

**300, 300B, 400B
Tractors**

Service Manual

9-92002

Reprinted

CASE III

"300" SERIES TRACTORS

GROUP A — GENERAL

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GROUP A — GENERAL

SECTION I, USE OF MANUAL

This is a "loose leaf" style of manual designed to be permanently kept up-to-date. Periodically, as changes, revisions or new developments take place, this data will be available to you in the form of new filler pages. When these pages are promptly inserted in the proper place in the manual, your Service Department will constantly have up-to-date service information available.

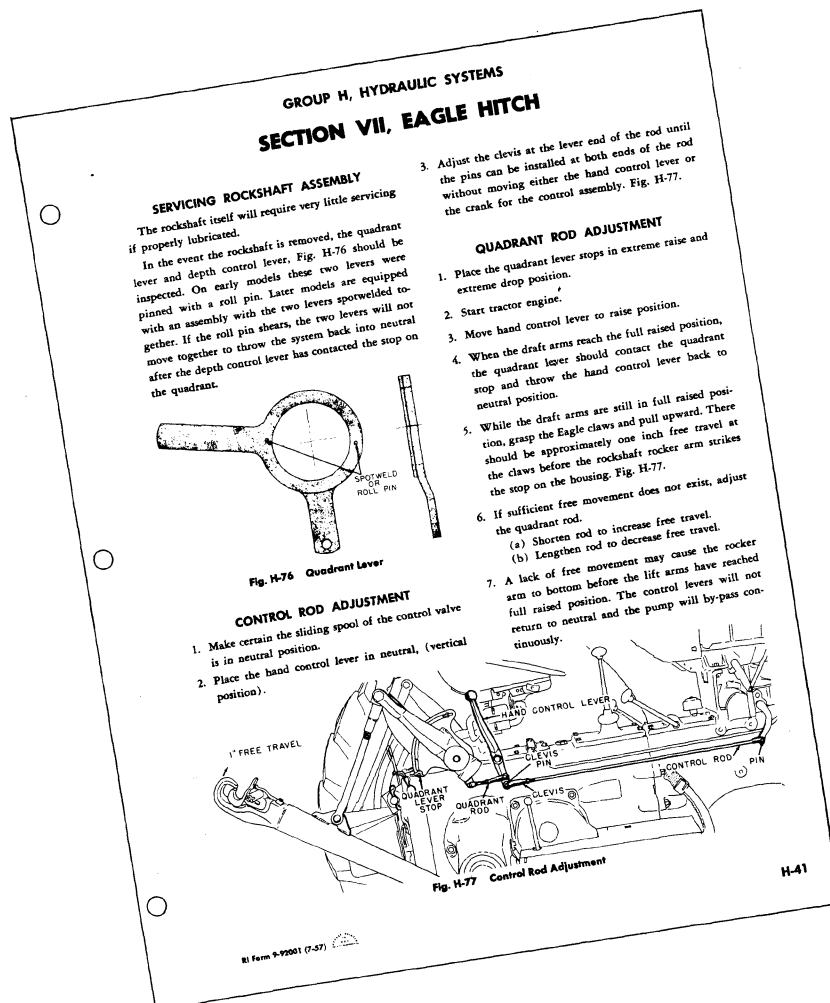
Here is how to use this manual:

2. **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 on the first page is yellow. The group index lists the items covered within each section and page references.

