

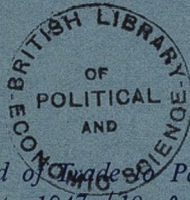
BOARD OF TRADE

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*The Report on the  
Census of Production  
for 1954*

Volume 12: Industry E

CANAL, DOCK AND HARBOUR UNDERTAKINGS  
(CIVIL ENGINEERING)



*Presented by the Board of Trade to Parliament in pursuance of the  
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# The Report on the Census of Production for 1954

VOLUME 12 INDUSTRY E

## CANAL, DOCK AND HARBOUR UNDERTAKINGS (CIVIL ENGINEERING)

THIS REPORT relates to civil engineering establishments of Canal, Dock and Harbour undertakings engaged wholly or mainly in the construction or repair of canals, waterways, harbours, docks, sea walls, etc.

Undertakings were asked to return their output in terms of work done in the year of return, valuing that work on the basis of the cost of materials used and wages and salaries paid together with the establishment charges attributable to the work carried out. Similarly, the cost of materials related to materials used, not materials purchased in the year.

This industry is included in minimum list heading 202(2) in the Standard Industrial Classification (relating to Civil Engineering Contracting).

### LIST OF TABLES

Table No.	Title	Page	Table No.	Title	Page
1	Industry summary: estimates for the industry as a whole	12/E/3	6	Sales of principal products of the industry by establishments classified to other industries	Does not apply
2	Summary of returns received	12/E/3	7	Other output in the industry (i.e., other repair work done)	12/E/5
3	Analysis by size, 1954	12/E/4	8	Total make of intermediate products	Does not apply
4	Analysis according to specialisation within the industry	Does not apply	9	Purchased materials and fuel used, 1954	12/E/6
5	Principal output of the industry	12/E/4	10	Average number of employees and wages, salaries and superannuation payments	12/E/7
			11	Employment in a specified week	12/E/7

IMPORTANT NOTES and definitions appear on the next page. In interpreting the data in the tables, it is essential to bear these in mind.

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The following notes describe terms in general use in the tables of the report. More detailed explanations of the terms used and a description of the scope and method of taking the census are given in the separate booklet entitled 'The Report on the Census of Production for 1954 - Introductory Notes' (price 1s. 6d. net).

**Industrial Classification:** Establishments are classified to industries according to the nature of their output and, as far as possible, in conformity with the Standard Industrial Classification. Certain products are identified as the principal products of individual industries, the principal products for a given industry being of a similar nature or commonly associated in production. The principle of classification normally followed is that an establishment is classified to an industry if its output of the principal products of that industry accounted for a greater proportion of the value of its output than did its output of the principal products of any other industry.

**Specialist producers** normally comprise those establishments 50 per cent. or more of whose total output by value is accounted for by the characteristic products of the specialist group.

**Intermediate products:** For some industries figures are given showing the total quantities made during the year of intermediate products, i.e., products which may be further processed in the establishments in which they are produced.

**Larger establishments:** The information given in the report relates mainly to 'larger establishments', i.e., establishments of firms employing on the average more than 10 persons. In most cases an establishment comprises the whole of the premises under the same ownership or management at a particular address (e.g., a mine or factory). Offices, warehouses, laboratories and other ancillary places of business situated apart from the producing works are not regarded as separate establishments and are included in the return for the works.

**Small firms** are those employing on the average 10 or fewer persons.

The estimates for the industry as a whole given in Table 1 are normally obtained by increasing the other items shown in the same proportion as total employment.

**Gross output (production)** is the total value of goods made and other work done during the year: it is obtained by adjusting the value of sales and work done during the year for changes in the value of stocks of products on hand for sale and work in progress.

**Net output** is the amount left after deducting from the value of gross output the aggregate of the cost of materials and fuel used, the amount paid for work given out, and, for 1951 and 1954, any transport payments made. This represents the value added to materials by the process of production, and constitutes the fund from which wages, salaries, rents, rates and taxes, advertising and other selling expenses and all other similar charges have to be met, as well as depreciation and profits.

