

Title (en)  
LUBRICATING COMPOSITION AND METHOD OF LUBRICATING A TRANSMISSION

Title (de)  
SCHMIERMITTELZUSAMMENSETZUNG UND VERFAHREN ZUM SCHMIEREN EINES GETRIEBES

Title (fr)  
COMPOSITION LUBRIFIANTE ET PROCÉDÉ DE LUBRIFICATION D'UNE BOÎTE DE VITESSES

Publication  
**EP 2997119 B1 20210804 (EN)**

Application  
**EP 14730033 A 20140513**

Priority  
• US 201361822953 P 20130514  
• US 2014037774 W 20140513

Abstract (en)  
[origin: WO2014186318A1] The present invention relates to a lubricating composition comprising:(a) an oil of lubricating viscosity having a kinematic viscosity at 100 °C of 2.8 to 3.6 cSt (mm<sup>2</sup>/s) and a viscosity index of 104 to 130; (b) 1.2 to 5.0 wt % of at least one borated dispersant, wherein at least one borated dispersant is further functionalised with a sulphur or phosphorus moiety; (c) a calcium-containing detergent present in an amount to deliver at least 110 ppm to 700 ppm of calcium; (d) at least two phosphorus-containing compounds present in an amount to deliver 360 to 950 ppm of phosphorus; and (e) 0.1 wt % to 5 wt % of a linear polymer viscosity modifier having dispersant functionality. The invention further provides a method of lubricating a transmission with the lubricating composition disclosed wherein.

IPC 8 full level  
**C10M 169/04** (2006.01)

CPC (source: EP US)  
**C10M 125/24** (2013.01 - US); **C10M 135/10** (2013.01 - US); **C10M 137/02** (2013.01 - US); **C10M 139/00** (2013.01 - US);  
**C10M 145/14** (2013.01 - US); **C10M 169/044** (2013.01 - US); **C10M 169/048** (2013.01 - EP US); **C10M 2201/085** (2013.01 - EP US);  
**C10M 2209/084** (2013.01 - EP US); **C10M 2215/28** (2013.01 - EP US); **C10M 2219/046** (2013.01 - EP US); **C10M 2223/049** (2013.01 - EP US);  
**C10N 2030/02** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/08** (2013.01 - EP US)

Citation (examination)  
EP 2832830 A1 20150204 - JX NIPPON OIL & ENERGY CORP [JP]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2014186318 A1 20141120**; AU 2014265676 A1 20151126; BR 112015028641 A2 20170725; CA 2912063 A1 20141120;  
CN 105378044 A 20160302; EP 2997119 A1 20160323; EP 2997119 B1 20210804; EP 3981863 A1 20220413; JP 2016522285 A 20160728;  
JP 2018059129 A 20180412; JP 6425712 B2 20181121; US 2016108337 A1 20160421

DOCDB simple family (application)  
**US 2014037774 W 20140513**; AU 2014265676 A 20140513; BR 112015028641 A 20140513; CA 2912063 A 20140513;  
CN 201480039920 A 20140513; EP 14730033 A 20140513; EP 21189312 A 20140513; JP 2016514020 A 20140513;  
JP 2018008957 A 20180123; US 201414890439 A 20140513