



Sikorsky Aircraft Corporation

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269D™ HELICOPTER

ALERT SERVICE

BULLETIN



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ASB DB-066

Basic Issue ▪ June 30/16

SUBJECT: CABIN AND CENTER FRAME SECTION – Cabin Doors – One-time Inspection of Airframe and Door Mounted Hinge-Halves for Proper Sizing and Plunger Pin to Lug Engagement

Section 1. PLANNING INFORMATION

- A. **Effectivity** All 269D and 269D Configuration "A" model helicopters and all spare door mounted hinge-halves (269A4755-007 and -013).
- B. **Purpose** To provide instructions for a one-time inspection of airframe and door mounted hinge-halves for cracks, gaps, bent lugs, smooth function of plunger pin, and pin engagement.
- C. **Background** Instances of cabin door coming loose in flight were reported. Further investigation determined that some door mounted hinge-half lug dimensions were manufactured incorrectly, resulting in decreased hinge plunger pin engagement when cabin door is mounted to the airframe mounted hinge-halves. As a result, inspection criteria for both airframe and door hinge-halves are provided herein and any defective hinge-halves must be removed and replaced.
- D. **Description** Helicopter is prepared for inspection. Door mounted hinge-half is inspected for proper sizing and/or damage. If door mounted hinge-halves do not pass inspection, they are replaced. Cabin doors are removed. Knurled handles and hinge-halves plunger pins on airframe mounted hinge-halves are inspected. If airframe mounted hinge-halves do not pass inspection, they are replaced. Cabin doors are reinstalled. Airframe and Door Mounted Hinge-Halves Inspection Data Sheet is completed and helicopter is returned to service.

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INSPECTION

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Section 1. PLANNING INFORMATION (Continued)

- E. Compliance Compliance is essential. The inspection outlined herein shall be accomplished within the next 100 flight hours or no later than September 28, 2016.
- F. Approval Inspection item.
- G. Manpower (Estimated)

<u>Task</u>	<u>No. of Men</u>	<u>No. of Hours</u>	<u>Man-Hours*</u>
Inspection of door mounted hinge-halves (269A4755-007 or -013) for proper sizing and wear	1	0.1	0.1
Removal of cabin door	1	0.1	0.1
Inspection of knurled handles and hinge-half plunger pins on airframe mounted hinge-half (269A4755-009 or -011)	1	0.1	0.1
Cleaning and lubrication of lugs on airframe mounted hinge-halves (269A4755-009 or -011)	1	0.1	0.1
Replacement of airframe mounted hinge-halves (269A4755-009 or -011)**	1	0.5	0.5
Inspection of door mounted hinge-halves (269A4755-007 or -013) for worn, bent, cracked, and corroded lugs	1	0.1	0.1
Corrosion treatment of lug on door mounted hinge-halves (269A4755-007 or -013)**	1	0.2	0.2
Replacement of door mounted hinge-halves (269A4755-007 or -013)**	1	0.5	0.5
Installation of cabin door	1	0.1	<u>0.1</u>
Total Man-Hours			1.8

*Estimate does not include time required to prepare helicopter or return it to flight status.

**Estimate does not include cure time.

- H. Tooling
None.
- I. Weight and Balance
Not affected.

Section 1. PLANNING INFORMATION (Continued)

J. Electrical Load Data

Not affected.

K. Software Load Data

Not changed.

L. References

- (1) Handbook of Maintenance Instructions (HMI) CSP-D-2.
- (2) Handbook of Maintenance Instructions (HMI) CSP-D-9.
- (3) Service Bulletin DB-026, Modification of Cabin Door Hinges, basic issue or later revision.
- (4) Temporary Revision No. 269D-96 against HMI CSP-D-2, Section 13, Paragraph 13-11 and Paragraph 13-11A to be issued concurrently with this ASB.
- (5) Temporary Revision No. 269DA-105 against HMI CSP-D-9, Section 13, Paragraph 13-11 and Paragraph 13-11A to be issued concurrently with this ASB.

