Plymouth

SERVICE MANUAL 1966

FOREWORD

This Plymouth Service Manual has been prepared with the latest service information available for use on 1966 models. Diagnosis, disassembly, repair, assembly and installation procedures coupled with complete specifications and tightening references can be found in each group. This publication is one of the most important "tools" available to the service technician. It will prove an invaluable aid in properly performing any phase of service necessary to maintain or restore the fine performance and reliability characteristics designed, engineered, and manufactured into these outstanding automobiles.

PLYMOUTH MODELS

	1966	
Valiant V-100, V-200, Signet and Barracuda	6 Cyl.	BV-1
Valiant V-100, V-200, Signet and Barracuda	8 Cyl.	BV-2
Belvedere I, II	6 Cyl.	BR-1
Belvedere I, II and Satellite	8 Cyl.	BR-2
Fury I, II, III	6 Cyl.	BP-1
Fury I, II, III and Sport Fury	8 Cyl.	BP-2

	1965	
Valiant V-100, V-200, Signet and Barracuda	6 Cyl.	AV-1
Valiant V-100, V-200, Signet and Barracuda	8 Cyl.	AV-2
Belvedere I, II	6 Cyl.	AR-1
Belvedere I, II and Satellite	8 Cyl.	AR-2
Fury I, II, III	6 Cyl.	AP-1
Fury I, II, III and Sport Fury	8 Cyl.	AP-2

The service tools referred to in this Manual are available through Kelsey-Hayes Company, Miller Special Tools, 17640 Grand River, Detroit, Michigan 48227, U.S.A. unless otherwise specified.

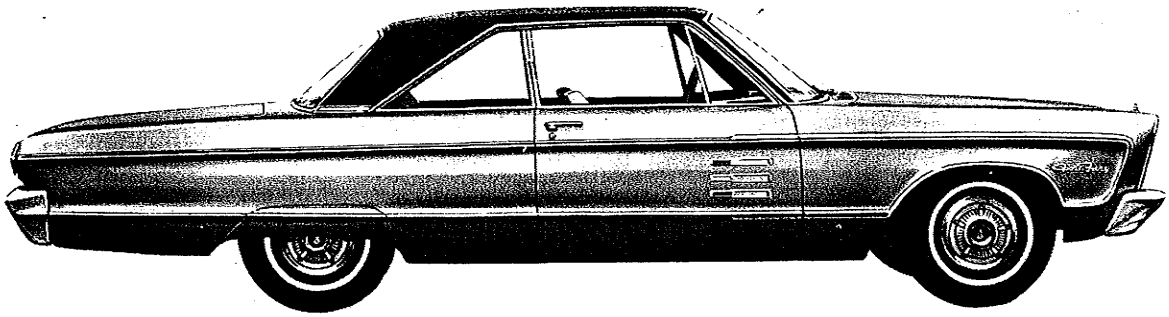
Extra copies of this Manual are available at $5.00 each under Part Number 81-570-6450. Order from Chrysler-Plymouth Division, Service Department, P.O. Box 1658, Detroit, Michigan 48231.

CHRYSLER - PLYMOUTH DIVISION

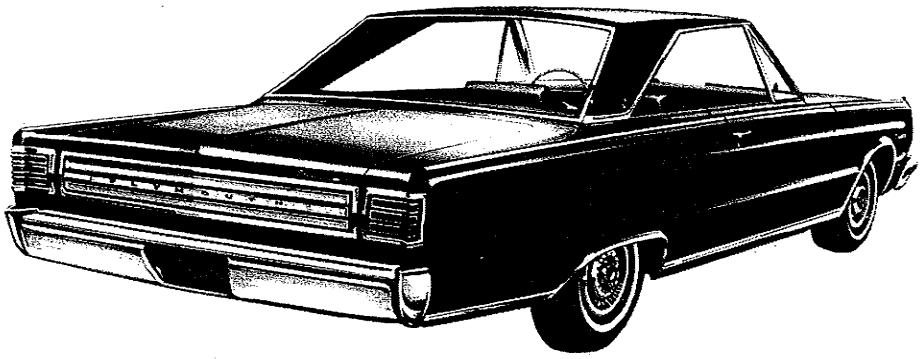
CHRYSLER MOTORS CORPORATION

Litho in U.S.A. 35M SD & T 8-65 81-570-6450

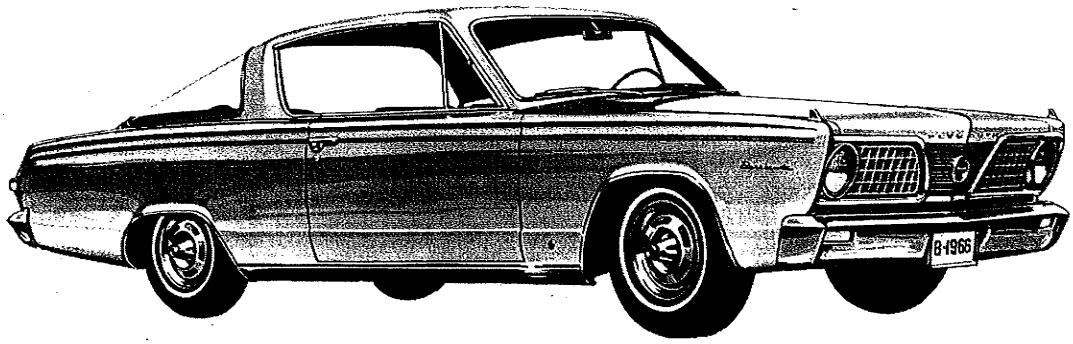
GROUP INDEX



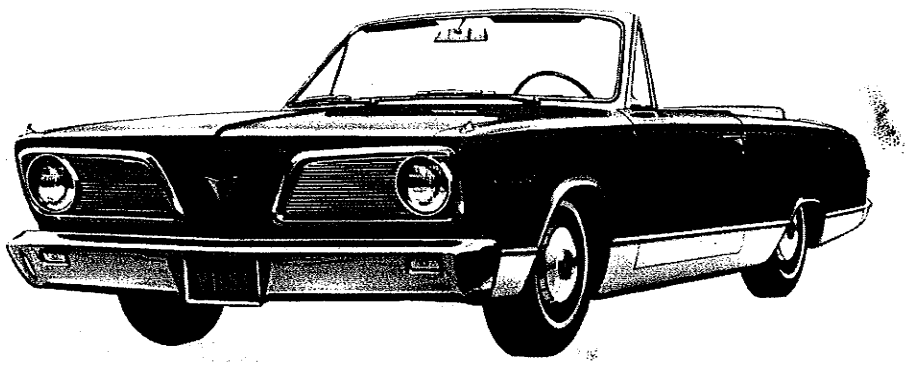
SPORT FURY 2-DOOR HARDTOP



SATELLITE 2-DOOR HARDTOP



BARRACUDA



SIGNET CONVERTIBLE

NN807

Fig. 1—1966 Plymouth Models

DEALER—FACTORY CONTACT

The following outline of the proper procedure to use in obtaining assistance or advice on any matter applying to Service will insure your inquiries receiving prompt attention and handling. Make certain those members of your organization who might have the occasion to contact either your Regional Office or the factory, are thoroughly familiar with this procedure.

All matters pertaining in any way to Warranty Service Claims, or of a technical nature, should be handled by you direct with your Regional Service Office. When in doubt as to the proper procedure to follow in the handling of a claim or complaint, prompt results can be obtained through a letter, telegram or phone call to your Regional Service Office—making certain to include all necessary information. If the aid of a Service Representative is necessary, the Regional Office will arrange for his contact as promptly as circumstances permit.

Letters or telegrams to the Regional Service Office, should be confined to one subject only and should include the following information:

Car Serial Number
Date of Sale
Owner's Name
Mileage

Complete description of difficulty, corrective action taken, your recommendations as to what should be done and the reason for so doing.

Include Paint and Trim Code Numbers where finish, upholstery, body or sheet metal is involved, and estimate of net cost of repairs.

CHRYSLER-PLYMOUTH DIVISION

With the exception of orders for parts or parts literature, all requests for Imperial, Chrysler, Plymouth Service literature such as Service Bulletins, Service Manuals, Owner Manuals, Time Schedules, W.S.C.'s or other Chrysler—Plymouth Division Service literature, should be addressed to:

(Letters)
Chrysler Corporation
Chrysler—Plymouth Division
Service Department
P. O. Box 1658
Detroit, Michigan 48231

(Telegrams)
Chrysler—Plymouth Division
Attention
(Name of person to whom sent)
WUX
Detroit, Michigan

Phone 822-4700 (Area Code 313)

NOTE: Please make certain to include the Code WUX on all telegrams to the Chrysler-Plymouth Division as this insures delivery direct to our Teleprint Room thus eliminating delay.

PARTS DIVISION

When parts and accessories are not immediately available from your local source of supply and to insure for fastest delivery, please follow the **"IMPORTANT ORDERING INFORMATION"** as outlined in the **"MASTER PARTS PRICE LIST"** published by the Parts Division of Chrysler Motors Corporation.

MASTER TECHNICIANS SERVICE CONFERENCE

All correspondence concerning enrollment in the M.T.S.C. Program, issuance of awards, orders for additional material, the return of reports, or any other matters relating to this program, should be addressed to:

Master Technician Service Conference
Chrysler Corporation Training Center
P.O. Box 2119
Detroit, Michigan 48231
Phone 539-3000—Area Code 313

VEHICLE AND ENGINE NUMBERS

VEHICLE NUMBER: The vehicle number (serial number) is located on a plate attached to the left front door hinge pillar post (Fig. 2).

All vehicle numbers contain thirteen digits. The vehicle number is a code which tells the carline (1st digit), price class (2nd digit), body type (3rd and 4th digit), engine displacement (5th digit), model year (6th digit), assembly plant (7th digit), and vehicle sequence number (last six digits) starting with 100001.

ENGINE NUMBERS: The engine numbers contain the model, cubic inch displacement and the manufacturing date (Figs. 3, 4 and 5). The numbers are stamped on a boss on the cylinder block as shown.

BODY PLATE NUMBER LOCATION

The body number is stamped on a plate which is attached on the engine side on the fender shield near the battery. The plate shows the body type, schedule date, trim code and the paint code (Fig. 6).

1st Digit Carline	2nd Digit Price Class	3rd & 4th Digits Body Type	5th Digit Eng. Displacement Cu. In.	6th Digit Model Year	7th Digit Assembly Plant
B-Barracuda	E-Economy	21-2 Dr. Sedan	A-170	6-1966	1-Lynch Road
V-Valiant	L-Low	23-2 Dr. Hardtop	B-225		2-Hamtramck
	M-Medium	27-Convertible	C-273		
R-Plymouth 116"	H-High	29-2 Dr. Sports Hardtop	D-318		4-Belvidere
	P-Premium	41-4 Dr. Sedan	E-361		5-Los Angeles
P-Plymouth 119"	K-Police	43-4 Dr. Hardtop	F-383		6-Newark
	T-Taxi	45-2 Seat Station Wagon			7-St. Louis
		46-3 Seat Station Wagon	H-426		8-Export

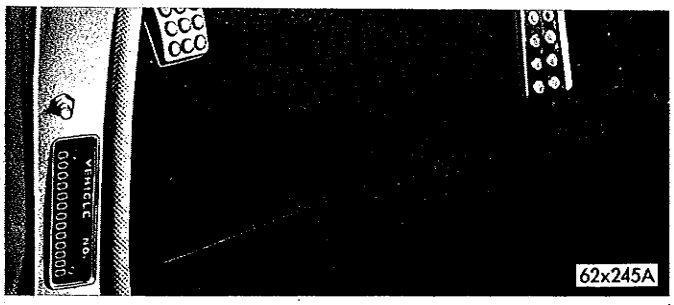


Fig. 2—Vehicle Number Plate

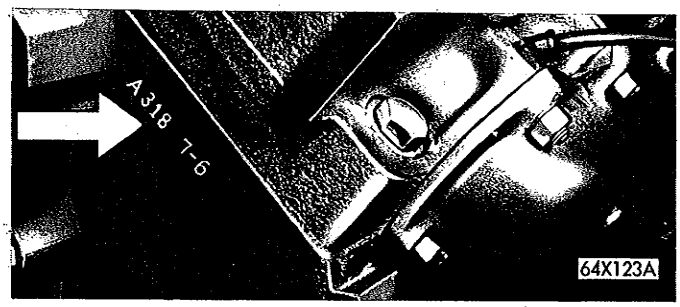


Fig. 4—Engine Number Location (318 Cu. In. Eng.)

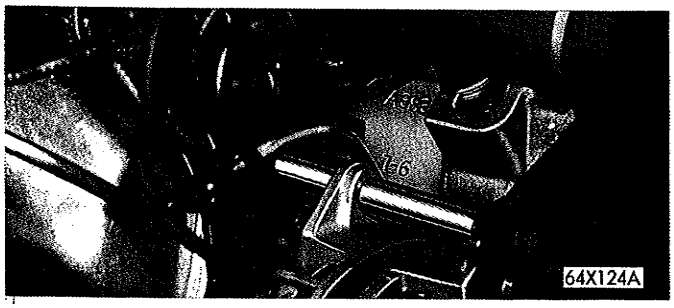


Fig. 5—Engine Number Location (361 and 383)

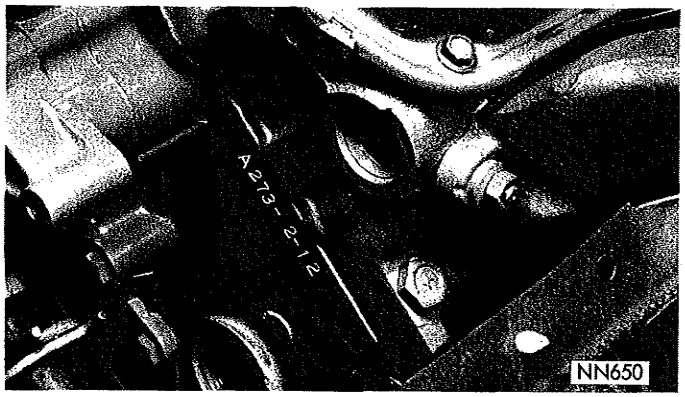


Fig. 3—Engine Number Location (273 Cu. In. Eng.)

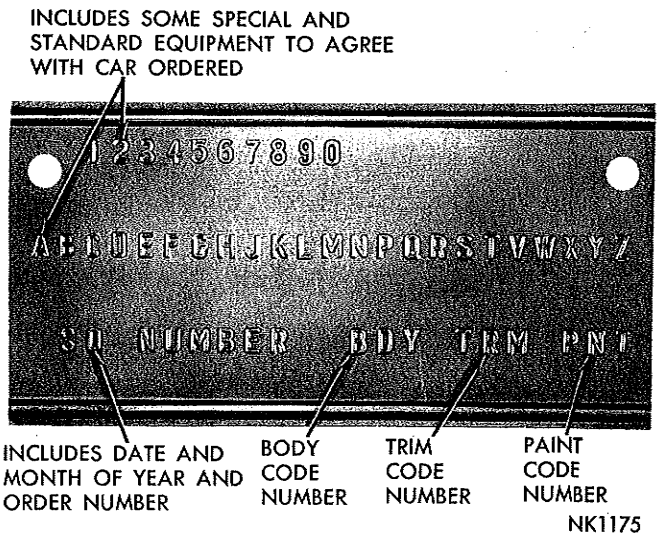


Fig. 6—Body Number Plate

BODY STYLE	VALIANT	BELVEDERE	FURY
Two Door Sedan	V-100, V-200	Belvedere I	Fury I, II
Two Door Hardtop	Signet	Belvedere II, Satellite	Fury III, Sport Fury
Convertible	V-200, Signet	Belvedere II, Satellite	Fury III, Sport Fury
Two Door Sports Hardtop	Barracuda		
Four Door Sedan	V-100, V-200	Belvedere I, II	Fury I, II, III
Four Door Hardtop			Fury III
Station Wagon	V-100, V-200	Belvedere I, II	Fury I, II, III
Wheelbase (Except Station Wagon)	106.0"	116.0"	119.5"
Station Wagon	106.0"	116.0"	121.5"
Tread (Front)	55.9"	59.5"	62.0"
Tread (Rear)	55.6"	58.5"	60.7"
Length with Bumper			
Except Station Wagon)	188.2"	203.4"	209.4"
Station Wagon	188.8"	208.5"	216.1"
Width with Bumper			
(Except Station Wagon)	70.1"	75.6"	78.0"
Station Wagon		75.1"	78.1"
Rear Axle Ratio with			
Manual Trans.			
6 Cyl.	3.23"	3.31"	3.55"
8 Cyl.	2.93"	3.23"	3.23"
Rear Axle Ratio with			
4-Speed Manual and 4 bbl			
273 Cu. In. Engine	3.23"		
Rear Axle Ratio with			
TorqueFlite			
6 Cyl.	3.23"*	2.93"	3.23"
8 Cyl.	2.93"	2.93"**	2.93"

*With 225 Cubic Inch Engine. 2.93 ratio.
**With 361, 383, and 4 bbl 426 Cubic Inch Engine 3.23 ratio.

LUBRICATION AND MAINTENANCE

CONTENTS

CERTIFIED CAR CARE

Certified Car Care is a thorough servicing program that helps make sure the cars you sell receive the regular attention you know they need.

Certified Car Care helps build business for you in the best way known—through customer satisfaction. Inform your customers that the best approach to trouble-free driving is Certified Car Care.

This is a practical plan to help you build up sales and service volume, by providing regular service customer visits.

SUMMARY OF LUBRICATION AND MAINTENANCE SERVICES

Maintenance and lubrication service recommendations for the 1966 Chrysler Corporation-built Plymouth vehicles have been compiled to provide maximum protection for the car owner's investment against all reasonable types of driving conditions.

Since these conditions vary with the individual car owner's driving habits, the area in which the car is operated and the type of service to which the car is subjected, it is necessary to prescribe lubrication and maintenance service on a time frequency as well as mileage interval basis.

Vehicles operated under conditions not classified as normal service for passenger cars, such as in trailer towing service; operation at higher than normal loading or police or taxicab operation, require servicing at more frequent intervals. This information is included in each group under appropriate headings.

Information pertaining to Lubrication and Maintenance requirements is shown on charts (Figs. 1 and 2) and on page 4.

CLASSIFICATION OF LUBRICANTS

Oils and lubricants are classified and graded according to standards recommended by the Society of Automotive Engineers (SAE), the American Petroleum Institute (API) and the National Lubricating Grease Institute (NLGI).

Engine Oil

The SAE grade number indicates the viscosity of engine oils, for example SAE 30, which is a single grade oil. Engine oils are also identified by a dual number, for example SAE 10W-30, which indicates a multigrade oil.

The API designation indicates the classification of engine oils for use under certain operating conditions. Only engine oils designated "For Service MS" should be used. These oils contain sufficient chemical additives to provide maximum engine protection. Both the SAE grade and the API designation must be found on the container.

Gear Lubricants

The SAE grade number also indicates the viscosity of Multi-Purpose Gear Lubricants, defined by MIL-L-2105B. An example is SAE 75, which is a light viscosity lubricant.

Lubricants—Greases

Semi-solid grease lubricants, such as specified for propeller shaft universal joints, bear the NLGI designation. They are further classified as grades "0" or "2."

