

DOCUMENT AF120 005
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
A120-1 UNIVERSAL MOUNT
FOR
EUROCOPTER EC120B HELICOPTER
STC NO: SR 01302 LA



AIRFILM CAMERA SYSTEMS
505 North Smith Road
Number 103
Corona, CA. 91720

RECORD OF REVISIONS

No.	Revision Inserted	Date	By	No.	Revision Inserted	Date	By
0				8			
1				9			
2				10			
3				11			
4				12			
5				13			
6				14			
7				15			

LIST OF EFFECTIVE PAGES

TITLE	PAGES	REVISION
Cover		0
Record of Revisions	1	0
List of Effective Pages	1	0
Table of Contents	2	0
1.0 General	3 to 4	0
2.0 Airworthiness Limitations	5	0
3.0 Inspection Requirements	6 to 9	0
4.0 Removal, Disassembly, Reassembly And Installation	10	0
5.0 Weight and Balance	11	0

TABLE OF CONTENTS

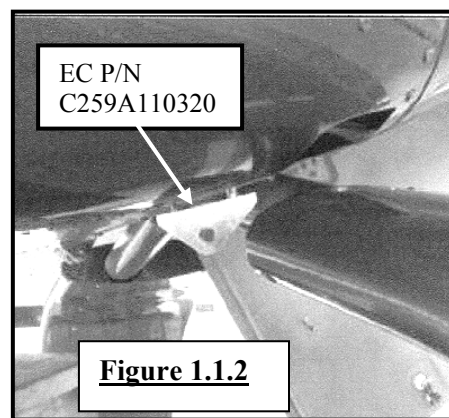
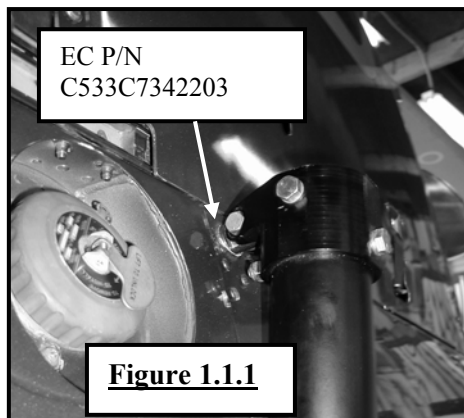
SECTION	TITLE	PAGE
	RECORD OF REVISIONS	1
	LIST OF EFFECTIVE PAGES	1
	TABLE OF CONTENTS	2
1.0	GENERAL	3
1.1	INTRODUCTION	3
1.2	PURPOSE	3
1.3	SCOPE	4
1.4	APPLICABILITY	4
1.5	DOCUMENT CHANGE CONTROL.....	4
2.0	AIRWORTHINESS LIMITATIONS	5
3.0	INSPECTION REQUIREMENTS	6
	Figure 3.0.1: Isometric View	6
	Table 3.0.1 Parts List.....	6
	Figure 3.0.2: Exploded View.....	7
3.1	SCHEDULED INSPECTIONS	7
3.1.1	100 HOUR INSPECTION INTERVALS.....	7
	TABLE 3.1.1 100 HOUR TIME IN SERVICE INSPECTIONS ON HELICOPTER.....	8
3.2	1000 HOUR TIME IN SERVICE INSPECTION INTERVAL.....	8
	TABLE 3.2.1 FITTING INSPECTIONS	9
	TABLE 3.2.2 FORK END INSPECTIONS.....	9
	TABLE 3.2.3 TUBE INSPECTIONS	9
3.3	INSPECTION LIMITS	9
4.0	REMOVAL, DISASSEMBLY, REASSEMBLY AND INSTALLATION.....	10
4.1	REMOVAL.....	10
4.2	DISASSEMBLY	10
4.3	REASSEMBLY	10
4.4	INSTALLATION.....	11
5.0	WEIGHT AND BALANCE.....	11

