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MECHANICAL SPECIALTIES, LLC REPORT UH1-430-105
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

For

MECHANICAL SPECIALTIES MODEL
UH1-430-250-200
FAST ROPE GANTRY SYSTEM

For

Bell Helicopters, Inc. Medium Series of Rotorcraft

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Original Author:	J. Goodwin	Revision Author:	J. Harn
Date:	2/25/2026	Date:	5/26/2026

CHANGE LOG

Rev.	Author	Date	Description of Changes
I/R	J. Goodwin	2/25/2026	Original Release
1	J. Harn	5/26/2026	<u>All Sections</u> Performed an overall document revision of grammar, word choice, clarity, conciseness, flow, redundancy, accuracy, formatting, etc. <u>Preliminary Section</u> Added missing items to Table of Contents, List of Figures, and List of Tables; adjusted letter casing; removed items from List of References that were not referenced in the document, updated revision levels <u>Section 1.0</u> Added information regarding installation on twin-engine Bell Mediums; improved quality of figures; added figures for twin-engine installations <u>Section 2.0</u> Added new items to Table 2.1 to encompass twin-engine installations; updated revision level in “Included Documentation” <u>Section 3.0</u> Reworded introduction; reworded and organized Sub-section 3.1 introduction; added entirety of Sub-section 3.5; transferred Item 75 from Table 3.1 to Table 3.3, removed associated foot-note; added trailing numbers to figure titles with equivalent titles <u>Section 5.0</u> Removed “Refer also to the Following” section to reduce redundancy existing in the paragraph previous

This Instructions for Continued Airworthiness Manual will be distributed with every kit sold, either on paper or electronically.

Updates to this manual are available online at www.mechspecialties.com/documents or by calling (360) 753-7200. Revisions will be disseminated to current customers via email address on file.

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LIST OF REFERENCES

1. Mechanical Specialties, LLC Report UH1-430-100, Structural Static Load Test Plan/Report, Revision 1, dated 2/23/2026, or later.

2. Mechanical Specialties, LLC Report, Gantry Installation & Operation Manual, Revision 2, dated 5/26/2026, or later.

3. Mechanical Specialties, LLC drawing UH1-430-250-200, UH1 Fast Rope Gantry Installation, Revision 0, dated 2/25/2026, or later.

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1.0 INTRODUCTION

1.1 PURPOSE

This document contains the Instructions for Continued Airworthiness (ICA) for the Mechanical Specialties, LLC Model UH1-430-250-200 Fast Rope Gantry System. This Gantry System is for BELL Helicopters 204B, 205A, 205B, 205A-1, 212, 412, 412CF, 412EP, & UH-1 Series of Rotorcraft, henceforth referred to as the "Bell Medium."

1.2 SYSTEM DESCRIPTION

Mechanical Specialties, LLC has designed the UH-1 Fast Rope Gantry System for the Bell Medium series of helicopters, for use by highly-trained law enforcement and military personnel practicing "Fast Rope Insertions" or "Fast Roping."

This system **DOES NOT** constitute a Human External Cargo System as defined in 14 CFR 29.865 or by any other means where such definitions apply.

The system consists of two independent gantry assemblies, and associated mounting provisions, (see Table 2.1). The system may be installed in a single- or twin-engine Bell Medium, with only the safety strap mounting method differing. At the operator's discretion, the installation may only include either a right-hand or a left-hand gantry. See Figures 1.1-1.6 for the respective configurations. Also note that the left-hand and right-hand gantries are reversible with minimal alteration required. See Section 3.0 for further details. Due to the specific use-case of fast rope insertions, only the vertical condition (0°) is approved for use with this system. See Figure 1.0 for details.

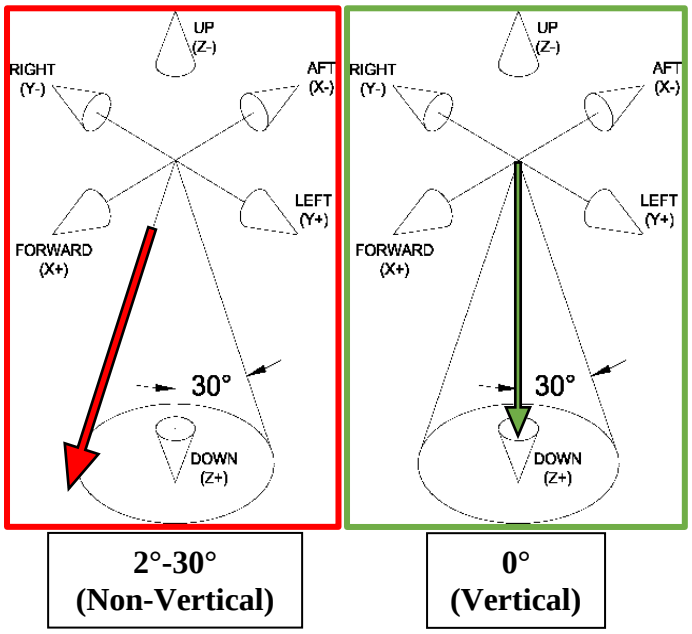


Figure 1.0: Non-Vertical vs Vertical Loadings for UH1 Fast Rope Gantry

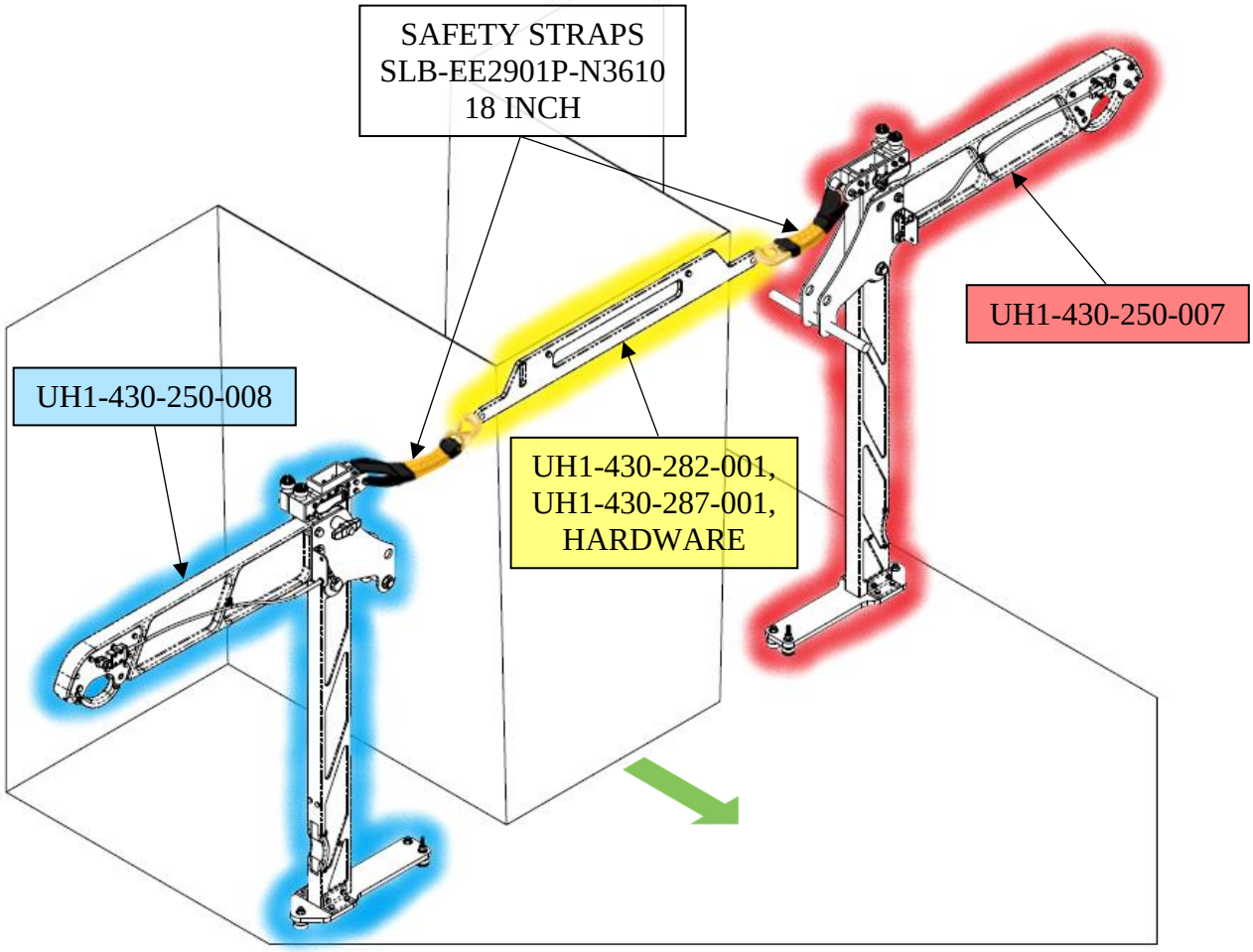


Figure 1.1: UH1-430-250-200 Single-Engine Installation (FULL INSTALL)
Note: Green Arrow Indicates Front of Aircraft
Note: The safety lifting straps are installed between the pylon beam and the gantries. See Figure 1.7 for example from installation on aircraft.

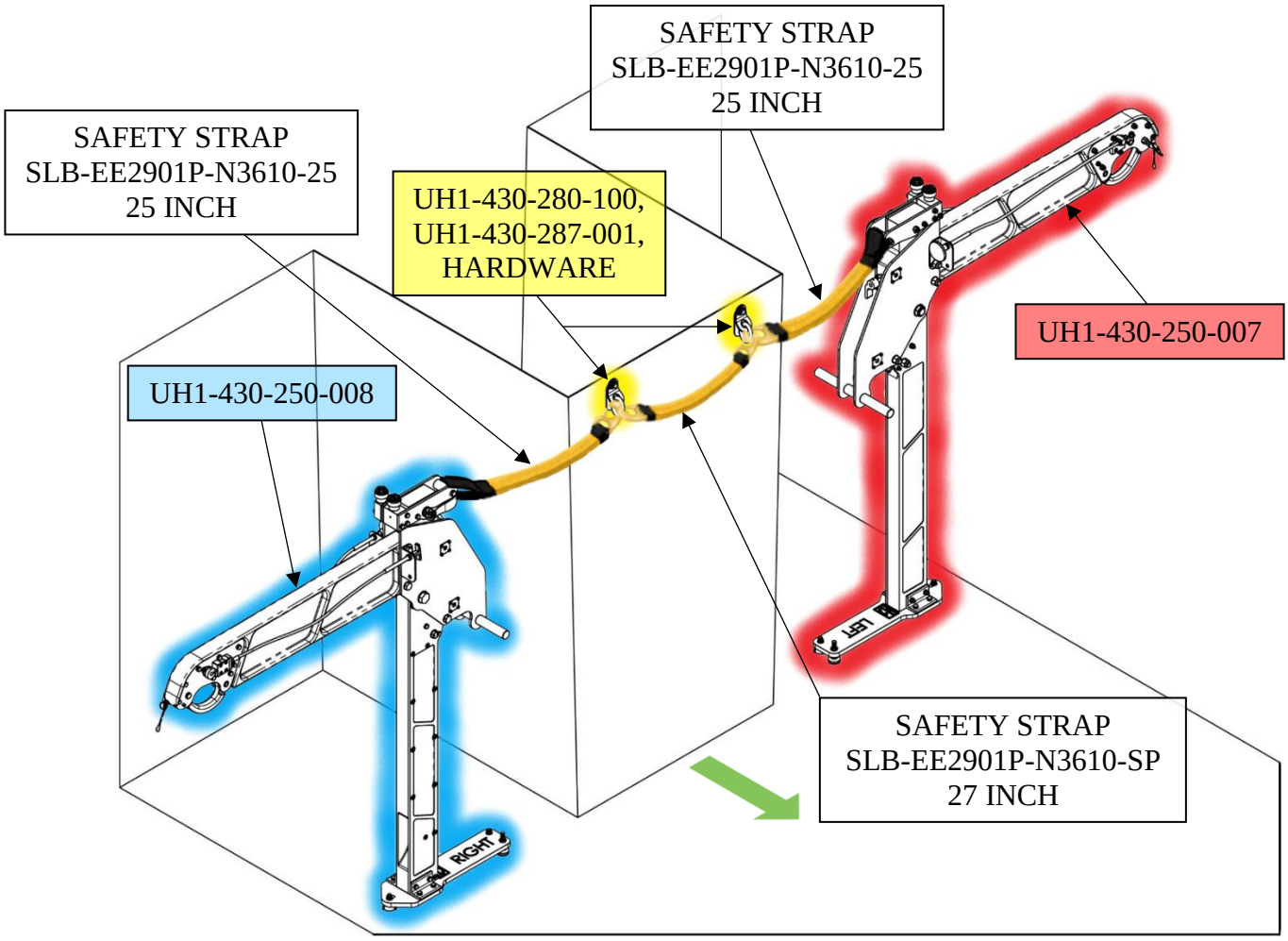


Figure 1.2: UH1-430-250-200 Twin-Engine Installation (FULL INSTALL)
Note: Green Arrow Indicates Front of Aircraft
Note: The safety lifting straps are installed between the tie-down rings and the gantries. See Figure 1.7 for example from installation on aircraft.

