Beechcraft

BY TEXTRON AVIATION

Multi-Engine Turboprop Communiqué

Communiqué 2001-04 Rev 1
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Revision 1 November 2023	ATA 00 – Importing and Exporting Aircraft- Changed company name. ATA 22 – Article deleted. ATA 27 - Universal Travel Board-Added figure to clarify procedure. ATA 32 – Hydraulic Power-pack Parts Breakdown -Part name change from screen to filter. ATA 32 – Foot and Mouth Disease, Wheels and Brakes-Removed, information no longer relevant. ATA 33 – Wingtip Navlight Lense Installation-Updated resin and hardener part number. ATA 33 – Rotating Beacon Replacement-Removed, information no longer relevant. ATA 77 – ITT Harness-Added part number of grommet.

Importing and Exporting Aircraft **ATA 00**
All

Textron Aviation Technical Support receives calls asking for direction on how to import aircraft back to the United States or how to export aircraft from one country to another. Textron Aviation is also asked to provide engineering drawings related to aircraft certification required by other governments. Textron Aviation Technical Support is unable to provide the requested service to customers because the issues involved are regulatory issues which are handled by civil airworthiness authorities. Textron Aviation is not able to provide engineering drawings because they are proprietary to Textron Aviation Company.

It is recommended that customers requiring this type of assistance have their local civil airworthiness authority contact the Wichita Aircraft Certification Office (ACO) for guidance. The ACO may be reached via telephone at 316-946-4144 or fax 316-946-4407.

Rockwell Collins Autopilot Servo SVO-85B/85C Service Bulletin **ATA 22**
FL-1 thru FL-110 with kit 130-3004-1 or –3/ FL-111 and after.

Refer to Rockwell Collins Service Information Letter 1-01.

Universal Travel Board **ATA 27**
90 Series (except F90), 200/300 Series

Communiqué 99-005 announced the availability of a Universal Travel Board. This travel board only works on the aileron and elevators. Textron Aviation has developed an alternate procedure to be used for the rudder. This procedure is a simple measurement and does not use the travel board. This measurement is taken with a ruler. See Appendix A.

Lockable Fuel Caps **ATA-28**
All

Technical Support receives calls asking for the availability of lockable fuel caps for the King Airs. The part number of these fuel caps is 457-826-2-1. They can be purchased from Textron Aviation Parts and Distribution.

Hydraulic Power-pack Parts Breakdown. Rev. 1 **ATA 32**
F-90, 200/300 Series

Communiqué 99-003 gave the parts breakdown for the hydraulic power pack. A situation has been called to our attention where the up/down port screen part number 627495 happens to share this number with a spring from TCM. The part number for the hydraulic power pack has been set up in the system as “627495 filter” . Please order the screen using this part number.

Nose Landing Gear Fork Assembly Replacement **ATA 32**
90 Series/200 Series/300

The nose landing gear forks were originally manufactured using welded-type tubular material. These nose fork assemblies are subject to Mandatory Service Bulletin 2102 and Airworthiness Directive 87-22-01. These fork assemblies are subject to cracking and these documents mandated inspection of the nose forks and replacement if cracks were found. These nose forks (50-820197-1,-3,-5,-7,-9,-11; 101-820025-1,-3,-5; 101-820072-1 and 115-820066-3,-603) have been superceded to kit 101-8030-1. The kit provides parts and information to replace the nose forks and gives important weight and balance information, since the new forks are heavier. The new forks are easily identified due to the fact the tubular type fork was replaced with a square

type forged fork. We have found that facilities have sent the gears in for overhaul or have replaced their gears with exchanged units and they have come back with the tubular type nose forks. Operators must be aware that these gears are still affected by the Service Bulletin and the Airworthiness Directive and that the weight and balance must be recalculated. Technical Support recommends that if you receive a tubular in exchange for a forged fork you should refuse it and accept only a forged nose fork. The above also applies if the straight replacement is being done. Technical Support recommends the purchase of the kit when replacing tubular forks with forged forks.

Wingtip Navlight Lense Installation **ATA 33**
B300

Operators have ordered wing lenses assembly part numbers 130-170032-53, -54, -103, or 104 and have found out that the assemblies do not fit or it takes a lot of work to making them fit. We recommend ordering the assemblies separately using the following parts and fitting them to the airplane:
Note: lenses assembly 130-170032-53 and –54 have been superceded to 130-170032-103 and 104.

