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LIGO Production Small Actuator Test Report

Actuator Serial #: S102

Operator Name: Gordon, Matt

Date: 1/28/2012 Time: 10:48 AM

Actuator Coil Resistance: 10.17 Ohms, PASS

Ambient Temperature: 68.4 F

Hi Pot Test Results: 1000 MOhms, PASS

X Travel Limit (inches): 0.656

Y Travel Limit (inches): 0.205

Z Travel Limit (inches): 0.503

	X Position (in)	Y Position (in)	Z Position (in)	Current (A)	Force (lbs)	Force Constant (lbs/A)	PASS/FAIL
Center	0.000	0.000	0.000	1.513	10.031	6.630	PASS
Position 1	0.250	0.085	0.220	1.756	9.984	5.685	PASS
Position 2	0.250	-0.085	0.220	1.769	10.085	5.703	PASS
Position 3	-0.250	-0.085	0.220	1.680	10.076	5.998	PASS
Position 4	-0.250	0.085	0.220	1.753	10.062	5.739	PASS
Position 5	-0.250	0.085	-0.220	1.743	10.092	5.790	PASS
Position 6	-0.250	-0.085	-0.220	1.732	10.054	5.805	PASS
Position 7	0.250	-0.085	-0.220	1.705	10.051	5.895	PASS
Position 8	0.250	0.085	-0.220	1.705	9.995	5.861	PASS
Center	0.000	0.000	0.000	-1.590	-10.021	6.303	PASS
Position 1	0.250	0.085	0.220	-1.766	-10.075	5.704	PASS
Position 2	0.250	-0.085	0.220	-1.764	-10.013	5.675	PASS
Position 3	-0.250	-0.085	0.220	-1.753	-10.001	5.704	PASS
Position 4	-0.250	0.085	0.220	-1.763	-10.052	5.701	PASS
Position 5	-0.250	0.085	-0.220	-1.788	-10.059	5.625	PASS
Position 6	-0.250	-0.085	-0.220	-1.736	-10.087	5.810	PASS
Position 7	0.250	-0.085	-0.220	-1.770	-10.094	5.703	PASS
Position 8	0.250	0.085	-0.220	-1.775	-10.041	5.657	PASS

QNA-TSG

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LIGO Production Small Actuator Test Report

Actuator Serial #: S103
 Operator Name: Gordon, Matt
 Date: 1/28/2012 Time: 11:34 AM
 Actuator Coil Resistance: 10.2 Ohms, PASS
 Ambient Temperature: 71.3 F
 Hi Pot Test Results: 1000 MOhms, PASS
 X Travel Limit (inches): 0.644
 Y Travel Limit (inches): 0.205
 Z Travel Limit (inches): 0.504

	X Position (in)	Y Position (in)	Z Position (in)	Current (A)	Force (lbs)	Force Constant (lbs/A)	PASS/FAIL
Center	0.000	0.000	0.000	1.526	10.056	6.588	PASS
Position 1	0.250	0.085	0.220	1.744	10.033	5.753	PASS
Position 2	0.250	-0.085	0.220	1.817	10.019	5.513	PASS
Position 3	-0.250	-0.085	0.220	1.784	10.038	5.628	PASS
Position 4	-0.250	0.085	0.220	1.726	10.033	5.814	PASS
Position 5	-0.250	0.085	-0.220	1.692	10.002	5.912	PASS
Position 6	-0.250	-0.085	-0.220	1.663	10.042	6.038	PASS
Position 7	0.250	-0.085	-0.220	1.683	9.991	5.935	PASS
Position 8	0.250	0.085	-0.220	1.686	10.031	5.950	PASS
Center	0.000	0.000	0.000	-1.611	-10.053	6.240	PASS
Position 1	0.250	0.085	0.220	-1.792	-10.051	5.609	PASS
Position 2	0.250	-0.085	0.220	-1.764	-9.987	5.661	PASS
Position 3	-0.250	-0.085	0.220	-1.785	-9.957	5.577	PASS
Position 4	-0.250	0.085	0.220	-1.787	-10.051	5.624	PASS
Position 5	-0.250	0.085	-0.220	-1.792	-9.983	5.571	PASS
Position 6	-0.250	-0.085	-0.220	-1.760	-9.996	5.679	PASS
Position 7	0.250	-0.085	-0.220	-1.793	-10.010	5.583	PASS
Position 8	0.250	0.085	-0.220	-1.761	-10.022	5.690	PASS

