



Aero Energy

LM2500+ Report

Borescope Inspection Report

April 6, 2010

For

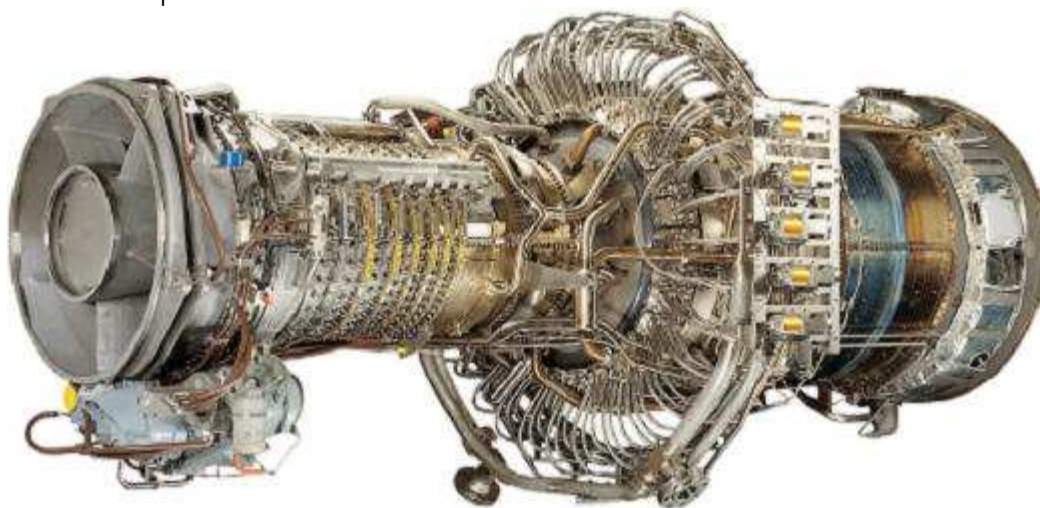
GE PACKAGED POWER INC.

**Unit # 1
ESN 557-115**

Under

GE Oracle Project 7232298

Customer Representative: Tom Jones
GE Field Service Representative: Samuel Gutierrez



All technical recommendations and information contained in this report are based on GE manuals that have been developed and approved for use with GE engines and parts that have been operated and maintained in accordance with GE technical documentation and recommendations.

GE has no technical knowledge of, nor obligation for, non GE-approved parts and repairs. Accordingly, this report is not intended to apply to non GE-approved parts and repairs, nor to any parts that may be directly or indirectly affected by non GE-approved parts and repairs.



CONCLUSIONS & RECOMMENDATIONS

The purpose of this visit was to perform a Periodic Borescope Inspection.

This Periodic Borescope inspection was completed in accordance with WP 406 00.

The unit **is** available for continued operation.

Outage Data:

Engine Data:

ESN	557-115	Engine Fired Hours	0	Package Hours	0
Model	SAC PLUS	Engine Fired starts	0	Package Fired Starts	0

Maintenance Data:

WP, SB, SL, PB, PL Performed	Revision/manual reference	Date completed	Comments
WP 406 00	Borescope Inspection	April 7, 2010	Engine is Serviceable

Open Action Items:

One igniter and harness is currently installed on engine.

Proper washer installation should be verified on igniter to prevent any combustor damage.

**DETAILS AND DATA****Purpose of visit:**

The purpose of this visit was to perform a Periodic Borescope Inspection IAW WP 406 00.

Work performed:

A borescope of the engine was performed using a flexscope and a turning tool. No damage was found on HPC, HPT, Combustor, and Power Turbine.

