



**Williams International**

## **CERTIFICATE OF CONFORMANCE**

**WILLIAMS INTERNATIONAL HEREBY CERTIFIES THAT ALL ARTICLES WITHIN THIS SHIPMENT CONFORM IN ALL ASPECTS TO THE PURCHASE ORDER, DRAWING, SPECIFICATIONS AND STANDARDS AS DEFINED BY CONTRACT. RECORDS OF INSPECTION RESULTS FOR ITEMS INCLUDED WITHIN THIS CERTIFICATION ARE ON FILE AND MAY BE REVIEWED UPON REQUEST.**

CUSTOMER ORDER: C172425 CUSTOMER P.O.: 139006 SHIPPER/INVOICE: N/A

<u>ITEMS</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>REV</u>	<u>QTY</u>	<u>SERIAL NUMBER</u>
1	79400-201 CIRRUS ENGINE	Turbo-Fan Engine, FJ33-5A	L	1	233612

**REMARKS:**

DATE OF EXECUTION: 02, Dec 2016

SIGNATURE OF WILLIAMS INTERNATIONAL REPRESENTATIVE:

TITLE OF WILLIAMS INTERNATIONAL REPRESENTATIVE:

Quality Assurance, Assembly & Test, Ogden

AUTHORIZED CUSTOMER REPRESENTATIVE SIGNATURE & DATE:

N/A

FJ33-5A TURBOFAN ENGINE  
ACCEPTANCE TEST PERFORMANCE SUMMARY  
WILLIAMS INTERNATIONAL CO., L.L.C.

Eng P/N: 79400-201	Eng S/N: 233612	Eng Bld: 1	Test Date: 12/02/2016
ATRC Ver:	Date:	Thrust Tare: 5.484	Test Cell: O5
CFG Ver: CP406.01.05.00	Date: 05/23/2014	Pc1: 2.0038	Oil Type: MOBIL JET II
Acq Ver: CP318.01	Date: 05/08/2009	Pc2: 2.0189	Exh Noz: TL-240986
Inlet: TL-240923	Inlet Cd: 0.995	Inlet Dia: 16.515	SPLHV: 18400
Fuel Type: OG TANK 4	Spec Grav: 0.7999	Temp Slope: 0.000408	LHV: 18616
Dir: FJ33-5A_CP406/161201195851			

Trim Summary

N1 Trim Value 112  
N1 Trim Speed (SLS, 59F Dry Day, Uninst) 21775 rpm

Performance at Take-off Trim Speed (Referred to SLS, 59F Dry Day, Uninstalled, 14° Vectored Nozzle)

PARAMETER	ACTUAL	ALLOWABLE	DEVIATION
FN	1829 lbf	1825 (min) 1894 (max)	0
ITT	1845 R	1920 (max)	0
N2	48899 rpm	49383 (max)	0

Performance at 1814 lbf Thrust (Referred to SLS, 59F Dry Day, Uninstalled, 14° Vectored Nozzle)

PARAMETER	ACTUAL	ALLOWABLE	DEVIATION
SFC	0.493 lbm/hr/lbf	0.510 (max)	0.000

Ground Idle Thrust (Referred to Sea Level Static, 59F Dry Day, Uninstalled, 14° Vectored Nozzle)

PARAMETER	ACTUAL	ALLOWABLE	DEVIATION
Thrust	82 lbf	100 (fig A7)	0
N2	27790 rpm	N/A	N/A

Acceleration Time (Flight Idle to 95% Take-off Thrust)

PARAMETER	ACTUAL	MAX ALLOWABLE	DEVIATION
Time (Corr. to STD)	5.6 seconds	5.7 (fig A3)	0.0
TT2	30.0 F	N/A	N/A
PT2	12.591 psia	N/A	N/A

Deceleration Time (Takeoff to 95% of Change from Take-off Thrust to Flight Idle Thrust)

PARAMETER	ACTUAL	MAX ALLOWABLE	DEVIATION
Time (Corr. to STD)	5.9 seconds	6.3 (fig A6)	0.0
TT2	26.9 F	N/A	N/A
PT2	12.578 psia	N/A	N/A

Mechanical Systems Performance (Steady-State)

PARAMETER	ACTUAL	ALLOWABLE	DEVIATION
Max Main Oil Temp	140.3 F	275.0	0.0
Min Main Oil Press	56.4 psig	35.0	0.0
Max Main Oil Press	85.1 psig	120.0	0.0

PARAMETER	ACTUAL	ALLOWABLE	DEVIATION
Oil Consumption	<u>.007</u> gal/hr	0.012 (max)	<u>0.0</u>
Engine Dry Weight	<u>297.2</u> lb	318.5 (max)	<u>0.0</u>
Total Engine Run Time	<u>3:08</u>		
Total Engine Cycles	<u>15.5</u>		

Engineering David B. Rogers Date: 12/02/2016



FJ33-5A TURBOFAN ENGINE  
ACCEPTANCE TEST PERFORMANCE SUMMARY  
WILLIAMS INTERNATIONAL CO., L.L.C.

Eng P/N: 79400-201	Eng S/N: 233612	Eng Bld: 1	Test Date: 12/02/2016
ATRC Ver:	Date:	Thrust Tare: 5.484	Test Cell: 05
CFG Ver: CP406.01.05.00	Date: 05/23/2014	Pc1: 2.0038	Oil Type: MOBIL JET II
Acq Ver: CP318.01	Date: 05/08/2009	Pc2: 2.0189	Exh Noz: TL-240986
Inlet: TL-240923	Inlet Cd: 0.995	Inlet Dia: 16.515	SPLHV: 18400
Fuel Type: OG TANK 4	Spec Grav: 0.7999	Temp Slope: 0.000408	LHV: 18616
Dir: FJ33-5A_CP406/161201195851			

VIBRATION SURVEY (PEAK LEVELS)

PARAMETER	ACTUAL	MAX ALLOWABLE	DEVIATION
Max 1E HP rad vib	0.69 ips @ 46.404 krpm	1.10	0.00
Max 1E LP rad vib	0.14 ips @ 22.444 krpm	0.25	0.00

Engineering

*David B. Rogers*

Date: 12/02/2016

FJ33-5A TURBOFAN ENGINE  
ACCEPTANCE TEST PERFORMANCE SUMMARY  
WILLIAMS INTERNATIONAL CO., L.L.C.

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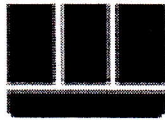
COMPONENT CHECKS WITH ENGINE RUNNING (GROUND IDLE)

COMPONENT	MEASUREMENT	ALLOWABLE RANGE	DEVIATION
Fuel Filter Delta P Sw.	3.1	2.0 (min) 4.0 (max)	0.0
Oil Filter Delta P Sw.	3.1	2.0 (min) 4.0 (max)	0.0
Oil Debris Sensor #1	3.8	2.0 (min) 4.0 (max)	0.0
Oil Debris Sensor #2	3.8	2.0 (min) 4.0 (max)	0.0

Engineering

*David B. Rogers*

Date: 12/02/2016



# Williams International

## ENGINE SERIAL NUMBER RECORD P/N: 79400-201

233612

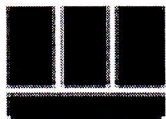
Inspector:



