



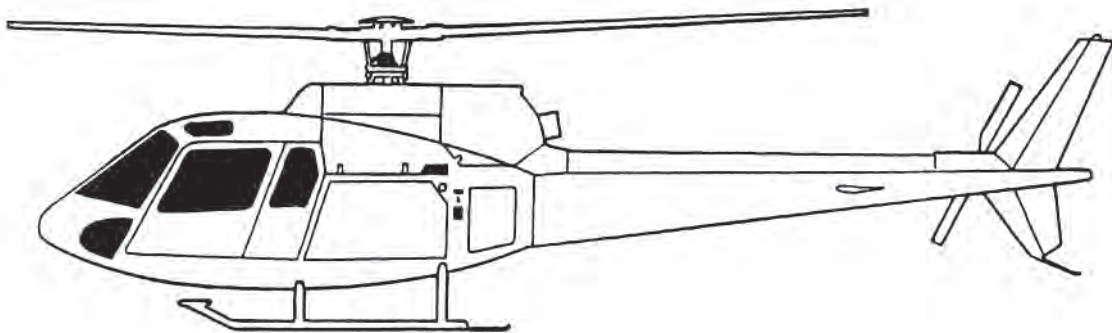
# CARGO RACK A-STAR / TWINSTAR INSTALLATION MANUAL



## *Tyler - Cargo Rack For Airbus H125 & Eurocopter AS-350 Series Helicopters*

Supplemental Type Certificates

FAA No. SR01449LA • EASA No.10064325 • Transport Canada No.SHO4-56



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Tyler Technologies 14218 Aetna Street, Van Nuys, California 91401 • USA  
www.tylertech.net • 800-390-6070 • FAX (818) 989-0423







MODEL: ASCR

REPORT #: ASCRINST-001

JOB #: \_\_\_\_\_

DATE: REV-D 5-16-2022

**CARGO RACK (MODEL ASCR)**  
**INSTALLATION MANUAL FOR**  
**A-STAR / TWINSTAR HELICOPTERS**

PREPARED BY: C. Tyler

# OF PAGES: 59

3-11-03

CHECKED BY: G. Wood

# OF DRAWINGS: 0

3-21-03

REVISED BY: E. Ziegler 5-16-2022

REVISIONS

DATE	PAGES AFFECTED	REVISION LETTER		APPROVAL
3-21-03	ALL	NC	ORIGINAL ISSUE	
3-25-2004	ALL	A	ADDITION OF LA-033, 034, 035	
12-17-2007	ALL	B	ADDITION OF ASC-013 ALT. GUSSET, MATERIAL OPTION FROM STEEL TO ALUM ASC-011, 012, 019, 022, 023	
12-06-2019	SECTION 6 PG 18 to 21	B2	OPTIONAL TIE-DOWN BAR	
1-11-2022	ALL	C	OPTIONAL - .065 WALL, 6061-T6 TUBING, ON - ASC-022 •Updated Helicopter manufacturer per TCDS•	
5-16-2022	ALL	D	Created Dash Numbers on ASC-001 & ASC-022	



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## NOTE

SECTIONS 1-4 SHOW THE INSTALLATION OF  
THE RIGHT SIDE CARGO RACK ONLY

REPEAT SECTIONS 1-4 FOR THE INSTALLATION OF  
LEFT SIDE CARGO RACK

**SECTION 1**  
**CARGO RACK - INSTALLATION**



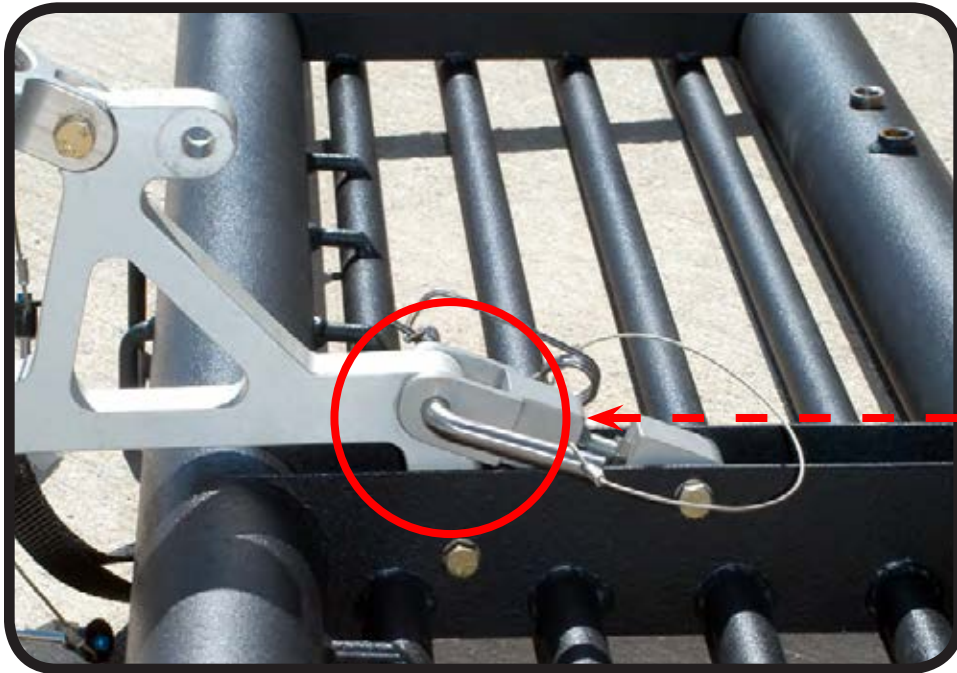
**NOTE**  
THE FOLLOWING INSTRUCTIONS SHOW THE  
RIGHT SIDE INSTALLATION ONLY



Place Cargo Rack upside-down, near helicopter skid-gear.  
(Note arrow pointing forward)



Open skid-gear clamps.  
(repeat for assembly at other end of cargo rack)



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

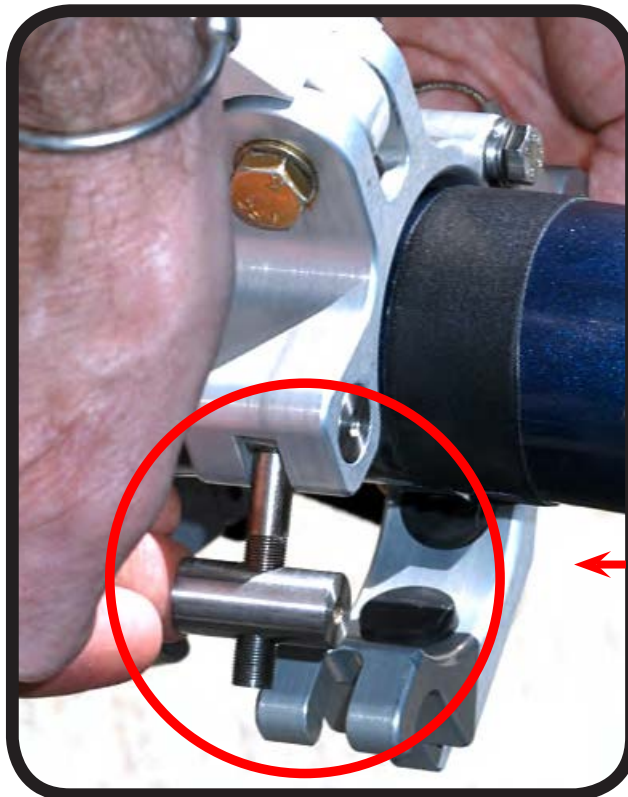


Turn rack over (top up) and position it over the  
skid-gear.



