



Applications

Shackles are used in lifting and static systems as removable links to connect (steel) wire rope, chain and other fittings. Screw pin shackles are used mainly for non-permanent applications. Safety bolt shackles are used for long-term or permanent applications or where the load may slide on the pin causing rotation of the pin.

Chain or dee shackles are mainly used on one-leg systems whereas anchor or bow shackles are mainly used on multi-leg systems.

Range

Van Beest offers a wide range of bow and dee shackles, depending on the application on which the shackle is going to be used; the range stretches from Working Load Limit (WLL) 0.33 tons to 1500 tons. Therefore, our customers have a very extensive range to choose the shackle exactly suitable for the application. Most of the shackles are directly available from stock. Furthermore, shackles can be supplied to many standards such as the US Federal Specification RR-C-271, EN 13889, British Standard 3032, DIN 82101, DIN 82016 etc.

Polar shackles are for use in extreme climatic conditions with material properties guaranteed up to temperatures of -40°C, and furthermore we offer a wide range of general commercial shackles, which are not suitable for lifting but merely for fixing purposes.

Design

All Van Beest shackles have a specific design for a specific application. Examples are the “Super” shackles which are made out of grade 8 steel enabling the dimensions of the shackles to be minimized for use in limited space conditions, without loss of functionality or Working Load Limit.

Or sling shackles for use with large slings, to provide a better radius to the sling being used. Another example of functional design is the use of shackles where the pin has a square sunken hole so as not to obstruct the use of fishing nets. These are all examples of a highly functional design, to optimize the use of the Van Beest shackles in daily use.

Furthermore, shackles used for lifting applications are stamped with the following marks, to specify the quality and safety of use of the shackles:

- Working Load Limit
 - manufacturer's identification symbol
 - traceability code
 - steel grade
 - CE conformity code
- i.e. WLL 25 T
 - i.e. Bs, indicating Van Beest
 - i.e. H pertaining to a particular batch
 - i.e. 4, 6, 8
 - i.e. CE, Conformité Européen indicating that the product is suitable for lifting purposes.

Van Beest Green Pin® shackles meet all relevant requirements of the Machinery Directive 98/37/EC and all latest amendments.

Finish

Shackles supplied by Van Beest can be either hot dipped galvanized, electro-galvanized, painted or selfcoloured, depending on the type of shackle and its application.

Please consult the product section further on for each type of shackle what finish the product has.



Certification

Upon request at time of order, all load rated shackles can be supplied with any of the following documents or certificates:

- works certificate in accordance with EN 10204 - 2.1 or 2.2;
- certificate of basic raw material in accordance with EN 10204 - 3.1.B;
- manufacturer test certificate;
- EC Declaration of Conformity in accordance with annex IIA of the machine directive 98/37/EC;
- inspection certificate in accordance with EN 10204 - 3.1.B or 3.1.C;
- proof load test certificate;
- certificate with the actual breaking load experienced on tested samples;
- test report of Magnetic Particle Inspection (M.P.I.);
- test report of Ultrasonic Inspection (U.S.).

The first four of the above mentioned certificates can be supplied at no extra charge. For all other certificates, additional costs will be charged.

The test certificates can be supplied surveyed by all official classification societies, such as Lloyd's, Det Norske Veritas, British Standards Bureau, American Bureau of Shipping, Germanischer Lloyd's or any other officially certified inspection body.

Green Pin Standard Shackles and Green Pin Polar Shackles are DNV type approved to certification Note 2.7-1, lifting sets for offshore containers.

Instructions for use

Shackles should be inspected before use to ensure that:

- all markings are legible;
- the body and pin are both identifiable as being of the same size, type and make;
- the threads of the pin and the body are undamaged;
- never use a safety bolt type shackle without using the split cotter pin;
- the body and the pin are not distorted or unduly worn;
- the body and pin are free from nicks, gouges, cracks and corrosion;
- shackles may not be heat treated as this may affect their Working Load Limit;
- never modify, repair or reshape a shackle by welding, heating or bending as this will affect the Working Load Limit.

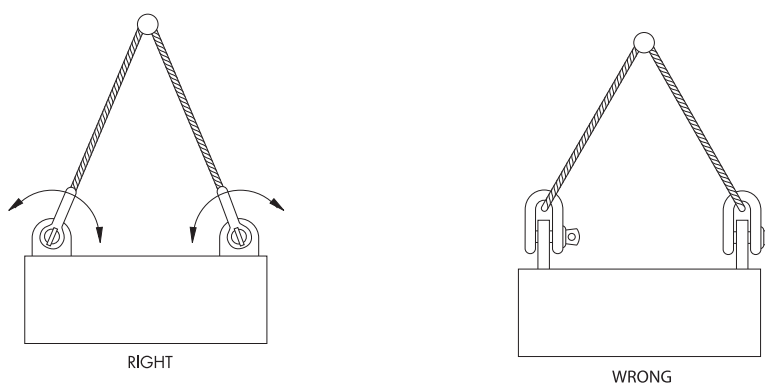
Assembly

Ensure that the pin is correctly screwed into the shackle eye, i.e. tighten hand-tight, then secure using a wrench or other suitable tool so that the collar of the pin is fully seated on the shackle eye. Ensure that the pin is of the correct length so that it penetrates the full depth of the screwed eye and allows the collar of the pin to seat on the surface of the shackle eye.

Incorrect seating of the pin may be due to a bent pin, too tight fitting thread or misalignment of the pin holes. Do not use the shackle under these circumstances. Never replace a shackle pin except with one of the same size, type and make as it may not be suitable for the loads imposed.

Select the correct type of shackle and its Working Load Limit for the particular application. Should extreme circumstances or shock loading be applicable, this must be well taken into account on selecting the correct shackle. Please note that commercial shackles are not to be used for lifting applications.

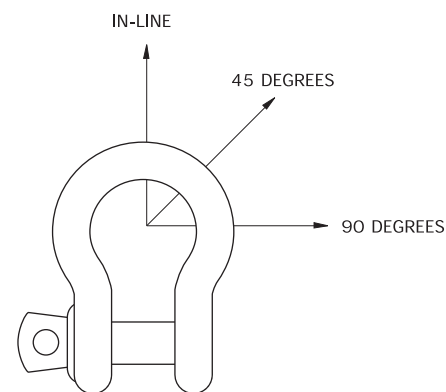
Make sure that the shackle is supporting the load correctly, i.e. along the axis of the shackle body centreline, avoid introduction of bending loads, unstable loads and do not apply overloads.



Side loads

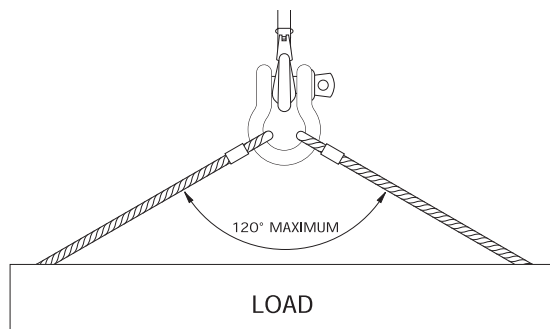
Side loads should be avoided as well, as the products are not designed for this purpose. If side loads cannot be avoided, the following reduction factors must be taken into account:

Load angle	Reduction for side loading New Working Load Limit
0 °	100% of original Working Load Limit
45 °	70% of original Working Load Limit
90 °	50% of original Working Load Limit



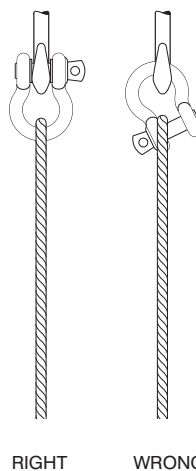
In-line loading is considered to be a load perpendicular to the pin and in the plane of the bow. Load angles in the table are the deviating angles from the in line loads.

When using shackles in connection with multi-leg slings, due consideration should be given to the effect of the angle between the legs of the sling. As the angle increases, so does the load in the sling leg and consequently in any shackle attached to that leg.



When a shackle is used to connect two slings to the hook of a lifting device, a bow type shackle must be assembled with the slings in the shackle body and the hook engaged with the shackle pin. The angle between the slings should not exceed 120°.

To avoid eccentric loading of the shackle a loose spacer may be used on either end of the shackle pin. Do not reduce the width between the shackle jaws by welding washers or spacers to the inside faces of the eyes or by closing the jaws, as this will affect the properties of the shackle.



When a shackle is used to secure the top block of a set of wire rope blocks the load on this shackle is increased by the value of the hoisting effect.

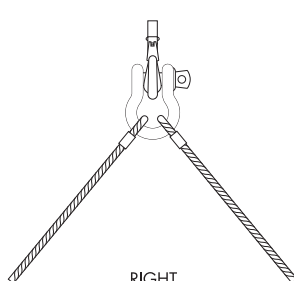
Avoid applications where due to movement (e.g. of the load or the rope) the shackle pin can rotate and possibly be unscrewed. If such an application is necessary or when the shackle is to be left in place for a prolonged period or where maximum pin security is required, use a shackle with a safety bolt, nut and split cotter pin.



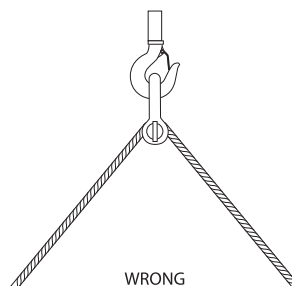
RIGHT



WRONG



RIGHT



WRONG

Shackles should not be immersed in acidic solutions or exposed to acid fumes or other chemicals that are potentially harmful for the shackle. Please be aware that these types of chemicals are used in certain production processes.

Temperature

If extreme temperature situations are applicable, the following load reduction must be taken into account:

Temperature	Reduction for elevated temperatures New Working Load Limit
0 - 200°C	100% of original Working Load Limit
200 - 300°C	90% of original Working Load Limit
300 - 400°C	75% of original Working Load Limit
> 400°C	not allowed

The rating of shackles to EN 13889 assumes the absence of exceptionally hazardous conditions. Exceptionally hazardous conditions include offshore activities, the lifting of persons and the lifting of potentially dangerous loads such as molten metals, corrosive materials or fissile materials. In such cases a competent person should assess the degree of hazard and the safe working load should be reduced accordingly from the Working Load Limit.

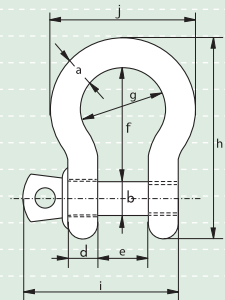
Inspection

It is required that the shackles are regularly inspected and that the inspection should take place in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc. with a consequence of deformation and alteration of the material structure.

Inspection should take place at least every six months and even more frequently when the shackles are used in severe operating conditions.



G-4161



Green Pin® Standard Shackles

bow shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and
meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 2, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bow	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	kg
0.33	5	6	12.5	5	9.5	22	16	41	31	28	0.02
0.5	7	8	17	7	12	29	20	54	40	37	0.05
0.75	9	10	21	9	13.5	32	22	61	49	42	0.1
1	10	11	23	10	17	36.5	26	71	56	49	0.14
1.5	11	13	26	11	19	43	29	80	68	54	0.19
2	13.5	16	34	13.5	22	51	32	91	76	63	0.36
3.25	16	19	40	16	27	64	43	114	93	79	0.63
4.75	19	22	47	19	31	76	51	136	107	94	1.01
6.5	22	25	53	22	36	83	58	157	123	107	1.5
8.5	25	28	60	25	43	95	68	176	141	124	2.21
9.5	28	32	67	28	47	108	75	197	158	137	3.16
12	32	35	74	32	51	115	83	218	176	154	4.31
13.5	35	38	80	35	57	133	92	240	192	170	5.55
17	38	42	89	38	60	146	99	262	208	183	7.43
25	45	50	104	45	74	178	126	314	250	226	12.84
35	50	57	119	50	83	197	138	358	281	250	18.15
42.5	57	65	134	57	95	222	160	414	321	287	26.29
55	65	70	145	65	105	260	185	463	355	329	37.6

