

THE CARRIAGE, CART AND WAGON TRADES.

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Introductory.*

The tables on pages 140 to 144 are based on returns received from firms in Great Britain and Northern Ireland whose business in 1924 consisted wholly or mainly in the manufacture and repair of vehicles other than those mechanically driven. The number of such separate returns was 3,229. About 1,750 firms to which schedules were sent did not furnish returns, but these firms for the most part had very small establishments and they included some that had ceased operations before the end of the census year and many that had no record of the amount of business done by them. On the basis of the information available it is estimated that they did not employ more than 4,500 persons in all and that their total net output probably did not exceed £500,000.

Summary of results.—The following table shows the main results of the Censuses of 1924 and 1907, comparisons between the figures for the two years being subject to the qualifications mentioned in

* See also the Notes on pages vii to xv.

the next paragraph. The information received in connexion with the Census of 1912, when details of output were not required from firms employing five persons or less, was not sufficiently complete to warrant its use for purposes of comparison.

Particulars.	Unit.	1924.	1907.
Value of goods made and work done (Gross output)	£'000	5,758	5,081
Cost of materials used	"	2,583	2,090
Net output	"	3,175	2,991
Average number of persons employed	No.	19,613	36,362
Net output per person employed	£	162	82
Mechanical power available :—			
Prime movers	H.P.	9,408	10,467
Electric motors driven by purchased electricity	"	6,793	(not recorded)

Qualifications affecting comparisons.—In considering the above table and the other tables in this report which show figures for different censal years, it should be borne in mind that :—

(1) The comparability of figures relating to value or cost is affected by the changes which have taken place in the general purchasing power of money.

(2) The Census of 1907 covered Great Britain and the whole of Ireland, but that of 1924 applied only to Great Britain and Northern Ireland. The exclusion of Southern Ireland in 1924 does not seriously affect the comparability of the figures, since, according to the Census of Production taken by the Government of the Irish Free State in respect of the year 1926, the total value of the output of complete vehicles of the kinds dealt with in this report was £33,000. In addition, a proportion of the sum of £77,000, the value of repair and jobbing work done on all vehicles, and also a proportion of the sum of £464,000, the value of parts and accessories (except motor bodies) of vehicles would fall within the scope of this trade.

(3) In 1907 the output of firms mainly engaged in the construction of bodies for motor vehicles was for the most part included in this trade, but in 1924 such output was grouped with that of the Motor, Cycle and Aircraft Trades (see pages 307 to 325 of the volume containing the reports on the Engineering, etc. Trades).

Value of output and cost of materials.—The figures in the above table representing the value of goods made and work done, and the cost of materials used, are the aggregates of the figures recorded by the firms that made returns, and, for the reasons explained in paragraphs (i) and (ii) on pages xii and xiii, they probably over-state the value of the output of, and the cost of materials used by, the Carriage, Cart and Wagon Trades considered as a whole. The matter is discussed on page 137, where it is estimated that the value,

free from duplication, of the output of the Carriage, Cart and Wagon Trades in 1924 lay between £5,450,000 and £5,750,000, and the cost of the materials purchased from sources outside the trade and worked up into its products lay between £2,280,000 and £2,580,000.

Production.

Detailed information as to the output in 1924 of the Carriage, Cart and Wagon Trades is shown in Table II on page 141.

In addition to the output dealt with in this report, the manufacture of parts of vehicles, etc., and repair and jobbing work, valued altogether, on a cost basis, at £30,000, was recorded for 1924 by Railway Companies, Local Authorities, etc.*

Principal output.—The following table shows, for 1924 and 1907, the value of the carriages, carts, and other vehicles made (including repairs and jobbing wheelwrighting), the figures for each year being inclusive of the value of similar output recorded by firms that made their returns on schedules for other trades.

Kind of output.	1924.	1907.
	Selling value.	Selling value.
	£'000.	£'000.
Carriages and carts for animal traction, including omnibuses, chars-à-bancs, cabs, etc.	467	1,282
Perambulators and mail carts for children, including invalid chairs, toy perambulators, scooters, etc.	1,665	375
Hand trucks and trollies	201	} 130
Wheelbarrows and other vehicles	200	
TOTAL VALUE—COMPLETE VEHICLES NOT MECHANICALLY PROPELLED	2,533	1,787
Parts of vehicles not mechanically propelled	678	516
Repair work and jobbing wheelwrighting	2,539*	2,406*
TOTAL VALUE—PRINCIPAL OUTPUT	5,750	4,709

* Amount received for work done.

