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**Die  
Casting  
in  
Canada**

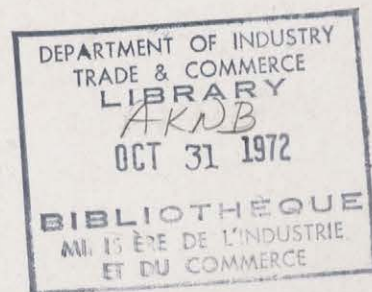
Fourth Edition, 1972

*cont*

# Die Casting in Canada

MANUAL AND DIRECTORY: DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE, OTTAWA, CANADA

FOURTH EDITION, 1972



Published by the Department of Industry, Trade and Commerce  
Ottawa, Canada

*Materials Branch*

Information Canada  
Ottawa, 1972



## **PREFACE**

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This publication is the revised and updated issue of The Manual and Directory of Die Casting in Canada. Besides supplying the names of new companies and their services it also includes change of addresses and capacities of firms already listed.

Publication of this booklet was prepared jointly by the Die Casters Section of the Automotive Parts Manufacturers Association (Canada), The Canadian Chapter of the Society of Die Casting Engineers, Incorporated, and the Materials

Branch of the Department of Industry, Trade and Commerce. Its purpose is to provide information on Canadian die casting facilities for users in Canada and abroad.

The information in this manual and directory was compiled from questionnaires sent to Canadian die casting producers. Companies inadvertently omitted are invited to forward data on their operations to The Director, Materials Branch, Department of Industry, Trade and Commerce in order to be included in the next issue.

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### **Photo credits**

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The assistance provided by the following companies in supplying photographic illustrations is gratefully acknowledged:

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# DIE CASTING — A MODERN PRODUCTION PROCESS

FIGURE 1  
Hot Chamber Die Casting Machine

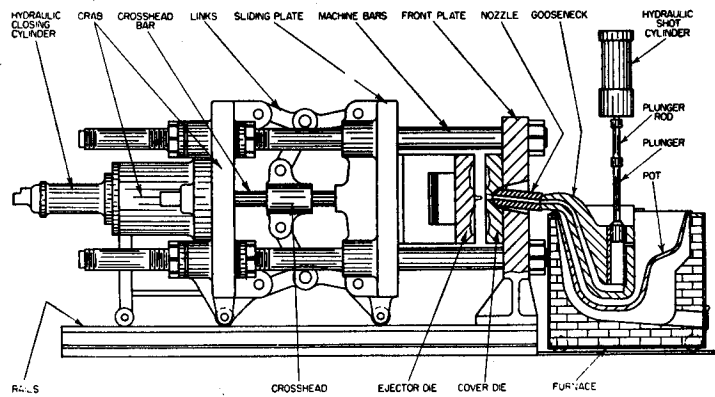
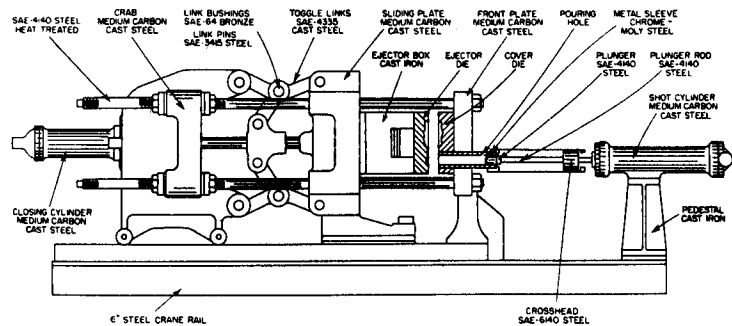


FIGURE 2  
Cold Chamber Die Casting Machine



Today, die casting is recognized as one of the important high-speed quantity production processes available to industry. For thousands of engineering products, die casting — which has been aptly termed “the shortest distance between raw material and finished product” — is the only practical or economical method of manufacture. It is a process which is well suited to the rapid production of simple or complex castings which are accurately dimensioned, sharply defined and smoothly surfaced. Little or no subsequent machining is required to produce a product acceptable to industry.

Due to their low melting points, tin and lead alloys were the first to be die cast. Later, shortly before World War 1, as the result of improvements in die steels and in the operation of die casting machines, zinc alloys began to be used. In 1914, the die casting of aluminum alloys commenced, followed by copper (mainly brass) and magnesium alloys. Tin and lead alloys are now rarely used except where special properties, such as high resistance to corrosion, cannot be obtained by the use of other alloys.

Essentially, the die casting machine consists of a mechanism for opening and closing a water-cooled split steel die, and a molten-metal injection system (Fig. 3). One half of the die is fastened to a moving

platen, the other to a fixed platen. With the two halves of the die clamped together under a massive locking force, molten alloy is injected under high pressure into the die cavity. When the alloy has solidified, the two halves of the die are separated and the casting is ejected.

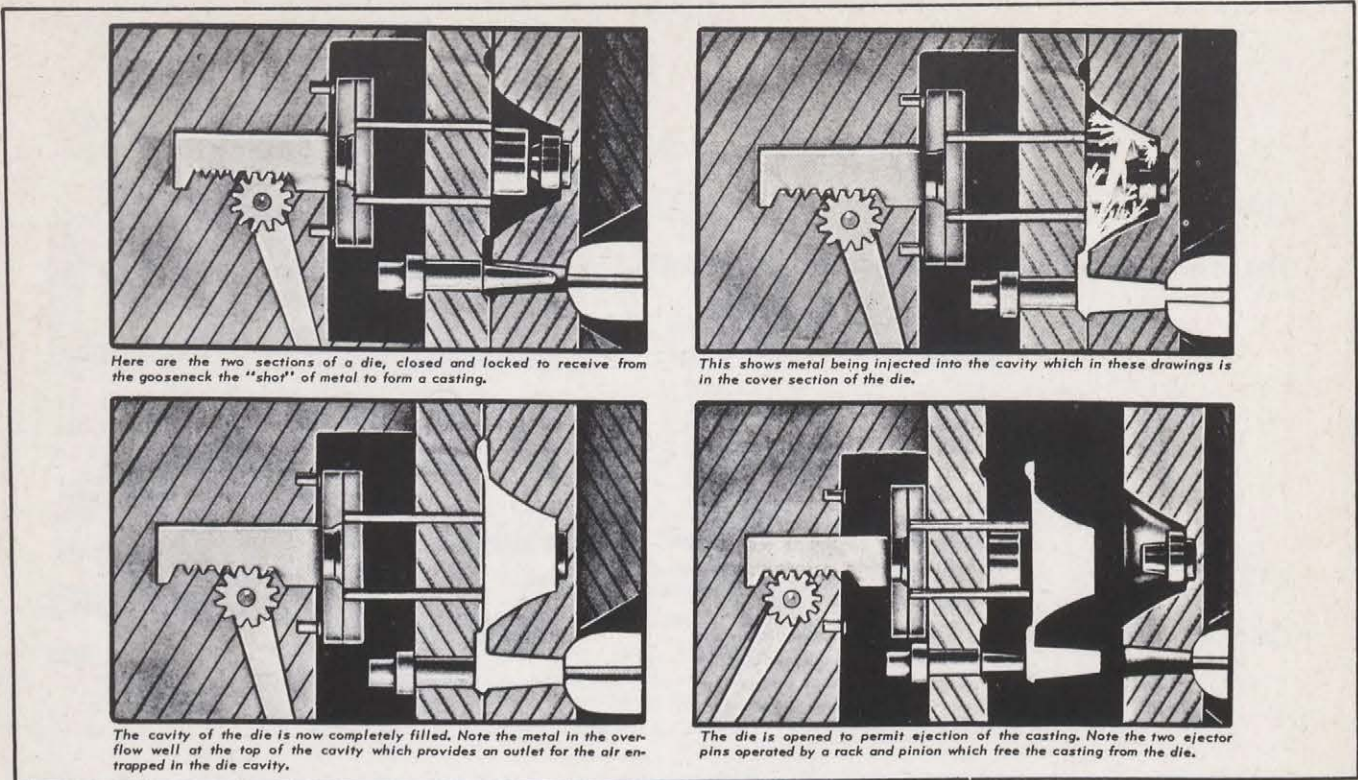
To produce lead, tin and zinc die castings, Hot Chamber machines are used (Fig. 1). With this type of machine, the injection plunger is immersed in a holding furnace containing the molten alloy, thus permitting rapid machine cycling speeds.

To produce aluminum, magnesium or copper alloy die castings, Cold Chamber machines are used because of the considerably higher melting points of these alloys (Fig. 2). With this type of machine sufficient molten alloy for each casting is ladled into a “cold chamber” injection sleeve from a separate melting furnace located adjacent to the die casting machine. In recent years, the slower operation of Cold Chamber machines compared to Hot Chamber machines, has been partly overcome through the use of automatic ladling and metering devices.



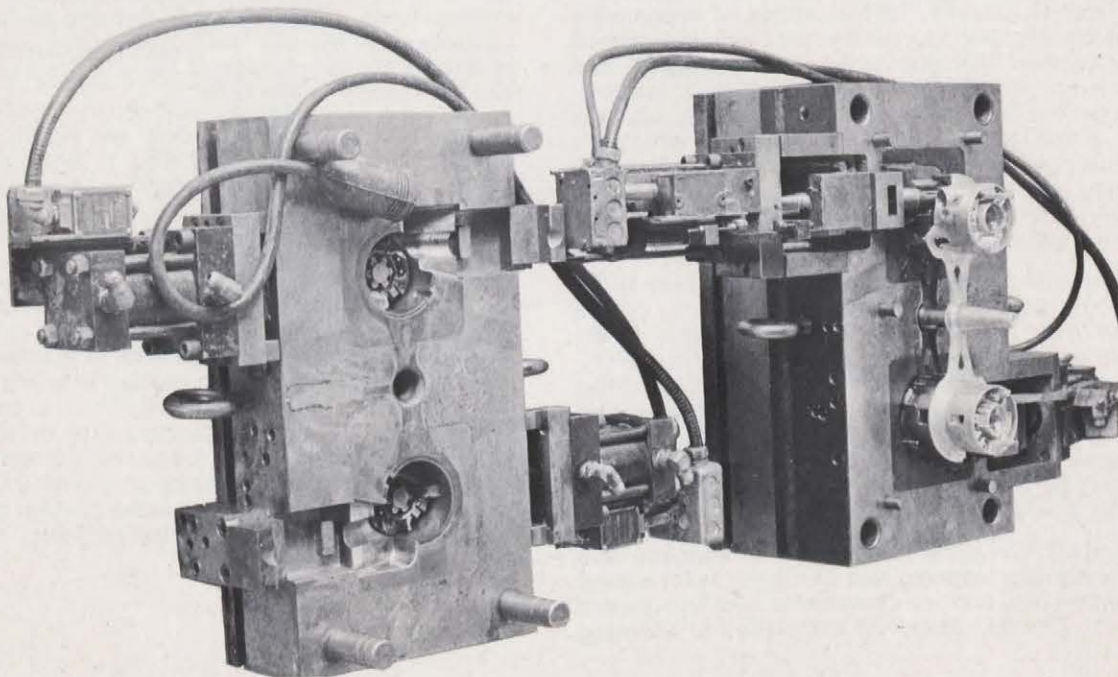
# SEQUENCE OF OPERATIONS

FIGURE 3



## CASTING DIE FOR PRESSURE DIE CASTING C/W ELECTRICALLY CONTROLLED, HYDRAULIC CORE PULLS

FIGURE 4



## APPLICATION

Of the various alloys used in die casting, zinc alloy is the most widely used. The major reason for its popularity, in comparison with the other alloys, is its desirable physical, mechanical and casting properties and its ability to be readily finished with commercial electroplated or organic coatings. The automotive industry is the largest single consumer of zinc die castings, for which typical applications are window regulators, door handles, decorative trim, carburetor parts, fuel pumps, etc. Other major applications of zinc die castings are component parts for household appliances, various types of machinery, photographic, optical, recording and office equipment, etc.

