

REV.
B

SAE AS85049/24

FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISION IS REQUIRED TO ELIMINATE QUALITY INSPECTION ISSUES AND ALIGN THE PRODUCT DETAIL FEATURES WITH SIMILAR DETAIL SHEETS.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF: SAE AS85049.

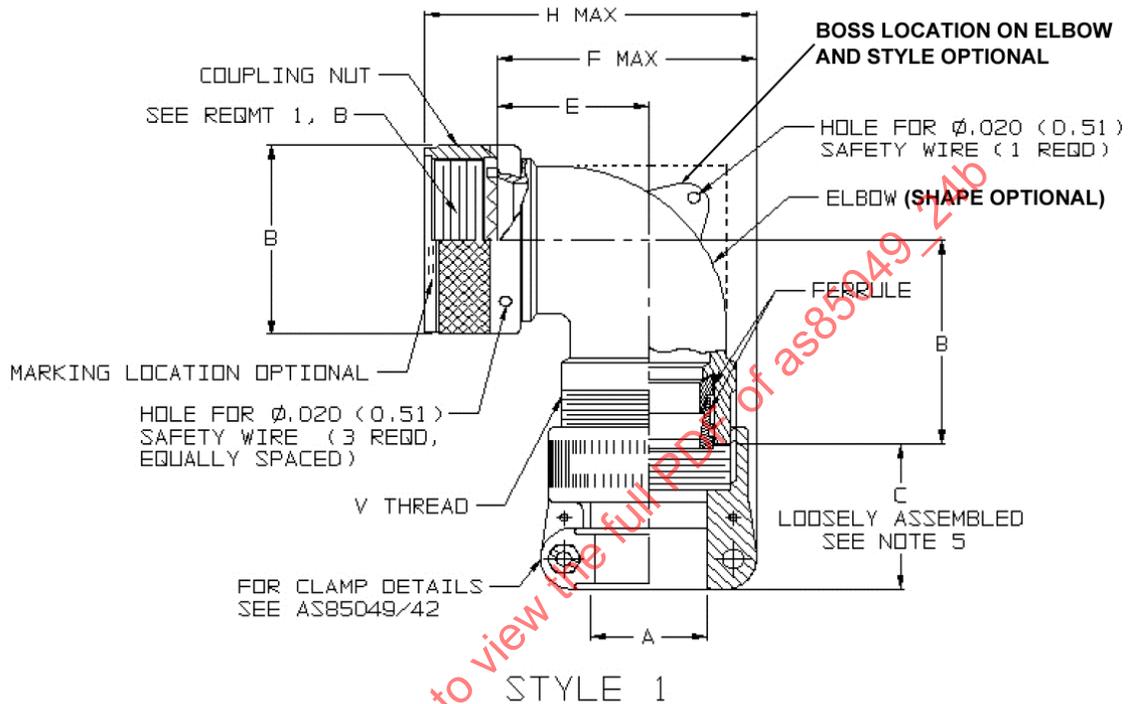


FIGURE 1 – CONFIGURATION AND DIMENSIONS

SAENORM.COM : Click to view the full PDF of as85049-24b

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS85049/24B>



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS85049

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CONNECTOR ACCESSORIES, ELECTRICAL, BACKSHELL, NONENVIRONMENTAL, 90°, SHIELD TERMINATION, CATEGORY 3A (FOR AS50151 CRIMP, MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, AND MIL-DTL-83723 SERIES III CONNECTORS)

