



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Beechcraft Super King Air
B300/B300C Series Airplanes
Equipped with Pratt & Whitney PT6A-67A
Engines
Installed Per STC SA02658LA

Revision A

Document Number 200914-30

NOTICE

This document must be referenced on Block 8 of FAA form 337 and added to the aircraft permanent record as required by 14 CFR Part 91, §91.417 (a)(2)(vi) when the reference FAA-STC modification is accomplished on eligible aircraft. This document complies with the requirements of 14 CFR Part 23, §23.1529, in accordance with 14 CFR Part 23, Appendix G.

Aircraft Model Number _____

Aircraft Serial Number _____

Aircraft Registration Number _____



LIST OF EFFECTIVE REVISIONS

REV	REV DATE	AFFECTED PAGES	DESCRIPTION OF REVISION
IR	May 2017	ALL	
A	Feb. 2018	3,5,6,12, 16, 17 and Parts List	1. Added new aircraft variants to intro, 00-00 2. Added new AFMS doc numbers, 01-00 3. Added new AFMS doc numbers, 77-00 4. Added Engine Washing instructions, 12-20. 5. Added Repair instructions, 51-70. 6. Revised Parts List, page 12. 7. Revised part number, ITEM 13, page 14. 8. Revised part number. ITEM 19, page 15. 9. Added page 16, 200914-006-001 Oil Cooler Install. 10. Added ITEM 26, C-048-H-1, O-RING, page 17.

TABLE OF CONTENTS

Section	Description	Page
00-00	Introduction.....	3
01-00	Operations Information.....	3
04-00	Limitations.....	3
05-00	Periodic Inspections.....	4
05-20	Inspection Checks.....	4
12-00	Servicing.....	5
12-20	Engine Washing.....	5
51-70	Repairs.....	5
61-00	Propeller.....	5
72-00	Engine.....	5
76-00	Powerplant Controls.....	5
77-00	Engine Indicating.....	6
77-10	Ground Performance Check.....	6
	Ground Performance Worksheet.....	7
	Parts List.....	12



00-00 INTRODUCTION:

This document provides instructions for the continued airworthiness (ICA) for Super King Air B300/B300C Series aircraft modified by authority of Blackhawk Modifications, Inc. STC SA02658LA. It is applicable to B300/B300C certified at maximum takeoff weights of 15,000 pounds as well as B300/B300C certified at maximum takeoff weights of 16,500 pounds or 17,500 pounds per Note 15 and Note 8 of FAA Type Certificate Data Sheet A24CE.

When references are made in this document such as “only applies to 16,500 lb. and 17,500 lb. aircraft”, it is referring to the heavier weight variants described above. When no reference is made regarding maximum takeoff weight, the information is pertinent to all three weight variants.

This document supplements or supersedes the basic and applicable Super King Air Model 300 Series Maintenance Manual, only in those areas listed herein for the appropriate aircraft model and serial number.

The STC replaces the original engines and propellers with two Pratt & Whitney PT6A-67A engines and MT Propeller, model MTV-27-1-N-C-F-R(P)/CFR260-65b propellers, in accordance with Blackhawk Modifications Master Drawing List 200914-000.

The engine installation requires a minor modification to the upper forward cowling. The engine bleed-off air is no longer ducted overboard so the BOV outlet louvers on the left side cowls are removed. A small cowl flap has been added to the oil cooler air outlet. The engine mounted aft fire seal has been modified with a four-piece extension weldment and the start/generator metal cooling duct/adaptor has been slightly shortened.

The 5-blade MT Propeller installation eliminated the original equipment Ground Idle Stop System. It did require a different de-icing brush block assembly and mounting bracket as well as different brackets for the prop-sync and speed pick-up sensors.

01-00 OPERATIONS INFORMATION:

See Blackhawk Aircraft Flight Manual Supplement (AFMS) 200914-20, 201612-08 or 201612-09 for engine and propeller operating limitations.

04-00 LIMITATIONS:

NOTICE:

This section is FAA approved and specifies maintenance required under §§43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.



There are no changes to the airworthiness limitations of those listed in the following manuals:

Airframe.....	Super King Air 300 Series Airworthiness Limitations Manual 130-590031-211E
Engine.....	Pratt and Whitney Canada PT6A-67 Maintenance Manual 3036132 and Service Bulletin 14002 Rev 23 or newer
Propeller.....	MT Propeller manual 61-00-83-E-1083

05-00 PERIODIC INSPECTIONS:

The periodic inspection requirements are unchanged from that of the original manufacturers or operators approved inspection schedule with the addition of the items listed in section 05-20.

The airframe, cowling and all airframe systems should be inspected as outlined in the Super King Air 300 Series Maintenance Manual, part number 130-590031-11 or other FAA approved inspection program.

The engine and all engine systems should be inspected as outlined in the Pratt and Whitney Canada (PWC) PT6A-67 Maintenance Manual, number 3036132 or other FAA approved inspection program.

The propeller should be inspected as outlined in the MT Propeller Operation and Installation manual 61-00-83-E-1083 or other FAA approved inspection program.

05-20 INSPECTION CHECKS:

At each engine inspection interval but not to exceed 400 operating hours, inspect the following:

- a. The aft fire-seal extension weldments for proper attachment, cracks, any other damage.
- b. All forward and aft fire-seal and cowling silicon/rubber seals for proper sealing, cuts, abrasion and any other damage
- c. Oil cooler for leaks and cleanliness of the air passage
- d. Oil cooler air inlet and outlet for obstructions and damage
- e. Perform an engine ground performance check and record results for trend evaluation



12-00 SERVICING:

The engine should be serviced with turbine engine oil as stated in the most current revision of PWC SB 14001. Engine oil changes are on-condition.

