

Title (en)

The use of a Mannich condensation product as an anti-wear additive agent in a low sulfur, low sulfated ash and low phosphorus lubricating oil composition for heavy duty diesel engines

Title (de)

Die Verwendung von Mannichprodukte als Verschleisschutzadditiv in Schmierölszusammensetzung mit niedrigem Gehalt an Schwefel, Sulfatasche und Phosphor für Hochleistungsdieselmotoren

Title (fr)

L'Utilisation d'un produit Mannich comme additif anti-usure pour huile lubrifiant à faible teneur en soufre, en cendres sulfatées et en phosphore pour moteurs diesel de grande puissance

Publication

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Application

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Priority

US 21820805 A 20050831

Abstract (en)

[origin: EP1760137A1] The present invention is directed to a low sulfur, low sulfated ash and low phosphorus lubricating oil composition for low emission heavy duty diesel engines comprising (a) a major amount of an oil of lubricating viscosity and (b) at least 2 weight percent of an anti-wear additive composition comprising a metal salt of a Mannich condensation product based on the total weight of the lubricating oil. The present invention is also directed to a low sulfur, low sulfated ash and low phosphorus lubricating oil concentrate comprising (a) an oil of lubricating viscosity and (b) at least 2 weight percent of an anti-wear additive composition comprising a metal salt of a Mannich condensation product based on the total weight of the lubricating oil.

IPC 8 full level

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