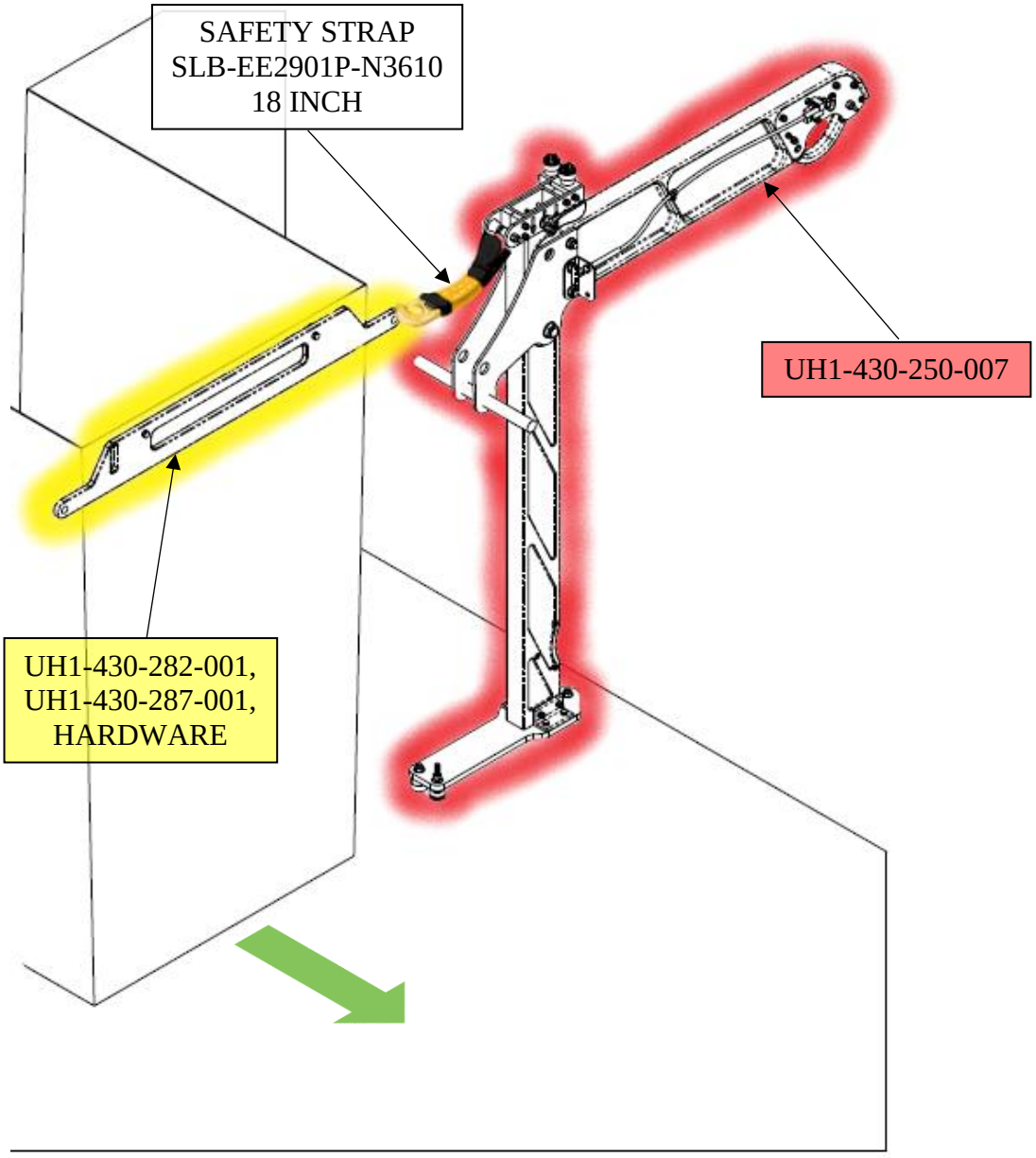


Figure 1.3: UH1-430-250-007 Single-Engine Installation (LH ONLY)
Note: Green Arrow Indicates Front of Aircraft
Note: The safety lifting strap is installed between the pylon beam and the gantry. See Figure 1.7 for example from installation on aircraft.

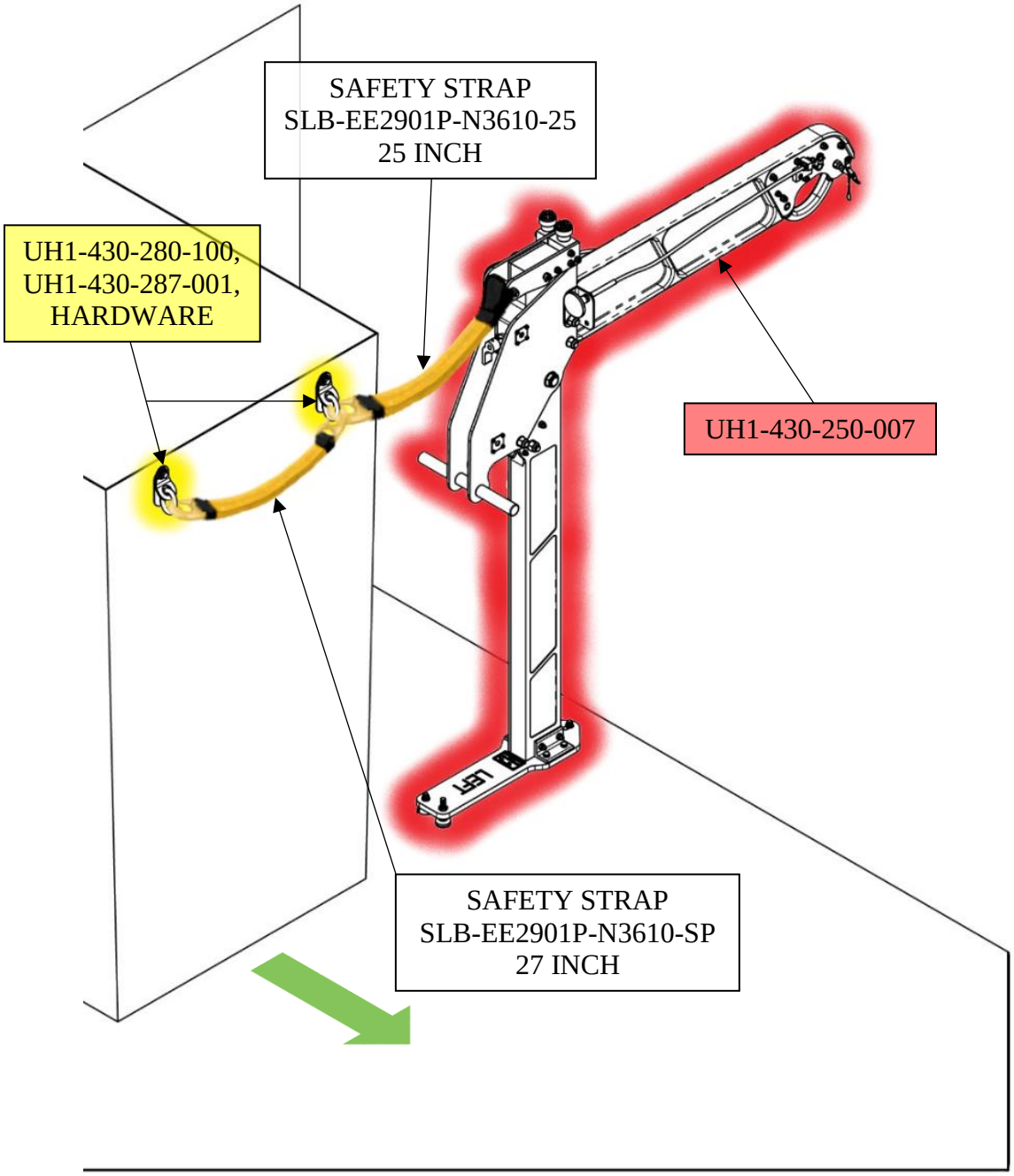


Figure 1.4: UH1-430-250-007 Twin-Engine Installation (LH ONLY)
Note: Green Arrow Indicates Front of Aircraft
Note: The safety lifting straps are installed between the tie-down rings and the gantry. See Figure 1.7 for example from installation on aircraft.

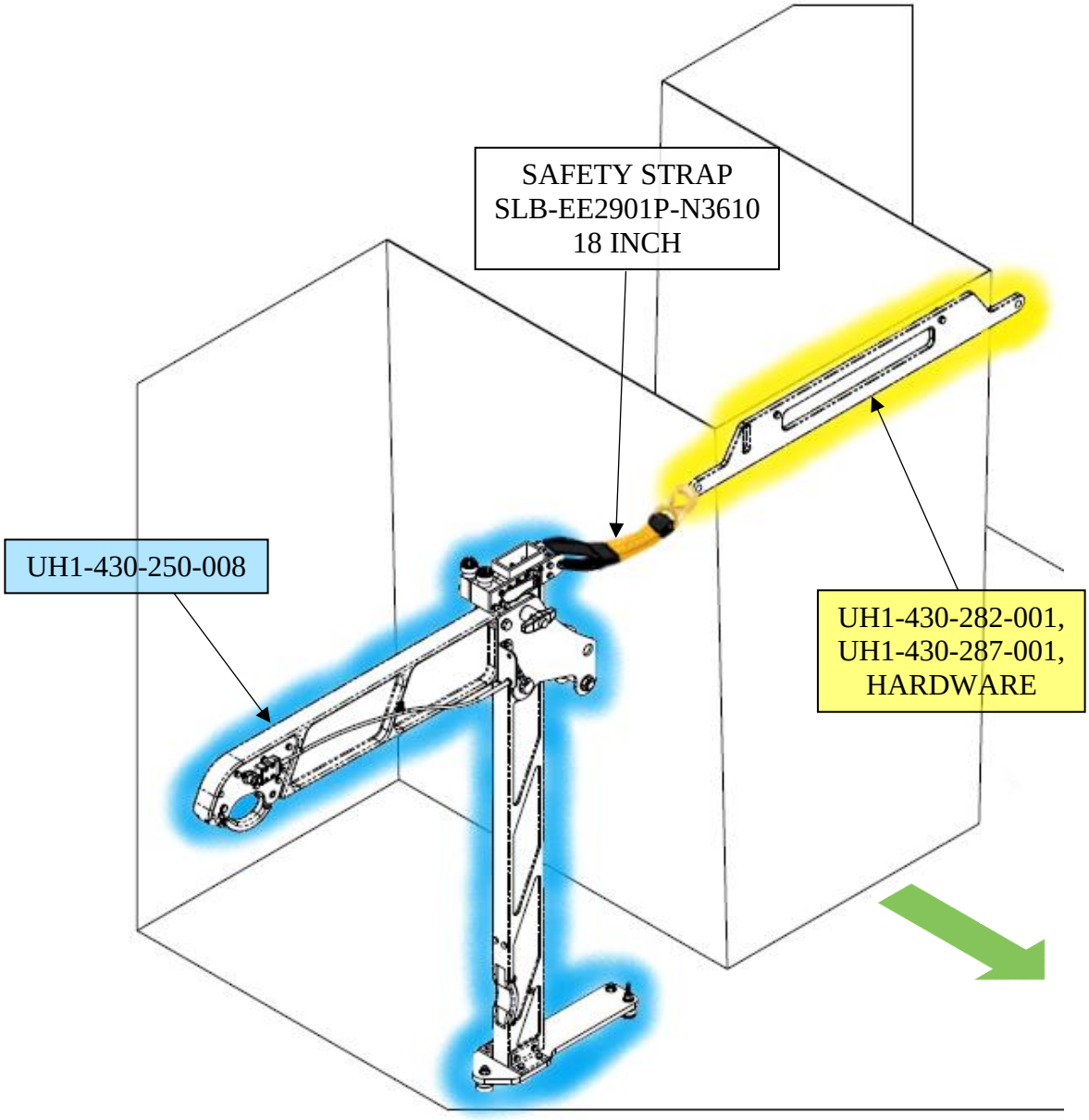


Figure 1.5: UH1-430-250-008 Single-Engine Installation (RH ONLY)
Note: Arrows Indicate Front of Aircraft
Note: The safety lifting strap is installed between the pylon beam and the gantry. See Figure 1.7 for example from installation on aircraft.

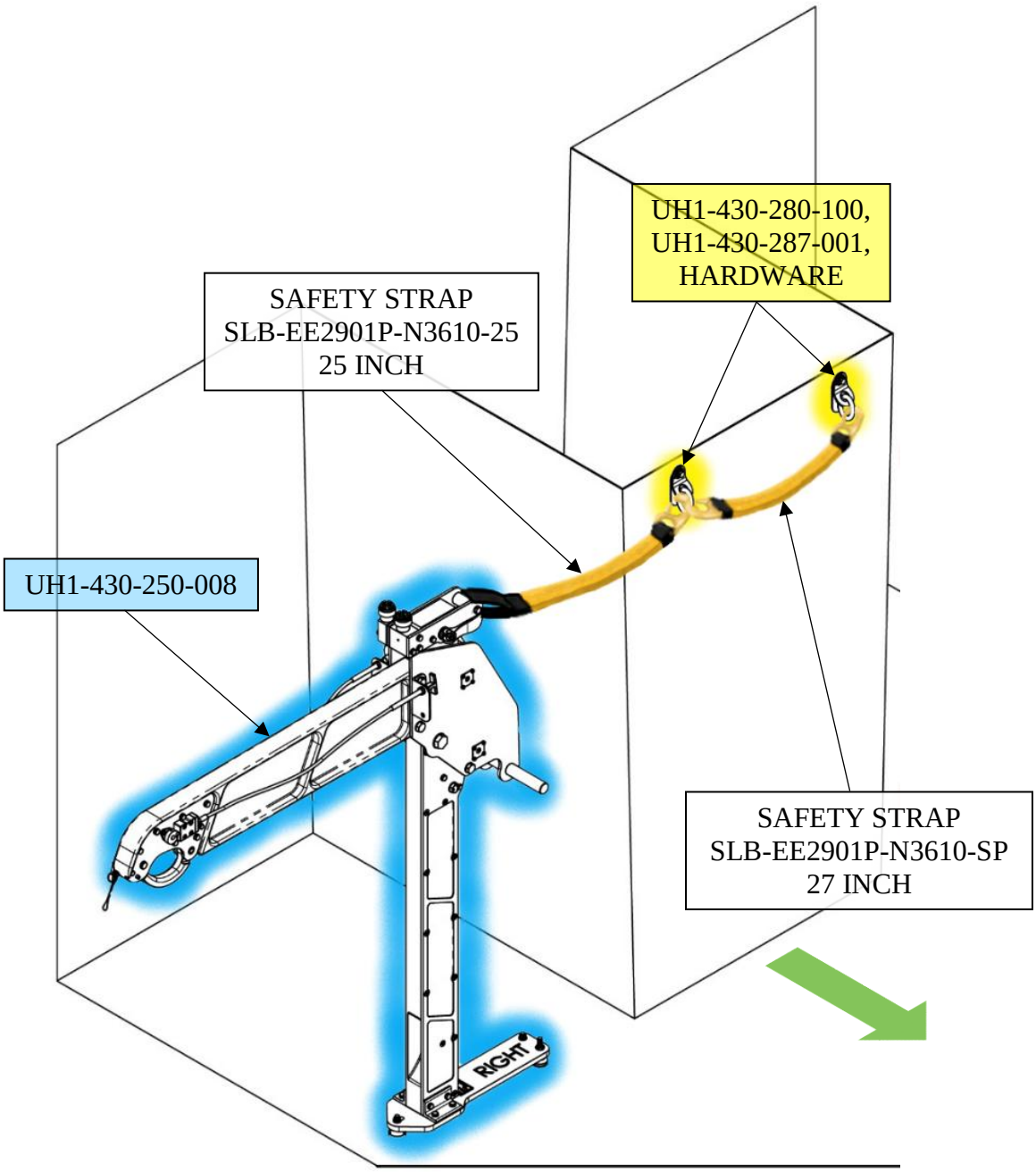


Figure 1.6: UH1-430-250-008 Twin-Engine Installation (RH ONLY)
Note: Green Arrow Indicates Front of Aircraft
Note: The safety lifting straps are installed between the tie-down rings and the gantries. See Figure 1.7 for example from installation on aircraft.