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bow	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	lbs
0.33	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{16}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{5}{8}$	$1 \frac{5}{8}$	$1 \frac{1}{4}$	$1 \frac{1}{8}$	0.05
0.5	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{11}{16}$	$\frac{9}{32}$	$\frac{1}{2}$	$1 \frac{5}{32}$	$\frac{25}{32}$	$2 \frac{1}{8}$	$1 \frac{9}{16}$	$1 \frac{1}{2}$	0.11
0.75	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{13}{16}$	$\frac{11}{32}$	$\frac{17}{32}$	$1 \frac{9}{32}$	$\frac{7}{8}$	$2 \frac{3}{8}$	$1 \frac{15}{16}$	$1 \frac{11}{16}$	0.22
1	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{29}{32}$	$\frac{3}{8}$	$\frac{11}{16}$	$1 \frac{7}{16}$	1	$2 \frac{25}{32}$	$2 \frac{3}{16}$	$1 \frac{15}{16}$	0.3
1.5	$\frac{7}{16}$	$\frac{1}{2}$	$1 \frac{1}{32}$	$\frac{7}{16}$	$\frac{3}{4}$	$1 \frac{23}{32}$	$1 \frac{5}{32}$	$3 \frac{5}{32}$	$2 \frac{11}{16}$	$2 \frac{1}{8}$	0.42
2	$\frac{1}{2}$	$\frac{5}{8}$	$1 \frac{11}{32}$	$\frac{17}{32}$	$\frac{7}{8}$	2	$1 \frac{9}{32}$	$3 \frac{19}{32}$	3	$2 \frac{1}{2}$	0.79
3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1 \frac{19}{32}$	$\frac{5}{8}$	$1 \frac{3}{32}$	$2 \frac{17}{32}$	$1 \frac{23}{32}$	$4 \frac{1}{2}$	$3 \frac{11}{16}$	$3 \frac{1}{8}$	1.38
4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1 \frac{7}{8}$	$\frac{3}{4}$	$1 \frac{1}{4}$	3	2	$5 \frac{11}{32}$	$4 \frac{3}{16}$	$3 \frac{23}{32}$	2.22
6.5	$\frac{7}{8}$	1	$2 \frac{3}{32}$	$\frac{7}{8}$	$1 \frac{7}{16}$	$3 \frac{9}{32}$	$2 \frac{9}{32}$	$6 \frac{5}{32}$	$4 \frac{13}{16}$	$4 \frac{3}{16}$	3.31
8.5	1	$1 \frac{1}{8}$	$2 \frac{11}{32}$	1	$1 \frac{23}{32}$	$3 \frac{3}{4}$	$2 \frac{11}{16}$	$6 \frac{29}{32}$	$5 \frac{9}{16}$	$4 \frac{7}{8}$	4.86
9.5	$1 \frac{1}{8}$	$1 \frac{1}{4}$	$2 \frac{5}{8}$	$1 \frac{1}{8}$	$1 \frac{7}{8}$	$4 \frac{1}{4}$	$2 \frac{15}{16}$	$7 \frac{3}{4}$	$6 \frac{3}{16}$	$5 \frac{3}{8}$	6.97
12	$1 \frac{1}{4}$	$1 \frac{3}{8}$	$2 \frac{29}{32}$	$1 \frac{9}{32}$	2	$4 \frac{17}{32}$	$3 \frac{9}{32}$	$8 \frac{9}{16}$	$6 \frac{29}{32}$	$6 \frac{1}{32}$	9.49
13.5	$1 \frac{3}{8}$	$1 \frac{1}{2}$	$3 \frac{5}{32}$	$1 \frac{3}{8}$	$2 \frac{1}{4}$	$5 \frac{1}{4}$	$3 \frac{5}{8}$	$9 \frac{7}{16}$	$7 \frac{9}{16}$	$6 \frac{11}{16}$	12.24
17	$1 \frac{1}{2}$	$1 \frac{5}{8}$	$3 \frac{1}{2}$	$1 \frac{17}{32}$	$2 \frac{11}{32}$	$5 \frac{3}{4}$	$3 \frac{29}{32}$	$10 \frac{5}{16}$	$8 \frac{3}{16}$	$7 \frac{3}{16}$	16.37
25	$1 \frac{3}{4}$	2	$4 \frac{1}{8}$	$1 \frac{25}{32}$	$2 \frac{29}{32}$	7	$4 \frac{15}{16}$	$12 \frac{11}{32}$	$9 \frac{13}{16}$	$8 \frac{29}{32}$	28.31
35	2	$2 \frac{1}{4}$	$4 \frac{11}{16}$	$1 \frac{31}{32}$	$3 \frac{9}{32}$	$7 \frac{3}{4}$	$5 \frac{7}{16}$	$14 \frac{3}{32}$	$11 \frac{3}{32}$	$9 \frac{13}{16}$	40.01
42.5	$2 \frac{1}{4}$	$2 \frac{9}{16}$	$5 \frac{9}{32}$	$2 \frac{1}{4}$	$3 \frac{3}{4}$	$8 \frac{3}{4}$	$6 \frac{9}{32}$	$16 \frac{5}{16}$	$12 \frac{5}{8}$	$11 \frac{5}{16}$	57.96
55	$2 \frac{1}{2}$	$2 \frac{3}{4}$	$5 \frac{3}{4}$	$2 \frac{9}{16}$	$4 \frac{1}{8}$	$10 \frac{1}{4}$	$7 \frac{9}{32}$	$18 \frac{1}{4}$	14	$12 \frac{15}{16}$	82.89



TYPE APPROVED PRODUCT
CERTIFICATION NOTE 2,1-1
CERTIFICATE NO. S-2008

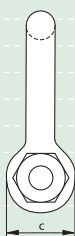
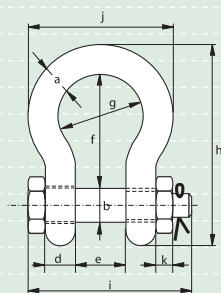


Green Pin® Standard Shackles

bow shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and
meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

G-4163



working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
0.5	7	8	17	7	12	29	20	54	43	37	4	0.06
0.75	9	10	21	9	13.5	32	22	61	51	42	5	0.11
1	10	11	23	10	17	36.5	26	71	61	49	8	0.16
1.5	11	13	26	11	19	43	29	80	68	54	11	0.22
2	13.5	16	34	13.5	22	51	32	91	83	63	13	0.42
3.25	16	19	40	16	27	64	43	114	99	79	17	0.74
4.75	19	22	47	19	31	76	51	136	115	94	20	1.18
6.5	22	25	53	22	36	83	58	157	131	107	23	1.77
8.5	25	28	60	25	43	95	68	176	151	124	25	2.58
9.5	28	32	67	28	47	108	75	197	167	137	28	3.66
12	32	35	74	32	51	115	83	218	179	154	31	4.91
13.5	35	38	80	35	57	133	92	240	198	170	34	6.54
17	38	42	89	38	60	146	99	262	203	183	39	8.19
25	45	50	104	45	74	178	126	314	244	226	44	14.22
35	50	57	119	50	83	197	138	358	270	250	50	19.85
42.5	57	65	134	57	95	222	160	414	302	287	57	28.33
55	65	70	145	65	105	260	180	463	330	329	65	39.59
85	75	83	163	75	127	329	190	556	376	355	80	62

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	lbs
0.5	1/4	5/16	11/16	9/32	1/2	1 5/32	25/32	2 1/8	1 23/32	1 1/2	5/32	0.13
0.75	5/16	3/8	13/16	11/32	17/32	1 9/32	7/8	2 3/8	2	1 11/16	3/16	0.25
1	3/8	7/16	29/32	3/8	11/16	1 7/16	1	2 25/32	2 3/8	1 15/16	5/16	0.34
1.5	7/16	1/2	1 1/32	7/16	3/4	1 23/32	1 5/32	3 5/32	2 11/16	2 1/8	7/16	0.48
2	1/2	5/8	1 11/32	7/32	7/8	2	1 9/32	3 19/32	3 9/32	2 1/2	17/32	0.92
3.25	5/8	3/4	1 19/32	5/8	1 3/32	2 17/32	1 23/32	4 1/2	3 29/32	3 1/8	11/16	1.62
4.75	3/4	7/8	1 7/8	3/4	1 1/4	3	2	5 11/32	4 17/32	3 23/32	25/32	2.59
6.5	7/8	1	2 3/32	7/8	1 7/16	3 9/32	2 9/32	6 5/32	5 5/32	4 3/16	29/32	3.9
8.5	1	1 1/8	2 11/32	1	1 23/32	3 3/4	2 11/16	6 29/32	5 15/16	4 7/8	1	5.69
9.5	1 1/8	1 1/4	2 5/8	1 1/8	1 7/8	4 1/4	2 15/16	7 3/4	6 19/32	5 3/8	1 1/8	8.06
12	1 1/4	1 3/8	2 29/32	1 9/32	2	4 17/32	3 9/32	8 9/16	7 1/32	6 3/32	1 1/4	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	9 7/16	7 25/32	6 23/32	1 11/32	14.42
17	1 1/2	1 5/8	3 1/2	1 17/32	2 11/32	5 3/4	3 29/32	10 5/16	8	7 3/16	3/4	18.06
25	1 3/4	2	4 1/8	1 25/32	2 29/32	7	4 15/16	12 11/32	9 19/32	8 29/32	1 5/16	31.34
35	2	2 1/4	4 11/16	2 31/32	3 9/32	7 3/4	5 7/16	14 3/32	10 5/8	9 13/16	1 3/32	43.77
42.5	2 1/4	2 9/16	5 9/32	2 1/4	3 3/4	8 3/4	6 9/32	16 5/16	11 7/8	11 5/16	1 5/16	62.46
55	2 1/2	2 3/4	5 3/4	2 9/16	4 1/8	10 1/4	7 9/32	18 1/4	13	12 15/16	1 5/16	87.27
85	3	3 1/4	6 7/16	2 15/16	5	12 15/16	7 1/2	21 29/32	14 25/32	14	1 19/32	136.69

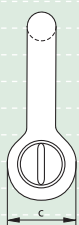
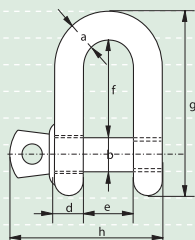


DNV

TYPE APPROVED PRODUCT
CERTIFICATION NOTE 2.1-1
CERTIFICATE NO. 9-009



G-4151



Green Pin® Standard Shackles

dee shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and
meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 2, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20 °C up to +200 °C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	kg
0.33	5	6	12.5	5	9.5	20	38	31	0.02
0.5	7	8	17	7	12	22	47	40	0.05
0.75	9	10	21	9	13.5	27	56	49	0.09
1	10	11	23	10	17	31	66	56	0.14
1.5	11	13	26	11	19	37	74	68	0.19
2	13.5	16	34	13.5	22	43	85	76	0.32
3.25	16	19	40	16	27	51	105	93	0.54
4.75	19	22	47	19	31	59	125	107	0.87
6.5	22	25	53	22	36	73	144	123	1.34
8.5	25	28	60	25	43	85	161	141	2.08
9.5	28	32	67	28	47	90	179	158	2.77
12	32	35	74	32	51	94	199	176	3.72
13.5	35	38	80	35	57	115	220	192	5.14
17	38	42	89	38	60	127	239	208	6.85
25	45	50	104	45	74	149	283	250	11.45
35	50	57	119	50	83	171	333	281	16.86
42.5	57	65	134	57	95	190	360	321	24.61
55	65	70	145	65	105	203	399	355	32.65

