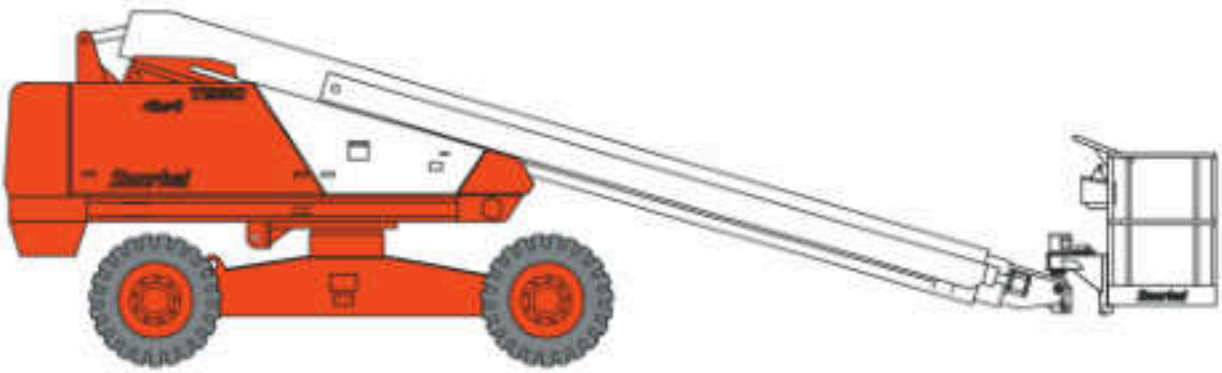
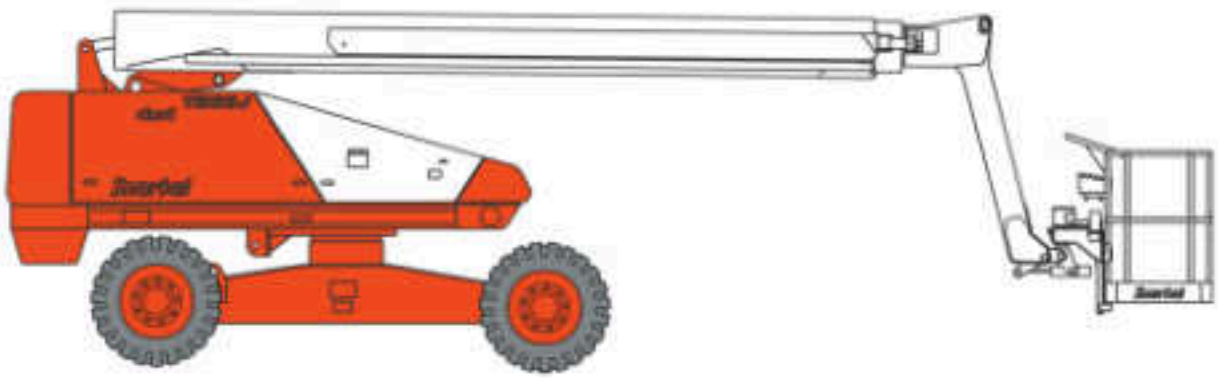
Operator's Manual



TB60



TB66J

CE

Snorkel
INTERNATIONAL

Part Number 0084030EE
June, 2006

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Appendix A – Glossary

Limited Warranty

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Engine Specifications

Engine	CID	Fuel Grade	Coolant	Operating Temperature	Oil Capacity	Oil Grade
Cummins B3.3	3.26 liter (199 cu. in)	**Diesel** ASTM No. 2D fuel with a minimum Cetane number of 40.[1] For operating temperature below 0°C (32°F) use winterized No. 2D.	50% Water 50% Antifreeze[2]	60°C to 100°C 140°F to 212°F	7.5 liter (2 US gal)	SAE 15W-40[3] API CH4/SG
Deutz F4L-2011F	2.0 liter (125 cu. in.)	**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 0°C (32°F) use winter grade diesel.	Air	78°C to 95°C 172°F to 203°F	6.0 liter (1.59 US gal)	API: CD or higher[3]

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.

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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 controls (refer to Figure 5.1). It measures the accumulated engine operating time.