The lack of quantity particulars for 1907 and the rise in the level of values since 1907, together with the variety of units covered by the different descriptions of vehicles and the change produced by the classification of motor body building in 1924 as part of the Motor, Cycle and Aircraft Trades, make any precise comparison of volume of output impossible. With the great development of motor traffic there has been a substantial decrease in the construction of horse-drawn vehicles and in repair work and jobbing wheelwrighting, but, at the same time, there has been a remarkable increase in the output of perambulators, scooters, hand trucks, and other vehicles for hand traction.

* See pages 374 and 399.

More detailed particulars regarding output in 1924 are given in the following statement :—

Kind of output.	Returned on schedules for			
	The Carriage, Cart and Wagon Trades.		All trades.	
	Quantity.	Selling value.	Quantity.	Selling value.
Complete vehicles, not mechanically propelled :—	Thous.	£'000.	Thous.	£'000.
Carts, carriages, etc., for animal traction—				
{ Number stated ..	4·9	209	5·3	237
{ Number not stated ..	..	141	..	230
Perambulators, mailcarts, toy perambulators, scooters, etc.—				
{ Number stated ..	337·0	980	337·0	980
{ Number not stated ..	..	493	..	685
Hand trucks and trolleys—				
{ Number stated ..	22·2	103	26·0	161
{ Number not stated ..	..	29	..	40
Wheelbarrows, and other vehicles not mechanically propelled—				
{ Number stated ..	46·2	89	46·8	95
{ Number not stated ..	..	42	..	105
TOTAL VALUE—COMPLETE VEHICLES	..	2,086	..	2,533
Parts of vehicles, not mechanically propelled :—				
Wheels, rims and spokes .. .. .	..	374	..	401
Axles, springs, tyres and other metal parts ..	..	115	..	234
Poles, shafts and other wood parts ..	..	19	..	43
TOTAL VALUE—PARTS OF VEHICLES	..	508	..	678
Repair and jobbing work .. .. .	..	2,475*	..	2,539*
TOTAL VALUE—PRINCIPAL OUTPUT ..	..	5,069	..	5,750

* Amount received for work done.

About half of the value of horse-drawn vehicles returned on schedules for all trades and about 40 per cent. of the value of hand propelled vehicles represent vehicles returned by value only. The relatively high value per unit of the output in other trades, so far as returned by number in each case, is a notable feature of the data.

The amount shown in the table for repair and jobbing work, although it amounted to as great a sum as that returned for complete vehicles, was probably incomplete, since most of the work done by the 1,750 small firms from which returns were not received would be of that character. Further, many firms of jobbing wheelwrights, especially those in country districts, did not keep records of the different kinds of work done by them, but returned the aggregate estimated value in one sum. It is probable that such firms, in addition to ordinary repair work, made some farm-carts, wheelbarrows, etc., and the record of complete vehicles shown in the

table is incomplete to that extent. Jobbing carpenters and joiners who made their returns on schedules for the Timber Trade (see page 107) may also have built carts, etc., and included their value in one total with that of their jobbing work.

Other output.—In addition to the principal output dealt with in the preceding tables, firms that made their returns on schedules for the Carriage, Cart and Wagon Trades recorded for each of the censal years the classes of output set out below. Such output, being of kinds mainly produced in other trades, is dealt with in the reports on those trades.

Kind of output.	1924.	1907.
	Selling value.	Selling value.
	£'000.	£'000.
Motor car bodies	216	729
Parts of motor car bodies	49	
Motor car accessories	28	79
Builders' woodwork, furniture and other wood goods ..	212	45
Jobbing carpentry and building, etc.	56	28
Horse-shoeing and smiths' work	128	39
TOTAL VALUE	689	920

Value of output free from duplication.—The gross output of the firms that made their returns for the year 1924 on schedules for the Carriage, Cart, and Wagon Trades was returned as £5,758,000. There is the possibility of duplication in this total in respect of parts of vehicles, valued at £508,000. So far as those parts were exported, or added to makers' stocks, or sold to firms outside the Carriage, Cart, and Wagon Trades, or to farmers, traders, and others who were not required to make returns, there was no duplication. No information is available as to how the output of parts was distributed, except as regards exports, which amounted in 1924 to £378,000 f.o.b. Many of these exported parts were, however, probably made by firms in other trades. On the whole it seems reasonable to suppose that the amount of duplication did not exceed £300,000 and may have been substantially less. Thus, the value of the output in 1924 returned on schedules for the Carriage, Cart, and Wagon Trades may be estimated, free from duplication, at an amount lying between £5,450,000 and £5,750,000. The corresponding net figure for 1907 was estimated as lying between £4,486,000 and £5,081,000.

