

NOTES:

101. ALL DIMENSIONS ARE IN MILLIMETERS (mm) AND VALUES ARE IN SI UNITS. DIMENSIONS AND VALUES IN BRACKETS ARE U.S. CUSTOMARY UNITS (inch) CONVERTED FROM MILLIMETERS / SI UNITS.

107. INSPECTION / ACCEPTANCE TO BE MEASURED AND RECORDED IN SI UNITS.

109b. ESTIMATED WEIGHT IS 292.4 KG, (644.72 LBM)

901. DRAWING REPRESENTS MECHANICAL LIMITATIONS OF LEFT YOKE ASSY. FINAL SPECIFICATIONS SATISFYING MAGNETIC AND ENGINEERING REQUIREMENTS, SPECIFIED IN BTA DIPOLE COMMON MECHANICAL REQUIREMENTS DOCUMENT (AL-1462-7396) AND BTA DIPOLE MAGNET-SPECIFIC REQUIREMENTS DOCUMENT (AL-1471-4086), TO BE DETERMINED BY VENDOR.

902. FEATURES NOT EXPLICITLY SPECIFIED ARE SUBJECT TO VENDOR SPECIFICATION AND LBNL APPROVAL. HOLES NOT SPECIFIED ARE REFERENCE MOUNTING FEATURES FOR ITEMS CONTROLLED ONLY BY SPACECLAIMS.

