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Report No: Sample

SAMPLE
ENGINE/LOGBOOK REVIEW

Customer: Sample

Unit: PW530A **Serial No: PCE-DA0000**

As of September 21, XXXX

TSN: 3951.0 **TSO: N/A** **TSHSI: N/A**

CSN: 3089 **CSO: N/A**

Review Date: September 21, XXXX

1.0 Logbook:

1.1 The engine maintenance logbook was documented in separate engine logbooks. The engine logbook entries appeared to be complete to include the unit's manufacture date of May 10, XXXX. The last maintenance entry dated February 9, XXXX with a TSN: 3950.5 and CSN: 3089.

1.2 During the aircraft's doormat period from February 9, XXXX to our current date xxxxxxx has indicated that the engines have been operated at a minimum of once every 30 days as required per the maintenance manual. xxxxxxx to provide documented letter for engine runs.

1.3 The following additional observations were noted.

1.3.1 The LCF components appear to be the same as indicated at new engine manufacture.

1.3.1.1

Description	Part #	Serial #	Used Cycles	Remaining Cycles
Fan IBR	30J1541-01		3089	11911
HPC 1st Stage	30J2081-01		3089	10411
HPC 2nd Stage	30J2122-01		3089	10411
Impeller	30J1450-01		3089	10411
HPT Disk	30J1401		3089	8911
LPT 2 Disk	30H1322		3089	10411
LPT 3 Disk	30H1323		3089	10411

1.4 The last maintenance entry dated February 9, XXXX with a TSN: 3950.5 and CSN: 3089 for normal engine maintenance.

1.5 No major events or incidents were noted with only normal line maintenance and Service Bulletin upgrades.

1.6 Service Bulletin information in the logbooks as follows.

1.6.1 Service Bulletin Incorporated during new manufacture: 30001, 30002, 30003, 30004, 30005, 30006, 30008, 30009, 30010, 30011, 30012, 30013, 30014, 30015, 30016, 30018, 30019, 30020, 30021, 30022, 30023, 30024, 30025, 30026, 30027, 30028, 30029, 30030, 30031, 30033, 30034, 30035, 30036, 30037, 30038, 30040, 30042, 30044, 30045, 30048, 30049, 30050, 30051, 30053, 30064, 30070, 30075, 30077, 30078, 30079, 30081, 30083, 30085, 30087, 30089, 30090, 30091, 30093, 30098, 30100, 30104, 30105, 30107, 30111, 30113, 30116, 30119, 30122, 30125, 30127, 30131, 30139, 30140, 30144, 30147, 30151, 30154, 30155, 30156, 30158, 30163, 30166 and 30172..

1.6.2 Additional Service Bulletins complied with: 30307, 30217, 30249, 30261R1 and AD94-07-03.

1.7 The following engine performance was noted from new manufacture.

1.7.1 T45 Trim 28.2 ohms

1.7.2

Parameter	Spec.	Actual
N1	13995 -14170	14013 RPM or 89.0%
N2	30640 – 31240	30847 RPM or 95.9%
T45	642 C	623 C
SFC	0.477	0.474

1.8 The following engine 5-point performance run was witnessed September 21, XXXX.

1.8.1 Outside Temperature 30 degrees C

1.8.2 Wind Direction 240 degrees @ 16 knot gust

1.8.3 N1 Take off Percentage of the day N1: 88.8%

1.8.4 N1 Corrected 87.5%

1.8.5 N2 Corrected 94.9%

1.8.6 ITT Corrected 614 degrees C

1.8.7 WF Observed 1330

2.0 Visual Inspection Findings:

2.1 The Fan Compressor Blades exhibited minor leading-edge erosion with no impact damage noted.

2.2 The Fan Case Shroud noted minor erosion.

2.3 The external inspection of the IC Case, AGB and Inlet housing all exhibited no evidence of corrosion.

2.4 The Gas. Gen. Case exhibited no obvious defects or noted corrosion.

2.5 The Exhaust Duct exhibited no cracking or case distortion.

2.6 The external engine hardware exhibited no obvious damage and appears to be complete.

2.7 The engine Accessories are complete with the engine.

2.7.1 No chaffing was noted on the outer shield of the T1 Harness.

2.8 The Oil and Filter exhibited no foreign material or discoloration.

3.0 Borescope Inspection: The following findings were noted

Note: A borescope inspection is limited to sampling of the internal engine inspected areas, and should not be considered a 100% witness inspection.