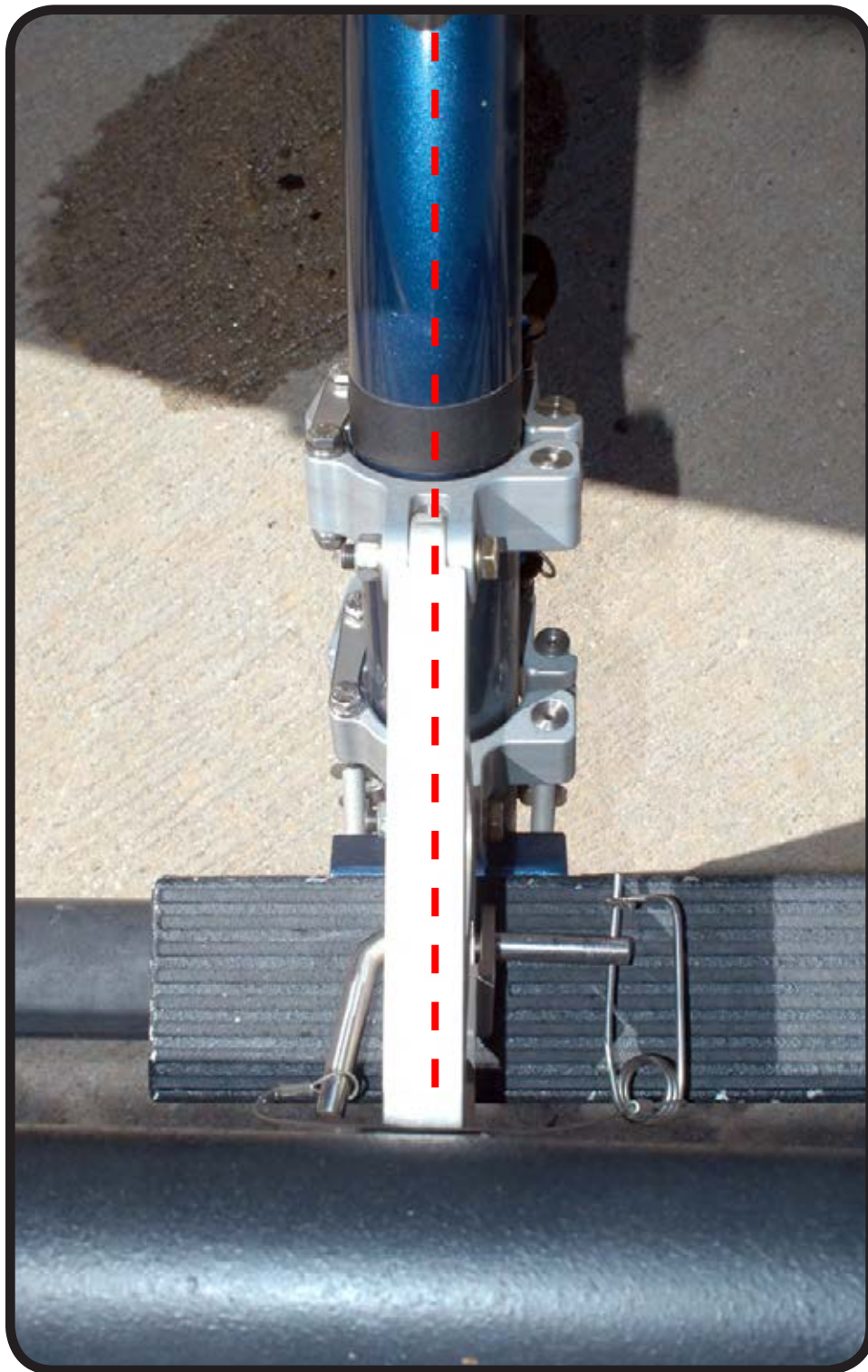


Place skid-gear clamps onto skid support tubes.



Close and lock clamps.

Open clamp lock-arm (with strap), then swing rear of clamp up and place the barrel (on the threaded shaft) over clamp hook.



TOP VIEW of pivot-bracket (forward right side)

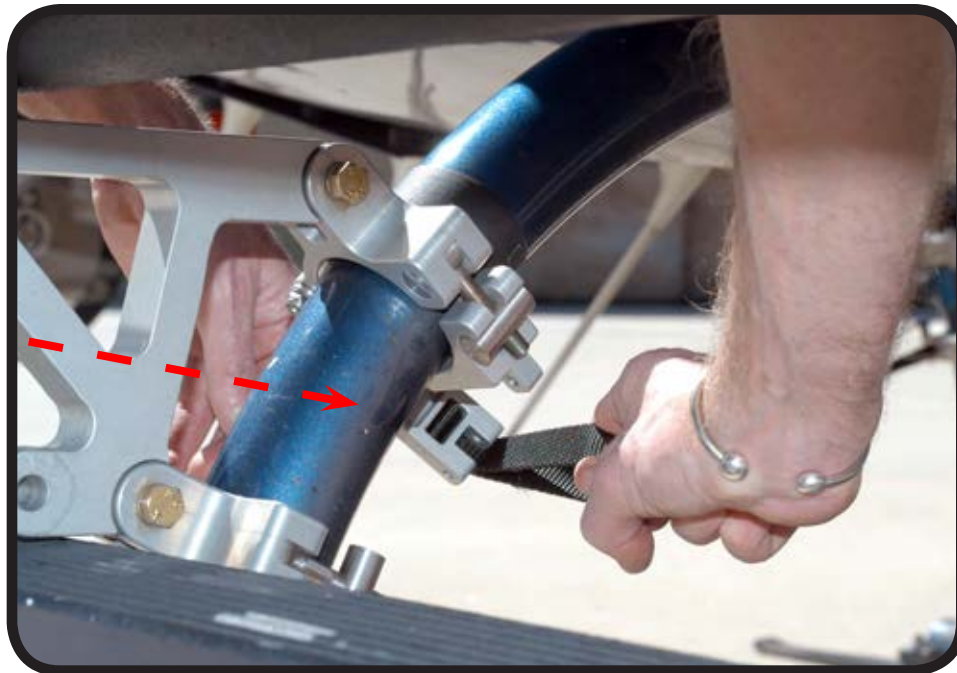
**IMPORTANT**

In order for the cargo rack to pivot into the stow position (see Section 4), each pivot-bracket must be parallel with the helicopter skid-gear support tube (see dotted line).

If necessary, re-adjust skid-gear clamps before proceeding.



To adjust the pressure of the clamp, un-hook the barrel and rotate it in or out as needed.