1.0 GENERAL

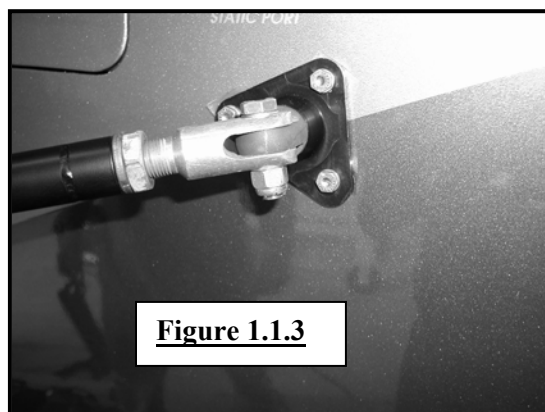
1.1 INTRODUCTION

This manual presents the Instructions for Continued Airworthiness (ICA) for the installation of the Airfilm Camera Systems model A120-1 Universal Mount. This mount is to be installed on the Eurocopter EC120B Helicopter per Supplemental Type Certificate (STC). The A120-1 Universal Mount consists of a welded steel structure with aluminum fittings. The mount is designed to facilitate the attachment of equipment such as video cameras or searchlights. The cover page of this document shows the typical mount installation with a searchlight on the Eurocopter EC 120B helicopter.

The Universal Mount attaches to the upper shoulder hard point (EC P/N C533C7342203 Fitting Jack) shown on Figure 1.1.1. The lower attachment to the helicopter is at the and at the lower hard point where the EC P/N C259A1103201, Bracket, is located per Figure 1.1.2.



The third attachment is the Drag Brace Assembly, P/N A120-20. The Drag Brace attaches between the A120-5 Tube Assembly and the A120-20-5 Attach Pad mounted on the helicopter.



1.2 PURPOSE

The purpose of this document is to provide Instructions for Continued Airworthiness to inspect the Airfilm Camera Systems Model A120-1 Universal Mount.

1.3 SCOPE

The scope of this document is limited to information, procedures, requirements and limitations for this Supplemental Type Certificate. When a requirement specified in the appendix to the regulations is not applicable to this Supplemental Type Certificate the requirement will not be included in the Instructions for Continued Airworthiness.

1.4 APPLICABILITY

These Instructions for Continued Airworthiness are applicable to the Airfilm Camera Systems A120-1 Universal Mount installed on the Eurocopter EC120B Helicopter.

1.5 DOCUMENT CHANGE CONTROL

Changes to this document will be distributed to registered owners of the A120-1 Universal Mount within 10 days after the revision is approved. Changes to this document will be indicated by a revision number in the footer, vertical lines adjacent to the change, and in the Record of Revisions.

