

Maintenance Inspection Schedule

Note: Thermo King reserves the right to deny warranty coverage on claims due to lack of maintenance or neglect. Claims in question must be supported by maintenance records.

Note: See the appropriate chapter in this maintenance manual for instructions on how to correctly perform required maintenance.

⚠ WARNING

Risk of Injury!

Take precautions to ensure the unit will not accidentally start while you are servicing the system. Always turn off the APU Engine On/Off Switch when inspecting or servicing any components in the APU enclosure.

Engine

Pretrip	500 Hrs	Annual 2,000 Hrs	Check condition of or service the following:	Completed
•	•	•	Check engine oil level.	
•	•	•	Check engine coolant level on units with optional closed loop cooling system.	
•	•	•	Inspect belts for condition and proper tension.	
•	•	•	Listen for unusual noises, vibrations, etc.	
	•	•	Check air cleaner hose for damage.	
	•	•	Inspect air cleaner. Change as needed or annually.	
	•	•	Inspect fuel pre-filter screen. Clean as required or annually.	
		•	Change fuel filter. Thermo King brand filter is required.	
		•	Drain water from fuel tank and check vent.	
	•	•	Check and adjust engine speed.	
	•	•	Check condition of engine mounts.	
		•	Maintain year-round anti-freeze protection at -30° F (-34° C). Change coolant every two years, or with truck coolant. For units equipped with optional closed loop cooling system and ELC (red) engine coolant, change ELC coolant every 5 years or 12,000 hours.	
		—	Adjust engine valves (1,000 hours).	
		—	Test fuel injection nozzles at least every 3,000 hours. *	
		—	Replace fuel return lines between fuel injection nozzles every 10,000 hours or sooner, as required.	
* Based on EPA 40 CFR Part 89.				



Engine Oil Change Intervals

Change oil and filters hot

Pretrip	500 Hrs	Annual 2,000 Hrs	Check condition of or service the following:	Completed
		2,000 Hour Intervals	2,000 Hour Interval - Oil change interval is every 2,000 hours of operation <u>only when using a Thermo King brand oil filter and CK-4 or better oil</u> . Units with optional DPF require CK-4 or better oil. FA-4 is not approved.	
		500 Hour Intervals	500 Hour Interval - Oil change interval is every 500 hours of operation when using any other brand oil filter and CI-4 or better oil. Units with optional DPF require CK-4 or better oil. Important: The fill port on top of the engine should not be used to add engine oil. To prevent engine lock-up and/or serious internal damage after TriPac engine oil is added or changed always add oil through the lower port on the timing gear cover.	

Electrical

Pretrip	500 Hrs	Annual 2,000 Hrs	Check condition of or service the following:	Completed
	•	•	Check operation of protection shutdown devices.	
	•	•	Check alternator voltage.	
		•	Check alternator bearings. With belt removed spin alternator by hand. Listen for noise and ensure that bearings roll freely.	
	•	•	Inspect battery terminals.	
	•	•	Inspect electrical connections.	
	•	•	Inspect wire harness for rubbing or damage.	
	•	•	Check electric condenser, evaporator and pre-cooler fans.	

Structural

Pretrip	500 Hrs	Annual 2,000 Hrs	Check condition of or service the following:	Completed
•	•	•	Visually inspect unit for fluid leaks (coolant, oil, refrigerant).	
•	•	•	Visually inspect unit for damaged, loose or broken parts.	
	•	•	Inspect, clean and (if necessary) replace evaporator air filter. It may be necessary to check or replace it more often if conditions require.	
	•	•	Inspect evaporator drain valves (kazoos) to ensure that they are in place, in good condition and are sealing.	
		•	Steam clean condenser and APU pre-cooler coil. Do not bend coil fins.	
		•	Blow out evaporator coil and evaporator water drains with air. Do not bend coil fins.	
		•	Check APU mounting bolts and brackets for cracks, damage and poor alignment. Verify tightness and torque to 100 ft-lbs (135.6 N•m) for the claw mount, or 200 ft-lbs (271.2 N•m) for the direct frame mount.	

**A/C System**

Pretrip	500 Hrs	Annual 2,000 Hrs	Check condition of or service the following:	Completed
	•	•	Check refrigerant level.	
	•	•	Check refrigerant lines for rubbing or damage.	