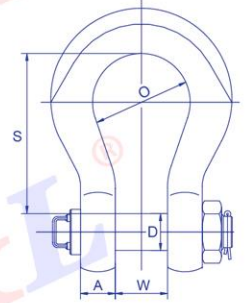




FLAT SHACKLE

At present shackles used widely are made of alloy steel instead of carbon steel in the past. International standard shackles include shackles for lifting, shackles for ship and ordinary shackles. Shackles with big weight and volume are usually installed where seldom disassembled. Safety factor(usually there are 4:1,6:1 and 8:1 available) is an important point when choosing shackles. We must use the shackles according to their WLL. Overuse and overload are both forbidden. Shackles widely used in market include Chinese standard, American standard and Japanese standard. American standard shackles are used more because of small volume and big capacity. According to different type, American standard shackles include G209(BW),G210(DW),G2130(BX),G2150(DX); According to different using occasions, American standard shackles include shackles for ship and shackles used on land. For safety factor, there are 4:1, 5:1, 6:1 and even 8:1. For the raw material, there are carbon steel, alloy steel, stainless steel, high-strength steel etc. For the treatment, there are galvanizing(include hot-dip galvanizing and electrogalvanizing), painting and Dacomet available.



Art.No.	WLL (t)	W (mm)	D (mm)	P (mm)	A (mm)	O (mm)	S (mm)	Self Weight (kg)
BK55	55	85	57	100	55	160	240	32.6
BK85	85	110	76	130	75	200	310	78.4
BK120	120	130	85	150	85	220	365	110.5
BK150	150	140	95	170	90	250	390	154.8
BK200	200	150	105	205	100	280	460	251.8
BK300	300	185	134	265	120	350	630	451.7
BK400	400	220	160	320	145	370	650	758.9
BK500	500	250	180	340	160	450	700	1092.2
BK600	600	275	200	370	170	490	760	1404.2
BK700	700	300	215	400	190	540	780	1703.8
BK800	800	325	230	420	200	554	850	1958.3
BK900	900	350	255	440	220	584	900	2450
BK1000	1000	380	270	460	240	614	900	2566.2
BK1250	1250	430	300	530	260	644	950	3500
BK1500	1500	460	320	560	280	680	950	4032
BK2000	2000	500	385	600	320	680	1050	5067



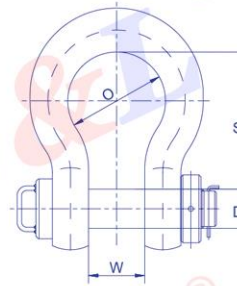
- Working load limit: 55t ~ 2000t.
- Materials of shackle body and pin are processed through quenching and tempering with high-quality alloy steel.
- Proof testing load: twice 55t ~ 300t
1.5 times 400t
1.33 times 500t ~ 2000t
- The minimum breaking load is 4 times of the rating working load.
- Manufacturing method of the shackle body: die forging combined with free forging technique.
- Both circular and hexagonal nuts are available.
- Non-destructive flaw detection is employed for every single product to ensure there is no intensity defect.
- Each shackle will be marked with working load.
- No need to use the thimble when the shackle was connected with high-strength lifting belt, wire rope sling and large radius's domed roof. Wear-resisting property of the wire rope sling is improved obviously.
- The shackle body and the pin are galvanized and then the pin paint in blue.
- Blue pin is the quality mark of Juli original product.

LARGE WLL SHACKLE WITH CIRCULAR CROSS-SECTION

Patent Number: ZL 2006 3 0000332.6



Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	S (mm)	O (mm)	Self Weight (kg)
BX200-4 1/2	200	184	130	115	270	396	280	237
BX300-5 1/8	300	200	150	130	320	450	300	363
BX500-6 1/2	500	240	185	165	390	557.5	360	684
BX800-8	800	300	240	207	493	660	440	1313
BX1000-9 1/2	1000	390	270	240	556	783	560	2072
BX1250-10 1/5	1250	400	300	260	620	850	560	2511



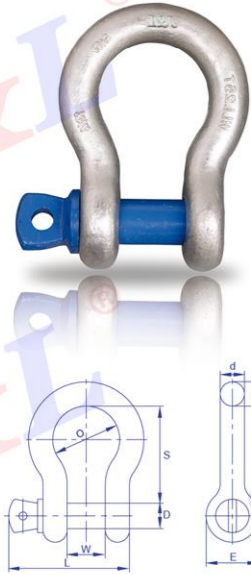
- Working load limit: 200t ~ 1250t.
- Material: High-quality alloy steel.
- Max test load for 200t ~ 500t:1.5WLL, Max test load for 800t ~ 1250t:1.33WLL, Min breaking load for all:4WLL.
- Large WLL shackle with circular cross-section is designed according to JB 8112-1999 standards, with high-performance up to or exceeding ASME.B.30.26 requirements.
- Non-destructive flaw detection is employed for every single product to ensure there is no intensity defect.