Pull the clamp-arm over to the locked position.  
If clamp is too easy or difficult to close, adjust the barrel (on the threaded shaft) in or out.  
Considerable force should be required to close the lock-arm.  
Tip: When adjusted properly, the lock-arm will “snap” closed.



Insert PIP-Pin to secure the clamp lock-arm.



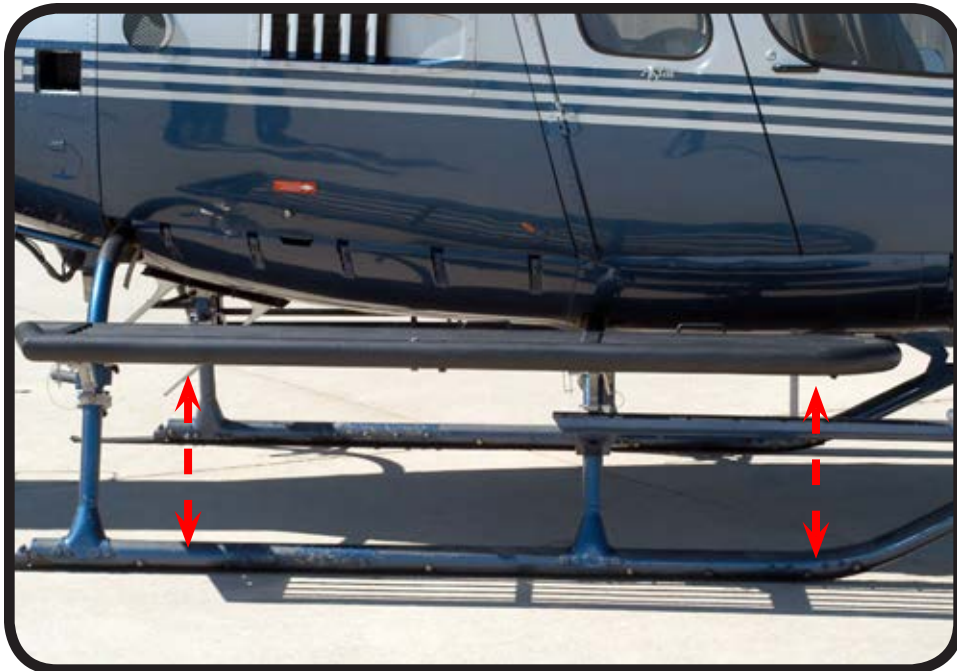
**IMPORTANT**

After adjusting and locking clamps, make sure all PIP-Pins are inserted.

**SECTION 2**  
**CARGO RACK - FORE-TO-AFT LEVELING**



**NOTE**  
THE FOLLOWING INSTRUCTIONS SHOW THE  
RIGHT SIDE INSTALLATION ONLY



When level, cargo rack should be parallel to skid-gear (as shown).



If necessary, unlock and reposition skid-gear clamps, up or down.  
Note: If front of cargo rack needs to move down, but front clamps are obstructed by step, etc. (as shown) then raise rear skid-gear clamps up until rack is level.

**SECTION 3**  
**CARGO RACK - LATERAL LEVELING**



**NOTE**  
THE FOLLOWING INSTRUCTIONS SHOW THE  
RIGHT SIDE INSTALLATION ONLY



Cargo rack should tilt up approximately 1.5 to 2.0 degrees.  
(As indicated by dotted line).

If necessary, adjust as follows, working on one end of cargo rack at a time.



Remove safety-clip and lock-rod.





To increase or decrease cargo rack angle, loosen nut, then rotate the connecting fork (in or out) as needed and re-tighten nut.  
Tip: Place the connecting-fork onto the pivot-bracket when loosening or tightening the nut.



Re-insert lock-rod and secure with safety-clip.



Using a tape measure, height from ground to top of cargo rack (at position shown) is approximately 28 inches.

(repeat for assembly at other end of cargo rack)



**SECTION 4**  
**CARGO RACK - STOW POSITION**

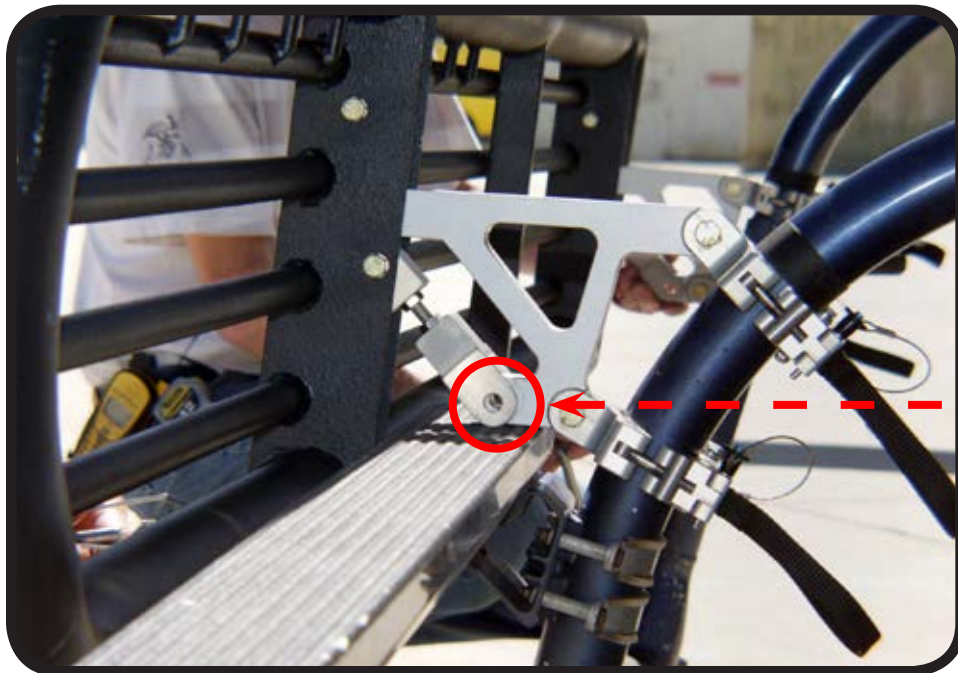


**NOTE**  
THE FOLLOWING INSTRUCTIONS SHOW THE  
RIGHT SIDE INSTALLATION ONLY



Unlatch and remove safety-clip and lock-rod.  
(repeat for assembly at other end of cargo rack)

Note: If cargo rack does not fold down smoothly into stow position, check to see if the pivot brackets are aligned with skid-gear (see page 5 of 21).



Pivot cargo rack into the folded down position.

Align tie-rod with lower hole in the pivot bracket.  
(repeat for assembly at other end of cargo rack)



Insert lock-rod and secure with safety-clip.  
(repeat for assembly at other end of cargo rack)



Cargo rack securely folded into stow position.

