

AIRBUS HELICOPTERS CANADA LIMITED
SUBJECT:

 Required maintenance for the Installation of High Visibility Main and Aft Cabin Doors
 (P/N 350-202014).

APPLICABILITY :

 Aircraft with the subject modification embodied in accordance with TCCA STC
 No. SH00-1 or any relevant foreign approvals.

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RECORD OF REVISIONS

Rev.	Pages at this Revision	Description, Reason, Changed Pages	Prepared (name and date)	Checked (name and date)	App'd/Acc'd (Civil A/W Authority) (name and date)	Released (name and date)
0	1 through 19	Original Issue. Replaces MMS- ECL- 35.	See page 1.	See page 1.	See page 1.	See page 1.

NOTE: Revisions to this document will be distributed to operators of this equipment by the STC holder.
 NOTE: Revised portions of affected pages are identified by a vertical black line in the margin adjacent to the change.
 NOTE: Minor changes are released in accordance with TCCA - ACCEPTED CAR 521- 154 procedures (ref. DAPM- E- 0001)

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1. GENERAL

- A. Installation of High Visibility Main and Aft Cabin Doors is available as an alternative to the standard AS 350 doors.

The high visibility doors provide the cabin occupants with an increased level of visibility when compared to the standard AS 350 cabin doors. The doors are manufactured from composite materials and are fitted with a large one-piece window.

The doors are attached to the cabin using standard AS 350 hinges and hardware and are completely interchangeable with the standard AS 350 cabin doors. Refer to Figure 1.

The installation is available in the following configurations:

- 01 variant - all four standard doors replaced
- 03 variant - LH FWD Door Assy
- 04 variant - RH FWD Door Assy
- 05 variant - LH AFT Door
- 06 variant - RH AFT Door
- any combination of standard doors being replaced

For instructions on initial installation, see IP-ECL-42.

- B. These Instructions for Continued Airworthiness are applicable to aircraft with the subject modification embodied.