Date: 12-2-16

<u>P/N</u>	<u>S/N</u>	<u>DESCRIPTION</u>
54831	MD-0188183	SENSOR,N2 DUAL MAGNETIC SPEED
57847	GE-5989	INDICATOR,FUEL FILTER,ELECT
61027	WL20061	COVER, OIL TANK
61250	SBC407B3	SEAL ASSY,RING SEAL
61250	SBC407B5	SEAL ASSY,RING SEAL
61359	MW0132	#4 BEARING INNER RACE
65310	TX79V33	SEAL ASSY RING SEAL
67906	CK1600020	PLUG, IGNITER
67906	CK1600027	PLUG, IGNITER
69733	YYV075	PICKUP ASSY MAGNETIC-SPEED LP
70292	BL-20990	EXCITER,IGNITION,SPARK GAP
71593	BG95	GEAR,BEVEL,DAMPED 1ST RDCND
77569	YYF000031	ITT PROBE,HARNESS ASSY
79368	JT-121029	BEARING, ASSY, ROLLER, OUTER GUIDED
79368	JT-121030	BEARING, ASSY, ROLLER, OUTER GUIDED
79369	JT-119499	BEARING, BALL, DEEP GROOVE
79370	JT-119378	BEARING, ROLLER, CYL - OD FLANGE
79387	MFI41570	HOUSING ASSY, #1 BEARING
79408	HW42127	* ROTOR,FAN,16 BLADE,SWEPT BACK
79538	HW43561	1ST LPT DISC
79582	ADM000041	HOUSING, CARBON RING SEAL & BRG RET
79857	TX51R83	RUNNER, SEAL, LP SHAFT, FRONT
110930	BCC1BCD0305	NOZZLE ASSY, FUEL, FJ33
111127	HW30820	HP TURBINE DISC
113073	AU20020	IP STATOR, STAGE III
113472	**JT86896	BEARING, BALL SPLIT INNER RING





# Williams International

## ENGINE SERIAL NUMBER RECORD P/N: 79400-201

233612

Inspector:

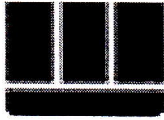


Date:

12-2-14

<u>P/N</u>	<u>S/N</u>	<u>DESCRIPTION</u>
113653	TX645A8	SEAL ASSY, FACE, CARBON
113762	AXT0101284	PT2 PRESSURE SENSOR DUAL
114914	AU20018	SEAL ASSY, REAR, FUEL SLINGER
114944	AXT0201820	TT2 DUAL TEMP SENSOR W/ PRESS PORT
114944	AXT0201874	TT2 DUAL TEMP SENSOR W/ PRESS PORT
114947	AU20020	COVER ASSY, HP COMPRESSOR
115015	KM-0686	INDICATOR, LATCHING, DEL P, OIL FILTER
115470	AU20001	SEAL & FUEL SLINGER ASSY
118925	RX06RY067	SHAFT, HIGH PRESSURE
119349	AU20015	VANE ASSY, IPC STATOR STG 1&2
121281	RX08TX0018	SHAFT ASSY, COMPLETE, L.P.
121305	HW41787	ROTOR ASSY, IP CPRSR BALANCED
121373	AU20050	FUEL MANIFOLD ASSEMBLY
121535	PP 2139	COOLER, LUBE OIL
122721	HW41065	ROTOR, HP COMPRESSOR
123326	JT71005	BEARING, ROLLER, INNER GUIDED
123420	BW0003	HARNESS ASSY, ENGINE DUAL FADEC
123442	AU20100	SUPPORT, BRG, 1ST RDCN BVL GEAR
123443	SBC364B2	RUNNER, HP SHAFT SEAL, FRONT
123459	AU20059	HSG ASSY, NOZZLE/HEATSHIELD, 1ST LP
123492	GG 031	TOWERSHAFT, ACCESSORY DRIVE
123899	AU20008	CASE ASSEMBLY, DIFFUSER
124397	MFI41438	CASE AND INSERT ASSEMBLY
124559	MX20019	PUMP ASSY, LUBE AND SCAVENGE
124611	WL20014	BEARING AND PINION ASSEMBLY





# Williams International

ENGINE SERIAL NUMBER RECORD  
P/N: 79400-201

233612

Inspector:

Date:

12-2-16



<u>P/N</u>	<u>S/N</u>	<u>DESCRIPTION</u>
125558	HW42284	2ND LPT DISC
125572	HW30820	ROTOR ASSY, HP TURBINE
125575	AU20009	HOUSING ASSY, INTERSTAGE
126004	<del>WL20053</del> <i>WL20054</i> <i>u</i>	DUAL CHANNEL ECU ASSEMBLY <i>WL20057</i>
126038	GG0091	NUT, RETAINER, AXIAL CPRSR
126081	CL5ATW1112	FUEL CONTROL UNIT
126113	AU20020	COMBUSTOR ASSEMBLY
126140	AU20014	KIT-LPT MOD ASSY
126656	MX20001	GEARBOX ASSEMBLY, ACCESSORY DRIVE

# FJ Component Life Limited Card

THIS LOG MUST REMAIN WITH THE ENGINE LOGBOOK IN WHICH THE COMPONENT IS INSTALLED  
REFER TO CHAPTER 5 OF THE APPROPRIATE MAINTENANCE MANUAL FOR COMPONENT LIFE LIMITS



Williams International

PN: 79408

S/N: HW42127

ROTOR,FAN,16 BLADE,SWEPTBACK

REMOVED	INSTALLED	ENGINE SERIAL NUMBER	DATE	HOURS					CYCLES				AUTHORIZED SIGNATURE AND NUMBER
				ENGINE HOURS AT INSTALL	ENGINE HOURS AT REMOVAL	PART HOURS AT INSTALL	PART HOURS AT REMOVAL		ENGINE CYCLES AT INSTALL	ENGINE CYCLES AT REMOVAL	PART CYCLES AT INSTALL	PART CYCLES AT REMOVAL	
	X	233612		0	NA				0	NA			
X				NA					NA				
	X				NA					NA			
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Williams International

PN: 121305

S/N: HW41787

ROTOR ASSEMBLY, IP COMPRESSOR

REMOVED	INSTALLED	ENGINE SERIAL NUMBER	DATE	HOURS					CYCLES				AUTHORIZED SIGNATURE AND NUMBER
				ENGINE HOURS AT INSTALL	ENGINE HOURS AT REMOVAL	PART HOURS AT INSTALL	PART HOURS AT REMOVAL		ENGINE CYCLES AT INSTALL	ENGINE CYCLES AT REMOVAL	PART CYCLES AT INSTALL	PART CYCLES AT REMOVAL	
	X	233612		0	NA				0	NA			
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6114 JAN 2013



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Williams International

PN: 122721 S/N: HW41065

ROTOR, HP COMPRESSOR

REMOVED	INSTALLED	ENGINE SERIAL NUMBER	DATE	HOURS					CYCLES				AUTHORIZED SIGNATURE AND NUMBER
				ENGINE HOURS AT INSTALL	ENGINE HOURS AT REMOVAL	PART HOURS AT INSTALL	PART HOURS AT REMOVAL		ENGINE CYCLES AT INSTALL	ENGINE CYCLES AT REMOVAL	PART CYCLES AT INSTALL	PART CYCLES AT REMOVAL	
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	X				NA					NA			
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	X				NA					NA			



# FJ Component Life Limited Card

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Williams International

PN: 111127 S/N: HW30820

HP TURBINE DISC

REMOVED	INSTALLED	ENGINE SERIAL NUMBER	DATE	HOURS					CYCLES				AUTHORIZED SIGNATURE AND NUMBER
				ENGINE HOURS AT INSTALL	ENGINE HOURS AT REMOVAL	PART HOURS AT INSTALL	PART HOURS AT REMOVAL		ENGINE CYCLES AT INSTALL	ENGINE CYCLES AT REMOVAL	PART CYCLES AT INSTALL	PART CYCLES AT REMOVAL	
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	X				NA					NA			



