



# MARINE STX

## Features

**MARINE STX** meets or exceeds the following industry standards:

- US Steel 222 and 224
- AGMA 250.04
- David Brown ET 33/80
- Non-lead formulation

## Benefits

- Lead-free EP performance
- Excellent thermal and chemical stability
- Good water separation

**MARINE STX** oils are designed for the lubrication of heavily loaded marine bearings on main propeller shafts where they pass through the stern of the vessel.

The lubrication of stern tubes usually consists of supplying oil to the bearings under pressure just enough to counteract the pressure of the outside water. In this way water is prevented from flowing into the vessel through the bearing while oil consumption is minimized because oil is not leaking out through the bearings into the sea. The oil still has to be circulated through the bearings so that it can cool them and flush away any contaminants.

The stern tube lubricant therefore has to be able to prevent wear damage caused by heavy loads and also separate readily from water. Irving **MARINE STX** shows strong extreme pressure (EP) performance as shown by the Timken OK load and 4-Ball EP tests. These oils also have excellent thermal stability as shown in the US Steel 224 test (312 hours at 250°F). Special attention has been given to the oil's ability to resist the corrosion caused by the constant presence of seawater, a common contaminant in this oil's working environment. In tests done by a major bearing manufacturer, no corrosion was seen on standard steel ball bearings after 2 months immersed in the oil with 1% salt water at 100°C.

Irving **MARINE STX** does not contain Lead.



## Typical Performance Results

ISO GRADE	320
AGMA GRADE	6 EP
ASTM COLOR	4.0
SPECIFIC GRAVITY	0.8925
VISCOSITY (D-445)	
cSt @ 40°C	318
cSt @ 100°C	24.2
VISCOSITY INDEX (D-2270)	97
FLASH POINT (D-92) (°C)	279
TIMKEN OK LOAD (Kg) (D-2782)	34
4-BALL EP (D-2783)	
WELD POINT (Kg)	250+
RUST PREVENTION (D-665)	PASS
FOAM PREVENTION (D-892)	0-0-0
DEMULSIBILITY	
Mins. to separate 30mL, at 82.2°C	3

## Available Package Sizes

	20L Pail (5.28 US gal)	210L Drum (55.5 US gal)	500L Cube (132 US gal)
MARINE STX 320	X	X	X

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