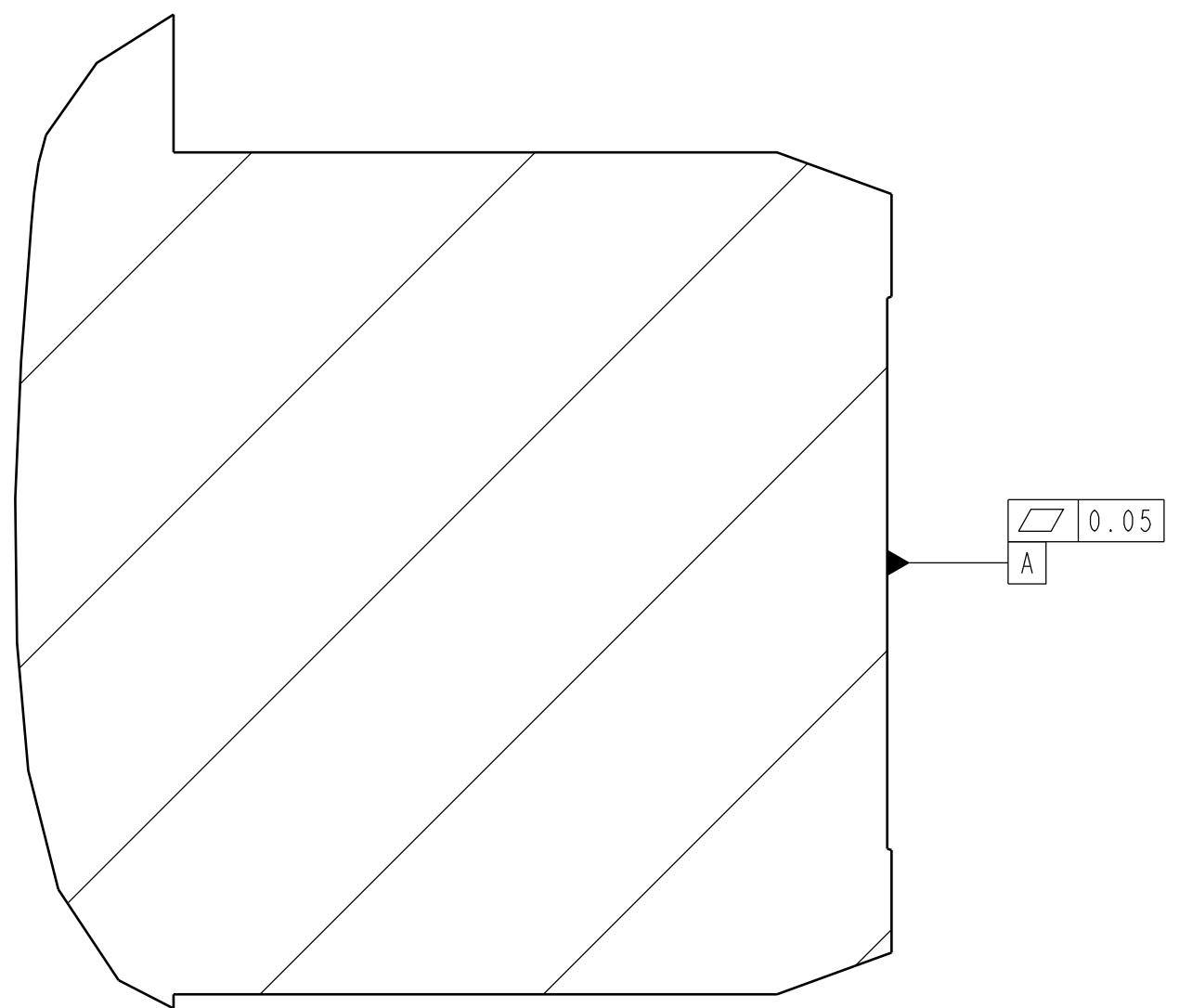
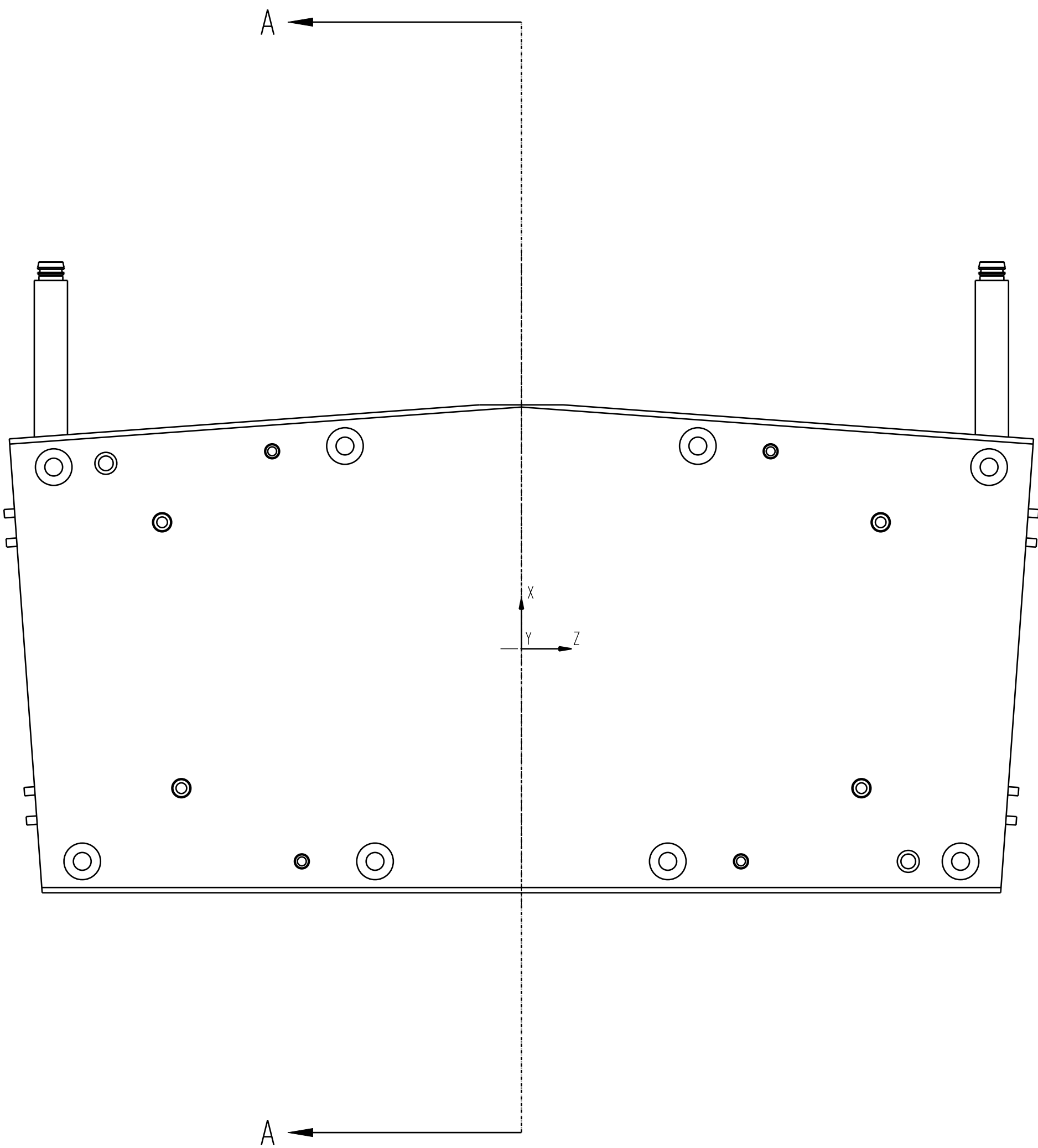
