

Title (en)

Lubricating oil compositions with low sulfur and phosphorous content

Title (de)

Boreenthaltende Schmierölszusammensetzung mit niedrigem Schwefel- und Phosphorgehalt

Title (fr)

Composition d'huile lubrifiante contenant du bore et une faible concentration de soufre et de phosphore

Publication

EP 1329496 A1 20030723 (EN)

Application

EP 02250224 A 20020114

Priority

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Abstract (en)

A crankcase lubricating oil composition comprises an oil of lubricating viscosity, in a major amount, and, in respective minor amounts, a boron-containing additive and one or more co-additives, wherein the lubricating oil composition has greater than 200 ppm by mass of boron, less than 600 ppm by mass of phosphorus and less than 6000 ppm by mass of sulfur, based on the mass of the oil composition.

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C10M 163/00

IPC 8 full level

C10M 163/00 (2006.01)

CPC (source: EP)

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Citation (search report)

- [X] EP 1167497 A2 20020102 - CHEVRON ORONITE JAPAN LTD [JP]
- [X] WO 9606904 A1 19960307 - TONEN CORP [JP], et al
- [DX] EP 0280579 A2 19880831 - EXXON CHEMICAL PATENTS INC [US]
- [DX] WO 9637582 A1 19961128 - EXXON RESEARCH ENGINEERING CO [US], et al
- [PX] WO 02062930 A2 20020815 - LUBRIZOL CORP [US]
- [A] EP 1016706 A2 20000705 - ORONITE JAPAN LIMITED [JP]

Cited by

EP1724329A1; CN108085091A; US8470751B2

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