Cost of materials.—The cost of the materials used by firms that made their returns on schedules for the Carriage, Cart, and Wagon Trades was returned as £2,583,000 in 1924, a sum which, by the exclusion of purchases of the products of other firms in the trade, is reduced to an amount lying between that sum and £2,280,000. The corresponding net figure for 1907 was estimated as being between £1,495,000 and £2,090,000.

Net output.—The net output in 1924 of the firms that made their returns on schedules for the Carriage, Cart and Wagon Trades (whose gross output was valued at £5,758,000) was £3,175,000, that sum representing, without duplication, the total amount by which the value, as delivered, of the aggregate output exceeded the cost, as purchased, of the materials used.

The net output per head of persons employed in the censal year 1924 was £162 as compared with £82 in 1907.

Exports and imports.—Details of the export and import trade in 1924 in vehicles not mechanically propelled are given below :—

Kind of vehicle.	Exports.		Retained imports.	
	Quantity.	Value f.o.b.	Quantity.	Value c.i.f.
	No.	£	No.	£
Carts and carriages	1,144	34,569	195	5,247
Perambulators and mail-carts ..	42,867	104,718	1,284	2,471
Hand trucks and trollies	2,214	12,675	621	2,321
Wheelbarrows and other vehicles..	6,929	59,353	3,938	3,631

Wages in 1924.

Under the Census of Production Act, 1906, the powers of the Board of Trade to require information do not extend to particulars of the amount of wages paid, and, consequently, no information on this head was secured in connexion with the Census of 1924. As a result, however, of the voluntary enquiry undertaken by the Ministry of Labour into wages and hours in the United Kingdom in 1924, information was obtained as to the total wage-bill of a group of firms in the Carriage, Cart and Wagon Trades that made returns both to the Ministry of Labour and to the Census of Production office. According to the Census records this group of firms employed, in the week ended 18th October, 1924, 6,893 operatives, or 45 per cent. of the total of 15,278 operatives for the trades as a whole, and their net output totalled £1,575,000, or 50 per cent. of the aggregate net output of £3,175,000 for the trades as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour, was £1,081,000, representing about 69 per cent. of their aggregate net output.

Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 142 and 143. The following table sets out certain particulars for that year together with those relating to the 1907 Census. For the purpose of this comparison, the average numbers of operatives of each sex returned for 1924 have been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October.

Average number.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
1924.						
Operatives	2,579	13,621	578	1,584	3,157	15,205
Administrative, etc.	75	4,018	79	390	154	4,408
TOTAL	2,654	17,639	657	1,974	3,311	19,613
1907.						
Wage earners	4,135	31,188	146	743	4,281	31,931
Salaried	156	4,255	18	176	174	4,431
TOTAL	4,291	35,443	164	919	4,455	36,362

The numbers of operatives recorded month by month in 1924 ranged from 610 below the average, in January, to 372 above the average, in May (see Table IIIB, page 143). They increased from January to May and from August to November.

Mechanical Power.

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 144. The following table sets out the particulars for 1924 and 1907 relating to the capacity and kinds of *prime movers* and the capacity of *electric generators* installed.

Power equipment.	1924.			1907.
	Ordinarily in use.	In reserve or idle.	Total.	Total.
PRIME MOVERS :—				
	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	701	136	837	3,100
Steam turbines	—	—	—	10
Gas engines	4,597	260	4,857	7,120
Petrol and light oil engines	2,973	105	3,078	
Heavy oil engines	448	12	460	
Water power	176	—	176	231
Other	—	—	—	6
TOTAL	8,895	513	9,408	10,467
ELECTRIC GENERATORS :—				
Driven by—	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines	19	—	19	101
Gas engines	144	16	160	614*
Petrol and light oil engines	14	—	14	
TOTAL	177	16	193	715

* Recorded as driven by prime movers, other than reciprocating steam engines and steam turbines.