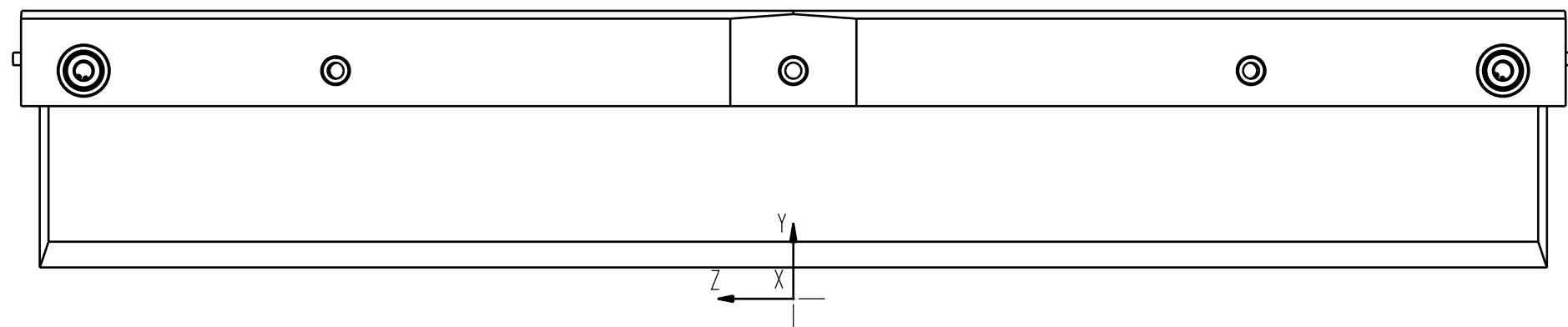
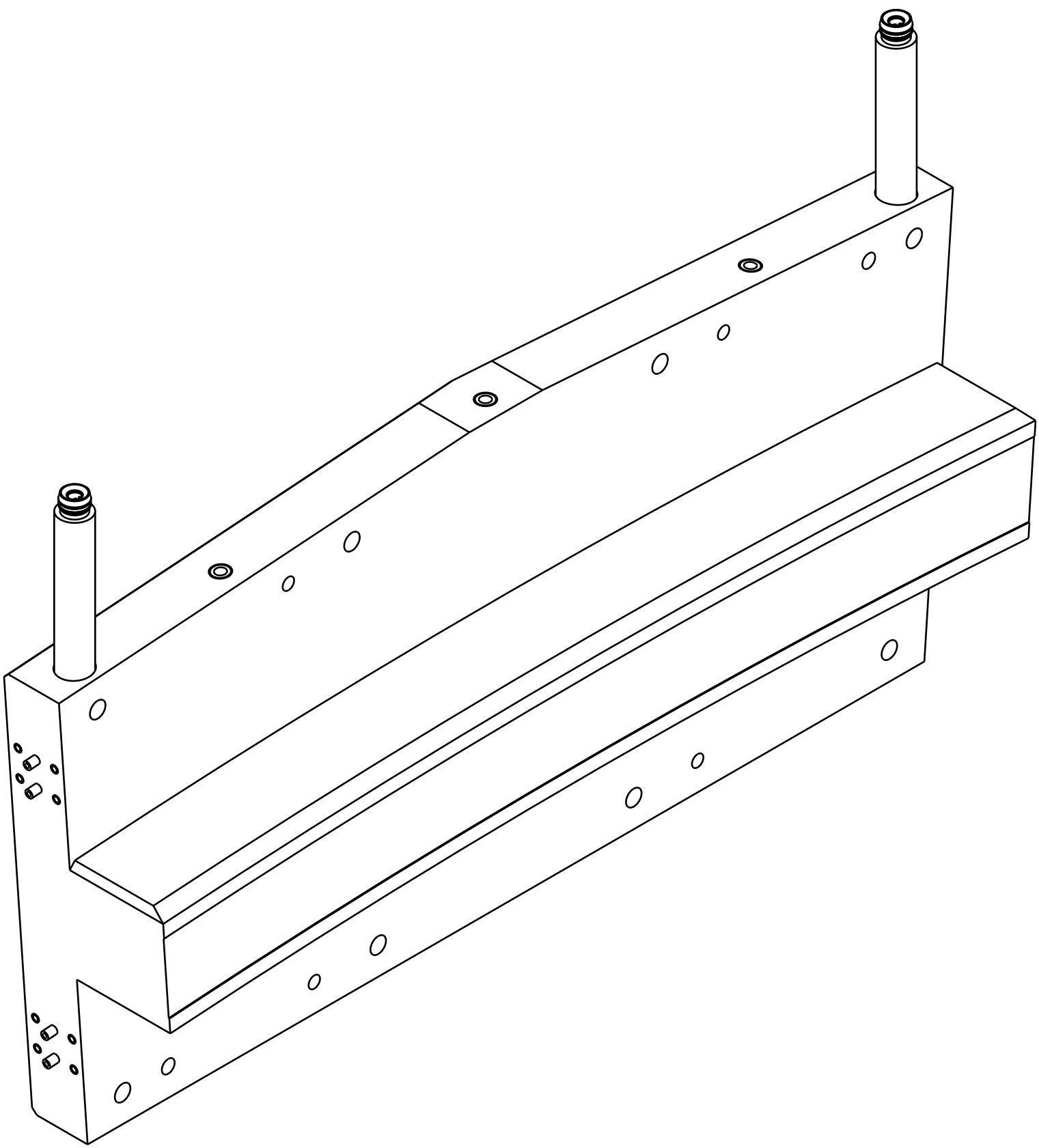
903. WELD SIZES NOT SPECIFIED TO BE DETERMINED BY VENDOR.

