



# MARINE LSX

## Premium Marine Engine Oil

### Features

- **MARINE LSX** is recognized by the following, and other, engine manufacturers:
- MAN B&W
- Mitsubishi
- New Sulzer Diesel

### Benefits

- Excellent water tolerance and separation
- Excellent resistance to thermal and oxidative degradation
- Rust Prevention
- Alkaline reserve to prevent corrosion
- Detergency to maintain system cleanliness

**MARINE LSX** is blended from top-quality paraffinic base oil, for its stability and high natural Viscosity Index (VI). Leading-edge additive technology has been used to enhance the oil's ability to resist oxidation, prevent rust, and separate easily from water. The oil also contains detergents to keep the crankcase and piston undersides clean and free from deposits, as well as reserve alkalinity to fight the acids from burning fuel that can cause serious corrosive wear.

**MARINE LSX** is a premium oil designed for the lubrication of the crankcase of large, low-speed, crosshead engines used in marine vessel applications.

Crosshead engines differ from trunk engines in that the connecting rod, between the piston and the crankshaft, is hinged in the middle. This allows the top part of the connecting rod, along with the piston, to experience purely vertical motion, with no side-to-side forces, effectively eliminating uneven wear of the cylinder walls. For lubrication, this arrangement also allows the piston-cylinder area to be separate from the crankcase of the engine so that the crankcase lubricant does not have to contend with the high levels of contaminating soot and acids that are a feature of the piston-cylinder area. Such oils are called System oils and they lubricate all parts of the engine except the piston-cylinder area, where a specialized Cylinder oil is required.

System oils are also often required to lubricate auxiliary equipment, such as power takeoffs and stern tubes, and so **MARINE LSX** has a strong load-carrying ability as evidenced by the highest possible FZG Load Stage rating.

**MARINE LSX** is approved for use as System oil by all major marine crosshead diesel engine manufacturers, as well as leading stern tube manufacturers.

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## Typical performance results

<b>SAE GRADE</b>	<b>30</b>
<b>ASTM COLOR (D-1500)</b>	2.5
<b>DENSITE @ 15 OC (KG/L)</b>	0.889
<b>VISCOSITY (D-445)</b>	
cSt @ 40°C	108.0
<b>cSt @ 100°C (WITH SOLVENT)</b>	11.7
<b>VISCOSITY INDEX (D-2270)</b>	97
<b>POUR POINT (D-97) (°C)</b>	-24
<b>FLASH POINT (D-92) (°C)</b>	284
<b>SULPHATED ASH (%WT.) (D-874)</b>	0.7
<b>ZINC CONTENT (%WT.)</b>	0.036
<b>FZG LOAD STAGE</b>	
DIN 51354, A/8, 3/90)	12

## Available sizes & part numbers

	946mL (1 US quart)	3.78L (1 US gal)	20L Pail (5.3 US gal)	Bulk
<b>MARINE LSX</b>				B0035701

Check with sales representative or website for the latest product approvals.



Lubricants

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