## BOARD OF TRADE

## The Report on the <br> Census of Production for 1954

Volume 4: Industry G
MECHANICAL HANDLING EQUIPMENT


[^0]THIS REPORT on the Mechanical Handling Equipment Industry relates to establishments engaged wholly or mainly in the manufacture of cranes, lifts, hoists, elevators (other than agricultural), escalators, belt or chain conveyors (other than for mines), excavating and dredging machinery (cableway dragline and dredge etc. excavators). The manufacture of excavating machines of a type generally associated with civil engineering and contracting plant (e.g. bulldozers, trenching, ditching and similar digging machinery) is excluded, being covered by the report on the Mechanical Engineering eneral) Industry (Volume 4, Industry I)
This industry corresponds to minimum list heading $69(7)$ in the Standard Industrial Classification


The following notes describe terms in general use
the tables of the report. More detailed explana:

 duction
net).
Industrial Classification: Establishmente are classif ut and. as far as possible. in conformity with the tandard Industrial Classincation. industries. the principal products for a given industry being of asimilar nature or commonly associatod in pro
duction. The principle of clasification no mall
dil ollowed is that an establishment is classified to a
ol
 fits output than did its.
ducts of any other industry.
Specialist producers normally comprise those establish-
mente
so per cent. or more of whose otal output by ents so per cent. or more of whose total output by
value is accounted for by the characteristic products o alue is accounted for
he speciali ist group.
Intermediate products: For some industries figures are
given showing the total quantities made during the year iven showing the total quantities made during the year
intermediate products. i.e. further proces
are produced.
 ort relates mainly io 'Iarger establishments' i.e.
establishments of firms employing on the verage mor than 10 persons. In most cases an establinehment com-
trises the whole of the premises under the same owner-
 r factory) Offices. Narehouses, Iaboratories and
other ancillary places of bus iness situated apart from the hronucing works are not reacrded as sed arate estab
ismmets and are included in the return for the works Snall 11 firms ar
fever persons.
The estimates for the industry as a whole given in
Table are onranally obtained by increasing the other
items shown in the same proportion as total employment. $t$ (production) is the total value of good ade and other work done during the year: d by adjusting the value of sales and work done during the year for changes in the value of
on hand for sale and work in progress.
Net output is the amount left after deducting from the alue of gross output the aggregate of the cost of mat
rials and fuel u ued the amunt paid for work given out
 asi of production, and constitutes the fund from whi and
aqes. siaries. rents. rates and tanes. divertising and
ther selling exennes and all ther similar charge ales means sales during the year of goods made in the stablishment co
on for it. whe
on alue of sale
arount charged



Katerials and fuel: The total cost of materials and
fuel purchased inciudes anl purchases during the year
ng oil. gas and electricity) for all purposes: packing



 obtained by adjust ting purcha
year in the value of stocks.
todks: Firms ere required to give stocks of material torks. Firms were required to give stocks of material
nd fuel. product on hand for sale, and work in pro.
ress, at income tax values.
Customs and Excise Duty paid on materials purchased is
ormally included in the cost of materials. Finished ormally included in the cost of materials. Finishe goods are similarly valued a they were sold, duty-paid
or duty free ane ano
ducted in arriving at net output.
Employment: Total employment includes working propriet.
ors. amininistrative. teenn ical and cleorical employees.
ond ors. administrative. exclude outwrkers, canteen employ.
and operative, but
ees and persons engaged in merchanting or any other act

 surance cards were held by employers), whether exployed
full-time or part-time. horking proprietors are
 families who worked in the business withotr receiving
fixed ages or salaries. Any persons wo king less tha half the normal hours are excluded. For Northern
Ireland directors of 1 inimed companies (other than those
raid by fee only) reland directors of limited companid.
paid by fee only) are also included.
Administrative, technical and clerical employees include
directors. other than those paid by fee only (except in

