

DOCUMENT CHANGE NOTICE

E1100080-v1 DCN-Various TMS Revisions and Releases

DOCUMENTS AFFECTED:

D0902829 -v2:	aLIGO_SLEEVE_ALIGNMENT_TELESCOPE
D1000070 -v2:	TRANSMON_TELE_END_PLATE_PRIMARY_3_TUBE
D1000071 -v3:	TRANSMON_TELE_END_PLATE_ENTRY_3_TUBE
D1000275 -v2:	aLIGO_TRANSMON_TELE_BLACK_GLASS_PLATE
D1001108 -v1:	aLIGO ETM TELESCOPE TUBE LARGE WASHER
D1001109 -v2:	aLIGO ETM TELESCOPE BRIDGE SUPPORT TEE PLATE
D1001129 -v3:	aLIGO ETM OPTICAL TABLE
D1001160 -v1:	aLIGO OPTICS TABLE TOP STRUCTURAL ASSEMBLY
E1000786 -v1:	BOM-aLIGO OPTICS TABLE TOP STRUCTURAL ASSEMBLY
D1001161 -v2:	aLIGO OPTICS TABLE TOP MODIFIED EYEBOLT
D1001163 -v2:	aLIGO OPTICS TABLE GUSSET PLATE, LARGE
D1001164 -v2:	aLIGO OPTICS TABLE GUSSET PLATE, SMALL
D1002210 -v2:	aLIGO TMS FLEXABLE SEC MIRROR MT. ASSY
E1000459 -v2:	BOM - TMS Telescope Secondary Mirror Mount
D1002221 -v2:	aLIGO OPTICS TABLE SPEADER BRIDGE
D1002696 -v2:	aLIGO ETM TELESCOPE BRIDGE SUPPORT TEE PLATE_Front
D1002698 -v2:	aLIGO_TMS_Telescope_Roll_Slide_Mass
D1002699 -v2:	aLIGO_Pitch_Slide_Mass
D1002758 -v2:	aLIGO_TMS_Telescope_Pitch_Guide
D1002768 -v3:	aLIGO_TMS_Telescope_Roll_Mass_Adj_Rod
D1003162 -v3:	aLIGO TMS TELESCOPE PITCH MASS ADJ. ROD
D1100358 -v1:	TMS Telescope Mass Attachment Screw

CHANGE DESCRIPTION (FROM / TO)

[D0902829](#)-v2 aLIGO_SLEEVE_ALIGNMENT_TELESCOPE

Contained in assemblies: [D1003120](#)-v1, [D1002460](#)-v1, [D0901880](#)-v1

1. AT ZONE A3 & A4:

Added cut feature to flange, centered with 1 of 3 tapped holes.

Reason for change:

To eliminate interference in higher assembly [D1002460](#)-v1.

CHANGE DESCRIPTION (FROM / TO) continued

[D1000070](#)-v2 TRANSMON_TELE_END_PLATE_PRIMARY_3_TUBE

Contained in assemblies: [D1003120](#)-v1, [D1002460](#)-v1, [D0901880](#)-v1

1. ON SHEETS 5-7:

Added .020" deep pocket features per DETAILS E & F. Features include added areas of .0003" T.I.R. COPLANARITY on the affected part face.

Reason for change:

To eliminate air traps in next assembly [D1003120](#)-v1.

To reduce contact areas in next assembly [D1003120](#)-v1.

[D1000071](#)-v3 TRANSMON_TELE_END_PLATE_ENTRY_3_TUBE

Contained in assemblies: [D1003120](#)-v1, [D1002460](#)-v1, [D0901880](#)-v1

1. ON SHEETS 2 & 3, centered with 8.50" diameter thru hole:

-FROM- Two 1/4-20 tapped holes spaced 11.000" apart, with .52" diameter c'sinks on near side.

-TO- Three 1/4-20 tapped holes equally spaced on 11.000" diametrical pattern, with .31" diameter c'sinks on near side, c'sinks to major diameter on far side.

2. ON SHEETS 4 & 5:

Added .020" deep pocket features per DETAIL E. Features include added areas of .0003" T.I.R. COPLANARITY on the affected part face.

Reason for change:

To eliminate air traps in next assembly [D1003120](#)-v1.

To reduce contact areas in next assembly [D1003120](#)-v1.

[D1000275](#)-v2 aLIGO_TRANSMON_TELE_BLACK_GLASS_PLATE

Contained in assemblies: [D1003120](#)-v1, [D0901880](#)-v1

1.

-FROM- Two .34" diameter holes centered with 7.48" diameter hole, spaced 11.00" apart.

-TO- Three .34" diameter holes centered with 7.48" diameter hole, on (11.00") diametrical pattern (dimensioned rectangularly).

Reason for change:

To better stabilize the mounting base of the part in next assembly [D1003120](#)-v1.

[D1001108](#)-v1 aLIGO ETM TELESCOPE TUBE LARGE WASHER

1. Initial release.

Reason for change:

For precision interface of parts within next assembly [D1003120](#)-v1.

