

BOLT SIZES FOR STANDARD GAUGE LOCOMOTIVES																	
GAUGE	SCALE FACTOR	FULL SIZE BOLT DIAMETER															
		FRACTION	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"
		DECIMAL	0.250	0.313	0.375	0.438	0.500	0.625	0.750	0.875	1.000	1.125	1.250	1.500	1.750	2.000	2.5
2 1/2"	1 : 24	SCALE BOLT DIA	0.010	0.013	0.016	0.018	0.021	0.026	0.031	0.036	0.042	0.047	0.052	0.063	0.072	0.083	0.104
		NEAREST BA SIZE							16	14	14	12	12	10	8	8	6
3 1/2"	1 : 16	SCALE BOLT DIA	0.016	0.020	0.023	0.027	0.031	0.039	0.047	0.055	0.063	0.070	0.078	0.094	0.109	0.125	0.156
		NEAREST BA SIZE					16	14	12	12	10	10	8	7	6	5	3
5"	1 : 11.3	SCALE BOLT DIA	0.022	0.028	0.033	0.039	0.044	0.055	0.066	0.077	0.088	0.100	0.111	0.133	0.155	0.177	0.221
		NEAREST BA SIZE		16	16	14	12	12	10	8	8	7	6	5	3	2	1
7 1/4"	1 : 8	SCALE BOLT DIA	0.031	0.039	0.047	0.055	0.063	0.078	0.094	0.109	0.125	0.141	0.156	0.188	0.219	0.250	0.313
		NEAREST BA SIZE	16	14	12	12	10	8	7	6	5	4	3	2	1	1/4 BSF	5/16 BSF
BOLT SIZES FOR NARROW (2'-0") GAUGE LOCOMOTIVES																	
GAUGE	SCALE FACTOR	FULL SIZE BOLT DIAMETER															
		FRACTION	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"			
		DECIMAL	0.250	0.313	0.375	0.438	0.500	0.625	0.750	0.875	1.000	1.125	1.250	1.500			
2 1/2"	1 : 9.6	SCALE BOLT DIA	0.026	0.033	0.039	0.046	0.052	0.065	0.078	0.091	0.104	0.117	0.130	0.156			
		NEAREST BA SIZE		16	14	12	12	10	8	8	6	6	5	3			
3 1/2"	1 : 6.9	SCALE BOLT DIA	0.036	0.045	0.054	0.063	0.072	0.091	0.109	0.127	0.145	0.163	0.181	0.217			
		NEAREST BA SIZE	14	12	12	10	8	8	6	5	4	3	2	1			
5"	1 : 4.8	SCALE BOLT DIA	0.052	0.065	0.078	0.091	0.104	0.130	0.156	0.182	0.208	0.234	0.260	0.313			
		NEAREST BA SIZE	12	10	8	8	6	5	3	2	1	0	1/4 BSF	5/16 BSF			
7 1/4"	1 : 3.3	SCALE BOLT DIA	0.076	0.095	0.114	0.133	0.152	0.189	0.227	0.265	0.303	0.341	0.379	0.455			
		NEAREST BA SIZE	8	7	6	5	3	2	0	1/4 BSF	5/16 BSF	5/16 BSF	3/8 BSF	7/16 BSF			
BOLT SIZES FOR TRACTION ENGINES																	
SCALE	SCALE FACTOR	FULL SIZE BOLT DIAMETER															
		FRACTION	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"			
		DECIMAL	0.250	0.313	0.375	0.438	0.500	0.625	0.750	0.875	1.000	1.125	1.250	1.500			
1"	1 : 12	SCALE BOLT DIA	0.021	0.026	0.031	0.036	0.042	0.052	0.063	0.073	0.083	0.094	0.104	0.125			
		NEAREST BA SIZE			16	14	12	12	10	8	8	7	6	5			
1 1/2"	1 : 8	SCALE BOLT DIA	0.031	0.039	0.047	0.055	0.063	0.078	0.094	0.109	0.125	0.141	0.156	0.188			
		NEAREST BA SIZE	16	14	12	12	10	8	7	6	5	4	3	2			
2"	1 : 6	SCALE BOLT DIA	0.042	0.052	0.063	0.073	0.083	0.104	0.125	0.146	0.167	0.188	0.208	0.250			
		NEAREST BA SIZE	14	12	10	8	8	6	5	4	3	2	1	1/4 BSF			
3"	1 : 4	SCALE BOLT DIA	0.063	0.078	0.094	0.109	0.125	0.156	0.188	0.219	0.250	0.281	0.313	0.375			
		NEAREST BA SIZE	10	8	7	6	5	3	2	1	1/4 BSF	1/4 BSF	5/16 BSF	3/8 BSF			
4"	1 : 3	SCALE BOLT DIA	0.083	0.104	0.125	0.146	0.167	0.208	0.250	0.292	0.333	0.375	0.417	0.500			
		NEAREST BA SIZE	8	6	5	4	3	1	1/4 BSF	5/16 BSF	5/16 BSF	3/8 BSF	7/16 BSF	1/2 BSF			
<p>BA nuts are correct scale A/F size for pre-WWII BSW sizes.</p> <p>BA bolts with "one size smaller" heads are correct scale A/F size for BSF and post-WWII BSW sizes.</p> <p>In practice, full size "bolts" below 3/8" dia. are more likely to be slotted head screws.</p> <p>Odd BA sizes below 7BA, and even sizes below 16BA are ignored as these are difficult to obtain.</p>																	