

40 mm Carbo AirBlock®

All blocks except 2651 Ti-Lite and 2608, 2609, 2610, 2611, and 2614 Ratchets

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

IMPORTANT: See Inspection and Maintenance at end of manual.

Features

Glass-filled nylon sideplates: load-carrying curved bearing races.

Single fixed: Integral becket allows 2:1 or 3:1 purchase.

Doubles/triples: U-Locks holds the swivel in front/side position, or lets block spin freely.

Triple w/cam: Compact cam arm supports high-load purchases of 5:1 or 6:1. Cam arm locking plates: Allows cam arms to be locked in more than five positions for fair leads.

Cheek: Line-shedding, small mounting footprint and drain holes.

Common uses: Main/jib sheets, mainsheet fine-tune, outhauls, cunninghams, vangs, control lines

Max Line Size: Blocks w/o cams 3/8" (10 mm); blocks w/cams 1/4" (6 mm)

Do not apply a load greater than the Maximum working load (MWL) of the Carbo AirBlock listed below.

Part		A B		C		Maximum working load		Breaking load			
No.	Description	in	mm	in	mm	in	mm	lb	kg	lb	kg
2636	Single/swivel	1 ⁹ / ₁₆	40	33/8	86	⁵ / ₃₂	4	485	220	1620	735
2637	Single/swivel/becket	1 ⁹ /16	40	4	102	⁵ / ₃₂	4	485	220	1620	735
2644	Cheek	1 9/16	40	2 ³ / ₄	70	—	—	485	220	1620	735
2645	Single/swivel/423 Carbo-Cam®**	1 9/16	40	33/8	86	5/ ₃₂	4	150	68	300	136
2646	Single/swivel/423 Carbo-Cam [®] /becket**	1 9/16	40	4	102	5/ ₃₂	4	300	136	600	272
2649	Traveler	1 ⁹ / ₁₆	40	4 ¹ / ₄	108	—	—	330	150	1000	454
2650	Single/fixed*	1 ⁹ / ₁₆	40	2 ¹ / ₂	64	—	—	485	220	1620	735
2651	Ti-Lite*	Import	t ant: Co	onsult ir	nstructio	on shee	<i>t at:</i> http	://www.	harken.c	om/pdf/4	927.pdf
2652	Stand-up/fixed*	1 ⁹ /16	40	2 ³ / ₄	70	_	—	485	220	1620	735
2659	90° Fixed head*	1 ⁹ /16	40	215/16	75	_	—	485	220	1620	735
2638	Double/swivel	1 ⁹ /16	40	311/16	94	³ /16	5	970	440	2380	1080
2639	Double/swivel/becket	1 9/16	40	45/16	110	³ / ₁₆	5	970	440	2380	1080
2640	Triple/swivel	1 9/16	40	311/16	94	³ / ₁₆	5	1455	660	3050	1383
2641	Triple/swivel/becket	1 9/16	40	45/16	110	3/ ₁₆	5	1455	660	3050	1383
2642	Double/fixed	1 ⁹ / ₁₆	40	3 ¹ / ₂	89	³ /16	5	970	440	2380	1080
2643	Double/fixed/becket	1 ⁹ / ₁₆	40	43/16	106	³ /16	5	970	440	2380	1080
2647	Triple/swivel/423 Carbo-Cam ^{®**}	1 ⁹ / ₁₆	40	311/16	94	³ /16	5	750	340	1500	680
2648	Triple/swivel/423 Carbo-Cam [®] /becket**	1 ⁹ / ₁₆	40	45/16	110	³ /16	5	900	408	1800	816
2654	Quad/swivel	1 ⁹ /16	40	311/16	94	³ /16	5	1455	660	3050	1383
2655	Fiddle	1 ⁹ /16	40	4 ¹ / ₂	115	⁵ / ₃₂	4	485	220	1620	735
2656	Fiddle/becket	1 9/16	40	5 ¹ /8	131	5/ ₃₂	4	485	220	1620	735
2657	Fiddle/423 Carbo-Cam®	1 9/16	40	4 ¹ / ₂	115	5/ ₃₂	4	485	220	1620	735
2658	Fiddle/423 Carbo-Cam®/becket	1 9/16	40	5 ¹ /8	131	5/ ₃₂	4	485	220	1620	735
Can be used as becket block ** Maximum working loads and breaking loads for blocks based on cam strengths											

2644 Cheek Block



Part No.

2644

Using block as template, mark holes using a centerpunch. Remove block and drill holes using a ¹³/64" (5.2 mm) drill. Bevel top of deck holes using a small knife to allow sealant to mass. Through-bolt block using recommended stainless steel fasteners, washers and locknuts.

A

in mm in B

mm

38

C

in mm

Fasteners M5 or #10 PH/RH* 2644 11/2 *Fastener length: Add deck thickness and overhang for nut and washer.

					2652	Stan	d-Up
Part			A		B		0
No.	Fasteners	in	mm	in	mm	in	mm
2652	M5 or #10 PH/RH*	⁷ / ₁₆	11	1 ¹ / ₄	32	1 ¹¹ / ₁₆	43
*Fastener length: Add deck thickness and overhang for nut and washer.							

Using eyestrap as template, mark holes using a centerpunch. Remove block and drill holes using a ¹¹/₆₄" (4.2 mm) drill. Bevel top of holes using a small knife to allow sealant to mass. Through-bolt using recommended stainless steel fasteners, washers and locknuts.

3-Way U-Lock-2638 / 2639 / 2640 / 2641 / 2647 / 2648 / 2654

The 3-Way U-Lock allows a change of headpost direction from front to side or allows the block to swivel. To change headpost direction, remove shackle, turn post, install shackle. Remove U-Lock to allow block to swivel.





