

**AIRBUS HELICOPTERS CANADA LIMITED**
**SUBJECT:**

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

**APPLICABILITY :**

 Aircraft with the subject modification embodied in accordance with TCCA STC  
 No. SH14-<sup>15-7</sup> or any relevant foreign approvals.

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**1. GENERAL**

- A. The High Visibility Forward Cabin Doors are available as an alternative to the standard AS 355 N/NP forward doors. The high visibility forward cabin doors provide the cabin occupants with an increased level of visibility when compared to the standard AS 355 forward 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 355 hinges and hardware and are completely interchangeable with the standard AS 355 forward cabin doors. Refer to Figure 1.

The High Visibility Forward Cabin Door is offered in two variants:

- 03 - Installation LH FWD Door
- 04 - Installation RH FWD Door

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

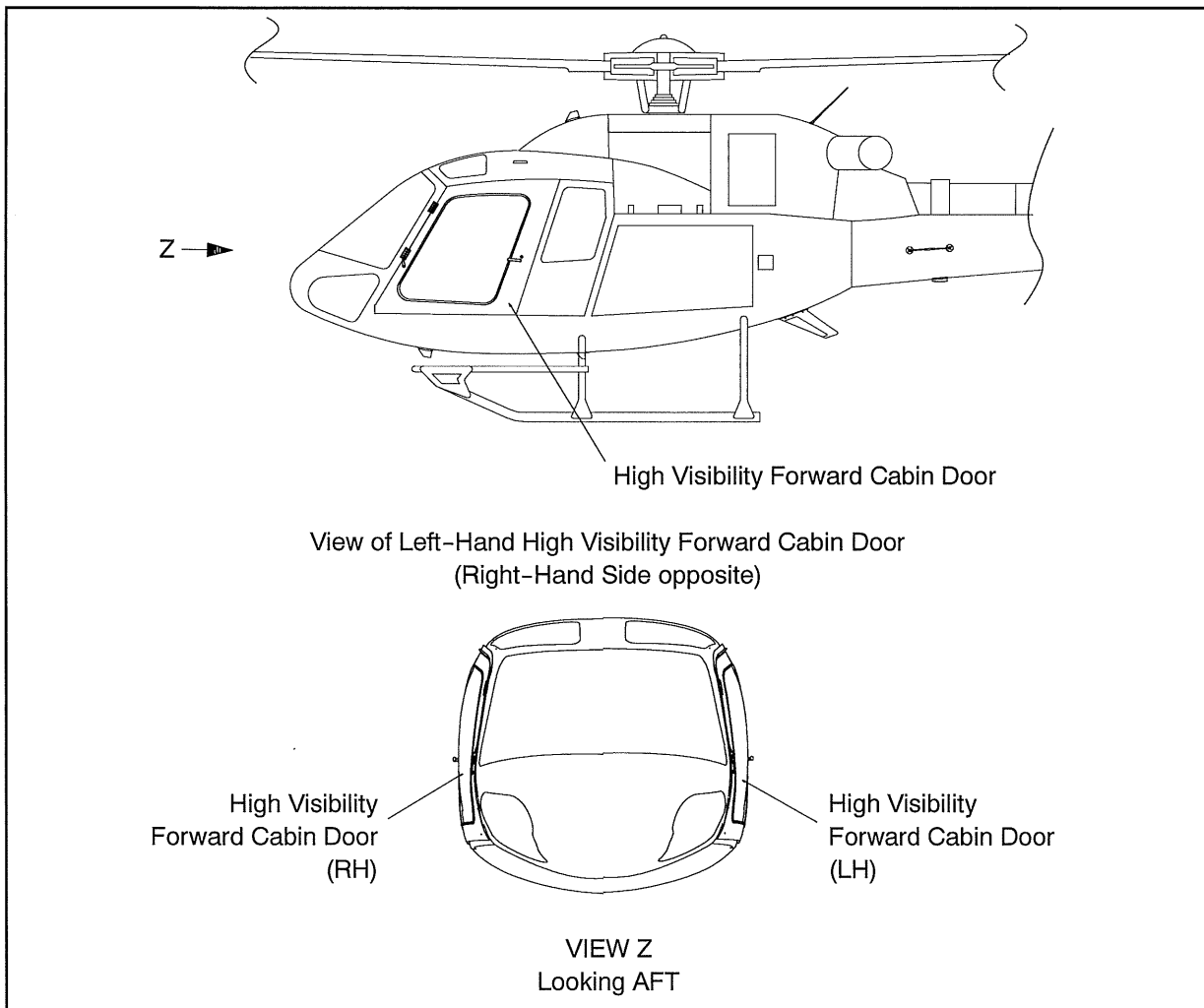


Figure 1 General Layout

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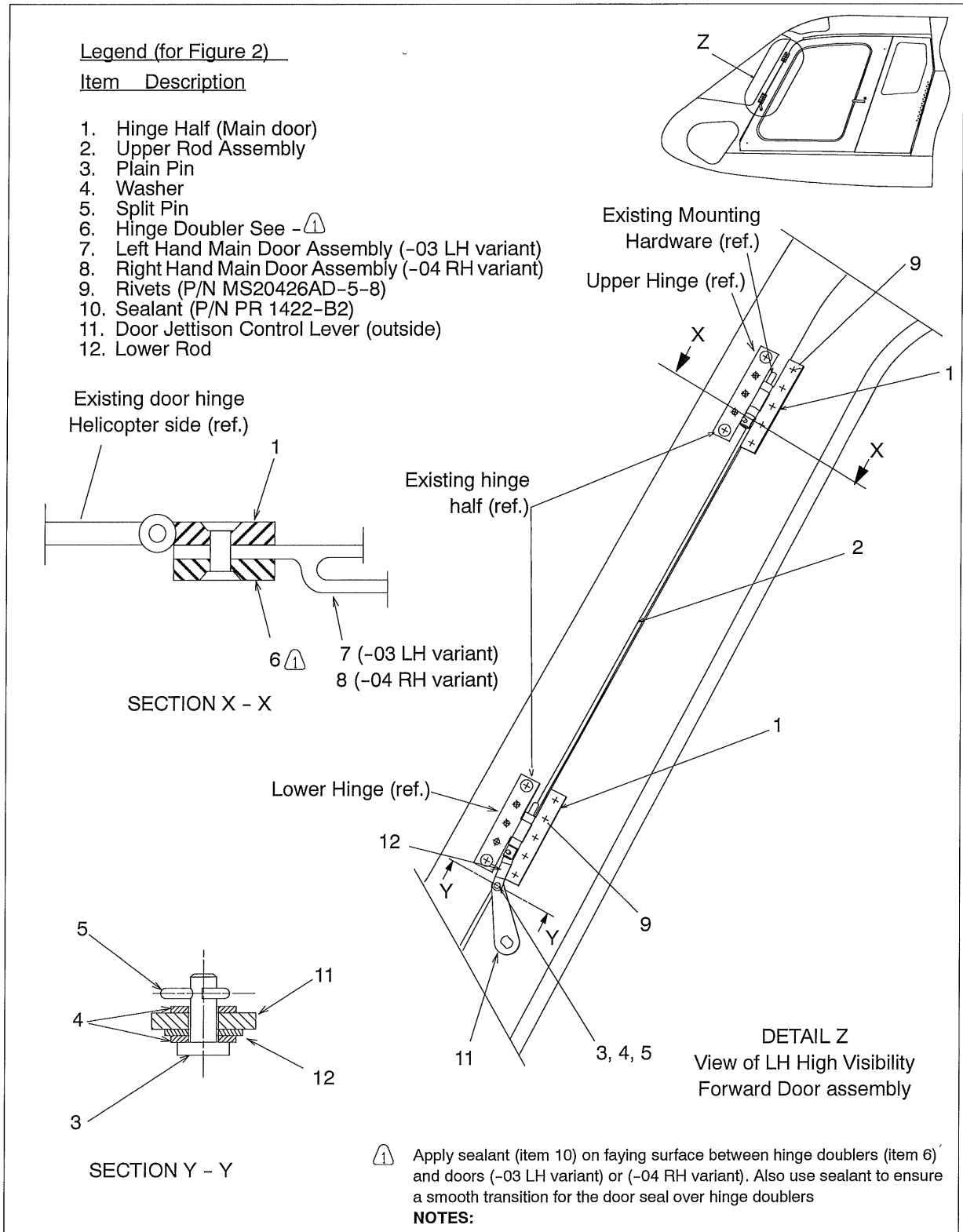


