

General Electric LM2500 Gas Turbine

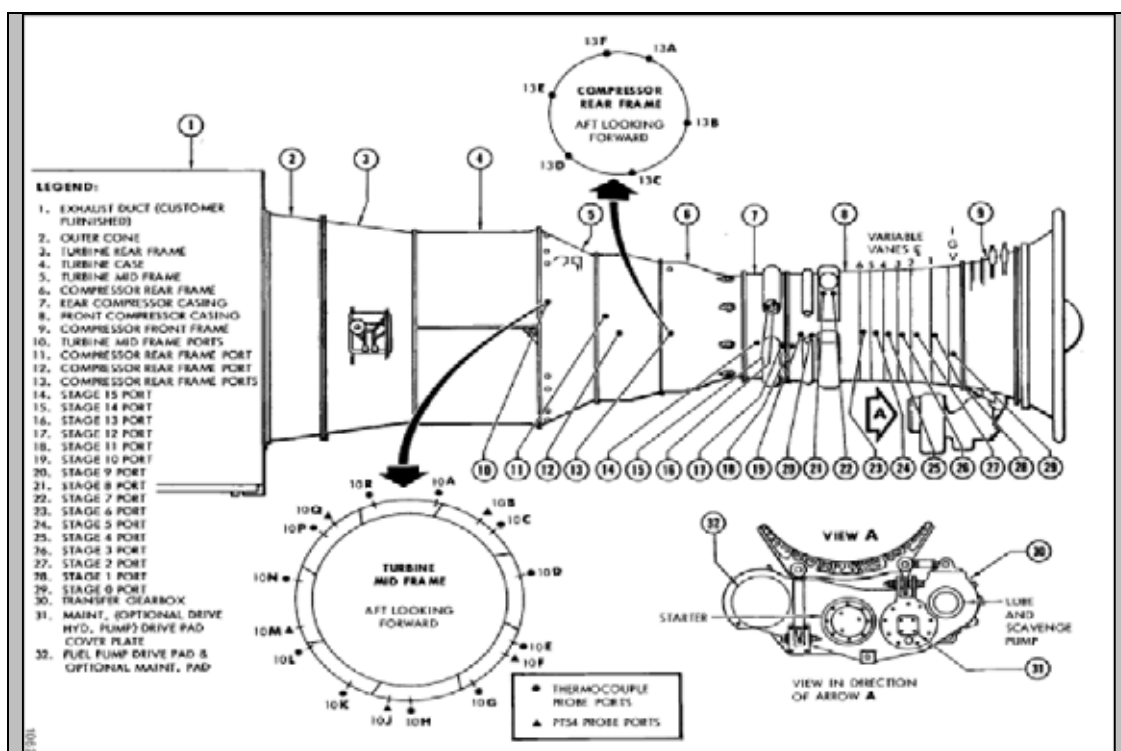
LM2500 SAC Borescope Inspection UNIT TM 43

CUST –

ENGINE SERIAL NUMBER:
481-774

TCT SALES ORDER NUMBER:
UK9000087

LM2500 SAC BORESCOPE REPORT	
Location:	Dar ES Salaam, Tanzania
Purchase order:	TBC, W/O UK80000157
Date of visit:	13-18 May 2008
Purpose:	Borescope inspection in accordance with GEK 97310, Vol. 1, Table 5-4 to Table 5-11
Purpose:	Lube and Scavenge Pump Inlet Screens Inspection and Cleaning in accordance with GEK 97310, Vol. 1, Table 5-3.18
Written by:	Mark Devine
Engine hours:	1483.22
Starts:	N/K
Fuel type:	Dual
Overview:	Engine has no reported defects, acceptable for further operation



BORESCOPE ACCESS PORT LOCATIONS.

Volume 1, Tbl 5-4 – Tbl 5-11	LM2500 SAC Borescope inspection
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COMPRESSOR:

Component	Condition
Stages 1 through 9 Blades	<ul style="list-style-type: none"> Stage 3 blades, no damage found. Stage 4 blades, no damage found. Stage 9 blades, no damage found. Acceptable in accordance with GEK 97310 Vol. 1 table 5-4.

