



DELPHINI LTD

LIFTING, SECURING & SAFETY EQUIPMENT



Delphini... Engineering Safer Solutions Lifting - Securing - Safety

Safety plays an increasingly vital role in the way companies are managed. In order to maintain profitability and dependability you require a supplier that understands your very individual needs, and provides the right products and advice quickly and efficiently.

Delphini can provide the equipment and solutions you need – **when you need it** – tested, certified equipment that is totally reliable.

We have developed a range of products and services that is ideally suited for the needs of industry. Our workshop and stores, based in Tilbury, can supply, manufacture, and test all types of lifting equipment as well as supply fabrications and machined components. Our engineers are fully trained, with many years of experience and are equipped to solve problems on site. All of our technical procedures are audited in accordance with our BS EN ISO 9001:2000 accreditation and are fully compliant with the relevant British Standard and regulations.

With a progressive outlook and fully trained sales and technical staff Delphini can offer advice and supply the most cost effective solution whether on the dock side, in a factory, building site or on board ship.

- Lifting Equipment Sales
- PPE Workwear Sales
- Height Safety Equipment Sales
- Container Lifting Equipment
- Securing and Lashing Systems Sales
- Safety Barrier and Walkway Systems
- Design and Manufacture
- Installation and Commission
- Maintenance and Repair
- LOLER Thorough Examinations and Repairs
- Site Testing and Certification

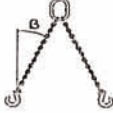
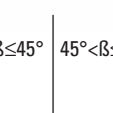
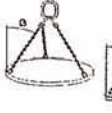
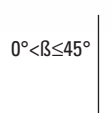
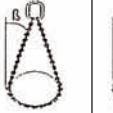
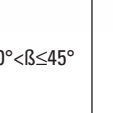

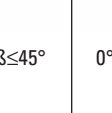
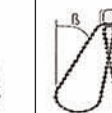
Further information on Delphini's range of products and services can be found in the following catalogues:

PPE Workwear

Height Safety Equipment

Section 1	Grade 8 Chain and Fittings	1-9
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GT Alloy - Grade 8 Chain Sling Working Load Chart

Safety factor	1 leg	2 legs		3 or 4 legs		Choker endless sling	Basket sling				
											
Working angles	—	$0^\circ < \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$	$0^\circ < \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$	—	$0^\circ < \beta \leq 45^\circ$	$0^\circ < \beta \leq 45^\circ$	$0^\circ < \beta \leq 45^\circ$	$0^\circ < \beta \leq 45^\circ$	$0^\circ < \beta \leq 45^\circ$
Load factor	1	1.4	1	2.1	1.5	1.6	1.4	2.1	1	1.4	
d mm	Working Load Limit in Tonnes										
7	1.50	2.12	1.50	3.15	2.24	2.50	2.12	3.15	1.50	2.12	
8	2.00	2.80	2.00	4.25	3.00	3.15	2.80	4.25	2.00	2.80	
10	3.15	4.25	3.15	6.70	4.75	5.00	4.25	6.70	3.15	4.25	
13	5.30	7.50	5.30	11.20	8.00	8.50	7.50	11.20	5.30	7.50	
16	8.00	11.20	8.00	17.00	11.80	12.50	11.20	17.00	8.00	11.20	
20	12.50	17.00	12.50	26.50	19.00	20.00	17.00	26.50	12.50	17.00	
22	15.00	21.20	15.00	31.50	22.40	23.60	21.20	31.50	15.00	21.20	
26	21.20	30.00	21.20	45.00	31.50	33.50	30.00	45.00	21.20	30.00	
32	31.50	45.00	31.50	67.00	47.50	50.00	45.00	67.00	31.50	45.00	

ADVICE FOR USE

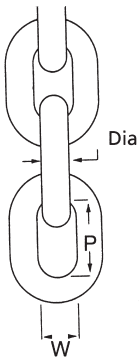
DO'S . . .

- Do check the condition of the slings before each load
- Do check the chain legs are not twisted
- Do check that the load is on the centre of the hook and not on the tip

DONT'S . . .

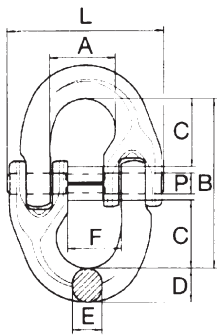
- Don't use the sling over the maximum working load limit
- Don't load with the convergence angle over 120°
- Don't shock load
- Don't use Grade 8 chains in pickling or acid baths
- Don't submit the chains to heat treatment
- Don't utilise the chains and accessories outside the temperature range -40° and $+200^\circ\text{C}$

Grade 8 Short Link Chain BS-EN 818



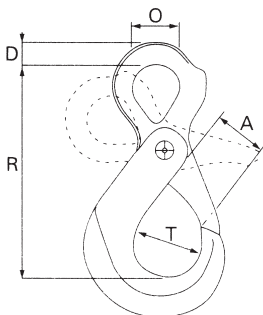
Chain Dia mm	P mm	W mm	W.L.L. Kgs	Weight Kgs/Mtrs	Drum Length Mtrs
7	21	9	1,500	1.1	122
8	24	10.8	2,000	1.4	122
10	30	14	3,150	2.2	122
13	39	17.5	5,300	3.8	61
16	48	21.5	8,000	5.7	46
20	60	27	12,500	9	31
22	66	29.5	15,000	10.9	50
26	78	34.9	21,200	15.2	50
32	96	43	31,500	23	50

Grade 8 Component Connectors



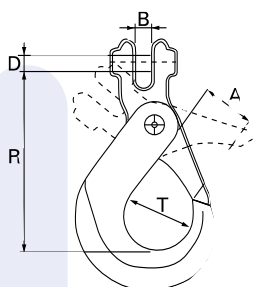
Chain Dia mm	A mm	B mm	C mm	D mm	E mm	F mm	P x L mm	Weight Kgs/each
6	18	45	18	7.8	7.6	14	4.8 x 38.5	0.07
7	19	51	20	10	9	16	6 x 46.5	0.10
8	23	62	25	1.5	10	18	6.3 x 53	0.25
10	27	72	30	12.6	12.6	23	8 x 63.5	0.35
13	34	88	36	19	16.7	27	10 x 79	0.68
16	39	103	40	21	21	33	14 x 106	1.10
20	47	116	48	23	23	44	14 x 108	1.70
22	55	133	51	26.5	26.5	49	16 x 134	2.20
26	66	148	60	31.5	31.5	60	—	4.20
32	79	183	69	37	37	67	—	7.19

Grade 8 Eye Type Self Locking Hooks



Chain Dia mm	A mm	D mm	O mm	R mm	T mm	Weight Kgs/each
7/8	27	10	26	112	36	0.55
10	38	13	33	151	46	1.12
13	46	16	42	185	60	2.22
16	57	18	52	230	75	4.00

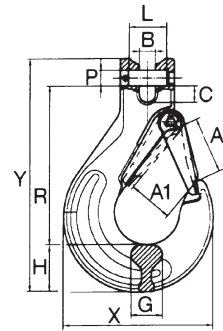
Grade 8 Clevis Self Locking Hooks



Chain Dia mm	A mm	B mm	D mm	R mm	T mm	Weight Kgs/each
7/8	27.5	9	9	95	36	0.54
10	38	12	13	125	46	1.17
13	46	15	16	157	60	2.30
16	57	19	21	189	75	4.10

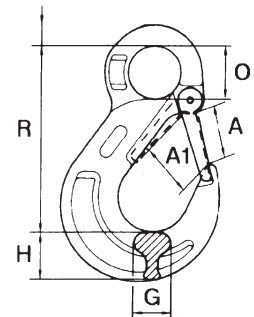
Grade 8 Clevis Sling Hooks C/W Heavy Duty Iron Catch

Chain Dia mm	A mm	A1 mm	B mm	C mm	G mm	H mm	R mm	X mm	Y mm	P x L mm	Weight Kgs/each
7/8	34	26	9.5	10	19	28	95	90	140	9 x 23	0.53
10	40	31	12	13.5	25	33	110	108	165	12.5 x 29.5	0.95
13	51	40	15	17	30	40	136	131	204	16 x 37	1.67
16	56	45	18	22	37	48	155	153	237	20 x 52	3.00
20	61	52	23	26	46	52	183	177	276	24 x 73	5.40
22	72	72	24.5	29	50	62	213	202	310	-	8.80



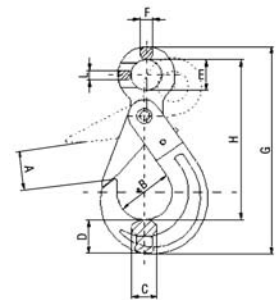
Grade 8 Eye Type Sling Hooks C/W Heavy Duty Iron Catch

Chain Dia mm	A mm	A1 mm	G mm	H mm	O mm	R mm	Weight Kgs/each
6	25	25	14.5	20	20	80.5	0.24
7/8	29.5	25.5	19	27	25	95.5	0.50
10	35.7	30.5	23.5	33	34	120.5	0.90
13	43.5	41	29	40	43	150	1.50
16	52.5	50	35.5	49	50	183	2.75
20	62.5	60	42	55	55	217.5	4.90
22	76	75	51.5	62	59	225	8.80
26	80	71	55	67	63	250	9.00
32	88	73	64	87	70	315	16.00



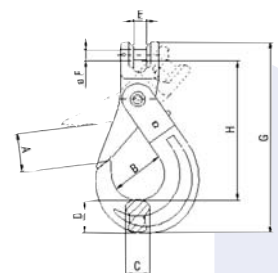
Grade 8 Eye Type Self-Locking Hooks – Large Style

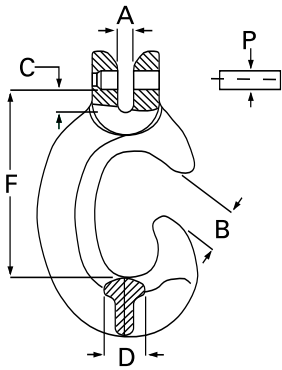
Chain dia mm	WLL tonnes	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	Weight Kgs/each
6	1.25	28	35	14	20	22	11	139	107	6	0.5
7/8	2	33	45	20	25	25	12	172	135	8	0.85
10	3.2	44	58	27	35	32	14	218	168	10	1.6
13	5.3	54.5	71	31	40	40	18	267	208	13	2.9
16	8	67	84	40	52	50	22	330	254	16.5	5.9



Grade 8 Clevis Self-Locking Hooks – Large Style

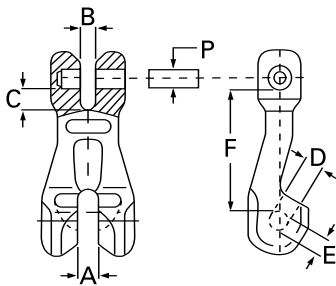
Chain dia mm	WLL tonnes	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight Kgs/each
7/8	2	33	45	20	25	10	10	165	122	0.90
10	3.2	44	58	27	35	13	12.5	207	151	1.65
13	5.3	54	71	31	40	16	16	255	184	3.10
16	8	67	84	40	52	19	20	300	212	6.10
20	12.5	80	99	48	71	21	24	360	242	7.50





Grade 8 Clevis 'C' Hooks

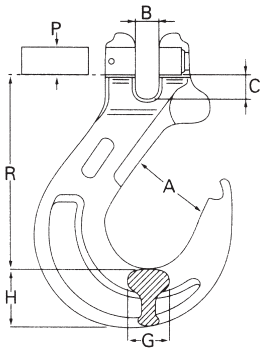
Chain Dia mm	A mm	B mm	C mm	D mm	F mm	P mm	Weight Kgs/each
7/8	9	20	11	22	90	9	0.56
10	12	28	14	28	129	12.5	1.40
13	15	39	17	35	166	16	3
16	18	43	17.5	42	198	19.5	6



Grade 8 Clevis Shortening Clutches

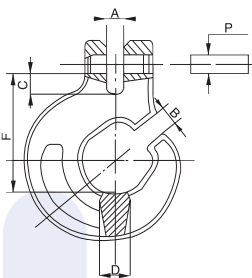
Chain Dia mm	A/B mm	C mm	D mm	E mm	F mm	P Kgs/each	Weight
7/8	8.7	10	9	16.5	62	9	0.4
10	12.5	14	12	25	88	13	0.94
13	16.5	17	15	32.5	115	16	1.92
16	20.5	19	19	39	143	21	3.16

Larger sizes up to 32mm dia available upon request



Grade 8 Clevis Sling Hooks without Catch

Chain Dia mm	A mm	B mm	C mm	G mm	H mm	P x L mm	R mm	Weight Kgs/each
7/8	34	9.5	10	19	28	9 x 23	95	0.53
10	40	12	13.5	25	33	12.5 x 29.5	110	0.95
13	51	15	17	30	40	16 x 37	136	1.67
16	56	18	22	37	48	20 x 52	155	3
20	61	23	26	46	52	24 x 73	183	5.4
22	72	24.5	29	50	62	-	213	8.6

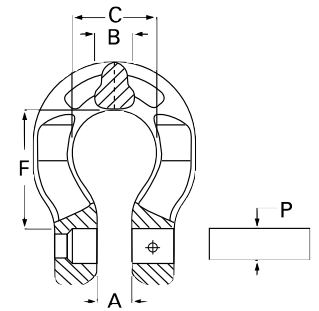


Grade 8 Clevis Choker Hooks

Chain Dia mm	A mm	B mm	D mm	F mm	P mm	Weight Kgs/each
7/8	9	9.8	17	58	9	0.48
10	12.5	12.9	22	84	13	0.89
13	16.5	16	24	94	16	1.5

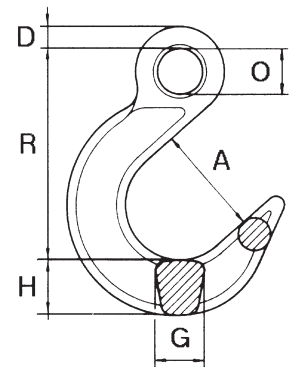
Grade 8 Coupling Links

Chain Dia mm	A mm	B mm	C mm	F mm	P mm	Weight Kgs/each
7/8	8.7	11	24	32	9.5	0.18
10	12.5	14	32	44	13	0.35
13	15	17	40	55	17	0.72
16	19	22	50	65	21	1.2



Grade 8 Eye Type Foundry Hook

Chain Dia mm	A mm	D mm	O mm	R mm	G mm	H mm	Weight Kgs/each
7/8	64	11	24	131	25	29	0.92
10	76	14	32	150	33	30	1.77
13	89	17	39	191	38	40	2.82
16	102	23	42	205	45	48	5.03

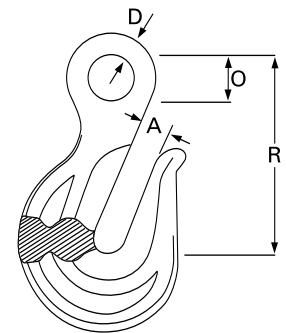


CLEVIS TYPE ALSO NOW AVAILABLE

Grade 8 Eye Type Grab Hooks

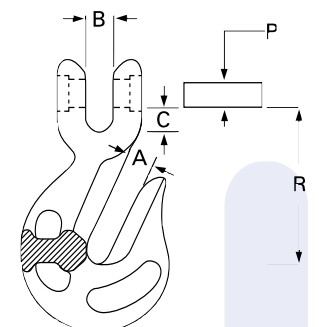
Chain Dia mm	A mm	D mm	O mm	R mm	Weight Kgs/each
7/8	10	10	16	60	0.23
10	13	11	21	80	0.59
13	17	16	26	104	1.24
16	20	19	30	114	2.01
20	23	22	36	132	3.75
22	27	25	38	157	5.35

Larger sizes up to 32mm available upon request

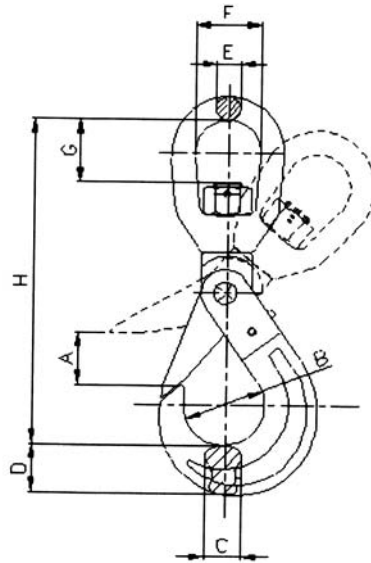


Grade 8 Clevis Grab Hooks

Chain Dia mm	R mm	A mm	B mm	C mm	P mm	Weight Kgs/each
7/8	50	10	9	10	9	0.27
10	72	13	13	14	13	0.75
13	88	17	17	17	16	1.35
16	102	20	21	20	21	2.3
20	117	24	24	24	24	4.1
22	139	26	26	26	26	5.65



NOTE: OUR GRAB HOOKS CAN BE USED AS A SHORTENING DEVICE WITHOUT ANY REDUCTION OF THE S.W.L. THE 'T' SHAPE IN THE BOWL OF THE HOOK SUPPORTS THE CHAIN AND HELPS PREVENT POSSIBLE DEFORMATION OF THE LINK WHEN USED IN SUCH A CONFIGURATION.

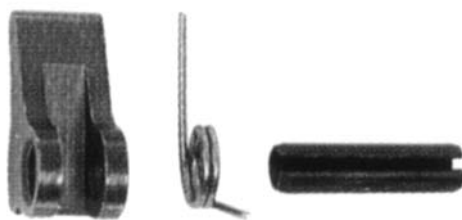


Grade 8 Swivel Self-Locking Hooks – Large Style

Chain dia mm	WLL tonnes	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight Kgs/each
6	1.25	28	35	14	20	13	40	36	164	0.90
7/8	2	33	45	20	25	13	40	30	192	1.30
10	3.2	44	58	27	35	17	47	45	227	2.10
13	5.3	54	71	31	40	21	64	55	285	4.30
16	8	67	84	40	52	26	77	70	342	8.00

Spare Locking System Kit for Standard Self-Locking Hooks

(SUITS BOTH SLC – CLEVIS AND SL – EYE TYPE)



Size mm

7/8

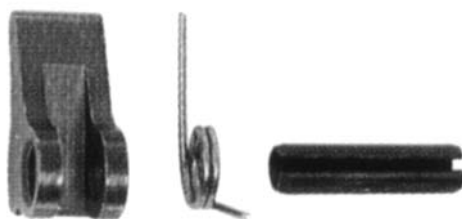
10

13

16

Spare Locking System Kit for Large Self-Locking Hooks

(SUITS EYE 103 SERIES, CLEVIS 102 SERIES AND SWIVEL 106 SERIES)



Size mm

6

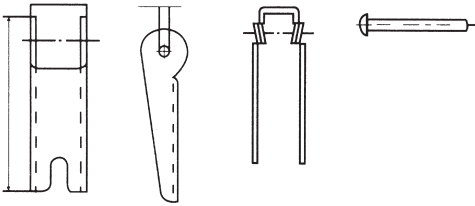
7/8

10

13

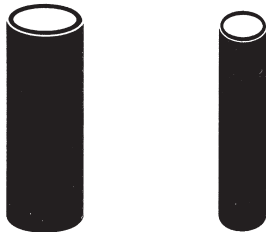
16

Hook Catch Kits to suit Grade 8 Hooks



Sizes available 6, 7/8, 10, 13, 16, 20 and 22 mm

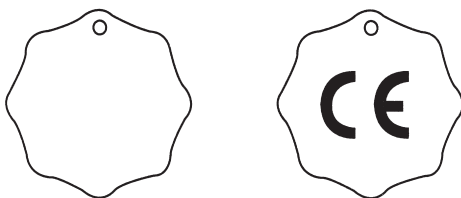
Load and Retaining Pins to suit Grade 8 Clevis Hooks



Sizes available 7/8, 10, 13, 16, 20 and 22 mm

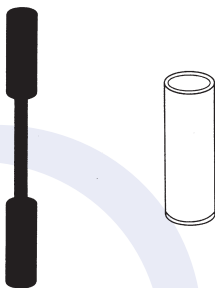
BS-EN-818 Chain Tags

Single or Multi Leg available



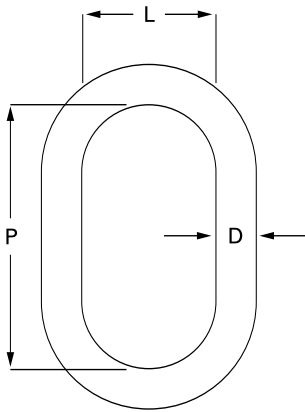
Spare Centre Pins and Bushes to suit Grade 8 Lifting Connectors

Pins and Bushes available 6, 7, 8, 10, 13, 16, 20 and 22 mm



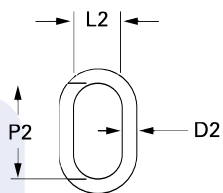
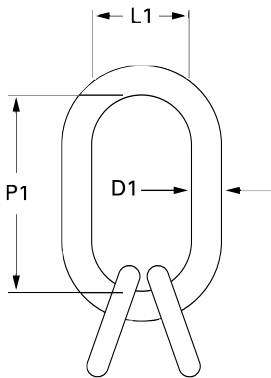
SPARE PARTS FOR ALL 26MM & 32MM DIA FITTINGS ARE AVAILABLE UPON REQUEST

Grade 8 Master Links



D mm	P mm	L mm	W.L.L. Tons	Weight Kgs/each
14	120	70	2.75	0.44
16	140	80	3.55	0.66
20	160	95	5.50	1.2
27	190	110	9.45	2.53
33	230	130	14.20	4.7
38	275	150	22.25	7.5
45	340	180	26.85	9
50	350	190	37.50	16.5
60	400	200	56.80	27
16	110	60	2.12	0.6
19	135	75	3.15	0.8
23	160	90	5.30	1.5
27	180	100	8.00	2.32
33	200	110	11.20	4.25
40	300	160	17.00	6.35
45	340	180	21.20	9

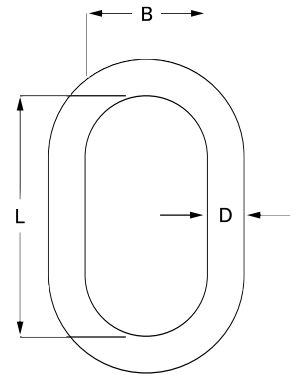
Grade 8 Quad Assemblies



D 1 mm	P 1 mm	L 1 mm	D 2 mm	P 2 mm	L 2 mm	W.L.L. Tons	Weight Kgs/each
20	160	95	14	120	70	4.15	1.9
23	160	110	16	140	80	5.35	2.8
27	190	110	20	160	95	8.30	4.8
33	230	130	27	190	110	14.15	9.2
38	275	150	33	230	130	21.30	14.7
45	340	180	38	275	150	33.40	26.6
50	350	190	45	340	180	40.25	39
19	135	75	13	60	38	3.15	1.16
27	180	100	18	85	40	6.70	3.36
33	200	110	23	115	50	11.2	6.02
36	260	140	27	140	65	17.00	9.94
50	350	190	33	150	70	26.50	23.3
50	350	190	36	170	75	31.5	25.8

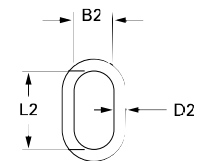
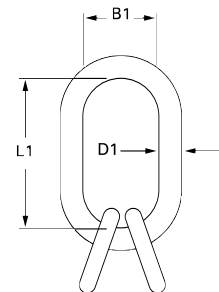
Grade 8 Fram Master Links BS-EN 1677 Pt 4

D mm	L mm	B mm	W.L.L. Tonnes	Minimum Factor of Safety	Weight Kgs/each
11	83	40	2.1	4.0	0.2
13	95	54	2.7	4.0	0.3
13	115	60	2.7	4.0	0.4
16	120	70	4.1	4.0	0.6
16	190	100	3.2	4.0	0.9
20	150	82	6.7	4.0	1.1
20	170	90	6.5	4.0	1.3
22	170	90	8.2	4.0	1.6
22	210	110	7.2	4.0	1.9
22	270	140	5.8	4.0	2.5
25	190	103	10.7	4.0	2.3
28	210	112.5	12.9	4.0	3.2
28	270	140	11.8	4.0	4.0
32	270	140	17.1	4.0	5.3
38	270	140	28.1	4.0	7.6
38	420	220	19.1	4.0	11.0
45	320	170	38.3	4.0	12.5
45	470	250	27.6	4.0	17.5
50	380	200	45.0	4.0	18.0
60	430	220	65.3	4.0	29.0
70	500	250	84.4	4.0	43.2



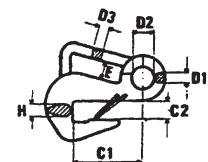
Grade 8 Fram Quad Assemblies BS-EN 1677 Pt 4

D 1 mm	L 1 mm	B 1 mm	D 2 mm	L 2 mm	B 2 mm	W.L.L. Tonnes	Minimum Factor of Safety	Weight Kgs/each
16	120	70	13	95	51	4.1	4.0	1.2
20	170	90	16	120	70	6.5	4.0	2.5
22	170	90	20	150	80	8.2	4.0	2.8
22	270	140	16	120	70	5.8	4.0	3.5
25	190	100	20	150	80	10.7	4.0	4.9
28	210	110	22	170	90	12.9	4.0	6.4
32	270	140	25	190	100	17.1	4.0	10.0
39	270	140	32	270	140	28.1	4.0	18.2
45	320	170	38	270	140	38.3	4.0	27.7
50	380	200	38	270	140	45.0	4.0	33.2
60	430	220	50	380	200	65.3	4.0	54.0
70	500	250	60	430	220	84.4	4.0	101.2



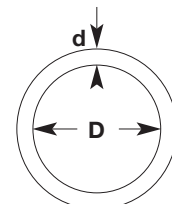
Grade 8 Fram Pipe Hooks

C1 mm	C2 mm	D1 mm	D2 mm	D3 mm	E mm	H mm	W.L.L. Tonnes per pair	Factor of Safety	Weight Kgs/each
165	65	22	50	22	42	32	6.8	4.0	8.8

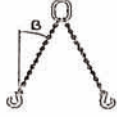


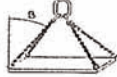


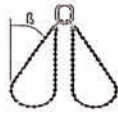



Grade 8 Fram Round Rings

d mm	D mm	W.L.L. Tonnes	Factor of Safety	Weight Kgs/each
22	140	5.2	4.0	1.6
25	155	6.9	4.0	2.3
28	175	8.6	4.0	3.2
32	225	10.2	4.0	5.3



GT Alloy - Grade 10 Chain Sling Working Load Chart

Safety factor	1 leg	2 legs		3 or 4 legs		Choker endless sling	Basket sling			
										
Working angles	—	$0^\circ < \beta \le 45^\circ$	$45^\circ < \beta \le 60^\circ$	$0^\circ < \beta \le 45^\circ$	$45^\circ < \beta \le 60^\circ$	—	$0^\circ < \beta \le 45^\circ$	$0^\circ < \beta \le 45^\circ$	$0^\circ < \beta \le 45^\circ$	$0^\circ < \beta \le 45^\circ$
Load factor	1	1.4	1	2.1	1.5	1.6	1.4	2.1	1	1.4
d mm	Working Load Limit in Tonnes									
6	1.40	2.00	1.40	3.00	2.12	2.24	2.00	3.00	1.40	2.00
7	1.90	2.65	1.90	4.00	2.80	3.00	2.65	4.00	1.90	2.65
8	2.50	3.55	2.50	5.30	3.75	4.00	3.55	5.30	2.50	3.55
10	4.00	5.60	4.00	8.00	6.00	6.30	5.60	8.00	4.00	5.60
13	6.70	9.50	6.70	14.00	10.00	10.60	9.50	14.00	6.70	9.50
16	10.00	14.00	10.00	21.20	15.00	16.00	14.00	21.20	10.00	14.00
19	14.00	20.00	14.00	30.00	21.20	22.40	20.00	30.00	14.00	20.00
22	19.00	26.50	19.00	40.00	28.00	30.00	26.50	40.00	19.00	26.50

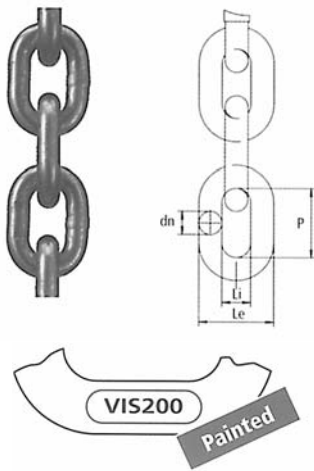
ADVICE FOR USE

DO'S . . .

- Do check the condition of the slings before each load
- Do check the chain legs are not twisted
- Do check that the load is on the centre of the hook and not on the tip

DONT'S . . .

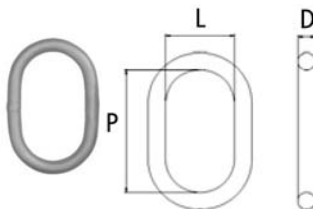
- Don't use the sling over the maximum working load limit
- Don't load with the convergence angle over 120°
- Don't shock load
- Don't use Grade 10 chains in pickling or acid baths
- Don't submit the chains to heat treatment
- Don't utilise the chains and accessories outside the temperature range -40° and $+200^\circ\text{C}$



Grade 10 Short Link Chain

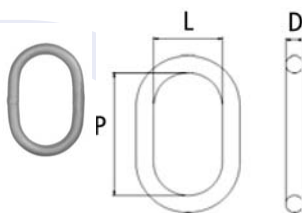
Chain Dia mm	Drum Length mtr	Dimension p mm	Dimension Li (min) mm	WLL kg	BF kN	Approx kg/m
6	100	18	7.8	1.400	56.5	0.83
7	100	21	9.5	1.950	77.0	1.17
8	100	24	10.9	2.600	102.0	1.51
10	100	30	13.0	4.000	158.0	2.40
13	50	39	17.5	6.800	268.0	4.00
16	50	48	20.6	10.300	402.0	6.00
19	25	57	24.7	14.000	567.0	8.71
22	25	66	27.5	19.400	762.0	11.40

Grade 10 Oblong Masterlink – EN 1677-4



Chain 1 leg dia mm	Chain 2 leg dia mm	Dimension D mm	Dimension P mm	Dimension L mm	Weight Approx kg	WLL max kg
6-7	6	13	110	60	0.34	2.400
8	7	16	110	60	0.53	3.400
10	8	18	135	75	0.87	4.500
13	10	23	160	90	1.60	6.950
16	13	27	180	100	2.50	11.800
19-20	16	33	200	110	4.20	17.750
22	19-20	38	275	150	7.50	27.700
26	22	45	340	180	12.82	33.500
–	–	50	350	190	16.5	40.000
–	–	60	400	200	27.0	60.000
–	–	70	460	250	43.0	81.500

Grade 10 Transition links – EN 1677-4

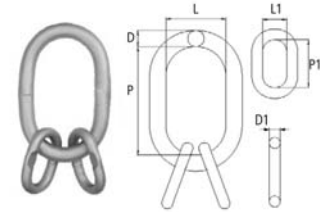


D mm	Dimension P mm	Dimension L mm	Weight Approx kg	WLL max kg
13.0	60	38	0.21	4.000
16.5	70	34	0.36	6.700
19.5	85	40	0.68	10.000
23.0	115	50	1.16	14.000
27.0	140	65	1.92	19.000



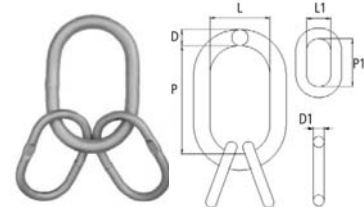
Grade 10 Sub-assembly – EN 1677-4

Chain 3-4 legs dia mm	D mm	P mm	Dimension				L1 mm	Weight approx kg	WLL max kg
			L mm	D1 mm	P1 mm	L1 mm			
6-7	18	135	75	13	60	38	1.27	5.050	
8	23	160	90	16	70	34	2.32	6.750	
10	27	180	100	19	85	40	3.50	10.400	
13	33	200	110	23	115	50	6.30	17.650	
16	38	275	150	27	140	65	11.45	26.650	
19-20	50	350	190	33	150	70	22.65	33.500	
22	50	350	190	36	170	75	25.20	40.000	
–	60	400	200	40	170	80	38.0	58.000	
–	60	400	200	50	350	190	60.1	58.000	
–	70	460	250	50	200	100	66.6	76.000	



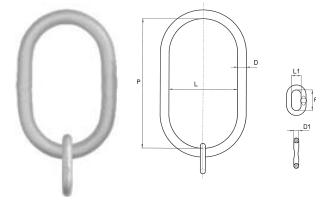
Grade 10 Sub-assembly ASTM A952– EN 1677-4

Chain 3-4 legs dia mm	D mm	P mm	Dimension				L1 mm	Weight approx kg	WLL max kg
			L mm	D1 mm	P1 mm	L1 mm			
7	18	135	75	14	120	70	1.75	5.050	
8	23	160	90	16	140	80	2.90	6.750	
10	27	180	100	20	160	95	4.90	10.400	
13	33	200	110	27	190	110	9.50	17.650	
16	38	275	150	33	230	130	17.00	26.650	
19-20	56	350	250	38	275	150	37.40	41.550	
22	56	350	250	45	340	180	48.10	50.250	



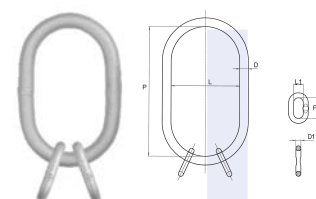
Grade 10 Special master links 1 leg sub-assembly for Hook No. 25 DIN 15401

Chain 1 leg dia mm	D mm	P mm	Dimension				L1 mm	Weight Approx kg	WLL max kg
			L mm	D1 mm	P1 mm	L1 mm			
6	23	340	180	13.0	54	25	3.4	2.500	
7									
8									
10	27	340	180	16.5	70	34	4.7	4.000	

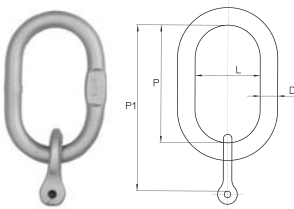


Grade 10 Special master links 2 legs sub-assembly for Hook No. 25 DIN 15401

Chain 2 legs 3-4 legs dia mm dia mm	D mm	P mm	Dimension				L1 kg	Weight Approx kg	WLL max kg
			L mm	D1 mm	P1 mm	L1 mm			
6	6	23	340	180	13.0	54	25	3.5	3.550
7									
8									
10	7	27	340	180	16.5	70	34	5.1	5.600
13	10	33	340	180	19.5	85	40	8.0	9.500
16	13	40	340	180	23.0	115	50	12.3	14.000

