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DOCUMENT DESCRIPTION: List of Brake Assembly and Lining Suppliers

Ford Motor Company

Brake Assembly and Lining Suppliers

(Original Draft 12/20/82)

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PASSENGER CARS

DISC BRAKE ASSEMBLY

(Front and Rear)

Year	Brake Assembly Supplier	Brake Lining Supplier	Interview Source
961 - 1982	Bendix Corporation [1,2,5,6]	Bendix Friction Materials Division [1,2,3,5,6]	Robert Kuhlman (1961-1968)
	Kelsey-Hayes [1,2,5,6]	Thiokol Chemical [1,2,3,5,6] (1967-1982)	H.A. Smith (1967-1974)
	Wagner Electric (1961-1968)	Raybestos Manhattan (1961-1974)	Murray Smith (1974-1978)
	Budd Company (1967-1974/small quantity)	Johns-Manville (1961-1974)	Ken Whitman (1978-1980)
	Teves & Culpeper [2,5,6] (1978-1982)	Thermoid Division, H.K. Porter [1,5] (1961-1968; 1974-1977)	W.G. (Bill) Lange (1980-1982)
		Delco-Moraine Division of G.M. [1,3] (1967-1974)	
		Borg-Warner [1 only] (1975)	
		Universal Manufacturing Company (1961-1968/minor supplier)	

OTE: Document sources are indicated by numbers enclosed in brackets.

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Year	Brake Assembly Supplier
1960 - 1982	Bendix Corporation [1,4,6]
	Kelsey-Hayes [1]
	Wagner Electric [1] (1960-1981/cars only)
	Budd Company [1] (1960-1974/5)
	Raybestos Manhattan (1978-1982/cars only)
	Varga (Brazil) (1980-1982)
	Eaton Corporation [2 only] (1980/cars only)

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SINGER CARS and LIGHT [illegible]

DRUM BRAKE ASSEMBLY

(Front and Rear)

Brake Lining Supplier	Interview Source
Bendix Friction Materials Division (1)	Transmission & Chassis Division
Raybestos Manhattan (1960-1971)	Carl J. Anderson (1971-1981) re: 1960-1981
Thermoid Division, H.K. Porter (1960-1971)	*Ed J. LeFevre (1971-1981) re: 1960-1981
Johns-Manville* (1960-1971/some involvement)	
Abex Corporation (1982/semi-metallic linings)	Body & Assembly Division:
	Fred Read (1970-1973)
	Murray Smith (1974-1978)
	Ken Whitman (1978-1980)
	W.G. (Bill) Lange (1980-1982)

Year	Brake Assembly Supplier
1970 - 1982	Bendix Corporation [1]
	Dayton Walther [1,6]
	Kelsey-Hayes (1970-1978)
	Thiokol Chemical (1970-1973/possible supplier)

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LIGHT TRUCKS

DISC BRAKE ASSEMBLY

Brake Lining Supplier	Interview Source
Bendix Friction Materials Division [1]	Fred Read (1970-1973)
Raybestos Manhattan (1970-1978)	Bob Was (1973-1978)
Royal (1980-1982/some; Canadian company)	John England (1976-1978)
	Mike Pollich (1976-1979)
	W.G. (Bill) Lange (1980-1982)

MEDIUM/HEAVY TRUCK

Year	Brake Assembly Supplier	Brake Lining Supplier	Interview Source
	Air Brakes - Front and Rear	Air Brakes - Front and Rear	Air Brakes - Front and Rear
1970 - 1982	Rockwell International [1] Eaton Corporation [1] Wagner Electric [1] (1976-1982/front) Bendix Corporation [1 only] (1972-1976)	Raybestos (1973-1982) Bendix Friction Materials Division (1976-1982) Abex Corporation (1976-1982) Carlisle (1976-1982)	Fred Read (1970-1973) Bob Was (1973-1976) Dave Lienau (1976-1982)
1970 - 1982	Hydraulic Brakes - Front and Rear Wagner Electric Bendix (1970-1976) Kelsey-Hayes (1970-1973; 1976-1982)	Hydraulic Brakes - Front and Rear Bendix Friction Materials Division (1971-1982) Thiokol Chemical (1973-1976) Abex Corporation (1976-1982) Carlisle (1976-1982) Raybestos Manhattan (1976-1982)	Hydraulic Brakes - Front and Re Fred Read (1970-1973) Bob Was (1973-1976) Dave Lienau (1976-1982)

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MEDIUM/HEAVY TRUCKS (Cont'd)

