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AS3650™

RATIONALE

FEDERAL SUPPLY CLASS
5306

FIGURE REDRAWN, TABLES REVISED, USAGE NOTE ADDED, TABLE 1C LOADS ROUNDED UP OR DOWN. SPECS UPDATED.

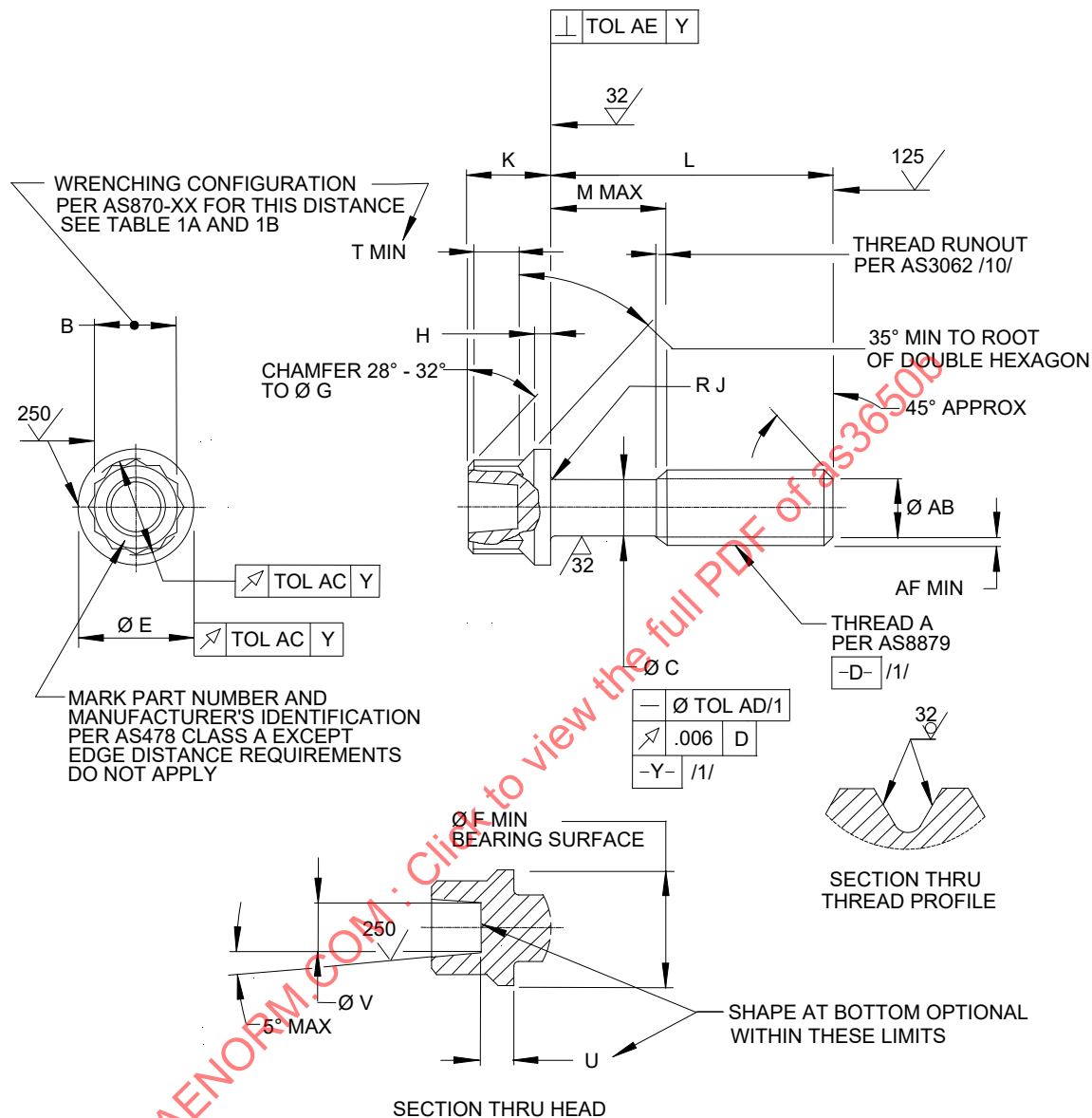
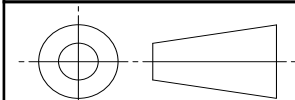


