



CARGO RACK

MD500

INSTALLATION MANUAL



Tyler - Cargo Rack
For MD500 Series Helicopters
FAA STC # SR01682LA



Tyler Camera Systems 14218 Aetna Street Van Nuys, California 91401 • USA
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MODEL: MD 369

REPORT #: INST MD5-001

DATE: 08/17/04

JOB #: _____

CARGO RACK (MODEL H500)
 INSTALLATION MANUAL FOR
 MD 369 D,E,F,FF,500N,600N MODEL

PREPARED BY: L. ZIEGLER

OF PAGES: 6

08/17/04

CHECKED BY: G. Wood

OF DRAWINGS: 0

08/17/04

APPROVED BY: _____

REVISIONS

DATE	PAGES AFFECTED	REVISION LETTER		APPROVAL
<u>08/17/04</u>	ALL	NC	ORRIGINAL ISSUE	

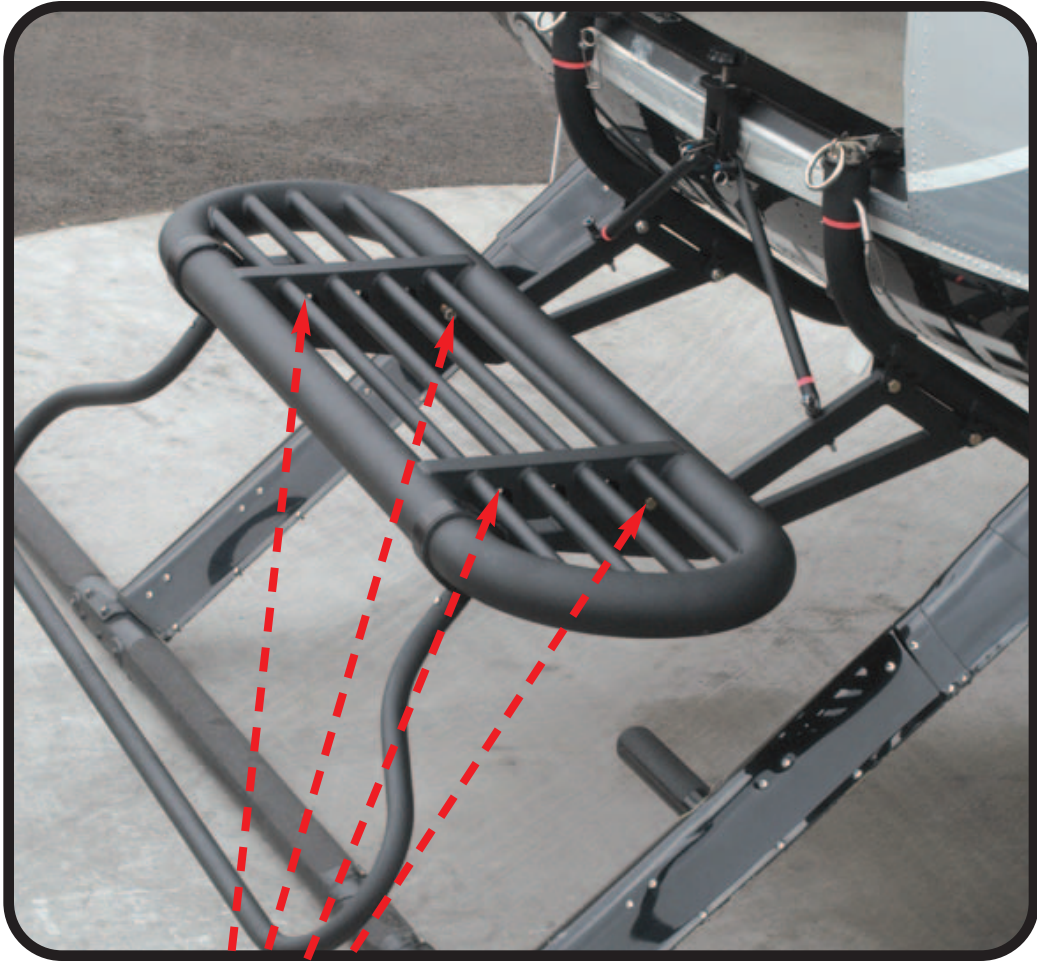


- 1.) Place floor plate on floor of ship as shown.
Install tab shaft and lock knob.
Do not tighten lock knob.