2.0 AIRWORTHINESS LIMITATIONS

No airworthiness limitations associated with this type design change

3.0 INSPECTION REQUIREMENTS

Figure 3.0.1: Isometric View

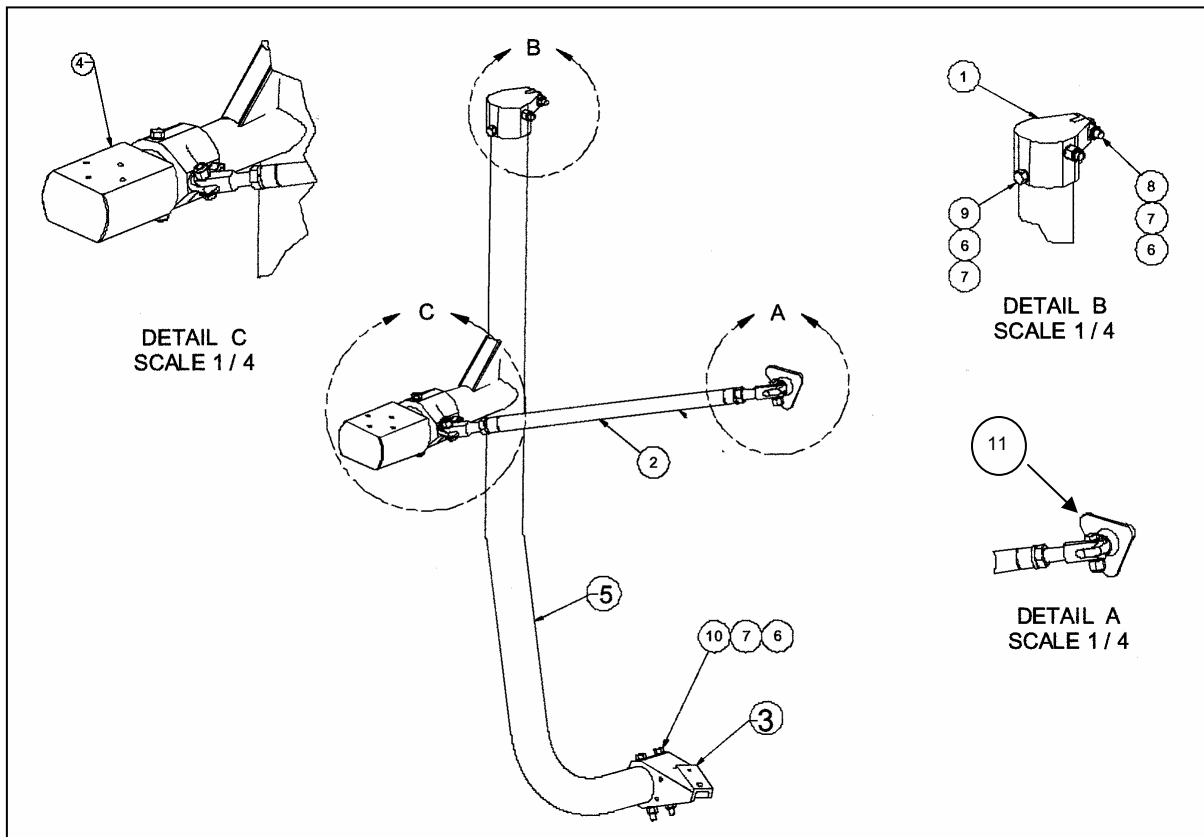


Table 3.0.1 Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	A120-10-10	Top Cap Bracket
2	1	A120-20	Drag Bracket Assembly
3	1	A120-10-11	Lower Bracket
4	1	A120-10-12	End Fitting
5	1	A120-5	Tube Assembly
6	10	AN960-616	Washer
7	5	AN365-624A	Stop Nut
8	1	AN6-13A	Hex Bolt
9	2	AB6-34A	Hex Bolt
10	2	AN6-40A	Hex Bolt
11	1	A120-20-5	Attach Pad

3.0 INSPECTION REQUIREMENTS

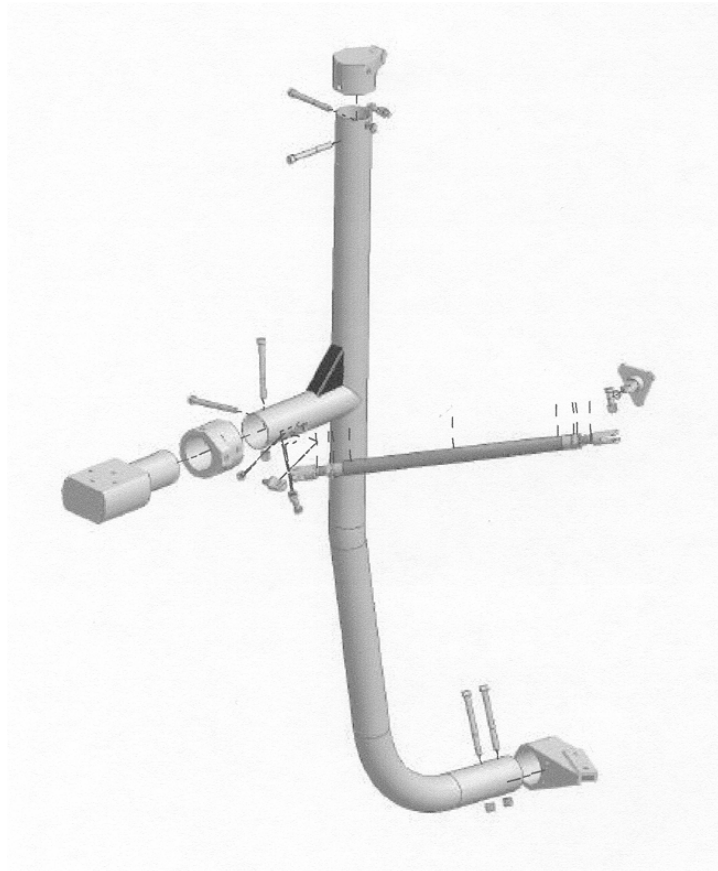


Figure 3.0.2: Exploded View

3.1 SCHEDULED INSPECTIONS

The scheduled inspections required by this ICA are contained on the following checklists. This checklist, when completed, is to become a permanent part of the A120-1 Universal Mount records.