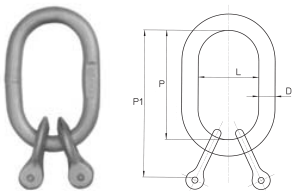


Grade 10 Sub-assembly with clevis fitting - 1 leg – EN 1677-4



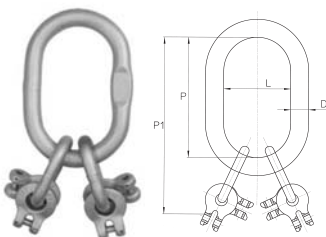
Chain 1 leg dia mm	Chain WLL kg	D mm	Dimension			Weight Approx kg
			P mm	P1 mm	L mm	
6	1.400	13	110	141.0	60	0.42
7	1.900	13	110	152.5	60	0.54
8	2.500	16	110	152.5	60	0.73
10	4.000	18	135	186.0	75	1.44
13	6.700	23	160	223.0	90	2.30
16	10.000	27	180	254.0	100	3.63
19	14.000	33	200	290.0	110	6.20
22	19.000	36	260	356.5	140	8.90

Grade 10 Sub-assembly with clevis fitting - 2 legs – EN 1677-4



Chain 2 legs dia mm	Chain WLL up to 45° kg	D mm	Dimension			Weight Approx kg
			P mm	P1 mm	L mm	
6	2.000	13	110	141.0	60	0.50
7	2.650	16	110	152.5	60	0.93
8	3.550	18	135	177.5	75	1.26
10	5.600	23	160	211.0	90	2.66
13	9.500	27	180	243.0	100	3.86
16	14.000	33	200	274.0	110	6.48
19	20.000	36	260	350.0	140	10.10
22	26.500	45	340	436.5	180	17.88

Grade 10 Sub-assembly with clevis fitting - 4 legs – EN 1677-4

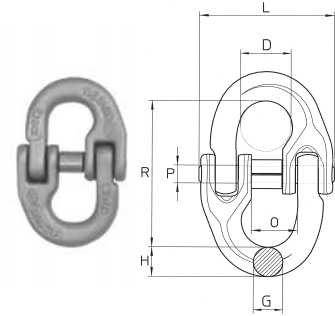


Chain 4 legs dia mm	Chain WLL up to 45° kg	D mm	Dimension			Weight Approx kg
			P mm	P1 mm	L mm	
6	3.000	18	135	220.0	75	1.52
7	4.000	18	135	238.0	75	2.07
8	5.300	23	160	272.5	90	3.12
10	8.000	27	180	316.0	100	6.14
13	14.000	33	200	378.0	110	9.26
16	21.200	36	260	474.0	140	14.74
19	30.000	50	350	590.0	190	30.47
22	40.000	50	350	617.0	190	34.91



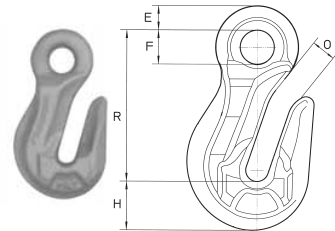
Grade 10 Connecting link – EN 1677-1

Chain dia mm	Pcs/ pack	Dimension					PxL kg	Weight/pcs. Approx.	WLL kg
		D mm	H mm	G mm	O mm	R mm			
6	20	13.9	7.8	7.6	14.0	44.0	4.8x38.5	0.07	1.400
7	30	17.0	10.0	9.0	17.0	51.0	6.0x46.5	0.12	1.900
8	20	18.2	11.5	10.0	18.3	61.5	6.3x53.0	0.19	2.500
10	40	23.0	12.6	12.6	23.0	72.0	8.0x63.3	0.34	4.000
13	20	27.6	19.0	16.7	27.6	88.0	10.0x79.0	0.73	6.700
16	12	32.9	20.7	21.0	33.0	103.0	14.0x106.0	1.43	10.000
19-20	8	41.5	29.5	24.5	41.7	115.0	16.0x122.5	2.45	16.000
22	5	48.0	29.0	27.0	48.0	135.0	16.0x143.5	3.21	19.000



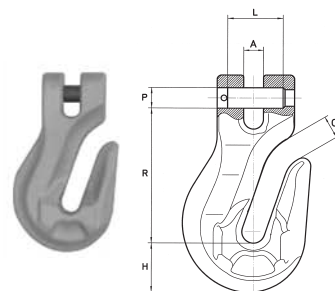
Grade 10 Eye grab shortening hook – EN 1677-1

Chain dia mm	Pcs/ pack	Dimension					R kg	Weight/pcs. Approx.	WLL kg
		E mm	F mm	H mm	O mm				
6	20	9.0	12.5	18	8.5	56.0	0.21	1.400	
7-8	16	12.0	17.0	24	11.0	75.0	0.52	2.500	
10	10	15.0	21.0	30	14.0	93.0	1.00	4.000	
13	8	19.5	27.0	39	18.0	121.0	2.15	6.700	
16	4	24.0	33.0	48	22.0	149.0	4.10	10.000	
19-20	1	30.0	42.0	60	28.0	186.0	8.00	16.000	
22	1	33.0	46.0	66	30.5	204.5	10.80	19.000	

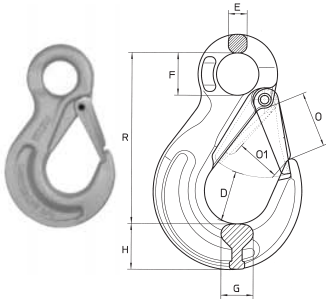


Grade 10 Clevis grab shortening hook – EN 1677-1

Chain dia mm	Pcs/ pack	Dimension					PxL mm	Weight/pcs. Approx. kg	WLL kg
		A mm	H mm	O mm	R mm				
6	20	7.2	18	8.5	48.5	7.4x16.5	0.23	1.400	
7	16	9.5	24	11.0	64.5	9.0x23.0	0.56	1.900	
8	16	9.5	24	11.0	64.0	10.0x23.0	0.56	2.500	
10	10	12.0	30	14.0	80.5	12.5x29.5	1.10	4.000	
13	7	15.0	39	18.0	105.0	16.0x37.0	2.40	6.700	
16	4	18.0	48	22.0	129.0	20.0x52.0	4.40	10.000	
19-20	1	23.0	60	28.0	161.0	24.0x73.0	8.70	16.000	
22	1	25.0	66	30.5	177.0	27.0x71.0	11.00	19.000	

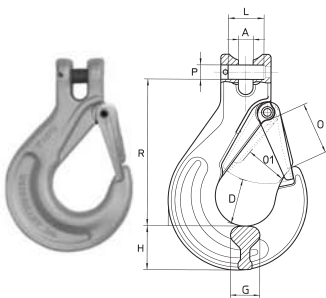


Grade 10 Eye sling hook with safety latch – EN 1677-2



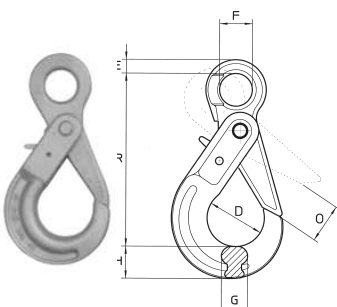
Chain dia mm	Pcs/ pack	Dimension								Weight/pcs. WLL	
		D mm	E mm	F mm	H mm	G mm	O mm	O1 mm	R mm	Approx. kg	kg
6	10	19	10	20.0	20.3	16.5	25	18	84.5	0.33	1.400
7-8	20	29	11	25.0	26.8	19.0	33	25	106.0	0.56	2.500
10	20	30	16	34.0	33.0	26.0	40	31	131.0	1.20	4.000
13	10	40	19	43.0	42.0	33.0	51	39	164.0	2.35	6.700
16	4	48	25	50.0	50.0	40.0	55	44	182.0	3.72	10.000
19-20	1	58	27	54.5	53.5	48.0	61	53	205.0	5.95	16.000
22	1	66	30	59.0	62.0	50.0	71	60	225.0	7.87	19.000

Grade 10 Clevis sling hook with safety latch– EN 1677-2



Chain dia mm	Pcs/ pack	Dimension								Weight/pcs. WLL	
		A mm	D mm	H mm	G mm	O mm	O1 mm	R mm	PxL mm	Approx. kg	kg
6	10	7.2	19	20.0	15	27.0	20	69	7.4x16.5	0.27	1.400
7	20	9.5	28	28.0	19	33.5	25	95	9.0x23.0	0.61	1.900
8	20	9.5	28	28.0	19	33.5	25	95	10.0x23.0	0.61	2.500
10	20	12.0	30	33.0	25	40.0	30	109	12.5x29.5	1.12	4.000
13	10	15.0	38	40.0	30	50.0	38	135	16.0x37.0	2.05	6.700
16	4	18.0	47	48.5	37	58.0	46	155	20.0x52.0	3.40	10.000
19-20	1	23.0	63	52.0	46	61.0	52	183	24.0x73.0	6.26	16.000

Grade 10 Eye self locking hook – EN 1677-3

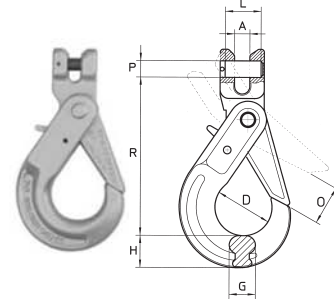


Chain dia mm	Pcs/ pack	Dimension								Weight/pcs. WLL	
		D mm	E mm	F mm	H mm	G mm	O (min) mm	R mm	Approx. kg	kg	
6	18	35.0	11.2	21.0	20.2	15.8	24	110.0	0.53	1.400	
7-8	24	43.4	12.2	27.0	25.8	20.0	30	135.3	0.89	2.500	
10	14	56.0	16.3	34.5	30.0	24.5	40	167.7	1.58	4.000	
13	8	69.0	20.3	40.0	39.8	34.5	46	204.8	3.16	6.700	



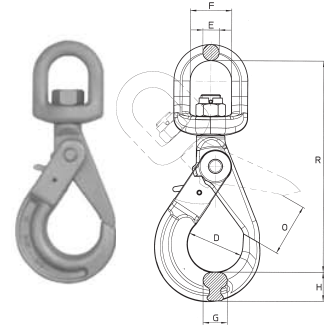
Grade 10 Clevis self locking hook – EN 1677-3

Chain dia mm	Pcs/ pack	Dimension							Weight/pcs. WLL	
		A mm	D mm	H mm	G mm	O _(min) mm	R mm	PxL mm	Approx. kg	kg
6	18	6.7	35.0	20.2	15.8	24	94.2	7.4x16.5	0.50	1.400
7	24	8.7	43.4	25.8	20.0	30	123.8	9.0x23.0	0.96	1.900
8	24	8.7	43.4	25.8	20.0	30	123.8	10.0x23.0	0.96	2.500
10	14	12.2	56.0	30.0	24.5	40	143.7	12.5x29.5	1.60	4.000
13	6	15.3	69.0	39.8	34.5	46	179.7	16.0x37.0	3.13	6.700



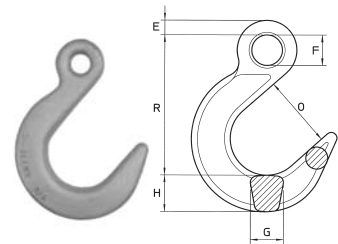
Grade 10 Eye swivel self locking hook – EN 1677-3

Chain dia mm	Pcs/ pack	Dimension							Weight/pcs. WLL	
		D mm	E mm	F mm	H mm	G mm	O _(min) mm	R mm	Approx. kg	kg
6	14	35.0	13	35	20.2	15.8	24	160	0.6	1.400
7-8	12	43.4	13	35	25.8	20.0	30	181	1.1	2.500
10	6	56.0	16	42	30.0	24.5	40	218	2.0	4.000
13	3	69.0	20	49	39.8	34.5	46	269	4.0	6.700
16	1	80.0	24	60	49.0	35.4	55	319	6.8	10.000



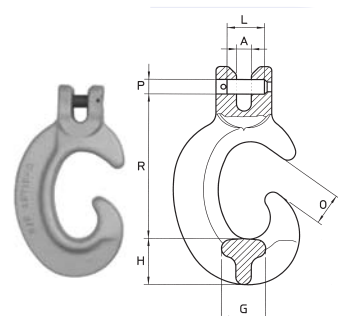
Grade 10 Eye Foundry hook – EN 1677-1

Chain dia mm	Pcs/ pack	Dimension						Weight/pcs. WLL	
		E mm	F mm	H mm	G mm	O mm	R mm	Approx. kg	kg
7-8	18	13.5	18	31	26	64	122.5	1.13	2.500
10	8	16.0	22	36	32	78	149.0	1.99	4.000
13	6	19.0	27	43	39	89	176.5	3.31	6.700



Grade 10 Clevis C hook – EN 1677-1

Chain dia mm	Pcs/ pack	Dimension					Weight/pcs. WLL		
		A mm	H mm	G mm	O mm	R mm	PxL mm	Approx. kg	kg
7	20	9.5	27.5	22	20	90.5	9.0x23.0	0.58	1.900
8	20	9.5	27.5	22	20	90.0	10.0x23.0	0.58	2.500
10	12	12.0	38.5	28	28	129.0	12.5x29.5	1.46	4.000





Spare set for connecting link

PxL mm	For accessory
4.8 x 38.5	WLK6
6.0 x 46.5	WLK7
6.3 x 53.0	WLK8-WCL8
8.0 x 63.3	WLK10-WCL10
10.0 x 79.0	WLK13-WCL13
14.0 x 106.0	WLK16-WCL16
16.0 x 122.5	WLK19-20
16.0 x 143.5	WLK22

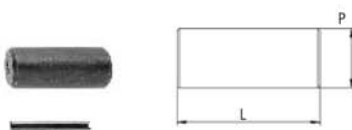
Safety latch kit for sling hooks

For accessory



SHE6-SHC6
SHE7-8-SHC7-SHC8
SHE10-SHC10
SHE13-SHC13
SHE16-SHC16
SHE19-20-SHC19-20
SHE22-SHC22

Kit of pin for clevis hook



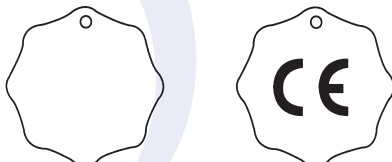
PxL mm	For accessory
7.4 x 16.5	GSC6-SHC6-SKC6
9.0 x 23.0	GSC7-SHC7-SKC7-CCH7
10.0 x 23.0	GSC8-SHC8-SKC8-CCH8
12.5 x 29.5	GSC10-SHC10-SKC10-CCH10
16.0 x 37.0	GSC13-SHC13-SKC13-CCH13
20.0 x 52.0	GSC16-SHC16-SKC16
24.0 x 73.0	GSC19-20-SHC19-20
27.0 x 71.0	GSC22-SHC22

Locking system kit for Self Locking Hook

For accessory



SKE6-SKC6-SKS6
SKE7-8-SKC7-SKC8-SKS7-8
SKE10-SKC10-SKS10
SKE13-SKC13-SKS13
SKE16-SKC16-SKS16



BS-EN-818 Chain Tags

Single/Multi Leg available

GENERAL PRECAUTIONS AND RECOMMENDATIONS

Load-lifting operations must always be carried out with due care and attention because they can constitute a threat to the safety of operators and to persons present in the vicinity of the equipment being used. For this reason, persons using lifting components must be properly trained and skilled. Prohibited or improper use must always be avoided and the condition of components to be used must always be checked prior to use. Failure to observe even just one of the safety instructions given in this document can cause loss of control of the load with consequent injury or damage to persons or things. The precautions for use and maintenance do not cover all possible methods for use or all probable or possible use situations; nevertheless, reading and understanding this information is essential for safe use of lifting accessories.

TERMS AND DEFINITIONS

Weissenfels products are manufactured in conformity with the most common Italian and international technical standards and meet the essential safety requirements of the Machinery Directive 98/37/EC.

For a better understanding of the terms and abbreviations used in this catalogue, brief definitions are given below:

Sling: An assembly consisting of one or more sections of chain or webbing slings, together with accessories at top and bottom ends for attaching loads to the hook of a crane or any other type of lifting device.

Working Load Limit (WLL): maximum weight that the sling is certified to support, under normal lifting conditions.

Manufacturing Proof Load (MPF): the force applied during manufacture, to test the entire sling or any part of it.

Breaking Factor (BF): the maximum force that the component or chain can withstand during the destructive, static tensile stress test.

Effective length (EL): this is the length of a lifting sling with no load attached, measured between the lifting components at the points where the load is applied.

Skilled person: a designated person who is properly trained (see para. 4.18 of EN ISO 9001-1994), has the necessary knowledge and practical experience and has received the instructions needed to carry out the required inspections.

Inspection: visual inspection of the condition of the sling to identify any obvious damage or wear which could adversely affect its operating capabilities.

Thorough examination: a visual examination performed by a skilled person who, if necessary, uses other means such as non destructive tests, in order to identify any damage or wear which could adversely affect the operating capabilities of the sling.

COMPONENT SELECTION AND LIMITATIONS OF USE

The technical performances indicated in this catalogue relate exclusively to new products, or products that may be considered as new, checked and properly maintained.

The maximum operating load values for each Weissenfels product can be affected by the product's condition and wear, any overloading, corrosion, distortion, or any other type of improper use or unauthorised modification. The product dimensions shown in this catalogue are purely indicative and may be modified by Weissenfels, without notice, to comply with new regulations or technical requirements. For exact dimensions and tolerances, please contact Weissenfels.

Factors to be considered for selection and correct use of the lifting system:

Weight of the load to be lifted: It is essential to know the weight of the load to be lifted (if necessary estimated by calculation) and its centre of gravity in order to avoid dangerous tilting during lifting. Multiple-leg slings must be selected on the basis of angles for use specified in the tables contained in this catalogue and the working loads indicated must never be exceeded.

Variation of load exerted on the legs due to the sling angle: Bear in mind that the load limit of the sling reduces as the angle between the legs is increased. In the case of multiple-leg slings, try to choose a configuration that allows equal angles to be maintained between the vertical and each of the legs. Multiple-leg slings must be selected on the basis of angles for use specified in the tables contained in this catalogue and the working loads indicated must never be exceeded.

Variation of load exerted on the legs due to the sling angle: Bear in mind that the load limit of the sling reduces as the angle between the legs is increased. In the case of multiple-leg slings, try to choose a configuration that allows equal angles to be maintained between the vertical and each of the legs. Multiple-leg slings can be used with lifting angles of between 15° and 60° in relation to the vertical. Angles greater than 60° are not permitted, while angles of less than 15° can make the load unstable and should, as a rule, be avoided. In asymmetrical lifting situations (where different angles are formed between the vertical and the chain legs - for example when one leg of a multiple-leg sling is shortened), the load supported is not uniformly distributed and so the sling must be used at half the working load limit (WLL) indicated on the identification tag.

Effects of the environment. Chain slings must not be used in acid environments or immersed in acid or caustic solutions or vapours; they must therefore never be subject to pickling, hot-dip galvanising processes or to any other galvanising process in general. Bear in mind that strong oxidising agents corrode the metal of the sling. Slings made of polyester fabric (PES) must not be used in the presence of alkaline substances.

The possibility of using slings in the presence of mineral acids depends on the type of acid, its concentration, the temperature and the duration of contact. In any case, any sling contaminated by aggressive chemicals or their vapours must immediately be taken out of service, washed in cold water, dried and examined by a skilled person.

operating temperature are shown in table 1.

Polyester fabric slings are suitable for use at temperatures between -40°C and 100°C, but wet or damp slings must not be used at temperatures below 0°C because they can freeze and then become extremely fragile.

However difficult it may be to assess, never underestimate the temperature that might be reach during operation.

Effect of high and low temperatures.

Variations of the working load limit (WLL) based on the

Tab. 1

% Reduction of working load limit according to the temperature

VIS 400 Grade 10 & Classic EN Grade 8				
Temperature	-40°C < T ≤ 200°C	200°C < T ≤ 300°C	300°C < T ≤ 400°C	less than -40°C and more than 400°C
% reduction	No reduction	10%	25%	Use not permitted
VIS 200 Grade 10 & Classic W8 Grade 8				
Temperature	less than -29°C	-29°C < T ≤ 205°C	more than 205°C	
% reduction	Use not permitted	No reduction	Use not permitted	
WeissTex				
Temperature	less than -40°C	-40°C < T ≤ 100°C	more than 100°C	
% reduction	Use not permitted	No reduction	Use not permitted	

INFORMATION FOR USE

Safe use of slings

Never walk or stand under a suspended load. Before moving loads in the workplace, the danger must be adequately signalled and any persons in the danger area must be moved away.

Avoid and try to prevent any dangerous swinging due to sudden slowing down or acceleration of the load, Also avoid jerky movements during lifting, otherwise reduce the load as indicated in table 2.

Never leave a suspended load unattended.

If a multiple-leg sling is used with fewer than its total number of legs, the working load limit (WLL) marked on the identification tag must be reduced as indicated in table 3.

Any unused legs of the sling must be gathered together and hooked out of the way to prevent any risk of them catching while the load is being moved.

Always keep hands and other parts of the body well clear of sling chains and components, in order to avoid injury as the sling is tensioned during lifting. Before starting to lift, slowly take up the slack in the sling legs and lift the load slowly and in a controlled way until it safely assumes the anticipated position. Do not hang onto the sling.

If slings are to be used in extremely dangerous conditions, the degree of risk must be assessed by a skilled person and the working load limit must be reduced accordingly.

Practical advice for use

The load's anchor points are determined on the basis of its centre of gravity, in order to avoid swinging or tilting as the load is lifted. Balancing of the load can be achieved by varying the position of the hooking points or by using the special shortening hooks on one or more of the legs (Fig 1).

Tab. 2

Load limit variation in presence of impulsive load

Impulsive load	light impulse	medium impulse	strong impulse
Reduction factor	1	0.7	not allowed

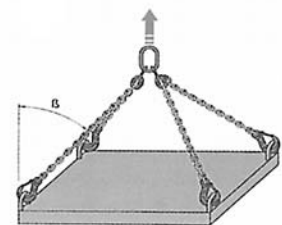
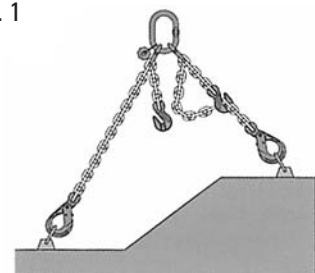


Fig. 1



Tab. 3

Type of sling	Number of legs used	WLL factor to be applied in I.D. tag
2 legs	1	1/2
3 or 4 legs	2	2/3
3 or 4 legs	1	1/3

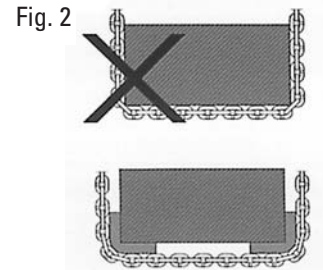
The master link must be correctly located in the bottom of the crane hook and must never ever be placed on the tip of the hook or jammed onto the hook latch. The master link must be free to tilt in every direction and its movement must not be impeded by joining components or other obstructions. Prevent the chain and fabric slings from coming into contact

with sharp edges which could damage them, when under load, by providing suitable protection if there is a risk of this happening (Fig. 2).

When the chain slings rest on corners, the working load limit (WLL) must be reduced accordingly, as specified in Table 4.

Tab. 4 Working load variation depending on use of chain in contact with edges.

Use of the chain on edge	$R \geq 2 \times d$ chain	$R \geq d$ chain	Sharp edge
Reduction factor	1	0.7	0.5



Do not knot or twist the chains to shorten them. Use only the shortening hook provided on the sling. For correct use of this hook, please see the paragraph 'Use of hooks'.

Fabric slings must not be knotted, twisted or compressed and, if they have end loops, make sure that these are long enough to accommodate the lifting hook (the opening angle of the loop must never exceed 20° and the load must distribute itself evenly over its entire width).

Clear the area in which the load is to be deposited of all obstructions and make sure that the floor or ground is able to support its weight. To avoid any dangerous damage, lower the load to the ground carefully, taking care to ensure that the sling does not become tangled in the load. The sling must not be removed from beneath the load while the load is resting on it, and must not be dragged across the floor or abrasive surfaces.

Slinging methods

Loads can be slung in various ways and the following are a few examples:

a) Straight leg

The bottom fitting is connected directly to the attachment point. Suitable for lifting loads with a single, well-balanced attachment point (Fig 3.).

b) Running knot

Consists of a running noose that tightens when the load is lifted (Fig. 4-5-5B). This method has the advantage of compressing the load and should be used when there are no suitable attachment points. If a running know is used, the working load limit (WLL) of the sling must not exceed 80% of that marked on the identification plate.

Fig. 3

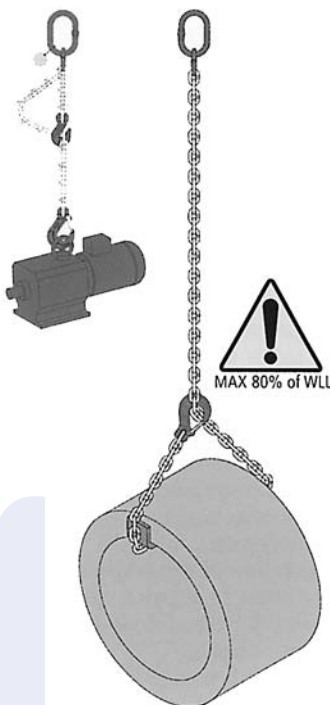
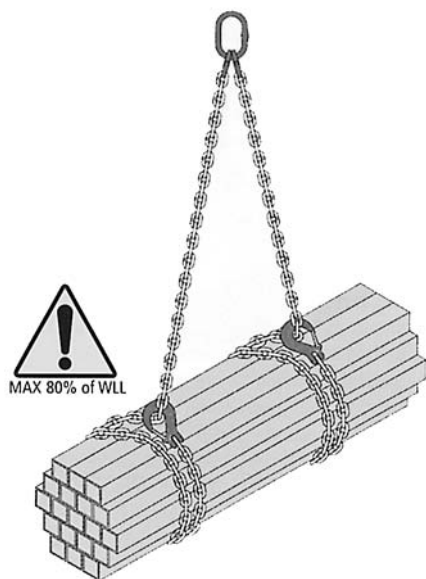


Fig. 4

Fig. 5



Fig. 5B



Use of hooks

a) Shortening hook

Insert the link into groove G, making sure it is correctly positioned; attach the load to the end hook of the shortened leg (Fig 6). No load must be applied to the tip of the shortening hook.

b) Clevis Sling Hook

Attach the load, taking care to locate it in the centre of the hook; never load the tip of the hook. When multiple-leg slings are used, arrange the hooks with their tops facing outward (Fig 7). Check that the closing device over the mouth of the

hook (safety latch - which must never be subjected to a load) is working properly. Once the load has been hooked on, make sure that the safety latch closes correctly into its seating.

c) Self Locking End Hook

To open the hook mouth locking device, operate the safety latch by pressing it downwards.

Attach the load, taking care to locate it in the centre of the hook; never load the tip of the hook. When multiple-leg slings are used, arrange the self-locking hooks with their tips facing outwards. Always check that the safety lock is properly locked.

Fig. 6

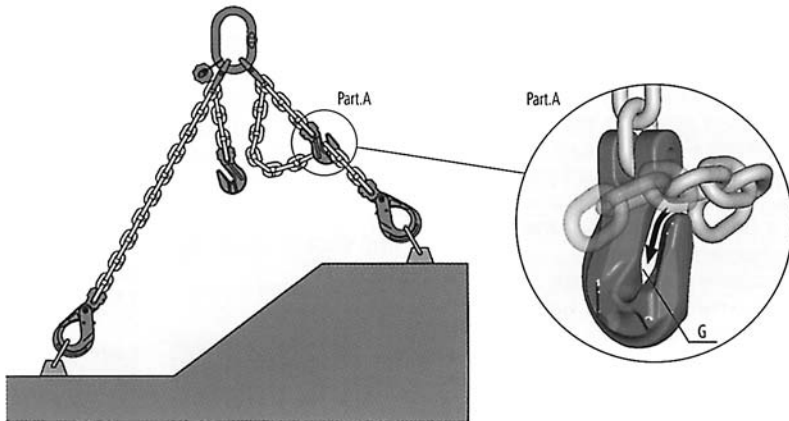
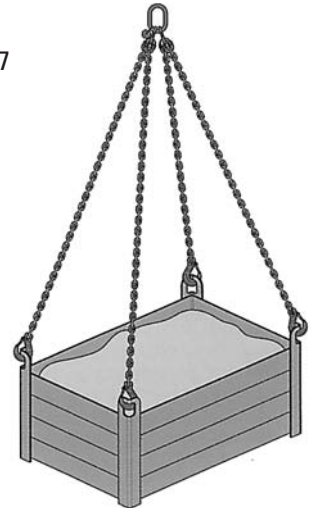


Fig. 7



STORAGE AND MAINTENANCE OF LIFTING SLINGS

Storage

To avoid damage, chain slings must be stored hanging on suitable brackets and not left lying on the ground. If chain slings are to remain unused for long periods of time, it is advisable to clean and lightly oil them to protect them against corrosion. Fabric slings must be stored in a clean, dry place and must not be exposed to direct sunlight as ultraviolet rays could damage them.

Periodic inspections

Regularly inspect the chains before each use, in a clean, well-lit place, to make sure they are not defective or damaged. Keep a record of all periodic inspections, which must be

carried out by a skilled person.

The maximum interval between inspections is one year, but frequency may vary according to legislation in force in the country in which the chains are used. In the case of continuous or particularly heavy use the frequency of inspections must be increased accordingly.

Maintenance and repair

Repair or maintenance of slings must be carried out by expert and skilled personnel. Components which show signs of distortion, cracks, breaks, serious corrosion or any other damage, or on which the maximum permissible wear limit has been reached, must be replaced with genuine spare parts (Fig 9-10).

Fig. 9

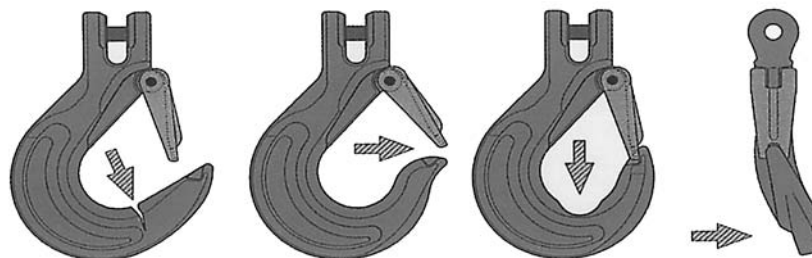
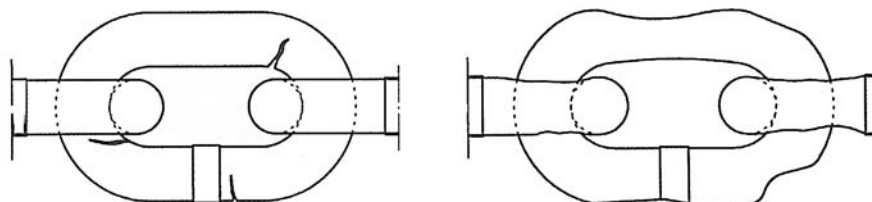


Fig. 10





When sling components have to be replaced, always use new pins and spring pins.

If any of the chain links are damaged, always replace the entire leg of the sling. Minor defects such as small nicks or gouges should be removed with extreme care, using a file. The surface must never show signs of an abrupt variation in the cross sectional area of the material. Always check that removal of minor defects has not reduced the nominal diameter of the section by more than 10%. Never carry out any welding operations on the chain or its accessories. In normal use, fabric slings are subjected to continual rubbing which, over time, causes them to wear and may reduce the strength of the sling. Damage due to heat or severe friction can be recognised by the shiny appearance of the fibres or, in extreme cases, by fusion of these fibres. Certain chemicals can cause local softening of the fabric or sheathing, resulting in the formation of superficial cracks or tears.

In conclusion, if any defects or damage are found which could affect safe use of the slings, they must be taken out of service

and thoroughly inspected by skilled personnel.

CONDITIONS REQUIRING IMMEDIATE WITHDRAWAL OF THE SLING FROM SERVICE

If any one of the following conditions occurs, the sling must immediately be taken out of service:

- identification plate or label illegible or missing;
- one or more components showing distortion, cracks, breaks or any sign of damage (Fig. 9-10);
- the opening of a hook mouth differs by more than 10% from the nominal size indicated in the catalogue (Fig. 11);
- the sling has been used for a load exceeding the permissible WLL;
- the sling has been exposed to temperatures higher or lower than those permissible;
- the chain links no longer move freely against each other;
- the chain is worn by more than 10% of the nominal diameter (Table 5).

