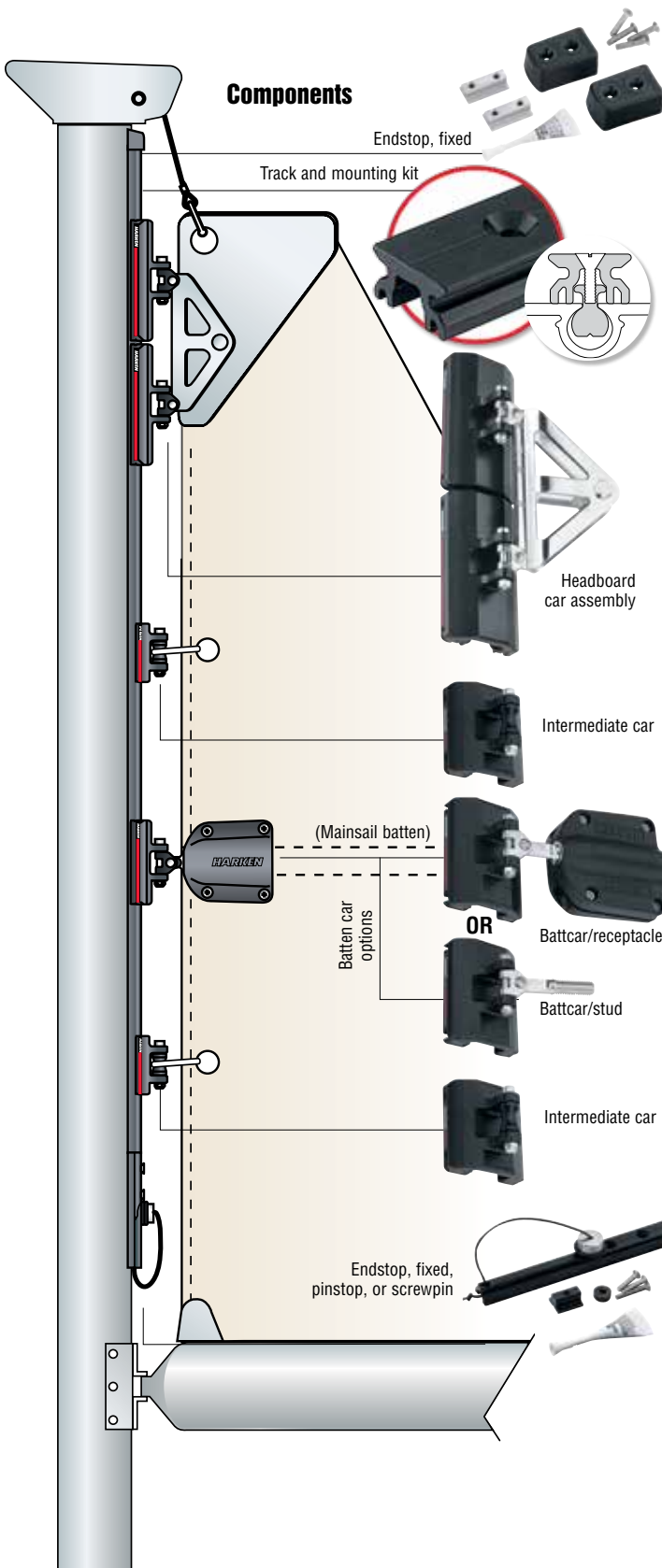




Alerion Sport 30, 9.14 m (30'), USWatercraft and Langan Design Partners © Billy Black

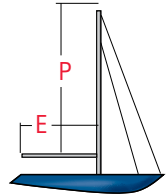
MAINSAIL HANDLING SYSTEMS

Ordering Battcar Systems



1. Determine System Size

The four sizes, systems AA, A, B, and C, are based on sail area (pages 156-163). If you need to reduce car stack height on mast, see **Switch T-Track Battcar Systems** (pages 164-169).



Mainsail Area
P x E x .5

System size	Maximum sail area				Typical boat length			
	Monohull		Multihull		Monohull		Multihull	
	ft ²	m ²	ft ²	m ²	ft	m	ft	m
AA	350	32	275	25	to 37	to 11.3	to 30	to 9.1
A	600	56	500	46	37 - 50	11.3 - 15.2	30 - 40	9.1 - 12.2
B	900	83	700	65	50 - 60	15.2 - 18.3	40 - 50	12.2 - 15.2
C	1940	180	1510	140	60 - 90	18.3 - 27	50 - 70	15.2 - 21

2. Determine Track Quantity and Type

Use **Mainsail Luff Length** chart on each system page to determine number of track sections.

Slug-mount: most common. Requires 1 slug-mount kit per track section. Select slug that matches the mast's boltrope groove shape.

Drill-tap: for masts without a boltrope groove. Requires 1 splice link at each track joint.

3. Choose Endstop Kit

Quick-release: includes screwpin or pinstop endstop for bottom of mast and fixed endstop for the top.

Fixed: Includes two fixed endstops.

4. Choose Cars

Order 1 headboard, 1 Battcar for every full batten, and use the **Intermediate Car Chart** to determine number of intermediate cars.

CB system: all captive ball bearing components. Lowest friction system for fast sail hoists, douses, and reefs.

Combination system: CB headboard and Battcars, Slider intermediate cars. Reduces cost but uses CB in the most critical load areas.

Slider system: all slider components. Raise and lower sails without jamming the soil in the groove.

Intermediate Cars

Distance between battens*	Distance between battens*		Intermediate cars between battens
	ft	m	
8 or less		2.4 or less	1
9 - 13		2.7 - 4	2
14 - 16		4.3 - 4.9	3

*Boats without full battens should use 1 intermediate CB or slider car per 1.2 m (4') and no Battcars.

5. Contact

If you have questions, please contact your dealer or Harken Technical Service.



Delphia 46cc, Delphia Yachts © Bartosz Modelski

CB & SLIDER BATTCAR SYSTEMS

Favored by skippers and crew, Harken Battcar systems let you raise, douse, and reef the main instantly from the cockpit, even when close reaching in a big breeze. Battcar systems outperform in-mast or in-boom furling, cost far less, and sails don't need to be recut. Four sizes fit monohulls to 27 m (90'); multihulls to 21 m (70').

