

Bettis G-Series

Technical Data Hydraulic Actuators - Metric



Data sheet

Sheet No.: GHM 1.01 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

G-Series

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G01101.5	Start/End Minimum								2167	2476	3095	3405	3714	4209
									1143	1307	1633	1797	1960	2222
	Start/End Minimum								1429	1633	2042	2246	2450	2777
									754	862	1078	1185	1293	1466
G01101.7	Start/End Minimum						1685	2359	2949	3370	4213			
							889	1245	1556	1779	2223			
	Start/End Minimum						1135	1589	1986	2270	2837	3121	3405	3858
							599	839	1048	1198	1497	1647	1797	2036
G01102.0	Start/End Minimum					1761	2201	3081	3852	4402				
						929	1162	1626	2033	2323				
	Start/End Minimum					1321	1651	2311	2889	3301	4127			
						697	871	1220	1525	1742	2178			
G01102.2	Start/End Minimum			1393	1811	2228	2786	3900						
				735	956	1176	1470	2058						
	Start/End Minimum			1118	1453	788	2235	3129	3912	4471				
				590	767	944	1180	1652	2065	2359				
G01102.5	Start/End Minimum			1719	2235	2751	3439							
				907	1180	1452	1815							
	Start/End Minimum			1444	1878	2311	2889	4044						
				762	991	1220	1525	2134						
G01103.0	Start/End Minimum		1733	2476	3219	3962								
			915	1307	1699	2091								
	Start/End Minimum		1541	2201	2861	3521	4402							
			813	1162	1510	1859	2323							
G01103.5	Start/End Minimum		2359	3370	4381									
			1245	1779	2312									
	Start/End Minimum		2167	3095	4024									
			1143	1633	2124									
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

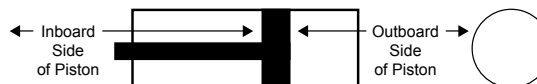
NOTE:



Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



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Sheet No.: GHM 1.02 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G2101.7	Start/End Minimum						2040	2856	3570	4080	5100	5609	6119	
							1077	1507	1884	2153	2691	2961	3230	
	Start/End Minimum						1374	1923	2404	2748	3434	3778	4121	4671
							725	1015	1269	1450	1813	1994	2175	2465
G2102.0	Start/End Minimum				1732	2131	2664	3730	4662	5328	6661			
					914	1125	1406	1969	2461	2812	3515			
	Start/End Minimum				1299	1599	1998	2797	3497	3996	4995	5495	5995	6794
					685	844	1055	1476	1846	2109	2636	2900	3164	3586
G2102.2	Start/End Minimum			1686	2192	2698	3372	4721	5901	6744				
				890	1157	1424	1780	2491	3114	3559				
	Start/End Minimum			1353	1759	2165	2706	3788	4735	5412	6765			
				714	928	1142	1428	1999	2499	2856	3570			
G2102.5	Start/End Minimum			2081	2706	3330	4163	5828						
				1099	1428	1758	2197	3076						
	Start/End Minimum			1748	2273	2797	3497	4896	6119					
				923	1200	1476	1846	2584	3230					
G2103.0	Start/End Minimum		2098	2997	3896	4796	5995							
			1107	1582	2056	2531	3164							
	Start/End Minimum		1865	2664	3464	4263	5328							
			984	1406	1828	2250	2812							
G2103.5	Start/End Minimum		2856	4080	5304	6527								
			1507	2153	2799	3445								
	Start/End Minimum		2623	3747	4871	5995								
			1384	1977	2571	3164								
G2104.0	Start/End Minimum		3730	5328										
			1969	2812										
	Start/End Minimum		3497	4995	6494									
			1846	2636	3427									
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:



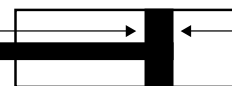
Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



← Inboard Side of Piston



← Outboard Side of Piston



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Sheet No.: GHM 1.03 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G3102.0	Start/End Minimum					2595	3243	4541	5676	6487	8109	8919	9730	11028
						1369	1712	2397	2996	3424	4280	4707	5135	5820
	Start/End Minimum					1581	1976	2767	3459	3953	4941	5435	5929	6720
						835	1043	1460	1825	2086	2608	2869	3129	3547
G3102.2	Start/End Minimum					3284	4105	5747	7184	8210	10262			
						1733	2167	3033	3791	4333	5416			
	Start/End Minimum					2270	2838	3973	4967	5676	7095	7805	8514	9649
						1198	1498	2097	2621	2996	3745	4119	4494	5093
G3102.5	Start/End Minimum				3294	4054	5068	7095	8869	10136				
					1739	2140	2675	3745	4681	5349				
	Start/End Minimum				2471	3041	3801	5321	6652	7602	9502	10452	11403	
					1304	1605	2006	2808	3511	4012	5015	5517	6018	
G3103.0	Start/End Minimum			3649	4744	5838	7298	10217						
				1926	2504	3081	3852	5392						
	Start/End Minimum			3015	3920	4825	6031	8443	10554					
				1591	2069	2546	3183	4456	5570					
G3103.5	Start/End Minimum		3477	4967	6456	7946	9933							
			1835	2621	3408	4194	5242							
	Start/End Minimum		3033	4333	5633	6933	8666							
			1601	2287	2973	3659	4574							
G3104.0	Start/End Minimum		4541	6487	8433	10379								
			2397	3424	4451	5478								
	Start/End Minimum		4097	5853	7609	9365	11707							
			2163	3089	4016	4943	6179							
G3104.5	Start/End Minimum		5747	8210	10673									
			3033	4333	5633									
	Start/End Minimum		5304	7576	9849									
			2799	3999	5198									
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:



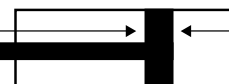
Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



← Inboard Side of Piston



Outboard Side of Piston →

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Sheet No.: GHM 1.04 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G4102.5	Start/End Minimum					4923	6154	8615	10769	12308	15385	16923	18462	20923
						2598	3248	4547	5684	6496	8120	8932	9744	11043
	Start/End Minimum					3151	3938	5514	6892	7877	9846	10831	11815	13391
						1663	2079	2910	3638	4157	5197	5716	6236	7067
G4103.0	Start/End Minimum				5760	7089	8862	12406	15508	17723	22154			
					3040	3742	4677	6548	8185	9354	11692			
	Start/End Minimum				4320	5317	6646	9305	11631	13292	16615	18277	19938	22597
					2280	2806	3508	4911	6138	7015	8769	9646	10523	11926
G4103.5	Start/End Minimum			6031	7840	9649	12062	16886	21108					
				3183	4138	5093	6366	8912	11140					
	Start/End Minimum			4923	6400	7877	9846	13785	17231	19692				
				2598	3378	4157	5197	7275	9094	10393				
G4104.0	Start/End Minimum		5514	7877	10240	12603	15754	22055						
			2910	4157	5404	6652	8315	11640						
	Start/End Minimum		4738	6769	8800	10831	13538	18954	23692					
			2501	3573	4644	5716	7145	10003	12504					
G4104.5	Start/End Minimum		6978	9969	12960	15951	19938							
			3683	5262	6840	8418	10523							
	Start/End Minimum		6203	8862	11520	14178	17723							
			3274	4677	6080	7483	9354							
G4105.0	Start/End Minimum		8615	12308	16000	19692								
			4547	6496	8444	10393								
	Start/End Minimum		7840	11200	14560	17920	22400							
			4138	5911	7684	9458	11822							
G4106.0	Start/End Minimum		12406	17723	23040									
			6548	9354	12160									
	Start/End Minimum		11631	16615	21600									
			6138	8769	11400									
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:



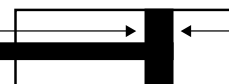
Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



← Inboard Side of Piston



← Outboard Side of Piston →



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G-Series

Torque Ratings – (Hydraulic)

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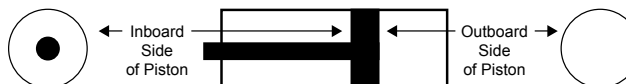
Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G5103.5	Start/End Minimum					12487	15609	21853	27316	31218	39023	42925	46827	53071
						6590	8238	11533	14417	16476	20595	22655	24714	28010
	Start/End Minimum					8410	10512	14717	18396	21024	26280	28909	31537	35741
						4438	5548	7767	9709	11096	13870	15257	16644	18864
G5104.0	Start/End Minimum				13252	16310	20387	28542	35678	40775	50968			
					6994	8608	10760	15064	18830	21520	26900			
	Start/End Minimum				9939	12232	15290	21407	26758	30581	38226	42049	45871	51988
					5245	6456	8070	11298	14122	16140	20175	22192	24210	27438
G5104.5	Start/End Minimum			12901	16772	20642	25803	36124	45155	51605				
				6809	8852	10894	13618	19065	23832	27236				
	Start/End Minimum			10353	13459	16565	20706	28988	36235	41412	51765			
				5464	7103	8742	10928	15299	19124	21856	27320			
G5105.0	Start/End Minimum		11149	15928	20706	25484	31855	44597						
			5884	8406	10928	13450	16812	23537						
	Start/End Minimum		9365	13379	17393	21407	26758	37462	46827	53517				
			4943	7061	9180	11298	14122	19771	24714	28245				
G5106.0	Start/End Minimum		16055	22936	29816	36697	45871							
			8473	12105	15736	19368	24210							
	Start/End Minimum		14271	20387	26503	32620	40775							
			7532	10760	13988	17216	21520							
G5107.0	Start/End Minimum		21853	31218	40583	49949								
			11533	16476	21419	26362								
	Start/End Minimum		20069	28670	37271	45871								
			10592	15131	19671	24210								
G5108.0	Start/End Minimum		28542	40775	53007									
			15064	21520	27976									
	Start/End Minimum		26758	38226	49694									
			14122	20175	26227									
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:

- Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.
- Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



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Data sheet

Sheet No.: GHM 1.06 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

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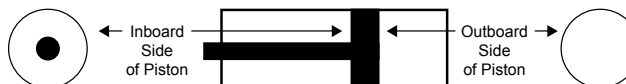
Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G7104.0	Start/End Minimum						25021	35029	43786	50042	62552	68807	75062	85071
							13205	18488	23109	26411	33014	36315	39616	44898
	Start/End Minimum						17104	23946	29932	34208	42760	47036	51312	58154
							9027	12638	15797	18054	22568	24825	27081	30692
G7104.5	Start/End Minimum					25334	31667	44334	55417	63334	79167	87084	95001	
						13370	16713	23398	29248	33426	41783	45961	50139	
	Start/End Minimum					19000	23750	33250	41563	47500	59375	65313	71251	80751
						10028	12535	17549	21936	25070	31337	34471	37604	42618
G7105.0	Start/End Minimum					31276	39095	54733	68416	78190	97737			
						16507	20633	28887	36109	41267	51584			
	Start/End Minimum					24943	31178	43650	54562	62356	77946	85740	93535	
						13164	16455	23037	28797	32910	41138	45252	49366	
G7106.0	Start/End Minimum			28148	36593	45037	56297	78815	98519					
				14856	19313	23770	29712	41597	51996					
	Start/End Minimum			24190	31447	38704	48380	67732	84665	96760				
				12767	16597	20427	25534	35747	44684	51068				
G7107.0	Start/End Minimum		26819	38313	49807	61301	76626							
			14155	20221	26287	32353	40442							
	Start/End Minimum		24048	34355	44661	54968	68709	96193						
			12692	18132	23571	29011	36263	50769						
G7108.0	Start/End Minimum		35029	50042	65054	80066	100083							
			18488	26411	34334	42257	52822							
	Start/End Minimum		32258	46083	59908	73733	92166							
			17025	24322	31618	38915	48643							
G7109.0	Start/End Minimum		44334	63334	82334	101334								
			23398	33426	43454	53482								
	Start/End Minimum		41563	59375	77188	95001								
			21936	31337	40738	50139								
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:

- Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.
- Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



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Data sheet

Sheet No.: GHM 1.07 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

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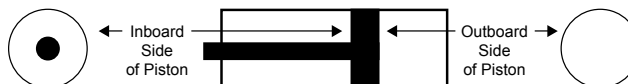
Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G7110.0	Start/End Minimum		54733	78190	101647									
			28887	41267	53647									
	Start/End Minimum		51962	74232	96501									
			27424	39178	50931									
G8105.0	Start/End Minimum							64869	81086	92670	115837	127421	139004	157538
								34236	42795	48909	61136	67250	73363	83145
	Start/End Minimum							45246	56557	64637	80796	88876	96955	109883
								23880	29850	34114	42642	46907	51171	57994
G8106.0	Start/End Minimum					53378	66722	93411	116764	133444	166805			
						28172	35214	49300	61625	70429	88036			
	Start/End Minimum					42165	52706	73788	92235	105412	131764	144941	158117	
						22254	27817	38944	48680	55634	69542	76497	83451	
G8107.0	Start/End Minimum				59030	72653	90816	127143	158928					
					31155	38345	47931	67103	83879					
	Start/End Minimum				49920	61440	76800	107520	134400	153600				
					26347	32427	40533	56747	70933	81067				
G8108.0	Start/End Minimum			59308	77101	94894	118617	166064						
				31302	40692	50083	62603	87645						
	Start/End Minimum			52300	67990	83681	104601	146441						
				27603	35884	44165	55206	77288						
G8109.0	Start/End Minimum		52544	75062	97581	120100	150125							
			27731	39616	51501	63386	79232							
	Start/End Minimum		47638	68054	88470	108887	136108							
			25142	35917	46693	57468	71835							
G8110.0	Start/End Minimum		64869	92670	120470	148271								
			34236	48909	63582	78254								
	Start/End Minimum		59963	85661	111360	137058								
			31647	45210	58773	72336								
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:

- Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.
- Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



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Data sheet

Sheet No.: GHM 1.08 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G8112.0	Start/End Minimum		93411	133444										
			49300	70429										
	Start/End Minimum		88505	126436	164367									
			46711	66730	86749									
G10106.0	Start/End Minimum							122602	153252	175145	218932	240825	262718	297747
								64706	80883	92438	115547	127102	138657	157144
	Start/End Minimum							86630	108288	123757	154697	170166	185636	210387
								45721	57152	65316	81645	89810	97974	111038
G10107.0	Start/End Minimum					95357	119196	166875	208593	238392	297990	327789		
						50327	62909	88073	110091	125818	157273	173000		
	Start/End Minimum					74802	93502	130903	163629	187004	233755	257131	280506	317907
						39479	49348	69088	86360	98697	123371	135708	148045	167784
G10108.0	Start/End Minimum				101195	124548	155685	217959	272448	311370				
					53409	65734	82167	115034	143792	164334				
	Start/End Minimum				84494	103993	129991	181987	227484	259981	324977			
					44594	54885	68606	96049	120061	137212	171516			
G10109.0	Start/End Minimum			98519	128075	157631	197039	275854						
				51996	67595	83194	103993	145590						
	Start/End Minimum			85672	111374	137076	171345	239882	299853					
				45216	58781	72345	90432	126605	158256					
G10110.0	Start/End Minimum			121629	158117	194606	243258							
				64193	83451	102709	128386							
	Start/End Minimum			108782	141416	174051	217563	304589						
				57413	74636	91860	114825	160755						
G10112.0	Start/End Minimum		122602	175145	227689	280233								
			64706	92438	120169	147901								
	Start/End Minimum		113609	162298	210988	259677	324597							
			59960	85657	111355	137052	171315							
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:



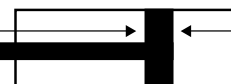
Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



← Inboard Side of Piston



← Outboard Side of Piston



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Sheet No.: GHM 1.09 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G10114.0	Start/End Minimum		166875	238392	309910									
			88073	125818	163564									
	Start/End Minimum		157882	225545	293209									
			83326	119038	154749									
G13108.0	Start/End Minimum						200166	280233	350291	400332	500415	550457	600499	
							105643	147901	184876	211287	264108	290519	316930	
	Start/End Minimum						150125	210174	262718	300249	375312	412843	450374	510424
							79232	110925	138657	158465	198081	217889	237697	269390
G13109.0	Start/End Minimum					202668	253335	354669	443337	506671	633338			
						106964	133705	187187	233983	267410	334262			
	Start/End Minimum					162635	203294	284611	355764	406588	508234	559058	609881	
						85835	107294	150212	187764	214588	268235	295058	321882	
G13110.0	Start/End Minimum				203294	250208	312760	437864	547329	625519				
					107294	132054	165068	231095	288868	330135				
	Start/End Minimum				170767	210174	262718	367805	459757	525436	656795			
					90127	110925	138657	194119	242649	277314	346642			
G13111.0	Start/End Minimum				245985	302751	378439	529815	662269					
					129826	159785	199732	279625	349531					
	Start/End Minimum				213458	262718	328398	459757	574696	656795				
					112659	138657	173321	242649	303312	346642				
G13112.0	Start/End Minimum			225187	292743	360299	450374	630523						
				118849	154503	190158	237697	332776						
	Start/End Minimum			200166	260216	320266	400332	560465						
				105643	137336	169029	211287	295801						
G13114.0	Start/End Minimum			306504	398456	490407	613009							
				161766	210296	258826	323532							
	Start/End Minimum			281484	365929	450374	562967							
				148561	193129	237697	297122							
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

NOTE:



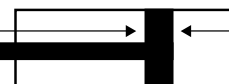
Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



← Inboard Side of Piston



→ Outboard Side of Piston



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Sheet No.: GHM 1.10 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

G-Series (cont.)