LUBRICATION AND MAINTENANCE CHART

NORMAL SERVICE

Engine Coolant—Check level and/or anti-freeze every 2 months.

PSF **Power Steering Reservoir** — Check level every 6 months. Add fluid, if necessary, to restore to prescribed level.

Battery—Check level every 2 months.

Carburetor Fuel Filter — Replace every 24,000 miles or every 2 years, whichever occurs first.

Engine Oil Dipstick—When refueling, check engine oil level.

Carburetor Air Cleaner—Paper Element Type —Clean element every 6 months and replace every 2 years. Oil Bath Type—Check sediment level every second oil change. Clean and reoil with SAE 10W-30 engine oil once a year.

CC **Carburetor Choke Shaft**—Apply solvent to end of shaft, where it enters air horn, every 6 months.

S **Manifold Heat Control Valve**—Apply solvent to each end of valve shaft every 6 months.

HL or MP **Manual Steering Gear**—Check level every 6 months. Add lubricant, if necesssary, to cover worm gear.

MML or AMG (2) **Column-Mounted Manual Transmission Gearshift Controls**—If noisy, or shifting effort is objectionable, lubricate contact surfaces.

HTF **Brake Master Cylinder**—Check level every 6 months. If below ¼ inch from top of reservoir, add fluid to restore level.

MML **Front Suspension Ball Joints**—Inspect seals and joints every 6 months, or whenever car is serviced for any other reason. Replace damaged seals and joints. Relubricate every 3 years or 36,000 miles, whichever occurs first.

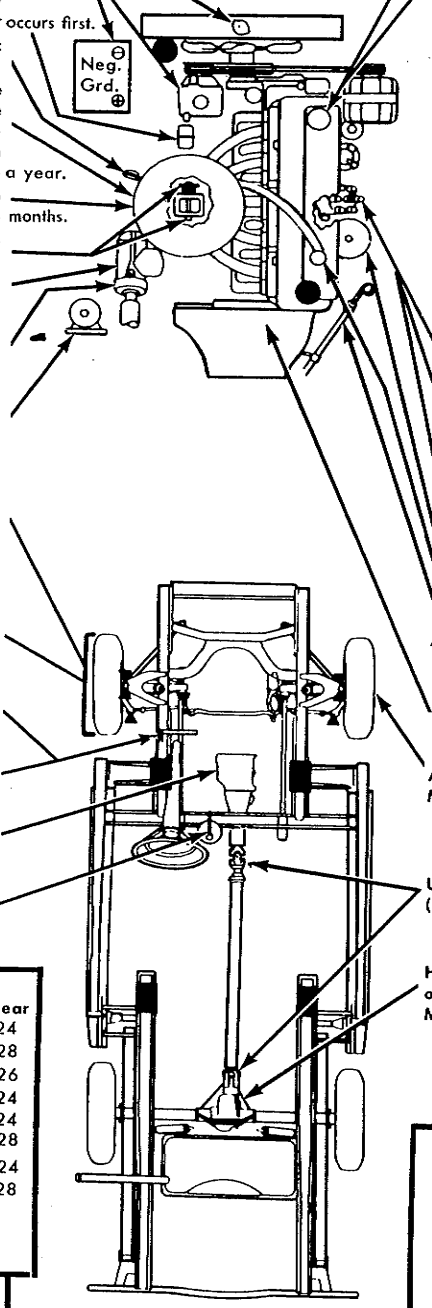
MML **Steering Linkage Ball Joints**—Inspect seals and joints every 6 months, or whenever car is serviced for any other reason. Replace damaged seals and joints. Relubricate every 3 years or 36,000 miles, whichever occurs first.

MML or AMG (2) **Clutch Torque Shaft Bearings**—Inspect for wear and relubricate every 3 years or 36,000 miles, whichever occurs first.

MML or AMG (2) **Clutch Release Bearing Sleeve, Release Fork and Fork Pivot**—If effort required to depress pedal is excessive or linkage is noisy, lubricate contact surfaces.

AA or MP **Manual Transmission**—Check fluid level every 6 months. If below bottom of filler hole, add lubricant to restore level.

EO **Floor Mounted Manual Transmission Gearshift Controls**—If operation becomes difficult, apply a few drops of light engine oil to the mechanism from under the vehicle.



EO **Oil Filler Pipe Breather Cap (1)**—Wash in kerosene and reoil with SAE 30 engine oil every 6 months.

EO **Engine Oil**—Drain and refill every 3 months or 4,000 miles, whichever occurs first. See Viscosity Chart below:

Multigrades

SAE 10W-30 or SAE 20W-40 Where temperatures are consistently above 32°F.

SAE 10W-30 Suitable for year-long operation in many parts of the U.S.; may be used where temperatures occasionally drop as low as −10°F.

SAE 5W-20 Recommended where minimum temperatures are consistently below +10°F.

Single Grades

SAE 30 Where temperatures are consistently above 32°F.

SAE 10W Where temperatures range between +32°F. and −10°F.

DCL **Distributor Cam and Rubbing Block**—When servicing breaker contacts, apply thin film of lubricant to cam and block surfaces.

EO **Distributor Rotor Felt Wick**—When servicing breaker contacts, apply 2 or 3 drops light engine oil to wick under rotor.

EO **Distributor Oil Cup**—Apply 5 to 10 drops light engine oil to cup every 6 months.

Engine Oil Filter—Replace every second oil change.

Crankcase Ventilation System (1)—Inspect system and service every 6 months.

AA **Automatic Transmission**—Check fluid level every 6 months. Add fluid, if necessary, to restore to prescribed level.

Engine Tune-Up—Evaluate engine performance every 12 months or 2,000 miles, whichever occurs first, and tune, if necessary.

AMG (2) MML **Front Brake Assemblies and Wheel Bearings**—Inspect brake linings for wear and wheel bearings for lubricant every 18 months or 18,000 miles, whichever occurs first. Also, lubricate pedal bushings.

UJ (O) **Universal Joints**—Inspect seals for external leakage or damage every 6 months. Disassemble and relubricate only if leakage is noted.

HL or MP/SGL **Rear Axle and Sure Grip**—Check level every 6 months. Add prescribed fluid, if necessary, to restore to proper level.

Body Mechanisms—See Body Maintenance Section.

(1) See "Crankcase Ventilation System Servicing."

■ Position for lift adapter
▲ Prepacked bearing
● Cooling system drain

PLYMOUTH 6

NN676

TIRE PRESSURES (PSI) (COLD)

Models	Front	Rear
Valiant—All models except Station Wagons	24	24
Valiant—Station Wagons	24	28
Valiant—Barracuda exc. Formula "S"	24	26
Valiant—Barracuda Formula "S"	24	24
Belvedere—All models except Station Wagons	24	24
Belvedere—Station Wagons	24	28
Fury—All models except Station Wagons	24	24
Fury—Station Wagons	24	28

Above pressures for Average Rated Load. See "Tires", Group 22, for tire sizes and additional pressure recommendations.

KEY TO LUBRICANTS

		Part No.*
AA	Automatic Transmission Fluid, AQ-ATF, Suffix "A"	1843314
AMG (2)	Automotive Multi-Purpose Grease—NLGI-Grade 2	
CC	Carburetor Cleaner	1643273
DCL	Cam Lubricant	1473595
EO	Engine Oil	
HL	Hypoid Lubricant	2585317
HTF	High Temperature Brake Fluid	2421352
MML	Multi-Mileage Lubricant	2525035
MP	Multi-Purpose Gear Lubricant	
PSF	Power Steering Fluid	2084329
S	Manifold Heat Control Valve Solvent	1879318
UJ (O)	Universal Joint Grease, NLGI-Grade 0	
SGL	Sure-Grip Lubricant	2585318

*See Alternate Specifications In Individual Paragraphs.

CAPACITIES

Engine Oil . . . . . 4 qts.
(Add 1 qt. when replacing filter)

Cooling System
Valiant (170 Cu. In. Eng.) . . . . . 12 qts.
Valiant (225 Cu. In. Eng.) . . . . . 13 qts.*
Belvedere and Fury . . . . . 13 qts.**
(Add 1 qt. for heater)

Rear Axle
Valiant . . . . . 2 pts.
Belvedere (All exc. Sta. Wag.) . . . . . 2 pts.
Belvedere Sta. Wag. and Fury . . . . . 4 pts.

Transmission
TorqueFlite . . . . . 16 pts.
Manual—3-Speed . . . . . 6.5 pts.

Fuel Tank
Valiant . . . . . 18 gals.
Belvedere . . . . . 19 gals.
Fury (All exc. Sta. Wag.) . . . . . 25 gals.
Fury Sta. Wag. . . . . 22 gals.
(See "Fuel" Section for proper cap application and fuel tank venting.)

*w/Trl. Tow. or A/C and CAP . . . . . 14 qts.
**w/HD Rad. or A/C . . . . . 14 qts.

Fig. 1—Lubrication Chart (6-Cyl. Models)

LUBRICATION AND MAINTENANCE CHART

NORMAL SERVICE

PSF **Power Steering Reservoir**—Check level every 6 months. Add fluid, if necessary, to restore to prescribed level.

Battery—Check level every 2 months.

EO **Oil Filler Pipe Breather Cap (1)**—Wash in kerosene and reoil with SAE 30 engine oil every 6 months.

EO **Engine Oil**—Drain and refill every 3 months or 4,000 miles, whichever occurs first. See Viscosity Chart below:

Multigrades

SAE 10W-30 or SAE 20W-40 Where temperatures are consistently above 32°F.

SAE 10W-30 Suitable for year-long operation in many parts of the U.S.; may be used where temperatures occasionally drop as low as −10°F.

SAE 5W-20 Recommended where minimum temperatures are consistently below +10°F.

Single Grades

SAE 30 Where temperatures are consistently above 32°F.

SAE 10W Where temperatures range between +32°F. and −10°F.

SGL or MP **Manual Steering Gear**—Check level every 6 months. Add lubricant, if necessary, to cover worm gear.

MML or AMG (2) **Column-Mounted Manual Transmission Gearshift Control**—If noisy or shifting effort is objectionable, lubricate contact surfaces.

HTF **Brake Master Cylinder**—Check level every 6 months. If below ¼ inch from top of reservoir, add fluid to restore level.

MML **Front Suspension Ball Joints**—Inspect seals and joints every 6 months, or whenever car is serviced for any other reason. Replace damaged seals and joints. Relubricate every 3 years or 36,000 miles, whichever occurs first.

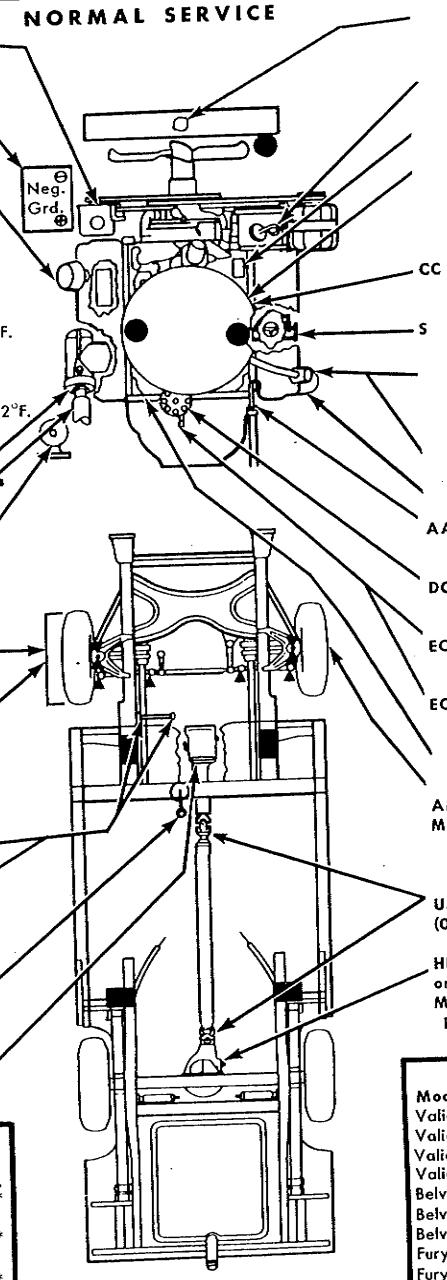
MML **Steering Linkage Ball Joints**—Inspect seals and joints every 6 months, or whenever car is serviced for any other reason. Replace damaged seals and joints. Relubricate every 3 years or 36,000 miles, whichever occurs first.

MML or AMG (2) **Clutch Torque Shaft Bearings**—Inspect for wear and relubricate every 3 years or 36,000 miles, whichever occurs first.

MML or AMG (2) **Clutch Release Bearing Sleeve, Release Fork and Fork Pivot**—If effort required to depress pedal is excessive or linkage is noisy, lubricate contact surfaces.

EO **Floor-Mounted Manual Transmission Gearshift Controls**—If operation becomes difficult, apply a few drops of light engine oil to the mechanism from under the vehicle.

AA or MP **Manual Transmission**—Check fluid level every 6 months. If below bottom of filler hole, add fluid to restore to prescribed level.



Engine Coolant—Check level and/or antifreeze every 2 months.

Engine Oil Dip Stick—When refueling, check engine oil level.

Carburetor Fuel Filter—Replace every 24,000 miles or every 2 years, whichever occurs first.

Carburetor Air Cleaner—Paper element type—Clean element every 6 months and replace every 2 years. Oil Bath Type—Check sediment level every second oil change. Clean and reoil with SAE 10W-30 engine oil once a year.

Carburetor Choke Shaft—Apply solvent to each end of shaft, where it enters air horn, every 6 months.

Manifold Heat Control Valve—Apply solvent to each end of valve shaft every 6 months

Crankcase Ventilation System (1) (With Silenced Air Cleaner)—Inspect system and service every 6 months.

Crankcase Ventilation System (1) (With Non-Silenced Air Cleaner)—Inspect system and service every oil change.

Engine Oil Filter—Replace every second oil change.

AA **Automatic Transmission**—Check fluid level every 6 months. Add fluid, if necessary, to restore to prescribed level.

Distributor Cam and Rubbing Block—When servicing breaker contacts, apply thin film of lubricant to cam and block surfaces.

Distributor Rotor Felt Wick—When servicing breaker contacts, apply 2 or 3 drops light engine oil to wick under rotor.

Distributor Oil Cup—Apply 5 to 10 drops light engine oil to cup every 6 months.

Engine Tune-up—Evaluate engine performance every 12 months or 12,000 miles whichever occurs first, and tune, if necessary.

AMG (2) MML **Front Brake Assemblies and Wheel Bearings**—Inspect brake linings for wear and wheel bearings for lubricant every 18 months or 18,000 miles whichever occurs first. Also, lubricate pedal bushings.

UJ (0) **Universal Joints**—Inspect seals for external leakage or damage every 6 months. Disassemble and relubricate only if leakage is noted.

HL or MP/SGL **Rear Axle and Sure-Grip**—Check level every 6 months. Add prescribed fluid, if necessary, to restore to proper level.

Body Mechanisms—See Body Maintenance Section.

(1) See "Crankcase Ventilation System Servicing".

CAPACITIES

Engine Oil (Add 1 qt. when replacing filter)		4 qts.
Cooling System	Valiant	18 qts.
	Belvedere (273 Cu. In. Engine)	18 qts.*
	Belvedere, Fury (318 Cu. In. Engine)	21 qts.**
	Belvedere (361, 383 Cu. In. Engines)	17 qts.***
	Fury (383, 426 Cu. In. Engines) (Add 1 qt. for heater)	17 qts.***
Rear Axle	Valiant	2 pts.
	Belvedere, Fury	4 pts.
Transmission TorqueFlite	Valiant	16 pts.
	Belvedere, Fury	18.5 pts.#
Manual	3-Speed Valiant, Belvedere, Fury	6 pts.
	4-Speed Valiant	8 pts.
	4-Speed Belvedere, Fury	9 pts.
Fuel Tank	Valiant	18 gals.
	Belvedere	19 gals.
	Fury all except Station Wagon	25 gals.
	Fury Station Wagon	22 gals.

(See "Fuel" Section for proper cap application and fuel tank venting.)

Belvedere w/273 Cu. In. Engine.....16 qts.
*w/Trl. Tow.,.....19 qts.
**w/Trl. Tow., A/C or HD Rad.....22 qts.
***w/Trl. Tow., A/C or HD Rad.....18 qts.

■ Position for lift adapter
▲ Prepacked bearing
● Cooling system drain

PLYMOUTH V-8

NN677

TIRE PRESSURES (PSI) (COLD)

Models	Front	Rear
Valiant—All models except Station Wagons	24	24
Valiant—Station Wagons	24	28
Valiant—Barracuda exc. Formula "S"	24	26
Valiant—Barracuda Formula "S"	24	24
Belvedere—All models except Station Wagons	24	24
Belvedere—Station Wagons	24	28
Belvedere—Satellite	24	24
Fury—All models except Station Wagons	24	24
Fury—Station Wagons	24	28

Above pressures for Average Rated Load. See "Tires", Group 22, for tire sizes and additional pressure recommendations.

KEY TO LUBRICANTS		Part No.*
AA	Automatic Transmission Fluid, AQ-ATF, Suffix "A"	1843314
AMG (2)	Automotive Multi-Purpose Grease—NLGI-Grade 2	
CC	Carburetor Cleaner	1643273
DCL	Cam Lubricant	1473595
EO	Engine Oil	
HL	Hypoid Lubricant	2585317
HTF	High Temperature Brake Fluid	2421352
MML	Multi-Mileage Lubricant	2525035
MP	Multi-Purpose Gear Lubricant	
PSF	Power Steering Fluid	2084329
S	Manifold Heat Control Valve Solvent	1879318
UJ (0)	Universal Joint Grease, NLGI-Grade 0	
SGL	Sure-Grip Lubricant	2585318

*See Alternate Specifications In Individual Paragraphs.

