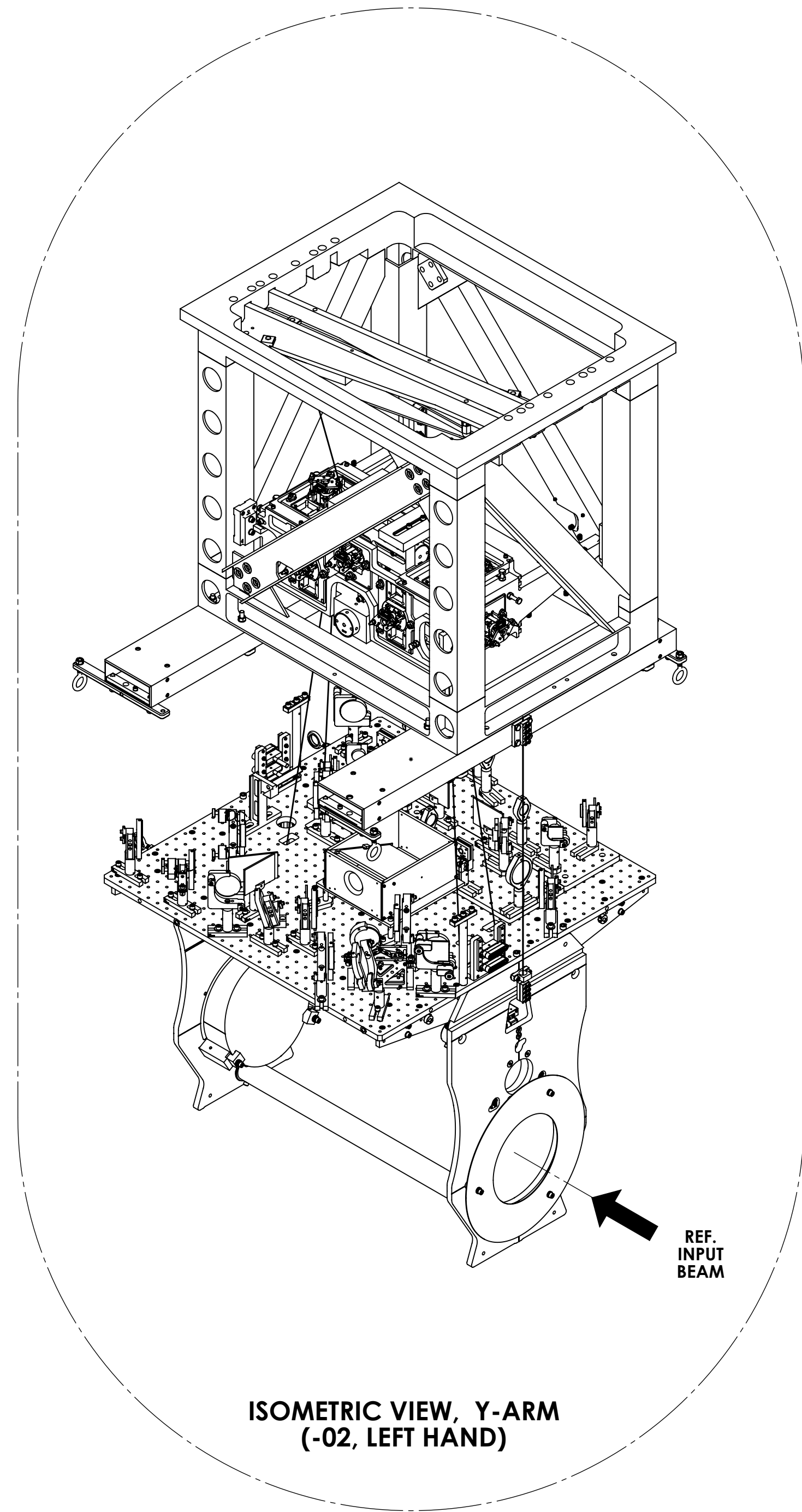


REV.	DATE	DCN #	DRAWING TREE #
v1	11 NOV 2011	E1100351	E1100593-v1
v5	19 JUL 2013	E13000609-x0	-
-	-	-	-

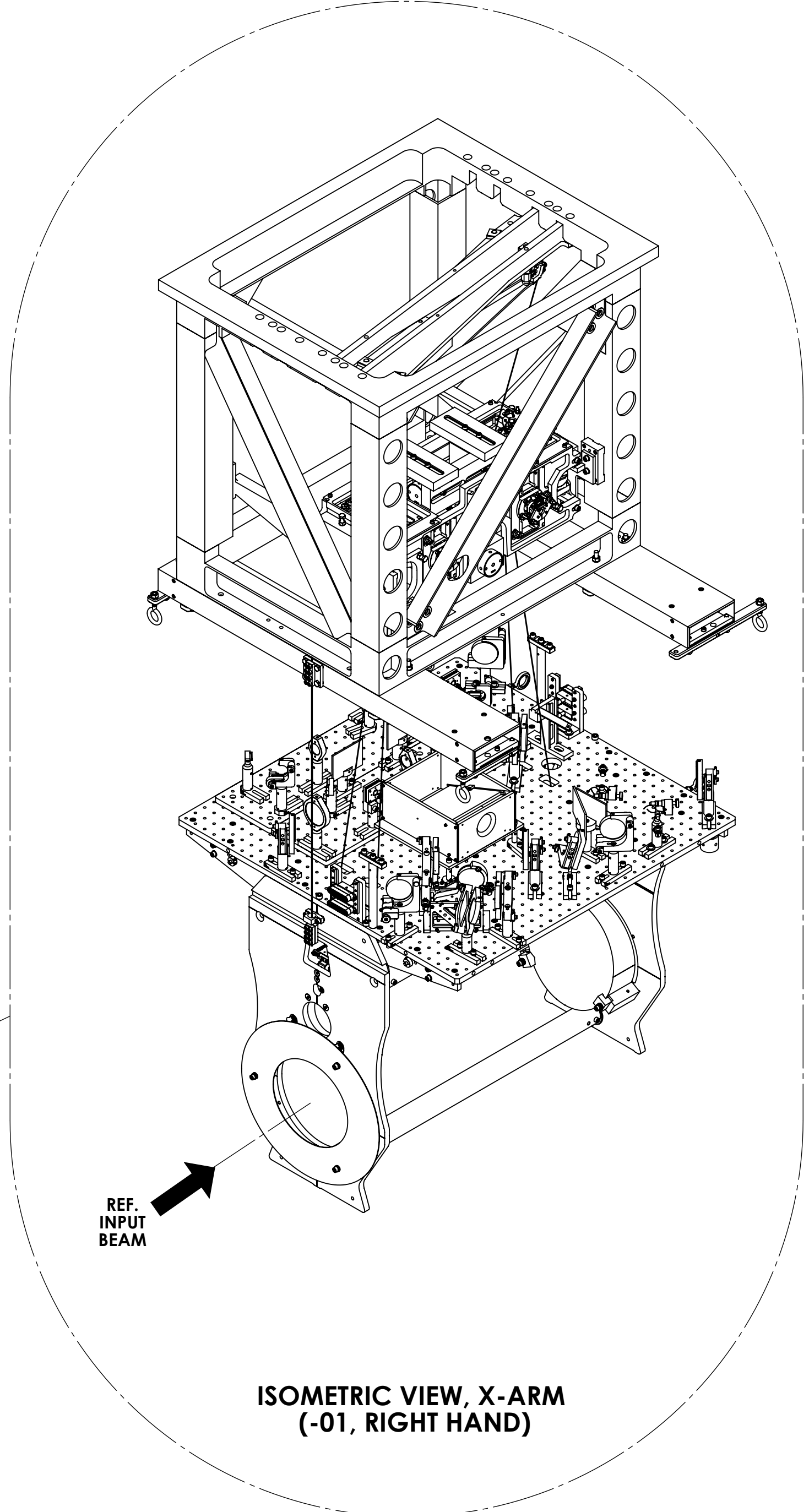
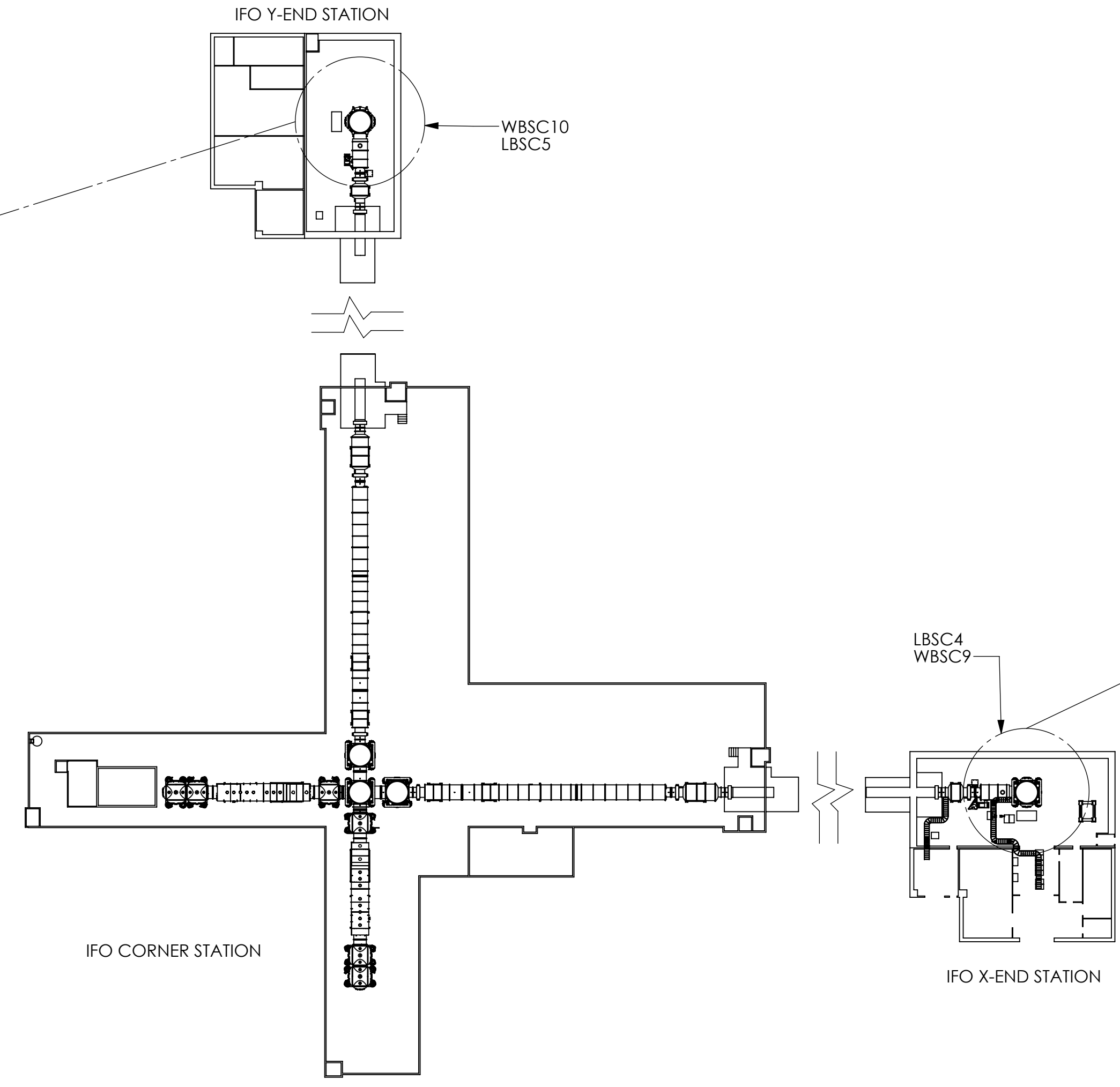
APPLICATION BLOCK	
PART NUMBER	'USED ON'
D0901880-01	WBSC10, LBSC5
D0901880-02	WBSC9, LBSC4

TMS REFERENCE DOCUMENTATION

- FOR SERVICE OF ETM AND TRANSPORT OF CARTRIDGE ASSEMBLY, REFER TO D1101307
- REFER TO LIGO D1101064 FOR TMS INSTALL AND SETUP TOOLING.
- REFER TO LIGO E12001012 FOR TMS ASSEMBLY AND INSTALLATION PROCEDURE.
- FOR TMS SWING STOP ASSEMBLY DETAILS, REFER TO D1300248.



