



CALIFORNIA INSTITUTE OF TECHNOLOGY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY
 IGR, GLASGOW UNIVERSITY, GEO 600 GROUP

E030507 - A - D

DRWG NO. REV GID

SHEET SEE BOTTOM LEFT

ASSEMBLY NO.

D040391

PROJECT DRAWING TREE

TITLE: Assembly of the Mode Cleaner Suspension & Assembly Fixtures



NUMBER	DESCRIPTION	REVISION
	APPROVALS:	DATE:
AUTHOR:	CIT	25th JUNE 2004
CHECKED:		
APPROVED:		
DCC RELEASE		

NUMBER	DESCRIPTION	REVISION
D040391	MODE CLEANER SUSPENSION ASSEMBLY INCLUDING FIXTURES	A
D020700	Mode Cleaner Suspension Assembly	A
D020661	ASSEMBLY MAGNET AND DUMBBELL	A
D970075	Dumbbell	A
D960501	GCMagnet	A
D020541	ASSEMBLY LOWER AND INTERMEDIATE MASS	A
D020234	MC OPTIC	A
D020316	ASSEMBLY LOWER WIRE CLAMP	A
D020204	LOWER WIRE CLAMP SHIM	A
D020203	LOWER WIRE CLAMP OUTSIDE	A
D020202	LOWER WIRE CLAMP INSIDE	A
D020148	MC WIRE STAND OFF	A
D020319	ASSEMBLY UPPER BLADE WIRE CLAMP	A
D020198	UPPER BLADE WIRE CLAMP	A
D030042	UPPER BLADE WIRE CLAMP PLATE	A
D020135	UPPER BLADE WIRE CLAMP PLATE (ALT TO D030042)	A
D020535	ASSEMBLY UPPER MASS + TABLE CLOTH	A
D020239	COIL HOLDER U (TABLE CLOTH)	A
D020225	ASSEMBLY COIL FORMER AND ASSOCIATED PARTS	A
D020282	COIL FORMER BRACKET	A
D030122	SHOULDER FOR COIL FORMER BRACKET	A
D030105	ASSEMBLY COIL HEAD	A
	REF: DRAWING TREE E040327 FORASSEMBLY D030105	
D030123	SPACER FOR COIL FORMER BRACKET	A
D030183	COIL FORMER CLAMP ONE PIECE	A
D030710	COIL FORMER CLAMP ONE PIECE ALT	A
D020532	ASSEMBLY MAGNET AND FLAG (FOR PITCH)	A
D020197	FLAG (FOR MAGNET D020466)	A
D020466	NICKEL PLATED MAGNET	A
D020210	BRIDGE SPACER FOR MAGNET	A
D020533	ASSEMBLY MAGNET AND FLAG	A
D020197	FLAG (FOR MAGNET D020466)	A
D020466	NICKEL PLATED MAGNET	A
D020196	MAGNET SPACER	A
D020534	ASSEMBLY UPPER MASS	A
D020137	PITCH INSERT FOR T SECTION	A
D020136	T SECTION FOR UPPER MASS	A
D020201	LowerBlade	A
D020134	UPPER MASS MAIN SECTION	A
D020308	lowerbladeclamp lowerside	A
D020119	LOWER BLADE CLAMP UPPER SIDE	A
D020318	ASSEMBLY LOWER BLADE WIRE CLAMP	A
D020132	LOWER BLADE WIRE CLAMP	A
D020133	LOWER BLADE WIRE CLAMP PALTE	A
D030044	LOWER BLADE WIRE CLAMP PLATE THICK (ALT TO D020133)	A
D020199	MAGNET HOLDER (TRANSVERSE)	A
D020211	FIT FOR MAGNET HOLDER	A
D020200	MAGNET HOLDER (LONGITUDINAL AND YAW)	A
D030076	MAGNET SPACER (STEEL)	A
D020499	ASSEMBLY UPPER WIRE CLAMP (WITH PITCH ADJUSTMENT)	A
D020481	UPPER MASS C CLAMP	A
D020309	UPPER MASS WIRE CLAMP PLATE (WITH GROOVE)	A
D020139	UPPER MASS WIRE CLAMP PLATE	A
D020482	UPPERMASS SCREW DRIVE SYSTEM	A
D020676	ROLL INSERT TSECTION	A