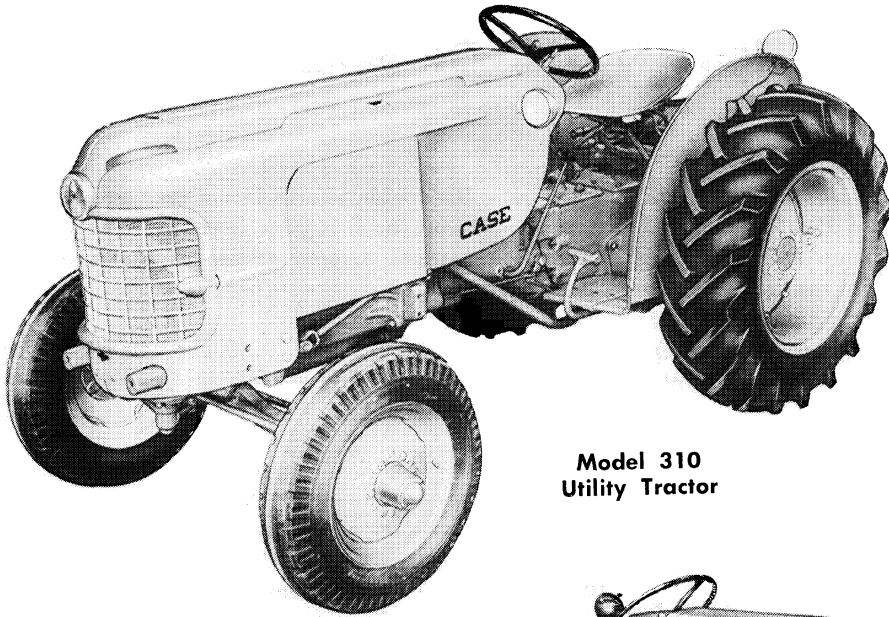
2. **SECTIONS.** In each Group are Sections covering specific parts of the Group. Sections are designated by numerals (I, II, III, etc.)

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.

