

# LUBRICATION

## ENGINE OIL

Some oils contain chemical detergents which hold extremely small particles of carbon or other foreign matter in suspension. For this reason, oil which is perfectly good for lubrication purposes may be discolored when seen on the oil level gage. With such oils, the need for an oil change should be governed by the mileage the oil has been used and the dust conditions prevalent during that mileage. As long as the oil retains a "slick" quality and good body, it is generally satisfactory.

In spring, fall, and winter, the grade of oil that will assure easy starting at the lowest expected atmospheric temperature should be used.

### Multi-Viscosity Oils

Multi-viscosity oils are those which the refiner claims will meet both the low temperature S.A.E. requirements of a light oil and the high temperature S.A.E. requirements of a heavier oil. Such an oil would provide good cold starting characteristics without sacrificing load bearing film strength when high temperatures are encountered. Oils which meet the special S.A.E. low temperature requirements at 0°F. have been identified by the addition of the letter "W" in the designation (S.A.E. No. 10W, S.A.E. No. 20W, etc.), while oils which meet the regular S.A.E. high temperature requirements at 210°F. have no letter in the designation (S.A.E. No. 10, S.A.E. No. 20, S.A.E. No. 30). Multi-viscosity oils would carry both types of markings.

For example, an oil which is labeled "S.A.E. No. 10W-30" would be considered to meet both the low temperature S.A.E. specifications for an S.A.E. No. 10W oil, and the high temperature S.A.E. specifications for an S.A.E. No. 30 oil.

We recommend the use of single viscosity oils based on the lowest anticipated temperatures; however, multi-viscosity oils are an acceptable alternate.

The use of multi-viscosity oil does not in any way affect our recommendations regarding regular and periodic engine oil drain and refill.

### Combined Service Ratings

Many oil companies are now producing oils which they claim will meet more than one of the American Petroleum Institute's service rating requirements. These service ratings are as follows: ML, MM, MS, DG, and DS. The first letters "M" and "D" signify Motor and Diesel, respectively. The second letter indicates the type of service, as follows: For gasoline engines: L-Light; M-Medium; S-Severe. For diesel engines: G-General; S-Severe.

For example, oils which are marked "For Service ML" are intended for use in cars which are driven mostly at moderate speeds, with no severe low or high temperature use. Oils which are marked "For Service MM" are intended for use in cars which are operated at high speeds only intermittently and which are never subjected to extensive start and stop type of operation or prolonged idling. Also, these oils are not intended for use in engines which are subjected to the extremes of temperature which occur in many parts of the country.

Oils which are marked "For Service MS" are intended for use in cars which are subjected to the start and stop, short run type of operation so often encountered in urban areas and/or high temperature, heavy load, or sustained high speed operation.

We recommend oils from containers labeled "For Service MS" alone or in combination with any of the following: MM, ML, or DG. We recommend against the use of any oil from a container labeled "For Service DS," or showing the classification DS in combination with any other classification.

LOWEST TEMPERATURE ANTICIPATED	OIL RECOMMENDATION	ACCEPTABLE ALTERNATE
32° above zero F. (0°C.)	S.A.E. No. 30	{S.A.E. No. 10W-30 {S.A.E. No. 20W-40
10° above zero F. (12° below zero C.)	S.A.E. No. 20W	S.A.E. No. 10W-30
10° below zero F. (23° below zero C.)	S.A.E. No. 10W	S.A.E. No. 10W-30
Under 10° below zero F. (23° below zero C.)	S.A.E. No. 5W	S.A.E. No. 5W-20

### OIL PAN CAPACITIES

	U. S. QUARTS	IMP. QUARTS	LITERS
All Models	5	4.14	4.73

### OIL LEVEL

The oil level gage is marked to indicate the oil level in the oil pan. The "Full" mark indicates the capacity. Never allow the oil level to drop below the point marked "Add Oil." Do not carry the oil level above the "Full" mark. Do not check the oil immediately after engine is stopped, allow a few minutes for internal draining and level stabilization.

### Initial Operation

Engine oil should be changed at least by the end of the first 1000 miles (1609 km.). After this period, the oil should be changed regularly, the frequency depending on the condition of the oil as affected by operating and atmospheric conditions.

### Average Driving Conditions

Under average driving conditions, oil should be changed at 2500 to 3000 miles (4023 to 4828 km.) intervals. Seasonal changes can be made at the regular draining periods.

### Abnormal Driving Conditions

Under severe dust conditions, it is advisable to change the engine oil more frequently. Proper servicing of the carburetor air cleaner and oil filter, if so equipped, will be of material assistance in minimizing contamination of the engine oil under these conditions.

Short runs in cold weather with frequent stops and starts increase the possibility of oil dilution because the engine does not reach normal operating temperature. The oil should be changed more frequently under these conditions.

### REAR AXLE

Use Studebaker hypoid lubricant or any S.A.E. No. 90 hypoid lubricant (multipurpose gear lubricant) for summer and winter. Do not mix various brands of hypoid lubricants. Use light engine oil for flushing. Do not use kerosene. Fill to level of the filler plug hole. Check level every 1000 miles (1609 km.). Drain, flush, and fill every 10,000 miles (16,090 km.).

During seasonal periods where temperatures of  $-10^{\circ}\text{F}$ . or below are commonly encountered, S.A.E. No. 80 gear lubricant may be used. However, this lubricant is not recommended for year-round use, or where an extended trip takes the vehicle from the cold area into warmer climates.

### Rear Axle Capacities

	U. S. PINTS	IMP. PINTS	LITERS
56G .....	2.50	2.08	1,175
56B, 56H, 56J .....	3.00	2.50	1,43

### CARBURETOR AIR CLEANER

#### Servicing—Oil Bath Type

Remove air cleaner and filtering element assembly. Wash element in kerosene and drain thoroughly.

Clean out the oil reservoir and fill to the indicated level mark stamped on the inside of the lower metal housing. The capacity of the reservoir is 1 pint (0,47 liter). Use S.A.E. No. 40 or 50 engine oil for above  $32^{\circ}\text{F}$ . ( $0^{\circ}\text{C}$ .) and S.A.F. No. 20 engine oil for below  $32^{\circ}\text{F}$ . ( $0^{\circ}\text{C}$ .). Do not use an oil lighter than S.A.E. No. 20.

Install the clean filtering element and air cleaner assembly.