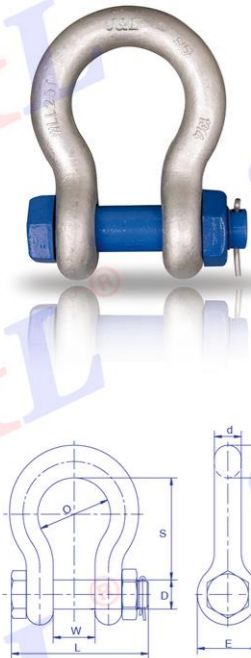
Grade S(6) Bow Shackle

Patent Number. ZL 2006 3 0000331.1

- It is made of high quality alloy steel by die forging.
- Each shackle will be marked with WLL permanently, WLL from 0.5t ~ 150t.
- The Maximum testing load is twice of the working load ,while WLL is less than 85t(including),the minimum breaking load is 6 times of the WLL ,while WLL is more than 85t ,the minimum breaking load is 4 times of WLL .
- Our products all correspond with the stipulated technical requirement and test approach in standard ISO2415-2004.



Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (BW type) (mm)	Self Weight (BW type) (Kg)
S-BW0.5-1/4	0.5	12	8	6.5	15.5	6.5	29	20	36.5	0.05
S-BW0.75-5/16	0.75	13.5	10	8	19	8	31	21.5	44.5	0.1
S-BW1-3/8	1	17	12	9.5	23	9.5	36.5	26	52.5	0.13
S-BW1.5-7/16	1.5	19	14	11	27	11	43	29.5	62	0.21
S-BW2-1/2	2	20.5	16	13	30	13	48	33	70.5	0.3
S-BW3.25-5/8	3.25	27	20	16	38	17.5	60.5	43	88	0.64
S-BW4.75-3/4	4.75	32	22	19	46	20.5	71.5	51	102.5	1.09
S-BW6.5-7/8	6.5	36.5	27	22.5	53	24.5	84	58	121	1.7
S-BW8.5-1	8.5	43	30	25.5	60.5	27	95	68.5	139	2.5
S-BW9.5-1 1/8	9.5	46	33	29.5	68.5	32	108	74	154	3.79
S-BW12-1 1/4	12	51.5	36	33	76	35	119	82.5	170.5	4.89
S-BW13.5-1 3/8	13.5	57	39	36	84	38	133.5	92	186.5	7.04
S-BW17-1 1/2	17	60.5	42	39	92	41	146	98.5	201	8.35
S-BW25-1 3/4	25	73	52	47	106.5	57	178	127	244	13.72
S-BW35-2	35	82.5	60	53	122	61	197	146	275	20.33
S-BW55-2 1/2	55	105	72	69	144.5	79.5	267	184	346	40.92



Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (BX type) (mm)	Self Weight (BX type) (Kg)
S-BX0.5-1/4	0.5	12	8	6.5	15.5	6.5	29	20	37	0.05
S-BX0.75-5/16	0.75	13.5	10	8	19	8	31	21.5	45	0.1
S-BX1-3/8	1	17	12	9.5	23	9.5	36.5	26	54	0.13
S-BX1.5-7/16	1.5	19	14	11	27	11	43	29.5	62	0.22
S-BX2-1/2	2	20.5	16	13	30	13	48	33	71.5	0.31
S-BX3.25-5/8	3.25	27	20	16	38	17.5	60.5	43	89	0.67
S-BX4.75-3/4	4.75	32	22	19	46	20.5	71.5	51	105	1.14
S-BX6.5-7/8	6.5	36.5	27	22.5	53	24.5	84	58	121	1.76
S-BX8.5-1	8.5	43	30	25.5	60.5	27	95	68.5	136.5	2.58
S-BX9.5-1 1/8	9.5	46	33	29.5	68.5	32	108	74	149.5	3.96
S-BX12-1 1/4	12	51.5	36	33	76	35	119	82.5	164.5	5.06
S-BX13.5-1 3/8	13.5	57	39	36	84	38	133.5	92	179	7.29
S-BX17-1 1/2	17	60.5	42	39	92	41	146	98.5	194.5	8.75
S-BX25-1 3/4	25	73	52	47	106.5	57	178	127	239	14.22
S-BX35-2	35	82.5	60	53	122	61	197	146	269	21
S-BX55-2 1/2	55	105	72	69	144.5	79.5	267	184	344	42.12
S-BX85-3	85	127	85	76	165	92	330	200	401	74.8
S-BX120-3 1/2	120	133.5	95	92	203	104.5	371.5	228.5	450	123.6
S-BX150-4	150	140	110	104	228.5	116	368	254	500	165.9