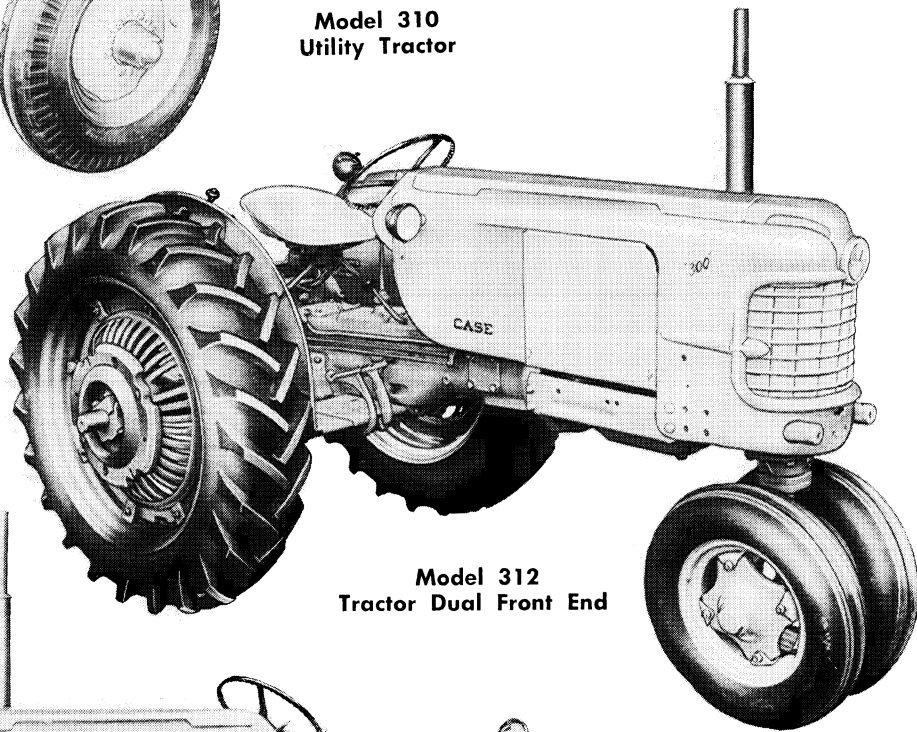


GROUP A — GENERAL

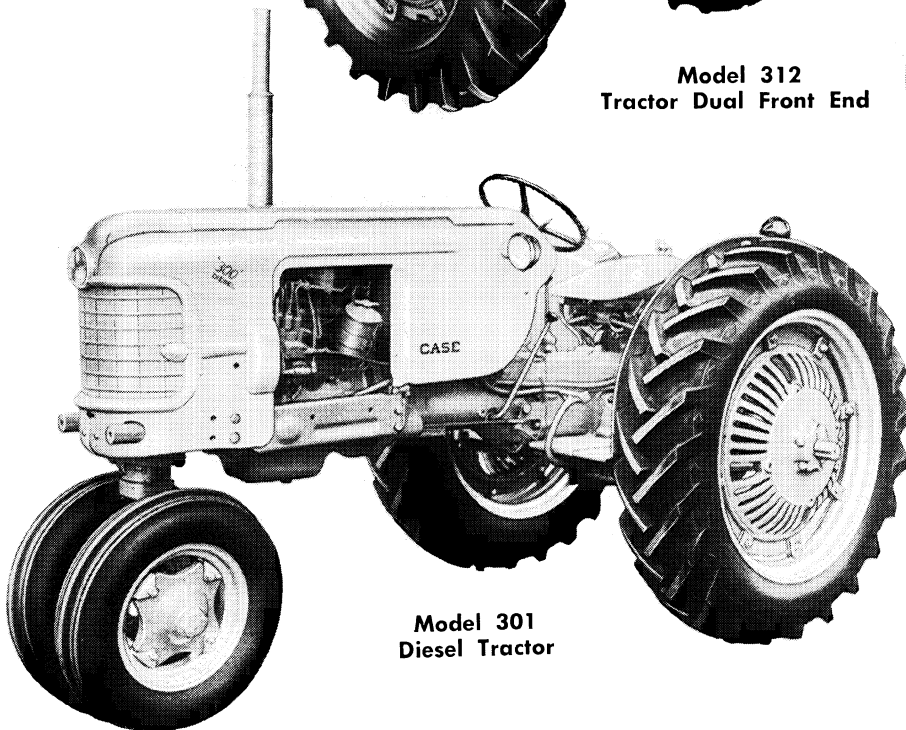
SECTION II, TRACTOR MODELS



**Model 310
Utility Tractor**



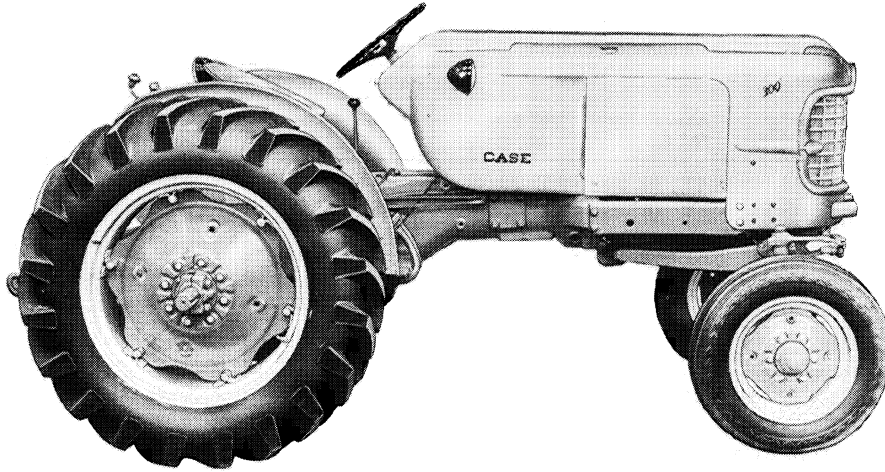
**Model 312
Tractor Dual Front End**



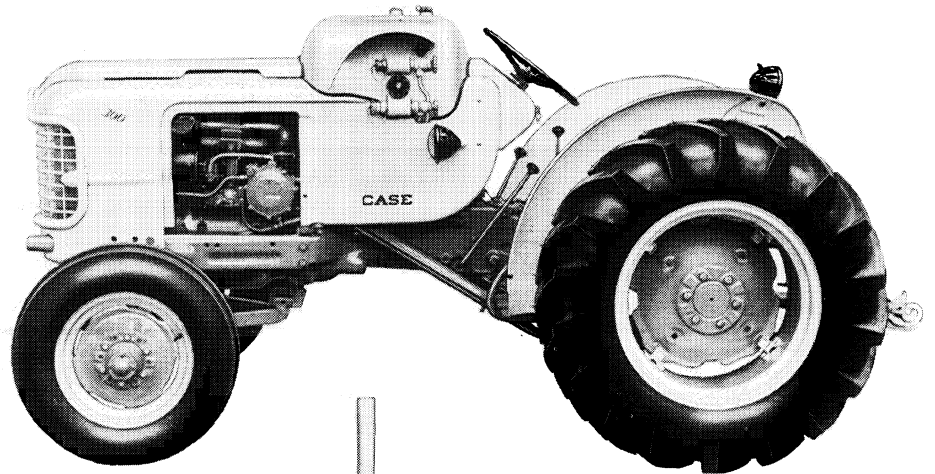
**Model 301
Diesel Tractor**

GROUP A — GENERAL

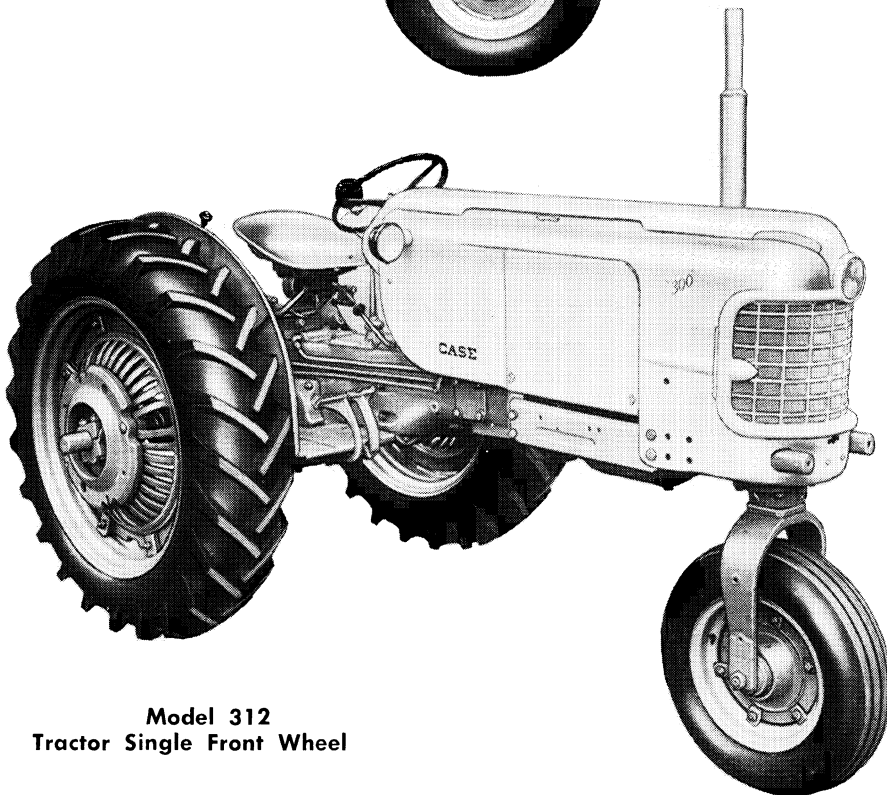
SECTION II, TRACTOR MODELS



Model 311
Tractor Adjustable Front Axle



Model 310
Utility L.P.G. Equipped



Model 312
Tractor Single Front Wheel

GROUP A — GENERAL
SECTION III, LUBRICATION

RECOMMENDED ENGINE AND TRANSMISSION LUBRICANTS

Lubrication Points	Approximate Capacities	Above 70° F.	ANTICIPATED AIR TEMPERATURE		
			70° F. to 32° F.	32° F. to -20° F.	-20° F. and below
*Engine Crankcase (with filter)	4 qts.	SAE 30	SAE 20-W	SAE 10-W	SAE 5-W
	5 qts.	SAE 30	SAE 20-W	SAE 10-W	SAE 5-W
Air Cleaner Cup	1 pt.	SAE 30	SAE 20-W	SAE 10-W	SAE 5-W
Transmission and Differential Case Models 300, 310	17 qts.	Extreme Pressure Lubricant			
		SAE 90	SAE 90	SAE 90	SAE 90
Models 301, 311	6 gals.	SAE 90	SAE 90	SAE 90	SAE 90
Generator	A few drops of oil			Light oil	
Distributor	A few drops of oil			Light oil	
Speedometer Drive	A few drops of oil			Light oil	
Front Wheel Bearings		Wheel Bearing Grease			
Torque Tube	13 qts.	SAE 10-W, 30-W or Type "A" Automatic Transmission Oil			
All Pressure Fittings		Use No. 1 Pressure Gun Grease			
Steering Gear Housing		Use SAE No. 140 Extreme Pressure Lubricant			

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

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.