The oil bath type air cleaner is used mostly in territories where the dust conditions are severe, so it will also require frequent servicing. Once a week usually will be sufficient, but under dust storm conditions the cleaner should be serviced daily and in some cases more frequently.

#### Servicing—Dry Type (Fram)

Remove the air cleaner cover. Remove the filtering element and shake off dust by jarring it lightly against a solid object. CAUTION. — Do not use compressed air or any solvent cleaners on this element.

The type of roads over which the car is operated and the amount of service to which it is subjected, will determine how often it will be necessary to clean the element.

For cars operated on paved roads only and where dust conditions are not prevalent, the cleaner element should be serviced at 1000 miles (1609 km.) intervals. Under severe dust conditions, however, it should be serviced daily and in some cases more frequently. The filter element should be changed every six months or 10,000 miles (16,090 km.) whichever occurs first.

### TRANSMISSION

Use S.A.E. No. 90 high grade mineral oil gear lubricant (regular type gear lubricant) for summer and winter. If mineral oil gear lubricant is not available, use S.A.F. No. 40 engine oil. Do not use gear lubricant containing extreme pressure ingredients such as lead, sulphur, or chlorine compounds. Check level every 1000 miles (1609 km.). Drain, flush, and fill every 10,000 miles (16,090 km.).

Drain the overdrive transmission by removing the drain plugs from both the overdrive case and main case. Also remove both filler plugs. Fill the transmission slowly through the hole in the main case. When the lubricant level has reached the fill hole in the overdrive case, install the plug in the overdrive case. Continue to add lubricant to the main case until the level reaches the fill hole. Install the main case plug.

### Transmission Capacities

	U. S. PINTS	IMP. PINTS	LITERS
CONVENTIONAL			
56G .....	1.6	1.33	0,75
56B, 56H .....	2.4	2.00	1,14
OVERDRIVE			
56G .....	2.75	2.29	1,36
56B, 56H except Y .....	3.4	2.83	1,61
56H(Y), 56J .....	3.70	3.09	1,74

### AUTOMATIC TRANSMISSION

It is recommended that Type A (AQ-ATF) fluid be used in all automatic transmissions. Check level every 1000 miles (1609 km.), drain and refill every 15,000 miles (24,135 km.). See Transmission section—Flightomatic or Ultramatic—Maintenance.

	U. S. QUARTS	IMP. QUARTS	LITERS
Flightomatic .....	9	7.5	8,6
Ultramatic .....	11	9.5	10,9

### POWER STEERING

It is recommended that only Type A (AQ-ATF) Automatic Transmission Fluid (AC-2261) be used in the hydraulic system of the power steering unit. Check the fluid level in the reservoir above the hydraulic pump at 5000 miles (8045 km.) intervals. Maintain the fluid level at the mark indicated on the side of the reservoir.

In the gear housing, Multipurpose S.A.E. No. 90 gear lubricant should be used. Remove the gear housing filler plug with vent every 5000 miles (8045 km.) and check the lubricant level. The level should be up to the filler opening.

Do not use a pressure gun to fill the gear housing because lubricant may be forced through the seals into the hydraulic system.

**OIL FILTER****56H(Y), 56J (Optional Equipment on all other models)**

Under normal conditions the oil filter cartridge should be replaced at 5000 to 6000 miles (8045 to 9654 km.) intervals. Where severe dust conditions prevail, it will be necessary to replace the cartridge at correspondingly lower intervals. After replacement of the filter cartridge, it is necessary to add a quart of oil to maintain the proper oil level in the pan.

**POWER BRAKE UNIT**

Use only Vacuum Cylinder Oil. Remove the pipe plug at the rear of the cylinder shell and inject 1 oz. (29,6 cc.) of cylinder oil into the shell. To facilitate the lubrication of the unit, remove the mounting bracket bolts and, without disconnecting the lines, shift the unit to provide access to the pipe plug. A lubrication gun with a flexible nozzle, similar to that used for filling shock absorbers, may be used.

**AXLE SHAFT BEARINGS**

The axle shaft bearings should be lubricated with wheel bearing lubricant or a high melting point lubricant. *NOTE.—Never mix different brands of wheel*

*bearing lubricants.*

To lubricate, remove the pipe plugs and temporarily install lubrication fittings. Open the vent hole above each pipe plug hole with a piece of wire before lubricating. Then using a low pressure gun, apply lubricant until the lubricant is forced out of the vent hole. Then remove the lubrication fittings and install the pipe plugs.

**OIL BREATHER TUBE AIR FILTER****56G Models**

Remove the cotter pin which holds the filter element in the lower end of the breather tube, and pull the element out of the tube, using a suitable wire hook. Wash the element in clean kerosene and allow it to dry thoroughly. Then wet the element with light engine oil and install it in the breather tube. Install the cotter pin.

**OIL FILLER TUBE CAP AIR FILTER**

Service every 1000 miles (1609 km.), or daily if dust conditions are severe. Wash the element in kerosene and allow to dry thoroughly. Apply light engine oil to element.

**POINTS TO BE INSPECTED AT TIME OF LUBRICATION****INSPECTION BEFORE CAR IS ON LIFT**

**BATTERY**—Check the specific gravity, add distilled water if necessary. Inspect the battery cables and terminals. Tighten the carrier bolt nuts (finger tight).

**BRAKE PEDAL**—Check the pedal for 1/16" to 3/16" (1,6 mm. to 4,8 mm.) free travel (before the master cylinder rod starts to move).

**CARBURETOR**—Inspect for external leaks.

**CLUTCH PEDAL**—Check pedal for 1/2" to 1" (12,7 mm. to 25,4 mm.) free-travel on all models except 56J. On the 56J the pedal free travel is 1 1/2" (38,1 mm.).

**COOLING AND HEATING SYSTEM**—Check coolant level and, in season, test antifreeze strength. Inspect radiator, water pump, radiator hoses, heater hoses, and connections for leaks.

