
BLT
BRIERLEY
LIFTING TACKLE
PRODUCT CATALOGUE

Introduction

Who are Brierley Lifting?

We are a traditional lifting tackle company who have become known worldwide for quality lifting products. For over 40 years the company has been involved in the forging of shackles, eyebolts, rigging screws and many associated products. We are best known for being one of the remaining British companies still producing quality British Standard equipment to the high specifications required for the safety in this industry.

We have a wealth of quality and technical knowledge between us – with all of our employees having been involved in the industry at some stage of their careers, from manufacture through to the finished goods.

We pride ourselves on our knowledge of the industry, we can generally help with any problem, technical or otherwise.

Brierley Lifting is the leading distributor for Green Pin® products in the UK, having worked with Van Beest since the mid- 1990s and securing the agency in 2000. The strong affiliation with their Green Pin® range strengthens the current product range which we currently offer.

What are our opening hours?

The sales office is open Monday – Thursday 8.00am – 5.00pm and Friday 8.00am – 4.00pm

Goods inwards is open Monday – Thursday 8.00am – 4.45pm and Friday 8.00am – 3.45pm

Special arrangements can be made outside of these hours should this be required.

Orders

All orders placed are subject to our published conditions of business, a copy is available upon request.

We reserve the right to alter, without notice, the specifications shown within this catalogue.

Whilst every attempt has been made to ensure accuracy, variations may occur – this does not form part of any contract.

All products are manufactured with certain +/- tolerances, if you require a critical dimension, please contact a member of our technical team.

We extend a warm welcome and eagerly anticipate your enquiries.

E&OE

What is Green Pin®?

Launched in the 1970s by Van Beest, the trade name Green Pin® was launched to emphasise product quality, recognition and demand worldwide.

The Green Pin® shackles are the leading brand for premium quality shackles and are manufactured in their production unit in Slieldrecht, The Netherlands. The Green Pin® range also offers other superior lifting and lashing equipment including turnbuckles, hooks, eyebolts and their highly developed Green Pin Tycan® chains.

Quality

The Green Pin® designs and quality standards are the result of requirements put forward by customers in the markets throughout the world. The Green Pin® products comply with a wide range of internationally recognised standards which can be supplied with various certificates upon request.

The designs and quality standards of our products are the result of the support from our customers in markets throughout the world. The products of Brierley Lifting comply with a wide range of internationally recognised standards and can be supplied with various certificates upon request.

We are also ISO 9001:2015 approved.

What is the difference between our Quality and Economy products?

Quality Range – These comply with the British Standard and will give you peace of mind and total faith that the product is reliable and guaranteed. They are manufactured to the highest standards possible and come with full material, heat treatment and proof load certification.

Economy Range – The economy range are for price conscious companies who need a product which is similar to the British Standard and has similar performance requirements. These products include a proof load certificate as standard, however, the tolerances, heat treatments and materials may vary outside the relevant British Standards, hence why they are sold as ‘meets the performance requirements of’.

GP

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Shackles

Applications

Shackles are used in lifting operations 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 and fixed nut shackles are used for long-term or permanent applications or where the load may slide on the pin causing rotation of the pin. Dee (chain) shackles are mainly used on one-leg systems whereas bow (anchor) shackles are mainly used on multi-leg systems.

Range

Brierley Lifting offers a wide range of bow and dee shackles for a variety of applications. The range stretches from WLL 0.15 t to 3000 t. This provides our customers with a very extensive range to choose a shackle that suits their application best. Most of the shackles are directly available from stock. Furthermore, shackles can be supplied to many standards such as the British Standard 3032, US Federal Specification RR-C-271, EN 13889, ISO 2415, DIN 82101 etc. Additionally we offer a wide range of general commercial shackles, which are not suitable for lifting but merely for fixing purposes.

Design

All our shackles have a specific design for a specific application. Please find below some examples of highly functional designs, to optimize the use of the Green Pin® shackles in daily use:

- Green Pin Super® Shackles which are made from Grade 8 steel. They are designed to be used in confined spaces. The higher material strength is used to reduce the physical dimensions of the product whilst maintaining its WLL and functionality;
- Green Pin Polar® Shackles are for use in extreme climatic conditions with material properties generally guaranteed up to temperatures of -60°C;
- Green Pin Power Sling® Shackles are designed to provide a better bending efficiency for the sling. A larger radius increases the life span of the sling significantly;
- Another example of a functional design is a shackle pin with a square sunken hole. Because of the flat head there is less risk of the shackle getting caught in a net or a line.

Instructions for use

Select the correct type and WLL of the shackle for the particular application. If extreme circumstances or shock loading may occur, this must be taken into account when selecting the correct shackle. Please note that commercial shackles are not to be used for lifting applications.

Shackles should be inspected before use to ensure that:

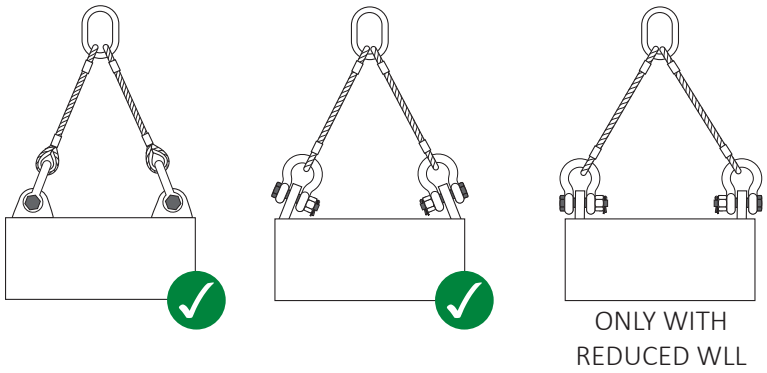
- all markings are legible;
- the body and pin are both of the same brand and type;
- the body and pin are both of the correct size
- never use a safety bolt type shackle without using a securing pin;
- the pin, nut, cotter pin, or any other locking system cannot vibrate out of position;
- the threads of the pin and the body are undamaged;
- 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 WLL;
- never modify, repair or reshape a shackle by machining, welding, heating or bending as this will affect the WLL.

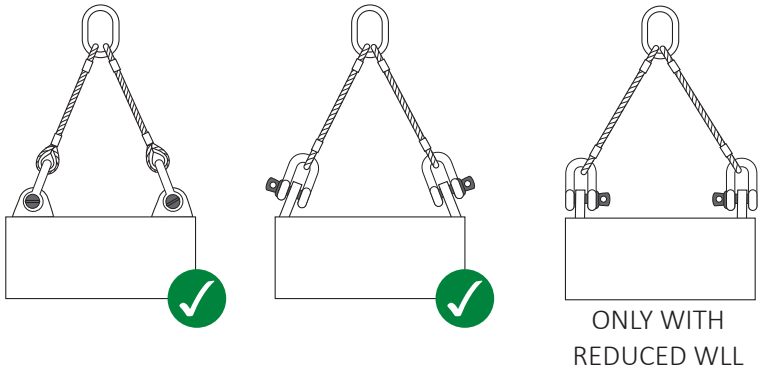
Assembly

Ensure that the pin is correctly screwed into the shackle eye: tighten it hand-tight, then secure it using a wrench or other suitable tool so that the collar of the pin is fully seated against the shackle eye. Ensure that the pin is of the correct length so that it penetrates the full depth of the threaded eye and the collar of the pin touches the surface of the shackle eye.

Incorrect positioning of the pin may be caused by 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 brand, type, make and size to ensure the shackle maintains its original WLL.

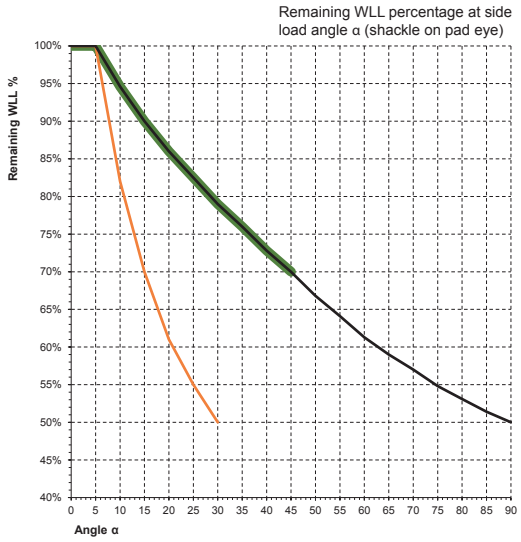
Make sure that the shackle is supporting the load correctly, i.e. along the axis of the shackle body centerline. Avoid bending loads, unstable loads and overloads.

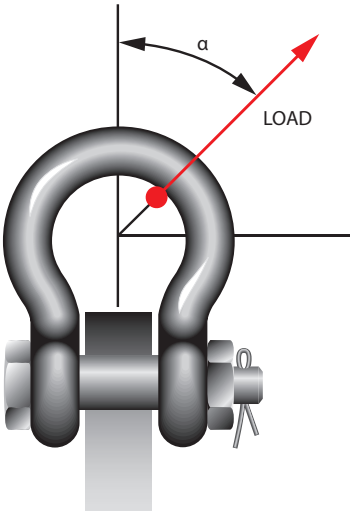




Side loads

Side loads should be avoided, as the products are not designed for this purpose. If side loads cannot be avoided, the WLL of the shackle must be reduced:



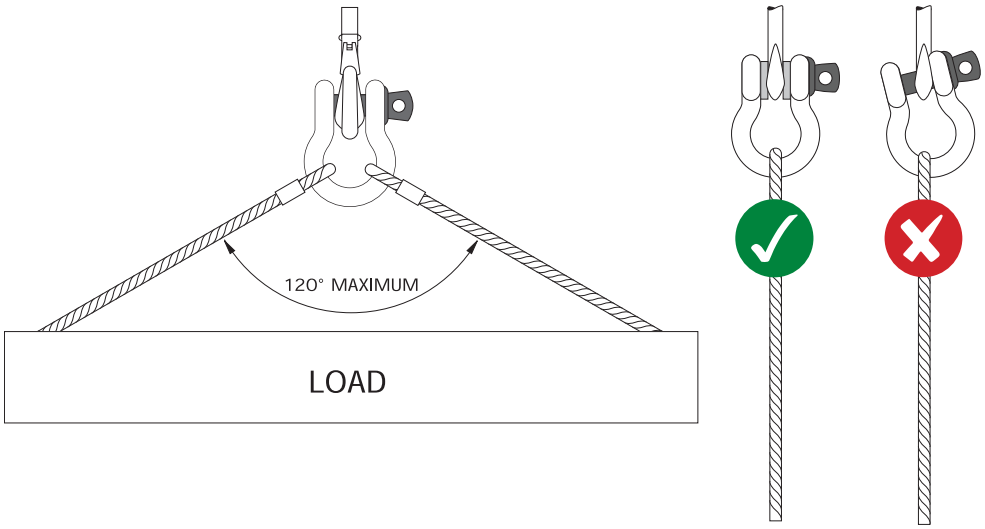


This black curve is valid for almost all shackles. The black curve does not apply for the Green Pin® ROV Shackles (P-5363 and P-5367) which are for in-line use only. The green curve is valid for Green Pin® Sling Shackles (P-6033, P-6013 and P-6065) and the orange curve is valid for the Green Pin Power Sling® Shackles (P-6043).

In-line lifting is considered to be a load perpendicular to the pin axis and in the plane of the bow. The load angles in the graph represent the deviating angles from in-line loading.

Maximum loading angle

When connecting shackles to multi-leg slings, consider 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 used. It's not allowed to configure bow shackles with more than 2 legs. The slings must be connected to the shackle body, and the shackle pin must be placed in the hook. The angle between the slings should not exceed 120°. If symmetrically loaded the shackle may be used to the full WLL.

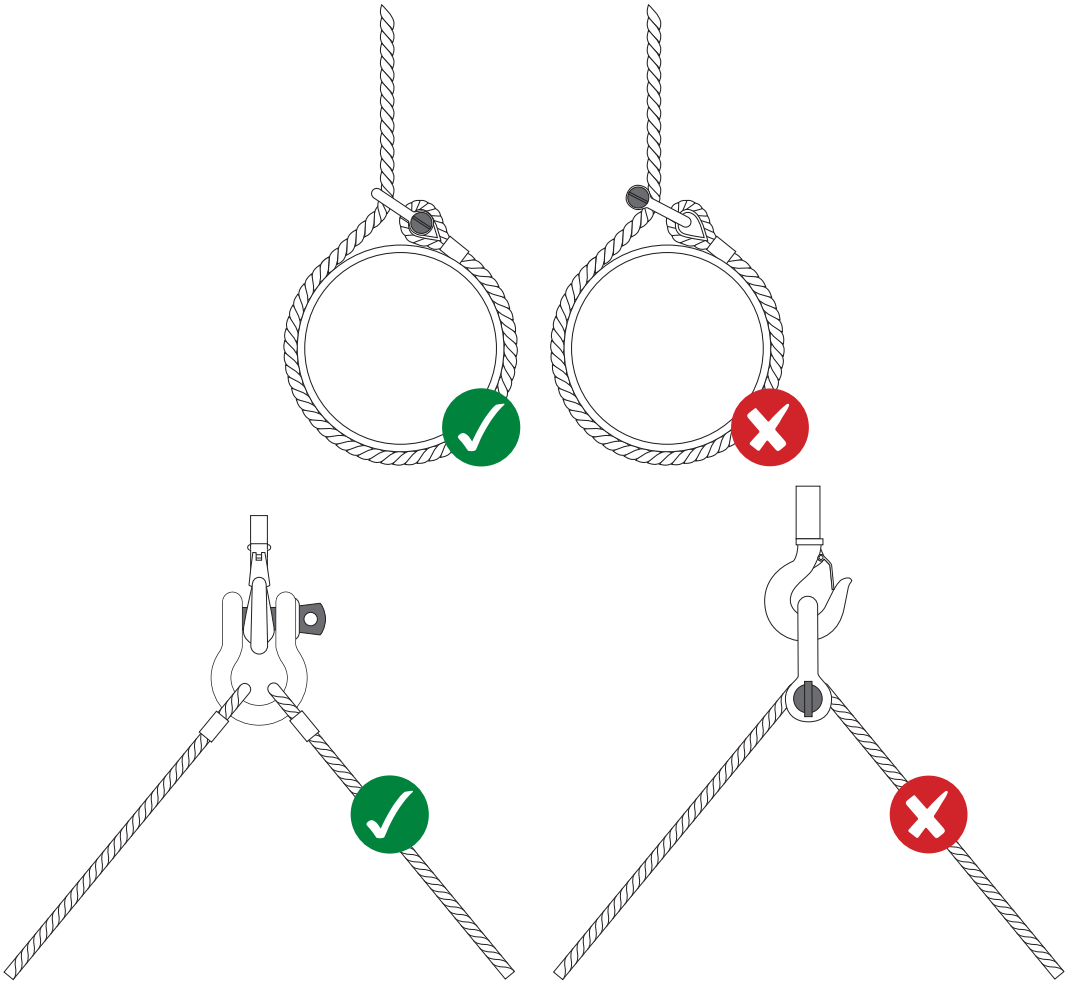
Avoiding eccentric loading

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 of the shackle eyes or by narrowing the jaws, as this will affect the WLL of the shackle.

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

Avoiding pin rotation

Avoid applications where the load moves over the shackle pin; the pin may rotate and possibly be unscrewed. If moving of the load cannot be avoided, 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 cotter pin or a shackle with a fixed nut.



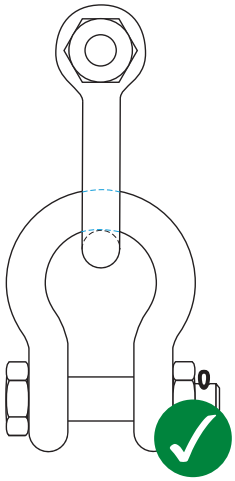
Chemicals

Shackles should not be immersed in acidic solutions or exposed to acidic fumes or other chemicals that are potentially harmful to the shackle.

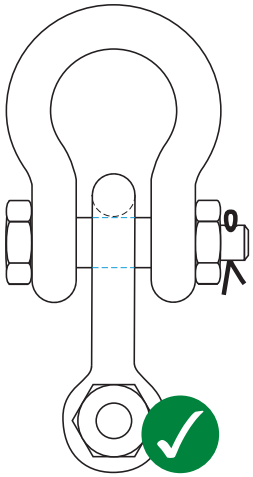
Point loading

Shackles are used in lifting and static systems as removable links to connect (steel) wire rope, chain and other fittings. Most of the times the load bearing component that connects to a shackle is of a rounded shape. Point loading of shackles during lifting operations is allowed. The maximum load of the configuration is limited by the component with the lowest WLL. Increasing the contact area by using bigger diameters and/or pad eyes can be an advantage. Sharp edges shall be avoided. Our shackles can also be used in below configurations. The maximum load of the configuration is limited by the component with the lowest WLL.

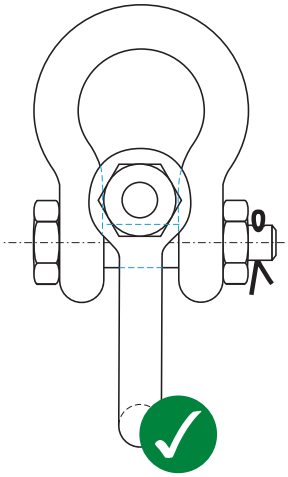
Bow-Bow



Bow-Pin

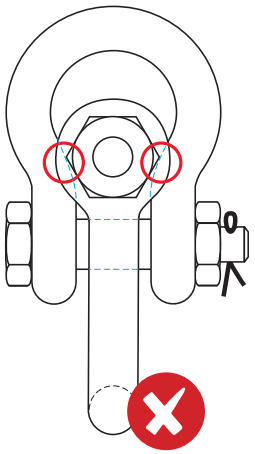


Pin-Pin



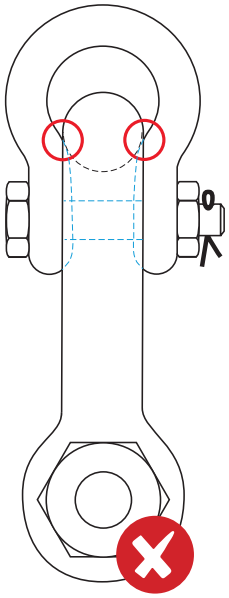
Pin - Pin configurations

When the shackle eyes touch and the pins do not bear properly, the configuration shall not be used.



Bow - Pin configurations

When the shackle body of the inner shackle touches the shackle eyes of the outer shackle and body and pin do not bear properly, the configuration shall not be used.



Additional marking

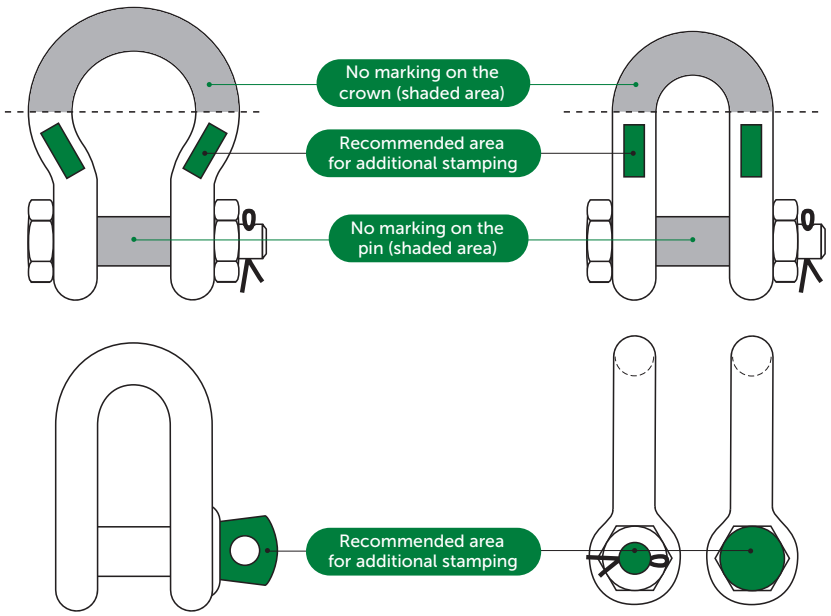
It is possible to add additional stamping on our shackles, but make sure that you follow the recommendations below. If the recommendations are followed, the performance of the shackles is guaranteed.

- permanent identification marks or symbols are to be made by dot peen marking or with stamps having rounded profiles (low-stress stamps);
- laser markings are allowed as long as the heat of the laser does not influence in a negative way the material structure and properties. The laser marking must be legibly and indelibly marked in a place where the markings will not be removed by use;
- the number of marks on a shackle is to be kept to a minimum;
- the use of fractions and oblique strokes is to be avoided and a dot or hyphen is preferable to a dividing line;
- values of WLL are, generally, to be marked to one place of decimals (except for 0.25 and 0.75) up to 100 t and in integers thereafter. The word “tonnes” may be abbreviated to “t”;

Recommended sizes of marks are;

- Diameter of the part to be marked > recommended size of the mark;
- less than 12.5 mm > 3.0 mm;
- 12.5 mm to 26 mm > 4.5 mm;
- over 26 mm > 6.0 mm.

Typical arrangements of marks can be found in the following illustrations.



Temperature

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 WLL should be reduced accordingly. If in doubt, please contact one of our technical team who will be able to advise accordingly for your application.

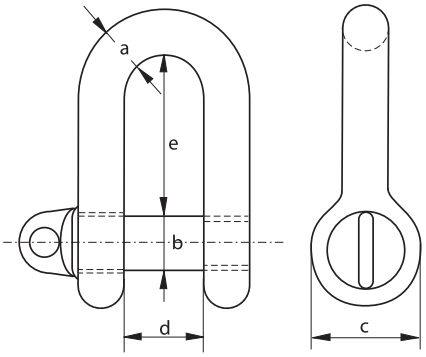
Inspection

Shackles must be regularly inspected in accordance with the safety standards and regulations given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc., which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use) and more frequently when the shackles are used in severe operating conditions.

Large Dee Shackle, Quality Range

with type A screw collar pin

Material: Body and pin, EN14 or equal
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 2- 1958
Finish: Self colour or hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

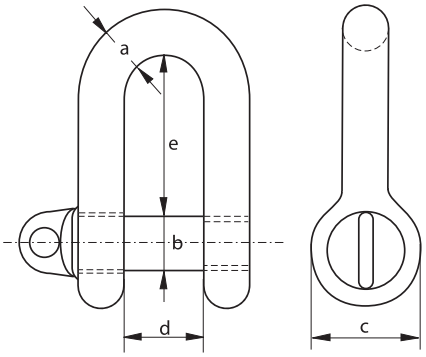


SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Product Code	Weight Each
	a	b	c	d	e	self colour	galvanised	
T	inch	inch	inch	inch	inch			kg
0.25	1/4	3/8	3/4	1/2	1	10001A	10111A	0.06
0.50	3/8	1/2	1	3/4	1.1/2	10002A	10112A	0.16
0.75	1/2	5/8	1.1/4	1.1/8	2.1/8	10003A	10113A	0.35
1.50	5/8	3/4	1.1/2	1.1/4	2.1/2	10004A	10114A	0.63
2.00	3/4	7/8	1.3/4	1.1/2	2.7/8	10005A	10115A	1.00
3.00	7/8	1	2	1.3/4	3.1/4	10006A	10116A	1.54
3.75	1	1.1/8	2.1/4	2	3.3/4	10007A	10117A	2.21
5.00	1.1/8	1.1/4	2.1/2	2.1/8	4.1/8	10008A	10118A	3.11
6.00	1.1/4	1.3/8	2.3/4	2.3/8	4.1/2	10009A	10119A	4.33
7.00	1.3/8	1.1/2	3	2.5/8	5	10010A	10120A	5.33
9.50	1.1/2	1.3/4	3.1/2	2.3/4	5.3/8	10011A	10121A	8.46
11.25	1.5/8	1.7/8	3.3/4	3	5.3/4	10012A	10122A	10.48
13.00	1.3/4	2	4	3.1/4	6.1/8	10013A	10123A	12.66
14.25	1.7/8	2.1/8	4.1/4	3.5/8	7	10014A	10124A	15.34
16.25	2	2.1/4	4.1/2	3.7/8	7.3/8	10015A	10125A	18.50
18.00	2.1/8	2.3/8	4.3/4	4.1/8	7.3/4	10016A	10126A	23.80
20.00	2.1/4	2.1/2	5	4.1/4	8.1/4	10017A	10127A	28.60

Large Dee Shackle, Economy Range

with type A screw collar pin

Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: Meets the performance requirements of BS 3032 table 2- 1958
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

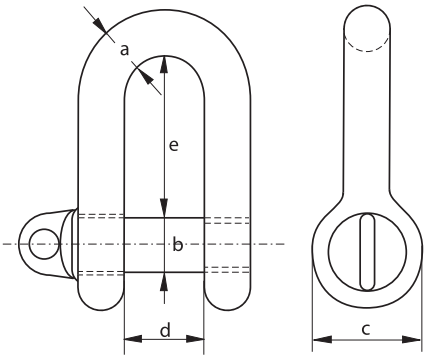


SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e	self colour	
T	inch	inch	inch	inch	inch		kg
0.25	1/4	3/8	3/4	1/2	1	10001C	0.06
0.50	3/8	1/2	1	3/4	1.1/2	10002C	0.16
0.75	1/2	5/8	1.1/4	1.1/8	2.1/8	10003C	0.35
1.50	5/8	3/4	1.1/2	1.1/4	2.1/2	10004C	0.63
2.00	3/4	7/8	1.3/4	1.1/2	2.7/8	10005C	1.00
3.00	7/8	1	2	1.3/4	3.1/4	10006C	1.54
3.75	1	1.1/8	2.1/4	2	3.3/4	10007C	2.21
5.00	1.1/8	1.1/4	2.1/2	2.1/8	4.1/8	10008C	3.11
6.00	1.1/4	1.3/8	2.3/4	2.3/8	4.1/2	10009C	4.33
7.00	1.3/8	1.1/2	3	2.5/8	5	10010C	5.33
9.50	1.1/2	1.3/4	3.1/2	2.3/4	5.3/8	10011C	8.46

Small Dee Shackle, Quality Range

with type A screw collar pin

Material: Body and pin, EN14 or equal
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 1- 1958
Finish: Self colour or hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

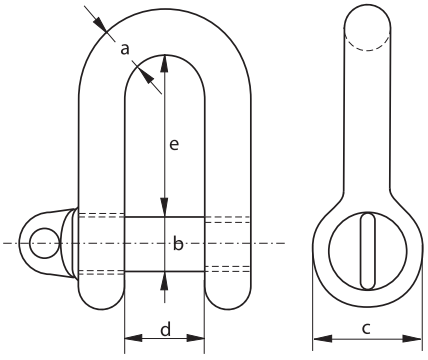


SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Product	Weight Each
	a	b	c	d	e	self colour	galvanised	
T	inch	inch	inch	inch	inch			kg
0.30	1/4	3/8	3/4	3/8	7/8	10201A	11201A	0.06
0.60	3/8	1/2	1	5/8	1.3/8	10202A	11202A	0.15
1.00	1/2	5/8	1.1/4	7/8	1.7/8	10203A	11203A	0.33
1.75	5/8	3/4	1.1/2	1	2.1/4	10204A	11204A	0.61
2.50	3/4	7/8	1.3/4	1.1/4	2.3/4	10205A	11205A	0.93
3.50	7/8	1	2	1.3/8	3.1/4	10206A	11206A	1.50
4.50	1	1.1/8	2.1/4	1.1/2	3.5/8	10207A	11207A	2.15
5.50	1.1/8	1.1/4	2.1/2	1.3/4	4.1/8	10208A	11208A	3.02
7.00	1.1/4	1.3/8	2.3/4	1.7/8	4.1/2	10209A	11209A	4.20
8.00	1.3/8	1.1/2	3	2.1/8	5	10210A	11210A	5.34
10.75	1.1/2	1.3/4	3.1/2	2.3/8	5.1/2	10211A	11211A	8.36
13.00	1.5/8	1.7/8	3.3/4	2.1/2	5.7/8	10212A	11212A	9.35
14.75	1.3/4	2	4	2.3/4	6.3/8	10213A	11213A	12.39
16.75	1.7/8	2.1/8	4.1/4	2.7/8	6.3/4	10214A	11214A	15.30
19.00	2	2.1/4	4.1/2	3	7.1/4	10215A	11215A	18.40

Small Dee Shackle, Economy Range

with type A screw collar pin

Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: Meets the performance requirements of BS 3032 table 1- 1958
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

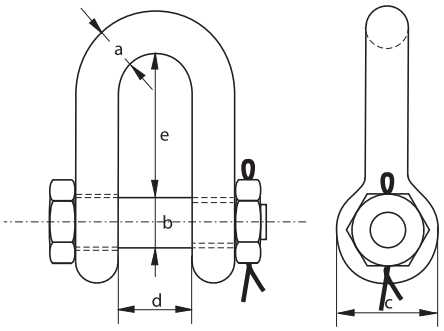


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e	self colour	
T	inch	inch	inch	inch	inch		kg
0.30	1/4	3/8	3/4	3/8	7/8	10201C	0.06
0.60	3/8	1/2	1	5/8	1.3/8	10202C	0.15
1.00	1/2	5/8	1.1/4	7/8	1.7/8	10203C	0.33
1.75	5/8	3/4	1.1/2	1	2.1/4	10204C	0.61
2.50	3/4	7/8	1.3/4	1.1/4	2.3/4	10205C	0.93
3.50	7/8	1	2	1.3/8	3.1/4	10206C	1.50
4.50	1	1.1/8	2.1/4	1.1/2	3.5/8	10207C	2.15
5.50	1.1/8	1.1/4	2.1/2	1.3/4	4.1/8	10208C	3.02
7.00	1.1/4	1.3/8	2.3/4	1.7/8	4.1/2	10209C	4.20
8.00	1.3/8	1.1/2	3	2.1/2	5	10210C	5.34
10.75	1.1/2	1.3/4	3.1/2	2.3/8	5.1/2	10211C	8.36

Large Dee Shackle, Quality Range

with type E bolt and nut pin

Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 2- 1958
Finish: Self colour or hot dipped galvanised (on request)
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

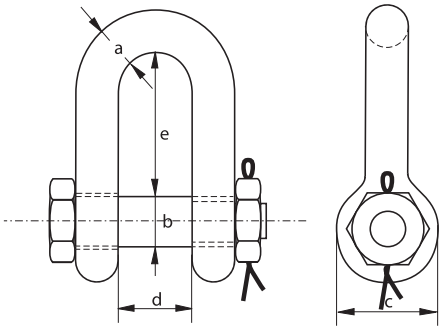


SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e	self colour	
T	inch	inch	inch	inch	inch		kg
0.25	1/4	3/8	3/4	1/2	1	14001	0.10
0.50	3/8	1/2	1	3/4	1.1/2	14002	0.20
0.75	1/2	5/8	1.1/4	1.1/8	2.1/8	14003	0.50
1.50	5/8	3/4	1.1/2	1.1/4	2.1/2	14004	0.68
2.00	3/4	7/8	1.3/4	1.1/2	2.7/8	14005	1.30
3.00	7/8	1	2	1.3/4	3.1/4	14006	1.80
3.75	1	1.1/8	2.1/4	2	3.3/4	14007	2.80
5.00	1.1/8	1.1/4	2.1/2	2.1/8	4.1/8	14008	3.68
6.00	1.1/4	1.3/8	2.3/4	2.3/8	4.1/2	14009	4.92
7.00	1.3/8	1.1/2	3	2.5/8	5	14010	6.00
9.50	1.1/2	1.3/4	3.1/2	2.3/4	5.3/8	14011	9.50
11.25	1.5/8	1.7/8	3.3/4	3	5.3/4	14012	11.56
13.00	1.3/4	2	4	3.1/4	6.1/8	14013	14.92
14.25	1.7/8	2.1/8	4.1/4	3.5/8	7	14014	16.36
16.25	2	2.1/4	4.1/2	3.7/8	7.3/8	14015	19.88
18.00	2.1/8	2.3/8	4.3/4	4.1/8	7.3/4	14016	25.22
20.00	2.1/4	2.1/2	5	4.1/4	8.1/4	14017	29.86

Small Dee Shackle, Quality Range

with type E bolt and nut pin

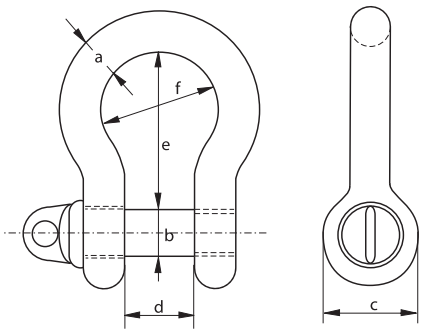
Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 1- 1958
Finish: Self colour or hot dipped galvanised (on request)
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e	self colour	
T	inch	inch	inch	inch	inch		kg
0.30	1/4	3/8	3/4	3/8	7/8	14101	0.07
0.60	3/8	1/2	1	5/8	1.3/8	14102	0.17
1.00	1/2	5/8	1.1/4	7/8	1.7/8	14103	0.38
1.75	5/8	3/4	1.1/2	1	2.1/4	14104	0.66
2.50	3/4	7/8	1.3/4	1.1/4	2.3/4	14105	1.07
3.50	7/8	1	2	1.3/8	3.1/4	14106	1.76
4.50	1	1.1/8	2.1/4	1.1/2	3.5/8	14107	2.20
5.50	1.1/8	1.1/4	2.1/2	1.3/4	4.1/8	14108	3.02
7.00	1.1/4	1.3/8	2.3/4	1.7/8	4.1/2	14109	4.20
8.00	1.3/8	1.1/2	3	2.1/8	5	14110	5.34
10.75	1.1/2	1.3/4	3.1/2	2.3/8	5.1/2	14111	8.36
13.00	1.5/8	1.7/8	3.3/4	2.1/2	5.7/8	14112	9.35
14.75	1.3/4	2	4	2.3/4	6.3/8	14113	12.39
16.75	1.7/8	2.1/8	4.1/4	2.7/8	6.3/4	14114	15.30
19.00	2	2.1/4	4.1/2	3	7.1/4	14115	18.40

Large Bow Shackle, Quality Range
with type A screw collar pin

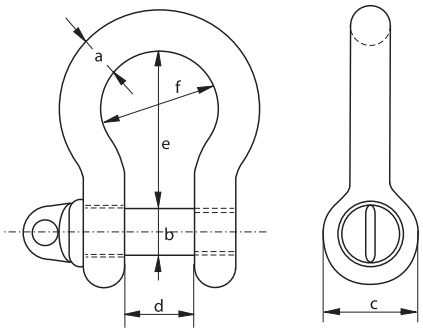
Material: Body and pin, EN14 or equal
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 3- 1958
Finish: Self colour or hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	self colour	galvanised	
T	inch	inch	inch	inch	inch	inch			kg
0.15	1/4	3/8	3/4	1/2	1.1/8	3/4	10301A	11301A	0.08
0.45	3/8	1/2	1	5/8	1.5/8	1	10302A	11302A	0.18
0.75	1/2	5/8	1.1/4	7/8	2.1/8	1.1/4	10303A	11303A	0.34
1.25	5/8	3/4	1.1/2	1.1/8	2.3/4	1.5/8	10304A	11304A	0.65
2.00	3/4	7/8	1.3/4	1.3/8	3.3/8	2	10305A	11305A	1.08
2.75	7/8	1	2	1.5/8	3.7/8	2.1/4	10306A	11306A	1.80
3.75	1	1.1/8	2.1/4	1.3/4	4.1/4	2.1/2	10307A	11307A	2.46
4.75	1.1/8	1.1/4	2.1/2	2	4.7/8	2.7/8	10308A	11308A	3.47
5.75	1.1/4	1.3/8	2.3/4	2.1/4	5.3/8	3.1/4	10309A	11309A	4.56
7.25	1.3/8	1.1/2	3	2.1/2	6	3.1/2	10310A	11310A	6.07
8.50	1.1/2	1.3/4	3.1/2	2.3/4	6.5/8	3.7/8	10311A	11311A	8.35
9.50	1.5/8	1.7/8	3.3/4	3	7.3/8	4.3/8	10312A	11312A	11.81
11.50	1.3/4	2	4	3.3/8	8.1/8	4.3/4	10313A	11313A	14.32
13.00	1.7/8	2.1/8	4.1/4	3.5/8	8.3/4	5.1/8	10314A	11314A	17.03
15.00	2	2.1/4	4.1/2	3.7/8	9.3/8	5.1/2	10315A	11315A	20.00

Large Bow Shackle, Economy Range
with type A screw collar pin

Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: Meets the performance requirements of BS 3032 table 3 – 1958
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

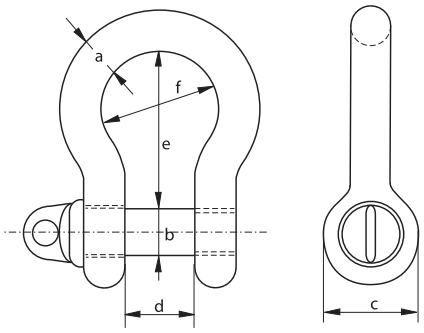


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f	self colour	
T	inch	inch	inch	inch	inch	inch		kg
0.15	1/4	3/8	3/4	1/2	1.1/8	3/4	10301C	0.08
0.45	3/8	1/2	1	5/8	1.5/8	1	10302C	0.18
0.75	1/2	5/8	1.1/4	7/8	2.1/8	1.1/4	10303C	0.34
1.25	5/8	3/4	1.1/2	1.1/8	2.3/4	1.5/8	10304C	0.65
2.00	3/4	7/8	1.3/4	1.3/8	3.3/8	2	10305C	1.08
2.75	7/8	1	2	1.5/8	3.7/8	2.1/4	10306C	1.80
3.75	1	1.1/8	2.1/4	1.3/4	4.1/4	2.1/2	10307C	2.46
4.75	1.1/8	1.1/4	2.1/2	2	4.7/8	2.7/8	10308C	3.47
5.75	1.1/4	1.3/8	2.3/4	2.1/4	5.3/8	3.1/4	10309C	4.56
7.25	1.3/8	1.1/2	3	2.1/2	6	3.1/2	10310C	6.07
8.50	1.1/2	1.3/4	3.1/2	2.3/4	6.5/8	3.7/8	10311C	8.35

Small Bow Shackle, Quality Range

with type A screw collar pin

Material: Body and pin, EN14 or equal
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 4- 1958
Finish: Self colour or hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

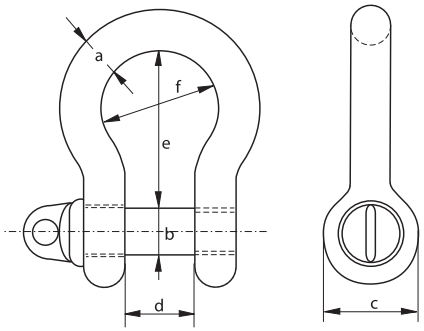


SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	self colour	galvansied	
T	inch	inch	inch	inch	inch	inch			kg
0.50	3/8	1/2	1	5/8	1.1/2	7/8	10401A	11401A	0.18
1.00	1/2	5/8	1.1/4	7/8	2	1.1/8	10402A	11402A	0.34
1.50	5/8	3/4	1.1/2	1.1/8	2.1/2	1.1/2	10403A	11403A	0.62
2.00	3/4	7/8	1.3/4	1.3/8	3	1.3/4	10404A	11404A	1.05
3.00	7/8	1	2	1.1/2	3.1/2	2	10405A	11405A	1.63
4.00	1	1.1/8	2.1/4	1.3/4	4	2.3/8	10406A	11406A	2.28
5.00	1.1/8	1.1/4	2.1/2	2	4.1/2	2.5/8	10407A	11407A	3.20
6.25	1.1/4	1.3/8	2.3/4	2.1/4	5	3	10408A	11408A	4.54
7.50	1.3/8	1.1/2	3	2.3/8	5.1/2	3.1/4	10409A	11409A	5.74
9.25	1.1/2	1.3/4	3.1/2	2.5/8	6	3.1/2	10410A	11410A	8.51
10.50	1.5/8	1.7/8	3.3/4	2.7/8	6.1/2	3.7/8	10411A	11411A	11.23
12.50	1.3/4	2	4	3.1/8	7	4.1/8	10412A	11412A	13.47

Small Bow Shackle, Economy Range

with type A screw collar pin

Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: Meets the performance requirements of BS 3032 table 4- 1958
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

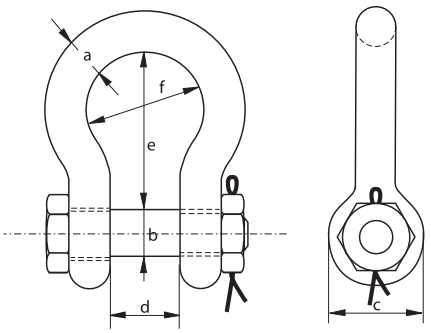


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f	self colour	
T	inch	inch	inch	inch	inch	inch		kg
0.50	3/8	1/2	1	5/8	1.1/2	7/8	10401C	0.18
1.00	1/2	5/8	1.1/4	7/8	2	1.1/8	10402C	0.34
1.50	5/8	3/4	1.1/2	1.1/8	2.1/2	1.1/2	10403C	0.62
2.00	3/4	7/8	1.3/4	1.3/8	3	1.3/4	10404C	1.05
3.00	7/8	1	2	1.1/2	3.1/2	2	10405C	1.63
4.00	1	1.1/8	2.1/4	1.3/4	4	2.3/8	10406C	2.28
5.00	1.1/8	1.1/4	2.1/2	2	4.1/2	2.5/8	10407C	3.20
6.25	1.1/4	1.3/8	2.3/4	2.1/4	5	3	10408C	4.54
7.50	1.3/8	1.1/2	3	2.3/8	5.1/2	3.1/4	10409C	5.74
9.25	1.1/2	1.3/4	3.1/2	2.5/8	6	3.1/2	10410C	8.51

Large Bow Shackle, Quality Range

with type E bolt and nut pin

Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 3- 1958
Finish: Self colour or hot dipped galvanised (on request)
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

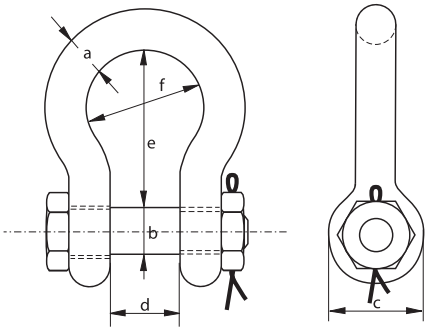


SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f	self colour	
T	inch	inch	inch	inch	inch	inch		kg
0.15	1/4	3/8	3/4	1/2	1.1/8	3/4	14201	0.09
0.45	3/8	1/2	1	5/8	1.5/8	1	14202	0.21
0.75	1/2	5/8	1.1/4	7/8	2.1/8	1.1/4	14203	0.40
1.25	5/8	3/4	1.1/2	1.1/8	2.3/4	1.5/8	14204	0.70
2.00	3/4	7/8	1.3/4	1.3/8	3.3/8	2	14205	1.25
2.75	7/8	1	2	1.5/8	3.7/8	2.1/4	14206	2.00
3.75	1	1.1/8	2.1/4	1.3/4	4.1/4	2.1/2	14207	2.85
4.75	1.1/8	1.1/4	2.1/2	2	4.7/8	2.7/8	14208	3.94
5.75	1.1/4	1.3/8	2.3/4	2.1/4	5.3/8	3.1/4	14209	4.95
7.25	1.3/8	1.1/2	3	2.1/2	6	3.1/2	14210	7.00
8.50	1.1/2	1.3/4	3.1/2	2.3/4	6.5/8	3.7/8	14211	9.45
9.50	1.5/8	1.7/8	3.3/4	3	7.3/8	4.3/8	14212	12.67
11.50	1.3/4	2	4	3.3/8	8.1/8	4.3/4	14213	15.85
13.00	1.7/8	2.1/8	4.1/4	3.5/8	8.3/4	5.1/8	14214	18.80
15.00	2	2.1/4	4.1/2	3.7/8	9.3/8	5.1/2	14215	21.56

Small Bow Shackle, Quality Range

with type E bolt and nut pin

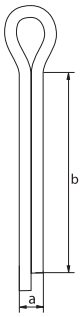
Material: Body and pin, high tensile steel
Safety Factor: MBL equals 5 x SWL
Standard: Generally to BS 3032 table 4- 1958
Self colour or hot dipped galvanised (on request)
Finish: As standard; EC Declaration of Conformity
Certificate: Upon request; 3.1, 2.2, 2.1, MTC, EC



SWL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f	self colour	
T	inch	inch	inch	inch	inch	inch		kg
0.50	3/8	1/2	1	5/8	1.1/2	7/8	14301	0.20
1.00	1/2	5/8	1.1/4	7/8	2	1.1/8	14302	0.38
1.50	5/8	3/4	1.1/2	1.1/8	2.1/2	1.1/2	14303	0.70
2.00	3/4	7/8	1.3/4	1.3/8	3	1.3/4	14304	1.40
3.00	7/8	1	2	1.1/2	3.1/2	2	14305	1.80
4.00	1	1.1/8	2.1/4	1.3/4	4	2.3/8	14306	2.61
5.00	1.1/8	1.1/4	2.1/2	2	4.1/2	2.5/8	14307	3.60
6.25	1.1/4	1.3/8	2.3/4	2.1/4	5	3	14308	5.00
7.50	1.3/8	1.1/2	3	2.3/8	5.1/2	3.1/4	14309	6.50
9.25	1.1/2	1.3/4	3.1/2	2.5/8	6	3.1/2	14310	8.90
10.50	1.5/8	1.7/8	3.3/4	2.7/8	6.1/2	3.7/8	14311	12.30
12.50	1.3/4	2	4	3.1/8	7	4.1/8	14312	14.98

Split Pins
for use with Green Pin® Shackles

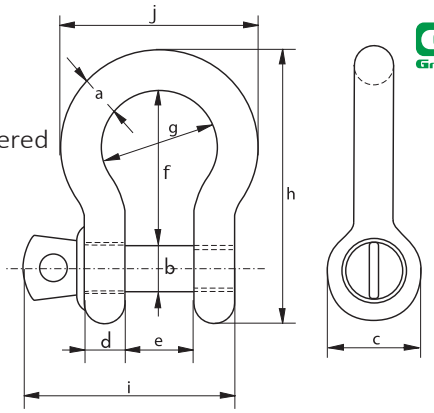
Material: Mild steel
Finish: Electro galvanised
Note: Other pin types available



Diameter	Length	Standard	Heavy Duty	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee	Product Code	Weight per 100
		G-4163 G-4143 G-4153 G-4133	P-6036, P-6038 P-6016, P-6018	P-6033 P-6013	G-5263 G-5243	G-5163 G-5143	G-4263 G-4243	G-4553		
a	b	WLL	WLL	WLL	WLL	WLL	WLL	WLL		
mm	mm	t	t	t	t	t	t	t		kg
2.5	20	0.5							81401	0.08
2.5	20	0.75							81401	0.08
2.5	20	1							81401	0.08
2.5	20	1.5							81401	0.08
4	32	2			3.3	2			81402	0.30
4	32	3.25			5	3.25			81402	0.30
5	36	4.75			7	4.75	4.75	4.6	81403	0.60
5	36	6.5			9.5	6.5			81403	0.60
6	45	8.5		18	12.5	8.5	6.5	8.6	81404	1.20
6	45	9.5			15	9.5	8.5		81404	1.20
6	45	12			18	12	9.5		81404	1.20
8	63	13.5			21	13.5	12	12.5	81405	2.80
8	63	17			30	17	16		81405	2.80
8	80			30					81406	4.40
8	80			40					81406	4.40
10	71	25			40	25	25		81407	5.00
10	71	35			55	35	30		81407	5.00
10	90	42.5			85	42.5	55		81408	6.00
10	90	55				55			81408	6.00
10	100	85		55	120	85	75		81409	6.60
10	100			75					81409	6.60
10	120			125					81410	4.40
12	140			150					81411	7.00
12	140			200					81411	7.00
12	160			250					81412	7.00
12	160			300					81412	7.00
13	110		120						81414	12.1
13	110		150						81414	12.1
16	160		200						81415	16.0
16	160		250						81415	16.0
16	160		300						81415	16.0
16	200		400	400					81416	20.0
16	200		500	500					81416	20.0
20	230		600	600					81417	30.0
20	230		700						81417	30.0
20	230		800						81417	30.0
20	280		900						81419	17.6
20	280		1000						81419	17.6

Green Pin® Bow Shackle, G-4161

with screw collar pin

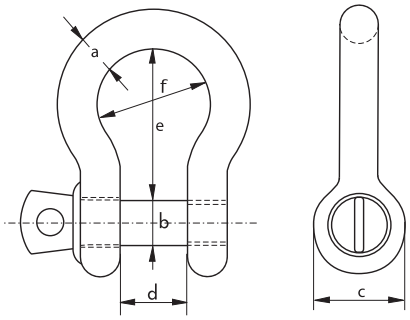


Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 2, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV 0378

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.33	5	6	12	5	9.5	22	16	36	29.5	26	11001A	0.02
0.5	7	8	16	7	12	29	20	48	38	34	11002A	0.05
0.75	9	10	20	9	13.5	32	22	56	46.5	40	11003A	0.10
1	10	11	23	10	17	37	26	64	54	46	11004A	0.14
1.5	11	13	25	11	19	43	29	73	59.5	51	11005A	0.19
2	13.5	16	34	13	22	51	32	90	73	59	11006A	0.36
3.25	16	19	40	16	27	64	43	110	89	75	11007A	0.63
4.75	19	22	46	19	31	76	51	129	103	89	11008A	1.01
6.5	22	25	52	22	36	83	58	144	119	102	11009A	1.50
8.5	25	28	59	25	43	95	68	164	137	118	11010A	2.21
9.5	28	32	67	28	47	108	75	186	153	131	11011A	3.16
12	32	35	73	32	51	115	83	201	170	147	11012A	4.31
13.5	35	38	79	35	57	133	92	227	186	162	11013A	5.58
17	38	42	88	38	60	146	99	249	203	175	11014A	7.43
25	45	50	104	45	74	178	126	300	243	216	11015A	12.5
35	50	57	112	50	83	197	138	332	272	238	11016A	17.2
42.5	57	65	132	57	95	222	160	378	310	274	11017A	26.3
55	65	70	145	65	105	260	180	433	344	310	11018A	37.6

Yellow Pin Bow Shackle

with screw collar pin

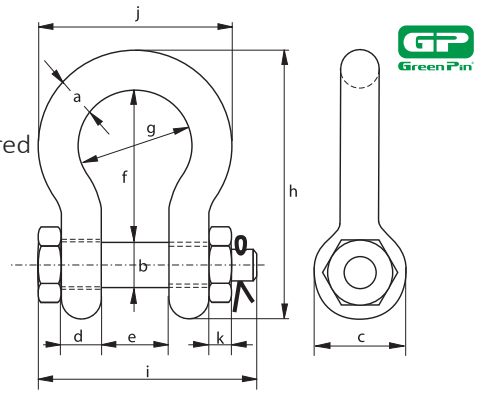


Material: Body and pin high tensile steel, Grade 6
Standard: Generally to US Fed Spec RR-C-271,
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Note: Economy range

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f		
t	mm	mm	mm	mm	mm	mm		kg
0.33	5	6	14	9.5	22	15	11001C	0.03
0.5	6	8	16	12	29	20	11002C	0.05
0.75	8	10	19	13.5	31	21	11003C	0.09
1	10	11	23	17	37	26	11004C	0.14
1.5	11	13	27	19	43	29	11005C	0.17
2	13	16	30	20	48	33	11006C	0.33
3.25	16	19	38	27	60	43	11007C	0.62
4.75	19	22	46	32	71	50	11008C	1.07
6.5	22	25	53	36	84	58	11009C	1.64
8.5	25	28	61	43	95	68	11010C	2.28
9.5	28	32	68	46	108	74	11011C	3.36
12	32	35	76	51	119	82	11012C	4.31
13.5	35	38	84	57	133	92	11013C	6.14
17	38	42	92	60	146	98	11014C	7.81
25	45	50	106	73	177	127	11015C	12.61
35	50	57	119	83	197	138	11016C	18.33
55	65	70	145	105	260	185	11018C	37.90

Green Pin® Bow Shackle, G-4163

with safety bolt

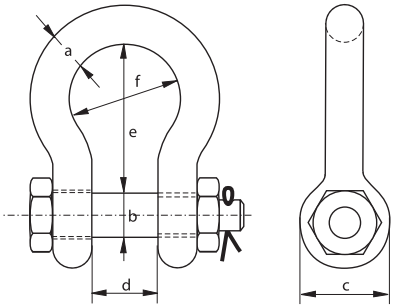


Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 3, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV 0378, DNV 2.7-1

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.5	7	8	16	7	12	29	20	48	42	34	4	12032A	0.06
0.75	9	10	20	9	13.5	32	22	56	50	40	5	12033A	0.11
1	10	11	23	10	17	37	26	64	60	46	8	12034A	0.16
1.5	11	13	25	11	19	43	29	73	67	51	11	12035A	0.22
2	13.5	16	34	13	22	51	32	90	80	59	13	12036A	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	12037A	0.74
4.75	19	22	46	19	31	76	51	129	115	89	19	12038A	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	12039A	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	12040A	2.58
9.5	28	32	67	28	47	108	75	186	166	131	27	12041A	3.66
12	32	35	73	32	51	115	83	201	184	147	30	12042A	4.91
13.5	35	38	79	35	57	133	92	227	197	162	33	12043A	6.54
17	38	42	88	38	60	146	99	249	202	175	19	12044A	8.19
25	45	50	104	45	74	178	126	300	243	216	23	12045A	14.0
35	50	57	112	50	83	197	138	332	269	238	26	12046A	18.8
42.5	57	65	132	57	95	222	160	378	301	274	29	12047A	28.3
55	65	70	145	65	105	260	180	433	329	310	32	12048A	39.6
85	75	83	167	75	127	330	190	530	381	340	39	12049A	62.0

Yellow Pin Bow Shackle

with safety bolt



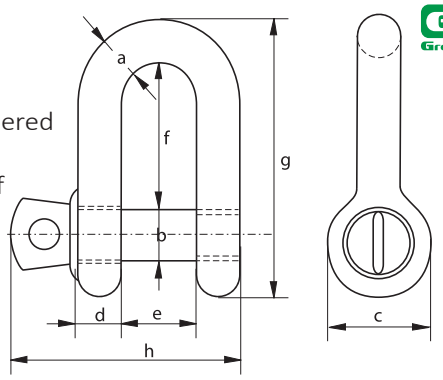
Material: Body and pin high tensile steel, Grade 6
Standard: Generally to US Fed Spec RR-C-271,
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Note: Economy range

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f		
t	mm	mm	mm	mm	mm	mm		kg
0.5	6	8	16	12	29	20	12032C	0.06
0.75	8	10	19	13.5	31	21	12033C	0.10
1	10	11	23	17	37	26	12034C	0.16
1.5	11	13	27	19	43	29	12035C	0.22
2	13	16	30	20	48	33	12036C	0.36
3.25	16	19	38	27	60	43	12037C	0.76
4.75	19	22	46	32	71	50	12038C	1.10
6.5	22	25	53	36	84	58	12039C	1.66
8.5	25	28	61	43	95	68	12040C	2.57
9.5	28	32	68	46	108	74	12041C	3.41
12	32	35	76	51	119	82	12042C	5.32
13.5	35	38	84	57	133	92	12043C	6.50
17	38	42	92	60	146	98	12044C	8.50
25	45	50	106	73	177	127	12045C	13.50
35	50	57	119	83	197	138	12046C	20.06
55	65	70	145	105	260	185	12048C	41.40

Green Pin® Dee Shackle, G-4151

with screw collar pin

Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVB Class 2, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV 0378

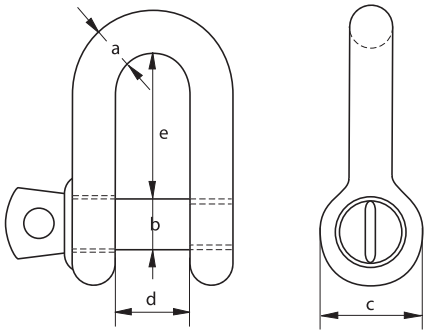


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Length	Length Bolt	Product Code	Weight Each
	a	b	c	d	e	f	g	h		
t	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.33	5	6	12	5	9.5	19	33	29.5	11501A	0.02
0.5	7	8	16	7	12	22.5	41.5	38	11502A	0.05
0.75	9	10	20	9	13.5	27	51	46.5	11503A	0.09
1	10	11	23	10	17	32	59	54	11504A	0.14
1.5	11	13	25	11	19	37	67	59.5	11505A	0.19
2	13.5	16	34	13	22	43	82	73	11506A	0.32
3.25	16	19	40	16	27	51	97	89	11507A	0.54
4.75	19	22	46	19	31	59	112	103	11508A	0.87
6.5	22	25	52	22	36	73	134	119	11509A	1.34
8.5	25	28	59	25	43	85	154	137	11510A	2.08
9.5	28	32	67	28	47	90	168	153	11511A	2.77
12	32	35	73	32	51	94	180	170	11512A	3.72
13.5	35	38	79	35	57	115	209	186	11513A	5.44
17	38	42	88	38	60	127	230	203	11514A	6.85
25	45	50	104	45	74	149	271	243	11515A	11.5
35	50	57	112	50	83	171	306	272	11516A	16.9
42.5	57	65	132	57	95	190	346	310	11517A	24.6
55	65	70	145	65	105	203	376	344	11518A	32.7

Yellow Pin Dee Shackle

with screw collar pin

Material: Body and pin high tensile steel, Grade 6
Standard: Generally to US Fed Spec RR-C-271,
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Note: Economy range

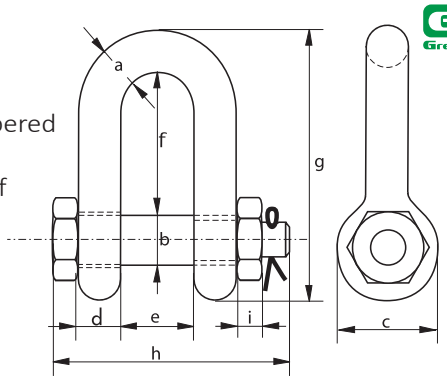


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e		
t	mm	mm	mm	mm	mm		kg
0.5	6	8	16	12	22	11502C	0.05
0.75	8	10	19	13.5	26	11503C	0.08
1	10	11	23	17	32	11504C	0.13
1.5	11	13	27	19	37	11505C	0.20
2	13	16	30	20	41	11506C	0.27
3.25	16	19	38	27	51	11507C	0.57
4.75	19	22	46	32	60	11508C	0.94
6.5	22	25	53	36	71	11509C	1.43
8.5	25	28	61	43	81	11510C	2.16
9.5	28	32	68	46	90	11511C	3.06
12	32	35	76	51	100	11512C	4.11
13.5	35	38	84	57	111	11513C	5.28
17	38	42	92	60	122	11514C	7.24
25	45	50	106	73	146	11515C	12.14
35	50	57	119	83	171	11516C	16.86
55	65	70	145	105	203	11518C	32.65