 and and tracers: travelilers: and office (includi
men and
works office) employees. Operatives include all other classes of
broadly speaking, all manual workers. Outworkers are persons employed by the firm who work on
materials supplied by the firm in the ir own homes. Wages and salaries include all overtime paymen ti, bonus-
es and commissions wi hout any deductions for income tor is and commissions in thout any ded
insurances. Contri itutory pension
Capital expenditure includes expend dure on ner buildin capital account during the year. including any transpor and installation costs involved. It includes expendi-
ture in respect of establishments in Great Britain which hare not be gun production be fore the end of the year
han inh has not previousy been included in the Census of
(whoduction reports for Production re
Symbols used:
for not available for nil or negligible (less than halr
digit shown).
Where figures are rounded. e.g.. given to the nearest $\varepsilon$ thouscand there nay be aparent slight discrepan-
cies between the sums of constituent items and the tot cies between the sums of cons tituent items and the
als shown. In in ome cases. figures have been combined ith others of a similar nature vhere publication of separate de tails might dis
an individual undertaking.

Larger establishments in the United Kingdom

| Average number employed (a) | $\begin{array}{l\|l\|} \hline \begin{array}{l} \text { Estab- } \\ \text { lish- } \\ \text { ment } \end{array} \end{array}$ | ${ }_{\text {Gross }}^{\substack{\text { Gut } \\ \text { outut }}}$ | Netoutput | Employees |  | Wages and salaries |  | $\left\lvert\, \begin{gathered} \text { Capital } \\ \text { expenditure } \\ \text { (b) } \end{gathered}\right.$ | $\begin{aligned} & \text { Net output } \\ & \text { per per ron } \\ & \text { employed } \\ & \text { (a) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Qperatives | Others | Operatives | Others |  |  |
|  | Number | £ 000 | £ 00 | Number | Number | £. 000 | \&. 000 | £. 000 | $\varepsilon$ |
| 11-24 (c) | 47 | 1.413 | 750 | 590 | 224 | 282 | 140 | 44 | 920 |
| 25-49 | 53 | 2.553 | 1.370 | 1.414 | 439 | 602 | 251 | 97 | 73 |
| 50-99 | 36 | 3.952 | 2.169 | 1,924 | 599 | 831 | 366 | 125 | 86 |
| 100-199 | 34 | 8.875 | 4.311 | 3.719 | 1.330 | 1.758 | 809 | 171 | 854 |
| 200-299 | 7 | 2,563 | 1.424 | 1.461 | 357 | 646 | 217 | 53 | 783 |
| 300-399 | 13 | 8.368 | 4.345 | 3.201 | 1.244 | 1.524 | 722 | 289 | 978 |
| 400-499 | 3 | 2.069 | 1.356 | 1.040 | 307 | 500 | 172 | 21 | 1,007 |
| 500-749 | 7 | 5.883 | 3.718 | 2.845 | 1.045 | 1.245 | 581 | 168 | 956 |
| 750-1.499 | 4 | 9.819 | 4.850 | 3.389 | 1.273 | 1.838 | 770 | 306 | 1.042 |
| 1.500 and over | 3 | 14.964 | 7.024 | 5.765 | 2.036 | 3.007 | 899 | 447 | 889 |
| Total | 207 | 60.457 | 31.318 | 25,348 | 8.854 | 12.232 | 4.927 | 1.719 | 915 |

(a) Excluding outworkers and including working proprietors
(b) Capital expenditure on new building work and or ocquisition of plant, machinery and vehicles, excluding
oexpend iture for establishents not yot in porduction. (c) Including a smar mumber of establishments. with femer than 11 persons employed. particulars of which
were included with those for larger establishments on a single return.
nere included with those for larger establishments on a single return
win


