350, 500B, 600B Series Tractors

Service Manual

9-92281

Reprinted

CASE


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SERVICE MANUAL

Tractors

350
500B
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1. Trim along dashed line.
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TYPE 1-4

SERVICE MANUAL

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TYPE 1-4

"350," "500B," "600B" SERIES TRACTORS

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..... I

As a Member of the National Safety Council, we are priviledged to use the Green Cross for Safety to designate not only our interest in Farm Safety, but to point out more clearly the safety precautions in this manual.

SECTION I, USE OF MANUAL

This manual is divided into sections, with each section made up as an individual book. Each section or book is punched and can be combined into a complete manual with the cover and screw posts furnished or can be put in a standard ring book binder for convenient removal of individual sections as required in the service shop.

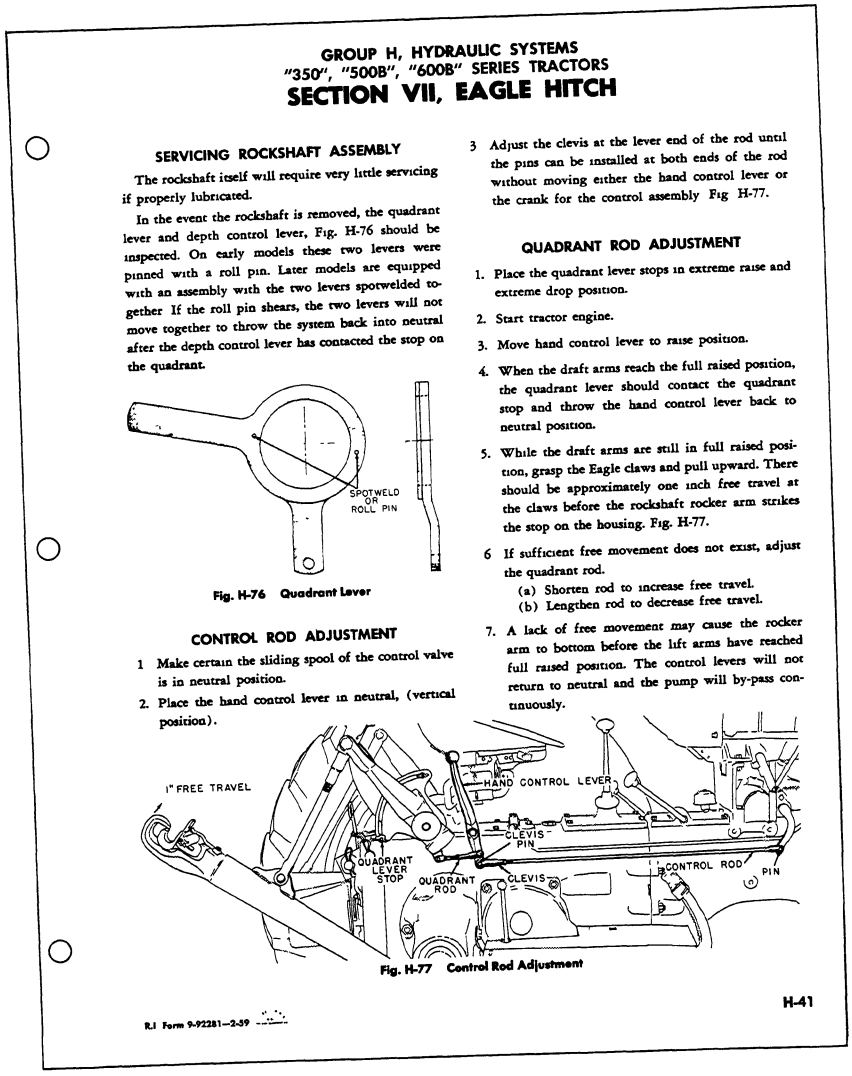
Here is how to use this manual:

1. *Groups.* Each complete unit or sub-assembly is covered in a "Group." Groups are identified by letters (A, B, C, etc.) To locate a *group* in which any particular assembly is contained, refer to the front page of this book.

To enable you to locate each group readily, the index is on the front and back sides of the first yellow page. The group index lists the items covered within each section and page references.

2. *Sections.* In each Group are Sections covering specific parts of the Group. Sections are designated by numerals (I, II, III, etc.)