Actuator Model	See Bettis' Definitions	Direction of Rotation	Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G13116.0	Start/End Minimum		280233	400332	520432	640532								
			147901	211287	274672	338058								
	Start/End Minimum		262718	375312	487905	600499								
			138657	198081	257505	316930								
G13108.0	Start/End Minimum		354669	506671	658672									
			187187	267410	347632									
	Start/End Minimum		337155	481650	626145									
			177943	254204	330465									
Actuator Model	See Bettis' Definitions	Direction of Rotation	Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

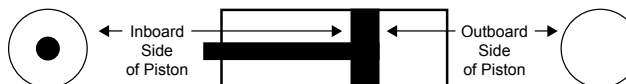
NOTE:



Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



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Sheet No.: GHM 1.11 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G01101.5-SR4	Start	1312										995	1199	1526
	Min.	645										471	580	753
	End	1132										796	1000	1326
G01101.7-SR4	Start	1312							735	1019	1586	1870	2154	2608
	Min.	645							333	484	785	934	1084	1324
	End	1132							536	819	1387	1670	1954	2408
G01102.0-SR4	Start	1312						1060	1638	2051	2876			
	Min.	645						506	812	1030	1465			
	End	1132						860	1438	1851	2676			
G01102.2-SR4	Start	1312					985	1879	2661	3220				
	Min.	645					466	939	1352	1647				
	End	1132					785	1679	2461	3020				
G01102.5-SR4	Start	1312				1060	1638	2793						
	Min.	645				506	812	1422						
	End	1132				860	1438	2594						
G01103.0-SR4	Start	1312		950	1610	2271	3151							
	Min.	645		447	797	1146	1610							
	End	1132		750	1411	12071	2951							
G01103.5-SR4	Start	1312	916	1844	2773									
	Min.	645	429	921	1411									
	End	1132	716	1645	2573									
G01101.7-SR3	Start	1536								840	1408	1692	1975	2429
	Min.	746								369	671	821	972	1211
	End	1293								572	1139	1423	1706	2160
G01102.0-SR3	Start	1536						882	1459	1872	2697			
	Min.	746						391	698	917	1353			
	End	1293						613	1191	1603	2429			
G01102.2-SR3	Start	1536					806	1700	2482	3041				
	Min.	746					351	826	1239	1534				
	End	1293					537	1431	2214	2772				
G01102.5-SR3	Start	1536				882	1459	2615						
	Min.	746				391	391	1309						
	End	1293				613	1191	2346						
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Data sheet

Sheet No.: GHM 1.12 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G01103.0-SR3	Start	1536		772	1432	2092	2973							
	Min.	746		332	683	1033	1498							
	End	1293		503	1163	1823	2704							
G01103.5-SR3	Start	1536	737	1666	2594									
	Min.	746	314	808	1298									
	End	1293	468	1397	2325									
G01101.7-SR2	Start	1754									1209	1493	1776	2230
	Min.	851									553	703	854	1095
	End	1473									898	1182	1466	1919
G01102.0-SR2	Start	1754						1261	1673	2499				
	Min.	851						580	799	1237				
	End	1473						950	1362	2188				
G01102.2-SR2	Start	1754					1501	2284	2842					
	Min.	851					708	1123	1418					
	End	1473					1190	1973	2532					
G01102.5-SR2	Start	1754					1261	2416						
	Min.	851					580	1193						
	End	1473					950	2105						
G01103.0-SR2	Start	1754			1233	1893	2774							
	Min.	851			565	916	1382							
	End	1473			922	1582	2463							
G01103.5-SR2	Start	1754		1467	2395									
	Min.	851		690	1182									
	End	1473		1156	2085									
G01101.7-SR1	Start	2087									992	1275	1559	2013
	Min.	989									391	545	695	937
	End	1670									530	814	1098	1552
G01102.0-SR1	Start	2087						1043	1456	2281				
	Min.	989						419	641	1079				
	End	1670						582	995	1820				
G01102.2-SR1	Start	2087						1284	2066	2625				
	Min.	989						549	965	1262				
	End	1670						823	1605	2164				
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Data sheet

Sheet No.: GHM 1.13 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G01102.5-SR1	Start	2087					1043	2199						
	Min.	989					419	1035						
	End	1670					582	1737						
G01103.0-SR1	Start	2087				1676	2556							
	Min.	989				757	1225							
	End	1670				1215	2095							
G01103.5-SR1	Start	2087		1250	2178									
	Min.	989		531	1024									
	End	1670		788	1717									
G2101.7-SR6	Start	1463							1142	1485	2172	2515	2859	3408
	Min.	685							504	687	1052	1234	1415	1705
	End	1142							787	1131	1818	2161	2505	3054
G2102.0-SR6	Start	1463						1535	2234	2734	3733	4233	4732	5531
	Min.	685						713	1085	1349	1877	2140	2404	2826
	End	1142						1181	1880	2380	3379	3878	4378	5177
G2102.2-SR6	Start	1463					1444	2526	3473	4149	5502			
	Min.	685					665	1240	1739	2096	2811			
	End	1142					1089	2172	3119	3795	5148			
G2102.5-SR6	Start	1463				1535	2234	3633	4857					
	Min.	685				713	1085	1824	2470					
	End	1142				1181	1880	3279	4503					
G2103.0-SR6	Start	1463		1402	2201	3000	4066							
	Min.	685		643	1067	1490	2053							
	End	1142		1048	1847	2646	3712							
G2103.5-SR6	Start	1463	1360	2484	3608	4732								
	Min.	685	621	1218	1811	2404								
	End	1142	1006	2130	3254	4378								
G2104.0-SR6	Start	1463	2234	3733	5232									
	Min.	685	1085	1877	2668									
	End	1142	1880	3379	4877									
G2101.7-SR5	Start	1855									1748	2092	2435	2985
	Min.	891									824	1007	1189	1479
	End	1525									1384	1728	2071	2621
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Data sheet

Sheet No.: GHM 1.14 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G2102.0-SR5	Start	1855					1111	1811	2310	3309	3809	4309	5108
	Min.	891					485	857	1123	1651	1914	2178	2600
	End	1525					747	1447	1946	2945	3445	3944	4744
G2102.2-SR5	Start	1855					2102	3049	3726	5079			
	Min.	891					1012	1513	1870	2584			
	End	1525					1738	2685	3362	4715			
G2102.5-SR5	Start	1855			1111	1811	3210	4433					
	Min.	891			485	857	1598	2244					
	End	1525			747	1447	2845	4069					
G2103.0-SR5	Start	1855		1778	2577	3643							
	Min.	891		839	1264	1826							
	End	1525		1413	2213	3278							
G2103.5-SR5	Start	1855	2061	3185	4309								
	Min.	891	990	1585	2178								
	End	1525	1697	2820	3944								
G2104.0-SR5	Start	1855	1811	3309	4808								
	Min.	891	857	1651	2442								
	End	1525	1447	2945	4444								
G2101.7-SR4	Start	2336								1322	1665	2009	2558
	Min.	1119								567	749	932	1224
	End	1912								852	1195	1539	2088
G2102.0-SR4	Start	2336					1384	1884	2883	3382	3882	4681	
	Min.	1119					600	865	1396	1661	1925	2347	
	End	1912					914	1414	2413	2913	3412	4211	
G2102.2-SR4	Start	2336					1676	2623	3299	4652			
	Min.	1119					755	1258	1617	2331			
	End	1912					1206	2153	2829	4182			
G2102.5-SR4	Start	2336				1384	2783	4007					
	Min.	1119				600	1343	1991					
	End	1912				914	2313	3537					
G2103.0-SR4	Start	2336		1351	2150	3216							
	Min.	1119		582	1007	1573							
	End	1912		881	1680	2746							
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Data sheet

Sheet No.: GHM 1.15 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G2103.5-SR4	Start	2336		1634	2758	3882							
	Min.	1119		733	1330	1925							
	End	1912		1164	2288	3412							
G2104.0-SR4	Start	2336	1384	2883	4381								
	Min.	1119	600	1396	2188								
	End	1912	914	2413	3912								
G2101.7-SR3	Start	2728									1356	1700	2249
	Min.	1295									547	732	1024
	End	2191									763	1107	1656
G2102.0-SR3	Start	2728							1575	2574	3073	3573	4372
	Min.	1295							665	1197	1462	1728	2151
	End	2191							982	1981	2480	2980	3779
G2102.2-SR3	Start	2728					1367	2314	2990	4343			
	Min.	1295					552	1058	1418	2136			
	End	2191					774	1721	2397	3750			
G2102.5-SR3	Start	2728				1075	2474	3698					
	Min.	1295				393	1143	1794					
	End	2191				482	1881	3105					
G2103.0-SR3	Start	2728			1841	2907							
	Min.	1295			807	1374							
	End	2191			1248	2314							
G2103.5-SR3	Start	2728		1325	2449	3573							
	Min.	1295		530	1130	1728							
	End	2191		732	1856	2980							
G2104.0-SR3	Start	2728	1075	2574	4073								
	Min.	1295	393	1197	1993								
	End	2191	482	1981	3479								
G2101.7-SR2	Start	3030										1364	1914
	Min.	1456										551	846
	End	2494										772	1321
G2102.0-SR2	Start	3030							1240	2239	2738	3238	4037
	Min.	1456							484	1019	1284	1550	1974
	End	2494							647	1646	2146	2645	3445
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Sheet No.: GHM 1.16 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G2102.2-SR2	Start	3030							1979	2655	4008			
	Min.	1456							880	1240	1959			
	End	2494							1386	2062	3415			
G2102.5-SR2	Start	3030						2139	3363					
	Min.	1456						965	1616					
	End	2494						1546	2770					
G2103.0-SR2	Start	3030				1506	2572							
	Min.	1456				628	1196							
	End	2494				914	1979							
G2103.5-SR2	Start	3030			2114	3238								
	Min.	1456			952	1550								
	End	2494			1521	2645								
G2104.0-SR2	Start	3030		2239	3737									
	Min.	1456		1019	1815									
	End	2494		1646	3145									
G2102.0-SR1	Start	3502									1873	2372	2872	3671
	Min.	1666									778	1045	1310	1735
	End	2825									1124	1624	2123	2923
G2102.2-SR1	Start	3502							1613	2289	3642			
	Min.	1666							636	1000	1719			
	End	2825							864	1541	2894			
G2102.5-SR1	Start	3502						1773	2997					
	Min.	1666						723	1376					
	End	2825						1024	2248					
G2103.0-SR1	Start	3502					2206							
	Min.	1666					956							
	End	2825					1457							
G2103.5-SR1	Start	3502				2872								
	Min.	1666				1310								
	End	2825				2123								
G2104.0-SR1	Start	3502		1873	3371									
	Min.	1666		778	1576									
	End	2825		1124	2623									
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.17 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G3102.0-SR4	Start	4132										2362	3152
	Min.	1935										963	1387
	End	3228										1362	2153
G3102.2-SR4	Start	4132							2108	3527	4237	4946	6082
	Min.	1935							825	1586	1963	2340	2943
	End	3228							1109	2528	3238	3947	5082
G3102.5-SR4	Start	4132						3084	4034	5935	6885	7835	
	Min.	1935						1350	1855	2865	3370	3871	
	End	3228						2085	3035	4935	5886	6836	
G3103.0-SR4	Start	4132				2463	4875	6986					
	Min.	1935				1018	2302	3423					
	End	3228				1464	3876	5987					
G3103.5-SR4	Start	4132			3365	5098							
	Min.	1935			1500	2421							
	End	3228			2366	4099							
G3104.0-SR4	Start	4132		2286	4042	5798	8139						
	Min.	1935		922	1859	2793	4032						
	End	3228		1286	3042	4798	7140						
G3104.5-SR4	Start	4132	1736	4009	6282								
	Min.	1935	620	1842	3050								
	End	3228	737	3009	5282								
G3102.2-SR3	Start	4760								3051	3761	4470	5605
	Min.	2212								1267	1647	2024	2627
	End	3659								1834	2543	3253	4388
G3102.5-SR3	Start	4760						2608	3558	5459	6409	7359	
	Min.	2212						1027	1539	2549	3054	3559	
	End	3659						1390	2340	4241	5191	6141	
G3103.0-SR3	Start	4760					4399	6510					
	Min.	2212					1986	3108					
	End	3659					3182	5292					
G3103.5-SR3	Start	4760			2889	4622							
	Min.	2212			1179	2105							
	End	3659			1671	3405							
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Sheet No.: GHM 1.18 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G3104.0-SR3	Start	4760			3566	5322	7663							
	Min.	2212			1543	2476	3721							
	End	3659			2348	4104	6445							
G3104.5-SR3	Start	4760		3533	5806									
	Min.	2212		1526	2734									
	End	3659		2315	4588									
G3102.2-SR2	Start	5539										3187	3896	5031
	Min.	2550										1250	1635	2239
	End	4178										1683	2392	3528
G3102.5-SR2	Start	5539								2984	4884	5835	6785	
	Min.	2550								1140	2161	2666	3171	
	End	4178								1480	3381	4331	5281	
G3103.0-SR2	Start	5539						3825	5936					
	Min.	2550						1596	2720					
	End	4178						2321	4432					
G3103.5-SR2	Start	5539					4048							
	Min.	2550					1717							
	End	4178					2544							
G3104.0-SR2	Start	5539			2992	4748	7089							
	Min.	2550			1144	2089	3333							
	End	4178			1488	3244	5585							
G3104.5-SR2	Start	5539		2959	5232									
	Min.	2550		1126	2346									
	End	4178		1455	3728									
G3102.2-SR1	Start	6107										2531	3241	4376
	Min.	2860										897	1288	1899
	End	4771										1055	1764	2900
G3102.5-SR1	Start	6107								2328	4229	5179	6129	
	Min.	2860								782	1821	2326	2831	
	End	4771								852	2753	3703	4653	
G3103.0-SR1	Start	6107						3170	5281					
	Min.	2860						1249	2380					
	End	4771						1694	3804					
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.19 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G3103.5-SR1	Start	6107					3393							
	Min.	2860					1370							
	End	4771					1917							
G3104.0-SR1	Start	6107				4092	6433							
	Min.	2860				1748	2993							
	End	4771				2616	4957							
G3104.5-SR1	Start	6107		2303	4576									
	Min.	2860		767	2005									
	End	4771		827	3100									
G4102.5-SR4	Start	7772									4644	5629	7204	
	Min.	3502									1754	2288	3134	
	End	5597									2241	3226	4801	
G4103.0-SR4	Start	7772						5444	7106	10429	12091	13752	16410	
	Min.	3502						2188	3082	4848	5731	6614	8027	
	End	5597						3041	4703	8026	9687	11349	14007	
G4103.5-SR4	Start	7772					3660	7598	11044	13506				
	Min.	3502					1195	3344	5175	6483				
	End	5597					1256	5195	8641	11102				
G4104.0-SR4	Start	7772				4644	7352	12767	17506					
	Min.	3502				1754	3213	6091	8605					
	End	5597				2241	4949	10364	15102					
G4104.5-SR4	Start	7772			5334	7992	11537							
	Min.	3502			2128	3553	5437							
	End	5597			2930	5589	9133							
G4105.0-SR4	Start	7772		5014	8374	11734	16214							
	Min.	3502		1954	3756	5542	7923							
	End	5597		2610	5970	9330	13810							
G4106.0-SR4	Start	7772	5444	10429	15414									
	Min.	3502	2188	4848	7497									
	End	5597	3041	8026	13010									
G4103.0-SR3	Start	9384								5954	9277	10939	12600	15259
	Min.	4194								2263	4054	4937	5820	7233
	End	6639								2921	6244	7905	9567	12225
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.20 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G4103.5-SR3	Start	9384					6446	9893	12354				
	Min.	4194					2531	4381	5689				
	End	6639					3413	6859	9321				
G4104.0-SR3	Start	9384				6200	11616	16354					
	Min.	4194				2397	5297	7815					
	End	6639				3167	8582	13321					
G4104.5-SR3	Start	9384			6743	10263							
	Min.	4194			2744	4643							
	End	6639			3807	7352							
G4105.0-SR3	Start	9384		3862	7222	10582	15062						
	Min.	4194		829	2951	4747	7128						
	End	6639		829	4189	7549	12029						
G4106.0-SR3	Start	9384	4293	9277	14262								
	Min.	4194	1259	4054	6703								
	End	6639	1259	6244	11229								
G4103.0-SR2	Start	11116							4623	7946	9607	11269	13927
	Min.	4962							1006	3158	4060	4944	6357
	End	7844							1006	4329	5990	7652	10310
G4103.5-SR2	Start	11116					5115	8561	11023				
	Min.	4962					1498	3492	4813				
	End	7844					1498	4944	7406				
G4104.0-SR2	Start	11116				4869	10284	15023					
	Min.	4962				1252	4421	6939					
	End	7844				1252	6667	11406					
G4104.5-SR2	Start	11116			5509	9053							
	Min.	4962			1799	3759							
	End	7844			1892	5436							
G4105.0-SR2	Start	11116			5890	9250	13730						
	Min.	4962			2023	3866	6252						
	End	7844			2273	5633	10113						
G4106.0-SR2	Start	11116		7946	12930								
	Min.	4962		3158	5827								
	End	7844		4329	9313								
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Sheet No.: GHM 1.21 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G4103.0-SR1	Start	12698								6367	8029	9690	12349
	Min.	5759								2231	3149	4051	5469
	End	9272								2581	4242	5904	8562
G4103.5-SR1	Start	12698						6983	9444				
	Min.	5759						2577	3917				
	End	9272						3196	5658				
G4104.0-SR1	Start	12698					8706	13444					
	Min.	5759					3516	6051					
	End	9272					4919	9658					
G4104.5-SR1	Start	12698				7475							
	Min.	5759				2848							
	End	9272				3688							
G4105.0-SR1	Start	12698			7672	12152							
	Min.	5759			2955	5364							
	End	9272			3885	8365							
G4106.0-SR1	Start	12698		11352									
	Min.	5759		4939									
	End	9272		7565									
G5103.5-SR4	Start	17372								14120	16748	19376	23581
	Min.	7392								5416	6843	8263	10498
	End	11002								7080	9708	12336	16541
G5104.0-SR4	Start	17372					14598	18421	26066	29888	33711	39827	
	Min.	7392					5676	7751	11819	13850	15882	19132	
	End	11002					7558	11380	19025	22848	26671	32787	
G5104.5-SR4	Start	17372				16828	24075	29251	39604				
	Min.	7392				6886	10761	13512	19014				
	End	11002				9787	17034	22211	32564				
G5105.0-SR4	Start	17372			14598	25301	34667	41356					
	Min.	7392			5676	11412	16390	19945					
	End	11002			7558	18261	27626	34316					
G5106.0-SR4	Start	17372		14343	20459	28614							
	Min.	7392		5537	8839	13173							
	End	11002		7319	13449	21623							
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Sheet No.: GHM 1.22 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G5107.0-SR4	Start	17372		16509	25110	33711								
	Min.	7392		6713	11311	15882								
	End	11002		9469	18070	26671								
G5108.0-SR4	Start	17372	14598	26066	37534									
	Min.	7392	5676	11819	17914									
	End	11002	7558	19025	30493									
G5103.5-SR3	Start	20785										14575	17203	21408
	Min.	8786										5117	6580	8862
	End	12968										5936	8564	12769
G5104.0-SR3	Start	20785							12425	16248	23893	27715	31538	37654
	Min.	8786							3786	6057	10202	12233	14265	17516
	End	12968							3786	7609	15254	19076	22899	29015
G5104.5-SR3	Start	20785						14655	21902	27078	37431			
	Min.	8786						5161	9130	11895	17397			
	End	12968						6016	13263	18439	28792			
G5105.0-SR3	Start	20785					12425	23128	32494	39183				
	Min.	8786					3786	9796	14773	18328				
	End	12968					3786	14489	23855	30544				
G5106.0-SR3	Start	20785				18286	26441							
	Min.	8786				7167	11556							
	End	12968				9647	17802							
G5107.0-SR3	Start	20785		14336	22937	31538								
	Min.	8786		4982	9692	14265								
	End	12968		5697	14298	22899								
G5108.0-SR3	Start	20785	12425	23893	35361									
	Min.	8786	3786	10202	16297									
	End	12968	3786	15254	26722									
G5104.0-SR2	Start	25788									21251	25074	28896	35013
	Min.	10667									7841	9929	12004	15277
	End	15358									9724	13547	17369	23485
G5104.5-SR2	Start	25788							19260	24437	34790			
	Min.	10667							6721	9584	15159			
	End	15358							7733	12909	23262			
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G5105.0-SR2	Start	25788						20487	29852	36542				
	Min.	10667						7411	12523	16090				
	End	15358						8959	18325	25014				
G5106.0-SR2	Start	25788					23800							
	Min.	10667					9238							
	End	15358					12272							
G5107.0-SR2	Start	25788			20296	28896								
	Min.	10667			7304	12004								
	End	15358			8768	17369								
G5108.0-SR2	Start	25788		21251	32719									
	Min.	10667		7841	14058									
	End	15358		9724	21192									
G5104.0-SR1	Start	28735									18190	22013	25835	31952
	Min.	12206									6030	8200	10280	13594
	End	18128									6467	10289	14112	20228
G5104.5-SR1	Start	28735								21376	31729			
	Min.	12206								7841	13475			
	End	18128								9652	20005			
G5105.0-SR1	Start	28735						17426	26791	33481				
	Min.	12206						5578	10799	14406				
	End	18128						5702	15068	21757				
G5106.0-SR1	Start	28735					20739							
	Min.	12206					7483							
	End	18128					9015							
G5107.0-SR1	Start	28735				25835								
	Min.	12206				10280								
	End	18128				14112								
G5108.0-SR1	Start	28735		18190	29658									
	Min.	12206		6030	12355									
	End	18128		6467	17935									
G7104.0-SR4	Start	33079										23379	27655	34497
	Min.	14207										8547	10891	14604
	End	21404										10475	14751	21592
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.24 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G7104.5-SR4	Start	33079								23843	35719	41656	47594	57094
	Min.	14207								8808	15254	18410	21565	26615
	End	21404								10939	22814	28752	34689	44189
G7105.0-SR4	Start	33079						19993	30905	38700	54289	62083	69878	
	Min.	14207						6620	12655	16839	25124	29266	33409	
	End	21404						7088	18000	25795	41384	49179	56973	
G7106.0-SR4	Start	33079					24723	44075	61008	73103				
	Min.	14207					9299	19695	28695	35123				
	End	21404					11819	31171	48104	60199				
G7107.0-SR4	Start	33079				31311	45053	72536						
	Min.	14207				12875	20215	34822						
	End	21404				18406	32148	59632						
G7108.0-SR4	Start	33079		22426	36251	50076	68509							
	Min.	14207		8011	15537	22885	32682							
	End	21404		9522	23347	37172	55605							
G7109.0-SR4	Start	33079		35719	53531	71344								
	Min.	14207		15254	24721	34188								
	End	21404		22814	40627	58439								
G7110.0-SR4	Start	33079	28305	50575	72844									
	Min.	14207	11244	23150	34985									
	End	21404	15401	37670	59940									
G7104.0-SR3	Start	39345											23481	30322
	Min.	16818											7573	11460
	End	25181											7826	14667
G7104.5-SR3	Start	39345									31544	37481	43419	52919
	Min.	16818									12124	15346	18552	23601
	End	25181									15889	21827	27764	37264
G7105.0-SR3	Start	39345						26730	34525	50114	57909	65703		
	Min.	16818						9451	13742	22110	26253	30395		
	End	25181						11075	18870	34459	42254	50048		
G7106.0-SR3	Start	39345						39900	56833	68928				
	Min.	16818						16659	25681	32110				
	End	25181						24246	41179	53274				
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.25 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G7107.0-SR3	Start	39345				27136	40878	68362						
	Min.	16818				9679	17190	31808						
	End	25181				11481	25223	52707						
G7108.0-SR3	Start	39345			32077	45902	64335							
	Min.	16818			12413	19871	29668							
	End	25181			16422	30247	48680							
G7109.0-SR3	Start	39345		31544	49357	67169								
	Min.	16818		12124	21708	31175								
	End	25181		15889	33702	51514								
G7110.0-SR3	Start	39345	24131	46400	68669									
	Min.	16818	7958	20136	31972									
	End	25181	8476	30745	53015									
G7104.5-SR2	Start	50028										32557	38495	47995
	Min.	20644										10019	13613	18855
	End	29636										10019	15957	25457
G7105.0-SR2	Start	50028									45190	52984	60779	
	Min.	20644									17333	21563	25789	
	End	29636									22652	30446	38241	
G7106.0-SR2	Start	50028						34976	51909	64004				
	Min.	20644						11596	20980	27503				
	End	29636						12438	29371	41466				
G7107.0-SR2	Start	50028					35954	63437						
	Min.	20644					12174	27202						
	End	29636					13415	40899						
G7108.0-SR2	Start	50028				40977	59411							
	Min.	20644				15009	25051							
	End	29636				18439	36872							
G7109.0-SR2	Start	50028			44432	62245								
	Min.	20644			16922	26568								
	End	29636			21894	39707								
G7110.0-SR2	Start	50028		41476	63745									
	Min.	20644		15289	27366									
	End	29636		18938	41207									
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.26 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G7104.5-SR1	Start	59263												42046
	Min.	24427												14059
	End	35019												15249
G7105.0-SR1	Start	59263									39241	47035	54830	
	Min.	24427									12386	16897	21206	
	End	35019									12444	20239	28033	
G7106.0-SR1	Start	59263							45960	58055				
	Min.	24427							16293	22956				
	End	35019							19164	31259				
G7107.0-SR1	Start	59263						57488						
	Min.	24427						22649						
	End	35019						30692						
G7108.0-SR1	Start	59263					53461							
	Min.	24427					20463							
	End	35019					26665							
G7109.0-SR1	Start	59263			38483	56296								
	Min.	24427			11687	22001								
	End	35019			11687	29499								
G7110.0-SR1	Start	59263		35527	57796									
	Min.	24427		8730	22816									
	End	35019		8730	31000									
G8105.0-SR3	Start	57255									35595	43675	51754	64682
	Min.	25702									13548	17933	22281	29151
	End	40896									17514	25594	33674	46601
G8106.0-SR3	Start	57255						47034	60210	86563	99740	112916		
	Min.	25702						19757	26775	40781	47784	54787		
	End	40896						28953	42130	68483	81659	94835		
G8107.0-SR3	Start	57255					31599	62319	89199	108399				
	Min.	25702					11324	27896	42182	52386				
	End	40896					13518	44238	71118	90318				
G8108.0-SR3	Start	57255				38479	59400	101240						
	Min.	25702				15114	26344	48581						
	End	40896				20399	41319	83159						
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.27 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

