

COMPONENT CYCLE COUNT -1 thru -6

Work Order:	Preliminary	TSN	11,129.5
Date:	12-May-22	CSN	7,747
Engine P/N:	3101300-2	TSO/TSCAM	587.0
Engine Model:	TPE331-6-252M	CSO/CSCAM	483
Engine S/N:	P-27105	TSHSI	587.0

Ref SB 72-0019, 72-0404, & 72-IR-10

Outgoing

Maintenance Program				Limit
AG CAM	4,000.0	GBI Required	Remaining	
Hot Section Total Time	587.0	HSI Time Remaining	1,413.0	2,000.0
Gearbox Total Time	587.0	GBI Time Remaining	3,413.0	4,000.0

DESCRIPTION	PART NUMBER	SERIAL NUMBER	TOTAL CYCLES	CYCLES REMAINING	TOTAL HOURS
Compressor					
1 st Stage Impeller	3108182-2	010350101637	7,747	4,753	11,129.5
DESCRIPTION	P/N	S/N	TOTAL CYCLES	CYCLES REMAINING	
2 nd Impeller	893482-5	020322903670	483	11,017	587.0
Turbine	PART NUMBER	SERIAL NUMBER	Total Equivalent Cycles	CYCLES REMAINING	TOTAL HOURS
1 st Wheel	867569-7	11-156101-04430	552	5,149	587.0
2 nd Wheel	868272-1	12-156101-04032	608	4,792	587.0
2 nd Stator	894528-15	12-156101-07686	483	Track Only	587.0
3 rd Wheel	868630-9	0201345507487	1,937	4,063	1,963.8
3 rd Stator	3105315-1	4-01345-1537	5,532	Track Only	6,021.2

AD 2016-18-17
12/18/13 ETSN 10452.2
ECSN 7264

Name	Part Number	Serial Number	Component TSO	Time Remaining hours
Fuel Control	897800-8	1448024	587.0	3,413.0
Fuel Pump	897400-5	13NF2204	587.0	3,413.0
Fuel Shutoff Valve	394230-9-1	P-7210	587.0	3,413.0
Prop Pitch Control	70000295-13	P-113658	587.0	Track Only
Prop Governor	893615-4	1102804	587.0	3,413.0
Torque Sensor	3101726-2	7P-11089R	587.0	Track Only
Name	Part Number	Serial Number	Time Since Change	Remaining Hrs
Fuel Nozzle Set	868752-1 / 868242-1	N/A	587.0	-387.0
Name	Part Number	Serial Number	Component TSN	Time Remaining hours
Compressor Bearing	3101405-1	13-151725-02709	587.0	5,413.0
Accessory gear		Unk	587.0	8,413.0
Accessory gear		Unk	587.0	8,413.0
Turbine Bearing	3101092-1	08-19914-15301	587.0	Repl @ OH

CDAS recommends Clean and Flow Check at 200 Hour Interval for AG only.

Torque Sensor
Torque Sensor

Quality review

TPE331-1 through -6 Equivalent Cycle Count Sheet
Print Date: 12-May-22
TSN: 11,129.5
CSN: 7,747
TSO 587.0
CSO 483
Engine Model TPE331-6-252M
Engine SN P-27105
TSHSI 587.0

AD 2006-14-03 Equivalent Cycle Calculation Sheet

TPE331-1 thru -6 SB A72-2111	Shut Downs	Landings	Factor	Equivalent Cycles	Major/T.E.C. Previous cycles	Sub Total	Cycles Prior to SB (unk LDGs)	Equiv cyc prior to SB with Unk TO & Land	Total Equiv Cycles	Total Hours	Remaining Cycles
1st Wheel	268	835	0.5	551.5	0	552			552	131.0	5,149
2nd Wheel	268	835	0.6	608.2	0	608			608	131.0	4,792
3rd Wheel	268	835	0.2	381.4	1,556	1,937			1,937	1,507.8	4,063

