



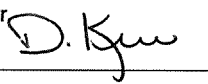

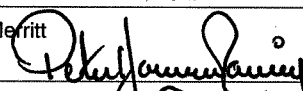


SUBJECT:

Required maintenance for the Cable Cutter Installation (P/N 350-252004).

APPLICABILITY :

Aircraft with the subject modification embodied in accordance with TCCA STC No. SH12-52 or any relevant foreign approvals.

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APP'D / ACCEPTED (Civil A/W Authority)	As per ICA Compliance Check Sheet 	1 st October 2012	TCCA
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CONTENTS

SECTION	TITLE	PAGE
1	GENERAL	4
2	AIRWORTHINESS LIMITATIONS	16
3	CONTROL AND OPERATION	17
4	INSPECTION SCHEDULE AND MAINTENANCE ACTION	17
5	REPLACEMENT COMPONENTS AND REPAIR / OVERHAUL INFORMATION	22
6	TROUBLESHOOTING	22
7	SPECIAL TOOLING	22
8	REMOVAL AND REPLACEMENT	23
9	WEIGHT AND BALANCE DATA	31
10	PLACARDS AND MARKINGS	31

FIGURES

FIGURE	TITLE	PAGE
1	General Layout	5
2	Upper Cutter Assembly Detachable Provisions	6
3	Lower Cutter Assembly Detachable Provisions	7
4	Lower Cutter Assembly Detachable Provisions Continued	8
5	Windshield Deflector	9
6	Wiper Post Deflector (Optional)	10
7	Strut Modification and installation	11
8	Static System Mods for Cable Cutter Installation	12
9	Static System Mods for Cable Cutter Installation (continued)	13
10	Weakened Pitot Support	14

TABLES

TABLE	TITLE	PAGE
1	Inspection Schedule and Maintenance Action Before the first flight of each day	17
2	Inspection Schedule and Maintenance Action Every 150 FH or 12 M (Margin: 15 FH or 36 D)	18
3	Supplemental Maintenance Instructions	21

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1. GENERAL

- A. The subject Cable Cutter Installation consists of two cable-cutting devices mounted on the upper and lower canopy. A Deflector, integral to the cutting devices and installed on the windshield center post, guide cables to the cutting blades. Optional wiper post deflectors can be installed on aircraft with windshield wipers. Refer to Figure 1 for General Layout.

Prior to installation of the Cable Cutter the following structural modifications must be installed:

- MOD OP 1946: Canopy Reinforcement for the Upper Cable Cutter
- MOD OP 1947: Cabin Floor Reinforcement for Lower Cable Cutter

The Cable Cutter Installation consists of the following main components:

Detachable Provisions

- Upper Cutter Assembly
- Lower Cutter Assembly
- Struts (upper and lower)
- Left Hand and Right Hand Strut Pads (upper and lower)
- Windshield Deflector
- Weakened Pitot Support
- Static System Mod
- Optional Windshield Wiper Deflectors

For instructions of initial installation, see IP-ECL-129.

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

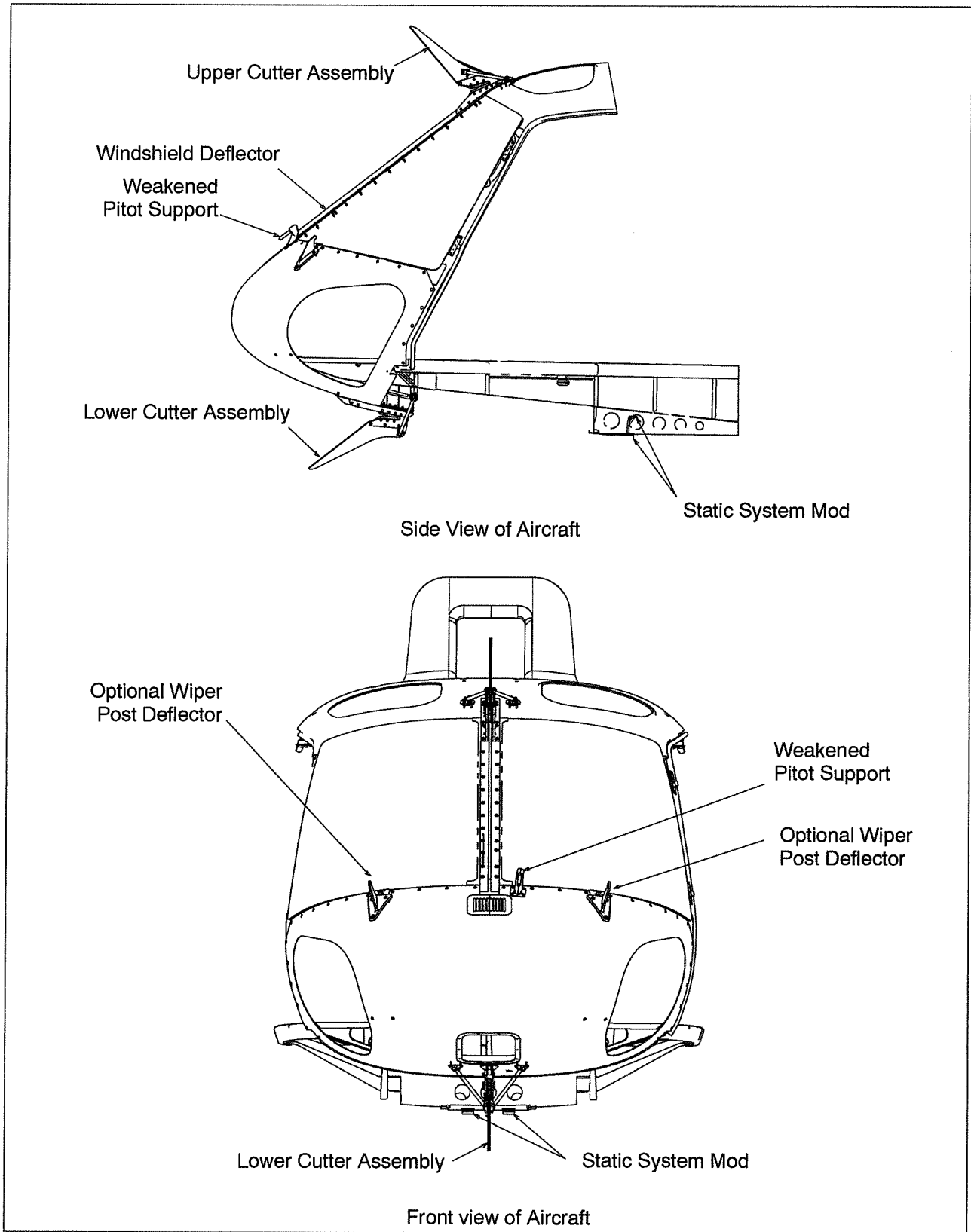


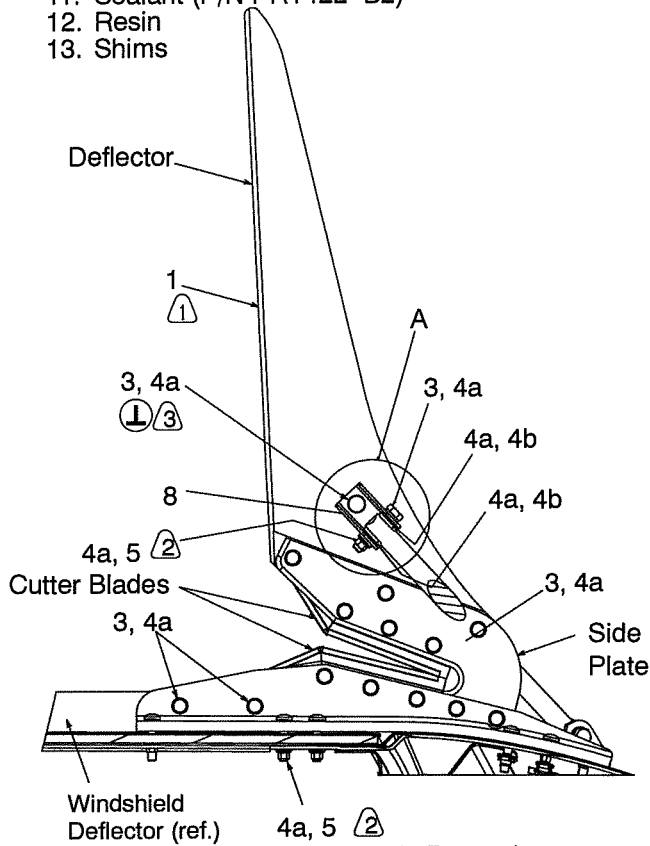
Figure 1 General Layout

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Legend (for Figure 2)