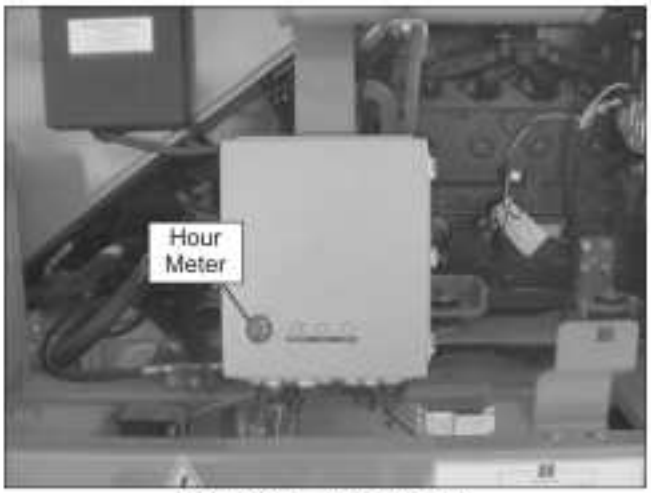


Figure 5.1 – Wiring Box

Engine Temperature Gauge

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

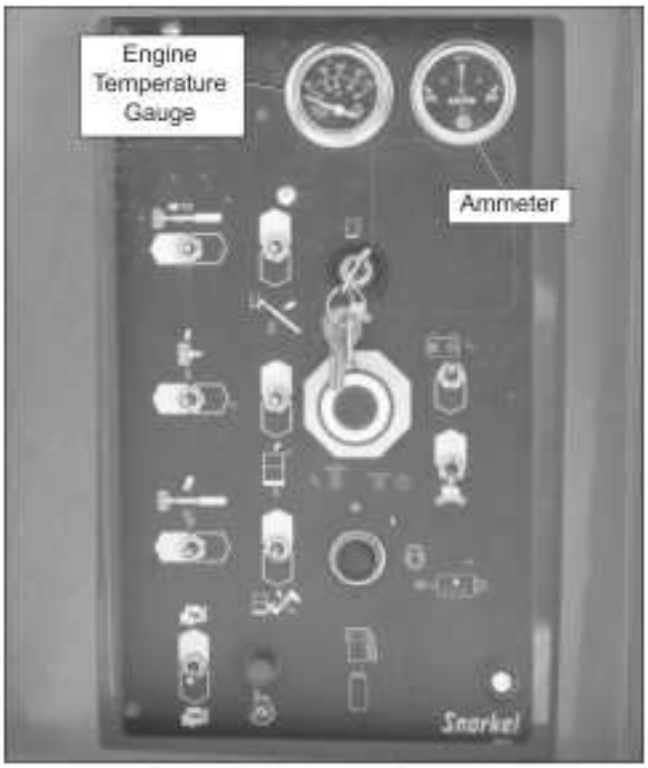


Figure 5.2 – Lower Controls

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 lower control panel (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 gauge indicator should read "0."

Engine Air Filter Gauge

The air filter gauge (refer to Figure 5.3) is located above the lower control panel. The gauge measures the air pressure between the intake manifold and the air filter.

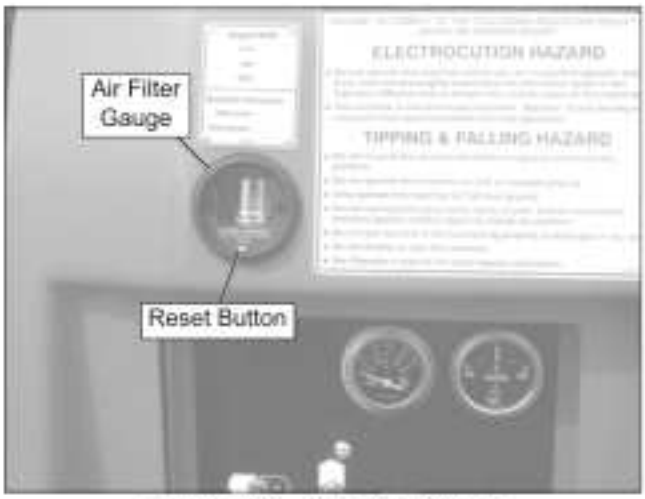


Figure 5.3 – Air Filter Gauge

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

The fuel gauge is located on top of the fuel tank (refer to Figure 5.4). The gauge indicates the fluid level in fractions of a full tank.

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

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If the main hydraulic system fails, the aerial platform may be lowered and stowed using the emergency power system. The main boom may be lowered using the emergency lowering knob. Refer to Emergency Power System, Emergency Lowering for the appropriate procedure.

Emergency Power System

The emergency power system can be used to operate the machine from the lower or upper controls.

⚠Caution

The emergency power system is for emergency lowering and stowing only. The length of time the pump can be operated depends on the capacity of the battery. Do not use this system for normal operation.

Only use the emergency power system if the main power system fails.

Lower Controls

Use the following procedure to operate the machine using the emergency power system from the lower controls.