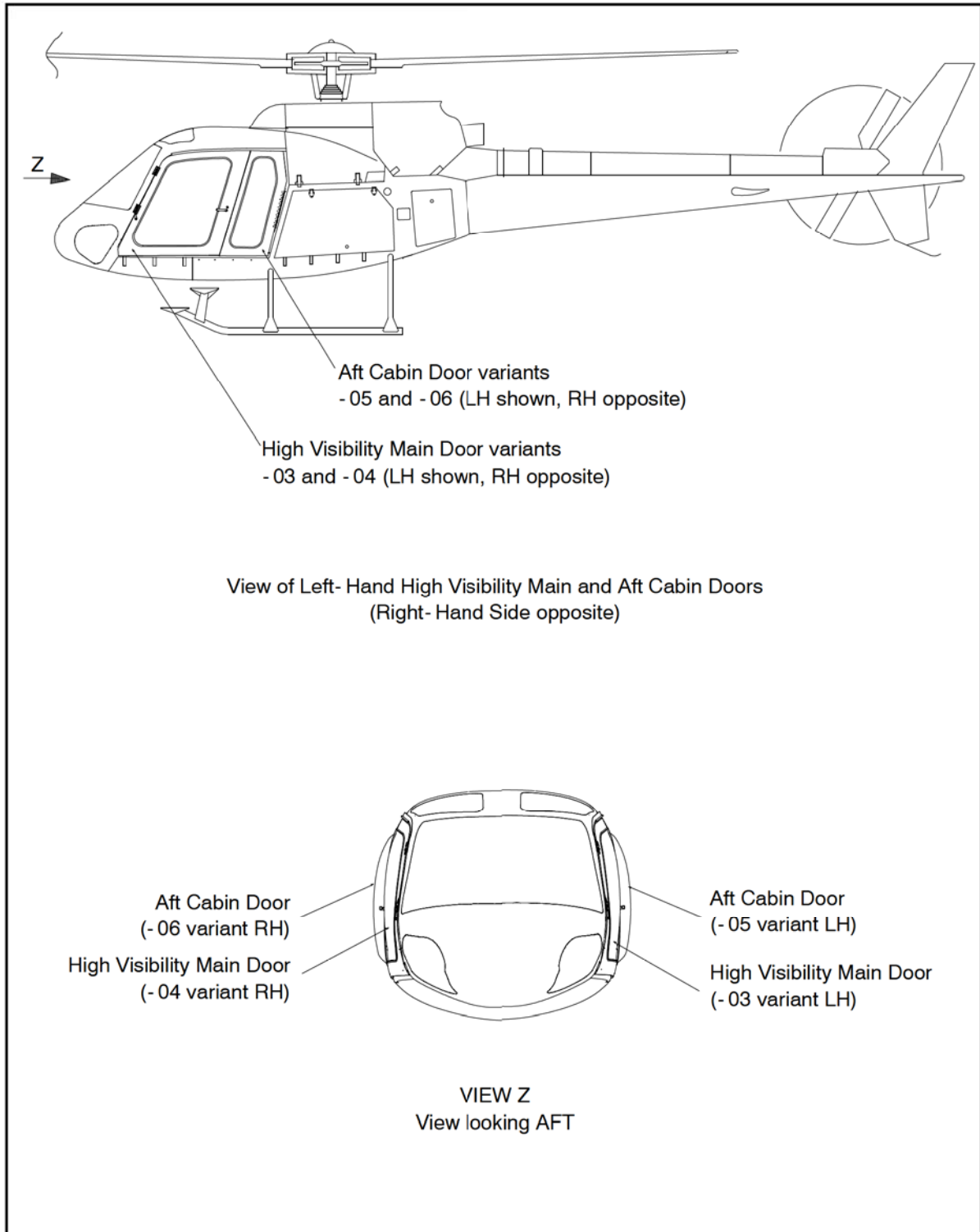


Figure 1 General Layout

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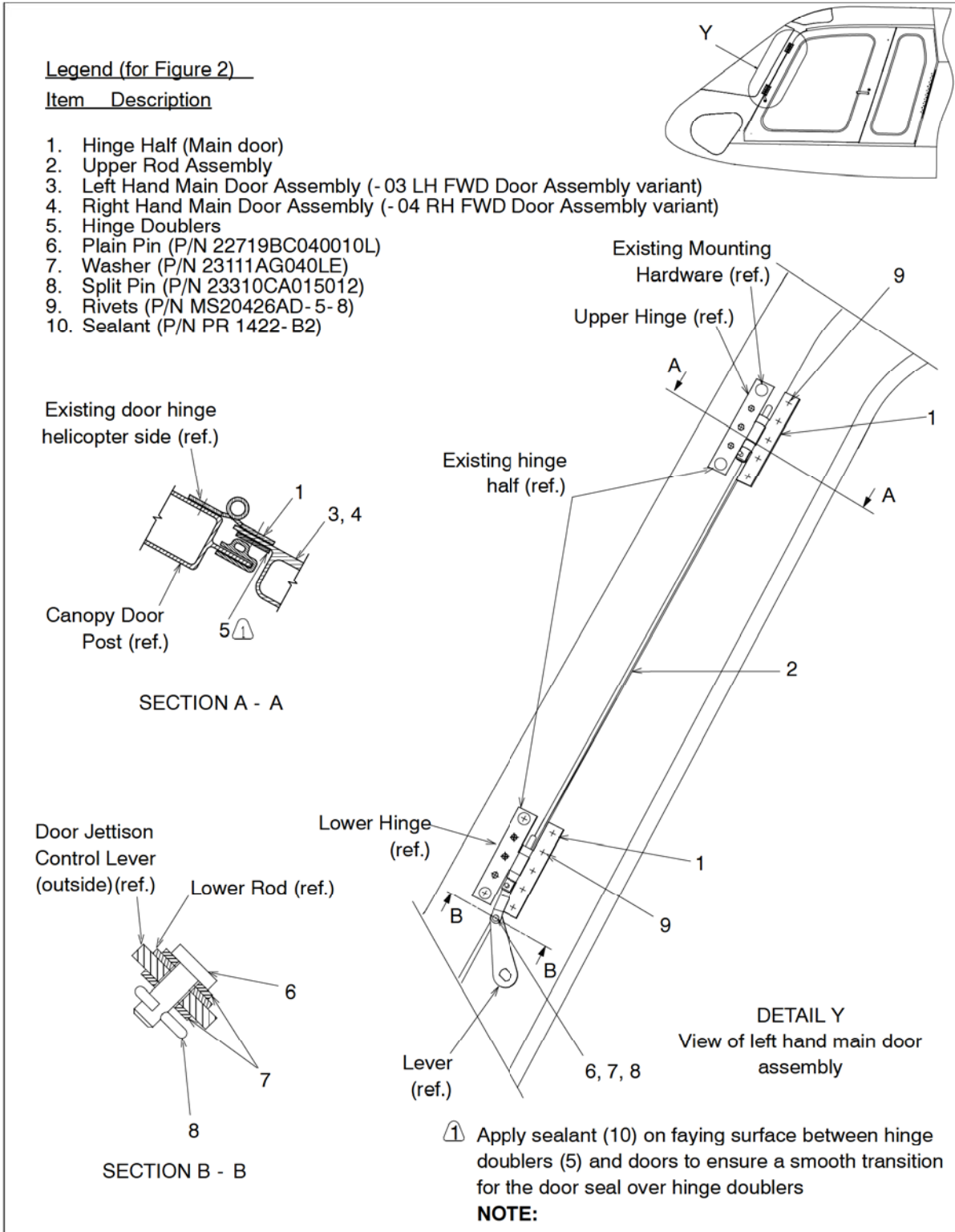


