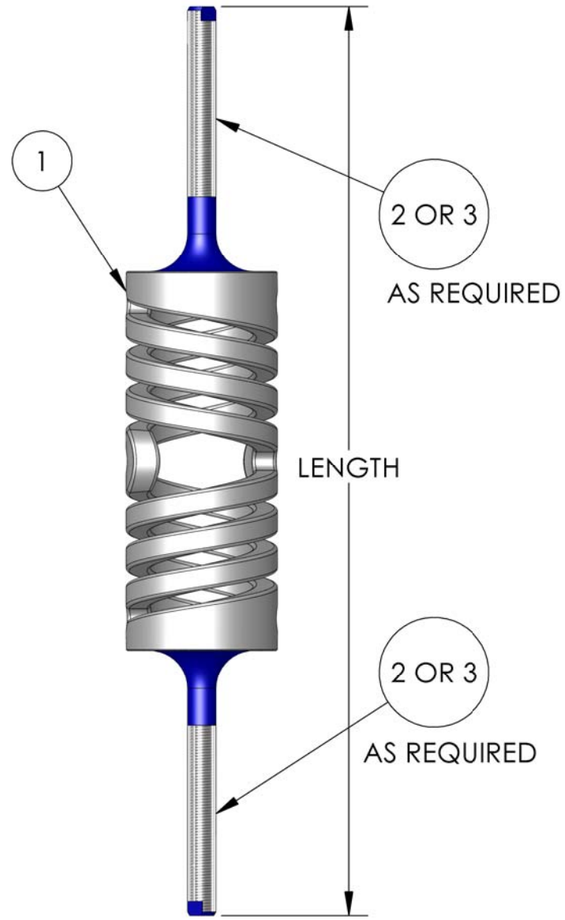
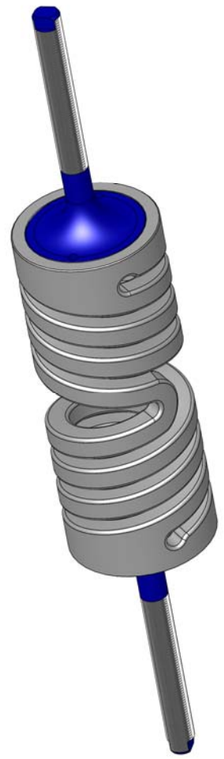
| REV. | DATE | DCN # | DRAWING TREE # |
|---|---|---|---|
| v3 | 3 Feb. 2011 | E1100015 | E1100016 |
| | | | |
| | | | |

NOTES:
1. BREAK ALL SHARP EDGES.
2. JOIN ASSEMBLY PER FOLLOWING PROCEDURE:
WIRE BRUSH THREADS ON MATING PARTS.
SOLVENT CLEAN TO REMOVE OILS.
APPLY SILVER SOLDER PASTE (ALL-STATE SILVER SOLDER OR EQUIVALENT)
TO MATING THREADS ON CLEANED, DRY PARTS.
ASSEMBLE PARTS. CONNECTORS (D020407) MUST SEAT FULLY
TO OBTAIN SPECIFIED LENGTH ±.06" OVERALL LENGTH.
BAKE FOR 4 HOURS @ 400°F.
REMOVE PARTS AND AIR COOL TO 120°F.
WIRE BRUSH TO REMOVE EXCESS FLUX.
3. ELECTROLESS NICKEL PLATE ASM PER FOLLOWING PROCEDURE:
RECOMMENDED SURFACE PREP:
CATHODIC ALKALINE CLEAN, 75 ASF, 1 MIN.
PUMICE SCRUB AND RINSE.
CATHODIC ALKALINE CLEAN, 75 ASF, 15 SEC.
WATER RINSE.
ANODIC IN 25% SULFURIC ACID, 200 ASF, 2 MIN AT ROOM TEMP.
DIP IN CHROMIUM-SULFURICE ACID, 1 MIN.
WATER RINSE HOT.
WATER RINSE COLD.
4. PLATING PROCEDURE:
PROTECT 3/4"-20 THREADS ON D020407 PER BEST SHOP PRACTICE.
IMMERSE 1 MIN AND PLATE 1 MIN 30 ASF IN ACID NICKEL CHLORIDE
BATH AT ROOM TEMP. TRANSFER WITHOUT RINSING TO REGULAR
NICKEL PLATING BATH.



| ITEM NO. | PART NUMBER | DESCRIPTION | MATERIAL | D020408-00/REQ | D020408-01/REQ |
|---|---|---|---|---|---|
| 3 | D020407-00 | DOUBLE START COUNTERWOUND SPRING CONNECTOR, aLIGO BSC | AISI 4340 Steel, normalized | 2 | - |
| 2 | D020407-01 | DOUBLE START COUNTERWOUND SPRING CONNECTOR, aLIGO HAM | AISI 4340 Steel, normalized | - | 2 |
| 1 | D020406 | DOUBLE START COUNTERWOUND SPRING | MARAGING 300 | 1 | 1 |

| PART NUMBER | LENGTH | WHERE USED |
|---|---|---|
| D020408-00 | 24.00 ±.060 | aLIGO BSC |
| D020408-01 | 22.35 ±.060 | aLIGO HAM |

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)
DIMENSIONS ARE IN N/A
TOLERANCES:
.XX ± N/A
.XXX ± N/A
ANGULAR ± N/A °
1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. REMOVE ALL SHARP EDGES, .03 x 45°.
3. DO NOT SCALE FROM DRAWING.
MATERIAL: SEE BOM
FINISH: SEE NOTES

LIGO — CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY
SYSTEM: ADVANCED LIGO
SUB-SYSTEM: SEI
NEXT ASSY: D030320

PART NAME: DOUBLE START COUNTERWOUND SPRING ASM

| | | |
|---|---|---|
| DESIGNER | M. HAMMOND | 14 May, 2003 |
| DRAFTER | M.HILLARD | 3 Feb. 2010 |
| CHECKER | J. KERN | 14 May 2003 |
| APPROVAL | K.MASON | 3 Feb. 2011 |

SIZE: B — DWG. NO.: D020408 — REV.: v3
SCALE: 1:4 — PROJECTION: — SHEET 1 OF 1

D020408, PART PDM REV: X-007, DRAWING PDM REV: X-002