

CRANE

“Lift with Confidence”

All your lifting needs at..

www.grangelift.com.au



HOISTING EQUIPMENT

CHAIN & LEVER BLOCKS

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CRANE LIFTING PLAN

W Know the **WEIGHT** of the Load if not ask your Supervisor

A What is the **APPLICATION** (Single or Multi Leg)

Y Make sure **YOU** select the Correct Gear

T Take **TIME** to Inspect the Gear

O ORGANISE to FLOAT the Load Check for Balance

L Lift Load Slowly & Controlled

I INCLUDE a Landing Pad with packers to prevent crush

F FIND Time to Re - Inspect the gear

T THEN Store correctly

GENERAL DEFINITIONS

WLL = WORKING LOAD LIMIT

This is the maximum load that can be applied to sling or a component

MBF = MINIMUM BREAKING FORCE

As defined by the Australian Standards

The minimum breaking force of a chain or any lifting component

CONVERSIONS

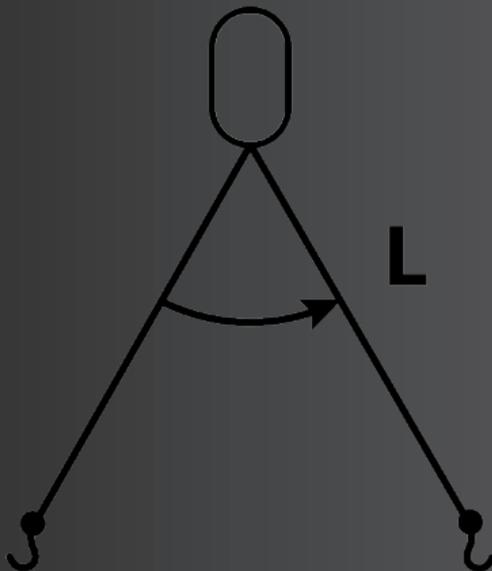
In order to convert KN to Tonne DIVIDE by 9.81

INSPECTIONS

All Lifting / Safety Equipment should be visually inspected on a regular basis for any noticeable signs of damage prior to use by any operator

LIFTING LIMITATIONS

LIFTING FOR SAFETY :



SAFE

60°

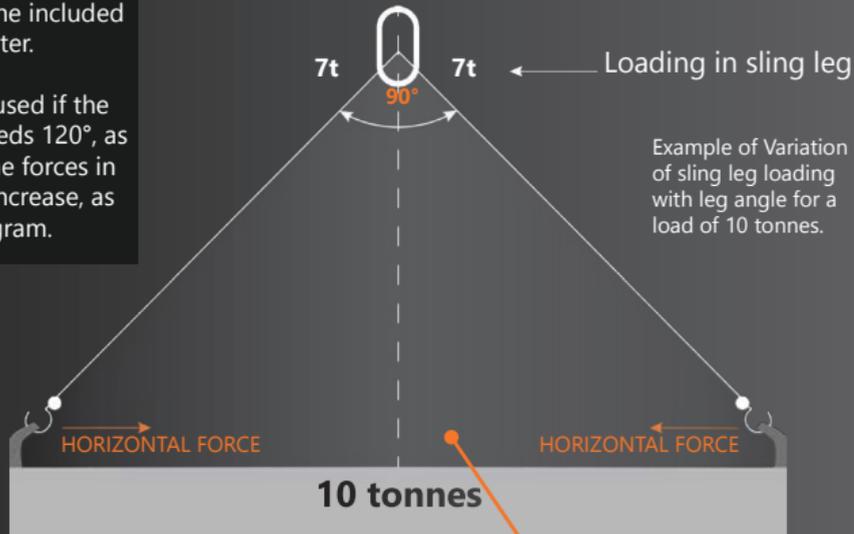
BASE = LENGTH (L) (Length of Leg)

Maximum Limit Under Australian Standards

WHY DO ANGLES AFFECT LOADS

All multi-leg slings exert a horizontal component of force, which increases as the included angle becomes greater.

No sling should be used if the included angle exceeds 120° , as beyond this point the forces in the legs drastically increase, as indicated in the diagram.

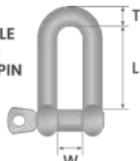


DO NOT USE MULTI-LEG SLINGS AT ANGLES WITHIN SHADED AREA

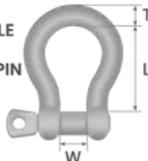
Angles of less than 15° should also be avoided as these can lead to the load becoming unstable.