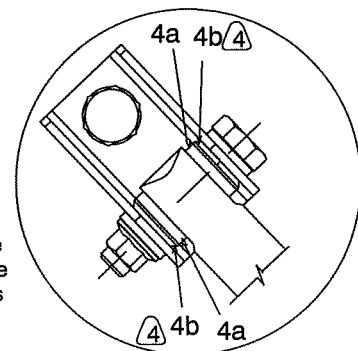
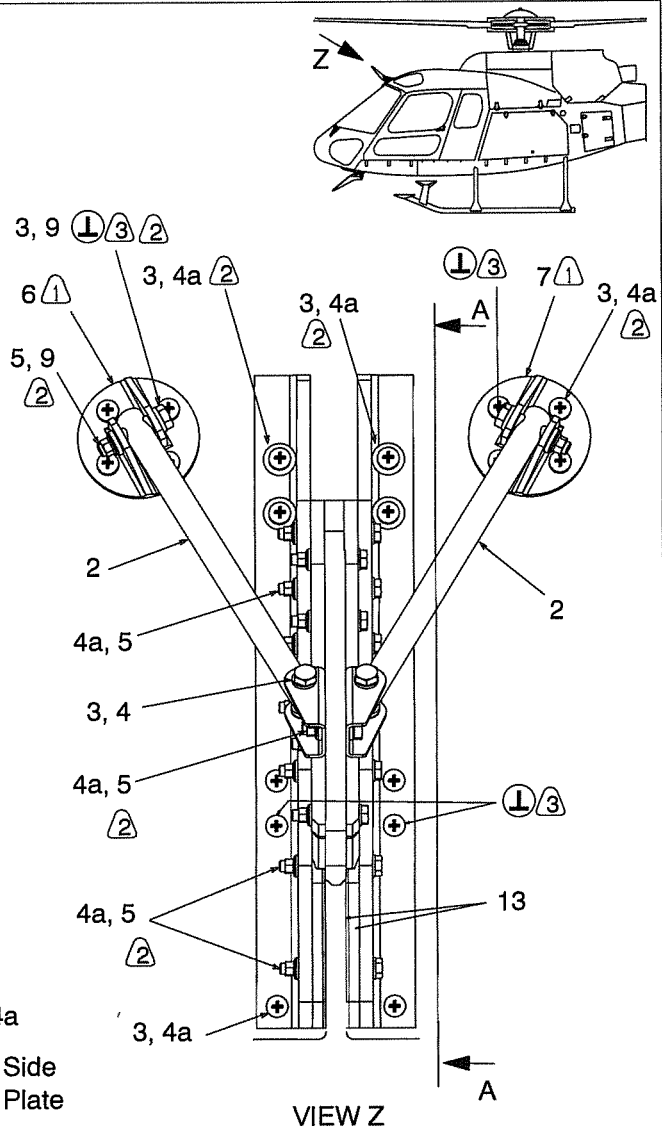
Item Description

1. Upper Cutter Assembly
2. Strut
3. Bolt
- 4a. Washer
- 4b. Washer, Bevelled
5. Nut
6. RH Strut Pad
7. LH Strut Pad
8. Strut Clip
9. Bushing
10. Protective Coating (P/N Nycote7-11BL)
11. Sealant (P/N PR1422-B2)
12. Resin
13. Shims



SECTION A - A, Rotated

Side view of Upper Cable Cutter Installation



Detail A

- ④ Note orientation of bevelled washer, item 4b.
- Ⓛ③ For electrical bonding, remove surface protection under washers 2-4mm beyond the diameter of the washer. Roughen bared surface with abrasive paper. Install hardware and apply protective coating (10) to bolt head (3) and nut (5) extending past washers (4) and bared area.
- ② For 5mm hardware: apply torque to 4.0 to 5.0 Nm (35.4 to 44.3 in.lb).
For 6mm hardware: apply torque to 7.5 to 9.0 Nm (66.3 to 79.6 in.lb).
Add 0.5Nm (4.4 in.lb) when application to bolt head is necessary.
- ① Seal faying surfaces with sealant (11).

NOTES:

Figure 2 Upper Cutter Assembly Detachable Provisions

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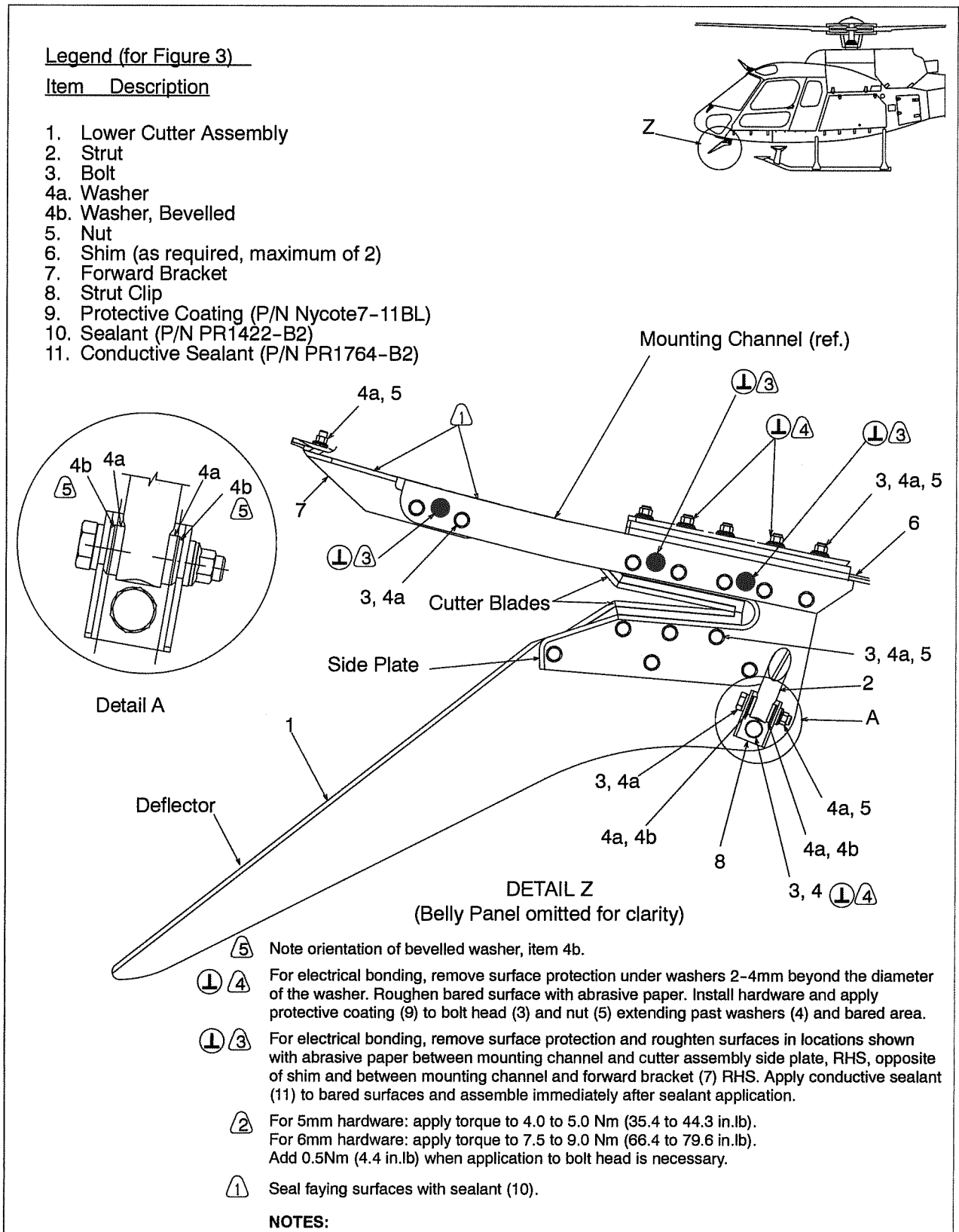


