

INCH-POUND

MIL-P-23469/2B(SH)

19 February 1988

SUPERSEDING

MIL-P-23469/2A(SHIPS)

31 May 1967

MILITARY SPECIFICATION SHEET

- (B) PIN-RIVET, GROOVED, BRAZIER HEAD; STRAIGHT SHANK,
SIX LOCKING GROOVES, ALUMINUM ALLOY,
CORROSION-RESISTANT AND CARBON STEELS

- (B) This specification sheet is approved for use within the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.
- (B) The requirements for acquiring the pins described herein shall consist of this specification and the latest issue of MIL-P-23469.

Brazier head, swage-locking pins shall be furnished in the following type and classes. Pins manufactured to this specification are intended for use with collars manufactured in accordance with MIL-P-23469.

Type I - Six locking grooves (see figure 1)

- (B) Class 1 - Aluminum alloy
Class 2 - Corrosion resistant steel
Class 3 - Carbon steel
Class 5 - Carbon steel, high strength

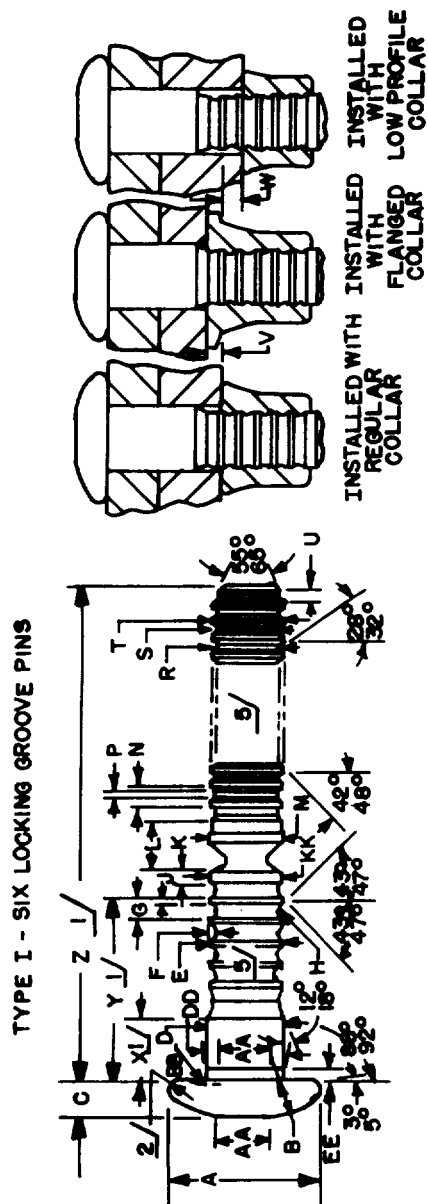
(B) Denotes changes.

AMSC N/A

FSC 5320

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MIL-P-23469/2B(SH)



SH 13203038

Nom dia	A	AA Dia	B Ref rad	BB Rad	C	CC 3/	D Dia 4/	DD Dia 4/	E Dia	EE 4/	F	FF 6/	G Pitch	H Rad ref	J	K Max	KK Dia	L Max
3/16	.394 .356	.103 .083	.173	.015 .020	.113 .125	.015	.195 .191	.196	.1845 .1815	.047	.012 .014	.187	.041 .043	.013	.004 .006	.036	.1845 .1780	.250
1/4	.525 .475	.135 .115	.231	.015 .020	.136 .152	.015	.259 .254	.260	.2415 .2355	.063	.0155 .0175	.250	.054 .056	.018	.006 .008	.046	.2415 .2355	.250
5/16	.656 .594	.166 .146	.291	.015 .025	.181 .201	.020	.322 .317	.324	.3015 .2975	.078	.019 .021	.312	.068 .070	.024	.007 .009	.066	.3015 .2950	.250
3/8	.787 .713	.197 .177	.352	.020 .025	.223 .248	.020	.385 .380	.387	.369 .360	.094	.024 .028	.375	.082 .086	.026	.008 .012	.102	.369 .360	.375

See footnotes at end of figure.

