

INSTRUCTIONS

SOFT ATTACHMENT LOOPS

3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3202, 3203

N15W24983 Bluemound Rd., Pewaukee, WI 53072-4974 USA

Tel: 262-691-3320, Fax: 262-701-5780 • Web: www.harken.com, Email: harken@harken.com

WARNING! Strictly follow all instructions to avoid an accident, damage to your vessel, personal injury, or death. See www.harken.com/manuals for additional safety information.

 = Incorrect. Avoid to prevent accidents.

Loop soft attachments offer a variety of ready-made rigging solutions for racing and cruising yachts. When fitting hardware, choose the loop that exactly matches the attachment method and strength shown in the chart below. Custom length loops are also available. If you have questions, please contact Harken.

Loop Strength

Loop strength will vary depending on:

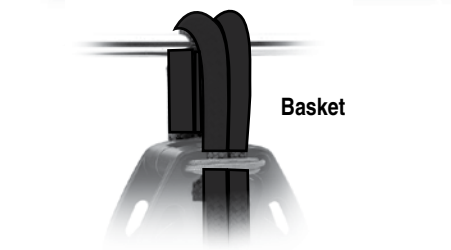
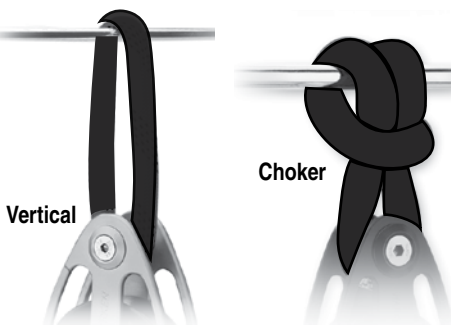
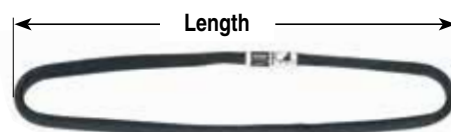
Configuration. Carefully match strength requirements to the configuration and corresponding MWL shown in the chart below.

Attachment points – Determine weakest link in the attachment chain; block, loop, or padeye? Consult chart below for padeye loading at various angles.

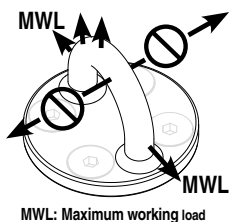
Condition of attachment – Loop must attach to round bails or radiused corners. Sharp, rough edges, or corners will cut into loop, reducing their strength over time.

Loop condition – Loop strength is based on its being in like-new condition. **See chart below.**

Loop Part No.	Length		Maximum working load (MWL)						Fits blocks
	in	mm	Vertical lb	Vertical kg	Choker lb	Choker kg	Basket lb	Basket kg	
5 mm									
3202	8	203	1275	578	1000	453	2550	1156	3214
7 mm									
3203	10	254	2550	1155	2040	920	5100	2310	3230
9 mm									
3139	4	100	3600	1630	2880	1305	7200	3265	
3140	8	200	3600	1630	2880	1305	7200	3265	
3140	11	280	3600	1630	2880	1305	7200	3265	
10 mm									
3142	5	125	5400	2445	4325	1960	10810	4900	
3143	9	230	5400	2445	4325	1960	10810	4900	
3144	15	380	5400	2445	4325	1960	10810	4900	3245
11 mm									
3145	5	125	7200	3265	5765	2610	14415	6535	
3146	9	230	7200	3265	5765	2610	14415	6535	
3147	16	400	7200	3265	5765	2610	14415	6535	3255
12 mm									
3148	6	150	9010	4085	7200	3265	18020	8170	
3149	11	280	9010	4085	7200	3265	18020	8170	
3150	17	430	9010	4085	7200	3265	18020	8170	



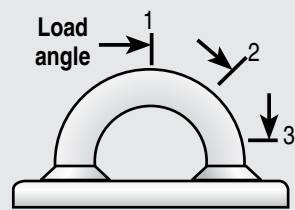
Harken Padeye Strength



WARNING! Load applied sideways to the bail greatly reduces the strength. Always align padeye bail to load to prevent breakage below maximum working load.

Even with bail aligned to load, padeye strength will vary depending on load angle—see below.

