3 REVISION HISTORY REV DATE APPROVAL DESCRIPTION ECO Release for Enhanced LIGO. 31 Jul 2007 1070 B. Schiffner Release for Advanced LIGO. Added c'sinks and chamfers. V2 23 Apr 2009 A. Stein 8X ∅ .406 THRU  $\checkmark$   $\phi$  .46 X 82°, BOTH SIDES Ø **4**.00 3X .05 X 45° CHAMFER .250 .002 (.50) // .002 A .250 -Ø2.250<sup>+.005</sup> -.010 R.125±.010 .002 A В 3X ∅ .201 THRU ALL 1/4-20 UNC H7-11 THRU ALL - $\checkmark$   $\phi$  .30 X 120°, BOTH SIDES ⊕ Ø .005 A B MANUFACTURING NOTES: Ø 1.280<sup>+.001</sup> THRU 1) MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. ABRASIVE REMOVAL TECHNIQUES (OTHER THAN DRESSED BLANCHARD GRINDING) ARE NOT ACCEPTABLE. 2) ALL MACHINING FLUIDS MUST BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE, AND SILICONE, SUCH AS CINCINNATI MILACRON CIMTECH 410.  $\checkmark$   $\emptyset$  1.38 X 90°, NEAR SIDE ⊕ Ø .005 A B 3) THOROUGHLY CLEAN PART TO REMOVE ALL OIL, GREASE, DIRT, AND CHIPS. .001 A 4) WHERE INDICATED, MECHANICALLY SCRIBE, STAMP, OR ENGRAVE THE FOLLOWING INFORMATION AS SHOWN BELOW: **PART NUMBER-REVISION** (AND **TYPE** IF INDICATED), FOLLOWED ON THE NEXT LINE WITH A UNIQUE 3-DIGIT **SERIAL NUMBER** STARTING AT 001 FOR THE FIRST PART AND INCREMENTING THEREAFTER. USE 0.38" TALL CHARACTERS UNLESS PART SIZE DICTATES SMALLER. D071307-V2 S/N - ### POST-MANUFACTURING NOTES: P1) CLEAN TO LIGO STANDARDS, CLASS B (PER E0900047 AND E960022). ORIGINAL DESIGN BY: MODIFIED BY: **High Precision Devices** LIGO UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES 1668 Valtec Lane, Suite C, Boulder, Colorado 80301 Phone: (303) 447-2558 Fax: (303) 447-2548 Web Site: www.hpd-online.com DECIMAL TOLERANCES: .XX ±.015 .XXX ±.005 APPROVALS ANG TOL: ± 1° SURFACE ROUGHNESS: 63/ DATE Spring Pull-Down, Base DESCRIPTION: REMOVE ALL SHARP EDGES. LEAVE .005 X 45° MIN CHAMFER, OR .005 MIN RADIUS. D. Senders 6/15/2007 P/N: **D071307** CONFIG: THIS PRINT & THE EMBEDDED CAD MODEL ARE THE DOCUMENTATION OF RECORD. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN THE MODEL ARE BASIC, WITH TOLERANCES GIVEN BY: C. Danaher 6/15/2007 CAD FILE NAME: D071307\_Spring\_Pull-Down-Base MATERIAL: 6061-T6 AI PROJECT: HAM ISI, Advanced LIGO FINISH: SCALE: 1:1 DRAWN BY: Dave Senders (HPD) C SHEET 1 OF 1 DATE PRINTED: 4/24/2009 0.3 lbs MASS: 7 6 5 4 3 2 Model: #D071307 Rev: V2 8 Dwg: #D071307 Rev: X-002

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