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Williams International

PN: 79538

S/N: HW43561

1ST LPT DISC

REMOVED	INSTALLED	ENGINE SERIAL NUMBER	DATE	HOURS					CYCLES				AUTHORIZED SIGNATURE AND NUMBER
				ENGINE HOURS AT INSTALL	ENGINE HOURS AT REMOVAL	PART HOURS AT INSTALL	PART HOURS AT REMOVAL		ENGINE CYCLES AT INSTALL	ENGINE CYCLES AT REMOVAL	PART CYCLES AT INSTALL	PART CYCLES AT REMOVAL	
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X				NA					NA				
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X				NA					NA				
	X				NA					NA			
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X				NA					NA				
	X				NA					NA			



# FJ Component Life Limited Card

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Williams International

PN: 125558 S/N: HW42284

2ND LPT DISC

REMOVED	INSTALLED	ENGINE SERIAL NUMBER	DATE	HOURS					CYCLES				AUTHORIZED SIGNATURE AND NUMBER
				ENGINE HOURS AT INSTALL	ENGINE HOURS AT REMOVAL	PART HOURS AT INSTALL	PART HOURS AT REMOVAL		ENGINE CYCLES AT INSTALL	ENGINE CYCLES AT REMOVAL	PART CYCLES AT INSTALL	PART CYCLES AT REMOVAL	
	X	233612		0	NA				0	NA			
X				NA					NA				
	X				NA					NA			
X				NA					NA				
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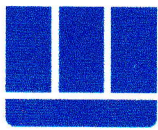


# SERVICE BULLETIN/ AIRWORTHINESS DIRECTIVE RECORD

ENGINE MODEL NUMBER	FJ33-5A	ENGINE SERIAL NUMBER	233612
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[illegible]





# Williams International

## FJ33 SERVICE BULLETIN

### CERTIFICATE OF COMPLIANCE

TO: Operator, Service Center, or Repair Center Performing Service Bulletin

Upon completion of this service bulletin, please fill in the information requested below. Return this information to Williams International by scanning and emailing to [WIProductSupport@williams-int.com](mailto:WIProductSupport@williams-int.com). If email is not available, please fax it to 1(248)-669-9515 or return by regular mail.

Williams International  
2280 E. West Maple Road  
P.O. Box 200  
Walled Lake, MI 48390-0200  
USA  
Attention: Product Support

Engine Part No. 79400-201 Engine Model No. FJ33-5A A/C Serial No. SF50-0009

Engine Serial No. 233612  
No. 1

Engine Time Since New 0.0  
No. 1

Engine Cycles Since New 0  
No. 1

Installed Component Part No. 126151, 126152  
126188, 126189  
No. 1

Installed Component Serial No. N/A  
No. 1

Installed Component Time Since New 0.0  
No. 1

Installed Component Cycles Since New 0  
No. 1

Date of Compliance: 9 JAN 17

I certify the following service bulletin has been accomplished:

Service Bulletin Title: **Engine Fuel and Control – Fuel Tube Assemblies – Replace**

Print Name: Clayton C. Law

Signature: Clayton C. Law Date: 9 JAN 2017

Title: Tech Rep Representing: WI

**Williams International****SERVICE RECORD**ENGINE MODEL NUMBER: FJ33-5AENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES
0009	SFSO		9 JAN 17	DLH				0.0	0

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1	Tube, Fuel, FDU to Oil Cooler	126151	N/A	0.0	0		
2	Tube, Fuel, Oil Cooler to FDU	126152	N/A	0.0	0		
3	Tube, Fuel, FDU to Flowmeter	126188	N/A	0.0	0		
4	Tube, Fuel, Flowmeter to Manifold	126189	N/A	0.0	0		
5							
6							
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
1	R&R Tube, Fuel, FDU to Oil Cooler p/n 114269 w/new, updated part.
2	R&R Tube, Fuel, Oil Cooler to FDU p/n 11453 w/new, updated part.
3	R&R Tube, Fuel, FDU to Flowmeter p/n 11190 w/new, updated part.
4	R&R Tube, Fuel, Flowmeter to Manifold p/n 11189 w/new, updated part.
	All work performed IAW Williams International FJ33-5A SB FJ33-73-001.

REPAIR FACILITY

WORK PERFORMED BY Chris Saw

CERTIFICATE NUMBER

CERTIFICATE NUMBER

334CEW12278

WORK ORDER

DATE

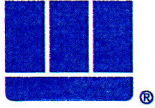
170109-0000319 JAN 2017

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☒ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service.

PAGE 1



**Williams International**

## **CERTIFICATE OF CONFORMANCE**

**WILLIAMS INTERNATIONAL HEREBY CERTIFIES THAT ALL ARTICLES WITHIN THIS SHIPMENT CONFORM IN ALL ASPECTS TO THE PURCHASE ORDER, DRAWING, SPECIFICATIONS AND STANDARDS AS DEFINED BY CONTRACT. RECORDS OF INSPECTION RESULTS FOR ITEMS INCLUDED WITHIN THIS CERTIFICATION ARE ON FILE AND MAY BE REVIEWED UPON REQUEST.**

CUSTOMER ORDER: C186669 CUSTOMER P.O.: 158219 SHIPPER/INVOICE: N/A

<u>ITEMS</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>REV</u>	<u>QTY</u>	<u>SERIAL NUMBER</u>
1	126188	T/A, Fuel, FDU To Flow Met.	NC	61	NSN
2	126152	T/A, Fuel, CLR To FDU	NC	61	NSN
3	126151	T/A, Fuel, FDU To CLR	NC	61	NSN
4	126189	T/A, Fuel, Flow To Manifold	NC	61	NSN

REMARKS: N/A

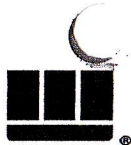
DATE OF EXECUTION: 21 December 2016

SIGNATURE OF WILLIAMS INTERNATIONAL REPRESENTATIVE:

TITLE OF WILLIAMS INTERNATIONAL REPRESENTATIVE:  
Lead Technician Quality Assurance

AUTHORIZED CUSTOMER REPRESENTATIVE SIGNATURE & DATE: N/A  
2280 E. West Maple Road • Post Office Box 200 • Walled Lake, MI 48390-0200 USA





Williams International

# SERVICE RECORD

ENGINE MODEL NUMBER: FJ33-5A

ENGINE SERIAL NUMBER: 233612

A/C SERIAL NUBMER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES
0009	SFSO	N17CX	6 MAR 17	DLH				0.0	0

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1	ECU (Engine Control Unit)	126004	WL20057	0.0	0		
2							
3							
4							
5							
6							
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
1	RE ECU PIN 126004, SIN WL20053 w/new part to support Fault 49 Bit
—	TLA-SENSE-LOST, T/S
	All work performed IAW Williams International FJ33-SA LMM Ch. 73-26-01 Rev 3
	(16 DEC 16)

REPAIR FACILITY

WORK PERFORMED BY

*Clay Shaw*

CERTIFICATE NUMBER

334CE

CERTIFICATE NUMBER

W12298

WORKORDER

170301-000086

DATE

6 MAR 2017

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☒ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service.

