## The Report on the

 Census of Production$$
\text { for } 1954
$$

Volume 4: Industry D
TEXTILE MACHINERY AND ACCESSORIES

Presented by the Board of Trade to Parliament in pursuance of the Statistics of Trade Act, 1947 (10 \& 11 Geo. 6 Ch. 39, Sec. 7)

## The Report on the Census of Production for 1954

 VOLUME 4 'INDUSTRY D
## textile machinery and accessories

THIS REPORT on the Textile Machinery and Accessories Industry relates to establishments engaged wholly or mainly in the manufacture of spinning, winding, weaving, knitting, printing, dyeing, etc machinery for use in the textile industries, and accessories such as bobbins, combs, jacquard cards reeds, rollers, shuttles and spindles.

This industry corresponds to minimum list heading 56 in the Standard Industrial Classifioation

ing oil. gas and olectricity) for all purposes: packing
materiais. including the full cost of returnable cases

 plan and included in their returns: consumable tools:
people in in
and parts for machinery purchased as replacenens.
Purchases of goods for merchanting are excluded. The
 cont of materials and fuel
obtained by adjus ting purchas
year in the value of stocks.
year in the value of stocks.
Stods: Firms were required to give stocks of materials
and fuel product oo hand for sale. and work in pro-
qress. 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 they were sold. duty-paid or duty-free. The net amount of any duty paid is de
ducted in arriving at net output. duc
 ors. administrative. echnical and orers, canteen employ-
and operatives, but oxclude outworker
ees and persons engaged in merchanting or any other ac-
 separately as excluded employes. Employese are per
sons on the pay-rohe (i.e. persons whose National In
surance cards were held by employers), whether employed sons on ar pay were held
sulline caime or part-time.
Horking proprietors are proprietors of businesses other than 1 imited companies, toge ther with members of the
families who worked in the business with receiving fixid wages or salaries. Any persons working less tha

Administrative, technical and clerical enployes include
directors. other than those paid by fe only lexcept in directors, other than those pal suparintendents and work
Northern Ireland): managers. foremen research, exper rimental, deve lopment. technica
form
and design employees (other than operatives): draught and design employees (other than operatives): draughts
men and tracers: travellers: and office (including Operatives include all other classes of employees, i.e.
broadly speaking, all manual workers.
$\qquad$ Cutworkers are persons employed by the firm who work on
materials supplied by the firm in their own homes. Wages and salaries include all overtime payments, bonus-
es and commissions without any deductions for income tax, es and comassions without any deductions for income tax, payments to working proprietors.
Capital expenditure includes expenditure on new building

 had not begun production before the end of the year
(which has not previousiy ben included in the Census of
Production reports for individual industries). Production re
for not avallable (less than half the final for nil or negl
digit shown).
Where figures are rounded. e.q. given to the near-
$\varepsilon$ thousand, there may be aparent slight discrepanest $\varepsilon$ thousand, there may be apparent slight discrepan-
cies between the sums of constituent items and the totcls shown. In some cases, figures have been combined
alth others of asimilar nature where publication of "ith others of a similar nature where publication of
separate details might disclose information relating to separate de tails might di
an individual undertaking

Estimates for the industry as a whole

|  | United Kingdom |  |  | $\begin{gathered} \text { Scotland } \\ 1954 \end{gathered}$ | $\begin{aligned} & \text { Wales } \\ & 1954 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1951 | 1954 |  |  |
|  | \& million | £ million | £ million | £ million | £ million |
| Gross output (production) | 65.5 | 84.2 | 81.2 | 4.74 | - |
| Net output | 38.3 | 46.3 | 49.0 | 3.08 | - |
| Total stocks amd work in progress |  |  |  |  |  |
| At beginning of year Change during year | + ${ }^{20.1}$ | $\begin{array}{r}23.1 \\ +\quad 4.8 \\ \hline\end{array}$ | 25.5 $-\quad 0.5$ | 1.81 -0.20 | : |
| Capital expenditure less disposals (a) | 2.1 | 2.7 | 2.4 | 0.14 | - |
| wages and salaries | 23.9 | 28.6 | 30.1 | 2.07 | - |
| Total employment (including working proprietors) | Thousands 74.4 | Thousands 75.2 | Thousands 64.3 | Thousands 4.79 | Thousands |

