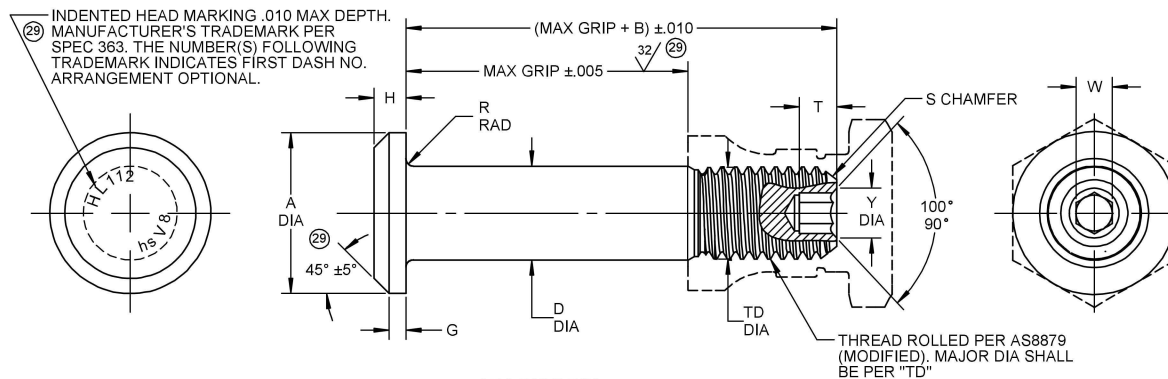
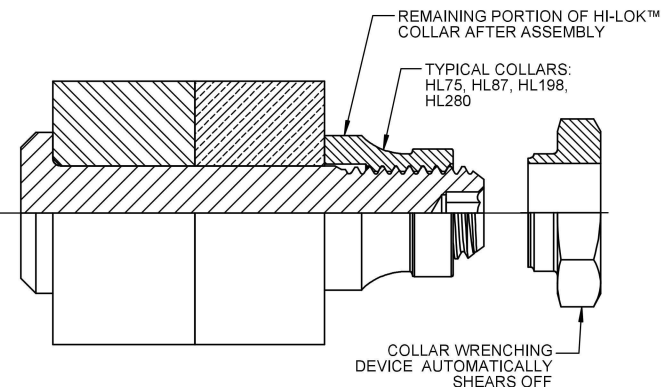


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HI-LOK™ PIN



HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

[5]

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	G REF	H	R RAD	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							NOTE: USE HL12V()6-()									
6	13/64	.377 .357	.325	.2026 2021	.2026 2016	.1840 1810	.035	.074 .064	.025 .015	1/32 x 37°	.1900-32 UNJF-3A	.0806 .0791	.135 .115	.119 .104	6,130	3,180
8	17/64	.440 .415	.395	.2651 2646	.2651 2641	.2440 2410	.045	.090 .080	.025 .015	1/32 x 37°	.2500-28 UNJF-3A	.0967 .0947	.150 .130	.142 .122	10,490	5,820
10	21/64	.505 .472	.500	.3276 3271	.3276 3266	.3060 3020	.055	.112 .102	.030 .020	3/64 x 37°	.3125-24 UNJF-3A	.1295 .1270	.170 .150	.180 .160	16,000	9,200
12	25/64	.600 .530	.545	.3901 3896	.3901 3891	.3680 3640	.075	.140 .130	.030 .020	3/64 x 37°	.3750-24 UNJF-3A	.1617 .1582	.200 .180	.217 .197	22,700	14,000
14	29/64	.676 .592	.635	.4526 4521	.4526 4516	.4310 4260	.095	.160 .150	.030 .020	3/64 x 37°	.4375-20 UNJF-3A	.1930 .1895	.230 .210	.253 .233	30,600	18,900
16	33/64	.770 .717	.685	.5151 5146	.5151 5141	.4930 4880	.095	.188 .178	.030 .020	3/64 x 37°	.5000-20 UNJF-3A	.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 37°	.5625-18 UNJF-3A	.2555 .2520	.290 .270	.326 .306	49,700	32,400
20	41/64	.953 .905	.825	.6396 6391	.6396 6386	.6180 6120	.140	.238 .228	.040 .025	1/16 x 37°	.6250-18 UNJF-3A	.2555 .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 37°	.7500-16 UNJF-3A	.3185 .3150	.330 .300	.398 .378	87,200	59,500