There are no required servicing procedures for the propeller

12-20 ENGINE WASHING:

Blackhawk recommends engine washes at each inspection phase at a minimum. When operating in an industrial pollutant, salt latent or excessively dusty environment more frequent washes may be necessary. Consult the PT6A-67A maintenance manual section 71-00-00, always follow the maintenance manual engine washing instructions and be certain to drain the wash solution from the exhaust case during and after every wash.

For aircraft with oil coolers p/n 8002545 Blackhawk recommends backwashing the cooler air passage every 12 months with a mild soap/water solution applied with low pressure. For continuous operations in dusty or excessively pollutant environments more frequent washes may be necessary.

51-70 REPAIRS

Repairs to the Airbox Extension Weldments are authorized but should be consistent with the standard practices outlined in the King Air 300 Structural Repair Manual. Parts with multiple damaged areas or cracks closer than 2 inches should be replaced.

Repairs to the Aero-Classics Oil Cooler, p/n 8002545, is not authorized except by a certified repair facility

61-00 PROPELLER:

For propeller removal and installation procedures refer to Blackhawk Propeller Installation drawing 200914-005 and MT Propeller Operation and Installation Manual 61-00-83-E-1083.

72-00 ENGINE:

For engine removal and installation procedures refer to Blackhawk Engine Installation drawing 200914-002 and the Super King Air 300 Series Maintenance Manual 130-590031-11.

76-00 POWER PLANT CONTROLS:

Rig the engine and propeller controls per the Blackhawk Engine Control Rigging Procedure Document 200914-800.



77-00 ENGINE INDICATING:

All engine indicators should be range marked in accordance with the Limitations section of Blackhawk AFMS 200914-20, 201612-08 or 201612-09. Reference Blackhawk Indicator drawing 200914-003 (for aircraft equipped with Proline 2 avionics).

77-10 ENGINE GROUND PERFORMANCE CHECK:

Engine ground performance check history is a tool used to evaluate the effects of progressive engine performance deterioration, inaccuracies in engine instrumentation or component replacement. For this tool to be effective it is important that baseline performance data is established and subsequent data is collected at regular intervals. This data is only for predicting needed maintenance or trouble shooting engine performance and should never be used as the sole criterion for determining the airworthiness of an engine. Refer to the MINIMUM TAKEOFF POWER chart and procedures in the appropriate Airplane Flight Manual Supplement to determine if the engines are producing sufficient power for airworthy operation.

Prior to performing the following check, the engine cowling must be in place to ensure consistency of engine check parameters, F.O.D. screens must not be installed.

1. Record indicated outside air temperature (IOAT), as shown on the ship's oat indicator, in degrees Celsius in Table 1.
2. Record pressure altitude, which is the value of pilot's altimeter with 29.92 set in Kollsman window, in Table 1 on the next page.
3. Using this IOAT and Pressure Altitude from Table 1, determine target torque, ITT, fuel flow, and N_1 limits from Chart 1 and record in Table 1.
4. Start the engines as outlined by procedures in the appropriate Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
5. Position the airplane crosswind (90° to the wind direction to eliminate variation in parameters due to changing wind velocity).
6. Turn on avionics and inverters (as required) to power engine instruments.
7. Ensure that the air-conditioning, bleed air and generator are all off on the engine being checked.
8. Position the ice vanes in the retracted position (Engine Anti-Ice is OFF).
9. Verify that the propeller levers are in the high rpm mode.



10. Bring the power levers forward to establish a torque indication equal to the target torque value determined in Step 3.

Note: Do not exceed torque redline limitations or any other engine limitations such as ITT or N_g speed of the engine.

11. Allow the engine to stabilize at this power setting for 2 minutes minimum. Record actual fuel flow, N_g and ITT indications in Table 1 for engine being checked.

12. Compare the actual values recorded with the target values as determined in Step 3. If any of the actual values exceed the target ITT, fuel flow, and N_g values maintenance action maybe indicated, troubleshoot in accordance with the P&WC Maintenance Manual § 72-00-00.

IOAT (°C): _____ Pressure Altitude: _____		Target		Actual - Left		Actual - Right	
Target Torque – Tq							
Target ITT – TT5 °C							
Target Prop RPM – Np		1700					
Limit Gas Gen Speed – Ng %							
Limit Fuel Flow							
Oil Press (psi)	Oil Temp (°C)	90 to135	110 max				

Table 1. Ground Performance Worksheet

Document No. 200914-30 Rev A
 Instructions for Continued
 Airworthiness
 Super King Air B300/B300C Series
 with PWC PT6A-67A Engines