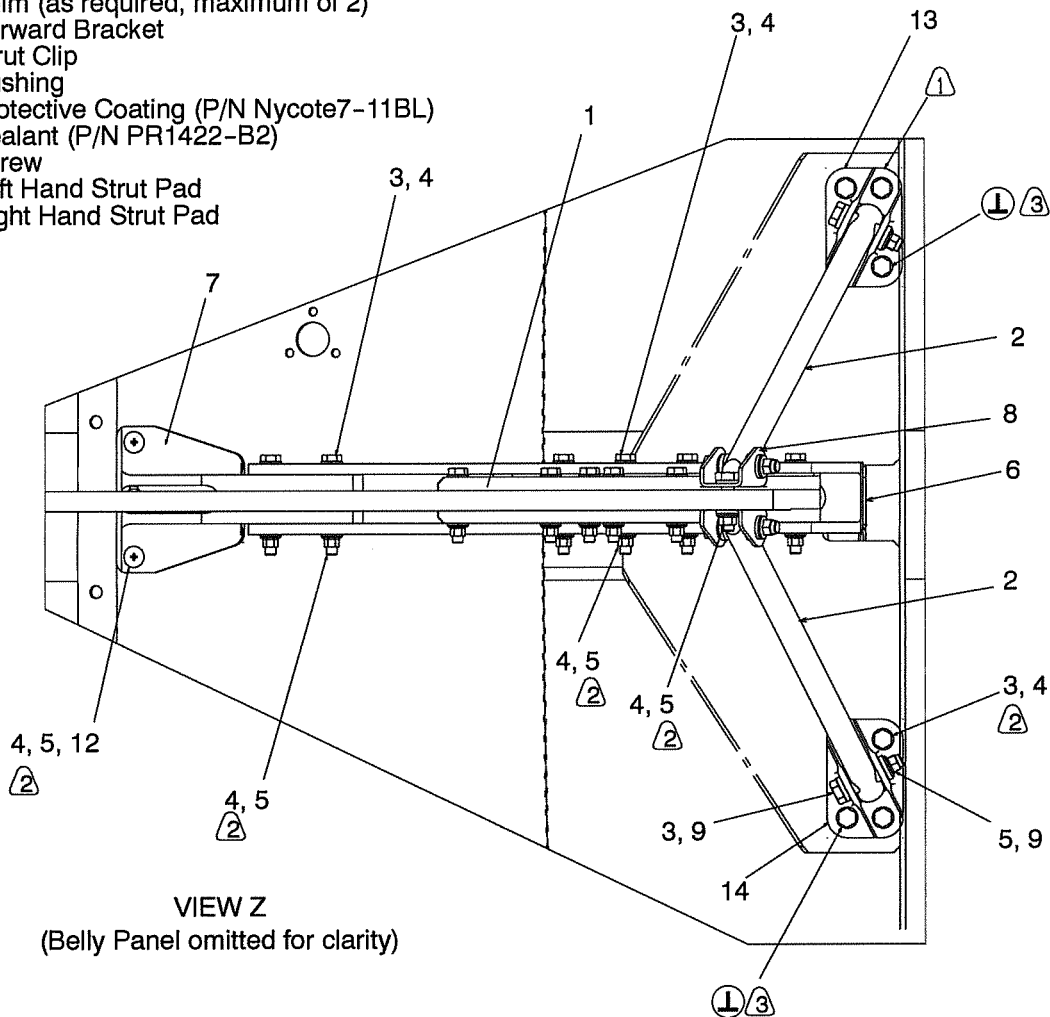
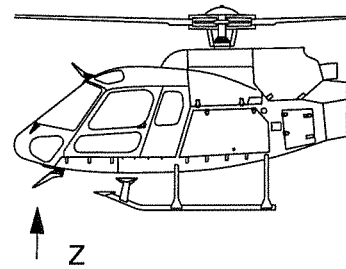
Figure 3 Lower Cutter Assembly Detachable Provisions



Legend (for Figure 4)

Item Description

1. Lower Cutter Assembly
2. Strut
3. Bolt
4. Washer
5. Nut
6. Shim (as required, maximum of 2)
7. Forward Bracket
8. Strut Clip
9. Bushing
10. Protective Coating (P/N Nycote7-11BL)
11. Sealant (P/N PR1422-B2)
12. Screw
13. Left Hand Strut Pad
14. Right Hand Strut Pad



VIEW Z
(Belly Panel omitted for clarity)

- Ⓛ/③ For electrical bonding, remove surface protection under washers 2-4mm beyond the diameter of the washer. Roughen bared surface with abrasive paper. Install hardware and apply protective coating (10) to bolt head (3) and nut (5) extending past washers (4) and bared area.
- Ⓜ For 5mm hardware: apply torque to 4.0 to 5.0 Nm (35.4 to 44.3 in.lb).
For 6mm hardware: apply torque to 7.5 to 9.0 Nm (66.4 to 79.6 in.lb).
Add 0.5Nm (4.43 in.lb) when application to bolt head (3) is necessary.
- Ⓛ Seal faying surfaces with sealant (11).

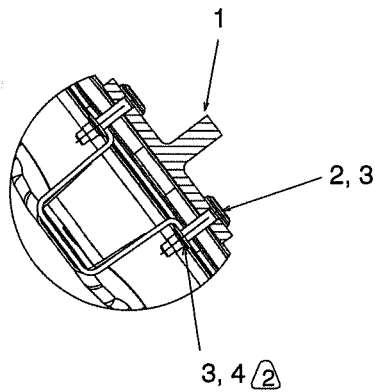
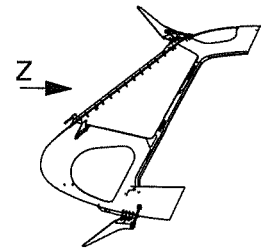
NOTES:

Figure 4 Lower Cutter Assembly Detachable Provisions Continued

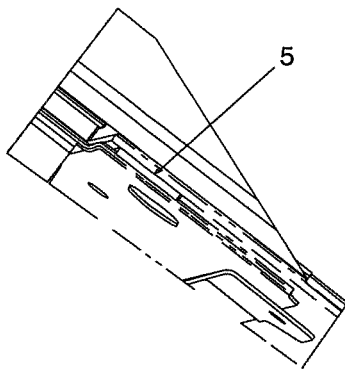
Legend (for Figure 5)

Item Description

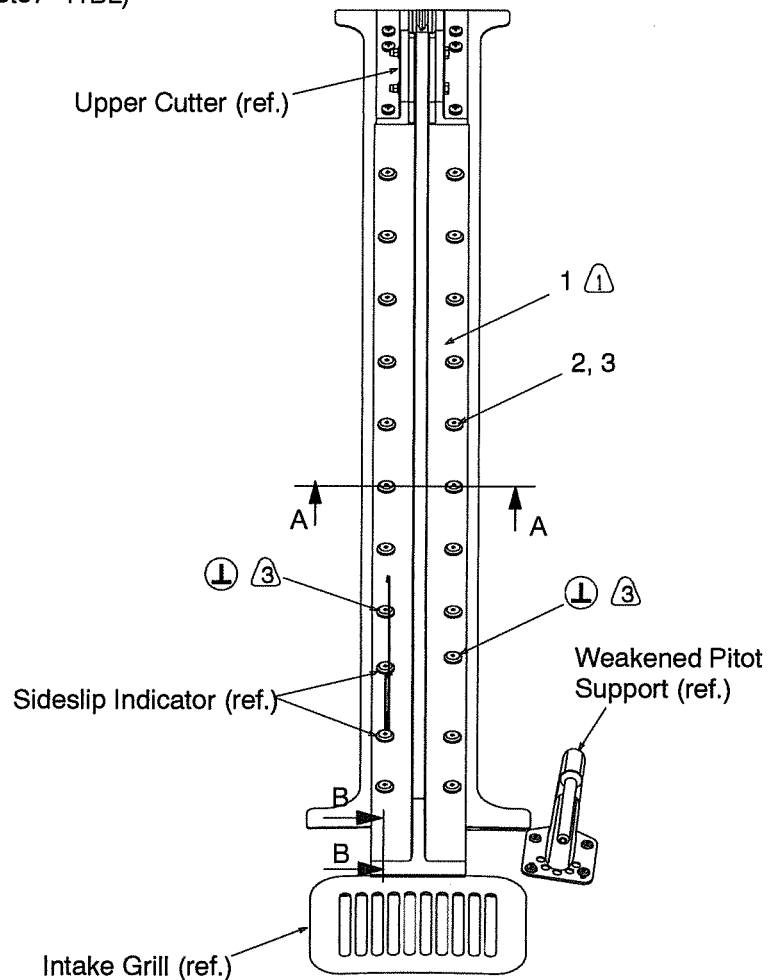
1. Windshield Deflector
2. Bolt
3. Washer
4. Nut
5. Block
6. Protective Coating (P/N Nycote7-11BL)
7. Sealant (P/N PR1422-B2)



SECTION A - A



SECTION B - B



VIEW Z
Front view of Windshield Deflector

- Ⓛ ③ For electrical bonding, remove surface protection under washers (3) 2-4mm beyond the diameter of the washer. Roughen bared surface with abrasive paper. Install hardware and apply protective coating (6).
- ② Apply torque to 3.7 to 4.2 Nm (32.8 to 37.2 in.lb) to nuts (4, 2 places).
- Ⓛ Seal faying surfaces with sealant (7).

