

# Market Study on the Automotive Industry and Auto Parts in Mexico.

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PREPARED BY THE COMMERCIAL DIVISION,  
CANADIAN EMBASSY, MEXICO.**



# Market Study on the Automotive Industry and Auto Parts in Mexico.

INDEX

Dept. of External Affairs  
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This market guide booklet has been prepared with the problems inherent to the initiating exporter in mind. However it is not exhaustive; individual circumstances, interests and needs will dictate how companies should tailor their approach and strategy to the Mexican market. While every attempt has been made to ensure accuracy in this study, no responsibility can be accepted for errors or omissions.

Further assistance can be obtained by addressing requests directly to the Commercial Division of the Canadian Embassy in Mexico City located at Calle Schiller No. 529, Col. Polanco, 11560 México, D.F., Telephone 254-32-88, telex 177 1191 and fax (sending from Canada) 011 (525) 545-17-69; or the Latin American Division Department of External Affairs, Industry Science and Technology Canada, 125 Sussex Drive, Ottawa, Ontario, K1A 0G2. Phone 9950460 fax (613) 996-0677.

Automotive Related Associations

Procedures for Selling to the Mexican Government and its  
Centralized Agencies

List of Foreign Agents/Distributors

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# MARKET STUDY ON THE AUTOMOTIVE INDUSTRY AND AUTO PARTS IN MEXICO

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# 1. BACKGROUND

During the past decade, the Mexican automotive industry has undergone a major transformation, driven by an integration with the American market. The new competitive needs of the American market originated the creation of new plants on Mexican territory with an organizational and technological design linked to such conditions. Thus, since the early 80's, a new exporting specialization emerged in the local car assembly plants and in a great number of auto parts firms. Manufacturing and complex assembly plants coexist now in this new exporting system.

Traditionally, the strategies of Mexico's automotive firms were in conflict with governmental policies. The companies operated trying to obtain maximum benefits from the protected market and thereby hindering import substitution policies. On the other hand, the government had to protect the local market, it being the axis of the country's industrial growth and employment, but at the same time encouraging exports.

The conflict between the companies and the authorities' guidelines was mostly to be seen when, between the late 70's and early 80's, the oil boom generated a great demand which exceeded the possibilities of the existing short-range production structure, giving way to rising imports. This led to a dangerous situation in 1981 and 1982, when the automobile sector accounted for 43% and 53% respectively of the country's trade deficit. Between 1978 and 1981, imports of auto parts jumped from \$516 million (1) to \$2.4 billion, and in this process, the import substitution strategy was buried with the lack of a clear exporting orientation. In time, a liberal model was implemented and the relationship between the agents in the industry underwent a significant modification. In the 80's there was an inflection point, and in the 90's, a significant autonomy for the companies is expected.

On the other hand, since the late seventies, according to the changes that the automotive industry had already been experiencing in the world, the American firms used a new strategy in Mexico, creating the first plants that would help them face the new competitive conditions in the U.S. market itself. These manufacturing plants, located in the North of Mexico, started operating in 1981 with the export of Chrysler "K" model engines to the United States. The vast majority of these assembly plants had technologically very sophisticated production systems and brought about a new tendency in the industry, by integrating it to the American market.

The 1983 "Rationalization of the Car Industry" decree attempted to mend previous years failures by stimulating exports. It determined that the companies had to reduce their number of lines and different models and thus tried to create a specialized supply to follow the principle of scale economies. Together with this important change, it reinforced the requirement for each individual firm to have a positive trade balance, that is, to hold export levels above their import levels. During the time the decree was operational, exports attained a strong dynamism, increasing from \$550 million to \$3.3 billion between 1982 and 1987.

This exporting process also gave way to higher imports, while the low activity of the internal market produced a reduced use of Mexican components. The supply systems

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1. Note: All values in this report, unless otherwise stated (\$ Mexican pesos, cdn \$, etc.), are quoted in United States dollar equivalents.





related to the exporting segment acquired a greater international dimension than that of the traditional segment.

The 1983 decree would be the last attempt to accomplish a fusion of import substitution and export orientation. The industry's structure in 1990 is the evident result of the needs of the companies to link their strategy with the U.S. market.

The new industrial policy for this industry was defined in the "Development and Modernization for the Automobile Industry" decree, issued on December 11, 1989. Assuming the fact that trade with the United States has driven growth in the industry, it reduces the national value requirement significantly, from 75% to 36%. It eliminates the constraint to include specific nationally produced parts that were considered strategic for integration. Also, it grants complete freedom in decision-making to the companies as to the lines and models of production, and it allows firms who exhibit a positive trade balance to import automobiles. Also, automobiles may be imported when the price of the equivalent car produced in Mexico is above its international price.

It is worth mentioning that to allow imports of automobiles is the most innovative measure and, even though it certainly implies an opening, it also maintains certain restrictions related to the investment and exporting performance of the locally manufacturing companies.

The new decree integrates Mexico to a general globalization process seen in the automotive industry worldwide, which stresses liberal trade policies and the need for an increased competitiveness of the domestic automobile industry. In order to achieve this, imports of auto parts are allowed in larger quantities as national integration requirements are reduced. This, in turn, is expected to foster exports of Mexican products at competitive prices and to attract foreign investors into the Mexican market to take advantage of these new conditions. These events create a very favorable scenery for the development of the auto parts industry in Mexico. The export orientation of the automotive industry as a whole and that of auto parts in particular, will certainly bring about a persistent growth both in production and imports.

## 2. ECONOMIC ENVIRONMENT

With the objective of reducing the inflation rate, the Mexican authorities implemented a stabilization program, called the Economic Solidarity Pact, which features traditional austerity measures, entailing tight fiscal and monetary policies and unorthodox measures, such as price, wage and exchange rate controls. This program has been the cornerstone of Mexico's economic policy over the past three years and has resulted in a drastic reduction of the inflation rate, from an annual rate of 159% in 1987 to 52% in 1988 and 19.7% in 1989. An 18% rate is expected in 1990. Along with the objective of consolidating the progress made in price stabilization, Mexico's macroeconomic policy in 1990 aims to reaffirm gradual and sustained economic recuperation, basically by establishing the necessary conditions to encourage national and foreign investment. In 1991, the Mexican authorities expect to reach an inflation rate equivalent to international levels and to relax price controls.

Mexico's gross domestic product (GDP), after increasing 3.7% and 2.7% during 1984 and 1985 respectively, diminished by 3.5% in 1986. In 1987, it increased a moderate 1.5% and an additional 1.1% in 1988. Domestic economic activity recovered for the



third consecutive year in 1989 with an estimated growth rate of 3.0% in 1989 to reach \$200 billion. With an 84.5 million population, per capita GDP is estimated at Cdn\$2,550. During the 1990-1994 period GDP is expected to maintain an average annual growth rate of 2%-3%. In disaggregated terms, this represents an annual growth rate of 5.3% in the manufacturing sector, 2.3% in the services sector and only 0.6% in the agricultural sector. After several years of stagnation, public investment will grow 5% and private investment will also rise 5%.

In an effort to revitalize and open the Mexican economy, the Mexican Government undertook a series of structural changes, including the accession to the General Agreement on Tariffs and Trade (GATT) on August 24, 1986 leading to an extensive trade liberalization process: import permits were eliminated on all but 325 of the total 11,960 tariff items based on the recently adopted Harmonized System. Official import prices are no longer applicable, nor the 5% export development tax, and import duties were lowered from a maximum of 100% in 1982 to 20% in January 1988. The automotive and computer industries are also being opened up, through the elimination of prior import permits, to allow free entry of products in these industries.

According to official data from the Mexican Secretariat of Commerce and Industrial Development (SECOFI), Mexico's trade balance in 1989 dropped to a \$644.8 million deficit, down from a surplus of \$1.75 billion in 1988 and \$8.4 billion in 1987. Total exports increased 10.7% in 1989, from \$20.6 billion in 1988 to \$22.8 billion. Imports increased 23.9% from \$18.9 billion to \$23.4 billion, having already increased 48% from \$12.2 billion in 1988. During 1989, imports of consumer products grew 82%, while those of intermediate goods increased by 17% and capital goods by 18%.