PAGE 2



1. Approving Civil Aviation Authority/Country:  FAA/UNITED STATES		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number  SF50-0009 170301-000086	
4. Organization Name and Address:  Williams International    2280 E. West Maple Road    Walled Lake, MI 48390-0200    FAA Repair Station WI5R335J					5. Work Order/Contract/Invoice Number: 170301-000086	
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
1	ECU (DUAL CHANNEL ECU ASSEMBLY)	126004	ONE	WL20057	INSPECTED	
12. Remarks:  NEW/UNUSED ARTICLE  Certifies that the work specified in Block 11/12 was carried out in accordance with EASA Part 145 and in respect to that work the article is considered ready for release to service under EASA Part 145 Approval Number: EASA.145.5019.    HOURS: 0                      CYCLES: 0						
13a. Certifies the items identified above were manufactured in conformity to:  <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.				14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input checked="" type="checkbox"/> Other regulation specified in Block 12  Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, Part 43 and in respect to that work, the items are approved for return to service.		
13b. Authorized Signature:		13c. Approval/Authorization No.:		14b. Authorized Signature:		14c. Approval/Certificate No.:
						WI5R335J
13d. Name (Typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):
				Clayton C Law		06/MAR/2017
<b>User/Installer Responsibilities</b>						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.						
Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s) / propeller(s) / article(s) from the airworthiness authority of the country specified in Block 1.						
Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						





Williams International

# SERVICE RECORD

ENGINE MODEL NUMBER: FJ33-5A

ENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES
0009	SF50	N17CX	8MAR17	DLH				0.0	0

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1	Tube Assy, Fuel, FDU to Flowmeter	126188	N/A	0.0	0		
2	Nipple, Tube	MS9193-08	N/A	0.0	0		
3							
4							
5							
6							
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
1	R & R Tube Assy, Fuel - FDU to Flowmeter P/N 126188 w/new for fuel leakage
2	R & R Nipple, Tube P/N MS9193-08 w/new for fuel leakage
	All work performed IAW Williams International FJ33-5A LMM Ch 73-10-01, 73-19-02
	Rev 3 (16 DEC 16)

REPAIR FACILITY

WORK PERFORMED BY

CERTIFICATE NUMBER

CERTIFICATE NUMBER

WORK ORDER

DATE


I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☒ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service.

PAGE 3



1. Approving Civil Aviation Authority/Country:  FAA/UNITED STATES		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number  SF50-0009 170308-000048	
4. Organization Name and Address:  Williams International    2280 E. West Maple Road    Walled Lake, MI 48390-0200    FAA Repair Station WI5R335J					5. Work Order/Contract/Invoice Number: 170308-000048	
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
1	TUBE ASSY (FUEL,FDU TO FLOW METER)	126188	ONE	N/A	INSPECTED	
12. Remarks:  NEW/UNUSED ARTICLE  Certifies that the work specified in Block 11/12 was carried out in accordance with EASA Part 145 and in respect to that work the article is considered ready for release to service under EASA Part 145 Approval Number: EASA.145.5019.  HOURS: 0                      CYCLES: 0						
13a. Certifies the items identified above were manufactured in conformity to:  <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.				14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input checked="" type="checkbox"/> Other regulation specified in Block 12  Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, Part 43 and in respect to that work, the items are approved for return to service.		
13b. Authorized Signature:		13c. Approval/Authorization No.:		14b. Authorized Signature: 		14c. Approval/Certificate No.: WI5R335J
13d. Name (Typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed): Clayton C Law		14e. Date (dd/mm/yyyy): 06/MAR/2017
<b>User/Installer Responsibilities</b>						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.						
Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s) / propeller(s) / article(s) from the airworthiness authority of the country specified in Block 1.						
Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						



1. Approving Civil Aviation Authority/Country:  FAA/UNITED STATES		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number  SF50-0009 170308-000048	
4. Organization Name and Address:  Williams International    2280 E. West Maple Road    Walled Lake, MI 48390-0200    FAA Repair Station WI5R335J					5. Work Order/Contract/Invoice Number: 170308-000048	
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
1	NIPPLE, TUBE	MS9193-08	ONE	N/A	INSPECTED	
12. Remarks:  NEW/UNUSED ARTICLE  Certifies that the work specified in Block 11/12 was carried out in accordance with EASA Part 145 and in respect to that work the article is considered ready for release to service under EASA Part 145 Approval Number: EASA.145.5019.  HOURS: 0                      CYCLES: 0						
13a. Certifies the items identified above were manufactured in conformity to:  <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.				14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input checked="" type="checkbox"/> Other regulation specified in Block 12  Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, Part 43 and in respect to that work, the items are approved for return to service.		
13b. Authorized Signature:		13c. Approval/Authorization No.:		14b. Authorized Signature: 		14c. Approval/Certificate No.: WI5R335J
13d. Name (Typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed): Clayton C Law		14e. Date (dd/mm/yyyy): 06/MAR/2017
<b>User/Installer Responsibilities</b>						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.						
Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s) / propeller(s) / article(s) from the airworthiness authority of the country specified in Block 1.						
Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						





Williams International

# SERVICE RECORD

ENGINE MODEL NUMBER: FJ33-5A

ENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES
0009	SFSO	N17CX	11MAR17	DLH				1.6	2

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1	Oil Debris Sensor - Gearbox	67976-01	DA-0200	1.6	2		
2	Self-Closing Valve - Gearbox	67976-02	DA-0188	1.6	2		
3	Screen, oil - Gearbox	44482	N/A	1.6	2		
4	Oil Debris Sensor - Lube Pump	67976-01	DA-0158	1.6	2		
5	Self-Closing Valve - Lube Pump	67976-02	DA-0131	1.6	2		
6	Screen Assy - Lube Pump	50653	N/A	1.6	2		
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
1-6	Removed, cleaned, visually inspected and performed electrical resistance checks - SAT. Re-assembled engine using original parts. due to Oil Debris CAS message
	All work performed IAW Williams International FJ33-5A LMM Ch 79-30-02 Rev 3
	(16 DEC 16)

REPAIR FACILITY

WORK PERFORMED BY

*Clay Jao*

CERTIFICATE NUMBER

334ICE

CERTIFICATE NUMBER

LI2298

WORK ORDER

170310-000014

DATE

11 MAR 2017

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☒ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service.

PAGE

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# SERVICE RECORD



Williams International

ENGINE MODEL NUMBER: **FJ33-5A**

ENGINE SERIAL NUMBER: **233612**

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES
0009	SF50	N17CX	13MAR17	DLH				2.2	3

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1	Oil Filter Analysis Kit	120241	N/A	0.0	0		
2	Oil Filter	119281	N/A	0.0	0		
3	Oil, Engine 3quarts	Mobil Jet II					
4							
5							
6							
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
1-3	Re Oil Filter for analysis - changed engine oil due to Oil Debris CTS message All work performed 1AW Williams International FJ33-5A LMM Ch. 72-00-03 and 72-00-05 and 79-21-01 Rev 3 (16DEC16)

REPAIR FACILITY

WORK PERFORMED BY

*Clay Law*

CERTIFICATE NUMBER

**334CE**

CERTIFICATE NUMBER

**W1229B**

WORKORDER

**170310-000014**

DATE

**13 MAR 2017**

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:


- ☒ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service

PAGE

**4 of 5**



1. Approving Civil Aviation Authority/Country: <b>FAA/United States</b>		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG		3. Form Tracking Number: <b>400237200</b>										
4. Organization Name and Address: <b>Williams International, 2280 E. West Maple Road, Walled Lake, MI 48390</b> Production Certificate No. 334CE				5. Work Order/Contract/Invoice Number: <b>400237200</b>										
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:									
1	Kit, Oil Analysis	120241	1	N/A	NEW									
12. Remarks: Airworthiness Approval														
<table border="1"> <thead> <tr> <th>QTY</th> <th>PART NUMBER</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>119281</td> <td>FILTER, OIL</td> </tr> <tr> <td>1</td> <td>M83248/1-326</td> <td>O-RING, .139W 1.984ID</td> </tr> </tbody> </table>						QTY	PART NUMBER	DESCRIPTION	1	119281	FILTER, OIL	1	M83248/1-326	O-RING, .139W 1.984ID
QTY	PART NUMBER	DESCRIPTION												
1	119281	FILTER, OIL												
1	M83248/1-326	O-RING, .139W 1.984ID												
History on file and available for review at Williams International. Parts identified in block 12 are contents for one lot.														
13a. Certifies the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.														
13b. Authorized Signature: 		13c. Approval/Authorization No.: <b>ODA-100175-CE</b>												
13d. Name (Typed or Printed): <b>TORREY ROYSTER</b>		13e. Date (dd/mm/yyyy): <b>04 Jan 2017</b>												
<b>User/Installer Responsibilities</b> It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that higher airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 13e do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.														



