

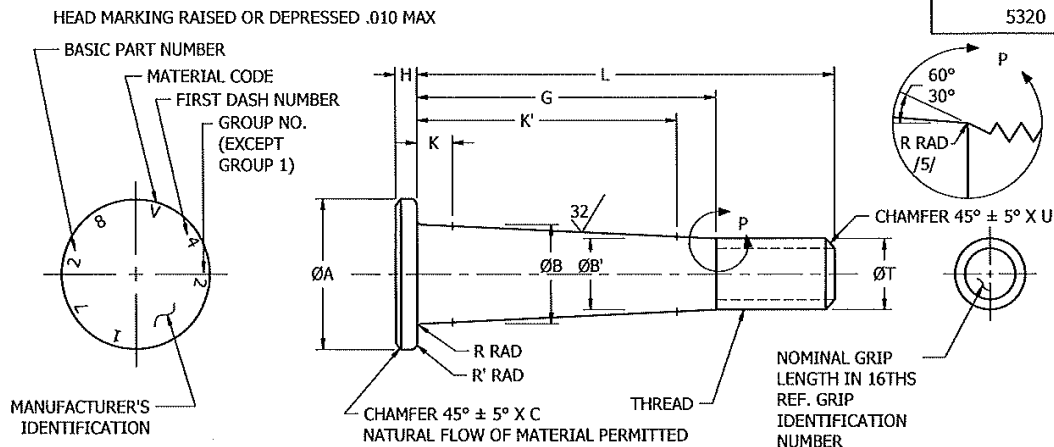


FIGURE 1 - FASTENER
TABLE I - DIMENSIONS

FIRST DASH NO.	THREAD /1/	ØT	GROUP NO.	ØA		H	C MAX	R RAD +.010 - .000	R' RAD +.010 - .000	U MAX	X /2/	Y /2/	Z /4/
				MAX	MIN								
05	.1640-36 UNJF-3A	.1620 .1585	1	.274	.264	.049	.015	.010	.005	.024	.007	.0040	.007
			2	.282	.272	.039							
			3	.290	.280								
3	.1900-32 UNJF-3A	.1880 .1840	1	.312	.302	.056	.020	.015	.010	.027	.008	.0045	.008
			2	.323	.312	.044							
			3	.339	.328								
4	.2500-28 UNJF-3A	.2480 .2435	1	.389	.379	.070	.031	.015	.010	.031	.010	.0045	.010
			2	.403	.392	.058							
			3	.421	.411								
5	.3125-24 UNJF-3A	.3105 .3053	1	.487	.475	.080	.031	.020	.015	.035	.012	.0045	.012
			2	.502	.490	.068							
			3	.524	.512								
6	.3750-24 UNJF-3A	.3730 .3678	1	.581	.567	.094	.041	.020	.020	.035	.014	.0060	.014
			2	.596	.582	.082							
			3	.619	.605								
7	.4375-20 UNJF-3A	.4355 .4294	1	.685	.669	.132	.047	.030	.020	.040	.016	.0060	.016
			2	.703	.687	.120							
			3	.730	.714								
8	.5000-20 UNJF-3A	.4980 .4919	1	.767	.751	.156	.047	.030	.020	.040	.016	.0060	.016
			2	.788	.772	.144							
			3	.818	.802								
9	.5625-18 UNJF-3A	.5605 .5538	1	.885	.869	.180	.060	.063	.030	.045	.018	.0060	.018
			2	.915	.899	.168							
			3	.945	.929								
10	.6250-18 UNJF-3A	.6230 .6163	1	1.011	.995	.204	.060	.063	.030	.045	.018	.0060	.018
			2	1.044	1.028	.192							
			3	1.077	1.061								
12	.7500-16 UNJF-3A	.7480 .7406	1	1.133	1.117	.252	.070	.063	.030	.045	.020	.0060	.020
			2	1.171	1.155	.238							
			3	1.209	1.193								
14	.8750-14 UNJF-3A	.8730 .8647	1	1.258	1.242	.300	.080	.063	.040	.050	.020	.0080	.020
			2	1.304	1.288	.284							
			3	1.350	1.334								
16	1.0000-12 UNJF-3A	.9980 .9886	1	1.455	1.429	.348	.090	.063	.040	.050	.020	.0080	.020
			2	1.496	1.480	.332							
			3	1.547	1.531								

THIRD
ANGLE
PROJECTION

PROCUREMENT
SPECIFICATION

NAS1730

CUSTODIAN
NATIONAL AEROSPACE STANDARDS COMMITTEE

TITLE
**FASTENER, SHEAR, PROTRUDING HEAD, TAPERED
SHANK (TS), 95 KSI Fsu, 108 KSI Fsu, 110 KSI Fsu,
125 KSI Fsu, 132 KSI Fsu, & 156 KSI Fsu**

REVISION
4

CLASSIFICATION
PART STANDARD
NAS1728
SHEET 1 OF 13

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

ISSUE DATE: SEPTEMBER 1971
REVISION DATE: JULY 29, 2016
REAFFIRMED: FEBRUARY 28, 2023
STABILIZED: FEBRUARY 28, 2023

THIS STANDARD HAS BEEN APPROVED AS A STABILIZED DOCUMENT. AIA WILL CONSIDER REQUESTS FOR REVISION OR CANCELLATION BY MATERIALLY AFFECTED PARTIES AND REQUIRES A WRITTEN REQUEST SENT TO AIA STAFF FOR CONSIDERATION. STABILIZED STANDARDS ARE CONSIDERED MATURE TECHNOLOGY OR PRACTICES AND THEREFORE ARE REVIEWED EVERY 10 YEARS.



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



Copyrighted material. Licensed to Lisa Lallo on 2026-02-20 for licensee's use only.
No further reproduction or networking is permitted. Distributed by AccurIs, <https://accuristech.com>.

MATERIAL:

ALLOY STEEL: 4140 (UNS G41400) PER AMS6382, 4340 (UNS G43400) PER AMS6484, 4340 (UNS G43406) PER AMS6415 OR 8740 (UNS G84700) PER MIL-S-6049 AMS6322, AMS6325, OR AMS6327.
H-11 STEEL ALLOY: (UNS T20811) PER AMS6487.
CRES: A286 (UNS S66286) CONFORMING TO THE CHEMISTRY OF AMS5731, AMS5732, AMS5737 OR AMS5853.
TITANIUM ALLOY: 6AL-4V (UNS R56400) PER AMS4928 OR AMS4967.
PH13-8Mo MARTENSITIC PRECIPITATION HARDENING STAINLESS STEEL: (UNS S13800) PER AMS5629.

