

Honeywell

MAINTENANCE MANUAL
LTS101-750B-1 Part No. 4-001-000-25
LTS101-850B-2 Part No. 4-001-000-42

ENGINE/CONSUMABLE MATERIALS

1. Engine Servicing
2. Rear Bearing Support Housing Debris Monitor - No. 2 and 3 Bearing Oil Scavenge Line
 - A. Remove chip detector element (79-20-04).
 - B. Inspect for metallic debris. If debris is noted, perform lubrication system contamination troubleshooting (paragraph 19) and chip detector inspection and chip classification (paragraph 20). Clean and perform continuity check. No continuity should exist.
 - C. Install chip detector element (79-20-04).
3. Oil Filter
 - A. If impending bypass light is illuminated or if other conditions warrant, remove oil filter element (79-20-03).
 - B. Inspect for contamination and presence of debris. If debris is noted, perform lubrication system contamination troubleshooting (paragraph 19) and chip detector inspection and chip classification (paragraph 20).
 - C. Install new oil filter element (79-20-03).
4. High Pressure Fuel Filter

CAUTION: MAKE SURE THAT FUEL DOES NOT SPILL ONTO THE POWER TURBINE GOVERNOR WHEN REMOVING THE FUEL FILTER ELEMENT HOUSING. SPILLED FUEL COULD CONTAMINATE GOVERNOR SEALS.

NOTE: Replace the filter element if impending bypass is indicated.

 - A. Remove fuel filter element (73-10-06).
 - B. Inspect for contamination. If contamination is noted, replace filter element (73-10-06).
5. Pneumatic Control System (Pc) Filter
 - A. Pc filter servicing will be accomplished at each 150 hour periodic inspection or the service interval may be adapted to a specific operating environment.
 - B. Service Pc filter by any one of the following steps:
 - (1) Remove and replace Pc filter element.
 - (2) Remove, clean and reinstall Pc filter element.
 - (3) Perform Pc filter differential pressure check (73-10-07, paragraph 9).

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C. Establish Pc filter service interval as follows:

NOTE: Pc filter service interval must be re-established each time the operating environment is changed.

- (1) If other than new Pc filter is to be evaluated, clean or replace the Pc filter element (73-10-07, paragraph 4).
- (2) Perform Pc filter differential pressure check (73-10-07, paragraph 9) at each 150 hour periodic inspection.
 - (a) If the Pc filter does not require cleaning or replacement after five 150 hour periodic inspections (700 engine operating hours since step (1)), **600 engine operating hours may be established as the Pc filter service interval** and the performance of the Pc filter differential pressure check may be discontinued.
 - (b) If the Pc filter requires cleaning or replacement prior to the fourth 150 hour periodic inspection, the total number of engine operating hours since step (1) minus 150 engine operating hours may be established as the Pc filter servicing interval and the performance of the Pc filter differential pressure check may be discontinued.

6. Engine Cleaning

In addition to compressor cleaning instructions given here, instructions for cleaning specific components are given in applicable Chapter/Sections. General cleaning procedures are described in 70-00-00.

7. Compressor Cleaning and Rinsing

A. General

- (1) Contamination of the compressor by oil and dirt or by salt deposits can cause loss of performance.
- (2) Daily rinsing is required in salt environments.
- (3) Water with a high mineral content may cause erosion of rotor blade leading edges and deteriorate engine performance. Use demineralized water for all steps in this procedure.
- (4) At ambient temperatures below 2°C (35°F), use anti-detonation injection fluid (Table 29, item 17) or a 40 percent methyl alcohol (Table 29, item 65) and 60 percent water mixture in place of fresh water.
- (5) Remove salt deposits by using only clean, demineralized water for all steps of this procedure.

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WARNING: USE APPROVED PERSONAL PROTECTIVE EQUIPMENT (GOGGLES/FACESHIELD) WHEN USING COMPRESSED AIR. PROVIDE PROTECTION FROM FLYING PARTICLES. DO NOT DIRECT AIRSTREAM TOWARDS SELF OR OTHER PERSONNEL. AIR PRESSURE IS RESTRICTED TO 30 PSIG.

AVOID PROLONGED INHALATION OF SOLVENT VAPORS. WEAR RUBBER GLOVES AND USE HAND CREAM TO PREVENT CONTACT WITH SKIN. DO NOT HEAT SOLUTION OR INJURY MAY RESULT.