**ISOMETRIC VIEW, Y-ARM
(-02, LEFT HAND)**



**ISOMETRIC VIEW, X-ARM
(-01, RIGHT HAND)**

- NOTES CONTINUED:
- BAG OR WRAP AND TAG ASSEMBLY WITH DRAWING NUMBER, REVISION, TYPE, AND SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY.
EXAMPLE (TAG): DXXXXXX-VY, TYPE -04, S/N 001
 - APPROXIMATE WEIGHT: 190.8 Kg.
 - BEFORE REMOVING OR DISINGAGING THE NOTED SPRING STOP FOR INSTALLATION OF ITEM (8), BLOCK THE SPRING WITH A STRONG METAL OBJECT FOR ADEQUATE SAFETY.
 - THIS ASSEMBLY HAS 4 CONFIGURATIONS, DESIGNATED AS ASSEMBLIES -01 THRU -04. -03 IS WBSC5 & -04 IS FIRST ARTICLE. FOR -03 & -04 DETAILS, SEE LIGO D0901880-V3.

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	-01/QTY.	-02/QTY.
8	D1200989	ALIGO CAPTIVE SCREW ASSEMBLY, TELE WIRE CLAMP	N/A	8	8
7	D1100827	ALIGO TMS VERTICAL SAFETY WIRE ASSEMBLY	N/A	1	1
6	D1101163	ALIGO TMS TELESCOPE SUSPENSION WIRE ASSEMBLY	N/A	2	2
5	D1101130-02	ALIGO TMS TELESCOPE SAFETY SUPPORT BEAM ASSEMBLY, LEFT	N/A	-	1
4	D1101130-01	ALIGO TMS TELESCOPE SAFETY SUPPORT BEAM ASSEMBLY, RIGHT	N/A	1	-
3	D1000549-01	ALIGO UPPER INTERMEDIATE MASS TOP ASSEMBLY	N/A	1	1
2	D1002460-03	ALIGO TMS TELESCOPE ASSEMBLY, Y-ARM	N/A	-	1
1	D1002460-01	ALIGO TMS TELESCOPE ASSEMBLY, X-ARM	N/A	1	-

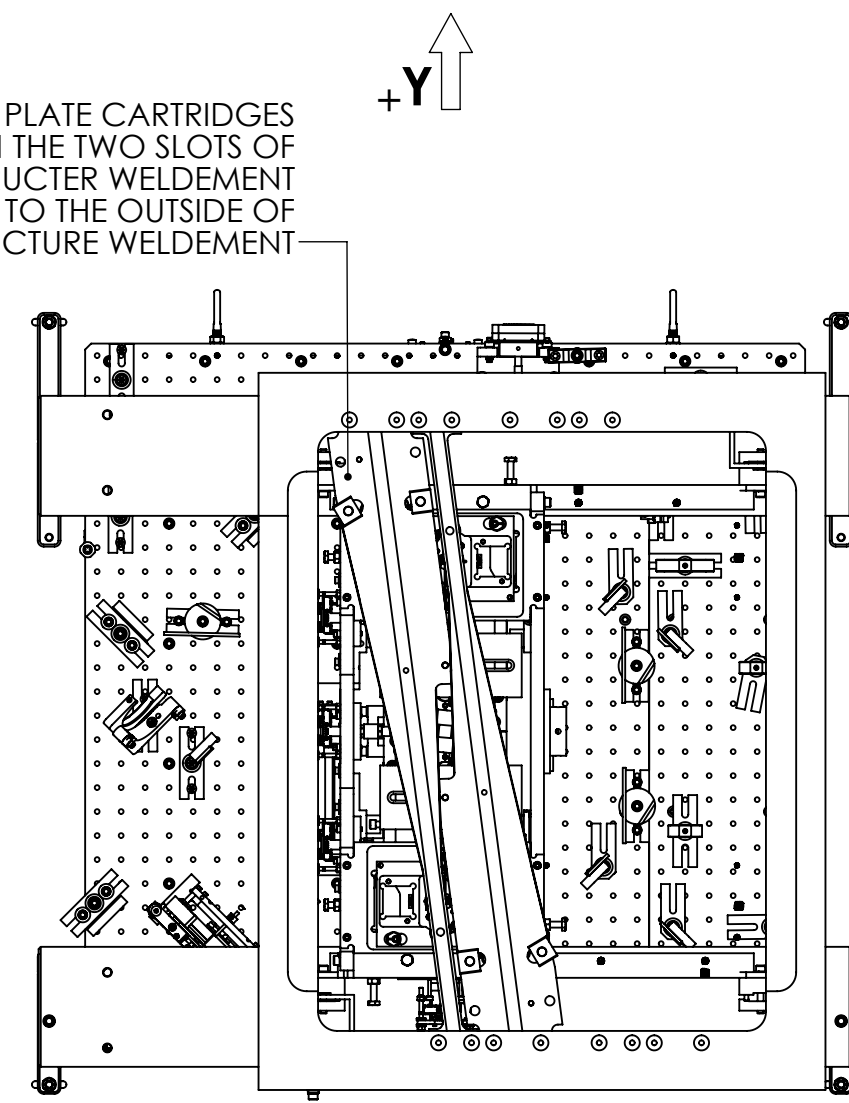
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
		SYSTEM ADVANCED LIGO SUB-SYSTEM AOS		aLIGO AOS TRANSMISSION MONITOR SYSTEM	
MATERIAL N/A		FINISH N/A μinch		DESIGNER K. MAILAND 19 NOV 2009 DRAFTER C. CONLEY 11 NOV 2011 CHECKER SEE DCN APPROVAL SEE DCN	
		NEXT ASSY D0900435, D0900436, D0902163, D0902168		SIZE DWG. NO. D D0901880 REV. v5	
				SCALE: 1:1 PROJECTION: SHEET 1 OF 4	

D0901880_AOS_ETM_TELESCOPE_UPPER_SUSPENSION_STRUCTURAL_ENVIROMENT_ASSEMBLY_PART_FDM_REV_X-492_DRAWING_FDM_REV_X-032

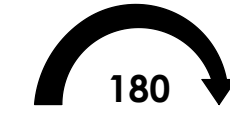
-02, Y-ARM

-01, X-ARM

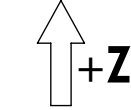
TOP STAGE PLATE CARTRIDGES
INSTALLED IN THE TWO SLOTS OF
THE UPPER STRUCTURE WELDEMENT
WHICH ARE NEAREST TO THE OUTSIDE OF
THE UPPER STRUCTURE WELDEMENT



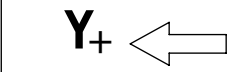
TOP VIEW
NOTE: UPPER WELDEMENT
ROTATED



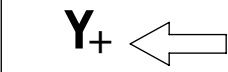
180
WRT -01



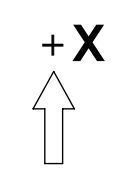
+X



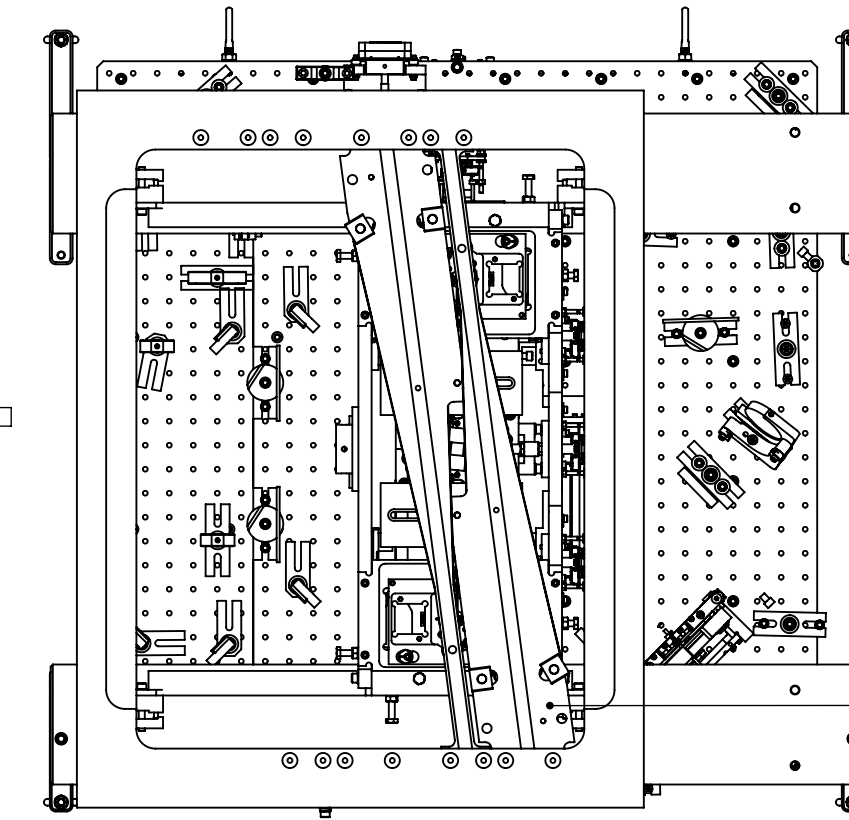
Y+



+X



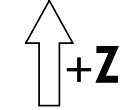
TOP STAGE PLATE CARTRIDGES
INSTALLED IN THE TWO SLOTS OF
THE UPPER STRUCTURE WELDEMENT
WHICH ARE NEAREST TO THE OUTSIDE OF
THE UPPER STRUCTURE WELDEMENT