**ENGINE OIL** — Check oil level. Need for an oil change is governed by condition of oil.

**FAN BELT—GENERATOR**—Check condition and adjustment of fan belt and tightness of generator attaching bolts.

**FUEL PUMP** — Inspect fuel pump sediment bowl and clean if necessary. Check fuel pump for leaks.

**FRONT SUSPENSION**—Check for free rebound.

**GENERAL**—Inspect condition of floor mats and pedal pads. Inspect door checks, locks, and hinges.

**MANIFOLD HEAT VALVE**—Check for freeness of operation.

**VALVE COVERS, OIL PUMP, ETC.**—Check for oil leaks.

**WIRING** — Inspect under-the-hood wiring for loose connections and condition of cables.

**INSPECTION WHILE CAR IS ON LIFT**

**BRAKES**—Check for brake drag and for fluid leaks.

**BUMPERS**—Inspect for looseness.

**CLUTCH—BRAKE—TRANSMISSION LINKAGE**—Check for excessive play at connections.

**CLIMATIZER CORE AND HOSES**—Inspect for fluid leaks.

**FRONT SUSPENSION**—Check condition of upper and lower control arm assemblies.

**FRONT WHEEL BEARINGS — STEERING KNUCKLE — PINS AND BEARINGS**—Check for looseness and wear.

**GASOLINE TANK**—Inspect for leaks and damage.

**MUFFLER**—Check condition of muffler, exhaust and tail pipes, and mountings.

**OIL PAN—CLUTCH HOUSING**—Inspect for oil leaks.

**PARKING BRAKE**—Inspect condition of cables.

**REAR AXLE**—Check for leakage.

**REAR AXLE SHAFTS**—Check for excessive end play and grease leaks at wheels.

**REAR SPRINGS**—Check for loose spring U bolts. Check for broken spring leaves.

**SHOCK ABSORBERS**—Check for fluid leakage and mounting bolts for tightness.

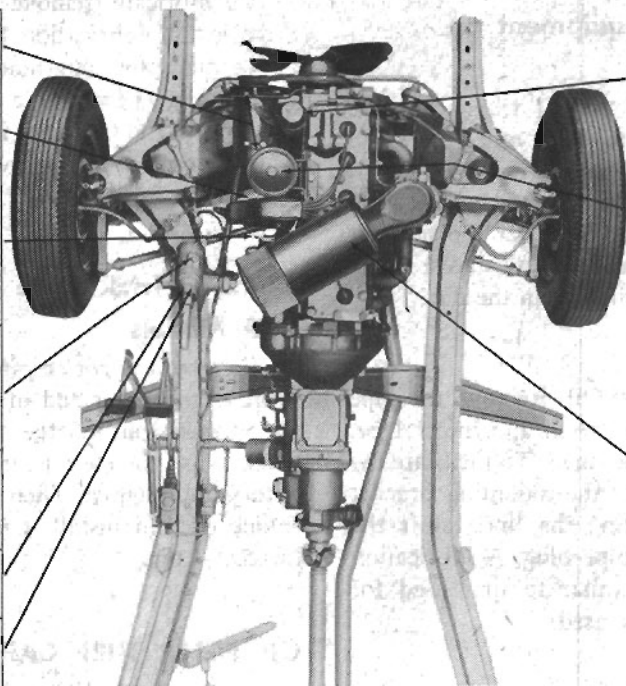
**STEERING SYSTEM**—Inspect steering gear and all steering linkage for excessive play and wear.

**TIRES**—Inspect for cuts, bruises, and excessive wear.

**TRANSMISSION**—Check for oil leakage.

**UNIVERSAL JOINTS—PROPELLER SHAFT SUPPORT**—Check for looseness.

★	<b>GENERATOR</b> 2 Oils—SAE No. 20 Engine Oil.
★	<b>DISTRIBUTOR</b> SAE No. 20 Engine Oil—3 to 5 Drops on Felt Under Rotor and in Oil Cup or Side. Small Amount of Petroleum Jelly on Cam.
★	<b>ENGINE OIL LEVEL GAGE</b> Check Oil Level. Add or Change Oil as Required. Crankcase Capacity — 5 U. S. Quarts. Lowest Temp. Oil Viscosity Anticipated SAE 30 -32° F. SAE 20 10° F. SAE 10W Below 10° F. SAE 5W
★	<b>STEERING GEAR*</b> Ross—Use Kendall 400, if Not Available Use Kendall 200 Oil. Saginaw—Multi-Purpose SAE 90 Gear Lubricant. Do not use pressure gun to fill gear case.
★	<b>POWER STEERING UNIT CHECK LEVEL</b> <b>LUBRICANT</b> —Use Type A (AQ-ATF) Automatic Transmission Fluid.
★	<b>HAND CONTROL SHAFT</b> (Automatic Transmission Only) —1 Fitting—Chassis Lubricant.
★	<b>GEARSHIFT LEVERS</b> (Except Automatic Transmission)—1 Fitting—Chassis Lubricant.
1,000 Miles (1,609 Km.)	
5,000 Miles (8,046 Km.)	
10,000 Miles (16,090 Km.)	



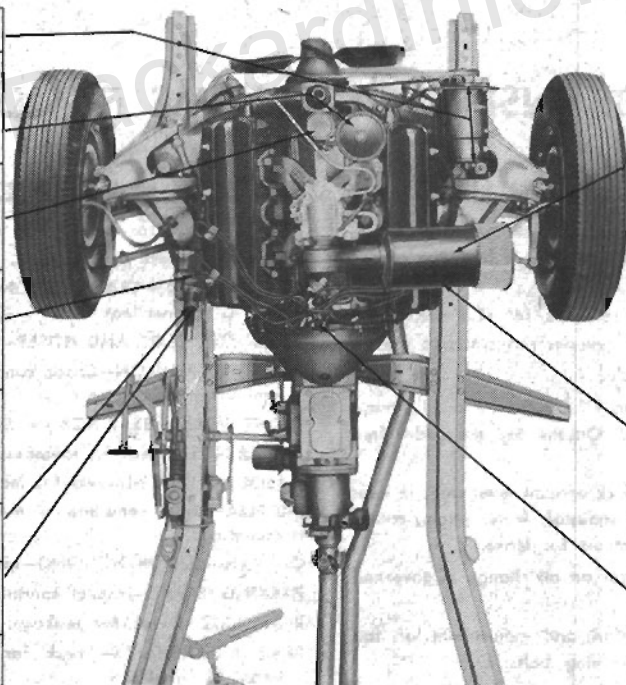
56G MODELS

The Lubrication Periods Established Are For Average Use and Should Be Changed to Suit Individual Operating Conditions.  
\*The make of steering gear can be identified by location of filler plug. On Ross, it is at upper end of housing. On Saginaw, it is on a boss near center of housing.