FIGURE 1. Type I - six locking grooves.

Nom dia	M Dia	N 7/ Pitch	P	R Dia	S	T Max Dia	U Min	V 9/ Flanged collar	W 10/ Low profile collar		Hole preparation data 8/	
											Size drill	Max hole dia
3/16	.1835 .1720	.0307 .0317	.012 .014	.168 .164	.0045 .0065	.181 .241	.047 .063	.047 .063	.094 .125		No. 9 (.196) Let. "G" (.261)	13/64 17/64
1/4	.2405 .2250	.0463 .0473	.015 .017	.211 .207	.013 .015	.297 .350	.078 .094	.078 .094	.125 .156		Let. "P" (.323) Let. "W" (.386)	21/64 25/64
5/16	.3005 .2810	.0463 .0473	.015 .017	.267 .263	.013 .015							
3/8	.3665 .3410	.0463 .0473	.0185 .0205	.331 .327	.0065 .0095							

1/ "X", "Y", and "Z" shown in table I.

2/ Radius is natural flow of material.

3/ Conical surface of head to "D" body diameter must be concentric within "CC" TIR.

4/ Shank taper permissible: "DD" maximum diameter; "EE" maximum length.

5/ Dimensions indicated on locking grooves and pull grooves are typical.

6/ Maximum depth of 0.0015 and maximum width of "FF" permissible underfill along "D" body diameter.

7/ Accumulated pitch tolerance not to exceed plus or minus 0.002 on any ten consecutive pull grooves.

8/ For interference fit requirements, sheet hole size to be a maximum of 0.003 smaller than actual pin "D" body diameter.

Collar: regular height - use grip shown in table I.

9/ Flanged - add flange thickness "V" to actual thickness to be fastened to determine "grip" to be used in specifying dash number, table I.

10/ Low profile - subtract "W" from actual thickness to be fastened to determine "grip" to be used in specifying dash number, table I.

NOTES:

1. MIL-P-23469/2B and MIL-P-23469/2A pins are interchangeable type for type, class for class, and size for size.
2. Dimensions are in inches.
3. 5/16 nominal diameter has 7 locking grooves.
4. Shank must be straight within 0.004 TIR per inch of length.

FIGURE 1. Type I - six locking grooves. - Continued

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TABLE I. Six locking grooves.