NOTE: There are no field repairs or overhaul allowed for the A120-1 Universal mount.

If the mount fails the following inspections, the mount is to be removed from the helicopter and returned to Airfilm Camera Systems.

3.1.1 100 HOUR INSPECTION INTERVALS

The 100 hour time in service inspections consist of visually inspecting the critical area of the A120-1 Universal Mount installation.

Due to the simplicity of the mount structure, all scheduled 100 hour inspections consist of the same items since the mount is inspected while installed on the helicopter.

The inspections per Table 3.1.1 are required while the A120-1 Universal Mount is installed on the helicopter at the time in service interval as specified. The inspection is to be performed by maintenance personnel.

3.1.1 100 HOUR INSPECTION INTERVALS

TABLE 3.1.1 100 HOUR TIME IN SERVICE INSPECTIONS ON HELICOPTER

Inspect. Interval Hours	Inspection	Maintenance Personnel Initial
100	Visually inspect welds for cracks	
	Visually inspect aluminum brackets for cracks, nicks or deep scratches	
	Visually inspect tubes for dents, deep scratches, or cracks.	
	Visually inspect Drag Brace for cracks, dents, deep scratches or damage	
	Visually inspect drag brace fork ends for tightness and cracks	

3.2 1000 HOUR TIME IN SERVICE INSPECTION INTERVAL

The 1000 hour time in service inspection is to be performed every 1000 hours time in service. The mount must be removed from the helicopter and disassembled per Section 4.0.

3.2.1 Drag Brace Assembly, A120-20:

3.2.1.1 Fork Ends, A120-20-3 Inspect quantity 2 per Table 3.2.2

3.2.1.2 Torque Tube Assy. A120-40: Inspect per Table 3.2.3

3.2.2 Upper Top Cap Bracket: A120-10-10: Inspect Fitting per Table 3.2.1

3.2.4 Lower Attach Bracket, A120-10-11: Inspect Fitting per Table 3.2.1

3.2.5 End Fitting, A120-10-12: Inspect Fitting per Table 3.2.1

3.2.6 Tube Assembly, A120-5: Inspect per Table 3.2.3

3.2.7 Attach Pad fitting A120-20-5: Inspect per Table 3.2.1

TABLE 3.2.1 FITTING INSPECTIONS

Inspect. Interval Hours	Inspection	Maintenance Personnel Initial
1000	Visually inspect bolt holes for damage	
	Visually inspect brackets for cracks, nicks or deep scratches	

TABLE 3.2.2 FORK END INSPECTIONS

Inspect. Interval Hours	Inspection	Maintenance Personnel Initial
1000	Visually inspect bolt holes for damage	
	Visually inspect threads for signs of damage	
	Visually inspect body for cracks, nicks, and scratches	

TABLE 3.2.3 TUBE INSPECTIONS

Inspect. Interval Hours	Inspection	Maintenance Personnel Initial
1000	Visually inspect welds for cracks	
	Visually inspect bolt holes for signs of cracks, elongation or damage.	
	Visually inspect tubes for dents, deep scratches, or cracks.	
	Visually inspect threads for signs of damage	

3.3 INSPECTION LIMITS

The A120-1 Universal Mount is to be removed from service and returned to Airfilm Camera Systems if the following inspection limits are exceeded.

- | | |
|---------------------------|---------------------------|
| Cracks: | Any indication |
| Bolt hole elongation | Any Indication |
| Dents, scratches or nicks | Greater than 0.010 inches |
| Tube Dents: | Greater than 0.020 inches |
| Tube scratches: | Greater than 0.010 inches |

4.0 REMOVAL, DISASSEMBLY, REASSEMBLY AND INSTALLATION

Refer to Figures 3.0.1 and 3.0.2 and Table 3.0.1 for views and parts list.