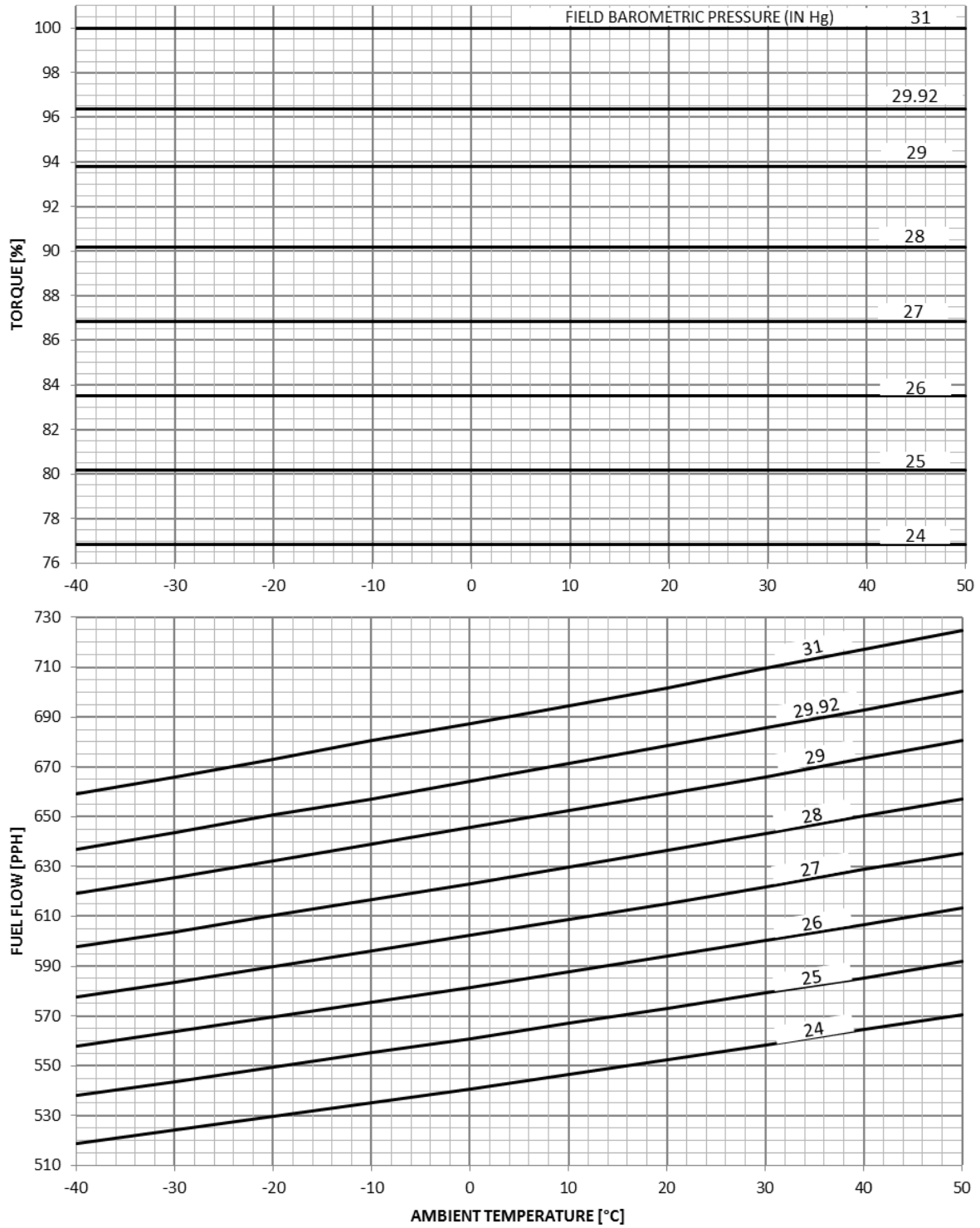


Chart 1a. Ground Power Check Chart: Torque, Fuel Flow

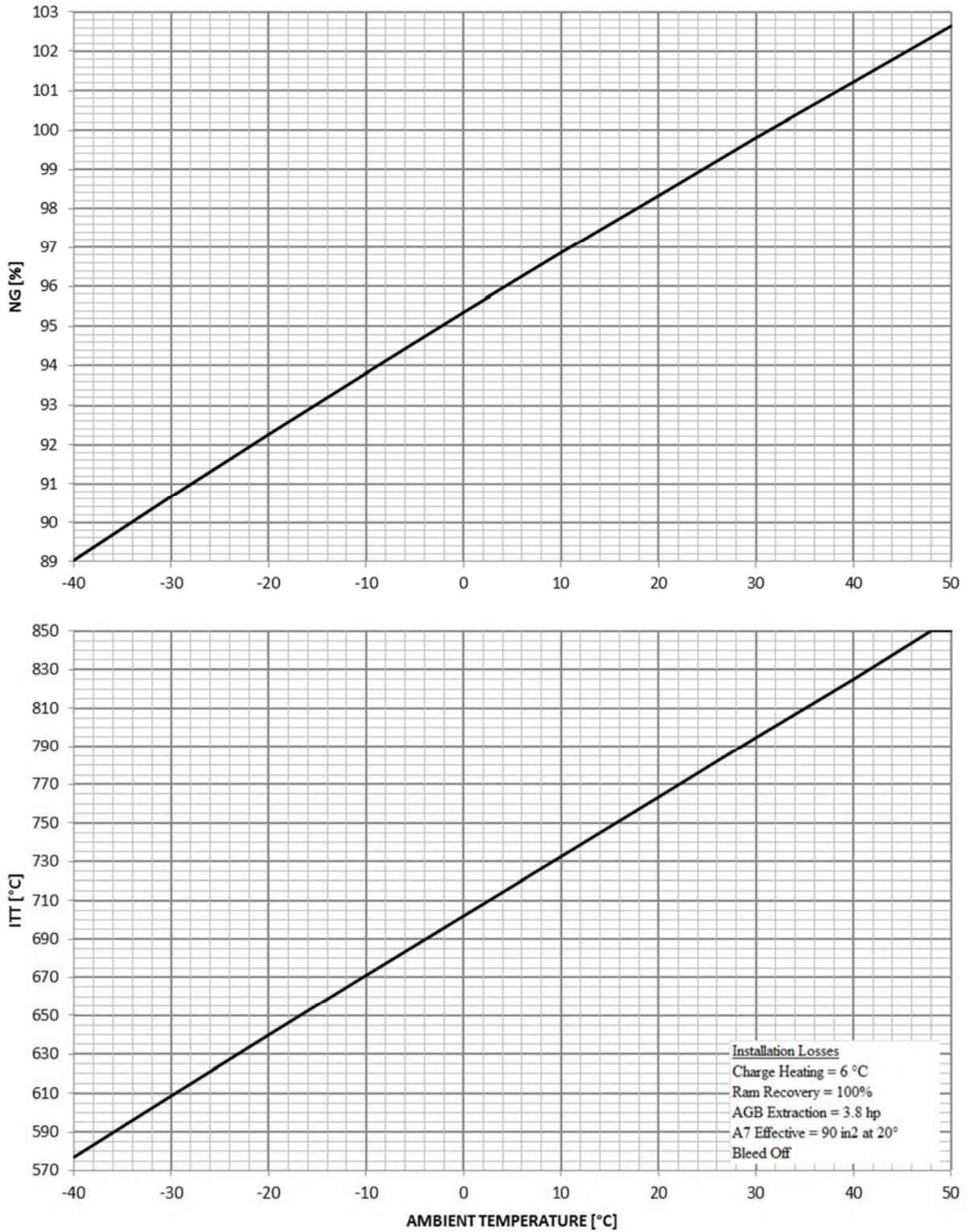


Chart 1b. Ground Power Check Chart: Ng, ITT

Document No. 200914-30 Rev A
Instructions for Continued
Airworthiness
Super King Air B300/B300C Series
with PWC PT6A-67A Engines



Field Barometric Pressure [in.Hg]	TAMB [°C]	TQ [%]	WF [pph]	NG [%]	ITT [°C]
31	-40.0	100.0	659	Same at all pressure altitudes	Same at all pressure altitudes
	-30.0	100.0	666		
	-20.0	100.0	673		
	-10.0	100.0	681		
	0.0	100.0	687		
	10.0	100.0	695		
	20.0	100.0	702		
	30.0	100.0	709		
	40.0	100.0	717		
29.92	-40.0	96.4	637	89.0	577
	-30.0	96.4	644	90.7	609
	-20.0	96.4	651	92.3	640
	-10.0	96.4	657	93.8	671
	0.0	96.4	664	95.4	702
	10.0	96.4	671	96.9	733
	20.0	96.4	678	98.3	764
	30.0	96.4	686	99.8	795
	40.0	96.4	693	101.2	825
29	-40.0	93.8	619	Same at all pressure altitudes	Same at all pressure altitudes
	-30.0	93.8	626		
	-20.0	93.8	632		
	-10.0	93.8	639		
	0.0	93.8	646		
	10.0	93.8	652		
	20.0	93.8	659		
	30.0	93.8	666		
	40.0	93.8	673		
28	-40.0	90.2	598	Same at all pressure altitudes	Same at all pressure altitudes
	-30.0	90.2	604		
	-20.0	90.2	610		
	-10.0	90.2	617		
	0.0	90.2	623		
	10.0	90.2	630		
	20.0	90.2	637		
	30.0	90.2	643		
	40.0	90.2	650		
27	-40.0	86.8	578	Same at all pressure altitudes	Same at all pressure altitudes
	-30.0	86.8	584		
	-20.0	86.8	590		
	-10.0	86.8	596		
	0.0	86.8	602		
	10.0	86.8	609		
	20.0	86.8	615		
	30.0	86.8	622		
	40.0	86.8	629		
50.0	86.8	635			