M. Publications Affected

- (1) Temporary Revision No. 269D-93 against HMI CSP-D-2, Section 2, Table B-1 to be issued concurrently with this ASB.
- (2) Temporary Revision No. 269D-94 against HMI CSP-D-2, Section 2, Table B-1 to be issued concurrently with this ASB.
- (3) Temporary Revision No. 269D-95 against HMI CSP-D-2, Section 2, Table B-2 to be issued concurrently with this ASB.
- (4) Temporary Revision No. 269D-96 against HMI CSP-D-2, Section 13, Paragraph 13-11 and Paragraph 13-11A to be issued concurrently with this ASB.
- (5) Temporary Revision No. 269D-97 against HMI CSP-D-2, Section 2, Table 2-2 to be issued concurrently with this ASB.
- (6) Temporary Revision No. 269DA-102 against HMI CSP-D-9, Section 2, Table B1 to be issued concurrently with this ASB.
- (7) Temporary Revision No. 269DA-103 against HMI CSP-D-9, Section 2, Table B-1 to be issued concurrently with this ASB.
- (8) Temporary Revision No. 269DA-104 against HMI CSP-D-9, Section 2, Table B-2 to be issued concurrently with this ASB.
- (9) Temporary Revision No. 269DA-105 against HMI CSP-D-9, Section 13, Paragraph 13-11 and Paragraph 13-11A to be issued concurrently with this ASB.

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Section 1. PLANNING INFORMATION (Continued)

- (10) Temporary Revision No. 269DA-106 against HMI CSP-D-9, Section 2, Table 2-2 to be issued concurrently with this ASB.
- (11) Temporary Revision No. 269DA-107 against HMI CSP-D-9, Section 13, Paragraph 13-11 to be issued concurrently with this ASB.

N. Attachment

None.

Section 2. MATERIAL INFORMATION

A. Basis for Material Data

Per helicopter.

B. Bill of Material

<u>New Part No.</u>	<u>Qty</u>	<u>Key Word</u>	<u>Old Part No.</u>	<u>Instructions/Disposition</u>
269A4755-019	A/R	Door mounted hinge-halves	269A4755-007/-013	(1)
269A4755-007/-013 (Alternate)				(2)
269A4755-017	A/R	Airframe mounted hinge-halves	269A4755-009/-011	(1)
269A4755-009/-011 (Alternate)				(3)

- (1) For parts availability and lead time requirements, contact your Account Service Manager or Customer Service Representative at Sikorsky Aircraft Corporation. Submit a cost purchase order referencing this ASB number and the helicopter serial number(s) on which these parts will be used. This will allow Sikorsky Aircraft Corporation and the operator to track shipment and receipt of parts. Orders will be accepted by letter, telephone, facsimile (FAX) or through the Sikorsky Aircraft Corporation website: <https://customerportal.sikorsky.com>. For prompt shipment, reference address of each shipping destination. Direct your order to:

Sikorsky Aircraft Corporation
Commercial Systems and Services
Mailstop K100
124 Quarry Road
Trumbull, CT 06611 U.S.A.
Attn: Account Service Manager
FAX: (203) 416-4291, Telephone: (203) 416-4000
<https://customerportal.sikorsky.com>



Section 2. MATERIAL INFORMATION (Continued)

- (2) Spare door mounted hinge-halves 269A4755-007/-013 are acceptable alternates, provided they pass ASB criteria.
- (3) Spare airframe mounted hinge-halves 269A4755-009/-011 are acceptable alternates, provided they pass ASB criteria.

C. Consumable Material



OBSERVE ALL CAUTIONS AND WARNINGS ON CONTAINERS WHEN USING CONSUMABLES. WHEN APPLICABLE, WEAR NECESSARY PROTECTIVE GEAR DURING HANDLING AND USE. IF A CONSUMABLE IS FLAMMABLE OR EXPLOSIVE, MAKE CERTAIN CONSUMABLE AND ITS VAPORS ARE KEPT AWAY FROM HEAT, SPARK AND FLAME. MAKE CERTAIN FIREFIGHTING EQUIPMENT IS READILY AVAILABLE PRIOR TO USE. FOR ADDITIONAL INFORMATION ON TOXICITY, FLASHPOINT AND FLAMMABILITY OF CHEMICALS, CONSULT YOUR MEDICAL DEPARTMENT OR THE MANUFACTURER OF THE CONSUMABLE.

