buildings | 137 | 82 |
| Road goods vehicles | 9 | 8 |
| Plant, machinery and other capital equipment | 50 | 42 |
| Insurance, licensing and depreciation of road goods | 28 | 27 |
| vehicles (b) | 129 | 91 |
| Rates, excluding water rates | 206 | 49 |
| Hire of plant and machinery |  |  |
| Postage, telephone, telegrams, cables and telex (c) | 61 | 59 |
| $\quad$ Total |  | 620 |

[^2]TABLE 13 Percentage analysis of twelve-month periods covered by returns from larger establ ishments, 1968
Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

| Year ended | Percentage of total returns received | Percentage of total number employed |
| :---: | :---: | :---: |
| 1968 | Per cent. | Per cent. |
| April (a) | 0.0 | 0.0 |
| May | 5.9 | 1.6 |
| June | 0.0 | 0.0 |
| July | 11.8 | 4.5 |
| August | 0.0 | 0.0 |
| September | 17.6 | 2.4 |
| October | 0.0 | 0.0 |
| November | 0.0 | 0.0 |
| December | 58.8 | 90.8 |
| 1969 |  |  |
| January | 0.0 | 0.0 |
| February | 0.0 | 0.0 |
| March | 5.9 - | 0.7 |
| April (b) | 0.0 | 0.0 |
|  | 100 | 100 |

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


[^0]:    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).

[^1]:    (a) Amounts charged for hiring out plant, machinery or other goods, for providing transport,

    Amounts charged for hiring out plant, machinery or other go
    or for technical or other services to other organisations.

[^2]:    (a) No deduction is made for these payments to arrive at the figures
    of net output given in this report
    b) For details see Table 11
    c) Excluding Telex for 1963