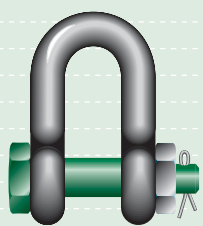
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	lbs
0.33	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{16}$	$\frac{3}{8}$	$\frac{25}{32}$	$1 \frac{17}{32}$	$1 \frac{1}{4}$	0.04
0.5	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{11}{16}$	$\frac{9}{32}$	$\frac{1}{2}$	$\frac{7}{8}$	$1 \frac{7}{8}$	$1 \frac{9}{16}$	0.11
0.75	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{13}{16}$	$\frac{11}{32}$	$\frac{17}{32}$	$1 \frac{3}{32}$	$2 \frac{3}{16}$	$1 \frac{15}{16}$	0.2
1	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{29}{32}$	$\frac{3}{8}$	$\frac{11}{16}$	$1 \frac{1}{4}$	$2 \frac{19}{32}$	$2 \frac{3}{16}$	0.3
1.5	$\frac{7}{16}$	$\frac{1}{2}$	$1 \frac{1}{32}$	$\frac{7}{16}$	$\frac{3}{4}$	$1 \frac{1}{2}$	$2 \frac{29}{32}$	$2 \frac{11}{16}$	0.42
2	$\frac{1}{2}$	$\frac{5}{8}$	$1 \frac{11}{32}$	$\frac{17}{32}$	$\frac{7}{8}$	$1 \frac{23}{32}$	$3 \frac{11}{32}$	3	0.7
3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1 \frac{19}{32}$	$\frac{5}{8}$	$1 \frac{3}{32}$	2	$4 \frac{1}{8}$	$3 \frac{11}{16}$	1.19
4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1 \frac{7}{8}$	$\frac{3}{4}$	$1 \frac{1}{4}$	$2 \frac{5}{16}$	$4 \frac{29}{32}$	$4 \frac{3}{16}$	1.92
6.5	$\frac{7}{8}$	1	$2 \frac{3}{32}$	$\frac{7}{8}$	$1 \frac{7}{16}$	$2 \frac{7}{8}$	$5 \frac{11}{16}$	$4 \frac{13}{16}$	2.95
8.5	1	$1 \frac{1}{8}$	$2 \frac{11}{32}$	1	$1 \frac{23}{32}$	$3 \frac{11}{32}$	$6 \frac{5}{16}$	$5 \frac{9}{16}$	4.59
9.5	$1 \frac{1}{8}$	$1 \frac{1}{4}$	$2 \frac{5}{8}$	$1 \frac{1}{8}$	$1 \frac{7}{8}$	$3 \frac{9}{16}$	$7 \frac{1}{32}$	$6 \frac{3}{16}$	6.1
12	$1 \frac{1}{4}$	$1 \frac{3}{8}$	$2 \frac{29}{32}$	$1 \frac{9}{32}$	2	$3 \frac{23}{32}$	$7 \frac{13}{16}$	$6 \frac{29}{32}$	8.2
13.5	$1 \frac{3}{8}$	$1 \frac{1}{2}$	$3 \frac{5}{32}$	$1 \frac{3}{8}$	$2 \frac{1}{4}$	$4 \frac{17}{32}$	$8 \frac{11}{16}$	$7 \frac{9}{16}$	11.33
17	$1 \frac{1}{2}$	$1 \frac{5}{8}$	$3 \frac{1}{2}$	$1 \frac{17}{32}$	$2 \frac{11}{32}$	5	$9 \frac{3}{8}$	$8 \frac{3}{16}$	15.1
25	$1 \frac{3}{4}$	2	$4 \frac{1}{8}$	$1 \frac{25}{32}$	$2 \frac{29}{32}$	$5 \frac{7}{8}$	$11 \frac{5}{32}$	$9 \frac{13}{16}$	25.23
35	2	$2 \frac{1}{4}$	$4 \frac{11}{16}$	$1 \frac{31}{32}$	$3 \frac{9}{32}$	$6 \frac{3}{4}$	$13 \frac{1}{8}$	$11 \frac{3}{32}$	37.17
42.5	$2 \frac{1}{4}$	$2 \frac{9}{16}$	$5 \frac{9}{32}$	$2 \frac{1}{4}$	$3 \frac{3}{4}$	$7 \frac{1}{2}$	$14 \frac{5}{32}$	$12 \frac{5}{8}$	54.26
55	$2 \frac{1}{2}$	$2 \frac{3}{4}$	$5 \frac{3}{4}$	$2 \frac{9}{16}$	$4 \frac{1}{8}$	8	$15 \frac{23}{32}$	14	71.98

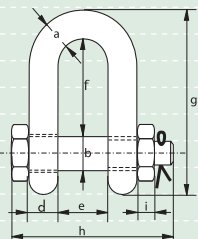


DNV

TYPE APPROVED PRODUCT
CERTIFICATION NOTE 2,1-1
CERTIFICATE NO. 5-209



G-4153



Green Pin® Standard Shackles

dee shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and
meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 3, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20 °C up to +200 °C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
2	13.5	16	34	13.5	22	43	85	83	13	0.39
3.25	16	19	40	16	27	51	105	99	17	0.67
4.75	19	22	47	19	31	59	125	115	20	1.08
6.5	22	25	53	22	36	73	144	131	23	1.66
8.5	25	28	60	25	43	85	161	151	25	2.46
9.5	28	32	67	28	47	90	179	167	28	3.4
12	32	35	74	32	51	94	199	179	31	4.51
13.5	35	38	80	35	57	115	220	198	34	6.1
17	38	42	89	38	60	127	239	203	19	7.63
25	45	50	104	45	74	149	283	244	24	13.25
35	50	57	119	50	83	171	333	270	27	18.53
42.5	57	65	134	57	95	190	360	302	30	25.94
55	65	70	145	65	105	203	399	330	33	35.33
85	75	83	163	75	127	229	455	376	40	52.97

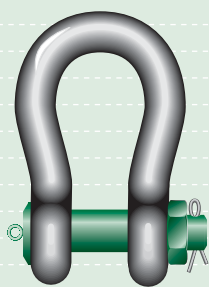
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	lbs
2	1/2	5/8	1 11/32	17/32	7/8	1 23/32	3 11/32	3 9/32	17/32	0.85
3.25	5/8	3/4	1 19/32	5/8	1 3/32	2 2/32	4 1/8	3 29/32	11/16	1.48
4.75	3/4	7/8	1 7/8	3/4	1 1/4	2 5/16	4 29/32	4 17/32	25/32	2.39
6.5	7/8	1	2 3/32	7/8	1 7/16	2 7/8	5 11/16	5 5/32	29/32	3.66
8.5	1	1 1/8	2 11/32	1	1 23/32	3 11/32	6 5/16	5 15/16	1	5.42
9.5	1 1/8	1 1/4	2 5/8	1 1/8	1 7/8	3 9/16	7 1/32	6 9/16	1 1/8	7.5
12	1 1/4	1 3/8	2 29/32	1 9/32	2	3 23/32	7 13/16	7 1/32	1 1/4	9.95
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	4 17/32	8 11/16	7 25/32	1 11/32	13.45
17	1 1/2	1 5/8	3 1/2	1 17/32	2 11/32	5	9 3/8	8	3/4	16.82
25	1 3/4	2	4 1/8	1 25/32	2 29/32	5 7/8	11 5/32	9 19/32	1 15/16	29.21
35	2	2 1/4	4 11/16	1 31/32	3 9/32	6 3/4	13 1/8	10 5/8	1 3/32	40.86
42.5	2 1/4	2 9/16	5 9/32	2 1/4	3 3/4	7 1/2	14 5/32	11 29/32	1 3/16	57.19
55	2 1/2	2 3/4	5 3/4	2 9/16	4 1/8	8	15 23/32	13	1 5/16	77.89
85	3	3 1/4	6 7/16	2 15/16	5	9	17 29/32	14 25/32	1 19/32	116.77

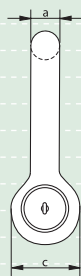
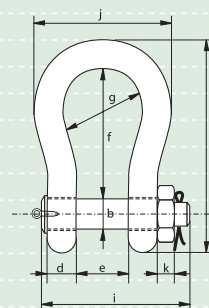


DNV

TYPE APPROVED PRODUCT
CERTIFICATION NOTE 2.7-1
CERTIFICATE NO. 9-008



P-6036



Green Pin® Heavy Duty Shackles

bow shackles with safety bolt

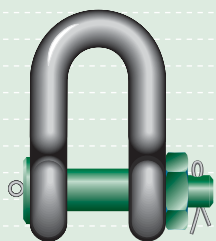
- **Material** : bow and pin alloy steel, Grade 8 quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : shackle bow painted silver, pin painted green (120 tons shackle is hot dipped galvanized)
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 150 tons are supplied with a Lloyd's Register of Shipping Certificate on proof load

- **Note** : +5% forging tolerance on inside width and length

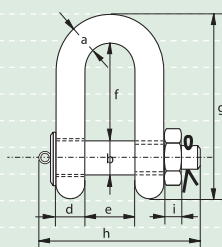
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
120	95	95	215	89	144	381	238	667	440	416	50	110
150	105	108	245	100	165	400	275	702	490	485	60	160
200	120	130	288	110	175	500	290	854	520	530	60	235
250	130	140	308	115	200	540	305	921	560	565	65	285
300	140	150	335	120	200	600	305	1018	575	585	70	340
400	170	175	387	160	225	650	325	1137	690	665	70	560
500	180	185	410	160	250	700	350	1213	710	710	70	685
600	200	205	458	185	275	700	375	1267	810	775	70	880
700	210	215	468	200	300	700	400	1287	850	820	70	980
800	210	220	478	200	300	700	400	1294	870	820	70	1100
900	220	230	500	210	320	700	420	1320	920	860	70	1280
1000	240	240	530	210	340	700	420	1360	940	900	70	1460
1250	260	270	600	225	360	700	450	1430	1020	970	70	1990
1500	280	290	640	225	360	700	450	1480	1060	1010	70	2400

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
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	lbs
120	3 ³ / ₄	3 ³ / ₄	8 ¹ / ₂	3 ¹⁷ / ₃₂	5 ¹¹ / ₁₆	15	9 ¹¹ / ₃₂	26 ⁹ / ₃₂	17 ⁵ / ₁₆	16 ³ / ₈	2	243
150	4	4 ¹ / ₄	9 ⁵ / ₈	3 ¹⁵ / ₁₆	6 ¹⁷ / ₃₂	15 ³ / ₄	10 ¹³ / ₁₆	27 ⁵ / ₈	19 ⁹ / ₃₂	19 ¹ / ₈	2 ³ / ₈	353
200	4 ³ / ₄	5 ¹ / ₈	11 ¹¹ / ₃₂	4 ⁵ / ₁₆	6 ²⁹ / ₃₂	19 ¹¹ / ₁₆	11 ⁷ / ₁₆	33 ⁵ / ₈	20 ¹ / ₂	20 ⁷ / ₈	2 ³ / ₈	518
250	4 ⁷ / ₈	5 ¹ / ₂	12 ¹ / ₈	4 ¹⁷ / ₃₂	7 ⁷ / ₈	21 ⁹ / ₃₂	12	36 ⁹ / ₃₂	22	22 ¹ / ₄	2 ⁹ / ₁₆	628
300	5 ⁵ / ₁₆	5 ⁷ / ₈	13 ³ / ₁₆	4 ²³ / ₃₂	7 ⁷ / ₈	23 ⁵ / ₈	12	40	22 ⁵ / ₈	23	2 ³ / ₄	750
400	6 ¹ / ₂	6 ⁷ / ₈	15 ¹ / ₄	6 ⁵ / ₁₆	8 ⁷ / ₈	25 ¹⁹ / ₃₂	12 ²⁵ / ₃₂	44 ³ / ₄	27 ⁵ / ₃₂	26 ¹ / ₄	2 ³ / ₄	1235
500	6 ⁷ / ₈	7 ¹ / ₄	16 ⁵ / ₃₂	6 ⁵ / ₁₆	9 ¹³ / ₁₆	27 ¹ / ₂	13 ²⁵ / ₃₂	47 ³ / ₄	28	28	2 ³ / ₄	1510
600	7 ⁵ / ₈	8 ¹ / ₁₆	18	7 ⁹ / ₃₂	10 ¹³ / ₁₆	27 ¹ / ₂	14 ³ / ₄	49 ⁷ / ₈	31 ⁷ / ₈	30 ¹ / ₂	2 ³ / ₄	1940
700	8 ¹ / ₁₆	8 ¹ / ₂	18 ⁷ / ₁₆	7 ⁷ / ₈	11 ¹³ / ₁₆	27 ¹ / ₂	15 ³ / ₄	50 ¹¹ / ₁₆	33 ¹ / ₂	32 ³ / ₈	2 ³ / ₄	2161
800	8 ¹ / ₄	8 ⁵ / ₈	18 ¹³ / ₁₆	7 ⁷ / ₈	11 ¹³ / ₁₆	27 ¹ / ₂	15 ³ / ₄	51	34 ¹ / ₄	32 ³ / ₈	2 ³ / ₄	2425
900	8 ⁵ / ₈	9 ¹ / ₁₆	19 ¹¹ / ₁₆	8 ⁹ / ₃₂	12 ¹⁹ / ₃₂	27 ¹ / ₂	16 ⁹ / ₁₆	52	36 ¹ / ₄	33 ⁷ / ₈	2 ³ / ₄	2822
1000	9 ¹ / ₁₆	9 ⁷ / ₁₆	20 ⁷ / ₈	8 ⁹ / ₃₂	13 ³ / ₈	27 ¹ / ₂	16 ⁹ / ₁₆	53 ⁹ / ₁₆	37	35 ¹ / ₂	2 ³ / ₄	3219
1250	10 ¹ / ₄	10 ⁵ / ₈	23 ⁵ / ₈	8 ⁷ / ₈	14 ⁵ / ₃₂	27 ¹ / ₂	17 ²³ / ₃₂	56 ⁵ / ₁₆	40 ¹ / ₄	38 ¹ / ₄	2 ³ / ₄	4387
1500	11	11 ⁷ / ₁₆	25 ³ / ₁₆	8 ⁷ / ₈	14 ⁵ / ₃₂	27 ¹ / ₂	17 ²³ / ₃₂	58 ⁵ / ₁₆	41 ³ / ₄	39 ³ / ₄	2 ³ / ₄	5291



G-6038



Green Pin® Heavy Duty Shackles

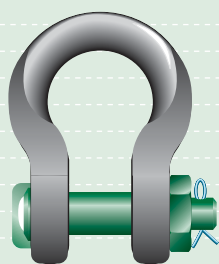
dee shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : hot dipped galvanized
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity
- **Note** : +5% forging tolerance on inside width and length

