



GRADE 80 CHAIN SLINGS - AS 3775

CHAIN DIA.	WORKING LOAD LIMIT (W.L.L.) IN TONNES UNDER GENERAL CONDITIONS OF USE									
	SINGLE LEG SLINGS				SLINGS OF 2, 3 OR 4 LEGS				2 LEG SLINGS	
 MM	 STRAIGHT SLING	 ADJUSTABLE SLING W/DERATION	 REEVED SLING	 BASKET SLING MAX 60°	 60°	 90°	 120°	 REEVED SLING	 BASKET SLING	
LOADING FACTORS	1	0.75	0.75	1.3	1.73	1.41	1	1.3		2.25
CHAIN SIZE, MM										
6	1.1	0.8	0.8	1.4	1.9	1.6	1.1	1.4		2.5
7	1.5	1.1	1.1	2	2.6	2.1	1.5	2.0		3.4
8	2.0	1.5	1.5	2.6	3.5	2.8	2.0	2.6		4.5
10	3.2	2.4	2.4	4.2	5.5	4.5	3.2	4.2		7.2
13	5.3	4.0	4.0	6.9	9.2	7.5	5.3	6.9		11.9
16	8.0	6.0	6.0	10.4	13.8	11.3	8.0	10.4		18.0
19	11.2	8.4	8.4	14.6	19.4	15.8	11.2	14.6		25.2
20	12.5	9.4	9.4	16.3	21.6	17.6	12.5	16.3		28.1
22	15.0	11.3	11.3	19.5	26.0	21.2	15.0	19.5		33.8
26	21.2	15.9	15.9	27.6	36.7	29.9	21.2	27.6		47.7
32	31.5	23.6	23.6	41.0	54.5	44.4	31.5	41.0		70.9

BEAVER ALLOY GRADE 80 CHAIN SLINGS CARE AND USAGE INSTRUCTIONS

BEAVER ALLOY GRADE 80 CHAIN SLINGS SHOULD ONLY BE USED BY A COMPETENT PERSON

Maximum Working Load Limit in Tonnes of 1000kg, under general conditions of use.

- DO NOT EXCEED WORKING LOAD LIMIT
- DO NOT EXCEED 120°
- WLL at 60° must never be exceeded, even at smaller angles.
- WLL at other angles - apply the next greater angle and relevant load factor.

Extreme care should be taken when using the Beaver Grade 80 Chain Slings in high temperature environments. It is therefore our instruction that the user must always err on the side of caution and make ample provisions for reduced Working Load Limits. The following are our instructions:

ACIDIC CONDITIONS

Beaver Alloy Grade 80 slings shall not be used in acidic solutions or in any other corrosive environment.

TEMPERATURE CONDITIONS

-10°C up to 200° C No reduction in WLL
200°C up to 300°C Reduce WLL by 10%
300°C up to 400°C Reduce WLL by 25%
Do not use above 400°C

GALVANISING

Beaver alloy chains and fittings should not be hot-dip galvanised or electro-plated, except by Beaver. Galvanised slings must always have the Working Load Limits reduced by 20%.

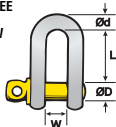
THE WLL OF A SLING MUST NOT EXCEED THE LOWEST WORKING LOAD LIMIT OF THE COMPONENTS IN THE SYSTEM.



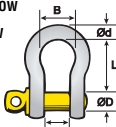
GRADE S SHACKLES WITH YELLOW PAINTED PIN - AS 2741