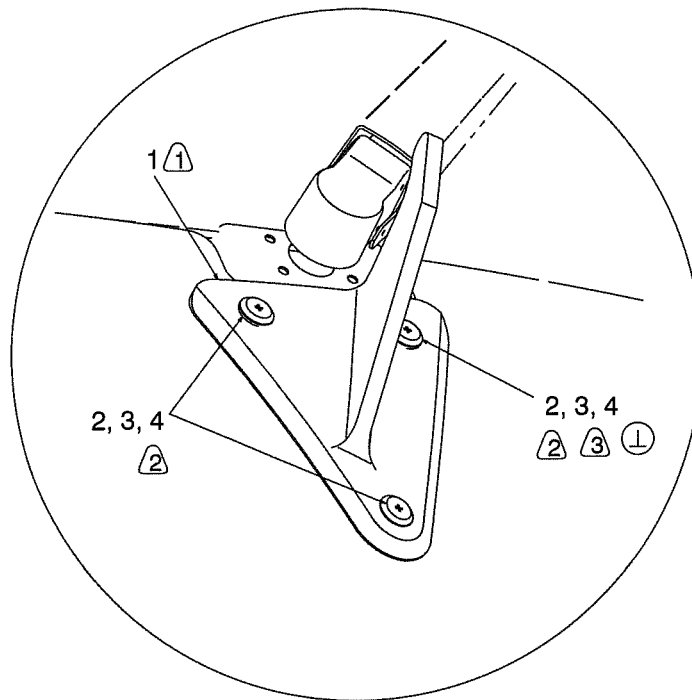
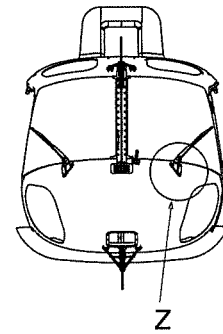
NOTES:

Figure 5 Windshield Deflector

Legend (for Figure 6)

Item Description

1. Left Hand Wiper Post Deflector
2. Bolt
3. Washer
4. Nut
5. Protective Coating (P/N Nycote7-11BL)
6. Sealant (P/N PR1422-B2)



DETAIL Z

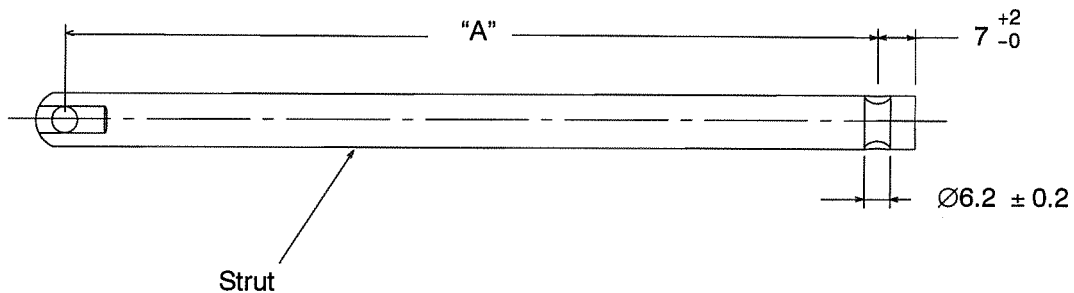
Left Hand Shown, Right Hand opposite

- Ⓛ Ⓟ For electrical bonding, remove surface protection under washers (3) 2-4mm beyond the diameter of the washer. Roughen bared surface with abrasive paper. Install hardware and apply protective coating (5).
- Ⓜ Apply torque to 3.7 to 4.2 Nm (32.8 to 37.2 in.lb) to nuts (4, 6 places).
- Ⓛ Seal faying surfaces with sealant (6).

NOTES:

Figure 6 Wiper Post Deflector (Optional)

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Typical Drilled Strut

Procedure for strut trimming and drilling strut

Applicable for both Upper and Lower Cutter Installation

1. With strut pads (2 places) and strut clips (2 places) secured on aircraft, measure the minimum cross hole to cross hole distance between the strut pads and strut clips.
2. Trim strut ensuring 7 to 9 mm to dimension "A" as shown above.
3. Reposition strut on strut clips and secure, determine cross hole location on strut and mark.
4. Remove strut and drill cross hole to 6.2 ± 0.2 mm.
5. Deburr hole. Touch up alodine and prime hole and trimmed end of strut.

Installation Procedure (Refer to Figures 2, 3 and 4)

1. Reposition struts (2, 2 places) on LH and RH strut mounting pads (13 and 14) and secure using bolts (3, 2 places), bushings (9, 4 places) and nuts (5, 2 places).
2. Bring strut up into strut slips (8, 2 places) located on the cutter assembly and secure using bolts (3, 2 places), washers (4, 8 places) and nuts (5, 2 places).
3. Tighten all hardware to correct torque values, refer to Figures 2, 3 and 4.

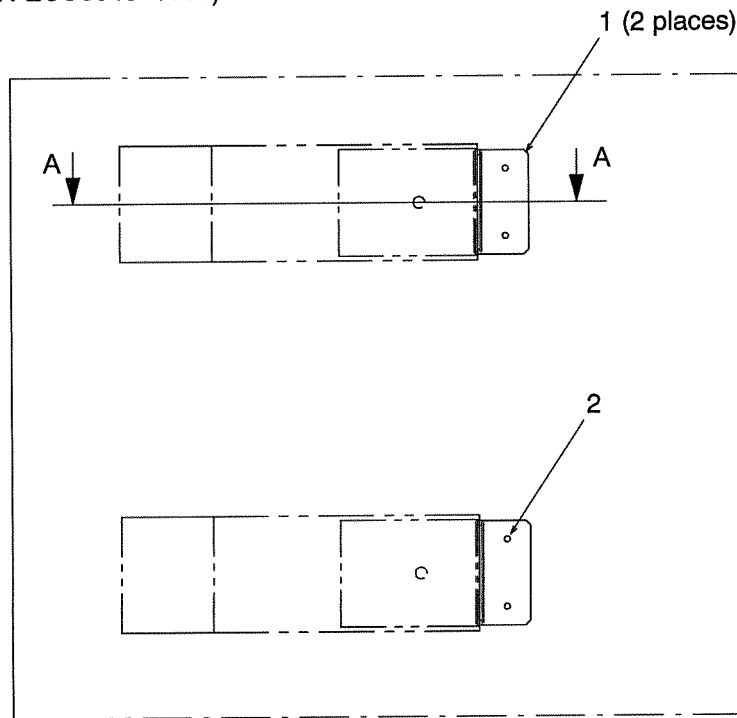
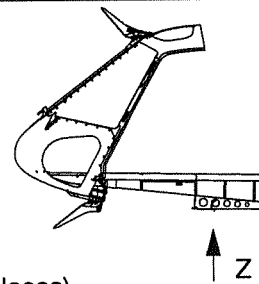
Figure 7 Strut Modification and Installation



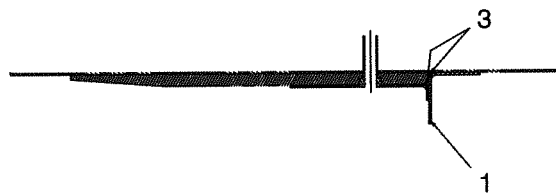
Legend (for Figure 8)

