

# BEAR-LOC® - Lock Length Selection Chart

## Lock Selection Procedure:

- Choose hydraulic system pressure (2000 to 5000 psi)
- Use "rod" diameter consistent with structural load requirements.
- Determine load to be locked (Maximum design load times desired safety factor).
- Using chart find lock length required.

## Example:

- System Pressure - 3000 psi.
- 4 inch Rod.
- $(48,000)(1.25) = 60,000$  Lbs.
- Lock Unit - (-14) 61,000 Lbs.
- Lock Length (L) is 15.25"

1" ROD LOCK CAPACITY						4" ROD LOCK CAPACITY					
LOCK UNIT	LOCK LENGTH	Series 2000	Series 3000	Series 5000	LOCK LENGTH	LOCK UNIT	LOCK LENGTH	Series 2000	Series 3000	Series 5000	LOCK LENGTH
-2	2.75	800	1760	3550	2.75	-2	3.25	4400	8800	15700	4.25
-3	3.75	1320	2640	5325	3.75	-3	4.25	6600	13200	23550	5.25
-4	4.75	1760	3520	7100	4.75	-4	5.25	8800	17600	31400	6.25
-5	5.75	2200	4400	8875	5.75	-5	6.25	11000	22000	39250	7.25
-6	6.75	2640	5280			-6	7.25	13200	26400	47100	8.25
-7	7.75	3080	6160			-7	8.25	15400	30800	54950	9.25
-8	8.75	3520	7040			-8	9.25	17600	35200	62800	10.25
-9	9.75	3960	7920			-9	10.25	19800	39600	70650	11.25
-10	10.75	4400	8800			-10	11.25	22000	44000	68500	12.25
<b>1-3/4" ROD</b>						-11	12.25	24200	48400	86350	13.25
-2	2.88	1870	3740	6430	3.12	-12	13.25	26400	52800	94200	14.25
-3	3.88	2800	5610	9650	4.12	-13	14.25	28600	57200	102050	15.25
-4	4.88	3740	7480	12860	5.12	-14	15.25	30800	61600	109900	16.25
-5	5.88	4670	9350	16080	6.12	-15	16.25	33000	66000	117750	17.25
-6	6.88	5610	11220	19300	7.12	-16	17.25	35200	70400	125600	18.25
-7	7.88	6540	13090	22510	8.12	-17	18.25	37400	74800		
-8	8.88	7480	14960	25730	9.12	-18	19.25	39600	79200		
-9	9.88	8410	16830			-19	20.25	41800	83600		
-10	10.88	9350	18700			-20	21.25	44000	88000		
-11	11.88	10280	20570			-21	22.25	46200	92400		
-12	12.88	11220	22440			-22	23.25	48400	96800		
-13	13.88	12150	24310			-23	24.25	50600	101200		
<b>2-1/2" ROD</b>						-24	25.25	52800	105600		
-2	3.12	2630	5260	9500	3.62	-25	26.25	55000	110000		
-3	4.12	3940	7890	14260	4.62	-26	27.25	57200	114400		
-4	5.12	5260	10520	19010	5.62	-27	28.25	59400	118800		
-5	6.12	6570	13150	23750	6.62	-28	29.25	61600	123200		
-6	7.12	7890	15780	28510	7.62	-29	30.25	63800	127600		
-7	8.12	9200	18410	33260	8.62	-30	31.25	66000	132000		
-8	9.12	10520	21040	38020	9.62	<b>5-1/2" ROD</b>					
-9	10.12	11830	23670	42700	10.62	-2	3.5	7000	14000	22120	5.0
-10	11.12	13150	26300	47520	11.62	-3	4.5	10500	21000	33170	6.0
-11	12.12	14460	28930	52270	12.62	-4	5.5	14000	28000	44230	7.0
-12	13.12	15780	31560	57020	13.62	-5	6.5	17500	35000	55290	8.0
-13	14.12	17090	34190	61780	14.62	-6	7.5	21000	42000	66350	9.0
-14	15.12	18410	36820			-7	8.5	24500	49000	77410	10.0
-15	16.12	19720	39450			-8	9.5	28000	56000	88460	11.0

-16	17.12	21040	42080
-17	18.12	22350	44710
-18	19.12	23670	47340
-19	20.12	24960	49920
-20	21.12	26300	52600
-21	22.12	27610	55230
-22	23.12	28930	57880
-23	24.12	30240	60490
-24	25.12	31560	63120

-9	10.5	31500	63000	99520	12.0
-10	11.5	35000	70000	110580	13.0
-11	12.5	38500	77000	121640	14.0
-12	13.5	42000	84000	132700	15.0
-13	14.5	45500	91000	143750	16.0
-14	15.5	49000	98000	154800	17.0
-15	16.5	52500	105000	165870	18.0
-16	17.5	56000	112000	176930	19.0
-17	18.5	59500	119000	187990	20.0
-18	19.5	63000	126000	199040	21.0
-19	20.5	66500	133000	210100	22.0
-20	21.5	70000	140000	221160	23.0
-21	22.5	73500	147000	232220	24.0
-22	23.5	77000	154000	243280	25.0
-23	24.5	80500	161000	254330	26.0
-24	25.5	84000	168000		
-25	26.5	87500	175000		
-26	27.5	91000	182000		
-27	28.5	94500	189000		
-28	29.5	98000	196000		
-29	30.5	101500	203000		
-30	31.5	105000	210000		
-31	32.5	108500	217000		
-32	33.5	112000	224000		
-33	34.5	115500	231000		
-34	35.5	119000	238000		
-35	36.5	122500	245000		
-36	37.5	126000			