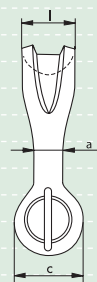
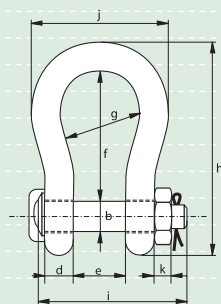
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
120	95	95	215	89	144	267	530	440	50	110

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	lbs
120	3 ³ / ₄	3 ³ / ₄	8 ¹⁵ / ₃₂	3 ¹⁷ / ₃₂	5 ¹¹ / ₁₆	10 ¹⁷ / ₃₂	20 ⁷ / ₈	17 ⁵ / ₁₆	1 ³¹ / ₃₂	243



P-6033



Green Pin® Sling Shackles

bow shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : shackle bow painted silver, pin painted green
- **Temperature Range** : -20 °C up to +200 °C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate, EC Declaration of Conformity and all shackles are supplied with a Lloyd's Register of Shipping Certificate on proof load, a MPI certificate and US inspection certificate
- **Note** : +5% forging tolerance on inside width and length

working load limit	diameter body	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	width	width	thickness nut	bearing surface	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	l mm	kg
55	60	57	115	55	95	250	160	396	304	270	45	100	50
75	70	70	140	70	105	290	186	467	359	345	54	120	67
125	85	80	155	85	130	365	220	569	428	410	64	150	110
150	94	95	180	89	140	390	250	627	441	455	50	170	160
200	110	105	200	100	150	480	276	744	474	508	50	205	220
250	126	120	228	110	170	540	300	842	528	600	60	240	320
300	135	134	245	122	185	600	350	926	594	620	70	265	350
400	160	160	295	145	220	575	370	964	686	715	80	320	635
500	170	180	330	160	250	680	450	1107	763	810	90	340	803
600	190	200	350	170	275	740	490	1207	828	913	100	370	980
700	200	215	392	190	300	750	540	1257	878	993	100	400	1260
800	218	230	420	200	325	850	554	1395	959	986	110	420	1430
900	242	255	466	220	350	850	584	1454	1040	1050	120	440	1650
1000	260	270	490	240	380	855	614	1497	1116	1176	120	460	2120
1250	285	300	510	260	430	930	650	1620	1193	1275	150	530	2400
1500	295	320	550	280	460	950	680	1710	1278	1350	160	560	2980

In inch

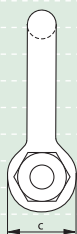
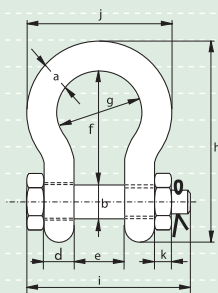
working load limit	diameter body	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	width	width	thickness nut	bearing surface	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	l inch	lbs
55	2 3/8	2 1/4	4 17/32	2 5/32	3 3/4	9 7/8	6 5/16	15 5/8	12	10 5/8	1 3/4	4	110
75	2 3/4	2 3/4	5 17/32	2 3/4	4 1/8	11 3/8	7 5/16	18 3/8	14 1/8	13 5/8	2 1/8	4 3/4	148
125	3 3/8	3 5/32	6 1/8	3 11/32	5 1/8	14 3/8	8 11/16	22 3/8	16 7/8	16 1/8	2 1/2	6	243
150	3 3/4	3 3/4	7 1/8	3 17/32	5 17/32	15 3/8	9 7/8	24 11/16	17 3/8	18	2	6 3/4	353
200	4 5/16	4 1/8	7 7/8	3 15/16	5 29/32	18 7/8	10 7/8	29 5/16	18 11/16	20	2	8	485
250	5	4 3/4	9	4 5/16	6 23/32	21 1/4	11 7/8	33 1/8	20 3/4	23 5/8	2 3/8	9 1/2	705
300	5 5/16	5 5/16	9 5/8	4 25/32	7 9/32	23 5/8	13 3/4	36 1/2	23 3/8	24 3/8	2 3/4	10 1/2	772
400	6 5/16	6 5/16	11 5/8	5 29/32	8 11/16	22 5/8	14 9/16	38	27	28 1/4	3 1/8	12 5/8	1400
500	6 3/4	7 1/8	13	6 5/16	9 7/8	26 3/4	17 3/4	43 5/8	30	31 7/8	3 9/16	13 3/8	1770
600	7 1/2	7 7/8	13 25/32	6 29/32	10 7/8	29 1/8	19 1/4	47 1/2	32 5/8	36	4	14 5/8	2161
700	7 7/8	8 1/2	15 7/16	7 1/2	11 13/16	29 1/2	21 1/4	49 1/2	34 5/8	39	4	15 3/4	2778
800	8 5/8	9 1/8	16 9/16	7 7/8	12 3/4	33 1/2	21 7/8	55	37 3/4	38 7/8	4 3/8	16 9/16	3153
900	9 9/16	10	18 11/32	8 11/16	13 3/4	33 1/2	23	57 1/4	41	41 3/8	4 3/4	17 3/8	3638
1000	10 1/4	10 5/8	19 9/32	9 7/16	15	33 5/8	24 1/8	59	44	46 5/16	4 3/4	18 1/8	4674
1250	11 1/4	11 7/8	20	10 1/4	16 15/16	36 5/8	25 5/8	63 3/4	47	50 1/4	6	20 7/8	5291
1500	11 5/8	12 5/8	21 11/16	11	18 1/8	37 3/8	26 3/4	67 3/8	50 3/8	53 1/8	6 3/8	22	6570

Green Pin® Super Shackles

bow shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade B
- **Finish** : hot dipped galvanized (175 ton shackle is painted)
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 140 tons are supplied with a Lloyd's Register of Shipping Certificate on proof load

G-5263



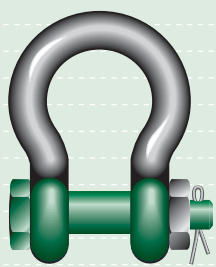
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
3.3	13.5	16	34	13.5	22	51	32	91	83	63	13	0.44
5	16	19	40	16	27	64	43	114	99	79	17	0.79
7	19	22	47	19	31	76	51	136	115	94	20	1.26
9.5	22	25	53	22	36	83	58	157	131	107	23	1.88
12.5	25	28	60	25	43	95	68	176	151	124	25	2.78
15	28	32	67	28	47	108	75	197	167	137	28	3.87
18	32	35	74	32	51	115	83	218	179	154	31	5.26
21	35	38	80	35	57	133	92	240	198	170	34	6.94
30	38	42	89	38	60	146	99	262	203	183	19	8.79
40	45	50	104	45	73	178	126	314	244	226	24	15
50	50	57	119	50	83	197	138	358	270	250	27	20.7
80	65	70	145	65	105	260	180	463	330	329	33	41.1
110	75	83	163	75	127	330	190	556	376	355	40	62.2
140*	95	95	215	89	144	381	238	667	440	416	50	110
175*	105	108	245	100	165	400	275	702	490	485	60	160

* = round headed bolt

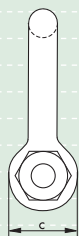
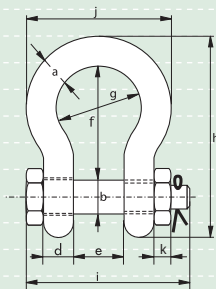
In inch

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
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	lbs
3.3	1/2	5/8	1 11/32	17/32	7/8	2	1 9/32	3 19/32	3 9/32	2 1/2	17/32	0.97
5	5/8	3/4	1 19/32	5/8	1 3/32	2 17/32	1 23/32	4 1/2	3 29/32	3 1/8	11/16	1.74
7	3/4	7/8	1 7/8	3/4	1 1/4	3	2	5 11/32	4 17/32	3 23/32	25/32	2.78
9.5	7/8	1	2 3/32	7/8	1 7/16	3 9/32	2 9/32	6 5/32	5 5/32	4 3/16	29/32	4.14
12.5	1	1 1/8	2 11/32	1	1 23/32	3 3/4	2 11/16	6 29/32	5 15/16	4 7/8	1	6.13
15	1 1/8	1 1/4	2 5/8	1 1/8	1 7/8	4 1/4	2 15/16	7 3/4	6 19/32	5 3/8	1 1/8	8.53
18	1 1/4	1 3/8	2 29/32	1 9/32	2	4 17/32	3 9/32	8 9/16	7 1/32	6 3/32	1 1/4	11.6
21	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	9 7/16	7 25/32	6 23/32	1 11/32	15.3
30	1 1/2	1 5/8	3 1/2	1 17/32	2 11/32	5 3/4	3 29/32	10 5/16	8	7 3/16	3/4	19.38
40	1 3/4	2	4 1/8	1 25/32	2 29/32	7	4 15/16	12 11/32	9 19/32	8 29/32	15/16	33.07
50	2	2 1/4	4 11/16	2 31/32	3 9/32	7 3/4	5 7/16	14 3/32	10 5/8	9 13/16	1 3/32	45.64
80	2 1/2	2 3/4	5 3/4	2 9/16	4 1/8	10 1/4	7 9/32	18 1/4	13	12 15/16	1 5/16	90.61
110	3	3 1/4	6 7/16	3 15/16	5	12 15/16	7 1/2	21 29/32	14 25/32	14	1 19/32	137.13
140*	3 3/4	3 3/4	8 1/2	3 17/32	5 11/16	15	9 11/32	26 9/32	17 5/16	16 3/8	2	242.51
175*	4	4 1/4	9 5/8	3 15/16	6 17/32	15 3/4	10 13/16	27 5/8	19 9/32	19 1/8	2 3/8	352.74

* = round headed bolt



G-5163



Green Pin® Polar Shackles

bow shackles with safety bolt, for use under extreme climatic conditions

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and
meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -40 °C up to +200 °C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
tons	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	13.5	22	51	32	91	83	63	13	0.42
3.25	16	19	40	16	27	64	43	114	99	79	17	0.74
4.75	19	22	47	19	31	76	51	136	115	94	20	1.18
6.5	22	25	53	22	36	83	58	157	131	107	23	1.77
8.5	25	28	60	25	43	95	68	176	151	124	25	2.58
9.5	28	32	67	28	47	108	75	197	167	137	28	3.66
12	32	35	74	32	51	115	83	218	179	154	31	4.91
13.5	35	38	80	35	57	133	92	240	198	170	34	6.54
17	38	42	89	38	60	146	99	262	203	183	19	8.19
25	45	50	104	45	74	178	126	314	244	226	24	14.22
35	50	57	119	50	83	197	138	358	270	250	27	19.85
42.5	57	65	134	57	95	222	160	414	302	287	30	28.33
55	65	70	145	65	105	260	180	463	330	329	33	39.59
85	75	83	163	75	127	329	190	556	376	355	40	62

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
tons	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	17/32	7/8	2	1 9/32	3 19/32	3 9/32	2 1/2	17/32	0.92
3.25	5/8	3/4	1 19/32	5/8	1 3/32	2 17/32	1 23/32	4 1/2	3 29/32	3 1/8	11/16	1.62
4.75	3/4	7/8	1 7/8	3/4	1 1/4	3	2	5 11/32	4 17/32	3 23/32	25/32	2.59
6.5	7/8	1	2 3/32	7/8	1 7/16	3 9/32	2 9/32	6 5/32	5 5/32	4 3/16	29/32	3.9
8.5	1	1 1/8	2 11/32	1	1 23/32	3 3/4	2 11/16	6 29/32	5 15/16	4 7/8	1	5.69
9.5	1 1/8	1 1/4	2 5/8	1 1/8	1 7/8	4 1/4	2 15/16	7 3/4	6 19/32	5 3/8	1 1/8	8.06
12	1 1/4	1 3/8	2 29/32	1 9/32	2	4 17/32	3 9/32	8 9/16	7 1/32	6 3/32	1 1/4	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	9 7/16	7 25/32	6 23/32	1 11/32	14.42
17	1 1/2	1 5/8	3 1/2	1 17/32	2 11/32	5 3/4	3 29/32	10 5/16	8	7 3/16	3/4	18.06
25	1 3/4	2	4 1/8	1 25/32	2 29/32	7	4 15/16	12 11/32	9 19/32	8 29/32	15/16	31.34
35	2	2 1/4	4 11/16	2 31/32	3 9/32	7 3/4	5 7/16	14 3/32	10 5/8	9 13/16	1 3/32	43.77
42.5	2 1/4	2 9/16	5 9/32	2 1/4	3 3/4	8 3/4	6 9/32	16 5/16	11 7/8	11 5/16	1 3/16	62.46
55	2 1/2	2 3/4	5 3/4	2 9/16	4 1/8	10 1/4	7 9/32	18 1/4	13	12 15/16	1 5/16	87.27
85	3	3 1/4	6 7/16	3 15/16	5	12 15/16	7 1/2	21 29/32	14 25/32	14	1 19/32	136.69