Year	Brake Assembly Supplier	Brake Lining Supplier	Interview Source
	Disc - Front	Disc - Front	Disc - Front
1973 - 1976	Kelsey-Hayes	Johns-Manville* (some involvement)	*Bob Was (1973-1976)
	Drum	Drum	Drum
1972 - 1980	Wagner Electric [1,2]	Bendix Friction Materials Division [1] (1972-1979)	John England (1976-1978)
	Kelsey-Hayes [1] (1972-1979)	Thiokol Chemical (1976-1979)	Mike Pollich (1976-1979)
	Bendix [1] (1972-1979)		
	Rockwell International [1,2 only] (1972-1976; 1980)		
	"Wedge" Brake - Front and Rear	"Wedge" Brake - Front and Rear	"Wedge" Brake - Front and Rear
1970 - 1973/ 1976 - 1982	Bendix	Bendix Friction Materials Division (1976-1982)	Fred Read (1970-1973)
		Abex Corporation (1976-1982)	Dave Lienau (1976-1982)
		Carlisle (1976-1982)	
		Raybestos Manhattan (1976-1982)	

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Year	Brake Assembly Supplier	Brake Lining Supplier	Interview Source
	Air-Over Hydraulic Brake - Heavy Truck/Front	Air-Over Hydraulic Brake - Heavy Truck/Front	Air-Over Hydraulic Brake -
1976 - 1982	Kelsey-Hayes	Bendix Friction Materials Division	Dave Lienau (1976-1982)
		Abex Corporation	
		Carlisle	
		Raybestos Manhattan	

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SPECIAL ORDER VEHICLES

CARS

*Majority of brake assemblies used are regular production brakes for new cars (suppliers already identified).

Year	Brake Assembly Supplier	Brake Lining Supplier	Interview Source
	Police Fleets	Police Fleets	Police Fleets
1962 - 1982	Dana Corporation (specialty axles with Bendix brakes)	Bendix Friction Materials Division (1969-1972; 1979-1982) [1,5 only]	William Nisonger (1962-1982) (William Richard)
	Bendix Corporation [5 only] (1979-1982)	Raybestos-Manhattan [3 only] (1969-1972)	*Murray Smith (1974-1978)
		Borg-Warner* [3] (1969-1972)	

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Years	Brake Assembly Supplier
	Military Trucks
1962 - 1971	Wagner Electric
	Kentucky Truck Plant
1962 - 1982	Rockwell International
	Eaton Corporation
	Wagner Electric (front end only)

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SPECIAL ORDER VEHICLES

TRUCKS

Brake Lining Supplier	Interview Source
	Military Trucks
	William Nisonger (1962-1971)
Kentucky Truck Plant	Kentucky Truck Plant
Abex Corporation	Arnold Silvers (1962-1982)

Year	Brake Assembly Supplier
1959 - 1972	Unknown
1972 - Unknown	Wagner Electric Co.

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MUTT VEHICLES

Brake Lining Supplier	Interview Source
Unknown	MUTT Documents
World Bestos Company	
Brake Lining Co. of America	
P. T. Brake Lining Co., Inc.	
Friction Materials Division, Bendix Corp.	

JEEPS

Ford Model GP

Year	Brake Assembly Supplier	Brake Lining Supplier	Interview Source
1941 to Unknown	Bendix	Unknown	Jeep Documents
	Kelsey Hayes		

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AFTER MARKET PAT.

NEW (DEALERS)

(Drum and Disc Brakes)

Year	Brake Assembly Supplier	Brake Lining Supplier	Interview Source
1968 to Present	Bendix Corporation	Bendix Friction Materials Division	Gil Burford (1968 - present)
	Kelsey Hayes	Raybestos Manhattan	
	Wagner Electric (not currently)	Abex Corporation	

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Year

Unknown to
1982

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AFTER MARK TS

Ford Authorized Remanufacturers (FAR)

(Drum Brake Linings Only)

Brake Lining Supplier	Source
Abex Corp., Friction Products Group	FAR Documents
Bendix Corp., Automotive After Market Operation	
Bendix Corp., Friction Materials Division	
Carlisle Corporation	
Dayton-Walther Corporation	
Eaton Corp., Brake Division	
Johns-Manville Sales Corp.	
Kelsey-Hayes Co.	
Joseph Lucas North America, Inc.	
Pak-Rite Industries	
H. K. Porter Co., Inc.	
Raybestos-Manhattan, Inc.	
Rockwell International	
Alfred Teves, Inc.	
Toyo Kogyo Co., Inc.	
Wagner Electric Corp.	