Figure 2 Door Latch Details

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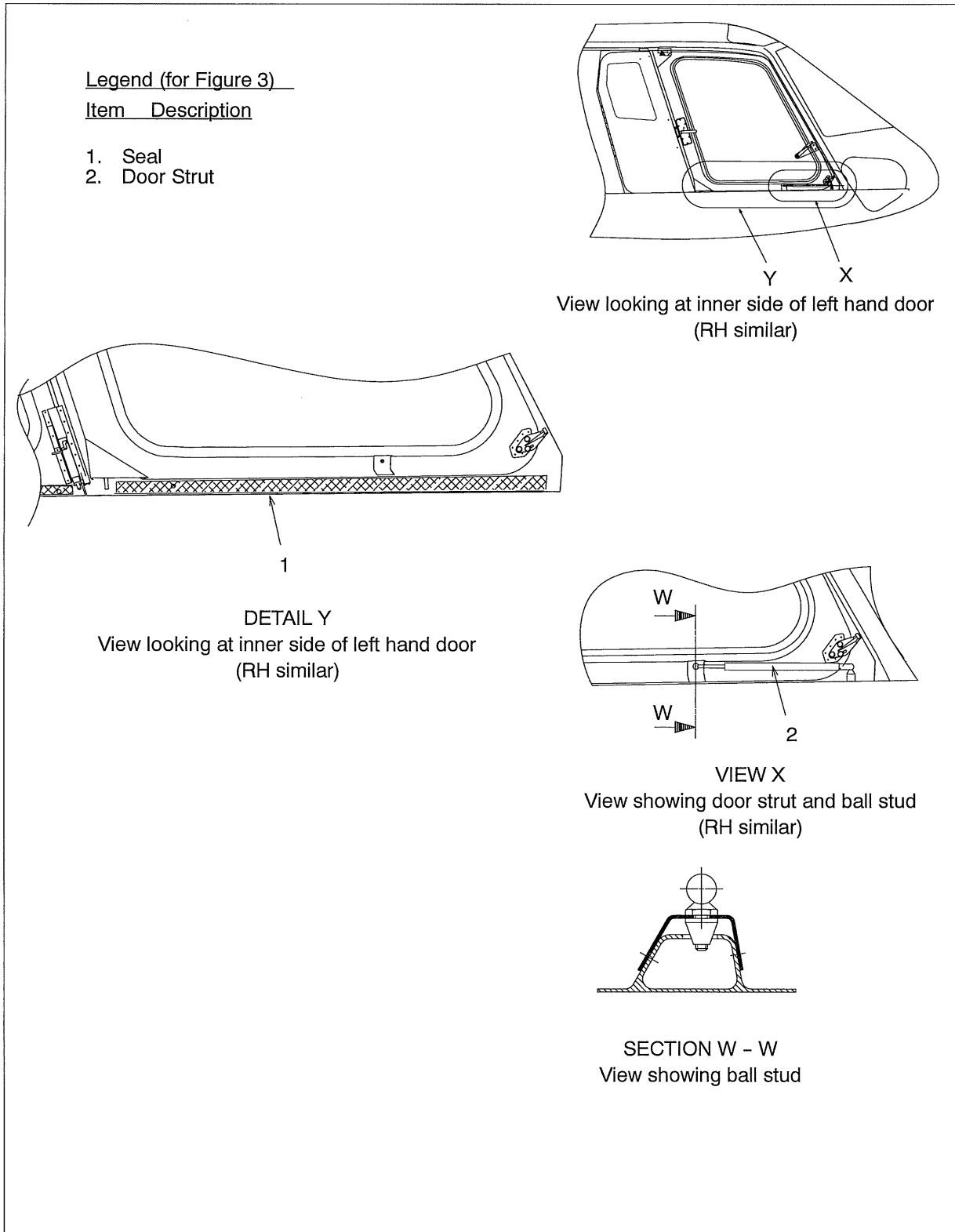


Figure 3 Door Details

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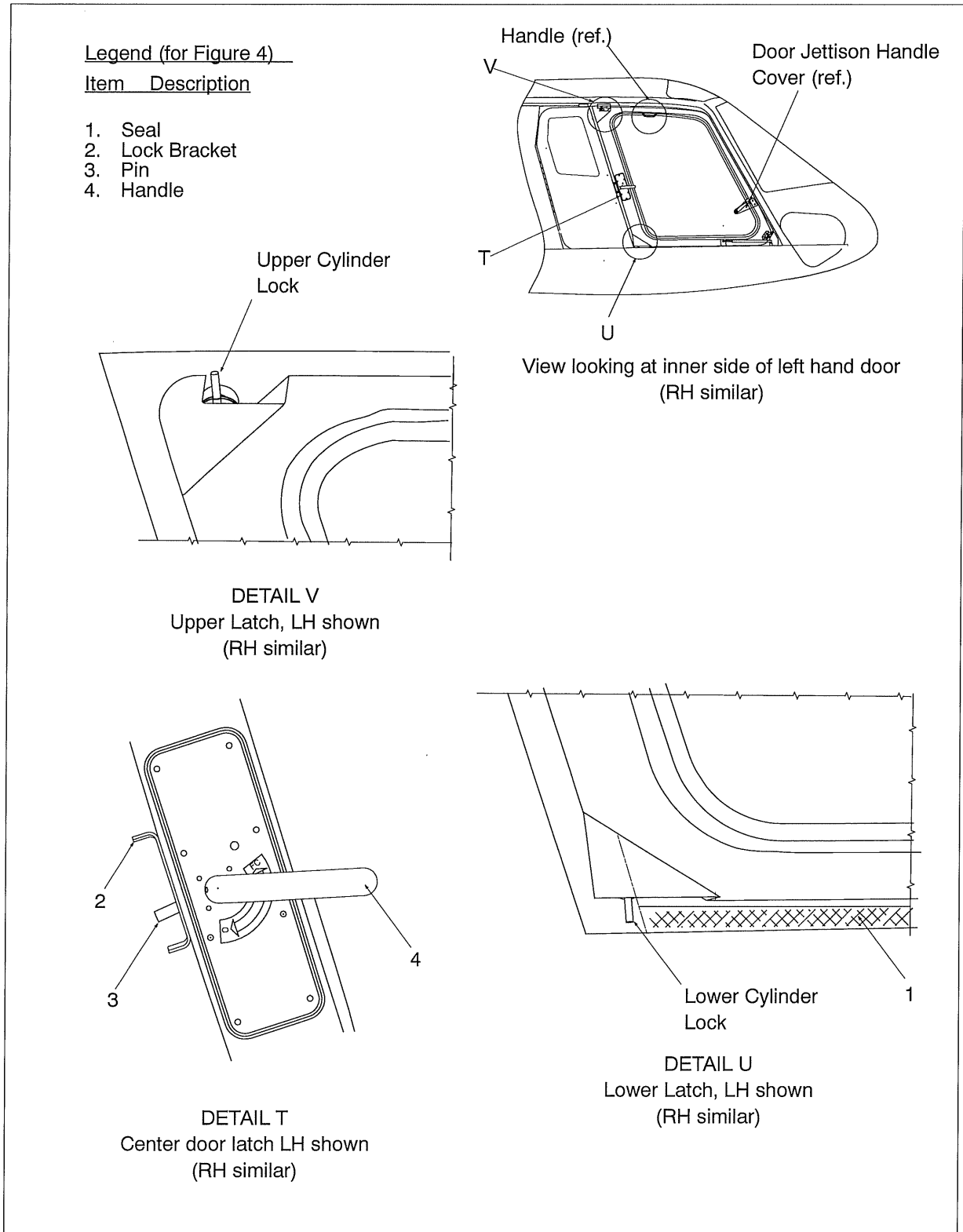