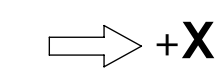
TOP VIEW
NOTE: UPPER WELDEMENT
ROTATED



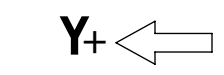
180
WRT -02



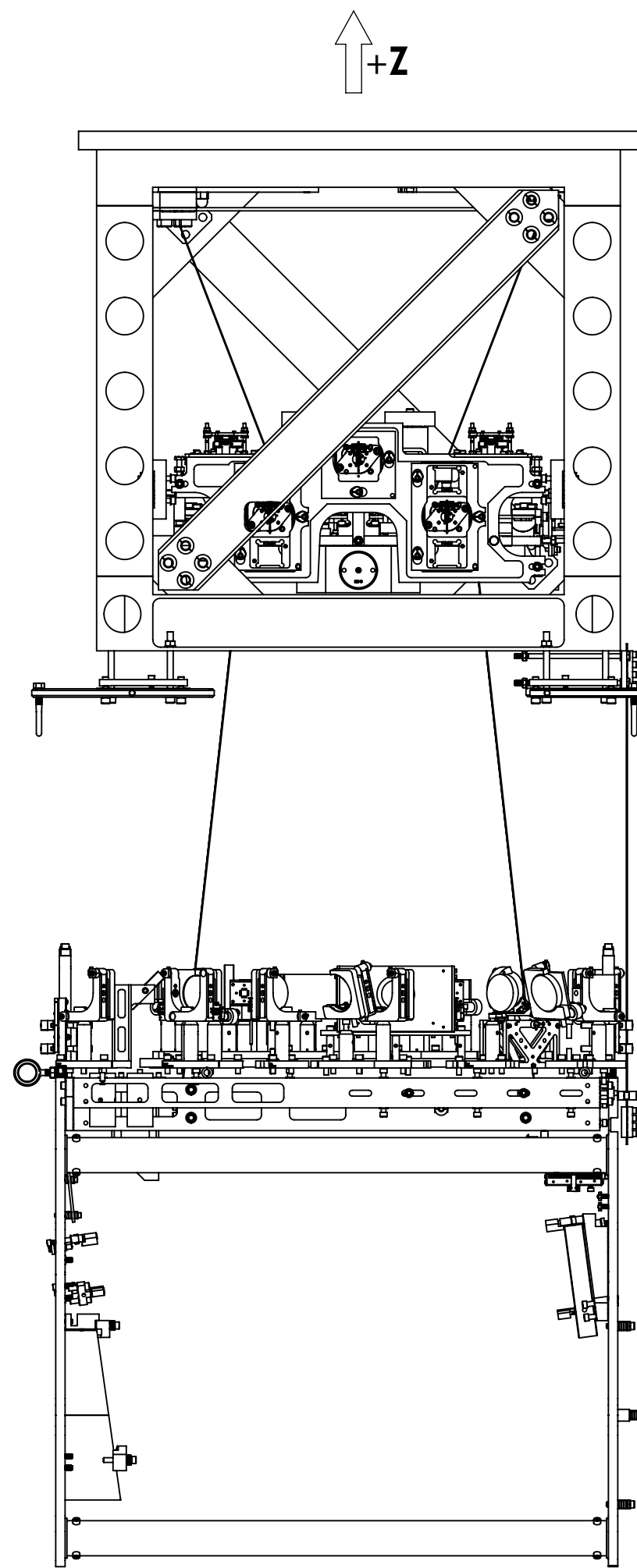
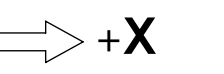
+X



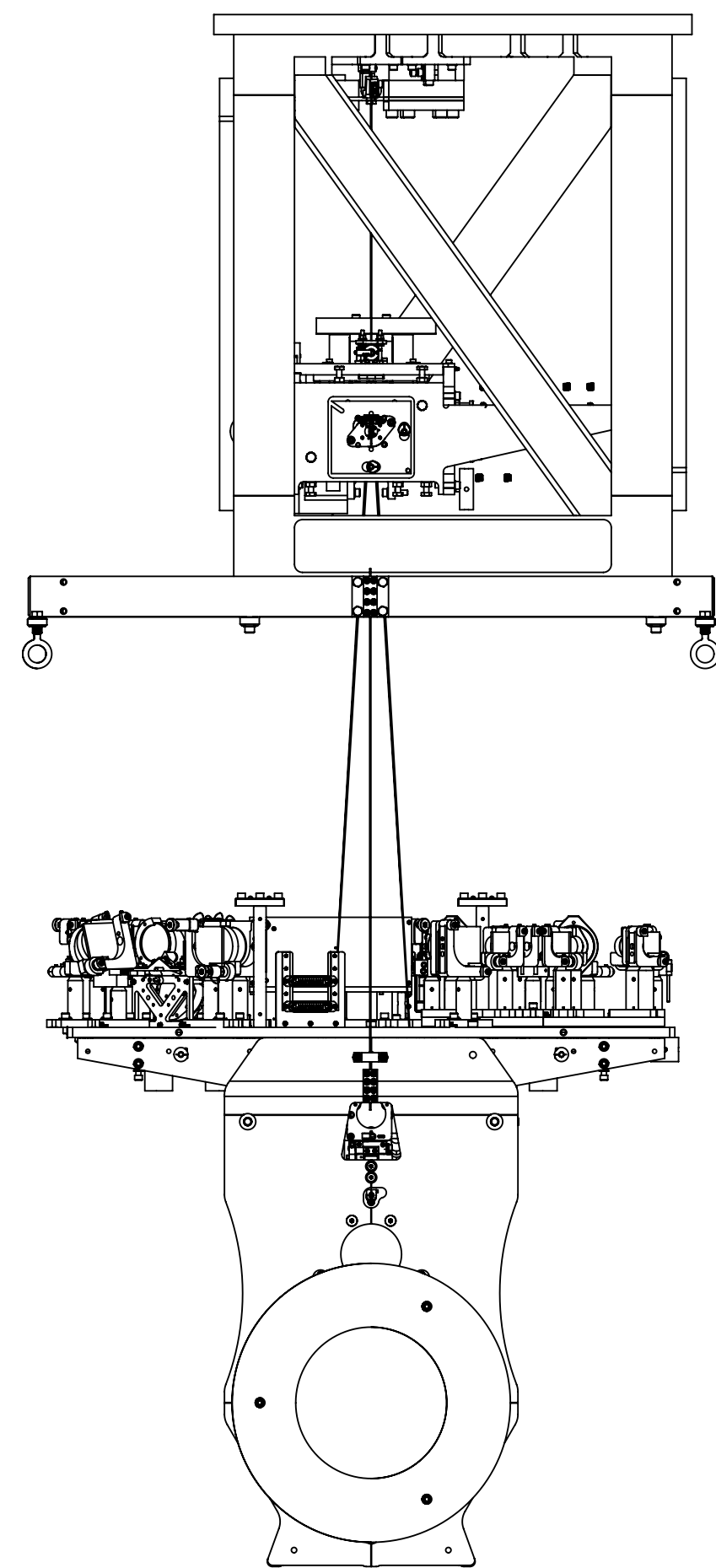
Y+



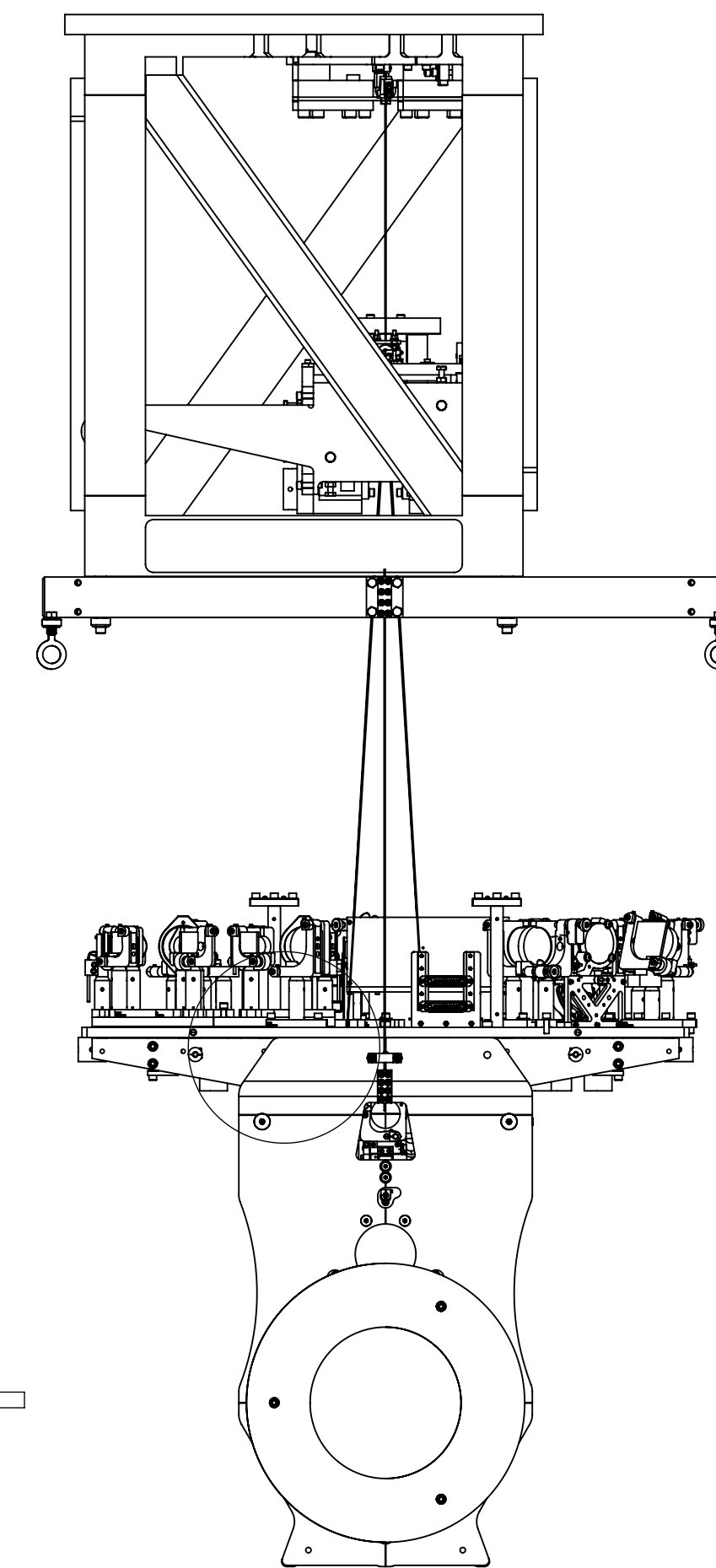
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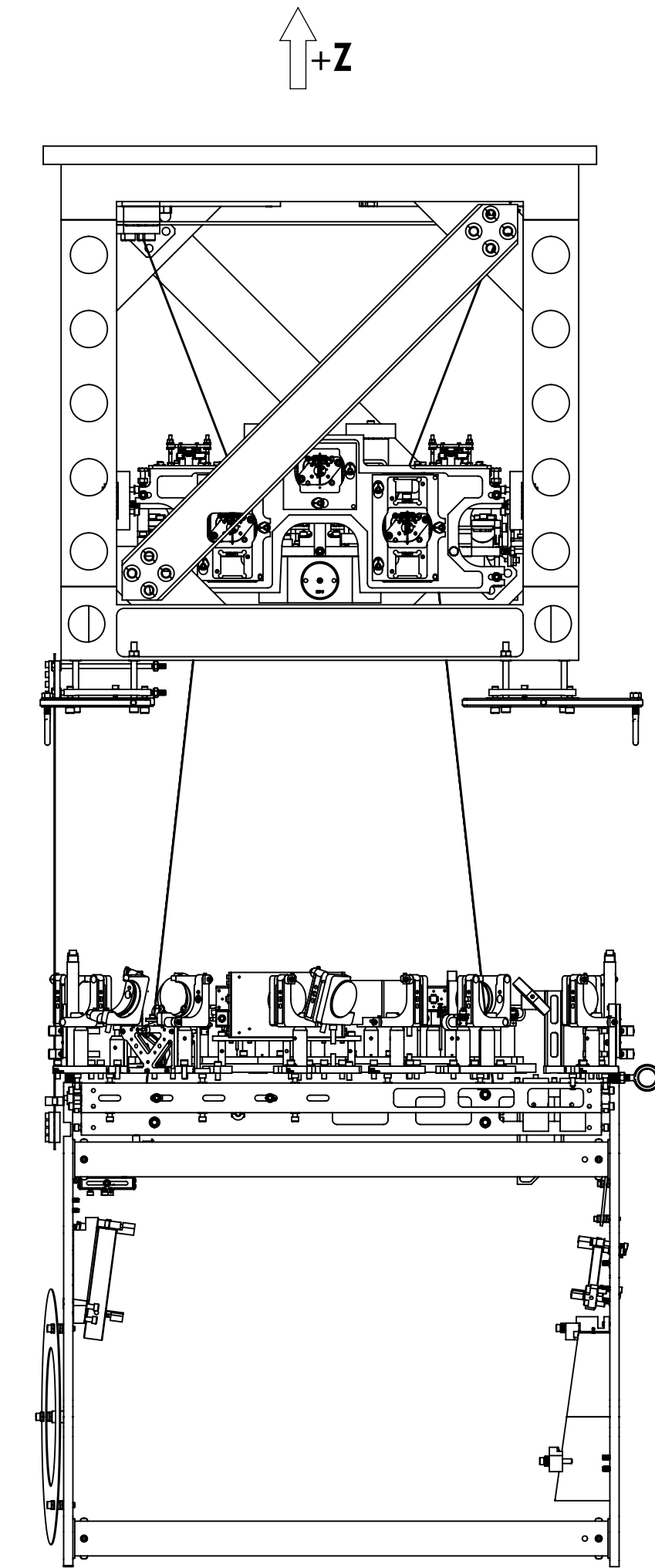
LEFT SIDE VIEW



