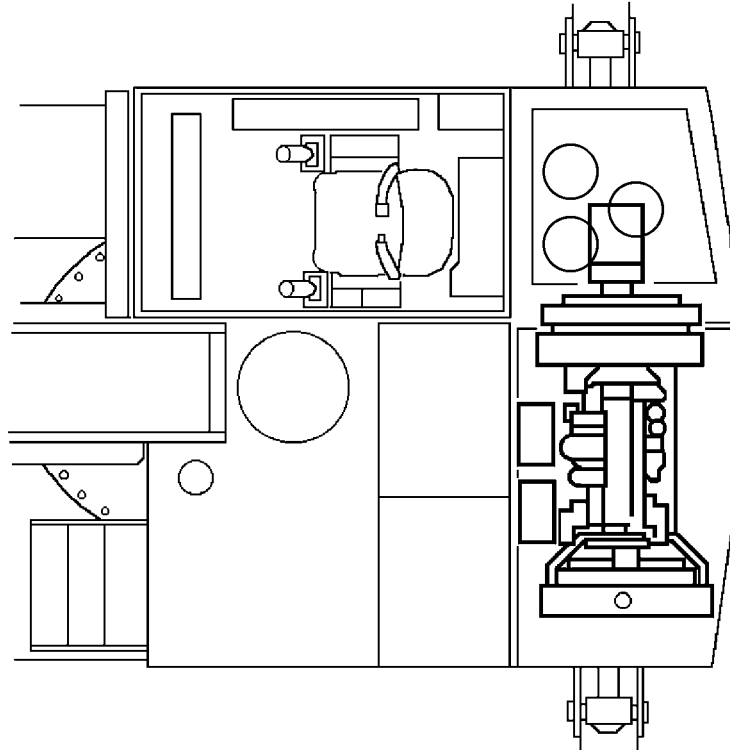


1000 Power Unit

1. Description and Operation



TJ226

The primary source of power for the machine is a turbocharged and aftercooled, 8.1 liter six cylinder John Deere engine. The engine is mounted in the engine compartment enclosure at the left rear corner of the upper frame.

Engine output drives the main pump providing hydraulic flow for machine functions.

The air conditioning compressor and alternator are belt driven from the engine crankshaft hub.

The power unit as a group includes the engine, the main pump drive coupling, the fuel system, the radiator and cooling system, the air intake system and the exhaust system.

1. Description and Operation

See Section 1100, Engine, and Section 9800, General Machine Specifications, for engine specifications.

See Section 1100, Engine, for information regarding engine troubleshooting.

See Section 1300, Engine Mounting, for procedures replace engine mounts and procedures to remove and install the engine.

See Section 1400, Fuel System, for information on the fuel lines, level sensor and fuel/water separator and for procedures to remove and install the fuel tank.

See Section 1500, Cooling System for procedures service the cooling system and to remove and install the radiator.

See Section 1700, Air Intake System, for information on the air cleaner.

See Section 1800, Exhaust System, for procedures to remove and install the muffler.

ALSO:

See Section 2000, Hydraulics, and Section 2940, Filler and Tilt Pumps, for information on the engine enclosure tilt system.

See Section 2130, Pilot Pump, for information on the pilot pump.