**Williams International**  
The Power of Vision

PRODUCT SUPPORT



**Subject**

**SF50-0009 Oil Filter Analysis for ESN 233612**

**Question Reference # 170314-000080**

Assigned: Valeriy Rozhko

Date Created: 03/14/2017 06:02 PM

Date Last Updated: 03/14/2017 09:43 PM

Status: Solved

Response By Email (Val Rozhko) (03/14/2017 09:43 PM)

Dear Clayton,

We have completed Scanning Electron Microscope analysis of the oil filter submitted for engine 233612. After reviewing the results of the analysis, our oil filter analysis recommendation for the engine is: Normal; Use engine with no further evaluation required - continue with normal maintenance schedule.

Sincerely,

Val Rozhko

Williams International

For support by phone:

1-800-859-3544 (US)

1-248-960-2929 (Outside of US)

Customer By CSS Email (FADEC FADEC) (03/14/2017 06:02 PM)

Oil Analysis Alert Messages:

Analysis Details: Filter Ready

'Filter Ready'



Field | Oil Filter Analysis | Engine Model: FJ44-5A | EPN: 79400-201 | ESN: 233612 |  
Debris Weight (mg): 6.89999 | Engine Hours: 1.6 | Engine Cycles: 2.0 | Hours on  
Filter: 1.6 | Contact Email(s): [claw@williams-int.com](mailto:claw@williams-int.com)

Analysis Details: No or Low Filter Hours

'Filter Hours'

1.6

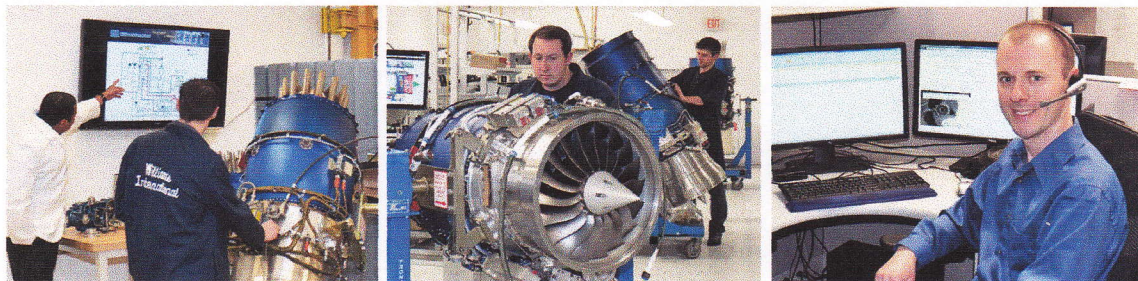
Click link to update action: [http://prodweb/FADEC/Default.aspx?  
pRunID=dmQAjMbjLTU%3D](http://prodweb/FADEC/Default.aspx?pRunID=dmQAjMbjLTU%3D)

WILLIAMS INTERNATIONAL THE POWER OF VISION

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This e-mail message does not form a binding contract or contract amendment with the sender, unless it clearly states in writing that it is a contract or contract amendment.



# SERVICE RECORD



Williams International

ENGINE MODEL NUMBER: **FJ33-SA**

ENGINE SERIAL NUMBER: **233612**

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES
0009	SFSO	N17CX	17MAR17	DLH				5.8	7

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1	Oil Debris Sensor - Gearbox	67976-01	DA-0139	0.0	0		
2	Self-Closing Valve - Gearbox	67976-02	DA-0112	0.0	0		
3	Oil Debris Sensor Assy	67976	DA-0003	0.0	0		
4	Oil Debris Sensor - Luke Pump	67976-01	DA-0193	0.0	0		
5	Self-Closing Valve - Luke Pump	67976-02	DA-0182	0.0	0		
6	Oil Debris Sensor Assy	67976	DA-0231	0.0	0		
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
1-6	R&R Oil Debris Sensor & Self-Closing Valves (Gearbox) P/N 67976-01, S/N DA-0200
—	P/N 67976-02, S/N DA-0188 - Assy P/N 67976, S/N DA-0237 w/ new part due
—	to oil debris CAS. R&R Oil Debris Sensor & Self-Closing Valve (Luke Pump) P/N 67976
—	01, S/N DA-0150, P/N 67976-02, S/N DA-0131 - Assy P/N 67976, S/N DA-0022 w/new
—	part due to oil debris CAS.
	All work performed IAW Williams International FJ33-SA LMM Ch 79-30-02 Rev 3
	(16 DEC 16)

REPAIR FACILITY

WORK PERFORMED BY *Clay Saw*

CERTIFICATE NUMBER **337CE**

CERTIFICATE NUMBER **WI 2293**

WORKORDER **170310-000014**

DATE **17 MAR 2017**

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☒ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service.



ENGINE MODEL NUMBER: **FJ33-5A**ENGINE SERIAL NUMBER: **233612**

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1							
2	ENGINE MODEL (#1): <i>General Enterprises b.v.</i>	<b>General Enterprises b.v.</b> Machlaan 8A 9761TK Eelde The Netherlands Phone: +31-50-3096060		DATE: 24 augustus, 2017 Airframe TT: ENG TT (#1): ENG TC (#1): FLIGHTTIME: 96.8			
3	ENGINE S/N (#1): REG. NO: N124MMW WORK ORDER: 10847-06-2017						
4	<b>Engine #1 Entries</b>						
5	I hereby certify that this airframe has been inspected in accordance with 100 hrs inspection guide lines and was determined to be in airworthy condition in accordance with AMM P/N: 31448-001 ORIGINAL [ISSUE 21 Dec 2016...]. Performed FADEC trouble shooting i.a.w. Williams LMM. Flipped FADEC/ECU i.a.w. 71-00-00-810-877. Performed bonding check and operational test, found satisfactory. Refer to WISL-71-1022.						
6							
7							

ITEM NUMBER	GE (I.E)

DATE: 24 augustus, 2017

SIGNED:

H. Oostenveen GE8, A&amp;P, 25889791A

Work Order: 10847-06-2017

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1 of 1

REPAIR FACILITY \_\_\_\_\_  
WORK PERFORMED BY \_\_\_\_\_CERTIFICATE NUMBER \_\_\_\_\_  
CERTIFICATE NUMBER \_\_\_\_\_WORKORDER \_\_\_\_\_  
DATE \_\_\_\_\_

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☐ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service.

PAGE \_\_\_\_\_





## SERVICE RECORD

ENGINE MODEL NUMBER: FJ33-5A

ENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1							
2	ENGINE MODEL: FJ33-5A ENGINE SN: 233612 REG. NO: N124MMW WORK ORDER: 11564-04-2018						
3							
4							
5							
6							
7							



Machlaan 8A  
9761TK Eelde The Netherlands  
Phone: +31 (0)50 3096060

DATE: 30 april, 2018  
Airframe TT: 67.1  
ENG TT: 205.9  
ENG TC: 161.9  
ENG TCSC: 150  
HOBBS: 208.8

### Engine Entries

I hereby certify that this engine has been inspected in accordance with annual inspection guide lines and was determined to be in airworthy condition. AD search thru Bi weekly issue 2018-9, no AD's applicable AD's found... Viewed, cleared and saved Time Limited Dispatch Faults i.a.w. Williams LMM.