<u>Qty</u>	<u>Nomenclature</u>	<u>Part No.</u>	<u>Source</u>
A/R	Lubricant	LPS 2 or equivalent	(1)

- (1) Available through normal supply channels.

Section 3. ACCOMPLISHMENT INSTRUCTIONS

NOTE: • New spares inventory of hinge-halves 269A4755-017 are interchangeable with 269A4755-009/-011 and 269A4755-019 are interchangeable with 269A4755-007/-013, provided they pass ASB criteria.

- All spare hinge-halves must perform applicable parts of this ASB.

A. Prepare helicopter for inspection:



TO PREVENT ELECTRICAL SHOCK OF PERSONNEL OR POSSIBLE DAMAGE TO HELICOPTER COMPONENTS, MAKE SURE TO TURN OFF ALL ELECTRICAL POWER.

- (1) Turn off all helicopter electrical power.

B. Perform one-time inspection for proper sizing and wear as follows:



Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

NOTE: Make sure door mounted hinge-halves (269A4755-007 or -013) are configured with a cap or rod welded to the outside ends of the hinge-half guide. Refer to Service Bulletin DB-026, Modification of Cabin Door Hinges, basic issue or later revision.

- (1) With the cabin doors installed, closed, and latched, visually inspect the gap between the door mounted hinge-halves and the airframe mounted hinge-halves.
 - (a) The maximum total gap (sum of both sides) between door mounted hinge-half (269A4755-007 or -013) lugs and the body of airframe mounted hinge-half (269A4755-009 and -011) must not exceed 0.055 inch. (Refer to Figures 1 and 2.)
- (2) With cabin doors open, visually inspect the gap between the door mounted hinge-halves and the airframe mounted hinge-halves.
 - (a) The maximum total gap (sum of both sides) between door mounted hinge-half (269A4755-007 or -013) lugs and the body of airframe mounted hinge-half (269A4755-009 or -011) must not exceed 0.055 inch. (Refer to Figures 1 and 2.)
- (3) Remove cabin doors. (Refer to HMI CSP-D-2, Paragraph 13-12, or HMI CSP-D-9, Paragraph 13-11.)
- (4) Inspect door mounted hinge-half (269A4755-007 or -013) lugs as follows:
 - (a) Check to make sure door mounted hinge-half (269A4755-007 or -013) lugs measures a minimum of 0.261 inch. (Refer to Figures 2 and 3.)
 1. If door mounted hinge-half (269A4755-007 or -013) lugs measurement is greater than 0.261 inch, proceed to step B.(5).
 2. If door mounted hinge-half (269A4755-007 or -013) lugs measurement is less than 0.261 inch, replace door mounted hinge-half (269A4755-007 or -013). (Refer to Temporary Revision No. 269D-96 or Temporary Revision No. 269DA-105.)
- (5) Gain access to airframe mounted hinge-half (269A4755-009 or -011) and inspect as follows:
 - (a) Squeeze knurled handles on airframe mounted hinge-half (269A4755-009 or -011) together, and quickly release handles. Observe the movement and resting position of each knurled handle with their stops. Inspect for the following conditions:
 1. Check to make sure knurled handles must snap against handle stops rapidly.
 2. Check to make sure knurled handles must hold position at rest against handle stops, without any evidence of weakness or sagging.

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

3. Check to make sure the plunger pins on airframe mounted hinge-half (269A4755-009 or -011) must extend at least 0.230 inch from their hinge-half guide, with the knurled handles resting against their stops. (Refer to Figure 4.)
 - (b) If knurled handles sag, show signs of weakness, or do not snap back rapidly and rest against their stops, inspect mechanism for dirt and debris, and clean mechanism as follows:
 1. Clean and lubricate airframe mounted hinge-half (269A4755-009 or -011), plunger pin, and guide using aerosol lubricant (LPS 2 aerosol lubricant or equivalent). Repeat step B.(5) on airframe mounted hinge-halves as required.
 - (c) If airframe mounted hinge-half (269A4755-009 or -011) passes inspection, proceed to step B.(6), if not, proceed to next step.

