

REV. A

AS3650

FEDERAL SUPPLY CLASS
5306

RATIONALE

AS3650A HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

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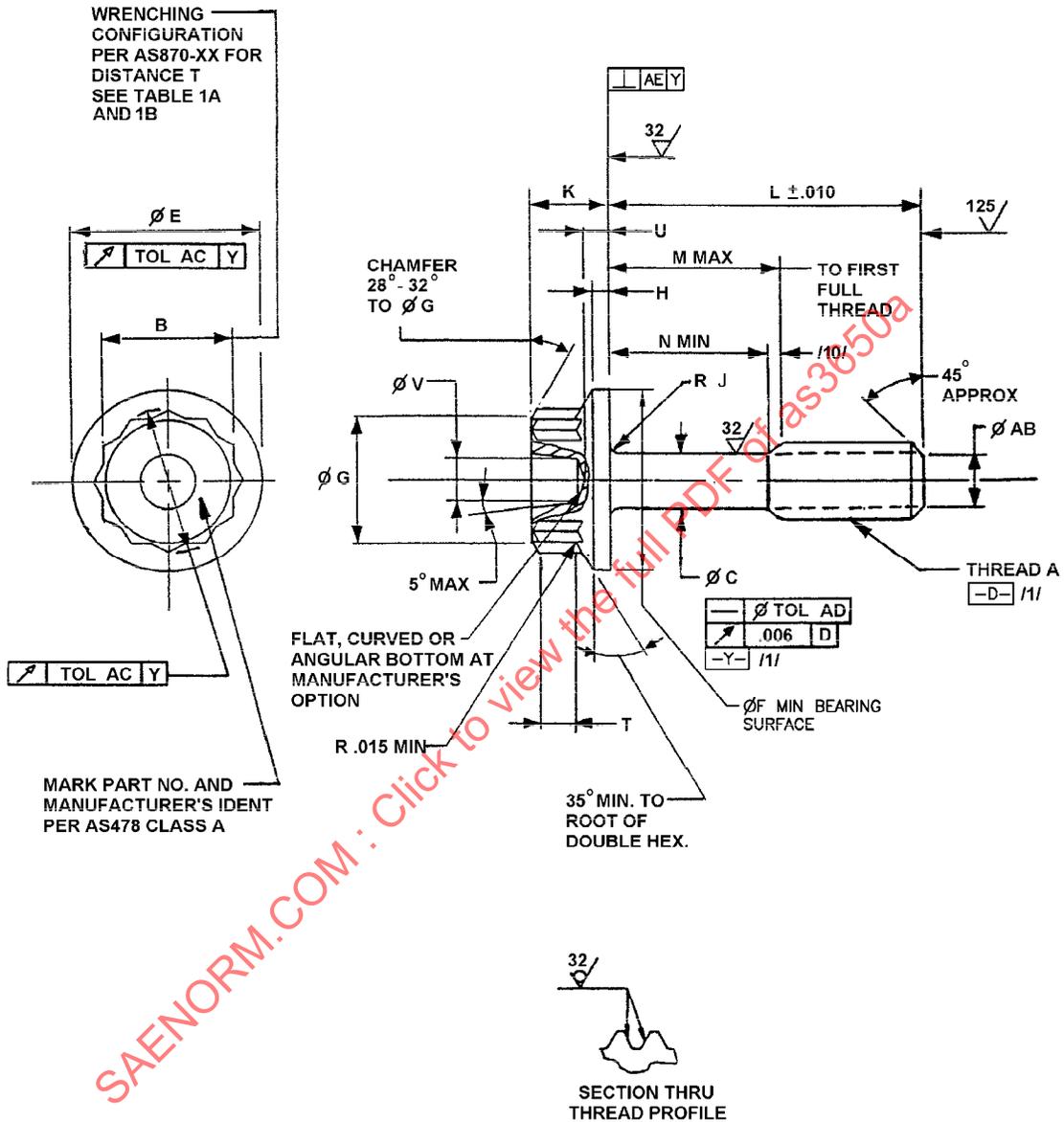
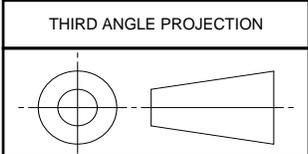