WO	Preliminary		ETSN	11,129.5					
PN	3101300-2		ECSN	7,747					
Model	TPE331-6-252M		TSO/TSCAM	587.0					
SN	P-27105		CSO/CSCAM	483					
						Incoming			
Item	PN	SN	ECSN @ install	Part cycles @ inst	Current Cycles	ETSN @ inst	Part Hrs @ inst	Current Hours	Inst Date
Compressor									
1st St Impeller	3108182-2	010350101637			7,747			11,129.5	
2nd St Impeller	893482-5	020322903670	7,264	0	483	10,542.5	0	587.0	12/18/13
Turbine									
1st St T Wheel	867569-7	11-156101-04430	7,264	0	483	10,542.5	0	587.0	09/19/13
2nd St T WHEEL	868272-1	12-156101-04032	7,264	0	483	10,542.5	0	587.0	09/19/13
2nd Stator	894528-15	12-156101-07686	7,264	0	483	10,542.5	0	587.0	09/19/13
3rd St T Wheel	868630-9	0201345507487	7,264	1556	2,039	10,542.5	1,376.80	1,963.8	09/19/13
3rd Stator	3105315-1	4-01345-1537	7,264	5049	5,532	10,542.5	5,434.20	6,021.2	09/19/13
Accessories									
	PN	SN				ETSN @ inst	Part Hrs @ inst	Current Hours	Inst Date
Fuel Control	897800-8	1448024				10,542.5	0	587.0	09/19/13
Fuel Pump	897400-5	13NF2204				10,542.5	0	587.0	09/19/13
Fuel Shutoff Valve	394230-9-1	P-7210				10,542.5	0	587.0	09/19/13
PPC	70000295-13	P-113658				10,542.5	0	587.0	09/19/13
Prop Gov	893615-4	1102804				10,542.5	0	587.0	09/19/13
Torque Sensor	3101726-2	7P-11089R				10,542.5	0	587.0	09/19/13
Fuel Nozzles	868752-1 / 868242-1	N/A				10,542.5	0	587.0	09/19/13
Bearings									
	PN	SN				ETSN @ inst	Part Hrs @ inst	Current Hours	Inst Date
Compressor	3101405-1	13-151725-02709				10,542.5	0	587.0	09/19/13
Accy Gear	0	Unk				10,542.5	0	587.0	09/19/13
Accy Gear	0	Unk				10,542.5	0	587.0	09/19/13
Turbine Bearing	3101092-1	08-19914-15301				10,542.5	0	587.0	09/19/13

Repair Order

Work Order:	Preliminary
Date:	12-May-22
Engine P/N:	3101300-2
Engine Model:	TPE331-6-252M
Engine S/N:	P-27105

Manual	No/Rev/Date
IPC	72-01-30 Rev 6 (9-Jul-16)
OHM	72-01-33 Rev 4 (30-Jun-00)
MM	72-01-32 Rev 5 (9-Nov-99)
Insp	72-IR-10 R9 (22-Dec-95)
Eff Code	CA

Incoming

Workscope Logbook Review

Receiving & Disassembly	Mechanic	Date
Complete incoming inspection. Take pictures and record any missing parts on master work order form		
Verify PN / SN of all TBO tracked LRUs match incoming inspection record (Accy Cycle Sheet)	Quality	12-May-22
Generate shop forms as required by workscope for engine Cycle sheet, SB & AD sheets, Teardown / Build, Inspection forms, Special workscope, Periodics	Quality	12-May-22
Disassemble as necessary		
Take pictures of damage found during disassembly and save to work order. Complete teardown findings report		

Clean
Clean disassembled components

Inspection - Inspect using designated inspection forms	Inspector	Date
Inspect		
Verify PN & SN of life limited components (AS ACCESSED) on Accy Cycle Sheet Identify any discrepancies to QC		
Perform all applicable periodic inspections and record on inspection form or manual copies		
Comply with any outstanding Airworthiness Directives Highlighted in yellow on AD sheet		
Comply with required Service Bulletins (Ref SB List for required bulletins -Min/Mod or Alerts) Highlighted in yellow on SB sheet Other SBs on sheet are for informational purposes annotation not required.		
Comply with any special workscope inspections		
Complete NDT as required (NDT Sheet)		

Assembly - Assemble engine using designated assembly forms		Mechanic	Date
Assemble engine			
QA - Inspect and release for test		Quality	

Test		Mechanic	Date
Test engine			

Final inspect and Ship		Mechanic	Date
Complete shipping inspection checklist			
Long Term Preserve ☐ Yes ☐ No			
Verify PN / SN of all TBO tracked LRUs match outgoing inspection record (Accy Cycle Sheet)		Quality	
☐ ☐			
Final inspect and release for shipping		Quality	
Ensure all log cards are updated as required			

Work Order:	Preliminary
Date:	12-May-22
Engine P/N:	3101300-2
Model:	TPE331-6-252M
Engine S/N:	P-27105