Strong, corrosion-resistant cars and track stand up to sun, salt, and time

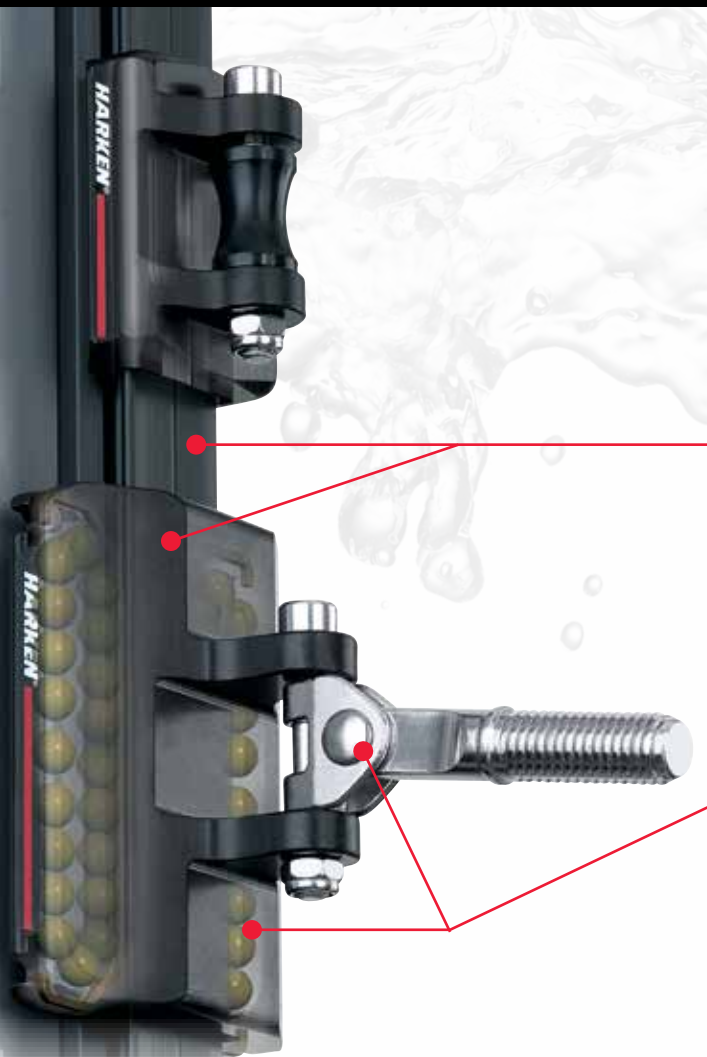
- One-piece, 6061-T6 aluminum cars Hard Lube-anodized, UV-stabilized.
- Track is 6061-T6 aluminum, hardcoat-anodized.

Low-friction ball bearing cars for easy adjustment under load

- High-strength Torlon® ball bearings circulate smoothly for fast sail hoists, douses, and reefs.
- Batten toggle moves freely in all directions to prevent sail from binding when reefing under load.

Sails can be raised/lowered without sticking in mast groove

- Slider cars ride on low-friction plastic inserts.



Materials
For properties see pages 38-39.



6061-T6 aluminum:
Hard Lube-anodized cars; hardcoat-anodized track



Torlon® thermoplastic:
Ball bearings

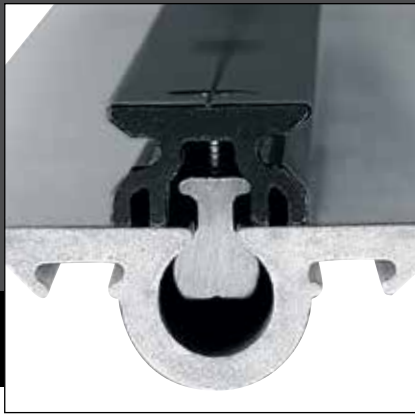


DO NOT use Harken equipment for human suspension unless product is specifically certified and labeled for such use.



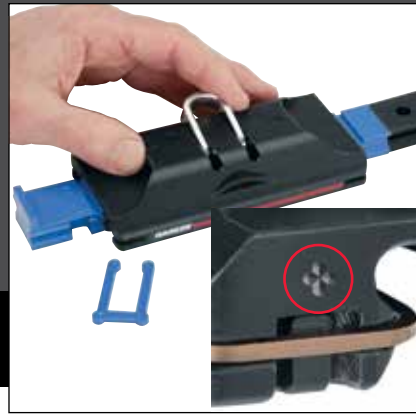
Quick sail removal

- Cars and sails slide off the track by removing the screwpin endstop—no tools required.
- Patented CB captive bearings allow cars to easily roll off track for cleaning and maintenance.
- Captive pin features a quick-release button to remove sail quickly, while allowing car to remain on mast.



Easy mast-up installation

- Battcar track screws directly into slugs that slide into mast groove—no drilling or tapping.



Cost-effective retrofit options

- CB and slider Battcar systems use the same track; mix and match to optimize performance and budget.
- CB+ cars can be modified to run on Harken old-style, non-CB track produced until 2003; upgrade cars without replacing track. Look for the “+” symbol at the end of the car.



Quick-release button



Mounting kit



Screwpin endstop kit



Flanged track



Drill-and-tap track

Variety of mounting options

- Slugs for flat or round mast grooves; 1 kit per track section.
- Screwpin endstops to remove cars and mainsail; 1 kit per system.
- Mount flanged track to carbon spars; track features groove for racing sails with boltropes or slugs.
- Masts without internal track, attach Harken 13 - 32 mm traveler track by drilling and tapping the spar.

System AA

Typical boat size:

Monohulls: length to 11.3 m (37');
mainsail area under 32 m² (350 ft²)

Multihulls: length to 9.1 m (30');
mainsail area under 26 m² (275 ft²)

About CB and slider Battcar systems: See feature pages at beginning of this section.



Kazahaya, Parigi 30, Alessandro Comuzzi architect © Alessandro Comuzzi



Patented wire retaining clips keep balls captive, making cars easy to load and maintain.



Threaded stud and toggle design handles twisting and angled loads for quick hoisting and dousing.