[^1] products by establishments classified to other industries

Larger establishments in the United Kingdom

| Kind of output <br> (i) Complete machines <br> (ii) Parts | 1951 |  | 1954 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Entries |
| Mechanical handling equipment, new, other than civil engineering and contracting machinery and plant, industrial trucks and mining machinery Aerial transporters, wi th or without hoisting gear (i.e. aerial ropeways. cableways, cableway dragline excava-tors. tel phers and runways) and ropehauled dragscrapers | Number | ¢.000 | Number | ¢. 000 | Number |
|  |  | 346 246 | .. | 769 380 | ${ }_{29}^{14}$ |
| Conveyers and elevators, other than hay and corn elevators. |  |  | $\because$ | $\begin{array}{r} 4.362 \\ 963 \end{array}$ | 11296 |
| Belt $\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | .. | $\begin{array}{r} 2.785 \\ 561 \end{array}$ |  |  |  |
| Other $\left\{\begin{array}{l}(i) \\ (i)\end{array}\right.$ |  | 5.154 1.611 |  | 6.317 1.284 | 139 119 |
| Cranes and bridge transporters. <br> Jib <br> Derrick (Scotch and guy) and other fixed <br> base (including wall and fixed base mono-tower) <br> Travelling; rail wheel, road wheel | $\underset{\text { (i) }}{(\text { (i) }}$ ) $\ldots$ | 14.233(a) |  |  |  |
|  |  |  |  | 385 1.323 125 | 27 20 |
|  |  |  |  | 9.340 1.299 | 25 30 |
| Overhead travelling (including bridge transporters and goliath cranes) |  |  |  | 6. 845 1.043 1.073 | [ 59 |
| Other |  |  |  | 292 297 298 | 38 40 |
| Hoists, other than skip hoists, and other lifting machinery |  | 1.004181119 |  |  | 40 |
|  |  |  |  | 874158180 | 26 |
| Electric hoist blocks $\{$ (ii) | $\{\ldots$ |  | 5.555 $\therefore$. |  |  |
| Pulley blocks, hand operated fil | $\left\{\begin{array}{c}115.065 \\ \ldots\end{array}\right.$ | $\begin{aligned} & 9251 \\ & 251 \\ & 134 \end{aligned}$ | 62.055 | 807709130 | 3418 |
| Pulley blocks, hand operated $\{(\mathrm{ii})$ |  |  |  |  |  |
| Builders' hoists $\quad\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | 2.242 | 440 87 | 2.052 | $\begin{aligned} & 224 \\ & 388 \\ & 112 \end{aligned}$ | 15 15 |
|  | $\left\{\begin{array}{c}10.624 \\ \because:\end{array}\right.$ | $\begin{gathered} 2,927 \\ \begin{array}{c} 196 \\ 493 \end{array} \end{gathered}$ | 16.940 | 3.7491.0311.505 | 6644 |
| Winches and capstans $\quad\left\{\begin{array}{l}\text { (ii) }\end{array}\right.$ |  |  | .. |  |  |
| Other, including mindlasses, reels, gin $\left\{\begin{array}{l}(i) \\ \text { wheels, hooks, dogs and slings }\end{array}\left(\begin{array}{l}\text { (i) }\end{array}\right\}\right.$ | $\because$ | 1.343 188 |  | 1. ${ }_{283}$ | 30 ${ }_{3}^{53}$ |
| Lifts and escalators | 1.150 | $\begin{array}{r}2,354 \\ \hline 80\end{array}$ | ${ }^{1.699}$ | $\begin{gathered} 3.735 \\ 797 \end{gathered}$ | 4228 |
| For passengers $\quad\left\{\begin{array}{l}(\mathrm{i}) \\ (\mathrm{ii})\end{array}\right.$ |  |  |  |  |  |
| For goods ${ }_{\text {a }}$ (i) | 2.303 | 1.995 | 4.860 | $\begin{array}{r} 2.436 \\ 448 \\ 608 \end{array}$ | 67 |
| For goods $\{$ (ii) |  |  |  |  | 47 |
| Unclassified $\quad\left\{\begin{array}{l}(i) \\ \text { (ii) }\end{array}\right.$ | $\because$ | 88 114 | : | 608 |  |
| Other new mechanical handling equipment. <br> including skip hoists and wagon tipplers (ii) | $\ldots$ | $\begin{array}{r}2.430 \\ \hline 458\end{array}$ | $\because$ | 4. 060 | 91 59 |
| $\underset{\substack{\text { Mechanical } \\ \text { reconditioned }}}{\text { handing equipment. }} \quad\left\{\begin{array}{l}\text { (i) } \\ (\mathrm{ii)}\end{array}\right)$ | $\because$ | 316 114 | .. | ${ }_{99}^{317}$ | ${ }_{33}^{38}$ |


