W24
Articulated Loader

Operators Manual

9-2263

Reprinted

CASE

General

To avoid confusion when following instructions in this manual. The use of "Right Hand" and "Left Hand" must be understood. "Right Hand" and "Left Hand" indicates the right and left sides of the machine when viewed from the operator's seat.

Serial Number Location

LOADER - Below and between converter temperature gauge and clutch pressure gauge.

ENGINE - Left side of cylinder block, above starter motor.

TRANSMISSION - Lower right side of transmission case. Note: Serial, Model and Part Numbers are listed. When ordering parts or requesting information, be sure to include all three numbers.

FRONT AND REAR AXLE - Before Serial Number 9105061 - plate attached to axle housing. Serial Number 9103061 and after - plate attached to carrier assembly.

For convenient reference, fill in Model Number and Serial Numbers in the spaces below.

LOADER _____

ENGINE _____

TRANSMISSION: Serial _____

Model TT 2420-1

Part _____

FRONT AXLE _____

REAR AXLE _____

4. ENGINE OIL PRESSURE GAUGE - The engine oil pressure gauge should register between 45 to 55 psi when the engine is warm and running at full governed speed. When low or no oil pressure is indicated, stop the engine and check for the cause of low oil pressure.

5. ENGINE TEMPERATURE GAUGE - This gauge indicates the coolant temperature. The normal operating temperature is between 202° F. and 230° F.

6. FUEL GAUGE - Indicates amount of fuel in the fuel tank.

7. TORQUE CONVERTER TEMPERATURE GAUGE - Indicates operating temperature of the oil in the torque converter. The gauge needle should register in the green zone on the gauge. If gauge needle enters red zone, place transmission in neutral and idle engine until gauge needle returns to green zone. One of the causes of converter oil overheating is operating too long at stall speed.

8. CLUTCH PRESSURE GAUGE - Indicates hydraulic clutch operating oil pressure. The gauge needle should register between 145 psi and 180 psi unless the brakes are applied. The gauge will register zero until the brake pedal is released. If the needle should (a) drop out of or (b) not reach, or (c) goes over the normal operating range, stop loader and determine cause.

9. AIR PRESSURE GAUGE - The air pressure gauge indicates pressure in the main air reservoir. During normal operation the reading will vary between 100 and 120 psi.

10. PUMP INLET PRESSURE GAUGE - Indicates the pressure of the hydraulic oil as it enters the hydraulic pump. The gauge should read 12-14 psi during operating of the loader. At idling speed, 750 rpm, the gauge will indicate a higher pressure, 16 psi ± 3. If the gauge does not indicate a pressure of 13-19 psi shortly after starting engine, check the air valve at the hydraulic reservoir and make sure it is open. If the air valve is open and the proper pressure is not indicated, see your Authorized Case Dealer.

11. FUEL SHUT-OFF CONTROL - Release accelerator pedal, pull shut-off control out and turn key to OFF position to stop engine.

3. Use an ethylene glycol base permanent antifreeze in cooling system.

4. Keep fuel tank full to aid in the prevention of fuel tank condensation. A diesel fuel conditioner can be obtained from your Case dealer.

5. Maintain normal engine operating temperature. See Engine Idling below.

6. The following suggestions are offered for use in extreme cold.

   a. Remove batteries and store in a warm place. Always store batteries on wood and not concrete. Reinstall batteries just before placing loader into service.

   b. Drain crankcase oil while warm and store in a warm place. If possible, preheat oil to about 100° F. before reinstalling in engine.

Engine Idling

During long engine idling period, the engine coolant temperature will fall below the normal operating range. Incomplete combustion in a cold running engine causes crankcase oil dilution, formation of lacquer and gummy deposits on valves, pistons and rings. Rapid accumulation of crankcase sludge will result.

Operate at 2/3 throttle when prolonged engine idling is necessary.

Engine Stopping Procedure

Apply parking brake and place all controls in neutral. Idle the engine for a few minutes before stopping engine to allow slower and more even cooling of engine parts. Turn the key switch to the OFF position and pull shut-off control out. After the engine has stopped, push shut-off control in.

INTERVAL	TYPE OF SERVICE	FLUIDS & LUBRICANTS	INSTRUCTIONS
Every 300 Hours	Replace engine oil filter.		See page 39.
Every 500 Hours	Check front and rear axle oil level.		See page 54.
	Check steering gear box oil level.		
	Check fan belts and air compressor drive belt tensions.		See page 57.
	Change hydraulic oil.	See page 33.	See page 50.
	Replace hydraulic oil outlet filters (3).		See page 50.
	Clean air baffle screen.		See page 50.
	Clean hydraulic oil inlet screen. Replace fuel filters. Drain water from fuel tank.		See page 50. See page 41.
Every 1000 Hours	Clean transmission breather.		See page 52.
	Clean transmission oil screen.		See page 52.
	Replace transmission oil filter.		See page 52.
	Change transmission and converter oil.	See page 33.	See page 52.
	Change front and rear axle oil.	See page 33.	See page 54.
	Remove air compressor cylinder head and clean (by Case dealer only).		
Every 3000 Hours	Rebuild or replace air compressor (by Case Dealer only).		
As required	Clean air cleaner filter element when indicator red band is showing.		See page 43.
	Replace fuel filters when gauge is in red zone (early production machines).		See page 41.
	Remove and clean fuel tank filler screen.		