904. RETROREFLECTOR NEST TO BE PURCHASED BY LBNL AND SUPPLIED TO VENDOR.

905. HOLES MARKED "L" ARE POTENTIAL HOIST RING ATTACHMENT POINTS. FINAL POSITIONS OF LIFTING POINTS SHOULD BE PLACED APPROXIMATELY AS SHOWN, TO BE SPECIFIED BY VENDOR AND SUBJECT TO LBNL APPROVAL. IF LIFTING FIXTURE NECESSARY, THEN IT IS TO BE DESIGNED BY VENDOR. LIFTING FIXTURE MUST FIT WITHIN FOOTPRINT OF MAGNET YOKE. ADDITIONAL FEATURES FOR LIFTING FIXTURE SUBJECT TO LBNL APPROVAL.

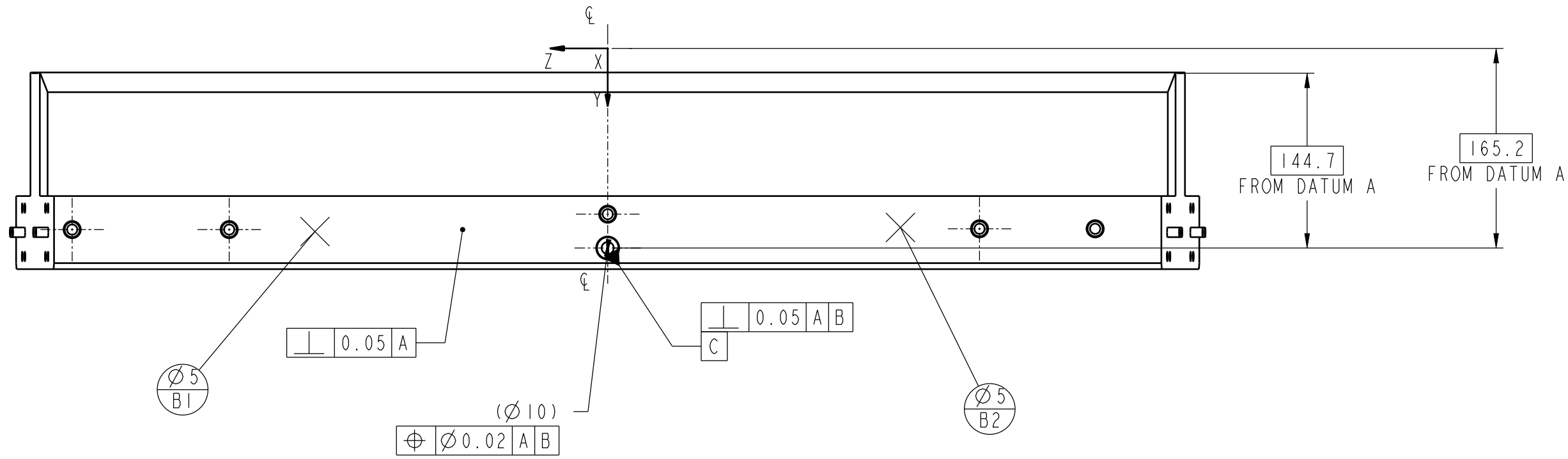
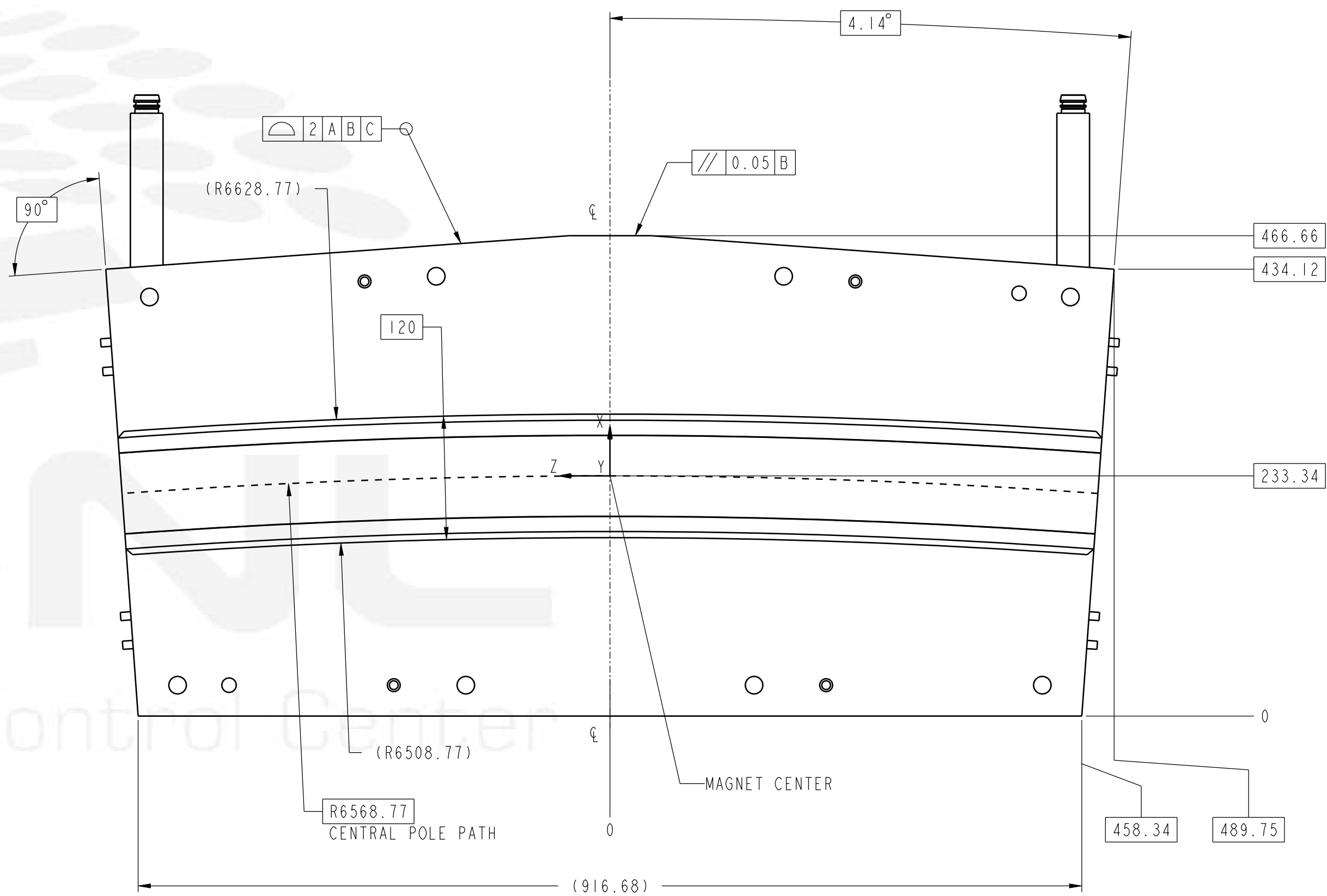
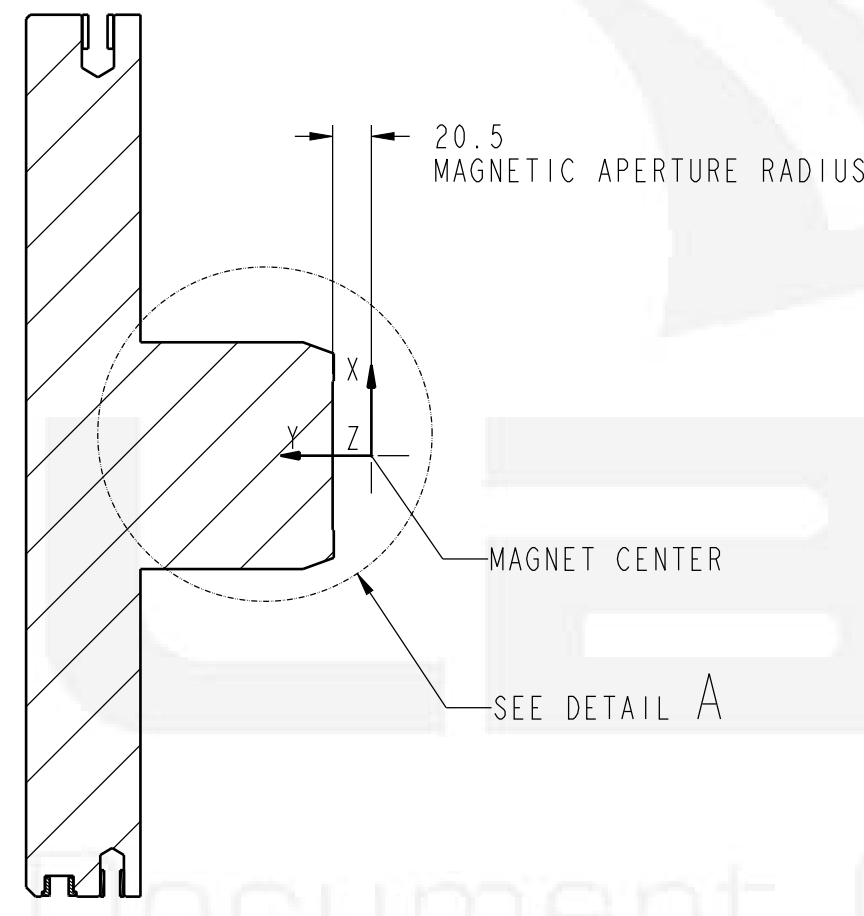
906. HOLES MARKED "D" ARE LEFT YOKE ASSY AND RIGHT YOKE ASSY ALIGNMENT FEATURES. HOLES AND ALIGNMENT FEATURES TO BE DESIGNED BY VENDOR, APPROVED BY LBNL. FEATURES MUST SATISFY MULTIPOLE AND ALIGNMENT REQUIREMENTS (SEE BTA DIPOLE COMMON MECHANICAL REQUIREMENTS DOCUMENT). SEE AL-1259-3222 FOR FEATURE MOUNTING AND ALIGNMENT PROCESS DEFINITION.