| Kind of output <br> i) Complete machines <br> (ii) Parts | 1951 |  | 1954 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Guantity | Value | Quantity | Value | Entries |
|  |  | £. 000 |  | ¢•000 | Number |
| Waste products. other than scrap metals | .. | 2 | .. | 3 | 13 |
| Installation work |  | 78 | .. | 82 | $\cdots$ |
| Repair and jobbing work (b) (c) | .. | 2. 565 | $\cdots$ | 2.546 | 83 |
| Work done for the trade or on commission (b) | .. | 60 | .. | 70 | 17 |
| Total |  | 47. 527 |  | 62.687 | . |
| Sales in other industries (see Table 6) |  | 12.254 |  | 15.626 | . |
| Principal products of this industry sold by establishments in the industry |  | 35. 272 |  | 47.061 | 177 |
|  | Number |  | ع 000 |  |  |
|  | $\left\{\begin{array}{l} (i) \\ (i i) \end{array}\right.$ |  |  |  |  |
|  |  | $\{. .227$ | 2.64876203 |  |  |
|  |  |  |  |  |  |
|  | $\left\{\begin{array}{l} (\mathrm{i}) \\ (\mathrm{ii}) \end{array}\right.$ | 2.097 | $\begin{array}{r} 3.913 \\ 744 \end{array}$ |  |  |
|  | $\left\{\begin{array}{l} (\mathrm{i}) \\ (\mathrm{ii}) \end{array}\right.$ | $\{1.910$ | $\begin{array}{r} 5.458 \\ \begin{array}{r} 490 \\ 809 \end{array} \end{array}$ |  |  |
|  |  |  |  |  |  |
|  | $\left\{\begin{array}{l}(i) \\ (\mathrm{ii})\end{array}\right.$ | $\left\{\begin{array}{l}1.237 \\ .\end{array}\right.$ | $\begin{array}{r} 1.877 \\ 71 \\ 287 \end{array}$ |  |  |
|  |  |  |  |  |  |

(b) Amount charged.
(c) Exclusive of the value of goods used by firms and recorded as their output.

Sales of principal products of the industry by establishments classified to other industries
Larger establishments in the United Kingdom

| Kind of output <br> (i) Complete machines <br> (ii) Parts |  | 1954 |  |  | $\begin{gathered} \text { Principal } \\ \text { industries in } \\ \text { which produced (a) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | value | Entries |  |
| Mechanical handling equipment, new, other than civil engineering and contracting machinery and plant. industrial trucks and mining machinery |  | Number | \&.000 | Number |  |
| Aerial transporters, with or without hoisting gear (i.e. aerial ropeways. cableways, cableway dragline excava- tors. telphers and runwas) and ropehauled dragscrapers | $\left\{\begin{array}{l}(\mathrm{i}) \\ (\mathrm{ii})\end{array}\right.$ | .. | ${ }_{280}^{531}$ | 22 | 34. 4F. 4I, 4J |
| Conveyers and elevators, other than hay and corn elevators |  |  |  |  |  |
| Belt | $\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | .. | 2.009 446 | ${ }_{60}^{66}$ | 3C, 4F, 4I, 4J |
| Other | $\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | $\ldots$ | 1.771 490 | 88 79 | 4F. 4I, 4J. 4K |
| Cranes and bridge transporters |  |  |  |  |  |
| Jib | $\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | ${ }^{297}$ | 1.187 357 292 | $\} \begin{aligned} & 10 \\ & 23\end{aligned}$ | $\}^{47} \cdot 4$ |
| Overhead travelling (including bridge transporters and goliath cranes) | $\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right\}$ | 35 |  | $\} \begin{aligned} & 13 \\ & 26\end{aligned}$ | 4C. 4D. 4F. 41 |
| Other | $\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right\}$ | ${ }^{355}$ | 82 88 120 | $\int^{17}$ | \}4F, 4I, 4J |