Part No.	Description	Maximum working load (MWL)					
		1		2		3	
		lb	kg	lb	kg	lb	kg
627	Small round	5000	2270	4500	2040	4300	1950
629	Large round	20000	9070	12000	5440	14000	6350
648	High-load medium	11800	5358	10375	4705	8500	3855
689	Large diamond	8500	3855	8000	3628	7800	3540



Attaching Loops to Blocks



WARNING! Block may break suddenly if attached incorrectly. Before attaching loop you must understand block manufacturer's directed method of attachment. Some blocks are designed to secure loop to head and others to attach loop through sheave center or to protrusions coming out from sheave center. Attaching loops improperly may cause an accident.

Harken Black Magic® Loop Block



WARNING! Attaching line to block head will considerably weaken block so it can easily break under load. Attach loop/lashing only through mouth of sheave.



Harken Grand Prix High-Load Snatch Block



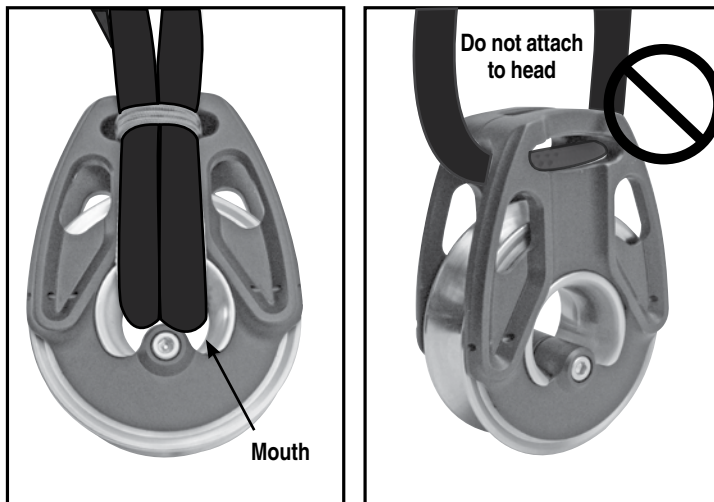
WARNING! Attaching loop to block head will considerably weaken block so it can easily break under load. Attach loops only to thimble at sheave center.



Harken V™ Blocks



WARNING! Attaching line to block head will considerably weaken block so it can easily break under load. Attach loop/lashing only through mouth of sheave.



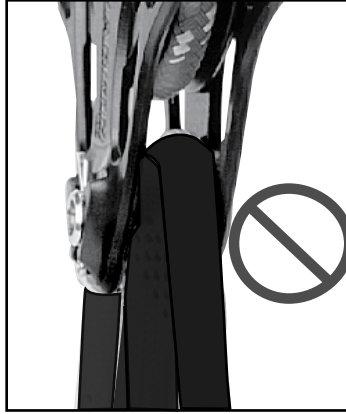
Loop Spacing



WARNING! If loops are stacked, they will push outward on block sideplates when load is applied. This causes the block to break, especially if crosspin is held using a cotter pin. Make sure loops lay side-by-side.



Make sure loop will lay, side-by-side between loop and sheave. Loops will settle and flatten when load is applied.



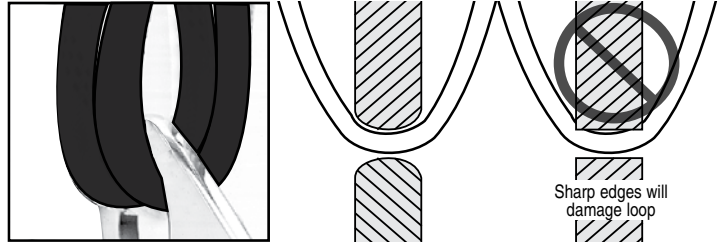
If loop is stacked, even a small amount (one strand on top of the other), line can push outward and break sideplate.

Anchor Point Chafing or Cutting



WARNING! Loops or lashings running over a sharp edge can cause part to break under load. Secure to items with rounded edges only.

Attach loops only to round bails such as those found on padeyes or pins. Sharp edges found in many perforated toerails will cut into loops, severely weakening them. If a loop is attached to a plate, the edges must be rounded so they are not damaged. The thickness of the plate must be at least 25 mm (1/4") to avoid damaging the loop.



Loops attached to hardware can gradually lose strength from wear and UV rays. Inspect parts often, particularly during long passages.

