## 54 Textile machinery and accessories

This Report on the Textile Machinery and Accessories Industry relates to establishments engaged wholly or mainly in manufacturing textile spinning, winding, weaving, knitting, printing, dyeing, etc, machinery and parts thereof; the manufacture of accessories such as bobbins, combs, reeds, rollers, shuttles, sliver cans, spindles, spools and teasel rods is also included.

This industry corresponds to minimum list heading 335 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 45), but the treatment of parts has been altered considerably for 1968 for this and other mechanical engineering industries. The distinction made in the 1963 reports between parts sold in association with the sale of complete machines, and other parts sold, has been discontinued for 1968 and all parts are now treated in the same way as the complete machines for classification ie as principal products of their respective mechanical engineering industries and shown in Table 5 .

Throughout this Report, the figures given for 1963 have been reclassified, as far as possible, according to the Standard Industrial Classification (Revised 1968) and to take account of the different treatment of parts adopted for 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.

## METHOD OF CLASSIFICATION

In classifying returns to this industry the value of unspecified work done (other than structural and installation work), including repair work, was not taken into account unless it amounted to 80 per cent. or more of the total output of the return in which case the return was classified to the General Mechanical Engineering Industry (Part 66). The amount charged for erecting and installing machinery and plant (other than air conditioning, heating and ventilating plant) was treated as part of the selling value of these items in determining the industrial classification of returns. The standard classification procedure was further modified where a return would have been classified to one of the mechanical engineering industries relating to a specific class of machinery (viz, Parts 50 to 66) but where the sales of the principal products of the industry concerned (including parts) accounted for less than 20 per cent. of the total output: in such cases the return was classified to the residual subdivision of the General Mechanical Engineering Industry (Part 66).

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
rendered). Administr
(d) Administrative, technical and clerical employees
(e) Excluding expenditure for establishments not yet in production
(f) Acquisitions less disposals.

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 est abl i shment (a) | Estabmen'ts | $\begin{aligned} & \text { Enter- } \\ & \text { prises } \\ & \text { (b) } \end{aligned}$ | Total number employed on aver age during the year (a) | $\begin{aligned} & \text { Gross } \\ & \text { output } \end{aligned}$ | Net output | Net output per head |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Number | Number | £'000 | £'000 | £ |
| 1-5 | 136 | 134 | 422 |  |  |  |
| 6-10 | 94 | 93 | 762 |  |  |  |
| 11-24 | 137 | 129 | 2,365 | .. |  |  |
| 25-49 | 47 | 44 | 1,849 | 4,775 | 2,744 | 1,484 |
| 50-99 | 65 | 62 | 4,518 | 14,235 | 7,323 | 1,484 1,621 |
| 100-199 | 38 | 32 | 5,505 | 18,343 | 9,756 | 1,772 |
| 200-299 | 16 | 14 | 3,768 | 10,794 | 6,701 | 1,778 |
| 300-499 | 12 | 11 | 4,684 | 18,777 | 9,963 | 2,127 |
| 500-749 | 8 | 4 | 4,925 | 27,556 | 12,022 | 2,442 |
| 750-999 | 7 | 6 | 5,701 | 21,945 | 12,589 | 2,208 |
| 1,500 and over | 6 | 4 | 14,270 | 48,435 | 26,378 | 1,849 |
| Unsat isfactory returns | 29 | 27 | 411 |  |  |  |
| Total | 595 | 506 | 49,180 | 179,258(c) | 95,108(c) | 1,934(c) |

