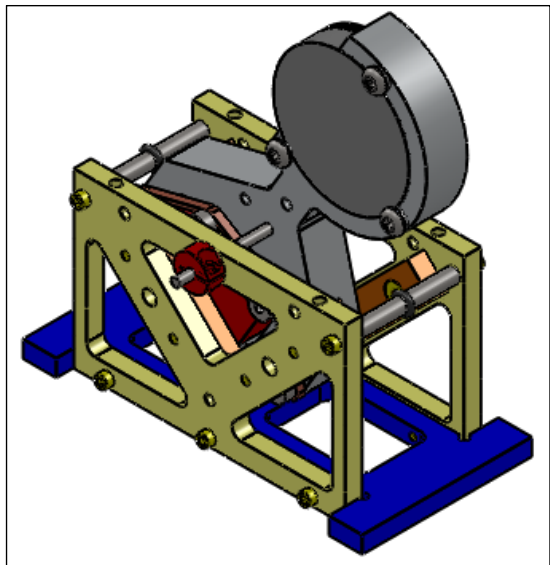


5. SCRIBE, ENGRAVE (A VIBRATORY TOOL MAY BE USED), LASER MARK OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = X.XXX LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-E0900364
8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
9. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4
10. ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL, AFTER DELIVERY OF FINISHED PARTS, USE NITRONIC 60 THREADED INSERTS.
11. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS, PLUGS OR RECYCLED MATERIAL). NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. REFER TO LIGO-E0900364.
12. SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.
13. PART WILL BE PORCELAIN COATED PER LIGO SPECIFICATION E1000083 AFTER FABRICATION. THE INDICATED HOLES WILL BE MASKED PRIOR TO PORCELAIN COATING TO APPROXIMATELY 2.5-3X HOLE DIAMETER CENTERED ON BOTH SIDES OF THE HOLE.
14. DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED.
15. BEND RADIUS: UNLESS OTHERWISE NOTED, THE BEND RADIUS SHOULD BE THE MINIMUM REQUIRED TO FORM WITHOUT CRACKING OR REQUIRING ADDITIONAL WORK WHEN FORMING. IN PARTICULAR IF SHEET METAL IS TO BE PORCELAIN COATED, THE BEND RADIUS SHALL BE A MINIMUM OF .12" OUTSIDE RADIUS OF BEND UNLESS OTHERWISE NOTED.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				 <b>CALIFORNIA INSTITUTE OF TECHNOLOGY</b> <b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b>		PART NAME			
DIMENSIONS ARE IN		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		 <b>SYSTEM</b> <b>ADVANCED LIGO</b>		<b>SUB-SYSTEM</b> <b>ISC</b>		ISC Rotary Beam Diverter	
TOLERANCES:				<b>DESIGNER</b> S. WALDMAN 11 MAR 2011		<b>SIZE</b> <b>DWG. NO.</b>		<b>REV.</b>	
.XX ± .XXX ±				<b>DRAFTER</b>		<b>B</b>		<b>D1100642</b>	
ANGULAR ± °		<b>MATERIAL</b> N/A		<b>FINISH</b> N/A pinch		<b>CHECKER</b>		<b>APPROVAL</b>	
		<b>NEXT ASSY</b>				<b>SCALE:</b> 5:4		<b>PROJECTION:</b> 	
								SHEET 1 OF 6	

D1100642\_ISC\_Rotary\_Beam\_Diverter\_CUSTOM\_VIEWS, PART PDM REV: X-005, DRAWING PDM REV:

- NOTES CONTINUED:
- 5

SCRIBE, ENGRAVE (A VIBRATORY TOOL MAY BE USED), LASER MARK OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
- D

6.

APPROXIMATE WEIGHT = X.XXX LB.

7.

MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-E0900364

8.

ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

9.

ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4

10.

ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL. AFTER DELIVERY OF FINISHED PARTS, USE NITRONIC 60 THREADED INSERTS.

11.

ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS, PLUGS OR RECYCLED MATERIAL). NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. REFER TO LIGO-E0900364.

12.

SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.

13.

PART WILL BE PORCELAIN COATED PER LIGO SPECIFICATION E1000083 AFTER FABRICATION. THE INDICATED HOLES WILL BE MASKED PRIOR TO PORCELAIN COATING TO APPROXIMATELY 2.5-3X HOLE DIAMETER CENTERED ON BOTH SIDES OF THE HOLE.

