

Title (en)
Lubricant compositions exhibiting extended oxidation stability

Title (de)
Schmierölzusammensetzungen mit erhöhter Stabilität

Title (fr)
Compositions lubrifiantes ayant une stabilité à l'oxydation prolongée

Publication
EP 1006173 A1 20000607 (EN)

Application
EP 98309774 A 19981130

Priority
EP 98309774 A 19981130

Abstract (en)
Use, in a lubricant composition comprising a hydraulic antiwear component and a base oil, of an additive comprising an amine antioxidant and at least one additional antioxidant selected from ashless dithiocarbamate, sulphurised olefin and phenolic, antioxidants to provide a lubricant having improved thermal and oxidation stability.

IPC 1-7
C10M 141/10

IPC 8 full level
C10M 141/08 (2006.01); **C10M 141/10** (2006.01); **C10M 129/10** (2006.01); **C10M 133/12** (2006.01); **C10M 135/02** (2006.01); **C10M 135/04** (2006.01); **C10M 135/18** (2006.01); **C10M 141/06** (2006.01); **C10M 171/00** (2006.01); **C10M 129/14** (2006.01); **C10M 133/06** (2006.01); **C10M 133/14** (2006.01); **C10M 135/16** (2006.01); **C10M 137/10** (2006.01); **C10N 30/06** (2006.01); **C10N 30/08** (2006.01); **C10N 30/10** (2006.01); **C10N 40/08** (2006.01)

CPC (source: EP KR)
C10M 129/10 (2013.01 - EP); **C10M 129/14** (2013.01 - EP); **C10M 133/12** (2013.01 - EP); **C10M 133/14** (2013.01 - EP); **C10M 135/02** (2013.01 - EP); **C10M 135/04** (2013.01 - EP); **C10M 135/06** (2013.01 - EP); **C10M 135/16** (2013.01 - EP); **C10M 135/18** (2013.01 - EP); **C10M 137/10** (2013.01 - EP); **C10M 141/10** (2013.01 - EP); **C10M 171/00** (2013.01 - KR); **C10M 2207/023** (2013.01 - EP); **C10M 2207/024** (2013.01 - EP); **C10M 2207/026** (2013.01 - EP); **C10M 2207/027** (2013.01 - EP); **C10M 2207/28** (2013.01 - EP); **C10M 2215/06** (2013.01 - EP); **C10M 2215/062** (2013.01 - EP); **C10M 2215/064** (2013.01 - EP); **C10M 2215/065** (2013.01 - EP); **C10M 2215/066** (2013.01 - EP); **C10M 2215/067** (2013.01 - EP); **C10M 2215/068** (2013.01 - EP); **C10M 2219/02** (2013.01 - EP); **C10M 2219/022** (2013.01 - EP); **C10M 2219/024** (2013.01 - EP); **C10M 2219/064** (2013.01 - EP); **C10M 2219/066** (2013.01 - EP); **C10M 2219/068** (2013.01 - EP); **C10M 2219/085** (2013.01 - EP); **C10M 2219/087** (2013.01 - EP); **C10M 2219/088** (2013.01 - EP); **C10M 2219/089** (2013.01 - EP); **C10M 2223/045** (2013.01 - EP); **C10N 2010/04** (2013.01 - EP)

C-Set (source: EP)
1. **C10M 2215/06 + C10M 2215/06**
2. **C10M 2215/064 + C10M 2215/064**
3. **C10M 2215/065 + C10M 2215/065**
4. **C10M 2215/066 + C10M 2215/066**
5. **C10M 2215/067 + C10M 2215/067**
6. **C10M 2215/068 + C10M 2215/068**

Citation (search report)
• [DX] EP 0713907 A2 19960529 - ETHYL PETROLEUM ADDITIVES LTD [GB]
• [X] US 5236610 A 19930817 - PEREZ JOSEPH M [US], et al
• [X] GB 1440129 A 19760623 - TENNECO CHEM
• [X] WO 9218589 A1 19921029 - LUBRIZOL CORP [US]
• [X] EP 0393768 A1 19901024 - MINI RICERCA SCIENT TECNOLOG [IT]
• [X] GB 1205177 A 19700916 - CASTROL LTD [GB]
• [A] US 3282840 A 19661101 - FOSTER JR LLOYD P, et al
• [X] US 5356547 A 19941018 - ARAI KATSUYA [JP], et al
• [X] EP 0588561 A1 19940323 - ORONITE JAPAN LIMITED [JP]

Cited by
US9783759B2; WO2010008694A1; WO2006065344A1; CN113913228A; RU2505590C1; US2011030269A1; CN102498194A; US2015133352A1; US9677024B2; US8455406B2; US8748357B2; US6852680B2; US2016068781A1; EP3189125A4; WO2011017555A1; WO2015085083A1; US9982211B2; US10704007B2; US7704931B2; WO2024182476A1; WO2012058021A3; WO2009009293A1

Designated contracting state (EPC)
BE DE FR GB

DOCDB simple family (publication)
EP 1006173 A1 20000607; AU 5936499 A 20000601; BR 9905759 A 20000815; CA 2287726 A1 20000530; CA 2287726 C 20030708; CN 1216134 C 20050824; CN 1255533 A 20000607; JP 2000160182 A 20000613; KR 20000035777 A 20000626; SG 77271 A1 20001219

DOCDB simple family (application)
EP 98309774 A 19981130; AU 5936499 A 19991111; BR 9905759 A 19991130; CA 2287726 A 19991028; CN 99122852 A 19991130; JP 33267099 A 19991124; KR 19990053876 A 19991130; SG 1999005402 A 19991101