(ii) Employees, wages and sal aries

All establishments: United Kingdo

| Number employed on average during the year by the est abl i shment (a) | Employees |  | Wages and salaries |  | Wages and sal aries per head |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oper- <br> atives | Others <br> (d) | Operatives | 0 thers (d) | Operatives | 0 thers (d) |
|  | Number | Number | £'000 | £'000 | £ | £ |
| 1-5 | . | .. | .. | .. | . | .. |
| 6-10 | . |  | .. | . | .. | .. |
| 11-24 | $\ldots$ | .. |  | .. | .. | . |
| 25-49 | 1,500 | 312 | 1,292 | 396 | 862 | 1,270 |
| 50-99 | 3,472 | 1,012 | 2,915 | 1,242 | 840 | 1,227 |
| 100-199 | 4,297 | 1,192 | 4,182 | 1,483 | 973 | 1,244 |
| 200-299 | 2,985 | 778 | 2,436 | 995 | 816 | 1,279 |
| 300-499 | 3,519 | 1,165 | 3,263 | 1,575 | 927 | 1,352 |
| 500-749 | 3,648 | 1,275 | 3,907 | 1,607 | 1,071 | 1,261 |
| 750-999 | 4,044 | 1,657 | 4,214 | 2,066 | 1,042 | 1,247 |
| 1,500 and over | 11,110 | 3,160 | 10,708 | 3,652 | 964 | 1,156 |
| Unsat isfactory returns | .. | .. |  |  | .. | .. |
| Total | 37,316 (c) | 11,387(c) | 35,520 (c) | 14,043 (c) | 952 (C) | 1,233(c) |

(a) Including working proprietors
(b) The sum of the figures for the size groups exceeds the total for the industry to the extent
size group.
(c) Including estimates for establishments employing fewer than 25 persons and fo (c) Including estimates for establi ishments employin

ABLE 3 Percentage alysis of employees, by age and Percentage and
sex, 1969 (a)

All establishments: United Kingdom

| Ages | Males | Fenales | All employees |
| :--- | :---: | :---: | :---: |
| Under 18 <br> 18 and over <br> All ages | Per cent. | Per cent. | Per cent. |
|  | 3 | 1 | 4 |
|  | 81 | 15 | 96 |
| Source: Department of Employment |  |  |  |

(日) The percentages relate to the numbers employed (excluding working proprietors) at June 1969, the earliest date for mich the information is available on the basis of
Standard Industrial Cl assification, (Revised 1968)

Footnotes to Table 4.
(a) Some establishments employing fewer than 25 persons were included in returns for larger estable
amounted to 14 establ ishments in 1968 and 10 in 1963.
Including services rendered to other organisations (amount
(b) Including services rendered to other organisations (amo 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 publ ic by larger establ ishments are included. These amounted to $£ 2,000$
Similar information is not available for 1963 .
(d) This is the ratio of total sales of principal products b

This is the ratio of totales sales goods produced and work the ind
done.
e) Progress payments received for work in progress in 1968 from United Kingdom customers were recorded as $£ 584,000$ at the beginning of year and $£ 926,000$ at the end of year; at the beginning of year and $£ 1,338,000$ at the beg inning of year and $£ 781,000$ at end of year. Similar informat is not available for 196
(f) Administrative, technical and clerical employees.
(g) Excluding expenditure for establishments not yet in production.

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 $54 / 5$.