130-170032-103	130-170032-104
• 130-170032-99 Retainer	• 130-170032-100 Retainer
• 130-170032-45 Lens	• 130-170032-46 Lens

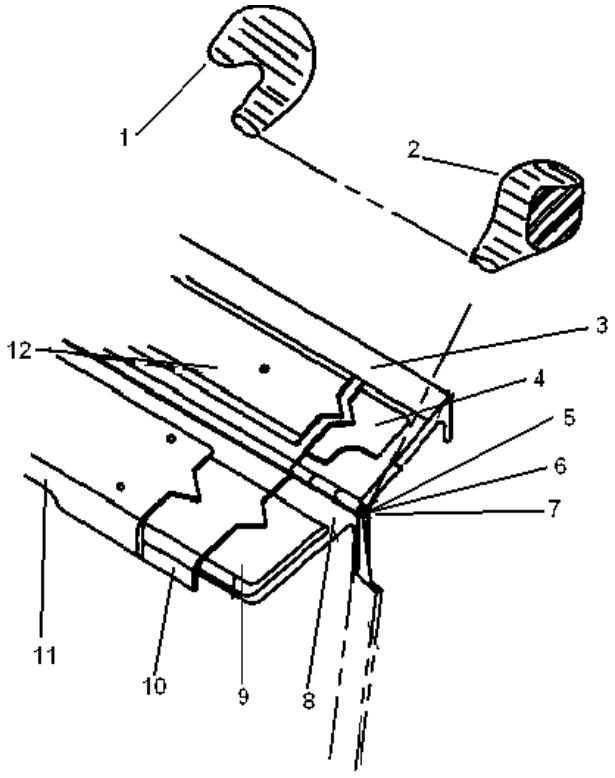
The lens and the retainer can be bonded together using AW8680 Resin and Hardener.

Cabin Door Hinge Parts Break Down **ATA 52**
All

The accompanying drawing shows the cabin door hinge area parts breakdown

1. 50-430184-1 Fillet
2. 50-430184-3 Fillet
3. 50-440014-1137 Channel, door threshold
4. 50-430043-1213 Cushion, sponge
5. 50-440014-417 Hinge half, fuselage side
6. 50-430043-393 Hinge pin
7. 50-430043-547 Hinge half, door side
8. 50-430043-619 Channel
9. 50-430043-1211 Cushion, red
10. 50-430182-5 Seal, black
11. 50-430043-293 Retainer
12. 50-430183-3 Retainer

For detailed installation instructions refer to Service Instruction 0518-105 Rev II.



Autofeather Flashing Lights **ATA 61**
All

Technical Support receives numerous calls regarding the flashing of both autofeather lights during the Autofeather Test procedure. To better understand why the lights flash, we should review the system operation.

The autofeather system consists of 2 pressure switches on each engine, a switch on each power lever, an arm/test switch on the pilot's subpanel, and 2 annunciator lights. The pressure switches react to oil pressure that is relative to the amount of torque being produced in the reduction gearbox. It is termed "torquemeter oil pressure" and is the same oil pressure that is used for the torque indicating system. The switches are classified as high pressure and low pressure. The exact values vary among the different King Air models. When the autofeather switch is placed in the ARM position and both power levers are advanced to approximately 90% N1, the power lever switches are actuated. Both AUTOFEATHER annunciator lights will be illuminated, indicating that both sides are armed. Power to operate the arming relays and illuminate the lights is routed through the opposite side high-pressure switches. That is, the right high-pressure switch activates the left side and the left high-pressure switch activates the right side. The low-pressure switches are in the ground path for their respective side arming relays and autofeather dump valves. High pressure keeps the ground circuit open. If, for example, the right engine fails, the torque will rapidly diminish. As the torquemeter oil pressure decreases below the value of the high pressure switch on the right side, power will be taken away from the left autofeather-arming relay to prevent any inadvertent conditions. The left annunciator light will extinguish. The left high-pressure switch will still be applying power the right side. As the right torque drops below the low-pressure switch value, it closes and completes the ground path to the arming relay and the dump valve. The dump valve will open and all oil pressure to the propeller will be relieved to the reduction gearbox and the propeller will feather. This entire sequence happens in an instant.

