

This Report on the Rubber Industry relates to establishments engaged wholly or mainly in manufacturing and re-treading solid and pneumatic tyres of all types and inner tubes; rubber sheeting, soles and heels, sponge rubber, rubber tubing and hose, cellular rubber, rubber gloves, bathing caps, underwater equipment, inflatable goods, toys, uncovered balls, matting, flooring and tiling, components and accessories not elsewhere specified. The manufacture of plastics belting, plastics hose and synthetic rubber products and the backing of carpets with rubber or plastics materials on commission are also included but the manufacture of synthetic rubber, rubber footwear and moulded parts of footwear, weatherproof outerwear, covered rubber mattresses and pillows, rubber adhesives and covered rubber thread are all excluded.

This industry corresponds to minimum list heading 491 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 industry corresponds to the Rubber Industry (Part 119) in the Reports on the last detailed Census of Production for 1963 except that heavy overalls and industrial aprons of rubber or plastics are now included in the Overalls and Men's Shirts, Underwear, Etc Industry (Part 119), covered mattresses, pillows, etc of rubber in the Bedding and Soft Furnishings Industry (Part 133), formulated rubber adhesives in the Formulated Adhesives, Gelatine, Etc Industry (Part 38), and rubber footwear, etc in the Footwear Industry (Part 124). In addition plastics belting and plastics hose, etc previously shown in the Plastics Moulding and Fabricating Industry Report (Part 124) and the work of backing carpets with rubber or plastic underlay done on customers' own materials which was shown as a principal product of the Carpets Industry (Part 83), in the 1963 Reports, are now both included in this industry.

Throughout this Report the figures given for 1963 have been reclassified as far as possible according to the Standard Industrial Classification (Revised 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.

TREATMENT OF FABRICS BACKED WITH PLASTIC FOAM AND FABRIC TO FABRIC BONDED MATERIALS

Fabric backed with plastic foam and fabric to fabric bonded materials are shown as principal products of the same industry as the main fabric rather than that of the material used for the backing, bonding or lining. Thus where the main fabric is cotton, linen and man-made fibres, woollen or worsted, or knitted fabric the sales are shown in the Table 5 of the reports on the Weaving of Cotton, Linen and Man-made fibres (Part 100), Woollen and Worsted (Part 101) and Hosiery and Other Knitted Goods (Part 104) respectively. Total sales of all fabric backed with foam and fabric to fabric bonded materials, reported in the census together with those reported by textile converters in a separate inquiry, are brought together in a supplement to Table 5 in the report on the Weaving of Cotton, Linen and Man-made Fibres Industry (Part 100).

Sales of fabric backed with plastic foam and fabric to fabric bonded materials were not taken into account in classifying returns to the three textile industries in which they are shown. Where fabrics were foam backed or bonded on commission, returns reporting doing this work were classified to the Textile Finishing Industry (Part 110).

METHOD OF CLASSIFICATION

The classification of returns to this industry followed the standard procedure except for the special treatment of fabric backed with plastic foam and fabric to fabric bonded materials referred to above. The classification of returns to subdivisions of the industry followed the standard procedure.

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).

TABLE 12 Payments for certain services, 1963 and 1968

	1963	1968
Buildings	1,000	1,200
Plant, machinery and other capital equipment	2,000	2,300
Transport, furniture and depreciation of fixed assets	500	600
Patents, copyrights, trademarks, etc.	100	150
Other	100	100
Total	3,700	4,350

TABLE 13 Payments for certain services, 1963 and 1968

	1963	1968
Buildings	1,000	1,200
Plant, machinery and other capital equipment	2,000	2,300
Transport, furniture and depreciation of fixed assets	500	600
Patents, copyrights, trademarks, etc.	100	150
Other	100	100
Total	3,700	4,350

(a) No deduction is made for these payments in either of the figures of net output given in this report.
 (b) The 1963 and 1968 figures in this table are not strictly comparable and the amount pertains to the introduction to this report.
 (c) For details see Table 11.
 (d) Including sales for 1965.

LIST OF TABLES

Table No.	Title	Page
SECTION I - Estimates for all establishments in the industry		
1	Industry summary, 1963 and 1968	144/3
2	Analysis by size of establishment within the industry, 1968	144/4
3	Percentage analysis of employees, by age and sex, 1969	144/5
SECTION II - Analysis of returns received		
4	Analysis of larger establishments, 1963 and 1968	144/6
5	Sales of principal products of the industry by larger establishments, including sales by establishments classified to other industries, 1963 and 1968	144/8
6	Sales of principal products of the industry by larger establishments classified to other industries, 1963 and 1968	144/13
7	Sales of other than principal products by larger establishments in the industry, 1963 and 1968	144/14
8	Production of certain principal products of the industry by larger establishments, 1963 and 1968	DOES NOT APPLY
9	Purchases by larger establishments of selected principal products of the industry, 1968	DOES NOT APPLY
10	Purchases by larger establishments in the industry, 1963 and 1968	144/15
11	Transport costs and employment of larger establishments, 1963 and 1968	144/18
12	Payments for certain services, etc by larger establishments, 1963 and 1968	144/18
13	Percentage analysis of twelve-month periods covered by returns from larger establishments, 1968	144/19