Next to zinc, aluminum is the most widely used die casting alloy. Its chief advantages are its light weight and its high resistance to corrosion. As in the case of zinc, the automotive industry accounts for a large percentage of aluminum die castings produced. Typical applications are transmission housings and other functional automotive components. A large volume of aluminum die cast parts is also used for household appliances, portable tools, electric motors and generators.

Magnesium alloy die castings are used where a high strength-to-weight ratio is desirable as in the manufacture of typewriters, outboard motors, photographic equipment, chain saws and lawn mowers. In the United States and in West Germany a large amount of magnesium is consumed in die casting by automotive manufacturers.

Copper alloys are not nearly as widely used for die casting as the other alloys because of their high melting points, which result in relatively short die life. However, there are certain applications where the special properties of copper-alloy die castings more than offset their higher cost. For example, their exceptional strength and high wear resistance are particularly important in the manufacture of gears, transmission forks, clutch and shock absorber parts and bearings. Excellent resistance to corrosion is one of the properties which accounts for the extensive use of copper-alloy die castings in the plumbing and hardware industries.

## DIE CASTING ALLOYS AND PROPERTIES

### Aluminum — Base Alloys

#### ASTM Designation B85-60 Aluminum-Base Alloy Die Castings

Designation	Standard Alloys*	
	13 S12B	380 SC84B
Commercial ASTM		
Composition — per cent		
Copper	0.6	3.0-4.0
Iron	2.0	2.0
Silicon	11.0-13.0	7.5-9.5
Manganese	0.35	0.50
Magnesium	0.10	0.10
Zinc	0.50	3.0
Nickel	0.50	0.50
Tin	0.15	0.35
Other elements, max.	0.25	0.50
Aluminum	Remainder	Remainder
Properties and Constants		
Tensile Strength, psi	43,000	46,000
Yield Strength (0.2 per cent offset), psi	21,000	23,000
Elongation, percentage in 2 in.	2.5	2.5
Shear Strength, psi	25,000	28,000
Fatigue Strength, psi	19,000	20,000
Specific Gravity	2.65	2.71
Weight per cu. in., lb.	0.096	0.098
Melting Point (Liquid), °F	1080	1100
Thermal Conductivity, CGS	0.29	0.23
Thermal Expansion, in./in./°F	11.9x10 <sup>-6</sup>	12.1x10 <sup>-6</sup>
Electrical Conductivity, percentage of Copper Standard	31	23

\*These standard alloys are also available with 1.3 per cent maximum iron content (designated A13 and A380) having a higher elongation. They are most commonly used and represent over 90 per cent by weight of all aluminum alloy castings produced. Other alloys are also available but these are usually specified for applications requiring certain specific properties.



**ASTM Designation B85-60  
Aluminum Alloy Die Casting Alloys**

Designation	Special Alloys				
	Commercial ASTM	360* SG100B*	384 SC114A	218 G8A	43 S5C
Composition — per cent					
Copper	0.6	3.0-4.5	0.25	0.6	0.6
Iron	2.0	1.3	1.8	2.0	2.0
Silicon	9.0-10.0	10.5-12.0	0.35	4.5-6.0	4.5-6.0
Manganese	0.35	0.50	0.35	0.35	0.35
Magnesium	0.4-0.6	0.10	7.5-8.5	0.10	0.10
Zinc	0.50	1.0	0.15	0.50	0.50
Nickel	0.50	0.50	0.15	0.50	0.50
Tin	0.15	0.35	0.15	0.15	0.15
Other elements, max.	0.25	0.50	0.25	0.25	0.25
Aluminum	Remainder	Remainder	Remainder	Remainder	Remainder
Properties and Constants					
Tensile Strength, psi	44,000	48,000	45,000	33,000	33,000
Yield Strength (0.2 per cent offset), psi	25,000	24,000	28,000	14,000	14,000
Elongation, percentage in 2 in.	2.5	2.5	5.0	9.0	9.0
Shear Strength, psi	28,000	29,000	29,000	19,000	19,000
Fatigue Strength, psi	20,000	20,000	20,000	17,000	17,000
Specific Gravity	2.63	2.70	2.57	2.65	2.65
Weight per cu. in., lb.	0.095	0.098	0.093	0.096	0.096
Melting Point (Liquid), °F	1105	1080	1150	1170	1170
Thermal Conductivity, CGS	0.27	0.23	0.23	0.34	0.34
Thermal Expansion, in./in./°F	12.2x10 <sup>-6</sup>	11.7x10 <sup>-6</sup>	13.9x10 <sup>-6</sup>	12.9x10 <sup>-6</sup>	12.9x10 <sup>-6</sup>
Electrical Conductivity, percentage of Copper Standard	29	23	24	37	37

\*This alloy is also available in lower iron composition (designated A360) having higher ductility.

For Canadian buyers of aluminum die castings the following table will be useful.

Relevant Specifications for Aluminum Alloy Die Casting Alloys			
Commercial U.S. Alloy No.	ASTM Alloy No. (B85-60)	CSA Alloy No. (HA. 3)	Alcan Alloy No.
A13	S12A	S12P	160X
13	S12B	—	B160
A380	SC84A	SC84	143
380	SC84B	—	C143
A360	SG100A	—	B150
360	SG100B	—	B150
384	SC114A	—	6369
218	G8A	G8	340
43	S5C	S5	123

Note: The values indicated for typical properties and constants are for separately die cast test bars and do not represent values for specimens cut from die castings.

## Copper — Base Alloys

The chemical compositions, physical properties and constants for the copper base alloys most generally used for die casting are shown in the following table.

<b>ASTM Designation B172-62 Copper Base (Brass) Alloy Die Castings</b>			
Designation	Standard Copper-Base Alloys		
Commercial and ASTM	Z30A	ZS331A	ZS144A
Composition — per cent			
Copper	57.0 min.	63.0 to 67.0	80.0 to 83.0
Silicon	.25 max.	0.75 to 1.25	3.75 to 4.25
Lead, max.	1.50	0.25	0.15
Tin, max.	1.50	0.25	0.25
Manganese, max.	0.25	0.15	0.15
Aluminum, max.	0.25	0.15	0.15
Iron, max.	0.25	0.15	0.15
Magnesium, max.	—	—	0.01
Other elements, max.	0.50	0.50	0.25
Zinc	30.0 min.	Remainder	Remainder
Properties and Constants			
Tensile Strength, psi	55,000	70,000	85,000
Yield Strength (0.2 per cent offset), psi	30,000	35,000	50,000
Elongation, percentage in 2 in.	15	25	25
Impact Strength, Charpy, ft. lb.	40	50	70
Hardness, Rockwell B Scale	55-60	68-72	85-90
Modulus of Elasticity	15x10 <sup>-6</sup>	15x10 <sup>-6</sup>	20x10 <sup>-6</sup>

Note: The values indicated for typical properties and constants are for separately die cast test bars and do not represent values for specimens cut from die castings.

## Lead and Tin — Base Alloys

Below are listed a few typical lead and tin alloys which are still used for special applications where high corrosion resistance is required or where high density or unit weight is an important factor.

	Copper per cent	Antimony per cent	Lead per cent	Tin per cent
Lead alloy	—	10	90	—
"    "	—	15	80	5
Tin alloy	4.5	4.5	—	91
"    "	3	10.5	25.0	61.5

## Magnesium — Base Alloys

Two alloys — AZ90X and AZ91X — are generally used for die castings. The difference between the two alloys is in the zinc content. In alloy AZ90X the zinc content is 0.2 per cent max. whereas in alloy AZ91X the zinc content is 0.4 per cent minimum up to 1.0 per cent maximum.

Alloy AZ91X is quite suitable for the general range of die castings, but it has been shown that the lower content of zinc in AZ90X facilitates the high speed production of thin wall die castings and substantially reduces hot cracking.

## Magnesium — Base Alloys (Continued)

### CSA Standard HG. 11 Magnesium Alloy Die Castings

Alloy Number	HG. 11.AZ90X	HG. 11.AZ91X
Composition — per cent		
Aluminum	8.5 to 9.5	8.3 to 9.3
Zinc	0.2 max.	0.40 to 1.0
Manganese	0.15 to 0.40	0.15 to 0.40
Silicon, max.	0.15	0.15
Copper, max.	0.01	0.01
Nickel, max.	0.005	0.005
Iron, max.	0.008	0.008
Others	0.02	0.02
Other elements, max.	0.10	0.10
Magnesium	Remainder	Remainder
Properties and Constants		
Tensile Strength, psi		34,000
Tensile Yield Strength (0.2 per cent offset), psi		23,000
Elongation, percentage in 2 in.		3
Shear Strength, psi		20,000
Compressive Yield Strength, psi		22,000
Ultimate Compressive Strength, psi		58,000
Fatigue Strength, psi		14,000
Specific Gravity		1.80
Weight per cu. in., lb.		0.066
Thermal Conductivity, CGS		0.17
Thermal Expansion, in./in./°F		15.2x10 <sup>-6</sup>
Electrical Conductivity, percentage of Copper Standard		10

Note: The values indicated for typical properties and constants are for separately die cast test bars and do not represent values for specimens cut from die castings.

## Zinc — Base Alloys

The die casting alloys in the following tables are commonly referred to by the industry as Alloy No. 3 and 5 respectively. However, it is recommended that the appropriate formal ASTM designation be employed when zinc alloy die castings are being purchased.