CHANGE DESCRIPTION (FROM / TO) continued

[D1001109](#)-v2 aLIGO ETM TELESCOPE BRIDGE SUPPORT TEE PLATE

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added four .206" diameter thru holes, crossing ends of 4 blind tapped holes.
2. Added "DRILL THRU 1 WALL" to call-out for 8 tapped holes.
3. Added DETAIL A- milled features.
4. Note added to lower right corner of drawing:

"*THIS REVISION APPLIES ONLY FOR REWORK OF FIRST ARTICLE- REVISION v1, S/N 001."

Reason for change:

Rework of first article- revision v1, S/N 001, to eliminate air traps in next assembly [D1001160](#)-v1.

Rework of first article- revision v1, S/N 001, to eliminate interference in higher assembly [D1002460](#)-v1.

[D1001129](#)-v3 aLIGO ETM OPTICAL TABLE

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. ON SHEET 3:

Added eight .188" diameter holes to be drilled from relieved face of part, thru wall of 5/16-18 tapped holes.

Reason for change:

To eliminate air traps in next assembly [D1001160](#)-v1.

[D1001160](#)-v1 aLIGO OPTICS TABLE TOP STRUCTURAL ASSEMBLY

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[E1000786](#)-v1 BOM-aLIGO OPTICS TABLE TOP STRUCTURAL ASSEMBLY

Contained in assemblies: [D1000484](#)-v1, [D1002460](#)-v1

1. Initial release of assembly drawing & BOM. The following new component revisions per this notice are included in the assembly:

[D1001109](#)-v2 aLIGO ETM TELESCOPE BRIDGE SUPPORT TEE PLATE

[D1001129](#)-v3 aLIGO ETM OPTICAL TABLE

[D1001161](#)-v2 aLIGO OPTICS TABLE TOP MODIFIED EYEBOLT

[D1001163](#)-v2 aLIGO OPTICS TABLE GUSSET PLATE, LARGE

[D1001164](#)-v2 aLIGO OPTICS TABLE GUSSET PLATE, SMALL

[D1002221](#)-v2 aLIGO OPTICS TABLE SPEADER BRIDGE

[D1002696](#)-v2 aLIGO ETM TELESCOPE BRIDGE SUPPORT TEE PLATE_Front

[D1002698](#)-v2 aLIGO_TMS_Telescope_Roll_Slide_Mass

[D1002699](#)-v2 aLIGO_Pitch_Slide_Mass

[D1002758](#)-v2 aLIGO_TMS_Telescope_Pitch_Guide

[D1002768](#)-v3 aLIGO_TMS_Telescope_Roll_Mass_Adj_Rod

[D1003162](#)-v3 aLIGO TMS TELESCOPE PITCH MASS ADJ. ROD

[D1100358](#)-v1 TMS Telescope Mass Attachment Screw

CHANGE DESCRIPTION (FROM / TO) continued

[D1001161](#)-v2 aLIGO OPTICS TABLE TOP MODIFIED EYEBOLT

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D0901880](#)-v1

1. Raw Material changed:
 - FROM- McMaster-Carr P/N 33045T78
 - TO- McMaster-Carr P/N 33045T72 or equivalent
2. Electro-polish specification added (flag note 12).

Reason for change:

The raw material of revision v1 had a shoulder which needed to be machined away for the final part's function. To reduce machining, revision v2 substitutes a similar raw material without a shoulder.

Electro-polish specification was missing on revision v1.

[D1001163](#)-v2 aLIGO OPTICS TABLE GUSSET PLATE, LARGE

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added nine .206" diameter cross drilled vent holes for 9 1/4-20 UNC blind tapped holes.
2. Six 1/4-20 UNC tapped holes, thread depth changed:
 - FROM- .37"
 - TO- .50" (as built condition for the first two articles)
3. Two 1/4-20 UNC blind tapped holes to break thru wall.
4. +.005"/-0" size tolerance added to one .503" diameter thru hole.
5. Locating dim. for 4.56" x 1.32" rectangular cut-out changed:
 - FROM- 1.00"
 - TO- .97" (as built condition for the first two articles)
6. Note added to lower right corner of drawing:
"*THIS REVISION APPLIES ONLY FOR REWORK OF FIRST 2 ARTICLES- REVISIONS v1, S/N 001, 002."

Reason for change:

Rework of first 2 articles- revisions v1, S/N 001, 002 as follows:

To eliminate air traps in next assembly [D1001160](#)-v1.

To provide missing tolerance for one .503" DIA. THRU hole.

Correction of drawing errors (Vendor let solid model over-ride drawing on revision v1 first 2 articles. Solid model was correct, first 2 articles are to revision v1 specification accordingly & regardless of drawing errors.)