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LIGO Production Small Actuator Test Report

Actuator Serial #: S104

Operator Name: Gordon, Matt

Date: 1/29/2012 Time: 3:24 PM

Actuator Coil Resistance: 10.35 Ohms, PASS

Ambient Temperature: 74.0 F

Hi Pot Test Results: 1000 MOhms, PASS

X Travel Limit (inches): 0.657

Y Travel Limit (inches): 0.206

Z Travel Limit (inches): 0.503

	X Position (in)	Y Position (in)	Z Position (in)	Current (A)	Force (lbs)	Force Constant (lbs/A)	PASS/FAIL
Center	0.000	0.000	0.000	1.549	10.008	6.460	PASS
Position 1	0.250	0.085	0.220	1.732	10.069	5.813	PASS
Position 2	0.250	-0.085	0.220	1.739	10.027	5.766	PASS
Position 3	-0.250	-0.085	0.220	1.784	10.083	5.653	PASS
Position 4	-0.250	0.085	0.220	1.787	10.021	5.609	PASS
Position 5	-0.250	0.085	-0.220	1.739	10.031	5.769	PASS
Position 6	-0.250	-0.085	-0.220	1.718	10.021	5.833	PASS
Position 7	0.250	-0.085	-0.220	1.728	9.995	5.784	PASS
Position 8	0.250	0.085	-0.220	1.739	10.024	5.763	PASS
Center	0.000	0.000	0.000	-1.616	-10.115	6.259	PASS
Position 1	0.250	0.085	0.220	-1.754	-10.048	5.728	PASS
Position 2	0.250	-0.085	0.220	-1.758	-10.016	5.699	PASS
Position 3	-0.250	-0.085	0.220	-1.762	-10.012	5.683	PASS
Position 4	-0.250	0.085	0.220	-1.744	-10.049	5.762	PASS
Position 5	-0.250	0.085	-0.220	-1.792	-10.032	5.598	PASS
Position 6	-0.250	-0.085	-0.220	-1.766	-10.096	5.716	PASS
Position 7	0.250	-0.085	-0.220	-1.778	-10.098	5.680	PASS
Position 8	0.250	0.085	-0.220	-1.791	-10.082	5.631	PASS

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LIGO Production Small Actuator Test Report

Actuator Serial #: S105

Operator Name: Gordon, Matt

Date: 1/29/2012 Time: 3:46 PM

Actuator Coil Resistance: 10.33 Ohms, PASS

Ambient Temperature: 73.8 F

Hi Pot Test Results: 1000 MOhms, PASS

X Travel Limit (inches): 0.652

Y Travel Limit (inches): 0.206

Z Travel Limit (inches): 0.503

	X Position (in)	Y Position (in)	Z Position (in)	Current (A)	Force (lbs)	Force Constant (lbs/A)	PASS/FAIL
Center	0.000	0.000	0.000	1.563	10.006	6.403	PASS
Position 1	0.250	0.085	0.220	1.748	10.000	5.720	PASS
Position 2	0.250	-0.085	0.220	1.754	10.005	5.703	PASS
Position 3	-0.250	-0.085	0.220	1.701	10.055	5.910	PASS
Position 4	-0.250	0.085	0.220	1.775	10.017	5.644	PASS
Position 5	-0.250	0.085	-0.220	1.724	10.090	5.851	PASS
Position 6	-0.250	-0.085	-0.220	1.729	10.014	5.792	PASS
Position 7	0.250	-0.085	-0.220	1.718	10.021	5.832	PASS
Position 8	0.250	0.085	-0.220	1.755	10.095	5.753	PASS
Center	0.000	0.000	0.000	-1.584	-10.030	6.333	PASS
Position 1	0.250	0.085	0.220	-1.752	-10.043	5.731	PASS
Position 2	0.250	-0.085	0.220	-1.758	-10.023	5.702	PASS
Position 3	-0.250	-0.085	0.220	-1.755	-9.998	5.696	PASS
Position 4	-0.250	0.085	0.220	-1.765	-10.037	5.688	PASS
Position 5	-0.250	0.085	-0.220	-1.808	-10.069	5.571	PASS
Position 6	-0.250	-0.085	-0.220	-1.750	-10.087	5.764	PASS
Position 7	0.250	-0.085	-0.220	-1.758	-10.058	5.721	PASS
Position 8	0.250	0.085	-0.220	-1.757	-10.076	5.736	PASS