Total Mexican imports from Canada increased 24% in 1989 and amounted to Cdn\$603 million, while total Mexican exports to Canada were valued at Cdn\$1,698 million. Mexico and Canada have traditionally been strong trading partners. According to Mexican figures, in 1989, 1.9% of Mexico's imports came from Canada, while 1.2% of its exports were to Canada. This makes Canada Mexico's fifth largest exporter and sixth largest importer.

Such figures support the possibility expressed by Mexican and United States authorities of creating a North American free market. The negotiations of a free market agreement between the United States and Mexico are underway. With its coming into effect, and with the existing Canada-United States agreement, the feasibility of a North American market is quite big.

### **3. MARKET ASSESSMENT**

Mexico's automotive industry has two main branches: that of the automobile and truck manufacturers and that of the auto parts manufacturers. A related activity of interest to foreign suppliers to Mexico is represented by the industry that produces maintenance equipment and constitutes the after market to the automotive industry. We will look into the performance of the auto parts industry in the first place.



### 3.1 AUTO PARTS

Total apparent consumption of auto parts in Mexico has been increasing at an average annual rate of 16% in the last few years, prompted by the export oriented policies described in section 1. The total market for auto parts amounted to over nine billion dollars in 1989 and is expected to reach \$10.3 billion during 1990, based on January to April data. It is expected that apparent consumption will decrease its average annual growth rate to 8% during the next five years, and reach \$12.8 billion by 1994, since both the Mexican and the U.S. market are not expected to maintain such a dynamic purchasing capacity.

The composition of the market is also expected to change as a result of the new automobile decree. Local production of auto parts will continue rising but, since it will no longer be protected by such stringent national integration requirements as before, it will lose ground before imports. The latter are expected to grow 12% annually and represent 30% of total consumption by 1994, as opposed to 24% in 1989. Exports are also estimated to continue growing significantly in response to the long term export oriented policy of the automotive industry.

**TABLE 1**  
**TOTAL APPARENT CONSUMPTION OF AUTO PARTS**  
(million U.S dollars)

	1986	1987	1988	1989	1994p
Production	6,738.5	7,461.9	8,208.1	9,028.9	12,082.7
+ Imports	640.2	1,100.4	1,604.3	2,215.5	3,904.5
- Exports	1,621.1	1,870.3	1,967.2	2,167.4	3,184.6
<b>TOTAL</b>	<b>5,757.6</b>	<b>6,692.0</b>	<b>7,845.2</b>	<b>9,077.0</b>	<b>12,802.6</b>

**Source:** American Chamber of Commerce of Mexico, Secretaría de Programación y Presupuesto (SPP) and estimates made by Industria Nacional de Auto Partes (INA)

It is worth noting that, in addition to a large local auto parts manufacturing industry, Mexico has a dynamic automotive in-bond or maquiladora industry growing rapidly along the Mexico-U.S. border. This industry, regulated under temporary import permits and which production is exclusively for exports, began operating at the beginning of the 80s, together with the export oriented automotive industry. Total maquiladora plants in the automobile and auto parts industry are 111. General Motors has 18 plants under this regime, Ford 6 and Chrysler 2. Total value added by auto parts maquila firms increased from \$127 million in 1981 to \$576 million in 1988.

#### 3.1.1 IMPORTS

Imports of auto parts reached an all time high of \$1.9 billion in 1981. Two years later, they diminished dramatically to \$500 million, as a result of exchange controls and import restrictions imposed in response to Mexico's economic crisis of 1982. Such a weak



situation was maintained until 1986, when a phase of dynamic growth began. In 1989, imports grew 38% and surpassed their 1981 value, reaching \$2.2 billion. In 1990 they are expected to increase another 17% and amount to \$2.6 billion. This process is basically due to a rapid growth in imports by the local assembly plants both of engines and automobiles. Nevertheless, in the future, imports destined to the local market and in particular to the after-market will grow in importance.

Table 2 shows the 27 main imported products, which represent 16.5% of total imports in 1988, as well as the most important end user for each. There are three end user sectors of auto parts: the trade sector composed of distributors of new and used cars and repair shops, which represent 11% of total purchases; auto parts manufacturers 21%, and assembly plants 67%. As can be seen, the main imports are those of engine parts due to Mexico's very large production of motors and engines for export.

**TABLE 2**  
**PRINCIPAL IMPORTED AUTO PARTS AND PRINCIPAL END USER-1988**  
(000 dollars)

AUTO PART	AMOUNT	END USER		
		D	A	P
Parts for differential systems	162,911		X	
Piston rings, valves and piston skirts	19,330			X
Transmission belts	8,161	X		X
Other ball bearings	7,297			X
Pneumatic tires for trucks and buses	1,959	X		
Other steel piston rings	5,274	X	X	
Open compressors for air conditioning	5,145			X
Assorted parts	4,995	X	X	
Crankshaft	3,849	X	X	X
Bushings	3,709	X		
Cone bearings	3,477			X
Ball bearings	3,011			X
Other parts for ball/roller/needle bearings	2,929			X
Mudguards	2,813	X		
Other parts for frames	2,723			X
Bumpers	2,705	X		
Parts for the direction system	2,680	X		
Oil seals	2,509	X	X	X
Parts for radiators	2,487	X		
Spotlights and taillights	2,441	X		
Parts for steering gears	2,364	X		
Electric devices for ignition	2,344	X		
Assorted plastic manufactures	2,342			X
Spark plug cables	2,291	X	X	X
Oil pumps	2,516	X		
Insulating material	2,129			X
Assorted automatic devices for regulation	2,035		X	X

**Note:** D=distributors; A=assembly plants; P=auto parts producers.





Table 3 shows auto part imports whose growth has been the most dynamic during the 1986-1989 period. There are seven products that have grown more than 500% during that period and eleven whose growth ranged between 100% and 500%. In the former group, some of the most important products were: disc brakes valued at \$7.5 million and shaft axles at \$5.7 million. In the latter group, distributor parts with \$5.5 million, bushings \$4.7 million and snobbers \$4.5 million. Products in these two categories are more diversified than those listed in Table 2 and are more geared towards the automobile market. Their growth rates are closely related to the increase in domestic production of cars and trucks and in the total number of cars in circulation throughout the country, which need periodical service.

**TABLE 3**  
**MOST DYNAMIC GROWING IMPORTS**  
(000 dollars)

More than 500% growth during the period 1986-1989

	Value in 1989
Disc brakes	7,517
Shaft axles	5,748
Wheels	2,930
Clutches	1,749
Bumper parts	1,689
Acoustic apparatus	1,118

Growth between 100% and 500% during the period

	Value in 1989
Distributor Parts	5,511
Bushings	4,752
Snobbers	4,498
Brake drums	3,806
Gear cases	3,558
Universal joints	3,150
Master cylinder brakes	3,000
Lights	1,730
Contact points	1,692
Mufflers	1,367
Bobbins	1,085

The most important supplier of auto parts to the Mexican market is the United States. This is closely related to the strong link between the local industry and the U.S. manufacturers, as described in the first section of this report. Approximately 60% of all auto parts are imported from the U.S., followed by Japan (20%), West Germany (10%) and France (5%).

Based on data published by Canadian authorities (see Table 4), Mexican auto part imports from Canada grew from Cdn\$52.3 million in 1988 to Cdn\$82.8 million in 1989, at a 58.3% growth rate, a value superior to the growth rate of total Mexican imports of auto parts, which was 38% during the same period. Mexican exports to Canada grew 27.5%, from Cdn\$439.8 million in 1988 to Cdn\$560.8 million in 1989, exceeding the 10.2% rate



of growth of total Mexican auto part exports. This indicates that, in recent years, trade with Canada has been more dynamic than Mexico's total trade.

