1070 Tractor

Operators Manual

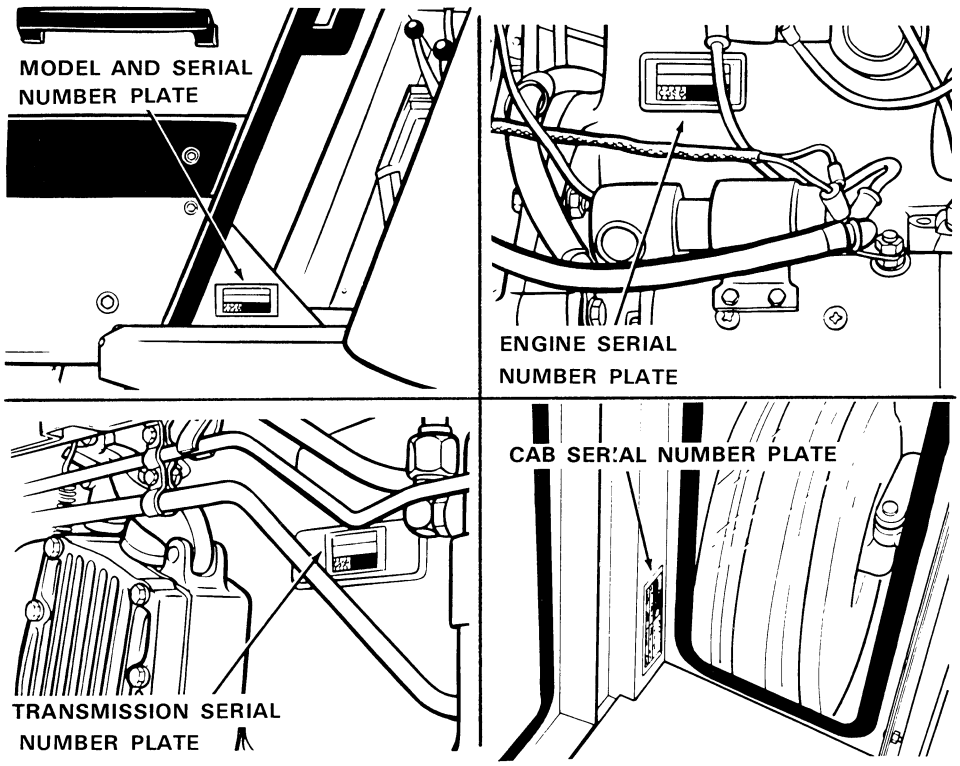
9-4422

Reprinted

CASE

SERIAL NUMBERS

When ordering parts from your Authorized Case Dealer and in all contacts or correspondence with your dealer, relative to your Case Tractor, always specify the Model, Tractor Serial Number, Engine, Transmission and Cab Serial Numbers.

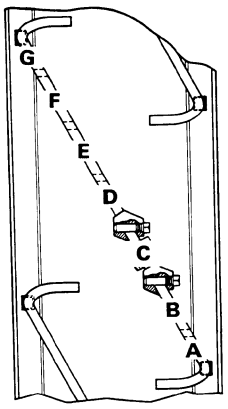
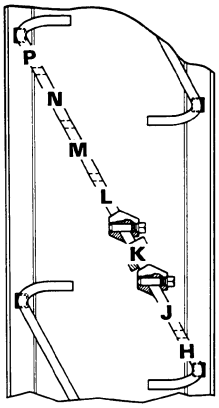


For convenient reference, fill in the Serial Numbers of your tractor in the spaces provided below.