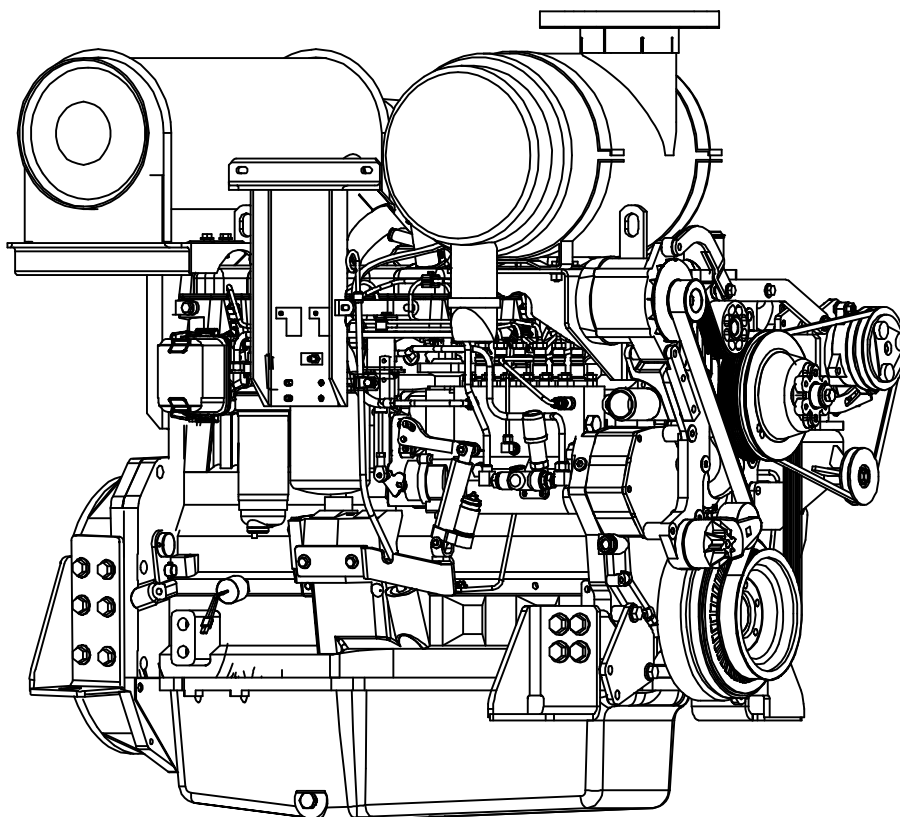
See Section 2950, Hydraulic Cooling, for information on the oil cooler.

See Section 5500, Heater/Air Conditioner Unit, for information on the A/C compressor and condenser and the cab heater hose arrangement.

