



CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW

Caterpillar

Operator's Manual

3208 Engine

All Serial Numbers

JENSALES.COM

or Call 800-443-0625



CLICK ANYWHERE FOR MORE DETAILS

THIS IS A MANUAL PRODUCED BY JENSALES INC. WITHOUT THE AUTHORIZATION OF
CATERPILLAR OR IT'S SUCCESSORS. CATERPILLAR AND IT'S SUCCESSORS
ARE NOT RESPONSIBLE FOR THE QUALITY OR ACCURACY OF THIS MANUAL.

TRADE MARKS AND TRADE NAMES CONTAINED AND USED HEREIN ARE THOSE OF OTHERS,
AND ARE USED HERE IN A DESCRIPTIVE SENSE TO REFER TO THE PRODUCTS OF OTHERS.

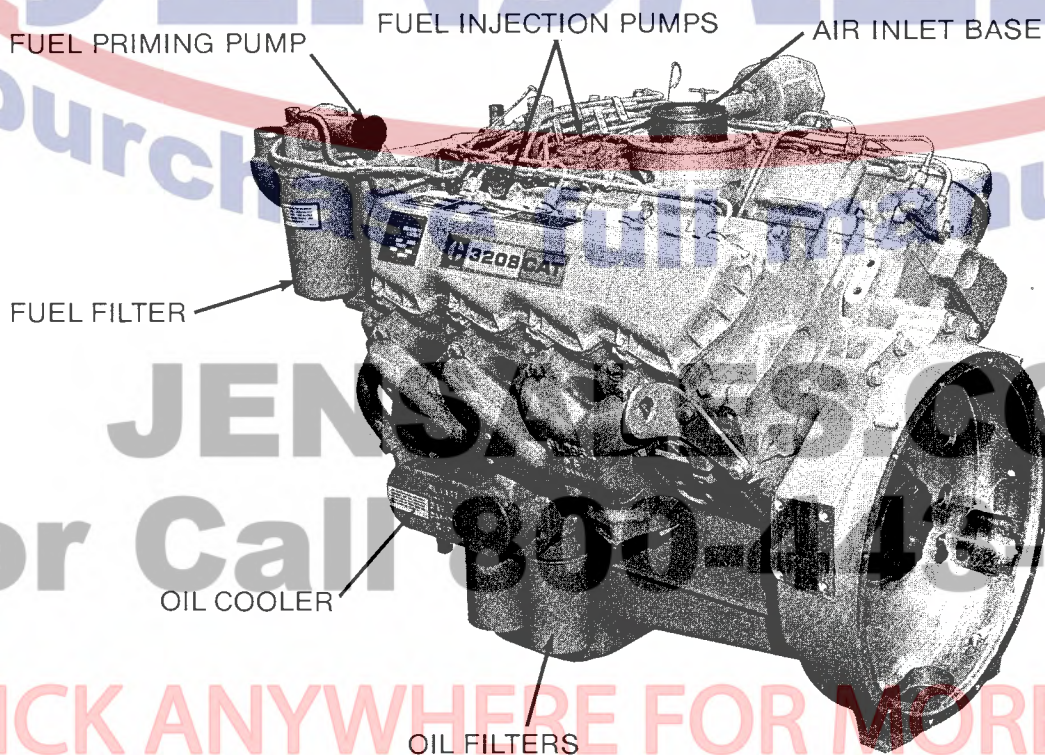
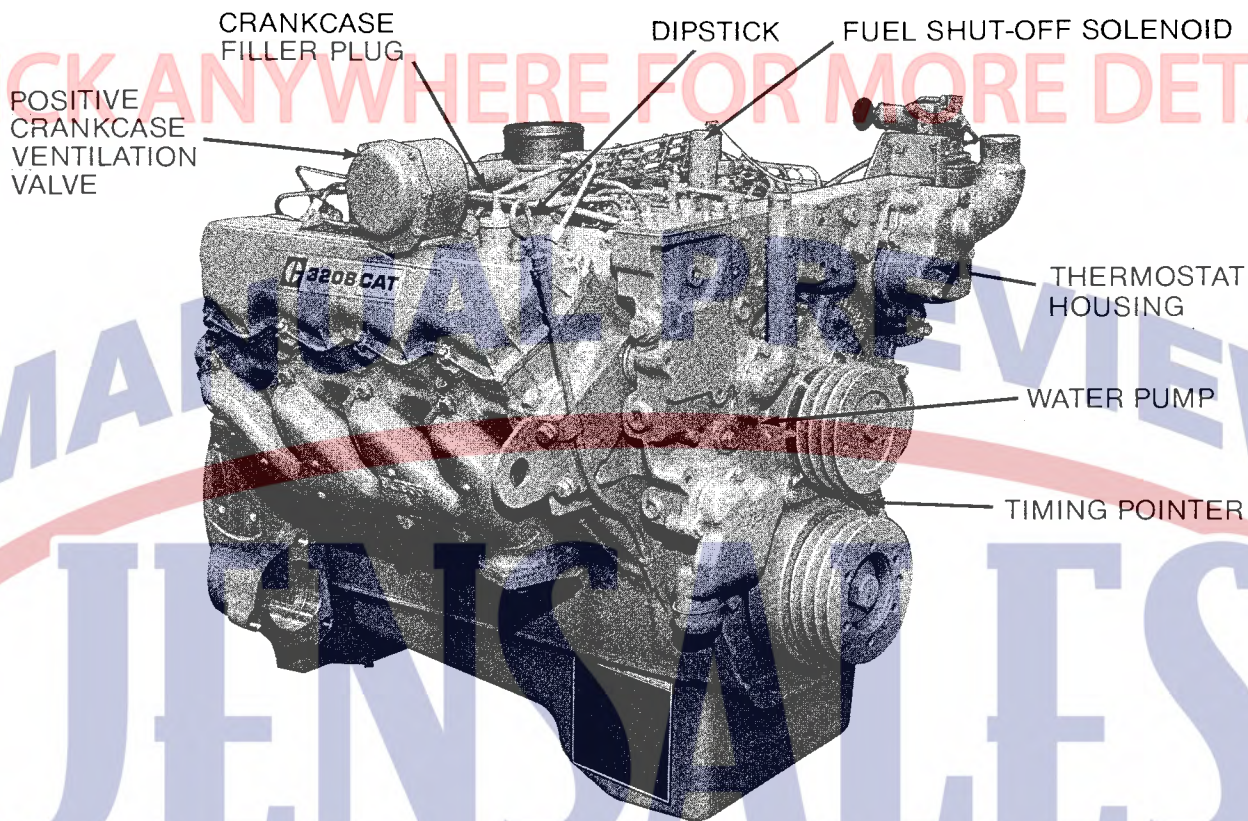
Operator's Manual

