

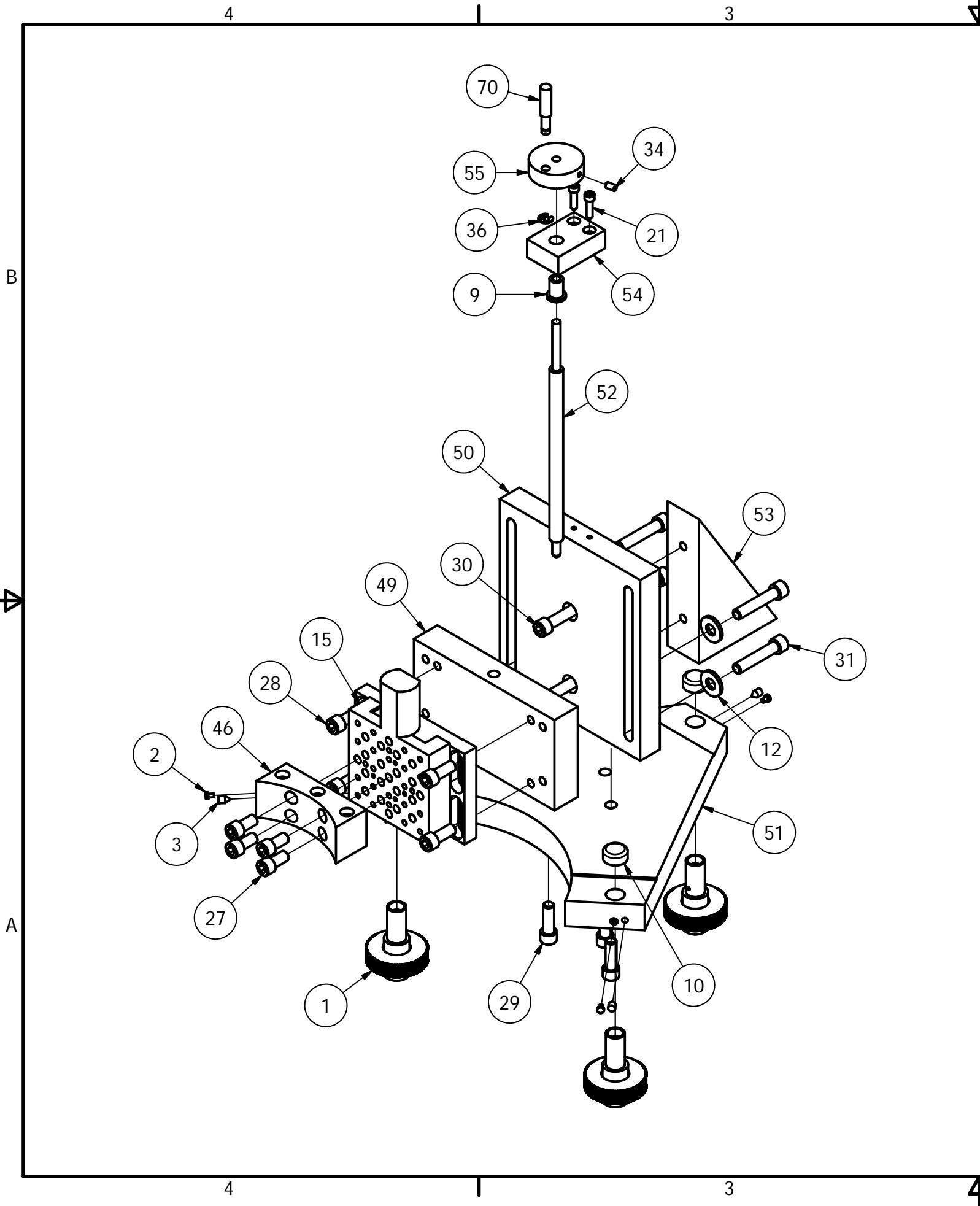
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
6	2	2MM9313WICRDUL	ANGULAR CONTACT BEARING
7	2	36680205	2.75 X 3.623 X 0.375 SHAFT SEAL
19	1	92158A127	#4-40 x 1/4" SET SCREW
20	2	92185A147	#6-32 X 3/8" SOCKET CAP SCREW
23	4	92185A197	#8-32 X 3/4" SOCKET CAP SCREW
34	2	92313A144	#6-32 X 1/4" SET SCREW
35	6	92313A190	#8-32 x 1/4" SET SCREW
41	1	CS-003	CONE
42	1	CS-004	OIL CATCH
43	1	CS-005	INNER RACE LOCK RING
44	1	CS-006	BEARING HOUSING
45	1	CS-007	OUTER RACE LOCK RING
47	1	CS-009	HOUSING MOUNT
48	1	CS-010	CONE PULLEY
60	1	CS-022	PLUG
61	1	CS-023	PLUG KNOB