1100 Engine

1. Description and Operation

1.1 General



TJ206

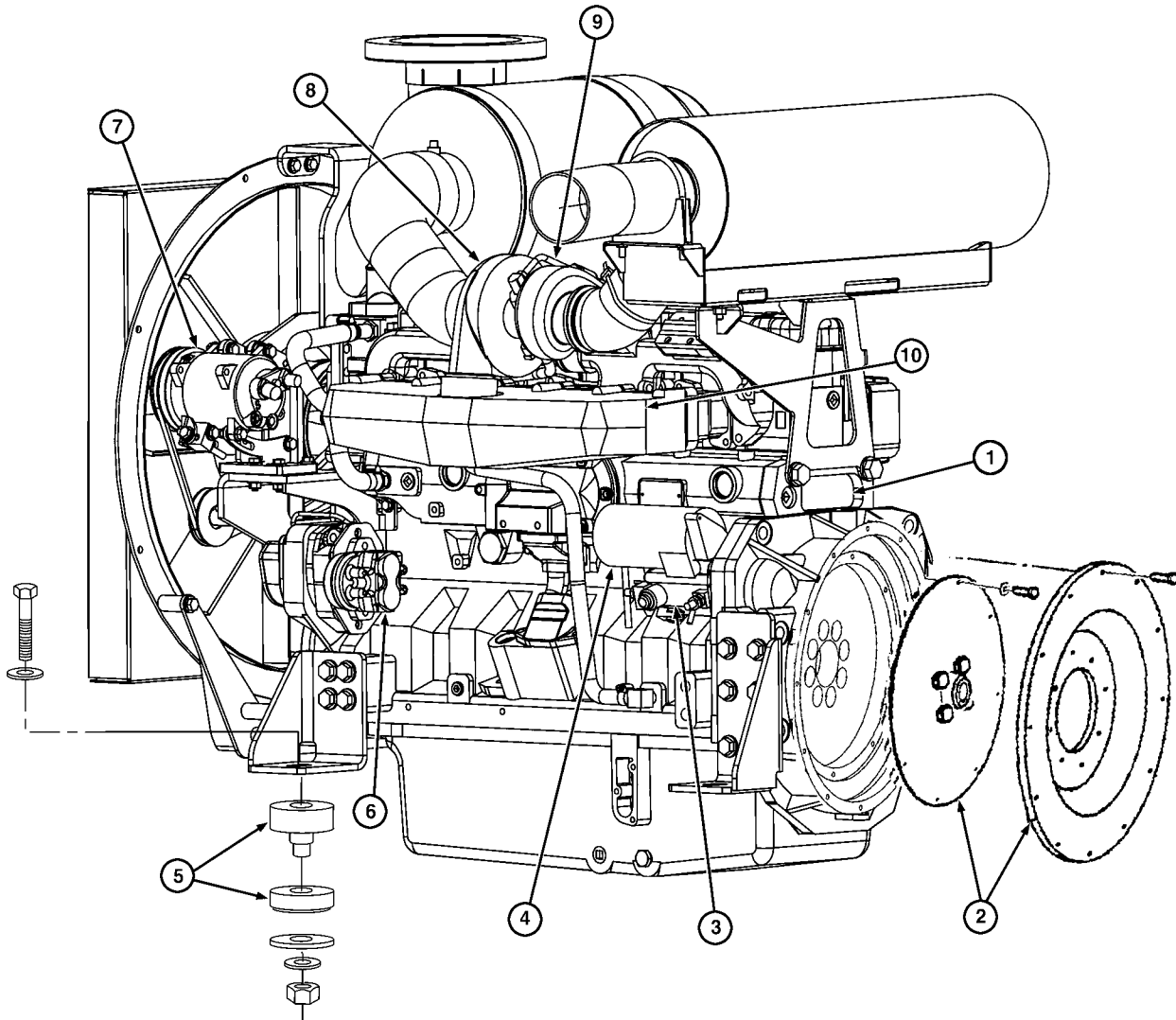
The primary source of power for the machine is a turbocharged and aftercooled, 8.1 liter six cylinder John Deere engine. The engine is mounted in the engine compartment enclosure behind the operator cab.

Consult the Operator's Manual for operation and maintenance procedures.

Consult the John Deere Component Technical Manual CTM86, for detailed procedures to service and repair the engine.