Figure 1.7: Safety Strap Installation (-007 & -008)

2.0 INCLUDED WITH INSTALLATION KIT

Table 2.1: Items Included with UH1-430-250-200 Kit

Components	Description	Qty.
UH1-430-250-007	UH-1 FAST ROPE GANTRY (LH)	1
UH1-430-250-008	UH-1 FAST ROPE GANTRY (RH)	1
UH1-430-111-100	UH-1 SINGLE-ENGINE SAFETY RIGGING	1
UH1-430-222-100	UH-1 TWIN-ENGINE SAFETY RIGGING	1

Included Documentation
UH1-430-105 Instructions for Continued Airworthiness (this document)
Gantry Install Operation Manual, Rev. 2, dated 5/26/2026

3.0 ILLUSTRATED PARTS BREAKDOWN (IPB)

See below for detail and exploded drawings of the various components that comprise the Fast Rope Gantry System. Drawings in each section are followed by a Bill of Material detailing individual parts and quantities.

3.1 GANTRY LOWER MOUNTS -007 VS -008 (LH VS RH)

The UH1-430-250-007 (Left-Hand) and UH1-430-250-008 (Right-Hand) assemblies share an identical parts list. The difference between the two assemblies lies in the orientation of the mounting sub-assemblies. A left-hand gantry (-007) is installed onto the left-hand side of the aircraft, and likewise the right-hand gantry (-008) is installed on the right-hand side of the aircraft. See the below figures for the differences in mounting orientation.

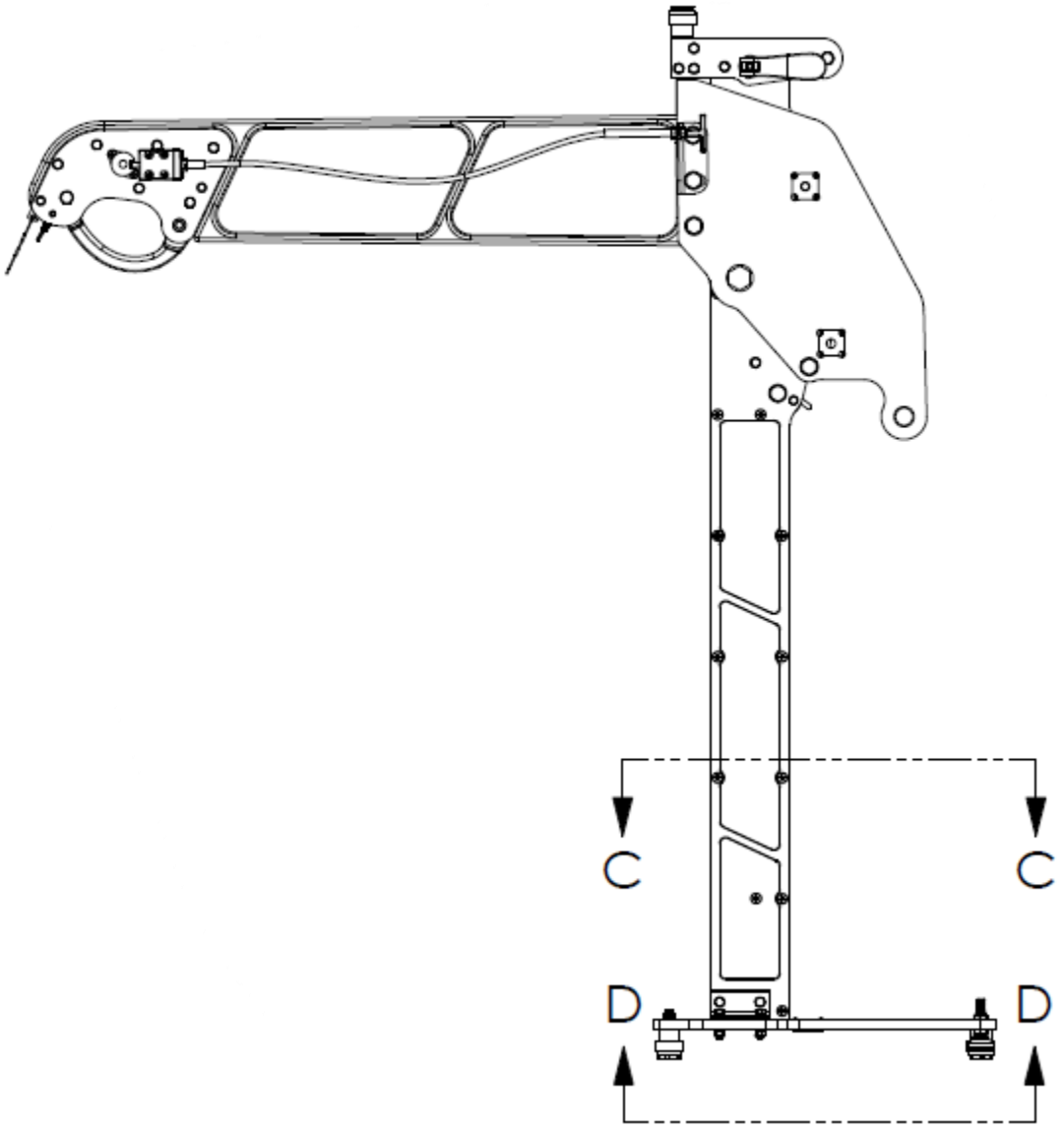


Figure 3.1: UH1-430-250-008 (Looking Forward)

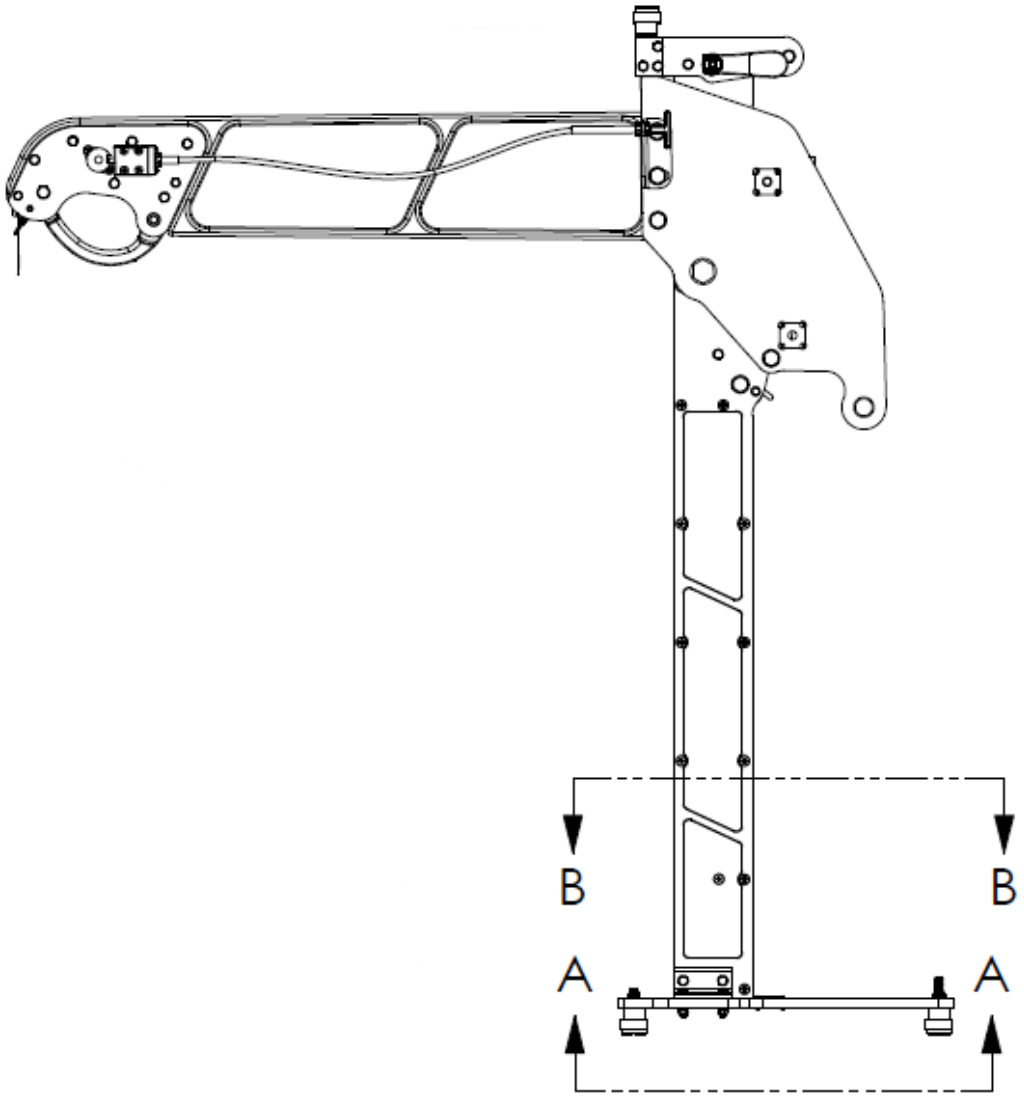


Figure 3.2: UH1-430-250-007 (Looking Aft)

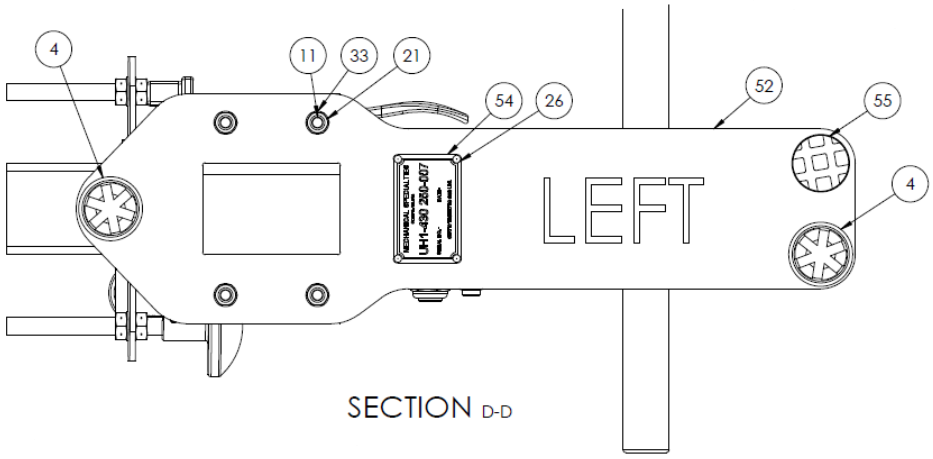


Figure 3.3: Bottom View of UH1-430-250-008 (reversed in -007 assembly)