The capacity of *electric motors* recorded in 1924 was as shown below :—

Electric motors.	1924.		
	Ordinarily in use.	In reserve or idle.	Total.
Driven by—	H.P.	H.P.	H.P.
Electricity generated in own works	92	6	98
Purchased electricity	6,451	342	6,793

Corresponding information was not required for 1907. The total number of Board of Trade units of electricity purchased for power and lighting purposes in that year was returned as 823,000.

TABLES.

I.—Summary of results.

Particulars.	Unit.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
Value of goods made and work done (Gross output)	£'000	5,422	317	5,739	19
Cost of materials used	"	2,438	139	2,577	6
Net output	"	2,984	178	3,162	13
Average number of persons employed	No.	18,344	1,175	19,519	94
Net output per person employed ..	£	164	151	163	138
Mechanical power available :—					
Prime movers	H.P.	8,671	674	9,345	63
Electric motors driven by purchased electricity	"	5,980	810	6,790	3

II.—Production.

Goods made for sale or for stock and work done.	Unit.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
Complete vehicles, not mechanically propelled :—					
Carts and carriages for animal traction (including omnibuses, chars-à-bancs, cabs, private carriages, carts, wagons, etc.)—					
{ Number stated {	Thous.	4·3	0·5	4·8	0·1
{ Number not stated {	£'000	191	14	205	4
{ Number not stated {	£'000	139	2	141	—
Perambulators and mail-carts (including invalid chairs, toy perambulators, scooters, etc.)—					
{ Number stated {	Thous.	*	*	337·0	—
{ Number not stated {	£'000	*	*	980	—
{ Number not stated {	£'000	*	*	493	—
Hand trucks and trollies—					
{ Number stated {	Thous.	*	*	22·2	—
{ Number not stated {	£'000	*	*	103	—
{ Number not stated {	£'000	*	—	29	—
Other vehicles not mechanically propelled (including wheelbarrows)—					
{ Number stated {	Thous.	28·5	17·7	46·2	—
{ Number not stated {	£'000	63	26	89	—
{ Number not stated {	£'000	40	—	40	2
Parts of vehicles, not mechanically propelled :—					
Wheels, rims and spokes	"	369	5	374	—
Axles for road vehicles other than motor cars	"	39	—	39	—
Springs	"	*	*	29	—
Other metal parts (tyres, etc.) ..	"	44	3	47	—
Other wood parts (poles, shafts, etc.)	"	19	—	19	—
Motor car bodies, as sold or delivered	"	187	28	215	1
Parts of motor bodies, returned as such	"	49	—	49	—
Motor car and motor cycle accessories (tyres, lamps, horns, etc.) when sold separately	"	*	*	28	—
Repair and jobbing work done on vehicles (including contracts for repair work done in repairing and renovating second-hand vehicles)	"	2,277†	187†	2,464†	11†
Builders' woodwork (doors, frames, ladders, etc.)	"	47	—	47	—
Furniture and cabinet work	"	77	—	77	—
Sawn timber, bent timber, crates, etc.	"	36	3	39	—
Agricultural and horticultural implements and appliances, poultry houses, etc.	"	19	1	20	—
Coffins and undertaking work	"	20	—	20	—
Other goods made	"	8	1	9	—
Jobbing carpentry	"	20†	2†	22†	—
Jobbing building work, sign writing, etc.	"	32†	2†	34†	—
Horse-shoeing and general smiths' work	"	115†	12†	127†	1†
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT)	£'000	5,422	317	5,739	19

* In order to avoid the possible disclosure of information relating to individual firms, figures are given only for Great Britain as a whole.

† Amount received for work done.

III.—Employment.

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1924.

Kind of staff.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
<i>England and Wales</i> :—						
Operatives	2,427	12,756	570	1,556	2,997	14,312
Administrative, etc.*	73	3,753	74	354	147	4,107
TOTAL	2,500	16,509	644	1,910	3,144	18,419
<i>Scotland</i> :—						
Operatives	161	876	8	26	169	902
Administrative, etc.*	2	234	5	36	7	270
TOTAL	163	1,110	13	62	176	1,172
<i>Great Britain</i> :—						
Operatives	2,588	13,632	578	1,582	3,166	15,214
Administrative, etc.*	75	3,987	79	390	154	4,377
TOTAL	2,663	17,619	657	1,972	3,320	19,591
<i>Northern Ireland</i> :—						
Operatives	12	64	—	—	12	64
Administrative, etc.*	—	31	—	—	—	31
TOTAL	12	95	—	—	12	95
<i>United Kingdom</i> :—						
TOTAL	2,675	17,714	657	1,972	3,332	19,686

* Administrative, technical and clerical staff.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1924.