**SECTION 5**  
**REMOVAL / REPLACEMENT TIPS**



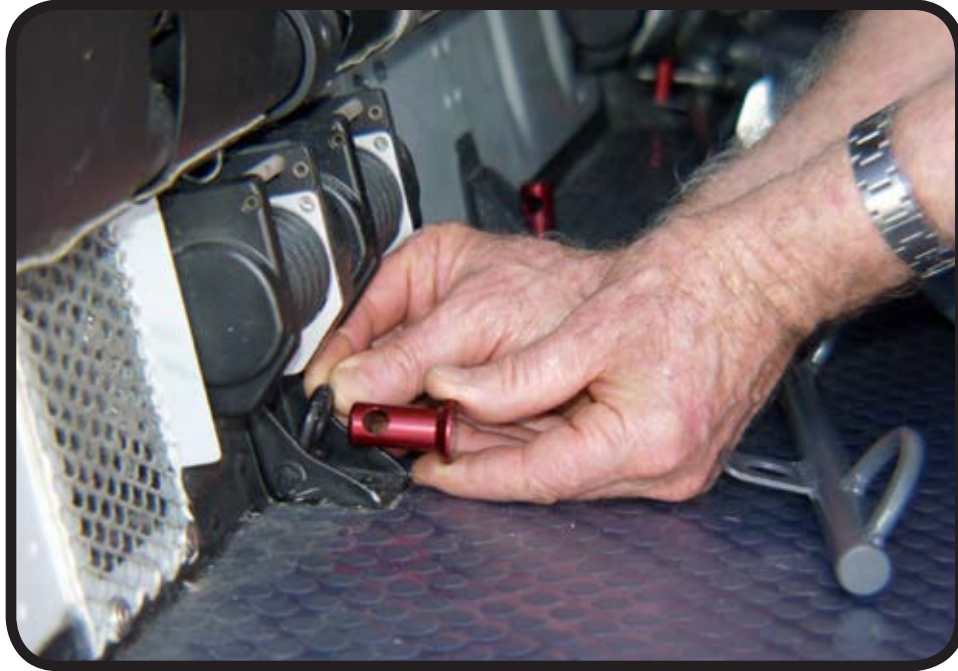
To simplify re-installation of cargo racks, before removing them:

- A) Mark position of fore and aft, upper skid-gear clamps (shown here using black tape).
- B) Tighten the hardware that fastens the skid-gear clamps to the pivot bracket.

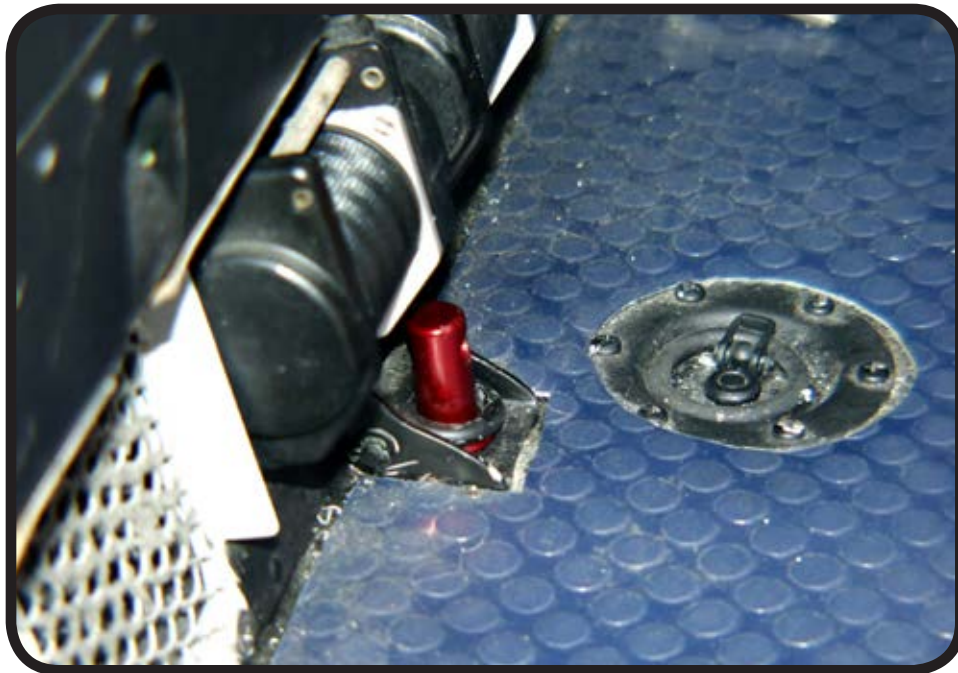
SECTION 6  
OPTIONAL  
CARGO TIE-DOWN BAR - INSTALLATION



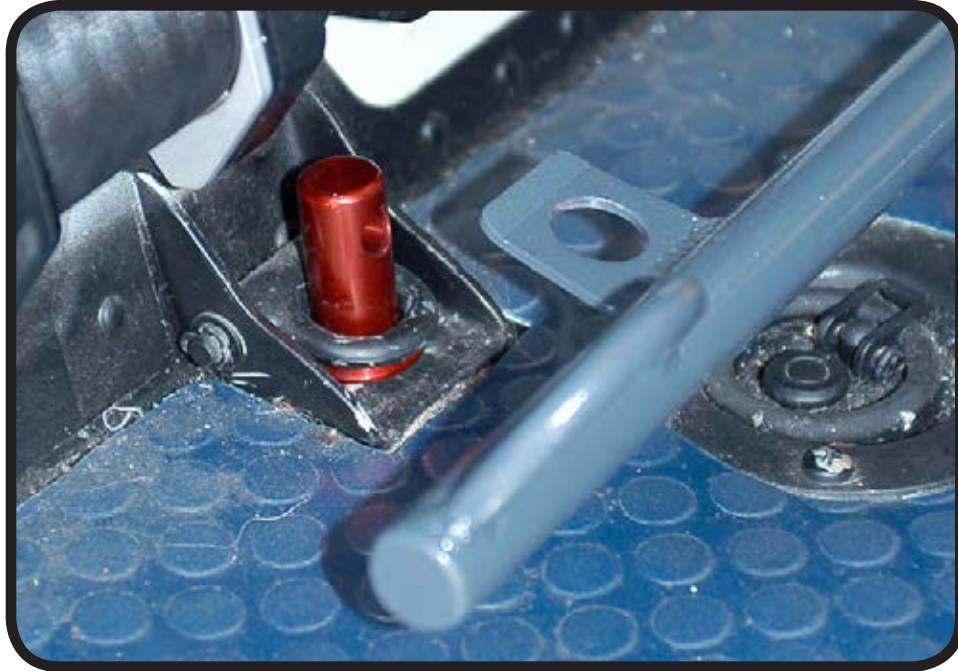
- A) Remove rear helicopter seat cushions.
- B) Fold up seat benches.
- C) Remove seat-belts from the center three helicopter attach rings.



Insert studs as shown into the center three helicopter attach rings.







Place the three tabs on the tie-down bar over the three studs.



Insert PIP-Pin into each of the studs.



Attach the helicopter seat belts to “D-ring” on tie-down bar.



Attach cargo harness-strap to “D-ring” on tie-down bar.



United States of America  
Department of Transportation  
Federal Aviation Administration

# Supplemental Type Certificate

Number: SR01449LA

This certificate issued to: Tyler Camera Systems  
14218 Aetna Street  
Van Nuys, California 91401

Certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 27\* of the Code of Federal Regulations.

