## 73 Telegraph and telephone apparatus and equipment

This Report on the Telegraph and Telephone Apparatus and Equipment Industry relates to establishments engaged wholly or mainly in manufacturing telegraph and telephone apparatus, switchboards, teleprinters, telewriters, etc including electronic telecommunications equipment.

This industry corresponds to minimum list heading 363 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 industry corresponds to the Telegraph and Telephone Apparatus Industry (Part 57) in the Reports on the last detailed Census of Production for 1963, except that electronic telecommunications was not specifically included and burglar and fire alarm manufacture and traffic control equipment for roads or inland waterways formerly included in this industry are now included in the report on the Radio, Radar and Electronic Capital Goods Industry (Part 77).

Throughout this Report, the figures given for 1963 have been reclassified, as far as possible, according to the Standard Industrial Classification (Revised 1968) so that data for 1963 and 1968 are on the same industrial basis. However the reclassification of small firms, which provided limited information only, has been arbitrary.

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).

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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 machinery
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 1 per cent. of the total figures in
which they were incorporated: unsat isfactory returns accounted for less than 1 per cent. For 1963 which they were incorporated: unsat isfact ory returns accounted for less than 1 per cent. For 1963
the comparable figures were less than 1 per cent. and negligible respectively.
(b) The following information relates to small establishments (employing fewer than 25 persons) in
industry. It includes an estimate for small establishments not making satisfactory returns.

## Number of establishments <br> Average number employed:

$1963 \quad 1968$

Working proprietors
Other persons employed
Footnotes cont inued on page $73 / 2$.

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

All establishments: United Kingdor

| Number enployed on average during the est abli shment (a) | Est ab1 ishments | $\begin{aligned} & \text { Enter- } \\ & \text { prises } \\ & \text { (b) } \end{aligned}$ | Total number employed on average during the | Gross output | $\underset{\text { Net }}{\text { Nutput }}$ | Net output per head |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Number | Number | £'000 | £'000 | £ |
| 1-5 | 18 | 14 | 47 | . | $\cdots$ | . |
| 6-10 | 12 | 12 | 87 | . | . | .. |
| 11-24 | 32 | 30 | 554 | . | $\cdots$ | . |
| 25-49 | 12 | 10 | 482 | 1,275 | 830 | 1,722 |
| 50-99 | 21 | 16 | 1,586 | 3,712 | 2,181 | 1,375 |
| 100-199 | 13 | 9 | 1,832 | 4,341 | 2,698 | 1,473 |
| 200-299 | 8 | 6 | 2,040 | 6,047 | 3,396 | 1,665 |
| 300-499 | 13 | 8 | 4,897 | 12,870 | 6,333 | 1,293 |
| 500-749 | 8 | 5 | 4,948 | 16,648 | 7,803 | 1,577 |
| 750-999 | 8 | 5 | 6,766 | 17,661 | 10,651 | 1,574 |
| 1,000-1,499 | 7 | 4 | 8,150 | 21,366 | 12,449 | 1,528 |
| 1,500 and over | 11 | 5 | 56,278 | 144,921 | 91,979 | 1,634 |
| Unsatisfactory returns | 9 | 9 | 221 |  |  | . |
| Total | 172 | 90 | 87,888 | 231,160(c) | 139,706(c) | 1,590(c) |

(ii) Employees, wages and sal arie

All establishments: United Kingdom

| Number employed on ${ }^{\text {average }}$ year by the est abl ishment (a) | Employees |  | Wages and salaries |  | Wages and sal aries per head |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oper- atives atives | $\begin{aligned} & \text { Others } \\ & \text { (d) } \end{aligned}$ | Operatives | $\begin{aligned} & 0 \text { thers } \\ & \text { (d) } \end{aligned}$ | $\begin{aligned} & \text { Oper- } \\ & \text { atives } \end{aligned}$ | Others (d) |
|  | Number | Number | £’000 | £’000 | £ | £ |
| 1-5 | .. | . | . | . | . | . |
| 6-10 | . | . | . | . | . | . |
| 11-24 | . |  | . | $\cdots$ | $\cdots$ |  |
| 25-49 | 324 | 152 | 252 | 189 | 776 | 1,243 |
| 50-99 | 1,131 | 448 | 920 | 492 | 814 | 1,099 |
| 100-199 | 1,318 | 510 | 1,056 | 587 | 801 | 1,151 |
| 200-299 | 1,384 | 656 | 982 | 740 | 710 | 1,128 |
| 300-499 | 3,239 | 1,658 | 2,267 | 1,787 | 700 | 1,078 |
| 500-749 | 3,456 | 1,492 | 2,938 | 1,878 | 850 | 1,259 |
| 750-999 | 4,714 | 2,052 | 3,333 | 2,248 | 707 | 1,096 |
| 1,000-1,499 | 5,591 | 2,559 | 3,838 | 2,839 | 687 | 1,110 |
| 1,500 and over | 38,106 | 18,172 | 30,868 | 21,060 | 810 | 1,158 |
| Unsat isfactory returns | -. | .. | .. | .. | . |  |
| Total | 59,847(c) | 27,958(c) | 46,911(c) | 32,127(c) | 784 (c) | 1,149(c) |

(a) Including working proprietors
(b) The sum of the figures for the size groups exceeds the total for the industry to
(b) The sum of the figures for the size groups exceeds the tot al for the industry
the extent that enterprises made returns for establishments in more than one
size group. the extent
size group.
(c) Including estimates for establishments employing fewer than 25 persons and for
establory returns.

