

START & STOP PROCEDUREOPERATIONENGINE PRE-START

It is assumed the engine oil and coolant levels have been checked and you are ready to start the engine.

1. Sit in your normal operating position and adjust the seat for your personal comfort.
2. Fasten your seat belt.
3. Check for emergency/parking brake engagement: Pull knob to set the spring applied driveline disc brake. This brake will apply automatically when air pressure drops below 60 psi.
4. Check for neutral: Place the shift lever at neutral position, "N" on the gear quadrant.
5. Give warning that you are going to start the engine. Remember, there is ample space within the engine, transmission, and driveline compartments for several men, and you cannot see them from the cab. Be sure the area around the unit is clear of all personnel and obstructions.
6. Turn the key switch to the ON position. The emergency brake light and circuit lights should come on.

ENGINE START-UP

This unit is equipped with a LOW ENGINE OIL PRESSURE SHUTDOWN system. To start the engine, proceed as follows:

1. Depress the lock button on start cable knob and pull knob all the way up.
2. Turn the key switch to the start position. NOTE: If engine does not start within 30 seconds, allow the starter to cool for two minutes before reengagement.
3. When the engine starts, let it idle. Do not accelerate. Remember, high RPM and full load conditions on cold oil can severely damage the engine, transmission and hydraulic system.
4. If a rise in oil pressure of the engine or transmission is NOT observed within FIVE seconds, or a rise in air pressure is not seen in TEN seconds, shut-down the engine and have maintenance check it out.
5. After engine is running and engine oil pressure has stabilized, depress the lock button on the start cable knob and push the knob all the way down.

CAUTION! Failure to return the cable knob to its original position will cause the low oil pressure shutdown, as well as other safety shutdown devices to malfunction.

6. Warm the engine at idle until the air pressure reaches at least 60 psi, then recheck that the transmission is in neutral and the parking brake applied. Using the hand throttle, continue to warm the engine at 1000 RPM until the engine temp reaches at least 130°F, and the air pressure rises to 120 psi.

START & STOP PROCEDURE (Continued)

ENGINE START-UP (Continued)

7. Release the hand throttle. Meanwhile, observe the gauges for proper readings and operation; also check the operation of all safety equipment and accessories.
8. Select gear speed, release parking brake and press right floor button for forward movement, or left hand button for reverse.

ENGINE SHUT-DOWN

1. Move throttle to idle speed, and let the engine idle for a minimum of (5) minutes in order to normalize internal engine temperatures.
2. Meanwhile, place all controls in neutral and set the emergency brake.
3. To stop the CUMMINS and CATERPILLAR engine, turn the key switch to "OFF" position. DO NOT use the compression release as an engine shut-down device. Stopping the engine in this manner will result in extensive wear to the valve mechanism.
For DETROIT DIESEL, pull the stop control "OUT". When the engine stops, push the stop control "IN" and turn off the key switch.
4. Release your seat belt.