FRONT VIEW, Y-ARM
(-02, LEFT HAND)



FRONT VIEW, X-ARM
(-01, RIGHT HAND)

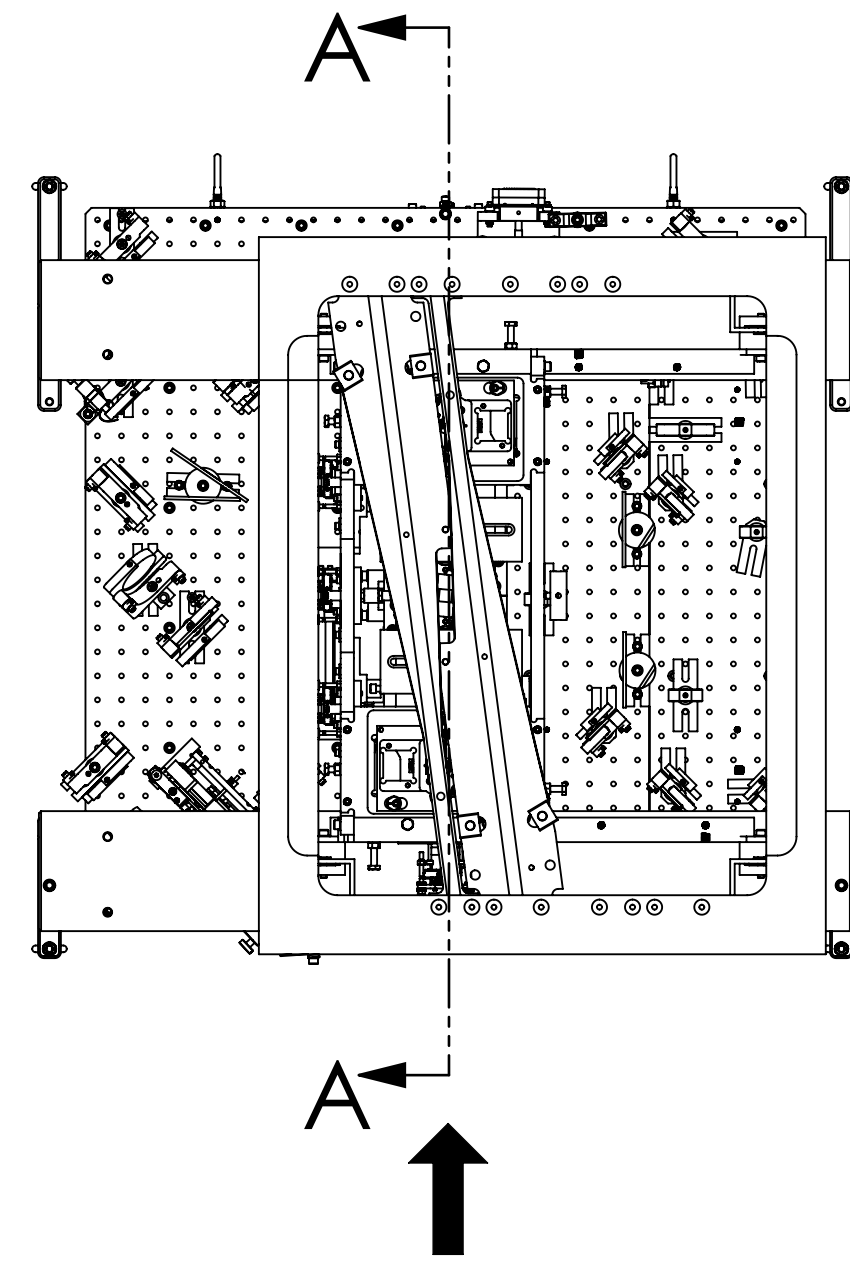


RIGHT SIDE VIEW

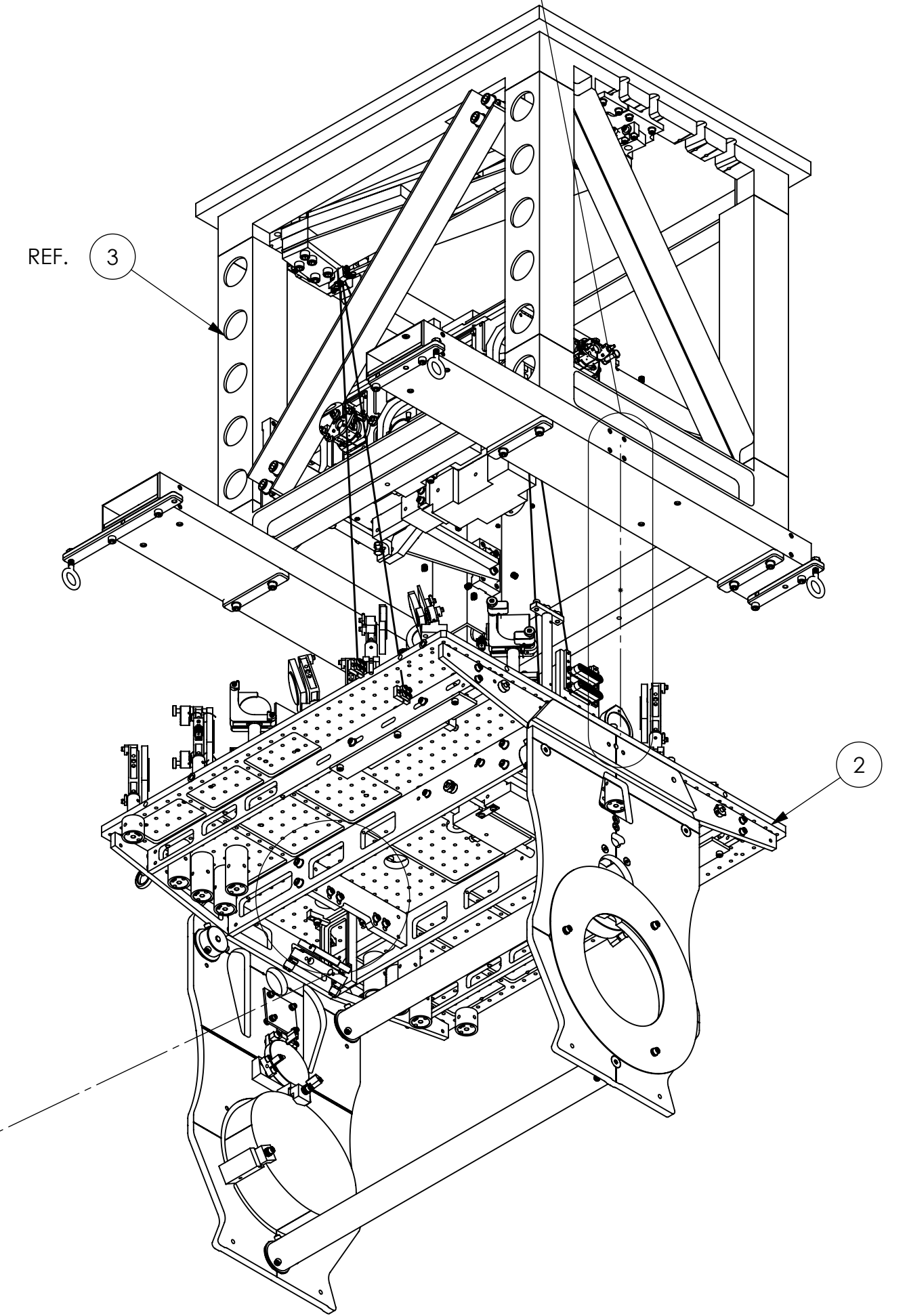
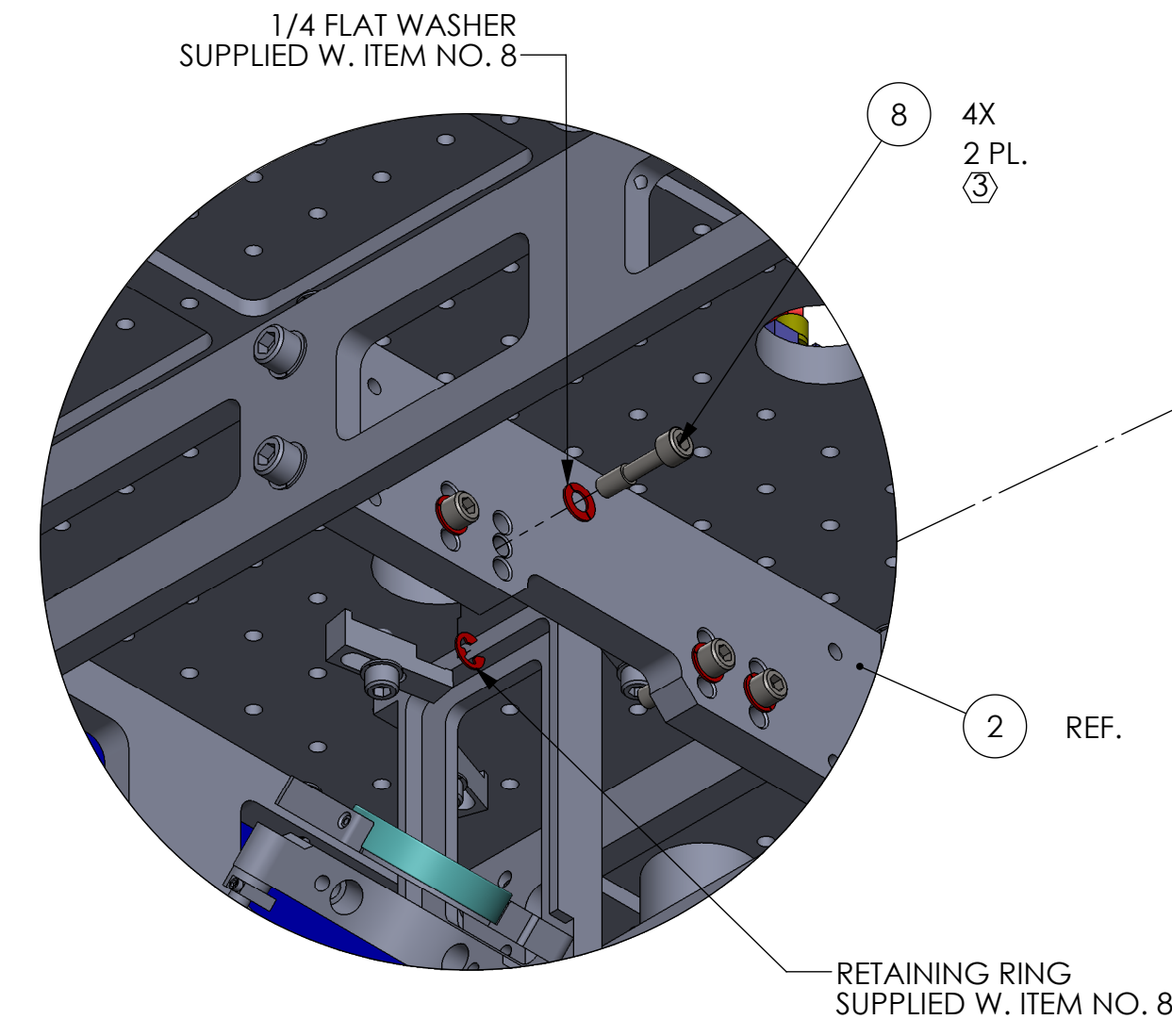
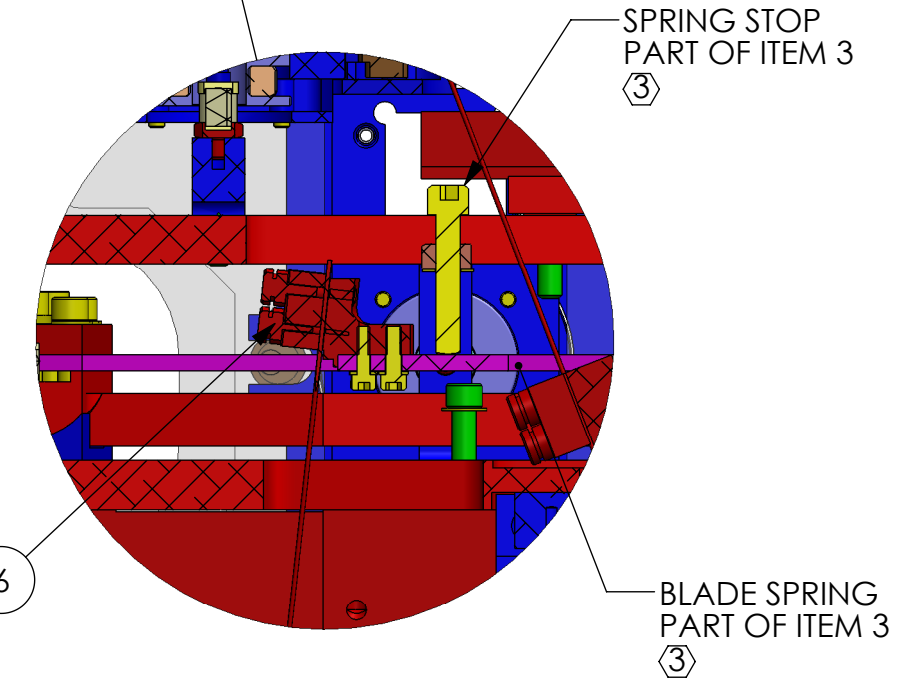
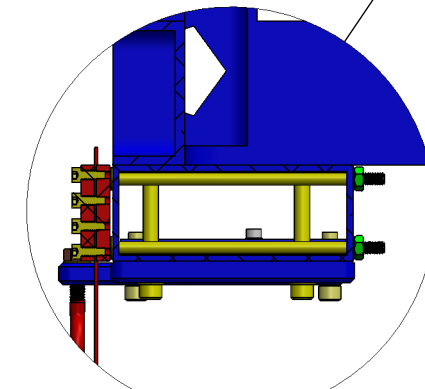