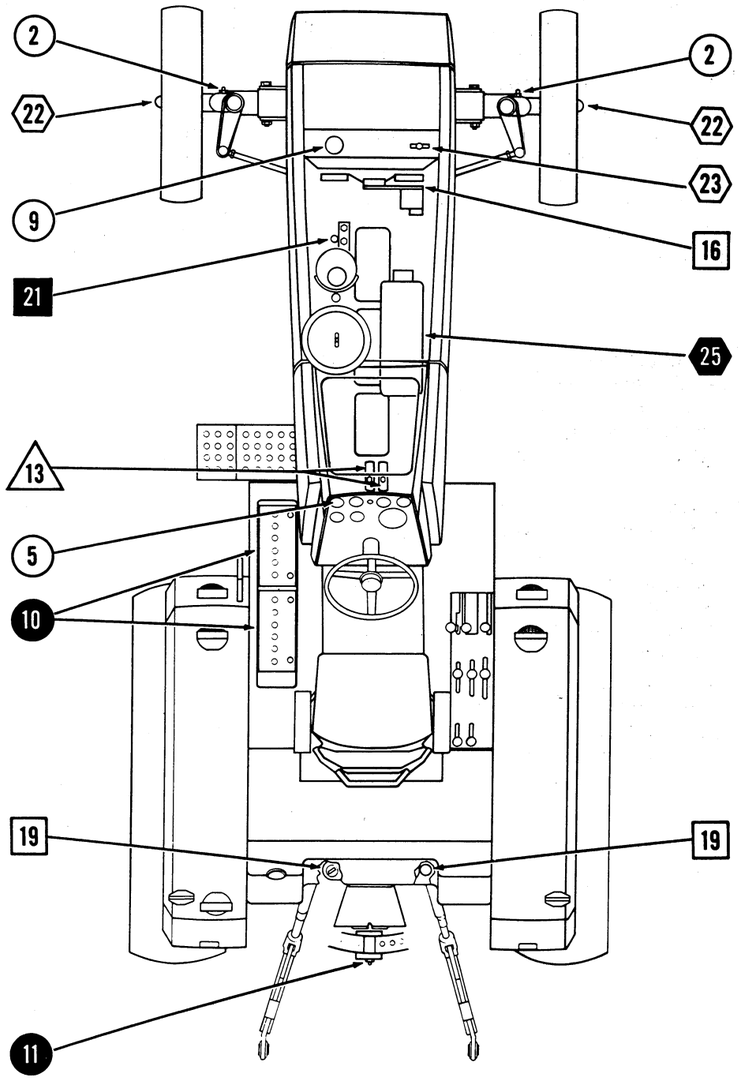
MODEL DESIGNATION _____
TRACTOR SERIAL NUMBER _____
ENGINE SERIAL NUMBER _____
TRANSMISSION SERIAL NUMBER _____
CAB SERIAL NUMBER _____

NOTE: The terms "Right Hand" and "Left Hand" whenever used in this manual, apply to the tractor as viewed when seated in the operator's seat facing the forward direction of travel.

POWER SHIFT REAR WHEEL TREAD SPACING

		86 INCH (2 184mm) REAR AXLE	96 INCH (2 438mm) REAR AXLE	118 INCH (2 997mm) REAR AXLE
 HUB OR WHEEL MOVED IN ON AXLE	A		64 INCH (1 626mm)	64 INCH (1 626mm)
	B	64 INCH (1 626mm)	68 INCH (1 727mm)	68 INCH (1 727mm)
	C	68 INCH (1 727mm)	72 INCH (1 829mm)	72 INCH (1 829mm)
	D	72 INCH (1 829mm)	76 INCH (1 930mm)	76 INCH (1 930mm)
	E	76 INCH (1 930mm)	80 INCH (2 032mm)	80 INCH (2 032mm)
	F	80 INCH (2 032mm)	84 INCH (2 134mm)	84 INCH (2 134mm)
	G	84 INCH (2 134mm)	88 INCH (2 235mm)	88 INCH (2 235mm)
 HUB OR WHEEL MOVED OUT ON AXLE	H	84 INCH (2 134mm)	96 INCH (2 438mm)	116 INCH (2 946mm)
	J	88 INCH (2 235mm)	100 INCH (2 540mm)	120 INCH (3 048mm)
	K	92 INCH (2 337mm)	104 INCH (2 642mm)	124 INCH (3 150mm)
	L	96 INCH (2 438mm)	108 INCH (2 743mm)	128 INCH (3 251mm)
	M	100 INCH (2 540mm)	112 INCH (2 845mm)	132 INCH (3 353mm)
	N	104 INCH (1 642mm)	116 INCH (2 946mm)	136 INCH (3 454mm)
	P	108 INCH (2 743mm)	120 INCH (3 048mm)	140 INCH (3 556mm)

NOTE: Each shifting position hole allows a 2 inch (50.8mm) individual wheel adjustment. Dimensions given in inches and millimeters.



REF. NO.	SERVICE POINTS	NO. OF POINTS	GREASE	DRAIN	CHECK	CLEAN	CHANGE OIL (Few Drops)	FREQUENCY
1	Front Axle Pivot Pins	2	▓					○ 10 HOURS
2	King Pins	2	▓					
3	Engine Crankcase Oil Dipstick	1			▓			
4	Transmission Fluid Level ■	1			▓			
5	Fuel Tank Level	1			▓			
6	Air Cleaner Restriction Indicator	1			▓			
7	Pre-Cleaner Dust Receptacle*	1			▓			
8	Fuel Tank Water Trap	1		▓				
9	Radiator Coolant Level	1			▓			
10	Battery Fluid Level ***	2			▓			● 50 HOURS
11	Drawbar Roller	1	▓					
12	Tire Pressure	4			▓			△ 100 HOURS
13	Hyd. Brake Master Cyl. (If Equipped)**	2			▓			▲ 200 HOURS
14	Engine Crankcase Oil ••	1		▓			▓	
15	Engine Oil Filter*	1					▓	□ 250 HOURS
16	Fan Belt and Compressor Belt	1			▓			
17	Strg. - Pwr. Brk. Hyd. Filter(Red Label)*	1					▓	
18	Power Shift Filter (White Label)*	1					▓	
19	Transmission - Hydraulic Breather	2				▓		■ 500 HOURS
20	Differential Brakes ■■	2			▓			
21	Fuel Filter •	3					▓	
22	Front Wheel Bearings •••	2	▓			▓	▓	
23	Cooling System	2		▓		▓	▓	⬡ 1000 HOURS
24	Transmission - Hydraulic Fluid ■	5		▓		▓	▓	
25	Air Cleaner*	1				▓	▓	⬢ As Required

