

TABLE 603				
Inspection Checksheet				
Owner _____ Date _____				
A/C Make/Model _____ S/N _____ Reg No. _____ TSN _____				
Engine S/N _____ TSN _____ TSO _____				
<p>This inspection checksheet is to be used when performing scheduled inspections. This form can be locally reproduced and/or expanded to reflect the aircraft operating environment. Keep the completed sheets as a permanent part of the aircraft engine records. Detailed information regarding each inspection item is contained in the referenced Operation and Maintenance Manual paragraphs.</p> <p><b>CAUTION:</b> BEFORE UNDERTAKING ANY INSPECTION OR MAINTENANCE ACTION, CONSULT THE REFERENCED PARAGRAPHS OF THE OPERATION AND MAINTENANCE MANUAL. FAILURE TO FOLLOW THE RECOMMENDED INSTRUCTIONS IN THE MANUAL COULD RESULT IN EQUIPMENT DAMAGE OR DESTRUCTION, POSSIBLY RESULTING IN PERSONNEL DEATH OR INJURY.</p>				
Item	150 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
1	Inspect the engine for obvious loose bolts, broken or loose connections, security of mounting accessories, and broken or missing safeties. Check accessible areas for obvious damage and evidence of fuel and oil leakage. Inspect the slippage marks on all fuel, oil and air tube B-nuts to make sure that the nuts have not loosened.			
2	Inspect the compressor impeller leading edges for damage.	72-30-00.		
3	Clean the compressor, as required, with a chemical wash solution if dirt buildup is evident.	72-30-00.		
4	Without disassembly, inspect turbine, exhaust collector supports and the air tubes for cracks, buckling and general condition.	72-50-00. 72-40-00. 72-40-00.		
5	Visually inspect the outer combustion case (OCC) (sheet metal and weld seams) for cracks. Pay careful attention to the weld seams in the area of the igniter plugs, dummy plug, drain valves, fuel nozzle bosses, armpit braze patch and adjacent areas. Use a bright light and mirror as necessary. The OCC does not have to be removed. Perform a Leak Tec check for an installed OCC and FPI for a removed OCC.	72-40-00.		

TABLE 603 (cont)

Item	150 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
6	Inspect the engine fuel system for evidence of leakage. Check condition and security of fittings and tubing.	73-00-00.		
7	Inspect electrical harness (and ground strap connections) for loose, chafed, frayed, or broken wires and loose connectors.			
8	Inspect electrical harness for loose, chafed, frayed, or broken wires and loose connectors.			
9	Check oil supply level. If the engine has been idle for more than 15 minutes, motor the engine for 30 seconds to scavenge any oil that could have drained into the gearbox from the oil tank. Failure to completely scavenge the oil from the gearbox will cause a false indication of high oil consumption. See Post Flight Check No. 3.	72-00-00, Table 101 Troubleshooting, items 11 and 12.		
<b>CAUTION:</b> NORMAL ENGINES USE A MINIMAL AMOUNT OF OIL. HOWEVER, ANY SUDDEN INCREASE IN OIL CONSUMPTION IS INDICATIVE OF OIL SYSTEM PROBLEMS AND MUST BE CORRECTED.				
<b>NOTE:</b> Check oil supply level within 15 minutes of engine shutdown.				
10	Inspect for extension of scavenge oil filter bypass indicator on SOFA.  If the bypass indicator is extended, examine/clean the engine oil filter and the scavenge oil filter. If contamination is found, replace the scavenge oil filter. If no contamination is found, reinstall the scavenge oil filter with new packing, and manually reset the indicator.  If the SOFA bypass indicator is extended and contamination is found in the scavenge oil filter, replace/clean the oil cooler, oil tank, and lubrication lines (Ref. the airframe manual instructions). Drain and replace the engine oil, and manually reset the indicator.  <b>NOTE:</b> If metal contamination is found in the scavenge oil filter in SOFA and a chip light occurred within the previous 50 hours, take the applicable maintenance steps (Ref. 72-00-00), Engine Servicing.  <b>NOTE:</b> The scavenge oil filter cannot be cleaned.	79-00-00.		

