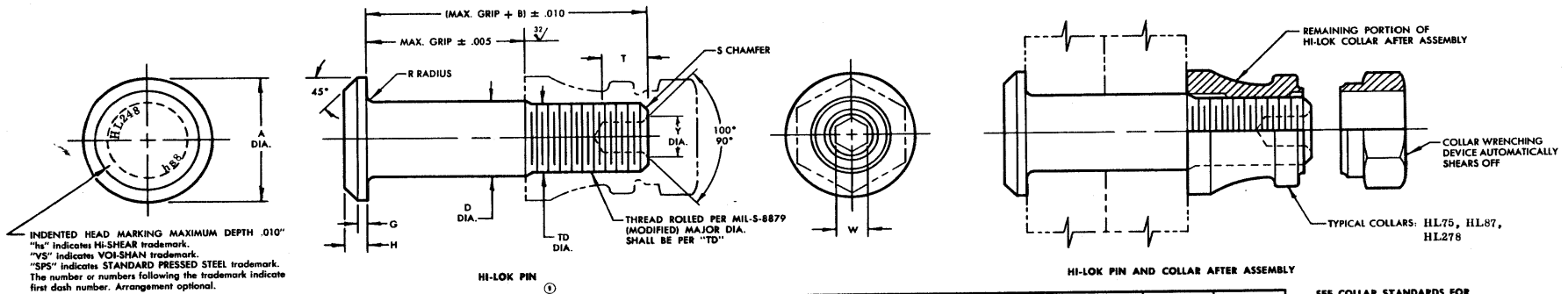


**STANDARDS COMMITTEE  
FOR HI-LOK® PRODUCTS**  
2800 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90508

① HI-SHEAR CORPORATION, U.S.A. (Patent Holder) U.S. Federal Code No. 79197  
Division of Hi-Shear Industries Inc., U.S.A.  
AIR INDUSTRIES CO., INC. (Licensee - U.S. & Canada) U.S. Federal Code No. 06725  
DEUTSCH FASTENER CO., INC. (Licensee) U.S. Federal Code No. 57928  
DPS TECHNOLOGIES, U.S.A. (Licensee) U.S. Federal Code No. 86578  
VOI-SHAN, Division of VBI Corp., U.S.A. (Licensee) U.S. Federal Code No. 82218  
WEST COAST AEROSPACE INC., U.S.A. (Licensee) U.S. Federal Code No. 00514  
Pins & Steel Collars

HI-SHEAR FASTENERS EUROPE, LTD. U.K. (Licensee)  
Division of Hi-Shear Industries Inc., U.S.A.  
KAMAX-WERKE, Germany (Licensee - EEC Countries)  
Rudolph Kettlerman GmbH & Co. (Licensee - EEC Countries)  
ST. CHAMOND GRANAT, S.A. France (Licensee - EEC Countries)  
SIMMONDS, S.A. France (Licensee - EEC Countries)  
Collars  
TOKYO SCREW COMPANY, Japan (Licensee - Japan)



INDENTED HEAD MARKING MAXIMUM DEPTH .010"  
"hs" indicates HI-SHEAR trademark.  
"VS" indicates VOI-SHAN trademark.  
"SPS" indicates STANDARD PRESSED STEEL trademark.  
The number or numbers following the trademark indicate first dash number. Arrangement optional.

