

E-14-16

AS118B-84

20 June 1986

USE INSTEAD OF

MS27372

ACCEPTANCE NOTICE

This non-Government document has adopted on 20 June 1986 and is approved for use by the DoD. The indicated industry group has furnished the clearance required by existing regulations. Copies of the document are stocked by DoD Single Stock Point, US Naval Publications and Forms Center, Philadelphia, PA 19120, for issue to DoD activities only. Contractors and industry groups must obtain copies from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

Title of Document: Hose Assembly, Nonmetallic - 3000 PSI, TFE, Flareless, 45° to 45°, Lightweight

Date of Specific Issue Adopted: March 1984

Releasing Industry Group: Society of Automotives Engineers, Inc.

NOTICE: The procurement document for this component is AS1339B.

NOTICE: When reaffirmation, amendment, revision, or cancellation of this standard is initially proposed, the industry group responsible for this standard shall inform the military coordinating activity of the proposed change and request their participation.

Custodians:

Army - ME

Navy - AS

Air Force - 11

Military Coordinating Activity:

Air Force - 11

(Project 4720-0667)

Review Activities:

Army - AV, MI

Air Force - 99

DLA - CS

FSC 4720

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

THIS DOCUMENT CONTAINS 1 PAGES.

Distributed under license from the IHS Archive

FED. SUP. CL.
4720

AS118

SAE Technical 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 reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

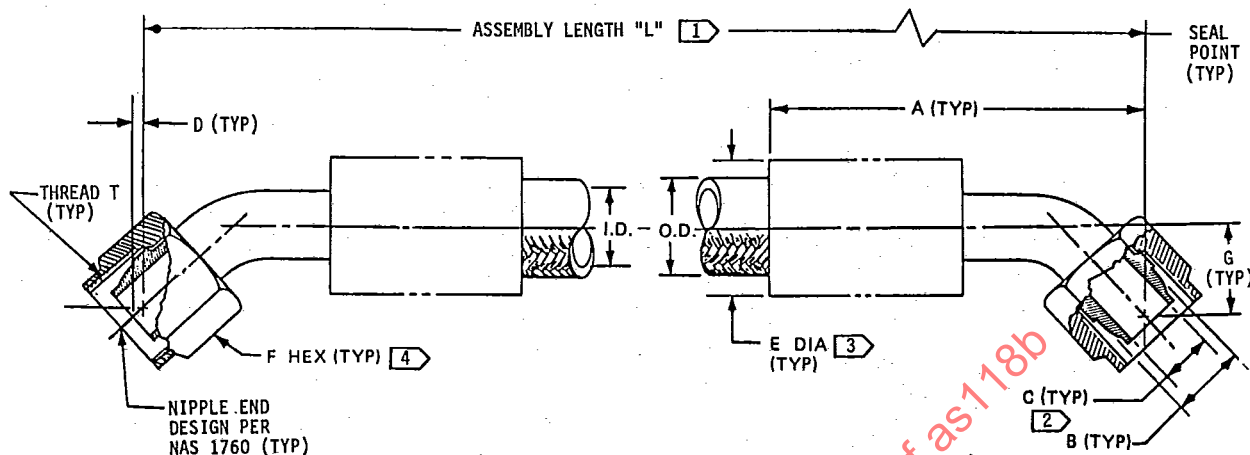


FIGURE 1

DIMENSIONS IN INCHES

TABLE I

HOSE ASSEMBLY NO. AND SIZE CODE	SIZE REF	THREAD T PER MIL-S-8879 REF	I.D. MIN	A MAX	B SEAL DIA BASIC	C (2) DRILL DIA MIN	D REF	E (3) DIA MAX WITHOUT SLEEVING	F HEX REF	G		BALL SIZE MIN THRU DIA (2)	
										MIN	MAX	MS19059 DASH NO.	DIA IN.
AS118E	1/4	.4375-20 UNJF-3B	.212	2.12	.2930	.135	.11	.69	.56	.31	.50	4807	.109
AS118G	3/8	.5625-18 UNJF-3B	.298	2.44	.4120	.240	.12	.80	.69	.44	.62	4812	.188
AS118H	1/2	.7500-16 UNJF-3B	.391	2.75	.5600	.340	.13	.97	.88	.50	.75	4816	.313
AS118J	5/8	.8750-14 UNJF-3B	.485	3.25	.6730	.410	.14	1.11	1.00	.56	.81	4818	.375
AS118K	3/4	1.0625-12 UNJ -3B	.602	3.75	.8100	.510	.16	1.38	1.25	.62	.88	4821	.469
AS118M	1	1.3125-12 UNJ -3B	.852	4.50	1.0620	.760	.21	1.66	1.50	.81	1.09	4829	.719