Fig. 2—Lubrication Chart (V-8 Models)

LUBRICATION AND MAINTENANCE SERVICES

SERVICE INTERNAL	ITEM	PAGE	Replace	Check Fluid Level	Inspect and/or Clean	Lubricate	Service
3 Months or 4,000 Miles, whichever occurs first	Engine Crankcase Oil	12	X				
Every Engine Oil Change	Closed Crankcase Ventilation System (with non-silenced air cleaner)	15					X
Every Second Oil Change	Engine Oil Filter	12	X				
	Rotate Tires	22					X
	Carburetor Air Cleaner—Oil Bath	18			X		
	Carburetor Air Cleaner—Paper	17			X		
	Crankcase Ventilation System	13			X		X
	Carburetor Choke Shaft	18					X
	Oil Filler Pipe Breather Cap	13			X	X	X
	Manifold Heat Control Valve	17					X
	Distributor	11				X	
	Transmission	20			X		
Every 6 Months	Rear Axle	8		X	X		
	Steering Gear	19		X			
	Steering Linkage	6			X		
	Suspension Ball Joints	6			X		
	Universal Joints	19			X		
	Universal Joint Slip Yoke	19			X		
	Brake Master Cylinder	9		X			
	Brake Hoses	9			X		
	Body Mechanisms	23			X	X	
	Headlamp Aiming	11					X
Every Year	Cooling	10					X
	Crankcase Ventilation Valve	13	X				
	Carburetor Air Cleaner—Oil Bath	18					X
Every 12 Months or 12,000 Miles, whichever occurs first	Engine Performance Evaluation	16					X
Every 18 Months or 18,000 Miles, whichever occurs first	Brakes, Brake Linings and Brake Linkage Bushings	9			X		X
	Front Wheel Bearings	21			X		
Every 2 Years	Carburetor Air Filter	15	X				
Every 2 Years or 24,000 Miles, whichever occurs first	Fuel Filter	18	X				
Every 3 Years or 36,000 Miles, whichever occurs first	Front Suspension Ball Joints	6				X	
	Steering Tie Rod Ends	6				X	
	Clutch Torque Shaft	10				X	
When Necessary	Spark Plugs—See Engine Performance Evaluation	16					X
	Speedometer Cable	23				X	
	Clutch Release Bearing Sleeve, Fork Fingers and Pivot	10				X	
	Column-Mounted Gearshift Linkage	21				X	
	Floor-Mounted Gearshift Lever	21				X	
	Wheel Brakes	9					X
	Parking Brakes	10					X
Points That Should Not Be Lubricated		31					

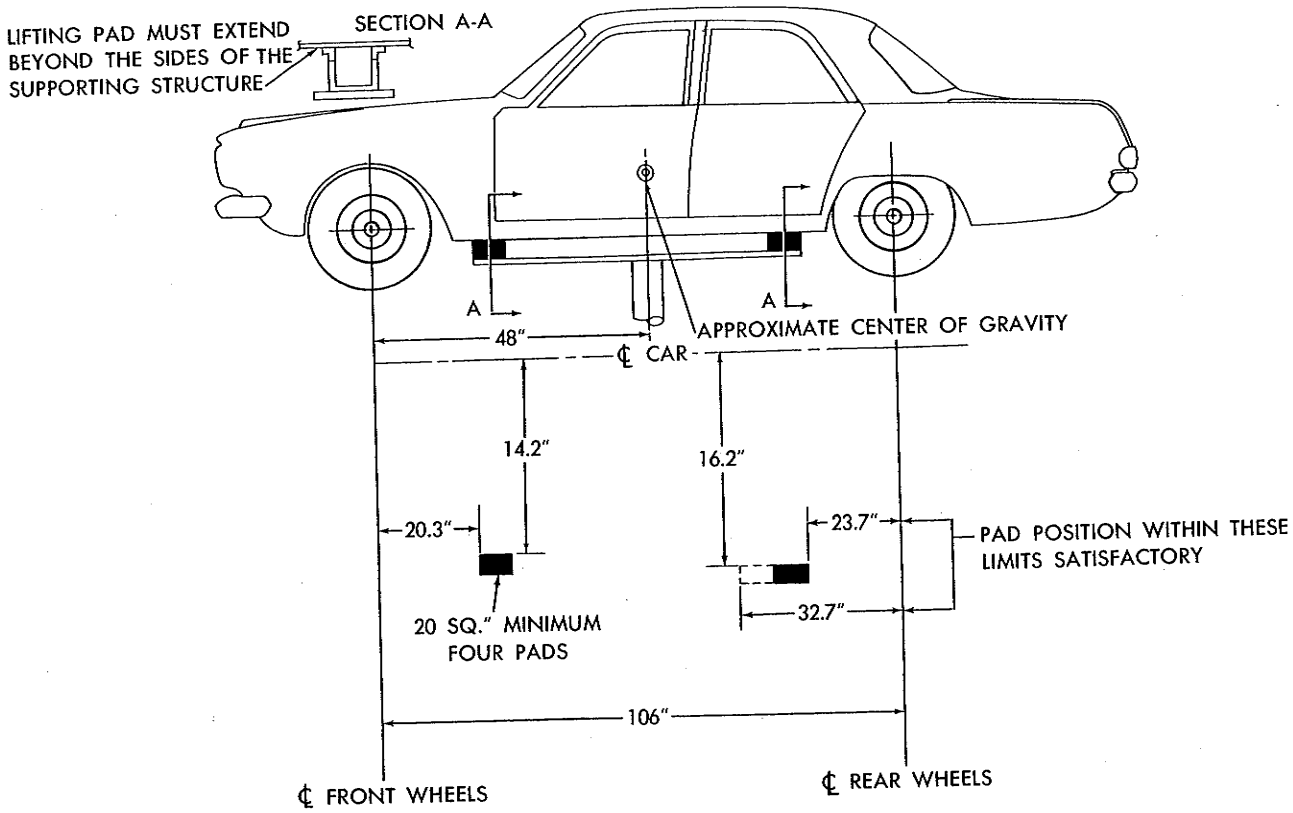


Fig. 3—Support Locations for Frame Contact Hoisting (Valiant Models)

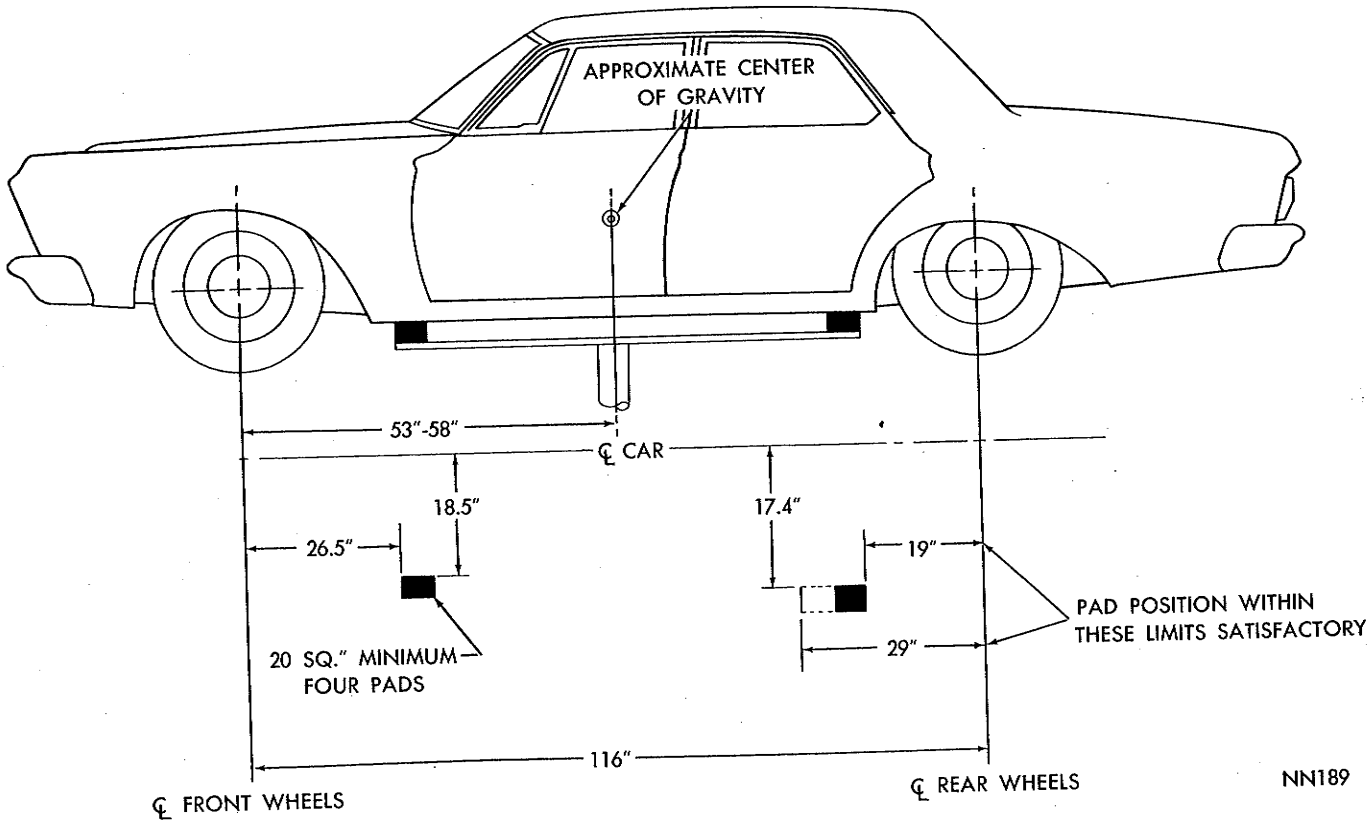


Fig. 4—Support Locations for Frame Contact Hoisting (Belvedere Models)

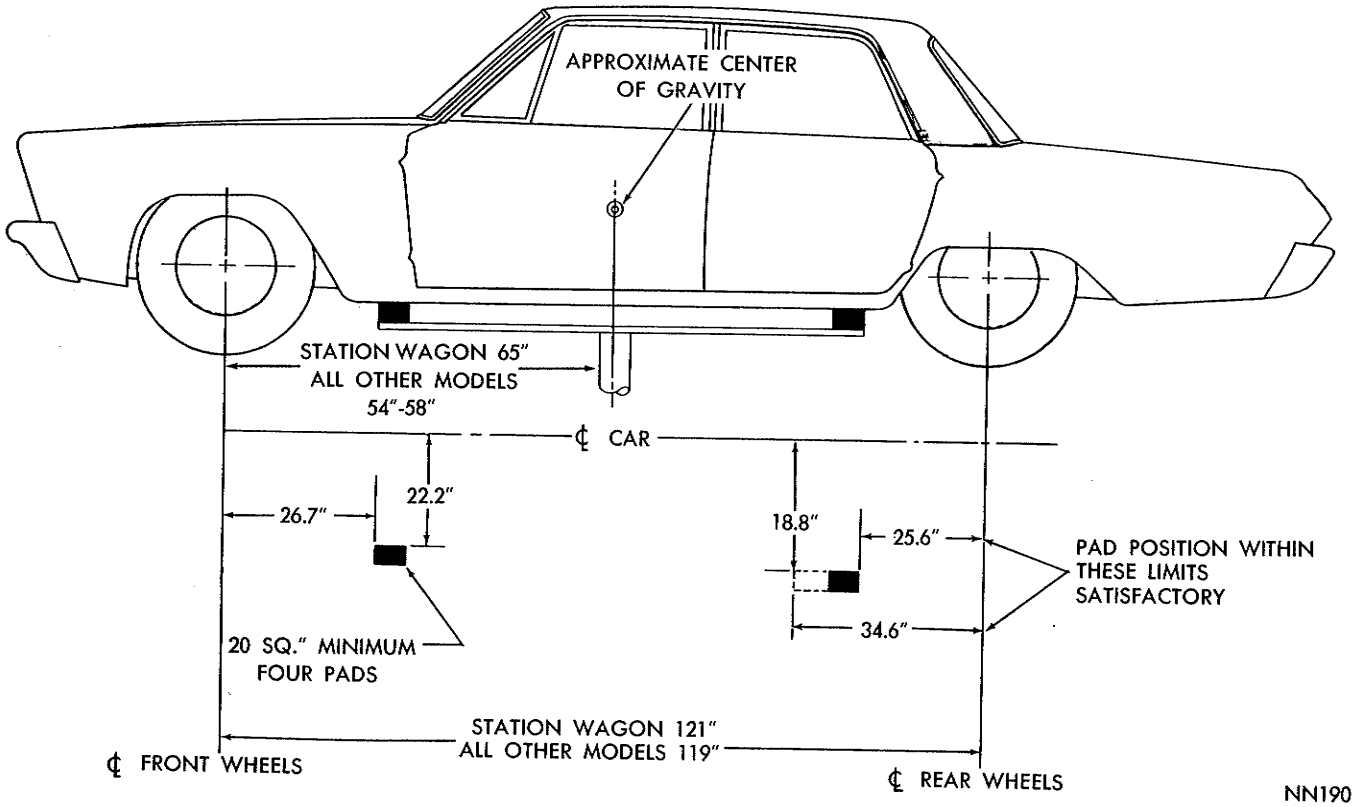


Fig. 5—Support Locations for Frame Contact Hoisting (Fury Models)

HOISTING

Special care should be taken when raising the vehicle on a frame contact type hoist. The hoist must be equipped with the proper adapters in order that the vehicle will be supported in the correct locations (Figs. 3, 4 and 5).

Conventional hydraulic hoists may be used after determining that the adapter plates will make firm contact with the lower control arms and the rear axle housing.

A regular floor jack may be used under the rear axle housing, or under the front suspension lower control arms, **however, a floor jack must never be used on any parts of the underbody.**

CAUTION: Do not attempt to raise one entire side of the vehicle by placing a jack midway between a front and rear wheel. This practice may result in permanent damage to the body.

The bumpers are designed to accept a bumper jack in an emergency, if it becomes necessary to change a tire on the road. Notches are provided in the bumpers for the purpose of raising the vehicle with the bumper jack.

CHASSIS LUBRICATION

Front Suspension Ball Joints

The front suspension ball joints (Figs. 6, 7 and 8) are semi-permanently lubricated with special lubricant at the factory. Relubrication is required every 3 years or 36,000 miles, whichever occurs first. The ball joints, however, should be inspected every six months, or whenever vehicle is serviced for other reasons, for damage to the seals which result in loss of lubricant. Clean accumulated dirt and lubricant from outside surface of seals to permit thorough inspection.

Replace damaged seals or joints immediately to prevent contamination of lubricant or damage to parts. Lubricate ball joints, if necessary.

When lubricating control arm ball joints, use only the special long-life chassis greases intended for this purpose. Multi-Mileage Lubricant, Part Number 2525035, is a lubricant of this type recommended for all Chrysler Corporation vehicles. Remove threaded plug from each ball joint and **temporarily** install lubrication fittings. Inject lubricant until it flows freely from seal bleed area at the base of the seal. Stop when seal begins to balloon. Remove fittings and reinstall threaded plugs.

If high pressure lubrication equipment is used, stop filling when the lubricant begins to flow freely from the bleed area at the base or at the top of the seal, or if the seal begins to balloon.

Steering Linkage Ball Joints

The four tie rod end ball joints and the steering gear arm ball joint (Figs. 9, 10 and 11) are semi-permanently lubricated with a special lubricant at the factory.

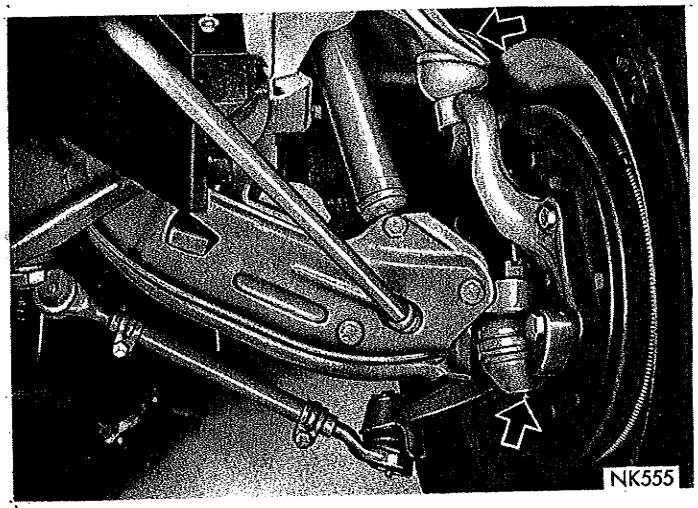


Fig. 6—Upper and Lower Ball Joint Lubrication Points (Valiant Models)

Relubrication of tie rod ball joints is required every 3 years or 36,000 miles, whichever occurs first. The ball joints, however, should be inspected every six months, or whenever vehicle is serviced for other reasons, for damage to seals which can result in loss of lubricant.

When inspecting ball joints, clean accumulated dirt and lubricant from outside surfaces of seals to permit thorough inspection. Replace damaged seals or joints immediately to prevent contamination of lubricant or failure of the part. Lubricate ball joints, if necessary.

When lubricating steering linkage ball joints, use only the special long-life chassis greases intended for this purpose. Multi-Mileage Lubricant Part Number 2525035 is a lubricant of this type recommended for all Chrysler Corporation vehicles. Remove threaded plug from each ball joint and **temporarily** install lubrication fittings. Inject lubricant until it flows freely from seal bleed area at top or base of seal. Stop when seal begins to balloon. Remove fittings and reinstall threaded plugs.

High pressure lubrication equipment may be used if care is taken to use an extremely slow flow rate to allow time to observe the lubricant bleed from the top or base of the seal.

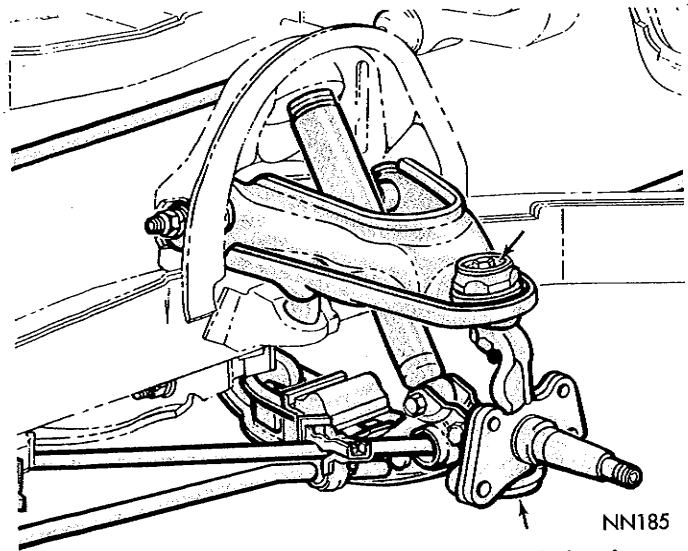


Fig. 7—Upper and Lower Ball Joint Lubrication Points (Belvedere Models)

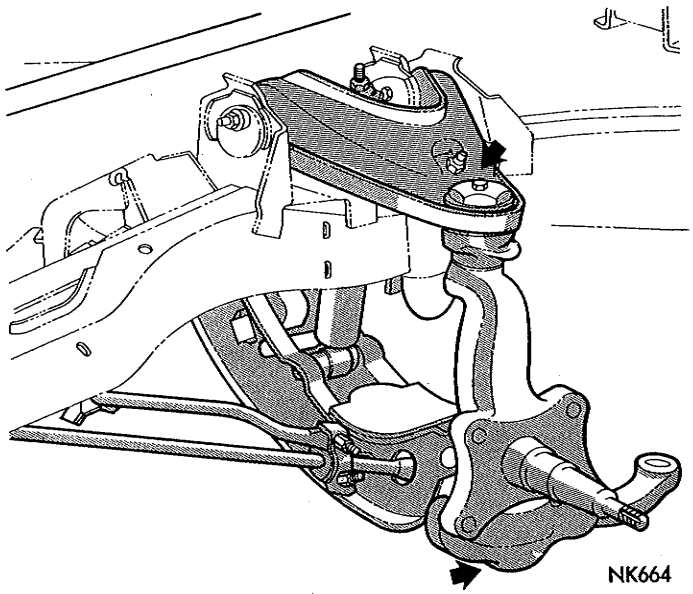


Fig. 8—Upper and Lower Ball Joint Lubrication Points (Fury Models)

