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INDUSTRY R E

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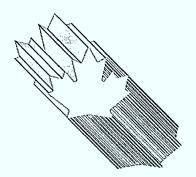




Industry, Science and Technology Canada Industrie, Sciences et Technologie Canada

Automotive Parts

Canadä



INDUSTRY

PROFILE

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Introduction

In broad terms, the automotive industry in Canada includes the manufacturers of motor vehicles (passenger cars, trucks, buses and specialty vehicles), motor vehicle parts, tires and tubes for use as original equipment in the assembly of motor vehicles as well as in the aftermarket. Automotive production is directly linked to many other key industries in Canada: iron and steel, fabricated metals, aluminum alloys, rubber, plastics, textiles, glass and chemicals.

In 1986, this wide range of automotive activities accounted for some 16 percent of total Canadian shipments of manufactured products, and approximately 44 percent of the total of manufactured exports (fabricated materials and end products) to the United States. In 1986, automotive shipments reached almost \$41 billion*, composed of \$25.1 billion in automobile, truck and bus assembly, \$12.2 billion in parts, \$1.8 billion* in specialty vehicles and in excess of \$1.8 billion* in tires and tubes. In the same year, employment reached some 148 800* persons with 49 800 engaged in automobile, truck and bus assembly, 16 600* in specialty vehicle production, 68 400 in parts production and an estimated 14 000* in the manufacture of tires and tubes.

In addition to automotive parts, profiles have been prepared covering:

- Automotive Tires and Tubes
- Buses
- Light Motor Vehicles
- On and Off-highway Medium/Heavy-duty Trucks
- Specialty Vehicles

1. Structure and Performance

Structure

The automotive parts industry consists of companies producing a large variety of manufactured parts for use in the assembly of vehicles (original equipment (OE) market) or in vehicle repair (aftermarket). Parts production totalled more than \$12 billion in 1986, or five percent of total manufacturing output in Canada. More than 500 firms are primarily engaged in automotive parts manufacturing. Another 1500 firms produce parts, although these account for less than 50 percent of their total output. Engines accounted for the largest output (31 percent), followed by body stampings (15.5 percent), plastic parts (eight percent), wheel and brake parts (eight percent), fabric items (seven percent) and wiring (2.5 percent). Tire production is discussed in a separate Industry Profile. Approximately 85 percent of parts output is used in the OE market, with the remaining 15 percent sold in the aftermarket.

Employment in auto parts production totalled 68 400 in 1986, representing nearly half of all employment in automotive manufacturing. Ninety percent of employment is concentrated in Ontario, with the remainder located mainly in Quebec.

* ISTC estimate

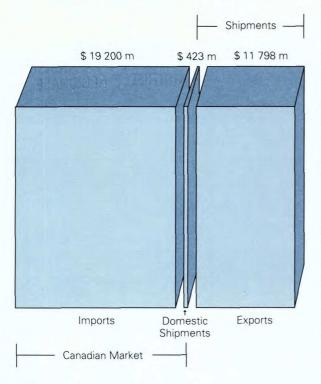
FOREWORD

In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to survival and growth. This Industry Profile is one of a series of papers which assess, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological and other key factors, and changes anticipated under the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the papers.

The series is being published as steps are being taken to create the new Department of Industry, Science and Technology from the consolidation of the Department of Regional Industrial Expansion and the Ministry of State for Science and Technology. It is my intention that the series will be updated on a regular basis and continue to be a product of the new department. I sincerely hope that these profiles will be informative to those interested in Canadian industrial development and serve as a basis for discussion of industrial trends, prospects and strategic directions.

Minister

Alobut I de l'êtret



Imports, Exports and Domestic Shipments 1986

The original equipment parts industry is rationalized on a North American basis, under the framework of the Canada-United States Automotive Products Trade Agreement (Auto Pact). The Auto Pact allows duty-free trade between Canada and the United States of vehicles and parts used in vehicle assembly, conditional on assemblers meeting certain production requirements.