2652



not overtighten screw. Deadend line at mouth to construct a 2:1 or 3:1 system.

Integral Becket-2650 / 2652 / 2659

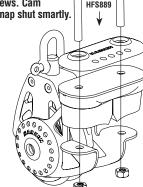
Adjust Cam Angle (Single/Triple)

- 1. Loosen cam arm locking plate screw and pull outward to disengage.
- 2. Rotate cam arm to desired position.
- 3. Press locking plate in and tighten screw. Avoid binding sheave, do

Remove screws from cam. Assemble as shown. Note: use plastic plate on cam bottom. Tighten screws. Do not

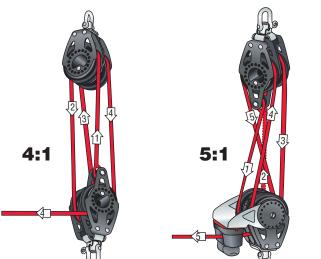
Reverse Cam Cleat (Single Only)

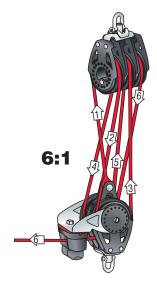
overtighten screws. Cam pawls should snap shut smartly.



Reeving Multi-Purchase Systems

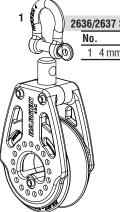
Right-angle reeving dead-end on becket





For larger, printable diagrams, please see: **www.harken.com**.

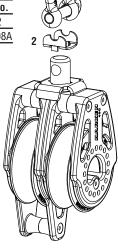
Parts — 40 mm Carbo



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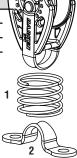
36/2	2637 Single		
No.	Description	Qty	Part No.
1	4 mm Shallow Bow Shackle	1	2131

2638/2639/2640/2641/2654 Double/Triple/Quadruple					
No.	Description	Qty	Part No.		
1	5 mm Shallow Bow Shackle	1	2132		
2	U-Lock	1	H-27808A		



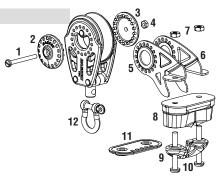
1				
	2642/2643	Single		
	No.	Description	Qty	Part No.
	1 5 mi	n Shallow Bow Shackle	1	2132
	DA .			

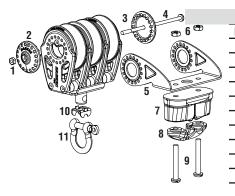
2652	2 Standup Fixed			
No.	Description	Qty	Part No.	TRING
1	Spring	1	097	
2	Eyestrap	1	073	



26	655/2	2656 Fiddle		
146	No.	Description	Qty	Part No.
	1	4 mm Shallow Bow Shackle	1	2132

2645/2646 Single Swivel w/423 Carbo Cam					
No.	Description	Qty	Part No.		
1	Screw M3X30 Slotted Panhead		HFS888		
2	Washer Cam Arm Left		H-26265B		
3	Washer Cam Arm Right	1	H-27031B		
4	Nut M3 for Washer		HFS939		
5	Cam Arm Left	1	H-46865		
6	Cam Arm Right	1	H-46866		
7	Cam Nut M4	2	HFS890		
8	Cam Cleat Micro Carbo	1	471		
9	Micro Flairlead Black	1	424B		
10	Cam Screws M4X30 Slotted Panhead	2	HFS889		
11	Cam Plate for Reversing Cam		H-27034B		
12	4mm Shallow Bow Shackle		2131		





2647/2648 Triple w/423 Carbo Cam						
No.	Description	Qty	Part No.			
1	Nut M3 for Washer	1	HFS939			
2	Washer Left	1	H-26265B			
3	Washer Right	1	H-27031B			
4	Cam Arm Fastener M4X70 Custom	1	HFS895			
5	Cam Arm	1	H-27052C			
6	Cam Nut M4	2	HFS890			
7	Cam Cleat, Micro Carbo	1	471			
8	Micro Flairlead Black	1	424B			
9	Cam Screw M4 X 30 Slotted Panhead	2	HFS889			
10	U-Lock	1	H-27808A			
11	5mm Hybrid Shallow Bow Shackle	1	HCP1568			

	2657/2658 Fiddle			(The second s
No.	Description	Qty	Part No.	
1	Screw M3X30 Slotted Panhead	1	HFS888	
2	Washer Cam Arm Left	1	H-26265B	P°OLEM 3
3	Washer Cam Arm Right	1	H-27031B	
4	Nut M3 for Washer	1	HFS939	
5	Cam Arm Left	1	H-46865	
6	Cam Arm Right	1	H-46866	
7	Cam Nut M4	2	HFS890	
8	Cam Cleat Micro Carbo	1	471	
9	Micro Flairlead Black	1	424B	
10	Cam Screws M4X30 Slotted Panhead	2	HFS889	
11	Cam Plate for Reversing Cam	1	H-27034B	
12	4mm Shallow Bow Shackle	1	2131	
				9

Inspect Block and Shackle Before You Sail



WARNING! Failure to inspect and replace damaged metal parts and/or worn or frayed line can cause block or system to break suddenly causing an accident.

Frequently inspect shackles and shackle posts for signs of corrosion, cracks, or elongation. When replacing shackles, use the correct Harken parts to maintain the proper strength. Replace line as necessary, taking into consideration the maximum size recommendation.

Maintenance

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

Keep your equipment clean and free-running by frequently flushing with fresh water. Periodically clean with mild detergent and water solution. Spin sheaves to distribute soap solution evenly. Flush with fresh water.

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 <u>www.harken.com/manuals</u> or the Harken catalog.