SAE AS85049/24
SHEET 1 OF 8

REV. B

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

ISSUED 1998-08 REAFFIRMED 2004-11 REVISED 2012-07

TABLE 1 – DIMENSIONS

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.
	AS81703 SERIES 3	MIL-DTL-26482 SERIES 2	AS50151 CRIMP	MIL-DTL-83723 SERIES III		MIN	MAX				
1	3	X	X	X	4	.125 (3.2)	.250 (6.4)	1	1.800 (45.7)	1.027 (26.1)	.669 (17.0)
2					6	.250 (6.4)	.437 (11.1)	2	1.320 (33.5)	1.027 (26.1)	.669 (17.0)
3	X	8	8S	8	4	.125 (3.2)	.250 (6.4)	1	1.200 (30.5)	1.027 (26.1)	.617 (15.7)
4		10	10S, 10SL	10	4	.125 (3.2)	.312 (7.9)	1	1.920 (48.8)	1.027 (26.1)	.734 (18.6)
5					6	.250 (6.4)	.375 (9.5)	1	1.320 (33.5)	1.027 (26.1)	.734 (18.6)
6	7	12	12, 12S	12	4	.125 (3.2)	.312 (7.9)	1	1.940 (49.3)	1.027 (26.1)	.858 (21.8)
7					6	.250 (6.4)	.437 (11.1)	1	1.940 (49.3)	1.027 (26.1)	.858 (21.8)
8					10	.350 (8.9)	.500 (12.7)	1	1.335 (33.9)	1.027 (26.1)	.858 (21.8)
9	12	14	14, 14S	14	6	.250 (6.4)	.437 (11.1)	1	2.010 (51.1)	1.027 (26.1)	.984 (25.0)
10					10	.350 (8.9)	.575 (14.6)	1	1.655 (42.0)	1.027 (26.1)	.984 (25.0)
11	19	16	16, 16S	16	6	.250 (6.4)	.437 (11.1)	1	2.100 (53.3)	1.027 (26.1)	1.112 (28.2)
12					12	.500 (12.7)	.700 (17.8)	1	1.745 (44.3)	1.059 (26.9)	1.112 (28.2)
13	27	18	18	18	10	.350 (8.9)	.625 (15.9)	1	2.270 (57.7)	1.027 (26.1)	1.218 (30.9)
14					16	.625 (15.9)	.779 (19.8)	1	1.920 (48.8)	1.156 (29.4)	1.218 (30.9)

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
1	.636 (16.2)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
2	1.386 (35.2)	.750-20 UNEF	2.02 (51.3)	.858 (21.8)	2.41 (61.2)
3	.541 (13.7)	.625-24 UNEF	1.09 (27.7)	-	1.48 (37.6)
4	.636 (16.2)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
5	.636 (16.2)	.750-20 UNEF	1.27 (32.3)	-	1.66 (42.2)
6	.641 (16.3)	.625-24 UNEF	1.18 (30.0)	-	1.57 (39.9)
7	.641 (16.3)	.750-20 UNEF	1.28 (32.5)	-	1.67 (42.4)
8	.641 (16.3)	1.000-20 UNEF	1.37 (34.8)	-	1.76 (44.7)
9	.741 (18.8)	.750-20 UNEF	1.38 (35.1)	-	1.77 (45.0)
10	.741 (18.8)	1.000-20 UNEF	1.47 (37.3)	-	1.86 (47.2)
11	.926 (23.5)	.750-20 UNEF	1.59 (40.4)	-	1.98 (50.3)
12	.926 (23.5)	1.187-18 UNEF	1.77 (45.0)	-	2.15 (54.6)
13	1.016 (25.8)	1.000-20 UNEF	1.80 (45.7)	-	2.19 (55.6)
14	1.016 (25.8)	1.437-18 UNEF	1.97 (50.0)	-	2.36 (59.9)

TABLE 1 – DIMENSIONS (CONTINUED)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.
	AS81703 SERIES 3	MIL-DTL- 26482 SERIES 2	AS50151 CRIMP	MIL-DTL- 83723 SERIES III		MIN	MAX				
	15	37	20	20		20	10				
16	16				.625 (15.9)		.904 (23.0)	1	1.920 (48.8)	1.156 (29.4)	1.345 (34.2)
17	22	22	22	22	12	.500 (12.7)	.750 (19.1)	1	2.380 (60.5)	1.059 (26.9)	1.468 (37.3)
18					20	.875 (22.2)	1.029 (26.1)	1	2.025 (51.4)	1.375 (34.9)	1.468 (37.3)
19	24	24	24	24	12	.500 (12.7)	.750 (19.1)	1	2.380 (60.5)	1.069 (27.2)	1.593 (40.5)
20					20	.875 (22.2)	1.144 (29.1)	1	2.025 (51.4)	1.375 (34.9)	1.593 (40.5)
21	28	28	28	28	16	.625 (15.9)	.937 (23.8)	1	2.550 (64.8)	1.156 (29.4)	1.969 (50.0)
22					24	1.000 (24.4)	1.375 (34.9)	1	2.195 (55.8)	1.500 (38.1)	1.969 (50.0)
23	32	32	32	32	16	.625 (15.9)	.937 (23.8)	1	2.800 (71.1)	1.156 (29.4)	2.219 (56.4)
24					20	.875 (22.2)	1.250 (31.8)	1	2.800 (71.1)	1.375 (34.9)	2.219 (56.4)
25	36	36	36	36	28	1.250 (31.8)	1.625 (41.3)	1	2.445 (62.1)	1.781 (45.2)	2.219 (56.4)
26					16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	2.469 (62.7)
27	36	36	36	36	24	1.000 (24.5)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	2.469 (62.7)
28					32	1.437 (36.5)	1.840 (46.7)	1	2.415 (61.3)	1.830 (46.5)	2.469 (62.7)