3.1 The Exhaust Duct area exhibited no obvious defects.

3.2 The LP Blades exhibited no obvious defects.

3.3 The HP Blades exhibited normal leading-edge erosion with no impact, rub, or burning noted.

3.4 The CC Liner noted evidences of heat distress with cracking and carbon buildup.

3.5 The High Compressor Turbine Stator exhibited no evidence of cracking or burning.

3.6 The Diffuser Tube Assy. exhibited no obvious defects.

3.7 The Gas. Gen. Case Apex area exhibited normal erosion.

3.8 The Impeller exit area exhibited no defects.

3.9 The IC Case entry area to the high pressure compressor exhibited no protective coating loss or corrosion.

3.10 The Fan Compressor Stator exhibited minor leading-edge erosion with no obvious corrosion noted.

4.0 Conclusion:

4.1 The Logbook history goes back to original manufacture date.

4.1.1 Noted engine runs from post last logbook entry are to be supplied by xxxxx, Inc.

4.1.2 Ground performance compared to original manufacture Test Data indicates very little change.

4.2 The Visual inspection is noted as cleaner than expected condition, based off the reported TSN.

4.2.1 It was noted that the engine exhibited no external protective coating loss.

4.3 The Borescope inspection exhibited.

4.3.1 HP Blade normal erosion.

4.3.1.1 The HP Blades visual borescope inspection should be considered clean.

4.3.2 CC Liner exhibited heat distress.

4.3.2.1 The CC Liner will require extensive rework during up coming overhaul event and has a risk of being unrepairable.

4.3.3 The HP Vane exhibited no obvious heat distress and the visual borescope inspection of the vane should be considered clean.

4.3.4 The Compressor Case Assembly is noted as clean with only normal wear noted.

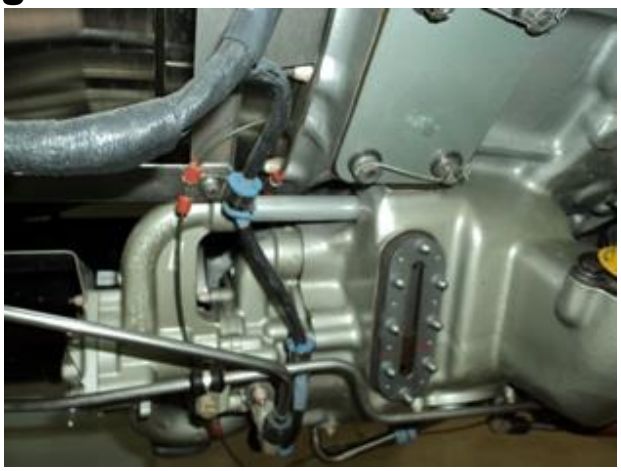
4.3.5 The High Pressure Compressor area is noted as clean with no obvious defects.

4.3.6 IC Case internal housing condition was clean with no corrosion or heavy erosion being noted.

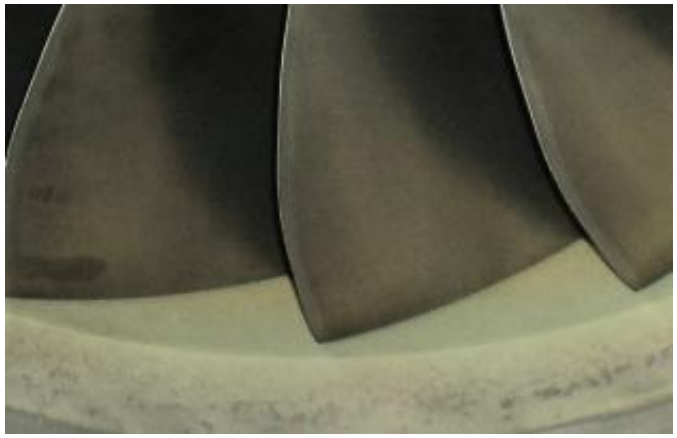
_____

Name
Engine Management Specialist LLC
September 25, XXXX

External Engine Views



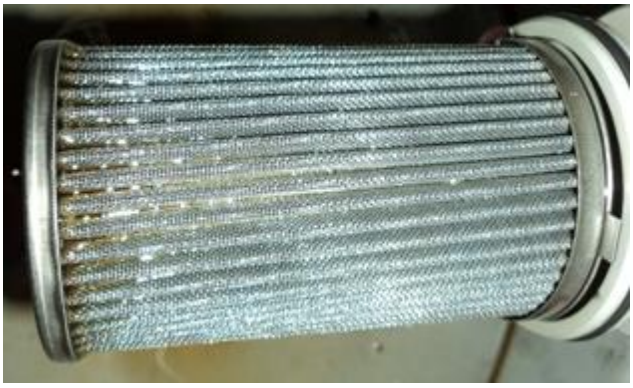
Fan Compressor Assembly

Inlet Compressor Stator Assembly


Turbine Exhaust Area

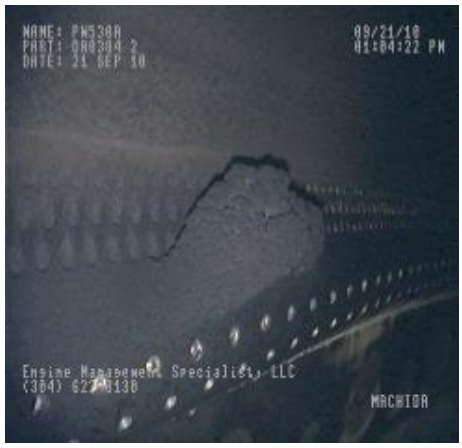

Oil Filter



High Pressure Compressor Inlet

Inlet Compressor Case Area

CC Liner Area (Note heat distress, cracking and carbon buildup)



HP Blade Turbine Area

HP Vane Area