TABLE 1 Industry summary, 1963 and 1968
United Kingdom (a) (b)

	Unit	All establishments		
		1963	1968	
Number of enterprises	No.	404	383	
Number of establishments	"	534	548	
Gross output	£'000	368,348	521,997	
Net output	"	167,749	258,584	
Net output per head	£	1,432	2,089	
Sales and work done	£'000	goods produced and work done (c)	343,308	465,329
		merchanted goods and canteen takings	25,160	52,327
Purchases	"	materials for use in production and packaging and fuel	172,631	211,201
		goods for merchandising and canteen purchases	20,861	44,875
Payments to other organisations	"	for work done on materials given out	1,753	2,336
		for transport	5,012	7,022
		by road		
	"	by rail and other means excluding postal services		1,276
Stocks and work in progress	"			
Total stocks and work in progress	"	change during year	- 461	+ 7,638
		at end of year	62,882	89,380
Goods on hand for sale	"	change during year	- 619	+ 3,112
		at end of year	33,766	49,057
Work in progress	"	change during year	+ 500	+ 1,229
		at end of year	9,309	13,635
Materials, stores and fuel	"	change during year	- 342	+ 3,297
		at end of year	19,806	26,687
Number employed on average during the year	Th.	total, including working proprietors	117.1	123.8
		operatives	87.7	90.2
		other employees (d)	29.1	33.3
Wages and salaries	£'000	of operatives	62,564	92,514
		of other employees (d)	27,085	41,544
Capital expenditure (e)				
Total	"	15,794	37,236	
New building work	"	1,913	5,736	
Land and existing buildings (f)	"	63	472	
Plant and machinery (f)	"	13,020	30,733	
Vehicles (f)	"	797	1,238	

(a) For 1968, estimates for establishments not making satisfactory returns and for small establishments, from which only employment data were collected, accounted for 3 per cent. of the total figures in which they were incorporated: of this, unsatisfactory returns accounted for 1 per cent. For 1963 the comparable figures were 2 per cent. and 1 per cent. respectively.

(b) The following information relates to small establishments (employing fewer than 25 persons) in this industry. It includes an estimate for small establishments not making satisfactory returns.

	1963	1968
Number of establishments	226	242
Average number employed:		
Working proprietors	} 2,111 {	203
Other persons employed		2,316

Footnotes continued on page 144/2.

Footnotes continued from page 144/3.

(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).

(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 year by the establishment (a)	Estab-lish-ments	Enter-prises(b)	Total number employed on average during the year (a)	Gross output	Net output	Net output per head
1-5	59	59	201	..	..	..
6-10	57	55	460	..	..	..
11-24	89	82	1,590	..	..	..
25-49	49	44	1,797	6,537	3,443	1,916
50-99	60	51	4,150	17,142	9,231	2,224
100-199	55	45	7,968	33,557	17,578	2,206
200-299	37	30	8,857	29,145	14,525	1,640
300-399	17	12	5,789	20,721	9,713	1,678
400-499	18	17	7,998	25,578	14,523	1,816
500-749	12	11	7,013	21,731	12,524	1,786
750-999	13	11	11,369	50,153	26,428	2,325
1,000-1,499	11	10	13,083	42,802	22,299	1,704
1,500-1,999	3	3	5,354	20,676	10,018	1,871
2,000-2,499	4	3	8,879	37,788	17,307	1,949
3,000 and over	7	6	37,747	200,277	93,121	2,467
Unsatisfactory returns	57	56	1,524	..	..	..
Total	548	383	123,779	521,997(c)	258,584(c)	2,089(c)

(ii) Employees, wages and salaries

All establishments: United Kingdom

Number employed on average during the year by the establishment (a)	Employees		Wages and salaries		Wages and salaries per head	
	Oper-atives	Others (d)	Oper-atives	Others (d)	Oper-atives	Others (d)
	Number	Number	£'000	£'000	£	£
1-5	..	..	..	..	..	..
6-10	..	..	..	..	..	..
11-24	..	..	..	..	..	..
25-49	1,417	356	1,179	465	832	1,306
50-99	3,320	809	2,906	1,081	875	1,336
100-199	6,139	1,826	5,459	2,463	889	1,349
200-299	6,811	2,044	5,901	2,379	866	1,164
300-399	4,260	1,529	3,986	1,788	936	1,170
400-499	6,016	1,978	5,286	2,273	879	1,149
500-749	5,180	1,828	5,256	2,090	1,015	1,143
750-999	8,398	2,971	9,222	3,573	1,098	1,202
1,000-1,499	10,098	2,985	9,359	3,557	927	1,192
1,500-1,999	3,322	2,032	3,360	2,472	1,011	1,217
2,000-2,499	6,929	1,950	6,399	2,930	923	1,503
3,000 and over	25,733	12,014	31,533	15,272	1,225	1,271
Unsatisfactory returns	..	..	..	..	..	..
Total	90,230(c)	33,285(c)	92,514(c)	41,544(c)	1,025(c)	1,248(c)

(a) Including working proprietors.

