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STANDARDS COMMITTEE FOR HI-LOK® PRODUCTS
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509

(1) HI-SHEAR CORPORATION, U.S.A. (Patent Holder) U.S. Federal Code I.D. No. 73197
Division of Hi-Shear Industries Inc.
VOI-SHAN, Division of VSI Corp., U.S.A. (Licensee) U.S. Federal Code I.D. No. 92215
SPS TECHNOLOGIES, U.S.A. (Licensee) U.S. Federal Code I.D. No. 56878
LITTON FASTENING SYSTEMS, U.S.A.
Division of Litton Systems, Inc. (Licensee) U.S. Federal Code I.D. No. 97928

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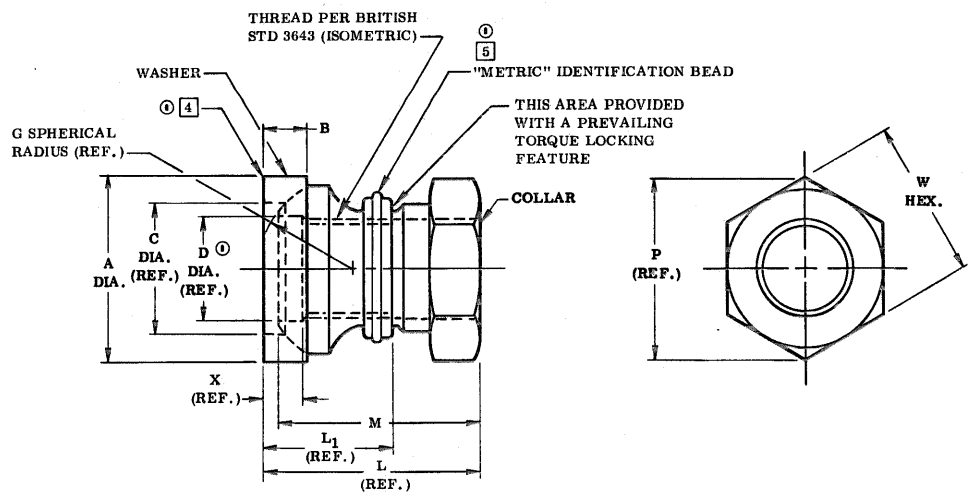


(1) 5

DASH NO. (METRIC)	PIN NOM. DIA.	THREAD	A DIA.	B DIA.	C DIA. (REF.)	D DIA. (REF.)	G SPHER. RAD. (REF.)	L (REF.)	L_1 (REF.)	M	P (REF.)	W (HEX.)	X (REF.)	TORQUE OFF NEWTON-METER	ULT TNSN STR NEWTONS MINIMUM
-04	4	M4 x 0.7-4H5H	9.27 9.01	1.99 1.72	6.0	4.2	5.1	11.50	7.2	10.90 10.40	8.87	8.00 7.78	2.8	1.7-2.9	5800
-05	5	M5 x 0.8-4H5H	9.66 9.40	2.29 2.03	6.5	5.2	5.1	11.65	7.4	10.90 10.40	11.10	10.00 9.78	2.9	2.8-4.6	7300
-06	6	M6 x 1.0-4H5H	11.69 11.43	2.67 2.41	8.1	6.2	6.7	14.25	9.2	13.45 12.95	12.12	11.00 10.73	3.3	5.6-9.1	12000
-08	8	M8 x 1.0-4H5H	14.81 14.55	3.00 2.74	10.6	8.2	8.7	16.75	11.0	15.75 15.25	14.40	13.00 12.73	3.3	14.6-18.1	22200
-10	10	M10 x 1.0-4H5H	18.55 18.29	3.94 3.68	13.0	10.2	11.4	19.50	12.9	18.30 17.80	15.56	14.00 13.73	3.3	23.7-28.3	33300
-12	12	M12 x 1.25-4H5H	22.10 21.84	4.58 4.32	15.7	12.2	13.1	22.85	15.3	21.10 20.60	18.90	17.00 16.73	3.9	36.1-43.0	48900

NOTES:
1. Go thread gage penetration shall be 3/4 of one revolution minimum after thread lock.
2. Dimensions apply after finish.
3. For use on sloped surface up to 7° maximum on Hi-Lok standard pins.
(1) 4. Break sharp edge.
(1) 5. Parts made prior to this revision are OK to use.
(1) 6. Use HL382 for oversize replacement.

MATERIAL: Collar — 2024 aluminum alloy per QQ-A-430 or QQ-A-225/6.
Washer — 4140 or 8740 alloy steel per MIL-S-5626 or MIL-S-6049.

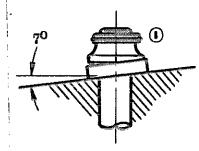
HEAT TREAT: Collar — Age to T6 condition per MIL-H-6088.
Washer — None.

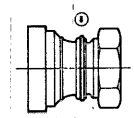
FINISH: Collar — HLM82-( )A = Anodize, dye color red, and cetyl alcohol lube per Hi-Shear Spec. 305.
HLM82D-( )A = Anodize, dye color natural, and solid film lube per MIL-L-8937.
Washer — HLM82-( )W = Cadmium plate per QQ-P-416, Type II, Class 2.

SPECIFICATION: Hi-Lok Product Specification M345.

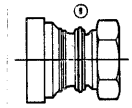
CODE: Dash number indicates nominal thread size in 1 mm.
Code letter "A" following dash number indicates Hi-Lok collar only.
Code letter "W" following dash number indicates swivel washer only.
See "Finish note for explanation of code letters.

EXAMPLE: HLM82-08AW = M8 x 1.0 Hi-Lok collar with HLM82-08W swivel washer.
HLM82-08A = M8 x 1.0 Hi-Lok collar with cetyl alcohol lube.
HLM82-08W = 8 mm swivel washer with Type II cadmium plate.





VOI-SHAN
1 raised bead indicates VOI-SHAN identification.



STANDARD PRESSED STEEL
2 raised beads indicate STANDARD PRESSED STEEL identification.

U.S. patents 2,927,491; 2,940,495; 3,027,789; 3,138,987.
Other U.S. and Foreign patents granted and pending.
"Hi-Lok" and "HL" are Registered Trademarks of Hi-Shear Corporation.

	DATE	BY
DRAWN	5-4-71	VAN
APPROVED	5-4-71	R.Tiny
(8) REVISION	5-7-80	D.P.S.

TITLE

hi-Lok® COLLAR (METRIC SERIES)

SELF-ALIGNING COLLAR ASSEMBLY
(ALUMINUM COLLAR — ALLOY STEEL WASHER)
1 mm GRIP VARIATION — SHEAR APPLICATION

DRAWING NUMBER

HLM82

2-1501

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