*Refer to Pages 25 thru 33 for Complete Filter Service Instructions.
**Fill to only 1/2 (12.7mm) from top of opening. USE ONLY CASE TCH OIL.
***Refer to Page 108 for Instructions.
•Refer to Pages 96 thru 98 for Service Instructions.
••Refer to Page 24 for Run-In-Oil Drain.
•••Refer to Page 35 for Instructions.
■Refer to Page 34 for Instructions.
■■Refer to Page 100 and 101 for Instructions and Adjustment.

POWER SHIFT FILTER (Continued)

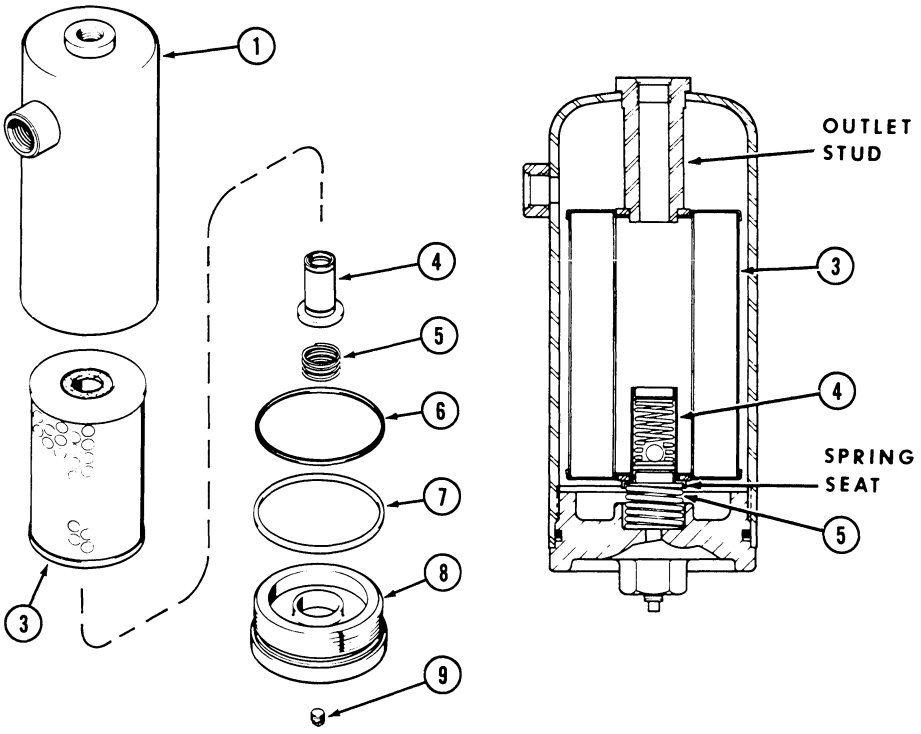


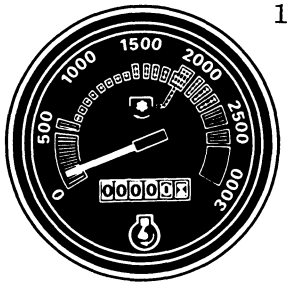
Figure 12

4. Install a new back-up ring (7) and "O" ring (6) to cap (8). Install the spring (5) into cap (8) with relief valve (4) and element (3). **IMPORTANT:** The relief valve (4) must be installed with the spring seat down on spring (5), Figure 13, or a continuous by-pass of oil will occur without being filtered.

5. Install the assembly into the body (1). **WARNING:** The element and relief valve must be centered perpendicular to the cap when entering the body to center and seat itself on the outlet stud in the body and does not become damaged. If the element becomes damaged the unfiltered oil will by-pass through the relief valve entering the hydraulic system and cause serious damage to the hydraulic components in a relatively short time. Torque cap (8), 25 to 35 ft. lbs. (3.5 to 4.8 m-kg.) and install plug (9).

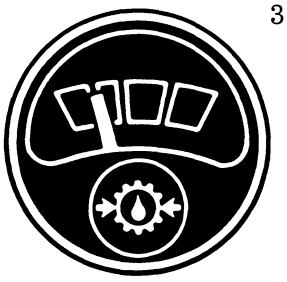
6. Remove the fill cap located on the top left hand side of the PTO housing and add 1-1/2 U.S. Measure Quarts (1.4 liter) of clean Case TFD Fluid. Replace the filler cap. Start the tractor and run at low RPM for approximately 5 minutes to fill the filter. Check for leaks and the transmission pressure gauge (if equipped) for proper pressure.

