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SAE AS5969

RATIONALE

ADDED CODE LETTER A OPTION FOR FITTINGS WITHOUT BLUE PTFE COATING OR PAINT ON THE RING. FITTINGS WITH UNCOATED/UNPAINTED RINGS ARE NEEDED TO PREVENT COATING/PAINT DEBRIS IN CONTAMINATION SENSITIVE SYSTEMS. REFORMATTED TABLES. CORRECTED ERRORS IN NOTES.

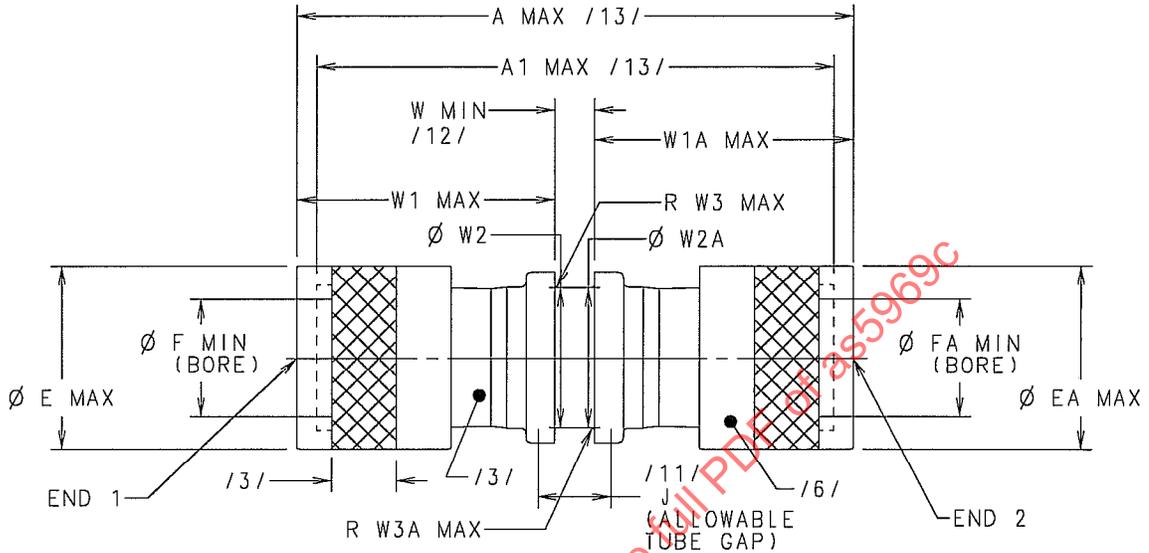
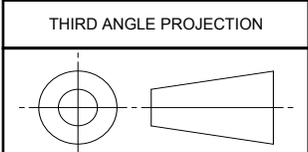


FIGURE 1 - UNION, SWAGE

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CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS5958

SAE Aerospace
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AEROSPACE STANDARD

FITTING ASSEMBLY, UNION,
AXIALLY SWAGED, HYDRAULIC
5080 PSI

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TABLE 1A - DIMENSIONS A THROUGH J

BASIC NO. AS5969 /15/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	A	A1	E	EA	F	FA	J /11/ ALLOWABLE TUBE GAP
0404	.2500	.2500	1.134	.975	.466	.466	.253	.253	.150 ± .150
0604	.3750	.2500	1.621	1.448	.609	.466	.378	.253	.300 ± .300
0606	.3750	.3750	1.568	1.351	.609	.609	.378	.378	.150 ± .150
0806	.5000	.3750	2.032	1.785	.783	.609	.504	.378	.300 ± .300
0808	.5000	.5000	1.942	1.665	.783	.783	.504	.504	.175 ± .175
1008	.6250	.5000	2.582	2.262	.939	.783	.629	.504	.350 ± .350
1010	.6250	.6250	2.555	2.162	.939	.939	.629	.629	.175 ± .175
1210	.7500	.6250	3.003	2.609	1.122	.939	.754	.629	.325 ± .325
1212	.7500	.7500	2.843	2.448	1.122	1.122	.754	.754	.175 ± .175
1612	1.0000	.7500	3.521	3.117	1.495	1.122	1.004	.754	.375 ± .375
1616	1.0000	1.0000	3.426	3.013	1.495	1.495	1.004	1.004	.200 ± .200
2016	1.2500	1.0000	4.079	3.656	1.758	1.495	1.255	1.004	.375 ± .375
2020	1.2500	1.2500	3.992	3.559	1.758	1.758	1.255	1.255	.200 ± .200