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Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G8109.0-SR3	Start	57255			43269	63686	90907							
	Min.	25702			17713	28622	43090							
	End	40896			25189	45605	72826							
G8110.0-SR3	Start	57255		40460	66159	91857								
	Min.	25702		16189	29936	43594								
	End	40896		22379	48078	73776								
G8112.0-SR3	Start	57255	43304	81235	119166									
	Min.	25702	17732	37949	58108									
	End	40896	25223	63154	101085									
G8105.0-SR2	Start	67425										35742	43822	56749
	Min.	30242										12475	16957	23974
	End	48073										14354	22434	35361
G8106.0-SR2	Start	67425							39102	52278	78631	91807	104984	
	Min.	30242							14364	21547	35609	42612	49615	
	End	48073							17713	30890	57243	70419	83595	
G8107.0-SR2	Start	67425						54386	81266	100466				
	Min.	30242						22691	37010	47214				
	End	48073						32998	59878	79078				
G8108.0-SR2	Start	67425					51467	93307						
	Min.	30242					21107	43409						
	End	48073					30079	71919						
G8109.0-SR2	Start	67425				55753	82975							
	Min.	30242				23433	37918							
	End	48073				34365	61586							
G8110.0-SR2	Start	67425		32528	58226	83925								
	Min.	30242		10612	24765	38423								
	End	48073		11139	36838	62536								
G8112.0-SR2	Start	67425	35372	73302	111233									
	Min.	30242	12266	32777	52936									
	End	48073	13983	51914	89845									
G8106.0-SR1	Start	83654									69192	82368	95545	
	Min.	36645									28014	35140	42143	
	End	56614									39305	52482	65658	
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.28 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G8107.0-SR1	Start	83654						71827	91027				
	Min.	36645						29445	39742				
	End	56614						41941	61141				
G8108.0-SR1	Start	83654					83868						
	Min.	36645					35937						
	End	56614					53982						
G8109.0-SR1	Start	83654				73535							
	Min.	36645				30372							
	End	56614				43649							
G8110.0-SR1	Start	83654			74485								
	Min.	36645			30888								
	End	56614			44599								
G8112.0-SR1	Start	83654	63863	101794									
	Min.	36645	25122	45464									
	End	56614	33977	71908									
G10106.0-SR4	Start	113922								80268	95737	111207	135959
	Min.	46963								26709	35484	43924	57359
	End	67340								28783	44253	59722	84474
G10107.0-SR4	Start	113922					89200	112575	159326	182702	206077	243478	
	Min.	46963					31807	44667	69799	82223	94646	114524	
	End	67340					37715	61090	107842	131217	154593	191993	
G10108.0-SR4	Start	113922				107558	153055	185553	250548				
	Min.	46963				41944	66466	83738	118281				
	End	67340				56073	101570	134068	199063				
G10109.0-SR4	Start	113922				96916	165453	225424					
	Min.	46963				36146	73056	104928					
	End	67340				45431	113969	173939					
G10110.0-SR4	Start	113922			99622	143135	230160						
	Min.	46963			37636	61194	107445						
	End	67340			48137	91650	178675						
G10112.0-SR4	Start	113922	87870	136559	185249	250168							
	Min.	46963	31059	57685	83576	118079							
	End	67340	36385	85074	133764	198683							
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Sheet No.: GHM 1.29 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G10114.0-SR4	Start	113922	83453	151116	218780									
	Min.	46963	28575	65436	101397									
	End	67340	31968	99632	167295									
G10107.0-SR3	Start	141885								98621	145372	168748	192123	229524
	Min.	57244								30184	57056	69744	82331	102208
	End	79966								30184	76935	100310	123686	161087
G10108.0-SR3	Start	141885						93604	139101	171598	236594			
	Min.	57244						25167	53652	71291	105966			
	End	79966						25167	70663	103161	168156			
G10109.0-SR3	Start	141885						151499	211470					
	Min.	57244						60382	92613					
	End	79966						83062	143033					
G10110.0-SR3	Start	141885					129180	216206						
	Min.	57244					48247	95130						
	End	79966					60743	147768						
G10112.0-SR3	Start	141885			122605	171294	236214							
	Min.	57244			44549	71126	105764							
	End	79966			54168	102857	167776							
G10114.0-SR3	Start	141885		137162	204826									
	Min.	57244		52600	89082									
	End	79966		68725	136389									
G10107.0-SR2	Start	155488									128554	151930	175305	212706
	Min.	65143									48497	61185	73872	93785
	End	95182									61900	85275	108651	146052
G10108.0-SR2	Start	155488							122283	154781	219776			
	Min.	65143							45003	62732	97543			
	End	95182							55628	88126	153121			
G10109.0-SR2	Start	155488						134681	194652					
	Min.	65143						51823	84190					
	End	95182						68027	127997					
G10110.0-SR2	Start	155488					112363	199388						
	Min.	65143					39425	86707						
	End	95182					45708	132733						
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.30 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G10112.0-SR2	Start	155488			105787	154476	219396							
	Min.	65143			35684	62567	97341							
	End	95182			39132	87822	152741							
G10114.0-SR2	Start	155488		120344	188008									
	Min.	65143		43913	80659									
	End	95182		53690	121353									
G10107.0-SR1	Start	192709										131993	155368	192769
	Min.	79221										42632	56051	76583
	End	113220										44137	67512	104913
G10108.0-SR1	Start	192709								134844	199839			
	Min.	79221								44318	80420			
	End	113220								46987	111983			
G10109.0-SR1	Start	192709							174715					
	Min.	79221							66783					
	End	113220							86859					
G10110.0-SR1	Start	192709						179451						
	Min.	79221						69354						
	End	113220						91595						
G10112.0-SR1	Start	192709				134540	199459							
	Min.	79221				44138	80214							
	End	113220				46683	111603							
G10114.0-SR1	Start	192709			168071									
	Min.	79221			63177									
	End	113220			80215									
G13108.0-SR4	Start	249866										262526	300057	360107
	Min.	99270										102316	122686	155018
	End	136001										136675	174206	234256
G13109.0-SR4	Start	249866							205448	256271	357918	408741	459565	
	Min.	99270							70667	98920	153854	180866	207877	
	End	136001							79597	130420	232067	282890	333714	
G13110.0-SR4	Start	249866						217489	309440	375120	506479			
	Min.	99270						77439	127779	162997	232810			
	End	136001						91638	183589	249269	380628			
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 1.31 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G13111.0-SR4	Start	249866					309440	424379	506479				
	Min.	99270					127779	189177	232810				
	End	136001					183589	298528	380628				
G13112.0-SR4	Start	249866				250016	410149						
	Min.	99270				95525	181614						
	End	136001				124165	284298						
G13114.0-SR4	Start	249866		215612	300057	412651							
	Min.	99270		76383	122686	182943							
	End	136001		89761	174206	286800							
G13116.0-SR4	Start	249866	224995	337589	450182								
	Min.	99270	81660	143050	202890								
	End	136001	99144	211738	324331								
G13118.0-SR4	Start	249866	331333	475828									
	Min.	99270	139662	216520									
	End	136001	205482	349977									
G13108.0-SR3	Start	308129										267859	327909
	Min.	121594										94286	127525
	End	165132										109811	169860
G13109.0-SR3	Start	308129								325720	376543	427367	
	Min.	121594								126337	153922	181460	
	End	165132								167671	218495	269318	
G13110.0-SR3	Start	308129					277242	342922	474281				
	Min.	121594					99563	135673	206393				
	End	165132					119193	184873	316232				
G13111.0-SR3	Start	308129					277242	392181	474281				
	Min.	121594					99563	162410	206393				
	End	165132					119193	234133	316232				
G13112.0-SR3	Start	308129					377951						
	Min.	121594					154686						
	End	165132					219902						
G13114.0-SR3	Start	308129			267859	380453							
	Min.	121594			94286	156044							
	End	165132			109811	222404							
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Data sheet

Sheet No.: GHM 1.32 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)	Operating Pressure (Bar)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Pressure Torque Output Start/Min./End (Nm)											
G13116.0-SR3	Start	308129		305391	417984								
	Min.	121594		115302	176415								
	End	165132		147342	259935								
G13118.0-SR3	Start	308129	299135	443630									
	Min.	121594	111874	190103									
	End	165132	141087	285582									
G13108.0-SR2	Start	369313											289412
	Min.	146390											95678
	End	199963											102236
G13109.0-SR2	Start	369313								287223	338046	388870	
	Min.	146390								94383	123372	151314	
	End	199963								100046	150870	201693	
G13110.0-SR2	Start	369313						238745	304424	435783			
	Min.	146390						51569	104464	176777			
	End	199963						51569	117248	248607			
G13111.0-SR	Start	369313						353684	435783				
	Min.	146390						132166	176777				
	End	199963						166508	248607				
G13112.0-SR2	Start	369313					339454						
	Min.	146390					124163						
	End	199963					152277						
G13114.0-SR2	Start	369313				341956							
	Min.	146390				125570							
	End	199963				154779							
G13116.0-SR2	Start	369313			379487								
	Min.	146390			146221								
	End	199963			192310								
G13118.0-SR2	Start	369313	260638	405133									
	Min.	146390	73462	160141									
	End	199963	73462	217957									
G13109.0-SR1	Start	427576									305848	356672	
	Min.	168713									86474	122367	
	End	229094									86474	137297	
Actuator Model	Spring Torque Start/Min./End (Nm)	Pressure Torque Output Start/Min./End (Nm)											
		35	50	65	80	100	140	175	200	250	275	300	340
		Operating Pressure (Bar)											

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Sheet No.: GHM 1.33 RevB

Date: August 2010

G-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (Nm)		Operating Pressure (Bar)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Pressure Torque Output Start/Min./End (Nm)											
G13110.0-SR1	Start	427576								272227	403586			
	Min.	168713								52852	148749			
	End	229094								52852	184211			
G13111.0-SR1	Start	427576							321486	403586				
	Min.	168713							101548	148749				
	End	229094							102112	184211				
G13112.0-SR1	Start	427576						307256						
	Min.	168713						87881						
	End	229094						87881						
G13114.0-SR1	Start	427576					309758							
	Min.	168713					90383							
	End	229094					90383							
G13116.0-SR1	Start	427576				347289								
	Min.	168713				116923								
	End	229094				127915								
G13118.0-SR1	Start	427576			372935									
	Min.	168713			131513									
	End	229094			153561									
Actuator Model	Spring Torque Start/Min./End (Nm)		Pressure Torque Output Start/Min./End (Nm)											
			35	50	65	80	100	140	175	200	250	275	300	340
			Operating Pressure (Bar)											

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Sheet No.: GHM 2.01 RevB

Date: August 2010

G-Series

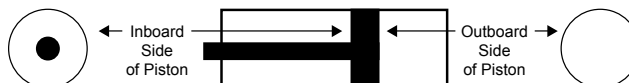
Performance Data – (Hydraulic)

Double-Acting Actuators G-Series

Actuator Model	Displacement (cu cm)		Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
	Inboard	Outboard		
G01001.5	90.1	137.5	344.8	51
G01101.7	126.2	186.8	271.6	51.7
G01102.0	183.5	244.2	207.9	52
G01102.2	249.1	309.7	164.3	52.6
G01102.5	321.2	381.8	133.1	53
G01103.0	488.3	550.6	92.4	54.9
G01103.5	688.3	748.9	67.9	56
G2101.7	152.5	226	332.3	64
G2102.0	221	295	254.5	67
G2102.2	300	373.5	201	67
G2102.5	388.5	459	163	67
G2103.0	590	665.5	113	69
G2103.5	832.5	906	83	70
G2104.0	1109.5	1180	63.6	72
G3102.0	219.5	360.5	344.8	96
G3102.2	314.5	455.5	289	97
G3102.5	423	563.5	234	98
G3103.0	672	811	162.6	98
G3103.5	963.5	1103	119.4	100
G3104.0	1301	1442	91.4	102
G3104.5	1688	1819	72.3	103
G4102.5	438	683	344.7	165
G4103.0	737	983	268	169
G4103.5	1095	1340	196.7	167
G4104.0	1504	1753	150.6	166
Actuator Model	Inboard	Outboard	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
	Displacement (cu cm)			

NOTE:

-  Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.
-  Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



* **Maximum Operating Pressure (MOP)** – The maximum recommended pressure at which the actuator should be operated.

Maximum Relief Valve Set Pressure (MRP) – The maximum recommended relief pressure value set point. MRP is calculated by multiplying MOP times 1.15 for G-Series actuators.

