

Title (en)
METHOD OF LUBRICATING A MANUAL TRANSMISSION WITH IMPROVED SYNCHROMESH PERFORMANCE

Title (de)
VERFAHREN ZUR SCHMIERUNG EINES HANDSCHALTGETRIEBES MIT VERBESSERTER SYNCHRONGETRIEBELEISTUNG

Title (fr)
METHODE POUR LUBRIFIER UNE TRANSMISSION MANUELLE AYANT DES PERFORMANCES DE SYNCHRONISATION AMÉLIORÉES

Publication
EP 2831212 B1 20170104 (EN)

Application
EP 13712452 A 20130313

Priority
• US 201261615434 P 20120326
• US 2013030648 W 20130313

Abstract (en)
[origin: WO2013148171A1] A lubricant comprising (a) an oil of lubricating viscosity; and (b) an overbased, carbonated calcium arylsulfonate detergent having a total base number (TBN) of at least about 640 as calculated on an oil-free basis effectively lubricates the surfaces in the synchronizer of a manual transmission.

IPC 8 full level
C10M 159/24 (2006.01); **C10N 30/06** (2006.01); **C10N 40/04** (2006.01)

CPC (source: EP US)
C10M 141/10 (2013.01 - US); **C10M 159/24** (2013.01 - EP US); **C10M 2205/028** (2013.01 - EP US); **C10M 2205/0285** (2013.01 - EP US); **C10M 2207/028** (2013.01 - EP US); **C10M 2215/064** (2013.01 - EP US); **C10M 2215/28** (2013.01 - EP US); **C10M 2219/046** (2013.01 - EP US); **C10M 2219/106** (2013.01 - EP US); **C10M 2223/049** (2013.01 - EP US); **C10N 2020/069** (2020.05 - EP US); **C10N 2020/071** (2020.05 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2040/044** (2020.05 - EP US)

C-Set (source: EP US)
EP
1. **C10M 2219/046 + C10M 2215/28 + C10M 2219/046 + C10N 2060/14**
2. **C10M 2215/28 + C10N 2060/14**
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US
1. **C10M 2219/046 + C10M 2215/28 + C10M 2219/046 + C10M 2219/046 + C10N 2010/04 + C10N 2060/14**
2. **C10M 2219/046 + C10M 2215/28 + C10M 2219/046 + C10N 2060/14**
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Designated contracting state (EPC)
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DOCDB simple family (publication)
WO 2013148171 A1 20131003; CA 2868780 A1 20131003; CA 2868780 C 20160705; CN 104220571 A 20141217; EP 2831212 A1 20150204; EP 2831212 B1 20170104; JP 2015512457 A 20150427; JP 5797868 B2 20151021; SG 11201405645U A 20141030; US 2015099676 A1 20150409

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