14.

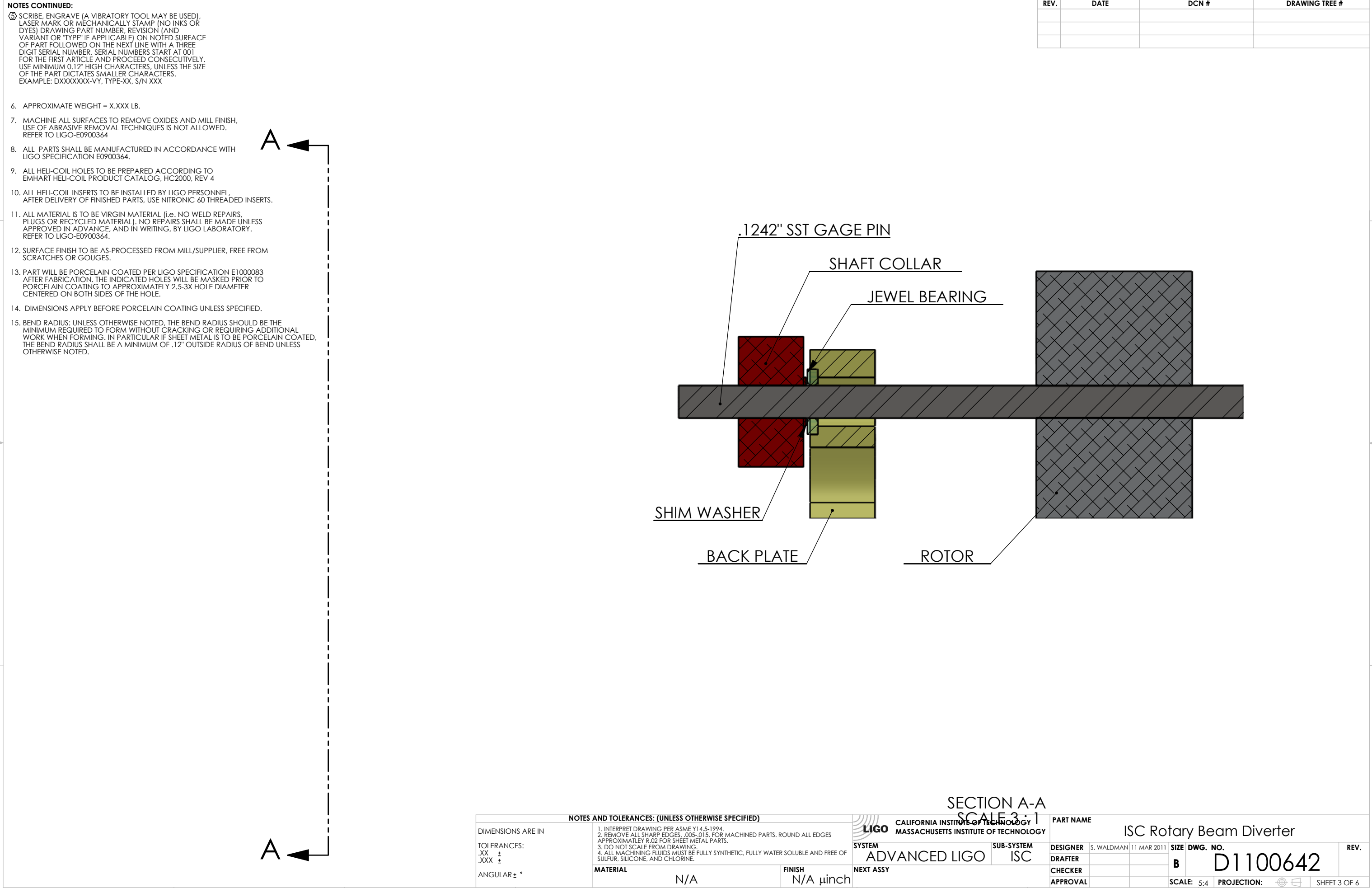
DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED.