ALLOY GRADE 'S' SHACKLES TO AS 2744-2002

DEE SHACKLE WITH SCREW PIN



BOW SHACKLE WITH SCREW PIN



SAFETY DEE SHACKLE BOLT TYPE



SAFETY BOW SHACKLE BOLT TYPE



Dee Shackle Code	Inside Length D Type (L) mm	Inside Width D Type (W) mm	Material Thickness D Type (D) mm	Screw Pin Thickness mm	Bow Shackle Code	Inside Length B Type (L) mm	Inside Width B Type (W) mm	Material Thickness B Type (D) mm	Screw Pin Thickness mm	Working Load Limited Metric Tonne
20901	22.0	12.0	6.0	8.0	20921	29.0	12.0	6.0	8.0	0.5
20902	26.0	13.0	8.0	10.0	20922	31.0	13.0	8.0	10.0	0.75
20903	32.0	17.0	10.0	11.0	20923	37.0	17.0	10.0	11.0	1
20904	37.0	18.0	11.0	13.0	20924	43.0	18.0	11.0	13.0	1.5
20905	41.0	21.0	13.0	16.0	20925	48.0	21.0	13.0	16.0	2
20906	51.0	27.0	16.0	19.0	20926	61.0	27.0	16.0	19.0	3.2
20907	60.0	32.0	19.0	22.0	20927	72.0	32.0	19.0	22.0	4.7
20908	71.0	37.0	22.0	25.0	20928	84.0	37.0	22.0	25.0	6.5
20909	81.0	43.0	25.0	28.0	20929	95.0	43.0	25.0	28.0	8.5
20910	90.0	46.0	29.0	32.0	20930	108.0	46.0	29.0	32.0	9.5
20911	100.0	52.0	32.0	36.0	20931	119.0	52.0	32.0	36.0	12
20912	113.0	57.0	35.0	39.0	20932	133.0	57.0	35.0	39.0	13.5
20913	124.0	60.0	38.0	42.0	20933	146.0	60.0	38.0	42.0	17
20914	146.0	73.0	44.0	56.0	-	-	-	-	-	25
-	-	-	-	-	20935	197.0	83.0	51.0	56.0	35

ALLOY GRADE T(80) CHAIN SLINGS

TO AS
3775.1-2013

CHAIN DIA.  mm	SINGLE LEG SLINGS			SLINGS OF 2,3 OR 4 LEGS			ENDLESS SLINGS		
	 Straight lift	 Straightened straight lift	 Reeved sling	 Straight sling		 Reeved sling		 Basket sling	
				60°	90°	60° (max)	60°	90°	
6	11	1.1	0.8	1.9	1.6	1.5	1.5	1.2	1.7
7	1.5	1.5	1.1	2.6	2.1	2.0	2.0	1.6	2.3
8	2.0	2.0	1.5	3.5	2.8	2.6	2.6	2.1	3.0
10	3.2	3.2	2.4	5.5	4.5	4.1	4.1	3.4	4.8
13	5.3	5.3	4.0	9.2	7.5	6.9	13	13	8.0
16	8.0	8.0	6.0	13.8	11.3	10.4	14.5	11.9	5.6
19	11.2	11.2	8.4	19.2	15.8	14.5	14.5	11.9	5.6
20	12.5	12.5	9.4	21.6	17.6	16.3	16.3	13.3	18.8
22	15.0	15.0	11.3	26.0	21.2	19.5	19.5	15.9	22.5
26	21.2	21.2	15.9	36.7	29.9	27.6	27.6	22.5	31.8
32	31.5	31.5	23.6	54.5	44.4	41.0	41.0	33.4	47.3

Quoted W.LL is relevant to Grange Lift product only.
All Grange Lift slings are individually tested and fully certified.

FLAT WEBBING & ROUND SLINGS (POLYESTER)

POLYESTER WEBBING SLINGS & ROUND SLINGS						
	VERTICAL	CHOKE	BASKET	BASKET	BASKET	BASKET
LIFTING MODE	W.L.L	W.L.L	W.L.L	30° W.L.L	60° W.L.L	90° W.L.L
Colour Code	Kg	Kg	Kg	Kg	Kg	Kg
Violet	1000	800	2000	1900	1700	1400
Green	2000	1600	4000	3800	3400	2800
Yellow	3000	2400	6000	5700	5100	4200
Grey	4000	3200	8000	7600	6800	5600
Red	5000	4000	10000	9500	8500	7000
Brown	6000	4800	12000	11400	10200	8400
Blue	8000	6400	16000	15200	13600	11200
Orange	10000	8000	20000	19000	17000	14000

Flat Slings Manufactured to AS 1353 Parts 1 & 2 1997 Safety Factor 8:1

Round Slings Manufactured to AS 4497.1 - 1997 Safety Factory 7:1

Please note this Check Card has been produced as a guide only based on manufacturers specificatoinis & Australian Standards.

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