SHEET COMPLETELY REVISED

1	B	2	B	3	A	4	---
---	---	---	---	---	---	---	-----

LIST OF ACTIVE SHEETS

PREPARED BY SAE SUBCOMMITTEE G-3D, AEROSPACE HOSE, OF SAE COMMITTEE G-3, AEROSPACE FITTINGS, HOSE, & TUBING ASSEMBLIES

SAE The Engineering
Resource For
Advancing Mobility.

400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE STANDARDHOSE ASSEMBLY, NONMETALLIC, 3000 PSI, TFE,
FLARELESS, 45° TO 45°, LIGHTWEIGHT**AS118**
SH 1 OF 4

AS118

TABLE II

SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT OF	TOLERANCE	HOSE OR SLEEVE OUTSIDE DIAMETER [5]					
				HOSE SIZE					
				1/4	3/8	1/2	5/8	3/4	1
-	(--) INDICATES HOSE ONLY, NO SLEEVE (AS 1624)	400	MAX MIN	.390 .360	.490 .455	.615 .585	.730 .690	.990 .950	1.270 1.230
A	ABRASION SLEEVE TUBULAR (TFE-AS1291-CODE B) [6]	400	MAX MIN	.500 .440	.600 .540	.730 .670	.840 .780	1.110 1.050	1.400 1.340
B	ABRASION SLEEVE COIL (NYLON AS1294) [7]	275	MAX MIN	.450 .390	.550 .490	.695 .635	.810 .750	1.080 1.020	1.360 1.300
C	FIRE SLEEVE (AS1072 SIL-FG) (15 MIN) [8] [9] [13]	400	MAX MIN	.625 .500	.750 .625	.875 .750	1.000 .875	1.250 1.125	1.500 1.375
D	ABRASION SLEEVE INTEGRAL SILICONE COMPOSITE [10] [14]	350	MAX MIN	.500 .460	.600 .560	.700 .660	.830 .790	1.120 1.070	1.400 1.350
E	ABRASION SLEEVE SHRINK-ON (FEP) [11]	350	MAX MIN	.424 .374	.540 .480	.665 .615	.790 .730	1.070 1.010	1.350 1.290
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS 1073 - CODE B) [11]	275	MAX MIN	.450 .400	.560 .505	.695 .645	.810 .750	1.080 1.020	1.360 1.300
G	FIRE SLEEVE (AS1072 SIL-FG) (5 MIN) [8] [9] [12]	400	MAX MIN	.625 .500	.750 .625	.875 .750	1.000 .875	1.250 1.125	1.500 1.375
H	FIRE SLEEVE INTEGRAL SILICONE (15 MIN) (AS 1722) [13]	400	MAX MIN	.660 .600	.745 .685	.895 .835	1.005 .945	1.220 1.160	1.515 1.455
J	FIRE SLEEVE INTEGRAL SILICONE (5 MIN) [12]	400	MAX MIN	.660 .600	.745 .685	.895 .835	1.005 .945	1.220 1.160	1.515 1.455
K	INTEGRAL ABRASION SLEEVE (BRAIDED) POLYESTER [10]	300	MAX MIN	.490 .444	.570 .535	.695 .650	.800 .760	1.070 1.030	1.350 1.310
L	ABRASION SLEEVE COIL (PTFE-AS1293) [7]	400	MAX MIN	.500 .440	.600 .540	.730 .670	.862 .802	1.110 1.050	1.400 1.340

TABLE III

HOSE ASSEMBLY LENGTH	AVAILABLE INCREMENTS	TOLERANCE
UNDER 18 INCHES	(NOT LESS THAN) .125 INCH	(PLUS OR MINUS) .125 INCH
18 TO 36 INCHES	(NOT LESS THAN) .250 INCH	(PLUS OR MINUS) .250 INCH
36 TO 50 INCHES	(NOT LESS THAN) .500 INCH	(PLUS OR MINUS) .500 INCH
OVER 50 INCHES	(NOT LESS THAN) 1.000 INCH	(PLUS OR MINUS) 1 PERCENT