NOTE: For reference only, nominal hinge spring tension is approximately 0.42 pounds (6.7 ounces).
 - (d) If airframe mounted hinge-half (269A4755-009 or -011) plunger pins spring-back performs sluggish, or if either one of the plunger pins do not extend to a minimum of 0.230 inch from the end of their guide, replace airframe mounted hinge-half (269A4755-009 or -011). (Refer to Figure 4, and Temporary Revision No. 269D-96 or Temporary Revision No. 269DA-105.)
 - (6) Visually inspect door mounted hinge-half (269A4755-007 or -013) for worn, bent, cracked, and corroded lugs:
 - (a) For dirty and/or corroded lugs, clean and lubricate lugs using aerosol lubricant (LPS 2 aerosol lubricant or equivalent).
 - (b) If corrosion is found, refer to HMI CSP-D-2, Appendix D or CSP-D-9, Appendix D.
 - (7) If door mounted hinge-half (269A4755-007 or -013) lug is cracked or bent, or preventing proper engagement or smooth function of hinge plunger pins, or an excessive gap (greater than 0.055 inch) is present, replace door mounted hinge-half. (Refer to Temporary Revision No. 269D-96 or Temporary Revision No. 269DA-105.)
 - (8) Reinstall cabin doors. (Refer to HMI CSP-D-9, Paragraph 13-11, or HMI CSP-D-9, Paragraph 13-11, and Temporary Revision No. 269D-96 or Temporary Revision No. 269DA-105.)
- C. Complete the Airframe and Door Mounted Hinge-Halves Inspection Data Sheet (Step E.). Send to email address S300ASB@sikorsky.com.
- D. Return helicopter to service.

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

E. Airframe and Door Mounted Hinge-Halves Inspection Data Sheet:

- (1) Report the following to Sikorsky Aircraft Corporation Engineering (Email Address: S300ASB@sikorsky.com).

ASB No: DB-066

Date ASB is Performed: _____

Customer/Operator Name: _____

Helicopter Serial Number: _____

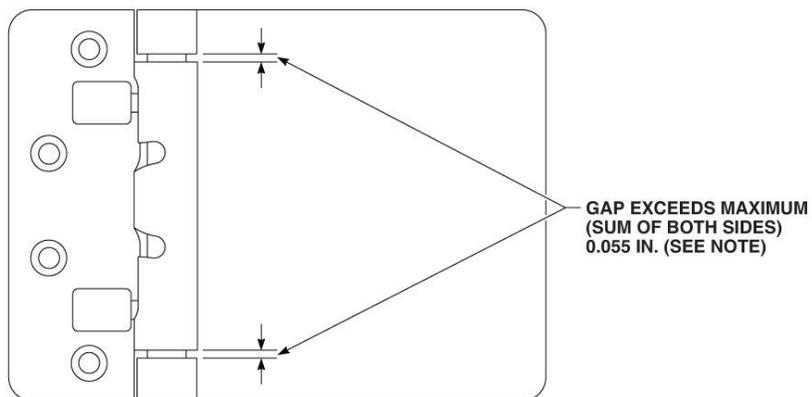
Helicopter Total Time Since New: _____

	Yes	No
Were there any door mounted hinge-halves rejected for improper lug(s) length?	_____	_____
Were there any door mounted hinge-halves rejected for cracked or damaged lugs?	_____	_____
Were all of the airframe mounted hinge-half plunger pins protruding the correct amount and the knurled handles hitting its stop?	_____	_____
Were any airframe mounted door hinge-half springs rejected or hinge halves replaced?	_____	_____