## M250-C47E/1 OPERATION AND MAINTENANCE

TABLE 603 (cont)

Item	150 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
11	Clean and inspect the fuel nozzle. Install fuel nozzle with proper number of spacers.	<a href="#">73-10-03.</a>		
12	Record component changes, inspections, and compliance with technical instructions as required. Report engine difficulties to Rolls-Royce and/or AMC on a Field Service Report (FSR) submitted on FAST @ < <a href="https://fast.aeromanager-online.com">https://fast.aeromanager-online.com</a> > as required.			
13	Inspect compressor scroll for cracks. Pay particular attention to welded areas.			
14	Clean the burner drain valve. Ensure that the airframe overboard is clear. Refer to aircraft manual for maintenance procedures.	<a href="#">72-40-00.</a>		
15	Inspect the anti-icing solenoid valve and bleed air valve for loose, chafed, frayed or broken wires, loose connections and security of attachment.			
16	Inspect the horizontal and vertical firewall shields for cracks.	<a href="#">72-50-00.</a>		
	<b>NOTE:</b> Continued sheet metal or tube cracking can be an indication of excessive engine, engine accessory, or airframe vibration.			
17	Remove, clean, operationally test, and reinstall the magnetic drain plugs: a. Standard type - check the chip detector end of the plugs for cracks. b. Quick disconnect - inspect the locking device and inserts for wear.  Torque 60-80 lb in. (6.8-9.0 N-m). No cracks are acceptable. Check each chip detector separately.	<a href="#">72-00-00, Engine Servicing.</a>		
18	Inspect ignition lead for burning, chafing or cracking of conduit. Also, check for loose connectors and/or broken lockwire.  Perform operational check of ignitors.	<a href="#">74-20-02.</a>  <a href="#">74-20-01.</a>		
19	Remove, inspect, clean and reinstall the oil filter. If excessive carbon is found in the filter, inspect the scavenge and pressure oil system. Refer to <a href="#">72-50-00</a>	<a href="#">72-60-00.</a>		

**72-00-00**

TABLE 603 (cont)				
Item	150 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
20	<p>Measure and record power turbine support pressure oil nozzle flow from scavenge oil strut. Record and retain flow record.</p> <p>While motoring N<sub>1</sub> to 16-18% the minimum flow is 90cc in 15 seconds.</p>	72-50-00.		
	Flow _____			
	Compare with previous flow. Any large deviation could indicate carbon buildup.			
	<b>NOTE:</b> Refer to M250-C47 series <a href="#">CSL-6038</a> , Recommended Sequence, Engine Oil Change for additional instructions.			
21	<p>MGT indicating system check.</p> <p>During ground run with engine at 100% N<sub>2</sub>, Monitor MGT using (MT) Maintenance Terminal Software, analog parameter page. Compare MT value with aircraft MGT gage. Must agree within 5° C. If not within limits, use thermocouple simulator to identify problem.</p>	<p>72-00-00 Table 1.</p> <p>72-00-00.</p> <p>73-25-01.</p>		
22	<p>Torque indicating system check</p> <p>During ground run with engine at 100% N<sub>2</sub>, monitor torque (Q) using MT software analog parameter page. Compare MT value with aircraft torque gage. Must agree within 2 psi. If not within limits, use pressure tester to identify problem.</p>	72-00-00 Table 4.		
23	Independent Overspeed Protection Redundancy Check	<p>72-00-00</p> <p>Step7.G.(8)(d)</p>		

