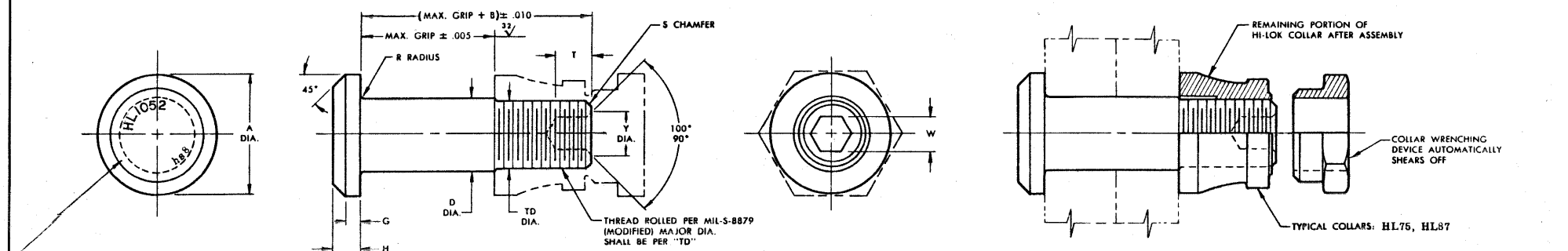


# STANDARDS COMMITTEE FOR HI-LOK® PRODUCTS

2600 Skypark Drive, Torrance, California U.S.A. 90509

|                                                                |                |                                                                   |                |
|----------------------------------------------------------------|----------------|-------------------------------------------------------------------|----------------|
| HI-SHEAR CORPORATION, U.S.A. (Patent Holder)                   | CAGE No. 73197 | HI-SHEAR FASTENERS EUROPE, LTD., U.K. (Licensee)                  | CAGE No. 0LB68 |
| Division of Hi-Shear Industries Inc., U.S.A.                   |                | Division of Hi-Shear Industries Inc., U.S.A.                      |                |
| AIR INDUSTRIES CO., INC., U.S.A. (Licensee - U.S. & Canada)    | CAGE No. 06725 | HUCK INTERNATIONAL GMBH & CO., Germany (Licensee - EEC Countries) |                |
| HUCK INTERNATIONAL, INC., Deutsch Operation, U.S.A. (Licensee) | CAGE No. 57928 | SAINT CHAMOND GRANAT, S.A. France (Licensee - EEC Countries)      |                |
| SPS TECHNOLOGIES, U.S.A. (Licensee)                            | CAGE No. 56678 | SIMMONDS S.A., France (Licensee - EEC Countries - Collars)        |                |
| FAIRCHILD Aerospace Fastener Division, U.S.A. (Licensee)       | CAGE No. 92215 | TOKYO SCREW COMPANY, Japan (Licensee - Japan)                     |                |
| WEST COAST AEROSPACE INC., U.S.A. (Licensee)                   | CAGE No. 60516 |                                                                   |                |
| (Pins & Steel Collars)                                         |                |                                                                   |                |