Cars are easily removed from the track by freeing the screwpin endstop and sliding them off.



3815



3814



3816

Part No.	Description	Length		Width		Weight		Max headboard thickness		Maximum working load	
		in	mm	in	mm	oz	g	in	mm	lb	kg
Typical Boat Length: monohulls to 11.3 m (37'); multihulls to 9.1 m (30')											
3813	CB headboard car assembly	5 ⁹ / ₁₆	132	1 ⁹ / ₁₆	40	6.7	188	1/2	12	440	200
3814	Slider intermediate car	1 ³ / ₄	44	1	25	0.5	15	—	—	130	59
3815	CB intermediate car	2 ⁷ / ₁₆	56	1 ⁹ / ₁₆	40	1.7	48	—	—	130	59
3816	CB Battcar/10 mm stud**	2 ⁷ / ₁₆	56	1 ⁹ / ₁₆	40	3	85	—	—	220	100

See page 35 for replacement balls. **Batten receptacle not included.

System AA

About CB and slider Battcar systems: See feature pages at beginning of this section.

Mast Track: Slug Mount

3817 track mounts to mast using a unique slug system that allows mast-up installation.

Part No.	Description	Length		Weight		Fastener spacing		Fastening method
		in	m	oz/ft	g/m	in	mm	
3817	Slug-mount track	80 ³ / ₄	2.05	2.84	264	3 ¹⁵ / ₁₆	100	Mounting slugs

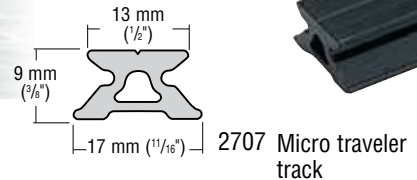
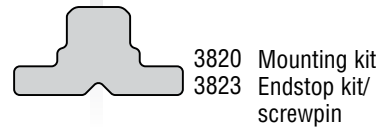
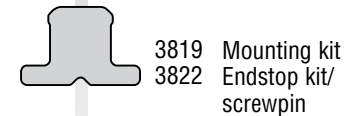
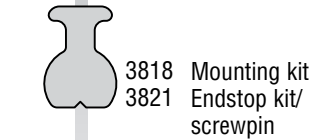
Traveler Track: Drill/Tap

For masts without internal sail track, attach 2707 Micro traveler track by drilling and tapping the spar. Join track sections with splice links. Order one per track joint. Order one low-beam endstop (sold in pairs).

Part No.	Description	Splice link	Endstop	Ordering information	Fastening method
2707	Micro track	2711	2706	page 120	Drilling and tapping

Mainsail luff length		Number of 3817 track sections
ft*	m*	
19'7" - 26'3"	5.98 - 8.00	4
26'4" - 33'	8.03 - 10.06	5
33'1" - 39'9"	10.08 - 12.11	6
39'10" - 46'5"	12.13 - 14.16	7

*Track extends above sail luff. Using screwpin endstop kits will increase lengths.



Pogo 30, 9.14 m (30'), Structures, Finot-Conq © Andreas Lindlahr

Mounting Kits and Endstops

Mounting kit slugs are available for flat or round mast grooves. Order one kit per track section.

Use screwpin endstop to easily remove cars and mainsail. Order one kit.

MOUNTING KIT

3818
3819
3820



MICRO TRACK ENDSTOP KIT/SCREWPIN

3837



ENDSTOP KIT/SCREWPIN

3821
3822
3823



Track Mounting Kits: Slug Mount*

Part No.	Description	Mounting slug				Mounting slugs/kit	Connector slug				Fits flat mast groove gap				
		Length	Length	Weight	Weight		Length	Length	Weight	Weight	Min	Max	Min	Max	
		in	mm	oz	g	in	mm	oz	g	in	mm	in	mm	in	mm
3818	Round mast groove	3/4	19	.14	4	19	2 ⁵ / ₈	67	.54	15	1	—	—	—	—
3819	Flat mast groove	3/4	19	.17	5	19	2 ⁵ / ₈	67	.60	17	1	5/16	8	7/16	11
3820	Wide flat mast groove	3/4	19	.25	6	19	2 ⁵ / ₈	67	.94	23	1	7/16	11	1/2	13

Endstop Kits: Slug Mount & Drill/Tap*

Part No.	Description	Track end length		Weight		Mounting slugs/kit
		in	mm	oz	g	
3821	Round mast groove/screwpin	6	152	2.4	70	2
3822	Flat mast groove/screwpin	6	152	2.4	70	2
3823	Wide flat mast groove/screwpin	6	152	2.4	70	2
3837	Micro track/screwpin	6	152	2.2	62	—

*Includes M4 x .7 x 20 or 25 mm fasteners.

System A

Typical boat size:

Monohulls: length 11.3 - 15.2 m (37 - 50');
mainsail area under 56 m² (600 ft²)

Multihulls: length 9.1 - 12.2 m (30 - 40');
mainsail area under 46 m² (500 ft²)

About CB and slider Battcar systems: See feature pages
at beginning of this section.



Tofinou 12, 12 m (39.37'), Chantier Naval Latitude 46,
naval architect: Joubert / Nivelte © Chantier Naval Latitude 46