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. |
|  | 1 | 2 | 3 |
|  | 55 | 42 | 97 |
|  | 56 | 44 | 100 |
| Source: Department of Employment |  |  |  |

(a) The percentages relate to the numbers employed (excludin working proprietors) at June 1969, the earliest date fo Which the information is avail able on the basis of th Standard Industrial Classification, (Revised 1968).

Footnotes to Table 4
(a) Some establishments employing fewer than 25 persons were included in returns for larger establ ishments. The
amounted to 7 establishments in 1968 and 4 in 1963 .
b) Including services rendered to other organisal
(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) Direct sales of goods (excluding canteen takings) made to, and work done for, the general public by larger establish-
ments are included. These amounted to ims are incluat. We man
d) 1963.
(d) This is the ratio of total sales of principal products by
the industry to total sales of goods produced and work the in
done.
(e) Progress payments received for work in progress in 1968
from United Kingdom customers were recorded as $£ 1,095,000$ from United Kingdom customers were recorded as $£ 1,095,000$
at beginning of year and $£ 857,000$ at end of year; and from overseas customers $£ 93,000$ at beginning of year and $£ 21,000$ at end of year. Similar information is not ) 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 (a)


For notes to this table - see page $73 / 5$.

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 Kingdon

(a) For 1963 described as 'Telegraph and telephone testing equipment, excluding electronic'.
(b) Including 'Components and parts of signalling apparatus' for 1963 which for 1968 are included in the report on the Radio, Radar and Electronic Capital Goods Industry (Part 77). Also
included for 1963 are unclassified telephone and telecommunication instruments and components
(c) For 1963 described as 'Machinery purchased and installed and other installation work'.
(d) This figure represents the total number of returns made for larger establishments in this
industry, which is less than the total number of establishments shown in Table 4 on account of
combined returns covering more than one establ ishment.

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 |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Value | Value | Entries | Principal <br> industries <br> in which <br> produced (a) |

(a) The references given are to the list of industries at the front of this report

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 |
| Mechanical engineering | £'000 | £’000 |
| Duplicators, complete, and other office machinery | - | 668 |
| 0 ther mechanical engineering |  | 285 |
| Instrument engineering |  |  |
| Still cameras and clocks (a) |  | 97 |
| Industrial control systems (b) |  | 97 |
| Electronic measuring instruments and devices |  | 464 |
| Electrical equipment |  |  |
| Non-traction motors sold separately, and switchgear and control gear, complete and parts (c) | ) 36,447 \{ | 355 |
| Insulated wires and cables, and cable joint ing materials and accessories |  | 291 |
| Radio and electronic transformers, relays, switches and other passive components |  | 1,715 |
| Electrical sound reproducing and recording apparatus |  | 659 |
| Other electrical goods |  | 233 |
| 0ther goods |  | 875 |
| Work done |  |  |
| Building and civil engineering work; research and development work; repair and maintenance work and machinery installed and installation work on other than telegraph and telephone apparatus and equipment | 2,514 | 7,560 |
| Services rendered to other organisations (d) | 627 | 3,994 |
| Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored) | 4,824 | 3,488 |
| Canteen takings | 321 | 707 |
| Total | 44,734 | 21,486 |

(a) Excluding 'Still cameras' for 1963
(b) Not recorded separately for 1963
(c) Excluding 'Non-traction motors, sold separately' for 1963.
(d) 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 large 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

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 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 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
Tinplate and blackplate; forgings (except drop forgings); and castings (a)
Iron and steel not elsewhere specified except finished parts, wire and scrap
Steel wire and wire manufactures (including wire
cables and ropes but excluding insulated wires and
ables)
Springs, laminated and other types
Light metals and non-ferrous metals in all forms
except finished parts, wire and scrap
Aluminium and aluminium alloys
Brass and other copper alloys (including nickel silver and cupro-nicke,
nickel alloys and cadmium copper) (b)
Copper (including cadmium copper) (c)
Cast ings
Rods, extrusions and bars, and other copper
Lead (excluding solder) and zinc, and alloys of lead
and zinc
and $z$ inc
Nickel and nickel alloys (excluding nickel silver
and cupro-nickel) and cupro-nickel