(a) Capital expenditure on new building work, and on plant, machinery and vehicles (including (except in 1948)
that incurred in Great Britain for establishments not yet in production), less amounts received for thant, mach inery and vehicles disposed of

| Surmary of returns received |
| :--- |
| TABLE 2 2 |

(a) For the year 1948 gross output excludes payments for transport services outwards on finished goods sold.
For subsequent years gross output includes payments to other firms and undertakings and to firms' own (b) Paparate transport organisations for transport services. (b) Payments to other firms and undertakings and to firms own separate transport organisations. For the year 1948 payments cover only transport outwards of finished goods sold. For subsequen
cover payments for transport of both finished goods sold and materials and fuel purchased. (c) Number in week ended September 25 . 1948 .
(d) Excluding outworkers and including working proprietors.
(e) Excluding expenditure for establishments not yet in production.
(89954)

| $\begin{aligned} & \text { Average number } \\ & \text { employed (a) } \end{aligned}$ | Estab-lish-ments | $\underset{\text { Gross }}{\substack{\text { Gutput }}}$ | ( $\begin{gathered}\text { Net } \\ \text { output }\end{gathered}$ | Employees |  | Wages and salaries |  | $\begin{aligned} & \text { Capital } \\ & \text { expenditure } \\ & \text { (b) } \end{aligned}$ | $\begin{array}{\|c} \hline \text { Net output } \\ \text { per person } \\ \text { employed } \\ \text { (a) } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Operatives | Others | Operatives | Others |  |  |
|  | Num | £ 000 | ع'000 | Number | mber | $£^{\prime} 000$ | £. 000 | £. 000 | $\varepsilon$ |
|  | 140 | 3.411 | 1.848 | 1. 898 | 403 <br> 534 | 763 | 265 365 | 87 103 | 796 697 |
| ${ }_{25}^{11}-249(c)$ | 140 97 73 | 4.319 <br> 651 | 2. 344 | 2, 811 4.591 | 534 <br> 801 | 1.169 1.827 2 | 365 520 | ${ }_{251}^{103}$ | 697 746 |
| $50-99$ | 73 | 6,551 |  |  |  |  |  |  |  |
| $100-199$ $200-299$ | 48 18 | 8,701 5,490 | 5.124 3.413 | 5.492 3.740 | 982 648 787 | 2,372 1.664 | 589 <br> 427 <br> 20 | ${ }_{1}^{196}$ | 771 778 798 |
| 200- ${ }^{299}$ | 14 | 5,867 | 3.764 | 4,010 | 707 | 1.825 | 470 | 98 | 798 |
|  | 8 | 4,293 | 2.340 | 3,044 | 641 | 1.355 | 372 | 133 | ${ }_{7} 635$ |
| 500-749 | 10 | 7.402 | ${ }^{4.389}$ | 4.883 | 1.156 | 2. 2.307 | ${ }_{486}^{635}$ | 256 116 | 727 819 |
| ( $750-1.499$ | ${ }_{8}^{4}$ | 4.499 28.768 | 3.132 17.522 | 2,935 19.437 | 1851 3.186 | 1.423 8.795 | 1.739 | 1.124 | 775 |
| Total | 420 | 79,301 | 47.908 | 52,881 | 9.909 | 23.501 | 5,870 | 2.557 | 762 |

(a) Excluding outworkers and including working proprietors.
(b) Capita expenditure on new buiding work and on acauisition of plant, machinery and vehicles, excluding (c) Including a smal 11 number of establishments with fewer than 11 persons employed, particulars of which
were included with those for larger establishments on a single return.

TABLE 4-Analysis according to specialisation within the industry, 1954 No specialisation was distinguished within this industry.

Sales of the principal products of the industry, including sales of these products by establishments classified to other industries

Larger establishments in the United Kingdom

(89954)