Tab. 5

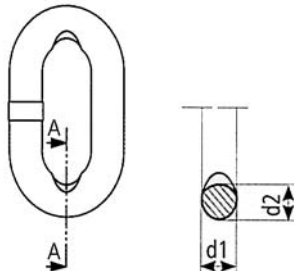
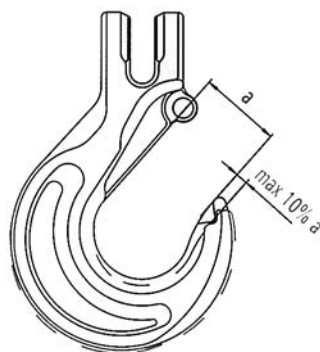
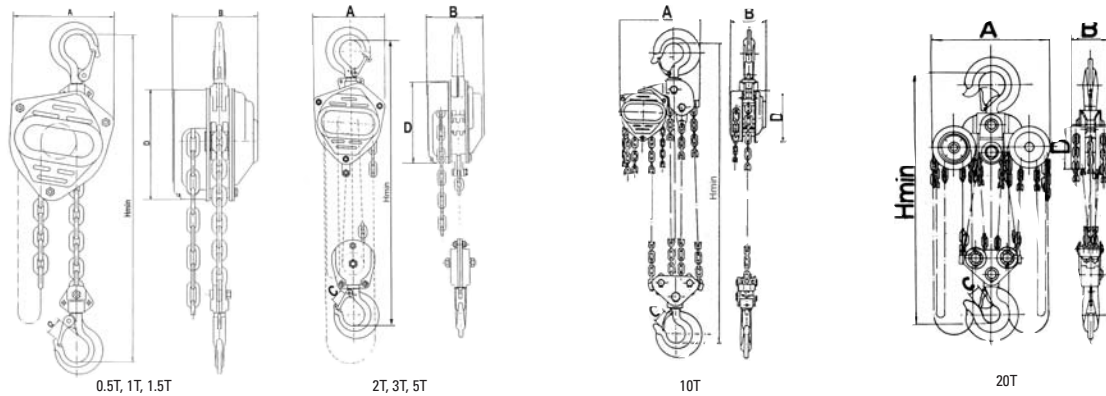
Chain	Nominal diameter	Minimum diameter $(d1+d2) / 2$
	mm	mm
	6	<5.4
	7	<6.3
	8	<7.2
	10	<9.0
	13	<11.7
	16	<14.4
	18	>16.2
	20	<18.0
	22	<19.8

Fig. 11





Hand Operated GT Standard Chain Blocks, c/w 3 mtr Height of Lift, Tested and Certified

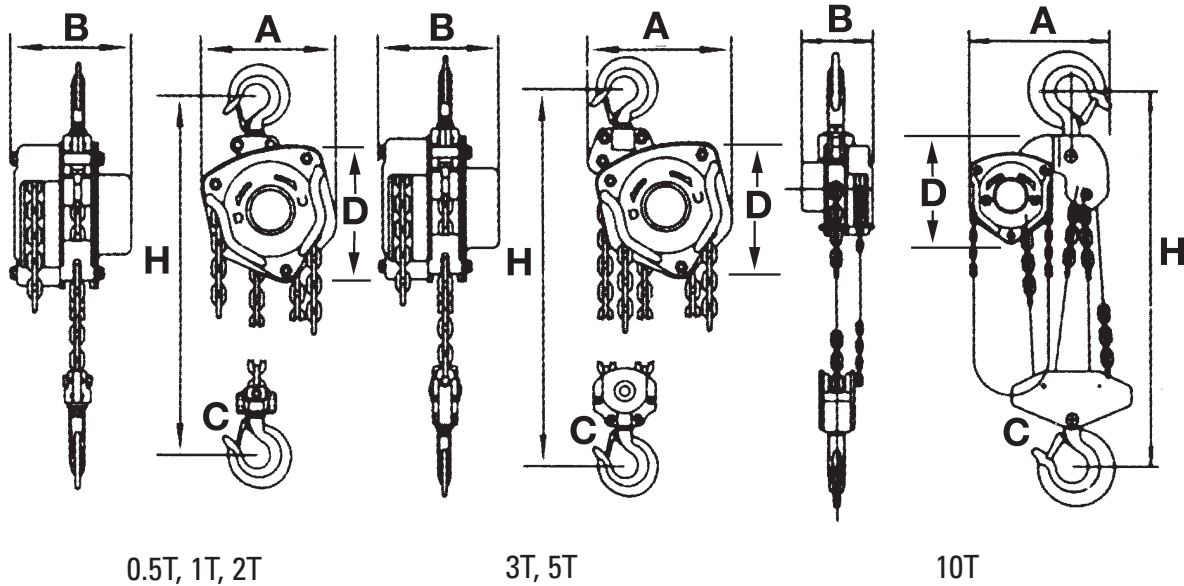
Capacity Kgs	Height of Lift Mtrs	A mm	B mm	C mm	D mm	H mm mini	Load Chain Dia/mm	Falls of Load Chain	Weight Kgs/each
500	3	138	114	21.5	145	271	6	1	10
1,000	3	164	124	27	182	400	6	1	12
1,500	3	198	142	30	219	453	8	1	18
2,000	3	164	124	30	182	420	6	2	27
3,000	3	198	142	37	219	620	8	2	36
5,000	3	228	167	46	252	704	10	2	45
7,500	3	367	167	54	252	720	10	4	75
10,000	3	367	167	54	252	720	10	4	81
15,000	3	598	200	65	252	1,000	10	8	130
20,000	3	598	200	65	252	1,000	10	8	130

GT Standard Chain Block Carcase Only

Capacity Kgs	A mm	B mm	C mm	D mm	H mm mini	Load Chain Dia/mm	Falls of Load Chain	Weight Kgs/each
500	138	114	21.5	145	271	6	1	6
1,000	164	124	27	182	400	6	1	8
1,500	198	142	30	219	453	8	1	16
2,000	164	124	30	182	420	6	2	18
3,000	198	142	37	219	620	8	2	21
5,000	228	167	46	252	704	10	2	25
7,500	367	167	54	252	720	10	4	40
10,000	367	167	54	252	720	10	4	52
15,000	598	200	65	252	1,000	10	8	70
20,000	598	200	65	252	1,000	10	8	70

*See page 25 for details of load chain and hand chain to suit this block
Spares are available for all types of GT Chain Blocks*

NEVER EXCEED MAXIMUM CAPACITY



Hand Operated GT Heavy Duty Chain Blocks, c/w 3 mtr Height of Lift, Tested and Certified

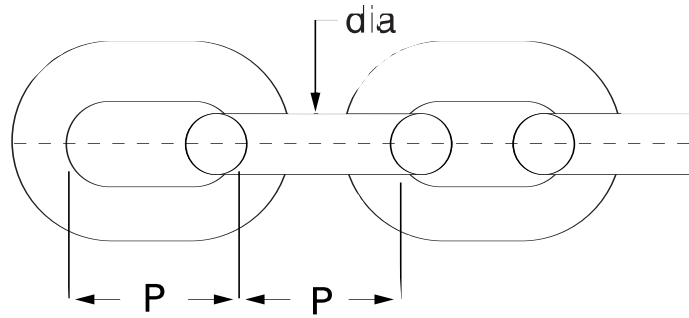
Capacity Kgs	Height of Lift Mtrs	A mm	B mm	C mm	D mm	H mm mini	Load Chain Dia/mm	Falls of Load Chain	Weight Kgs/each
500	3	137	131	21.5	145	270	6	1	11
1,000	3	158	140	27	182	317	6	1	14
1,500	3	174	161	33	204	399	8	1	19
2,000	3	187	161	30	219	414	8	1	22
3,000	3	199	161	37	219	465	8	2	29
5,000	3	253	186	46	252	636	10	2	48
10,000	3	398	207	51	236	798	10	4	97

Hand Operated GT Heavy Duty Chain Block and Carcase only

Capacity Kgs	A mm	B mm	C mm	D mm	H mm	Load Chain Dia/mm	Falls of Load Chain	Weight Kgs/each
500	137	131	21.5	145	270	6	1	6.3
1,000	158	140	27	182	317	6	1	8.5
1,500	174	161	33	205	399	8	1	11
2,000	187	161	30	219	414	8	1	17
3,000	199	161	37	219	465	8	2	21
5,000	253	186	46	252	636	10	2	30
10,000	398	207	51	236	798	10	4	54

*See page 25 for details of load chain and hand chain to suit this block
Spares are available for all types of GT Chain Blocks*

NEVER EXCEED MAXIMUM CAPACITY



Load Chain to suit all GT Chain Blocks/Lever Hoist

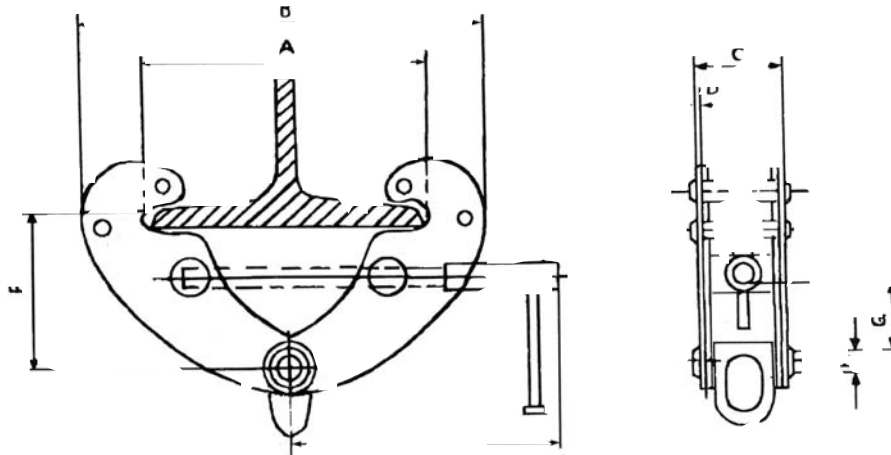
Load Chain Dia.	Weight Kgs/Mtr	Chain Pitch P (mm)	To suit GT Lever Hoist Capacity kgs	To suit Standard GT Chain Block Capacity kgs	To suit Heavy Duty Chain Block Capacity kgs	To suit GT Electric Chain Block Capacity kgs
4mm	0.4	12	250	-	-	-
5mm	0.54	15	500	-	-	-
6mm	0.8	18	750	500, 1000, 2000	500, 1000	-
7.1mm	1.1	21	-	-	-	500, 1000, 2000
8mm	1.7	24	1500	1500, 3000	1500, 2000, 3000	-
10mm	2.2	30	3000, 6000, 9000 +5000	10000, 20000	5000, 10000	-

Hand Chain to suit all GT Chainblocks

Hand Chain Dia	Weight Kgs/Mtr	Chain Pitch P mm
5mm	0.45	24

Hand Chain to suit GT Geared Trolley

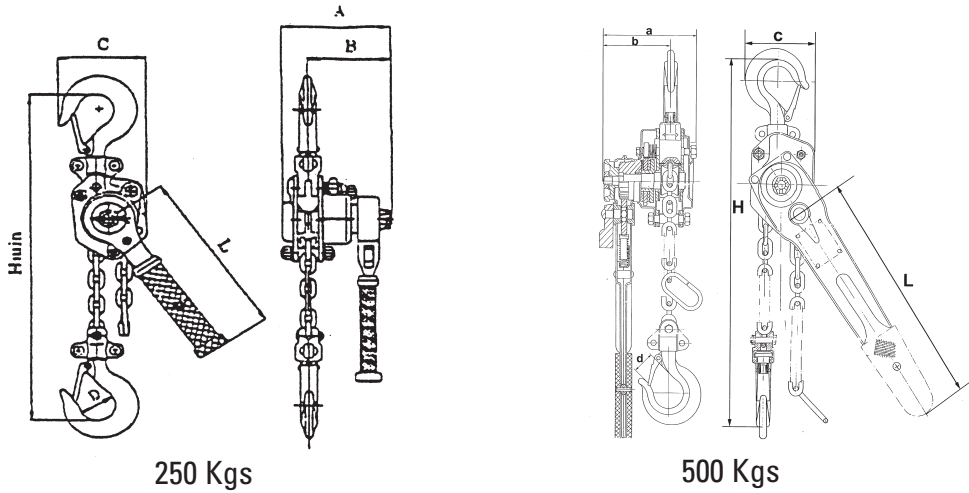
Hand Chain Dia	Weight Kgs/Mtr	Chain Pitch P mm
5mm	0.45	24



GT Adjustable Beam Clamps, Tested & Certified

Capacity kgs	Adj. Beam Width mm	A max mm	B min mm	B max mm	C mm	D mm	E mm	F Closed mm	F Open mm	G min mm	H mm	Weight Kgs/each
1,000	70-245	270	183	375	66	4	210	165	102	25	20	4.4
2,000	70-245	270	183	375	74	6	210	165	102	25	20	5.1
3,000	70-355	365	240	520	103	8	258	225	135	45	22	10.5
5,000	70-355	365	240	520	111	10	258	225	135	45	28	17
10,000	80-350	365	260	520	180	12	280	230	160	50	38	19

NEVER EXCEED MAXIMUM CAPACITY

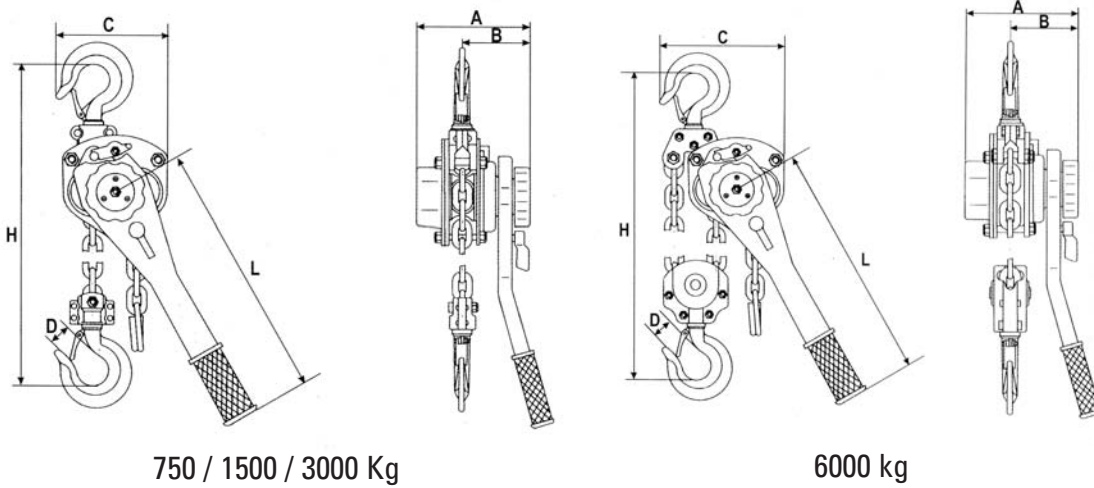


250 Kgs

500 Kgs

GT Lever Hoists c/w 1.5 Mtr Height of Lift, Tested & Certified

Capacity Kgs	A mm	B mm	C mm	L mm	D mm	H mm min.	Load Chain Dia mm	Weight Kgs	No. of Falls
250	92	72	85	30	23	160	4	1.8	1
500	110	80	95	30	28	300	5	4.5	1
750	155	95	135	285	30	320	6	7.2	1
1,500	180	105	155	370	36	380	8	11.5	1
3,000	215	130	200	420	40	480	10	21	1
6,000	215	130	200	420	50	600	10	31	2
9,000	200	115	320	410	58	700	10	44	3

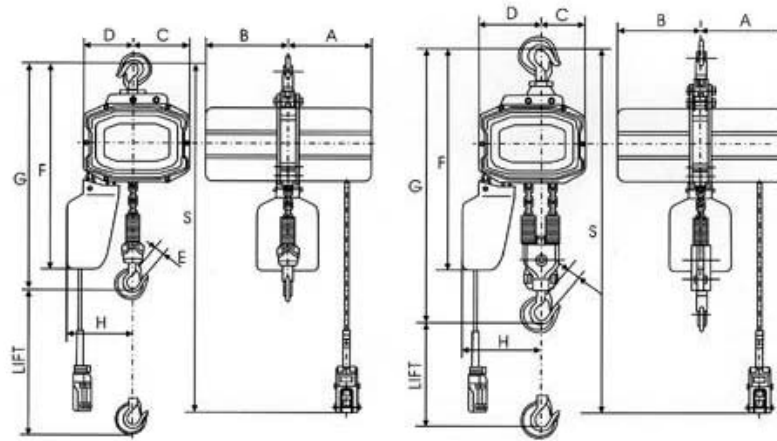


750 / 1500 / 3000 Kg

6000 kg

Capacity Kgs	Standard Height of Lift	No. of Falls	Effort req. to lift max load (N)	Weight Kgs	Load Chain dimensions mm	A mm	B mm	C mm	L mm	D mm	H mm
250	1.5 mtr	1	250	1.8	4	92	72	85	30	23	160
500	1.5 mtr	1	340	4	5	110	80	95	30	28	300
750	1.5 mtr	1	140	7.5	6x18	155	95	135	285	30	320
1,500	1.5 mtr	1	220	11.5	8x24	180	105	155	370	36	380
3,000	1.5 mtr	1	320	21	10x30	215	130	200	420	40	480
6,000	1.5 mtr	2	340	31.5	10x30	215	130	200	420	50	600
9,000	1.5 mtr	3	360	47	10x30	200	115	320	410	58	700

NEVER EXCEED MAXIMUM CAPACITY



Single Phase 110 volt Electric Chain Block

Rated Load tonnes	Height of Lift mtrs	Lifting Speed m/min	Output Kw 50Hz	Ins Class	%ED	Load Dia mm	Chain No. of Falls	Cable Power Source	Length Pendant	Min Head room mm	Weight Kgs
0.5	3	5.2	0.8	F	40	7.1	1	2.6	2.6	545	61
1	3	5.2	1.2	F	40	7.1	1	2.6	2.6	580	65
2	3	2.6	1.2	F	40	7.1	2	2.6	2.6	740	72

Single Phase 110 volt Electric Chain Block

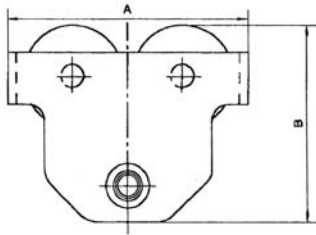
Rated load tonnes	Height of Lift mtrs	A mm	B mm	C mm	D mm	E mm	F mm	H mm
0.5	3	249	249	168	146	25	565	195
1.0	3	249	249	168	146	30	614	195
2.0	3	249	249	180	134	33	665	235

Three Phase 415 volt Electric Chain Block

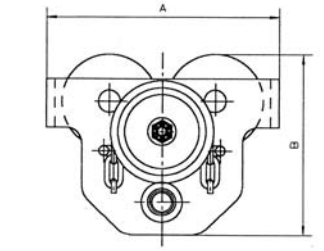
Rated Load tonnes	Height of Lift mtrs	Lifting Speed m/min	Output Kw 50Hz	Ins Class	%ED	Load Dia mm	Chain No. of Falls	Cable Power Source	Length Pendant	Min Head room mm	Weight Kgs
0.5	3	6.3	0.8	F	40	7.1	1	2.6	2.6	545	61
1.0	3	6.3	1.6	F	40	7.1	1	2.6	2.6	580	65
2.0	3	3.2	1.6	F	40	7.1	2	2.6	2.6	740	72

Three Phase 415 volt Electric Chain Block

Rated load tonnes	Height of Lift mtrs	A mm	B mm	C mm	D mm	E mm	F mm	H mm
0.5	3	249	249	168	146	25	565	195
1.0	3	249	249	168	146	30	614	195
2.0	3	249	249	180	134	33	665	235



Push Travel (Girder) Trolleys



Geared Type (Girder) Travel Trolleys

Push Travel (Girder) Trolleys, Tested & Certified

Capacity Kgs	Min Radius Curve in Mtrs	A mm	D mm	B mm	C mm	H mm	E mm	Adjustable Beam Width mm	Weight Each Kgs
500	0.9	225	224	177	8	25	27	50-220	8.5
1,000	1.0	252	283	188	10	30	30	50-220	10.5
2,000	1.2	300	293	226	12	40	38	66-220	18
3,000	1.3	360	307	290	14	48	45	74-220	32
5,000	1.4	400	312	313	16	60	52	90-220	48.5

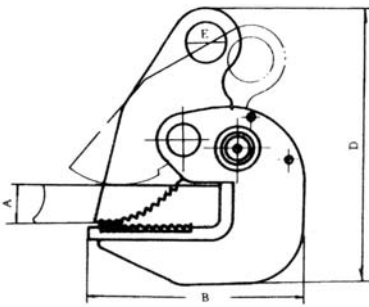
Geared Type (Girder) Travel Trolleys, Tested & Certified

Capacity Kgs	Min Radius Curve in Mtrs	Std. Height of Lift Mtrs	A mm	D mm	B mm	C mm	H mm	E mm	Adjustable Beam Width mm	Weight Kgs/each
500	0.9	3	225	224	177	8	25	27	50-220	9
1,000	1.0	3	252	283	188	10	30	30	50-220	12.6
2,000	1.2	3	300	293	226	12	40	38	66-220	18.5
3,000	1.3	3	360	307	290	14	48	45	74-220	28
5,000	1.4	3	400	312	313	16	60	52	90-220	45

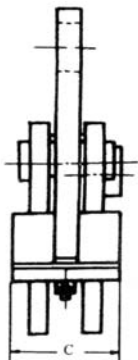
NEVER EXCEED MAXIMUM CAPACITY

PLEASE NOTE:- 10 Ton, 15 Ton, 20 Ton ALL MADE TO ORDER

Horizontal Plate Clamps

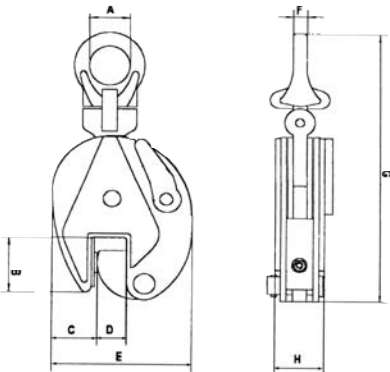


Capacity per Pair Kgs	Jaw Opening	Weight Kgs/each
1500	0-25mm	4
2,000	0-30mm	6
3,000	0-30mm	7
4,000	0-35mm	9
5,000	0-45mm	14
10,000	0-50mm	9



Capacity per Pair Kgs	A max mm	B mm	C mm	D max mm	E mm	Weight Kgs/each
1500	25	125	50	175	25	4
2,000	30	156	65	200	30	6
3,000	30	157	65	204	30	7
4,000	35	201	83	245	35	9
5,000	45	231	90	310	40	14
10,000	50	185	74	260	30	9

Vertical Plate Clamp



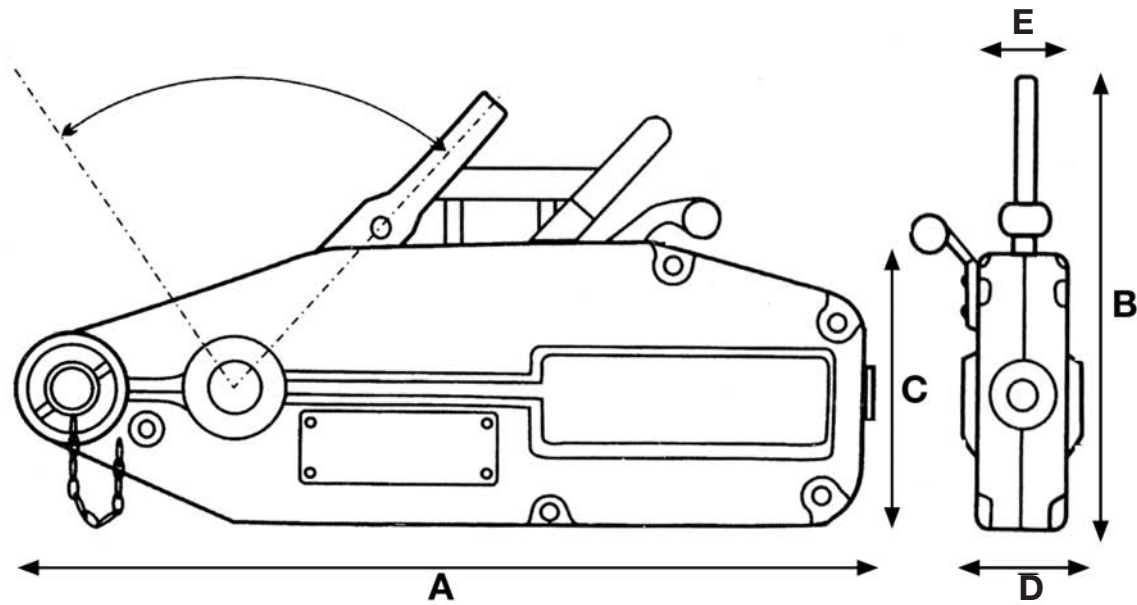
Capacity Kgs	Jaw Opening Plate Thickness mm	Weight Kgs/each
500	0-15	2
1,000	0-20	4.8
2,000	0-25	6.5
3,000	0-30	15
5,000	0-30	12

Capacity Kgs	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight Kgs/each
500	30	43	34.5	0-15	103	10	212	36	2.0
1,000	48	63	51	0-20	138	12	294	50	4.8
2,000	68	76	59	0-25	164	16	370	52	6.5
3,000	74	85	56	0-30	193	20	418	78	15.0

Larger sizes available on request

NEVER EXCEED MAXIMUM CAPACITY

NEVER LIFT UNDER 20% OF THE RATED CAPACITY



Lifting Capacity Kgs	Pulling Capacity Kgs	A mm	B mm	C mm	D mm	E mm	Rope Dia mm	Handle Length mm
800	1,250	426	235	168	60	64	8.3	800
1600	2,500	545	280	190	72	97	11	800-1200
3200	5,000	660	325	230	91	116	16	800-1200

GT Wire Rope Pulling Machine c/w 20 mtr Rope and Hook

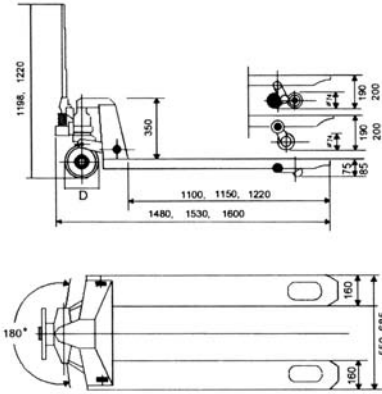
Lifting Capacity Kgs	Pulling Capacity Kgs	Weight Rope & Machine Kgs
800	1,250	12
1600	2,500	25
3200	5,000	46

Spare Rope c/w End Fitting

Available in 8.3, 11 and 16mm rope diameters at 20, 30, 40 and 50 mtrs

Note: Spare Rope to suit 0.8T + 1.6T c/w Hook End fitting
Spare Rope to suit 3.2T c/w Shackle End fitting

NEVER EXCEED MAXIMUM CAPACITY



Hand Operated Hydraulic Pallet Trucks

Capacity Kgs	Wheel Type	Overall Fork length mm	Overall Fork width mm	Lifting Height mm	Weight kgs
2,500	Double Nylon	1000	550	115	70
2,500	Double Nylon	1100	550	115	71
3,000	Double Nylon	1100	550	115	71
3,500	Double Nylon	1100	550	115	75

Extra-Wide Hand Operated Hydraulic Pallet Trucks

Capacity Kgs	Wheel Type	Overall Fork length mm	Overall Fork width mm	Lifting Height mm	Weight kgs
2,500	Double Nylon	1220	685	195	83

Extra-Long Hand Operated Hydraulic Pallet Trucks

Capacity Kgs	Wheel Type	Overall Fork length mm	Overall Fork width mm	Lifting Height mm	Weight kgs
2,000	Double Nylon	1500	685	200	110
2,000	Double Nylon	2000	685	200	110

Hydraulic Bottle Jacks

Capacity kgs	Min Height mm	Lifting Height mm	Adjusting Height mm	Weight kgs
2,000	181	116	48	3.1
3,000	194	118	60	3.8
5,000	216	127	70	5.1
8,000	230	147	80	5.8
10,000	230	150	80	7.1
12,000	230	155	80	8.3
15,000	230	150	80	9.3
20,000	242	150	60	11.9
25,000	250	155	60	15.3
30,000	260	155	60	17.0
32,000	260	155	60	17.5
40,000	260	155	60	23.5
50,000	270	160	60	27.5



Hydraulic Trolley (Floor) Jacks

Capacity kgs	Min Height mm	Max Height mm	Weight kgs
2,000	130	350	12
3,000	145	490	42



NEVER EXCEED MAXIMUM CAPACITY

Hydraulic Furniture Mover

Capacity per pair kgs	Lifting Height mm	Lifting Plate mm	Polyurethane Wheel Dia. mm	Weight kgs
1800	250	600 x 60	150	86



Toe Jacks

Capacity kgs	Lifting Stroke mm	Minimum Toe Height mm	Lifting Range mm	Weight kgs
3000	130	15	15-240	22
8000	140	25	25-295	28

Note: Low Profile Lifting Toe – Heavy Duty and Adjustable Lifting Toe



Hydraulic Jacks

Capacity kgs	Lifting Range of Foot mm	Lifting Range of Head mm	Weight kgs
5000	25-230	368-573	20
10000	30-260	420-650	35
25000	58-273	505-720	100



Farm Jacks

Size inches	Minimum Height mm	Maximum Height mm	Weight kgs
20	153	680	13
33	153	700	14
48	154	1070	15
60	155	1350	16





Adjustable Skates

Capacity tonnes	Type of Roller	No. of Rollers	Dia. x Width Roller Size	Skate Dimensions l x w x h	Weight kgs
6	Nylon	8	85 x 90	320 x 268 x 110	30
12	Nylon	12	85 x 90	420 x 268 x 110	38
24	Polyurethane	16	83 x 85	495 x 288 x 110	65

The adjustable skates are actually two skates connected by two steel rods making one skate "set" adjustable from 500mm to 1400mm and 720mm to 1500mm.



Steerable Skates

Capacity tonnes	Type of Roller	No. of Rollers	Dia. x Width Roller Size	Skate Dimensions l x w x h	Weight kgs
3	Nylon	4	85 x 90	300 x 280 x 104	15
6	Nylon	8	85 x 90	640 x 534 x 115	50
12	Polyurethane	8	83 x 85	640 x 566 x 115	60

Machinery Moving Skates

Capacity	Set	Type of Roller	Weight kgs
8 Tonne	4 Tonne Steering 2 x 2 Tonne Trailing	Polyurethane	28
16 Tonne	8 Tonne Steering 2 x 4 Tonne Trailing	Polyurethane	80
20 Tonne	10 Tonne Steering 2 x 5 Tonne Trailing	Polyurethane	90



Roller Crowbar

Capacity	Type of Roller	Weight kgs
3 Tonne	Steel	9
5 Tonne	Steel	11

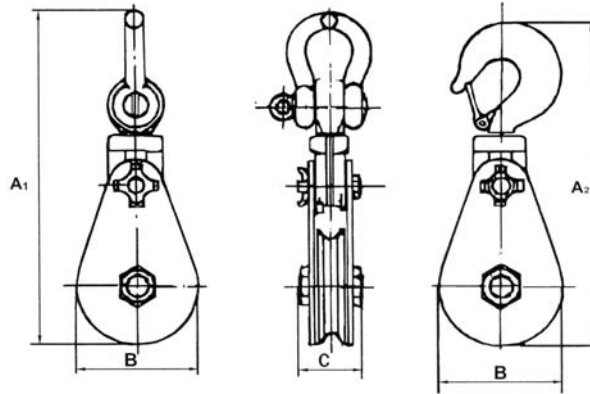


360° Rotating Skate

Capacity	Unit	Type of Roller	Weight kgs
4 Tonne	Pc	Polyurethane	39
2 Tonne	Pc	Polyurethane	25.5
Handle	Pc	—	4.5



Lightweight Oil Industry Snatch Blocks One Sheave with Hook or Shackle Head fitting Tested & Certified (4:1 Factor or Safety)

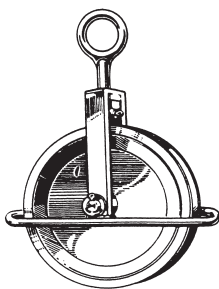


Lightweight Oil Industry Snatch Blocks

Sheave Dia inches	Head Load Metric Tonnes	Wire Dia mm	Weight Kgs/each	A1 mm	A2 mm	B mm	C mm	D
3"	2	7-9	4	286	292	82	70	SBB
4 1/2"	4	10-12	6	345	358	120	70	SBB
6"	8	20-22	15	475	498	160	93	RB
6"	8	16	14.0	475	498	160	93	RB
8"	8	20-22	20	528	549	210	93	RB
10"	12	20-22	36	679	695	260	114	RB
8"	15	20-22	34	620	641	210	98	RB
12"	15	24-26	54	767	797	310	133	RB

D =SBB- SPECIAL BRONZE BUSH
RB- ROLLER BEARING

Painted Gin Blocks Swivel Round Eye (Tested)



Size inches	SWL kgs	Proof Load kgs	Weight kgs/each
10"	250	1000	4.00

Galvanised Malleable Iron Block Plain Bore Swivel Oval Eye and Swivel Hook

Available in 3, 4, 5, 6, 7 and 8 inches





Crane Forks-Self Balancing Type - GT CY 20

Capacity kgs	Adjustable Fork Width mm	Hook Height mm	Fork Length mm	Weight kgs
2000	400-900	1655-2355	1000	220



Engine Lift - T32002

Capacity kgs	Length mm	Width mm	Height mm
2,000	1800	1040	1568



Bike Lift - T66751

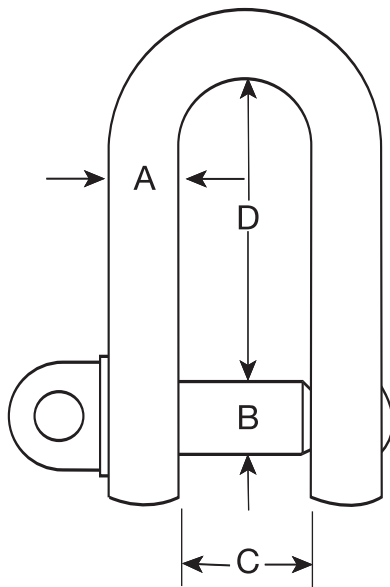
Capacity lbs	Pre-Packed Size	Weight kgs
1,500	900 x 400 x 150	34.5



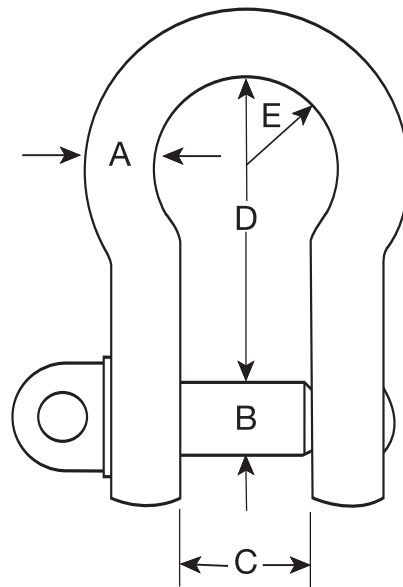
Bike Lift - T64001

Capacity lbs	Pre-Packed Size	Weight kgs
880	2300 x 790 x 300	135

NEVER EXCEED MAXIMUM CAPACITY



Green Pin Screw Pin Dee Shackle

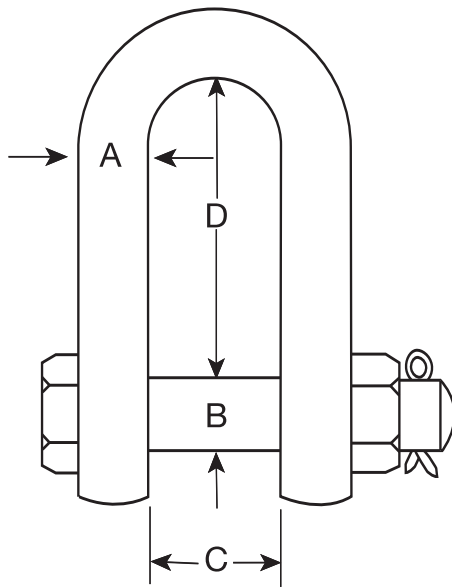


Green Pin Screw Pin Bow Shackle

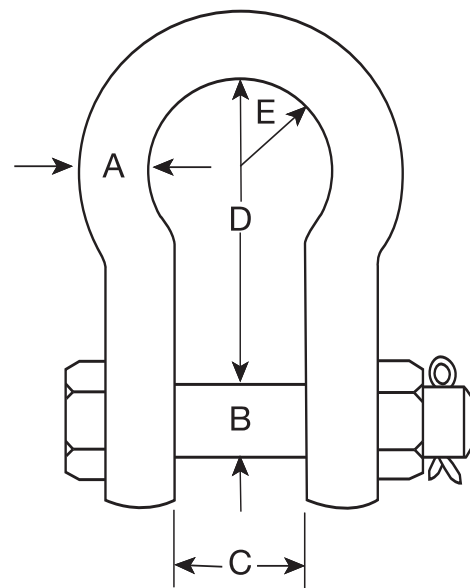
Galvanised Green Pin Screw Pin Standard Shackles Tested & Certified in accordance with EN-13889 (Grade 6)