★	<b>OIL FILLER TUBE CAP</b> Service Every 1,000 Miles or Daily if Dust Conditions are Severe. Wash the Element in Kerosene and Allow to Dry Thoroughly. Apply Light Engine Oil to Element.
★	<b>OIL FILTER</b> Under Normal Conditions, Replace Cartridge After Five to Six Thousand Miles of Operation. More Often Under Severe Dust Conditions.
★	<b>AIR CLEANERS</b> Service Every 1,000 Miles or More Often Under Severe Dust Conditions.
★	<b>Carburetor</b> To Service Oil Bath Type, Remove Cleaner, Wash Filter Element in Kerosene and Drain Thoroughly. Clean Oil Reservoir and Refill to Indicated Level. Use SAE 40 or 50 Engine Oil for above +32° F. and SAE 20 Engine Oil for below -32° F. Do Not Use an Oil Lighter than SAE 20. To Service Dry Type, Remove Element and Shake Off Dust by Jarring Lightly Against a Solid Object. Do Not Use Compressed Air or Solvents to Clean Element.
★	<b>Power Brake Unit</b> To Service, Remove Element and Wash in Solvent. Dry, then Saturate With Light Engine Oil.
1,000 Miles (1,609 Km.)	
5,000 Miles (8,046 Km.)	
10,000 Miles (16,090 Km.)	

Fig. 1

★	<b>GENERATOR</b> 2 Oils—SAE No. 20 Engine Oil.
★	<b>OIL FILTER</b> Under Normal Conditions, Replace Cartridge After Five to Six Thousand Miles of Operation. More Often Under Severe Dust Conditions.
★	<b>OIL FILLER TUBE CAP</b> Service Every 1,000 Miles or Daily if Dust Conditions are Severe. Wash the Element in Kerosene and Allow to Dry Thoroughly. Apply Light Engine Oil to Element.
★	<b>STEERING GEAR*</b> Ross—Use Kendall 200 Oil. Saginaw—Multi-Purpose SAE 90 Gear Lubricant. Do not use pressure gun to fill gear case.
★	<b>POWER STEERING UNIT CHECK LEVEL</b> <b>LUBRICANT</b> —Use Type A (AQ-ATF) Automatic Transmission Fluid.
★	<b>GEARSHIFT LEVERS</b> (Except Automatic Drive) — 1 Fitting—Chassis Lubricant.
★	<b>HAND CONTROL SHAFT</b> (Automatic Drive Only) — 1 Fitting—Chassis Lubricant.
1,000 Miles (1,609 Km.)	
5,000 Miles (8,046 Km.)	
10,000 Miles (16,090 Km.)	



56B, 56H AND 56J MODELS

The Lubrication Periods Established Are For Average Use and Should Be Changed to Suit Individual Operating Conditions.  
\*The make of steering gear can be identified by location of filler plug. On Ross, it is at upper end of housing. On Saginaw, it is on a boss near center of housing.

★	<b>AIR CLEANERS</b> Service Every 1,000 Miles or More Often Under Severe Dust Conditions.
★	<b>Carburetor</b> To Service Oil Bath Type, Remove Cleaner, Wash Filter Element in Kerosene and Drain Thoroughly. Clean Oil Reservoir and Refill to Indicated Level. Use SAE 40 or 50 Engine Oil for above +32° F. and SAE 20 Engine Oil for below -32° F. Do Not Use an Oil Lighter than SAE 20. To Service Dry Type, Remove Element and Shake Off Dust by Jarring Lightly Against a Solid Object. Do Not Use Compressed Air or Solvents to Clean Element.
★	<b>Power Brake Unit</b> To Service, Remove Element and Wash in Solvent. Dry, then Saturate With Light Engine Oil.
★	<b>ENGINE OIL LEVEL GAGE</b> Check Oil Level. Add or Change Oil as Required. Crankcase Capacity — 5 U. S. Quarts. Lowest Temp. Oil Viscosity Anticipated SAE 30 -32° F. SAE 20W 10° F. SAE 10W Below 10° F. SAE 5W
★	<b>DISTRIBUTOR</b> SAE 20 Engine Oil on Felt Under Rotor, in Cup and on 56B and 56H on Felt Between Breaker and Support Plates; Also One Drop on Breaker Lever Pivot; Small Amount of Petroleum Jelly on Cam.
1,000 Miles (1,609 Km.)	
5,000 Miles (8,046 Km.)	
10,000 Miles (16,090 Km.)	