As a result of product rationalization, the Canadian OE parts industry is heavily oriented towards the American market. Shipments for domestic use totalled \$423 million in 1986, compared to exports of \$11.8 billion (excludes re-export), for the most part destined for the United States. Similarly, the United States accounted for the majority of the \$19.4 billion of parts imported in 1986. However, the U.S. share has slipped from 97 percent in 1983 to 91 percent in 1986, with non-American imports growing correspondingly. Imports from outside the United States totalled \$1.7 billion in 1986, including \$664 million from Latin America, and almost \$500 million from Japan. More than 75 percent of these non-U.S. imports were purchased by General Motors of Canada Ltd., Ford Motor Company of Canada, Ltd. and Chrysler Canada Ltd.

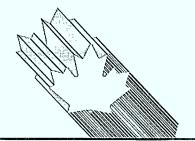
Parts used in the aftermarket are excluded from the Auto Pact, and are not traded to the same degree as OE parts. However, exports of aftermarket parts have grown in recent years to account for 10 percent of total parts exports, while imports of replacement parts constitute eight percent of all imports.

The ownership further reflects the integrated nature of the North American parts industry. In 1986, American subsidiaries accounted for 83 percent of production in Canada, including parts operations of both the automotive assemblers and the independent producers. "Captive" parts operations (i.e., those produced in-house by vehicle assemblers) account for a total of 45 percent of production, including critical high-value components such as engines and transmissions. "Non-captive" or independent American-owned parts companies account for a further 38 percent of production, ranging from small branch-plant subsidiaries to integrated multinationals. Several hundred independent Canadian-owned companies account for the remaining 17 percent of total output, ranging from small operations to a few large multinationals. The ownership structure is expected to change as the result of increasing non-American foreign investment. While relatively few Asian companies have invested in Canada to date, this is expected to increase. As well, several significant investments have recently been made by European parts manufacturers, both on a direct and joint-venture basis.

Industry sales are dominated by large multinationals — it is estimated that the 100 largest companies account for 80 percent of all sales. All of the largest companies produce mainly for the OE market.

Performance

As a result of the integration of production on a North American basis and the heavy export orientation of the industry, performance of the Canadian OE auto parts industry is directly dependent on the performance of the American vehicle-assembly industry, particularly that of the Big Three (General Motors, Ford and Chrysler). These companies have enjoyed a period of record profits and sales since recovering from the 1980-82 recession. This has resulted in high levels of sales and profits in the parts industry. Shipments have increased 110 percent from the cyclical low experienced in 1980, while profits have increased from 4.2 percent of sales in 1983 to 7.1 percent of sales in 1985. Annual investment has increased from \$141 million in 1983 to \$400 million in 1986.



Canada has consistently experienced a deficit in parts trade with the United States. Between 1982 and 1986 the deficit increased from \$4.4 billion to \$5.9 billion, mainly due to the strong performance of vehicle assembly operations in Canada. Because of product rationalization, most components used in vehicle assembly are imported. Thus, when Canadian assembly performs well, due to North American demand for models produced in Canada, parts imports increase. A more recent development has been increasing imports from offshore producers, primarily with Mexico and Asian countries, from negligible levels in the 1970s to \$1.7 billion in 1986.

Performance in the replacement market is less cylical than the OE market, as demand is a function of the number, type and age of vehicles in operation, the rate of parts wear, distance driven and vehicle scrap rate, reflecting both historical and current economic conditions. The vehicle sales downturn of the early to mid-1980s and influx of imported vehicles have just worked their way through the North American aftermarket, resulting in generally depressed sales and profits during the 1980s. However, despite this downturn, Canadian exports to the United States have more than doubled during this period, from under \$500 million in 1981 to well over \$1 billion in 1986, reflecting increased marketing efforts and a favourable exchange rate. Imports from the United States have grown slowly from \$1.1 billion to \$1.2 billion during the same period, while imports from other countries have increased from \$160 million to \$250 million.

2. Strengths and Weaknesses

Structural Factors

Original Equipment Production

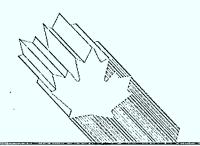
As a result of rationalization of production under the Auto Pact, OE producers achieved the economies of scale and investments required to compete in North America, and enjoyed a reputation for high quality and cost competitiveness. However, the structure of the industry is now changing, and the role of the supplier is being transformed. The new concept of the supplier is best understood if contrasted with the role traditionally assigned by the Big Three.