Maximum System Pressure (MSP) – The maximum allowable system supply pressure to which an actuator may be exposed. MSP is calculated by multiplying MOP times 1.25 for G-Series actuators.

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Data sheet

Sheet No.: GHM 2.02 RevB

Date: August 2010

G-Series

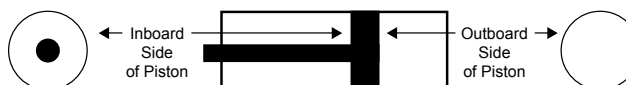
Performance Data – (Hydraulic)

Double-Acting Actuators G-Series (cont.)

Actuator Model	Displacement (cu cm)		Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
	Inboard	Outboard		
G4104.5	1966	2212	119	167
G4105.0	2491	2737	96.4	170
G4106.0	3687	3933	67	170
G5103.5	1163	1737	344.7	328
G5104.0	1704	2261	266	346
G5104.5	2294	2868	210	337
G5105.0	2966	3540	170	342
G5106.0	4523	5096	118	341
G5107.0	6375	6932	87	345
G5108.0	8488	9062	66.5	385
G7104.0	1901	2786	344.7	596
G7104.5	2638	3523	332	601
G7105.0	3458	4343	269	608
G7106.0	5375	6260	186.6	623
G7107.0	7636	8521	137	635
G7108.0	10242	11127	105.6	638
G7109.0	13192	14076	83	664
G7110.0	16502	17370	67	694
G8105.0	3589	5146	344.7	894
G8106.0	5850	7407	254	934
G8107.0	8538	10094	186.6	928
G8108.0	11618	13175	143	919
G8109.0	15125	16682	113	933
G8110.0	19042	20599	91.4	935
G8112.0	28104	29661	63.5	979
Actuator Model	Inboard	Outboard	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
	Displacement (cu cm)			

NOTE:

-  Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.
-  Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



* **Maximum Operating Pressure (MOP)** – The maximum recommended pressure at which the actuator should be operated.

Maximum Relief Valve Set Pressure (MRP) – The maximum recommended relief pressure value set point. MRP is calculated by multiplying MOP times 1.15 for G-Series actuators.

Maximum System Pressure (MSP) – The maximum allowable system supply pressure to which an actuator may be exposed. MSP is calculated by multiplying MOP times 1.25 for G-Series actuators.

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Data sheet

Sheet No.: GHM 2.03 RevB

Date: August 2010

G-Series

Performance Data – (Hydraulic)

Double-Acting Actuators G-Series (cont.)

Actuator Model	Displacement (cu cm)		Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
	Inboard	Outboard		
G10106.0	6883	9734	344.7	1463
G10107.0	10389	13241	284.4	1456
G10108.0	14437	17305	217.7	1521
G10109.0	19042	21893	172	1547
G10110.0	24171	27022	139.3	1572
G10112.0	36068	38919	96.7	1612
G10114.0	50112	52979	71	1801
G13108.0	16682	22237	338.7	2712
G13109.0	22581	28153	267.6	2759
G13110.0	29185	34757	217	2751
G13111.0	36488	42047	179	2754
G13112.0	44474	50046	150.5	2756
G13114.0	62549	68105	110.6	2833
G13116.0	83394	88965	84.7	2922
G13118.0	107024	112596	67	2997
Actuator Model	Inboard	Outboard	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
	Displacement (cu cm)			

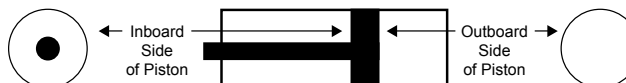
NOTE:



Standard configuration produces clockwise rotation when the inboard side of piston is pressurized. Inboard side of piston equals < torque.



Standard configuration produces counterclockwise rotation when the outboard side of piston is pressurized. Outboard side of piston equals > torque.



* **Maximum Operating Pressure (MOP)** – The maximum recommended pressure at which the actuator should be operated.

Maximum Relief Valve Set Pressure (MRP) – The maximum recommended relief pressure value set point. MRP is calculated by multiplying MOP times 1.15 for G-Series actuators.

Maximum System Pressure (MSP) – The maximum allowable system supply pressure to which an actuator may be exposed. MSP is calculated by multiplying MOP times 1.25 for G-Series actuators.

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Sheet No.: GHM 2.04 RevB

Date: August 2010

G-Series

Performance Data – (Hydraulic)

Spring-Return Actuators

G-Series

Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
G01101.5-SR4	90.1	344.7	114.8
G01101.7-SR4	126.2	332.3	115.1
SR3	126.2	332.3	119.3
SR2	126.2	332.3	121.6
SR1	126.2	332.3	122.5
G01102.0-SR4	183.5	254.5	115.7
SR3	183.5	254.5	119.8
SR2	183.5	254.5	122.5
SR1	183.5	254.5	123.4
G01102.2-SR4	249.1	201.1	116.1
SR3	249.1	201.1	120.2
SR2	249.1	201.1	122.5
SR1	249.1	201.1	123.4
G01102.5-SR4	321.2	162.9	116.6
SR3	321.2	162.9	120.7
SR2	321.2	162.9	123.4
SR1	321.2	162.9	123.8
G01103.0-SR4	488.3	113.1	117.9
SR3	488.3	113.1	122.0
SR2	488.3	113.1	124.3
SR1	488.3	113.1	125.2
G01103.5-SR4	688.3	83.1	119.8
SR3	688.3	83.1	123.8
SR2	688.3	83.1	126.1
SR1	688.3	83.1	127.0
G2101.7-SR6	152.5	344.8	134
SR5	152.5	344.8	152
SR4	152.5	344.8	152
SR3	152.5	344.8	159
SR2	152.5	344.8	159
SR1	152.5	344.8	159
G2102.0-SR6	221	339.3	136
SR5	221	339.3	154
SR4	221	339.3	154
SR3	221	339.3	161
SR2	221	339.3	161
SR1	221	339.3	165
Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)

Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
G2102.2-SR6	300	250.6	136
SR5	300	250.6	154
SR4	300	250.6	154
SR3	300	250.6	161
SR2	300	250.6	161
SR1	300	250.6	166
G2102.5-SR6	388.5	194	137
SR5	388.5	194	155
SR4	388.5	194	155
SR3	388.5	194	161
SR2	388.5	194	161
SR1	388.5	194	166
G2103.0-SR6	590	127.2	138
SR5	590	127.2	156
SR4	590	127.2	156
SR3	590	127.2	163
SR2	589.9	127.2	163
SR1	589.9	127.2	168
G2103.5-SR6	832.5	90.5	140
SR5	832.5	90.5	158
SR4	832.5	90.5	158
SR3	832.5	90.5	165
SR2	832.5	90.5	165
SR1	832.5	90.5	169
G2104.0-SR6	1109.4	67.8	141
SR5	1109.4	67.8	159
SR4	1109.4	67.8	159
SR3	1109.4	67.8	166
SR2	1109.4	67.8	166
SR1	1109.4	67.8	171
G3102.0-SR4	219.5	344.8	222
G3102.2-SR4	314.5	344.8	223
SR3	314.5	344.8	230
SR2	314.5	344.8	237
SR1	314.5	344.8	241
G3102.5-SR4	423	312	224
SR3	423	312	231
SR2	423	312	238
SR1	423	312	242
Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)

* **Maximum Operating Pressure (MOP)** – The maximum recommended pressure at which the actuator should be operated.

Maximum Relief Valve Set Pressure (MRP) – The maximum recommended relief pressure value set point.

MRP is calculated by multiplying MOP times 1.15 for G-Series actuators.

Maximum System Pressure (MSP) – The maximum allowable system supply pressure to which an actuator may be exposed. MSP is calculated by multiplying MOP times 1.25 for G-Series actuators.

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Data sheet

Sheet No.: GHM 2.05 RevB

Date: August 2010

G-Series

Performance Data – (Hydraulic)

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
G3103.0-SR4	672	196.7	224
SR3	672	196.7	231
SR2	672	196.7	238
SR1	672	196.7	243
G3103.5-SR4	963.5	137	226
SR3	963.5	137	233
SR2	963.5	137	240
SR1	963.5	137	244
G3104.0-SR4	1301	101.4	229
SR3	1301	101.4	235
SR2	1301	101.4	242
SR1	1301	101.4	247
G3104.5-SR4	1688	78.3	229
SR3	1688	78.3	236
SR2	1688	78.3	243
SR1	1688	78.3	248
G4102.5-SR4	438	344.7	366
G4103.0-SR4	737	344.7	371
SR3	737	344.7	397
SR2	737	344.7	405
SR1	737	344.7	409
G4103.5-SR4	1095	241	376
SR3	1095	241	404
SR2	1095	241	410
SR1	1095	241	417
G4104.0-SR4	1504	175.3	376
SR3	1504	175.3	403
SR2	1504	175.3	410
SR1	1504	175.3	417
G4104.5-SR4	1966	134	376
SR3	1966	134	404
SR2	1966	134	410
SR1	1966	134	417
G4105.0-SR4	2491	106	379
SR3	2491	106	406
SR2	2491	106	413
SR1	2491	106	420
Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)

Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
G4106.0-SR4	3687	71.4	372
SR3	3687	71.4	399
SR2	3687	71.4	406
SR1	3687	71.4	410
G5103.5-SR4	1163	344.7	685
SR3	1163	344.7	714
G5104.0-SR4	1704	344.7	726
SR3	1704	344.7	755
SR2	1704	344.7	780
SR1	1704	344.7	778
G5105.0-SR4	2966	202.7	722
SR3	2966	202.7	752
SR2	2966	202.7	777
SR1	2966	202.7	774
G5106.0-SR4	4523	133	721
SR3	4523	133	750
SR2	4523	133	775
SR1	4523	133	773
G5107.0-SR4	6375	94.6	725
SR3	6375	94.6	755
SR2	6375	94.6	780
SR1	6375	94.6	777
G5108.0-SR4	8488	71	742
SR3	8488	71	771
SR2	8488	71	796
SR1	8488	71	793
G7104.0-SR4	1901	344.7	1190
SR3	1901	344.7	1151
G7104.5-SR4	2638	344.7	1194
SR3	2638	344.7	1154
SR2	2638	344.7	1314
SR1	2638	344.7	1276
Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)

* **Maximum Operating Pressure (MOP)** – The maximum recommended pressure at which the actuator should be operated.

Maximum Relief Valve Set Pressure (MRP) – The maximum recommended relief pressure value set point.

MRP is calculated by multiplying MOP times 1.15 for G-Series actuators.

Maximum System Pressure (MSP) – The maximum allowable system supply pressure to which an actuator may be exposed. MSP is calculated by multiplying MOP times 1.25 for G-Series actuators.

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Data sheet

Sheet No.: GHM 2.06 RevB

Date: August 2010

G-Series

Performance Data – (Hydraulic)

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
G7105.0-SR4	3458	337	1201
SR3	3458	337	1162
SR2	3458	337	1321
SR1	3458	337	1283
G7106.0-SR4	5375	217	1102
SR3	5375	217	1040
SR2	5375	217	1151
SR1	5375	217	1088
G7107.0-SR4	7636	153	1115
SR3	7636	153	1052
SR2	7636	153	1164
SR1	7636	153	1101
G7108.0-SR4	10242	114	1117
SR3	10242	114	1055
SR2	10242	114	1167
SR1	10242	114	1104
G7109.0-SR4	13192	88.5	1151
SR3	13192	88.5	1089
SR2	13192	88.5	1201
SR1	13192	88.5	1138
G7110.0-SR4	16502	70.8	1288
SR3	16502	70.8	1248
SR2	16502	70.8	1407
SR1	16502	70.8	1369
G8105.0-SR3	3589	344.7	2055
SR3	3589	344.7	2128
G8106.0-SR3	5850	321.6	2066
SR2	5850	321.6	2139
SR1	5850	321.6	2271
G8107.0-SR3	8538	220.7	2060
SR2	8538	220.7	2132
SR1	8538	220.7	2264
G8108.0-SR3	11618	162	2050
SR2	11618	162	2123
SR1	11618	162	2255
G8109.0-SR3	15125	124.5	2065
SR2	15125	124.5	2137
SR1	15125	124.5	2269
Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)

Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
G8110.0-SR3	19042	99	2067
SR2	19042	99	2140
SR1	19042	99	2272
G8112.0-SR3	28104	67	2140
SR2	28104	67	2213
SR1	28104	67	2345
G10106.0-SR4	6883	344.7	3116
G10107.0-SR4	10389	344.7	3108
SR3	10389	344.7	3272
SR2	10389	344.7	3449
SR1	10389	344.7	3657
G10108.0-SR4	14437	260.8	3127
SR3	14437	260.8	3291
SR2	14437	260.8	3468
SR1	14437	260.8	3676
G10109.0-SR4	19042	195.8	3153
SR3	19042	195.8	3317
SR2	19042	195.8	3493
SR1	19042	195.8	3702
G10110.0-SR4	24171	155.8	3179
SR3	24171	155.8	3342
SR2	24171	155.8	3519
SR1	24171	155.8	3728
G10112.0-SR4	36068	104.5	3219
SR3	36068	104.5	3382
SR2	36068	104.5	3559
SR1	36068	104.5	3768
G10114.0-SR4	50112	75.2	3452
SR3	50112	75.2	3615
SR2	50112	75.2	3792
SR1	50112	75.2	4001
G13108.0-SR4	16682	344.8	5944
SR3	16682	344.8	6277
SR2	16682	344.8	6828
G13109.0-SR4	22581	333.5	5990
SR3	22581	333.5	6323
SR2	22581	333.5	6874
SR1	22581	333.5	7208
Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)

* **Maximum Operating Pressure (MOP)** – The maximum recommended pressure at which the actuator should be operated.

Maximum Relief Valve Set Pressure (MRP) – The maximum recommended relief pressure value set point.

MRP is calculated by multiplying MOP times 1.15 for G-Series actuators.

Maximum System Pressure (MSP) – The maximum allowable system supply pressure to which an actuator may be exposed. MSP is calculated by multiplying MOP times 1.25 for G-Series actuators.

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Sheet No.: GHM 2.07 RevB

Date: August 2010

G-Series

Performance Data – (Hydraulic)

Spring-Return Actuators

G-Series (cont.)

Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)
G13110.0-SR4	29185	258	5982
SR3	29185	258	6316
SR2	29185	258	6867
SR1	29185	258	7200
G13111.0-SR4	36488	206.4	5985
SR3	36488	206.4	6319
SR2	36488	206.4	6970
SR1	36488	206.4	7303
G13112.0-SR4	44474	169.3	5988
SR3	44474	169.3	6321
SR2	44474	169.3	6872
SR1	44474	169.3	7205
G13114.0-SR4	62549	120.5	6064
SR3	62549	120.5	6398
SR2	62549	120.5	6949
SR1	62549	120.5	7282
G13116.0-SR4	83394	90.3	6153
SR3	83394	90.3	6487
SR2	83394	90.3	7038
SR1	83394	90.3	7371
G13118.0-SR4	107024	70.4	6229
SR3	107024	70.4	6562
SR2	107024	70.4	7113
SR1	107024	70.4	7446
Actuator Model	Inboard Displacement Per Stroke (cu cm)	Maximum Operating Pressure (MOP)* (Bar)	Approximate Weight of Actuator (kg)

* **Maximum Operating Pressure (MOP)** – The maximum recommended pressure at which the actuator should be operated.

Maximum Relief Valve Set Pressure (MRP) – The maximum recommended relief pressure value set point.

MRP is calculated by multiplying MOP times 1.15 for G-Series actuators.

Maximum System Pressure (MSP) – The maximum allowable system supply pressure to which an actuator may be exposed. MSP is calculated by multiplying MOP times 1.25 for G-Series actuators.

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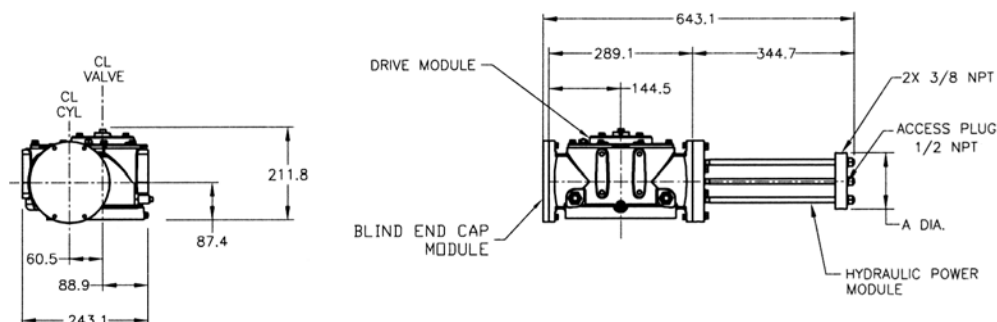
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

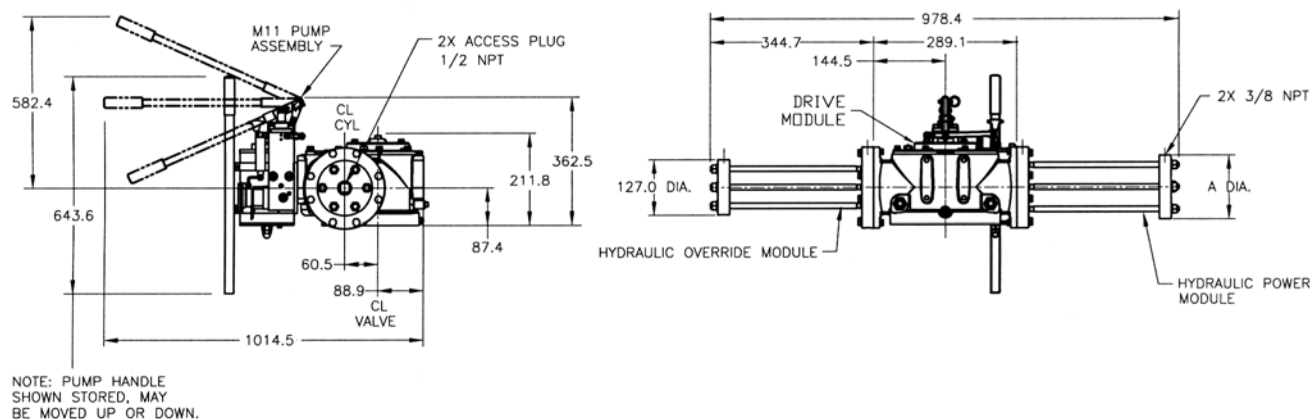
Double-Acting Actuators

G0110X.X (CW Model Shown)



Actuator Model	A
G01101.5	108.0
G01101.7	114.3
G01102.0	114.3
G01102.2	120.7
G01102.5	127.0
G01103.0	139.7
G01103.5	152.4

G0110X.X or G01120X.X (No. M11) (CW Model Shown)



Actuator Model	A
G01101.7-M11	114.3
G01102.0-M11	114.3
G01102.2-M11	120.7
G01102.5-M11	127.0
G01103.0-M11	139.7
G01103.5-M11	152.4

Note: Not Certified dimensional drawings. Such drawings available on request.
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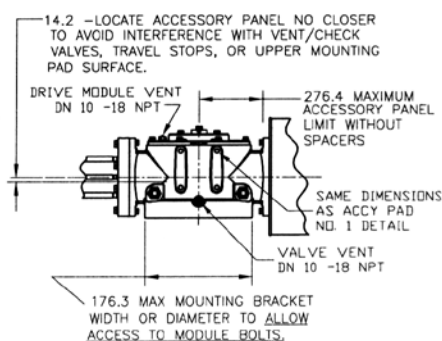
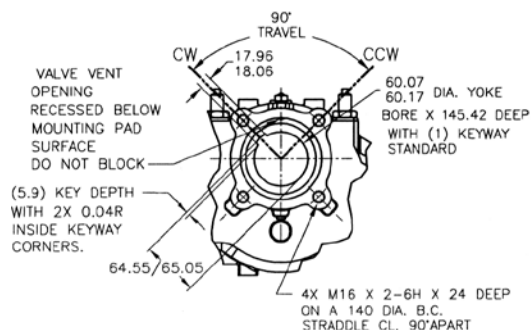
Sheet No.: GHM 3.02 RevB

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G-Series

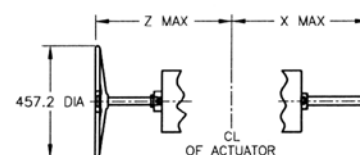
Dimensions – (Hydraulic) mm.