Figure 2 Main Door Hinge Details

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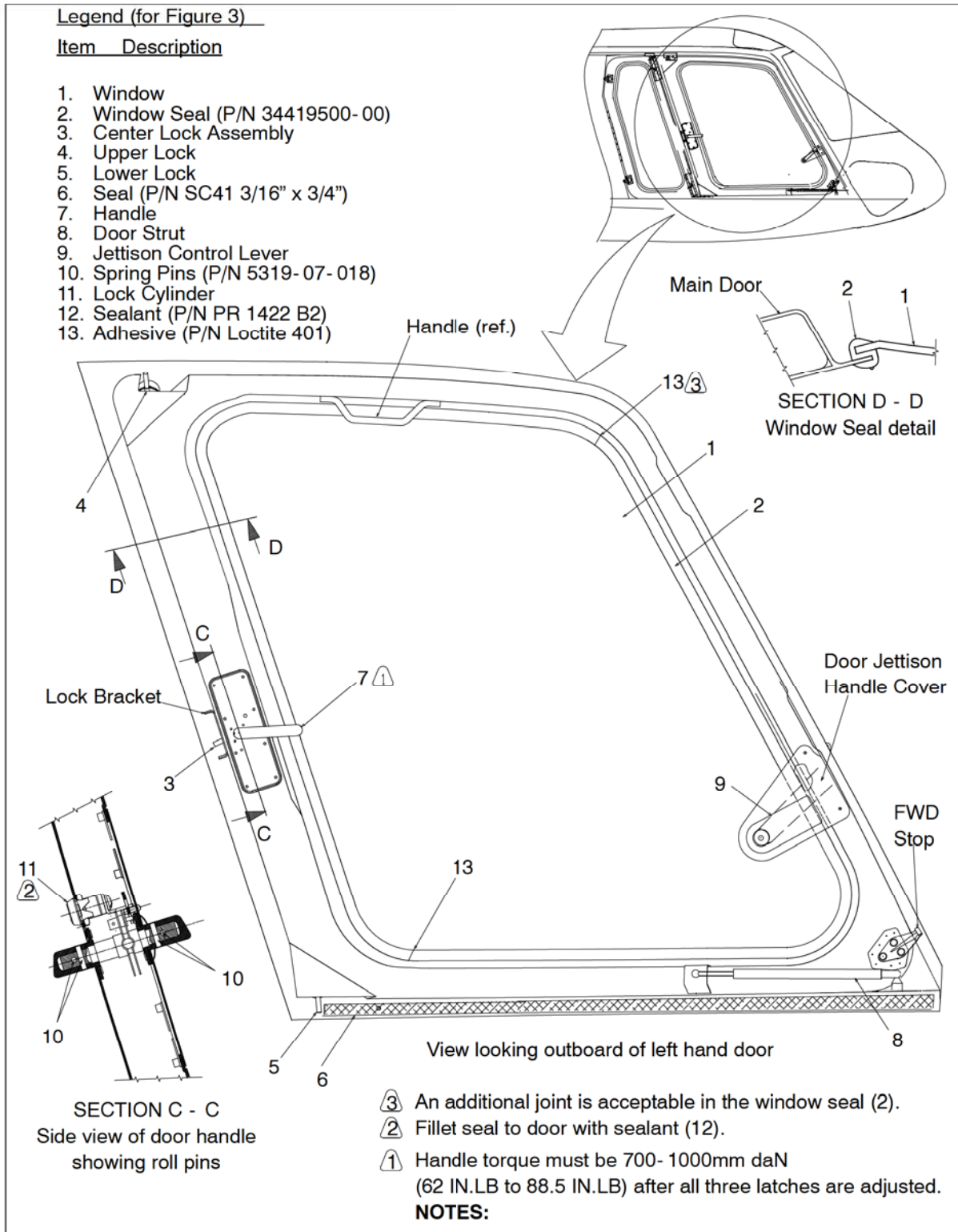


