

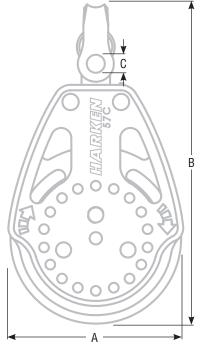
#### INSTRUCTIONS

## 57 mm, 75 mm Carbo Ratchamatics

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Strictly follow all instructions to avoid an accident, damage to your vessel, personal injury or death. See <a href="https://www.harken.com">www.harken.com</a> for additional safety information.



# IMPORTANT: See Inspection and Maintenance at end of manual.

### Features

**Load-sensing ratchet block:** rolls freely in both directions under low loads and automatically engages ratchet as loads increase.

Eight-facet sheave: holds line securely.

Ratchet engagement adjustable: adjustable to ratchet at higher/lower load according to sailor's strength and sailing style.

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

Machined Hardkote-anodized aluminum sheaves: strength and corrosion resistance.

**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. Mounts on port or starboard.

**Common uses:** Main/jib/spinnaker sheets/traveler controls/ genoa sheets/foreguys

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

Part		A B C in mm in mm in mm		Max	line Ø	Maximum working load		Breaking load					
No.	Description			in	mm	in	in mm		mm	lb	kg	lb	kg
57 mm													
2625	Single	21/4	57	41/16	103	3/16	5	3/8	10	500	227	2000	907
2626	Single/becket	21/4	57	415/16	125	3/16	5	3/8	10	500	227	2000	907
2627	Single/150 Cam-Matic®	21/4	57	41/16	103	3/16	5	3/8	10	300	136	750	340
2628	Single/150 Cam-Matic®/becket	21/4	57	415/16	125	3/16	5	3/8	10	600	272	1500	680
2633	Cheek**	21/4	57	31/4	83	_	_	3/8	10	500	227	2000	907
2629	Triple/150 Cam-Matic®	21/4	57	41/16	103	1/4	6	3/8	10	1500	680	3750	1700
2630	Triple/150 Cam-Matic®/becket	21/4	57	415/16	125	1/4	6	3/8	10	1800	816	4500	2041
2632	Triple/150 Cam-Matic <sup>®</sup> /40 mm block/becket	21/4	57	61/8	156	1/4	6	3/8	10	1800	816	4500	2041
2634	Double	21/4	57	49/16	116	1/4	6	3/8	10	750	340	1875	851
75 mm	1												
2680	Single	215/16	75	53/8	137	1/4	6	7/ <sub>16</sub>	12	750	341	3000	1361
2681	Single/becket	215/16	75	61/2	165	1/4	6	<sup>7</sup> / <sub>16</sub>	12	750	341	3000	1361
2682	Cheek**	215/16	75	41/16	103	_	_	<sup>7</sup> / <sub>16</sub>	12	750	341	3000	1361
2683	Single/150 Cam-Matic®	215/16	75	5 <sup>7</sup> / <sub>16</sub>	138	1/4	6	<sup>7</sup> / <sub>16</sub>	12	300	136	750	340
2684	Single/150 Cam-Matic <sup>®</sup> /becket	215/16	75	61/2	165	1/4	6	<sup>7</sup> / <sub>16</sub>	12	600	272	1500	680
2685	Triple/150 Cam-Matic®	215/16	75	63/16	137	5/16	8	<sup>7</sup> / <sub>16</sub>	12	1500	680	3750	1700
2686	Triple/150 Cam-Matic®/becket‡	215/16	75	61/2	165	5/16	8	<sup>7</sup> / <sub>16</sub>	12	1800	816	4500	2041
2687	Triple/150 Cam-Matic <sup>®</sup> /57 mm block/becket	215/16	75	61/2	165	5/16	8	7/16	12	1800	816	4500	2041

<sup>\*\*</sup>Includes RH fasteners and mounting pad.

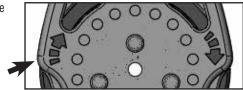
#### **Ratchamatic Blocks**

Ratchet blocks are hand and crew savers. The eight-sided sheave grips loaded sheets with up to 15: 1 holding power. Ratchamatic blocks spin freely in both directions under low load. At higher load, ratchet engages, providing holding power. As the load decreases, the ratchet shifts back into light air mode and free spins. Unloaded main and jib sheets run out freely during mark roundings and asymmetrical spinnakers run free during jibes.

