

Title (en)

USE IN GASOLINE DIRECT INJECTION ENGINES

Title (de)

VERWENDUNG IN BENZINDIREKTEINSPRITZMOTOREN

Title (fr)

UTILISATION DANS DES MOTEURS À ESSENCE À INJECTION DIRECTE

Publication

EP 2990469 B1 20190612 (EN)

Application

EP 15182399 A 20150825

Priority

US 201462042386 P 20140827

Abstract (en)

[origin: EP2990469A1] Use in a turbo-charged gasoline direct injection (GDI) engine of a lubricant composition to reduce engine wear. The lubricant composition includes a major amount of oil of lubricating viscosity, and a minor amount of at least one highly grafted, multi-functional olefin copolymer made by reacting an acylating agent with an olefin copolymer having a number average molecular weight greater than about 1,000 in the presence of a free radical initiator to provide an acylated olefin copolymer having a degree of grafting (DOG) of the acylating agent on the olefin copolymer of at least 0.5 wt.%, and reacting the acylated olefin copolymer with an amine to provide a highly grafted, multi-functional olefin copolymer. The highly grafted, multi-functional olefin copolymer is effective to reduce engine wear in the turbo-charged GDI engine to below engine wear provided by a lubricant composition devoid of the highly grafted, multi-functional olefin copolymer.

IPC 8 full level

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Cited by

CN106701274A; EP3476923A1; EP3896142A1; US10323205B2; WO2019005738A1; WO2017192202A1; US10513668B2; US11365367B2; US10738262B2; US11377583B2; KR20190005168A; JP2019515069A; WO2019089177A1; WO2019089181A1

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