

REV.
A

AS5809™

RATIONALE

REVISED NOTE 14 FOR DEFINITION CORRECTION OF DIMENSION "B1" (FITTING BODY LENGTH). ADDED SUFFIX CODE "B" FOR FITTING ASSEMBLIES WITH BLUE ANODIZED RINGS AND NOTE 16 AS AN OPTION FOR FUTURE REPLACEMENT OF "NO CODE" BLUE COATING OR PAINT. UPDATED FIGURE AND WEIGHTS. REVISED NOTES 1, 3, 7, AND 15. ADDED NOTES 13, 17, AND AS6449 AS A NEW LUBRICANT TYPE.

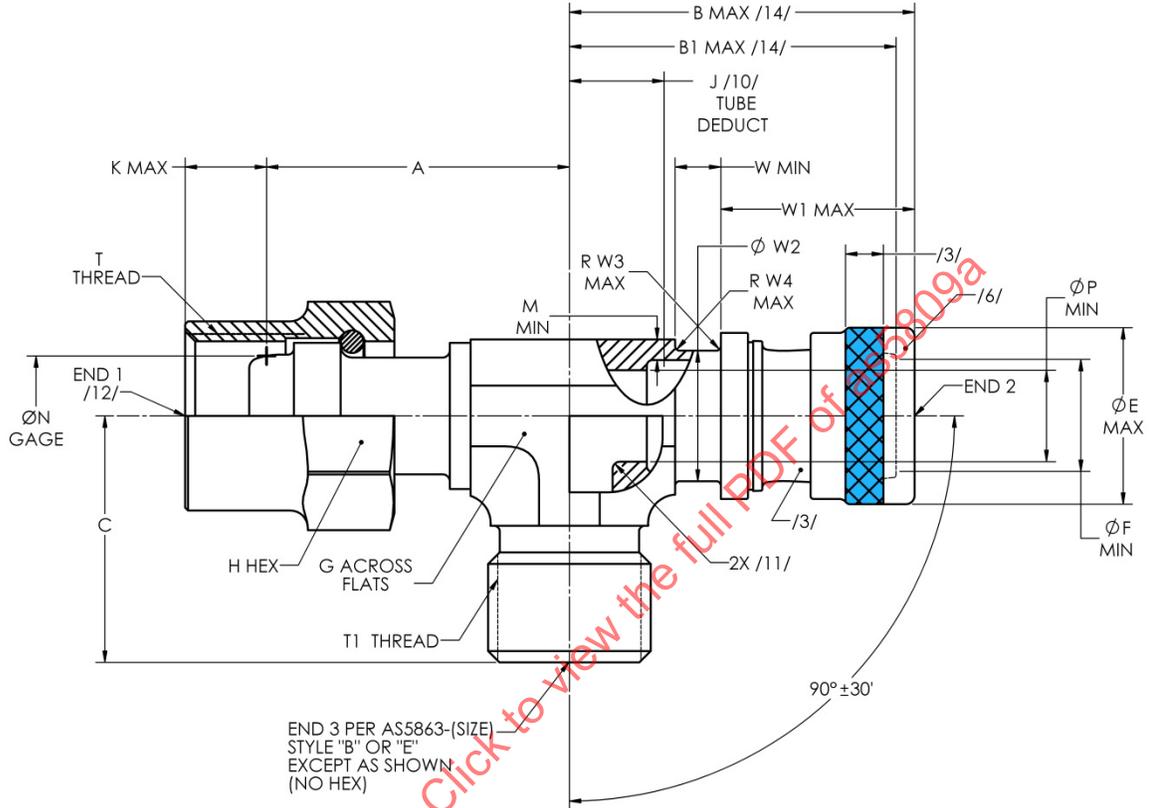
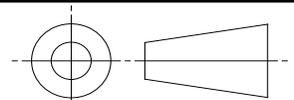


FIGURE 1- TEE, FEMALE FLARELESS AND AXIALLY SWAGED ON THE RUN, MALE FLARELESS ON BRANCH

(SEE TABLES 1A, 1B, AND 1C FOR DIMENSIONS AND WEIGHTS)

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS5809A>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS5958 /4/



AEROSPACE STANDARD

(R) FITTING ASSEMBLY, TEE, FEMALE FLARELESS AND AXIALLY SWAGED ON THE RUN, MALE FLARELESS ON BRANCH, HYDRAULIC, 3000 PSI

AS5809™
SHEET 1 OF 4

REV.
A

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user." SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

TABLE 1A - DIMENSIONS A THROUGH H

BASIC NO. AS5809 /15/ SIZE CODE	NOMINAL	NOMINAL	NOMINAL	A ±.015	B MAX.	B1 MAX.	C ±.015	E MAX.	F MIN.	G	(H)
	TUBE SIZE END 1	TUBE SIZE END 2	TUBE SIZE END 3								
060606	.3750	.3750	.3750	1.040	1.215	1.099	.846	.609	.378	.477-.509	.688
080804	.5000	.5000	.2500	1.229	1.516	1.370	.923	.783	.504	.615-.647	.875
080808	.5000	.5000	.5000	1.229	1.516	1.370	1.032	.783	.504	.615-.647	.875

TABLE 1B - DIMENSIONS J THROUGH T

BASIC NO. AS5809 /15/ SIZE CODE	NOMINAL	NOMINAL	NOMINAL	J /10/ TUBE DEDUCT	K MAX.	M MIN.	N GAGE	P MIN.	T THREAD PER AS8879
	TUBE SIZE END 1	TUBE SIZE END 2	TUBE SIZE END 3						
060606	.3750	.3750	.3750	.416 ±.150	.337	.045	.4160	.302	.5625-18 UNJF-3B
080804	.5000	.5000	.2500	.517 ±.175	.380	.052	.5600	.401	.7500-16 UNJF-3B
080808	.5000	.5000	.5000	.517 ±.175	.380	.052	.5600	.401	.7500-16 UNJF-3B

TABLE 1C - DIMENSIONS T1 THROUGH W4 AND WEIGHTS

BASIC NO. AS5809 /15/ SIZE CODE	NOMINAL	NOMINAL	NOMINAL	T1 THREAD PER AS8879	W MIN.	W1 MAX.	W2 ±.0015	W3 MAX.	W4 MAX.	WEIGHT LB/EA APPROX. REF.
	TUBE SIZE END 1	TUBE SIZE END 2	TUBE SIZE END 3							
060606	.3750	.3750	.3750	.5625-18 UNJF-3A	.153	.675	.4475	.033	.065	.070
080804	.5000	.5000	.2500	.4375-20 UNJF-3A	.165	.871	.5945	.033	.129	.130
080808	.5000	.5000	.5000	.7500-16 UNJF-3A	.165	.871	.5945	.033	.129	.125

NOTES:

1/ MATERIALS:

CODE LETTER "T"

RING - AMS4965 TITANIUM ALLOY, 6.0AI - 4.0V SOLUTION HEAT TREATED AND AGED OR AMS4928 TITANIUM ALLOY 6.0AI - 4.0V ANNEALED WITH HIGH STRENGTH CARBON FIBER/EPOXY RESIN COMPOSITE REINFORCEMENT.

BODY - AMS4928 TITANIUM ALLOY, 6.0AI - 4.0V ANNEALED.

NUT - AMS4965 TITANIUM ALLOY, 6.0AI - 4.0V SOLUTION HEAT TREATED AND AGED OR AMS4928 TITANIUM ALLOY, 6.0AI - 4.0V ANNEALED.

WIRE - AMS5637 STEEL, CORROSION RESISTANT, BARS AND WIRE, 18Cr - 9.0Ni (SAE 30302) SOLUTION HEAT TREATED, COLD DRAWN AND STRESS RELIEVED, 125 KSI TENSILE STRENGTH.

- AS5685 STEEL, CORROSION RESISTANT, SAFETY WIRE, 18Cr - 11.5Ni (UNS S30500) WIRE, SOLUTION HEAT TREATED, COLD FINISHED.

- ASTM A580 STEEL, CORROSION RESISTANT, WIRE, TYPE 302 OR 305 CONDITION A, COLD FINISHED.

2. FINISH:

TITANIUM - NONE REQUIRED.

CRES - PASSIVATION PER AMS2700, TYPE 6 OR 7.