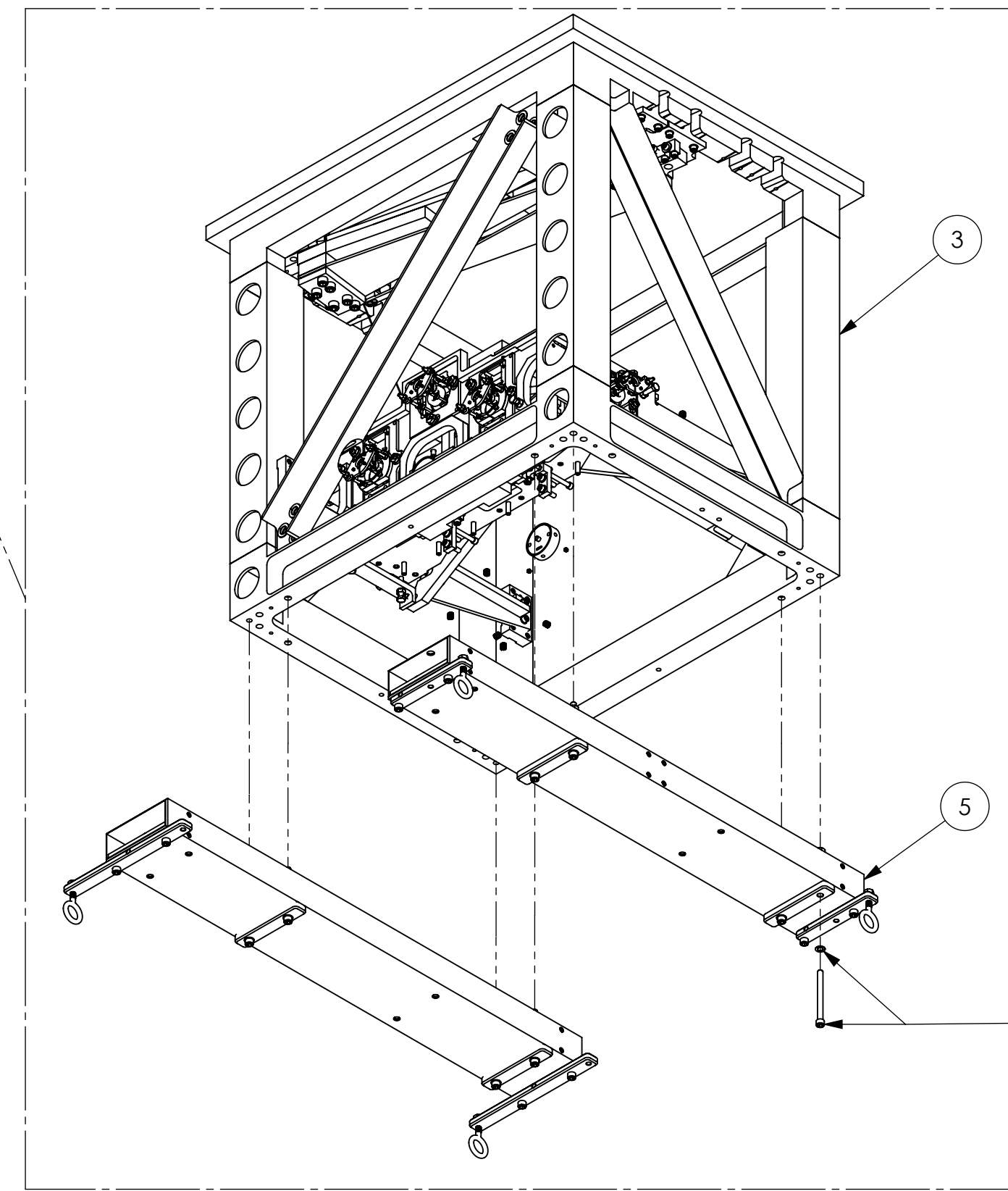
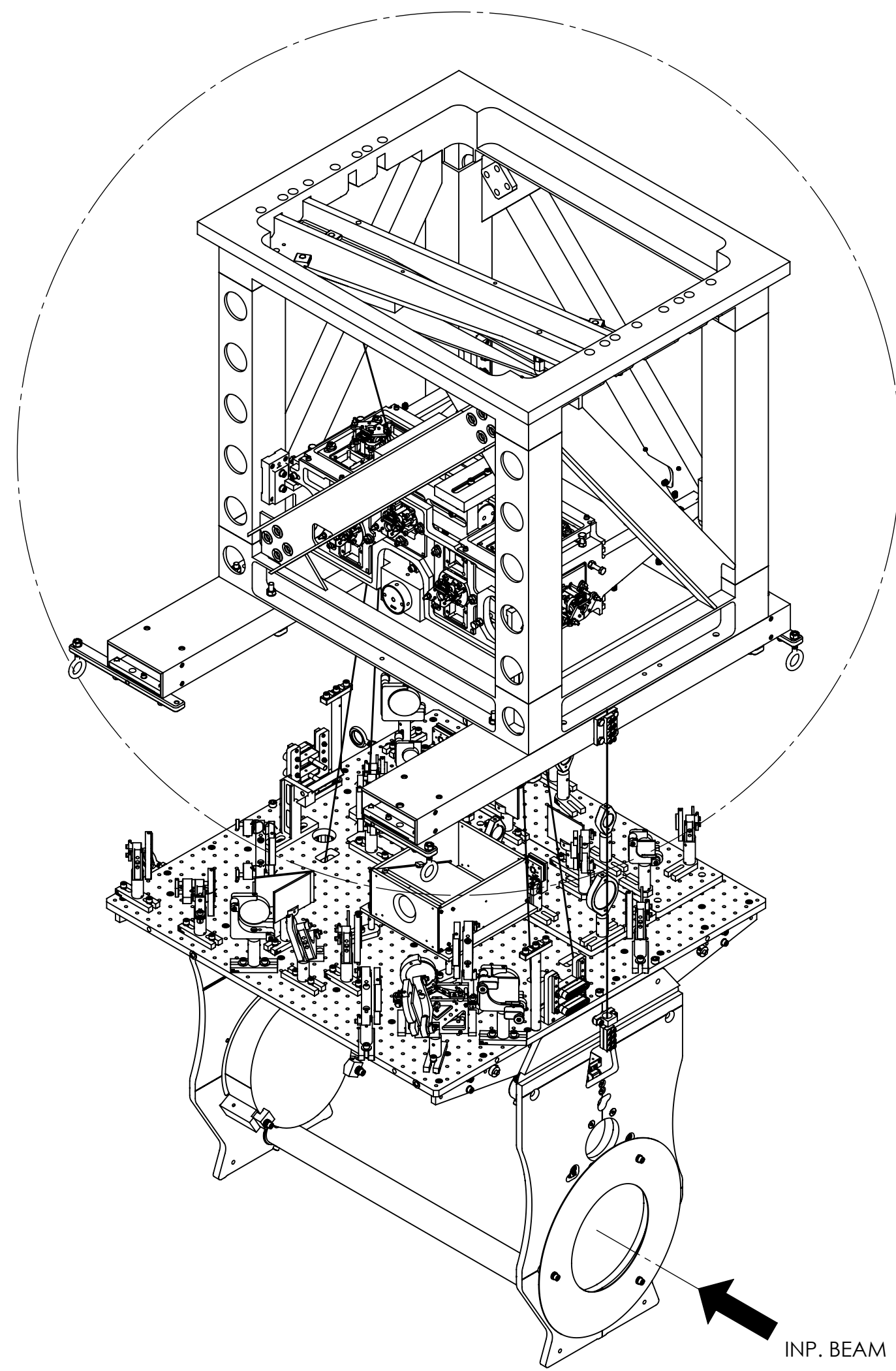
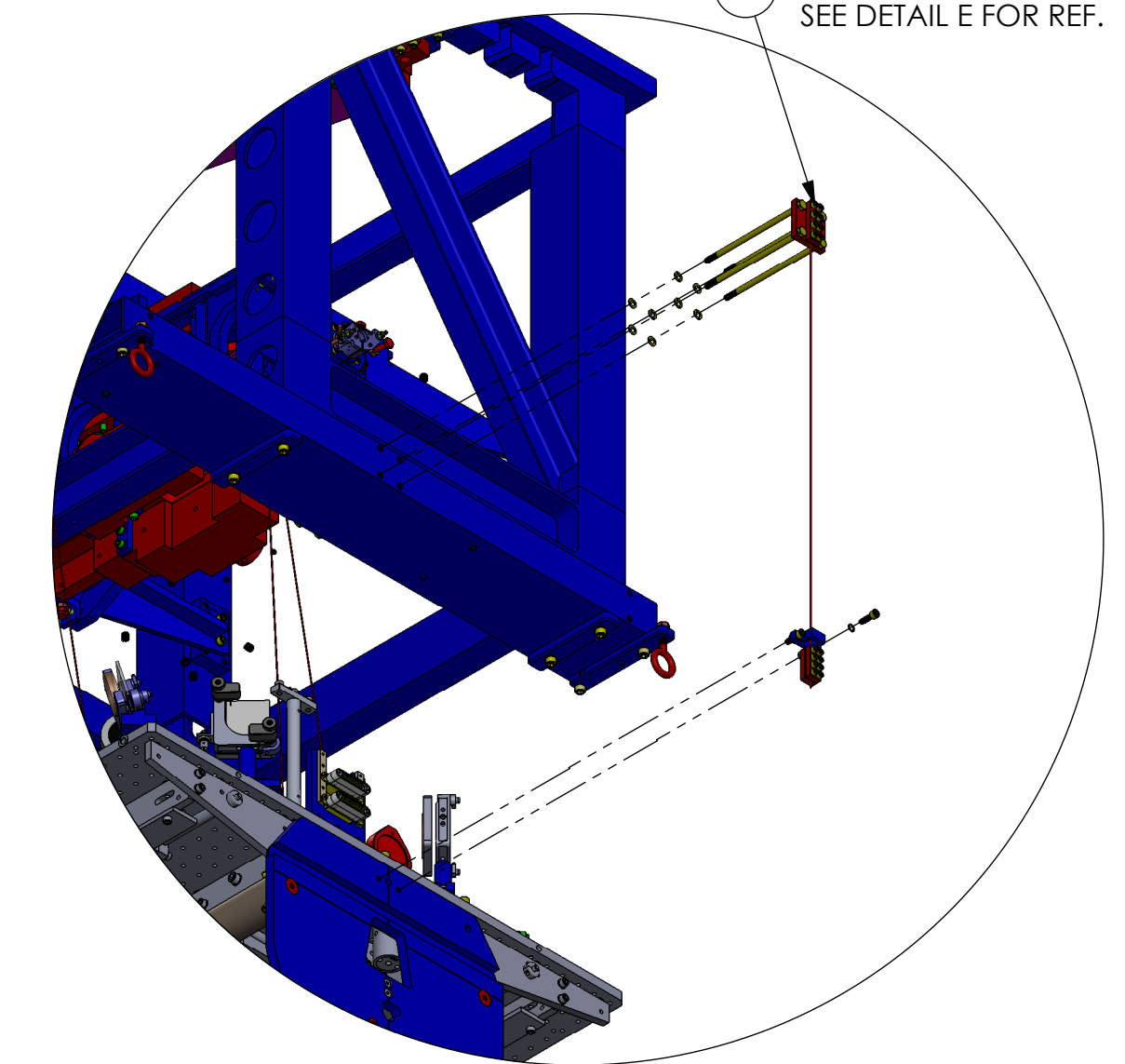
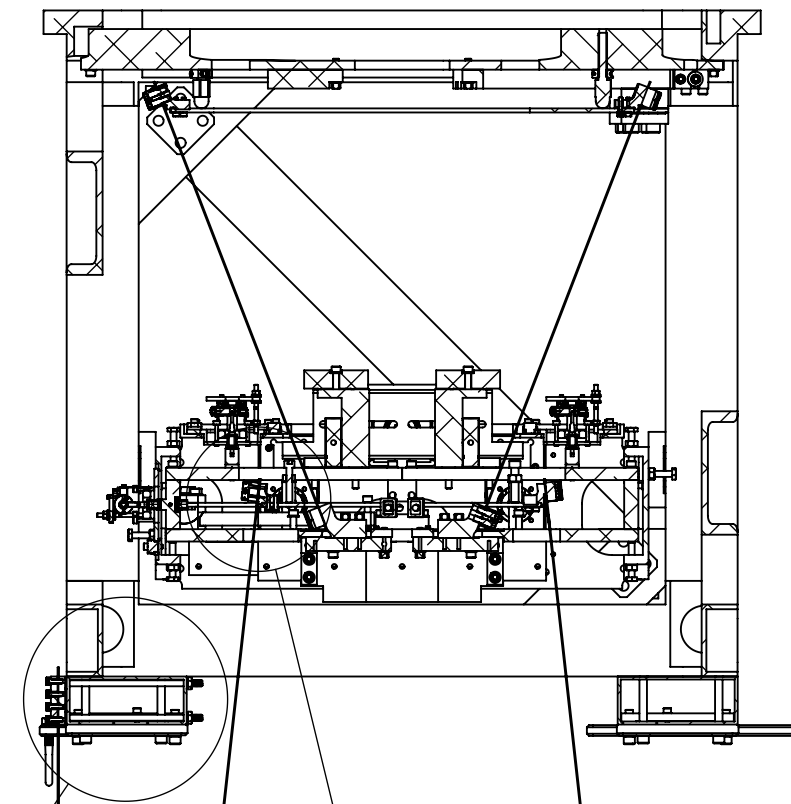
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0901880	v5
SCALE: NONE	PROJECTION:
SHEET 2 OF 4	

