

LAUNCHER Premium HD Multigrade Motor Oil series are conventional heavy duty diesel engine oils formulated to provide excellent performance in heavy duty fleets, marine and industrial applications. The advanced product technology offers a medium extended drain formulation that helps maximize engine durability.



#### APPLICATIONS

LAUNCHER Premium HD Multigrade Motor Oil series are recommended for use in all naturally aspirated and turbo-charged diesel engines fitted in trucks, tractors, buses, goods carriers (LCVs), 3-wheelers and gensets, on-highway light and heavy-duty trucking, off-highway industries including: construction, mining, quarrying, and agriculture and mixed fleet applications.

#### PERFORMANCE FEATURES AND BENEFITS

- Deposit control and acid neutralization.
- High thermal and oxidation stability.
- Cleaner engines and longer component life.
- Start-up wear protection.
- TBN reserves.
- Improved soot handling.
- Improved viscosity control and used oil pumpability.
- Advanced detergency/dispersancy.

#### RECOMMENDATIONS / SPECIFICATIONS

MEETS OR EXCEEDS :

API CJ-4 / CI-4, CH-4, CG-4, /CF-4 ACEA-A3/B4-10, E7-10, E2, E3, E4, E5, E6, E9, GLOBAL-DHD- 1, JASO-DH-1

MTU Type 2, CUMMINS CES 20078,77,76,75,72,71, CAT ECF-2, ECF-1-a, ZF TE-ML 07C, MIL-PRF-2104H/NATO O-1236, MB229.1, Allison C4

#### PROPERTIES

LAUNCHER Premium HD Multigrade Motor Oil series provide exclusive combinations of the latest high performance additives ensuring that the oil adapts and protects under the full range of pressures and temperatures found in modern engines - from the high temperature in the pistons, to the extreme loads found in the valve-trains. Extra active additives control and sweep away harmful soot and particles found in high performance engines.

- Exceptional high temperature protection for hot running engines under heavy load.
- Excellent low temperature properties.
- Longer gasket and seal life.
- Component compatibility.
- Wear protection and viscosity control.
- Stay-in-grade shear stability.

#### TYPICAL TECHNICAL PROPERTIES

	10W-40	15W-40	20W-50
Viscosity Grade	10W-40	15W-40	20W-50
PRODUCT CODE	LMO10W40DK	LMO15W40DK	LMO20W50DK
Density at 15°C, g/ml, ASTM D4052	0.874	0.875	0.889
Cold Cranking Viscosity(CCS), mPa s, ASTM D5293	6250@-25°C	6026@-20°C	8050@-15°C
Kinematic Viscosity at 40°C, mm <sup>2</sup> /s, ASTM D445	91.2	104.65	147.3
Kinematic Viscosity at 100°C, mm <sup>2</sup> /s, ASTM D445	14.5	14.36	17.5
Viscosity Index, ASTM D2270	152	140	130
Flash Point(COC), °C, ASTM D92	220	220	230
Pour Point, °C, ASTM D97	-33	-30	-27
Total Base Number, mg KOH/g, ASTM D2896	10.5	10.5	10.5
Sulphated Ash, %wt, ASTM D874, max	1.21	1.21	1.21

Note: These characteristics are typical of current production. While future production will conform to LAUNCHER'S specification, variations in these characteristics may occur.



Packing : 1L | 4L | 5L | 20L /pail | 25L/pail | 208L/Drum

Version : LL/TDS/DOPHD/MG/V1/02-01-2023

Health and Safety: This lubricant, when used in accordance with our recommendations and for the application for which it is intended, does not constitute any special hazard. A safety data file conforming to the requirements of current EC legislation is available from your local trade consultant