4.1 REMOVAL

Remove the A120-1 Universal Mount from the Helicopter as follows:

- 4.1.1 Remove two AN6-12A Bolts, AN365-624A nuts and two AN960-616L washers. Remove the A120-20 Drag Brace Assembly. Discard bolts.
- 4.1.2 Remove Eurocopter P/N 22125BC060024L screw and washer P/N 23111AG060LE in forward location and one P/N DHS411-101-3038 Screw and washer P/N 23111AG060LE in aft location.
- 4.1.3 At Upper bracket remove AN6-13A bolt, AN960-616 washer and AN365-624 nut. Remove mount from helicopter.

4.2 DISASSEMBLY

- 4.2.1 Disassemble the A120-10 Drag brace by loosening the AN364-624A Nuts and removing the two A120-20-3 Fork Ends from the drag brace A120-40 Torque Tube.
- 4.2.2 Remove the two AN 6 Bolts.at the upper fitting location. Remove upper A120-10-10 Top Cap Bracket from the A120-05 Tube Assembly. Discard bolts.
- 4.2.3 Remove the two AN 6 Bolts.at the lower fitting location. Remove lower A120-10-11 Lower Attach Bracket from the A120-5 Tube Assembly.
- 4.2.4 Remove the two AN 6 Bolts.at the middle fitting location. Remove middle A120-10-12 End Fitting from the A120-5 Tube Assembly. Discard bolts.

4.3 REASSEMBLY

Consumable Products: Mastinox 6856K (Mil-P-8116B) or equivalent

- 4.3.1 Install middle A120-10-12 End Fitting (coat contacting surfaces with Mastinox) into the A120-5 Tube Assembly. Install two AN 6-40A Bolts, two AN960-616 washers and one AN365-624A nut through the existing holes at the middle fitting location. Torque AN365-624A nut to 200-230 in-lbs.
- 4.3.2 Install A120-10-11 Lower Attach Bracket (coat contacting surfaces with Mastinox into the A120-5 Tube Assembly. Install the two AN 6-40A Bolts, two AN960-616 washers and one AN365-624A nut through the existing holes at the lower fitting location. Torque AN365-624A nuts to 200-230 in-lbs.

- 4.3.3. Install upper A120-10-10 Top Cap Bracket (coat contacting surfaces with Mastinox) into the A120-05 Tube Assembly. Install the two AN 6-34A Bolts, two AN960-616 washers and two AN365-624A nuts through the existing holes. Torque AN365-624A nuts to 200-230 in-lbs.

4.4 INSTALLATION

Install the A120-1 Universal Mount onto the Helicopter as follows:

- 4.4.1 Align A120-10-11 Lower Bracket with the holes at the left aft cargo swing location. Install Eurocopter P/N 22125BC060024L screw and washer P/N 23111AG060LE in forward location, Torque to 100-110 in-lbs. Install one Eurocopter P/N DHS411-101-3038 Screw and washer P/N 23111AG060LE in aft location. Torque to 200-230 in-lbs.
- 4.4.2 Align Upper bracket clevis hole with helicopter upper shoulder hard point (EC P/N C533C 7342203 Fitting Jack) shown on Figure 1.1.1. Install AN6-13A bolt, An960-616 washer and AN365-624 nut. Torque AN365-624A nuts to 200-230 in-lbs.
- 4.4.3 Install two A120-20-3 Fork Ends with AN 364-624A nuts into A120 Drag Brace.
- 4.4.4 Install A120-20 Drag Brace onto the clevis in the A120-5 Tube Assembly leaving approx 0.50 inches of thread showing. Install the AN 6-12A Bolt, one AN960-616 washer and one AN365-624A nut through the existing hole. Torque AN365-624A nut to 200-230 in-lbs.
- 4.4.5 Adjust A120-20 Drag Brace clevis to align with hole in the A120-20-5 Attach Pad. Align holes to at least one thread turn. Insure that no more than 3/8 inches of thread show on clevis. Align holes and install AN 6-12A Bolt, one AN960-616 washer and one AN365-624A nut through the existing hole. Torque AN365-624A nut to 200-230 in-lbs. Torque AN364-624A nuts on each clevis to 100 to 110 in-lbs

5.0 WEIGHT AND BALANCE

The weight and center of gravity location for the A120-1 Universal Mount is:

Wt = 21.5 lbs Station: 183.3 inches BL: -28.75 inches (left)