

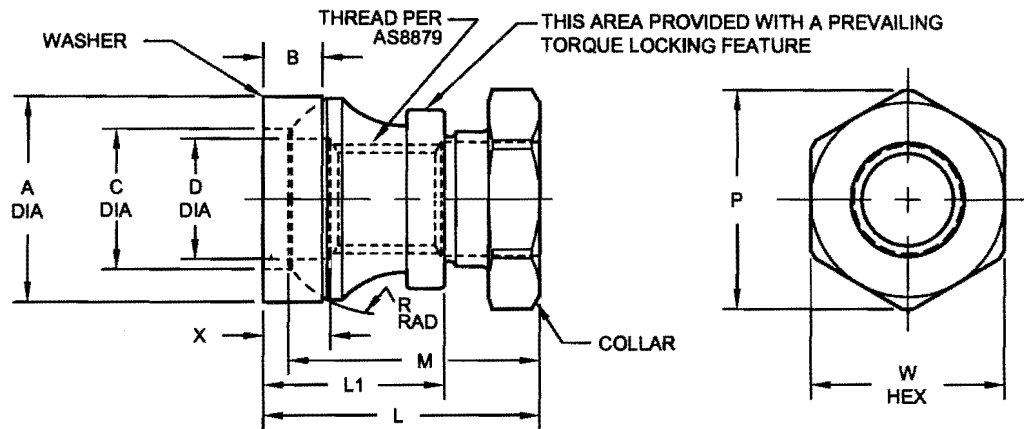


Hi-Shear Corporation
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509 U.S.A.

HI-SHEAR CORPORATION, U.S.A. (Patent Holder)
a LISI AEROSPACE Company

Licensees:
ALCOA FASTENING SYSTEM
AIR INDUSTRIES CO., INC., U.S.A.
WEST COAST AEROSPACE INC., U.S.A.

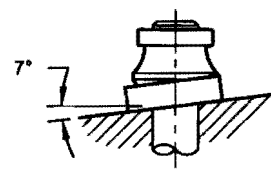
BLANC AERO INDUSTRIES UK LIMITED
a LISI AEROSPACE Company
BLANC AERO S.A. France
a LISI AEROSPACE Company
MINEBEA COMPANY, Japan



| DASH NO. | PIN NOM DIA | THREAD | A DIA | B | C DIA (REF) | D DIA (REF) | L (REF) | L1 (REF) | M | P (REF) | R SPHER. RAD | W HEX | X (MAX) | UTS LBS. MIN | TORQUE-OFF INCH-POUNDS |
|----------|-------------|----------------|----------------|--------------|-------------|-------------|---------|----------|----------------|---------|--------------|----------------|---------|--------------|------------------------|
| 5 | 5/32 | 8-32UNJC-3B | .365 .355 | .095 .085 | .255 | .184 | .445 | .272 | .420 .400 | .344 | .20 | .314 .302 | .115 | 1,400 | 22-32 |
| 6 | 3/16 | 10-32UNJF-3B | .365 .355 | .095 .085 | .255 | .210 | .445 | .272 | .420 .400 | .344 | .20 | .314 .302 | .115 | 1,600 | 32-42 |
| 6 | 1/4 | 1/4-28UNJF-3B | .475 .465 | .120 .110 | .333 | .270 | .570 | .337 | .540 .520 | .484 | .28 | .440 .425 | .121 | 3,000 | 75-90 |
| 10 | 5/16 | 5/16-24UNJF-3B | .620 .610 | .130 .120 | .417 | .333 | .690 | .427 | .647 .627 | .557 | .34 | .503 .488 | .133 | 5,000 | 140-170 |
| 12 | 3/8 | 3/8-24UNJF-3B | .685 .675 | .145 .135 | .490 | .395 | .730 | .470 | .677 .657 | .624 | .38 | .565 .550 | .133 | 7,000 | 220-260 |
| 14 | 7/16 | 7/16-20UNJF-3B | .805 .795 | .180 .170 | .570 | .456 | .855 | .562 | .772 .752 | .624 | .45 | .565 .550 | .146 | 9,500 | 310-370 |
| 16 | 1/2 | 1/2-20UNJF-3B | .915 .905 | .205 .195 | .648 | .518 | .925 | .604 | .842 .822 | .783 | .51 | .690 .675 | .146 | 12,500 | 410-470 |
| 18 | 9/16 | 9/16-18UNJF-3B | 1.005 .995 | .205 .195 | .736 | .592 | 1.030 | .680 | .922 .902 | .970 | .71 | .878 .861 | .153 | 14,500 | 575-650 |
| 20 | 5/8 | 5/8-18UNJF-3B | 1.305 1.290 | .315 .305 | .855 | .645 | 1.125 | .745 | 1.017 .997 | 1.120 | .76 | 1.003 .986 | .153 | 18,000 | 700-775 |
| 24 | 3/4 | 3/4-16UNJF-3B | 1.500 1.485 | .390 .380 | .985 | .773 | 1.405 | .980 | 1.285 1.255 | 1.240 | .81 | 1.128 1.110 | .165 | 27,500 | 1000-1100 |
| 28 | 7/8 | 7/8-14UNJF-3B | 1.740 1.720 | .450 .435 | 1.155 | .905 | 1.600 | 1.100 | 1.470 1.440 | 1.520 | .92 | 1.380 1.356 | .180 | 37,500 | 1275-1400 |
| 32 | 1 | 1-12UNJF-3B | 2.000 1.980 | .505 .490 | 1.345 | 1.035 | 1.900 | 1.300 | 1.755 1.725 | 1.650 | 1.11 | 1.504 1.480 | .200 | 50,000 | 1550-1700 |