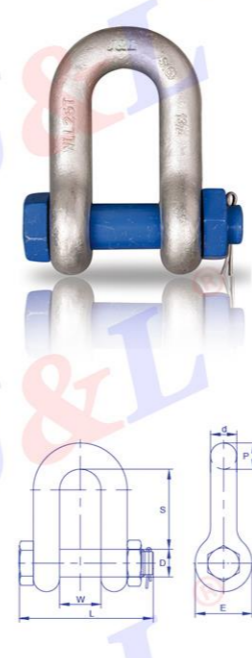
Grade S6 D Shackle

Patent Number. ZL 2006 3 0000331.1

- It is made of high quality alloy steel by die forging.
- Each shackle will be marked with WLL permanently, WLL from 0.5t ~ 85t.
- The Maximum testing load is twice of the working load ,the minimum breaking load is 6 times of the WLL .
- Our products all correspond with the stipulated technical requirement and test approach in standard ISO2415-2004.



Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (DW type) (mm)	Self Weight (DW type) (Kg)
S-DW0.5-1/4	0.5	12	8	6.5	15.5	6.5	22	36.5	0.04	
S-DW0.75-5/16	0.75	13.5	10	8	19	8	26	44.5	0.08	
S-DW1-3/8	1	17	12	9.5	23	9.5	32	52.5	0.13	
S-DW1.5-7/16	1.5	19	14	11	27	11	36.5	62	0.2	
S-DW2-1/2	2	20.5	16	13	30	13	41.5	70.5	0.27	
S-DW3.25-5/8	3.25	27	20	16	38	16	51	88	0.57	
S-DW4.75-3/4	4.75	32	22	19	46	20.5	60.5	102.5	0.99	
S-DW6.5-7/8	6.5	36.5	27	22.5	53	24.5	71.5	121	1.57	
S-DW8.5-1	8.5	43	30	25.5	60.5	25.5	81	139	2.3	
S-DW9.5-1 1/8	9.5	46	33	29	68.5	32	91	153	3.42	
S-DW12-1 1/4	12	51.5	36	32	76	35	100	168.5	4.48	
S-DW13.5-1 3/8	13.5	57	39	35	84	38	111	184.5	6.46	
S-DW17-1 1/2	17	60.5	42	38	92	41	122	199	7.65	
S-DW25-1 3/4	25	73	52	44.5	106.5	54	146	244	12.48	
S-DW35-2	35	82.5	60	51	122	51	171.5	275	18.63	
S-DW55-2 1/2	55	105	72	66.5	144.5	66.5	203	346	36.02	

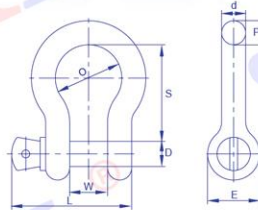


Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (DX type) (mm)	Self Weight (DX type) (Kg)
S-DX0.5-1/4	0.5	12	8	6.5	15.5	6.5	22	37	0.06	
S-DX0.75-5/16	0.75	13.5	10	8	19	8	26	45	0.1	
S-DX1-3/8	1	17	12	9.5	23	9.5	32	54	0.13	
S-DX1.5-7/16	1.5	19	14	11	27	11	36.5	62	0.21	
S-DX2-1/2	2	20.5	16	13	30	13	41.5	71.5	0.28	
S-DX3.25-5/8	3.25	27	20	16	38	16	51	89	0.6	
S-DX4.75-3/4	4.75	32	22	19	46	20.5	60.5	105	1.04	
S-DX6.5-7/8	6.5	36.5	27	22.5	53	24.5	71.5	121	1.63	
S-DX8.5-1	8.5	43	30	25.5	60.5	25.5	81	136.5	2.38	
S-DX9.5-1 1/8	9.5	46	33	29	68.5	32	91	149.5	3.59	
S-DX12-1 1/4	12	51.5	36	32	76	35	100	164.5	4.65	
S-DX13.5-1 3/8	13.5	57	39	35	84	38	111	179	6.71	
S-DX17-1 1/2	17	60.5	42	38	92	41	122	194.5	8.05	
S-DX25-1 3/4	25	73	52	44.5	106.5	54	146	239	13.18	
S-DX35-2	35	82.5	60	51	122	51	171.5	269	19.3	
S-DX55-2 1/2	55	105	72	66.5	144.5	66.5	203	344	37.22	
S-DX85-3	85	127	85	76	165	89	216	401	65.3	