Figure 3 Main Door Assembly

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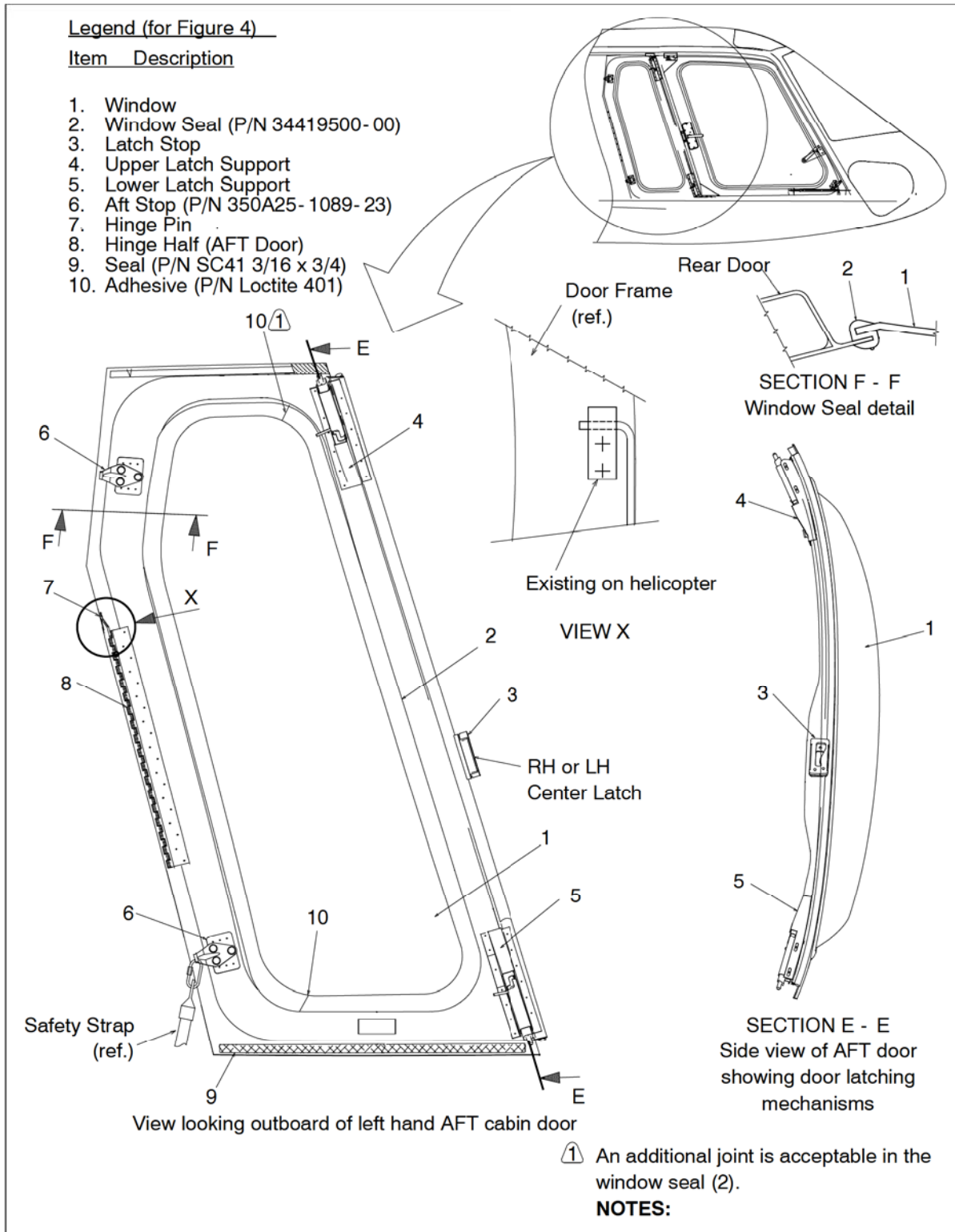
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Figure 4 Aft Cabin Door Assembly

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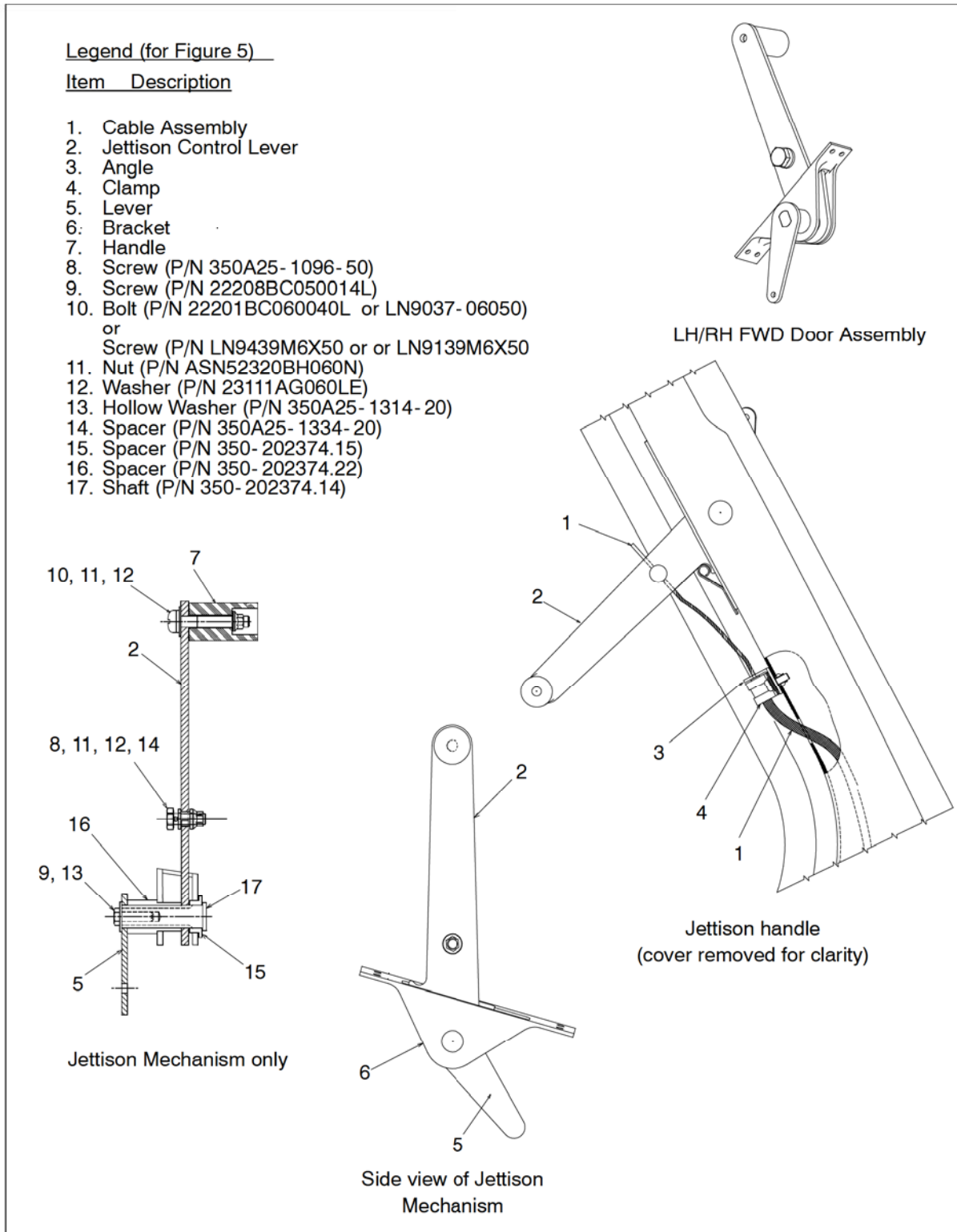