1. Description and Operation

1.1 General

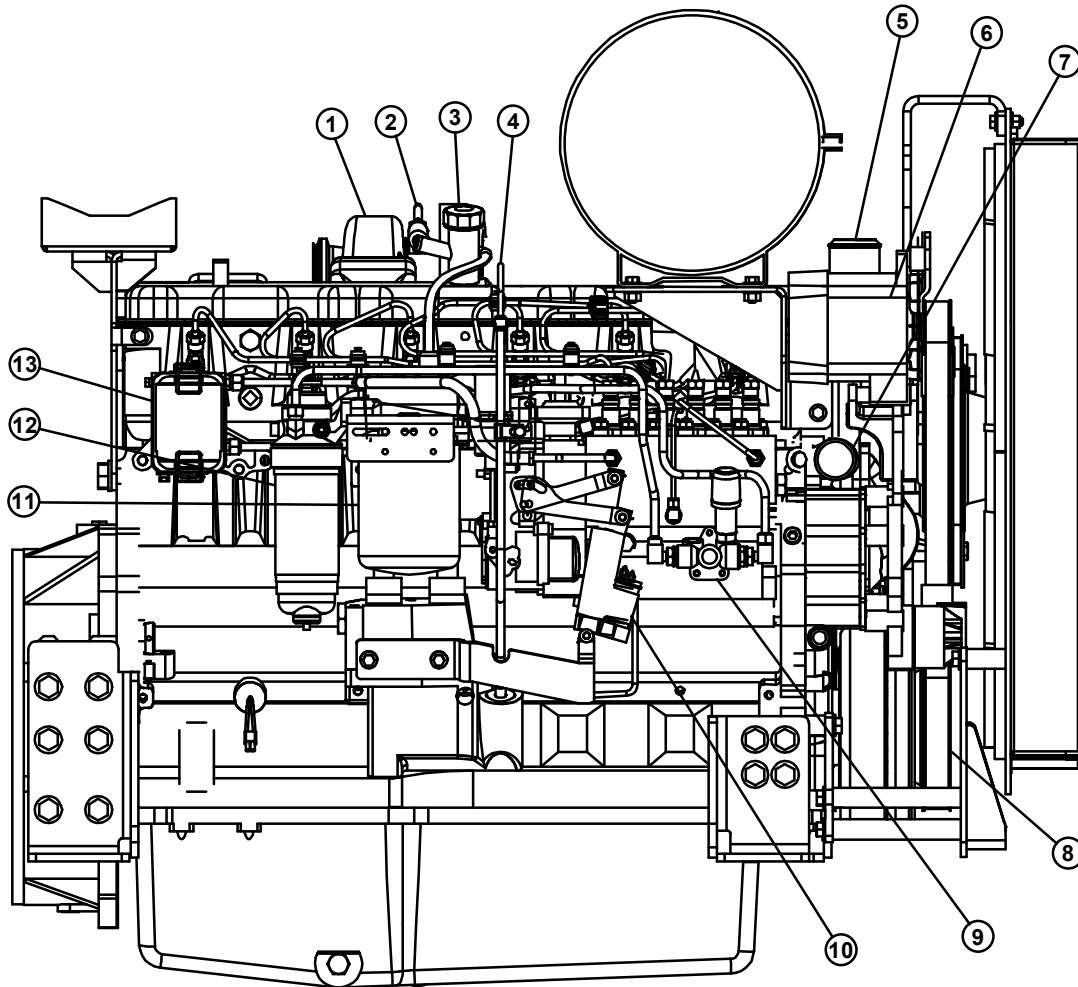


TJ220

- | | |
|-----------------------------|----------------------------------|
| 1. Engine, John Deere 8.1 L | 6. Pilot Pump |
| 2. Drive Coupling | 7. Air Conditioner Compressor |
| 3. Starter Solenoid | 8. Turbocharger |
| 4. Starter Motor | 9. Turbocharger Lubrication Line |
| 5. Engine Mount | 10. Aftercooler |

