



# SERVO MARINE K SERIES

**GRADES AVAILABLE - SERVO MARINE K 3030, 3040, 4030, 4040. 5040, 5540,**

**DESCRIPTION**

Servo Marine K XXXX is a new generation, premium Marine Engine Oil series developed to meet the requirements of modern medium speed trunk piston engines(4-stroke) used in Marine propulsions and Land based DG applications. Carefully designed using virgin base stock and optimized, robust polar detergent chemistry, these oils possess good fuel asphalt tackling efficiency besides other lubricant characteristics.

The superior performance of these oils has been demonstrated in several laboratory screening tests, standard and in-house rig & engine tests. These oils have shown excellent high temperature detergency characteristics esp. in the hotter engine parts like piston rings, piston under-crown etc. besides good BN stabilization in the field trial conducted.

**PERFORMANCE BENEFITS**

- Outstanding engine cleanliness esp. in hotter engine parts like piston rings & piston under-crowns
- Higher base number (BN) stabilization even in low oil consuming engines.
- Good anti-wear protection of piston rings and cylinder liners
- Higher degree of compatibility with fuel asphalts
- Good viscosity & insoluble control
- Longer drain capabilities

**APPLICATION**

Servo Marine K XXXX series is recommended for use in trunk piston engines (4-stroke) engaged in marine propulsion and land based power generation applications running on residual/heavy fuels.

**PERFORMANCE STANDARDS**

- Conforms to a threshold performance level of American Petroleum Institute's service classification (API) of CF.
- Passes Cat 1 M PC and CLR L-38 engine tests for high temperature deposit control and bearing protection characteristics.

**MANUFACTURERS APPROVAL**

- **WARTSILA,FINLAND**

Wartsila Vasa 22 / 26, Wartsila Vasa 32 / 32 LN, Wartsila 20, Wartsila 26, Wartsila 32, Wartsila 38, Wartsila 46, Wartsila 64 and Sulzer Z 40 / ZA 40 / ZA 40 S engines.

**CHARACTERISTICS**

GRADE	3030	3040	4030	4040	5040	5540
<b>SAE GRADE</b>	<b>30</b>	<b>40</b>	<b>30</b>	<b>40</b>	<b>40</b>	<b>40</b>
<b>Kin. Viscosity cSt @ 100°C</b>	11.3-12.4	14.4-15.5	11.3-12.4	14.4-15.5	14.4-15.5	14.4 – 15.5
<b>Viscosity Index, Min</b>	95	95	95	95	95	95
<b>Base Number, MgKOH/gm</b>	30.5-34.0	30.5-34.0	40.5-44.0	40.4-44.0	50.5-54.0	55.5-59.0
<b>Flash point (COC), °C Min.</b>	220	220	220	220	230	230
<b>Pour Point, °C Max.</b>	(-) 12	(-) 12	(-) 12	(-) 12	(-) 12	(-) 12

**HEALTH & SAFETY**

These oils are unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of industrial and personal hygiene are maintained.

For further information please contact our nearest office OR:

Commercial & Lube Dept., Lanka IOC PLC, Level 20, West Tower, World Trade Center, Echelon Square, Colombo 01.

**E-Mail:** [vsakthivel@lankaio.com](mailto:vsakthivel@lankaio.com) OR [lankaio.com](mailto:lankaio.com)

# SERVO<sup>®</sup>

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Additional Parameters of Servo Marine K 4040 are as follows:

<b>GRADE</b>	<b>4040</b>
<b>SAE GRADE</b>	<b>40</b>
Specific Gravity	0.898
Kin. Viscosity cSt @ 100°C	14.4-15.5
Kin. Viscosity cSt @ 40°C	127 (Typical)
Viscosity Index, Min	95
Base Number, MgKOH/gm	40.4-44.0
Flash point (COC), °C Min.	220
Pour Point, °C Max.	(-) 12
Water content	Nil
Insolubles	Not tested in fresh oil
Sulphur Ash %	4.76 – 5.88

Servomarine K 4040 is equivalent to earlier marketed Servomarine C-404.

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Commercial & Lube Dept., Lanka IOC PLC, Level 20, West Tower, World Trade Center,  
Echelon Square, Colombo 01.

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