Figure 5 Main Door Jettison Details

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C. REFERENCES

DOCUMENT	DOCUMENT TITLE
AMM	Aircraft Maintenance Manual
IP- ECL- 42	Installation Procedure - High Visibility Main and AFT Cabin Doors
MET	Maintenance Manual
MTC	Standard Practices Manual

D. ABBREVIATIONS & DEFINITIONS

ABBREVIATION	DEFINITION
Acc'd	Accepted
AHCA	Airbus Helicopters Canada Limited
App'd	Approved
A/W	Airworthiness
CAR	Canadian Aviation Regulations
DAPM	Design Approval Procedures Manual
FAA	Federal Aviation Administration
FWD	Forward
ICA	Instructions for Continued Airworthiness
IN. LB	Inch Pound
LH	Left Hand
MDL	Master Drawing List
P/N	Part Number
ref.	reference
Rev.	Revision
RH	Right Hand
STC	Supplemental Type Certificate
TCCA	Transport Canada Civil Aviation

E. UNITS OF MEASUREMENT

ABBREVIATION / SYMBOL	UNIT OF MEASUREMENT
D	Day
FH	Flight Hours
hrs	hours
in	inch
in.lb	inch.pound
kg	kilogram
lbs	pounds
M	Month
m	meter
Kg m	Kilogram meter
§§	Sections

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2. AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations Section is approved by the Minister of Transport and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

The Airworthiness Limitations Section is FAA approved and specifies inspections and other maintenance required under §§43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

The Airworthiness Limitations Section is approved and variations must also be approved.

No Airworthiness Limitations associated with this installation.

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3. CONTROL AND OPERATION

Control and operation of the aircraft remains unchanged.

4. INSPECTION SCHEDULE AND MAINTENANCE ACTION
NOTE: Use torque per MTC, Chapter 20-02-05-404, unless otherwise specified.

NOTE: For this installation, the maximum force until the door is jettisoned is less than or equal to 35 kg (77.16 lbs).

4.1. INSPECTION SCHEDULE

4.1.1. Every 150 FH or 12 M (Margins: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Visually check the high-visibility main and aft cabin doors for: a. general condition	a. If cracking, delamination or debonding is found, repair in accordance with MTC, Chapter 20-03-07-101.
B	- Visually inspect mounting hardware and door hinges, in Figure 2 for: a. secure installation b. corrosion	a. Ensure that hinge pins are inserted all the way into hinge half. Adjust as required. b. No corrosion is allowed. If corrosion is found replace in accordance with AS 350 (except AS 350 B2/B3) MET, Chapter 52-10-00-401. For AS 350 B2/B3 refer to AMM, Chapter 52-11-00, 4-2.
C	- Visually inspect door strut, item 8 on the High Visibility Main door, in Figure 3, for: a. secure installation b. correct operation	a. Ensure that the door strut is connected correctly to door and fuselage attachments. b. If door strut does not hold door in the open position, contact AHCA for replacement part.
D	- Perform functional test of main door assemblies, shown in Figure 3, for: a. proper locking function	a. Adjust doors in accordance with AS 350 (except AS 350 B2/B3) MET, Chapter 52-10-00-502. For AS 350 B2/B3 refer to AMM, Chapter 52-11-00,5-2.
E	- Check handle, item 7, in Figure 3 for: a. security	a. Replace spring pins (10) as necessary.