**Sales** means sales during the year of goods made in the establishment covered by the return or made on commission for it, whether produced in the year or not. The value of sales is the net selling value, i.e., the amount charged to customers, whether on an ex-works or delivered basis, and net of any trade discounts, agents' commissions, allowances for returnable cases, purchase tax, etc. For goods charged on a delivered basis to customers overseas, firms were required to give the f.o.b. value.

**Materials and fuel:** The total cost of materials and fuel purchased includes all purchases during the year of materials for use in production, and of fuel (includ-

ing oil, gas and electricity) for all purposes: packing materials, including the full cost of returnable cases when first purchased; workshop and office materials; water charges; materials for repairs to buildings, plant and vehicles when carried out by firms' own work-people included in their returns; consumable tools; and parts for machinery purchased as replacements. Purchases of goods for merchanting are excluded. The cost of materials and fuel used, given in Table 2, is obtained by adjusting purchases for changes during the year in the value of stocks.

**Stocks:** Firms were required to give stocks of materials and fuel, products on hand for sale, and work in progress, 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 deducted in arriving at net output.

**Employment:** Total employment includes working proprietors, administrative, technical and clerical employees, and operatives, but excludes outworkers, canteen employees and persons engaged in merchanting or any other activity not covered by a firm's return, who are shown separately as excluded employees. Employees are persons on the pay-roll (i.e., persons whose National Insurance cards were held by employers), whether employed full-time or part-time.

**Working proprietors** are proprietors of businesses other than limited companies, together with members of their families who worked in the business without receiving fixed wages or salaries. Any persons working less than half the normal hours are excluded. For Northern Ireland directors of limited companies (other than those paid by fee only) are also included.

**Administrative, technical and clerical employees** include directors, other than those paid by fee only (except in Northern Ireland); managers, superintendents and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; travellers; and office (including works office) employees.

**Operatives** include all other classes of employees, i.e., broadly speaking, all manual workers.

**Outworkers** 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, bonuses and commissions without any deductions for income tax, insurances, contributory pensions etc. They exclude payments to working proprietors.

**Capital expenditure** includes expenditure on new building work, and on plant, machinery and vehicles, charged to capital account during the year, including any transport and installation costs involved. It includes expenditure in respect of establishments in Great Britain which had not begun production before the end of the year (which has not previously been included in the Census of Production reports for individual industries).

**Symbols used:**

.. for not available

- for nil or negligible (less than half the final digit shown).

Where figures are rounded, e.g., given to the nearest £ thousand, there may be apparent slight discrepancies between the sums of constituent items and the totals shown. In some cases, figures have been combined with others of a similar nature where publication of separate details might disclose information relating to an individual undertaking.

Industry summary  
Estimates for the industry as a whole

TABLE 1

	United Kingdom			Scotland 1954	Wales 1954 (a)
	1948	1951	1954		
Gross output (production)	£ million	£ million	£ million	£ million	£ million
Net output	11.7	14.4	18.2	1.37	..
Capital expenditure less disposals (b)	9.0	10.2	12.9	0.94	..
Wages and salaries	0.8	1.4	2.2	0.27	..
	7.8	9.4	11.7	0.95	..
Total employment	Thousands	Thousands	Thousands	Thousands	Thousands
	24.9	25.2	25.7	2.24	..

(a) Owing to the risk of disclosure of information relating to individual undertakings, separate particulars cannot be given.

(b) Capital expenditure on new building work, plant, machinery and vehicles (excluding that incurred for establishments not yet in production), less amounts received for plant, machinery and vehicles disposed of.