Green Pin® Dee Shackle, G-4153

with safety bolt

Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVB Class 3, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV 0378, DNV 2.7-1

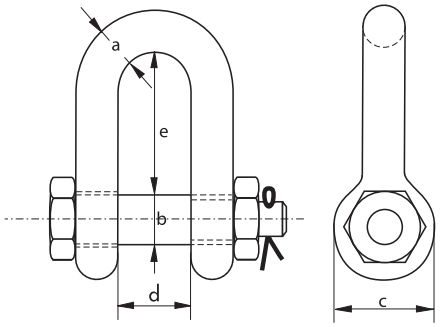


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Length	Length Bolt	Width Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	43	82	80	13	12536A	0.39
3.25	16	19	40	16	27	51	97	98	17	12537A	0.67
4.75	19	22	46	19	31	59	112	115	19	12538A	1.08
6.5	22	25	52	22	36	73	134	130	22	12539A	1.66
8.5	25	28	59	25	43	85	154	150	25	12540A	2.46
9.5	28	32	67	28	47	90	168	166	27	12541A	3.40
12	32	35	73	32	51	94	180	184	30	12542A	4.51
13.5	35	38	79	35	57	115	209	197	33	12543A	6.10
17	38	42	88	38	60	127	230	202	19	12544A	7.63
25	45	50	104	45	74	149	271	243	23	12545A	12.9
35	50	57	112	50	83	171	306	269	26	12546A	17.4
42.5	57	65	132	57	95	190	346	301	29	12547A	25.9
55	65	70	145	65	105	203	376	329	32	12548A	35.3
85	75	83	167	75	127	229	429	381	39	12549A	53.0

Yellow Pin Dee Shackle

with safety bolt

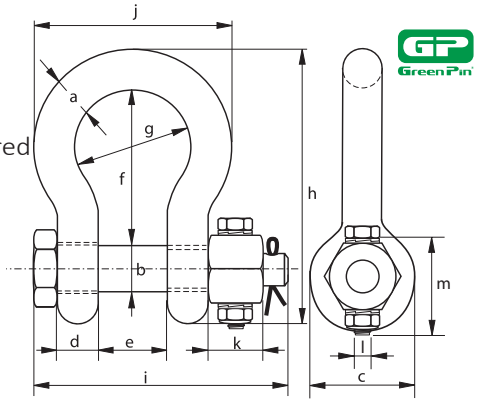
Material: Body and pin high tensile steel, Grade 6
Standard: Generally to US Fed Spec RR-C-271,
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Note: Economy range



WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e		
t	mm	mm	mm	mm	mm		kg
2	13	16	30	20	41	12536C	0.34
3.25	16	19	38	27	51	12537C	0.67
4.75	19	22	46	32	60	12538C	1.14
6.5	22	25	53	36	71	12539C	1.75
8.5	25	28	61	43	81	12540C	2.52
9.5	28	32	68	46	90	12541C	3.45
12	32	35	76	51	100	12542C	4.91
13.5	35	38	84	57	111	12543C	6.24
17	38	42	92	60	122	12544C	8.40
25	45	50	106	73	146	12545C	14.26
35	50	57	119	83	171	12546C	18.53
55	65	70	145	105	203	12548C	35.33

Green Pin® Bow Shackle, G-4143

with safety bolt and fixed nut

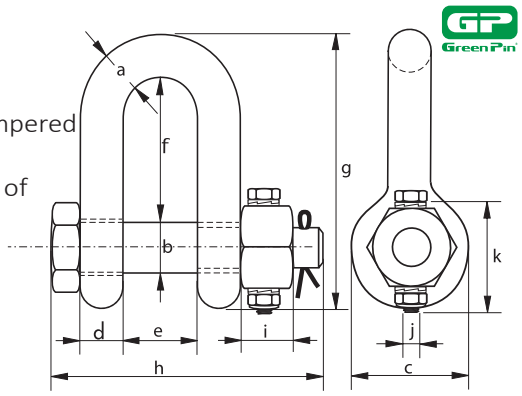


Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 3, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV 2.7-1

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width Bow	Width Nut	Bolt Thread	Bolt Length	Torque	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
2	13.5	16	34	13	22	51	32	90	80	59	13	6	35	8.4	12601	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	6	40	8.4	12602	0.74
4.75	19	22	46	19	31	76	51	129	115	89	19	6	45	8.4	12603	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	8	50	20	12604	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	8	55	20	12605	2.58
9.5	28	32	67	28	47	108	75	186	166	131	27	10	60	39	12606	3.66
12	32	35	73	32	51	115	83	201	184	147	30	10	65	39	12607	4.80
13.5	35	38	79	35	57	133	92	227	197	162	33	10	70	39	12608	6.54
17	38	42	88	38	60	146	99	249	202	175	19	8	75	20	12609	8.19
25	45	50	104	45	74	178	126	300	243	216	23	8	90	20	12610	14.0
35	50	57	112	50	83	197	138	332	269	238	26	10	100	39	12611	19.9
42.5	57	65	132	57	95	222	160	378	301	274	29	12	110	68	12612	28.3
55	65	70	145	65	105	260	180	433	329	310	32	12	120	68	12613	39.6
85	75	83	167	75	127	330	190	530	381	340	39	12	140	68	12614	62.0

Green Pin® Dee Shackle, G-4133

with safety bolt and fixed nut



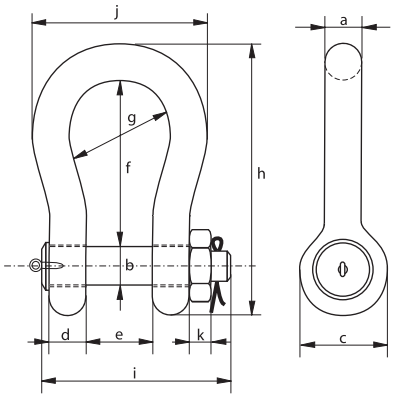
Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVB Class 3, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV 2.7-1

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Length	Length Bolt	Width Nut	Bolt Thread	Bolt Length	Torque	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
2	13.5	16	34	13	22	43	82	80	13	6	35	8.4	12701	0.39
3.25	16	19	40	16	27	51	97	98	17	6	40	8.4	12702	0.67
4.75	19	22	46	19	31	59	112	115	19	6	45	8.4	12703	1.08
6.5	22	25	52	22	36	73	134	130	22	8	50	20	12704	1.66
8.5	25	28	59	25	43	85	154	150	25	8	55	20	12705	2.46
9.5	28	32	67	28	47	90	168	166	27	10	60	39	12706	3.40
12	32	35	73	32	51	94	180	184	30	10	65	39	12707	4.51
13.5	35	38	79	35	57	115	209	197	33	10	70	39	12708	6.10
17	38	42	88	38	60	127	230	202	19	8	75	20	12709	7.63
25	45	50	104	45	74	149	271	243	23	8	90	20	12710	13.3
35	50	57	112	50	83	171	306	269	26	10	100	39	12711	18.5
42.5	57	65	132	57	95	190	346	301	29	12	110	68	12712	25.9
55	65	70	145	65	105	203	376	329	32	12	120	68	12713	35.3
85	75	83	167	75	127	229	429	381	39	12	140	68	12714	53.0

Green Pin® Heavy Duty Bow Shackle, P-6036

with safety bolt

Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26
Finish: Shackle bow painted silver, pin painted green
Temp Range: -40°c up to +200°C ≤ WLL 600t
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS, MPI[a], US[a]

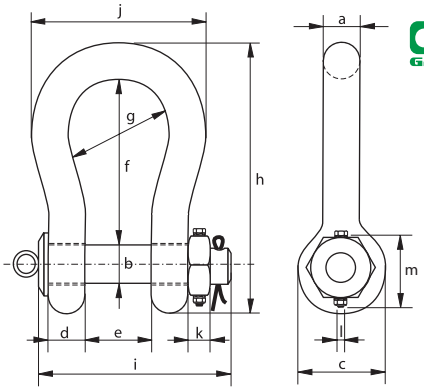


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length Bolt	Length Bolt	Width	Width Nut	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j	k			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
120	95	95	204	95	147	400	238	644	453	428	50	12050A	28.1	114
150	105	108	235	105	169	410	275	686	496	485	50	12051A	39.2	155
200	120	130	270	120	179	513	290	833	564	530	71	12052A	69.2	235
250	130	140	284	130	205	554	305	896	614	565	71	12053A	85.5	295
300	140	150	308	140	205	618	305	987	644	585	81	12054A	102	366
400	170	175	376	164	231	669	325	1115	698	665	70	12055A	151	620
500	180	185	398	164	256	719	350	1191	728	710	70	12056A	173	720
600	200	205	444	189	282	719	375	1244	810	775	70	12057A	228	975
700	210	215	454	204	308	718	400	1263	870	820	70	12058A	265	1075
800	210	220	464	204	308	718	400	1270	870	820	70	12059A	276	1100
900	220	230	485	215	328	718	420	1296	920	860	70	12060A	319	1250
1000	240	240	515	215	349	718	420	1336	940	900	70	12061A	351	1460
1250	260	270	585	230	369	768	450	1456	1025	970	70	12062A	481	1940
1500	280	290	625	230	369	818	450	1556	1025	1010	70	12063A	556	2305

Green Pin® Heavy Duty Bow Shackle, P-6016

with safety bolt and fixed nut

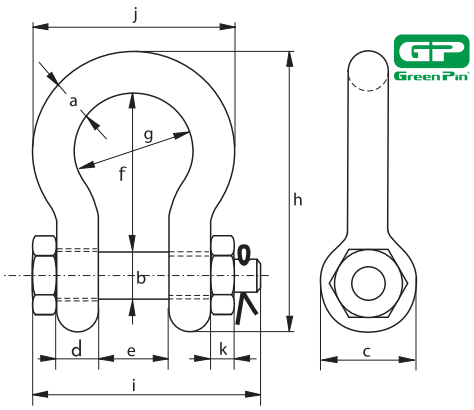
Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26
Finish: Shackle bow painted silver, pin painted green
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS, MPI[a], US[a]



WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length Bolt	Length Bolt	Width	Width Nut	Bolt Thread	Bolt Length	Torque	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m				
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg	kg
120	95	95	204	95	147	400	238	644	453	428	50	12	150	68	12620	28.1	110
150	105	108	235	105	169	410	275	686	496	485	50	12	160	68	12621	39.2	155

Green Pin Super® Bow Shackle, G-5263

with safety bolt



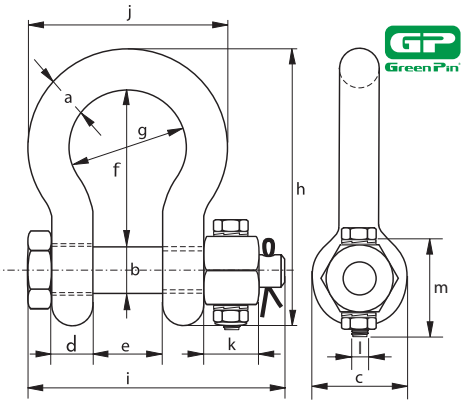
Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 3, Grade B
Finish: Hot dipped galvanised (150t and upward are painted)
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC
Optional: LROS*

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width Bow	Width Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
3.3	13.5	16	34	13	22	51	32	90	80	59	13	13501A	0.40
5	16	19	40	16	27	64	43	110	98	75	17	13502A	0.73
7	19	22	46	19	31	76	51	129	115	89	19	13503A	1.19
9.5	22	25	52	22	36	83	58	144	130	102	22	13504A	1.73
12.5	25	28	59	25	43	95	68	164	150	118	25	13505A	2.56
15	28	32	67	28	47	108	75	186	166	131	27	13506A	3.60
18	32	35	73	32	51	115	83	201	184	147	30	13507A	4.95
21	35	38	79	35	57	133	92	227	197	162	33	13508A	6.62
30	38	42	88	38	60	146	99	249	202	175	19	13509A	8.11
40	45	50	104	45	74	178	126	300	243	216	23	13510A	14.8
55	57	57	119	57	83	197	138	342	283	252	26	13511A	24.2
85	70	70	145	70	105	260	180	438	339	320	32	13512A	45.1
120	83	83	164	83	127	329	190	537	397	356	39	13513A	72.0
150*	95	95	204	95	147	400	238	644	453	428	50	13514A	112
175*	105	108	235	105	169	410	275	686	496	485	50	13515A	160

* for shackle WLL 150 t and WLL 175 t available with and without LROS
* with round headed bolt
* excluded from ABS type approval

Green Pin Super® Bow Shackle, G-5243

with safety bolt and fixed nut



Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 3, Grade B
Finish: Hot dipped galvanised (150t and upward are painted)
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC
Optional: LROS*

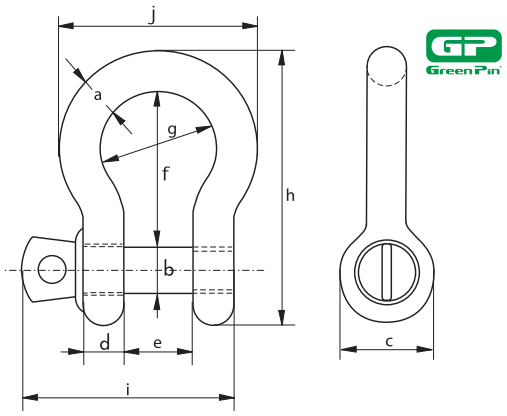
WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width Bow	Width Nut	Bolt Thread	Bolt Length	Torque	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
3.3	13.5	16	34	13	22	51	32	90	80	59	13	6	35	8.4	12901	0.44
5	16	19	40	16	27	64	43	110	98	75	17	6	40	8.4	12902	0.79
7	19	22	46	19	31	76	51	129	115	89	19	6	45	8.4	12903	1.26
9.5	22	25	52	22	36	83	58	144	130	102	22	8	50	20	12904	1.88
12.5	25	28	59	25	43	95	68	164	150	118	25	8	55	20	12905	2.78
15	28	32	67	28	47	108	75	186	166	131	27	10	60	39	12906	3.87
18	32	35	73	32	51	115	83	201	184	147	30	10	65	39	12907	5.26
21	35	38	79	35	57	133	92	227	197	162	33	10	70	39	12908	6.94
30	38	42	88	38	60	146	99	249	202	175	19	8	75	20	12909	8.79
40	45	50	104	45	74	178	126	300	243	216	23	8	90	20	12910	15.0
55	57	57	119	57	83	197	138	342	283	252	26	10	100	39	12911	22.0
85	70	70	145	70	105	260	180	438	339	320	32	12	120	68	12912	42.0
120	83	83	164	83	127	329	190	537	397	356	39	12	140	68	12913	70.0
150*	95	95	204	95	147	400	238	644	453	428	50	12	150	68	12914	112
175*	105	108	235	105	169	410	275	686	496	485	50	12	160	68	12915	160

* with round headed bolt

Green Pin Super® Bow Shackle, G-5261

with screw collar pin

Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 2, Grade B
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC

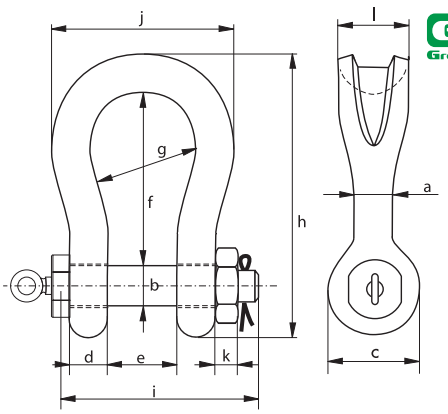


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
3.3	13.5	16	34	13	22	51	32	90	73	59	13401A	0.36
5	16	19	40	16	27	64	43	110	89	75	13402A	0.63
7	19	22	46	19	31	76	51	129	103	89	13403A	1.01
9.5	22	25	52	22	36	83	58	144	119	102	13404A	1.50
12.5	25	28	59	25	43	95	68	164	137	118	13405A	2.21
15	28	32	67	28	47	108	75	186	153	131	13406A	3.16
18	32	35	73	32	51	115	83	201	170	147	13407A	4.31
21	35	38	79	35	57	133	92	227	186	162	13408A	5.58
30	38	42	88	38	60	146	99	249	203	175	13409A	7.43
40	45	50	104	45	74	178	126	300	243	216	13410A	12.5
55	57	57	119	57	83	197	138	341	286	252	13411A	17.2
85*	70	70	145	70	105	260	180	437	354	320	13412A	37.6

* excluded from ABS type approval

Green Pin® Sling Bow Shackle, P-6033

with safety bolt

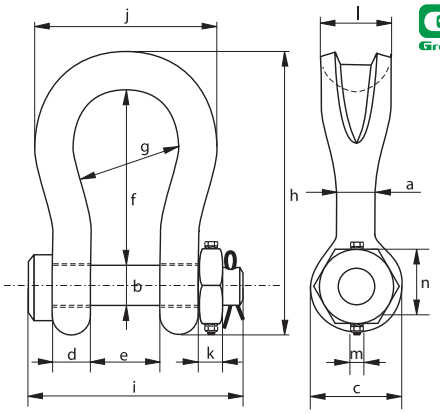


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26 ≤ WLL 600t
Finish: Shackle bow painted silver, pin painted green
WLL 7t up to 55t shackles are hot dipped galvanised
Temp Range: -40°c up to +200°C ≤ WLL 600t
-20°c up to +200°C ≥ WLL 700t
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS, MPI[a], US[b]

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Bearing Surface	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
7	22	22	46	19	32	96	64	153	115	110	19	41	13596	0.99	1.97
12.5	28	28	61	25	44	120	82	197	151	146	24	54	13597	1.82	4.27
18	35	35	69	30	54	148	102	239	171	180	29	64	13598	2.35	6.85
30	40	42	90	35	69	165	126	279	207	200	34	79	13599	4.23	12.5
40	55	51	109	45	84	199	140	331	252	235	38	97	13600	4.32	20.3
55	60	57	115	55	90	240	160	389	294	270	45	100	13601	4.60	30.4
75	68	70	126	54	110	290	185	473	317	331	40	120	13602	11.4	45
125	85	80	156	85	137	366	220	583	413	390	40	150	13603	18.6	92
150	94	95	181	89	147	391	253	648	445	449	50	170	13604	27.3	140
200	110	105	201	100	158	481	280	759	480	500	50	205	13605	36.9	205
250	126	120	229	110	179	542	300	860	535	552	60	240	13606	54.3	264
300	136	134	246	134	195	601	350	946	590	620	70	265	13607	79.4	360
400	160	160	295	145	231	576	370	995	687	710	80	320	13608	127	583
500	170	180	330	160	263	681	450	1161	762	850	90	340	13609	176	862
600	190	200	360	170	289	741	490	1264	827	930	100	370	13610	234	1134
700	200	215	392	190	315	751	540	1284	879	901	100	400	13611	290	1142
800	218	230	420	200	342	851	554	1426	942	947	110	420	13612	350	1418
900	242	255	466	220	368	851	580	1488	1023	1023	120	440	13613	464	1810
1000	260	270	490	240	399	851	614	1532	1103	1107	120	460	13614	559	2385
1250	285	300	510	260	452	931	650	1666	1227	1182	150	530	13615	782	3110
1550	285	320	550	280	483	950	680	1710	1300	1253	150	560	13616	918	3655

Green Pin® Sling Bow Shackle, P-6013

with safety bolt and fixed nut

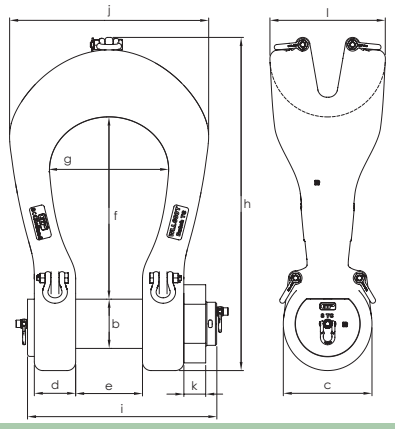


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26 ≤ WLL 600t
Finish: Shackle bow painted silver, pin painted green
WLL 7t up to 55t shackles are hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS, MPI[a], US[b]

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Bearing Surface	Bolt Thread	Bolt Length	Torque	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m	n			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
7	22	22	46	19	32	96	64	153	115	110	19	41	6	45	8.4	12850	1.97
12.5	28	28	61	25	44	120	82	197	151	146	24	54	8	50	20	12851	4.27
18	35	35	69	30	54	148	102	239	171	180	29	64	10	65	39	12852	6.85
30	40	42	90	35	69	165	126	279	207	200	34	79	6	75	8.4	12853	12.5
40	55	51	109	45	84	199	140	331	252	235	38	97	8	90	20	12854	20.3
55	60	57	115	55	90	240	160	389	294	270	45	100	10	100	39	12855	30.4
75	68	70	126	54	110	290	185	473	317	317	40	120	12	120	68	12856	45
125	85	80	156	85	137	366	220	583	413	390	40	150	12	130	68	12857	92
150	94	95	181	89	147	391	253	648	445	449	50	170	12	140	68	12858	140

Green Pin Power Sling® Shackle, P-6043

with safety bolt

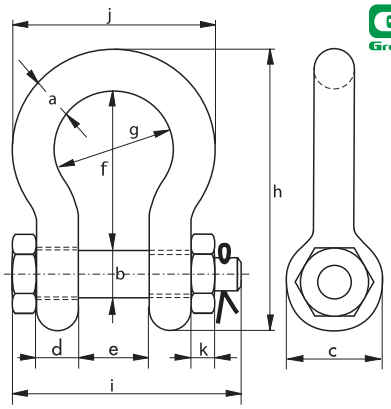


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26
Finish: Shackle bow painted silver, pin painted green
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; DNV, MPI[b], US[b], MPI[b]

WLL	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Bearing Surface	Product Code	Weight Pin	Weight Each
	b	c	d	e	f	g	h	i	j	k	l			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
125	81	165	89	134	365	220	632	382	370	36	205	13653	17.3	97
150	95	182	90	144	390	250	703	408	420	42	248	13654	26.1	134
200	105	204	100	154	480	276	838	446	474	47	290	13655	35.4	196
250	120	238	110	174	540	300	938	503	513	60	314	13656	54.8	273
300	134	260	121	189	600	350	1032	550	604	60	345	13657	71.9	371
400	160	305	140	224	620	370	1123	635	653	70	392	13658	114	562
500	180	340	152	255	680	450	1239	699	763	70	440	13659	157	783
600	200	365	170	280	741	490	1354	768	818	70	475	13660	212	1003
700	215	405	190	320	751	540	1415	849	893	70	512	13661	271	1276
800	230	430	200	347	851	554	1547	904	917	70	536	13662	328	1484
900	255	476	215	373	851	580	1599	963	972	70	560	13663	426	1808
1000	270	500	232	405	851	614	1643	1030	1022	70	590	13664	508	2132
1250	300	570	245	436	930	650	1813	1114	1144	70	670	13665	673	2891
1550	320	590	270	469	950	680	1890	1220	1210	70	704	13666	827	3517

Green Pin Polar® Bow Shackle, G-5163

with safety bolt

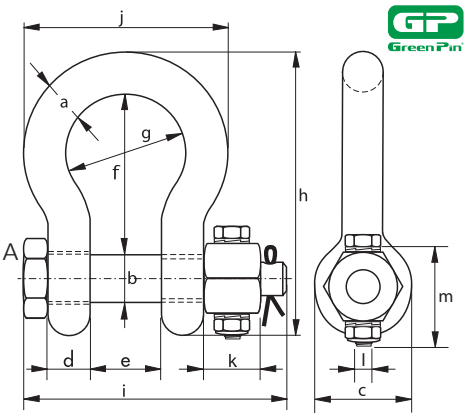


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 7 x WLL
for shackles with WLL 55t and 85t the MBL equals 6 x WLL
Standard: ISO 2415, EN 13889, ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 3, Grade A
Finish: Hot dipped galvanised
Temp Range: -60°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, DNV 0378, DNV 2.7-1

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width Bow	Width Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	51	32	90	80	59	13	13001A	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	13002A	0.74
4.75	19	22	46	19	31	76	51	129	115	89	19	13003A	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	13004A	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	13005A	2.58
9.5	28	32	67	28	47	108	75	186	166	131	27	13006A	3.66
12	32	35	73	32	51	115	83	201	184	147	30	13007A	4.91
13.5	35	38	79	35	57	133	92	227	197	162	33	13008A	6.54
17	38	42	88	38	60	146	99	249	202	175	19	13009A	8.19
25	45	50	104	45	74	178	126	300	243	216	23	13010A	14.2
35	50	57	112	50	83	197	138	332	269	238	26	13011A	19.9
42.5	57	65	132	57	95	222	160	378	301	274	29	13012A	28.3
55	65	70	145	65	105	260	180	433	329	310	32	13013A	39.6
85	75	83	167	75	127	330	190	530	381	340	39	13014A	62.0

Green Pin Polar® Bow Shackle, G-5143

with safety bolt and fixed nut

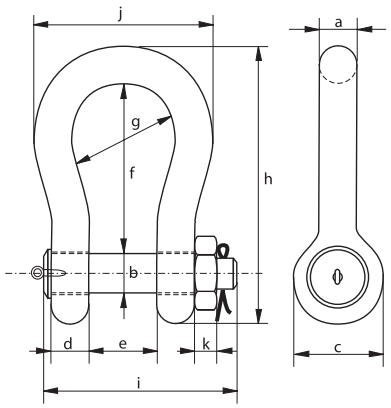


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 7 x WLL
for shackles with WLL 55t and 85t the MBL equals 6 x WLL
Standard: ISO 2415, EN 13889, ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 3, Grade A
Finish: Hot dipped galvanised
Temp Range: -60°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, DNV 2.7-1

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width Bow	Width Nut	Bolt Thread	Bolt Length	Torque	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
2	13.5	16	34	13	22	51	32	90	80	59	13	6	35	8.4	12801	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	6	40	8.4	12802	0.74
4.75	19	22	46	19	31	76	51	129	115	89	19	6	45	8.4	12803	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	8	50	20	12804	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	8	55	20	12805	2.58
9.5	28	32	67	28	47	108	75	186	166	131	27	10	60	39	12806	3.66
12	32	35	73	32	51	115	83	201	184	147	30	10	65	39	12807	4.91
13.5	35	38	79	35	57	133	92	227	197	162	33	10	70	39	12808	6.54
17	38	42	88	38	60	146	99	249	202	175	19	8	75	20	12809	8.19
25	45	50	104	45	74	178	126	300	243	216	23	8	90	20	12810	14.2
35	50	57	112	50	83	197	138	332	269	238	26	10	100	39	12811	19.9
42.5	57	65	132	57	95	222	160	378	301	274	29	12	110	68	12812	28.3
55	65	70	145	65	105	260	180	433	329	310	32	12	120	68	12813	39.6
85	75	83	167	75	127	330	190	530	381	340	39	12	140	68	12814	62.0

Green Pin Polar® Heavy Duty Bow Shackle, P-6031

with safety bolt

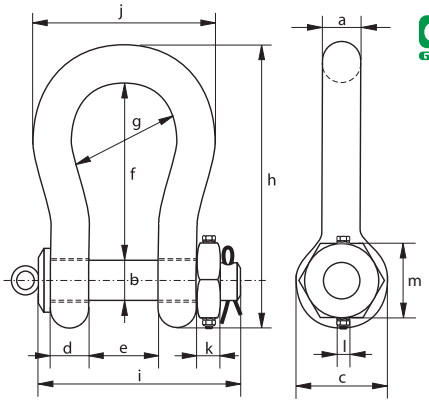


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26
Finish: Shackle bow painted silver, pin painted green
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS, MPI[a], US[a]

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j	k			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
120	95	95	204	95	147	400	238	644	453	428	50	13015A	28.1	110
150	105	108	235	105	169	410	275	686	496	485	50	13016A	39.2	160
200	120	130	270	120	179	513	290	833	564	530	71	13017A	69.2	235
250	130	140	284	130	205	554	305	896	614	565	71	13018A	85.5	285
300	140	150	308	140	205	618	305	987	644	585	81	13019A	102	368
400	170	175	376	164	231	668	325	1114	690	665	70	13020A	151	560
500	180	185	398	164	256	718	350	1190	720	710	70	13021A	173	716
600	200	205	444	189	282	718	375	1243	810	775	70	13022A	228	975
700	210	215	454	204	308	718	400	1263	870	820	70	13023A	265	1075
800	210	220	464	204	308	718	400	1270	870	820	70	13024A	276	1100
900	220	230	485	215	328	718	420	1296	920	860	70	13025A	319	1250
1000	240	240	515	215	349	718	420	1336	940	900	70	13026A	351	1460
1250	260	270	585	230	369	768	450	1456	1025	970	70	13027A	481	1940
1500	280	290	625	230	369	818	450	1556	1025	1010	70	13028A	556	2305

Green Pin Polar® Heavy Duty Bow Shackle, P-6011

with safety bolt and fixed nut

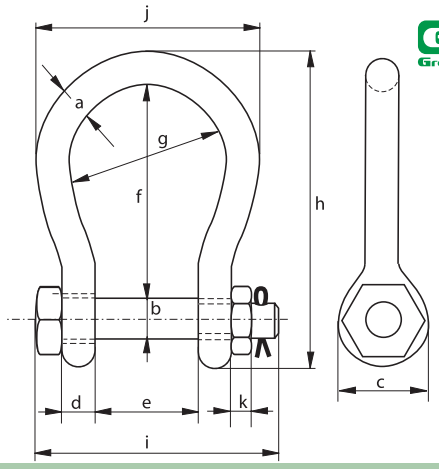


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26
Finish: Shackle bow painted silver, pin painted green
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Bolt Thread	Bolt Length	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
120	95	95	204	95	147	400	238	644	453	428	50	12	150	12820	28.1	110
150	105	108	235	105	169	410	275	686	496	485	50	12	160	12821	39.2	160

Green Pin BigMouth® Bow Shackle, G-4263

with safety bolt

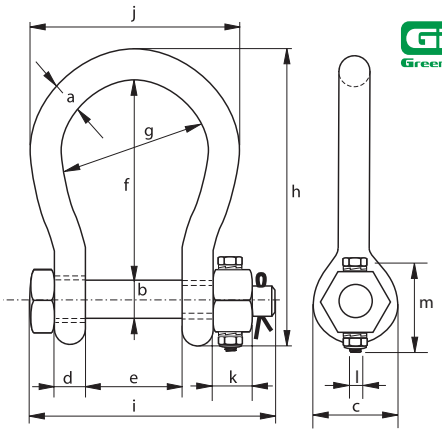


Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -50°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
4.75	22	25	52	22	63	112	88	173	157	132	22	13697	2.08
6.5	25	28	59	25	75	135	105	204	183	155	25	13698	3.14
8.5	28	32	66	28	82	148	115	225	205	171	27	13696	4.36
9.5	32	35	72	32	90	162	126	248	224	190	30	13699	5.95
12	35	38	79	35	100	180	140	274	245	210	33	13700	7.87
16	38	42	88	38	106	216	159	319	248	235	19	13701	10.2
25	45	50	103	45	127	248	175	370	296	265	23	13702	16.7
30	50	57	118	50	146	273	207	411	332	307	26	13703	25.0
55	65	70	145	65	165	314	213	487	389	343	32	13704	45.0
75	83	83	164	83	184	330	254	537	455	420	39	13705	70.0

Green Pin BigMouth® Bow Shackle, G-4243

with safety bolt and fixed nut



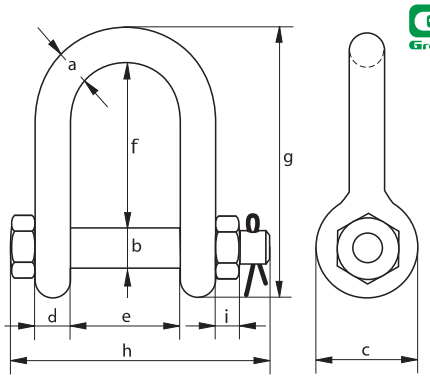
Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -50°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width Bow	Width Nut	Bolt Thread	Bolt Length	Torque	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
4.75	22	25	52	22	63	112	88	173	157	132	22	8	50	20	12750	2.08
6.5	25	28	59	25	75	135	105	204	183	155	25	8	55	20	12751	3.14
8.5	28	32	66	28	82	148	115	225	205	171	27	10	60	39	12752	4.36
9.5	32	35	72	32	90	162	126	248	224	190	30	10	65	39	12753	5.95
12	35	38	79	35	100	180	140	274	245	210	33	10	70	39	12754	7.87
16	38	42	88	38	106	216	159	319	248	235	19	8	75	20	12755	10.2
25	45	50	103	45	127	248	175	370	296	265	23	8	90	20	12756	16.7
30	50	57	118	50	146	273	207	411	332	307	26	10	100	39	12757	25.0
55	65	70	145	65	165	314	213	487	389	343	32	12	120	68	12758	45.0
75	83	83	164	83	184	330	254	537	455	420	39	12	140	68	12759	70.0

Green Pin BigMouth® Dee Shackle, G-4553

with safety bolt

Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

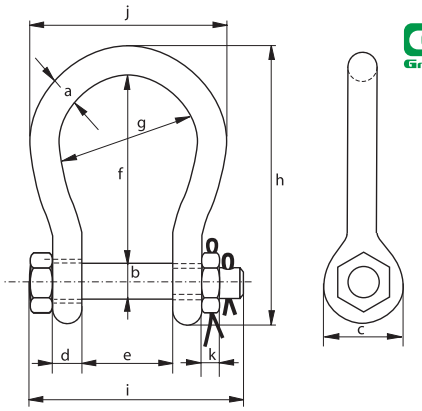


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Length	Length Bolt	Wdith Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
4.6	19	22	46	19	70	116	169	154	19	13720	1.50
8.6	25	28	59	25	83	140	208	190	25	13721	3.13
15.5	38	42	88	38	115	178	281	257	19	13722	9.42

Green Pin BigMouth® Towing Shackle, G-4463

with safety bolt

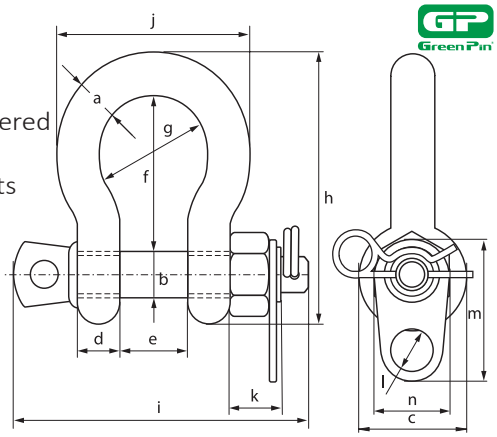
Material: Body and pin alloy steel, Grade 8, quenched and tempered
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC
Note: For towing only, not for lifting applications



WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
22	38	42	88	38	106	216	159	319	248	235	19	13740	10.2
30	45	50	103	45	127	248	175	370	296	265	24	13741	16.7
40	50	57	118	50	146	273	207	411	338	307	27	13742	25.0
55	65	70	145	65	165	314	213	487	389	343	33	13743	45.0
100	83	83	164	83	184	330	254	540	455	420	40	13744	70.0

Green Pin® Catch Shackle, G-4163H

with safety bolt

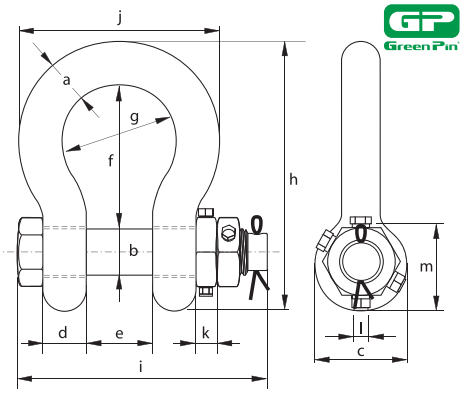


Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets the performance requirements of US Fed Spec RR-C-271, Type IVA Class 3, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV 2.7-1
Note: Supplied without wires
Safety bolt enables all components to be tethered

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Diameter Hole	Height	Width	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m	n		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	51	32	89	102	58	19	15	48.4	27	12206	0.47
3.25	16	19	40	16	27	64	43	110	122	75	23	15	53.7	31.8	12207	0.81
4.75	19	22	46	19	31	76	51	129	143	89	26	15	60.1	36.5	12208	1.32
6.5	22	25	52	22	36	83	58	144	160.5	102	29	15	65.5	41.3	12209	1.92
8.5	25	28	59	25	43	95	68	164	183	118	32	15	70.5	46	12210	2.77
9.5	28	32	66	28	47	108	75	185	201	131	34	15	74	50.8	12211	3.91

Green Pin® Towing Bow Shackle, G-4443

with safety bolt and double fixed nut



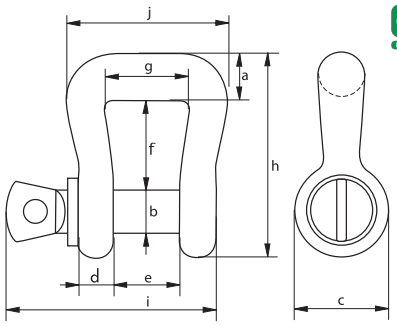
Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Finish: Painted green
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Nut	Bolt Thread	Bolt Length	Torque	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l	m			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
47.5	50	57	114	50	83	197	146	332	305	246	26	10	100	39	13780	20.1
60	57	65	133	57	108	235	165	391	356	279	29	12	110	68	13781	31.5
75	65	70	146	65	114	267	180	440	381	310	32	12	120	68	13782	43
95	70	75	152	70	114	273	197	460	406	354	35	12	130	75	13783	53
110	75	83	165	75	127	324	216	524	432	366	39	12	140	68	13784	62

Green Pin® Web Sling Shackle, P-5461

with screw collar pin

Material: Body and pin alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: EN 1677-1 and ASME B30.26
Finish: Painted green
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC

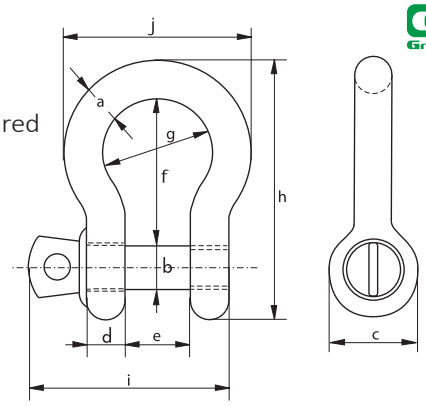


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
3.25	20	19	40	16	27	38	35	87	89	68	12307	0.66
4.75	24	22	46	19	31	48	46	106	103	85	12308	1.10
6.5	27	25	52	22	36	72	62	137.5	119	108.5	12309	1.79
8.5	31	28	59	25	43	83.5	79	158	137	133.5	12310	2.74

Green Pin® Theatre Shackle, G-4161T

with screw collar pin

Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVA Class 2, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Black
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

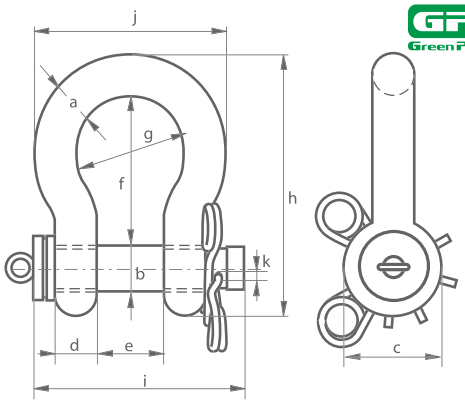


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.33	5	6	12	5	9.5	22	16	36	29.5	26	12101	0.02
0.5	7	8	16	7	12	29	20	48	38	34	12102	0.05
0.75	9	10	20	9	13.5	32	22	56	46.5	40	12103	0.10
1	10	11	23	10	17	37	26	64	54	46	12104	0.14
1.5	11	13	25	11	19	43	29	73	59.5	51	12105	0.19
2	13.5	16	34	13	22	51	32	90	73	59	12106	0.36
3.25	16	19	40	16	27	64	43	110	89	75	12107	0.63
4.75	19	22	46	19	31	76	51	129	103	89	12108	1.01
6.5	22	25	52	22	36	93	58	144	119	102	12109	1.50
8.5	25	28	59	25	43	95	68	164	137	118	12110	2.21

Green Pin® ROV Shackle, P-5363

with spring pin

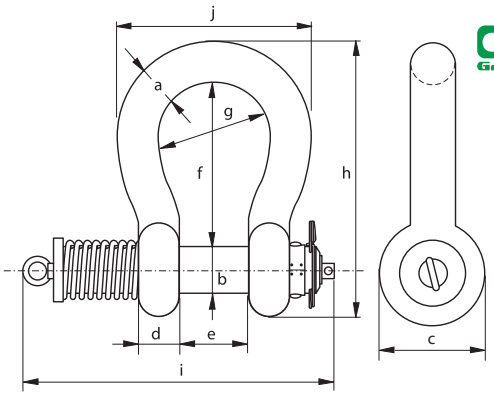
Material: Body and pin alloy steel, Grade 8, polar quality, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Finish: Body painted white, pin painted green
Temp Range: -60°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Supplied without wires, design your own wiring plan



WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6.5	22	25	52	22	36	83	58	144	130	102	5.5	13097A	1.70
9.5	28	32	66	28	47	108	75	185	166	131	6.5	13098A	3.40
12	32	35	72	32	51	115	83	201	184	147	6.5	13099A	4.70
17	38	42	88	38	60	146	99	249	202	175	6.5	13100A	8.00
25	45	50	103	45	74	178	126	300	243	216	8.5	13101A	13.6
35	50	57	116	50	83	197	138	334	269	238	8.5	13102A	19.1
42.5	57	65	130	57	95	222	160	377	301	274	8.5	13105A	28.3
55	65	70	145	65	105	260	180	433	329	310	8.5	13103A	38
85	75	83	162	75	127	329	190	527	375	340	8.5	13104A	60

Green Pin® ROV Shackle, P-5367

with spring release

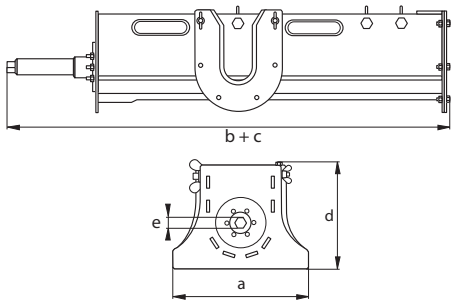


Material: Body and pin alloy steel, Grade 8, polar quality, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Finish: Body painted white, pin painted green
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS,
Note: For in-line use only. This shackle is assembled with wire rope slings and monkey fist
For size starting from WLL 42.5t upwards, a special compression tool is required to assemble the shackle

WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
12	32	35	72	32	51	115	83	201	291	147	13301A	2.0	5.24
13.5	35	38	80	35	57	133	92	227	301	162	13302A	2.4	7.00
17	38	42	88	38	60	146	99	249	360	175	13303A	3.5	9.25
25	45	50	103	45	74	178	126	300	370	216	13304A	5.2	15.5
35	50	57	116	50	83	197	138	334	400	238	13305A	7.1	20.4
42.5	57	65	130	57	95	222	160	377	460	274	13306A	11.3	39
55	65	70	145	65	105	260	180	433	490	310	13307A	13.8	42
85	75	83	162	75	127	329	190	527	587	340	13308A	23.3	67
120	95	95	208	91	147	399	238	646	687	428	13309A	37.4	123
150	105	108	238	102	169	410	275	688	727	485	13310A	49.2	168

Green Pin® Compression Tool, P-5368

tool to wind up spring release shackles

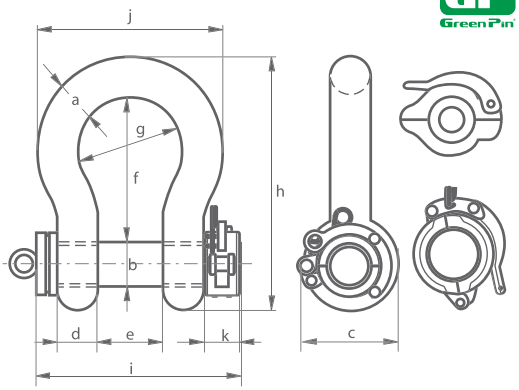


Material: Mild steel
Safety Factor: Black painted
Certification: Upon request; 2.1

for shackle WLL	Diameter Bow	Diameter Pin	Width	Length Closed	Length Open	Height	Width	Product Code	Weight Each
			a	b	c	d	e		
t	mm	mm	mm	mm	mm	mm	mm		kg
42.5	57	65							
55	65	70	300	1000	1500	225	24	13391	34
85	75	83							
120	95	95	340	1100	1750	285	24	13392	42
150	105	108							

Green Pin® ROV Shackle, P-5365

with locking clamp



Material: Body and pin alloy steel, Grade 8, polar quality, quenched and tempered

Safety Factor: MBL equals 6 x WLL
for shackles with WLL 120t and up the MBL equals 5 x WLL

Finish: Body painted white, pin painted green

Temp Range: -60°c up to +200°C (WLL 120t and up-40°c up to +200°C)

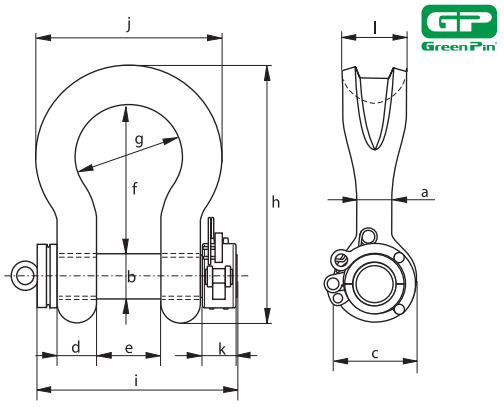
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS

Note: Supplied without wires; design your own wiring plan

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Clamp	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j	k			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
6.5	22	25	52	22	36	83	58	164	140	102	45	13201A	0.9	2.17
9.5	28	32	66	28	47	108	75	200	172	131	48	13202A	1.6	4.25
12	32	35	72	32	51	115	83	213	184	147	48	13203A	1.9	5.36
17	38	42	88	38	60	146	99	266	209	175	48	13204A	3.4	9.27
25	45	50	103	45	74	178	126	309	243	216	48	13205A	5.0	14.6
35	50	57	116	50	83	197	138	350	269	238	48	13206A	6.5	20.7
42.5	57	65	130	57	95	222	160	377	301	274	48	13213A	10.2	28.3
55	65	70	145	65	105	260	180	440	329	310	48	13207A	12.0	41
85	75	83	162	75	127	329	190	527	375	340	48	13208A	17.5	61
120	95	95	208	91	147	400	238	647	440	428	60	13209A	29.6	110
150	105	108	238	102	169	410	275	688	490	485	60	13210A	38.6	160
200	120	130	279	113	179	513	290	838	520	530	60	13211A	60.6	235
250	130	140	299	118	205	554	305	904	560	565	60	13212A	74.9	285

Green Pin® ROV Sling Shackle, P-6065

with locking clamp



Material: Body and pin alloy steel, Grade 8, quenched and tempered

Safety Factor: MBL equals 5 x WLL

Finish: Shackle body painted white, pin painted green

Temp Range: -40°c up to +200°C

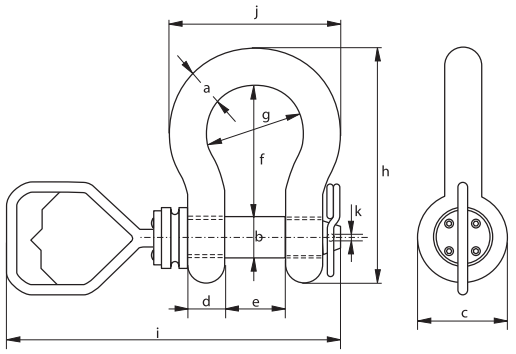
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; LROS, MPI[b], US[b]

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Clamp	Bearing Surface	Product Code	Weight Pin	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
12.5	28	28	61	25	44	121	82	197	143	146	31	54	13251	1.2	4.27
18	35	35	69	30	54	148	102	239	184	180	31	64	13252	1.9	6.85
30	40	42	90	35	69	165	126	279	210	200	40	79	13253	3.5	12.5
40	55	51	109	45	84	199	140	331	256	235	40	97	13254	5.4	20.3
55	60	57	115	55	90	240	160	389	289	270	40	100	13255	7.0	30.4
75	68	70	125	54	110	290	185	473	317	317	40	120	13256	11.6	45
125	85	80	154	85	137	366	220	583	413	390	40	150	13257	18.1	92
150	94	95	179	89	147	391	253	645	445	434	55	170	13258	29.1	140
200	110	105	199	100	158	481	280	759	480	482	55	205	13259	37.0	205
250	126	120	227	110	179	542	300	859	523	530	55	240	13260	49.4	264
300	135	134	245	122	195	601	350	947	563	620	55	265	13261	66.5	360

Green Pin® ROV Shackle D Handle, P-5361D

with tapered pin

Material: Body and pin alloy steel, Grade 8, polar quality, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Finish: Body painted white, pin painted green
Temp Range: -60°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Supplied without wires, design your own wiring plan

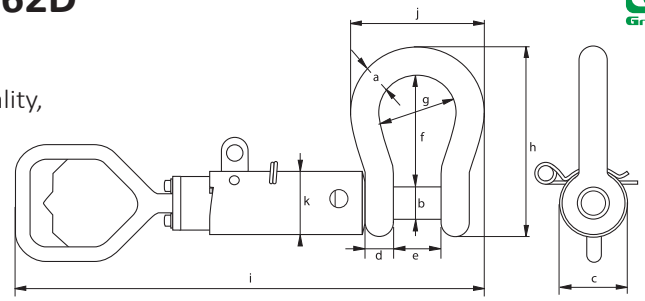


WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6.5	22	25	52	22	36	83	58	144	345	102	3.5	13320	3.79
9.5	28	32	67	28	47	108	75	185	381	131	5.5	13321	5.38
12	32	35	72	32	51	115	83	201	393	147	6.5	13322	6.50
17	38	42	88	38	60	146	99	249	417	175	8.5	13323	8.19
25	45	50	103	45	74	178	126	300	464	216	8.5	13324	14.2
35	50	57	111	50	83	197	138	331	484	238	8.5	13325	19.9
42.5	57	65	130	57	95	222	160	377	516	274	7.5	13326	28.3
55	65	70	145	65	105	260	180	433	545	310	7.5	13327	39.6

Green Pin® ROV Shackle D Handle, P-5362D

with guided pin

Material: Body and pin alloy steel, Grade 8, polar quality, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Finish: Body painted white, pin painted green
Temp Range: -60°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

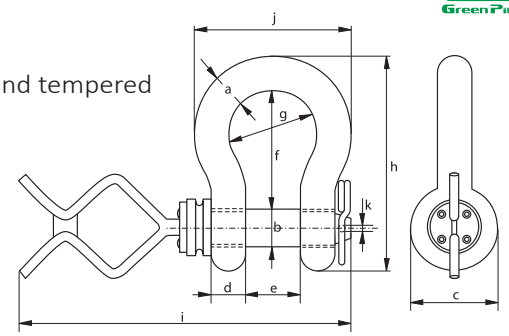


WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt Close	Length Bolt Open	Width	Guide Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm		kg
12	32	35	72	32	51	115	83	201	569	652	147	83	13370	10
17	38	42	88	38	60	146	99	249	612	710	175	83	13371	13
25	45	50	103	45	74	178	126	300	683	802	216	83	13372	19
35	50	57	111	50	83	197	138	331	711	844	238	83	13373	24
55	65	70	145	65	105	260	180	433	824	994	310	102	13374	45

Green Pin® ROV Shackle Fishtail Handle, P-5361F

with tapered pin

Material: Body and pin alloy steel, Grade 8, polar quality, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Finish: Body painted white, pin painted green
Temp Range: -60°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Supplied without wires, design your own wiring plan

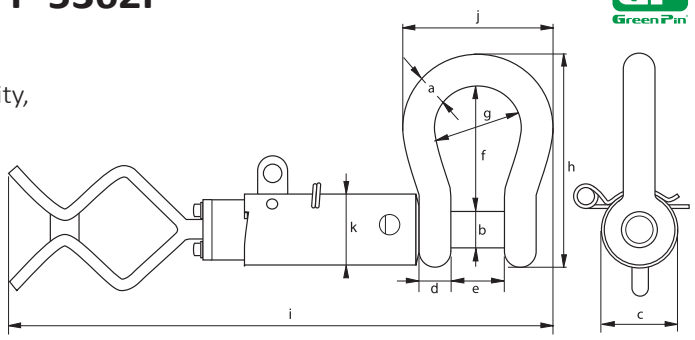


WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6.5	22	25	52	22	36	83	58	144	419	102	3.5	13330	4.06
9.5	28	32	66	28	47	108	75	185	455	131	5.5	13331	3.66
12	32	35	72	32	51	115	83	201	467	147	6.5	13332	4.91
17	38	42	88	38	60	146	99	249	491	175	8.5	13333	8.19
25	45	50	103	45	74	178	126	300	538	216	8.5	13334	14.2
35	50	57	111	50	83	197	138	331	558	238	8.5	13335	19.9
42.5	57	65	130	57	95	222	160	377	590	274	7.5	13336	28.3
55	65	70	145	65	105	260	180	433	619	310	7.5	13337	39.6

Green Pin® ROV Shackle Fishtail Handle, P-5362F

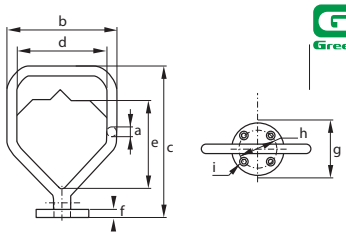
with guided pin

Material: Body and pin alloy steel, Grade 8, polar quality, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Finish: Body painted white, pin painted green
Temp Range: -60°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt		Width	Guide Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g	h	Close	Open	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	i mm		mm	mm		kg
12	32	35	72	32	51	115	83	201	643	726	147	83	13380	10
17	38	42	88	38	60	146	99	249	686	784	175	83	13381	13
25	45	50	103	45	74	178	126	300	757	876	216	83	13382	19
35	50	57	111	50	83	197	138	331	785	918	238	83	13383	24
55	65	70	145	65	105	260	180	433	898	1068	310	102	13384	45

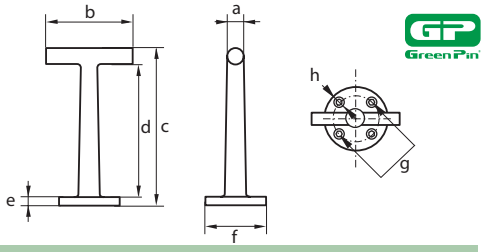
Green Pin® D Handle, P-5396D



Material: Cast steel
Safety Factor: Painted orange
Certification: Upon request; 2.1

Diameter	Width	Length	Width	Length Inside	Width	Diameter	Diameter	Diameter	Product Code	Weight Each
a	b	c	d	e	f	g	h	i		
mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
19	153	215	115	110	10	70	48	8.5	13350	1.72

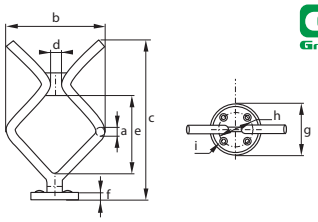
Green Pin® T Handle, P-5396T



Material: Cast steel
Safety Factor: Painted orange
Certification: Upon request; 2.1

Diameter	Width	Length	Length Inside	Thickness	Diameter	Diameter	Diameter	Product Code	Weight Each
a	b	c	d	e	f	g	h		
mm	mm	mm	mm	mm	mm	mm	mm		kg
19	100	181	152	10	70	48	8.5	13351	0.99

Green Pin® Fishtail Handle, P-5396F



Material: Cast steel
Safety Factor: Painted orange
Certification: Upon request; 2.1

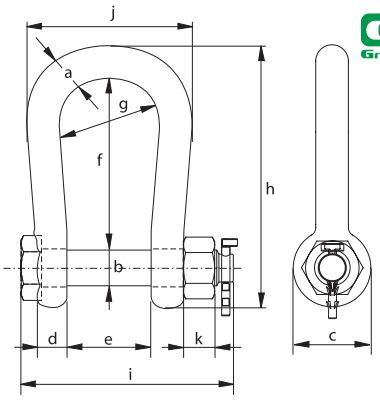
Diameter	Width	Length	Width	Length Inside	Thickness	Diameter	Diameter	Diameter	Product Code	Weight Each
a	b	c	d	e	f	g	h	i		
mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
19	178	289	21	133	10	70	48	8.5	13355	1.93

Green Pin® Monkey Fist, P-5396M

Material: Polymer
Safety Factor: Painted orange

Product Code
13356

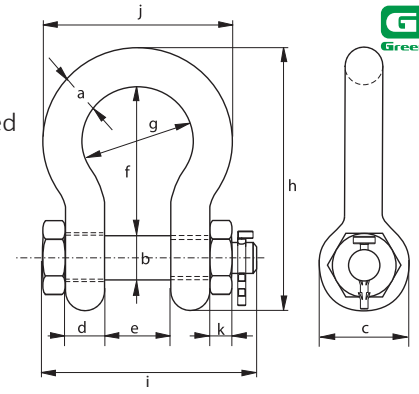
Green Pin® Mooring Bow Shackle NS9415, G-4863
with safety bolt



Material: Body and pin alloy steel, Grade 8, quenched and tempered
Standard: NYTEK regulation and NS 9415
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV NS 9415
Note: The synthetic cotter pin is available for sizes MBL 30t up to 90t and must be ordered separately

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Thickness Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
30	19	22	48	19	44	100	58	154	125	96	19	13971	1.34
40	22	25	54	22	52	125	68	187	142	112	22	13972	2.08
60	28	32	66	28	62	150	89	227	178	145	27	13973	4.07
90	32	35	76	32	82	170	98	258	207	162	30	13974	5.95
110	42	45	90	42	112	200	150	310	261	234	25	13975	14.7
150	45	50	105	45	125	225	175	348	288	265	23	13976	16.7

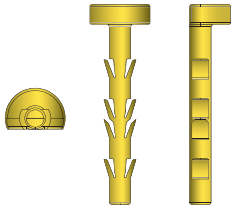
Green Pin® Bow Shackle NS9415, G-4163BG
with safety bolt



Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: NYTEK regulation and NS 9415, ISO 2415, EN 13889 and meets performance requirements of US Fed Spec RR-C-271, Type IVA, Class 3, Grade A
From 2t upward these shackles comply with ASME B30.26
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV NS 9415
Note: The synthetic cotter pin is available from sizes WLL 4.75t up to 12t and must be ordered separately

WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Thickness Nut	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	51	32	89	82	58	13	13951	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	13952	0.74
4.75	19	22	46	19	31	76	51	129	114	89	19	13953	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	13954	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	13955	2.58
9.5	28	32	66	28	47	108	75	185	166	131	27	13956	3.66
12	32	35	72	32	51	115	83	201	178	147	30	13957	4.91
13.5	35	38	80	35	57	133	92	227	197	162	33	13958	6.54
17	38	42	88	38	60	146	99	249	202	175	19	13959	8.19
25	45	50	103	45	74	178	126	300	249	216	23	13960	14

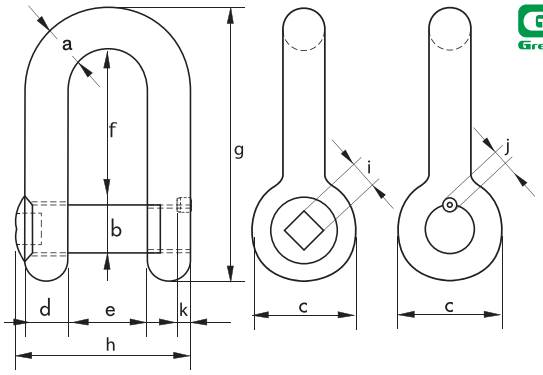
Securing Pin for Mooring Shackle



Product Code
13990

Green Pin® Dee Shackle NS9415, G-4139

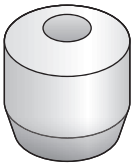
with square sunken hole screw pin (flush)



Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 7 x WLL
Standard: NYTEK regulation and NS 9415, ISO 2415, EN 13889, ASME B30.26
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC, DNV NS 9415
Note: Key for unscrewing the pin and safety plug must be ordered separately

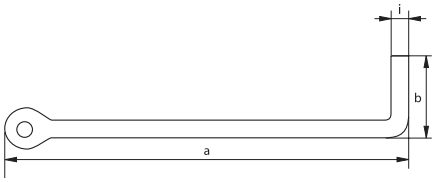
WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Length	Length Bolt	Size Square	Diameter Hole	Depth Hole	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	43	81	51	11	8	8	13851	0.29
3.25	16	19	40	16	27	51	97	63	11	8	8	13852	0.60
4.75	19	22	46	19	31	59	112	74	11	8	8	13853	0.98
6.5	22	25	52	22	36	73	134	85	13	8	8	13854	1.26
8.5	25	28	59	25	43	85	154	99	13	8	8	13855	2.14

Safety Plug for Screw Pin



Product Code
13391

Green Pin® Sunken Hole Key, E-4170

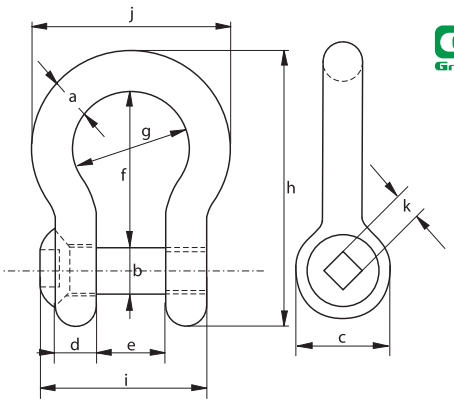


WLL	Diameter	Length	Width	Product Code
	i	a	b	
t				
2 - 4.75	10	190	45	15201
6.5 - 8.5	12	230	45	15202
9.5 - 17	16	280	45	15203

Green Pin® Fishing Bow Shackle, G-4169

with square sunken hole screw pin (flush)

Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889, ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Grade A
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Key for unscrewing the pin must be ordered separately

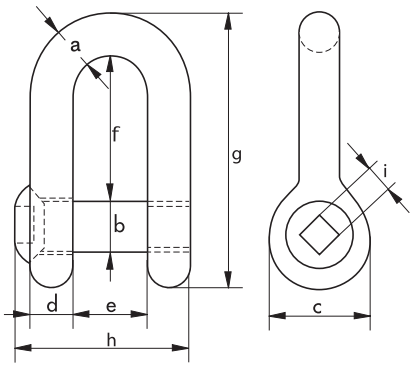


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Size Hole	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	51	32	89	51	59	11	15101	0.31
3.25	16	19	40	16	27	64	43	110	63	75	11	15102	0.56
4.75	19	22	46	19	31	76	51	129	74	89	11	15103	0.96
6.5	22	25	52	22	36	83	58	144	85	102	13	15104	1.46
8.5	25	28	59	25	43	95	68	164	99	118	13	15105	2.18
9.5	28	32	67	28	47	108	75	185	110	131	17	15106	2.84
12	32	35	73	32	51	115	83	201	122	147	17	15107	3.91
17	38	42	88	38	60	146	99	249	145	175	17	15109	6.81

Green Pin® Fishing Dee Shackle, G-4159

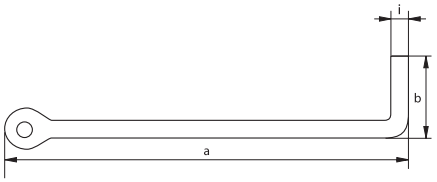
with square sunken hole screw pin (flush)

Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889, ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Grade A
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Key for unscrewing the pin must be ordered separately



WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Length	Length Bolt	Size Hole	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	43	82	51	11	15001	0.29
3.25	16	19	40	16	27	51	97	63	11	15002	0.60
4.75	19	22	46	19	31	59	112	74	11	15003	0.98
6.5	22	25	52	22	36	73	134	85	13	15004	1.26
8.5	25	28	59	25	43	85	154	99	13	15005	2.14
9.5	28	32	67	28	47	90	168	110	17	15006	2.58
12	32	35	73	32	51	94	180	122	17	15007	3.49
17	38	42	88	38	60	127	230	145	17	15009	6.22

Green Pin® Sunken Hole Key, E-4170

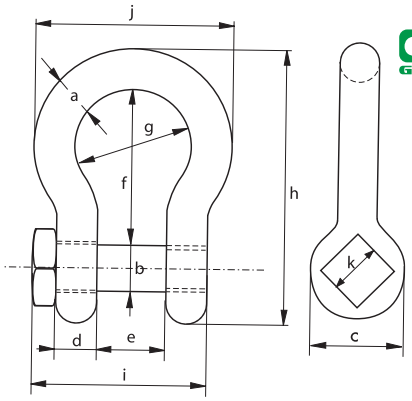


WLL	Diameter	Length	Width	Product Code
	i	a	b	
t				
2 - 4.75	10	190	45	15201
6.5 - 8.5	12	230	45	15202
9.5 - 17	16	280	45	15203

Green Pin® Fishing Bow Shackle, G-4164

with square headed screw pin

Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889, ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Grade A
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

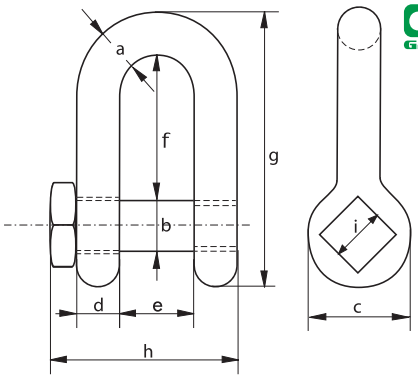


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Width Hole	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	13.5	16	34	13	22	51	32	90	57.5	59	22	13901	0.34
3.25	16	19	40	16	27	64	43	110	71	75	27	13902	0.63
4.75	19	22	46	19	31	76	51	129	82	89	32	13903	1.00
6.5	22	25	52	22	36	83	58	144	93	102	32	13904	1.44
8.5	25	28	59	25	43	95	68	164	108	118	36	13905	2.21
9.5	28	32	67	28	47	108	75	186	120	131	41	13906	3.18
12	32	35	73	32	51	115	83	201	137	147	50	13907	4.32
13.5	35	38	79	35	57	133	92	227	149	162	50	13908	5.67
17	38	42	88	38	60	146	99	249	164	175	60	13909	7.36
25	45	50	104	45	74	178	126	300	192	216	60	13910	12.4

Green Pin® Fishing Dee Shackle, G-4154

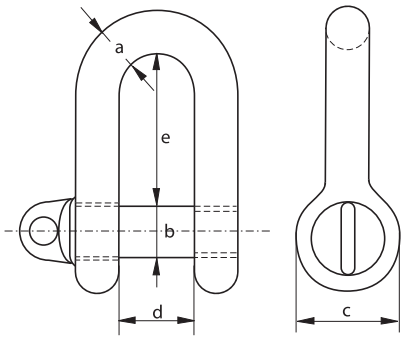
with square headed screw pin

Material: Body and pin high tensile steel, Grade 6, quenched and tempered
Safety Factor: MBL equals 6 x WLL
Standard: ISO 2415, EN 13889, ASME B30.26 and meets performance requirements of US Fed Spec RR-C-271, Grade A
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Length	Length Bolt	Width Hole		Product Code	Weight Each
	a	b	c	d	e	f	g	h	i			
t	mm	mm	mm	mm	mm	mm	mm	mm	mm			kg
2	13.5	16	34	13	22	43	82	57.5	22		13801	0.32
3.25	16	19	40	16	27	51	97	71	27		13802	0.58
4.75	19	22	46	19	31	59	112	82	32		13803	0.92
6.5	22	25	52	22	36	73	134	93	32		13804	1.33
8.5	25	28	59	25	43	85	154	108	36		13805	2.03
9.5	28	32	67	28	47	90	168	120	41		13806	2.75
12	32	35	73	32	51	94	180	137	50		13807	3.96
13.5	35	38	79	35	57	115	209	149	50		13808	5.03
17	38	42	88	38	60	127	230	164	60		13809	6.80
25	45	50	104	45	74	149	271	192	60		13810	11.2

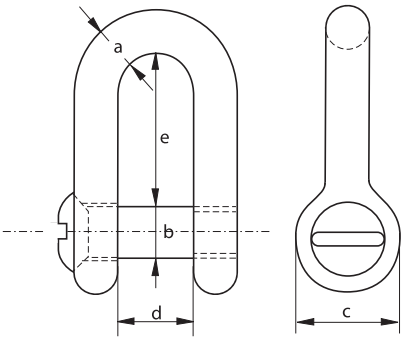
Shackle generally to DIN 82101 Type A
with screw collar pin



Material: Body and pin high tensile steel, Grade 4
Safety Factor: MBL equals 5 x WLL
Standard: Generally to DIN 82101, type A
Finish: Self colour or hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC
Note: Shackle no. 0.1 is electro-galvanised and will not have any markings as its too small

No.	WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Packing Quantity	Product Code	Weight Each
		a	b	c	d	e		galvanised	
	t	mm	mm	mm	mm	mm			kg
0.1	0.1	5	5	10	7	15.5	100	15301	0.02
0.16	0.16	6	6	12	8	18	100	15302	0.02
0.25	0.25	8	8	16	11	24	50	15303	0.05
0.4	0.4	10	10	20	14	30	25	15304	0.10
0.6	0.63	12	12	24	17	36	125	15305	0.18
1	1	13	16	32	21	49	25	15306	0.30
1.6	1.6	16	20	40	27	61	40	15307	0.57
2	2	20	22	44	30	67	20	15308	0.98
2.5	2.5	22	24	48	33	73	10	15309	1.30
3	3.15	25	27	54	38	83.5	5	15310	1.85
4	4	28	30	60	42	91	5	15311	2.53
5	5	32	36	72	47	111	5	15312	4.00
6	6.3	36	39	78	53	119.5	1	15313	5.30
8	8	41	45	90	60	139.5	1	15314	7.90
10	10	44	48	96	66	147	1	15315	10.0
12	12	49	52	104	73	158	1	15316	13.5
16	16	55	60	120	81	185	1	15317	19.2
20	20	61	68	136	90	211	1	15318	28.0
25	25	67	72	144	100	221	1	15319	34.0

Shackle generally to DIN 82101 Type B
with counter sunk screw pin

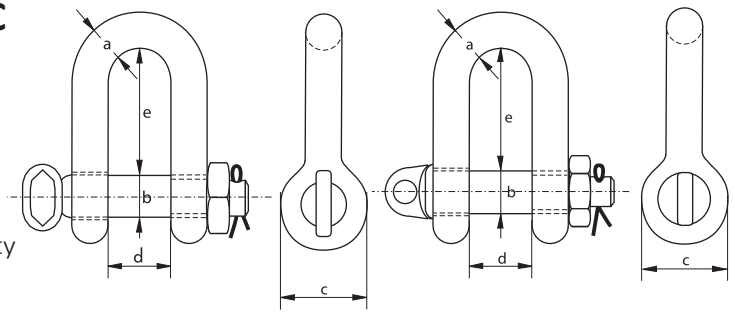


Material: Body and pin high tensile steel, Grade 4
Safety Factor: MBL equals 5 x WLL
Standard: Generally to DIN 82101, type B
Finish: Self colour or hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC
Note: Shackle no. 0.1 is electro-galvanised and will not have any markings as its too small

No.	WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Packing Quantity	Product Code	Weight Each
		a	b	c	d	e		galvanised	
	t	mm	mm	mm	mm	mm			kg
0.4	0.4	10	10	20	14	30	25	15401	0.09
0.6	0.63	12	12	24	17	36	25	15402	0.17
1	1	13	16	32	21	49	25	15403	0.29
1.6	1.6	16	20	40	27	61	40	15404	0.54
2	2	20	22	44	30	67	10	15405	0.98
2.5	2.5	22	24	48	33	73	10	15406	1.23
3	3.15	25	27	54	38	83.5	5	15407	1.80
4	4	28	30	60	42	91	5	15408	2.60
5	5	32	36	72	47	111	5	15409	3.80

Shackle generally to DIN 82101 Type C
with safety bolt

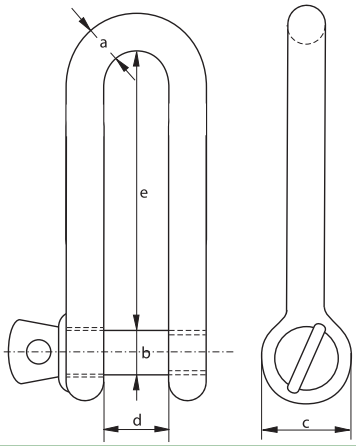
Material: Body and pin high tensile steel, Grade 4
Safety Factor: MBL equals 5 x WLL
Standard: Generally to DIN 82101, type C
Finish: Self colour or hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC
Note: Up to size no. 25 with screw collar pin
From size no. 32 with hand grip



No.	WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Packing Quantity	Product Code	Weight Each
		a	b	c	d	e		galvanised	
	t	mm	mm	mm	mm	mm			kg
0.4	0.4	10	10	20	14	30	25	15601	0.11
0.6	0.63	12	12	24	17	36	25	15602	0.20
1	1	13	16	32	21	49	70	15603	0.37
1.6	1.6	16	20	40	27	61	10	15604	0.69
2	2	20	22	44	30	67	10	15605	1.13
2.5	2.5	22	24	48	33	73	15	15606	1.50
3	3.15	25	27	54	38	83.5	10	15607	2.15
4	4	28	30	60	42	91	5	15608	2.93
5	5	32	36	72	47	111	5	15609	4.70
6	6.3	36	39	78	53	119.5	1	15610	6.33
8	8	41	45	90	60	139.5	1	15611	8.60
10	10	44	48	96	66	147	1	15612	10.8
12	12	49	52	104	73	158	1	15613	14.4
16	16	55	60	120	81	185	1	15614	20.5
20	20	61	68	136	90	211	1	15615	27.9
25	25	67	72	144	100	221	1	15616	36.0

Long Dee Piling Shackle
with screw collar pin

Material: Body and pin high tensile steel, Grade 4
Safety Factor: MBL equals 5 x WLL
Finish: Self colour or hot dipped galvanised (on request)
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

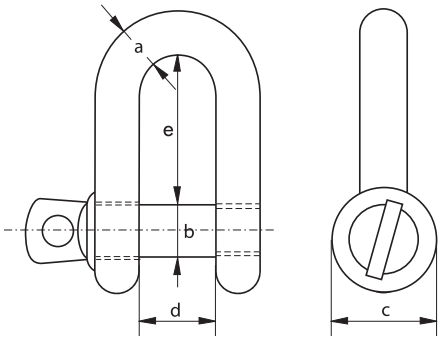


WLL	Diameter Body	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e	self colour	
t	mm	mm	mm	mm	mm		kg
1.00	13	16	32	22	152	15701	0.55
1.50	16	19	38	32	203	15702	0.95
2.00	19	22	45	38	203	15703	1.64
3.00	22	25	50	45	254	15704	2.29
3.75	25	28	57	50	254	15705	3.40
5.00	28	32	64	54	305	15706	5.05

Commercial Dee Shackle

with screw collar pin

Material: Mild steel, untreated, Grade 3
Finish: Electro galvanised
Note: Not to be used for lifting applications

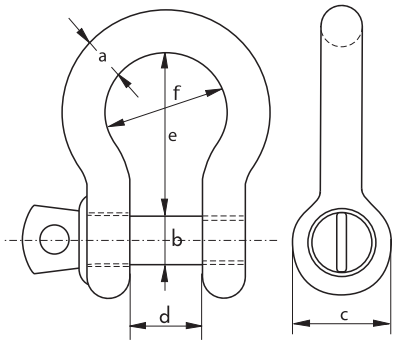


Diameter Body	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight per 100
a	b	c	d	e		
mm	mm	mm	mm	mm		kg
5	5	10	10	20	16001	1.40
6	6	12	12	24	16002	2.20
8	8	16	16	32	16003	5.20
10	10	20	20	40	16004	11.8
11	11	22	22	44	16005	14.0
12	12	24	24	48	16006	20.5
16	16	32	32	64	16008	42.6
19	19	38	38	76	16009	72.6
22	22	44	44	88	16010	108
25	25	50	50	100	16011	185

Commercial Bow Shackle

with screw collar pin

Material: Mild steel, untreated, Grade 3
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter Body	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight per 100
a	b	c	d	e	f		
mm	mm	mm	mm	mm	mm		kg
5	5	10	10	20	15	16501	1.40
6	6	12	12	24	18	16502	2.40
8	8	16	16	32	24	16503	5.40
10	10	20	20	40	30	16504	10.6
11	11	22	22	44	33	16505	16.4
12	12	24	24	48	36	16506	19.4
16	16	32	32	64	48	16508	44.2
19	19	38	38	76	57	16509	82.8
22	22	44	44	88	66	16510	116
25	25	50	50	100	75	16511	168

Section 2 | Lifting Eyes

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Lifting Eyes

Applications

Eyebolts and eyenuts are used for lifting machines, appliances or any other objects which cannot be lifted by hand or by fork lift truck.

Range

Brierley Lifting offers eyebolts and eyenuts in Grade 4, Grade 8 and Grade 10. We stock a wide range of other lifting eyebolts, eyenuts and lifting points (including MOD Eyeplates), in metric and imperial sizes, with WLL's from 0.07 t up to 40 t.

Design

Our lifting eyes are made from a variety of steels each individually noted within the product specification pages.

Each eyebolt, eyenut and the other lifting points are generally marked with:

- Working Load Limit - e.g. 0.7 t, valid for in-line lifting
- thread diameter - e.g. M16 or 5/8"
- traceability code - e.g. A1 or BL
- CE conformity code - CE

Instructions for use

All lifting eyes should be inspected before use to ensure that:

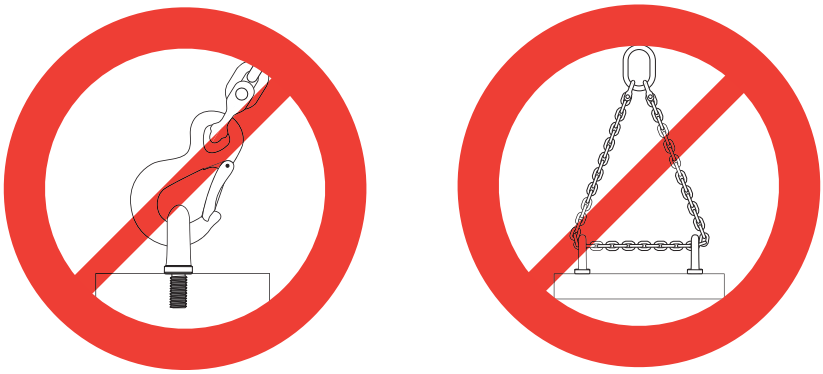
- all markings are legible;
- a lifting eye with the correct WLL has been selected;
- the thread is undamaged and clean (if applicable);
- the lifting eye is free from nicks, gouges and cracks;
- never grind, machine or cut a lifting eye ;
- lifting eyes may not be heat treated as this may affect their WLL;
- never modify, repair or reshape a lifting eye by machining, welding, heating or bending as this may affect the WLL, with exception of the eyeplates and transport rings which would require welding in accordance to the correct welding procedure noted within the product specification pages;
- lifting points and the other components are of the same steel grade;
- always make sure that the lifting point is supporting the load correctly;
- lifting points should be seated well down in the hook;
- lifting points are not distorted or unduly worn;
- the WLL for complementary lifting eye are valid for in-line lifting only and have to be reduced for nonaxial loading. For further details please refer to the standard.
- when used as a lifting device, the lifting eye should always be fully screwed into the load in such a way that it fits properly against the load.

Assembly

The thread length should be adapted to the material of the load. For hard materials, the thread length must not be smaller than 1.5 times the diameter (e.g. M20, minimum length 30 mm). For soft materials such as aluminium or brass, a length of 3 times the diameter is needed. For soft materials, consider using a longer length and through-hole mounting with a nut and washer on the other side.

The bolt thread and the tapped hole in the load must be compatible and both must be in a good condition. The tapping should be at least 20% deeper than the thread length. The surface should be flat and perpendicular to the thread to enable full contact with the lifting point.

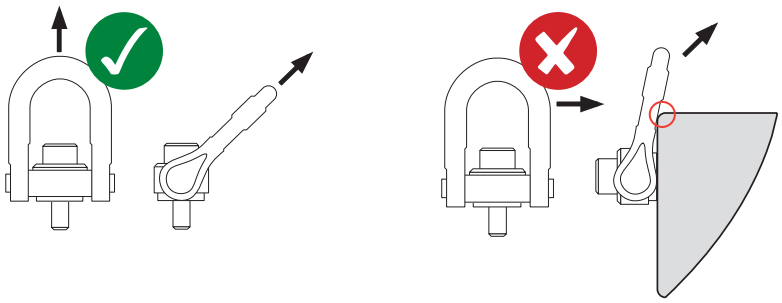
The material to which the lifting point is attached should be strong enough to withstand lifting forces without any deformation. The lifting points must fit perfectly on the material of the load to be lifted. Full contact between the lifting point and the surface is required.



1. The lifting points should match the size of the hook, so that they can be correctly positioned into the hook. The lifting point must be positioned in the saddle of the hook, not on the tip.
2. Never use a sling as a loop between two lifting points. Consider the centre of gravity of the load to position the lifting points (symmetrical to the centre). The tapping must be positioned at a distance of at least 3 times the diameter of the bolt from the edge of the load.

Fasten these lifting points by hand and without the use of any tools or leverage. The lifting point has to be tightened just deep enough so that the lower edge connects to the surface of the load.

For the ADA pivoting and rotating hoist rings, tighten the threaded bolt to the recommended torque (see the product table). Check the torque periodically, because the bolts may come loose during use. Check whether the hoist ring can pivot and rotate freely in all directions.



Products must be regularly inspected in accordance with the safety standards and regulations in the country of use. This is required because the products in use may be affected by issues such as wear, misuse and overloading, which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use) and more frequently when the products are used in severe operating conditions.

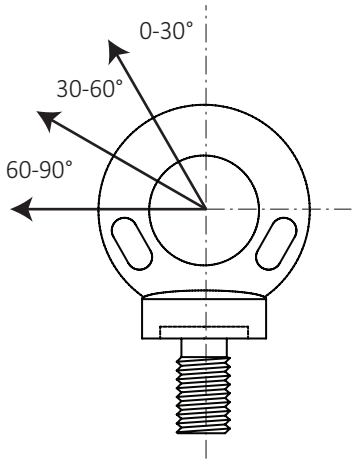
Angle reduction tables

For metric coarse and BSW thread

Standard is to BS4278 Tables 1 and 4 (1984) and BS EN ISO 3266

The maximum recommended working loads for BS eyebolts imperial and metric coarse threads when used in pairs for inclined working conditions.

WLL for a single eyebolt in vertical lift	angle of lift between sling leg		
	2 legs 0°-30°	**2 legs** 30°-60°	**2 legs** 60°-90°
t	t	t	t
0.25	0.32	0.20	0.13
0.40	0.50	0.32	0.20
0.50	0.63	0.40	0.25
0.80	1.00	0.64	0.40
0.90	1.13	0.72	0.45
1.00	1.30	0.80	0.50
1.25	1.60	1.00	0.63
1.40	1.76	1.12	0.70
1.60	2.00	0.25	0.80
2.00	2.50	1.60	1.00
2.50	3.20	2.00	1.25
2.75	3.47	2.20	1.38
3.20	4.00	2.50	1.60
3.50	4.41	2.80	1.75
4.00	5.00	3.20	2.00
4.50	5.67	3.60	2.25
5.00	6.30	4.00	2.50
6.30	8.00	5.00	3.20
8.00	10.00	6.30	4.00
9.00	11.34	7.20	4.50
10.00	12.50	8.00	5.00
12.00	15.12	9.60	6.00
12.50	16.00	10.00	6.30
15.00	18.90	12.00	7.50
16.00	20.00	12.50	8.00
20.00	25.20	16.00	10.00
Reduction Factor	**0.63**	**0.40**	**0.25**

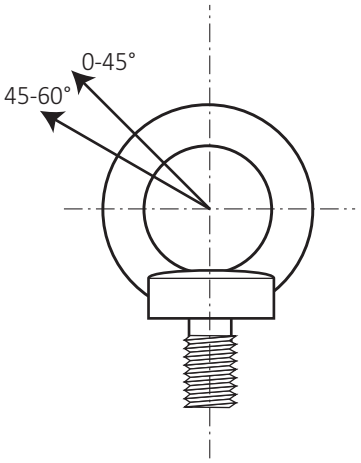


For metric coarse thread

Standard eyebolt is to DIN580 and eyenut is to DIN582

The maximum recommended working loads when used in pairs for inclined working conditions.

WLL for a single eyebolt in vertical lift	angle of lift between sling leg	
	2 legs 0°-45°	**2 legs** 45°-60°
t	t	t
0.07	0.05	0.03
0.14	0.10	0.07
0.23	0.17	0.11
0.34	0.24	0.17
0.49	0.35	0.24
0.70	0.50	0.35
0.85	0.60	0.42
1.20	0.86	0.60
1.50	1.00	0.70
1.80	1.29	0.90
2.50	1.50	1.05
3.20	2.30	1.60
4.30	2.30	1.60
4.60	3.30	2.30
6.10	3.30	2.30
6.30	4.50	3.15
8.00	4.50	3.15
8.60	6.10	4.30
11.50	8.20	5.75
16.00	11.00	8.00



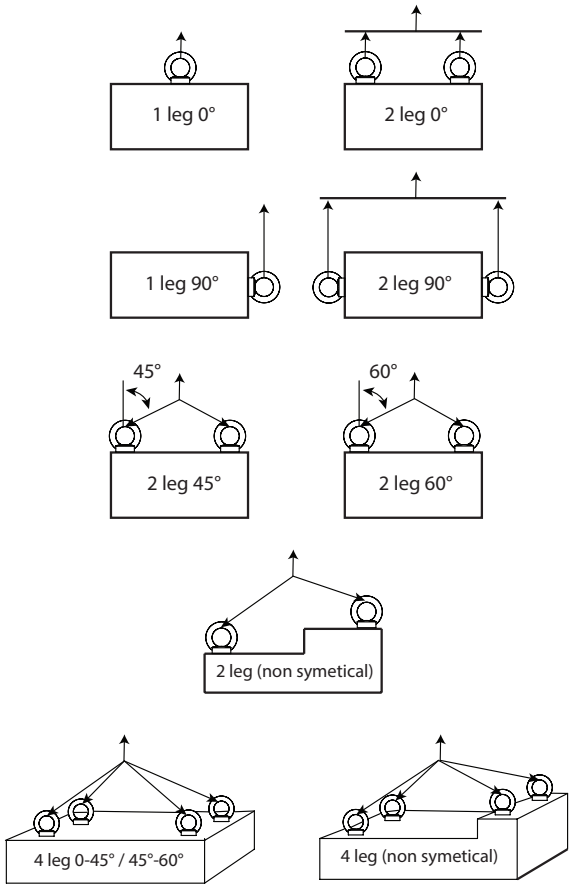
Angle reduction tables for Green Pin® AL eyebolts

number of leg(s)		1 leg	2 legs	1 leg	2 legs	2 legs		2 legs	3 & 4 legs		3 & 4 legs
load direction		0°	0°	90°	90°	0-45°	45-60°	non-sym metrical	0-45°	45-60°	non-sym metrical
safety factor		1	2	0.5	1	1.4	0.5	0.5	2.1	0.75	0.5
diameter thread AL / ALDIN (metric)	ALUNC (inch)	t	t	t	t	t	t	t	t	t	t
6	1/4	0.2	0.4	0.10	0.20	0.28	0.10	0.10	0.42	0.15	0.10
8		0.4	0.8	0.20	0.40	0.56	0.20	0.20	0.84	0.30	0.20
10	3/8	0.7	1.4	0.35	0.70	0.98	0.35	0.35	1.47	0.53	0.35
12	1/2	1	2	0.50	1.00	1.40	0.50	0.50	2.10	0.75	0.50
14		1.2	2.4	0.60	1.20	1.68	0.60	0.60	2.52	0.90	0.60
16	5/8	1.5	3	0.75	1.50	2.10	0.75	0.75	3.15	1.13	0.75
18		2	4	1.00	2.00	2.80	1.00	1.00	4.20	1.50	1.00
20	3/4	2.5	5	1.25	2.50	3.50	1.25	1.25	5.25	1.88	1.25
22	7/8	3	6	1.50	3.00	4.20	1.50	1.50	6.30	2.25	1.50
24	1	4	8	2.00	4.00	5.60	2.00	2.00	8.40	3.00	2.00
27	1 1/8	5	10	2.50	5.00	7.00	2.50	2.50	10.50	3.75	2.50
30	1 1/4	6	12	3.00	6.00	8.40	3.00	3.00	12.60	4.50	3.00
33		7	14	3.50	7.00	9.80	3.50	3.50	14.00	5.25	3.50
36	1 1/2	8	16	4.00	8.00	11.20	4.00	4.00	16.80	6.00	4.00
39		9	18	4.50	9.00	12.60	4.50	4.50	18.90	6.75	4.50
42	1 3/4	10	20	5.00	10.00	14.00	5.00	5.00	21.00	7.50	5.00
45	2	15	30	7.50	15.00	21.00	7.50	7.50	31.50	11.25	7.50
48		18	36	9.00	18.00	25.20	9.00	9.00	37.80	13.50	9.00
52		20	40	10.00	20.00	28.00	10.00	10.00	42.00	15.00	10.00
56	2 1/2	25	50	12.50	25.00	35.00	12.50	12.50	52.50	18.75	12.50
60		30	60	15.00	30.00	42.00	15.00	15.00	63.00	22.50	15.00
64		36	72								

Metric 64 90% of original WLL @5-30°

Angle reduction tables for Green Pin® EL eyebolts

number of leg(s)	1 leg	2 legs	2 legs	3 & 4 legs
load direction	0°	0°	0-30°	0-30°
safety factor	1	2	1.4	2.1
diameter thread (metric)	t	t	t	t
6	0.2	0.4	0.28	0.42
8	0.4	0.8	0.56	0.84
10	0.7	1.4	0.98	1.47
12	1	2	1.40	2.10
14	1.2	2.4	1.68	2.52
16	1.5	3	2.10	3.15
18	2	4	2.80	4.20
20	2.5	5	3.50	5.25
22	3	6	4.20	6.30
24	4	8	5.60	8.40
27	5	10	7.00	10.50
30	6	12	8.40	12.60
33	7	14	9.80	14.70
36	8	16	11.20	16.80
39	9	18	12.60	18.90
42	10	20	14.00	21.00
45	15	30	21.00	31.50
48	18	36	25.20	37.80



Note:

- Never use EL above 30° as the maximum WLL increase significantly
- WLL values only apply with thread bolts of quality class 8.8 min.

Angle reduction tables for Green Pin® ADA eyebolts

Note: WLL values only apply with nut of quality class 8.8 min. Class 10.9 and 12.9 recommended

number of leg(s)		1 leg	2 legs	1 leg	2 legs	2 legs		2 legs	3 & 4 legs		3 & 4 legs
load direction		0°	0°	90°	90°	0-45°	45-60°	non-sym metrical	0-45°	45-60°	non-sym metrical
safety factor diameter thread		1	2	1	2	1.4	1	1	2.1	1.5	1
ADA/ADAL (metric)	ADAUNC	t	t	t	t	t	t	t	t	t	t
8	5/16	0.4	0.8	0.4	0.8	0.5	0.4	0.4	0.8	0.6	0.4
10		0.7	1.4	0.7	1.4	0.9	0.7	0.7	1.4	1.0	0.7
	3/8	0.6	1.2	0.6	1.2	0.8	0.6	0.6	1.2	0.9	0.6
12	1/2	1.0	2.0	1.0	2.0	1.4	1.0	1.0	2.1	1.5	1.0
14		1.3	2.6	1.3	2.6	1.8	1.3	1.3	2.7	1.9	1.3
16		1.6	3.2	1.6	3.2	2.2	1.6	1.6	3.3	2.4	1.6
	5/8	1.7	3.4	1.7	3.4	2.3	1.7	1.7	3.5	2.5	1.7
18		2.0	4.0	2.0	4.0	2.8	2.0	2.0	4.2	3.0	2.0
20	3/4	2.5	5.0	2.5	5.0	3.5	2.5	2.5	5.2	3.7	2.5
22	7/8	3.0	6.0	3.0	6.0	4.2	3.0	3.0	6.3	4.5	3.0
24		4.0	8.0	4.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
	1	4.5	9.0	4.5	9.0	6.3	4.5	4.5	9.4	6.7	4.5
27		5.0	10.0	5.0	10.0	7.0	5.0	5.0	10.5	7.5	5.0
30		6.3	12.6	6.3	12.6	8.8	6.3	6.3	13.2	9.4	6.3
	1 1/4	6.8	13.6	6.8	13.6	9.5	6.8	6.8	14.2	10.2	6.8
33		7.0	14.0	7.0	14.0	9.8	7.0	7.0	14.7	10.5	7.0
36		10.0	20.0	10.0	20.0	14.0	20.0	10.0	21.0	15.0	10.0
	1 1/2	10.8	21.6	10.8	21.6	15.1	10.8	10.8	22.6	16.2	10.8
39		10.0	20.0	10.0	20.0	14.0	10.0	10.0	21.0	15.0	10.0
42		12.5	25.0	12.5	25.0	17.5	12.5	12.5	26.2	18.7	12.5
	2	13.6	27.2	13.6	27.2	19.0	13.6	13.6	28.5	20.4	13.6

Thread pitch and TPI for all eyebolts

metric coarse thread a (mm)	pitch
6	1
8	1.25
10	1.5
12	1.75
14	2
16	2
18	2.5
20	2.5
22	2.5
24	3
27	3
30	3.5
33	3.5
36	4
39	4
42	4.5
45	4.5
48	5
52	5
56	5.5
60	5.5
64	6

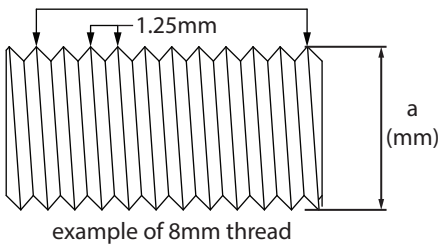
imperial size	threads per inch (TPI)			
a (inch)	BSW	UNC	BSF	UNF
1/4	20	20		
5/16	18	18		
3/8	16	16	20	24
1/2	12	13	16	20
5/8	11	11	14	18
3/4	10	10	12	16
7/8	9	9	11	14
1	8	8	10	12
1.1/8	7	7	9	12
1.1/4	7	7	9	12
1.3/8	6	6	8	12
1.1/2	6	6	8	12
1.3/4	5	5	7	
2	4.1/2	4.1/2	7	
2.1/4	4	4.1/2	6	
2.1/2	4	4	6	
3	3.1/2	4	5	

Metric thread pitch is calculated as the millimeter (mm) distance between two thread peaks. For thread pitch, the smaller the number the finer the thread.

Imperial thread pitch (commonly known as TPI) is calculated by the number of thread crests or valleys within one inch of a screws thread length.

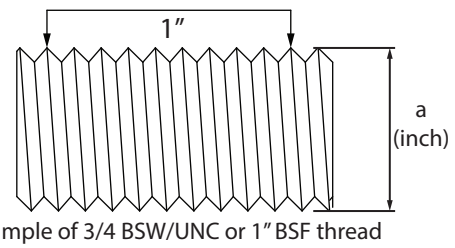
Examples of thread pitch

10 Threads per 12.5mm (Metric)



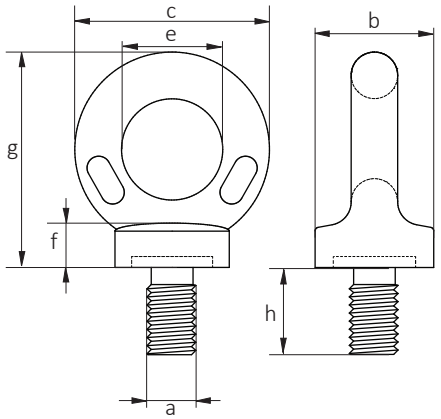
example of 8mm thread

10 Threads per inch (10TPI)



example of 3/4 BSW/UNC or 1" BSF thread

Collared Eyebolts, Quality Range
metric coarse thread

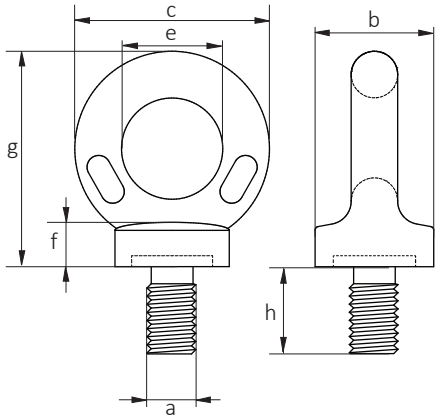


Material: EN14 material or equal
Safety Factor: MBL equals 5 x WLL
Standard: BS4278, table 1, 1984
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: A withdrawn standard, superseded by BS EN ISO 3266:2010

WLL		Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Collar	Height	Length Thread	Product Code	Product Code	Weight Each
		a	b	c	e	f	g	h	self colour	zinc plated	
t		mm	mm	mm	mm	mm	mm	mm			kg
0.10	*	6	22	33	15	7	36	18	20001V	20701	0.06
0.20	*	8	22	33	15	7	36	18	20002V	20702	0.06
0.32	*	10	22	33	15	7	36	18	20003V	20703	0.06
0.40		12	22	33	15	7	36	18	20004V	20704	0.06
0.50	*	14	29	44	20	10	48	23	20005V	20705	0.15
0.80		16	29	44	20	10	48	23	20006V	20706	0.15
1.00	*	18	36	52	24	12	58	28	20007V	20707	0.27
1.60		20	40	59	27	14	65	32	20008V	20708	0.38
1.60	*	22	45	64	30	14	73	35	20009V	20709	0.54
2.50		24	52	77	35	17	84	40	20010V	20710	0.85
2.50	*	27	58	85	39	20	94	46	20011V	20711	1.13
4.00		30	65	96	44	22	106	51	20012V	20712	1.62
4.00	*	33	72	106	48	24	117	56	20013V	20713	2.37
6.30		36	81	118	54	27	131	63	20014V	20714	3.12
6.30	*	39	81	118	54	27	131	63	20015A	20715	3.12
8.00		42	101	148	68	34	164	79	20016A	20716	6.45
8.00	*	45	101	148	68	34	164	79	20017A	20717	6.45
10.00		48	101	148	68	34	164	79	20018A	20718	6.51
12.50		52	115	168	76	38	186	89	20019A	20719	9.58
16.00		56	128	188	86	43	208	100	20020A	20720	12.99
20.00		64	144	212	96	48	234	112	20021A	20721	18.20

sizes marked * are additional and proportional to the specification

Collared Eyebolts, Economy Range
metric coarse thread



Material: High tensile steel
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

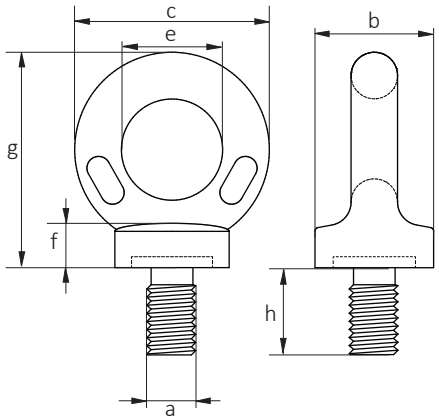
WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Collar	Height	Length Thread	Product Code	Weight Each
	a	b	c	e	f	g	h		
t	mm	mm	mm	mm	mm	mm	mm		kg
0.10	6	22	33	15	7	36	18	20001C	0.06
0.15	8	22	33	15	7	36	18	20002C	0.06
0.33	10	22	33	15	7	36	18	20003C	0.06
0.40	12	22	33	15	7	36	18	20004C	0.06
0.50	14	29	44	20	10	48	23	20005C	0.15
0.80	16	29	44	20	10	48	23	20006C	0.15
1.00	18	36	52	24	12	58	28	20007C	0.27
1.60	20	40	59	27	14	65	32	20008C	0.38
1.60	22	45	64	30	14	73	35	20009C	0.54
2.50	24	52	77	35	17	84	40	20010C	0.85
4.00	30	65	96	44	22	106	51	20012C	1.62
6.30	36	81	118	54	27	131	63	20014C	3.12

sizes marked * are additional and proportional to the specification

Collared Eyebolts

metric coarse thread

Material: Grade 4
Safety Factor: MBL equals 5 x WLL
Standard: BS EN ISO 3266:2010 + A1 2015
Finish: Self colour
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
and charpy impact test, grain size determination



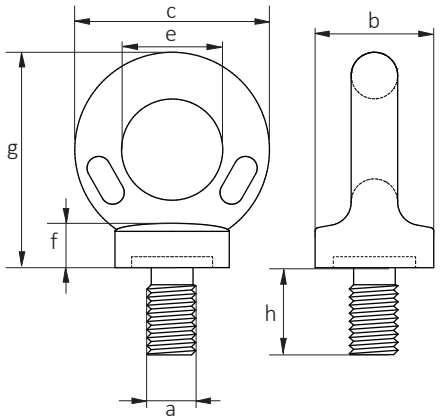
WLL		Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Collar	Height	Length Thread	Product Code	Weight Each
		a	b	c	e	f	g	h		
t		mm	mm	mm	mm	mm	mm	mm		kg
0.10	*	6	22	33	15	7	36	18	20051V	0.06
0.20		8	22	33	15	7	36	18	20052V	0.06
0.32		10	22	33	15	7	36	18	20053V	0.06
0.40		12	22	33	15	7	36	18	20054V	0.06
0.50	*	14	29	44	20	10	48	23	20055V	0.15
0.80		16	29	44	20	10	48	23	20056V	0.15
1.00	*	18	36	52	24	12	58	28	20057V	0.27
1.60		20	40	59	27	14	65	32	20058V	0.38
1.60	*	22	45	64	30	14	73	35	20059V	0.54
2.50		24	52	77	35	17	84	40	20060V	0.85
2.50	*	27	58	85	39	20	94	46	20061V	1.13
4.00		30	65	96	44	22	106	51	20062V	1.62
4.00	*	33	72	106	48	24	117	56	20063V	2.37
6.30		36	81	118	54	27	131	63	20064V	3.12
8.00		42	101	148	68	34	164	79	20066A	6.45
8.00		45	101	148	68	34	164	79	20067A	6.45
10.00		48	101	148	68	34	164	79	20068A	6.51

sizes marked * are additional and proportional to the specification

sizes 8mm and 10mm are produced from a 12mm forging

Collared Eyebolts
BSW thread

Material: EN14 material or equal
Safety Factor: MBL equals 5 x WLL
Standard: BS4278, table 4, 1984
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

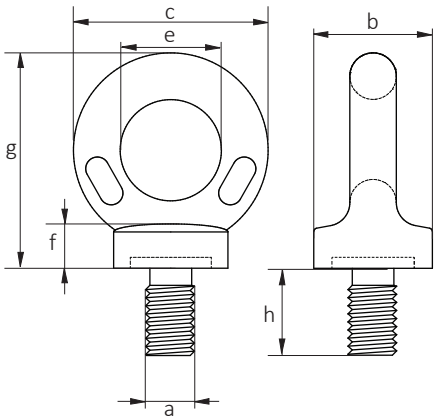


WLL		Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Collar	Height	Length Thread	Product Code	Weight Each
		a	b	c	e	f	g	h		
t		inch	mm	mm	mm	mm	mm	mm		kg
0.10	*	1/4	22	33	15	7	36	18	20101A	0.06
0.15	*	5/16	22	33	15	7	36	18	20102A	0.06
0.25		3/8	22	33	15	7	36	18	20103V	0.06
0.50		1/2	29	44	20	10	48	23	20105V	0.15
0.90		5/8	36	52	24	12	58	28	20107V	0.27
1.40		3/4	45	66	30	14	73	35	20108V	0.54
2.00		7/8	52	77	35	17	84	40	20109A	0.85
2.75		1	58	85	39	20	94	46	20110V	1.13
3.50		1.1/8	65	96	44	22	106	51	20111V	1.62
4.50		1.1/4	72	106	48	24	117	56	20112V	2.37
6.50		1.1/2	81	118	54	27	131	63	20114V	3.12
9.00		1.3/4	101	148	68	34	164	79	20116A	6.27
12.00		2	115	168	76	38	186	89	20118A	9.58

sizes marked * are additional and proportional to the specification

Collared Eyebolts
UNC thread

Material: EN14 material or equal
Safety Factor: MBL equals 5 x WLL
Standard: BS4278, table 4, 1984
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



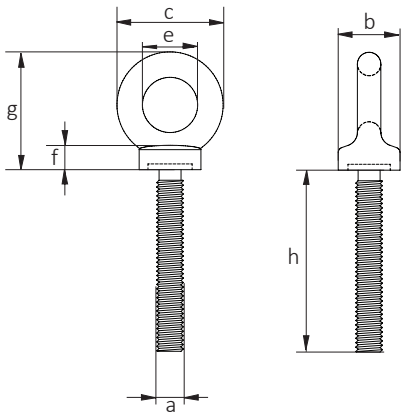
WLL		Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Collar	Height	Length Thread	Product Code	Weight Each
		a	b	c	e	f	g	h		
t		inch	mm	mm	mm	mm	mm	mm		kg
0.10	*	1/4	22	33	15	7	36	18	20201	0.06
0.15	*	5/16	22	33	15	7	36	18	20202	0.06
0.25		3/8	22	33	15	7	36	18	20203V	0.06
0.50		1/2	29	44	20	10	48	23	20205V	0.15
0.90		5/8	36	52	24	12	58	28	20207V	0.27
1.40		3/4	45	66	30	14	73	35	20208V	0.54
2.00		7/8	52	77	35	17	84	40	20209V	0.85
2.75		1	58	85	39	20	94	46	20210V	1.13
3.50		1.1/8	65	96	44	22	106	51	20211V	1.62
4.50		1.1/4	72	106	48	24	117	56	20212V	2.37
6.50	*	1.1/2	81	118	54	27	131	63	20214V	3.12
9.00		1.3/4	101	148	68	34	164	79	20216	6.27
12.00		2	115	168	76	38	186	89	20218	9.58

sizes marked * are additional and proportional to the specification

Long Shank Collared Eyebolts, Quality Range

metric coarse thread

Material: EN14 material or equal
Safety Factor: MBL equals 5 x WLL
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: BSW thread and UNC thread also available

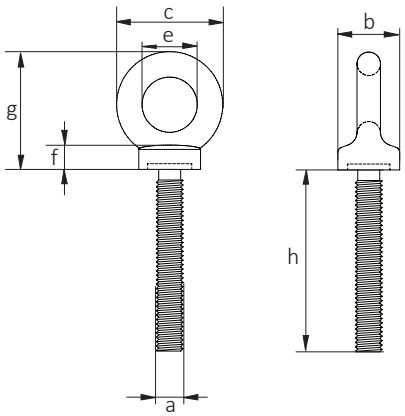


WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Collar	Height	Length Thread	Product Code	Product Code	Weight Each
	a	b	c	e	f	g	h	self colour	zinc plated	
t	mm	mm	mm	mm	mm	mm	mm			kg
0.25	10	22	33	15	7	36	178	21001V	21101	0.18
0.40	12	28	41	19	11	45	178	21002V	21102	0.25
0.50	14	36	52	24	14	58	178	21003A	21103	0.40
0.80	16	36	52	24	14	58	178	21004V	21104	0.44
1.00	18	43	62	29	17	69	178	21005A	21105	0.70
1.60	20	43	62	29	17	69	178	21006V	21106	0.70
1.60	22	50	73	33	17	74	178	21007A	21107	1.05
2.50	24	57	82	38	19	87	190	21008A	21108	1.50
4.00	30	71	104	48	24	116	190	21009A	21109	2.80

Long Shank Collared Eyebolts, Economy Range

metric coarse thread

Material: High tensile steel
Safety Factor: MBL equals 5 x WLL
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

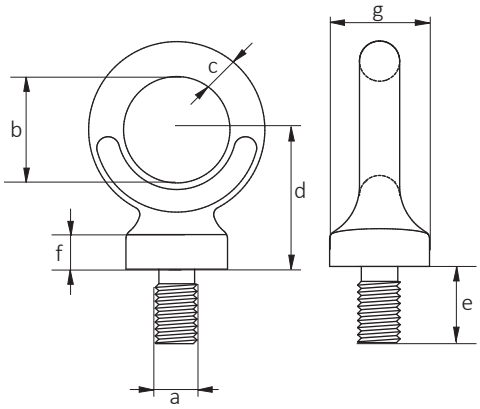


WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Collar	Height	Length Thread	Product Code	Weight Each
	a	b	c	e	f	g	h	self colour	
t	mm	mm	mm	mm	mm	mm	mm		kg
0.40	12	28	41	19	11	45	178	21002C	0.25
0.80	16	36	52	24	14	58	178	21004C	0.44
1.60	20	43	62	29	17	69	178	21006C	0.70
2.50	24	57	82	38	19	87	178	21008C	1.50

Dynamo Eyebolts

metric coarse thread

Material: High tensile steel
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Note: These eyebolts are for vertical lift only
BSW thread and UNC thread also available

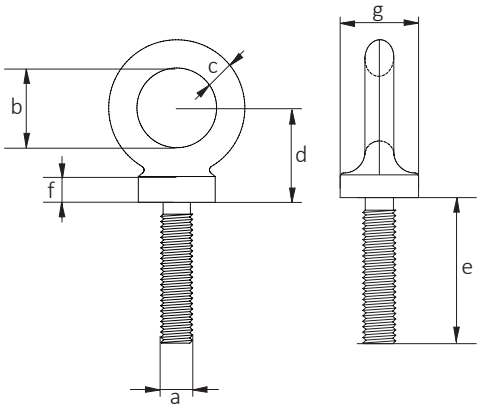


WLL	Diameter Thread	Length Inside	Diameter Eye	Length Base to Centre	Length Thread	Thickness Base	Diameter Base	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	g	self colour	zinc plated	
t	mm	mm	mm	mm	mm	mm	mm			kg
0.10	6	22	9	27	18	5	17	22001C	22101	0.07
0.15	8	22	9	27	18	5	17	22002C	22102	0.07
0.25	10	22	9	27	18	5	17	22003C	22103	0.07
0.32	12	22	9	27	18	5	17	22004C	22104	0.07
0.50	14	29	11	34	23	6	23	22005C	22105	0.14
0.63	16	29	11	34	23	6	23	22006C	22106	0.14
1.25	20	40	15	47	32	9	32	22008C	22108	0.40
2.00	24	51	19	60	40	12	40	22010C	22110	0.80

Long Shank Dynamo Eyebolts

metric coarse thread

Material: High tensile steel
Safety Factor: MBL equals 5 x WLL
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Note: These eyebolts are for vertical lift only
BSW thread and UNC thread also available

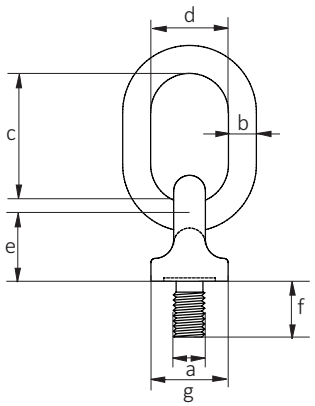


WLL	Diameter Thread	Length Inside	Diameter Eye	Length Base to Centre	Length Thread	Thickness Base	Diameter Base	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	g	self colour	zinc plated	
t	mm	mm	mm	mm	mm	mm	mm			kg
0.15	8	22	9.5	27	100	6	19	22901	22201	0.11
0.25	10	22	9.5	27	100	6	19	22902	22202	0.12
0.32	12	29	11	35	100	8	25	22903	22203	0.22
0.63	16	32	13	41	114	9.5	29	22904	22204	0.35
1.25	20	41	16	54	127	11	35	22905	22205	0.60
2.00	24	51	19	64	127	13	41	22906	22206	1.10

Eyebolts with Oval Link

metric coarse thread

Material: BS970-080A27 hardened and tempered
Safety Factor: MBL equals 5 x WLL
Standard: BS4278, table 2, 1984
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity
Note: Upon request: 3.1

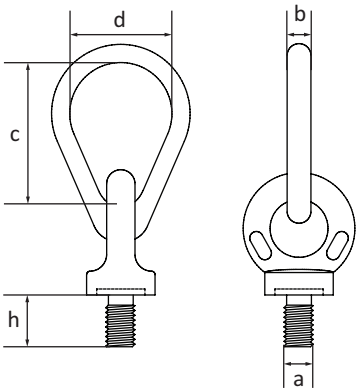


WLL		Diameter Thread	Diameter Link	Length Link	Width Link	Length Base to Centre	Thread Length	Diameter Base	Product Code	Weight Each
		a	b	c	d	e	f	g		
t		mm	mm	mm	mm	mm	mm	mm		kg
0.10	*	8	13	53	24	20	27	39	24001	0.33
0.15	*	10	13	53	24	20	27	39	24002	0.35
0.20	*	12	13	53	24	20	27	39	24003	0.36
0.30	*	14	13	53	24	20	27	39	24004	0.37
0.40	*	16	13	53	24	20	27	39	24005	0.38
0.70	*	18	13	53	24	20	27	39	24006	0.39
1.00		20	13	53	24	20	27	39	24007	0.40
1.30	*	22	15	63	29	23	32	47	24008	0.65
1.60		24	15	63	29	23	32	47	24009	0.66
2.50		30	19	80	37	30	41	60	24010	1.31
4.00		36	24	102	46	38	52	75	24011	2.69
4.50	*	42	30	126	58	47	65	94	24012	5.51
5.00	*	45	30	126	58	47	65	94	24013	5.35
6.30		48	30	126	58	47	65	94	24014	5.50

sizes marked * are additional and proportional to the specification

Collared Eyebolts
c/w reevable egg link

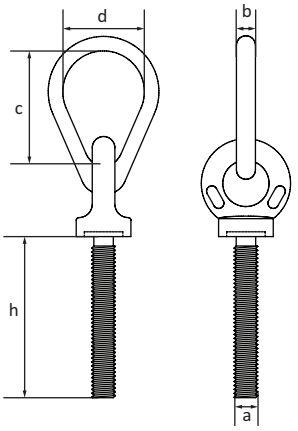
Material: Eyebolt: Grade 4. Link: High tensile steel
Safety Factor: MBL equals 5 x WLL
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: For eyebolt dimensions refer to BS ISO 3266:2010 tables
BSW thread also available



WLL	Diameter Thread	Diameter Link	Length Link	Width Link	Length Thread	Product Code	Weight Each
	a	b	c	d	h		
t	mm	mm	mm	mm	mm		kg
0.20	8	11	70	35	18	24101	0.22
0.32	10	11	70	35	18	24102	0.22
0.40	12	11	70	35	18	24103	0.23
0.80	16	16	100	50	23	24104	0.62
1.60	20	19	120	55	32	24105	1.17
2.50	24	25	152	76	40	24106	2.66

Long Shank Collared Eyebolts
c/w reevable egg link

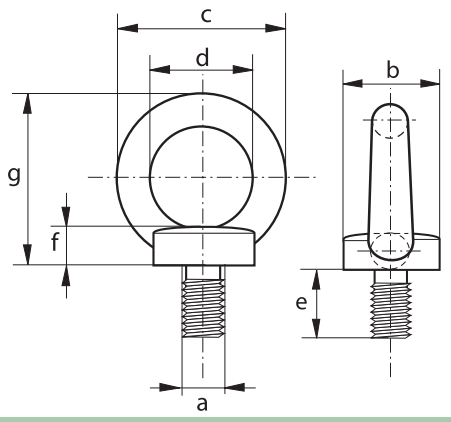
Material: High tensile steel
Safety Factor: MBL equals 5 x WLL
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity
Note: BSW thread also available



WLL	Diameter Thread	Diameter Link	Length Link	Width Link	Length Thread	Product Code	Weight Each
	a	b	c	d	h		
t	mm	mm	mm	mm	mm		kg
0.25	10	11	70	35	178	24301	0.47
0.40	12	11	70	35	178	24302	0.48
0.80	16	16	100	50	178	24303	1.06
1.60	20	19	120	55	178	24304	1.87
2.50	24	25	152	76	190	24305	4.16
4.00	30	32	203	98	190	24306	6.45

Eyebolts
generally to DIN580

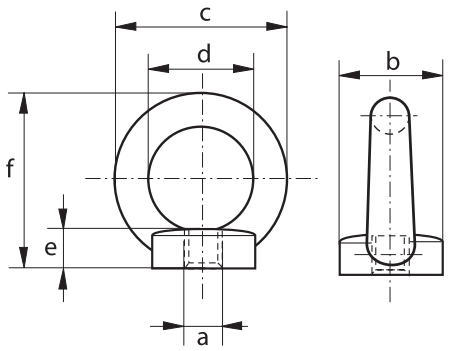
Material: Carbon steel, C15
Safety Factor: MBL equals 6 x WLL
Standard: Generally to DIN580
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Length	Thickness Collar	Height	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	g	self colour	zinc plated	
t	mm	mm	mm	mm	mm	mm	mm			kg
0.07	6	20	36	20	13	6	36	25001	25501	0.06
0.14	8	20	36	20	13	6	36	25002	25502	0.06
0.23	10	25	45	25	17	8	45	25003	25503	0.10
0.34	12	30	54	30	20.5	10	53	25004	25504	0.18
0.49	14	35	63	35	27	12	60	25005	25505	0.28
0.70	16	35	63	35	27	12	62	25006	25506	0.28
0.90	18	40	72	40	30	14	71	25007	25507	0.41
1.20	20	40	72	40	30	14	71	25008	25508	0.42
1.50	22	45	81	45	35	14	80	25009	25509	0.67
1.80	24	50	90	50	36	18	90	25010	25510	0.83
2.50	27	50	90	50	36	18	90	25011	25511	1.22
3.20	30	65	108	60	45	22	109	25012	25512	1.66
4.30	33	65	108	60	45	22	110	25013	25513	2.16
4.60	36	75	126	70	54	26	128	25014	25514	2.65
6.10	39	75	126	70	54	26	130	25015	25515	3.34
6.30	42	85	144	80	63	30	147	25016	25516	4.03
8.00	45	85	144	80	63	30	150	25017	25517	5.25
8.60	48	100	166	90	68	35	168	25018	25518	6.32
11.50	56	110	184	100	78	38	187	25019	25519	8.80
16.00	64	120	206	110	90	42	208	25020	25520	12.40

