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ALERT SERVICE BULLETIN
ASB No. AA-03095

SUBJECT: HIGH VISIBILITY CREW DOOR KIT
P/Ns 407-577-001 OR
HIGH VISIBILITY CREW DOORS
P/N 407-577-101 (L/H), 407-577-102 (R/H)

MODELS AFFECTED: Bell Helicopter Textron 407
S/N: 53017, 53090, 53217, 53292, 53375, 53394,
53444, 53467, 53485, 53495, 53525, 53530,
53532, 53533, 53543.

COMPLIANCE: This bulletin shall be complied with within 25 flight hours of receipt of this bulletin.

DESCRIPTION: This Alert Service Bulletin is being issued in response to an incidence of the release cable failing where the cable entered one of the MS20668-2 Terminals. This bulletin provides the procedures for the appropriate modification of the door to prevent future cable failure.

MANPOWER: Approximately 4.0 man hours.

IF OWNERSHIP OF AIRCRAFT HAS CHANGED, PLEASE FORWARD THIS BULLETIN TO NEW OWNER

1.0 MATERIAL

The following materials are required to comply with this bulletin:

- AAI P/N 407-578-001 High Visibility Crew Door Modification Kit
(This kit is available from Aeronautical Accessories, Inc. (AAI) at no cost. Contact our Sales department at 1-800-251-7094)

2.0 REQUIRED TOOLS:

Screw Driver, Philips Head
Screw Driver, Small Standard Flat Head
Needle Nose Pliers
Diagonal Cutting Pliers
Drill with # 30 Drill Bit
Swaging Tool (Provided for ASB completion by AAI)
Pneumatic or Electric Die Grinder
Hand or Power Riveter

3.0 WEIGHT AND BALANCE:

No Change

4.0 PUBLICATIONS AFFECTED:

AAI Report No. AA-01072 Revision A "Instructions for Continued Airworthiness for High Visibility Crew Doors", or earlier revision. This Report is currently in revision to reflect the changes made by this ASB.

5.0 ACCOMPLISHMENT INSTRUCTION:**5.1 MODIFICATION PROCEDURES**

- 5.1.1 If equipped with Automatic Door Opener, open L/H crew door and remove safety clips securing the gas cylinder ends to the ball studs. Gently pry the gas cylinder loose from the ball studs.
- 5.1.2 Remove and retain the two fasteners securing the forward hinge locations.
- 5.1.3 Remove L/H crew door from helicopter and take appropriate measures to protect the window inside and out.
- 5.1.4 Remove interior trim panel from door by removing the 9 screws and washers long the edge of the trim panel, the screw and washer from the interior handle cover and the interior pull handle. Retain hardware.

- 5.1.5 Cut the cable, which feeds thru the cable tube, below the terminal end connected to the interior release handle. Refer to drawing 407-578, sheet 2.
- 5.1.6 Remove cotter pin, washer, and pin where terminal end is connected to exterior release handle linkage. Remove cable from cable tube and discard cable and cotter pin, while retaining the washer and pin.
- 5.1.7 Remove cotter pin, washer, and pin where the remaining terminal end is connected to the interior release handle. Discard cotter pin and terminal while retaining the washer and pin.
- 5.1.8 Carefully cut 7/16" (.4375) off the end of the cable tube as shown on drawing 407-578 sheet 2, with a die grinder or equivalent. Deburr the inside of the cable tube end.

CAUTION

Proper deburring of cable tube end after cutting is required to prevent future cable damage. Use of a metal plate is recommended between the cable tube and the door to prevent damage to the door during the cutting process.

- 5.1.9 Install a 407-576-162 Tube Fairing on each end of the cable tube with 099-050-172 Adhesive, as shown on drawing 407-578 sheet 3.
- 5.1.10 Feed the 407-578-101 Cable Assembly thru the cable tube starting at the interior release handle end, as shown on drawing 407-578 sheet 3. Install the 407-576-164 Terminal on the interior release handle with retained hardware and new MS24665-15 Cotter Pin provided.
- 5.1.11 Install the MS21919WDG3 Clamp, provided on the cable tube approximately .60" from the end of the Cable Tube as shown on drawing 407-578 sheet 3. Match drill (# 30 drill, .127-.133 Dia) the door to the clamp. Rivet the clamp in place using CR3523-4-4 Rivet and 140-001-1 Rivet Washer provided.
- 5.1.12 Install the 407-576-164 terminal on the exterior release handle linkage. Lock both the upper and lower latches and ensure that the exterior release handle is flush with the exterior skin of the door (not in the open position). Align the 407-576-164 Terminal toward the cable tube and pull the cable towards the terminal. Keeping the cable taught, mark and then cut the cable as shown in Detail A of drawing 407-578 sheet 3.
- 5.1.13 Remove the 407-576-164 Terminal from the exterior release handle linkage. Install the 407-576-164 Terminal on the cable using the swaging tool. Swage the

terminal to the cable 1/8" (.125) from the end of the terminal. See Detail B on drawing 407-578 sheet 3.

CAUTION

Swaging the terminal too close to the end (less than 1/8") can result in damage to the cable.

- 5.1.14 Reinstall the 407-576-164 Terminal on the exterior release handle linkage with retained hardware and new MS24665-155 Cotter Pin provided.
- 5.1.15 Verify that both latches release simultaneously when interior and exterior handles are actuated. Adjustments to the linkage between the exterior handle and the lower door latch can be made if necessary as follows:
- a) Remove cotter pin, washers, and pin from Clevis located on the upper end of the link assembly between the exterior handle and the lower door latch. Discard cotter pin retain pin and washers.
 - b) Swing the linkage away from the door latch and loosen the jam nut adjacent to the clevis.
 - c) Adjust the length of the linkage, as required, by screwing the clevis clockwise to shorten, and counter-clockwise to lengthen.

NOTE

When shortening linkage, ensure that the threaded portion of the rod does not extend too far into the clevis and make contact with the latch assembly. When lengthening linkage, ensure that a minimum of 1/4" of the threaded portion of the rod is engaged in the clevis.

- d) Once the appropriate adjustment is made retighten the jam nut against the clevis and apply Loctite 222 Threadlocker, or equivalent, to secure the nut in place.
 - e) Replace the linkage on the latch assembly, and reinstall the pin and washers removed in step a) into the clevis. Install a new MS24665-155 Cotter Pin in the pin securing the clevis, to replace the discarded cotter pin in step a).
- 5.1.16 Reinstall trim panel on door with retained fasteners.
- 5.1.17 Reinstall door on helicopter as follows: holding the door in the opened position with the forward mounted hinges inserted into the airframe mounted hinge clevises, install the two retained hinge fasteners. Torque fasteners 15 to 20 in-lbs.
- 5.1.18 Close the door and latch to ensure proper adjustment.

- 5.1.19 Once door is closing properly, and if equipped with an Automatic Door Opener, open door and install gas cylinder onto ball studs. Install safety clips to retain ends of gas cylinder on the ball studs.
- 5.1.20 Repeat process for R/H Passenger door.
- 5.1.21 Modification complete. Make a notation in the helicopter's log indicating that ASB No. AA-03095 has been accomplished for the P/N 407-577-001 High Visibility Crew Door Kit, P/N 407-577-101 High Visibility Crew Door L/H, and/or P/N 407-577-102 High Visibility Crew Door R/H as applicable.

6.0 CONTACT INFORMATION

Any questions regarding this bulletin should be addressed to:

AERONAUTICAL ACCESSORIES, INC.
PRODUCT SUPPORT
1-800-251-7094