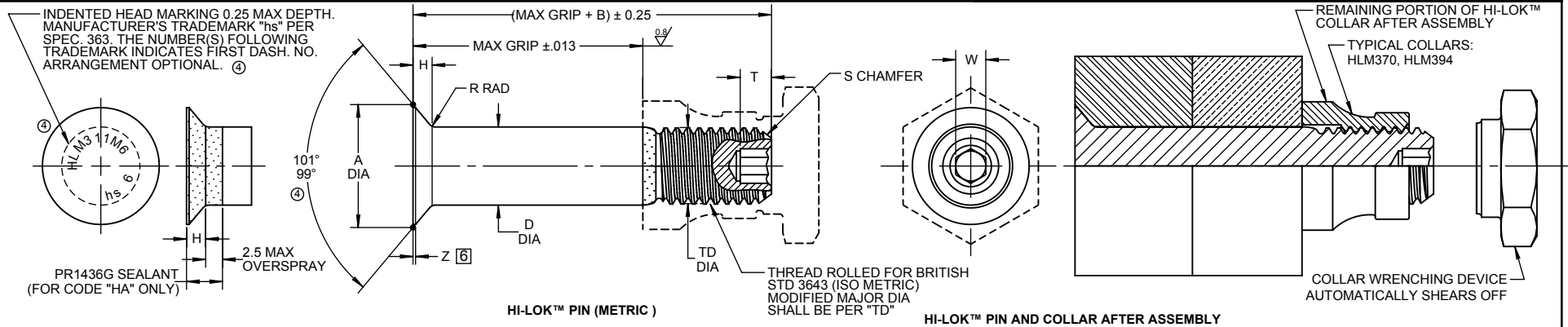




FIRST DASH NO.	HEAD MARKING	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	F	H	R RAD	Z MAX	S CHAMFER REF	THREAD MODIFIED	SOCKET		** DOUBLE SHEAR NEWTONS MINIMUM	TENSION NEWTONS MINIMUM
					HLM311	HLM311AP AND HLM311HA								W HEX	T DEPTH MIN		
04	HLM311M4	4.5	6.99 6.85	9.0	4.490 4.478	4.490 4.465	3.91 3.86	0.11	1.05 0.99	0.65 0.40	0.25	0.8 x 37°	M4 x 0.7-4h	1.64 1.61	2.20 1.80	20800	6200
05	HLM311M5	5.5	8.35 8.21	9.4	5.490 5.478	5.490 5.465	4.90 4.84	0.13	1.20 1.14	0.75 0.50	0.38	0.8 x 37°	M5 x 0.8-4h	2.05 2.01	2.55 2.00	31100	9300
06	HLM311M6	6.5	10.18 10.04	11.7	6.490 6.478	6.490 6.465	5.88 5.81	0.16	1.55 1.49	0.75 0.50	0.38	0.8 x 37°	M6 x 1.0-4h	2.46 2.40	2.80 2.25	43500	14700
08	HLM311M8 X 1	8.5	13.23 13.09	14.0	8.487 8.472	8.487 8.462	7.88 7.80	0.18	1.99 1.93	1.00 0.75	0.38	1.2 x 37°	M8 x 1.0-4h	3.29 3.22	3.35 2.80	74300	24400
10	HLM311M10 X 1	10.5	16.18 16.04	16.2	10.487 10.472	10.487 10.462	9.88 9.80	0.21	2.39 2.33	1.00 0.75	0.38	1.2 x 37°	M10 x 1.0-4h	4.11 4.02	4.35 3.80	114300	37800
12	HLM311M12 X 1.25	12.5	18.92 18.78	19.4	12.484 12.466	12.484 12.459	11.87 11.76	0.23	2.70 2.64	1.25 1.00	0.56	1.2 x 37°	M12 x 1.25-4h	4.90 4.81	5.10 4.55	160800	52000

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

- GENERAL NOTES:**
- Head edge out of roundness shall not exceed "F".
 - Concentricity: Conical surface of head to "D" diameter within 0.13 FIR.
 - "H" is dimensioned from maximum "D" diameter.
 - Surface texture per ISO/DR221.
 - ⑤ Dimensions are in millimeters and to be met after finish.
 - ⑥ Curved or flat edge manufacturer's option.
 - Use HLM611 for oversize replacement.
 - ⑧ 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: 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: 655 MPa shear minimum.

- FINISH:** HLM311(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue-violet (equivalent to LN9368 Blatt 4), and cetyl alcohol lube per Hi-Shear Spec. 305.
- ⑧ HLM311AP(-)(-) = HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294 and cetyl alcohol lube per Hi-Shear Spec. 305.
- ⑧ HLM311HA(-)(-) = HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294 and apply precoat No. PR1436G sealant (.051-.127 mm thick) plus and cetyl alcohol lube per Hi-Shear Spec. 305.

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
 ④ EXAMPLE:

Pin Part Number
 HLM311AP-04-8
 8 mm Maximum Grip Length
 4 mm Nominal Diameter Pin
 Finish Code
 Pin Basic 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.

"HI-LOK", "HL", AND "HI-KOTE", ARE TRADEMARKS OF HI-SHEAR CORPORATION		
DRAWN BY D. P. S.	DATE 1975-10-15	TITLE HI-LOK™ PIN (METRIC SERIES) 100° FLUSH SHEAR HEAD TITANIUM 1 mm GRIP VARIATION 0.5 mm OVERSIZE
APPROVED R. TING	DATE 1975-12-15	
REVISION ④	DATE K. TRAN 2017-12-06	DRAWING NUMBER HLM311