FAA Certified Repair Station# K2TR136N

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TSN	0.0
CSN	0

AIRWORTHINESS DIRECTIVE COMPLIANCE RECORD



Authorized Signature

AD # Eff Date	Description	Compliance Status	One Time	Recurring	Next Due
EASA AD's	EASA AD Search	NA to AG Use		X	Each Visit
73-26-07 R3 31-Jul-1980	To detect abnormal wear of the fuel pump shaft internal drive splines and coupling shaft external splines.	PCW Logbook		X	Recurring if not modified
74-10-10 11-Jul-1975	To detect, correct, & prevent loosening of the FCU mounting and support bracket fasteners	PCW Logbook		X	Recurring if not modified
74-24-05 26-Nov-1974	To detect, correct & prevent fatigue failure of the pin the PPC Sleeve Assembly	PCW Logbook		X	Gearbox Access
75-10-05 11-Jul-1975	To detect, correct, & prevent loosening of the Torque Sensor Assy Mounting arm.	PCW Logbook		X	Recurring
76-16-01 6-Aug-1976	To detect & prevent fatigue failures of the HSP bearing oil transfer tube	PCW Logbook		X	Recurring if not modified
78-05-02 04-May-79	To prevent failure of the PPC cam follower pin	PCW Logbook	X		
78-25-08 R3 12-Jun-1980	To prevent destructive overspeed of turbine rotor (single engine failures of reduction gear drive).	PCW Logbook	X		
84-01-04 25-Jan-1984	To reduce the possibility of rapid destruction of the engine turbine.	NA to PN 868630-9 0201345507487	X		
84-10-06 R1 26-Dec-1984	To prevent possible engine failure.	PCW Logbook 897400-5 13NF2204		X	Fuel Pump Change
89-07-07 R1 30-Oct-89	To prevent turbine failure.	PCW Logbook	X		
92-26-08 15-Aug-1993	To prevent an uncontained failure of the 3rd Stage turbine wheel	NA to 3rd Stator 3105315-1 4-01345-1537	X		
93-05-09 28-Jun-1993	To prevent an uncontained failure of the 3rd Stage turbine wheel	NA to 3rd Stator 3105315-1 4-01345-1537	X		
93-15-11 07-Sep-1993	To prevent a sudden loss of prop control during application of thrust reverse loss of aircraft control	PCW Logbook	X		PPC Removal
94-09-08 20-May-1994	To prevent failure of the 3rd Stage Turbine Wheel	NA to 3rd Stage Stator 3105315-1 4-01345-1537	X		
94-26-07 18-Apr-1995	To prevent failure of the Fuel Control Governor Drive from Excessive wear of the internal fuel control drive splines	NA to FCU 897800-8 1448024		X	FCU Change
95-16-08 05-Sep-1995	To prevent turbine failure.	No Flightline Maintenance		X	
97-15-10 22-Sep-1997	To prevent a nonresponsible power lever and lack of control of engine power	PCW Logbook		X	Inlet Sensor Change
98-04-15 27-Apr-1998	To prevent 3rd Stage Turbine Wheel separation & shifting of 3rd Stage Turbine Stator	NA to 3rd Stator 3105315-1 4-01345-1537	X		

AD # Eff Date	Description	Compliance Status	One Time	Recurring	Next Due
2002-21-15 26-Nov-2002	To reduce fatigue damage of the 2nd Stage Stator inner seal support	NA to 2nd Stator 894528-15 12-156101-07686	X		
2002-25-02 21-Jan-2003	To prevent an uncontained engine failure, in flight shutdown, and secondary damage.	PCW Logbook 3108182-2 010350101637	X		Impeller Change
2006-14-03 09-Aug-2006	To prevent uncontained failure of the turbine rotor due to low cycle fatigue (LCF) and damage to the aircraft	Updated TECs		X	Hot Section Access
2011-18-51 17-Aug-2011	Excessive failure rate of PMA bearing PN 3108098-1WD	No PMA Bearing		X	Upon Receipt
2011-18-51 R1 19-Oct-2011	Excessive failure rate of PMA bearing PN 3108098-1WD	No PMA Bearing		X	Upon Receipt
2016-18-17 04-Nov-2016	Replacement of 2nd Stage Impeller PN 893482-1 thru -5, and PN 3107056-1/-2	Unknown 893482-5 020322903670	X		Upon Removal
2016-21-07 28-Nov-2016	To prevent failure of the fuel control drive that could result in damage to the engine and airplane. N/A to PN 897800-X FCUs All other PN's require repetitive inspection at 1,000 hour intervals Replaces 2015-12-04	NA to FCU and Pump FCU PN 897800-8 FCU SN 1448024 Fuel Pump PN 897400-5 Fuel Pump SN 13NF2204		X	Fuel Control Change or Spline Inspection
2018-13-05 26-Jul-2018	Torque Sensor Engines SOAP Sample Requirement		X		150 Hours Maximum
2018-17-15 22-Oct-2018	Combustion Chamber (Plenum) inspection interval / replacement. Supersedes 2018-02-14		X		
			Next due @ ETSN:		
			Next due @ ETSN:		