TABLE 1B - DIMENSIONS W THROUGH W3 AND WEIGHTS

BASIC NO. AS5969 /15/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	W	W1	W1A	W2 ±.0015	W2A ±.0015	W3	W3A	WEIGHT LB/EA APPROX. REF.
0404	.2500	.2500	.123	.488	.488	.3005	.3005	.018	.018	.012
0604	.3750	.2500	.443	.675	.488	.4475	.3005	.033	.018	.023
0606	.3750	.3750	.173	.675	.675	.4475	.4475	.033	.033	.031
0806	.5000	.3750	.451	.871	.675	.5945	.4475	.033	.033	.050
0808	.5000	.5000	.165	.871	.871	.5945	.5945	.033	.033	.062
1008	.6250	.5000	.506	1.190	.871	.7365	.5945	.021	.033	.099
1010	.6250	.6250	.140	1.190	1.190	.7365	.7365	.021	.021	.103
1210	.7500	.6250	.451	1.327	1.190	.8805	.7365	.024	.021	.140
1212	.7500	.7500	.154	1.327	1.327	.8805	.8805	.024	.024	.165
1612	1.0000	.7500	.547	1.612	1.327	1.1725	.8805	.027	.024	.281
1616	1.0000	1.0000	.167	1.612	1.612	1.1725	1.1725	.027	.027	.359
2016	1.2500	1.0000	.546	1.886	1.612	1.4345	1.1725	.030	.027	.430
2020	1.2500	1.2500	.185	1.886	1.886	1.4345	1.4345	.030	.030	.510

/1/ MATERIALS:

CODE LETTER "T"

RINGS - 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

2. FINISH:

TITANIUM - NONE

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/3/ COATINGS/LUBRICANTS:

a. NO SUFFIX CODE LETTER

- (1) RINGS - THE OUTER SURFACE SHALL HAVE A .125 INCH MINIMUM WIDTH BLUE COLORED RING OR COMPLETELY COLORED BLUE TO INDICATE 5080 PSI MAXIMUM OPERATION PRESSURE. AN AS1241 FLUID RESISTANT PTFE COATING OR PAINT MUST BE USED.
- (2) BODY - SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, PTFE OR PETROLEUM-BASED LUBRICANT MAY BE APPLIED TO PORTIONS OF THE ID AND OD. THE PETROLEUM-BASED LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

b. SUFFIX CODE LETTER A

- (1) RINGS - NO BLUE PTFE COATING OR PAINT. THE WORD "BLUE" SHALL BE MARKED ON THE RING TO INDICATE 5080 PSI MAXIMUM OPERATING PRESSURE. MARKING METHODS SHALL BE IN ACCORDANCE WITH AS5958.
- (2) BODY - SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, PTFE OR PETROLEUM-BASED LUBRICANT MAY BE APPLIED TO PORTIONS OF THE ID AND OD. THE PETROLEUM-BASED LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

/4/ PROCUREMENT SPECIFICATION: AS5958 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LISTING FOR PRI-QPL-AS5958 FOR THIS STANDARD. SEE www.eAuditNet.com FOR 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 EITHER RING IN THE AREA SHOWN.

7. FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS5959.

8. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M; REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED THE MAXIMUM MACHINED SURFACES SHALL BE 125 μ in Ra.

9. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.

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

10. INTERPRETATION OF DRAWING PER ARP4296.

/11/ THIS DIMENSION IS THE ALLOWABLE TUBE END POSITIONING FOR SYSTEM LAYOUT DESIGN.

/12/ FOR JUMP SIZE FITTINGS, A TRANSITION DIAMETER WILL OCCUR IN THIS AREA.

/13/ DIMENSION A IS THE FITTING LENGTH PRIOR TO SWAGE AND A1 IS AFTER SWAGE.

/14/ A CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS, NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.

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