Original Product           \*See FAA Approved Model           Make: See FAA AML SR01449LA  
Type Certificate Number: List (AML) SR01449LA           Model: See FAA AML SR01449LA

*Description of Type Design Change:*

Installation of cargo rack in accordance with FAA approved documents listed on AML SR01449LA, dated August 9, 2004, or later FAA approved revisions.

*Limitations and Conditions:*

This installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. The approval of this modification applies to the above noted airplane model series only. A copy of this STC must be included in the permanent records of the modified aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission. (continued)

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of Application:* February 14, 2003           *Date Reissued:* December 2, 2004;  
October 18 2005; October 20 2017  
*Date of Issuance:* February 13, 2004           *Date Amended:* August 9, 2004; June 3, 2022

*By Direction of the Administrator*

*Signature:*

**Manager, Airframe Section**  
*Title:* **Los Angeles ACO Branch**

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



United States of America  
Department of Transportation  
Federal Aviation Administration  
*Supplemental Type Certificate*

*(Continuation Sheet)*

Number: SR01449LA

**Limitations and Conditions (Continued):**

Instructions for Continued Airworthiness listed in FAA Approved Model List (AML) No. SR02764LA or FAA accepted revisions must be made available to the operator at the time of installation.

A copy of this Certificate and FAA Approved Model List (AML) No. SR02764LA, dated May 19, 2022, or later FAA Approved revision, must be maintained as part of the permanent records for the modified aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

---

Any alteration of this certificate and/or the Type Certificate Data Sheet is punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with Title 14 of the Code of Federal Regulations, part 21, section 21.47 (14 CFR 21.47). A transfer must be endorsed as provided on the reverse hereof. A Type Certificate holder who allows a person to use the Type Certificate to manufacture a new aircraft, aircraft engine, or propeller must provide that person with a written licensing agreement acceptable to the FAA. (Ref. 14 CFR 21.55).

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**FAA-Approved Model List (AML) SR01449LA**  
**TYLER CAMERA SYSTEMS**  
**INSTALLATION OF CARGO RACK ON HELICOPTER MODELS LISTED**

ITEM	MAKE	MODEL	Cert basis/amendment	TCDS No.	Drawing List (MDL)	ICA	RFMS	Model Specific Notes	Initial Approval date	Amended date
1	Airbus Helicopters	AS350-C AS350-D AS350-D1 AS350-B AS350-B1 AS350-B2 AS350-B3 AS350-BA	27-1 through 27-10	H9EU	ASCR-001 Rev N/C 01/20/2003 Or later FAA Approved Revisions	CR-001 Rev 1 5/11/2022 Or later FAA Accepted Revisions*	CR-RFM-001 2/10/2004 Or later FAA Approved Revisions	-----	8/9/2004	6/03/2022
2	Airbus Helicopters	AS355E AS355F AS355F1 AS355F2 AS355N	27-1 through 27-20	H11EU	ASCR-001 Rev N/C 01/20/2003 Or later FAA Approved Revisions	CR-001 Rev 1 5/11/2022 Or later FAA Accepted Revisions*	CR-RFM-001 2/10/2004 Or later FAA Approved Revisions	-----	8/9/2004	6/03/2022

\*ICA must be made available to the operator at the time of installation.

FAA Approved

\_\_\_\_\_  
 Maureen Moreland  
 Aviation Safety  
 Manager, Airframe Section  
 Los Angeles ACO Branch

Date: June 3, 2022



## SUPPLEMENTAL TYPE CERTIFICATE

**10064325**

This Supplemental Type Certificate is issued by EASA, acting in accordance with Regulation (EC) No. 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation and in accordance with Commission Regulation (EU) No. 748/2012 to

### TYLER CAMERA SYSTEMS

14218 AETNA STREET  
VAN NUYS CA 91401  
USA

and certifies that the change in the type design for the product listed below with the limitations and conditions specified meets the applicable Type Certification Basis and environmental protection requirements when operated within the conditions and limitations specified below:

**Original Type Certificate Number:** SEE FAA APPROVED MODEL LIST  
(AML) SR01449LA  
dated 20 October 2017

**Type Certificate Holder:** SEE FAA APPROVED MODEL LIST  
**Type:** SEE FAA APPROVED MODEL LIST  
**Model:** SEE FAA APPROVED MODEL LIST

**Original STC Number:** FAA BASIC STC SR01449LA

**Description of Design Change:**  
Installation of cargo rack.

**EASA Certification Basis:**

The Certification Basis (CB) for the original product remains applicable to this certificate/ approval. The requirements for environmental protection and the associated certified noise and/ or emissions levels of the original product are unchanged and remain applicable to this certificate/ approval.

**Associated Technical Documentation:**

FAA Approved Tyler Camera Systems Master Drawing List No. ASCR-001, Revision N/C, dated 20 January 2003.

See Continuation Sheet(s)

For the European Aviation Safety Agency

Cologne, Germany, 15 January 2018



Pier Giorgio COLOMBO  
Medium Rotorcraft Section  
Manager

FAA Approved Rotorcraft Flight Manual Supplement No, CR-RFM-001, Reissued 6 August 2004, or later FAA Approved Revisions.

**Limitations/Conditions:**

Prior to installation of this design change it must be determined that the interrelationship between this design change and any other previously installed design change and/ or repair will introduce no adverse effect upon the airworthiness of the product.

The STC is valid for those aircraft types and models approved by EASA and listed on the FAA Approved Model List SR01449LA reissued on 20 October 2017.

If the aircraft is equipped with the Geneva Aviation, Inc. P132 console installed under STC 10016948 (FAA STC SH4747NM), the requirements of FAA Approved Geneva Aviation, Inc. Service Bulletin No. 2004-01, dated 27 January 2004, must be complied with.

This cargo rack structure approved for all cargo only installations having a maximum payload weight of not more than 500 pounds per side and a frontal area not to exceed 3.2 square feet.

No passengers may be carried external to the aircraft on the cargo racks. Crewmembers may only be carried in accordance with 14 CFR Section 133.35.

- End -





Department of Transport

Supplemental Type Certificate

This approval is issued to:

Tyler Camera Systems
14218 Aetna Street
Van Nuys, California
United States of America 91401

Number: SH04-56

Issue No.: 2

Approval Date: December 06, 2004

Issue Date: January 25, 2010

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

EUROCOPTER FRANCE AS 350 B2, AS 350 BA, AS 350B, AS 350B1, AS 350B3, AS 350C, AS 350D, AS 350D1, AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N

Canadian Type Certificate or Equivalent:

H-83, H-87

Description of Type Design Change:

Installation of Cargo Rack

Installation/Operating Data,

Required Equipment and Limitations:

Installation in accordance with FAA approved Tyler Camera Systems Master Drawing List No. ASCR-001, dated 2003 January 20, or later FAA approved revisions.

Operation in accordance with FAA approved Rotorcraft Flight Manual Supplement No. CR-RFM-001, dated 2004 August 6, or later FAA approved revisions.