S.W.L. tons	A mm	B mm	C mm	D BOW mm	DEE mm	2E mm	Weight Kgs/each
0.33	5	6	9.5	22	~	16	0.02
0.50	7	8	12	29	25	20	0.06
0.75	9	10	13.5	32	27	21	0.11
1.00	10	11	17	36.5	31	26	0.15
1.50	11	12	18.5	43	37	29	0.21
2.00	13.5	16	22	51	43	32	0.37
3.25	16	19	27	64	51	43	0.65
4.75	19	22	31	76	59	51	1.06
6.50	22	25	36	83	73	58	1.56
8.50	25	28	43	95	85	68	2.32
9.50	28	32	47	108	90	75	3.28
12.00	32	35	51	115	94	83	4.51
13.50	35	38	57	133	115	92	5.93
17.00	38	42	60	146	127	99	7.89
25.00	45	50	74	178	149	126	13.4
35.00	50	57	83	197	171	138	18.85
42.50	57	65	95	222	190	160	26.29
55.00	65	70	105	254	203	180	37.86

**These items meet the performance requirements of
US FED Specification RR-C-271**



Green Pin Safety Pin Dee Shackle



Green Pin Safety Pin Bow Shackle

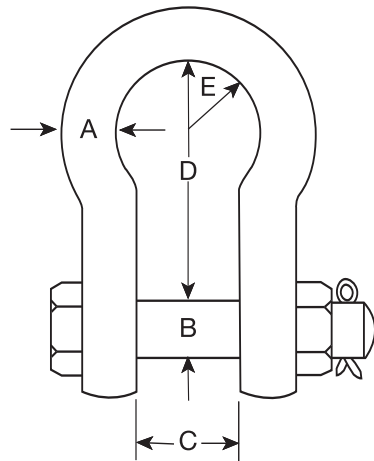
Galvanised Green Pin Safety Pin Standard Shackles Tested & Certified in accordance with EN-13889 (Grade 6)

S.W.L.	A	B	C	D	2E	Weight
tons	mm	mm	mm	BOW mm	DEE mm	Kgs/each
0.50	7	8	12	29	~	0.07
0.75	9	10	13.5	32	~	0.13
1.00	10	11	17	36.5	~	0.17
1.50	11	12	18.5	43	~	0.25
2.00	13.5	16	22	51	43	0.44
3.25	16	19	27	64	51	0.79
4.75	19	22	31	76	59	1.26
6.50	22	25	36	83	73	1.88
8.50	25	28	43	95	85	2.78
9.50	28	32	47	108	90	3.87
12.00	32	35	51	115	94	5.26
13.50	35	38	57	133	115	6.94
17.00	38	42	60	146	127	8.79
25.00	45	50	74	178	149	14.99
35.00	50	57	83	197	171	20.65
42.50	57	65	95	222	190	29.01
55.00	65	70	105	254	203	41.05
85.00	75	83	127	330	230	62.24

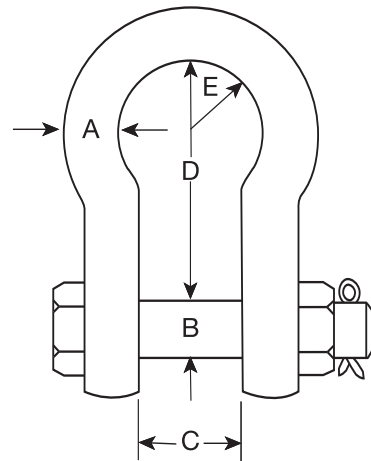
**These items meet the performance requirements of
 US FED Specification RR-C-271
 For larger sizes please see Page 44/45**



POLAR SHACKLES ARE
DNV APPROVED
PRODUCTS



Green Pin Safety Pin Polar Bow Shackle



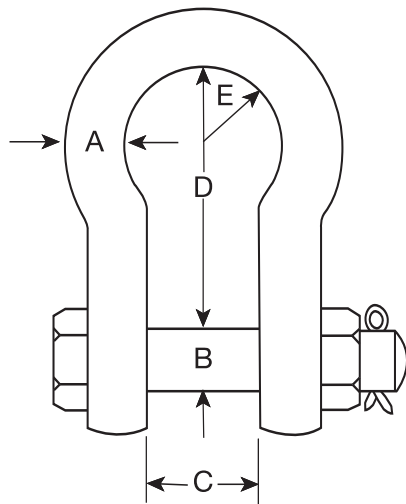
Green Pin Safety Pin Super Bow Shackle

Galvanised Green Pin Safety Pin Bow “Polar” Shackles Tested & Certified in accordance with EN-13889 Grade 8

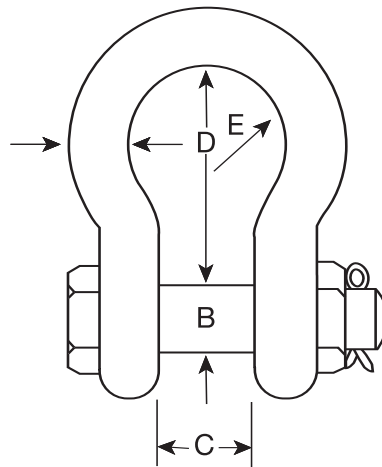
S.W.L. tons	A mm	B mm	C mm	D mm	2E mm	Weight Kgs/each
2.00	13.5	16	22	51	32	0.44
3.25	16	19	27	64	43	0.79
4.75	19	22	31	76	51	1.26
6.5	22	25	36	83	58	1.88
8.5	25	28	43	95	68	2.78
9.5	28	32	47	108	75	3.87
12	32	35	51	115	83	5.26
13.5	35	38	57	133	92	6.94
17	38	42	60	146	99	8.79
25	45	50	74	178	126	14.99
35	50	57	83	197	138	20.65
55	65	70	105	266.5	180	41.05
85	75	83	127	330	190	62.24

Galvanised “Super” Green Pin Safety Pin Bow Shackles Tested & Certified

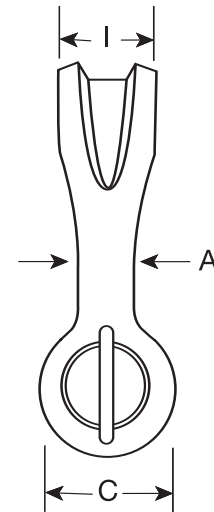
S.W.L. tons	A mm	B mm	C mm	D mm	2E mm	Weight Kgs/each
3.3	13.5	16	22	51	32	0.44
5	16	19	27	64	43	0.79
7	19	22	31	76	51	1.26
9.5	22	25	36	83	58	1.88
12.5	25	28	43	95	68	2.78
15	28	32	47	108	75	3.87
18	32	35	51	115	83	5.26
21	35	38	57	133	92	6.94
30	38	42	60	146	99	8.79
40	45	50	74	178	126	15
55	57	57	83	197	138	22
85	70	70	105	254	180	42
120	83	83	127	330	190	70
150	95	95	144	381	238	112
175	105	108	165	400	275	160



Green Pin Heavy Duty Type Shackle



Green Pin Sling Type Shackle



Galvanised Green Pin Heavy Duty Safety Pin Shackles Tested & Certified

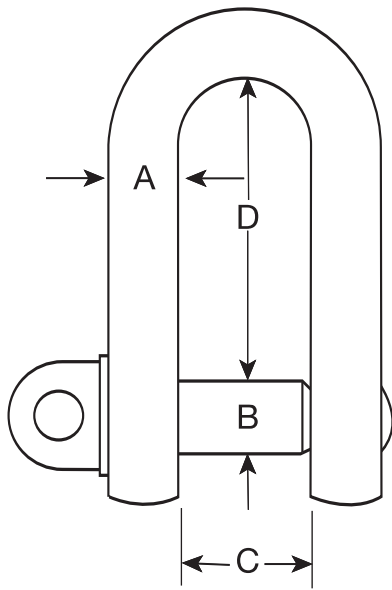
S.W.L. tons	A mm	B mm	C mm	D BOW mm	E DEE mm	2E mm	Weight Kgs/each tons
120	95	95	144	381	267	238	110
150	105	108	165	400	-	275	160
200	120	130	175	500	-	290	235
250	130	140	200	540	-	305	285
300	140	150	200	600	-	305	340
400	170	175	225	650	-	325	560

Up to 1500 ton SWL available

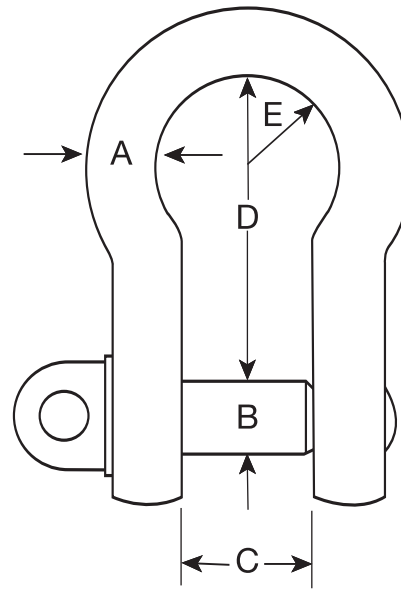
Galvanised Green Pin Sling Safety Pin Bow Shackles Tested & Certified

S.W.L. tons	Body Dia mm	Pin Dia mm	Inside width mm	Inside length mm	Bearing Surface	Weight kgs each
55	60	57	95	250	100	50
75	70	70	105	290	120	67
125	85	80	130	365	150	110
150	94	95	140	390	170	160
200	110	105	150	480	205	220
250	126	120	170	540	240	320
300	135	134	185	600	265	350
400	160	160	220	575	320	635

Up to 1500 ton SWL available



GT Screw Pin Dee Shackle

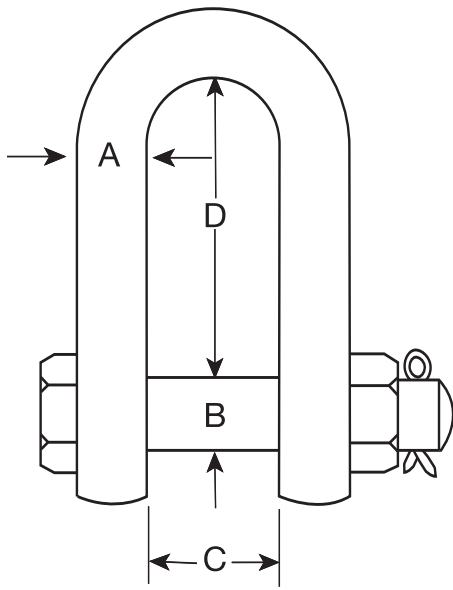


GT Screw Pin Bow Shackle

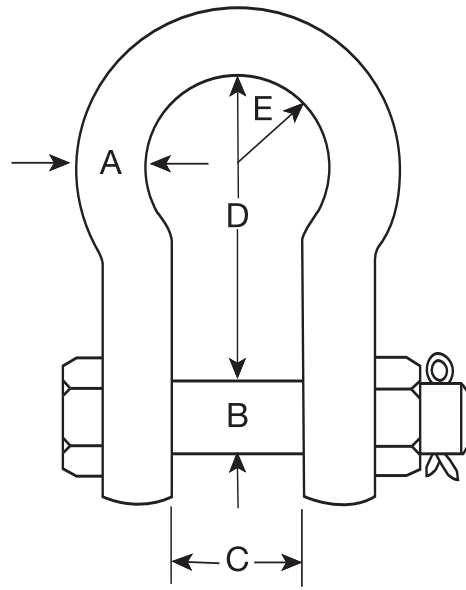
Galvanised “GT” Blue Pin Screw Pin Shackles Tested & Certified

S.W.L. tons	A mm	B thread dia mm	C mm	D BOW mm	E DEE mm	2E mm	Weight Kgs/each
0.33	5	6	9.5	22	~	16	0.02
0.50	6.4	8	12	28.6	22	20	0.06
0.75	8	10	13	31	26	21	0.11
1.00	9.5	11	17	36.5	32	26	0.15
1.50	11	12	18	42.5	36.5	29	0.21
2.00	12.7	16	20.6	47.3	41.3	32	0.37
3.25	16	19.8	27	60.5	51	43	0.65
4.75	19	22	32	71.5	62	51	1.04
6.50	21.7	27	36.6	84	74.8	58	1.56
8.50	25.4	30	43	96	81	68	2.32
9.50	28.5	33	46	108	90	75	3.28
12.00	31.5	36	51.6	119	100.8	83	4.51
13.50	34.9	39	57	133.5	112.5	92	5.93
17.00	38	42	60	147	125	99	7.89
25.00	44	52	73	178	146.5	126	13.4
35.00	50	56	82	197	171	138	18.85
55.00	63.5	68	105	267.5	203	180	37.86

**These items meet the performance requirements of
US FED Specification RR-C-271 and EN-13889**



GT Safety Pin Dee Shackle



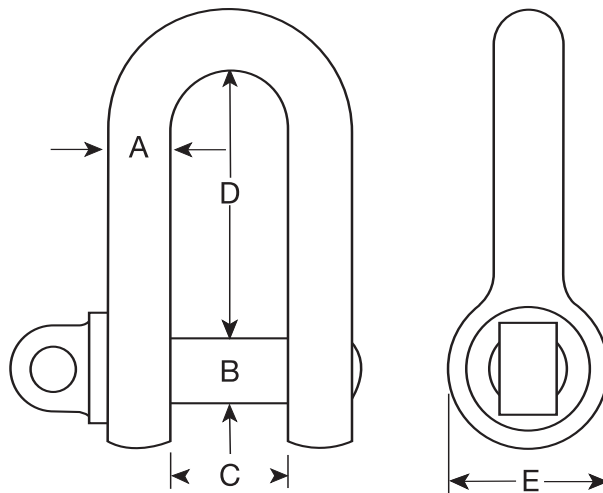
GT Safety Pin Bow Shackle

Galvanised “GT” Blue Pin Safety Pin Shackles Tested & Certified

S.W.L.	A	B	C	D	2E	Weight
tons	mm	mm	mm	BOW mm	DEE mm	Kgs/each tons
0.50	6.4	8	12	28.6	~	0.07
0.75	8	10	13	31	~	0.13
1.00	9.5	12	17	36.5	~	0.17
1.50	11	12	18	42.5	~	0.25
2.00	12.7	16	20.6	47.3	41.3	0.44
3.25	16	19.8	27	60.5	51	0.79
4.75	19	22	32	71.5	62	1.26
6.50	22	27	36.6	84	74.8	1.88
8.50	25	30	43	96	81	2.78
9.50	28.5	33	46	108	89.5	3.87
12.00	31.8	36	51.6	119	100.8	5.26
13.50	34.9	39	57	133.5	112.5	6.94
17.00	38	42	60	147	125	8.79
25.00	44	52	73	178	140.5	14.99
35.00	50	56	82	197	171.5	20.65
55.00	63.5	68	105	267	203	41.05
85.00	75	85	127	320	230	62.00

Larger sizes available, prices upon request

These items meet the performance requirements of
US FED Specification RR-C-271 and EN-13889



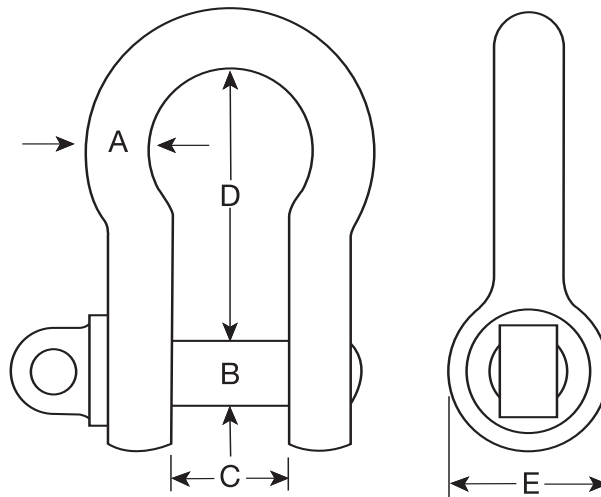
Large Dee Shackles c/w Type A Screw Collar Pin Tested & Certified

S.W.L. Tons	A Inches	B Inches	C Inches	D Inches	E Inches	Weight Kgs/each
0.25	1/4	3/8	1/2	1	3/4	0.10
0.50	3/8	1/2	3/4	1 1/2	1	0.12
0.75	1/2	5/8	1 1/8	2 1/8	1 1/4	0.29
1.50	5/8	3/4	1 1/4	2 1/2	1 1/2	0.57
2.00	3/4	7/8	1 1/2	2 7/8	1 3/4	0.92
3.00	7/8	1	1 3/4	3 1/4	2	1.59
3.75	1	1 1/8	2	3 3/4	2 1/4	2.12
5.00	1 1/8	1 1/4	2 1/8	4 1/8	2 1/2	3.18
6.00	1 1/4	1 3/8	2 3/8	4 1/2	2 3/4	4.54
7.00	1 3/8	1 1/2	2 5/8	5	3	6.06
9.5	1 1/2	1 3/4	2 3/4	5 3/8	3 1/2	8.74

Small Dee Shackles c/w Type A Screw Collar Pin Tested & Certified

S.W.L. Tons	A Inches	B Inches	C Inches	D Inches	E Inches	Weight Kgs/each
0.30	1/4	3/8	3/8	7/8	3/4	0.06
0.60	3/8	1/2	5/8	1 3/8	1	0.15
1.00	1/2	5/8	7/8	1 7/8	1 1/4	0.33
1.75	5/8	3/4	1	2 1/4	1 1/2	0.61
2.50	3/4	7/8	1 1/4	2 3/4	1 3/4	0.93
3.50	7/8	1	1 3/8	3 1/4	2	1.80
4.50	1	1 1/8	1 1/2	3 5/8	2 1/4	2.15
5.50	1 1/8	1 1/4	1 3/4	4 1/8	2 1/2	3.02
7.00	1 1/4	1 3/8	1 7/8	4 1/2	2 3/4	4.20
8.00	1 3/8	1 1/2	2 1/8	5	3	5.34
10.75	1 1/2	1 3/4	2 3/8	5 1/2	3 1/2	8.36

These items meet the performance requirements of the now withdrawn standard BS 3032



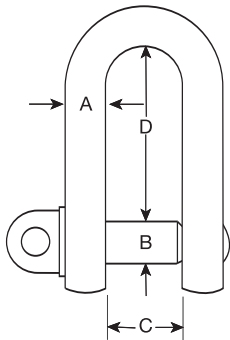
Large Bow Shackles c/w Type A Screw Collar Pin Tested & Certified

S.W.L. Tons	A Inches	B Inches	C Inches	D Inches	E Inches	Weight Kgs/each
0.45	3/8	1/2	5/8	1 5/8	1	0.18
0.75	1/2	5/8	7/8	2 1/8	1 1/4	0.34
1.25	5/8	3/4	1 1/8	2 3/4	1 1/2	0.65
2.00	3/4	7/8	1 3/8	3 3/8	1 3/4	1.08
2.75	7/8	1	1 5/8	3 7/8	2	1.80
3.75	1	1 1/8	1 3/4	4 1/4	2 1/4	2.46
4.75	1 1/8	1 1/4	2	4 7/8	2 1/2	3.47
5.75	1 1/4	1 3/8	2 1/4	5 3/8	2 3/4	4.56
7.25	1 3/8	1 1/2	2 1/2	6	3	6.07
8.50	1 1/2	1 3/4	2 3/4	6 5/8	3 1/2	8.35
9.50	1 5/8	1 7/8	3	7 3/8	3 3/4	11.81

Small Bow Shackles c/w Type A Screw Collar Pin Tested & Certified

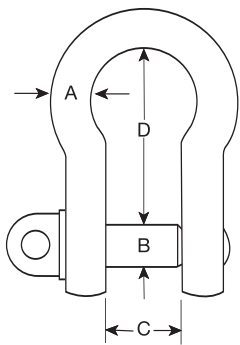
S.W.L. Tons	A Inches	B Inches	C Inches	D Inches	E Inches	Weight Kgs/each
0.50	3/8	1/2	5/8	1 1/2	1	0.18
1.00	1/2	5/8	7/8	2	1 1/4	0.34
1.50	5/8	3/4	1 1/8	2 1/2	1 1/2	0.62
2.00	3/4	7/8	1 3/8	3	1 3/4	1.05
3.00	7/8	1	1 1/2	3 1/2	2	1.63
4.00	1	1 1/8	1 3/4	4	2 1/4	2.28
5.00	1 1/8	1 1/4	2	4 1/2	2 1/2	3.20
6.25	1 1/4	1 3/8	2 1/4	5	2 3/4	4.54
7.50	1 3/8	1 1/2	2 3/8	5 1/2	3	5.74
9.25	1 1/2	1 3/4	2 5/8	6	3 1/2	8.51
10.50	1 5/8	1 7/8	2 7/8	6 1/2	3 3/4	11.23

These items meet the performance requirements of the now withdrawn standard BS 3032



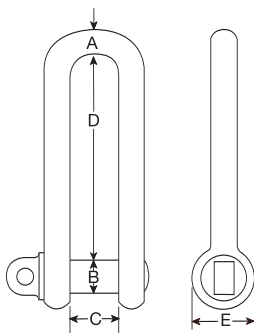
Galvanised Commercial Dee Shackles (Untested)

A mm	B mm	C mm	D mm	Weight Kgs per 100 PCS
5	5	10	19	1.9
6	6	13	25	3.4
8	8	16	32	7
10	10	19	38	13
11	11	22	44	17.5
12	12	25	51	24
12	16	28	56	40
16	16	32	64	50
16	19	32	64	65
19	19	38	76	80
19	22	38	76	100
22	22	44	89	130
22	25	43	89	170
25	25	51	100	200
25	28	49	100	240



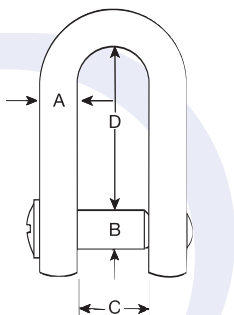
Galvanised Commercial Bow Shackles (Untested)

A mm	B mm	C mm	D mm	Weight Kgs per 100 PCS
5	5	10	19	1.9
6	6	13	25	3.4
8	8	16	32	7
10	10	19	38	13
11	11	22	46	19
12	12	25	51	26
12	16	27	60	39
16	16	32	64	50
16	19	33	70	70
19	19	38	76	80
19	22	38	80	110
22	22	44	89	130
22	25	43	95	170
25	25	51	100	200



Self Colour Long Dee 'Piling' Shackles c/w Screw Collar Pin Tested & Certified

S.W.L. Tons	A Inches	B Inches	C Inches	D Inches	E Inches	Weight Kgs/each
1.00	1/2	5/8	7/8	6	1 1/4	0.55
1.50	5/8	3/4	1 1/4	8	1 1/2	0.95
2.00	3/4	7/8	1 1/2	8	1 3/4	1.64
3.00	7/8	1	1 3/4	10	2	2.29
3.75	1	1 1/8	2	10	2 1/4	3.40
5.00	1 1/8	1 1/4	2 1/8	12	2 1/2	5.05



Galvanised Commercial Dee Shackles c/w Countersunk Pin (Untested)

A mm	B mm	C mm	D mm	Weight per 100 PCS
10	10	19	38	13
11	11	22	44	17.5
12	12	25	51	24
16	16	32	64	50



Type Duplex 100% Polyester Material, Flat Woven Webbing, Multi-Layer Sling with Soft Bucket Eyes – EN 1492-1:2000



Available in various sizes. Larger capacities available.

Note: Wear Sleeves available upon request.

Textile Sling Safety Chart

	Duplex and Single Webslings					RATED CAPACITIES FOR WEBSLINGS & ROUND SLINGS	Roundslings and Endless Webslings				
	Straight Pull M*=1	Choke Hitch M*=0.8	Parallel M*=2	Basket Hitch 90° M*=1.4	Two Leg Sling Max 90° M*=1.4		4 Leg Sling Max 90° M*=2	Working Load Limit (WLL) = Sling rating x Mode Factor (M*)	Factor of Safety for all Webslings & Roundslings is 7:1	Colour Coding only applicable within E.U. for industrial equipment	Each sling is packed with a Declaration of conformity and Safe-use instructions BS EN 1492-1: 2000 Webslings BS EN 1492-2: 2000 Roundslings
Violet	1.0	0.8	2.0	1.4	1.4	2.0					
Green	2.0	1.6	4.0	2.8	2.8	4.0					
Yellow	3.0	2.4	6.0	4.2	4.2	6.0					
Grey	4.0	3.2	8.0	5.6	5.6	8.0					
Red	5.0	4.0	10.0	7.0	7.0	10.0					
Brown	6.0	4.8	12.0	8.4	8.4	12.0					
Blue	8.0	6.4	16.0	11.2	11.2	16.0					
Orange	10.0	8.0	20.0	14.0	14.0	20.0					
Orange	12.0	9.6	24.0	16.8	16.8	24.0					

Quadplex Slings available up to 24 tonne capacity

POLYESTER		Halogenated Hydrocarbons	OK
Acid	*	Hydrocarbons	OK
Alcohol	OK	Ketones	OK
Aldehydes	No	Oil, Crude	OK
Strong Alkalis	**	Oil, Lubricating	OK
Bleaching Agents	OK	Soaps & Detergents	OK
Dry Cleaning Solvents	OK	Water, Seawater	OK
Ethers	No	Weak Alkalis	OK

Polyester slings should be used whenever a minimum of stretch is required. They are unaffected by common acids and hot bleaching solutions.
Polyester Slings must not be used with Sulphuric Acid or Alkalis.
Not suitable for use at temperatures exceeding 200°C.
Stretch at rated capacity is 3% approx.

* Disintegrated by concentrated sulphuric acid
** Degraded by strong alkalis at high temperatures

Polyester Roundslings – EN 1492-2:2000

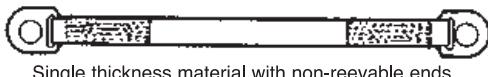
Available in various sizes. Up to 100 tonne capacity



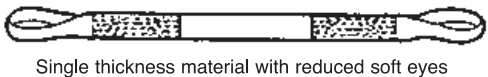
Note: Wear Sleeves available upon request.



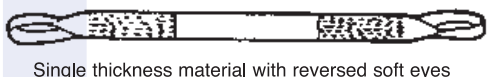
Single thickness material with reeveable ends



Single thickness material with non-reeveable ends



Single thickness material with reduced soft eyes



Single thickness material with reversed soft eyes



Endless sling, may be fully open or sewn full length with stitched soft eyes

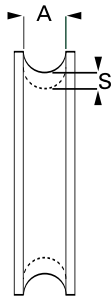
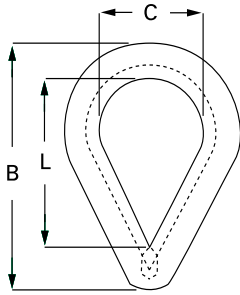


Double thickness material with reeveable end links, usually sewn full length



Double thickness material with non-reeveable end links, usually sewn full length

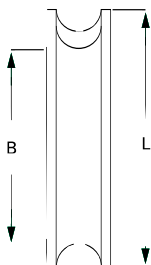
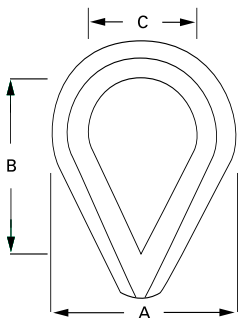
Non-standard slings made by request including pre-slung Cargo Slings that comply to ILO152



Galvanised BS 464 Thimbles

Rope Dia	A mm	B mm	L mm	C mm	S mm	Weight Kgs/100
1/4"	7	45	26	18	4	4.1
5/16"	8	54	33	22	4	6.5
3/8"	10	64	38	25	4.8	9.5
1/2"	14	80	44	32	5.6	13
5/8"	16	98	59	41	7.9	30
3/4"	21	124	73	51	9.5	51.5
7/8"	22	133	83	57	9.5	69.0
1"	27	162	108	70	10.3	99.5
1 1/8"	29	178	111	76	12.7	129
1 1/4"	33	197	133	95	12.7	145
1 3/8"	38	229	152	105	15.9	238
1 1/2"	41	254	165	114	17.5	340
1 5/8"	43	254	165	114	17.5	499
1 3/4"	51	286	178	127	25.4	532
2"	64	330	203	140	28.6	695

The thimbles detailed above will meet the performance requirements of the new Standard BS-EN-13411



Heavy Duty Galvanised Thimbles meet the performance requirements of US Fed Spec FF-T-276-b Type 3

Rope Dia Inches	L inches	A inches	B inches	C inches	Weight Kgs/100
1/4"	2 ^{3/16}	1 1/2	1 5/8	7/8	3.4
5/16"	2 1/2	1 ^{13/16}	1 7/8	1 ^{1/16}	6.3
3/8"	2 7/8	2 1/8	2 1/8	1 1/8	11.3
7/16"	3 1/4	2 3/8	2 3/8	1 1/4	16.2
1/2"	3 5/8	2 3/4	2 3/4	1 1/2	23
9/16"	3 5/8	2 ^{11/16}	2 3/4	1 1/2	23
5/8"	4 1/4	3 1/8	3 1/4	1 3/4	33.8
3/4"	5	3 ^{13/16}	3 3/4	2	66.2
7/8"	5 1/2	4 1/4	4 1/4	2 1/4	83.3
1"	6 1/8	4 ^{15/16}	4 1/2	2 1/2	135
1 1/8 1 1/4"	7	5 7/8	5 1/8	2 7/8	184.5
1 3/8 1 1/2"	9	7 1/8	6 1/2	3 1/2	540
1 5/8"	11 1/4	8 1/8	8	4	731.3
1 3/4"	12 ^{13/16}	8 1/2	9	4 1/2	810
1 7/8-2"	15 1/8	10 ^{3/8}	12	6	1,170
2 1/4"	17 1/8	11 ^{7/8}	14	7	1,935

The thimbles detailed above will meet the performance requirements of the new Standard BS-EN-13411



Galvanised Fibre Rope Towing Thimbles

Rope Circ	A mm	B mm	L mm	C mm	S mm	Weight Kgs/each
5"	45	200	165	85	6	1.5
6"	60	230	185	95	8	3
7"	65	270	220	115	8	4
8"	70	300	250	120	10	6
10"	95	390	315	150	12	14
12"	105	415	340	175	12	15.5

ALSO AVAILABLE WITH FILLET PLATE, RETAINING BANDS AND ALLOY LINKS

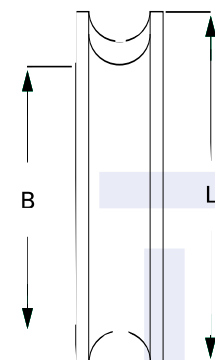
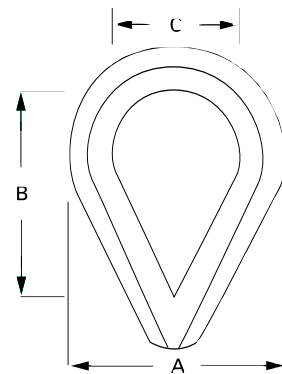
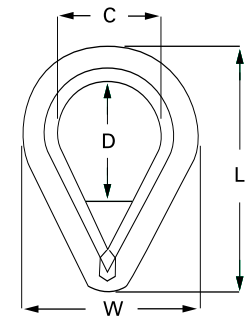
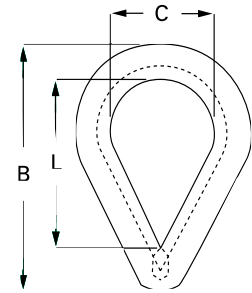
Galvanised Forged Steel Pennant Line Thimbles

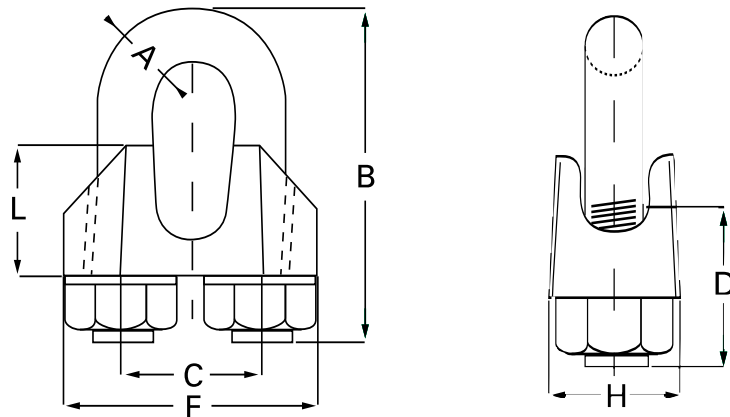
Wire Rope Dia inches	Groove mm	L mm	W mm	D mm	C mm	Weight Kgs/each
2 1/4 2 1/2"	65	490	305	255	178	24
3"	85	540	300	300	180	28

Galvanised Commercial Thimbles

(not suitable for lifting applications)

Rope Dia mm	L mm	A mm	B mm	C mm	Weight Kgs/100
2.5	22	16	19	12	0.5
3.5	26	17	21	13	0.8
4	25	19	16	11	0.4
5	31	22	22	16	0.8
6	37	29	26	19	1.4
8	51	38	34	24	2.8
10	64	44	42	32	4.8
12	76	57	51	38	8
14	82	60	57	40	10
16	89	64	60	42	15
18	102	69	67	45	22
20	115	79	76	51	25
22	127	89	83	54	32
24	140	102	88	64	46
26	152	105	102	68	66
28	165	115	110	73	77
30	178	121	115	79	80
32	203	133	140	93	130
36	229	184	177	115	540
40	254	206	198	120	730



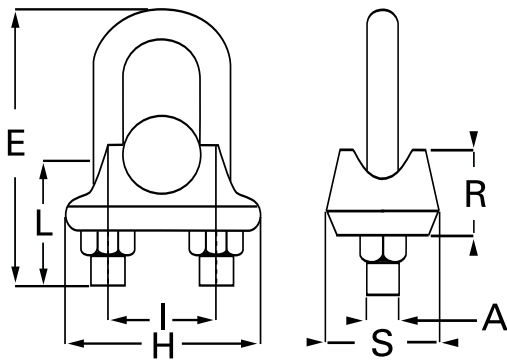


Galvanised Wire Rope Grips meet the performance requirements of DIN 1142 & EN 13411 Pt5 Type A