Dash number identification																	
M23469/2 1/				3/16 diameter				M23469/2 1/				1/4 diameter					
ALUM Class 1	CRES Class 2	Carbon steel Class 3	Carbon steel high strength Class 5	Grip range		X	Y	Z	ALUM Class 1	CRES Class 2	Carbon steel Class 3	Carbon steel high strength Class 5	Grip range		X	Y	Z
				min	max								min	max			
-10602	-20602	-30602	-50602	.062	.187	.062	.326	1.50	-10802	-20802	-30802	-50802	.062	.187	.062	.396	1.63
-10603	-20603	-30603	-50603	.125	.250	.125	.389	1.56	-10803	-20803	-30803	-50803	.125	.250	.125	.459	1.69
-10604	-20604	-30604	-50604	.187	.312	.187	.451	1.63	-10804	-20804	-30804	-50804	.187	.312	.187	.521	1.75
-10605	-20605	-30605	-50605	.250	.375	.250	.514	1.69	-10805	-20805	-30805	-50805	.250	.375	.250	.584	1.81
-10606	-20606	-30606	-50606	.312	.437	.312	.576	1.75	-10806	-20806	-30806	-50806	.312	.437	.312	.646	1.88
-10607	-20607	-30607	-50607	.375	.500	.375	.639	1.81	-10807	-20807	-30807	-50807	.375	.500	.375	.709	1.94
-10608	-20608	-30608	-50608	.437	.562	.437	.701	1.88	-10808	-20808	-30808	-50808	.437	.562	.437	.771	2.00
-10609	-20609	-30609	-50609	.500	.625	.500	.764	1.94	-10809	-20809	-30809	-50809	.500	.625	.500	.834	2.06
-10610	-20610	-30610	-50610	.562	.687	.562	.826	2.00	-10810	-20810	-30810	-50810	.562	.687	.562	.896	2.13
-10611	-20611	-30611	-50611	.625	.750	.625	.889	2.06	-10811	-20811	-30811	-50811	.625	.750	.625	.959	2.19
-10612	-20612	-30612	-50612	.687	.812	.687	.951	2.13	-10812	-20812	-30812	-50812	.687	.812	.687	1.021	2.25
-10613	-20613	-30613	-50613	.750	.875	.750	1.014	2.19	-10813	-20813	-30813	-50813	.750	.875	.750	1.084	2.31
-10614	-20614	-30614	-50614	.812	.937	.812	1.076	2.25	-10814	-20814	-30814	-50814	.812	.937	.812	1.146	2.38
-10615	-20615	-30615	-50615	.875	1.000	.875	1.139	2.31	-10815	-20815	-30815	-50815	.875	1.000	.875	1.209	2.44
-10616	-20616	-30616	-50616	.937	1.062	.937	1.201	2.38	-10816	-20816	-30816	-50816	.937	1.062	.937	1.271	2.50
-10617	-20617	-30617	-50617	1.000	1.125	1.000	1.264	2.44	-10817	-20817	-30817	-50817	1.000	1.125	1.000	1.334	2.56
-10618	-20618	-30618	-50618	1.062	1.187	1.062	1.326	2.50	-10818	-20818	-30818	-50818	1.062	1.187	1.062	1.396	2.63
-10619	-20619	-30619	-50619	1.125	1.250	1.125	1.389	2.56	-10819	-20819	-30819	-50819	1.125	1.250	1.125	1.459	2.69
-10620	-20620	-30620	-50620	1.187	1.312	1.187	1.451	2.63	-10820	-20820	-30820	-50820	1.187	1.312	1.187	1.521	2.75

See footnotes at end of table.

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TABLE I. Six locking grooves. - Continued

Dash number identification																		
M23469/2 1/				3/16 diameter					M23469/2 1/				1/4 diameter					
ALUM Class 1	CRES Class 2	Carbon steel Class 3	Carbon steel high strength Class 5	Grip range			X	Y	Z .00 +.13	ALUM Class 1	CRES Class 2	Carbon steel Class 3	Carbon steel high strength Class 5	Grip range		X	Y	Z
				min	max	min								max				
-10621	-20621	-30621	-50621	1.250	1.375	1.250	1.250	1.514	2.69	-10821	-20821	-30821	-50821	1.250	1.375	1.250	1.584	2.81
-10622	-20622	-30622	-50622	1.312	1.437	1.312	1.312	1.576	2.75	-10822	-20822	-30822	-50822	1.312	1.437	1.312	1.646	2.88
-10623	-20623	-30623	-50623	1.375	1.500	1.375	1.375	1.639	2.81	-10823	-20823	-30823	-50823	1.375	1.500	1.375	1.709	2.94
-10624	-20624	-30624	-50624	1.437	1.562	1.437	1.437	1.701	2.88	-10824	-20824	-30824	-50824	1.437	1.562	1.437	1.771	3.00
-10625	-20625	-30625	-50625	1.500	1.625	1.500	1.500	1.764	2.94	-10825	-20825	-30825	-50825	1.500	1.625	1.500	1.834	3.06
-10626	-20626	-30626	-50626	1.562	1.687	1.562	1.562	1.826	3.00	-10826	-20826	-30826	-50826	1.562	1.687	1.562	1.896	3.13
-10627	-20627	-30627	-50627	1.625	1.750	1.625	1.625	1.889	3.06	-10827	-20827	-30827	-50827	1.625	1.750	1.625	1.959	3.19
-10628	-20628	-30628	-50628	1.687	1.812	1.687	1.687	1.951	3.13	-10828	-20828	-30828	-50828	1.687	1.812	1.687	2.021	3.25
-10629	-20629	-30629	-50629	1.750	1.875	1.750	1.750	2.014	3.19	-10829	-20829	-30829	-50829	1.750	1.875	1.750	2.084	3.31
-10630	-20630	-30630	-50630	1.812	1.937	1.812	1.812	2.076	3.25	-10830	-20830	-30830	-50830	1.812	1.937	1.812	2.146	3.38
-10631	-20631	-30631	-50631	1.875	2.000	1.875	1.875	2.139	3.31	-10831	-20831	-30831	-50831	1.875	2.000	1.875	2.209	3.44
-10632	-20632	-30632	-50632	1.937	2.062	1.937	1.937	2.201	3.38	-10832	-20832	-30832	-50832	1.937	2.062	1.937	2.271	3.50
				5/16 diameter										3/8 diameter				
-11004	-21004	-31004	-51004	.125	.375	.125	.125	.632	2.03	-11204	-21204	-31204	-51204	.125	.375	.125	.658	2.25
-11006	-21006	-31006	-51006	.250	.500	.250	.250	.757	2.15	-11206	-21206	-31206	-51206	.250	.500	.250	.783	2.38
-11008	-21008	-31008	-51008	.375	.625	.375	.375	.882	2.28	-11208	-21208	-31208	-51208	.375	.625	.375	.908	2.50
-11010	-21010	-31010	-51010	.500	.750	.500	.500	1.01	2.40	-11210	-21210	-31210	-51210	.500	.750	.500	1.033	2.63
-11012	-21012	-31012	-51012	.625	.875	.625	.625	1.13	2.53	-11212	-21212	-31212	-51212	.625	.875	.625	1.158	2.75