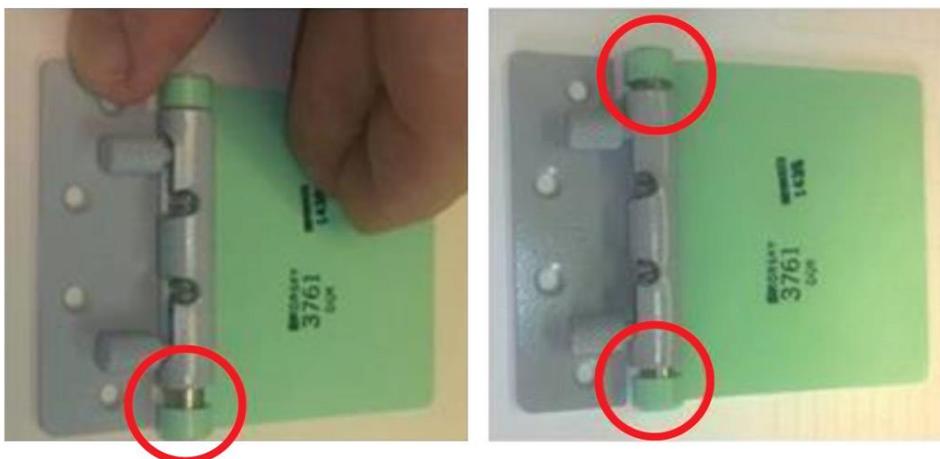
Please describe details of findings in table below:

Specify issue (incorrect or improper dimension, corrosion, binding, wear, nicked or cracked hinge-halves)	Specify damage location (airframe or door hinge halves)	Size of damage (inches)	Total time on part (Flight hours)

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)



EXAMPLE OF GAP INDICATING IMPROPER HINGE PLACEMENT



EXAMPLE OF REJECTED EXCESSIVE GAP

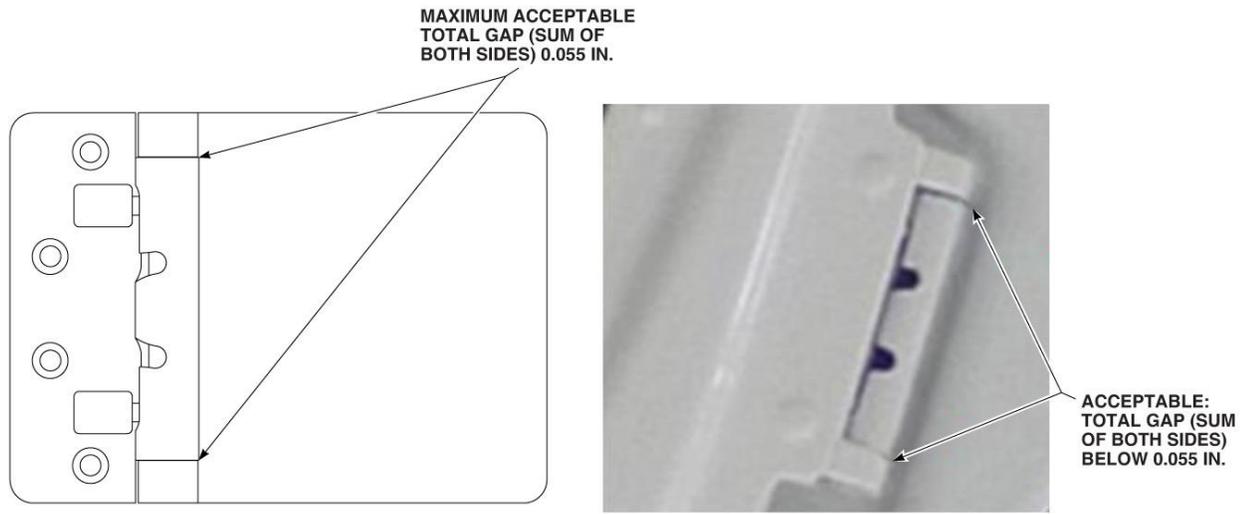
NOTE
NOMINAL DIMENSIONS.