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LIGO Production Small Actuator Test Report

Actuator Serial #: S106

Operator Name: Gordon, Matt

Date: 1/29/2012 Time: 4:15 PM

Actuator Coil Resistance: 10.32 Ohms, PASS

Ambient Temperature: 73.8 F

Hi Pot Test Results: 1000 MOhms, PASS

X Travel Limit (inches): 0.641

Y Travel Limit (inches): 0.206

Z Travel Limit (inches): 0.510

	X Position (in)	Y Position (in)	Z Position (in)	Current (A)	Force (lbs)	Force Constant (lbs/A)	PASS/FAIL
Center	0.000	0.000	0.000	1.593	10.081	6.330	PASS
Position 1	0.250	0.085	0.220	1.726	10.070	5.833	PASS
Position 2	0.250	-0.085	0.220	1.822	10.004	5.491	PASS
Position 3	-0.250	-0.085	0.220	1.791	9.995	5.582	PASS
Position 4	-0.250	0.085	0.220	1.720	10.044	5.840	PASS
Position 5	-0.250	0.085	-0.220	1.759	10.061	5.719	PASS
Position 6	-0.250	-0.085	-0.220	1.667	10.035	6.020	PASS
Position 7	0.250	-0.085	-0.220	1.721	10.022	5.822	PASS
Position 8	0.250	0.085	-0.220	1.763	10.080	5.718	PASS
Center	0.000	0.000	0.000	-1.572	-10.031	6.381	PASS
Position 1	0.250	0.085	0.220	-1.752	-10.023	5.720	PASS
Position 2	0.250	-0.085	0.220	-1.771	-10.102	5.704	PASS
Position 3	-0.250	-0.085	0.220	-1.778	-10.082	5.670	PASS
Position 4	-0.250	0.085	0.220	-1.750	-9.993	5.711	PASS
Position 5	-0.250	0.085	-0.220	-1.758	-10.096	5.742	PASS
Position 6	-0.250	-0.085	-0.220	-1.729	-10.084	5.833	PASS
Position 7	0.250	-0.085	-0.220	-1.798	-10.016	5.572	PASS
Position 8	0.250	0.085	-0.220	-1.754	-10.092	5.753	PASS

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LIGO Production Small Actuator Test Report

Actuator Serial #: S107

Operator Name: Gordon, Matt

Date: 1/30/2012 Time: 3:28 PM

Actuator Coil Resistance: 10.39 Ohms, PASS

Ambient Temperature: 76.1 F

Hi Pot Test Results: 1000 MOhms, PASS

X Travel Limit (inches): 0.634

Y Travel Limit (inches): 0.205

Z Travel Limit (inches): 0.503

	X Position (in)	Y Position (in)	Z Position (in)	Current (A)	Force (lbs)	Force Constant (lbs/A)	PASS/FAIL
Center	0.000	0.000	0.000	1.578	10.101	6.399	PASS
Position 1	0.250	0.085	0.220	1.785	10.050	5.631	PASS
Position 2	0.250	-0.085	0.220	1.795	10.078	5.615	PASS
Position 3	-0.250	-0.085	0.220	1.695	10.088	5.952	PASS
Position 4	-0.250	0.085	0.220	1.771	10.017	5.656	PASS
Position 5	-0.250	0.085	-0.220	1.755	9.988	5.690	PASS
Position 6	-0.250	-0.085	-0.220	1.742	10.049	5.769	PASS
Position 7	0.250	-0.085	-0.220	1.762	10.055	5.706	PASS
Position 8	0.250	0.085	-0.220	1.740	10.029	5.764	PASS
Center	0.000	0.000	0.000	-1.578	-9.994	6.332	PASS
Position 1	0.250	0.085	0.220	-1.761	-10.042	5.703	PASS
Position 2	0.250	-0.085	0.220	-1.757	-10.021	5.703	PASS
Position 3	-0.250	-0.085	0.220	-1.754	-10.036	5.722	PASS
Position 4	-0.250	0.085	0.220	-1.741	-10.056	5.777	PASS
Position 5	-0.250	0.085	-0.220	-1.804	-10.111	5.606	PASS
Position 6	-0.250	-0.085	-0.220	-1.745	-10.141	5.812	PASS
Position 7	0.250	-0.085	-0.220	-1.761	-10.049	5.706	PASS
Position 8	0.250	0.085	-0.220	-1.780	-10.138	5.695	PASS

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