## The Report on the Census of Production for 1954

Volume 4: Industry J
MECHANICAL ENGINEERING (REPAIRING)

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## The Report on the Census of Production for 1954

VOLUME 4 INDUSTRY J
MECHANICAL ENGINEERING (REPAIRING)

THIS REPORT on the Mechanical Engineering (Repairing) Industry relates to establishments, including Government establishments, engaged wholly or mainly in repair, maintenance and jobbing work on non-electrical machinery of all kinds or in mechanical engineering work on materials supplied work on non-ele
by other firms.

The establishments in this industry are included in the Standard Industrial Classification with the manufacturing establishments covered by minimum list headings 51 to 69 .

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[^0]The following notes describe terms in general use In the tables of the report. More detailed explana
tions of the terms used and a description of the scope
and method of taking the census are given in the separ
 Industrial Classification: Establishments are classif put and, as far as possible. in conformity with the Standard Industrial Classification. Certain product
are identified as the principal products of individual industries. the principal products for a given industry
being of as similar nature or commonly associated in production. The principle of classification normally
followed is that an establishment is classified to ay industry if its output of the principal products of that industry accounted for a greater proportion of the value
of its output than did is is output of the principal pro-
duct

Specialist producers normally comprise those establish ments so per cent. cr more of whose thotal output by
value is accounted for by the characteristic products of the specialist group.
Intemediate products: For some industries figures are
given shoning the total quantities made during the year of intermediate products, i.e.. products which may be furt ther processed in the estabishments in which the
are produced. Larger establ
Larger establishments: The information given in the re-
port relctes maninly © Torger establishments. . i.e. establishments of firms employ ing on the average more
than 10 persons. In most cases an estabisment com-
prises the whole of the premises prises the whie of the premises under the sume owner-
ship or mangenent at $\alpha$ particular address (e.g. a mine
 Other anciliary places of business situated apart from
the producing orks are not reqarded as separate estab-
lis iments and are ind lishments and are included in the return for the works. Snall 11 firms
ferer persons.
The estimates for the industry as a whole given in
Table a are onarmally obtained by increasing the other
items shown in the same proportion as total Gross output (production) is the total value of goods
made and other nork done during the year: it is obtain-
not ot by adjusting he value of sales and work done during
the yar for changes in the value of stocks of products
on hand for sale and work on hand for sale and work in progres
Net output is the amount left after deducting from the
value of groos out tut the aggregate of the cost of materials and fuel 1 used. the amount paid for work given out
and. for 1951 and 1954 , any transport and. for 1951 and 1954. any transport payments made.
This represents the value added to materials by the pro-
cess of production, cess of pronduction, and constitutes the fund fy the who-
nages. Balaries. rents, rates and taxes. advertising and Wages. salaines. Rents, rates and taxes. advertising and
other selling expenses and and ther, similar charges
have to be met, as well as depreciation and profits. Sales means sales during the year of goods made in the
establishment covered by the return or made on commission for it. whether produced in the year or not. The
value of siles is the net selling value. i.e.. the
anour
 delivered basis. and net of any trade discounts, aqents.
commissions. alionances for returnable coses. purchase
tax. etc. For goods charged on delivered boais to

Materials and fuel: The total cost of materials and fuel purchased includes all purchases during the year
of materials for use in production, and of fuel (includ-
ing oil. gas and electricity) for all purposes. packing
materiais. including the full cost of returnatie cases
when firs purchased hen first purchased, vorkshop and office materials:
nater charges; materials for repairs to buildings.

 Purchases of goods for merchanting are exeluded. The
coss of materials and fuel used. given in Table. 2 . is oost of materials and fuel used, given in Table 2 . is
btaned by adusting purchases for changes during the
year in the value of ear
Stodks: Firms were required to give stocks of materials
and fuel products on hand for sale, and work in pro-
gress. at income tax values.
Customs and Excise Duty paid on materials purchased is
normally included in the cost of materials. Finished goods are similarly valued as orey mere sold. duty-paid
$r$ duty-free or duty-free. The net amount of any duty paid is de.
ducted in arriving at net output. Employment: Total employment includes, working propriet-
ors. .dminis ritive. technical and clerical employees. and operatives, but oxcludes outworkers, canteen employeer and persons engaged in merthanting or any other ac-
ivity not oovered by a firm's return, oho are shown
 sons on the pay-roll (i.e.. persons whose National In-
surance cards were held by employers). Whe ther employed
full-time or partotime. horking proprietors are proprietors of businesses other
han limited companies. t toge ther wi th members of the ir nan
amilies who worked in the business nithout receiving
ixed fixed wages or salaries. Any persons working less than
half the normal hours are excluded. For Northern
Folen
 dministrative, tectrical and clerical
Administrative, technical and clerical employees include
directors. other than those paid by fee only (except in
Northern Irelad)