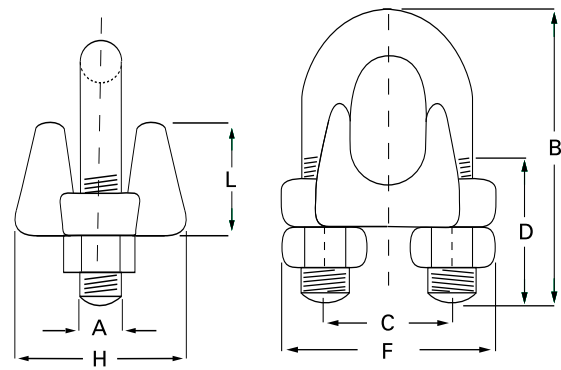
Rope Dia mm	A mm	B mm	C mm	D mm	F mm	H mm	L mm	Weight Kgs/100
5	5	25	12	13	25	13	13	2.1
6.5	6	32	14	17	30	16	14	4
8	8	41	18	20	39	20	18	8.2
10	8	46	20	24	40	20	21	9.2
12	10	56	24	28	50	24	25	25
13	12	64	27	30	55	28	29	27.5
14	12	66	28	31	59	28	30	35
16	14	76	32	35	64	32	35	43
19	14	83	36	36	68	32	40	49
22	16	96	40	40	74	34	44	68
26	20	111	46	50	84	38	51	117
30	20	127	54	55	95	41	59	140
34	22	141	60	60	105	45	67	213
40	24	159	68	65	117	49	77	268

Galvanised Wire Rope Grips (without grooves)

Rope Dia mm	A mm	B mm	C mm	D mm	F mm	H mm	L mm	Weight Kgs/100
3	4	20	9	12	21	10	10	1.4
5	5	24	11	13	23	11	10	1.5
6.5	5	28	13	15	26	12	11	2.1
8	6	34	16	19	30	14	15	4.1
10	8	42	19	22	34	18	17	6.8
13	10	55	24	30	42	23	21	11.0
16	12	63	29	33	50	26	26	21.0
19	12	75	32	38	54	29	30	28.0
22	14	85	37	44	61	33	34	40.0
26	14	95	41	45	65	35	37	44.0
30	16	110	48	50	74	37	43	60.0
34	16	120	52	55	80	42	50	85.0
40	16	140	58	60	88	45	55	104.0



Commercial 'Robur' Grips



U.S. Fed Spec Wire Rope Grips

Galvanised Commercial Wire Rope Grips (Robur Pattern)

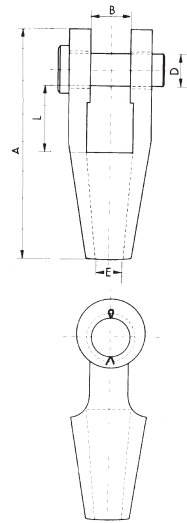
Dia mm	A mm	L mm	H mm	I mm	E mm	R mm	S mm	Weight Kgs/100
3	4	12	17	9	20	7	10	0.7
5	5	13	24	12	24	9	15	1.8
6	6	15	27	15	28	10	16	2.5
8	6	19	31	17	34	11	19	3.2
10	8	22	37	20	42	14	22	6.5
11	8	22	41	22	44	15	24	8
13	10	33	44	25	55	17	26	12
14	10	33	47	27	57	18	27	14
16	10	33	51	29	63	20	28	17.5
20	12	44	62	35	77	22	33	28
22	12	44	65	39	85	25	35	32
26	14	50	72	42	95	27	40	45
30	14	50	78	48	110	33	43	61
34	16	55	88	54	120	37	48	87
40	16	60	98	60	140	40	54	113

Galvanised Drop Forged Wire Rope Grips meet the performance requirements of US Fed. Spec. FF-C-450 & EN 13411 Pt5 Type B

Rope Dia inches	A mm	B mm	C mm	D mm	F mm	H mm	L mm	Weight Kgs/100
1/4	8	34	19	13	37	30	17	8
5/16	10	45	22	19	43	33	18	14
3/8	11	49	26	19	49	42	25	19
1/2	13	61	30	26	58	48	27	34
5/8	16	74	33	32	64	52	33	45
3/4	14	86	38	37	72	57	37	68
7/8	19	98	45	40	80	62	40	108
1	19	108	48	46	88	67	44	113
1 1/8	19	117	51	51	91	72	48	140
1 1/4	22	130	59	54	105	79	56	207
1 3/8	22	140	60	59	108	79	58	234
1 1/2	22	147	66	60	112	86	64	266
1 3/4	29	175	78	74	134	97	78	441
2	32	195	86	78	152	113	87	603
2 1/4	32	208	98	81	162	116	100	707
2 1/2	32	227	105	87	168	119	113	806
2 3/4	32	243	112	91	174	127	124	1,000
3	38	271	121	104	194	135	136	1,440

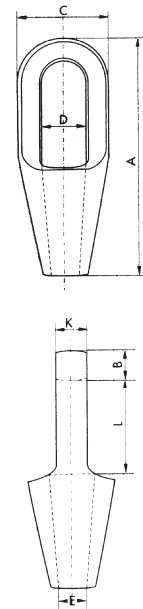
Open Spelter Sockets

Working load limit tons	Dia wire rope mm	Overall length A mm	Inside width B mm	Pin dia D mm	Inside length L mm	Opening E mm	Approx. weight per piece kg
6.3	20-22	235	51	41	69	24	4.7
10	23-26	275	57	51	71	28	8
14	27-30	307	59	57	88	32	11
17	31-36	339	63	63	97	38	16
20	37-39	409	76	70	132	41	23
28	40-42	416	76	76	128	44	28
40	43-48	468	89	89	134	51	42
45	49-54	552	103	95	181	57	60
60	55-60	603	112	108	203	63	88
75	61-68	653	127	121	213	73	122
80	69-75	696	133	127	218	79	160
90	76-80	740	145	134	225	86	180



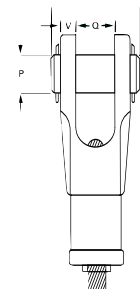
Closed Spelter Sockets

Working load limit tons	Dia wire rope mm	Overall length A mm	Overall width C mm	Inside bow width D mm	Inside bow length L mm	Thickness bow B mm	Opening E mm	Approx. weight per piece kg
6	20-22	225	92	47	90	33	24	3.7
10	23-26	254	105	57	99	36	28	5.7
14	28	282	114	63	116	39	32	7.5
17.5	32-35	318	127	72	130	43	38	9.8
20	38	358	139	77	144	53	41	13
28	40	390	147	82	169	52	44	17
40	44-48	454	171	89	198	55	51	26
45	52-54	522	194	96	224	62	57	37
60	56-60	548	218	109	247	73	63	52.5
75	64-67	598	241	142	275	80	73	65
80	70-73	648	273	159	286	80	79	94
90	76-79	692	291	172	310	80	86	110



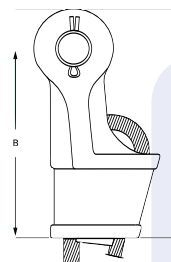
Painted Cast Steel Open Wedge Sockets (Untested)

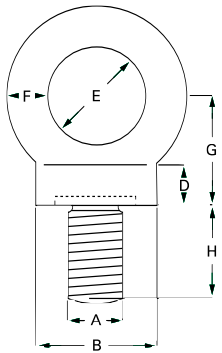
Model	Wire Dia mm	B mm	P mm	Q mm	V mm	Weight Kgs/each
0.5	9-10	145	20	20	12	1.8
1	11-13	146	25	24	12	2.1
2	14-16	178	30	31	15	3.7
3	18-19	215	35	38	16	5.5
4	20-22	240	41	44	19	8.2
5	24-26	276	50	52	22	13.5
6	28	313	57	60	25	20.5
7	32	351	63	63	28	24.9
8	35	400	64	69	28	38
9	38	451	70	75	30	54.6



PRICES FOR LARGER SIZES ARE AVAILABLE UPON REQUEST

TESTING AVAILABLE - EXTRA AT COST



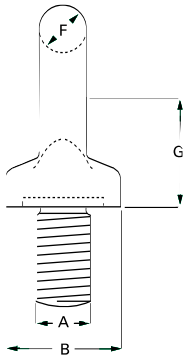


Self-Colour Drop Forged Collared Eyebolts (Whitworth Thread) Proof Load Tested

Vertical SWL Tons	A inches	B mm	D mm	E mm	F mm	G mm	H mm	Weight Kgs/each
0.25	3/8	22	7	15	9	20	17	0.06
0.50	1/2	29	10	20	12	26	22	0.07
0.90	5/8	36	12	24	14	32	28	0.14
1.40	3/4	45	15	30	18	40	33	0.28
2.00	7/8	52	17	35	21	46	39	0.60
2.75	1	58	20	39	23	52	44	1.10
3.50	1 1/8	64	21	42	25	57	50	1.60

Self-Colour Drop Forged Collared Eyebolts (Metric Thread) Proof Load Tested

Vertical SWL Tons	A mm	B mm	D mm	E mm	F mm	G mm	H mm	Weight Kgs/each
0.15	8	22	7	15	9	20	18	0.06
0.25	10	22	7	15	9	20	18	0.06
0.40	12	22	7	15	9	20	18	0.06
0.50	14	29	10	20	12	26	23	0.15
0.80	16	29	10	20	12	26	23	0.15
1.00	18	36	12	24	14	32	28	0.27
1.60	20	40	14	27	16	36	32	0.38
1.60	22	45	15	30	18	40	35	0.54
2.50	24	52	17	35	21	46	40	0.85
2.50	27	58	20	39	23	52	46	1.13
4.00	30	65	22	44	26	58	51	1.62
4.00	33	72	24	48	28	64	56	2.37
6.30	36	81	27	54	32	72	63	3.12



Long Shank Collared Eyebolts Whitworth Thread Tested & Certified

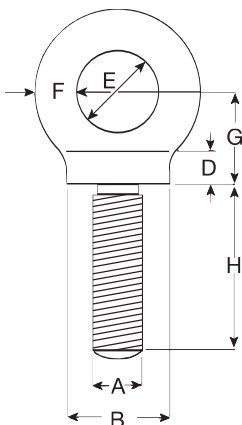
Vertical SWL Tons	A inches	B inches	D inches	E inches	F inches	G inches	H inches	Weight Kgs/each
0.25	3/8	27/32	9/32	9/16	11/32	3/4	7	0.18
0.50	1/2	1 1/8	3/8	3/4	7/16	1	7	0.25
0.90	5/8	1 13/32	15/32	15/16	9/16	1 1/4	7	0.44
1.40	3/4	1 11/16	9/16	1 1/8	21/32	1 1/2	7	0.70
2.00	7/8	1 31/32	21/32	1 5/16	25/32	1 3/4	7	1.05
2.75	1	2 1/4	3/4	1 1/2	7/8	2	7	1.50

Long Shank Collared Eyebolts Metric Thread Tested & Certified

Vertical SWL Tonnes	A mm	B mm	D mm	E mm	F mm	G mm	H mm	Weight Kgs/each
0.25	10	22	7	15	9	20	178	0.18
0.40	12	27	7	15	9	20	178	0.25
0.80	16	29	10	20	12	26	178	0.44
1.60	20	40	14	27	16	36	178	0.70
2.50	24	52	17	35	21	46	178	1.50

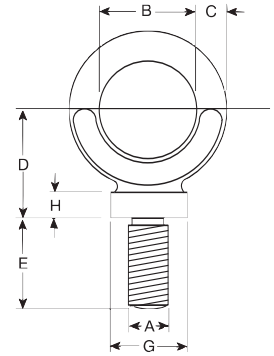
Long Shank Dynamo Eyebolts Metric Thread Tested & Certified

Vertical SWL Tonnes	A mm	E mm	F mm	G mm	H mm	B mm	D mm	Weight Kgs/each
0.15	8	22	9	27	100	17	5	0.11
0.25	10	22	9	27	100	17	5	0.12
0.32	12	22	9	27	100	17	5	0.17
0.63	16	29	11	34	114	23	6	0.35
1.25	20	40	15	49	127	32	9	0.60
2.00	24	51	19	60	127	40	12	1.10



Dynamo Eyebolts Whitworth Thread Tested & Certified

Vertical SWL Tonnes	A mm	B mm	C inches	D inches	E mm	G inches	H mm	Weight Kgs/each
0.10	1/4	22	10	26	19	19	6	0.08
0.15	5/16	22	10	26	19	19	6	0.09
0.25	3/8	22	10	26	19	19	6	0.09
0.50	1/2	29	10.3	35	26	25	8	0.14
0.80	5/8	32	13	41	30	29	9.5	0.24
1.20	3/4	41	16	54	33	35	11.1	0.43
2.20	1	52	20.4	62	46	41	12.7	0.88

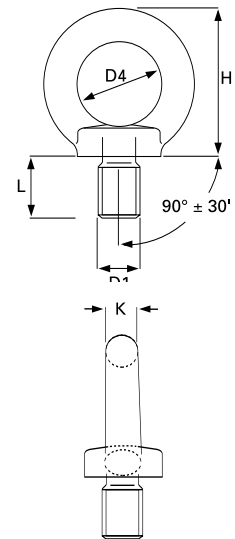


Dynamo Eyebolts Metric Thread Tested & Certified

Vertical SWL Tonnes	A mm	B mm	C mm	D mm	E mm	G mm	H mm	Weight Kgs/each
0.10	6	22	9	27	18	17	5	0.07
0.15	8	22	9	27	18.5	17	5	0.07
0.25	10	22	9	27	18.5	17	5	0.07
0.32	12	22	9	27	18.5	17	5	0.07
0.63	16	29	11	34	23.5	23	6	0.14
1.25	20	40	15	47	33	32	9	0.40
2.00	24	51	19	60	41	40	12	0.80
3.20	30	64	24	76	51	51	14	1.72

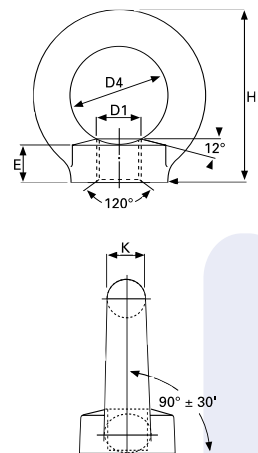
Eyebolts meet the performance requirements of DIN 580 Tested & Certified

Vertical SWL Kgs	D1 mm	D4 mm	H mm	K mm	L mm	Weight Kgs/each
N/A	6*	20	36	8	13	0.06
140	8	20	36	8	13	0.06
230	10	25	45	10	17	0.11
340	12	30	53	12	20.5	0.18
700	16	35	62	14	27	0.28
1200	20	40	71	16	30	0.45
1800	24	50	90	20	36	0.74
N/A	27*	60	109	24	45	1.56
3600	30	60	109	24	45	1.66

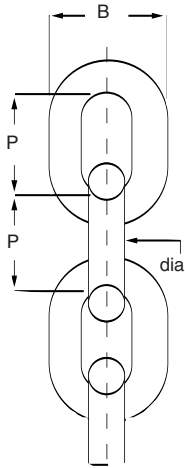


Eyenuts meet the performance requirements of DIN 582 Tested & Certified

Vertical SWL Kgs	D1 mm	D4 mm	H mm	K mm	Weight Kgs/each
N/A	6*	20	36	8	0.05
140	8	20	36	8	0.05
230	10	25	45	10	0.09
340	12	30	53	12	0.16
700	16	35	62	14	0.24
1200	20	40	71	16	0.36
1800	24	50	90	20	0.72
N/A	27*	60	109	24	1.22
3600	30	60	109	24	1.32



***THESE SIZES ARE ADDITIONAL TO THE SPECIFICATION**



Short Link Chain

Mild Steel Chain (Tested & Certified) Short link

Chain Dia mm	P mm	B mm	W.L.L. Kgs	Weight Kgs/Mtr
6	18.5	20	600	0.75
8	24	26	875	1.35
9.5	33	33	1400	1.85
12	36	40	2400	3.25
16	48	54	3625	6.10

AVAILABLE IN SELF COLOUR AND GALVANISED

Commercial Quality Chain Short link

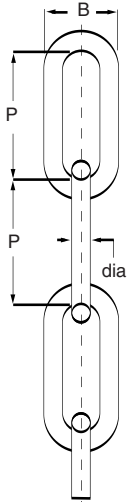
Chain Dia mm	P mm	B mm	Weight Kgs/Mtr
6	18.5	20	0.80
8	24	27	1.40
10	28	34	2.20
12	36	41	3.10
16	45	54	5.70

AVAILABLE IN SELF COLOUR AND GALVANISED

Mild Steel Chain (Tested & Certified) Long link

Chain Dia mm	P mm	B mm	W.L.L. Kgs	Weight Kgs/Mtr
5	21	19	215	0.50
5.5	25	19	275	0.50
7	38	29	625	0.91
8	42	33	600	1.17
9.5	49	38	1125	1.8
12	61	48	2125	2.5
16	70	60	3300	4.9

AVAILABLE IN SELF COLOUR AND GALVANISED



Long Link Chain

Commercial Quality Chain Long link

Chain Dia mm	P mm	B mm	Weight Kgs/Mtr
7	49	28	0.86
8	52	32	1.10
10	65	40	1.75
12	78	48	2.95

AVAILABLE IN SELF COLOUR AND GALVANISED

Standard Square Section - Weissenfels Security Chain in Bulk Lengths

Size mm

5

7

10

Standard Square Section - Weissenfels Security Chain in Bulk Lengths

Size mm

5

7

10

Spare Keys to suit Locks

Size mm

5/7/10

Security Chain Pre-cut & Wrapped

Size mm

10

Length

1.0

10

1.2

10

1.5

10

2.0

Plastic Sleeving to suit Chain

Size mm

5

7

10

Locks to suit Security Chain

Size mm

5

7

10

Gold Galvanised Round Link Security Chain c/w Reeveable Large End Link One End

Size dia

13

Length Mtrs

1.2

13

1.8

Economy Range Square Section Galv Security Chain

Size dia

10

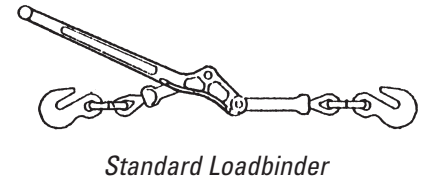
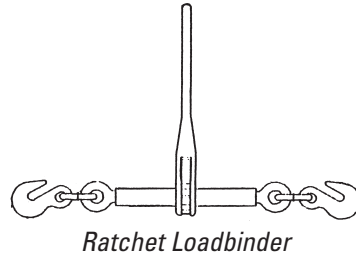
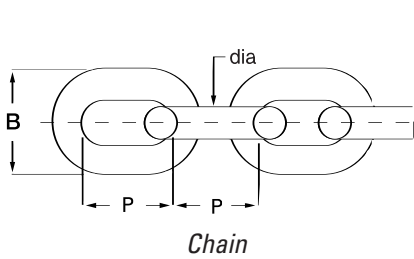
Length Mtrs

1.2

10

1.8

ASK OUR SALES DEPT FOR A COLOUR MINI BROCHURE TO HELP WITH YOUR SECURITY REQUIREMENTS.



Drop Forged Standard Loadbinders

Chain Size mm	Handle Length mm	Take-up mm	Breaking Load/Kgs	Weight Kgs/each
8-10	406	114	8,600	2.81
10-13	470	114	15,000	5.08

Ratchet Type Loadbinders

Chain Size mm	Handle Length mm	Barrel Length mm	Take-up mm	Breaking Load/Kgs	Weight Kgs/each
8-10	355	254	203	8,710	4.82
10-13	355	254	203	15,130	5.92
13-16	390	254	228	20,800	7.50

Ratchet Type Loadbinders-EN1295 pt 3 (complete with reinforced hooks & special safety devices)

Chain Size mm	Handle Length mm	Barrel Length mm	Take-up mm	Lashing Capacity tons	M.B.L. tons
8	355	252	169	4	8
10	355	252	169	6.3	12.6
13	355	252	163	10	21.2
16	355	252	159	16	32.2

Self-Colour Chain Tested & Certified (compatible with GT Loadbinders)

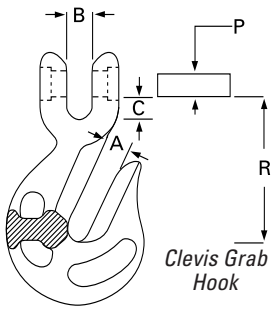
Diameter mm	P mm	B mm	WLL Kgs	Weight Kgs/mtr
9.5	33	33	1400	1.85
12	36	40	2400	3.25
16	48	54	3625	6.10

Grade 8 Chain (suitable for loadbinding use as per EN-12195)

Diameter mm	P mm	B mm	WLL Kgs	Weight Kgs/mtr
8	24	10.8	2000	1.4
10	30	14	3150	2.2
13	39	17.5	5300	3.8
16	48	21.5	8000	5.7

Grade 80 Chain Tested & Certified (compatible with GT loadbinders)

Diameter mm	P mm	B mm	WLL Kgs	Weight Kgs/mtr
8	24	10.8	2000	1.85
10	30	14	3150	2.2
13	39	17.5	5300	3.8
16	48	21.5	8000	5.7

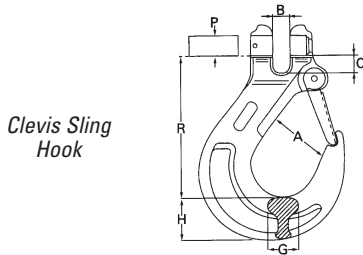


Clevis Grab Hook

Grade 8 Clevis Grab Hooks

(suitable for loadbinding use as per EN-12195)

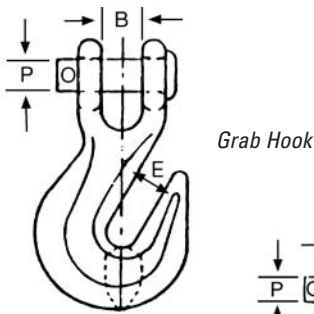
Chain Dia mm	Part No.	R mm	A mm	B mm	C mm	P mm	Weight Kgs/each
7/8	WA-90	50	10	9	10	9	0.27
10	WA-91	72	13	13	14	13	0.75
13	WA-92	88	17	17	17	16	1.35
16	WA-93	102	20	21	20	21	2.30



Clevis Sling Hook

Grade 80 Painted Clevis Sling Hook c/w Catch

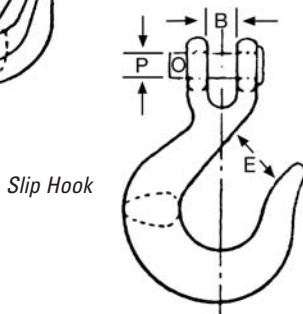
Chain Dia mm	A mm	H mm	R mm	P mm	Weight Kgs/each
7/8	25	32.5	9.5	85	0.5
10	31.5	35	13	104	0.9
13	35	42	16.5	128	1.7



Grab Hook

Electro Galvanised Alloy Steel Clevis Grab Hook - Untested

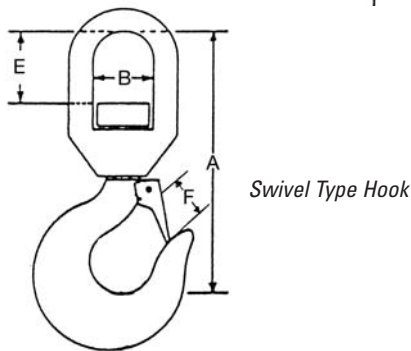
Chain Dia	B mm	E mm	P mm
10	13.5	13	11
13	19	15.5	16
16	23	29.8	19



Slip Hook

Electro Galvanised Alloy Steel Clevis Slip Hook - Untested

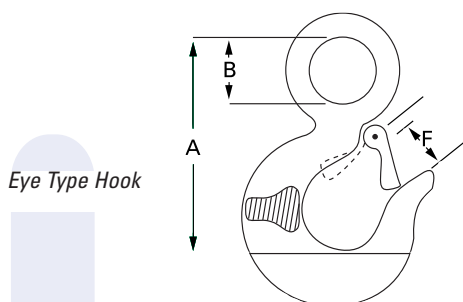
Chain Dia	B mm	E mm	P mm
10	13.5	33	11.5
13	19	40	16



Swivel Type Hook

Painted Alloy Swivel Type Hooks c/w Safety Catch - Tested & Certified

S.W.L Metric Tons	A mm	B mm	E mm	F mm	Weight Kgs/each
1	113	30	25	20	0.4
1.5	134	33	35	24	0.7
2	150	40	42	26	1.1
3	160	40	42	28	1.3
4.5	188	47	47	35	2.3
7	240	56	60	44	4.8
11	280	62	62	51	7.5

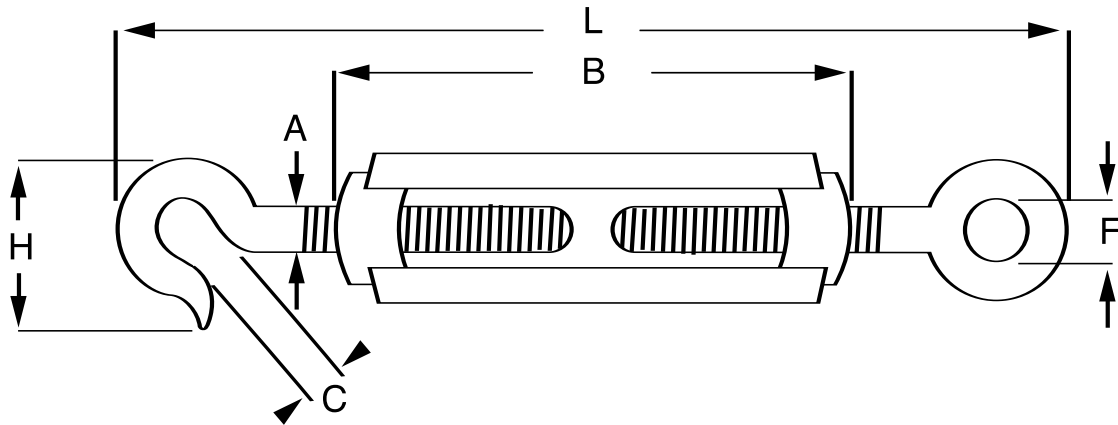


Eye Type Hook

Painted Alloy Eye Type Hooks c/w Safety Catch - Tested & Certified

S.W.L Metric Tons	A mm	B mm	F mm	Weight Kgs/each
1	81	19	22	0.25
1.5	93	23	24	0.43
2	104	28	25	0.67
3	119	31	28	0.87
4.5	146	39	34	1.85
7	187	51	43	4.05
11	230	62	52	6.87
15	255	72	57	9.93
22	317	89	76	16.83

We also stock a range of carbon steel Eye Hooks c/w Heavy Catch - from 0.8 tons to 7.5 tons S.W.L.



Galvanised Drop Forged Open Body Straining Screws

Hook and Eye - Untested

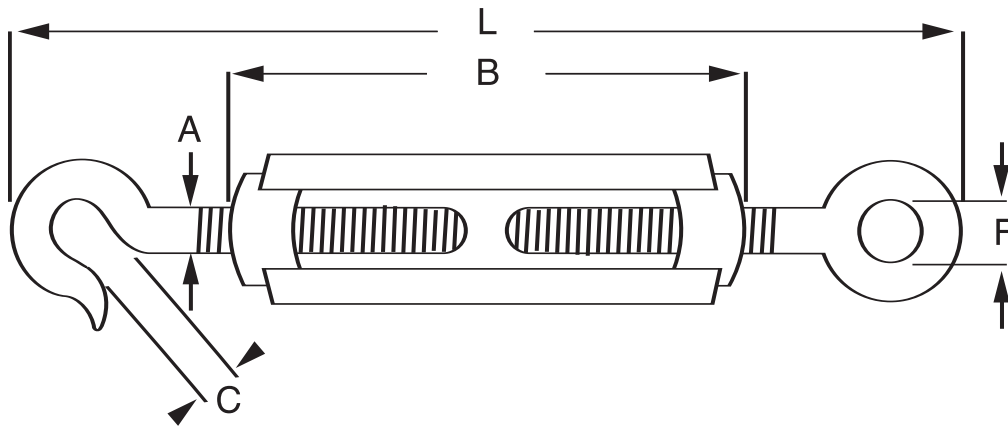
Dia A mm	B mm	C mm	F mm	H mm	L - Min mm	L - Max mm	Weight Kgs/100
6	80	7.5	11	22	132	195	6
8	105	9	12	30	168	249	11
10	125	12	13	36	212	304	21
12	140	15	15	48	245	343	36
16	190	16.5	25	58	322	467	88
20	220	23	28	82	398	562	177
22	240	27	34	97	444	622	255
24	260	30	36	109	488	680	345

Eye and Eye - Untested

Dia A mm	B mm	F mm	L - Min mm	L - Max mm	Weight Kgs/100
6	80	11	128	191	6
8	105	12	159	240	10.5
10	125	13	197	289	19.5
12	140	15	222	320	33
16	190	25	306	451	83
20	220	28	358	522	155
24	260	36	436	628	280

Hook and Hook - Untested

Dia A mm	B mm	C mm	H mm	L - Min mm	L - Max mm	Weight Kgs/100
6	80	7.5	22	135	198	6
8	105	9	30	176	257	11.5
10	125	13	35	227	319	22
12	140	15	48	267	365	38
16	190	16.5	58	337	482	95
20	220	23	82	437	601	200
24	260	30	109	540	732	410



Galvanised Commercial Quality Straining Screws

Galvanised Commercial Pattern Open Body Straining Screws (generally to Din 1480) Hook and Eye - Untested

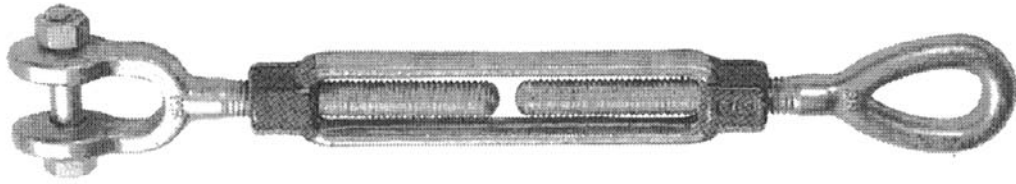
Dia A mm	B mm	C mm	F mm	L - Min mm	L - Max mm	Weight Kgs/100
6	110	8	9	172	258	11
8	110	10.5	10	184	264	20
10	125	13	14	222	311	28
12	125	16	16	241	324	43
16	170	20	22	311	427	100
20	200	21	24	358	490	160
24	255	26	27	453	630	280

Galvanised Commercial Pattern Open Body Straining Screws (generally to Din 1480) Eye and Eye - Untested

Dia A mm	B mm	F mm	L - Min mm	L - Max mm	Weight Kgs/100
6	110	9	160	246	11
8	110	10	168	248	20
10	125	14	210	300	28
12	125	16	222	305	43
16	170	22	300	416	100
20	200	24	334	466	160
24	255	27	410	587	280

Galvanised Commercial Pattern Open Body Straining Screws (generally to Din 1480) Hook and Hook - Untested

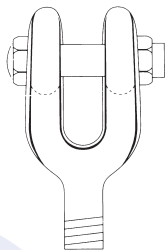
Dia A mm	B mm	C mm	L - Min mm	L - Max mm	Weight Kgs/100
6	110	8	184	270	11.0
8	110	10.5	200	280	20.0
10	125	13	234	323	28.0
12	125	16	260	343	43
16	170	20	322	438	100
20	200	21	382	514	160
24	255	26	496	673	280



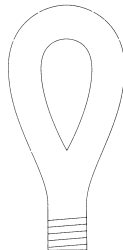
Hot Dip Galvanised Turnbuckles meet the performance requirements of US Fed FFT-791& ASTM F1145-92 Tested & Certified

Dia Thread inch	Take-up inch	WLL tons	Dia Thread inch	Take-up inch	WLL tons	
3/8	6	0.54	1	6	4.54	
	6	1.00		12	4.54	
1/2	9	1.00		18	4.54	
	12	1.00		24	4.54	
5/8	6	1.59		1 1/4	12	6.90
	9	1.59			18	6.90
	12	1.59	24		6.90	
3/4	6	2.36	1 1/2	12	9.71	
	9	2.36		18	9.71	
	12	2.36		24	9.71	
	18	2.36		18	12.7	
7/8	12	3.27	1 3/4	24	12.7	
	18	3.27		2	24	16.78
				2 1/2	24	27.22
			2 3/4	24	34.02	

**NOTE:- ALL TURNBUCKLES ARE SUPPLIED WITH LOCKNUTS AS STANDARD
OTHER COMBINATIONS AVAILABLE, e.g. HOOK/HOOK & JAW/EYE, PRICES ON REQUEST**



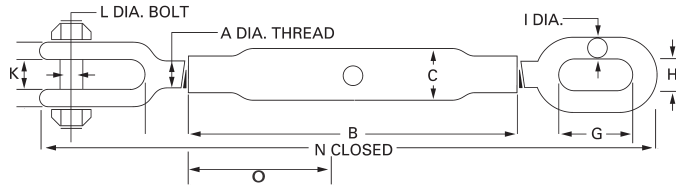
JAW



EYE



HOOK



Galvanised Rigging Screws Jaw/Jaw - Tested & Certified

Size A inches	B mm	K mm	L mm	N mm	Thread length Omm	WLL Tonnes	Weight Kgs/each
6mm (1/4)	100	7	5	184	54	0.20	0.16
8mm (5/16)	108	9	6	212	59	0.32	0.27
10mm (3/8)	125	10.5	8	240	68	0.50	0.37
12mm (1/2)	195	13	10	338	106	0.70	0.82
16mm (5/8)	230	18	12	414	122	1.20	1.52
20mm (3/4)	270	20	16	486	145	1.50	2.60
22mm (7/8)	295	25	20	536	165	2.20	3.00
24mm (1)	325	30	22	596	180	3.20	5.40
33mm (1 1/4)	370	38	25	756	220	4.80	12.00
39mm (1 1/2)	400	45	32	800	235	6.00	13.50

Galvanised Rigging Screws Eye/Eye - Tested & Certified

Size A inches	B mm	G mm	H mm	N mm	Thread length Omm	WLL Tonnes	Weight Kgs/each
6mm (1/4)	100	11	11	168	54	0.20	0.14
8mm (5/16)	108	12	12	182	59	0.32	0.20
10mm (3/8)	125	13	13	216	68	0.50	0.39
12mm (1/2)	195	30	15	336	106	0.70	0.66
16mm (5/8)	230	40	20	392	122	1.20	1.17
20mm (3/4)	270	50	24	474	145	1.50	1.71
22mm (7/8)	295	50	24	514	165	2.20	2.77
24mm (1)	325	56	28	568	180	3.20	3.03
33mm (1 1/4)	370	70	35	700	220	4.80	7.50
39mm (1 1/2)	400	80	40	770	235	6.00	12.50

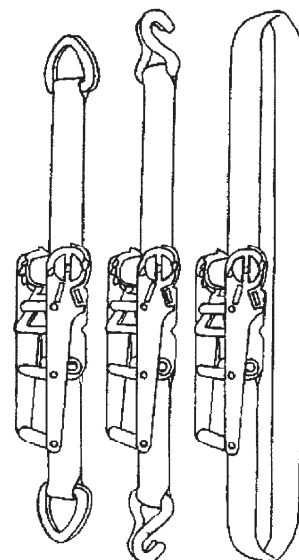
Galvanised Rigging Screws Jaw/Eye - Tested & Certified

Size A inches	B mm	G mm	H mm	N mm	Thread length Omm	WLL Tonnes	Weight Kgs/each
6mm (1/4)	100	11	11	176	54	0.20	0.14
8mm (5/16)	108	12	12	197	59	0.32	0.23
10mm (3/8)	125	13	13	228	68	0.50	0.38
12mm (1/2)	195	30	15	336	106	0.70	0.55
16mm (5/8)	230	40	20	403	122	1.20	1.55
20mm (3/4)	270	50	24	480	145	1.50	2.10
22mm (7/8)	295	50	24	520	165	2.20	3.00
24mm (1)	325	56	28	582	180	3.20	4.02
33mm (1 1/4)	370	70	35	728	220	4.80	8.90
39mm (1 1/2)	400	80	40	785	235	6.00	13.50

Ratchet Lashing Assemblies, generally to EN12195 pt2 c/w Claw Hooks each end

Min Break Strength kgs	Length EWL mts	Rated Assembly Strength kgs	Webbing Width mm
1000	2	500	25
1000	3	500	25
1000	4	500	25
1000	6	500	25
1000	8	500	25
5000	6	2500	50
5000	8	2500	50
5000	10	2500	50
5000	12	2500	50
5000	14	2500	50
10000	6	5000	75
10000	8	5000	75
10000	10	5000	75
10000	12	5000	75
10000	14	5000	75

Note:
Wear Sleeves available upon request.