3. *Pages.* The pages are numbered consecutively within each Group. Page numbers, along with Group identification, appear in the lower *outside* corner of the page while the date on which the page is printed, along with the form number, appears in the lower inside corner.



GROUP H, HYDRAULIC SYSTEMS
"350", "500B", "600B" SERIES TRACTORS
SECTION VII, EAGLE HITCH

SERVICING ROCKSHAFT ASSEMBLY

The rockshaft itself will require very little servicing if properly lubricated.

In the event the rockshaft is removed, the quadrant lever and depth control lever, Fig. H-76 should be inspected. On early models these two levers were pinned with a roll pin. Later models are equipped with an assembly with the two levers spotwelded together If the roll pin shears, the two levers will not move together to throw the system back into neutral after the depth control lever has contacted the stop on the quadrant.

SPOTWELD OR ROLL PIN

Fig. H-76 Quadrant Lever

CONTROL ROD ADJUSTMENT

1 Make certain the sliding spool of the control valve is in neutral position.

2. Place the hand control lever in neutral, (vertical position).

3 Adjust the clevis at the lever end of the rod until the pins can be installed at both ends of the rod without moving either the hand control lever or the crank for the control assembly Fig H-77.

QUADRANT ROD ADJUSTMENT

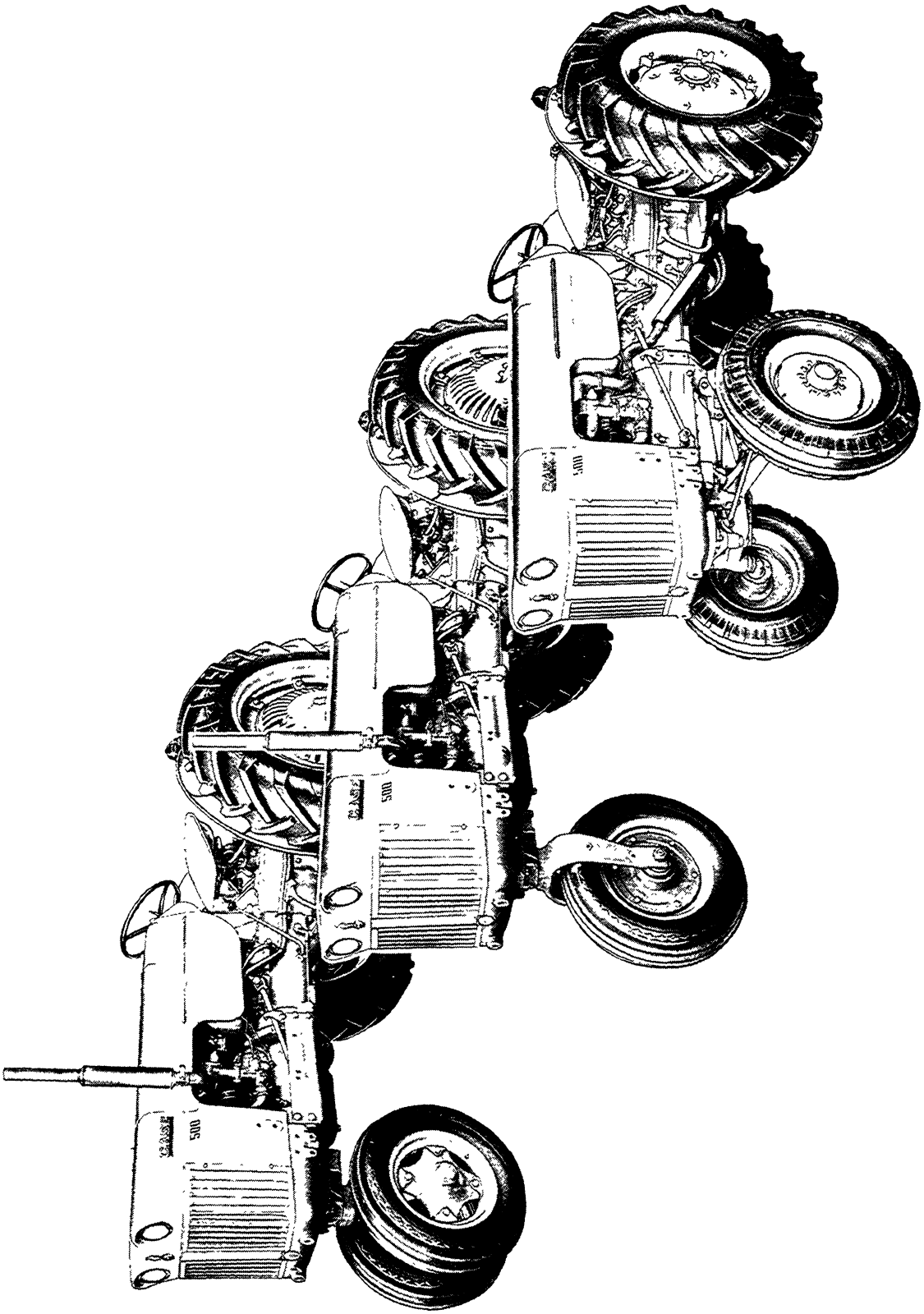
1. Place the quadrant lever stops in extreme raise and extreme drop position.
2. Start tractor engine.
3. Move hand control lever to raise position.
4. When the draft arms reach the full raised position, the quadrant lever should contact the quadrant stop and throw the hand control lever back to neutral position.
5. While the draft arms are still in full raised position, grasp the Eagle claws and pull upward. There should be approximately one inch free travel at the claws before the rockshaft rocker arm strikes the stop on the housing. Fig. H-77.
6 If sufficient free movement does not exist, adjust the quadrant rod.
   (a) Shorten rod to increase free travel.
   (b) Lengthen rod to decrease free travel.
7. A lack of free movement may cause the rocker arm to bottom before the lift arms have reached full raised position. The control levers will not return to neutral and the pump will by-pass continuously.