(Refer to Figure 16)

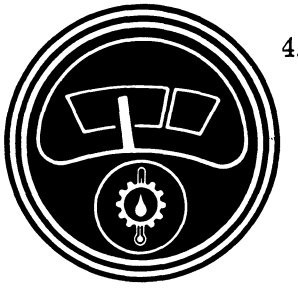


1. TACHOMETER AND HOURMETER - The tachometer indicates engine speed in revolutions per minute (RPM). The RPM is calibrated in increments of 100 RPM. The hourmeter is located within the tachometer dial and indicates hours and tenths of hours that the engine has run. The hourmeter does not register clock hours, but rather the hours the engine runs at an average engine RPM.

2. ALTERNATOR WARNING LAMP - The alternator warning lamp will light when the key is turned to the START position and should go off when the engine starts. If the warning lamp does not go off when the engine starts and is running, it is an indication that the battery is discharging and the alternator is not supplying current. STOP THE ENGINE AND INVESTIGATE THE CAUSE. If the warning lamp flickers when the engine is at low idle, the battery, alternator or regulator may not necessarily require servicing. If the warning lamp remains on when the engine speed is increased, STOP THE ENGINE AND INVESTIGATE THE CAUSE.



3. TRANSMISSION PRESSURE GAUGE - (Not used on mechanical shift w/o PTO). The pointer will be located in the green zone when the transmission pressure is normal. If the pointer is located in the amber zone, it is an early indication of a possible malfunction or the engine is operating at a low RPM. If the pointer is located in either of the red zones, STOP THE ENGINE AND INVESTIGATE THE CAUSE.



4. TRANSMISSION TEMPERATURE GAUGE - The pointer will be located in the green zone when the transmission is operating at normal temperature. If the pointer is located in the red zone, STOP THE ENGINE AND INVESTIGATE THE CAUSE.

OPERATING CONTROLS AND INSTRUMENTS

Headlights

The head lights are 12 Volt, 40/40 Watt sealed Hi-Low beam units.

Turn the light switch to No. 2 position for the upper flood (Hi) beam, No. 3 position for combination flood (Hi) and driving (Low) beam and No. 4 position for lower driving (Low) beam.

The headlights are adjustable and must be aimed at least 6^0 to 8^0 down form a horizontal plane with a forward projection not to exceed 6^0 out from the tractor axis.

NOTE: Lights must be re-adjusted any time different size tires are applied. Refer to Page 107.

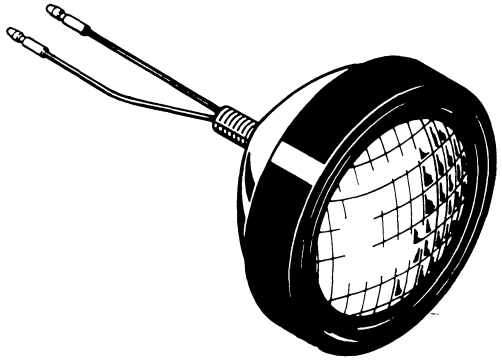


Figure 25

Flood Lights

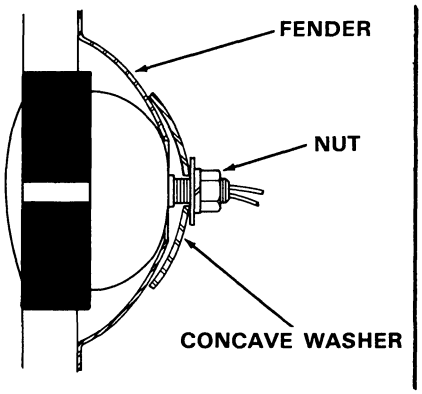


Figure 26

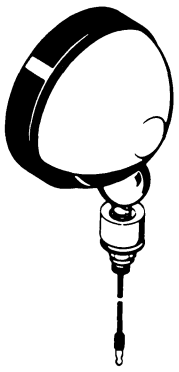


Figure 27

The flood lights are 12 Volt sealed units. The flood lights will light when the light switch on the instrument panel is turned to Number 2 or 3 positions.

The flood lights can be adjusted to desired cultivating positions by loosening the nut on the inside of fender or moving the light assembly by hand to desired position.

TILTING AND TELESCOPING STEERING COLUMN

Tilting the Steering Column

There are five positions of tilt to select from, full lower position to full tilt. To obtain a tilt position, depress the tilt pedal below the instrument panel, select desired position and release the pedal to lock the steering column in position.