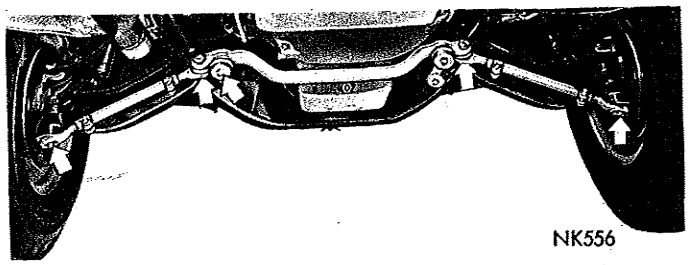


Fig. 9—Steering Linkage Lubrication Points (Valiant Models)

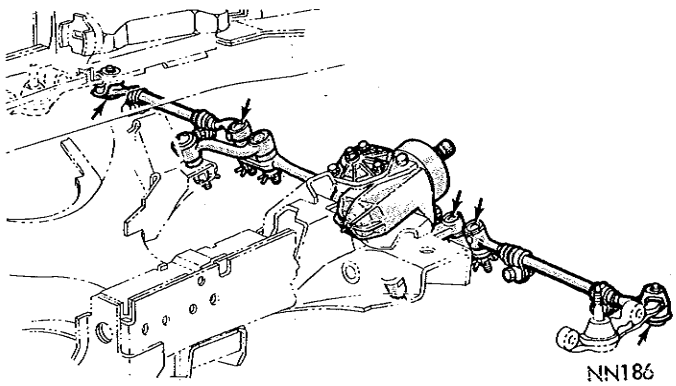


Fig. 10—Steering Linkage Lubrication Points (Belvedere Models)

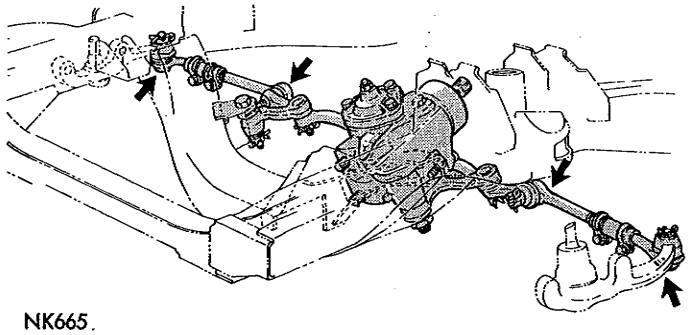

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Fig. 11—Steering Linkage Lubrication Points (Fury Models)

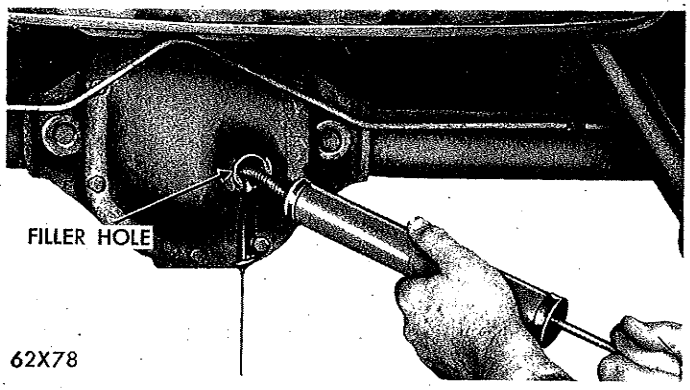

Fig. 12—Removing Rear Axle Lubricant (Valiant Models)

REAR AXLE

Standard and Sure-Grip

The lubricant installed in the rear axle at time of assembly is a high quality product and regularly scheduled changes of the lubricant are not recommended in vehicles where operation is classified as normal passenger car service. The only exceptions, however, would be where the lubricant has become contaminated with water, or in the case of the **standard** rear axle, to provide the correct viscosity grade for the anticipated temperature range, as indicated by the accompanying table:

Anticipated Temperature Range		Viscosity Grade
Above	−10°F.	SAE 90
As low as	−30°F.	SAE 80
Below	−30°F.	SAE 75

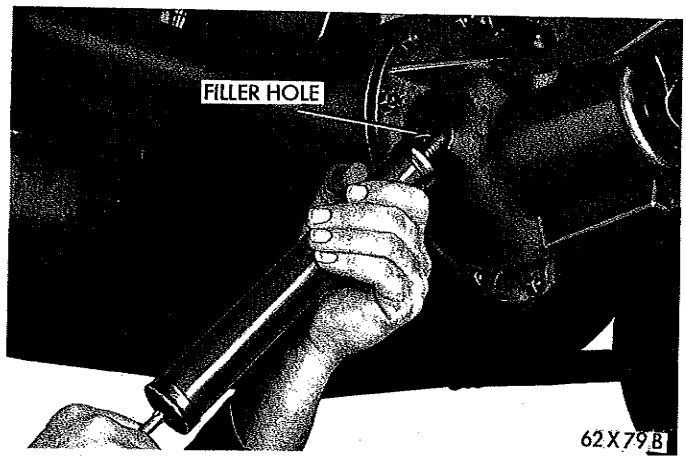

Fig. 13—Removing Rear Axle Lubricant (Belvedere and Fury Models)

If necessary to change lubricant, remove old lubricant with a suction pump (Figs. 12 or 13).

The fluid level, however, should be checked every six months. When checking the level, vehicle should be in a level position. The level of the fluid should be as indicated in the accompanying table:

To restore level in the standard rear axle, if necessary, add sufficient quantity of multi-purpose gear lubricant, as defined by MIL-L-2105B. Such a lubricant is available under Part Number 2585317, Hypoid Gear Lubricant.

Use the correct viscosity grade for the anticipated temperature ranges previously mentioned.

In Sure-Grip axles, use only the special multi-purpose gear lubricant intended for use in limited-slip differentials. Such a lubricant is available under Part Number 2585318, Special Sure-Grip Lubricant.

Trailer Towing Service

For vehicles equipped for trailer towing service, the rear axle lubricant should be changed periodically. Drain and refill the axle with the specified lubricant every 36,000 miles or 3 years, whichever occurs first.

If the axle is submerged in water, such as on a boat launching ramp where water can enter the axle vent, and contamination is suspected or evident, replace the lubricant immediately to avoid early axle failure.

Model	Vehicle Supported on—	Level Location
Valiant	Wheel-or Axle-Type Hoist-or	Between bottom of filler plug hole to ⅝ inch below-or
Valiant	Frame-Type Hoist	At bottom of filler plug hole.
Belvedere, Fury V-8 Belvedere 6-Cyl. Stat. Wag. Belvedere 6-Cyl. w/Sure-Grip	Wheel-or Axle-Type Hoist-or	Between bottom of filler plug hole to ½ inch below-or
Belvedere 6-Cyl. Models exc. Stat. Wag. and with Sure-Grip	Frame-Type Hoist	At bottom of filler plug hole

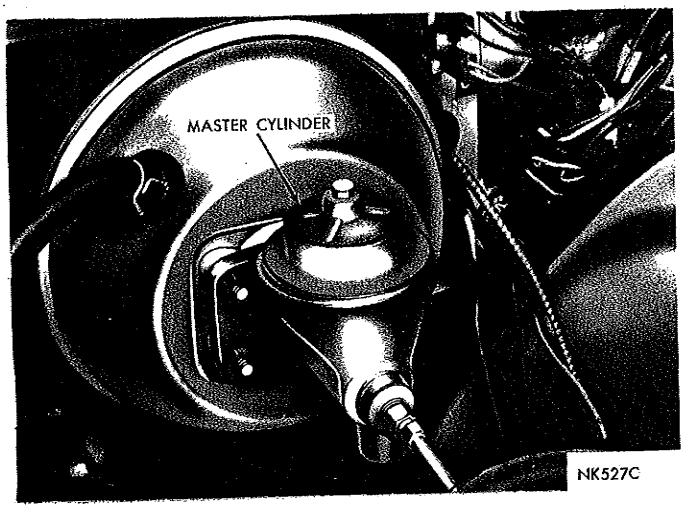

Fig. 14—Master Cylinder

BRAKES

The brakes on all models equipped with drum brakes, except for some police cars and high-performance models, are equipped with self-adjusting features which make it unnecessary to perform major brake adjustments.

Inspect brake linings for wear every 18 months or 18,000 miles, whichever occurs first. At this time, lubricate contact areas of brake shoe supports with a very thin film of high-temperature, silicone type lubricating compound. Such a lubricant is available under Part Number 1881923, Sil-Glide.

To perform this service, remove brake shoes and clean contact areas. Smooth down with sandpaper before applying Sil-Glide.

HYDRAULIC BRAKE SYSTEM

Every six months check fluid level in master cylinder (Fig. 14). The level should be within one-quarter inch of top of reservoir.

CAUTION: Before removing master cylinder cover and screw, wipe them clean to prevent dirt and other foreign matter from dropping into reservoir.

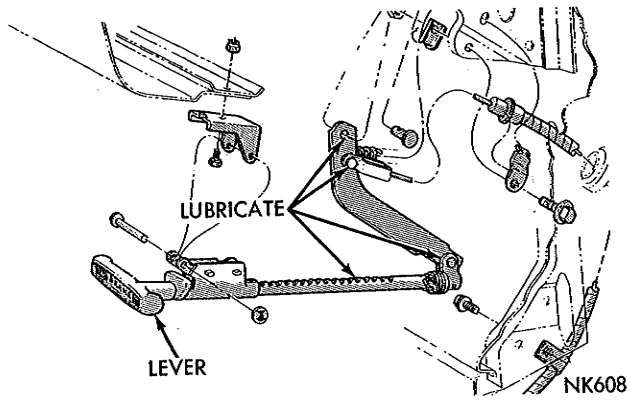

Fig. 15—Hand-Operated Parking Brake Lubrication Points (Valiant Models)

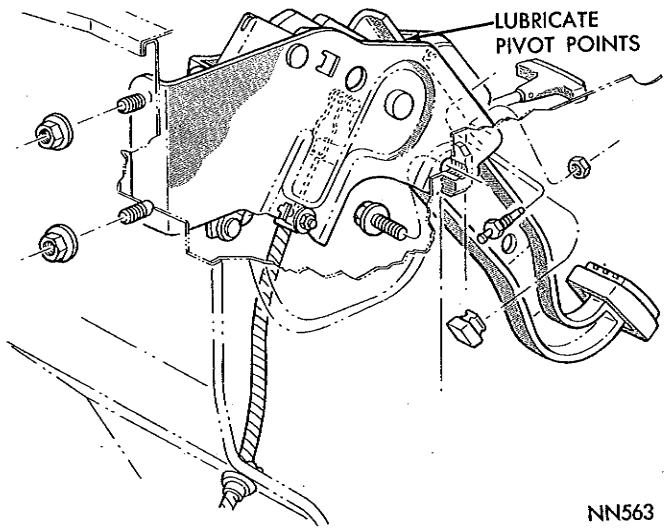

Fig. 16—Foot-Operated Parking Brake Lubrication Points (Belvedere Models)

Replenish fluid, when necessary, with Heavy Duty Hydraulic Brake Fluid, conforming to SAE 70R3 for best brake performance and greater safety. Such a fluid is available under Part Number 2421352, Hi-Temp Brake Fluid.

Inspect brake hoses for cracking, abrasions, cuts or tears in outer covering. Examine all connections for fluid leakage and correct where necessary.

The plastic bushings at the upper end of the brake pedal should be serviced every 18 months or 18,000 miles, whichever occurs first, or at the time of major brake service. The bushings, located on the brake pedal pivot on all models and on the lower linkage pivots on Belvedere models equipped with power brakes, should be removed, thoroughly cleaned and

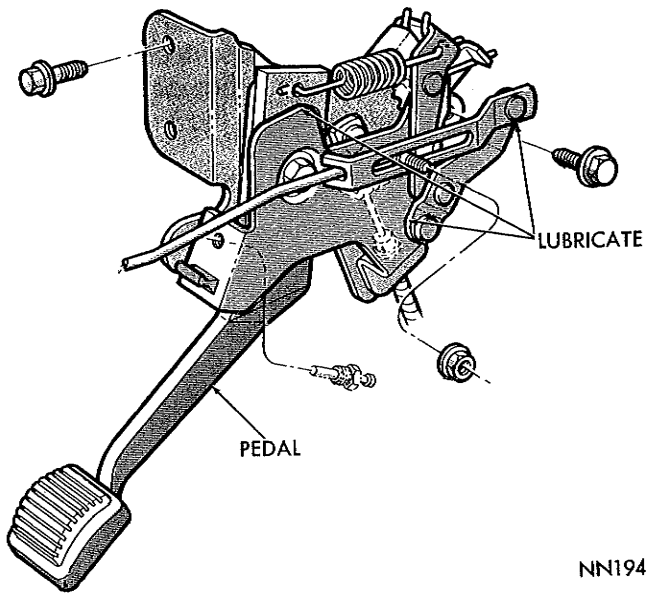

Fig. 17—Foot-Operated Parking Brake Lubrication Points (Fury Models)

relubricated with an automotive multi-purpose grease such as Multi-Mileage Lubricant, Part Number 2525035.

PARKING BRAKE MECHANISM

Valiant Models use a hand-operated parking brake lever (Fig. 15). Belvedere and Fury Models use a foot-operated lever (Fig. 16).

Pivot points indicated (Figs. 15, 16 or 17) should be lubricated occasionally to maintain ease of operation. Apply a film of smooth, white body hardware lubricant conforming to NLGI, grade 1. Lubriplate, Part Number 1064768, is a type of lubricant recommended for this purpose.

When the hand lever can be pulled out more than four inches, or the foot pedal depressed more than four and one half inches, the brake cable should be adjusted. For adjusting procedure, refer to "Parking Brakes," Group 5.

CLUTCH LINKAGE (Manual Transmission)

Clutch Torque Shaft Bearings

Inspect clutch torque shaft bearings (Fig. 18) for wear and relubricate every 3 years or 36,000 miles, whichever occurs first. To perform this service, refer to "Clutch," Group 6. After removing torque shaft assembly, disassemble and thoroughly clean all parts in a suitable solvent and inspect for wear. Damaged bearings and/or ball studs should be replaced.

When reassembling shaft, coat inside surfaces at ends of shaft, inside and outside surfaces of bearings and ball studs (Fig. 18) with Multi-Mileage Lubricant, Part Number 2525035, or Automotive Multi-Purpose Grease, NLGI grade 2.

Clutch Release Bearing Sleeve, Release Fork and Fork Pivot

Whenever the effort required to depress the clutch pedal becomes excessive, or when servicing clutch torque shaft bearings, lubricate the sleeve, fork and pivot (Fig. 18). To gain access to these areas, remove clutch inspection plate at bottom of clutch housing, the fork seal and the fork.

CAUTION: Care must be taken to avoid getting lubricant on clutch disc and/or pressure plate.

Fill cavity in sleeve and coat release fork pads on sleeve (Fig. 18) with Multi-Mileage Lubricant, Part Number 2525035, or Automotive Multi-Purpose Grease, NLGI grade 2. Apply a film of same lubricant on contact areas of fork fingers, pivot contact area of fork and fork pivot.

COOLING SYSTEM

Inspect coolant level every two months and refill as necessary.

Drain, flush and refill cooling system once a year, preferably in the Fall. If the system contains a considerable amount of sediment, clean and flush with a reliable cooling system cleaner. Follow with a thorough rinsing to remove all deposits.

Drain V-8 engine cooling system by removing drain plugs in sides of cylinder block and open drain cock in lower radiator tank. On 6-cylinder engines, remove the single drain plug in right side of engine and open drain cock in lower radiator tank. **Discard old solutions.**

All models are equipped with 180 degree thermostats and only permanent type anti-freeze should be used. Alcohol base anti-freeze products should not be used because of their low boiling point. The use of 160 degree thermostats is not recommended, especially for vehicles equipped with air-conditioning.

Refill cooling system with water and a suitable high quality, permanent type anti-freeze, in sufficient quantity to protect the system against freezing during cold weather seasons. A suitable high quality permanent type anti-freeze is available under Part Number 1316209.

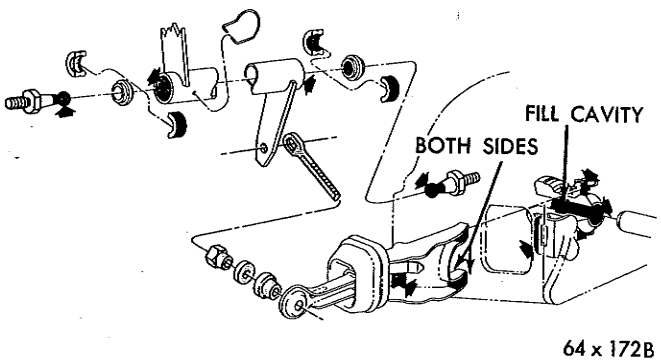

Fig. 18—Clutch Torque Shaft and Linkage Lubrication Points (Typical)

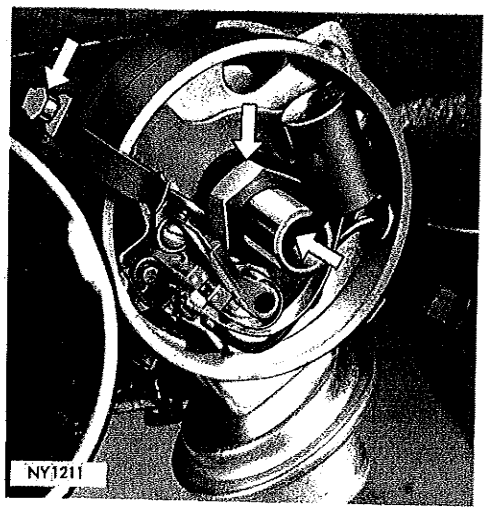

Fig. 19—Distributor Lubrication Points (6-Cyl. Engines)

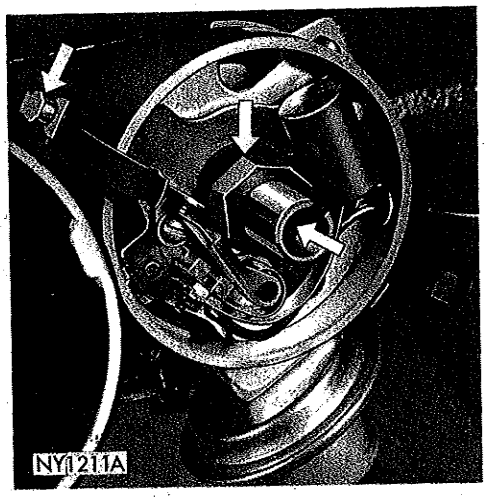

Fig. 20—Distributor Lubrication Points (V-8 Engines)

When vehicle is operated in areas where protection from freezing is not required, and vehicle is not equipped with Air Conditioning, refill cooling system with clean water and add a high quality corrosion inhibitor, such as Chrysler Rust Resistor, Part Number 2421778. This need not be done until the first yearly service.

ALTERNATOR

The alternator is provided with prelubricated bearings, which require no periodic lubrication.

The outside of the alternator should be wiped clean and ventilating holes inspected for an accumulation of dirt which would obstruct the flow of air. Refer to "Electrical," Group 8, for complete servicing of the alternator.

BATTERY

Check fluid level every two months, and more often in hot weather and on long trips. Fill cells, if necessary, using only water of a known low mineral content, until water is ⅜ inch above plates. **Do not overfill.**

Check specific gravity, using a reliable hydrometer every 12 months or 12,000 miles, whichever occurs first, or more often if there is excessive use of water. Clean battery posts and cable terminals and tighten terminals. Coat connections with light mineral grease or petrolatum.