ASTM Designation B. 86-64 Zinc-Base Alloy Die Castings		
Chemical Composition (a)		
Designations		
ASTM (present)	AG40A	AC41A
ASTM (previous)	(XXIII)	(XXV)
SAE	903	905
Trade or Common	Alloy No. 3	Alloy No. 5
Percentage Copper	0.25 max. (b)	0.75 to 1.25
Percentage Aluminum	3.5 to 4.3	3.5 to 4.3
Percentage Magnesium	0.020 to 0.05	0.03 to 0.08
Percentage Iron	0.100 max.	0.100 max.
Percentage Lead	0.005 max.	0.007 max.
Percentage Cadmium	0.004 max.	0.005 max.
Percentage Tin	0.003 max.	0.005 max.
Percentage Zinc	Remainder	Remainder

(a) Zinc alloy die castings may contain nickel, chromium, silicon and manganese in amounts of 0.02, 0.02, and 0.035 and 0.5 per cent respectively. No harmful effects have ever been noted due to the presence of these elements in these concentrations and, therefore, analyses are not required for these elements.

(b) For the majority of commercial applications, a copper content in the range of 0.25 to 0.75 per cent will not adversely affect the serviceability of die castings and should not serve as a basis of rejection.

# Zinc — Base Alloys (Continued)


Properties and Constants (c)	(Special Note)
Tensile Strength, psi	41,000 — 47,000
Elongation, percentage in 2 in.	10 — 7
Impact Strength, Charpy, ft. lb.	43 — 48
Shear Strength, psi	81,000 — 38,000
Specific Gravity	6.6
Weight per cu. in., lb.	.24
Melting Point (liquidus) F	727.9
Thermal Expansion, in./in./°F	15.2x10 <sup>-6</sup>
Electrical Conductivity, percentage of Copper Standard	26

(c) Values are typical and where double figures are shown they represent the properties for copper content at minimum and maximum of composition. They are for separately die cast test bars and do not represent values for specimens cut from die castings.

## PRODUCT REQUIREMENTS INFORMATION


The transmission of concise and complete information between the buyers and vendors of die castings is essential to the preparation and submission of sound die casting quotations. In an effort to eliminate the inconsistencies and misunderstandings which may arise when the cost of die castings is being estimated, the American Die Casting Institute has compiled and issued the following Product Standards for Die Castings.

The standards provide buyers with a check list of product requirements and enable die casting suppliers to establish a common basis of quotation. Use of these standards should contribute towards satisfaction by both buyer and vendor when a die casting goes into actual production. Copies may be obtained from Die Casters' Section of the Automotive Parts Manufacturers Association (Canada), Toronto.

PRODUCT STANDARDS FOR DIE CASTINGS		PRODUCT REQUIREMENTS INFORMATION	
		<small>Supplemental data to details on print, for use in establishing basis of quotation. (Reference — ADI Standard C-9)</small>	
Customer's Name _____ Individual _____		Address _____ Date _____	
Address (Street) _____ (City) _____ (Zone) _____ (State) _____		Prints attached — <input type="checkbox"/> yes, <input type="checkbox"/> no. Part name and number _____	
Is part in present production? — <input type="checkbox"/> yes, <input type="checkbox"/> no. Sample available? — <input type="checkbox"/> yes, <input type="checkbox"/> no. If not _____ <small>ESTIMATED WEIGHT</small>		Anticipated total order _____ Quantity per release _____	
Alloy to be used _____ Estimate due date _____		Anticipated annual requirement _____ Daily _____ or weekly _____ requirements	
<p><b>IN INDICATING YOUR PART REQUIREMENTS BELOW NOTE THAT, THE LOWER THE NUMBER, THE LOWER THE PRODUCTION COST. (THIS INFORMATION MAY ALSO BE INDICATED ON YOUR PRINTS BY CODING WITH THE APPLICABLE REQUIREMENT NUMBERS SUCH AS A1, B2, C1, ETC.)</b></p>			
<b>A. SURFACE CONDITION</b>	<input type="checkbox"/> 1. Some residues and chips not objectionable.	<input type="checkbox"/> 2. Shop run — blown reasonable free of chips but not degraded.	<input type="checkbox"/> 3. Clean, dry and free of chips.
<b>B. CAST SURFACE FINISH</b>	<input type="checkbox"/> 1. Mechanical Grade — flash is not significant.	<input type="checkbox"/> 2. Painting Grade — some streaks and chill areas that can be covered with paint.	<input type="checkbox"/> 3. High Quality — for electroplating, anodizing or other decorative finishing.
<b>C. FLASH REMOVAL</b>	<input type="checkbox"/> 1. No die trimming — break off gates and overflows and remove flash within 1/8".	<input type="checkbox"/> 2. Die trimmed — to within approx. 0.15" of die casting surface (See ADI Standard E-10).	<input type="checkbox"/> 3. Hand filed or polished — flash with die casting surface.
<b>D. FLASH REMOVAL</b>	<input type="checkbox"/> 1. Flash not removed.	<input type="checkbox"/> 2. Flash trimmed to within .010" of die casting surface.	<input type="checkbox"/> 3. Flash to be machined.
<b>E. FLASH REMOVAL</b>	<input type="checkbox"/> 1. Not removed. (See ADI Standard E-9).	<input type="checkbox"/> 2. Crushed or flattened. (See ADI Standard E-9).	<input type="checkbox"/> 3. Removed from specific locations.
<b>F. PRESSURE TIGHTNESS</b>	<input type="checkbox"/> 1. No requirement.	<input type="checkbox"/> 2. Pressure tight to agreed upon psi. Testing medium _____	<input type="checkbox"/> 3. Other arrangements to be agreed upon.
<b>G. FLATNESS</b>	<input type="checkbox"/> 1. No requirement.	<input type="checkbox"/> 2. To tolerance shown in ADI Standard E-4.	<input type="checkbox"/> 3. Critical — to special requirement.
<b>H. DIMENSIONS</b>	<input type="checkbox"/> 1. Normal — (As per ADI Standards).	<input type="checkbox"/> 2. Semi-Critical — must hold certain specified dimensions. Others as per ADI Standards.	<input type="checkbox"/> 3. Critical — must hold all specified dimensions.
<b>I. COUNTERS RECEIVING INSPECTION</b>	<input type="checkbox"/> 1. No Statistical Quality Control — no unusual inspection requirements.	<input type="checkbox"/> 2. Statistical Quality Control — AQL's over 2.5%.	<input type="checkbox"/> 3. Statistical Quality Control — shipment acceptable at AQL of _____%.
<b>J. PACKAGING</b>	<input type="checkbox"/> 1. Not critical — bulk packed.	<input type="checkbox"/> 2. Layer packed — with separators.	<input type="checkbox"/> 3. Packed in cell type separators or individually wrapped.
<b>K. SPECIAL REQUIREMENTS</b>	_____		

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PRODUCT STANDARDS FOR DIE CASTINGS		FINISHING REQUIREMENTS INFORMATION	
		<small>Supplemental data to Product Requirements Information (ADI Standard C9) for use in establishing basis of quotation. (Reference — ADI Standard C10)</small>	
Customer's Name _____ Individual _____		Address _____ Date _____	
Address (Street) _____ (City) _____ (Zone) _____ (State) _____		Prints attached — <input type="checkbox"/> yes, <input type="checkbox"/> no. Part name and number _____	
Is part in present production? — <input type="checkbox"/> yes, <input type="checkbox"/> no. Sample available? — <input type="checkbox"/> yes, <input type="checkbox"/> no. If not _____ <small>ESTIMATED WEIGHT</small>		Anticipated total order _____ Quantity per release _____	
Alloy to be used _____ Estimate due date _____		Anticipated annual requirement _____ Daily _____ or weekly _____ requirements	
<p><b>IN INDICATING YOUR PART REQUIREMENTS BELOW NOTE THAT, THE LOWER THE NUMBER, THE LOWER THE PRODUCTION COST. (THIS INFORMATION MAY ALSO BE INDICATED ON YOUR PRINTS BY CODING WITH THE APPLICABLE REQUIREMENT NUMBERS SUCH AS L1, M2, N1, ETC.)</b></p>			
<b>L. PARTING LINES</b>	<input type="checkbox"/> 1. Polishing not required.	<input type="checkbox"/> 2. Polish only where marked on drawing.	<input type="checkbox"/> 3. Polish all parting lines (except as noted).
<b>M. SURFACE PREPARATION</b>	<input type="checkbox"/> 1. No buffing required.	<input type="checkbox"/> 2. Mechanical (burnishing, tumbling, etc.).	<input type="checkbox"/> 3. Buff as indicated on drawing.
<b>N. PLATING, ANODIZING etc.</b>	<input type="checkbox"/> 1. Protective Only _____	<input type="checkbox"/> 2. Decorative: Specs _____	<input type="checkbox"/> 3. Severe exposure: _____ Specs _____
<b>O. PAINTING</b>	<input type="checkbox"/> 1. Protective Only _____	<input type="checkbox"/> 2. Decorative: Specs _____	<input type="checkbox"/> 3. Application requires base coat or special treatment (as noted).
<b>P. EXPOSURE</b>	<input type="checkbox"/> 1. Normal interior.	<input type="checkbox"/> 2. Exposure to weather: Specs _____	<input type="checkbox"/> 3. Exposure to unusual chemistry: Specs _____
<b>Q. APPEARANCE</b>	<input type="checkbox"/> 1. Utility Grade.	<input type="checkbox"/> 2. Commercial Grade.	<input type="checkbox"/> 3. Superior Grade.
<b>R. SPECIAL REQUIREMENTS</b>	_____		

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## DIRECTORY OF DIE CASTERS BY PROVINCE

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Note: Under "Die Casting Machines Installed" the following coding system has been employed:

1. Al = Aluminum; Cu = Copper; Pb = Lead; Zn = Zinc; Mg = Magnesium
2. The figures following the chemical symbol indicate number of machines (in brackets) and locking pressure.

Example: Al (2) 400 = Aluminum alloy die casting machines of which there are two with a locking pressure of 400 tons.

---

### British Columbia

ACCURATE DIE CASTING LTD.

694 Derwent Way  
Annacis Island  
New Westminster

Telephone: (604) 522-8231

SERVICES AVAILABLE: Custom die casting, product design, toolmaking, machining, finishing and assembly. Arrangements can be made to provide electroplated or painted coatings in outside facilities.

DIE CASTING ALLOYS USED: Zinc

DIE CASTING MACHINES INSTALLED: Zn (3) 25  
(1) 150

SIMALEX MANUFACTURING CO. LTD.

1415 Dominion Street  
North Vancouver

Telephone: (604) 987-2030

SERVICES AVAILABLE: Custom die casting, product design, toolmaking, machining, finishing, electroplated, painted or chemical coatings, and assembly.

DIE CASTING ALLOYS USED: Aluminum and Zinc

DIE CASTING MACHINES INSTALLED: Al (1) 400 Zn (1) 80  
(2) 300

STUART DIE CASTING CO. LTD.