WO	Preliminary
PN	3101300-2
SN	P-27105
Date:	12-May-22

ETSN:	0.0	Man/Rev/Date
Model	TPE331-6-252M	72-01-32 Rev 5 (9-Nov-99)

TPE331-6 - MM 72-01-32 Table 601

Hr Int	Inspection	Last Done	Next due	Model	Chapter/Sect/Action	Insp
100	Compensating Resistor	0.0	100.0	All	72-00-00 Para 2.C. Comp resistor test Test temperature compensation value.	
100	Input Gearbox Drain	0.0	100.0	All	Check to ensure drain is open. Use air to check drain port passage as damage to crossover duct could result from the use of hard articles to check passage)	
150	Fuel Filter (PN 865791-4) (PN 897513-1) Disposable filter element	0.0	150.0	All	73-21-03 Maintenance Practices -PN 865791-4 Remove, clean, & inspect for damage or separated screen -PN 897513-1 Replace with new filter.	
150	Oil Filter	0.0	150.0	All	79-20-02 Remove, inspect, and replace filter element	
150	Pre 72-0416 Starter Generator Drive Splines	0.0	150.0	All	72-00-00 Servicing Inspect and lubricate	
150	1st Stage Impeller	0.0	150.0	All	72-30-01 Maintenance Practices Inspect for FOD	
150	PN 319980-5 A/I Valve	0.0	150.0	All	75-10-01 Maintenance Practices Remove, disassemble, clean, and inspect	
400	Igniter Plugs	0.0	400.0	All	74-20-01 Remove, clean, and inspect	
400	Fuel Manifold Purge Sytem (10 Micron) Filter	0.0	400.0	All	73-10-13 Maintenance Practices Remove, clean, and inspect	
400	Flow Divider & Drain Valve Filter	0.0	400.0	All	73-10-07 Maintenance Practices Remove, clean, and inspect for damaged or separated screen.	
400	Controls Linkage Assembly	0.0	400.0	All	76-10-01 Maintenance Practices Check for security of locking features. Check control rod, arms, and levers for proper alignment and damage. Check bolts and screws securing levers and arms to serrated shafts. Lubricate rod end bearings if binding is noted.	
400	Plenum Drain Valves	0.0	400.0	All	Check operation of plenum drain valves without removing from engine.	@ Test
400	Engine Oil Type 1			All	Change	Operator
400	Combustion Case	0.0	400.0	All	Visually Inspect	
400	Pre 72-0104 / 73-0051 Fuel Pump Assy Drive Coupling	0.0	400.0	All	73-20-01 Mainenance Practices Inspect & Lubricate Not required for post 72-0104 / 73-0051	

TPE331-6 - MM 72-01-32 Table 601

Hr Int	Inspection	Last Done	Next due	Model	Chapter/Sect/Action	Insp
400	Direct Drive FCU Backlash Inspection Codes AA,CA, EA	0.0	400.0	-6-251M (AA) -6-252M (CA) -6-252B (EA)	SB 72-0095 N/A to PN 3101726-X Torque Sensor	
600	Overspeed Governor Check	0.0	600.0	All	72-00-00 Adjustment Test	@ Test
600	Plumbing Lines & Connections	0.0	600.0	All	Check for security, leaks, cracks, cuts, or rubbing	
600	Electrical Wiring & Connections	0.0	600.0	All	Check for security and damage	
600	Magnetic Drain Plug	0.0	600.0	All	79-30-01 Maintenance Practices Remove & inspect. For 2 piece unit, remove knurled plug & perform visual inspection.	
600	Plenum Drain Valves	0.0	600.0	All	72-00-05 Maintenance Practices Remove and test for closing and opening.	
900	Engine Oil Type 2			All	Change	Operator
1000	Fuel Control / Fuel Pump Assembly Mating Spline Inspection Codes CA-FA AD 2015-12-04	0.0	1,000.0	-6A-252M (CA) -6A-252M (DA) -6-252B (EA) -6-253B (FA)	72-00-00 Paragraph 2.H & Table 601 Except FCU PNs 897800-9/-10/-11/-12/-14	