

AUSTRALIAN LIFTING CENTRE PTY LTD

SHACKLES



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General

Shackles are used in lifting static systems as detachable connecting links for Chain, lifting devices, Wire Rope and other fittings.

Shackle Types

The most common types of Shackle is Grade M Large Dee and Grade S Dee and Bow encountered in the general lifting industries.

Most common Grade S Shackle Pins come in Safety Pin and Screw Pin although there are other types of pin configurations available. For non-permanent applications Screw Pin Shackles are generally used where as a Safety Pin Shackle is recommended for long-term uses where the pin of the Safety Shackle may rotate during loading.

Care & Use

1. When using a Screw Pin Shackle ensure that the pin is firmly screwed into the Shackle eye and that the pin collar is fully seated onto the Shackle eye.
2. Check that the pin is of the correct length so that the thread is fully engaged in the screwed eye and allows the collar of the pin to be fully seated on the surface of the Shackle eye.
3. If you find that the Shackle pin does not seat properly, this is an indication that the pin may be bent, the mating thread is incorrect or the pin holes are not aligned correctly.
4. The original Shackle pin is specially designed for the WLL of the Shackle, therefore, never replace it with a bolt as the bolt may not be suited to the WLL of the Shackle.
5. With a Safety Pin Shackle never use it unless the nut is fully secured and split pin in place.
6. Make sure the correct Shackle is selected for the intended use and application. Never allow a Shackle to be loaded along its centre line. Shackles should never be loaded in a manner that will cause bending of the body.
7. Ensure the load is on the centre of the pin this can be achieved by placing loose spacers on either side of the Shackle pin or use a smaller jaw width Shackle of a similar load rated capacity.
8. Make sure the correct calculations are used to ensure the correct load capacity for angular loading of the Shackle.
9. High temperatures affect the WLL of the Shackle therefore the working load limit should be reduced by
 - 10% for temperatures between 200 & 300°C,
 - 25% for temperatures between 300 & 400°C
 Grade S Shackles should never be used at all for temperatures above 400°C.
10. Never attempt to weld or apply heat to Shackles



SHACKLE INSPECTION BEFORE USE

Shackles in use should be subject to periodic thorough examination by a competent person. The period between each examination will depend upon amount of use

Maximum wear allowance must not exceed 10% of the original Shackle dimensions.

Ensure the correct type of pin is used and is fully engaged into the Shackle body.

Ensure all markings are legible & clear to read

Make sure the threads are in good order on both pin and body for Screw Pin. For Safety Pin ensure that nut and split pin are in good condition.

Ensure the Shackle is free from corrosion, cracks, nicks, gouges, distortion and excessive wear

Supplier I.D.

Producer Batch I.D.

Grade

Size

Working Load Limit

Austlift's Shackle identification marks

- Working load limit (WLL)
- Manufactures identification mark.
- Grade of Shackle material
- Batch mark for traceability
- Size to correlate to body diameter
- As to AS 2741 requirements

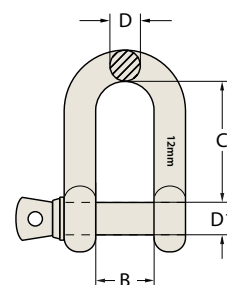


NOT FOR LIFTING APPLICATIONS

Austlift commercial Grade Large Dee Shackles have been used in domestic, mining and any other industrial applications.

- Shaped in a Dee pattern, they come with Screw Pin, made from mild steel material in hot dipped galvanized.
- NOT FOR LIFTING APPLICATIONS.

CODE	SIZE	WEIGHT	DIMENSIONS			
			B	D	D1	C
Nº	mm	kg	mm	mm	mm	mm
501005	5	0.015	10	5	5	19
501006	6	0.025	12	6	6	24
501008	8	0.054	16	8	8	32
501010	10	0.109	20	10	10	40
501012	12	0.205	25	12	12	48
501016	16	0.48	32	16	16	64
501020	20	0.815	38	20	20	76
501022	22	1.285	44	22	22	85
501025	25	1.866	25	25	24	95



Commercial Galvanised Bow Shackle

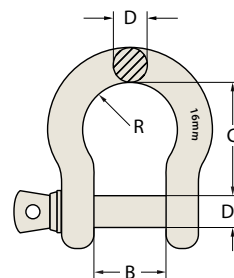


NOT FOR LIFTING APPLICATIONS

Austlift commercial Grade Large Bow Shackles have been used in domestic, mining and any other industrial applications.