DNV

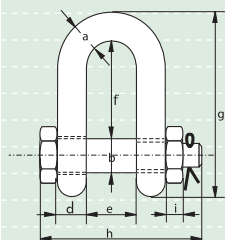
TYPE APPROVED PRODUCT
CERTIFICATION NOTE 2.7-1
CERTIFICATE NO. 5-4208

Green Pin® Polar Shackles

dee shackles with safety bolt, for use under extreme climatic conditions

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and
meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 3, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -40 °C up to +200 °C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

G-5153



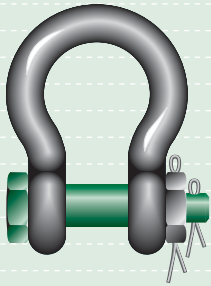
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
2	13.5	16	34	13.5	22	43	85	83	13	0.39
3.25	16	19	40	16	27	51	105	99	17	0.67
4.75	19	22	47	19	31	59	125	115	20	1.08
6.5	22	25	53	22	36	73	144	131	23	1.66
8.5	25	28	60	25	43	85	161	151	25	2.46
9.5	28	32	67	28	47	90	179	167	28	3.4
12	32	35	74	32	51	94	199	179	31	4.51
13.5	35	38	80	35	57	115	220	198	34	6.1
17	38	42	89	38	60	127	239	203	19	7.63
25	45	50	104	45	74	149	283	244	24	13.25
35	50	57	119	50	83	171	333	270	27	18.53
42.5	57	65	134	57	95	190	360	302	30	25.94
55	65	70	145	65	105	203	399	330	33	35.33
85	75	83	163	75	127	229	455	376	40	52.97

In inch

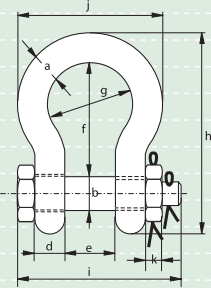
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	lbs
2	1/2	5/8	1 11/32	17/32	7/8	1 23/32	3 11/32	3 9/32	17/32	0.85
3.25	5/8	3/4	1 19/32	5/8	1 3/32	2	4 1/8	3 29/32	11/16	1.48
4.75	3/4	7/8	1 7/8	3/4	1 1/4	2 5/16	4 29/32	4 17/32	25/32	2.36
6.5	7/8	1	2 3/32	7/8	1 7/16	2 7/8	5 11/16	5 5/32	29/32	3.66
8.5	1	1 1/8	2 11/32	1	1 23/32	3 11/32	6 5/16	5 15/16	1	5.42
9.5	1 1/8	1 1/4	2 5/8	1 1/8	1 7/8	3 9/16	7 1/32	6 9/16	1 1/8	7.5
12	1 1/4	1 3/8	2 29/32	1 9/32	2	3 23/32	7 13/16	7 1/32	1 1/4	9.95
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	4 17/32	8 11/16	7 25/32	1 11/32	13.45
17	1 1/2	1 5/8	3 1/2	1 17/32	2 11/32	5	9 3/8	8	3/4	16.82
25	1 3/4	2	4 1/8	1 25/32	2 29/32	5 7/8	11 5/32	9 19/32	15/16	29.21
35	2	2 1/4	4 11/16	1 31/32	3 9/32	6 3/4	13 1/8	10 5/8	1 3/32	40.86
42.5	2 1/4	2 9/16	5 9/32	2 1/4	3 3/4	7 1/2	14 5/32	11 29/32	1 3/16	57.19
55	2 1/2	2 3/4	5 3/4	2 9/16	4 1/8	8	15 23/32	13	1 5/16	77.89
85	3	3 1/4	6 7/16	2 15/16	5	9	17 29/32	14 25/32	1 19/32	116.77



TYPE APPROVED PRODUCT
CERTIFICATION NOTE 2,7-1
CERTIFICATE NO. S-4208



G-4263



Green Pin® Wide Mouth Towing Shackles

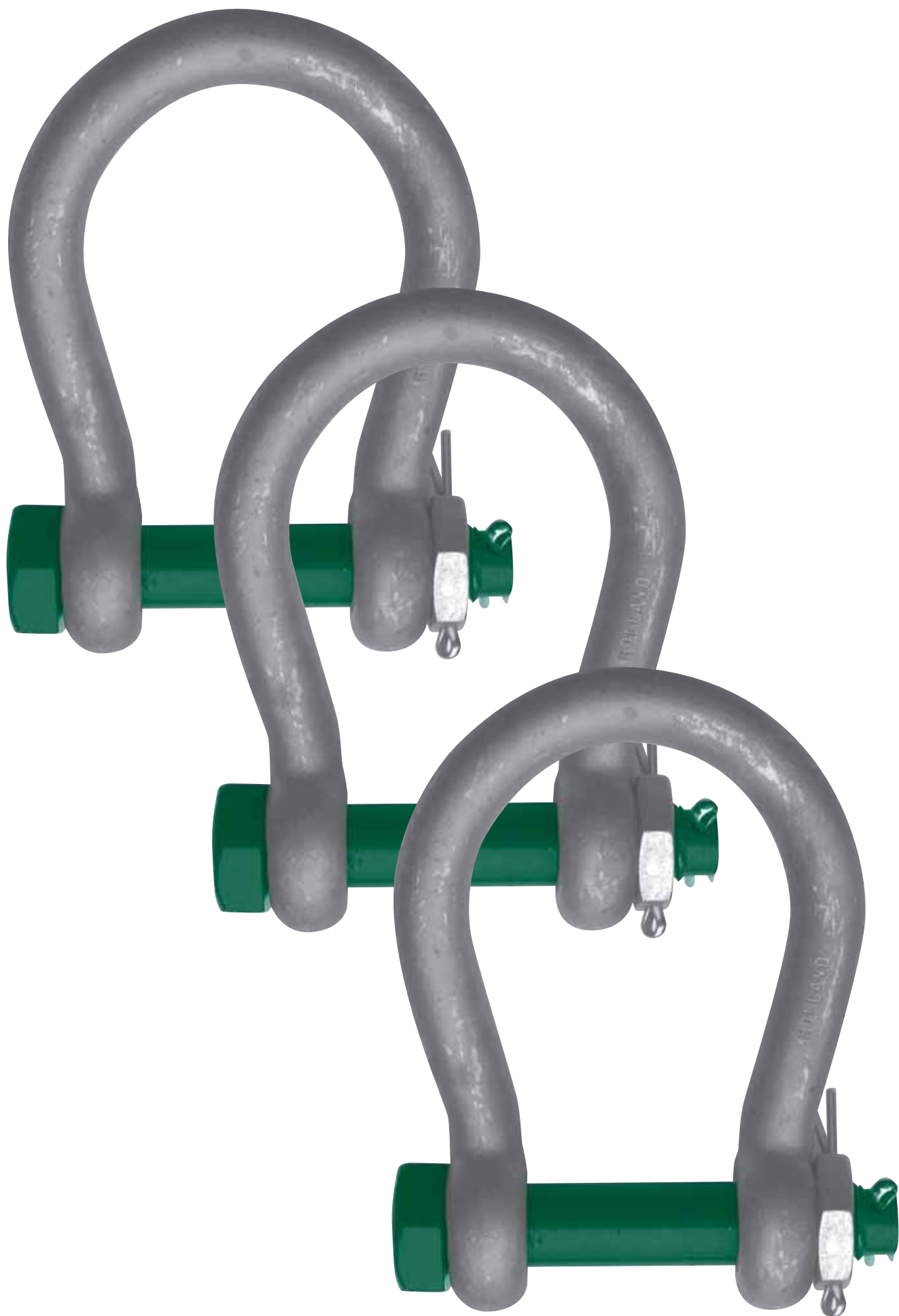
bow shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 4 x WLL
- **Finish** : hot dipped galvanized
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material
- **Note** : for applications where a wider opening is required, for example towing systems on sea and harbour tugs

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
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
22	38	42	89	38	106	216	159	319	248	235	19	12.5
30	45	50	104	45	127	248	175	370	296	265	24	18
40	50	57	119	50	146	273	207	411	338	307	27	25
55	65	70	145	65	165	314	213	487	389	343	33	48
100	75	83	163	75	184	330	254	530	432	404	40	70

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
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	lbs
22	1 1/2	1 5/8	3 1/2	1 17/32	4 3/16	8 1/2	6 9/32	12 9/16	9 3/4	9 1/4	3/4	27.56
30	1 3/4	2	4 1/8	1 25/32	5	9 3/4	6 7/8	14 9/16	11 11/16	10 7/16	15/16	39.68
40	2	2 1/4	4 11/16	1 31/32	5 3/4	10 3/4	8 5/32	16 3/16	13 5/16	12 1/8	1 3/32	55.12
55	2 1/2	2 3/4	5 3/4	2 9/16	6 1/2	12 3/8	8 3/8	19 3/16	15 5/16	13 1/2	1 5/16	105.82
100	3	3 1/4	6 7/16	2 15/16	7 1/4	13	10	20 7/8	17	15 7/8	1 19/32	154.32



1

2

3

4

5

6

7

8

9

10

11

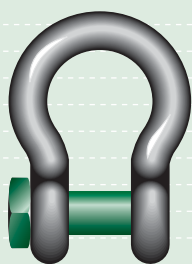
12

13

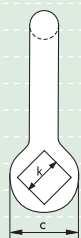
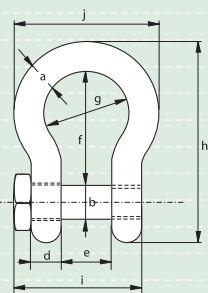
14

15

16



G-4164



Green Pin® Trawling Shackles

bow shackles with square headed screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

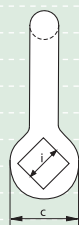
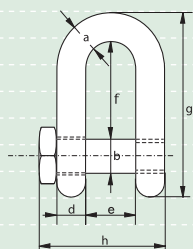
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width	width	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
2	13.5	16	34	13.5	22	51	32	91	58	63	22	0.34
3.25	16	19	40	16	27	64	43	114	71	79	27	0.63
4.75	19	22	47	19	31	76	51	136	82	94	32	1
6.5	22	25	53	22	36	83	58	157	93	107	32	1.44
8.5	25	28	60	25	43	95	68	176	108	124	36	2.21
9.5	28	32	67	28	47	108	75	197	120	137	41	3.18
12	32	35	74	32	51	115	83	218	137	154	50	4.32
13.5	35	38	80	35	57	133	92	240	149	170	50	5.67
17	38	42	89	38	60	146	99	262	164	183	60	7.36
25	45	50	104	45	74	178	126	314	192	226	60	12.38

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width	width	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	j inch	k inch	lbs
2	$\frac{1}{2}$	$\frac{5}{8}$	$1 \frac{11}{32}$	$\frac{17}{32}$	$\frac{7}{8}$	2	$1 \frac{9}{32}$	$3 \frac{19}{32}$	$2 \frac{9}{32}$	$2 \frac{1}{2}$	$\frac{7}{8}$	0.75
3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1 \frac{19}{32}$	$\frac{5}{8}$	$1 \frac{3}{32}$	$2 \frac{17}{32}$	$1 \frac{23}{32}$	$4 \frac{1}{2}$	$2 \frac{25}{32}$	$3 \frac{1}{8}$	$1 \frac{3}{32}$	1.39
4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1 \frac{7}{8}$	$\frac{3}{4}$	$1 \frac{1}{4}$	3	2	$5 \frac{3}{8}$	$3 \frac{1}{4}$	$3 \frac{23}{32}$	$1 \frac{9}{32}$	2.21
6.5	$\frac{7}{8}$	1	$2 \frac{3}{32}$	$\frac{7}{8}$	$1 \frac{7}{16}$	$3 \frac{9}{32}$	$2 \frac{9}{32}$	$6 \frac{3}{16}$	$3 \frac{11}{16}$	$4 \frac{3}{16}$	$1 \frac{9}{32}$	3.17
8.5	1	$1 \frac{1}{8}$	$2 \frac{11}{32}$	1	$1 \frac{23}{32}$	$3 \frac{3}{4}$	$2 \frac{11}{16}$	$6 \frac{7}{8}$	$4 \frac{1}{4}$	$4 \frac{7}{8}$	$1 \frac{7}{16}$	4.86
9.5	$1 \frac{1}{8}$	$1 \frac{1}{4}$	$2 \frac{5}{8}$	$1 \frac{1}{8}$	$1 \frac{7}{8}$	$4 \frac{1}{4}$	$2 \frac{15}{16}$	$7 \frac{3}{4}$	$4 \frac{3}{4}$	$5 \frac{3}{8}$	$1 \frac{5}{8}$	7.01
12	$1 \frac{1}{4}$	$1 \frac{3}{8}$	$2 \frac{29}{32}$	$1 \frac{9}{32}$	2	$4 \frac{17}{32}$	$3 \frac{9}{32}$	$8 \frac{19}{32}$	$5 \frac{3}{8}$	$6 \frac{3}{32}$	$1 \frac{31}{32}$	9.52
13.5	$1 \frac{3}{8}$	$1 \frac{1}{2}$	$3 \frac{5}{32}$	$1 \frac{3}{8}$	$2 \frac{1}{4}$	$5 \frac{1}{4}$	$3 \frac{5}{8}$	$9 \frac{7}{16}$	$5 \frac{7}{8}$	$6 \frac{11}{16}$	$1 \frac{31}{32}$	12.49
17	$1 \frac{1}{2}$	$1 \frac{5}{8}$	$3 \frac{1}{2}$	$1 \frac{17}{32}$	$2 \frac{11}{32}$	$5 \frac{3}{4}$	$3 \frac{7}{8}$	$10 \frac{5}{16}$	$6 \frac{1}{2}$	$7 \frac{1}{4}$	$2 \frac{11}{32}$	16.23
25	$1 \frac{3}{4}$	2	$4 \frac{1}{8}$	$1 \frac{25}{32}$	$2 \frac{29}{32}$	7	5	$12 \frac{11}{32}$	$7 \frac{9}{16}$	$8 \frac{7}{8}$	$2 \frac{11}{32}$	27.29