907. SUPPORT HOLE FEATURES MARKED "S".



DETAIL A
SCALE 1:1

SECTION A-A
AREA SECTION VIEW
SEE SHEET 2 FOR CROSS-SECTION SPECIFICATION




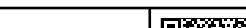

BUILD TO SPECIFICATION

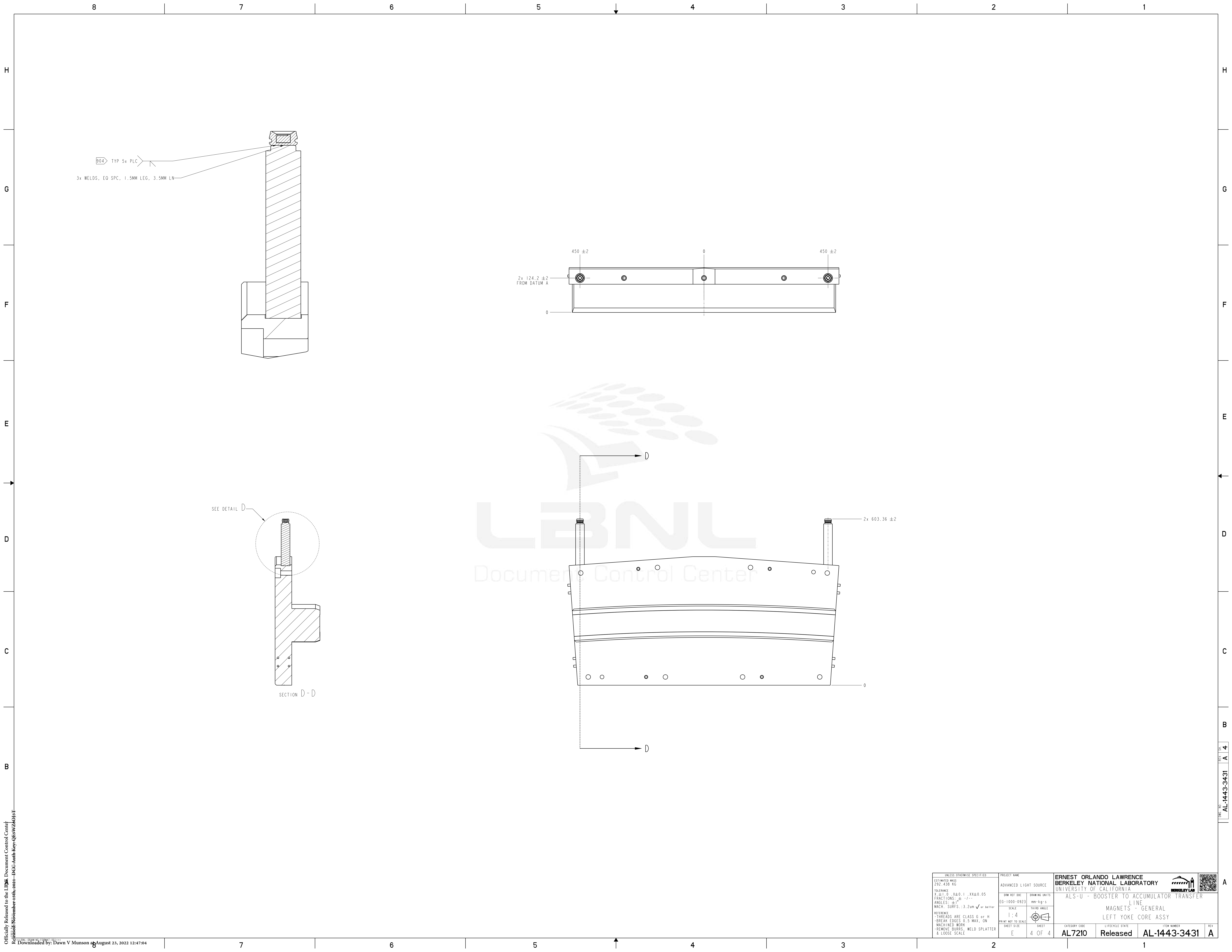
| CHANGE DESCRIPTION (SEE LBNL PDM FOR REV HISTORY) | | UNLESS OTHERWISE SPECIFIED | | PROJECT NAME | |
|--|--|---|--|------------------------------|--|
| BASELINE RELEASE | | ESTIMATED MASS 292.438 KG | | ADVANCED LIGHT SOURCE | |
| AUTHOR Szezerri, Sullivan | | TOLERANCE X: ±0.1, Y: ±0.1, Z: ±0.05 | | DRAW REF DOC EG-1000-0923 | |
| CHECKED BY CASwenson | | FRACTIONS: 1/16, 1/32, 1/64 | | DRAWING UNITS mm/kg/s | |
| CHECKED AT Nov 15 2021 3:29:58 PM PST | | ANGLES: ±1° | | SCALE 1:4 | |
| RELEASED BY CASwenson | | MACH. SURFS: 3.2um ✓ or better | | THIRD ANGLE | |
| RELEASED AT Nov 15 2021 3:30:16 PM PST | | REFERENCE - THREADS ARE CLASS G or H - BREAK EDGES 0.5 MAX, ON - MACHINED WORK - REMOVE BUBBLES, WELD SPLATTER - & LOOSE SCALE | | SHEET SIZE E | |
| THIS DRAWING IS THE PROPERTY OF ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY (LBNL) AND ANYTHING PRODUCED FROM THESE DRAWINGS IS SUBJECT TO LBNL'S INTELLECTUAL PROPERTY RIGHTS. THIS DRAWING IS LOANED ON A CONFIDENTIAL BASIS SUBJECT TO RETURN ON DEMAND AND NOTHING HEREIN MAY BE REPRODUCED, USED OR DISCLOSED IN WHOLE OR PART WITHOUT PRIOR WRITTEN PERMISSION OF LBNL. | | SHEET 1 OF 4 | | CATEGORY CODE AL7210 | |
| | | | | LIFECYCLE STATE Released | |
| | | | | ITEM NUMBER AL-1443-3431 | |
| | | | | REV A | |