Double-Acting Actuators Mounting Pad Detail



ACCESSORY PAD NO. 2 DETAIL

Adjustable End Stops & Jackscrews



	Power Module	Blind End Cap Module	Spring Module
X (-ETS) Extended Travel Stop	726.2	402.1	1210.3
X (-33) End Stop	559.6	226.6	1023.9
Z (M3/M3HW) Jackscrew	C/F*	442.7	1184.4

C/F Consult Factory

Note: Jackscrews are not recommended for use on hydraulic cylinders. If used, they are allowable on the Spring Module or Blind End Cap Modules ends **only**. It is probable that some leakage of hydraulic fluid past the jackscrew pressure containing thread seals will occur over time if used on the Power Module side, negating any warranty for hydraulic Power Modules.

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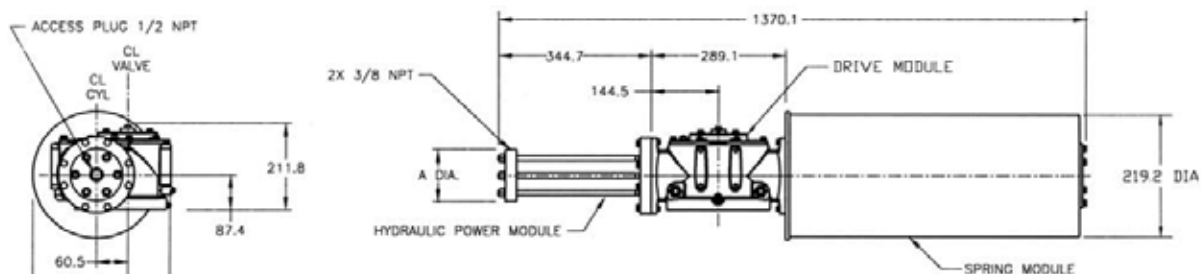
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

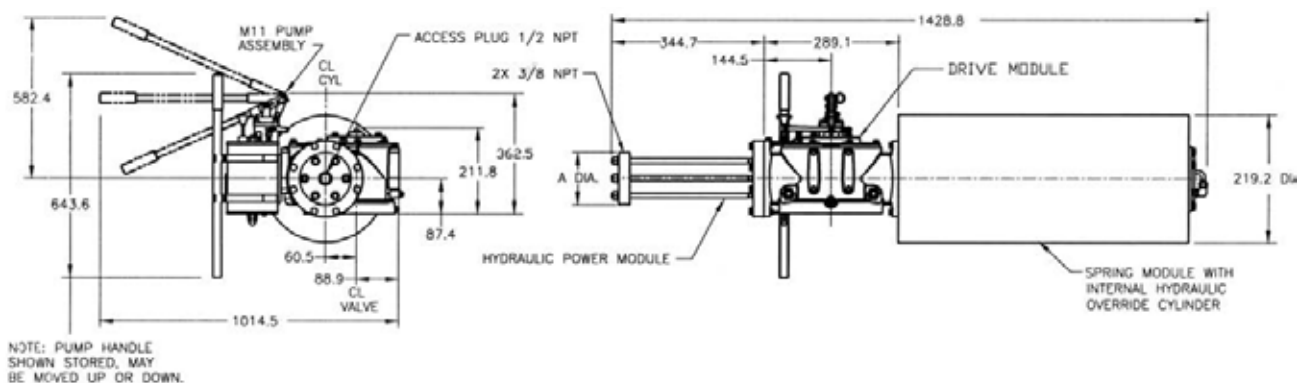
Spring-Return Actuators

G0110X.X-SR (CW Model Shown)



Actuator Model	A
G01101.5-SR	108.0
G01101.7-SR	114.3
G01102.0-SR	114.3
G01102.2-SR	120.7
G01102.5-SR	127.0
G01103.0-SR	139.7
G01103.5-SR	152.4

G0110X.X-SR-M11 (CW Model Shown)



Actuator Model	A
G01101.5-SR-M11	108.0
G01101.7-SR-M11	114.3
G01102.0-SR-M11	114.3
G01102.2-SR-M11	120.7
G01102.5-SR-M11	127.0
G01103.0-SR-M11	139.7
G01103.5-SR-M11	152.4

Note: Not Certified dimensional drawings. Such drawings available on request.
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G-Series

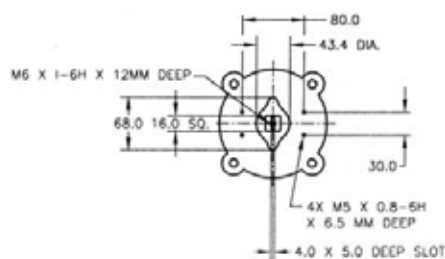
Dimensions – (Hydraulic) mm.

Spring-Return Actuators

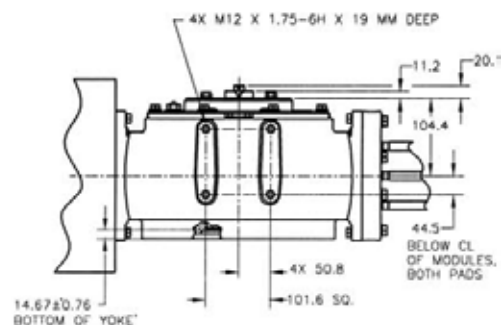
Accessory Details



ACCESSORY PAD LOCATION



TOPWORKS DETAIL
YOKE COVER



ACCESSORY PAD NO.1 DETAIL

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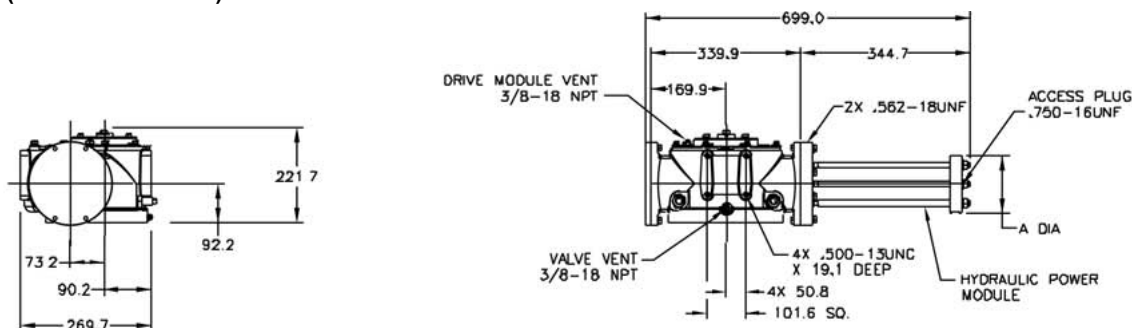
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

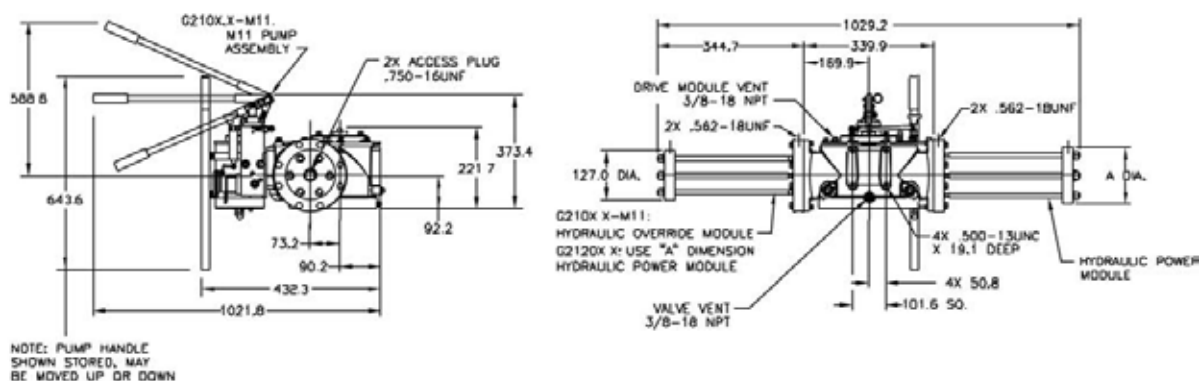
Double-Acting Actuators

G210X.X (CW Model Shown)



Actuator Model	A
G2101.7	114.3
G2102.0	117.3
G2102.25	120.7
G2102.5	127.0
G2103.0	139.7
G2103.5	152.4
G2104.0	165.1

G210X.X-M11 or G2120X.X (No M11) (CW Model Shown)



Actuator Model	A
G2101.7-M11	114.3
G2102.0-M11	117.3
G2102.25-M11	120.7
G2102.5-M11	127.0
G2103.0-M11	139.7
G2103.5-M11	152.4
G2104.0-M11	165.1

Actuator Model	A
G21201.7	114.3
G21202.0	117.3
G21202.25	120.7
G21202.5	127.0
G21203.0	139.7
G21203.5	152.4
G21204.0	165.1

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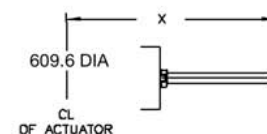
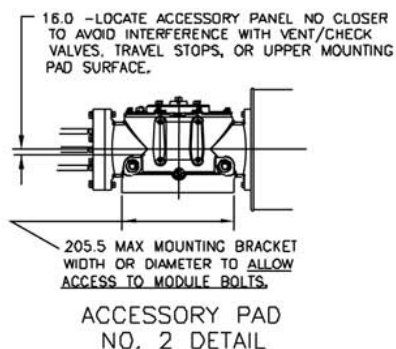
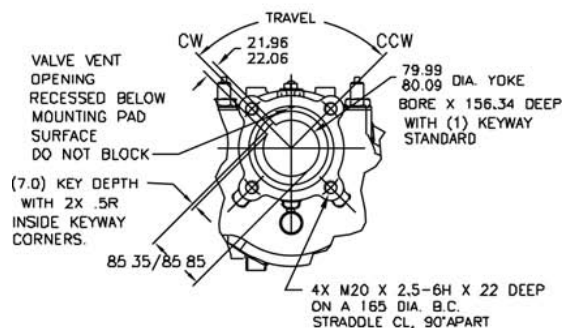
G-Series

Dimensions – (Hydraulic) mm.

Double-Acting Actuators

Valve/Accessory Mounting Details

Adjustable End Stops



	X (-ETS) Extended Travel Stop	X End Stop	Z* (M3/M3HW) Jackscrew
Power Module	719.3	543.8	C/F*
Blind End Cap Module	427.5	252.0	572.8
Spring Module	1224.8	1049.3	1278.9

C/F Consult Factory

***Note:** Jackscrews are not recommended for use on hydraulic cylinders. If used, they are allowable on the Spring Module or Blind End Cap Modules ends **only**. It is probable that some leakage of hydraulic fluid past the jackscrew pressure containing thread seals will occur over time if used on the Power Module side, negating any warranty for hydraulic Power Modules.

Note: Not Certified dimensional drawings. Such drawings available on request.
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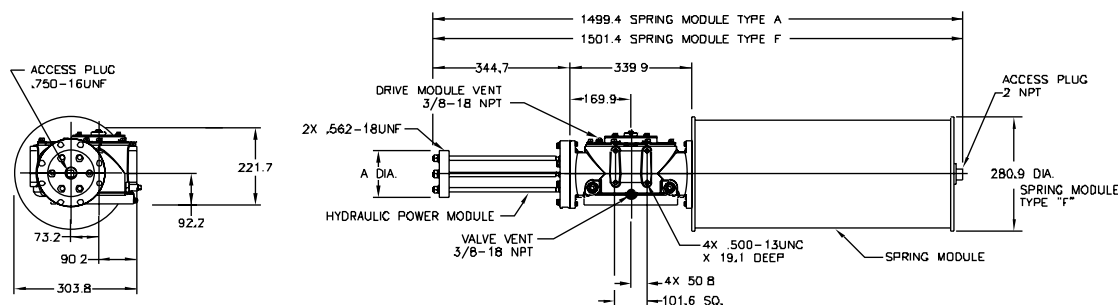
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G-Series

Dimensions – (Hydraulic) mm.

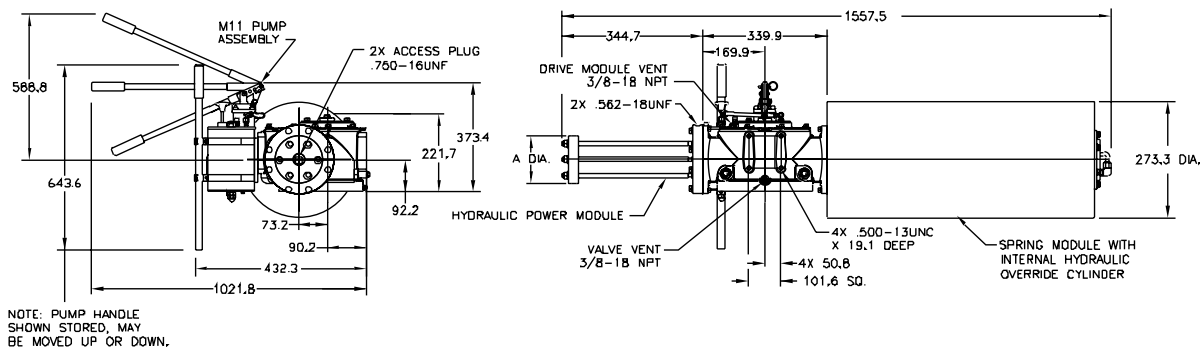
Spring-Return Actuators

G210X.X-SR (CW Model Shown)



	A
	114.3
	117.3
	120.7
	127.0
G2103.0-SR	139.7
G2103.5-SR	152.4
G2104.0-SR	165.1

G210X.X-SR-M11 (CW Model Shown)



Actuator Model	A
G2101.7-SR-M11	114.3
G2102.0-SR-M11	117.3
G2102.25-SR-M11	120.7
G2102.5-SR-M11	127.0
G2103.0-SR-M11	139.7
G2103.5-SR-M11	152.4
G2104.0-SR-M11	165.1

Note: Not Certified dimensional drawings. Such drawings available on request.

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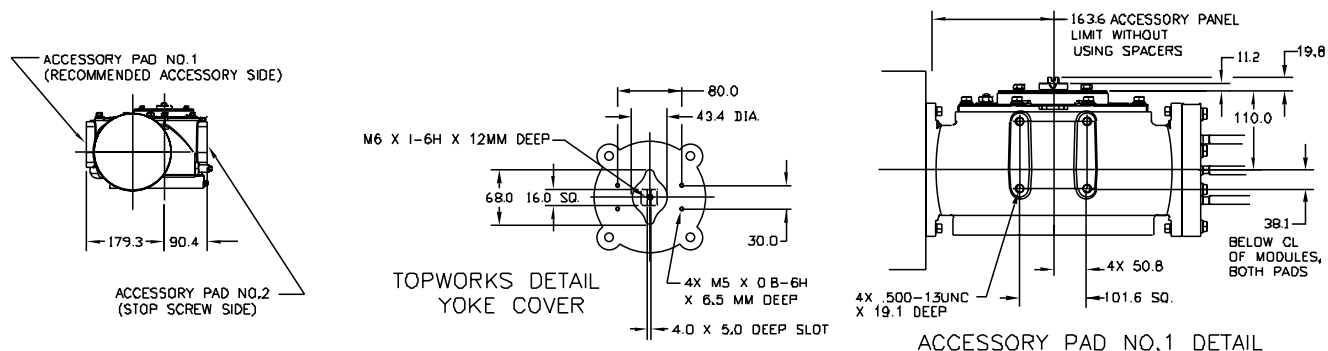
Sheet No.: GHM 3.08 RevB

Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

Spring-Return Actuators Accessory Details



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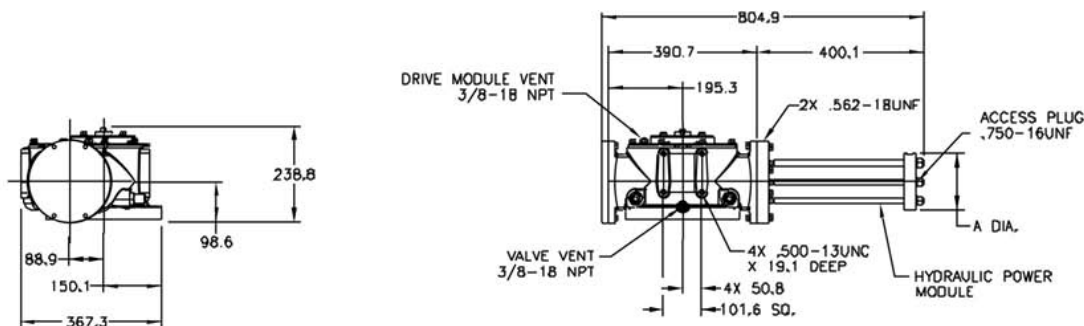
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