- (6) Remove CB fire extinguishing agent by blowing clean with compressed air and washing with dry cleaning solvent (Table 29, item 34). Do not rinse with water.
- (7) To avoid draining the aircraft battery, use auxiliary power unit if available.

B. Compressor Cleaning

CAUTION: BEFORE SPRAYING WATER INTO THE ENGINE, MAKE SURE THAT ENGINE HAS COOLED TO 93°C (200°F) MAXIMUM MGT.

DO NOT MOTOR THE ENGINE TO COOL TO THE CORRECT TEMPERATURE

DO NOT APPLY A SOLID STREAM OF LIQUID DIRECTLY AT COMPRESSOR BLADES. A SOLID STREAM OF LIQUID MAY CAUSE EXCESSIVE STRESS ON COMPRESSOR BLADES.

Contamination of the compressor by oil and dirt or by salt deposits can cause loss of performance. Daily cleaning may be necessary in salt, sand, or dust environments.

- (1) Disconnect tube assembly (73-10-01, 13, Figure 1) between air diffuser and Pc filter at Pc filter. Cap tube assembly and Pc filter inlet.
- (2) Loosen both B nuts on tube assembly (75-30-01, 1, Figure 1) between air diffuser and air flow modulator actuator (8). Disconnect tube at air diffuser. Cap diffuser port.

NOTE: Turboclean RTV is used as received (is not diluted).

At ambient temperature below 2°C (35°F), use anti-detonation injection fluid (Table 29, item 17) or 40 percent methanol (Table 29, item 65) and 60 percent water mixture in place of fresh water. This will prevent freezing.

- (3) Prepare a cleaning solution of one part cleaning agent (Table 29, item 11, 12 or 27) to four parts of demineralized water.
- (4) While introducing cleaning solution into the compressor inlet in a fine spray (not a solid stream), manipulate the flow fence actuator linkage to move the flow fence ring in and out of the flow path.

NOTE: If water soluble cleaner is not effective, substitute approximately one-half gallon of dry cleaning solvent (Table 29, item 34) or use a 50 percent mixture of cleaning agent (Table 29, item 12).

- (5) Motor engine for 15 seconds (Refer to Airframe Flight Manual).

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- (6) Allow compressor to coast to a stop.
- (7) After 10 minutes minimum, repeat steps (4), (5) and (6).
- (8) Motor engine for 20 seconds while spraying clean water into the compressor inlet in a fine spray (not a solid stream). Manipulate the flow fence actuator linkage to move the flow fence ring in and out of the flow path.
- (9) Repeat step (8) until clear water runs from combustor drain valve (73-10-01, 16, Figure 1). Do not exceed starter duty cycle.
- (10) Remove plugs from tube assembly (73-10-01, 13, Figure 1) and air diffuser port, and blow out (toward air diffuser) with clean, dry air. Reconnect tube assembly.
- (11) Allow engine to drain completely before starting. Make sure that combustor drain valve (73-10-01, 16, Figure 1) is not clogged.
- (12) Clean or replace Pc filter assembly or perform differential pressure check (73-10-07, paragraph 9).

C. Compressor Rinsing

CAUTION: BEFORE SPRAYING WATER INTO THE ENGINE, MAKE SURE THAT ENGINE HAS COOLED TO 93°C (200°F) MAXIMUM MGT.

DO NOT MOTOR THE ENGINE TO COOL TO THE CORRECT TEMPERATURE.

DO NOT APPLY A SOLID STREAM OF LIQUID DIRECTLY AT COMPRESSOR BLADES. A SOLID STREAM OF LIQUID MAY CAUSE EXCESSIVE STRESS ON COMPRESSOR BLADES.

- (1) Connect water source to the water wash manifold (if installed) (Airframe Maintenance Manual).
- (2) Introduce water for approximately 5 seconds before motoring the engine.
- (3) Motor engine for 20 seconds while spraying clean water into the compressor inlet in a fine spray (not a solid stream).
- (4) Allow compressor to coast to a stop.
- (5) Allow 30 seconds for starter to cool down.
- (6) Repeat steps (2), (3) and (4) until clear water runs from combustor drain valve. Do not exceed starter duty cycle.

