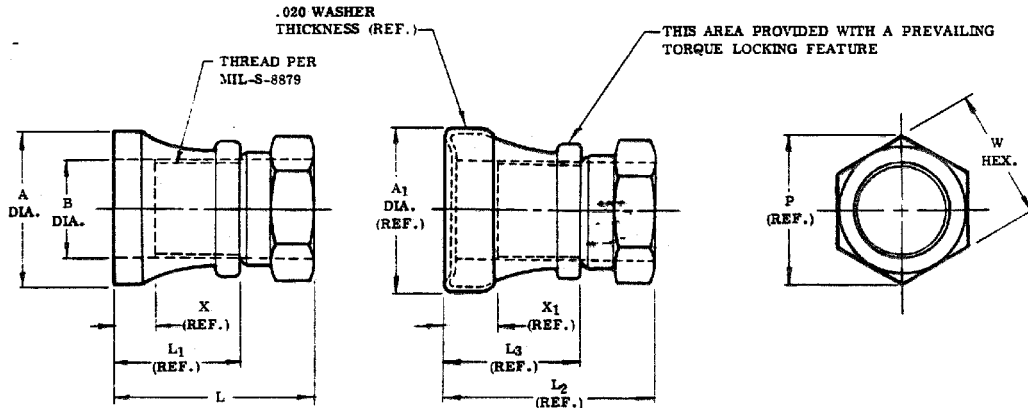


STANDARDS COMMITTEE FOR HI-LOK® PRODUCTS

2500 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90506

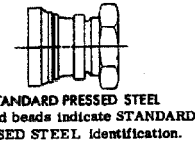
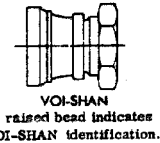
| | |
|---|---|
| HI-SHEAR CORPORATION, U.S.A. (Patent Holder) — U.S. Federal Code No. 73127 Division of Hi-Shear Industries Inc., U.S.A. AIR INDUSTRIES CO., INC. (Licensee - U.S. & Canada) — U.S. Federal Code No. 05728 DEUTSCHER FASTENER CO., INC. (Licensee) — U.S. Federal Code No. 07922 SPS TECHNOLOGIES, U.S.A. (Licensee) — U.S. Federal Code No. 09073 VOI-SHAN, Division of VSI Corp., U.S.A. (Licensee) — U.S. Federal Code No. 02215 WEST COAST AEROSPACE INC., U.S.A. (Licensee) — U.S. Federal Code No. 00818 Pins & Steel Collars | HI-SHEAR FASTENERS EUROPE, LTD., U.K. (Licensee) Division of Hi-Shear Industries Inc., U.S.A. KAMAKI-WEKKEI, Germany (Licensee - EEC Countries) Audep Kabanen GmbH & Co. ST. CHAMOND BRANAT, S.A. France (Licensee - EEC Countries) SHIMODSE, S.A. France (Licensee - EEC Countries) Collets TOKYO SCREW COMPANY, Japan (Licensee - Japan) |
|---|---|



| DASH NO. | PIN NOM. DIA. | THREAD | A DIA. | A1 DIA. (REF.) | B DIA. | L | L1 (REF.) | L2 (REF.) | L3 (REF.) | P (REF.) | W HEX. | X (REF.) | X1 (REF.) | TENSION PRELOAD LBS. MIN. | UTS LBS. MIN. | TORQUE OFF IN. LBS. |
|----------|---------------|----------------|--------------|----------------|--------------|--------------|-----------|-----------|-----------|----------|--------------|----------|-----------|---------------------------|---------------|---------------------|
| -5 | 5/32" | 8-32UNJC-3B | .292 .288 | .340 | .173 .166 | .447 .427 | .270 | .467 | .300 | .344 | .314 .302 | .107 | .137 | 350 | 1,400 | 10-20 |
| -6 | 3/16" | 10-32UNJF-3B | .307 .303 | .360 | .200 .192 | .437 .437 | .280 | .477 | .310 | .344 | .314 .302 | .107 | .137 | 500 | 1,600 | 20-30 |
| -8 | 1/4" | 1/4-28UNJF-3B | .412 .408 | .465 | .261 .252 | .532 .532 | .340 | .572 | .370 | .390 | .346 .332 | .112 | .142 | 1,000 | 3,000 | 55-70 |
| -10 | 5/16" | 5/16-24UNJF-3B | .518 .512 | .575 | .325 .314 | .672 .652 | .430 | .692 | .460 | .484 | .440 .425 | .122 | .152 | 1,650 | 5,000 | 100-125 |
| -12 | 3/8" | 3/8-24UNJF-3B | .628 .622 | .690 | .388 .376 | .744 .724 | .470 | .764 | .500 | .557 | .503 .488 | .122 | .152 | 2,300 | 7,000 | 170-200 |
| -14 | 7/16" | 7/16-20UNJF-3B | .713 .707 | .770 | .450 .442 | .862 .842 | .560 | .882 | .590 | .624 | .565 .550 | .137 | .167 | 3,100 | 9,500 | 220-270 |
| -16 | 1/2" | 1/2-20UNJF-3B | .815 .809 | .875 | .513 .501 | .942 .922 | .610 | .962 | .640 | .763 | .690 .675 | .137 | .167 | 4,100 | 12,500 | 310-370 |