Eyenuts
generally to DIN582

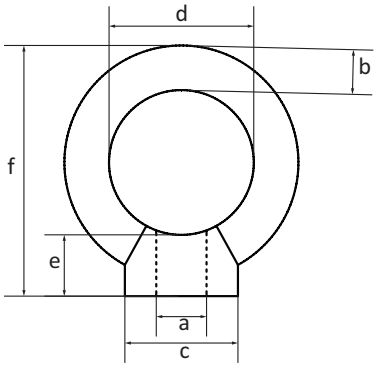
Material: Carbon steel, C15
Safety Factor: MBL equals 6 x WLL
Standard: Generally to DIN582
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Base	Height	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	self colour	zinc plated	
t	mm	mm	mm	mm	mm	mm			kg
0.07	6	20	36	20	8.5	36	26001	26501	0.05
0.14	8	20	36	20	8.5	36	26002	26502	0.05
0.23	10	25	45	25	10	45	26003	26503	0.09
0.34	12	30	54	30	11	53	26004	26504	0.16
0.49	14	35	63	35	13	60	26005	26505	0.22
0.70	16	35	63	35	13	62	26006	26506	0.24
1.20	20	40	72	40	16	71	26007	26507	0.35
1.50	22	45	81	45	18	80	26008	26508	0.59
1.80	24	50	90	50	20	90	26009	26509	0.71
2.50	27	50	90	50	20	90	26010	26510	1.02
3.20	30	65	108	60	25	109	26011	26511	1.32
4.30	33	65	108	60	25	110	26012	26512	1.70
4.60	36	75	126	70	30	128	26013	26513	2.08
6.10	39	75	126	70	30	130	26014	26514	2.60
6.30	42	85	144	80	35	147	26015	26515	3.11
8.00	45	85	144	80	35	150	26016	26516	4.07
8.60	48	100	166	90	40	168	26017	26517	5.02

Eyenuts
metric coarse thread

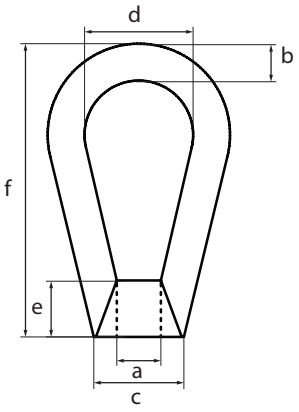
Material: High tensile steel
Safety Factor: MBL equals 5 x WLL
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Note: BSW thread also available



WLL	Diameter Thread	Diameter Eye	Diameter Base	Diameter Inside	Thickness Collar	Height	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	self colour	zinc plated	
t	mm	mm	mm	mm	mm	mm			kg
0.30	10	13	29	44	22	78	27001	27101	0.47
0.50	12	13	29	44	22	78	27002	27102	0.48
0.80	16	13	29	44	22	78	27003	27103	1.06
1.20	20	16	39	49	26	84	27004	27104	1.87
2.20	24	19	44	52	38	111	27005	27105	4.16

Bownuts
metric coarse thread

Material: High tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: Generally to BS3974, part 1, 1974
Finish: Self colour or zinc plated
Certificate: As standard; EC Declaration of Conformity
Note: BSW thread also available

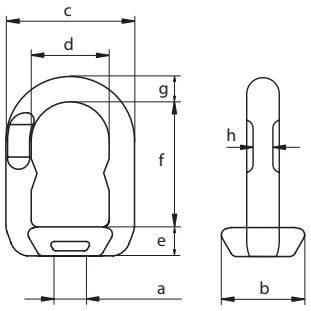


WLL	Diameter Thread	Diameter Eye	Diameter Base	Diameter Inside	Thickness Collar	Height	Product Code	Product Code	Weight Each
	a	b	c	d	e	f	self colour	zinc plated	
t	mm	mm	mm	mm	mm	mm			kg
0.23	8	10	32	25	16	64	28001	28101	0.15
0.36	10	10	32	25	16	64	28002	28102	0.15
0.53	12	12	38	30	17	73	28003	28103	0.27
1.01	16	12	38	30	17	73	28004	28104	0.29
1.58	20	14	45	40	25	102	28005	28105	0.50
2.28	24	17	50	50	29	124	28006	28106	0.90
3.65	30	26	70	75	29	149	28007	28107	2.20
5.34	36	26	70	75	29	149	28008	28108	2.20

Green Pin® Eyenut, EL

metric coarse thread

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: EN1677-1 and ASME B30.26
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

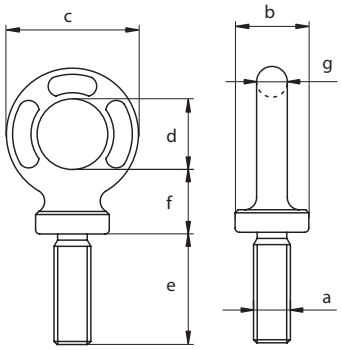


WLL	Diameter Thread	Diameter Base	Width	Width Inside	Thickness Base	Length Inside	Diameter	Thickness	Product Code	Weight Each
	a	b	c	d	e	f	g	h		
t	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.2	6 x 1.00	31	51	30	14	45	11	6	29901	0.15
0.4	8 x 1.25	31	51	30	14	45	11	6	29902	0.15
0.7	10 x 1.50	31	51	30	14	45	11	6	29903	0.15
1	12 x 1.75	39	56	32	15	48	12	6	29904	0.23
1.2	14 x 2.00	39	56	32	15	48	12	6	29905	0.23
1.5	16 x 2.00	44	65	37	16	60	14	8	29906	0.38
2	18 x 2.50	44	65	37	16	60	14	9	29907	0.38
2.5	20 x 2.50	44	65	37	16	60	14	9	29908	0.37
3	22 x 2.50	52	79	49	21	75	16	11	29909	0.63
4	24 x 3.00	52	79	49	21	75	16	11	29910	0.63
5	27 x 3.00	52	79	49	21	75	16	11	29911	0.63
6	30 x 3.50	66	96	58	24	88	21	14	29912	1.11
7	33 x 3.50	66	96	58	24	88	21	14	29913	1.11
8	36 x 4.00	84	121	73	39	100	25	17	29914	2.22
9	39 x 4.00	84	121	73	39	100	25	17	29915	2.22
10	42 x 4.50	84	121	73	39	100	25	17	29916	2.22
15	45 x 4.50	90	132	82	41	122	25	22	29917	3.27
18	48 x 5.00	90	132	82	41	122	25	22	29918	3.27

Green Pin® Lifting Eyebolt, AL

metric coarse thread

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: EN1677-1 and ASME B30.26
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

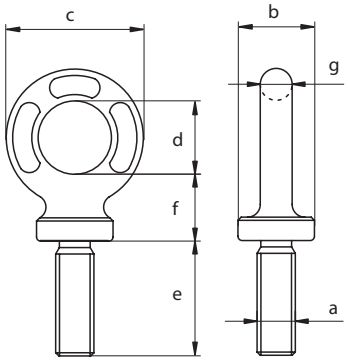


WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Length	Thickness Collar	Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g		
t	mm	mm	mm	mm	mm	mm	mm		kg
0.2	6 x 1.00	20	34	20	20	17	7	29701	0.05
0.4	8 x 1.25	20	34	20	24	17	7	29702	0.06
0.7	10 x 1.50	20	38	22	30	19	8	29703	0.08
1	12 x 1.75	25	47	27	36	23	10	29704	0.14
1.2	14 x 2.00	30	57	30	40	27	14	29705	0.25
1.5	16 x 2.00	36	63	35	55	31	14	29706	0.39
2	18 x 2.50	36	63	35	55	31	14	29707	0.40
2.5	20 x 2.50	40	72	40	59	34	16	29708	0.58
3	22 x 2.50	42	82	45	66	38	19	29709	0.77
4	24 x 3.00	55	95	55	84	40	20	29710	1.19
5	27 x 3.00	55	95	55	84	40	20	29711	1.18
6	30 x 3.50	60	108	60	99	51	24	29712	1.87
7	33 x 3.50	60	108	60	99	51	24	29713	1.96
8	36 x 4.00	65	118	68	117	48	25	29714	2.44
9	39 x 4.00	65	118	68	117	48	25	29715	2.59
10	42 x 4.50	70	142	80	135	61	31	29716	4.14
15	45 x 4.50	70	142	80	135	61	31	29717	4.15
18	48 x 5.00	95	181	97	150	69	42	29718	8.22
20	52 x 5.00	95	181	97	150	69	42	29719	8.55
25	56 x 5.50	95	181	97	150	69	42	29720	8.85
30	60 x 5.50	95	181	97	150	69	42	29721	9.16
36	64 x 6.00	95	181	97	150	69	42	29722	9.55

Green Pin® Lifting Eyebolt as DIN580, ALDIN

metric coarse thread

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: EN1677-1 and ASME B30.26
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

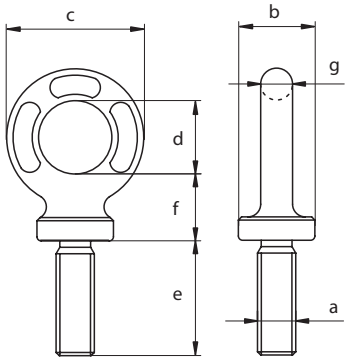


WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Length	Thickness Collar	Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g		
t	mm	mm	mm	mm	mm	mm	mm		kg
0.2	6 x 1.00	20	34	20	13	17	7	29751	0.05
0.4	8 x 1.25	20	34	20	13	17	7	29752	0.05
0.7	10 x 1.50	20	38	22	17	19	8	29753	0.08
1	12 x 1.75	25	47	27	21	23	10	29754	0.13
1.2	14 x 2.00	30	57	30	27	27	14	29755	0.24
1.5	16 x 2.00	36	63	35	27	31	14	29756	0.34
2	18 x 2.50	36	63	35	30	31	14	29757	0.36
2.5	20 x 2.50	40	72	40	30	34	16	29758	0.52
3	22 x 2.50	42	82	45	36	38	19	29759	0.74
4	24 x 3.00	55	95	55	36	40	20	29760	1.00
5	27 x 3.00	55	95	55	45	40	20	29761	1.03
6	30 x 3.50	60	108	60	45	51	24	29762	1.66
7	33 x 3.50	60	108	60	54	51	24	29763	1.66
8	36 x 4.00	65	118	68	54	48	25	29764	2.03
9	39 x 4.00	65	118	68	63	48	25	29765	2.08
10	42 x 4.50	70	142	80	63	61	31	29766	3.37
15	45 x 4.50	70	142	80	68	61	31	29767	3.47
18	48 x 5.00	95	181	97	68	69	42	29768	7.17
20	52 x 5.00	95	181	97	78	69	42	29769	7.53
25	56 x 5.50	95	181	97	78	69	42	29770	7.52
30	60 x 5.50	95	181	97	90	69	42	29771	7.78
36	64 x 6.00	95	181	97	90	69	42	29772	8.42

Green Pin® Lifting Eyebolt, ALUNC

UNC thread

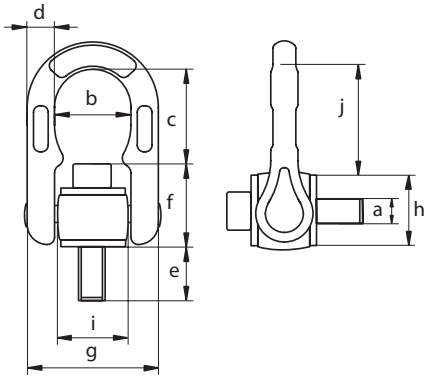
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: EN1677-1 and ASME B30.26
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Length	Thickness Collar	Diameter	Product Code	Weight Each
	a	b	c	d	e	f	g		
t	inch	mm	mm	mm	mm	mm	mm		kg
0.2	1/4 20UNC	20	34	20	20	17	7	29781	0.05
0.7	3/8 16UNC	20	38	22	30	19	8	29782	0.08
1	1/2 13UNC	25	47	26	36	23	10	29783	0.14
1.5	5/8 11UNC	36	65	35	53	30	14	29784	0.38
2.5	3/4 10UNC	40	73	39	58	34	16	29785	0.55
3	7/8 9UNC	42	82	44	64	38	19	29786	0.81
4	1 8UNC	55	95	54	84	40	20	29787	1.14
5	1.1/8 7UNC	55	95	54	84	40	20	29788	1.21
6	1.1/4 7UNC	60	108	59	99	49	24	29789	1.90
8	1.1/2 6UNC	65	118	67	117	45	25	29790	2.52
10	1.3/4 5UNC	70	142	80	135	61	31	29791	4.26
15	2 4.1/2UNC	70	142	80	135	61	31	29792	4.66
25	2.1/2 4UNC	95	181	97	150	69	42	29793	9.55

Green Pin® Rotating Hoist Ring, ADA

metric coarse thread

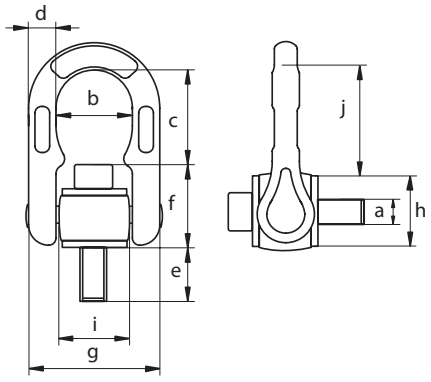


Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: EN1677-1 and generally to ASME B30.26
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Rolled thread bolt. WLL indicated below are given in the worst conditions of use, i.e. 90°
Long Shank also available

WLL	Diameter Thread	Width Inside	Length Inside	Diameter	Length	Thickness Base	Width Outside	Diameter Base	Diameter Base	Length Inside	Hex Key	Torque Value	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j				
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
0.4	8 x 1.25	36	42	12	18	35	69	34	35	43	6	6.5	29801	0.43
0.7	10 x 1.50	36	40	12	18	37	69	34	35	43	8	13	29802	0.44
1	12 x 1.75	36	38	12	23	39	69	34	35	43	10	22	29803	0.46
1.3	14 x 2.0	36	36	12	23	41	69	34	35	43	12	35	29804	0.47
1.6	16 x 2.0	36	43	12	28	43	69	34	35	52	14	55	29805	0.52
2	18 x 2.5	36	41	12	28	45	69	34	35	52	14	80	29806	0.54
2.5	20 x 2.5	36	39	12	33	47	69	34	35	52	17	110	29807	0.59
3	22 x 2.5	53	57	19	32	70	104	49	52	71	17	150	29808	1.88
4	24 x 3.0	53	56	19	37	72	104	49	52	71	19	190	29809	1.93
5	27 x 3.0	53	63	19	45	64	104	49	52	71	19	280	29810	1.96
6.3	30 x 3.5	53	63	19	45	64	104	49	52	71	19	380	29811	2.03
7	33 x 3.5	73	93	30	54	83	149	68	72	98	19	520	29812	5.28
10	36 x 4.0	73	93	30	54	83	149	68	72	98	19	600	29813	5.35
10	39 x 4.0	73	93	30	63	83	149	68	72	98	19	870	29814	5.45
12.5	42 x 4.5	71	87	30	63	84	146	68	77	98	19	1000	29815	5.56

Green Pin® Rotating Hoist Ring, ADAUNC

UNC thread



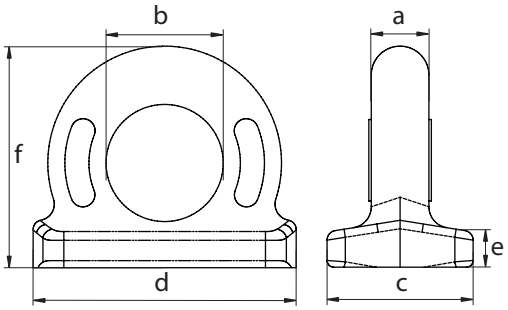
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: EN1677-1 and generally to ASME B30.26
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Rolled thread bolt. WLL indicated below are given in the worst conditions of use, i.e. 90°

WLL	Diameter Thread		Width Inside	Length Inside	Diameter	Length	Thickness Base	Width Outside	Diameter Base	Diameter Base	Length Inside	Hex Key	Torque Value	Product Code	Weight Each
	a		b	c	d	e	f	g	h	i	j				
t	inch		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm		kg
0.4	5/16	18UNC	36	42	12	18	35	69	34	35	43	6	6.5	29851	0.43
0.6	3/8	16UNC	36	40	12	18	37	69	34	35	43	8	13	29852	0.44
1	1/2	13UNC	36	38	12	24	39	69	34	35	43	10	22	29853	0.46
1.7	5/8	11UNC	36	43	12	31	43	69	34	35	52	13	55	29854	0.55
2.5	3/4	10UNC	36	39	12	31	47	69	34	35	52	16	110	29855	0.55
3.5	7/8	9UNC	53	57	19	35	70	104	49	52	71	19	150	29856	1.88
4.5	1	8UNC	53	54	19	41	73	104	49	52	71	19	190	29857	1.93
6.8	1.1/4	7UNC	53	62	19	55	64	104	49	52	71	19	380	29858	2.11
10.8	1.1/2	6UNC	73	92	30	75	83	146	68	72	98	19	600	29859	5.55
13.6	2	4.1/2UNC	73	96	30	75	80	146	68	72	98	19	1000	29860	6.20

Deck Plates MOD Specification

for welding

Material: BS970 150 M19 or equal
Standard: To admiralty pattern, drawing 002521434
Finish: Self colour, normalised condition, hardness HB152-207
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: This product is identified with a proof load. This is subject to the correct welding procedure being carried out.
We are unable to offer any advice on welding materials or procedures



Proof Load	AP No.	Diameter		Diameter Inside	Width Base	Length Base	Thickness Base	Height Overall	Product Code	Weight Each
		a	a	b	c	d	e	f		
t		inch	mm	mm	mm	mm	mm	mm		kg
2.00	4014	3/8	10	20	25	45	6	38	79001V	0.14
3.50	4015	1/2	12	25	35	60	8	50	79002V	0.33
5.50	4016	5/8	16	32	45	70	10	64	79003V	0.53
7.50	4017	3/4	19	38	50	85	12	76	79004V	0.77
9.60	4018	7/8	22	42	60	102	13	89	79005V	1.27
13.00	4019	1	25	50	70	115	16	100	79006V	2.00
15.75*	4020	1.1/8	28	57	76	130	18	114	79007V	2.90
20.00	4021	1.1/4	32	64	85	145	19	128	79008V	3.86
29.00	4023	1.1/2	38	76	100	170	22	152	79009V	6.58
50.00**	4027	2	50	100	140	230	30	203	79010V	14.98

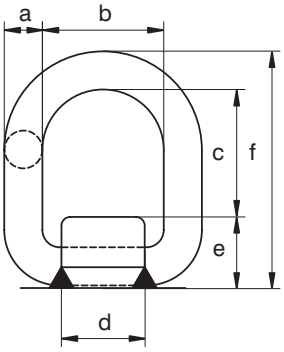
size marked * are additional and proportional to the specification

size marked ** material and certification differs to above

Green Pin® Transport Ring, PAS

for welding

Material: Base: mild steel. Ring: alloy steel. Grade 8. quenched and tempered
Safety Factor: MBL equals 4 x WLL
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Welding must be done in accordance with DIN 5817 rep. 15429, by a qualified welder according to EN287-1



WLL	Diameter Thread	Width Inside	Length Inside	Length Base	Height Base	Length	Product Code	Weight Each
	a	b	c	d	e	f		
t	mm	mm	mm	mm	mm	mm		kg
1.2	13	40	41	35	28	82	79101	0.40
3.2	18	45	47	42	33	98	79102	0.77
5.4	22	55	57	49	42	121	79103	1.42
8.2	26	70	67	64	50	143	79104	2.50
12.8	28	85	90	78	55	173	79105	3.70
15.5	34	99	93	90	63	190	79106	5.67

Section 3 | Wire Rope Grips

Contents **Page**

Wire Rope Grips

Applications

Wire rope grips are used on wire rope eye-loop connections and on complete loops. They are used in end-to-end connections where socketing or splicing is not feasible and when a temporary joint is required.

Design

Wire rope grips are drop forged and have a bridge with grooves to tighten the wire rope properly in the grip; the DIN wire rope grips have a malleable base, without grooves.

Wire rope grips are generally marked with:

- manufacturer's symbol - e.g. GP
- wire rope diameter in mm or inches - e.g. 13 or 1/2"

Instructions for use

Wire rope grips should be inspected before use to ensure that:

- all markings are legible;
- a wire rope grip with the correct dimensions has been selected;
- the nuts or any other locking system cannot vibrate out of position;
- the wire rope grip is free from nicks, gouges and cracks;

Never modify, repair or reshape a wire rope grip by machining, welding, heating or bending as this may affect their performance.

The wire rope grip should be fitted to the wire rope as shown in below figures. The bridge of the wire rope grip should always be placed on the load bearing part of the rope. The U-bolt of the grip should be placed on the rope tail, also known as the dead end of the rope. Turn back enough wire rope length so that the required minimum number of grips can be installed according to the instructions below. The first grip must be placed one bridge width from the turned-back rope tail or dead end of the rope, according to figure 1. Tighten the nuts to the specified torque.

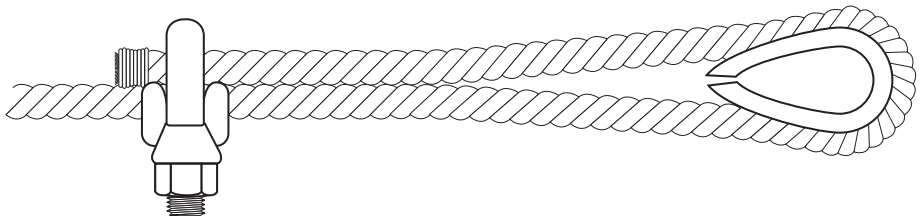


Figure 1

The second grip must be placed immediately against the thimble. Take care that the correct tightening of the grip does not damage the outer wires of the wire rope (figure 2). Tighten the nuts firmly but not yet to the specified torque.

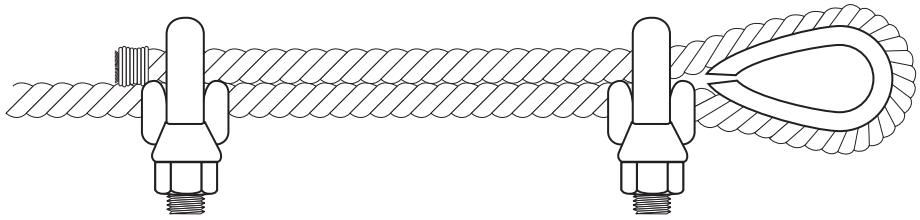
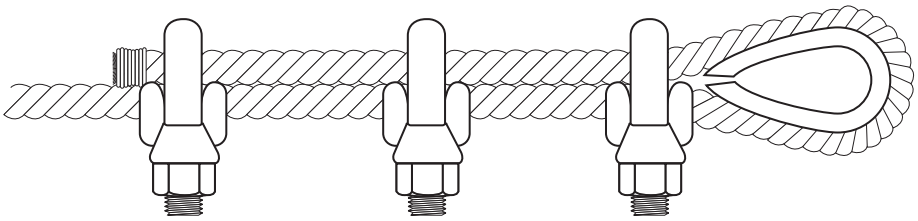


Figure 2

The following grips should be placed on the wire rope between the first and second grip in such a way that they are separated by at least 1½ times the grip-width with a maximum of 3 times the grip-width, according to figure 3.

Figure 3



Apply light tension on the rope and tighten all nuts evenly, alternating until reaching the specified torque. After assembly and before the rope is taken into service, the nuts must be tightened further to the prescribed torque. After the load has been applied to the assembly for the first time, the torque value must be checked and corrected if necessary. Re-tightening of the nuts must be done at 10,000 cycles (heavy usage), 20,000 cycles (moderate usage) or 50,000 cycles (light usage). If cycles are unknown, a competent person could fix a time period, e.g. every 3 months, 6 months, annually.

The torque values and the minimum number of grips to be applied for a particular rope size are given in the following tables.

diameter wire rope		min. no of clips required	length of rope to turn back	torque value	torque value
inch	mm		mm	Nm	Ft.Lbs
1/8	3 - 4	2	85	6.1	4.5
3/16	5	2	95	10.2	7.5
1/4	6 - 7	2	120	20.3	15
5/16	8	3	133	40.7	30
3/8	9 - 10	3	165	61	45
7/16	11	3	178	88	65
1/2	12 - 13	3	292	88	65
9/16	14 - 15	3	305	129	95
5/8	16	3	305	129	95
3/4	18 - 20	4	460	176	130
7/8	22	4	480	305	225
1	24 - 26	5	660	305	225
1.1/8	28 - 30	6	860	305	225
1.1/4	32 - 34	7	1120	488	360
1.3/8	36	7	1120	488	360
1.1/2	38 - 40	8	1370	488	360
1.5/8	41 - 42	8	1470	583	430
1.3/4	44 - 46	8	1550	800	590
2	48 - 52	8	1800	1017	750
2.1/4	56 - 58	8	1850	1017	750
2.1/2	62 - 65	9	2130	1017	750
2.3/4	68 - 72	10	2540	1017	750
3	75 - 78	10	2690	1627	1200

Table 1, Green Pin® wire rope grips generally to EN 13411-5 Type B, required number and torque value

diameter wire rope	min. no of clips required	torque value	torque value
mm		Nm	Ft.Lbs
5	3	2	1.5
6.5	3	3.5	2.6
8	4	6	4.4
10	4	9	6.6
12	4	20	14.8
13	4	33	24.3
14	4	33	24.3
16	4	49	36
19	5	68	50
22	5	107	79
26	5	147	108
30	6	212	156
34	6	296	218
40	6	363	268

Table 2, Wire rope grips generally to EN 13411-5 Type A, required number and torque value

The efficiency of a wire rope termination made with wire rope grips depends on the correct placement of the grips on the rope and on correct fitting and tightening of the grips. With inadequately tightened nuts or with an insufficient number of wire rope grips the rope end may slide through the grips during use.

The fitting of the grips on the ropes may be affected by various circumstances, such as:
- the nut may be tight on the thread, yet not tight against the bridge;
- contamination of the thread by dirt, oil or corrosive products, which may prevent correct tightening of the nut.

Forged wire rope grips provide greater bearing surface and more consistent strength than malleable cast iron grips.

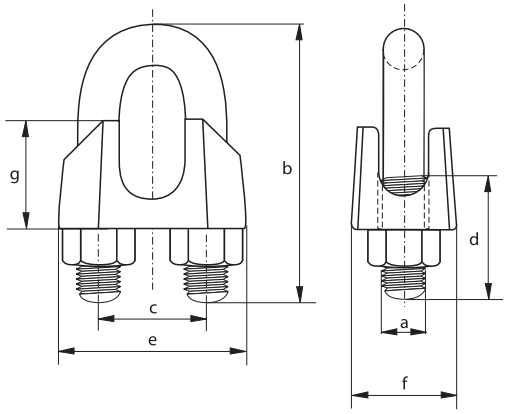
Suitable applications of wire rope grips to EN 13411-5 standards include suspending static loads and single use lifting operations which have been assessed by a competent person taking into account appropriate safety factors.

Wire rope grips should not be used in following applications:
- hoist ropes in mines;
- rope drives for cranes in steel works and rolling mills;
- permanent fastening of ropes in other rope drives;
- rope terminations for load suspension devices in the operation of lifting appliances, except in the case of lifting tackles where these are produced for a special application and used only once.

Wire rope grips must be regularly inspected 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. which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use) and more frequently when the products are used in severe operating conditions.

Wire Rope Grips
commercial pattern

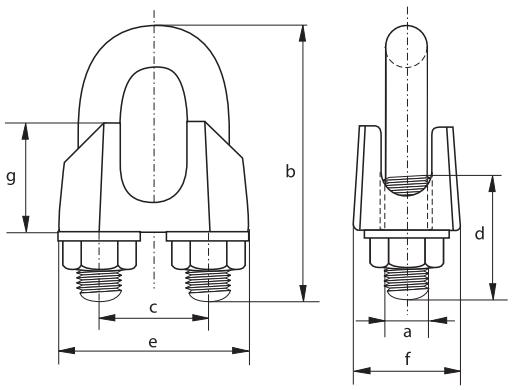
Material: Bridge: malleable steel casting
U-bolt: mild steel
Standard: DIN 741
Finish: Electo galvanised



Diameter Wire Rope	Diameter	Length Bow	Width Inside	Length Thread	Length Base	Thickness Base	Height Base	Product Code	Weight Each
	a	b	c	d	e	f	g		
mm	mm	mm	mm	mm	mm	mm	mm		kg
3	4	20	9	12	21	10	10	32001	0.01
5	5	24	11	13	23	11	10	32002	0.02
6	5	28	13	15	26	12	11	32003	0.02
8	6	34	16	19	30	14	15	32004	0.04
10	8	42	19	22	34	18	17	32005	0.06
11	8	44	20	22	36	19	18	32006	0.07
13	10	55	24	30	42	23	21	32007	0.12
14	10	57	25	30	44	23	22	32008	0.13
16	12	63	29	33	50	26	26	32009	0.20
19	12	75	32	38	54	29	30	32010	0.25
22	14	85	37	44	61	33	34	32011	0.34
26	14	95	41	45	65	35	37	32012	0.41
30	16	110	48	50	74	37	43	32013	0.62
34	16	120	52	55	80	42	50	32014	0.74
40	16	140	58	60	88	45	55	32015	0.90
50	20	170	72	77	106	51	65	32016	1.74

Wire Rope Grips
heavy duty

Material: Bridge: malleable steel casting
U-bolt: mild steel
Standard: EN 13411-5 Type A, formerly DIN 1142
Finish: Electo galvanised



Diameter Wire Rope	Diameter	Length Bow	Width Inside	Length Thread	Length Base	Thickness Base	Height Base	Product Code	Weight Each
	a	b	c	d	e	f	g		
mm	mm	mm	mm	mm	mm	mm	mm		kg
5	5	25	12	14	25	13	13	31001	0.02
6.5	6	32	14	17	30	16	14	31002	0.04
8	8	41	18	20	39	20	18	31003	0.08
10	8	46	20	24	40	20	21	31004	0.09
12	10	56	24	28	50	25	24	31005	0.22
13	12	64	29	29	55	28	29	31006	0.25
14	12	66	28	31	59	30	28	31007	0.27
16	14	76	34	35	64	32	35	31008	0.40
19	14	83	37	36	68	33	40	31009	0.49
22	16	96	41	40	74	34	44	31010	0.63
26	20	111	46	50	84	38	51	31011	1.11
30	20	127	54	55	95	41	59	31012	1.44
34	22	141	60	60	105	45	67	31013	2.20
40	24	159	68	65	117	49	77	31014	2.60

Green Pin® Wire Rope Grips, G-6240

generally to EN 13411-5 type B

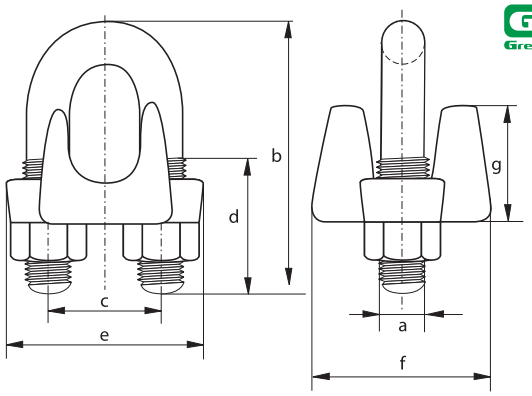
Material: Bridge: drop forged high tensile steel SAE 1045
U-bolt: SAE 1015

Standard: EN 13411-5 Type B, formerly US Fed Spec FF-C-450d

Finish: Hot dipped galvanised

Temp Range: Nuts for dia bow 5mm 6mm, 8mm and 10mm are electro galvanised

Certificate: Upon request; 2.2, 2.1, EC



Diameter Wire Rope	Diameter	Length Bow	Width Inside	Length Thread	Length Base	Thickness Base	Height Base	Product Code	Weight Each
	a	b	c	d	e	f	g		
inch	mm	mm	mm	mm	mm	mm	mm		kg
1/8	5	24	12	11	24	21	10	30001	0.02
3/16	6	31	15	13	29	24	13	30002	0.04
1/4	8	34	19	13	37	30	18	30003	0.08
5/16	10	45	22	19	43	33	19	30004	0.14
3/8	11	49	26	19	49	42	25	30005	0.19
7/16	12	60	30	25	58	46	26	30006	0.31
1/2	13	61	30	25	58	48	31	30007	0.34
9/16	14	72	33	32	63	52	31	30008	0.36
5/8	14	74	33	32	64	54	36	30009	0.45
3/4	16	86	38	37	72	57	38	30010	0.68
7/8	19	98	45	41	80	62	40	30011	1.08
1	19	108	48	46	88	67	47	30012	1.13
1.1/8	19	117	51	51	91	73	48	30013	1.40
1.1/4	22	130	59	54	105	79	56	30014	2.07
1.3/8	22	140	60	59	108	79	58	30015	2.34
1.1/2	22	147	66	60	112	85	64	30016	2.66
1.5/8	25	161	70	67	121	92	67	30017	3.29
1.3/4	29	174	78	70	134	97	76	30018	4.41
2	32	195	86	78	150	113	85	30019	6.03
2.1/4	32	213	98	81	162	116	100	30020	7.07
2.1/2	32	227	105	87	168	119	113	30021	8.06
2.3/4	32	243	112	91	174	127	124	30022	10.00
3	38	271	121	98	194	135	136	30023	14.40

Gripple Self Locking Wire Rope Grips
Lockable

Material: Body: zinc alloy
Locking wedge: sintered steel
Spring: stainless steel

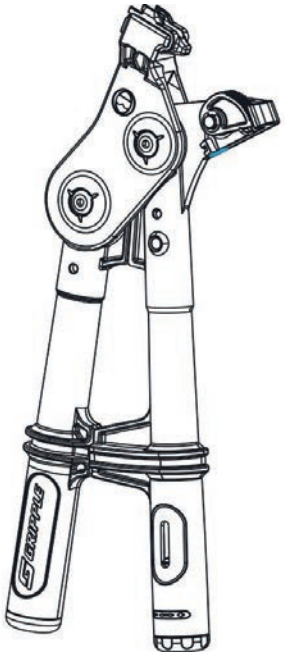
Safety Factor: MBL equals 5 x WLL
was designed to take this into account
and to be stronger than rope.

Diameter Wire Rope	WLL	MBL	Product Code	Weight Each
mm	kgs	kgs		kg
2	70	1500	33001	0.06
3	150	2000	33002	0.06
4	300	1500	34001	0.09
5	400	2000	34002	0.09
6	500	2500	34003	0.19

There are many types of specifications of wire rope, each having different strengths and characteristics. The lockable gripple was designed to take this into account and to be stronger than rope. Each lockable gripple clearly states the MBL and the WLL at 1/5 of the MBL for complete safety.

After assembly the lockable gripple simply works by tightening the ingenious locking screws to prevent any movement of the wedges and firmly secures the wire rope in place.

Also available:
The gripple tensioning tool is required to release the gripple after assembly, this is only available for sizes 3mm to 6mm. The gripple tensioning tool can also be used to generate up to 300 kgs load, ideal for tensioning after the initial installation or carrying out repairs and maintenance.



Product Code
35001

Section 4 | Thimbles

Contents **Page**

Thimbles

Applications

Thimbles are used to protect steel wire rope, fibre rope or synthetic rope. They are available in various models and sizes. All indicated types of thimbles in this catalogue can be used in combination with the above mentioned types of ropes.

Design

Brierley Lifting offer different type of thimble designs:

- Thimbles generally to US Federal Specification FF-T-276b type III;
- Thimbles according to EN 13411-1;
- Standard commercial thimbles;
- Heavy duty stub-end thimbles;

These types of thimbles can be cold-rolled, hot-rolled or die cast depending on the specific type of thimble.

Instructions for use

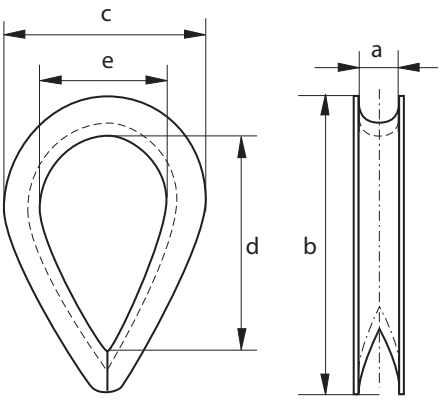
Thimbles must be regularly inspected in accordance with the standards given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading which may lead to deformation and/or alteration of the steel structure.

Make sure that the (wire) rope fits properly into the groove of the thimble you use. The nominal size of the thimble represents the diameter of the (wire) rope for which it is intended to be used. If there is no thimble available with a nominal size that meets the size of your (wire) rope, the next larger size of thimble must be used.

Before use, check if the thimble is free from impurities, sharp edges, cracks or other irregularities which may damage the wire rope and therefore affect the performance of the wire rope.

Thimbles
standard pattern

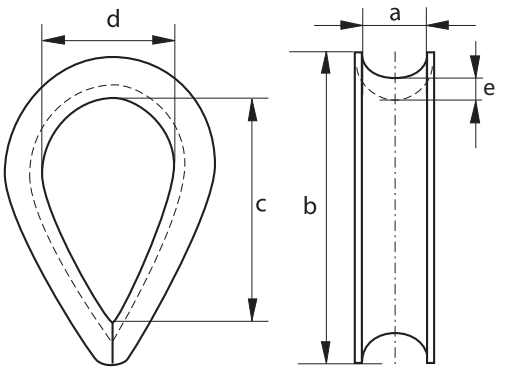
Material: Mild steel
Finish: Electo galvanised



Diameter Rope	Width Groove	Length	Width	Length Inside	Width Inside	Product Code	Weight per 100
	a	b	c	d	e		
mm	mm	mm	mm	mm	mm		kg
4	4	25	19	16	11	40001	0.5
5	5	31	22	22	16	40002	1.0
6	6	37	29	26	19	40003	1.5
8	8	51	38	34	24	40005	2.5
10	10	64	44	42	32	40007	6.5
12	12	76	57	51	38	40009	8.5
16	16	89	64	60	42	40011	13
20	20	115	79	76	51	40013	25
22	22	127	89	83	54	40014	32
24	24	138	102	88	64	40015	46
26	26	152	105	102	68	40016	53.5
28	28	165	115	110	73	40017	77
30	30	178	121	115	79	40018	80
32	32	203	133	140	93	40019	130

Thimbles
heavy duty stub-end

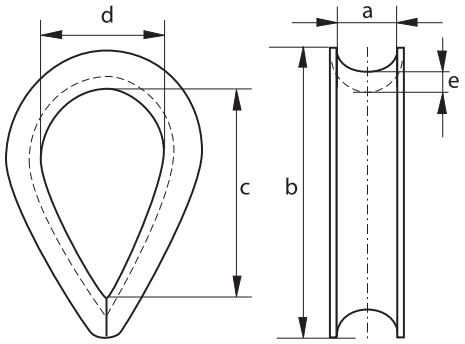
Material: Mild steel
Finish: Hot dipped galvanised



Diameter Rope	Width Groove	Length	Length Inside	Width Inside	Thickness	Product Code	Weight Each
	a	b	c	d	e		
mm	mm	mm	mm	mm	mm		kg
8	9	51	35	22	4	41001	0.06
10	11	64	47	30	4	41002	0.07
12	13	76	57	35	5	41003	0.14
14	15	89	65	45	6	41004	0.22
16	18	102	76	50	6	41005	0.24
18	20	114	86	53	8	41006	0.43
20	22	127	94	60	9	41007	0.65
22	24	140	107	65	10	41008	0.93
24	26	152	114	70	10	41009	1.02
28	30	178	130	80	10.5	41010	1.35
32	34	203	157	100	10.5	41011	1.62
36	38	229	177	115	12	41012	3.63
40	42	254	198	120	12	41013	3.76
44	46	279	214	130	15	41014	6.09
50	53	305	215	140	20	41015	9.60

Thimbles
british standard

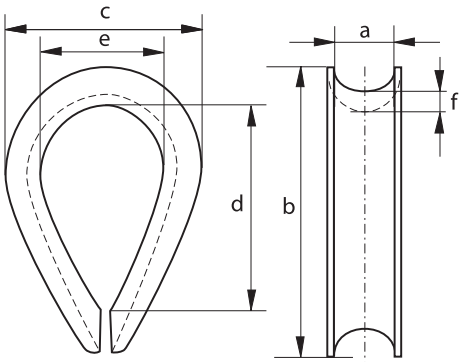
Material: Mild steel
Standard: Generally to EN 13411-1, formally BS 464
Finish: Hot dipped galvanised



Diameter Rope	Width Groove	Length	Length Inside	Width Inside	Thickness	Product Code	Weight Each
	a	b	c	d	e		
inch	mm	mm	mm	mm	mm		kg
1/4	7	48	30	20	3.5	42001	0.04
5/16	8	54	33	22	4	42002	0.05
3/8	10	64	38	25	4.8	42003	0.09
7/16	13	73	41	29	4.8	42004	0.11
1/2	14	80	44	32	5.6	42005	0.17
9/16	15	80	44	32	5.6	42005	0.19
5/8	17	98	59	41	7.9	42006	0.23
11/16	19	108	67	44	7.9	42007	0.40
3/4	20	124	73	51	9.5	42008	0.45
7/8	23	133	83	57	9.5	42009	0.61
15/16	25	146	92	64	10.3	42010	0.76
1	27	162	108	70	10.3	42011	0.98
1.1/8	29	178	111	76	12.7	42012	1.41
1.1/4	33	197	133	95	12.7	42013	1.64
1.3/8	38	229	152	105	15.9	42014	2.21
1.1/2	41	254	165	114	17.5	42015	3.71
1.5/8	47	254	165	114	17.5	42016	4.99
1.3/4	51	286	178	127	25.4	42017	5.82
1.7/8	60	318	191	133	28.6	42018	7.40
2	64	330	203	140	28.6	42019	7.99

Thimbles
US fed spec

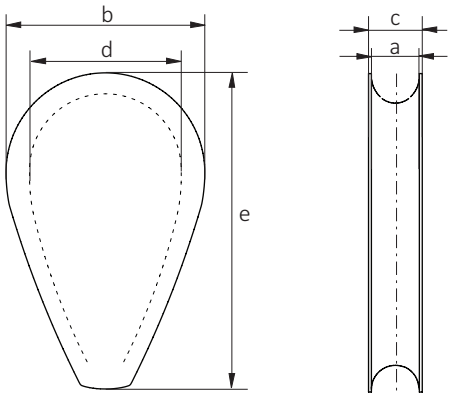
Material: Mild steel
Standard: Generally to US Fed Spec FF-T-276b type III
Generally to EN 13411-1
Finish: Hot dipped galvanised



Diameter Rope	Length	Width	Length Inside	Width Inside	Thickness	Product Code	Weight Each
a	b	c	d	e	f		
inch	inch	inch	inch	inch	inch		kg
1/4	2.3/16	1.1/2	1.5/8	7/8	1/16	43001	0.03
5/16	2.1/2	1.13/16	1.7/8	1.1/16	5/64	43002	0.06
3/8	2.7/8	2.1/8	2.1/8	1.1/8	7/64	43003	0.09
7/16	3.1/4	2.3/8	2.3/8	1.1/4	1/8	43004	0.14
1/2	3.5/8	2.3/4	2.3/4	1.1/2	9/64	43005	0.23
9/16	3.5/8	2.11/16	2.3/4	1.1/2	9/64	43006	0.23
5/8	4.1/4	3.1/8	3.1/4	1.3/4	5/32	43007	0.30
3/4	5	3.13/16	3.3/4	2	7/32	43008	0.60
7/8	5.1/2	4.1/4	4.1/4	2.1/4	7/32	43009	0.87
1	6.1/8	4.15/16	4.1/2	2.1/2	1/4	43010	1.10
1.1/8 - 1.1/4	7	5.7/8	5.1/8	2.7/8	1/4	43011	1.45
1.1/4 - 1.3/8	8.1/16	6.13/16	6.1/4	3.1/2	1/2	43012	3.64
1.3/8 - 1.1/2	9	7.1/8	6.1/2	3.1/2	1/2	43013	4.80
1.5/8	11.1/4	8.1/8	8	4	1/2	43014	7.31
1.3/4	12.3/16	8.1/2	9	4.1/2	1/2	43015	7.15
1.7/8 - 2	15.1/8	10.3/8	12	6	1/2	43016	9.97

Thimbles
solid type

Material: Malleable cast iron
Standard: BS 464, table 3, 1958
Finish: Self colour or hot dipped galvanised (on request)
Notes: Castings are supplied unmachined, for the BS 464 standard to apply, thimbles require machining both sides



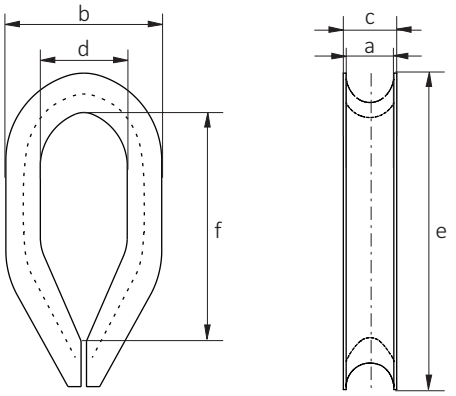
Diameter Rope	Width Overall	Width Outside *	Width Inside	Length Overall	Maximum Hole **	Product Code	Weight Each
a	b	c	d	e			
inch	inch	inch	inch	inch	inch		kg
5/16	1.3/8	7/16	1	1.7/8	1/2	44001	0.09
3/8	1.3/4	9/16	1.1/4	2.1/4	5/8	44002	0.17
7/16	2.1/16	11/16	1.1/2	2.3/4	3/4	44003	0.30
1/2	2.3/8	13/16	1.3/4	3.1/4	7/8	44004	0.39
5/8	2.3/4	7/8	2	3.3/4	1	44005	0.60
3/4	3.3/8	1.1/8	2.1/2	4.5/8	1.1/4	44006	1.19
7/8	3.3/4	1.1/4	2.3/4	5	1.3/8	44007	1.57
15/16	4.1/8	1.5/16	3	5.1/2	1.1/2	44008	1.73
1	4.1/2	1.7/16	3.1/4	6	1.5/8	44009	2.43
1.1/8	4.7/8	1.9/16	3.1/2	6.1/2	1.3/4	44010	3.12
1.1/4	5.1/2	1.3/4	4	7.1/2	2	44011	4.40
1.3/8	6.1/8	2	4.1/2	8.1/4	2.1/4	44012	6.32
1.1/2	6.3/4	2.1/4	5	9.1/4	2.1/2	44013	9.20

* Dimension shown as C - width outside is the finished size after machining both sides and not the size of the casting offered as standard

** The maximum pin hole size permitted in the standard

Reeving Thimbles
british standard

Material: Mild steel
Standard: BS 464, table 2, 1958
Finish: Hot dipped galvanised



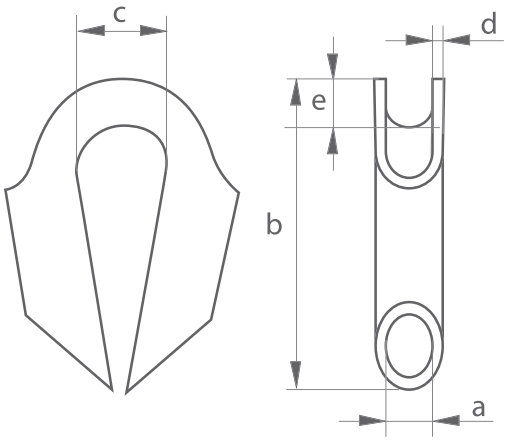
Diameter Rope	Width Overall	Width Outside	Width Inside	Length Overall	Length Inside	Product Code	Weight Each
a	b	c	d	e	f		
inch	inch	inch	inch	inch	inch		kg
5/16 - 3/8	2.1/8	11/16	1.1/4	4.1/8	3.1/4	45001	0.15
1/2	3	7/8	1.7/8	5.3/4	4.5/8	45002	0.34
5/8	3.3/8	1.1/8	2	6.3/4	5.1/8	45003	0.56
3/4	4.1/4	1.1/4	2.1/2	8.1/4	6.1/4	45004	1.10
15/16 - 1	4.15/16	1.3/8	3	9.5/8	7.3/8	45005	1.50

sizes 5/16" and 1/2" are additional and proportional to the specification

Thimbles, P-6190

tubular type

Material: Mild steel
Finish: Painted
Certificate: Upon request; 2.1, EC

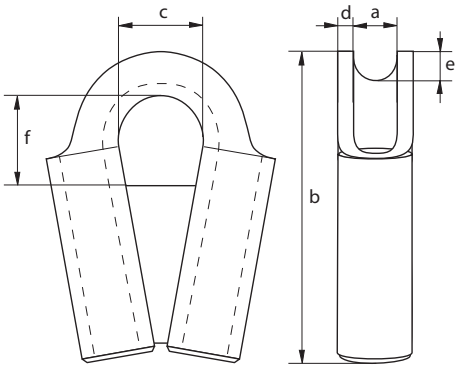


Diameter Rope	Diameter	Length	Width Inside	Thickness	Height	Product Code	Weight Each
	a	b	c	d	e		
mm	mm	mm	mm	mm	mm		kg
10	12	90	23	4	8	47001	0.23
12	15	105	27	5	10	47002	0.40
14	17	115	27	5	10	47003	0.50
16	19	120	32	5	12	47004	0.60
18	22	140	35	5	15	47005	0.75
22	25	180	45	6	16	47006	1.40
24	28	180	45	7	16	47007	1.75
26	30	195	47	7	18	47008	2.00
32	35	215	60	7	22	47009	2.50
38	45	260	70	7	27	47010	3.50
44	50	280	75	7	28	47011	4.20

Thimbles, P-6195

tubular type with welded plate

Material: Mild steel
Standard: Generally to US Fed Spec FF-T-276b type III
Generally to EN 13411-1
Finish: Hot dipped galvanised



Diameter Rope	Width Groove	Length	Width Inside	Thickness	Height	Length Inside	Product Code	Weight Each
	a	b	c	d	e	f		
mm	mm	mm	mm	mm	mm	mm		kg
10	12	84	23	4	8	24	47501	0.26
12	15	95	27	5	10	31	47502	0.42
14	17	100	27	5	10	38	47503	0.48
16	19	112	32	5	12	46	47504	0.61
18	22	125	35	5	15	47	47505	0.95
22	25	150	45	6	16	61	47506	1.33
24	28	157	45	7	16	56	47507	1.67
26	30	170	47	7	18	68	47508	1.96
32	35	190	60	7	22	73	47509	2.43
36	40	212	70	9	26	80	47510	4.32
38	45	228	70	7	27	94	47511	3.67

Section 5 | Sockets

Contents **Page**

Sockets

Applications

Sockets are used as a connection to attach steel wire rope to a fixed point. This may be an anchoring system for tubes or pipes, anchor wires for dredging materials, anchor cables for oil platforms, fastening points for towing cables or for fastening cables in constructions such as bridges, roofs etc. Sockets are designed for in-line use only. Sockets are the strongest steel wire rope end fittings available. If they are assembled in the proper way they meet or exceed the breaking strength of the steel wire rope.

Design

Green Pin® open- and closed spelter sockets and Green Pin® open wedge sockets are made from cast high tensile steel.

These sockets are generally marked with:

- manufacturer's symbol - e.g. GP
- wire rope diameter in mm and inches - e.g. 20-22 and 7/8"
- traceability code - e.g. A01
- socket number - e.g. 104

Swage sockets are drop forged from special bar quality carbon steel C-1035 and spheroidized annealed to make them suitable for cold swaging.

Socket Lock Socketing Resin

To offer a complete assortment, Green Pin® offers a Socket Lock Socketing Resin which is designed for speltering wire rope. Socket Lock is developed with a unique formula that uses polyester fibres to thicken the resin and provide a homogenous (consistent) resin cone throughout. Unlike traditional products, which use large grain silica to thicken the resin, the fibres of the innovative Socket Lock Socketing Resin will suspend within the mixed resin and provide a consistent resin cone from top to bottom. The consistency of the resin cone prevents the formation of surface cracking once the resin is hardened. The formula is developed to ensure the resin flows easily and can optimally penetrate the bottom of the socket. This will result in an excellent resin cone, providing the end user with a high-quality socket termination. Socket Lock Socketing Resin kits are now available from stock at Green Pin® and can be ordered in kit sizes of 250, 500, 1000 and 2000 cc.

Additionally, Green Pin® also has the Socket Lock Socketing Booster Pack available. The booster packs are used for cold temperature socketing and are required when ambient temperatures are below +16 °C (+60 °F). For instructions for use, please contact a member of a technical team.

Instructions for use

1) Open spelter sockets – closed spelter sockets

In the past melted zinc was poured into the sockets to fix the steel wire rope; nowadays resins are used for this purpose.

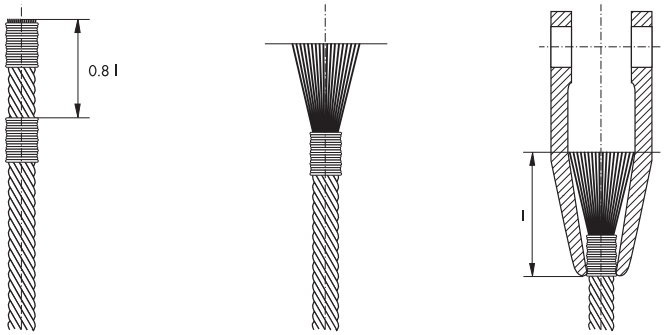


Figure 1

- brooming is done after the wire rope has been placed into the socket;
- when using resins always exactly follow the instructions given by the manufacturer carefully;
- socketing must be done by specialists in a certified sling shop.

2) Open wedge sockets

The wedge and body act as a vice which grips the wire rope and locks it in place. Green Pin® wedge sockets may be used within the range of wire rope diameters as shown in the table further on in the catalogue.

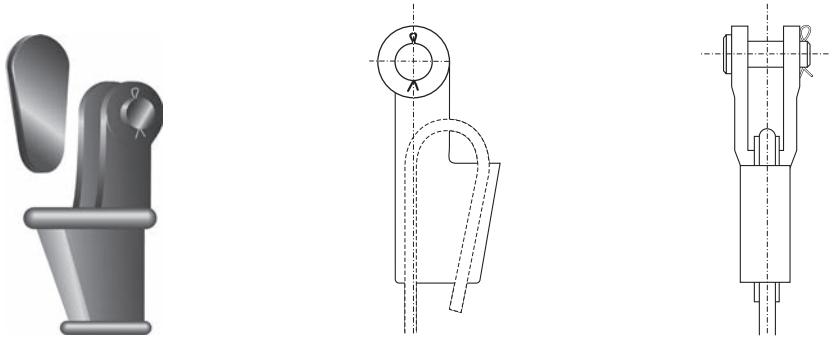
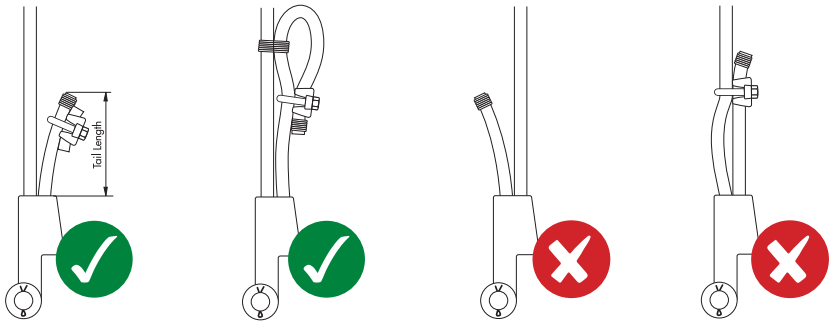


Figure 2

When using open wedge sockets the following precautions should be taken:

- before use always inspect the socket, the wedge and the pin;
- use only with standard 6-8 strand wire rope;
- in case of use with non-rotating wire rope there is a risk of core slippage or loss of rope lay. Instruction from the wire rope manufacturer must be followed to prevent this by; for example welding, brazing or seizing the dead end before introduction in the socket. The minimum tail length is 20 times the wire rope diameter. Furthermore, the wire rope construction must be checked for suitability of bending around the radius of the wedge. Additional measures might be necessary to prevent distortion;
- always be sure that socket and wedge have the correct size for the wire rope diameter;
- the loaded part of the steel wire rope should be mounted in the centre line of the pin;
- when installing the wire rope, always pre-load the wedge with the wire rope in place;
- never weld the tail; the tail should have a length of at least 6 times the wire rope diameter with a minimum of 150 mm. Secure the dead end of the rope with a wire rope clip as shown in figure 3;
- before applying the first load always use a hammer to seat the wedge and rope into the socket as deep as possible;
- check the assembly regularly; re-tighten or re-position if necessary;
- never side load a wedge socket as it has not been designed for that purpose;
- load may slip if the connection is not properly installed;
- the efficiency of a wire rope- wedge socket connection is 80% of the minimum breaking load of the wire, but is limited to the minimum breaking load of the socket;
- only use the original wedge supplied by the manufacturer of the socket and be sure it is suitable for the diameter of the rope used;
- never use a wedge from any other supplier than the original socket supplier as the dimensions will not match.