NOTE: A daily water wash of the power turbine through the tailpipe is advisable if the aircraft is operated in a high salt atmosphere.

- (7) Using equipment which delivers water in the form of a spray at the rate of 4 to 5 gallons per minute, introduce water into the tailpipe for approximately 30 seconds.
- (8) Allow engine to drain completely. Make sure that combustor drain valve (73-10-01, 16, Figure 1) is not clogged.

- (9) Remove plugs from tube assembly (73-10-01, 13, Figure 1) and air diffuser port, and blow out (toward air diffuser) with clean, dry air. Reconnect tube assembly.
- (10) Allow engine to drain completely before starting. Make sure that combustor drain valve (73-10-01, 16, Figure 1) is not clogged.
- (11) Run engine at idle to dry out all parts.

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8. Engine Inspection

In addition to the engine inspection requirements given here, specific instructions for inspecting engine components are given in the applicable Chapter/Section. General inspection procedures are described in 70-00-00.

9. Preventive Maintenance and Scheduled Inspections

Engine Installation Checks Table 1:

Inspections performed on flying day:

- Preflight: Prior to first flight of day (Table 1A).
- Daily: After last flight of day (Table 2).

NOTE: If removal of engine from aircraft is required for major scheduled inspection, it is recommended that power assurance check (Refer to Airframe Flight Manual) and Engine Vibration Test (71-00-00, paragraph 35) be performed first. Record results in engine logbook.

When performing scheduled inspection, also perform all shorter interval inspections. Example: When 1800 hour inspection is performed, daily, 50 hour, 150 hour, 300 hour, 600 and 1200 hour inspections must also be performed.

Scheduled inspections:

NOTE: Acceptable allowable inspection extension is 10 percent to hourly inspection requirements listed for purpose of variances in maintenance scheduling. This 10 percent extension applies to 50, 150, 300, 600, 1200 and 1800 hour periodic inspections, hot section and accessory/reduction gearbox inspections.

Ten percent inspection extensions are not allowed if any hour or cycle life limited component would be operated in excess of published life limits, engine has low power condition, unacceptable oil consumption, unacceptable metal generation or if extension is in conflict with special inspection imposed by service bulletins or airworthiness directives. If engine shows any signs or gives any indication of unserviceability, engine must be repaired prior to flight. All inspections of lower hour requirement must still be accomplished during extension period.

- Periodic (50 Hour): At intervals of 50 engine operating hours.
- Periodic (100 Hour): Deleted
- Periodic (150 Hour): At intervals of 150 engine operating hours.
- Periodic (300 Hour): At intervals of 300 engine operating hours.
- Periodic (600 Hour): At intervals of 600 engine operating hours.
- Periodic (1200 Hour): At intervals of 1200 engine operating hours.
- Periodic (1800 Hour): At intervals of 1800 engine operating hours.

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- Power Turbine Rotor Blade Shift (Part No. 4-141-290-01 and -05) See Table 10.
- Hot Section

Intervals of 600 engine operating hours on engines that do not comply with SB LT101-72-50-0126 and either SB LTS101 B-72-50-0121 or SB LT101-72-50-0173.

Intervals of 1200 engine operating hours on engines that comply with SB LT101-72-50-0126 and either SB LTS101 B-72-50-0121 or SB LT101-72-50-0173.

Intervals of 1800 engine operating hours for LTS101-750B-1 and LTS101-850B-2 engines that comply with all of the following service bulletins;
LT101-72-50-0126,
LT101-72-50-0144, LT101-72-50-0150,
LT101-72-50-0151, LT101-72-50-0157,
LTS101B-72-00-0161, LT101-72-50-0163,
LTS101-73-10-0169, LTS101B-72-40-0172 (if applicable),
LTS101-72-50-0174, LT101-77-20-0175,
LTS101-73-20-0177, LTS101-72-50-0180 (if applicable),
LT101-71-00-0192
- Accessory/Reduction Gearbox:

At intervals of 1200 operating hours for engines operating on a 600 hour interval for Hot Section Inspections.

At intervals of 1200 operating hours for engines operating on a 1200 hour interval for Hot Section Inspections.

At intervals of 1800 operating hours for engines operating on an 1800 hour interval for Hot Section Inspections.
- Gas Generator Turbine Blades (Pre SB LT101-72-50-0126) See Table 9.
- Gas Generator Turbine Blades (Post SB LT101-72-50-0126) No requirement.

