CLAIMS

What is claimed is:

1. A marine gas oil composition comprising 1.0 vol% to 5 vol% of a lubricant base stock, the lubricant base stock comprising a T5 distillation point of 350°C or more, a kinematic viscosity at 100°C of 14 cSt to 40 cSt, and a viscosity index of 80 or more, the marine gas oil composition comprising a density at 15°C of 0.81 g/cm^3 to 0.90 g/cm^3 , a calculated cetane index of 40 or more, and a kinematic viscosity at 40°C of 2.0 cSt to 11.0 cSt.

2. The marine gas oil composition of Claim 1, wherein 50 vol% or more of the lubricant base stock has a distillation point of 380°C or more; or wherein the lubricant base stock comprises a T5 distillation point of 380°C or more; or a combination thereof.

3. The marine gas oil composition of any of the above claims, wherein the lubricant base stock comprises a hydroprocessed deasphalted oil, or wherein the lubricant base stock comprises 50 wt% or more naphthenes, or a combination thereof.

4. The marine gas oil composition of any of Claims 1– 3, wherein the marine gas oil comprises a kinematic viscosity at 40°C of 115 cSt to 875 cSt.

5. The marine gas oil composition of any of the above claims, wherein the lubricant base stock comprises a viscosity index of 80 to 120.

6. The marine gas oil composition of any of Claims 1–4, wherein the lubricant base stock comprises a viscosity index of greater than 120.

7. The marine gas oil composition of any of the above claims, wherein the lubricant base stock comprises 1 wt% or less of aromatics, or wherein the marine gas oil composition is clear and bright according to Procedure 1 of ASTM D4176, or a combination thereof.

8. The marine gas oil composition of any of the above claims, wherein the marine gas oil composition comprises a D86 distillation curve that is monotonically increasing.

9. The marine gas oil composition of any of Claims 1–7, wherein the marine gas oil composition comprises a D86 distillation curve that does not include an inversion of greater than 1°C.

10. The marine gas oil composition of any of the above claims, wherein the marine gas oil composition comprises a sulfur content of 1000 wppm or less.

11. A method for operating an engine, the method comprising operating the engine using a fuel comprising the marine gas oil composition of any of Claims 1–10, the engine optionally comprising a marine diesel engine.

12. The method of Claim 13, the method further comprising operating the engine at a load of 75% or more.

13. The method of Claim 13, the method further comprising operating the engine at a load of 30% or less.

14. A marine gas oil composition comprising 1.0 vol% to 25 vol% of a lubricant base stock, the lubricant base stock comprising a T5 distillation point of 350°C or more, a kinematic viscosity at 100°C of 3.0 cSt to 6.0 cSt, a kinematic viscosity at 40°C of 14 cSt to 40 cSt, and a viscosity index of 80 or more, the marine gas oil composition comprising a density at 15°C of 0.81 g/cm^3 to 0.90 g/cm^3, a calculated cetane index of 40 or more, and a kinematic viscosity at 40°C of 2.0 cSt to 11.0 cSt.