

DOCUMENT CR-001
ASTAR Cargo Rack
MAINTENANCE MANUAL

FOR

Eurocopter 350 & 355 SERIES
AS 350 C,D,D-1,B,B1,B2,B3,BA AND
AS 355 E,F,F1,F2,N MODEL
HELICOPTERS

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**TYLER CAMERA SYSTEMS
MAINTENANCE MANUAL
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RECORD OF REVISIONS

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1.0 GENERAL

1.1 INTRODUCTION

This Maintenance Manual presents is for the installation of the Tyler Camera Systems Cargo Rack for the Eurocopter 350 and 355 Series Helicopter. The Tyler Cargo Rack consists of a welded steel structure with aluminum brackets. Figure 3.1, contains a photograph of the Tyler Cargo Rack with the components of the assembly called out.

The Cargo Rack attaches to the 350 and 355 Series Helicopters using the aluminum clamps on the fore and aft landing gear cross tube members at four locations. The method by which the clamps grip the landing gear is shown in figures 3.1 (pg 4).

1.2 PURPOSE

The purpose of this document is to provide maintenance instructions to inspect the Tyler Camera Systems A-STAR Cargo Rack.

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 Maintenance Manual.

1.4 APPLICABILITY

This Maintenance Manual is applicable to the Tyler Camera Systems Cargo Rack installed on the Eurocopter 350 and 355 Series Helicopter.

1.5 UNITS OF MEASUREMENT

Units are in United States Standard Measurements for each measurement tolerance or torque value unless otherwise specified.

1.6 DOCUMENT CHANGE CONTROL

Changes to this document will be distributed to registered owners of the Tyler Camera Systems Cargo Rack 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

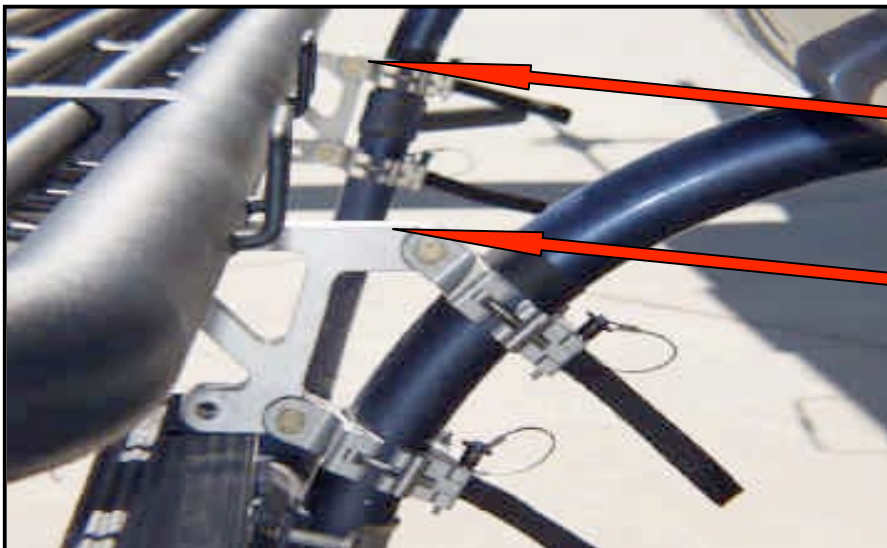
3.0 INSPECTION REQUIREMENTS

Figure 3.1
Tyler Cargo Rack Installation on the AS350 and 355 series helicopters



Rack Frame

3.1



Rear Clamp
Assembly

Forward Clamp
Assembly

3.1 SCHEDULED INSPECTIONS

The scheduled inspections required by this Maintenance Manual are contained on the following checklists. This checklist, when completed, is to become a permanent part of the Tyler Cargo Racks records.

NOTE: There are no field repairs or overhaul allowed for the Tyler Cargo Rack.

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

3.1.1 100 HOUR INSPECTION INTERVALS

The 100 hour time in service periodic inspections consist of visually inspecting the critical areas of the Tyler Cargo Rack 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 Tyler Cargo Rack is installed on the helicopter at the time in service interval as specified. The inspection is to be performed by maintenance personnel.

TABLE 3.1.1 100 HOUR TIME IN SERVICE INSPECTIONS

Refer to Item numbers in Table 3.1.1 and Figure 3.1(pg4)

INSP.	DESCRIPTION	INSPECTION	Maintenance Personnel Initial
1	Rack Frame	(1) Visually inspect welds for cracks. (2) Visually inspect tubes for dents, deep scratches, or cracks.	
2	Forward Clamp Assembly	(1) Check for security of clamp on landing gear. (2) Visually inspect all components of clamp for dents, deep scratches, or cracks.	
3	Aft Clamp Assembly	(1) Check for security and tightness of clamp on landing gear. (2) Visually inspect all components of clamp for dents, deep scratches, or cracks.	

