

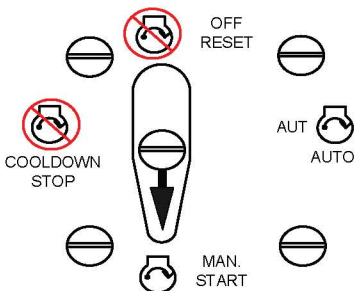


Changing Oil & Air Filters CAT 3512B EUI Engines

Purpose: To assist rig crewmen when changing oil and air filters on CAT 3512B diesel engines.

Manual Starting

- (1) Ensure main circuit for the generator is open.
- (2) Turn control switch to **"MANUAL START"** position
- (3) Ensure all gauges are in normal operations.
- (4) Increase engines rpm to rated rpm.
- (5) Close main circuit breaker to apply load.



Manual Shutdown

- (1) Open the main circuit breaker to disengage load
- (2) Turn control switch to **"COOLDOWN/STOP"** position.
- (3) After approx. 5 minutes, Turn Control switch to **"OFF/RESET"** position.

Replacing Engine Oil Filter

PROPERLY SHUTDOWN ENGINE

- (1) Open Drain valve.
- (2) Remove Plug. Some oil will drain.
- (3) Prepare to catch oil in suitable container. Gradually loosen but do not remove bolts. Be aware of possible suction.

To Reset for Normal Operations

- (1) Hold **"Clear/Mode"** switch in **"Mode"** position until **"-0-"** displays on the LCD. This will display normal engine operating parameters.



For Abnormal Operating Conditions

To Obtain Diagnostic Codes

- (1) Hold **"Clear/Mode"** switch in **"Mode"** position until **"-2-"** displays on the LCD.
- (2) The first Diagnostic Code (MID) will display identifying the troubled module. (Refer to side of Gauge Panel to identify MID description).
- (3) Immediately following the MID are the Component (CID) & Failure (FMI) codes. The CID will be the first four digits on the LCD. The FMI will be the last two digits on the LCD. The CID & FMI will be displayed simultaneously on the LCD. (Refer to side of Gauge Panel to identify CID & FMI description).
- (4) Use the **"Scroll"** switch to advance to the next diagnostic code (if applicable).
- (5) After the final diagnostic code has been displayed, **"END"** will display on the LCD.



CAT 3512B EU Diesel Engine Instrument Panel

Personnel
Development
Center
FlexRig
For Performance Learning

Purpose: To assist rig crewman in using the electronic instrument panel on CAT 3512B diesel engines.

To obtain Current Gauge Readouts

- (1) Hold **“Clear/Mode”** switch in **“Mode”** position until **“-1-”** displays on the Liquid Crystal Display (LCD)
- (2) A Gauge Identifier will display (ex. **“GA-1-”** is for Engine Oil Pressure) and will be followed by the corresponding meter value (See Table 1).
- (3) Use the **“Scroll”** switch to advance the LCD to the next Gauge Identifier and meter value.

Table 1
Gauge

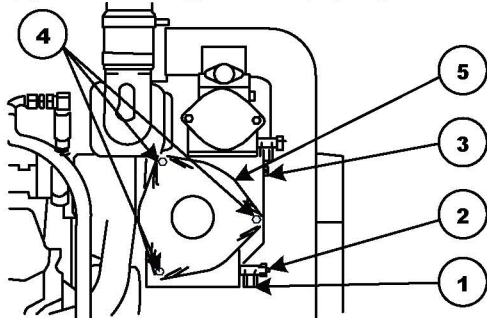
Numerical Readouts
Descriptions

Identifier	Percent of the Rated Rack
“LOAD”	Fuel Consumption Rate
“FL-0”	Total Fuel Consumption
“GA-1”	Engine Oil Pressure
“GA-2”	Coolant Temperature
“GA-3”	System Voltage
“GA-4”	Fuel Pressure
“GA-5”	RH/LH Exhaust Temperature
“GA-6”	RH/LH Air Inlet Restriction
“GA-7”	Fuel Filter Differential Pressure
“GA-8”	Oil Filter Differential Pressure
“GA-9”	Inlet Manifold Air Pressure
“GA-10”	Aftercooler Coolant Temperature
“GA-11”	Air Inlet Temperature
“GA-12”	Engine Oil Temperature

To Obtain Max. - Min. Gauge Values

- (1) Hold **“Clear/Mode”** switch in **“Mode”** position until **“-3-”** displays on the LCD.
- (2) A Gauge Identifier (ex. **“-GA-1-”**) will display followed by the corresponding meter value.
- (3) Use the **“Scroll”** switch to advance the LCD to the next Gauge Identifier and meter value.

- (1) Remove cover, spring, O-ring seal, retainer, and oil filter element. Properly clean all. Inspect O-ring.
- (2) Install the new oil filter
- (3) Install O-ring, retainer, spring & cover.



- 1) Drain
- 2) Drain Valve
- 3) Plug
- 4) Bolts
- 5) Cover*

CAUTION! Align cover {5} dowel with hole in housing

Replacing Engine Air Filter

PROPERLY SHUTDOWN ENGINE

- (1) Remove cover {1}. Remove the primary air-cleaning element {2} and discard the foam filter.
- (2) Remove the secondary air cleaning element {3} and either clean or discard.
- (3) Cover air inlet {4} to prevent the intake of dirt.
- (4) Clean cover and air elements. Remove temporary intake cover. Install secondary element. Install primary element. Install cover.