TD3795
SA

EXAMPLES OF INCORRECT/EXCESSIVE GAPS AND IMPROPER ENGAGEMENT OF HINGES
FIGURE 1

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Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

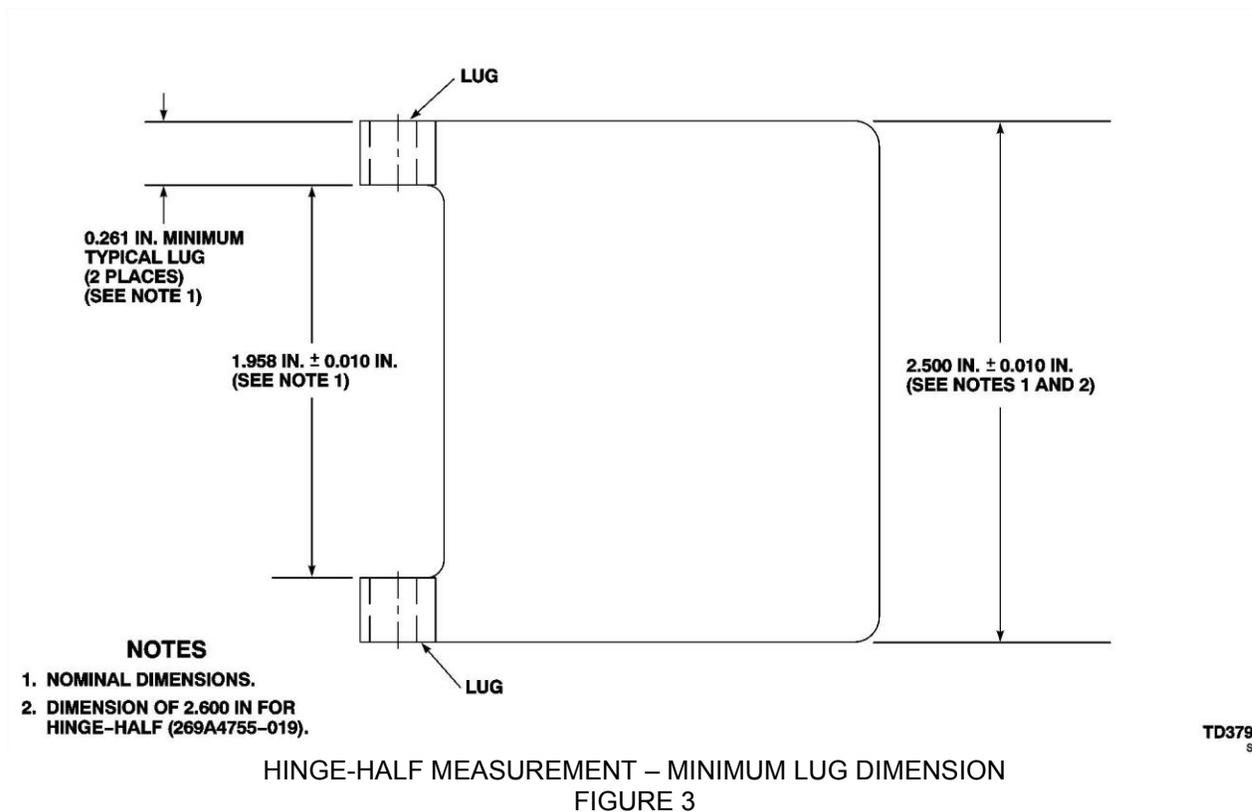


**EXAMPLES OF ACCEPTABLE GAPS BETWEEN HINGE-HALVES
OPEN AND CLOSED DOOR VIEWS**

**EXAMPLES OF ACCEPTABLE GAPS BETWEEN HINGE-HALVES
FIGURE 2**

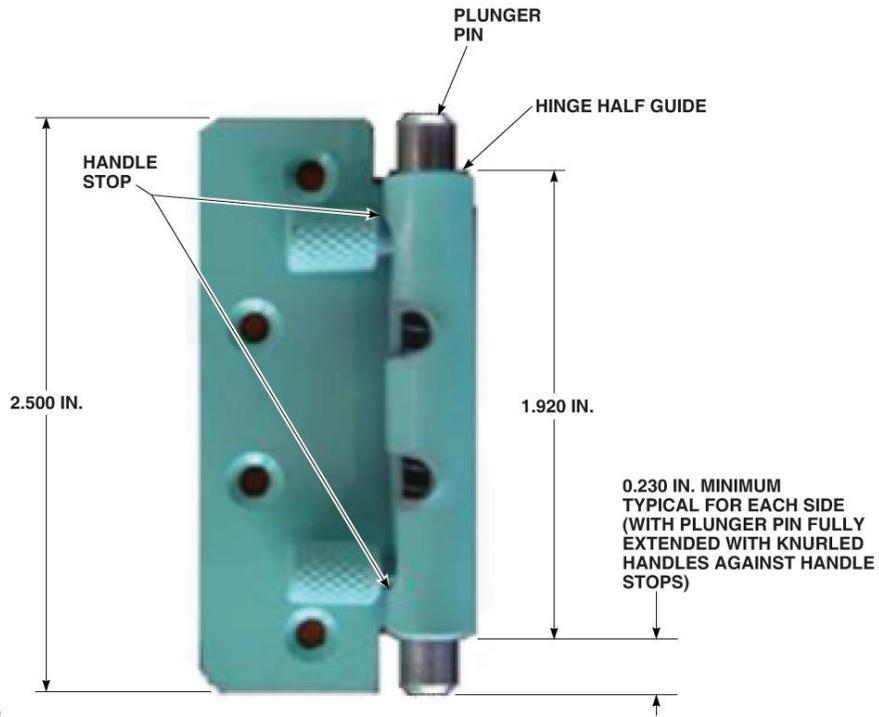
TD3796
SA

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)



ONE-TIME
INSPECTION

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)



NOMINAL DIMENSIONS AND MINIMUM PLUNGER PIN EXTENSION
FIGURE 4

Section 3. ACCOMPLISHMENT INSTRUCTIONS (Continued)

F. Record of compliance:

- (1) Make an appropriate helicopter logbook entry to show compliance with this ASB.
- (2) Upon compliance with the ASB, complete attached ALERT SERVICE BULLETIN COMPLIANCE RECORD CARD and return it to Sikorsky Aircraft Corporation.

(Fold over and tape closed)

SIKORSKY AIRCRAFT CORPORATION

FACSIMILE NUMBER (860) 998-7565

EMAIL ADDRESS: GPSIKSASProductSafet@utc.com

ATTENTION: PRODUCT SAFETY MANAGER
SIKORSKY AIRCRAFT CORPORATION

IMPORTANT NOTICE

Upon **COMPLIANCE** with the attached ASB, Sikorsky requests your cooperation in completing and returning this **ENTIRE PAGE** by **MAIL, FAX, or scan & EMAIL**.