table of contents

	Page
General Information	2
Model Years	3
Safety Precautions	4
Operating Instructions	6
New Engine Operation	6
Reconditioned Engines	6
Before Starting Engine	6
Starting the Engine	8
Gauges	8
Engine Operation	9
Engine Shut Down	11
Cold Weather Operation	12
Altitude Operation	12
Storage	12
Daily Care and Report	13
Specifications	14
Performance Curves	15
Lubrication Specifications	16
Fuel Specifications	16
Coolant Specifications	17
Maintenance Instructions	18
Lubrication and Maintenance Chart	19
Lubrication Instructions	20
General Maintenance Instructions	22
Torque Specifications	24
Cooling System	25
Fuel System	29
Air Induction and Exhaust Systems	34
Electrical System	37
Miscellaneous Maintenance	40
Systems Operation	41
Operating Description	41
Fuel System	43
Lubrication System	49
Cooling System	51
Air Induction and Exhaust Systems	53
Electrical System	54
Troubleshooting	57
Maintenance Record	70
Index	72

CLICK ANYWHERE FOR MORE DETAILS

CLICK ANYWHERE FOR MORE DETAILS



JENSALES.COM
or Call 800-445-0625

CLICK ANYWHERE FOR MORE DETAILS

CLICK ANYWHERE FOR MORE DETAILS



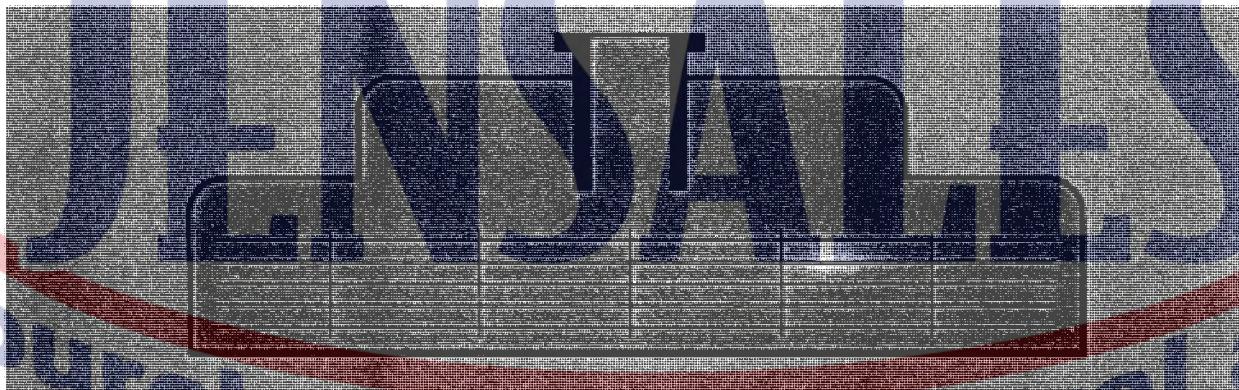
Check Engine Coolant Level (with engine stopped). Always release cooling system pressure before checking. Fill to the proper level with water, free as possible from scale-forming minerals (not softened water), and rust inhibitor, or a solution of water and a permanent type anti-freeze containing rust inhibitor. It is recommended Caterpillar Corrosion Inhibitor be added to the coolant solution if protection is for temperatures above -20°F (-29°C). It is not necessary to add inhibitor to the coolant solution if protection is for temperatures -20°F (-29°C) and below.

Models equipped with sight gauge; coolant should be warm (engine stopped) and coolant should be visible in the sight gauge.



WARNING

Inhibitor contains alkali. Avoid contact with skin and eyes.



Check Radiator for dirt and foreign material, fan, water pump and accessory drive belts for cracks, breaks and frayed edges. While checking belts, also check for oil, water and fuel leaks and general appearance of engine and engine compartment.

Check Fuel Supply: Drain a cupful of fuel from the bottom of the tank to remove water or sediment.

Fill fuel tanks after completing a run. Partially filled tanks will collect moisture if the truck is parked for any length of time. Use No. 2D diesel fuel with a minimum cetane rating of 40. Use No. 1-D diesel fuel in cold temperatures when white smoke must be minimized on start up. Keep fuel clean. Refer to Fuel Specifications for detailed information on fuel selection.

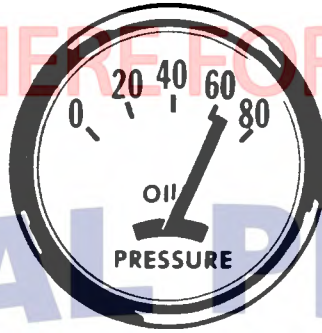


CLICK ANYWHERE FOR MORE DETAILS



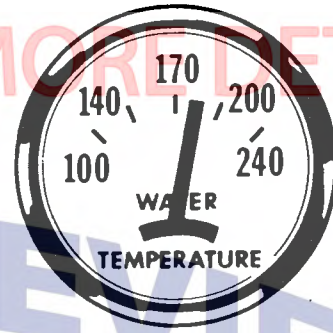
TACHOMETER

Indicates engine RPM. The engine can be operated between rated speed and high idle without damage, but should not be allowed to over-speed (such as when going downhill).



OIL PRESSURE

Registers between 55 and 80 PSI (379 and 551 kPa) (3.8 and 5.6 kg/cm²) [50 PSI (344 kPa) (3.5 kg/cm²) minimum] when the engine is running at rated speed with oil (SAE 30 or SAE 10W-30) at operating temperature. A lower pressure is normal at lower idling speeds. If no pressure is indicated, stop engine immediately. (Cold oil may have a higher oil pressure reading.)



WATER TEMPERATURE

Normally registers between 165° and 195°F (77° and 90°C). Somewhat higher temperatures may be experienced under certain conditions. Maximum allowable temperature, 210°F (99°C).