DD901880_AOS_EIN TELESCOPE UPPER SUSPENSION STRUCTURE ENVELOPE ASSEMBLY, PART FDM REV. X-472, DRAWING FDM REV. X-032

-02, Y-ARM



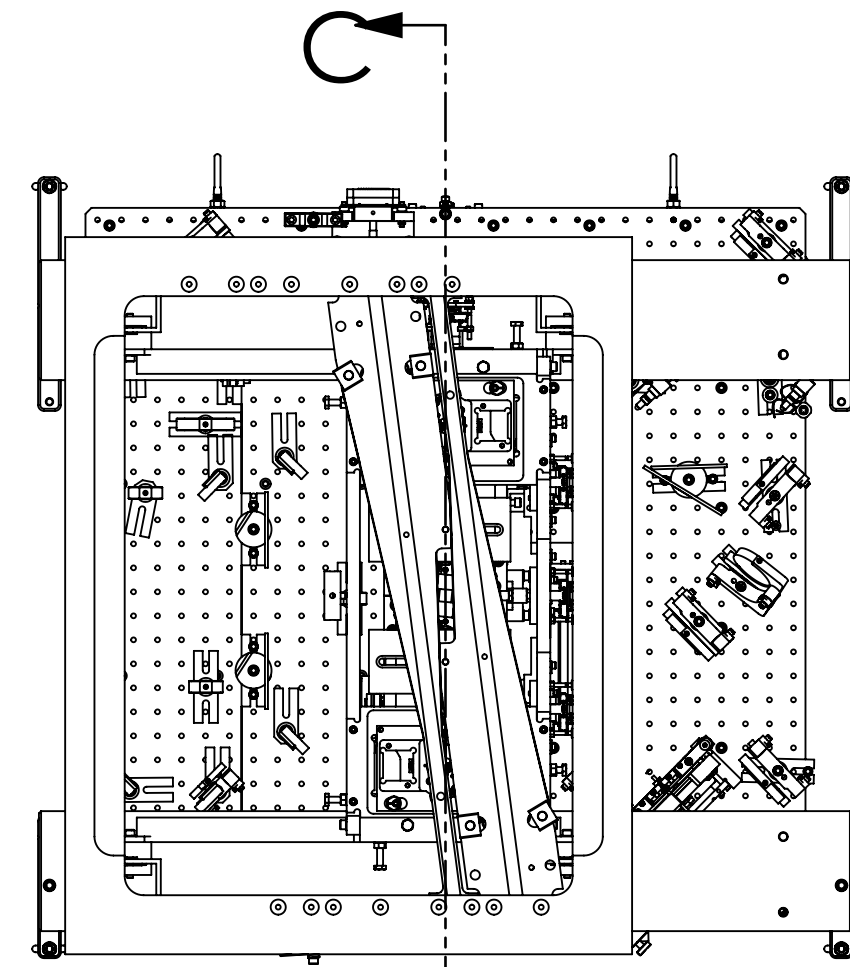
SECTION A-A (ROTATED 90 DEGREES CW)



LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0901880	v5
SCALE: NONE	PROJECTION:
SHEET 3 OF 4	

