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THE COAL TAR DISTILLATION INDUSTRY

1959

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PUBLICATIONS

The results of the annual Census of Industry are published by the Dominion Bureau of Statistics in a series of industry reports which are released each year as the compilations are completed. Reports for industries classified to the **Chemicals and Allied Products** Major Group are listed below, along with current and annual publications of related interest. Similar reports are issued for other industries. A complete catalogue of publications of the Bureau is available on request from the Information Services Division, Dominion Bureau of Statistics, Ottawa, or from the Queen's Printer, Ottawa.

Catalogue number	Title	Frequency	Price
		A - Annual B - Biennial M - Monthly S.C. - Special Compilation	
46-201	Chemicals and Allied Products - General Review (A)		.50
46-202	Acids, Alkalies and Salts Industry (A)		.50
46-203	Adhesives Industry (A)		.50
46-204	Coal Tar Distillation Industry (A)		.25
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Remittances should be in the form of cheque or money order, made payable to the Receiver General of Canada and forwarded to the Information Services Division, Dominion Bureau of Statistics, or to the Queen's Printer, Ottawa, Canada.

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EXPLANATORY NOTES

This report is one in a series of about 130 publications which present the results of the 1959 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and for major industry groups. An annual Census of Manufactures has been carried out by the Dominion Bureau of Statistics since 1916.

Industry statistics given in these reports refer to number of establishments, employees, salaries and wages, cost of materials, supplies, fuel and electricity, gross value of shipments, inventories and value added by manufacturing. Details of materials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1959 are as follows:

Period Covered

Firms are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where the firms find it impossible to supply calendar year data from accounting records. However the data on employees, salaries and wages are requested on a calendar year basis in all cases.

Establishment

Data for the annual census is collected on an establishment basis. A firm with more than one plant is required to file a report for each plant. In most cases an establishment is a complete factory. Sometimes, however, a plant is divided into two or more establishments when it carries out operations classifiable to different industries and when separate accounting records are available. Usually the statistics for an establishment relate only to the manufacturing activities. Other activities such as construction at the plant by its own employees, wholesale or retail activities carried on at the plant location, etc., are not included. Plants engaged solely in repair work (except in the case of furniture, shipbuilding, boat building, aircraft and railway rolling stock industries) are not included but plants occupied in assembling parts into complete units are included.

Employees

Administrative and office employees include all executives and supervisory officials such as presidents, vice-presidents, secretaries, treasurers, etc., together with managers, professional and technical employees, superintendents and factory supervisors above the working foremen level and clerical employees. Working owners and partners are also included in this category.

Production and related workers include all other factory workmen whether paid on a monthly, weekly, hourly or piece-work basis. Working foremen doing work similar to that of the employees they supervise are included, as are maintenance, warehousing and delivery staffs. Employees on new construction work, in retail or wholesale operations, on outside piece work etc., are not included.

Production workers are reported by months, an average for the year being obtained by summing the monthly figures and dividing by twelve. This procedure is followed even though the plant did not operate in all months. Figures on employment refer to calendar years whether or not some establishments reported other data on a financial year basis.

Salaries and Wages

Salaries and wages refer to gross earnings of the employees described above, including salaries, wages, commissions, bonuses, the value of room and board where provided, deductions for income tax and social services such as sickness and unemployment insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. Payments for overtime are included.

Salaries refer to amounts paid to administrative and office employees. Withdrawals by working owners or partners for normal living expenses for self and family are included but not their withdrawals for income tax. Wages refer to the amounts paid to production and related workers as defined above. Data on earnings refer to the calendar year whether or not some establishments reported other data on a financial year basis.

Cost of Fuel and Electricity

Figures for fuel refer to amounts actually used, (including fuel used in cars and trucks), not to purchases unless the quantities are the same. Values refer to the laid-down cost at the works, including freight, duty, etc.

