OPERATOR'S CAB (CONTINUED)

Air Filter Service (Continued)

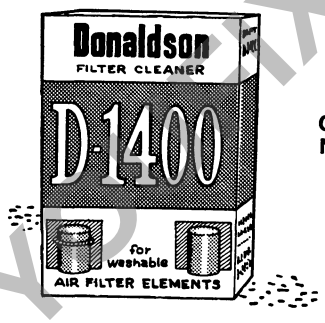
WATER WASHING METHOD - The washing method is used if element is heavily contaminated and sooty. Wash the element in water using Case Filter Element Cleaner Part No. A40910. Mix 2 ounces (56.7 Grams) of cleaner to 1 gallon (3.8 liters) of water at 70^0 to 100^0F. (21^0 to 38^0C.) Soak element for 15 minutes. Rinse thoroughly with hose. Do not use water pressure over 40 PSI (2.8 kg/cm^2) at the nozzle. Let air dry completely before installing. This usually requires 24 to 72 hours. **CAUTION:** Do not use air pressure to dry filter elements. It would be a good practice to have a second set of filter elements to use while the recently washed elements are drying.

WASHING



Figure 81

FILTER CLEANER



CASE PART NO.A40910

Figure 82

Heater Coolant Valve

The valve is located on top and to the rear of the water manifold and can be reached from the left hand side of the tractor. Turn the valve counter-clockwise to allow engine coolant to circulate through the heater core. Turn the valve clockwise to stop the flow of coolant to the heater core.

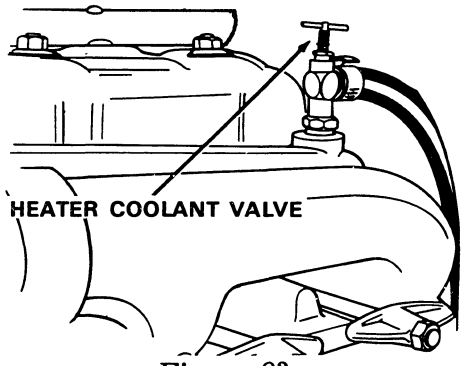


Figure 83

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED. The message that follows the symbol contains important information about your safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death. SB001

IF THIS MACHINE IS USED BY AN EMPLOYEE, IS LOANED, OR IS RENTED, MAKE SURE THAT THE OPERATOR UNDERSTANDS THE TWO INSTRUCTIONS BELOW.

BEFORE THE OPERATOR STARTS THE ENGINE:

1. GIVE INSTRUCTIONS TO THE OPERATOR ON SAFE AND CORRECT USE OF THE MACHINE.
2. MAKE SURE THE OPERATOR READS AND UNDERSTANDS THE OPERATOR'S MANUAL FOR THIS MACHINE.

WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH.

BEFORE STARTING THE ENGINE, DO THE FOLLOWING:

1. READ THE OPERATOR'S MANUAL.
2. READ ALL SAFETY DECALS ON THE MACHINE.
3. CLEAR THE AREA OF OTHER PERSONS.

LEARN AND PRACTICE SAFE USE OF MACHINE CONTROLS IN A SAFE, CLEAR AREA BEFORE YOU OPERATE THIS MACHINE ON A JOB SITE.

It is your responsibility to observe pertinent laws and regulations and to follow manufacturer's instructions on machine operation and maintenance.

See your Authorized Case dealer for additional operator's manuals, parts catalogs, and service manuals.

© 1995 Case Corporation

CASE and IH are registered trade marks of Case Corporation

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Diesel Engine

SPECIFICATIONS

General

Type	6 Cylinder, 4 Stroke Cycle, Valve-in-Head Turbocharged Diesel Engine
Firing Order	1-5-3-6-2-4
Bore	4-5/8 Inches (117.5mm)
Stroke	5 Inches (127mm)
Piston Displacement	504 Cubic Inches (8 257cm^3)
Compression Ratio	16.5 to 1
Cylinder Sleeves	Removable Wet Type
No Load Governed Speed	2160 RPM
Rated Engine Speed	2000 RPM
Engine Idling Speed	750 RPM
*Valve Tappet Clearance (Exhaust)	(Hot) .020 Inch (0.508mm)
	(Cold) .025 Inch (0.635mm)
(Intake)	(Hot and Cold) .015 Inch (0.381mm)

*Hot Settings Are Made After The Engine Has Operated At Thermostat Controlled Temperature For At Least Fifteen Minutes.

