



TECH REPORT



The Original Bardahl USA

HDD 15W-40 SEMI-SYNTHETIC MOTOR OIL

Specifications: API CK-4

ProductNo(s): 35000-35001

Product Description

HEAVY DUTY DIESEL (HDD) 15W-40 is designed to meet the warranty requirements of most manufacturers of diesel engines equipped with EGR and was specifically developed for diesel engines operating on high sulfur fuels. The high alkaline reserve (TBN) effectively protects bearings and other engine surfaces from the corrosive effect of acids formed by the combustion of high sulfur fuels. Recommended for extended drain service when suggested by original equipment manufacturer.

This motor oil is a blend of highly refined base oils and specially selected additives designed to provide excellent performance in all recommended applications. Contains effective detergent dispersant to keep sludge and varnish deposits to a minimum. Additionally fortified with oxidation-corrosion inhibitors, high temperature anti-wear additives and foam inhibitors, to protect vital engine parts from scuffing and protect bearings from corrosion.



Advantages & Uses

- HDD15W-40 meets the Service Classification CK-4.
- Also recommended for use as “long drain” motor oil. Especially cost effective when used in conjunction with an effective oil analysis program.
- Meets all European OEM requirements of ACEA E9-16, E7-12, MB 228.31, MAN M3575, MTU Type 2.1, Renault Truck RLD-3 & Duetz DQC III-05.
- Meets Mack EO-O Premium Plus requirements.
- Meets and exceeds service requirements for Cummins CES 20081.
- Recommended for all turbo-charged & ERG engines where manufacturers specified a CI-4 Plus, CI-4, & CH-4.
- Meets Volvo VDS-4 & VDS-3 requirements (Backward compatible to VDS, VDS-2).
- Meets Detroit Diesel 93K218, Caterpillar ECF-3, ECF-1-a & ECF-2 requirements.

Features

- High TBN/Alkaline Reserve - Effectively neutralizes corrosive acids to protect bearings and other vital engine surfaces.
- Minimizes ash deposits in combustion chambers and valve surfaces.
- Highly oxidation stable - Protects engine against sludge and varnish deposits.
- High alkaline reserve permits extending drain interval to maximum allowed by engine manufacturer.
- Effective anti-scuff additive protects cam lobes and other highly loaded parts from wear.

Typical Specifications

TEST	ASTM	Result
Gravity, °API	D-287	30.0
Flash Point, °C	D-92	228
Pout Point, °C	D-97	-39
Viscosity: cSt @ 100 °C	D-445	15.48
Viscosity: cSt @ -30 °C	D-5293	N/A
Viscosity Index	D-2270	139
Apearance	Visual	Bright & Clear
Color	D-1500	Amber
Zinc, Wt. %	D-5185	0.011
Phos, Wt. %	D-5185	0.106
TBN	D-2896	10.0

VALUES SHOWN HERE ARE TYPICAL AND MAY VARY