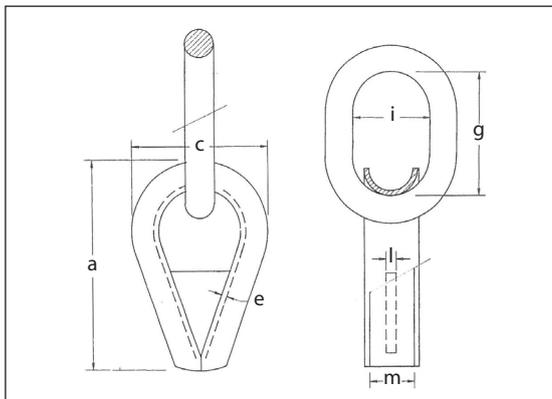
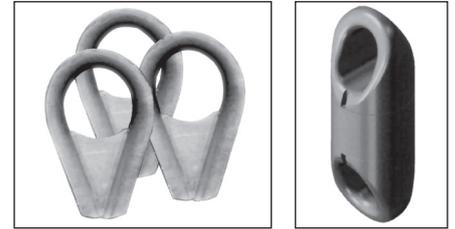


PRODUCT INFORMATIONEN
.....**COMPLEMENTARY EQUIPMENT****Mooring/towing accessories**
.....

Making the link...

... with the right connections.

Everything for heavy ropes, to safely connect them and securely fasten them at the end.



Towing thimble

SEL 1079

Nominal Size = Rope Circ.	Weight	Measurements				
		a	c	e	l	m
~inch	kg/ea	mm	mm	mm	mm	mm
10	20	370	290	15	16	100
12	33	450	330	20	20	115
14	49	520	370	20	20	135
16	56	580	390	20	20	155
17	68	600	440	20	20	170
18	99	600	440	20	20	180

Material: RSt 37-1

Thimble and link size can be freely combined. When choosing and combining consider the bollard pull of the tow connection and guidelines on forces and rope sizes from official tables. We will be pleased to advise.

Towing link

SEL 1079

Nominal Size = Material Diameter	Minimum Breaking Force	Weight	Measurements	
			g	i
mm	kN	kg/ea	mm	mm
51	1400	17	350	190
57	1800	24	400	200
63	2400	32	430	230
72	3200	44	440	250
80	4000	57	450	250
90	5000	74	460	300
100	6000	102	500	300

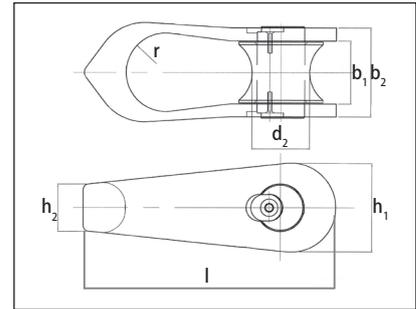
Material: Grade 80 alloy steel

Load...

... not to breakage, but to permissible load limit only! This is significantly less than breaking force and depends on factors relevant to application (safety factor, design factor, formula). Therefore: Do not confuse breaking force with load capacity (WLL, lashing force, working load, etc.) and calculate in adherence to existing rules (regulations, standards).

Slender connections...

where steel and textile rope immediately feel comfortable. Snug bow, secure pin.



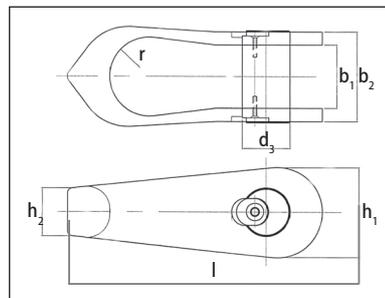
Fairlead shackle M

SEL 1071
With wire rope guard roller

From eye to eye ... ropes, best steel with textile. Keep things slim.

Nominal Size	Minimum Breaking Force	Weight	Measurements						
			b ₁	b ₂	d ₂	h ₁	h ₂	l	r
	kN	~ kg/ea	mm	mm	mm	mm	mm	mm	mm
90	1030	10	76	110	82	120	71	300	44
120	1370	16	100	140	90	130	90	335	54
185	2450	47	120	170	110	170	90	480	75

Yield force: >800N/mm², tensile strength: 950-1100N/mm², elongation: >10%,
Material: E-GS 34 CrNiMo 6V/GS CrMo 4V bow, 1.4057 (mechanical values according to DIN 17440) Bolt



Fairlead shackle T

SEL 1071

Nominal Size	Minimum Breaking Force	Weight	Measurements						
			b ₁	b ₂	d ₃	h ₁	h ₂	l	r
	kN	~ kg/ea	mm	mm	mm	mm	mm	mm	mm
90	1030	9	76	110	68	120	71	300	44
120	1370	14	100	140	68	130	90	335	54
185	2450	37	120	170	90	170	90	480	75

Yield Force: >800N/mm², Material Grade: 950-1100N/mm², Elongation: >10%,
Material: E-GS 34 CrNiMo 6V/GS CrMo 4V Bow, 1.4057 (mechanical values according to DIN 17440) Bolt

Load...

... not to breakage, but to permissible load limit only! This is significantly less than breaking force and depends on factors relevant to application (safety factor, design factor, formula). Therefore: Do not confuse breaking force with load capacity (WLL, lashing force, working load, etc.) and calculate in adherence to existing rules (regulations, standards).

... Or adapted, whatever your needs. Like here, for example, from eye to socket. The perfect match, flush fit ...



Coupling link BTG

Same parameters as Fairlead shackle. Configuration adapted to each end fitting. Here: Loop of a textile rope stretcher connected with the closed spelter socket of the steel tow rope

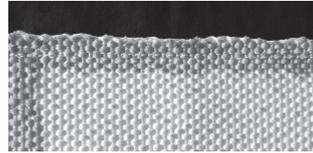
...or simply a roller shackle, to connect fibre rope eye with steel rope, rope socket or thimble.



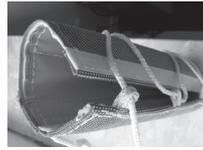
And more ...

Worth protecting ...

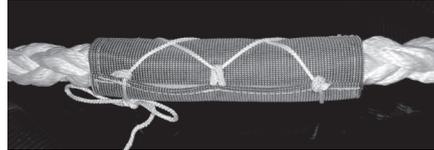
Ropes made from synthetic materials certainly are! Especially when their path takes them over rough or sharp terrain. For extreme cases we have jackets and sleeves for textile ropes made from wear resistant fabric.



DeltaWeb
Sturdy, abrasion resistant polyester fabric

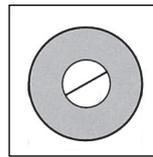


DeltaLace
Cord sleeve for strong and effective wear protection

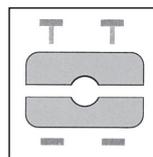


Good guidance ...

is needed to maximise safety when steel rope is used. Towing sleeves help keep steel rope in check in problem areas on tugs.



Towing sleeve
one piece, attachment before fabrication
Type Standard d 36 to 64mm
Type Heavy Duty d 48 to 76mm
Type Extra Heavy Duty d 48 to 76mm



Towing shoe
two piece, attachment after fabrication
Type Standard d 44 to 76mm
Type Extra Heavy Duty Plus d 60 to 90mm



provides effective protection when steel tow ropes start throwing their weight around.

And more ...