Piston and Connecting Rod

Rings per Piston	3
Number of Compression Rings	2
Number of Oil Rings	1
Type Pins	Full Floating Type
Type Bearings	Replaceable Precision, Steel Back with Aluminum or Copper-Lead Alloy Liners.

Main Bearings

Number of Bearings	7
Type Bearings	Replaceable Precision, Steel Back with Aluminum or Copper-Lead Alloy Liners.

PREVIEW - YOUFIXTHIS.COM

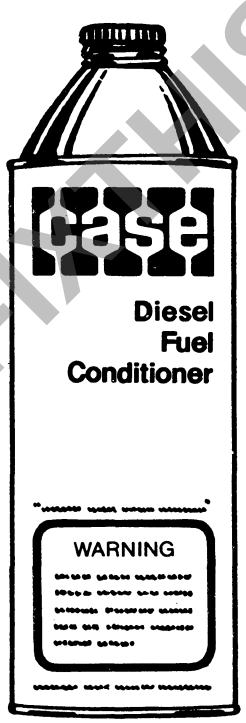
Download full manual at youfixthis.com

FUEL CONDITIONER

The following fuel conditioner is available from your Authorized Case Dealer to help insure continued fine performance that was designed into your Case Engine.

Case Diesel Fuel Conditioner is recommended for use in all Case Diesel engine fuel systems.

This fuel conditioner should be used as directed on the container.



CASE DIESEL FUEL CONDITIONER

Prevents gummy deposits from forming in the fuel systems.

Improved lubrication to the upper internal parts of the engine.

Eliminates fouling of injector nozzles, valves and manifolds.

Helps keep condensation suspended in the fuel, allowing it to be burned with the fuel.

Maintains a higher degree of fuel combustion and engine performance from fuel the engine burns.

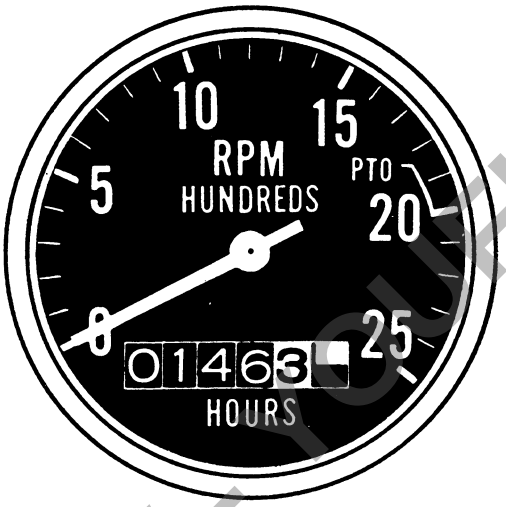
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

lubrication

Lubricating your Case Tractor will require only a few minutes of regular daily attention. Wherever possible, automatic lubrication or prepacked bearings have been provided to reduce the demand made on the operator's time.