1" FREE TRAVEL
HAND CONTROL LEVER
CLEVIS PIN
QUADRANT LEVER STOP
QUADRANT ROD
CLEVIS
CONTROL ROD
PIN

Fig. H-77 Control Rod Adjustment

H-41

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CASE
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SECTION IV, SPLITTING TRACTOR

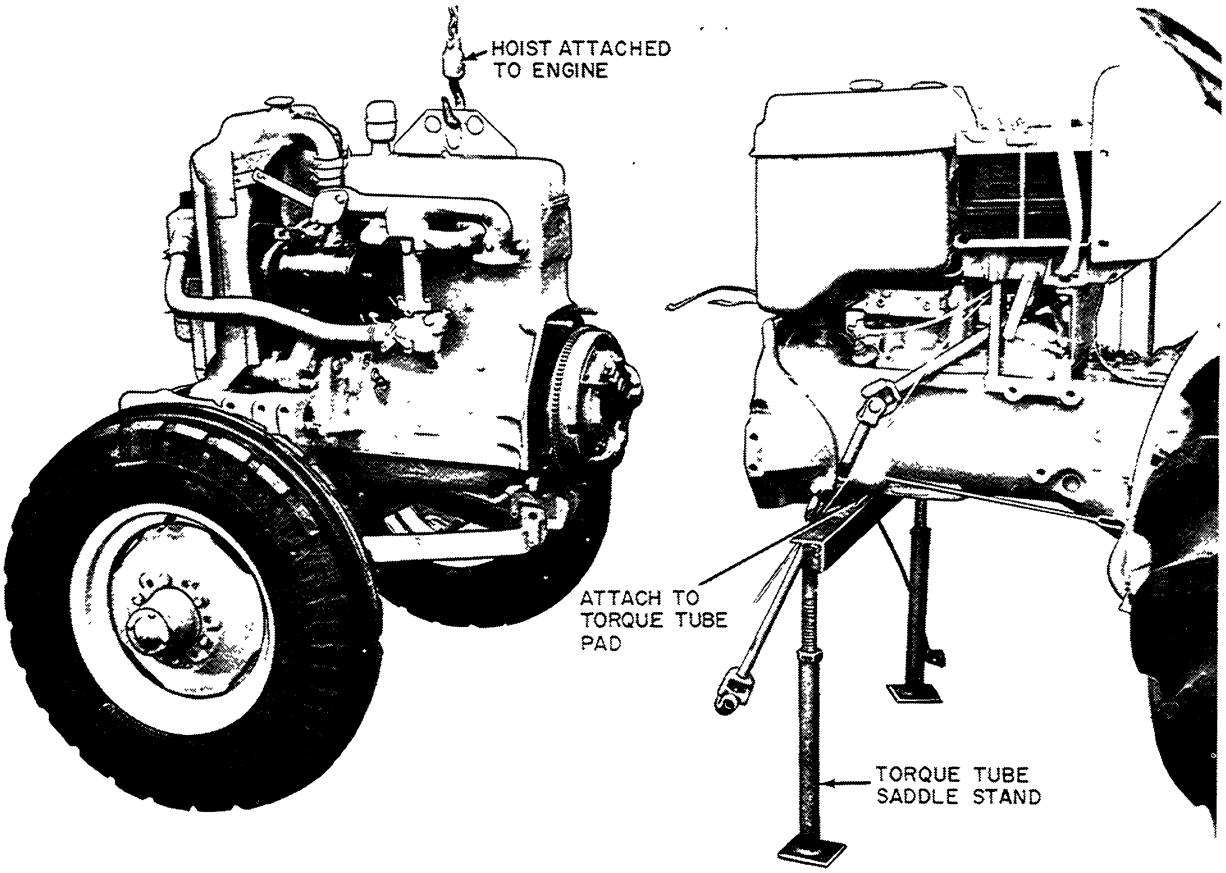


Fig. A-7 Separating at Torque Tube

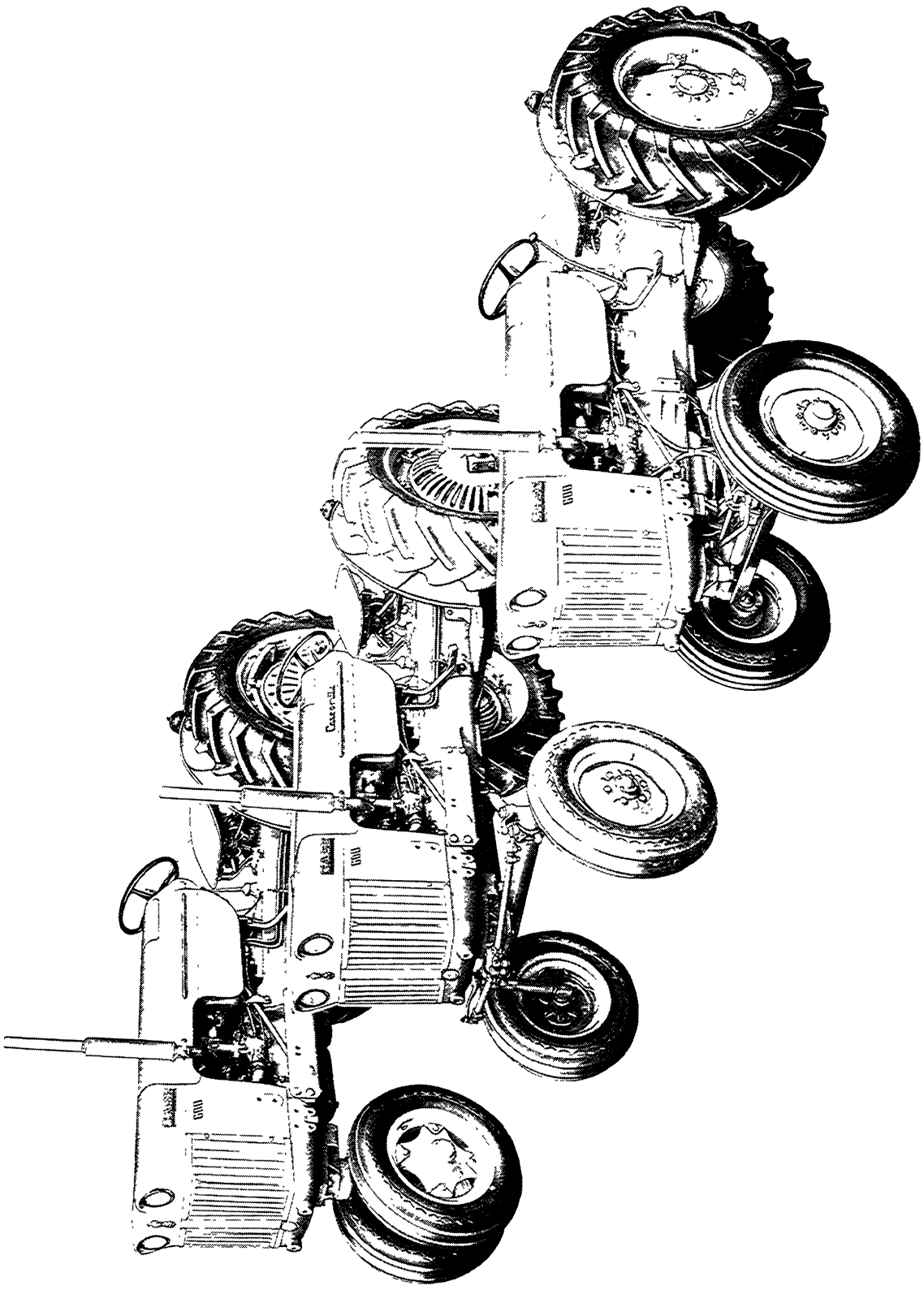
SEPARATION AT TORQUE TUBE

1. Remove starter assembly.
2. Shut off fuel supply and loosen fuel line at carburetor.
3. Extract temperature gage at adaptor in cylinder head.
4. Remove primary wire to coil and generator wires.
5. Remove oil gage line.
6. Attach engine hoist brackets and hoist.

ASSEMBLY

Install engine and front end assembly to the tractor in reverse order to which they were removed.

Note—See Group B Section VII for installation and service procedure covering clutches for standard model tractors. See Group K for removal or installation of torque converter in Case-O-Matic tractors.



SECTION III, LUBRICATION

RECOMMENDED ENGINE AND TRANSMISSION LUBRICANTS

Lubrication Points	*Approx. Capacities*	*Anticipated Air Temperature*			
		Above ±70°F.	*70°F. to ±32°F.*	*32°F. to ±20°F.*	*—20°F. and below*