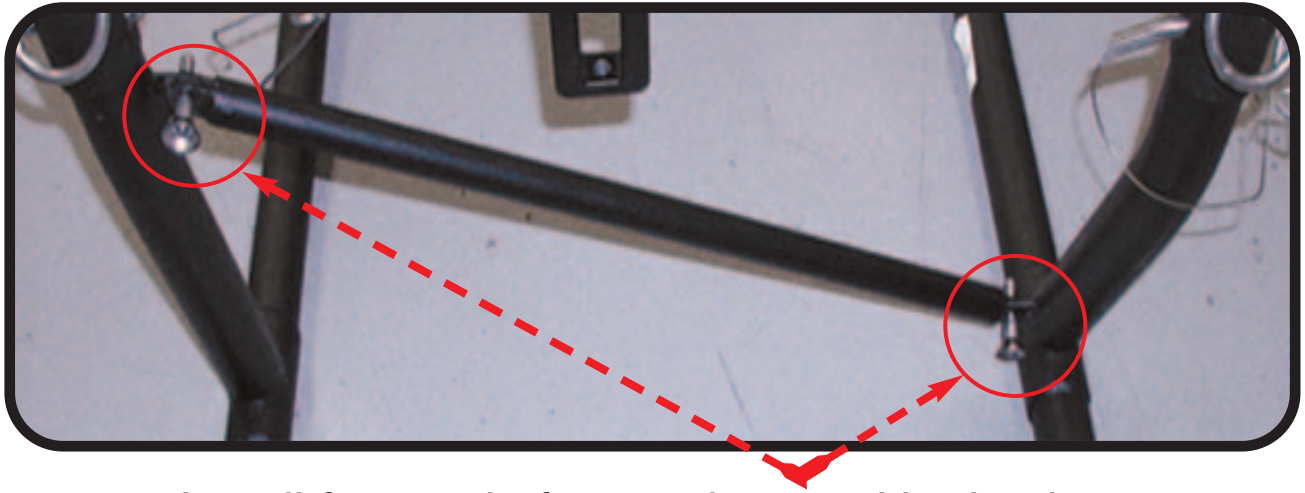
- 1.) Assemble both Platform Tubes Front & Rear.
- 2.) Pass Front Support Tube under ship and connect into Cross Tube Receiver with L Pin.
- 3.) Install Rear Support Tube as you did for the front fore & aft brace. Tabs must face towards each other.





INSTALL BENCH

Do not tighten bolts at this time.



Install fore and aft cross brace with pip pins.

Install Cross Cables Assembly



- 1.) Make sure all pins are installed and secured with safty clip
- 2.) Tighten Lock Knob.
- 3.) Tighten the 4 nuts & bolts that were previously put in place (see page 4)
- 4.) Latch cables and secure with Pip Pin.

United States Of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number SR01682LA

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 therefor as specified hereon meets the airworthiness requirements of Part * of the Federal Aviation Regulations. **

Original Product Type Certificate Number: ** See attached FAA Approved Model List (AML)
Make: No. SR01682LA for list of approved rotorcraft
Model: * models and applicable airworthiness regulations.

Description of Type Design Change:

Installation of cargo rack in accordance with FAA Approved Tyler Camera Systems Master Drawing List No. MD500-001, Revision N/C, dated March 25, 2004, and a copy of FAA Approved Rotorcraft Flight Manual Supplement No. CR-RFM-002, dated November 15, 2004 or later FAA Approved Revisions.

Limitations and Conditions: Approval of this change in type design applies to the aircraft models listed on AML No. SR01682LA only. This approval should not be extended to aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. (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: July 1, 2004

Date reissued:

Date of issuance: November 19, 2004

Date amended:



By direction of the Administrator

[Handwritten Signature]

(Signature)

ACTING Manager, Airframe Branch
Los Angeles Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States Of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate
(Continuation Sheet)

Number SR01682LA

Limitations and Conditions (Continued):

The provisions of the Supplemental Type Certificate are applicable only to those aircraft which are listed on the attached FAA Approved Model List of MDHI (Hughes) Helicopter models.

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

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

The lateral center of gravity (CG) of models 369D (MD 500D), 369E (MD 500E), 369FF (MD 530F) and 500N (MD 520N) may be extended to ± 5.0 inches with a forward airspeed limitation of 70 KCAS and a sideward/rearward airspeed limitation of 20 KCAS.

A copy of this Certificate and FAA Approved Model List (AML) No. SR01682LA, dated November 19, 2004, 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.