Tin
Solder, soft
Uninsulated wire and cables of non-ferrous metals
Copper
Other non-ferrous metals
Bitumen and bitumastic compounds; glass in all forms (including finished parts)
Ferrite
Mica
Paper and paperboard including press-board and pape yarn, tubes, etc but excluding packaging materials
Porcelain and other ceramics in all forms

| 1963 |  | 1968 |  |
| :---: | :---: | :---: | :---: |
| Quant ity | Cost | Quantity | Cost |
| Th.tons | £'000 | Th.tons | $£^{\prime} 000$ |
| 0.2 | 21 | . | 47 |
| 9.8 | $752\{$ | 11.0 .. | 845 302 |
| 0.4 | $30\{$ | 1.4 . | 157 18 |
| 9.0 | 585 | .. | 696 |
| 3.2 | 235 | 5.5 | 461 |
| . | 228 | .. | 95 |
| . | 285 | .. | 188 |
| 17.5 | 1,603 | .. | 47 |
| . | 686 | . | 834 |
| 2.2 | $\begin{aligned} & 891 \\ & 133 \end{aligned}$ | 1.5 | $\begin{aligned} & 612 \\ & 262 \end{aligned}$ |
| 5.2 | 1,729 | 4.3 | 2,985 |
| $\} \quad 10.6$ | 3,534 \{ | $\cdots$ | 11 2,218 |
| 5.0 | 431 | . | 67 |
| . | (d) | . | 304 |
| 0.3 | 17 | . | 4 |
| . | 219 | . | 187 |
| . | 1,875 | . | 1,752 |
| . | 169 | . | 12 |
| . | 122 | . | 46 |
| . | 150 | . | 803 |
| . | 78 | . | 90 |
| . | 431 | .. | 166 |
| . | 547 | . | 347 |

TABLE 10 (cont inued)

|  |  |  |
| :--- | :--- | :--- | :--- | :--- |

## TABLE 10 (continued



TABLE 10 (cont inued)



|  | 1963 |  | 1968 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Cost | Quantity | Cost |
| Fuel and electricity (k) (continued) | Th. kWh . | £'000 | Th.kWh. | £'000 |
| Electricity | 184,839 | 1,152 \{ | 113,029 | $\begin{aligned} & 830 \\ & 166 \end{aligned}$ |
| All other fuels | . | (d) |  | 18 |
| Total cost of materials and fuel |  | 49,805 |  | 86, 202 |
| Goods purchased for merchant ing |  | 4,903 |  | 3,614 |
| Canteen purchases |  | 288 |  | 578 |
| Total cost of purchases |  | 54,996 |  | 90,394 |

(a) 'Terneplate' was spec if ically included for 1963 .
(b) 'Cadmium copper' was not specifically excluded f
(b) 'Cadmium copper', was not spec if ically exc luded for 1963
(c) 'Blister', was specifically excluded and
(c) 'Blister' was specifically exclud
(d) Not recorded separately for 1963 .
(e) For 1963, described as 'Rubber, including hard rubber, balata, gutta-percha and synthetic rubber
in all forms, including finished parts,
(f) 'Emulsions' were specifically included for 1963
(g) 'Aminoplast ics (melamine and urea formaldehyde)', were not specifically included for 1963.
(h) Including 'Yarn, thread,
(h) 'CCluding 'Yarn, thread, tape and cloth of silk' but excluding 'of glass fibre' for 1963.
(j) For 1963, described as 'Sheet, film, foams, etc wholly or mainly of polyethylene (including bags
and lay flat tubing)'.
(k) There were no entries recorded for electricity generated in firms, own establishments in this
industry in 1963 and 1968 .

## TABLE 11

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

(a) Excluding tyres and other spare parts for road goods vehicles,

Exctuding lyres and other spare pa
not collected separately for 1963 .
Payments for certain services, e
establ ishments, 1963 and 1968
establishments, 1963 and 1968 (a)
Establishments employing 25 or more persons:
Analysis of returns received, United K ingdom

|  | Amounts payable |  |
| :---: | :---: | :---: |
|  | 1963 | 1968 |
| Repairs and maintenance to | £,000 | £'000 |
| Buildings | 516 | 410 |
| Road goods vehicles | 56 | 66 |
| Plant, machinery and other capital equipment | 411 | 431 |
| Insurance, licensing and depreciation of road goods vehicles (b) | 334 | 192 |
| Rates, excluding water rates | 835 | 1,150 |
| Hire of plant and machinery | 257 | 723 |
| Postage, telephone, telegrams, cables and telex (c) | 449 | 795 |
| Total | 2,858 | 3,767 |

(a) No deduction is made for these payments to arrive at the figures
(a) of net output given in this report.
(b) For details see Table 11.
(c) Excluding telex for 1963.

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

| $\begin{array}{c}\text { Establishments employing } \\ \text { Analysis of } \\ \text { returns received, }\end{array}$ or more persons: |  |
| :--- | :---: | :---: |
| United Kingdom |  |$]$



