

Title (en)  
LUBRICANT COMPOSITION FOR SEAMLESS STEEL PIPE WORKING

Title (de)  
SCHMIERMITTELZUSAMMENSETZUNG ZUR BEARBEITUNG VON NAHTLOSEN STAHLROHREN

Title (fr)  
COMPOSITION LUBRIFIANTE POUR L'USINAGE DE TUBES EN ACIER SANS SOUDURE

Publication  
**EP 1666576 A4 20090520 (EN)**

Application  
**EP 04772782 A 20040903**

Priority  
• JP 2004012833 W 20040903  
• JP 2003312232 A 20030904

Abstract (en)  
[origin: EP1666576A1] Provided is a lubricant composition for seamless steel pipes or tubes working which totally satisfies various properties, such as storage stability, transferability inside an apparatus tube, sprayability to lubricated sites, and property of uniform adhesion to a high-temperature mandrel bar without losing non-carburizability or excellent lubricity to hard-to-work materials such as 13 chromiumsteel and stainless steel. Prepared is a lubricant composition which has a viscosity property represented by the following approximate expression:  $Y = a \cdot X^b$  wherein Y: viscosity (mPa·s), x: shear rate (s<sup>-1</sup>) ; and a: 4000 to 40000 and b: -1.0 to -0.3 while the lubricant composition is stored to be kept still, and a: 1000 to 20000, and b: -1.0 to -0.15 after 90 seconds from the time when shearing a lubricant composition is finished.

IPC 8 full level  
**C10M 171/02** (2006.01); **B21B 25/04** (2006.01); **C10M 103/00** (2006.01); **C10M 103/06** (2006.01); **C10M 145/40** (2006.01);  
**C10M 171/00** (2006.01); **C10M 173/02** (2006.01); **B21B 45/02** (2006.01); **C10N 10/02** (2006.01); **C10N 20/02** (2006.01); **C10N 30/00** (2006.01);  
**C10N 30/06** (2006.01); **C10N 40/24** (2006.01); **C10N 50/02** (2006.01)

CPC (source: EP)  
**C10M 171/00** (2013.01); **C10M 173/02** (2013.01); **B21B 25/04** (2013.01); **B21B 45/0242** (2013.01); **B21B 2045/026** (2013.01);  
**C10M 2201/062** (2013.01); **C10M 2201/0623** (2013.01); **C10M 2201/087** (2013.01); **C10M 2201/103** (2013.01); **C10M 2201/1033** (2013.01);  
**C10M 2209/084** (2013.01); **C10M 2209/12** (2013.01); **C10N 2010/02** (2013.01); **C10N 2010/04** (2013.01); **C10N 2020/06** (2013.01);  
**C10N 2040/241** (2020.05); **C10N 2040/247** (2020.05); **C10N 2050/02** (2013.01)

Citation (search report)  
• [XY] EP 0839895 A2 19980506 - KAWASAKI STEEL CO [JP]  
• [Y] DATABASE WPI Week 199722, Derwent World Patents Index; AN 1997-241998, XP002523151  
• See references of WO 2005023966A1

Designated contracting state (EPC)  
CH DE FR IT LI

DOCDB simple family (publication)  
**EP 1666576 A1 20060607**; **EP 1666576 A4 20090520**; **EP 1666576 B1 20140723**; CN 100575468 C 20091230; CN 1845982 A 20061011;  
JP 2009287023 A 20091210; JP 5292575 B2 20130918; WO 2005023966 A1 20050317

DOCDB simple family (application)  
**EP 04772782 A 20040903**; CN 200480025327 A 20040903; JP 2004012833 W 20040903; JP 2009112471 A 20090507