Materials and Supplies Used

Figures represent quantities and laid-down cost values, at the works, of materials and supplies actually used during the year whether purchased from others or received as transfers from other plants of the reporting company. Amounts paid to other manufacturers for work done on materials owned by the reporting company are included. Returnable containers or any other items charged to capital account are not included. Fuels are not included. Goods bought from others or received as transfers from other plants of reporting companies for resale without further processing are not included. Maintenance and repair supplies not chargeable to capital account are included.

Factory Shipments

Factory shipments refer to shipments of goods made from own materials either in the reporting plant or by other manufacturers on the basis of a charge to the reporting plant for work done. All products and by-products shipped from the establishment are included whether for domestic use, export, or for government departments. Transfer shipments to sales outlets, distributing warehouses or to other manufacturing units of the reporting firm are included. Goods bought or received as transfers and resold without further processing are not included. Values are computed on f.o.b. plant or

plant warehouse basis, and do not include sales tax or excise duties. Values of containers not returnable are included. Amounts received in payment for work done on materials owned by others are included.

In a few industries such as shipbuilding, aircraft, etc., where work on principal products extend over a relatively long period, the value of production is recorded rather than the value of shipments. For those industries production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on finished units delivered in the year under review.

Inventories

Values represent the book values of manufacturing inventories owned and held at the reporting plant. Figures include inventories held in warehouses or selling outlets which have been included with plant operations for purposes of reporting shipments.

Value Added by Manufacturing

Figures are computed from value of shipments plus or minus changes in inventories of finished goods and goods in process less cost of materials, fuel and electricity. This figure is sometimes referred to as net production.¹

Standard Industrial Classification

The Standard Industrial Classification Manual, prepared by the Dominion Bureau of Statistics, provides for 135 three-digit industries in the manufacturing sector, arranged in 17 major groups. Reporting establishments are classified or allotted to specific industries on the basis of the value of principal products made or shipped.

Short Forms

Between 1949 and 1957, in an effort to ease the reporting burden for smaller firms, a short form was used asking for the total value of shipments only or, in a few cases where losses of detail were significant, for quantities and values of principal products. For purposes of publication, missing data were estimated on the basis of appropriate ratios. In general the cut-off point for these short forms was set at \$50,000 value of shipments. About 40% of the total number of establishments reported on the short form and accounted for less than 3 per cent of the total value of shipments.

In 1958, in order to establish a new base year, the small firms were asked to report all items of principal statistics together with some detail on materials and products.

¹ To arrive at the National Accounts concept of "gross domestic product at factor cost", it would be necessary to subtract also the cost of office supplies used, advertising, insurance and other goods and services obtained from other businesses. Data on these inputs are not collected on the annual Census of Manufactures. Value added figures for "The primary industries and construction" are published in D.B.S. publication 61-202, *Survey of Production*.

For the 1959 Census, the short form was used again, but further steps were taken to ease the respondents' burden. First, the general limit for short forms was raised to \$100,000 value of shipments. In addition, a new intermediate form was developed. This form is a shortened version of the long form in that most of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000-\$500,000 value of shipments, but in the case of both the short and intermediate forms there were lower cut-offs for a number of industries in which the smaller firms accounted for a larger share of total shipments. On the other hand, limits were raised where this could be done without a significant loss of coverage. On most of the short forms for 1959, in addition to total value of shipments, data on principal products were requested. In a few industries, where loss of employment and earnings data were considered too large because of higher cut-offs, a question on total payroll was placed on the short form.

The intermediate and long forms provide complete data for the compilation of all elements of principal industry statistics and the details of materials and products. The one-page short form, although containing data on principal products and total value of shipments, does not request information on other elements of principal statistics such as value of inventories, materials, fuel and electricity and, in most cases, employment and salaries and wages, nor does it contain detailed data on volume and value of materials used. For purposes of compiling aggregates of principal statistics by industry and by geographic location, the missing data for each establishment were estimated for 1959 by using, in general, ratios based on the change in the value of shipments between 1958 and 1959. The proportion of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

The general request for the principal items of products on the short form for 1959 permitted a fairly complete compilation of the detailed quantities and values of commodity shipments. In the case of the detailed quantities and values of materials, fuel and electricity, however, and the monthly distribution of production workers, only the totals of data actually reported on the intermediate and long forms are contained in published reports and no attempt was made as in past years to estimate the generally small proportion of individual totals represented by detailed items omitted from the short forms.