**TABLE 4**  
**CANADIAN TRADE WITH MEXICO OF AUTOMOBILES AND AUTO PARTS**  
 (Cdn \$ 000)

<b>EXPORTS TO MEXICO</b>	<b>1988</b>	<b>1989</b>
Motor vehicle parts	19,407	24,029
Transmissions	12,197	18,938
Body accesories	10,695	12,535
Bumpers and parts	2,964	9,115
<b>TOTAL</b>	<b>52,301</b>	<b>82,840</b>
<b>IMPORTS FROM MEXICO</b>	<b>1988</b>	<b>1989</b>
Spark-ignition engines	214,982	215,847
Body accesories	133,417	170,009
Auto part for spark ignition engines	31,966	34,033
Safety seat belts	14,206	22,712
Wheels including accessories	10,283	9,594
<b>TOTAL</b>	<b>439,768</b>	<b>560,750</b>

Source: Statistics Canada - International Division

Among the largest foreign companies associated with Mexican auto parts manufacturers technologically are:

**CHASSIS PARTS**

A.O. Smith  
 Alfred Treves  
 Allied Corp.  
 Boge  
 Budd  
 Good Year  
 Hosch Hohelinburg  
 Kelsey Hayes  
 Maremont  
 NHK  
 TRW

**ELECTRIC PARTS**

Bosch  
 Exide  
 Hella  
 Magneto Marelli  
 Packard Electric  
 Richardson

**MOTOR PARTS**

Atsugi  
 Champion  
 Federal Mogul  
 General Motors  
 JPI Industries  
 Mahle  
 Modine  
 Perfect Circle  
 Pierburg  
 Sealed Power  
 Smiths Industries  
 Victor

**DRIVE TRAINS**

Clark  
 Dana  
 Eaton  
 GKM  
 Luk  
 Rockwell

**BODIES**

The Bud C. Clearing  
 A.O. Smith  
 G. Motors (Fisher)



### 3.1.2 DOMESTIC PRODUCTION

The Mexican auto parts industry was initiated with the presidential decree of 1962. With the objective of increasing Mexican production of auto parts, this decree stipulated that vehicles manufactured in Mexico should have at least a 60% local content level. It also stated that this could be reached by incorporating Mexican parts into the production of motor vehicles.

The local auto parts industry consists of about 500 companies, employing some 125,000 workers. It accounts for 2.7% of total manufacturing GDP and has shown an average annual growth rate of 6.3% between 1978 and 1988, three points above total GDP growth. Auto part manufacturing plants are located in the following cities: Mexico City 65%, Monterrey 12%, Queretaro 4%, Puebla 4%, Toluca 4% and Guadalajara 2%.

Since the first half of the 80's, local production of auto parts (excluding motors) has been growing at an average annual rate of 7%, from \$6.7 billion in 1986 to \$9.9 billion in 1990, according to the latest projections. During this process, the imported contents of nationally produced auto parts grew from 9.4% in 1986 to 26% in 1990. At the same time, exports maintained a stable growth rate of 23%. These increases reflect the greater degree of openness of the auto parts industry.

### 3.1.3 EXPORTS

Auto part exports have grown without interruption since 1982, from \$230.5 million to \$2,167 million in 1989. That is, they grew 10 times in eight years.

There is a group of exporting auto part firms that have joint ventures with the automobile manufacturers. In this manner, General Motors has its own component plants and it also has projects with Mexican capital: financial participation in Aralmex, a Mexican auto part company that exports snobbers and with the Condumex group, which exports harnesses and rings.

Ford, on the other hand, is involved in important projects with Mexican auto part firms that export security glasses, motor heads and plastic parts, all of which take place in intra firm trade. In Volkswagen and Nissan there is a close link with firms such as Bocar and Nipomex, both with a majority of Mexican capital.

There is also an important volume of exports carried on by the auto part firms themselves, either directly or indirectly. A common denominator for the majority of exports of the auto parts industry is the use of high technology in their production. In the case of products with high dynamism and technological complexity, the patents and the linkage to foreign auto parts firms are important elements in the feasibility of the project.

The technological association with foreign companies, either through capital or technical consulting, is present in practically all exporting firms. Such a relationship helps the firms in reaching an internal renovation and it enhances their competitiveness. A second characteristic, which is also common to the exporting activities of the auto parts industry is its concentration in a small number of firms and in many cases in only one firm which exports the product. Table 5 shows the most important products exported by the Mexican auto parts industry.



**TABLE 5**  
**MAIN EXPORTED AUTO PARTS EXCLUDING MOTORS IN 1988.**  
(thousands of dollars)

Assorted automobile body parts	101,409
Safety glasses	79,501
Assorted parts for engines	58,915
Laminated springs	44,735
Titanium bioxide pigments	4,493
Assorted parts for automobiles	38,586
Parts for brakes and servobrakes	32,300
Pneumatic tires for buses & trucks	25,099
Pneumatic tires for cars	16,737
Cables for spark plugs	12,464
Transaxles	11,619
Brakes	10,809
Parts for cells	9,060
<b>TOTAL</b>	<b>482,727</b>

The most important exporting firms to Canada are the following: Carplastic, which exports body parts; Vitroflex, safety glass; Rassini, laminated springs; Nacional de Conductores Eléctricos, cables for voltages between 80-1000V; Nematik, assorted parts for engines; Industria Automotriz, assorted body parts; Tebo, brakes and servobrakes; and Electronica Clarion, car radios. As can be seen, Canada represents an important market for Mexican auto parts.

### 3.2 MAINTENANCE EQUIPMENT

The total number of automobiles in circulation at present is of 10 million vehicles, 3.5 million of which are concentrated in the Mexico City metropolitan area. There is no reliable data on automobile maintenance needs at a national level, but there are good estimates on the Mexico City area. These indicate that the average life span of a car is eight years and that it goes to the repair shop four times a year, with a minimal expenditure of \$45 dollars each time. The rising costs of new cars will make car owners give priority to their vehicle's maintenance and repair before buying a new one. This, coupled with a high incidence of car accidents, will create a continued demand for service and repair equipment in the future.

Total apparent consumption of maintenance equipment increased 85.5% in 1989, from \$16.6 million in 1988 to \$30.8 million in 1989. This was mostly a result of Mexico's trade liberalization policies, which have made importation easier and more affordable. This, in conjunction with an important demand backlog for this type of equipment, brought about by previous year's tight financial conditions, slack domestic demand and high inflation rates, translating into an unfavorable dollar-peso exchange rate, brought about a major surge in total market size, but in particular in imports. Also, beginning in 1989 a mandatory environmental control system was established in Mexico City, by which each vehicle must have a check up done every six months. To fulfill these conditions a great number of shops bought gas analyzers and other tuning equipment. In 1990, such an increase is no longer expected, since demand will tend to stabilize.





In the next four years, this market is expected to continue increasing at an average annual rate of five percent, in close relationship to the general increase in the number of cars sold in the country. The trend of most shops and service agencies of modernizing their equipment in order to service recent car models will also continue driving demand. Total apparent consumption is expected to reach \$39.2 million in 1994, of which \$32 million, or 82%, will be of imported origin.

**TABLE 6**  
**TOTAL APPARENT CONSUMPTION OF MAINTENANCE EQUIPMENT**  
(000 of dollars)

	1987	1988	1989	1994
Production	4,907	5,215	8,504	9,500
+ Imports	5,214	12,494	23,664	32,000
-Exports	858	1,078	1,323	2,300
<b>TOTAL</b>	<b>9,263</b>	<b>16,631</b>	<b>30,845</b>	<b>39,200</b>

Mexico is highly dependent on imports in this branch, since local production is limited to a small number of relatively simple tools. and, in general, repair shops prefer imported equipment and tools due to their quality and reliability. This is shown in the fact that, in 1988, imports of equipment amounted to \$12.5 million, representing a 75% share of the total market, as opposed to a local production of only \$5.2 million. In 1989, imports increased to \$23.7 million, or 77% of total demand. By 1992, they are expected to grow to \$32 million.