G-4154



Green Pin® Trawling Shackles

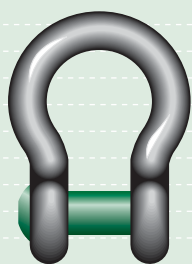
dee shackles with square headed screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity

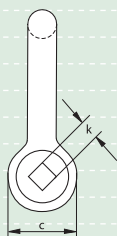
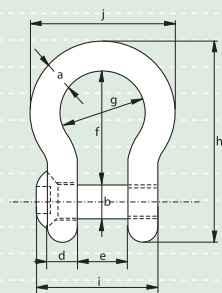
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	width	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
2	13.5	16	34	13.5	22	43	85	58	22	0.32
3.25	16	19	40	16	27	51	105	71	27	0.58
4.75	19	22	47	19	31	59	125	82	32	0.92
6.5	22	25	53	22	36	73	144	93	32	1.33
8.5	25	28	60	25	43	85	161	108	36	2.03
9.5	28	32	67	28	47	90	179	120	41	2.88
12	32	35	74	32	51	94	199	137	50	3.96
13.5	35	38	80	35	57	115	220	149	50	5.24
17	38	42	89	38	60	127	239	164	60	6.8
25	45	50	104	45	74	149	283	192	60	11.22

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	width	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	lbs
2	$\frac{1}{2}$	$\frac{5}{8}$	$1 \frac{11}{32}$	$\frac{17}{32}$	$\frac{7}{8}$	$1 \frac{23}{32}$	$3 \frac{11}{32}$	$2 \frac{9}{32}$	$\frac{7}{8}$	0.7
3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1 \frac{19}{32}$	$\frac{5}{8}$	$1 \frac{3}{32}$	2	$4 \frac{1}{8}$	$2 \frac{25}{32}$	$1 \frac{3}{32}$	1.28
4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1 \frac{7}{8}$	$\frac{3}{4}$	$1 \frac{1}{4}$	$2 \frac{5}{16}$	$4 \frac{29}{32}$	$3 \frac{1}{4}$	$1 \frac{9}{32}$	2.03
6.5	$\frac{7}{8}$	1	$2 \frac{3}{32}$	$\frac{7}{8}$	$1 \frac{7}{16}$	$2 \frac{7}{8}$	$5 \frac{11}{16}$	$3 \frac{11}{16}$	$1 \frac{9}{32}$	2.93
8.5	1	$1 \frac{1}{8}$	$2 \frac{11}{32}$	1	$1 \frac{23}{32}$	$3 \frac{11}{32}$	$6 \frac{5}{16}$	$4 \frac{1}{4}$	$1 \frac{7}{16}$	4.48
9.5	$1 \frac{1}{8}$	$1 \frac{1}{4}$	$2 \frac{5}{8}$	$1 \frac{1}{8}$	$1 \frac{7}{8}$	$3 \frac{9}{16}$	$7 \frac{1}{32}$	$4 \frac{3}{4}$	$1 \frac{5}{8}$	6.35
12	$1 \frac{1}{4}$	$1 \frac{3}{8}$	$2 \frac{29}{32}$	$1 \frac{9}{32}$	2	$3 \frac{23}{32}$	$7 \frac{13}{16}$	$5 \frac{3}{8}$	$1 \frac{31}{32}$	8.72
13.5	$1 \frac{3}{8}$	$1 \frac{1}{2}$	$3 \frac{5}{32}$	$1 \frac{3}{8}$	$2 \frac{1}{4}$	$4 \frac{17}{32}$	$8 \frac{11}{16}$	$5 \frac{7}{8}$	$1 \frac{31}{32}$	11.56
17	$1 \frac{1}{2}$	$1 \frac{5}{8}$	$3 \frac{1}{2}$	$1 \frac{17}{32}$	$2 \frac{11}{32}$	5	$9 \frac{3}{8}$	$6 \frac{1}{2}$	$2 \frac{11}{32}$	15
25	$1 \frac{3}{4}$	2	$4 \frac{1}{8}$	$1 \frac{25}{32}$	$2 \frac{29}{32}$	$5 \frac{7}{8}$	$11 \frac{5}{32}$	$7 \frac{9}{16}$	$2 \frac{11}{32}$	24.74



G-4169



Green Pin® Sunken Hole Shackles

bow shackles with square sunken hole screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity
- **Note** : key for unscrewing the pin must be ordered separately

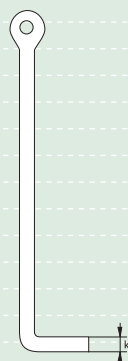
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	size hole	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
2	13.5	16	34	13.5	22	51	32	91	51	76	10	0.31
3.25	16	19	40	16	27	64	43	114	53	93	10	0.56
4.75	19	22	47	19	31	76	51	136	74	107	10	0.98
6.5	22	25	53	22	36	83	58	157	85	123	12	1.46
8.5	25	28	60	25	43	95	68	176	99	141	12	2.18
9.5	28	32	67	28	47	108	75	197	110	158	16	3.06
12	32	35	74	32	51	115	83	218	122	176	16	4.24
13.5	35	38	80	35	57	133	92	240	135	192	16	5.59
17	38	42	89	38	60	146	99	262	145	208	16	7.37

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	size hole	weight each
tons	a inch	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	lbs
2	1/2	5/8	1 11/32	17/32	7/8	2	1 9/32	3 19/32	2	3	3/8	0.68
3.25	5/8	3/4	1 19/32	5/8	1 3/32	2 17/32	1 23/32	4 1/2	2 3/32	3 11/16	3/8	1.23
4.75	3/4	7/8	1 7/8	3/4	1 1/4	3	2	5 3/8	2 29/32	4 1/4	3/8	2.16
6.5	7/8	1	2 3/32	7/8	1 7/16	3 9/32	2 9/32	6 3/16	3 11/32	4 7/8	1/2	3.22
8.5	1	1 1/8	2 11/32	1	1 23/32	3 3/4	2 11/16	6 7/8	3 29/32	5 9/16	1/2	4.81
9.5	1 1/8	1 1/4	2 5/8	1 1/8	1 7/8	4 1/4	2 15/16	7 3/4	4 5/16	6 1/4	1/2	6.75
12	1 1/4	1 3/8	2 29/32	1 9/32	2	4 17/32	3 9/32	8 19/32	4 13/16	7	5/8	9.35
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	9 7/16	5 5/16	7 9/16	5/8	12.32
17	1 1/2	1 5/8	3 1/2	1 17/32	2 11/32	5 3/4	3 7/8	10 5/16	5 3/4	8 3/16	5/8	16.25



P-4170

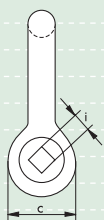
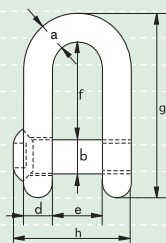


Green Pin® Sunken Hole Shackles

dee shackles with square sunken hole screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate and/or EC Declaration of Conformity
- **Note** : key for unscrewing the pin must be ordered separately

G-4159

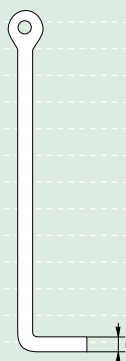


working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length bolt	size hole	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	i mm	kg
2	13.5	16	34	13.5	22	43	85	10	0.34
3.25	16	19	40	16	27	51	105	10	0.6
4.75	19	22	47	19	31	59	125	10	0.98
6.5	22	25	53	22	36	73	144	12	1.26
8.5	25	28	60	25	43	85	161	12	2.14
9.5	28	32	67	28	47	90	179	16	3.05
12	32	35	74	32	51	94	199	16	3.56
13.5	35	38	80	35	57	115	220	16	5.17
17	38	42	89	38	60	127	239	16	6.84

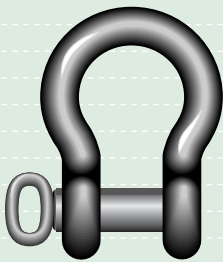
In inch



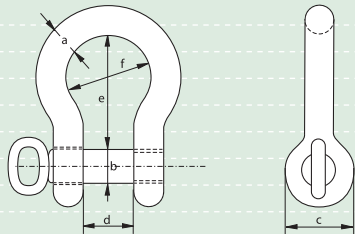
P-4170



working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length bolt	size hole	weight each
tons	a inch	b inch	c inch	d inch	e inch	f inch	g inch	i inch	lbs
2	1/2	5/8	1 11/32	17/32	7/8	1 23/32	3 11/32	2 3/8	0.75
3.25	5/8	3/4	1 19/32	5/8	1 3/32	2 1/8	4 1/8	2 3/32	1.33
4.75	3/4	7/8	1 7/8	3/4	1 1/4	2 5/16	4 29/32	2 29/32	2.15
6.5	7/8	1	2 3/32	7/8	1 7/16	2 7/8	5 11/16	3 11/32	2.77
8.5	1	1 1/8	2 11/32	1	1 23/32	3 11/32	6 5/16	3 29/32	4.72
9.5	1 1/8	1 1/4	2 5/8	1 1/8	1 7/8	3 9/16	7 1/32	4 5/16	6.72
12	1 1/4	1 3/8	2 29/32	1 9/32	2	3 23/32	7 13/16	4 13/16	7.84
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	4 17/32	8 11/16	5 5/16	11.4
17	1 1/2	1 5/8	3 1/2	1 17/32	2 11/32	5	9 3/8	5 3/4	15.08



S-1165

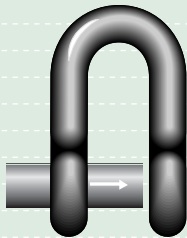


Mooring Shackles

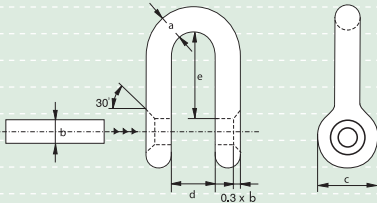
bow shackles with screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
a mm	b mm	c mm	d mm	e mm	f mm	kg
32	32	74	64	134	96	4.2
38	38	89	76	160	114	7.8
45	45	104	90	189	135	12.5
50	50	119	100	210	155	17.4
65	65	145	130	273	195	35.6



S-3557



Crown Shackles

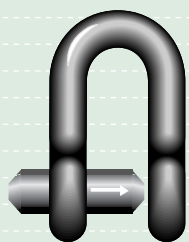
dee shackles with round pin, for anchoring applications

- **Material** : high tensile steel, normalized, Grade 4
- **Finish** : selfcoloured
- **Pin** : to be fastened by welding
- **Note** : non-standard dimensions upon request

diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
a mm	b mm	c mm	d mm	e mm	kg
13.5	16	34	21	49	0.3
16	19	40	27	61	0.6
19	22	47	30	67	0.9
22	25	53	33	73	1.3
28	32	67	42	91	2.7

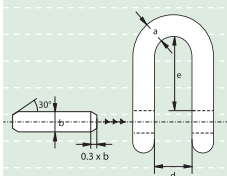
Crown Shackles

dee shackles with round pin, for anchoring applications



- **Material** : high tensile steel, normalized, Grade 4
- **Finish** : selfcoloured
- **Pin** : to be fastened by welding
- **Note** : non-standard dimensions upon request
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