Item Description

1. Corner Plate
2. Rivets
3. Sealant (P/N ECS6046-1091)



DETAIL Z
Looking up corner angles



SECTION A - A
Showing installation of corner angle

Figure 8 Static System Mods for Cable Cutter Installation

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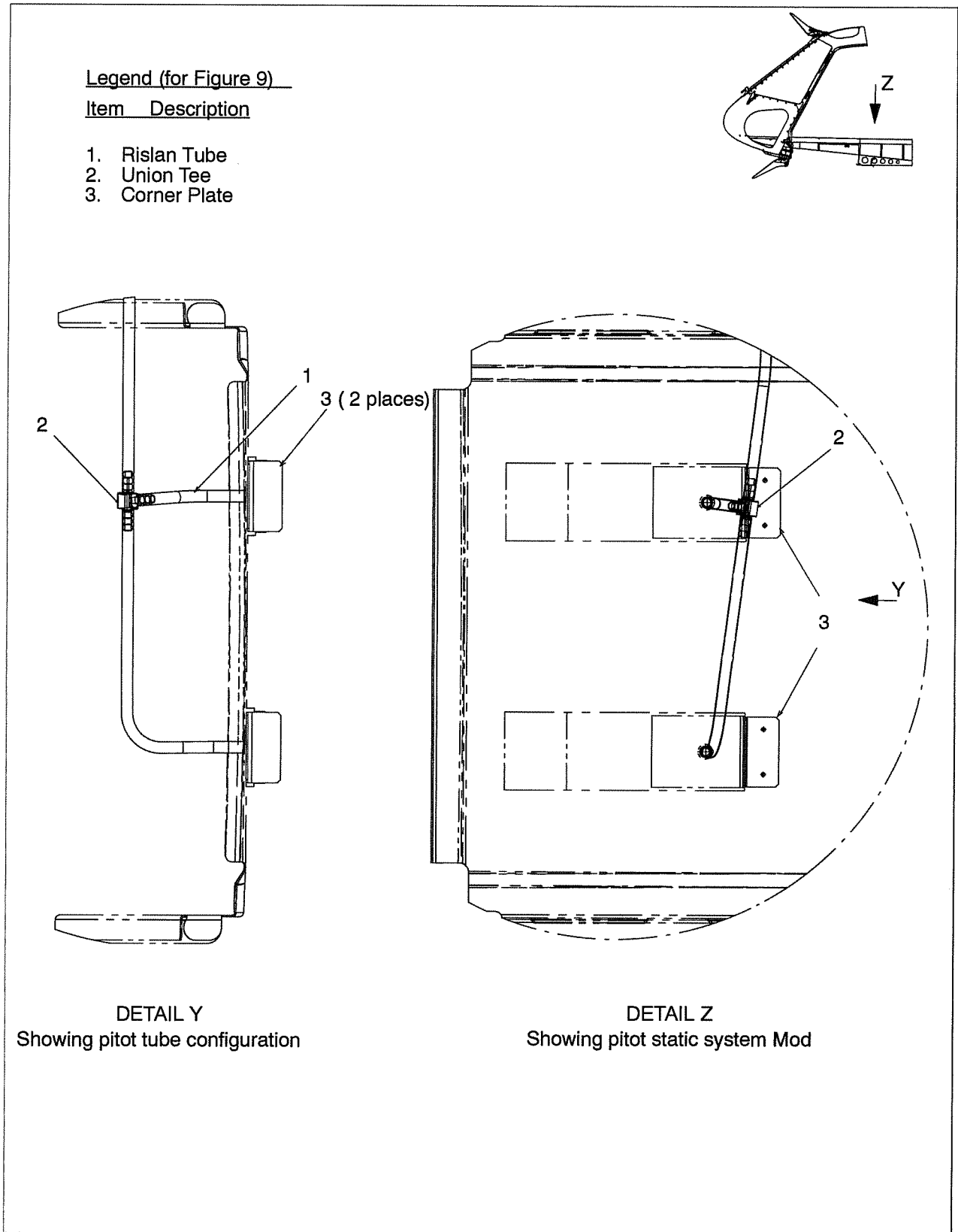


Figure 9 Static System Mods for Cable Cutter Installation (continued)

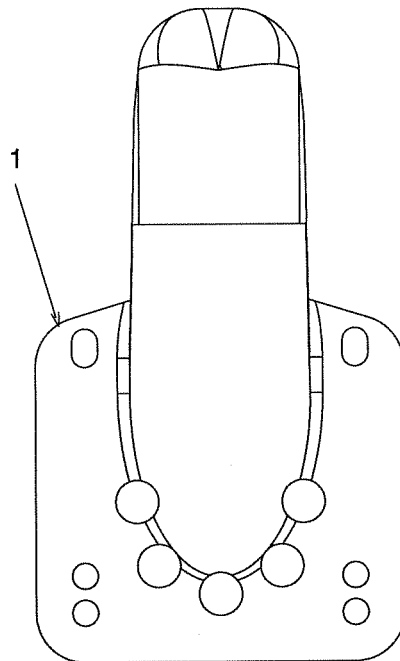
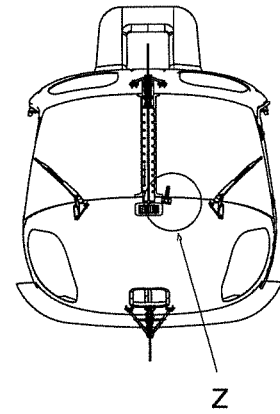
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Legend (for Figure 10)

Item Description

- 1. Pitot Support



VIEW Z
Weakened Pitot Support

Figure 10 Weakened Pitot Support

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C. REFERENCES

DOCUMENT	DOCUMENT TITLE
AC No. 43.13-1B	Acceptable Methods, Techniques and Practices - Aircraft Inspection and Repair
AMM (B2 & B3 only)	Aircraft Maintenance Manual
IP-ECL-129	Installation Procedure Eurocopter Canada Limited Number 129
MET	Maintenance Manual
MTC	Standard Practices Manual

D. ABBREVIATIONS & DEFINITIONS

ABBREVIATION	DEFINITION
BAT EPU	Battery External Power Unit
D	Days
D.BAT	Direct Battery
ECF	Eurocopter (France)
ECL	Eurocopter Canada Limited
EXT PWR BAT	External Power Battery
FH	Flight Hours
hrs.	hours
MOD	Modification
MOD OP	Modification Option Pre Aircraft
M	Months
OEM	Original Equipment Manufacturer
P/N	Part Number
ref.	reference
RHS	right hand side

E. UNITS OF MEASUREMENT

ABBREVIATION / SYMBOL	UNIT OF MEASUREMENT
kg	kilogram
lb	pound
m	meter
mm	millimeters
in	inch
Nm	Newton meter

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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.

No airworthiness limitations associated with this installation.

3. CONTROL AND OPERATION

Control and operation of the aircraft remains unchanged.

4. INSPECTION SCHEDULE AND MAINTENANCE ACTION

WARNING: TO AVOID INJURIES, THE LOWER CUTTER ASSEMBLY MUST NOT BE USED FOR GROUND HANDLING OF THE HELICOPTER

There are no scheduled special inspections for the cable cutter. Inspections can be incorporated into the regular aircraft inspections.

NOTE: Use torque per EC MTC, Volume 2, Chapter 20.02.05.404, unless otherwise specified.

4.1. INSPECTION SCHEDULE

4.1.1. Before the first flight of each day:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	<ul style="list-style-type: none"> - Visually inspect the cable cutter components for: <ul style="list-style-type: none"> a. security (verify integrity of components and mounting hardware by applying hand pressure and checking for looseness) b. missing hardware c. condition 	<ul style="list-style-type: none"> a. Secure as required . b. Replace missing hardware. c. If sealant is damaged or missing clean area and reapply sealant (P/N PR1422-B2) in accordance with MTC, Chapters 20.05 .01.101 and 20.05.01.206. If blade is damaged, refer to Supplemental Maintenance Instructions, Section 4.1.3, Item A.

Table 1 Before the first flight of each day

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

Maintenance on the Cable Cutter is condition monitoring.

4.1.2. Every 150 FH or 12 M (Margin: 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	<ul style="list-style-type: none"> - Visually inspect Upper and Lower Cable Cutter Installation, shown in Figure 2 and 3 for: <ul style="list-style-type: none"> a. condition (nicks, scratches and minor corrosion) b. cracked or damaged components c. loose or damaged fasteners 	<ul style="list-style-type: none"> a. Repair light and medium corrosion and minor nick and scratches to a depth of 0.25mm in accordance with EC, MTC, Chapter 20.04.03.401 or AC 43.13-1B, Chapter 6, Section 7. Restore reworked surface finish. If heavy corrosion or severe marking is found, contact ECL for replacement parts. b. No cracked or damaged components are allowed. If cracking or damage is found, contact ECL for replacement parts. c. Re-torque or replace any loose or damaged fasteners.
B	<ul style="list-style-type: none"> - Visually inspect cutting edge of cutter blades, shown in Figure 2 and 3 for: <ul style="list-style-type: none"> a. surface damage or corrosion b. damage to rubber coating 	<ul style="list-style-type: none"> a. No surface damage or corrosion is allowed on cutter blades. If surface damage or corrosion is found, cutter blade must be replaced. b. Remove damaged cutter blade following instructions given in Section 8. Mask area on each side of cutter blade. Apply a minimal coating of sealant to the damaged area on cutter blade. Remove masking once dry.
C	<ul style="list-style-type: none"> - Visually inspect upper and lower deflector shown in Figures 2 and 3 for: <ul style="list-style-type: none"> a. deformation or cracking 	<ul style="list-style-type: none"> a. No deformation or cracking is allowed. If deformation or cracking is found, contact ECL for replacement parts.

