snorkel

TB65J



OPERATOR'S MANUAL

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Appendix A – Glossary

Limited Warranty

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Engine Specifications

Engine	Displacement	Fuel Grade	Coolant	Operating Temperature	Oil Capacity	Oil Grade
Cummins B3.3 Diesel	199 cu. in. (3.26 liter)	**Diesel** ASTM No. 2D fuel with a minimum Cetane number of 40.[1] For operating temperatures below 32°F (0°C) use winterized No. 2D.	50% water 50% Antifreeze[2]	140°F to 212°F (60°C to 100°C)	2 gal (7.5 liter) total 1.6 qt (1.5 liter) Low to High	SAE 15W-40[3] API: CH4/SG
Deutz F4L-2011F	190 cu. in. (3.11 liter)	**Diesel** • DIN 51 601 (February 1986).[1] • BS 2869: A1 and A2 (with A2 refer to Deutz manual about sulfur content)[1] • ASTM D 975-88: 1-D and 2-D • CEN EN 590 or DIN EN 590 • NATO Code F-54 and F-75 • For operating temperatures below 32°F (0°C) use winter grade diesel.	Air	172°F to 203°F (78°C to 95°C)	1.59 US gal (6.0 liter)	API: CD or higher[3]
GM 2.4	150 cu. in. (2.4 liter)	**Gasoline** • Unleaded 87 octane **LPG** • HD-5	50% Water 50% Antifreeze	176°F to 183°F (80°C to 84°C)	With filter: 1.12 US gal (4.5 liter) Without filter: 1.18 US gal (4.25 liter)	ILSAC GF-4[4]

Note 1: Refer to the engine manufacturers manual for specific fuel recommendations and specifications.

Note 2: Ethylene glycol or Propylene glycol may be used. Refer to the Cummins® Operation and Maintenance Manual B3.3 Series Engines for specific coolant recommendations and specifications.

Note 3: Refer to the engine manufacturers manual for specific lubricating oil recommendations and specifications.

Note 4: API Starburst symbol on GF-4 oils reads "API Service SM."

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Chapter 5 – Gauges and Displays

The aerial platform is equipped with several gauges to monitor the condition of the machine before and during operation.

Hour Meter

The hour meter is located on the wiring box on the left side of the lower control panel (refer to Figure 5.1). It measures the accumulated engine operating time.

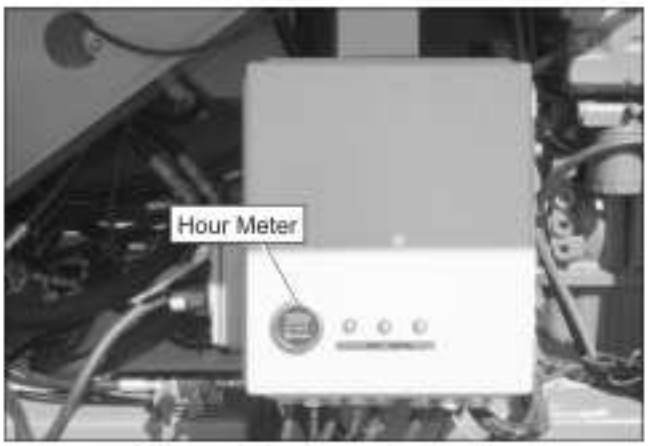


Figure 5.1 – Lower Controls

Engine Temperature Gauge

The temperature gauge is located on the gauge panel above the lower controls (refer to Figure 5.2).

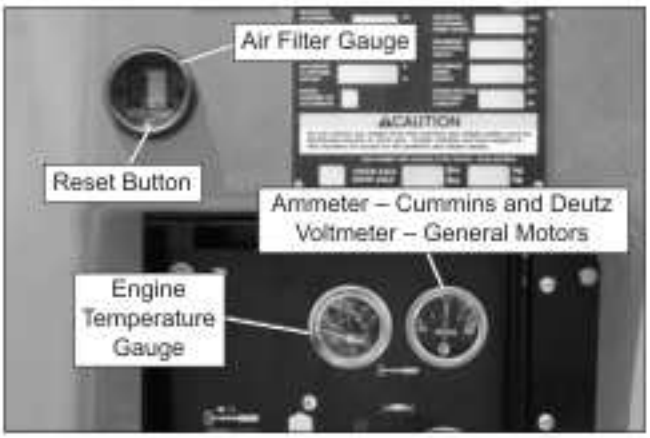


Figure 5.2 – Gauge Panel

On liquid cooled engines it shows the temperature of the water and antifreeze mixture in the engine block. The gauge on air cooled engines shows the temperature of the engine oil as the oil leaves the filter.