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 Kingdom


|  | 1963 |  | 1968 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quant ity | Value | Quant ity | Value | Enter- <br> prises | Entries |
|  |  | £ ${ }^{\prime} 000$ |  | £ 000 | Number | Number |
| Other weaving machinery (dobbies, jacquards, etc) |  |  |  |  |  |  |
| Complete machines .. 378 |  |  |  |  |  |  |
| Parts |  | 378 | . | 2,598 | 10 | 10 |
| Finishing, (including bleaching, <br> dyeing and printing) machinery  238    560 |  |  |  |  |  |  |
| Complete machines |  |  |  |  |  |  |
| Parts |  | 5,448 |  | 9,138 | 32 | 35 |
| Hosiery machinery (for stockings and socks) |  |  |  |  |  |  |
| Complete machines |  |  |  |  |  |  |
| Circular seamless stockings | 728 | 689 | 655 | 927 | * | * |
| Half and three-quarter hose | 2,753 | 2,523 | 2,860 | 4,565 | * | * |
| Other |  | 332 |  | 4,565 |  | * |
| Parts for hosiery machinery |  | 611 |  | 664 | * |  |
| Other knitting machinery (knitwear and knitted fabric) |  |  |  |  |  |  |
| Complete machines |  |  |  |  |  |  |
| Circular | .. | 3,672 | 1,769 | 8,416 | 5 | 6 |
| Flat bar | 275 | 4,775 | 450 |  |  |  |
| Warp knitting looms (single and double) | .. | (a) | .. | 276 | * | * |
| Parts |  | 1,135 | .. | 2,108 | 16 | 20 |
| Lace, net and embroidery machinery <br> Complete machines |  |  |  |  |  |  |
| Parts | . | (a) | 327 | 156 | * | * |
| Tufting machines for tufted carpets |  |  |  |  |  |  |
| Complete machines |  |  |  |  |  |  |
| Parts |  | 649 | 162 | 1,758 | 5 | 5 |
|  |  |  |  |  |  |  |
| Complete machines |  |  |  |  |  |  |
| Parts |  | 3,740 |  | 9,056 | 44 | 47 |
| Total textile machinery, new, complete and parts | .. | 1,554 |  | 2,254 | 47 | 51 |
|  |  | 81,360 |  | 126,836 | . | .. |
| Textile machinery, reconditioned |  |  |  |  |  |  |
| Complete machines | . | 747 | .. | 1,146 | 35 | 37 |
| Parts |  | 496 | . | 736 | 30 | 32 |
| extile machinery accessories (excluding hos iery needles and elements, and bobbins and tubes of paper and cardboard) sold eparately (b) |  |  |  |  |  |  |
| Bobb ins | .. | 2,024 |  | 1,583 | 14 | 14 |

TABLE 5 (cont inued)

|  | 1963 |  | 1968 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quant ity | Value | Quant ity | Value | Enterprises | Entries |
|  |  | £’000 |  | £'000 | Number | Number |
| Textile machinery accessories (excluding hosiery needles and elements, and bobbins and tubes of paper and cardboard) sold separately (b) (continued) |  |  |  |  |  |  |
| Card clothing | .. | 2,756 | .. | 2,609 | 8 | 11 |
| Reeds and healds | . | 616 | . | 63.3 | 10 | 10 |
| Shuttles | .. | 672 |  | 561 | 11 | 12 |
| Spindles, flyers and rollers |  | 2,025 |  | 1,769 | 10 | 11 |
| 0ther, including boxes and cans, springs, temples, temple rings and rollers, rings and travellers and unclassif ied wood accessories (excluding hosiery needles andelements) | .. | 3,923 | . | 5,941 | 53 | 6.3 |
| Total textile machinery accessories |  | 12,014 |  | 13,097 | . | .. |
| Other products |  | 281 | .. | 73 | 11 | 11 |
| Waste products |  |  |  |  |  |  |
| Scrap metals | Th.tons |  | Th.tons |  |  |  |
| Iron and steel | 21.1 | $\begin{array}{r} 123 \\ 18 \end{array}$ | 10.1 .. | $\begin{aligned} & 79 \\ & 40 \end{aligned}$ | \} 53 | 60 |
| Brass | 0.2 | 35 |  | 41 | 23 | 23 |
| Copper |  | 3 | .. | 16 | 10 | 10 |
| 0ther scrap metals | .. | 19 | .. | 46 | 20 | 22 |
| 0ther waste products |  | 22 | . | 29 | 9 | 9 |
| Textile machinery and accessories erected and installed | .. | 610 |  | 833 | 13 | 15 |
| Total |  | 95,730 |  | 142,973 | . | .. |
| Sales in other industries (see Table 6) |  | 6,686 |  | 7,071 | . | . |
| Principal products of this industry sold by establishments in the industry |  | 89,044 |  | 135,901 | 146 | 172(c) |

(a) Included in ' Other new textile machinery'.

Paper and Board Industry (Part 141).
(c) This figure represents the total number of returns made for larger establishments in the industry which is less than the total number of establi
combined returns covering more than one establishment.

