WHAT IS CLAIMED IS:

1. A wash system for a gas turbine engine comprising a compressor section, a turbine section, and an accessory gearbox, the wash system comprising:

a core turning assembly comprising a motor configured to be mechanically coupled to the gas turbine engine for rotating one or more components of the compressor section or the turbine section at a rotational speed greater than two (2) revolutions per minute and less than five hundred (500) revolutions per minute during washing operations of the gas turbine engine.

2. The wash system of claim 1, wherein the motor is configured to be mechanically coupled to the accessory gearbox, wherein the accessory gearbox of the gas turbine engine comprises a plurality of gears, wherein the core turning assembly further comprises a horizontal driveshaft mechanically coupled to the motor and configured to extend at least partially through the accessory gearbox, and wherein the horizontal driveshaft is disengaged from the plurality of gears when the horizontal driveshaft is extending through the accessory gearbox.

3. The wash system of claim 2, wherein the plurality of gears of the accessory gearbox includes a starter gear, and wherein the horizontal driveshaft is configured to rotate independently of the starter gear of the accessory gearbox when the horizontal driveshaft is extending at least partially through the accessory gearbox.

4. The wash system of claim 2, wherein the motor is mechanically coupled to the horizontal driveshaft through a flexible coupling.

5. The wash system of claim 1, wherein the core turning assembly further comprises an offset tool and an adapter, wherein the adapter is configured for attachment to the accessory gearbox, and wherein the offset tool is mechanically coupled to both the adapter and the motor such that the motor is configured for attachment to the accessory gearbox through the offset tool and adapter.

6. The wash system of claim 1, wherein the motor is a ten (10) horsepower motor or less.

7. The wash system of claim 1, further comprising:

a wash fluid line configured to be fluidly connected to a location within at least one of the compressor section or the turbine section of the gas turbine engine, the wash fluid line configured to provide a wash fluid to at least one of the compressor section or the turbine

section during rotation of at least one of the compressor section or the turbine section by the motor.

8. A wash system for a gas turbine engine comprising a compressor section and a turbine section, the wash system comprising:

an accessory gearbox configured to be attached to the gas turbine engine; and

a core turning assembly comprising a motor attached to the accessory gearbox and configured to rotate one or more components of the compressor section or the turbine section at a rotational speed greater than two (2) revolutions per minute (RPM) and less than five hundred (500) RPM when the accessory gearbox is attached to the gas turbine engine and during washing operations of the gas turbine engine.

9. The wash system of claim 8, wherein the motor is configured to rotate one or more components of at least one of the compressor section or the turbine section in a first circumferential direction and in a second circumferential direction, and wherein the second circumferential direction is opposite the first circumferential direction.

10. The wash system of claim 8, wherein the accessory gearbox comprises a plurality of gears, wherein the core turning assembly further comprises a horizontal driveshaft mechanically coupled to the motor and extending at least partially through the accessory gearbox, and wherein the horizontal driveshaft is disengaged from the plurality of gears and rotatable independently of the plurality of gears.

11. The wash system of claim 8, wherein the accessory gearbox comprises a starter gear, wherein the core turning assembly further comprises a horizontal driveshaft mechanically coupled to the motor and extending through the starter gear, and wherein the horizontal driveshaft is disengaged from the starter gear and rotatable independently of the starter gear.

12. The wash system of claim 8, wherein the accessory gearbox comprises an accessory pad, and wherein the motor is attached to the accessory pad.

13. A method for washing a gas turbine engine comprising:

attaching a motor of a core turning assembly to an accessory gearbox of the gas turbine engine;

rotating at least a portion of a compressor section or a turbine section of the gas turbine engine using the motor of the core turning assembly; and

providing a wash fluid to a core air flowpath of the gas turbine engine.

~~14. The method of claim 13, wherein rotating at least a portion of the compressor section or the turbine section of the gas turbine engine includes rotating at least a portion of the compressor section or the turbine section of the gas turbine engine using the motor of the core turning assembly at a rotational speed greater than two (2) revolutions per minute (RPM) and less than five hundred (500) RPM.~~

~~15. The method of claim 13, wherein attaching the motor of the core turning assembly to the accessory gearbox of the gas turbine engine further comprises removing a starter motor of the gas turbine engine from the accessory gearbox of the gas turbine engine.~~

~~16. The method of claim 13, wherein providing the wash fluid to the core air flowpath of the gas turbine engine comprises injecting a foam detergent through one or more inspection ports of the gas turbine engine to the core air flowpath of the gas turbine engine.~~