Chart 2a. Field Barometric Pressure

Document No. 200914-30 Rev A
Instructions for Continued
Airworthiness
Super King Air B300/B300C Series
with PWC PT6A-67A Engines



Field Barometric Pressure [in.Hg]	TAMB [°C]	TQ [ft-lbs]	WF [pph]	NG [%]	ITT [°C]
26	-40.0	83.5	558	Same at all pressure altitudes	Same at all pressure altitudes
	-30.0	83.5	564		
	-20.0	83.5	570		
	-10.0	83.5	576		
	0.0	83.5	582		
	10.0	83.5	588		
	20.0	83.5	594		
	30.0	83.5	600		
	40.0	83.5	607		
50.0	83.5	613			
25	-40.0	80.2	538	Same at all pressure altitudes	Same at all pressure altitudes
	-30.0	80.2	544		
	-20.0	80.2	549		
	-10.0	80.2	555		
	0.0	80.2	561		
	10.0	80.2	567		
	20.0	80.2	573		
	30.0	80.2	579		
	40.0	80.2	585		
50.0	80.2	592			
24	-40.0	76.8	519	Same at all pressure altitudes	Same at all pressure altitudes
	-30.0	76.8	524		
	-20.0	76.8	530		
	-10.0	76.8	535		
	0.0	76.8	541		
	10.0	76.8	547		
	20.0	76.8	553		
	30.0	76.8	558		
	40.0	76.8	565		
50.0	76.8	570			

Chart 2b. Field Barometric Pressure (continued)



PARTS LIST:

This parts listing is provided for quick reference to basic modification parts and attaching hardware. For a detailed list of required parts and installation instructions consult the following Blackhawk STC drawings:

200914-00	Master Drawing List
200914-001	Installation Instructions
200914-002	Engine Installation
200914-004	Cowling Modification
200914-005	Propeller Installation
200914-006	Oil Cooler Installation (16,500 & 17,500 lbs. aircraft ONLY)

For replacement parts or any other needed assistance contact:

Blackhawk Modifications, Inc.
Product & Customer Support Department
7601 Karl May Dr.
Waco, TX 76708

Phone; +1-254-755-6711
Email; support@blackhawk.aero
Web address; www.blackhawk.aero

For Pratt & Whitney Canada customer assistance contact:

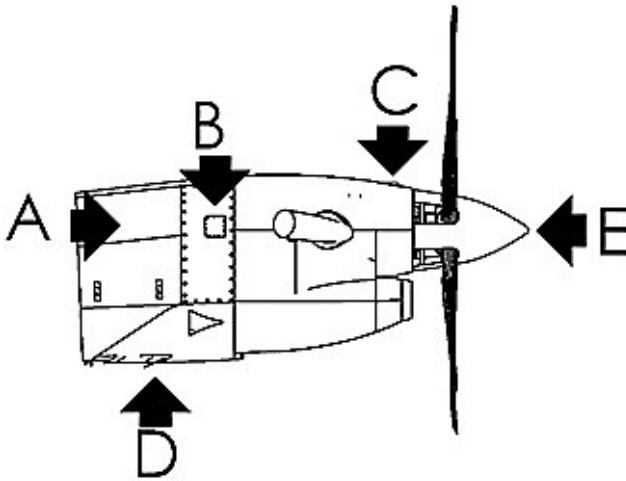
PWC CFirst

Global Number
(IAC)+8000-268-8000

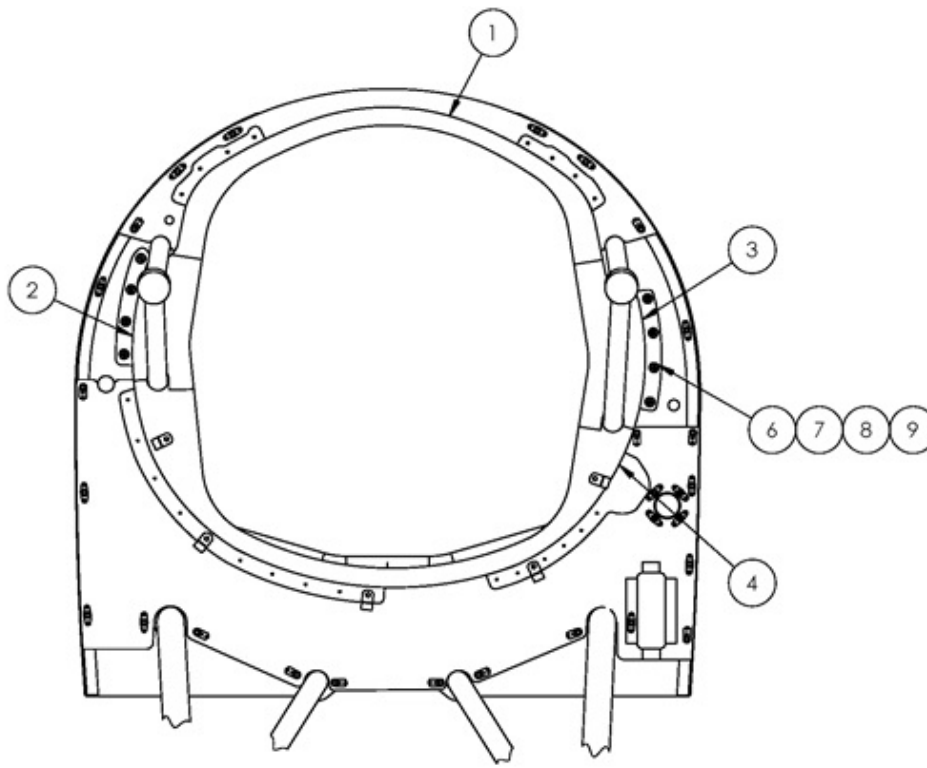
USA & Canada
1-800-268-800

Email; cfirst@pwc.ca

Document No. 200914-30 Rev A
 Instructions for Continued
 Airworthiness
 Super King Air B300/B300C Series
 with PWC PT6A-67A Engines

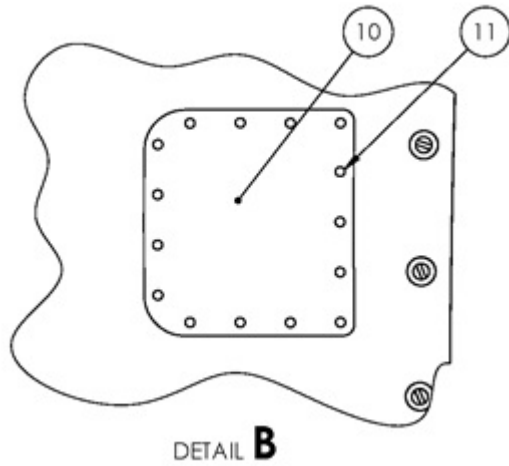


ITEM	PART NUMBER	DESCRIPTION	QTY
1	200914-501-001	UPPER AIRBOX WELDMENT	1
2	200914-501-002	L/H MID AIRBOX WELDMENT	1
3	200914-501-003	R/H MID AIRBOX WELDMENT	1
4	200914-501-004	LOWER AIRBOX WELDMENT	1
5	MS20427M4-5	RIVET	25
6	MS20426AD3-4	RIVET	16
7	NAS623-3-3	SCREW	8
8	NAS1149DO332K	WASHER	8
9	MS21059L3	NUTPLATE	8

