

REV.
E

AS3563™

RATIONALE

RESTRUCTURE NOTES 1, 2 AND 3 FOR CLARITY AND ADD EXCEPTION FOR RECRYSTALLIZED MICROSTRUCTURE, ADD NEW NOTE FOR DISPOSITION OF EXISTING INVENTORY, GENERAL EDITORIAL AND FORMAT CHANGES.

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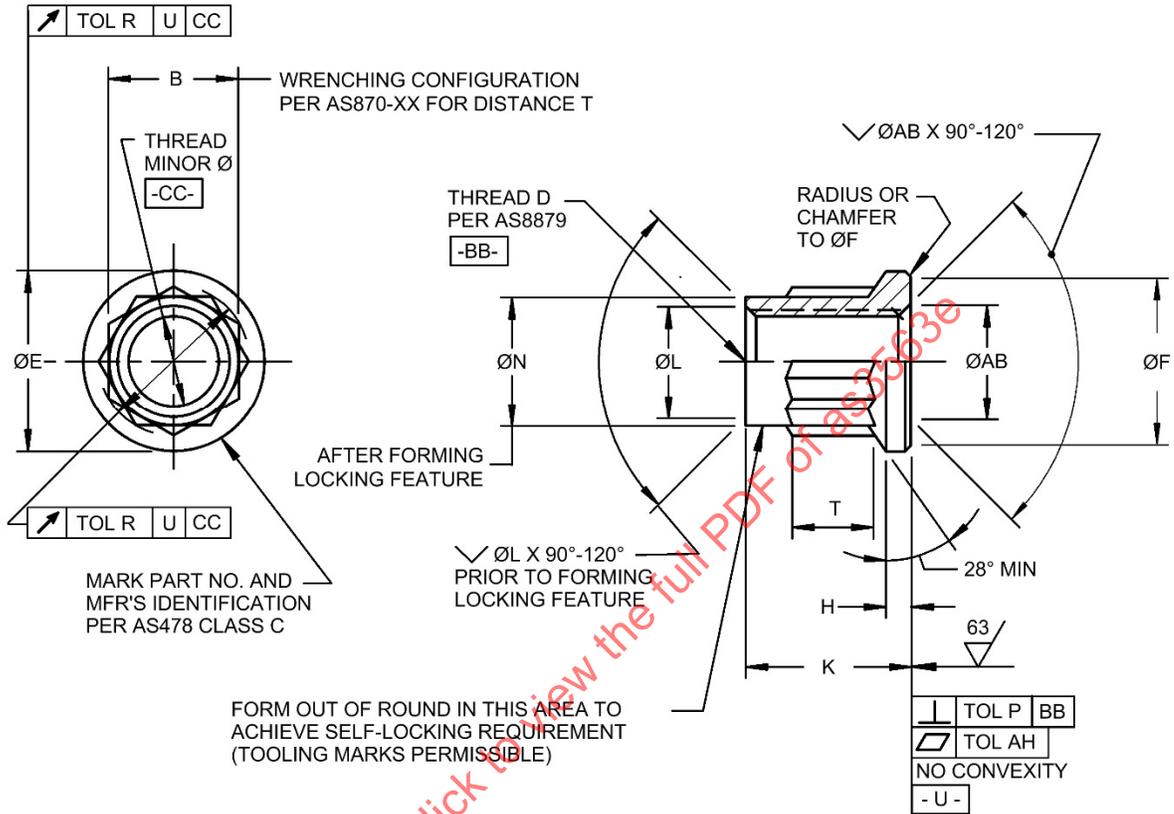
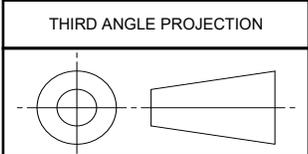


FIGURE 1 - NUT

For more information on this standard, visit
<https://www.sae.org/standards/content/AS3563E/>



CUSTODIAN: E-25

PROCUREMENT SPECIFICATION: AS4393 /2/



AEROSPACE STANDARD

NUT, SELF-LOCKING, DOUBLE HEXAGON, SOLID FILM LUBRICATED, EXTENDED WRENCH PAD, 160 KSI, 800 °F, UNS S66286

AS3563™
SHEET 1 OF 3

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TABLE 1A - PART NUMBERS AND DIMENSIONS D, B, AS870 DASH NO., E, F, AB, H, AND K

PART NUMBER	THREAD D	B NOM	AS870 DASH NO.	ØE MAX	ØF MIN	ØAB	H MIN	K MAX
AS3563-09	.1900-32UNJF-3B	.2500	08	.340	.325	.190-.220	.045	.305
AS3563-10	.2500-28UNJF-3B	.3125	10	.450	.410	.250-.280	.045	.400
AS3563-11	.3125-24UNJF-3B	.3750	12	.525	.495	.312-.342	.060	.455
AS3563-12	.3750-24UNJF-3B	.4375	14	.600	.560	.375-.405	.070	.520
AS3563-13	.4375-20UNJF-3B	.5625	18	.690	.650	.438-.468	.080	.595
AS3563-14	.5000-20UNJF-3B	.6250	20	.780	.740	.500-.532	.100	.680
AS3563-15	.5625-18UNJF-3B	.6875	22	.880	.840	.562-.597	.110	.758
AS3563-16	.6250-18UNJF-3B	.7812	25	.970	.925	.625-.660	.120	.850
AS3563-17	.7500-16UNJF-3B	.9375	30	1.230	1.180	.750-.785	.130	1.032

TABLE 1B - DIMENSIONS L, N, T, P, R, AH, AND APPROX MASS

PART NUMBER	ØL	ØN MAX	T MIN	P	R	AH	APPROX MASS LB/100
AS3563-09	.190-.210	.262	.082	.004	.006	.0014	.28
AS3563-10	.250-.270	.326	.130	.005	.007	.0014	.51
AS3563-11	.312-.332	.392	.170	.005	.008	.0016	.83
AS3563-12	.375-.395	.458	.210	.005	.009	.0016	1.34
AS3563-13	.438-.458	.588	.230	.005	.010	.0020	2.74
AS3563-14	.500-.520	.654	.260	.006	.012	.0020	3.34
AS3563-15	.562-.582	.720	.320	.006	.014	.0020	4.92
AS3563-16	.625-.645	.817	.370	.007	.015	.0020	7.12
AS3563-17	.750-.770	.980	.500	.007	.016	.0020	13.01

NOTES:

1. MATERIAL: CORROSION AND HEAT RESISTANT STEEL PER AMS5731 OR AMS5734 (COMPOSITION SIMILAR TO UNS S66286).
- 2/ PROCUREMENT SPECIFICATION: AS4393 EXCEPT AS FOLLOWS:
 - a. HEAT TREATMENT: AFTER FORMING, NUTS SHALL BE HEAT TREATED PER AMS2759/3 TO MEET THE HARDNESS SPECIFIED IN NOTE 2g.
 - b. COATING: SOLID FILM LUBRICANT PER AS1701, TYPE VI, IN LIEU OF SILVER PLATE PER AMS2411.
 - c. PRETREATMENT: PRIOR TO APPLYING THE SOLID FILM LUBRICANT, NUTS MAY BE PLATED WITH COPPER (AMS2418) OR NICKEL (AMS2403) OR BOTH TO .00025 MAXIMUM THICKNESS.
 - d. DIMENSIONS APPLY AFTER PRETREATMENT PLATING AND BEFORE COATING WITH SOLID FILM LUBRICANT.
 - e. BAKE AT 800 °F ± 15 °F IN LIEU OF 1200 °F FOR NUTS TESTED AFTER BAKE.
 - f. COMPLETELY RECRYSTALLIZED MICROSTRUCTURE IS NOT REQUIRED.
 - g. HARDNESS: 32-42 HRC.
3. BREAK SHARP EDGES .003 TO .015, UNLESS OTHERWISE SPECIFIED.
4. FLUORESCENT PENETRANT INSPECTION PER ASTM E1417/E1417M, TYPE 1, SENSITIVITY LEVEL 2 MIN, PRIOR TO PRETREATMENT OR COATING. ACCEPTANCE CRITERIA PER AS3071.

	AEROSPACE STANDARD	AS3563™ SHEET 2 OF 3	REV. E
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