



HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

| FIRST DASH NO. | PIN NOM DIA | A DIA | B REF | D DIA | | TD DIA | F REF | H | R RAD | Z MAX | S CHAMFER REF | THREAD MODIFIED | SOCKET | | | DOUBLE SHEAR POUNDS MINIMUM | TENSION POUNDS MINIMUM |
|----------------|-------------|------------------|-------|-------------------------------|-----------------------------|----------------|-------|----------------|--------------|-------|---------------|---------------------|----------------|--------------|--------------|-----------------------------|------------------------|
| | | | | WITHOUT COATING OR SOLID FILM | AFTER COATING OR SOLID FILM | | | | | | | | W HEX | T DEPTH | Y DIA | | |
| 5 | 5/32 | .2922 .2874 | .312 | .1635 .1630 | .1635 .1625 | .1595 .1570 | .004 | .0540 .0520 | .025 .015 | .010 | 1/32 x 37° | .1640-32 UNJC-3A | .0645 .0635 | .135 .115 | .090 .075 | 4,010 | 1,730 |
| 6 | 3/16 | .3536 .3486 | .325 | .1895 .1890 | .1895 .1885 | .1840 .1810 | .005 | .0688 .0667 | .030 .020 | .015 | 1/32 x 37° | .1900-32 UNJF-3A | .0806 .0791 | .135 .115 | .119 .104 | 5,380 | 2,590 |
| 7 | 7/32 | .4452 .4378 | .355 | .2182 .2177 | .2182 .2172 | .2100 .2070 | .005 | .0940 .0920 | .030 .020 | .015 | 1/32 x 37° | .2160-28 UNJF-3A | .0806 .0791 | .135 .115 | .119 .104 | 8,160 | 3,580 |
| 8 | 1/4 | .4732 .4682 | .395 | .2495 .2490 | .2495 .2485 | .2440 .2410 | .006 | .0939 .0918 | .030 .020 | .015 | 1/32 x 37° | .2500-28 UNJF-3A | .0967 .0947 | .150 .130 | .142 .122 | 9,300 | 4,760 |
| 10 | 5/16 | .5619 .5569 | .500 | .3120 .3115 | .3120 .3110 | .3060 .3020 | .007 | .1048 .1027 | .040 .030 | .015 | 3/64 x 37° | .3125-24 UNJF-3A | .1295 .1270 | .170 .150 | .180 .160 | 14,600 | 7,100 |
| 12 | 3/8 | .6912 .6862 | .545 | .3745 .3740 | .3745 .3735 | .3680 .3640 | .008 | .1329 .1308 | .040 .030 | .015 | 3/64 x 37° | .3750-24 UNJF-3A | .1617 .1582 | .200 .180 | .217 .197 | 21,000 | 10,600 |
| 14 | 7/16 | .8041 .7969 | .635 | .4370 .4365 | .4370 .4360 | .4310 .4260 | .009 | .1540 .1510 | .050 .040 | .022 | 3/64 x 37° | .4375-20 UNJF-3A | .1930 .1895 | .230 .210 | .253 .233 | 28,600 | 14,450 |
| 16 | 1/2 | .9166 .9095 | .685 | .4995 .4990 | .4995 .4985 | .4930 .4880 | .010 | .1750 .1720 | .050 .040 | .022 | 3/64 x 37° | .5000-20 UNJF-3A | .2242 .2207 | .260 .240 | .289 .269 | 37,300 | 19,550 |
| 18 | 9/16 | 1.0337 1.0286 | .770 | .5615 .5610 | .5615 .5605 | .5550 .5500 | .010 | .1981 .1951 | .050 .040 | .025 | 1/16 x 37° | .5625-18 UNJF-3A | .2555 .2520 | .260 .240 | .326 .306 | 47,200 | 24,700 |
| 20 | 5/8 | 1.1230 1.1158 | .825 | .6240 .6235 | .6240 .6230 | .6180 .6120 | .010 | .2094 .2064 | .050 .040 | .025 | 1/16 x 37° | .6250-18 UNJF-3A | .2555 .2520 | .260 .240 | .326 .306 | 58,300 | 29,600 |
| 24 | 3/4 | 1.3500 1.3428 | 1.050 | .7490 .7485 | .7490 .7480 | .7430 .7370 | .012 | .2521 .2491 | .050 .040 | .025 | 1/16 x 37° | .7500-16 UNJF-3A | .3185 .3150 | .330 .300 | .398 .378 | 83,900 | 42,900 |

SEE COLLAR STANDARDS
FOR COLLAR STRENGTHS.
LOWER STRENGTH (PIN OR
COLLAR) DETERMINES
SYSTEM STRENGTH

"HI-LOK", "HL", AND "HI-KOTE"
ARE TRADEMARKS OF HI-SHEAR CORPORATION

DRAWN BY DATE
J. F. OBISPO 2015-01-06
SHRODE 1967-05-17
APPROVED DATE
J. MILLER 1967-05-17

TITLE
HI-LOK™ PIN
100° FLUSH MS20426 HEAD
TITANIUM
1/16 GRIP VARIATION

REVISION DATE
16 C. ARTOS 2024-4-10

DRAWING NUMBER
HL523

1 OF 2

- ⑩ **GENERAL NOTES:**
- 1 Head edge out of roundness shall not exceed "F".
 2. Concentricity: Conical surface of head to "D" diameter within .003 FIM.
 3. Dimensions are in inches and to be met after finish.
 4. Surface texture per ASME B46.1.
 5. Hole preparation per NAS618.
 6. "H" is dimensioned from maximum "D" diameter.
 - 7 Curved or flat edge manufacturer's option.
 - 8 Maximum "D" diameter may be increased by .0002 to allow for aluminum coating or solid film application.
 9. Use HL537 for oversize replacement.

CODE: First dash number indicates nominal diameter in 1/32nds.
Second dash number indicates maximum grip in 1/16ths.
See Finish note for explanation of code letters.

**HOW TO ORDER
EXAMPLE:**

Pin Part Number
HL523AZ8-8
└─ 8/16 or 1/2 Maximum Grip Length
└─ 8/32 or 1/4 Nominal Diameter Pin
└─ Finish Code
└─ Pin Basic Part Number

MATERIAL: 6AL-4V titanium alloy per AMS4928 or AMS4967.

HEAT TREAT: 95,000 psi shear minimum.

- FINISH:**
- HL523-()-() = Cetyl alcohol lube per Hi-Shear Spec. 305.
 - 10 HL523AD()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305. Top of head shall be painted in accordance with BAC5684, Type I. No overspray is allowed except in the "Z" land area.
 - 10 HL523AP()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 10 HL523AZ()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 10 HL523EF()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on top of head only (.005 max overspray on the head bearing surface permissible) with color blue on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 10 HL523GM()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads (no overspray on the shank allowed) and top of head only (.005 max overspray on the head bearing surface permissible) with color white on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - 10 HL523HA()-() = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and apply Precoat No. PR1436G sealant (.002-.005 thick), and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL523RA()-() = Phosphate fluoride treat with color red on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL523SY()-() = Phosphate fluoride treat, solid film lube per AS5272, Type I, and color red on the thread end.
 - HL523NKJ()-() = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color silver on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL523NKK()-() = Sulfuric acid anodizing per ISO8080 and HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only, with color silver on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL523NKL()-() = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only, with color silver on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: HI-LOK™ Product Specification 342.

DRAWING NUMBER

HL523

2 OF 2