GROUP A — GENERAL

SECTION III, LUBRICATION

LUBRICATION CHART

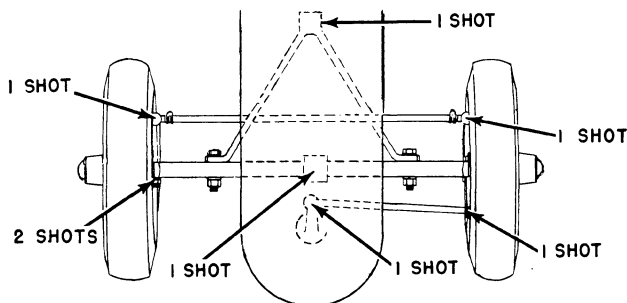
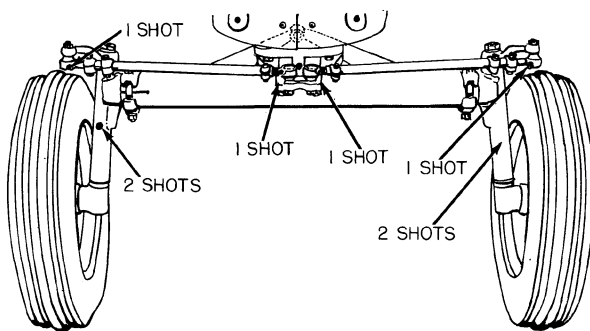
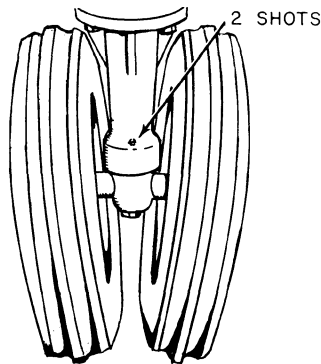
The lubrication instructions that follow are essentially the same instructions given in the operator's manual but will assist the service man with a convenient lubrication reference when the tractor is in the shop for repair or annual check-up.

10 HOUR SERVICE

The tractor operator should be instructed to lubricate the points listed below every 10 hours. (Every 5 hours under dusty or dirty conditions).

PEDESTAL: FRONT END AND WHEEL BEARINGS

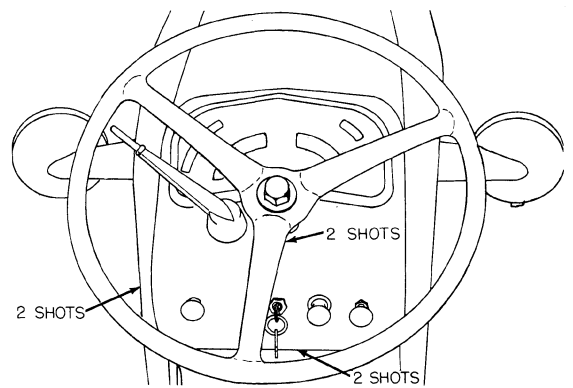
Service all grease fittings in this section except wheel bearings with an accepted high grade chassis lubricant. Always use a high grade wheel bearing grease when packing wheel bearings.



10 HOUR SERVICE

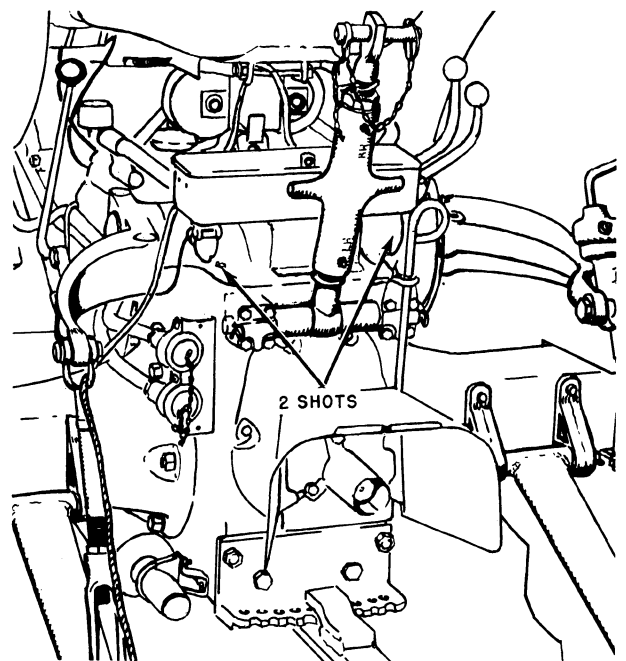
STEERING SHAFT

Service the grease fittings on the steering shaft with an accepted lubricant in the amount shown.