HI-LOK® PIN

HI-LOK® PIN AND COLLAR AFTER ASSEMBLY

| FIRST<br>DASH<br>NO. | NOM.<br>DIA. | A<br>DIA.      | B<br>REF. |                         | D<br>DIA       | TD<br>DIA.     | G<br>REF. | H            |  | R<br>RAD.    |  | S<br>CHAMFER<br>REF. | THREAD                     | SOCKET         |              |              | DOUBLE<br>SHEAR<br>POUNDS<br>MINIMUM | TENSION<br>POUNDS<br>MINIMUM |
|----------------------|--------------|----------------|-----------|-------------------------|----------------|----------------|-----------|--------------|--|--------------|--|----------------------|----------------------------|----------------|--------------|--------------|--------------------------------------|------------------------------|
|                      |              |                |           |                         |                |                |           |              |  |              |  |                      |                            | W<br>HEX.      | T<br>DEPTH   | Y<br>DIA.    |                                      |                              |
| 5                    |              |                |           | NOTE: USE HL1050PB-6(-) |                |                |           |              |  |              |  |                      |                            |                |              |              |                                      |                              |
| 6                    | 13/64        | .377<br>.357   | .325      |                         | .2026<br>.2016 | .1840<br>.1810 | .035      | .074<br>.064 |  | .025<br>.015 |  | 1/32" x 45°          | 10-32UNJF-3A<br>Modified   | .0806<br>.0791 | .135<br>.115 | .119<br>.104 | 6,130                                | 3,180                        |
| 8                    | 17/64        | .440<br>.415   | .395      |                         | .2651<br>.2641 | .2440<br>.2410 | .045      | .090<br>.077 |  | .025<br>.015 |  | 1/32" x 45°          | 1/4-28UNJF-3A<br>Modified  | .0967<br>.0947 | .150<br>.130 | .142<br>.122 | 10,490                               | 5,820                        |
| 10                   | 21/64        | .505<br>.485   | .500      |                         | .3276<br>.3266 | .3060<br>.3020 | .055      | .112<br>.098 |  | .030<br>.020 |  | 3/64" x 45°          | 5/16-24UNJF-3A<br>Modified | .1295<br>.1270 | .170<br>.150 | .180<br>.160 | 16,000                               | 9,200                        |
| 12                   | 25/64        | .600<br>.580   | .545      |                         | .3901<br>.3891 | .3680<br>.3640 | .065      | .140<br>.130 |  | .030<br>.020 |  | 3/64" x 45°          | 3/8-24UNJF-3A<br>Modified  | .1617<br>.1582 | .200<br>.180 | .217<br>.197 | 22,700                               | 14,000                       |
| 14                   | 29/64        | .676<br>.651   | .635      |                         | .4526<br>.4516 | .4310<br>.4260 | .075      | .160<br>.150 |  | .030<br>.020 |  | 3/64" x 45°          | 7/16-20UNJF-3A<br>Modified | .1930<br>.1895 | .230<br>.210 | .253<br>.233 | 30,600                               | 18,900                       |
| 16                   | 33/64        | .770<br>.745   | .685      |                         | .5151<br>.5141 | .4930<br>.4880 | .085      | .188<br>.178 |  | .030<br>.020 |  | 3/64" x 45°          | 1/2-20UNJF-3A<br>Modified  | .2242<br>.2207 | .260<br>.240 | .289<br>.269 | 39,600                               | 25,600                       |
| 18                   | 37/64        | .877<br>.842   | .770      |                         | .5771<br>.5761 | .5550<br>.5500 | .125      | .210<br>.200 |  | .040<br>.025 |  | 1/16" x 45°          | 9/16-18UNJF-3A<br>Modified | .2555<br>.2520 | .290<br>.270 | .326<br>.306 | 49,700                               | 32,400                       |
| 20                   | 41/64        | .953<br>.918   | .825      |                         | .6396<br>.6386 | .6180<br>.6120 | .140      | .238<br>.228 |  | .040<br>.025 |  | 1/16" x 45°          | 5/8-18UNJF-3A<br>Modified  | .2555<br>.2520 | .330<br>.305 | .326<br>.306 | 61,000                               | 41,000                       |
| 24                   | 49/64        | 1.150<br>1.110 | 1.050     |                         | .7646<br>.7636 | .7430<br>.7370 | .200      | .335<br>.320 |  | .045<br>.030 |  | 1/16" x 45°          | 3/4-UNJF-3A<br>Modified    | .3185<br>.3150 | .395<br>.365 | .398<br>.378 | 87,200                               | 59,500                       |

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

## GENERAL NOTES:

1. Concentricity: "A" to "D" diameter within .010 FIR.
2. Dimensions to be met after finish.
3. Surface texture per ANSI B46.1.
4. Hole preparation per NAS618.
5. Use HL1054 for oversize replacement.

## MATERIAL:

Alloy steel per MIL-S-5000, MIL-S-5626 or MIL-S-6049.

## HEAT TREAT:

160,000 - 180,000 psi tensile per MIL-H-6875.

## FINISH:

HL1052PB-(-) = Cadmium plate per QQ-P-416, Type II, Class 2, and cetyl alcohol lube per Hi-Shear Spec. 305.

## SPECIFICATION:

Hi-Lok Product Specification 342.

## CODE:

First dash number indicates nominal diameter in 1/32nds of the pin which HL1052 oversize pin replaces.  
Second dash number indicates maximum grip in 1/16ths.  
See Finish note for explanation of code letters.

## HOW TO ORDER EXAMPLES:

Pin Part Number Only  
HL1052PB-8-8

8/16 or 1/2 Maximum Grip Length  
Replaces 8/32 or 1/4 Nominal Diameter Pin  
Type II Cadmium Finish  
Pin Part Number

Pin and Collar Assembly Part Number Combination  
HL1052PB87-8-8

Size and Grip Length, See Above Example  
Collar Part Number  
Pin Finish  
Pin Part Number

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

| DRAWN DATE    |                        | TITLE                                                                          |  |
|---------------|------------------------|--------------------------------------------------------------------------------|--|
| J.F.Obispo    | 01-03-96               | <b>HI-LOK® PIN</b>                                                             |  |
| APPROVED DATE |                        | PROTRUDING TENSION HEAD<br>ALLOY STEEL, 1/64" OVERSIZE<br>1/16" GRIP VARIATION |  |
| MC            | 1-3-96                 |                                                                                |  |
| REVISION DATE |                        | DRAWING NUMBER                                                                 |  |
| ①             | J.F.Obispo<br>03-12-96 | <b>HL1052</b>                                                                  |  |