

# MARINE HDX 15W40

MARINE HDX 15W40 super high performance engine oil specifically selected to meet the demands required of today's lubricants for fishing vessels. It can be used to lubricate turbocharged and naturally aspirated diesel engines operating on marine gas oil as well as petrol units. Being a 15W-40 multigrade oil MARINE HDX 15W40 gives easy cold start and efficient engine lubrication at low temperatures, as well as optimum protection at high temperatures, without increasing oil consumption.

# SELECT MARINE HDX 15W40 FOR :

- Superior soot dispersancy
- Cleaner and more efficient operation
- Reduced maintenance
- Excellent oil consumption control
- Prevention against formation of harmful
- engine deposits
- Excellent protection under conditions of
- extended drain
- Good viscosity control

# SUPERIOR SOOT DISPERSANCY :

Soot derived from the combustion process during diesel engine operation which is not finely dispersed can cause:

- Wear of critical components
- Increased lubricant viscosity
- Plugging of oil filters
- Sludge formation

The additive technology used in MARINE HDX 15W40 gives excellent soot dispersancy and control, allowing high levels of soot to be harmlessly and evenly dispersed in the oil.

# **EXCEPTIONAL WEAR PROTECTION :**

MARINE HDX 15W40 provides superior levels of engine wear protection to extend the life of your engine. This ensures optimum engine performance is maintained even under the extremely arduous conditions in which fishing vessels operate.

## **DEPOSIT CONTROL** :

The prevention of deposit formation ensures optimum engine performance at all times, protects against bore polishing and increased oil consumption, thus ensuring maximum engine life. The excellent deposit control characteristics of MARINE HDX 15W40 will reduce repair and breakdown costs and exceeds the API CH-4 specification criteria.

# **OXIDATION CONTROL :**

The combination of base oils and antioxidants used in MARINE HDX 15W40 provides superior thermal and oxidation stability. This is particularly important in modern engines and those operating in severe conditions. Higher operating temperatures can cause oil thickening, sludge formation and corrosive attack from acid build-up. MARINE HDX 15W40 has improved oxidation resistance, enabling lubrication at higher operating temperatures for longer time periods without breaking down.

# USING MARINE HDX 15W40 :

- Reduces repair and breakdown costs
- Minimises down time
- Maximises return on investment
- Reduces wear and costs
- Extends lubricant life
- Results in cleaner engine



#### **OIL CONSUMPTION :**

A reduction in oil consumption provides a direct cost saving for the vessel owner/operator. Tests have shown that MARINE HDX 15W40 will reduce oil consumption to the level required for a CH-4 specification lubricant thus reducing vessel running costs.

## **INDUSTRY SPECIFICATIONS :**

American Petroleum Institute (API) and European Automobile Manufacturer's Association (ACEA) MARINE HDX 15W40 meets the requirements of API-CH4 and ACEA E3/E5/B4, and can be used wherever this specification or less is listed. The API CH-4 specification was introduced to handle the severe operating requirements of the current generation of diesel engines. The result of engine design changes made in order to satisfy environmental legislation is an increase in levels of soot in the engine oil. API CH-4 oils have been designed to overcome this problem by providing improved soot and wear control compared to lower specification lubricants.

## MARINE HDX 15W40 - THE 15W40 OIL THAT SAVES YOU MONEY THROUGH :

- Superior soot dispersancy
- Exceptional high temperature cleanliness
- Good oil consumption control

## **TYPICAL CHARACTERISTICS** :

Test	Method	Unit	Average result
Viscosity @40°C		cSt	110
Viscosity @100°C		cSt	14,5
Viscosity @-15°C		сР	3,5
Viscosity index			135
SAE Viscosity			15W40
Flash point		°C	195
Pour point		°C	-30
Base number		mgKOH/g	10,3

We reserve the right to alter the general characteristics of our products in order to let our customers benefit of the latest technical evolutions.