**TABLE 7**  
**IMPORTS OF MAINTENANCE EQUIPMENT**  
(000 of dollars)

	1987	1988	1989
Car washing machines	942	2,944	5,192
Wheel alignment systems	684	1,229	2,044
Jacks and hoists	156	1,090	977
Tyre removing equipment	181	383	516
Compressors	40	90	168
*General purpose equipment	1,427	2,670	4,900
Gas analyzers	267	1,592	6,905
Ignition analyzers	392	582	303
Motor checking apparatus	43	312	1,036
*General purpose instruments	1,082	1,602	1,623
<b>TOTAL</b>	<b>5,214</b>	<b>12,494</b>	<b>23,664</b>

\* **Note:** General purpose equipment includes wrenches, pneumatic and hydraulic tools. General purpose instruments include oscilloscopes and multimeters.



Specially important were imports of gas analyzers, which grew over threefold, from \$1.6 million dollars in 1988 to \$6.9 million in 1989, basically as a result of the need for equipment to verify polluting levels. Car washing machinery imports also grew significantly, from \$2.9 to \$6.9 million dollars, at a rate of 76.4%. Tools operated either manually, electrically or hydroneumatically and electrical measurement equipment also increased, from \$4.3 million to \$6.5 million, showing an increase of 52.7%.

Products which have been identified as those with the greatest market potential in the years to come are:

- Scanners with adaptability for different types of cars
- Injection balancing equipment washers
- Scanners for computerized braking systems and automatic gearboxes
- Oscilloscopes with injection analyzers
- Time lamps with phasing systems
- Cylinder leak analyzers
- Vacuum gauges and gasoline pump testers

The Association of Automobile Repair Shops (Asociación de Talleres Automotrices) believes that a good deal of the future equipment needs will have to be covered by imports, since automobiles will be increasingly sophisticated and will need high technology equipment not manufactured in Mexico. Particularly, it will be necessary to import equipment related to the needs of automobiles which use fuel injection system.

Traditionally tools and equipment that are used by shops come from the United States. The U.S. market share has fluctuated between 72% and 84% in the last three years. The predominance of American made equipment is due fundamentally to the predominance of U.S. brand cars in the Mexican market, which need compatible equipment for their tuning and repair service. West German and Japanese equipment account for most of the balance. Canadian products in this market segment are virtually non-existent, as can be seen in Table 8.

**TABLE 8**  
**CANADIAN EXPORTS OF MAINTENANCE EQUIPMENT TO MEXICO**  
(Cdn \$000)

	1988	1989
Wrenches	5	0
Jet projecting machines	38	209
Jacks & hoists	17	24
Other equipment	26	25
Gas analyzers	0	4
Measuring & checking instruments	87	97
Automatic regulating instruments	202	505
<b>TOTAL</b>	<b>375</b>	<b>864</b>

Source: Statistics Canada - International Trade Division



#### 4. END USERS

The most important end users of auto parts in Mexico are the automobile and truck manufacturers. According to Industria Nacional de Autopartes (INA), in 1989 more than 55% of total local production of auto parts went to this industry, 28% to the local aftermarket and 17% to exports.

The following table lists the largest automobile and truck manufacturers in Mexico with the number of units sold by each during 1987, 1988 and 1989:

	1987 CARS	1987 TRUCKS	1988 CARS	1988 TRUCKS	1989 CARS	1989 TRUCKS
Chrysler	23,464	16,535	48,732	31,330	56,952	36,393
Ford	16,524	17,448	32,001	29,717	47,801	39,418
General Motors	14,444	26,460	15,284	32,441	22,876	49,579
Nissan	49,064	21,163	60,247	24,351	69,855	25,766
Volkswagen	50,631	5,980	53,802	6,903	77,021	9,008
Dina		3,047		2,268		4,273
Other	25	1,438		2,092		2,972
<b>TOTAL</b>	<b>154,152</b>	<b>92,071</b>	<b>210,066</b>	<b>129,102</b>	<b>274,505</b>	<b>167,409</b>

Source: Asociación Mexicana de la Industria Automotriz

These firms operate a total of 15 plants in Mexico, of which 10 are American, 2 German and 3 Japanese. These 100% foreign owned firms produce automobiles, trucks and motors.

According to the Mexican Association of Automobile Industry (AMIA), total sales of cars, trucks, tractor trucks and buses for the local market reached 445,863 units, 30.4% more than in 1988 and 80% over the volume placed in 1987. During the first six months of 1990, sales increased 14% as compared to the same period in 1989. This volume of sales represents the third consecutive year of expansion and 1989 was the best year ever for the automobile industry, with a total of 642,000 units sold, considering national and foreign sales. An average of 53,000 vehicles have been sold per month in the internal and external markets during 1990.

Total market participation by company during 1989 was as follows:

	CARS	GASOLINE TRUCKS	DIESEL TRUCKS
Nissan	25%	16%	
Chrysler	21%	23%	
Ford	17%	25%	
Volkswagen	28%	6%	
General Motors	8%	31%	
Dina			52%
Famsa			30%
Kenmex			16%
Other			1%



Even though General Motors had the lowest market share in the car market segment, it has the highest growth between 1988 and 1989 with a 49.7% increase.

All of the major automotive manufacturers have expanded their manufacturing facilities in recent years. Ford has invested a total of \$1.1 billion, \$500 million of which were destined to the assembly plant in Hermosillo, which has a capacity of 130,000 finished vehicles per year; during 1990 it will complete a general retooling of its plant investing another \$300 million. Volkswagen increased its plant capacity in Puebla. General Motors enlarged its two plants located in Coahuila. Chrysler Mexico is the sole worldwide producer of its Ramcharger. Nissan built two plants in Aguascalientes, one for body stamping and the other for motor assembly.

**TABLE 8**  
**INVESTMENTS IN THE AUTOMOBILE INDUSTRY (1979-1990)**  
(millions of dollars)

COMPANY	INV.\$	LOCATION	PRODUCT	CAPACITY	YEAR
Ford	300	Chihuahua	4c motors	400,000	1983
	500	Hermosillo	cars	130,000	1986
	300	retooling	cars	170,000	1990
	<u>1,100</u>				
Volkswagen	245	Puebla	radiators	250,000	1979
	60	Puebla	chassis		1979
	270	Puebla	4c.motors	300,000	1982
	<u>575</u>				
General Motors	350	Ramos Arizpe	4c motors	400,000	1982
			cars	100,000	1982
Chrysler	135	Ramos Arizpe	4c motors	270,000	1982
	80	expansion		130,000	1984
	<u>215</u>				
Nissan	220	Aguascalientes	4c motors	750,000	1983
<b>TOTAL</b>	<b>2,460</b>				

**Source:** Estudios sobre el sector externo mexicano, Eduardo Gitli.

Additionally, a large end user of auto parts and of maintenance equipment is represented by distributors and workshops (see Table 2). There are an estimated 50,000 shops throughout the country, 20,000 of which are concentrated in Mexico City. Additionally, the large car manufacturers all have several distributors throughout the country, most of which also act as specialized workshops for their brand cars. Following is the number of distributors by company:

Volkswagen	300
Nissan	160
Chrysler	140
Ford	110
Chevrolet	80
<b>TOTAL</b>	<b>790</b>





## 5. MARKET ACCESS

Sales in Mexico are usually made through local agents and distributors, normally operating on a commission basis. Decisions should be taken on whether to use an agent, joint venturing or licensing with a Mexican company. Mexico's market is highly competitive and companies which maintain an active presence in the market and establish a good track record by virtue of product performance, competitive price and service will do well.

All suppliers of equipment or services, whether local or foreign, to a Mexican Government entity must be registered with the Secretariat of Programming and Budget (SPP) and with the Purchasing Department of the agency itself. All purchases over a specified minimum are subject to bidding.

As a result of Mexico's accession to GATT, the Mexican Government has gradually opened the economy to international suppliers. Import duties have been lowered from a maximum 100% in 1983, to 20% since December, 1988. The official import price system has been totally eliminated and import permits are required on only 325 of the total 11,950 items in the Mexican Tariff Act, none of which correspond to this industry. Mexico adopted the Harmonized System of Tariff Nomenclature on July 1, 1988.

The import conditions for automobiles, auto parts and service and maintenance equipment have improved significantly as a result of this commercial liberalization. Maximum duty rates have been reduced to 20% and prior import permits are no longer required on items in this category. Products analyzed in this report are subject to a 0% to 20% ad valorem duty assessed on the F.O.B. invoice value. In addition, a 0.8% customs processing fee is assessed on the invoice value. A 15% value added tax is then assessed on the cumulative value of invoice plus the above taxes.