FIGURE 1 - BOLT

For more information on this standard, visit
<https://www.sae.org/standards/content/AS3650B>

THIRD ANGLE PROJECTION



CUSTODIAN: E-25

PROCUREMENT SPECIFICATION: AS4877 /3/



AEROSPACE STANDARD

(R) BOLT, MACHINE - DOUBLE HEX HEAD,
REDUCED SHANK,
UNS N07718 - 185 KSI

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TABLE 1A - DIMENSIONS

DASH NO.	AS8879 THREAD A UNJF-3A	B WRENCH DASH NO.	B NOMINAL SIZE	C	E ±.010	F MIN	G ±.010	H MIN	K ±.010
-3	.1900-32	08	.2500	.140-.145	.375	.335	.250	.040	.258
-4	.2500-28	10	.3125	.195-.200	.438	.398	.312	.060	.303
-5	.3125-24	12	.3750	.247-.255	.500	.460	.375	.070	.338
-6	.3750-24	14	.4375	.309-.317	.562	.522	.438	.090	.383
-7	.4375-20	16	.5000	.362-.370	.688	.648	.500	.110	.454
-8	.5000-20	18	.5625	.424-.432	.750	.710	.562	.125	.495

TABLE 1B - DIMENSIONS

DASH NO.	J ±.005	T MIN	U	V ±.010	AB ±.010	AC	AD	AE	AF
-3	.020	.122	.120-.160	.100	.140	.006	.003/1	.003	.015
-4	.020	.144	.158-.207	.150	.194	.007	.003/1	.003	.018
-5	.020	.166	.166-.225	.206	.249	.008	.003/1	.003	.022
-6	.020	.188	.714-.243	.260	.311	.010	.0025/1	.003	.022
-7	.025	.210	.202-.280	.310	.364	.010	.0025/1	.003	.027
-8	.025	.232	.240-.329	.370	.426	.012	.002/1	.003	.027

TABLE 1C - TEST LOADS

ULTIMATE TENSILE STRENGTH TEST LOAD, LBF MIN ROOM TEMP	
DASH NO.	
-3	2850
-4	5520
-5	8860
-6	13870
-7	19040
-8	26120



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TABLE 2 - DIMENSIONS

PART NUMBER	L ±.010	M MAX	APPROX MASS LB/100
AS3650-3-08	.500	.150	.56
AS3650-3-09	.562	.212	.59
AS3650-3-10	.625	.275	.62
AS3650-3-11	.688	.338	.65
AS3650-3-12	.750	.400	.68
AS3650-3-13	.812	.462	.71
AS3650-3-14	.875	.525	.74
AS3650-3-15	.938	.588	.77
AS3650-3-16	1.000	.650	.80
AS3650-3-17	1.062	.712	.83
AS3650-3-18	1.125	.775	.87
AS3650-3-19	1.188	.838	.90
AS3650-3-20	1.250	.900	.93
AS3650-3-21	1.312	.962	.96
AS3650-3-22	1.375	1.025	.99
AS3650-3-23	1.438	1.088	1.02
AS3650-3-24	1.500	1.150	1.04
AS3650-3-25	1.562	1.212	1.07
AS3650-3-26	1.625	1.275	1.10
AS3650-3-27	1.688	1.338	1.13
AS3650-3-28	1.750	1.400	1.16
AS3650-3-29	1.812	1.462	1.19
AS3650-3-30	1.875	1.525	1.22
AS3650-3-31	1.938	1.588	1.25
AS3650-3-32	2.000	1.650	1.28
AS3650-3-34	2.125	1.775	1.35
AS3650-3-36	2.250	1.900	1.40
AS3650-3-38	2.375	2.025	1.46
AS3650-3-40	2.500	2.150	1.52
AS3650-3-42	2.625	2.275	1.58
AS3650-3-44	2.750	2.400	1.63
AS3650-3-46	2.875	2.525	1.70
AS3650-3-48	3.000	2.650	1.76
AS3650-3-50	3.125	2.775	1.82
AS3650-3-52	3.250	2.900	1.87
AS3650-3-54	3.375	3.025	1.94
AS3650-3-56	3.500	3.150	1.99
AS3650-3-58	3.625	3.275	2.05
AS3650-3-60	3.750	3.400	2.12
AS3650-3-62	3.875	3.525	2.17