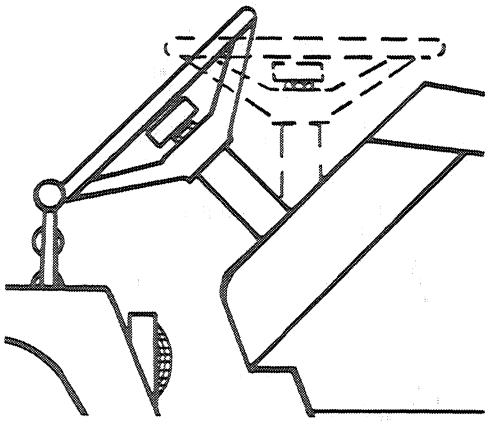


Figure 43

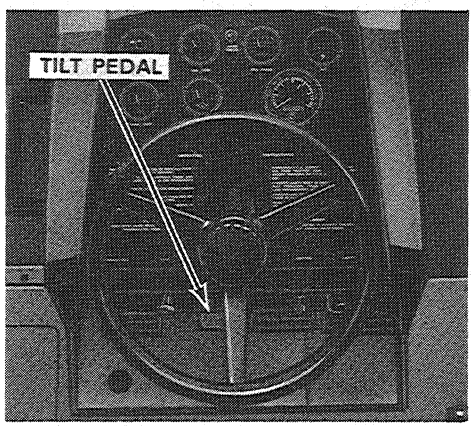


Figure 44

Telescoping the Steering Column

The steering wheel may be telescoped outward at any one of the tilt positions. Any desired extended position from the inward position up to 5 inches (127.0mm) in the extended position may be obtained. To obtain a position, turn the lock knob counter-clockwise to loosen, then select position. Turn lock knob clockwise to lock.

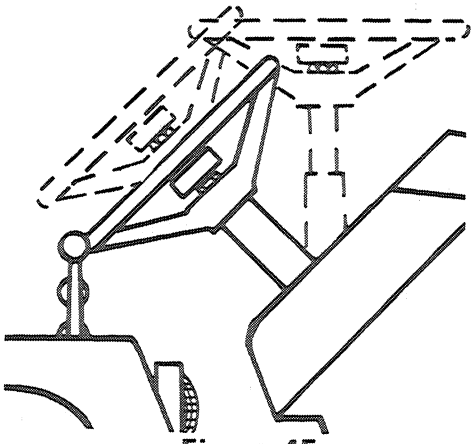


Figure 45

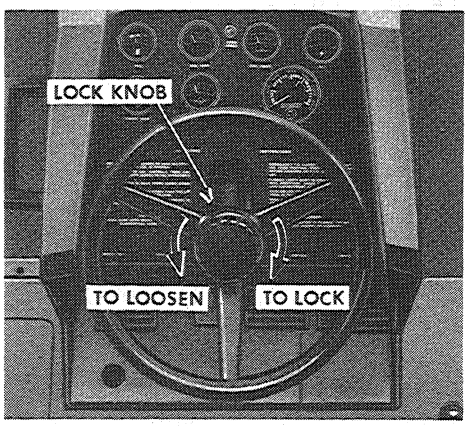


Figure 46

DRAFT-O-MATIC CONTROL (Cont'd)

Hydraulic Float Control

1. Position the LOWERING STOP to the forward most position on the console.
2. Now move the Draft-O-Matic lever against the 2nd stop - The Hitch System will now be in Hydraulic Float Control. Refer to implement operator's manuals.

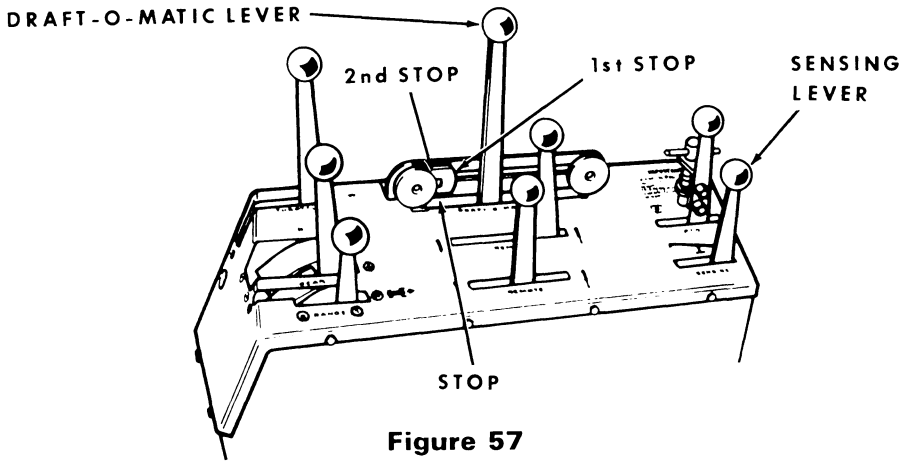


Figure 57

Sensing Control

Moving the lever to the farthest rearward position gives maximum sensing for plowing and deep draft implements. Moving the lever to the farthest forward position locks out the automatic sensing control. The positions in between (intermediate) applies minimum sensing control which is used with tool bar, cultivators and shallow draft implements.