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Table 1A. Preflight Inspection Requirements

Inspection Item	Technician	Date
1. Check oil tank for proper servicing.	_____	_____
2. Check engine inlet area for foreign matter.	_____	_____
3. Inspect engine area for evidence of leakage.	_____	_____
<u>NOTE:</u> Overboard fuel pump leakage may be up to 4 drops per minute with engine operating in idle range (65 to 80 percent Ng speed). Excessive fuel pump leakage may be indicated by presence of blue grease at fuel pump to fuel control interface or seal drain. If blue grease stains are evident, replace fuel control and pump assembly. <u>NOTE:</u> <u>Individual</u> gearbox lip seals may seep up to 2 CC (10 drops = Approximately 1 CC). <u>WARNING:</u> Cowling fasteners must be checked or possible injury or equipment damage may occur.		
4. Check cowling fasteners for security.	_____	_____
5. Check engine collective and throttle levers for freedom of movement through full range.	_____	_____

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Table 2. Daily Inspection Requirements

Inspection Item	Technician	Date
1. Check oil tank for proper servicing.	_____	_____
2. When servicing the oil tank, check the oil for a light tan or light brown color. If the color is dark or black in color and has a very pungent odor, perform an acid and viscosity check within 25 operating hours (Oil color and smell may be compared to new unused similar type oil). If the oil fails the acidity check, perform a clogging inspection - No. 2 and 3 bearing package oil jets (paragraph 12). Replace oil if it is found to be acidic (Double flush oil system - 71-00-00, paragraph 33).	_____	_____
NOTE: Lubricating oil may drain from reservoir into engine if engine has been idle for more than few days. If oil level is low, do not service reservoir until engine has been run or until accessory gearbox has been drained of this accumulation of oil.		
3. Check engine inlet area for foreign matter.	_____	_____
4. Check wiring, fuel, oil and air tubing for evidence of leakage, chafing and security.	_____	_____
5. Inspect engine and accessories for leakage, cracks, damage and security of mounting.	_____	_____
6. Conduct leak check of fuel manifold after last flight of day. Immediately after engine shutdown, inspect fuel manifold for evidence of fuel leaks. Leaks are indicated by wetness of parts of fuel manifold or engine compartment and smell of fuel. Special attention should be addressed to tube braze joints and tube bows.	_____	_____
7. Inspect fuel manifold or damage and security of mounting.	_____	_____
NOTE: Overboard fuel pump leakage may be up to four drops per minute with engine operating in idle range (65 to 80 percent Ng speed). Excessive fuel pump leakage may be indicated by presence of blue grease at fuel pump to fuel control interface or seal drain. If blue grease stains are evident, replace fuel control and pump assembly.		
8. Inspect exterior of combustor and tailpipe for cracks, hot spots and buckled areas.	_____	_____
9. Check power turbine rotor and interior of tailpipe for damage.	_____	_____

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Table 2. Daily Inspection Requirements (Cont)

Inspection Item	Technician	Date
10. Check rear bearing support housing and airframe full flow scavenge debris monitors for continuity or remove, inspect and clean chip detector elements. If debris is found, perform lubrication system contamination troubleshooting procedure (paragraph 19) and chip detector inspection and chip classification (paragraph 20).	_____	_____
11. Inspect for indication of oil filter impending bypass (cockpit caution panel light). If bypass has occurred, remove and inspect oil filter. If contaminated, perform lubrication system contamination troubleshooting procedure (paragraph 19) and chip detector inspection and chip classification (paragraph 20).	_____	_____
12. Check for indication of high pressure fuel filter impending bypass (cockpit caution panel light). If impending bypass is indicated, replace fuel filter element (73-10-06).	_____	_____