- Shaped in a Bow pattern, they come with Screw Pin, made from mild steel material in hot dipped galvanized.
- NOT FOR LIFTING APPLICATIONS.

CODE	SIZE	WEIGHT	DIMENSIONS				
			B	D	D1	C	2R
Nº	mm	kg	mm	mm	mm	mm	mm
501505	5	0.0143	10	5	5	19.5	15
501506	6	0.026	12	6	6	24	18
501508	8	0.054	16	8	8	32	24
501510	10	0.118	20	10	10	40	30
501512	12	0.225	25	12	12	49	36
501516	16	0.51	32	16	16	64	48
501520	20	0.86	38	19	20	80	60
501522	22	1.35	44	22	22	85	66
501525	25	2.05	50	25	24	100	75



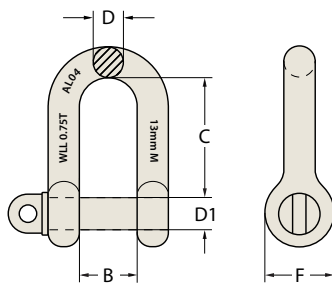
Grade M Shackle

Austlift Grade M Dee Shackle are used where larger dimensional Shackle is required for specific applications. Also ideal for the Marine, Agricultural & general industrial uses.



Galvanised Self colour

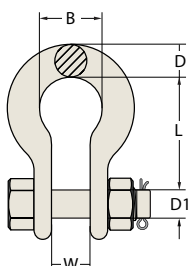
- Grade M Shackle is manufactured to comply in accordance with Australian standard AS2741.
- Made from Grade 40 alloy steel larger Dee shape with Screw Pin available in black or hot dipped galvanized finish.
- Suitable for lifting applications.



CODE		SIZE	WLL	WEIGHT	DIMENSIONS				
Nº Galvanised	Nº Black	mm	T	kg	B mm	C mm	D mm	D1 mm	F mm
502006	502506	6	0.5	0.062	13	25	6	10	19
502010	502510	10	0.50	0.164	19	38	10	13	25
502013	502513	13	0.75	0.353	28	54	13	16	32
502016	502516	16	1.5	0.66	32	63	16	19	38
502019	502519	19	2.0	1.13	38	73	19	22	44
502022	502522	22	3.0	1.53	44	83	22	25	51
502025	502525	25	3.8	2.16	51	95	25	29	57
502029	502529	29	5.0	3.07	54	105	29	32	63
502032	502532	32	6.0	4.2	60	114	32	35	70
502035	502535	35	7.0	5.83	67	127	35	38	76
502038	502538	38	9.5	7.8	70	137	38	44	89
502044	502544	44	13.0	13	83	156	44	51	102
502051	502551	51	16.0	30.2	98	187	51	57	114

Special Purpose Shackle

Austlift special purpose Shackle are generally used for electrical industries and in railway lines.

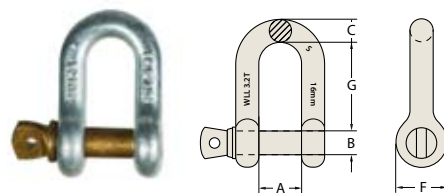


- Generally conforms to AS1154.2 made from high tensile steel in bow configuration with Safety Pin hot dipped galvernised finish & stainless steel humpback split pin
- Suitable for holding applications.

