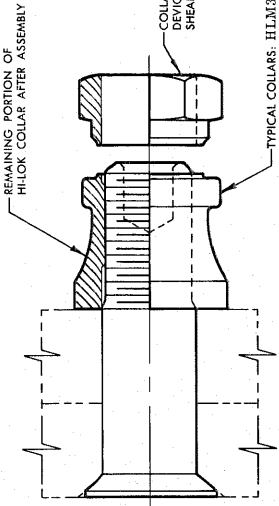
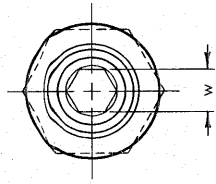
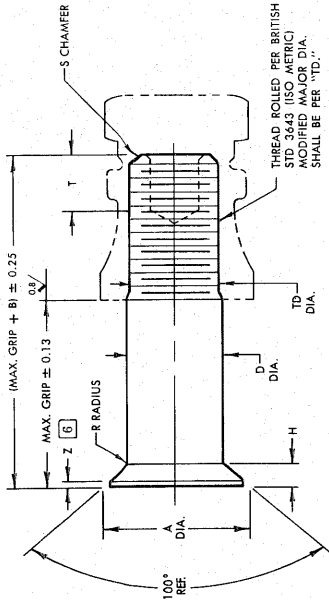
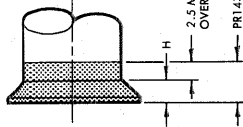


INDENTED HEAD MARKING AS TABULATED, MAXIMUM DEPTH 0.25. ARRANGEMENT OPTIONAL.
"H" indicates HI-SHEAR trademark.
"VS" indicates VOLSHAN trademark.
"SPS" indicates STANDARD PRESSED STEEL trademark.



HI-LOK PIN (METRIC)

HI-LOK PIN AND COLLAR AFTER ASSEMBLY

SEE COLLAR STANDARDS FOR
COLLAR STRENGTHS. LOWER
TENSILE STRENGTH OF COLLAR
DETERMINES SYSTEM STRENGTH.

FIRST DASH NO.	HEAD MARKING	NOM. DIA.	A DIA.	B REF.	D DIA.	D DIA.		TD DIA.	F	H	R RAD.	Z MAX.	S CHAMFER REF.	THREAD (MODIFIED)	SOCKET		DOUBLE SHEAR NEWTONS MINIMUM	TENSION NEWTONS MINIMUM
						HLM311AP AND HLM311HA	HLM311								W HEX.	T DEPTH		
-04	HLM311M4	4.5	6.99	9.0	4.490	4.490	3.91	0.11	1.05	0.65	0.25	0.8 x 37°	M8 x 0.7-4h	1.64	2.20	20800	6200	
-05	HLM311M5	5.5	8.35	9.4	5.490	4.465	4.90	0.13	1.20	0.75	0.38	0.8 x 37°	M8 x 0.8-4h	1.61	2.55	31100	9300	
-06	HLM311M6	6.5	10.18	11.7	6.490	6.490	5.88	0.16	1.55	0.75	0.38	0.8 x 37°	M8 x 1.0-4h	2.01	2.00	43500	14700	
-08	HLM311M8 x 1	8.5	13.23	14.0	8.487	8.487	7.88	0.18	1.99	1.00	0.38	1.2 x 37°	M8 x 1.0-4h	3.29	3.35	74300	24400	
-10	HLM311M10 x 1	10.5	16.18	16.2	10.487	10.487	9.88	0.21	2.39	1.00	0.38	1.2 x 37°	M10 x 1.0-4h	4.11	4.35	113400	37800	
-12	HLM311M12 x 1.25	12.5	18.92	19.4	12.484	12.484	11.87	0.23	2.70	1.25	0.56	1.2 x 37°	M12 x 1.25-4h	4.02	5.10	160800	52000	

- GENERAL NOTES:**
- Head edge out of roundness shall not exceed "P."
 - Concentricity: Conical surface of head to "m" diameter within 0.13 FIR.
 - "H" is dimensioned from maximum "D" diameter.
 - Surface texture per ISO/D R221.
 - Dimensions to be met after finish.
 - Curved or flat edge manufacturer's option.
 - Use HLM611 for oversize replacement.

MATERIAL: 6AL-4V titanium alloy per Spec. AMS4928 or AMS4967 for all sizes. 6AL-6V-2Sn titanium alloy per Spec. AMS4971 is acceptable for -10 size and larger.

HEAT TREAT: 685 MPa shear minimum.

FINISH: HLM311-()-() = Surface coating per Hi-Shear Spec. 306, Type 1, color blue-violet (equivalent to LN9388 Blatt 4), and cetyl alcohol lube per Hi-Shear Spec. 305.
HLM311AP-()-() = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 and cetyl alcohol lube per Hi-Shear Spec. 305.
HLM311HA-()-() = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 and apply precoat No. PRL439G sealant (0.011-0.127 mm thick) plus cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: HI-Lok Product Specification No. M342.

CODE: First dash number indicates nominal diameter in 1 mm which HLM311 oversize pin replaces.
Second dash number indicates maximum grip in 1 mm.
See "Finish" note for explanation of code letters.

HOW TO ORDER EXAMPLES:

Pin Part Number Only
HLM311-04-5
— 8 mm Maximum Grip Length
— Replaces 4 mm Nominal Diameter Pin
— Pin Part Number

Pin and Collar Assembly Part Number Combination
HLM311370-04-8
— Size and Grip Length, See Above Example
— Collar Part Number
— Pin Part Number

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

U.S. patents 3,390,906; and foreign patents. "Hi-Lok" and "H" are Registered Trademarks of Hi-Shear Corporation.

hi-lok® PIN (METRIC SERIES)
100° FLUSH SHEAR HEAD
TITANIUM
1 mm GRIP VARIATION
0.5 mm OVERSIZE

DRAWN DATE 10-15-75
APPROVED DATE 12/15/75
REVISION 3
D.P.S. 5-21-82
DRAWING NUMBER
HLM311