Vehicle production in North America originally developed as a relatively high-cost, vertically integrated system. With no real competition until the mid-1970s, North American producers enjoyed a virtually captive market, and concentrated on style and marketing at the expense of quality and efficient production. Relations between assemblers, workers and suppliers were often adversarial and assemblers sought to maintain control of production and maximize profits through vertical integration. Contracts for outsourced parts were awarded for one-year terms largely on the basis of price, and suppliers were given little or no role in parts design or testing. A high level of defects was acceptable and large inventories of both parts and finished vehicles were the norm.

In contrast, the Japanese system developed on the basis of shared responsibility between assemblers, workers and suppliers, in order to maximize efficiency of production and quality and minimize costs. In Japan, assemblers do not attempt to control all aspects of design, quality control and assembly, but rather delegate these responsibilities to a small number of primary suppliers which, in turn, transfer responsibilities to, and co-ordinate activities of, sub-suppliers. Captive production by Japanese assemblers is limited to the most critical engine and drive-train components. Primary suppliers must have research and development capability, be able to assemble subcomponents and provide complete quality assurance. Three- to five-year contracts between suppliers and assemblers allow suppliers to develop design capabilities and make requisite investments in engineering equipment and tooling.

To attain their goals of high-quality, low-cost, flexible production, Japanese vehicle and parts producers systematically apply scientific manufacturing techniques to ensure optimum plant layout, correction of errors as they occur (failsafeing), and minimal time loss during equipment changeovers. Other process techniques include minimizing inventory through computer-integrated manufacturing, extensive use of robotics, computerized tracking of errors (statistical process control) and computerized scheduling.

The Japanese system of production has had a profound effect on the North American market, evidenced first by the success of imports, and, more recently, by direct investment and changes in North American production methods. Vehicle imports have captured approximately 30 percent of the North American automotive market, and are expected to remain at significant levels. In response to voluntary export restraints on vehicles, and more recently, the appreciation of the yen, the Japanese have established 11 assembly plants and more than 150 parts plants in North America. This investment in state-of-the-art capacity threatens to displace some existing producers. The nature of these adjustments will, of course, depend on market demand.



These competitive pressures have re-defined the supplier role in North America. To win new business with the Asian-owned assembly plants and primary suppliers located in North America, and to retain business with General Motors, Ford and Chrysler, suppliers must assume increased responsibilities, including design functions, complete quality control and sub-assembly.

Not only is the suppliers' role in North America changing, but assemblers are increasingly looking to low-cost countries for labour-intensive parts. Imports from Mexico are growing rapidly and, in fact, currently exceed those from Japan. Manufacturing in Mexico is encouraged by the Maquiladora Program, which allows duty-free importation of component parts or other materials for assembly or processing into goods for re-export. With Mexican labour costs of less than US\$1 per hour, many U.S. companies, including General Motors, Ford and Chrysler, are establishing Mexican facilities to carry out the labour-intensive part of their manufacturing. A large number of U.S.-based auto parts manufacturers also operate Maquiladora industries.

As a result of all of these factors, both Canadian and American suppliers can no longer rely on secure contracts from the Big Three. Instead, they must adapt to changing demands from both the American traditional vehicle producers and the Asian-owned assembly plants, while competing with Japanese and Korean imports, low-cost offshore imports, and the Asian-owned parts plants in North America. The most critical competitive issues in this environment are the ability of the parts producer to control product and process technology, the priority given to quality, the efficient and flexible use of inputs, labour relations, and the willingness of management to adapt to new customer demands and attitudes.

In this environment, Canada enjoys certain competitive advantages, such as its close proximity to the largest concentration of modern assembly capacity in the world, its reputation for high-quality labour, and its competitive cost structure in comparison to other industrialized countries. However, the Canadian parts industry also suffers from disadvantages inherent in the structure of the industry. When compared with either American or Japanese parts producers, the Canadian parts industry has weak research and design capability. The number of large firms able to become primary suppliers and sub-supplier networks is limited. The majority of firms are small to medium-sized and, as such, will find it more difficult to generate sufficient resources and obtain new product and process technologies.