Refer to "Electrical," Group 8, for complete servicing.

DISTRIBUTORS

Apply 5 to 10 drops of light engine oil into distributor oil cup (Fig. 19 or 20) every six months.

Whenever breaker points are serviced, lubricate cam surfaces. Wipe old lubricant from cam and rubbing block (Fig. 19 or 20) and apply a thin film of cam lubricant. Such a lubricant is available under Part Number 1473595, Cam Lubricant. At this time, apply 2 or 3 drops of light engine oil to felt wick under rotor.

CAUTION: Avoid over-oiling and applying an excessive amount of cam lubricant to prevent lubricants from spreading to breaker contacts.

HEADLAMPS

One of the most important factors in automobile safety, is the correct aiming of the headlamps. Changes in suspension, such as front suspension height and/or deflection of rear springs due to heavy loading, will change the headlamp beam pattern and may cause unsafe night time driving conditions. Therefore, it is recommended that headlamp aiming be checked every six months.

If a vehicle is to be loaded abnormally, such as for a vacation trip, or with a salesman's products, the headlamp aiming should be checked and adjusted to serve the new conditions. Refer to "Lighting System," Group 8, for adjusting procedures.

WINDSHIELD WIPER BLADES

Long exposure to heat and road splash tend to harden the rubber wiper blades, thus destroying their efficiency. When blades smear or in general do not satisfactorily clean the windshield, they should be replaced.

To replace, depress the release on top of blade bridge and slide out rubber blade. Slide new rubber blade refill into bridge to lock it in place. Refer to Parts List for correct rubber blade refill.

ENGINE OIL—SELECTION OF

For best performance, and to provide for maximum protection of all engines for all types of operation, only those lubricants should be selected which:

(a) Conform to the requirements of the API classification "FOR SERVICE MS."

(b) Have the proper SAE grade number for the expected temperature range.

Oil Viscosity Recommendations

Multigrades

SAE 20W-40 or SAE 10W-30	Where temperatures are consistently above +32°F.
SAE 10W-30	Suitable for year long operation in many parts of the U.S.; may be used where temperatures occasionally drop as low as −10°F.
SAE 5W-20	Recommended where minimum temperatures are consistently below + 10°F.

Single Grades

SAE 30	Where temperatures are consistently above + 32°F.
SAE 10W	Where temperatures range between + 32°F. and −10°F.

Low viscosity oils make engine starting easier in cold weather. Modern SAE 5W-20 grade oils have been subjected to extensive engineering evaluation

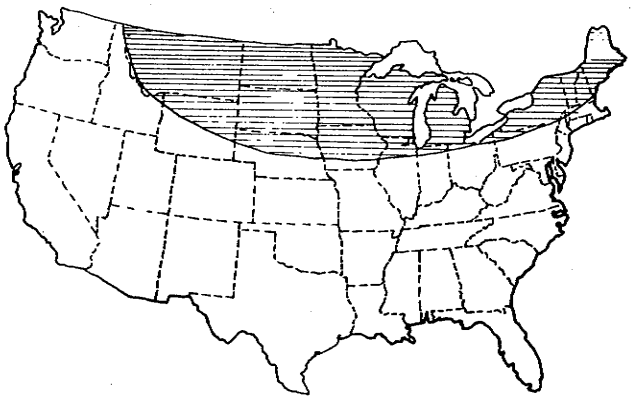

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Fig. 21— Shaded Areas Covers Region Where Minimum Temperatures May be Consistently Below +10°F. During Some Winter Months

and may be safely used as recommended. As stated in the accompanying chart (Fig. 21) when **minimum** temperatures may be consistently below + 10°F. during some winter months oils of the SAE 5W-20 viscosity may be used. If your region is in the shaded area, SAE 5W-20 oil **should be** used during the winter months.

Lubricants which do not have both an SAE grade number and an MS Service classification on the container **should not** be used.

MATERIALS ADDED TO ENGINE OILS

It is not necessary to add any other products to engine oils for most types of driving when MS quality oils are used.

In some instances, such as infrequent operation or short trips only, and during break-in after a major overhaul, addition of special materials containing anti-rust and anti-scuff additives is beneficial. A suitable product for this purpose is available under Part Number 1879406, Engine Oil Supplement.

FREQUENCY OF OIL CHANGES

The engine oil should be changed every three (3) months, or 4,000 miles, whichever comes first.

During Break-in

Cars should be driven moderately during the first 300 miles. After the initial 50 miles, speeds up to 50 to 60 mph are desirable. While cruising, brief full-throttle acceleration contribute to a good break-in. Wide-open throttle accelerations in low gear can be detrimental and should be avoided for at least 500 miles.

The oil installed in the engine at the factory is a high quality lubricant, classified "For Service MS," and **should be retained** until the first regularly scheduled three-month or 4,000-mile oil change, whichever comes first. If it becomes necessary to add

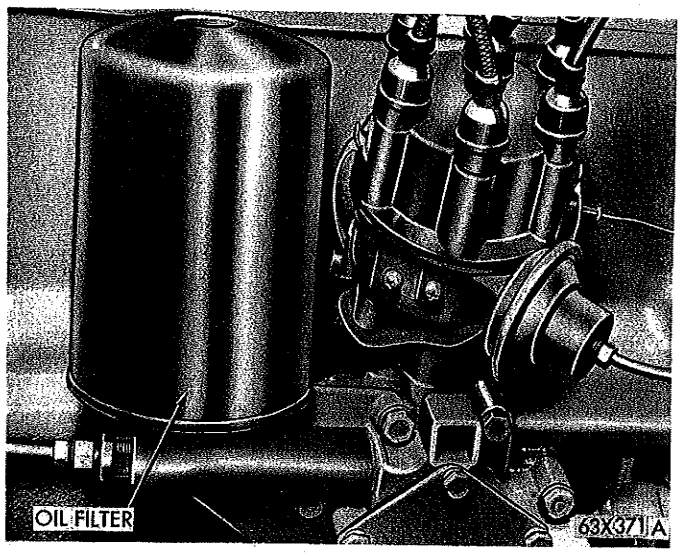

Fig. 22—Engine Oil Filter (6-Cyl. Engines)

oil during this initial period, an oil with the "For Service MS" classification and of the proper viscosity grade should be used. **Nondetergent or straight mineral oils must never be used.**

Frequently, a new engine will consume some oil during its first few thousand miles of operation. This should be considered as a normal part of the break-in and not to be interpreted as an indication of difficulty.

Severe Operating Conditions

Severe operating conditions, such as frequent driving on dusty roads, or in sandy geographic areas, or unusually short trip driving in cold weather may reasonably require oil changes more frequently than every three months. Under these conditions, consult and follow the advise of any Chrysler Motors Corporation Authorized Dealer's Service Manager.

Taxi and Police Operation

Severe service, such as taxi and city police driving, which are principally short trip operations including frequent and prolonged idling, require more frequent oil changes on a regular schedule. For this service, it is recommended that engine oil be changed every two months, not to exceed 2,000 miles. Replace filter every second oil change.

ENGINE OIL FILTER

All engines are equipped with full-flow, throw-away oil filters (Figs. 22 and 23) to provide efficient filtering of engine oil for maximum engine protection.

The filter should be replaced every second oil change. Since filters vary widely in quality, it is recommended that a Chrysler Corporation Engine Oil Filter, or equivalent, be used for replacement to assure most efficient service.

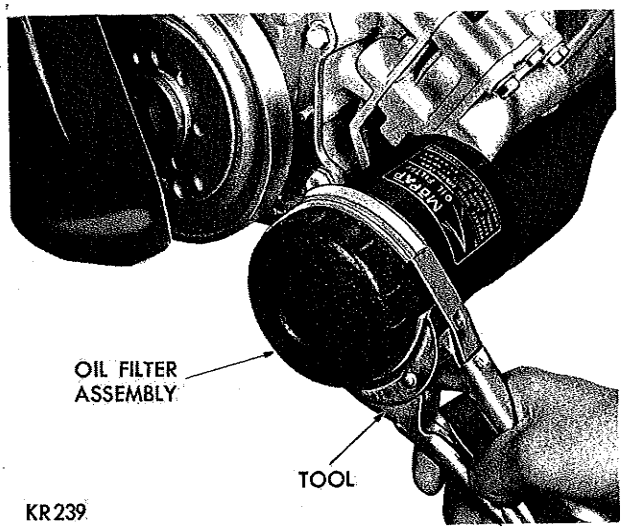

Fig. 23—Removing Engine Oil Filter (361, 383, 426 Cu. In. Engines)

CRANKCASE VENTILATION SYSTEM

Two types of crankcase ventilation systems will be found on Plymouth models. A brief description follows to provide easy identification so that proper service procedures may be applied.

The **Standard Ventilation System** (Fig. 24) consists of a ventilation valve and cap mounted on the right hand rocker cover, a carburetor with drilled passages in the throttle body, a hose connecting valve cap to the throttle body passages and the oil filler pipe breather cap.

The **Closed Ventilation System** (Fig. 25) is basically the same as the Standard System except that it contains a **closed** oil filler pipe breather cap (Fig. 26) and a hose connecting the cap to the carburetor air cleaner housing. In addition, the air cleaner filter element is provided with a plastic mesh outer wrapper (Fig. 27).

(The wrapper is not used on high performance engines equipped with non-silenced air cleaners.)

Cleaner Air Package

The crankcase ventilation system utilizing the Cleaner Air Package (Fig. 28) is basically the Closed Crankcase Ventilation System (Fig. 25) combined with a system of exhaust omission control through timing and carburetion. This is provided through the use of a modified carburetor, an altered distributor and a special vacuum control valve.

Servicing Procedures

Periodic servicing of the crankcase ventilation system is required to maintain good engine performance and prevent malfunction of the system because of combustion products deposited in the valve, hose and carburetor passages.

Standard System

Every six months clean and service the system as outlined. Replace the valve every year.

In cases of severe service, such as experienced in police, taxicab or other operation involving short trips with prolonged idling, it is recommended that the system be checked for operation with **every oil change** and serviced as required.

With engine idling, remove ventilator valve and cap assembly from right hand rocker cover (Fig. 24). If valve is working freely, a hissing noise will be heard as air passes through the valve, and a strong vacuum should be felt when a finger is placed over the valve inlet.

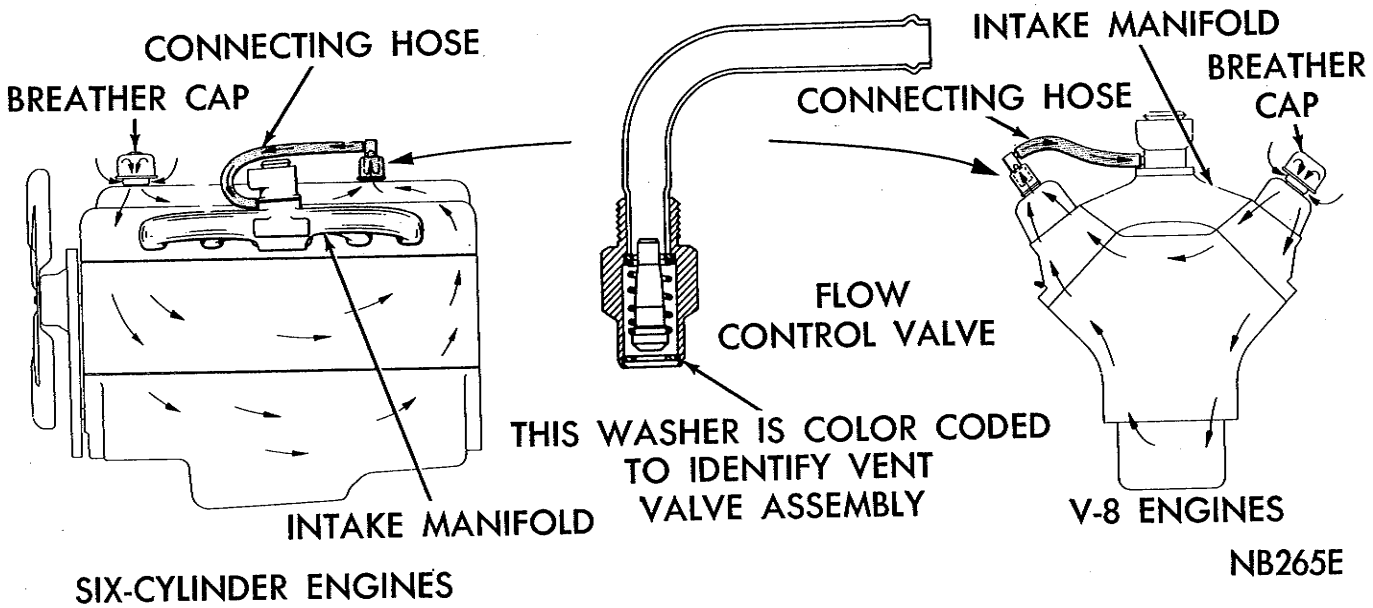

Fig. 24—Standard Crankcase Ventilation System

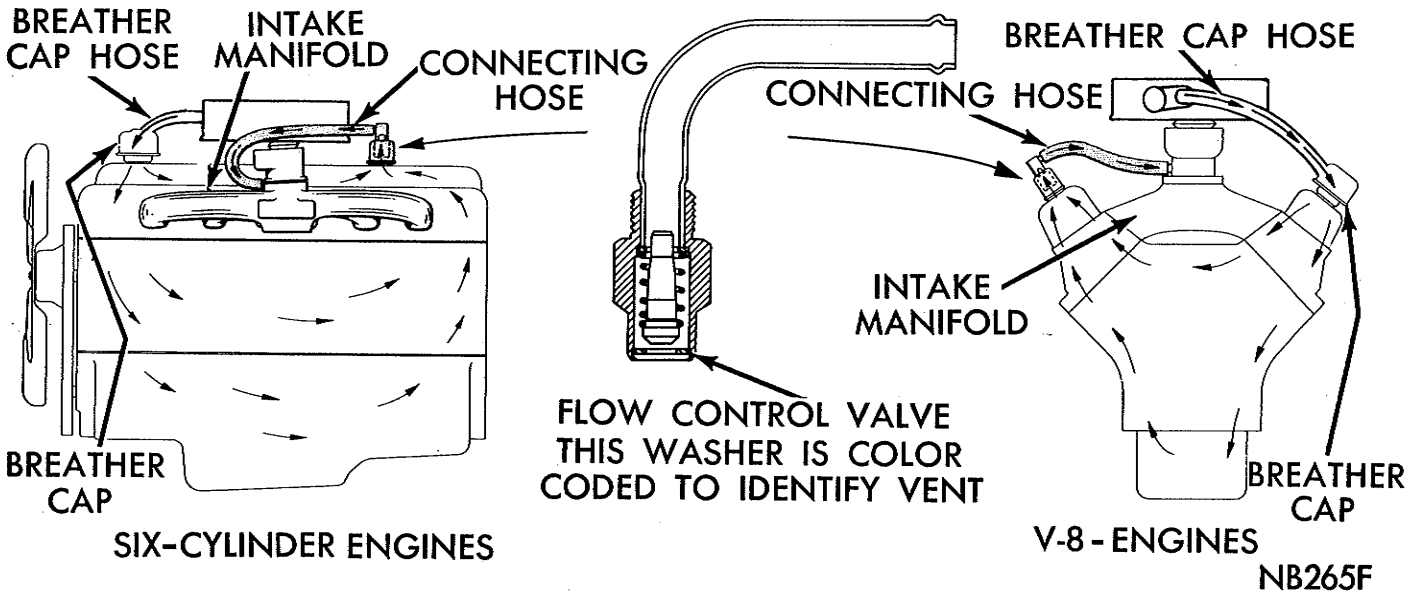

Fig. 25—Closed Crankcase Ventilation System

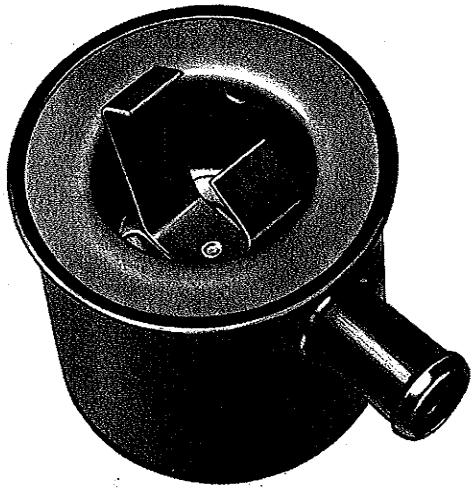

Fig. 26—Closed Type Breather Cap

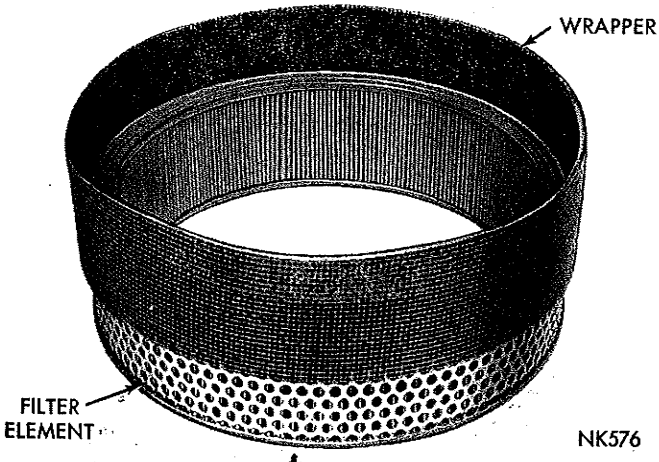

Fig. 27—Carburetor Air Cleaner Element and Wrapper

If valve is working properly, reinstall ventilator valve and cap assembly and remove the oil filler pipe breather cap. With engine idling, loosely hold a piece of stiff paper or a parts tag over oil filler pipe. After allowing about a minute for crankcase pressure to reduce, the paper should be drawn against the filler pipe with a noticeable force. If this occurs, a final check should be made to be certain valve shuttle is free.

Shut off engine, remove valve and shake it vigorously. A clicking noise should be heard if valve shuttle is free. If noise is heard, valve is satisfactory and no further service is necessary.

If valve does not click when shaken, or the paper is not drawn against filler pipe with a noticeable force, replace valve and recheck system.

Do not attempt to clean the valve. Replace it with a new valve.

On 170 cubic inch engines use Ventilator Valve identified by a white end washer. For all other engines use valves that have a black end washer.