Engine Hour Meter



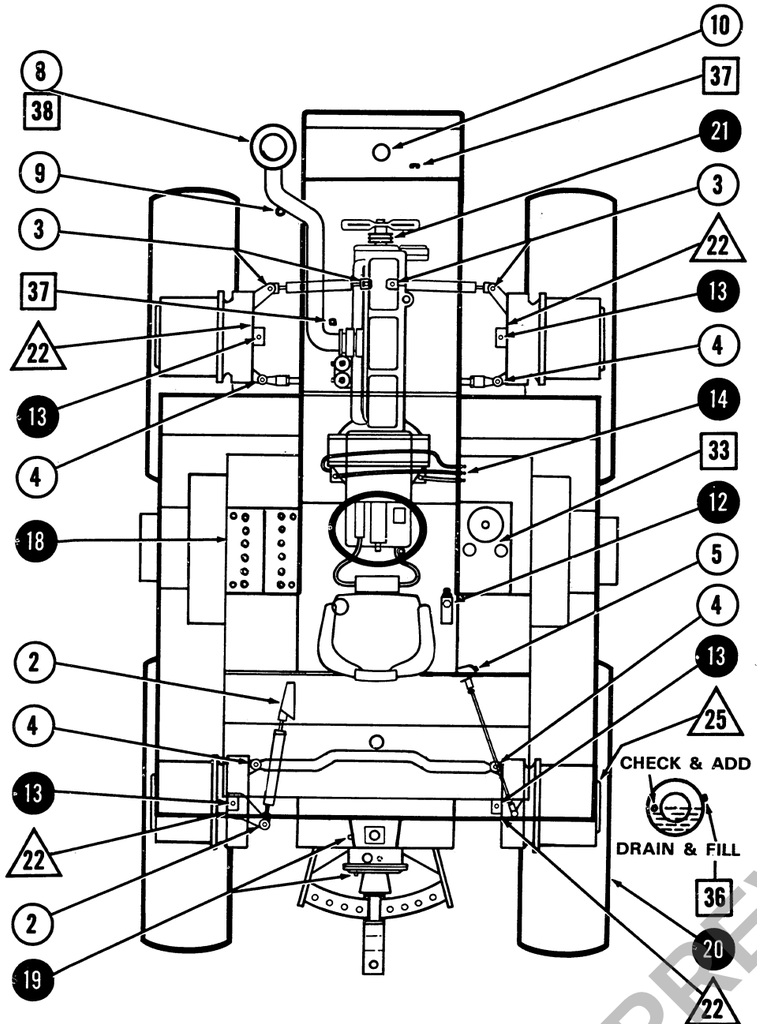
To assure maximum engine service and complete satisfaction, two factors must be observed:

1. Have a regular schedule of inspection and lubrication. All time intervals in the Lubrication Section and the Preventive Maintenance Section are based on Hour Meter Readings. Reading the Hour Meter provided on your Tractor will tell you when to service it.

2. Use only high quality oils and grease of unvarying specifications. Always buy from a reliable dealer who handles reputable, well-known brand lubricants. Use only oil and grease of the specifications recommended in this manual.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



REF. NO.	SERVICE POINTS	NO. OF POINTS	GREASE	DRAIN	CHECK	CLEAN	CHANGE	OIL (Few Drops)	FREQUENCY
1	Front Axle Mounting Pivot Pins	2	▒						
2	Rear Steering Cylinder Pivot Points	2	▒						
3	Front Steering Cylinder Pivot Points	4	▒						
4	Tie Rod Ends (Front and Rear)	4	▒						
5	Rear Steering Indicator Linkage	1	▒						
6	Engine Oil Level *	1			▒				○ 10 HOURS OR DAILY
7	Hydraulic System Level	1			▒				
8	Pre-Cleaner (Air Cleaner) ■	1				▒			
9	Air Cleaner Restriction Indicator ■	1			▒				
10	Radiator Coolant Level	1			▒				
11	Fuel Tank Water Trap ■■	1	▒						
12	Master Brake Cylinder □	1			▒				
13	Wheel Trunnion Sockets (Front and Rear)	8	▒						
14	Clutch Throwout Shaft and Bearings	3	▒						
15	Drive Shaft Slip Joints	3	▒						
16	Drive Shaft Universal Joints	6	▒						● 60 HOURS OR WEEKLY
17	Transmission Oil Level **	1			▒				
18	Battery Fluid Level □□	2			▒				
19	PTO Gear, Clutch Housing Oil Levels	2			▒				
20	Tire Pressure	4			▒				
21	Fan Belts and Compressor Belts □□□	2			▒				
22	Axle Shaft Universal Joints	4	▒						
23	Engine Crankcase Oil *	1		▒			▒		△ 100 HOURS
24	Differential Level	2			▒				
25	Planetary Oil Level	4			▒				
26	Engine Oil Filter ***	1					▒		
27	PTO Gear, Clutch Housing Breathers	2				▒		▒	▲ 200 HOURS
28	Hydraulic Reservoir Breather ●●●	1				▒			
29	Hydraulic Reservoir Inlet Filter ●●	1					▒		
30	Hydraulic Reservoir Outlet Filter ●●	1				▒	▒		
31	Hydraulic Reservoir Oil ●●	1	▒			▒	▒		
32	Differential Oil	2	▒				▒		
33	Transmission Oil Filter and Breather ●	2				▒			□ 1000 HOURS OR YEARLY
34	Transmission Oil **	1	▒				▒		
35	PTO Gear Housing Oil	2	▒				▒		
36	Planetary Oil	4	▒				▒		
37	Cooling System ■■■	3	▒			▒	▒		
38	Air Cleaner ■	1				▒	▒		