(b) The sum of the figures for the size groups exceeds the total for the industry to the extent that enterprises made returns for establishments in more than one size group.

(c) Including estimates for establishments employing fewer than 25 persons and for establishments not making satisfactory returns.

(d) Administrative, technical and clerical employees.

TABLE 3 Percentage analysis of employees, by age and sex, 1969 (a)

All establishments: United Kingdom

Ages	Males	Females	All employees
	Per cent.	Per cent.	Per cent.
Under 18	1	1	2
18 and over	73	25	98
All ages	74	26	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) at June 1969, the earliest date for which the information is available on the basis of the Standard Industrial Classification, (Revised 1968).

Footnotes to Table 4.

(a) Some establishments employing fewer than 25 persons were included in returns for larger establishments. These amounted to 5 establishments in 1968 and 10 in 1963.

(b) The method of classifying returns to sub-divisions of the industry is explained in the notes; the characteristic products of each sub-division are identified in Table 5.

(c) The sum of the figures for the sub-divisions exceeds the total for the industry to the extent that enterprises made returns for more than one sub-division.

(d) 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).

(e) Direct sales of goods (excluding canteen takings) made to, and work done for, the general public by larger establishments are included. These amounted to £417,000 in 1968. Similar information is not available for 1963.

(f) Characteristic products relate only to specific sub-divisions of the industry.

(g) For sub-divisions of the industry, this is the ratio of sales of characteristic products to total sales of goods produced and work done. For the industry as a whole, this is the ratio of total sales of principal products by the industry to total sales of goods produced and work done.

(h) Administrative, technical and clerical employees.

(i) Excluding expenditure for establishments not yet in production.

(j) Acquisitions less disposals.

TABLE 4 Analysis of larger establishments, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom (a)

	Unit	Sub-divisions of the industry (b)				Sub-divisions of the industry (b)				Total		
		New tyres and tubes		Retreaded tyres		Hose and tubing (including fitments) and belting	Remainder of the industry		1963			1968
		11		12		22	21,23					
		1963	1968	1963	1968	1963	1968	1963	1968	1963	1968	
Number of enterprises (c)	No.	9	9	14	16	22	15	145	133	179	157	
Number of establishments	"	22	21	24	30	36	27	223	213	305	291	
Gross output	£'000	172,076	255,488	10,586	20,719	39,181	46,278	138,237	183,900	360,080	506,385	
Net output	"	74,773	116,940	5,286	12,146	16,790	23,505	67,135	98,258	163,984	250,850	
Net output per head	£	1,738	2,425	1,542	2,513	1,384	1,848	1,201	1,809	1,432	2,089	
Sales and work done	{ goods produced and work done (d)(e)	£'000	158,781	215,112	8,837	18,692	36,427	43,810	131,557	173,798	335,602	451,412
	{ merchanted goods and canteen takings	"	13,691	38,512	1,625	1,857	2,754	1,962	6,525	8,431	24,595	50,762
Sales of characteristic products	"	126,201	184,749	8,432	16,745	29,902	35,620	(f)	(f)	(f)	(f)	
Index of specialisation (g)	Per cent.	79	86	95	90	82	81	..	..	92	93	
Purchases	{ materials for use in production and packaging, and fuel	£'000	82,077	101,378	3,769	6,891	19,729	20,983	63,180	75,633	168,756	204,884
	{ goods for merchenting and canteen purchases	"	10,915	33,815	1,381	1,393	2,333	1,664	5,765	6,661	20,393	43,533
Payments to other organisations	{ for work done on materials given out for transport	"	992	253	46	7	35	176	640	1,830	1,714	2,266
	{ by road	"	2,861	3,744	49	272	392	353	1,597	2,443	4,900	6,812
	{ by rail and other means excluding postal services	"											647	44	150	397	1,238
Stocks and work in progress												
Goods on hand for sale	{ change during year	"	- 531	+ 1,796	+ 103	+ 165	- 223	- 10	+ 45	+ 1,068	- 605	+ 3,019
	{ at end of year	"	24,241	33,530	749	1,342	2,075	3,513	5,943	9,205	33,008	47,590
Work in progress	{ change during year	"	+ 135	+ 69	+ 21	+ 5	+ 224	+ 515	+ 110	+ 603	+ 489	+ 1,192
	{ at end of year	"	3,114	3,892	93	230	1,593	2,762	4,300	6,343	9,100	13,227
Materials, stores and fuel	{ change during year	"	- 458	+ 1,288	- 55	+ 35	+ 99	+ 554	+ 80	+ 1,321	- 334	+ 3,198
	{ at end of year	"	8,892	11,782	417	639	2,145	2,780	7,908	10,687	19,362	25,889
Number employed on average during the year	{ total, including working proprietors	No.	43,032	48,216	3,427	4,834	12,128	12,720	55,909	54,307	114,496	120,077
	{ operatives	"	31,138	33,156	2,289	3,785	8,839	9,291	43,729	41,442	85,995	87,674
	{ other employees (h)	"	11,894	15,059	1,133	1,045	3,287	3,425	12,168	12,814	28,482	32,343
Wages and salaries	{ of operatives	£'000	26,117	40,353	1,641	3,963	5,978	8,871	27,594	36,706	61,330	89,893
	{ of other employees (h)	"	11,626	19,160	883	1,159	2,918	3,998	11,110	16,051	26,537	40,368
Wages and salaries per head	{ operatives	£	839	1,217	717	1,047	676	955	631	886	713	1,025
	{ other employees (h)	"	977	1,272	779	1,109	888	1,167	913	1,253	932	1,248
Capital expenditure (i)												
New building work	£'000	840	4,021	46	168	173	300	811	1,076	1,870	5,565	
Land and existing buildings	{ acquisitions	"	117	125 (j)	76	78	71	4(j)	158	543	423	802
	{ disposals	"	24		7	-	8		321	1,209	361	1,260
Plant and machinery	{ acquisitions	"	7,199	19,275	216	749	890	4,212	4,665	6,270	12,969	30,507
	{ disposals	"	39	205	4	17	32	79	167	392	241	693
Vehicles	{ acquisitions	"	504	780	74	173	103	135	490	755	1,171	1,843
	{ disposals	"	146	196	27	32	48	69	171	344	392	642