Pertinent details of the repair are on file under Work Order No. 11564-04-2018, Dated 30 april, 2018.

DATE: 30 april, 2018

SIGNED:

Work Order: 11564-04-2018

H. Oosterveen GE8, License: 258897AA

Printed by EBis 3 (datcomedia.com)

ITEM NUMBER	GENE (I.E. F

1 of 1

REPAIR FACILITY \_\_\_\_\_  
WORK PERFORMED BY \_\_\_\_\_

CERTIFICATE NUMBER \_\_\_\_\_  
CERTIFICATE NUMBER \_\_\_\_\_

WORKORDER \_\_\_\_\_  
DATE \_\_\_\_\_

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☐ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY)



and the engine identified above is presently airworthy and approved for return to service.

PAGE \_\_\_\_\_

ENGINE MODEL NUMBER: FJ33-5AENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1							
2							
3							
4							
5							
6							
7							

ITEM NUMBER	GENERAL (I.E. REM)			Repair Station No. NL 145 1305/GNSY577X/NL MG.8305 Machlaan 8A 9761TK Eelde The Netherlands Phone: +31 (0)50 3096060	DATE: 24 augustus, 2018 Airframe TT: 181.8 ENG TT (#1): 223.8 ENG TC (#1): 161.9 ENG TCSO (#1): 150 FLIGHTTIME: 181.8
		<b>Engine #1 Entries</b> Complied with Williams service letter WISL-76-1000. Replaced trigger pin and adjusted to correct specifications i.a.w. LMM FJ33-5 revision 9. Pertinent details of the repair are on file under Work Order No. 11620-05-2018, Dated 24 augustus, 2018. DATE: 24 augustus, 2018      SIGNED:  Work Order: 11620-05-2018 W. Harens GE11      Printed by EBis 3 (datcomedia.com) Certified Repair Station No. NL 145.1305/GNSY577X/NL MG.8305			

REPAIR FACILITY \_\_\_\_\_  
WORK PERFORMED BY \_\_\_\_\_CERTIFICATE NUMBER \_\_\_\_\_  
CERTIFICATE NUMBER \_\_\_\_\_WORKORDER \_\_\_\_\_  
DATE \_\_\_\_\_

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☐ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY) \_\_\_\_\_

and the engine identified above is presently airworthy and approved for return to service.

PAGE \_\_\_\_\_



ENGINE MODEL NUMBER: FJ33-5AENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1							
2							
3							
4							
5							
6							
7							

ENGINE MODEL (#1):  
FJ33-5A  
ENGINE S/N (#1): 233612  
REG. NO: N124MR  
WORK ORDER:  
113395-08-2020



Machlaan 6  
9761TK Eelde The Netherlands  
Phone: +31 (0)50 3096060

DATE: 11 augustus, 2020  
Airframe TT: 430.1  
ENG TT (#1): 430.1  
ENG TC (#1): 226  
ENG TCSO (#1): 150  
FLIGHTTIME: 430.1

ITEM NUMBER	GENERAL (I.E. REMOVED)

**Engine #1 Entries**

Performed FADEC download i.a.w. CH 73-26-01 and sent to William for evaluation. Performed in compliance with Williams support and SUBTASK 71-00-00-810-050 step G, resistance measurements at the FCU J11 & J12 Connector, all measurements were within specs. Cleared FADEC faults and performed high power check TASK 71-00-00-760-871. Found no active faults, and system is satisfactory.

Pertinent details of the repair are on file under Work Order No. 113395-08-2020, Dated 11 augustus, 2020 at this Certified Repair Station # GNSY577X

DATE: 11 augustus, 2020

SIGNED:

J. Koops GE7, License: 26448651A

Work Order: 113395-08-2020

Printed by EBis 3 (datcomedia.com)

REPAIR FACILITY \_\_\_\_\_  
WORK PERFORMED BY \_\_\_\_\_

CERTIFICATE NUMBER \_\_\_\_\_  
CERTIFICATE NUMBER \_\_\_\_\_

WORKORDER \_\_\_\_\_  
DATE \_\_\_\_\_

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☐ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY) \_\_\_\_\_

and the engine identified above is presently airworthy and approved for return to service.

PAGE \_\_\_\_\_

## Power Plant – Takeoff Throttle Exceedance – Acceptable for Continued Use

### 1. Planning Information

#### A. Effectivity:

This document applies to the following Williams International turbofan engines:

<u>ENGINE MODEL NUMBER</u>	<u>ENGINE PART NUMBER</u>	<u>ENGINE SERIAL NUMBERS</u>
FJ33-5A	79400-201	233612

#### B. Reason:

The above-listed engine exceeded the takeoff power setting time limit of 300 seconds (5 minutes) per the FJ33-5A Line Maintenance Manual by operating at takeoff power for 411.7 seconds on March 10, 2018, 435.42 seconds on June 23, 2018, and 328.91 seconds on September 16, 2018.

#### C. Compliance:

Not Applicable.

#### D. Coverage:

Not Applicable.

#### E. Description:

Williams International has reviewed the fault data and deemed the engine to be acceptable for continued use. This is a one-time allowance for the events occurring on March 10, 2018, June 23, 2018, and September 16, 2018.

#### F. Approval:

The technical content of this service document is FAA approved as applicable to the engine models and serial numbers identified. It is the aircraft owner/operator responsibility to coordinate with the appropriate aviation authority overseeing the aircraft maintenance and operations, as required, prior to flight.

#### PROPRIETARY INFORMATION

All information and technical data disclosed herein are the property of Williams International and are not to be duplicated or disclosed to others for any purpose without the written consent of Williams International, Pontiac, MI.



## G. Manpower:

Not Applicable.

## H. Material:

Not Applicable.

## I. Tooling Required:

Not Applicable.

## J. Weight and Balance:

Not Applicable.

## K. Electrical Load Data:

Not Applicable.

## L. Software Configuration:

Not Applicable.

## M. References:

FJ33-5A Line Maintenance Manual.

## N. Other Publications Affected:

Not Applicable.

## O. Family Tree Charts of Modification Relationships:

Not Applicable.

## PROPRIETARY INFORMATION

All information and technical data disclosed herein are the property of Williams International and are not to be duplicated or disclosed to others for any purpose without the written consent of Williams International, Pontiac, MI.



Williams International

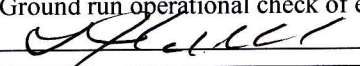
# SERVICE RECORD

ENGINE MODEL NUMBER: FJ33-5A

ENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1							
2							
3							
4							
5							
6							
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
	<div><p align="center"><b>ARAPAHOE AERO</b></p><p align="center">12760 EAST CONTROL TOWER ROAD ENGLEWOOD, COLORADO 80112 (303) 799-8386</p><p align="center">N313BN Williams FJ33-5A S/N: 233612 Total Engine Time: 0507.5</p><p align="center">23 March 2021 Flight Hobbs: 0507.5 Hobbs: 0631.5</p><p align="center">Completed FADEC download and sent to Williams International. No exceedances or current faults noted.</p><p align="center">Ground run operational check of engine found to be normal</p><p align="center"> L. John Wells A&amp;P 3221132 w/o 42076</p></div>

REPAIR FACILITY \_\_\_\_\_  
WORK PERFORMED BY \_\_\_\_\_

CERTIFICATE NUMBER \_\_\_\_\_  
CERTIFICATE NUMBER \_\_\_\_\_

WORKORDER \_\_\_\_\_  
DATE \_\_\_\_\_

I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☐ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY) \_\_\_\_\_

and the engine identified above is presently airworthy and approved for return to service.