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 | $\begin{aligned} & \text { Principal } \\ & \text { industries } \\ & \text { in which } \\ & \text { produced (a) } \end{aligned}$ |
|  |  |  |  |  |
|  |  |  |  |  |
| For extruding man-made fibres |  |  |  |  |
| Complete machines | 69 | 484 | 7 | 62, 66, 3, 64, |
| Parts | 108 | 291 | 19 | $46,62,63$, |
| For processes preparatory to spinning and twisting |  |  |  |  |
| Complete machines | 876 | 1,016 | 9 | 51, 56, 63, 71 |
| Parts | 219 | 303 | 13 | 51,56,63,66 |
| For processes preparatory to weaving but subsequent to spinning and $t$ wisting |  |  |  |  |
| Winding, complete machines | 164 | 174 | 5 | 51,55,63 |
| Other, complete and parts | 31 | 707 | 14 | 55,63, 64, 74 |
| Looms for weaving, complete and parts | 277 | 260 | 9 | 46,63,64,79 |
| Finishing (including bleaching, dyeing and printing) machinery |  |  |  |  |
| Complete machines | 1,541 | 820 | 10 | 63,64, 78, 85 |
| Parts | 913 | 508 | 25 | 63,64,66,97 |
| 0 ther new textile machinery, complete and parts (b) | 1,069 | 1,897 | 46 | 50,59,63, 151 |
| new, complete and parts (b) | 5,267 | 6,460 | .. |  |
| Textile machinery accessories (excluding hosiery needles and elements, and bobbins and tubes of paper and cardboard) sold separately |  |  |  |  |
|  | 1,418 | 610 | 22 | 47,51,63, 87 |
| Total | 6,686 | 7,071 | .. |  |

(a) The references given are to the list of industries at the front of this report. (b) Including some reconditioned machinery.

TABLE 7 Sales of other than principal products by larger establishment in the industry, 1963 and 1968
Establishments employing 25 or more persons:
Analys is of returns received, United Kingdom

|  | 1963 | 1968 |
| :---: | :---: | :---: |
|  | Value | Value |
|  | £’000 | £’000 |
| Iron castings in the rough or machined (including wood, metal and plastic patterns) | 843 | 501 |
| Mechanical eng ineering <br> Mal-working machine tools, complete and parts | 385 | 1,182 |
| Pumps, valves and compressors, complete and parts |  | 1,023 |
| Mechanical handling equipment, complete and parts |  | 109 |
| Printing and bookbinding machinery, complete and parts | 5,636 | 99 |
| Other machinery, complete and parts |  | 4,865 |
| Industrial plant and steelwork, complete and parts | 3,588 | 547 |
| General mechanical engineering manufactures, complete and parts | 877 | 1,782 |
| Miscellaneous metal manufactures | 477 | 197 |
| Other products | 2,960 | 1,979 |
| Work done |  |  |
| Building and civil engineering work carried out in Great Britain as main contractors, including machinery and plant erected and installed (other than textile machinery) and other work done on commission | 2,441 | 1,673 |
|  | 1,155 | 654 |
| Research and development work and services rendered to other organisations (a) | 159 | 573 |
| Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored) | 6,019 | 12,806 |
| Canteen takings | 153 | 237 |
| Total | 24,694 | 28,228 |

(a) Services rendered to other organisations comprises amounts charged for hiring out plant, machinery or other goods, for providing
or other services rendered to other organisations.