FIGURE 1 - BOLT

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CUSTODIAN: E-25

PROCUREMENT SPECIFICATION:



AEROSPACE STANDARD

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

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ISSUED 2005-02 REVISED 2010-05 REAFFIRMED 2015-04

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 ± .010	V ± .010	AB ± .010	AC	AD	AE
-3	.020	.122	.130	.100	.140	.006	.003/1	0.003
-4	.020	.144	.168	.150	.194	.007	.003/1	0.003
-5	.020	.166	.176	.206	.249	.008	.003/1	0.003
-6	.020	.188	.184	.260	.311	.010	.0025/1	0.003
-7	.025	.210	.212	.310	.364	.010	.0025/1	0.003
-8	.025	.232	.250	.370	.426	.012	.002/1	0.003

TABLE 1 C – TEST LOADS

DASH NO.	ULTIMATE TENSILE STRENGTH TEST LOAD, LBF MIN ROOM TEMP.
-3	2,848
-4	5,525
-5	8,865
-6	13,873
-7	19,041
-8	26,121

TABLE 2 – DIMENSIONS

PART NUMBER	L ± .010	M MAX	N MIN	APPROX MASS LB/100
AS3650-3-08	.500	.150	.088	.56
AS3650-3-09	.562	.212	.150	.59
AS3650-3-10	.625	.275	.213	.62
AS3650-3-11	.688	.338	.276	.65
AS3650-3-12	.750	.400	.338	.68
AS3650-3-13	.812	.462	.400	.71
AS3650-3-14	.875	.525	.463	.74
AS3650-3-15	.938	.588	.526	.77
AS3650-3-16	1.000	.650	.588	.80
AS3650-3-17	1.062	.712	.650	.83
AS3650-3-18	1.125	.775	.713	.87
AS3650-3-19	1.188	.838	.776	.90
AS3650-3-20	1.250	.900	.838	.93
AS3650-3-21	1.312	.962	.900	.96
AS3650-3-22	1.375	1.025	.963	.99
AS3650-3-23	1.438	1.088	1.026	1.02
AS3650-3-24	1.500	1.150	1.088	1.04
AS3650-3-25	1.562	1.212	1.150	1.07
AS3650-3-26	1.625	1.275	1.213	1.10
AS3650-3-27	1.688	1.338	1.276	1.13
AS3650-3-28	1.750	1.400	1.338	1.16
AS3650-3-29	1.812	1.462	1.400	1.19
AS3650-3-30	1.875	1.525	1.463	1.22
AS3650-3-31	1.938	1.588	1.526	1.25
AS3650-3-32	2.000	1.650	1.588	1.28
AS3650-3-34	2.125	1.775	1.713	1.35
AS3650-3-36	2.250	1.900	1.838	1.40
AS3650-3-38	2.375	2.025	1.963	1.46
AS3650-3-40	2.500	2.150	2.088	1.52
AS3650-3-42	2.625	2.275	2.213	1.58
AS3650-3-44	2.750	2.400	2.338	1.63
AS3650-3-46	2.875	2.525	2.463	1.70
AS3650-3-48	3.000	2.650	2.588	1.76
AS3650-3-50	3.125	2.775	2.713	1.82
AS3650-3-52	3.250	2.900	2.838	1.87
AS3650-3-54	3.375	3.025	2.963	1.94
AS3650-3-56	3.500	3.150	3.088	1.99
AS3650-3-58	3.625	3.275	3.213	2.05
AS3650-3-60	3.750	3.400	3.338	2.12
AS3650-3-62	3.875	3.525	3.463	2.17



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TABLE 2 – DIMENSIONS (CONTINUED)