NOTE: QUANTITIES SPECIFIED ARE FOR THE ENTIRE MACHINE

ASSEMBLY PROCEDURE

1. CLEAN ALL PARTS THOROUGHLY
2. INSTALL THE BEARING SET (6) ONTO THE CONE (41) BACK TO BACK (REFER TO BEARING DOCUMENTATION)
3. TIGHTEN THE INNER RACE LOCKRING (43) WITH A SPANNER TO PRELOAD THE BEARINGS AT 130LBS
4. TIGHTEN THE SETSCREWS (35) TO PREVENT THE INNER LOCKRING FROM LOOSENING
5. PRESS THE OIL SEAL (7) INTO THE BOTTOM OF THE HOUSING (44)
6. ATTACH THE HOUSING MOUNT (47) WITH FOUR SCREWS (23)
7. PRESS THE CONE AND BEARING ASSEMBLY INTO THE HOUSING (44)
8. FILL THE HOUSING (44) WITH ENOUGH OIL TO COVER THE BEARINGS
9. TIGHTEN THE OUTER RACE LOCKRING (45) INTO THE HOUSING (44) SNUGGLY WITH A SPANNER
10. TIGHTEN THE SETSCREWS (35) TO LOCK THE LOCK RING (45)
11. ATTACH THE CONE PULLEY (48) TO THE CONE (41) WITH TWO SCREWS (20)
12. SLIDE THE OIL CATCH (42) ONTO THE CONE AND SECURE THE SETSCREW (19)

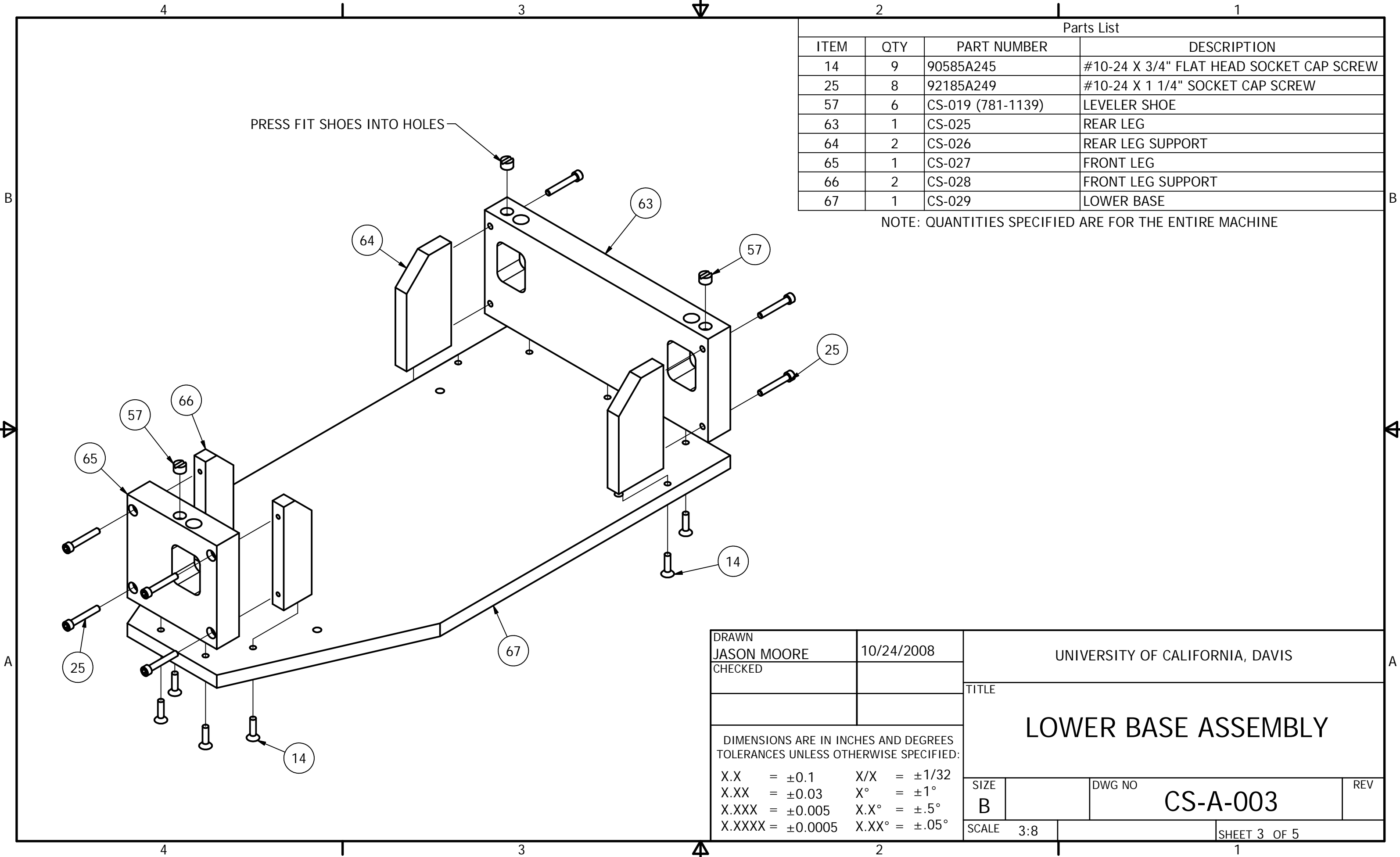
DRAWN JASON MOORE		10/24/2008		UNIVERSITY OF CALIFORNIA, DAVIS	
CHECKED				TITLE	
				CONE ASSEMBLY	
DIMENSIONS ARE IN INCHES AND DEGREES TOLERANCES UNLESS OTHERWISE SPECIFIED:		SIZE B		DWG NO CS-A-001	
X.X = ±0.1	X/XX = ±1/32	SCALE 3:8		REV	
X.XX = ±0.03	X° = ±1°				
X.XXX = ±0.005	X.X° = ±.5°				
X.XXXX = ±0.0005	X.XX° = ±.05°				
				SHEET 1 OF 5	