## Summary of returns received

TABLE 2

	Unit	Great Britain 1948	United Kingdom	
			1951	1954
<b>UNDERTAKINGS EMPLOYING ON AVERAGE MORE THAN 10 PERSONS</b>				
Number of establishments	No.	100	122	118
Output of undertakings in this industry				
Principal output (a)	£'000	8,466	11,179	14,224
Other output (b)	"	2,629	2,993	3,639
Gross output (work done) (c)	"	11,094	14,172	17,864
Cost of materials and fuel used	"	2,579	3,954	4,921
Payments for work done on materials given out	"	7	35	47
Payments for transport (d)	"	..	181	199
Net output	"	8,509	10,003	12,696
Average number of employees	{ operatives others	No.	21,572	22,388
Total employment	"	1,921(e)	2,404	2,470
Net output per person employed	"	23,493	24,792	25,304
	"	362	403	502
Wages and salaries	{ of operatives of others	£'000	6,576	8,065
Capital expenditure	"	828	1,209	1,520
New building work (f)	"	82	685	1,049
Plant and machinery	{ acquisitions (f) disposals	"	632	701
	"	32	34	21
Vehicles	{ acquisitions (f) disposals	"	28	44
	"	1	3	21
<b>UNDERTAKINGS EMPLOYING ON AVERAGE 10 OR FEWER PERSONS</b>				
Number of returns	No.	80	77(g)	81
Total employment	"	375	346(g)	404

(a) For details for 1951 and 1954 see Table 5.

(b) For details for 1954 see Table 7.

(c) For 1948 gross output excludes payments for transport services rendered in connection with the output. For subsequent years gross output includes payments to other firms and undertakings and to undertakings' own separate transport organisations for transport services.

(d) Payments to other firms and undertakings and to undertakings' own separate transport organisations for transport services rendered in connection with the output and materials and fuel purchased. No details of transport payments were collected for 1948.

(e) Number in week ended September 25, 1948.

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

(g) Excluding Northern Ireland. No information about small undertakings was collected in Northern Ireland for 1951.



## Analysis by size, 1954

TABLE 3 Larger establishments in the United Kingdom

Average number employed	Establishments	Gross output	Net output	Employees		Wages and salaries		Capital expenditure (a)	Net output per person employed
				Operatives	Others	Operatives	Others		
	Number	£'000	£'000	Number	Number	£'000	£'000	£'000	£
11 - 24	28	309	228	441	67	179	34	279 (b)	449
25 - 49	20	400	289	613	62	249	34		428
50 - 99	18	750	589	1,058	136	429	74		494
100 - 199	20	1,941	1,507	2,688	359	1,042	221	554	494
200 - 299	12	1,982	1,315	2,706	271	1,084	175	198	442
300 - 399	5	1,088	826	1,629	169	622	124	278	459
400 - 499	5	1,692	1,159	2,043	273	895	181	27	500
500 - 749	7	3,705	2,699	4,076	566	1,889	349	288	581
1,000 and over	3	5,996	4,084	7,580	567	3,620	328	455	501
Total	118	17,864	12,696	22,834	2,470	10,009	1,520	2,223	502

(a) Capital expenditure on new building work and on acquisition of plant, machinery and vehicles. Excluding expenditure for establishments not yet in production.

(b) Owing to the risk of disclosure of information relating to individual undertakings separate particulars cannot be given.

TABLE 4 - Analysis according to specialisation within the industry, 1954

No specialisation within this industry was distinguished.

## Principal output of the industry

TABLE 5 Larger establishments in the United Kingdom

	1951		1954	
	Value of work done	Value of work done	Value of work done	Entries
	£'000	£'000	£'000	No.
Canals and waterways				
New construction	519	285		13
Repair and maintenance	2,731	1,618		37
Harbours and docks, including wharves, piers and jetties, and harbour and dock roads				
New construction	1,135	1,423		22
Repair and maintenance	3,382	2,827		74
Dredging				
New construction	..	133		12
Repair and maintenance	..	2,943		65
Sea walls, embankments and defences				
New construction	297	670		12
Repair and maintenance	459	1,139		27
Dock railways				
New construction	79	36		10
Repair and maintenance	923	1,060		47
Depots, workshops, offices, warehouses and other buildings				
New construction	417	396		36
Repair and maintenance	1,128	1,348		75
Other work	109	348		24
Total	11,179	14,224		82

(a) Including dredging.