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
15	1.016 (25.8)	1.000-20 UNEF	1.80 (45.7)	-	2.19 (55.6)
16	1.016 (25.8)	1.437-18 UNEF	1.97 (50.0)	-	2.36 (59.9)
17	1.166 (29.6)	1.187-18 UNEF	2.11 (53.6)	-	2.50 (63.5)
18	1.166 (29.6)	1.750-18 UNS	2.29 (58.2)	-	2.68 (68.1)
19	1.166 (29.6)	1.187-18 UNEF	2.11 (53.6)	-	2.50 (63.5)
20	1.166 (29.6)	1.750-18 UNS	2.29 (58.2)	-	2.68 (68.1)
21	1.266 (32.2)	1.437-18 UNEF	2.33 (59.2)	-	2.88 (73.2)
22	1.266 (32.2)	2.000-18 UNS	2.51 (63.8)	-	3.06 (77.7)
23	1.616 (41.0)	1.437-18 UNEF	2.81 (71.4)	-	3.36 (85.3)
24	1.616 (41.0)	1.750-18 UNS	2.81 (71.4)	-	3.36 (85.3)
25	1.816 (46.1)	2.250-16 UN	3.07 (78.0)	-	3.62 (91.9)
26	1.816 (46.1)	1.437-18 UNEF	3.13 (79.5)	-	3.68 (93.5)
27	1.816 (46.1)	2.000-18 UNS	3.13 (79.5)	-	3.68 (93.5)
28	2.566 (65.2)	2.500-16 UN	3.39 (86.1)	-	3.94 (100.1)

TABLE 1 – DIMENSIONS (CONTINUED)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.
	AS81703 SERIES 3	MIL-DTL- 26482 SERIES 2	AS50151 CRIMP	MIL-DTL- 83723 SERIES III		MIN	MAX				
	29			40			16				
30			40		24	1.000 (25.4)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	2.719 (69.1)
31			40		32	1.437 (36.5)	1.875 (47.6)	1	2.415 (61.3)	1.830 (46.5)	2.719 (69.1)
32			44		16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	2.969 (75.4)
33			44		24	1.000 (25.4)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	2.969 (75.4)
34			44		32	1.437 (36.5)	1.875 (47.6)	1	2.415 (61.3)	1.830 (46.5)	2.969 (75.4)
35			48		16	.625 (15.9)	.937 (23.8)	1	2.770 (70.4)	1.156 (29.4)	3.219 (81.8)
36			48		24	1.000 (25.4)	1.375 (34.9)	1	2.770 (70.4)	1.500 (38.1)	3.219 (81.8)
37			48		32	1.437 (36.5)	1.875 (47.6)	1	2.415 (61.3)	1.830 (46.5)	3.219 (81.8)
38	61				12	.500 (12.7)	.750 (19.1)	1	2.380 (60.5)	1.059 (26.9)	1.653 (42.0)
39	61				20	.875 (22.2)	1.184 (30.1)	1	2.025 (51.4)	1.375 (34.9)	1.653 (42.0)
40	19	16	16, 16S	16	10	.350 (8.9)	.625 (15.9)	1	2.100 (53.3)	1.027 (26.1)	1.112 (28.2)
41	27	18	18	18	4	.125 (3.2)	.312 (7.9)	1	2.270 (57.7)	1.027 (26.1)	1.218 (30.9)
42	27	18	18	18	6	.250 (6.4)	.437 (11.1)	1	2.270 (57.7)	1.027 (26.1)	1.218 (30.9)