If the eligible rotorcraft is equipped with Geneva Aviation, Inc. P132 console per FAA STC SH4747NM, the requirements of FAA approved Geneva Aviation, Inc. Service Bulletin No. 2004-01, dated 2004 January 27, or later FAA approved revision, must be complied with.

The cargo rack structure is approved for all cargo only installations having a maximum payload weight of not more than 500 pounds (227kg) per side and a frontal area not to exceed 3.2 square feet (per side).

No passengers may be carried external to the rotorcraft on the cargo racks. Crewmembers may only be carried in accordance with Canadian Aviation Regulation (CAR) 702.21.

- End -



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

D.S. Austen
D.S. Austen
For Minister of Transport





14218 Aetna St.  
Van Nuys, CA. 91401  
Document Number CR-RFM-001

**FAA APPROVED  
ROTORCRAFT FLIGHT MANUAL  
SUPPLEMENT  
FOR THE  
EUROCOPTER MODEL  
AS-350 B, BA, B1, B2, B3, C, D AND D1  
AS-355 E, F, F1, F2, AND N  
WHEN EQUIPPED WITH THE  
TYLER CARGO RACK**

REGISTRATION #: \_\_\_\_\_ SERIAL #: \_\_\_\_\_

The information in this supplement is FAA approved material and must be attached to the FAA Approved AS 350 Rotorcraft Flight Manual when the airplane has been modified by the installation of Tyler Camera Systems ASC-001 Cargo Racks in accordance with:

**STC # SR 01449 LA**

The information contained herein supplements or supersedes the information in the basic Rotorcraft Flight Manual only in those areas listed herein. For limitations, Procedures and Performance information not contained in this Supplement, consult the basic Rotorcraft Flight Manual.

FAA APPROVED: \_\_\_\_\_

*Patricia Power*

Manager, Flight Test Branch, ANM-160L  
Federal Aviation Administration  
Los Angeles Aircraft Certification Office  
Transport Airplane Directorate

FAA REISSUE DATE: \_\_\_\_\_

*August 6, 2004*

Original Issue Date: 10 Feb 2004



14218 Aetna St.  
Van Nuys, CA. 91401  
Document Number CR-RFM-001

Supplement to the Eurocopter RFM for  
Models AS-350 B, BA, B1, B2, B3, C, D, & D1  
AS-355 E, F, F1, F2 & N  
when modified with the Cargo Rack System

STC Number SR 01449 LA

### LOG OF PAGES

Rev No.	Pg No	Date	Description of Change	FAA Approved
Reissue	1-7	6 Aug 2004	Added AS-355 Series Helicopters.  Changed header all pages.  Changed the limitation to include "crewmembers" IAW 133 on the racks.	<u>Patrick Power</u>  Mgr, Flight Test Branch ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate  DATE: <u>August 6, 2004</u>



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STC Number SR 01449 LA

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AS-355 E, F, F1, F2 & N  
when modified with the Cargo Rack System

STC Number SR 01449 LA

## 1. SECTION 1 – GENERAL

The Tyler Camera Systems ASC-001 Cargo Rack consists of the steel tubular frame members and four aluminum-mounting brackets per rack. The mount is attached to the landing gear by four clamps, two per gear and can be easily installed by two people in less than 5 minutes. PIP pins provide additional security to the mount clamp bolts.



**Figure 1 Left Front View of Installed Racks with FLIR & Night Sun**



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AS-355 E, F, F1, F2 & N  
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STC Number SR 01449 LA



**Figure 2 Right Front View of the Test Configuration**

The rack without cargo can be stowed in a vertical configuration when not in use.

The aircraft has been demonstrated with a load having a flat plate area of 3.2 square feet per side.



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AS-355 E, F, F1, F2 & N  
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Figure 3 Front View of Right Rack Only

**CAUTION**

Lateral CG can be easily exceeded with heavy weights on the racks.





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Document Number CR-RFM-001

Supplement to the Eurocopter RFM for  
Models AS-350 B, BA, B1, B2, B3, C, D, & D1  
AS-355 E, F, F1, F2 & N  
when modified with the Cargo Rack System

STC Number SR 01449 LA

## 2. SECTION 2 – LIMITATIONS

### 2.1 TYPES OF OPERATIONS

No passengers may be carried external to the aircraft on the cargo racks. Crewmembers or other persons necessary for the conduct of the external load operations may only be carried in accordance with 14 CFR section 133.35.

### 2.2 AIRSPEED

Reduce the published Power – On  $V_{NE}$  20 KIAS with the cargo racks installed and **NO** cargo.

Reduce the published Power – On  $V_{NE}$  54 KIAS with the cargo racks installed and **ANY** cargo attached to the racks.

### 2.3 MOUNT LIMITS

Maximum Weight per Rack: 500 pounds, on either or both sides.

Maximum flat plate area of 3.2 square feet per side

## 3. SECTION 3 – EMERGENCY PROCEDURES

No change to the basic flight manual

## 4. SECTION 4 – NORMAL PROCEDURES

Secure crew members or cargo prior to take-off.



Consider possible loss of any items or material from the right side cargo rack that could impinge on the tail rotor.

## 5. SECTION 5 - PERFORMANCE

### 5.1 HOVER PERFORMANCE

No Change

### 5.2 CLIMB PERFORMANCE

Reduce climb performance by:  
20 ft/min with the racks deployed no cargo.  
100 ft/min with cargo on the rack.

## 6. SECTION 6 – WEIGHT AND BALANCE

The weight and balance data must be considered for each flight. Distribution of the load on the rack must be considered. Concentrated loads should be placed between the two attach points if possible.

### **CAUTION**

**Lateral CG can be easily exceeded with heavy weights on the racks. Compute the aircraft weight and balance before flight with loads on the racks.**



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STC Number SR 01449 LA

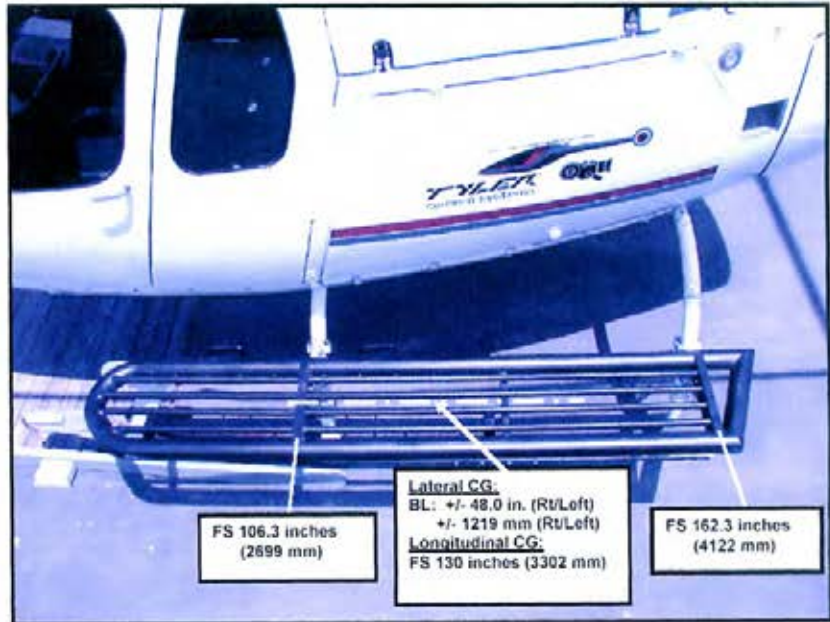


Figure 4 Station Locations for the Cargo Rack



**DOCUMENT CR-001**  
**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**

**Cargo Rack**

**FOR**

**Airbus Helicopters AS350 & AS355 SERIES  
HELICOPTER**


**STC NO: SR01449 LA**

**Tyler Camera Systems  
14218 Aetna St.  
Van Nuys, CA 91401**



**TYLER CAMERA SYSTEMS**  
**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**  
**Document No. CR-001 Dated: May 11, 2022**