Stages 10 through 16 Blades	<ul style="list-style-type: none"> • Stage 10 blades, no damage found. • Stage 15 blades, no damage found. • Stage 16 blades, no damage found. • Acceptable in accordance with GEK 97310 Vol. 1 table 5-4.
Tip clanging contact stages 3-6	<ul style="list-style-type: none"> • No defects found. • Acceptable.
Stator Vanes (all)	<ul style="list-style-type: none"> • No defects found. • Acceptable.
All VSV Vanes	<ul style="list-style-type: none"> • No defects found. • Acceptable.
HPC Rotor and Stator Airflow Path Surfaces	<ul style="list-style-type: none"> • Normal levels of dirt/corrosion present. • Acceptable.

Reference Photographs - HPC Blades and Vanes






Inspection References: GEK 97310 Vol. 1, Table 5-4 Compressor Blades and Vanes, paragraph 5-3.6 and figures 5-8, 5-9 and 5-10.

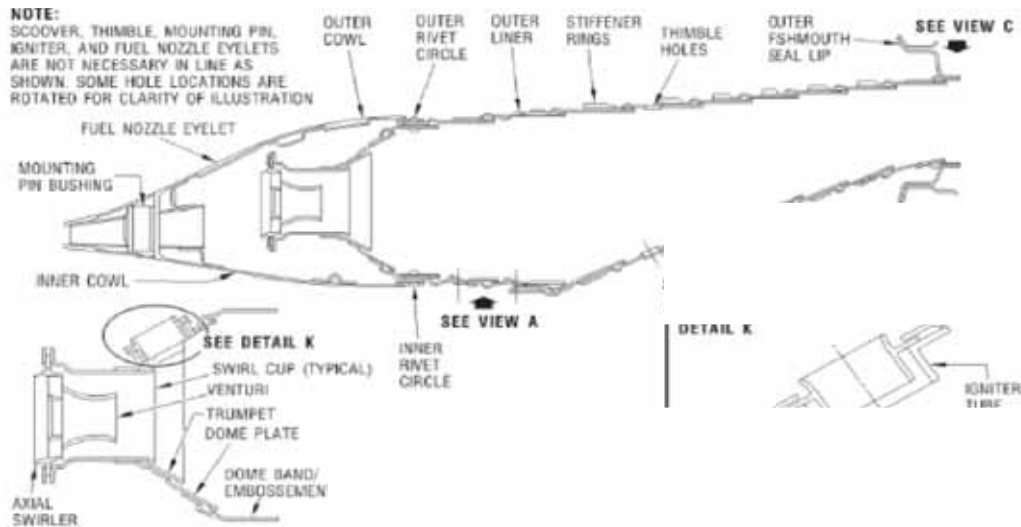
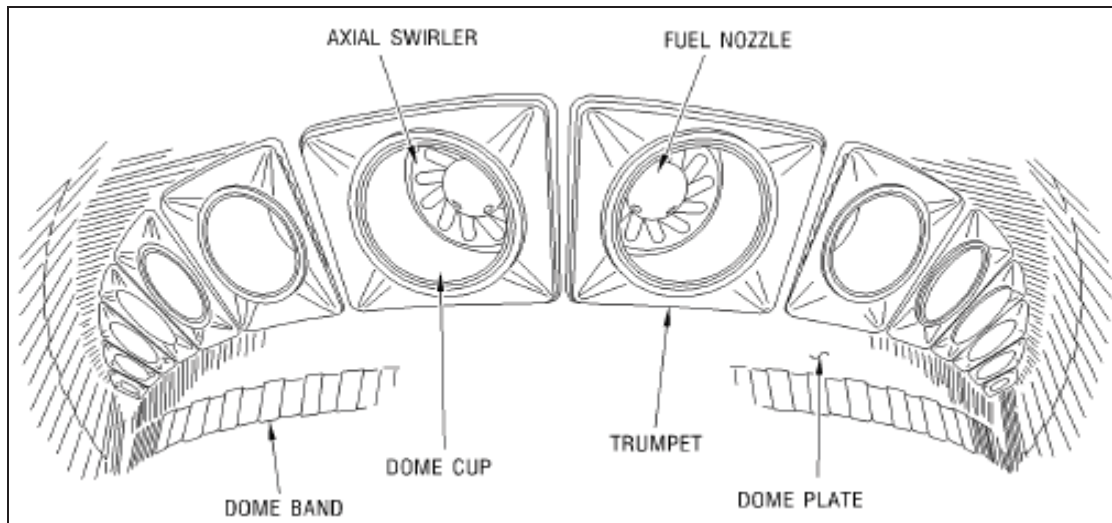
COMBUSTOR and FUEL NOZZLES:

Component	Condition
All Combustor Surfaces	<ul style="list-style-type: none"> General condition good.
Dome Band/Dome Plate	<ul style="list-style-type: none"> Minor thermal barrier coating loss/degradation-acceptable
Riveted Joints	<ul style="list-style-type: none"> No defects found
Trumpet and swirler cups	<ul style="list-style-type: none"> Thermal barrier coating loss/degradation-acceptable.
Dome Assembly	<ul style="list-style-type: none"> No defects found
Igniter Ferrule	<ul style="list-style-type: none"> No defects found
Combustor Cowl	<ul style="list-style-type: none"> No defects found
Inner and Outer Liner	<ul style="list-style-type: none"> No defects found
Fuel nozzle	<ul style="list-style-type: none"> No defects found

Reference Photographs – Combustor, Pre-mixers

	
Combustor TBC condition satisfactory.	Swirler/nozzle condition.
	
Swirler/nozzle condition.	

GEK 937310 Inspection References:



HPT ASSEMBLY:

Component	Condition		
HPT Stage 1 Nozzle Assembly	Defect	Location	Findings/GEK limits
	Nozzle airfoil		
	N/A	N/A	No defects found in areas inspected
	Inner and Outer Platform		
	N/A	N/A	No defects found in areas inspected
	General remarks	Condition satisfactory for continued use.	
HPT Rotor Blade-Stage 1	Defect	Location	Findings/GEK limits
	HPT Rotor Blades-Leading Edge Area A		
	N/A	N/A	No defects found
	HPT Rotor Blades-Leading Edge Area B		
	N/A	N/A	No defects found
	HPT Rotor Blade Tips		

	N/A	N/A	No defects found
	HPT Rotor Blade-Trailing Edge Area A		
	N/A	N/A	No defects found
	HPT Rotor Blade-Trailing Edge Area B		
	N/A	N/A	No defects found
	HPT Rotor Blade-Concave Surface Area A		
	N/A	N/A	No defects found
	General remarks		Condition satisfactory for continued use
HPT Stages 1 and 2 Nozzle Shroud	Defect	Location	Findings/GEK limits
	N/A	N/A	No defects found in areas inspected
	General remarks		Condition satisfactory for continued use
HPT Stage 2 Nozzle Assembly	Defect	Location	Findings/GEK limits
	N/A	N/A	No defects found in areas inspected
	General remarks		Condition satisfactory for continued use
HPT Rotor Blade- Stage 2	Defect	Location	Findings/GEK limits
	HPT Rotor Blades-Leading Edge Area A		
	N/A	N/A	No defects found
	HPT Rotor Blades-Leading Edge Area B		
	N/A	N/A	No defects found
	HPT Rotor Blade Tips		
	N/A	N/A	No defects found
	HPT Rotor Blade-Trailing Edge Area A		
	N/A	N/A	No defects found
	HPT Rotor Blade-Trailing Edge Area B		
	N/A	N/A	No defects found
	HPT Rotor Blade-Concave Surface Area A		
	N/A	N/A	No defects found
	General remarks		Condition satisfactory for continued use.
HPT Stage 2 Nozzle Shroud	Defect	Location	Findings/GEK limits
	N/A	N/A	No defects found in areas inspected
	General remarks		Condition satisfactory for continued use



Reference Photographs – HPT assembly



	
Stg 2 Blade, condition satisfactory.	

PACKAGE INSPECTION RECORD:

Component	Condition
Lube and Scavenge Pump Inlet Screens Inspection.	<ul style="list-style-type: none"> • C sump screen contaminated with magnetic wire strands. • Remaining screens clear. • Acceptable
Gas Turbine External Inspection.	<ul style="list-style-type: none"> • No defects found.

	
C sump screen contamination.	C sump screen contamination.

Recommendations	Borescope inspection
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- Regular inspection of L&S scavenge screens recommended
- Engine condition satisfactory for continued use.

Parts used during outage:

Parts used			
Part #	Component Description	Source	Issued
C10-218	SAFETY-CABLE W/FERRULE	NEW	25
M83248/1-121	PREFORMED PACKING	NEW	1
J221P910	PREFORMED PACKING	NEW	2
J221P912	PREFORMED PACKING	NEW	3
J221P905	PREFORMED PACKING	NEW	5

Customer supplied information