1270 Boundary Road  
Vancouver 6

Telephone: (604) 299-7551

SERVICES AVAILABLE: Custom die casting, product design, toolmaking, machining, various types of coatings including electroplated, painted or chemical, finishing and assembly.

DIE CASTING ALLOYS USED: Aluminum, Copper, and Zinc

DIE CASTING MACHINES INSTALLED: Al (1) 125 Zn (1) 100 Cu (1) 125  
(1) 300  
(1) 500

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### Alberta

UNIVERSAL PLASTIC PRODUCERS LTD.

1351 Hastings Crescent S.E.  
Calgary 24

Telephone: (403) 243-2414

SERVICES AVAILABLE: Custom die casting, product design, toolmaking, some machining, finishing and assembly. Arrangements can be made to provide electrolytic or painted coatings in outside facilities.

DIE CASTING ALLOYS USED: Aluminum and Zinc

DIE CASTING MACHINES INSTALLED: Al (1) 250 Zn (1) 12  
(1) 250

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### Manitoba

AUTOMOTIVE ACCESSORY CO. LTD.

771 Main Street  
Winnipeg 4

Telephone: (204) 942-2514

Telex: Tor — 06-217793

Wpg — 03-58261

SERVICES AVAILABLE: The company's facilities are mainly captive. However, it has facilities for some custom die casting, toolmaking, machining and assembly. Also, some finishing equipment is available and can be used for custom work.

DIE CASTING ALLOYS USED: Aluminum and Zinc

DIE CASTING MACHINES INSTALLED: Al (1) 200 Zn (2) 400

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**BAYCAST PRODUCTS LTD.**

2200 Logan Avenue

Winnipeg 23

Telephone: (204) 775-0441

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining and assembly. Arrangements can be made to provide electroplated, painted or chemical coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (1) 75

**DIECAST PRODUCTS LIMITED**

1085 Winnipeg Avenue

Winnipeg 3

Telephone: (204) 774-5541

**EASTERN SALES OFFICE:** Suite 8, 145 Sheppard Avenue East

Willowdale, Ontario

Telephone: (416) 225-7132

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, electroplated or painted coatings, and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 150

**Ontario**

**ACCURCAST DIE CASTING LIMITED**

Arnold Street

Wallaceburg

Telephone: (519) 627-1441

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly. Arrangements can be made to provide various types of coatings such as electroplated and painted, in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum and Copper

**DIE CASTING MACHINES INSTALLED:** Al (1) 600 Cu (1) 600  
(1) 800

**ACF CANADA LIMITED**

Carter Carburetor Division

109 East Drive

Bramalea

Telephone: (416) 459-6540

Telex: 0697522

**SERVICES AVAILABLE:** The company's facilities are mainly captive. However, it has facilities for some custom die casting, toolmaking, machining, finishing and assembly. Arrangements can be made to provide electroplated and painted coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (1) 400  
(4) 600

**ALLBRIGHT PLATERS LTD.**

A Division of Mills Appliance Products Limited

2289 Barton Street East

Hamilton

Telephone: (416) 549-2484

**SERVICES AVAILABLE:** Custom die casting, product design, machining, finishing, electroplating, painting and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 200  
(1) 400  
(3) 500  
(1) 600

**AMEROCK LIMITED**

278 Cook Street  
Meaford  
(P.O. Box 1000, Meaford)  
Telephone: (519) 538-2200  
Telex: 02-8724

**SERVICES AVAILABLE:** Custom and captive die casting, product design, toolmaking, machining, finishing, various types of coatings including electroplated and painted, and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 150  
(2) 200  
(2) 400

**BANNER METAL PRODUCTS**

A Division of D & L Metals Limited  
1680 Kildare Road  
Windsor  
Telephone: (519) 256-2606

**SERVICES AVAILABLE:** Custom die casting and associated toolmaking, machining and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 18

**BARBER DIE CASTING COMPANY LIMITED**

Hillyard Street  
Hamilton  
(P.O. Box 446, Postal Station "B")  
Telephone: (416) 527-9178

**SERVICES AVAILABLE:** Custom die casting, product design and machining and chemical coating. Toolmaking, finishing and assembly are done both in the company plant and as sub-contracts to reputable firms. Arrangements can be made to provide electroplated, electrolytic, painted and vacuum coatings in outside facilities. A full range of machine tools is available for drilling, tapping and lathe finishing operations. The company also has its own wheelabrator, airblast and chemical surface finishing equipment.

**DIE CASTING ALLOYS USED:** Aluminum, Zinc, Magnesium and Copper

**DIE CASTING MACHINES INSTALLED:** Al, Mg (2) 800  
(5) 1400  
Al, Mg, Cu (3) 250  
(7) 600  
Zn (4) 250  
(1) 600

**BURLINGTON DIE CASTINGS LTD.**

3267 Mainway  
Burlington  
Telephone: (416) 632-2742

**SERVICES AVAILABLE:** Custom die casting, product design, machining, finishing, and painted or chemical coatings.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (1) 300  
(5) 400  
(2) 500  
(2) 600  
(2) 800

**CANADIAN GENERAL ELECTRIC COMPANY LIMITED**

107 Park Street North  
Peterborough  
Telephone: (705) 742-7711

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting and toolmaking.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (1) 10  
(1) 88  
(1) 100  
(1) 250  
(3) 400

**CARPENTER DIE CASTING CO. LTD.**

540 Queen Elizabeth Way  
Stoney Creek  
Telephone: (416) 664-4474

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly. Arrangements can be made to provide electroplated or painted coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum and Zinc

**DIE CASTING MACHINES INSTALLED:** Al (2) 400 Zn (1) 200  
(1) 500 (1) 250  
(1) 600 (1) 300  
(1) 625

**CASTING UNLIMITED**

65 Court Street North  
Milton  
Telephone: (416) 878-2746

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly. Arrangements can be made to provide electroplated and painted coatings in other facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 100

**CHRYSLER CANADA LIMITED**

15 Brown's Line  
Toronto 520  
Telephone: (416) 259-2341  
Telex: 0229438

**SERVICES AVAILABLE:** The company's facilities are captive. It has facilities for die casting, toolmaking, machining, finishing and painting.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (4) 600  
(8) 800  
(4) 1000

**COTTAM DIECASTING LIMITED**

P.O. Box 94  
Cottam  
Telephone: (519) 839-4892

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking and machining. Arrangements can be made to provide various types of coatings such as electroplated and painted, in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 80  
(1) 150  
(2) 250

**CUSTOM ZINC DIE CASTING LTD.**

99 Brisbane Road  
Downsview  
Mailing Address — 101 Brisbane Road, Downsview  
Telephone: (416) 661-9281

**SERVICES AVAILABLE:** Although the company does captive work, it has facilities available to undertake custom die casting, product design, toolmaking, machining, finishing and assembly. Painted coatings can be provided in its own facilities while other coatings such as electroplated and chemical can be provided in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 250

**DAISY/HEDDON LIMITED**

866 Langs Drive  
Preston  
Telephone: (519) 653-3212

**SERVICES AVAILABLE:** Custom die casting, toolmaking and assembly. It has facilities for electroplating and painting.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 50  
(1) 400

**ELECTROLINE MFG. CO. LTD.**

1305 Windsor Avenue  
Windsor 14  
(P.O. Box 592, Windsor)  
Telephone: (519) 252-7266

**SERVICES AVAILABLE:** Although the company does captive work, it has facilities available to undertake custom die casting, product design, toolmaking, machining, finishing and assembly. Arrangements can be made to provide electroplated and chemical coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (3) 250  
(2) 400

**FISHER GAUGE WORKS LIMITED**

194 Sophia Street  
Peterborough  
(P.O. Box 179, Peterborough)  
Telephone: (705) 745-0567  
Telex: 029-838

**SERVICES AVAILABLE:** Custom die casting, toolmaking, finishing and assembly. Arrangements can be made to provide electroplated, electrolytic and chemical coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Twelve zinc machines that are specially designed to produce close-tolerance small die cast components.

**GENERAL MOTORS OF CANADA LIMITED**

Delco Plant  
1901 Eglinton Avenue East  
Scarborough 705  
Telephone: (416) 755-4111

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, toolmaking, machining, painting and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 400

**GANRICK CORPORATION LIMITED**

392 Front Road  
Lasalle  
(P.O. Box 5009, Lasalle, P.O., Windsor 40)  
Telephone: (519) 734-7842

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly. Arrangements can be made to provide electroplated, painted and chemical coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 150  
(1) 250  
(1) 400

**HAHN BRASS LIMITED**

367 Victoria Street  
New Hamburg  
(P.O. Box 400, New Hamburg)  
Telephone: (519) 662-1620  
Telex: 069-5298

**SERVICES AVAILABLE:** Although the company does captive work, it has facilities available to undertake custom die casting, toolmaking, machining, finishing, electroplating, painting, chemical coating and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 50  
(1) 200  
(1) 300

**HUDSON BAY DIECASTING LIMITED**

230 Orenda Road  
Bramalea  
(P.O. Box 1050, Brampton)  
Telephone: (416) 677-3282

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, electroplated coating and assembly. Arrangements can be made to provide painted coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 100  
(6) 500  
(1) 600  
(5) 800

**J & K DIE CASTING LIMITED**

18 Golden Gate Court  
Scarborough 707  
Telephone: (416) 293-8229

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, electroplating, painting and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Five zinc die-casting machines with locking pressures of 100 to 400 tons.

**JUTRAS DIE CASTING LTD.**

Passmore Avenue, R.R. 1  
Agincourt  
Telephone: (416) 293-2471

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining and finishing. Various types of coatings including electroplated, painted, chemical or vacuum can be provided in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum and Zinc

**DIE CASTING MACHINES INSTALLED:** Al (1) 400 Zn (3) 110  
(1) 625 (3) 250

**KELCO TOOLS**

45 Knoll Street  
Port Colborne  
Telephone: (416) 834-6862

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, painted and chemical coatings, and assembly. Arrangements can be made to provide electroplated coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 25  
(1) 400

**LAKESHORE DIE CASTING LIMITED**

Royal Road  
Guelph  
(P.O. Box 1055, Guelph)  
Telephone: (519) 821-3630

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly.

**DIE CASTING ALLOYS USED:** Aluminum and Zinc

**DIE CASTING MACHINES INSTALLED:**

<i>Alloy</i>	<i>Locking Pressures</i>
Aluminum	Full range of machines, 250 to 1,000 tons
Zinc	Full range of machines, 250 to 1,000 tons

**LAMCO DIE CAST**

Last Minute Mfg. Co. Ltd.  
100 Wellington Street North  
Thorold  
(P.O. Box 37, Thorold)  
Telephone: (416) 227-3763

**SERVICES AVAILABLE:** Custom die casting, toolmaking, machining, finishing and assembly. Coatings such as electroplated, painted and chemical can be provided in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum and Zinc

**DIE CASTING MACHINES INSTALLED:** Al (1) 200 Zn (2) 250  
(3) 500 (2) 400



**LIGHTNING FASTENER COMPANY LIMITED**

50 Niagara Street

St. Catharines

Telephone: (416) 685-7321

**SERVICES AVAILABLE:** Although the company does some captive work, it has facilities available to undertake custom die casting, product design, toolmaking, machining, finishing, and assembly.

