

REV.
A

AS5459

FEDERAL SUPPLY CLASS
4720

RATIONALE

THIS DOCUMENT HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE 5-YEAR REVIEW POLICY.

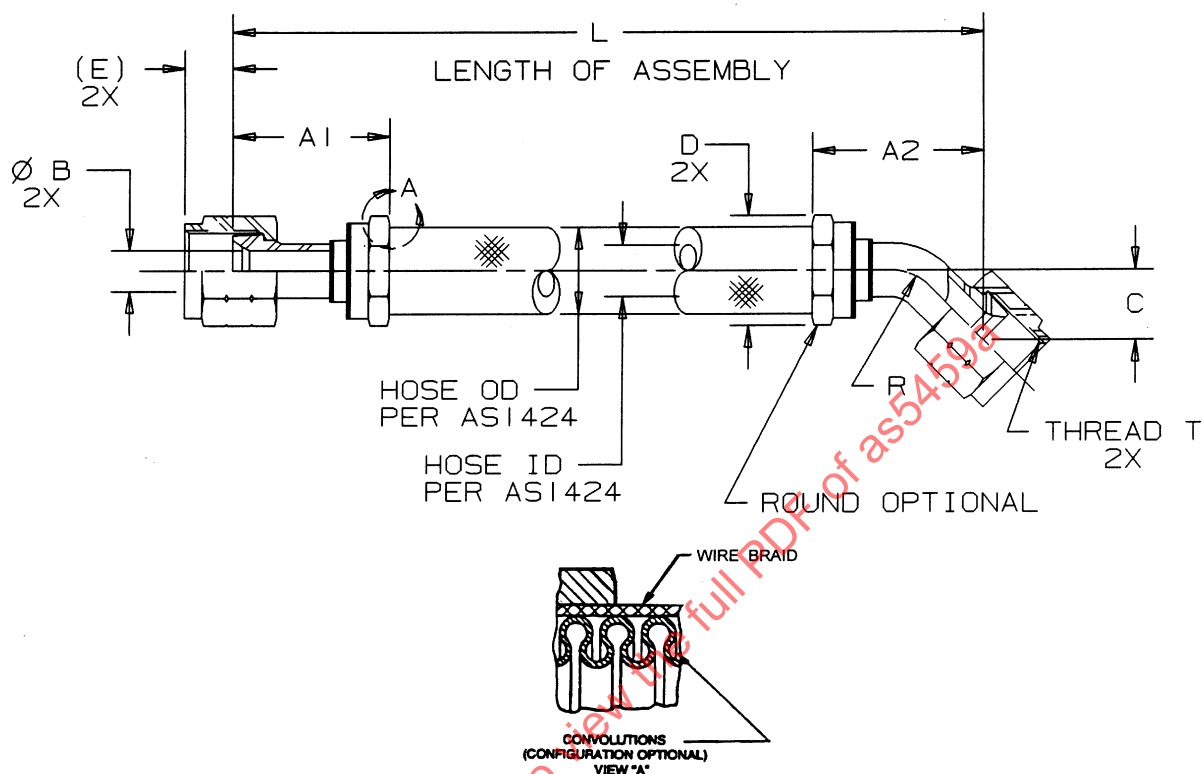
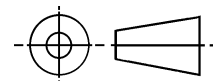


FIGURE 1 - HOSE ASSEMBLY

TABLE 1 - ASSEMBLY DIMENSIONS

HOSE ASSEMBLY SIZE CODE	HOSE SIZE (REF)	A ₁ MAX	A ₂ MAX	B MIN THRU /8/	C MIN	C MAX	D MAX	(E) NOM	R (REF)	THREAD T PER AS8879 (ISO 3161) (REF)
04	.250	1.34	1.34	.141	.32	.38	.900	.372	.250	.4375-20UNJF-3B
05	.312	1.40	1.41	.197	.39	.45	1.100	.375	.312	.5000-20UNJF-3B
06	.375	1.48	1.50	.250	.44	.50	1.200	.375	.375	.5625-18UNJF-3B
08	.500	1.58	1.71	.360	.54	.60	1.300	.438	.500	.7500-16UNJF-3B
10	.625	1.71	1.93	.455	.61	.67	1.500	.515	.625	.8750-14UNJF-3B
12	.750	1.83	2.25	.568	.65	.72	1.740	.562	.750	1.0625-12UNJ-3B
16	1.000	2.02	2.84	.760	.76	.82	2.300	.620	1.000	1.3125-12UNJ-3B
20	1.250	2.17	3.16	.920	.90	.96	2.850	.620	1.250	1.6250-12UNJ-3B

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3D

PROCUREMENT SPECIFICATION: /2/ AS1424

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

HOSE ASSEMBLY, METAL - MEDIUM PRESSURE,
FLARED, WELDED, STRAIGHT TO 45°

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TABLE 2 - ASSEMBLY LENGTH TOLERANCE

HOSE ASSEMBLY LENGTH	LENGTH TOLERANCE
UNDER 10 in	±.062 in
10 TO 36 in EXCLUSIVE	±.125 in
36 TO 50 in EXCLUSIVE	±.250 in
50 in AND OVER	±1%

