

5 WHAT IS CLAIMED IS:

1. A lubricating oil composition comprising:
  - a) a major amount of oil of lubricating viscosity,
  - b) at least one or more non-post treated succinimide dispersant,
  - c) 0.01-0.5 wt. % phosphoric acid,
  - 10 d) a metal detergent providing no more than 350 ppm of metal to the composition,
  - e) at least one or more organic phosphorus compound, wherein the ratio of nitrogen from the non-post treated succinimide to the phosphorous from phosphoric acid is 1 to 3.
- 15 2. The lubricating oil composition of claim 1, wherein the composition is an automatic transmission or a continuously variable transmission composition.
3. The lubricating oil composition of claim 2, wherein the automatic transmission or continuously variable transmission is equipped with a wet paper clutch.
4. The lubricating oil composition of claim 3, wherein the wet clutch contains cellulose fiber and/or aramid fiber.
- 20 5. The lubricating oil composition of claim 1, wherein the metal detergent provides 25 to 350 wt. ppm calcium to the lubricating oil composition.
6. The lubricating oil composition of claim 1, wherein the one or more non-post treated succinimide dispersant is present at from 0.3 – 8 wt. %.
- 25 7. The lubricating oil composition of claim 1, wherein the one or more non-post treated succinimide dispersant is a bis-succinimide.
8. The lubricating oil composition of claim 1, wherein the bis-succinimide is derived from 950 molecular weight polyisobutylene (PIB).
9. The lubricating oil composition of claim 1, wherein the succinimide dispersant is a borated bis-succinimide derived from 900 to 1500 molecular weight polyisobutylene (PIB).
- 30 10. The lubricating oil composition of claim 1, wherein the organic phosphorous compound provides from 0.01 to 0.5 wt.% phosphorous to the lubricating oil composition.
11. The lubricating oil composition of claim 1, wherein the one or more organic phosphorous compounds selected from the group comprising an amine salt phosphate and an aromatic hydrogen phosphite.
- 35 12. The lubricating oil composition of claim 1, wherein the total phosphorus in the lubricating oil composition is 500 ppm or less.

- 5 13. A method of improving anti-shudder performance and reducing friction in a combustion engine equipped with an automatic transmission or a continuously variable transmission comprising lubricating said transmission with a lubricating oil composition comprising:
- 10 a) a major amount of oil of lubricating viscosity,  
b) at least one or more non-post treated succinimide dispersant,  
c) 0.01-0.5 wt. % phosphoric acid,  
d) a metal detergent providing no more than 350 ppm of metal to the composition,  
e) at least one or more organic phosphorus compound, wherein
- 15 the ratio of nitrogen from the non-post treated succinimide to the phosphorous from phosphoric acid is 1 to 3.
14. The method of claim 13, wherein the automatic transmission or continuously variable transmission is equipped with a wet paper clutch.
15. The method of claim 13, wherein the one or more non-post treated succinimide dispersant
- 20 is present at from 0.3 – 8 wt. %.
16. The method of claim 13, wherein the one or more non-post treated succinimide dispersant is a bis-succinimide.
17. The method of claim 13, wherein the one or more organic phosphorous compound provides from 0.01 to 0.5 wt.% phosphorous to the lubricating oil composition.
- 25 18. The method of claim 13, wherein the wherein the one or more organic phosphorous compound is selected from the group comprising an amine salt phosphate and an aromatic hydrogen phosphite.
19. The method of claim 13, wherein the total phosphorus in the lubricating oil composition is 500 ppm or less.

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