~~17. The method of claim 13, wherein rotating at least a portion of the compressor section or the turbine section of the gas turbine engine using the motor of the core turning assembly comprises rotating a horizontal driveshaft of the core turning assembly extending at least partially through the accessory gearbox with the motor of the core turning assembly.~~

~~18. The method of claim 17, wherein rotating the horizontal driveshaft comprises rotating the horizontal driveshaft independently of a plurality of gears of the accessory gearbox.~~

~~19. The method of claim 13, wherein rotating at least a portion of a compressor section or a turbine section of the gas turbine engine using the motor of the core turning assembly comprises rotating an accessory gear of the accessory gearbox using the motor of the core turning assembly.~~

~~20. The method of claim 13, wherein rotating at least a portion of the compressor section or the turbine section of the gas turbine engine using the motor of the core turning assembly comprises rotating at least a portion of the compressor section or the turbine section in a first circumferential direction using the motor of the core turning assembly and subsequently rotating at least a portion of the compressor section or the turbine section in a second circumferential direction using the motor of the core turning assembly.~~

1. A wash system for a gas turbine aircraft engine comprising a compressor section, a turbine section, and an accessory gearbox, the wash system comprising:

a core turning assembly comprising a motor mechanically coupled to the gas turbine aircraft engine for rotating one or more components of the compressor section or the turbine section at a rotational speed greater than two (2) revolutions per minute and less than five hundred (500) revolutions per minute during washing operations of the gas turbine aircraft engine, and

a wash fluid line fluidly connected to a location within a core air flowpath of the gas turbine aircraft engine, the wash fluid line comprising one or more of a first wash fluid line oriented adjacent an inlet of the core air flowpath of the gas turbine aircraft engine and a second wash fluid line extending through an inspection hole of the gas turbine aircraft engine,

wherein the motor is mechanically coupled to the accessory gearbox, wherein the accessory gearbox of the gas turbine aircraft engine comprises a plurality of gears;

wherein the accessory gearbox further comprises a plurality of accessory pads that communicate with the plurality of gears and is configured to be coupled to an outer casing of the gas turbine aircraft engine;

wherein the core turning assembly further comprises an offset tool and an adapter, the offset tool coupled to the motor and the adapter, the adapter being coupled to a selected one of the plurality of accessory pads, wherein the adapter is also coupled to a selected one of the plurality of gears other than a starter gear, wherein the selected one of the plurality of gears is coupled to a horizontal driveshaft, wherein the horizontal driveshaft is coupled to a transfer gearbox, wherein the transfer gearbox is coupled to a selected one of the one or more components;

wherein the accessory gearbox is configured to drive multiple accessories of the gas turbine aircraft engine at least in part via the plurality of accessory pads when the gas turbine aircraft engine is operating.

2. The wash system of claim 1, wherein the motor is mechanically coupled to the horizontal driveshaft through a flexible coupling.

3. The wash system of claim 1, wherein the motor is a ten (10) horsepower motor or less.

4. The wash system of claim 1, wherein the wash fluid line is configured to be fluidly connected to a location within at least one of the compressor section or the turbine section of the gas turbine aircraft engine, the wash fluid line configured to provide a wash fluid to at least

one of the compressor section or the turbine section during rotation of at least one of the compressor section or the turbine section by the motor.

5. A wash system for a gas turbine aircraft engine comprising a compressor section and a turbine section, the wash system comprising:

an accessory gearbox attached to the gas turbine aircraft engine;

a core turning assembly comprising a motor attached to the accessory gearbox and rotate one or more components of the compressor section or the turbine section at a rotational speed greater than two (2) revolutions per minute (RPM) and less than five hundred (500) RPM when the accessory gearbox is attached to the gas turbine aircraft engine and during washing operations of the gas turbine aircraft engine, and

a wash fluid line fluidly connected to a location within a core air flowpath of the gas turbine aircraft engine, the wash fluid line comprising one or more of a first wash fluid line oriented adjacent an inlet of the core air flowpath of the gas turbine aircraft engine and a second wash fluid line extending through an inspection hole of the gas turbine aircraft engine,

wherein the accessory gearbox comprises a plurality of gears;

wherein the accessory gearbox comprises a plurality of accessory pads that communicate with the plurality of gears and is configured to be coupled to an outer casing of the gas turbine aircraft engine;

wherein the core turning assembly comprises an offset tool and an adapter, the offset tool coupled to the motor and the adapter, the adapter being coupled to a selected one of the plurality of accessory pads, wherein the adapter is also coupled to a selected one of the plurality of gears other than a starter gear, wherein the selected one of the plurality of gears is coupled to a horizontal driveshaft, wherein the horizontal driveshaft is coupled to a transfer gearbox, wherein the transfer gearbox is coupled to a selected one of the one or more components;

wherein the accessory gearbox is configured to drive multiple accessories of the gas turbine aircraft engine at least in part via the plurality of accessory pads when the gas turbine aircraft engine is operating.