*Refer to page 17 for Run-In-Oil Drain and Change
**Refer to page 17 for Instructions
***Refer to page 18 for Instructions
●Refer to page 19 for Instructions
●●Refer to page 20 and 21 for Instructions
●●●Refer to page 21 for Instructions
■Refer to pages 22 thru 24 for Complete Filter Service Instructions
■■Refer to page 39 for Instructions
■■■Refer to pages 60 thru 63 for Instructions
□Refer to page 74 for Instructions
□□Refer to page 81 and 82 for Instructions
□□□Refer to page 64 and 90 for Instructions

PREVIEW ONLY
YOUFIXTHIS.COM

Download full manual at youfixthis.com

ENGINE OIL FILTER

Change Interval ..... After the first 20 hours of operation and each 200 hours thereafter.

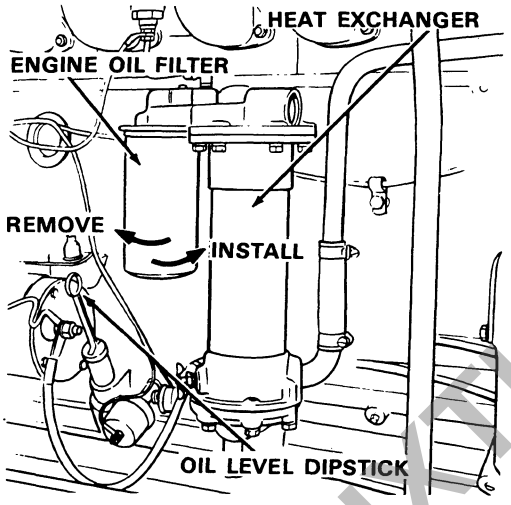
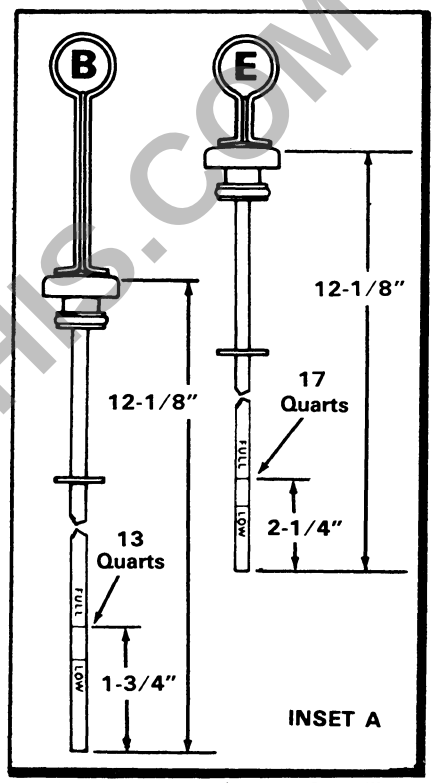


