PLEASE CHECK WEB SITE AT WWW.ONBOARDSYSTEMS.COM FOR THE LATEST REVISION OF THIS MANUAL

FAA APPROVED

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

Cargo Hook Kit for MD Helicopter Models 369D, 369E, 369F, 369FF, 369HE, 369HS, 369HM & 500N

S/N
Manager, Seattle Aircrast Certification Office
Date:
Revised: 3 Jun 14



Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

Page 1 of 11

I. INTRODUCTION

This supplement must be attached to the appropriate MD Helicopter's Rotorcraft Flight Manual when an Onboard Systems 200-187-00 Cargo Hook Kit is installed in accordance with Supplemental Type Certificate (STC) NO. SR00407SE. The information contained herein supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures and performance information not contained in this supplement consult the basic Rotorcraft Flight Manual and the "Cargo Hook Kit" Rotorcraft Flight Manual Supplement issued by MD Helicopters, Inc.

The Onboard Systems 200-187-00 Cargo Hook Kit includes a cargo hook, external electrical release harness, and manual release cable. The electrical release harness interfaces with the rotorcraft's internal cargo hook electrical wiring as supplied by MD Helicopters including the release switch on the cyclic and the manual release cable interfaces with the manual release lever on the cyclic as supplied by MD Helicopters.



Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

Rev. 2

Page FAA Approved 2 of 11 JUN - 3 2014

II. LIMITATIONS

The basic Flight Manual and the "Cargo Hook Kit" Rotorcraft Flight Manual Supplement issued by MD Helicopters, Inc. remain applicable.

With a load attached to the cargo hook, operation shall be conducted in accordance with the respective national operational requirements. For U.S. operators 14 CFR part 133 is applicable.

The cargo hook kit <u>does not</u> meet the 14 CFR part 27 certification requirements for Human External Cargo (HEC).

NOTICE

The external load equipment certification approval does not constitute operational approval; operational approval for external load operations must be granted by the local Aviation Authority.



Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

Page FAA Approved 3 of 11 JUN - 3 2014

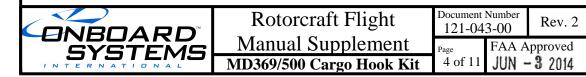
III. EMERGENCY PROCEDURES

The basic Flight Manual and the "Cargo Hook Kit" Rotorcraft Flight Manual Supplement issued by MD Helicopters, Inc. remain applicable.

IV. NORMAL PROCEDURES

Prior to a flight involving external load operations perform the following procedures. If the procedures are not successful do not use the equipment until the problem has been corrected.

- 1) Visually check all fasteners to ensure that they are secure.
- 2) Visually check the cargo hook's electrical release harness and connectors for damage and security.
- 3) Visually check the manual release cable and its connection at the cargo hook for damage and security.
- 4) Visually check the cargo hook case for cracks and damage.
- 5) Visually check the cargo hook load beam for gouges and cracks.
- 6) Operate the cargo hook keeper manually and check that it snaps back to its normal position on the load beam.
- 7) Cycle the cargo hook's manual release mechanism to ensure proper operation. Apply approximately 10 lbs to the load beam and pull the manual release lever located on the cyclic. The cargo hook should release the load and the load beam should return to the closed and locked position.
- 8) Cycle the cargo hook's electrical release mechanism to ensure proper operation. Apply approximately 10 lbs to the load beam and press the CARGO RELEASE switch located on the cyclic. The cargo hook should release the load and the load beam should return to the closed and locked position.



IV. NORMAL PROCEDURES continued

Cargo Hook Rigging

Extreme care must be exercised in rigging a load to the Cargo Hook. If the load ring is too big it may work its way around the end of the load beam and be supported for a time on the keeper and then fall free. If the load ring is too small it may jam itself against the load beam during an attempted release.

The following illustrations show recommended rigging configurations and potential difficulties that must be avoided.



The examples shown on the following pages are not intended to represent all problem possibilities. It is the responsibility of the operator to ensure that the cargo hook will function properly with the rigging.