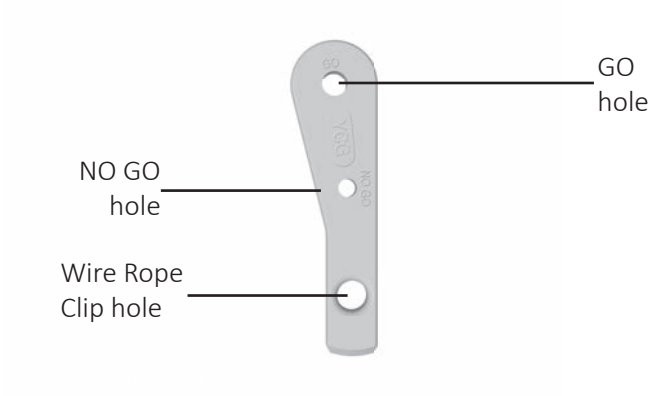
Figure 3



3) Open Long wedge sockets

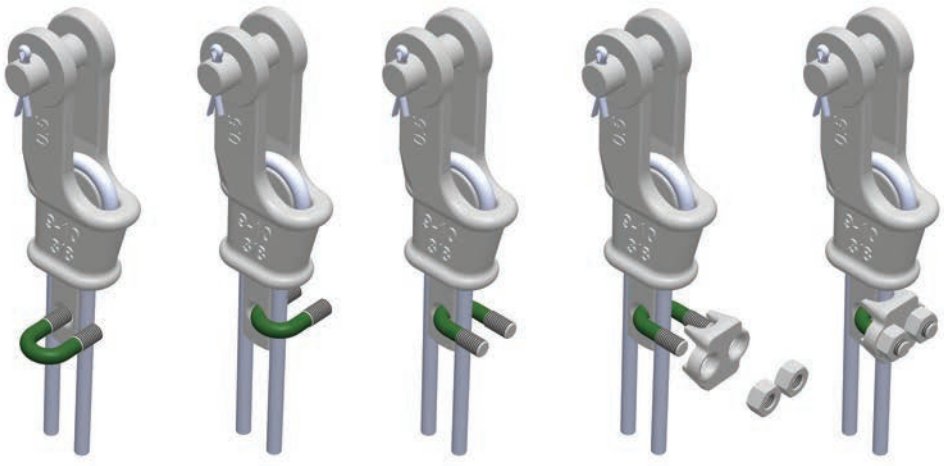
Verify whether the wedge, socket and wire rope clip match to the wire rope size. In case of the long wedge sockets (G-6419 and G-6429) the correct wire rope size shall be verified using the “GO” and “NO GO” hole (see Figure 4);

- The wire rope MUST pass through the “GO” hole in the wedge;
- The wire rope shall NOT pass through the “NO-GO” hole in the wedge.



In case of the long wedge sockets (G-6419 and G-6429) mount the corresponding Wire Rope Clip (G-6240) on the dead end section, providing a grip for the tail of the wire rope (see Figure 5 below). The tail length of the wire rope has to be at least 6 times the wire rope diameter with a minimum of 150 mm.

Figure 5



4) Swage sockets

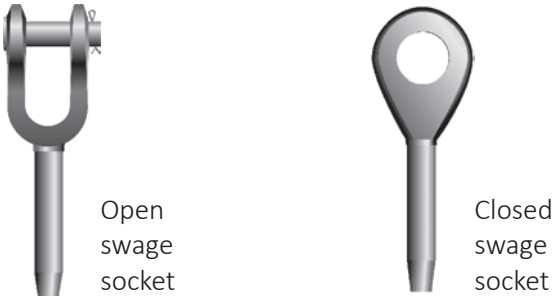


Figure 6

Swage Sockets are recommended for use on 6 x 19 or 6 x 37 IPS or XIP (EIP), XXIP (EEIP), RRL, FC, or IWRC wire ropes. They are also approved for use on galvanised bridge rope. Before using swage socket assemblies, it is recommended that the termination be proof loaded to prove the adequacy of the assembly. Always swage under supervision of a specialist from a certified sling shop.

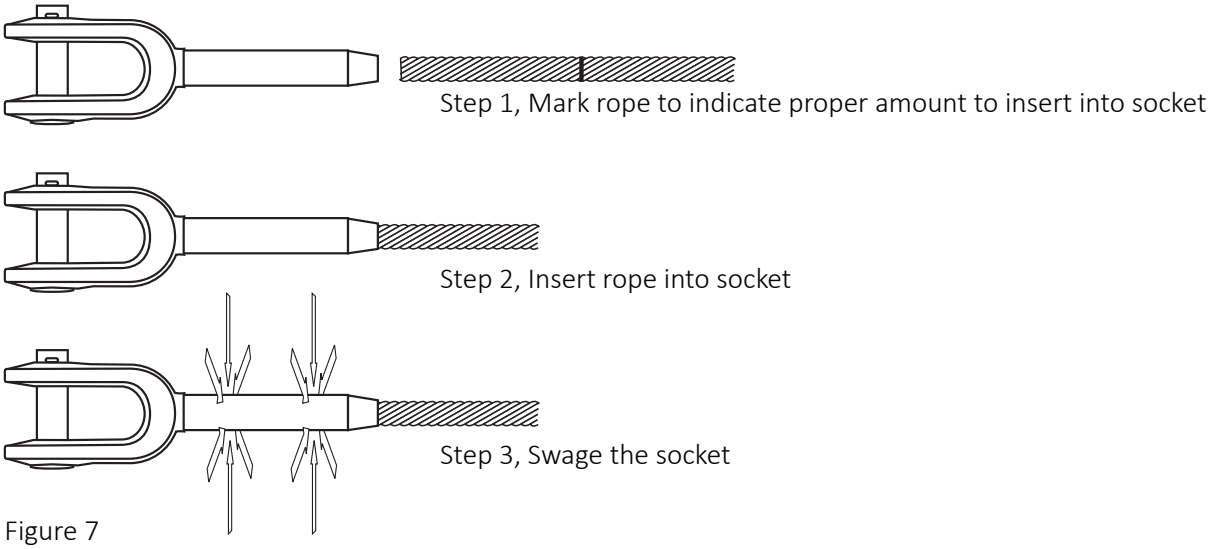


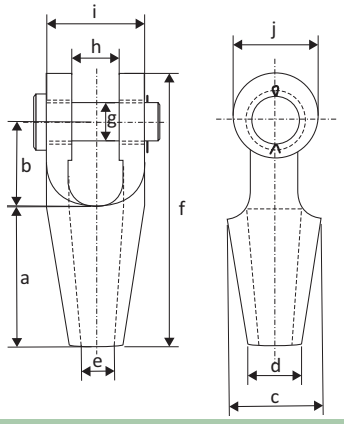
Figure 7

INFO;
For more instructions on swaging please contact a member of our technical team.

Sockets must be regularly inspected 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. which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use) and more frequently when the sockets are used in severe operating conditions.

Open Socket
british standard

Material: Body and pin high tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: BS 463, 1958, part 1
Finish: Self colour or hot dipped galvanised (on request)
Certificate: As standard; EC Declaration of Conformity
Tolerances: Please refer to BS 1718 as specified in BS 463 (drop forged allowances)
Note: Dimension B can only be achieved if the basket is machined, for tolerances, please consult our technical department
BS 463, 1970 specification can be offered (on request)

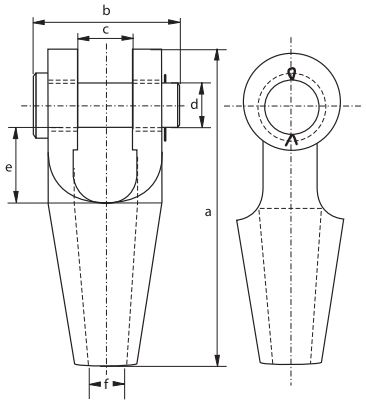


WLL	Diameter Rope	Length Basket a	Length b	Diameter Basket c	Width Outside d	Opening e	Length Overall f	Diameter Pin g	Width Inside h	Width Outside i	Width Eye j	Product Code	Weight Each
t	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch		kg
0.50	1/4	1.11/16	1.1/4	1.3/16	5/8	5/16	3.1/2	1/2	5/8	1.1/4	1.1/8	51001	0.34
0.75	5/16	1.11/16	1.1/4	1.3/16	5/8	3/8	3.1/2	1/2	5/8	1.1/4	1.1/8	51002	0.34
1.00	3/8	2	1.11/16	1.1/2	13/16	15/32	4.7/16	5/8	7/8	1.11/16	1.1/2	51003	0.57
1.25	7/16	2	1.11/16	1.1/2	13/16	17/32	4.7/16	5/8	7/8	1.11/16	1.1/2	51004	0.57
2.00	1/2	2.3/8	2.1/16	1.3/4	15/16	19/32	5.5/16	13/16	1.1/8	1.7/8	1.3/4	51005	0.80
2.25	9/16	2.3/8	2.1/16	1.3/4	15/16	21/32	5.5/16	13/16	1.1/8	1.7/8	1.3/4	51006	0.80
3.00	5/8	2.3/4	2.1/2	2	1.1/8	23/32	6.1/4	15/16	1.1/4	2.5/16	2	51007	1.14
4.25	3/4	3	2.5/8	2.7/16	1.5/16	27/32	6.7/8	1.1/8	1.1/2	2.3/4	2.1/2	51008	1.93
5.50	7/8	3.3/8	3	2.3/4	1.5/8	1	7.3/4	1.1/4	1.11/16	3.1/16	2.3/4	51009	2.73
7.50	1	4.1/8	3.1/2	3.1/4	1.15/16	1.1/8	9.5/16	1.1/2	1.7/8	3.1/2	2.3/8	51010	4.77
9.50	1.1/8	4.1/2	4	3.5/8	2.1/4	1.1/4	10.5/16	1.5/8	2	3.11/16	3.5/8	51011	6.82
11.50	1.1/4	5.1/4	4.3/8	4.1/4	2.1/2	1.3/8	11.11/16	1.7/8	2.1/8	4.3/8	4.1/8	51012	10.00
14.00	1.3/8	6	4.1/2	5	2.3/4	1.9/16	13	2.1/4	2.9/16	5.5/16	5	51013	15.23
16.50	1.1/2	6	4.1/2	5	2.3/4	1.11/16	13	2.1/4	2.9/16	5.5/16	5	51014	15.23
19.00	1.5/8	6	4.1/2	5	2.3/4	1.13/16	13	2.1/4	2.9/16	5.5/16	5	51015	15.23
25.00	2	7.11/16	6.1/2	7.3/8	3.7/8	2.3/16	17.5/8	2.3/4	3.1/8	7.1/4	6.7/8	51017	56.00
38.00	2.1/4	9	7.1/2	8	4	2.1/2	20.1/4	3.1/2	3.3/4	8	7.1/2	51018	64.00

Green Pin® Open Spelter Socket, G-6412

with cotter pin

Material: High tensile steel, quenched and tempered
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC

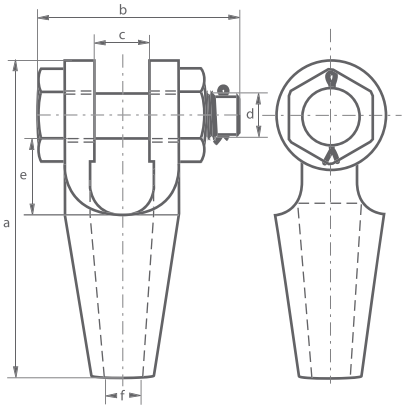


Number	MBL	Diameter Rope	Length	Width	Width Inside	Diameter Pin	Length Inside	Opening	Product Code	Weight Pin	Weight Each
			a	b	c	d	e	f			
	t	mm	mm	mm	mm	mm	mm	mm		kg	kg
196	8	6 - 7	109	51	19	16	33	9	51999	0.09	0.47
197	12	8 - 10	124	62	21	21	34	12	52000	0.17	0.71
198	20	11 - 13	143	66	26	25	37	15	52001	0.26	1.04
199	25	14 - 16	172	82	33	30	49	18	52002	0.47	1.83
100	45	18 - 19	205	95	38	35	58	21	52003	0.74	3.09
104	60	20 - 22	235	110	44	41	68	24	52004	1.19	4.68
108	85	23 - 26	275	130	51	51	75	28	52005	2.15	8.35
111	105	27 - 30	306	144	57	57	85	32	52006	2.95	11.4
115	136	31 - 36	338	155	63	64	95	38	52007	4.02	15.5
118	150	37 - 39	394	178	76	70	127	41	52008	5.54	23.2
120	170	40 - 42	418	187	76	76	127	44	52009	6.89	27.4
125	225	43 - 48	468	213	89	89	133	51	52010	10.6	42.4
128	280	49 - 54	552	240	101	95	180	57	52011	13.7	63.9
130	360	55 - 60	598	270	113	108	196	63	52012	19.9	91.1
132	425	61 - 68	654	303	127	121	212	73	52013	28.1	127
135	460	69 - 75	696	349	133	127	215	79	52014	35.6	164
138	560	76 - 80	737	371	146	133	219	86	52015	41.5	199
140	625	81 - 86	788	391	159	140	228	92	52016	48.5	235
142	720	87 - 93	852	411	171	152	242	99	52017	59.8	294
144	875	94 - 102	914	447	191	178	254	108	52018	89	393
146	1200	108 - 115	1160	489	206	193	368	125	52019	114	642

Green Pin® Open Spelter Socket, G-6422

with safety bolt

Material: High tensile steel, quenched and tempered
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC

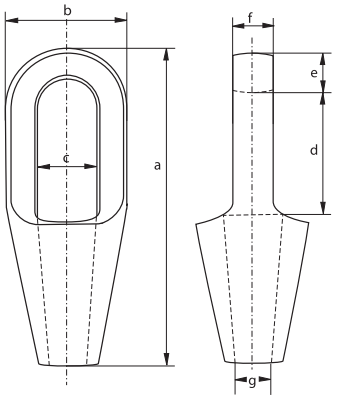


Number	MBL	Diameter Rope	Length	Width	Width Inside	Diameter Pin	Length Inside	Opening	Product Code	Weight Pin	Weight Each
			a	b	c	d	e	f			
	t	mm	mm	mm	mm	mm	mm	mm		kg	kg
196	8	6 - 7	109	69	19	16	33	9	52099	0.15	0.53
197	12	8 - 10	124	83	21	20	35	12	52100	0.32	0.86
198	20	11 - 13	143	101	26	25	37	15	52101	0.61	1.40
199	25	14 - 16	172	124	33	30	49	18	52102	1.08	2.43
100	45	18 - 19	205	138	38	35	58	21	52103	1.59	3.93
104	60	20 - 22	235	148	44	41	68	24	52104	2.30	5.74
108	85	23 - 26	275	176	51	50	76	28	52105	4.06	10.3
111	105	27 - 30	306	193	57	57	85	32	52106	5.51	14.0
115	136	31 - 36	338	210	63	63	95	38	52107	7.44	18.9
118	150	37 - 39	394	230	76	70	127	41	52108	9.40	27.1
120	170	40 - 42	418	244	76	77	126	44	52109	12.1	32.7

Green Pin® Closed Socket, G-6411

spelter type

Material: High tensile steel, quenched and tempered
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC

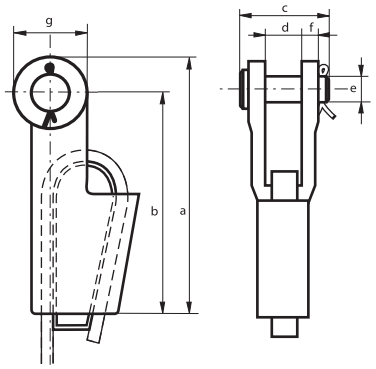


Number	MBL	Diameter Rope	Length	Width	Width Inside	Length Inside	Thickness Bow	Thickness Bow	Opening	Product Code	Weight Each
			a	b	c	d	e	f	g		
	t	mm	mm	mm	mm	mm	mm	mm	mm		kg
296	8	6 - 7	101	37	22	40	11	13	9	53999	0.27
297	12	8 - 10	119	43	25	48	14	17.5	12	54000	0.43
298	20	11 - 13	140	52	30	58	18	23.5	15	54001	0.76
299	25	14 - 16	162	68	37	66	21	26	17.5	54002	1.52
200	45	18 - 19	194	76	42	78	27	32	21.5	54003	2.31
201	70	20 - 22	224	92	47	90	33	38	24	54004	4.31
204	85	23 - 26	253	104	57	103	36	44	28	54005	6.03
207	105	27 - 30	282	114	63	116	39	51	32	54006	7.99
212	136	31 - 36	312	127	70	130	43	57	38	54007	10.9
215	150	37 - 39	358	136	79	155	51	63	41	54008	13.8
217	170	40 - 42	390	146	83	171	54	70	44	54009	17.4
219	225	43 - 48	443	171	93	198	55	76	51	54010	26.9
222	280	49 - 54	502	193	100	224	62	82	57	54011	38.8
224	360	55 - 60	548	216	112	247	73	92	63	54012	54.7
226	425	61 - 68	597	241	140	270	79	102	73	54013	70.8
227	460	69 - 75	644	273	159	286	79	124	79	54014	102
228	560	76 - 80	686	292	171	298	83	133	86	54015	123
229	625	81 - 86	743	311	184	311	102	146	92	54016	152
230	720	87 - 93	788	330	197	330	102	159	99	54017	178
231	875	94 - 102	845	362	216	356	108	178	108	54018	233
233	1200	108 - 115	1000	405	235	425	125	190	125	54019	329
240	1300	120 - 130	1150	450	260	525	125	200	143	54020	453

Green Pin® Open Wedge Socket, G-6413

with cotter pin

Material: High tensile steel, quenched and tempered
Standard: Generally to EN 13411-6
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC

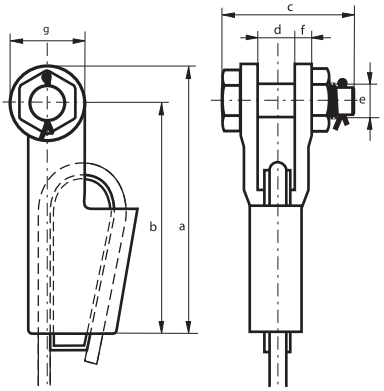


Number	MBL	Diameter Rope	Length a	Length b	Width c	Width Inside d	Diameter Pin e	Thickness f	Diameter Eye g	Product Code	Weight Pin	Weight Each
	t	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
0.25	8	7 - 8	128	110	51	18	16	9	36	50001	0.09	0.83
0.5	12	9 - 10	165	142	62	20.5	21	11	46	50002	0.17	1.58
1	20	11 - 13	175	146	66	25	25	12	57	50003	0.26	2.50
2	25	14 - 16	211	176	82	31	30	15	70	50004	0.47	4.42
3	40	18 - 19	252	212	95	38	35	16	80	50005	0.74	7.76
4	55	20 - 22	288	240	110	44	41	19	95	50006	1.19	11.3
5	75	24 - 26	329	274	130	51	51	22	110	50007	2.16	16.5
6	90	27 - 29	375	310	144	57	57	25	130	50008	2.95	21.8
7	110	30 - 32	423	350	155	63	64	28	146	50009	4.02	31
8	125	34 - 36	474	400	163	69	64	28	148	50010	4.22	39.6
9	150	37 - 39	527	450	178	76	70	30	153	50011	5.54	49.4
10	170	40 - 42	580	500	187	76	76	33	160	50012	6.88	68.1
11	225	43 - 48	650	550	213	89	89	39	186	50013	10.6	94.1

Green Pin® Open Wedge Socket, G-6423

with safety bolt

Material: High tensile steel, quenched and tempered
Standard: Generally to EN 13411-6
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC

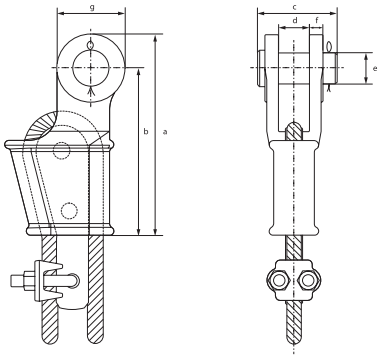


Number	MBL	Diameter Rope	Length a	Length b	Width c	Width Inside d	Diameter Pin e	Thickness f	Diameter Eye g	Product Code	Weight Pin	Weight Each
	t	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
0.25	8	7 - 8	128	110	69	18	16	9	36	53501	0.15	0.90
0.5	12	9 - 10	165	142	83	20.5	20	11	46	53502	0.32	1.72
1	20	11 - 13	175	146	101	25	25	12	57	53503	0.61	2.86
2	25	14 - 16	211	176	124	31	30	15	70	53504	1.08	5.03
3	40	18 - 19	252	212	138	38	35	16	80	53505	1.59	8.61
4	55	20 - 22	288	240	148	44	41	19	95	53506	2.25	12.4
5	75	24 - 26	329	274	176	51	50	22	110	53507	4.06	18.4
6	90	27 - 29	375	310	193	57	57	25	130	53508	5.51	24.3
7	110	30 - 32	423	350	210	63	63	28	146	53509	7.44	34.4
8	125	34 - 36	474	400	216	69	65	28	148	53510	7.79	43.2
9	150	37 - 39	527	450	230	76	70	30	153	53511	9.40	53.2
10	170	40 - 42	580	500	244	76	77	33	160	53512	12.1	73.3

Green Pin® Open Long Wedge Socket, G-6419

with cotter pin

Material: High tensile steel
Standard: Generally to EN 13411-6
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC
Note: Supplied with wire rope grip

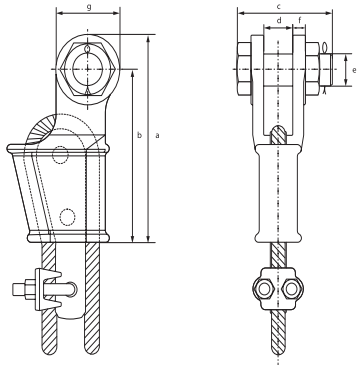


Number	MBL	Diameter Rope	Length	Length	Width	Width Inside	Diameter Pin	Thickness	Diameter Eye	Product Code	Weight Pin	Weight Each
			a	b	c	d	e	f	g			
	t	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
0.5	12	9 - 10	165	142	62	20.5	21	11	46	57001	0.17	1.88
1	20	11 - 13	175	146	66	25	25	12	57	57002	0.26	3.02
2	25	14 - 16	211	176	82	31	30	15	70	57003	0.47	5.16
3	40	18 - 19	252	212	95	38	35	16	80	57004	0.74	8.80
4	55	20 - 22	288	240	110	44	41	19	95	57005	1.19	12.8
5	75	24 - 26	329	274	130	51	51	22	110	57006	2.16	18.3
6	90	27 - 29	375	310	144	57	57	25	130	57007	2.95	23.7
7	110	30 - 32	423	350	155	63	64	28	146	57008	4.02	33.9

Green Pin® Open Long Wedge Socket, G-6429

with safety bolt

Material: High tensile steel
Standard: Generally to EN 13411-6
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC
Note: Supplied with wire rope grip

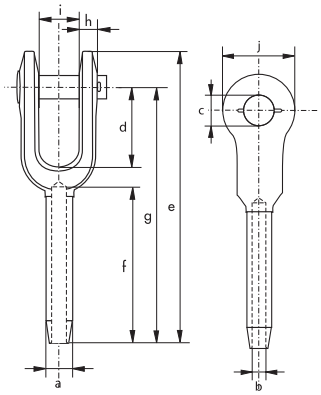


Number	MBL	Diameter Rope	Length	Length	Width	Width Inside	Diameter Pin	Thickness	Diameter Eye	Product Code	Weight Pin	Weight Each
			a	b	c	d	e	f	g			
	t	mm	mm	mm	mm	mm	mm	mm	mm		kg	kg
0.5	12	9 - 10	165	142	83	20.5	20	11	46	57501	0.32	2.02
1	20	11 - 13	175	146	101	25	25	12	57	57502	0.61	3.88
2	25	14 - 16	211	176	124	31	30	15	70	57503	1.08	5.77
3	40	18 - 19	252	212	138	38	35	16	80	57504	1.59	9.65
4	55	20 - 22	288	240	148	44	41	19	95	57505	2.25	13.8
5	75	24 - 26	329	274	176	51	50	22	110	57506	4.06	20.2
6	90	27 - 29	375	310	193	57	57	25	130	57507	5.51	26.3
7	110	30 - 32	423	350	210	63	63	28	146	57508	7.44	37.4

Green Pin® Open Swage Socket, S-6414

with cotter pin

Material: Drop forged steel C-1035
Finish: Self colour

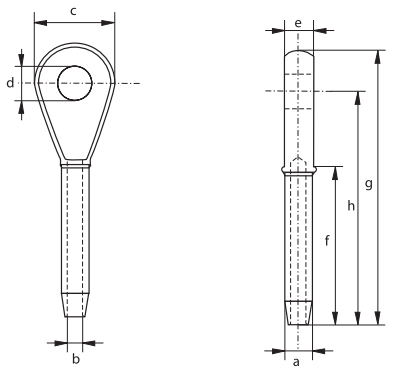


Diameter Rope	Diameter a	Diameter Min a	Diameter Max a	Diameter Inside b	Diameter Pin c	Length d	Length e	Length f	Length g	Thickness h	Width Inside i	Width Eye j	Product Code	Weight Each
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6	13	10.9	11.7	7	17	38	121	54	102	8	17	35	58001	0.25
8	20	17.2	18	9	21	44	159	81	135	10	21	41	58002	0.57
10	20	17.2	18	10	21	44	159	81	135	10	21	41	58003	0.56
11	25	22	23.1	12	25	51	198	108	169	13	25	51	58004	1.11
13	25	22	23.1	14	25	51	198	108	169	13	25	51	58005	1.10
14	32	28.3	29.5	15	30	57	243	135	206	16	32	63	58006	2.11
16	32	28.3	29.5	17	30	57	243	135	206	16	32	63	58007	2.06
19	39	34.7	36.1	20	35	70	297	162	254	19	38	76	58008	3.68
22	43	37.8	39.4	24	41	83	346	189	295	23	44	86	58009	5.38
25	50	44.2	45.7	27	51	95	397	216	340	26	51	102	58010	5.45
28	57	50.5	52.1	30	57	108	444	243	381	30	57	114	58011	12.0
32	64	56.9	58.4	34	64	121	494	270	419	30	63	127	58012	16.3
35	71	63.2	65	37	64	133	540	297	460	33	63	133	58013	20.5
38	78	69.6	71.4	40	70	146	591	324	502	37	76	146	58014	29.5
44	86	75.9	77.7	47	89	171	689	378	584	43	89	178	58015	42.2
51	100	88.6	90.4	54	95	203	798	432	679	46	102	203	58016	65.8
57	113	100.3	102.1	60	108	171	835	486	705	65	114	222	58017	93.4
63	125	110.5	112.3	67	108	171	879	498	749	65	114	222	58018	103
76	151	133.1	134.9	80	133	219	1045	603	905	76	146	241	58019	181

Green Pin® Closed Swage Socket, S-6415

closed type

Material: Drop forged steel C-1035
Finish: Self colour



Diameter Rope	Diameter a	Diameter Min a	Diameter Max a	Diameter Inside b	Diameter c	Diameter Eye d	Thickness e	Length f	Length g	Length h	Product Code	Weight Each
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6	13	10.9	11.7	7	37	19	13	54	111	89	58501	0.15
8	20	17.2	18	9	43	22	17	81	140	114	58502	0.35
10	20	17.2	18	10	43	22	17	81	140	114	58503	0.33
11	25	22	23.1	12	51	27	22	108	176	146	58504	0.66
13	25	22	23.1	14	51	27	22	108	176	146	58505	0.62
14	32	28.3	29.5	15	63	32	29	135	222	184	58506	1.35
16	32	28.3	29.5	17	63	32	29	135	222	184	58507	1.31
19	39	34.7	36.1	20	76	37	33	162	264	219	58508	2.30
22	43	37.8	39.4	24	89	43	38	189	308	257	58509	3.40
25	50	44.2	45.7	27	102	52	44	216	349	292	58510	4.97
28	57	50.5	52.1	30	114	59	51	243	387	324	58511	7.20
32	64	56.9	58.4	34	127	65	57	270	438	365	58512	10.5
35	71	63.2	65	37	133	65	57	297	479	400	58513	13.3
38	78	69.6	71.4	40	140	71	63	324	518	432	58514	17.7
44	86	75.9	77.7	47	171	91	76	378	610	508	58515	25.3
51	100	88.6	90.4	54	197	97	83	432	698	584	58516	41.0
57	113	100.3	102.1	60	219	110	102	486	756	632	58517	55.3
63	125	110.5	112.3	67	219	110	102	498	791	667	58518	64.4
76	151	133.1	134.9	80	235	135	137	603	959	816	58519	114

Turnbuckles

Section 6 | Turnbuckles

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Turnbuckles

Applications

Turnbuckles are used for rigging or tensioning wires, ropes, rods etc. They are designed for in-line rigging, tensioning or lashing. Green Pin® Turnbuckles (G-6313, G-6323 and G-6311) can be used in lifting applications. The closed body rigging screws can also be used in lifting applications.

Range

Brierley Lifting offers a wide range of turnbuckles:

- Load rated turnbuckles including Green Pin®
- Straining screws generally to DIN 1480
- Closed body rigging screws

Design

Green Pin® turnbuckles are manufactured to ASTM F1145-92 (formerly U.S. Fed. Spec. FF-T-791). They are drop-forged and available with the following end fittings: Eye - Eye, Jaw - Jaw and Jaw - Eye.

All fittings are interchangeable. Locking nuts are supplied with all sizes.

All Green Pin® turnbuckles are generally marked with:

- Working Load Limit - e.g. 2.36 t
- manufacturer's symbol - e.g. GP
- thread diameter - e.g. 3/4"
- traceability code - e.g. A1
- thread- L (left handed) and R (right handed)

Straining screws generally to DIN 1480 are available with welding ends and in Hook - Eye, Eye - Eye and Hook - Hook combinations. Closed body rigging screws are available in Jaw - Jaw, Jaw - Eye and Eye - Eye combinations.

Finish

Load rated turnbuckles and closed body rigging screws are hot dipped galvanised. Straining screws to DIN 1480 are electro-galvanised.

Certification

Specific details of certificate availability can be found on each product page. Please verify your certification requirements at the time of order.

Instructions for use

Turnbuckles must be used for in-line applications only. Special attention should be paid to prevent overloading. During tensioning, avoid forces on the turnbuckle that may lead to deformation. Should a turnbuckle start to deform, the tension should be decreased immediately and any deformed parts should be replaced. Should extreme circumstances or shock loading, possibly occur during use, this must be taken into account when selecting the correct products to be used for the application.

For the rigging of wires, ropes, rods etc., Green Pin® turnbuckles are recommended to be used. The WLL should be applied in in-line lifting only and overloading is not permitted. Nor should side loads be applied, as the products have not been designed for this purpose.

Open body rigging screws are used for tensioning wires and ropes for less demanding applications (for example rope railings).

Turnbuckles must be regularly inspected in accordance with the safety standards and regulations given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc. which may lead to deformation and alteration of the steel structure.

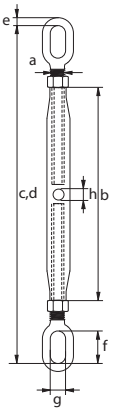
Safe use of turnbuckles

Turnbuckles should be inspected before use to ensure that:

- all markings are legible;
- the threads of the body and the end fittings are of the same type;
- the pin, nut, cotter pin or any other locking system cannot vibrate out of position;
- the threads of the body and the end fittings are undamaged;
- the body and end fittings are not distorted or unduly worn;
- the body and end fittings are free from nicks, gouges and cracks.

Make sure that the end fittings are correctly screwed into the body. Always use the locking nuts provided to prevent the turnbuckles from unscrewing. Never replace an end fitting by anything other than one designed for the purpose, otherwise the turnbuckle may not be suitable for the loads imposed.

Closed Body Rigging Screw Eye - Eye
with locknuts

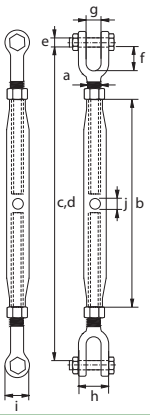


Material: Mild steel
Safety Factor: MBL equals 5 x WLL
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC
Note: End fittings for 6mm and 8mm are electro galvanised

WLL		Diameter Thread	Length Body	Length Closed	Length Open	Diameter	Length Eye	Width Eye	Diameter Hole	Product Code	Weight Each
		a	b	c	d	e	f	g	h		
t		mm	mm	mm	mm	mm	mm	mm	mm		kg
0.20	*	6	100	160	240	5.5	11	11	6	64001B	0.13
0.32	*	8	108	175	255	6	12	12	8	64002B	0.20
0.50	*	10	125	205	300	8.5	13	13	8	64003B	0.34
0.70		12	195	298	458	11	30	15	10	64004B	0.76
1.20		16	230	356	531	12	40	20	11	64005B	1.40
1.50		20	270	423	628	16	50	24	12	64006B	2.40
2.20		22	295	463	688	16	50	24	12	64007B	3.00
3.20		24	325	502	752	19	56	28	12	64008B	4.00
4.80		33	370	602	882	29	70	35	14	64010B	9.00
6.00		39	400	651	951	34	80	40	15	64011B	11.50
8.50	*	45	400	721	897	31	49	49	16	64012B	13.40
11.00	*	48	400	767	1032	37	52	52	16	64013B	17.90

sizes marked * are supplied with round eyes

Closed Body Rigging Screw Jaw - Jaw
with locknuts

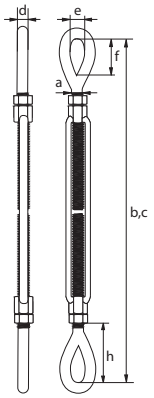


Material: Mild steel
Safety Factor: MBL equals 5 x WLL
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC
Note: End fittings for 6mm and 8mm are electro galvanised

WLL	Diameter Thread	Length Body	Length Closed	Length Open	Diameter Pin	Length Inside	Opening Jaw	Width Eye	Diameter Eye	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.20	6	100	170	250	5	19	7	20	13	64101B	0.16
0.32	8	108	199	279	6	25	9	24	14	64102B	0.27
0.50	10	125	222	312	8	26	10.5	28	19	64103B	0.45
0.70	12	195	315	470	10	32	13	34	23	64104B	0.85
1.20	16	230	388	568	12	39	18	42	29	64105B	1.57
1.50	20	270	449	654	16	46	20	51	33	64106B	2.67
2.20	22	295	490	715	20	55	25	55	38	64107B	3.68
3.20	24	325	538	793	22	63	30	70	46	64108B	5.30
4.80	33	370	680	965	30	85	38	82	60	64110B	12.00
6.00	39	400	707	1002	33	86	45	85	76	64111B	14.20
8.50	45	400	761	1011	39	105	50	94	85	64112B	20.80
11.00	48	400	780	1005	45	119	58	98	92	64113B	24.00

Galvanised Turnbuckles Eye - Eye

drop forged

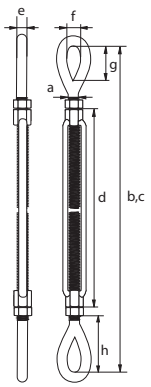


Material: Drop forged high tensile steel SAE 1035 or 1045
Safety Factor: MBL equals 5 x SWL
Standard: Generally to ASTM F1145-92
Formerly US Federal Specification FF-T-791b
Finish: Hot dipped galvanised
Temperatire: -20°c up to +200°c
Certificate: As standard; EC Declaration of Conformity

WLL	Diameter Thread	Take Up	Length Closed	Length Open	Diameter Eye	Width Eye	Length Eye	Length Closed	Product Code	Weight Each
	a		b	c	d	e	f	h		
t	inch	inch	mm	mm	mm	mm	mm	mm		kg
0.54	3/8	6	302	454	9	13	28	65	60001	0.32
1.00	1/2	6	338	490	12	18	36	80	60002	0.66
1.00	1/2	9	414	642	12	18	36	80	60003	0.76
1.00	1/2	12	490	795	12	18	36	80	60004	0.91
1.59	5/8	6	394	546	14	21	43	98	60005	1.07
1.59	5/8	9	470	698	14	21	43	98	60006	1.31
1.59	5/8	12	546	851	14	21	43	98	60007	1.71
1.59	5/8	18	701	1150	14	21	43	98	60008	1.86
2.36	3/4	6	432	584	17	25	53	113	60009	1.65
2.36	3/4	9	508	736	17	25	53	113	60010	1.95
2.36	3/4	12	584	889	17	25	53	113	60011	2.30
2.36	3/4	18	737	1194	17	25	53	113	60012	2.85
3.27	7/8	12	625	854	20	31	59	118	60013	3.33
3.27	7/8	18	778	1121	20	31	59	118	60014	4.24
4.54	1	6	524	676	22	36	74	155	60015	3.87
4.54	1	12	676	981	22	36	74	155	60016	5.09
4.54	1	18	829	1286	22	36	74	155	60017	6.00
4.54	1	24	980	1592	22	36	74	155	60018	7.52
6.90	1.1/4	12	760	1055	29	45	88	197	60019	8.12
6.90	1.1/4	18	912	1370	29	45	88	197	60020	10.40
6.90	1.1/4	24	1064	1665	29	45	88	197	60021	12.10
9.71	1.1/2	12	823	1129	32	54	105	215	60022	12.70
9.71	1.1/2	18	975	1434	32	54	105	215	60023	15.10
9.71	1.1/2	24	1128	1738	32	54	105	215	60024	17.10
12.70	1.3/4	18	1060	1533	38	60	119	254	60025	23.10
12.70	1.3/4	24	1213	1838	38	69	119	254	60026	26.30
16.78	2	24	1315	2011	45	69	146	308	60027	40.70
27.22	2.1/2	24	1486	2098	51	79	165	344	60028	64.00

Green Pin® Turnbuckles Eye - Eye, G-6311

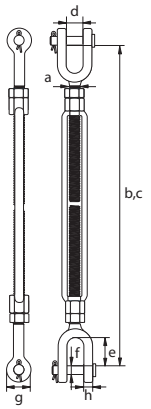
drop forged



Material: Drop forged high tensile steel SAE 1035 or 1045
Safety Factor: MBL equals 5 x WLL
Standard: Generally to ASTM F1145-92
Formerly US Federal Specification FF-T-791b
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

WLL	Diameter Thread	Take Up	Length Closed	Length Open	Length	Diameter	Width Inside	Length Inside	Length Closed	Product Code	Weight Each
	a		b	c	d	e	f	g	h		
t	inch	inch	mm	mm	mm	mm	mm	mm	mm		kg
0.54	3/8	6	292	428	183	10	13	29	49	60001V	0.48
1.00	1/2	6	325	455	193	12	18	36	58	60002V	0.81
1.00	1/2	9	400	608	270	12	18	36	57	60003V	1.07
1.00	1/2	12	476	760	346	12	18	36	57	60004V	1.29
1.59	5/8	6	380	503	203	14	21	45	79	60005V	1.33
1.59	5/8	9	455	656	280	14	21	45	78	60006V	1.61
1.59	5/8	12	531	808	356	14	21	45	78	60007V	1.96
2.36	3/4	6	413	532	214	17	26	54	89	60009V	2.03
2.36	3/4	9	490	685	291	17	26	54	89	60010V	2.47
2.36	3/4	12	564	837	367	17	26	54	88	60011V	2.90
2.36	3/4	18	718	1143	519	17	26	54	89	60012V	3.94
3.27	7/8	12	604	870	377	20	32	61	101	60013V	4.31
3.27	7/8	18	756	1174	529	20	32	61	101	60014V	5.51
4.54	1	6	498	604	234	24	37	76	118	60015V	4.23
4.54	1	12	649	909	387	24	37	76	117	60016V	5.75
4.54	1	18	801	1215	539	24	37	76	117	60017V	7.27
4.50	1	24	952	1518	692	24	37	76	116	60018V	7.80
6.90	1.1/4	12	712	985	385	29	47	91	145	60019V	9.28
6.90	1.1/4	18	862	1287	537	29	47	91	144	60020V	11.1
6.90	1.1/4	24	105	1592	690	29	47	91	144	60021V	12.1
9.71	1.1/2	12	756	1023	401	32	55	106	156	60022V	12.6
9.71	1.1/2	18	916	1335	553	32	55	106	160	60023V	15.8
9.71	1.1/2	24	1065	1636	706	32	55	106	158	60024V	17.3
12.70	1.3/4	18	1020	1396	577	38	61	120	197	60025V	23.9
12.70	1.3/4	24	1171	1703	730	38	61	120	196	60026V	26.7
16.80	2	24	1264	1784	748	46	69	147	230	60027V	38.3
27.20	2.1/2	24	1430	1934	802	51	80	165	274	60028V	65
34.00	2.3/4	24	1450	1988	802	57	84	178	284	60029V	84

Galvanised Turnbuckles Jaw - Jaw
drop forged

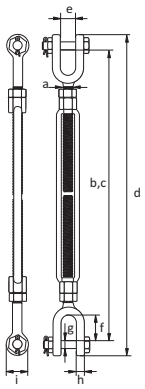


Material: Drop forged high tensile steel SAE 1035 or 1045
Safety Factor: MBL equals 5 x SWL
Standard: Generally to ASTM F1145-92
Formerly US Federal Specification FF-T-791b
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Note: 5/8" and below with nut, 3/4" and above with cotter pin

WLL	Diameter Thread	Take Up	Length Closed	Length Open	Opening Jaw	Length Inside	Diameter Pin	Thickness Jaw Eye	Diameter Jaw Eye	Product Code	Weight Each
	a		b	c	d	e	f	g	h		
t	inch	inch	mm	mm	mm	mm	mm	mm	mm		kg
0.54	3/8	6	302	454	13	22	8	8	21	61101	0.37
1.00	1/2	6	388	490	16	26	9.5	10	25	61102	0.73
1.00	1/2	9	414	642	16	26	9.5	10	25	61103	0.79
1.00	1/2	12	490	795	16	26	9.5	10	25	61104	0.96
1.59	5/8	6	394	546	18	33	13	13	33	61105	1.37
1.59	5/8	9	470	698	18	33	13	13	33	61106	1.41
1.59	5/8	12	546	851	18	33	13	13	33	61107	1.53
1.59	5/8	18	701	1150	18	33	13	13	33	61108	1.86
2.36	3/4	6	432	584	23	38	15.5	16	41	61109	1.86
2.36	3/4	9	508	736	23	38	15.5	16	41	61110	2.31
2.36	3/4	12	584	889	23	38	15.5	16	41	61111	2.56
2.36	3/4	18	737	1194	23	38	15.5	16	41	61112	3.11
3.27	7/8	12	625	854	27	44	19	18	48	61113	3.71
3.27	7/8	18	778	1121	27	44	19	18	48	61114	4.14
4.54	1	6	524	676	30	52	22	20	54	61115	4.29
4.54	1	12	676	981	30	52	22	20	54	61116	5.07
4.54	1	18	829	1286	30	52	22	20	54	61117	6.62
4.54	1	24	980	1592	30	52	22	20	54	61118	7.85
6.90	1.1/4	12	760	1055	44	73	29	25	67	61119	9.48
6.90	1.1/4	18	912	1370	44	73	29	25	67	61120	11.60
6.90	1.1/4	24	1064	1665	44	73	29	25	67	61121	13.00
9.71	1.1/2	12	823	1129	52	70	35	27	80	61122	13.60
9.71	1.1/2	18	975	1434	52	70	35	27	80	61123	14.30
9.71	1.1/2	24	1228	1738	52	70	35	27	80	61124	18.40
12.70	1.3/4	18	1060	1533	59	85	41	33	90	61125	25.00
12.70	1.3/4	24	1213	1838	59	85	41	33	90	61126	28.70
16.78	2	24	1315	2011	64	93	41	39	108	61127	45.40
27.22	2.1/2	24	1486	2098	75	114	57	38	143	61128	73.00
34.02	2.3/4	24	1562	2171	89	110	70	42	156	61129	98.00

Green Pin® Turnbuckles Jaw - Jaw, G-6323

drop forged, with safety bolt

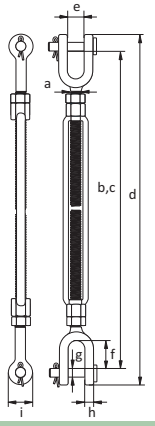


Material: Drop forged high tensile steel SAE 1035 or 1045
Safety Factor: MBL equals 5 x WLL
Standard: Generally to ASTM F1145-92
Formerly US Federal Specification FF-T-791b
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

WLL	Diameter Thread	Take Up	Length Closed	Length Open	Length Closed	Opening Jaw	Length Inside	Diameter Pin	Thickness Jaw	Diameter Eye	Product Code	Weight Each
	a		b	c	d	e	f	g	h	i		
t	inch	inch	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.54	3/8	6	273	409	304	12	21	7	9	21	61101V	0.55
1.00	1/2	6	304	435	343	16	26	10	11	25	61102V	0.97
1.00	1/2	9	379	588	418	16	26	10	11	25	61103V	1.15
1.00	1/2	12	455	740	494	16	26	10	11	25	61104V	1.46
1.59	5/8	6	346	469	406	18	32	13	14	33	61105V	1.75
1.59	5/8	9	421	622	480	18	32	13	14	33	61106V	2.14
1.59	5/8	12	498	774	557	18	32	13	14	33	61107V	2.43
2.36	3/4	6	369	487	439	24	38	16	16	41	61109V	2.70
2.36	3/4	9	444	640	514	24	38	16	16	41	61110V	3.23
2.36	3/4	12	520	792	590	24	38	16	16	41	61111V	3.57
2.36	3/4	18	670	1096	740	24	38	16	16	41	61112V	4.55
3.27	7/8	12	561	826	638	27	42	19	19	48	61113V	5.22
3.27	7/8	18	713	1132	790	27	42	19	19	48	61114V	6.56
4.54	1	6	447	554	532	31	50	22	20	54	61115V	5.54
4.54	1	12	598	859	683	31	50	22	20	54	61116V	6.70
4.54	1	18	750	1168	835	31	50	22	20	54	61117V	8.61
4.50	1	24	903	1470	988	31	50	22	20	54	61118V	8.87
6.90	1.1/4	12	643	916	748	44	71	28	26	68	61119V	11.9
6.90	1.1/4	18	805	1230	910	44	71	28	26	68	61120V	13.6
6.90	1.1/4	24	964	1541	1069	44	71	28	26	68	61121V	14.2
9.71	1.1/2	12	675	942	806	52	71	35	28	80	61122V	18.5
9.71	1.1/2	18	825	1244	956	52	71	35	28	80	61123V	19.3
9.71	1.1/2	24	980	1551	1111	52	71	35	28	80	61124V	22
12.70	1.3/4	18	938	1316	1092	60	86	41	33	90	61125V	29
12.70	1.3/4	24	1089	1621	1243	60	86	41	33	90	61126V	33
16.80	2	24	1153	1673	1338	63	93	50	40	107	61127V	50
27.20	2.1/2	24	1255	1831	1480	75	114	57	41	143	61128V	88
34.00	2.3/4	24	1348	1882	1604	90	110	70	41	158	61129V	109

Green Pin® Turnbuckles Jaw - Jaw, G-6313

drop forged, with cotter pin

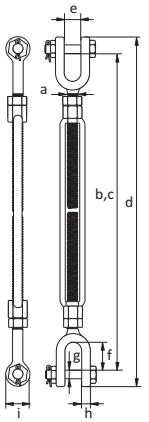


Material: Drop forged high tensile steel SAE 1035 or 1045
Safety Factor: MBL equals 5 x WLL
Standard: Generally to ASTM F1145-92
Formerly US Federal Specification FF-T-791b
Finish: Hot dipped galvanised
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

WLL	Diameter Thread	Take Up	Length Closed	Length Open	Length Closed	Opening Jaw	Length Inside	Diameter Pin	Thickness Jaw	Diameter Eye	Product Code	Weight Each
	a		b	c	d	e	f	g	h	i		
t	inch	inch	mm	mm	mm	mm	mm	mm	mm	mm		kg
2.36	3/4	6	369	487	439	24	38	16	16	41	61109X	2.59
2.36	3/4	9	444	640	514	24	38	16	16	41	61110X	3.13
2.36	3/4	12	520	792	590	24	38	16	16	41	61111X	3.42
2.36	3/4	18	670	1096	740	24	38	16	16	41	61112X	4.51
3.27	7/8	12	561	826	638	27	42	19	19	48	61113X	4.93
3.27	7/8	18	713	1132	790	27	42	19	19	48	61114X	6.41
4.54	1	6	447	554	532	31	50	22	20	54	61115X	5.18
4.54	1	12	598	859	683	31	50	22	20	54	61116X	6.43
4.54	1	18	750	1168	835	31	50	22	20	54	61117X	8.08
4.50	1	24	903	1470	988	31	50	22	20	54	61118X	8.56
6.90	1.1/4	12	641	914	748	44	71	29	26	68	61119X	11.2
6.90	1.1/4	18	803	1228	910	44	71	29	26	68	61120X	13.6
6.90	1.1/4	24	962	1539	1069	44	71	29	26	68	61121X	15.0
9.71	1.1/2	12	675	942	806	52	71	35	28	80	61122X	17.1
9.71	1.1/2	18	825	1244	956	52	71	35	28	80	61123X	19.3
9.71	1.1/2	24	980	1551	1111	52	71	35	28	80	61124X	21.8
12.70	1.3/4	18	938	1316	1092	60	86	41	33	90	61125X	27.3
12.70	1.3/4	24	1089	1621	1243	60	86	41	33	90	61126X	31.7
16.80	2	24	1151	1671	1338	63	93	51	40	107	61127X	49
27.20	2.1/2	24	1255	1831	1480	75	114	57	41	143	61128X	88
34.00	2.3/4	24	1348	1882	1604	90	110	70	41	158	61129X	103

Green Pin Polar® Turnbuckles Jaw - Jaw , G-6333

drop forged, with safety bolt

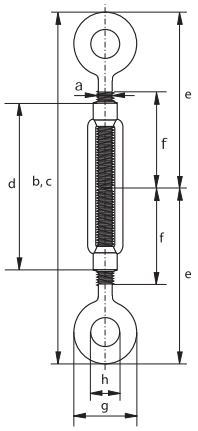


Material: Drop forged alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26 generally to ASTM F1142-92
Formerly US Federal Specification FF-T-791b
Finish: Hot dipped galvanised
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Note: Jaw ends up to and including 5/8" are fitted with bolts and nuts
Jaw ends 3/4" and upwards are equipped with bolts, nuts and cotter pins

WLL	Diameter Thread	Take Up	Length Closed	Length Open	Length Closed	Opening Jaw	Length Inside	Diameter Pin	Thickness Jaw	Diameter Eye	Product Code	Weight Each
	a		b	c	d	e	f	g	h	i		
t	inch	inch	mm	mm	mm	mm	mm	mm	mm	mm		kg
1.00	1/2	12	455	740	494	16	26	10	11	25	61501	1.38
1.59	5/8	12	498	774	557	18	32	13	14	33	61502	2.32
2.36	3/4	18	670	1096	740	24	38	16	16	41	61503	4.57
3.27	7/8	18	713	1132	790	27	42	19	19	48	61504	6.50
4.54	1	18	750	1168	835	31	50	22	20	54	61505	8.40
6.90	1.1/4	18	805	1230	910	44	71	28	26	68	61506	13.6
9.71	1.1/2	18	825	1244	956	52	71	35	28	80	61507	21.1
12.70	1.3/4	18	938	1316	1092	60	86	41	33	90	61508	30

Straining Screw Eye - Eye
commercial pattern

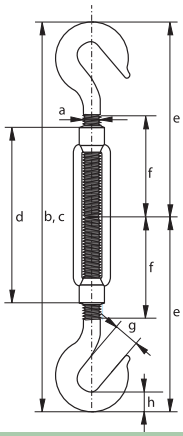
Material: Drop forged mild steel
Standard: DIN 1480
Finish: Electro galvanised



Diameter Thread	Length Closed	Length Open	Length Body	Length Fitting	Length Thread	Diameter Outside	Diameter Inside	Product Code	Weight Each
a	b	c	d	e	f	g	h		
mm	mm	mm	mm	mm	mm	mm	mm		kg
6	160	246	110	80	55	20	9	63001	0.11
8	168	248	110	84	57	22	10	63002	0.20
10	210	300	125	105	68	31	14	63003	0.28
12	222	305	125	110	70	35	16	63004	0.43
16	300	416	170	143	88	47	22	63006	1.00
20	334	466	200	165	105	52	24	63007	1.60
24	410	587	255	208	135	65	27	63009	2.80
30	440	605	255	220	135	71	31	63010	4.10
33	490	690	295	245	148	88	36	63011	6.00
36	554	740	295	277	158	94	38	63012	8.50

Straining Screw Hook - Hook
commercial pattern

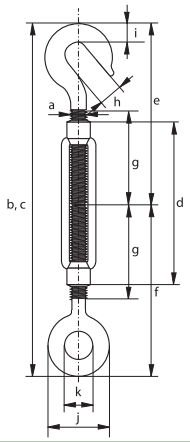
Material: Drop forged mild steel
Standard: DIN 1480
Finish: Electro galvanised



Diameter Thread	Length Closed	Length Open	Length Body	Length Fitting	Length Thread	Opening Hook	Thickness Hook	Product Code	Weight Each
a	b	c	d	e	f	g	h		
mm	mm	mm	mm	mm	mm	mm	mm		kg
6	184	270	110	92	55	8	15	63201	0.11
8	200	280	110	100	57	10.5	15	63202	0.20
10	234	323	125	117	68	13	11	63203	0.28
12	260	343	125	130	70	16	13	63204	0.43
16	322	438	170	161	88	20	17	63206	1.00
20	382	514	200	191	105	21	21	63207	1.60
24	496	673	255	248	135	26	33	63209	2.80
30	550	715	255	275	135	34	35	63210	4.10
33	600	799	295	300	148	38	40	63211	6.00
36	640	825	295	320	158	46	45	63212	8.50

Straining Screw Eye - Hook
commercial pattern

Material: Drop forged mild steel
Standard: DIN 1480
Finish: Electro galvanised



Diameter Thread	Length Closed	Length Open	Length Body	Length Fitting	Length Fitting	Length Thread	Opening Hook	Thickness Hook	Diameter Outside	Diameter Inside	Product Code	Weight Each
a	b	c	d	e	f	g	h	i	j	k		
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6	172	258	110	77	80	55	8	15	20	9	66001	0.11
8	184	264	110	85	84	57	10.5	15	22	10	66002	0.20
10	222	311	125	106	105	68	13	11	31	14	66003	0.28
12	241	324	125	117	111	70	16	13	35	16	66004	0.43
16	311	427	170	144	150	88	20	17	47	22	66006	1.00
20	358	490	200	170	167	105	21	21	52	24	66007	1.60
24	453	630	255	215	205	135	26	33	65	27	66009	2.80
30	495	660	255	240	220	135	34	35	71	31	66010	4.10
33	545	744	295	260	245	148	38	40	88	36	66011	6.00
36	597	782	295	275	277	158	46	45	94	38	66012	8.40

Section 7 | Loadbinders and Chain

Contents **Page**

Loadbinders and Chain

Applications

Loadbinders are used for easy and efficient tightening of chain in lashing applications. The loadbinders are designed in such a way that they can effortlessly be operated using one hand. Grade 8 short link chain is suitable for lashing and securing applications where short and long link commercial Grade 3 chain is for general purpose use, these types of chain may not be used for lifting purposes.

Range

Brierley Lifting offers three types of loadbinders for use with steel chain: two ratchet types and a lever type. Loadbinders are available for various steel chain sizes, ranging from 8 mm up to 16 mm, and for fibre chain. The ratchet types can be supplied with two hooks or two eyes as end fittings. We also offer a wide range of commercial mild steel and Grade 8 chain ranging from 2.5 mm up to 22 mm, larger dimensions can be supplied on request.

Design

Loadbinders are designed with an ergonomic, easy-to-use handle for simple, single-hand use, and are manufactured from drop forged or cast steel. One ratchet type is equipped with standard chain eye grab hooks, the other type has an improved version of these hooks to reduce chain wear substantially. It is also fitted with a pin to keep the chain in place. The latter type is designed to meet requirements of standard EN 12195-3.

Each loadbinder is generally marked with:

- Lashing Capacity - e.g. 10 t
- minimum breaking load - e.g. 21.2t
- manufacturer's symbol - e.g. GP
- chain diameter in mm and/or inches - e.g. 13 mm and 1/2"
- traceability code - e.g. A1
- warning - not for lifting or hoisting applications

Finish

Loadbinders are painted either red, green or blue. Grade 8 short link chain is available in self colour or black powder coated. Mild Steel chain is available in self colour, zinc plated or hot dipped galvanised.

Certification

Specific details of certificate availability can be found on each product page.
Please verify your certification requirements at the time of order.

Instructions for use

Loadbinders, lashing chain and fittings should be inspected before use to ensure that:

- all markings are legible;
- a loadbinder and/or fitting with the correct Lashing Capacity has been selected. For further details we refer to EN 12195-3, standard for lashing chains;
- loadbinders, lashing chain and fittings should never be used for lifting or hoisting applications;
- the loadbinder or fitting should never be side loaded, since these products are suitable for in-line use only;
- the handle or any other locking system cannot vibrate out of position;
- the loadbinder and/or fitting must be hooked to the chain in such a way that you can operate the loadbinder whilst standing on the ground;
- never use a loadbinder while standing on the load;
- always keep yourself out of the path of the moving handle;
- if the handle of the lever type loadbinder cannot reach the correct locked position, never use a cheater pipe. In that case a ratchet type loadbinder must be used;
- in the locked position of a lever type loadbinder the bottom side of the loadbinder should touch the chain link. In this position secure the handle to the chain using the loose end of the chain or a piece of rope or soft wire;
- if the handle of a lever type loadbinder is released by hand, make sure you use an open hand under the handle and push upward. Do not close your hand around the handle. Move the handle with caution since it may whip as it comes free;
- loadbinders and fittings are free from nicks, gouges and cracks;
- loadbinders and fittings may not be heat treated as this may affect their Lashing Capacity;
- never modify, repair or reshape a loadbinder or fitting by machining, welding, heating or bending as this may affect the Lashing Capacity;
- the loadbinder and fitting is used with the correct chain type/size.

Chain should be inspected before use to ensure that;

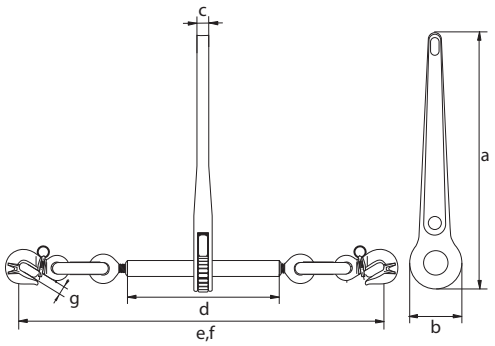
- chain is free from nicks, gouges and cracks;
- chain may not be heat treated as this may affect the Minimum Breaking Load;
- Mild steel long and short link chain may not be used for lifting purposes;
- chain is used for in-line pull only;
- never repair or reshape a chain by welding, heating or bending as this may affect the Minimum Breaking Load.

It is required that the products are regularly inspected and that the inspection should take place in accordance with the safety standard given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc. with consequence of deformation and alteration of the material structure. Inspection should take place at least every six months and more frequently when the chain is used in severe operating conditions.