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NUMBER	DESCRIPTION	REVISION
D030025	Ag-SST ROUNDED SHCS FULLY THREADED #8-32 UNC-3A X 1 LONG	A
D020542	ASSEMBLY UPPER BLADE GUARD	A
D020236	MC STRUCTURE GUARD TOP PLATE	A
D020463	LOS WINCH FIXTURE ADAPTER PLATE	A
D020443	UPPER BLADE CATCHER ASSEMBLY PLATE	A
D020562	UPPER BLADE CATCHER ASSEMBLY GUARD	A
D970180	winch fixture	A
D960134	WINCH FIXTURE SUSPENSION BLOCK	A
D030075	LOS WINCH FIXTURE ADAPTER PLATE	A
D030022	SST ROUNDED SHCS FULLY THREADED 0.25-20 UNC-3A X 2.25 LONG	A
D030198	TABLE LEGS FOR UPPER BLADE CATCHER	A
D000069	LIGO1 Osem[REF]	A
D020346	MCStructure TableclothBracket	A
D020023	MC STRUCTURE MAIN STRUCTURE	A
D020418	MCStructure SmallStiffenerBrace	A
D020420	MCStructure Crossbar	A
D020417	LIGO1 SENSORACTUATOR BRACKET	A
D030018	LIGO1 SENSORACTUATOR BRACKET 3	A
D020422	MCStructure SideXStiffener	A
D020425	MCStructure FrontXStiffener	A
D030041	TABLE CLAMP (STRUCTURE SHIM TO OPTICAL TABLE)	A
D030014	Crossbar Bracket Two	A
D020522	Crossbar Bracket	A
D020523	Face Bracket	A
D030015	Face Bracket 2	A
D030016	Face Bracket 3	A
D030022	SST ROUNDED SHCS FULLY THREADED 0.25-20 UNC-3A X 2.25 LONG	A
D020526	MCStructure Crossbar1	A
D030023	SST ROUNDED SHCS FULLY THREADED 0.25-20 UNC-3A X 1 LONG	A
D020405	MCStructure SupportBrace	A
D030451	Rotational Adjuster Assembly	A
D030448	BASE PLATE	A
D030447	ROTATING PLATE	A
D020205	UPPER BLADE	A
D030450	PULL PLATE	A
D030449	PUSH PLATE	A
D030459	RA UPPER BLADE CLAMP LOWER SIDE 0.0 DEGREE	A
D020116	UPPER BLADE CLAMP UPPER SIDE 0.0 DEGREE	A
D020680	UPPER BLADE CLAMP LOWERSIDE SHIM 2mm	A
D020494	ALIGNMENT TARGET (FOR LOCAL SENSORS)	A
D020162	ASSEMBLY LOWER WIRE JIG	A
D020157	TEST MASS JIG	A
D020155	SPACER FOR MASS JIG	A
D020156	CLAMP MASS JIG	A
D980184	LOS CLAMP LONG	A
D030048	SPACER FOR MASS JIG (LOWER WIRE)	A
D030047	CLAMP MASS JIG (WITH GROOVE)	A
D030028	Brass Pusher Fixture	A
D020161	ASSEMBLY UPPER WIRE JIG	A
D020153	BAR JIG (UPPER AND INT. WIRE)	A
D020158	ANGLED ATTACHMENT FOR UPPER BLADE WIRE CLAMP	A
D020154	BAR JIG STEP PLATE	A
D020440	UPPER WIRE HEIGHT BALANCE	A