Table 1 Inspection Schedule and Maintenance Action

 Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first
 (continued on following page)

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4. INSPECTION SCHEDULE AND MAINTENANCE ACTION (continued)

4.1.1. Every 150 FH or 12 M (Margins: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
F	<ul style="list-style-type: none"> - Visually inspect sealant, item 12, around lock cylinder, item 11, in Figure 3, for: a. deterioration/damage 	<ul style="list-style-type: none"> a. Clean area and reapply sealant (12) in accordance with MTC Chapter 20-05-01-206.
G	<ul style="list-style-type: none"> - Visually inspect door seal, item 6, in Figure 3 and item 9 in Figure 4, for: a. debonding, cuts and cracking or loss of elasticity b. security 	<ul style="list-style-type: none"> a. If debonding, cuts and cracking or loss of elasticity is evident, contact AHCA for replacement seal (P/N SC41 3/16" x 3/4"). Trim seal as required to seal around door. Bond using adhesive backing in accordance with MTC, Chapter 20-03-04-406. b. Secure as required.
H	<ul style="list-style-type: none"> - Visually inspect windows, item 1, in Figures 3 and 4, for: a. cracking 	<ul style="list-style-type: none"> a. If cracking is evident replace window in accordance with AS 350 (except AS 350 B2/B3) MET, Chapter 52-00-00-401. For AS 350 B2/B3 refer to AMM, Chapter 56-11-00,4-3.
I	<ul style="list-style-type: none"> - Visually inspect window seal, item 2, in Figures 3 and 4, for: a. condition 	<ul style="list-style-type: none"> a. If cuts or cracks are evident replace window seal (P/N 34419500-00) in accordance with AS 350 (except AS 350 B2/B3), MET, Chapter 52-00-00-401. For AS 350 B2/B3 refer to AMM, Chapter 56-11-00,4-3. <p>NOTE: Window seal (P/N 34419500-00) can be installed in two pieces. Refer to flag Note 3 and 1 respectively.</p>

Table 1 Inspection Schedule and Maintenance Action
 Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first
 (continued on following page)

4. INSPECTION SCHEDULE AND MAINTENANCE ACTION (continued)

4.1.1. Every 150 FH or 12 M (Margins: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
J	- Test upper and lower door latches, in Figure 4, for : a. freedom of movement b. proper latching	a. Clean and lubricate to restore freedom of movement. b. Adjust latch stop (4, Figure 4) position to ensure functionality of center lock assembly (3, Figure 3).
K	- Check mounting hardware, items 10, 11 and 12 securing handle, item 7 in Figure 5 for: a. security	a. Secure as required.
L	- Check mounting hardware, items 8, 11, 12 and 14 securing the Jettison Cable, item 1, to the Door Jettison Control Lever, item 2 in Figure 5 for: a. security	a. Secure as required.
M	- Check mounting hardware, items 9, 13 and 16 securing the Door Jettison Control Lever, item 2, in Figure 5 for: a. security	a. Secure as required.
N	- Visually inspect placards and markings (refer to Section 10) for: a. legibility b. secure mounting	a. If placard has become illegible, contact AHCA for replacement parts. b. Secure, reattach placards as required.

Table 1 Inspection Schedule and Maintenance Action
 Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first

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4. INSPECTION SCHEDULE AND MAINTENANCE ACTION (continued)

4.1.2. Every 600 FH or 24 M (to coincide with the 600 FH or 24 M helicopter inspection) whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Inspect jettison control lever, on the High Visibility Main door item 9, in Figure 3 for: a. correct operation	a. Adjust jettison mechanism in accordance with AS 350 MET, Chapter 52-10-00-501. For AS 350 B2/B3 refer to AMM, Chapter 52-11-00,5-1. NOTE: For this installation, the maximum force until the door is jettisoned is less than or equal to 35 kg (77.16 lb).

Table 2 Inspection Schedule and Maintenance Action
 Every 600 FH or 24 M, whichever occurs first

5. REPLACEMENT COMPONENTS AND REPAIR / OVERHAUL INFORMATION

Contact AHCA for replacement parts. No overhaul information required for this installation.

For replacement components:

Airbus Helicopters Canada Limited
 1100 Gilmore Road, P.O. Box 250
 Fort Erie, Ontario L2A 5M9 Canada
 Telephone: (905) 871-7772
www.airbushelicopters.ca

6. TROUBLESHOOTING

There are no unique characteristics which require troubleshooting techniques.

7. SPECIAL TOOLING

No special test equipment or tools are required. Standard tools are adequate.

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8. REMOVAL AND REPLACEMENT

PRELIMINARIES

For AS 350 (excluding B2/B3):

- Comply with General Instructions - Electrical Power, refer to AS 350 MET, Chapter 24- 00- 00- 301.
- Comply with Instructions Applicable during Maintenance, refer to MTC, Chapter 20- 07- 03- 401.
- Disconnect the external power in accordance with AS 350 MET, Chapter 24- 00- 00- 301 (if applicable).
- Disconnect the battery in accordance with AS 350 MET, Chapter 24- 30- 00- 401.