## M250-C47E/1 OPERATION AND MAINTENANCE

TABLE 604				
Item	300 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
	In addition to the 150 hour inspection items, perform the following:			
1	Clean power turbine support scavenge oil strut.	72-50-00.		
2	Clean external sump.	72-50-00.		
3	Clean No. 1 bearing oil pressure reducer.	72-30-00.		
4	Clean pressure oil fitting screen assembly.	72-50-00.		
	<b>CAUTION:</b> EXTREME CARE MUST BE EXERCISED TO PREVENT TWISTING OF OIL NOZZLE DURING REMOVAL. DO NOT ATTEMPT TO STRAIGHTEN OR REUSE IF TWISTED.			
5	Clean power turbine pressure oil nozzle.	72-50-00.		
6	Remove and disassemble fuel nozzle. Clean and inspect fuel nozzle filter assembly. Assemble and install fuel nozzle.	73-10-03.		
7	Remove, inspect, and reinstall the turbine pressure oil check valve.	72-60-00.		
	<b>NOTE:</b> Check Valve P/N 23074872 and subsequent part numbers are not applicable to this inspection (these valves are considered "ON CONDITION").			
8	Inspect the rear engine mount for security and excessive bearing wear.	72-00-00, Engine-Inspection/Check.		
9	Drain the oil system and refill.  Oil changed at: 300 hours: _____ 600 hours: _____  Maximum interval between oil changes is 300 hours or 6 months, whichever occurs first. This limit can be extended to 600 hours or 12 calendar months, whichever occurs first, if an approved high thermal stability oil (Third Generation) is used.	72-00-00, Engine Servicing.		
10	On power and accessory gearbox cover, check the applied torque on all turbine and exhaust collector support-to-gearbox retaining nuts.  Torque must be 120-150 lb in. (14-17 N·m).	72-50-00.		
11	Inspect the thermocouple assembly (TOT/MGT).	77-20-01.		

TABLE 605				
Item	2000 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
	The following inspections are required every 2000 hours time since last inspection			
1	Remove and replace the fuel filter element. Before discarding filter, inspect for signs of contaminants. If contaminants are found, inspect the entire fuel system and clean if necessary.	73-10-02.		
2	Inspect the combustion liner.	72-40-00.		
3	Examine the outer combustion case for cracks using Leak-Tek and/or Fluorescent Penetrant Inspection (FPI).	72-40-00.		
4	Inspect the compressor discharge air tubes.	72-40-00.		
5	Inspect the spur adapter gearshaft, compressor rotor splined adapter and associated impeller bore.	72-30-00.		
6	Inspect the turbine to compressor coupling, turbine splined adapter, power turbine inner shaft and turbine shaft-to-pinion gear coupling Turbine to compressor coupling is part of the turbine assembly.	72-50-00.		
7	Visually examine the power drive train gears.  Disassembly of the gearbox is not necessary for this inspection.	CSL 6134		
	<b>NOTES:</b> Not applicable for: Torquemeter gear part number 23084248 and subsequent Power take-off gear part number 23084249 and subsequent Pinion gear part number 23084247 and subsequent.			
	<b>NOTES:</b> The following inspections are recommended whenever the turbine or compressor is removed in-between the required 2000 hour inspection.			
	Anytime the compressor is removed from the engine, visually inspect the aft end of the spur adapter gearshaft for worn or damaged splines.  Anytime the turbine is removed from the engine visually inspect the splines on the following items, turbine-to-compressor coupling, turbine splined adapter, power turbine outer shaft and turbine shaft-to-pinion gear coupling for worn or damaged splines.  If spline wear or damage is observed the appropriate maintenance action is required. (Refer to items 5 and 6 above)			
	Inspection intervals must not exceed 2000 hours.			