Ammeter

The ammeter is located on the gauge panel above the lower controls (refer to Figure 5.2). The ammeter displays the level of current flow from the alternator to the batteries.

After the engine has been running for a few minutes under normal operating conditions, the ammeter needle should be to the right of "0."

Voltmeter – GM Engines

The voltmeter is located on the gauge panel above the lower controls (refer to Figure 5.2). The voltmeter displays battery voltage.

After the engine has been running for a few minutes under normal operating condition, the voltmeter should indicate between 12.5 and 14 volts.

Engine Air Filter Gauge

The air filter gauge is located above the lower controls (refer to Figure 5.2). The gauge measures the air pressure between the intake manifold and the air filter.

The yellow indicator disk inside the sight glass stays at its highest level when the engine is turned off.

When the yellow indicator disk reaches the red area, it's time to change the filter element. After changing the filter, press the reset button to reset the indicator disk to the bottom of the sight glass.

Fuel Gauge

The fuel gauge is located on top of the diesel or gasoline tank (refer to Figure 5.3). Read the fuel gauge at the line in the clear plastic window. The gauge indicates the fuel tank level in fractions of a full tank.



Figure 5.3 – Gasoline or Diesel Fuel Tank

Note
Do not run a diesel fuel tank empty. Air in the fuel line makes the engine hard to start.

LPG tanks have a fuel gauge that has two scales. Once scale measures the fuel level when the tank is mounted vertical and the other is used when the tank is mounted horizontal (refer to Figure 5.4).

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Upper Controls

The upper controls (refer to Figure 6.7) are located on the control panel at the platform. Boom, platform, and drive functions can be operated from the upper controls. The following controls are located on the upper control panel.

- Start switch
- Emergency stop button
- Boom joystick
- Boom extension switch
- Drive joystick
- Drive range switch
- Jib articulation switch
- Platform level switch
- Platform rotation switch
- Boom speed knob
- Engine/Emergency power switch
- Engine speed switch
- Horn (option)
- AC generator switch (option)
- Hydraulic system warm-up switch (option)
- Upper control panel lights (option)

Start Switch

The engine can be started from the platform using the start switch on the front of the upper control panel (refer to Figure 6.8).

This switch is similar to an automobile ignition switch.

- Turn the switch to start until the engine starts, then release it to on.
- If the engine dies, the switch must be turned to off before it can be turned back to start.

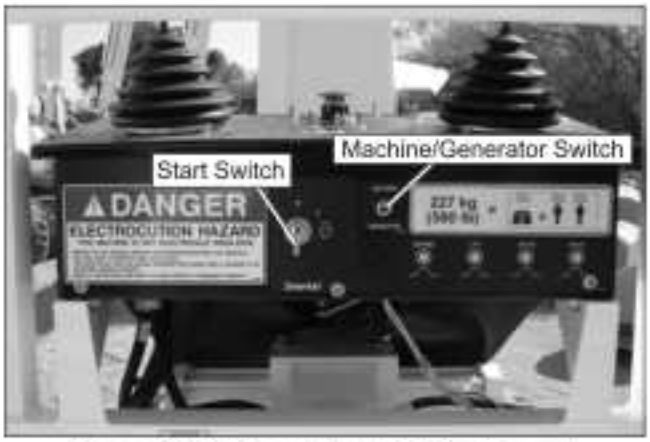


Figure 6.8 – Upper Control Panel Front

An alarm sounds, when the switch is turned on, to warn others that the machine engine is being started.

Note
On some machines it may be necessary to pause about three seconds in the on position before going to start so the starter can engage.