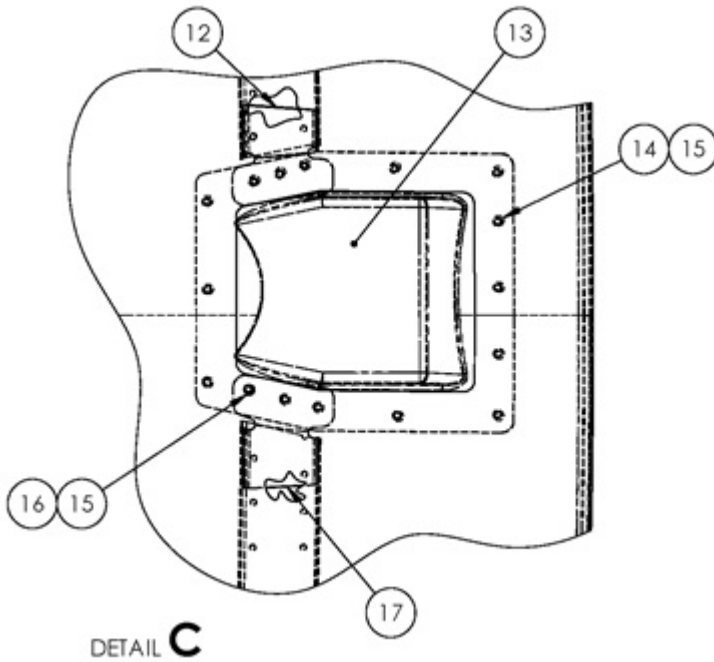


DETAIL A

Document No. 200914-30 Rev A
 Instructions for Continued
 Airworthiness
 Super King Air B300/B300C Series
 with PWC PT6A-67A Engines



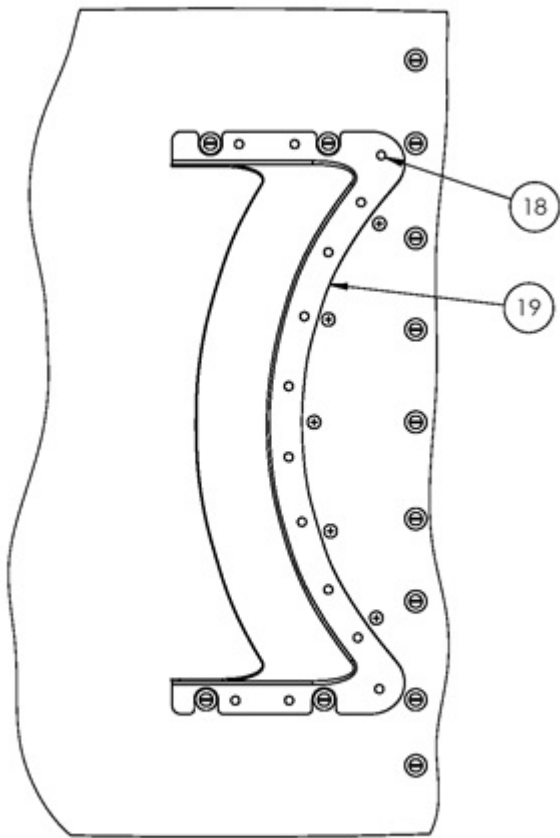
ITEM	PART NUMBER	DESCRIPTION	QTY
10	200914-501-115	COVER	1
11	MS20426AD4-5	RIVET	15
12	200914-501-116	CLIP	1
13	200914-503-101	COVER	1
14	MS20427M4-4	RIVET	10
15	NAS1149NC432R	WASHER	10
16	MS20427M4-5	RIVET	6
17	200914-501-117	CLIP	1



Document No. 200914-30 Rev A
Instructions for Continued
Airworthiness
Super King Air B300/B300C Series
with PWC PT6A-67A Engines