Inspect

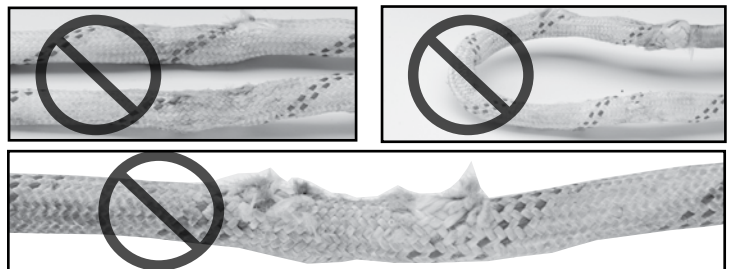


WARNING! Hardware attached to loops can gradually lose strength from wear and ultraviolet (UV) rays. Inspect parts often, particularly during long passages.

Periodically inspect loops and head lashings for signs of UV damage or wear. Pull loop out of block mouth and inspect carefully for any sign of wear, UV damage, fatigue, or strand separation. The loop's outer jacket protects the inner core, but can become damaged from prolonged exposure to UV. Inspect loops often for signs of chafing, especially where they rub on edges.



WARNING! Loops may degrade without showing obvious signs and break under load. Replace all loops and lashings every year or if there is any sign of wear, UV damage, fatigue, or strand separation. If in doubt replace. Consult chart to match strength of loop/lashing to block and load.



Older model loops shown for clarity of degraded examples.

Maintenance

Harken equipment is designed for minimal maintenance, but some maintenance is required to give the best service and to comply with the Harken limited warranty.

Cleaning: Flush blocks and loops/high-strength lashing lines thoroughly with fresh water. Periodically disassemble the blocks and clean with detergent and fresh water. When assembling block, make sure screws and holes are dry. Use blue Loctite® adhesive to secure screw before assembling.

IMPORTANT! Exposure to some teak cleaners and other caustic solutions can result in discoloration of part and is not covered under the Harken warranty.

Warranty

For additional safety, maintenance, and warranty information see www.harken.com/manuals or the Harken catalog.

HARKEN®

Corporate Headquarters

N15W24983 Bluemound Rd, Pewaukee, WI 53072 USA
Telephone: (262) 691-3320 • Fax: (262) 701-5780
Web: harken.com • Email: harken@harken.com

Harken Australia Pty, Ltd.

1B Green Street, Brookvale, N.S.W. 2100, Australia
Telephone: (61) 2-8978-8666
Web: harken.com.au • Email: sales@harken.com.au

Harken France

ZA Port des Minimes, BP 3064, 17032 La Rochelle Cedex 1, France
Telephone: (33) 05.46.44.51.20 • Fax: (33) 05.46.44.25.70
Web: harken.fr • Email: info@harken.fr

Harken Italy S.p.A.

Via Marco Biagi, 14, 22070 Limido Comasco (CO) Italy
Telephone: (39) 031.3523511 • Fax: (39) 031.3520031
Web: harken.it • Email: info@harken.it

Harken New Zealand, Ltd.

129 Westhaven Dr.
Westhaven, Auckland 1011, New Zealand
Telephone: (64) 9-303-3744 • Fax: (64) 9-307-7987
Web: harken.co.nz • Email: info@harken.co.nz

Harken Polska Sp. z o.o.

ul. Przasnyska 6A, 01-756, Warszawa, Poland
Tel: +48 22 561 93 93
Web: harken.pl • Email: polska@harken.pl

Harken Sweden AB

Harken Sweden AB Brandstore: Västmannagatan 81B
SE-113 26 Stockholm Sweden
Telephone: (46) 08 222200 • Fax: (46) 0303 61876
Web: harken.se • Email: harken@harken.se

Harken UK, Ltd.

Bearing House, Ampress Lane, Lymington, Hampshire S041 8LW, England
Telephone: (44) 01590-689122 • Fax: (44) 01590-610274
Web: harken.co.uk • Email: sales@harken.co.uk

On Deck B.V.

Leimuiderdijk 478A, 2156 MX Weteringbrug, The Netherlands
Telephone: 31 71 331 3366 • Fax: 31 71 331 3387
Web: on-deck.nl • Email: allhands@on-deck.nl