**REVISION DESCRIPTION**

Revision	Description	Pages Affected	Date	Signature
1	Updated models; Removed W&B to separate document	0, 1, 2, 3, 7	11 May 2022	

**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			

**TYLER CAMERA SYSTEMS**  
**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**  
**Document No. CR-001 Dated: May 11, 2022**

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**TYLER CAMERA SYSTEMS**  
**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**  
**Document No. CR-001 Dated: May 11, 2022**

**1.0 GENERAL**

**1.1 INTRODUCTION**

This manual presents the Instructions for Continued Airworthiness (ICA) for the installation of the Tyler Camera Systems Cargo Rack for the Airbus Helicopter AS350 and AS355 Series Helicopter. The Tyler Cargo Rack consists of a welded steel or aluminum 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 350/355 Series Helicopter 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 3.2.

**1.2 PURPOSE**

The purpose of this document is to provide Instructions for Continued Airworthiness to inspect the Tyler Camera Systems 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 Instructions for Continued Airworthiness.

**1.4 APPLICABILITY**

These Instructions for Continued Airworthiness are applicable to the Tyler Camera Systems Cargo Rack installed on the Airbus Helicopter 350/355 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**



**TYLER CAMERA SYSTEMS**  
**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**  
Document No. CR-001 Dated: July 11, 2003

**3.0 INSPECTION REQUIREMENTS**

Figure 3.1  
Tyler Cargo Rack  
Installation on the  
AS350



Figure 3.2  
Clamp Installation



**TYLER CAMERA SYSTEMS**  
**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**  
**Document No. CR-001 Dated: July 11, 2003**

**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 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 3.0.1 and Figure 3.1

<b>INSP.</b>	<b>DESCRIPTION</b>	<b>INSPECTION</b>	<b>Maintenance Personnel Initial</b>
1	Rack Frame	(1) Visually inspect welds for cracks. (2) Visually inspect tubes for dents, deep scratches, or cracks.	
	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.	
2	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 4.0.

**TABLE 3.2.1 100 HOUR TIME IN SERVICE INSPECTIONS**

<b>INSP.</b>	<b>DESCRIPTION</b>	<b>INSPECTION</b>	<b>Maintenance Personnel Initial</b>
1	Rack Frame	(1) Visually inspect welds for cracks.	

<b>TYLER CAMERA SYSTEMS</b> <b>INSTRUCTIONS FOR CONTINUED AIRWORTHINESS</b> <b>Document No. CR-001 Dated: July 11, 2003</b>
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		(2) Visually inspect tubes for dents, deep scratches, or cracks.	
	Forward Clamp Assembly	(1) Visually inspect all components of clamp for dents, deep scratches, or cracks.	
2	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 REMOVAL, DISASSEMBLY, REASSEMBLY AND INSTALLATION**

#### **4.1 REMOVAL AND DISASSEMBLY**

Refer to Tyler Cargo Rack Installation Manual number ASCRINST-001 for installation and removal instructions.

**5.0 WEIGHT AND BALANCE**

Refer to document TY-WB-001-2022 for weight and balance information.

**Tyler Camera Systems/Tyler Technologies**

14218 Aetna Street, Van Nuys, CA 91401

818-989-4420 www.tylermount.com

**REPORT NO.**

TY-WB-01-2022

Rev NC

Weight and Balance Report, AS-TSOP

**WEIGHT AND BALANCE REPORT**

**AS-TSOP RACK ASC-001**

**Airbus Helicopters AS350, AS355**

Document No. **TY-WB-01-2022**

STC: SR01449LA

APPROVED BY: \_\_\_\_\_



Robert M. Halvorson  
Structures Engineer

DATE: 05/16/22

<b>Tyler Camera Systems/Tyler Technologies</b>		<b>REPORT NO.</b>
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**RECORD OF REVISIONS**

Rev Level	Pages Affected	Description of Revision	Approved Date	Approved By
NC	All	Initial Release of Document	2022-05-16	See cover

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**REFERENCES**

- 1) Drawings: Tyler Systems ASC-001 Rev 3
- 2) TY-CR-002, Structural Substantiation for ASC-001 Cargo Rack  
Installation on Eurocopter Model AS350 and AS3500 Series Helicopters,  
approved under STC ST10309LA-R

<b>Tyler Camera Systems/Tyler Technologies</b>		<b>REPORT NO.</b>
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Weight and Balance Report, AS-TSOP		Rev NC
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**1.0 DEFINITION AND PURPOSE**

**1.1 Purpose**

The purpose of this report is to provide Weight and Balance information for the Tyler Camera Systems A-Star Rack, as installed on Airbus Helicopters AS350 and AS355 models. This rack may be installed on models listed in the AML of STC SR01449LA. Compliance with the FAA static structural certification requirements of the aircraft will be demonstrated.

**1.2 Applicant**

The applicant is Tyler Camera Systems, Van Nuys, CA.

**1.3 Application**

This document is applicable to the following aircraft:

<u>Nomenclature</u>	<u>Installation Number</u>	<u>Aircraft</u>
INSTALLATION	ASC-001-1, -2, -3	Models as listed in AML for STC SR01449LA

## 2.0 DESCRIPTION

The A-Star Cargo Rack consists of left and right installations of a metal rack attached to the landing gear down tubes of AS350 and AS3500 helicopters.



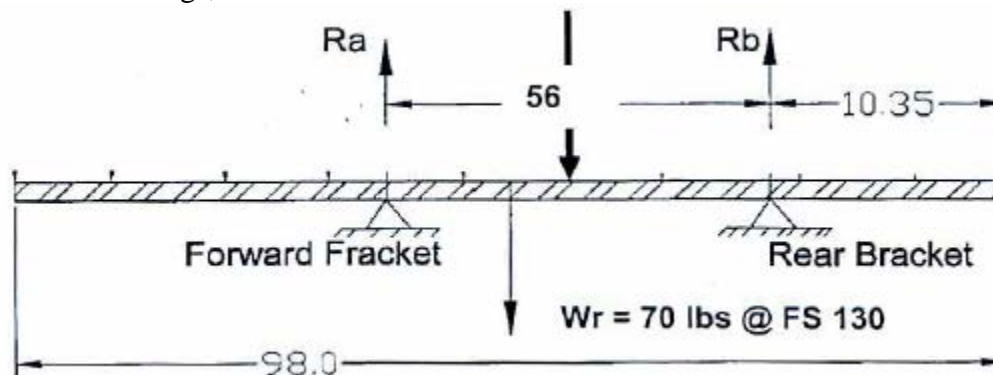
Three configurations of racks have been produced.