The Big Three are requiring price reductions from suppliers, despite increasing material and design costs. Furthermore, control by foreign parent companies limits the ability of many firms to develop new processes and products, to enter into joint ventures or mergers and to explore new markets. There are indications that the competitive advantages enjoyed by Canadian parts firms in relation to their U.S. competitors are being eroded. Costs of production are often lower in certain southern U.S. states than in many parts of Canada for a variety of reasons, including differences in the labour and regulatory environment.

Cost structures in Canada are higher than those in less-developed and newly industrialized countries such as Mexico, Thailand and the Republic of Korea. These cost structures place Canadian producers at a particular disadvantage in the manufacture of labour-intensive parts.

Aftermarket Production

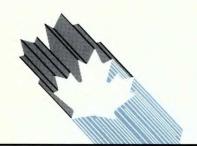
Replacement products were excluded from the Auto Pact and, as a result, the industry has not developed the same degree of product rationalization as the OE industry. Tariff protection and distribution complexities encouraged American companies to establish Canadian subsidiaries to serve the local market. Most Canadian firms also concentrated on the domestic market.

Foreign-owned multinationals dominate the Canadian market. Almost all research and development is conducted at parent facilities. Canadian subsidiaries generally produce more medium- and low-tech products than the United States. Successful Canadian-owned companies exist, but tend to be smaller and focus only on the aftermarket, in specialty product areas. Large Canadian-owned OE companies have not chosen to enter the aftermarket to date, but may consider doing so now.

Several Canadian-owned aftermarket companies are competing successfully in the United States and abroad, through product specialization and aggressive marketing techniques.

Trade-related Factors

The Canadian tariff on automotive parts is 9.2 percent (Most Favoured Nation — MFN) and six percent (General Preferential Tariff — GPT), with a British Preferential rate of zero. The U.S. MFN tariff rate is 3.1 percent. Under the terms of the Auto Pact, OE parts can be imported duty-free into Canada from anywhere in the world by qualified Auto Pact producers. In the United States, parts may be imported duty-free from Canada, provided they meet a 50-percent North American value-added requirement. Aftermarket products are excluded from the Auto Pact in both Canada and the United States.



Under the Canada-U.S. Free Trade Agreement (FTA), bilateral tariffs will be phased out on OE parts over 10 years and aftermarket parts over five years. The Canadian provisions of the Auto Pact remain unchanged, although only those companies listed in the FTA will be able to participate. Companies participating in Canada must continue to meet Auto Pact performance requirements to retain eligibility for duty-free imports from third countries after tariffs are phased out.

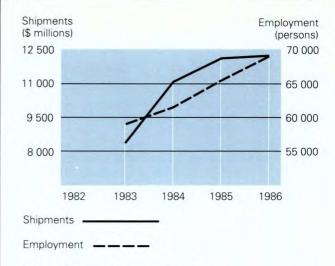
Under the FTA, parts and vehicles will have to meet a new rule of origin requiring that 50 percent of direct production costs be incurred in Canada and the United States. This rule is higher than the current U.S. Auto Pact requirements and should provide opportunities for parts suppliers. Production-based duty remissions will continue until January 1, 1996, and export-based duty remissions related to third countries will continue until January 1, 1998.

Technological Factors

The automotive industry has undergone a transformation in both product and process technology — a transformation so sweeping it may accurately be characterized as a revolution.

Advancements in product design reduce vehicle weight, increase fuel efficiency, improve safety and enhance quality and performance. Major innovations include the shift from rear-wheel to front-wheel drive; the use of aluminum, plastics and specialized steel; the introduction of electronic fuel injection and fuel pumps, small, efficient engines, electronic controls and instrumentation; and increasing use of computers to control vehicle systems such as suspensions and anti-lock braking systems. Increasingly, suppliers are expected to participate in product design and research, not simply to manufacture to the assemblers' specifications. All of these changes have had major consequences for parts manufacturers, requiring re-tooling and research and development in areas such as new materials and electronics. A period of rapid technological change is particularly difficult for aftermarket producers, as they must continue to produce older parts while also forecasting which new technologies will be widely accepted.