There are no official metric requirements applicable to imports into Mexico. However, since the metric system of units is by law the official standard of weights and measures in Mexico, importers will usually require metric labeling for packaged goods, although the English system is also used. Dual labeling is acceptable. Imported products should be labeled in Spanish containing the following information: name of the product, trade name and address of the manufacturer, net contents, serial number of equipment, date of manufacture, electrical specifications, precautionary information on dangerous products, instructions for use, handling and/or product conservation and mandatory standards. Mexico adheres to the International System of Units (SI). Electrical standards are the same as in Canada. Electric power is 60 cycles with normal voltage being 110, 220 and 400. Three phase and single phase 230 volt current is also available.

Prepared by:  
Caroline Verut  
for the Canadian Embassy  
Mexico City  
August 1990



AUTOMOTIVE RELATED CHAMBERS AND  
ASSOCIATIONS

CAMARA NACIONAL DE LA INDUSTRIA DE  
TRANSFORMACION  
SECCION AUTOMOTRIZ  
AVE. SAN ANTONIO 256  
COL. BENITO JUAREZ  
03849 MEXICO, D.F.  
TEL. 563-34-00  
FAX 598-94-67

ASOCIACION MEXICANA DE LA  
INDUSTRIA AUTOMOTRIZ, A.C.  
ENSENADA NO. 90  
COL. CONDESA  
06140 MEXICO, D.F.  
TEL 272-11-44  
FAX 515-25-42

INDUSTRIA NACIONAL DE AUTOPARTES A.C. (INA)  
SHAKESPEARE NO. 15-3 PISO  
NUEVA ANZURES  
11590 MEXICO, D.F.  
TEL 254-77-66/254-70-73  
FAX 211-09-43

ANAMAPA  
DR. LUCIO NO. 127 -201  
COL. DOCTORES  
06720 MEXICO, D.F.  
TEL 578-35-27 /578-88-41

ARIDRA  
MORELIA NO. 38-305  
DELEG. CUAUHTEMOC  
06700 MEXICO, D.F.  
TELS 514-37-21/528-63-63

NATIONAL INDUSTRIAL  
TRANSFORMATION CHAMBER

ASSOCIATION OF MEXICAN  
AUTOMOTIVE ASSEMBLY  
PLANT MANUFACTURERS.

ASSOCIATION OF MEXICAN  
AUTOMOTIVE PARTS COL.  
MANUFACTURERS  
(OVER 100 ASSOCIATE  
MEMBERS).

NATIONAL ASSOCIATION  
OF WHOLESALERS OF  
AUTOMOTIVE PARTS.

NATIONAL ASSOCIATION  
OF REPRESENTATIVES,  
IMPORTERS AND  
DISTRIBUTORS  
OF AUTOMOTIVE PARTS  
AND ACCESSORIES



AUTOMOTIVE/VEHICLE ASSEMBLY PLANTS IN MEXICO

**VOLKSWAGEN DE MEXICO, S.A. DE C.V.** Tel. 48-4000  
 Autopista México Puebla Km. 116  
 72008 Puebla, Pue.  
 Apdo. Postal 875  
 72000 Puebla, Pue.  
 Martin Josephi Wellmann, President of the Board; Lic.  
 Antonio E. Cervantes F., Industrial Relations Director;  
 Gerhard Rieder, Finance Director  
 Manufacturers of automobiles.  
 Telex: 178252

**NISSAN MEXICANA, S.A. DE C.V.** Tel. 598-2500  
 Av. Insurgentes Sur 1958  
 Col. Florida  
 Del. B. Juárez  
 01030 México, D.F.  
 Shorchi Amemiya, President; Manuel Fernández, Sales Manager  
 Manufacturers of automobiles.  
 Established: 1962 Personnel: 7,500 Telex: 1772500

**CHRYSLER DE MEXICO, S.A.** Tel. 250-9988  
 Lago Alberto 320  
 Col. Anáhuac Fax 250-9988  
 Del. M. Hidalgo  
 11320 México, D.F.  
 Ing. Carlos Lobo Sina, Chairman of the Board and Managing  
 Director; Ralph Maldonado, Executive Director - Sales and  
 Marketing; Juan José Arzac, Purchasing Director  
 Automobiles and trucks.  
 Established: 1938 Personnel: 11,000 Telex: 1774335

**TOTAL MEXICANA, S.A. DE C.V.** Tel. 393-8433  
 Alamo Plateado 1, 7o. Piso  
 Fracc. Alamos  
 Lomas Verdes  
 Apdo. Postal 556  
 53230 Naucalpan, Méx.  
 Wolfgang Rieck, General Manager; C.P. Mario Alvarez,  
 Administrative Manager; Guillermina Bremer, Sales Manager  
 Manufacturers of fire fighting equipment and vehicles.  
 Established: 1967 Personnel: 150 Telex: 172410

**FORD MOTOR COMPANY, S.A. DE C.V.** Tel. 211-0049  
 Paseo de la Reforma 333  
 Col. Cuauhtémoc Fax 511-5297  
 Del. Cuauhtémoc  
 Apdo. Postal 39 Bis  
 06500 México, D.F.  
 Lic. Nicholas V. Scheele, President and Managing Director;  
 Víctor M. Barreiro, Technical Affairs Vice President;  
 Víctor Jerusalmi, Commercial Affairs Vice President  
 Manufacturers of automobiles, trucks and engines.  
 Established: 1925 Personnel: 8,100 Telex: 1776370

**GENERAL MOTORS DE MEXICO,** Tel. 5-3284  
**S.A. DE C.V., COMPLEJO AUTOMOTRIZ [RAM**  
 Carr. Monterrey-Salttillo Km. 7.5  
 Apdo. Postal Suc. C  
 25900 Ramos Arizpe, Coah.  
 Russell M. McLean, Complex Manager; Lic. Luis Matuk E.,  
 Human Resources Director; Miguel Cuéllar, Resident  
 Comptroller; Fernando Neumann, Materials Director  
 Manufacturers of commercial trucks, vehicles, engines,  
 automotive components.  
 Established: 1979 Personnel: 5,000 Telex: 381194

**GENERAL MOTORS DE MEXICO, S.A. DE C.V.** Tel. 254-3777  
 Lago Victoria 74, 7o. Piso  
 Col. Granada Fax 250-8682  
 Del. M. Hidalgo  
 11520 México, D.F.  
 Richard C. Nerod, President and Managing Director; Fernando  
 Newman, Purchasing Director; Robert L. Tanzola, Sales  
 Director; Moisés Pallares, Public and Government Relations  
 Director  
 Manufacturers of commercial trucks, vehicles, engines,  
 automotive components.  
 Established: 1935 Telex: 1763185



**WHEN SELLING TO THE MEXICAN GOVERNMENT AND ITS AGENCIES, IT IS  
REQUIRED TO HAVE REGISTRY NUMBER AS FOREIGN SUPPLIER.  
FOLLOWING IS RELATED INFORMATION.**

**REGISTRATION WITH SECRETARIA DE PROGRAMACION Y PRESUPUESTO**

**(SPP)**

Following is a summary of Registration Procedures for Canadian Companies wishing to sell to the Mexican Government and its decentralized agencies.

Note: Registration procedures now cannot be done by the foreign (Canadian) supplier, and must be done by the company's official local agent/representative in Mexico.

To obtain registry, the following documents should be submitted to the Registro de Proveedores Office of the Secretaría de Programación y Presupuesto (SPP) (Ministry of Planning and Budgeting) located at the following address:

Registro de Contratistas y  
Proveedores de la Administración  
Pública Federal S.P.P.  
Av. San Antonio Abad No. 124 - Piso 1  
Col. Tránsito  
06380 México, D.F.