Facilities are available to provide electroplated, painted and chemical coatings.

**DIE CASTING MACHINES INSTALLED:** Zn (16) 0.75

**MONARCH FABRICATING CO. LIMITED**

Die Casters Company

45 Colville Road

Toronto 385

Telephone: (416) 249-8254

**SERVICES AVAILABLE:** Custom die casting, toolmaking, machining and assembly. Arrangements can be made to provide various types of coatings, such as electroplated, painted and chemical, in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 100

(1) 150

(2) 400

**NATIONAL HARDWARE SPECIALTIES LIMITED**

430 Wellington Street

Dresden

(P.O. Box 250, Dresden)

Telephone: (519) 683-4451

Telex: 024-78559

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, electroplating and assembly. Arrangements can be made to provide painted coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 100 Zn (1) 500

(3) 250 (1) 600

(3) 400 (1) 800

**NORTHERN ELECTRIC COMPANY LIMITED**

Sise Road

London

Telephone: (519) 439-0111

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, product design, machining, finishing, painting and assembly.

**DIE CASTING ALLOYS USED:** Zinc and Lead

**DIE CASTING MACHINES INSTALLED:** Zn (1) 15

(1) 250

(1) 500

(1) Fisher Assembly

Pb (1) Fisher Assembly

**OUTBOARD MARINE CORPORATION OF CANADA LTD.**

910 Monaghan Road

Peterborough

Telephone: (705) 743-2261

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, toolmaking, machining, various types of coatings including electroplated, painted and chemical, finishing and assembly.

**DIE CASTING ALLOYS USED:** Aluminum and Magnesium

**DIE CASTING MACHINES INSTALLED:** Al (3) 350 Mg (2) 350

(1) 450 (1) 600

(4) 600 (2) 800

(1) 650

**PARAMOUNT INDUSTRIES DIVISION**

Donlee Manufacturing Industries Ltd.  
137 Wendell Avenue  
Weston

Telephone: (416) 248-0261

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, product design, machining, finishing, electroplating, painting and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 125  
(1) 250

**PIERCE MORGAN WOOD PRODUCTS LTD.**

1848-52 Mattawa Avenue  
Mississauga

Telephone: (416) 277-2322

**SERVICES AVAILABLE:** Although the company does captive work, it has facilities available to undertake some custom die casting, machining, finishing and assembly. Arrangements can be made to provide electroplated and vacuum coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 25

**PRECISION CASTINGS LIMITED**

156 St. Helen's Avenue  
Toronto 4

Telephone: (416) 537-3146

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining and finishing. Arrangements can be made to provide various types of coatings such as electroplated, painted and chemical in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (2) 400  
(2) 600  
(1) 1000

**QUICK CABLE CANADA LIMITED**

234 Norseman Street  
Toronto 18

Telephone: (416) 239-5100

**SERVICES AVAILABLE:** Custom die casting, product design, machining, finishing and assembly. Electroplated coatings can be provided in outside facilities.

**DIE CASTING ALLOYS USED:** Lead

**DIE CASTING MACHINES INSTALLED:** Pb (1) 25

**RICHMOND MACHINE TOOL AND DIE CASTING COMPANY LIMITED**

Summerstown  
(P.O. Box 397, Cornwall)

Telephone: (613) 931-1480

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly. Painted coatings can be provided in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (1) 400  
(1) 500  
(1) 600  
(2) 700

**SCHULTZ DIVISION**

National Hardware Specialties  
77 St. David Street

Lindsay

Telephone: (705) 324-6161

Telex: 029-833

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, electroplated coatings and assembly. Arrangements can be made to provide painted and chemical coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 100 Zn (6) 400  
(3) 200 (2) 800

**W. E. SELCK OF CANADA LIMITED**

53 Tycos Drive

Toronto 19

Telephone: (416) 781-4686

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, machining, finishing and assembly.

**DIE CASTING ALLOYS USED:** Copper

**DIE CASTING MACHINES INSTALLED:** Cu (1) 500

**STAR EXPANSION INDUSTRIES LIMITED**

1061 The Queensway

Toronto 18

Telephone: (416) 259-8241

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, toolmaking and assembly.

**DIE CASTING ALLOYS USED:** Zinc and Lead

**DIE CASTING MACHINES INSTALLED:** Three zinc and three lead machines

**WEBSTER MFG. (LONDON) LIMITED**

1161 King Street

London

(P.O. Box 4575, London 31)

Telephone: (519) 455-1220

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, electroplated, electrolytic, painted, chemical coatings and assembly. Arrangements can be made to provide vacuum coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 75 Zn (1) 500  
(2) 150 (3) 600  
(2) 400

**WHITE DIE CASTING CO. LTD.**

354 MacNab Street

Dundas

Telephone: (416) 627-7513

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, various types of coatings including electroplated, painted and chemical, finishing and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 250  
(2) 400

**WILCON PRODUCTS**

31 Milford Avenue

Toronto 15

Telephone: (416) 248-1842

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly. Also can provide slush castings.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 150

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**Quebec**

**ACME SLIDE FASTENER CO. LTD.**

225 Liege Street West

Montreal 351

Telephone: (514) 382-2517

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, toolmaking, finishing and assembly. Electroplating is done in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (9) 1

**BARSCHEL AND COMPANY**

234 - 26th Avenue

Lachine 600

Telephone: (514) 637-8181

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining and assembly.

**DIE CASTING ALLOYS USED:** Zinc and Lead

**DIE CASTING MACHINES INSTALLED:** Zn (1) 100 Pb (1) 10  
(1) 50

**CANRON LIMITED**  
Electrical Division  
160 St. Joseph Boulevard  
Lachine 640  
Telephone: (514) 637-5531  
Telex: 01-2715

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, toolmaking, machining, finishing, painting and assembly.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (1) 20 Al (1) 125  
(1) 50 (3) 400

**CAPITOL INDUSTRIES LTD.**  
5795 De Gaspé Street  
Montreal 326

Telephone: (514) 273-0451

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, electroplated and painted coatings, finishing and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (5) 150  
(4) 200  
(1) 400  
(1) 600

**CLIX FASTENER CORPORATION**  
425 River Street  
Montreal 203

Telephone: (514) 767-9971

Telex: 01-26455

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, finishing, electroplating and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (6) 0.37 Zn (2) 5.0  
(5) 1.0 (3) 10.0

**W. R. CUTHBERT LIMITED**  
47 Duke Street  
Montreal 101

Telephone: (514) 866-3071

Telex: 05-268782

**SERVICES AVAILABLE:** The company's facilities are mainly captive. However, it has some capacity available for custom die casting, product design, toolmaking, machining, finishing and assembly. In addition, it has electroplating facilities of advanced design, with some capacity available for custom work.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (1) 100

**DYNACAST LIMITED**  
2275 - 43rd Avenue  
Lachine 620  
Telephone: (514) 636-4734  
Telex: 05-267432

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining and assembly. Arrangements can be made to provide electroplated coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc and Lead

**DIE CASTING MACHINES INSTALLED:** Zn (12) 2 Pb (2) 2

**EASTERN DIE CASTING INC.**

2020 Thimens Street  
St-Laurent 382  
Telephone: (514) 336-9110  
Telex: 01-26263

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing, painting and assembly. Arrangements can be made to provide electroplated and chemical coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum, Zinc and Lead

**DIE CASTING MACHINES INSTALLED:** Al (1) 100 Zn (1) 50 Pb (1) 250  
(1) 200 (1) 100  
(3) 250 (1) 150  
(1) 500 (1) 250  
(1) 600

**ELECTROLUX (CANADA) LIMITED**

2751 Trans-Canada Highway  
Pointe Claire  
Telephone: (514) 695-1470  
Telex: 05821-640

**SERVICES AVAILABLE:** None. The company's facilities are captive. It has facilities for die casting, product design, toolmaking, machining, finishing, painting and assembly. Electroplating is done in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum

**DIE CASTING MACHINES INSTALLED:** Al (1) 400  
(2) 600  
(1) 800

**FITCO DIE CASTING LTD.**

5656 Jean XXIII  
Trois-Rivières  
Telephone: (819) 375-4935

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, machining, finishing and assembly. Arrangements can be made to provide various types of coatings such as electroplated, painted and chemical in outside facilities.

**DIE CASTING ALLOYS USED:** Aluminum and Zinc

**DIE CASTING MACHINES INSTALLED:** Al (1) 300 Zn (1) 300  
(1) 400 (1) 400  
(1) 600  
(1) 800

**HOME HEALTH EQUIPMENT CORPORATION**

Pressure Die Casting Division  
106 McGill Street  
Montreal 125  
Telephone: (514) 866-6222

**SERVICES AVAILABLE:** Custom die casting, product design, machining, finishing and assembly. Outside firms are available to provide toolmaking, electroplated and painted coatings.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 20  
(2) 100

**IDEAL BUILDERS HARDWARE CORP.**

860 - 90th Avenue  
La Salle 650  
Telephone: (514) 363-1030

**SERVICES AVAILABLE:** Although the company does some captive work, it has facilities available to undertake custom die casting, toolmaking, machining, finishing, painting and assembly.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (2) 400

**KOMO FASTENERS LTD.**

5570 Cartier Street  
Montreal 178  
Telephone: (514) 527-1301

**SERVICES AVAILABLE:** Custom die casting, product design, toolmaking, abrasive belt sanding and tumbling. Arrangements can be made to provide electroplated, and painted coatings in outside facilities.

**DIE CASTING ALLOYS USED:** Zinc

**DIE CASTING MACHINES INSTALLED:** Zn (12) 3/4



**LYSTER DIE CASTING LIMITED**

145 des Bouleaux

Lyster

Telephone: (819) 389-5751

SERVICES AVAILABLE: Custom die casting, product design, toolmaking, machining, finishing, electroplated, electrolytic, chemical and painted coatings, and assembly.

DIE CASTING ALLOYS USED: Aluminum, Zinc, Magnesium and Copper

DIE CASTING MACHINES INSTALLED: Al (1) 250 Zn (1) 10 Mg (1) 250 Cu (3) 600  
(2) 300 (2) 25 (2) 300  
(3) 600 (1) 300 (3) 600  
(1) 400

**MONTREAL MATERIALS PROCESSING CO. LTD.**

7301 Decarie Boulevard

Montreal 308

Telephone: (514) 735-5411

Telex: 01-20127 DOMLOCK MTL.