*Engine Crankcase (with filter)	4 qts. 5 qts.	SAE 30 SAE 30	SAE 20-W SAE 20-W	SAE 10-W SAE 10-W	SAE 5-W SAE 5-W
Air Cleaner Cup	1 pt.	SAE 30	SAE 20-W	SAE 10-W	SAE 5-W
Transmission and Differential Case	11 gal.	Multi-Purpose Type Lubricant (E.P.) SAE 90	 SAE 90	 SAE 90**	 SAE 90**
Case-O-Matic		4 gals. ***SAE No. 10-W Motor Oil (MS-DG)			
Reservoir Generator		A few drops of oil — Light oil			
All Pressure Fittings		Use No. 1 Pressure Gun Grease			
Steering Gear Housing		Use SAE No. 140 Multi-Purpose Lubricant (E.P.)			
Power Steering Reservoir		1 qt. Automatic Transmission Fluid, Type "A"			

*When operating a tractor under continuous service, use SAE 10-W oil, in the engine crankcase even though the temperature range indicates SAE 5-W oil should be used.

**During extremely cold weather transmission oil should be thinned with light weight engine oil. This will prevent gears from channeling in cold stiffened gear lubricant.

***Alternate Oil — Automatic Transmission Fluid, Type A.
±SAE 10W-30 Motor Oil can be used in this temperature range.

To simplify the selection of a suitable engine lubricating oil to meet any spark ignition engine service conditions, the American Petroleum Institute (composed of most major oil companies and refineries) has adopted three service designations for spark ignition engine service use:

1. Service "ML" — Not recommended for tractor engine use.
2. Service "MM" — Moderate to severe engine service.
3. Service "MS" — Severe engine service.

These designations will usually be marked on the oil container.

Service "MM" — Moderate to severe engine use where there are *no harmful low or high* operating temperatures, or *no prolonged idling.*

Service "MS" — For severe engine service such as:

1. *Low temperature engine operating conditions* as a result of frequent stop and start operations, prolonged idling, operating with a light load (especially during cold weather).
2. *High temperature engine operating conditions* as a result of heavy loads during very hot weather. Lubricating oils that do not have protection additives to withstand high temperatures may break down under this type of condition, resulting in excessive engine wear and deposits.

Always use a high quality, stable, engine oil having a service designation of either MM or MS depending upon the engine operating conditions.

Front Wheel Bearings	Wheel Bearing Grease
All Pressure Fittings	Use No. 1 Pressure Gun Grease
Steering Gear Housing	Use SAE No. 140 Extreme Pressure Lubricant