If the operation of a particular implement or tool requires a fixed control depth position - proceed as follows:

1. Move the automatic sensing control lever to the forward lock out position.
2. Lower the draft arms with the Draft-O-Matic lever, until the desired depth is reached.
3. Move the lowering stop so the 1st stop position is against the Draft-O-Matic lever.

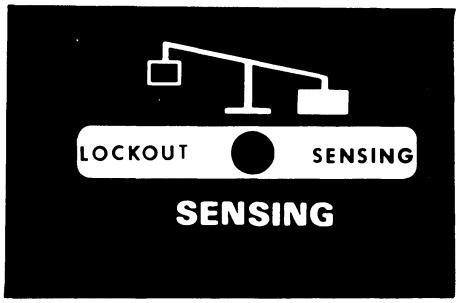


Figure 58

ADJUSTABLE FRONT AXLE ADJUSTMENT

1. Raise and securely block the tractor front end and block the rear wheels.

2. Remove the drag link inner two clamp bolts and nuts.

3. Remove the axle tube extension locating bolts and nuts.

4. Slide the axle extensions to the desired tread spacings and re-install the tube locating bolts and nuts.

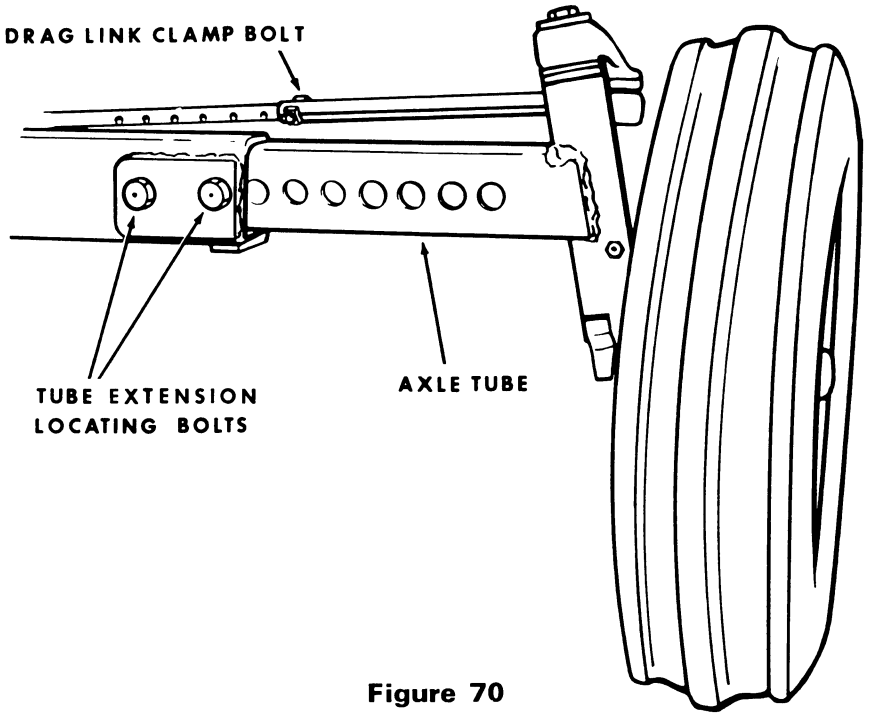


Figure 70

5. Notches spaced 2 inches (50.8mm) apart are provided on the drag links to maintain proper toe-in as the axles are moved in or out. You must locate the inner clamps on the drag link over the notches that correspond with the axle extension hole in which the locating bolt is installed. Refer to Page 11 for tread spacings.
EXAMPLE: If the locating bolt is in the Number 3 hole in the extension, the clamps must be located over the third notch from the outer end of the drag link.

Be sure to replace and tighten all clamp bolts. **NOTE:** Torque the tube bolts 320 to 380 ft. lbs. (44.2 to 52.5 m-kg.) and the drag link clamp bolts to 65 ft. lbs. (8.9 m-kg.) **IMPORTANT:** If this procedure is not followed, the turning angle will be affected.

FAN BELT ADJUSTMENT

The fan belt should be checked for excessive looseness and wear every 250 hours. The proper belt adjustment will give a deflection of 1/2 inch (12.7mm) with 16 to 19 lbs. (7.3 to 9.5 kg.) force on a fish scale or 90-110 lbs. (40.8 to 49.9 kg.) tension with a belt tension gauge. **NOTE:** Measurements must be made between the alternator pulley and crankshaft pulley. When tension is too tight, the alternator and water pump bearings and the fan belt will wear excessively. When belt tension is too loose it will permit excessive belt wear and slippage, also low or no alternator output.

The most accurate method of checking belt tension is with a Belt Tension Gauge.