SERVICES AVAILABLE: Although the company does some captive work, it has facilities available to undertake custom die casting, product design, toolmaking, machining, finishing, painted or chemical coating, and assembly. Arrangements can be made to have electroplating done in outside facilities.

DIE CASTING ALLOYS USED: Aluminum and Zinc

DIE CASTING MACHINES INSTALLED: Al (1) 200 Zn (1) 200  
(1) 400

**SINGER COMPANY OF CANADA LIMITED**

200 St. Louis Street

St-Jean

Telephone: (514) 348-4921

SERVICES AVAILABLE: None. The company's facilities are captive. It has facilities for die casting, toolmaking, machining, finishing and assembly.

DIE CASTING ALLOYS USED: Zinc

DIE CASTING MACHINES INSTALLED: Zn (1) 100

**TERRY BURNERS INC.**

5015 Buchan Street

Montreal 308

Telephone: (514) 739-1971

Telex: 0120873

SERVICES AVAILABLE: The company's facilities are mainly captive. However, it can undertake a small amount of custom die casting, toolmaking, machining, finishing and painting.

DIE CASTING ALLOYS USED: Aluminum and Zinc

DIE CASTING MACHINES INSTALLED: Al (1) 100 Zn (1) 10  
(1) 150  
(1) 200

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**New Brunswick**

**A. O. POPE LIMITED**

90 Winter Street

Saint John

Telephone: (506) 693-2369

SERVICES AVAILABLE: Custom die casting, product design, toolmaking, machining and assembly.

DIE CASTING ALLOYS USED: Aluminum, Zinc and Copper

DIE CASTING MACHINES INSTALLED: Al (1) 100 Zn (1) 100 Cu (1) 100  
(1) 150  
(1) 200

## DIRECTORY OF DIE CASTERS BY PRODUCT

<b>COMPANY AND PROVINCE</b>	<b>PRODUCT</b>										
	Automotive Parts	Business Equipment	Electrical and Electronic Equipment	Hardware Items	Household Appliances	Industrial Equipment	Music and/or Communication Items	Photographic Equipment	Small Precision Die Castings	Tools	Toys
<b>BRITISH COLUMBIA</b>											
Accurate Die Casting Ltd. New Westminster			x	x		x	x				x
Simalex Manufacturing Co. Ltd. Vancouver	x		x	x			x			x	x
Stuart Die Casting Co. Ltd. Vancouver	x	x		x	x	x	x		x		
<b>ALBERTA</b>											
Universal Plastic Producers Ltd. Calgary	x		x	x	x	x	x				
<b>MANITOBA</b>											
Automotive Accessory Co. Ltd. Winnipeg	x					x					
Baycast Products Ltd. Winnipeg	x										
Diecast Products Limited Winnipeg		x		x	x	x					
<b>ONTARIO</b>											
Accurcast Die Casting Limited Wallaceburg	x	x	x	x	x	x	x	x	x	x	x
ACF Canada Limited Carter Carburetor Division Bramalea	x										
Allbright Platers Ltd. Hamilton	x	x		x	x						x
Amerock Limited Meaford	x			x	x						
Banner Metal Products Windsor	x										
Barber Die Casting Co. Limited Hamilton	x	x	x		x	x	x	x			
Burlington Die Casting Ltd. Burlington	x	x	x		x	x	x	x			
Canadian General Electric Company Limited Peterborough			x			x					
Carpenter Die Casting Co. Ltd. Hamilton		x	x	x	x	x					
Castings Unlimited Milton	x	x		x				x	x		
Chrysler Canada Limited Toronto	x										
Cottam Diecasting Limited Cottam	x		x	x	x	x				x	

COMPANY AND PROVINCE	PRODUCT										
	Automotive Parts	Business Equipment	Electrical and Electronic Equipment	Hardware Items	Household Appliances	Industrial Equipment	Music and/or Communication Items	Photographic Equipment	Small Precision Die Castings	Tools	Toys
Custom Zinc Die Casting Ltd. Downsview	x		x	x							
Daisy/Heddon Limited Preston											x
Electroline Mfg. Co. Ltd. Windsor	x		x								
Fisher Gauge Works Limited Peterborough	x	x	x	x	x		x	x	x		x
General Motors of Canada Limited Scarborough	x										
Ganrick Corporation Limited Windsor	x	x		x		x				x	x
Hahn Brass Limited New Hamburg		x		x	x	x		x			
Hudson Bay Diecasting Limited Bramalea	x	x			x						
J & K Zinc Die Casting Limited Scarborough	x	x	x	x	x	x				x	
Jutras Die Casting Ltd. Agincourt	x	x	x	x	x	x	x	x		x	x
Kelco Tools Port Colborne		x		x	x	x					
Lakeshore Die Casting Limited Guelph	x	x	x	x	x	x	x	x		x	x
Lamco Die Cast Thorold	x	x	x	x	x	x	x	x		x	x
Lightning Fastener Company Limited St. Catharines		x	x		x			x	x		
Monarch Fabricating Co. Limited Toronto	x	x	x	x	x					x	
National Hardware Specialties Ltd. Dresden	x	x	x	x	x	x	x			x	x
Northern Electric Company Limited London			x				x				
Outboard Marine Corporation of Canada Limited* Peterborough	x					x					
Paramount Industries Division Donlee Manufacturing Industries Limited Weston	x										
Pierce Morgan Wood Products Ltd. Mississauga											
Precision Castings Limited Toronto	x	x	x	x	x	x				x	

\*Specializes in producing die castings for outboard motors, chain saws and power lawnmowers.

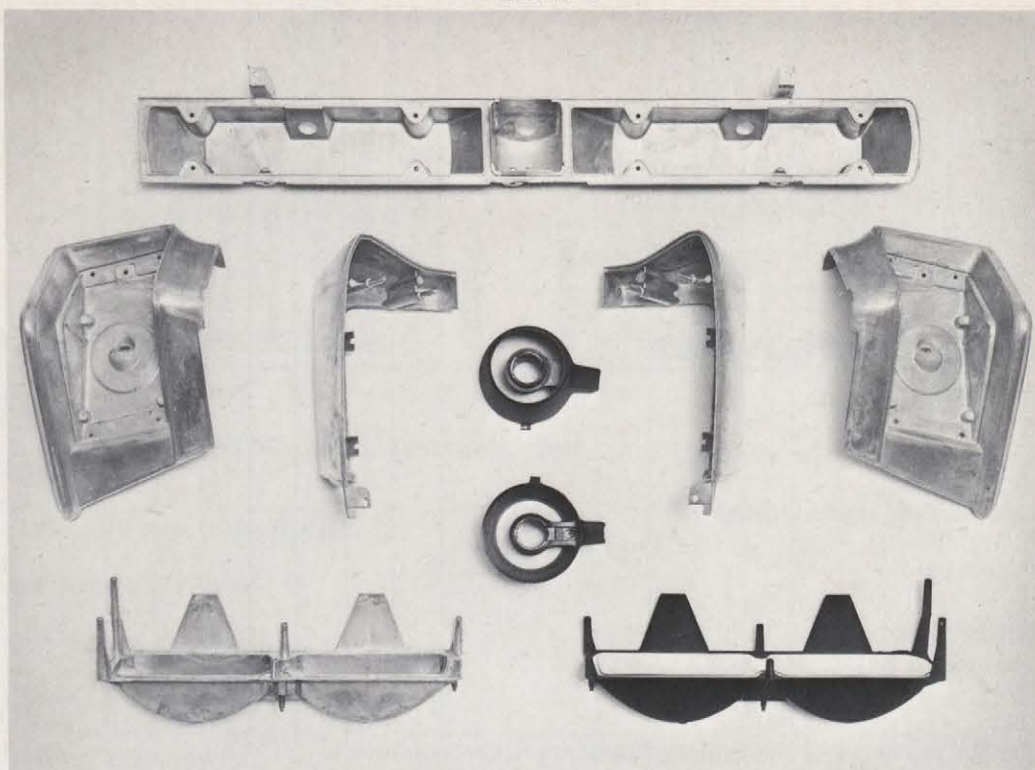


<b>COMPANY AND PROVINCE</b>	<b>PRODUCT</b>	Automotive Parts	Business Equipment	Electrical and Electronic Equipment	Hardware Items	Household Appliances	Industrial Equipment	Music and/or Communication Items	Photographic Equipment	Small Precision Die Castings	Tools	Toys	
Lyster Die Casting Limited Lyster Montreal Materials Processing Co. Ltd. Montreal Singer Company of Canada Limited St-Jean Terry Burners Inc.* Montreal <b>NEW BRUNSWICK</b> A. O. Pope Limited Saint John		x		x	x	x	x				x		

\*Produces die castings for heating systems and associated equipment.