Figure 4 Door Upper and Lower Latch Details

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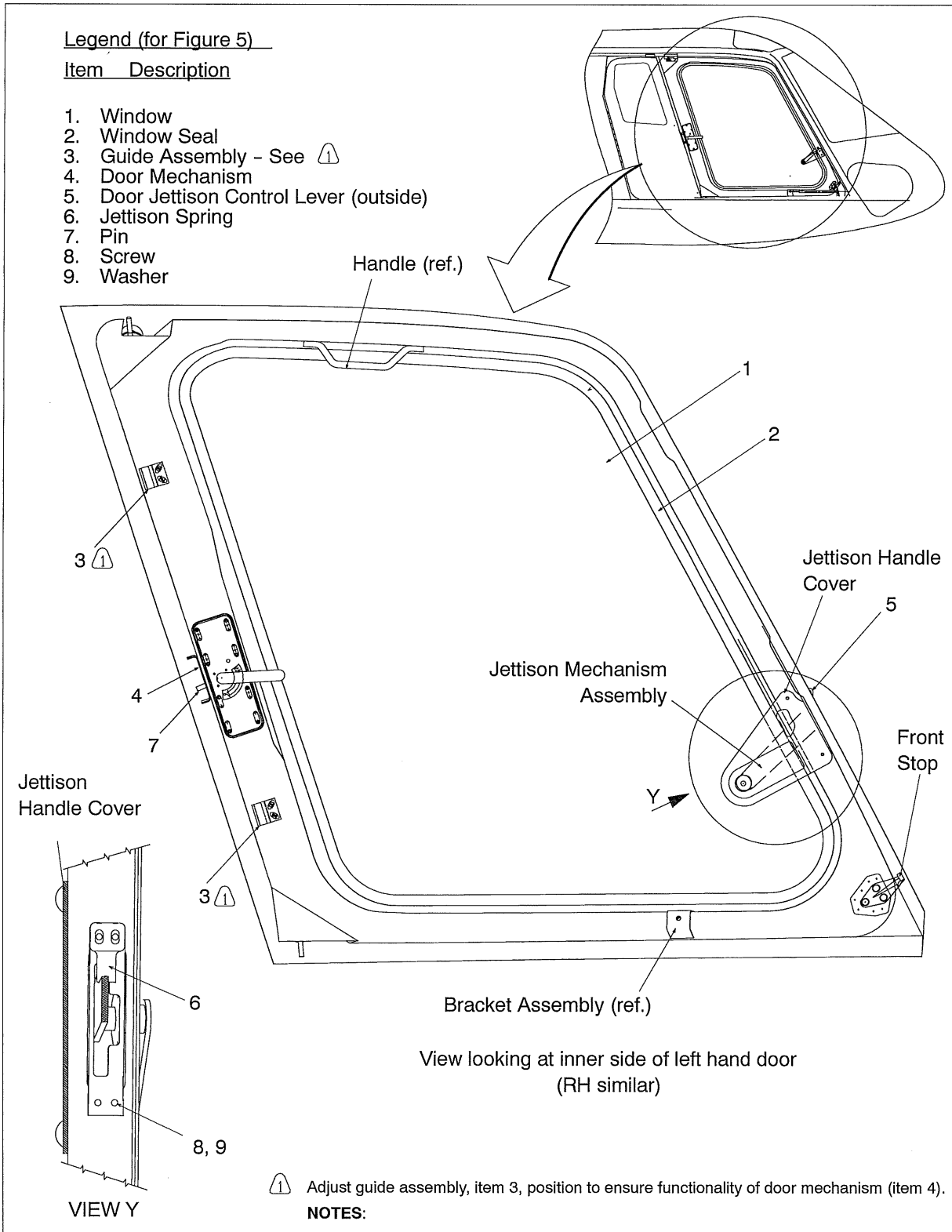