The new approach has relieved an additional 12,000 establishments from filling out the regular long form. Establishments now receiving the short form number in excess of 20,000 and account for more than 54 per cent of the total number of establishments and a little more than 3 per cent of the total value of shipments.

THE COAL TAR DISTILLATION INDUSTRY

1959

Output from the Coal Tar Distillation Industry in 1959 was valued at \$13,267,489 an increase of 10.4 per cent from the \$12,018,034 reported in 1958. Factory shipments of creosote oils totalled 10,148,218 gallons valued at \$2,669,178 in 1959; refined tars amounted to 2,277,265 gallons at \$541,323 and pitch totalled 126,620 tons at \$5,703,209. Phenols, cresols, cresylic acid, xylenols, phthalic anhydride, coal tar paints, pitch coke, tar and asphalt cements, disinfectants and asphalt saturants were other principal products.

Eight plants operated in 1959 there being 1 in Nova Scotia; 1 in Quebec and 6 in Ontario. These works afforded employment to 491 people who were paid \$2,752,373 in salaries and wages.

Materials for manufacturing cost \$7,647,291 in 1959 including 37,887,359 gallons of crude tars at \$5,400,684. In addition an amount of \$747,643 was paid for fuel and electricity.

TABLE 1. Principal Statistics of the Coal Tar Distillation Industry, Significant Years, 1929 - 59

Year	Estab-lish-ments	Em-ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost at plant of materials used	Value added by manufacture ¹	Gross selling value of products ¹
	number		dollars				
1929	10	242	353,970	123,019	2,658,555	1,036,476	3,818,050
1933	10	183	272,439	74,186	1,076,277	521,836	1,672,299
1937	10	254	357,744	170,910	2,189,237	1,039,394	3,399,541
1939	11	302	393,522	163,950	2,108,544	1,375,586	3,648,080
1943	10	424	789,335	326,448	4,059,598	2,154,239	6,540,285
1946	11	410	740,619	341,182	3,116,167	2,052,078	5,509,727
1949	11	415	1,166,863	549,310	4,786,640	3,996,837	9,332,787
1955	11	528	2,080,557	611,810	7,010,908	4,802,463	11,892,812
1956	11	537	2,458,014	703,832	8,048,543	4,549,278	13,221,192
1957	11	530	2,600,013	770,891	8,200,347	4,809,942	13,663,996
1958	10	572	2,761,006	744,488	7,611,604	3,463,246	12,018,034
1959 ²	8	491	2,752,373	747,643	7,647,291	4,849,644	13,267,489

¹ Due to lack of inventory data, figures for "Value added by manufacture" prior to 1954 were obtained by subtracting the cost of materials used, including fuel and electricity, from the total value of factory shipments. In 1954 and 1955 the "Value added" adjustment incorporated the increase or decrease to shipments values resulting from changes in the value of inventories over the period. For these two years, the adjustments that were made used only the change in finished product inventory owned by manufacturers. Beginning with 1956 the calculation of the "Value added" figure was further adjusted to take into account the "Goods in process" as well as the finished goods held at plant or plant warehouse.

² See footnote to Directory on page 8. On this account figures for 1959 are not exactly comparable with earlier years.

Note: Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

TABLE 2. Inventories,¹ 1959

	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total
	dollars			
Opening	657,412	43,288	1,299,059	1,999,759
Closing	607,726	20,295	1,299,141	1,927,162

¹ (a) Book value of all manufacturing inventories owned and held at plant and plant warehouses.