ROCKSHAFT HOUSING

Service the grease fittings on the rockshaft with an accepted lubricant in the amount shown.



GROUP A — GENERAL

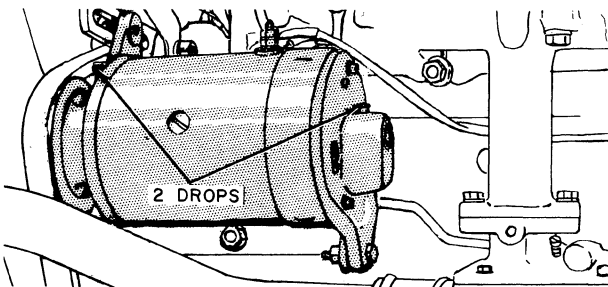
SECTION III, LUBRICATION

60 HOUR SERVICE

The tractor operator should be instructed to lubricate the points listed below every 60 hours. (Every 30 hours under dirty and dusty conditions).

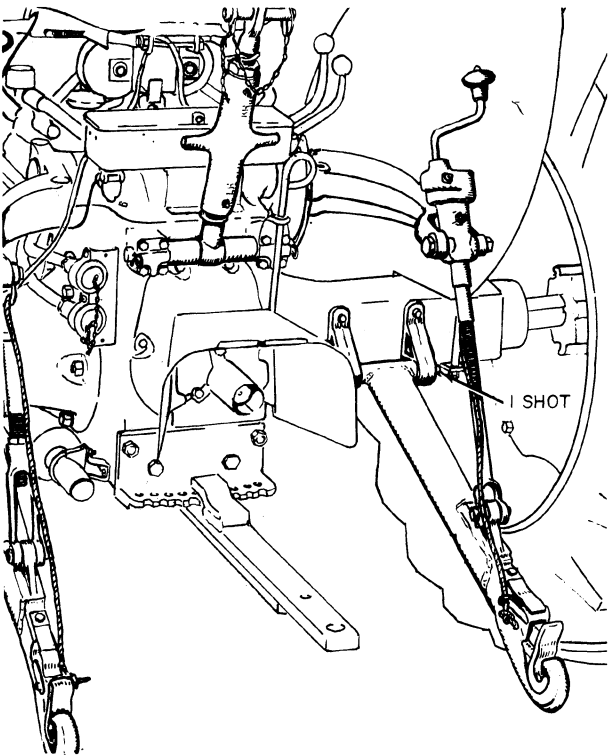
GENERATOR

Lubricate each generator oil cup with 2 drops of light engine oil. DO NOT OVER-LUBRICATE.



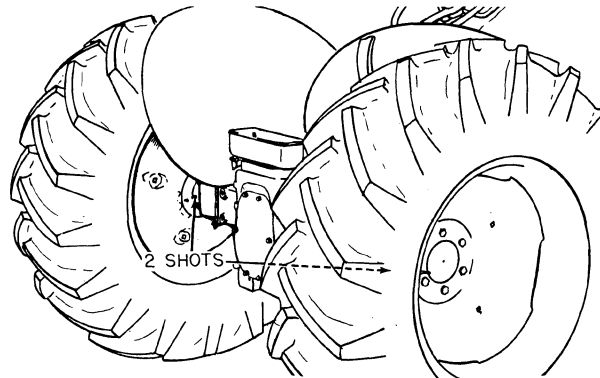
DRAFT ARM PIVOT

Service the grease fittings on the draft arm pivot with an accepted lubricant in the amount shown.



REAR AXLE BEARING (Utility Only)

Service the grease fittings on the rear axle bearing with an accepted lubricant in the amount shown.

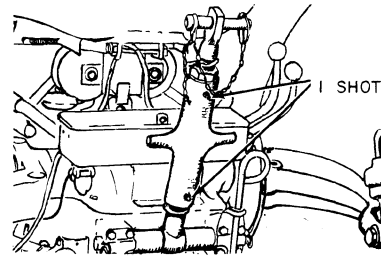


100 HOUR SERVICE

The tractor operator should be instructed to lubricate the points listed below every 100 hours. (Every 50 hours under dirty or dusty conditions).