PAGE \_\_\_\_\_





Williams International

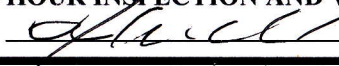
# SERVICE RECORD

ENGINE MODEL NUMBER: FJ33-5A

ENGINE SERIAL NUMBER: 233612

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1							
2							
3							
4							
5							
6							
7							

ITEM NUMBER	GENERAL COMMENTS (I.E. REMOVE PART NUMBER, REMOVE SERIAL NUMBERS, SERVICE BULLETIN NUMBERS, REASON FOR REMOVAL)
	<div><b>ARAPAHOE AERO</b> 12760 EAST CONTROL TOWER ROAD ENGLEWOOD, COLORADO 80112 (303) 799-8386 N313BN Williams FJ33-5A S/N: 233612 Engine Total Time: 0555.2 01 November 2021 Flight Hobbs: 0555.2 Hobbs: 0690.8 Cycles: ____ 100 Hour Inspection for Annual completed using the Cirrus SF-50 Maintenance Manual inspection form as a guide. Completed JetStream 500 Hour Vision Check IV Interval Service using the Cirrus Jetstream Maintenance Inspection form as a guide. Completed Check A of engine. Drained oil and serviced with Mobil Jet II. Next Check A due November 2023. Checked chip detectors, no debris found. Downloaded FADEC data and sent to Williams per service instructions. Complied with Williams FJ33-72-002 (Fan Case Cable Tie) by inspection, tie standoff found to be in correct location, no action required. AD's checked through Bi-weekly 2021-22, no AD's currently apply. Ground run up, leak check and operational check good. I CERTIFY THAT IS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A 100 HOUR INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.  L. John Wells A&amp;P 3221132 w/o 42724</div>

REPAIR FACILITY  
WORK PERFORMED  
I certify that the above

☐ F  
☐ N  
☐ OTHER (SPECIFY)

and the engine identified above is presently airworthy and approved for return to service.

PAGE \_\_\_\_

ENGINE MODEL NUMBER: **FJ33-5A**ENGINE SERIAL NUMBER: **233612**

A/C SERIAL NUMBER	A/C UNIT NUMBER	A/C REGISTRATION NUMBER	DATE	CITY IDENTIFIER	TOTAL A/C HOURS	TOTAL A/C CYCLES	TOTAL A/C LANDINGS	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES

ITEM NUMBER	ITEM NAME / MAINTENANCE ACTION	INSTALLED P/N	INSTALLED SN	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OVERHAUL	CYCLES SINCE OVERHAUL
1							
2							
3							
4							
5							
6							
7							

**ARAPAHOE AERO**

12760 EAST CONTROL TOWER ROAD ENGLEWOOD, COLORADO 80112 (303) 799-8386

**N313BN Williams FJ33-5A S/N: 233612 Engine Total Time: 0579.7****08 March 2022 Flight Hobbs: 0579.7 Hobbs: 0721.2 Cycles: 479****Completed Williams Check 2 and Cirrus JetStream 300 Hour Vision Check III Interval service.**

Installed exchange igniters and fuel start nozzle. Installed new oil and fuel filter. Completed download of FADEC data and sent to Williams. No exceedances or current faults recorded. **Next Check 2 due Flight Hobbs: 900.0. Complied with Williams WISB-72-1026 (Balance Piston Replacement)** by removal of engine. Engine disassembly and repair completed by Williams International, CRS# WISR335J, reference 8130-3 dated 02 Mar 2022, wo 1159343. Reinstalled engine using original hardware and new safeties. Completed Vibration Survey as needed. All readings found to be within limits. **Complied with Williams**

**WISB-74-1006 (Exciter Bracket Replacement)** by installation of new exciter mounting bracket. Installed associated harness brackets and standoffs as needed. Secured igniter leads. Ground run operational and leak checks satisfactory.

 **L. John Wells A&P 3221132**

w/o 43128

REPAIR FACILITY \_\_\_\_\_  
WORK PERFORMED BY \_\_\_\_\_CERTIFICATE NUMBER \_\_\_\_\_  
CERTIFICATE NUMBER \_\_\_\_\_WORKORDER \_\_\_\_\_  
DATE \_\_\_\_\_


I certify that the above stated maintenance and/or inspection was performed in accordance with the current regulations of the:

- ☐ FEDERAL AVIATION ADMINISTRATION  
☐ MINISTRY OF TRANSPORT  
☐ OTHER (SPECIFY) \_\_\_\_\_

and the engine identified above is presently airworthy and approved for return to service.

PAGE \_\_\_\_\_



1. Approving Civil Aviation Authority/Country:  FAA/UNITED STATES		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number  1159343	
4. Organization Name and Address:  Williams International    2000 Centerpoint Parkway    Pontiac, MI 48341    FAA Repair Station W15R335J					5. Work Order/Contract/Invoice Number: 1159343	
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
1	TURBOFAN ENGINE	79400-201	ONE	233612	REPAIRED	
12. Remarks:						
<p>The Williams International Repair Station has performed the necessary unscheduled maintenance in accordance with the FJ33-5A Line Maintenance Manual, Revision 22, and Engine Manual, Revision 20.</p> <p>For additional details, refer to the attached Repair Station Record.</p> <p>Certifies that the work specified in Block 11/12 was carried out in accordance with EASA Part 145 and in respect to that work the engine is considered ready for release to service under EASA Part 145 Approval Number: EASA.145.5019.</p> <p>1) Acceptance testing is required after maintenance. Reference 71-00-00 for appropriate tests.</p> <p>TOTAL HOURS: 579.7                      TOTAL CYCLES: 479</p>						
13a. Certifies the items identified above were manufactured in conformity to:			14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input checked="" type="checkbox"/> Other regulation specified in Block 12			
<input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.			Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, Part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature:		13c. Approval/Authorization No.:		14b. Authorized Signature:		14c. Approval/Certificate No.:
						W15R335J
13d. Name (Typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):
				Lukas Mazurek		02/MAR/2022
<b>User/Installer Responsibilities</b>						
<p>It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.</p> <p>Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s) / propeller(s) / article(s) from the airworthiness authority of the country specified in Block 1.</p> <p>Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.</p>						



WILLIAMS INTERNATIONAL  
ATTN: PRODUCT SUPPORT  
2000 CENTERPOINT PARKWAY  
PONTIAC, MICHIGAN 48341  
(800) 859-3544 or (248) 960-2929

wiproducsupport@williams-int.com



## ENGINE SERVICE AND MAINTENANCE RECORD

ENGINE MODEL NUMBER

FJ33-5A

ENGINE SERIAL NUMBER

233612

ENGINE POSITION

E1-Single

### Aircraft Identification and Status

A/C Serial Number	A/C Registration	TOTAL ENGINE HOURS	TOTAL ENGINE CYCLES
SF50-	0009	579.70	479.00

### Component Changes, Inspections, Service Bulletins, or Airworthiness Directives Accomplished

Transaction No.	Type	Item Description	Installed Part Number	Installed Serial Number	Installed Part Status	HOURS SINCE NEW	CYCLES SINCE NEW	HOURS SINCE OH	CYCLES SINCE OH
1	1	MODULE - COMB ASSY / SLINGER / BAL	125694	50277	R	0.00	0.00		
2	1	COMBUSTOR ASSEMBLY	126113	50277	N	0.00	0.00		
3	1	SEAL & FUEL SLINGER ASSY	115470	20148	R	717.40	962.00		
4	1	SEAL ASSY, REAR, FUEL SLINGER	211076	50168	I	0.00	0.00		
5									
6									
7									
8									
9									
10									
11									
12									
2		Williams International Performed Unscheduled Maintenance							

Transaction Type: 1=Component Change 2=Inspection Accomplished 3=Service Bulletin Accomplished 4=Airworthiness Directive