S-3559



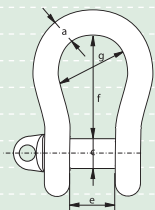
diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
a mm	b mm	c mm	d mm	e mm	kg
32	35	83	47	111	4
42	45	110	60	139	8
50	52	134	73	158	13.3
60	68	150	90	211	25
65	72	159	100	221	32
75	80	172	110	246	50
80	90	190	125	276	65
90	100	215	140	307	94
100	110	245	155	339	127
110	125	270	175	385	178
130	140	308	200	430	269
140	150	335	210	475	335
150	160	350	220	525	413
160	170	360	235	560	500
170	180	390	250	610	601
180	190	410	270	650	716
190	200	430	280	690	839

Shackles generally to DIN 82016 type A

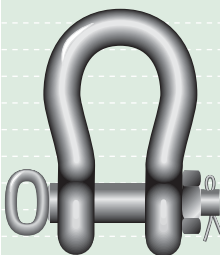
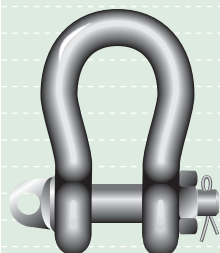
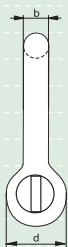
bow shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to DIN 82016 type A
- **Finish** : hot dipped galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

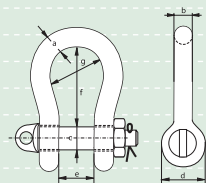
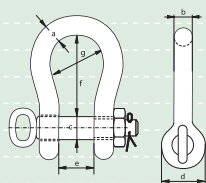
S-3461
G-3461



no.	working load limit	thickness bow	thickness bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
	tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
8	8	54	38	45	90	60	152	93	8.44
10	10	60	42	48	96	66	166	102	11
12	12	67	47	52	104	73	184	114	14.5
16	16	76	52	60	120	81	210	128	19.7
20	20	85	58	68	136	90	231	140	29.6
25	25	92	63	72	144	100	254	155	37.4



S-3466
G-3466



Shackles generally to DIN 82016 type B

bow shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to DIN 82016 type B
- **Finish** : hot dipped galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material
- **Note** : with screw collar pin : up to size no. 25
with hand-grip : from size no. 32

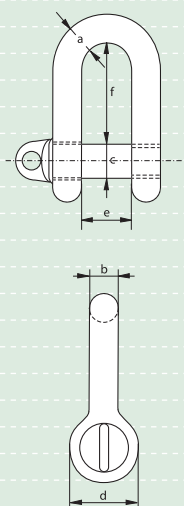
no.	working load limit	thickness bow	thickness bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
	tons	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
8	8	54	38	45	90	60	152	93	9.3
10	10	60	42	48	96	66	166	102	12
12	12	67	47	52	104	73	184	114	15.7
16	16	76	52	60	120	81	210	128	21
20	20	85	58	68	136	90	231	140	31.4
25	25	92	63	72	144	100	254	155	39.4
32	32	100	70	80	160	110	285	175	53.3
40	40	107	79	90	180	125	315	195	75.3
50	50	120	88	100	200	140	360	220	105
63	63	135	96	110	220	155	395	245	137
80	80	150	110	125	250	175	447	275	200
100	100	165	125	140	280	200	500	305	300

Shackles generally to DIN 82101 type A

dee shackles with screw collar pin



S-3351
G-3351



- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to DIN 82101 type A
- **Finish** : hot dipped galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

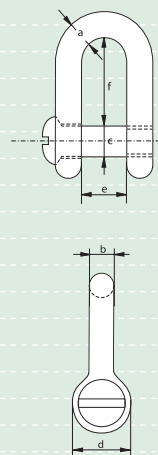
no.	working load limit	thickness bow	thickness bow	diameter pin	diameter eye	width inside	length inside	weight each
	tons	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.1	0.1	5	4	5	10	7	15.5	0.017
0.16	0.16	6	5	6	12	8	18	0.024
0.25	0.25	8	7	8	16	11	24	0.054
0.4	0.4	10	8	10	20	14	30	0.097
0.6	0.63	12	10	12	24	17	36	0.18
1	1	15	13	16	32	21	49	0.3
1.6	1.6	19	17	20	40	27	61	0.57
2	2	21	19	22	44	30	67	0.975
2.5	2.5	23	21	24	48	33	73	1.3
3	3.15	26	24	27	54	38	83.5	1.85
4	4	29	27	30	60	42	91	2.53
5	5	33	30	36	72	47	111	4
6	6.3	37	34	39	78	53	119.5	5.3
8	8	41	38	45	90	60	139.5	7.9
10	10	45	42	48	96	66	147	10
12	12.5	50	47	52	104	73	158	13.5
16	16	55	52	60	120	81	185	19.2
20	20	61	58	68	136	90	211	28
25	25	67	63	72	144	100	221	34

Shackles generally to DIN 82101 type B

dee shackles with counter sunk screw pin

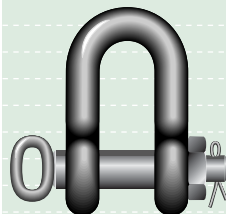
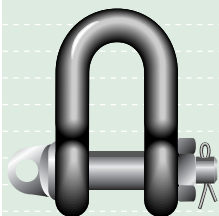


S-3352
G-3352

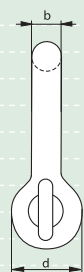
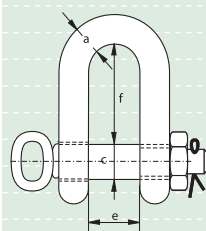
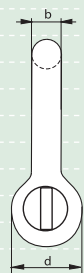
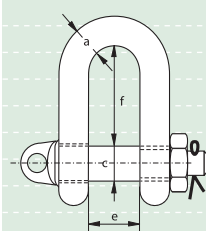


- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to DIN 82101 type B
- **Finish** : hot dipped galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

no.	working load limit	thickness bow	thickness bow	diameter pin	diameter eye	width inside	length inside	weight each
	tons	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.1	0.1	5	4	5	10	7	15.5	0.014
0.16	0.16	6	5	6	12	8	18	0.023
0.25	0.25	8	7	8	16	11	24	0.052
0.4	0.4	10	8	10	20	14	30	0.093
0.6	0.63	12	10	12	24	17	36	0.173
1	1	15	13	16	32	21	49	0.29
1.6	1.6	19	17	20	40	27	61	0.543
2	2	21	19	22	44	30	67	0.95
2.5	2.5	23	21	24	48	33	73	1.23
3	3.15	26	24	27	54	38	83.5	1.8
4	4	29	27	30	60	42	91	2.6
5	5	33	30	36	72	47	111	3.8
6	6.3	37	34	39	78	53	119.5	5.2
8	8	41	38	45	90	60	139.5	7.6
10	10	45	42	48	96	66	147	9.7



S-3356
G-3356



Shackles generally to DIN 82101 type C dee shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to DIN 82101 type C
- **Finish** : hot dipped galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material
- **Note** : with screw collar pin : up to size no. 25
: with hand-grip : from size no. 32

no.	working load limit	thickness bow	thickness bow	diameter pin	diameter eye	width inside	length inside	weight each
	tons	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.4	0.4	10	8	10	20	14	30	0.113
0.6	0.63	12	10	12	24	17	36	0.2
1	1	15	13	16	32	21	49	0.37
1.6	1.6	19	17	20	40	27	61	0.686
2	2	21	19	22	44	30	67	1.125
2.5	2.5	23	21	24	48	33	73	1.5
3	3.15	26	24	27	54	38	83.5	2.15
4	4	29	27	30	60	42	91	2.93
5	5	33	30	36	72	47	111	4.7
6	6.3	37	34	39	78	53	119.5	6.33
8	8	41	38	45	90	60	139.5	8.5
10	10	45	42	48	96	66	147	10.8
12	12.5	50	47	52	104	73	158	14.4
16	16	55	52	60	120	81	185	20.5
20	20	61	58	68	136	90	211	29.5
25	25	67	63	72	144	100	221	36
32	32	74	70	80	160	110	246	49
40	40	84	79	90	180	125	276	75
50	50	93	88	100	200	140	307	100
63	63	101	96	110	220	155	339	140
80	80	115	110	125	250	175	385.5	200
100	100	130	125	140	280	200	430	280



1

2

3

4

5

6

7

8

9

10

11

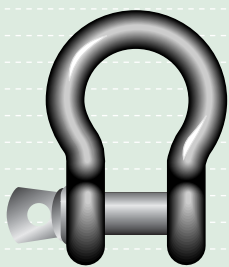
12

13

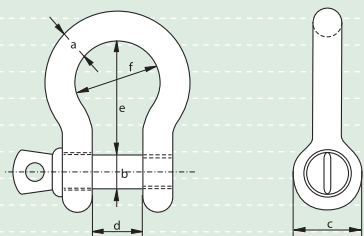
14

15

16



G-3161

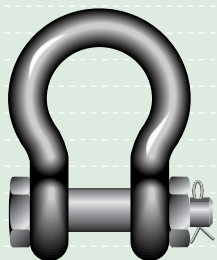


Chinese Yellow Pin Shackles

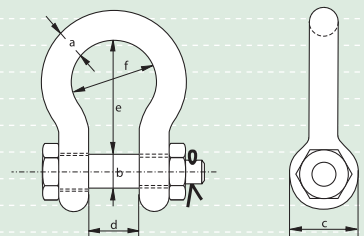
bow shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.33	5	6	14	9.5	22	15	0.03
0.5	6	8	16	12	29	20	0.05
0.75	8	10	19	13.5	31	21	0.09
1	10	11	23	17	37	26	0.14
1.5	11	13	27	19	43	29	0.17
2	13	16	30	20	48	33	0.33
3.25	16	19	38	27	60	43	0.62
4.75	19	22	46	32	71	50	1.07
6.5	22	25	53	36	84	58	1.64
8.5	25	28	61	43	95	68	2.28
9.5	28	32	68	46	108	74	3.36
12	32	35	76	51	119	82	4.31
13.5	35	38	84	57	133	92	6.14
17	38	42	92	60	146	98	7.81
25	45	50	106	73	177	127	12.61



G-3163



Chinese Yellow Pin Shackles

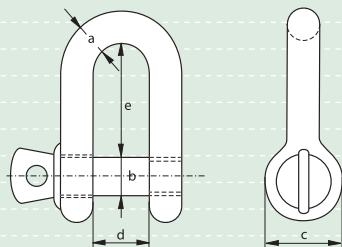
bow shackles with safety pin

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	kg
2	13	16	30	20	48	33	0.36
3.25	16	19	38	27	60	43	0.76
4.75	19	22	46	32	71	50	1.23
6.5	22	25	53	36	84	58	1.79
8.5	25	28	61	43	95	68	2.57
9.5	28	32	68	46	108	74	3.75
12	32	35	76	51	119	82	5.32
13.5	35	38	84	57	133	92	7.19
17	38	42	92	60	146	98	9.44
25	45	50	106	73	177	127	15.4



G-3151

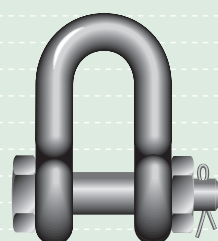


Chinese Yellow Pin Shackles

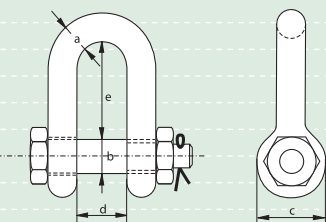
dee shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
tons	a mm	b mm	c mm	d mm	e mm	kg
0.33	5	6	12	9.5	19	0.01
0.5	6	8	16	12	22	0.05
0.75	8	10	19	13.5	26	0.08
1	10	11	23	17	32	0.13
1.5	11	13	27	19	37	0.2
2	13	16	30	20	41	0.27
3.25	16	19	38	27	51	0.57
4.75	19	22	46	32	60	1.19
6.5	22	25	53	36	71	1.43
8.5	25	28	61	43	81	2.16
9.5	28	32	68	46	90	3.06
12	32	35	76	51	100	4.11
13.5	35	38	84	57	111	5.28
17	38	42	92	60	122	7.24
25	45	50	106	73	146	12.14



G-3153

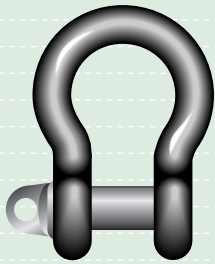


Chinese Yellow Pin Shackles

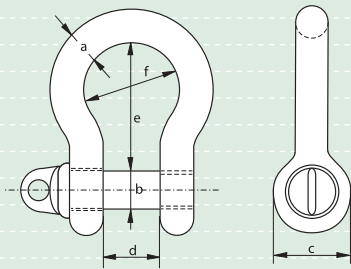
dee shackles with safety pin

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
tons	a mm	b mm	c mm	d mm	e mm	kg
2	13	16	30	20	41	0.34
3.25	16	19	38	27	51	0.67
4.75	19	22	46	32	60	1.14
6.5	22	25	53	36	71	1.75
8.5	25	28	61	43	81	2.52
9.5	28	32	68	46	90	3.45
12	32	35	76	51	100	4.91
13.5	35	38	84	57	111	6.24
17	38	42	92	60	122	8.4
25	45	50	106	73	146	14.26



