



Fig. 9

- d = nominal Locking Assembly™ I.D.
= shaft O.D.
- T_1 = machining tolerances for shaft (d)
- D = nominal Locking Assembly™ O.D.
= hub counter bore I.D.
- T_2 = machining tolerances for counter bore (D)
- L, I, L_1 = width dimensions, relaxed condition
- M_t = maximum transmissible torque
- p = contact pressure between Locking Assembly™ and shaft
- d_G = metric socket head cap screw size
- s = metric hex key size (across flats)
- M_A = required tightening torque per locking screw (tighten with torque wrench)
- d_D = metric pull-out thread (under zinc-plated screws only)
- D_N = minimum hub O.D. for single-unit installation and based on Y.P. 36,000 psi hub material (for other hub materials calculate hub O.D. per step 3 of Selection Guide)

Table 1: Inch Series Locking Assembly™ RfN 7012-IN

Material: Medium Carbon Steel*

RfN 7012-IN Size	Locking Assembly™ dimensions							max. M_t lb-ft	p psi	Locking screws DIN 912 – 12.9					D_N inches
	d	T_1	D	T_2 inches	L	I	L_1			Qty.	size d_G	s mm	M_A lb-ft	d_D	
3/4	.750	+0	1.850	-0	.787	.669	1.083	185	28 450	8 M 6x18	5	10.13	M 8	2.375	
1	1.000	-.002	1.969	+.002	.787	.669	1.083	275	27 000	9 M 6x18	5	10.13	M 8	2.500	
1-1/8	1.125		2.165		.787	.669	1.083	345	23 720	10 M 6x18	5	10.13	M 8	2.750	
1-3/16	1.1875		2.159		.813	.669	1.108	362	24 900	10 M 6x18	5	10.13	M 8	2.750	
1-1/4	1.250		2.362		.787	.669	1.083	459	28 000	12 M 6x18	5	10.13	M 8	3.125	
1-3/8	1.375		2.365		.776	.669	1.071	506	25 600	12 M 6x18	5	10.13	M 8	3.125	
1-7/16	1.4375		2.559		.787	.669	1.083	608	28 450	15 M 6x18	5	10.13	M 8	3.375	
1-1/2	1.500	+0	2.559	-0	.787	.669	1.083	636	27 000	15 M 6x18	5	10.13	M 8	3.375	
1-5/8	1.625	-.0025	2.953	+.0025	.945	.787	1.319	1 070	32 700	12 M 8x22	6	25.32	M 10	4.125	
1-11/16	1.6875		2.953		.945	.787	1.319	1 109	28 430	12 M 8x22	6	25.32	M 10	4.125	
1-3/4	1.750		2.953		.945	.787	1.319	1 150	30 000	12 M 8x22	6	25.32	M 10	4.125	
1-7/8	1.875		3.150		.945	.787	1.319	1 222	28 450	12 M 8x22	6	25.32	M 10	4.250	
1-15/16	1.9375		3.150		.945	.787	1.319	1 259	27 000	12 M 8x22	6	25.32	M 10	4.250	
2	2.000		3.346		.945	.787	1.319	1 519	30 600	14 M 8x22	6	25.32	M 10	4.750	
2-1/8	2.125		3.346		.945	.787	1.319	1 613	29 150	14 M 8x22	6	25.32	M 10	4.750	
2-3/16	2.1875		3.543		.945	.787	1.319	1 656	28 450	14 M 8x22	6	25.32	M 10	4.875	
2-1/4	2.250		3.543		.945	.787	1.319	1 700	27 000	14 M 8x22	6	25.32	M 10	4.875	
2-3/8	2.375		3.531		.996	.787	1.370	1 787	25 600	14 M 8x22	6	25.32	M 10	4.875	
2-7/16	2.4375		3.740		.945	.787	1.319	2 098	28 450	16 M 8x22	6	25.32	M 10	5.250	