(b) Not recorded separately, values are included in the figures for new construction and repair and maintenance of canals and waterways and harbours and docks, etc.

(53473)

TABLE 6 - Sales of principal products of the industry by establishments classified to other industries

This table is not applicable to the industry.

Other output in the industry (i.e., other repair work done)

Larger establishments in the United Kingdom

TABLE 7

	1954
	Value of work done
	£'000
Repairs to	
Ships and boats	1,174
Railway locomotives	86
Railway wagons and vans	49
Other vehicles	113
Mechanical handling equipment (e.g., cranes, winches, capstans, lifts, hoists, conveyors)	1,400
Other machinery	805
Other work done	13
Total	3,639

TABLE 8 - Total make of intermediate products

This table is not applicable to the industry.

(53473)



Purchased materials and fuel used, 1954  
Larger establishments in the United Kingdom

TABLE 9

	Quantity	Cost
	Tons	£'000
Materials		
Cement	27,566	144
Cast iron goods	2,821	103
Iron and steel in all other forms except finished parts and scrap	8,625	335
	Th.cu.ft.	
Hardwood	204.9	154
Softwood	615.2	332
Insulated electric wire and cables and other electrical materials	..	207
	Gal.	
Paints, distemper and varnish, including emulsion paints, cellulose based paints and lacquers	50,102	70
All other purchased materials used	..	2,542
Fuel and electricity	Th.tons	
Coal	116.9	494
Coke	4.4	22
Liquid fuels (including creosote/pitch mixtures)		
For use in internal combustion engines	Th.gal.	
Motor spirit (petrol) for use in road vehicles and derv. fuel	476.3	91
Other	605.2	35
	..	8
For burning in furnaces, boilers, kilns, etc.	8,098.2	270
Gas purchased	Th. therms	
From Gas Boards	303.7	18
From other sources, including other departments of the same undertakings	..	3
Electricity purchased (a)	Th.kWh.	
From Electricity Boards	12,208	74
	..	12
From other sources, including other departments of the undertakings	338	2
All other purchased fuel used		6
Total Cost		4,921

(a) No electricity was generated in undertakings' own establishments in this industry in 1954.

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

Larger establishments in the United Kingdom

TABLE 10

	1951	1954
	Number	Number
Average number of employees		
Operatives	22,388	22,834
Administrative, technical and clerical employees	2,404	2,470
Total	24,792	25,304
Wages and salaries paid to	£'000	£'000
Operatives	8,065	10,009
Administrative, technical and clerical employees	1,209	1,520
Total	9,274	11,528
Wages and salaries per head	£	£
Operatives	360	438
Administrative, technical and clerical employees	503	615
Superannuation and other pension funds for employees and dependents (b)		£'000
Employers' contributions	..	437
Employees covered	..	Number 15,451
Pension, etc. payments to former employees and dependents (b)	..	£'000 230

(a) The following persons not included above were also employed by larger establishments in this industry in 1954 ('other workers' includes, for example, employees in separate transport organisations).

Canteen workers	36 Males	105 Females
Other workers	25 Males	- Females

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

Employment in a specified week (a)  
Larger establishments in the United Kingdom

	1951			1954		
	Males	Females	Total	Males	Females	Total
	Operatives	22,067	71	22,138	22,797	79
Administrative, technical and clerical employees	2,034	377	2,411	2,145	377	2,522
Total employees	24,101	448	24,549	24,942	456	25,398

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



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22,228	488	24,943	24,242	448	24,101	Total employees
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(a) Week ended September 22, 1931, or October 30, 1934.

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