Remove ventilator valve hose (Fig. 24) from cap and

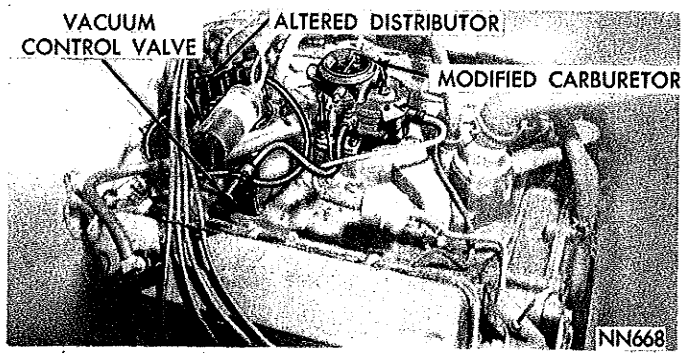

Fig. 28—Cleaner Air Package (Typical)

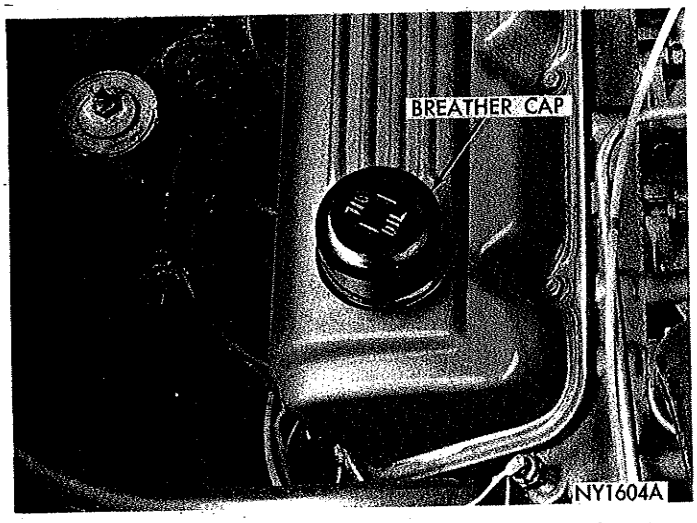

Fig. 29—Oil Filler Breather Cap (6-Cyl. Engines)

carburetor. Inspect it for deposits and clean, if necessary.

Remove breather cap (Fig. 29 or 30) and wash it thoroughly in kerosene or other suitable solvent to remove all old oil and dirt. Reoil filter element with SAE 30 engine oil.

Service air cleaner filter element every six months, as outlined on page 17, and replace filter element every two years. Use a Chrysler Corporation filter element or equivalent for replacement.

Remove carburetor. Hand turn a ¼ inch drill through the passages to dislodge solid particles.

CAUTION: Under no circumstances should metal be removed. Use a smaller drill, if necessary. Blow passages clean. It is not necessary to disassemble the carburetor for this service.

Closed Ventilation System

Service system with the wrapper air cleaner every six months, as outlined for the standard system. Replace valve every year. Service air cleaner filter element every six months, as outlined on page 15, and replace filter element and wrapper every two years.

On vehicles equipped with the **non-silenced** air cleaner filter element, service system at **every oil change** as outlined for vehicles with wrapper filter element, page 15. Service filter element at **every oil change,** as outlined on page 15. Replace filter element and ventilation valve every year.

If vehicle is used extensively for short trips with frequent idling, these services will be required more frequently.

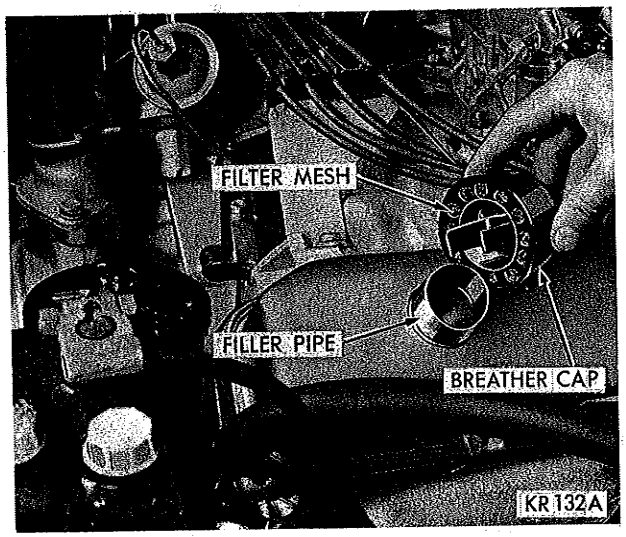

Fig. 30—Oil Filler Breather Cap (V-8 Engines)

Cleaner Air Package

Service the crankcase ventilation system on vehicles equipped with this package as outlined on page 13.

The carburetor, distributor and vacuum control valve are serviced as outlined in Fuel System, Group 14 and Ignition System, Group 8.

Taxi and Police Operation

For this type of service, the crankcase ventilation system should be serviced at each oil change. A suggested practice for taxi and police operations is to maintain spare valves, installing a clean valve at each oil change. Valves so removed can be cleaned by soaking overnight in carburetor cleaner, followed by drying with compressed air.

Carburetor Air Cleaner - With Wrapper

Remove air cleaner from carburetor and remove filter element from cleaner. Remove gauze wrapper from element (Fig. 27). The wrapper helps prevent oil wetting of the element by collecting condensed oil vapors on its surface. Wash wrapper in kerosene or other suitable solvent to remove dirt and oil. Examine filter element. If it is dry or has only one or two oil-wetted spots, clean by gently blowing out dirt from element with compressed air (Fig. 37). Hold air nozzle about two inches from inner screen.

If element is saturated with oil for more than one-half of its circumference, replace it with a new element. Noticeable quantities of oil on filter indicate a malfunctioning of the ventilation system due to a sticking valve or excessive deposit build-up in ventilation system. Normally, filter element and wrapper should be replaced every two years. Use a Chrysler Corporation filter element, or equivalent, for replacement.

Carburetor Air Cleaner - Without Wrapper

At each oil change period, examine and clean filter element as outlined above. If element is saturated with oil, replace it with a new one. In any event, replace the filter element once a year.

If vehicle is used extensively for short trips with frequent idling, these services will be required more frequently.

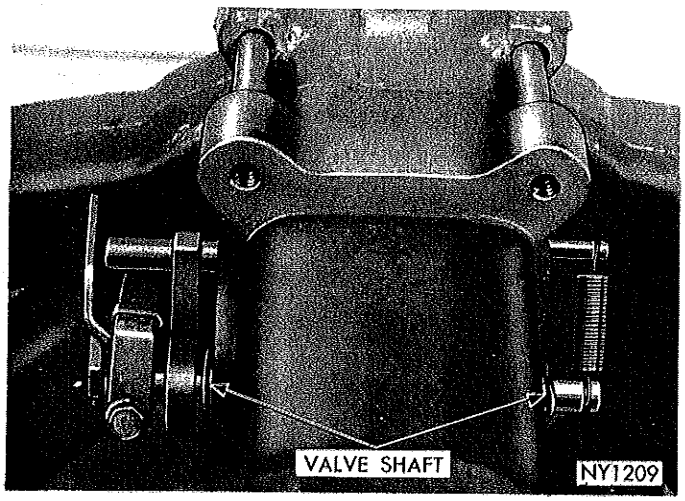

Fig. 31—Manifold Heat Control Valve (6-Cyl. Engines)

ENGINE PERFORMANCE EVALUATION

Engine operating efficiency depends on correct ignition, carburetor adjustments, and on valve lash where applicable. To obtain best engine performance, Chrysler Corporation recommends that the engine be evaluated every 12 months or 12,000 miles, whichever occurs first and tuned, if necessary. Services performed during this evaluation should include the following:

1—Spark Plugs—Remove and inspect each spark plug. Most plugs can be cleaned, adjusted, and reinstalled. Rough idle, hard starting, frequent engine miss at high speeds, or apparent physical deterioration, are indications that the spark plugs should be replaced.

2—Distributor—Clean and inspect the distributor cap and rotor if required. Check breaker contacts for abnormal pitting, bluing, or misalignment, and adjust.

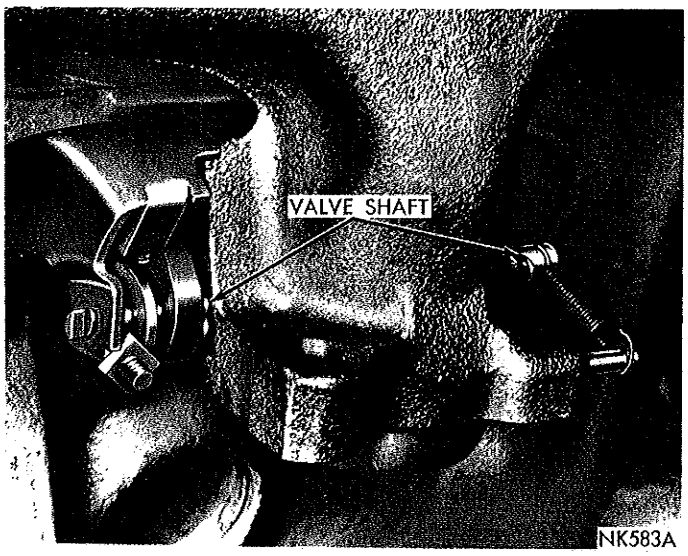

Fig. 32—Manifold Heat Control Valve (273 Cu. In. Engine)

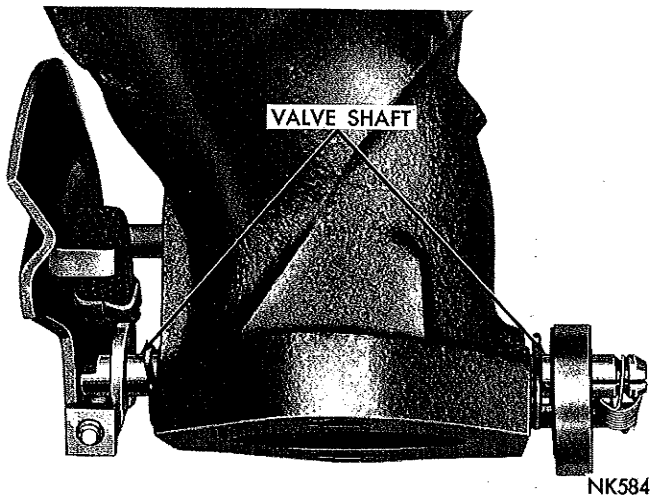

Fig. 33—Manifold Heat Control Valve (318 Cu. In. Engine)

Lubricate cam and wick, (see page 11). Be sure that all distributor secondary wires and tower caps are clean and connected properly. See "Electrical Group" for ignition timing procedures and settings.

3—Carburetor—Remove and clean air filter. Check operation of manifold heat control valve and choke diaphragms; use solvent recommended. Clean crankcase ventilation system, see page 13). See "Fuel System Group" for carburetor adjustment procedures.

4—Battery—Check specific gravity. Clean and tighten terminals; apply grease to post and terminals. Check circuit voltages as directed in the "Electrical Group."

5—Starting Motor—Test cranking ability as described in "Electrical Group."

6—Valve Lash (where applicable)—Should an engine continue to be noisy and the idle rough after a tune-up, adjust valve lash to specifications. Refer to the Engine Group for lash values and instructions.

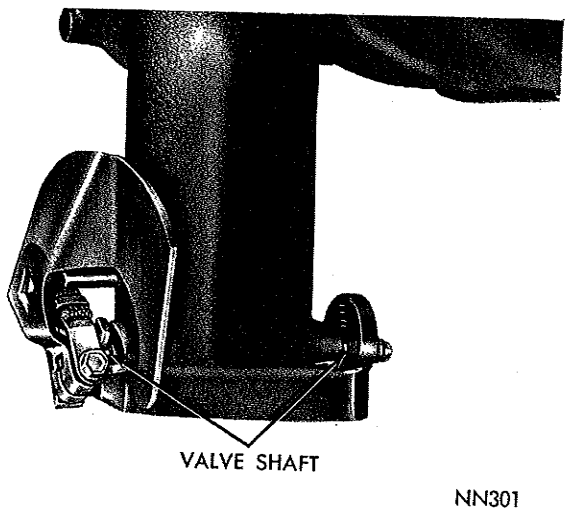

Fig. 34—Manifold Heat Control Valve (361, 383, 426 Cu. In. Engines)

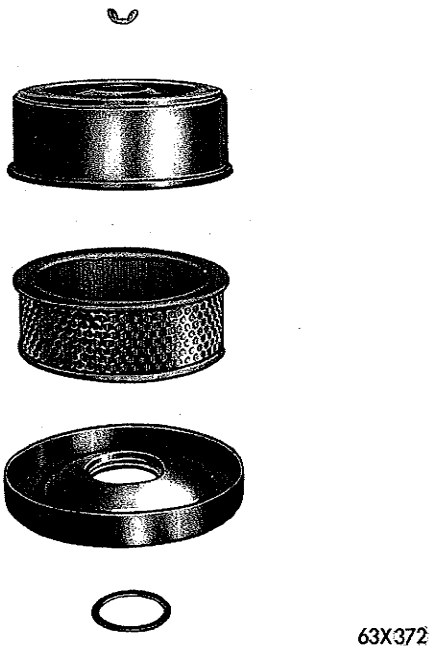

Fig. 35—Carburetor Air Cleaner (6-Cylinder Engines)

MANIFOLD HEAT CONTROL VALVE

Freedom of movement of the heat control valve, by removing lead deposits from the valve shaft bearings, is assured by application of suitable solvent. Such a solvent is available under Part Number 1879318, Manifold Heat Control Solvent.

Every six months apply solvent to each end of valve shaft at bushings (Fig. 31, 32, 33 or 34). Apply solvent with manifold is **COOL.** Allow solvent to soak a few minutes, then work valve shaft back and forth until it works freely.

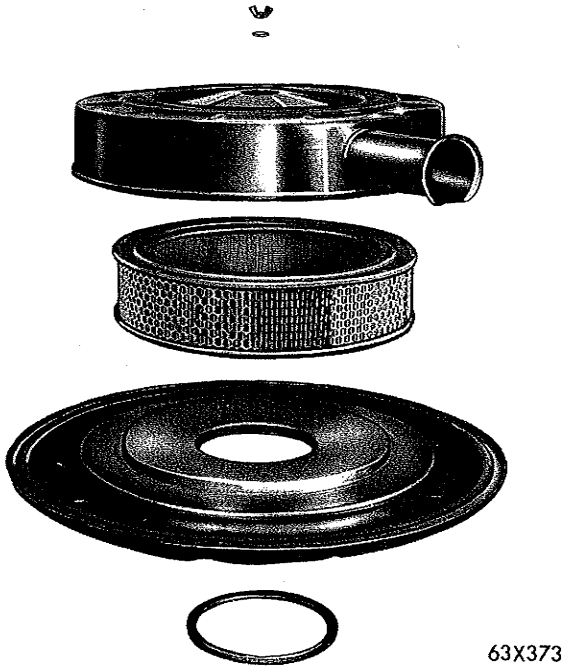

Fig. 36—Carburetor Air Cleaner (V-8 Engines)

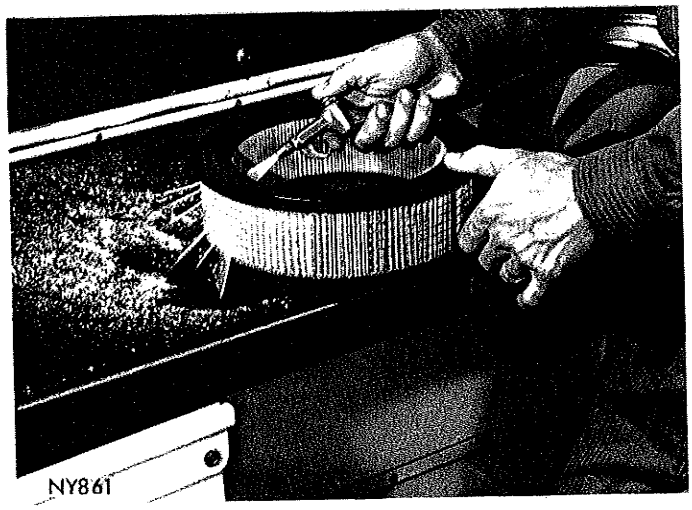

Fig. 37—Cleaning Filter Element

CARBURETOR AIR CLEANER

Paper Element Type

The paper filter element (Figs. 35 and 36) in the carburetor air cleaner should be cleaned every six months and replaced every two years. Use a Chrysler Corporation filter element or equivalent for replacement.

To clean, remove air cleaner from carburetor. Remove cover and filter element and clean the cover and housing. Using compressed air, gently clean element by holding air hoze nozzle at least two inches from the inside screen (Fig. 37).

CAUTION: Do not use compressed air on outside surface of element as this will embed foreign matter in the element paper.

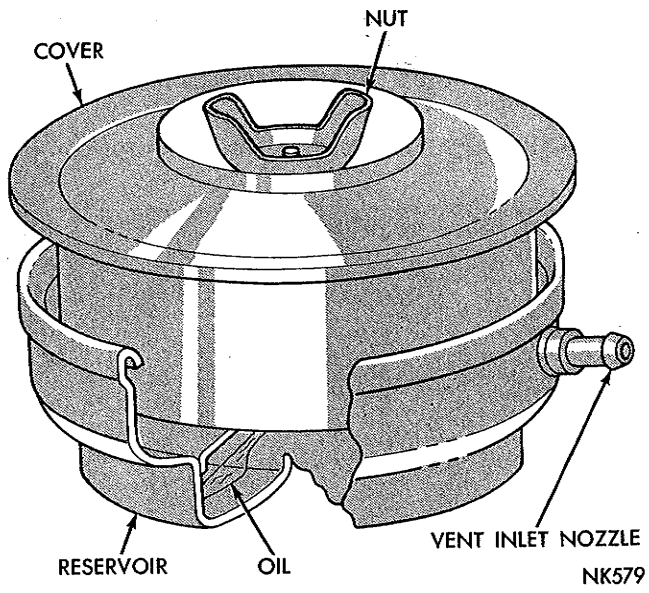

Fig. 38—Carburetor Air Cleaner (Oil Bath Type)

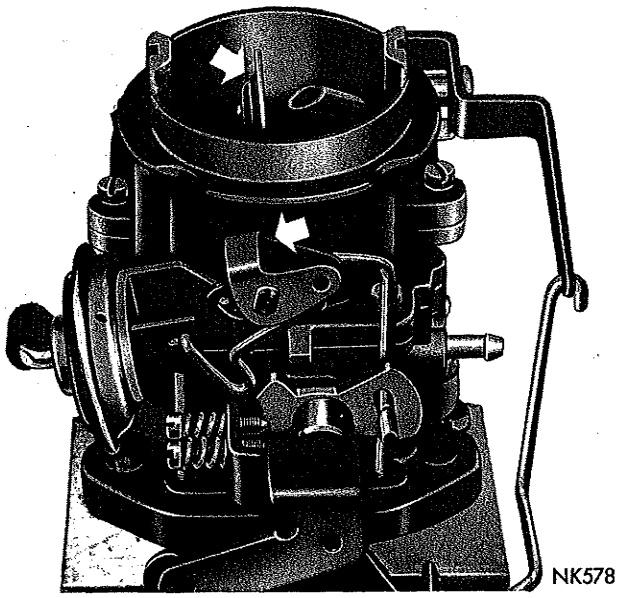

Fig. 39—Apply Solvent to Choke Shaft Ends

Examine element for punctures. Discard an element that has small pin-point punctures. Examine soft plastic sealing rings on both sides of element for smoothness and uniformity.

At this time also, service the Carburetor Choke Shaft, as outlined on this page.

Oil Bath Type (Extra Equipment)

The sediment level in the air cleaner (Fig. 38) should be examined every second oil change, or more frequently under severe operating conditions, such as in dusty areas.

Service the cleaner if sediment is within ⅜ inch of shelf or at least once a year.

