CLAIMS

What is claimed is:

1. A gas turbine engine comprising:

an engine static structure housing a compressor section and a turbine section, and a combustor section arranged axially between the compressor section and the turbine section;

a core nacelle enclosing the engine static structure to provide a core compartment; and

an oil tank arranged in the core compartment and axially aligned with the compressor section.

2. The engine according to claim 1, wherein the compressor section includes a low pressure compressor section arranged axially upstream from a high pressure compressor section, the oil tank axially aligned with at least a portion of the low pressure compressor section.

3. The engine according to claim 2, wherein the compressor and turbine sections are mounted on at least one spool, and comprising a fan case housing a fan connected to the spool, a fan nacelle enclosing the fan case, and a bypass flow path provided between the core and fan nacelles.

4. The engine according to claim 3, comprising a radial structure interconnecting the engine static structure and the fan case, a lubrication passage extending through the radial structure, and a tube fluidly interconnecting the lubrication passage to the oil tank.

5. The engine according to claim 4, wherein the radial structure includes flow exit guide vanes.

6. The engine according to claim 5, wherein the flow exit guide vane includes a radially extending cavity providing the lubrication passage.

7. The engine according to claim 5, wherein the flow exit guide vane includes a radially extending cavity, and a conduit arranged in the cavity and fluidly connected to the tube.

8. The engine according to claim 4, comprising a fill tube mounted to the fan case.

9. The engine according to claim 8, wherein the fan nacelle includes a cover configured to be removably secured over the fill tube.

10. The engine according to claim 3, comprising at least one bearing compartment configured to support the spool, and a lubrication system having a gearbox arranged in the core compartment and including a lubrication pump, the lubrication pump fluidly connected to the oil tank and the bearing compartment.

11. The engine according to claim 10, comprising a heat exchanger secured to the oil tank.

12. The engine according to claim 3, wherein the oil tank includes a portion extending through an opening in the core nacelle and exposed to the bypass flow path.

13. The engine according to claim 12, wherein the oil tank includes a wall having fins extending through slots in the core nacelle into the bypass flow path.

14. The engine according to claim 12, wherein the oil tank includes an exterior surface arranged in the opening, the core nacelle having an outer contour facing the bypass flow path, and the exterior surface following the outer contour.

15. The engine according to claim 14, wherein the oil tank is arcuate in shape and arranged axially forward of a gearbox mounted to the engine static structure.

16. A gas turbine engine comprising:

fan and core nacelles defining an annular bypass flow path, the core nacelle providing a core compartment and including an opening into the core compartment; and

an oil tank arranged in the core compartment and including a portion aligned with the opening and exposed to the bypass flow path.

17. The engine according to claim 16, wherein the oil tank includes a wall having fins extending through slots providing the opening and into the bypass flow path.

18. The engine according to claim 16, wherein the oil tank includes an exterior surface arranged in the opening, the core nacelle having an outer contour facing the bypass flow path, and the exterior surface following the outer contour.

19. The gas turbine engine comprising:

a engine static structure supported relative to a fan case by a radial structure;

an oil tank mounted to the engine static structure; and

an oil fill tube mounted to the fan case and fluidly connected to the oil tank.

20. The engine according to claim 19, comprising a core nacelle enclosing the engine static structure to provide a core compartment, the oil tank arranged in the core compartment, and a fan nacelle enclosing the fan case and including a removable cover arranged over the oil fill tube.

21. The engine according to claim 20, comprising a lubrication passage arranged in the radial structure fluidly interconnecting the oil fill tube to the oil tank.

CLAIMS:

1. A gas turbine engine comprising:

an engine static structure housing a compressor section and a turbine section, and a combustor section arranged axially between the compressor section and the turbine section;

a core nacelle enclosing the engine static structure to provide a core compartment; and

an oil tank arranged in the core compartment and axially aligned with the compressor section, wherein the oil tank includes a wall having fins extending through slots in the core nacelle into the bypass flow path.

2. A gas turbine engine comprising:

fan and core nacelles defining an annular bypass flow path, the core nacelle providing a core compartment and including an opening into the core compartment; and

an oil tank arranged in the core compartment and including a portion aligned with the opening and exposed to the bypass flow path, wherein the oil tank includes a wall having fins extending through slots providing the opening and into the bypass flow path.

3. The engine according to claim 2, wherein the oil tank includes an exterior surface arranged in the opening, the core nacelle having an outer contour facing the bypass flow path, and the exterior surface following the outer contour.