For AS 350 B2/B3:

- Comply with General Safety Instructions - Electrical Power Supply System, refer to AS 350 B2/B3 AMM, Chapter 24- 00- 00,3- 1.
- Comply with Instructions Applicable during Maintenance, refer to MTC, Chapter 20- 07- 03- 401.
- Disconnect the external power in accordance with, AS 350 B2/B3 AMM, Chapter 24- 30- 00, 2- 1A PRE MOD 07- 3273 or 24- 30- 00, 5- 1B POST MOD 07- 3273 or 24- 30- 00,5- 1C POST MOD 07 4280 (if applicable).
- Disconnect the battery in accordance with AS 350 AMM, Chapter 24- 33- 00, 4- 1.

A. REMOVAL

1) HIGH VISIBILITY MAIN DOOR (Refer to Figure 3)

- a) Disconnect door strut (8) from door joint ball and remove the door jettison handle cover. Refer to Figure 3.
- b) Open door. With door open, support door and pull jettison lever (9) up to remove door. Place door on work bench.

2) AFT CABIN DOOR (Refer to Figure 4)

- a) Remove existing safety strap.
- b) Release upper and lower latch supports (4 and 5) from inside cabin.
- c) Remove hinge pin (7).
- d) Remove door from aircraft.

8. REMOVAL AND REPLACEMENT (continued)**B. REPLACEMENT**

NOTE Use torque per MTC, Chapter 20-02-05-404,
unless otherwise specified.

Comply with general safety instructions for the mechanical assemblies:

- For AS 350 (except AS 350 B2/B3) refer to MET, Chapter 60-00-00-301.
- For the AS 350 B2/B3 refer to AMM, Chapter 60-00-00,3-1.

1) HIGH VISIBILITY MAIN DOOR (Refer to Figures 2 and 3)

- a) Lubricate hinge pin with grease (P/N G.355 or G.361) place door in door opening and align door hinge halves with airframe hinge halves. Refer to Figure 2.
- b) Secure hinge pins by activating door jettison handle.
- c) Reconnect door strut (8) to door joint ball and install door jettison handle cover. Refer to Figure 3.
- d) Visually check that the hinge pins are fitted correctly and check condition of the jettison control rod.

2) AFT CABIN DOOR (Refer to Figure 4)

- a) Lubricate hinge pin (7) with grease (P/N G.355 or G.361) and position door in aircraft and install hinge pin (7).
- b) Secure into place using upper and lower latch supports (4 and 5). Attach the existing safety strap to the bottom inside of the door.

3) Close all areas opened for service in the PRELIMINARIES paragraph of this section.**4) Do a function test of the crew and passenger door(s):**

- a) For the AS 350 (except AS 350 B2/B3) refer to Adjustment/Test - Cabin Door, MET, Chapter 52-10-00-502.
- For the AS 350 B2/B3 refer to Adjustment/Test - Crew Door, AMM, Chapter 52-11-00,5-2.
- b) For the AS 350 (except AS 350 B2/B3) refer to Adjustment/Test - Sub Doors, MET, Chapter 52-11-00-501.
- For the AS 350 B2/B3, refer to Adjustment/Test - Flap Door, AMM, Chapter 52-13-00,5-1.

5) Perform Jettison Test (if required):

- For the AS 350 (except AS 350 B2/B3) refer to Cabin Door Jettison Tests - Metal MET, Chapter 52-10-00-501.
- For the AS 350 B2/B3 refer to Test - Jettison System of Crew Door AMM, Chapter 52-11-00,5-1.

NOTE: For this installation, the maximum force until the door is jettisoned is less than or equal to 35 kg (77.16 lb).

6) Verify that the installation of the High-Visibility Main and Aft Cabin Doors is correct and secure:

- Ensure that the door latches operate smoothly and freely after installation.

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8. REMOVAL AND REPLACEMENT (continued)

7) AS 350 (excluding AS 350 B2/B3):

- Reconnect battery, AS 350 MET, Chapter 24-30-00-401.
- Reconnect external power unit, AS 350 MET, Chapter 24-00-00-301 (if required).
- Reference functional test - DC Power Supply in accordance with AS 350 MET, Chapter 24-30-00-501.

8) AS 350 B2/B3:

- Reconnect battery, AS 350 B2/B3 AMM, Chapter 24-33-00,4-1.
- Reconnect power unit, AS 350 B2/B3 AMM, Chapter 24-00-00, 2-1 (if required).
- Reference functional test - DC Power Supply System in accordance with AS 350 B2/B3 AMM, Chapter 24-30-00,5-1A PRE MOD 07 3273, 24-30-00,5-1B POST MOD 07 3273 or 24-30-00,5-1C POST MOD 07 4280.

