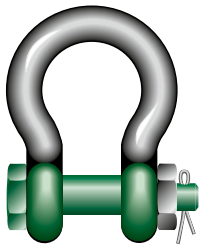


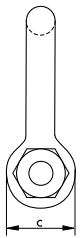
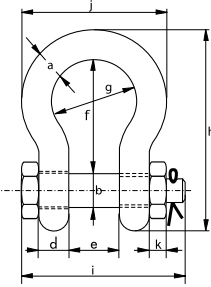


Green Pin Polar® Bow Shackle BN

Grade 8 bow shackle with safety bolt for use under low temperatures



G-5163



- **Material:** bow and pin alloy steel, grade 8, quenched and tempered
- **Safety Factor:** MBL equals 7 x WLL
for shackles with WLL 55 and 85 tons the MBL equals 6 x WLL
- **Standard:** EN 13889, ASME B30.26 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, grade A
- **Finish:** hot dipped galvanized
- **Temperature Range:** -60°C up to +200°C
- **Certification:** 2.1 2.2 3.1 MTC^a DNV GL 2.7-1^a DNV GL 2.7-1^b DNV GL 0378 CE ABS PDA ABS MA

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
2	13.5	16	34	13	22	51	32	89	82	58	13	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	0.74
4.75	19	22	46	19	31	76	51	129	114	89	19	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	2.58
9.5	28	32	66	28	47	108	75	185	166	131	27	3.66
12	32	35	72	32	51	115	83	201	178	147	30	4.91
13.5	35	38	80	35	57	133	92	227	197	162	33	6.54
17	38	42	88	38	60	146	99	249	202	175	19	8.19
25	45	50	103	45	74	178	126	300	249	216	23	14.22
35	50	57	116	50	83	197	138	334	269	238	26	19.85
42.5	57	65	130	57	95	222	160	377	301	274	29	28.33
55	65	70	145	65	105	260	180	433	330	310	32	39.59
85	75	83	162	73	127	329	190	527	380	340	39	62

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
t	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	lbs
2	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	3 7/32	2 9/32	1/2	0.92
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	3 27/32	2 15/16	21/32	1.62
4.75	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	4 1/2	3 1/2	3/4	2.59
6.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	5 1/8	4 1/32	7/8	3.9
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	5 29/32	4 21/32	31/32	5.69
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	6 17/32	5 5/32	1 1/16	8.06
12	1 1/4	1 3/8	2 27/32	1 1/4	2	4 17/32	3 9/32	7 29/32	7	5 25/32	1 3/16	10.81
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	7 3/4	6 3/8	1 5/16	14.42
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/16	7 15/16	6 7/8	3/4	18.06
25	1 3/4	2	4 1/16	1 25/32	2 29/32	7	4 31/32	11 13/16	9 13/16	8 1/2	29/32	31.34
35	2	2 1/4	4 9/16	1 31/32	3 9/32	7 3/4	5 7/16	13 5/32	10 19/32	9 3/8	1 1/32	43.77
42.5	2 1/4	2 9/16	5 1/8	2 1/4	3 3/4	8 3/4	6 5/16	14 27/32	11 27/32	10 25/32	1 5/32	62.46
55	2 1/2	2 3/4	5 23/32	2 9/16	4 1/8	10 1/4	7 3/32	17 1/16	13	12 7/32	1 1/4	87.27
85	3	3 1/4	6 3/8	2 7/8	5	12 15/16	7 15/32	20 3/4	14 31/32	13 3/8	1 17/32	136.69

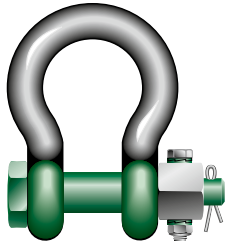
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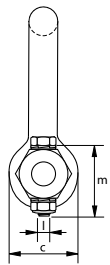
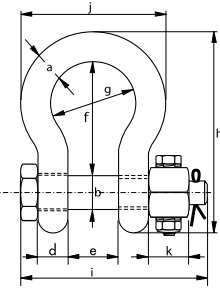
Green Pin Polar® Bow Shackle FN