HEAT TREATMENT:

DEVELOP BASIC MATERIAL PROPERTIES AS FOLLOWS, WITH CONTROLS PER AMS2759 FOR ALLOY STEEL AND CRES AND AMS-H-81200 OR AMS2801 FOR TITANIUM:

ALLOY STEEL: 108 KSI MIN SHEAR, 180-200 KSI TENSILE.
H-11 STEEL ALLOY: 132 KSI MIN SHEAR, 220-260 KSI TENSILE OR 156 KSI MIN SHEAR, 260-290 KSI TENSILE.
A286 ALLOY: 95 KSI MIN SHEAR, 160 KSI MIN TENSILE OR 110 KSI MIN SHEAR, 200 KSI MIN TENSILE.
6AL-4V TITANIUM ALLOY: 95 KSI MIN SHEAR, 160 KSI MIN TENSILE.
PH13-8Mo PRECIPITATION HARDENING STAINLESS STEEL: 125 KSI MIN SHEAR, 220 KSI MIN TENSILE.

FINISH:

- ④ ALLOY STEEL: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2.
H-11 STEEL ALLOY: VACUUM CADMIUM PLATE PER AMS-C-8837 DIFFUSED NICKEL-CADMIUM PLATE PER AMS2416.
A286 ALLOY: PASSIVATE PER AMS2700, METHOD 1, CLASS 4, CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, HYDROGEN RELIEVE FOR 23 HOURS MIN AT 375 °F.
6AL-4V TITANIUM ALLOY: NONE.
PH13-8Mo STAINLESS STEEL: PASSIVATE PER AMS2700, METHOD 1, CLASS 4.
CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, HYDROGEN RELIEVE FOR 23 HOURS MIN AT 375 °F.

LUBRICATION:

ALL MATERIALS: CETYL ALCOHOL PER NAS1730.
IN LIEU OF PLATING ON A286, 6AL-4V AND PH13-8Mo AND OVER PLATING ON H-11 AND ALLOY STEEL: DRY FILM LUBRICANT PER NAS1730.

REVISION

4

NAS1728

SHEET 2

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 12-01



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



Copyrighted material. Licensed to Lisa Lallo on 2025-02-20 for Licensee's use only.
No further reproduction or networking is permitted. Distributed by Accuris. <https://accuris.tech.com>.

CODE:

FIRST DASH NUMBER DESIGNATES NOMINAL PIN DIAMETER.
SECOND DASH NUMBER DESIGNATES GRIP LENGTH IN INCREMENTS OF .0625.
MATERIAL CODE: PRECEDING FIRST DASH NUMBER
"—" DESIGNATES ALLOY STEEL, 108 KSI MIN SHEAR
"H" DESIGNATES H-11 STEEL, 132 KSI MIN SHEAR
"HC" DESIGNATES H-11 STEEL, 156 KSI MIN SHEAR
"C" DESIGNATES A286 CRES, 95 KSI MIN SHEAR
"CB" DESIGNATES A286 CRES, 110 KSI MIN SHEAR
"V" DESIGNATES 6AL-4V TITANIUM ALLOY, 95 KSI MIN SHEAR
"D" DESIGNATES PH13-8Mo PRECIPITATION-HARDENING STEEL, 125 KSI MIN SHEAR
FINISH CODE: BETWEEN FIRST AND SECOND DASH NUMBER
"—" DESIGNATES TYPE II CADMIUM PLATE FOR ALLOY STEEL, VACUUM CADMIUM PLATE FOR H-11, PASSIVATE PER AMS2700, METHOD 1, CLASS 4 FOR A286 AND PH13-8Mo STEEL
"Z" DESIGNATES DIFFUSED NICKEL CADMIUM PLATE
"W" DESIGNATES CADMIUM PLATE PER AMS-QQ-P-416
LUBRICATION CODE: FOLLOWING SECOND DASH NUMBER
NO SYMBOL DESIGNATES CETYL ALCOHOL
"D" DESIGNATES DRY FILM LUBRICANT
"E" DESIGNATES DRY FILM LUBE WITH ADDITION OF CETYL ALCOHOL

EXAMPLES OF PART NUMBERS:

NAS1728V5-10D = .3125-24 THREAD, .625 GRIP, TITANIUM PIN, DRY FILM LUBRICANT
NAS1728H05Z12 = .1640-36 THREAD, .750 GRIP, 132 KSI MIN SHEAR, H-11 PIN, DIFFUSED NICKEL CADMIUM PLATE, CETYL ALCOHOL LUBRICANT
NAS1728-16-32 = 1.0000-12 THREAD, 2.000 GRIP, ALLOY STEEL PIN, CETYL ALCOHOL LUBRICANT, TYPE II CADMIUM PLATE
NAS1728C10W11 = .6250-18 THREAD, .687 GRIP, 95 KSI MIN. SHEAR, A286 PIN, CADMIUM PLATE, CETYL ALCOHOL LUBRICANT

NOTES:

- /1/ THREADS IN ACCORDANCE WITH AS8879.
- /2/ CONCENTRICITY:
 - A. TAPER SHANK AT "K" AND THREAD PITCH DIAMETER TO BE CONCENTRIC WITH "Y" VALUES FIM.
 - B. "ØA" AND TAPER SHANK AT "K" TO BE CONCENTRIC WITHIN "X" VALUES FIM.
- /3/ REMOVE ALL BURRS AND BREAK SHARP EDGES .015 MAX.
- /4/ HEAD O.D. OUT OF ROUNDNESS TO BE WITHIN "Z" VALUES.
- /5/ THREAD TO SHANK INTERSECTION RADIUS:
FOR "-05" THRU "-8", "S RAD" = .010 MIN TO .030 MAX
FOR "-9" THRU "-16", "S RAD" = .030 MIN TO .050 MAX
- (6) UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.
- (7) GRIP LENGTH IS MEASURED FROM TOP OF HEAD TO THEORETICAL INTERSECTION OF TAPERED SHANK AND THREAD RUNOUT ANGLE.

REVISION

4

NAS1728

SHEET 3

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST REVISION DATE.

FORM 12-01



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



- (8) DIMENSIONS IN INCHES AND APPLY AFTER FINISH AND PRIOR TO THE APPLICATION OF LUBRICATION UNLESS OTHERWISE SPECIFIED.
- (9) EXPLANATION OF GROUP ARRANGEMENT SHOWN IN LENGTH TABLES IS SHOWN IN FIGURE 2.
- /10/ SEE NAS1729 FOR OVERSIZE FASTENERS.
- (11) NAS1726 AND NAS1727 NUTS ARE REFERENCED AS APPLICABLE.
- (12) SURFACE TEXTURE: TAPER SHANK: 32 MICROINCHES Ra; ALL OTHER SURFACES SHALL NOT EXCEED 125 MICROINCHES Ra PER ASME B46.1. SURFACE TEXTURE SYMBOLS SHALL BE IN ACCORDANCE WITH ASME Y14.36M.
- (13) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
- (14) UNLESS OTHERWISE SPECIFIED HEREIN, REFERENCED DOCUMENTS SHALL BE THE ISSUE IN EFFECT ON DATE OF MANUFACTURE. HOWEVER, EXISTING MATERIAL INVENTORY CERTIFIED TO A PREVIOUS REVISION OF THE APPLICABLE MATERIAL SPECIFICATION(S) IS ACCEPTABLE FOR USE UNTIL DEPLETION.
- (15) DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.