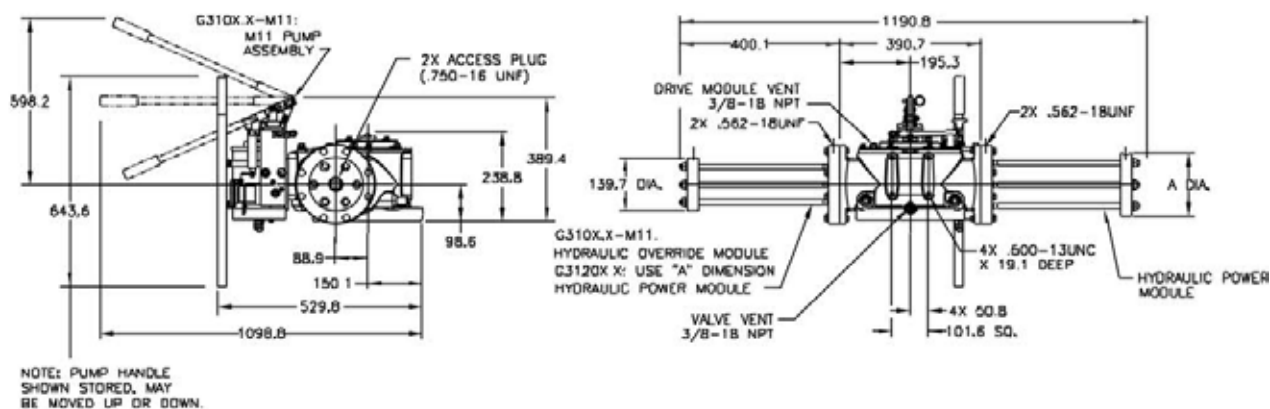
Double-Acting Actuators

G310X.X (CW Model Shown)



Actuator Model	A
G3002.0	120.7
G3002.25	127.0
G3002.5	133.4
G3003.0	139.7
G3003.5	152.4
G3004.0	165.1
G3004.5	177.8

G310X.X-M11 or G3120X.X (No M11) (CW Model Shown)



Actuator Model	A
G3002.0-M11	120.7
G3002.25-M11	127.0
G3002.5-M11	133.4
G3003.0-M11	139.7
G3003.5-M11	152.4
G3004.0-M11	165.1
G3004.5-M11	177.8

Actuator Model	A
G30202.0	120.7
G30202.25	127.0
G30202.5	133.4
G30203.0	139.7
G30203.5	152.4
G30204.0	152.4
G30204.5	177.8

Note: Not Certified dimensional drawings. Such drawings available on request.
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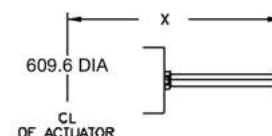
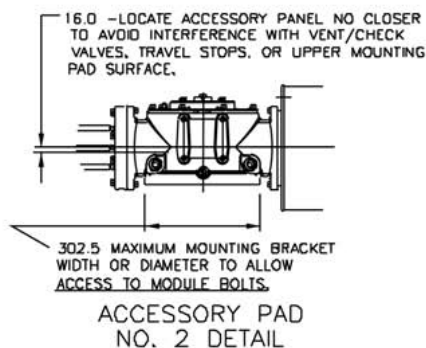
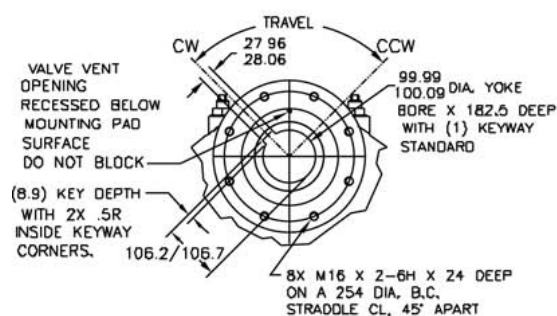
G-Series

Dimensions – (Hydraulic) mm.

Double-Acting Actuators

Valve/Accessory Mounting Details

Adjustable End Stops



	X (-ETS) Extended Travel Stop	X End Stop	Z* (M3/M3HW) Jackscrew
Power Module	840.5	623.1	C/F*
Blind End Cap Module	497.1	281.9	580.6
Spring Module	1353.8	1136.4	1397.0

C/F Consult Factory

***Note:** Jackscrews are not recommended for use on hydraulic cylinders. If used, they are allowable on the Spring Module or Blind End Cap Modules ends **only**. It is probable that some leakage of hydraulic fluid past the jackscrew pressure containing thread seals will occur over time if used on the Power Module side, negating any warranty for hydraulic Power Modules.

Note: Not Certified dimensional drawings. Such drawings available on request.
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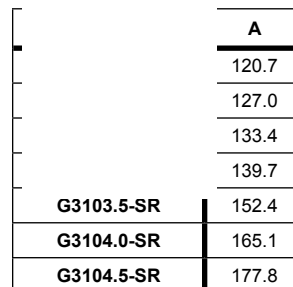
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G310X.X-SR (CW Model Shown)



M11 PUMP ASSEMBLY

2X ACCESS PLUG (.750-16 UNF)

HYDRAULIC POWER MODULE

DRIVE MODULE VENT 3/8-18 NPT

2X .562-18UNF

A DIA.

VALVE VENT 3/8-18 NPT

4X .500-13UNC X 19.1 DEEP

4X 50.8 101.6 SQ.

SPRING MODULE WITH INTERNAL HYDRAULIC CYLINDER

NOTE: PUMP HANDLE SHOWN STORED, MAY BE MOVED UP OR DOWN.

Actuator Model	A
G3102.0-SR-M11	120.7
G3102.25-SR-M11	127.0
G3102.5-SR-M11	133.4
G3103.0-SR-M11	139.7
G3103.5-SR-M11	152.4
G3104.0-SR-M11	165.1
G3104.5-SR-M11	177.8

Note: Not Certified dimensional drawings. Such drawings available on request.
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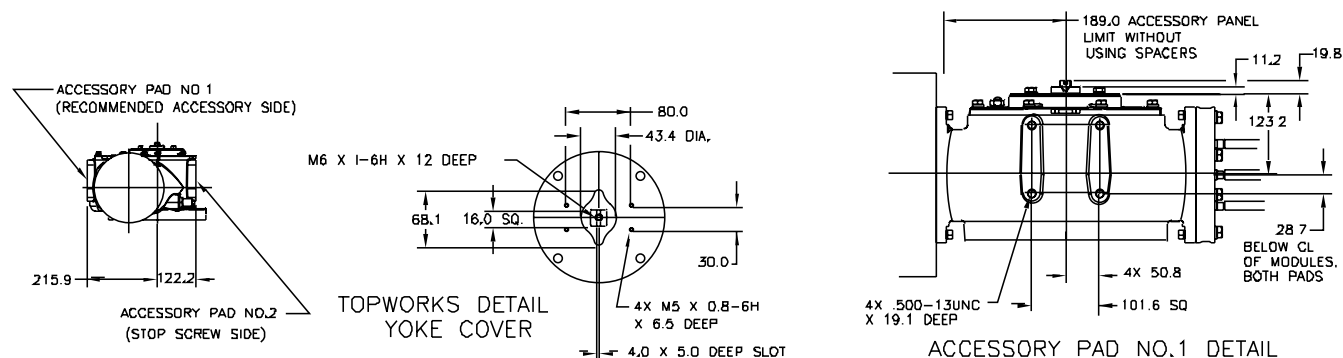
Sheet No.: GHM 3.12 RevB

Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

Spring-Return Actuators Accessory Details



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Sheet No.: GHM 3.13 RevB

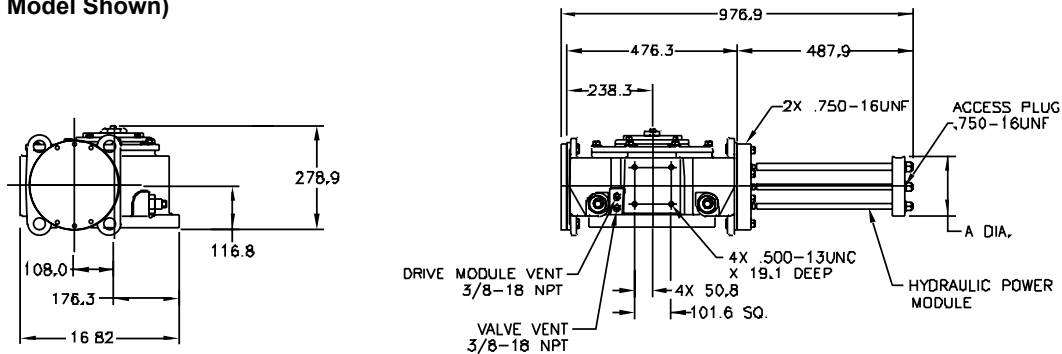
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

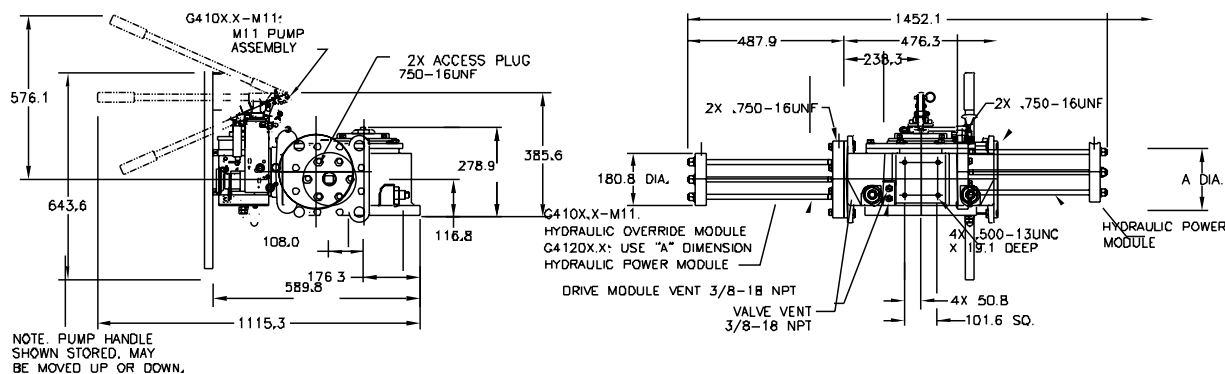
Double-Acting Actuators

G410X.X (CW Model Shown)



Actuator Model	A
G4102.5	143.8
G4103.0	157.5
G4103.5	171.5
G4104.0	180.8
G4104.5	190.5
G4105.0	203.2
G4106.0	225.6

G410X.X-M11 or G4120X.X (No M11) (CW Model Shown)



Actuator Model	A
G4102.5-M11	143.8
G4103.0-M11	157.5
G4103.5-M11	171.5
G4104.0-M11	180.8
G4104.5-M11	190.5
G4105.0-M11	203.2
G4106.0-M11	225.6

Actuator Model	A
G41202.5	143.8
G41203.0	157.5
G41203.5	171.5
G41204.0	180.8
G41204.5	190.5
G41205.0	203.2
G41206.0	225.6

Note: Not Certified dimensional drawings. Such drawings available on request.
Contact factory with correct model designation and serial number.
All dimensions are expressed in millimeters.

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Sheet No.: GHM 3.14 RevB

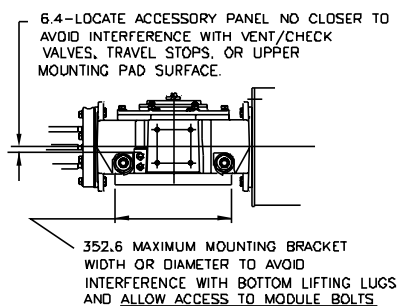
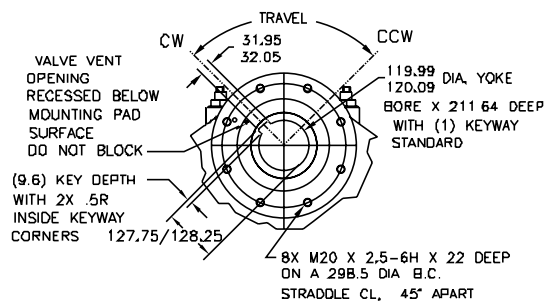
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

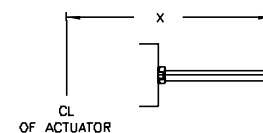
Double-Acting Actuators

Valve/Accessory Mounting Details



ACCESSORY PAD NO.2 DETAIL

Adjustable End Stops



	X Extended Travel Stop	X End Stop
Power Module	1009.4	790.4
Blind End Cap Module	592.3	373.4
Spring Module	1539.5	1263.7

Note: Not Certified dimensional drawings. Such drawings available on request.
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All dimensions are expressed in millimeters.

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Sheet No.: GHM 3.15 RevB

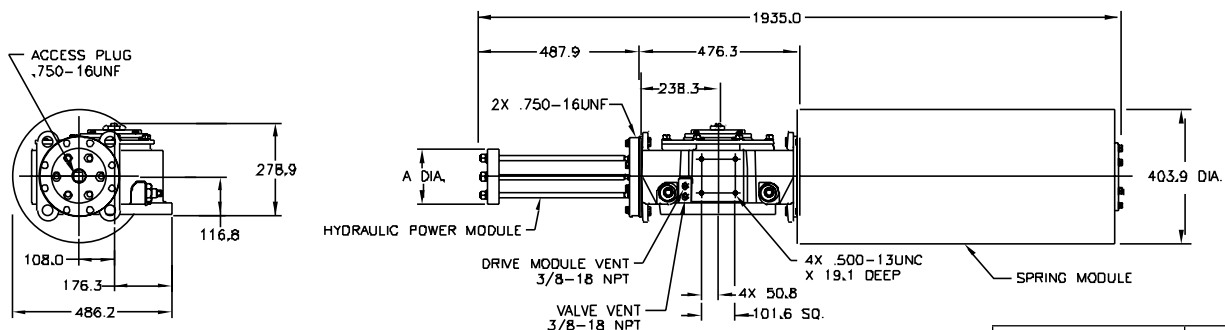
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

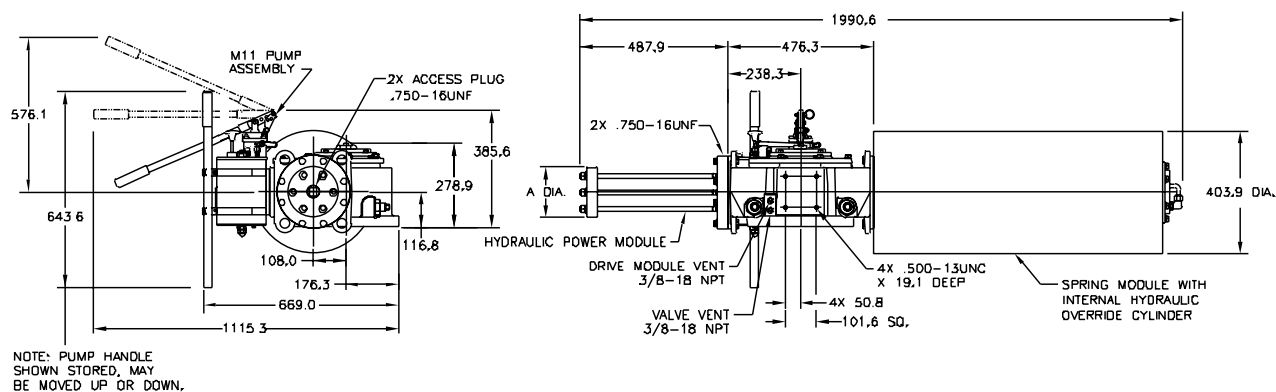
Spring-Return Actuators

G410X.X-SR (CW Model Shown)



Actuator Model	A
G4102.5-SR	143.8
G4103.0-SR	157.5
G4103.5-SR	171.5
G4104.0-SR	180.8
G4104.5-SR	190.5
G4105.0-SR	203.2
G4106.0-SR	225.6

G410X.X-SR-M11 (CW Model Shown)



Actuator Model	A
G4102.5-SR-M11	143.8
G4103.0-SR-M11	157.5
G4103.5-SR-M11	171.5
G4104.0-SR-M11	180.8
G4104.5-SR-M11	190.5
G4105.0-SR-M11	203.2
G4106.0-SR-M11	225.6

Note: Not Certified dimensional drawings. Such drawings available on request.

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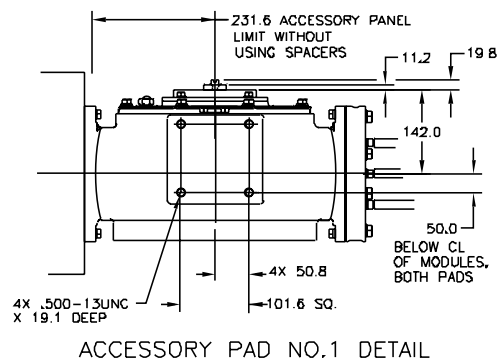
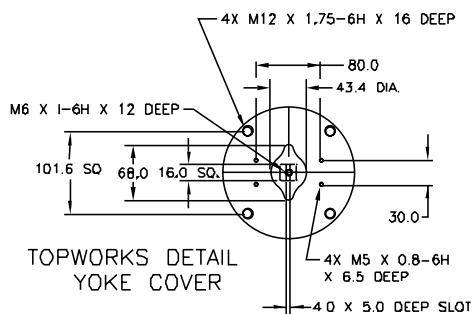
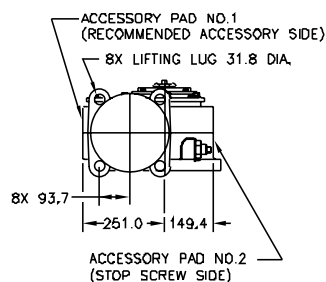
Sheet No.: GHM 3.16 RevB

Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

Spring-Return Actuators Lug/Accessory Details



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Sheet No.: GHM 3.17 RevB

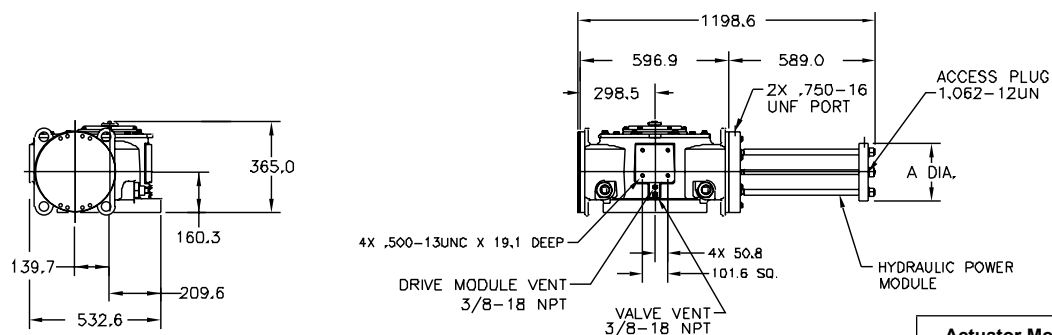
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