Inspection Details:

Menu Directed	LM2500+SAC
Engine Serial Number	557-115
Site	N/A
Unit No	1
Model	SAC+
Customer	GE PACKAGED POWER INC.
GE Field Service Rep.	Samuel Gutierrez
GE Oracle Proj No.	7232298
Engine Fired Hours	0
Engine Fired Starts	0
Package Fired Hours	0
Date	06 Apr 2010
Time	15:27:17



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Stage_0_LE001.JPG

Section	Stage 0
Stage	LE
Comments	



Stage_0_LE002.JPG

Section	Stage 0
Stage	LE
Comments	



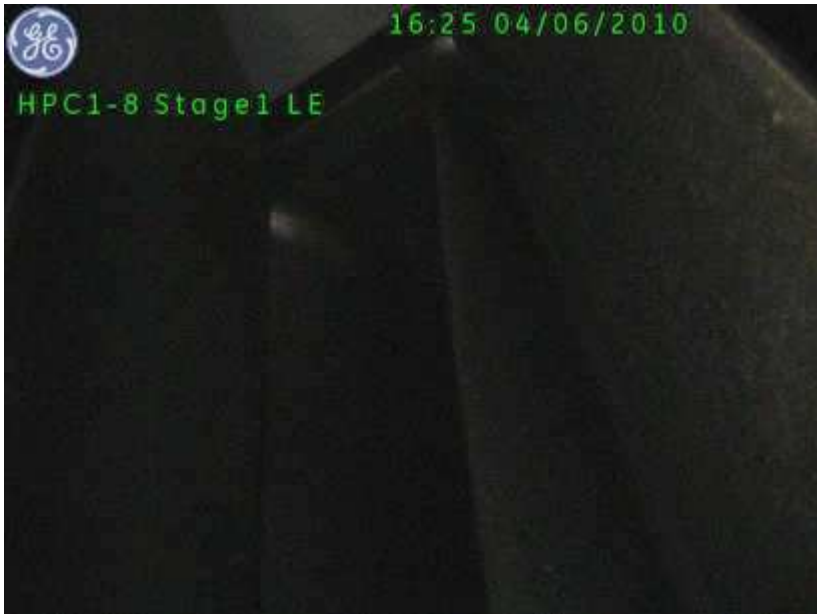
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HPC1-8_Stage1_LE001.JPG

LM2500+ Report

Section	HPC1-8
Stage	Stage1
Component	LE
Comments	



HPC1-8_Stage1_LE002.JPG

Section	HPC1-8
Stage	Stage1
Component	LE
Comments	



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HPC1-8_Stage2_LE001.JPG

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Section	HPC1-8
Stage	Stage2
Component	LE
Comments	



HPC1-8_Stage2_LE002.JPG

Section	HPC1-8
Stage	Stage2
Component	LE
Comments	



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HPC1-8_Stage2_LE003.JPG

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Section	HPC1-8
Stage	Stage2
Component	LE
Comments	



HPC1-8_Stage2_LE004.JPG

Section	HPC1-8
Stage	Stage2
Component	LE
Comments	



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HPC1-8_Stage2_LE005.JPG

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Section	HPC1-8
Stage	Stage2
Component	LE
Comments	



HPC1-8_Stage2_LE006.JPG

Section	HPC1-8
Stage	Stage2
Component	LE
Comments	



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HPC1-8_Stage3_LE001.JPG

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Section	HPC1-8
Stage	Stage3
Component	LE
Comments	



HPC1-8_Stage3_LE002.JPG

Section	HPC1-8
Stage	Stage3
Component	LE
Comments	



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HPC1-8_Stage4_LE001.JPG

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Section	HPC1-8
Stage	Stage4
Component	LE
Comments	



HPC1-8_Stage4_LE002.JPG

Section	HPC1-8
Stage	Stage4
Component	LE
Comments	



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HPC1-8_Stage5_LE001.JPG

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Section	HPC1-8
Stage	Stage5
Component	LE
Comments	



HPC1-8_Stage5_LE002.JPG

Section	HPC1-8
Stage	Stage5
Component	LE
Comments	



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HPC1-8_Stage6_LE001.JPG

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Section	HPC1-8
Stage	Stage6
Component	LE
Comments	



HPC1-8_Stage6_LE002.JPG

Section	HPC1-8
Stage	Stage6
Component	LE
Comments	



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HPC1-8_Stage7_LE001.JPG

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Section	HPC1-8
Stage	Stage7
Component	LE
Comments	



HPC1-8_Stage7_LE002.JPG

Section	HPC1-8
Stage	Stage7
Component	LE
Comments	



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HPC1-8_Stage8_LE001.JPG

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Section	HPC1-8
Stage	Stage8
Component	LE
Comments	