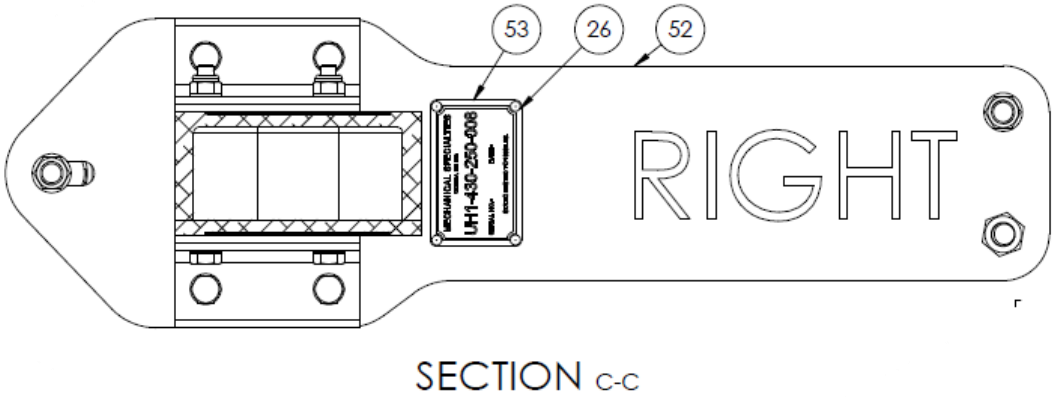
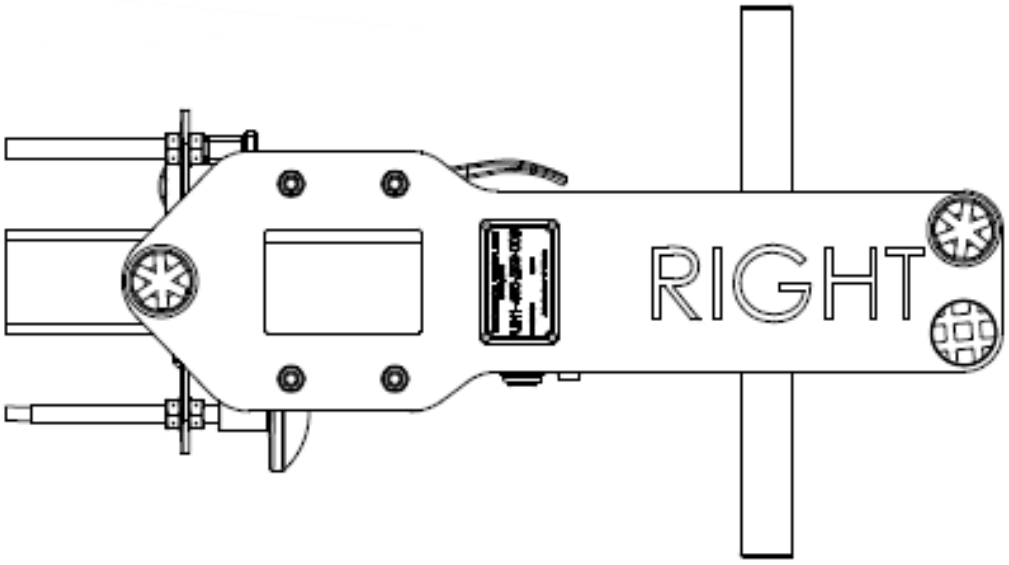
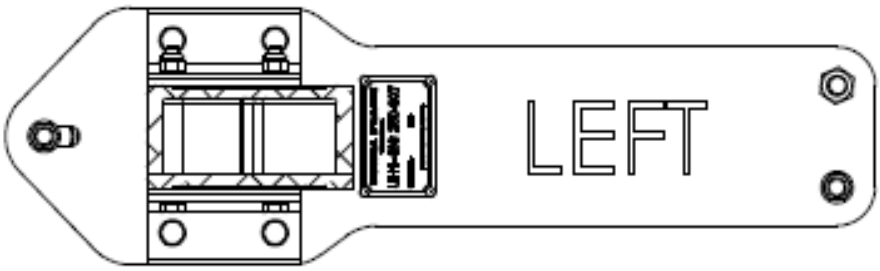


Figure 3.4: Top View of UH1-430-250-008 (reversed in -007 assembly)



SECTION A-A

Figure 3.5: Bottom View of UH1-430-250-007 (reversed in -008 assembly)



SECTION B-B

Figure 3.6: Top View of UH1-430-250-007 (reversed in -008 assembly)

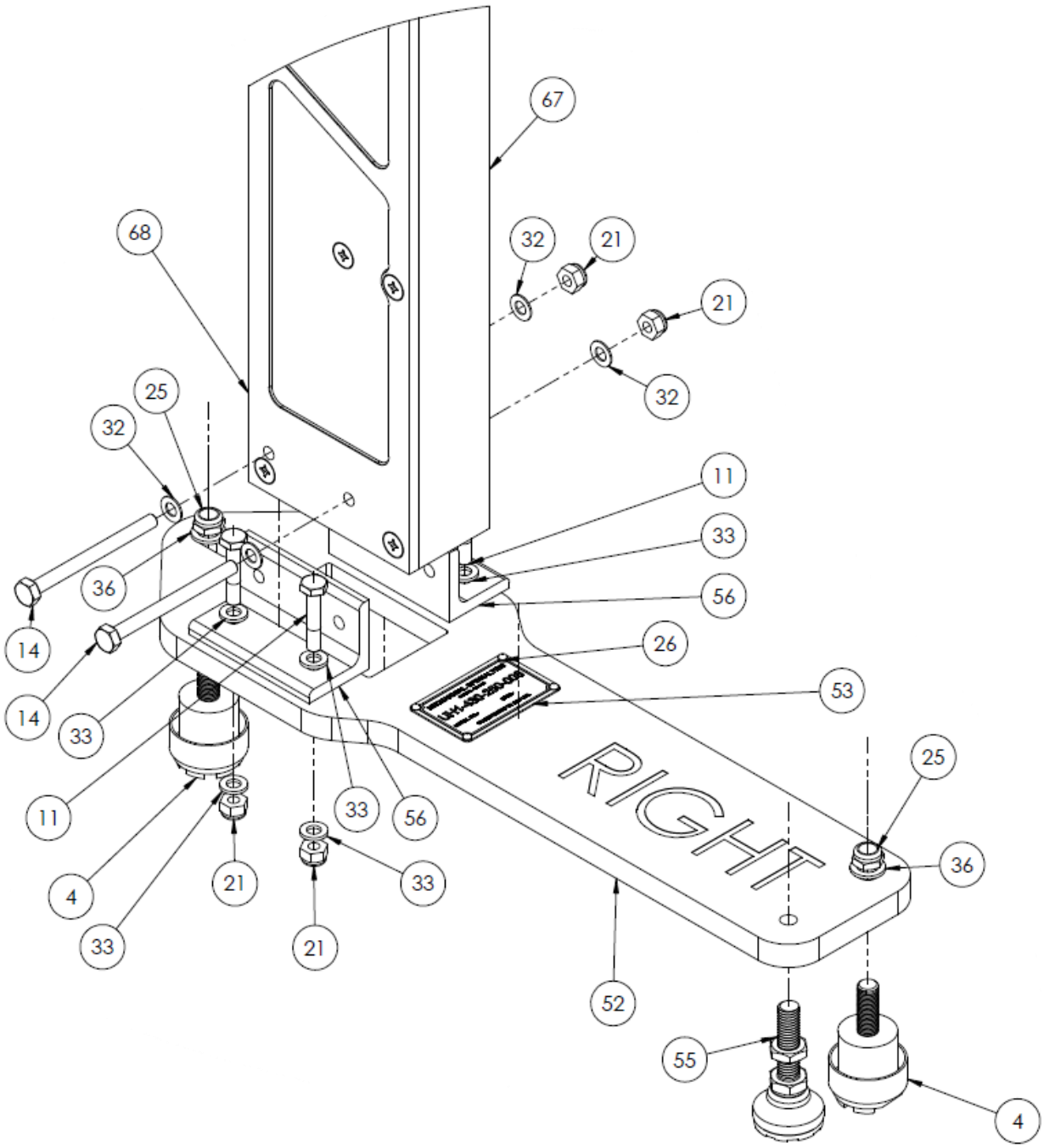


Figure 3.7: Top View of UH1-430-250-008 lower mount (reversed in -007 assembly)

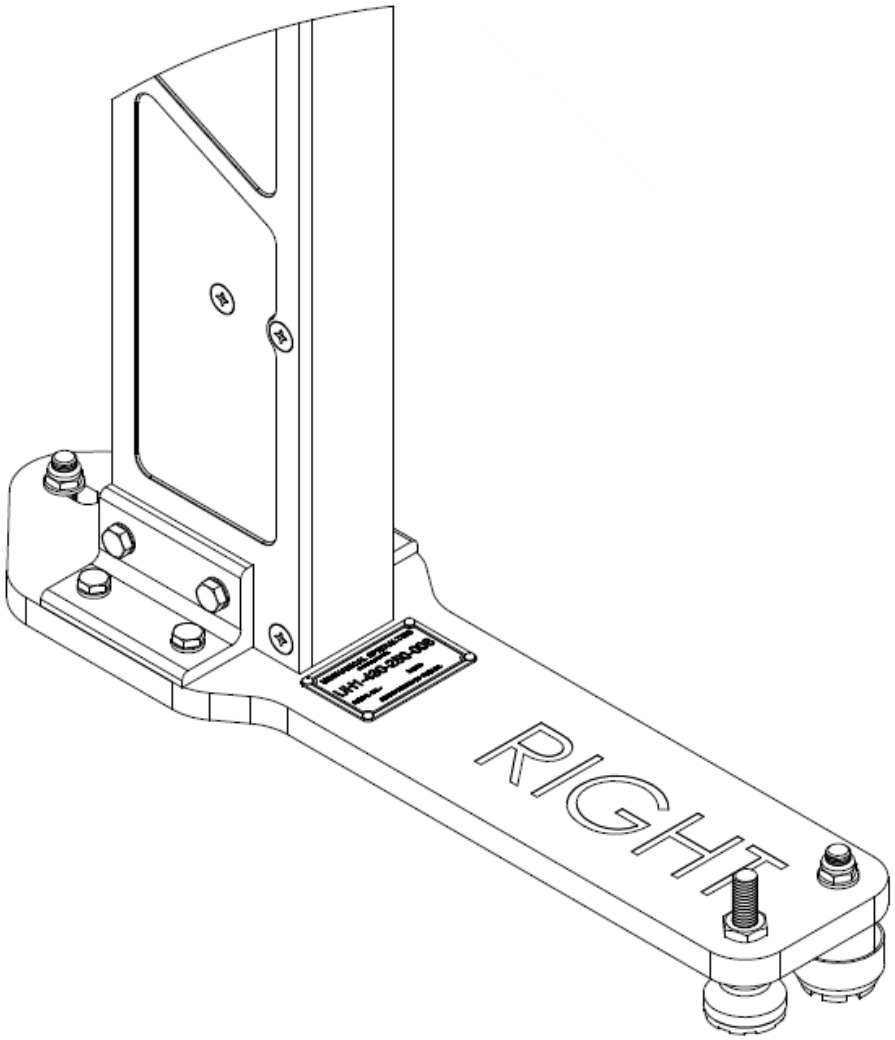


Figure 3.8: Top View of UH1-430-250-008 lower mount (assembled)

3.2 GANTRY UPPER MOUNTS -007 VS -008 (LH VS RH)

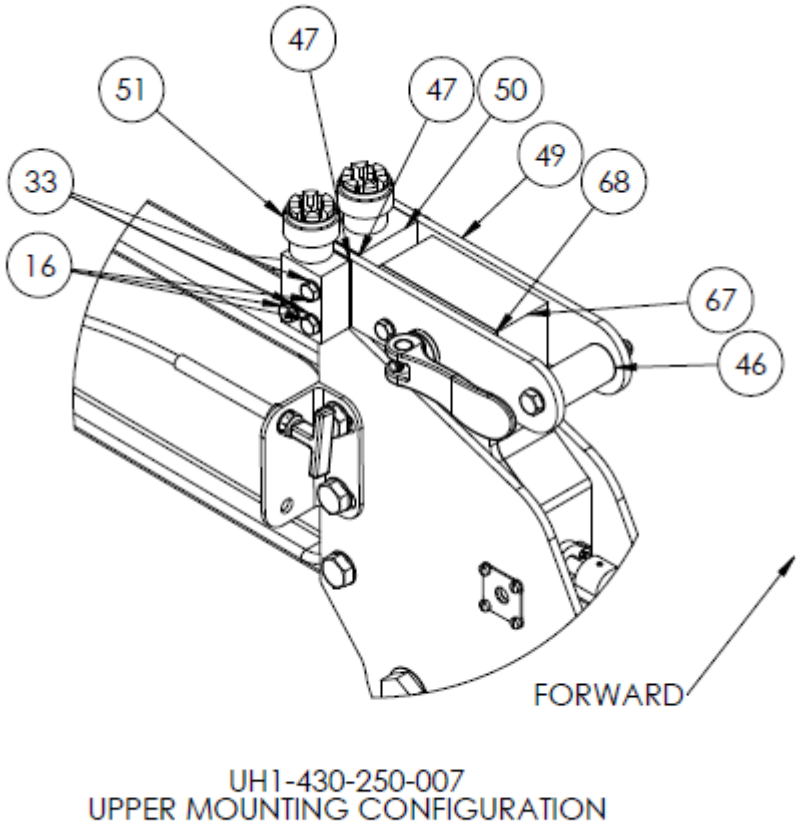


Figure 3.9: Top View of UH1-430-250-007 (reversed in -008 assembly)

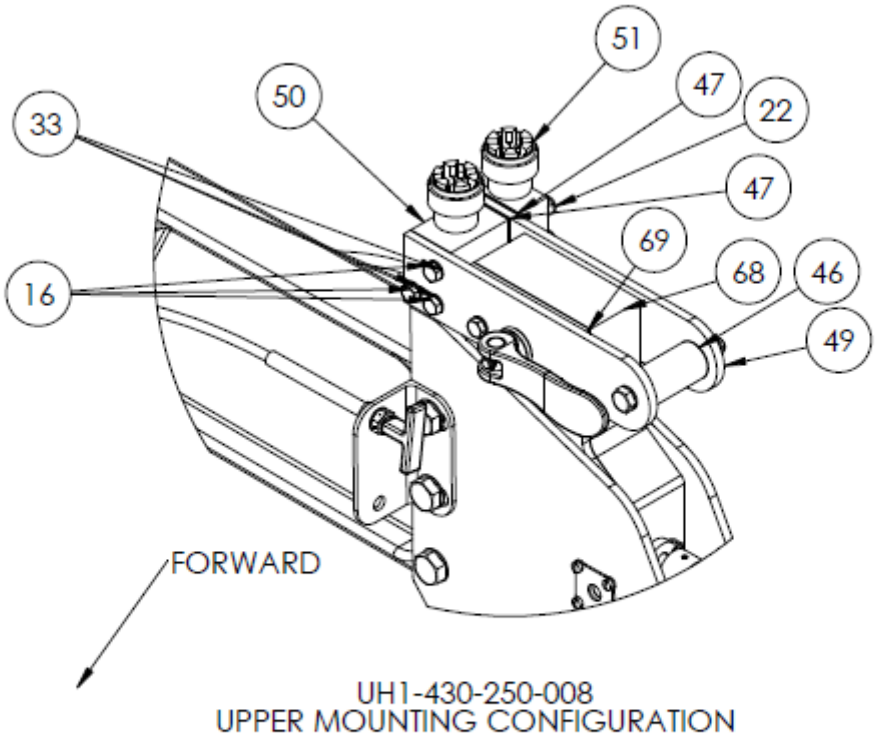


Figure 3.10: Top View of UH1-430-250-008 (reversed in -007 assembly)