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
29	2.566 (65.2)	1.437-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
30	2.566 (65.2)	2.000-18 UNS	3.88 (98.6)	-	4.43 (112.5)
31	2.566 (65.2)	2.500-16 UN	4.14 (105.2)	-	4.69 (119.1)
32	2.566 (65.2)	1.437-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
33	2.566 (65.2)	2.000-18 UNS	3.88 (98.6)	-	4.43 (112.5)
34	2.566 (65.2)	2.500-16 UN	4.14 (105.2)	-	4.69 (119.1)
35	2.566 (65.2)	1.437-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
36	2.566 (65.2)	2.000-18 UNS	3.88 (98.6)	-	4.43 (112.5)
37	2.566 (65.2)	2.500-16 UN	4.14 (105.2)	-	4.69 (119.1)
38	1.166 (29.6)	1.187-18 UNEF	2.11 (53.6)	-	2.50 (63.5)
39	1.166 (29.6)	1.750-18 UNS	2.29 (58.2)	-	2.68 (68.1)
40	.926 (23.5)	1.000-20 UNEF	1.66 (42.2)	-	2.05 (52.1)
41	1.016 (25.8)	.625-24 UNEF	1.80 (45.7)	-	2.19 (55.6)
42	1.016 (25.8)	.750-20 UNEF	1.80 (45.7)	-	2.19 (55.6)

TABLE 1 – DIMENSIONS (CONTINUED)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.	
	AS81703 SERIES 3	MIL-DTL-26482 SERIES 2	AS50151 CRIMP	MIL-DTL-83723 SERIES III		MIN	MAX					
43	37	20	20	20	6	.250 (6.4)	.437 (11.1)	1	2.270 (57.7)	1.027 (26.1)	1.345 (34.2)	
44	X	22	22	22	4	.125 (3.2)	.312 (7.9)	1	2.380 (60.1)	1.027 (26.1)	1.468 (37.3)	
45					6	.250 (6.4)	.437 (11.1)	1	2.380 (60.1)	1.027 (26.1)	1.468 (37.3)	
46		24	24	24	10	.350 (8.9)	.625 (15.9)	1	2.380 (60.1)	1.027 (26.1)	1.593 (40.5)	
47		X	X	X	X	12	.500 (12.7)	.750 (19.1)	1	2.770 (70.1)	1.059 (26.9)	2.469 (62.7)
48						12	.500 (12.7)	.750 (19.1)	1	2.770 (70.1)	1.059 (26.9)	2.719 (69.1)
49		10	10S, 10SL	10	6	.250 (6.4)	.437 (11.1)	2	1.940 (49.3)	1.027 (26.1)	.734 (18.6)	
50		12	14	14, 14S	14	12	.500 (12.7)	.750 (19.1)	2	2.270 (57.7)	1.059 (26.9)	.984 (25.0)
51	19	16	16, 16S	16	16	.625 (15.9)	.937 (23.8)	2	2.380 (60.1)	1.156 (29.4)	1.112 (28.2)	
52	27	18	18	18	12	.500 (12.7)	.750 (19.1)	1	2.270 (57.7)	1.059 (26.9)	1.218 (30.9)	
53	61	X	X	X	16	.625 (15.9)	.937 (23.8)	1	2.025 (51.4)	1.156 (29.4)	1.653 (42.0)	
54	37	20	20	20	12	.500 (12.7)	.750 (19.1)	1	2.270 (57.7)	1.059 (26.9)	1.345 (34.2)	
55					20	.875 (22.2)	1.250 (31.8)	2	2.550 (64.8)	1.375 (34.9)	1.345 (34.2)	
56	X	22	22	22	10	.350 (8.9)	.625 (15.9)	1	2.380 (60.1)	1.027 (26.1)	1.468 (37.3)	

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
43	1.016 (25.8)	.750-20 UNEF	1.80 (45.7)	-	2.19 (55.6)
44	1.166 (29.6)	.625-24 UNEF	2.11 (53.6)	-	2.50 (63.5)
45	1.166 (29.6)	.750-20 UNEF	2.11 (53.6)	-	2.50 (63.5)
46	1.166 (29.6)	1.000-20 UNEF	2.11 (53.6)	-	2.50 (63.5)
47	1.816 (46.1)	1.187-18 UNEF	3.13 (79.5)	-	3.68 (93.5)
48	1.816 (46.1)	1.187-18 UNEF	3.88 (98.6)	-	4.43 (112.5)
49	1.381 (35.1)	.750-20 UNEF	2.03 (51.6)	.858 (21.8)	2.42 (61.5)
50	1.766 (44.9)	1.187-18 UNEF	2.61 (66.3)	1.218 (30.9)	3.00 (76.2)
51	1.916 (48.7)	1.437-18 UNEF	2.87 (72.9)	1.468 (37.3)	3.26 (82.8)
52	1.016 (25.8)	1.187-18 UNEF	1.86 (47.2)	-	2.25 (57.2)
53	1.166 (29.6)	1.437-18 UNEF	2.14 (54.4)	-	2.25 (57.2)
54	1.016 (25.8)	1.187-18 UNEF	1.86 (47.2)	-	3.53 (89.7)
55	2.016 (51.2)	1.750-18 UNS	3.14 (79.8)	1.969 (50.0)	2.50 (57.2)
56	1.166 (29.6)	1.000-20 UNEF	2.11 (53.6)	-	2.51 (63.8)