Loadbinders with Hooks

ratchet type

Material: Grade 8, drop forged, quenched and tempered
Safety Factor: MBL equals 2 x lashing capacity
Standard: BS EN 12195-3
Finish: Painted red
Certificate: Upon request; Certificate of Conformity
Note: Without hooks also available

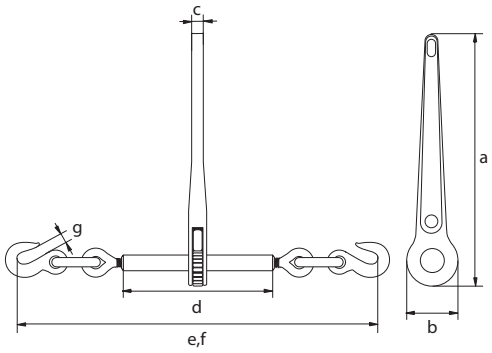


Lashing Capacity	Proof Load	MBL	Chain Size	Length	Diameter Thickness		Length Barrel	Length Open	Length Closed	Width	Take Up	Product Code	Weight Each
				a	b	c	d	e	f	g			
t	t	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
4	5	8	8	387	65	15	255	735	575	11	160	70001	4.50
6.3	7.9	12.6	10	387	65	15	255	760	595	13	165	70002	5.40
10	12.5	21.2	13	387	65	15	260	840	690	16	150	70003	7.70
16	20	32.2	16	387	65	15	260	840	690	19	150	70004	10.20

Loadbinders with Hooks

ratchet type

Material: Drop forged/cast steel, quenched and tempered
Safety Factor: MBL equals 3.5 x lashing capacity
Finish: Painted green
Certificate: Upon request; Certificate of Conformity

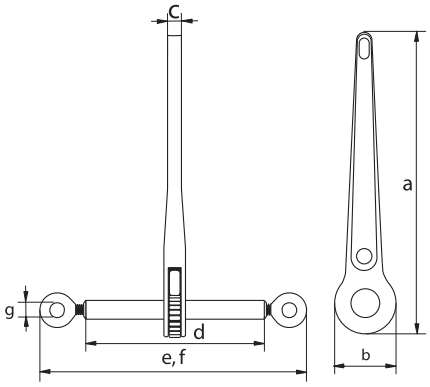


Lashing Capacity	Proof Load	MBL	Chain Size	Length	Diameter Thickness		Length Barrel	Length Open	Length Closed	Width	Take Up	Product Code	Weight Each
				a	b	c	d	e	f	g			
t	t	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2.45	4.90	8.62	8-10	385	65	15	255	735	575	12	160	71001	4.82
4.17	8.35	14.97	10-13	385	65	15	255	760	595	16	165	71002	5.81
5.90	11.80	20.86	13-16	385	65	15	260	840	690	18	150	71003	7.05

Loadbinders without Hooks

ratchet type

Material: Drop forged/cast steel, quenched and tempered
Safety Factor: MBL equals 3.5 x lashing capacity
Finish: Painted green
Certificate: Upon request; Certificate of Conformity

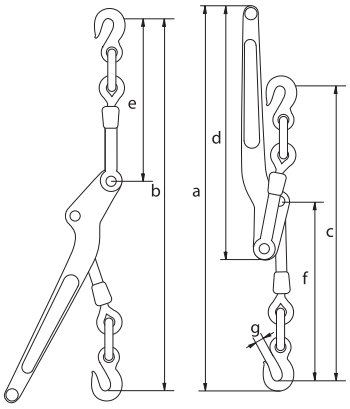


Lashing Capacity	Proof Load	MBL	Chain Size	Length	Diameter	Thickness	Length Barrel	Length Open	Length Closed	Width	Take Up	Product Code	Weight Each
				a	b	c	d	e	f	g			
t	t	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2.45	4.90	8.62	8-10	385	65	15	255	534	374	18	160	70011	3.27
4.17	8.35	14.97	10-13	385	65	15	255	543	379	20	165	70012	3.45
5.90	11.80	20.86	13-16	385	65	15	260	564	412	26	152	70013	3.84

Loadbinders with Hooks

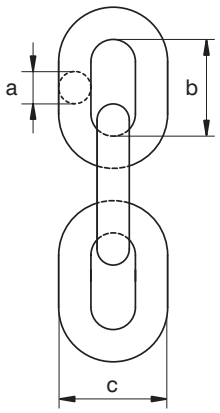
lever type

Material: Drop forged/cast steel, quenched and tempered
Safety Factor: MBL equals 3.5 x lashing capacity
Finish: Painted red or green
Certificate: Upon request; Certificate of Conformity



Lashing Capacity	Proof Load	MBL	Chain Size	Length	Length Open	Length Closed	Length	Length	Length	Width	Take Up	Product Code	Weight Each
				a	b	c	d	e	f	g			
t	t	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2.45	4.90	8.62	8-10	610	592	488	408	287	287	12	104	71004	2.81
4.17	8.35	14.97	10-13	768	680	550	458	325	325	16	130	71005	5.08

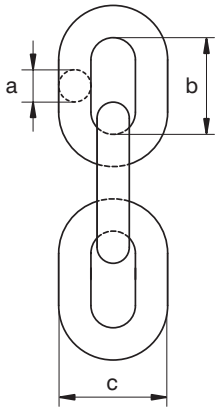
Short Link Chain
Grade 8



Material: Alloy steel, Grade 8, heat treated
Safety Factor: MBL equals 4 x WLL
Finish: Black coated
Certificate: As standard; EC Declaration of Conformity

WLL	Diameter	Length Inside	Width Outside	Product Code	Weight per Metre
	a	b	c		
kg	mm	mm	mm		kg
2000	8	24	26.8	72501	1.40
3150	10	30	34.0	72502	2.20
5300	13	39	43.5	72503	3.80
8000	16	48	53.5	72504	5.70
12500	20	60	67.0	72505	9.00
15000	22	66	73.5	72506	10.90

Welded Straight Link Chain
commercial quality



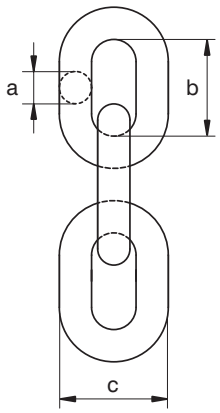
Material: Mild steel, Grade 3
Finish: Self colour, zinc plated or hot dipped galvanised
Note: This product is not suitable for lifting purposes
Other lengths also available

Diameter	Length Inside	Width Inside	Length	Product Code	Product Code	Product Code	Weight per Length
a	b	c		self colour	zinc plated	galvanised	
mm	mm	mm	metre				kg
2.5	19	7	60	73002	74002	75002	6.90
3	21	9.5	60	73004	74004	75004	10.60
4	19	9	30	73006	74006	75006	10.40
4	26	9	30	73007	74007	75007	9.50
4	32	9	30	73008	74008	75008	13.30
5	28	12	25	73009	74009	75009	12.50
6	24	12	20	73010	74010	75010	15.70
6	33	13	20	73011	74011	75011	14.30
6	42	13	20	73012	74012	75012	13.60

Short Link Chain

mild steel, commercial quality

Material: Mild steel, Grade 3
Standard: DIN766
Finish: Hot dipped galvanised or self colour (on request)
Note: This product is not suitable for lifting purposes
The MBL is shown below for guidance only

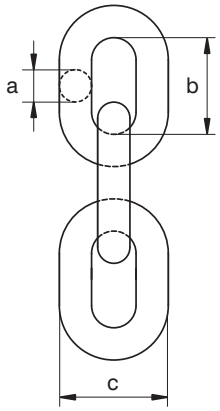


MBL	Diameter	Diameter	Length Inside	Width Inside	Product Code	Weight per Metre
	a	a	b	c		
kg	inch	mm	mm	mm		kg
1250	3/16	5	18	6	76501	0.50
1600	1/4	6	18	7	76502	0.78
3200	5/16	8	24	10	76503	1.40
5000	3/8	10	28	12	76504	2.20
7240	1/2	12	36	16	76505	3.20
12500	5/8	16	45	20	76506	5.60
20000	3/4	20	56	24	76507	8.50

Long Link Chain

mild steel, commercial quality

Material: Mild steel, Grade 3
Standard: DIN763
Finish: Hot dipped galvanised or self colour (on request)
Note: This product is not suitable for lifting purposes
The MBL is shown below for guidance only



MBL	Diameter	Diameter	Length Inside	Width Inside	Product Code	Weight per Metre
	a	a	b	c		
kg	inch	mm	mm	mm		kg
1900	1/4	6	42	10	77502	1.00
2500	5/16	8	52	14	77503	1.10
4000	3/8	10	65	18	77504	1.65
5650	1/2	12	78	22	77505	2.95
10000	5/8	16	100	30	77506	4.30
16000	3/4	20	120	35	77507	7.20

Section 8 | Hooks, Links and Swivels

Contents **Page**

Hooks, Links and Swivels

Applications

Hooks are used in lifting systems as a connection between the load to be lifted and the wire rope or chain slings.

Thrust bearing swivels are used to prevent wire rope or chain from transferring their normal twisting motion to the item being lifted. Green Pin® swivels without bearings are not designed to rotate under load, but are intended as positioning devices only. For rotation under load, thrust bearing swivels should be used. Our swivels can be supplied with two types of end fittings.

Range

Brierley Lifting offers a wide range of hooks, from drop forged carbon steel hooks to drop forged alloy steel swivel hooks, which are quenched and tempered. Upon request other types of hooks can be offered.

Brierley Lifting offer Green Pin® swivels, ranging from Working Load Limit 0.39 up to 5.7 tons, with eye-eye or jaw-eye terminals.

Design

There are different types of hooks with their specific designs to suit a particular purpose. Eye hooks and swivel hooks are designed for wire rope or chain.
Most types of hooks are supplies with a safety latch.

Hooks are generally marked with:

- Working Load Limit (specific products) - e.g. 5.4t
- manufacturer's symbol - e.g. GP
- traceability code - e.g. H-AB or HA
- steel grade - e.g. 4 or 8
- size in mm and/or inch (specific products) - e.g. 13 and/or 1/2"
- item code (specific products) - e.g. CSO
- origin (specific products) - e.g. France

Connecting links and lifting sling fittings with clevis connection are supplied unassembled and ready for immediate use. Assembly is quick and easy. Master links, eye hooks and eye swivels are generally supplied with a flat part for easy connection to the sling or for easy assembly with the omega link. There are different types of hooks with specific designs to suit various purposes.

The Green Pin® swivels are drop forged, each swivel carries the WLL marking, the manufaturer's symbol and the CE conformity code.

Finish

Hooks are either hot dipped galvanised, red painted or Grade 8 are generally white painted.

All Grade 8 links are generally white painted.

Green Pin® eye-eye and jaw-eye swivels are hot dipped galvanised or Grade 8 are generally white painted.

Certification

Specific details of certificate availability can be found on each product page. Please verify your certification requirements at the time of order.

Instructions for use

Wire rope hooks, should be inspected before use to ensure that:
• all markings are legible.
• a hook with the correct WLL has been selected with respect to the sling design.
• hooks are free from nicks, gouges and cracks.
• hooks are not heat treated, modified, repaired or reshaped by machining or bent. (This may affect their WLL).
• hooks are not distorted or unduly worn. (Maximum allowable wear is 10 % of the original diameter).
• the latch of the hook(s) is present and functional.
• the hook is never side-loaded, tip-loaded or back-loaded.
• the hook is supporting the load correctly.
• the latch should not be supporting any load.
• only use the hook for in-line lifting.

Hooks must be regularly inspected in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by issues such as wear, misuse and overloading, which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use), and more frequently when the links are used in severe operating conditions.

Grade 8 lifting sling fittings, should be inspected before use to ensure that:
• all markings are legible.
• all lifting sling fittings of the complete sling are made of the same steel grade.
• a lifting sling fitting with the correct WLL has been selected with respect to the sling design.
For further details, refer to the EN 818-4 and ASME B30.9 standard for Chain Slings.
• the pin, bolt, nut, bush or any other locking system cannot move, or vibrate out of position.
• lifting sling fittings are free from nicks, gauges and cracks.
• lifting sling fittings not heat treated, modified, repaired or reshaped by machining or bent. (This may affect their WLL).
• lifting sling fittings items are not distorted or unduly worn. (Maximum allowable wear is 10 % of the original diameter)
• the latch of the hook(s) is present and functional.
• the hook is never side-loaded, tip-loaded or back-loaded.
• the hook is supporting the load correctly.
• the latch should not be supporting any load.
• only use the hook for in-line lifting.

Grade 8 lifting sling fittings must be regularly inspected in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by issues such as wear, misuse and overloading, which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use), and more frequently when the links are used in severe operating conditions.

Swivels should be inspected before use to ensure that:
• all markings are legible.
• a swivel with the correct WLL has been selected.
• the bolt, nut or any other locking system cannot vibrate out of position,
• swivels are free from nicks, gouges and cracks.
• swivels are not distorted or unduly worn.
Also:
• swivels must be used for in-line lifting only,
• swivels may not be heat treated as this may affect their WLL.
• never modify, repair or reshape a swivel by machining, welding, heating or bending as this may affect the WLL.

The WLL should be applied in-line. Avoid overloads. Side loading is not allowed since the swivels are not designed for this purpose. Never replace a swivel pin or nut with a pin other than the one designed for the purpose, as otherwise the swivel may not be suitable for the load imposed. Swivels must be regularly inspected in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by issues such as wear, misuse and overloading, which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use), and more frequently when the links are used in severe operating conditions.

Testing

Generally load rated products are proof load and/or MPI tested.
Specific details of certificate availability can be found on each product page. Please verify your certification requirements with a member of our technical team at the time of order.

for chain diameter	Working Load Limit (WLL)	Proof Load (PL)
mm	t	t
6	1.12	2.8
7	1.57	3.93
8	2	5
10	3.2	8
13	5.4	13.5
16	8.2	20.5
20	12.8	32
22	15.5	38.75
26	21.6	54
32	32.8	82

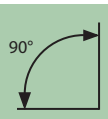
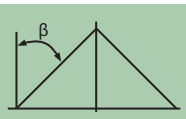
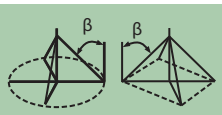
Temperature

If extreme temperature situations occur, the following load reductions must be taken into account:

Temperature °Celcius	Temperature °Fahrenheit	Reduction for elevated temp New Working Load Limit
-40°C up to 200°C	-40°F up to 392°F	100 % of original WLL
200 - 300°C	392 - 572°F	90 % of original WLL
300 - 400°C	572 - 752°F	75 % of original WLL
> 400°C	> 752°F	not allowed

Note: P-6714A, P-6703A and P-6731 temperature range-20 °C up to +200 °C cannot be used above +200 °C.

Working Load Limit table for Grade 8 Chain Slings to EN 818-4

Chain Ø	 1 leg sling		 2 leg sling		 3 or 4 leg sling		 Endless Sling
	90°	0° < ß ≤ 45° safety factor 1.4	45° < ß ≤ 60° safety factor 1.0	0° < ß ≤ 45° safety factor 2.1	45° < ß ≤ 60° safety factor 1.5	safety factor 1.6	
mm	t	t	t	t	t	t	
6	1.12	1.60	1.12	2.36	1.70	1.80	
7	1.50	2.12	1.50	3.15	2.24	2.50	
8	2.00	2.80	2.00	4.25	3.00	3.15	
10	3.15	4.25	3.15	6.70	4.75	5.00	
13	5.30	7.50	5.30	11.20	8.00	8.50	
16	8.00	11.20	8.00	17.00	11.80	12.50	
20	12.50	17.00	12.50	26.50	19.00	20.00	
22	15.00	21.20	15.00	31.50	22.40	23.60	
26	21.20	30.00	21.20	45.00	31.50	33.50	
32	31.50	45.00	31.50	67.00	47.50	50.00	

When using multi leg slings make sure that the angles between the lifting points and sling legs are within the range marked on the sling. The angle ß, which is the angle between the sling leg and the vertical, should never exceed 60°.

Grade 10 specifications will vary, for further details please contact a member of our technical team.

Symmetry of loading

The WLL values mentioned are based on symmetrical loading of the sling. This means that when the load is lifted, the sling legs are symmetrically distributed in the plane and all legs of the sling have the same angle to the vertical. For more details on chain slings refer to EN 818-6:2000+A1:2008.

The loading can be assumed to be symmetric if all the following conditions are met:

- the load is less than 80% of marked WLL, and
- sling leg angles to the vertical are all more than 15°, and
- sling leg angles to the vertical are all within 15° to each other, and
- in the case of three- and four-leg slings, the plane angles are within 15° of each other.

If one of the above parameters is not met, the loading should be considered to be asymmetric, and the lift should be referred to a competent engineer to establish the safe rating for the sling. Alternatively, in the case of asymmetric loading, the sling should be derated to half the marked WLL. If the load tends to tilt during the lift, it should be lowered, and the attachments changed by repositioning the attachment points or by using compatible shortening devices. The safety factor of 4 on the individual components is designed for safety only. Never exceed the indicated WLL.

Use the below reduction table if a multi leg sling is not used for the purpose for which it has been designed, for example for a lifting operation with fewer legs than the number of legs of the sling:

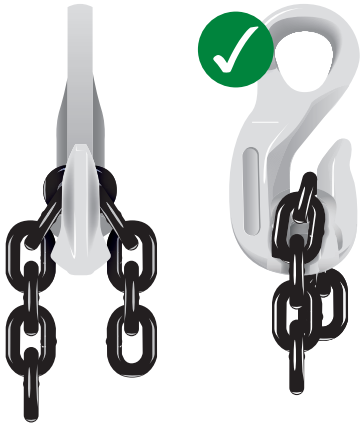
Types of chain sling	Number of legs used	Factor to apply to marked WLL
Two-leg	1	1/2
Three- and four-leg	2	2/3
Three- and four-leg	1	1/3

Examples of do's and don'ts

A hook cannot be used as a clamp.

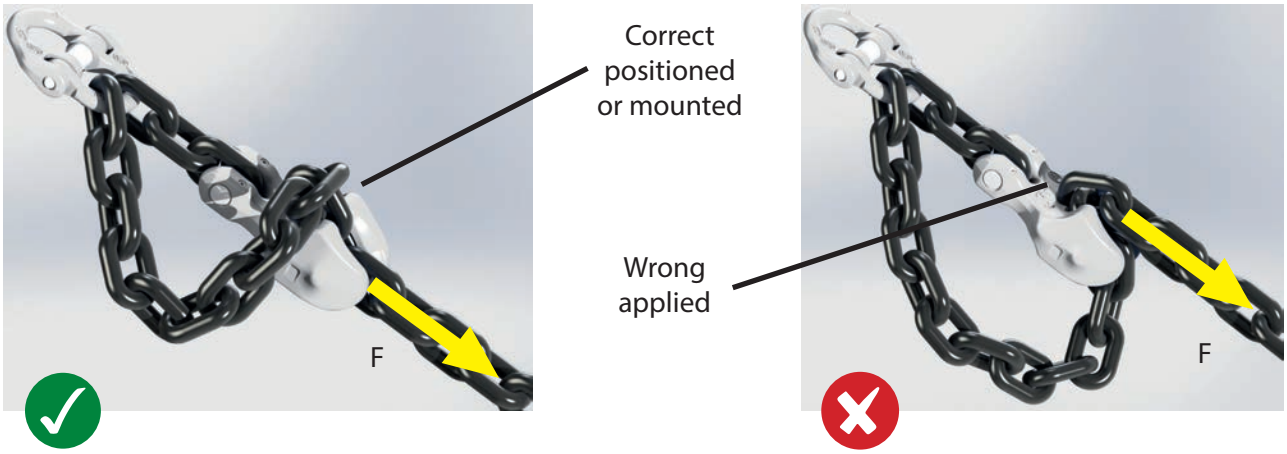
Don't use hooks without a latch, an exception is the foundry hook.

Hook body and latch may not be bent. This is a sign the hook is overloaded.



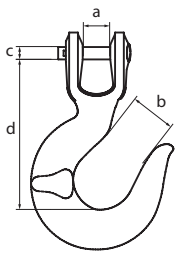
Position the chain properly in the throat.

Do not tip load hooks.



Load (F) bearing chain always needs to be at the bottom of the shortening clutch.

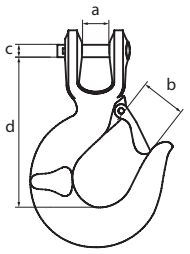
Clevis Sling Hook



Material: High tensile steel
Note: Untested, this product is not suitable for lifting purposes

Diameter Chain	Width Inside	Admittance	Diameter Pin	Length Bearing Point	Product Code	Weight Each
	a	b	c	d		
mm	mm	mm	mm	mm		kg
10	13.5	33	12	82	72001	0.47
13	19	40	16	102	72002	1.40

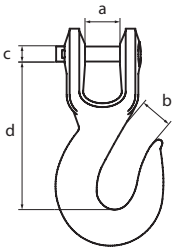
Clevis Sling Hook with Safety Catch



Material: Alloy steel, Grade 8, heat treated
Standard: BS EN 818
Certificate: As standard; EC Declaration of Conformity
Note: This product is suitable for lifting/lashing purposes as per BS EN 12195

Diameter Chain	Width Inside	Admittance	Diameter Pin	Length Bearing Point	Product Code	Weight Each
	a	b	c	d		
mm	mm	mm	mm	mm		kg
7-8	9	30	9	95	72010	0.53
10	12	36	13	120	72011	0.95
13	15	44	16	147	72012	1.67

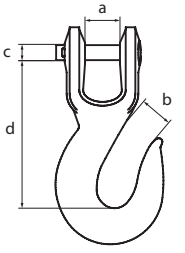
Clevis Grab Hook



Material: High tensile steel
Note: Untested, this product is not suitable for lifting purposes

Diameter Chain	Width Inside	Admittance	Diameter Pin	Length Bearing Point	Product Code	Weight Each
	a	b	c	d		
mm	mm	mm	mm	mm		kg
10	13	13	12	77	72005	0.56
13	19	16	16	97	72006	1.30

Clevis Grab Hook

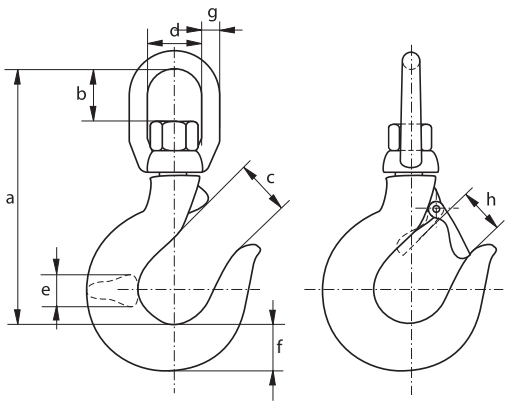


Material: Alloy steel, Grade 8, heat treated
Standard: BS EN 818
Certificate: As standard; EC Declaration of Conformity
Note: This product is suitable for lifting/lashing purposes as per BS EN 12195

Diameter Chain	Width Inside	Admittance	Diameter Pin	Length Bearing Point	Product Code	Weight Each
	a	b	c	d		
mm	mm	mm	mm	mm		kg
8	9	10	9	55	72015	0.27
10	12	13	13	77	72016	0.75
13	15	16	16	97	72017	1.35

Swivel Hooks
with safety latch

Material: Alloy steel, Grade 6
Safety Factor: MBL equals 4 x WLL
Finish: Painted red
Certificate: As standard; EC Declaration of Conformity



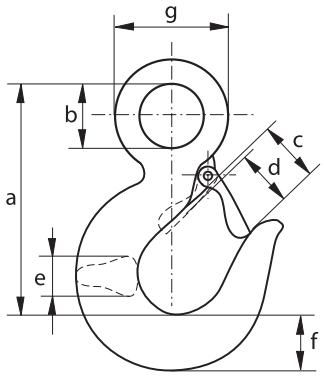
WLL	Length	Length Inside	Width Opening	Width Opening	Diameter	Thickness	Width Top	Opening	Product Code	Weight Each
	a	b	c	d	e	f	g	h		
t	mm	mm	mm	mm	mm	mm	mm	mm		kg
1	113	25	24	20	11	20	52	30	78001	0.39
1.5	134	35	26	22	14	22	67	36	78002	0.61
2	150	42	27	23	17	27	81	42	78003	1.03
3	160	42	32	28	17	30	81	42	78004	1.27
4.5	188	47	41	35	21	38	106	64	78005	2.09
7	240	60	51	44	26	46	129	77	78006	4.20
11	280	62	61	51	29	58	148	92	78007	7.16

Safety Latch Kit to Suit

WLL	Product Code
t	
1	78201
1.5	78202
2	78203
3	78204
4.5	78205
7	78206
11	78207

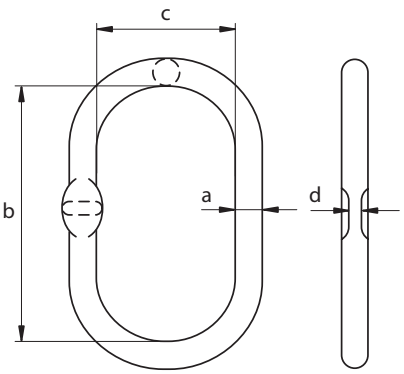
Large Eye Hooks
with safety latch

Material: Alloy steel, Grade 6
Safety Factor: MBL equals 4 x WLL
Finish: Painted red
Certificate: As standard; EC Declaration of Conformity



WLL	Length	Diameter Eye	Width Opening	Width Opening	Diameter	Thickness	Width Eye		Product Code	Weight Each
	a	b	c	d	e	f	g			
t	mm	mm	mm	mm	mm	mm	mm			kg
1	81	19	24	22	15	20	38		78501	0.29
1.5	93	23	26	24	18	22	45		78502	0.43
2	104	28	27	25	20	27	52		78503	0.62
3	119	31	32	28	23	30	60		78504	0.83
4.5	146	39	41	34	29	38	74		78505	1.85
7	187	51	51	43	37	46	97		78506	3.55
11	230	62	61	52	46	58	122		78507	5.70
15	255	72	65	57	58	66	136		78508	9.96

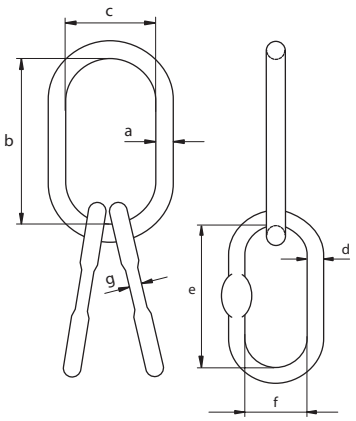
Green Pin® Master Link EN1677-4, MS
Grade 8



Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-4, ASTM A952/952M and ASME B30.9
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]
Note: From 50t without flat part
Grade 10 also available

Diameter	Diameter Chain			WLL	Length	Width	Thickness	Product	Weight
	1 leg	2 leg			Inside	Inside		Code	Each
a		ß ≤ 45°	45° < ß ≥ 60°		b	c	d		
mm	mm	mm	mm	t	mm	mm	mm		kg
13	6-7	6	6-7	1.6	115	60	7	79301	0.40
16	8	7-8	8	3.2	120	70	7	79302	0.60
18	10	10	10	4.5	135	75	9	79303	0.84
20	13	-	13	6.2	150	82	11	79304	1.10
22	16	13	16	8.2	170	90	14	79305	1.60
25	18	-	18	10.6	190	103	14	79306	2.30
28	20	16	19	12.8	209	120	17	79307	3.10
30	20-22	18	20-22	15.5	235	125	17	79308	4.00
36	-	19-20	-	20	270	145	22	79309	6.60
38	26	22	26	25	250	150	22	79310	7.10
45	32	26	32	37	300	200	22	79311	12.1
50	-	32	-	50	380	200	-	79312	18
55	-	-	-	63	360	200	-	79313	21
70	-	-	-	100	500	250	-	79314	44
80	-	-	-	125	503	280	-	79315	60.7

Green Pin® Master Link Assembly EN1677-4, MTS
Grade 8

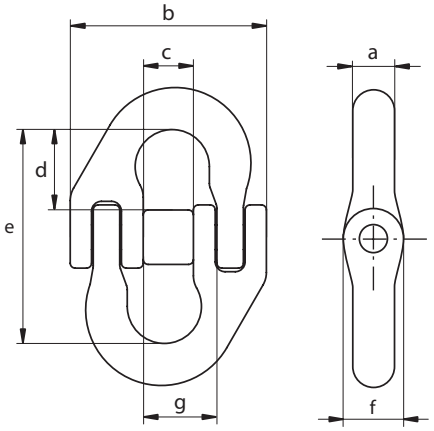


Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-4, ASTM A952/952M and ASME B30.9
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]
Note: From 60t without flat part
Grade 10 also available

Diameter	Diameter Chain		WLL	Length	Width	Diameter	Length	Width	Thickness	Product	Weight
	3/4 leg			Inside	Inside		Inside	Inside		Code	Each
a	ß ≤ 45°	45° < ß ≥ 60°		b	c	d	e	f	g		
mm	mm	mm	t	mm	mm	mm	mm	mm	mm		kg
16	6	6-7	2.5	120	70	13	115	60	7	79401	1.20
18	6-7	8	3.5	135	75	16	120	70	7	79402	3.10
22	8	10	6.5	170	90	18	135	75	9	79403	3.30
25	10	13	8.5	190	103	20	150	82	11	79404	4.50
28	-	-	10	209	120	20	150	82	11	79405	5.40
30	13	16	13	235	125	22	170	90	14	79406	7.20
36	16	18-19	17	270	145	25	190	103	14	79407	11.2
38	-	20	20.8	250	150	28	209	120	17	79408	13.3
45	18-20	22	30	300	200	36	270	145	22	79409	25.3
50	22	26	40	380	200	38	250	150	22	79410	32.2
55	26	32	50	360	200	38	250	150	22	79411	35.2
60	-	-	60	430	220	45	300	200	45	79412	54.2
70	32	-	80	500	250	55	360	200	55	79413	86
80	-	-	100	503	250	55	360	200	55	79414	103

Green Pin® Connecting Link EN1677-1, MJ
Grade 8

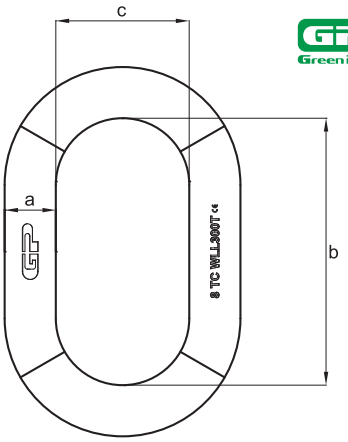
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1 and ASTM A952/952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Grade 10 also available



Diameter Chain	WLL	Diameter	Width Outside	Width Inside	Length Inside	Length Inside	Diameter Eye	Width Inside	Product Code	Weight Each
		a	b	c	d	e	f	g		
mm	t	mm	mm	mm	mm	mm	mm	mm		kg
6	1.12	8	42	11	20	52	11	15	79201	0.09
7-8	2	9	53	14	20	55	13	19	79202	0.15
10	3.2	10	66	18	23	64	18	23	79203	0.28
13	5.4	14	83	21	32	85	24	28	79204	0.64
16	8.2	17	103	25	40	105	28	34	79205	1.16
18-20	12.8	21	120	33	50	129	33	42	79206	1.95
22	15.5	23	143	40	55	140	37	51	79207	2.94
26	21.6	26	169	45	60	153	46	57	79208	4.12
32	32.8	39	197	52	68	174	56	67	79209	8.30

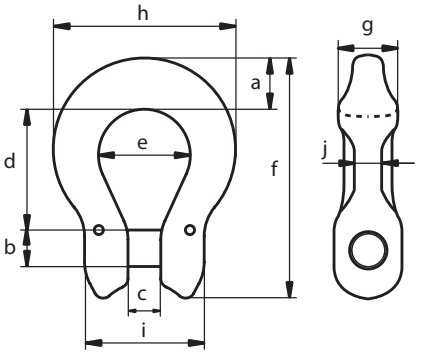
Green Pin® Heavy Duty Weldless Master Link, P-6815
Grade 8

Material: Alloy steel, Grade 8
Safety Factor: MBL equals 5 x WLL
Standard: ASME B30.26
Finish: Painted silver and green
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b], US[b]



WLL	Diameter	Length Inside	Width Inside	Product Code	Weight Each
	a	b	c		
t	mm	mm	mm		kg
131	90	460	300	79601	77
157	100	500	300	79602	102
250	115	600	400	79603	164
300	115	600	300	79604	155
400	115	490	250	79605	132

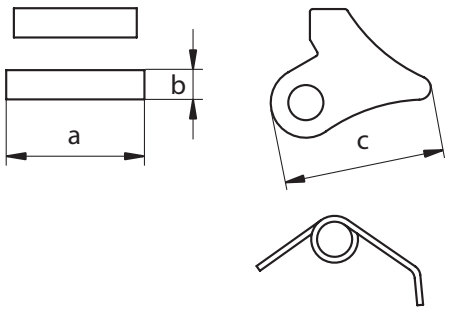
Green Pin® Omega Link EN1677-1, CO
Grade 8



Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]
Note: Specific load pins available for 5mm, 7mm and 9mm hoist chain on request which can be combined with respectively 6mm, 7-8mm and 10mm

Diameter Chain	WLL	Width	Diameter Pin	Width	Length Inside	Width Bow	Length Outside	Thickness	Width Outside	Width Outside	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6	1.12	14	8	7	25	20	53	13	41	28	6	79251	0.07
7-8	2	20	9	9	34	24	71	16	55	32	9	79252	0.20
10	3.2	19	13	12	40	31	82	17	63	42	11	79253	0.28
13	5.4	25	16	15	51	40	106	20	84	54	14	79254	0.64
16	8.2	32	20	19	64	48	132	25	104	68	17	79255	1.28
18-20	12.8	38	24	23	80	59	163	30	126	82	22	79256	2.25

Replacement Kit, VR
for Grade 8 and 10 self locking hooks

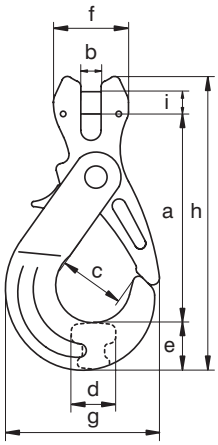


Material: Steel
Finish: Self colour
Temp Range: -40°c up to +200°C
Certificate: Upon request; 2.1, EC
Note: Plastic tube included, to make assembly easier

Length Pin	Diameter Pin	Width	Product Code	Weight Each
a	b	c		
mm	mm	mm		kg
22	6	28	79901	0.02
26	6	31	79902	0.03
32	8	37	79903	0.05
40	10	47	79904	0.10
55	10	58	79905	0.20

Product Code	suitable for GKC	suitable for XLC	suitable for GKO	suitable for XLO	suitable for GKE	suitable for XLE
79901	71101	71151	71301	71351	71201	71251
79902	71102	71152	71302	71352	71202	71252
79903	71103	71153	71303	71353	71203	71253
79904	71104	71154	71304	71354	71204	71254
79905	71105	71155	71305	71355	71205	71255
79905	71106	71156	71306	71356		71256

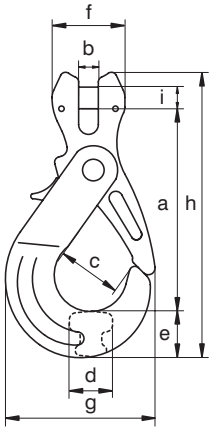
Green Pin® Clevis Self Locking Hook, GKC
Grade 8



Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Specific load pins available for 7 and 9mm hoist chain on request

Diameter Chain	WLL	Length	Width	Width Opening	Thickness	Width	Width Outside	Width Outside	Length	Diameter Pin	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
7-8	2	96	9	32	17	24	32	75	136	9	71101	0.55
10	3.2	117	12	44	24	28	42	91	167	13	71102	1.02
13	5.4	153	15	48	32	33	54	111	217	16	71103	2.01
16	8.2	175	18	63	37	42	68	141	253	20	71104	3.70
18-20	12.8	216	22	75	44	55	82	184	316	24	71105	7.54
22	15.5	243	25	90	52	61	97	205	351	28	71106	10.3

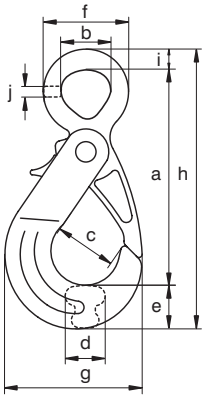
Green Pin® Clevis Self Locking Hook EN1677-3, XLC
Grade 8



Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-3 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Specific load pins available for 5, 7 and 9mm hoist chain on request
Grade 10 also available

Diameter Chain	WLL	Length	Width	Width Opening	Thickness	Width	Width Outside	Width Outside	Length	Diameter Pin	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6	1.12	93	7	32	17	24	28	75	130	8	71151	0.49
7-8	2	116	9	43	24	28	32	91	161	9	71152	0.91
10	3.2	144	12	48	32	34	42	112	201	13	71153	1.77
13	5.4	169	15	63	37	44	54	141	242	16	71154	3.33
16	8.2	204	18	75	43	56	68	182	296	20	71155	6.75
18-20	12.8	234	22	90	52	62	82	205	341	24	71156	9.57

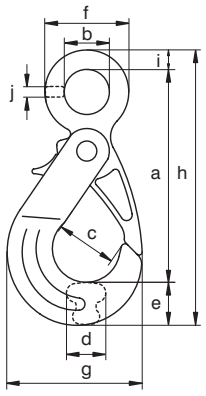
Green Pin® Eye Self Locking Hook, GKO
Grade 8



Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC
Optional; MPI[b]

Diameter Chain	WLL	Length	Diameter Inside	Width Opening	Thickness	Width	Width Outside	Width Outside	Length	Width	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
7-8	2	112	26	32	17	24	48	75	147	11	9	71301	0.53
10	3.2	136	31	44	24	28	60	91	179	15	10	71302	0.96
13	5.4	174	40	48	32	33	76	111	226	18	12	71303	1.86
16	8.2	209	50	63	37	42	93	141	273	22	16	71304	3.49
18-20	12.8	254	61	75	44	55	116	184	337	28	20	71305	7.33
22	15.5	288	72	90	52	61	132	205	379	30	21	71306	9.91

Green Pin® Eye Self Locking Hook EN1677-3, XLO
Grade 8



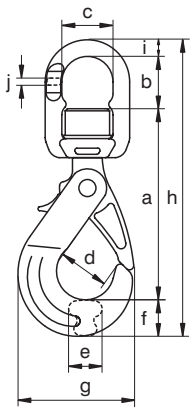
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-3 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: From 12.8t without flat part
Grade 10 also available

Diameter Chain	WLL	Length	Diameter Inside	Width Opening	Thickness	Width	Width Outside	Width Outside	Length	Width	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
5-6	1.12	113	24	32	16	24	47	75	148	11	6	71351	0.51
7-8	2	136	30	43	24	28	57	91	178	14	8	71352	0.91
10	3.2	168	36	48	32	34	68	111	218	16	10	71353	1.79
13	5.4	201	47	63	37	43	87	141	264	20	13	71354	3.36
16	8.2	251	60	75	43	56	111	182	332	26	16	71355	7.00
18-20	12.8	283	70	90	52	62	126	203	373	28	21	71356	9.22

Green Pin® Swivel Self Locking Hook, GKE

Grade 8

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Equipped with thrust needle roller bearing to enable rotation under load

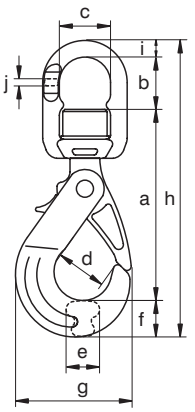


Diameter Chain	WLL	Length	Length Inside	Width Inside	Width Opening	Thickness	Width	Width Outside	Length	Diameter	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
7-8	2	123	33	32	32	17	24	75	191	12	6	71201	0.77
10	3.2	149	41	37	44	24	28	91	231	14	8	71202	1.38
13	5.4	186	47	48	48	32	33	111	282	16	11	71203	2.56
16	8.2	214	60	58	63	37	42	141	336	21	14	71204	4.58
18-20	12.8	272	67	73	75	45	55	184	418	25	17	71205	9.51

Green Pin® Swivel Self Locking Hook EN1677-3, XLE

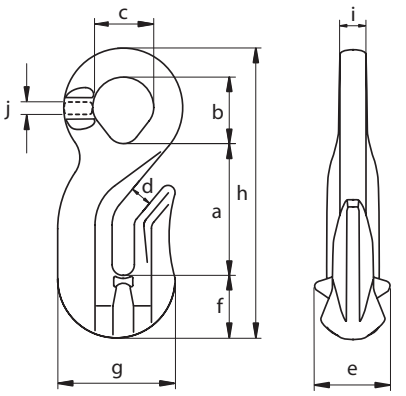
Grade 8

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-3 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Equipped with thrust needle roller bearing to enable rotation under load
Grade 10 also available



Diameter Chain	WLL	Length	Length Inside	Width Inside	Width Opening	Thickness	Width	Width Outside	Length	Diameter	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
5-6	1.12	123	33	32	32	16	24	75	191	12	6	71251	0.78
7-8	2	149	41	37	43	24	28	91	232	14	8	71252	1.39
10	3.2	186	47	48	48	32	34	112	283	16	11	71253	2.56
13	5.4	214	60	58	63	37	44	141	337	21	14	71254	4.56
16	8.2	273	67	73	75	43	56	182	420	25	17	71255	9.50
18-20	12.8	304	87	82	90	52	62	205	478	25	22	71256	12.7

Green Pin® Eye Grab Hook EN1677-1, CRO
Grade 8

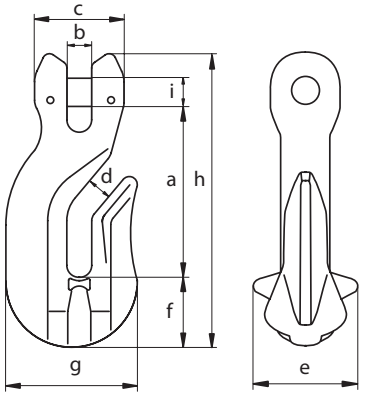


Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1**, 2.2, 2.1, MTC, EC
Optional; MPI[b]**
Note: Grade 10 also available

Diameter Chain	WLL	Length	Length Inside	Width Inside	Opening	Thickness	Width	Width Outside	Length Outside	Width	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6	1.12	41	24	23	8	24	20	42	94	9	6	71401	0.24
7-8	2	53	27	27	10	33	23	53	115	10	8	71402	0.33
10	3.2	67	38	36	12	42	39	66	158	14	10	71403	0.91
13	5.4	84	42	42	15	56	40	87	186	16	12	71404	2.02
16	8.2	104	53	52	19	65	58	106	236	17	16	71405	2.49
20	12.8	130	37	37	22	75	48	128	241	26	26	71406	6.28
22	15.5	120	44	44	25	77	57	132	247	26	26	71407	6.09
26***	21.6	158	46	46	30	100	82	177	320	32	32	71408	14.7
32***	32.8	210	57	57	38	91	88	215	395	39	39	71409	18

** Excluding sizes 20mm, 22mm, 26mm and 32mm
*** Different design

Green Pin® Clevis Eye Grab Hook EN1677-1, CRC
Grade 8

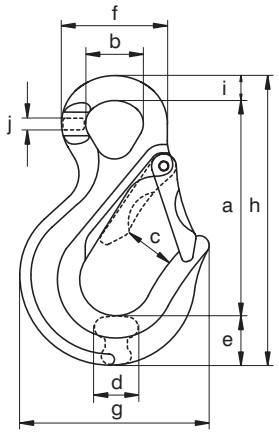


Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Grade 10 also available

Diameter Chain	WLL	Length	Width	Width Outside	Opening	Thickness	Width	Width Outside	Length Outside	Diameter Pin		Product Code	Weight Each
		a	b	c	d	e	f	g	h	i			
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm			kg
6	1.12	52	7	28	8	24	19	42	85	8		71501	0.23
7-8	2	64	9	33	10	33	23	53	103	9		71502	0.45
10	3.2	89	11	42	12	42	39	66	151	13		71503	1.05
13	5.4	103	15	54	15	56	40	78	173	16		71504	2.05
16	8.2	120	18	67	19	65	58	106	214	20		71505	3.03

Green Pin® Eye Sling Hook EN1677-2, CSO

Grade 8



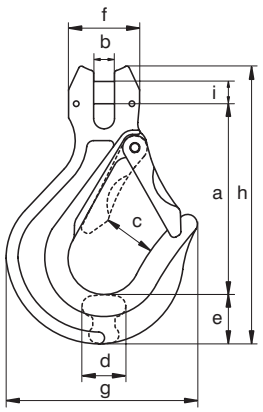
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Finish: EN 1677-2 and ASTM A952/A952M
Temp Range: Painted white
Certificate: -40°c up to +200°C
As standard; EC Declaration of Conformity
Upon request; 3.1*, 2.2, 2.1, MTC, EC
Note: Optional; MPI[b]*
From 8.2t without flat part
Grade 10 also available

Diameter Chain	WLL	Length	Diameter Inside	Width Opening	Thickness	Width	Diameter Outside	Width Outside	Length Outside	Width	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
5-6	1.12	86	23	26	15	19	43	72	114	10	6	71901	0.28
7-8	2	103	26	30	20	24	51	87	139	12	8	71902	0.56
10	3.2	129	36	33	24	28	65	106	171	15	10	71903	1.09
13	5.4	152	41	37	32	39	77	133	209	18	12	71904	1.98
16	8.2	191	52	43	40	43	94	165	255	21	17	71905	3.55
18-20	12.8	237	61	61	49	61	115	208	326	28	21	71906	7.10
22	15.5	280	72	75	54	64	132	242	375	30	23	71907	9.90
26**	21.6	251	48	73	55	86	111	236	363	32	32	71908	13.3
32**	32.8	292	58	87	67	104	139	286	435	39	39	71909	21.6

* Excluding sizes 26mm and 32mm
** Different design

Green Pin® Clevis Sling Hook EN1677-2, CSC

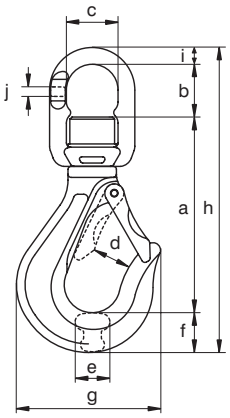
Grade 8



Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-2 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Specific load pins available for 5, 7 and 9mm hoist chain on request
Grade 10 also available

Diameter Chain	WLL	Length	Width	Width Opening	Thickness	Width	Width Outside	Width Outside	Length Outside	Diameter Pin		Product Code	Weight Each
		a	b	c	d	e	f	g	h	i			
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm			kg
6	1.12	74	7	26	15	20	28	72	108	8		71601	0.29
7-8	2	95	9	30	20	24	32	87	136	9		71602	0.58
10	3.2	113	12	33	24	29	42	106	164	13		71603	1.08
13	5.4	139	15	37	32	39	54	133	208	16		71604	2.12
16	8.2	162	19	44	40	44	68	165	240	20		71605	3.67
18-20	12.8	199	23	61	49	62	82	208	305	24		71606	7.32
22	15.5	239	25	75	54	65	97	242	350	28		71607	10.7

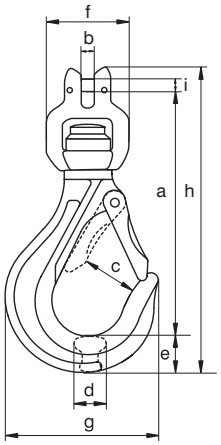
Green Pin® Swivel Sling Hook EN1677-2, CSE
Grade 8



Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-2 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Equipped with thrust needle roller bearing to enable rotation under load

Diameter Chain	WLL	Length	Length Inside	Width Inside	Width Opening	Thickness	Width	Width Outside	Length Outside	Diameter	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
5-6	1.12	100	33	32	26	15	20	72	164	12	6	71701	0.54
7-8	2	126	40	37	30	20	25	87	204	14	8	71702	1.00
10	3.2	158	47	48	33	24	29	106	250	16	11	71703	1.90
13	5.4	189	59	58	37	32	39	133	308	21	14	71704	3.40
16	8.2	221	67	73	44	40	44	165	356	25	17	71705	6.35
18-20	12.8	263	87	82	61	49	62	209	437	25	21	71706	10.40

Green Pin® Swivel Sling Hook with Clevis EN1677-2, CSECA
Grade 8



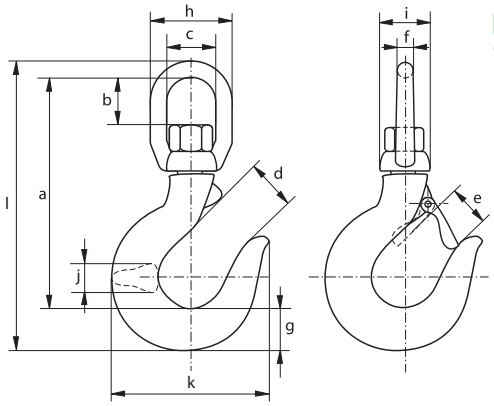
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-2 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Specific load pins available for 5, 7 and 9mm hoist chain on request
Equipped with thrust needle roller bearing to enable rotation under load

Diameter Chain	WLL	Length	Width	Width Opening	Thickness	Width	Width Outside	Width Outside	Length	Diameter Pin	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
6	1.12	126	7	26	15	20	56	72	159	8	71801	0.56
7-8	2	154	9	30	20	25	65	87	196	9	71802	0.99
10	3.2	190	12	33	24	29	79	106	240	13	71803	1.95
13	5.4	224	14	37	32	39	96	133	293	16	71804	3.54
16	8.2	270	18	44	40	44	121	165	350	20	71805	6.61

Green Pin® Swivel Eye Hook, P-6703A

Grade 8

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Finish: Painted red
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC

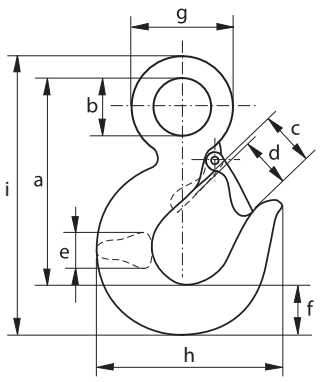


WLL	Length	Length Inside	Width Inside	Opening Hook	Opening Hook	Diameter	Width	Width	Width	Thickness	Width Outside	Length Outside	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j	k	l		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
1.25	118	28	31	24	20	11	19	53	30	16	70	147	78051	0.49
1.6	145	35	40	26	22	14	22	68	37	18	79	181	78052	0.95
2.5	167	43	47	32	27	17	27	81	43	20	93	210	78053	1.48
3.2	180	47	47	34	30	17	31	81	43	24	109	228	78054	1.78
5.4	217	54	64	44	37	21	36	106	64	31	127	275	78055	3.70
8.2	275	69	78	55	45	26	48	130	77	37	168	349	78056	7.36
11.5	310	68	82	58	53	22	60	150	82	43	198	398	78057	9.69
16	352	84	92	66	58	24	67	154	92	52	222	452	78058	14.90
22	434	107	115	87	78	29	80	191	108	64	283	552	78059	26.00
31.5	512	117	132	97	87	34	94	222	132	80	339	655	78060	46.00

Green Pin® Large Eye Hook, P-6714A

Grade 8

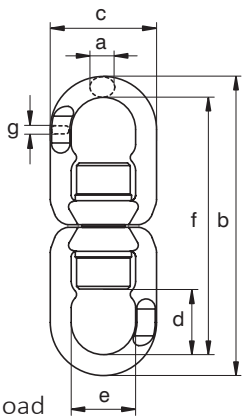
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Finish: Painted red
Temp Range: -20°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC



WLL	Length	Diameter Inside	Opening Hook	Opening Hook	Thickness	Width	Diameter Outside	Width Outside	Length Outside	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
1.25	81	19	24	20	16	19	37	70	109	78551	0.30
1.6	91	23	26	22	18	22	46	79	124	78552	0.44
2.5	105	27	32	27	20	27	52	93	145	78553	0.63
3.2	124	32	34	30	24	30	62	109	169	78554	1.08
5.4	147	39	44	37	31	36	74	127	201	78555	1.56
8.2	190	50	55	48	37	48	96	168	261	78556	3.95
12.8	230	64	64	53	48	61	126	198	322	78557	7.75
16	254	71	70	60	58	69	139	223	357	78558	10.80
22	316	89	91	77	63	81	169	283	437	78559	16.90

Green Pin® Needle Bearing Swivel, ELR

Eye - Eye, Grade 8

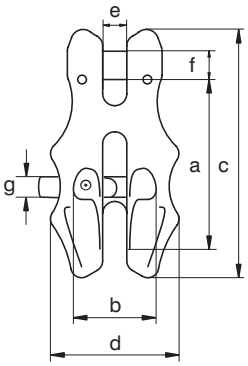


Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]
Note: Equipped with two thrust needle roller bearings to enable rotation under load
Grade 10 also available

Diameter Chain	WLL	Diameter	Length Outside	Width Outside	Length Inside	Width Inside	Length	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g		
mm	t	mm	mm	mm	mm	mm	mm	mm		kg
5-6	1.12	12	149	56	33	32	126	6	78871	0.61
7-8	2	14	181	65	40	37	153	8	78872	1.07
10	3.2	16	226	79	48	48	195	11	78873	1.90
13	5.4	20	268	96	60	58	227	14	78874	3.17
16	8.2	25	329	121	67	73	279	17	78875	6.44
18-20	12.8	25	378	132	88	82	328	22	78876	7.75

Green Pin® Shortening Clutch with Lock EN1677-1, GCV

Grade 8



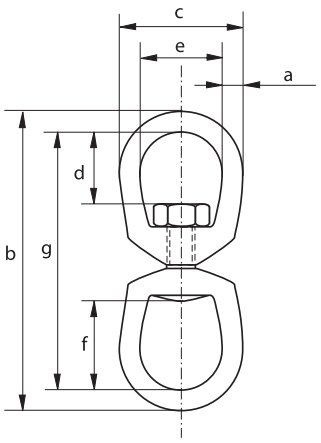
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1, DIN 5692 and ASTM A952/A952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]

Diameter Chain	WLL	Length	Width Inside	Length	Width Outside	Width	Diameter Pin	Diameter	Product Code	Weight Each
		a	b	c	d	e	f	g		
mm	t	mm	mm	mm	mm	mm	mm	mm		kg
6	1.12	52	23	75	42	7	8	7	78891	0.25
8	2	67	30	94	50	9	9	8	78892	0.45
10	3.2	83	38	116	63	11	13	12	78893	0.87
13	5.4	104	49	149	79	14	16	16	78894	1.74
16	8.2	127	60	184	99	18	20	20	78895	3.10
20	12.8	154	75	215	124	22	24	20	78896	5.72

Green Pin® Swivel, G-7713

Eye - Eye

Material: High tensile steel, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: US Fed Spec. RR-C-271, Type VII, Class 2
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC
Note: for WLL 8.2t and 20.5t swivels, both eye parts are supplied with a nut

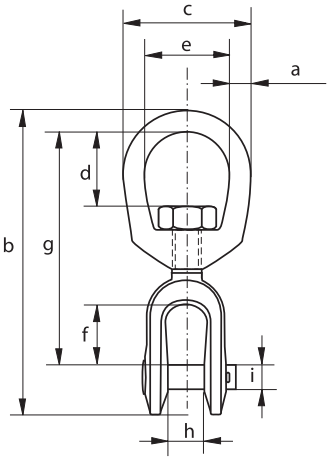


WLL	Diameter	Length Outside	Width Outside	Length Inside	Width Inside	Length Inside	Length	Product Code	Weight Each
	a	b	c	d	e	f	g		
t	mm	mm	mm	mm	mm	mm	mm		kg
0.4	6	87	32	18	19	27	75	78801	0.10
0.6	8	107	41	21	25	32	91	78802	0.18
1.12	10	131	51	24	32	38	111	78803	0.30
1.63	13	164	64	33	38	51	138	78804	0.60
2.4	16	198	76	40	45	61	166	78805	1.00
3.3	19	221	89	45	51	67	183	78806	1.79
4.54	22	257	102	53	57	78	213	78807	2.55
5.7	25	298	114	59	64	86	248	78808	4.06
8.2	32	357	143	68	80	68	293	78809	8.48
20.5	38	541	198	110	122	110	465	78810	25.70

Green Pin® Swivel, G-7723

Eye - Jaw with cotter pin

Material: High tensile steel, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: US Fed Spec. RR-C-271, Type VII, Class 3
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC

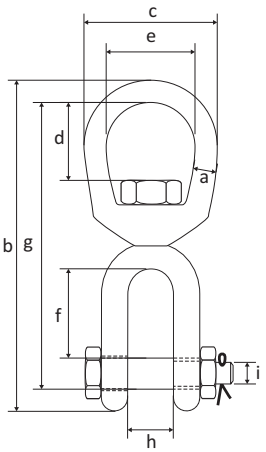


WLL	Diameter	Length	Width Outside	Length Inside	Width Inside	Length Inside	Length	Width Inside	Diameter Pin	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.4	6	88	32	18	19	22	67	12	6	78901	0.09
0.6	8	99	41	21	25	23	75	13	8	78902	0.16
1.12	10	122	51	24	32	27	92	16	10	78903	0.32
1.63	13	154	64	33	38	33	115	21	13	78904	0.57
2.4	16	184	76	40	45	38	135	26	16	78905	0.98
3.3	19	211	89	45	51	45	154	31	19	78906	1.88
4.54	22	244	102	53	57	52	178	31	23	78907	2.43
5.7	25	297	114	59	64	72	218	47	29	78908	4.02
8.2	32	335	143	68	80	72	240	57	35	78909	7.43
20.5	38	534	198	110	122	116	381	78	51	78910	22.10

Green Pin® Swivel, G-7733

Eye - Jaw with safety bolt

Material: High tensile steel, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: US Fed Spec. RR-C-271, Type VII, Class 3
Finish: Hot dipped galvanised
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, EC

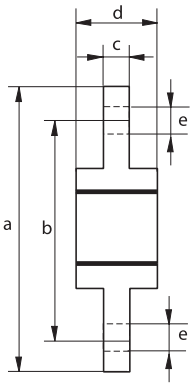


WLL	Diameter	Length Outside	Width Outside	Length Inside	Width Outside	Length Inside	Length	Width Inside	Diameter Pin	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0.6	8	99	41	21	25	23	75	13	8	78952	0.16
1.12	10	122	51	24	32	27	92	16	10	78953	0.32
1.63	13	154	64	33	38	33	115	21	13	78954	0.57
2.4	16	184	76	40	45	38	135	26	16	78955	0.98
3.3	19	211	89	45	51	45	154	31	19	78956	1.88
4.54	22	244	102	52	57	53	178	31	22	78957	2.43
5.7	25	297	114	59	64	72	218	47	28	78958	4.02

Green Pin® Thrust Bearing Swivel, P-7740

Eye - Eye

Material: Carbon steel
Safety Factor: MBL equals 5 x WLL
Finish: Painted black
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC
Note: Equipped with two thrust ball bearing to enable rotation under load

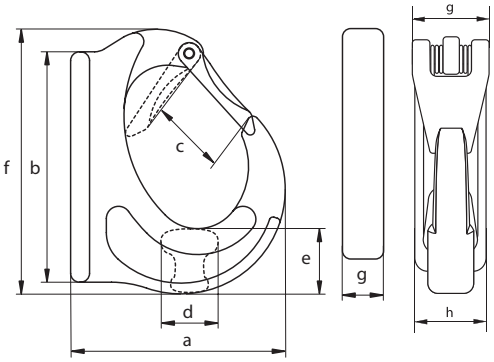


WLL	Length	Length	Thickness	Diameter	Diameter Hole	Product Code	Weight Each
	a	b	c	d	e		
t	mm	mm	mm	mm	mm		kg
1	174	128	12.5	49	21	78851	1.40
2	223	173	19	68	22	78852	3.50
3	278	210	26	79	29	78853	6.40
5	290	222	26	89	31	78854	7.90
8	366	276	40	106	43	78855	15.2
10	390	300	40	118	49	78856	19.1
15	457	355	40	128	49	78857	26.6
20	474	372	40	118	51	78858	25.0
30	612	472	64	138	59	78859	50.0
40	760	600	68	168	65	78860	92.0

Green Pin® Excavator Hook EN1677-1, GH

Grade 8

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Welding must be done in accordance with DIN 5817 rep. 15429, by a qualified welder according to EN287-1

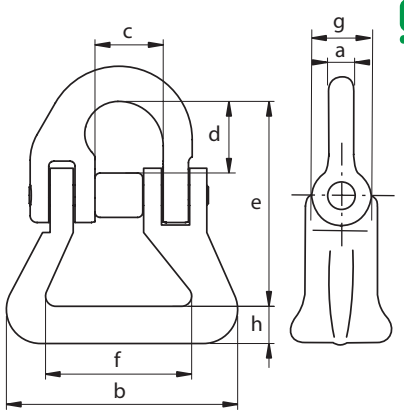


WLL	Width	Length	Width Opening	Thickness	Width	Length	Width	Width	Product Code	Weight Each
	a	b	c	d	e	f	g	h		
t	mm	mm	mm	mm	mm	mm	mm	mm		kg
1	72	78	25	19	28	108	31	26	71951	0.52
2	178	197	60	46	61	227	50	66	71952	0.75
3	185	223	65	60	70	251	55	80	71953	1.15
4	91	83	33	20	28	113	31	34	71954	1.66
5	105	105	33	26	32	128	31	34	71955	2.50
8	121	130	35	27	36	148	40	38	71956	3.32
10	138	149	43	28	45	166	40	44	71957	6.44
15	145	148	43	41	52	173	40	51	71958	9.70

Green Pin® Round Web Sling Connecting Link, MJS

Grade 8

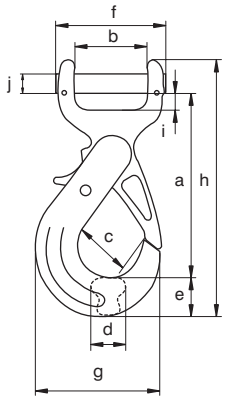
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1 and ASTM A952/952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]



Diameter Chain	WLL	Diameter	Width Outside	Width Inside	Length Inside	Length	Width Inside	Diameter Eye	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm		kg
7-8	2	9	66	19	21	60	41	13	14	79801	0.31
10	3.2	10	75	23	24	75	46	18	15	79802	0.51
13	5.4	14	87	28	32	90	52	24	19	79803	1.01

Green Pin® Flat Web Sling Safety Hook, XLS
Grade 8

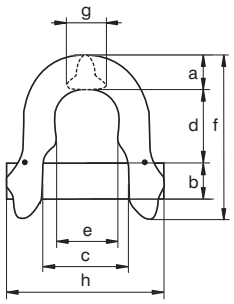
Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]



WLL	Length	Width	Width Opening	Thickness	Width	Width Outside	Width Outside	Length Outside	Length Inside	Diameter Pin	Product Code	Weight Each
	a	b	c	d	e	f	g	h	i	j		
t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	161	62	47	32	35	94	111	222	18	16	79811	2.11

Green Pin® Round Web Sling Connector, COS
Grade 8

Material: Alloy steel, Grade 8, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: EN 1677-1 and ASTM A952/952M
Finish: Painted white
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]



WLL	Width	Diameter Pin	Width	Length Inside	Width Inside	Length Outside	Thickness	Width Outside	Product Code	Weight Each
	a	b	c	d	e	f	g	h		
t	mm	mm	mm	mm	mm	mm	mm	mm		kg
2	14	9	33	35	23	66	15	59	79821	0.18
3.2	18	13	44	45	30	86	20	75	79822	0.37
5.4	22	16	57	59	38	107	25	94	79823	0.72
8.2	28	20	70	72	48	133	31	117	79824	1.35

Section 9 | General Hardware

Contents **Page**

General Hardware

Applications

General hardware items, such as carbine hooks and quick links, are suitable for many different applications in various market segments such as agriculture, industry, transportation, etc.