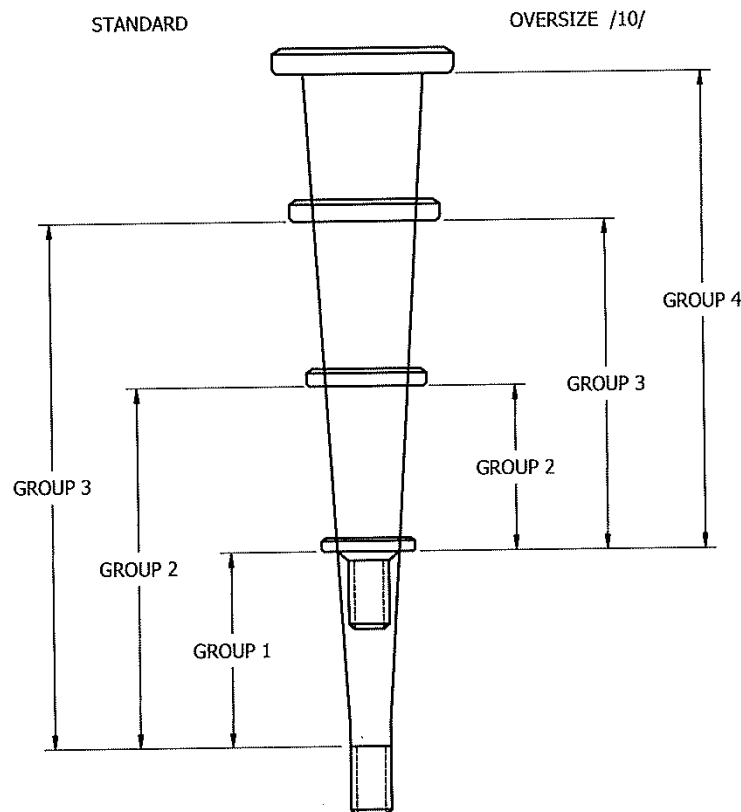


FIGURE 2 - GROUP ARRANGEMENT

REVISION

4

NAS1728

SHEET 4

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

Copyrighted material. Licensed to Lisa Lallo on 2026-02-20 for licensee's use only. No further reproduction or networking is permitted. Distributed by AccuTech, <https://accutech.com>.



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



Copyrighted material. Licensed to Lisa Lallo on 2025-02-20 for licensee's use only.
No further reproduction or networking is permitted. Distributed by Accuris. <https://accuris.tech.com>.

TABLE II - DIA DASH NO. "05", Ø.156

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1					
2 (.125)	.385			.0675	.1715
3 (.187)	.447			.1300	.1702
4 (.250)	.510	.0225	.1724	.1925	.1689
5 (.312)	.572			.2550	.1676
6 (.375)	.635			.3175	.1663
GROUP 2					
7 (.437)	.697			.3800	.1728
8 (.500)	.760			.4425	.1715
9 (.562)	.822	.0225	.1803	.5050	.1702
10 (.625)	.885			.5675	.1689
11 (.687)	.947			.6300	.1676
12 (.750)	1.010			.6925	.1663
GROUP 3					
13 (.812)	1.072			.7550	.1728
14 (.875)	1.135			.8175	.1715
15 (.937)	1.197	.0225	.1881	.8800	.1702
16 (1.000)	1.260			.9425	.1689
17 (1.062)	1.322			1.0050	.1676
18 (1.125)	1.385			1.0675	.1663

TABLE III - DIA DASH NO. "3", Ø.187

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1					
3 (.187)	.467			.1300	.1990
4 (.250)	.530			.1925	.1977
5 (.312)	.592	.0355	.2010	.2550	.1964
6 (.375)	.655			.3175	.1951
7 (.437)	.717			.3800	.1938
8 (.500)	.780			.4425	.1925
GROUP 2					
9 (.562)	.842			.5050	.2016
10 (.625)	.905			.5675	.2003
11 (.687)	.967			.6300	.1990
12 (.750)	1.030	.0355	.2114	.6925	.1977
13 (.812)	1.092			.7550	.1964
14 (.875)	1.155			.8175	.1951
15 (.937)	1.217			.8800	.1938
16 (1.000)	1.280			.9425	.1925
GROUP 3					
17 (1.062)	1.342			1.0050	.2016
18 (1.125)	1.405			1.0675	.2003
19 (1.187)	1.467	.0355	.2218	1.1300	.1990
20 (1.250)	1.530			1.1925	.1977
21 (1.312)	1.592			1.2550	.1964
22 (1.375)	1.655			1.3175	.1951
23 (1.437)	1.717			1.3800	.1938
24 (1.500)	1.780			1.4425	.1925

REVISION

4

NAS1728

SHEET 5

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 12-01



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



Copyrighted material. Licensed to Lisa Lallo on 2026-02-20 for Licensee's use only. No further reproduction or networking is permitted. Distributed by Accu-Is. <https://accu-is.tech.com>.

TABLE IV – DIA DASH NO. "4", Ø.250

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1					
3 (.187)	.520			.1300	.2616
4 (.250)	.582			.1925	.2603
5 (.312)	.645			.2550	.2590
6 (.375)	.707			.3175	.2577
7 (.437)	.770	.0355	.2636	.3800	.2564
8 (.500)	.832			.4425	.2551
9 (.562)	.895			.5050	.2538
10 (.625)	.957			.5675	.2525
GROUP 2					
11 (.687)	1.020			.6300	.2642
12 (.750)	1.082			.6925	.2629
13 (.812)	1.145			.7550	.2616
14 (.875)	1.207			.8175	.2603
15 (.937)	1.270			.8800	.2590
16 (1.000)	1.332	.0355	.2766	.9425	.2577
17 (1.062)	1.395			1.0050	.2564
18 (1.125)	1.457			1.0675	.2551
19 (1.187)	1.520			1.1300	.2538
20 (1.250)	1.582			1.1925	.2525
GROUP 3					
21 (1.312)	1.645			1.2550	.2642
22 (1.375)	1.707			1.3175	.2629
23 (1.437)	1.770			1.3800	.2616
24 (1.500)	1.832			1.4425	.2603
25 (1.562)	1.895			1.5050	.2590
26 (1.625)	1.957	.0355	.2896	1.5675	.2577
27 (1.687)	2.020			1.6300	.2564
28 (1.750)	2.082			1.6925	.2551
29 (1.812)	2.145			1.7550	.2538
30 (1.875)	2.207			1.8175	.2525