Table 3. Periodic (50 Hour) Inspection Requirements

Inspection Item	Technician	Date
1. Deleted.	_____	_____
2. Perform fluorescent penetrant inspection, Type I, Method D (70-00-00, paragraph 21) of installed Power Turbine Rotor Part No. 4-141-070-XX in accordance with 72-50-00, paragraph 3. (LTS101-750B-1 SB LT101-72-50-00-0121 only)	N/A	_____
3. One time inspection at 50 hours time since installation of a newly repaired/overhauled engine , perform a No. 2 and 3 Bearing Package Oil Jets (Delta P Check) inspection and record results in the engine logbook. If the check exceeds the 4.0 PSID limit, remove engine and correct cause in accordance with the maintenance or overhaul manual prior to further engine operation. Refer to 72-00-00, paragraph 12.	_____	_____
One time inspection at 50 hours time since installation of a spare/time continued usage engine , perform a No. 2 and 3 Bearing Package Oil Jets (Delta P Check) inspection and record results in the engine logbook. If the check exceeds the 5.0 PSID limit, remove engine and correct cause in accordance with the maintenance or overhaul manual and correct cause prior to further engine operation. Refer to 72-00-00, paragraph 12.	_____	_____
4. Perform engine power check, if not accomplished within the last 50 engine operating hours.	CALM	_____

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Table 4. Deleted

Table 5. Periodic (150 Hour) Inspection Requirements

Inspection Item	Technician	Date
1. Check logbook to determine status of time and cycle life limited engine components and component TBI intervals. (Refer to latest revision of SB LT101-71-00-0001 and SB LT101-71-00-0002.)	_____	_____
2. Service Pc filter (72-00-00, paragraph 5 and 73-10-07). Note service interval may be adapted to local operating environment.	_____	_____
3. Remove inlet screen. Inspect compressor blades for FOD, erosion, rubs and cracks by looking through inlet with inspection mirror and strong light.	_____	_____
4. Inspect power turbine blades for cracks, FOD and burning.	_____	_____
5. Perform oil analysis check (71-00-00, paragraph 32) or drain oil, remove and inspect oil filter element and service with new oil (71-00-00, paragraph 31).	_____	_____
6. If more than 1 year has passed since last 600 hour inspection, perform operational check of fuel filter impending bypass indicator (73-10-06).	_____	_____
7. Clean compressor (paragraph 7).	CALM _____	_____
8. At 150 hours time since installation intervals, Perform a No. 2 and 3 Bearing Package Oil Jets (Delta P Check) inspection and record results in the engine logbook. This No. 2 and 3 Package Oil Jets (Delta P Check) inspection is performed at 150 hour intervals, thereafter. The 150 hour check limit is 5.0 PSID. If the check exceeds the 5.0 PSID limit, remove engine and correct cause in accordance with the maintenance or overhaul manual prior to further engine operation.	_____	_____

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Table 6. Periodic (300 Hour) Inspection Requirements

	Inspection Items	Technician	Date
N/A	1. LTS101-750B-1 Pre SB LTS101B-73-10-0127 only, perform functional test of mechanical overspeed limiter.	_____	_____
	2. Deleted.	_____	_____
	CAUTION: EXTERNAL AND INTERNAL DRIVE SPLINES MUST BE THOROUGHLY CLEANED PRIOR TO LUBRICATION. FAILURE TO COMPLETELY REMOVE RESIDUE FROM SPLINES WILL CAUSE SPLINES TO WEAR REGARDLESS OF LUBRICATION FREQUENCY. EXCESSIVE LUBRICATION ON FUEL PUMP DRIVE SPLINES MAY CAUSE SHAFT SEAL TO LEAK DURING OPERATION.		
	NOTE Drive splines of Fuel Pump Assembly Part No. 4-301-377-XX and mating gear are oil wetted and do not require lubrication. Inspect these splines at 600 hour intervals.		
N/A	3. (LTS101-750B-1 Pre SB LTS101B-73-20-0123) Clean, inspect and lubricate external fuel pump and internal gearbox drive splines using spline lubricant (Table 29, item 18). On fuel pumps with one external spline machined off completely, pack splines with spline lubricant.	_____	_____
	4. Deleted.	_____	_____

Table 7. Periodic (600 Hour) Inspection Requirements

	Inspection Item	Technician	Date
	1. Deleted.	_____	_____
	2. Perform operational check of airflow modulator actuator (75-30-02).	_____	_____
	3. Perform operational check of fuel filter impending bypass indicator (73-10-06).	_____	_____
	4. Inspect external and internal drive splines of power turbine governor. External spline is made of Vespel and does not require lubrication.	_____	_____
	5. Deleted.	_____	_____
N/A	6. Perform hot section inspection in accordance with 72-00-00, paragraph 9 and Table 11.	_____	_____