Range

Brierley Lifting offers a wide range of general hardware products such as:
Carbine hooks in four different types ranging from 4mm up to 15mm
Two types of quick links ranging from 3.5mm up to 12mm
Spring pins from 2mm up to 8mm
Lynch pins from 4.5mm up to 11mm
Round rings from 4mm up to 10mm
Spring hooks from 5mm up to 10mm

Design

General hardware items are designed for multiple purpose usage.

Finish

Most general hardware items are electro-galvanised. Specific details of the finish of general hardware items can be found on each product page.

Certification

Specific details of certificate availability can be found on each product page. Please verify your certification requirements at the time of order.

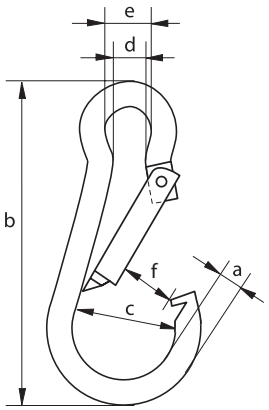
Instructions for use

Items should be inspected before use to ensure that they are free from nicks, gouges and cracks. Also:
• the item should not be used for lifting – general hardware items are not suitable for lifting applications;
• never modify, repair or reshape an item by machining, welding, heating or bending, as this may affect its performance.

The products must be regularly inspected in accordance with the safety standards and regulations given in the country of use. This is required because the products in use may be affected by issues such as wear, misuse and overloading, which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use) and more frequently when the products are used in severe operating conditions.

Carbine Hook
standard type

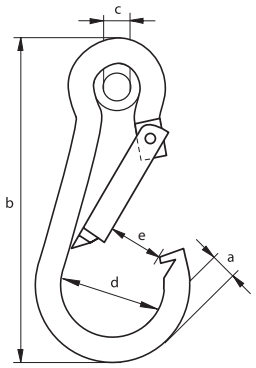
Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter	Length	Width	Width Inside	Width Inside	Width Opening	Product Code	Weight per 100
a	b	c	d	e	f		
mm	mm	mm	mm	mm	mm		kg
4	40	14	5	7	6	80001	1.00
5	50	16	7	8	6	80002	1.50
6	60	18	7	9	7	80003	2.50
7	70	22	9	10	8	80004	4.00
8	80	24	11	12	9	80005	6.00
9	90	26	11	12	10	80006	8.50
10	100	30	12	15	11	80007	12.00
11	120	36	14	18	15	80008	17.50
12	140	40	16	20	19	80009	25.00
13	160	44	20	22	24	80010	34.50
14	180	48	20	22	28	80011	44.00
15	200	60	20	22	35	80012	57.20

Carbine Hook
with pressed thimble

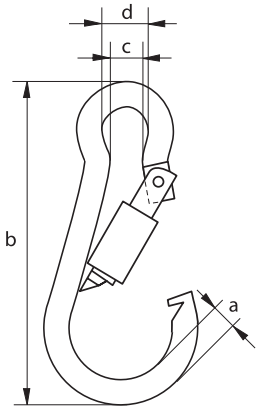
Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter	Length	Diameter Inside	Width	Width Opening	Product Code	Weight per 100
a	b	c	d	e		
mm	mm	mm	mm	mm		kg
4	40	4	14	6	80101	1.00
5	50	5	16	6	80102	1.50
6	60	6	18	7	80103	2.60
7	70	7	22	8	80104	4.40
8	80	10	24	9	80105	6.50
9	90	12	26	10	80106	9.00
10	100	13	30	11	80107	12.70
11	120	13	36	15	80108	18.50
12	140	15	40	19	80109	25.00
13	160	17	44	24	80110	35.00

Carbine Hook
with screw nut

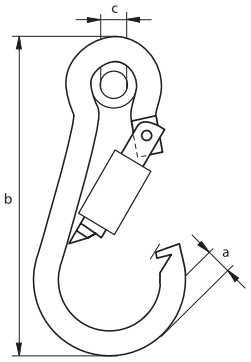
Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter	Length	Width Inside	Width Inside	Product Code	Weight per 100
a	b	c	d		
mm	mm	mm	mm		kg
4	40	4	7	80201	1.00
5	50	5	7	80202	1.50
6	60	6	8	80203	2.50
7	70	7	10	80204	4.50
8	80	10	12	80205	6.50
9	90	12	12	80206	9.50
10	100	13	15	80207	12.50
11	120	13	16	80208	18.50
12	140	15	19	80209	25.50

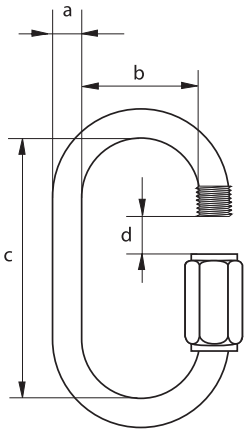
Carbine Hook
with pressed thimble and screw nut

Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter	Length	Diameter Inside	Product Code	Weight per 100
a	b	c		
mm	mm	mm		kg
4	40	4	80301	1.00
5	50	5	80302	1.50
6	60	6	80303	3.00
7	70	7	80304	4.50
8	80	9	80305	6.50
9	90	10	80306	9.50
10	100	11	80307	13.00
11	120	12	80308	19.00
12	140	13	80309	27.50

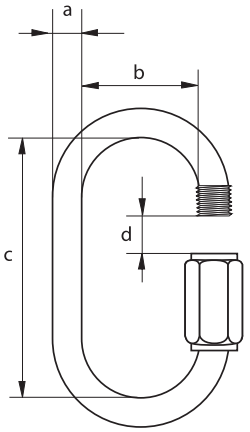
Quick Link
standard type



Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only

Diameter	Width Inside	Length Inside	Opening	MBL	Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm	kg		kg
3.5	10	29	5	240	80401	0.90
4	11	32	5	300	80402	1.30
5	13	39	6	540	80403	2.00
6	14	46	7	750	80404	3.30
7	16	51	8	1125	80405	5.30
8	17	59	10	1500	80406	7.50
9	17	64	11	2000	80407	10.30
10	20	70	12	2400	80408	13.00
12	23	83	14	3600	80409	25.00

Quick Link
with enlarged opening

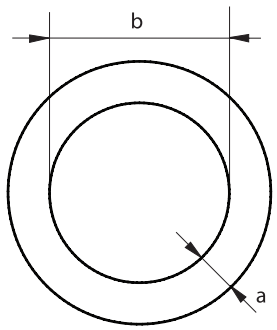


Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only

Diameter	Width Inside	Length Inside	Opening	MBL	Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm	kg		kg
3.5	10	39	10		80501	0.90
5	14	52	13	1250	80503	2.50
6	16	58	14	1750	80504	4.20
8	19	73	17	3250	80506	9.40
10	22	88	20	5000	80508	17.50
12	25	102	23	6250	80509	28.20

Rings
drop forged

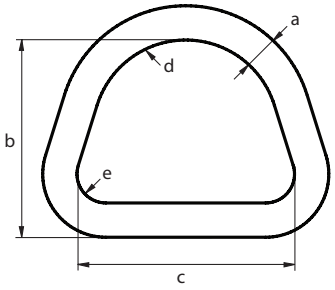
Material: High tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: BS 2902- 1957
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity



SWL	Diameter	Diameter	Width Inside	Width Inside	Product Code	Weight Each
	a	a	b	b		
cwts	inch	mm	inch	mm		kg
11	1/2	13	2	50	79501	0.20
20	5/8	16	3	75	79506	0.42
25	3/4	19	3	76	79503	0.72
34	7/8	22	3.1/2	89	79504	1.14
44	1	25	4	100	79505	1.75

Triangular Links
drop forged

Material: High tensile steel
Safety Factor: MBL equals 5 x WLL
Standard: BS 2837, table 1, 1988
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

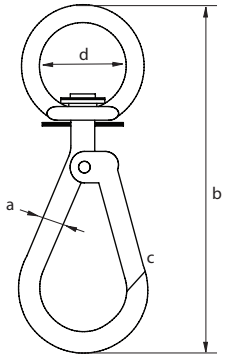


SWL	Class	Diameter	Length Inside	Width Inside	Radius Top	Radius Bottom	Product Code	Weight Each
		a	b	c	d	e		
t		mm	mm	mm	mm	mm		kg
0.32	A	10	67	67	25	8	79701	0.15
0.50	B	12	67	67	25	8	79702	0.26
0.80	C	14	67	67	25	8	79703	0.35

larger sizes available on request

Spring Hook
swivel type

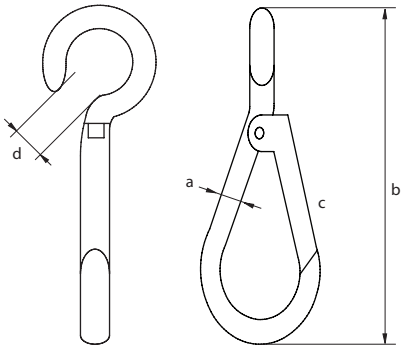
Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter	Length Overall	Opening	Width Inside	Product Code	Weight per 100
a	b	c	d		
mm	mm	mm	mm		kg
5	68	6.5	11.5	80601	1.50
6	63	6.6	11.5	80602	2.50
6	76	6.5	11.5	80603	3.50
7	85	9.2	16	80604	7.00
8	100	10.3	16	80605	11.00
10	112	12.4	16.5	80607	23.50

Spring Hook
to crue

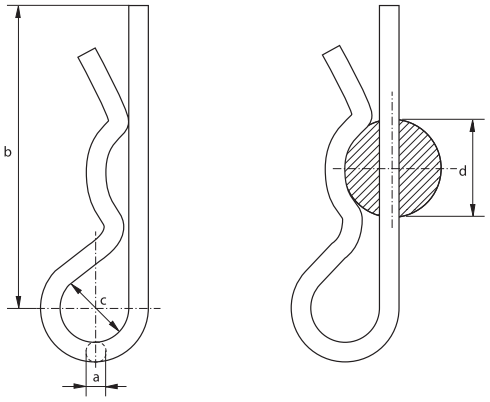
Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter	Length Overall	Opening	Opening Eye	Product Code	Weight per 100
a	b	c	d		
mm	mm	mm	mm		kg
5	58	6.5	4	80701	2.40
6	63	6.5	5	80702	3.00
7	75	9.5	7	80703	5.70
8	87	9.6	8	80704	7.60
10	97	12.4	9	80705	14.80

Spring Pin
single type

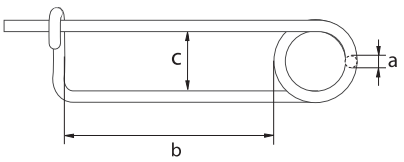
Material: Mild steel
Finish: Electro galvanised



Diameter	Length	Diameter	Diameter		Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm			kg
2	50	10	9 - 14		80801	0.30
3	60	18	10 - 16		80802	0.90
4	60	20	16 - 20		80803	1.60
5	85	24	20 - 28		80804	3.30
6	105	30	28 - 40		80805	6.20
7	105	30	28 - 45		80806	8.30
8	110	28	30 - 45		80807	10.50

Spring Pin Diameter	Standard	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee
	G-4163 G-4153	P-6033	G-5263	G-5163	G-4263	G-4553
	WLL	WLL	WLL	WLL	WLL	WLL
mm	t	t	t	t	t	t
2	2		3.3	2		
3	3.25		5	3.25		
4	4.75	7	7	4.75	4.75	4.6
4	6.5		9.5	6.5		
5	8.5	12.5	12.5	8.5	6.5	8.5
5	9.5	18	15	9.5	8.5	
5	12		18	12	9.5	
6	13.5		21	13.5	12	15.5
6	17		30	17	16	
7	25	30	40	25	25	
7		40				

Safety Pin
for use with Green Pin® P-5367 shackles



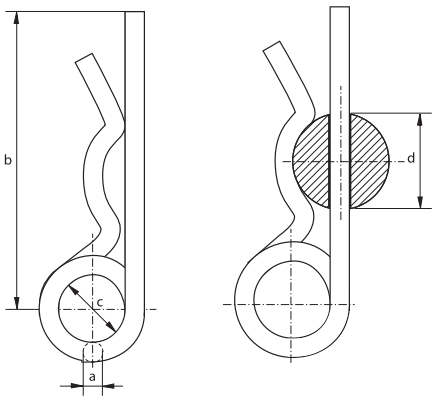
Material: Mild steel
Finish: Electro galvanised
Certificate: Upon request; 2.1
Note: For use with Green Pin® Spring Release ROV shackles P-5367

Diameter	Length Inside	Width Inside		Product Code	Weight per 100
a	b	c			
mm	mm	mm			kg
3	116	24		81501	2.50
3	147	24		81502	2.80

Safety Pin Diameter	Standard
a x b	WLL
mm	t
3 x 116	12 - 55
3 x 147	85
3 x 147	120
3 x 147	150

Spring Pin
double type

Material: Mild steel
Finish: Electro galvanised

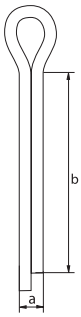


Diameter	Length	Diameter	Diameter		Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm			kg
2	50	10	8 - 14		80901	0.40
3	62	16	14 - 20		80902	1.40
4	78	23	17 - 24		80903	3.00
5	92	26	18 - 30		80904	5.30
6	120	30	24 - 36		80905	9.60
7	130	30	24 - 40		80906	13.50
8	130	30	24 - 45		80907	17.80

Spring Pin Diameter	Standard	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee	Tapered ROV D/F	Spring Pin ROV	Locking Clamp ROV
	G-4163 G-4143 G-4153 G-4133	P-6036, P-6038 P-6016, P-6018	P-6033 P-6013	G-5263 G-5243	G-5163 G-5143	G-4263 G-4243	G-4553	P-5363	P-5365
	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL
mm	t	t	t	t	t	t	t	t	t
2	2		3.3	2					
3	3.25		5	3.25			6.5		6.5 - 12
4	4.75	7	7	4.75	4.75	4.6		6.5	17
4	6.5		9.5	6.5					25
4	8.5		12.5	8.5					35
5	9.5	12.5	15	9.5	6.5	8.6	9.5	9.5	42.5 - 85
5	12	18	18	12	8.5			12	120 - 250
5					9.5				
6	13.5		21	13.5	12	15.5	12	17	
6	17		30	17	16		17		
6							25		
7	35	55	55	35	30		42.5	35	
7	42.5	75	85	42.5	55		55	42.5	
7	55			55				55	
7								85	
8	25	30	40	25	25		35	25	
8		40							

Split Pins
for use with Green Pin® Shackles

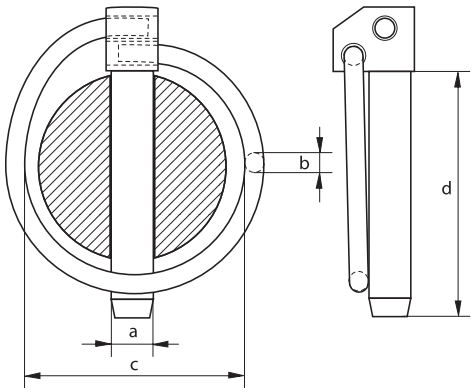
Material: Mild steel
Finish: Electro galvanised
Note: Other pin types available



Diameter	Length	Standard	Heavy Duty	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee	Product Code	Weight per 100
		G-4163 G-4143 G-4153 G-4133	P-6036, P-6038 P-6016, P-6018	P-6033 P-6013	G-5263 G-5243	G-5163 G-5143	G-4263 G-4243	G-4553		
a	b	WLL	WLL	WLL	WLL	WLL	WLL	WLL		
mm	mm	t	t	t	t	t	t	t		kg
2.5	20	0.5							81401	0.08
2.5	20	0.75							81401	0.08
2.5	20	1							81401	0.08
2.5	20	1.5							81401	0.08
4	32	2			3.3	2			81402	0.30
4	32	3.25			5	3.25			81402	0.30
5	36	4.75			7	4.75	4.75	4.6	81403	0.60
5	36	6.5			9.5	6.5			81403	0.60
6	45	8.5		18	12.5	8.5	6.5	8.6	81404	1.20
6	45	9.5			15	9.5	8.5		81404	1.20
6	45	12			18	12	9.5		81404	1.20
8	63	13.5			21	13.5	12	12.5	81405	2.80
8	63	17			30	17	16		81405	2.80
8	80			30					81406	4.40
8	80			40					81406	4.40
10	71	25			40	25	25		81407	5.00
10	71	35			55	35	30		81407	5.00
10	90	42.5			85	42.5	55		81408	6.00
10	90	55				55			81408	6.00
10	100	85		55	120	85	75		81409	6.60
10	100			75					81409	6.60
10	120			125					81410	4.40
12	140			150					81411	7.00
12	140			200					81411	7.00
12	160			250					81412	7.00
12	160			300					81412	7.00
13	110		120						81414	12.1
13	110		150						81414	12.1
16	160		200						81415	16.0
16	160		250						81415	16.0
16	160		300						81415	16.0
16	200		400	400					81416	20.0
16	200		500	500					81416	20.0
20	230		600	600					81417	30.0
20	230		700						81417	30.0
20	230		800						81417	30.0
20	280		900						81419	17.6
20	280		1000						81419	17.6

Lynch Pin
with round spring pin

Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications

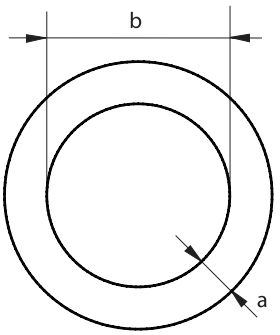


Diameter Pin	Diameter Ring	Width Inside	Length Pin	Product Code	Weight per 100
a	b	c	d		
mm	mm	mm	mm		kg
4.5	2	34	42	81101	2.00
6	3.4	41	42	81102	2.80
7	3.4	41	42	81103	3.00
8	3.4	41	42	81104	3.50
9	3.4	41	42	81105	3.80
10	3.4	41	42	81106	4.40
11	3.4	41	42	81107	4.60

Lynch Pin Diameter	Standard	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee
	G-4163 G-4143 G-4153 G-4133	P-6033 P-6013	G-5263 G-5243	G-5163 G-5143	G-4263 G-4243	G-4553
	WLL	WLL	WLL	WLL	WLL	WLL
mm	t	t	t	t	t	t
4.5	4.75	7	7	4.75	4.75	4.6
4.5	6.5		9.5	6.5	6.5	8.6
4.5	8.5		12.5	8.5	8.5	
6	9.5	12.5	15	9.5	9.5	
6	12	18	18	12		
8	13.5	30	21	13.5	12	15.5
8	17		30	17	16	

Round Ring
welded type

Material: Mild steel
Finish: Electro galvanised
Note: Not to be used for lifting applications



Diameter	Width Inside	Product Code	Weight per 100
a	b		
mm	mm		kg
4	30	81201	0.90
5	25	81202	2.80
5	40	81203	3.40
6	50	81204	4.00
8	50	81205	6.30
8	75	81206	9.00
10	50	81207	11.10
10	75	81208	12.00

Section 10 | Stainless Steel

Contents **Page**

Stainless Steel

Applications
The use of stainless steel products is recommended for circumstances in which corrosion may cause problems. Where other measures against corrosion do not suffice, stainless steel can possibly provide a better solution. Examples of industries where stainless steel is often used include sailing, petrochemical, food and the nuclear industry.

Range
Brierley Lifting offers a wide range of stainless steel items such as shackles, chain, chain fittings, thimbles, wire rope clips, eye bolts, rigging screws, etc.

Design
Stainless steel items supplied by Brierley Lifting are all manufactured from stainless steel quality AISI 316, AISI 316L and AISI 304. Most stainless steel items have an equivalent in a regular steel quality, please contact our technical team for more information.

Finish
All stainless steel items are polished.

Certification
Specific details of certificate availability can be found on each product page. Please verify your certification requirements at the time of order.

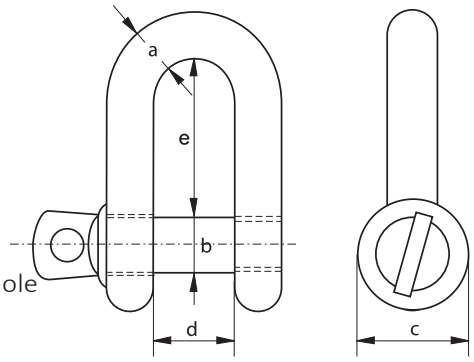
Instructions for use
Please refer to the previous product chapters in this catalogue for details on the use of specific items.
In general, items should be inspected before use to ensure that:
- all markings are legible;
- items are not distorted or unduly worn;
- the pin, nut, cotter pin, or any other locking system cannot vibrate out of position;
- the item is free from nicks, gouges and cracks.

Also:
- never modify, repair or reshape an item by machining, welding, heating or bending, as this may affect the strength;
- make sure to select items with the correct WLL;
- make sure that the master links and the other items of the sling are all made of stainless steel suitable for lifting purposes;
- items should be used for in-line lifting only;
- items may not be heat treated, as this may affect their WLL.

Stainless steel products must be regularly inspected in accordance with the safety standards and regulations given in the country of use. This is required because the products in use may be affected by issues such as wear, misuse and overloading, which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use) and more frequently when the products are used in severe operating conditions.

Stainless Steel High Tensile Lifting Dee Shackle
with screw collar pin

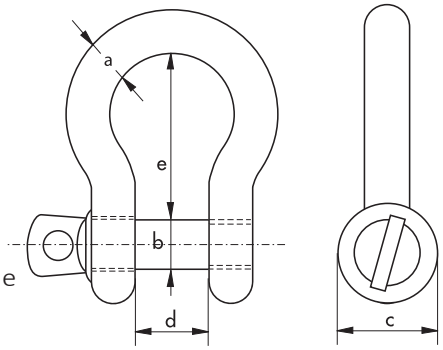
Material: 17/4 PH precipitation hardening martensitic stainless steel
Safety Factor: MBL equals 6 x WLL
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1
Note: The below item is available with extra long screw pin with hole for split pin and with countersunk pin with slotted head



WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e		
t	mm	mm	mm	mm	mm		kg
1	8.0	10.0	20	16	32	91001	0.09
2	10.0	12.7	25	20	40	91002	0.15
3	12.7	16.0	32	25	50	91003	0.35
5	16.0	19.0	38	32	64	91004	0.55
7	19.0	22.2	45	38	76	91005	1.00
9	22.2	25.4	50	44	88	91006	1.90
11	25.4	28.6	56	51	102	91007	2.90
13	28.6	31.8	64	57	114	91008	3.10
15	31.8	34.9	70	64	128	91009	4.35
18	34.9	38.0	76	70	140	91010	5.30

Stainless Steel High Tensile Lifting Bow Shackle
with screw collar pin

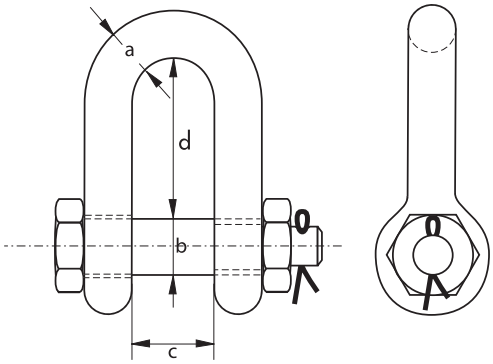
Material: 17/4 PH precipitation hardening martensitic stainless steel
Safety Factor: MBL equals 6 x WLL
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1
Note: The below item is available with extra long screw pin with hole for split pin and with countersunk pin with slotted head



WLL	Diameter Bow	Diameter Pin	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e		
t	mm	mm	mm	mm	mm		kg
0.8	8.0	10.0	16	32	24	91020	0.09
1.5	10.0	12.7	20	40	30	91021	0.16
2.5	12.7	16.0	25	50	38	91022	0.37
4.0	16.0	19.0	32	64	48	91023	0.58
5.5	19.0	22.2	38	76	57	91024	1.05
7.5	22.2	25.4	44	88	66	91025	1.99
9.0	25.4	28.6	51	102	76	91026	3.05

Stainless Steel Dee Shackles
with safety bolt

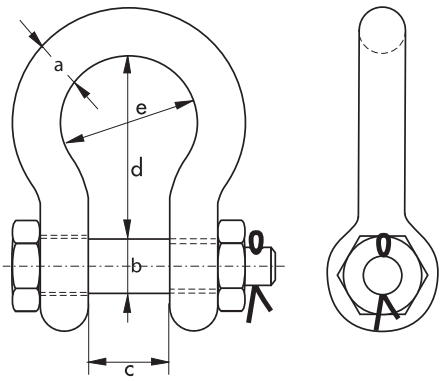
Material: Stainless steel to EN10088 1.4404 (316L)
Safety Factor: MBL equals 6 x WLL
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1



WLL	Diameter Bow	Diameter Pin	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d		
kg	mm	mm	mm	mm		kg
350	6.0	6.0	13	25	91050	0.05
500	8.0	8.0	16	32	91051	0.08
800	9.5	10.0	19	38	91052	0.14
1000	11.0	12.0	22	44	91053	0.21
1250	12.7	12.0	26	52	91054	0.33
1800	14.3	16.0	29	58	91055	0.59
2800	16.0	20.0	32	64	91056	0.76
3300	19.0	22.0	38	76	91057	1.18
4500	22.0	24.0	44	88	91058	1.75
5000	25.4	27.0	50	100	91059	2.60

Stainless Steel Lifting Bow Shackle
with safety bolt

Material: Stainless steel to EN10088 1.4404 (316L)
Safety Factor: MBL equals 6 x WLL
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1

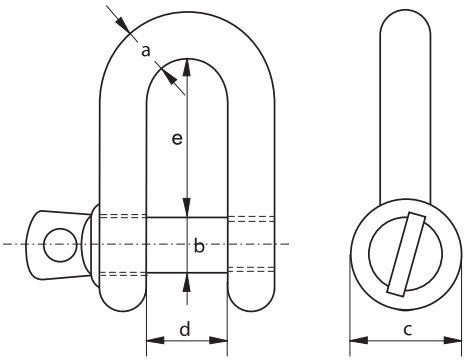


WLL	Diameter Bow	Diameter Pin	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e		
kg	mm	mm	mm	mm	mm		kg
280	6.0	6	13	28	19	91060	0.05
400	8.0	8	16	35	25	91061	0.08
600	9.5	10	19	38	28	91062	0.14
800	11.0	12	22	46	33	91063	0.22
1000	12.7	12	26	52	38	91064	0.35
1500	14.3	16	29	60	43	91065	0.64
2500	16.0	20	32	68	50	91066	0.81
3000	19.0	22	38	76	58	91067	1.25
4000	22.0	24	44	88	66	91068	1.82
4500	25.4	27	50	100	76	91069	2.70

Stainless Steel Dee Shackles, R-7821

with screw collar pin

Material: Stainless steel AISI 316
Safety Factor: MBL equals 6 x WLL
Standard: Generally to DIN 82102
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, CE
Note: Marked with WLL, CE and manufacturer symbol, except for 4mm as it is too small

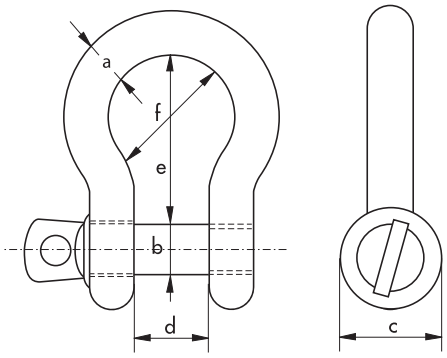


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e		
t	mm	mm	mm	mm	mm		kg
-	4	4	8	8	16	91401	0.01
0.12	5	5	10	10	20	91402	0.02
0.15	6	6	12	12	24	91403	0.03
0.30	8	8	16	16	32	91404	0.06
0.40	10	10	20	20	40	91405	0.13
0.60	12	12	24	24	48	91406	0.20
1.00	16	16	32	32	64	91407	0.48
1.50	20	20	40	40	80	91408	0.84
2.00	22	22	44	44	88	91409	1.27
3.00	25	25	50	50	100	91410	1.84

Stainless Steel Bow Shackles, R-7825

with screw collar pin

Material: Stainless steel AISI 316
Safety Factor: MBL equals 6 x WLL
Standard: Generally to DIN 82103
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, CE
Note: Marked with WLL, CE and manufacturer symbol, except for 4mm as it is too small

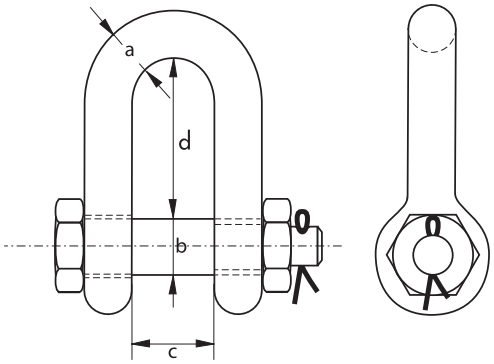


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f		
t	mm	mm	mm	mm	mm	mm		kg
-	4	4	8	8	16	12	91301	0.01
0.12	5	5	10	10	20	15	91302	0.02
0.15	6	6	12	12	24	18	91303	0.03
0.30	8	8	16	16	32	24	91304	0.06
0.40	10	10	20	20	40	30	91305	0.15
0.60	12	12	24	24	48	36	91306	0.22
1.00	16	16	32	32	64	48	91307	0.55
1.50	20	20	40	40	80	60	91308	0.97
2.00	22	22	44	44	88	66	91309	1.46
3.00	25	25	50	50	100	75	91310	2.11

Stainless Steel Dee Shackles, R-7823

with safety bolt

Material: Stainless steel AISI 316
Safety Factor: MBL equals 6 x WLL
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, CE
Note: Marked with WLL, CE and manufacturer symbol

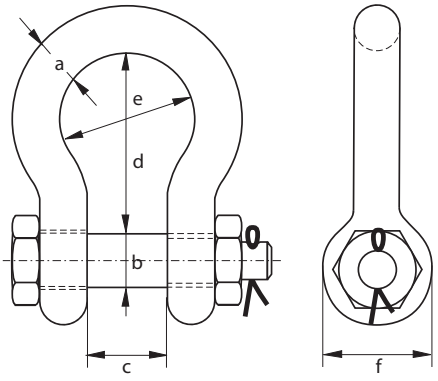


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
	a	b	c	d	e		
t	mm	mm	mm	mm	mm		kg
0.30	8	8	16	16	32	91454	0.07
0.40	10	10	19	20	40	91455	0.14
0.60	12	12	24	25	48	91456	0.24
1.00	16	16	31	32	64	91457	0.55
1.50	19	19	38	38	76	91458	0.96
2.00	22	22	43	44	85	91459	1.42
3.00	25	25	49	50	95	91460	2.09

Stainless Steel Bow Shackles, R-7827

with safety bolt

Material: Stainless steel AISI 316
Safety Factor: MBL equals 6 x WLL
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, CE
Note: Marked with WLL, CE and manufacturer symbol

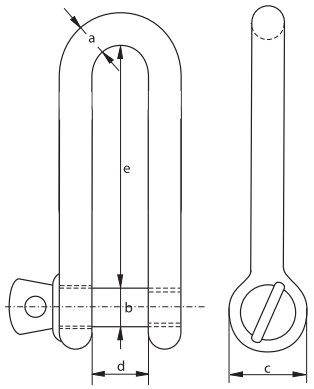


WLL	Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Width Bow	Product Code	Weight Each
	a	b	c	d	e	f		
t	mm	mm	mm	mm	mm	mm		kg
0.30	8	8	16	16	32	24	91354	0.08
0.40	10	10	19	20	40	30	91355	0.15
0.60	12	12	24	25	49	36	91356	0.23
1.00	16	16	31	32	64	48	91357	0.57
1.50	19	19	38	38	80	60	91358	1.00
2.00	22	22	43	44	85	66	91359	1.46
3.00	25	25	49	50	100	75	91360	2.18

Stainless Steel Long Dee Shackle

with screw collar pin

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications

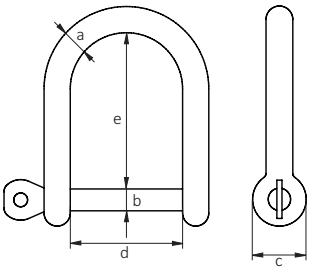


Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
a	b	c	d	e		
mm	mm	mm	mm	mm		kg
4	4	8	8	30	91501	0.01
5	5	10	10	37	91502	0.02
6	6	12	12	45	91503	0.04
8	8	16	16	60	91504	0.09
10	10	20	20	75	91505	0.20
12	12	24	24	90	91506	0.32

Stainless Steel Wide Jaw Dee Shackle

with screw collar pin

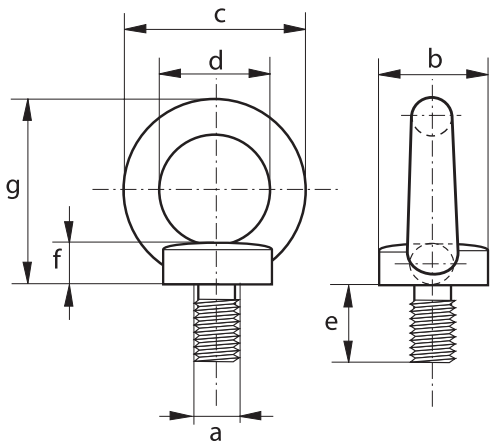
Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications



Diameter Bow	Diameter Pin	Diameter Eye	Width Inside	Length Inside	Product Code	Weight Each
a	b	c	d	e		
mm	mm	mm	mm	mm		kg
5	5	10	24	22	91201	0.02
6	6	12	25	33	91202	0.03
8	8	16	28	32	91203	0.08
10	10	20	40	55	91204	0.14
12	12	24	50	66	91205	0.27

Stainless Steel Eyebolts, DIN580
drop forged

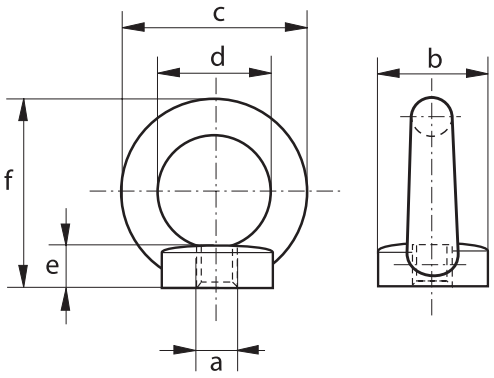
Material: Stainless steel AISI 316
Safety Factor: MBL equals 4 x WLL
Standard: Generally to DIN580
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC



WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Length	Thickness Base	Height	Product Code	Weight Each
	a	b	c	d	e	f	g		
t	mm	mm	mm	mm	mm	mm	mm		kg
0.07	6	20	36	20	13	6	36	92101	0.06
0.14	8	20	36	20	13	6	36	92102	0.06
0.23	10	25	45	25	17	8	45	92103	0.10
0.34	12	30	54	30	20.5	10	53	92104	0.17
0.49	14	35	63	35	27	12	60	92105	0.27
0.70	16	35	63	35	27	12	62	92106	0.28
0.90	18	40	72	40	30	14	71	92107	0.40
1.20	20	40	72	40	30	14	71	92108	0.42
1.50	22	45	81	45	35	14	80	92109	0.67
1.80	24	50	90	50	36	18	90	92110	0.83
3.20	30	65	108	60	45	22	109	92111	1.66
4.60	36	75	126	70	54	26	128	92112	2.65

Stainless Steel Eyenuts, DIN582
drop forged

Material: Stainless steel AISI 316
Safety Factor: MBL equals 4 x WLL
Standard: Generally to DIN582
Finish: Polished
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC

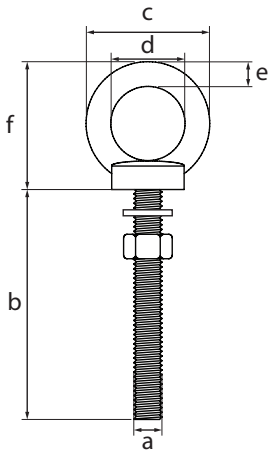


WLL	Diameter Thread	Diameter Base	Diameter Outside	Diameter Inside	Thickness Base	Height	Product Code	Weight Each
	a	b	c	d	e	f		
t	mm	mm	mm	mm	mm	mm		kg
0.07	6	20	36	20	8.5	36	92201	0.05
0.14	8	20	36	20	8.5	36	92202	0.05
0.23	10	25	45	25	10	45	92203	0.09
0.34	12	30	54	30	11	53	92204	0.16
0.70	16	35	63	35	13	62	92205	0.24
1.20	20	40	72	40	16	71	92206	0.35
1.80	24	50	90	50	20	90	92207	0.71

Stainless Steel Long Eyebolt

with nut and washer

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications
Comes complete with nut and washer

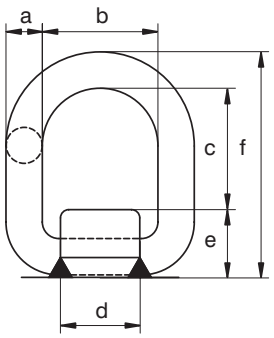


Diameter Thread	Length Thread	Diameter Outside	Diameter Inside	Thickness Eye	Height	Product Code	Weight Each
a	b	c	d	e	f		
mm	mm	mm	mm	mm	mm		kg
6	80	26	16	5	30	92401	0.03
8	100	31	19	6	34	92402	0.07
10	100	41	25	8	43	92403	0.13
12	120	47	27	10	60	92404	0.24

Stainless Steel Green Pin® Weld On Transport Ring, PASI

for welding

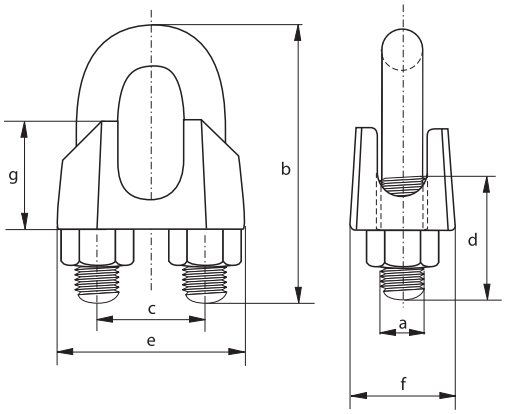
Material: AISI 316, Grade 5
Safety Factor: MBL equals 4 x WLL
Finish: Polished
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, EC
Note: Regarding the selection of welding material, respecting parent and PASI materials, please refer to EN 3581 for manual metal arc welding and to EN ISO 14343 for arc welding



WLL	Diameter	Width Inside	Length Inside	Length Base	Height Base	Length	Product Code	Weight Each
	a	b	c	d	e	f		
t	mm	mm	mm	mm	mm	mm		kg
0.75	13	40	41	35	28	82	99101	0.42
1.25	18	45	48	42	33	99	99102	0.75
3.20	22	55	57	49	42	120	99103	1.40
5.00	26	70	66	64	50	142	99104	2.51

Stainless Steel Wire Rope Grips
commercial pattern

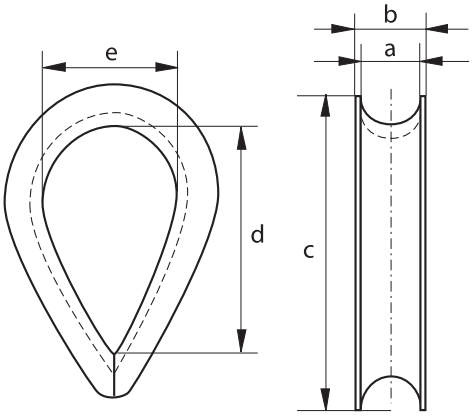
Material: Stainless steel AISI 316
Standard: Generally to DIN 741
Finish: Polished



Diameter Wire Rope	Diameter Bow	Length Bow	Width Inside	Length Thread	Length Base	Thickness Base	Height	Product Code	Weight Each
	a	b	c	d	e	f	g		
mm	mm	mm	mm	mm	mm	mm	mm		kg
2	3	17	8	10	17	10	10	92801	0.01
3	4	20	9	12	21	10	10	92802	0.01
4	4	22	9	13	21	10	10	92803	0.01
5	5	24	11	13	23	11	10	92804	0.02
6	5	28	13	15	26	12	11	92805	0.02
8	6	34	16	19	30	14	15	92806	0.04
10	8	42	19	22	34	18	17	92807	0.07
13	10	55	24	30	42	23	21	92808	0.13
16	12	63	29	33	50	26	26	92809	0.21
19	12	75	32	38	54	29	30	92810	0.28
22	14	85	37	44	61	33	34	92811	0.40
26	14	95	41	45	65	35	37	92812	0.42

Stainless Steel Thimbles
commercial pattern

Material: Stainless steel AISI 316
Finish: Polished

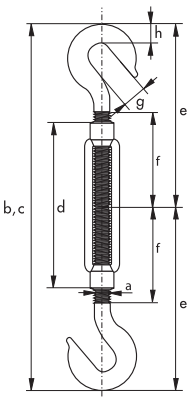


Width Groove	Width Inside	Length Inside	Length	Thickness	Product Code	Weight Each
a	b	c	d	e		
mm	mm	mm	mm	mm		kg
2	9	15	23	1.0	92601	0.01
3	10	16	25	1.0	92602	0.01
4	11	17	28	1.0	92603	0.01
5	13	20	32	1.0	92604	0.02
6	16	25	39	1.2	92605	0.02
8	20	32	49	1.4	92606	0.04
10	26	40	55	1.9	92607	0.07
12	28	45	70	2.0	92608	0.13
16	37	62	85	2.5	92609	0.21
20	45	78	115	3.0	92610	0.28
22	50	88	125	3.0	92611	0.40
24	58	96	135	4.0	92612	0.42

Stainless Steel Open Body Turnbuckle Hook - Hook

commercial pattern

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications

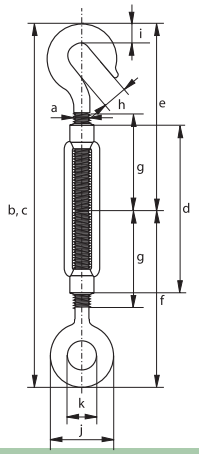


Diameter Thread	Length Closed	Length Open	Length Body	Length	Length	Opening Hook	Thickness Hook	Product Code	Weight Each
a	b	c	d	e	f	g	h		
mm	mm	mm	mm	mm	mm	mm	mm		kg
5	120	170	70	58	33	8	5	95001	0.04
6	150	210	90	73	43	9	6	95002	0.08
8	200	290	120	98	56	11	8	95003	0.16
10	240	355	150	117	71	12	9	95004	0.27
12	310	470	200	157	95	14	11	95005	0.51
16	390	590	250	186	116	16	15	95006	1.20

Stainless Steel Open Body Turnbuckle Hook - Eye

commercial pattern

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications

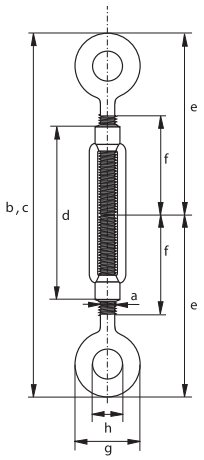


Diameter Thread	Length Closed	Length Open	Length Body	Length	Length	Length	Opening Hook	Thickness Hook	Diameter Outside	Diameter Inside	Product Code	Weight Each
a	b	c	d	e	f	g	h	i	j	k		
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
5	120	170	70	58	56	33	8	5	17	8	95101	0.04
6	150	210	90	73	71	43	9	6	21	10	95102	0.08
8	200	290	120	98	95	56	11	8	28	14	95103	0.16
10	240	355	150	117	118	71	12	9	34	16	95104	0.27
12	310	470	200	157	154	95	14	11	40	18	95105	0.51
16	390	590	250	186	190	116	16	15	54	26	95106	1.20

Stainless Steel Open Body Turnbuckle Eye - Eye

commercial pattern

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications

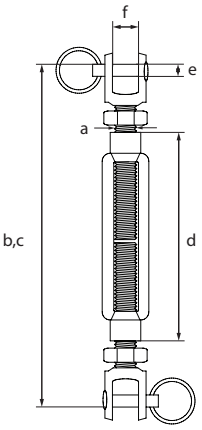


Diameter Thread	Length Closed	Length Open	Length Body	Length	Length	Diameter Outside	Diameter Inside	Product Code	Weight Each
a	b	c	d	e	f	g	h		
mm	mm	mm	mm	mm	mm	mm	mm		kg
5	120	170	70	56	33	17	8	95201	0.04
6	150	210	90	71	43	21	10	95202	0.08
8	200	290	120	95	56	28	14	95203	0.16
10	240	355	150	118	71	34	16	95204	0.27
12	310	470	200	154	95	40	18	95205	0.51
16	390	590	250	190	116	54	26	95206	1.20

Stainless Steel Open Body Turnbuckle Jaw - Jaw

commercial pattern

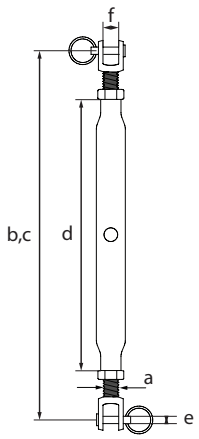
Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications



Diameter Thread	Length Open	Length Closed	Length Body	Diameter Pin	Width Jaw	Product Code	Weight Each
a	b	c	d	e	f		
mm	mm	mm	mm	mm	mm		kg
5	170	115	70	5	6	95701	0.05
6	200	130	90	6	7	95702	0.10
8	250	160	120	8	10	95703	0.19
10	320	200	150	10	12	95704	0.29
12	380	250	170	12	13	95705	0.62

Stainless Steel Closed Body Rigging Screw Jaw - Jaw
commercial pattern

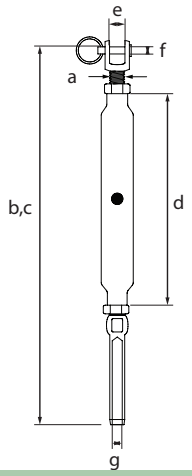
Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications



Diameter Thread	Length Open	Length Closed	Length Body	Diameter Pin	Width Jaw	Product Code	Weight Each
a	b	c	d	e	f		
mm	mm	mm	mm	mm	mm		kg
6	210	155	95	6.2	7.5	95502	0.08
8	240	180	105	8.7	10	95503	0.14
10	270	220	125	9.7	12	95504	0.25
12	360	255	150	12.7	14	95505	0.57
16	450	320	190	16	16	95506	0.94
20	450	355	210	19	20	95507	1.45

Stainless Steel Closed Body Rigging Screw Jaw - Swage
commercial pattern

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications

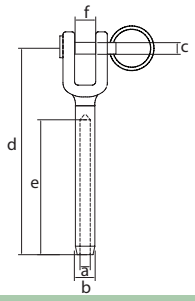


Diameter Thread	Length Open	Length Closed	Length Body	Opening Jaw	Diameter Pin	Diameter Wire	Product Code	Weight Each
a	b	c	d	e	f	g		
mm	mm	mm	mm	mm	mm	mm		kg
6	250	175	90	7	6	3	95602	0.07
8	300	205	105	8	8	4	95603	0.12
10	340	230	125	10	10	5	95604	0.22
12	430	285	150	14	12	6	95605	0.41
16	550	375	190	16	16	8	95606	0.94
20	600	405	210	20	20	10	95607	1.75

Stainless Steel Open Fork Terminal

swage type

Material: Stainless steel AISI 316
Finish: Polished

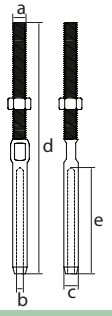


Diameter Wire Rope	Diameter Inside	Diameter Outside	Diameter Pin	Length	Length Inside	Width Jaw	Product Code	Weight per 100
	a	b	c	d	e	f		
mm	mm	mm	mm	mm	mm	mm		kg
3	3.3	6.3	5.2	65	32	7.5	96001	2.30
4	4.3	7.5	6.2	77	40	10	96002	4.90
5	5.3	9	8.7	88	57	12	96003	7.20
6	6.6	12.5	9.7	106	63	14	96004	13.90
8	8.3	16	14.6	145	85	16	96005	21.60
10	10.5	17.8	16.5	150	89	17	96006	40.00

Stainless Steel Threaded Terminal

swage type

Material: Stainless steel AISI 316
Finish: Polished

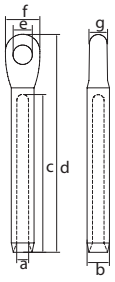


Diameter Wire Rope	Thread	Diameter Inside	Diameter Outside	Length	Length Inside	Product Code	Weight per 100
	a	b	c	d	e		
mm	mm	mm	mm	mm	mm		kg
3	6	3.3	6.3	100	39	96701	2.70
4	8	4.3	7.5	117	45	96702	5.40
5	10	5.3	9	130	51	96703	7.80
6	12	6.3	12	162	64	96704	15.10
8	16	8.3	16	195	76	96705	23.20
10	20	10.3	18	230	89	96706	59.00

Stainless Steel Eye Terminal

swage type

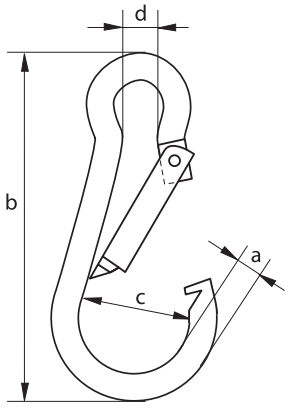
Material: Stainless steel AISI 316
Finish: Polished



Diameter Wire Rope	Diameter Inside	Diameter Outside	Length Inside	Length	Diameter Inside	Diameter Outside	Thickness Eye	Product Code	Weight per 100
	a	b	c	d	e	f	g		
mm	mm	mm	mm	mm	mm	mm	mm		kg
3	3.3	6.5	36	62	8	14	4	96501	1.30
4	4.3	7.5	39	71	10	19	6	96502	2.30
5	5.3	9	50	88	12	23	7	96503	4.00
6	6.3	12.5	62	104	12.5	28	8	96504	8.80
8	8.3	16	85	126	14.5	32	10	96505	15.40
10	10.3	17.5	90	150	16.4	36	12	96506	23.00

Stainless Steel Carbine Hook
standard type

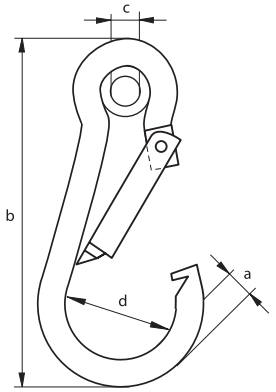
Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only



Diameter	Length	Width Inside	Width Inside	MBL	Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm	kg		kg
4	40	5	7	70	93001	1.00
5	50	7	8	110	93002	1.50
6	60	7	9	132	93003	2.50
7	70	9	10	198	93004	4.00
8	80	11	12	330	93005	6.00
10	100	12	15	506	93006	12.00
11	120	14	18	660	93007	17.50
12	140	16	20	748	93008	25.00

Stainless Steel Carbine Hook
with pressed thimble

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only

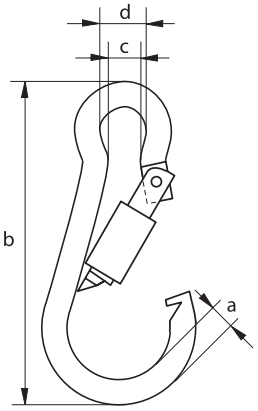


Diameter	Length	Diameter Inside	Width	MBL	Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm	kg		kg
4	40	5	14	70	93201	1.00
5	50	5	16	110	93202	1.50
6	60	5	18	132	93203	2.60
7	70	7	22	198	93204	4.40
8	80	10	24	330	93205	6.50
10	100	13	30	506	93206	9.00
11	120	13	36	660	93207	18.50
12	140	15	40	748	93208	25.00

Stainless Steel Carbine Hook

with screw nut

Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only

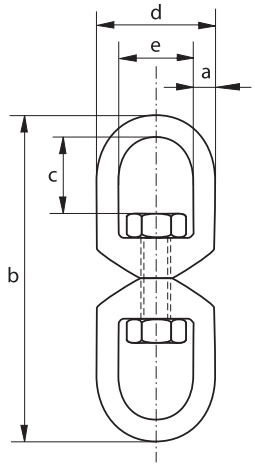


Diameter	Length	Width Inside	Width Inside	MBL	Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm	kg		kg
5	50	7	8	110	93401	1.50
6	60	7	9	132	93402	2.50
7	70	9	10	198	93403	4.50
8	80	11	12	330	93404	6.50
10	100	12	15	506	93405	12.50
11	120	14	18	660	93406	18.50
12	140	16	20	748	93407	25.50

Stainless Steel Swivel

Eye - Eye

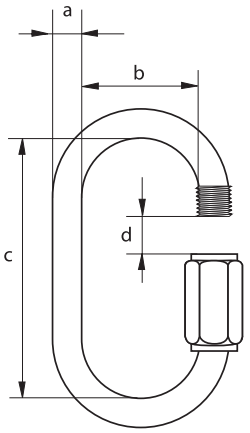
Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only



Diameter	Length	Length Inside	Width Outside	Width Inside	MBL	Product Code	Weight Each
a	b	c	d	e			
mm	mm	mm	mm	mm	kg		kg
5	60	13	23	13	820	96801	0.03
6	65	15	26	15	1350	96802	0.05
8	90	22	35	20	2500	96803	0.13
10	115	27	44	24	3500	96804	0.26
13	154	35	57	32	6000	96805	0.58
16	188	45	71	39	10800	96806	1.05
19	229	50	84	41	16100	96807	2.20

Stainless Steel Quick Link
standard type

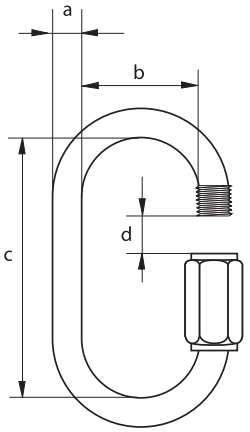
Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only