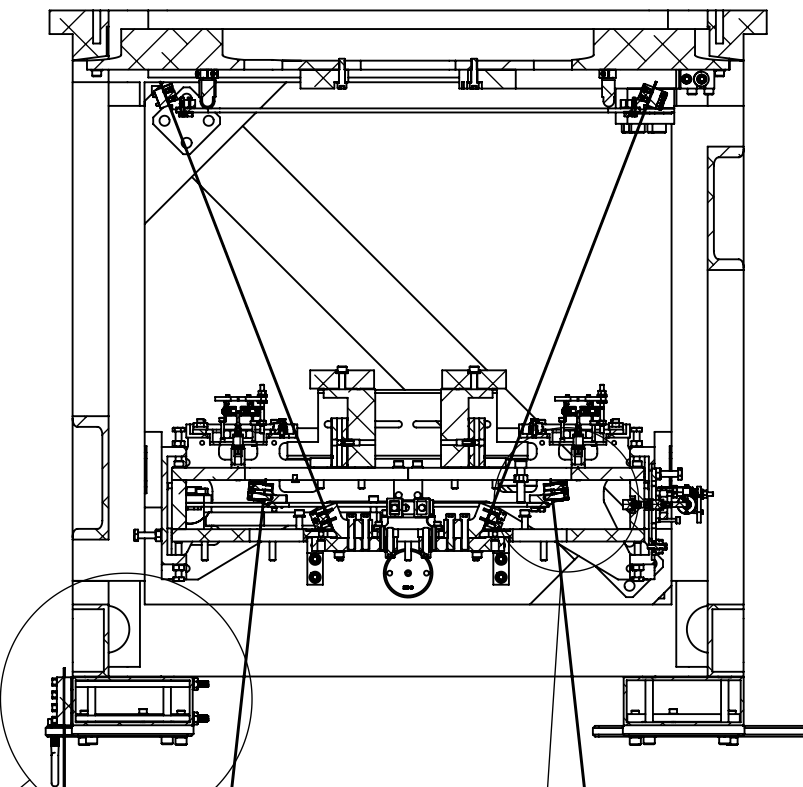
DD0901880_AOS_EIN TELESCOPE UPPER SUSPENSION STRUCTURE ENVELOPE ASSEMBLY PART FROM REV. X-472 DRAWING FROM REV. X-032

-01, X-ARM

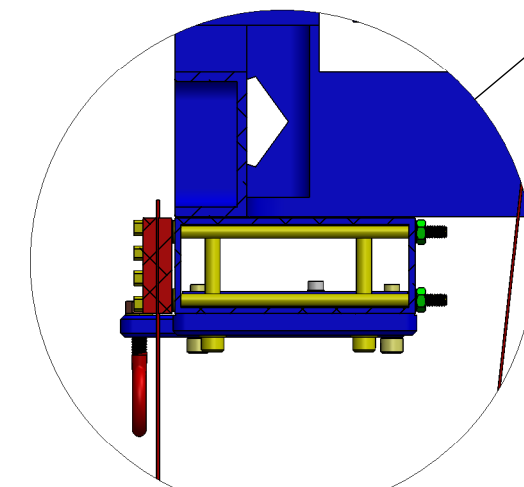
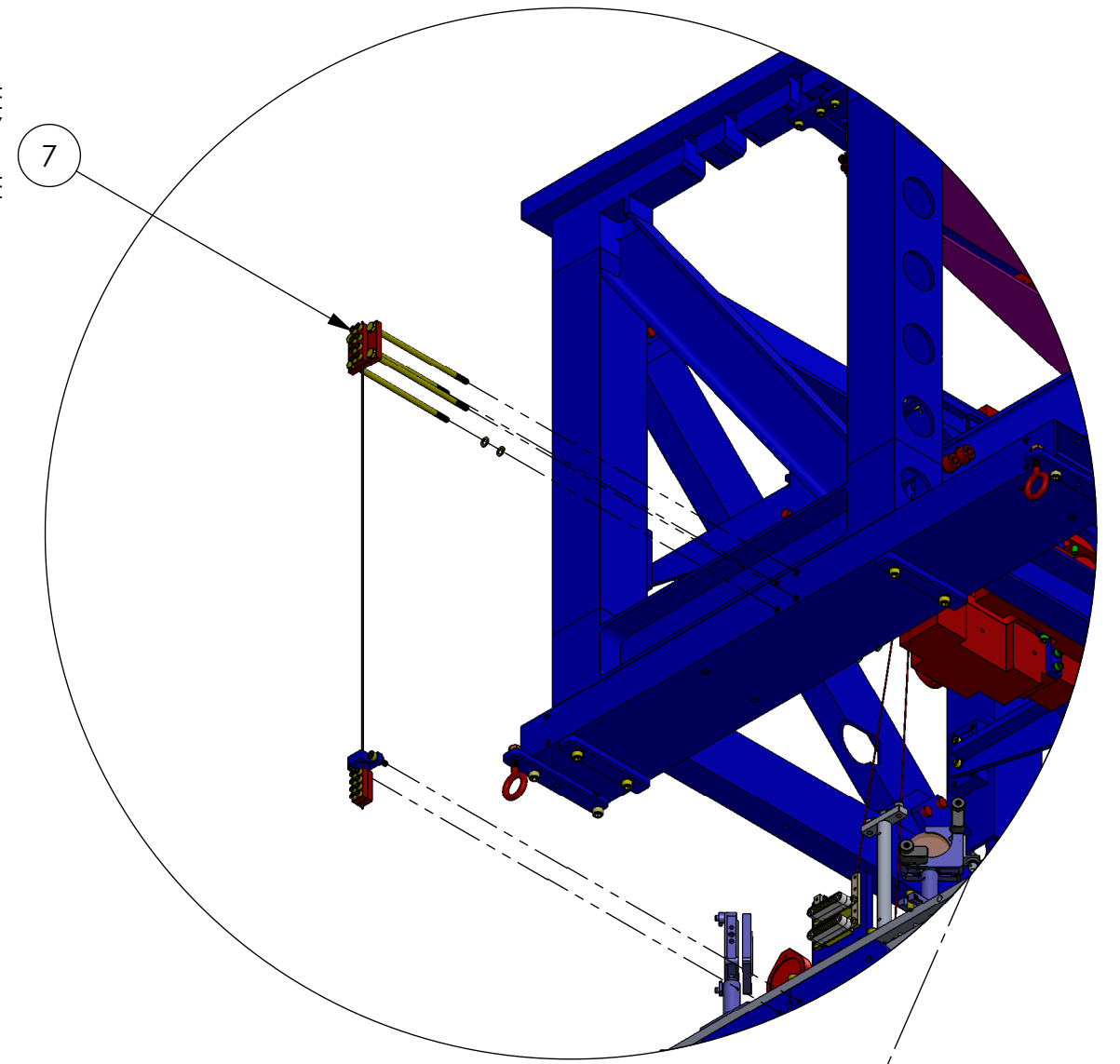