HPC1-8_Stage8_LE002.JPG

Section	HPC1-8
Stage	Stage8
Component	LE
Comments	



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HPC9-16_Stage9_LE001.JPG

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Section	HPC9-16
Stage	Stage9
Component	LE
Comments	



HPC9-16_Stage9_LE002.JPG

Section	HPC9-16
Stage	Stage9
Component	LE
Comments	



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HPC9-16_Stage10_LE001.JPG

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Section	HPC9-16
Stage	Stage10
Component	LE
Comments	



HPC9-16_Stage10_LE002.JPG

Section	HPC9-16
Stage	Stage10
Component	LE
Comments	



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HPC9-16_Stage10_LE003.JPG

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Section	HPC9-16
Stage	Stage10
Component	LE
Comments	

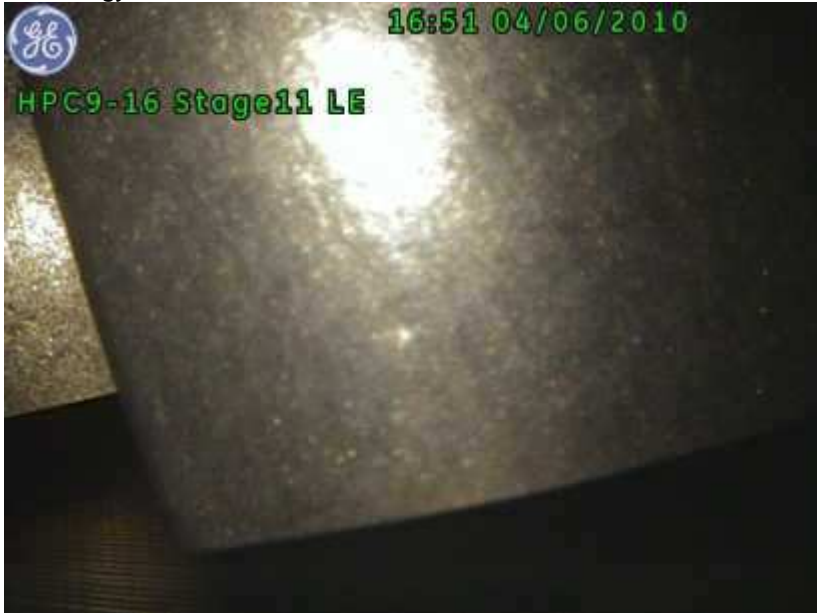


HPC9-16_Stage11_LE001.JPG

Section	HPC9-16
Stage	Stage11
Component	LE
Comments	



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HPC9-16_Stage11_LE002.JPG

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Section	HPC9-16
Stage	Stage11
Component	LE
Comments	



HPC9-16_Stage11_LE003.JPG

Section	HPC9-16
Stage	Stage11
Component	LE
Comments	



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HPC9-16_Stage11_LE004.JPG

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Section	HPC9-16
Stage	Stage11
Component	LE
Comments	



HPC9-16_Stage11_LE005.JPG

Section	HPC9-16
Stage	Stage11
Component	LE
Comments	



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HPC9-16_Stage11_LE006.JPG

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Section	HPC9-16
Stage	Stage11
Component	LE
Comments	



HPC9-16_Stage12_LE001.JPG

Section	HPC9-16
Stage	Stage12
Component	LE
Comments	



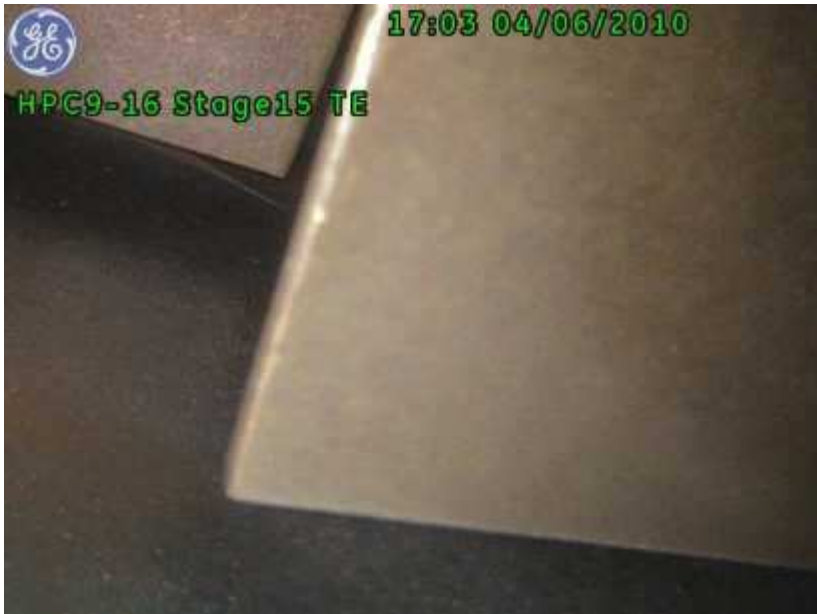
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HPC9-16_Stage12_LE002.JPG