3811



3883



3882



3881



3830



3829



3831



3812

CB BALL BEARING CARS



3827



3803



3802



3828



1777

SLIDER CARS

Part No.	Description	Length		Width		Weight		Max headboard thickness		Max batten				Maximum working load	
		in	mm	in	mm	oz	g	in	mm	Width	Ø	Batten	lb	kg	
CB Cars: Typical Boat Length: Monohulls 11.3 - 15.2 m (37 - 50'); Multihulls 9.1 - 12.2 m (30 - 40')															
3811*	Headboard car assembly	8 ³ / ₈	213	2 ¹ / ₄	57	18	518	⁹ / ₁₆	14	—	—	—	—	—	1600 725
3812*	Intermediate car	2 ¹ / ₄	57	2 ¹ / ₄	57	4	109	—	—	—	—	—	—	—	—
3829*	Battcar/10 mm stud**	2 ⁷ / ₈	73	2 ¹ / ₄	57	6	157	—	—	—	—	—	—	600 272	
3830*	Battcar/40 mm receptacle	2 ⁷ / ₈	73	2 ¹ / ₄	57	9	253	—	—	1 ⁵ / ₈	41	⁵ / ₈	16	Flat/round 600 272	
3881	Battcar/12 mm stud**	2 ⁷ / ₈	73	2 ¹ / ₄	57	6.4	182	—	—	—	—	—	—	600 272	
3831	Universal Battcar**	2 ⁷ / ₈	73	2 ¹ / ₄	57	4.3	122	—	—	—	—	—	—	600 272	
3882	Long batten car/12mm stud**	4 ¹ / ₈	105	2 ¹ / ₄	57	8.2	232	—	—	—	—	—	—	875 397	
3883	Reef car	4 ¹ / ₈	105	2 ¹ / ₄	57	6.1	174	—	—	—	—	—	—	875 397	
Slider Cars: Typical Boat Length: Monohulls 11.3 - 15.2 m (37 - 50'); Multihulls 9.1 - 12.2 m (30 - 40')															
3827	Headboard car assembly	6	153	1 ⁵ / ₈	35	10	269	⁹ / ₁₆	14	—	—	—	—	—	1600 725
1777	Low-load intermediate car ‡	2	51	1 ¹ / ₄	32	1.1	32	—	—	—	—	—	—	200 91	
3828	Intermediate car	1 ³ / ₄	44	1 ³ / ₈	35	1.6	45	—	—	—	—	—	—	350 159	
3802	Battcar/10 mm stud**	1 ³ / ₄	44	1 ³ / ₈	35	2.8	80	—	—	—	—	—	—	350 159	
3803	Battcar/40 mm receptacle	1 ³ / ₄	44	1 ³ / ₈	35	6.4	181	—	—	1 ⁵ / ₈	41	⁵ / ₈	16	Flat/round 350 159	

See page 35 for replacement balls. *Available as a non-CB car on a car loader to run on a non-CB style track supplied before 2003. Add .NW to end of part number.

158 ‡ Max. sail area: Monohull 33 m² (350 ft²), Multihull 28 m² (300 ft²). **Batten receptacle not included.

System A

About CB and slider Battcar systems: See feature pages at beginning of this section.

Mast Track

3807 track mounts to mast using a unique slug system that allows mast-up installation.

Use flanged track when mounting to carbon spars. Track features a groove for racing sails with boltropes or slugs.

Part No.	Description	Length		Weight		Fastener spacing		Fastening method
		in	m	oz/ft	g/m	in	mm	
3807	Slug-mount track	80 $\frac{3}{4}$	2.05	4.44	413	4 $\frac{15}{16}$	125	Mounting slugs
3878.2M	Flanged track	78 $\frac{3}{4}$	2	6.7	626	—	—	Adhesive
3878.6M	Flanged track	236 $\frac{1}{4}$	6	6.7	626	—	—	Adhesive

Traveler Track: Drill/Tap

For masts without internal sail track, attach 2720 Small Boat traveler track by drilling and tapping the spar. Join track sections with splice links. Order one per track section. Order one low-beam endstop (sold in pairs).

Part No.	Description	Splice link	Endstop	Ordering information	Fastening method
2720	Small Boat track	2724	263	page 122	Drilling and tapping

Mounting Kits and Endstops

Mounting kit slugs are available for flat or round mast grooves. Order one kit per track section.

Use screwpin endstop to easily remove cars and mainsail. Order one kit only.

MOUNTING KIT

3804
3805
3806



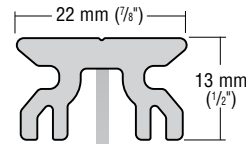
ENDSTOP KIT/FIXED

3808
3809
3810

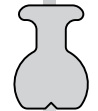


Mainsail luff length	Number of 3807 track sections	
ft*	m*	
26'4" - 33'	8.03 - 10.06	5
33'1" - 39'9"	10.08 - 12.11	6
39'10" - 46'5"	12.13 - 14.16	7
46'6" - 53'2"	14.19 - 16.21	8
53'3" - 59'11"	16.24 - 18.26	9

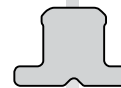
*Track extends above sail luff. Using screwpin endstop kits will increase lengths.



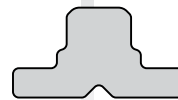
3807 Slug-mount track



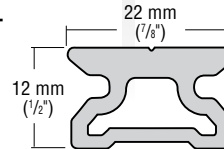
3804 Mounting kit
3808 Endstop kit/fixed
3824 Endstop kit/screwpin



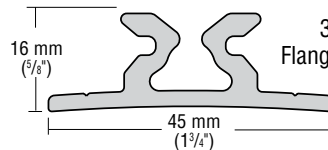
3805 Mounting kit
3809 Endstop kit/fixed
3825 Endstop kit/screwpin



3806 Mounting kit
3810 Endstop kit/fixed
3826 Endstop kit/screwpin



2720 Small Boat traveler track



3878 Flanged track

ENDSTOP KIT/SCREWPIN

3824
3825
3826



Track Mounting Kits: Slug Mount*

Part No.	Description	Mounting slug				Connector slug				Fits flat mast groove gap					
		Length in	Length mm	Weight oz	Weight g	Mounting slugs/kit	Length in	Length mm	Weight oz	Weight g	Connector slugs/kit	Min in	Min mm	Max in	Max mm
3804	Round mast groove	3/4	19	.14	4	15	2 $\frac{5}{8}$	67	.54	15	1	—	—	—	—
3805	Flat mast groove	3/4	19	.17	5	15	2 $\frac{5}{8}$	67	.60	17	1	9/16	8	7/16	11
3806	Wide flat mast groove**	3/4	19	.25	6	15	2 $\frac{5}{8}$	67	.94	23	1	7/16	11	9/8	16

Endstop Kits: Slug Mount*

Part No.	Description	Track end length		Weight		Mounting slugs/kit
		in	mm	oz	g	
3808	Round mast groove/fixd (pair)	—	—	.5	14	2
3809	Flat mast groove/fixd (pair)	—	—	.52	15	2
3810	Wide flat mast groove/fixd (pair)**	—	—	.67	19	2
3824	Round mast groove/screwpin	8	203	5.4	155	3
3825	Flat mast groove/screwpin	8	203	5.5	157	3
3826	Wide flat mast groove/screwpin**	8	203	6.1	174	3

*Includes M5 X .8 X 20/25 mm or 25 mm fasteners. **For Selden mast slugs contact Harken.

