

# TRUEGARD

## SEMI SYNTHETIC 15W/40



### PRODUCT DESCRIPTION

**TRUEGARD SEMI SYNTHETIC 15W/40** combines premium base stocks with next-generation additive technology to produce our most fuel efficient cleanest burning, **low-ash** heavy duty engine oil to date<sup>1</sup>. It meets or exceeds nearly all the next generation OEM specifications including those from Ford, Cummins, Detroit Diesel, Mack, Volvo, Renault, Mercedes, MAN and Deutz.

**TRUEGARD SEMI SYNTHETIC 15W/40** motor oils protect engines with Emission Controls, EGR engines, as well as older engines. It is even recommended by leading heavy equipment manufacturers such as John Deere, Kubota, Massey Ferguson, JJ Case, Allis Chalmers, and International Harvester.

This ground breaking **low-ash technology** provides improved wear protection, deposit and soot control, and improves oil consumption by neutralizing combustion by-products that cause harmful deposits<sup>1</sup>.

**TRUEGARD SEMI SYNTHETIC 15W/40** is an extended drain capable engine oil that prevents viscosity loss from shearing and reduces friction leading to longer engine life and improved fuel economy<sup>1</sup>.

Its high film strength makes **TRUEGARD SEMI SYNTHETIC 15W/40** fluids suitable for both on and off-road driving conditions. It can be recommended for new engines requiring CK-4 fluid and is backward compatible with API CK-4, CJ-4, CI-4 PLUS, CI-4, and CH oils.

<sup>1</sup> Relative performance based on results from the Cummins ISM engine test run with SAE 10W-30, lowHTHS.

<sup>2</sup> Relative performance based on results from the OM501LA engine test run with SAE 10W-30, low HTHS.

<sup>3</sup> Approval obtained

### FEATURES

- **Low-ash formulation extends catalyst life**
- **2x better corrosion control than the new API standards**
- **Protects cylinders up to 80x more than Daimler standards<sup>2</sup>**
- **Improved protection from thermal and oxidative breakdown**
- **Excellent anti-wear, anti-foam, and anti-rust properties**
- **Up to 63% better soot control than previous CJ-4 formulations**
- **Protects piston rings up to 2.5x better than its CJ-4 predecessor**
- **Extremely shear stable preventing viscosity loss**
- **Compatible with both diesel and gasoline engines**
- **Improved TBN retention over previous diesel engine oils**

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### APPLICATIONS

TRUEGARD SEMI SYNTHETIC 15W/40 meets or exceeds the following OEM specifications:

API CK-4, CJ-4, CI-4+, CI-4, CH-4

API SN(15W-40\*)

ACEA E9-16

CUMMINS CES200863, 81

CAT ECF-3, ECF-2

DETROIT DIESEL DFS93K2223, 218

FORD POWERSTROKE (WSS-M2C171-F1)

JOHN DEERE Tier IV Engines

MACK EOS-4.5

VOLVO VDS-4.5

ALLISON TES-439

RENAULT RLD-4

MB 228.31

MAN 3275 / 3575

MTU 2.1

DEUTZ DQC III-10 LA

GLOBAL DHD-1

JASO DH-2

SAE Grade	10W-30	15W-40
Viscosity @ 40°C, cSt	81.6	118
Viscosity @ 100°C, cSt	11.85	15.4
Viscosity Index	139	140
Sulfated Ash, m%	1.0	1.0
Pour Point, °C	-42	-38
HTHS @ 150°C	3.4	4.0
Flash Point, °C (COC)	220	229
Total Base Number, mg KOH/g	9.7	9.7
Phosphorous, m%	0.113	0.113

The above characteristics are typical of current production. While production will conform to TRUEGARD'S specification, slight variations may occur and do not affect performance.

For more information, contact your Keller-Heartt representative or visit our website at [www.kellerheartt.com](http://www.kellerheartt.com)

#### Special handling, notices or warnings

Avoid contact with eyes

Avoid prolonged or repeated contact with skin

DO NOT INDUCE VOMITING

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