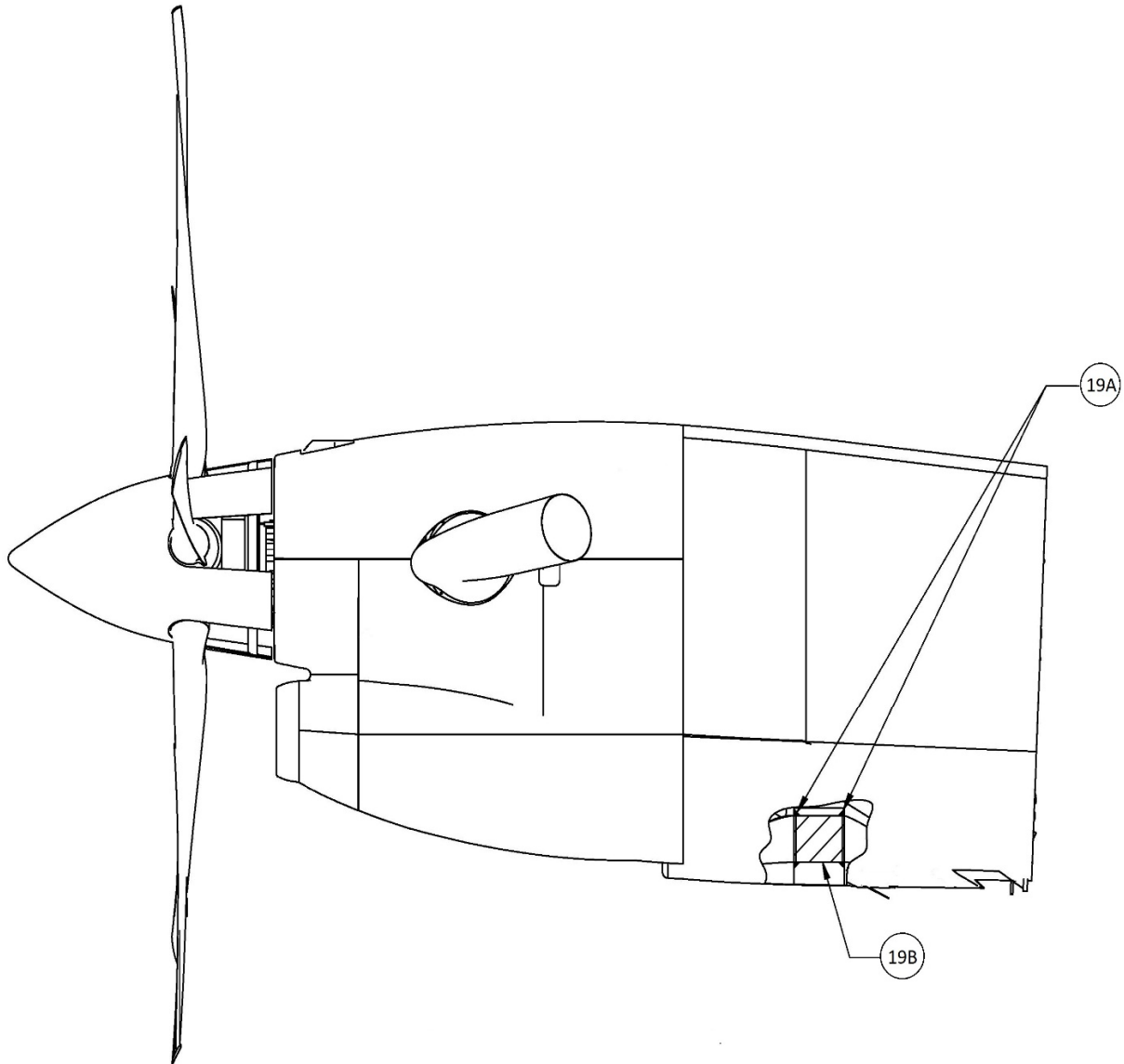
ITEM	PART NUMBER	DESCRIPTION	QTY
18	MS20427M4-5	RIVET	14
19	200914-503-102	OIL COOLER COWL FLAP	1



DETAIL **D**

NOTE: THIS PAGE ONLY APPLIES TO KING AIR 350/-67A MODIFICATIONS THAT ARE APPROVED AT 16,500 LBS AND/OR 17,500 LBS IN GROSS WEIGHT.

ITEM	PART NUMBER	DESCRIPTION	QTY
19A	RTV 736	SEALANT	AR
19B	8002545	ENGINE OIL COOLER ASSY	1

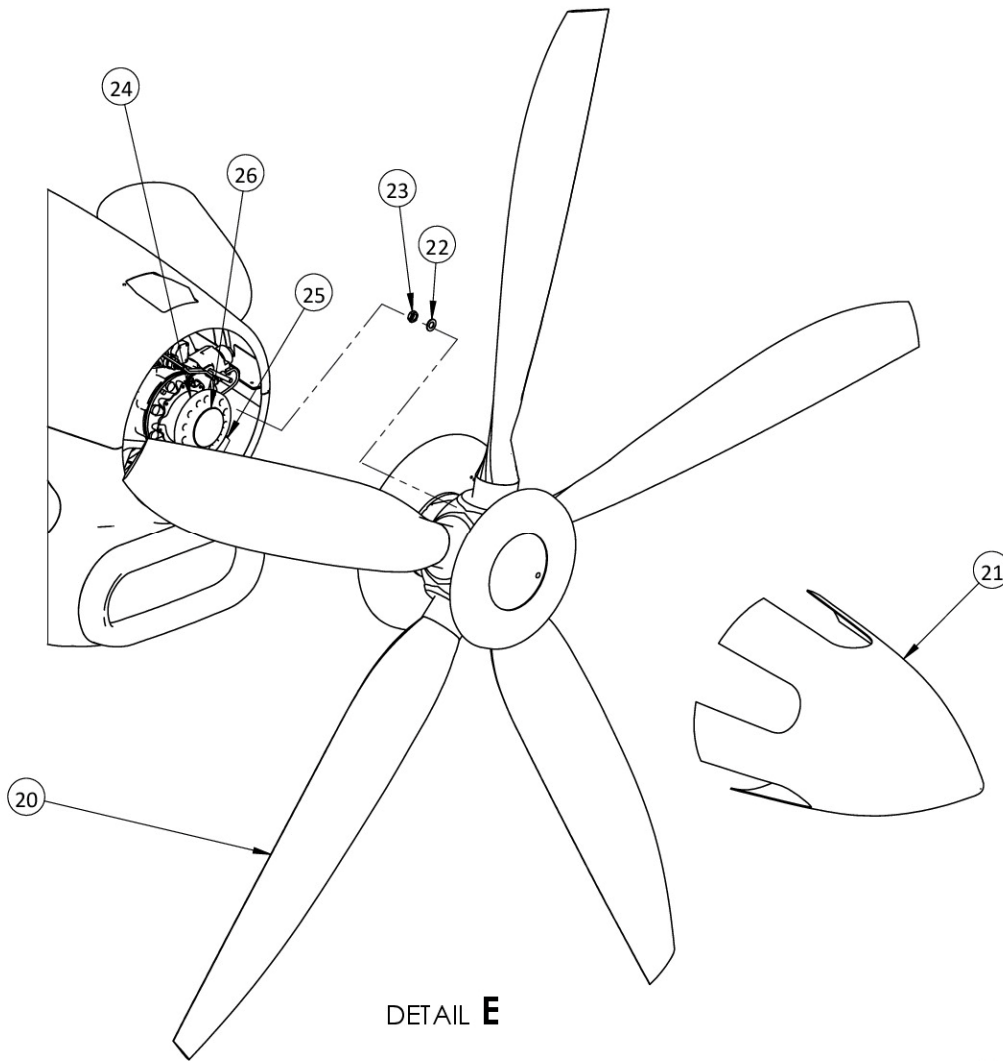


200914-006-001 OIL COOLER INSTALLATION

Document No. 200914-30 Rev A
 Instructions for Continued
 Airworthiness
 Super King Air B300/B300C Series
 with PWC PT6A-67A Engines