England and Wales. (Annual average : Males, 12,677 ; Females, 1,560 ; Total, 14,237.)

Week ended.	Males.	Females.	Total.	Week ended.	Males.	Females.	Total.
Jan. 12th ..	12,240	1,422	13,662	July 19th ..	12,815	1,519	14,334
Feb. 16th ..	12,393	1,540	13,933	Aug. 16th ..	12,682	1,500	14,182
March 15th ..	12,512	1,574	14,086	Sept. 13th ..	12,723	1,483	14,206
April 12th ..	12,766	1,625	14,391	Oct. 18th ..	12,756	1,556	14,312
May 17th ..	12,914	1,667	14,581	Nov. 15th ..	12,742	1,651	14,393
June 21st ..	12,873	1,563	14,436	Dec. 13th ..	12,707	1,617	14,324

Scotland. (Annual average : Males, 881 ; Females, 24 ; Total, 905.)

Jan. 12th ..	848	24	872	July 19th ..	900	23	923
Feb. 16th ..	862	25	887	Aug. 16th ..	894	22	916
March 15th ..	877	25	902	Sept. 13th ..	899	23	922
April 12th ..	899	24	923	Oct. 18th ..	876	26	902
May 17th ..	906	24	930	Nov. 15th ..	854	26	880
June 21st ..	900	23	923	Dec. 13th ..	859	26	885

Great Britain. (Annual average : Males, 13,558 ; Females, 1,584 ; Total, 15,142.)

Jan. 12th ..	13,088	1,446	14,534	July 19th ..	13,715	1,542	15,257
Feb. 16th ..	13,255	1,565	14,820	Aug. 16th ..	13,576	1,522	15,098
March 15th ..	13,389	1,599	14,988	Sept. 13th ..	13,622	1,506	15,126
April 12th ..	13,665	1,649	15,314	Oct. 18th ..	13,632	1,582	15,214
May 17th ..	13,820	1,691	15,511	Nov. 15th ..	13,596	1,677	15,273
June 21st ..	13,773	1,586	15,359	Dec. 13th ..	13,566	1,643	15,209

Northern Ireland. (Annual average : Males, 63 ; Females, — ; Total, 63.)

Jan. 12th ..	61	—	61	July 19th ..	57	—	57
Feb. 16th ..	58	—	58	Aug. 16th ..	65	—	65
March 15th ..	61	—	61	Sept. 13th ..	60	—	60
April 12th ..	66	—	66	Oct. 18th ..	64	—	64
May 17th ..	66	—	66	Nov. 15th ..	64	—	64
June 21st ..	66	—	66	Dec. 13th ..	62	—	62

IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS
AND ELECTRIC MOTORS.

(a) Ordinarily in use. (b) In reserve or idle.	England and Wales.	Scotland.	Great Britain.	Northern Ireland.
	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS :—				
Reciprocating steam engines ..	{ (a) 665 (b) 136	20	685	16
Gas engines	{ (a) 4,214 (b) 255	350	4,564	33
Petrol and light oil engines ..	{ (a) 2,736 (b) 105	227	2,963	10
Heavy oil engines	{ (a) 409 (b) 12	39	448	—
Water power	{ (a) 139 (b) —	33	172	4
TOTAL	{ (a) 8,163 (b) 508	669	8,832	63
TOTAL OF PRIME MOVERS INSTALLED				
	8,671	674	9,345	63
ELECTRIC GENERATORS :—				
Driven by—				
Reciprocating steam engines ..	(a) 13	—	13	6
Gas engines	{ (a) 137 (b) 16	5	142	2
Petrol and light oil engines ..	(a) 14	—	14	—
TOTAL	{ (a) 164 (b) 16	5	169	8
TOTAL OF ELECTRIC GENERATORS INSTALLED				
	180	5	185	8
ELECTRIC MOTORS :—				
Driven by—				
Electricity generated in own works	{ (a) 92 (b) 6	—	92	—
Purchased electricity	{ (a) 5,693 (b) 287	755	6,448	3
		55	342	—