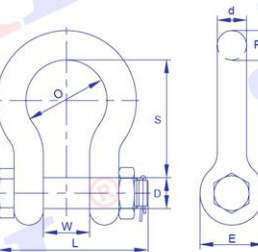
Grade T8 Bow Shackle

Patent Number. ZL 2006 3 0000331.1

- It is made of high quality alloy steel by die forging.
- Each shackle will be marked with WLL permanently, WLL from 2t ~ 175t.
- The Maximum testing load is twice of the working load, the minimum breaking load is 4 times of the WLL.
- About the bearing capacity of 2t ~ 80t, T8 grade is 40% ~ 100% up higher than the S6 grade in the same dimension; About the bearing capacity of 110t ~ 175t, T8 grade is 16% ~ 29% up higher than the S6 grade in the same dimension.
- Our products all correspond with the stipulated technical requirement and test approach in standard ISO2415-2004
- With the same working load capacity, T8 products are smaller than S6, which enables T8 to be mainly employed in limited space.



Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (BW type) (mm)	Self Weight (BW type) (Kg)
T-BW2-3/8	2	17	12	9.5	23	9.5	36.5	26	52.5	0.13
T-BW2.5-7/16	2.5	19	14	11	27	11	43	29.5	62	0.21
T-BW3.25-1/2	3.25	20.5	16	13	30	13	48	33	70.5	0.3
T-BW5-5/8	5	27	20	16	38	17.5	60.5	43	88	0.64
T-BW7-3/4	7	32	22	19	46	20.5	71.5	51	102.5	1.09
T-BW9.5-7/8	9.5	36.5	27	22.5	53	24.5	84	58	121	1.7
T-BW12.5-1	12.5	43	30	25.5	60.5	27	95	68.5	139	2.5
T-BW15-1 1/8	15	46	33	29.5	68.5	32	108	74	154	3.79
T-BW18-1 1/4	18	51.5	36	33	76	35	119	82.5	170.5	4.89
T-BW21-1 3/8	21	57	39	36	84	38	133.5	92	186.5	7.04
T-BW30-1 1/2	30	60.5	42	39	92	41	146	98.5	201	8.35
T-BW40-1 3/4	40	73	52	47	106.5	57	178	127	244	13.72
T-BW50-2	50	82.5	60	53	122	61	197	146	275	20.33
T-BW80-2 1/2	80	105	72	69	144.5	79.5	267	184	346	40.92

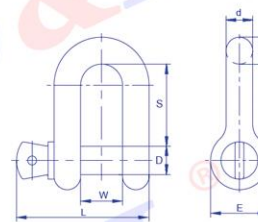


Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (BX type) (mm)	Self Weight (BX type) (Kg)
T-BX2-3/8	2	17	12	9.5	23	9.5	36.5	26	54	0.13
T-BX2.5-7/16	2.5	19	14	11	27	11	43	29.5	62	0.22
T-BX3.25-1/2	3.25	20.5	16	13	30	13	48	33	71.5	0.31
T-BX5-5/8	5	27	20	16	38	17.5	60.5	43	89	0.67
T-BX7-3/4	7	32	22	19	46	20.5	71.5	51	105	1.14
T-BX9.5-7/8	9.5	36.5	27	22.5	53	24.5	84	58	121	1.76
T-BX12.5-1	12.5	43	30	25.5	60.5	27	95	68.5	136.5	2.58
T-BX15-1 1/8	15	46	33	29.5	68.5	32	108	74	150.5	3.96
T-BX18-1 1/4	18	51.5	36	33	76	35	119	82.5	166.5	5.06
T-BX21-1 3/8	21	57	39	36	84	38	133.5	92	181	7.29
T-BX30-1 1/2	30	60.5	42	39	92	41	146	98.5	196.5	8.75
T-BX40-1 3/4	40	73	52	47	106.5	57	178	127	239	14.22
T-BX50-2	50	82.5	60	53	122	61	197	146	269	21
T-BX80-2 1/2	80	105	72	69	144.5	79.5	267	184	344	42.12
T-BX110-3	110	127	85	76	165	92	330	200	401	74.8
T-BX140-3 1/2	140	133.5	95	92	203	104.5	371.5	228.5	450	123.6
T-BX175-4	175	140	110	104	228.5	116	368	254	500	165.9