Table 2 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)

4.1.2. Every 150 FH or 12 M (Margin: 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
D	<ul style="list-style-type: none"> - Visually inspect Windshield Deflector, shown in Figure 5 for: <ul style="list-style-type: none"> a. condition (nicks, scratches and minor corrosion) b. cracked or damaged components c. loose or damaged fasteners 	<ul style="list-style-type: none"> a. Repair light and medium corrosion and minor nick and scratches to a depth of 0.25mm in accordance with EC, MTC, Chapter 20.04.03.401 or AC 43.13-1B, Chapter 6, Section 7. Restore reworked surface finish. If heavy corrosion or severe marking is found, contact ECL for replacement parts. b. No cracked or damaged components are allowed. If cracking or damage is found, contact ECL for replacement parts. c. Re-torque or replace any loose or damaged fasteners.
E	<ul style="list-style-type: none"> - Visually inspect LH and RH Wiper Post Deflectors, if installed, shown in Figure 6 for: <ul style="list-style-type: none"> a. condition (nicks, scratches and minor corrosion) b. cracked or damaged components c. loose or damaged fasteners 	<ul style="list-style-type: none"> a. Repair light and medium corrosion and minor nick and scratches to a depth of 0.25mm in accordance with EC, MTC, Chapter 20.04.03.401 or AC 43.13-1B, Chapter 6, Section 7. Restore reworked surface finish. If heavy corrosion or severe marking is found, contact ECL for replacement parts. b. No cracked or damaged components are allowed. If cracking or damage is found, contact ECL for replacement parts. c. Re-torque or replace any loose or damaged fasteners.

Table 2 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)

4.1.2. Every 150 FH or 12 M (Margin: 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 struts, item 2, on upper and lower cutters, shown in Figures 2 and 4 for: <ul style="list-style-type: none"> a. bowing 	<ul style="list-style-type: none"> a. Maximum allowable bow in struts is 1 mm. If bowing of more than 1 mm is found, strut must be replaced. Contact ECL for replacement parts. For installation refer to Figure 7.
G	<ul style="list-style-type: none"> - Visually inspect struts, item 2, strut clips, item 8 and strut mounting pads, items 6 and 7 or 13 and 14, shown in Figures 2 and 4 respectively for: <ul style="list-style-type: none"> a. condition (nicks, scratches and minor corrosion) b. deformation or cracking c. loose or damaged fasteners 	<ul style="list-style-type: none"> a. Repair light and medium corrosion and minor nick and scratches to a depth of 0.25mm in accordance with EC, MTC, Chapter 20.04.03.401 or AC 43.13-1B, Chapter 6, Section 7. Restore reworked surface finish. If heavy corrosion or severe marking is found, contact ECL for replacement parts. b. No deformation or cracking allowed. If deformation or cracking is found, contact ECL for replacement parts. c. Re-torque or replace any loose or damaged fasteners.
H	<ul style="list-style-type: none"> - Visually inspect aircraft structure around Cable Cutter Assemblies, Windshield Deflector and LH and RH Wiper Post Deflectors shown in Figure 1 for: <ul style="list-style-type: none"> a. damage or deformation 	<ul style="list-style-type: none"> a. If damage or deformation exists, repair in accordance with Maintenance Manual.

Table 2 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. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.3. Supplemental Maintenance Instructions

Only if wire strike is apparent after Section 4.1.2 has been completed:

NOTE: Any blades involved in a cable cutting incident must be replaced regardless of condition or appearance.

WARNING: Carry out detailed inspection of complete aircraft in accordance with Maintenance Manual in addition to the following:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	<ul style="list-style-type: none"> - Visually inspect Upper and Lower Cable Cutter Installation, shown in Figure 2 and 3 for: <ul style="list-style-type: none"> a. condition (nicks, scratches and minor corrosion) b. cracked or damaged components c. loose or damaged fasteners 	<ul style="list-style-type: none"> a. Repair light and medium corrosion and minor nick and scratches to a depth of 0.25mm in accordance with EC, MTC, Chapter 20.04.03.401 or AC 43.13-1B, Chapter 6, Section 7. Restore reworked surface finish. If heavy corrosion or severe marking is found, contact ECL for replacement parts. b. No deformation or cracking allowed. If deformation or cracking is found, contact ECL for replacement parts. c. Re-torque or replace any loose or damaged fasteners.
B	<ul style="list-style-type: none"> - Visually inspect aircraft structure around Cable Cutter Assemblies, Windshield Deflector and LH and RH Wiper Post Deflectors shown in Figure 1 for: <ul style="list-style-type: none"> a. damage or deformation 	<ul style="list-style-type: none"> a. If damage or deformation exists, repair in accordance with Maintenance Manual.
C	<ul style="list-style-type: none"> - Visually inspect struts, item 2, on upper and lower cutters, shown in Figures 2 and 4 for: <ul style="list-style-type: none"> a. bowing 	<ul style="list-style-type: none"> a. Maximum allowable bow in struts is 1 mm. If bowing of more than 1 mm is found, strut must be replaced. Contact ECL for replacement parts. For installation refer to Figure 7.
D	<ul style="list-style-type: none"> - Visually inspect other areas of the aircraft structure that may have come in contact during wire strike for: <ul style="list-style-type: none"> a. damaged components 	<ul style="list-style-type: none"> a. Repair or replace components in accordance with Maintenance Manual.

Table 3 Inspection Schedule and Maintenance Action
Supplemental Maintenance Instructions
(continued on following page)

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4. INSPECTION SCHEDULE AND MAINTENANCE ACTION (continued)

4.1.3. Supplemental Maintenance Instructions (only if wire strike is apparent after Section 4.1.2 has been completed):

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
E	- Visually inspect cabin roof for: a. cracking, depressions or holes	a. If cracking, a depression or a hole is found, repairs must be performed by competent composite personnel. Repairs may be accomplished with EC, MTC, Chapter 20.03.06.401 and 20.03.06.402 and AC43.13-1B, Chapter 3, Section 1.
F	- Visually inspect the lower part of the forward fuselage for: a. cracking, depressions or holes	a. If cracking, a depression or a hole is found, repairs must be performed by competent composite personnel. Repairs may be accomplished with EC, MTC, Chapter 20.03.06.401 and 20.03.06.402 and AC43.13-1B, Chapter 3, Section 1.

Table 3 Inspection Schedule and Maintenance Action
Supplemental Maintenance Instructions

5. REPLACEMENT COMPONENTS AND REPAIR / OVERHAUL INFORMATION

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

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.

8. REMOVAL AND REPLACEMENT

Proceed as follows if any of these items need to be removed.

- A. For aircraft AS 350 B2 or B3:
 - Read General Safety Instructions - Electrical Power Supply System (refer to AS 350 B2, B3, AMM, Chapter 24-00-00, 3-1).
 - Read Electrical Power Supply on the Ground (refer to AS 350 B2, B3, AMM, Chapter 24-00-00, 2-1).
 - disconnect the external power unit and battery (refer to Removal/Installation, AS 350 B2, B3, AMM, Chapter 24-33-00, 4-1)
 - B. Remove overhead Fuel Shut-off Ball Type Control AS 350 B2, B3 (refer to Removal/Installation, AS 350 B2, B3 AMM, Chapter 76-21-00, 4-1).
 - C. Remove overhead Fuel Shut-off Ball Type Control AS 350 B3 only (PRE MOD 07 3080) (refer to Removal/Installation, AS 350 B2, B3 AMM, Chapter 76-21-00, 4-1a).
or
Remove overhead Fuel Shut-off Ball Type Control AS 350 B3 only (POST MOD 07 3080) (refer to Removal/Installation, AS 350 B2, B3 AMM, Chapter 76-21-00, 4-1b).
 - D. Remove overhead Rotor Brake Ball Type Control AS 350 B3 only (POST 07 2816) & (PRE MOD 07 3080) (refer to Removal/Installation, AS 350 B2, B3 AMM, Chapter 63-52-00, 4-1a).
or
Remove overhead Rotor Brake Ball Type Control AS 350 B3 only (POST MOD 07 2816) (POST MOD 07 3080) (refer to Removal/Installation, AS 350 B2, B3 AMM, Chapter 63-52-00, 4-1b).
 - E. Remove front lower cowling (refer to Removal/Installation, AS 350 B2, B3 AMM, Chapter 53-51-00, 4-2).
-
- A. For aircraft AS 350 (excluding AS 350 B2 & B3):
 - Read the General Electrical Instructions (refer to AS 350 MET, Chapter 24.00.00.301)
 - set the "D.BAT" push button to "OFF"
 - set the "EXT PWR BAT" or "BAT EPU" (depending on MOD) pushbutton to "OFF" (refer to Electrical Power AS 350 MET, Chapter 24.00.00.301)
 - disconnect the external power unit and battery (refer to Removal/ Installation AS 350 MET, Chapter 24.30.00.401)
 - B. Remove front lower cowling (refer to Removal/Installation, AS 350, MET, Chapter 53.00.00.405)

NOTE: Prior to reinstalling the Cable Cutter Installation, the following must be removed:

- A. Remove the overhead panel.
- B. Protect pitot head.
- C. Protect Windshield from scratches.
- D. Loosen wire harness in area of lower cutter.