(b) Beginning with 1954, information on the value of year-end inventory holdings at plant and plant warehouses is being collected as part of the annual Census of Industry. These data were formerly collected by a separate survey. The summarized results for the Coal Tar Distillation Industry for the year under review are shown in the above table.

(c) The opening inventory for the current year may not necessarily agree with the closing inventory published the previous year because of changes in the composition of the industry such as: the addition of new establishments, the disappearance of old ones, or the transfer of establishments to other industries for statistical purposes. The figure for value added by manufacture for the previous year does not need to be altered because of such changes in the composition of the industry.

TABLE 3. Products of the Coal Tar Distillation Industry, 1958 and 1959

Product	1958		1959	
	Quantity	Value of factory shipments	Quantity	Value of factory shipments
		\$		\$
Refined tar Imp. gal.	3, 213, 996	700, 338	2, 277, 265	541, 323
Pitch ton	114, 498	4, 707, 497	126, 620	5, 703, 209
Creosote oils Imp. gal.	9, 576, 092	2, 635, 062	10, 148, 218	2, 669, 178
All other products ¹ .....	...	3, 975, 137	...	4, 353, 779
Totals .....	...	12, 018, 034	...	13, 267, 489

¹ Includes coal tar paints, cements and disinfectants; also asphalt cements, asphalt saturant, pitch coke, phenol, cresol, orthocresol, metaparacresol, cresylic acid, phthalic anhydride, etc. Figures cannot be shown for these items as each was made by only one or two companies.

... Figures not appropriate or not applicable.

TABLE 4. Materials Used in the Coal Tar Distillation Industry, 1958 and 1959

Material	1958		1959	
	Quantity	Cost at plant	Quantity	Cost at plant
		\$		\$
Crude coal tar Imp. gal.	36, 200, 225	5, 315, 877	37, 849, 195	5, 395, 084
Crude water-gas tar "	246, 448	28, 746	38, 164	5, 600
Asphalt "	149, 937	25, 985	181, 888	33, 223
Containers and packing materials .....	..	510, 515	..	385, 764
All other materials .....	...	1, 730, 481	...	1, 827, 620
Totals .....	...	7, 611, 604	...	7, 647, 291

.. Figures not available.

... Figures not appropriate or not applicable.

TABLE 5. Production¹ of Creosote Oils, Pitch and Refined Tars, 1950-59

Year	Creosote and other oils	Pitch	Refined tar, tarvia, etc.
	Imp. gal.	ton	Imp. gal.
1950	11, 728, 014	113, 510	4, 324, 803
1951	11, 726, 520	112, 141	4, 377, 223
1952	11, 608, 114	131, 742	3, 976, 884
1953	13, 750, 179	132, 737	4, 742, 967
1954	10, 959, 458	135, 912	4, 641, 583
1955	10, 240, 525	119, 649	3, 559, 726
1956	9, 630, 724	134, 195	3, 816, 392
1957	11, 984, 000	120, 660	2, 976, 000
1958	9, 576, 092	114, 498	3, 214, 000
1959	10, 666, 050	134, 130	2, 539, 700

¹ (a) Factory shipments since 1953.

(b) Since 1959 includes production by distilleries included as divisions of establishments classified to the Roofing Paper Industry.

TABLE 6. Crude Tar Used in Tar Distilleries¹ 1950-59

Year	Imp. gal.	Year	Imp. gal.
1950	41, 324, 989	1955	39, 746, 903
1951	40, 260, 705	1956	43, 141, 887
1952	43, 037, 000	1957	40, 946, 000
1953	45, 401, 000	1958	36, 447, 000
1954	38, 542, 083	1959	38, 038, 800

¹ Including tar used by distilleries included as divisions of establishments classified to the Roofing Paper Industry.