TABLE 2 (CONTINUED)				
PART NUMBER	L ± .010	M MAX	N MIN	APPROX MASS LB/100
AS3650-4-09	.562	0.212	0.141	1.13
AS3650-4-10	.625	0.275	0.204	1.16
AS3650-4-11	.688	0.338	0.267	1.19
AS3650-4-12	.750	0.400	0.329	1.21
AS3650-4-13	.812	0.462	0.391	1.24
AS3650-4-14	.875	0.525	0.454	1.27
AS3650-4-15	.938	0.588	0.517	1.31
AS3650-4-16	1.000	0.650	0.579	1.38
AS3650-4-17	1.062	0.712	0.641	1.43
AS3650-4-18	1.125	0.775	0.704	1.49
AS3650-4-19	1.188	0.838	0.767	1.54
AS3650-4-20	1.250	0.900	0.829	1.60
AS3650-4-21	1.312	0.962	0.891	1.66
AS3650-4-22	1.375	1.025	0.954	1.71
AS3650-4-23	1.438	1.088	1.017	1.77
AS3650-4-24	1.500	1.150	1.079	1.83
AS3650-4-25	1.562	1.212	1.141	1.89
AS3650-4-26	1.625	1.275	1.204	1.94
AS3650-4-27	1.688	1.338	1.267	2.00
AS3650-4-28	1.750	1.400	1.329	2.06
AS3650-4-29	1.812	1.462	1.391	2.11
AS3650-4-30	1.875	1.525	1.454	2.17
AS3650-4-31	1.938	1.588	1.517	2.23
AS3650-4-32	2.000	1.650	1.579	2.29
AS3650-4-34	2.125	1.775	1.704	2.40
AS3650-4-36	2.250	1.900	1.829	2.51
AS3650-4-38	2.375	2.025	1.954	2.63
AS3650-4-40	2.500	2.150	2.079	2.74
AS3650-4-42	2.625	2.275	2.204	2.85
AS3650-4-44	2.750	2.400	2.329	2.97
AS3650-4-46	2.875	2.525	2.454	3.08
AS3650-4-48	3.000	2.650	2.579	3.20
AS3650-4-50	3.125	2.775	2.704	3.31
AS3650-4-52	3.250	2.900	2.829	3.43
AS3650-4-54	3.375	3.025	2.954	3.54
AS3650-4-56	3.500	3.150	3.079	3.66
AS3650-4-58	3.625	3.275	3.204	3.76
AS3650-4-60	3.750	3.400	3.329	3.88
AS3650-4-62	3.875	3.525	3.454	3.99



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TABLE 2 – DIMENSIONS (CONTINUED)

PART NUMBER	L ± .010	M MAX	N MIN	APPROX MASS LB/100
AS3650-4-64	4.000	3.650	3.579	4.11
AS3650-4-66	4.125	3.775	3.704	4.22
AS3650-4-68	4.250	3.900	3.829	4.34
AS3650-4-70	4.375	4.025	3.954	4.46
AS3650-4-72	4.500	4.150	4.079	4.56
AS3650-4-74	4.625	4.275	4.204	4.68
AS3650-4-76	4.750	4.400	4.329	4.79
AS3650-4-78	4.875	4.525	4.454	4.91
AS3650-4-80	5.000	4.650	4.579	5.02
AS3650-4-82	5.125	4.775	4.704	5.14
AS3650-4-84	5.250	4.900	4.829	5.25
AS3650-4-86	5.375	5.025	4.954	5.36
AS3650-4-88	5.500	5.150	5.079	5.47
AS3650-4-90	5.625	5.275	5.204	5.59
AS3650-4-92	5.750	5.400	5.329	5.71
AS3650-4-94	5.875	5.525	5.454	5.82
AS3650-4-96	6.000	5.650	5.579	5.93
AS3650-5-10	.625	0.221	0.138	1.99
AS3650-5-11	.688	0.284	0.201	2.03
AS3650-5-12	.750	0.346	0.263	2.07
AS3650-5-13	.812	0.408	0.325	2.10
AS3650-5-14	.875	0.471	0.388	2.15
AS3650-5-15	.938	0.534	0.451	2.19
AS3650-5-16	1.000	0.596	0.513	2.25
AS3650-5-17	1.062	0.658	0.575	2.31
AS3650-5-18	1.125	0.721	0.638	2.40
AS3650-5-19	1.188	0.784	0.701	2.50
AS3650-5-20	1.250	0.846	0.763	2.59
AS3650-5-21	1.312	0.908	0.825	2.69
AS3650-5-22	1.375	0.971	0.888	2.77
AS3650-5-23	1.438	1.034	0.951	2.87
AS3650-5-24	1.500	1.096	1.013	2.96
AS3650-5-25	1.562	1.158	1.075	3.05
AS3650-5-26	1.625	1.221	1.138	3.14
AS3650-5-27	1.688	1.284	1.201	3.23
AS3650-5-28	1.750	1.346	1.263	3.33
AS3650-5-29	1.812	1.408	1.325	3.42
AS3650-5-30	1.875	1.471	1.388	3.51
AS3650-5-31	1.938	1.534	1.451	3.60
AS3650-5-32	2.000	1.596	1.513	3.69
AS3650-5-34	2.125	1.721	1.638	3.88
AS3650-5-36	2.250	1.846	1.763	4.06



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TABLE 2 – DIMENSIONS (CONTINUED)

PART NUMBER	L ± .010	M MAX	N MIN	APPROX MASS LB/100
AS3650-5-38	2.375	1.971	1.888	4.25
AS3650-5-40	2.500	2.096	2.013	4.43
AS3650-5-42	2.625	2.221	2.138	4.62
AS3650-5-44	2.750	2.346	2.263	4.80
AS3650-5-46	2.875	2.471	2.388	4.99
AS3650-5-48	3.000	2.596	2.513	5.17
AS3650-5-50	3.125	2.721	2.638	5.35
AS3650-5-52	3.250	2.846	2.763	5.54
AS3650-5-54	3.375	2.971	2.888	5.72
AS3650-5-56	3.500	3.096	3.013	5.90
AS3650-5-58	3.625	3.221	3.138	6.09
AS3650-5-60	3.750	3.346	3.263	6.27
AS3650-5-62	3.875	3.471	3.388	6.46
AS3650-5-64	4.000	3.596	3.513	6.64
AS3650-5-66	4.125	3.721	3.638	6.82
AS3650-5-68	4.250	3.846	3.763	7.01
AS3650-5-70	4.375	3.971	3.888	7.20
AS3650-5-72	4.500	4.096	4.013	7.38
AS3650-5-74	4.625	4.221	4.138	7.56
AS3650-5-76	4.750	4.346	4.263	7.75
AS3650-5-78	4.875	4.471	4.388	7.93
AS3650-5-80	5.000	4.596	4.513	8.11
AS3650-5-82	5.125	4.721	4.638	8.30
AS3650-5-84	5.250	4.846	4.763	8.48
AS3650-5-86	5.375	4.971	4.888	8.67
AS3650-5-88	5.500	5.096	5.013	8.85
AS3650-5-90	5.625	5.221	5.138	9.04
AS3650-5-92	5.750	5.346	5.263	9.22
AS3650-5-94	5.875	5.471	5.388	9.40
AS3650-5-96	6.000	5.596	5.513	9.59
AS3650-6-11	.688	.226	.143	3.09
AS3650-6-12	.750	.288	.205	3.12
AS3650-6-13	.812	.350	.267	3.18
AS3650-6-14	.875	.413	.330	3.24
AS3650-6-15	.938	.476	.393	3.32
AS3650-6-16	1.000	.538	.455	3.41
AS3650-6-17	1.062	.600	.517	3.50
AS3650-6-18	1.125	.663	.580	3.60
AS3650-6-19	1.188	.726	.643	3.72



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TABLE 2 – DIMENSIONS (CONTINUED)

