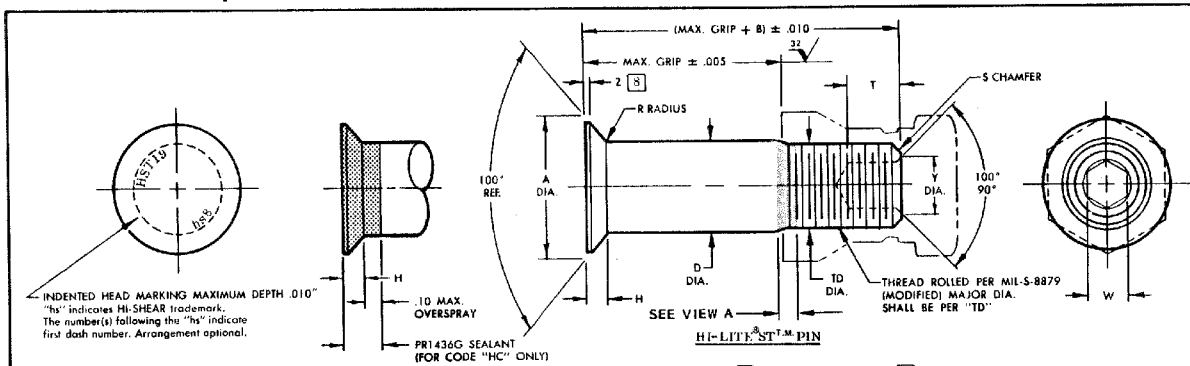
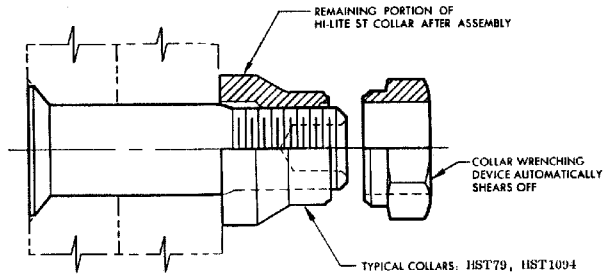
hi-shear CORPORATION
2600 SKYPARK DRIVE
TORRANCE, CALIFORNIA 90509
AREA CODE 213 • 775-3181 • 326-8110

"CAGE" - Commercial And Government Entity

HI-SHEAR CORPORATION, U.S.A. ..... (Patent Holder) ..... CAGE No. 73197 Division of Hi-Shear Industries, Inc., U.S.A.	KAMAX-WERKE Germany ..... (Licensee-EEC Countries) Rudolph Kellerman GmbH & Co.
AIR INDUSTRIES CO., INC. ..... (Licensee) ..... CAGE No. 06725	SIMMONDS S.A. France ..... (Licensee-EEC Countries-Collars
SPS TECHNOLOGIES, U.S.A. ..... (Licensee) ..... CAGE No. 59474	St.-CHAMOND GRANAT S.A. France ..... (Licensee-EEC Countries)
HI-SHEAR FASTENERS EUROPE LTD., U.K. ..... (Licensee) ..... CAGE No. 0LB49	TOKYO SCREW COMPANY, Japan ..... (Licensee-Japan)



HI-LITE®ST™ PIN



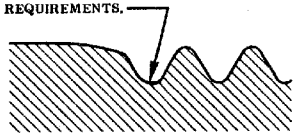
HI-LITE®ST™ PIN AND COLLAR AFTER ASSEMBLY

[1] [8]