3.2 1000 HOUR TIME IN SERVICE INSPECTION INTERVAL

The 1000 hour time in service inspection is to be performed as follows
The rack must be removed from the helicopter and disassembled per Section 5.0.

TABLE 3.2.1 100 HOUR TIME IN SERVICE INSPECTIONS

INSP.	DESCRIPTION	INSPECTION	Maintenance Personnel Initial
1	Rack Frame	(1) Visually inspect welds for cracks. (2) Visually inspect tubes for dents, deep scratches, or cracks.	
2	Forward Clamp Assembly	(1) Visually inspect all components of clamp for dents, deep scratches, or cracks.	
3	Aft Clamp Assembly	(1) Visually inspect all components of clamp for dents, deep scratches, or cracks.	

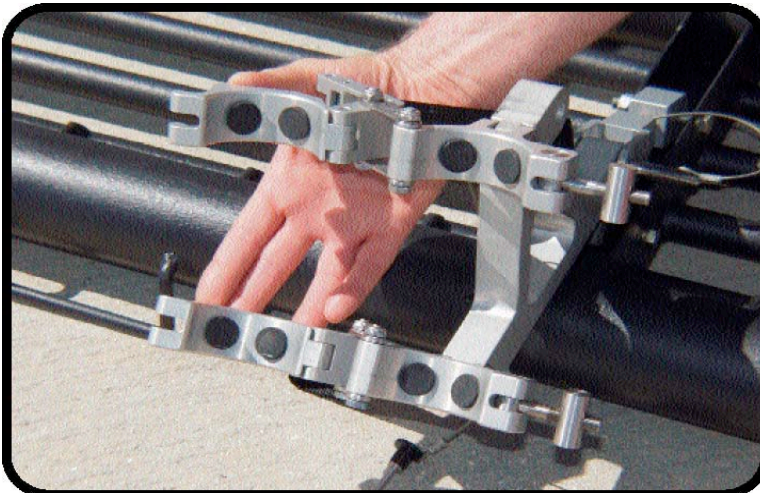
3.3 INSPECTION LIMITS

The Tyler Cargo Rack is to be removed from service and returned to Tyler 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 INSTALLATION AND ASSEMBLY

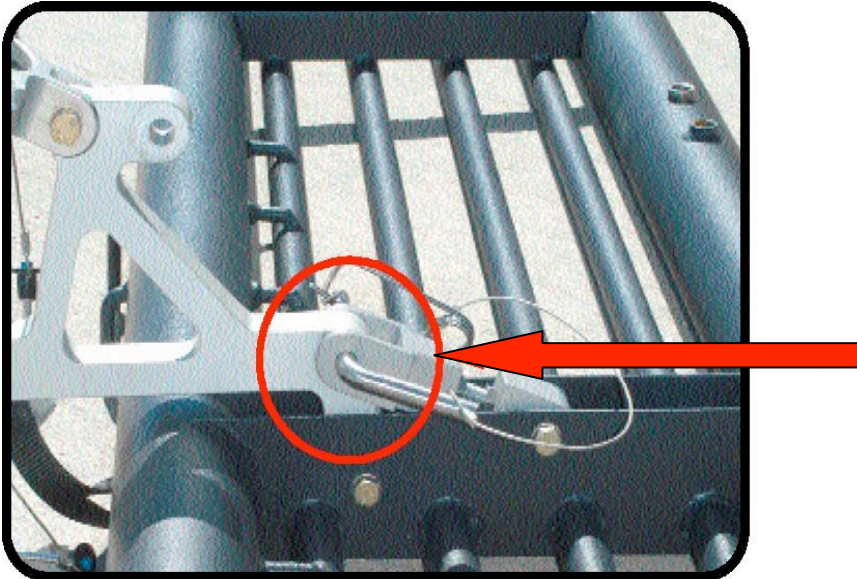
4.1 INSTALLATION



4.1.1

- 1. Open Skid Gear Clamps (both assemblies) (figure 4.1.1)**

4.1 INSTALLATION (CONTINUED)



4.1.2

2. Make sure lock-rod (with safety-clip) is inserted into pivot bracket as shown. (repeat for assembly at other end of cargo rack) (figure 4.1.2)



