



HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

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FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	F	H	R RAD	Z MAX	S CHAMFER REF	THREAD MODIFIED	SOCKET			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM			
				WITHOUT COATING OR SOLID FILM	WITH COATING OR SOLID FILM								W HEX	T DEPTH	Y DIA					
-5	3/16						NOTE: Use HL49-6													
-6	13/64	.3813 .3765	.325	.2026 .2021	.2026 .2016	.1840 .1810	.005	.0750 .0730	.030 .020	.015	1/32 x 45°	.1900-32 UNJF-3A	.0806 .0791	.135 .115	.119 .104	6,130	3,180			
-8	17/64	.5066 .5018	.395	.2651 .2646	.2651 .2641	.2440 .2410	.006	.1013 .0993	.030 .020	.015	1/32 x 45°	.2500-28 UNJF-3A	.0967 .0947	.150 .130	.142 .122	10,490	5,820			
-10	21/64	.6335 .6287	.500	.3276 .3271	.3276 .3266	.3060 .3020	.007	.1283 .1263	.040 .030	.015	3/64 x 45°	.3125-24 UNJF-3A	.1295 .1270	.170 .150	.180 .160	16,000	9,200			
-12	25/64	.7604 .7556	.545	.3901 .3896	.3901 .3891	.3680 .3640	.008	.1553 .1533	.040 .030	.015	3/64 x 45°	.3750-24 UNJF-3A	.1617 .1582	.200 .180	.217 .197	22,700	14,000			
-14	29/64	.8884 .8812	.635	.4526 .4521	.4526 .4516	.4310 .4260	.009	.1828 .1798	.050 .040	.022	3/64 x 45°	.4375-20 UNJF-3A	.1930 .1895	.230 .210	.253 .233	30,600	18,900			
-16	33/64	1.0139 1.0068	.685	.5151 .5146	.5151 .5141	.4930 .4880	.010	.2093 .2063	.050 .040	.022	3/64 x 45°	.5000-20 UNJF-3A	.2242 .2207	.260 .240	.289 .269	39,600	25,600			
-18	37/64	1.1408 1.1337	.770	.5771 .5766	.5771 .5761	.5550 .5500	.010	.2430 .2400	.050 .040	.025	1/16 x 45°	.5625-18 UNJF-3A	.2555 .2520	.290 .270	.326 .306	49,700	32,400			
-20	41/64	1.2723 1.2651	.825	.6396 .6391	.6396 .6386	.6180 .6120	.010	.2720 .2690	.050 .040	.025	1/16 x 45°	.6250-18 UNJF-3A	.2555 .2520	.330 .305	.326 .306	61,000	41,000			
-24	49/64	1.5308 1.5236	1.050	.7646 .7641	.7646 .7636	.7430 .7370	.012	.3280 .3250	.050 .040	.025	1/16 x 45°	.7500-16 UNJF-3A	.3185 .3150	.395 .365	.398 .378	87,200	59,500			

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

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

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

DRAWN BY BRIEJ	DATE 1963-05-28	TITLE HI-LOK™ PIN	
APPROVED CESSNA	DATE 1963-05-28	100° FLUSH MS24694 TENSION HEAD A-286 HIGH TEMPERATURE ALLOY 1/16 GRIP VARIATION, 1/64 OVERSIZE	
REVISION (10)	DATE F. CARINGELLA 2017-11-08	DRAWING NUMBER HL249	

- GENERAL NOTES:**
- ① Head out fo roundness shall not exceed "F".
 - 2. Concentricity: Conical suface of head to "D" diameter within .005 FIR.
 - 3. "H" dimensioned from maximum "D" diameter.
 - ⑩ 4. Dimensions are in inches and to be met after finish.
 - ⑤ 5. Non-lubed pins must be used with lubed collars.
 - ⑩ 6. Surface texture per ASME B46.1.
 - 7. Hole preparation per NAS618.
 - 8. Use HL749 for oversize replacement.
 - ⑨ 9. Maximum "D" diameter may be increased by .0002 to allow for solid film or coating application.
 - ⑩ 10. Curved or flat edge namufacturer's option.
 - ⑩ 11. 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 European Union.

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.

- FINISH:**
- HL249-()-() = Passivate per Hi-Shear Spec. 258, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - ⑩ ① ① HL249AZ-()-() = HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - ⑩ HL249DL-()-() = Solid film lube per AS5272, Type I, and cetyl alcohol lube per Hi-Shear Spec. 305
 - ⑩ HL249DU-()-() = Solid film lube per AS5272, Type I.
 - ⑤ HL249PY-()-() = Passivate per Hi-Shear Spec. 258.
 - HL249V-()-() = 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 HL249 oversize pin replaces.
 Second dash number indicates maximum grip in 1/16ths.
 See Finish note for explanation of code letters.

HOW TO ORDER

⑩ **EXAMPLE:** Pin Part Number
 HL249AZ-8-8
 — 8/16 or 1/2 Maximum Grip Length
 — Replaces 8/32 or 1/4 Nominal Diameter Pin
 — Finish Code
 — Pin Basic Part Number

Pin and Gollar Assembly Part Number Combination
 HL24987-8-8
 — Size and grip length, see above example
 — Gollar Part Number
 Pin Basic Part Number