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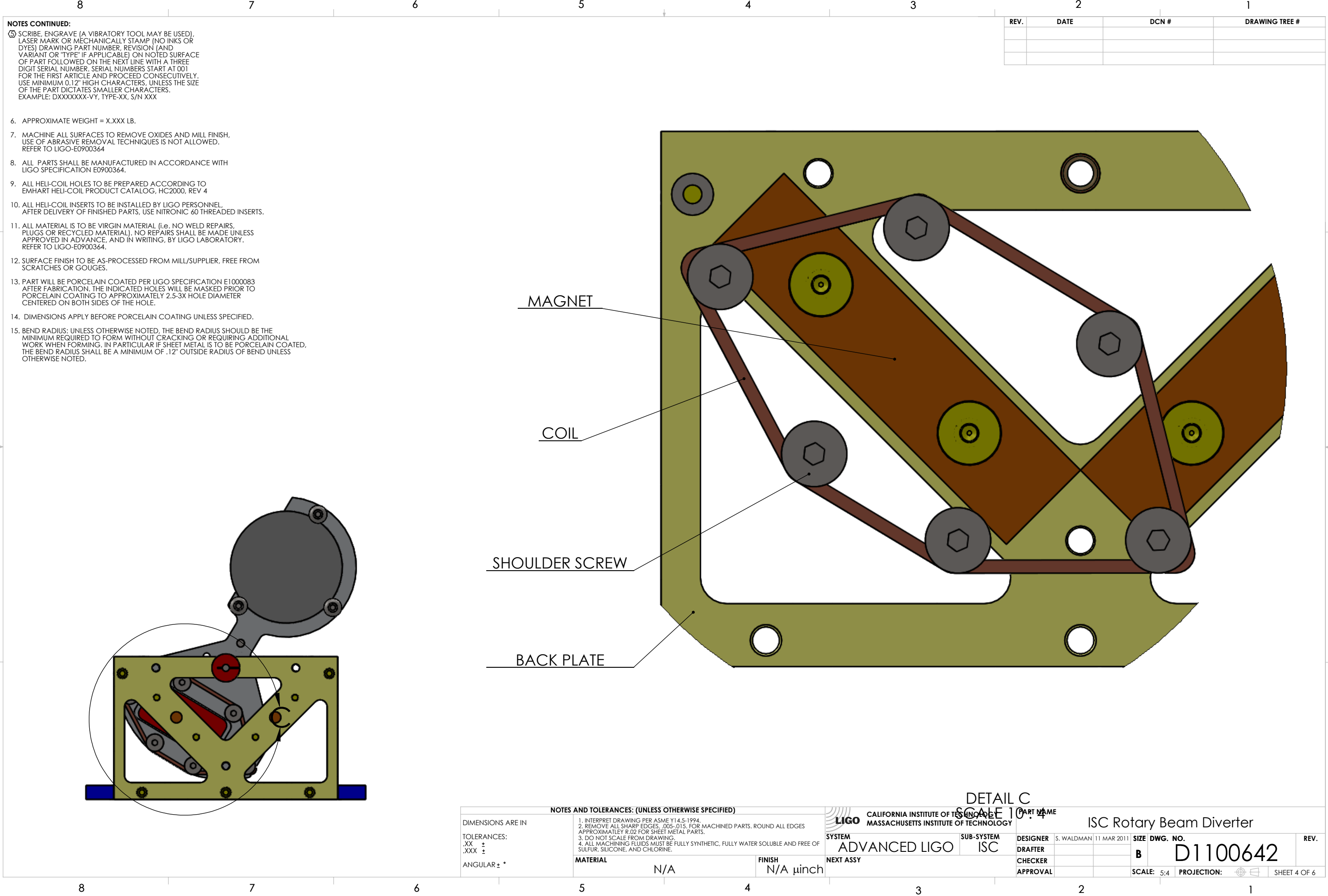
15.