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Section	HPC9-16
Stage	Stage12
Component	LE
Comments	



HPC9-16_Stage15_TE001.JPG

Section	HPC9-16
Stage	Stage15
Component	TE
Comments	



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HPC9-16_Stage15_TE002.JPG

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Section	HPC9-16
Stage	Stage15
Component	TE
Comments	



HPC9-16_Stage15_TE003.JPG

Section	HPC9-16
Stage	Stage15
Component	TE
Comments	



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HPC9-16_Stage15_TE004.JPG

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Section	HPC9-16
Stage	Stage15
Component	TE
Comments	



HPC9-16_Stage16_LE001.JPG

Section	HPC9-16
Stage	Stage16
Component	LE
Comments	



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HPC9-16_Stage16_LE002.JPG

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Section	HPC9-16
Stage	Stage16
Component	LE
Comments	



Comb_General001.JPG

Section	Comb
Component	General
Comments	



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Comb_General002.JPG

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Section	Comb
Component	General
Comments	



Comb_General003.JPG

Section	Comb
Component	General
Comments	



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15:36 04/06/2010

Comb General



Comb_General004.JPG

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Section	Comb
Component	General
Comments	



15:37 04/06/2010

Comb General



Comb_General005.JPG

Section	Comb
Component	General
Comments	



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Comb_General006.JPG

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Section	Comb
Component	General
Comments	

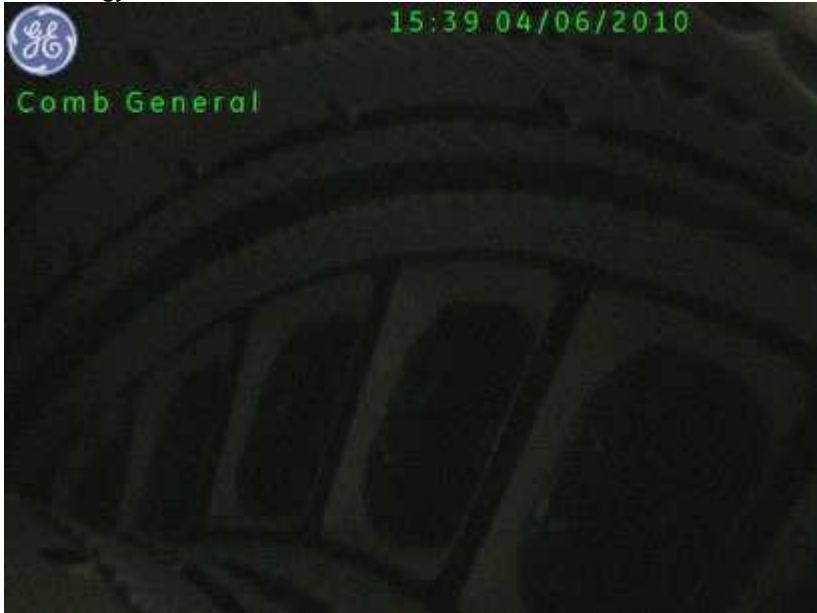


Comb_General007.JPG

Section	Comb
Component	General
Comments	



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Comb_General008.JPG

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Section	Comb
Component	General
Comments	



Comb_General009.JPG

Section	Comb
Component	General
Comments	



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Comb_General010.JPG

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Section	Comb
Component	General
Comments	