See footnote at end of table.

TABLE I. Six locking grooves. - Continued

Dash number identification																	
M23469/2 1/				5/16 diameter				M23469/2 1/									
ALUM Class 1	CRES Class 2	Carbon steel Class 3	Carbon steel high strength Class 5	X Y Z .00 + .13			Grip range		ALUM Class 1	CRES Class 2	Carbon steel Class 3	Carbon steel high strength Class 5					
				X	Y	Z	min	max									
-11014	-21014	-31014	-51014	.750	1.000	2.65	.750	1.26	-11214	-21214	-31214	-51214	.750	1.000	.750	1.283	2.88
-11016	-21016	-31016	-51016	.875	1.125	2.78	.875	1.38	-11216	-21216	-31216	-51216	.875	1.125	.875	1.408	3.00
-11018	-21018	-31018	-51018	1.000	1.250	2.90	1.000	1.51	-11218	-21218	-31218	-51218	1.000	1.250	1.000	1.533	3.13
-11020	-21020	-31020	-51020	1.125	1.375	3.03	1.125	1.63	-11220	-21220	-31220	-51220	1.125	1.375	1.125	1.658	3.25
-11022	-21022	-31022	-51022	1.250	1.500	3.15	1.250	1.76	-11222	-21222	-31222	-51222	1.250	1.500	1.250	1.783	3.38
-11024	-21024	-31024	-51024	1.375	1.625	3.28	1.375	1.88	-11224	-21224	-31224	-51224	1.375	1.625	1.375	1.908	3.50
-11026	-21026	-31026	-51026	1.500	1.750	3.40	1.500	2.01	-11226	-21226	-31226	-51226	1.500	1.750	1.500	2.033	3.63
-11028	-21028	-31028	-51028	1.625	1.875	3.53	1.625	2.13	-11228	-21228	-31228	-51228	1.625	1.875	1.625	2.158	3.75
-11030	-21030	-31030	-51030	1.750	2.000	3.65	1.750	2.26	-11230	-21230	-31230	-51230	1.750	2.000	1.750	2.283	3.88
-11032	-21032	-31032	-51032	1.875	2.125	3.78	1.875	2.38	-11232	-21232	-31232	-51232	1.875	2.125	1.875	2.408	4.00

See footnote at top of next page.

MIL-P-23469/2B(SH)

1/ Part number example -

M23469/2-11214

Basic or general specification

Style - brazier head

Grip in 1/16 inch ($7/8 + 1/8$)

Diameter in 1/32 inch ($3/8$)

Material - aluminum alloy

Preparing activity:

Navy - SH

(Project 5320-N024-2)