Rotorcraft Flight

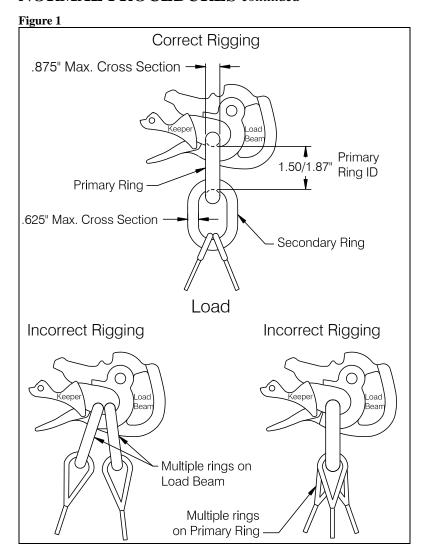
Manual Supplement

MD369/500 Cargo Hook Kit

Document Number 121-043-00

Page FAA Approved 5 of 11 JUN - 3 2014

IV. NORMAL PROCEDURES continued





Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

Page FAA Approved JUN - 3 2014

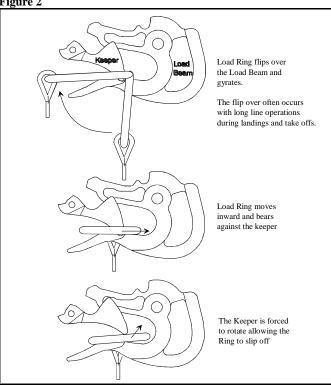
IV. NORMAL PROCEDURES continued

Un-Commanded Release Due to Too Large of a Load Ring



Load rings that are too large will cause an uncommanded release. The ring will flip over the end of the load beam and flip the keeper up and then fall free. Only correctly sized load rings must be used. See example below.

Figure 2





Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

FAA Approved JUN - 3 2014 7 of 11

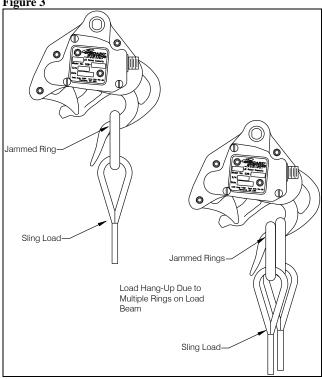
NORMAL PROCEDURES continued IV.

Load Hang-Up due to Too Small of a Load Ring or Multiple Load Rings



Load rings that are too small or multiple load rings will hang on the load beam when the load is released. Only correctly sized load rings must be used. See example below.

Figure 3



	1	2											
$\subseteq_{\mathcal{E}}$	\exists	H	V	E	3		7	L	4	F	₹) ™
		•	Š	7	1	2	3	7	٦Ī	Ē	٦	1	5
1	N			_			_	_	_	_	_		_

Rotorcraft Flight Manual Supplement MD369/500 Cargo Hook Kit Document Number 121-043-00

FAA Approved Page JUN -3 2014 8 of 11

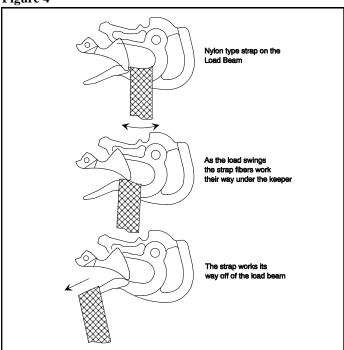
IV. NORMAL PROCEDURES continued

Un-Commanded Release Due to Nylon Type Straps



Nylon type straps (or similar material) must not be used directly on the cargo hook load beam as they have a tendency to creep under the keeper and fall free. If nylon straps must be used they should first be attached to a correctly sized primary ring. Only the primary ring should be in contact with the load beam. See example below.

Figure 4



		1												_
L	3	1	V	E	3	C	7	F	4	F	₹	C) ™	
		9	3	`	1	9	3	1			٨	1	5	
1	N	$\boldsymbol{\tau}$	E	R	N	A	$\boldsymbol{\tau}$	1		N	A	L		

Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

Page FAA Approved 9 of 11 JUN - **3** 2014

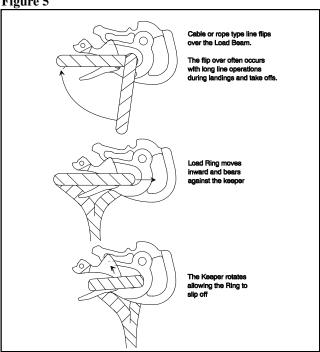
IV. NORMAL PROCEDURES continued

Un-Commanded Release Due to Cable or Rope Type Straps



Cable or rope type straps must not be used directly on the cargo hook load beam. Their braided eyes will work around the end of the load beam and fall free. If cable or rope is used they should first be attached to a correctly sized primary ring. Only the primary ring should be in contact with the load beam. See example below.

Figure 5



	~						
\subseteq	3	N	IB		A	R	$\mathbf{D}^{\scriptscriptstyle{TM}}$
		5	iY	5	T	E٨	45
1	N	T E	RN	A T	1 0	N A	L

Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

FAA Approved 10 of 11 JUN -3 2014

V. PERFORMANCE

The basic Flight Manual and the "Cargo Hook Kit" Rotorcraft Flight Manual Supplement issued by MD Helicopters, Inc. remain applicable.

VI. WEIGHT AND BALANCE DATA

The "Cargo Hook Kit" Rotorcraft Flight Manual Supplement issued by MD Helicopters, Inc. remains applicable.



Rotorcraft Flight
Manual Supplement
MD369/500 Cargo Hook Kit

Document Number 121-043-00

Page FAA Approved 11 of 11 JUN - 3 2014