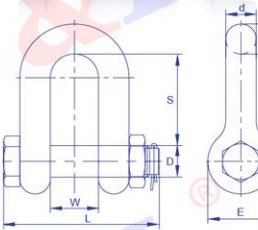
Grade T8 D Shackle

Patent Number. ZL 2006 3 0000331.1

- It is made of high quality alloy steel by die forging.
- Each shackle will be marked with WLL permanently, WLL from 2t ~ 110t.
- The Maximum testing load is twice of the working load, the minimum breaking load is 4 times of the WLL.
- About the bearing capacity of 2t ~ 80t, T8 grade is 40% ~ 100% up higher than the S6 grade in the same dimension; About the bearing capacity of 110t, T8 grade is 29% up higher than the S6 grade in the same dimension.
- Our products all correspond with the stipulated technical requirement and test approach in standard ISO2415-2004
- With the same working load capacity, T8 products are smaller than S6, which enables T8 to be mainly employed in limited space.



Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (DW type) (mm)	Self Weight (DW type) (Kg)
T-DW2-3/8	2	17	12	9.5	23	9.5	32	26	52.5	0.13
T-DW2.5-7/16	2.5	19	14	11	27	11	36.5	29.5	62	0.2
T-DW3.25-1/2	3.25	20.5	16	13	30	13	41.5	33	70.5	0.27
T-DW5-5/8	5	27	20	16	38	16	51	43	88	0.57
T-DW7-3/4	7	32	22	19	46	20.5	60.5	51	102.5	0.99
T-DW9.5-7/8	9.5	36.5	27	22.5	53	24.5	71.5	58	121	1.57
T-DW12.5-1	12.5	43	30	25.5	60.5	25.5	81	68.5	139	2.3
T-DW15-1 1/8	15	46	33	29	68.5	32	91	74	153	3.42
T-DW18-1 1/4	18	51.5	36	32	76	35	100	82.5	168.5	4.48
T-DW21-1 3/8	21	57	39	35	84	38	111	92	184.5	6.46
T-DW30-1 1/2	30	60.5	42	38	92	41	122	98.5	199	7.65
T-DW40-1 3/4	40	73	52	44.5	106.5	54	146	127	244	12.48
T-DW50-2	50	82.5	60	51	122	51	171.5	146	275	18.63
T-DW80-2 1/2	80	105	72	66.5	144.5	66.5	203	184	346	36.02



Art.No.	WLL (t)	W (mm)	D (mm)	d (mm)	E (mm)	P (mm)	S (mm)	O (mm)	L (DX type) (mm)	Self Weight (DX type) (Kg)
T-DX2-3/8	2	17	12	9.5	23	9.5	32	26	54	0.13
T-DX2.5-7/16	2.5	19	14	11	27	11	36.5	29.5	62	0.21
T-DX3.25-1/2	3.25	20.5	16	13	30	13	41.5	33	71.5	0.28
T-DX5-5/8	5	27	20	16	38	16	51	43	89	0.6
T-DX7-3/4	7	32	22	19	46	20.5	60.5	51	105	1.04
T-DX9.5-7/8	9.5	36.5	27	22.5	53	24.5	71.5	58	121	1.63
T-DX12.5-1	12.5	43	30	25.5	60.5	25.5	81	68.5	136.5	2.38
T-DX15-1 1/8	15	46	33	29	68.5	32	91	74	149.5	3.59
T-DX18-1 1/4	18	51.5	36	32	76	35	100	82.5	164.5	4.65
T-DX21-1 3/8	21	57	39	35	84	38	111	92	179	6.71
T-DX30-1 1/2	30	60.5	42	38	92	41	122	98.5	194.5	8.05
T-DX40-1 3/4	40	73	52	44.5	106.5	54	146	127	239	13.18
T-DX50-2	50	82.5	60	51	122	51	171.5	146	269	19.3
T-DX80-2 1/2	80	105	72	66.5	144.5	66.5	203	184	344	37.22
T-DX110-3	110	127	85	76	165	89	216	200	401	65.3