System B

Typical boat size:

Monohulls: length 15.2 - 18.3 m (50 - 60');
mainsail area under 83 m² (900 ft²)

Multihulls: length 12.2 - 15.2 m (40 - 50');
mainsail area under 65 m² (700 ft²)

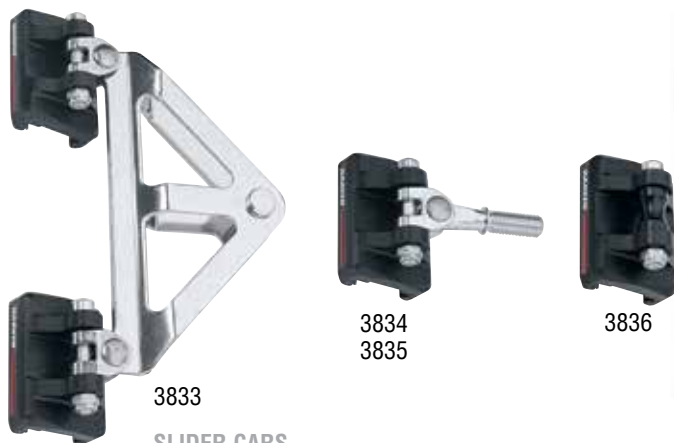
About CB and slider Battcar systems: See feature pages at beginning of this section.



Aluminum web-on headboard plates are easy for sailmakers to install. Plates have radiused edges to protect the sail and fit 25 mm (1") webbing strap. Holes threaded into plates accept 416 cheek blocks for leech line. Web-on plates are required for the 3852 System B CB headboard car. Sold separately.



CB BALL BEARING CARS



SLIDER CARS



Pelagic Australis, Pelagic Expeditions © Skip Novak

Part No.	Description	Length		Width		Weight		Max headboard thickness		Maximum working load	
		in	mm	in	mm	oz	g	in	mm	lb	kg
CB Cars: Typical Boat Length: Monohulls 15.2 - 18.3 m (50 - 60'); Multihulls 12.2 - 15.2 m (40 - 50')											
3852*	Headboard car assembly	10 ¹ / ₂	267	2 ³ / ₄	70	41.4	1173	7 ⁷ / ₁₆	12	3200	1450
3863*	Intermediate car	2 ⁹ / ₁₆	68	2 ³ / ₄	70	6.8	191	—	—	524	238
3856*	Battcar/10 mm stud**	4 ¹ / ₄	108	2 ³ / ₄	70	14.3	406	—	—	1260	571
3857	Battcar/12 mm stud**	4 ¹ / ₄	108	2 ³ / ₄	70	14.6	413	—	—	1260	571
3879	Battcar/14 mm stud**	4 ¹ / ₄	108	2 ³ / ₄	70	15.1	429	—	—	1260	571
3859	Universal Battcar**	4 ¹ / ₄	108	2 ³ / ₄	70	12.3	348	—	—	1260	571
3860	Reef car	5 ⁹ / ₁₆	132	2 ³ / ₄	70	14.4	408	—	—	1600	725
3861	Web-on headboard plate ‡	6 ³ / ₄	172	6 ³ / ₈	161	10.3	292	—	—	—	—
3862	Web-on headboard plate/flat-top ‡	5 ¹³ / ₁₆	148	6 ³ / ₁₆	157	11.2	317	—	—	—	—
Slider Cars: Typical Boat Length: Monohulls 15.2 - 18.3 m (50 - 60'); Multihulls 12.2 - 15.2 m (40 - 50')											
3833	Headboard car assembly†	7 ¹ / ₂	190	1 ¹¹ / ₁₆	42	14.8	420	9 ⁹ / ₁₆	16	3200	1450
3836	Intermediate car	2 ⁹ / ₁₆	56	1 ¹¹ / ₁₆	42	2.9	82	—	—	1260	570
3834	Battcar/10 mm stud**	2 ⁹ / ₁₆	56	1 ¹¹ / ₁₆	42	4.5	128	—	—	1260	570
3835	Battcar/12 mm stud**	2 ⁹ / ₁₆	56	1 ¹¹ / ₁₆	42	4.9	140	—	—	1260	570

See page 35 for replacement balls. *Available as a non-CB car on a car loader to run on a non-CB style track supplied before 2004. Add .NW to end of part number.

160 ‡ Contact Harken for headboard plate for non CB systems. **Batten receptacle not included. †Fits standard sailmaker-supplied headboard.

System B

About CB and Slider Battcar Systems: see feature pages at beginning of this section.

Mainsail luff length		Number of 3844 track section
ft*	m*	
39'10" - 46'6"	12.13 - 14.17	7
46'7" - 53'3"	14.19 - 16.23	8
53'4" - 60'	16.25 - 18.29	9
60'1" - 66'9"	18.31 - 20.35	10
66'10" - 73'6"	20.37 - 22.44	11

*Track extends above sail luff. Using screwpin endstop kits will increase lengths.

Mast Track

3844 track mounts to mast using a unique slug system that allows mast-up installation.

Use flanged track when mounting to carbon spars. Track features a groove for racing sails with boltropes or slugs. Use C10879 endstop feeder kit to easily raise sails with boltropes.

Part No.	Description	Length		Weight		Fastener spacing		Fastening method
		in	m	oz/ft	g/m	in	mm	
3844	Slug-mount track	81 ¹ / ₈	2.06	5.66	527	3 ⁵ / ₁₆	100	Mounting slugs
3849.2M	Flanged track	78 ³ / ₄	2	12	1119	—	—	Adhesive
3849.6M	Flanged track	236 ¹ / ₄	6	12	1119	—	—	Adhesive
C10879	Endstop/feeder kit*	15 ³ / ₄	.4	22.4	636	2 ¹⁵ / ₁₆	75	Fasteners/adhesives

*Use with 3849 flanged track. Contact Harken for price and lead time.