- a) Applications for registration of foreign supplier forms SPP in original and 3 copies, all signed separately.
- b) A copy of the company's balance sheet and profit and loss statement with data not older than two months with respect to the date of application entry into the Foreign suppliers registry, also translated into Spanish and legalized by the Mexican Consulate.
- c) Copy of power of company's legal representatives in Canada notarized, and certified by Mexican Consul (documents mentioning full name of person or persons, legally authorized to sign documents on behalf of company showing his (their) signature.
- d) Copy of agency/representative contract in Mexico notarized and then certified by Mexican Consul.
- e) Copy of a document that proves and guarantees legal existence of company in Canada.  
A certificate of incorporation from a Canadian -





Chamber of Commerce or Industry Chamber. This letter must be presented in its original form and must state that interested company has been legally incorporated in accordance to the laws of the country and must include the date of incorporation. The letter cannot be more than six months old from the date it was issued. In addition it must be translated into Spanish and legalized by the Mexican Consulate.

- f) Limited power to local agent to act on behalf of foreign firm on disputes and collection matters.
- g) A photocopy of sample past invoices for each product to be supplied duly translated and legalized by the Mexican Consulate with the date and the names of the buyer and the seller underlined and highlighted.

2. Once application forms and supporting documents are approved, registration number is issued in two to four weeks time. To claim registration number, foreign firm's representative will have to present original and copy of HD-1 form "Declaración General de Pago de Derechos" duly paid.

3. To obtain HD-1 forms.  
As first step, payment of \$366,000 Mexican Pesos (as of April 1990 and rate subject to changes) should be made at any office of the Secretaría de Hacienda y Crédito Público (SHCP) in cash, or with Mex. Peso bank draft in favor of the "TESORERIA DE LA FEDRACION" payable through a Mexican bank located in Mexico City and should be accompanied by four (4) payment forms DH1. Each form should be signed separately. Forms can be obtained at any SHCP's offices.

### IMPORTANT

#### TO AVOID REFUSAL OF APPLICATIONS

- I Copies of documents b, c, d, e, f, g, must be translated into Spanish by certified local translator if done in Mexico. However if documents b, c, d, e, f, g and respective translations are done into Spanish in Canada, these do not have to be done by certified translator, as above, but documents and translations must be duly notarized, and then certified by nearest Mexican Consul in your area.
- II Original and copies of application forms must be signed separately by company's legal representative.







**AUTO REFACCIONES I. ESPECIALIZADAS, S.A.** 688-5322  
 Av. Cuauhtémoc 1338, 1er. Piso  
 Col. Santa Cruz Atoyac  
 Del. B. Juárez  
 03310 México, D.F.  
 Mario Doniz Lechón, General Director; Mario Doniz Islas, Assistant Director; Ernesto Rivera Ocampo, Sales Manager; Edgar Pérez Ramírez, Purchasing Manager.  
 Distributors of clamps, shock absorbers, batteries, lubricant additives, communications antennas, bearings, belts, electronic motor starters, spark plugs, condensers, automotive brakes.  
 Established 1964 • Personnel 46

**AUTOIMP** 42-5183  
 2 de Abril No. 706 Oriente  
 Col. Independencia  
 64720 Monterrey, N.L.  
 Import/export of automotive parts, export of fiberglass boats and thermoplastic products.  
 Established 1986

**AUTOMOTORES DE SATELITE, S.A. DE C.V.** 565-0044  
 Av. Sor Juana Inés de la Cruz 353  
 54030 Tlalnepantla, Méx.  
 Bery Schoenfel, General Manager; Roberto Schoenfel Palacci, Managing Director; Ing. Alfonso Coallas, Sales Manager; C.P. Luis Méndez Cabrera, Administrative Manager.  
 Distributors of automobiles and trucks, automotive parts, repairs and service.  
 Established 1968

**BALEROS DE OCCIDENTE, S.A.** 13-8657  
 Calz. Independencia Sur 910  
 44100 Guadalajara, Jal.  
 J. Trinidad Nuño Macías, General Manager.  
 Distributors of automotive parts.  
 Established 1974 • Telex 682646

**CAMIONES ESPECIALES, S.A.** 567-0744  
 Calz. Vallejo 820  
 Col. Industrial Vallejo  
 Del. Azcapotzalco  
 02300 México, D.F.  
 Desmond J. Swaine, General Director; Guillermo Carstens, General Manager; Marco Antonio Zentella, Assistant General Manager.  
 Distributors of automobiles and trucks, automobile parts, diesel and gasoline engines.  
 Established 1956 • Personnel 104

**CENTRAL CAMIONERA, S.A. DE C.V.** 579-5311  
 Plutarco Elías Calles 590  
 Col. Iztacalco  
 Del. Iztacalco  
 08900 México, D.F.  
 Francisco Nicolás Díaz B., Managing Director; Mario Rodríguez de la Vega, Comptroller; Ramón Calzada Ayanegui, Sales Manager.  
 Mobile refrigeration, automotive parts and service.  
 Personnel 67

**CUMMINS MEXICANA, S.A. DE C.V.** 822-9411  
 Circuito Gustavo Baz 2  
 Col. México Nuevo  
 54500 Atlixapán, Méx.  
 Ing. Jose Luis Casado Benito, General Manager; Ing. Andrés Gallegos Servín, Commercial Manager; C.P. Miguel L. Romero Jassan, Comptroller.  
 Distributors of diesel engines and spare parts.  
 Established 1967

**KOPAR, S.A. DE C.V.** 48-7383  
 Simón Bolívar 301 Sur  
 Col. Chepe Vera  
 64030 Monterrey, N.L.  
 Ing. Abiel Gutiérrez, General Manager; Ing. Jaime López, Sales Manager.  
 Shock absorbers: sales and engineering.  
 Established 1981 • Telex 382850

**LUCAS SERVICE MEXICO, S.A. DE C.V.** 676-9855  
 Periférico Sur 6369  
 Apdo. Postal 22-164  
 Col. Tepepan  
 Del. Xochimilco  
 16020 México, D.F.  
 Ing. James S. Holden, Director and General Manager; Lic. Phillip Steiner, Marketing Manager; Edmundo Cañada, Sales Manager.  
 Sales and repair of diesel fuel injection equipment, automotive parts.  
 Established 1946 • Personnel 202 • Telex 1777413

**MAQUINARIA LER, S.A.** 584-4566  
 Aguascalientes 175, Desp. 103 y 104  
 Col. Hipódromo Condesa  
 Del. Cuauhtémoc  
 06100 México, D.F.  
 Luis Estrada Rodríguez, General Manager; Ing. Luis Estrada Capmany, Sales Manager; Diana Estrada Rodríguez, Purchasing Manager.  
 Distributors of industrial machinery, electrical equipment, marine equipment and supplies, diesel fuel injection equipment, diesel engines, electric motors, marine engines, motor parts.  
 Established 1977 • Personnel 12 • Telex 1771300

**MAYOREO AUTOMOTRIZ Y AGRICOLA, S.A. DE C.V.** 14-1412  
 San Fernando 514  
 44180 Guadalajara, Jal.  
 Adolfo Orendain Badiño, General Director.  
 Distributors of automotive parts.