Please fill in the requested information at the bottom of the page, so we may maintain proper records documenting the configuration of your aircraft. This information is useful when determining configuration and effectivity of issues affecting fielded aircraft.

This request is in keeping with our policy to assure that our customers receive the latest information applicable for the maintenance of your aircraft. Thank you.

ALERT SERVICE BULLETIN: No. DB-066 **Compliance Record Card**

TITLE: CABIN AND CENTER FRAME SECTION – Cabin Doors – One-time Inspection of Airframe and Door Mounted Hinge-Halves for Proper Sizing and Plunger Pin to Lug Engagement

OWNER/OPERATOR: _____

SUBMITTED BY: _____ **DATE:** _____

- FOLLOWING SERIAL NUMBERS ARE NOT AFFECTED BY THIS ASB**
- ASB HAS BEEN COMPLIED WITH ON HELICOPTER SERIAL NUMBERS:**

(Fold Up to Arrows)



No Postage
Necessary

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 432 BRIDGEPORT CT

POSTAGE WILL BE PAID BY ADDRESSEE

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Commercial Systems and Services

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TRUMBULL, CT 06611 U.S.A.

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Please complete the form on the reverse side and FAX to

FACSIMILE NUMBER (860) 998-7565

Or scan and email to:

EMAIL ADDRESS: GPSIKSASProductSafet@utc.com

or fold and return ENTIRE form to Sikorsky Aircraft Corporation