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| **Athen Marine Cylinder Oil 5025** |

Marine cylinder oil is formulated for low sulphur residual fuel blends and distillates, this unique formulation has been specifically developed for sulfur emission control area (SECAs).

**Product Description**

**Athen Marine 5025** is a marine diesel engine cylinder oil for crosshead engines running low and ultra low sulphur distillate fuels and meets the requirements of MAN and Wartsila engines. Designed to protect in extreme environments, **Athen Marine 5025** has an optimum viscosity of 20 cSt at 100ºC and low volatility to ensure lubricant distribution and oil film retention and help protect engine parts.

**Features & Benefits**

* Excellent viscosity-temperature behavior meets the requirements of latest generation engine designs operating at higher-pressure and higher-temperature.
* Excellent anti-wear performance reduces the friction and wear-off of metallic components and extends the life of engine parts.
* Outstanding detergency and dispersancy prevent carbon deposits on cylinder ring groove and cylinder liner and ensure the cleanness of engine combustion chamber.
* Good diffusivity performance drives oil quickly reaching and spreading out over the cylinder surface to form oil films to reduced liner and ring wear-off.
* It is approved by MAN, WINGD (WARTSILA) and MHI-MME.

**Applications**

* Combats the deposits and scuffing related engine wear associated wth low sulphur fuels
* Excellent thermal and oxidative stability to ensure performance in a variety of engine conditions
* Formulated with detergent technology required to deliver excellent performance with low-sulphur fuel
* Detergency system provides strong control of piston groove deposits which is a critical area for distillate fuel operation
* Marine crosshead engines designed for increased power and fuel efficiency
* Earlier engine designs and engines in slow speed steaming operation

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**Typical Properties**

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| **Athen Marine Cylinder Oil 5025** | | |
| **Typical properties** | **SAE Grade** | **50** |
| **BN** | **25** |
| **Test Parameters** | **ASTM Method** | **Typical Values** |
| Viscosity @ 100ºC, cSt | D 445 | 20 |
| Viscosity Index | D 2270 | 102 |
| Flash Point, ºC | D 92 | 286 |
| Pour Point, ºC | D 97 | -9 |
| BN, mg KOH/g | D 2896 | 25 |
| Density @ 15ºC, kg/l | D 1298 | 0.909 |

“*Data provided in this PDS is based on standard tests under laboratory conditions and is indicative only. Minor variations which do not affect product performance are expected in normal manufacturing. This product should not be used for any purpose other than those expressly set out in this PDS”*

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