Comb_General011.JPG

Section	Comb
Component	General
Comments	



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15:43 04/06/2010

HPT Stage 1 Nozzle LE



HPT_Stage_1_Nozzle_LE001.JPG

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Section	HPT
Stage	Stage 1 Nozzle
Component	LE
Comments	



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HPT Stage 1 Nozzle LE



HPT_Stage_1_Nozzle_LE002.JPG

Section	HPT
Stage	Stage 1 Nozzle
Component	LE
Comments	



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HPT_Stage_1_Nozzle_LE003.JPG

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Section	HPT
Stage	Stage 1 Nozzle
Component	LE
Comments	



HPT_Stage_1_Blade_LE001.JPG

Section	HPT
Stage	Stage 1 Blade
Component	LE
Comments	



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HPT_Stage_1_Blade_LE002.JPG

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Section	HPT
Stage	Stage 1 Blade
Component	LE
Comments	



HPT_Stage_1_Blade_LE003.JPG

Section	HPT
Stage	Stage 1 Blade
Component	LE
Comments	



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HPT_Stage_2_Nozzle_LE001.JPG

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Section	HPT
Stage	Stage 2 Nozzle
Component	LE
Comments	



HPT_Stage_2_Nozzle_TE001.JPG

Section	HPT
Stage	Stage 2 Nozzle
Component	TE
Comments	



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HPT_Stage_2_Nozzle_TE002.JPG

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Section	HPT
Stage	Stage 2 Nozzle
Component	TE
Comments	



HPT_Stage_2_Blade_LE001.JPG

Section	HPT
Stage	Stage 2 Blade
Component	LE
Comments	



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HPT_Stage_2_Blade_LE003.JPG

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Section	HPT
Stage	Stage 2 Blade
Component	LE
Comments	



HPT_Stage_2_Blade_LE004.JPG

Section	HPT
Stage	Stage 2 Blade
Component	LE
Comments	



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Power_Turbine_Stage1PT_Nozzle_TE001.JPG

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Section	Power Turbine
Stage	Stage1PT Nozzle
Component	TE
Comments	



Power_Turbine_Stage1PT_Nozzle_TE002.JPG

Section	Power Turbine
Stage	Stage1PT Nozzle
Component	TE
Comments	



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Power_Turbine_Stage_1_Blade_LE001.JPG

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Section	Power Turbine
Stage	Stage 1 Blade
Component	LE
Comments	



Power_Turbine_Stage_1_Blade_LE002.JPG

Section	Power Turbine
Stage	Stage 1 Blade
Component	LE
Comments	



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16:15 04/06/2010

Power Turbine Stage 1 Blade LE



Power_Turbine_Stage_1_Blade_LE003.JPG

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Section	Power Turbine
Stage	Stage 1 Blade
Component	LE
Comments	