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A. REMOVAL

1) UPPER CUTTER (Refer to Figure 2)

- a) Remove bolts (3, 2 places), nuts (5, 2 places), washers (4a, 8 places) and bevelled washers (4b, 4 places) attaching both struts (2) to the strut clip (8) on the deflector. Pay special attention to the orientation of the bevelled washers (4b, 4 places).
- b) Loosen nuts (5, 4 places) securing both struts (2) to the fuselage. Position both struts (2) and bushings (9, 4 places) out of the way.
- c) Remove bolts (3, 2 places), nuts (5, 2 places) and washers (4a, 4 places) from the cross holes attaching the upper cutter to the windshield deflector.
- d) Remove bolts (3, 6 places), nuts (5, 6 places) and washers (4a, 12 places) attaching the upper cutter to the windshield.
- e) Remove bolts (3, 4 places) and washers (4a, 4 places) attaching the cutter to the cabin roof.
- f) Remove upper cutter from the cabin roof ensuring shims (14, 4 places) between the upper cutter assembly and the windshield deflector are maintained for reinstallation.
- g) Clean any sealant remaining on removed components and from the cabin roof.

2) LOWER CUTTER (Refer to Figures 3 and 4)

- a) Remove bolts (3, 2 places), nuts (5, 2 places) and washers (4a, 8 places) and bevelled washers (4b, 4 places) attaching both struts (2) to the strut clip (8) on the deflector. Pay special attention to the orientation of the bevelled washers (4b, 4 places). Refer to Figure 3.
- b) Loosen nuts (5, 4 places) securing both struts (2) to the fuselage. Position both struts (2) and bushings (9, 4 places) out of the way.
- c) Remove bolts (3, 5 places), nuts (5, 5 places) and washers (4, 5 places) attaching the cutter to the mounting channel.
- d) Remove the cutter from the mounting channel.

CAUTION: WITH THE CUTTER REMOVED FROM THE CHANNEL, ONE CUTTER BLADE IS HELD TO THE CUTTER ASSEMBLY WITH ADHESIVE ONLY. BE CAREFUL TO NOT DISLODGE THE BLADE FROM THE CUTTER ASSEMBLY.

- e) Remove bolts (3, 2 places), nuts (5, 2 places) and washers (4, 4 places) securing the forward bracket (7) to the mounting channel.
- f) Remove screws (12, 3 places), nuts (5, 3 places) and washers (4, 3 places) securing the forward bracket to the fuselage and remove the forward bracket (7). Refer to Figure 4.
- g) Remove bolts (3, 5 places), washers (4, 10 places) and nuts (5, 5 places) securing the mounting channel to the fuselage and remove the mounting channel.
- h) Clean any sealant remaining on removed components and from the mounting channel.

8. REMOVAL AND REPLACEMENT (continued)

A. REMOVAL (continued)

3) WINDSHIELD DEFLECTOR (Refer to Figures 4 and 5)

NOTE: If the upper cutter has been removed begin at 3) b).

- a) Remove bolts (3, 2 places), nuts (5, 2 places) and washers (4, 4 places) from the cross holes attaching the upper cutter to the windshield deflector (1).
- b) Remove bolts (2, 22 places), nuts (4, 22 places) and washers (3, 44 places) attaching the deflector to the windshield center post. Retain sideslip indicator for reinstallation. Refer to Figure 5.
- c) Remove the deflector from the windshield center post ensuring shims between the upper cutter assembly and the windshield deflector (1), and the shim forward of the deflector are maintained for reinstallation. Refer to Figure 4.
- d) Clean any sealant remaining on the Windshield deflector and from the fuselage nose.

4) LEFT HAND AND RIGHT HAND WIPER POST DEFLECTOR (Optional) (Refer to Figure 6)

- a) Remove bolts (2, 3 places), nuts (4, 3 places) and washers (3, 6 places) attaching each deflector to the fuselage.
- b) Remove the wiper post deflectors from the fuselage nose.
- c) Clean any sealant remaining on the wiper post deflector or on the fuselage nose.

5) CUTTER BLADES (Refer to Figures 2 and 4)

- a) Remove bolts (3, 6 places), nuts (5, 6 places) and washers (4, 12 places) attaching the upper and lower blades to the side plates of the cutter assembly.
- b) Remove the blades from the cutter assembly and remove any sealant remaining on blades.

**6) STRUT MOUNTING PADS AND STRUTS (Upper / Lower Cutter Assembly)
(Refer to Figures 2 and 4)**

- a) Remove bolts (3, 2 places), washers (4, 8 places) and nuts (5, 2 places) securing the struts (2, 2 places) to the strut clips (8, 2 places) on the cutter assembly. Pay special attention to the order of washers (4a and 4b). Refer to Figure 2.
- b) Remove bolts (3, 2 places), bushings (9, 4 places) and nuts (5, 2 places) securing the struts (2, 2 places) to the LH and RH strut mounting pads (13 and 14).
- c) Remove both struts (2, 2 places).
- d) Remove bolts (3, 8 places) and washers (4, 8 places) securing the LH and RH strut mounting pads (13 and 14) to the airframe and remove the LH and RH strut mounting pads (13 and 14). Refer to Figure 4.
- e) Clean any sealant remaining on the strut components, cutter assembly and aircraft.

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

NOTE: Use torque per EC, MTC, Volume 2, Chapter 20.02.05.404, unless otherwise specified.

Refer to Electrical bonding - General, Standard Practices Manual, Chapter 20.02.07.101.

For paint and primer information refer to Paint Application Procedure - General information concerning painting means and paint touch-up, Standard Practices Manual, Chapter 20.04.05.101.

B. REPLACEMENT

1) UPPER CUTTER (Refer to Figure 2)

NOTE: The Upper Cutter Assembly must be installed with Windshield Deflector to ensure proper alignment of mating parts.

- a) Reposition the upper cutter on the cabin roof, re-using shims (14, 4 places) in the same positions they were before disassembly. If new peelable shims are being used, adjust them to obtain the proper fit between the cutter assembly and the windshield deflector (1).
- b) Remove cutter assembly and apply sealant (11) to mounting surfaces.
- c) Apply sealant (11) to mounting surfaces of the upper cutter where shown in Figure 2.

NOTE: For electrical bonding: remove surface protection under washers 2 - 4 mm beyond the diameter of the washer. Roughen bared surface with abrasive paper (grit 320 or finer). Install hardware and apply protective coating (10) to bolt head and nut extending past washers and bared area. Refer to Electrical bonding - General, Standard Practices Manual, Chapter 20.02.07.101.

- d) Reposition cutter on roof with shims (14), secure using bolts (3, 4 places), washers (4a, 4 places).
- e) Secure upper cutter to the windshield using bolts (3, 6 places), nuts (5, 6 places) and washers (4a, 12 places).
- f) Secure the upper cutter to the windshield deflector through the cross holes attaching the upper cutter to the windshield deflector using bolts (3, 2 places), nuts (5, 2 places) and washers (4a, 4 places)
- g) If struts (2, 2 places) are still attached to the fuselage, bring unattached end up to the strut clips (8) located on either side of the deflector. Secure the struts (2) to the strut clips using bolts (3, 2 places), washers (4a, 8 places), bevelled washers (4b, 4 places) and nuts (5, 2 places). Ensure orientation of bevelled washers (4b) is correct.
- h) Retighten nuts (5, 2 places) securing both struts to the left and right strut pads (6 and 7) on the fuselage.
- i) Remove any excess conductive sealant (10).
- j) Tighten nuts (5) hardware to correct torque values.
- k) Paint to match surrounding area as required.