Fig. 2

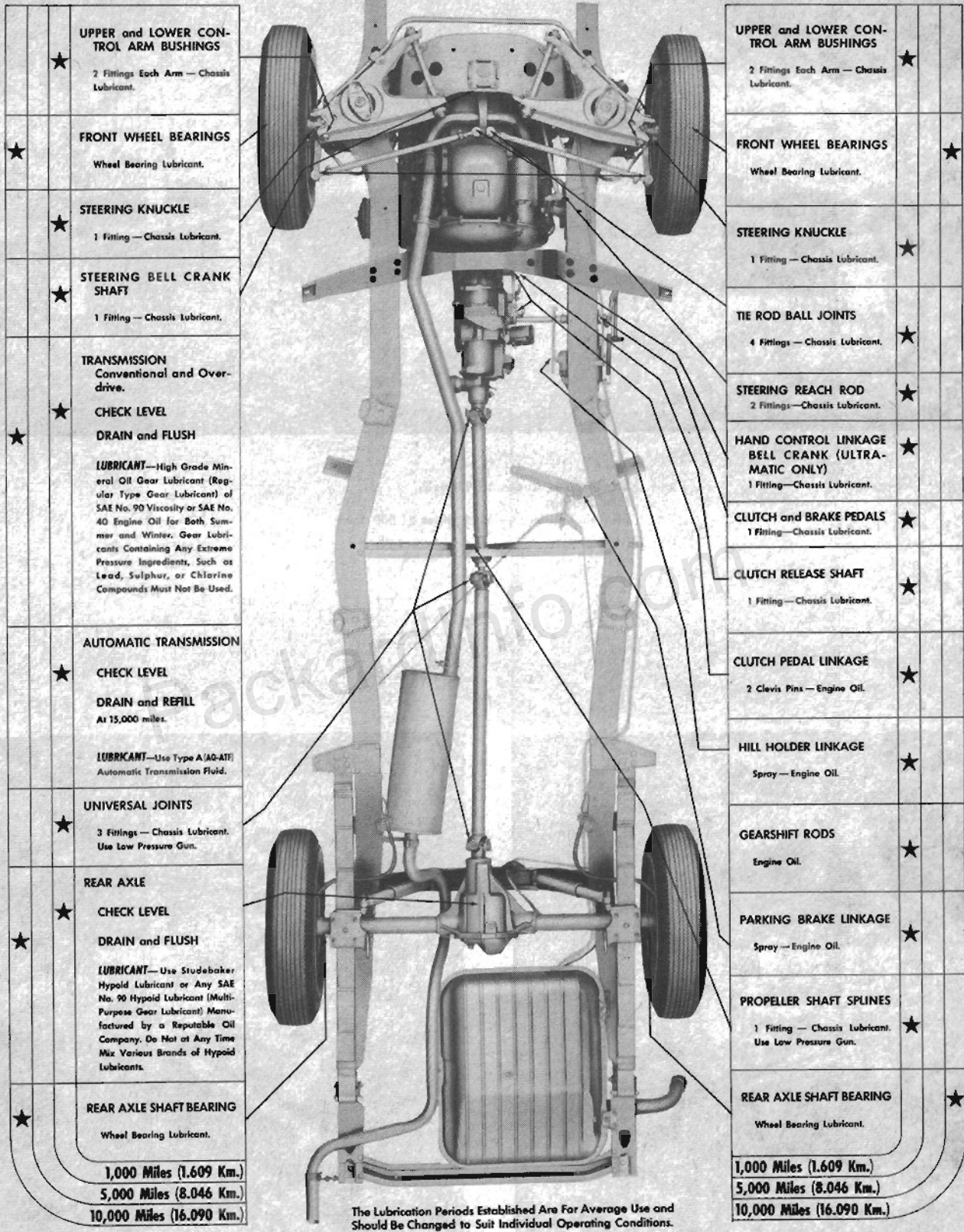


FIG. 3

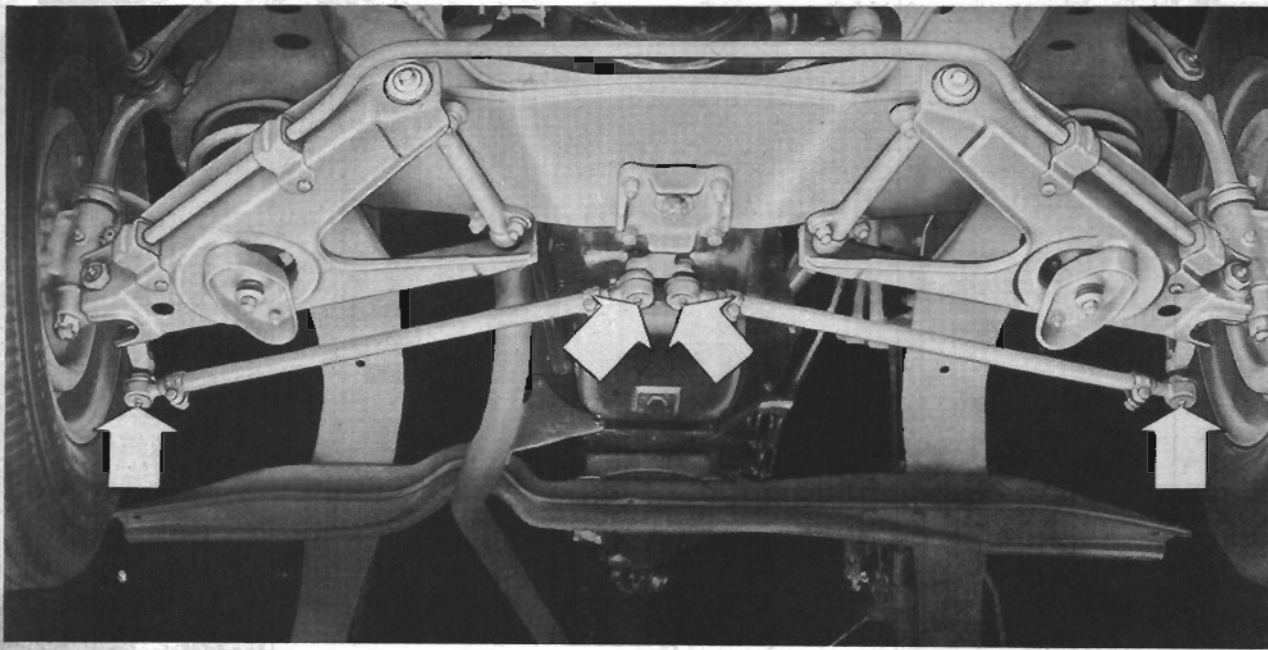


FIG. 4

Steering Tie Rods—All Models  
 Four Fittings  
 Chassis Lubricant—1,000 miles (1,609 km.)

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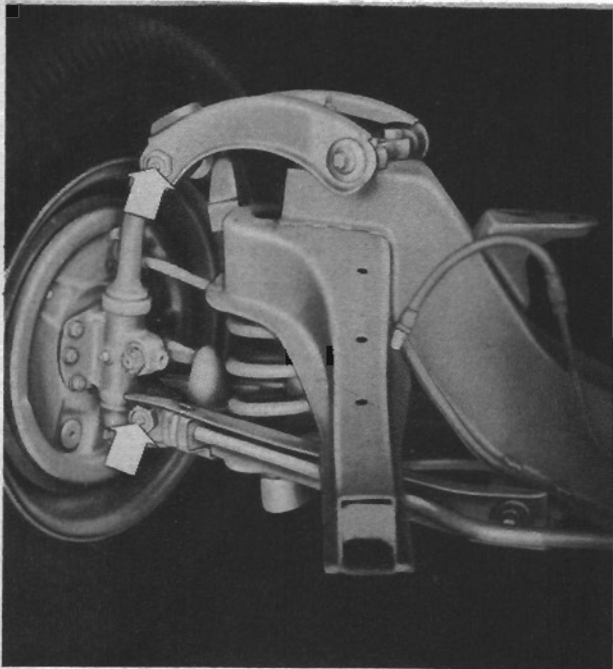


FIG. 5

Upper and Lower Control Arm Outer Bushings, Front—All Models  
 Two Fittings  
 Chassis Lubricant—1,000 miles (1,609 km.)