The autofeather switch also provides for a test function. Due to the relationship of the power lever switches to the system, it is not possible to test the system in the ARM position, nor would it be practical. When the switch is placed in the TEST position, the power lever switches are bypassed. Techniques and values vary slightly between the models but, basically, with both engines running, the switch is held in the TEST position, and only enough power is applied with the power levers to illuminate the AUTOFEATHER annunciators. Using the right engine as an example, the right power lever is slowly pulled back and, as the torque drops below the high-pressure switch value, the left annunciator extinguishes. The right power lever will continue to be retarded until the low-pressure switch closes. At that point, the right AUTOFEATHER annunciator will flash and the right propeller will attempt to feather. Keep in mind that the engine is still running. As the propeller starts to feather, the torque increases. When it gets high enough, it opens the low-pressure switch and the dump valve closes. As the propeller refills with oil, the blade angle is reduced and the torque drops again. The propeller will cycle as the low-pressure switch opens and closes the dump valve. The right AUTOFEATHER light will flash in sequence because the ground to the arming relay is also cycling with the low-pressure

switch. Occasionally, staying with this example, you will experience the left AUTOFEATHER light flash while the right side is cycling. This is particularly common on those airplanes with 4 bladed propellers. The 4 bladed installation requires a higher propeller rpm and higher low idle N1 speed than the 3 bladed installation. Since the right propeller is turning faster, the torque surge is high enough, when it tries to feather, to momentarily re-arm the left side. This will cause the light to flash. **This condition is absolutely normal**. Bringing the power lever all the way back to the low idle position during the test usually allows the opposite light to stop flashing. There are several factors that can affect the torque. Engine speed, prop pitch setting, and cold weather, are just a few. The condition is less prevalent in the 3 bladed installation, but it can still occur. Sometimes, it can be attributed to internal friction, and lubricating the propeller takes care of it.

ITT Harness **ATA 77**
BB-1484, 1486 and after; BL-141 and after; BT-39 and after and BN-1 and after.

Textron Aviation Technical Support has received reports that the ITT harness has chaffed through at a grommet on the firewall causing inaccurate indications. The part number of the ITT harness for the above effectivity airplanes is 101-369029-1. We recommend that the grommet, part number 112149-1 and 112436-2 retainer, be inspected for sharp edges. If sharp edges are found, we recommend that a radius be created to prevent this from happening again.