- END -

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA APPROVED MODEL LIST (AML) NO. SR01682LA
 TYLER CAMERA SYSTEMS

FOR

INSTALLATION OF CARGO RACK ON HELICOPTER MODELS LISTED

ISSUE DATE : November 19, 2004

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	MASTER DWG. LIST		INSTALLATION INSTRUCTIONS		RFM SUPPLEMENT NUMBER/REV. NO. & DATE	AML AMENDMENT DATE
					REPORT NO.	REV. NO. & DATE	REPORT NO.	REV. NO. & DATE		
1	MDHI (HUGHES)	368 368A 368H 368HM 368HS 368HE 368D 368E 368F 368FF 500N	H3WE	CAR 8 AND AMENDMENTS LISTED ON TCDS H3WE	MD500-001	REV. N/C 03/25/04	INST MD5-001	REV. N/C 8/17/04	INITIAL RELEASE 11/16/04	N/A

FAA APPROVED : 
 ACTING MANAGER, AIRFRAME BRANCH
 LOS ANGELES AIRCRAFT CERTIFICATION OFC.

DOCUMENT MD5 005
MAINTENANCE INSTRUCTION
MD5-001 CARGO RACK
FOR
MD 369 D, E, F, FF, 500N AND 600N
MODEL HELICOPTERS



STC NO: SR01682LA

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

**TYLER CAMERA SYSTEMS
MAINTENANCE INSTRUCTIONS**

Document No. MD5-005

Dated: AUG. 18,2004

RECORD OF REVISIONS

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

LIST OF EFFECTIVE PAGES

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Record of Revisions	1	0
List of Effective Pages	1	0
Table of Contents	2	0
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2.0 Airworthiness Limitations	3	0
3.0 Inspection Requirements	4-TO 6	0
4.0 Removal, Disassembly, Reassembly And Installation	7 TO 10	0

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1.0 GENERAL

1.1 INTRODUCTION

This manual presents the Maintenance Instructions for the installation of the Tyler Camera Systems Model MD5-001 Cargo Racks for the MD Series Helicopters. The MD5-001 Cargo Rack consists of a welded steel structure with aluminum brackets. Figure 3.1, contains a photograph of the MD5-001 Universal Mount with the components of the assembly called out.

The Cargo Rack attaches to the MD Helicopter using the aluminum brackets on the port and starboard door sill. The method of attachment is shown in figures 4.3 and 4.5 in Section 4.0

1.2 PURPOSE

The purpose of this document is to provide Instructions for Continued Airworthiness to inspect the Tyler Camera Systems Model MD5-001 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 MD5-001 Cargo Rack installed on the MD Series Helicopters listed on the AML.

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 model MD5-001 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

NONE

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3.0 INSPECTION REQUIREMENTS

Figure 3.1 shows the MD5-001 Cargo Rack



Figure 3.1

Table 3.0.1 Major Parts List

ITEM	QTY	DESCRIPTION
1	2	Rack
2	2	Platform support tube (front)
3	2	Platform support tube (rear)
4	2	Floor plate
5	2	Floor plate tab shaft
6	2	Floor plate tab
7	2	Cable assembly
8	2	Fore/aft brace
9	8	Pin fastener
10	1	Restraint assembly
11	4	Quick pins
12	2	Swing down brace

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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 MD5-001 Cargo Rack records.

NOTE: There are no field repairs or overhaul allowed for the MD5-001 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 MD5-001 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 MD5-001 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 ON HELICOPTER

Refer to Item numbers in Table 3.0.1 and Figure 3.1. The 100 hour time in service inspection is to be performed as follows

ITEM	DESCRIPTION	INSPECTION	Maintenance Personnel Initial
1	Rack	(1) Visually inspect welds cracks. (2) Visually inspect tubes for dents, deep scratches, or cracks.	
2	Platform support tube (front)	(1) Visually inspect tubes for dents, deep scratches, or cracks. (2) Check Clevis nuts for tightness	
3	Platform support tube (rear)	(1) Visually inspect tubes for dents, deep scratches, or cracks. (2) Check Clevis nuts for tightness	
4	Floor plate	(1) Visually inspect for cracks, nicks or deep scratches	
5	Floor plate tab shaft	(1) Visually inspect for cracks, nicks or deep scratches	
6	Floor plate tab	(1) Visually inspect for cracks, nicks or deep scratches	
7	Cable assembly	(1) Visually inspect for cracks, nicks or cable frays	
8	Fore/aft brace	(1) Visually inspect welds cracks. (2) Visually inspect tubes for dents, deep scratches, or cracks.	
9	Pin fastener	(1) Visually inspect for cracks, nicks or deep scratches	
10	Restraint assembly	(1) Visually inspect for broken stitching or frayed webbing	
11	Quick pins	(1) Visually inspect for cracks, nicks or deep scratches	
12	Swing down brace	(1) Visually inspect for cracks, nicks or deep scratches	