4/D/6
TEXTILE MACHINERY AND ACCESSORIES

| Kind of out | 1951 |  | 1954 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (i) Complete machines | Quantity | Value | Quantity | value | Entries |
| (ii) Parts |  | $¢^{\prime} 000$ |  | ¢'000 | Numbe |
| Textile machinery, reconditioned |  |  |  |  |  |
| For cotton and staple fibre $\quad\left\{\begin{array}{c}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | . | ${ }_{159}^{638}$ | $\because$ | 72 | 7 |
| (i) | . | 393 | $\ldots$ | 306 87 | 29 |
| For wool ${ }^{\text {a }}$ (ii) |  | 129 |  |  |  |
| Other descriptions $\quad\left\{\begin{array}{l}(\text { (i) } \\ (\mathrm{ii})\end{array}\right.$ | .. | 280 305 |  | 386 245 | ${ }_{19}^{21}$ |
|  |  |  |  | 124 |  |
| Total textile machinery. |  | ${ }_{5} 593$ |  | 404 | .. |
| Textile machinery accessories |  |  |  |  | 52 |
| Bobbins |  | 3.179 |  | 421 | 9 |
| Boxes and cans |  | 4. 089 |  | 3.056 | 24 |
| Card clothing |  | 4,867 |  | 1.368 | 38 |
| Reeds and healds |  | + 78 |  | 519 | 8 |
| Ringss and travellers |  | 422 |  | 814 | 33 |
| Shuttles | . | 1.422 |  | 1.869 | 30 |
| Spindles, flyers and rollers |  | 2.088 |  |  |  |
| Springs, temples, temple rings and temple rollers |  | 344 | .. | 307 | 15 |
| Other (except needles, and tubes of paper |  | 6.242 | .. | 3.688 | 148 |
| Total textile machinery accessories |  | 20,661 |  | 13.826 | .. |
|  |  | 56 | .. | 39 | 37 |
|  |  | 856 | . | 648 | 74 |
| Work done for the trade or on commission ( ${ }_{\text {a }}$ (including researchand development work) (f) | .. | 317 |  | 1.585 | 38 |
|  |  | 81,644 |  | 78.940 |  |
| Total |  |  |  |  |  |
| Sales in other industries (see Table 6) |  | 6.144 |  | 6.529 |  |
| Principal products of this industry sold by establishments in the industry |  | 75.500 |  | 72.412 | 361 |

(a) Not separately recorded in 1951 (see "Other new textile machinery').
(b) Including hand looms.


(Volume 10 . Industry I).
(e) Amount charged excluding the value of goods made and recorded as output.
(e) Amount charged ex
(f) $\mathcal{A}$.mount charged.

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

| Kind of ourput <br> (i) Complete machines <br> (ii) Parts | 1954 |  |  | Principalindustrioswhich produced (a) |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | value | Entries |  |
|  |  | $\ell^{\prime} 000$ | Number |  |
| Textile machinery, new <br> For processes preparatory to spinning |  |  |  |  |
|  |  |  |  |  |  |
| and twisting For wool | $\ldots$ | 165 44 | 8 10 | \} 41.45 |
| For wool $\left\{\begin{array}{l}\text { (ii) } \\ \text { (i) }\end{array}\right.$ |  | 54 | 10 | 3C, 4c, 4H, 4J |
| For other textiles \{ $\left\{\begin{array}{l}\text { (i) } \\ \text { (ii) }\end{array}\right.$ | $\because$ | 24 | 18 | 4H, 4I, 4J |
| For spinning (i) and (ii) |  | 440 | 11 |  |
| (89954) |  |  |  |  |

TEXTILE MACHINERY AND ACCESSORIES

(a) The $\begin{gathered}\text { Totalal } \\ \text { of } \\ \text { this } \\ \text { number and }\end{gathered}$

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


4/D/8

|  | 1954 |  |
| :---: | :---: | :---: |
|  | Quantity | Value |
|  |  | £. 000 |
| Arms. ammunition and naval, military and air force stores | . | 957 |
| Arms, ammunition and Castings in the rough or machined | .. | 597 |
| Other engineering products | .. | 483 |
| Other manufactures of metal | . | 462 |
| Other goods | $\cdots$ | 251 |
| Scrap metals sold | . | 239 |
| Work done (a) |  | 293 |
| Total |  | 6,559 |

(a) Amount charged. exclusive of the value of goods made and recorded as output.

Total make of certain intermediate products
Larger establishments in the United Kingdom


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

|  | Quantity | Cost |
| :---: | :---: | :---: |
|  | Th.tons | £'000 |
| Materials |  |  |
| Iron and steel 1 |  |  |
| Drop forgings $\}$ | 0.2 | 22 37 |
| Wrought tubes and fittings for wrought tubes \{ | 2.5 | 130 66 |
| Fabricated bridge components and other structural iron and steelwork | . | 7 |
| Wire (single wire) \{ | 2.8 | ${ }_{93}^{231}$ |
| Wire manufactures, including wire cables and ropes and stranded wire of two or more ply | 0.5 | 52 |
| Chains |  |  |
| Transmission and conveyor types Other chains | . | 69 21 |
| Iron and steel scrap | 25.8 | 199 |
| Other iron |  |  |
| Pig iron, except refined pig iron \{ | 50.9 | 875 40 |
| Castings in the rough or machined, except machined castings elsewhere specified | 20.7 | 1.846 222 |
| Other iron, except finished parts | 1.5 | 44 |
| Ferro-alloys | 0.2 | 28 |

[^0]| TABIE 9 (contd.) |
| :--- | :--- |

Materials (contd.)