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Table 7. Periodic (600 Hour) Inspection Requirements (Cont)

Inspection Item	Technician	Date	
7. (Pre LTS101-750B-1 SB LTS101 B-73-10-0127 only) Inspect external and internal drive splines of overspeed limiter. External spline is made of Vespel and does not require lubrication.	_____	_____	N/A
8. Inspect starter external and internal drive gears. Starter gears are wet splines and do not require lubrication.	_____	_____	
9. (PRE LTS101-750B-1 SB LTS101-73-10-0196 only) Perform installed distortion check (refer to Table 2, Daily Inspection Requirements, 72-00-00) of fuel manifold assembly (73-10-04).	_____	_____	N/A
10. Inspect thermocouple assembly and perform checks (77-20-02). Engine operation may be continued to next internal inspection with maximum of one green lead open.	_____	_____	

Table 8. Periodic (1200 Hour) Inspection Requirements

Inspection Item	Technician	Date
1. Deleted.	_____	_____
2. Perform hot section inspection in accordance with 72-00-00, paragraph 9 and Table 11.	_____	_____
3. Perform accessory/reduction gearbox inspection (Table 12), for engines operating on a 600 hour or 1200 Hour Hot Section Inspection interval.	_____	_____

Table 8A. Periodic (1800 Hour) Inspection Requirements

Inspection Item	Technician	Date
1. Deleted.	_____	_____
2. Perform hot section inspection in accordance with 72-00-00, paragraph 9 and Table 11.	_____	_____
3. Perform accessory/reduction gearbox inspection (Table 12), for engines operating on an 1800 Hour Hot Section Inspection interval.	_____	_____

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Table 9. Gas Generator Turbine Blade Inspection Requirements
(LTS101-750B-1 Pre SB LT101-72-50-0126 only)

N/A

Blade Time Interval	Inspection
1200 Hours	(1) Remove power turbine module. (2) Using 7x magnification, inspect gas generator turbine rotor blades for cracks and/or tip loss (Figure 1). If any blade exhibits cracks or tip loss, all blades must be replaced. (3) Reinstall power turbine module. (4) Perform baseline vibration check (paragraph 35). (5) Accomplish power assurance check as outlined in applicable airframe manual.
1500 Hours, 1800 Hours, and 2100 Hours	(1) Perform vibration check (paragraph 35). If measured increase in any vibration level is twice the value measured at baseline check, perform following steps (2) and (3). (2) Remove power turbine module. (3) Using 7x magnification, inspect gas generator turbine rotor for blade cracks and/or tip loss (Figure 1). If any blade exhibits cracks or tip loss, all blades must be replaced. (4) Reinstall power turbine module. (5) Accomplish power assurance check as outlined in applicable airframe manual. If there is an increase in MGT of 20°C (68°F) or more since initial power assurance check, troubleshoot then repeat power assurance check.

Table 10. Power Turbine Blade Shift Inspection (PN 4-141-290-01 and -05)
(LTS101-750B-1 Pre SB LT 101-72-50-0173)