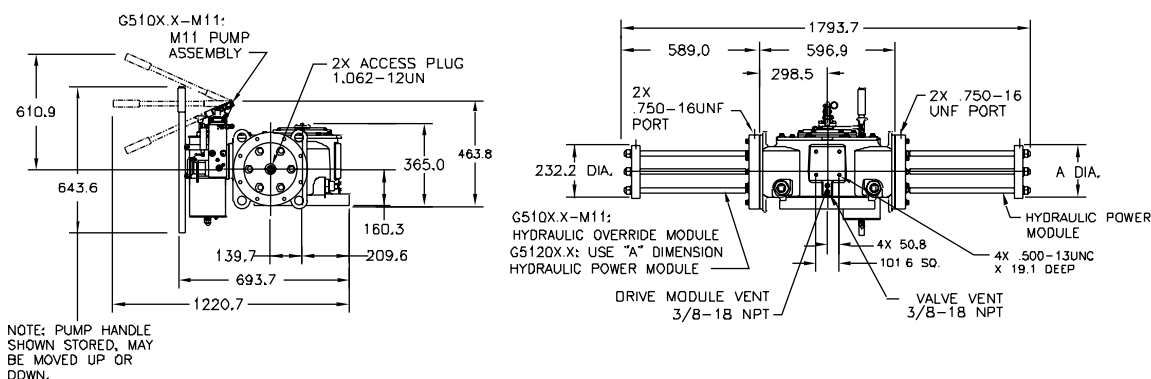
Double-Acting Actuators

G510X.X (CW Model Shown)



Actuator Model	A
G5103.5	193.8
G5104.0	206.5
G5104.5	219.2
G5105.0	232.2
G5106.0	247.7
G5107.0	270.0
G5108.0	301.8

G510X.X-M11 or G5120X.X (No M11) (CW Model Shown)



Actuator Model	A
G5103.5-M11	193.8
G5104.0-M11	206.5
G5104.5-M11	219.2
G5105.0-M11	232.2
G5106.0-M11	247.7
G5107.0-M11	270.0
G5108.0-M11	301.8

Actuator Model	A
G51203.5	193.8
G51204.0	206.5
G51204.5	219.2
G51205.0	232.2
G51206.0	247.7
G51207.0	270.0
G51208.0	301.8

Note: Not Certified dimensional drawings. Such drawings available on request.
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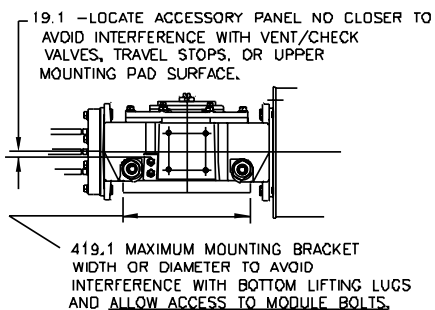
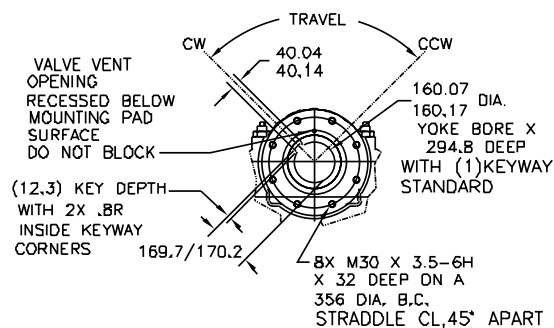
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

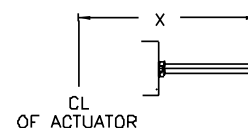
Double-Acting Actuators

Valve/Accessory Mounting Details



ACCESSORY PAD NO.2 DETAIL

Adjustable End Stops



	X Extended Travel Stop	X End Stop
Power Module	1271.8	979.9
Blind End Cap Module	717.6	441.5
Spring Module	1790.7	1333.5

Note: Not Certified dimensional drawings. Such drawings available on request.
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Sheet No.: GHM 3.19 RevB

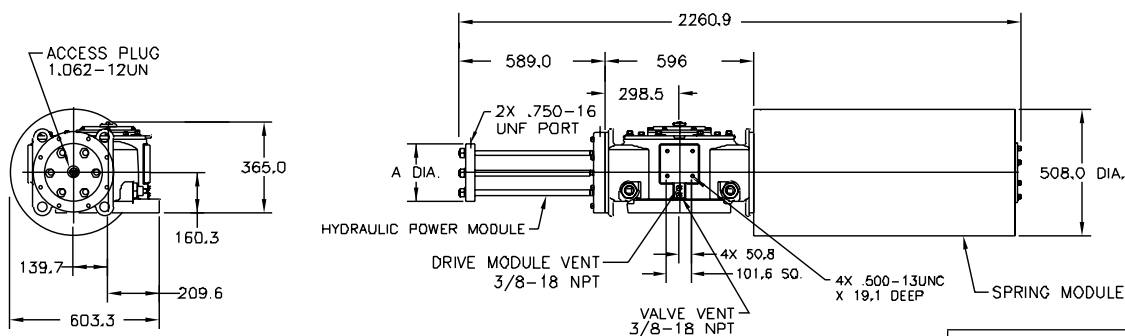
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

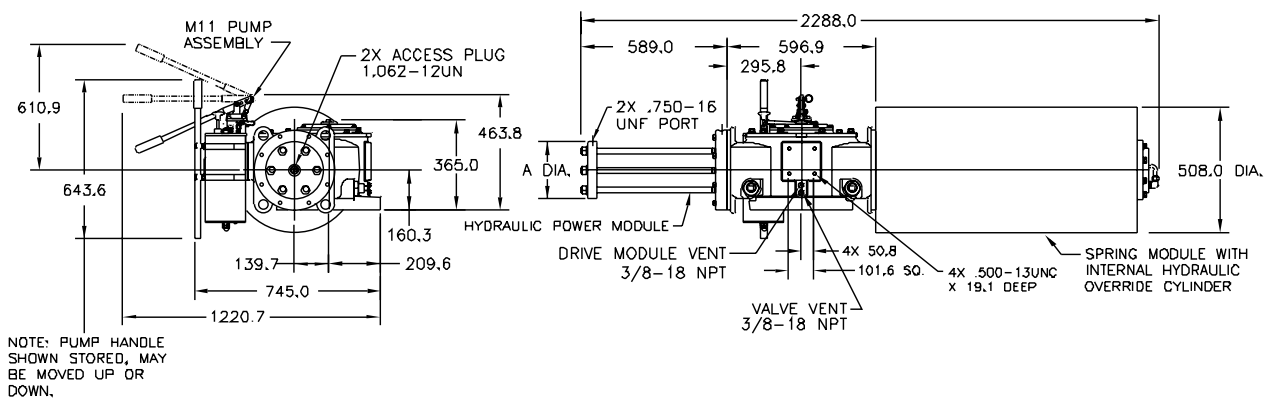
Spring-Return Actuators

G510X.X-SR (CW Model Shown)



Actuator Model	A
G5103.5-SR	193.8
G5104.0-SR	206.5
G5104.5-SR	219.2
G5105.0-SR	232.2
G5106.0-SR	247.7
G5107.0-SR	270.0
G5108.0-SR	301.8

G510X.X-SR-M11 (CW Model Shown)



Actuator Model	A
G5103.5-SR-M11	193.8
G5104.0-SR-M11	206.5
G5104.5-SR-M11	219.2
G5105.0-SR-M11	232.2
G5106.0-SR-M11	247.7
G5107.0-SR-M11	270.0
G5108.0-SR-M11	301.8

Note: Not Certified dimensional drawings. Such drawings available on request.
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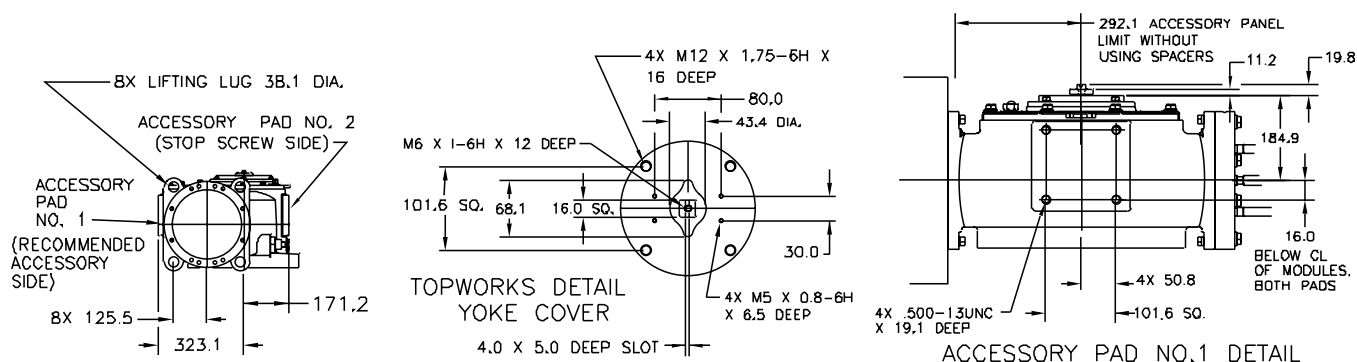
Sheet No.: GHM 3.20 RevB

Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

Spring-Return Actuators Lug/Accessory Details



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Sheet No.: GHM 3.21 RevB

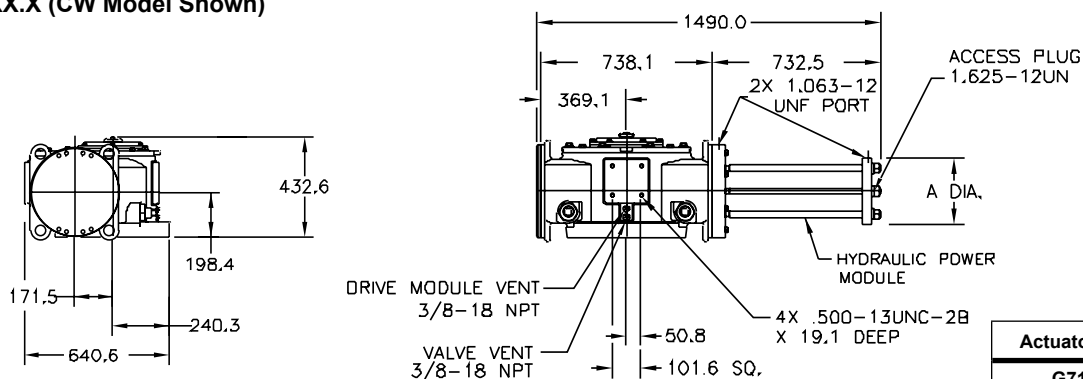
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

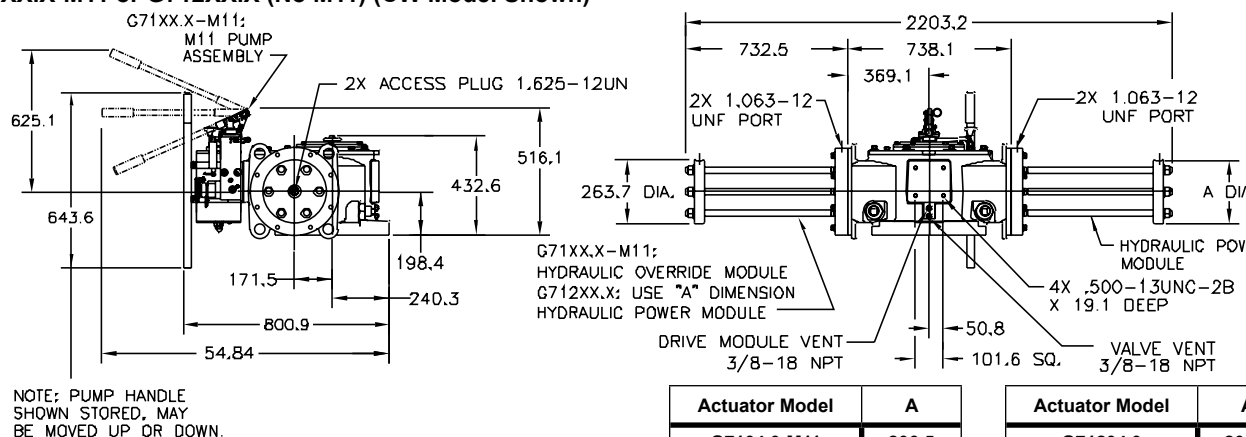
Double-Acting Actuators

G71XX.X (CW Model Shown)



Actuator Model	A
G7104.0	206.5
G7104.5	225.6
G7105.0	244.6
G7106.0	263.7
G7107.0	289.1
G7108.0	307.8
G7109.0	339.9
G7110.0	358.6

G71XX.X-M11 or G712XX.X (No M11) (CW Model Shown)



Actuator Model	A
G7104.0-M11	206.5
G7104.5-M11	225.6
G7105.0-M11	244.6
G7106.0-M11	263.7
G7107.0-M11	289.1
G7108.0-M11	307.8
G7109.0-M11	339.9
G7110.0-M11	358.6

Actuator Model	A
G71204.0	206.5
G71204.5	225.6
G71205.0	244.6
G71206.0	263.7
G71207.0	289.1
G71208.0	307.8
G71209.0	339.9
G71210.0	358.6

Note: Not Certified dimensional drawings. Such drawings available on request.
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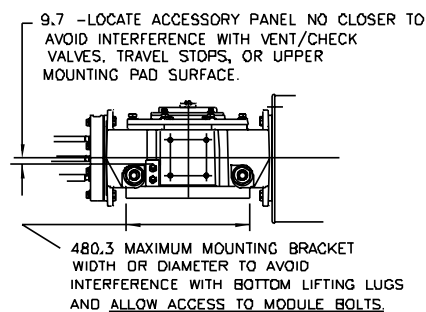
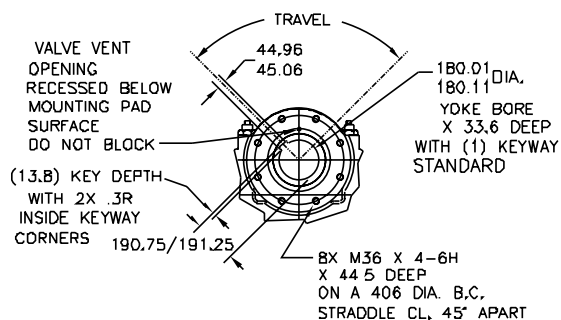
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

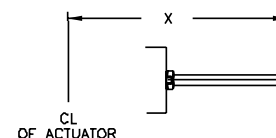
Double-Acting Actuators

Valve/Accessory Mounting Details



ACCESSORY PAD NO.2 DETAIL

Adjustable End Stops



	X Extended Travel Stop	X End Stop
Power Module	1548.6	1186.7
Blind End Cap Module	902.5	540.5
Spring Module	2313.9	1382.8

Note: Not Certified dimensional drawings. Such drawings available on request.
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Sheet No.: GHM 3.23 RevB

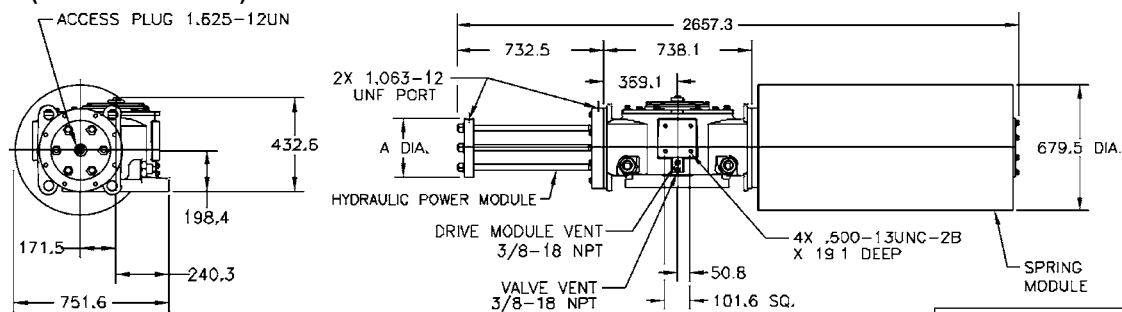
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

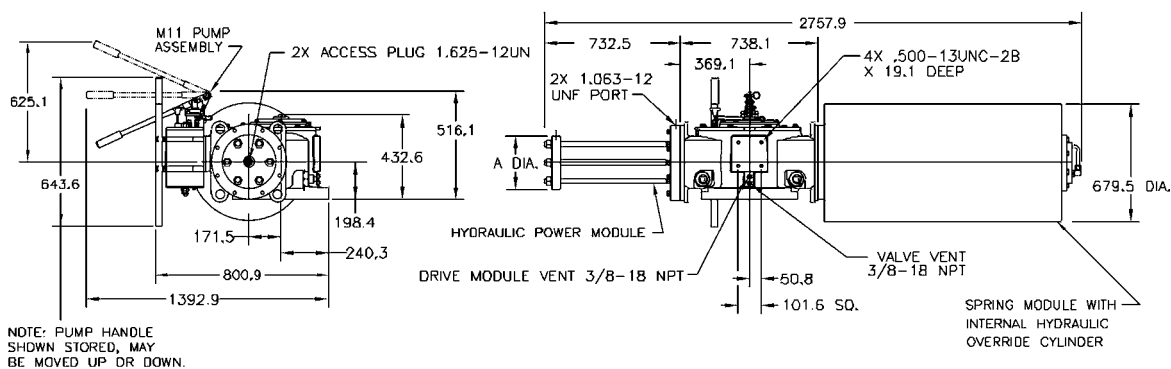
Spring-Return Actuators

G71XX.X-SR (CW Model Shown)



Actuator Model	A
G7104.0-SR	206.5
G7104.5-SR	225.6
G7105.0-SR	244.6
G7106.0-SR	263.7
G7107.0-SR	289.1
G7108.0-SR	307.8
G7109.0-SR	339.9
G7110.0-SR	358.6

G71XX.X-SR-M11 (CW Model Shown)



Actuator Model	A
G7104.0-SR-M11	206.5
G7104.5-SR-M11	225.6
G7105.0-SR-M11	244.6
G7106.0-SR-M11	263.7
G7107.0-SR-M11	289.1
G7108.0-SR-M11	307.8
G7109.0-SR-M11	339.9
G7110.0-SR-M11	358.6

Note: Not Certified dimensional drawings. Such drawings available on request.
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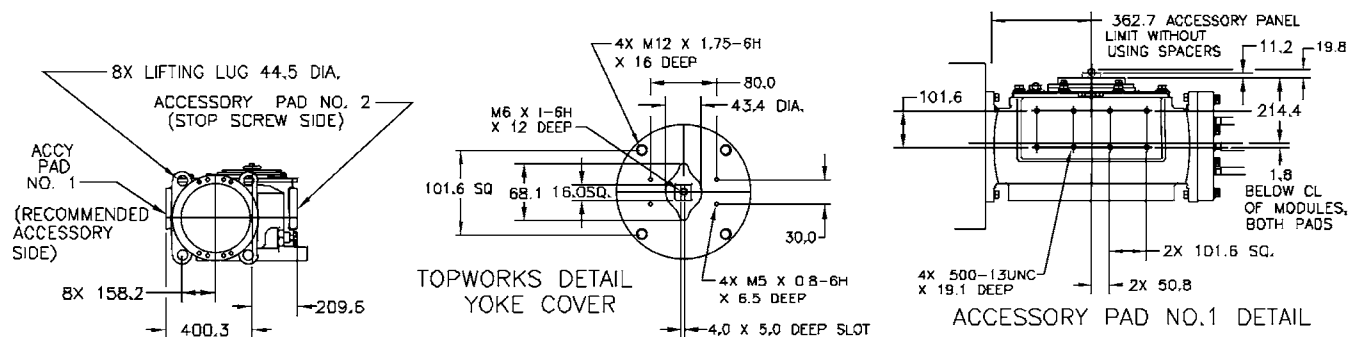
Sheet No.: GHM 3.24 RevB

Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

Spring-Return Actuators Lug/Accessory Details



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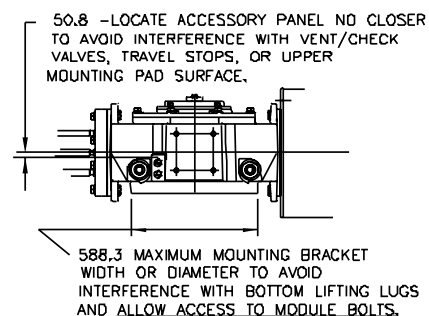
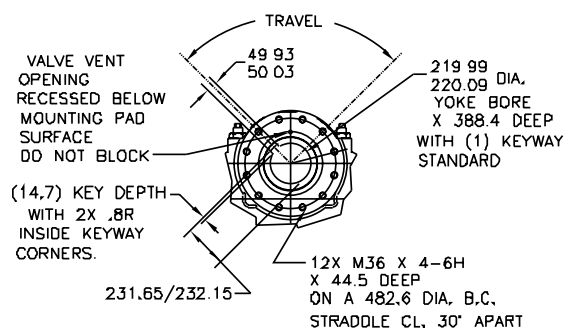
Sheet No.: GHM 3.26 RevB

Date: August 2010

G-Series

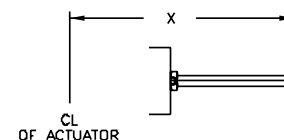
Dimensions – (Hydraulic) mm.