ITEM	PART NUMBER	DESCRIPTION	QTY
20	MTV-27-1-N-C-F-R(P) CFR260-65b	PROPELLER	1
21	P-1283-3	SPINNER	1
22	A-1181-1	WASHER	12
23	C-066	NUT	12
24	C-131	CARBON BLOCK	1
25	C-445	BRUSH BLOCK	1
26	C-048-H-1	O-RING	1



Document No. 200914-30 Rev A
Instructions for Continued
Airworthiness
Super King Air B300/B300C Series
with PWC PT6A-67A Engines



APPROVED FLUID HOSE ASSEMBLIES

HOSE FUNCTION	ENGINE	BEECH HOSE P/N	STRATOFLEX P/N	AEROQUIP P/N	SHIP EFFECTIVITY
FUEL					
HOSE ASSY, FIREWALL TO ENGINE PUMP	L	330997F4-0380	130F003-4S0380	624023-4S0380	ALL
HOSE ASSY, FIREWALL TO FUEL PUMP	L		130F005F0-220-D015	630908-10-220D015	ALL
HOSE ASSY, FUEL PUMP TO FILTER	L	330997-10-0270	130F003-10D0270	624023-10D0272	ALL
HOSE ASSY, FILTER TO FUEL HEATER	L	330997F10-0210	130F003-10D0210	624023-10D0210	ALL
HOSE ASSY, FIREWALL TO ENGINE PUMP	R	330997F4-0246	130F003-4S0246	624023-4S0246	ALL
HOSE ASSY, FIREWALL TO FUEL PUMP	R		130F005F0-240-D015	630908-10-240D015	ALL
HOSE ASSY, FUEL PUMP TO FILTER	R	330997F10-0270	130F003-10D0270	624023-10D0270	ALL
HOSE ASSY, FILTER TO FUEL HEATER	R	330997F10-0230	130F003-10D0230	624023-10D0230	ALL
OIL					
HOSE ASSY, OIL COOLER OUT	L	330996F12-0800	130F002-12D0300	624040-12D0300	FM-001 TO FM-009
HOSE ASSY, OIL COOLER OUT	L	330996F12-0300	130F002-12D0300	624040-12D0300	FL-001 TO FL-099
HOSE ASSY, OIL COOLER OUT	L	330996F12-0330	130F002-12D0330	624040-12D0330	FL-100 AND UP
HOSE ASSY, OIL COOLER OUT	L	330996F12-0330	130F002-12D0330	624040-12D0330	FM-010 AND UP
HOSE ASSY, OIL COOLER IN	L/R	330996F12-0140	130F002-12D0140	624040-12D0140	FL-001 TO FL-099
HOSE ASSY, OIL COOLER IN	L/R	330996F12-0140	130F002-12D0140	624040-12D0140	FM-001 TO FM-009
HOSE ASSY, OIL COOLER IN	L/R	330996F12-0170	130F002-12D0170	624040-12D0170	FL-100 AND UP
HOSE ASSY, OIL COOLER IN	L/R	330996F12-0170	130F002-12D0170	624040-12D0170	FM-010 AND UP
HOSE ASSY, OIL COOLER OUT	R	330995F12-0370	130F002-12D0310	624040-12D0310	FL-001 TO FL-099
HOSE ASSY, OIL COOLER OUT	R	330995F12-0370	130F002-12D0310	624040-12D0310	FM-001 TO FM-009
HOSE ASSY, OIL COOLER OUT	R	330995F12-0400	130F002-12D0400	624040-12D0400	FL-100 AND UP
HOSE ASSY, OIL COOLER OUT	R	330995F12-0400	130F002-12D0400	624040-12D0400	FM-010 AND UP
HOSE ASSY, TORQUE PRESS. FROM MANIFOLD	L/R	330995F4-0290	130F001-4S0290	624000-4S0290	ALL
HOSE ASSY, TORQUE PRESS. FROM ENGINE	L/R	330995F4-0114	130F001-4S0114	624000-4S0114	ALL
HOSE ASSY, TORQUE TRANSDUCER VENT	L/R	330997F4-0137	130F003-4S0137	624023-4S0137	ALL
HOSE ASSY, RUDDER BOOST TRANSDUCER VENT	L/R	330997F4-0331	130F003-4S0331	624023-4S0331	ALL
DRAINS					
HOSE ASSY, PROP SHAFT	L/R	MS28741-4-0170	111417-4S0170	360-4S0170	ALL
HOSE ASSY, FUEL FLOW DIVIDER	L/R	330995-4-0172	130001-4S0172	360-4S0172	ALL
HOSE ASSY, FWD COMBUSTION CHAMBER	L/R	330995-6-0172	130001-6S0172	360-6S0172	ALL
HOSE ASSY, AFT COMBUSTION CHAMBER	L/R		1300026S-0114	950012-12-0114	ALL