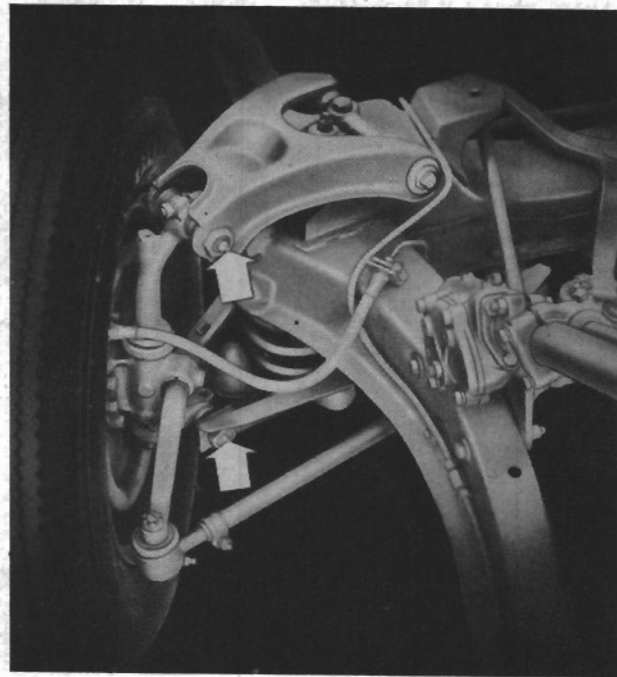


FIG. 6

Upper and Lower Control Arm Bushings, Rear—All Models  
 Two Fittings  
 Chassis Lubricant—1,000 miles (1,609 km.)

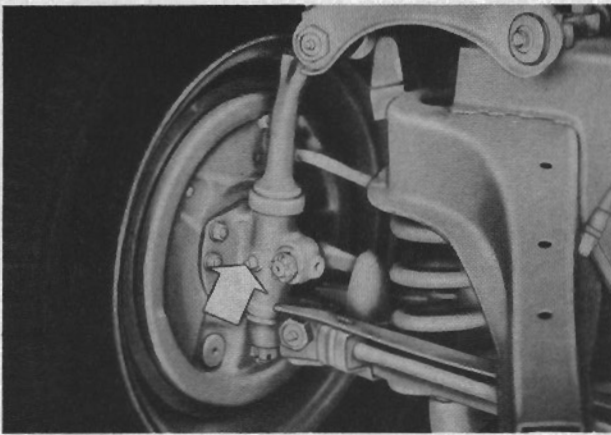


FIG. 7

Steering Knuckle—All Models  
One Fitting each Knuckle  
Chassis Lubricant—1,000 miles (1,609 km.)

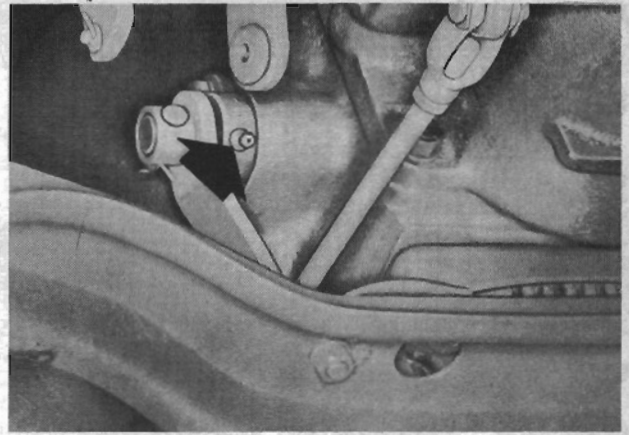


FIG. 10

Clutch Release Shaft—All Models Except 56J  
One Fitting  
Chassis Lubricant—1,000 miles (1,609 km.)

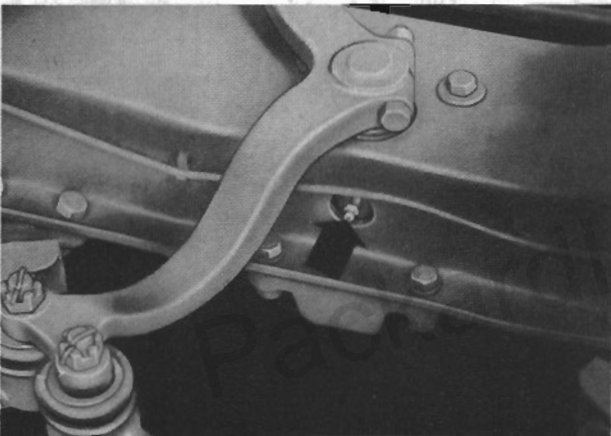


FIG. 8

Steering Bell Crank—All Models  
One Fitting  
Chassis Lubricant—1,000 miles (1,609 km.)

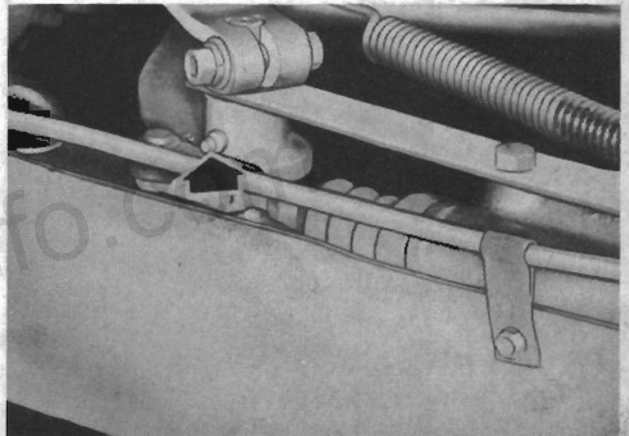


FIG. 11

Clutch and Brake Pedals—All Models  
One Fitting  
Chassis Lubricant—1,000 miles (1,609 km.)

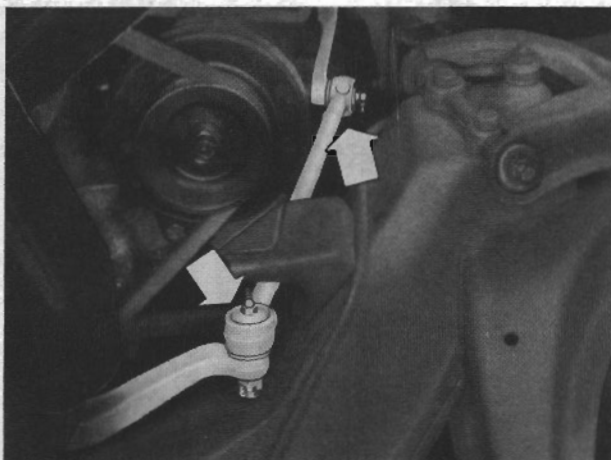


FIG. 9

Steering Reach Rod  
Two Fittings  
Chassis Lubricant—1,000 miles (1,609 km.)