Figure 2



1. Drain oil from the crankcase. With a filter wrench, remove the filter by turning in a counter-clockwise direction as shown in Figure 2.
2. Apply a thin coat of clean oil or grease to the gasket on the new Case filter. Install the filter by turning in a clockwise direction Figure 2, until gasket contact is made. Hand tighten only 3/8 of a turn. Loosen the filter and retighten until gasket contact, then hand tighten 3/8 to 1/2 of a turn to obtain the proper seal. Install the oil pan drain plug with a new nylon gasket and torque 18 to 20 ft. lbs. (2.5 to 2.8 m-kg).
3. Add 13 Measured U.S. Quarts (12.3 liters) of new oil prior to engine S.N. 2503651 with dipstick "B", Inset A and 17 Measured U.S. Quarts (16.1 liters) of new oil beginning with engine S.N. 250361 and after with dipstick "E", Inset A. Pull the engine stop control out to the stop position. Crank the engine with key switch until the engine oil pressure gauge pointer reaches the green zone or a maximum of 30 seconds. Wait one minute, then push the fuel stop control in. Start the engine and run for 5 minutes at approximately 1000 RPM to assure adequate lubrication to reach the turbo-charger bearings as well as the rest of the engine. Shut the engine off for several minutes, allowing the oil to drain back to the oil pan. **IMPORTANT:** Make certain the tractor is on a level surface to assure an accurate level check. Check the oil level with the dipstick. Add oil only if necessary.

IMPORTANT: CHANGE THE OIL FILTERS AT THE RECOMMEN DED TIME INTERVALS.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

operating instructions

RUN-IN-PROCEDURE

Careful attention must be given to proper Run-In-Procedure. Piston rings and cylinder sleeves can be seriously damaged in a new engine if "run-in" instructions are not followed. The following procedure is recommended.

Load

For the first 50 hours, operate the engine at full throttle using one gear lower than normal field operation. Do not "baby" the engine, but do not "lug" it. Engine must not be "lugged" below its Rated Engine RPM.

No Load

When the engine is not operating under load, but the operator wishes to keep the engine running, keep the radiator shutter (if so equipped) closed sufficiently to maintain correct operating temperature. Place the throttle control lever 2/3 open (approximately 1500 RPM). Do not idle the engine.

Crankcase Oil

Case Tractors are shipped from the factory with SAE 10W Engine Lube Oil in the crankcase. After the first 20 hours of operation, drain this oil while the engine is hot and replace it with fresh oil of the proper rating as indicated on Page 16. Change the crankcase oil at the recommended 100 hour intervals thereafter. DO NOT DRAIN OIL UNTIL THE ENGINE HAS BEEN OPERATED 20 HOURS.

Change the crankcase oil filter after the first 20 hours of operation and each 200 hours of operation thereafter. Install only a new Genuine Case Filter Element.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SAFETY PRECAUTIONS




1. Before starting the engine, be sure all operating controls are in NEUTRAL.

2. Keep brakes in proper adjustment.

3. Never operate any of the controls other than from seated in the operator's seat.

4. Drive at speed slow enough to insure safety and complete control, especially over rough terrain.

5. Reduce speed when making a turn or applying brakes.

6. Never shift while Tractor is in motion.

7. Never leave the engine running while it is unattended.

8. Never dismount from a Tractor when it is in motion.

9. Never permit persons other than the operator to ride on the Tractor.

10. Always downshift to a low gear before descending a steep or prolonged grade in order to use the braking power of the engine, keeping the Tractor at a safe speed.

11. Always shift to a lower gear before approaching a hill so it does not become necessary to shift against the hillside with danger of rolling backward while shifting.



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

POWER TAKE-OFF GUARDS (Continued)

Whenever a power take-off driven machine is in operation, the adapter guard and shields must be in place to prevent injury to the operator. When the power take-off is not is use, the small tubular guard for the splined end of the shaft must be in place. The power take-off adapter guard must never be removed at any time.

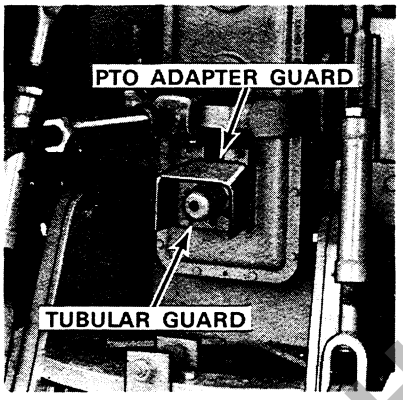


Figure 33

POWER TAKE-OFF OPERATING PRECAUTIONS

Certain precautions must be taken to insure safe operation of the power take-off hookup equipment.