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TABLE 3.1.2 1000 HOUR TIME IN SERVICE INSPECTION INTERVAL

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

ITEM	DESCRIPTION	INSPECTION	Maintenance Personnel Initial
1	Rack	(1) Visually inspect welds cracks. (2) Visually inspect tubes for dents, deep scratches, or cracks.	
2	Platform support tube (front)	(1) Visually inspect tubes for dents, deep scratches, or cracks. (2) Check Clevis nuts for tightness	
3	Platform support tube (rear)	(1) Visually inspect tubes for dents, deep scratches, or cracks. (2) Check Clevis nuts for tightness	
4	Floor plate	(1) Visually inspect for cracks, nicks or deep scratches	
5	Floor plate tab shaft	(1) Visually inspect for cracks, nicks or deep scratches	
6	Floor plate tab	(1) Visually inspect for cracks, nicks or deep scratches	
7	Cable assembly	(1) Visually inspect for cracks, nicks or cable frays	
8	Fore/aft brace	(1) Visually inspect welds cracks. (2) Visually inspect tubes for dents, deep scratches, or cracks.	
9	Pin fastener	(1) Visually inspect for cracks, nicks or deep scratches	
10	Restraint assembly	(1) Visually inspect for broken stitching or frayed webbing	
11	Quick pins	(1) Visually inspect for cracks, nicks or deep scratches	
12	Swing down brace	(1) Visually inspect for cracks, nicks or deep scratches	

3.2 INSPECTION LIMITS

The MD5-001 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

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4.0 REMOVAL, DISASSEMBLY, REASSEMBLY AND INSTALLATION

4.1 REMOVAL AND DISASSEMBLY

Remove and disassemble the MD5-001 Cargo Rack from the Helicopter as follows:
Refer to Figure 3.1.

- 4.1.1 Remove both side cargo rack benches by removing eight 7/16 inch diameter bolts.



Figure 4.1

- 4.1.2 Loosen and remove the two side to side retaining cables



Figure 4.2

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4.1.3 Loosen both side plate knobs.

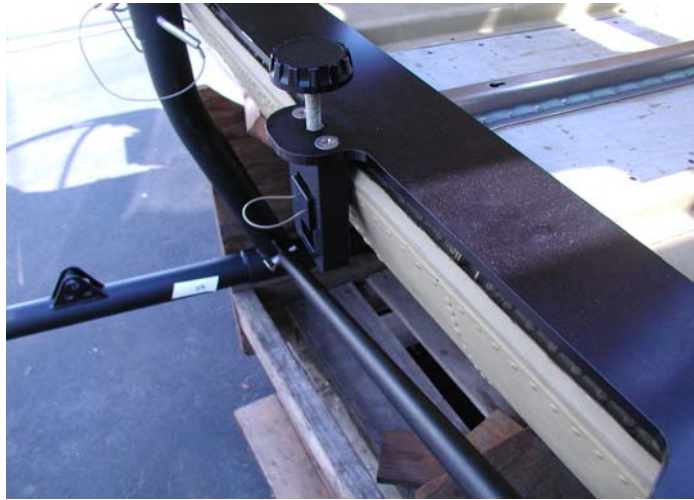


Figure 4.3

4.1.4 Remove the four “L” Attach Pins (item number 8) from underneath the helicopter on the two side to side tubes .(Figure 4.4)



Figure 4.4

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4.1.5 Remove the two side plate knobs and the hull lock pin. Reference (Figure 4.5).



Figure 4.5

4.1.6 Remove both side halves from under the helicopter (Figure 4.6)



Figure 4.6

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- 4.1.7 Remove the diagonal braces from each half by removing the two 3/8 quick pins. (Figure 4.7)



Figure 4.7

- 4.1.8 Remove the two upper “L” pins and carefully slide the assembly apart.

REMOVAL AND DISASSEMBLY COMPLETE

4.2 ASSEMBLY AND INSTALLATION

Refer to the Installation Manual, report No. INSTMD5-001, Dated 8-17-04, Rev. N/C