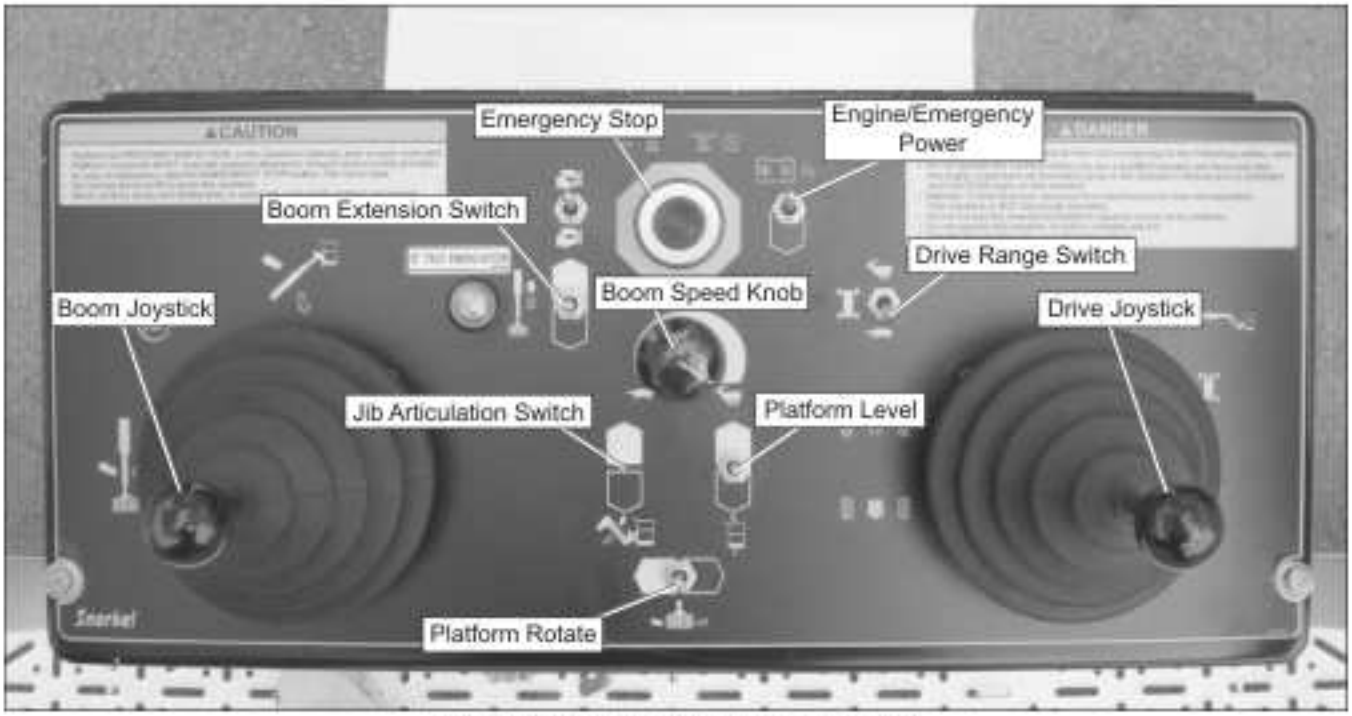
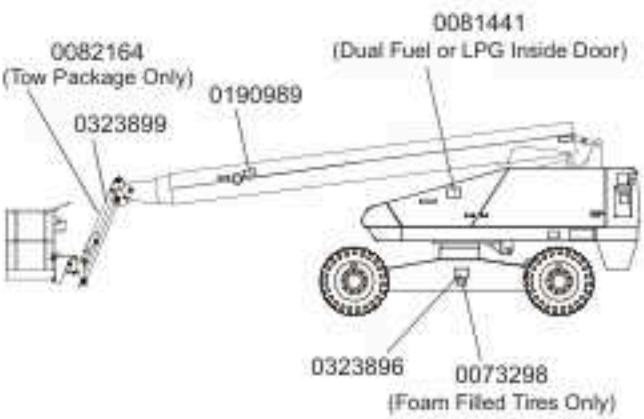


Figure 6.7 – Upper Control Panel Top

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Right Side



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0190989



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