

# Cruiser Super HDX

## Heavy Duty Diesel Engine Oil

### Uraian

**CRUISER SUPER HDX** adalah pelumas mesin diesel kelas dunia berkualitas tinggi. Dirancang khusus untuk mesin diesel kinerja berat yang beroperasi dalam kondisi ekstrem seperti pertambangan, pertanian, kehutanan, konstruksi, dan armada. Pelumas ini diformulasikan dari bahan dasar berkualitas tinggi dan didukung oleh teknologi aditif pilihan untuk mencapai kinerja optimal.

### Application

- ▶ Direkomendasikan untuk mesin diesel kinerja berat yang digunakan dalam kondisi ekstrem.
- ▶ Cocok untuk mesin diesel berkecepatan tinggi, terutama yang menggunakan injeksi langsung dengan emisi rendah, memiliki ruang bakar rekombinasi, atau menggunakan teknologi diesel common rail.
- ▶ Sesuai untuk mesin diesel kinerja berat yang menggunakan teknologi resirkulasi gas buang (EGR).
- ▶ Cocok untuk digunakan pada mesin diesel kendaraan bus, truk pengangkut material, peralatan berat, generator, dan kapal yang menggunakan bahan bakar minyak nabati (Biodiesel).

### Spesifikasi

- ▶ API Service CI-4/CH-4/SJ
- ▶ MAN 327.5
- ▶ Alat Berat
- ▶ Cocok untuk peralatan *duty off-highway* seperti Caterpillar, Komatsu, Volvo, Iveco, Sany, Renault, Daimler, Cummins, Liugong, FAW, Hitachi, Kobelco, Doosan, Sakai.
- ▶ Truk armada jarak jauh seperti HINO, FUSO, UD Truck, Sachman, MAN.

### Description

**CRUISER SUPER HDX** is a world class quality diesel engine oil. Designed for severe heavy duty diesel engine which compatible with demand application of mining, agriculture, forestry, consturction and fleet. it is formulated from high quality base fluid and supported with robust additive technology toprovide optimum performance.

### Application

- ▶ Recommended for use in high severe heavy duty diesel engine.
- ▶ Recommended for use in high speed diesel engines, especially direct injection low emission diesel engines, re-combustion chamber diesel engines, and common rail diesel engine.
- ▶ Suitable for heavy-duty diesel engines that use exhaust gas recirculation technology (EGR).
- ▶ Suitable for use in diesel engines bus/fleet vehicles, dump trucks, heavy equipment, generators and ships that use Biodiesel fuel oil.

### Specification Meets

- ▶ API Service CI-4/CH-4/SJ
- ▶ MAN 3275
- ▶ Heavy Equipment
- ▶ Suitable for Severe duty off-highway equipment such Caterpillar, Komatsu, Volvo, Iveco, Sany, Renault, Daimler, Cummins, Liugong, Faw, Hitachi, Kobelco, Doosan, Sakai.
- ▶ Long-ranged fleet truck such HINO, FUSO, UD Truck, Sachman, MAN.

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## Keuntungan

- ▶ Stabilitas oksidasi tinggi untuk memberikan kinerja optimal dalam melawan pengentalan pada pelumas.
- ▶ Perlindungan terhadap keausan yang sangat baik untuk memperpanjang umur mesin.
- ▶ Kontrol deposit piston yang sangat baik pada suhu tinggi.
- ▶ Kontrol jelaga yang baik untuk mencegah pengentalan pelumas.
- ▶ Karakteristiknya tetap konsisten dalam viskositas untuk menjaga kinerja optimal dalam berbagai kondisi suhu, baik tinggi maupun rendah.

## Advantages

- ▶ High oxidation stability to give optimum performance against oil thickening
- ▶ Excellent wear protection to prolong engine part lifetime
- ▶ Excellent high-temprature piston deposit control
- ▶ Good soot control to prevent lubricant thickening
- ▶ Stay in grade characteristics to provide optimum viscosity during high and low temperature operation

## Typical Data of Cruiser Super HDX

Characteristics	Unit	Cruiser Super HDX	Test Method
SAE Viscosity Grade		15W40	
Colour		L3.5	ASTM D1500
Density at 15°C	Kg/L	0.8791	ASTM D4052
Kinematic Viscosity @ 40°C	cSt	106.2	ASTM D445
Kinematic Viscosity @ 100°C	cSt	14.49	ASTM D445
Viscosity Index		140	ASTM D2270
Flash Point, (COC)	°C	226	ASTM D92
Pour Point	°C	-30	ASTM D97
CCS @-20C	cP	4041	ASTM D5293
Foaming Test			
Sequence I, 24°C	ml	0/0	ASTM D892
Sequence II, 93.5°C		10/0	
Sequence III, 24°C after 93.5°C		0/0	
Total Base Number		11.4	ASTM D2896