TABLE 6 (conta

| Kind of output <br> (i) Complete machines <br> (ii) Parts | 1954 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Entries |  |
| Mechanical handling equipment, ner., other than civil engineer ing and contracting machinery and plant. industrial t tucks and mining machinery (contd.). Hoists, other than skip hoists, and other lifting machinery | Number | ¢'000 | Number |  |
| Electric hoist blocks $\quad\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right\}$ | .$^{64}$ | 17 9 5 | ${ }^{6} 9$ | ] 4C, 4D. 41 |
| Pulley blocks, hand operated $\quad\left\{\begin{array}{l}\text { (i) }) \\ \text { (ii) }\end{array}\right\}$ | 8.985 <br> $\because:$ | - 50 | 3 10 | 4C. 4F. 4I, 4J |
| Builders' hoists $\quad\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right\}$ | ${ }^{585}$ | 90 11 22 | 10 $\ldots$ | (3 4C. 4F. 4I, 4J |
| Winches and capstans $\quad\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right\}$ | 12.841 | 772 873 126 | $\} \begin{aligned} & 31 \\ & 21\end{aligned}$ | \} 4B. 4I, 4J. 4K |
| Other, including windlasses, reels, gin <br> wheels, hooks. dogs and slings <br> Lifts and escalators | . | ${ }_{9}^{178}$ | 25 14 | \} 4F. 4I, 4K. 5c |
| For passengers $\quad\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | $274$ | 574 39 | ${ }^{8}$ | \} 4F. 4I. 4J |
| For goods $\quad\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right\}$ | $372$ | 315 395 395 | \} $\begin{aligned} & 26 \\ & 24\end{aligned}$ | \} 4F. 4I, 4J, 4k |
| Other new mechanical handling equipment. <br> including skip hoists and wagon tipplers $\int_{(i i)}^{(i)}$ | . | 1.798 376 | ${ }_{39}^{51}$ | \} 4c. 4F. 4I, 5F |
| Mechanical handling equipment, reconditioned $\left\{^{(i)}\left(\begin{array}{l}\text { (i) }\end{array}\right.\right.$ | : | 157 50 | 22 25 | \} 4F. 4I, 4J |
| Hepair and jobbing work (b) | . | 106 | 7 |  |
| Total |  | 15.626 | . |  |

(b) Amount of this is red excolt

Sales in the industry of other than principal products: Larger establishments in the United Kingdom
TABLE 7

|  | 1954 |  |
| :---: | :---: | :---: |
|  | Quantity | value |
| Machinery and plant, and parts |  | $\mathrm{E}^{\text {. } 000}$ |
| Boilers and boiler-house plant | .. | 218 |
| Mining machinery | . | 222 |
| ${ }^{\text {Pupps }}$ | .. | 740 |
| Civil engineering and contracting machinery and plant | .. | 1.355 |
| Coal preparation plant | .. | 469 |
| Marine machinery | . | 137 |
| Other |  | 2.428 |
| Castings, in the rough or machined | .. | 289 |
| Tractors and industrial trucks. complete and parts |  |  |
| Hand trucks and trolleys <br> Other | $\cdots$ | ${ }^{171}$ |
| Arms, amunition and naval, military, and airforce stores | .. | 142 |
| Iron and steel, fabricated | . | 201 |
| Other goods | .. | 1.317 |
| Scrap metals sold |  |  |
| I ron | .. | 102 |
| Other | . | 113 |
| Constructional engineering (a) | . | 34 |
| Other rork done (a) | .. | 30 |
| Total |  | 8.172 |