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	11723	LEVELING SCREW
2	6	11723-S02-B	#2-56 X 1/8" FILLISTER HEAD SLOTTED MACHINE SCREW
3	6	11723-S02-C	#8-32 X 1/4" SLOTTED SET SCREW
9	1	6338K311	3/16" FLANGED SLEEVE BEARING
10	6	887-1116	LEVELING SCREW CAP
12	14	90107A029	1/4" FLAT WASHER
15	1	9067-X	CROSSED ROLLER BEARING TRANSLATION STAGE
21	2	92185A148	#6-32 X 1/2" SOCKET CAP SCREW
27	4	92185A537	1/4-20 X 1/2" SOCKET CAP SCREW
28	11	92185A539	1/4-20 X 5/8" SOCKET CAP SCREW
29	4	92185A540	1/4-20 X 3/4" SOCKET CAP SCREW
30	5	92185A542	1/4-20 X 1" SOCKET CAP SCREW
31	4	92185A544	1/4-20 X 1 1/4" SOCKET CAP SCREW
34	2	92313A144	#6-32 X 1/4" SET SCREW
36	1	97431A280	3/16" EXTERNAL RETAINING RING
46	1	CS-008	STAGE MOUNT
49	1	CS-011	COARSE ADJUSTMENT SLIDER
50	1	CS-012	COARSE ADJUSTMENT RAIL
51	1	CS-013	STAGE BASE
52	1	CS-014	COARSE ADJUSTMENT SCREW
53	1	CS-015	BRACE
54	1	CS-016	SCREW MOUNT
55	1	CS-017	HANDLE COLLAR
70	1	CS-032	HANDLE