Double-Acting Actuators Valve/Accessory Mounting Details



ACCESSORY PAD NO.2 DETAIL

Adjustable End Stops



	X Extended Travel Stop	X End Stop
Power Module	1801.9	1381.5
Blind End Cap Module	1032.8	633.0
Spring Module	2845.8	1803.4

Note: Not Certified dimensional drawings. Such drawings available on request.
Contact factory with correct model designation and serial number.
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Sheet No.: GHM 3.27 RevB

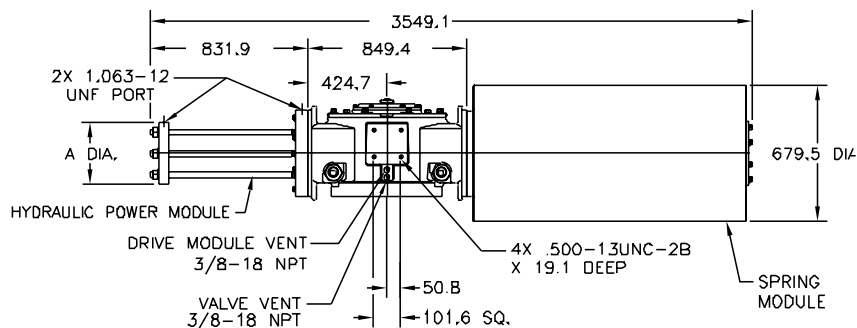
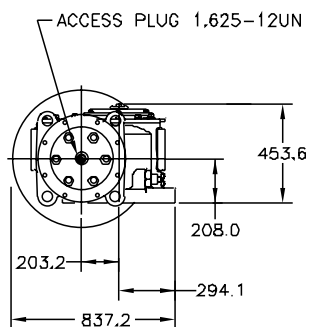
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

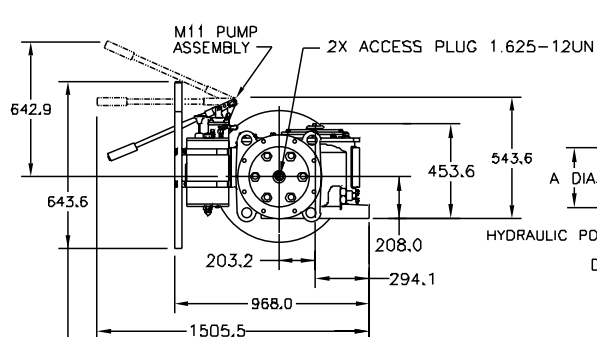
Spring-Return Actuators

G81XX.X-SR (CW Model Shown)

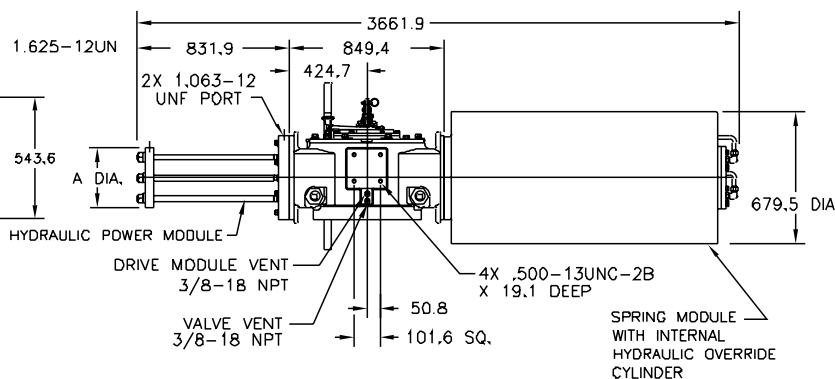


Actuator Model	A
G8105.0-SR	282.4
G8106.0-SR	292.1
G8107.0-SR	304.8
G8108.0-SR	315.5
G8109.0-SR	342.9
G8110.0-SR	368.3
G8112.0-SR	400.1

G81XX.X-SR-M11 (CW Model Shown)



NOTE: PUMP HANDLE SHOWN STORED, MAY BE MOVED UP OR DOWN.



Actuator Model	A
G8105.0-SR-M11	282.4
G8106.0-SR-M11	292.1
G8107.0-SR-M11	304.8
G8108.0-SR-M11	315.5
G8109.0-SR-M11	342.9
G8110.0-SR-M11	368.3
G8112.0-SR-M11	400.1

Note: Not Certified dimensional drawings. Such drawings available on request.
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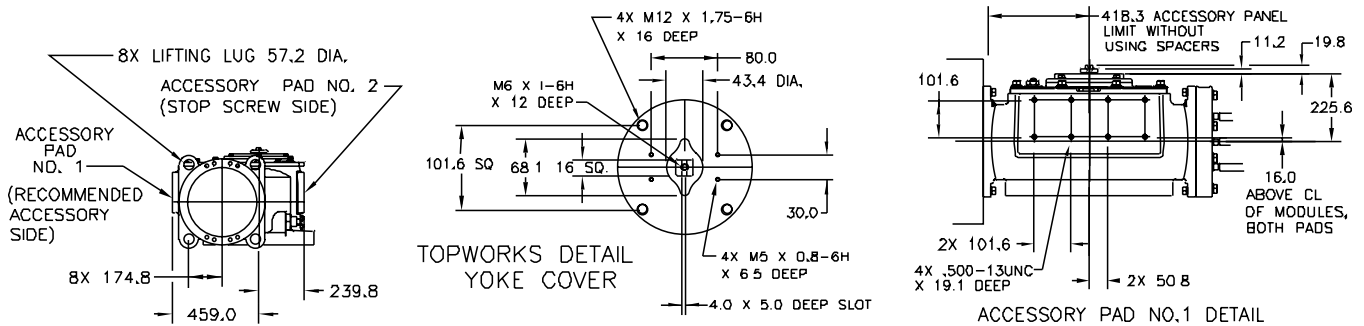
Sheet No.: GHM 3.28 RevB

Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

Spring-Return Actuators Lug/Accessory Details



Note: Not Certified dimensional drawings. Such drawings available on request.
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Data sheet

Sheet No.: GHM 3.29 RevB

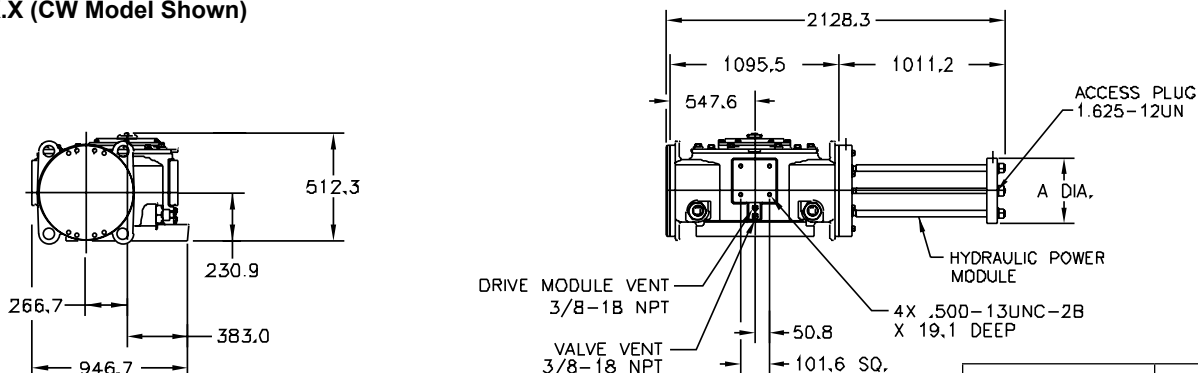
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

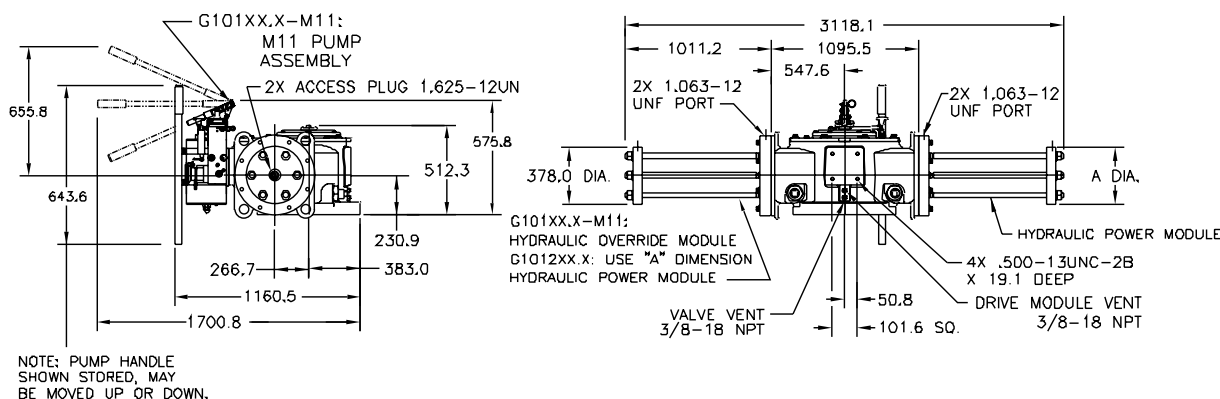
Double-Acting Actuators

G101XX.X (CW Model Shown)



Actuator Model	A
G10106.0	308.9
G10107.0	333.5
G10108.0	365.3
G10109.0	378.0
G10110.0	396.7
G10112.0	454.2
G10114.0	505.0

G101XX.X-M11 or G1012XX.X (No M11) (CW Model Shown)



Actuator Model	A
G10006.0-M11	308.9
G10007.0-M11	333.5
G10008.0-M11	365.3
G10009.0-M11	378.0
G10010.0-M11	396.7
G10012.0-M11	454.2
G10014.0-M11	505.0

Actuator Model	A
G100206.0	308.9
G100207.0	333.5
G100208.0	365.3
G100209.0	378.0
G100210.0	396.7
G100212.0	454.2
G100214.0	505.0

Note: Not Certified dimensional drawings. Such drawings available on request.
Contact factory with correct model designation and serial number.
All dimensions are expressed in millimeters.

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Data sheet

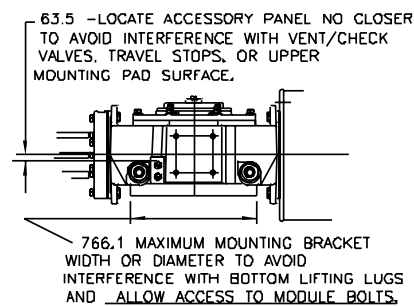
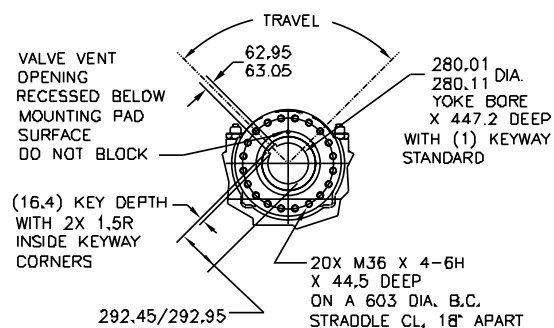
Sheet No.: GHM 3.30 RevB

Date: August 2010

G-Series

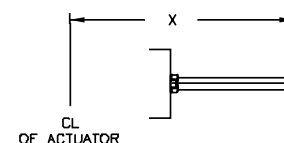
Dimensions – (Hydraulic) mm.

Double-Acting Actuators Valve/Accessory Mounting Details



ACCESSORY PAD NO.2 DETAIL

Adjustable End Stops



	X Extended Travel Stop	X End Stop
Power Module	2262.6	1669.0
Blind End Cap Module	1325.6	757.4
Spring Module	3429.5	2051.6

Note: Not Certified dimensional drawings. Such drawings available on request.
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Data sheet

Sheet No.: GHM 3.31 RevB

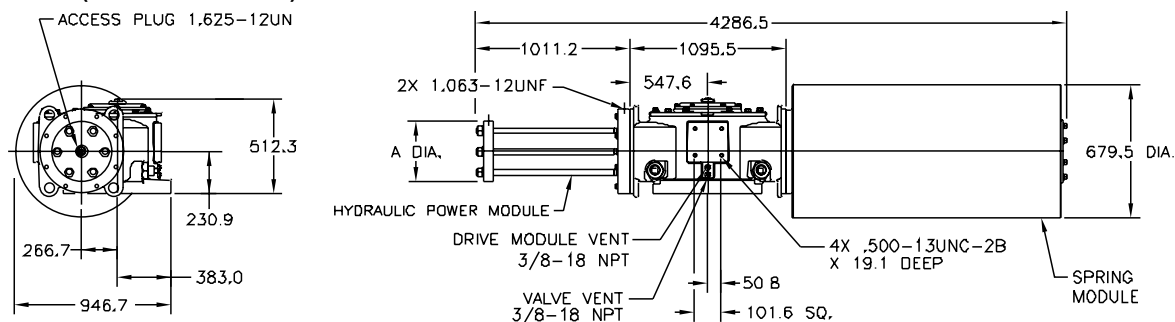
Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

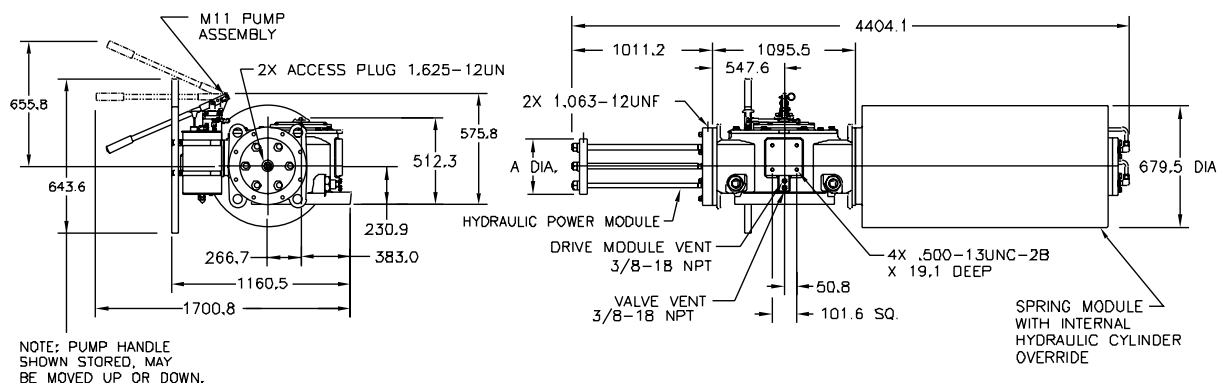
Spring-Return Actuators

G101XX.X-SR (CW Model Shown)



Actuator Model	A
G10106.0-SR	308.9
G10107.0-SR	333.5
G10108.0-SR	365.3
G10109.0-SR	378.0
G10110.0-SR	396.7
G10112.0-SR	454.2
G10114.0-SR	505.0

G101XX.X-SR-M11 (CW Model Shown)



Actuator Model	A
G10106.0-SR-M11	308.9
G10107.0-SR-M11	333.5
G10108.0-SR-M11	365.3
G10109.0-SR-M11	378.0
G10110.0-SR-M11	396.7
G10112.0-SR-M11	454.2
G10114.0-SR-M11	505.0

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Data sheet

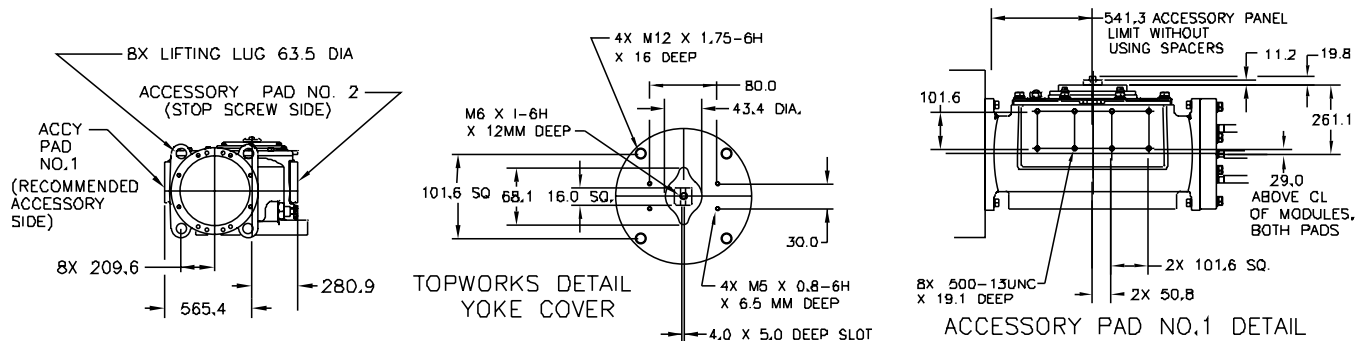
Sheet No.: GHM 3.32 RevB

Date: August 2010

G-Series

Dimensions – (Hydraulic) mm.

Spring-Return Actuators Lug/Accessory Details



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