CODE	SIZE	WLL	MBF	WEIGHT	DIMENSIONS				
Nº	mm	kg	kN	kg	B mm	D mm	D1 mm	L mm	W mm
505070	16	70	350	0.456	34	15	13	60	21

Gold Screw Pin , Dee Type Grade 'S' Shackle

CODE	SIZE	WLL	Wt.	DIMENSIONS				
				A	B	C	F	G
Nº	mm	T	kg	mm	mm	mm	mm	mm
504006	6	0.5	0.05	12	8	6	17	22
504008	8	0.75	0.09	13	10	8	21	26
504010	10	1	0.14	17	11	10	25	32
504011	11	1.5	0.17	18	13	11	27	37
504013	13	2	0.29	21	16	13	33	41
504016	16	3.2	0.63	27	19	16	40	51
504019	19	4.7	1.02	32	22	19	48	60
504022	22	6.5	1.53	37	25	22	54	71
504025	25	8.5	2.41	43	29	25	60	81
504029	29	9.5	3.09	46	32	29	67	90
504032	32	12	4.31	52	35	32	76	100
504035	35	13.5	6.01	57	38	35	84	113
504038	38	17	8.03	60	44	38	92	124
504044	44	25	13.79	73	51	44	110	146
504051	51	35	20.42	83	57	51	127	171
504057	57	42.5	26.06	95	63	57	143	181
504063	63	55	38.8	105	70	63	152	203

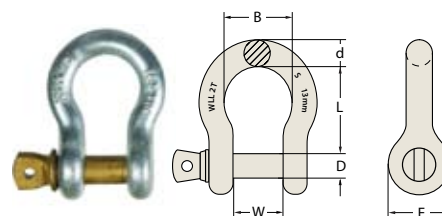


Austlift Gold Screw Pin Dee Shackles are most commonly used for lifting applications, providing connections to Chain, Wire Rope and other rated fittings within the Marine, Agricultural, Mining and Engineering Industries.

- Conforms to AS2741 manufactured from Grade "S" material in Dee configuration with Screw Pin hot dipped galvanized .Marked with work load limit in tonnes, quality grade, batch numbered, nominal size in millimetre and supplier identification.
- Proof tested to 2 x work load limit, with a minimum break force of 6 x work load limit.
- Test Certificates are available upon request.
- Suitable for lifting applications.

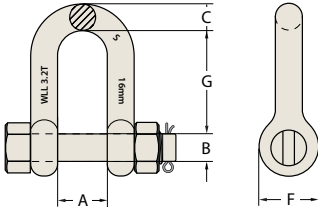
Gold Screw Pin , Bow Type Grade 'S' Shackle

CODE	SIZE	WLL	Wt.	DIMENSIONS					
				B	D	d	E	L	W
Nº	mm	T	kg	mm	mm	mm	mm	mm	mm
503005	5	0.33	0.02	15	6	5	14	22	10
503006	6	0.5	0.05	20	8	6	17	29	12
503008	8	0.75	0.09	21	10	8	21	31	13
503010	10	1	0.14	26	11	10	25	37	17
503011	11	1.5	0.17	29	13	11	27	43	18
503013	13	2	0.29	33	16	13	33	48	21
503016	16	3.2	0.63	43	19	16	40	61	27
503019	19	4.7	1.02	51	22	19	48	72	32
503022	22	6.5	1.53	58	25	22	54	84	37
503025	25	8.5	2.41	68	29	25	60	95	43
503029	29	9.5	3.09	74	32	29	67	108	46
503032	32	12	4.31	83	35	32	76	119	52
503035	35	13.5	6.01	92	38	35	84	133	57
503038	38	17	8.03	98	44	38	92	146	60
503044	44	25	13.79	127	51	44	110	178	73
503051	51	35	20.42	146	57	51	127	197	83
503057	57	42.5	26.06	160	63	57	143	222	95
503063	63	55	38.8	184	70	63	152	267	105



Austlift Gold Screw Pin Bow Shackles are most commonly used for lifting applications, providing connections to chain, Wire Rope and other rated fittings within the Marine, Agricultural ,Mining and Engineering Industries.

- Conforms to AS2741 manufactured from Grade "S" material in bow configuration with Screw Pin hot dipped galvanized .Marked with work load limit in tonnes, quality grade, batch numbered, nominal size in millimetre and supplier identification.
- Proof tested to 2 x work load limit, with a minimum break force of 6 x work load limit.
- Test Certificates are available upon request.
- Suitable for lifting applications.