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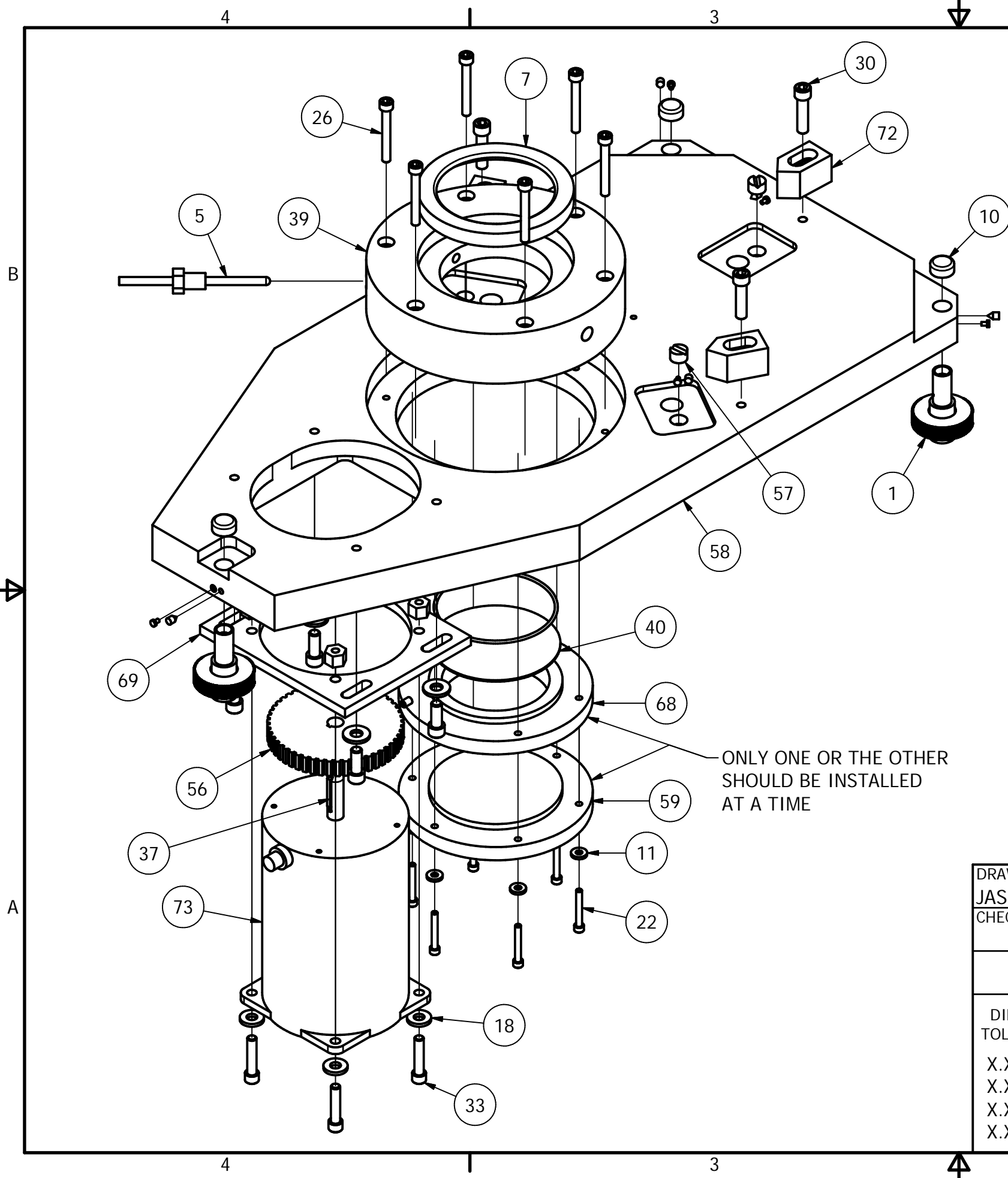
DRAWN JASON MOORE	10/24/2008	UNIVERSITY OF CALIFORNIA, DAVIS	
CHECKED		TITLE	
DIMENSIONS ARE IN INCHES AND DEGREES TOLERANCES UNLESS OTHERWISE SPECIFIED:		STAGE ASSEMBLY	
X.X = ±0.1	X/X = ±1/32	SIZE B	DWG NO CS-A-002
X.XX = ±0.03	X° = ±1°	SCALE 3:8	REV
X.XXX = ±0.005	X.X° = ±.5°	SHEET 2 OF 5	
X.XXXX = ±0.0005	X.XX° = ±.05°		