6. The wash system of claim 5, wherein the motor is configured to rotate the one or more components of at least one of the compressor section or the turbine section in a first

circumferential direction and in a second circumferential direction, and wherein the second circumferential direction is opposite the first circumferential direction.

7. The wash system of claim 5, wherein the horizontal driveshaft is selectively disengaged from the starter gear and rotatable independently of the starter gear.

8. A method for washing a gas turbine aircraft engine comprising:

attaching a motor of a core turning assembly to an accessory gearbox of the gas turbine aircraft engine;

rotating at least a portion of a compressor section or a turbine section of the gas turbine aircraft engine including one or more components using the motor of the core turning assembly, wherein the accessory gearbox comprises a plurality of gears, wherein rotating at least a portion of the compressor section or the turbine section of the gas turbine aircraft engine comprises rotating a horizontal driveshaft, wherein rotating at least a portion of the compressor section or the turbine section of the gas turbine aircraft engine includes rotating at least a portion of the compressor section or the turbine section of the gas turbine aircraft engine using the motor of the core turning assembly at a rotational speed greater than two (2) revolutions per minute (RPM) and less than five hundred (500) RPM; and

providing a wash fluid to a core air flowpath of the gas turbine aircraft engine via a wash fluid line, wherein providing the wash fluid to the core air flowpath of the gas turbine aircraft engine via the wash fluid line includes providing one or more of a first portion of the wash fluid through an inlet of the core air flowpath of the gas turbine aircraft engine via a first wash fluid line and providing a second portion of the wash fluid through an inspection hole of the gas turbine aircraft engine via a second wash fluid line;

wherein the accessory gearbox comprises a plurality of accessory pads that communicate with the plurality of gears and is configured to be coupled to an outer casing of the gas turbine aircraft engine;

wherein the core turning assembly comprises an offset tool and an adapter, the offset tool coupled to the motor and the adapter, the adapter being coupled to a selected one of the plurality of accessory pads, wherein the adapter is also coupled to a selected one of the plurality of gears other than a starter gear, wherein the selected one of the plurality of gears is coupled to the horizontal driveshaft, wherein the horizontal driveshaft is coupled to a transfer gearbox, wherein the transfer gearbox is coupled to a selected one of the one or more components;

wherein the accessory gearbox is configured to drive multiple accessories of the gas turbine aircraft engine at least in part via the plurality of accessory pads when the gas turbine aircraft engine is operating.

9. The method of claim 8, wherein attaching the motor of the core turning assembly to the accessory gearbox of the gas turbine aircraft engine further comprises removing a starter motor of the gas turbine aircraft engine from the accessory gearbox of the gas turbine aircraft engine.

10. The method of claim 8, wherein providing the wash fluid to the core air flowpath of the gas turbine aircraft engine comprises injecting a foam detergent through one or more inspection ports of the gas turbine aircraft engine to the core air flowpath of the gas turbine aircraft engine.

11. The method of claim 8, wherein rotating the horizontal driveshaft comprises rotating the horizontal driveshaft independently of a plurality of gears of the accessory gearbox.

12. The method of claim 8, wherein rotating at least a portion of a compressor section or a turbine section of the gas turbine aircraft engine using the motor of the core turning assembly comprises rotating an accessory gear of the accessory gearbox using the motor of the core turning assembly.

13. The method of claim 8, wherein rotating at least a portion of the compressor section or the turbine section of the gas turbine aircraft engine using the motor of the core turning assembly comprises rotating at least a portion of the compressor section or the turbine section in a first circumferential direction using the motor of the core turning assembly and subsequently rotating at least a portion of the compressor section or the turbine section in a second circumferential direction using the motor of the core turning assembly.

14. The wash system of claim 5, wherein the wash fluid line is configured to be fluidly connected to a location within at least one of the compressor section or the turbine section of the gas turbine aircraft engine, the wash fluid line configured to provide a wash fluid to at least one of the compressor section or the turbine section during rotation of at least one of the compressor section or the turbine section by the motor.