WORKING LOAD LIMIT Metric Tonnes	DIA. Ød mm	DIA. PIN ØD mm	INSIDE WIDTH W mm	INSIDE LENGTH		WIDTH OF BOW B mm	APPROX. WEIGHT EACH	
				DEE TYPE L mm	BOW TYPE L mm		SCREW PIN kg	SAFETY PIN kg
0.33	5	6	10	—	22	15	0.02	—
0.50	6	8	12	22	29	20	0.06	0.07
0.75	8	10	13	26	31	21	0.11	0.13
1.00	10	11	17	32	37	26	0.15	0.17
1.50	11	13	18	37	43	29	0.21	0.25
2.00	13	16	21	41	48	33	0.37	0.44
3.20	16	19	27	51	61	43	0.65	0.79
4.70	19	22	32	60	72	51	1.06	1.26
6.50	22	25	37	71	84	58	1.56	1.88
8.50	25	29	43	81	95	68	2.32	2.78
9.50	29	32	46	90	108	74	3.28	3.87
12.00	32	35	52	100	119	83	4.51	5.26
13.50	35	38	57	113	133	92	5.43	6.94
17.00	38	41	60	124	146	98	7.89	8.79
25.00	44	51	73	146	178	127	13.40	14.99
35.00	51	57	83	171	197	146	18.85	20.65
42.50	57	63	95	181	222	160	26.06	29.01
55.00	63	70	105	203	267	184	37.86	41.05
85.00	76	83	127	229	330	200	58.68	62.24
120.00	89	95	146	267	381	241	—	110.00
150.00	102	108	165	318	432	279	—	160.00

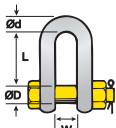
BEAVER DEE
SHACKLE
W/ SCREW
PIN



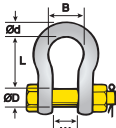
BEAVER BOW
SHACKLE
W/ SCREW
PIN



BEAVER SAFETY
DEE
SHACKLE
BOLT
TYPE



BEAVER SAFETY
BOW
SHACKLE
BOLT
TYPE



Other sizes up to 1000 tonnes available on request.



WIRE ROPE SLINGS - AS 1666

The below listed working loads represent ferrule - secured eyes.

METHOD OF LOADING	DIRECT LOADED	CHOKE HITCH		DIRECT LOAD				CHOKE HITCH				BASKET HITCH							
 WIRE ROPE DIA. mm		 ROUND LOAD	 RECTANGULAR LOAD					ROUND LOAD		OTHER THAN ROUND LOAD		ROUND LOAD				OTHER THAN ROUND LOAD			
								SINGLE WRAP	DOUBLE WRAP	SINGLE WRAP	DOUBLE WRAP								
																			
INCLUDED ANGLE	-	-	-	0° - 60°	90°	120°	0° - 45°	0° - 60°	0° - 45°	0° - 60°	0°	60°	90°	120°	0°	60°	90°	120°	
MAXIMUM WORKING LOAD LIMITS IN TONNES OF 1000 KG FOR 1770 GRADE STEEL CORE - BLACK																			
LOADING FACTOR	1 x 0.95	0.75 x 0.95	0.5 x 0.95	1.73 x 0.95	1.41 x 0.95	1 x 0.95	1.30 x 0.95	0.87 x 0.95		2 x 0.95	1.73 x 0.95	1.41 x 0.95	1 x 0.95	1 x 0.95	0.87 x 0.95	0.71 x 0.95	0.5 x 0.95		
8	0.78	0.58	0.39	1.35	1.1	0.78	1.01	0.68		1.56	1.35	1.1	0.78	0.78	0.68	0.55	0.39		
9	0.99	0.74	0.49	1.71	1.4	0.99	1.29	0.86		1.98	1.71	1.4	0.99	0.99	0.86	0.7	0.49		
10	1.22	0.92	0.61	2.1	1.72	1.22	1.59	1.06		2.4	2.1	1.72	1.22	1.22	1.06	0.87	0.61		
11	1.48	1.11	0.74	2.6	2.1	1.48	1.92	1.29		3	2.6	2.1	1.48	1.48	1.29	1.05	0.74		
12	1.76	1.32	0.88	3	2.5	1.76	2.3	1.53		3.5	3	2.5	1.76	1.76	1.53	1.25	0.88		
13	2.1	1.55	1.04	3.6	2.9	2.1	2.7	1.8		4.1	3.6	2.9	2.1	2.1	1.8	1.47	1.04		
14	2.4	1.8	1.2	4.2	3.4	2.4	3.1	2.1		4.8	4.2	3.4	2.4	2.4	2.1	1.71	1.2		
16	3.1	2.3	1.56	5.4	4.4	3.1	4.1	2.7		6.2	5.4	4.4	3.1	3.1	2.7	2.2	1.56		
18	4	3	1.98	6.8	5.6	4	5.1	3.4		7.9	6.8	5.6	4	4	3.4	2.8	1.98		
20	4.9	3.7	2.4	8.4	6.9	4.9	6.3	4.2		9.8	8.4	6.9	4.9	4.9	4.2	3.5	2.4		
22	5.9	4.4	3	10.2	8.3	5.9	7.7	5.1		11.8	10.2	8.3	5.9	5.9	5.1	4.2	3		
24	7	5.3	3.5	12.2	9.9	7	9.1	6.1		14.1	12.2	9.9	7	7	6.1	5	3.5		
26	8.3	6.2	4.1	14.3	11.6	8.3	10.7	7.2		16.5	14.3	11.6	8.3	8.3	7.2	5.9	4.1		
28	9.6	7.2	4.8	16.6	13.5	9.6	12.4	8.3		19.1	16.6	13.5	9.6	9.6	8.3	6.8	4.8		
32	12.5	9.4	6.3	22	17.6	12.5	16.3	10.9		25	22	17.6	12.5	12.5	10.9	8.9	6.3		
36	15.8	11.9	7.9	27	22	15.8	21	13.8		32	27	22	15.8	15.8	13.8	11.2	7.9		
40	19.6	14.7	9.8	34	28	19.6	25	17		39	34	28	19.6	19.6	17	13.9	9.8		
44	24	17.7	11.8	41	33	24	31	21		47	41	33	24	24	21	16.8	11.8		
48	28	21	14	49	40	28	37	24		56	49	40	28	28	24	19.9	14		
52	33	25	16.6	57	47	33	43	29		66	57	47	33	33	29	24	16.6		
56	38	29	19.2	66	54	38	50	33		77	66	54	38	38	33	27	19.2		
60	44	33	22	76	62	44	57	38		88	76	62	44	44	38	31	22		