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TABLE 2 - DIMENSIONS (CONTINUED)

PART NUMBER	L ±.010	M MAX	APPROX MASS LB/100
AS3650-4-09	.562	.212	1.13
AS3650-4-10	.625	.275	1.16
AS3650-4-11	.688	.338	1.19
AS3650-4-12	.750	.400	1.21
AS3650-4-13	.812	.462	1.24
AS3650-4-14	.875	.525	1.27
AS3650-4-15	.938	.588	1.31
AS3650-4-16	1.000	.650	1.38
AS3650-4-17	1.062	.712	1.43
AS3650-4-18	1.125	.775	1.49
AS3650-4-19	1.188	.838	1.54
AS3650-4-20	1.250	.900	1.60
AS3650-4-21	1.312	.962	1.66
AS3650-4-22	1.375	1.025	1.71
AS3650-4-23	1.438	1.088	1.77
AS3650-4-24	1.500	1.150	1.83
AS3650-4-25	1.562	1.212	1.89
AS3650-4-26	1.625	1.275	1.94
AS3650-4-27	1.688	1.338	2.00
AS3650-4-28	1.750	1.400	2.06
AS3650-4-29	1.812	1.462	2.11
AS3650-4-30	1.875	1.525	2.17
AS3650-4-31	1.938	1.588	2.23
AS3650-4-32	2.000	1.650	2.29
AS3650-4-34	2.125	1.775	2.40
AS3650-4-36	2.250	1.900	2.51
AS3650-4-38	2.375	2.025	2.63
AS3650-4-40	2.500	2.150	2.74
AS3650-4-42	2.625	2.275	2.85
AS3650-4-44	2.750	2.400	2.97
AS3650-4-46	2.875	2.525	3.08
AS3650-4-48	3.000	2.650	3.20
AS3650-4-50	3.125	2.775	3.31
AS3650-4-52	3.250	2.900	3.43
AS3650-4-54	3.375	3.025	3.54
AS3650-4-56	3.500	3.150	3.66
AS3650-4-58	3.625	3.275	3.76
AS3650-4-60	3.750	3.400	3.88
AS3650-4-62	3.875	3.525	3.99
AS3650-4-64	4.000	3.650	4.11
AS3650-4-66	4.125	3.775	4.22
AS3650-4-68	4.250	3.900	4.34
AS3650-4-70	4.375	4.025	4.46
AS3650-4-72	4.500	4.150	4.56
AS3650-4-74	4.625	4.275	4.68
AS3650-4-76	4.750	4.400	4.79
AS3650-4-78	4.875	4.525	4.91
AS3650-4-80	5.000	4.650	5.02
AS3650-4-82	5.125	4.775	5.14
AS3650-4-84	5.250	4.900	5.25
AS3650-4-86	5.375	5.025	5.36
AS3650-4-88	5.500	5.150	5.47
AS3650-4-90	5.625	5.275	5.59
AS3650-4-92	5.750	5.400	5.71
AS3650-4-94	5.875	5.525	5.82
AS3650-4-96	6.000	5.650	5.93

TABLE 2 - DIMENSIONS (CONTINUED)