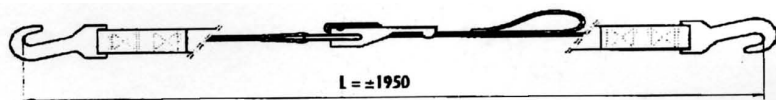


Larger and Non Standard products are available on request.

These products are designed to resist wear and tear, efficiently grip loads and are manufactured from polyester. Once tensioned, the straps require only a little, or no further adjustment. The straps, which apply pressure over a broad area, are unlikely to cause damage to either sheet or the load. Polyester webbing is not affected by weather, grease, oils and most chemicals, however, it is recommended to avoid contact with strong alkalis.

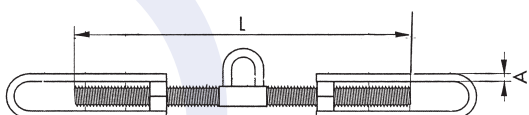
Each ratchet assembly is manufactured to BESEN 12195 Part 2:2001. Commonly used for commercial applications, the 50mm restraint is available as an endless assembly, or with D-Ring, Snap Hook or Claw Hook. The larger widths (50mm & 75mm) can be provided with two chafing sleeves which help to reduce damage and wear to the webbing

Car Lashing Equipment



Car Lashing Polyester, over centre buckle coated flat hooks each end. Weight 0.5kg MBL 1.5 Tonne

Hamburgers (for lashing purposes) - Untested

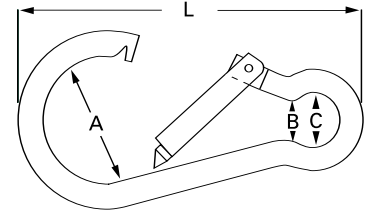


Dia mm	L mm	A mm	M.B.L. Tons	Weight Kgs/each
24	400	16	13	3
28	400	18	18	4.4
30	400	20	20	5



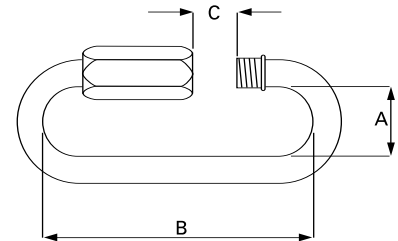
Electro-Galvanised Carbine Hooks - Untested

Material Dia/mm	L mm	A mm	B mm	C mm	Weight Kgs/100
5	50	16	4	7	1.3
6	60	18	5	8	2.7
7	70	22	8	8	4.4
8	80	24	8	9	6.5
9	90	26	8	9	8.8
10	100	30	10	12	12.7
11	120	36	11	16	18
12	140	40	13	19	26
13	160	44	15	22	32
14	180	48	20	25	35



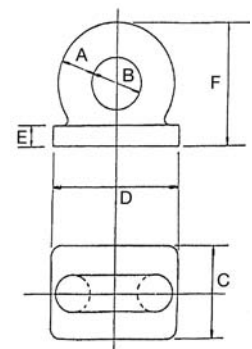
Electro-Galvanised Quicklinks - Untested

Material Dia/mm	A mm	B mm	C mm	Weight Kgs/100
3.5	10	29	5	1.2
4	11.5	31.5	5.5	2.1
5	13	38	6.5	2.2
6	14	45	7.5	3.6
7	16	52	8	5
8	18	60	10	7.8
9	19	64	11	10
10	20	69	12	13.8
12	25	83	15	20

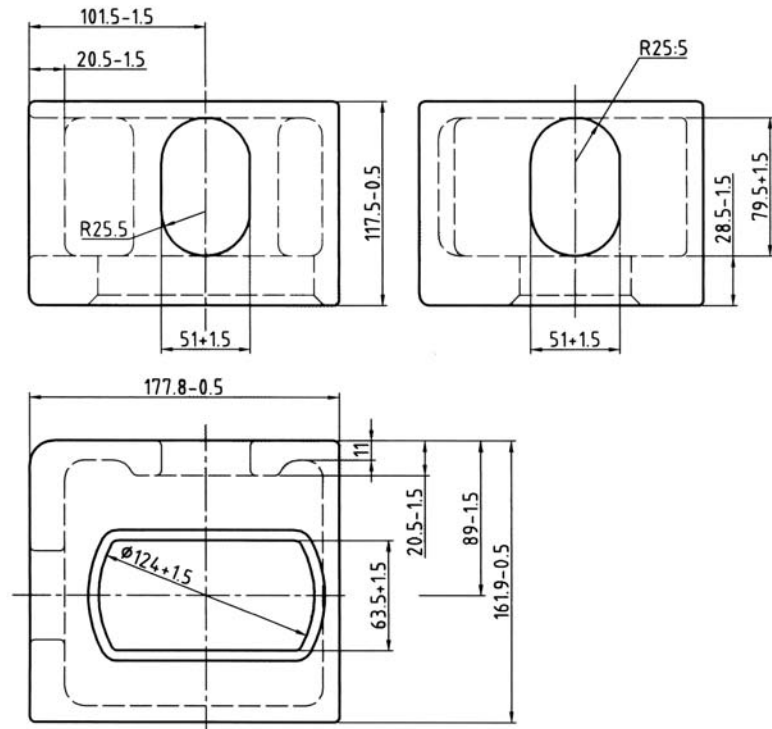


Rectangular Base Deckplates - Tested

Old AP No	A mm	B mm	C mm	D mm	E mm	F mm	Proof Test Tonnes	Weight Kgs/each
AP4014	10	20	25	45	6	38	2	0.14
AP4015	12.5	25	35	60	8	50	3.5	0.31
AP4016	16	32	45	70	10	64	5.5	0.45
AP4017	19	38	50	85	12	76	7.5	0.79
AP4018	22	44	61	102	12	88	9.6	1.36
AP4019	25	50	70	115	16	100	13	1.82
AP4020	28	56	76	130	18	114	15.75	2.95
AP4021	32	64	85	145	19	128	20	3.86
AP4023	38	76	100	170	22	152	29	6.58
AP4025	44	89	121	200	27	178	38.25	18
AP4027	50	102	137	229	30	203	50	25

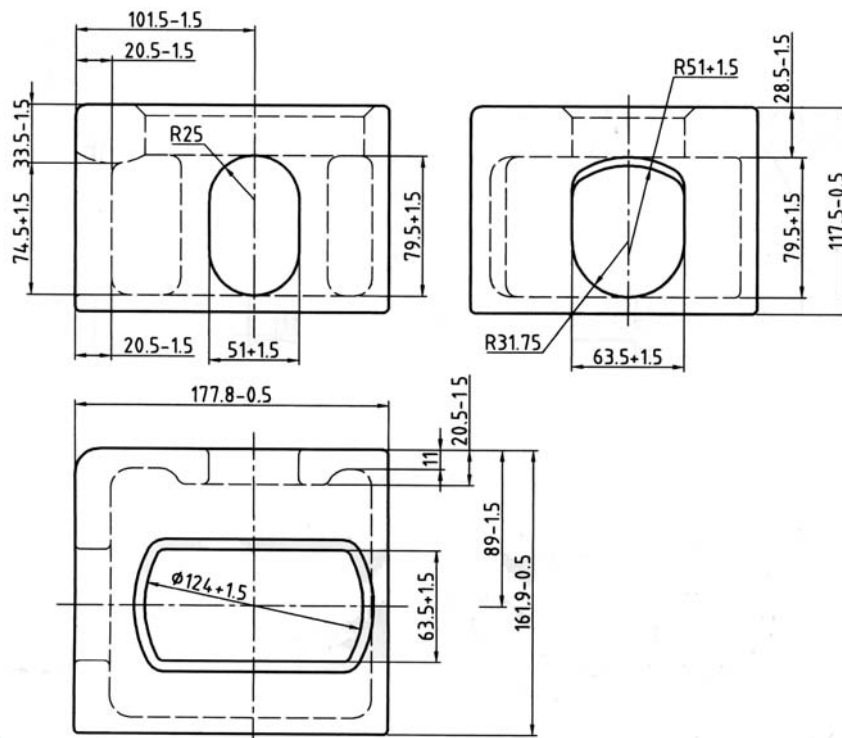


Bottom



WEIGHT 10.8KG

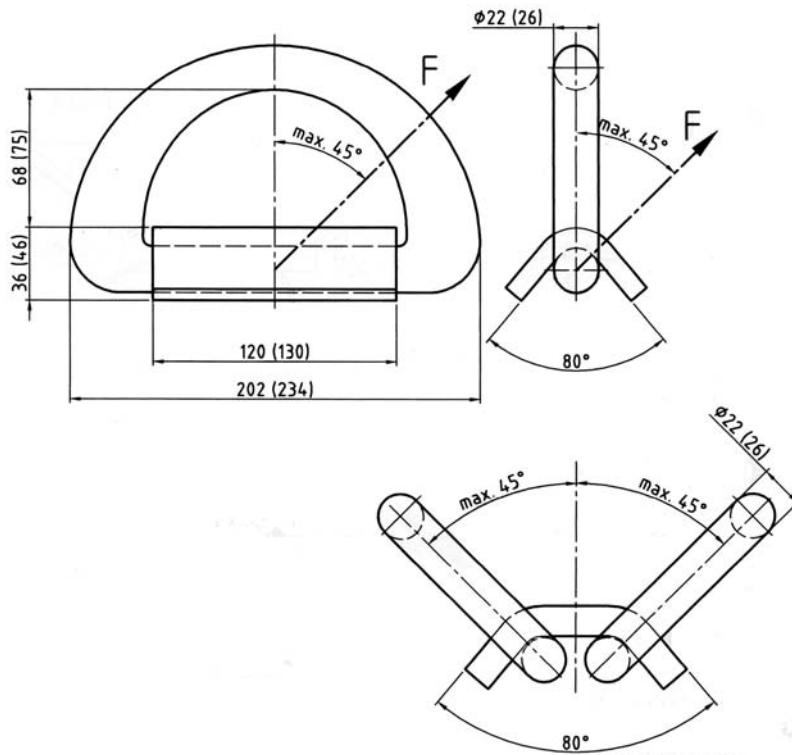
Top



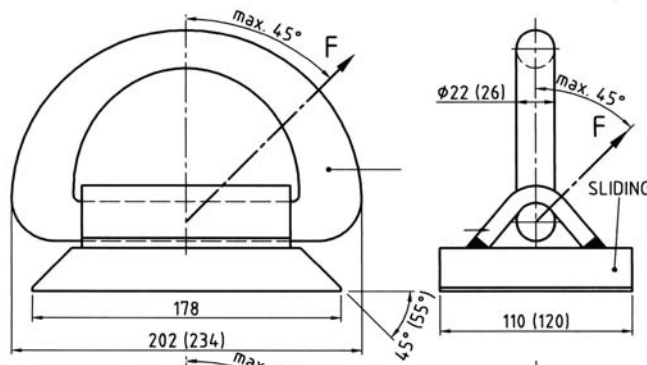
WEIGHT 10.8KG



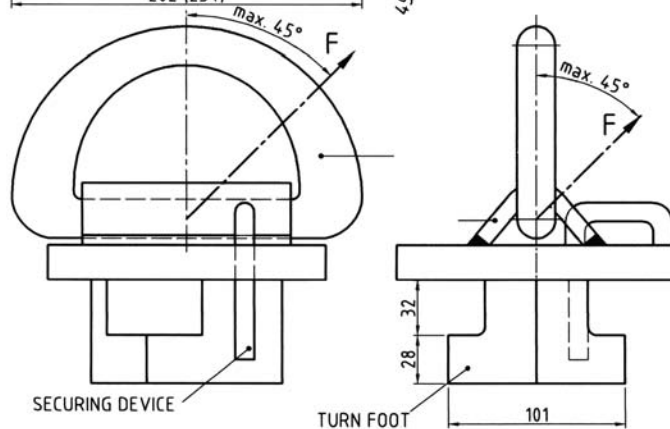
Weldable



Fixed Type

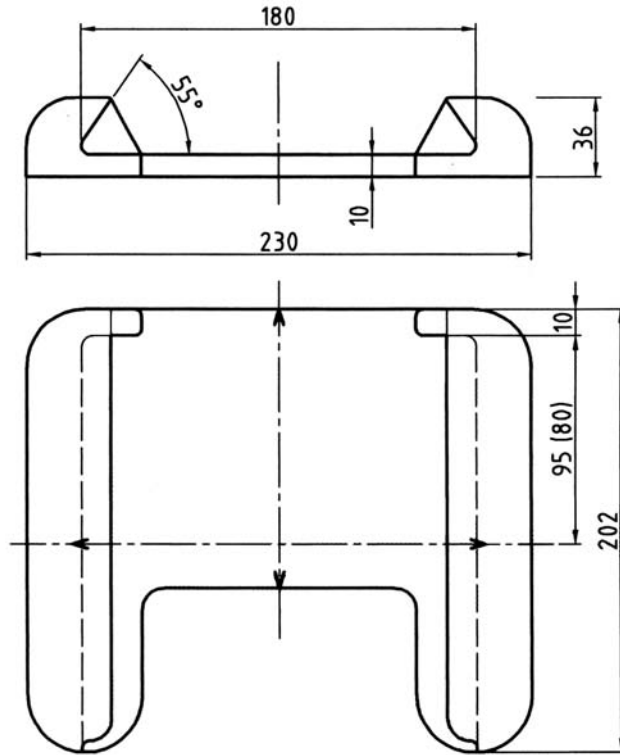


Dovetail

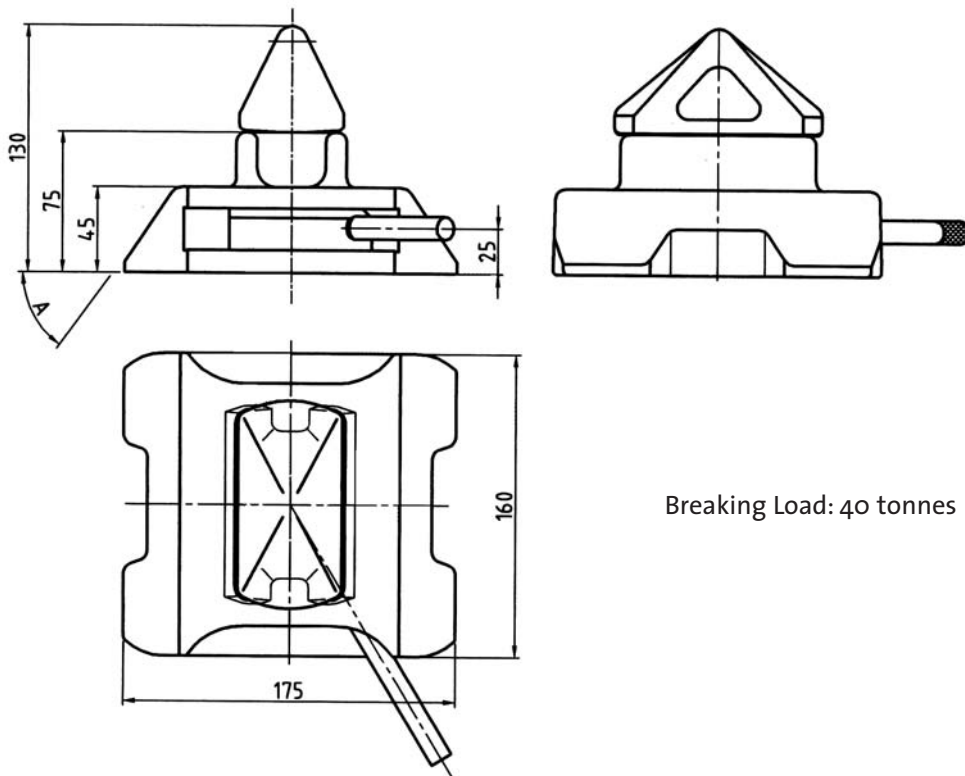


Turn Foot

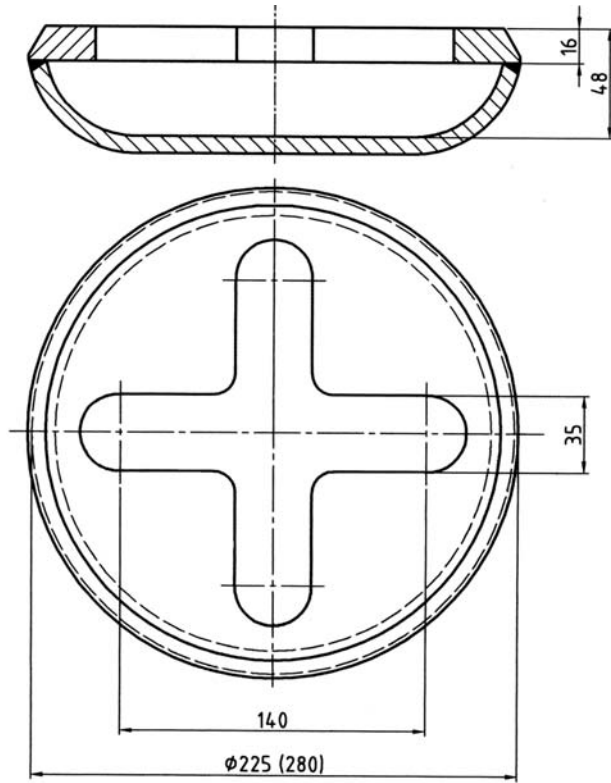
Available in 20 Tonne,
36 Tonne and 50
Tonne Breaking Load



Breaking Load:
50 Tonnes

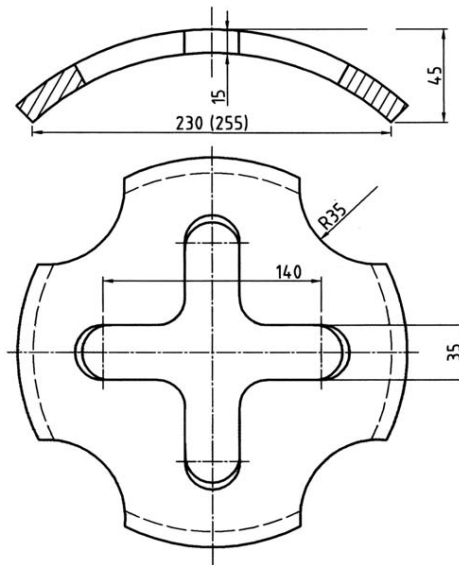


Breaking Load: 40 tonnes

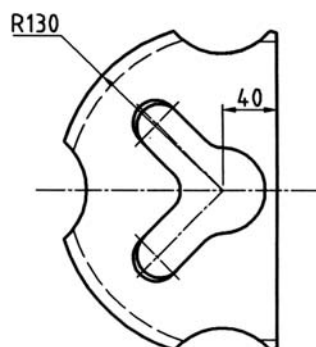


Flush Type

Breaking Load:
25 Tonnes

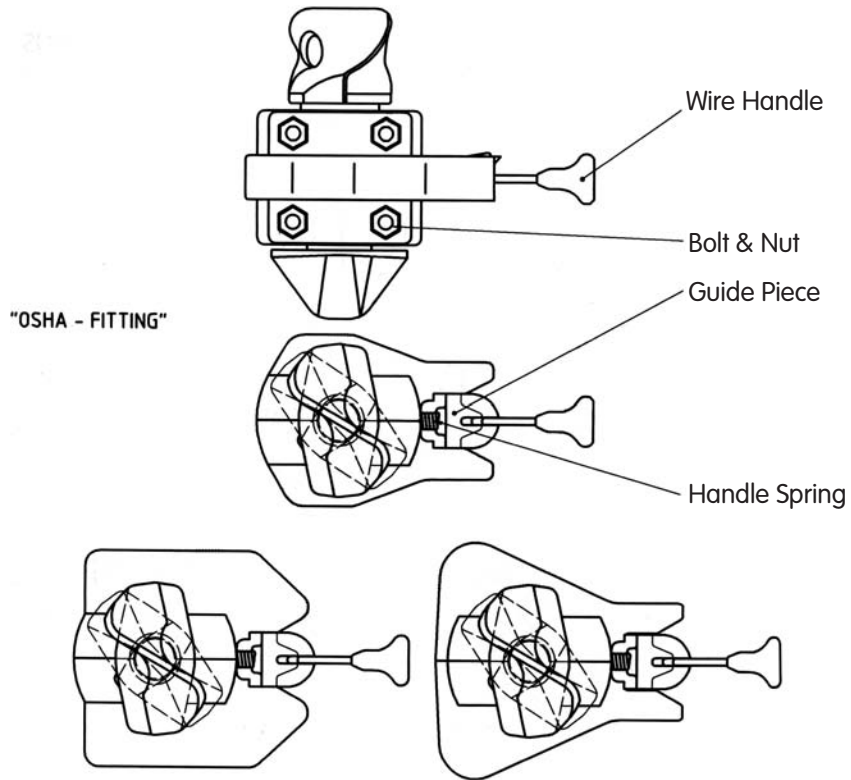


Raised Type



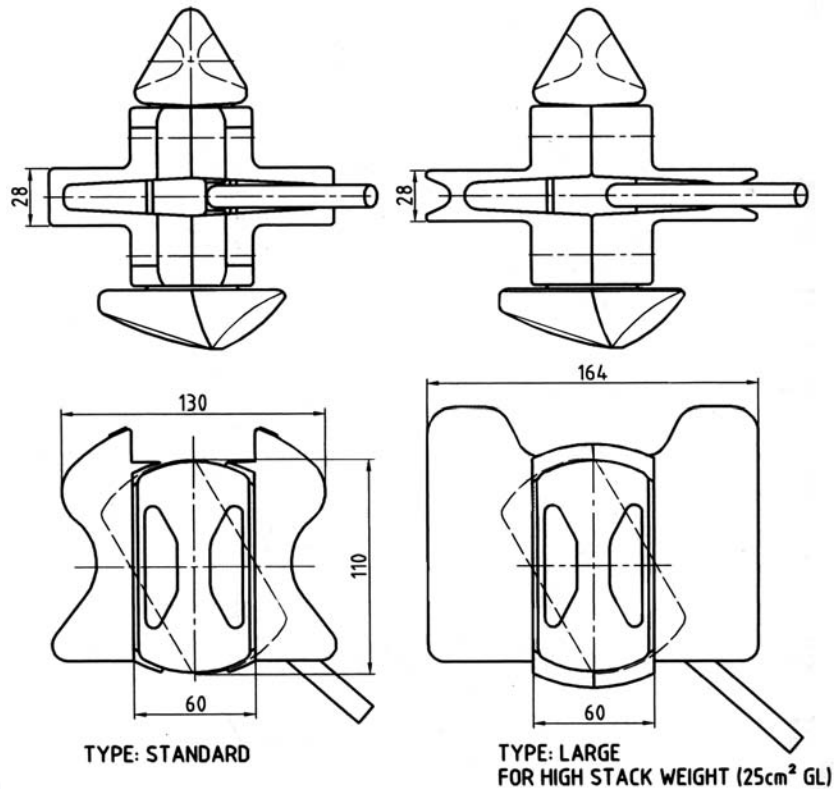
Bulk Head Type

Semi Automatic Twistlock



Breaking Load:
55 Tonnes

Standard Stacking Twistlock

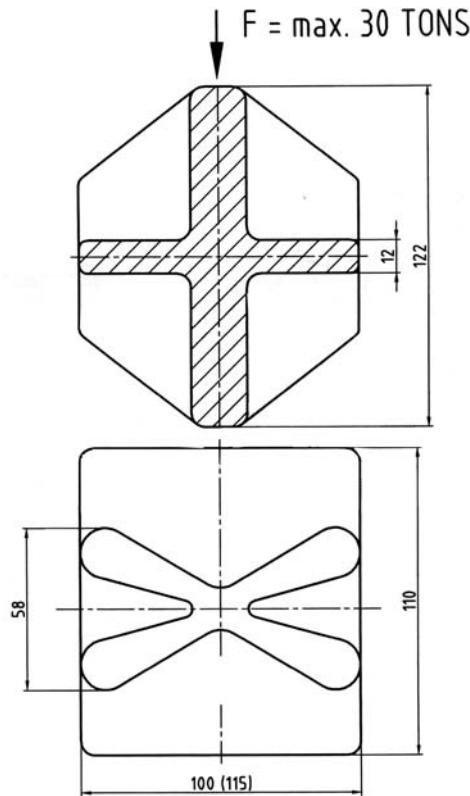


Breaking Load:
50 Tonnes

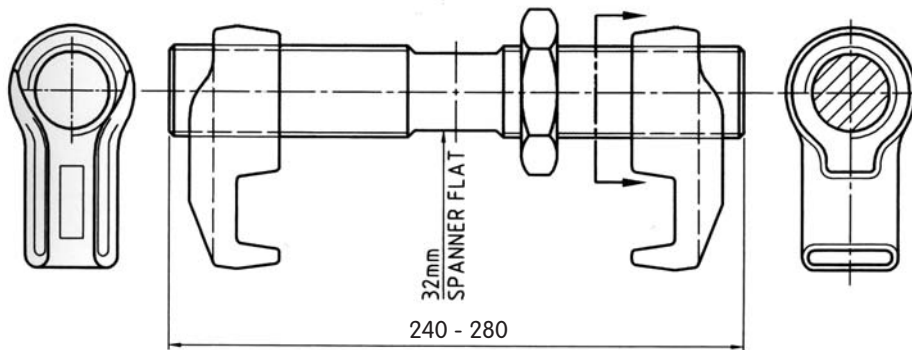
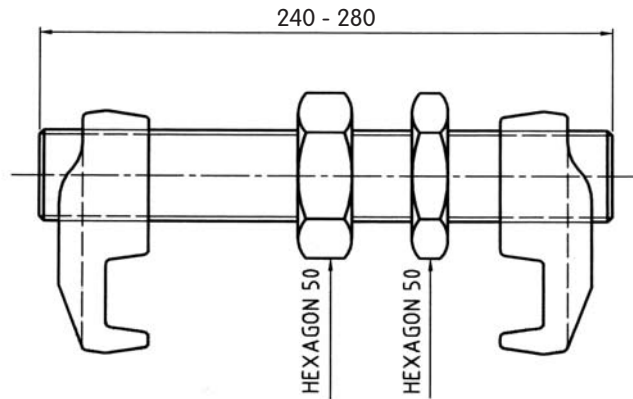


Single Stacking Cone

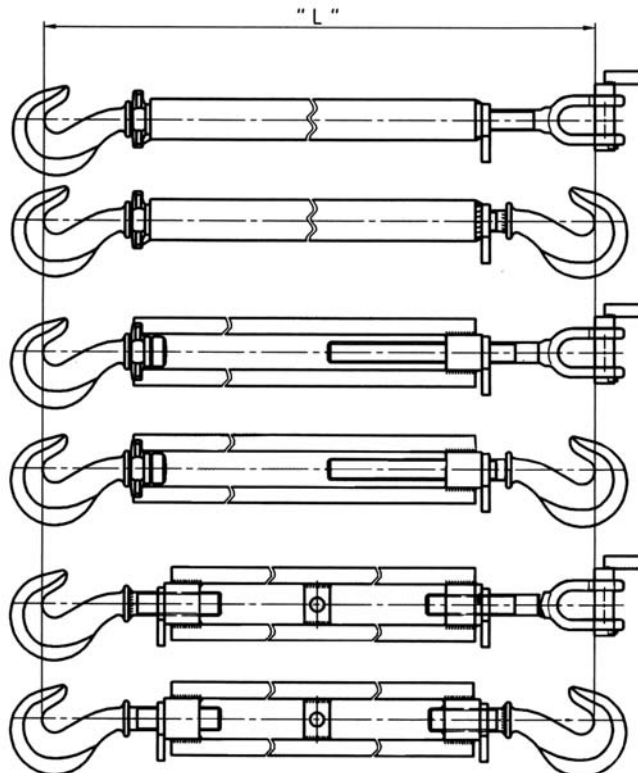
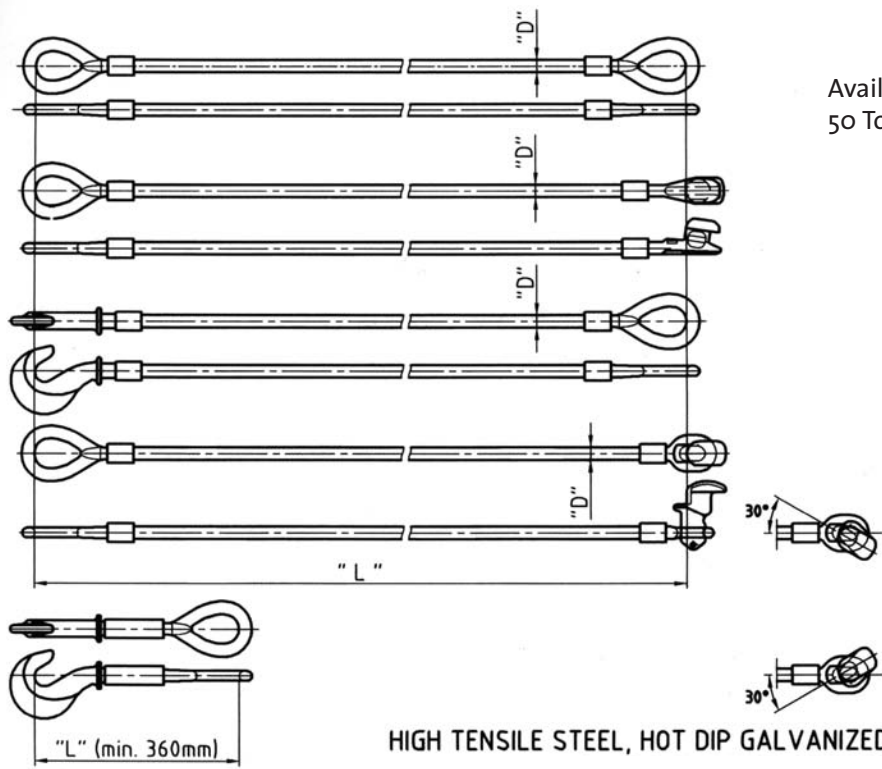
Double transversal type available on request