9. WEIGHT AND BALANCE DATA

A. Removed Items						
DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lb	m	in	kg m	lb in
LH FWD Door Standard	9.98	22.0	1.68	66.1	16.77	1454.2
RH FWD Door Standard	9.98	22.0	1.68	66.1	16.77	1454.2
LH Rear Door Standard	4.64	10.2	2.38	93.7	11.04	955.7
RH Rear Door Standard	4.64	10.2	2.38	93.7	11.04	955.7
Total	29.24	64.4	1.90	74.8	55.62	4819.9

B. Added Items						
DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lb	m	in	kg m	lb in
Left Hand Main Door Assembly	11.88	26.2	1.68	66.1	19.96	1731.8
Right Hand Main Door Assembly	11.88	26.2	1.68	66.1	19.96	1731.8
Left Hand Rear Door	5.80	12.8	2.38	93.7	13.80	1199.4
Right Hand Rear Door	5.80	12.9	2.38	93.7	13.80	1199.4
Total	35.36	78.0	1.91	75.2	67.52	5862.4

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10. PLACARDS AND MARKINGS

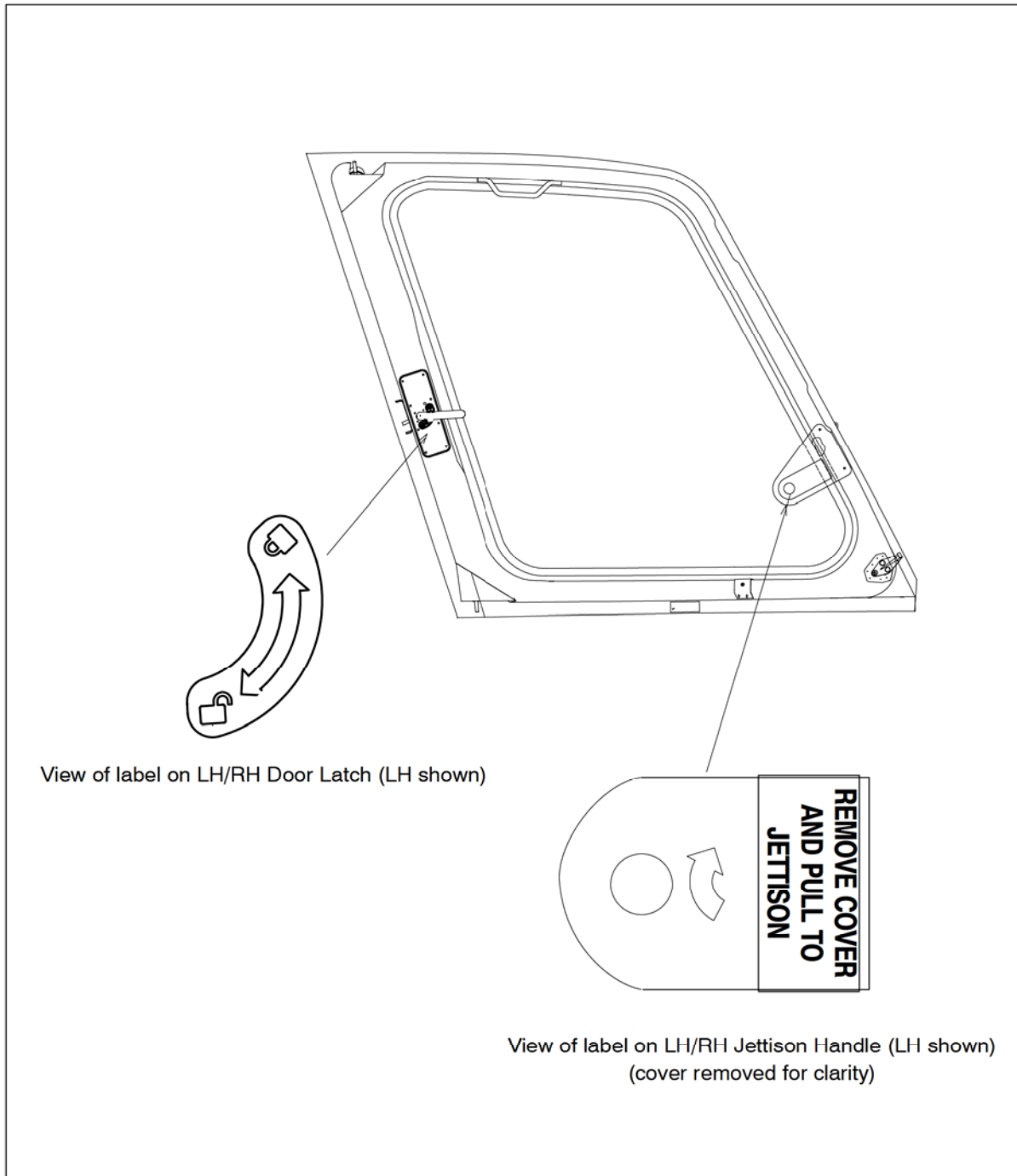


Figure 6 Identification label on the LH and RH Jettison Handle Cover (LH shown)

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