1. Description and Operation

1.1 General

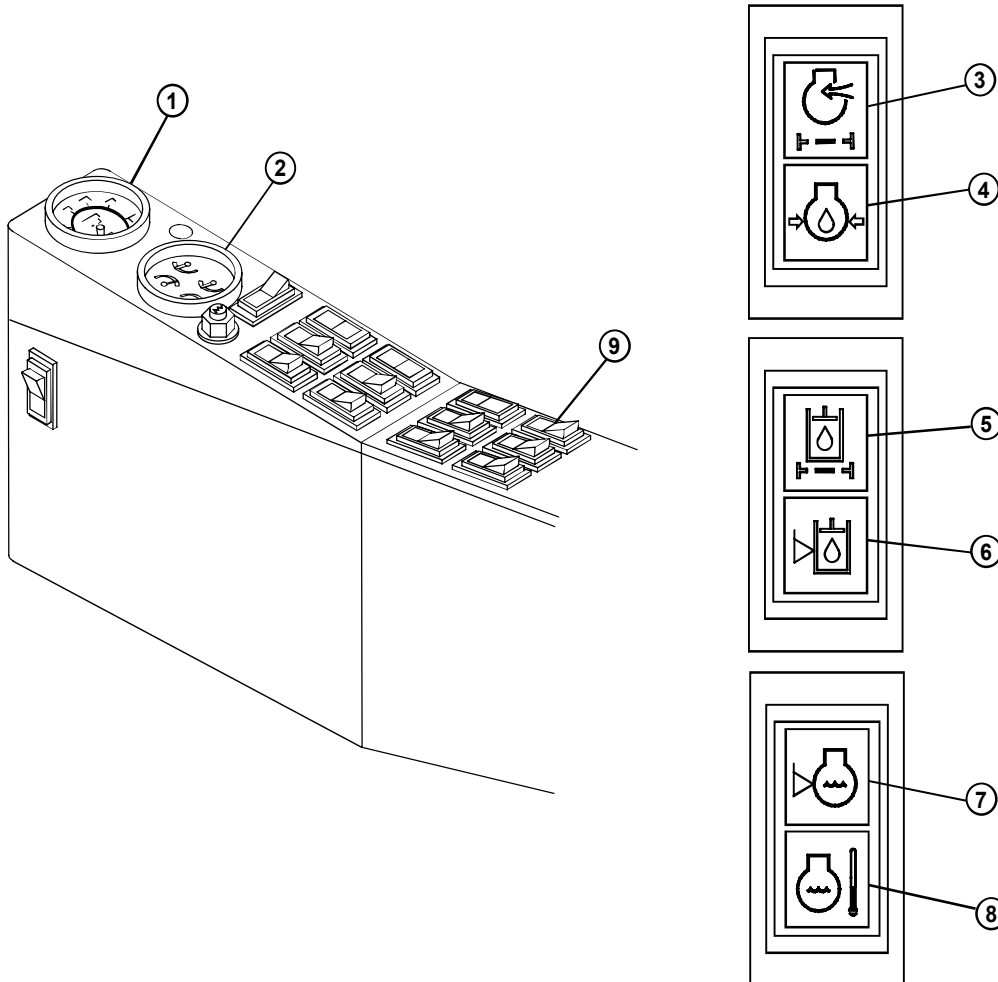


TJ219

- | | |
|----------------------------------|---|
| 1. Turbocharger | 8. Crankshaft Hub |
| 2. Turbocharger Lubrication Line | 9. Fuel Supply Pump |
| 3. Oil Fill Cap | 10. Throttle Actuator |
| 4. Oil Dipstick | 11. Oil Filter |
| 5. Coolant Outlet | 12. Primary Fuel Filter/Water Separator |
| 6. Alternator | 13. Fuel Filter |
| 7. Coolant Inlet | |

1. Description and Operation

1.2 Gauges and Warning Indicators



TJ225

- | | |
|--|---|
| <ul style="list-style-type: none"> 1. Tachometer and Hourmeter Gauge 2. Engine Temperature, Voltmeter, Oil Pressure and Fuel Level Gauges 3. Air Filter Restriction Indicator 4. Low Engine Oil Pressure Indicator | <ul style="list-style-type: none"> 5. Hydraulic Oil Filter Bypass Indicator 6. Low Hydraulic Oil Level Warning Indicator 7. Low Engine Coolant Level Warning Indicator 8. High Engine Coolant Temperature Indicator 9. Alarm Shutoff/Lights Check Switch |
|--|---|

A number of engine conditions are indicated on gauges and warning lights on the console in the cab.

1. Description and Operation

1.2 Gauges and Warning Indicators

Indicators

Six indicator lamps are located on the instrument panel, to the operator's right in the cab. When illuminated, these lamps indicate that critical limits have been reached for the following:

- Hydraulic oil filter restriction
- Air filter restriction
- High engine coolant temperature
- Low engine oil pressure
- Low engine coolant level
- Low hydraulic oil level

A central alarm buzzer will sound when any of the warning lamps are lit.