 en and tracers; travellers; and office (including
orks office) employees. Operatives include all other classes of employees, i.e..
broadly speaking, all manual workers. Outworkers are persons employed by the firm who mork on
materials supplied by the firm in their, own homes. Wages and salaries include all overtime payments, bonus-
es and comissions aithout any deductions for incone tax. insurances. Contributory pensions etc. They
iny exclude payments to working proprietors.
Copital expenditure includes expenditure on nem building capital account during the year. including any transport
and installotion oosts invilved. It include expendi-
ture in respet in
 had not bequn production before the end of the year
(Which has not previously been included in the Census of Production re
Symbols used:
for not available
for nil or negligible (less than half the final
digit shown). Where figures are rounded.e.g. given to the near-
est thousand. there may be aparent singht discrepan-
cies between the sums of constituent items and the to tcies between the sums of constituent items and the tot-
als shomn. In some cases. figures have been combined Mithothers of a similar, nature where publication of
separate detail might disclose information relating to
an individual undertaking. en individual undertaking

Estimates for the industry as a whole

(a) Including 116 establishments employing 10 or fewer persons particulars of which were included with those of
 (b) Por subsequent years gross out put includes epayments to ther firms and undertakings and to firms' own
For separate transport orgaisations for transport services.
(c) Payments to other firms and undertakings and to firms' own separate transport organisations. For the year


(e) Excluding outworkers and including working proprietors.
(f) Excluding expend ture for estanlishments not yet in production.
(f) Excluding Northern Ireland: No information about small firms was collected in Northern Ireland for 1951 . (89983)

| Lable 7 Larger establishments in the United Kingdom |
| :--- |

[^1]This table is not applicable to the industry.

| A verage number employed (a) | $\begin{array}{\|l\|l} \hline \begin{array}{l} \text { Estab- } \\ \text { lish- } \\ \text { mishts } \end{array} \\ \hline \end{array}$ | $\begin{aligned} & \text { Gross } \\ & \text { output } \end{aligned}$ | $\begin{gathered} \text { Net } \\ \text { output } \end{gathered}$ | Employees |  | Wayes and salaries |  | Capitalexpenditure(b) | $\left.\right\|_{\substack{\text { Net output } \\ \text { per person } \\ \text { empon } \\ \text { (a) } \\ \text { (a)d }}} ^{\text {and }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | aperatives | Others | Operatives | Others |  |  |
|  | Number | £'000 | £ 000 | Number | Number | £ 2000 | \&. 000 | £. 000 | $\varepsilon$ |
| 11-24 (c) | 534 | 7.587 | 5.778 | 6.580 | 1.285 | 2.891 | 709 | 481 | 722 |
| 25-49 | 270 | 9. 085 | 6.455 | 7.706 | 1.523 | 3.445 | 919 | 614 | 695 |
| 50-99 | 112 | 8.071 | 5.578 | 6.137 | 1.259 | 2.793 | 709 | 544 | 754 |
| 100-199 | 54 | 7.401 | 5.411 | 6. 468 | 1.081 | 2,983 | 637 | 401 | 716 |
| 200-299 | 12 | 3.034 | 1.995 | 2.396 | 480 | 1.083 | 278 | 162 | 694 |
| 300-399 | 4 | 1.058 | 773 | 1.213 | 176 | 498 | 95 | 28 | 557 |
| 400 and over <br> Total | 9 | 5. 523 | 3.412 | 3.624 | 719 | 1.769 | 429 | 148 | 786 |
|  | 995 | $41.761^{\circ}$ | 29.402 | 34.124 | 6.523 | 15.461 | 3.777 | 2.377 | 720 |
| (a) Excluding outworkers and including working proprietors. <br> (b) Capital expenditure on new building work and on acquisition of plant, machinery and vehicles. excluding expenditure for establishments not yet in production. <br> (c) Including 116 establishments with fewer than 11 persons employed. particulars of which were included with those for larger establishments in a single return. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TABLE 4 - Analysis according to specialisation within the industry, 1954 No specialisation within this industry was distinguished. |  |  |  |  |  |  |  |  |  |
| Work done ('principal products' of the industry) Larger establishments in the United Kingdom <br> TABLE 5 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 1951 |  | 1954 |  |
|  |  |  |  |  |  | Amount charged | Amountcharged |  | Entries |
| Repair and jobbing work |  |  |  |  |  | £.000 | £17.00017.936 |  | Number 492 |
|  |  |  |  |  |  | 15.353 |  |  |  |  |
| Work, other than constructional engineering work. done for the trade or on commission on materials supplied by customers |  |  |  |  |  | 7.117 | 17.936 |  | 460 |
| Total work done. including the value of all goods used whether made in the establishment or purchased |  |  |  |  |  | 22,470 | 32.810 |  | 802 |
| Less total value of goods made or fabricated in the establishment and used in repair and jobbing work (a) <br> Total work done ('principal products') by establishments in the industry, including the value of all purchased goods used |  |  |  |  |  | 203 | 246 |  |  |
|  |  |  |  |  |  | 22.267 | 32.564 |  | 802 |