- NOTES:**
1. Go thread gage penetration shall be 3/4 of one revolution minimum.
 2. For use on sloped surfaces up to 7° maximum on standard and 1/64 oversize Hi-Lok pins.
 3. Dimensions apply after finish.
 4. Use HL382 for oversize replacement.

- 36 MATERIAL:** Collar - 2024 aluminum alloy per AMS-QQ-A-430 or AMS-QQ-A-225/6.
Washer - "W" - 17-4PH stainless steel per AMS5643, or 17-7PH per AMS5528, or PH15-7Mo per AMS5520.
"C" - A-286 high temperature alloy per AMS5731 or AMS5737.
- 36 HEAT TREAT:** Collar - Age to T6 condition per AMS2770.
Washer - "W" - Age to H-1025 condition for 17-4PH, age to TH1050 condition for 17-7PH, and PH15-7Mo per AMS-H-6875.
"C" - 90,000 psi shear minimum.
- 36 FINISH:** Collar - HL82-()A = Anodize per MIL-A-8625, color red, and cetyl alcohol lube per Hi-Shear Spec. 305.
HL82-()DA = Anodize per MIL-A-8625, color natural, and solid film lube per AS5272, Type I.
HL82CM()A = Chemical conversion coat per MIL-C-5541, Class 1A, and cetyl alcohol lube per Hi-Shear Spec. 305.
HL82K()A = Anodize per MIL-A-8625 and "Lubeco" 905 solid film lube.
HL82LP()A = Anodize per MIL-A-8625, color natural, and solid film lube per AS5272, Type II.
Washer - HL82-()CU = Passivate per Hi-Shear Spec. 258.
HL82-()DW = Solid film lube per AS5272, Type I.
HL82-()GW = Silver plate per AMS2410 and cetyl alcohol lube per Hi-Shear Spec. 305.
HL82-()KW = Solid film lube per "Lubeco" 905.
HL82-()LPW = Solid film lube per AS5272, Type II.
HL82-()PBW = Cadmium plate per AMS-QQ-P-416, Type II, Class 2.
HL82-()JW = Cadmium plate per AMS-QQ-P-416, Type I, Class 2.
HL82-()WU = Passivate per Hi-Shear Spec. 258.



SPECIFICATION: Hi-Lok Product Specification 345.
CODE: Dash number indicates nominal thread size in 1/32nds.
Code letter "A" following dash number indicates Hi-Lok collar.
See "Finish" note for explanation of code letters.
EXAMPLES: HL82-8AW = Assembly of HL82-8A collar and HL82-8W washer.
HL82-8DADW = Assembly of HL82-8DA collar and HL82-8DW washer.

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

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|-------------|------------|--------|--|-------------|
| | DATE | BY | TITLE | DRAWING NO. |
| DRAWN | 10-12-60 | R.K.L. | HI-LOK® COLLAR | HL82 |
| APPROVED | 10-12-60 | V.R.D. | SELF-ALIGNING COLLAR ASSEMBLY (ALUMINUM COLLAR - STAINLESS STEEL WASHER) 1/16" GRIP VARIATION, SHEAR APPLICATION | |
| 36 REVISION | 01-04-2012 | J.F.O. | | |
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