TABLE V – DIA DASH NO. "5", Ø.312

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1					
3 (.187)	.568			.1300	.3254
4 (.250)	.631			.1925	.3241
5 (.312)	.693			.2550	.3228
6 (.375)	.756			.3175	.3215
7 (.437)	.818	.0375	.3273	.3800	.3202
8 (.500)	.881			.4425	.3189
9 (.562)	.943			.5050	.3176
10 (.625)	1.006			.5675	.3163
11 (.687)	1.068			.6300	.3150
GROUP 2					
12 (.750)	1.131			.6925	.3280
13 (.812)	1.193			.7550	.3267
14 (.875)	1.256			.8175	.3254
15 (.937)	1.318			.8800	.3241
16 (1.000)	1.381			.9425	.3228
17 (1.062)	1.443	.0375	.3417	1.0050	.3215
18 (1.125)	1.506			1.0675	.3202
19 (1.187)	1.568			1.1300	.3189
20 (1.250)	1.631			1.1925	.3176
21 (1.312)	1.693			1.2550	.3163
22 (1.375)	1.756			1.3175	.3150
GROUP 3					
23 (1.437)	1.818			1.3800	.3280
24 (1.500)	1.881			1.4425	.3267
25 (1.562)	1.943			1.5050	.3254
26 (1.625)	2.006			1.5675	.3241
27 (1.687)	2.068			1.6300	.3228
28 (1.750)	2.131	.0375	.3560	1.6925	.3215
29 (1.812)	2.193			1.7550	.3202
30 (1.875)	2.256			1.8175	.3189
31 (1.937)	2.318			1.8800	.3176
32 (2.000)	2.381			1.9425	.3163
33 (2.062)	2.443			2.0050	.3150

REVISION

4

NAS1728

SHEET 6

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



Copyrighted material. Licensed to Lisa Isallo on 06-02-20 for licensee's use only.
No further reproduction or networking is permitted. Distributed by Accuris, <https://accuris.tech.com>.

TABLE VI - DIA DASH NO. "6", Ø.375

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1					
4 (.250)	.656	.0405	.3912	.1925	.3880
5 (.312)	.718			.2550	.3867
6 (.375)	.781			.3175	.3854
7 (.437)	.843			.3800	.3841
8 (.500)	.906			.4425	.3828
9 (.562)	.968			.5050	.3815
10 (.625)	1.031			.5675	.3802
11 (.687)	1.093			.6300	.3789
12 (.750)	1.156			.6925	.3776
GROUP 2					
13 (.812)	1.218	.0405	.4068	.7550	.3919
14 (.875)	1.281			.8175	.3906
15 (.937)	1.343			.8800	.3893
16 (1.000)	1.406			.9425	.3880
17 (1.062)	1.468			1.0050	.3867
18 (1.125)	1.531			1.0675	.3854
19 (1.187)	1.593			1.1300	.3841
20 (1.250)	1.656			1.1925	.3828
21 (1.312)	1.718			1.2550	.3815
22 (1.375)	1.781			1.3175	.3802
23 (1.437)	1.843			1.3800	.3789
24 (1.500)	1.906			1.4425	.3776
GROUP 3					
25 (1.562)	1.968	.0405	.4224	1.5050	.3919
26 (1.625)	2.031			1.5675	.3906
27 (1.687)	2.093			1.6300	.3893
28 (1.750)	2.156			1.6925	.3880
29 (1.812)	2.218			1.7550	.3867
30 (1.875)	2.281			1.8175	.3854
31 (1.937)	2.343			1.8800	.3841
32 (2.000)	2.406			1.9425	.3828
33 (2.062)	2.468			2.0050	.3815
34 (2.125)	2.531			2.0675	.3802
35 (2.187)	2.593			2.1300	.3789
36 (2.250)	2.656			2.1925	.3776

TABLE VII - DIA DASH NO. "7", Ø.437

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1					
5 (.312)	.766	.0455	.4563	.2550	.4519
6 (.375)	.828			.3175	.4506
7 (.437)	.891			.3800	.4493
8 (.500)	.953			.4425	.4480
9 (.562)	1.016			.5050	.4467
10 (.625)	1.078			.5675	.4454
11 (.687)	1.141			.6300	.4441
12 (.750)	1.203			.6925	.4428
13 (.812)	1.266			.7550	.4415
14 (.875)	1.328			.8175	.4402
GROUP 2					
15 (.937)	1.391	.0455	.4745	.8800	.4571
16 (1.000)	1.453			.9425	.4558
17 (1.062)	1.516			1.0050	.4545
18 (1.125)	1.578			1.0675	.4532
19 (1.187)	1.641			1.1300	.4519
20 (1.250)	1.703			1.1925	.4506
21 (1.312)	1.766			1.2550	.4493
22 (1.375)	1.828			1.3175	.4480
23 (1.437)	1.891			1.3800	.4467
24 (1.500)	1.953			1.4425	.4454
25 (1.562)	2.016			1.5050	.4441
26 (1.625)	2.078			1.5675	.4428
27 (1.687)	2.141			1.6300	.4415
28 (1.750)	2.203			1.6925	.4402
GROUP 3					
29 (1.812)	2.266	.0455	.4927	1.7550	.4571
30 (1.875)	2.328			1.8175	.4558
31 (1.937)	2.391			1.8800	.4545
32 (2.000)	2.453			1.9425	.4532
33 (2.062)	2.516			2.0050	.4519
34 (2.125)	2.578			2.0675	.4506
35 (2.187)	2.641			2.1300	.4493
36 (2.250)	2.703			2.1925	.4480
37 (2.312)	2.766			2.2550	.4467
38 (2.375)	2.828			2.3175	.4454
39 (2.437)	2.891			2.3800	.4441
40 (2.500)	2.953			2.4425	.4428
41 (2.562)	3.016			2.5050	.4415
42 (2.625)	3.078			2.5675	.4402