Gauges

With the engine idling and at normal operating temperature, readings should be as follows:

Tachometer	850 rpm
Engine Coolant Temperature . . .	84°C (202°F)
Oil Pressure	30 psi or minimum
Voltmeter	12 to 14 Volts

IMPORTANT: During full-load operation the indicated oil pressure must be in the 40 to 70 psi range. Pressure below this range indicates the possibility of severe equipment damage.

1. Description and Operation

1.3 Engine Enclosure Raising and Lowering

⚠ CAUTION: Whenever engine compartment is open, always position engine enclosure prop rod in the locked position. Failure to do so can lead to personal injury or death.

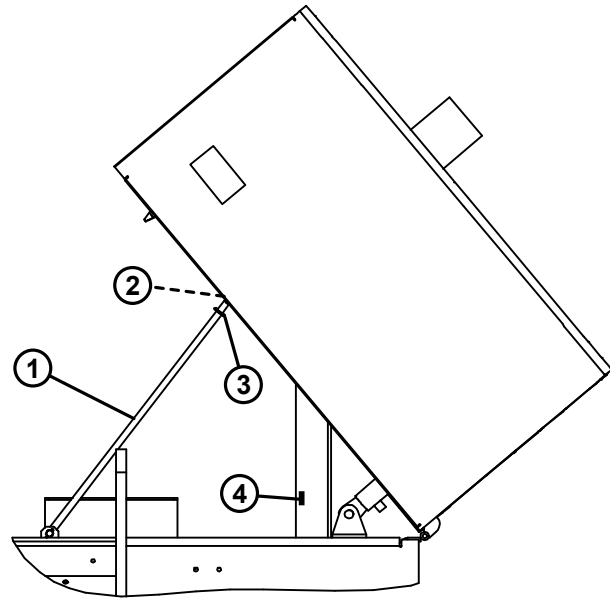
NOTE: Engine enclosure can be raised and lowered by using either the engine enclosure raise/lower switch located on the side of the operator's control panel or the manual pump lever located on the engine enclosure control valve.

1. Raise engine enclosure.
2. Insert prop rod (1) into oval slot (2) located on engine enclosure hood bottom frame.

NOTE: Ensure that prop rod safety stop (3) is seated into oval slot on engine enclosure frame.

IMPORTANT: Damage to the engine enclosure will occur if hood is lowered with prop rod not properly stowed.

3. Prior to lowering engine enclosure, stow prop rod in support storage bracket (4) located on radiator frame.



VIEW LOOKING AFT

TJ289

1. Prop Rod
2. Oval Slot
3. Safety Stop
4. Storage Bracket

1. Description and Operation

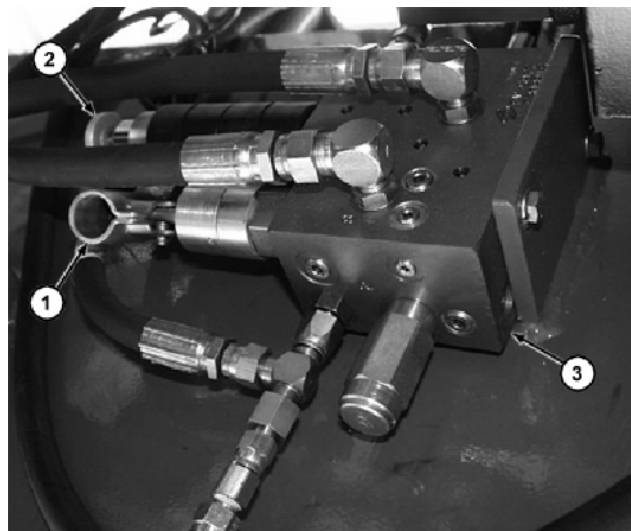
1.4 Engine Enclosure Hand Pump Operation

⚠ CAUTION: Whenever engine compartment is open, always position engine enclosure prop rod in the locked position. Failure to do so can lead to personal injury or death.

NOTE: In the event of a non-operational engine or dead batteries, the engine enclosure can be raised and lowered by using the manual pump lever located on the engine enclosure control valve.