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High Pressure Compressor

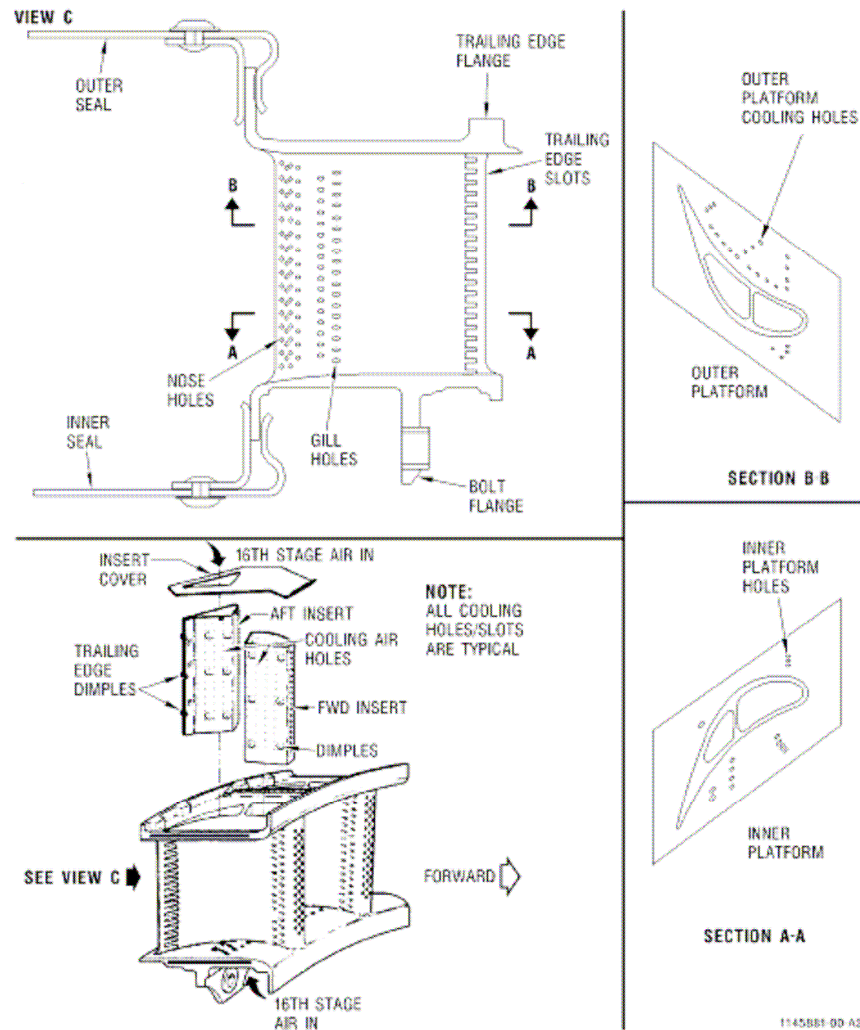
Inspection Area	Comments
<input type="checkbox"/> Inspect stages 0 through 16 blades for cracks, nicks, tears, burrs, dents, missing material, evidence of tip clang, curl or deformation.	
<input type="checkbox"/> IGV	Serviceable
<input type="checkbox"/> Stage 0 Blisk	Serviceable
<input type="checkbox"/> Stage 1 Blades (Qty 26) & Vanes	Serviceable
<input type="checkbox"/> Stage 2 Blades (Qty 26) & Vanes	Serviceable
<input type="checkbox"/> Stage 3 Blades (Qty 42) & Vanes	Serviceable
<input type="checkbox"/> Stage 4 Blades (Qty 45) & Vanes	Serviceable
<input type="checkbox"/> Stage 5 Blades (Qty 48) & Vanes	Serviceable
<input type="checkbox"/> Stage 6 Blades (Qty 54) & Vanes	Serviceable
<input type="checkbox"/> Stage 7 Blades (Qty 56) & Vanes	Serviceable
<input type="checkbox"/> Stage 8 Blades (Qty 64) & Vanes	Serviceable
<input type="checkbox"/> Stage 9 Blades (Qty 66) & Vanes	Serviceable
<input type="checkbox"/> Stage 10 Blades (Qty 66) & Vanes	Serviceable
<input type="checkbox"/> Stage 11 Blades (Qty 76) & Vanes	Serviceable
<input type="checkbox"/> Stage 12 Blades (Qty 76) & Vanes	Serviceable
<input type="checkbox"/> Stage 13 Blades (Qty 76) & Vanes	No plug
<input type="checkbox"/> Stage 14 Blades (Qty 76) & Vanes	No plug
<input type="checkbox"/> Stage 15 Blades (Qty 76) & Vanes	Serviceable
<input type="checkbox"/> Stage 16 Blades (Qty 76) & Vanes	Serviceable
<input type="checkbox"/> Inspect for erosion, corrosion or deposits.	
<input type="checkbox"/> Inspect for platform shingling, bowing, distortion or cracks	