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

B. **REPLACEMENT** (continued)

2) **WINDSHIELD DEFLECTOR** (Refer to Figure 5)

NOTE: Windshield Deflector must be installed with the upper cutter assembly to ensure proper alignment of mating parts.

- a) Mask windshield as required to prevent damage.
- b) Position the windshield deflector (1) on the windshield post inserted into the upper cutter, re-using shims (14, 4 places) in the same positions they were before disassembly. If new peelable shims are being used, adjust them to obtain the proper fit between the cutter assembly and the windshield deflector (1).
- c) Remove windshield deflector and apply sealant (7) to mounting surfaces.
- d) Apply protective coating (6) as shown in Figure 5.
- e) Reposition windshield deflector (1) on windshield with shims, and secure using bolts (2, 22 places), washers (3, 44 places) and nuts (4, 22 places).

NOTE: Reinstall sideslip Indicator as shown in Figure 5.

- f) Remove any excess conductive sealant (6).
- g) Tighten nuts (4, 22 places) to correct torque values.
- h) Paint to match surrounding area as required.

3) **LEFT HAND AND RIGHT HAND WIPER POST DEFLECTOR** (Optional) Refer to Figure 6)

- a) Apply sealant (6) to mounting surface.
- b) Apply protective coating (5) as shown in Figure 6.
- c) Position deflector on fuselage nose and secure using bolts (2, 6 places), washers (3, 12 places) and nuts (4, 6 places).

4) **CUTTER BLADES** (Refer to Figures 3 and 4)

- a) Reposition upper and lower blades between right and left side plates of the cutter assembly and secure using bolts (3, 6 places), nuts (5, 6 places) and washers (4, 12 places).
- b) Apply sealant (11) to faying surface and fill any gaps between blades and side plates.

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

B. **REPLACEMENT** (continued)

5) **LOWER CUTTER** (Refer to Figures 3 and 4)

- a) Apply sealant (10) to mounting surfaces of the mounting channel and conductive sealant (11) where shown for proper electrical bonding between the mounting channel and the cutter side plate. Refer to Figure 3.

NOTE: For electrical bonding: remove surface protection under washers (4) 2 - 4 mm beyond the diameter of the washer (under bolt head and nut). Roughen bared surfaces with abrasive paper (320 grit or finer) Install hardware and apply protective coating (9) to bolt head and nut, extending past washers and bared area.

- b) Reposition the mounting channel to the lower fuselage nose and secure using bolts (3, 5 places), washers (4a, 5 places) and nuts (5, 5 places).
- c) Apply conductive sealant (11) to the mating faces of the forward bracket (7) and the mounting channel. Refer to Figure 3.

NOTE: For electrical bonding: remove surface protection and roughen surfaces in locations shown in Figure 3, with abrasive paper (320 grit or finer) between the mounting channel and cutter assembly side plate, right hand side, opposite to the shim and between the mounting channel and the forward bracket, right hand side. Apply conductive sealant (11) to bared surfaces and assemble immediately after sealant application.

- d) Position the forward bracket (7) into the mounting channel and secure using screws (12, 3 places), washers (4a, 3 places) and nuts (5, 3 places). Refer to Figure 4.
- e) Remove the cutter and apply sealant (10) to mounting surfaces. Apply conductive sealant (11) where noted for proper electrical bonding between the cutter and the mounting channel. Refer to Figure 3.
- f) Reposition cutter into the mounting channel with shims, secure using bolts (3, 5 places), washers (4, 5 places) and nuts (5, 5 places).
- g) Remove any excess conductive sealant (11).
- h) If struts (2, 2 places) are still attached to the fuselage, bring unattached end up to the strut clips (8) located on either side of the deflector. Secure the strut (2) to the strut clips using bolts (3, 2 places), washers (4a, 8 places), bevelled washers (4b, 4 places) and nuts (5, 2 places). Ensure orientation of washers (4b) is correct.
- i) Retighten hardware (bolts (3, 2 places), bushings (9, 2 places) and nuts (5, 2 places) securing both struts to the left and right strut pads (6 and 7) on the fuselage.
- j) Tighten all hardware to correct torque values.
- k) Paint to match surrounding area as required.

8. REMOVAL AND REPLACEMENT (continued)

B. REPLACEMENT (continued)

7) STRUT MOUNTING PADS AND STRUTS (Refer to Figures 2 and 4)

NOTE: If a new strut is being installed refer to Figure 7 for trimming and drilling details.

- a) Apply sealant (11) to base of each strut mounting pad items (6 and 7 as shown in Figure 2) and items (13 and 14 as shown in Figure 4).
- b) Reposition strut mounting pads on aircraft ensuring strut mounting pads are located correctly to allow the struts (2, 2 places) to be installed. Once determined, secure using bolts (3, 8 places) and washers (4 (4a), 8 places).
- c) Apply conductive sealant (5) as shown in Figure 6, for proper electrical bonding.
- d) Reposition struts (2, 2 places) on LH and RH strut mounting pads (13 and 14) and secure using bolts (3, 2 places), bushings (9, 4 places) and nuts (5, 2 places).
- e) Bring strut up into strut slips (8, 2 places) located on the cutter assembly and secure using bolts (3, 2 places), washers (4 (4a), 8 places) and nuts (5, 2 places).
- f) Tighten all hardware to correct torque values.

8) Close all areas opened for service in the PRELIMINARIES paragraph of this section.

For aircraft AS 350 (excluding AS 350 B2 and B3):

- 1) Reinstall front lower cowling (refer to Removal/Installation, AS 350 MET, Chapter 53.00.00.405).
- 2) Apply external power unit and battery. Refer to AS 350/AS 355 MET, Chapter 24.30.00.401.
- 3) Perform functional test in accordance with AS 350/AS 355 MET, Chapter 24.30.00.501.
- 4) Check for conductivity/resistance to the aircraft ground $<5m\Omega$.

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8. REMOVAL AND REPLACEMENT (continued)

B. REPLACEMENT (continued)

For aircraft AS 350 B2 and B3:

- 1) Reinstall front lower cowling (refer to Removal/Installation, AS 350 B2, B3 AMM, Chapter 53-51-00, 4-2).
- 2) Before energizing the aircraft power supply system, read safety instructions, refer to General Safety Instruction - Electrical Power Supply System, AS 350 B2, B3, AMM, Chapter 24-00-00, 3-1).
- 3) Reconnect the external power unit and battery, refer to Removal/Installation AS 350 B2, B3 AMM, Chapter 24-33-00, 4-1).
- 4) Perform functional test - DC Power Supply System in accordance with AS 350 B2, B3 AMM, Chapter 24-30-00-5-1.
- 5) Perform functional test - Adjusting/Testing - Fuel Shut-off Ball Type Control, AS 350 B3 AMM, Chapter 76-21-00, 5-1.
- 6) Perform functional test - Fuel Shut-off Ball Type Control, AS 350 B2, B3 AMM, Chapter 76-21-00, 5-1.
- 7) Perform functional test - Ball type control of the rotor brake in accordance with AS 350 B3 AMM, Chapter 63-52-00, 5-1.
- 8) Check for conductivity/resistance to the aircraft ground $<5\text{m}\Omega$.

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9. WEIGHT AND BALANCE DATA

Follow the chart below if the optional Wiper Post Deflector is installed:

A. Removed Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
(not applicable)	0.00	0.0	0.00	0.0	0.00	0.0
Total	0.00	0.0	0.00	0.0	0.00	0.0

B. Added Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
Upper Cutter	2.27	5.0	1.24	48.8	2.81	244.0
Lower Cutter	2.26	5.0	0.82	32.3	1.85	161.5
Windshield Deflector	1.73	3.8	0.78	30.7	1.35	116.7
Wiper Post Deflector (Optional)	0.38	0.8	0.48	18.9	0.18	15.1
Total	6.64	14.6	0.93	36.8	6.20	537.3

Follow the chart below if the optional Wiper Post Deflector is not installed:

A. Removed Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
(not applicable)	0.00	0.0	0.00	0.0	0.00	0.0
Total	0.00	0.0	0.00	0.0	0.00	0.0

B. Added Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
Upper Cutter	2.27	5.0	1.24	48.6	2.81	244.0
Lower Cutter	2.26	5.0	0.82	32.3	1.85	161.5
Windshield Deflector	1.73	3.8	0.78	30.7	1.35	116.7
Total	6.26	13.8	0.96	37.8	6.02	522.2

10. PLACARDS AND MARKINGS

There are no placards and markings with this modification.

