

Title (en)

USE OF A MARINE LUBRICATING OIL COMPOSITE ADDITIVE

Title (de)

VERWENDUNG VON SCHMIERÖLKONZENTRATEN FÜR SCHIFFSÖLE

Title (fr)

UTILISATION D' UN ADDITIF COMPOSITE D'HUILE LUBRIFIANTE MARINE

Publication

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Application

EP 12158753 A 20120309

Priority

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Abstract (en)

The present invention relates to a marine cylinder oil composite additive. Based on the total weight of the composite additive, said marine cylinder oil composite additive comprises: 15-25% sulfonate detergent with superhigh base number, 35-45% phenolate detergent with superhigh base number, 20-30% naphthenate detergent with superhigh base number, 0-8% dispersing agent, 0-4% antiwear agent, and 10-20% Group I base oil with high viscosity index which is selected from the group consisting of 400SN, 500SN and 650SN. The benefit of the present invention lies in the fact that the composite additive can satisfy the requirement of BOB system about the viscosity and base number, and can be blended with many system oils under a number of domestic and foreign brands so as to provide cylinder lubricating oils with different base numbers. The composite additive according to the present invention has good adaptability and excellent performances in terms of antiwear, antioxidization and high temperature dergency, which meet the requirement of marine engines about the performance of cylinder oils. Moreover, the composite additive according to the present invention is able to maintain good stability in the base oil of the system oil as well as good compatibility, and thus the lubricating performance of the cylinder oil will not be adversely affected.

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Citation (search report)

- [Y] EP 1126010 A1 20010822 - CHEVRON ORONITE JAPAN LTD [JP]
- [Y] US 2008287327 A1 20081120 - MAYHEW ALEXANDRA [GB], et al
- [Y] EP 0331359 A1 19890906 - EXXON CHEMICAL PATENTS INC [US]
- [Y] CN 101161798 A 20080416 - WUXI HUIYUAN ADVANCED LUBRICAT [CN]

Cited by

CN107406784A; EP3250663A4; EP4075108A1; DK201500647A1; DK179212B1; CN112646646A; WO2017080563A1; WO2017067561A1

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