For footnotes to this table - see page 144/5.

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

Industry sub-division (a)	1963		1968				
	Quantity	Value	Quantity	Value	Enterprises	Entries	
21,23	Th.tons	£'000	Th.tons	£'000	Number	Number	
21,23	Reclaimed rubber (excluding waste ground rubber)	42.9	3,397	34.6	2,583	8	8
21,23	Rubber compound, sold as such	45.6	9,330	39.4	8,047	42	55
21,23	Other rubber sold for further processing (eg sold in sheets)	5.2	1,327	19.2	3,703	29	35
		..	1,244(b)	..	897		
21,23	Rubber fabricated materials and rubber manufactured articles (excluding footwear)						
	Sheets and sheeting, proofed cloth, etc (excluding cellular products, matting, floorings, etc, and sheet for soling and heeling)						
	Sheet and sheeting wholly or mainly of rubber (including sheeting with a textile backing)						
	Printer's blankets	..	4,125	..	1,579	7	7
	Other			..	3,414	29	33
		Th.sq.yds.		Th.sq.yds.			
	Cloth and felts proofed with rubber (including spread fabrics)	14,606	3,959	10,566	4,015	20	24
		..	646	..	1,491		
		Th.cwt.		Th.cwt.			
21,23	Threads wholly of rubber	60.9	2,486	60.5	2,600	6	8
22	Hose and tubing other than for medical and surgical uses (excluding that made wholly or mainly of plastics materials)						
	Wholly of rubber	..	1,459	..	2,944	19	23
	Of rubber and other materials	Th.ft.		Th.ft.			
	Long length moulded and braided hose	44,391	1,791	56,986	2,545	9	11
	Mandrel made, wrapped ply and yarn braided (excluding suction hose)	53,570	4,781	77,076	6,451	19	27
	Suction hose (including oil suction and discharge hose)	2,973	1,924	..	3,457	17	21
	Wire braided hose	22,085	4,340	49,723	8,887	11	15
	Spirally wound hose	1,908	471	..	612	5	6
	Other hose and tubing	..	2,847	..	3,305	18	23
	Total hose and tubing other than for medical and surgical uses (excluding that made wholly or mainly of plastics materials)	124,927	13,306	183,786	17,883	..	..
		..	4,306	..	10,318		
22	Belting wholly or mainly of rubber			Th.cwt.			
	Conveyor and elevator	..	6,210	295	7,829	15	18
	Power transmission						
	V belts and round section belts	..	4,222	53.1	2,517	8	10
				..	2,880		
	Other transmission belts	..	1,860	22.3	1,026	13	16
				..	1,562		
	Total belting wholly or mainly of rubber	..	12,291	371	11,372	..	..
				..	4,441		

TABLE 5 (continued)