Installed Part Status: N=New R=Repaired S=Serviceable O=Overhauled M=Modified I=Inspected

Ref No	Removed Part Numbers	Removed Serial Numbers	Item Description	Maintenance Comments
1	125694	AU20020	MODULE - COMB ASSY / SLINGER / BAL	
2	126113	AU20020	COMBUSTOR ASSEMBLY	
3	115470	AU20001	SEAL & FUEL SLINGER ASSY	
4	114914	AU20018	SEAL ASSY, REAR, FUEL SLINGER	
5				
6				
7				
8				
9				
10				
11				
12				

### DISPOSITION/APPROVAL

REPAIR FACILITY: Williams International Certified Repair Station Number: W5R335J WORK ORDER: 1195343

Work Inspected By: Lukas Mazurek

*Lukas Mazurek*

Certificate Number: W5R335J

Date: 02 Mar 2022

Permanent Aircraft Engine Record - File In Maintenance Log



WILLIAMS INTERNATIONAL  
ATTN: PRODUCT SUPPORT  
2000 CENTERPOINT PARKWAY  
PONTIAC, MICHIGAN 48341  
(800) 859-3544 or (248) 960-2929

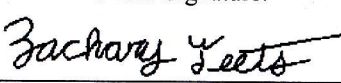


## ENGINE SERVICE AND MAINTENANCE RECORD

Service Letters and Service Bulletins

ENGINE MODEL NUMBER <b>FJ33-5A</b>		ENGINE SERIAL NUMBER <b>233612</b>	ENGINE POSITION <b>E1-Single</b>		
Aircraft Identification and Status					
A/C SERIAL NUMBER <b>SF50- 0009</b>		A/C REGISTRATION <b>N124MW</b>	TOTAL ENGINE HOURS <b>579.70</b>	TOTAL ENGINE CYCLES <b>479.00</b>	
Component Changes, Inspections, Service Bulletins, or Airworthiness Directives Accomplished					
Transaction No.	Type	Item Description	NUMBER S/B, A/D, S/I, MODS	BULLETIN TYPE	Status
1	3	Engine – Balance Piston – Replace	WISB-72-1026	Mandatory	C/W
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
Transaction Type: 1=Component Change 2=Inspection Accomplished 3=Service Bulletin Accomplished 4=Airworthiness Directive Accomplished			Status: C/W=Complied With P/C/W=Previously Complied With		
DISPOSITION/APPROVAL					
REPAIR FACILITY: Williams International		Certificated Repair Station Number: WI5R335J		WORK ORDER: 1195343	
Work Inspected By: Lukas Mazurek <i>Lukas Mazurek</i>		Certificate Number: WI5R335J	Date: 02/MAR/2022	PERMANENT AIRCRAFT ENGINE RECORD FILE IN MAINTENANCE LOG	



1. Approving Civil Aviation Authority/Country : FAA / United States		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3,AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number : N0000056608	
4. Organization Name and Address: Williams International 2000 Centerpoint Parkway Pontiac, Michigan 48341 Production Certificate No. 334CE					5. Work Order/Contract/Invoice Number:  1159343	
6. Item	7. Description	8. Part Number :	9. Quantity	10. Serial Number :	11. Status / Work :	
LIST ATTACHED					NEW	
12. Remarks : Airworthiness Approval						
This is the certification statement for the products and articles listed on the attached document dated 23/FEB/2022, containing pages 2 through 3 with Form Tracking Number N0000056608 on each of the pages.						
13a. Certifies the items identified above were manufactured in conformity to:  <input checked="" type="checkbox"/> Approved design data and are in a condition for safe operation . <input type="checkbox"/> Non-approved designed data specified in Block 12.			14a. <input type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature: 		13c. Approval/Authorization No.: ODA-100175-CE		14b. Authorized Signature:		14c. Approval/Certificate No.:
13d. Name(Typed or Printed): Zachary Teets		13e. Date(dd/mmm/yyyy): 23/FEB/2022		14d. Name(Typed or Printed):		14e. Date(dd/mmm/yyyy):
<b>User/Installer Responsibilities</b>						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before aircraft may be flown.						



ITEM	PART NUMBER	NAME	SERIAL NUMBER	QUANTITY
0001	ST88629-012	SEAL, O-RING, FLUOROCARBON	N/A	4.000
0002	73312	SEAL, SPRING LOADED, CARBON FACE	N/A	2.000
0003	24640	NUT, 6 POINT REDUCED HEIGHT, WASHER HEAD	N/A	10.000
0004	MS9206-09	SCREW, MACH HD	N/A	10.000
0005	66848	SEAL, RUNER SPRG LDED, CARB FACE	N/A	1.000
0006	77569	ITT PROBE, HARNESS ASSY	EMX000102	1.000
0007	50495	PIN, TRIGGER	N/A	1.000
0008	61247	RETAINER, CARBON SEAL	N/A	1.000
0009	61362	RING, LOCKING	N/A	2.000
0010	65310	SEAL ASSY RING SEAL	SBC-819B1	1.000
0011	ST88629-015	SEAL, O-RING, FLUOROCARBON	N/A	4.000
0012	61413	SPACER NUT, FUEL NOZZLE	N/A	1.000
0013	111431	TUBE ASSY, DRAIN FORWARD	N/A	1.000
0014	67175	TUBE ASSY, DRAIN, AFT	N/A	1.000
0015	79368	BEARING, ASSY, ROLLER, OUTER GUIDED	JT-121077	1.000
0016	123323	BEARING, ROLLER, INNER GUIDED	JT-138089	1.000
0017	125485	CLAMP ASSY, HEAT EXCHANGER	N/A	5.000
0018	124243	CABLE TIE MOUNT	N/A	2.000
0019	122619	DRAIN PLUG	N/A	1.000
0020	69786	RETAINER, SEAL LP REAR BEARING	N/A	1.000
0021	79582	HOUSING, CARBON RING SEAL & BRG RET	20051	1.000
0022	61291	PLATE, BOLT	N/A	2.000
0023	121260	RETAINER, SEAL, LP REAR BEARING	N/A	1.000
0024	61296	SCREEN ASSY, OIL SUPPLY TO TURB	N/A	1.000
0025	61581	SEAL, DRAIN TUBE	N/A	3.000
0026	ST88629-017	SEAL, O-RING, FLUOROCARBON	N/A	2.000

0027	61190	SEAL,RING,METALLIC	N/A	3.000
0028	66846	SEAL,RUNER SPRG LDED,CARB FACE	N/A	1.000
0029	61251	SPACER,SEAL	N/A	1.000
0030	126811	COMBUSTOR COVER ASSY	N/A	1.000
0031	61571	GASKET,CABLE HOUSING	N/A	2.000
0032	MS9694-19	SCREW,MACH HD	N/A	10.000
0033	ST88629-013	SEAL, O-RING, FLUROCARBON	N/A	4.000
0034	61411	SEAL,RING,FUEL NOZZLE	N/A	1.000
0035	61250	SEAL ASSY,RING SEAL	SBC535B0	1.000
0036	61250	SEAL ASSY,RING SEAL	SBC541B0	1.000
0037	211076	SEAL ASSY, REAR, FUEL SLINGER	50318	1.000



**Activity:** Balance Piston Upgrade**Service Order:** 1159343**Engine P/N:** 79400-201**Engine S/N:** 233612**Page:** 1 of 1

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**Statement of Work Performed**

In addition to the manual instructions, maintenance was performed in accordance with the following service bulletins, letters, and AD's (as applicable):

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**SERVICE BULLETIN / SERVICE LETTER ACTIVITY**

WISB-72-1026

Engine – Balance Piston – Replace

**Return to Service Personnel:**