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TECHNICAL CLIENT BRIEF

# Caterpillar engines & HVO100

Construction equipment, generators and marine applications

**OEM position: HVO100 is accepted, subject to fuel requirements.**
Caterpillar permits qualifying renewable diesel at 100% or blended with diesel. EN15940 is its preferred HVO specification. No specific engine conversion is required; compliant fuel use does not itself affect the standard warranty. [1-4]

## WHAT THIS MEANS FOR YOUR EQUIPMENT

**Construction:** Cat machine guidance supports HVO100. Sandvik tested Cat C-Series-powered crushers and screeners without engine or fuel-tank modifications. [1,2,5,6]

**Fuel systems and servicing:** compatible with most modern engine hoses and elastomers, normal diesel filters and oils, and DPF/DOC/SCR aftertreatment. Maintenance intervals are generally unchanged. Some pre-1990s elastomers need dealer assessment. [2-4]

**Generators:** Cat states all its generator sets can use HVO meeting EN15940 or ASTM D975. In OEM tests, the 3516E lost 3.6% maximum power; the C175-20 achieved rated power with 1.5% higher fuel delivery. These are performance tests, not long-term durability proof. [8-10]

**Marine:** Caterpillar also supports qualifying HVO as a drop-in fuel in marine applications, with the relevant engine manual governing specifications. [3,11,12]

## APPLICATION CONDITIONS

Confirm the engine model/serial number and applicable manual; obtain a batch certificate demonstrating the required fuel specification; control water and dirt in storage. Allow for possible maximum-power loss of up to 5% and increased litres consumed. Lifecycle GHG savings depend on the fuel pathway; tailpipe CO2 is not eliminated. OEM acceptance of HVO is not certification of a particular supplier or batch. [2-4,7]

## OFFICIAL CATERPILLAR SOURCES | CLICK TO OPEN


1. Construction guidance: On the Job
2. Machine Fluids: SEBU6250-33, pp. 38-39
3. Commercial Fluids: SEBU6251-32, pp. 39-40
4. Renewable & Alternative Fuels: white paper
5. Sandvik C-Series application (29 Jun 2022)
6. Fueling the Move to Sustainability (19 Jul 2023)
7. A Guide to HVO Fuel (24 Oct 2024)
8. Cat Generator Sets: HVO FAQs
9. 3516E: 3,000 ekW Diesel & HVO Test
10. C175-20: 4,000 kVA Diesel & HVO Test
11. Cat Engines: Ready for Sustainable Operations
12. Biofuels in Marine Operations
13. Renewable Liquid Fuels for Generators