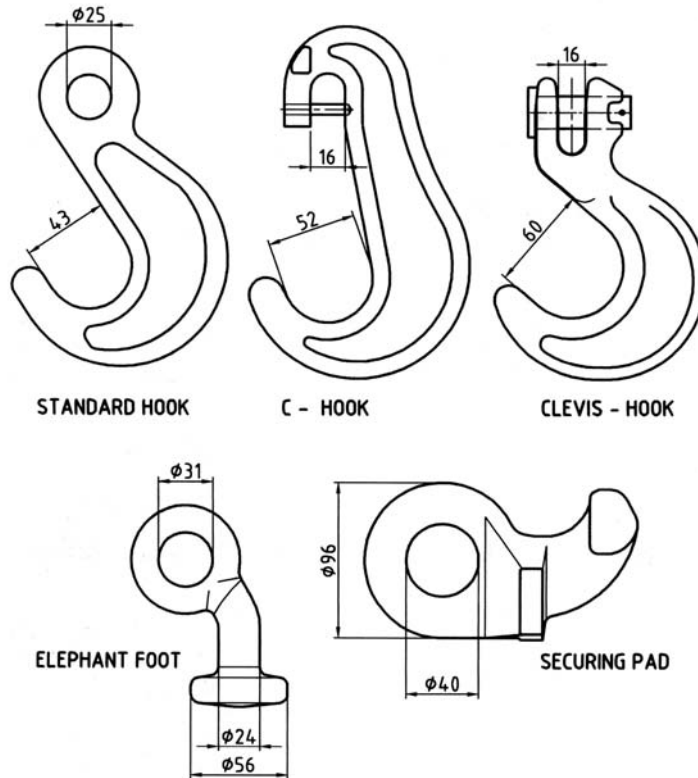
BRIDGE FITTING TENSION TYPE



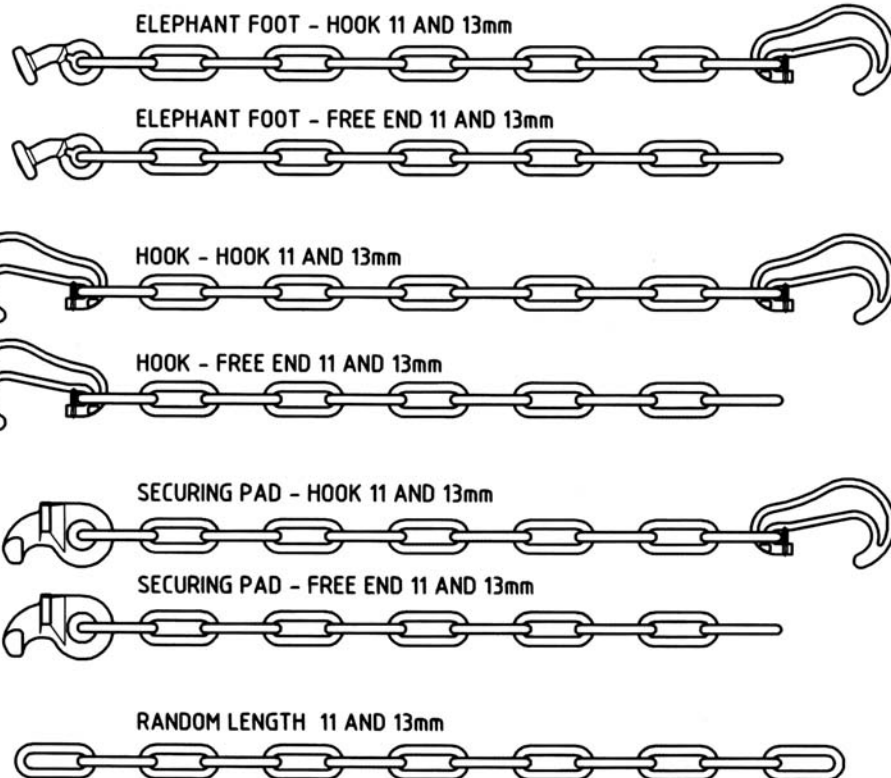
Breaking Load:
10kN



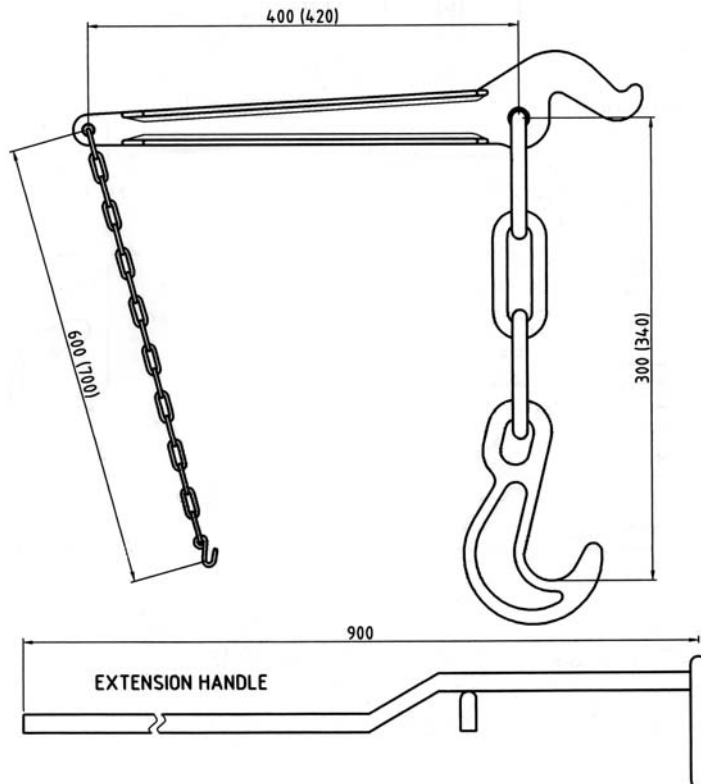
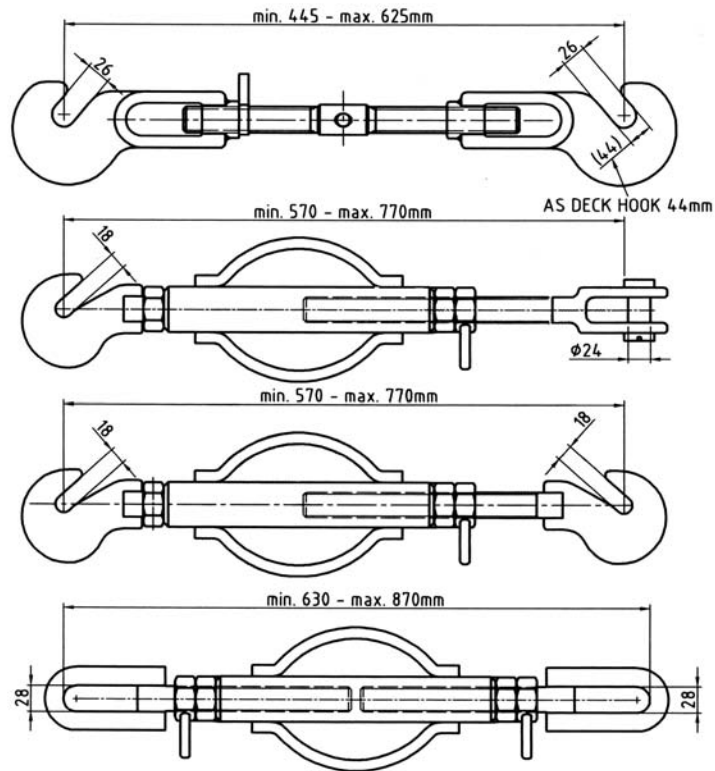
Available in 36 Tonne and 50 Tonne Breaking Load



Available in 15 Tonne
and 20 Tonne
Breaking Load

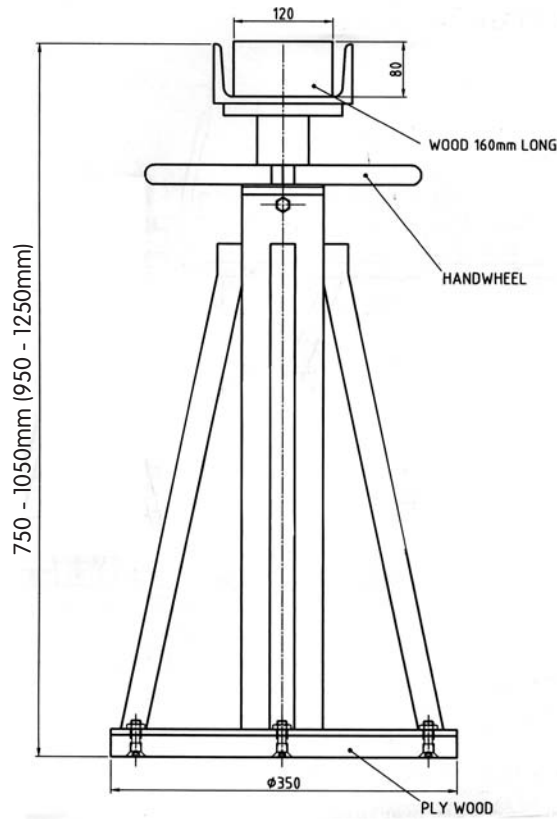


Available in
36 Tonne
Breaking Load

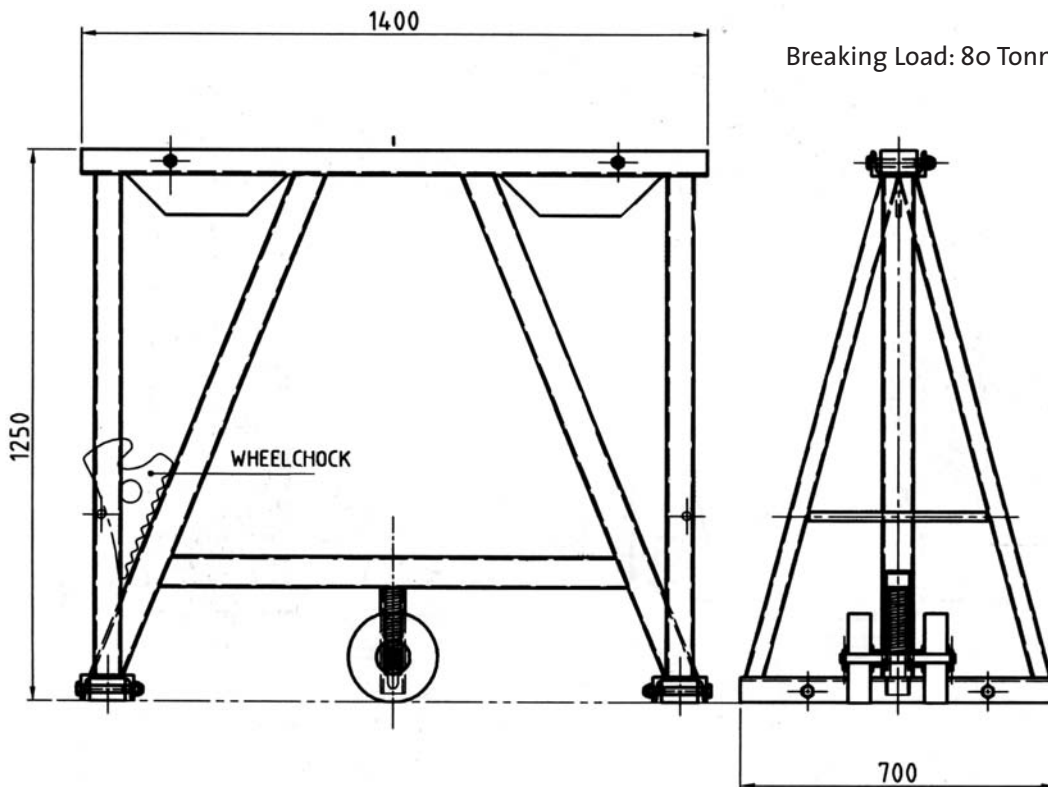


Available in 15 Tonne
and 20 Tonne
Breaking Load

Breaking Load:
 40 Tonnes



Breaking Load: 80 Tonnes



The following guidelines are principally directed towards crane operators who need to periodically replace steel wire ropes and to crane designers who are required to specify ropes for new build projects.

When replacing a steel wire rope on any crane or appliance reference should be made to the relevant original equipment manufacturers manual, the wire rope manufacturers test certificate originally supplied with the crane or appliance and to any other relevant documentation.

In order to ensure safe and efficient operation we recommend that any replacement wire rope should conform with the specified nominal diameter and at least equal the required strength originally specified by the manufacturer of the machine or appliance.

Additionally the wire rope construction selected should provide an equal or greater resistance to rotation, bend fatigue, crushing, abrasive wear, and corrosion when compared to the originally specified rope.

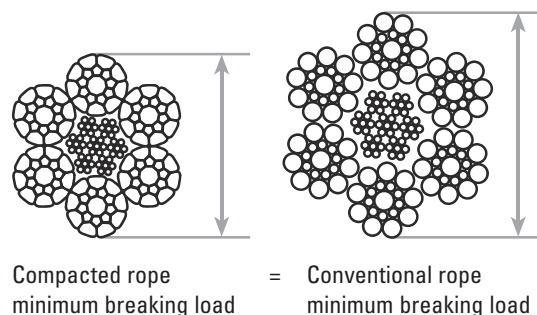
STRENGTH

Wire rope strength is normally referred to as minimum breaking force or minimum breaking load. The minimum breaking load of any given rope diameter can be increased in two basic ways:

An increase in the tensile strength of the wire used to manufacture the rope will increase the minimum breaking load of the final rope. Typical tensile grades of wire used for crane rope manufacture are 1770N/mm², 1960N/mm² and 2160N/mm².

Additionally it is possible to increase the steel fill factor of the wire rope. Fill factor measures the ratio between the sum of the nominal cross sectional areas of all the wires in the rope and the circumscribed area of the rope based on its nominal diameter. More simply it measures the metallic cross sectional area of the rope.

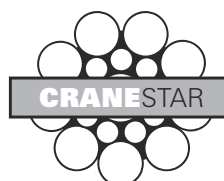
It is possible to marginally increase the fill factor by varying the construction i.e. adding small filler wires. More effectively the individual strands of the rope can be compacted.



The resultant rope has a very high steel fill factor and consequently a relatively high minimum breaking load for any given diameter when compared with a conventional rope.



Our compacted crane ropes are referred to as Cranemaster®.



Our non compacted crane ropes are referred to as Cranestar®.



Every rope manufactured for us will satisfy the **Loadrite** strength testing requirement. This means that a sample from each production length is tested to destruction and must either equal or exceed the published minimum breaking load.

The high breaking load to diameter relationship offered by Cranemaster® ropes can allow crane manufacturers to optimise the design of crane components such as winding drums and sheaves whilst still complying with international crane design standards.

Lower stress levels which occur when crane operators replace a conventional rope with an identical diameter of high strength Cranemaster® rope can lead to more 'comfortable' operation and longer rope life.

DIAMETER

Correct and consistent wire rope diameter is critical to performance on a modern crane and a rope which is too large, or too small, for the drum and sheaves in which it is operating can cause premature rope failure.

It is not only important to select a rope which has the correct nominal diameter according to the original equipment operating manual but it is also important that the diameter of the rope is consistent throughout its entire length. Inconsistency in diameter, particularly short lengths where the rope is oversize, can cause premature localised wire breaks and short rope life.



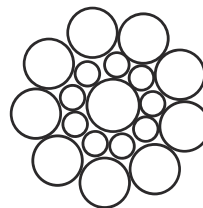
We ensure correct and consistent diameter during manufacture by applying the rigorous **Sizerite** regime of diameter measurement throughout the production process.

BEND FATIGUE RESISTANCE

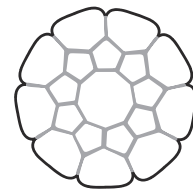
Bend fatigue resistance is the ability of the wire rope to withstand repeated bending under constant or fluctuating loads. As the load increases in any reeving system so the rate of fatigue will increase. As the bending radii decrease in a reeving system so the rate of fatigue will increase.

A wire rope which has an increased number of wires such as a 6x36 construction will have greater resistance to fatigue than a 6x19 construction.

Extra fatigue life can be achieved by moving to Cranemaster® compacted rope.

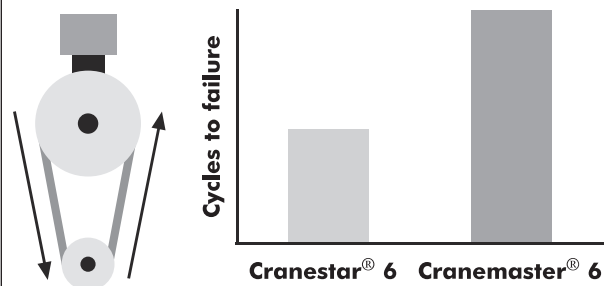


Conventional

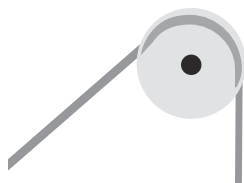


Compacted

The Cranemaster® strand has very favourable internal and external contact conditions when compared with the point contact of round wires within a conventional strand. The smooth surface of Cranemaster® rope offers a wider bearing surface to the sheave or drum groove. Increased fill factor, lowering internal stress levels, combined with improved internal and external contact conditions lead to longer rope life.



Laboratory fatigue testing indicates that it is possible to achieve up to two times normal rope life when comparing Cranemaster® rope with a conventional rope of equivalent construction.



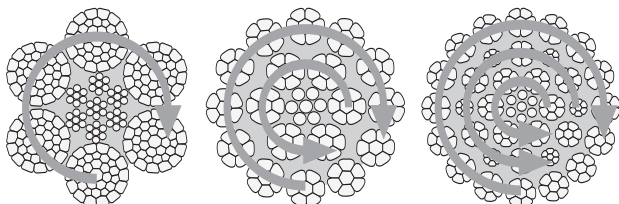
The smooth external surface of Cranemaster® rope can also lead to less wear on the sheave and winding drum.

ROTATION RESISTANCE

Each wire rope construction will have an inherent torque characteristic where both ends of the rope are secured and an applied force will generate torque at the fixing points. Each wire rope construction will have an inherent turn characteristic where one end of the rope is free to rotate and an applied force will cause the free end of the rope to turn.

The torque or turn generated will depend upon the magnitude of the force applied and also upon the construction of the wire rope selected.

In terms of resistance to rotation wire ropes can be divided into three basic categories.



Single Layer

2 Layer

3 Layer

Single layer ropes have a much greater tendency to rotate under load than the two or three layer ropes which are often referred to as rotation resistant.

Similarly the three layer rope will have less tendency to rotate when compared with the two layer rope.

Both the two layer and three layer ropes depend on torsional balance between the outer and inner layers to create rotational stability.

With correct rope selection rotation should not cause a problem in service provided that the rope has been correctly balanced in design

and manufacture. The complete range of rotation resistant ropes manufactured by us must satisfy the



BALANCERITE

Balancerite rotational stability test which ensures that the rope design and manufacturing process produce a wire rope which has optimum rotational stability.

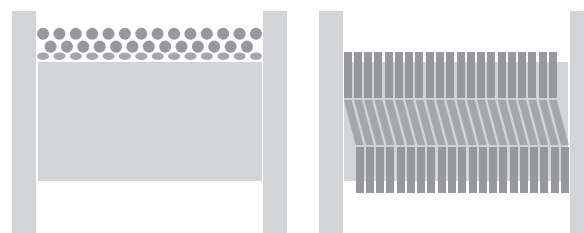
Before selecting a rotation resistant rope consideration should be given to a single layer construction. If the application/duty in question does not require the rope to resist rotation then it is possible that a single layer rope can represent a more robust and more effective solution.

We would be pleased to offer advice on any problems associated with rope rotation or selection of the correct rotation resistant rope.

Safety note – Single layer Langs lay ropes (where the direction of strand lay is the same as the direction of rope lay) have exceptionally bad rotational characteristics and must only be used in applications where both ends of the rope are securely fixed.

CRUSH RESISTANCE

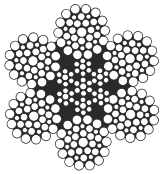
Selection of a rope with an independent wire rope core or wire strand core as opposed to a fibre core rope can improve resistance to crushing.



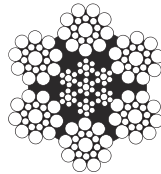
In multi-layer coiling situations where crushing of lower layers particularly at crossover points is unavoidable we would recommend the use of a Cranemaster® compacted rope. The high steel fill factor, which is a feature of the compaction process, will offer greater resistance to crushing than an equivalent conventional rope.

RESISTANCE TO WEAR & ABRASION

Larger external wires can provide greater resistance to wear and abrasion therefore a 6x19 construction might be selected in preference to a 6x36 construction in a situation in which wear and abrasion rather than bend fatigue are the principle cause of rope deterioration.

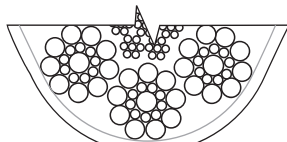


Cranestar® 6x36

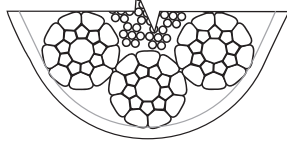


Cranestar® 6x19

Maximum resistance to wear and abrasion can be achieved by selecting a Cranemaster® rope

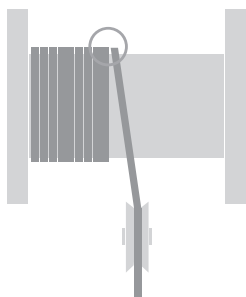


Conventional



Compacted

The smooth surface of the Cranemaster® rope offers a wider bearing surface to the sheave or drum groove resulting in improved resistance to wear and abrasion.



abrasive wear can occur between the rope and any ancillary equipment such as sheaves and the surface of the winding drum but probably the most significant cause of abrasive wear on cranes takes place between adjacent laps of rope where the rope moves on and off the winding drum.

Selection of a Cranemaster® wire rope with its smooth external surface and very good contact condition will minimise abrasive wear between the rope and ancillary equipment and also between adjacent laps of rope. Where a rotation resistant rope is required maximum resistance to abrasive wear can be achieved by specifying a Cranemaster® compacted rope in Langs lay.

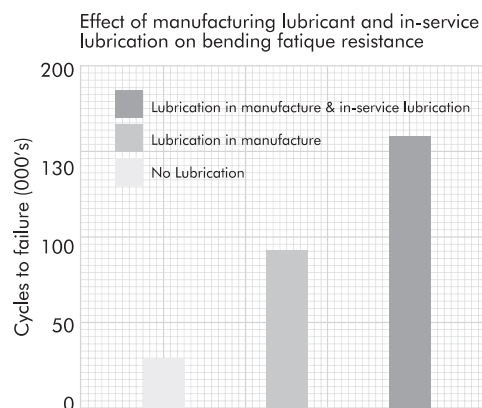
Cranemaster® single layer ropes such as Cranemaster® 6 will give exceptionally good resistance to abrasive wear even in ordinary lay.

CORROSION RESISTANCE

It is normal to select a rope with galvanised finish if it is likely to be used in a corrosive environment. Plastic impregnation of the entire rope (PIR) or plastic coating of the core can also help to prevent corrosion.

LUBRICATION

Effective lubrication with the correct rope lubricant can extend fatigue life, minimise abrasive wear and help to minimise corrosion.



Laboratory bend fatigue tests show the significant effect which high performance manufacturing lubricant and in-service lubrication has on rope life.

In-service lubrication with a suitable lubricant should be carried out wherever possible however the best opportunity to introduce lubricant into the rope is during manufacture.



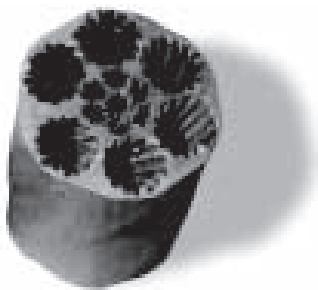
Luberite ensures that during manufacture our Cranemaster® and Cranestar® ropes are fully impregnated with a controlled amount of high performance lubricant designed to minimise corrosion and maximise rope life.

Plastic impregnated ropes are recommended for severe crane applications where the rope is exposed to high levels of wear and fatigue and particularly where there is a possibility that abrasive dust, dirt or corrosive material might penetrate the rope during normal operation.



Plastic impregnated ropes have been successfully used on coal and ore unloaders and also in piling operations.

We are able to offer most of the rope constructions shown in this catalogue as Plastic Impregnated Rope (PIR).



The steel wire rope is impregnated by a special process whereby the individual strand gaps within the rope are filled with a sealing thermoplastic material forming a protective layer between the individual strands and around the core of the rope.

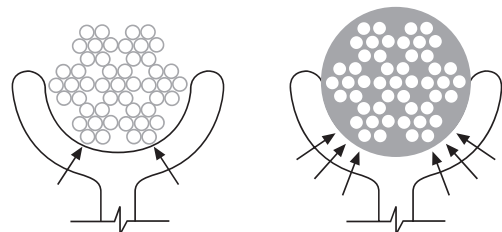
The end result is a balanced, sealed – lubricated wire rope that provides exceptional performance and extended service life when working under severe operating conditions.

Improved wear resistance – The plastic impregnation acts as a shield to prevent the ingress of solid abrasives and, combined with the locked-in internal lubricant, reduces weakness due to internal deterioration.

Improved fatigue resistance – The plastic filling reduces wire contact bending stresses thereby improving load transfer and sharing between wires and strands. This results in continued flexibility and a considerable increase in the working life of the rope.

PIR for safety – High visibility bright orange plastic is used in the manufacture of PIR wire ropes. The resultant rope is clean as well as being easy and safe to handle.

Reduced drum and sheave wear – The plastic filling process results in a rope with a completely full cross section. A full pitch circle is presented to those parts of the machine which both cause wear to the rope and are worn by the rope.



Contact of conventional wire rope with the winding drum and sheaves inevitably leads to high pressure point contact where individual wires meet the contour of the groove. With PIR rope the load is spread and wear on both the rope and drum are minimised.

Less maintenance – lower cost – The increased lifetime associated with PIR rope results in decreased downtime because of fewer wire rope changes and less maintenance of drums and sheaves due to the polishing effect of the PIR fully circular cross section.

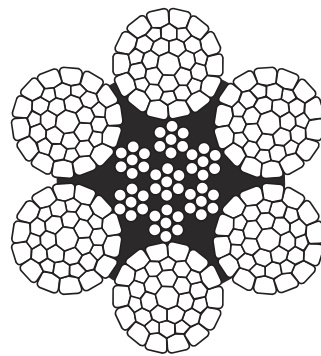
- **Wire rope will fail if worn out, shock loaded, overloaded, misused, damaged, improperly maintained or abused.**
- **Always inspect wire rope for wear, damage or abuse before use.**
- **Never use a wire rope which is worn out, damaged, corroded or abused.**
- **Never overload or shock load a wire rope.**
- **Use the correct design factor for the application.**
- **Inform yourself: Read and understand the machinery manufacturer's handbook and guidance from the wire rope manufacturer.**
- **Refer to applicable directives, regulations, standards and codes concerning inspection, examination and rope removal criteria.**

For further information please refer to the our 'Product Safety' leaflet.

All statements, technical information and recommendations contained herein are believed to be reliable, but no guarantee is given as to their accuracy and/or completeness. The user must determine the suitability of the product for his own particular purpose, either alone or in combination with other products and shall assume all risk and liability in connection therewith.

Whilst every attempt has been made to ensure accuracy in the content of the tables, the information contained in this catalogue does not form any part of a contract.

Cranemaster® and Cranestar® are registered trading names of Brunton Shaw.



Cranemaster® 6

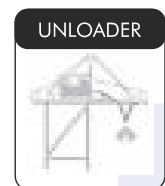
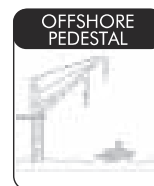
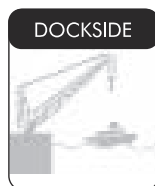
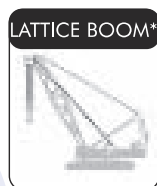
Typical Constructions

6xK36SW(14-7+7-7-1)-CWR

6xK41SW(16-8+8-8-1)-CWR

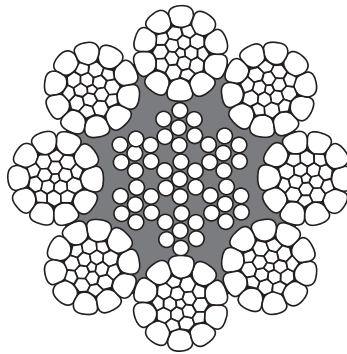
- Cranemaster® 6 is a high strength rugged six strand rope ideal for situations where longer service life is required.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values – Loadrite.
- Cranemaster® 6 can be substituted for any six strand construction to improve service life and reduce total cost.
- High fatigue life resulting from the unique compaction process.
- Maximum resistance to crushing. Recommended for multi-layer spooling operations.
- Increased abrasion resistance resulting from the unique compaction process.
- Fully lubricated in manufacture – Luberite.

TYPICAL APPLICATIONS



* For higher lifting heights a rotation resistant main hoist should be selected.

Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			1960 N/mm ²		2160 N/mm ²	
			kN	tonnes	kN	tonnes
10		46.9	85.7	8.7	91.7	9.4
11	7/16	57.5	98.6	10.1	113	11.5
12		64.9	114	11.7	127	13.0
13	1/2	80.3	147	15.0	157	16.0
14		94.0	170	17.3	183	18.7
15		106	195	19.9	208	21.3
16	5/8	117	218	22.2	228	23.3
17		139	246	25.1	271	27.6
18		153	276	28.1	298	30.4
19	3/4	166	304	31.0	324	33.0
20		182	335	34.2	355	36.3
22	7/8	217	400	40.8	423	43.2
24	15/16	266	489	49.9	519	52.9
25		280	514	52.4	547	55.8
26	1	313	578	58.9	611	62.3
28		359	657	67.0	701	71.5
30		414	757	77.2	807	82.3
32	1.1/4	469	846	86.3	915	93.3
34		509	916	93.4	961	98.0
36		592	1065	108	1122	114
38	1.1/2	643	1165	118	1192	121
40		715	1295	132		
42	1.5/8	791	1425	145		
44		859	1505	153		
46		929	1665	169		
48	1.7/8	1030	1885	192		
50		1120	1975	201		
52		1190	2135	217		
54		1300	2325	237		
56		1400	2475	252		
58		1500	2650	270		
60	2.3/8	1605	2810	286		



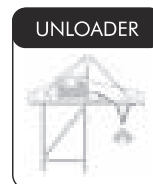
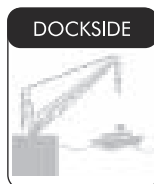
Cranemaster® 8P

Typical Construction

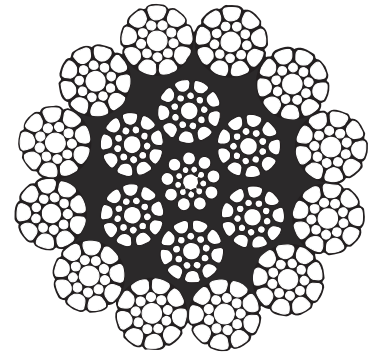
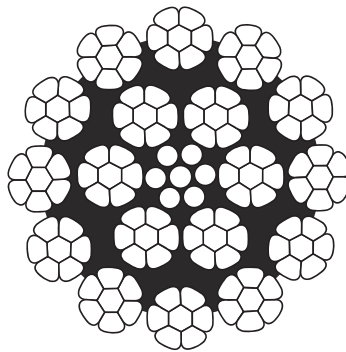
8PIxK26SW(10-5+5-5-1)-CWR

- Cranemaster® 8P is a high strength eight strand rope with plastic impregnated core ideal for situations where longer service life is required.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values.
- High fatigue life resulting from the unique compaction process.
- Maximum resistance to crushing. Recommended for multi layer spooling operations.
- Increased abrasion resistance resulting from the unique compaction process.
- Greater surface contact area resulting from the eight strand construction and compacted finish give longer rope life and reduce sheave wear.
- Fully lubricated in manufacture – Luberite.
- Plastic impregnation of the steel core. (P signifies full plastic impregnation of the steel core).

TYPICAL APPLICATIONS



Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			1960 N/mm ²		2160 N/mm ²	
			kN	tonnes	kN	tonnes
8	5/16	29.4	55.2	5.6	58.9	6.0
9		36.9	70.0	7.1	74.7	7.6
10		45.3	88.0	9.0	93.4	9.5
11	7/16	55.9	106	10.8	112	11.4
12		65.3	127	13.0	134	13.7
13	1/2	76.6	148	15.1	157	16.0
14		88.8	172	17.5	182	18.6
15		103	197	20.1	210	21.4
16	5/8	116	225	22.9	238	24.3
17		135	255	26.0	271	27.7
18		150	285	29.1	303	30.9
19	3/4	167	318	32.4	337	34.4
20		184	352	35.9	374	38.2
22	7/8	222	426	43.4	452	46.1
24	15/16	265	507	51.7	540	55.1
25		290	550	56.1	584	59.6
26	1	315	595	60.7	633	64.6
28		367	690	70.4	735	75.0
30		425	793	80.9	843	86.0
32	1.1/4	485	900	91.8	958	97.8
34		543	1015	103	1080	110
36		606	1143	116	1217	124
38	1.1/2	678	1270	129	1354	138
40		755	1407	143	1501	153
42	1.5/8	842	1535	156	1648	168
44		925	1702	173	1815	185
46		1010	1858	189	1982	202
48	1.7/8	1110	2025	206	2158	220
50		1200	2205	225	2345	239



Cranemaster® 18

Typical Constructions

6mm-19mm

18xK7(12xK7:6xK7-1x7)

20mm-32mm

SIZERITE 18xK19S(12xK19S:6xK19S-1x19S)

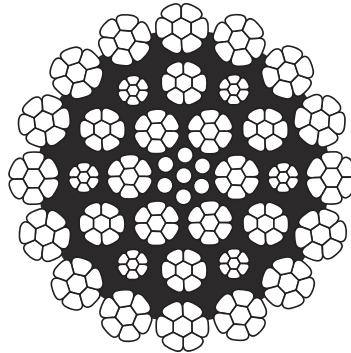
- Cranemaster® 18 is a high strength rotation resistant hoist rope.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values – Loadrite.
- Good resistance to rotation verified by testing on the in-house torque/turn machine – Balancerite.
- Suitable for use on single part and multi-part hoist reeving systems.
- High fatigue life resulting from the unique compaction process.
- Increased resistance to crushing. Recommended for multi-layer spooling operations.
- Increased abrasion resistance resulting from the unique compaction process.
- Fully lubricated in manufacture – Luberite.

TYPICAL APPLICATIONS

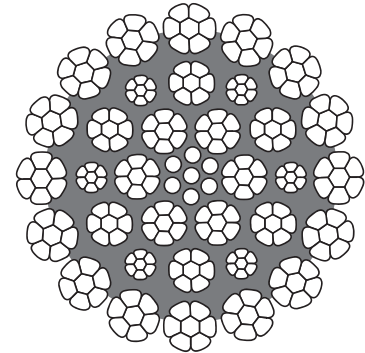


NOTE: For higher lifting heights consideration should be given to using a 35x7 construction with improved rotational characteristics.

Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			1960 N/mm ²		2160 N/mm ²	
			kN	tonnes	kN	tonnes
6		17.5	30.9	3.15	34.2	3.49
7		22.7	40.0	4.08	44.3	4.52
8	5/16	30.8	54.5	5.56	60.3	6.15
9		38.4	68.0	6.93	75.2	7.67
10		48.0	85.0	8.67	94.0	9.59
11	7/16	59.7	106	10.8	117	11.9
12		68.6	122	12.4	134	13.7
13	1/2	83.4	148	15.1	163	16.6
14		94.9	168	17.1	186	19.0
15		109	192	19.6	212	21.6
16	5/8	125	220	22.4	244	24.9
17		141	249	25.4	276	28.1
18		158	280	28.6	310	31.6
19	3/4	173	306	31.2	339	34.6
20		194	337	34.4	378	38.5
22	7/8	233	407	41.5	456	46.5
25		303	526	53.6	590	60.2
28		382	665	67.8	747	76.2
30		436	759	77.4	852	86.9
32	1.1/4	501	863	88.0	968	98.7



Cranemaster® 35



Cranemaster® 35P

Typical Constructions

10mm-40mm

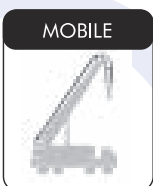
35xK7(16xK7:6xK7+6xK7-6xK7-1x7)

42mm-60mm

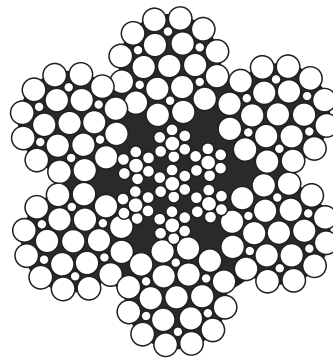
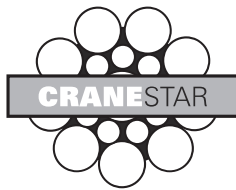
35xK19S(16xK19S:6xK19S+6xK19S-6xK19S-1x19S)

- Cranemaster® 35/35P has the highest strength of all low rotation hoist ropes.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values – Loadrite.
- Maximum resistance to rotation – Balancerite.
- Suitable for use on single part and multi-part hoist reeving systems.
- High fatigue life resulting from the unique compaction process.
- Increased resistance to crushing. Recommended for multi-layer spooling operations.
- Increased abrasion resistance resulting from the unique compaction process.
- Optional plastic impregnation.
- Fully lubricated in manufacture – Luberite.

