



FORMAL DRAWING TREE REFERENCE DOCUMENT

TITLE: **aLIGO TCS CO2P Steering Mirror 1 Assembly, H1/L1**  
for full production lot

DOCUMENT CONTROL NO.: **E1101044 -v3**  
RELATED DOC. CHANGE NO.: E1200830 -v1

CONTAINING ASSEMBLIES: D1101013 -v1

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PURPOSE: This document is the formal reference for necessary revisions of each child of the stated assemblies, and the total necessary quantities for all items.

DCN	NOTES	Level	INDENTURE CHART	QUANTITY				DWG TREE REF. NO.	MATERIAL	DCC No.	TYPE [config.]	NAME	TYPE	SOURCE	REV.			
				REQ'd	SPARE	TOT.	UNITS											
INTERNAL TO VACUUM																		
E1101043-v1	<b>BSC1 = mirror BSC3</b>	0			3	0	3	EA	E1101044	D1101013	-01	-02	aLIGO TCS CO2P STEERING MIRROR 1 ASSY, H1/L1	TopAssy	MTS	v1		
E1101043-v1		1			1	0	1	EA		D1102029	-01		aLIGO TCS MIRROR ASSY	ASSY	MTS	v2		
	KUGLER	2			1	0	1	EA		D1101014			aLIGO TCS CO2P STEERING MIRROR 1, H1-L1	PRT	MTS	v1		
	Olander or AirHardware	3			2	2	4	EA		N60	1185-2EN 410		HELICOIL [N60, 8-32 X 2.5D LONG]	HW	OTS			
E1101043-v1	ReSource Production	2			1	0	1	EA		AI 6061	D1101295		H1-L1 STEER M1 SUPPORT	PRT	MTS	v1		
	Olander or AirHardware	3			2	2	4	EA		N60	1185-2EN 410		HELICOIL [N60, 8-32 X 2.5D LONG]	HW	OTS			
	Olander or AirHardware	3			8	2	10	EA		N60	1185-06EN 345		HELICOIL [N60, 6-32 X 2.5D LONG]	HW	OTS			
E1200830-v1	ReSource Production	2			2	0	2	EA		AI 6061	D1101294		H1-L1 STEER M1 AZ BRACKET	PRT	MTS	v2		
	Olander or AirHardware	3			1	1	2	EA		N60	1185-2EN164		HELICOIL [N60, 8-32 X 1D LONG]	HW	OTS			
	UC Components	2			8	2	10	EA		SSTL	C-607		SHCS 6-32 X .438 LONG, VENTED	HW	OTS			
	UC Components	2			8	2	10	EA		SSTL, Au PLT	WF-06-A		FLAT WASHER, #6, Au PLATED	HW	OTS			
	UC Components	2			2	2	4	EA		SSTL, Au PLT	C-824-NA		SHCS 8-32 X 1.5 LONG, Ag PLATED	HW	OTS			
	UC Components	2			4	1	5	EA		SSTL	WF-08		FLAT WASHER, #8	HW	OTS			
	UC Components	2			2	2	4	EA		SSTL, Au PLT	N-832-A		HEX NUT, #8, Au PLTD	HW	OTS			
	UC Components	2			2	1	3	EA		SSTL	SHCV-4423		SHLDR SCREW, 1 IN, HEX HD, 8-32, VENTED, 303 SS	HW	OTS			
	UC Components	2			2	1	3	EA		SSTL	WFV-10		FLAT WASHER, .1875 SHLDR SHANK	HW	OTS			
E1101043-v2		1			1	0	1	EA		D1102029		-02	aLIGO TCS MIRROR ASSY	ASSY	MTS	v2		
E1101043-v2		2			1	0	1	EA		316 SSTL	D1200755		HANDLE, aLIGO TCS STEERING MIRROR 1, H1-L1	PRT	MTS	v1		
E1101043-v2		2			2	0	2	EA		AI 6061	D1200754		HANDLE GUSSET, aLIGO TCS STEERING MIRROR 1, H1-L1	PRT	MTS	v1		
E1101043-v2	COAST PLASTICS	2			1	0	1	EA		TEFLON PFA 440	D1200756		TCS H1-L1 SM1 SPLASH COVER	PRT	MTS	v1		
	UC Components	2			2	2	4	EA		SSTL	WF-06		FLAT WASHER, #6	HW	OTS			
	UC Components	2			2	2	4	EA		SSTL	C-614-N		SHCS 8-32 X .875 LONG	HW	OTS			
	UC Components	1			1	1	2	EA		SSTL	SHCV-4436		SHLDR SCREW, 1.5 IN, HEX HD, 10-32, VENTED, 303 SS	HW	OTS			
E1101043-v1		1			1	0	1	EA		D1102078		-01	-02	aLIGO MOUNT ASSY, TCS STEERING MIRROR 1	ASSY	MTS	v1	
E1200830-v1	ReSource Production	2			1	0	1	EA		SSTL	D1101292		H1-L1 SM1 AZ SUPPORT BRACKET	PRT	MTS	v2		
	Olander or AirHardware	3			1	1	2	EA		N60	1191-3EN 285		HELICOIL [N60, 10-32 X 1.5D LONG]	HW	OTS			
	UC Components	2			2	2	4	EA		SSTL	C-812		SHCS 8-32 X .75 LONG, VENTED	HW	OTS			
	UC Components	2			2	2	4	EA		SSTL	C-808-N		SHCS 8-32 X .5 LONG	HW	OTS			