Figure 5 Door Assembly

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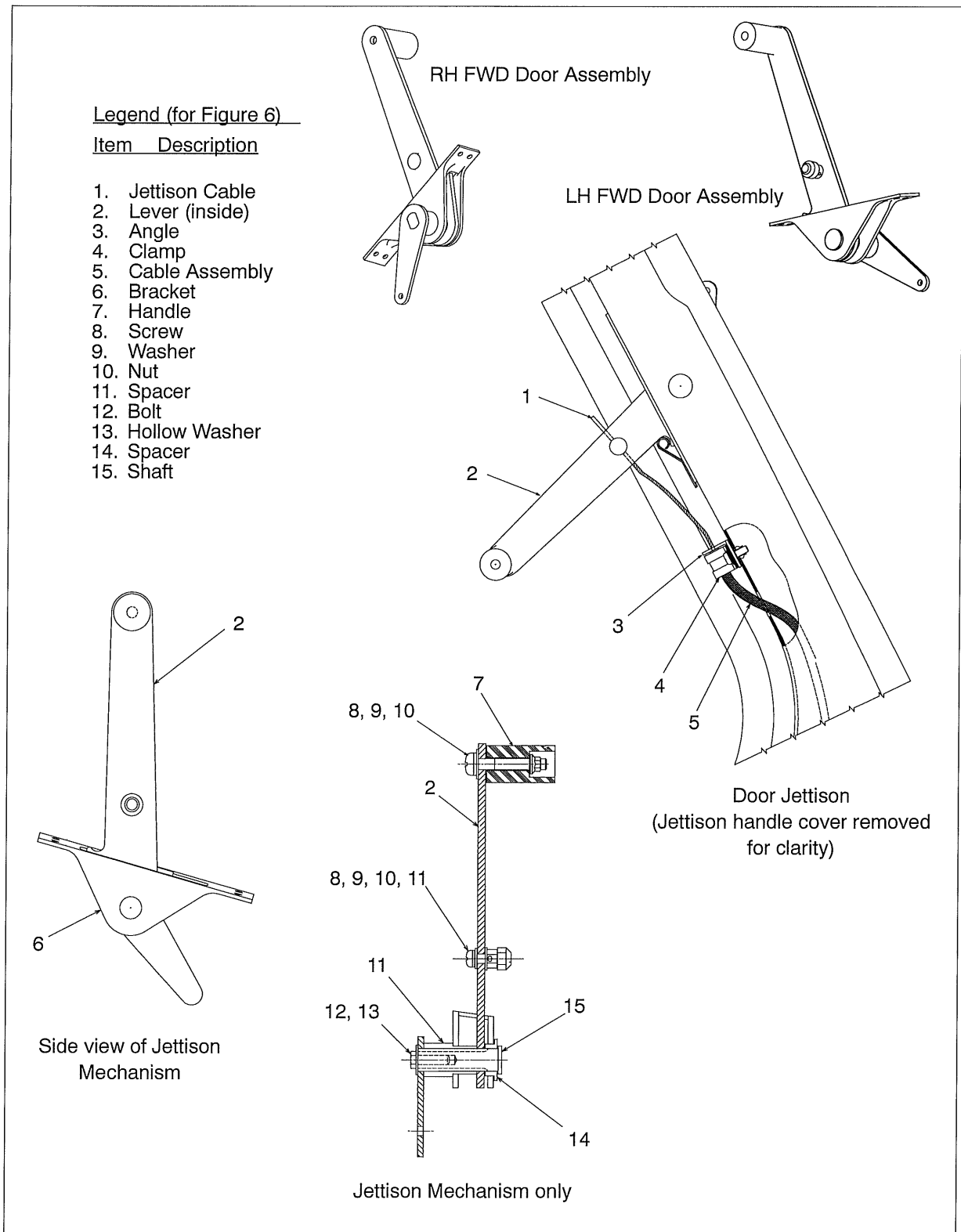


Figure 6 Door Jettison Details

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**C. REFERENCES**

DOCUMENT	DOCUMENT TITLE
MET	Maintenance Manual
MTC	Standard Practices Manual
MRM	Mechanical Repair Manual

**D. ABBREVIATIONS & DEFINITIONS**

ABBREVIATION	DEFINITION
Acc'd	Accepted
AH	Airbus Helicopters (France)
AHCA	Airbus Helicopters Canada Limited
App'd	Approved
CAR	Canadian Aviation Regulations
D	Days
DAPM	Design Approval Procedure Manual
FAA	Federal Aviation Administration
FH	Flight Hours
FWD	Forward
hrs	hours
LH	Left-Hand
M	Months
P/N	Part Number
P.O. Box	Post Office Box
ref.	reference
RH	Right-Hand
STC	Supplemental Type Certificate
§§	Sections
TCCA	Transport Canada Civil Aviation

**E. UNITS OF MEASUREMENT**

ABBREVIATION / SYMBOL	UNIT OF MEASUREMENT
in	inch
kg	kilogram
lbs	pounds
m	meter

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**INSTRUCTIONS FOR CONTINUED  
AIRWORTHINESS  
INSTALLATION OF HIGH VISIBILITY  
FORWARD CABIN DOORS  
AS 355 N/NP**

**AIRBUS HELICOPTERS CANADA LIMITED**

**2. AIRWORTHINESS LIMITATIONS**

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister. Variations must also be approved.