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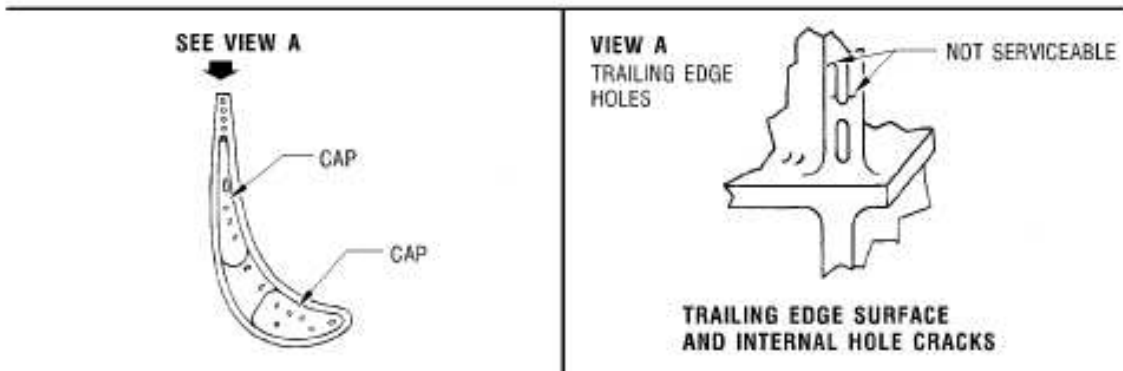
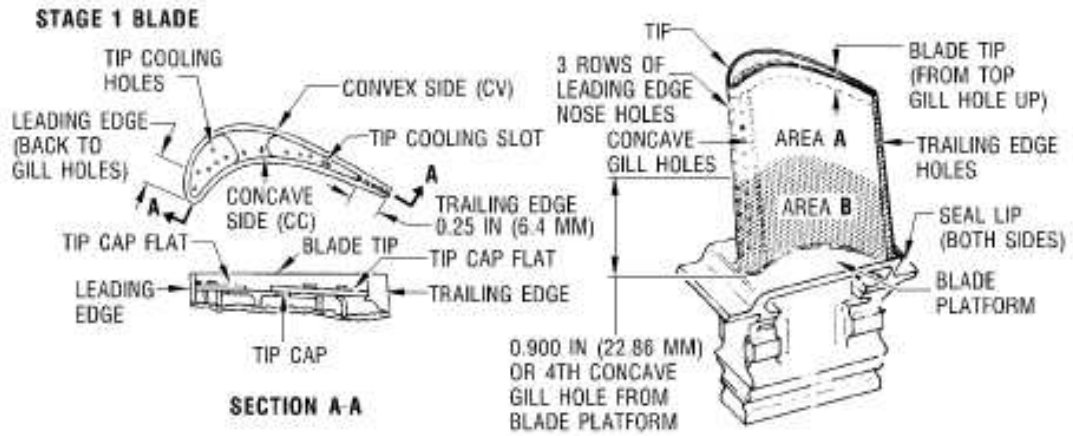
HPT Stage 1 Nozzle