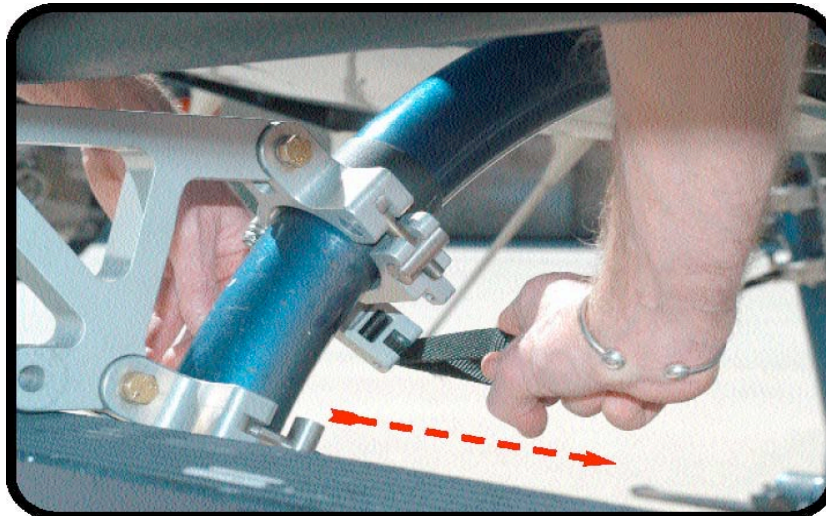
4.1.3

4.1 INSTALLATION (CONTINUED)

3. Turn rack over (top up) and position it over the skid-gear. Place skid-gear clamps onto skid Support tube. (figure 4.1.3)



4.1.4

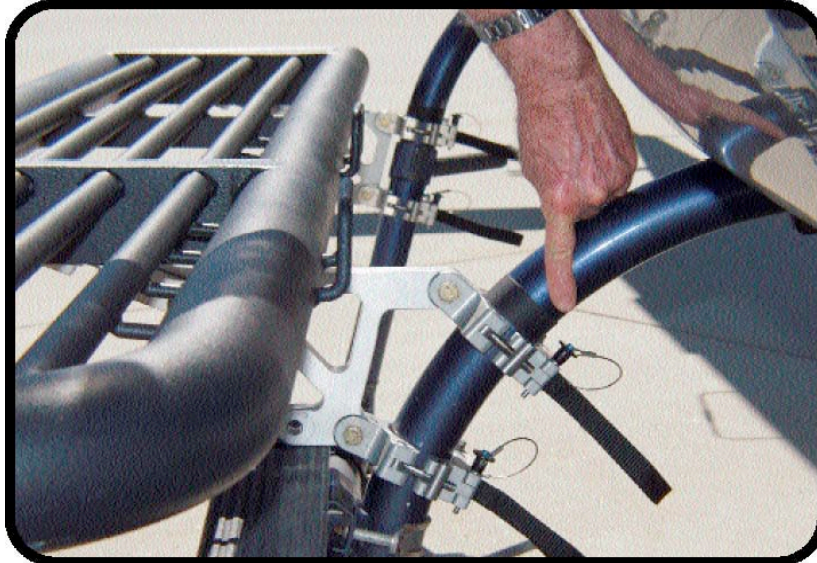


4.1.5

4. Clamp lock-arm (with strap) should be fully open, then swing rear of clamp up ,then place the barrel (on the threaded shaft) over clamp hook. Close and lock clamps.(figure 4.1.5)