TABLE 606				
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Owner _____ Date _____				
A/C Make/Model _____ S/N _____ Reg No. _____ TSN _____				
Engine S/N _____ TSN _____ TSO _____				
<p>This inspection checksheet is to be used when performing scheduled inspections. This form can be locally reproduced and/or expanded to reflect the aircraft operating environment. Keep the completed sheets as a permanent part of the aircraft engine records. Detailed information regarding each inspection item is contained in the referenced Operation and Maintenance Manual paragraphs.</p> <p><b>CAUTION:</b> BEFORE UNDERTAKING ANY INSPECTION OR MAINTENANCE ACTION, CONSULT THE REFERENCED PARAGRAPHS OF THE OPERATION AND MAINTENANCE MANUAL. FAILURE TO FOLLOW THE RECOMMENDED INSTRUCTIONS IN THE MANUAL COULD RESULT IN EQUIPMENT DAMAGE OR DESTRUCTION, POSSIBLY RESULTING IN PERSONNEL DEATH OR INJURY.</p> <p><b>NOTE:</b> THIS INSPECTION CHECKLIST CAN ONLY BE USED IF THE OPERATOR IS USING AN APPROVED THIRD GENERATION (HTS) OIL.</p> <p><b>NOTE:</b> COMPLIANCE TO THE 150 HOUR AND 300 HOUR ITEMS IN THIS TABLE MUST BE PERFORMED AT LEAST EVERY 12 CALENDAR MONTHS OR BY HOURS, WHICHEVER OCCURS FIRST.</p>				
Item	150 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
1	<p>Inspect for extension of scavenge oil filter bypass indicator.</p> <p>If the bypass indicator is extended, examine/clean the engine oil filter and the scavenge oil filter. If contamination is found, replace the scavenge oil filter. If no contamination is found, reinstall the scavenge oil filter with new packing, and manually reset the indicator.</p> <p>If the SOFA bypass indicator is extended and contamination is found in the scavenge oil filter, replace/clean the oil cooler, oil tank, and lubrication lines (Ref. the airframe manual instructions). Drain and replace the engine oil, and manually reset the indicator.</p> <p><b>NOTE:</b> If metal contamination is found in the scavenge oil filter and a chip light occurred within the previous 50 hours, take the applicable maintenance steps (Ref. <a href="#">72-00-00, Engine Servicing</a> or <a href="#">72-60-00.</a>)</p> <p><b>NOTE:</b> The scavenge oil filter cannot be cleaned.</p>	<a href="#">79-00-00.</a>		

TABLE 606 (cont)				
Item	150 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
2	Clean and inspect the fuel nozzle. Install fuel nozzle with proper number of spacers.	73-10-03.		
3	Visually inspect the outer combustion case (OCC) (sheet metal and weld seams) for cracks. Pay careful attention to the weld seams in the area of the igniter plugs, dummy plug, drain valves, fuel nozzle bosses, armpit braze patch, and adjacent areas. Use a bright light and mirror as necessary. The OCC does not have to be removed. Perform a Leak Tec check for an installed OCC and FPI for a removed OCC.	72-40-00, Para 2.B.(1), (2), (3), and (4).		
4	Perform Independent Overspeed Protection Redundancy Check.	72-00-00, Para 7.G.(8)(b)2d.		
Item	300 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
	In addition to the 150 hour inspection items, perform the following:			
1	Inspect the engine for obvious loose bolts, broken or loose connections, security of mounting accessories, and broken or missing safeties. Check accessible areas for obvious damage and evidence of fuel and oil leakage. Inspect the slippage marks on all fuel, oil and air tube B-nuts to make sure that the nuts have not loosened.			
2	Inspect the compressor impeller leading edges for damage.	72-30-00.		
3	Clean the compressor, as required, with a chemical wash solution if dirt buildup is evident.	72-30-00.		
4	Without disassembly, inspect turbine, exhaust collector supports and the air tubes for cracks, buckling and general condition.	72-50-00.  72-40-00.  72-40-00, Table 203		
5	Inspect the engine fuel system for evidence of leakage. Check condition and security of fittings and tubing.	73-00-00.		
6	Inspect the engine mounts for condition and security.			
7	Inspect electrical harness for loose, chafed, frayed, or broken wires and loose connectors.			