TABLE 3 - HOSE ASSEMBLY ROOM TEMPERATURE PHYSICAL CHARACTERISTIC /5/

HOSE SIZE CODE	OPERATING PRESSURE PSI NOM	PROOF PRESSURE PSI MIN	BURST PRESSURE PSI MIN
04	2000	3000	8000
05	1800	2700	7200
06	1600	2400	6400
08	1400	2100	5600
10	1200	1800	4800
12	1050	1575	4200
16	800	1200	3200
20	550	825	2200

TABLE 4 - SPHERICAL BALL SIZE
FOR DETERMINING MINIMUM
HOSE ASSEMBLY ID /8/

HOSE SIZE	STRAIGHT FITTING	ELBOW FITTING
04	.127	.120
05	.177	.167
06	.225	.212
08	.324	.306
10	.410	.387
12	.511	.483
16	.684	.646
20	.828	.782

TABLE 5 - WEIGHTS (NOM)

HOSE SIZE	HOSE LB/IN	STANDARD FITTING (LB) STRAIGHT	STANDARD FITTING (LB) 45° ELBOW
04	.016	.05	.05
05	.018	.07	.07
06	.020	.08	.08
08	.028	.13	.13
10	.038	.18	.20
12	.042	.29	.33
16	.058	.44	.55
20	.072	.62	.83

REV. A	NOTES:		
AS5459	/1/ MATERIALS:		
	CLASS "A":	INNER TUBE - CORROSION RESISTANT STEEL TYPE 321 BRAID - CORROSION RESISTANT STEEL TYPE 321 BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347 FITTING COMPONENTS - NICKEL ALLOY TYPE 625 OR 718	
	CLASS "B":	INNER TUBE - NICKEL ALLOY TYPE 625 BRAID - CORROSION RESISTANT STEEL TYPE 321 BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347 FITTING COMPONENTS - NICKEL ALLOY TYPE 625 OR 718	
	CLASS "N":	INNER TUBE - NICKEL ALLOY TYPE 625 BRAID - CORROSION RESISTANT STEEL TYPE 321 BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347 FITTING COMPONENTS - CORROSION RESISTANT STEEL TYPE 321 OR 347	
	CLASS "S":	INNER TUBE - CORROSION RESISTANT STEEL TYPE 321 BRAID - CORROSION RESISTANT STEEL TYPE 321 BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347 FITTING COMPONENTS - CORROSION RESISTANT STEEL TYPE 321 OR 347	
	/2/	THIS HOSE ASSEMBLY SHALL BE QUALIFIED IN ACCORDANCE WITH PROCUREMENT SPECIFICATION AS1424. SEE NOTE /13/. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS. CHANGE-OVER FROM USER-QPL TO PRI-QPL SHALL BE PERFORMED IN ACCORDANCE WITH AS1424 AND COMPLETED WITHIN SIX MONTHS FROM THE DATE OF ISSUE OF PRI QPL-AS1424. USERS OF THIS STANDARD SHALL PROCURE THIS PRODUCT FROM ACCREDITED MANUFACTURER(S), OR THEIR ACCREDITED DISTRIBUTOR(S), AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST QPL-AS1424 FOR THIS STANDARD.	
	3.	CONSTRUCTION AND PERFORMANCE PER AS1424. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.	
	4.	THESE ASSEMBLIES ARE INTENDED FOR USE IN LOW AND MEDIUM PRESSURE PNEUMATIC SYSTEMS UP TO 850 °F WITH SHORT EXCURSIONS TO 1200 °F. MAXIMUM RATED OPERATING PRESSURE IS DEPENDENT ON AMBIENT OPERATING TEMPERATURE AND CAN BE DETERMINED FROM AS1424.	
	/5/	SEE AS1424 FOR PRESSURES AT ELEVATED TEMPERATURE.	
	6.	MARKING SHALL BE PER AS1424 ON A STAINLESS STEEL BAND NOT OVER 1.0 in WIDE OR ON THE END FITTINGS. THE CHARACTERS SHALL BE A MINIMUM OF .060 HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOTION AND CHAFING. IT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND.	
	/7/	LENGTH "L" IS A FOUR DIGIT NUMBER OF WHICH THE FIRST THREE DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE FOURTH DIGIT, IN FRACTION OF AN INCH IN EIGHTHS. SEE TABLE 2 FOR ASSEMBLY LENGTH TOLERANCE.	
	/8/	A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING ID. HOWEVER, THE APPLICABLE, OR LARGER, BALL DIAMETER LISTED IN TABLE 4 MUST BE CAPABLE OF PASSING THROUGH THE ASSEMBLY.	
	9.	DIMENSIONS AND TOLERANCING: ASME Y14.5M-1994.	
	10.	THIS PART STANDARD TAKES PRECEDENCE IN CASE OF CONFLICT.	
 An SAE International Group		AEROSPACE STANDARD	
		HOSE ASSEMBLY, METAL - MEDIUM PRESSURE, FLARED, WELDED, STRAIGHT TO 45°	
		AS5459 SHEET 3 OF 4	REV. A