1. Place the battery disconnect switch in the on position (refer to Figure 10.1).

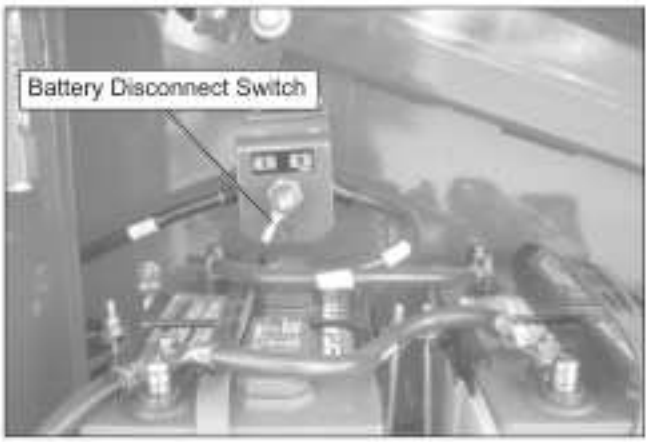


Figure 10.1 – Battery Disconnect Switch

2. Place the key in the control selector switch (refer to Figure 10.2) and turn the control switch to the lower control position.
3. Pull the emergency stop button outward.
4. Hold the ground operation switch in the on position while holding the engine/emergency power switch down in the emergency power position.

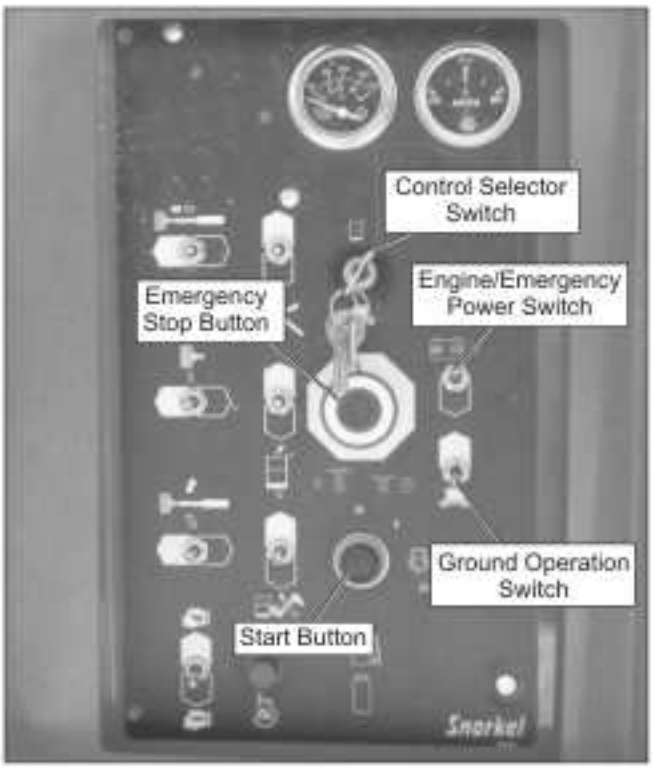


Figure 10.2 – Lower Controls

5. Hold the appropriate function toggle switch in the desired direction.

Upper Controls

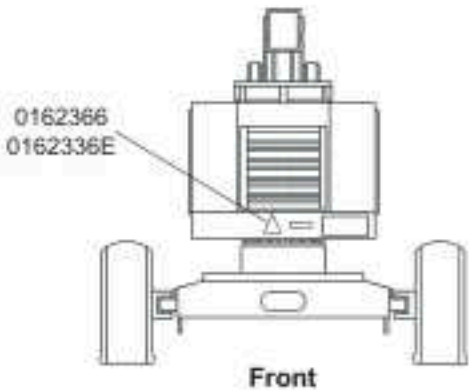
For the upper controls to be operational:

- the battery disconnect switch must be in the on position.
- the emergency stop button at the lower controls must be in the on position.
- the controls selector switch at the lower controls must be in the upper controls position.

Use the following procedure to operate the machine using the emergency power system from the upper controls.

1. Pull the emergency stop button outward (refer to Figure 10.3).
2. Turn the start switch on.
3. Place the drive/boom selector switch in the appropriate position.
4. Step down on the platform foot switch (refer to Figure 10.4).

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Front



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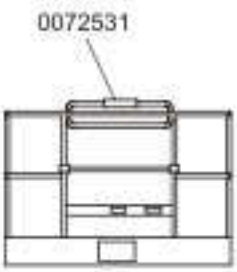
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Left Side



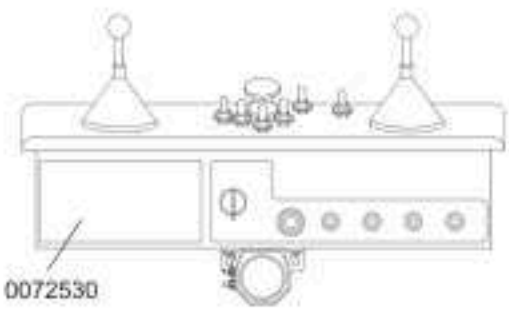
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Platform



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Upper Control Panel Front



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