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA
ALS-U - BOOSTER TO ACCUMULATOR TRANSFER
LINE
MAGNETS - GENERAL
LEFT YOKE CORE ASSY





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|----------------------------|---|--|--|--|---|
| UNLESS OTHERWISE SPECIFIED | PROJECT NAME | | ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA | |  |
| ESTIMATED MASS 292.435 KG | ADVANCED LIGHT SOURCE | | ALS-U - BOOSTER TO ACCUMULATOR TRANSFER | |  |
| TOLERANCE | DIM LINE SIZES: 0.1X, 0.2X, 0.5X FRACTIONS: 1/8, 1/4, 3/8, 1/2 DECIMALS: .005, .01, .02, .03, .04, .05 ANGLES: 30°, 45°, 60°, 90°, 120°, 150°, 180° HOLE DRILLING: 0.0150 - 0.0250 SURF. FINISH: 3.2um v or better | | DRAWING UNITS MM-1000-0923 | | MAGNETS - GENERAL LEFT YOKE CORE ASSY |
| TOLERANCE | SCALE 1:4 | | THIRD ANGLE  | | CATEGORY CODE AL720 |
| TOLERANCE | PRINT NOT TO SCALE E 2 OF 4 | | LIFECYCLE STATE Released | | ITEM NUMBER AL-1443-3431 |
| TOLERANCE | | | | | REV A |



| UNLESS OTHERWISE SPECIFIED | | PROJECT NAME | | ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA | |
|---|--|-----------------------------|----------------------------|---|-----------------------------|
| ESTIMATED MASS 292.438 KG | | ADVANCED LIGHT SOURCE | | ALS-U - BOOSTER TO ACCUMULATOR TRANSFER | |
| TOLERANCE X ± 0.1 X ± 0.05 FRACTIONS ± - / - - ANGLES ± ° MACH. SURFS. ± 3.2um ✓ or better | | SHW REF DOC EG-1000-0923 | DRAWING UNITS mm-Kg-s | MAGNETS - GENERAL | |
| REFERENCE * THREADS ARE CLASS G or H * BREAK EDGES 0.5 MAX, ON * MACHINED WORK * REMOVE BURRS, WELD SPLATTER * & LOOSE SCALE | | SCALE 1:4 | THIRD ANGLE THIRD ANGLE | LEFT YOKE CORE ASSY | |
| SHEET SIZE E | | SHEET 4 OF 4 | CATEGORY CODE AL7210 | LIFECYCLE STATE Released | ITEM NUMBER AL-1443-3431 |