To wash the filter, use Case Filter Element Cleaner which is available through your Authorized Case Dealer. Mix two ounces of cleaner to one gallon of water (temperature 70° to 100° F.). Soak the element in this solution for 15 minutes. Rinse thoroughly. Do not use water pressure over 40 psi at the nozzle. Let the element air dry completely before installing. Do not use air pressure to dry the filter.

The element can also be cleaned with compressed air (maximum pressure 100 psi at nozzle). Keep the air nozzle a reasonable distance from the filter. The use of compressed air is not recommended because it will not remove carbon and soot - washing will. NEVER attempt to clean the element by rapping it. This will only dent the metal covering. The inner paper will rub this dent causing a puncture. If any fuzz is noted around a dent or any place on the element, the paper is punctured and must be replaced immediately or serious damage will result. Do not accept a new filter or install one if the metal covering is dented.

The filter can be checked for damage or pin holes by rotating it against a light. If any holes appear, replace the element.

COOLING SYSTEM

Radiator Cap

The radiator pressure cap serves two purposes:

1. It pressurizes the cooling system at 7 psi, thereby raising the boiling point of the coolant, and reduces loss of coolant by evaporation, surging and boiling. The efficiency of a pressurized cooling system is maintained by immediate repair of leaks and replacement of weak or defective parts.

2. It serves as a relief valve if the system pressure rises above 7 psi.

WARNING: Always remove the pressure cap slowly. Quick removal of the cap can reduce system pressure enough to make the coolant boil out of the radiator opening and result in painful burns to the operator.

BRAKES

Foot Brakes

Adjustment

The following procedure applies to units before serial number 9105061.

1. Block wheels to prevent machine from rolling. Raise one wheel at a time.

2. Refer to Figure 34. Turn the eccentric cam in the direction shown until a heavy drag is felt while rotating the wheel. Then loosen the eccentric cam until the wheel turns freely.

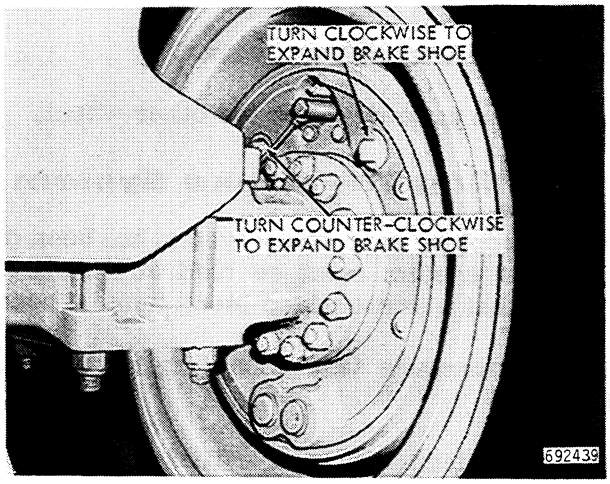

Figure 34

3. Repeat steps 1 and 2 for the other wheel.

The following procedure applies to units with serial number 9105061 and after.

1. Block wheels to prevent machine from rolling. Raise one wheel at a time.

2. Refer to Figure 35. Remove plugs from adjusting slots.

3. Expand one brake shoe until wheel cannot be turned. Use a brake adjusting tool or screwdriver and turn the star wheel clockwise (move tool towards axle).

CAUTION: Do not reposition actuator on shift lever shaft.

2. Loosen neutral switch mounting screws. Position the switch on the mounting bracket so the switch roller rests in groove in actuator collar and tighten mounting screws.

3. The engine should start with the shift lever in neutral. Then try starting the engine with the shift lever in forward and reverse. If the engine starts in forward or reverse readjust switch.

4. If proper adjustment cannot be achieved, see your Authorized Case Dealer.

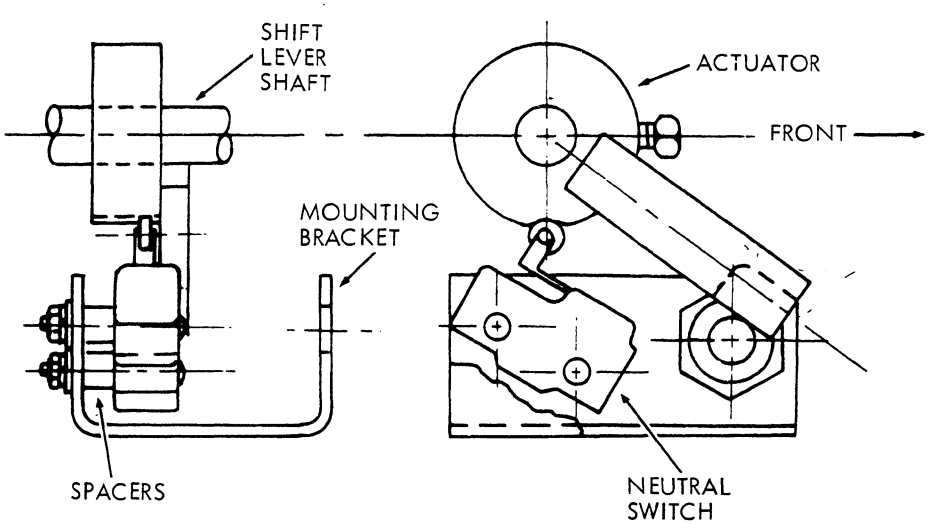

Figure 45