Industry sub-division (a)	1963		1968		Enterprises	Entries
	Quantity	Value	Quantity	Value		
	Th.sq.yds.	£'000	Th.sq.yds.	£'000	Number	Number
21,23	Rubber fabricated materials and rubber manufactured articles (excluding footwear (continued))					
	Mats, matting, floorings, etc, wholly or mainly of rubber (including sponge backed), other than cellular products	1,377	939	1,044	738	20
	Mats and matting	..	871	..	1,675	23
	Flooring, tiling, etc					
	Rolls	322	314	110	130	5
				..	40	5
	Tiles (including wall tiling)	214	299	338	566	8
	Other (including covings, stair nosings, etc)	..	335	..	244	8
	Total mats, matting, floorings, etc, wholly or mainly of rubber (other than cellular products)	1,913	1,552	1,492	1,434	..
		..	1,206	..	1,959	..
21,23	Underwater swimsuits and frogmen's outfits of rubber	..	(c)	Thousands 3.8	93	* *
		Th.pairs		Th.pairs		
21,23	Rubber gloves and gauntlets	38,600	3,657	66,453	5,172	9 9
21,23	Rubber dinghies, inflatable life-rafts and other air-sea rescue equipment mainly of rubber	..	(c)	..	4,473	7 8
21,23	Sports goods wholly or mainly of rubber (including football bladders, golf ball centres, playballs, bathing caps and helmets, etc, but excluding completed golf or tennis balls)	..	1,571	..	2,237	16 18
21,23	Toys, wholly or mainly of rubber	..	1,024	..	892	8 8
		Thousands		Thousands		
21,23	Hot water bottles	11,580	2,072	7,564	1,543	8 8
		..	282			
21,23	Medical, surgical and dental products (including teats, prophylactics, etc, but excluding sheeting, gloves, and surgical and medical dressings)	..	6,094	..	9,383	21 26
21,23	Cellular products wholly or mainly of rubber (excluding plastic foams)					
	Uncovered rubber upholstery and foam specifically for motor vehicles	..	3,075	..	1,049	* *
	Uncovered rubber mattresses, pillows, bolsters, and mouldings and sheeting for upholstery and cushions (other than for motor vehicles)	..		..	2,401	7 7
	Rubber underlay for carpets and rugs	3,935	1,510	..	4,376	6 6
		..	1,301			
	Other (excluding fully finished mattresses and covered bolsters, pillows and cushions)	..	1,769	..	3,601	15 16
	Total cellular products wholly or mainly of rubber (excluding plastic foams)	..	7,655	..	11,428	.. ..

Continued on next page.

TABLE 5 (continued)

Industry sub-division (a)	1963		1968				
	Quantity	Value	Quantity	Value	Enter-prises	Entries	
	Th.cwt.	£'000	Th.cwt.	£'000	Number	Number	
	Rubber fabricated materials and rubber manufactured articles (excluding footwear) (continued)						
21,23	Rubberised hair	32.6	669	928	5	5	
		..	552	..	..	..
21,23	Manufactures of vulcanite, ebonite or hard rubber	..	3,910	..	12	14	
21,23	Pressure sensitive self-adhesive cloth and tape (other than for medical and surgical dressings) with the adhesive mainly of rubber						
	Cloth	..	496(b)	..	5	5	
	Tape (including filmic)						
	For insulating purposes	..	8,560(b)	..	7	8	
	Other	..	..	10,988	7	7
21,23	Insulating materials (including cable cloth and varnished and non-adhesive tape but excluding self-adhesive cloth and tape)	..	2,653	..	5	5	
11	Tyres and tubes, new						
	Car tyres						
	Of rim diameter 12 inches and over						
	Tubeless	Thousands	Thousands				
	Radial ply		2,859	11,421	7	9	
	Other		14,910	47,405	7	10	
	Other						
	Radial ply		2,665	9,693	6	9	
	Other		1,820	6,573	6	9	
	Of rim diameter under 12 inches	15,170	48,003				
	Tubeless						
	Radial ply		599	1,985	*	5	
	Other		1,607	3,640	6	7	
	Other						
	Radial ply		111	406	5	5	
	Other		89.0	240	5	6	
	Commercial vehicle tyres	2,913	43,567	1,396	26,960	6	6
	Radial ply			2,532	39,080	7	10
	Other						
	Tractor, earthmover and land/road tyres	1,252	15,318	1,351	19,253	*	7
	Motor cycle tyres	455	977	529	1,212	*	5
	Scooter tyres	352	459	238	365	6	7
	Bicycle tyres	10,717	3,249	6,753	2,087	*	*
	Aero tyres	85.0	1,560	101	2,466	*	*
		Th.cwt.	Th.cwt.				
	All other (including solid tyres and solid tyreing sold in lengths)	73.4	992	79.0	1,470	15	17
		..	759	..	782

TABLE 5 (continued)