NOTE: Jack handle is normally located behind the operator's seat in the cab.

1. Insert jack handle into manual pump lever (1) mechanism on engine enclosure control valve (3).
2. To raise engine enclosure, push in and turn clockwise knurled knob (2) located on engine enclosure control valve solenoid.
3. Pump jack handle to raise enclosure.
4. To lower engine enclosure, pull out and hold knurled knob (2) while continuing to pump jack handle.
5. Remove and properly stow jack handle.



1. Pump Lever
2. Knurled Knob
3. Control Valve



Suggest:

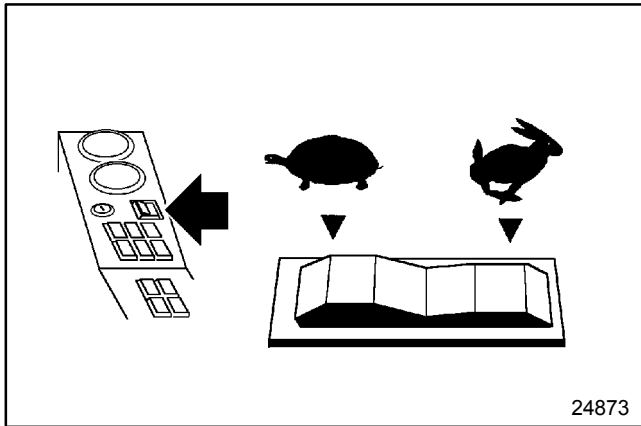
If the above button click is invalid.

Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading

1. Description and Operation

1.5 Engine Throttle



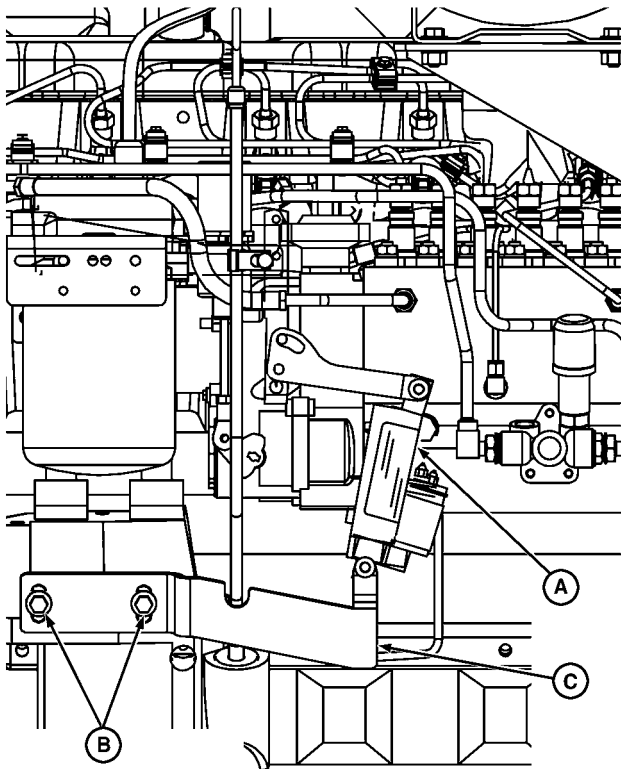
The throttle control is a dual-action, spring-return, rocker switch located on the instrument panel. The switch is used for the adjustment and maintenance of engine speed (rpm) during loader operation.

Press right side to increase engine speed (rabbit).

Press left side to decrease engine speed (turtle).

Release when the desired engine speed is attained.

See Section 3000, Electrical, for details on the wiring.



An electrically operated actuator (A) mounted on right side of engine block controls throttle linkage movement.

Adjust throttle by loosening bracket mounting hardware (B) and re-positioning actuator bracket (C).

Throttle actuator must be allowed to extend fully to the end of its travel.

See engine specifications for correct idling rpm.