57 mm (10:1 Holding Power), 75 mm (15:1 Holding Power)

#### **Ratchet Direction**

Arrow on side of block shows direction that sheave will spin in ratchet mode. Refer to arrow when reeving block or mounting cheek block.



#### Adjusting Ratche



Remove becket to access ratchet adjustment hole.

#### **INSERT** 2.5 mm allen wrench (included)

**ALIGN HOLE** in sheave with bottom of block





#### -All Ratchamatic Singles 3-Way Cam-Lock-

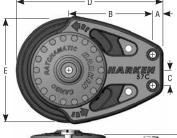




- 1. Cam lever up. Block locks in front or side position.
- Cam lever down. Block turns freely.



#### 2633 Cheek Block

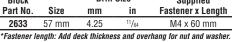




Remove circular mounting cap. Position block so ratchet turns in desired direction (see drawing below). Flip block to change direction. Use chart below or use block as a template and mark holes using centerpunch. Check marks with block before drilling. Remove block and drill holes using drill shown below in chart. Bevel top of deck holes using a small knife to allow sealant to mass. Place gasket under block. Through-bolt block using recommended stainless steel fasteners, washers and locknuts. Do not overtighten center screw or ratchet will bind. Test block after mounting to make sure ratchet engages smoothly and rotation direction is correct.

Ratchamatic cheek blocks include metric roundhead screws, washers and nuts. See chart.

Block		Drill	Supplied	
Part No.	Size	mm	in	Fastener x Length
2633	57 mm	4.25	11/64	M4 x 60 mm



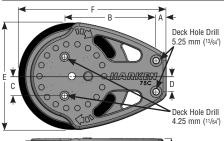
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Block	Part		A		В	1	C		D		E		F	(	3
Size	No.	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
57 mm	2633	7/32	6	1 <sup>3</sup> / <sub>4</sub>	44.5	<sup>21</sup> / <sub>64</sub>	8.3	31/4	83	21/4	57	1	25	1 <sup>5</sup> / <sub>32</sub>	29

#### 2682 Cheek Block

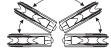




Position block so ratchet turns in desired direction. Refer to arrow for sheave direction in ratchet mode. Flip block to change direction. Use chart below or use block as a template. Mark holes using centerpunch. Check marks with block before drilling. Remove block. Important—holes are different diameter. Use two drill sizes for deck holes. See chart and diagram. Bevel top of deck holes using a small knife to allow sealant to mass. Place gasket under block. Through-bolt block using recommended stainless steel fasteners, washers and locknuts.

Ratchamatic cheek blocks include metric roundhead screws, washers and nuts. See chart below:

Block		Drill	Supplied						
Part No.	Size	mm	in	Fastener x Length					
2682	75 mm	4.25 / 5.25	11/64 / 13/64	M4 / M5 x 60 mm					
*Fastener length: Add deck thickness and overhang for nut and washer.									



Block	Part	rt A E		3	C		D		E		F		G		
Size	No.	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
75mm	2682	9/32	7	217/32	64	17/32	13.5	27/64	11	215/16	75	41/16	103	11/4	31

#### 3-Way U-Lock—2629 / 2630 / 2632 / 2634 / 2685 / 2686 / 2687

The 3-Way U-Lock on doubles and triples 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.





#### Adjust Cam Angle (Single/Triple)

- 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 not overtighten screw.

#### Reverse Cam Cleat (Single Only)

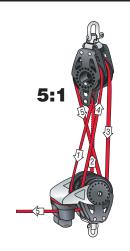
 Remove screws from cam.
 Assemble as shown. Note: use plastic plate on cam bottom.

plastic plate on cam bottom.
3. Tighten screws. Do not overtighten screws. Cam pawls should snap shut smartly.

Part No. HFS889

## Reeving Multi-Purchase Systems

Right-angle reeving dead-end on becket







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

## 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, damage to your vessel, personal injury or death. See <a href="https://www.harken.com">www.harken.com</a> for additional safety information.

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 <a href="www.harken.com">www.harken.com</a> or the Harken® catalog.