

HERCULES HD 15W-40, 20W-50

PREMIUM HEAVY-DUTY MINERAL DIESEL ENGINE OIL (HDDEO)

BULWARK HERCULES HD oils are high performance, heavy duty multi-grade mineral diesel engine oils of the latest generation. They are specifically designed to lubricate a wide range of diesel engines equipped with EGR, SCR & NOx reduction systems requiring API CI-4 or ACEA E7 performance requirements and more challenging OEM specifications.

BULWARK HERCULES HD 15W-40 and 20W-50 are manufactured using premium hydrocracked mineral base stocks and high-performance additives to provide reliable and superior all year-round performance. It is recommended for use in naturally aspirated and turbo-charged high speed 4-stroke diesel engines without diesel particulate filters (DPF) deployed in commercial road transport and off highway applications, where standard drain interval API CI-4 oils are specified.

PERFORMANCE LEVEL*

- API CI-4, CH-4/SL
- ACEA E7-16; MB 228.3; MAN M3275; MTU TYPE 2,
- VOLVO VDS-3; RENAULT RLD-2; ALLISON C4; CUMMINS CES 20076/77/78
- GLOBAL DHD-1; MACK EO-N/EO-M Plus; DQC III-18;
- CAT ECF-1a; DETROIT DDC93K215; ACEA A3/B3, A3/B4-16

KEY BENEFITS

- High performance hydrocracked base oil and balanced metallic detergent/dispersant additive reduces maintenance
 costs and maintain excellent engine cleanliness in all service conditions.
- Improved BN reserves and acid neutralizing additives supports use of diesel with varying Sulphur content and provides optimum engine protection.
- Preserves the oil performance and stays in grade till the end of service life as a result of excellent and optimized combination of additive & shear stable VI Improver.

TYPICAL CHARACTERISTICS**

Properties	Test Methods	15W-40	20W-50
Density @ 29.5°C, Kg/m3	ASTM D4052	0.878	0.8850
Kinematic Viscosity @ 100°C cSt	ASTM D445	14.52	18.5
Viscosity Index	ASTM D2270	142	127
Cold Cranking Viscosity at -15°C, mPa-s	ASTM D5293	6480	8460
Borderline Pumping Viscosity at -20°C, mPa-s	ASTM D4684	28,800	39,000
Sulphated Ash, %	ASTM D874	1.20	1.25
Flash Point, COC, °C	ASTM D92	236	246
Foam Stability	ASTM D892		
Seq I		0/0	0/0
Seq II		0/0	0/0
Seq III		0/0	0/0
Pour Point, °C	ASTM D97	-39	-27
Total Base Number, mg KOH/g	ASTM D2896B	10.35	10.5

^{*} Performance levels indicated may include licensed API specs or specs that our products meet or exceed

STORAGE

All packages should be stored under cover. Where outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

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^{**} Typical Characteristics are typical values. Minor variations within the permissible tolerance limits maybe expected on the final product.