Industry sub-division (a)	1963		1968				
	Quantity	Value	Quantity	Value	Enter-prises	Entries	
	Thousands	£'000	Thousands	£'000	Number	Number	
	Rubber fabricated materials and rubber manufactured articles (excluding footwear) (continued)						
11	Tyres and tubes, new (continued)						
	Tubes						
	Car	4,815	2,454	6,232	3,214	7	9
	Commercial vehicle	..	2,761	..	3,518	7	9
	Tractor, earthmover and land/road	..	1,522	..	1,387	*	6
	Bicycle	10,231	1,326	7,197	1,102	*	5
	Motor cycle and scooter	1,395	492	648	219	5	6
	Other (including aero)	..	..	..	356	6	7
	Total tyres and tubes other than retreaded tyres	..	123,440	..	184,836	..	..
12	Tyres, retreaded (other than those retreaded on commission)						
	Car	3,752	8,414	..	12,619	16	29
	Commercial vehicle	597	5,802	800	8,006	16	29
	Other	91.0	1,228	98.0	1,855	11	15
11	Tyre repair materials and kits	..	1,747(b)	..	1,123	6	9
21,23	Rubber components and accessories for use in road vehicles, not elsewhere specified	..	19,564	..	25,796	54	71
	Rubber components and accessories for use in vehicles other than road vehicles (including aircraft, locomotives, carriages and wagons and ships)	..	3,416	..	6,908	33	40
	Rubber valves, washers, rings, etc. and other components and accessories not elsewhere specified	..	12,003	..	27,554	78	101
	Roller coverings	..	(c)	..	2,920	27	29
	Waste rubber	Th.cwt.	Th.cwt.				
	Ground	509	376	174	296	7	10
	Other	..	..	..	154	18	26
	Goods wholly or mainly of plastics materials (excluding footwear)	Th.ft.					
22	Conveyor, elevator and transmission belting	6,992	9,009	..	5,406	11	11
22	Hose and fittings	..	2,623	..	2,950	24	25
21,23	Parts of boots and shoes (d)						
	Rubber soles, full and half soles	..	3,765	..	2,018	18	21
	Rubber heels and heel tips	..	1,709	..	891	15	20
21,23	Rubber soling and heeling sheet (d)	..	3,522	..	1,818	18	21
	Other products (including meteorological balloons, mainly of rubber)	..	16,706	..	3,576	37	43
	Waste products (other than waste rubber)	..	252	..	152	20	25

Continued on next page.

TABLE 5 (continued)

Industry sub-division (a)	1963		1968			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
	Thousands	£'000	Thousands	£'000	Number	Number
Work done						
12 Retreading tyres						
Car tyres	904	2,071	811	1,438	5	5
Commercial vehicle tyres	86.0	619	122	819	5	5
Other	23.0	382	58.0	528	*	*
21,23 Coating of metal with rubber or plastics (including dip coating of pipes, wires, etc)	..	1,849(b)	..	2,816	21	22
21,23 Compounding of rubber	..	65	..	75	5	6
21,23 Proofing or coating cloth with rubber or plastics materials	..	866	..	1,389	13	14
21,23 Backing carpets with rubber or plastic underlay	..	1,515	..	4,803	24	24
Other work done						
Total		319,313		433,663	..	..
Sales in other industries (see Table 6)		10,285		12,854	..	..
Principal products of this industry sold by establishments in the industry		309,029		420,809	157	232(e)

- (a) The number given is that of the sub-division of which the item is a characteristic product. The sales shown are total sales by larger establishments, not merely sales by establishments classified to the sub-division.
- (b) Revised figures.
- (c) Not recorded separately for 1963.
- (d) Including moulded rubber bottoms (soles and heels) which were not distinguished separately for 1963. For 1968, total sales of moulded rubber bottoms (soles and heels) are included in the Report on the Footwear industry (Part 124).
- (e) This figure represents the total number of returns made for larger establishments in this industry which is less than the total number of establishments shown in Table 4 on account of 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		Principal industries in which produced (a)
	Value	Value	Entries	Number	
	£'000	£'000	Number		
Rubber compound, sold as such; other rubber sold for further processing (eg sold in sheets)		1,374	7		29,38,136,149
Rubber fabricated materials and rubber manufactured articles (excluding footwear)	1,968				
Sheets and sheeting, proofed cloth, etc (excluding cellular products, matting, floorings, etc and sheet for soling and heeling)		1,158	7		59,84,116,145
Hose and tubing other than for medical and surgical uses (excluding that made wholly or mainly of plastics materials)		472	*		52,58,111,149
Belting wholly or mainly of rubber	1,454	167	*		66,111,145
Mats, matting, floorings, etc wholly or mainly of rubber (including sponge backed) other than cellular products		150	*		34,97,145
Rubberised hair	(b)	468	*		101,133,149
Pressure sensitive self-adhesive cloth and tape (other than for medical and surgical dressings) with the adhesive mainly of rubber; insulating materials (including cable cloth and varnished and non-adhesive tape)		705	1,109	*	72,74
Hose and fitments and belting wholly or mainly of plastics materials		996	2,325	24	34,45,66,149
Rubber soles, full and half soles; rubber heels and heel tips; rubber soling and heeling sheet		756	239	11	124,149
Other rubber products	4,287	4,999	24		69,133,145,149
Work done					
Coating of metal with rubber or plastics (including dip coating of pipes, wires, etc), backing carpets with rubber or plastic underlay, and proofing or coating cloth with rubber or plastics materials		117	393	13	106,145,149
Total	10,285	12,854	..		

- (a) The references given are to the list of industries at the front of this report.
- (b) For 1963, included in 'Other rubber products'.