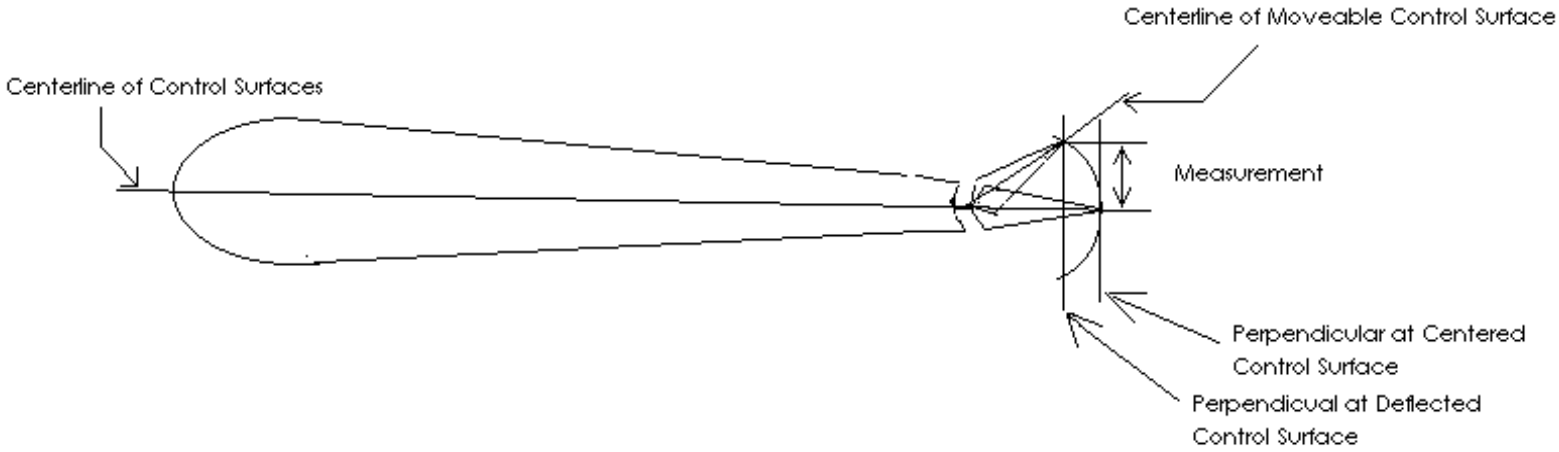
APPENDIX A

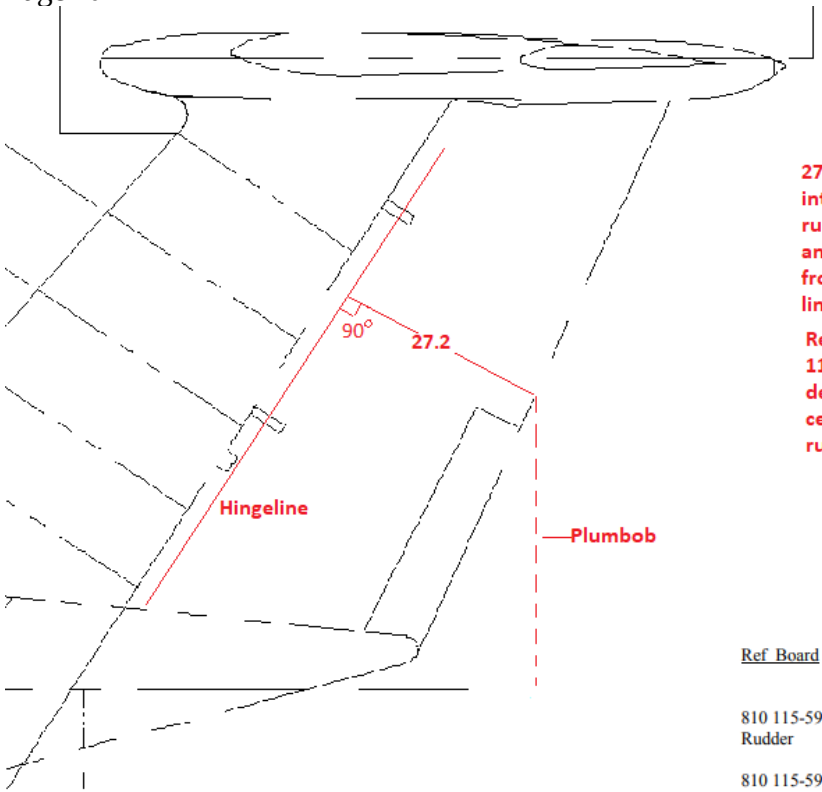
Rudder and Tab travel/rigging

Ref Board	Model	Callout deg.	Range	Inches hinge/tip	Meas. From angle of C/L
810 115-590039 Rudder	99/100	20 +/-1 Left	20 deg 21 deg.	21.41 21.41	7.32 7.67
810 115-590039 Rudder	99 100	26+1-0 Right 25+1-0 Right	26-27 deg 25-26 deg	21.41 21.41	9.39-9.72 9.05-9.39
807 101-630000-1 Rudder	200/300/350 F90	25 +1-0	25 deg 26 deg.	27.2 27.2	11.50 11.92
807 114-630000-1 Rudder	1900 Series	24+1-0 (A/B/C) 25+1-0 (D)	24-25 deg 25-26 deg	27.2 27.2	11.06-11.50 11.50-11.92
810 130-630000-1 Rudder Tab	200/300/350 1900 /F90	15+1.5-0	15 deg 16.5 deg	7.38 7.38	1.91 2.01
810 96-630000-207 Rudder Tab	99/100	30+1.5-0	30-31.5 deg	5.10	2.55-2.66

NOTE: For the King Air 90 see the King Air 90 Maintenance Manual- Rudder Control System-Adjustment/Test

All measurements are from centerline of vertical stabilizer-rudder-tab in the neutral position. As rudder (or tab) is deflected right or left from the centerline, the measurement will be from (and perpendicular to) the centerline to the center of the trailing edge. Note that as control surface deflection increases, the measurement points move forward.





27.2 inches is the intercepting line of the rudder trailing edge and an extended line from the rudder hinge line.

Resulting deflection of 11.50 expected at 25 degrees from the center line of the rudder.

Rudder and Tab travel/rigging

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810 115-590039 Rudder	99 100	26+1-0 Right 25+1-0 Right	26-27 deg 25-26 deg	21.41 21.41	9.39-9.72 9.05-9.39
807 101-630000-1 Rudder	200/300/350 F90	25 +1-0	25 deg 26 deg.	27.2 27.2	11.50 11.92
807 114-630000-1 Rudder	1900 Series	24+1-0 (A/B/C) 25+1-0 (D)	24-25 deg 25-26 deg	27.2 27.2	11.06-11.50 11.50-11.92
810 130-630000-1 Rudder Tab	200/300/350 1900 /F90	15+1.5-0	15 deg 16.5 deg	7.38 7.38	1.91 2.01
810 96-630000-207 Rudder Tab	99/100	30+1.5-0	30-31.5 deg	5.10	2.55-2.66