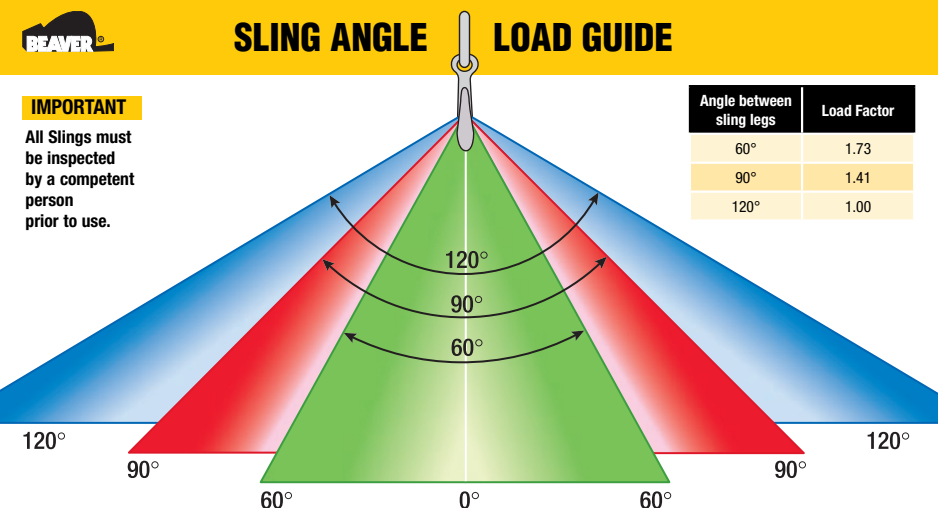


SLING ANGLE LOAD GUIDE

IMPORTANT

All Slings must be inspected by a competent person prior to use.

Angle between sling legs	Load Factor
60°	1.73
90°	1.41
120°	1.00



How to easily calculate Sling Angles and Load Factors

- With the sling in a raised position, stand about 4-5 metres away from the load.
- Hold this card up at almost arms length and align the hook at the top with the hook that is supporting the load.
- The sling legs should match the required angle from the chart to determine the correct angle and load factor you should be using.
- If the sling legs are at an angle between the ones on the chart the next greater angle and relevant load factor should be used. To do this you will need to consult the appropriate chart inside this guide.