TABLE 7 Sales of other than principal products by larger establishments in the industry, 1963 and 1968

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

	1963	1968
	Value	Value
	£'000	£'000
Chemical manufactures and adhesives	2,785	1,420
Plastics materials	1,279	644
Machinery, parts and accessories and other engineering products other than of rubber and synthetic rubber	1,239	3,255
Proofed and other garments	3,600	179
Boots, shoes and slippers		4,627
Plastic foam products	3,055	4,642
Other plastic manufactures	4,239	4,959
Other products	7,454	8,664
Work done		
Backing textile piece goods with plastic foam (including combining and laminating and fabric to fabric bonding)	519	273
Services rendered to other organisations (a)	2,403	1,941
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored)	23,651	49,594
Canteen takings	943	1,168
Total	51,167	81,365

(a) Amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered to other organisations.

TABLE 8 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

This table is not applicable 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

	1963		1968	
	Quantity	Cost	Quantity	Cost
		£'000	Th.tons	£'000
Materials for use in production				
Natural rubber				
Latex	..	4,891	24.2	3,774
Other (including crêpe, gutta-percha, balata)	..	25,148	148	24,101
Synthetic rubber				
Latex	..	1,898	18.6	3,803
Other	..	22,748	229	29,591
Ground waste rubber	..	516	13.1	481
Waste or scrap rubber (including synthetic rubber), balata, gutta-percha, etc, unhardened or hardened, not elsewhere specified	..	1,147	36.4	476
Reclaimed rubber	..	2,440	29.2	2,056
Compounded rubber	..	3,910	31.0	5,874
Factice	..	267	..	281
Tyre valves and parts		(a)	..	870
Dyestuffs and pigments				
Titanium dioxide	..	2,240	..	419
Other (including pigment dyestuffs, lithopone, zinc oxide, but excluding blacks)	..		..	2,350
Glues and adhesives (including formulated adhesives, but excluding unformulated synthetic resins bought as such)		(a)	..	491
General chemicals (b)				
Inorganic (including inorganic gases)				
Blacks, mineral or carbon	..	7,489	..	10,942
Sulphur	..	355	..	533
Other	..	..	..	1,521
Organic (including organic gases)				
Isocyanates	..	676	..	751
Saturated polyesters, polyethers etc (for polyurethanes)	..	743	..	571
Other	..	..	..	2,207
Other (including mixtures of inorganic and organic chemicals)				
Plasticisers	..	2,389	..	1,970
Accelerators	..	1,514	..	2,138
Antioxidants	..	2,189	..	2,656
Other (c)	..	4,675	..	1,503
Fillers (clay, lime, wood flour etc)	..	1,811	..	1,798
Synthetic resins and plastics materials (excluding leathercloth and reinforced plastics)				
Polyvinyl chloride (including copolymers)				
Polymers and copolymers including the net resin contents of latices, solutions and dispersions, plasticised moulding and extrusion compounds	Th.cwt.		Th.cwt.	
	250	2,020	214	1,795
	..	..	..	252
Plasticised and unplasticised sheet, film, rod, tube, profile shapes and foam (d)	38.0	898	54.0	1,272
	..	165	..	246
Phenolics and allied products: resins (the net resin content), solutions, emulsions, dispersions, moulding and extrusion compounds (e)	46.3	538	94.5	843
	..	120	..	..

Continued on next page.

TABLE 10 (continued)

	1963		1968	
	Quantity	Cost	Quantity	Cost
	Th.cwt.	£'000	Th.cwt.	£'000
Materials for use in production (continued)				
Synthetic resins and plastics materials (excluding leathercloth and reinforced plastics) (continued)				
Coumarone-indene resins (including the net resin content of solutions, emulsions and dispersions)	27.5	123	28.9	172
			..	61
Acrylonitrile-butadiene-styrene resins (including the net resin content of solutions, emulsions and dispersions)	7.0	136	..	285
Finished parts and components of metal				
Wire (ferrous and non-ferrous)	..	3,047	..	7,397
Other	..	6,115	..	7,386
Textiles				
	Th.lb.		Th.lb.	
Cotton yarn (including cotton waste yarn)	4,057	939	3,844	980
Man-made fibre (nylon, rayon, etc) continuous filament yarn			..	142
Synthetic (nylon, etc) yarn	1,926	914	4,081	1,694
Other (rayon, etc) yarn	12,349(f)	3,057	17,953	4,057
Man-made fibre (nylon, rayon, etc) spun yarn (including waste yarn) and spun yarn doubled with continuous filament yarn (g)				
Synthetic (nylon, etc) yarn	202	83	890	293
	..	19		
Other (rayon, etc) yarn	331(f)	83	707	164
Woven piece goods (other than narrow fabrics) wholly or mainly of				
	Th.sq.yds.		Th.sq.yds.	
Cotton (including cloth in the grey)	64,937	9,624	56,581	8,405
	..	1,120		
Jute (including hessian)	14,414	818	26,030	1,684
	..	102		
Synthetic fibres (nylon, etc)	22,090	5,338	47,321	9,459
	..	1,499		
Other man-made fibres (rayon, etc)	48,990	7,482	59,076	10,178
	..	2,108		
All other fabrics (including narrow fabrics of all materials, knitted fabrics, etc) other than rubber coated fabrics	..	1,590	..	2,296
Cloth and felts proofed with rubber (including spread fabrics)	..	1,321	..	2,484
	Th.gal.		Th.gal.	
	330	91	639	189
Lubricating oils and greases				
	Th.cwt.		Th.cwt.	
	7.3	37	16.7	58
	..	63		
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement				
Tyres and other spare parts for firms' own road goods vehicles	..	3,978	..	376
Other	..		..	5,546
All other materials for use in production	..	13,869	..	16,304