BEND RADIUS: UNLESS OTHERWISE NOTED, THE BEND RADIUS SHOULD BE THE MINIMUM REQUIRED TO FORM WITHOUT CRACKING OR REQUIRING ADDITIONAL WORK WHEN FORMING. IN PARTICULAR IF SHEET METAL IS TO BE PORCELAIN COATED, THE BEND RADIUS SHALL BE A MINIMUM OF .12" OUTSIDE RADIUS OF BEND UNLESS OTHERWISE NOTED.
- 
- | NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) |  |   |  |   |  |           |  |              |  |  |  |  |  |  |  |
|--|--|---|--|---|--|-----------|--|--------------|--|--|--|--|--|--|--|
| DIMENSIONS ARE IN                                  |  | 1. INTERPRET DRAWING PER ASME Y14.5-1994.<br>2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS.<br>3. DO NOT SCALE FROM DRAWING.<br>4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE. |  |   |  |           |  |              |  |  |  |  |  |  |  |
| TOLERANCES:  |  |   |  |   |  |           |  |              |  |  |  |  |  |  |  |
| .XX ±  |  |   |  |   |  |           |  |              |  |  |  |  |  |  |  |
| .XXX ±   |  |   |  |   |  |           |  |              |  |  |  |  |  |  |  |
| ANGULAR ± °  |  |   |  |   |  |           |  |              |  |  |  |  |  |  |  |
| MATERIAL   |  | N/A   |  | FINISH  |  | N/A μinch |  |              |  |  |  |  |  |  |  |
|  |  |   |  |   |  |           |  |              |  |  |  |  |  |  |  |
| LIGO   |  |   |  | CALIFORNIA INSTITUTE OF TECHNOLOGY<br>MASSACHUSETTS INSTITUTE OF TECHNOLOGY |  |           |  | PART NAME    |  |  |  |  |  |  |  |
| SYSTEM   |  |   |  | ADVANCED LIGO   |  |           |  | SUB-SYSTEM   |  |  |  |  |  |  |  |
| NEXT ASSY  |  |   |  | ISC   |  |           |  | DESIGNER     |  |  |  |  |  |  |  |
|  |  |   |  |   |  |           |  | DRAFTER      |  |  |  |  |  |  |  |
|  |  |   |  |   |  |           |  | CHECKER      |  |  |  |  |  |  |  |
|  |  |   |  |   |  |           |  | APPROVAL     |  |  |  |  |  |  |  |
|  |  |   |  |   |  |           |  | SCALE: 5:4   |  |  |  |  |  |  |  |
|  |  |   |  |   |  |           |  | PROJECTION:  |  |  |  |  |  |  |  |
|  |  |   |  |   |  |           |  | SHEET 2 OF 6 |  |  |  |  |  |  |  |
- | REV. | DATE | DCN # | DRAWING TREE # |
|------|------|-------|----------------|
|      |      |       |                |
|      |      |       |                |
|      |      |       |                |

D1100642\_ISC\_Rotary\_Beam\_Diverter\_CUSTOM\_VIEWS, PART PDM REV: X-005, DRAWING PDM REV:



D1100642\_ISC\_Rotary\_Beam\_Diverter\_CUSTOM\_VIEWS, PART PDM REV: X-005, DRAWING PDM REV:





D1100642\_ISC\_Rotary\_Beam\_Diverter\_CUSTOM\_VIEWS, PART PDM REV: X-005, DRAWING PDM REV:

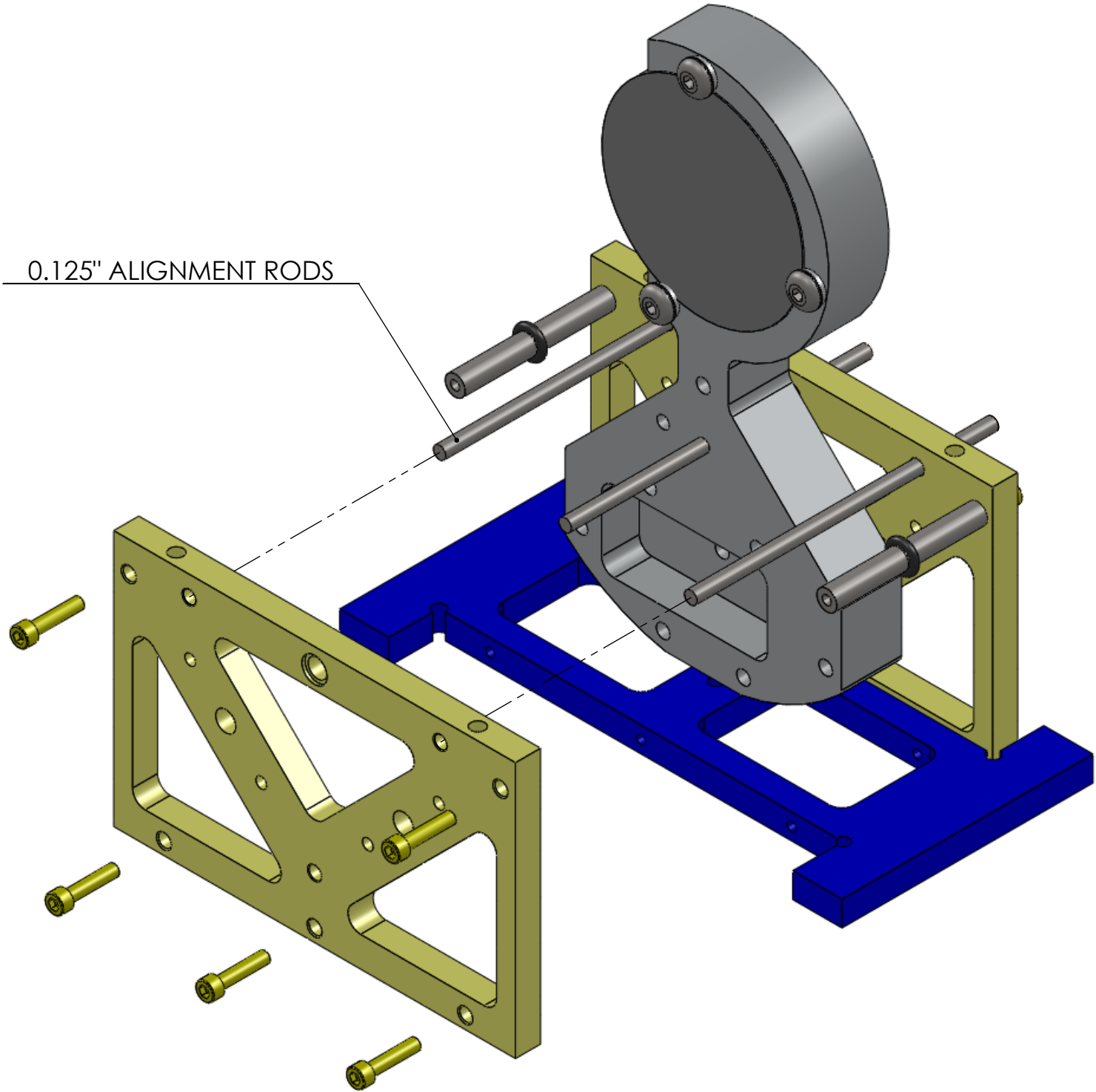
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- NOTES CONTINUED:**
- ⑤ SCRIBE, ENGRAVE (A VIBRATORY TOOL MAY BE USED), LASER MARK OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
6. APPROXIMATE WEIGHT = X.XXX LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-E0900364
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NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		
DIMENSIONS ARE IN		
TOLERANCES:		
.XX	±	
.XXX	±	
ANGULAR	± °	
MATERIAL		FINISH
N/A		N/A μinch

 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
SYSTEM		SUB-SYSTEM	
ADVANCED LIGO		ISC	
NEXT ASSY		DESIGNER	
		DRAFTER	
		CHECKER	
		APPROVAL	
		SCALE: 5:4	
		PROJECTION:	
		SHEET 5 OF 6	

REV.	DATE	DCN #	DRAWING TREE #

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REV.	DATE	DCN #	DRAWING TREE #

**NOTES CONTINUED:**

⑤ SCRIBE, ENGRAVE (A VIBRATORY TOOL MAY BE USED), LAYER MARK OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR 'TYPE' IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE OR FOUR CHARACTER SERIAL NUMBER START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. EXAMPLE: DXXXXXX-VV, TYPE-XX, S/N XXX