REVISION

4

NAS1728

SHEET 7

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



TABLE VIII - DIA DASH NO. "8", Ø.500

TABLE VIII - DIA DASH NO. 8, Ø.500											
G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'	G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1						GROUP 3					
5 (.312)	.797	.0455	.5213	.2550	.5169	33 (2.062)	2.547	.0455	.5630	2.0050	.5221
6 (.375)	.860			.3175	.5156	34 (2.125)	2.610			2.0675	.5208
7 (.437)	.922			.3800	.5143	35 (2.187)	2.672			2.1300	.5195
8 (.500)	.985			.4425	.5130	36 (2.250)	2.735			2.1925	.5182
9 (.562)	1.047			.5050	.5117	37 (2.312)	2.797			2.2550	.5169
10 (.625)	1.110			.5675	.5104	38 (2.375)	2.860			2.3175	.5156
11 (.687)	1.172			.6300	.5091	39 (2.437)	2.922			2.3800	.5143
12 (.750)	1.235			.6925	.5078	40 (2.500)	2.985			2.4425	.5130
13 (.812)	1.297			.7550	.5065	41 (2.562)	3.047			2.5050	.5117
14 (.875)	1.360			.8175	.5052	42 (2.625)	3.110			2.5675	.5104
15 (.937)	1.422			.8800	.5039	43 (2.687)	3.172			2.6300	.5091
16 (1.000)	1.485			.9425	.5026	44 (2.750)	3.235			2.6925	.5078
GROUP 2						45 (2.812)	3.297			2.7550	.5065
17 (1.062)	1.547	.0455	.5421	1.0050	.5221	46 (2.875)	3.360	2.8175	.5052		
18 (1.125)	1.610			1.0675	.5208	47 (2.937)	3.422	2.8800	.5039		
19 (1.187)	1.672			1.1300	.5195	48 (3.000)	3.485	2.9425	.5026		
20 (1.250)	1.735			1.1925	.5182						
21 (1.312)	1.797			1.2550	.5169						
22 (1.375)	1.860			1.3175	.5156						
23 (1.437)	1.922			1.3800	.5143						
24 (1.500)	1.985			1.4425	.5130						
25 (1.562)	2.047			1.5050	.5117						
26 (1.625)	2.110			1.5675	.5104						
27 (1.687)	2.172			1.6300	.5091						
28 (1.750)	2.235			1.6925	.5078						
29 (1.812)	2.297			1.7550	.5065						
30 (1.875)	2.360			1.8175	.5052						
31 (1.937)	2.422			1.8800	.5039						
32 (2.000)	2.485			1.9425	.5026						

Copyrighted material. Licensed to Lisa Latta on 2020-02-20 for licensee's use only. No further reproduction or networking is permitted. Distributed by Reprints, <https://reprints1st.com>.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 12-01

REVISION

4

NAS1728

SHEET 8

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



TABLE IX - DIA DASH NO. "9", Ø.562

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'	G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1						GROUP 3					
6 (.375)	.960			.3175	.5891	49 (3.062)	3.647			3.0050	.5956
7 (.437)	1.022			.3800	.5878	50 (3.125)	3.710			3.0675	.5943
8 (.500)	1.085			.4425	.5865	51 (3.187)	3.772			3.1300	.5930
9 (.562)	1.147			.5050	.5852	52 (3.250)	3.835			3.1925	.5917
10 (.625)	1.210			.5675	.5839	53 (3.312)	3.897			3.2550	.5904
11 (.687)	1.272			.6300	.5826	54 (3.375)	3.960			3.3175	.5891
12 (.750)	1.335			.6925	.5813	55 (3.437)	4.022			3.3800	.5878
13 (.812)	1.397			.7550	.5800	56 (3.500)	4.085			3.4425	.5865
14 (.875)	1.460			.8175	.5787	57 (3.562)	4.147			3.5050	.5852
15 (.937)	1.522	.1925	.5917	.8800	.5774	58 (3.625)	4.210			3.5675	.5839
16 (1.000)	1.585			.9425	.5761	59 (3.687)	4.272			3.6300	.5826
17 (1.062)	1.647			1.0050	.5748	60 (3.750)	4.335	.1925	.6542	3.6925	.5813
18 (1.125)	1.710			1.0675	.5735	61 (3.812)	4.397			3.7550	.5800
19 (1.187)	1.772			1.1300	.5722	62 (3.875)	4.460			3.8175	.5787
20 (1.250)	1.835			1.1925	.5709	63 (3.937)	4.522			3.8800	.5774
21 (1.312)	1.897			1.2550	.5696	64 (4.000)	4.585			3.9425	.5761
22 (1.375)	1.960			1.3175	.5683	65 (4.062)	4.647			4.0050	.5748
23 (1.437)	2.022			1.3800	.5670	66 (4.125)	4.710			4.0675	.5735
24 (1.500)	2.085			1.4425	.5657	67 (4.187)	4.772			4.1300	.5722
GROUP 2						68 (4.250)	4.835			4.1925	.5709
25 (1.562)	2.147			1.5050	.5956	69 (4.312)	4.897			4.2550	.5696
26 (1.625)	2.210			1.5675	.5943	70 (4.375)	4.960			4.3175	.5683
27 (1.687)	2.272			1.6300	.5930	71 (4.437)	5.022			4.3800	.5670
28 (1.750)	2.335			1.6925	.5917	72 (4.500)	5.085			4.4425	.5657
29 (1.812)	2.397			1.7550	.5904						
30 (1.875)	2.460			1.8175	.5891						
31 (1.937)	2.522			1.8800	.5878						
32 (2.000)	2.585			1.9425	.5865						
33 (2.062)	2.647			2.0050	.5852						
34 (2.125)	2.710			2.0675	.5839						
35 (2.187)	2.772			2.1300	.5826						
36 (2.250)	2.835	.1925	.6230	2.1925	.5813						
37 (2.312)	2.897			2.2550	.5800						
38 (2.375)	2.960			2.3175	.5787						
39 (2.437)	3.022			2.3800	.5774						
40 (2.500)	3.085			2.4425	.5761						
41 (2.562)	3.147			2.5050	.5748						
42 (2.625)	3.210			2.5675	.5735						
43 (2.687)	3.272			2.6300	.5722						
44 (2.750)	3.335			2.6925	.5709						
45 (2.812)	3.397			2.7550	.5696						
46 (2.875)	3.460			2.8175	.5683						
47 (2.937)	3.522			2.8800	.5670						
48 (3.000)	3.585			2.9425	.5657						

REVISION

4

NAS1728

SHEET 9

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

Copyrighted material. Licensed to Lisa Lallo on 2026-02-20 for licensee's use only. No further reproduction or networking is permitted. Distributed by AccuTech, https://accutech.com.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST REVISION DATE.