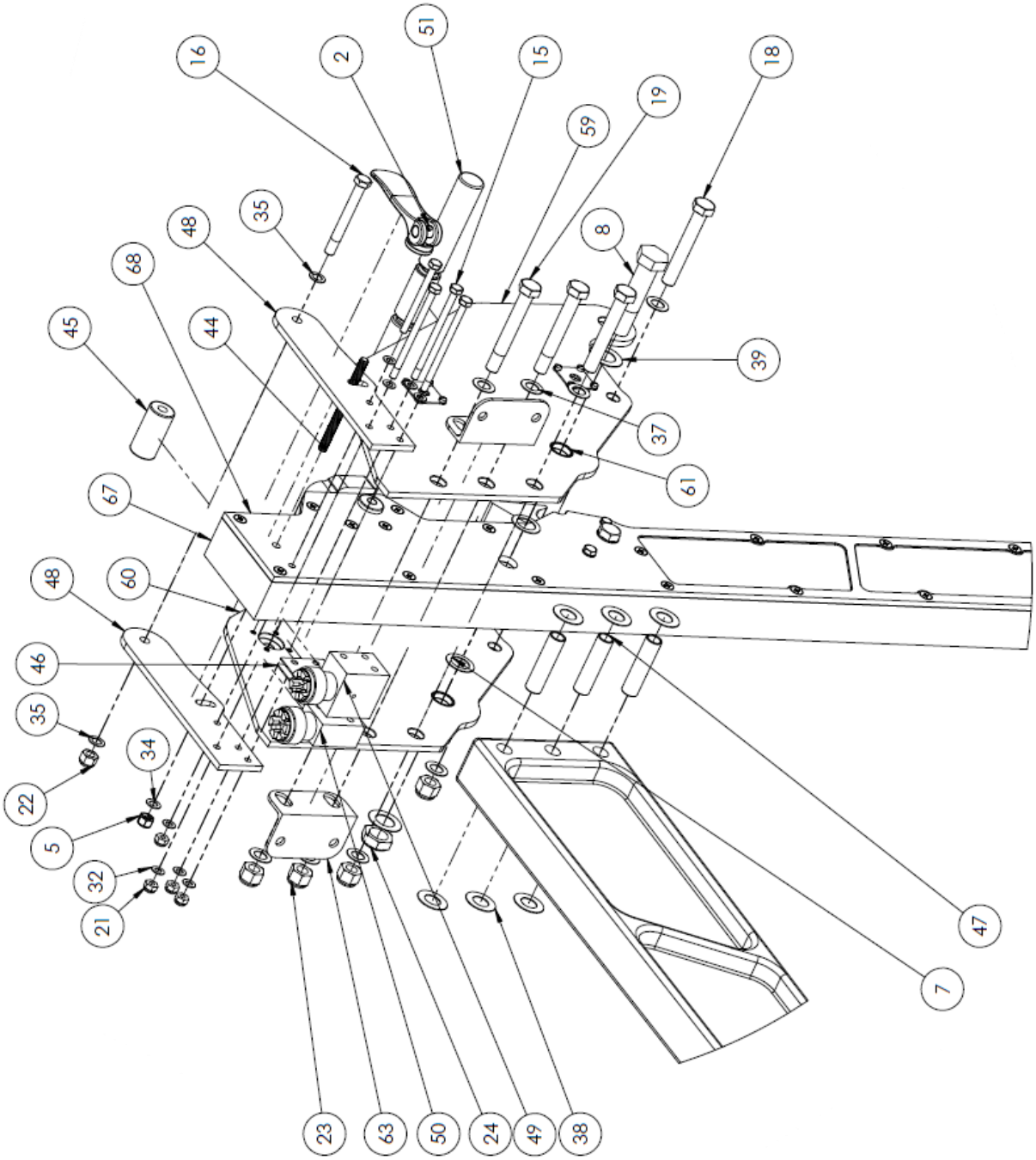


Figure 3.11: Top View of UH1-430-250-008 (reversed in -007 assembly)

3.3 GANTRY ASSEMBLY (COMMON TO BOTH -007 & -008)

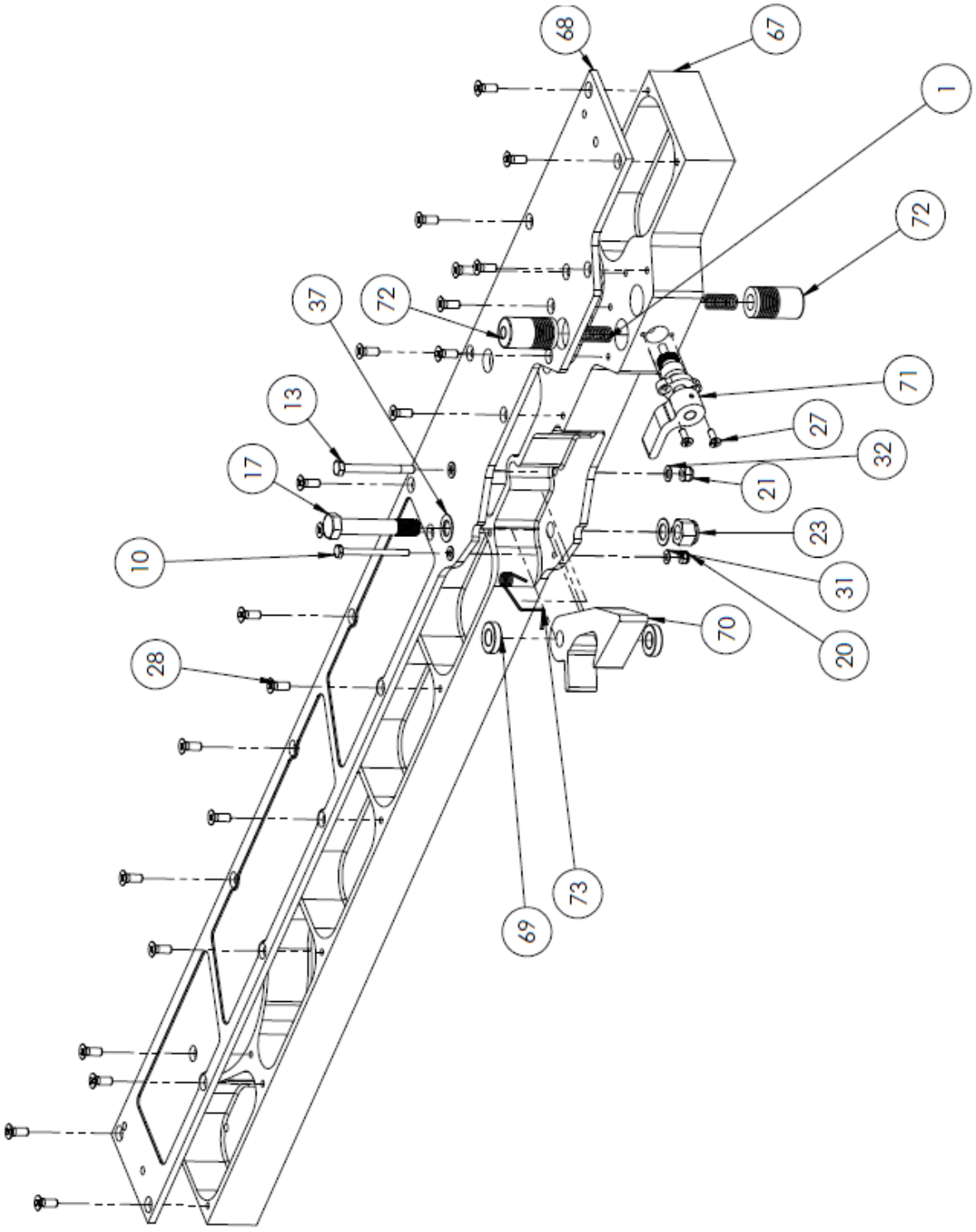


Figure 3.12: Top View of UH1-430-250-008 (reversed in -007 assembly)

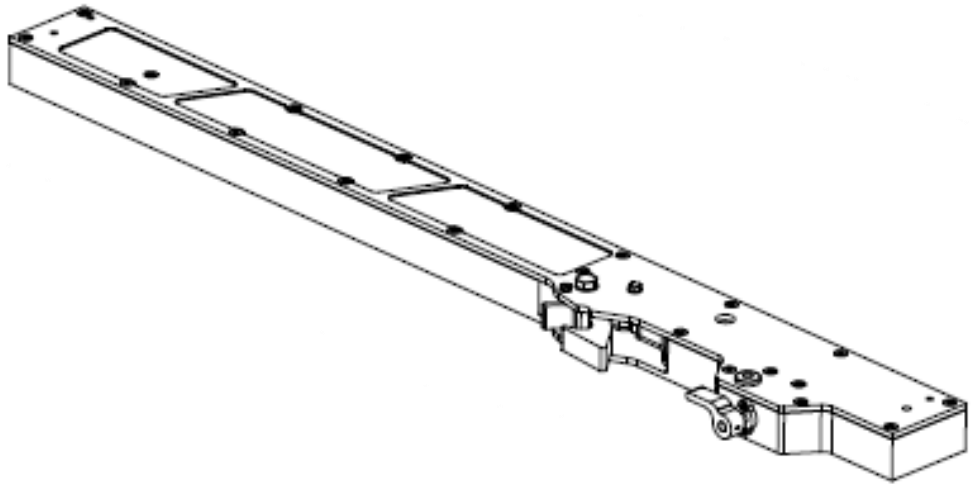


Figure 3.13: View of UH1-430-250-008 (& -007) without Gantry Arm and Hook

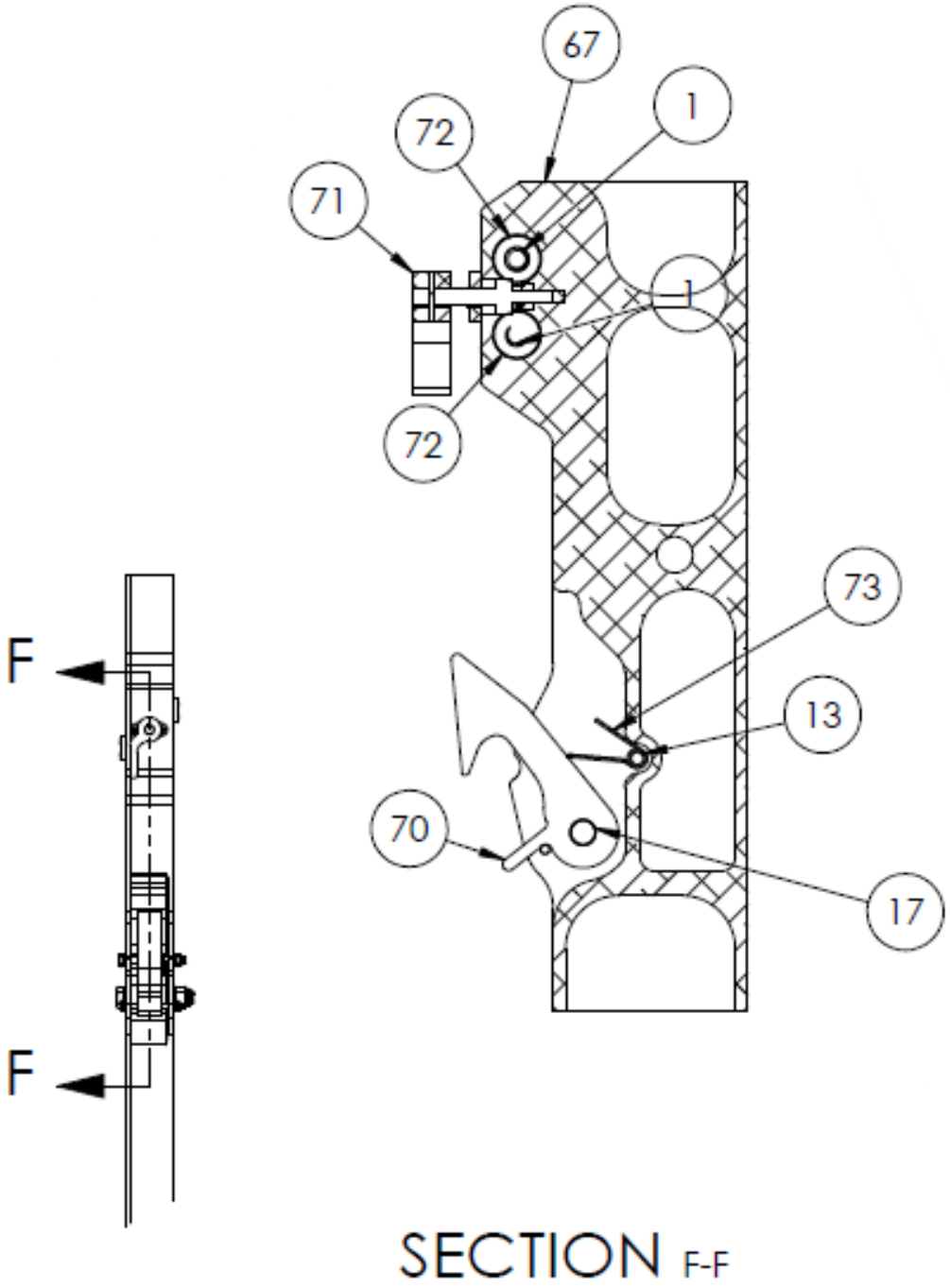


Figure 3.14: Cut-Away View of UH1-430-250-008 (& -007) Safety Hook Mechanism

Table 3.1: UH1-430-250-008 & -007 BOM

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1986K411	SPRING	2
2	2030N16	HANDLE, CAM 5/16-18 THREAD	1
3	30345T285	LANYARD	1
4	33115	CARGO TIE DOWN QUICK DISCONNECT	2
5	90640A130	NUT	1
6	92785A332	SET SCREW	1
7	98090A385	SHIM	2
8	AN12-30A	BOLT	1
9	AN3-15A	BOLT	2
10	AN3-23A	BOLT	1
11	AN4-12A	BOLT	4
12	AN4-16A	BOLT	2
13	AN4-24A	BOLT	1
14	AN4-30A	BOLT	3
15	AN4-40A	BOLT	3
16	AN6-31A	BOLT	1
17	AN8-26A	BOLT	1
18	AN8-32A	BOLT	2
19	AN8-34A	BOLT	2
20	MS21044N3	NUT	3
21	MS21044N4	NUT	13
22	MS21044N6	NUT, SELF LOCKING	1
23	MS21044N8	NUT, SELF LOCKING	5
24	MS21083N12	NUT, SELF LOCKING	1
25	MS21083N6	NUT	2
26	MS21318-14	DRIVE SCREW	8
27	MS24694-S50	SCREW	2
28	MS24694-S97	SCREW	21
29	MS35206-246	SCREW	2
30	MS35265-42	SCREW	16
31	NAS1149F0332P	WASHER	6
32	NAS1149F0432P	WASHER	14
33	NAS1149F0463P	WASHER	12
34	NAS1149F0532P	WASHER	1
35	NAS1149F0632P	WASHER	8
36	NAS1149F0663P	WASHER	2
37	NAS1149F0832P	WASHER	10
38	NAS1149F1032P	WASHER	6
39	NAS1149F1232P	WASHER	2