Traveler Track: Drill/Tap

For masts without internal sail track, attach R27 Midrange traveler track by drilling and tapping the spar. Join track sections with splice links. Order one per track section. Order one low-beam endstop (sold in pairs).

Part No.	Description	Splice link	Endstop	Ordering information	Fastening method
R27	Midrange track	1619	E2700	Page 127	Drilling and tapping

Mounting Kits and Endstops

Mounting kit slugs are available for flat or round mast grooves. Order one kit per track section.

Use pinstop endstop to easily remove cars and mainsail. Order one kit only.



3845
3846
3864

Mounting Kit



Endstop Kit/Fixed



Endstop Kit/Screwpin



Endstop/Feeder Kit

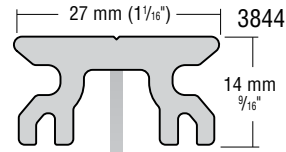
Track Mounting Kits: Slug Mount*

Part No.	Description	Mounting slug				Connector slug				Fits flat mast groove gap					
		Length in	Length mm	Weight oz	Weight g	Mounting slugs/kit	Length in	Length mm	Weight oz	Weight g	Connector slugs/kit	Min in	Min mm	Max in	Max mm
3845	Round mast groove	7 ⁷ / ₈	22	.43	12	19	3	76	1.27	36	1	7 ¹ / ₁₆	11	9 ⁵ / ₈	16
3846	Flat mast groove	7 ⁷ / ₈	22	.56	16	19	3	76	1.71	48	1	7 ¹ / ₁₆	11	9 ⁵ / ₈	16
3864	Flat mast groove‡	7 ⁷ / ₈	22	.48	14	19	3	76	1.29	37	1	3 ³ / ₈	9.5	7 ¹ / ₁₆	11

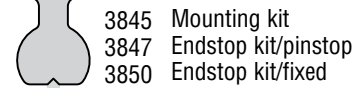
Endstop Kits: Slug Mount*

Part No.	Description	Track end length		Weight		Mounting slugs/kit
		in	mm	oz	g	
3847	Round mast groove/pinstop	9 ¹ / ₂	241	8.3	234	3
3848	Flat mast groove/pinstop	9 ¹ / ₂	241	11.3	322	3
3850	Round mast groove/fixd (pair)	—	—	3.3	94	2
3851	Flat mast groove/fixd (pair)	—	—	3.7	105	2
3865	Flat mast groove/fixd‡	—	—	3.5	100	2
3866	Flat mast groove/pinstop‡	9 ¹ / ₂	241	11.1	316	3

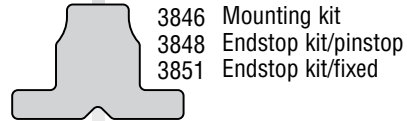
*Includes M6 x 1.0 x 20 or 30 mm fasteners; weights include fasteners; not for flanged track. ‡For Selden mast section C installations.



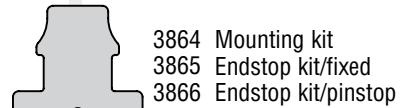
3844 Slug-mount track



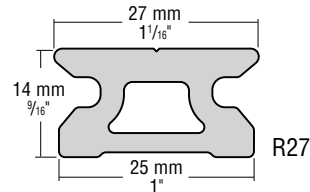
3845 Mounting kit
3847 Endstop kit/pinstop
3850 Endstop kit/fixd



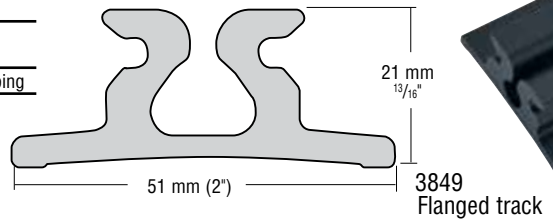
3846 Mounting kit
3848 Endstop kit/pinstop
3851 Endstop kit/fixd



3864 Mounting kit
3865 Endstop kit/fixd
3866 Endstop kit/pinstop



R27 Midrange traveler track



3849 Flanged track

System C

Typical boat size:

Monohulls: length 18.3 - 27 m (60 - 90');
mainsail area under 180 m² (1940 ft²)

Multihulls: length 15.2 - 21 m (50 - 70');
mainsail area under 140 m² (1510 ft²)

About CB and slider Battcar systems: see feature pages
at beginning of this section.



Aluminum web-on headboard plates are easy for sailmakers to install. Plates have radiused edges to protect the sail and fit 25 mm (1") webbing strap. Holes threaded into plates accept 416 cheek blocks for leech line. Web-on plates are required for the 3867 System C CB headboard car. Sold separately.

Pelagic Belle, Knysna 500, Angelo Lavranos, Knysna Yacht Company © Rika Fouché



Part No.	Description	Length		Width		Height		Weight		Max headboard thickness		Maximum working load	
		in	mm	in	mm	in	mm	oz	g	in	mm	lb	kg
CB Cars: Typical Boat Length: Monohulls 18.3 - 27 m (60 - 90'); Multihulls 15.2 - 21 m (50 - 70')													
3867	Headboard car assembly*	18 ⁹ / ₈	473	3 ³ / ₈	85	—	—	107	2980	9 ¹ / ₁₆	15	6300	2858
3871	Intermediate car	3 ³ / ₄	96	3 ³ / ₈	85	—	—	17	493	—	—	1530	695
3868	Battcar/12 mm stud**	5 ⁵ / ₈	136	3 ³ / ₈	85	—	—	29	834	—	—	2100	953
3869	Battcar/14 mm stud**	5 ⁵ / ₈	136	3 ³ / ₈	85	—	—	30	844	—	—	2100	953
3870	Battcar/16 mm stud**	5 ⁵ / ₈	136	3 ³ / ₈	85	—	—	31	860	—	—	2100	953
3872	Universal Battcar**	5 ⁵ / ₈	136	3 ³ / ₈	85	—	—	24	676	—	—	2100	953
3873	Reef car	9 ¹ / ₈	231	3 ³ / ₈	85	—	—	38	1071	—	—	3150	1429
3876	Web-on headboard plate*	10 ¹⁵ / ₁₆	278	9 ¹ / ₁₆	14	10 ⁹ / ₈	269	33.8	958.4	1 ¹ / ₂	13	—	—
3877	Web-on headboard plate/flat-top*	11 ¹ / ₁₆	281	9 ¹ / ₁₆	14	11 ¹⁵ / ₁₆	288	43	1343	1 ¹ / ₂	13	—	—

See page 35 for replacement balls. *Contact Harken for headboard plate for older systems. **Batten receptacle not included.