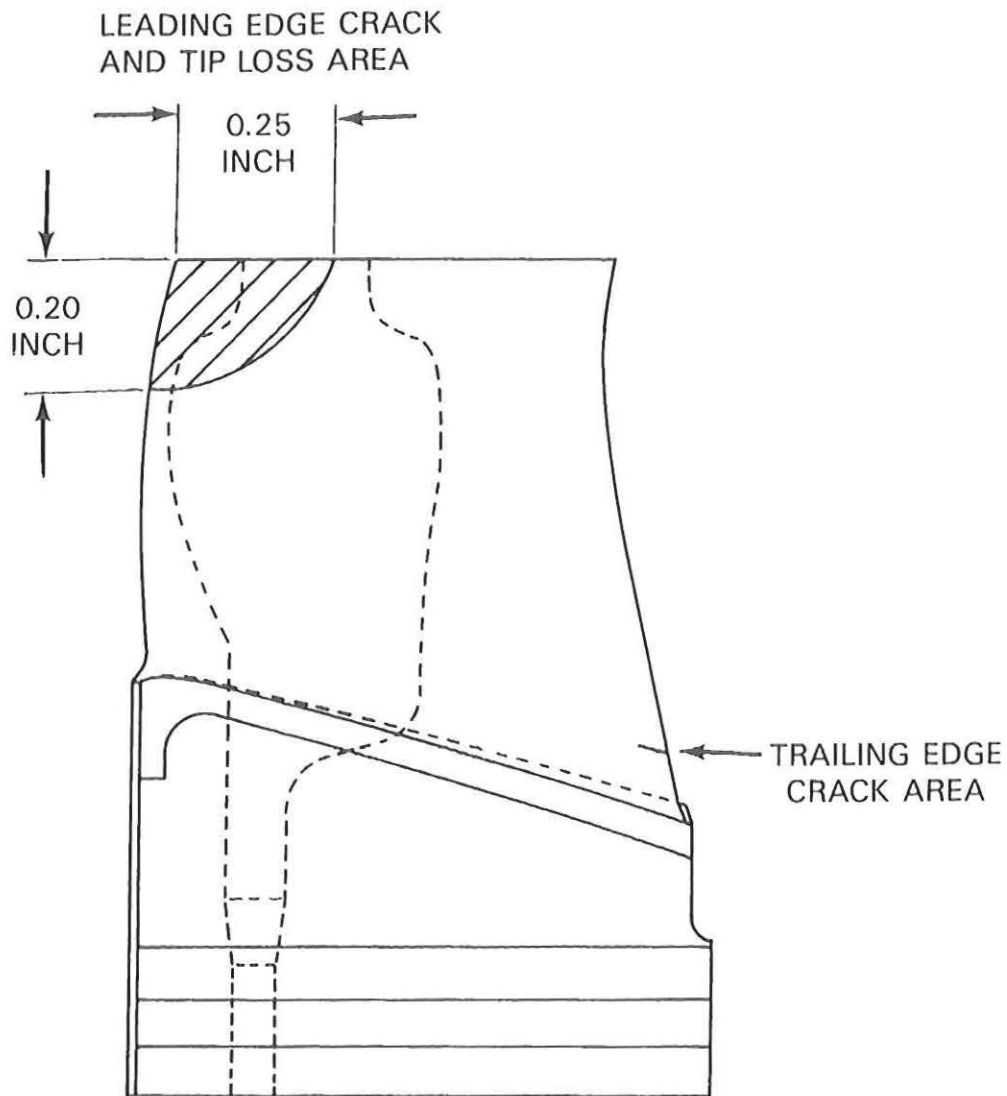
Inspection Item	Technician	Date
1. Inspect power turbine rotor per 72-50-00, paragraph 3.Q(1).	_____	_____
2. Required inspection intervals for power turbines operating within inspection limits are as follows:		
a. Initial Inspection - 200 cycles.	_____	_____
b. Second Inspection - 200 cycles.	_____	_____
c. Third and Subsequent Inspections - 400 cycles.	_____	_____

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Gas Generator Turbine Rotor Blade Typical Discrepant Area
Figure 1

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Table 11. Hot Section Inspection Requirements

Inspection Item	Technician	Date
CAUTION: IF OVERTEMPERATURE LIMITS (71-00-00, TABLE 4) HAVE BEEN EXCEEDED, TROUBLESHOOT AND CORRECT CAUSE PRIOR TO PERFORMING FOLLOWING INSPECTIONS.		
IF ENGINE STEADY STATE OPERATION IN EXCESS OF TAKEOFF POWER LIMITS IS ENCOUNTERED AT ANY TIME, SEE FIGURE 6 FOR MAINTENANCE REQUIREMENTS.		
NOTE: It is recommended that power assurance check (Refer to Airframe Flight Manual) and engine vibration test (paragraph 35) be performed first. Record results in engine logbook, correct cause of low power or high vibrations during inspection.		
1. Remove tailpipe.	_____	_____
2. Make sure that retaining bolts are installed and power turbine nozzle is fully seated. Measure power turbine blade tip clearance (0.008 inch minimum).	_____	_____
3. (LTS101-750B-1 Pre SB LT101-72-50-0173 only) Perform power turbine blade shift inspection for Rotor Part No. 4-141-290-01 and -05 (72-50-00).	_____	_____
4. Inspect power turbine rotor assembly for defects (72-50-00).	_____	_____
5. Remove power turbine module.	_____	_____
6. Inspect thermocouple assembly and perform checks (77-20-02). No open thermocouples allowed.	_____	_____
7. Remove combustor liner (paragraph 29).	_____	_____
8. Inspect gas generator turbine blades and cylinder of shroud for evidence of rubs (72-40-00 and 72-50-00).	_____	_____
9. Inspect GP nozzle seal spring and seal ring (72-50-00).	_____	_____
9.A Inspect GP nozzle shield (72-50-00)	_____	_____
10. Inspect visible components per maintenance manual limits for carbon deposits, burning and distortion that could be caused by defective or clogged fuel nozzles or manifold.	_____	_____
11. Perform functional test of fuel manifold assembly (73-10-04).	_____	_____
12. Perform compressor rotor inspection (72-30-00).	_____	_____
13. Deleted.	_____	_____