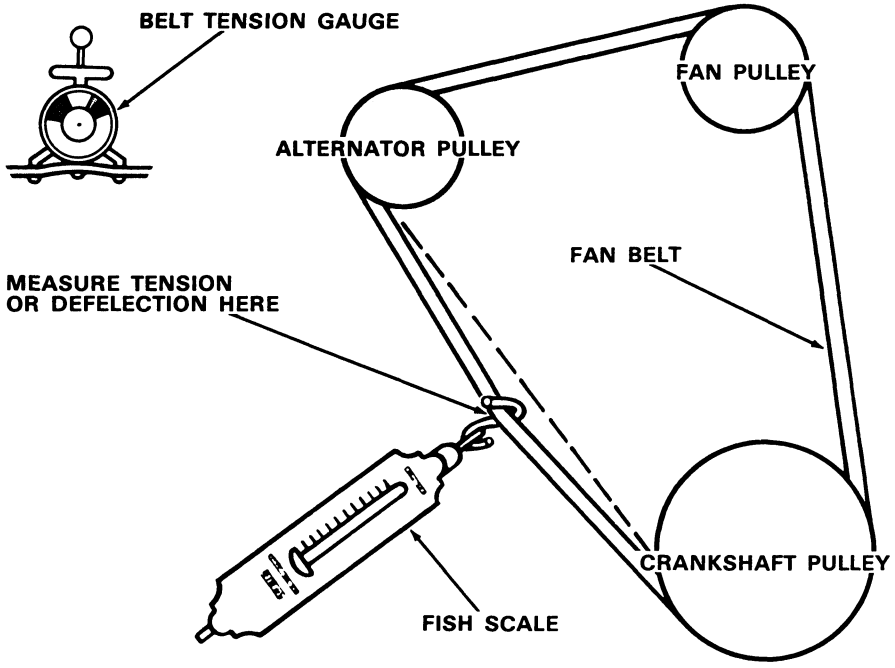


Figure 81

SAFETY START SWITCH ADJUSTMENTS

NOTE BEFORE ATTEMPTING ANY SWITCH ADJUSTMENTS, IT WILL BE NECESSARY TO OBTAIN SEVERAL .010" (.254mm) SHIMS FROM YOUR AUTHORIZED CASE DEALER AND PROCEED AS FOLLOWS:

Mechanical Shift Tractors

Remove the neutral start switch and shims. Replace the start switch into the cover. Depress the clutch pedal and hold the key switch in the start position. Now thread the neutral start switch in or out of the cover until the engine starts with Range Lever in neutral position. **NOTE** Both wires must contact the switch terminals to start the engine. Once the correct position of the neutral switch has been found, measure the gap between the switch and cover with feeler gauge. Add the shims necessary to maintain the switch in the correct position. **NOTE** Depress the clutch pedal and check to see that the engine does not start with the Range lever in gear.

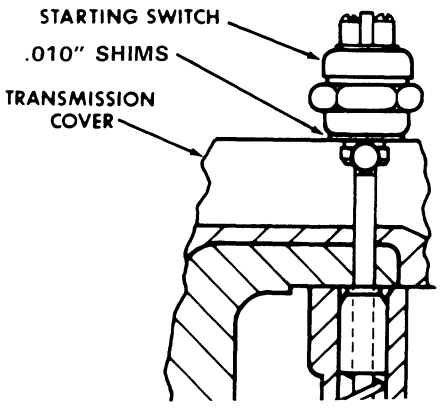


Figure 93

Power Shift Tractors

If the engine will not start with the Range Lever in neutral make sure the neutral start switch is threaded down tight against the shim. If switch is down tight, contact your Authorized Case Dealer.

If the engine starts with the Range Lever in gear, **IMPORTANT** depress the inching pedal and turn the start switch out with the key switch held in the start position until the engine will not start. Check gap between shim and switch with a feeler gauge. Add .010" (.254mm) shims as required to maintain the switch in the correct position.

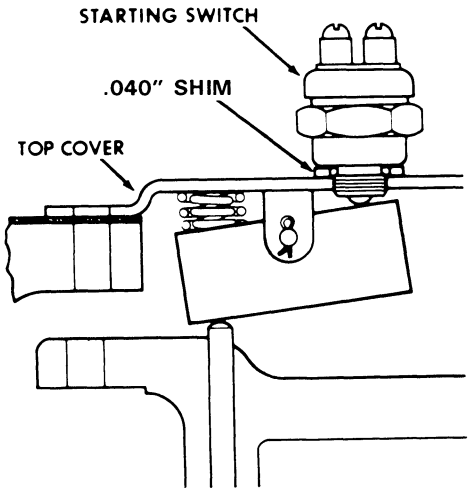


Figure 94

IMPORTANT If the engine continues to start with maximum shimming, contact your Authorized Case Dealer.

OPERATOR ROLL OVER PROTECTIVE STRUCTURES AND CABS (ROPS) (CONTINUED)

Accidental Upset

ROPS is an energy absorbing safety device. Once it has been subjected to an upset or some other form of impact (such as striking an overhead abutment during travel) it should be replaced so that you will have the same degree of protection originally provided.