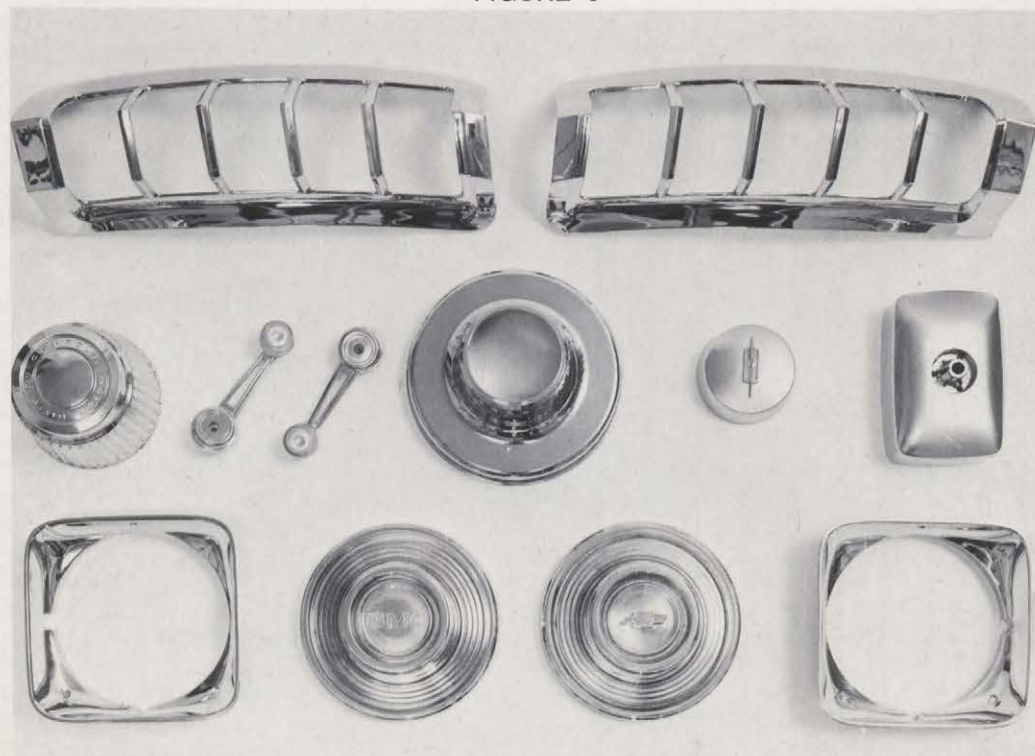


FIGURE 5



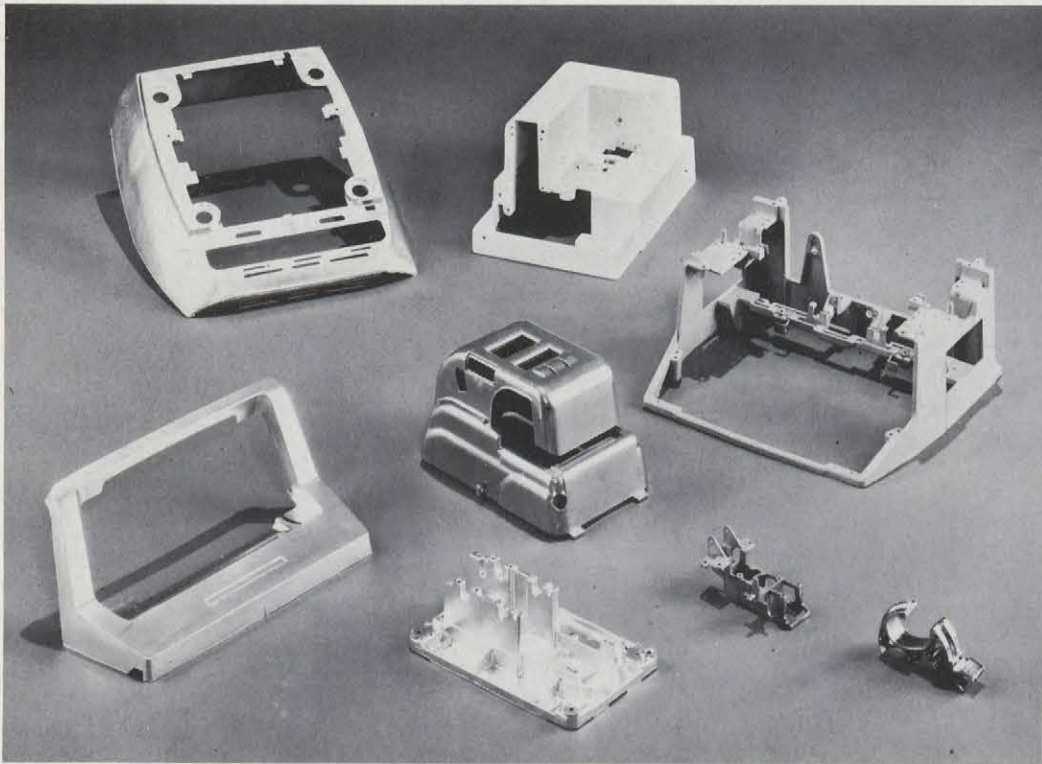
Automotive Die Castings

FIGURE 6



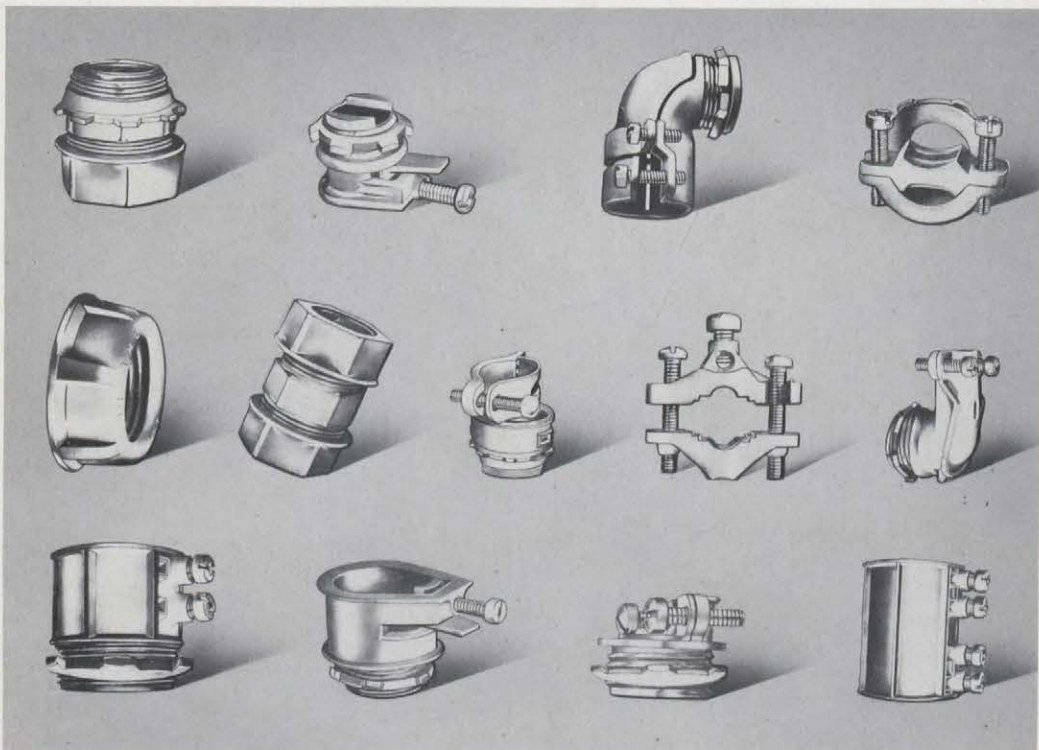
Typical Chromium Plated Zinc Alloy Die Cast Automotive Parts