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Table 11. Hot Section Inspection Requirements (Cont)

Inspection Item	Technician	Date
14. Perform No. 2 and 3 bearing package oil jets clogging inspection (Delta P check) (paragraph 12).	_____	_____
<u>NOTE:</u> When installing tailpipe, ensure that 2 PT Nozzle bolts are installed and the V-band coupling does not contact any part of engine that could prevent complete seating.		
15. Reassemble engine and perform test flight, vibration check and power assurance check.	_____	_____

Table 12. Accessory/Reduction Gearbox Inspection Requirements

Inspection Item	Technician	Date
1. Remove cover from accessory/reduction gearbox (paragraph 24).	_____	_____
<u>NOTE:</u> Do not clean parts prior to inspection.		
Inspect all parts per limits given in 72-60-00.		
2. Inspect all parts for nicks, burrs and scratches.	_____	_____
3. Inspect all threaded parts for damaged threads.	_____	_____
4. Inspect case and cover for damaged screw thread inserts.	_____	_____
5. Inspect bearings (without magnification) for following:	_____	_____
a. General condition.		
b. Surface defects.		
c. Foreign matter.		
d. Discoloration from overheating.		
e. Noise when rotated.		
<u>NOTE:</u> Oil pump internal and external drive spline are oil wetted, do not grease splines. Engine oil may be used during assembly. Inspect oil pump drive spline and oil pump drive gear spline for wear per 79-20-03.		
6. Inspect internal and external splines for wear and fretting (72-60-00, paragraph 3.I).	_____	_____

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Table 12. Accessory/Reduction Gearbox Inspection Requirements (Cont)

Inspection Item	Technician	Date
7. Inspect all gear teeth for damage and excessive or irregular wear (72-60-00, paragraph 23) and (72-60-00, paragraph 3.I).	_____	_____
8. Inspect all gears for discoloration due to overheating (70-00-00, paragraph 3).	_____	_____
9. Inspect power output gear (84, Figure 12) for wear and damage to gear teeth. If wear along faces of gear teeth extends full face width (0.900 inch), replace power output gear and idler gear assembly (101). Do not disassemble idler gear assembly.	_____	_____
10. Inspect bearing bores for steps caused by spinning of bearing races. If steps are found, measure depth. If step depth exceeds 0.001 inch, return gearbox to approved Honeywell International, Inc service center.	_____	_____

Table 13. LTS101-750B-1 Overspeed Inspection Requirements N/A

Inspection Item	Technician	Date
1. Deleted.	_____	_____
2. If maximum transient Ng limit is exceeded (106.1%), complete engine must be overhauled.	_____	_____
3. If maximum transient Np exceeds 106 percent but does not exceed 113 percent and PT rotor blade tip clearance is within limits, clean and inspect trailing edge of blades for cracks using fluorescent penetrant method (70-00-00, paragraph 21). Return PT governor to Honeywell International Inc. approved overhaul/repair facility for inspection and repair as necessary. Perform topping check and test flight.	_____	_____
4. If maximum transient Np exceeds 113 percent or if blade tip clearance is not within limits, replace PT rotor assembly and return PT governor to Honeywell International Inc. approved overhaul/repair facility for inspection and repair as necessary.	_____	_____
5. On engines incorporating mechanical overspeed system, perform overspeed limiter functional check.	_____	_____
6. On engines incorporating electrical overspeed system, perform functional check of electronic overspeed limiting system per applicable airframe flight manuals.	_____	_____
7. Annotate engine and module maintenance records and Component Record Card for PT rotor with overspeed information and inspection results.	_____	_____