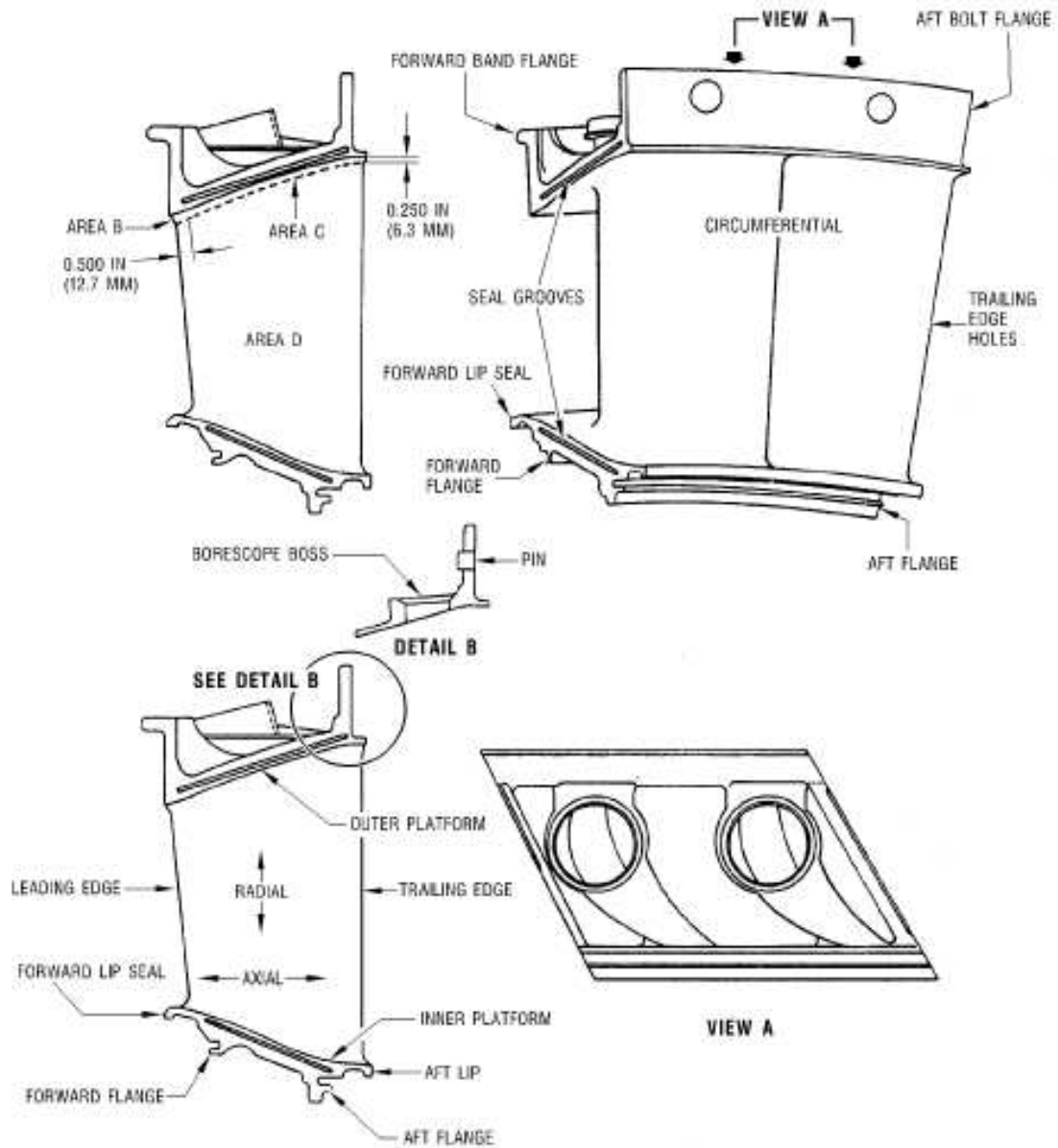




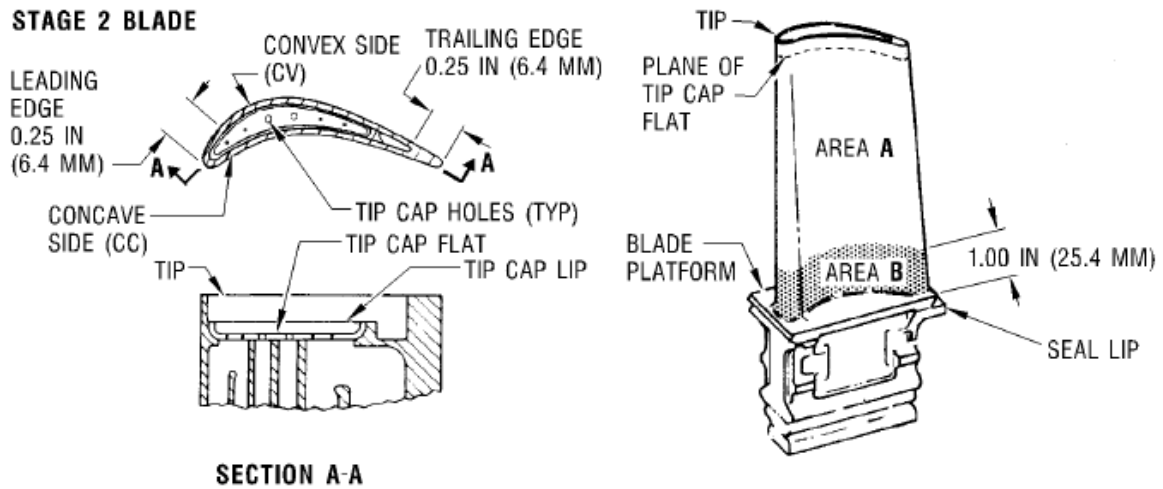
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HPT Stage 2 Nozzle



HPT Stage 2 Rotor Blades