

Natural Gas Engine Lubricating Oil Compositions

Abstract

A natural gas engine lubricating oil composition is disclosed which comprises (a) a major amount of an oil of lubricating viscosity, (b) one or more phosphorus-containing anti-wear additives, (c) one or more ashless dispersants, (d) one or more alkaline earth metal salts of an alkyl-substituted hydroxyaromatic carboxylic acid, and (e) one or more antioxidants, wherein the natural gas engine lubricating oil composition contains no more than about 0.03 weight percent of phosphorus, based on the total weight of the natural gas engine lubricating oil composition, and further wherein the natural gas engine lubricating oil composition is substantially free of any alkali metal-containing detergents.

Fig. 1