System C

About CB and slider Battcar systems: See feature pages at beginning of this section.

Mast Track

3853 track mounts to mast using a unique slug system that allows mast-up installation.

Use flanged track when mounting to carbon spars. Track features a groove for racing sails with boltropes or slugs.

Part No.	Description	Length		Weight		Fastener spacing		Fastening method
		in	m	oz/ft	g/m	in	mm	
3853	Slug-mount track	81 ¹⁵ / ₁₆	2.08	9.28	863	3 ¹⁵ / ₁₆	100	Mounting slugs
3858.2M	Flanged track	78 ³ / ₄	2	17.38	1619	—	—	Adhesive
3858.6M	Flanged track	236 ¹ / ₄	6	17.38	1619	—	—	Adhesive

Traveler Track: Drill/Tap

For masts without internal sail track, attach R32 Big Boat traveler track by drilling and tapping the spar. Join track sections with splice links. Order one per track section. Order one low-beam endstop (sold in pairs).

Part No.	Description	Splice link	Endstop	Ordering information	Fastening method
R32	Big Boat track	3153	E3200	page 133	Drilling and tapping

Mounting Kits and Endstops

Mounting kit slugs are available for flat mast grooves. Order one kit per track section.

Use pinstop endstop to easily remove cars and mainsail. Order one kit only.

MOUNTING KIT

3854



ENDSTOP KIT/FIXED

3855



ENDSTOP KIT/SCREWPIN

3875



Track Mounting Kits: Slug Mount

Part No.	Description	Mounting slug				Connector slug				Fits flat mast groove gap					
		Length in	mm	Weight oz	g	Mounting slugs/kit	Length in	mm	Weight oz	g	Connector slugs/kit	Min in	mm	Max in	mm
3854	Flat mast groove	1	25	.60	17	19	4 ¹ / ₈	105	2.49	70	1	1 ¹⁷ / ₃₂	13	5 ¹ / ₈	16

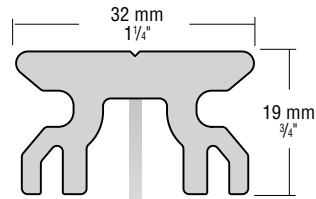
Endstop Kits: Slug Mount

Part No.	Description	Track end length		Weight		Mounting slugs/kit
		in	mm	oz	g	
3855	Flat mast groove/fixed (pair)*	—	—	16	454	2
3875	Flat mast groove/pinstop*	17	432	30	853	5

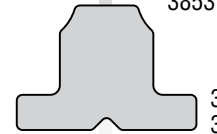
M8 x 1.25 x 40 mm fasteners. *Not for flanged track.

Mainsail luff length		Number of 3853 track sections
ft*	m*	
53'8" - 60'5"	16.36 - 18.42	9
60'6" - 67'3"	18.45 - 20.50	10
67'4" - 74'1"	20.53 - 22.58	11
74'2" - 80'11"	22.61 - 24.66	12
81' - 87'9"	24.69 - 26.74	13
87'10" - 94'7"	26.77 - 28.82	14
94'8" - 101'5"	28.85 - 30.90	15

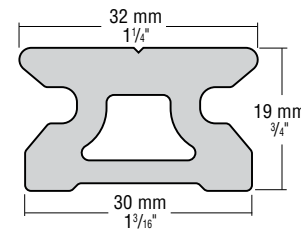
*Track extends above sail luff. Using screwpin endstop kits will increase lengths.



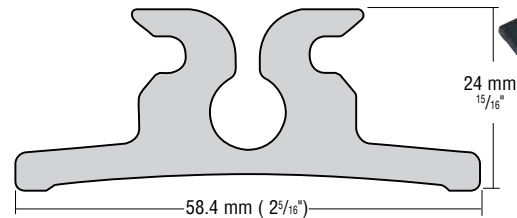
3853 Slug-mount track



3854 Mounting kit
3855 Endstop kit/fixed
3875 Endstop kit/pinstop



R32 Big Boat traveler track



3858 Flanged track



Saudade, 45.19 m (148.3'), Wally Yachts, Tripp Design © Ingrid Abery

SWITCH T-TRACK BATTCAR SYSTEMS

Harken's award-winning Switch T-Track Battcar system cuts the stack height of mainsails on large yachts by half, making it much easier for crew to put on sail covers and to connect/disconnect halyards. This simple, yet sophisticated patented switch system neatly stacks cars side-by-side on top of the boom. The unique switch plate has no moving parts, ensuring an exceptionally reliable and efficient product. Available in 18, 26, 32, and 50 mm sizes for monohulls 11 m (37') to over 43 m (140'); multihulls 9 m (30') to over 27 m (90').



Switch track cuts stack height in half

- Neatly flakes mainsail cars side-by-side on top of the boom; stores cars on parallel tracks at bottom of mast.
- Headboard cars articulate, pass through switch for further stack height reduction (26, 32, and 50 mm).

Stand up to sun, salt, and time

- 18 mm high-load, 26, 32, and 50 mm aluminum cars Hard Lube-anodized, UV-stabilized for durability.
- Standard 18 mm cars fiber-reinforced, UV-stabilized, lubricated composite for maximum protection and low wear.
- Aluminum track hardcoat-anodized for a long-lasting surface.
- Switch plate has no moving parts to break.



Materials

For properties see pages 38-39.



6061-T6 aluminum:

Hard Lube-anodized cars; hardcoat-anodized track

Do not use Harken equipment for human suspension unless product is specifically certified and labeled for such use.



18 mm system



26, 32, 50 mm system



Low-friction components

- Cars run on low-friction plastic slides.
- Switch plate with no moving parts minimizes friction.

Easy installation/removal of cars

- Gate tracks for 26, 32, 50 mm cars feature easy-to-remove fasteners to load/unload cars.
- 18 mm switch track uses screwpin stops and stop at masthead for easy car removal.