FORM 12-01



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



TABLE X - DIA DASH NO. "10", Ø.625

TABLE X - DIA DASH NO. 107-0102													
G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'	G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'		
GROUP 1						GROUP 3							
7 (.437)	1.067	.1925	.6574	.3800	.6535	53 (3.312)	3.942	.1925	.7252	3.2550	.6614		
8 (.500)	1.130			.4425	.6522	54 (3.375)	4.005			3.3175	.6600		
9 (.562)	1.192			.5050	.6509	55 (3.437)	4.067			3.3800	.6587		
10 (.625)	1.255			.5675	.6496	56 (3.500)	4.130			3.4425	.6574		
11 (.687)	1.317			.6300	.6483	57 (3.562)	4.192			3.5050	.6561		
12 (.750)	1.380			.6925	.6470	58 (3.625)	4.255			3.5675	.6548		
13 (.812)	1.442			.7550	.6457	59 (3.687)	4.317			3.6300	.6535		
14 (.875)	1.505			.8175	.6444	60 (3.750)	4.380			3.6925	.6522		
15 (.937)	1.567			.8800	.6431	61 (3.812)	4.442			3.7550	.6509		
16 (1.000)	1.630			.9425	.6418	62 (3.875)	4.505			3.8175	.6496		
17 (1.062)	1.692			1.0050	.6405	63 (3.937)	4.567			3.8800	.6483		
18 (1.125)	1.755			1.0675	.6392	64 (4.000)	4.630			3.9425	.6470		
19 (1.187)	1.817			1.1300	.6379	65 (4.062)	4.692			4.0050	.6457		
20 (1.250)	1.880			1.1925	.6366	66 (4.125)	4.755			4.0675	.6444		
21 (1.312)	1.942			1.2550	.6353	67 (4.187)	4.817			4.1300	.6431		
22 (1.375)	2.005			1.3175	.6340	68 (4.250)	4.880			4.1925	.6418		
23 (1.437)	2.067			1.3800	.6327	69 (4.312)	4.942			4.2550	.6405		
24 (1.500)	2.130			1.4425	.6314	70 (4.375)	5.005			4.3175	.6392		
25 (1.562)	2.192			1.5050	.6301	71 (4.437)	5.067			4.3800	.6379		
26 (1.625)	2.255			1.5675	.6288	72 (4.500)	5.130			4.4425	.6366		
GROUP 2						73 (4.562)	5.192			4.5050	.6353		
27 (1.687)	2.317			.1925	.6913	1.6300	.6614			74 (4.625)	5.255	4.5675	.6340
28 (1.750)	2.380					1.6925	.6600			75 (4.687)	5.317	4.6300	.6327
29 (1.812)	2.442					1.7550	.6587			76 (4.750)	5.380	4.6925	.6314
30 (1.875)	2.505					1.8175	.6574			77 (4.812)	5.442	4.7550	.6301
31 (1.937)	2.567					1.8800	.6561			78 (4.875)	5.505	4.8175	.6288
32 (2.000)	2.630	1.9425	.6548										
33 (2.062)	2.692	2.0050	.6535										
34 (2.125)	2.755	2.0675	.6522										
35 (2.187)	2.817	2.1300	.6509										
36 (2.250)	2.880	2.1925	.6496										
37 (2.312)	2.942	2.2550	.6483										
38 (2.375)	3.005	2.3175	.6470										
39 (2.437)	3.067	2.3800	.6457										
40 (2.500)	3.130	2.4425	.6444										
41 (2.562)	3.192	2.5050	.6431										
42 (2.625)	3.255	2.5675	.6418										
43 (2.687)	3.317	2.6300	.6405										
44 (2.750)	3.380	2.6925	.6392										
45 (2.812)	3.442	2.7550	.6379										
46 (2.875)	3.505	2.8175	.6366										
47 (2.937)	3.567	2.8800	.6353										
48 (3.000)	3.630	2.9425	.6340										
49 (3.062)	3.692	3.0050	.6327										
50 (3.125)	3.755	3.0675	.6314										
51 (3.187)	3.817	3.1300	.6301										
52 (3.250)	3.880	3.1925	.6288										

REVISION

4

NAS1728

SHEET 10

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

Copyrighted material. Licensed to Lisa Lajoie on 2026-02-20 for Licensee's use only. No further reproduction or networking is permitted. Distributed by AccuTech.com, <https://accutech.com>.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 12-01



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



TABLE XI - DIA DASH NO. "12", Ø.750

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'	G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1						GROUP 2 (CONT)					
8 (.500)	1.225			.4425	.7836	53 (3.312)	4.037			3.2550	.7641
9 (.562)	1.287			.5050	.7823	54 (3.375)	4.100			3.3175	.7628
10 (.625)	1.350			.5675	.7810	55 (3.437)	4.162			3.3800	.7615
11 (.687)	1.412			.6300	.7797	56 (3.500)	4.225			3.4425	.7602
12 (.750)	1.475			.6925	.7784	57 (3.562)	4.287	.2550	.8266	3.5050	.7589
13 (.812)	1.537			.7550	.7771	58 (3.625)	4.350			3.5675	.7576
14 (.875)	1.600			.8175	.7758	59 (3.687)	4.412			3.6300	.7563
15 (.937)	1.662			.8800	.7745	60 (3.750)	4.475			3.6925	.7550
16 (1.000)	1.725			.9425	.7732	GROUP 3					
17 (1.062)	1.787			1.0050	.7719	61 (3.812)	4.537			3.7550	.7928
18 (1.125)	1.850			1.0675	.7706	62 (3.875)	4.600			3.8175	.7915
19 (1.187)	1.912	.2550	.7876	1.1300	.7693	63 (3.937)	4.662			3.8800	.7902
20 (1.250)	1.975			1.1925	.7680	64 (4.000)	4.725			3.9425	.7889
21 (1.312)	2.037			1.2550	.7667	65 (4.062)	4.787			4.0050	.7876
22 (1.375)	2.100			1.3175	.7654	66 (4.125)	4.850			4.0675	.7862
23 (1.437)	2.162			1.3800	.7641	67 (4.187)	4.912			4.1300	.7849
24 (1.500)	2.225			1.4425	.7628	68 (4.250)	4.975			4.1925	.7836
25 (1.562)	1.287			1.5050	.7615	69 (4.312)	5.037			4.2550	.7823
26 (1.625)	2.350			1.5675	.7602	70 (4.375)	5.100			4.3175	.7810
27 (1.687)	2.412			1.6300	.7589	71 (4.437)	5.162			4.3800	.7797
28 (1.750)	2.475			1.6925	.7576	72 (4.500)	5.225			4.4425	.7784
29 (1.812)	2.537			1.7550	.7563	73 (4.562)	5.287			4.5050	.7771
30 (1.875)	2.600			1.8175	.7550	74 (4.625)	5.350			4.5675	.7758
GROUP 2						75 (4.687)	5.412	.2550	.8657	4.6300	.7745
31 (1.937)	2.662			1.8800	.7928	76 (4.750)	5.475			4.6925	.7732
32 (2.000)	2.725			1.9425	.7915	77 (4.812)	5.537			4.7550	.7719
33 (2.062)	2.787			2.0050	.7902	78 (4.875)	5.600			4.8175	.7706
34 (2.125)	2.850			2.0675	.7889	79 (4.937)	5.662			4.8800	.7693
35 (2.187)	2.912			2.1300	.7876	80 (5.000)	5.725			4.9425	.7680
36 (2.250)	2.975			2.1925	.7862	81 (5.062)	5.787			5.0050	.7667
37 (2.312)	3.037			2.2550	.7849	82 (5.125)	5.850			5.0675	.7654
38 (2.375)	3.100			2.3175	.7836	83 (5.187)	5.912			5.1300	.7641
39 (2.437)	3.162			2.3800	.7823	84 (5.250)	5.975			5.1925	.7628
40 (2.500)	3.225			2.4425	.7810	85 (5.312)	6.037			5.2550	.7615
41 (2.562)	3.287	.2550	.8266	2.5050	.7797	86 (5.375)	6.100			5.3175	.7602
42 (2.625)	3.350			2.5675	.7784	87 (5.437)	6.162			5.3800	.7589
43 (2.687)	3.412			2.6300	.7771	88 (5.500)	6.225			5.4425	.7576
44 (2.750)	3.475			2.6925	.7758	89 (5.562)	6.287			5.5050	.7563
45 (2.812)	3.537			2.7550	.7745	90 (5.625)	6.350			5.5675	.7550
46 (2.875)	3.600			2.8175	.7732						
47 (2.937)	3.662			2.8800	.7719						
48 (3.000)	3.725			2.9425	.7706						
49 (3.062)	3.787			3.0050	.7693						
50 (3.125)	3.850			3.0675	.7680						
51 (3.187)	3.912			3.1300	.7667						
52 (3.250)	3.975			3.1925	.7654						