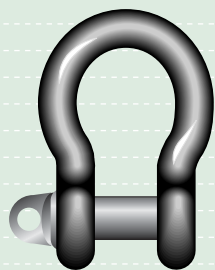
S-2761
E-2761
G-2761



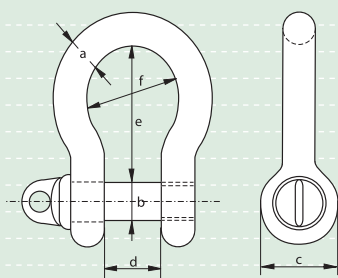
Shackles generally to B.S. 3032 table 3
large bow shackles with screw collar pin

- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 3
- **Finish** : hot dipped galvanized, electro-galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

working load limit	diameter bow	diameter pin	diameter eye	inside width	inside length	width bow	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.15	6	10	19	13	28	19	0.12
0.45	10	13	25	16	41	25	0.18
0.75	13	16	32	22	54	32	0.37
1.25	16	19	38	28	70	41	0.72
2	19	22	44	35	86	51	1.20
2.75	22	25	51	41	98	57	1.85
3.75	25	28	57	44	108	64	2.61
4.75	28	32	63	51	124	73	3.78
5.75	32	35	70	57	137	83	5.17
7.25	35	38	76	63	152	89	6.46
8.5	38	44	89	70	168	98	8.34
9.5	42	48	94	76	187	111	11.1
11.5	44	51	102	86	206	121	14.5
13	48	54	108	92	222	130	17.8
15	51	57	114	98	238	140	25.5
18.5	57	63	127	105	257	152	34.4
20	60	67	133	111	273	162	36.8
25	67	73	146	121	302	178	45
30	73	79	159	133	330	197	62.2
35	79	86	171	146	359	213	81.8
40	86	92	184	159	387	229	95
50	95	102	203	171	429	254	131
65	108	117	235	197	483	286	194
80	117	127	254	216	533	308	274



S-2765
E-2765
G-2765



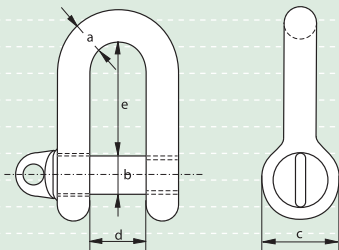
Shackles generally to B.S. 3032 table 4 small bow shackles with screw collar pin

- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 4
- **Finish** : hot dipped galvanized, electro-galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

working load limit	diameter bow	diameter pin	diameter eye	inside width	inside length	width bow	weight each
tons	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.2	6	10	19	13	25	16	0.11
0.5	10	13	25	16	38	22	0.17
1	13	16	32	22	51	29	0.35
1.5	16	19	38	28	64	38	0.66
2	19	22	44	35	76	44	1.06
3	22	25	51	38	89	51	1.68
4	25	28	57	44	102	60	2.47
5	28	32	63	51	114	67	3.48
6.25	32	35	70	57	127	76	4.79
7.5	35	38	76	60	140	83	5.95
9.25	38	44	89	67	152	89	7.55
10.5	41	48	95	73	165	98	9.79
12.5	44	51	102	79	178	105	12.5
14.25	48	54	108	86	191	114	15.3
16.5	51	57	114	92	203	121	21.8
18.5	54	60	121	95	216	127	28.9
20	57	63	127	105	229	137	30.9
25	63	70	140	114	254	152	37.8
30	70	79	159	127	279	168	52.6
35	76	86	171	137	305	184	69.5
40	79	89	178	143	318	191	78.1
50	89	98	203	159	356	213	109
65	102	114	229	184	406	244	163
80	114	127	254	206	457	273	235



S-2751
E-2751
G-2751



Shackles generally to B.S. 3032 table 2

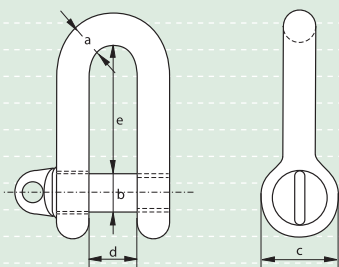
large dee shackles with screw collar pin

- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 2
- **Finish** : hot dipped galvanized, electro-galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

working load limit	diameter bow	diameter pin	diameter eye	inside width	inside length	weight each
tons	a mm	b mm	c mm	d mm	e mm	kg
0.25	6	10	19	13	25	0.11
0.5	10	13	25	19	38	0.17
0.75	13	16	32	28	54	0.35
1.5	16	19	38	32	64	0.66
2	19	22	44	38	73	1.02
3	22	25	51	44	83	1.57
3.75	25	28	57	51	95	2.3
5	28	32	64	54	105	3.2
6	32	35	70	60	114	4.3
7	35	38	76	67	127	5.4
9.5	38	45	83	70	137	6.8
11.25	42	48	89	76	146	8.7
13	44	51	95	83	156	11
14.25	48	54	108	92	178	14.3
16.25	51	57	114	98	187	20
18	54	60	121	105	197	26.4
20	57	64	127	108	210	28.3
25	64	73	146	121	235	35
30	70	79	159	133	260	49
35	76	86	171	146	279	63.6
40	79	89	178	149	292	71.7
50	89	102	203	171	330	101
65	102	114	229	191	375	151
80	114	127	254	219	419	215



S-2755
E-2755
G-2755



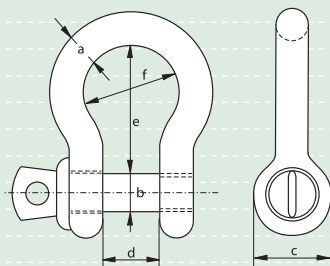
Shackles generally to B.S. 3032 table 1 small dee shackles with screw collar pin

- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 1
- **Finish** : hot dipped galvanized, electro-galvanized or selfcoloured
- **Certificates** : at no extra charges this product can be supplied with a works certificate and/or certificate of basic raw material

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
tons	a mm	b mm	c mm	d mm	e mm	kg
0.3	6	10	19	9.5	22	0.1
0.6	10	13	25	16	35	0.16
1	13	16	32	22	48	0.31
1.75	16	19	38	25	57	0.59
2.5	19	22	44	32	70	0.98
3.5	22	25	51	35	83	1.55
4.5	25	28	57	38	92	2.2
5.5	28	32	64	44	105	3.1
7	32	35	70	48	114	4.2
8	35	38	83	54	127	5.1
10.75	38	45	89	60	140	6.6
13	42	48	95	64	149	8.1
14.75	44	51	102	70	162	10.5
16.75	48	54	108	73	171	13.3
19	51	57	114	76	184	19.2
20	54	60	121	83	197	22.4
25	60	70	140	92	219	25.3
30	64	73	146	98	229	31.5
35	70	79	159	108	254	47
40	73	83	165	111	264	60.2
50	83	95	190	127	298	68.5
65	92	108	216	140	333	98
80	102	117	235	156	368	147



S-1161
E-1161

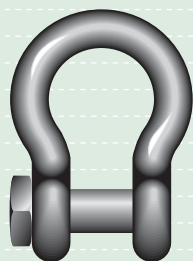


Commercial Shackles

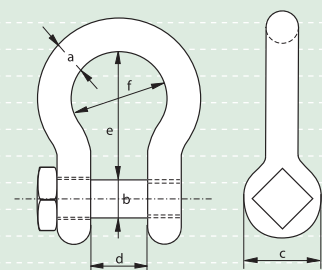
bow shackles with screw collar pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	f mm	kg
5	5	10	10	20	15	1.54
6	6	12	12	24	18	2.66
8	8	16	16	32	24	6.29
10	10	20	20	40	30	12.3
11	11	22	22	44	33	16.4
12	12	24	24	48	36	21.2
14	14	28	28	56	42	33.7
16	16	32	32	64	48	50.3
20	20	40	40	80	60	98.3
22	22	44	44	88	66	131
25	25	50	50	100	75	192
28	28	56	56	112	84	270
32	32	64	64	128	96	403
38	38	76	76	152	114	674
45	45	90	90	180	135	1120
50	50	100	100	200	150	1536
57	57	114	114	228	171	2276
65	65	130	130	260	195	3375



S-1164



Commercial Shackles

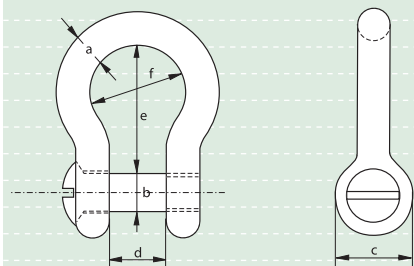
bow shackles with square head screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	f mm	kg
6	6	12	12	24	18	2.7
8	8	16	16	32	24	6.4
10	10	20	20	40	30	12.5
11	11	22	22	44	33	16.6
12	12	24	24	48	36	21.6
14	14	28	28	56	42	34.3
16	16	32	32	64	48	51.2
20	20	40	40	80	60	100
22	22	44	44	88	66	133
25	25	50	50	100	75	195
28	28	56	56	112	84	275
32	32	64	64	128	96	410
38	38	76	76	152	114	686



S-1162
E-1162



Commercial Shackles

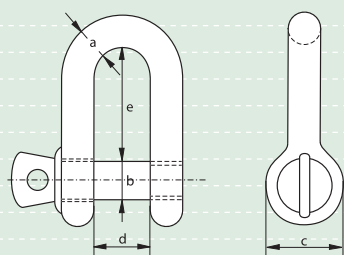
bow shackles with counter sunk screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	f mm	kg
8	8	16	16	32	24	6
10	10	20	20	40	30	11.6
11	11	22	22	44	33	15.5
12	12	24	24	48	36	20.1
14	14	28	28	56	42	31.9
16	16	32	32	64	48	47.6
20	20	40	40	80	60	93.1
22	22	44	44	88	66	124
25	25	50	50	100	75	182



S-1151
E-1151



Commercial Shackles

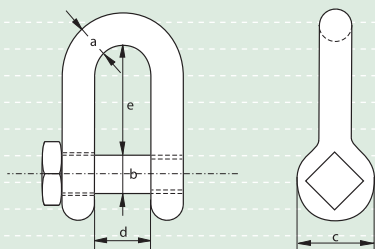
dee shackles with screw collar pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	kg
5	5	10	10	19	1.47
6	6	12	12	25	2.56
8	8	16	16	32	6.06
10	10	20	20	38	11.8
11	11	22	22	44	15.8
12	12	24	24	51	20.5
14	14	28	28	53	32.5
16	16	32	32	64	48.5
20	20	40	40	76	94.7
22	22	44	44	89	126
25	25	50	50	100	185
28	28	56	56	115	260
32	32	64	64	127	388
38	38	76	76	152	650
45	45	90	90	180	1080
50	50	100	100	200	1480
57	57	114	114	220	2192
65	65	130	130	247	3252



S-1154

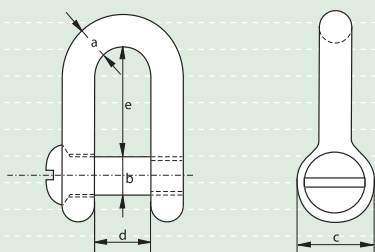


Commercial Shackles

dee shackles with square head screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	kg
6	6	12	12	24	2.6
8	8	16	16	32	6.17
10	10	20	20	40	12.0
11	11	22	22	44	16
12	12	24	24	48	20.8
14	14	28	28	56	33.1
16	16	32	32	64	49.4
20	20	40	40	80	96.4
22	22	44	44	88	128
25	25	50	50	100	188
28	28	56	56	112	265
32	32	64	64	128	395
38	38	76	76	152	661

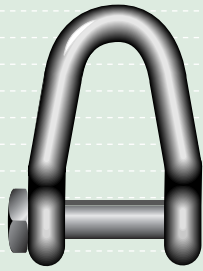
S-1152
E-1152

Commercial Shackles

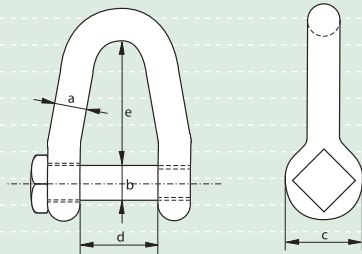
dee shackles with counter sunk screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	kg
8	8	16	16	32	5.72
10	10	20	20	40	11.2
11	11	22	22	44	14.9
12	12	24	24	48	19.3
14	14	28	28	56	30.7
16	16	32	32	64	45.8
20	20	40	40	80	89.5
22	22	44	44	88	119
25	25	50	50	100	175



S-1170



Commercial Shackles

danlino V shackles with square head screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : selfcoloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	kg
32	32	64	78	120	470

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16