SAFETY WARNING OF HAZARDOUS CONDITIONS:

Extreme care should be taken when using the Beaver Grade 100 Chain and fittings in high temperature environments. It is therefore our instruction that the user must always err on the side of caution and NEVER EXCEED 200°C.

GRADE 100 CHAIN SLINGS SHOULD ONLY BE USED BY A COMPETENT PERSON.

Maximum Working Load Limit in Tonnes of 1000kg, under general conditions of use.

- DO NOT EXCEED WORKING LOAD LIMIT
- DO NOT EXCEED 120°
- WLL at other angles - apply the next greater angle and relevant load factor
- Some Shortening Hooks & Grab Hooks with cradle configuration, may not derate the WLL for the sling.

CHAIN DIA.	LOADING FACTORS	CHAIN SIZE, MM										
		1	0.75	0.75	1.3	1.73	1.41	1	1.3	2.25		
MM		STRAIGHT SLING	ADJUSTABLE SLING	W/DERATION	REVEED SLING	BASKET SLING	60° STRAIGHT SLING	90° STRAIGHT SLING	120° STRAIGHT SLING	60° MAX REVEED SLING	60° MAX BASKET SLING	
		SINGLE LEG SLINGS					SLINGS OF 2, 3 OR 4 LEGS					
		WORKING LOAD LIMIT (WLL) IN TONNES UNDER GENERAL CONDITIONS OF USE										
32		40	30.0	30.0	52.0	69.2	56.4	40	52.0	90.0		
28		31.5	23.6	23.6	41.0	54.5	44.4	31.5	41.0	70.9		
26		26.5	19.9	19.9	34.5	45.8	37.4	26.5	34.5	69.6		
22		19	14.3	14.3	24.7	32.9	26.8	19	24.7	42.8		
20		16	12.0	12.0	20.8	27.7	22.6	16	20.8	36.0		
16		10	7.5	7.5	13.0	17.3	14.1	10	13.0	22.5		
13		6.7	5.0	5.0	8.7	11.6	9.4	6.7	8.7	15.1		
10		4	3.0	3.0	5.2	6.9	5.6	4	5.2	9.0		
8		2.5	1.9	1.9	3.3	4.3	3.5	2.5	3.3	5.6		
6		1.4	1.1	1.1	1.8	2.4	2.0	1.4	1.8	3.2		

GRADE 100 CHAIN SLINGS - AS 3775



POCKET GUIDE WORKING LOAD LIMITS FOR SAFER LIFTING



ROUND WEBBING SLINGS - AS 4497 / FLAT WEBBING SLINGS - AS 1353

WORKING LOAD LIMITS UNDER GENERAL CONDITIONS OF USE - t									
COLOUR	MARKED WLL	STRAIGHT LIFT	CHOKED STRAIGHT LIFT	PARALLEL BASKET	BASKET HITCH OR 2, 3 AND 4 LEGS SLINGS			CHOKE HITCH OR 2, 3 AND 4 LEGS SLINGS	
					a = 60°	a = 90°	a = 120°	SINGLE WRAP a = MAX 45°	DOUBLE WRAP a = MAX 60°
			OR						
LOADING FACTORS		1	0.8	2	1.73	1.41	1	1.38	1.38
VIOLET	1	1	0.8	2	1.7	1.4	1	1.38	
GREEN	2	2	1.6	4	3.4	2.8	2	2.76	
YELLOW	3	3	2.4	6	5.1	4.2	3	4.14	
GREY	4	4	3.2	8	6.9	5.6	4	5.52	
RED	5	5	4	10	8.6	7	5	6.9	
BROWN	6	6	4.8	12	10.3	8.4	6	8.28	
BLUE	8	8	6.4	16	13.8	11.2	8	11.04	
ORANGE	10	10	8	20	17.3	14.1	10	13.8	
ORANGE	Greater than 10	Marked WLL x LF	Marked WLL x LF	Marked WLL x LF	Marked WLL x LF	Marked WLL x LF	Marked WLL x LF	Marked WLL x LF	

Note: The WLL applicable to each configuration is the marked WLL multiplied by the loading factor, L.

The information contained within the above tables is taken from the relevant Australian Standards and was correct at the time of publication.

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