

## Title (en)

Friction modification of synthetic gear oils.

## Title (de)

Modifizierung der Reibung synthetischer Getriebeöle.

## Title (fr)

Modification de la friction d'huiles synthétiques pour engrenages.

## Publication

**EP 0578435 A1 19940112 (EN)**

## Application

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## Priority

US 91120392 A 19920709

## Abstract (en)

Gear oils and gear oil additive packages that exhibit improved frictional properties for use in transmissions equipped with synchronizers are described. The lubricant compositions have a kinematic viscosity at 100 DEG C in the range of 4 to 32 mm<sup>2</sup>.s<-><1> (cSt), and comprise a) a base oil having at least 25%, preferably at least 50%, more preferably least 75%, and most preferably 100% by weight of (i) hydrogenated poly-alpha-olefin oligomer oil or (ii) synthetic ester oil, or (iii) a combination of (i) and (ii); b) an amount of a gear oil additive package such that the gear oil lubricant satisfies or exceeds the specifications for API-GL4 service; and c) an amount in the range of 0.01 to 2 wt % based on the total weight of the lubricant of at least one alkali or alkaline earth metal salt of an oil-soluble sulfonic acid, the amount of said metal salt used being sufficient to improve the friction properties of the lubricant for use in manual transmissions, particularly those of the synchronizer type; said lubricant containing at most 100 ppm of metal as one or more additive components other than said metal salt, and having on a weight basis a boron content, if any, of not more than 1,000 ppm.

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**C10M 169/04**

## IPC 8 full level

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