40	NAS509-6	JAM NUT	6
41*	UH1-430-252-007	HOOK ASSEMBLY	1
42	UH1-430-260-001	RAPPEL ARM	1
43	UH1-430-265-001	QUICK RELEASE PIN, UH1 GANTRY	1
44	UH1-430-268-012	THREADED ROD	1
45	UH1-430-268-013	SPACER	1
46	UH1-430-268-015	SHIM, UH1 GANTRY	2
47	UH1-430-268-018	TUBE, GUIDE, UH1 GANTRY	3
48	UH1-430-268-020	COLLAR PLATE	2
49	UH1-430-268-110	COLLOAR Q/D MOUNT ASSY.	1
50	UH1-430-268-111	COLLAR BLOCK ASSY.	1
51	UH1-430-268-117	DEPLOYMENT HANDLE ASSY.	1
52	UH1-430-269-002	BASE PLATE, UH1 GANTRY	1
53	UH1-430-269-010	DATA TAG, RIGHT , UH1 GANTRY	1
54	UH1-430-269-011	DATA TAG, LEFT , UH1 GANTRY	1
55	UH1-430-269-015	LEVELING PAD, UH1 GANTRY	1
56	UH1-430-270-001	ANGLE, 1.5 X 1.5 X .25 THK	2
57	UH1-430-277-002	CABLE BLOCK CAP	1
58	UH1-430-278-002	PIN, SAFETY LOCK	1
59	UH1-430-281-009	SIDE PLATE, ARM, LEFT, UH1 GANTRY	1
60	UH1-430-281-010	SIDE PLATE, ARM, RIGHT, UH1 GANTRY	1
61	UH1-430-281-012	BUSHING, SIDE PLATE, UH1-GANTRY	2
62	UH1-430-281-025	COVER, LOCK PIN, UH1	4
63	UH1-430-290-001	ANGLE	2
64	UH1-430-291-001	RELEASE CABLE	1
65	UH1-430-292-001	SAFETY CABLE,	1
66	UH1-430-295-001	KNOB, MAIN RELEASE, UH1 GANTRY	1
67	UH1-430-297-020	POST	1
68	UH1-430-297-021	SIDE PLATE, POST	1
69	UH1-430-297-023	SPACER, SAFETY HOOK	2
70	UH1-430-297-025	SAFETY HOOK, UH1 GANTRY	1
71	UH1-430-298-010	LOCK SHAFT ASSY., UH1 GANTRY	1
72	UH1-430-298-012	LOCK PIN, UH1 GANTRY	2
73	UH1-430-299-011	SPRING, SAFETY LATCH, UH1 GANTRY	1
74	71150S	SPRING	1

*Hook Assembly Bill of Materials can be found in Table 3.2

3.4 HOOK ASSEMBLY UH1-430-252-007 (Item 41 in Table 3.1)

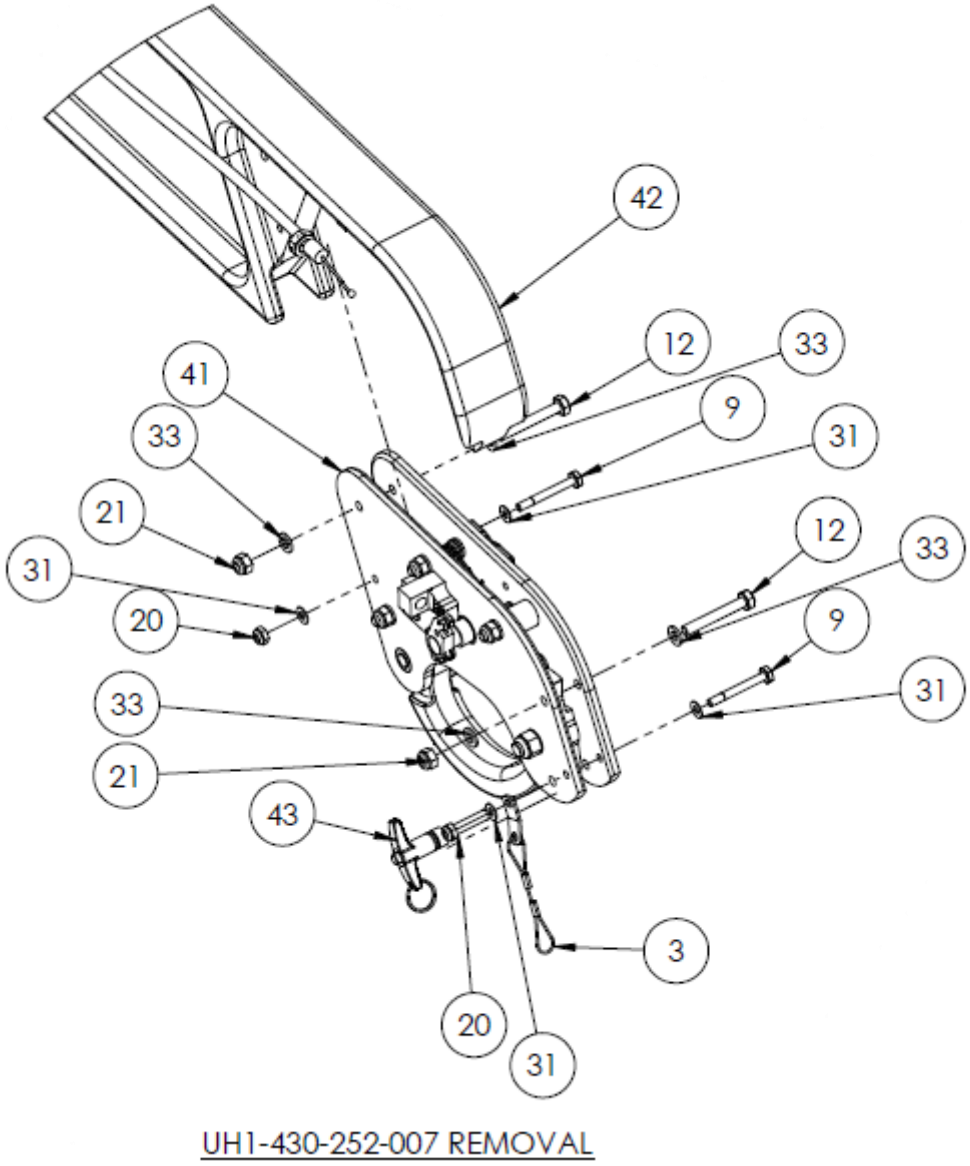


Figure 3.15: Hook Removal (Bolts)