FIGURE 7



Die Castings for Business Machines

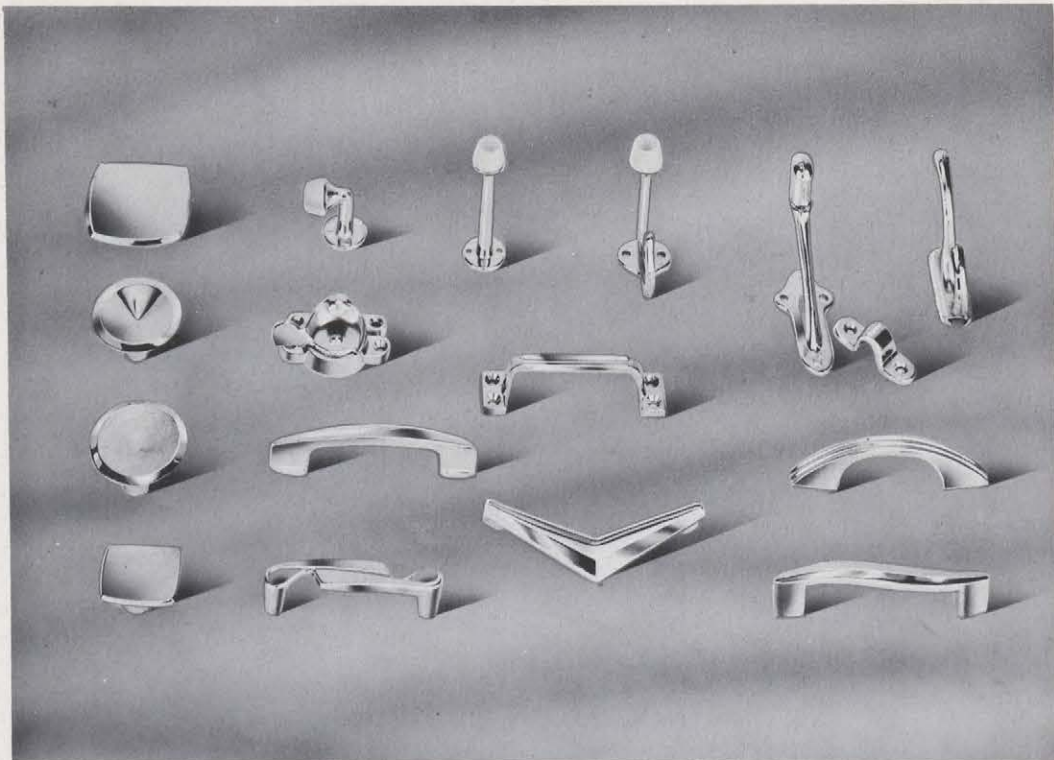
FIGURE 8



Die Castings for Electrical Equipment

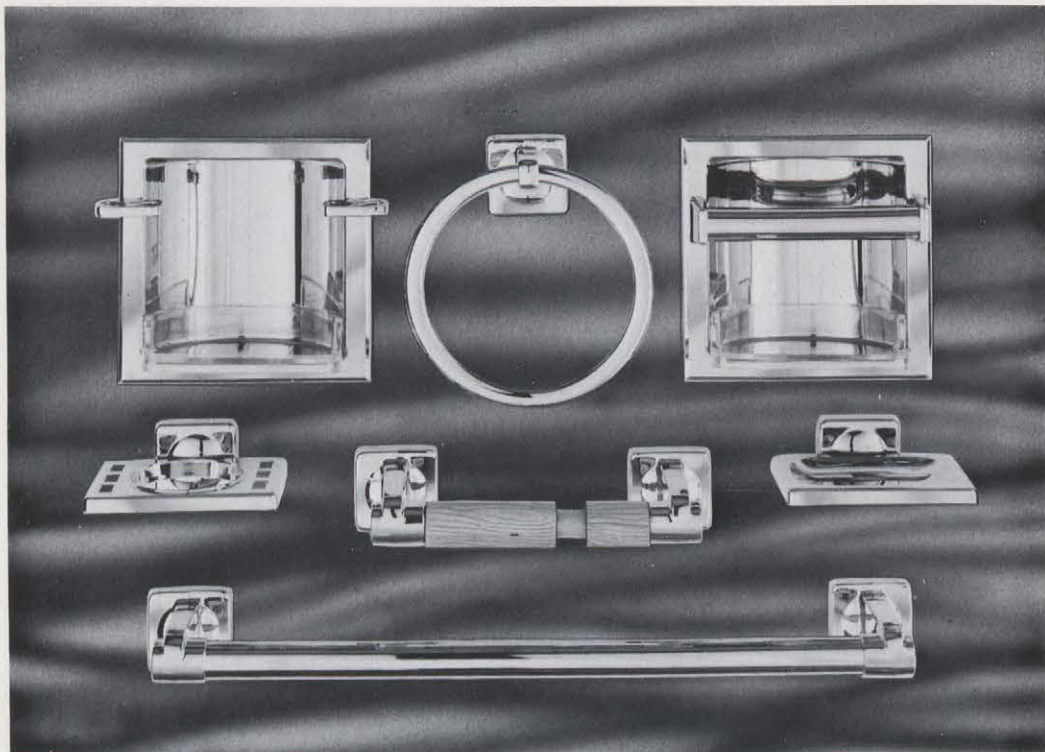


FIGURE 9



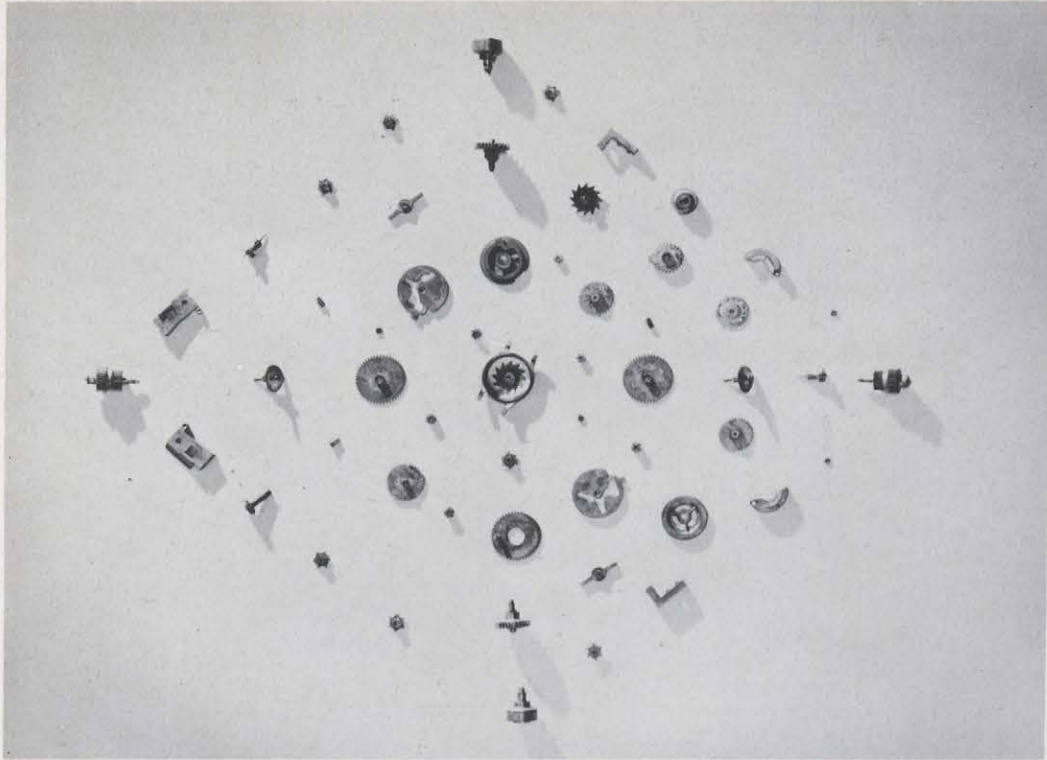
Die Cast Builders' Hardware

FIGURE 10



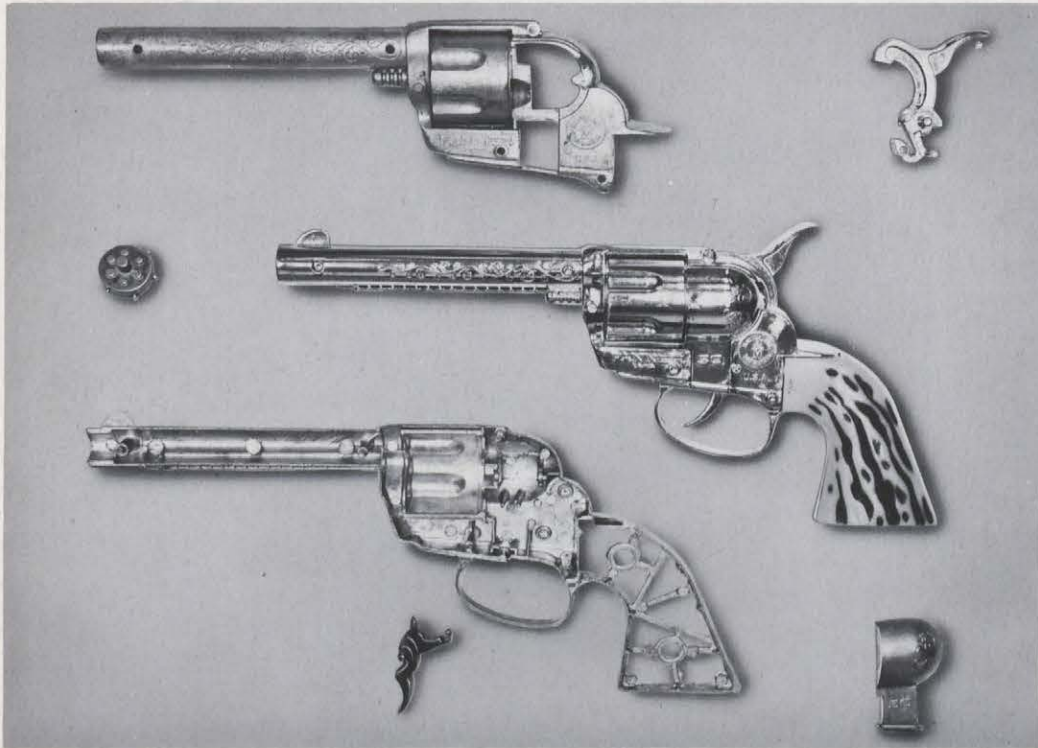
Die Cast Bathroom Fixtures

FIGURE 11



Miscellaneous Small Die Castings

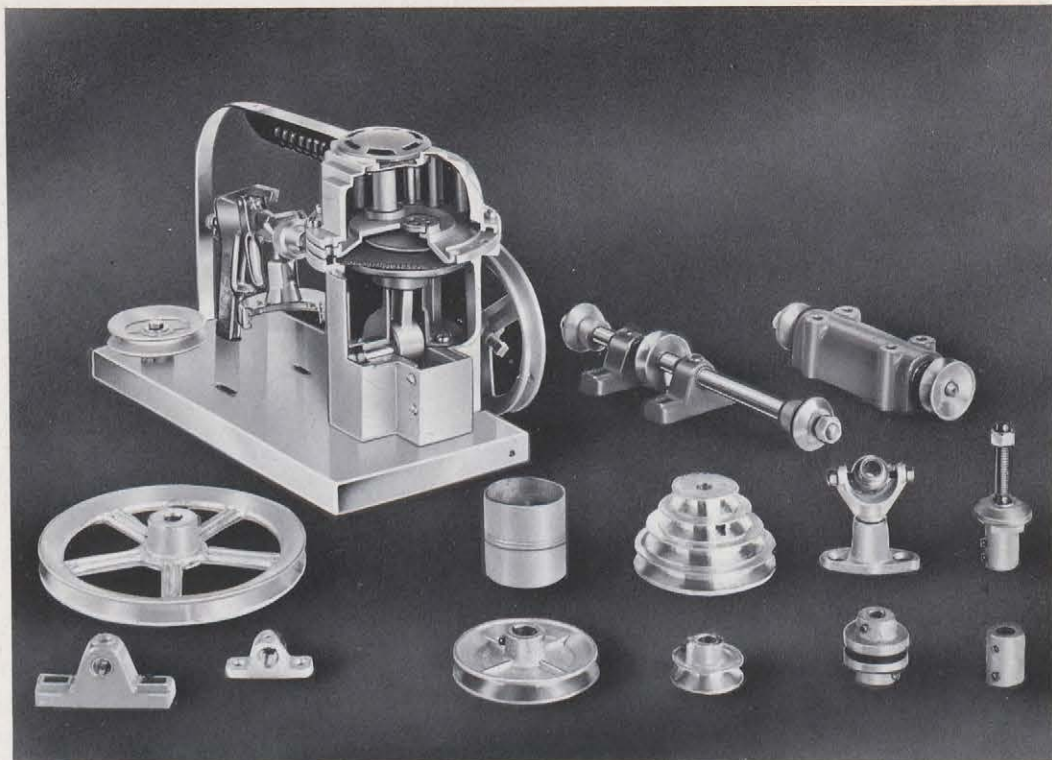
FIGURE 12



Die Cast Toys

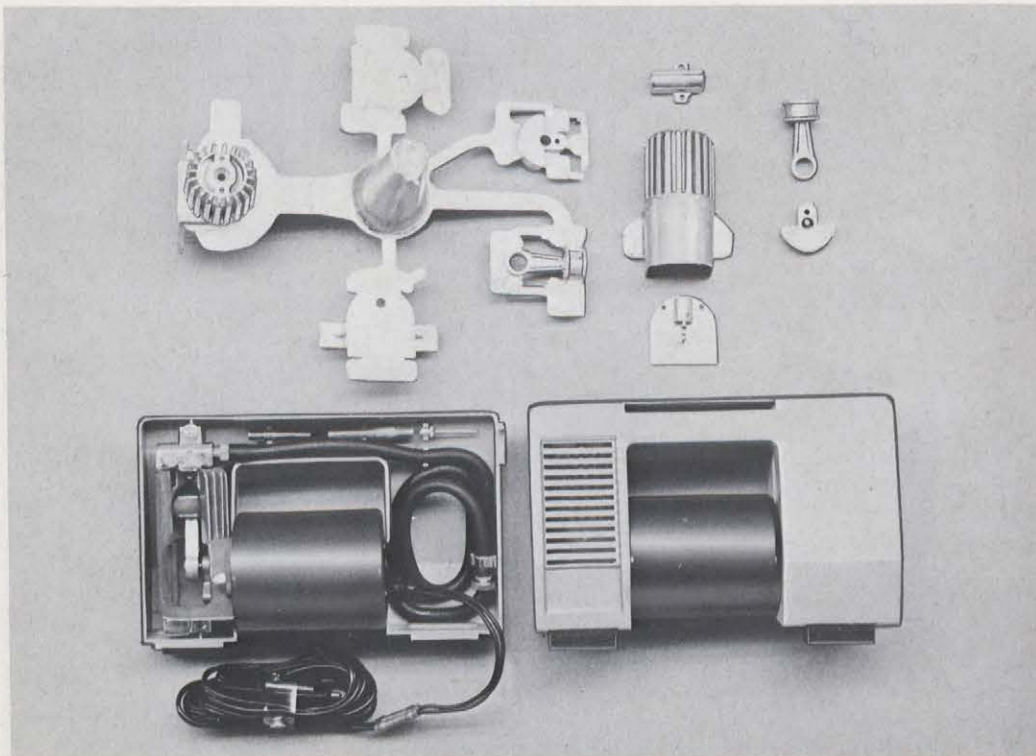


FIGURE 13



Die Cast Tools

FIGURE 14



Die Castings as Cast to Completed Product  
(Cylinder Cutaway for View of Part) Miniature Air Compressor