2-1/2	2.500	+0	3.740	-0	.945	.787	1.319	2 148	27 750	16 M 8x22	6	25.32	M 10	5.250	
2-9/16	2.5625	-.003	3.737	+.003	.959	.787	1.333	2 199	27 000	16 M 8x22	6	25.32	M 10	5.250	
2-5/8	2.625		4.331		1.102	.945	1.555	3 120	30 514	14 M 10x25	8	50.63	M 12	5.937	
2-11/16	2.6875		4.331		1.102	.945	1.555	3 195	29 804	14 M 10x25	8	50.63	M 12	5.937	
2-3/4	2.750		4.337		1.079	.945	1.532	3 320	29 850	14 M 10x25	8	50.63	M 12	6.000	
2-7/8	2.875		4.528		1.102	.945	1.555	3 450	28 450	14 M 10x25	8	50.63	M 12	6.250	
2-15/16	2.9375		4.528		1.102	.945	1.555	3 522	27 750	14 M 10x25	8	50.63	M 12	6.250	
3	3.000		4.724		1.102	.945	1.555	3 580	27 000	14 M 10x25	8	50.63	M 12	6.375	
3-1/8	3.125		4.724		1.102	.945	1.555	3 731	25 400	14 M 10x25	8	50.63	M 12	6.375	
3-1/4	3.250		4.921		1.102	.945	1.555	4 426	26 950	16 M 10x25	8	50.63	M 12	6.875	
3-3/8	3.375		4.921		1.102	.945	1.555	4 593	27 750	16 M 10x25	8	50.63	M 12	6.875	
3-7/16	3.4375		5.118		1.102	.945	1.555	4 629	26 300	16 M 10x25	8	50.63	M 12	7.125	
3-1/2	3.500	+0	5.118	-0	1.102	.945	1.555	4 716	25 600	16 M 10x25	8	50.63	M 12	7.125	
3-3/4	3.750	-.0035	5.305	+.0035	1.142	.945	1.594	5 714	27 750	18 M 10x25	8	50.63	M 12	7.500	
3-15/16	3.9375		5.708		1.301	1.024	1.852	6 944	27 750	14 M 12x30	10	90.41	M 14	8.000	
4	4.000		5.843		1.299	1.024	1.850	7 016	27 000	14 M 12x30	10	90.41	M 14	8.375	
4-7/16	4.4375		6.496		1.299	1.024	1.850	8 897	28 450	16 M 12x30	10	90.41	M 14	9.125	
4-1/2	4.500		6.496		1.299	1.024	1.850	9 027	27 750	16 M 12x30	10	90.41	M 14	9.125	
4-15/16	4.9375		7.087		1.496	1.339	2.047	12 282	24 200	20 M 12x35	10	90.41	M 14	9.500	
5	5.000		7.087		1.496	1.339	2.047	12 434	24 200	20 M 12x35	10	90.41	M 14	9.500	
5-1/2	5.500	+0	7.492	-0	1.449	1.339	2.000	15 088	24 200	22 M 12x35	10	90.41	M 14	10.250	
6	6.000	-.004	8.268	+.004	1.496	1.339	2.047	19 290	25 600	26 M 12x35	10	90.41	M 14	11.500	
6-1/2	6.500		8.858		1.732	1.496	2.362	23 037	23 450	22 M 14x40	12	137.43	M 16	12.000	
7	7.000		9.252		1.732	1.496	2.362	27 008	23 450	24 M 14x40	12	137.43	M 16	12.750	
7-1/2	7.500	+0	9.823	-0	2.126	1.811	2.756	33 633	21 350	28 M 14x45	12	137.43	M 16	13.125	
7-7/8	7.875	-.0045	10.235	+.0045	2.051	1.811	2.681	37 973	21 350	30 M 14x45	12	137.43	M 16	13.625	

*Stainless steel available upon request.

Notes: B = at least 2 x I, preferably 2 x L_1 or more
 P_{ax} = axial load (thrust capacity)
= $\frac{M_t \times 24 \text{ lbs}}{d}$ (for M_t in lb-ft)

p' = constant pressure between Locking Assembly™ and hub bore
Values of M_t , p, P_{ax} , and p' are based on lightly oiled installation (coefficient of friction $\mu = 0.12$)

$$p' = p \times \frac{d}{D}$$