TABLE 1 – DIMENSIONS (CONTINUED)

DASH NO.	FITS SHELL OF CONNECTOR				CLAMP SIZE	A WIRE BUNDLE ACCOMMODATION RANGE (SEE NOTE 6)		STYLE	B DIM. ± .125 (± 3.2)	C DIM. (REF.)	D DIA. MAX.
	AS81703 SERIES 3	MIL-DTL- 26482 SERIES 2	AS50151 CRIMP	MIL-DTL- 83723 SERIES III		MIN	MAX				
57		22	22	22	16	.625 (15.9)	.937 (23.8)	1	2.380 (60.5)	1.156 (29.4)	1.468 (37.3)
58					20	.875 (22.2)	1.250 (31.8)	2	2.550 (64.8)	1.375 (34.9)	1.468 (37.3)
59		24	24	24	16	.625 (15.9)	.937 (23.8)	1	2.380 (60.5)	1.156 (29.4)	1.593 (40.5)
60					12	.500 (12.7)	.750 (19.1)	1	2.550 (64.8)	1.059 (26.9)	1.969 (50.0)
61			28		20	.875 (22.2)	1.250 (31.8)	1	2.550 (64.8)	1.375 (34.9)	1.969 (50.0)
62			32		24	1.000 (25.4)	1.375 (34.9)	1	2.800 (71.1)	1.500 (38.1)	2.219 (56.4)
63			36		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	2.469 (62.7)
64					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	2.469 (62.7)
65			40		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	2.719 (69.1)
66					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	2.719 (69.1)
67			44		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	2.969 (75.4)
68					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	2.969 (75.4)
69			48		20	.875 (22.2)	1.250 (31.8)	1	2.770 (70.4)	1.375 (34.9)	3.219 (81.8)
70					28	1.250 (31.8)	1.625 (41.3)	1	2.770 (70.4)	1.781 (45.2)	3.219 (81.8)

DASH NO.	E DIM. ± .125 (3.2)	V THREAD CLASS 2A	F DIM. MAX.	G DIA. MAX.	H DIM. MAX.
57	1.166 (29.6)	1.437-18 UNEF	2.12 (53.8)	-	2.51 (63.8)
58	2.016 (51.2)	1.750-18 UNS	3.14 (79.8)	1.969	3.53 (89.7)
59	1.166 (29.6)	1.437-18 UNEF	2.14 (54.4)	-	2.53 (64.3)
60	1.266 (32.2)	1.187-18 UNEF	2.33 (59.2)	-	2.88 (73.2)
61	1.266 (32.2)	1.750-18 UNS	2.39 (60.7)	-	2.94 (74.7)
62	1.616 (41.0)	2.000-18 UNS	2.86 (72.6)	-	3.41 (86.6)
63	1.816 (46.1)	1.750-18 UNS	3.13 (79.5)	-	3.68 (93.5)
64	1.816 (46.1)	2.250-16 UN	3.27 (83.1)	-	3.82 (97.0)
65	2.566 (65.2)	1.750-18 UNS	3.88 (98.6)	-	4.43 (112.5)
66	2.566 (65.2)	2.250-16 UN	4.02 (102.1)	-	4.57 (116.1)
67	2.566 (65.2)	1.750-18 UNS	3.88 (98.6)	-	4.43 (112.5)
68	2.566 (65.2)	2.250-16 UN	4.02 (102.1)	-	4.57 (116.1)
69	2.566 (65.2)	1.750-18 UNS	3.88 (98.6)	-	4.43 (112.5)
70	2.566 (65.2)	2.250-16 UN	4.02 (102.1)	-	4.57 (116.1)