	UC Components	2			2	2	4	EA		SSTL	C-814-N		SHCS 8-32 X .875 LONG	HW	OTS			
	UC Components	2			29	6	35	EA		SSTL, Ag PLT	WF-08-A		FLAT WASHER, #8, Ag PLTD	HW	OTS			
E1101043-v1	ReSource Production	2			1	0	1	EA		AI 6061	D1101291		-01	-02	H1-L1 STEER M1 BRACKET	PRT	MTS	v1
	Olander or AirHardware	3			19	3	22	EA		N60	1185-4EN 500		HELICOIL [N60, 1/4-20 X 2D LONG]	HW	OTS			
	Olander or AirHardware	3			4	1	5	EA		N60	1185-2EN 410		HELICOIL [N60, 8-32 X 2.5D LONG]	HW	OTS			
	UC Components	2			7	1	8	EA		SSTL	C-2018-N		SHCS 1/4-20 X 1.125 LONG	HW	OTS			
E1101043-v1		2			2	2	4	EA		VITON	D1101395		TCS SM1 H1-L1 INTERFACE DAMPER	PRT	MTS	v1		
E1101043-v1	ReSource Production	2			2	0	2	EA		SSTL	D1101287		-01	-01	STANDARD T SECTION, SS 304, 2 X 2 X .25	PRT	MTS	v1
	UC Components	2			14	6	20	EA		SSTL	C-812-N		SHCS 8-32 X .75 LONG	HW	OTS			
	UC Components	2			11	4	15	EA		SSTL	N-832		HEX NUT, #8	HW	OTS			
	UC Components	2			4	1	5	EA		SSTL	C-2028-N		SHCS 1/4-20 X 1.75 LONG	HW	OTS			
	UC Components	2			4	1	5	EA		SSTL, Ag PLT	N-2520-A		SS NUT, HEX HD, 1/4-20, Ag PLTD	HW	OTS			
	UC Components	2			4	1	5	EA		SSTL	NJ-2520		SS HEX JAM NUT, 1/4-20	HW	OTS			
	UC Components	2			22	3	25	EA		SSTL, Ag PLT	WF-25-A		FLAT WASHER, .25, Ag PLTD	HW	OTS			
E1101043-v1	ReSource Production	2			1	0	1	EA		AI 6061	D1101437		TCS SM1 H1-L1 STRONG BACK	PRT	MTS	v1		
	Olander or AirHardware	3			3	2	5	EA		N60	1185-2EN 410		HELICOIL [N60, 8-32 X 2.5D LONG]	HW	OTS			
E1101043-v1	ReSource Production	2			1	0	1	EA		SSTL	D1101438		STANDARD ANGLE SECTION, SS 316, 1.25 X 1.25 X .25	PRT	MTS	v1		
	UC Components	2			7	1	8	EA		SSTL	C-2012-N		SHCS 1/4-20 X .75 LONG	HW	OTS			
	UC Components	1			2	0	2	EA		VITON	D1101395		TCS SM1 H1-L1 INTERFACE DAMPER	PRT	MTS	v1		
	UC Components	1			4	1	5	EA		SSTL	C-2012-N		SHCS 1/4-20 X .75 LONG	HW	OTS			
	UC Components	1			4	1	5	EA		SSTL	C-2024-N		SHCS 1/4-20 X 1.5 LONG	HW	OTS			
	UC Components	1			8	2	10	EA		SSTL	NJ-2520		SS HEX JAM NUT, 1/4-20	HW	OTS			
	UC Components	1			8	2	10	EA		SSTL, Ag PLT	N-2520-A		SS NUT, HEX HD, 1/4-20, Ag PLTD	HW	OTS			
	UC Components	1			21	4	25	EA		SSTL, Ag PLT	WF-25-A		FLAT WASHER, .25, Ag PLTD	HW	OTS			
	UC Components	1			4	1	5	EA		SSTL	C-2028-N		SHCS 1/4-20 X 1.75 LONG	HW	OTS			
	UC Components	1			2	1	3	EA		SSTL, Ag PLT	C-812-A		SHCS 8-32 X .75 LONG, Ag PLTD	HW	OTS			
	UC Components	1			2	1	3	EA		SSTL	WF-08		FLAT WASHER, #8	HW	OTS			
E1101043-v1		1			1	0	1	EA		D1102088		-01	-02	aLIGO WEDGE SUPPORT ASSY, TCS STEER MIRROR 1	ASSY	MTS	v1	
E1101043-v1	ReSource Production	2			1	0	1	EA		AI 6061	D1101771		-01	-02	WEDGE SUPPORT, H1-L1, aLIGO TCS CO2P SM1	PRT	MTS	v1
	UC Components	2			4	1	5	EA		SSTL	C-2016-N		SHCS 1/4-20 X 1 LONG	HW	OTS			
E1101043-v1	ReSource Production	2			2	0	2	EA		SSTL	D1101287		-02	-02	STANDARD T SECTION, SS 304, 2 X 2 X .25	PRT	MTS	v1
	UC Components	2			8	2	10	EA		SSTL	C-812-N		SHCS 8-32 X .75 LONG	HW	OTS			
	UC Components	2			16	4	20	EA		SSTL, Ag PLT	WF-08-A		FLAT WASHER, #8, Ag PLTD	HW	OTS			
	UC Components	2			8	2	10	EA		SSTL	N-832		HEX NUT, #8	HW	OTS			
	UC Components	2			4	1	5	EA		SSTL, Ag PLT	N-2520-A		SS NUT, HEX HD, 1/4-20, Ag PLTD	HW	OTS			
	UC Components	2			4	1	5	EA		SSTL	NJ-2520		SS HEX JAM NUT, 1/4-20	HW	OTS			
	UC Components	2			8	2	10	EA		SSTL, Ag PLT	WF-25-A		FLAT WASHER, .25, Ag PLTD	HW	OTS			