Diameter	Width Inside	Length Inside	Opening	MBL	Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm	kg		kg
3.5	10	29	5.0	155	90001	0.90
4	12	32	5.5	450	90002	1.30
5	13	39	6.5	585	90003	2.00
6	14	46	7.5	790	90004	3.30
8	17	59	10.5	1380	90005	7.50
10	20	70	12.5	2085	90006	13.00
12	23	83	14.5	2265	90007	22.50

Stainless Steel Quick Link
with enlarged opening

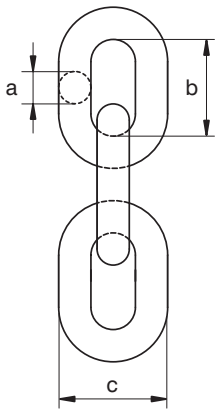
Material: Stainless steel AISI 316
Finish: Polished
Note: Not to be used for lifting applications
Minimum breaking load shown is for guidance only



Diameter	Width Inside	Length Inside	Opening	MBL	Product Code	Weight per 100
a	b	c	d			
mm	mm	mm	mm	kg		kg
3.5	10	40	10	155	90201	1.20
5	14	52	14	585	90203	2.70
6	16	60	16	790	90204	4.40
8	18	74	18	1380	90205	10.10
10	20	85	20	2085	90206	17.60
12	23	98	23	2265	90207	30.40

Stainless Steel Short Link Chain
commercial quality

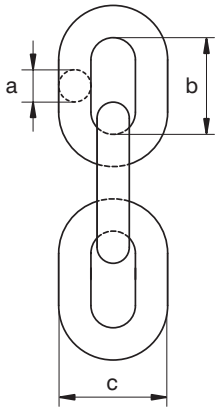
Material: Stainless steel AISI 316
Standard: Generally to DIN 766
Note: Not to be used for lifting applications



Diameter	Length Inside	Width Outside	Product Code	Weight per Metre
a	b	c		
mm	mm	mm		kg
3	16	11	97002	0.17
4	16	14	97003	0.32
5	18.5	17	97004	0.50
6	18.5	20	97005	0.75
8	24	26	97006	1.35
10	28	34	97007	2.25
12	36	40	97008	3.80
16	45	51	97009	5.70

Stainless Steel Long Link Chain
commercial quality

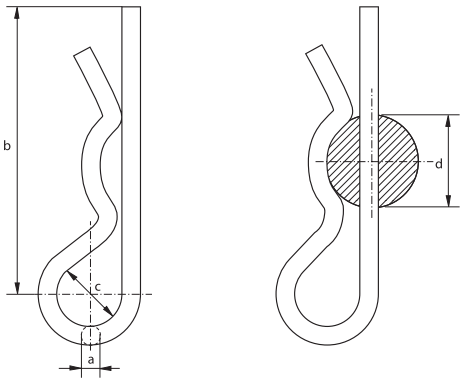
Material: Stainless steel AISI 316
Standard: Generally to DIN 763
Note: Not to be used for lifting applications



Diameter	Length Inside	Width Outside	Product Code	Weight per Metre
a	b	c		
mm	mm	mm		kg
2	22	8	97502	0.08
3	26	12	97503	0.14
4	32	16	97504	0.27
5	36	20	97505	0.43
6	42	24	97506	0.63
8	54	32	97507	1.10
10	66	40	97508	1.17
12	78	46	97509	2.99
16	100	64	97510	4.45

Stainless Steel Spring Pin
double type

Material: AISI 304 or 316
Finish: Polished
Note: For use with Green Pin shackles
Other pin types available

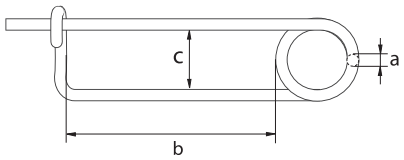


Diameter	Length	Diameter	Diameter	Product Code	Weight Per 100
a	b	c	d		
mm	mm	mm	mm		kg
2	50	10	8 - 14	91801	0.40
3	62	16	14 - 20	91802	1.40
3	80	15	18 - 30	91803	2.50
4	78	23	17 - 24	91804	3.00
4	110	21	24 - 45	91805	3.00
4	120	21	45 - 56	91806	3.00
4	150	27	45 - 56	91807	3.00
5	92	26	18 - 30	91808	5.30
6	120	30	24 - 36	91809	9.60
7	130	30	24 - 40	91810	13.5
8	130	30	24 - 45	91811	17.5

Diameter	Standard	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee	Spring Pin ROV	Locking Clamp ROV	Spring Release ROV	Tapered ROV D/F	Guided ROV D/F
	G-4163 G-4153	P-6033	G-5263	G-5163	G-4263	G-4553	P-5363	P-5365	P-5367	P-5361 D/F	P-5362 D/F
a x b	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL
mm	t	t	t	t	t	t	t	t	t	t	t
2 x 50	2		3.3	2							
3 x 62	3.25		5	3.25				6.5 - 12		6.5	
3 x 80									12		
3 x 80									13.5		
4 x 78	4.75	7	7	4.75	4.75	4.6	6.5	17			
4 x 78	6.5		9.5	6.5		8.6		25			
4 x 78	8.5		12.5	8.5				35			
4 x 110									17		
4 x 110									25		
4 x 110									35		
4 x 120									42.5		12 - 55
4 x 120									55		
4 x 150									85		
4 x 150									120		
4 x 150									150		
5 x 92	9.5	12.5	15	9.5	6.5		9.5	42.5 - 85		9.5	
5 x 92	12	18	18	12	8.5		12	120 - 250			
5 x 92					9.5						
6 x 120	13.5		21	13.5	12	15.5	17			12	
6 x 120	17		30	17	16					17	
6 x 120										25	
8 x 130	25	30	40	25	25		25			35	
8 x 130		40									

Stainless Steel Safety Pin

Material: AISI 304
Finish: Polished
Note: For use with Green Pin shackles
Other pin types available

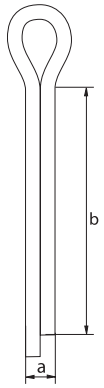


Diameter	Length Inside	Width Inside		Product Code	Weight Per 100
a	b	c			
mm	mm	mm			kg
2	46	18		91902	0.50
3	66	23		91903	1.80
4	74	29		91904	3.90
5	85	38		91905	7.40
6	90	39		91906	12.5

Diameter	Standard	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee
	G-4163 G-4153	P-6033	G-5263	G-5163	G-4263	G-4553
	WLL	WLL	WLL	WLL	WLL	WLL
mm	t	t	t	t	t	t
2	4.75	7	7	4.75	4.75	4.6
2	6.5		9.5	6.5	6.5	
3	8.5	12.5	12.5	8.5	8.5	8.6
3	9.5	18	15	9.5	9.5	
3	12		18	12	12	
4	13.5	30	21	13.5	16	15.5
4	17		30	17	25	
4	25		40	25		
5	35	40	55	35	30	
5	42.5	55		42.5		
6	55	75	85	55	55	
6	85	125	120	85	75	

Stainless Steel Cotter Pin

Material: AISI 304
Finish: Polished
Note: For use with Green Pin® shackles
Other pin types available



Diameter	Length	Product Code	Weight Per 100
a	b		
mm	mm		kg
2.5	20	91701	0.08
4	32	91702	0.30
5	36	91703	0.60
6.3	45	91704	1.20
8	63	91705	2.80
8	80	91706	4.40
10	71	91707	5.00
10	90	91708	6.00
10	100	91709	6.60
10	120	91710	4.40
12	140	91711	7.00
12	160	91712	7.00
12	180	91713	7.00
13	110	91714	12.1
16	160	91715	16.0

Diameter	Standard	Heavy Duty	Sling	Super	Polar	Bigmouth Bow	Bigmouth Dee	Stainless Bow	Stainless Dee
	G-4133, G-4163 G-4143, G-4153	P-6018, P-6016 P-6038, P-6036	P-6013 P-6033	G-5243 G-5263	G-5143 G-5163	G-4243 G-4263	G-4553		
a x b	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL	WLL
mm	t	t	t	t	t	t	t	t	t
2.5 x 20	0.5							0.4	0.4
2.5 x 20	0.75							0.6	0.6
2.5 x 20	1							0.8	0.8
2.5 x 20	1.5								
4 x 32	2			3.3	2				
4 x 32	3.25			5	3.25				
5 x 36	4.75		7	7	4.75	4.75	4.6	1	1
5 x 36	6.5			9.5	6.5			1.5	1.5
5 x 36								2	2
5 x 36								3	3
6 x 45	8.5		12.5	12.5	8.5	6.5	8.6	3.6	3.6
6 x 45	9.5		18	15	9.5	8.5		4.5	4.5
6 x 45	12			18	12	9.5			
8 x 63	13.5			21	13.5	12	15.5		
8 x 63	17			30	17	16			
8 x 80			30						
8 x 80			40						
10 x 71	25			40	25	25			
10 x 71	35			55	35	30			
10 x 90	42.5			85	42.5	55			
10 x 90	55				55				
10 x 100	85		55	120	85	75			
10 x 100			75						
10 x 120			125						
12 x 140			150						
12 x 140			200						
12 x 160			250						
12 x 160			300						
13 x 110		120		150					
13 x 110		150		175					
16 x 160		200							
16 x 160		250							
16 x 160		300							

Section 11 | Manual Handling

Contents **Page**

Manual Handling

Applications
Blocks are used in lifting systems, to change load direction or to drag a load. Blocks and the wire ropes they contain make a connection between a load and a lifting device.

Range
Brierley Lifting offers a wide range of blocks. Blocks are available for head loads ranging from 2 t up to 15 t. Other types of blocks can be offered upon special request.

Design
There are different types of blocks with specific designs to suit particular purposes. Some types are fitted with bronze bushes while others have ball bearings/roller bearings depending on frequency of use and line speeds. Snatch blocks allow the wire to be attached easily by opening up the block instead of threading the wire through the block.

All types are generally marked as follows:

• Working Load Limit	- e.g. 8t
• manufacturer's symbol	- e.g. GP
• wire rope diameter in mm and/or inches	- e.g. 20- 22 mm and 3/4- 7/8 inch
• serial number	- e.g. 1234567
• CE conformity code	- CE

Finish
All blocks are painted.

Certification
Specific details of certificate availability can be found on each product page. Please verify your certification requirements at the time of order.

Instructions for use
Blocks should be inspected before use to ensure that:
- all markings are legible;
- a block with the correct WLL has been selected;
- the WLL applies to static loads only, the possible occurrence of shock loading must be taken into account when selecting a block;
- the block may never be side loaded but may only be used for in-line use;
- always make sure that the hook, eye or shackle of the block is supporting the load correctly;
- the pin, nut, cotter pin, or any other locking system cannot vibrate out of position;
- the sheaves are functional and rotate easily;
- blocks are free from nicks, gouges and cracks;
- blocks may not be heat treated as this may affect their WLL;
- never modify, repair or reshape a block by machining, welding, heating or bending as this may affect the WLL.

Blocks must be regularly inspected in accordance with the safety standards and regulations given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc. which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months and more frequently when the blocks are used in severe operating conditions.

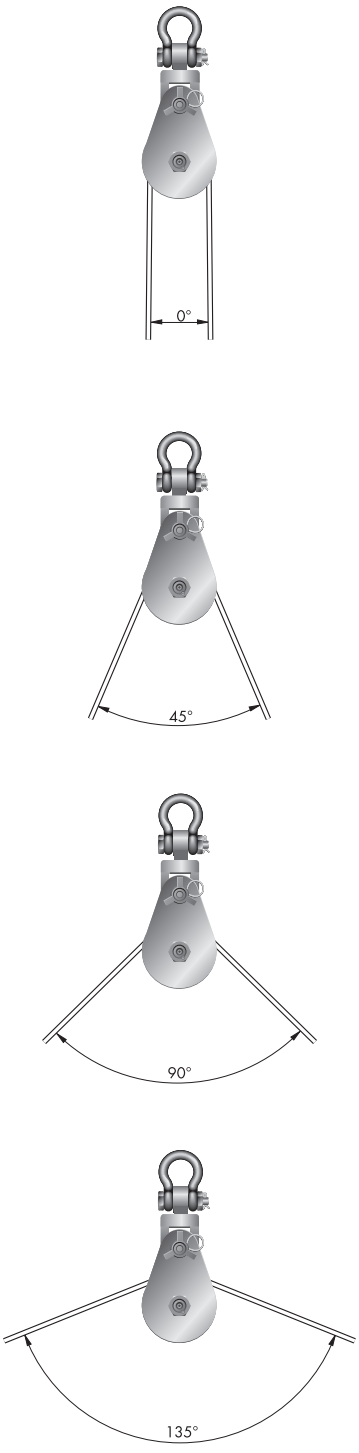
Load on Blocks

The WLLs of our blocks are the maximum loads to be applied to the blocks and their connecting fittings. The load on a sheave or block varies with the angle between the lead and load line. See figure 1. When the two lines are parallel, 1 t on the lead line results in a load of 2 t on the fitting. As the working angle between the lines increases, the load on the fitting is reduced by the angle factor as per table 1. All loads shown ignore frictional losses in the lifting system.

Table 1

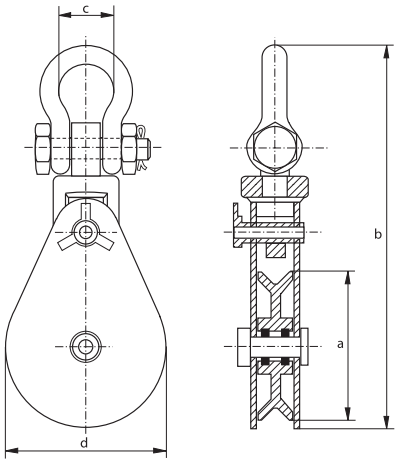
working angle	angle factor
0°	2
10°	1.99
20°	1.97
30°	1.93
40°	1.87
45°	1.84
50°	1.81
60°	1.73
70°	1.64
80°	1.53
90°	1.41
100°	1.29
110°	1.15
120°	1
130°	0.84
135°	0.76
140°	0.68
150°	0.52
160°	0.35
170°	0.17
180°	0

Figure 1



Snatch Block
c/w swivel shackle

Material: Carbon steel, fitted with roller bearings, except for blocks under WLL 4 tons, these are equipped with phosphor bronze bushes
Safety Factor: MBL equals 4 x WLL
Finish: Painted Blue
Certificate: Blocks have been individually proof tested,
As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC
Note: WLL is on the head-fitting
Measurements are for guidance only and may vary

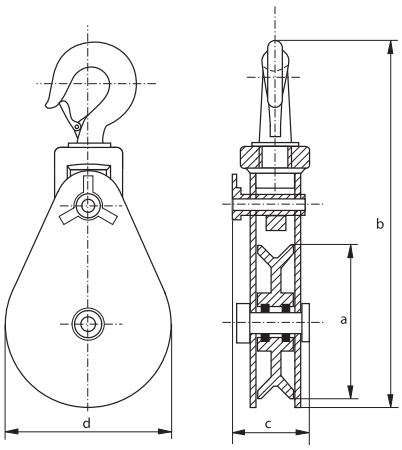


WLL	Diameter Wire Rope	Diameter Outside	Length	Width	Width Outside	Product Code	Weight Each
		a	b	c	d		
t	mm	mm	mm	mm	mm		kg
2	7 - 9	75	280	57	80	82001	4.00
4	10 - 12	114	340	80	121	82002	5.30
8	16	152	475	125	159	82004	14.00
8	20 - 22	152	475	125	159	82003	15.00
8	20 - 22	203	530	125	210	82005	20.00
12	20 - 22	254	680	127	264	82006	36.00
15	24 - 26	305	760	127	314	82007	58.00

Larger sizes available on request

Snatch Block
c/w swivel hook with safety catch

Material: Carbon steel, fitted with roller bearings, except for blocks under WLL 4 tons, these are equipped with phosphor bronze bushes
Safety Factor: MBL equals 4 x WLL
Finish: Painted Blue
Certificate: Blocks have been individually proof tested,
As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC
Note: WLL is on the head-fitting
Measurements are for guidance only and may vary



WLL	Diameter Wire Rope	Diameter Outside	Length	Width	Width Outside	Product Code	Weight Each
		a	b	c	d		
t	mm	mm	mm	mm	mm		kg
2	7 - 9	75	290	70	80	82501	4.00
4	10 - 12	114	350	70	121	82502	5.30
8	16	152	490	93	159	82504	14.00
8	20 - 22	152	490	93	159	82503	15.00
8	20 - 22	203	540	93	210	82505	20.00
12	20 - 22	254	690	114	264	82506	36.00
15	24 - 26	305	780	130	314	82507	58.00

Larger sizes available on request

Lever Hoist

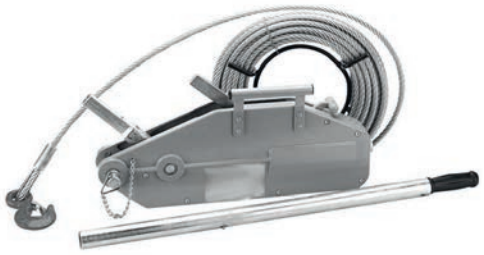
1.5 metre height of lift

Material: Body- pressed steel, Hooks- forged steel
Load chain- Grade 8
Finish: Block- painted, Load chain- black powder coated
Certificate: As standard; EC Declaration of Conformity
Note: Never exceed maximum capacity
Measurements are for guidance only and may vary

Capacity	Standard Lift	Effort to Lift Load	Distance Between Hooks	Diameter Load Chain	Number of Falls	Product Code	Weight Each
kg	metre	kg	mm	mm			kg
250	1.5			4	1	86501	1.8
500	1.5			5	1	86502	4.5
750	1.5	15	295	6	1	86503	7.0
1500	1.5	23	335	8	1	86504	11.0
3000	1.5	38	405	10	1	86505	21.0
6000	1.5	39	550	10	2	86506	31.0

Wire Rope Hoists

with 20 metre rope and handle



Material: Body- cast
Internal components- forged and/or pressed steel
Finish: Painted
Certificate: As standard; EC Declaration of Conformity
Note: Never exceed maximum capacity
Measurements are for guidance only and may vary

Lifting Capacity	Pulling Capacity	Length Body	Height Body	Height Hoist	Width Hoist	Diameter Rope	Product Code	Weight Each
kg	kg	mm	mm	mm	mm	mm		kg
800	1250	426	235	168	60	8.3	86601	12
1600	2500	545	280	190	72	11.0	86602	25
3200	5000	660	325	230	91	16.0	86603	46

Chain Block

3 metre height of lift, manual type

Material: Body- pressed steel, Hooks- forged steel
Load chain- Grade 8, Hand chain- mild steel
Finish: Block- painted, Load chain- black powder coated
Certificate: As standard; EC Declaration of Conformity
Note: Never exceed maximum capacity
Measurements are for guidance only and may vary
Manual type

Capacity	Width Across Face	Width Across Side	Hook Admittance	Length Body	Diameter Load Chain	Number of Falls	Product Code	Weight Each
t	mm	mm	mm	mm	mm	mm		kg
0.5	138	114	21	145	6	1	86101	10
1.0	164	124	27	182	6	1	86102	12
2.0	164	124	30	182	8	1	86103	24
3.0	198	142	37	219	8	2	86104	32
5.0	228	167	46	252	10	2	86105	46

Trolley

geared

Material: Side plates- mild steel
Rollers- cast steel
Finish: Painted
Certificate: As standard; EC Declaration of Conformity
Note: Never exceed maximum capacity
Measurements are for guidance only and may vary

WLL	Length Overall	Maximum Width	Height Overall	Width Flange	Product Code	Weight Each
kg	mm	mm	mm	mm		kg
1.0	236	280	211	64 - 203	87202	10.8
2.0	273	318	236	88 - 203	87203	16.5
3.0	320	340	295	100 - 203	87204	26.0
5.0	366	365	334	114 - 203	87205	40.0

Trolley
push travel

Material: Side plates- mild steel
Rollers- cast steel
Finish: Painted
Certificate: As standard; EC Declaration of Conformity
Note: Never exceed maximum capacity
Measurements are for guidance only and may vary

WLL	Length Overall	Maximum Width	Height Overall	Width Flange	Minimum Radius	Eye Width	Product Code	Weight Each
t	mm	mm	mm	mm	metre	mm		kg
0.5	194	245	187	50 - 152	0.8	25	87001	6.0
1.0	246	311	222	64 - 203	1.0	30	87002	10.5
2.0	276	327	262	88 - 203	1.1	38	87003	17.0
3.0	332	343	309	100 - 203	1.3	40	87004	26.0
5.0	377	355	353	114 - 203	1.4	50	87005	40.0

Beam Clamp
adjustable

Material: Body- plate steel
Adjustable screw- machined steel
Finish: Painted
Certificate: As standard; EC Declaration of Conformity
Note: Never exceed maximum capacity
Measurements are for guidance only and may vary

WLL	Suitable for beam width	Body Plate Thickness	Width Overall	Distance from Beam to Load Pin		Product Code	Weight Each
				minimum	maximum		
t	mm	mm	mm	mm	mm		kg
1	80 - 190	4	92	136	155	87302	5.0
2	80 - 190	6	100	136	155	87303	5.8
3	90 - 290	8	131	185	225	87304	11.0
5	90 - 290	10	139	185	225	87305	15.0

Three Legged Wheelbarrow Slings

Material: High tensile steel
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

WLL at 90°	Proof Load	Product Code	Weight Each
kg	kg		kg
250	500	88101	5.60

Gin Block
swivel round eye

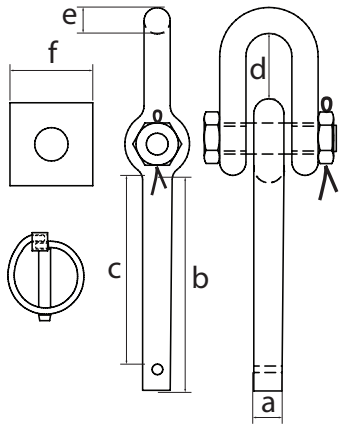
Material: Body and sheave- pressed steel
Eye- forged steel
Finish: Painted green
Certificate: As standard; EC Declaration of Conformity

Size	Size	SWL	Proof Load	Product Code	Weight Each
mm	inches	kg	kg		kg
250	10	250	1000	88201	4.00

Manhole Lifting Pins

c/w shackle, plate washer and lynch pin

Material: High tensile steel
Finish: Self colour
Certificate: As standard; EC Declaration of Conformity

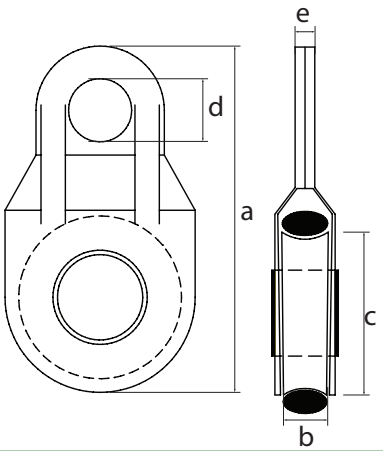


WLL	Diameter	Length Shank	Length	Length Inside	Diameter Body	Width Plate	Product Code	Weight Each
	a	b	c	d	e	f		
cwts	mm	mm	mm	mm	mm	mm		kg
30	30	220	192	45	16	100	88401	3.30

Swing Block

suitable for 50mm tow ball

Material: Body- pressed steel
Sheaves- steel
Finish: Electro galvanised
Certificate: This product is supplied untested
Note: Recommended WLL lifting and hauling loads listed below are for reference only



Length Overall	Width Sheave	Diameter Sheave	Diameter Inside	Thickness Plates	Recommended WLL		Product Code	Weight Each
					Lifting	Hauling		
a	b	c	d	e				
mm	mm	mm	mm	mm	kg	kg		kg
200	20.5	100	50.3	12	3400	9100	88501	1.50

Section 12 | Green Pin Tycan® Chain

Contents **Page**

Welcome to the fibre age

Step into a new era of safer, smarter, and more efficient lashing and lifting. Powered by Green Pin Tycan® Chains- crafted from Dyneema®, the world's strongest man-made fibre- this innovation delivers the strength of steel at a fraction of the weight. Green Pin Tycan® is redefining performance in demanding environments, offering an ideal balance of power, safety, and sustainability.

Why choose Green Pin Tycan®?

Soft

Gentle on cargo and safer for your crew. The soft structure reduces the risk of damage and injury.

Light

Up to eight times lighter than steel chains, making handling easier, faster, and less physically demanding.

Strong

Made from Dyneema® fibre- offering the strength of steel with none of the bulk.

Green

A more environmentally friendly production process compared to traditional steel chains.

Waterproof

Doesn't absorb water, floats, and won't rust- ideal for marine and offshore applications.

Rugged

Highly resistant to chemicals, grease, dirt, salt, and extreme cold. Built for the harshest conditions.

Quiet

Minimizes noise pollution during use, reducing the risk of hearing damage and improving working conditions.

Evolve your operations

With Green Pin Tycan®, safety and efficiency go hand in hand. Experience the next generation of lashing and lifting- lighter, safer, and stronger.

Green Pin Tycan® Chain

Applications

Green Pin Tycan® fibre chain offers all the performance and flexibility of steel chain but is eight times lighter than steel. A choice of five sizes of lifting chain with matching fittings allows you to manufacture a complete chain assembly with a Working Load Limit of up to 21.2 t. The soft touch and light weight makes Green Pin Tycan® easy to use, allows quicker application and greatly reduces the potential of damage to cargo, a critical factor when handling objects with sensitive surfaces.

Range

Brierley Lifting supplies a range of Grade 10 Green Pin Tycan® chain fittings, specially developed for use with Green Pin Tycan®, include a connecting link, a shortening hook and a sling hook. The clevis of the hooks and the bearing surface of the connecting link have been specially designed to perfectly fit Green Pin Tycan® chain links. This guarantees safe assembly of the chain and its fittings. Chain fittings for chain sizes 11 x 15 (2.6 t) up to 15 x 40 (10.3 t).

Below Green Pin Tycan® lifting sling fittings can be found:

- Links, e.g. Green Pin® Master Link, Green Pin Tycan® Connecting Link
- Chain, e.g. Green Pin Tycan® Lifting Chain
- Hooks, e.g. Green Pin Tycan® Sling Hook, Green Pin Tycan® Grab Hook

Design

Green Pin Tycan® Connecting Link and Green Pin Tycan® Sling Hook, Green Pin Tycan® Grab Hook with clevis connection are supplied unassembled and ready for immediate use. Assembly is quick and easy.

Possibility to shorten Green Pin Tycan® fibre chain sling by means Green Pin Tycan® Grab Hook.

Grade 10 lifting sling fittings specially designed for Tycan® fibre chain are marked with:

- manufacturer's symbol - e.g. GP
- size in mm - e.g. 30
- traceability code - e.g. HA
- steel grade - e.g. 10
- item code (specific products) - e.g. UMJT
- origin (specific products) - e.g. France

As prescribed by the Machinery Directive 2006/42/EC our hooks, master links and connecting links are supplied with a CE Declaration of Incorporation (CE IIB), stating the products are in compliance with the requirements of the machinery directive. These products do not have a CE marking, since CE markings are only to be provided for machines, whereas hooks, master links and connecting links are components of machines, and not machines themselves. Providing components with a CE marking is an incorrect interpretation of the Machinery Directive.

Machinery definition according to Machinery Directive 2006/42/EC – Article 2 – definitions (a) and Machinery Regulation 2023/1230/EU:

"An assembly of linked parts or components, at least one of which moves and which are joined together, intended for lifting loads and whose only power source is directly applied human effort."

"The maximum working load shall be prominently marked on the lifting machinery. The marking shall be legible, indelible and in an un-coded form. Where the maximum working load depends on the configuration of the lifting machinery, each operating position shall be provided with a load plate indicating, preferably in diagrammatic form or by means of tables, the working load permitted for each configuration."

This definition means that a sling is a Machine and that the hooks, master links and connecting links are not considered as a machine themselves, but as components of a machine. The CE and the WLL markings in consequence, are mandatory only on the assembled sling tag as the sling is the machine according to MD 2006/42/EC. This rule is still valid with the new Machine Regulation 2023/1230 which will replace the MD cited previously within early 2027.

Finish

All Grade 10 Green Pin Tycan® lifting sling fittings are painted. Grade 10 Green Pin Tycan® lifting fittings are painted blue, the same colour as our other Grade 10 lifting sling fittings for steel chain.

Certification

Specific details of certificate availability can be found on each product page. Please verify your certification requirements with a member of our technical team at the time of order.

Instructions for use

Grade 10 Green Pin Tycan® lifting sling fittings should be inspected before use to ensure that:

- all markings are legible.
- all lifting sling fittings of the complete sling are made of the same steel Grade 10.
- a lifting sling fitting with the correct WLL has been selected with respect to the sling design. For further details, refer to the EN 818-4 with values for grade 10 and ASME B30.9 standard for Chain Slings.
- the pin, bolt, nut, bush or any other locking system cannot move or vibrate out of position.
- lifting sling fittings are free from nicks, gouges, and cracks.
- lifting sling fittings are not heat treated, modified, repaired, or reshaped by machining or bent. (This may affect their Working Load Limit).
- lifting sling fittings items are not distorted or unduly worn. (Maximum allowable wear is 10 % of the original diameter).
- the latch of the hook(s) is present and functional.
- the hook is never side-loaded, tip-loaded or back-loaded.
- the hook is supporting the load correctly.
- the latch should not be supporting any load.
- only use the lifting sling fittings for in-line lifting.

Grade 10 Green Pin Tycan® lifting sling fittings must be regularly inspected in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by issues such as wear, misuse, and overloading, which may lead to deformation and alteration of the material structure. Inspection should take place at least every six months (follow the local rules in the country of use), and more frequently when the links are used in severe operating conditions. For any more information regarding Green Pin Tycan® lifting chain please contact a member of our technical team.

Testing

Generally load rated products are proof load and MPI tested.
For specific information on certificates, we refer to the separate paragraph on certification.

Grade 10 Green Pin Tycan® lifting sling fittings are proof load tested at the following loads:

for link size	Working Load Limit (WLL)	Proof Load* (PL)
mm	t	t
11 x 15	2.6	6.5
11 x 20	4	10
15 x 25	5	12.5
13 x 30	6.8	17
15 x 40	10.3	25.75

* The Green Pin Tycan® chain itself has a proof load of 2 times the WLL

Temperature

The Green Pin Tycan® lifting fibre chain temperature range is-40 °C up to +70 °C. This chain cannot be used above +70 °C.

Green Pin Tycan® lifting assembly fittings

Below, you can find an overview of the complete lifting system and complementary products to suit the chain currently available, including the article codes for individual components. These are available in a range of sizes please get in contact with our technical team who will be able to assist you with a purpose built system to suit your needs.

Masterlinks


UMS


UMTS


UMSW


UMTSW

Connectors


UMJT


UMJ

Chain


FCHLIFT


SLEEVE

End-fittings and Shorteners


UCSO


UCST


UXLO


UXLORT


UXLE


UXLERT


UCRCT

Accessories


TAG

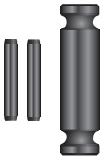

UTAGF


TAGRFID

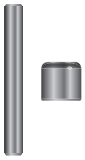

CHIPRFID


VR


VRRT

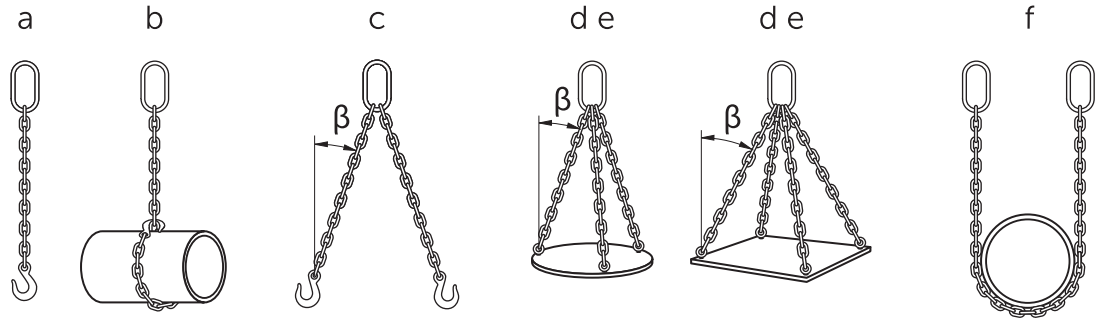

UACT


UALT


URMJ


ULF

Working Load Limit table for Green Pin Tycan® chain slings to EN 818-4 with values for Grade 10

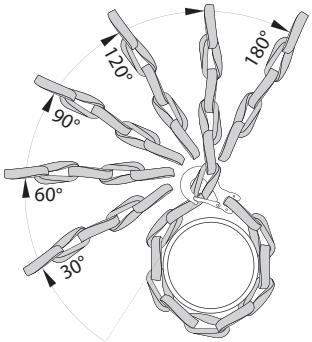


1 leg chain | 2 leg chains | 3 and 4 leg chains | U shape

Type of hitch		a	b	c	c	d e	d e	f
Angle of inclination (ß)		*		0° - 45°	45° - 60°	0° - 45°	45° - 60°	**
Load factor		1	0.8	1.4	1	2.1	1.5	1.5
Working Load Limit (t)	11 x 15	2.6	2.08	3.6	2.6	5.46	3.9	3.9
	11 x 20	4.0	3.2	5.6	4.0	8.4	6.0	6.0
	15 x 25	5.0	4.0	7.0	5.0	10.5	7.5	7.5
	13 x 30	6.8	5.44	9.52	6.8	14.28	10.2	10.2
	15 x 40	10.3	8.2	14.4	10.3	21.2	15.5	15.5

When using multi leg slings make sure that the angles between the lifting points and sling legs are within the range marked on the sling. The angle ß, which is the angle between the sling leg and the vertical, shall never exceed 60°.

* See below capacity reduction table of angles of choke less than 120°
** See below capacity reduction table for non-vertical chain sling legs

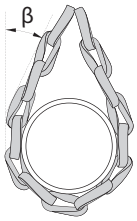


Angle of Choke	Rated load of single chain sling	Rated load of single chain sling (t)				
	%	11 x 15	11 x 20	15 x 25	13 x 30	15 x 40
120° - 180°	80	2.08	3.20	4.00	5.44	8.24
90° - 119°	65	1.69	2.60	3.25	4.42	6.70
60° - 89°	55	1.43	2.20	2.75	3.74	5.60
30° - 59°	40	1.04	1.60	2.00	2.75	4.12

In a choker configuration you can use two different choker connections:

The hook attached to a link,
called anchored basket hitch.

The hook around a link,
called traditional choker hitch.



Angle ß	Rated load	minimum diameter	Rated load (t)				
	%	mm	11 x 15	11 x 20	15 x 25	13 x 30	15 x 40
0° - 5°	150	120	3.90	6.00	7.50	12.20	15.45
6° - 30°	135	120	3.51	5.40	6.75	9.18	13.91
31° - 45°	120	120	3.12	4.80	6.00	8.16	12.36
46° - 60°	100	120	2.60	4.00	5.00	6.80	10.30

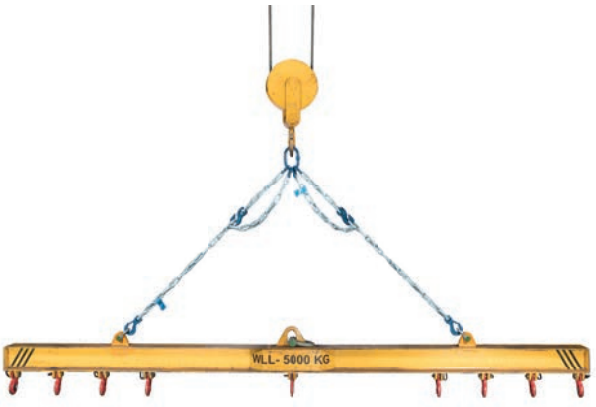
Connect Green Pin Tycan® lifting chain to Green Pin Tycan® lifting sling fittings or to certified components with a maximum surface roughness of 5 microns and adhering to below values:

link size	Working Load Limit (WLL)	minimum pin diameter	minimum clevis width	maximum clevis width
mm	t	mm	mm	mm
11 x 15	2.6	13	15.5	18
11 x 20	4	16	20.5	24
15 x 25	5	16	26	31
13 x 30	6.8	20	31	37
15 x 40	10.3	24	41	48

Configuration examples

1 leg chain

2 leg chain



3 and 4 leg chain

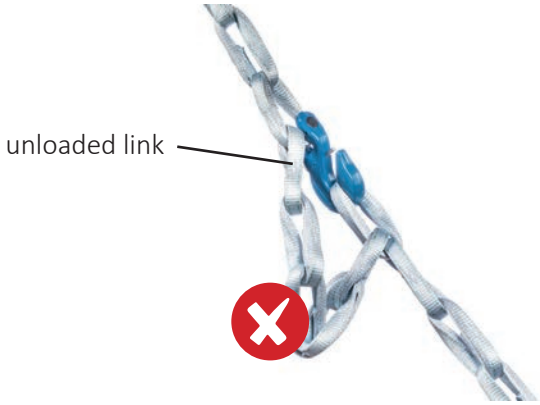
Examples of do's and don'ts

Connecting Green Pin Tycan® Lifting Chain directly into hooks (components) where the width/clevis is more than required maximum clevis width is not acceptable. Doing so can cause the layers to spread apart, which in the utmost consequence could have a negative effect on the strength of the chain.

The only exception is in a anchored basket hitch.

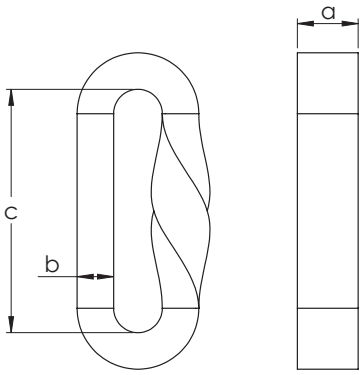
Also make sure that the hook is not hooked in between the layers of the Green Pin Tycan® link.

The unloaded link must never be placed between the loaded link and the body hook.



Green Pin Tycan® Lifting Chain
made from Dyneema®

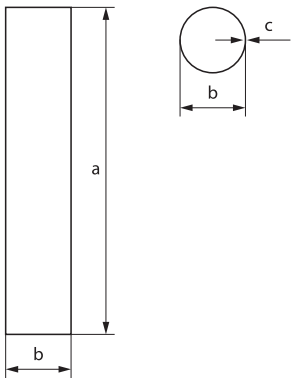
Material: Made from 100% Dyneema®, layers of webbing in a Mobius twist with stitching on each side
Safety Factor: MBL equals 4 x SWL
Temp Range: -40°c up to +70°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC, DNV TA



Link Size	WLL	Width Link	Thickness Link	Length Inside	Links Per Metre	Elongation at MBL	Layers	Product Code	Weight Per Metre
		a	b	c					
mm	t	mm	mm	mm		%			kg
11 x 15	2.6	15	11	100	10	5	6	T3101	0.32
11 x 20	4	20	11	100	10	5	6	T3102	0.47
15 x 25	5	25	15	100	10	5	8	T3103	0.58
13 x 30	6.8	30	13	125	8	5	7	T3104	0.75
15 x 40	10.3	40	15	175	6	5	7	T3105	1.12

Green Pin Tycan® Sleeve

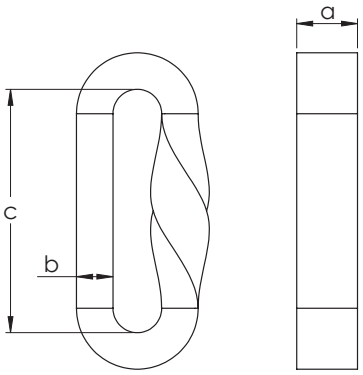
Material: 100% Dyneema®
Certificate: Upon request; 2.1



For Chain Size	Length	Diameter	Thickness	Product Code	Weight Each
	a	b	c		
mm	mm	mm	mm		kg
11 x 15	500	40	1	T3301	0.04
11 x 20	500	50	1	T3302	0.05
15 x 25	500	60	1	T3303	0.04
13 x 30	500	65	1	T3304	0.06
15 x 40	500	75	1	T3305	0.10

Green Pin Tycan® Lashing Chain
made from Dyneema®

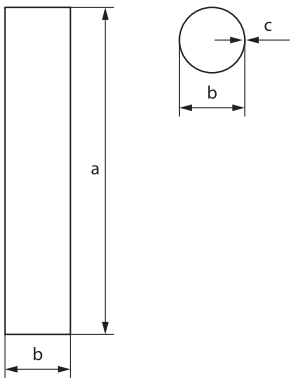
Material: Made from 100% Dyneema®, layers of webbing in a Mobius twist with stitching on each side
Safety Factor: MBL equals 2 x Lashing Capacity
Temp Range: -60°c up to +70°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 2.2, 2.1, MTC, EC, DNV TQ



Link Size	Lashing Capacity	Width Link	Thickness Link	Length Inside	Links Per Metre	Elongation at MBL	Layers	Product Code	Weight Per Metre
		a	b	c					
mm	t	mm	mm	mm		%			kg
15 x 25	10	25	15	100	10	5	8	T3201	0.60
13 x 30	13.6	30	13	125	8	5	7	T3202	0.90
15 x 40	20.6	40	15	175	6	5	7	T3203	1.12

Green Pin Tycan® Sleeve

Material: 100% Dyneema®
Certificate: Upon request; 2.1

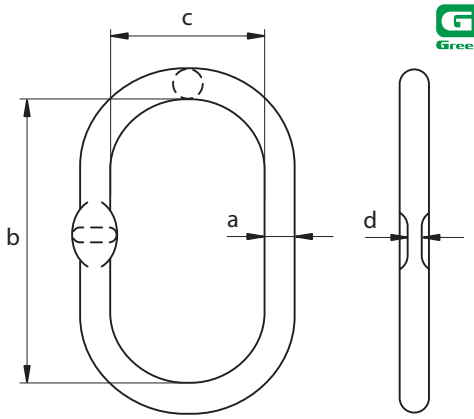


For Chain Size	Length	Diameter	Thickness	Product Code	Weight Each
	a	b	c		
mm	mm	mm	mm		kg
15 x 25	500	60	1	T3303	0.04
13 x 30	500	65	1	T3304	0.06
15 x 40	500	75	1	T3305	0.10

Green Pin® Master Link, UMS

Grade 10

Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M and ASME B30.9
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]

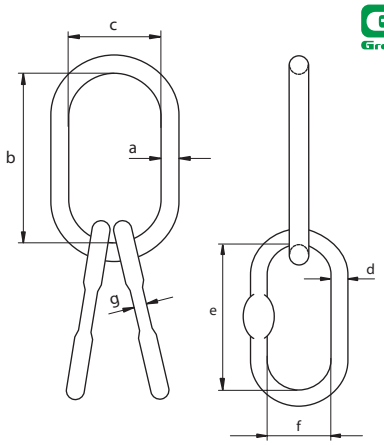


Diameter	Diameter Tycan Chain 1 leg	Diameter Tycan Chain 2 leg		WLL	Length Inside	Width Inside	Thickness	Product Code	Weight Each
a		ß ≤ 45°	45° < ß ≥ 60°		b	c	d		
mm	mm	mm	mm	t	mm	mm	mm		kg
18	11 x 15	11 x 15	11 x 15	5.4	135	75	9	T1101	0.84
22	11 x 20	11 x 20	11 x 20	8.2	170	90	11	T1102	1.60
22	15 x 25	15 x 25	15 x 25	8.2	170	90	11	T1102	1.60
25	13 x 30	13 x 30	13 x 30	11.2	190	103	14	T1103	2.17
30	15 x 40	15 x 40	15 x 40	16	235	125	17	T1104	4.00

Green Pin® Master Link Assembly, UMTS

Grade 10

Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M and ASME B30.9
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]

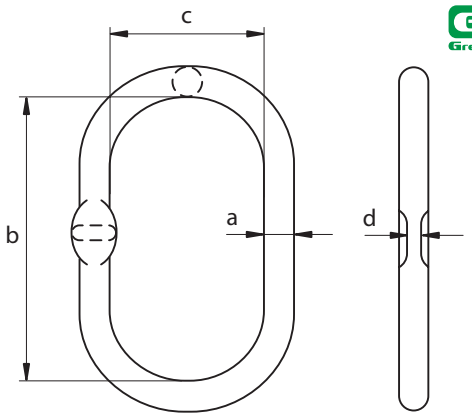


Diameter	Diameter Tycan Chain 3-4 leg		WLL	Length Inside	Width Inside	Diameter	Length Inside	Width Inside	Thickness	Product Code	Weight Each
a	ß ≤ 45°	45° < ß ≥ 60°		b	c	d	e	f	g		
mm	mm	mm	t	mm	mm	mm	mm	mm	mm		kg
22	11 x 15	11 x 15	6.8	170	90	18	135	75	9	T1201	3.30
28	11 x 20	11 x 20	11	209	120	20	150	82	11	T1202	5.40
28	15 x 25	15 x 25	11	209	120	20	150	82	11	T1202	5.40
36	13 x 30	13 x 30	17.7	270	145	25	190	103	14	T1203	11.20
38	15 x 40	15 x 40	21.2	250	150	30	235	125	17	T1204	15.10

Green Pin® Wider Master Link, UMSW

Grade 10

Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M and ASME B30.9
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]

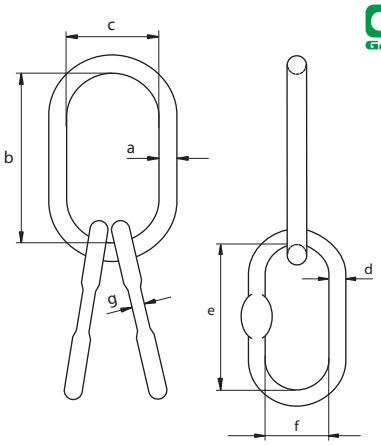


Diameter	Diameter Tycan Chain			WLL	Length Inside	Width Inside	Thickness	Product Code	Weight Each
	1 leg	2 leg							
a		ß ≤ 45°	45° < ß ≥ 60°		b	c	d		
mm	mm	mm	mm	t	mm	mm	mm		kg
17	11 x 15	11 x 15	11 x 15	4.1	160	90	9	T1301	0.85
19	11 x 20	11 x 20	11 x 20	6.7	160	90	9	T1302	1.08
25	15 x 25	15 x 25	15 x 25	11.5	210	115	13	T1303	2.43
25	13 x 30	13 x 30	13 x 30	11.5	210	115	13	T1303	2.43
33	15 x 40	15 x 40	15 x 40	17	270	140	17	T1304	5.40

Green Pin® Wider Master Link Assembly, UMTSW

Grade 10

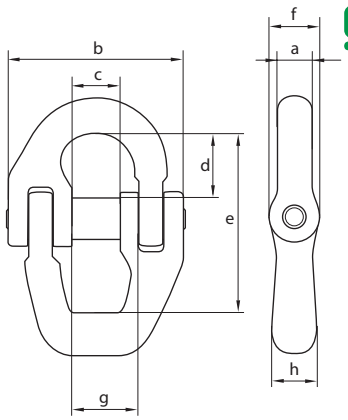
Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 5 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M and ASME B30.9
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[a]



Diameter	Diameter Tycan Chain		WLL	Length Inside	Width Inside	Diameter	Length Inside	Width Inside	Thickness	Product Code	Weight Each
	3-4 leg										
a	ß ≤ 45°	45° < ß ≥ 60°		b	c	d	e	f	g		
mm	mm	mm	t	mm	mm	mm	mm	mm	mm		kg
19	-	11 x 15	4.3	160	90	14	120	70	9	T1401	1.96
23	11 x 20	11 x 20	6.7	180	100	17	160	90	9	T1402	3.50
40	15 x 40	15 x 40	28.1	300	160	33	270	140	17	T1403	19.80

Green Pin Tycan® Connecting Link, UMJT
Grade 10

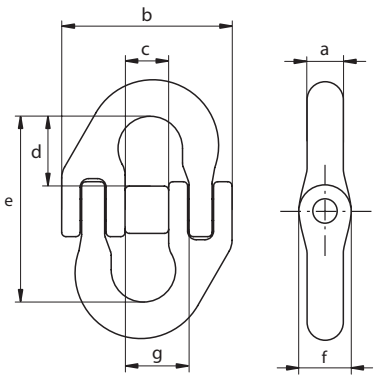
Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]



Diameter Chain	WLL	Diameter	Width Outside	Width Inside	Length Inside	Length Inside	Diameter Eye	Width Inside	Diameter	Product Code	Weight Each
		a	b	c	d	e	f	g	h		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm		kg
11 x 15	2.6	9	57	14	20	55	16	19	13	T2101	0.22
11 x 20	4	12	66	18	23	67	18	23	16	T2102	0.37
13 x 30	6.8	16	83	21	32	87	24	28	20	T2103	0.78
15 x 40	10.3	19	103	25.5	40	107.5	28	34	24	T2104	1.46

Green Pin® Connecting Link, UMJ
Grade 10

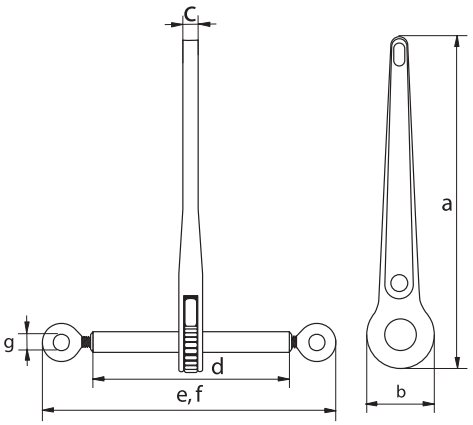
Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]



Diameter Chain	WLL	Diameter	Width Outside	Width Inside	Length Inside	Length Inside	Diameter Eye	Width Inside	Product Code	Weight Each
		a	b	c	d	e	f	g		
mm	t	mm	mm	mm	mm	mm	mm	mm		kg
15 X 25	6.8	16	83	21	32	85	24	28	T2201	0.68

Green Pin Tycan® Ratchet Loadbinder, P-7180
Grade 10

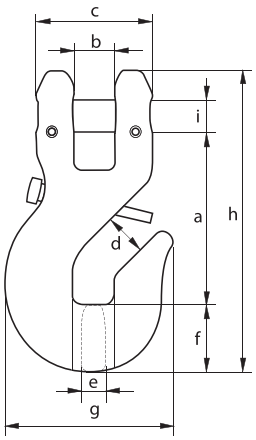
Material: Drop forged, Grade 10
Safety Factor: MBL equals 2 x lashing capacity
Standard: EN 12195-3
Finish: Painted blue
Certificate: Upon request; 2.2, 2.1
Note: Stf = 3000 daN
UCRCT or UMJT are necessary to connect the loadbinder with the Green Pin Tycan® chain



Lashing Capacity	Proof Load	MBL	Chain Size	Length Handle	Diameter	Thickness	Length Barrel	Length Open	Length Closed	Diameter Eye	Diameter Eye	Take Up	Product Code	Weight Each
				a	b	c	d	e	f	g	h			
t	t	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
16	20	32	15 x 25	387	65	15	410	858	558	30	64	300	T2301	5.17
16	20	32	13 x 30	387	65	15	410	858	558	30	64	300	T2301	5.17

Green Pin Tycan® Clevis Grab Hook, UCRCT
Grade 10

Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
MBL equals 2 x lashing capacity
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Temp Range: -40°c up to +200°C
Finish: Painted blue
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]

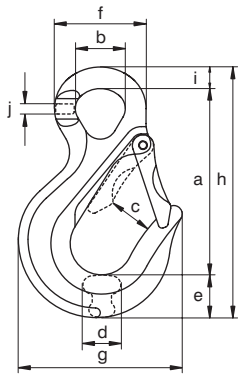


Diameter Chain	WLL	Length	Width	Width Outside	Opening	Thickness	Width	Width Outside	Length Outside	Diameter Pin		Product Code	Weight Each
		a	b	c	d	e	f	g	h	i			
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm			kg
11 x 15	2.6	64	17	44	15	13	23	65	109	13		T4701	0.55
11 x 20	4	81	22	57	20	16	29	85	138	16		T4702	1.03
15 x 25	5	102	24	68	25	16	40	99	178	20		T4703	2.00
13 x 30	6.8	100	32	74	30	20	40	102	177	20		T4704	1.94
15 x 40	10.3	128	42	96	40	24	44.7	127	216.5	24		T4705	3.37

Green Pin® Eye Sling Hook, UCSO

Grade 10

Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: From 10t without flat part

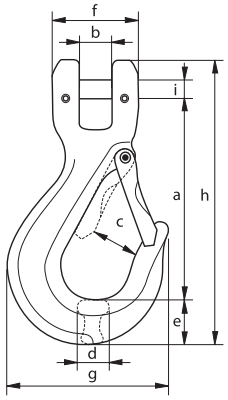


Diameter Chain	WLL	Length	Diameter Eye	Width Opening	Thickness	Width	Diameter Eye	Width Outside	Length	Width	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
11 x 15	2.6	103	26	30	19	24	51	87	139	12	8	T4101	0.52
11 x 20	4	129	36	33	24	28	65	106	171	15	10	T4102	1.09
15 x 25	6.8	152	41	37	32	39	77	133	209	18	12	T4103	1.94
13 x 30	6.8	152	41	37	32	39	77	133	209	18	12	T4103	1.94
15 x 40	10.3	191	52	43	40	43	94	165	255	21	17	T4104	3.51

Green Pin Tycan® Clevis Sling Hook, UCSCT

Grade 10

Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]

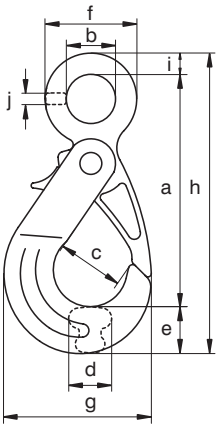


Diameter Chain	WLL	Length	Width	Width Opening	Thickness	Width	Width Outside	Width Outside	Length Outside	Diameter Pin	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
11 x 15	2.6	112	17	30	20	24	44	87	158	13	T4201	0.72
11 x 20	4	130	22	34	24	28	57	106	186	16	T4202	1.31
15 x 25	5	150	24	37	29	35	68	123	220	20	T4203	2.15
13 x 30	6.8	159	32	37	32	39	74	133	235	20	T4204	2.56
15 x 40	10.3	185	42	45	40	43	96	165	271	24	T4205	4.25

Green Pin® Eye Self Locking Hook, UXLO

Grade 10

Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]

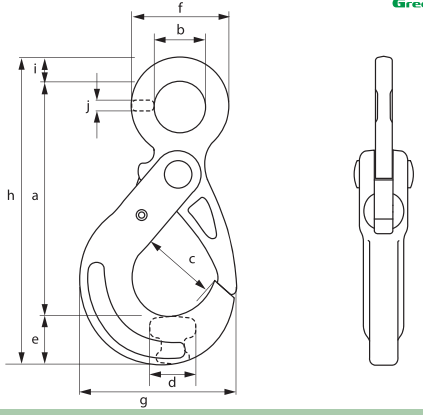


Diameter Chain	WLL	Length	Diameter Eye	Width Opening	Thickness	Width	Width Outside	Width Outside	Length	Width	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
11 x 15	2.6	136	30	43	24	28	57	91	178	14	8	T4301	0.91
11 x 20	4	168	36	48	32	34	68	110	218	16	10	T4302	1.79
15 x 25	6.8	201	47	63	37	43	87	141	264	20	13	T4303	3.36
13 x 30	6.8	201	47	63	37	43	87	141	264	20	13	T4303	3.36
15 x 40	10.3	251	60	75	43	56	111	182	332	26	16	T4304	7.00

Green Pin® Eye Self Locking Hook with Recessed Trigger, UXLORT

Grade 10

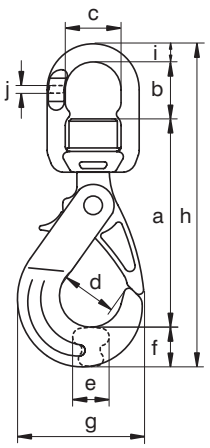
Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]



Diameter Chain	WLL	Length	Diameter Eye	Width Opening	Thickness	Width	Width Outside	Width Outside	Length	Width	Thickness	Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
11 x 15	2.6	136	30	43	24	28	57	91	178	14	7	T4401	0.90
11 x 20	4	168	36	48	32	34	68	111	218	16	10	T4402	1.77
15 x 25	6.8	201	47	63	37	43	87	141	264	20	13	T4403	3.34
13 x 30	6.8	201	47	63	37	43	87	141	264	20	13	T4403	3.34
15 x 40	10.3	251	60	75	43	56	111	182	332	26	16	T4404	6.98

Green Pin® Swivel Self Locking Hook, UXLE

Grade 10

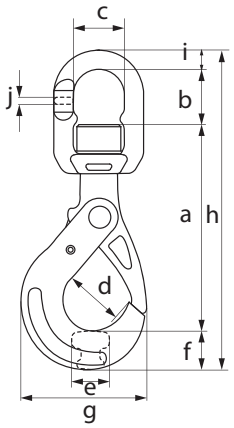


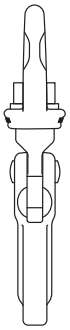
Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Equipped with thrust needle roller bearing to enable rotation under load

Diameter Chain	WLL	Length	Length Inside	Width Inside	Width Opening	Thickness	Width	Width Outside	Length	Diameter Thickness		Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
11 x 15	2.6	149	41	37	43	24	28	91	232	14	8	T4501	1.39
11 x 20	4	186	47	48	48	32	34	112	283	16	11	T4502	2.56
15 x 25	6.8	214	60	58	63	37	44	141	337	21	14	T4503	4.56
13 x 30	6.8	214	60	58	63	37	44	141	337	21	14	T4503	4.56
15 x 40	10.3	273	67	73	75	43	56	182	420	25	17	T4504	9.50

Green Pin® Swivel Self Locking Hook with Recessed Trigger, UXLERT

Grade 10





Material: Alloy steel, Grade 10, quenched and tempered
Safety Factor: MBL equals 4 x WLL
Standard: Follows the EN 1677 with Grade 10 values and conforms to ASTM A952/952M
Finish: Painted blue
Temp Range: -40°c up to +200°C
Certificate: As standard; EC Declaration of Conformity
Upon request; 3.1, 2.2, 2.1, MTC, EC
Optional; MPI[b]
Note: Equipped with thrust needle roller bearing to enable rotation under load

Diameter Chain	WLL	Length	Length Inside	Width Inside	Width Opening	Thickness	Width	Width Outside	Length	Diameter Thickness		Product Code	Weight Each
		a	b	c	d	e	f	g	h	i	j		
mm	t	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
11 x 15	2.6	149	41	37	43	24	28	91	232	14	8	T4601	1.38
11 x 20	4	186	47	48	48	32	34	112	283	16	11	T4602	2.54
15 x 25	6.8	214	60	58	63	37	44	141	337	21	14	T4603	4.54
13 x 30	6.8	214	60	58	63	37	44	141	337	21	14	T4603	4.54
15 x 40	10.3	273	67	73	75	43	56	182	420	25	17	T4604	9.48

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