REVISION

4

NAS1728

SHEET 11

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

Copyrighted material. Licensed to Lisa Lallo on 2025-02-20 for licensee's use only. No further reproduction or reworking is permitted. Distributed by Accuris. <https://securis1stech.com>.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 12-01



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



TABLE XII - DIA DASH NO. "14", Ø.875

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'	G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1						GROUP 2 (CONT)					
9 (.562)	1.392			.5050	.9163	61 (3.812)	4.642			3.7550	.8955
10 (.625)	1.455			.5675	.9150	62 (3.875)	4.705			3.8175	.8942
11 (.687)	1.517			.6300	.9137	63 (3.937)	4.767			3.8800	.8929
12 (.750)	1.580			.6925	.9124	64 (4.000)	4.830			3.9425	.8916
13 (.812)	1.642			.7550	.9111	65 (4.062)	4.892			4.0050	.8903
14 (.875)	1.705			.8175	.9098	66 (4.125)	4.955	.2550	.9684	4.0675	.8890
15 (.937)	1.767			.8800	.9085	67 (4.187)	5.017			4.1300	.8877
16 (1.000)	1.830			.9425	.9072	68 (4.250)	5.080			4.1925	.8864
17 (1.062)	1.892			1.0050	.9059	69 (4.312)	5.142			4.2550	.8851
18 (1.125)	1.955			1.0675	.9046	70 (4.375)	5.205			4.3175	.8838
19 (1.187)	2.017			1.1300	.9033	71 (4.437)	5.267			4.3800	.8825
20 (1.250)	2.080			1.1925	.9020	72 (4.500)	5.330			4.4425	.8812
21 (1.312)	2.142			1.2550	.9007	GROUP 3					
22 (1.375)	2.205	.2550	.9216	1.3175	.8994	73 (4.562)	5.392			4.5050	.9268
23 (1.437)	2.267			1.3800	.8981	74 (4.625)	5.455			4.5675	.9255
24 (1.500)	2.330			1.4425	.8968	75 (4.687)	5.517			4.6300	.9242
25 (1.562)	2.392			1.5050	.8955	76 (4.750)	5.580			4.6925	.9229
26 (1.625)	2.455			1.5675	.8942	77 (4.812)	5.642			4.7550	.9216
27 (1.687)	2.517			1.6300	.8929	78 (4.875)	5.705			4.8175	.9203
28 (1.750)	2.580			1.6925	.8916	79 (4.937)	5.767			4.8800	.9190
29 (1.812)	2.642			1.7550	.8903	80 (5.000)	5.830			4.9425	.9177
30 (1.875)	2.705			1.8175	.8890	81 (5.062)	5.892			5.0050	.9164
31 (1.937)	2.767			1.8800	.8877	82 (5.125)	5.955			5.0675	.9151
32 (2.000)	2.830			1.9425	.8864	83 (5.187)	6.017			5.1300	.9138
33 (2.062)	2.892			2.0050	.8851	84 (5.250)	6.080			5.1925	.9124
34 (2.125)	2.955			2.0675	.8838	85 (5.312)	6.142			5.2550	.9111
35 (2.187)	3.017			2.1300	.8825	86 (5.375)	6.205			5.3175	.9098
36 (2.250)	3.080			2.1925	.8812	87 (5.437)	6.267			5.3800	.9085
GROUP 2						88 (5.500)	6.330			5.4425	.9072
37 (2.312)	3.142			2.2550	.9268	89 (5.562)	6.392	.2550	1.0153	5.5050	.9059
38 (2.375)	3.205			2.3175	.9255	90 (5.625)	6.455			5.5675	.9046
39 (2.437)	3.267			2.3800	.9242	91 (5.687)	6.517			5.6300	.9033
40 (2.500)	3.330			2.4425	.9229	92 (5.750)	6.580			5.6925	.9020
41 (2.562)	3.392			2.5050	.9216	93 (5.812)	6.642			5.7550	.9007
42 (2.625)	3.455			2.5675	.9203	94 (5.875)	6.705			5.8175	.8994
43 (2.687)	3.517			2.6300	.9190	95 (5.937)	6.767			5.8800	.8981
44 (2.750)	3.580			2.6925	.9177	96 (6.000)	6.830			5.9425	.8968
45 (2.812)	3.642			2.7550	.9164	97 (6.062)	6.892			6.0050	.8955
46 (2.875)	3.705			2.8175	.9151	98 (6.125)	6.955			6.0675	.8942
47 (2.937)	3.767			2.8800	.9138	99 (6.187)	7.017			6.1300	.8929
48 (3.000)	3.830			2.9425	.9124	100 (6.250)	7.080			6.1925	.8916
49 (3.062)	3.892	.2550	.9684	3.0050	.9111	101 (6.312)	7.142			6.2550	.8903
50 (3.125)	3.955			3.0675	.9098	102 (6.375)	7.205			6.3175	.8890
51 (3.187)	4.017			3.1300	.9085	103 (6.437)	7.267			6.3800	.8877
52 (3.250)	4.080			3.1925	.9072	104 (6.500)	7.330			6.4425	.8864
53 (3.312)	4.142			3.2550	.9059	105 (6.562)	7.392			6.5050	.8851
54 (3.375)	4.205			3.3175	.9046	106 (6.625)	7.455			6.5675	.8838
55 (3.437)	4.267			3.3800	.9033	107 (6.687)	7.517			6.6300	.8825
56 (3.500)	4.330			3.4425	.9020	108 (6.750)	7.580			6.6925	.8812
57 (3.562)	4.392			3.5050	.9007						
58 (3.625)	4.455			3.5675	.8994						
59 (3.687)	4.517			3.6300	.8981						
60 (3.750)	4.580			3.6925	.8968						

REVISION

4

NAS1728

SHEET 12

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

Copyrighted material. Licensed to Lisa Lallo on 2026-02-20 for Licensee's use only. No further reproduction or networking is permitted. Distributed by AccurIs. <https://accurIs.tech.com>.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST REVISION DATE.