ENGINE OPERATION

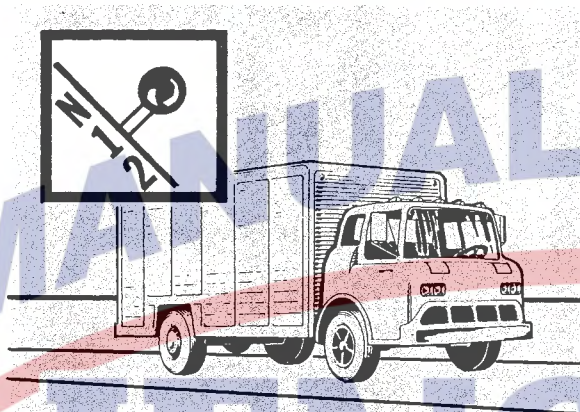
To receive satisfactory engine performance with maximum fuel economy and service life, the following engine operation instructions must be applied. In addition, it is necessary to also apply the recommendations of the vehicle manufacturer as well as the every day rules of good driving.

After the engine starts, reduce engine RPM to low idle with no load. When normal oil pressure is reached, operate the engine at low load for 5 minutes before applying full load.

STOP ENGINE AT ONCE IF ANY PART FAILS

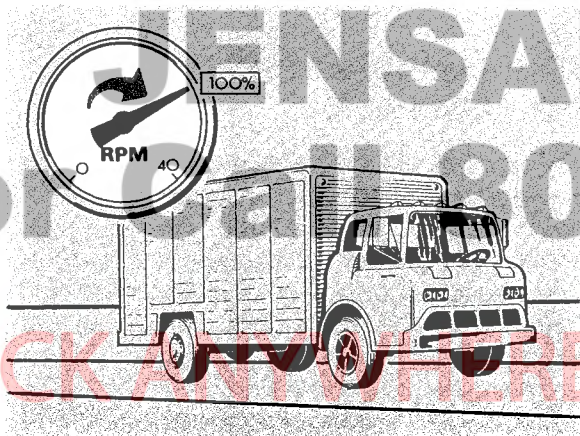
Almost all failures give a warning to the operator before the part completely fails. If the operator is alert and heeds the warnings, further damage may not happen. A few of the warning signs are: abnormal gauge readings, abnormal fluid levels, fluid leaks, unusual engine noises and excessive smoke. Do not operate an engine if any sign of part failure is present, only a few seconds can ruin an entire engine.

Start vehicle in motion by utilizing the lowest gear speed in the transmission that will enable the engine to easily start the load without slipping the clutch.



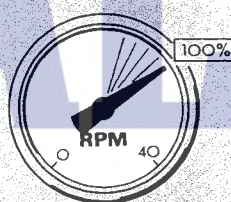
Accelerate smoothly and evenly until the engine speed reaches approximately 100% of rated RPM. Rapid depression of accelerator will result in undesirable heavy exhaust smoke and high fuel consumption with no increase in vehicle performance.

	175	210
Approximately 80% of Rated RPM	2240	2240
Rated RPM	2800	2800
High Idle RPM (Maximum Allowable ± 30)	2980	3030

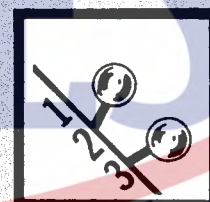


Upshift to the next higher gear speed. If properly done, the engine speed will be above approximately 80% of rated RPM when the load is applied. For best performance do not skip gears. Engine speed should not be permitted to drop appreciably below 80% of rated RPM, to avoid a lugging condition.

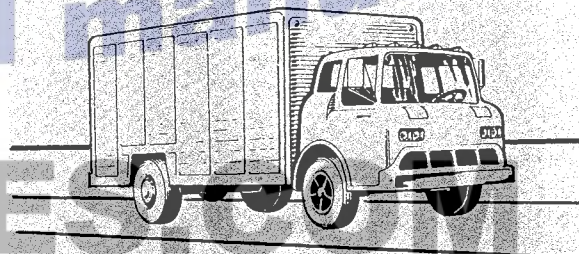
Caterpillar engines have good lugging characteristics; however, operating in a lug condition for extended periods of time should be avoided as it causes exhaust temperatures to rise and also results in high fuel consumption. A lug condition exists when an increase in engine speed cannot be achieved with an increase in accelerator pedal position, or when engine speed decreases with the accelerator pedal in its maximum position. A lug condition can exist at any engine speed below full load speed.



TACHOMETER RANGE



UPSHIFT ONE GEAR



Continue to make successive upshifts through each gear speed in the transmission until cruising speed is reached. In each gear speed, accelerate smoothly to an engine speed of approximately 100% of rated RPM before upshifting to the next gear.