PART NUMBER	L ± .010	M MAX	N MIN	APPROX MASS LB/100
AS3650-6-20	1.250	.788	.705	3.86
AS3650-6-21	1.312	.850	.767	4.01
AS3650-6-22	1.375	.913	.830	4.15
AS3650-6-23	1.438	.976	.893	4.29
AS3650-6-24	1.500	1.038	.955	4.43
AS3650-6-25	1.562	1.100	1.017	4.58
AS3650-6-26	1.625	1.163	1.080	4.72
AS3650-6-27	1.688	1.226	1.143	4.86
AS3650-6-28	1.750	1.288	1.205	5.01
AS3650-6-29	1.812	1.350	1.267	5.15
AS3650-6-30	1.875	1.413	1.330	5.29
AS3650-6-31	1.938	1.476	1.393	5.44
AS3650-6-32	2.000	1.538	1.455	5.58
AS3650-6-34	2.125	1.663	1.580	5.86
AS3650-6-36	2.250	1.788	1.705	6.15
AS3650-6-38	2.375	1.913	1.830	6.44
AS3650-6-40	2.500	2.038	1.955	6.72
AS3650-6-42	2.625	2.163	2.080	7.01
AS3650-6-44	2.750	2.288	2.205	7.30
AS3650-6-46	2.875	2.413	2.330	7.58
AS3650-6-48	3.000	2.538	2.455	7.87
AS3650-6-50	3.125	2.663	2.580	8.15
AS3650-6-52	3.250	2.788	2.705	8.44
AS3650-6-54	3.375	2.913	2.830	8.73
AS3650-6-56	3.500	3.038	2.955	9.01
AS3650-6-58	3.625	3.163	3.080	9.30
AS3650-6-60	3.750	3.288	3.205	9.58
AS3650-6-62	3.875	3.413	3.330	9.87
AS3650-6-64	4.000	3.538	3.455	10.16
AS3650-6-66	4.125	3.663	3.580	10.44
AS3650-6-68	4.250	3.788	3.705	10.72
AS3650-6-70	4.375	3.913	3.830	11.02
AS3650-6-72	4.500	4.038	3.955	11.30
AS3650-6-74	4.625	4.163	4.080	11.59
AS3650-6-76	4.750	4.288	4.205	11.88
AS3650-6-78	4.875	4.413	4.330	12.16
AS3650-6-80	5.000	4.538	4.455	12.44
AS3650-6-82	5.125	4.663	4.580	12.73
AS3650-6-84	5.250	4.788	4.705	13.02
AS3650-6-86	5.375	4.913	4.830	13.31



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TABLE 2 – DIMENSIONS (CONTINUED)

PART NUMBER	L ± .010	M MAX	N MIN	APPROX MASS LB/100
AS3650-6-88	5.500	5.038	4.955	13.59
AS3650-6-90	5.625	5.163	5.080	13.87
AS3650-6-92	5.750	5.288	5.205	14.15
AS3650-6-94	5.875	5.413	5.330	14.43
AS3650-6-96	6.000	5.538	5.455	14.71
AS3650-7-14	.875	.240	.140	4.96
AS3650-7-15	.938	.303	.203	5.15
AS3650-7-16	1.000	.365	.265	5.35
AS3650-7-17	1.062	.427	.327	5.54
AS3650-7-18	1.125	.490	.390	5.74
AS3650-7-19	1.188	.553	.453	5.93
AS3650-7-20	1.250	.615	.515	6.13
AS3650-7-21	1.312	.677	.577	6.32
AS3650-7-22	1.375	.740	.640	6.52
AS3650-7-23	1.438	.803	.703	6.72
AS3650-7-24	1.500	.865	.765	6.91
AS3650-7-25	1.562	.927	.827	7.10
AS3650-7-26	1.625	.990	.890	7.30
AS3650-7-27	1.688	1.053	.953	7.50
AS3650-7-28	1.750	1.115	1.015	7.69
AS3650-7-29	1.812	1.177	1.077	7.88
AS3650-7-30	1.875	1.240	1.140	8.08
AS3650-7-31	1.938	1.303	1.203	8.28
AS3650-7-32	2.000	1.365	1.265	8.47
AS3650-7-34	2.125	1.490	1.390	8.86
AS3650-7-36	2.250	1.615	1.515	9.25
AS3650-7-38	2.375	1.740	1.640	9.64
AS3650-7-40	2.500	1.865	1.765	10.03
AS3650-7-42	2.625	1.990	1.890	10.42
AS3650-7-44	2.750	2.115	2.015	10.82
AS3650-7-46	2.875	2.240	2.140	11.21
AS3650-7-48	3.000	2.365	2.265	11.60
AS3650-7-50	3.125	2.490	2.390	11.60
AS3650-7-52	3.250	2.615	2.515	11.60
AS3650-7-54	3.375	2.740	2.640	11.60
AS3650-7-56	3.500	2.865	2.765	11.60
AS3650-7-58	3.625	2.990	2.890	13.55
AS3650-7-60	3.750	3.115	3.015	13.94
AS3650-7-62	3.875	3.240	3.140	14.33
AS3650-7-64	4.000	3.365	3.265	14.72



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