Gold Safety Pin , Dee Type Grade 'S' Shackle


Austlift Gold Safety Pin Dee Shackle are most commonly used for lifting applications, providing more permanent connections to Chain ,Wire Rope and other rated fittings within the Marine, Agricultural, Mining and Engineering Industries. Suitable for equipment that may vibrate to ensure pin will not dislodge during use. The Safety Pin allows the pin to rotate during loading conditions .

- Conforms to AS2741 manufactured from Grade "S" material in Dee configuration with Safety Pin hot dipped galvanized .Marked with work load limit in tonnes, quality grade, batch numbered, nominal size in millimetre and supplier identification.
- Proof tested to 2 x work load limit, with a minimum break force of 6 x work load limit.
- Test Certificates are available upon request.
- Suitable for lifting applications.

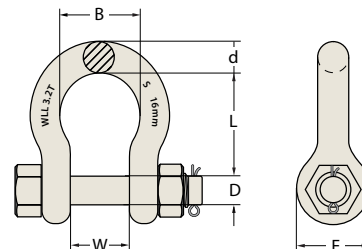
CODE	SIZE	WLL	Wt.	DIMENSIONS				
				A	B	C	F	G
	mm	T	kg	mm	mm	mm	mm	mm
504513	13	2	0.36	21	16	13	33	41
504516	16	3.2	0.76	27	19	16	40	51
504519	19	4.7	1.23	32	22	19	48	60
504522	22	6.5	1.79	37	25	22	54	71
504525	25	8.5	2.78	43	29	25	60	81
504529	29	9.5	3.75	46	32	29	67	90
504532	32	12	5.31	52	35	32	76	100
504535	35	13.5	6.98	57	38	35	84	113
504538	38	17	9.44	60	44	38	92	124
504544	44	25	15.39	73	51	44	110	146
504551	51	35	23.71	83	57	51	127	171
504557	57	42.5	29.01	95	63	57	143	181
504563	63	55	44.58	105	70	63	152	203



Gold Safety Pin , Bow Type Grade 'S' Shackle

Austlift Gold Safety Pin Bow Shackle are most commonly used for lifting applications, providing more permanent connections to Chain ,Wire Rope and other rated fittings within the Marine, Agricultural ,Mining and Engineering Industries. Suitable for equipment that may vibrate to ensure pin will not dislodge during use. The Safety Pin allows the pin to rotate during loading conditions.

- Conforms to AS2741 manufactured from Grade "S" material in Bow configuration with Safety Pin hot dipped galvanized .Marked with work load limit in tonnes, quality grade, batch numbered, nominal size in millimetre and supplier identification.
- Proof tested to 2 x work load limit, with a minimum break force of 6 x work load limit.
- Test Certificates are available upon request.
- Suitable for lifting applications.



CODE	SIZE	WLL	Wt.	DIMENSIONS					
Nº	mm	T	kg	B mm	D mm	d mm	e mm	L mm	W mm
503513	13	2	0.36	33	16	13	33	48	21
503516	16	3.2	0.76	43	19	16	40	61	27
503519	19	4.7	1.23	51	22	19	48	82	32
503522	22	6.5	1.79	58	25	22	54	84	37
503525	25	8.5	2.78	68	29	25	60	95	43
503529	29	9.5	3.75	74	32	29	67	108	46
503532	32	12	5.31	83	35	32	76	119	52
503535	35	13.5	6.98	92	38	35	84	133	57
503538	38	17	9.44	98	44	38	92	146	60
503544	44	25	15.39	127	51	44	110	178	73
503551	51	35	23.71	146	57	51	127	197	83
503557	57	42.5	29.01	160	63	57	143	222	95
503564	63	55	44.58	184	70	63	152	267	105
503576	76	85	69.87	200	83	76	165	330	127
503589	89	120	129.31	241	85	89	203	381	146
503590	102	150	153.36	279	108	102	229	432	165



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