FIG. 12

Propeller Shaft Splines—All Models  
One Fitting  
Chassis Lubricant—1,000 miles (1,609 km.)  
Universal Joints—All Models  
One Fitting  
Chassis Lubricant—1,000 miles (1,609 km.)

When lubricating universal joints use a low pressure hand gun or a gun equipped with a pressure control coupling [maximum pressure setting not to exceed 800 lbs. (56,25 kg. per sq. cm.).]

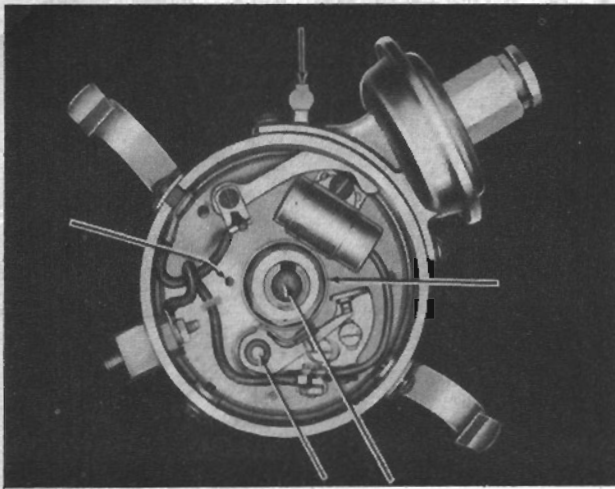


FIG. 13

Distributor—56B, 56H, and 56J models

SAE No. 20 Engine oil on felt under rotor, on 56B and 56H on felt between breaker and support plate, 3 to 5 drops in cup at side, and one drop on breaker lever pivot. Petroleum jelly on cam—5,000 miles (8.046 km.)

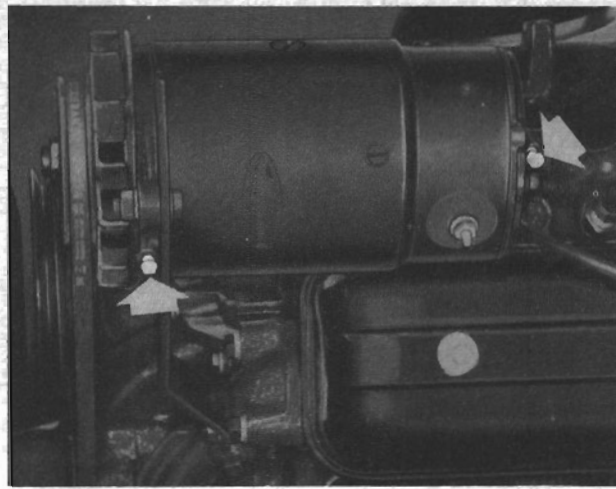


FIG. 16

Generator—56B, 56H, and 56J Models

Two Oiler Cups  
SAE No. 20 Engine Oil—1,000 miles (1.609 km.)

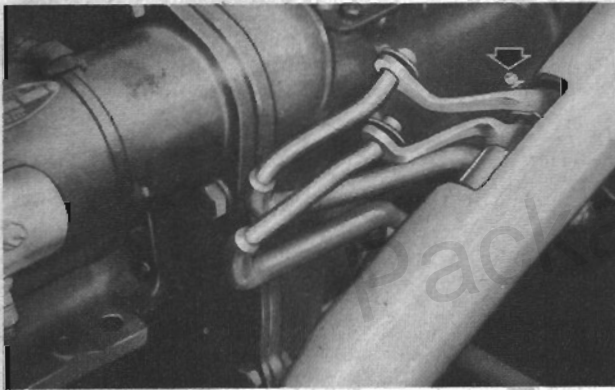


FIG. 14

Gear Shift Levers—Conventional and Overdrive Transmissions

One Fitting  
Chassis Lubricant—10,000 miles (16.09 km.)

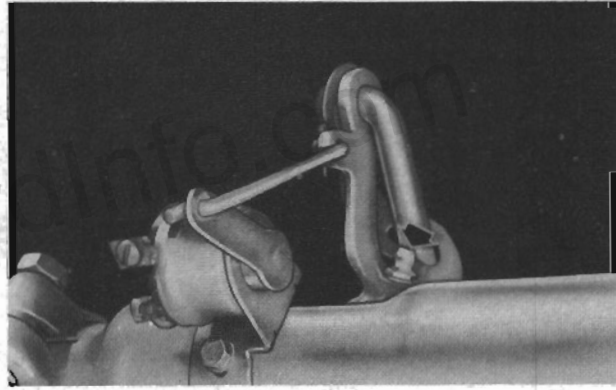


FIG. 17

Hand Control Shaft—Automatic Transmission

One Fitting  
Chassis Lubricant—1,000 miles (1.609 km.)

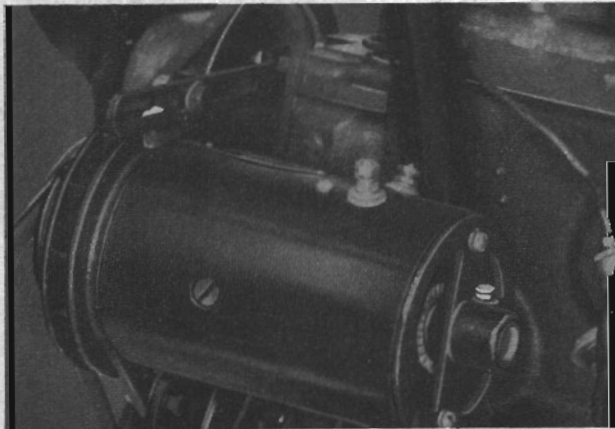


FIG. 15

Generator—56G Models

Two Oiler Cups  
SAE No. 20 Engine Oil—1,000 miles (1.609 km.)

