

Title (en)

Lubricant compositions with reduced phosphorous content for engines having catalytic converters

Title (de)

Schmiermittelzusammensetzungen mit reduziertem Phosphorgehalt für Motoren mit Katalysatoren

Title (fr)

Compositions de lubrifiant avec une teneur réduite en phosphore pour moteurs dotés de convertisseurs catalytiques

Publication

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Application

**EP 08104915 A 20080729**

Priority

US 83648807 A 20070809

Abstract (en)

A lubricant composition is disclosed. The lubricant composition is made up of (a) ashless dispersant; (b) metal-containing detergent; (c) a phosphorus-containing compound; (d) rust inhibitor; and (e) basestock, wherein the lubricant composition has a concentration of phosphorus less than or equal to 0.08 weight %.

IPC 8 full level

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CPC (source: EP US)

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Citation (applicant)

- US 3018247 A 19620123 - ANDERSON ROBERT G, et al
- US 3018250 A 19620123 - ANDERSON ROBERT G, et al
- US 3018291 A 19620123 - ANDERSON ROBERT G, et al
- US 3361673 A 19680102 - STUART FRANK A, et al
- US 4234435 A 19801118 - MEINHARDT NORMAN A, et al
- US 3576743 A 19710427 - WIDMER ROBERT, et al
- US 4873009 A 19891010 - ANDERSON RONALD L [US]
- US 3368972 A 19680213 - OTTO FERDINAND P
- US 3413347 A 19681126 - WORREL CALVIN J
- US 3539633 A 19701110 - PIASEK EDMUND J, et al
- US 3697574 A 19721010 - PIASEK EDMUND J, et al
- US 3725277 A 19730403 - WORREL C
- US 3725480 A 19730403 - TRAISE T, et al
- US 3726882 A 19730410 - TRAISE T, et al
- US 3798247 A 19740319 - PIASEK E, et al
- US 3803039 A 19740409 - PIASEK E, et al
- US 3985802 A 19761012 - PIASEK EDMUND J, et al
- US 4231759 A 19801104 - UDELHOFEN JOHN H, et al
- US 4142980 A 19790306 - KARLL ROBERT E, et al
- US 3275554 A 19660927 - HENDRIK WAGENAAR ADRIAAN
- US 3438757 A 19690415 - HONNEN LEWIS R, et al
- US 3565804 A 19710223 - HONNEN LEWIS R, et al
- US 6642188 B1 20031104 - HARTLEY ROLFE J [US], et al
- US 4867890 A 19890919 - COLCLOUGH TERENCE [GB], et al
- EP 0330522 A2 19890830 - EXXON CHEMICAL PATENTS INC [US]

Citation (search report)

- [X] WO 2006073198 A1 20060713 - NIPPON OIL CORP [JP], et al & EP 1845151 A1 20071017 - NIPPON OIL CORP [JP], et al
- [Y] US 2004121918 A1 20040624 - REA SALVATORE [US], et al
- [Y] US 2004038833 A1 20040226 - DECKMAN DOUGLAS E [US], et al
- [Y] US 6500786 B1 20021231 - HARTLEY ROLFE J [US], et al
- [PX] EP 1947164 A1 20080723 - CHEVRON ORONITE TECHNOLOGY BV [NL]

Cited by

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