FIRST DASH NO.	NOM. DIA.	A DIA.	B REF.	D DIA.	TD DIA.	F	H	R RAD.	Z MAX.	S CHAMFER REF.	THREAD	SOCKET W HEX.	SOCKET T DEPTH	SOCKET Y DIA.	DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
–5	5/32	.2612 .2564	.280	.1635 .1625	.1595 .1570	.004	.0410 .0390	.025 .015	.012	1/32" x 45°	8-32UNJC-3A Modified	.0801 .0791	.100 .080	[7]	4,010	1,290
–6	3/16	.3016 .2966	.290	.1895 .1885	.1840 .1810	.005	.0470 .0450	.030 .020	.015	1/32" x 45°	10-32UNJF-3A Modified	.0806 .0791	.100 .080	.119 .104	5,380	2,000
–8	1/4	.3948 .3898	.320	.2495 .2485	.2440 .2410	.006	.0610 .0590	.030 .020	.015	1/32" x 45°	1/4-28UNJF-3A Modified	.0967 .0947	.110 .090	.142 .122	9,300	3,700
–10	5/16	.4739 .4689	.380	.3120 .3110	.3060 .3020	.007	.0680 .0660	.040 .030	.015	3/64" x 45°	5/16-24UNJF-3A Modified	.1295 .1270	.130 .110	.180 .160	14,600	5,000
–12	3/8	.5604 .5554	.420	.3745 .3735	.3680 .3640	.008	.0780 .0760	.040 .030	.015	3/64" x 45°	3/8-24UNJF-3A Modified	.1617 .1582	.160 .140	.217 .197	21,000	7,200
–14	7/16	.6680 .6620	.485	.4370 .4360	.4310 .4260	.009	.0969 .0944	.050 .040	.022	3/64" x 45°	7/16-20UNJF-3A Modified	.1930 .1895	.190 .170	.253 .233	28,600	10,000
–16	1/2	.7540 .7480	.525	.4995 .4985	.4930 .4880	.010	.1068 .1043	.050 .040	.022	3/64" x 45°	1/2-20UNJF-3A Modified	.2242 .2207	.220 .200	.289 .269	37,300	13,500

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

THIS AREA OF SPECIAL CONFIGURATION AND COLD WORKING TO MEET PHYSICAL REQUIREMENTS.



VIEW A
HI-LITE THREAD TRANSITION AREA. SEE SPECIFICATION FOR INSPECTION.

GENERAL NOTES:
[1] Head edge out of roundness shall not exceed "F".
2. Concentricity: Conical surface of head to "D" diameter within .005 FIR.
3. "H" dimensioned from maximum "D" diameter.
4. Dimensions to be met after finish.
5. Surface texture per ANSI B46.1.
6. Hole preparation per NAS618.
[7] Evidence of broken edge across points.
[8] Curved or flat edge manufacturer's option.
[9] Non-lubed pins must be used with wet sealant or with lubed collars.
10. Use HST119 for oversize replacement.

MATERIAL: Alloy steel per Spec. MIL-S-5000, MIL-S-5626, or MIL-S-6049.
HEAT TREAT: 95,000 psi shear minimum (160,000-180,000 psi tensile per Spec. MIL-H-6875).
⑦ FINISH:
HST19-( )-( ) = Cadmium plate per QQ-P-416, Type I, Class 2, and cetyl alcohol lube per Hi-Shear Spec. 305.
HST19HC-( )-( ) = Cadmium plate per QQ-P-416, Type II, Class 2, and apply precoat No. PR1436G sealant (.002-.005 thick) plus cetyl alcohol lube per Hi-Shear Spec. 305.
HST19PA-( )-( ) = Cadmium plate per QQ-P-416, Type II, Class 2, color orange on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
HST19PB-( )-( ) = Cadmium plate per QQ-P-416, Type II, Class 2, color bronze, and cetyl alcohol lube per Hi-Shear Spec. 305.

[9] HST19PN-( )-( ) = Cadmium plate per QQ-P-416, Type II, Class 2.
HST19TF-( )-( ) = Cadmium plate per QQ-P-416, Type III, Class 2, and Hi-Kote 2 solid film lube per Hi-Shear Spec. 292.
HST19TP-( )-( ) = Cadmium plate per QQ-P-416, Type III, Class 2, Hi-Kote 2 solid film lube per Hi-Shear Spec. 292, color orange on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: Hi-Lite Product Specification 380.

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 EXAMPLES:
Pin Part Number Only
HST19 PB - 8 - 8
- 8/16 or 1/2 Maximum Grip Length
- 8/32 or 1/4 Nominal Diameter Pin
- Type II Cadmium Plate, Color Bronze
- Pin Part Number

Pin and Collar Assembly Part Number Combination
HST19 PB 79 - 8 - 8
- Size and Grip Length, See Above Example
- Collar Part Number
- Pin Finish
- Pin Part Number

DRAWN	DATE	TITLE
D. P. S.	9-10-82	HI-LITE®ST™ PIN 100° FLUSH SHEAR HEAD ALLOY STEEL 1/16" GRIP VARIATION
APPROVED	DATE	
L.E.B.	9-9-82	
REVISION	DATE	DRAWING NUMBER
⑦	D.P.S. 8-25-92	HST19

HST19