ROPS, the operator's seat, the seat belts and their respective mountings, and any accessories, wiring, etc., within the operator protective system, should be very careful inspected after an upset, and all broken or damaged parts replaced immediately. DO NOT ATTEMPT TO STRAIGHTEN OR WELD ROPS.

Safety Precautions

1. Do not make field modifications to ROPS, such as welding accessories to, or drilling holes in it.

2. Do not install attachments that will cause the total gross weight of the machine to exceed the weight (15,600 lbs.) (7 075 kg) shown in the "for maximum gross vehicle weight" column on the ROPS label, located on the inside left hand column.

3. Special hardware is often used for mounting and anchoring operator protective devices. Replacement parts must be those listed in the Case Parts Catalog.

4. Batteries, fuel tanks, oil reservoirs, coolant systems, etc., if located near the operator's compartment, should be equipped with non-spill caps.

Maintenance and Inspection

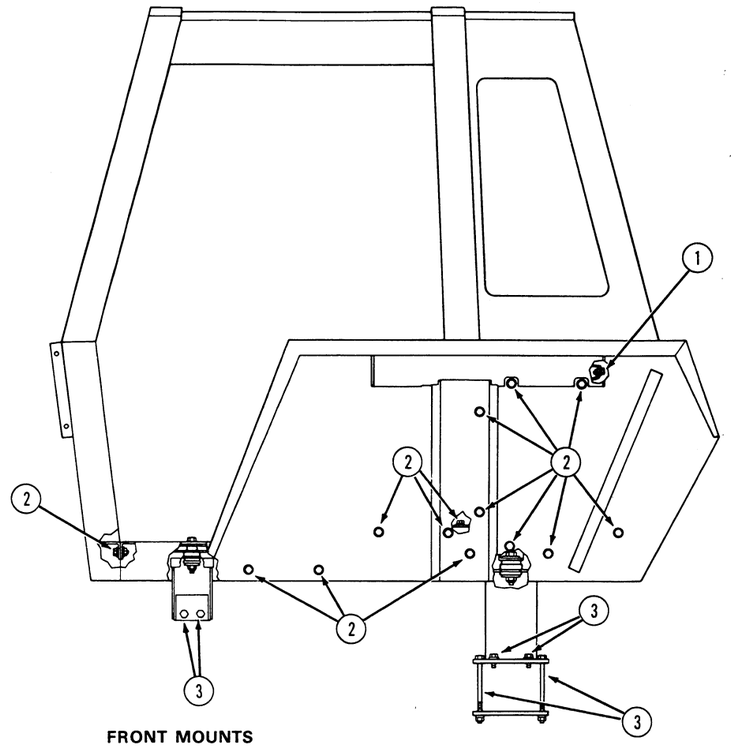
Every 500 hours or twice yearly, whichever occurs first, perform the following:

1. Check all ROPS mounting bolts and retorque to specifications.

2. Inspect operator's seat and seat belt mountings. Torque seat mounting bolts to 35-42 ft. lbs. (4.8 to 5.8 m-kg) and seat belt mounting bolts to 54-64 ft. lbs. (7.5 to 8.9 m-kg).

3. Inspect and replace all damaged or worn parts.

OPERATOR ROLL OVER PROTECTIVE STRUCTURES AND CABS (ROPS) (Continued)



FRONT MOUNTS

REAR MOUNTS

BOLT TORQUE VALUES (These Values Apply to ROPS Structures and ROPS Cabs)

1. 5/16" (7.9mm) BOLTS - TORQUE 17 TO 20 FT. LBS. (2.4 TO 2.8m-kg).

2. 3/8"(9.5mm) BOLTS - TORQUE 45 TO 54 FT. LBS. (6.2 TO 7.5m-kg).

3. 1/2" (12.7mm) BOLTS - TORQUE 80 TO 96 FT. LBS. (11.1 TO 13.4m-kg).

OPERATOR'S CAB (Continued)

Operator's Seat and Trim

Your Case Cab is equipped with a soft fabric trimmed seat and panels of soft foam material for maximum operator comfort. The care and maintenance of these parts will ensure many satisfactory hours of comfort.

Figure 118

CARE AND CLEANING - Dust and loose dirt that accumulates on seat fabric should be removed frequently with a vacuum cleaner, wisk broom or soft brush. Normal cleanable soilage, spots or stain can be cleaned with the proper use of fabric cleaners.

Before attempting to remove spots or stains from upholstery, determine as accurately as possible the nature and age of the spot or stain. Some spots or stains can be removed satisfactorily with water or mild soap solution.

For best results, spots or stains should be removed as soon as possible. Some types of stains or soilage such as oil and certain types of grease are extremely difficult and, in some cases, impossible to completely remove. When cleaning this type of stain or soilage, care must be taken not to enlarge the soiled area. It is sometimes more desirable to have a small stain than an enlarged stain as a result of careless cleaning.

TABLE OF CONTENTS (Continued)