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
14	9	90585A245	#10-24 X 3/4" FLAT HEAD SOCKET CAP SCREW
25	8	92185A249	#10-24 X 1 1/4" SOCKET CAP SCREW
57	6	CS-019 (781-1139)	LEVELER SHOE
63	1	CS-025	REAR LEG
64	2	CS-026	REAR LEG SUPPORT
65	1	CS-027	FRONT LEG
66	2	CS-028	FRONT LEG SUPPORT
67	1	CS-029	LOWER BASE

NOTE: QUANTITIES SPECIFIED ARE FOR THE ENTIRE MACHINE

DRAWN JASON MOORE		10/24/2008		UNIVERSITY OF CALIFORNIA, DAVIS	
CHECKED				TITLE	
				LOWER BASE ASSEMBLY	
DIMENSIONS ARE IN INCHES AND DEGREES TOLERANCES UNLESS OTHERWISE SPECIFIED:				SIZE B	DWG NO CS-A-003
X.X = ±0.1	X/XX = ±1/32			SCALE 3:8	REV
X.XX = ±0.03	X° = ±1°			SHEET 3 OF 5	
X.XXX = ±0.005	X.X° = ±.5°				
X.XXXX = ±0.0005	X.XX° = ±.05°				



ONLY ONE OR THE OTHER SHOULD BE INSTALLED AT A TIME

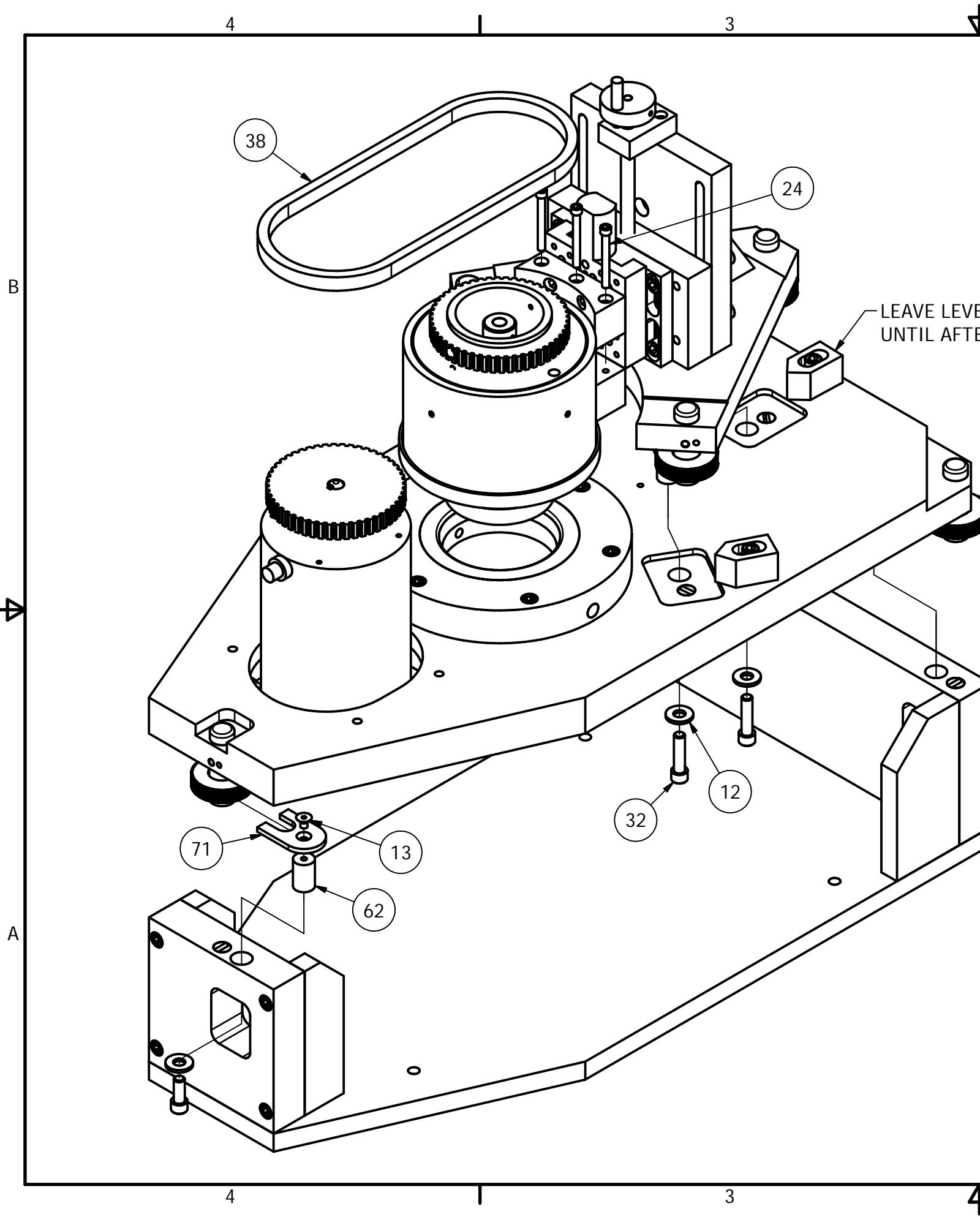
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	11723	LEVELING SCREW
5	1	23D	THERMOCOUPLE
7	2	36680205	2.75 X 3.623 X 0.375 SHAFT SEAL
8	1	4464T149	2 3/4" ID, 2 7/8" OD
10	6	887-1116	LEVELING SCREW CAP
11	6	90107A007	#6 FLAT WASHER
12	14	90107A029	1/4" FLAT WASHER
17	4	91831A025	#12 NYLON LOCK NUT
18	4	92141A013	#12 FLAT WASHER
22	6	92185A153	#6-32 X 1" SOCKET CAP SCREW
26	6	92185A251	#10-24 X 1 1/2" SOCKET CAP SCREW
28	11	92185A539	1/4-20 X 5/8" SOCKET CAP SCREW
30	5	92185A542	1/4-20 X 1" SOCKET CAP SCREW
33	4	92196A296	#12-24 X 1" SOCKET CAP SCREW
35	6	92313A190	#8-32 x 1/4" SET SCREW
37	1	98535A125	3/32" X 0.785" SQUARE KEY
39	1	CS-001	WELL
40	1	CS-002	COVERSLIP
56	1	CS-018	MOTOR PULLEY
57	6	CS-019 (781-1139)	LEVELER SHOE
58	1	CS-020	UPPER BASE
59	1	CS-021	HEATER BLOCK
68	1	CS-030	VISUALIZATION RING
69	1	CS-031	MOTOR PLATE
72	3	CS-034	LEVELER LOCK
73	1	ES33B-33B-DKR10	STEPPER MOTOR
2	6	11723-S02-B	#2-56 X 1/8" FILLISTER HEAD SLOTTED MACHINE SCREW
3	6	11723-S02-C	#8-32 X 1/4" SLOTTED SET SCREW