**OVERSEAS, S.A.** 782-1111  
 Geranio 220  
 Col. Santa María Insurgentes  
 Del. Cuauhtémoc  
 06430 México, D.F.  
 Apdo. Postal 2 Bis  
 06000 México, D.F.  
 Ing. Sergio Melgarejo Chávez, President; Lic. Sergio Hernández Barrón, Industrial Relations Director; Ing. María de los Angeles Valdez Mendoza, Materials Director; Lic. Rafael López Mas, Commercial Director; C.P. Octavio Castillo Jiménez, Comptroller.  
 Distributors of automotive parts.  
 Established 1940 • Personnel 180 • Telex 1771224

**PRIDA, S.A.** 399-0027  
 Mar Adriático 56  
 Col. Popotla  
 Del. M. Hidalgo  
 11400 México, D.F.  
 Jaime Prida P., General Manager; Eustolia Pérez G., Credit and Collections Manager; Ricardo Prida P., Administrative Manager.  
 Distributors of automotive parts and accessories.  
 Telex 1771300



WEEPORES INTERNACIONALES, S.A. 550-3899  
Bo Tuera 27  
Oxtopulco Universidad  
A. Obregón  
México, D.F.  
Lara y Lara, President; Lic. Juan José Lara Zavala, General  
Director.  
Distributors of automotive parts.  
Established 1959 • Personnel 33 • Telex 1772893

REFACCIONARIA MIGUEL, S.A. 537-1968  
Insurgentes Norte 1259  
Col. Guadalupe Insurgentes  
Del. G.A. Madero  
07870 México, D.F.  
Miguel Rivacoba Marín, Administrative Manager; Marta Rivacoba,  
Finance Manager; Juan Ruiz, Sales Manager.  
Distributors of automotive parts.  
Established 1949 • Personnel 24

REFACCIONES DIESEL VALLEJO, 368-6486  
S.A. DE C.V.  
Calz. Vallejo 1122  
Col. Prado Vallejo  
04170 Tlalnepartla, Méx.  
Avero Villagrán Ochoa, CEO; José Luis Arellano V., Administrative  
Manager.  
Distributors of automotive parts.  
Established 1979 • Personnel 7

ROBERT BOSCH, S.A. DE C.V. 588-8055  
Dr. Lucio 270  
Apdo. Postal 7-878  
Col. Doctores  
Del. Cuauhtémoc  
06720 México, D.F.  
Heinz-Udo Oergel, General Director; Bernhard Wolf, Import Mana-  
ger; Andreas Stedtfeld, Administrative Manager.  
Distributors of automobile parts, electrical power tools, automotive  
workshop equipment, test instruments, motor chain saws.  
Established 1955 • Personnel 92 • Telex 1772609

SELMEQ EQUIPOS INDUSTRIALES, 566-3600  
S.A. DE C.V.  
Manuel María Contreras 25  
Col. San Rafael  
Del. Cuauhtémoc  
06470 México, D.F.  
Lic. Alejandro Rangel, General Director; Ing. Armando Ponce,  
Sales Director; Jorge Gómez, Purchasing Manager.  
Distributors of boilers, electric controls and equipment, water  
treatment and diesel injection equipment, electrical installations,  
measuring instruments, gasoline and diesel engines, transformers,  
electric motors, engineering.  
Established 1979 • Personnel 406

SERVI-COMPACTOS, S.A. DE C.V. 534-8050  
Av. Universidad 1046  
Col. General Anaya  
Del. B. Juárez  
03340 México, D.F.  
Horst Mokross, General Manager.  
Automotive parts and service.  
Established 1970 • Personnel 200

SERVICIO HARLEY DAVIDSON, S.A. 519-6389  
Bolívar 482  
Col. Algarín  
Del. Cuauhtémoc  
06880 México, D.F.  
María del Carmen M. del Campo R., Director; María Elena Sleta  
Vda. de M. del Campo, General Manager.  
Motorcycle distributors, service, parts and accessories.  
Established 1947 • Personnel 13 • Telex 1771300

SKF MEXICANA, S.A. 586-3044  
Eje Central Lázaro Cárdenas 869  
Col. Nueva Industrial Vallejo  
Del. G.A. Madero  
07700 México, D.F.  
Apdo. Postal 98  
06000 México, D.F.  
Hans Willy Bona, Managing Director; Francisco de la Icaza,  
Bearings Sales Manager; José Argüelles, Materials Flow Manager.  
Distributors of bearings, special steels, machine cutting and  
precision tools, automotive parts.  
Established 1920 • Personnel 147 • Telex 1772735

TAPIA AUTOMOTRIZ, S.A. 587-4429  
Calz. Vallejo 757  
Col. Residencial Vallejo  
Del. G.A. Madero  
07750 México, D.F.  
Narciso Tapia, General Manager; Rogelio Islas, Accountant; Emilio  
Tapia, Purchasing Manager.  
Automotive parts.  
Established 1967 • Personnel 17

TECNICOS EN RECTIFICADORAS 538-4728  
AUTOMOTRICES, S.A.  
Aragón 157-G  
Col. Alamos  
Del. B. Juárez  
03400 México, D.F.  
Alfonso Baca Martínez, Administrator.  
Distributors of machinery, measuring equipment, abrasives, auto-  
motive spare parts.  
Established 1974 • Personnel 6 • Telex 1764107

TRANSMISIONES Y PARTES AUTOMOTRICES, 526-3030  
S.A. DE C.V.  
Calz. de Guadalupe 27  
Col. Maza  
Del. Cuauhtémoc  
06270 México, D.F.  
Emilio Cano Bazaldúa, General Manager.  
Distributors of automotive parts and transmissions.  
Established 1968 • Personnel 6

VICTOR F. BAUSTISTA CHAGOYAN 21-7500  
Y COMPAÑIA, S.A. DE C.V.  
Av. Niños Héroes 3053-107  
Apdo. Postal 5-122  
45000 Guadalajara, Jal.  
Victor F. Bautista Chagoján, Director.  
Distributors of hardware, automotive parts.  
Established 1972 • Personnel 8





**TONOVA, S.A. DE C.V.** 19-3672  
v. 16 de Septiembre No. 1066  
4100 Guadalajara, Jal.  
Ing. Carlos Robles Palomar, General Manager.  
Distributors of automobiles and trucks.  
Established 1950

**CONSEJERA DE SERVICIOS INTERNACIONALES, S.A.** 10-3096  
v. Niños Héroes 1633-407  
4100 Guadalajara, Jal.  
Lic. Alejandro Gómez Montoy, Administrator.  
In-bond industry, import/export consultants.  
Established 1982 • Personnel 18

**CARBONO LORENA DE MEXICO, S.A.** 576-9777  
Av. Francisco I. Madero 28  
Col. Lázaro Cárdenas  
53560 Naucalpan, Méx.  
Apdo. Postal 707  
53000 Naucalpan, Méx.  
Ing. Rogelio Mejía Nápoles, General Director; Ing. Gonzalo Gómez-Daza, Chemical Engineering Manager; Ing. Gilberto García Balmori, Electrical Applications Manager.  
Manufacturers of carbon brushes and other carbon and graphite products.  
Established 1971 • Personnel 30 • Telex 1771873

**CANDADOS UNIVERSALES DE MEXICO** 6-5308  
Av. Escandón y Helgueros 25  
Apdo. Postal 296  
Matamoros, Tamps.  
Carmine A. Auditore, Manager.  
In-bond industry.  
Personnel 40

**CAMPCO DE MEXICO, S.A. DE C.V.** 565-1511  
Vía José López Portillo 8-B  
54940 Tultitlán, Méx.  
Apdo. Postal 280  
54000 Tlalnepantla, Méx.  
Francisco Javier Pietrini León, General Director; Ing. Lawrence Brown, Sales and Plant Manager.  
Manufacturers of plastic products.  
Established 1960 • Personnel 243

**LAMINADOS METALICOS, S.A.** 42-9903  
Juan I. Ramón 452 Poniente  
64000 Monterrey, N.L.  
Gustavo Fernández López, Manager.  
Metal stampings, plastic molding, parts.  
Personnel 3

**KELEK, S.A. DE C.V.** 33-2735  
Liendo 627 Sur, Desp. 304  
Col. Obispado  
64040 Monterrey, N.L.  
Ing. Marco A. González Purata, Manager.  
Representatives of American companies.  
Telex 382293

**JONES, HUGH M.** 06-4938  
Av. Vasconcelos 673-A  
Apdo. Postal 223  
Col. del Valle  
66220 Garza García, N.L.  
Ing. Hugh M. Jones, Director.  
Exports, in-bond industry.