1. Steel rack, weight 69.5 lb each side. (-1)
2. Aluminum rack, 1/8" wall, 59.6 lb each side. (-2)
3. Aluminum rack, 1/16" wall, 41.3 lb each side. (-3)

This is the standard configuration that is available on order.

Stations:

Per AS350 drawings, the forward down tube is located at F.S. 106.3.



Deriving from the above figure from Reference 2, the forward end of the rack is located at F.S. 74.65, rounding off to 74.6 due to measuring accuracy. This can be used to obtain the stations of the cg of the assembled rack.



### 3.0 Weight and Balance

**Steel Rack, ASC-001-1: This has been established by STC since 2003.**

#### LEFT SIDE INSTALLATION

Wt = 69.5 lbs (31.52 Kg)  
Station: 130 inches (330 cm) X3302  
BL: --48.0 inches (-121.9 cm ) Y-1219

#### RIGHT SIDE INSTALLATION

Wt = 69.5 lbs (31.52 Kg)  
Station: 130 inches (330 cm) X3302  
BL: 48.0 inches (121.9 cm ) Y1219

**Aluminum Rack, 1/8" wall, ASC-001-2: This is as measured on May 10, 2022, see Appendix.**

#### LEFT SIDE INSTALLATION

Wt = 59.6 lbs (25.67 Kg)  
Station: 122.6 inches (311 cm) X3114  
BL: --48.0 inches (-121.9 cm ) Y-1219

#### RIGHT SIDE INSTALLATION

Wt = 59.6 lbs (25.67 Kg)  
Station: 122.6 inches (311 cm) X3114  
BL: 48.0 inches (121.9 cm ) Y1219

**Aluminum Rack, 1/16" wall, ASC-001-3: This is as measured on May 9, 2022, see Appendix.**

#### LEFT SIDE INSTALLATION

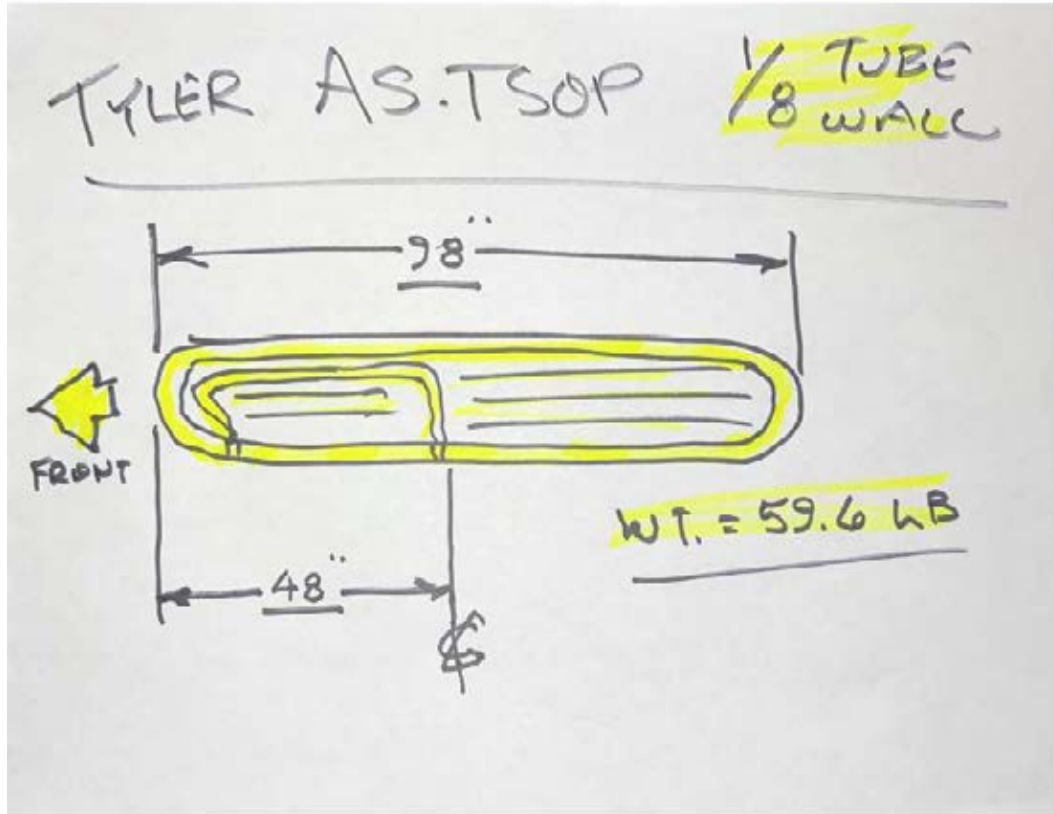
Wt = 41.3 lbs (18.73 Kg)  
Station: 121.8 inches (309 cm) X3094  
BL: --48.0 inches (-121.9 cm ) Y-1219

#### RIGHT SIDE INSTALLATION

Wt = 41.3 lbs (18.73 Kg)  
Station: 121.8 inches (309 cm) X3094  
BL: 48.0 inches (121.9 cm ) Y1219

**END**

Appendix



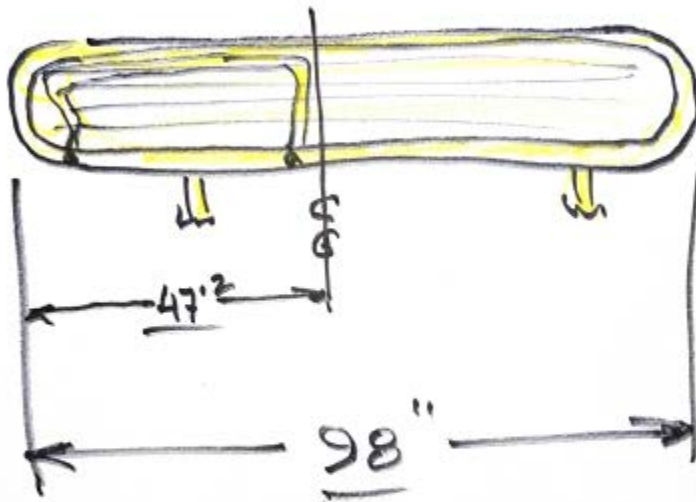
Aluminum 1/8" wall tubing, all parts per drawing ASC-001

Measured at Tyler Camera Systems on May 10, 2022

$$\text{F.S.: } 74.6 + 48 = 122.6$$

TCS AS-350 TSOP  
BENCH COMPLETE

FRONT  
↙



TOTAL  
WT = 41.3 LB.



Aluminum 1/16" wall tubing, all parts included per ASC-001

Measured at Tyler Camera Systems on May 9, 2022

$$\text{F.S.: } 74.6 + 47.2 = 121.8$$