

BUTTONHEAD MECHANICAL ANCHORAGE TEST DATA CONVERSION - 15M AND 20M (GRADES 400R, 400W)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar area in ²	Max Load lb	Max Stress psi	Developed Stress %fy ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area mm ²	Max Load kN	Equivalent Max Stress CSA Gr 400 N/mm ²	Equivalent Developed Stress %fy CSA Gr 400
5T3060	5A	Black	No. 5	0.31	34,010	109,710	183%	15M	200	151.3	756	189%
	5B		No. 5	0.31	34,500	111,290	185%	15M	200	153.5	767	192%
5T3066	5A	Black	No. 5	0.31	33,830	109,129	182%	15M	200	150.5	752	188%
	5B		No. 5	0.31	34,380	110,903	185%	15M	200	152.9	765	191%
5T3478	5A	Black	No. 5	0.31	33,100	106,774	178%	15M	200	147.2	736	184%
5T3492	5A	Black	No. 5	0.31	32,741	105,616	176%	15M	200	145.6	728	182%
	5B		No. 5	0.31	32,456	104,697	174%	15M	200	144.4	722	180%
	5C		No. 5	0.31	32,261	104,068	173%	15M	200	143.5	717	179%
6T1836	6A	Black	No. 6	0.44	44,830	101,886	170%	20M	300	199.4	665	166%
	6B		No. 6	0.44	46,150	104,886	175%	20M	300	205.3	684	171%
6T2353	6A	Black	No. 6	0.44	48,440	110,091	183%	20M	300	215.5	718	180%
6T2541	6A	Black	No. 6	0.44	49,380	112,227	187%	20M	300	219.6	732	183%
	6B		No. 6	0.44	50,190	114,068	190%	20M	300	223.2	744	186%
6T2694	6A	Black	No. 6	0.44	45,322	103,005	172%	20M	300	201.6	672	168%
	6B		No. 6	0.44	45,217	102,766	171%	20M	300	201.1	670	168%
	6C		No. 6	0.44	45,315	102,989	172%	20M	300	201.6	672	168%

NOTES

Test results are from routine testing of each heat lot of arriving ButtonHead material, per Barsplice Products, Inc. ISO Quality System.

Reinforcing Bars, per ASTM A 615 Grade 60, have a specified yield, fy = 60,000 psi (420 N/mm²).

See Lab reports for stress versus displacement curves (stress versus cross-head position).

Load rates per ASTM A 370.

ASTM = American Society for Testing and Materials

CSA = Canadian Standards Association



BUTTONHEAD MECHANICAL ANCHORAGE TEST DATA CONVERSION - 25M AND 30M (GRADES 400R, 400W)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar area in ²	Max Load lb	Max Stress psi	Developed Stress %fy ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area mm ²	Max Load kN	Equivalent Max Stress CSA Gr 400 N/mm ²	Equivalent Developed Stress %fy CSA Gr 400
8T1709	8A	Black	No. 8	0.79	82,740	104,734	175%	25M	500	368.0	736	184%
	8B		No. 8	0.79	81,450	103,101	172%	25M	500	362.3	725	181%
8T1747	8A	Black	No. 8	0.79	81,870	103,633	173%	25M	500	364.2	728	182%
	8B		No. 8	0.79	82,000	103,797	173%	25M	500	364.7	729	182%
8T1815	8A	Black	No. 8	0.79	86,020	108,886	181%	25M	500	382.6	765	191%
	8B		No. 8	0.79	85,820	108,633	181%	25M	500	381.7	763	191%
8T1831	8A	Black	No. 8	0.79	82,620	104,582	174%	25M	500	367.5	735	184%
	8B		No. 8	0.79	85,640	108,405	181%	25M	500	380.9	762	190%
9T1125	9A	Black	No. 9	1.00	100,590	100,590	168%	30M	700	447.4	639	160%
	9B		No. 9	1.00	100,720	100,720	168%	30M	700	448.0	640	160%
9T1176	9A	Black	No. 9	1.00	110,120	110,120	184%	30M	700	489.8	700	175%
	9B		No. 9	1.00	110,210	110,210	184%	30M	700	490.2	700	175%
9T1200	9A	Black	No. 9	1.00	106,160	106,160	177%	30M	700	472.2	675	169%
	9B		No. 9	1.00	106,230	106,230	177%	30M	700	472.5	675	169%
9T1298	9A	Black	No. 9	1.00	101,780	101,780	170%	30M	700	452.7	647	162%
	9B		No. 9	1.00	101,500	101,500	169%	30M	700	451.5	645	161%

NOTES

Test results are from routine testing of each heat lot of arriving ButtonHead material, per Barsplice Products, Inc. ISO Quality System.

Reinforcing Bars, per ASTM A 615 Grade 60, have a specified yield, fy = 60,000 psi (420 N/mm²).

See Lab reports for stress versus displacement curves (stress versus cross-head position).

Load rates per ASTM A 370.

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BUTTONHEAD MECHANICAL ANCHORAGE TEST DATA CONVERSION - 35M AND 45M (GRADES 400R, 400W)

Lab Report & Reference No.	Bar Type	ASTM Bar Size Designation	ASTM Bar area in ²	Max Load lb	Max Stress psi	Developed Stress %fy ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area mm ²	Max Load kN	Equivalent Max Stress CSA Gr 400 N/mm ²	Equivalent Developed Stress %fy CSA Gr 400	
11T1985	11A	Black	No. 11	1.56	170,900	109,551	183%	35M	1000	760.2	760	190%
	11B		No. 11	1.56	171,920	110,205	184%	35M	1000	764.7	765	191%
11T2006	11A	Black	No. 11	1.56	166,330	106,622	178%	35M	1000	739.8	740	185%
	11B		No. 11	1.56	166,220	106,551	178%	35M	1000	739.3	739	185%
11T2029	11A	Black	No. 11	1.56	167,539	107,397	179%	35M	1000	745.2	745	186%
	11B		No. 11	1.56	167,600	107,436	179%	35M	1000	745.5	745	186%
11T2213	11A	Black	No. 11	1.56	165,131	105,853	176%	35M	1000	734.5	735	184%
	11B		No. 11	1.56	165,560	106,128	177%	35M	1000	736.4	736	184%
14T658	14A	Black	No. 14	2.25	226,670	100,742	168%	45M	1500	1008.2	672	168%
14T660*	14A	Black	No. 14	2.25	231,590	102,929	172%	45M	1500	1030.1	687	172%

NOTES

Test results are from routine testing of each heat lot of arriving ButtonHead material, per Barsplice Products, Inc. ISO Quality System.

Reinforcing Bars, per ASTM A 615 Grade 60, have a specified yield, fy = 60,000 psi (420 N/mm²).

* Reinforcing Bars, per ASTM A 706 Grade 60, have a specified yield, fy = 60,000 psi (420 N/mm²).

See Lab reports for stress versus displacement curves (stress versus cross-head position).

Load rates per ASTM A 370.

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