

# Important Fuel and Oil Information for Aftertreatment System Equipped Machines



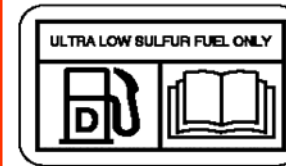
## Ultra Low Sulfur Diesel (ULSD) fuel

All nonroad U.S EPA Tier 4, European Union (EU) Stage IIIB and IV, and Japan (MLIT) Step IV certified diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) and Sulfur-Free fuels that are 15 ppm (mg/kg) sulfur or less.

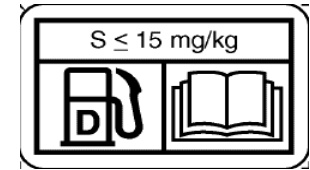
**Misfueling with diesel fuels greater than 15 ppm (mg/kg) sulfur can have the following negative effects:**

- Increase engine wear, corrosion, and deposits
- Increase regeneration frequency, reducing fuel efficiency
- Reduce aftertreatment performance, increasing the frequency of ash service
- Cause repairs not covered by warranty
- Violate EPA and EU law

Always look for the ULSD label located near the fuel inlet on the machine:



EPA Fuel Inlet



EU Fuel Inlet

## Biodiesel

- Up to B20 biodiesel blend levels are acceptable. Use of biofuels can impact the engine oil, fuel system components, and aftertreatment devices by increasing the frequency of ash service.
- The final biodiesel blend must have 15 ppm (mg/kg) sulfur or less and must meet ASTM D7467 specifications.

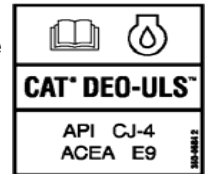
## Low ash oil

Cat® DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required.

**Use of oil with greater ash and chemical levels can have the following negative effects:**

- Aftertreatment will accumulate more ash sooner
  - Cause aftertreatment damage
  - Increase the frequency of ash service
  - Reduce performance

Always look for the low ash oil label located on the oil inlet cap or on the oil fill neck of the engine:



Oil label

**Contact information: For questions, please contact your local dealer**

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