Production of certain principal products of the industry by larger 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
applicale 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 heet/plate mill slabs and sheet bars
Bars and rods (including wire rods), angles, shapes nd sections, girders, beams, joists and pillars quares (not fabricated), including tube rounds and

Plates, 3 mm . thick and over
Sheets under 3 mm . thick (including electrical Sheets
sheets)

Hoop and strip (including tape of all thicknesses)
Tinplate and blackplate (a)
Forgings (except drop forgings)
Castings
Drop forgings
Iron and steel not elsewhere specified except finished parts, wire and scrap
Wrought $t$ ubes and fittings for wrought tubes
(including welded, seamless, conduits, etc)
0ther
Precision chain (eg transmission and timing)
Springs, laminated and other types
Steel wire and wire manufactures (excluding insulated
wires and vires and cables
Wire (single wire)
Wire manufactures (including wire cables and ropes and stranded wire of two or more ply)
Iron and steel scrap
Light metals and non-ferrous metals in all forms Light metals and non-ferrous metals in
except finished parts, wire and scrap

Aluminium and aluminium alloys
Brass and other copper alloys (including nickel
silver and cupro nickel, but excluding all othe
nickel alloys and cadmium copper) (b
Copper (including cadmium copper) (c) Tin
Solder, soft
General chemicals (d)

TABLE 10 (cont inued)

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



## (a) For 1963 terneplate was specifically included

(b) For 1963 'Cadmium copper', was not specif ically excluded.
(c) For 1963 'Cadmium copper' was not specifically included but 'Blister' was excluded.
(d) For 1963 described as 'Heavy chemicals (acids, alkalis, alcohols, other inorganic and organic
chemicals, compressed gases, etc).
(e) Including 'Plywood for manufacture into packing cases'.
(f) The total quant ity of electricity generated in establishments employing 25 or more persons in this industry was $1,998 \mathrm{Th}$.kWh in 1968 and $1,819 \mathrm{Th}$.kWh in 1963
(g) Not recorded separately for 1963.

TABLE 11 Transport costs and employment of larger establishments, 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. | 414 | 446 |
| Transport costs |  |  |  |
| Wages and salaries | £'000 | 296 | 400 |
| Derv fuel and motor spirit | " | 157 | 241 |
| Tyres and other spare parts for road goods vehicles | " |  | 73 |
| Payments to other organisations for transport $\quad\left\{\begin{array}{l}\text { by road } \\ \text { by rail and other } \\ \text { means excluding } \\ \text { postal services }\end{array}\right.$ | " | 575 \{ | 604 227 |
| Costs of operating road goods vehicles Insurance | " | 21 | 29 |
| Vehicle licences | " | 19 | 38 |
| Depreciation | " | 124 | 132 |
| Payments to other organisations for repairs and maintenance | " | 48 | 82 |
| Total | " | 1,240(a) | 1,826 |

(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 establ ishments, 1963 and 1968 (a)
Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

|  | Amounts payable |  |
| :---: | :---: | :---: |
|  | 1963 | 1968 |
| Repairs and maintenance to | £ 000 | £'000 |
| Buildings | 259 | 359 |
| Road goods vehicles | 48 | 82 |
| Plant, machinery and other capital equipment | 426 | 509 |
| Insurance, licensing and depreciation of road goods vehicles (b) | 164 | 199 |
| Rates, excluding water rates | 480 | 775 |
| Hire of plant and machinery | 62 | 107 |
| Postage, telephone, telegrams, cables and telex (c) | 350 | 635 |
| Total | 1,789 | 2,666 |

(a) No deduction is made for these payments to arrive at the figures of
his report.
(c) Excluding telex for 1963

TABLE 13 Percentage analysis of twleve-month periods covered by returns from larger establishments, 1968

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

| Year ended | Percent age of total returns received | Percentage of total number employed |
| :---: | :---: | :---: |
| 1968 | Per cent. | Per cent. |
| April (a) | 1.7 | 0.4 |
| May | 0.0 | 0.0 |
| June | 8.7 | 5.9 |
| July | 2.3 | 1.4 |
| August | 2.3 | 0.6 |
| September | 7.6 | 5.2 |
| October | 4.1 | 3.3 |
| November | 2.9 | 13.5 |
| December | 39.0 | 49.8 |
| 1969 |  |  |
| January | 0.6 | 0.1 |
| February | 1.7 | 1.2 |
| March | 29.1 | 18.7 |
| April (b) | 0.0 | 0.0 |
|  | 100 | 100 |

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