PART NUMBER	L ±.010	M MAX	APPROX MASS LB/100
AS3650-5-10	.625	.221	1.99
AS3650-5-11	.688	.284	2.03
AS3650-5-12	.750	.346	2.07
AS3650-5-13	.812	.408	2.10
AS3650-5-14	.875	.471	2.15
AS3650-5-15	.938	.534	2.19
AS3650-5-16	1.000	.596	2.25
AS3650-5-17	1.062	.658	2.31
AS3650-5-18	1.125	.721	2.40
AS3650-5-19	1.188	.784	2.50
AS3650-5-20	1.250	.846	2.59
AS3650-5-21	1.312	.908	2.69
AS3650-5-22	1.375	.971	2.77
AS3650-5-23	1.438	1.034	2.87
AS3650-5-24	1.500	1.096	2.96
AS3650-5-25	1.562	1.158	3.05
AS3650-5-26	1.625	1.221	3.14
AS3650-5-27	1.688	1.284	3.23
AS3650-5-28	1.750	1.346	3.33
AS3650-5-29	1.812	1.408	3.42
AS3650-5-30	1.875	1.471	3.51
AS3650-5-31	1.938	1.534	3.60
AS3650-5-32	2.000	1.596	3.69
AS3650-5-34	2.125	1.721	3.88
AS3650-5-36	2.250	1.846	4.06
AS3650-5-38	2.375	1.971	4.25
AS3650-5-40	2.500	2.096	4.43
AS3650-5-42	2.625	2.221	4.62
AS3650-5-44	2.750	2.346	4.80
AS3650-5-46	2.875	2.471	4.99
AS3650-5-48	3.000	2.596	5.17
AS3650-5-50	3.125	2.721	5.35
AS3650-5-52	3.250	2.846	5.54
AS3650-5-54	3.375	2.971	5.72
AS3650-5-56	3.500	3.096	5.90
AS3650-5-58	3.625	3.221	6.09
AS3650-5-60	3.750	3.346	6.27
AS3650-5-62	3.875	3.471	6.46
AS3650-5-64	4.000	3.596	6.64
AS3650-5-66	4.125	3.721	6.82
AS3650-5-68	4.250	3.846	7.01
AS3650-5-70	4.375	3.971	7.20
AS3650-5-72	4.500	4.096	7.38
AS3650-5-74	4.625	4.221	7.56
AS3650-5-76	4.750	4.346	7.75
AS3650-5-78	4.875	4.471	7.93
AS3650-5-80	5.000	4.596	8.11
AS3650-5-82	5.125	4.721	8.30
AS3650-5-84	5.250	4.846	8.48
AS3650-5-86	5.375	4.971	8.67
AS3650-5-88	5.500	5.096	8.85
AS3650-5-90	5.625	5.221	9.04
AS3650-5-92	5.750	5.346	9.22
AS3650-5-94	5.875	5.471	9.40
AS3650-5-96	6.000	5.596	9.59



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(R) BOLT, MACHINE - DOUBLE HEX HEAD,
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TABLE 2 - DIMENSIONS (CONTINUED)

PART NUMBER	L ±.010	M MAX	APPROX MASS LB/100
AS3650-6-11	.688	.226	3.09
AS3650-6-12	.750	.288	3.12
AS3650-6-13	.812	.350	3.18
AS3650-6-14	.875	.413	3.24
AS3650-6-15	.938	.476	3.32
AS3650-6-16	1.000	.538	3.41
AS3650-6-17	1.062	.600	3.50
AS3650-6-18	1.125	.663	3.60
AS3650-6-19	1.188	.726	3.72
AS3650-6-20	1.250	.788	3.86
AS3650-6-21	1.312	.850	4.01
AS3650-6-22	1.375	.913	4.15
AS3650-6-23	1.438	.976	4.29
AS3650-6-24	1.500	1.038	4.43
AS3650-6-25	1.562	1.100	4.58
AS3650-6-26	1.625	1.163	4.72
AS3650-6-27	1.688	1.226	4.86
AS3650-6-28	1.750	1.288	5.01
AS3650-6-29	1.812	1.350	5.15
AS3650-6-30	1.875	1.413	5.29
AS3650-6-31	1.938	1.476	5.44
AS3650-6-32	2.000	1.538	5.58
AS3650-6-34	2.125	1.663	5.86
AS3650-6-36	2.250	1.788	6.15
AS3650-6-38	2.375	1.913	6.44
AS3650-6-40	2.500	2.038	6.72
AS3650-6-42	2.625	2.163	7.01
AS3650-6-44	2.750	2.288	7.30
AS3650-6-46	2.875	2.413	7.58
AS3650-6-48	3.000	2.538	7.87
AS3650-6-50	3.125	2.663	8.15
AS3650-6-52	3.250	2.788	8.44
AS3650-6-54	3.375	2.913	8.73
AS3650-6-56	3.500	3.038	9.01
AS3650-6-58	3.625	3.163	9.30
AS3650-6-60	3.750	3.288	9.58
AS3650-6-62	3.875	3.413	9.87
AS3650-6-64	4.000	3.538	10.16
AS3650-6-66	4.125	3.663	10.44
AS3650-6-68	4.250	3.788	10.72
AS3650-6-70	4.375	3.913	11.02
AS3650-6-72	4.500	4.038	11.30
AS3650-6-74	4.625	4.163	11.59
AS3650-6-76	4.750	4.288	11.88
AS3650-6-78	4.875	4.413	12.16
AS3650-6-80	5.000	4.538	12.44
AS3650-6-82	5.125	4.663	12.73
AS3650-6-84	5.250	4.788	13.02
AS3650-6-86	5.375	4.913	13.31
AS3650-6-88	5.500	5.038	13.59
AS3650-6-90	5.625	5.163	13.87
AS3650-6-92	5.750	5.288	14.15
AS3650-6-94	5.875	5.413	14.43
AS3650-6-96	6.000	5.538	14.71