TABLE 10 (continued)

	1963		1968	
	Quantity	Cost	Quantity	Cost
		£'000		£'000
Packaging materials				
Paper and board				
Boxes, cartons, drums and canisters (with or without metal ends) of paper and cardboard	..	2,041	..	1,945
Fibreboard packing cases			..	333
Bags and multiwall paper sacks (h)	..	59	..	120
Wrapping and packing paper (including paper coated with plastics and any laminates incorporating paper but not metal)	..	501	..	287
Other packaging materials of paper and paperboard (including moulded pulp units and labels, but excluding paper and board for converting into packaging materials) (i)			..	630
Transparent regenerated cellulose film in sheets or rolls (j)	..	58	..	97
Plastics (k)				
Film (up to 0.01 inches thick)				
Of polyethylene			..	412
Of other plastics materials	..	330	..	59
Sheets and sheeting (thicker than 0.01 inches)			..	21
Moulded and fabricated containers (with a capacity exceeding 1 gallon) including closures and inserts		(a)	..	23
All other packaging materials	..	710	..	600
Fuel and electricity (l)				
	Th.tons		Th.tons	
Coal	605	2,767	464	2,392
	..	6		
Coke (including screenings) and manufactured fuel	10.8	72	5.6	40
	..	34	..	7
	Th.gal.		Th.gal.	
Derv fuel and motor spirit for use in road vehicles	1,948	373	4,251	980
	..	75		
Other liquid fuels (including creosote/pitch mixtures, etc and liquefied petroleum gases)	36,005	1,333	45,056	1,944
			..	743(m)
	Th.therms		Th.therms	
Gas	3,461	240	2,202	198
	..	46	..	154
	Th.kWh		Th.kWh	
Electricity	1,095,318	5,773	839,328	5,429
			..	3,029
Total cost of materials and fuel		168,756		204,884
Goods purchased for merchanting		19,568		42,397
Canteen purchases		825		1,135
Total cost of purchases		189,149		248,417

(a) Not recorded separately for 1963.

(b) For 1963, described as 'Heavy chemicals (acids, alkalis, alcohols, other inorganic and organic chemicals, compressed gases, etc)'.

(c) For 1963, including other inorganic and organic chemicals.

(d) For 1963, foil was specifically included.

(e) For 1963, described as 'Phenolics and cresylics; resins (straight and modified), solutions, emulsions and dispersions'.

(f) Revised figures.

(g) For 1963, waste yarn was not specifically included.

(h) For 1963, bags were not included.

(i) For 1963, paper and board for conversion were not specifically excluded.

(j) For 1963, bags were included.

(k) For 1963, described as 'Plastic sheet, film, foams, etc, (including bags)'.

(l) The total quantity of electricity generated in establishments employing 25 or more persons in this industry was 7,078 Th.kWh in 1963. Owing to the risk of disclosure of information relating to individual firms, separate figures for 1968 cannot be given.

(m) For 1968, may include a small amount of fuels not covered by specific headings.

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.	1,408	1,217
Transport costs			
Wages and salaries	£'000	1,064	1,318
Derv fuel and motor spirit	"	447	980
Tyres and other spare parts for road goods vehicles	"	..	376
Payments to other organisations for transport	{ by road { by rail and other means excluding postal services	4,900	6,812
			1,238
Costs of operating road goods vehicles			
Insurance	"	73	72
Vehicle licences	"	76	143
Depreciation	"	438	443
Payments to other organisations for repairs and maintenance	"	216	269
Total	"	7,213(a)	11,651

(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 establishments, 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	621	760
Road goods vehicles	216	269
Plant, machinery and other capital equipment	2,330	3,825
Insurance, licensing and depreciation of road goods vehicles (b)	586	658
Rates, excluding water rates	1,888	3,083
Hire of plant and machinery	289	645
Postage, telephone, telegrams, cables and telex (c)	1,149	1,882
Total	7,078	11,122

(a) No deduction is made for these payments to arrive at the figures of net output given in this report.

(b) For details see Table 11.

(c) Excluding telex for 1963.

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

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

Year ended	Percentage of total returns received	Percentage of total number employed
1968	Per cent.	Per cent.
April (a)	3.0	1.4
May	0.9	0.1
June	0.9	0.1
July	0.9	0.5
August	1.7	0.7
September	9.9	9.8
October	3.0	4.9
November	0.4	0.1
December	57.3	71.4
1969		
January	1.7	0.5
February	0.9	0.5
March	18.5	9.7
April (b)	0.9	0.3
	100	100

(a) From 6 April.

(b) To 5 April.