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TABLE 606 (cont)				
Item	300 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
8	<p>Check oil supply level.</p> <p>If the engine has been idle for more than 15 minutes, motor the engine for 30 seconds to scavenge any oil that could have drained into the gearbox from the oil tank. Failure to completely scavenge the oil from the gearbox will cause a false indication of high oil consumption. See Post Flight Check No. 3.</p>	72-00-00, Table 101, Troubleshooting, items 11 and 12.		
	<p><b>CAUTION:</b> NORMAL ENGINES USE A MINIMAL AMOUNT OF OIL. HOWEVER, ANY SUDDEN INCREASE IN OIL CONSUMPTION IS INDICATIVE OF OIL SYSTEM PROBLEMS AND MUST BE CORRECTED.</p>			
	<p><b>NOTE:</b> Check oil supply level within 15 minutes of engine shutdown.</p>			
9	Inspect compressor scroll for cracks. Pay particular attention to welded areas.			
10	<p>Clean the burner drain valve.</p> <p>Ensure that the airframe overboard is clear. Refer to aircraft manual for maintenance procedures.</p>	72-40-00.		
11	Inspect the anti-icing solenoid valve and bleed air valve for loose, chafed, frayed or broken wires, loose connections and security of attachment.			
12	Inspect the horizontal and vertical firewall shields for cracks.	72-50-00.		
	<p><b>NOTE:</b> Continued sheet metal or tube cracking can be an indication of excessive engine, engine accessory, or airframe vibration.</p>			
13	<p>Remove, clean, operationally test, and reinstall the magnetic drain plugs:</p> <p>a. Standard type - check the chip detector end of the plugs for cracks.</p> <p>b. Quick disconnect - inspect the locking device and inserts for wear.</p> <p>Torque 60-80 lb in. (6.8-9.0 N-m). No cracks are acceptable. Check each chip detector separately.</p>	72-00-00, Engine Servicing.		
14	<p>Inspect ignition lead for burning, chafing or cracking of conduit. Also, check for loose connectors and/or broken lockwire.</p> <p>Perform operational check of ignitors.</p>	74-20-02.  74-20-01.		

TABLE 606 (cont)				
Item	300 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
15	Remove, inspect, clean and reinstall the oil filter. If excessive carbon is found in the filter, inspect the scavenge and pressure oil system. Refer to <a href="#">72-50-00</a> .	<a href="#">72-60-00</a> .		
16	Measure and record power turbine support pressure oil nozzle flow from scavenge oil strut. Record and retain flow record. While motoring N <sub>1</sub> to 16–18% the minimum flow is 90cc in 15 seconds.	<a href="#">72-50-00</a> .		
	Flow _____			
	Compare with previous flow. Any large deviation could indicate carbon buildup.			
17	MGT indicating system check. During ground run with engine at 100% N <sub>2</sub> , Monitor MGT using (MT) Maintenance Terminal Software, analog parameter page. Compare MT value with aircraft MGT gage. Must agree within 5°C (41°F). If not within limits, use thermocouple simulator to identify problem.	<a href="#">72-00-00</a> . <a href="#">73-25-01</a> .		
18	Torque indicating system check During ground run with engine at 100% N <sub>2</sub> , monitor torque (Q) using MT software analog parameter page. Compare MT value with aircraft torque gage. Must agree within 2 psi (13.78 kPa). If not in limits, use pressure tester to identify problem.	<a href="#">72-00-00</a> , <a href="#">Table 101</a> .		
19	Clean power turbine support scavenge oil strut.	<a href="#">72-50-00</a> .		
20	Clean external sump.	<a href="#">72-50-00</a> .		
21	Clean No. 1 bearing oil pressure reducer.	<a href="#">72-30-00</a> .		
22	Clean pressure oil fitting screen assembly.	<a href="#">72-50-00</a> .		
	<b>CAUTION:</b> EXTREME CARE MUST BE EXERCISED TO PREVENT TWISTING OF OIL NOZZLE DURING REMOVAL. DO NOT ATTEMPT TO STRAIGHTEN OR REUSE IF TWISTED.			
23	Clean power turbine pressure oil nozzle.	<a href="#">72-50-00</a> .		
24	Remove and disassemble fuel nozzle. Clean and inspect fuel nozzle filter assembly. Assemble and install fuel nozzle.	<a href="#">73-10-03</a> .		
25	Inspect the turbine pressure oil check valve.	<a href="#">72-60-00</a> .		