NOTE: QUANTITIES SPECIFIED ARE FOR THE ENTIRE MACHINE

DRAWN JASON MOORE CHECKED	10/24/2008	UNIVERSITY OF CALIFORNIA, DAVIS	
DIMENSIONS ARE IN INCHES AND DEGREES TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X = ±0.1 X/X = ±1/32 X.XX = ±0.03 X° = ±1° X.XXX = ±0.005 X.X° = ±.5° X.XXXX = ±0.0005 X.XX° = ±.05°		TITLE <h2 style="text-align: center;">UPPER BASE ASSEMBLY</h2>	
SIZE B	SCALE 3:8	DWG NO <h1 style="text-align: center;">CS-A-004</h1>	REV
		SHEET 4 OF 5	

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Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
12	14	90107A029	1/4" FLAT WASHER
13	6	90585A224	8-32 X 1/4" FLAT HEAD SOCKET CAP SCREW
24	3	92185A203	#8-32 X 1 1/2" SOCKET CAP SCREW
28	11	92185A539	1/4-20 X 5/8" SOCKET CAP SCREW
32	3	92185A564	1/4-28 X 1" SOCKET CAP SCREW
38	1	A 6B 3-100037	20" TIMING BELT
62	6	CS-024	LEVELER CLAMP POST
71	6	CS-033	LEVELER CLAMP TOP

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DRAWN JASON MOORE	10/24/2008	UNIVERSITY OF CALIFORNIA, DAVIS	
CHECKED		TITLE	
DIMENSIONS ARE IN INCHES AND DEGREES TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X = ±0.1 X/X = ±1/32 X.XX = ±0.03 X° = ±1° X.XXX = ±0.005 X.X° = ±.5° X.XXXX = ±0.0005 X.XX° = ±.05°		FINAL ASSEMBLY	
		SIZE B	DWG NO CS-A-005
SCALE 3:8		SHEET 5 OF 5	

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