INP. BEAM
**TOP VIEW, X-ARM
 (-01, RIGHT HAND)**

SECTION C-C



ALL MT. HARDWARE
 SUPPLIED W/ ITEM NO. 7
 SEE DETAIL 'D'
 FOR REFERENCE

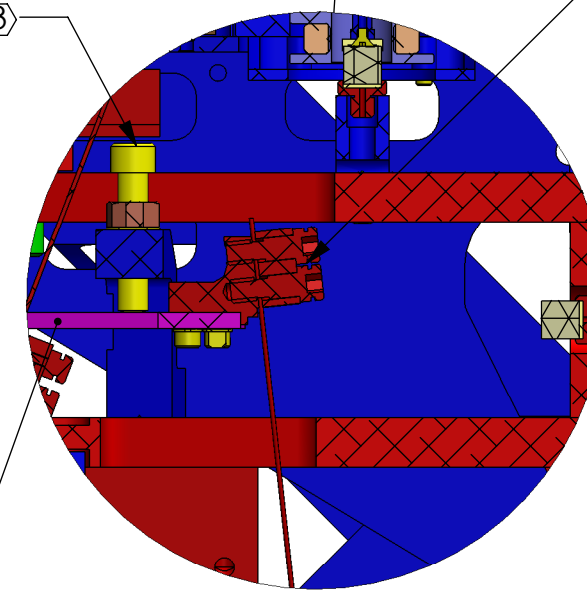


DETAIL D

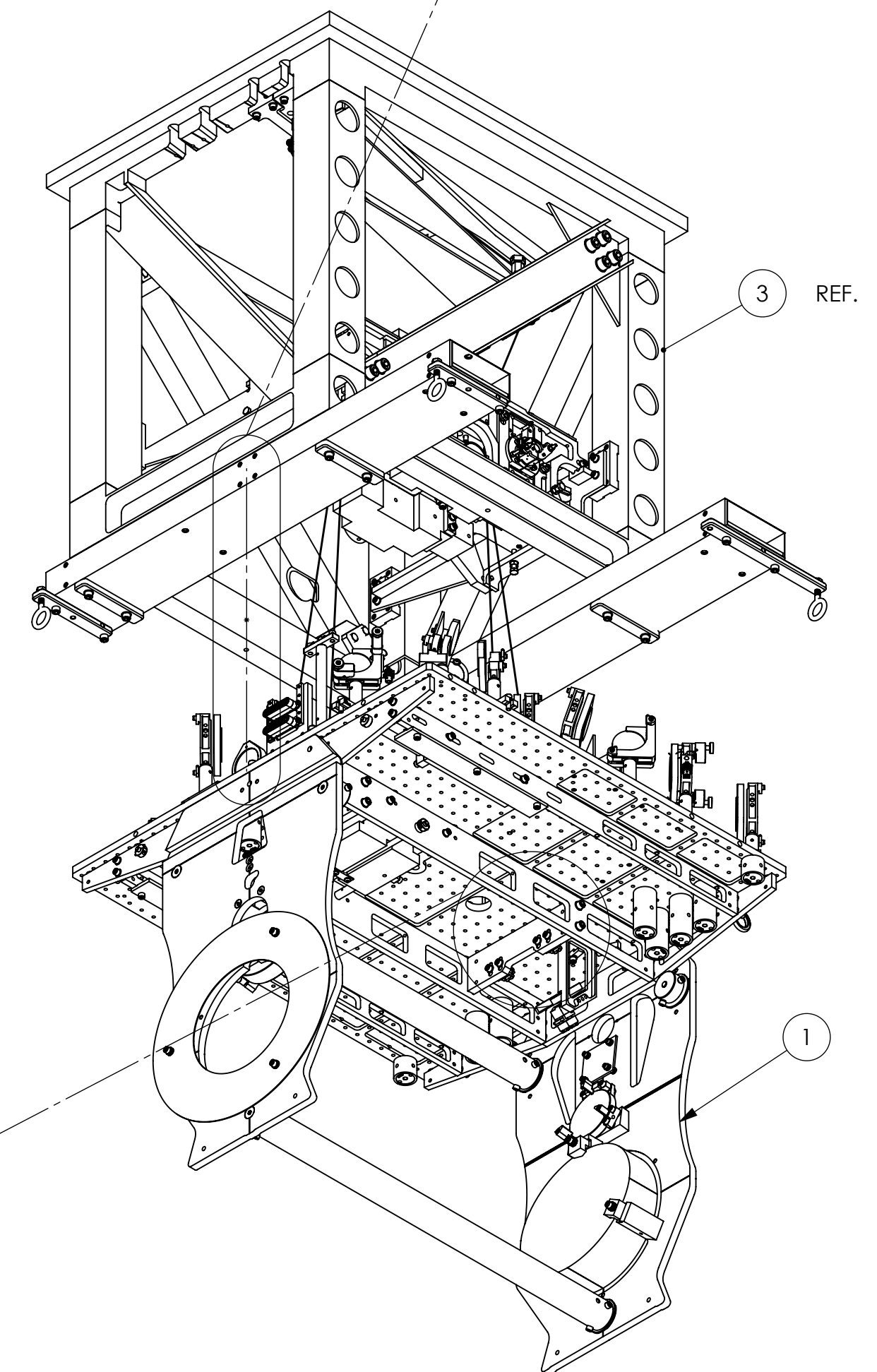
SPRING STOP
 PART OF ITEM 3

BLADE SPRING
 PART OF ITEM 3

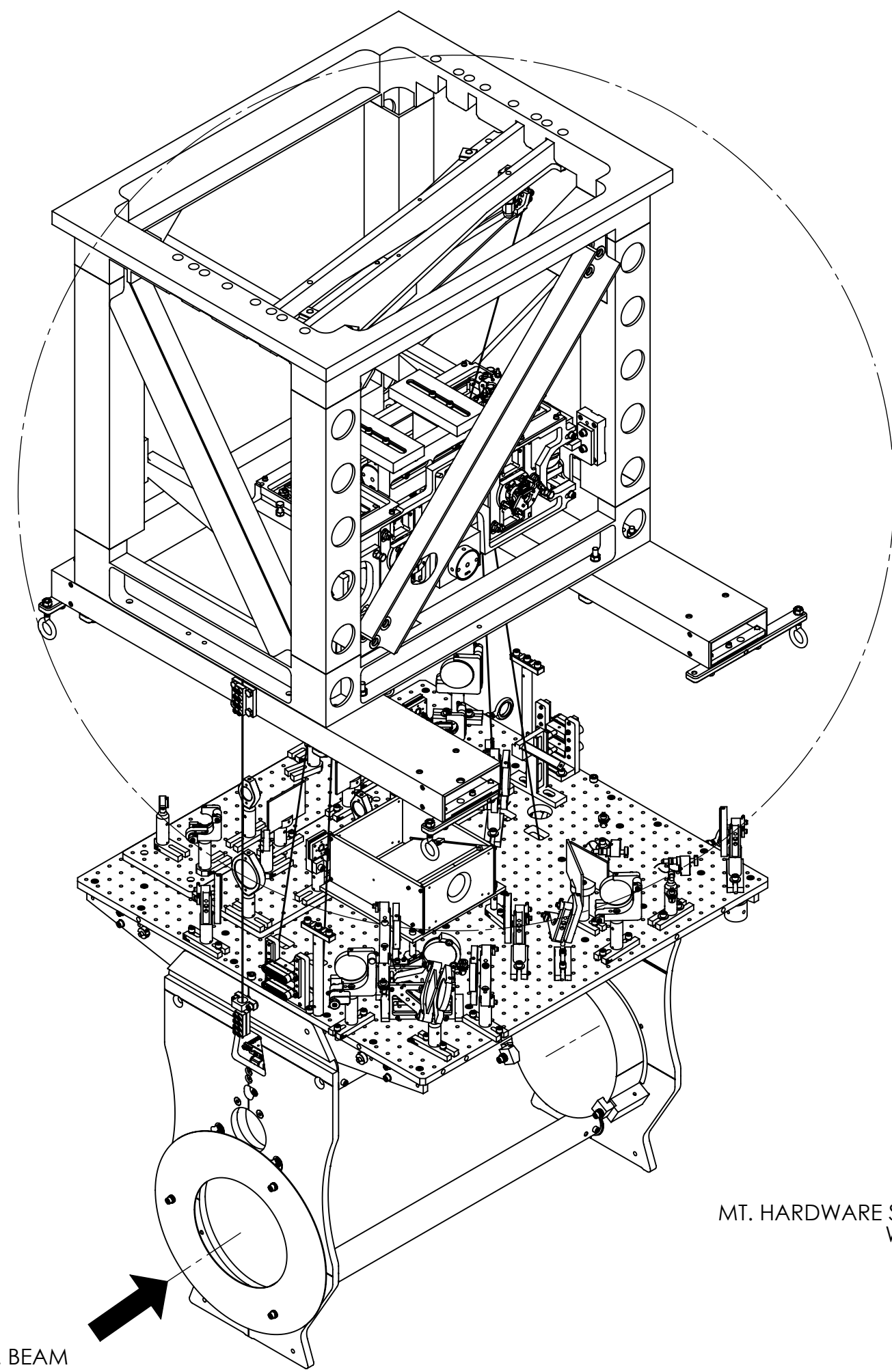
MT. HARDWARE
 SUPPLIED W/
 ITEM NO. 6
 2X



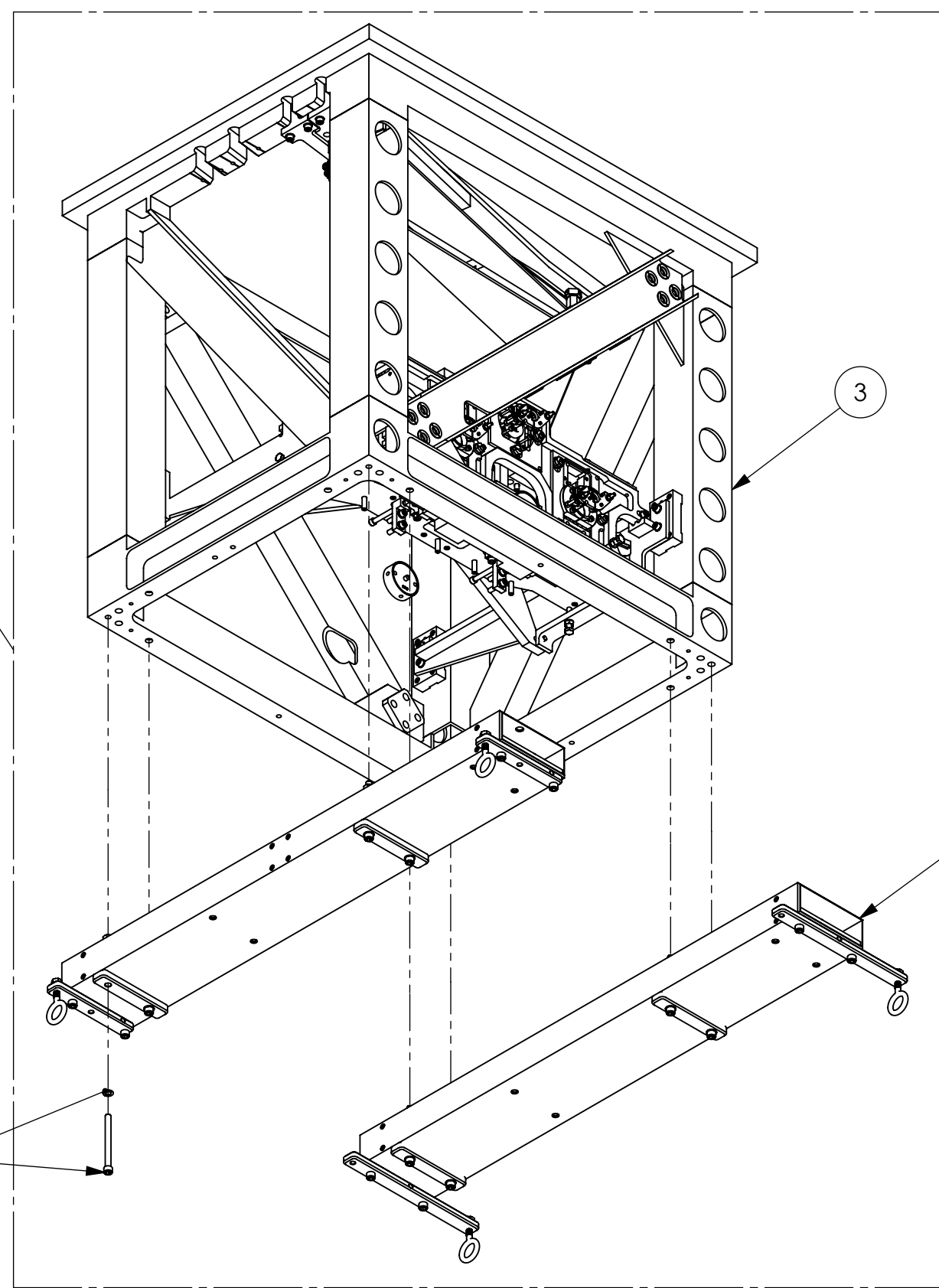
DETAIL C



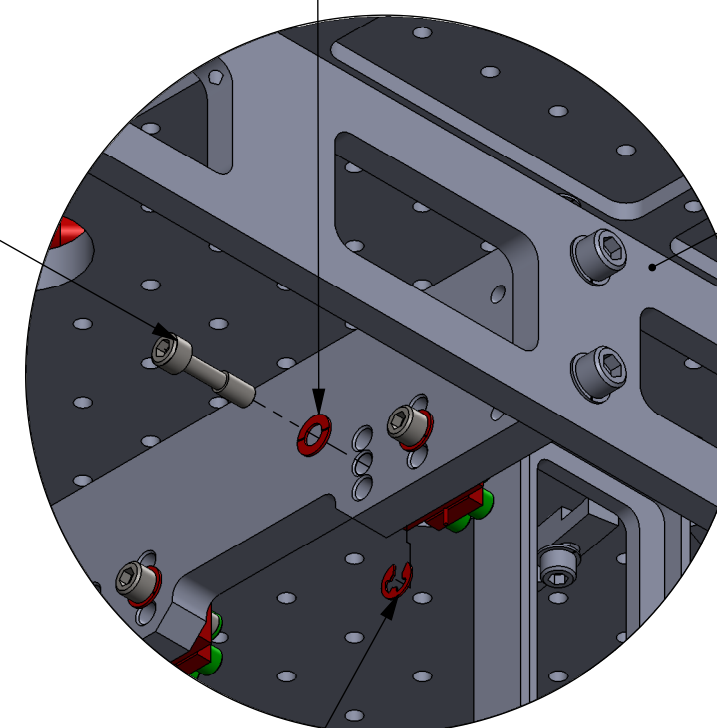
**ISOMETRIC VIEW, Y-ARM
 (-01, RIGHT HAND)
 UNDERSIDE**



**ISOMETRIC VIEW, X-ARM
 (-01, RIGHT HAND)**



**ISOMETRIC VIEW, X-ARM
 (-01, RIGHT HAND)
 UNDERSIDE**



4X
 2 PL.
 ⑧

1/4 FLAT WASHER
 SUPPLIED W. ITEM NO. 8

RETAINING RING
 SUPPLIED W. ITEM NO. 8

1 REF.

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0901880	v5
SCALE: NONE	PROJECTION:
SHEET 4 OF 4	

DD901880_AOS_EIM TELESCOPE UPPER SUSPENSION STRUCTURE ENVELOPE ASSEMBLY PART FROM REV. X-472 DRAWING FROM REV. X-032