|  | Quantity | Cost |
| :---: | :---: | :---: |
|  |  |  |
| Iron and steel |  |  |
| Drop-forgings | 0.4 | 63 7 |
| Wrought tubes and fittings for wrought tubes | 0.9 | ${ }_{55}^{84}$ |
| Fabricated bridge components and other structural iron and steel work | 0.2 | 13 6 |
| Wire (single wire) | 0.1 | ${ }_{7}^{4}$ |
| Wire manufactures, including wire cables and ropes and stranded wire of two or more ply | 0.1 | ${ }_{8}^{22}$ |
| Chains |  |  |
| Transmission and conveyer types | - | 11 |
| Other chains | 0.1 | 18 6 |
| Iron and steet scrap | 5.5 | 39 |
| Other iron |  |  |
| Pig-iron, except refined pig-iron | 3.9 | 72 |
| Castings in the rough or machined, except machined castings elsewhere specified | 4.6 | 238 52 |
| Other iron, except finished parts | 0.6 | 25 5 |
| Ferro-alloys | 0.1 | 15 |
| Other steel (alloy and non-alloy) |  |  |
| Ingots, blooms. billets, and slabs, and sheet and tinplate bars | 0.7 | 32 5 |
| Angles, shapes, sections, bars, rods (including wire rods) and girders, beams and joists (not fabricated) | 13.3 | 618 88 |
| Castings in the rough or machined, except machined castings elsewhere specified | 0.5 | 82 17 |
| Forgings, except drop-forgings, in the rough or machined. except machined forgings elsewhere specified | 0.3 | 45 18 |
| Tin-, terne-, and black-plates and tinned and terne sheets | 0.2 | 10 |
| Other plates and sheets. $1 / 8$ inch thick and over, and hoop and strip (including tape) of all thicknesses | 6.8 | 321 40 |
| Other plates and sheets under $1 / 8$ inch thick. including electrical quality sheets | 2.3 | 159 |
| Axles, tyres, wheels (rail type) | 0.1 | 4 |
| Springs (laminated and other types) |  | 6 |
| Light metals and non-ferrous metals in all forms, except finished parts. wire and scrap <br> Aluminium, magnesium (and their alloys) and antimony |  | 109 18 |
| Brass and other alloys of copper. including nickel silver and cupro-nickel, but excluding other nickel alloys |  |  |
| Castings | 6.2 | 145 37 |
| Other | 9.6 | 114 30 |
| Copper | 1.3 | ${ }_{20}^{32}$ |
| Lead and alloys of lead, except solder, and tin | 5.9 | 119 |
| Zinc | 0.9 | 9 |
| Non-ferrous metal wire, not insulated | 0.1 | 2 |
| Soft solder | 0.3 | 7 |
| Scrap non-ferrous metals | 0.9 | 9 |
| Insulated wires and cables | .. | 24 |
| Rubber in all forms. including finished parts | 0.5 | 14 50 |
| Pefractory materials | . | 19 |
| Astestos in all forms. including finished parts | . | 105 |

enamel and varnish
Lubricating oils and greases (including cutting oil and
emulsions)
Lubricating
emulsi ions)
Timber (exiluding timber for making into packing cases, etc. or
for repairing returnable cases) Hardwood and sof twood

Plywood, including battenboard, blockboard and laminboard
Nuts, bolts, studs, screws, rivets, washers, nails, tacks, e Nuts, bolts, studs, screws, rivets, washers, nails, tack
Purchased components for incorporation in own products Ball and roller bearings and parts