Canadian firms face a disadvantage in meeting requirements for research and design capability, due to the large degree of foreign ownership in the industry and concentration of research facilities in the United States. However, use of computer-aided design (CAD) systems is increasing. Eleven percent of parts firms reported use of CAD in 1986, while 50 percent are expected to do so by 1990. In addition, many parts companies have access to the design capabilities of their parent companies or contract their design requirements to engineering houses.



Total Shipments and Employment

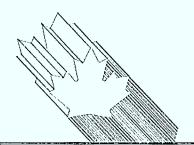
Advancements in process technology include the use of robotics, computer-integrated manufacturing, computerized inventory control and flexible manufacturing techniques. Sophisticated manufacturing technology is increasingly becoming an entrance requirement to supply both Asian and American-owned plants operating in North America.

Development of quality control procedures has increased significantly in the last five years. Before 1981, only seven percent of Canadian parts producers used statistical process control. In 1986, 81 percent used it and, by 1990, 96 percent of companies with more than 100 employees expect to use it. Robotics is also increasing, although not as rapidly as in assembly. In 1986, 18 percent of parts companies used robots, with 125 robots currently in the industry. By 1990, nearly 70 percent of parts producers expect to use robots.

3. Evolving Environment

Original Equipment Production

A major restructuring of the parts industry in North America is under way and will continue until the 1990s. Many companies, both American and Canadian-owned, have already demonstrated that they can compete in this new environment. Mergers and takeovers are occurring among smaller companies, and many have been exposed to the requirements of the changing environment through the Ontario Centre for Automotive Parts Technology (OCAPT) and the Pacific Automotive Co-operation Inc. (PAC). PAC is a corporation established by the Japanese Automotive Manufacturers' Association and Japanese Automotive Parts Industry Association to facilitate contact between the Canadian and Japanese automotive industries. Twenty joint ventures with Asian investors in the parts industry have been established in Canada.



On the other hand, many Canadian suppliers are frustrated in their efforts to gain access to the new Asian-owned assembly-plant market and face constraints which prevent them from doing so. This is because of their lack of size and limited technology development capability or the limited role assigned by their parent company. Offshore sourcing by the Big Three is increasing. While North American content of vehicles produced by the Asian-owned plants is growing, by the early 1990s it is still expected to be about 20 percent lower than that achieved by the Big Three. Direct Asian investment in auto parts production is much lower in Canada, both in absolute and relative terms, than in the United States. The strategy of most major Japanese parts producers is to establish production in the United States first, then look to Canada as a secondary source. This is due to a desire to secure access to the huge American market and to various pressures to locate in the United States.

While the new environment presents risks for suppliers, it also offers opportunities. The development of primary and secondary suppliers presents opportunities not just for large companies, but also for smaller producers to act as sub-suppliers. The trend to flexible manufacturing also presents opportunities for medium-sized suppliers, as companies need no longer produce enormous quantities in order to achieve competitive economies of scale. The market, in fact, will increasingly favour flexible organizations able to respond quickly to new product demands. In addition, the trend to decreased captive-parts production in areas other than power trains will increase business available to independent suppliers. While Canada's small share of in-house parts production, relative to the United States, has traditionally been regarded as a weakness, in this environment it could, in fact, be an advantage.

In order to take advantage of these opportunities, suppliers must make significant investments in computer-aided design (CAD) and manufacturing systems and production technology, as well as in engineering and marketing functions.

The FTA should have a positive impact on the OE parts sub-sector, as it will ensure continued free access to the American market, which is of critical importance to this highly export-oriented industry. Auto Pact safeguards are maintained for existing participants, while the new North American rule of origin will act as a significant sourcing incentive for all automotive producers.

Aftermarket Production

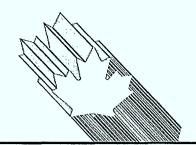
As the demands for change on OE producers have increased, so have demands on aftermarket producers. Critical questions include access to the foreign replacement market, the impact of longer parts life and increased vehicle complexity, increased imports, and the growing power of buyers.

The replacement market for parts for foreign vehicles is the only growth area in the aftermarket; it is expected to increase at a rate of eight to 10 percent annually. The market is difficult to penetrate, however, as warranties on foreign vehicles usually specify that OE parts must be used, and be installed by a dealer. This provision effectively excludes non-OE producers from the foreign-car replacement market.