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

The airworthiness 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.

**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 forward cabin doors for: a. general condition, visible damage	a. 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. Retighten as required.  b. No corrosion is allowed. If corrosion is found replace hinges in accordance with AS 355 N/NP, MRM, Chapter 52.10.10.701.
C	- Visually inspect door strut, item 2 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	- Test door latches, in Figure 4, for : a. freedom of movement	a. Clean and lubricate to restore freedom of movement. Adjust guide assembly position to ensure functionality of door mechanism, shown in Figure 5, item 3.

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
E	<ul style="list-style-type: none"> <li>- Visually inspect seal, item 1, in Figure 4, for:               <ul style="list-style-type: none"> <li>a. cuts and cracking</li> <li>b. debonding or loss of elasticity</li> <li>c. security</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. If cuts or cracks are evident replace door seal.</li> <li>b. If debonding or loss of elasticity is evident, contact AHCA for replacement seal (P/N SC41 3/16" x 3/4"). Trim item 1 as required to seal around door. Secure using adhesive backing in accordance with AS 355 N/NP MTC, Chapter 20-03-04-406.</li> <li>c. Secure as required.</li> </ul>
F	<ul style="list-style-type: none"> <li>- Perform functional test of door mechanism, in Figure 5, for:               <ul style="list-style-type: none"> <li>a. proper locking</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. Adjust pin (7) as required to ensure adequate seal between the door and door seal.</li> </ul>
G	<ul style="list-style-type: none"> <li>- Inspect door jettison control lever, item 5 in Figure 5 for:               <ul style="list-style-type: none"> <li>a. freedom of movement</li> <li>b. corrosion</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. Apply grease (P/N's G.354 or G.361) to door hinge pins in accordance with AS 355 N/NP MET, Chapter 52.10.00.501.</li> <li>b. If corrosion is found, contact AHCA for corrective action.</li> </ul>
H	<ul style="list-style-type: none"> <li>- Visually inspect window, item 1, in Figure 5, for:               <ul style="list-style-type: none"> <li>a. cracking</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. If cracking is evident replace window in accordance with AS 355 N/NP MET, Chapter 52.00.00.401.</li> </ul>
I	<ul style="list-style-type: none"> <li>- Visually inspect window seal, item 2, in Figure 5, for:               <ul style="list-style-type: none"> <li>a. condition</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. If cuts or cracks are evident replace window seal in accordance with AS 355 N/NP MET, Chapter 52.00.00.401.</li> </ul>

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
J	- Check Jettison handle mounting hardware, items 8, 9 and 10 in Figure 6 for: a. security	a. Secure as required.
K	- Check Jettison cable mounting hardware, items 1, 3, 4, 5, 8, 9, 10 and 11 in Figure 6 for: a. security	a. Secure as required.
L	- Check lever mounting hardware, items 11, 12 and 13 in Figure 6 for: a. security	a. Secure as required.
M	- Check placards and markings (refer to Section 10, Figures 7 & 8) for: a. legibility b. secure mounting	a. If placard has become illegible, contact AHCA for replacement parts. b. Secure and 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

4.1.2. Every 600 FH or 24 M (Margin: 60 FH or 73D) to coincide with the 600 FH or 24 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Inspect door jettison control lever, on both high visibility forward cabin doors item 5, in Figure 5 for: a. correct operation (For maximum release load refer to the AS 355 N/NP MET, Chapter 52.10.00.501.	a. Adjust jettison mechanism in accordance with AS 355 N/NP MET, Chapter 52.10.00.501.

Table 2 Inspection Schedule and Maintenance Action  
 Every 600 FH or 24 M, to coincide with 600 FH or 24 M helicopter inspection, whichever occurs first

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5. **REPLACEMENT COMPONENTS AND REPAIR / OVERHAUL INFORMATION**

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

For replacement components contact:

Airbus Helicopters Canada Limited  
1100 Gilmore Road, P.O. Box 250  
Fort Erie, Ontario L2A 5M9 Canada  
Telephone: (905) 871-7772  
Telefax: (905) 871-3599  
[www.airbushelicopters.ca](http://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

- Read and comply with Electrical Power Generating System Instructions AS 355 N/NP MET, Chapter 24.00.00.301.
- Disconnect the external power unit and battery in accordance with AS 355 N/NP MET, Chapter 24.00.00.301.

## A. REMOVAL

- 1) HIGH VISIBILITY FORWARD CABIN DOOR (Refer to Figure 3)
  - a) Remove high visibility forward cabin door. Refer to Removal – Cabin Door, AS 355 N/NP MET, Chapter 52.10.00.401.
  - b) Place door on work bench.

## B. REPLACEMENT

**NOTE** Use torque per MTC, Chapter 20.02.05.404, unless otherwise specified.

Comply with general instructions, refer to MET, Chapter 60.00.00.301.