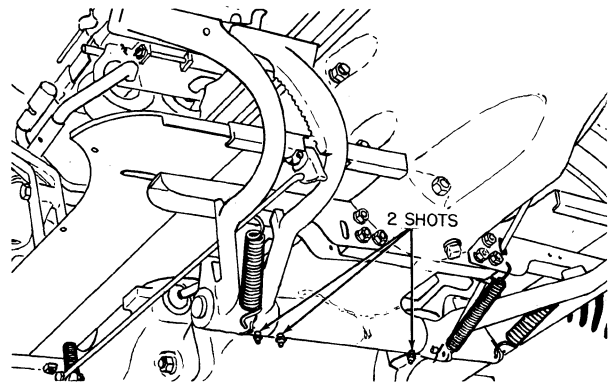
TURNBUCKLE

Service the grease fittings on the turnbuckle with an accepted lubricant in the amount shown.



BRAKE PEDAL — CLUTCH PEDAL RIGHT HAND BRAKE PEDAL

Service the grease fittings with an accepted lubricant in the amount shown.



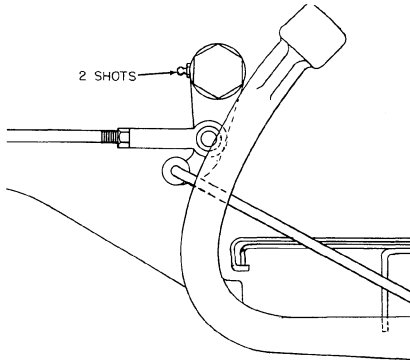
GROUP A — GENERAL

SECTION III, LUBRICATION

100 HOUR SERVICE

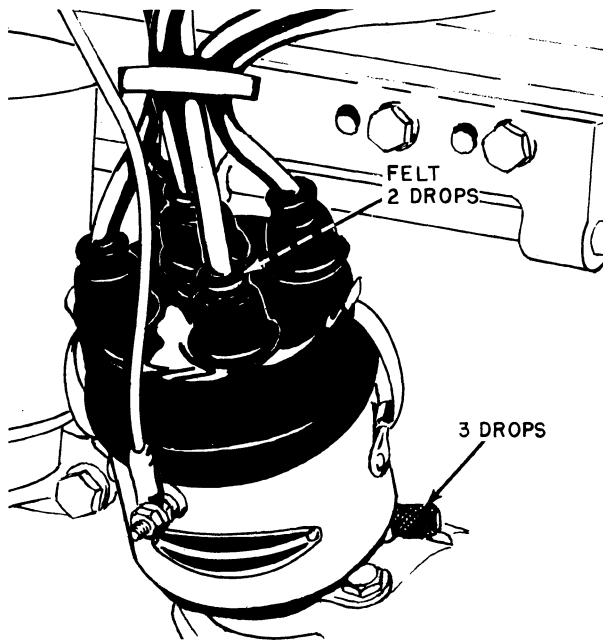
CLUTCH BELLCRANK

Service the grease fittings on the clutch bellcrank with an accepted lubricant in the amount shown.



DISTRIBUTOR OIL CUP

Lubricate distributor oil cup and wick with 3 drops of light engine oil. DO NOT OVER-LUBRICATE.



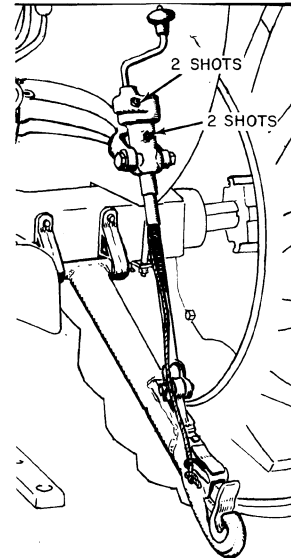
ENGINE CRANKCASE

For recommended engine lubricants, see Page 6.

100 HOUR SERVICE

LIFT LINK ADJUSTING SCREW

Service the grease fittings on the lift link adjusting screw with an accepted lubricant in the amount shown.