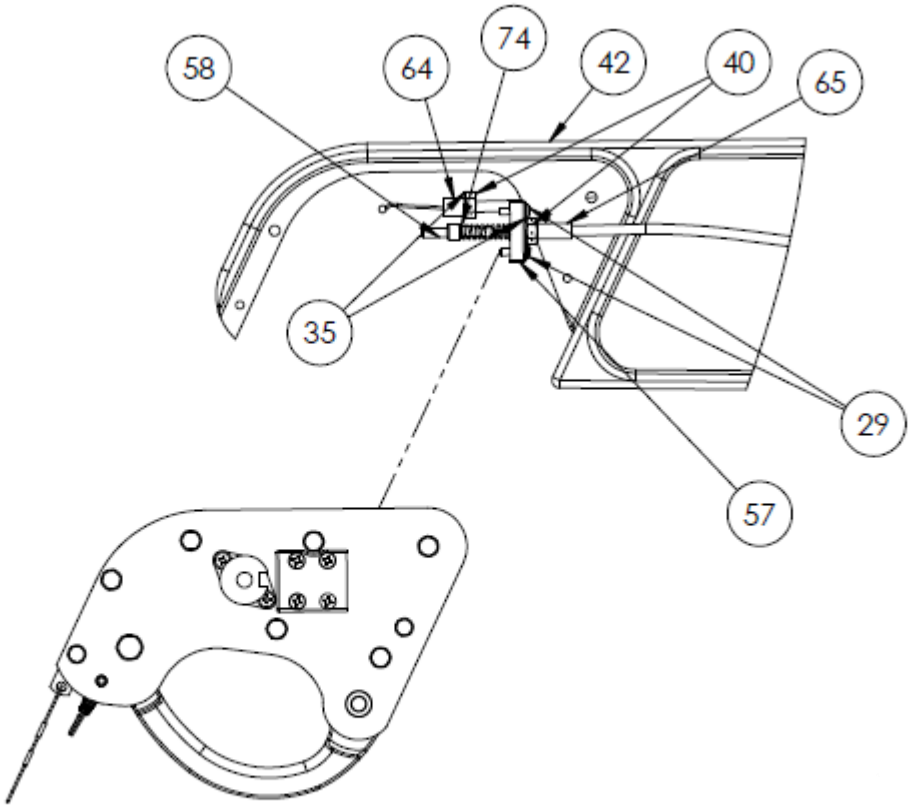


Figure 3.16: Hook Removal (Safety & Release Cables) 1

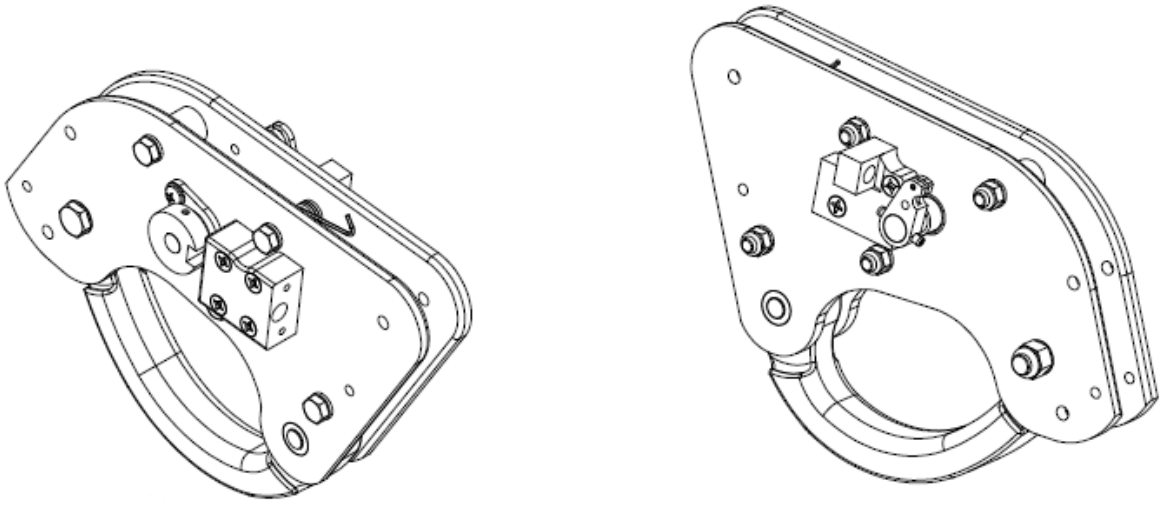


Figure 3.17: Hook Removal (Safety & Release Cables) 2

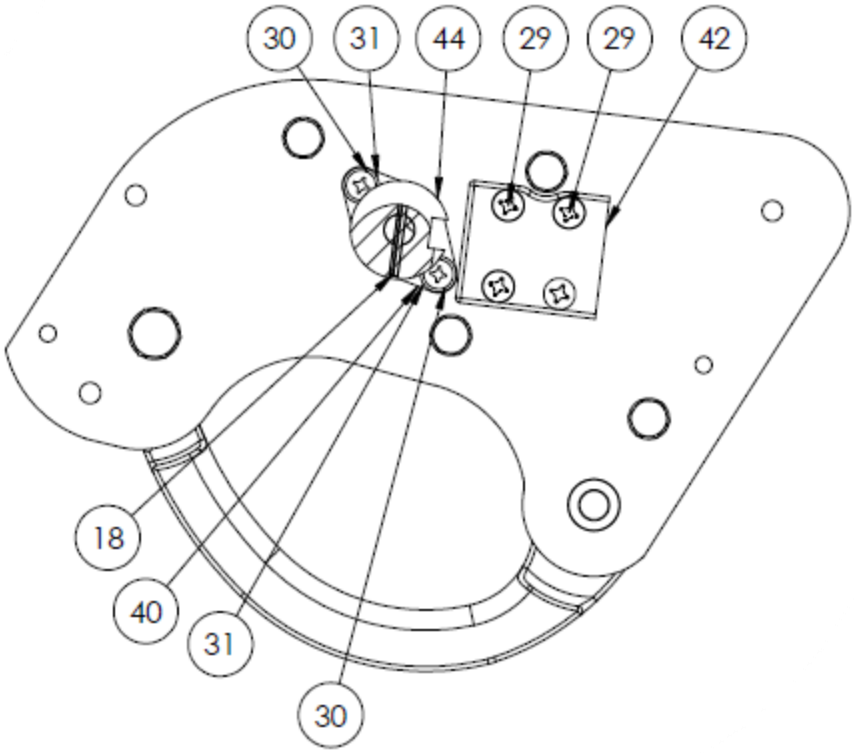


Figure 3.18: Hook Safety Cable Mounting 1

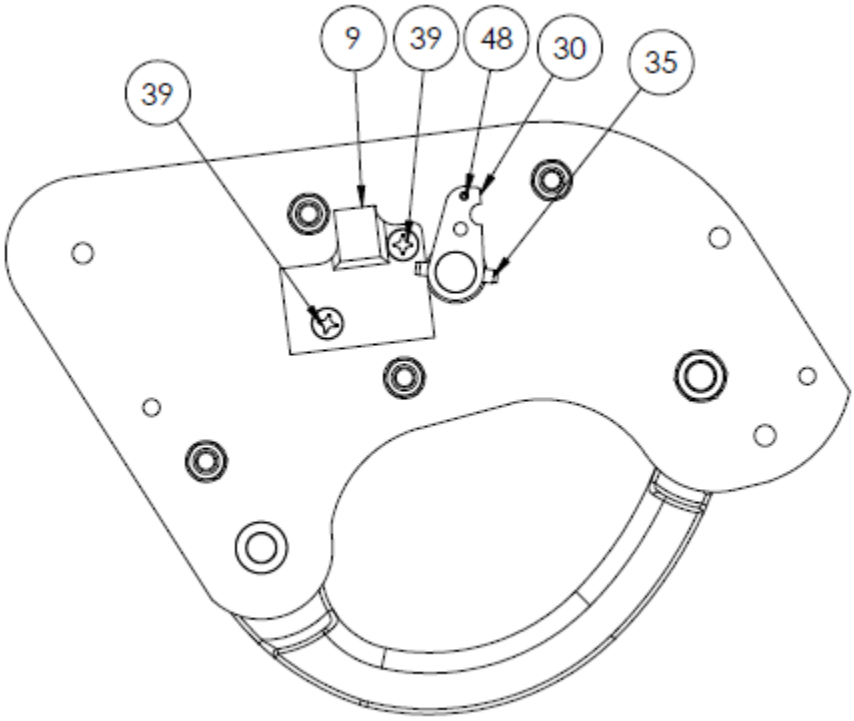


Figure 3.19: Hook Safety Cable Mounting 2

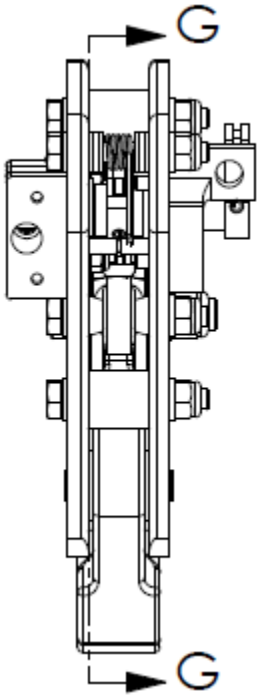


Figure 3.20: Hook Safety Cable Mounting 3

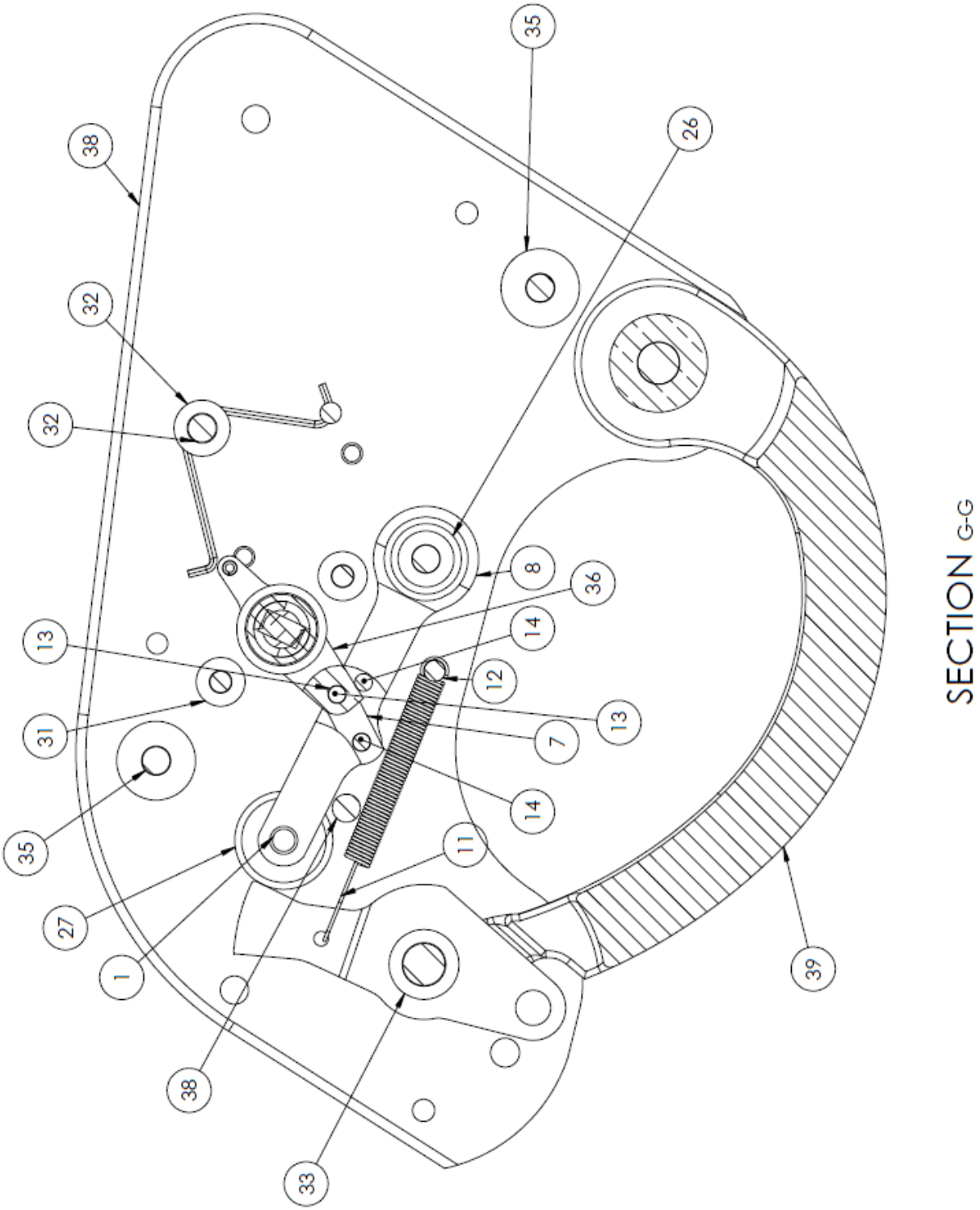


Figure 3.21: Hook Safety Cable Mounting 4

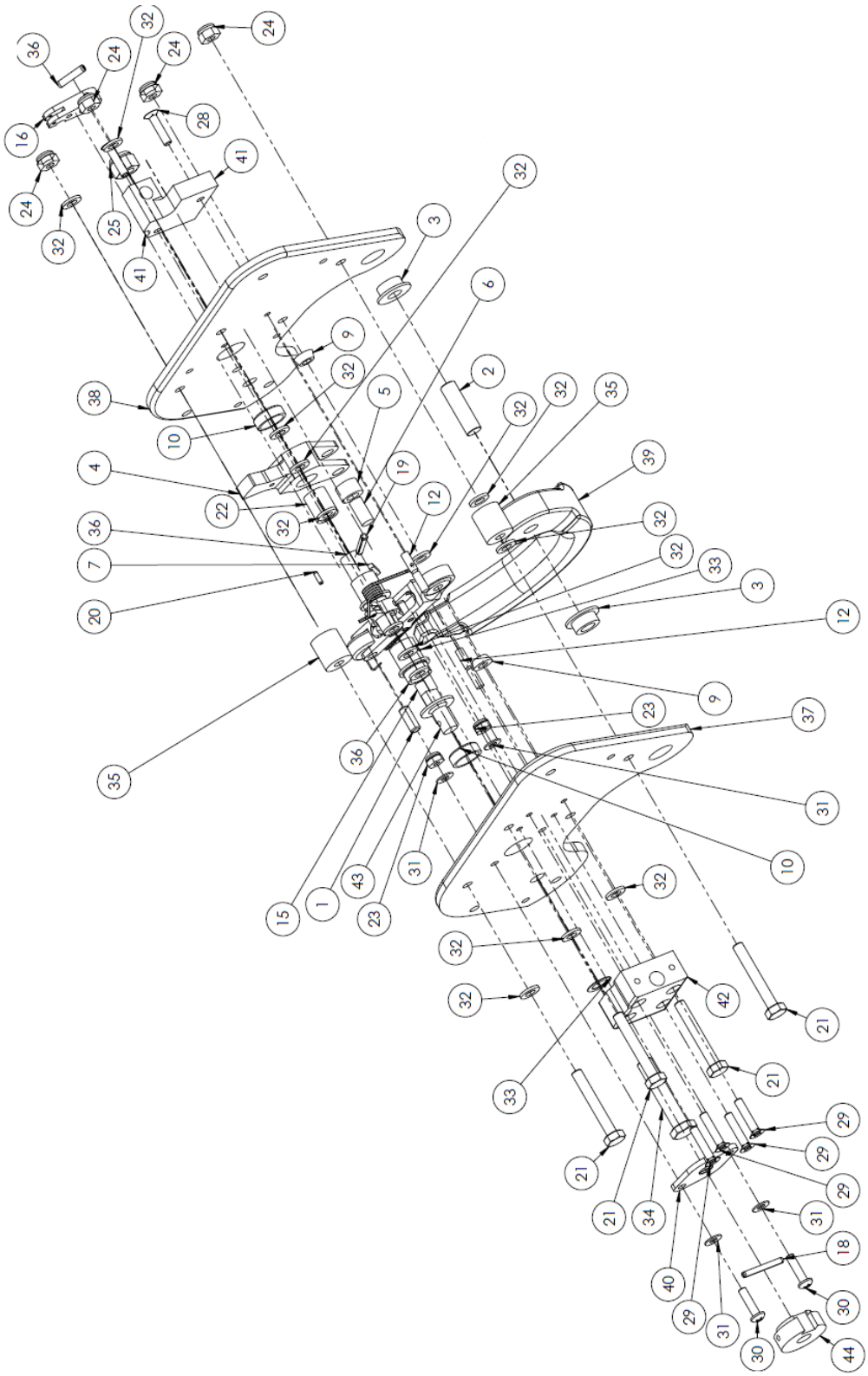


Figure 3.22: Hook Safety Cable Mounting 5

Table 3.2: UH1-430-252-007 BOM (HOOK ASSEMBLY – ITEM NO. 41)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	202-103-4	PIN	1
2	202-104-2	TRUNNION	1
3	202-136-1	BUSHING, TOP ATTACHMENT	2
4	301-010-022-005	LATCH	1
5	301-010-023-001	ROLLER	1
6	301-010-024-500	PIN	1
7	301-010-110-005	LINK	1
8	301-040-008-005	LEVER	1
9	301-040-098-001	BEARING SPACER	2
10	301-050-107-001	BUSHING	2
11	301-060-097-001	SPRING	1
12	301-080-099-001	PIN	2
13	301-080-111-001	PIN, LINK	1
14	301-080-118-001	PIN	2
15	301-080-120-001	PIN	1
16	3148-1	RELEASE ARM	1
17	92373A174	SLOTTED SPRING PIN	1
18	92373A184	SLOTTED SPRING PIN	1
19	92373A217	SLOTTED SPRING PIN	1
20	98296A829	PIN	1
21	AN4-16A	BOLT	4
22	B610	BEARING	1
23	MS21044N3	NUT	2
24	MS21044N4	NUT	4
25	MS21044N6	NUT, SELF LOCKING	1
26	MS24461-4	BEARING	1
27	MS24465-4	BEARING	1
28	MS24694-S55	SCREW	2
29	MS24694-S57	SCREW	4
30	MS35207-265	SCREW	2
31	NAS1149F0332P	WASHER	4
32	NAS1149F0463P	WASHER	14
33	NAS1149F0616P	WASHER	4
34	NAS1306-20	BOLT	1
35	UH1-430-297-024	SPACER STANDOFF	2
36	UH1-430-255-005	MODIFIED SHAFT & ARM ASSY	1
37	UH1-430-262-002	SIDE PLATE, SOLENOID SIDE	1
38	UH1-430-263-002	SIDE PLATE, NON SOLENOID SIDE	1
39	UH1-430-264-002	LOAD BEAM	1
40	UH1-430-265-002	COVER PLATE	1

41	UH1-430-276-001	CABLE BLOCK	1
42	UH1-430-276-002	PIN HOUSING	1
43	UH1-430-289-001	KEY	1
44	UH1-430-293-002	SAFETY LOCK	1
45	UH1-430-299-001	SHAFT AND ARM RETURN SPRING	1

3.5 SAFETY STRAP RIGGING ASSEMBLIES

(NOTE: Safety straps do not appear in detail views, but appear in the BOM)