This market is all the more critical given that its general size is expected to shrink, due to the increasing quality of vehicles and parts. At the same time, imports from low-cost countries are growing, and it is expected that the Asian-owned parts plants established in North America will also target the aftermarket. In addition to these pressures, aftermarket producers must re-tool to produce new, increasingly sophisticated parts to replace soon-to-be-obsolete products such as carburetors. Producers must also contend with the increased buying power of wholesale and retail groups, such as Canadian Tire Corp. and Acklands. The viability of many producers can be determined by major buying groups who essentially control the distribution of certain products.

Given these trends, market demands will favour the company with OE links, expertise and capital to re-tool for the production of new parts, a strong planning orientation, ability to move to new product areas and markets as required, and ability to control distribution channels. The firms enjoying a competitive advantage in this environment are the few large multinationals, the medium-to-large Canadian-owned firms, and the medium-to-large U.S.-owned firms with export mandates.

The elimination of tariffs in the aftermarket industry over five years will likely encourage American parent companies to integrate operations fully, and encourage rationalized trade. The U.S. market presents considerable growth opportunities for Canadian firms.



4. Competitiveness Assessment

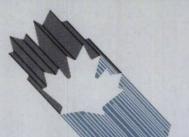
Canadian parts producers have been competitive within the framework of the traditional North American assembly system, and currently enjoy high levels of profitability, investment and exports. However, a major restructuring of the parts industry in North America is under way, and will continue until the mid-1990s. Many Canadian companies are well positioned to compete in this environment. Others will be constrained by limited technological capability, limited resources and structural limitations which impede flexibility. The outcome of the restructuring will depend on the leadership demonstrated by large multinationals; the evolution of flexible labour and management practices; the ability of smaller firms to enter into joint ventures, merge or become subsuppliers; the extent to which new direct foreign investment takes place in areas with limited Canadian capability; the continued improvement in the relationship between the new Asian-owned assembly and parts plants in North America and existing Canada suppliers; and continued attention to all factors affecting competitiveness.

The FTA is expected to have a positive impact on the Canadian parts industry. Higher North American rules of origin will stimulate demand for North American parts and Canadian companies should be able to take advantage of this opportunity.

For further information concerning the subject matter contained in this profile, contact:

Surface Transportation and Machinery Branch Industry, Science and Technology Canada Attention: Automotive Parts 235 Queen Street Ottawa, Ontario K1A 0H5

(613) 954-3727



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STATISTICS		SIC(s)	COVER	ED: 325	(1980)
	1973	1983	1984	1985	1986
Establishments ¹	229	467	486	513	N/A
Employment ¹	48 500	59 700	61 800	65 400	68 400
Shipments (\$ millions) ²	2 305	8 357	11 019	12 183	12 221
Gross domestic product ³ (constant 1981 \$ millions)	2 047	3 227	4 342	4 814	4 672
Investment (\$ millions) ⁴	78	141	171	339	402
TISTICS					
	1973	1983	1984	1985	1986
Exports (\$ millions) ⁵	2 291	7 310	10 567	11 819	11 995
Domestic shipments (\$ millions)	22	1 241	620	498	423
Re-exports (\$ millions)	8	194	168	134	197
Imports (\$ millions) ⁵	3 740	11 971	16 774	18 897	19 397
Canadian market (\$ millions)	3 754	13 018	17 226	19 261	19 623
Exports as % of shipments	99	85	94	96	97
Imports as % of domestic market	99	90	96	97	98
Canadian share of Canadian and U.S. market ⁶ - %	9.6	13.2	14.4	14.5	13.7
Source of imports (% of total value)		U.S.	E.C.	Asia	Others
	1982 1983 1984 1985 1986	96.4 97.2 94.4 93.1 91.2	0.9 0.6 1.0 1.1 1.4	1.2 1.2 1.9 2.0 2.7	1.5 2.7 4.7 4.2 4.7
Destination of exports (% of total value)		U.S.	E.C.	Asia	Others
	1982 1983 1984 1985	91.8 96.6 97.2 97.2	0.6 0.4 0.3 0.5	0.2 0.1 0.1 0.1	7.4 2.9 2.4 2.2
	Employment ¹ Shipments (\$ millions) ² Gross domestic product ³ (constant 1981 \$ millions) Investment (\$ millions) ⁴ TISTICS Exports (\$ millions) ⁵ Domestic shipments (\$ millions) Re-exports (\$ millions) Imports (\$ millions) ⁵ Canadian market (\$ millions) Exports as % of shipments Imports as % of domestic market Canadian share of Canadian and U.S. market ⁶ - % Source of imports (% of total value)	Establishments1 229	1973 1983	1973 1983 1984	1973 1983 1984 1985