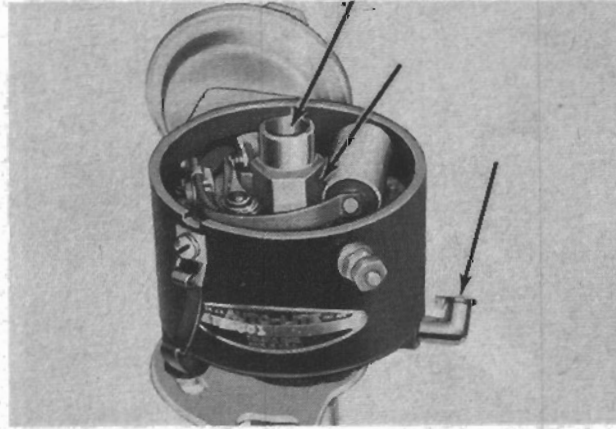


FIG. 18

Distributor—56G Models

SAE No. 20 engine oil on felt under rotor and 3 to 5 drops in cup at side. Petroleum jelly on cam—5,000 miles (8.046 km.)



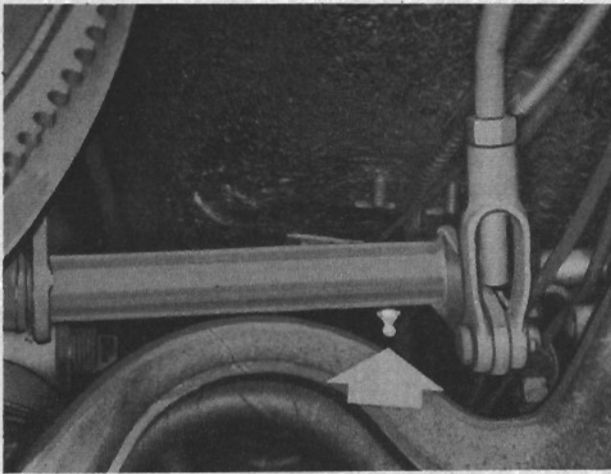


FIG. 19

**Hand Control Linkage Bellcrank—Ultramatic One Fitting**  
**Chassis Lubricant—1,000 miles (1.609 km.)**

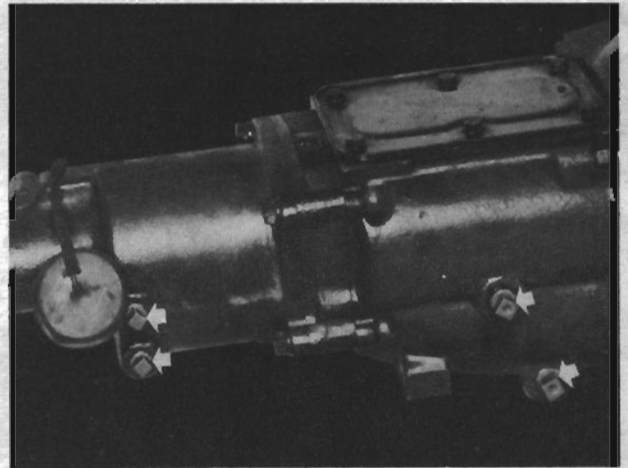


FIG. 22

**3-Speed Transmission with Overdrive—All Models**  
**Check Level 1,000 miles (1.609 km.)**  
**Drain, Flush, and Fill—10,000 miles (16.09 km.)**

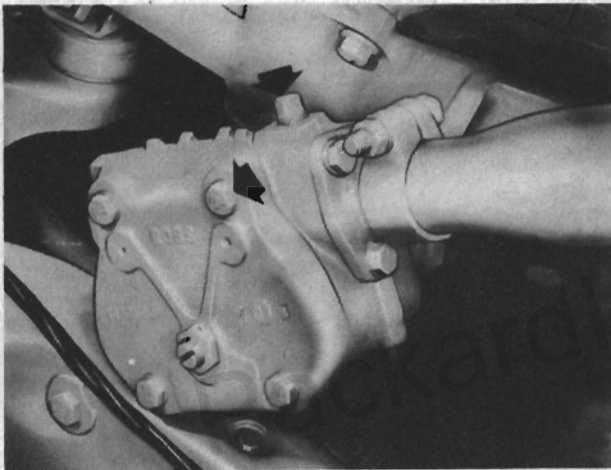


FIG. 20

**Ross Steering Gear**  
**Use Kendall 400. If not available use Kendall 200**  
**Check Level—5,000 miles (8.046 km.)**  
**Remove uppermost cover cap screw to check level**

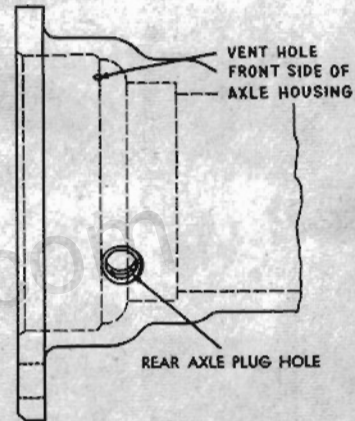


FIG. 23

**Rear Axle Shaft Bearings—All Models**  
**Wheel Bearing Lubricant—10,000 miles (16.09 km.)**  
**Make sure vent hole is open**

**Remove the pipe plug. Install lubrication fitting and using a low pressure hand gun fill with wheel bearing lubricant until lubricant is forced out of vent hole.**

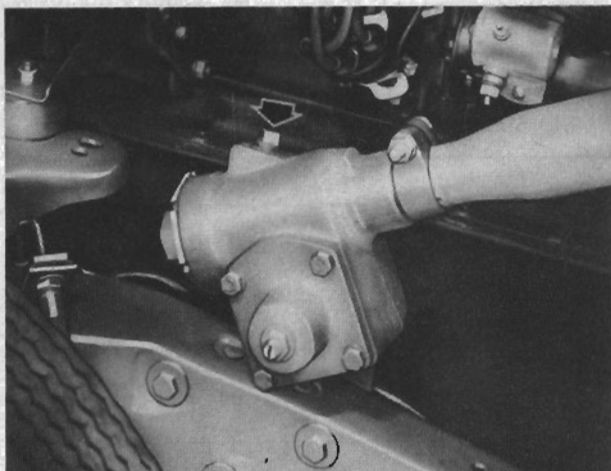


FIG. 21

**Saginaw Steering Gear**  
**Multipurpose SAE No. 90 Gear Lubricant**  
**Check Level—5,000 miles (8.046 km.)**  
**Remove filler plug to check level**



FIG. 24

**Wheel Bearings—All Models**  
**Wheel Bearing Lubricant—10,000 miles (16.09 km.)**  
**Clean and repack the bearings with lubricant. Fill hub cavity even with inside diameter of bearing cup. Do not fill the hub grease cap.**