FIRST DASH NO.	NOM. DIA.	A DIA.	B REF.	D DIA. [7]		TD DIA.	G REF.	H	R RAD.	S CHAMFER REF.	THREAD	SOCKET			** DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
				WITHOUT COATING OR SOLID FILM LUBE	WITH COATING OR SOLID FILM LUBE							W HEX.	T DEPTH	Y DIA.		
-5	3/16			NOTE: Use HL48-6												
-6	13/64	.377 .357	.325	.2026 .2021	.2026 .2016	.1840 .1810	.035	.074 .064	.025 .015	1/32" x 45°	10-32UNJF-3A Modified	.0806 .0791	.135 .115	.119 .104	6,130	3,180
-8	17/64	.440 .415	.395	.2651 .2646	.2651 .2641	.2440 .2410	.045	.090 .077	.025 .015	1/32" x 45°	1/4-28UNJF-3A Modified	.0967 .0947	.150 .130	.142 .122	10,490	5,820
-10	21/64	.502 .472	.500	.3276 .3271	.3276 .3266	.3060 .3020	.055	.112 .098	.030 .020	3/64" x 45°	5/16-24UNJF-3A Modified	.1295 .1270	.170 .150	.180 .160	16,000	9,200
-12	25/64	.565 .530	.545	.3901 .3896	.3901 .3891	.3680 .3640	.065	.140 .130	.030 .020	3/64" x 45°	3/8-24UNJF-3A Modified	.1617 .1582	.200 .180	.217 .197	22,700	14,000
-14	29/64	.627 .592	.635	.4526 .4521	.4526 .4516	.4310 .4260	.075	.160 .150	.030 .020	3/64" x 45°	7/16-20UNJF-3A Modified	.1930 .1895	.230 .210	.253 .233	30,600	18,900
-16	33/64	.752 .717	.685	.5151 .5146	.5151 .5141	.4930 .4880	.085	.188 .178	.030 .020	3/64" x 45°	1/2-20UNJF-3A Modified	.2242 .2207	.260 .240	.289 .269	39,600	25,600
-18	37/64	.877 .842	.770	.5771 .5766	.5771 .5761	.5550 .5500	.125	.210 .200	.040 .025	1/16" x 45°	9/16-18UNJF-3A Modified	.2555 .2520	.290 .270	.326 .306	49,700	32,400
-20	41/64	.953 .918	.825	.6396 .6391	.6396 .6386	.6180 .6120	.140	.238 .228	.040 .025	1/10" x 45°	5/8-18UNJF-3A Modified	.2655 .2520	.330 .305	.326 .306	61,000	41,000
-24	49/64	1.150 1.110	1.050	.7646 .7641	.7646 .7636	.7430 .7370	.200	.335 .320	.045 .030	1/16" x 45°	3/4-16UNJF-3A Modified	.3185 .3150	.395 .365	.398 .378	87,200	59,500

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

- GENERAL NOTES:**
- Concentricity: "A" to "D" diameter within .010 FIR.
  - Dimensions to be met after finish.
  - Non-lubed pins must be used with lubed collars.
  - Surface texture per ANSI B46.1.
  - Hole preparation per NAS618.
  - Use HL748 for oversize replacement.
  - Maximum "D" diameter may be increased by .0002 to allow for solid film or coating application.

**MATERIAL:** A-286 high temperature alloy per Spec. AMS5737 or AMS5731.

**HEAT TREAT:** 160,000 psi tensile minimum (95,000 psi shear minimum) at 70°F.

- ① **FINISH:**
- HL248(-)(-) = Passivate per Hi-Shear Spec. 258, and cetyl alcohol lube per Hi-Shear Spec. 305.
  - HL248AZ(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color code black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
  - HL248DL(-)(-) = Solid film lube per MIL-L-46010, Type I, and cetyl alcohol lube per Hi-Shear Spec. 305.
  - HL248DU(-)(-) = Solid film lube per MIL-L-46010, Type I.
  - ② HL248PY(-)(-) = Passivate per Hi-Shear Spec. 258.
  - HL248V(-)(-) = Solid film lube per "Lubeco" 2123, Type II.

**SPECIFICATION:** Hi-Lok Product Specification 342.

**CODE:** First dash number indicates nominal diameter in 1/32nds of the pin which HL248 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  
HL248-8-8
- 8/16 or 1/2 Maximum Grip Length  
Replaces 8/32 or 1/4 Nominal Diameter Pin  
Pin Part Number
- Pin and Collar Assembly Part Number Combination  
HL24887-8-8
- Size and grip length, see above example  
Collar Part Number  
Pin Part Number

\*\* The Double Shear values shown are based on cross sectional area for nominal diameter pin.

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

DRAWN Briej 5-28-63	DATE	<b>hi-lok® PIN</b> PROTRUDING TENSION HEAD A-286 HIGH TEMPERATURE ALLOY 1/16" GRIP VARIATION - 1/64" OVERSIZE
APPROVED Cessna 5-28-63	DATE	
REVISION ②	DATE D.P.S. 8-6-92	DRAWING NUMBER <b>HL248</b>