FORM 12-01



NATIONAL AEROSPACE STANDARD

© COPYRIGHT 2016 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED



TABLE XIII - DIA DASH NO. "16", Ø1.000

G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'	G GRIP DASH NO. +.005 -.010	L LENGTH +.015 -.010	K +.040 -.000	ØB	K' +.040 -.000	ØB'
GROUP 1						GROUP 2 (CONT)					
10 (.625)	1.555			.5675	1.0465	68 (4.250)	5.180			4.1925	1.0230
11 (.687)	1.617			.6300	1.0452	69 (4.312)	5.242			4.2550	1.0217
12 (.750)	1.680			.6925	1.0439	70 (4.375)	5.305			4.3175	1.0204
13 (.812)	1.742			.7550	1.0426	71 (4.437)	5.367			4.3800	1.0191
14 (.875)	1.805			.8175	1.0413	72 (4.500)	5.430			4.4425	1.0178
15 (.937)	1.867			.8800	1.0400	73 (4.562)	5.492			4.5050	1.0165
16 (1.000)	1.930			.9425	1.0386	74 (4.625)	5.555	.2550	1.1051	4.5675	1.0152
17 (1.062)	1.992			1.0050	1.0373	75 (4.687)	5.617			4.6300	1.0139
18 (1.125)	2.055			1.0675	1.0360	76 (4.750)	5.680			4.6925	1.0126
19 (1.187)	2.117			1.1300	1.0347	77 (4.812)	5.742			4.7550	1.0113
20 (1.250)	2.180			1.1925	1.0334	78 (4.875)	5.805			4.8175	1.0100
21 (1.312)	2.242			1.2550	1.0321	79 (4.937)	5.867			4.8800	1.0087
22 (1.375)	2.305			1.3175	1.0308	80 (5.000)	5.930			4.9425	1.0074
23 (1.437)	2.367			1.3800	1.0295	GROUP 3					
24 (1.500)	2.430			1.4425	1.0282	81 (5.062)	5.992			5.0050	1.0582
25 (1.562)	2.492	.2550	1.0530	1.5050	1.0269	82 (5.125)	6.055			5.0675	1.0569
26 (1.625)	2.555			1.5675	1.0256	83 (5.187)	6.117			5.1300	1.0556
27 (1.687)	2.617			1.6300	1.0243	84 (5.250)	6.180			5.1925	1.0543
28 (1.750)	2.680			1.6925	1.0230	85 (5.312)	6.242			5.2550	1.0530
29 (1.812)	2.742			1.7550	1.0217	86 (5.375)	6.305			5.3175	1.0517
30 (1.875)	2.805			1.8175	1.0204	87 (5.437)	6.367			5.3800	1.0504
31 (1.937)	2.867			1.8800	1.0191	88 (5.500)	6.430			5.4425	1.0491
32 (2.000)	2.930			1.9425	1.0178	89 (5.562)	6.492			5.5050	1.0478
33 (2.062)	2.992			2.0050	1.0165	90 (5.625)	6.555			5.5675	1.0465
34 (2.125)	3.055			2.0675	1.0152	91 (5.687)	6.617			5.6300	1.0452
35 (2.187)	3.117			2.1300	1.0139	92 (5.750)	6.680			5.6925	1.0439
36 (2.250)	3.180			2.1925	1.0126	93 (5.812)	6.742			5.7550	1.0426
37 (2.312)	3.242			2.2550	1.0113	94 (5.875)	6.805			5.8175	1.0413
38 (2.375)	3.305			2.3175	1.0100	95 (5.937)	6.867			5.8800	1.0400
39 (2.437)	3.367			2.3800	1.0087	96 (6.000)	6.930			5.9425	1.0386
40 (2.500)	3.430			2.4425	1.0074	97 (6.062)	6.992			6.0050	1.0373
GROUP 2						98 (6.125)	7.055			6.0675	1.0360
41 (2.562)	3.492			2.5050	1.0582	99 (6.187)	7.117			6.1300	1.0347
42 (2.625)	3.555			2.5675	1.0569	100 (6.250)	7.180	.2550	1.1571	6.1925	1.0334
43 (2.687)	3.617			2.6300	1.0556	101 (6.312)	7.242			6.2550	1.0321
44 (2.750)	3.680			2.6925	1.0543	102 (6.375)	7.305			6.3175	1.0308
45 (2.812)	3.742			2.7550	1.0530	103 (6.437)	7.367			6.3800	1.0295
46 (2.875)	3.805			2.8175	1.0517	104 (6.500)	7.430			6.4425	1.0282
47 (2.937)	3.867			2.8800	1.0504	105 (6.562)	7.492			6.5050	1.0269
48 (3.000)	3.930			2.9425	1.0491	106 (6.625)	7.555			6.5675	1.0256
49 (3.062)	3.992			3.0050	1.0478	107 (6.687)	7.617			6.6300	1.0243
50 (3.125)	4.055			3.0675	1.0465	108 (6.750)	7.680			6.6925	1.0230
51 (3.187)	4.117			3.1300	1.0452	109 (6.812)	7.742			6.7550	1.0217
52 (3.250)	4.180			3.1925	1.0439	110 (6.875)	7.805			6.8175	1.0204
53 (3.312)	4.242			3.2550	1.0426	111 (6.937)	7.867			6.8800	1.0191
54 (3.375)	4.305	.2550	1.1051	3.3175	1.0413	112 (7.000)	7.930			6.9425	1.0178
55 (3.437)	4.367			3.3800	1.0400	113 (7.062)	7.992			7.0050	1.0165
56 (3.500)	4.430			3.4425	1.0386	114 (7.125)	8.055			7.0675	1.0152
57 (3.562)	4.492			3.5050	1.0373	115 (7.187)	8.117			7.1300	1.0139
58 (3.625)	4.555			3.5675	1.0360	116 (7.250)	8.180			7.1925	1.0126
59 (3.687)	4.617			3.6300	1.0347	117 (7.312)	8.242			7.2550	1.0113
60 (3.750)	4.680			3.6925	1.0334	118 (7.375)	8.305			7.3175	1.0100
61 (3.812)	4.742			3.7550	1.0321	119 (7.437)	8.367			7.3800	1.0087
62 (3.875)	4.805			3.8175	1.0308	120 (7.500)	8.430			7.4425	1.0074
63 (3.937)	4.867			3.8800	1.0295						
64 (4.000)	4.930			3.9425	1.0282						
65 (4.062)	4.992			4.0050	1.0269						
66 (4.125)	5.055			4.0675	1.0256						
67 (4.187)	5.117			4.1300	1.0243						

REVISION

4

NAS1728

SHEET 13

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PRODUCED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARKS RIGHTS.

Copyrighted material licensed to Lisa Lallo on 2025-02-29 for licensee's use only.
No further reproduction or networking is permitted. Distributed by Accuris. <https://accuristech.com>.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 12-01