**72-00-00**

## M250-C47E/1 OPERATION AND MAINTENANCE

TABLE 606 (cont)				
Item	300 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
25	NOTE: Check Valve P/N 23074872 and subsequent part numbers are not applicable to this inspection (These valves are considered "ON CONDITION").			
26	Inspect the rear engine mount for security and excessive bearing wear.	72-00-00, Engine-Inspection/Check.		
27	Drain the oil system and refill.  Oil changed at: 300 hours: _____ 600 hours: _____  Maximum interval between oil changes is 300 hours or 6 months, whichever occurs first. This limit can be extended to 600 hours or 12 calendar months, whichever occurs first, if an approved high thermal stability oil (Third Generation) is used.	72-00-00, Engine Servicing.		
28	On power and accessory gearbox cover, check the applied torque on all turbine and exhaust collector support-to-gearbox retaining nuts.  Torque must be 120-150 lb in. (14-17 N·m).	72-50-00.		
29	Record component changes, inspections, and compliance with technical instructions as required. Report engine difficulties to Rolls-Royce and/or AMC on a Field Service Report (FSR) submitted on FAST @ < <a href="https://fast.aeromanager-online.com">https://fast.aeromanager-online.com</a> > as required.			
30	Inspect the thermocouple assembly (TOT/MGT).	77-20-01.		
31	Visually inspect the outer combustion case (OCC) (sheet metal and weld seams) for cracks. Pay careful attention to the weld seams in the area of the igniter plugs, dummy plug, drain valves, fuel nozzle bosses, armpit braze patch, and adjacent areas. Use a bright light and mirror as necessary. The OCC does not have to be removed. Perform a Leak Tec check for an installed OCC and FPI for a removed OCC.	72-40-00, Para 2.B.(1), (2), (3), and (4)		

TABLE 607				
Item	2000 HOUR INSPECTION	REFERENCE SECTION	✓	Initial
	The following inspections are required every 2000 hours time since last inspection			
1	Remove and replace the fuel filter element. Before discarding filter, inspect for signs of contaminants. If contaminants are found, inspect the entire fuel system and clean if necessary.	73-10-02.		
2	Inspect the combustion liner.	72-40-00.		
3	Examine the outer combustion case for cracks using Leak-Tek and/or Fluorescent Penetrant Inspection (FPI).	72-40-00.		
4	Inspect the compressor discharge air tubes.	72-40-00.		
5	Inspect the spur adapter gearshaft, compressor rotor splined adapter and associated impeller bore.	72-30-00.		
6	Inspect the turbine to compressor coupling, turbine splined adapter, power turbine inner shaft and turbine shaft-to-pinion gear coupling. Turbine to compressor coupling is part of the turbine assembly.	72-50-00.		
7	Visually examine the power drive train gears.  Disassembly of the gearbox is not necessary for this inspection.			
	<u>NOTES:</u> The following inspections are recommended whenever the turbine or compressor is removed in-between the required 2000 hour inspection.			
	Anytime the compressor is removed from the engine, visually inspect the aft end of the spur adapter gearshaft for worn or damaged splines.  Anytime the turbine is removed from the engine visually inspect the splines on the following items, turbine-to-compressor coupling, turbine splined adapter, power turbine outer shaft and turbine shaft-to-pinion gear coupling for worn or damaged splines.  If spline wear or damage is observed the appropriate maintenance action is required. (Refer to items 5 and 6 above)			
	Inspection intervals cannot exceed 2000 hours.			