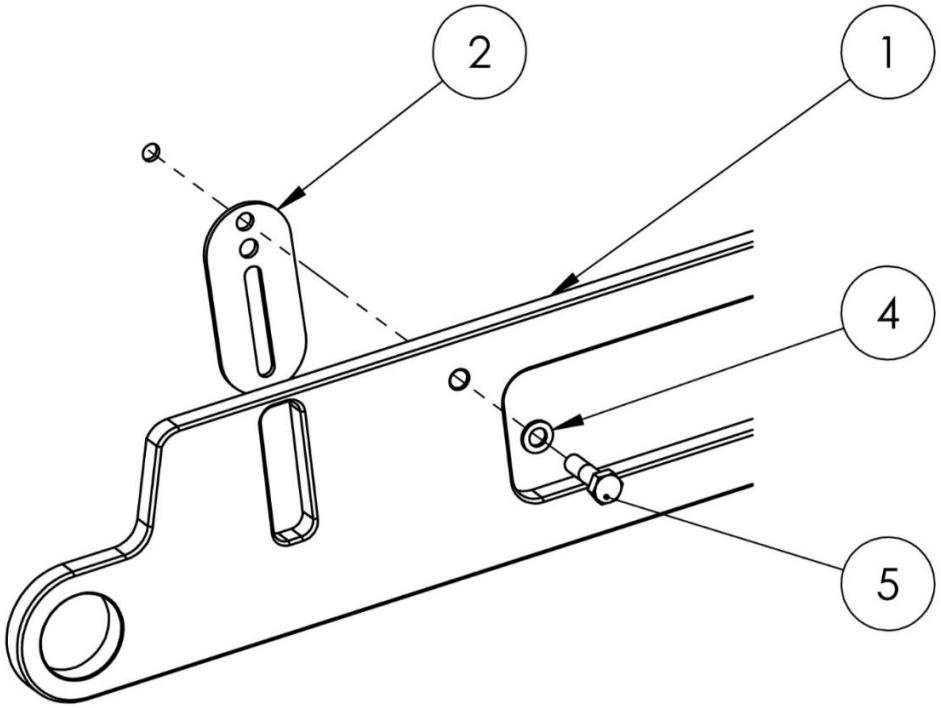


Figure 3.23: Exploded View of UH1-430-111-100 Pylon Beam and Hardware (NOTE**:** For use with single-engine Bell Mediums)

Table 3.3: UH1-430-111-100 SAFETY STRAP RIGGING KIT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UH1-430-282-001	PYLON BEAM, UH-1 GANTRY	1
2	UH1-430-287-001	SHIM, UH-1 GANTRY	2
4	NAS1149F0563P	WASHER	2
5	AN5-10A	BOLT	2
7**	SLB-EE2901P-N3610	SAFETY STRAP, 18 IN	2

**BOM lists Safety Straps, but they are not shown in the IPB. See Figures 1.1-1.6 for locations and installation. Also, see Mechanical Specialties document “Gantry Installation & Operation Manual” for locations and installation.

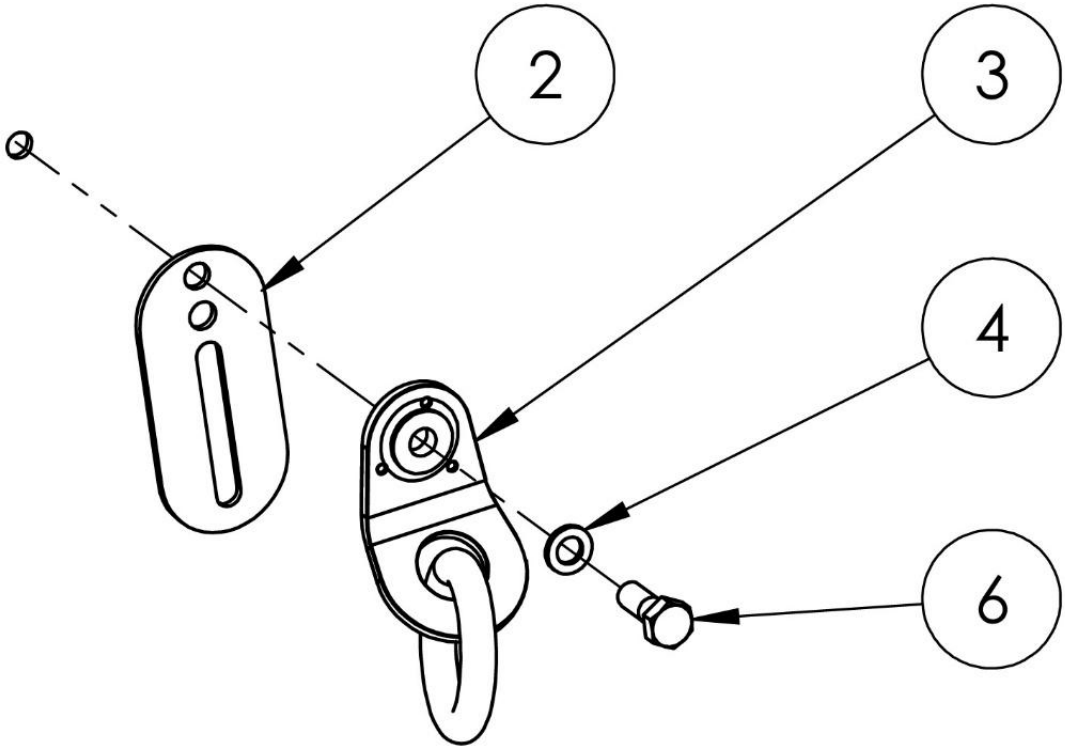


Figure 3.24: Exploded View of UH1-430-222-100 Tie-Down Ring and Hardware (NOTE: For use with twin-engine Bell Mediums)

Table 3.4: UH1-430-222-100 SAFETY STRAP RIGGING KIT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	UH1-430-287-001	SHIM, UH-1 GANTRY	2
3	UH1-430-280-100	TIE-DOWN RING, UH-1 GANTRY	2
4	NAS1149F0563P	WASHER	2
6	AN5-6A	BOLT	2
8**	SLB-EE2901P-N3610-25	SAFETY STRAP, 25 IN	2
9**	SLB-EE2901P-N3610-SP	SAFETY STRAP, 27 IN	1

**BOM lists Safety Straps, but they are not shown in the IPB. See Figures 1.1-1.6 for locations and installation. Also, see Mechanical Specialties document “Gantry Installation & Operation Manual” for locations and installation.

4.0 INSPECTIONS AND MAINTENANCE

The UH1-430-250-200 Fast Rope Gantry System is designed for a minimal amount of required maintenance. Typically, simple checks and cleanings are what are required for this product, and subsequent inspections are primarily for corrosion identification. Commercially available corrosion and rust inhibitors are to be applied to all mating surfaces during routine inspections and overhauls. Any inspections are recommended to be performed with the system REMOVED from the aircraft.

4.1 UH1-430-282-001, UH1-430-287-001, and hardware

ANNUAL / 100 HOUR
(NOTE: Fast Rope Gantries should be removed from aircraft to perform this inspection)

- Physically check that the Pylon Beam lugs (where the safety strap engages) are not damaged beyond wear in the aluminum anodizing.
- Inspect for gouges greater than .06” at the lug locations
- Inspect hardware and mating surfaces for corrosion.
    - Check for debris, clean with cleaning solvent and wipe dry.
- Apply corrosion preventative compounds on all mating surfaces
    - WD-40 or other commercially available rust/corrosion inhibitors are acceptable.

4.2 UH1-430-250-007 / -008 (Fast Rope Gantry Assembly)

ANNUAL / 100 HOUR
(NOTE: Removal of UH1-430-252-007 hook may be required to perform this inspection)

- Physically check that Gantry Assembly rotates smoothly on AN12-30A (pivot point) and that all hardware is not damaged
    - If binding occurs, or rotation is not smooth, inspect the following:
        - Bushings, and AN bolt used to pivot the assembly. Replace as needed.
        - Check for debris, clean with cleaning solvent and wipe dry.
- Apply corrosion preventative compounds on all mating surfaces
    - WD-40 or other commercially available rust/corrosion inhibitors are acceptable.
- If bolts or screws are loose, tighten.
    - Countersunk screws may utilize green thread locker for additional security.
    - AN12-32A IS TO BE TIGHT, BUT GANTRY MUST BE FREE TO PIVOT. Bolt should be free to spin within assembly.
- Inspect cable assemblies for kinks, bends, fraying, or other damage that hinders smooth operation of the release cable & safety cable. Replace as needed.

2.5 YEARS / 500 HOUR
(NOTE: Removal of UH1-430-252-007 hook may be required to perform this inspection)

- Physically check that Gantry Assembly rotates smoothly on AN12-30A (pivot point) and that all hardware is not damaged
    - If binding occurs, or rotation is not smooth, inspect the following:
        - Bushings, and AN bolt used to pivot the assembly. Replace as needed.
        - Check for debris, clean with cleaning solvent and wipe dry.
- Apply corrosion preventative compounds on all mating surfaces
    - WD-40 or other commercially available rust/corrosion inhibitors are acceptable.
- If bolts are loose, tighten.
    - AN12-32A IS TO BE TIGHT, BUT GANTRY MUST BE FREE TO PIVOT. Bolt should be free to spin within assembly.
    - Countersunk screws may utilize green thread locker for additional security.
- Inspect cable assemblies for kinks, bends, fraying, or other damage that hinders smooth operation of the release cable & safety cable. Replace as needed.

5 YEAR / 1000 HOUR
(NOTE: Removal of UH1-430-252-007 hook may be required to perform this inspection)

- Physically check that Gantry Assembly rotates smoothly on AN12-30A (pivot point) and that all hardware is not damaged
    - If binding occurs, or rotation is not smooth, inspect the following:
        - Bushings, and AN bolt used to pivot the assembly. Replace as needed.
        - Check for debris, clean with cleaning solvent and wipe dry.
- Apply corrosion preventative compounds on all mating surfaces
    - WD-40 or other commercially available rust/corrosion inhibitors are acceptable.
- If bolts are loose, tighten.
    - AN12-32A IS TO BE TIGHT, BUT GANTRY MUST BE FREE TO PIVOT. Bolt should be free to spin within assembly.
- Inspect cable assemblies for kinks, bends, fraying, or other damage that hinders smooth operation of the release cable & safety cable. Replace as needed.

4.3 UH1-430-252-007 (Cargo Hook Assembly)

ANNUAL / 100 HOUR

- Physically check that mechanical triggers, load beam, etc. functions smoothly and check that all hardware is not damaged
    - If binding occurs, or rotation is not smooth, inspect the following:
        - Bushings, and AN bolt used to pivot the assembly. Replace as needed.
        - Check for debris, clean with cleaning solvent and wipe dry.
- Apply corrosion preventative compounds on all mating surfaces
    - WD-40 or other commercially available rust/corrosion inhibitors are acceptable.
- If bolts are loose, tighten.
- Inspect cable mounting locations for damage or excessive wear.

5 YEAR / 1000 HOUR (CARGO HOOK – OVERHAUL)
(NOTE: Cargo hook disassembly, inspection / overhaul, and reassembly are required for this level of maintenance. (See Section 6 for instructions.)

NOTE: It is highly recommended for operators to return their UH1 Fast Gantry cargo hook to Mechanical Specialties', LLC or to a Mechanical Specialties', LLC authorized repair station, for this overhaul. See Section 7 for contact information for overhauls, and for general maintenance or installation inquiries.

Testing Instructions after re-assembly

- Perform Functional test of manual release levers (Safety cable catch first, Release cable catch second at 0 lb).
- Hold all loads for 5 seconds before release.
- Perform load tests at the specified loads listed below:

NOTE: DO NOT PERFORM TESTS WITH UNIT INSTALLED IN ROTORCRAFT.

CARGO HOOK ASSEMBLY ONLY

LOAD (LB.)	RELEASE METHOD	OPERATOR	DATE
60	Manual Back-up Lever		
250	Manual Back-up Lever		
500	Manual Back-up Lever		
1000	DO NOT RELEASE		

5.0 INSTALLATION OF GANTRY SYSTEM

Prior to installation, the aircraft must have the Bell Medium hard points installed within the floor and ceiling of the main cargo area of the aircraft. This system mounts to these fittings, as shown in Mechanical Specialties document “Gantry Install & Operation Manual,” and drawing “UH1-430-250-200.”

5.1 PRE-INSTALLATION STEPS

To install the Fast Rope Gantry System, remove any existing equipment from the locations shown within the “Gantry Install & Operation Manual.” Ensure the tie-down locations are clean and free of any debris for proper securement.

5.2 FULL REMOVAL INSTRUCTIONS

Reverse installation steps found within Mechanical Specialties document “Gantry Install & Operation Manual” to remove Fast Rope Gantry system from helicopter.

6.0 FUNCTIONAL CHECKS

After initial installation, and any subsequent time the Fast Rope Gantry System (LH, RH, or both) is reinstalled, functional checks must be performed.

Manual Release Testing:

1. Remove Quick Detach Pin from Cargo Hook.
2. Test Safety Cable manual release (black handle). Check that Safety Cable pin clears safety catch. Close and re-latch load beam.
3. With Safety Cable manual release actuated (pulled back with black handle), Test Release Cable manual release (Red Knob). Check that the cargo hook opens. Close and re-latch load beam.

If the manual release mechanisms do not open smoothly or on the first attempt, verify the following:

1. The Safety and Release cables are installed per Mechanical Specialties drawing “UH1-430-250-200”
2. The control cables are properly secured within the brackets to prevent looseness, and that the release cable conduit is not pinched or damaged.
3. If failure to release during tests persists, refer to troubleshooting table below.

6.1 TROUBLESHOOTING GUIDE

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Cargo hook safety cable will release safety but release cable will not actuate.	Check release rigging, and for damage/binding to cable and proper installation.	Readjust rigging, replace damaged cable, or repair internal mechanism of cargo hook.
Cargo hook will not release manually.	Cargo hook internal mechanism.	Remove cargo hook from service. Repair internal mechanism.
Load beam will not latch.	Cargo hook internal mechanism.	Remove cargo hook from service. Repair internal mechanism.
Visible cracks or deformation on gantry.	Overloaded or fatigue damage.	Remove gantry from service. Replace damaged parts.
Visible corrosion or gouges deeper than .090" deep.	Visible gouges or corrosion.	Remove gantry from service. Replace damaged parts.

7.0 REPLACEMENT PARTS AND SERVICE

Contact Sales at Mechanical Specialties, LLC for replacement parts or overhaul inquiries.

Mechanical Specialties, LLC
1000 85th Ave SE
Olympia, WA 98501
(360) -754-7200
sales@mechspecialties.com