Materials (conta.)
Iron and steel (contd.)
Other steel (alloy and non-alloy)
Ingots, blooms, billets, and slabs, and sheet and
tinplate bars
Annles. shares. sections, bars, rods (including wire,
rods) and girders. beams and joists (not fabricated)
Castings in the rough or machined, except machined
castings elsewhere specifified
Forgings, except drop-forgings, in the rough or machined
except machined forgings elsemhere specified
Tin-, terne-, and black-plates and tinned and terne
Other plates and shets, $1 / 8$ in. thick and over, and hoop
解
Other plates and sheets under $1 / 8 \mathrm{in}$. thick, including
electrical quali ty sheets
electrical quarily shee ts
Springs, laminated and other types
Light metals and non-ferrous metals in all forms, except
finished parts. Wire and scrap
Aluminium and aluminium alloys
Magnesium and magnesium alloys
Antimony
Brass and other alloys of copper, including nickel silver
and cupro-nickel, but excluding other nickel alloys
Castings
Other
Copper
Lead and alloys of lead, except solder
Tin
Non-ferrous metal wire, not insulated
Scrap non-ferrous metals
Soft solder
Insulated wires and cables
Rubber in all forms. including finished parts
Refractory materials
Asbestos in all forms, including finished parts
ther thermal insulating materials
Paint, enamel and varnish
Lubricating oils and greases (including cutting oil and
emulsions)
Timber (excluding timber for making into packing cases, etc.
or for repairing returnable cases)
Hia rdwood and sof twood
Plywood, including batten board, blockboard and
(89954)
$\qquad$


|  | Quantity | Cost |
| :---: | :---: | :---: |
|  |  | ¢.000 |
| Materials (contd.) |  | 581 |
| Purchased components for incorporation in own products | $\cdots$ |  |
| Ball and roller bearing and parts | . | 744 |
| Internal combustion engines | . | 3 |
|  | Thousands |  |
| Electric motors | 24.8 | 116 |
| Pumps | 4.4 | 43 37 |
| Industrial valves |  | 23 |
| Industrial valves | . |  |
| Gears and gear-mneels of metal | .. | 117 |
| Measuring instruments and gauges and parts |  |  |
| Electronic (including valves) | . | 12 |
| Other, not elsewhere specified | .. | 81 |
| Other purchased components |  |  |
| Finished components of plastic materials | .. | 170 |
| Other | .. | 5.353 |
| Replacement parts for own plant, machinery and vehicles | .. | 690 |
| Consumable tools,.including gauges, etc. bought as replacement | .. | 722 |
| Packaging materials |  |  |
| Paper and paperboard, and cardboard boxes, fibreboard packing cases, etc. | . | 54 |
|  | $\begin{gathered} \text { Th. cu. ft. } \\ 1.278 .2 \end{gathered}$ | 685 |
| Timber and timber packing cases, etc. |  |  |
| Jute piece goods, including hessian, and jute sacks and bags | 0.2. | $\frac{1}{3}$ |
| Other packing materials | . | 71 |
| All other purchased materials | . | 5.640 |
| Fuel and electricity | Th. tons |  |
| Coal | 91.7 | 330 |
| Coke | 50.9 | 339 |
| Liquid fuel (including creosote/pitch mixtures) |  |  |
| For use in internal combustion engines | Th.gal. |  |
| Motor spirit (petrol) for use in road vehicles and derv. fuel | 923.5 | 186 |
|  | 235.3 | 15 |
| For burning in furnaces, boilers, kilns, etc. | 1.304 .9 | 57 |
| Gas purchased | Th. therms |  |
| From Gas Boards |  | ${ }_{32}$ |
| From other sources, including other departments of the same firms |  | - |
| Electricity purchased (a) | Th. kWh . |  |
| From Electricity Boards | 122.339 | 651 |
| From other sources, including other departments of the same firms | 1.269 | 5 |
| All other purchased fuel |  | 9 |
| Total cost |  | 28.527 |

[^1]TEXTILE MACHINERY AND ACCESSORIES

TABLE 10

|  | 1951 | 1954 |
| :---: | :---: | :---: |
|  | Number | Number |
| Average number of employees |  |  |
| Operatives <br> Administrative, technical and clerical employees | $\begin{aligned} & 63.197 \\ & 10.242 \end{aligned}$ | $\begin{gathered} 52,881 \\ 9,909 \end{gathered}$ |
| Total | 73,439 | 62.790 |
| Wages and salaries paid to Operatives Administrative, technical and clerical employees Total | $\varepsilon^{\prime} 000$ | $\varepsilon^{\prime} 000$ |
|  | 22. 5.937 | 23.501 5.870 |
|  | 27, 958 | 29.371 |
| Wages and salaries per head | $\varepsilon$ | $\varepsilon$ |
| Operatives <br> Administrative, technical and clerical employees | 363 492 | $\begin{array}{r} 444 \\ \text { \& } 5000 \end{array}$ |
| Superannuation and other pension funds for employees and dependents (b) |  |  |
| Employers ${ }^{\text {- contributions }}$ | .. | 349 |
| Employees covered |  | Number ${ }^{12} \cdot 465$ |
| Pension, etc. payments to former employees and dependents (b) |  | 86 |