(continued)



	Atlantic	Quebec	Ontario	Prairies	B.C.
Establishments – % of total	2	10	80	3	5
Employment – % of total	1	5	89	2	3
Shipments – % of total	2	10	80	3	5

MAJOR FIRMS

Ownership	Location of Major Plants	
Canadian	Ontario, various locations	
American	Ontario, various locations	
American	Ontario, various locations	
American	Ontario and Quebec, various locations	
American	Kitchener-Waterloo, Ontario	
Canadian	Waterville, Quebec; Mississauga, Ontario	
Canadian	Scarborough, Ontario	
Canadian	Burlington and Oakville, Ontar	
Canadian	Rexdale, Ontario	
American	Farnham, Quebec	
	Canadian American American American Canadian Canadian Canadian Canadian	

Notes:

- Statistics Canada Motor Vehicle Parts and Accessories Manufacturers Catalogue 42-210.
- 2 Statistics Canada Inventories, shipments and orders in manufacturing industries Catalogue 31-001.
- 3 Statistics Canada Gross domestic product by industry catalogue 15-001.
- 4 Statistics Canada Investment statistics manufacturing sub-industries and selected energy industries catalogue 61-214.
- 5 Report on an automotive industry; 1985-1986 figures obtained from *The Daily*.
- 6 U.S. Industrial Outlook 1987; 1985 and 1986 figures are estimates.

Regional Offices

Newfoundland

Parsons Building 90 O'Leary Avenue P.O. Box 8950 ST. JOHN'S, Newfoundland A1B 3R9 Tel: (709) 772-4053

Prince Edward Island

Confederation Court Mall Suite 400 134 Kent Street P.O. Box 1115 CHARLOTTETOWN Prince Edward Island C1A 7M8 Tel: (902) 566-7400

Nova Scotia

1496 Lower Water Street P.O. Box 940, Station M HALIFAX, Nova Scotia B3J 2V9 Tel: (902) 426-2018

New Brunswick

770 Main Street P.O. Box 1210 MONCTON New Brunswick E1C 8P9 Tel: (506) 857-6400

Quebec

Tour de la Bourse P.O. Box 247 800, place Victoria Suite 3800 MONTRÉAL, Quebec H4Z 1E8 Tel: (514) 283-8185

Ontario

Dominion Public Building 4th Floor 1 Front Street West TORONTO, Ontario M5J 1A4 Tel: (416) 973-5000

Manitoba

330 Portage Avenue Room 608 P.O. Box 981 WINNIPEG, Manitoba R3C 2V2 Tel: (204) 983-4090

Saskatchewan

105 - 21st Street East 6th Floor SASKATOON, Saskatchewan S7K 0B3 Tel: (306) 975-4400

Alberta

Cornerpoint Building Suite 505 10179 - 105th Street EDMONTON, Alberta T5J 3S3 Tel: (403) 420-2944

British Columbia

Scotia Tower 9th Floor, Suite 900 P.O. Box 11610 650 West Georgia St. VANCOUVER, British Columbia V6B 5H8 Tel: (604) 666-0434

Yukon

108 Lambert Street Suite 301 WHITEHORSE, Yukon Y1A 1Z2 Tel: (403) 668-4655

Northwest Territories

Precambrian Building P.O. Bag 6100 YELLOWKNIFE Northwest Territories X1A 1C0 Tel: (403) 920-8568

For additional copies of this profile contact:

Business Centre Communications Branch Industry, Science and Technology Canada 235 Queen Street Ottawa, Ontario K1A 0H5

Tel: (613) 995-5771

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