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NUMBER	DESCRIPTION	REVISION
D020540	WIRE START MATCHED HEIGHT (GROOVED CLAMP)	A
D020380	WIRE START CLAMP UPPER	A
D020501	BAR JIG ADJUSTER	A
D980184	LOS CLAMP LONG	A
D020677	ASSEMBLY LIBRARY OF CLAMPS (INCLUDING CLAMPS 4 ROT ADJ)	A
D020678	Adapter Plate for Library of Clamps	A
D020307	upperbladeclamp lowerside	A
D020116	UPPER BLADE CLAMP UPPER SIDE 0.0 DEGREE	A
D020321	upperbladeclamp lowerside ANGLED 0.5degree	A
D020325	upperbladeclamp upperside ANGLED 0.5degree	A
D020324	upperbladeclamp lowerside ANGLED 2.5degree	A
D020328	upperbladeclamp upperside ANGLED 2.5degree	A
D020312	upperbladeclamp upperside ANGLED	A
D020311	upperbladeclamp lowerside ANGLED	A
D020323	upperbladeclamp lowerside ANGLED 1.5degree	A
D020327	upperbladeclamp upperside ANGLED 1.5degree	A
D020322	upperbladeclamp lowerside ANGLED 1.0degree	A
D020326	upperbladeclamp upperside ANGLED 1.0degree	A
D020679	UPPER BLADE CLAMP LOWERSIDE SHIM 1mm	A
D020680	UPPER BLADE CLAMP LOWERSIDE SHIM 2mm	A
D020340	lowerbladeclamp upperside angled 2.5degree	A
D020336	lowerbladeclamp lowerside angled 2.5degree	A
D020313	lowerbladeclamp lowerside angled	A
D020314	lowerbladeclamp upperside angled	A
D020339	lowerbladeclamp upperside angled 1.5degree	A
D020335	lowerbladeclamp lowerside angled 1.5degree	A
D020334	lowerbladeclamp lowerside angled 1.0degree	A
D020338	lowerbladeclamp upperside angled 1.0degree	A
D020333	lowerbladeclamp lowerside angled 0.5degree	A
D020337	lowerbladeclamp upperside angled 0.5degree	A
D020682	LowerBladeClamps Shim1mm	A
D020205	UPPER BLADE	A
D020205	UPPER BLADE	A
D020119	LOWER BLADE CLAMP UPPER SIDE	A
D020308	lowerbladeclamp lowerside	A
D020201	LowerBlade	A
D020201	LowerBlade	A
D020687	UpperBladeClamp Lowerside Angled 3.0degree	A
D020689	UpperBladeClamp Upperside Angled 3.0degree	A
D020688	UpperBladeClamp Lowerside Angled 3.5degree	A
D020690	UpperBladeClamp Upperside Angled 3.5degree	A
D030459	RA UPPER BLADE CLAMP LOWER SIDE 0.0 DEGREE	A
D030460	ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 0.5 DEGREE	A
D030461	ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 1.0 DEGREE	A
D030462	ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED 1.5 DEGREE	A
D030463	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE 2.0 DEGREE	A
D030464	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED	A
D030465	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED	A
D030466	ADVANCED LIGO SUS MC ROTAIONAL ADJUSTER UPPER BLADE CLAMP LOWER SIDE ANGLED	A



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NUMBER	DESCRIPTION	REVISION
D030049	ASSEMBLY INTERMEDIATE WIRE JIG	A
D020153	BAR JIG (UPPER AND INT. WIRE)	A
D020376	WIRE START GROOVED CLAMP	A
D020380	WIRE START CLAMP UPPER	A
D980184	LOS CLAMP LONG	A
D020159	LOWER BLADE WIRE JIG (INTERMEDIATE WIRES)	A
D020458	ASSEMBLY BASIC ALUM CATCHER INTERMEDIATE & TEST MASS	A
D020445	V CLAMP FOR BAR CATCHER	A
D020448	CATCHER BAR FOR INTERMEDIATE MASS	A
D020446	BAR ATTACH LOWER	A
D020447	BAR ATTACH UPPER	A
D020449	CATCHER BAR FOR TEST MASS	A
D040259	TABLE CLOTH AND UPPER MASS TABLE JIG	A
D020450	BAR PLATE (FIXTURE ASSEMBLY)	A
D020350	UPPER MASS 100g ADD ON MASS	A
D020351	UPPER MASS 50g ADD ON MASS	A
D040341	ASSEMBLY ADDED MASS AND SHCS	A
D020351	UPPER MASS 50g ADD ON MASS	A
D030468	40g ADD ON MASS	A
D030457	SPACER 120g MASS	A
D030456	SPACER 75g MASS	A
D030455	SPACER 35g MASS	A
D030454	SPACER 60g MASS	A
D030079	UPPER MASS 10g ADD ON MASS	A
D030078	UPPER MASS 20g ADD ON MASS	A
D020660	ASSEMBLY I-BLADE DEFLECTION JIG	A
D010264	I-BLADE WIRE CLAMP	A
D010265	I-BLADE WIRE CLAMP PLATE	A
D010266	I-BLADE MASS CLAMP CYLINDER	A
D010261	I-BLADE MASS CLAMP	A
D010268	I-BLADE MASS CLAMP PLATE	A
D030269	BLADE DAMPER	A
D030263	COPPER SLEEVE	A
D030264	DAMPER ARM	A
D020466	NICKEL PLATED MAGNET	A
D020215	smallcatcher forlowerblades	A