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TABLE 2 - DIMENSIONS (CONTINUED)

PART NUMBER	L ±.010	M MAX	APPROX MASS LB/100
AS3650-7-14	.875	.240	4.96
AS3650-7-15	.938	.303	5.15
AS3650-7-16	1.000	.365	5.35
AS3650-7-17	1.062	.427	5.54
AS3650-7-18	1.125	.490	5.74
AS3650-7-19	1.188	.553	5.93
AS3650-7-20	1.250	.615	6.13
AS3650-7-21	1.312	.677	6.32
AS3650-7-22	1.375	.740	6.52
AS3650-7-23	1.438	.803	6.72
AS3650-7-24	1.500	.865	6.91
AS3650-7-25	1.562	.927	7.10
AS3650-7-26	1.625	.990	7.30
AS3650-7-27	1.688	1.053	7.50
AS3650-7-28	1.750	1.115	7.69
AS3650-7-29	1.812	1.177	7.88
AS3650-7-30	1.875	1.240	8.08
AS3650-7-31	1.938	1.303	8.28
AS3650-7-32	2.000	1.365	8.47
AS3650-7-34	2.125	1.490	8.86
AS3650-7-36	2.250	1.615	9.25
AS3650-7-38	2.375	1.740	9.64
AS3650-7-40	2.500	1.865	10.03
AS3650-7-42	2.625	1.990	10.42
AS3650-7-44	2.750	2.115	10.82
AS3650-7-46	2.875	2.240	11.21
AS3650-7-48	3.000	2.365	11.60
AS3650-7-50	3.125	2.490	11.60
AS3650-7-52	3.250	2.615	11.60
AS3650-7-54	3.375	2.740	11.60
AS3650-7-56	3.500	2.865	11.60
AS3650-7-58	3.625	2.990	13.55
AS3650-7-60	3.750	3.115	13.94
AS3650-7-62	3.875	3.240	14.33
AS3650-7-64	4.000	3.365	14.72
AS3650-7-66	4.125	3.490	15.11
AS3650-7-68	4.250	3.615	15.50
AS3650-7-70	4.375	3.740	15.89
AS3650-7-72	4.500	3.865	16.28
AS3650-7-74	4.625	3.990	16.67
AS3650-7-76	4.750	4.115	17.06
AS3650-7-78	4.875	4.240	17.46
AS3650-7-80	5.000	4.365	17.85
AS3650-7-82	5.125	4.490	18.24
AS3650-7-84	5.250	4.615	18.62
AS3650-7-86	5.375	4.740	19.01
AS3650-7-88	5.500	4.865	19.40
AS3650-7-90	5.625	4.990	19.80
AS3650-7-92	5.750	5.115	20.19
AS3650-7-94	5.875	5.240	20.58
AS3650-7-96	6.000	5.365	20.97



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