- 1) HIGH VISIBILITY FORWARD CABIN DOOR (Refer to Figure 3)
  - a) Reinstall high visibility forward cabin door. Refer to Installation – Cabin Door, AS 355 N/NP MET, Chapter 52.10.00.401.
- 2) Read and comply with Electrical power Generating System, AS 355 N/NP, MET Chapter 24.00.00.301.
- 3) Perform functional test in accordance with AS 355 N/NP MET, Chapter 24.30.00.501.
- 4) Perform operational check of all systems that were serviced in accordance with the AS 355 N/NP MET procedures and the system's installation/operation manual.
- 5) Do a function test of the crew doors, refer to Adjustment/Test – Cabin Door, AS 355 N/NP MET, Chapter 52.10.00.502.
- 6) Perform Jettison Test, refer to MET, Chapter 52.10.00.501.
  - With door reinstalled, lubricate hinge pins with grease (P/N G.354 or G.361). Visually check that the hinge pins are fitted correctly and check condition of the jettison control rod.
- 7) Verify that the installation of the High Visibility Forward Cabin Doors is correct and secure:
  - Ensure that the door latches operate smoothly and freely after installation.
  - Move door handle on FWD door down: the door swings outward in the FWD direction.
  - Ensure that the door strut on FWD door is connected correctly; holding the door in the open position.

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**9. WEIGHT AND BALANCE DATA**

A. Removed Items						
DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lb	m	in	kg m	lb in
LH FWD Door Standard	12.95	28.5	1.68	66.1	21.76	1883.9
RH FWD Door Standard	12.95	28.5	1.68	66.1	21.76	1883.9
<b>Total</b>	<b>25.90</b>	<b>57.0</b>	<b>1.68</b>	<b>66.1</b>	<b>43.51</b>	<b>3767.7</b>

B. Added Items						
DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lb	m	in	kg m	lb in
LH High Visibility Forward Cabin Door	11.88	26.2	1.68	66.1	19.96	1731.8
RH High Visibility Forward Cabin Door	11.88	26.2	1.68	66.1	19.96	1731.8
<b>Total</b>	<b>23.76</b>	<b>52.4</b>	<b>1.68</b>	<b>66.1</b>	<b>39.92</b>	<b>3463.6</b>

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**10. PLACARDS AND MARKINGS**