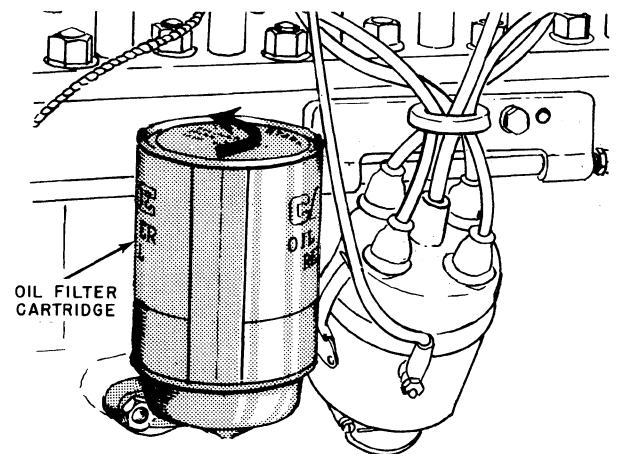


200 HOUR SERVICE

The tractor operator should be instructed to lubricate the points listed below every 200 hours.

OIL FILTER

Low-Cost fuel tractors:
Replace element every 150 hours.



GROUP A — GENERAL

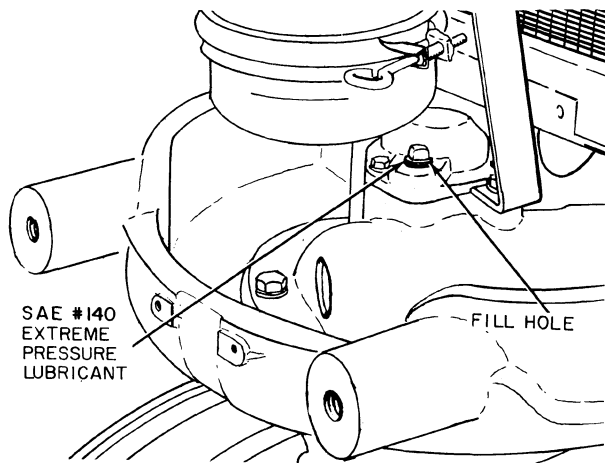
SECTION III, LUBRICATION

250 HOUR SERVICE

The tractor operator should be instructed to lubricate the points listed below every 250 hours.

STEERING GEAR HOUSING

Use only SAE 140 extreme pressure lubricant. (Maintain a lubricant level just above the steering worm).



1000 HOUR SERVICE

The tractor operator should be instructed to lubricate the points listed below every 1000 hours or at yearly service, whichever occurs first.

TRANSMISSION

Drain and flush transmission at least once a year.

To do a thorough job, place three gallons of a reliable flushing oil in transmission; jack up one wheel of tractor; shift into all gears and operate in each for 2-3 minutes.

Drain and replace with SAE 90 E.P.

HYDRAULIC SYSTEM

Drain and flush torque tube thoroughly with fuel oil.

**CAUTION: DO NOT USE
GASOLINE AS A
FLUSHING AGENT.**

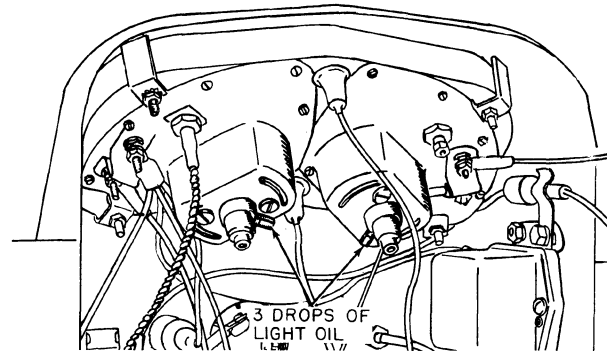
Refill with multi-viscosity 10, 30-W oil.

NOTE: *Automatic Transmission Fluid Type A may be used.*

1000 HOUR SERVICE

SPEEDOMETER AND TACHOMETER

Two drops of light oil in the wick cups.



**CAUTION: BE SURE THE ENGINE
IS SHUT OFF AND TRANSMISSION
IN NEUTRAL, BEFORE ATTEMPT-
ING TO LUBRICATE OR DO ANY
SERVICE WORK ON A TRACTOR.**

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