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
D.P.S.
J.F.OBISPO

DATE
1963-11-04
2014-07-29

APPROVED
MC

DATE
1963-11-05

REVISION
29

DATE
K. PHAM
2022-04-04

TITLE
HI-LOK™ PIN
PROTRUDING TENSION HEAD
TITANIUM
1/16 GRIP VARIATION, 1/64 OVERSIZE

DRAWING NUMBER
HL112

1 OF 2

- GENERAL NOTES:**
1. Concentricity: "A" to "D" diameter within .010 FIM.
 2. Dimensions are in inches and to be met after finish.
 3. Surface texture per ASME B46.1.
 4. Hole preparation per NAS618.
 - 5 Maximum "D" diameter may be increased by .0002 to allow for solid film or aluminum coating application.
 - 6 Broach petals removed.
 - 7 Dimensions to be met before finish for "VY" code only.
 8. Use HL412 for oversize replacement.
 - 9 Non-lubed pins must be used with lubed collars or wet sealant.
 - 10 After February, 21st of 2015, HI-KOTE™ 1 aluminum pigmented coating will be replaced by REACH compliant HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on fasteners coated in UK and European Union.

CODE: First dash number indicates nominal diameter in 1/32nds of the pin which HL112 oversize pin replaces.
 Second dash number indicates maximum grip in 1/16ths.
 See Finish note for explanation of code letters.

HOW TO ORDER

EXAMPLE: Pin Part Number
 HL112VAP8-8
 └─ 8/16 or 1/2 Maximum Grip Length
 └─ Replaces 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: 160,000 psi tensile minimum (95,000 psi shear minimum).

- FINISH:** HL112V(-)(-) = Cetyl alcohol lube per Hi-Shear Spec. 305.
- 29 10 HL112VAP(-)(-) = 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.
- 29 10 HL112VAZ(-)(-) = 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.
- HL112VBJ(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 9 HL112VBV(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, with color blue on thread end.
- 6 HL112VDK(-)(-) = Solid film lube per "KalGard™" FA. "KALGARD" is a trademark of Metal Improvement Company.
- 29 HL112VVF(-)(-) = Anodize per Hi-Shear Spec. 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 29 HL112VLJ(-)(-) = Anodize per Hi-Shear Spec. 306, Type II, and solid film lube per AS5272.
- HL112VLV(-)(-) = Phosphate fluoride treat and Esna-Lube No. 382 (Everlube Corp).
- 6 HL112VMA(-)(-) = Solid film lube per "KalGard™" RA. "KALGARD" is a trademark of Metal Improvement Company
- 29 HL112VR(-)(-) = Anodize per Hi-Shear Spec. 306, Type II, and solid film lube per "Electrofilm" 4396.
- HL112VRA(-)(-) = Phosphate fluoride treat with color red on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL112VSS(-)(-) = Grit blast top of head with color light blue on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL112VSY(-)(-) = Phosphate fluoride treat, solid film lube per AS5272, Type I, and color red on thread end.
- 29 HL112VT(-)(-) = Anodize per Hi-Shear Spec. 306, Type I, color pink, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL112VTA(-)(-) = Anodize Ti-Shield III and HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL112VTB(-)(-) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL112VTF(-)(-) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292.
- HL112VTL(-)(-) = Anodize Ti-Shield III, solid film lube per DAG-258, and cetyl alcohol lube per Hi-Shear Spec. 305; or anodize per Tiodize Type II, solid film lube per TI-O-LUBE TAL-58, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL112VTT(-)(-) = Translube.
- 9 HL112VU(-)(-) = Bare, no lubricant.
- 29 HL112VUE(-)(-) = Anodize per Hi-Shear Spec. 306, Type II, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 29 HL112VUU(-)(-) = Anodize per Hi-Shear Spec. 306, Type II, and solid film lube per "Lubeco" 2123, Type II.
- 29 HL112VV(-)(-) = Solid film lube per "Lubeco" 2123, Type II.
- 29 7 HL112VY(-)(-) = Anodize per Hi-Shear Spec. 306, Type I, color blue, and solid film lubricant per M88. (British Aircraft Corporation Spec. MP-1071).
- HL112VNKJ(-)(-) = 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.
- HL112VNKK(-)(-) = 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.
- HL112VNKL(-)(-) = 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.
- HL112VHK(-)(-) = HI-KOTE™ 4 NC aluminum coating per Hi-Shear Spec. 397.

SPECIFICATION: HI-LOK™ Product Specification 342.

DRAWING NUMBER

HL112

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