TYPICAL APPLICATIONS



Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			1960 N/mm ²		2160 N/mm ²	
			kN	tonnes	kN	tonnes
10		51.4	90.5	9.2	98.6	10.1
11	7/16	61.7	109	11.2	119	12.1
12		72.9	131	13.4	141	14.4
13	1/2	84.6	155	15.8	167	17.0
14		97.1	180	18.4	192	19.6
15		114	206	21.0	221	22.5
16	5/8	130	233	23.8	252	25.7
17		140	261	26.6	285	29.1
18		159	300	30.6	321	32.7
19	3/4	178	331	33.8	358	36.5
20		197	372	37.9	399	40.7
21	13/16	222	402	41.0	434	44.3
22	7/8	240	444	45.3	484	49.4
23		261	482	49.2	528	53.8
24	15/16	286	531	54.2	572	58.3
25		312	575	58.6	623	63.5
26	1	340	621	63.3	661	67.4
27		356	665	67.8	722	73.6
28		391	720	73.4	788	80.4
29	1.1/8	425	769	78.4	833	84.9
30		445	827	84.3	904	92.2
32	1.1/4	505	944	96.3	1035	105
34		574	1065	108	1156	118
35	1.3/8	602	1125	114	1216	124
36		644	1185	121	1286	131
38	1.1/2	712	1326	135	1437	146
40		807	1477	150	1588	161
42	1.5/8	884	1485	151		
44		961	1618	165		
46		1060	1765	180		
48	1.7/8	1150	1935	197		
50		1230	2078	212		
52		1360	2256	230		
54		1450	2417	246		
56		1560	2610	266		
58		1680	2788	284		
60	2.3/8	1800	2958	301		



Cranestar® 6x19

Typical Constructions

6x19S(9-9-1)CWR

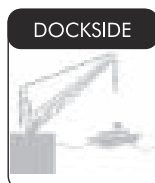
6x19W(6+6-6-1)-CWR

6x25F(12-6F-6-1)-CWR

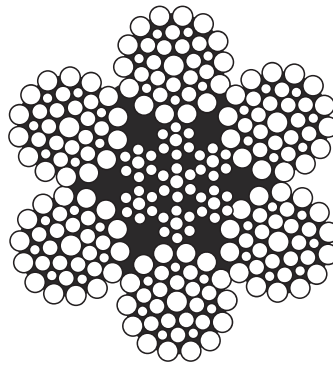
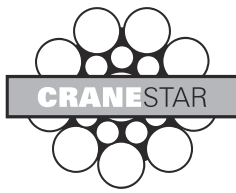
SIZERITE 6x26SW(10-5+5-5-1)-CWR

- High quality flexible 6x19 class crane rope.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values – Loadrite.
- Good resistance to abrasion.
- Consistent performance.
- Independent wire rope core.
- Fully lubricated in manufacture – Luberite.
- Supplied in high strength 1960N/mm² grade as standard.

TYPICAL APPLICATIONS



Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			1770 N/mm ²		1960 N/mm ²	
			kN	tonnes	kN	tonnes
6		14.3	22.7	2.31	25.1	2.56
7		19.5	30.9	3.15	34.2	3.49
8	5/16	25.5	40.3	4.11	44.7	4.56
9		32.2	51.0	5.20	56.5	5.76
10		39.8	63.0	6.42	69.8	7.12
11	7/16	48.2	76.2	7.77	84.4	8.61
12		57.3	90.7	9.25	101	10.3
13	1/2	67.3	107	10.9	118	12.0
14		78.0	124	12.6	137	14.0
16	5/8	102	161	16.4	179	18.3
18		129	204	20.8	226	23.0
20		159	252	25.7	279	28.4
22	7/8	193	305	31.1	338	34.5
24	15/16	229	363	37.0	402	41.0
26	1	269	426	43.4	472	48.1
28		312	494	50.4	547	55.8
32	1.1/4	408	645	65.8	715	72.9
36		516	817	83.3	904	92.2
40		637	1010	103	1120	114
44		771	1220	124	1350	138
48	1.7/8	917	1450	148	1610	164
52		1076	1700	173	1890	193
56		1248	1980	202	2190	223
60		1433	2270	231	2510	256

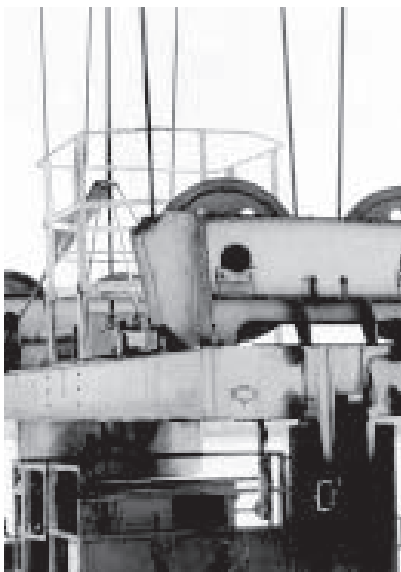


Cranestar® 6x36

Typical Constructions

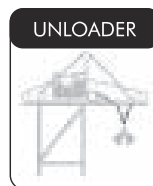
6x36(14-7+7-7-1)-CWR

6X41(16-8+8-8-1)-CWR



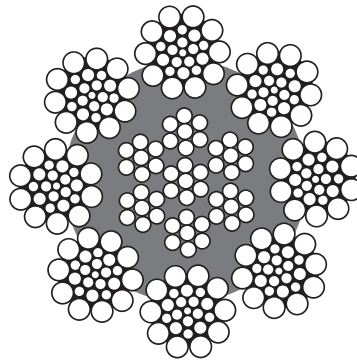
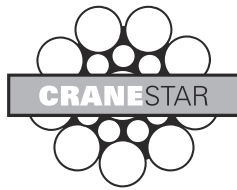
- High quality flexible 6x36 class crane rope.
- Consistent performance.
- Fully lubricated in manufacture – Luberite.
- Independent wire rope core.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values – Loadrite.
- Supplied in high strength 1960N/mm² grade as standard.

TYPICAL APPLICATIONS



* For higher lifting heights a rotation resistant main hoist should be selected.

Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			1770 N/mm ²		1960 N/mm ²	
			kN	tonnes	kN	tonnes
8	5/16	26.1	40.3	4.11	44.7	4.56
9		33.2	51.0	5.20	56.5	5.76
10		40.8	63.0	6.42	69.8	7.12
11	7/16	49.4	76.2	7.77	84.4	8.61
12		58.8	90.7	9.20	101	10.3
13	1/2	69.2	107	10.9	118	12.0
14		80.2	124	12.6	137	14.0
16	5/8	104	161	16.4	179	18.3
18		132	204	20.8	226	23.0
20		163	252	25.7	279	28.4
22	7/8	197	305	31.1	338	34.5
24	15/16	235	363	37.0	402	41.0
26	1	276	426	43.4	472	48.1
28		320	494	50.4	547	55.8
32	1.1/4	418	645	65.8	715	72.9
36		531	817	83.3	904	92.2
40		655	1010	103	1120	114
44		793	1220	124	1350	138
48	1.7/8	943	1450	148	1610	164
52		1111	1700	173	1890	193
56		1281	1980	202	2190	223
60	2.3/8	1471	2270	231	2510	256



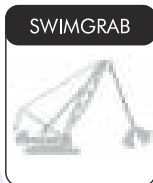
Cranestar® 8P

Typical Construction

8Plx26SW(10-5+5-5-1)-CWR

- Cranestar® 8P is a flexible high strength eight strand steel wire rope with plastic impregnated core.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values – Loadrite.
- Good bending fatigue life.
- Greater surface contact area resulting from the eight strand construction.
- Fully lubricated in manufacture – Luberite.
- Plastic impregnation of the steel core (P signifies full plastic impregnation of the steel core).

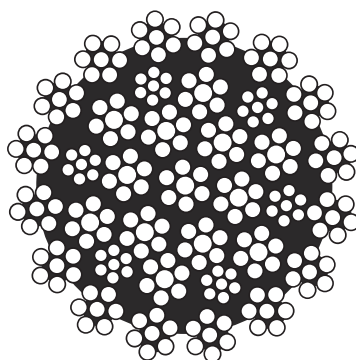
TYPICAL APPLICATIONS



Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			1960 N/mm ²		2160 N/mm ²	
			kN	tonnes	kN	tonnes
8	5/16	27.7	46.0	4.7	50.0	5.1
9		35.2	58.2	5.9	63.3	6.5
10		43.2	71.6	7.3	78.1	8.0
11	7/16	51.4	85.2	8.7	94.5	9.6
12		63.1	105	10.7	112	11.5
13	1/2	73.6	122	12.4	132	13.5
14		84.4	140	14.3	153	15.6
15		97.8	162	16.5	175	17.8
16	5/8	111	184	18.8	200	20.4
17		127	211	21.5	225	22.9
18		143	237	24.2	253	25.8
19	3/4	161	266	27.1	282	28.8
20		177	294	30.0	312	31.8
22	7/8	214	354	36.1	378	38.5
24	15/16	255	422	43.0	449	45.8
25		276	458	46.7	488	49.8
26	1	301	498	50.8	528	53.8
28		345	571	58.2	612	62.4
30		394	652	66.5	703	71.7
32	1.1/4	449	744	75.9	799	81.5
34		507	840	85.7	903	92.1
36		562	932	95.0	1012	103
38	1.1/2	629	1040	106	1128	115
40		703	1160	118	1249	127
42	1.5/8	784	1300	132	1378	140
44		866	1440	146	1512	154
46		929	1540	157	1652	168
48	1.7/8	1010	1680	171	1799	183
50		1110	1830	186	1952	199



- Cranestar® 35 is a high strength flexible hoist rope.
- A sample of rope from each production batch is tested to destruction in order to confirm compliance with catalogue breaking force values – Loadrite.
- Maximum resistance to rotation verified by testing on the inhouse torque/turn machine – Balancerite
- Suitable for use on single part and multi-part hoist reeving systems.
- Langs lay construction offers maximum resistance to wear.
- Fully lubricated in manufacture – Luberite.

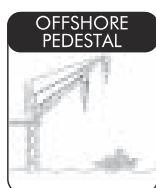
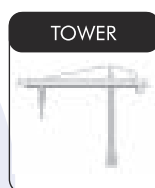


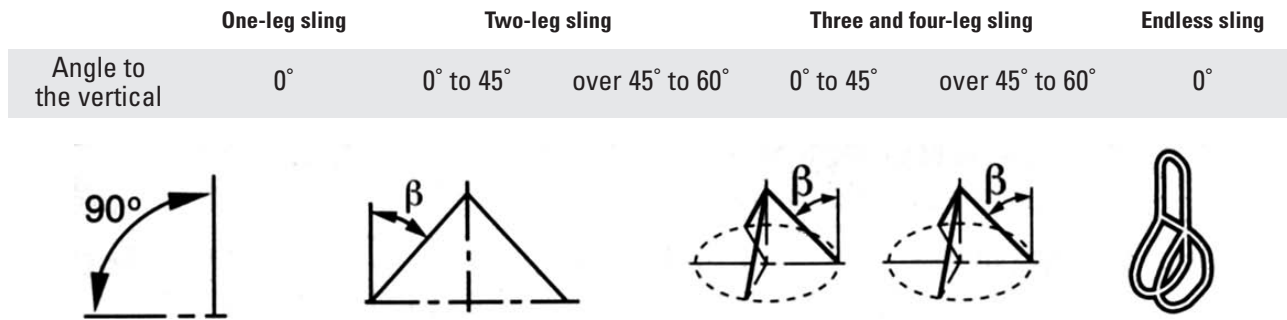
Cranestar® 35

Typical Construction
35x7(16x7:6x7+6x7-6x7-1x7)

Nominal Rope Diameter mm	Approx. Diameter ins.	Approx. Mass kg/100m	Minimum Breaking Force Galvanised and Ungalvanised Rope Grade			
			2160 N/mm ² kN	tonnes	1770 N/mm ² kN	tonnes
8	5/16	28.5	47.5	4.8	56.5	5.8
9		36.1	60.5	6.2	69.0	7.0
10		44.6	76.0	7.8	86.5	8.8
11	7/16	54.0	91.0	9.3	104	10.7
12		63.8	107	10.9	125	12.7
13	1/2	75.6	128	13.1	146	14.9
14		87.4	148	15.1	168	17.1
15		100	171	17.4	191	19.5
16	5/8	114	194	19.8	221	22.5
17		128	217	22.1	241	24.6
18		144	242	24.7	277	28.2
19	3/4	161	277	28.2	312	31.8
20		179	301	30.7	337	34.4
21	13/16	196	335	34.2	370	37.7
22	7/8	220	370	37.7	412	42.0
23		236	400	40.8	448	45.7
24	15/16	257	441	45.0	498	50.8
25		278	473	48.2	537	54.8
26	1	302	517	52.7	581	59.2
27		325	549	56.0	632	64.5
28		349	599	61.1	681	69.4
30		399	679	69.2	775	79.0
32	1.1/4	456	769	78.4	865	88.2

TYPICAL APPLICATIONS





EN 13414-1:2003 Table 3

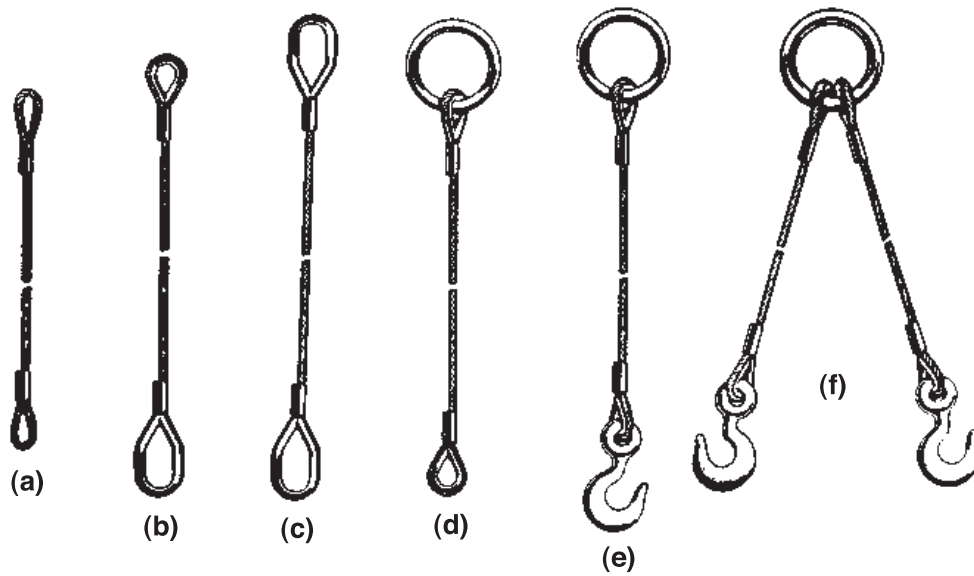
Working load limits for slings using fibre cored rope of classes 6x19, 6x36 and 8x36 and having ferrule-secured eye terminations

Nominal rope diameter mm	Direct Working lead limits t	Direct	Direct	Direct	Direct	Choke hitch
8	0.700	0.950	0.700	1.50	1.05	1.10
9	0.850	1.20	0.850	1.80	1.30	1.40
10	1.05	1.50	1.05	2.25	1.60	1.70
11	1.30	1.80	1.30	2.70	1.95	2.12
12	1.55	2.12	1.55	3.30	2.30	2.50
13	1.80	2.50	1.80	3.85	2.70	2.90
14	2.12	3.00	2.12	4.35	3.15	3.30
16	2.70	3.85	2.70	5.65	4.20	4.35
18	3.40	4.80	3.40	7.20	5.20	5.65
20	4.35	6.00	4.35	9.00	6.50	6.90
22	5.20	7.20	5.20	11.0	7.80	8.40
24	6.30	8.80	6.30	13.5	9.40	10.0
26	7.20	10.0	7.20	15.0	11.0	11.8
28	8.40	11.8	8.40	18.0	12.5	13.5
32	11.0	15.0	11.0	23.5	16.5	18.0
36	14.0	19.0	14.0	29.0	21.0	22.5
40	17.0	23.5	17.0	36.0	26.0	28.0
44	21.0	29.0	21.0	44.0	31.5	33.5
48	25.0	35.0	25.0	52.0	37.0	40.0
52	29.0	40.0	29.0	62.0	44.0	47.0
56	33.5	47.0	33.5	71.0	50.0	54.0
60	39.0	54.0	39.0	81.0	58.0	63.0
leg factor K_L	1	1.4	1	2.1	1.5	1.6

EN 13414-1:2003 Table 4

Working load limits for slings using steel cored rope of classes 6x19, 6x36 and 8x36 and having ferrule-secured eye terminations

Nominal rope diameter mm	Direct Working lead limits t	Direct	Direct	Direct	Direct	Choke hitch
8	0.750	1.05	0.750	1.55	1.10	1.20
9	0.950	1.30	0.950	2.00	1.40	1.50
10	1.15	1.60	1.15	2.40	1.70	1.35
11	1.40	2.00	1.40	3.00	2.12	2.25
12	1.70	2.30	1.70	3.55	2.50	2.70
13	2.00	2.80	2.00	4.15	3.00	3.15
14	2.25	3.15	2.25	4.80	3.40	3.70
16	3.00	4.20	3.00	6.30	4.50	4.80
18	3.70	5.20	3.70	7.80	5.65	6.00
20	4.60	6.50	4.60	9.80	6.90	7.35
22	5.65	7.80	5.65	11.8	8.40	9.00
24	6.70	9.40	6.70	14.0	10.0	10.6
26	7.80	11.0	7.80	15.0	11.5	12.5
28	9.00	12.5	9.00	19.0	13.5	14.5
32	11.8	16.5	11.8	25.0	17.5	19.0
36	15.0	21.0	15.0	31.5	22.5	23.5
40	18.5	26.0	18.5	39.0	28.0	30.0
44	22.5	31.5	22.5	47.0	33.5	36.0
48	26.0	37.0	26.0	55.0	40.0	42.0
52	31.5	44.0	31.5	66.0	47.0	50.0
56	36.0	50.0	36.0	76.0	54.0	58.0
60	42.0	58.0	42.0	88.0	63.0	67.0
leg factor K_L	1	1.4	1	2.1	1.5	1.6



Wire Rope Slings and Fittings

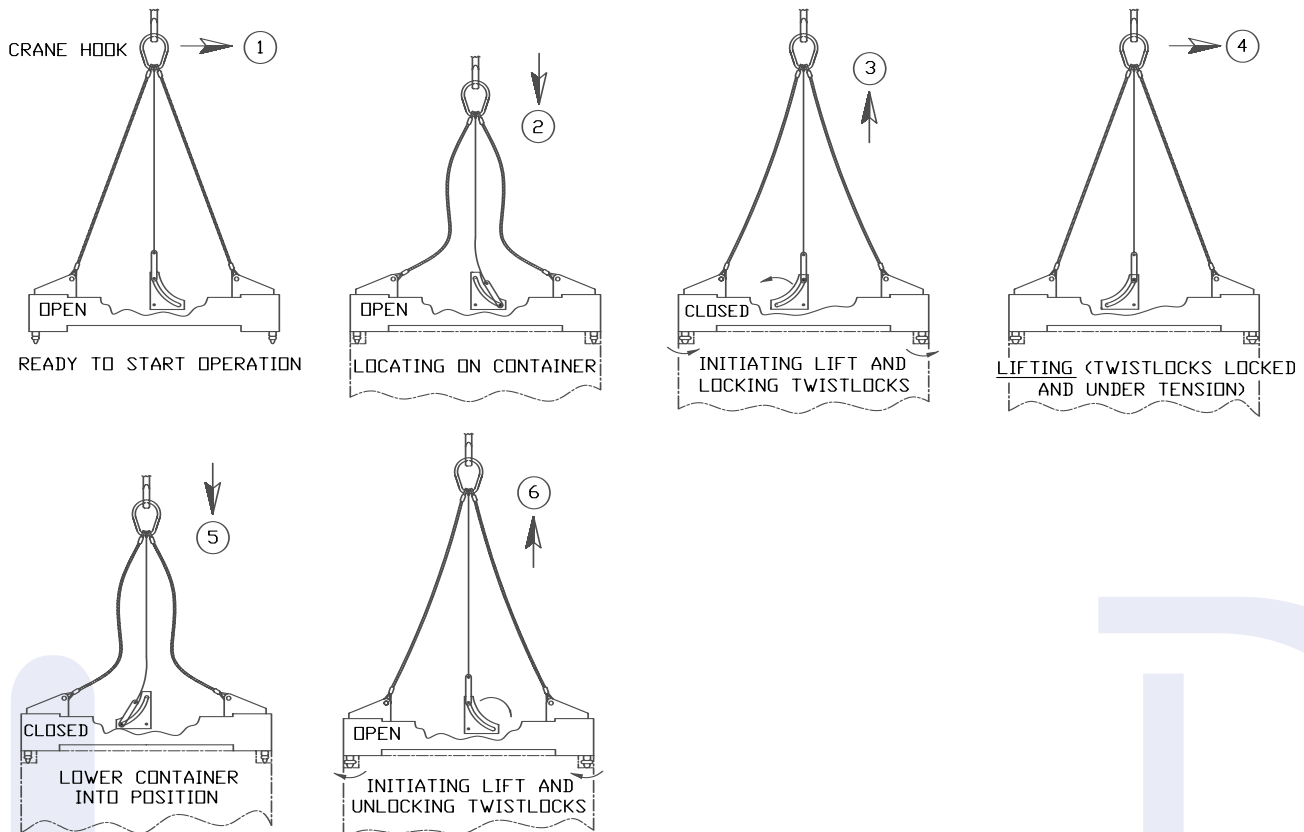
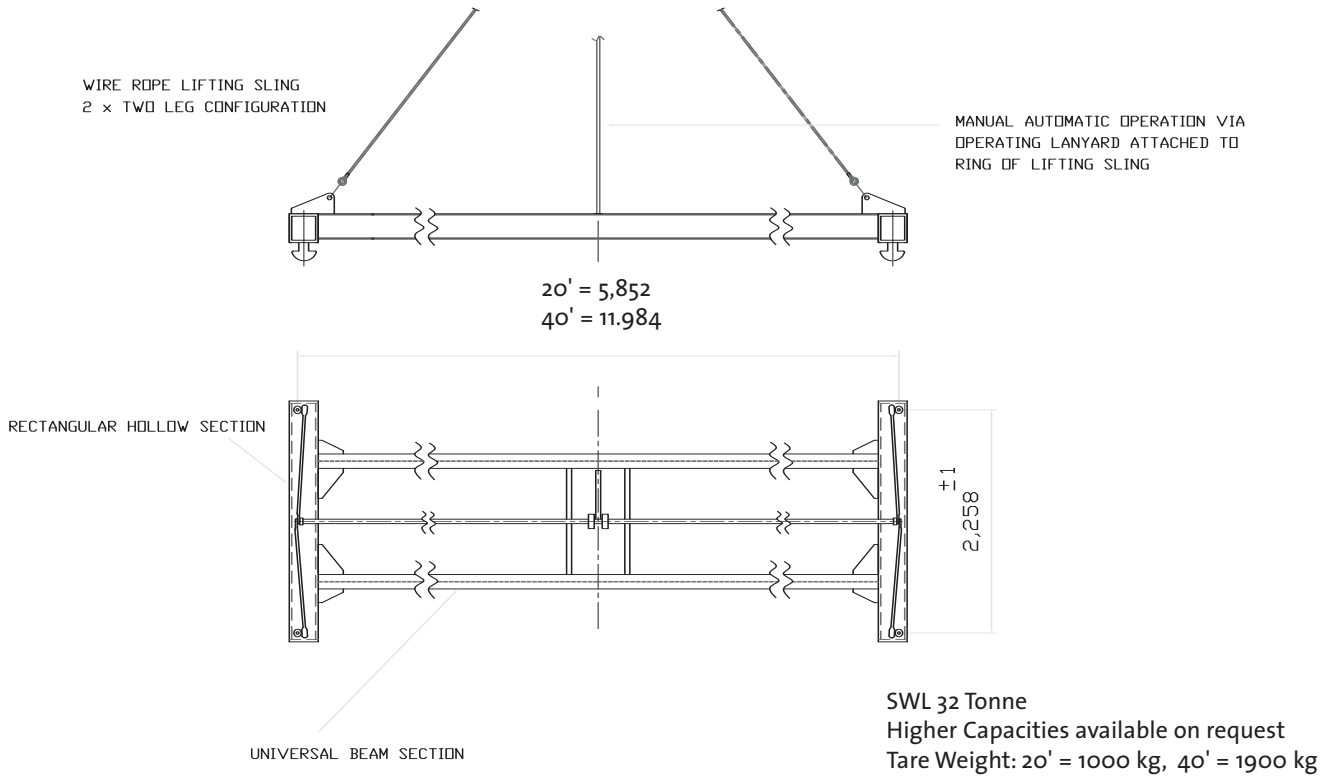
Wire Rope Slings can be fitted with any type of component and made up to your requirements.

Standard assemblies supplied:

- (a) Single sling with soft eye, 'Talurit spliced' each end.
- (b) Single sling ordinary thimble one end, reeving thimble other end.
- (c) Single sling reeving thimbles both ends.
- (d) Single sling ring and thimble.
- (e) Single sling ring and hook.
- (f) Multiple leg sling.

Lashing Wire 6x12 FC available in 12mm and 16mm dia

Stainless steel 7x7 available in all sizes.





MK Container Lifting Lugs for Top Lifting

Model tons	Type of Lift	WLL Ton set of 4	Chain Angle	Weight Kg per set
MKIIA	Top Lift	56	Vertical	28

- Self locking and suitable for shackling direct to 4 vertical slings
- For use with a spreader beam, do not project over container

Safety First

MK Lugs not suitable for use with 4 leg slings
Always read operating instructions prior to use

Helpful Hint

MK Lugs can be fitted to boxes with unlocked Twist Locks
Contact sales for further information



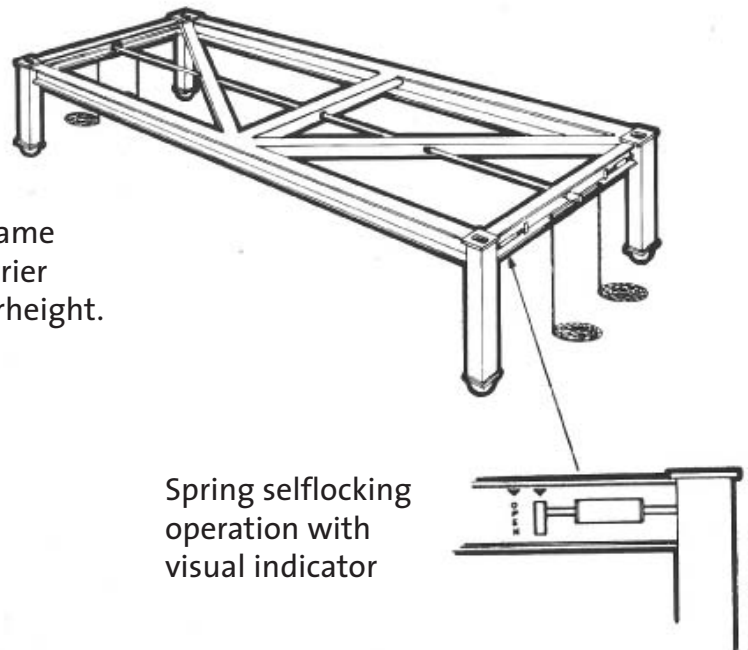
MK Container Lifting Lugs: Bottom Side Lifting

Model tons	Type of Lift	WLL Ton set of 4	Chain Angle from vert	Weight Kg per set
MKVA	Bottom	32	50 deg	18
MKVB	Bottom	40	36 deg	18

- Mounted at the side of the container, upper or lower (up or down)
- Spring-loaded bolt prevents accidental release
- Designed for use with a lifting beam

Overheight Frame

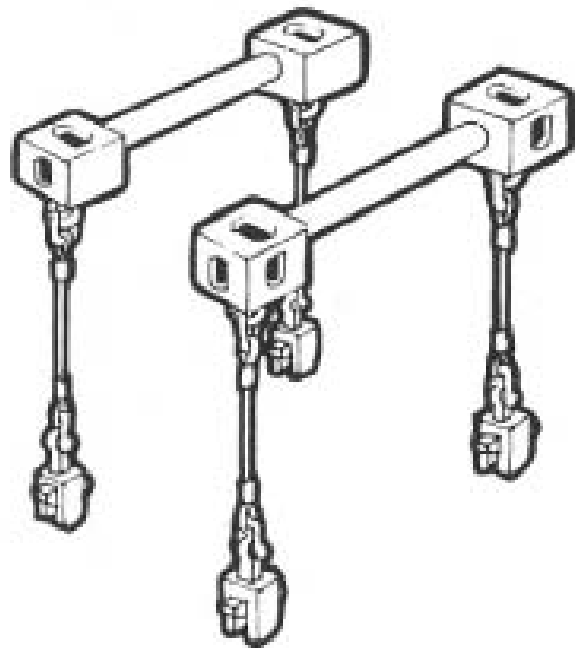
Semi-Automatic overheight container frame for use with Portal Crane or Straddle Carrier
Available in 20ft and 40ft 4'6" - 8'6" overheight.
SWL 32 Tonne



Spring selflocking operation with visual indicator

Frame Extension Units

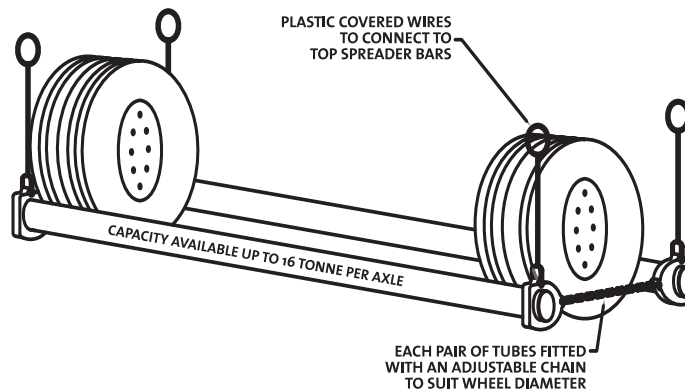
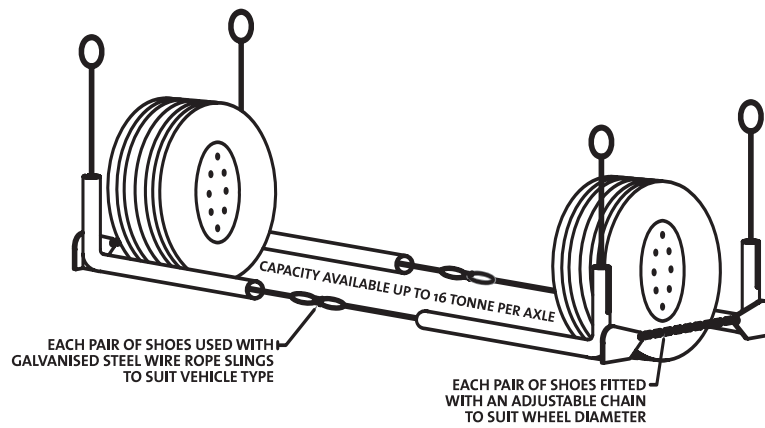
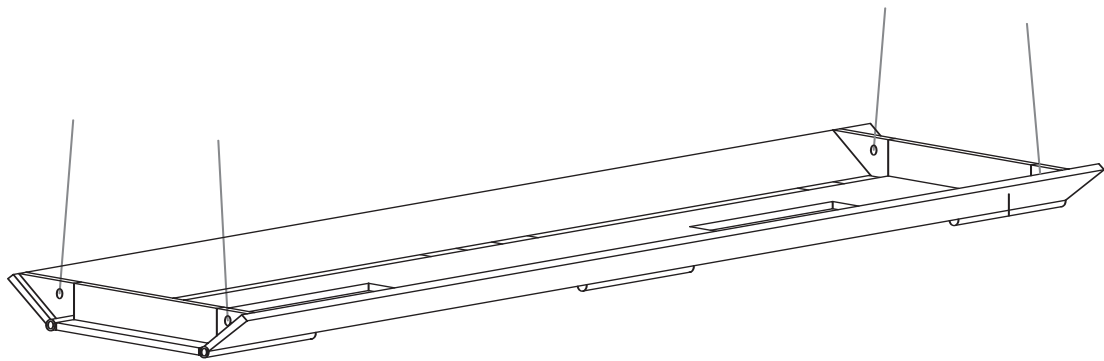
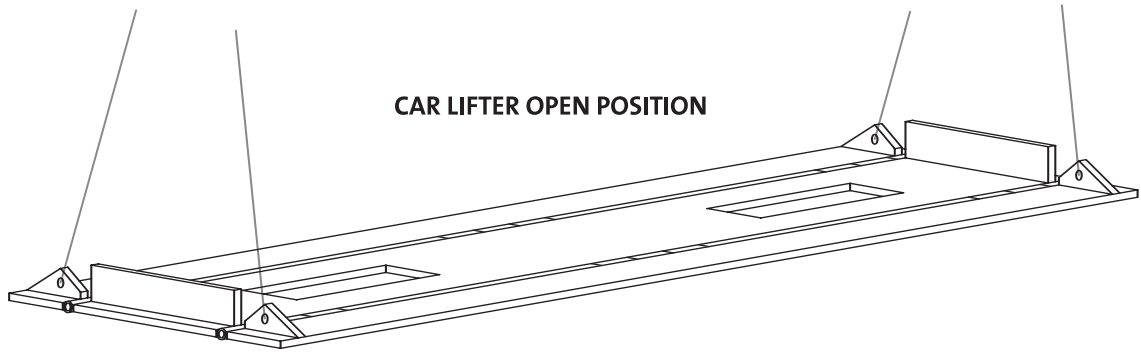
"Dumbbell" Gear
Attaches to twistlock container frames and is used to lift and lower containers in confined spaces or to give an over height facility. Wire rope or chain pendants with top lifting lug MKIIA attached.
SWL 32 Tonne and 36 Tonne



Lifting Adaptor

"Torpedo"
Overheight up to 300mm
Hatch cover adaptor
SWL 32 Tonne





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