1. The tractor drawbar must be locked in the center location on the support angle to prevent it from swinging horizontally.

2. The power take-off driven machine must be hitched to the tractor drawbar with a hardened pin and of the largest size possible and retained in place with a cotter pin, or klick pin. The pin should not extend upward because of possible interference with the PTO.

3. The power take-off adapter guard furnished with the tractor and the shields furnished with the telescoping shaft assembly must be used to prevent injury to the operator.

4. When connecting the power take-off shaft assembly to the tractor and to the driven machine, check it for proper length and for free telescoping action. This must be done to insure that the assembly will not bottom or pull apart regardless of the tractor or driven machine position.

BEFORE WORKING ON PTO DRIVEN MACHINE, ALWAYS DISENGAGE PTO AND STOP THE TRACTOR ENGINE.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Drawbar

Yoke Type ..... Full Swinging Roller Mounted, Will Accommodate a 1-1/2 Inch (38.1mm) Dia. Pin.

APPROXIMATE TRAVEL SPEEDS

FORWARD

MECHANICAL RANGE	TRANSMISSION GEAR			
	1	2	3	4
LOW	2.5 mph (4.0 km/h)	3.1 mph (5.0 km/h)	4.1 mph (6.6 km/h)	5.2 mph (8.4 km/h)
HIGH	6.5 mph (10.5 km/h)	8.4 mph (13.5 km/h)	10.9 mph (17.5 km/h)	14.0 mph (22.5 km/h)

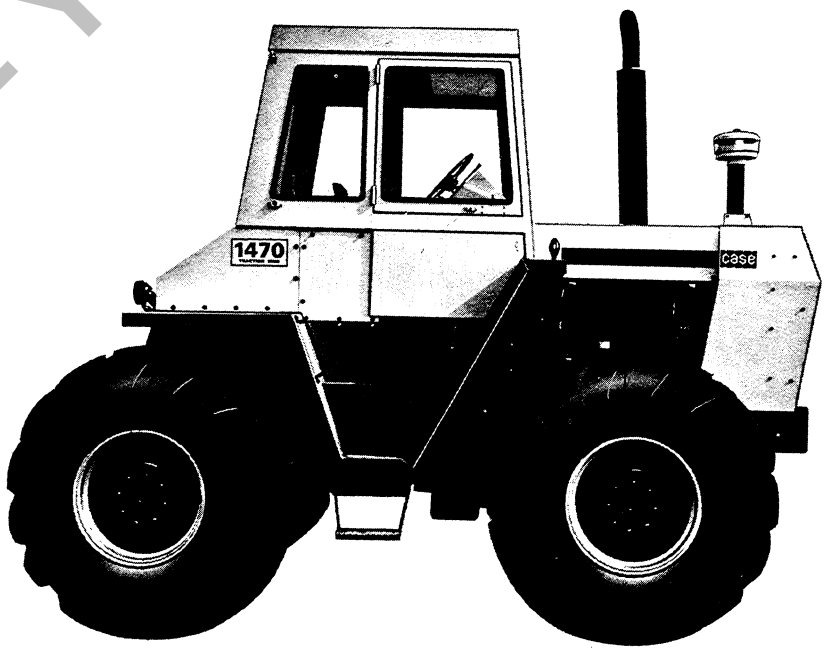
REVERSE

MECHANICAL RANGE	TRANSMISSION GEAR	
	1	2
LOW	3.9 mph (5.3 km/h)	4.9 mph (7.9 km/h)
HIGH	10.2 mph (16.4 km/h)	13.0 mph (20.9 km/h)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com





PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 12 of 102 pages

The full manual includes:

- All 102 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Case IH 1470, 1470 Tractor Operator Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual