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AS5809

FEDERAL SUPPLY CLASS
4730

RATIONALE

AS5809 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

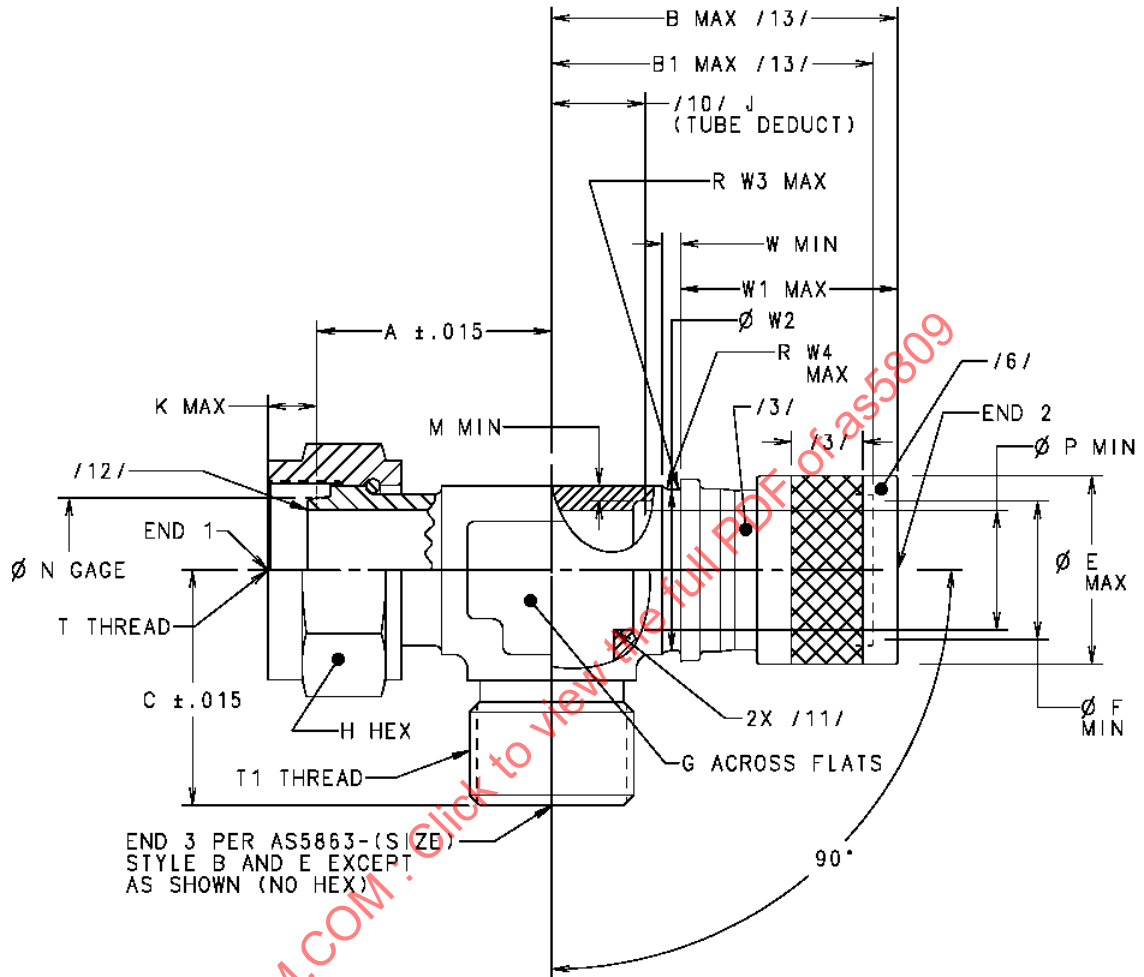
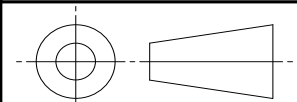


FIGURE 1 - TEE, FEMALE FLARELESS, MALE FLARELESS, SWAGE

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on this Technical Report, please visit
<http://www.sae.org/technical/standards/AS5809>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS5958 /4/



AEROSPACE STANDARD

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

AS5809
SHEET 1 OF 4

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ISSUED 2008-06 REAFFIRMED 2015-04

TABLE 1A - DIMENSIONS A THROUGH H

BASIC NO. AS5809 /14/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	A ±.015	B MAX.	B1 MAX.	C ±.015	E MAX.	F MIN.	G	(H)
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 /14/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	J /10/ TUBE DEDUCT	K MAX.	M MIN.	N GAGE	P MIN.	T THREAD PER AS8879
060606	.3750	.3750	.3750	.416 ±.150	.337	.045	.4160	.302	.5625-18UNJF-3B
080804	.5000	.5000	.2500	.517 ±.175	.380	.052	.5600	.401	.7500-16UNJF-3B
080808	.5000	.5000	.5000	.517 ±.175	.380	.052	.5600	.401	.7500-16UNJF-3B

TABLE 1C - DIMENSIONS T1 THROUGH W4 AND WEIGHTS

BASIC NO. AS5809 /14/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	T1 THREAD PER AS8879	W MIN.	W1 MAX.	W2 ±.0015	W3 MAX.	W4 MAX.	WEIGHT LB/EA APPROX. REF.
060606	.3750	.3750	.3750	.5625-18UNJF-3A	.153	.675	.4475	.033	.065	.085
080804	.5000	.5000	.2500	.4375-20UNJF-3A	.165	.871	.5945	.033	.129	.145
080808	.5000	.5000	.5000	.7500-16UNJF-3A	.165	.871	.5945	.033	.129	.160

NOTES:

/1/ MATERIALS:

CODE LETTER "T"

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

BODY - AMS4928 TITANIUM ALLOY, 6.0AL 4.0V ANNEALED

NUT - AMS4965 TITANIUM ALLOY, 6.0AL 4.0V SOLUTION TREATED OR AMS4928 TITANIUM ALLOY, 6.0AL 4.0V ANNEALED

WIRE - AMS5637 STEEL, CORROSION RESISTANT, 18CR - 9.0NI (UNS 30302) SOLUTION TREATED AND COLD DRAWN 125 ksi TENSILE STRENGTH

- AMS5685 STEEL, CORROSION RESISTANT, SAFETY WIRE 18CR - 11.5NI, 305 WIRE, SOLUTION TREATED, COLD FINISHED

- ASTM A 580 STEEL, CORROSION RESISTANT, WIRE, 302 OR 305 CONDITION A

2. FINISH:

TITANIUM - NONE REQUIRED

CRES - PASSIVATION PER AMS2700, TYPE 6 OR 7.

	AEROSPACE STANDARD	AS5809 SHEET 2 OF 4
	FITTING ASSEMBLY, TEE, FEMALE FLARELESS AND AXIALLY SWAGED ON THE RUN, MALE FLARELESS ON BRANCH, HYDRAULIC, 3000 PSI	

/3/ COATINGS/LUBRICANTS:

RING - THE OUTER SURFACE SHALL HAVE A .125 in MINIMUM WIDTH BLUE COLORED RING OR COMPLETELY COLORED BLUE TO MATCH THE ASSEMBLY TOOLING COLOR CODE SPECIFIED IN AS5959 ASSEMBLY PROCEDURE. AN AS1241 FLUID RESISTANT PTFE COATING OR PAINT SHALL BE USED. THE SWAGE RING IS COLOR CODED BLUE TO INDICATE THE AXIALLY SWAGE END IS QUALIFIED TO 5080 PSI AND IS INSTALLED WITH THE SAME TOOLING AS THE 5080 PSI RATED FITTING.

BODY - SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, OR PTFE BASED LUBRICANT MAY BE APPLIED TO PORTIONS OF THE ID AND OD. THE AS5272 OR PTFE BASED LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

NUT - LUBRICATE ID THREADS AND WIRE GROOVE LOAD BEARING SHOULDER OR MATING WIRE GROOVE LOAD BEARING SHOULDER WITH SOLID FILM LUBRICANT PER AS5272, TYPE 1 OR TYPE 2.

WIRE - LUBRICATE THE WIRE WITH SOLID FILM LUBRICANT PER AS5272, TYPE I OR TYPE II.

/4/ PRODUCT 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 ASSEMBLING 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 IDENTIFIED ON RING.

7. FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS5959.

8. SURFACE TEXTURE SHALL BE IN ACCORDANCE WITH AMERICAN SOCIETY OF MECHANICAL ENGINEERS, ASME B46.1 AND THE SYMBOLS IN ACCORDANCE WITH ASME Y14.36M. UNLESS OTHERWISE SPECIFIED, THE MAXIMUM MACHINED SURFACES SHALL BE 125 μ in Ra AND THE FORGED SURFACES SHALL BE 250 μ in Ra.

9. DIMENSIONS AND TOLERANCES PER AMERICAN SOCIETY OF MECHANICAL ENGINEERS, ASME Y14.5M -1994.

a. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

b. DIMENSIONAL TOLERANCES SHALL BE $\pm .005$ in UNLESS OTHERWISE SPECIFIED

c. ANGULAR TOLERANCES SHALL BE ± 0.50 DEGREES UNLESS OTHERWISE SPECIFIED

d. BREAK ALL EDGES .003 TO .010 in UNLESS OTHERWISE SPECIFIED

/10/ THIS DIMENSION IS THE ALLOWABLE TUBE END POSITIONING FOR SYSTEM LAYOUT DESIGN.

/11/ .030 MIN RADIUS UNLESS QUALIFICATION OF SPECIAL PROCESS WITH SMALLER RADIUS.

/12/ FITTINGS SHALL MATE WITH AS5863-(SIZE). STANDARD COUPLING NUTS SHALL BE IN DIMENSIONALLY AND FUNCTIONALLY EQUIVALENT TO AS4370TXX AND NO SAFETY WIRE HOLE PROVISIONS.

/13/ DIMENSION B IS THE FITTING LENGTH PRIOR TO SWAGE AND B1 IS AFTER SWAGE.

	AEROSPACE STANDARD	AS5809 SHEET 3 OF 4	
	FITTING ASSEMBLY, TEE, FEMALE FLARELESS AND AXIALLY SWAGED ON THE RUN, MALE FLARELESS ON BRANCH, HYDRAULIC, 3000 PSI		