	AEROSPACE STANDARD		AS5809™ SHEET 2 OF 4	REV. A
	(R) FITTING ASSEMBLY, TEE, FEMALE FLARELESS AND AXIALLY SWAGED ON THE RUN, MALE FLARELESS ON BRANCH, HYDRAULIC, 3000 PSI			

/3/ COATINGS/LUBRICANTS /16/:

a. NO SUFFIX CODE LETTER

- (1) RING - THE OUTER SURFACE SHALL HAVE A .125 INCH MINIMUM WIDTH BLUE COLORED RING OR SHALL BE COMPLETELY COLORED BLUE TO MATCH THE SWAGE TOOL COLOR CODE SPECIFIED IN THE AS5959 INSTALLATION PROCEDURE. BLUE PTFE COATING OR PAINT SHALL BE RESISTANT TO AS1241 FLUID WHEN USED. MARKING METHODS SHALL BE IN ACCORDANCE WITH AS5958.
- (2) BODY - LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II, OR PER AS6449 TYPE III OR IV, PTFE OR PETROLEUM-BASED LUBRICANT SHALL BE APPLIED TO PORTIONS OF THE ID AND OD. THE PETROLEUM-BASED LUBRICANT AND/OR AS5272 LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.
- (3) NUT - LUBRICATE ID THREADS AND WIRE GROOVE LOAD BEARING SHOULDER OR MATING WIRE GROOVE LOAD BEARING SHOULDER WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II, OR PER AS6449 TYPE III OR IV.
- (4) WIRE - LUBRICATE THE WIRE WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, OR PER AS6449 TYPE III OR IV.

b. SUFFIX CODE LETTER "B"

- (1) RING - THE OUTER SURFACE SHALL HAVE A .125 INCH MINIMUM WIDTH BLUE ANODIZED RING OR SHALL BE COMPLETELY ANODIZED BLUE TO MATCH THE SWAGE TOOL COLOR CODE SPECIFIED IN THE AS5959 INSTALLATION PROCEDURE. MARKING METHODS SHALL BE IN ACCORDANCE WITH AS5958.
- (2) BODY - LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II, OR PER AS6449 TYPE III OR IV, PTFE OR PETROLEUM-BASED LUBRICANT SHALL BE APPLIED TO PORTIONS OF THE ID AND OD. THE PETROLEUM-BASED LUBRICANT AND/OR AS5272 LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.
- (3) NUT - LUBRICATE ID THREADS AND WIRE GROOVE LOAD BEARING SHOULDER OR MATING WIRE GROOVE LOAD BEARING SHOULDER WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II, OR PER AS6449 TYPE III OR IV.
- (4) WIRE - LUBRICATE THE WIRE WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II, OR PER AS6449 TYPE III OR IV.

/4/ PROCUREMENT SPECIFICATION: AS5958 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED AND ASSEMBLED BY AN ACCREDITED MANUFACTURER OR ASSEMBLED BY AN ACCREDITED DISTRIBUTOR LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS5958 FOR THIS STANDARD. See www.eAuditNet.com FOR THE CURRENT QPL ON-LINE.

5. DIMENSIONS AND TOLERANCES NOT DEFINED ON THIS STANDARD SHALL BE SPECIFIED AND CONTROLLED BY THE MANUFACTURER. THE MANUFACTURER IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THE PROCUREMENT SPECIFICATION.

/6/ IDENTIFICATION SHALL BE IN ACCORDANCE WITH AS5958 AND SHALL BE LOCATED ON THE RING IN THE AREA SHOWN.

7. FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS5959. THE AFTER SWAGE ACCEPTABILITY LIMIT DIMENSION "Z" FOR EACH PORT SIZE IS DEFINED IN AS5959.

8. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES SHALL BE 125 MICROINCHES Ra AND THE FORGED SURFACES SHALL BE 250 MICROINCHES Ra.

9. DIMENSIONS AND TOLERANCES PER ASME Y14.5M -1994.

- a. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
- b. DIMENSIONAL TOLERANCES SHALL BE ±.005 INCH UNLESS OTHERWISE SPECIFIED.
- c. ANGULAR TOLERANCES SHALL BE ±.50° UNLESS OTHERWISE SPECIFIED.
- d. BREAK ALL EDGES .003 TO .010 INCH UNLESS OTHERWISE SPECIFIED.

	AEROSPACE STANDARD	AS5809™ SHEET 3 OF 4	REV. A
	(R) FITTING ASSEMBLY, TEE, FEMALE FLARELESS AND AXIALLY SWAGED ON THE RUN, MALE FLARELESS ON BRANCH, HYDRAULIC, 3000 PSI		