

SYNERGISTIC DISPERSANTS

ABSTRACT

Lubricant compositions including an additive composition and methods for its use in engines that produce soot. The lubricant composition contains a base oil and an additive composition having (a) at least 0.05 percent by weight of a first dispersant that is a reaction product of A) a hydrocarbyl-dicarboxylic acid or anhydride, and B) at least one polyamine; and (b) at least 0.05 percent by weight, both based on a total weight of the lubricant composition, of a second dispersant that is a reaction product of A') a hydrocarbyl-dicarboxylic acid or anhydride, and B') at least one polyamine, wherein the reaction product is post-treated with C) an aromatic carboxylic acid, an aromatic polycarboxylic acid, or an aromatic anhydride wherein all carboxylic acid or anhydride groups are attached directly to an aromatic ring, and/or D) a non-aromatic dicarboxylic acid or anhydride having a number average molecular weight of less than about 500.

[No suitable figure]