Internal combustion engines
Electric motors
Pumps
Industrial valves
Gears and gear wheels of metal
Measuring ins truments and gauges and parts
Electronic (including valves)
Other
Other purchased components
Finished components of plastic materials Other, not elsewhere specified
Replacement parts for plant, machinery and vehicles
Consumable tools. including gauges, etc, bought as replacement
Packaging materials
Paper and paperboard, and cardboard boxes, fibreboard packing
cases. etc.
Timber and timber packing cases, etc.
Jute piece goods. including hessian, and jute sacks and bags Other packing materials
All other purchased materials
Fuel and electricity
Coal
Coke
Coake
Liqui
Liquid fuels (including creosote/pitch mixtures)
For use in internal combustion engines
Motor spirit (petrol) for use in road vehicles and dery
fuel
Other
For burning in furnaces, boilers, kilns, etc
Gas purchased
From Gas Boards
From other sources, including other departments of the same
fi ins
Electric
purchased (a)
From Electricity Boards
$\underset{\substack{\text { From other sources, including other departments of the same } \\ \text { firms }}}{ }$
A11 other purchased fuel
Total
(a) The total $\begin{aligned} & \text { quantite } \\ & \text { (89983) } \\ & \text { wos } 3.021 \text { Th } . k W_{h}\end{aligned}$

|  | 1951 | 1954 |
| :---: | :---: | :---: |
| Average number of employees | Number | Number |
| Operatives <br> Administrative, technical and clerical employees | $\begin{gathered} 28,041 \\ 5.079 \end{gathered}$ | $\begin{gathered} 34.124 \\ 6.523 \end{gathered}$ |
| Total | 33.120 | 40.647 |
| Wages and salaries paid to | £. 000 | £. 000 |
| ( Operatives $\begin{aligned} & \text { Administrative, technical and clerical employees }\end{aligned}$ | $\begin{array}{r} 10,089 \\ 2.383 \\ \hline \end{array}$ | $\begin{array}{r} 15.461 \\ 3.777 \\ \hline \end{array}$ |
| Total | 12.473 | 19.238 |
| Wages and salaries per head | $\varepsilon$ | £ |
| Operatives <br> Administrative, technical and clerical employees | $\begin{aligned} & 360 \\ & 469 \end{aligned}$ | $\begin{aligned} & 453 \\ & 579 \end{aligned}$ |
| Superannuation and other pension funds for employees and dependents (b) |  | £.000 |
| Employers ${ }^{\text {' }}$ contributions | . | 161 |
| Employees covered | . | Number 8.591 |
| Pension, etc. payments to former employees and dependents (b) | .. | $\begin{array}{r} 8.591 \\ 8.000 \\ 45 \end{array}$ |



|  | 1951 | 1954 |
| :---: | :---: | :---: |
| Canteen workers Male Female | $\begin{gathered} \text { Number } \\ 23 \\ 231 \end{gathered}$ | $\begin{gathered} \text { Number } \\ 18 \\ 282 \end{gathered}$ |
| Total | 254 | 300 |
| Other workers Male Female | $\begin{array}{r} 2.519 \\ 602 \end{array}$ | $\begin{array}{r} 1.067 \\ 439 \end{array}$ |
| Total | 3.121 | 1,506 |
| Total excluded employees | 3,375 | 1.806 |
| Outworkers $\substack{\text { Mar } \\ \text { Female }}$ Fel | 19 | 8 27 |
| Payments to outworkers | $\begin{array}{r} \varepsilon^{\circ} 000 \\ 2 \end{array}$ | $\underbrace{\text { ¢ }} 0000$ |

(b) The figures relate to larger establishments arat

Employment in a specified week (a
Larger establishments in the United Kingdom

| TABLE 11 |  |  |  | Number |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 |  |  | 1954 |  |  |
|  | Males | Females | Total | Males | Females | Total |
| Working proprietors | 198 | 9 | 207 | 197 | 11 | 208 |
| Operatives | 26.450 | 1.733 | 28.183 | 32.035 | 2.311 | 34.346 |
| clerical employees | 3.497 | 1.592 | 5.089 | 4.468 | 2.208 | 6.676 |
| Tutal employees | 29.947 | 3.325 | 33.272 | 36.503 | 4.519 | 41.022 |

[^2]LIST OF INDUSTRY REPORTS


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[^0]:    IMPORTANT NOTES and definitions appear on the next page. In interpreting the data in the tables, it is essential to bear these in mind.

[^1]:    (a) For total output returned in all industries see the Iron Foundries Industry (Volume 3. Industry C)

[^2]:    (c) Week ended September 22.19
    DS $89983 / 1 / \mathrm{wt} .3351 \mathrm{~K} .43 / 58$ a.