CHANGE DESCRIPTION (FROM / TO) continued

[D1001164](#)-v2 aLIGO OPTICS TABLE GUSSET PLATE, SMALL

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added four .206" diameter thru holes, crossing ends of 4 blind tapped holes.
2. Note added to lower right corner of drawing:

"*THIS REVISION APPLIES ONLY FOR REWORK OF FIRST 2 ARTICLES- REVISIONS v1, S/N 001, 002."

Reason for change:

Rework of first 2 articles- revisions v1, S/N 001, 002, to eliminate air traps in next assembly [D1001160](#)-v1.

[D1002210](#)-v2 aLIGO TMS FLEXABLE SEC MIRROR MT. ASSY

&

[E1000459](#)-v2 BOM - TMS Telescope Secondary Mirror Mount

Contained in assemblies: [D1001600](#)-v2, [D1003120](#)-v1, [D1002460](#)-v1

1. Mirror Clamp items D1002406, D1002407, & D1002237, one each, are all replaced by new design mirror clamp D1100114-v1.
2. Flexure Mount item [D1002211](#) revision called for changed:

-FROM- revision v3

-TO- revision v4 (approved on another DCN)

Reason for change:

A more functional mirror clamping arrangement was found to be necessary.

[D1002221](#)-v2 aLIGO OPTICS TABLE SPEADER BRIDGE

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added four .206" diameter thru holes, crossing ends of 4 blind tapped holes.
2. Note added to middle right side of drawing:

"*THIS REVISION APPLIES ONLY FOR REWORK OF FIRST 2 ARTICLES- REVISIONS v1, S/N 001, 002."

Reason for change:

Rework of first 2 articles- revisions v1, S/N 001, 002, to eliminate air traps in next assembly [D1001160](#)-v1.

[D1002696](#)-v2 aLIGO ETM TELESCOPE BRIDGE SUPPORT TEE PLATE_Front

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added eight .206" diameter thru holes, crossing ends of 8 blind tapped holes.
2. Note added to lower right corner of drawing:

" *THIS REVISION APPLIES ONLY FOR REWORK OF FIRST ARTICLE- REVISION v1, S/N 001."

Reason for change:

Rework of first article- revision v1, S/N 001, to eliminate air traps in next assembly [D1001160](#)-v1.

CHANGE DESCRIPTION (FROM / TO) continued

[D1002698](#)-v2 aLIGO_TMS_Telescope_Roll_Slide_Mass

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added two .206" diameter thru holes, crossing ends of 2 blind tapped holes.
2. Added two .206" diameter holes thru all, drilled across drilled ends of 2 blind tapped holes.
3. Note added to lower right corner of drawing:

"*THIS REVISION APPLIES ONLY FOR REWORK OF FIRST 2 ARTICLES- REVISIONS v1, S/N 001, 002."

Reason for change:

Rework of first 2 articles- revisions v1, S/N 001, 002, to eliminate air traps in next assembly [D1001160](#)-v1.

[D1002699](#)-v2 aLIGO_Pitch_Slide_Mass

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added to call-out for 8 blind tapped holes: "DRILL THRU".
2. Added recess cut to part- 1.27" wide x .020" deep.
3. Added two .206" diameter holes, cross drilled to join drilled ends of 2 blind tapped holes.
4. Note added to lower right corner of drawing:

"*THIS REVISION APPLIES ONLY FOR REWORK OF FIRST 2 ARTICLES- REVISIONS v1, S/N 001, 002."

Reason for change:

Rework of first 2 articles- revisions v1, S/N 001, 002, to eliminate air traps in next assembly [D1001160](#)-v1.

[D1002758](#)-v2 aLIGO_TMS_Telescope_Pitch_Guide

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Added step cut to part- .53" x .032".
2. Note added to lower right corner of drawing:

"*THIS REVISION APPLIES ONLY FOR REWORK OF FIRST 2 ARTICLES- REVISIONS v1, S/N 001, 002."

Reason for change:

Rework of first 2 articles- revisions v1, S/N 001, 002, to eliminate air traps in next assembly [D1001160](#)-v1.

CHANGE DESCRIPTION (FROM / TO) continued

[D1002768](#)-v3 aLIGO_TMS_Telescope_Roll_Mass_Adj_Rod

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Removed .250" DIA. step down feature from each end.

2. Overall length changed:

-FROM- 10.40"

-TO- 10.80"

Reason for change:

Rework of first article- revision v1, S/N 001, to accommodate washers for elimination of air traps in next assembly [D1001160](#)-v1.

[D1003162](#)-v3 aLIGO TMS TELESCOPE PITCH MASS ADJ. ROD

Contained in assemblies: [D1001160](#)-v1, [D1000484](#)-v1, [D1002460](#)-v1

1. Note 5 changed:

-FROM- Standard Scribe, Engrave....

-TO- No Mark Bag & Tag

Reason for change:

Redesigned to eliminate machining.

[D1100358](#)-v1 TMS Telescope Mass Attachment Screw

Contained in assembly: [D1001160](#)-v1

1. Initial release.

Reason for change:

Vented set screw was needed having compatibility with both stainless steel and aluminum parts in assembly [D1001160](#)-v1.