Other rork done (a)
(a) Amount charged.
( (8) Amo
(89008)
mechanical handling equipment
Total make of certain intermediate products Larger establishments in the United Kingdom

|  | Returned in this industry |  |  |
| :---: | :---: | :---: | :---: |
|  | 1951 | 1954 |  |
|  | Quantity | Quantity | Entries |
| Other than principal products | Th.tons | Th.tons | Number |
| Iron castings ( $\alpha$ ) Grey and high duty Malleable (white or black heart) | $31.4$ | $24.5$ | $24$ |

Purchases of materials and fuel, 1954 Larger establishments in the United Xingdom

\begin{tabular}{|c|c|c|}
\hline \& Quantity \& Cost <br>
\hline \multicolumn{3}{|l|}{\multirow[t]{2}{*}{}} <br>
\hline \& \& <br>
\hline Drop forgings \{ \& 0.8 \& 153
16 <br>
\hline Wrought tubes and fittings for wrought tubes \& 3.1 \& 298 <br>
\hline Fabricated bridge components and other structural iron and steelwork \& 17.6 \& 1.658

250 <br>
\hline Wire (single wire) \& 0.5 \& ${ }_{9}^{31}$ <br>
\hline Wire manufactures, including wire cables and ropes and stranded wire of two or more ply \& 1.3 \& 178
80 <br>
\hline Chains \& 0.2 \& <br>
\hline Transmission and conveger types \& 0.2 \& 120 <br>
\hline Other chains \& 0.8 \& 132
39 <br>
\hline Iron and steel scrap \& 12.2 \& 97 <br>
\hline \multicolumn{3}{|l|}{Other iron} <br>
\hline Pig-iron, except refined pig-iron \& 15.8 \& 264 <br>
\hline Castings in the rough or machined. except machined castings elsewhere specified \& 14.3 \& 1,063 <br>
\hline Other iron, except finished parts \& 3.6 \& 168 <br>
\hline Ferro-alloys \& 0.1 \& 11 <br>

\hline | Other steel (alloy and non-alloy) |
| :--- |
| Ingots, blooms, billets, slabs, and sheet and tinplate bars $\{$ | \& 1.0 \& ${ }_{48}^{45}$ <br>

\hline Angles, shapes, sections, bars, rods (including wire rods) and girders, beams and joists (not fabricated) \& 71.4 \& 2.681 <br>
\hline Castings in the rough or machined, except machined castings $\{$ elsewhere specified \& 9.8 \& 1.205
190 <br>
\hline Forgings, except drop-forgings, in the rough or machined, except machined forgings elsewhere specified \& 2.2 \& 365
50 <br>
\hline Tin-, terne-, and black-plates, and tinned and terne sheets \& 0.5 \& 22 <br>
\hline Other plates and sheets. $1 / 8$ inch thick and over, and hoop and strip (including tape) of all thicknesses \& 24.6 \& 949 <br>
\hline Other plates and sheets under $1 / 8$ inch thick. including electrical quality sheets \& 5.5 \& 229
40 <br>
\hline Axles, tyres and wheels (rail type) \& 0.6 \& 61
115 <br>
\hline Springs. laminated and other types \& .. \& 38 <br>
\hline Light metals and other non-ferrous metals in all forms, except finished parts, wire and scrap \& Th. cwt. \& <br>
\hline Aluminium and aluminium alloys (89008) \& 12.7 \& 256 <br>
\hline
\end{tabular}




Average number of employees and wages, salaries and superannuation payments (a)

| LaBLE 10 Larger establishments in the United Kingdom |
| :--- |


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[^1]:    (a) Excluding outworkers and including working proprietors.
    (b) Excluding expenditure for establishments not yet in production