- Ⓢ GENERAL NOTES:
- Go thread gage penetration shall be 3/4 of one revolution minimum.
 - Dimensions apply after finish.
 - Use HL77 for oversize replacement.
 - Cetyl alcohol per Hi-Shear Spec. 305 may be applied at manufacturer's option.
- MATERIAL: Collar - 2024 aluminum alloy per QQ-A-430 or QQ-A-225/6.
Washer - "DW & TW" = 5052 aluminum alloy per QQ-A-250/8, or 2024 aluminum alloy per QQ-A-250/4 or QQ-A-250/5.
"NW & TY" = 300 series stainless steel.
- HEAT TREAT: Collar - Age to T6 condition per MIL-H-6088.
Washer - "DW & TW" = Age to T6 condition per MIL-H-6088 (for 2024 only)
"NW & TY" = None.

- Ⓢ FINISH:
- Collar - HL77(-) = Anodize per MIL-A-8625, dye color brown, and cetyl alcohol lube per Hi-Shear Spec. 305.
HL77CM(-) = Chemical conversion coat per MIL-C-5541, Class 1A, and cetyl alcohol lube per Hi-Shear Spec. 305.
HL77(-)D or HL77(-)DA = Anodize per MIL-A-8625, and solid film lube per MIL-L-46010, Type I.
HL77FK(-) = Anodize per Spec. MIL-A-8625, solid film lube per MIL-L-46010, Type I and white identification on body of collar [4].
HL77TF(-) = Anodize per MIL-A-8625 and Hi-Kote 2 solid film lube per Hi-Shear Spec. 292.
- Collar & Washer - HL77(-)DDW or HL77(-)DADW = Collar finish is the same as HL77D(-) or DA. Washer finish is solid film lube per MIL-L-46010, Type I.
HL77TF(-)NW = Collar finish same as HL77TF(-). Washer is passivated.
HL77(-)TW = Collar finish is same as HL77(-). Washer finish is anodize per Spec. MIL-A-8625, dye color grey, or blue (for 2024 only).
HL77(-)TY = Collar finish is the same as HL77(-). Washer finish is "Kalgard" FC-2 teflon.



SPECIFICATION: Hi-Lok Product Specification 345, except tension preload as tabulated.

CODE: Dash number indicates nominal thread size in 1/32nds.
See "Finish" note for explanation of code letters.

EXAMPLE: HL77-8 = 1/4-28 collar only, anodize and cetyl alcohol lube.
HL77-8DADW = Assembly of HL77-8DA collar and HL77-8DW washer with solid film lube.

"Hi-Lok" and "HL" are internationally registered trademarks of Hi-Shear Corporation.

| | DATE | BY |
|----------|----------|-----------|
| DRAWN | 12-19-61 | R. K. C. |
| APPROVED | 12-19-61 | M. M. S. |
| REVISION | 4-26-93 | T. Craine |

TITLE

hi-lok COLLAR

2024-T6 ALUMINUM ALLOY
1/16" GRIP VARIATION - SHEAR APPLICATION
FOR USE ON STANDARD SIZE ALUMINUM ALLOY HI-LOK PINS

| DRAWING NUMBER |
|----------------|
| HL77 |