To clean, remove cover and filter element. Wash element thoroughly in kerosene and drain. Clean the reservoir thoroughly and fill to indicated level with one pint SAE 10W-30 engine oil. This grade is suitable for all temperatures.

Reassemble cleaner and install on carburetor.

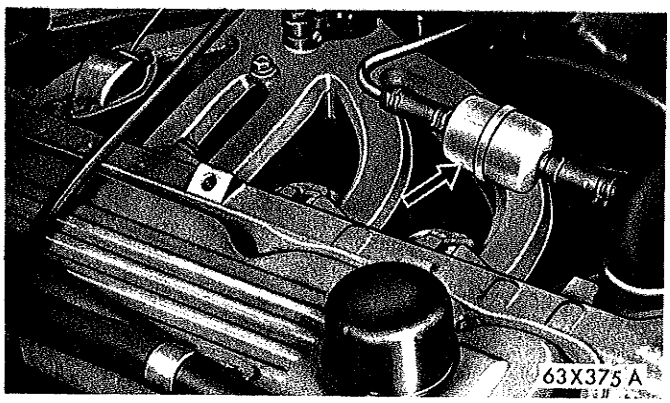

Fig. 40—Fuel Filter (6-Cyl. Engines)

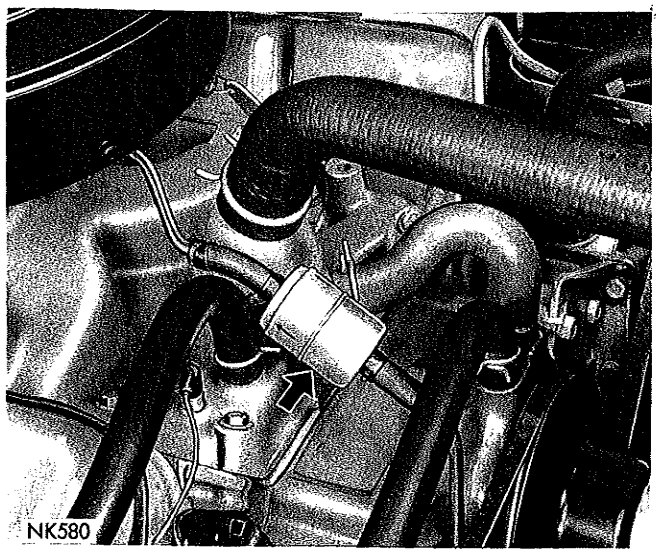

Fig. 41—Fuel Filter (273 Cu. In. Engine)

CARBURETOR CHOKE SHAFT

Gum deposits on the choke shaft bearings may be removed by applying a gum solvent. Such a solvent is available under Part Number 1643273, Carburetor Cleaner. This will assure freedom of movement of the choke shaft.

Every six months, with the air cleaner removed, apply cleaner to ends of choke shaft where it rotates in the air horn (Fig. 39). At the same time, move choke shaft back and forth until deposits are flushed out.

Run engine at idle to clean out any excess cleaner from carburetor and intake manifold.

FUEL FILTER

The fuel filter (Figs. 40, 41, and 42) is of the disposable type. Under average operating conditions, filter should be replaced every 2 years or 24,000 miles whichever occurs first. Should an excessive amount of foreign matter accumulate in fuel tank, filter may

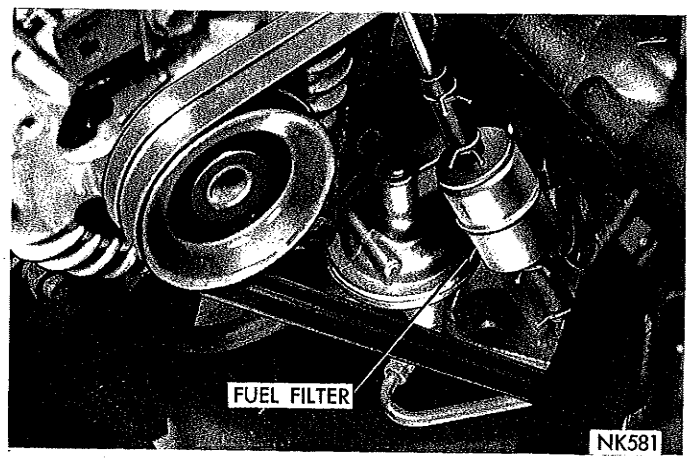

Fig. 42—Fuel Filter (318, 361, 383, 426 Cu. In Engines)

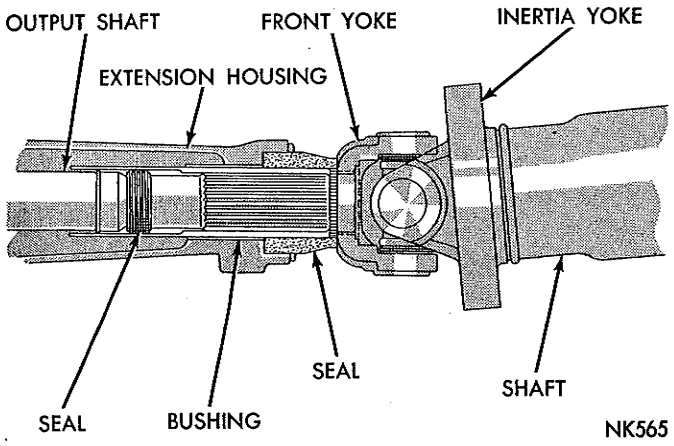

Fig. 43—Front Universal Joint with Automatic Transmission (Belvedere and Fury Models)

require replacing more frequently.

After installing new filter, run engine for several minutes and check for leaks at connections.

PROPELLER SHAFT AND UNIVERSAL JOINTS

Under normal operating conditions, relubrication of the universal joints is not required. Every six months, however, the front and rear joints (Figs. 43 and 44) should be inspected for external leakage at the bearing seals. The joints should not be disassembled for relubrication unless external leakage or damage is observed.

When necessary to replace seals, completely disassemble propeller shaft and joints and clean and inspect all parts for serviceability. Replace damaged parts. Repack bearings (Figs. 43 and 44) with Universal Joint Grease, NLGI grade "O."

Relubrication of the front universal joint splined yoke (Fig. 43) is required only when the propeller shaft is removed and disassembled for servicing.

When relubricating slip yoke, first thoroughly clean splines of output shaft and yoke. Then, spread

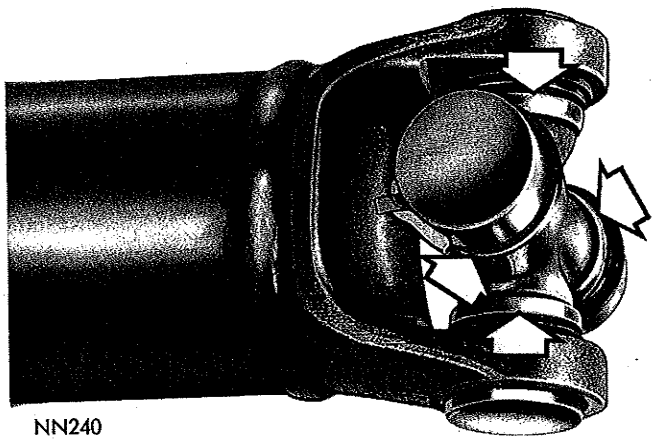

Fig. 44—Rear Universal Joint (All Models)

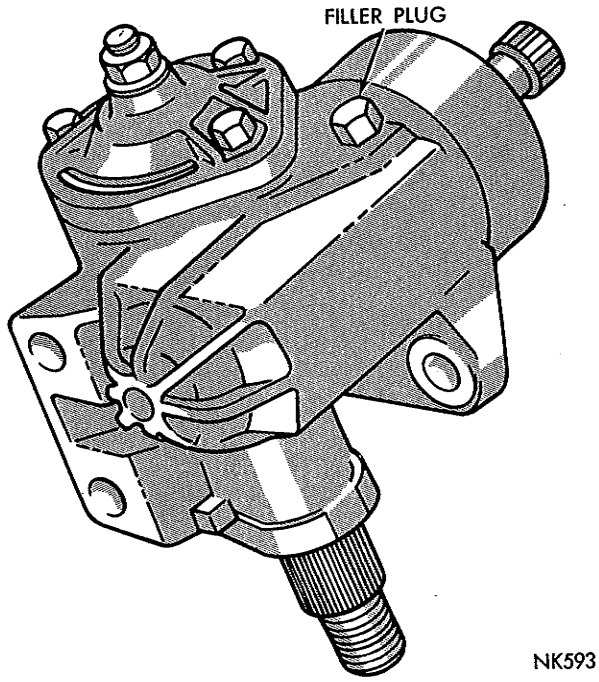

Fig. 45—Manual Steering Gear Lubrication

not to exceed 1/3 ounce of an Automotive Multi-Purpose Grease, NLGI, grade 2, containing extreme pressure additives and molybdenum disulfide, evenly over entire splined area of the yoke. Multi-Mileage Lubricant, Part Number 2525035, is satisfactory for this application.

Carefully examine rubber seal before reinstalling it in housing extension. If not serviceable, replace with a new one.

STEERING GEAR

Manual

The lubricant installed in the steering gear at the time of assembly is a high quality product and regularly scheduled changes are not required.

The fluid level, however, should be checked every six months, by removing filler plug (Fig. 45) to determine that lubricant completely covers worm gear.

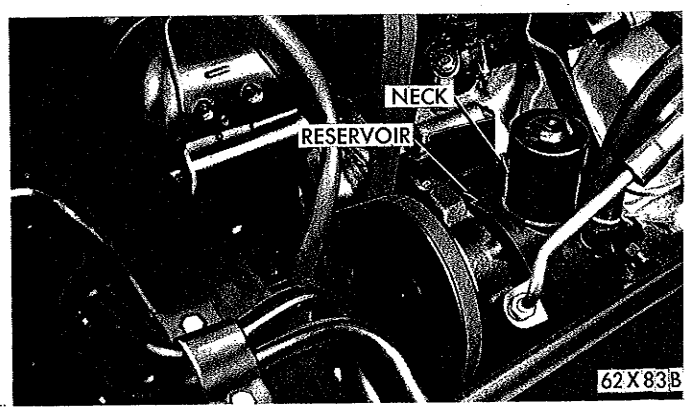

Fig. 46—Power Steering Pump Reservoir

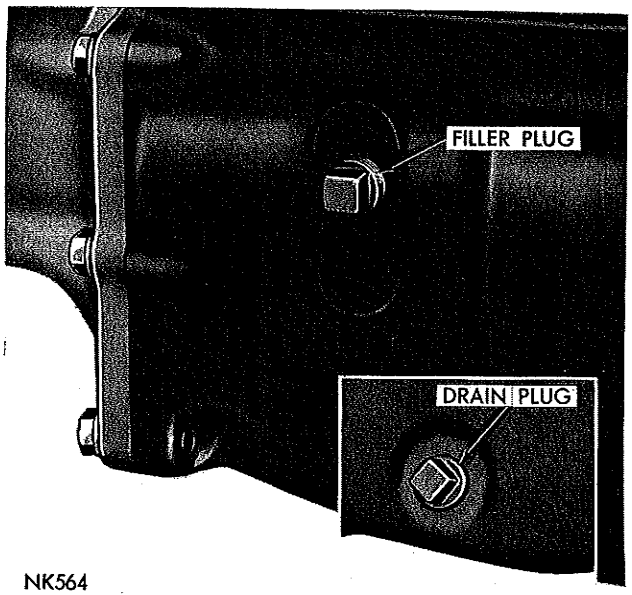

Fig. 47—Transmission Filler and Drain Plug

If additional lubricant is required to restore level, add sufficient quantity of Multi-Purpose Gear Oil SAE 90, as defined by MIL-L-2105B. This is suitable for all temperatures.

CAUTION: When filling, do not use a pressure gun as high pressure may damage the seals.

Power Steering

Check fluid level in power steering reservoir every six months. When fluid is **cold,** level should be at base of filler neck (Fig. 46). When fluid is **hot,** the level should be halfway up filler neck.

CAUTION: Before removing filler neck cap, wipe it carefully to prevent assumulated dirt from dropping into reservoir.

To restore level, if necessary, add sufficient hydraulic fluid specially formulated for minimun effect on rubber hoses. Such a fluid is available under Part Number 2084329, Power Steering Fluid.

TRANSMISSION

Manual Three-Speed Standard

The lubricant installed in the trnsmission at the time of assembly is a high quality product and regularly scheduled changes are not required for vehicles whose operation is classified as normal service for passenger cars.

The fluid level, however, should be checked every six months and determined that it is at the bottom of filler plug hole (Fig. 47). When necessary to replenish, refill as required, using only Automatic Transmission Fluid, AQ-ATF, Suffix "A" for all temperature ranges. Included in this group is Automatic Transmission Fluid AQ-ATF-2351A, available under Part Number 1843314. In warm weather, Multi-purpose Lubricant SAE 90, as defined by MIL-L-2105B may be used.

When vehicle is used for other than normal service, or for towing trailers, refer to "Trailer Towing Service," page 21, for recommended servicing.

Manual Four-Speed

The transmission is filled at the factory with a special gear lubricant and regularly scheduled changes are not required for vehicles whose operation is classified as normal service for passenger cars.

The fluid level, however, should be checked every six months and determined that it is at the bottom of the filler plug hole (Fig. 47). If necessary to replenish, use Multi-Purpose Gear Lubricant SAE 140, as defined by MIL-L-2105B.

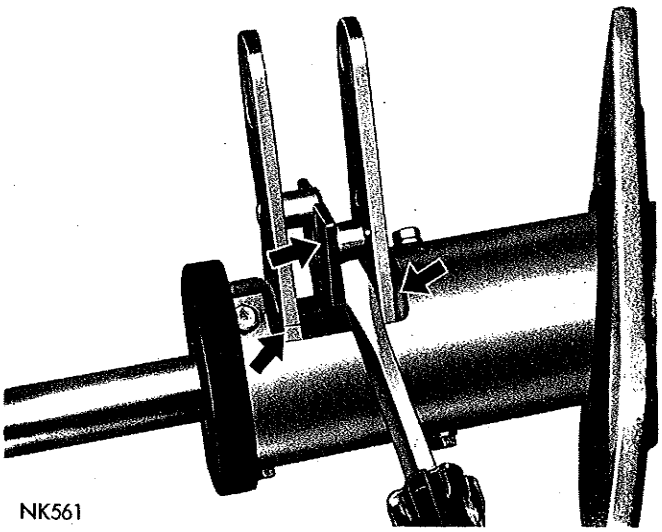

Fig. 48—Column-mounted Manual Transmission Gearshift Control Lubrication Points

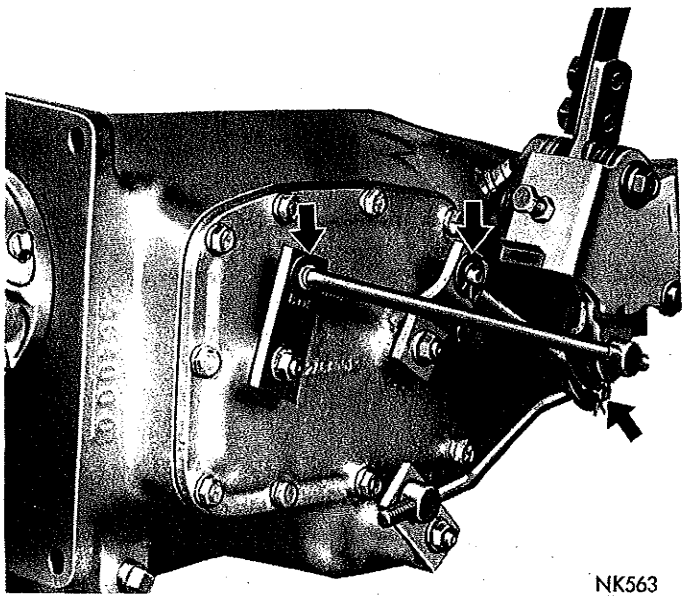

Fig. 49—Floor-Mounted Manual Transmission Gearshift Mechanism Lubrication Points

During cold weather, if shift effort becomes extremely high, transmission should be drained (Fig. 47) and refilled with Multi-Purpose Gear Lubricant SAE 80 or SAE 90, as defined by MIL-L-2105B or with Automatic Transmission Fluid, AQ-ATF, Suffix "A." Automatic Transmission Fluid should be replaced with Multi-Purpose Gear Lubricant SAE 140 in warm weather.

When the vehicle is used for other than normal service, or for towing trailers, refer to "Trailer Towing Service," see below, for recommended servicing.

Trailer Towing Service

For vehicles equipped with trailer towing service, or if the regular operation of the vehicle is classified as severe, the transmission lubricant should be changed periodically. Drain and refill with specified lubricant initially after 36,000 miles or 3 years, whichever occurs first and every 12,000 miles or 12 months, whichever occurs first, thereafter.

Column-Mounted Manual Transmission Gearshift Controls

If operation of the gearshift controls becomes noisy or the shift effort becomes objectionable, lubricate linkage at lower end of steering column (Fig. 48).

Apply a film of Multi-Mileage Lubricant, Part Number 2525035, or Automotive Multi-Purpose Grease, NLGI grade 2, to contact surfaces (Fig. 48).

Floor-Mounted Manual Transmission Gearshift Mechanism

If operation of the mechanism becomes difficult, remove rubber boot on floor panel and apply a few drops of light engine oil to the mechanism.

In addition, from under the vehicle, apply light engine oil to rod ends in operating levers (Fig. 49).

TRANSMISSION

Automatic

The fluid level should be checked every six months.

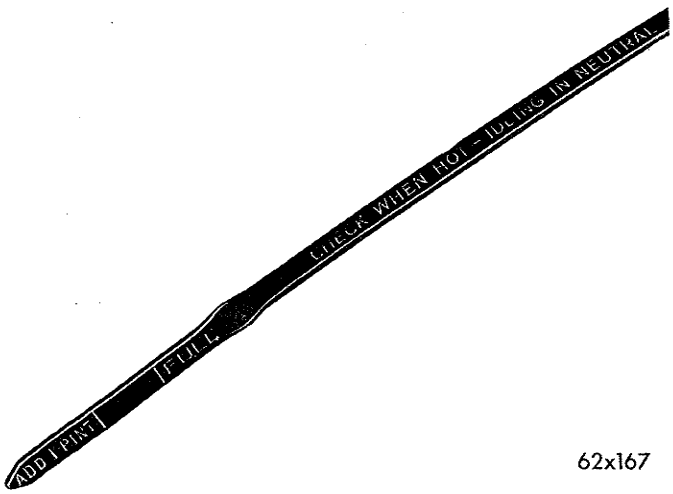

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Fig. 50—Transmission Dip Stick Markings

This check should be made when engine temperature gauge indicates a normal warmed-up condition and transmission fluid is heated to its normal operating temperature. While level may be determined when fluid is "cold," the preferred method is with the fluid "hot." Check level with parking brake applied firmly and the engine idling.

CAUTION: Before removing the level indicator, wipe off the cap and the top of the filler tube to prevent accumulated dirt from dropping into the transmission filler tube.

After engine has idled for about two minutes, move gearshift lever slowly through all gear positions, pausing momentarily in each and ending with lever in "N" position.

When fluid is "hot," level should be at the "FULL" mark, or slightly below, but **never above** the "FULL" mark (Fig. 50) to avoid foaming of the fluid. Fluid should be added or extracted, depending upon the reading, to restore level as prescribed.