TABLE 7. Employees and their Earnings in the Coal Tar Distillation Industry, 1955 - 59

Year	Employees					Earnings		
	Supervisory and office		Production and related workers		Total	Supervisory and office	Production and related workers	Total
	Male	Female	Male	Female				
	number					dollars		
1955	136	30	356	6	528	807,533	1,273,024	2,080,557
1956	124	30	377	6	537	1,046,763	1,411,251	2,458,014
1957	128	33	365	4	530	1,160,986	1,439,027	2,600,013
1958	165	40	364	3	572	1,318,112	1,442,894	2,761,006
1959	151	32	306	2	491	1,432,889	1,319,484	2,752,373

TABLE 8. Production Workers, by Months, 1958 and 1959

Month	1958			1959		
	Male	Female	Total	Male	Female	Total
	number					
January	371	3	374	323	2	325
February	367	3	370	315	2	317
March	364	3	367	314	2	316
April	363	3	366	312	2	314
May	375	3	378	319	2	321
June	371	3	374	312	2	314
July	385	3	388	301	2	303
August	371	3	374	297	2	299
September	358	3	361	293	2	295
October	346	3	349	298	2	300
November	342	3	345	295	2	297
December	354	3	357	294	2	296
Average	364	3	367	306	2	308

TABLE 9. Capital and Repair Expenditures in the Coal Tar Distillation Industry, 1955 - 59

Year	Capital expenditures		Sub-total	Repair and maintenance expenditures		Sub-total	Total capital and repair expenditures
	Construction	Machinery and equipment		Construction	Machinery and equipment		
	thousands of dollars						
1955	1	1	190	1	1	617	807
1956	1	1	227	1	1	699	926
1957	1	1	776	1	1	678	1,454
1958	1	1	2,200	1	1	706	2,906
1959 ^P	1	1	348	1	1	640	988

¹ Not available separately - see sub-total.

^P Preliminary figures.

TABLE 10. Imports and Exports of Coal Tar, Pitch, etc., 1958 and 1959

Item	1958		1959		
	Quantity	Value	Quantity	Value	
		\$		\$	
Imports					
Coal, tar, crude	Imp. gal.	670,489	142,803	350,641	79,662
Coal pitch	cwt.	1,235,700	2,412,111	1,157,729	2,434,739
Carbolic or heavy oil	Imp. gal.	2,925,280	557,344	4,045,024	750,233
Exports					
Coal tar and pitch	"	1,189,647	120,122	8,125	3,547
Creosote oil	"	540	142	50	138
Coal tar oils, other	"	1,088,500	300,490	3,586,500	1,005,675

TABLE 11. Fuel and Electricity used in the Coal Tar Distillation Industry, 1958 and 1959

Kind	1958		1959		
	Quantity	Cost at works	Quantity	Cost at works	
		\$		\$	
Bituminous coal — Canadian	ton	1,168	17,520	1,463	20,817
Imported	"	14,958	179,496	13,815	144,185
Anthracite coal		—	—	153	3,430
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	38,000	16,000	3,901	1,525
Fuel oil	"	3,130,390	356,014	3,764,121	340,647
Gas — Manufactured	M cu. ft.	290,000	80,828	273,182	71,300
Electricity purchased	kwh.	13,600,300	94,630	16,360,407	106,177
Other fuel		—	—	..	59,562
Totals .....		...	744,488	...	747,643

.. Figures not available.

... Figures not appropriate or not applicable.

List of Firms in the Coal Tar Distillation Industry, 1959

Name	Head office address	Location of plant
Dominion Tar & Chemical Company Limited	2240 Sun Life Building, Montreal, Quebec	Sydney, Nova Scotia Ville LaSalle, Quebec Sault Ste. Marie, Ontario Toronto, Ontario Hamilton, Ontario
The Barrett Company Limited ¹	5551 St. Hubert Street, Montreal, Quebec	Toronto, Ontario
Currie Products Limited	87 Sheaffe Street, Hamilton, Ontario	Hamilton, Ontario
Northern Tar & Chemical Company Limited	P.O. Drawer 310, Port Arthur, Ontario	2nd Avenue, Port Arthur, Ontario

¹ Commencing in 1959. The Barrett Company plants at Montreal and Vancouver are reporting under the Roofing Paper Industry.

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