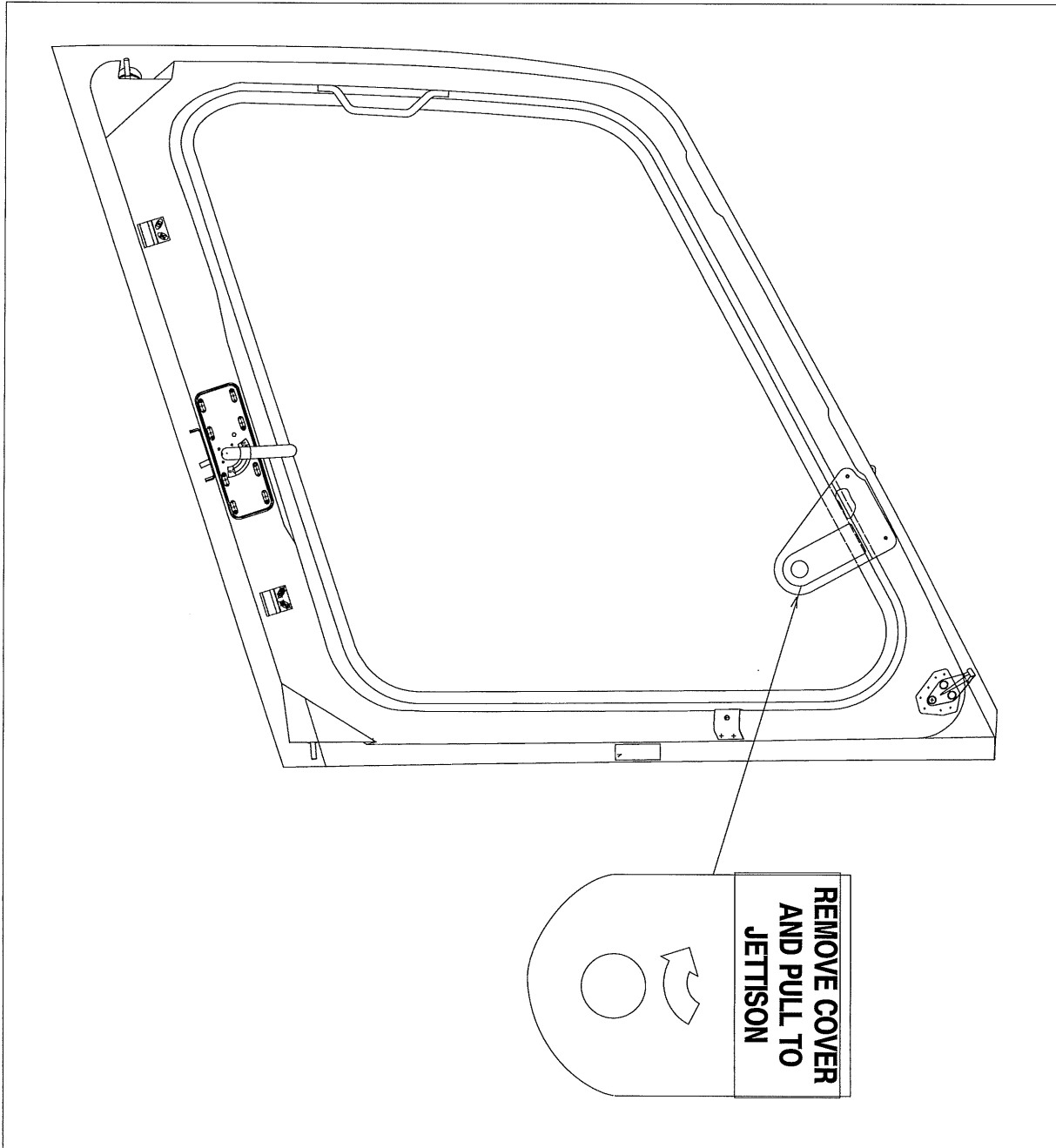


Figure 7 Identification labels on the LH and RH Jettison Handle Cover (LH shown)

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10. PLACARDS AND MARKINGS (continued)

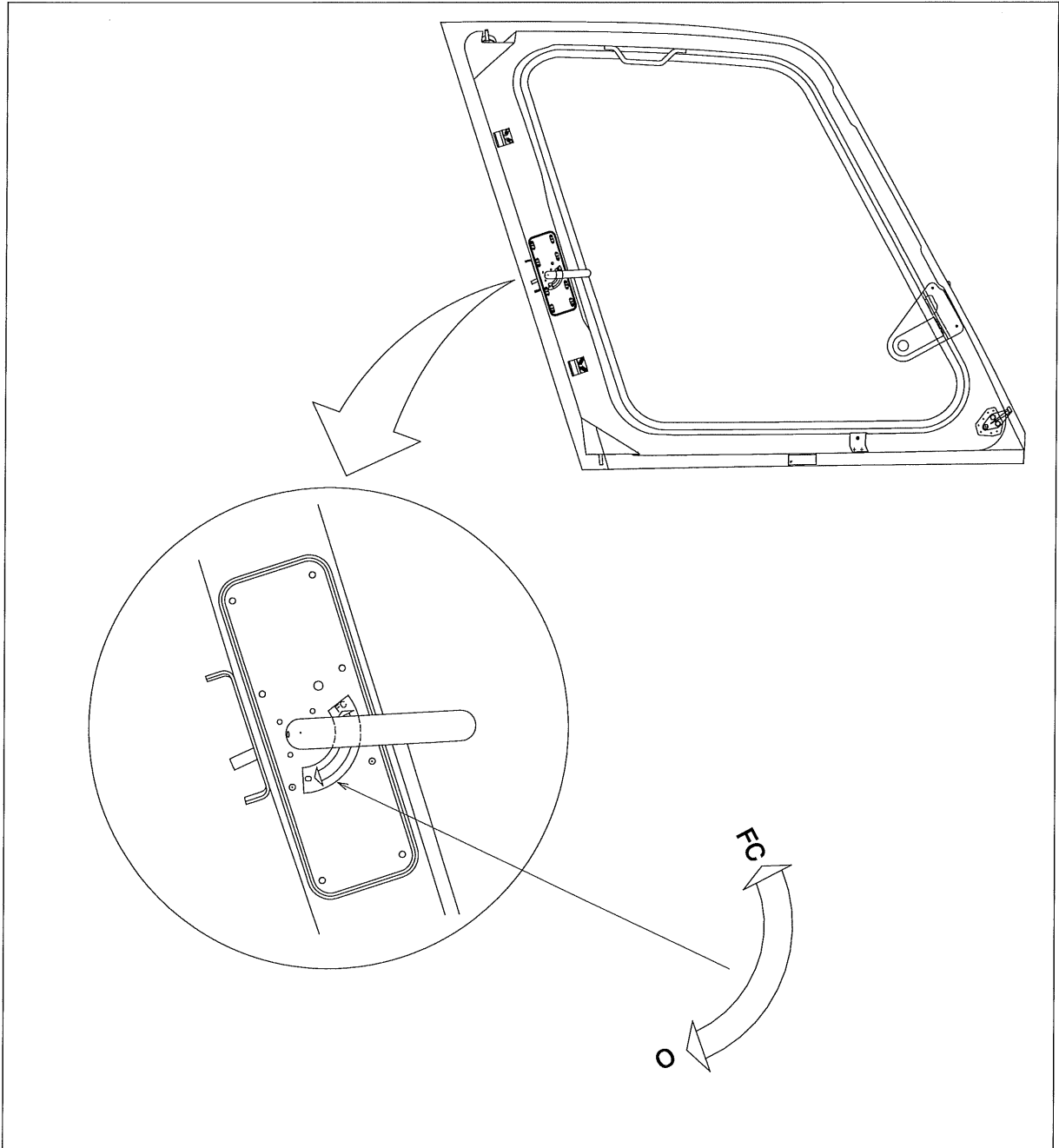


Figure 8 Identification label on the LH and RH door latch (LH shown)

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