(a) The following persons. not included above, were also employed by larger establishments in this industry
(other workers includes for example, employees engaged in merchanting). Payments to outworkers are also shown:

|  | 1951 | 1954 |
| :---: | :---: | :---: |
|  | Number | Number |
| Canteen workers Males | 21 | 11 |
| Females | 406 |  |
| Tota | 427 | 385 |
| Other workers |  |  |
| $\underset{\substack{\text { Males } \\ \text { Females }}}{\text { a }}$ | ${ }_{47}^{27}$ | ${ }_{29}^{42}$ |
| Total | 74 | 71 |
| Total excluded employees | 501 | 456 |
| Outworkers | 107 | 164 |
| Payments to outworkers | ${ }^{\circ}{ }_{18} 000$ | $¢_{66}{ }_{60}$ |

(b) The figures given relate to larger establishments in Great Britain only

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 | 88 | - | 88 | 55 | 3 | 58 |
| Operatives | 56.163 | 6.720 | 62.883 | 48, 224 | 5.146 | 53,370 |
| Administrative, technical and clerical employees | 7.183 | 3,342 | 10.525 | 6.954 | 3.137 | 10,091 |
| Total employees | 63.346 | 10,062 | 73,408 | 55,178 | 8.283 | 63.461 |

(a) Week onded September 22, 1951, or October 30, 1954.

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VOLUME 4 (contd.)

A. Cotton Spinning and Doubling
B. Cotton Mearing
A. Coton Spining and
B. Cotton Wearing
C. Woollen and \#ors ted

Moollen and Vorsted
Rayon. Nylon. ©tc. Production
Ryan. Ny lon. Etc. Meaving. and
. Rayyon,
Slik
. Flax
. Finen
Nylon, etc
G. Linen
H. Jute
I. Hope.
J. Hosiery

Twine and Net
Hosier
Lace
Carpet

. Textile Conserting Scks
Q. Textile Finishing
R. Textilo Packing
A. Asbestos
A. A. bes tos
B. Flock and

Flock and Rag
Ho ir . Fibre and Kindred
Industries
D. Woather
E. Fellmang
F. Leather Goods
L.
G. Fur
4. Tailoring, Dressmaking, etc
Hats, C

Hats, Caps and Millinery
Glove
Umbrella and Walking Stick
vouve 8
A. Grain Milling

Bread and Flour Confectioner
Biscuit
vowum 8 (contd.)
Preserved Meat Milk Products
ITe Cream
Sice
H. Sugar and Glucose

1. Cocoa. Chocolate and Sugar
Con J. Preserved Fruit and Vegetables
volume 9
A. Margarine
B.
Fish Curing Fish Cur ing and Poultry Foods
Cott1e. Dog and
Vinegar and Other Condiments Starch
. 1 .ee Mire
Mire llaneous Preserved Foods
Breving and . Brewing and Malting J. Spirit Distilling
K. Spirit hectify ing an L. Sompounding Drink. British wines and Cider
M. Tobacco
vowne 10
A. Timber A. Timber
B. Furniture and Upholstery
C. Soft Furnishing
C. Sort Furnishings
Shop and Oftice Fiting
Wooden Containers and Bakketu E. Foopden Cont tatnere
F. Faper and Board G. Haper and boa Cardborard Box. Carton and
Fibre-board Packing Case 1. Manufacturred Sacking Cane J. Nowspapeer and Periodical K. Printing and Publishing

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\text { vowme } 11
$$

A. Rubber
B. Ainoteum, Leatherct
Allied industries
C. Bruhes and Broons
Toys and Games

Sports Requis 1 tes
Miselilloneous 5 tationers
Moods

vowne 12
A. Building and Contracting
B. Leal unthorities Building and
B. Local Authorities (Building
CiviI Enineoring
C. Railwas (Civil Engineoring)
D. Trammar. Troll ley Bus ar

E. Canal. Dock and Harbour Under takinge (Civi)

Engineering)
Gas Suply In
Ind
G. Gas Supply Industry
G1ectricty Supply Industry
H. Water Undertakings

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