**MAQUINARIA INTERCONTINENTAL, S.A. DE C.V.** 571-8166  
Economía 165  
Apdo. Postal 33-085  
Col. Cuatro Arboles  
Del. V. Carranza  
25730 México, D.F.  
Pedro R. Arrechea, President; Víctor Loizaga, General Manager; Ramón Brambila, Sales Manager.  
Distribution, rental and imports of agricultural, construction, industrial, mining and fishing machinery, cranes, hoists, mixers, truck loaders, tractors and marine engines.  
Established 1951 • Personnel 165 • Telex 1773192

**MAQUINARIA IGSA, S.A. DE C.V.** 570-3588  
Carr. México-Toluca Km. 18.5  
Col. Cuajimalpa  
Del. Iztacalco  
05000 México, D.F.  
Ing. Santiago Paredes Jurado, General Director; Ing. Arturo Meza Vera, Sales Manager; Guillermina Pulido, Purchasing Manager.  
Manufacturers of diesel engines, marine engines, solar energy services and equipment, turbines, welding equipment.  
Established 1972 • Personnel 209 • Telex 1776360

**MAYOREO ELECTROMECHANICO, S.A. DE C.V.** 25-7510  
J. Guadalupe Montenegro 1687  
44100 Guadalajara, Jal.  
Ing. Pedro Collignon Collignon, General Director.  
Distributors of electromechanical equipment.  
Established 1965 • Personnel 55 • Telex 683202

**MADUSA, S.A.** 21-8651  
Cauda 734  
45520 Guadalajara, Jal.  
Ing. Sergio Díaz Garza, General Director.  
Manufacturers of metal products, automotive parts.

**OUTOKUMPU MEXICANA, S.A. DE C.V.** 254-4208  
Homero 229, 6o. Piso  
Apdo. Postal 105-211  
Col. Polanco  
Del. M. Hidalgo  
11560 México, D.F.  
Alejandro Lira, General Director; Antonio Santibáñez, Administrative Manager; Alejandro Zarco, Automation Sales Manager; John Speissegger, Concentrators Sales Manager; Alejandro Durand, Mining Sales Manager.  
X-ray analyzers, metal detectors, level controllers, computer process control systems, flotation cells, pressure filters, pneumatic drifters, hydraulic and pneumatic drilling equipment, utility vehicles, loading equipment, crushing plants and spare parts.  
Established 1979 • Personnel 13 • Telex 1773235



**PRECISION MECANICA NACIONAL,** 379-9066  
**S.A. DE C.V.**  
Cumbres de Acultzingo 198  
Apdo. Postal 198  
Fracc. Los Pirules  
54040 Tlalnepantla, Méx.  
Antonio Gómez M., General Director; Eduardo Trigo, Corporate Director; Mario Rivero, Finance Director; David Castillo, Sales Director; Gabriel Barragán, Administrative Director; Miguel Calderoni, Industrial Relations Director.  
Manufacturers of automotive parts.  
Established 1961 • Personnel 800 • Telex 1772276

**PROTTSA, S.A.** 558-8577  
Oriente 233 No. 91  
Col. Agrícola Oriental  
Del. Iztacalco  
08500 Méxco, D.F.  
Rogelio Navarro Montemayor, General Director; Ing. Jorge Mañón, Assistant General Manager.  
Manufacturers of nuts, bolts and screws.  
Established 1953 • Personnel 350 • Telex 1777292

**REFACCIONES Y MOTORES, S.A. DE C.V.** 567-2553  
Calle 21 No. 49 587-6320  
02600 Méxco, D.F.  
Salvador Aviles Armendáriz, General Director; Salvador Aviles Iglesias, General Manager; Lic. Carlos E. Aviles Iglesias, Administrative Manager.  
Manufacturers of engines and parts for diesel machinery.  
Established 1966 • Personnel 27

**REDUCTORES JIV DE MEXICO, S.A.** 527-3265  
Mar Jónico 42  
Apdo. Postal 42006  
Col. Tacuba  
Del. M. Hidalgo  
11410 Méxco, D.F.  
Gabriel Cerro Mayo, General Director; Lic. Roberto Ortega San Román, International Trade Manager; María del Carmen Ruiz, Purchasing Manager.  
Mechanical speed reducers, variable speed drives.  
Established 1981 • Personnel 65 • Telex 1773749

**RECUBRIMIENTOS INTERNACIONALES** 79-9560  
**PARA AUTO PARTES, S.A. DE C.V.**  
Av. Las Américas 814  
Col. América  
67130 Guadalupe, N.L.  
Miguel Angel Muñoz Brandi, General Manager.  
Automotive parts.  
Established 1984 • Personnel 30

**RIO GRANDE SERVAAS, S.A. DE C.V.** 2-4765  
Victoria Norte 2700  
26010 Piedras Negras, Coah.  
W.G. Wilson, General Manager.  
Manufacturers of inner tubes.  
Established 1984 • Personnel 238

**VALVULAS Y CONEXIONES** 12-7579  
**DE GUADALAJARA, S.A.**  
Abedul 367  
44900 Guadalajara, Jal.  
Gork Dretzka, Representative.  
Distributors of valves and fittings.

**RIMIR, S.A. DE C.V.** (512)548-2202  
Av. Michigan y Ohio  
Apdo. Postal 237  
Fracc. Industrial del Norte  
87310 Matamoros, Tamps.  
Terry L. Marquis, Managing Director; Martin Butt, Purchasing Manager; Larry D. Reser, Comptroller.  
Automotive fascias.  
Established 1980 • Personnel 1,100 • Telex 5125481635

**SEMICONDUCTORES OPTICOS, S.A. DE C.V.** 17-5717  
Carr. Juárez Porvenir 8419 17-6018  
Apdo. Postal 1719-D  
32470 Ciudad Juárez, Chlh.  
James A. Hopkins, Mexico Operations Manager.  
In-bond electronics assembly.  
Established 1983 • Personnel 420

**SERVICIO DETROIT DIESEL ALLISON, S.A.**  
Insurgentes Norte 1190  
07380 Méxco, D.F.  
Lic. Juan Salcedo Mascareñas, General Director.  
Distributors of motors and parts for farm and industrial machinery.

**SISTEMAS ELECTRICOS Y CONMUTADORES,** 17-8888  
**S.A. DE C.V.**  
Apdo. Postal 1734, Suc. D  
32470 Ciudad Juárez, Chlh.  
Donald H. McGivern, Managing Director.  
Manufacturers of electrical automotive components.  
Established 1979 • Personnel 1,088

**TRANSMISIONES Y EQUIPOS MECANICOS,** 533-1795  
**S.A. DE C.V.**  
Varsovia 44, 3er. Piso  
Col. Juárez  
Del. Cuauhtémoc  
06600 Méxco, D.F.  
José Rivera, General Director; Manuel de la Portilla, Marketing Director; Isidro Mata C., Purchasing Manager.  
Manual automotive transmissions, components, spare parts and forgings.  
Established 1964 • Personnel 2,000 • Telex 1771293

**TRACTOCAMIONES METROPOLITANOS** 587-1000  
**OESTE, S.A.**  
Norte 35 No. 930  
Col. Industrial Vallejo  
Del. Azcapotzalco  
02300 Méxco, D.F.  
Juan de Dios Meléndez-Martínez Beltrán, General Director; C.P. Alfonso Téllez Meléndez, Administrative Manager; Lic. Jorge Medina Ortiz, Sales Manager; Oscar A. Pierson Moncayo, Service Manager.  
Distributors of spare parts, commission agents for heavy-duty trucks.  
Personnel 80

**WEBB DE MEXICO, S.A.** 12-0353  
Gobernador Curiel 3350  
44940 Guadalajara, Jal.  
Angel Muñoz Hernández, General Director.  
Manufacturers of agricultural and automotive parts.  
Established 1964 • Personnel 150 • Telex 684241



TELE-COMP DE JUAREZ, S.A. DE C.V.

7-5100

Calle Fresnel y Fahrenheit s/n

Apdo. Postal 1756-D

Parque Industrial Antonio J. Bermúdez

32470 Ciudad Juárez, Chih.

Wayne Gill, General Manager; Jack Shelton, Senior Program Manager; Les Unger, Finance Manager; Charles E. Dwinal, Quality Assurance Manager.

Magnetic components, hybrids, harnesses, shelves, PC boards.

Established 1982 • Personnel 750

ZULUETA Y ANDRADE, S.A.

31-5151

Av. López Mateos Sur 4251

45060 Guadalajara, Jal.

Germán de Zulueta Correa, Director.

Distributors of automobiles, trucks, spare parts.

Established 1980 • Personnel 120

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