Grade 8 bow shackle with safety bolt and fixed nut for use under low temperatures



- **Material:** bow and pin alloy steel, grade 8, quenched and tempered
- **Safety Factor:** MBL equals 7 x WLL
- **Standard:** EN 13889, ASME B30.26 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, grade A
- **Finish:** hot dipped galvanized
- **Temperature range:** -60°C up to +200°C
- **Certification:** 2.1 2.2 3.1 MTC^a DNV GL 2.7-1^a DNV GL 2.7-1^b CE

G-5143



working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	securing bolt thread	securing bolt length	torque	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	l mm	m mm	Nm	kg
2	13.5	16	34	13	22	51	32	89	82	58	13	M6	35	8.4	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	M6	40	8.4	0.74
4.75	19	22	46	19	31	76	51	129	114	89	19	M6	45	8.4	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	M8	50	20	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	M8	55	20	2.58
9.5	28	32	66	28	47	108	75	185	166	131	27	M10	60	39	3.66
12	32	35	72	32	51	115	83	201	178	147	30	M10	65	39	4.91
13.5	35	38	80	35	57	133	92	227	197	162	33	M10	70	39	6.54
17	38	42	88	38	60	146	99	249	202	175	19	M8	75	20	8.19
25	45	50	103	45	74	178	126	300	249	216	23	M8	90	20	14.22
35	50	57	116	50	83	197	138	334	269	238	26	M10	100	39	19.85
42.5	57	65	130	57	95	222	160	377	301	274	29	M12	110	68	28.33
55	65	70	145	65	105	260	180	433	330	310	32	M12	120	68	39.59
85	75	83	162	73	127	329	190	527	380	340	39	M12	140	68	62

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	securing bolt thread	securing bolt length	torque	weight each
t	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	l mm	m inch	ft lb	lbs
2	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	3 7/32	2 9/32	1/2	M6	1 3/8	6.2	0.92
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	3 27/32	2 15/16	2 1/32	M6	1 9/16	6.2	1.62
4.75	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	4 1/2	3 1/2	3/4	M6	1 25/32	6.2	2.59
6.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	5 1/8	4 1/32	7/8	M8	1 31/32	14.7	3.9
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	5 29/32	4 21/32	31/32	M8	2 5/32	14.7	5.69
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	6 17/32	5 5/32	1 1/16	M10	2 3/8	28.7	8.06
12	1 1/4	1 3/8	2 27/32	1 1/4	2	4 17/32	3 9/32	7 29/32	7	5 25/32	1 3/16	M10	2 9/16	28.7	10.81
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	7 3/4	6 3/8	1 5/16	M10	2 3/4	28.7	14.42
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/16	7 15/16	6 7/8	3/4	M8	2 15/16	14.7	18.06
25	1 3/4	2	4 1/16	1 25/32	2 29/32	7	4 31/32	11 13/16	9 13/16	8 1/2	29/32	M8	3 17/32	14.7	31.34
35	2	2 1/4	4 9/16	1 31/32	3 9/32	7 3/4	5 7/16	13 5/32	10 19/32	9 3/8	1 1/32	M10	3 15/16	28.7	43.77
42.5	2 1/4	2 9/16	5 1/8	2 1/4	3 3/4	8 3/4	6 5/16	14 27/32	11 27/32	10 25/32	1 5/32	M12	4 11/32	50.1	62.46
55	2 1/2	2 3/4	5 23/32	2 9/16	4 1/8	10 1/4	7 3/32	17 1/16	13	12 7/32	1 1/4	M12	4 23/32	50.1	87.27
85	3	3 1/4	6 3/8	2 7/8	5	12 15/16	7 15/32	20 3/4	14 31/32	13 3/8	1 17/32	M12	5 1/2	50.1	136.69