TABLE IV

HOSE OR SLEEVE CODE	HOSE OR TYPE SLEEVE	UNITS	MAXIMUM WEIGHT					
			HOSE SIZE					
			1/4	3/8	1/2	5/8	3/4	1
-	HOSE ONLY	LBS/IN	.009	.015	.020	.027	.055	.085
A	ABRASION SLEEVE (TFE-AS1291-B)	LBS/IN	.003	.004	.004	.005	.007	.009
B	ABRASION SLEEVE (NYLON AS1294)	LBS/IN	.001	.002	.003	.003	.004	.005
C	FIRE SLEEVE (15 MIN) AS1072	LBS/IN	.007	.009	.011	.012	.017	.021
D	ABRASION SLEEVE INTEGRAL WITH HOSE	LBS/IN	.012	.016	.024	.034	.067	.110
E	ABRASION SLEEVE (FEP)	LBS/IN	.002	.003	.003	.005	.006	.007
F	ABRASION SLEEVE (AS1073D)	LBS/IN	.002	.003	.003	.004	.005	.006
G	FIRE SLEEVE (5 MIN) AS1072	LBS/IN	.007	.009	.011	.012	.017	.021
H	FIRE SLEEVE INTEGRAL (15 MIN) WITH HOSE	LBS/IN	.019	.027	.035	.047	.099	.117
J	FIRE SLEEVE INTEGRAL (5 MIN) WITH HOSE	LBS/IN	.019	.027	.035	.047	.099	.117
K	ABRASION SLEEVE POLYESTER WITH HOSE	LBS/IN	.012	.016	.022	.030	.060	.090
L	ABRASION SLEEVE (PTFE-AS1293)	LBS/IN	.003	.004	.005	.005	.006	.007
NOHE	FIRE SLEEVE CLAMP	LBS/EA	.020	.020	.025	.026	.026	.033
NOHE	FITTING END (HOSE SIZE - 45°)	LBS/EA	.078	.126	.218	.327	.597	.860

SHEET COMPLETELY REVISED

PREPARED BY SAE SUBCOMMITTEE G-3D, AEROSPACE HOSE, OF SAE COMMITTEE G-3, AEROSPACE FITTINGS, HOSE, & TUBING ASSEMBLIES

AEROSPACE STANDARD

HOSE ASSEMBLY, NONMETALLIC, 3000 PSI, TFE, FLARELESS, 45° TO 45°, LIGHTWEIGHT

AS118

SH 2

Issued AUGUST 1976 Revised (A) OCTOBER 1979 (B) MARCH 1984

AS118

CONSTRUCTION AND PERFORMANCE: AS 1339. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.

OPERATING CHARACTERISTICS: SEE AS 1339.

MATERIALS: HOSE AND FITTINGS - PER AS 1339.
SLEEVES - SEE APPLICABLE STANDARD, TABLE II

MARKING: MARKING SHALL BE PER AS 1339 ON A STAINLESS STEEL BAND NOT OVER 1.0 INCH WIDE, OR ON THE COLLAR. THE CHARACTERS SHALL BE A MINIMUM OF 1/16 INCH HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOVEMENT AND RESULTANT CHAFING. IT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND. HOSE ASSEMBLY DATE AND "PT" SYMBOL SHALL BE ELECTROETCHED ON THE BAND OR ON AN END FITTING OR A FIRE-SLEEVE CLAMP.

FLAG NOTES:

- 1 LENGTH "L" IS A THREE DIGIT NUMBER OF WHICH THE FIRST TWO DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE THIRD DIGIT, THE FRACTION OF AN INCH IN EIGHTHS. LENGTH "L" IS MEASURED FROM "SEAL POINT" TO "SEAL POINT." FOR LENGTH INCREMENTS AND TOLERANCES SEE TABLE III. TO CONVERT "SEAL POINT" TO "SEAL POINT" TO "END TO END" MEASUREMENT, ADD TWO TIMES "D" TO LENGTH "L".
- 2 A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING I.D. HOWEVER, THE APPLICABLE BALL DIAMETER LISTED IN TABLE I SHALL PASS THROUGH THE END FITTING AFTER IT IS ASSEMBLED TO THE HOSE.
- 3 DISTANCE ACROSS CORNERS OF THE COUPLING NUT MAY EXCEED THIS DIMENSION.
- 4 STANDARD COUPLING NUTS SHALL BE IN ACCORDANCE WITH MS21921 OR MS27073 AND MATE WITH MS33514 FITTING ENDS. NONSTANDARD COUPLING NUTS MAY BE USED, PROVIDED THEY ARE DIMENSIONALLY AND FUNCTIONALLY EQUIVALENT, AND PROVIDED THEY CANNOT BE REMOVED FROM THE FITTING. NUTS SHALL MEET TORQUE TEST REQUIREMENTS PER AS 1339.
- 5 DIAMETERS ARE LISTED FOR CLAMP SELECTION. TUBULAR SLEEVES MAY NOT BE A PERFECT ROUND AND SHALL BE MEASURED WITH A DIAMETER TAPE RULE (OFTEN REFERRED TO AS A PI-TAPE).
- 6 TUBULAR ABRASION (TFE) SLEEVES SHALL HAVE AN I.D. NO GREATER THAN HOSE O.D. + .05 INCH. AXIAL MOVEMENT OF THE SLEEVE INSTALLED ON THE HOSE SHALL NOT EXCEED .05 INCH. ENDS OF THE TUBULAR SLEEVE SHALL BE TERMINATED WITH A LENGTH OF MIL-I-23053/11 (FEP) CLASS 1 OR 2, COLOR CLEAR, PER TABLE V FIGURE 2.
- 7 COIL ABRASION SLEEVES, WHEN ASSEMBLED ON A STRAIGHT HOSE, SHALL HAVE AN AVERAGE GAP BETWEEN COILS NOT EXCEEDING .05 INCH. DISPLACEMENT OF THE COILS OF THE SLEEVE, CAUSING A GREATER GAP, SHALL NOT BE CAUSE FOR REJECTION IF THE COILS CAN BE REPOSITIONED TO MEET THE GAP REQUIREMENTS. ENDS OF THE COIL SLEEVE SHALL BE TERMINATED WITH A LENGTH OF HEAT SHRINKABLE SLEEVING IN ACCORDANCE WITH TABLE V AND FIGURE 2. CODE "B" (NYLON COIL) ABRASION SLEEVES SHALL BE TERMINATED WITH MIL-I-23053/5 CLASS 1 OR 3, COLOR BLACK. CODE "L" (COIL ABRASION) SLEEVES SHALL BE TERMINATED WITH MIL-I-23053/12A, CLASS 1, COLOR TRANSPARENT, PTFE. (OPTIONAL MIL-I-23053/11 (FEP) CLASS 1 OR 2, COLOR CLEAR).

TABLE V

HOSE SIZE	LENGTH (INCHES)
1/4 3/8	2.00 $\pm$.25
1/2 5/8	2.50 $\pm$.25
3/4 1	3.00 $\pm$.25

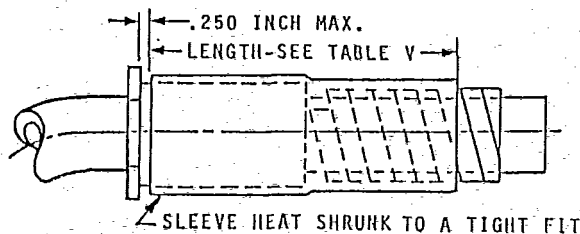


FIGURE 2

SHEET COMPLETELY REVISED

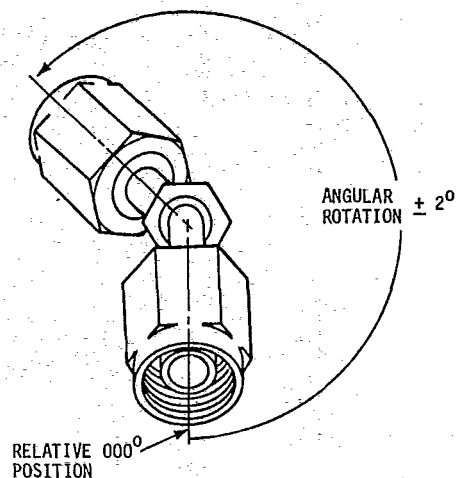


FIGURE 3

PREPARED BY SAE SUBCOMMITTEE G-3D, AEROSPACE HOSE, OF SAE COMMITTEE G-3, AEROSPACE FITTINGS, HOSE, & TUBING ASSEMBLIES

AEROSPACE STANDARD

HOSE ASSEMBLY, NONMETALLIC, 3000 PST, TFE, FLARELESS, 45° TO 45°, LIGHTWEIGHT

AS118

SH 3

Issued OCTOBER 1979 Revised (A) MARCH 1984