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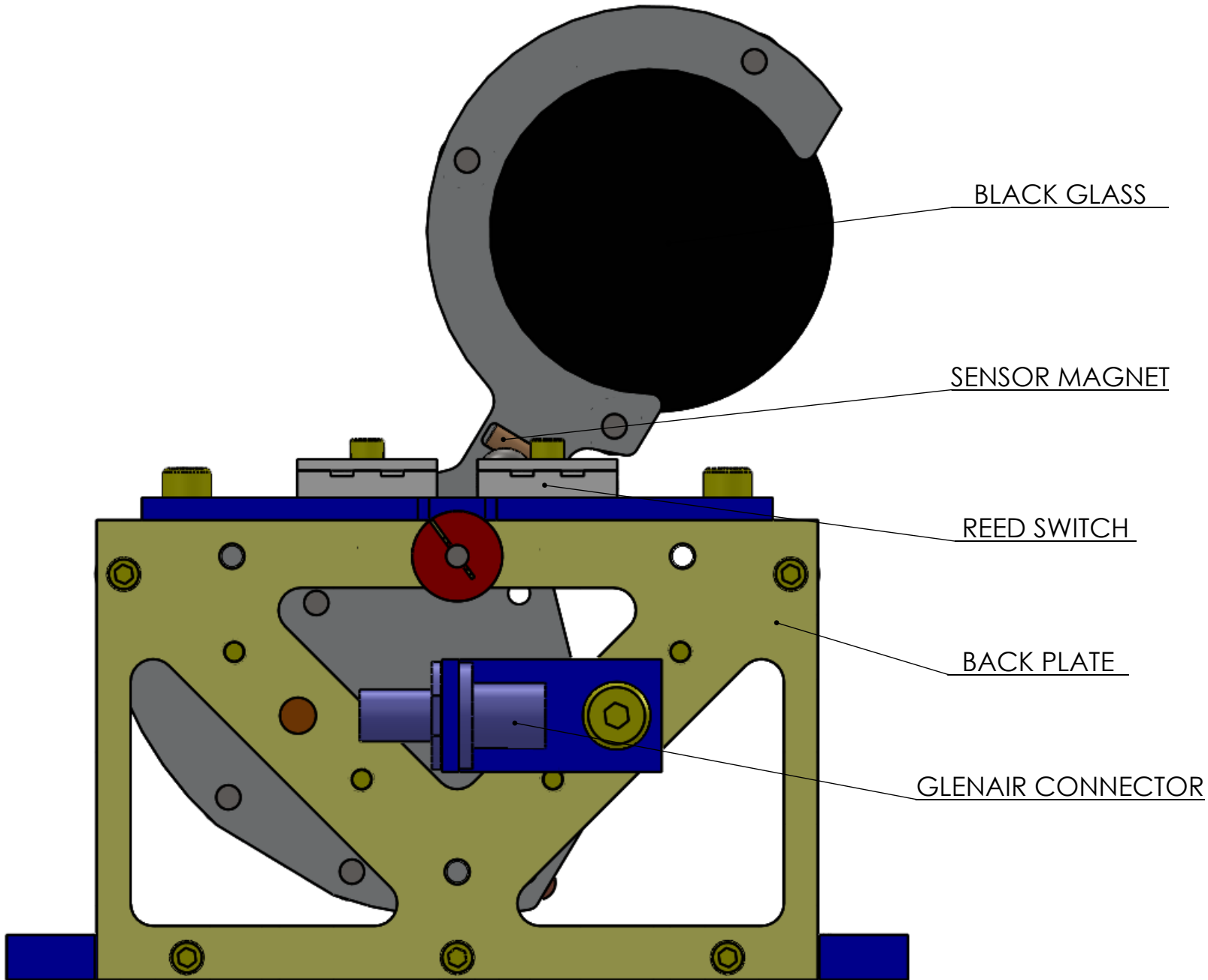
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C

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NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				 <b>CALIFORNIA INSTITUTE OF TECHNOLOGY</b> <b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b>		PART NAME			
DIMENSIONS ARE IN  TOLERANCES: .XX ± .XXX ±  ANGULAR ± °						1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.			
MATERIAL		FINISH		SYSTEM		SUB-SYSTEM		11 ROTARY BEAM DIVERTER 11 MAR 2011	
N/A		N/A pinch		ADVANCED LIGO		ISC		DESIGNER S. WALDMAN DRAFTER CHECKER APPROVAL	
NEXT ASSY								SIZE DWG. NO. B D1100642	
								SCALE: 5:4 PROJECTION:  SHEET 6 OF 6	