4.1 INSTALLATION (CONTINUED)

4.2



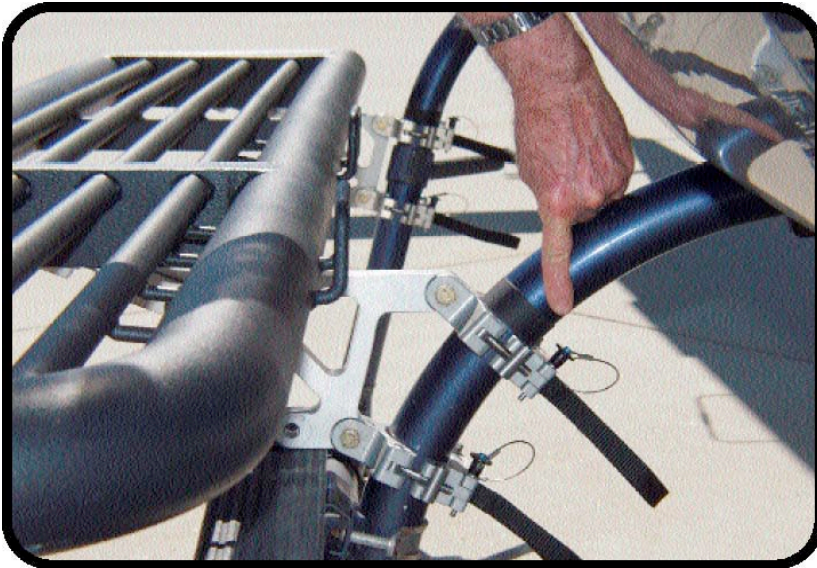
4.1.6

5. IMPORTANT After adjusting and locking clamps, make sure all Pip-Pins are inserted (figure 4.1.6)

END OF INSTALLATION

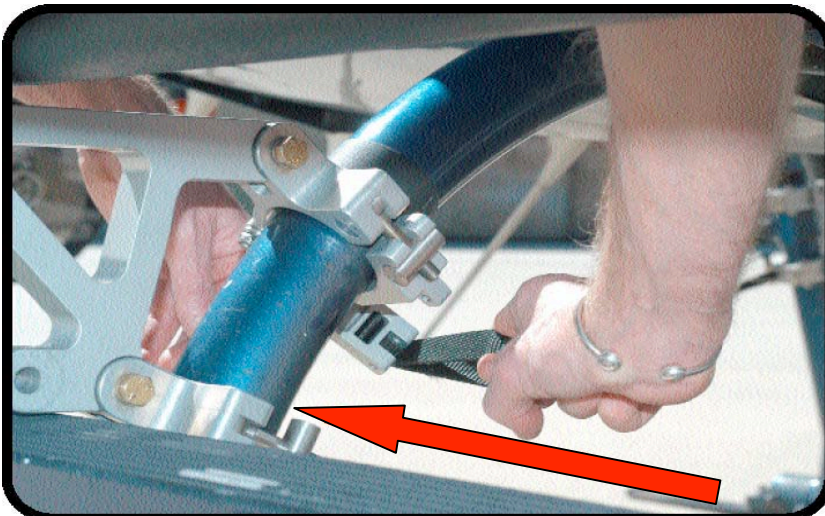
5.0 REMOVAL, DISASSEMBLY, REASSEMBLY AND INSTALLATION

5.1 REMOVAL AND DISASSEMBLY



5.1.1

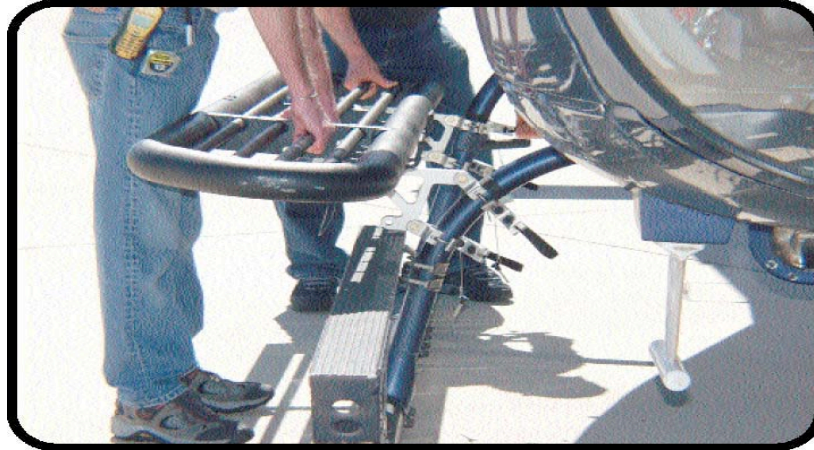
1. Remove Pip Pins (figure 5.1.1)



5.1.2

2. Pull strap and loosen Clamp Lock Bracket

5.1 REMOVAL AND DISASSEMBLY(CONTINUED)



5.1.3

3. Lift Rack off the Skid Support Tube. (figure 5.1.3)

END OF DISASSEMBLY

- 1.

6.0 WEIGHT AND BALANCE

The weight and center of gravity location for the Tyler Cargo Rack is:

LEFT SIDE INSTALLATION

Wt = 69.5 lbs (31.52 Kg)
Station: 130 inches (330 cm)
BL: --48.0 inches (-121.9 cm)

RIGHT SIDE INSTALLATION

Wt = 69.5 lbs (31.52 Kg)
Station: 130 inches (330 cm)
BL: -48.0 inches (121.9 cm)