If it is necessary to check level when transmission is "cold," fluid level should be at, or slightly below the "ADD ONE PINT" mark. If the level is below this mark, add one pint of fluid and recheck level.

Restore level, when necessary, using only Auto matic Transmission Fluid AQ-ATF, Suffix "A." Included in this group is Automatic Transmission Fluid AQ-ATF-2351A, available under Part Number 1843314. No other fluids are recommended except fluids from this group. Exception to this is a sealer which introduces a small amount of swelling to reduce fluid leakage resulting from hardening or shrinkage of the seals in high mileage vehicles. Such a product is available under Part Number 2298923, Transmission Sealer.

For vehicles operated under normal service conditions, the transmission fluid and filter will provide satisfactory lubrication and protection to the transmission. Therefore, periodic fluid changes are not required, except for hard usage and trailer towing service as explained as follows.

Trailer Towing Service and Hard Usage

For vehicles equipped for trailer towing service, or if the regular operation of the vehicle is classified as severe, the transmission fluid and filter should be changed periodically. Drain and refill the transmission with the specified fluid and replace the filter initially after 36,000 miles or 3 years, whichever occurs first and every 12,000 miles or every 12 months, whichever occure first, thereafter.

For transmission fluid draining and refilling service and filter replacement, see "TorqueFlite Transmission," Group 21.

FRONT WHEEL BEARINGS

The brake linings and front wheel bearings on cars equipped with either drum or disc brakes should be

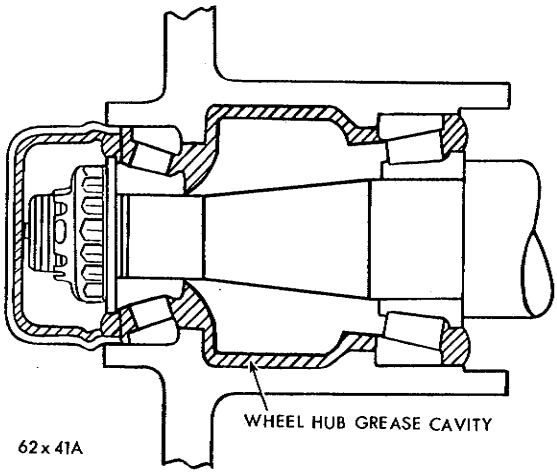

Fig. 51—Front Wheel Bearing Lubrication

inspected every 18 months or 18,000 miles whichever occurs first. The bearings should be cleaned and repacked whenever brake linings are replaced or brake drums resurfaced.

When an inspection of wheel bearings indicates lubricant is low in quantity, or contaminated with dirt or water to produce a milky appearance, bearings should be cleaned, inspected and relubricated if serviceable.

CAUTION: To avoid possible contamination of lubricant by mixing lubricants that are not compatible, do not add lubricant to the bearings.

Thoroughly clean old lubricant from bearings and hubs. Repack bearings and hubs with Automotive Multi-Purpose Grease, NLGI grade 2. When repacking hubs, (Fig. 51) make sure all surfaces of hub and outer grease cup interiors are covered with lubricant to minimize condensation and lubricant travel out of bearing. **DO NOT OVER FILL.**

Adjust bearings as follows:

(1) Install wheel and drum assemblies and tighten wheel nuts on Valiant models to 55 foot-pounds. On Belvedere and Fury models tighten nuts to 65 foot-pounds.

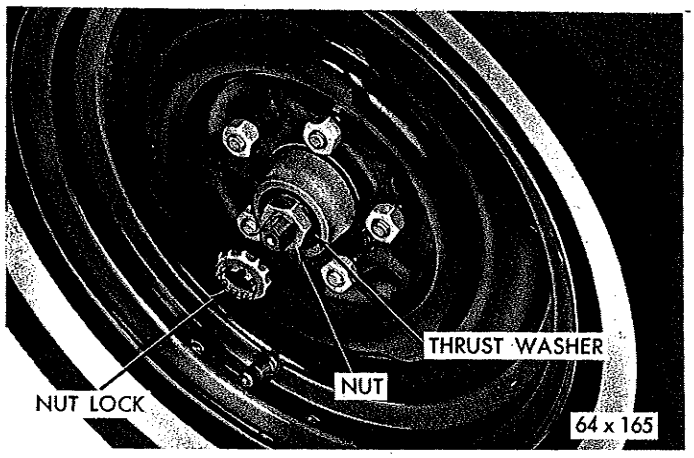

Fig. 52—Front Wheel Bearing Adjustment

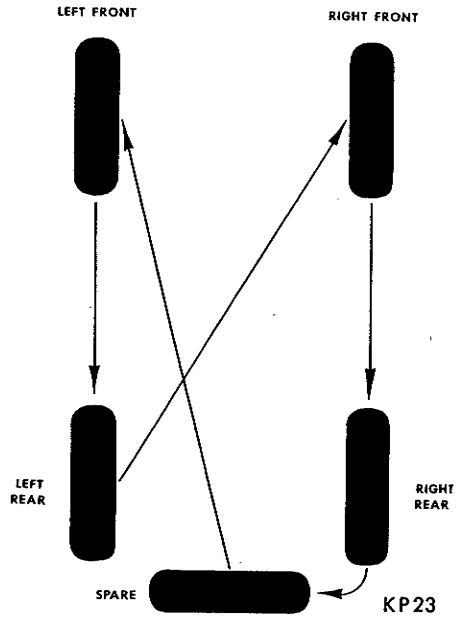

Fig. 53—Tire Rotation Diagram

(2) Tighten wheel bearing adjusting nut (Fig. 52) to 70 inch-pounds on Valiant models and 90 inch-pounds on Belvedere and Fury models, while rotating wheel.

(3) Position nut lock on adjusting nut so one pair of cotter pin slots align with hole in spindle.

(4) Back off adjusting nut and nut lock to the next slot and install cotter pin.

(5) Install wheel covers.

TIRES

Tires, including spare, should be rotated every second oil change according to tire rotation diagram (Fig. 53), to provide uniform wear, long tire life, and to retain confortable riding qualities.

Tires should be examined for unusual wear patterns, foreign material and proper inflation pressures. Unusual wear conditions may reflect a need for a change in driving habits or indicate that mechanical corrections may be necessary.

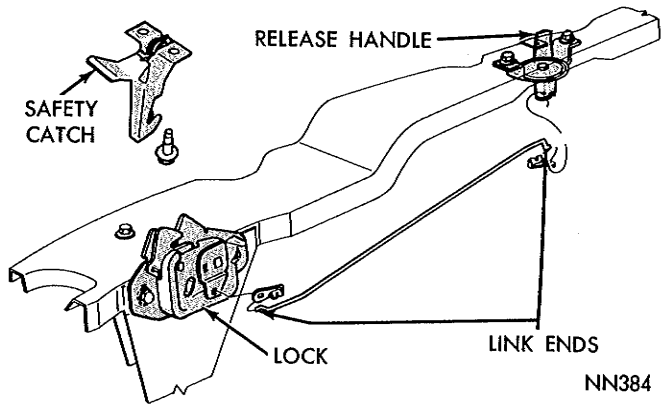

Fig. 54—Hood Lock Assembly (Valiant Models)

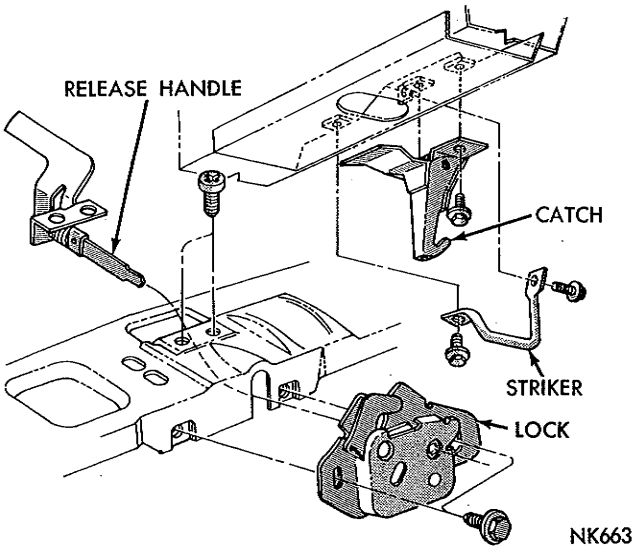

Fig. 55—Hood Lock Assembly (Belvedere and Fury Models)

Refer to Lubrication and Maintenance Charts (Figs. 1 and 2), for recommended inflation pressures.

SPEEDOMETER CABLE

To service a noisy speedometer cable, disconnect housing at speedometer head. Remove shaft and clean it thoroughly. Apply a very thin film of speedometer cable lubricant on the shaft. Such a lubricant is available under Part Number 1243632, Speedometer Cable Lubricant. Wipe excess lubricant from the top one-foot of the shaft and from the ferrule.

CAUTION: Excessive lubricant may cause malfunction of the speedometer.

Hood Lock, Release Mechanism and Safety Catch

Lubrication of the hood lock mechanism and safety catch is of vital importance to assure ease of operation and freedom from binding.

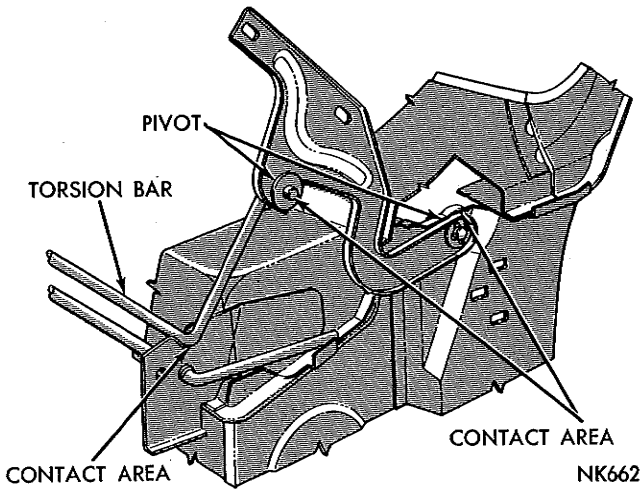

Fig. 56—Hood Hinge Lubrication Points (Valiant Models)

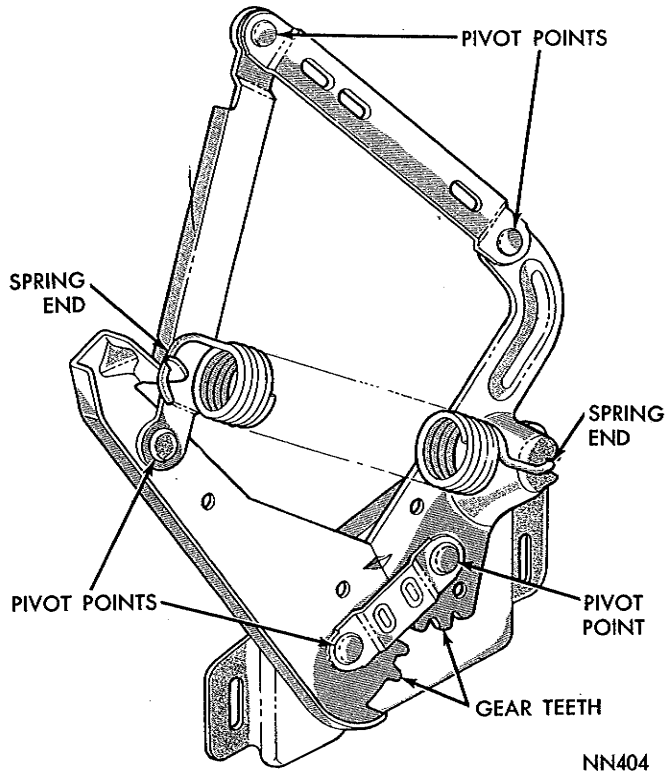

Fig. 57—Hood Hinge Lubrication Points (Belvedere Models)

Apply Automotive Multi-Purpose Lubricant, NLGI grade 2, sparingly, to all link ends and pivot and sliding contact areas (Figs. 54 and 55). Work the lubricant in the lock mechanism until all frictional surfaces are covered.

BODY MAINTENANCE

Body and other operating mechanisms, including throttle linkage, should be inspected, and relubricated if necessary, every six months. This is necessary to

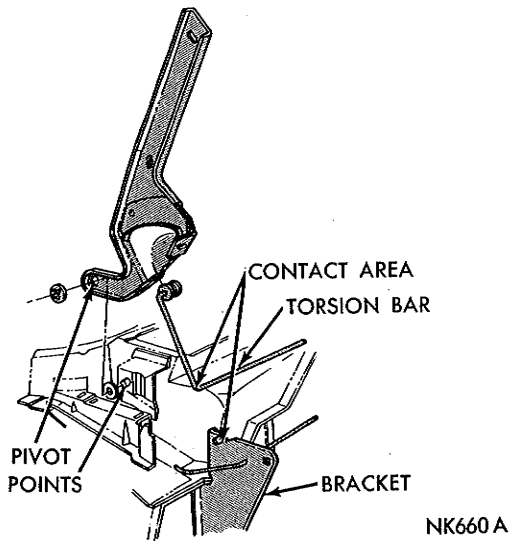

Fig. 58—Hood Hinge Lubrication Points (Fury Models)

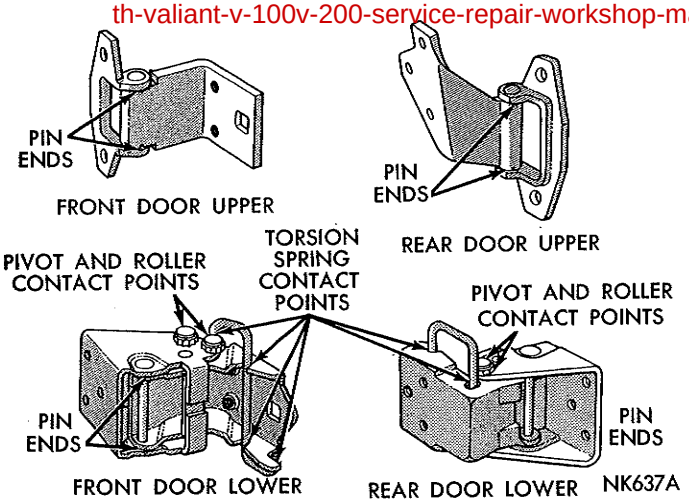

Fig. 59—Door Hinge Lubrication Points (Valiant Models)

maintain ease of operation and to provide protection against rust and wear.

Prior to applying any lubricant, wipe the parts clean to remove dust and grit. Excess oil or lubricant should also, be romoved.

Relubricate mechanisms as outlined in the following paragraphs.

Where Lubriplate is specified, use a smooth, white body hardware lubricant conforming to NLGI, grade 1. A suitable lubricant is available under Part Number 1064768.

Where Door Ease is specified, use a stainless wax type lubricant. Such a lubricant is available under Part Number 1064769.

Lock Cylinders

When necessary, apply a thin film of Lubriplate directly to key. Insert key into lock and actuate several times. Wipe excess lubricant from key.

Particular attention should be given to external lock cylinders during fall and winter months to insure protection from water and ice.

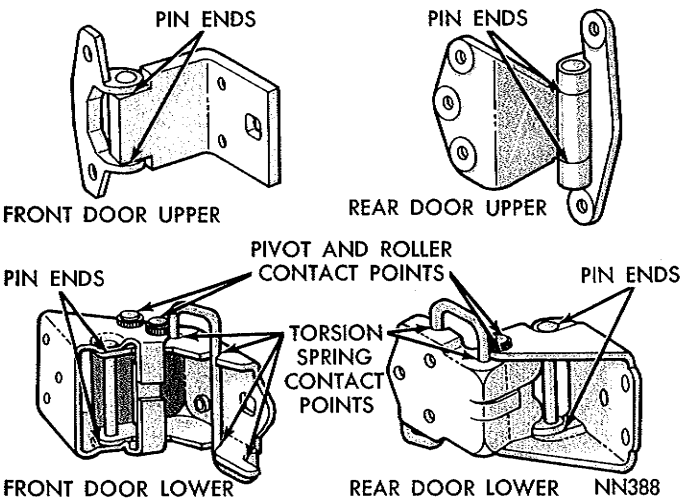

Fig. 60—Door Hinge Lubrication Points (Belvedere Models)

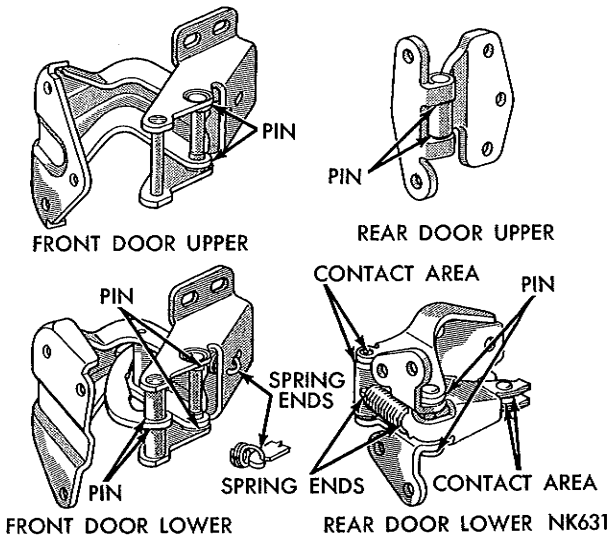

Fig. 61—Door Hinge Lubrication Points (Fury Models)

Hood Hinges (Valiant Models)

Apply Lubriplate, sparingly, to all pivot points and torsion bar contact areas (Fig. 56). **Do not apply lubricant to torsion bar roller to cam surfaces.**

Hood Hinges (Belvedere Models)

Apply Lubriplate, sparingly, to all pivot points, gear teeth and spring ends (Fig. 57).

Hood Hinges (Fury Models)

Apply Lubriplate, sparingly, to all pivot points and torsion bar contact areas (Fig. 58). **Do not apply to torsion bar roller to cam surfaces.**

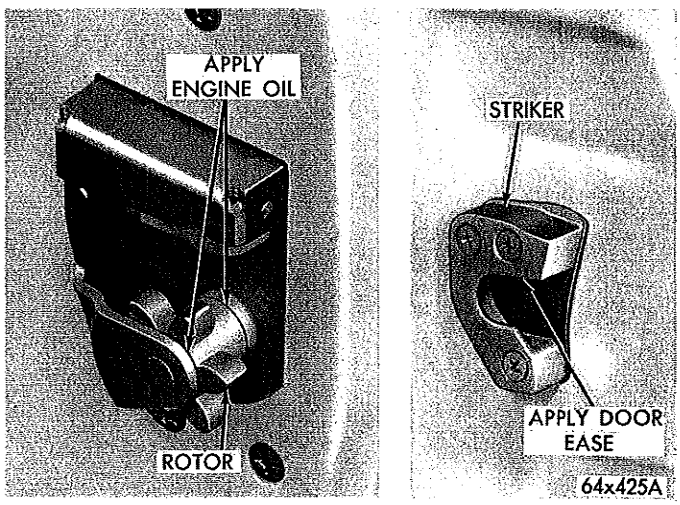

Fig. 62—Door Striker Rotor and Striker Plate Lubrication Points All Models