Optional Trysail Switch system reduces weight aloft

- Integrates trysail with mainsail switch systems; shares track.
- Cars switch automatically—only trysail cars travel onto the trysail track; mainsail cars pass through to switch and storage tracks.
- All track is hardcoat-anodized.
- Available in 26, 32, and 50 mm sizes.



18 mm slug-mount kit



18, 26, 32, 50 mm drill-and-tap track



32 mm glue-on track

Variety of mounting options

- 18 mm slug-mount track fits masts with sail grooves for mast-up installation. Boats under 12.2 m (40') use standard slug-mount track; boats over 12.2 m (40') require high-load slug-mount tracks at full hoist and all reef point headboard locations. Round, flat, or wide flat mast grooves.
- 18, 26, 32, 50 mm drill/tap track and switches fit masts without sail grooves; large sail areas use long switches to handle more cars; join track sections with splice links.
- 32 mm glue-on track bonds to mast for reduced weight aloft; works with existing bolt-on components; eliminates majority of track fasteners for lighter-weight system.

18 mm Switch T-Track Battcar Systems

Fits boats:

- 18 mm: Monohulls: 11 - 13.5 m (37 - 45');
 Multihulls: 9 - 10.5 m (30 - 35')
- 18 mm high-load:
 Monohulls 13.5 - 15 m (45 - 50');
 Multihulls 10.5 - 12 m (35 - 40')

About Switch T-Track Battcar systems: see feature pages at beginning of this section.

Xc 42, Niels Jeppensen © X-Yachts



Cut car stack height in half by flaking the sail alternately to port and starboard of the boom.



HC7906



HC7906HL



HC7905



HC8537



HC7905HL



HC7904HL
 HC8537HL

INTERMEDIATE CARS

BATTEN CARS

HEADBOARD CARS

BATTCAR Q&A

WHY DO I WANT A SWITCH BATTCAR SYSTEM?

A Switch Battcar system cuts stack height in half, so putting on a sail cover or connecting/disconnecting your halyard is a much easier task. The patented system works by alternately dropping mainsail cars onto port and starboard storage racks. Headboard cars articulate and pass through the switch, reducing stack height even more.

Cars

Part No.	Description	Length		Width		Weight		Max headboard thickness		Maximum sail area				Maximum working load	
		in	mm	in	mm	oz	g	in	mm	ft ²	m ²	ft ²	m ²	lb	kg
18 mm															
HC7906	Headboard car	7 ³ / ₁₆	198	1 ²¹ / ₃₂	42	12.8	359	9 ¹ / ₁₆	14	450	40	325	30	700	318
HC7905	Intermediate car	2 ¹ / ₂	63	1 ²¹ / ₃₂	42	1.6	45	—	—	450	40	325	30	300	103
HC8537	Batten car/10 mm stud	2 ¹ / ₂	63	1 ²¹ / ₃₂	42	3.2	91	—	—	450	40	325	30	300	103
18 mm High-Load (HL)															
HC7906HL	Headboard car	7 ³ / ₁₆	198	1 ²¹ / ₃₂	42	14.4	408	9 ¹ / ₁₆	14	610	55	500	45	1600	725
HC7905HL	Intermediate car	2 ¹ / ₂	63	1 ²¹ / ₃₂	42	3.2	91	—	—	610	55	500	45	600	272
HC7904HL	Batten car/12 mm stud	2 ¹ / ₂	63	1 ²¹ / ₃₂	42	4.9	139	—	—	610	55	500	45	600	272
HC8537HL	Batten car/10 mm stud	2 ¹ / ₂	63	1 ²¹ / ₃₂	42	4.8	136	—	—	610	55	500	45	600	272

18 mm Switch T-Track Battcar Systems

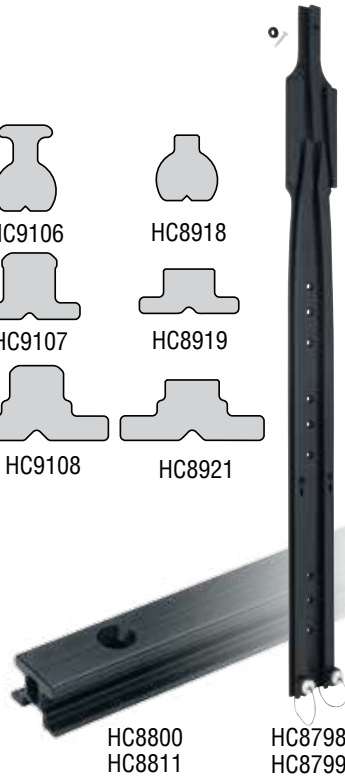
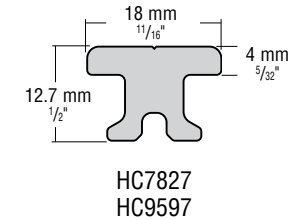
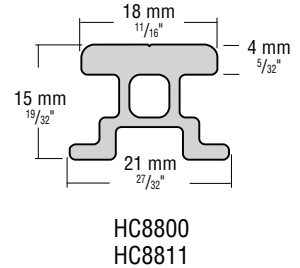
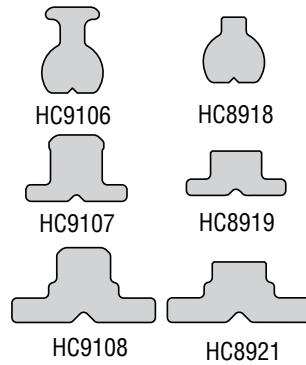
For masts with sail grooves, 18 mm slug-mount track uses a unique system that allows mast-up installation. Use high-load slug-mount tracks on boats over 12.2 m (40') at sail headboard locations at full hoist and when sail is reefed. Drill/tap track and switches fit masts without sail grooves. Join drill/tap track sections with splice links. Order one per track section. Boats with larger sail areas should use long switches to accommodate more cars.

Mounting Kits and Endstops

Slug mounting kits are available for flat or round mast grooves. Order one kit per track section.

Switch track includes screwpin stops for easy car and sail removal below switch. Stop at masthead also included.

About Switch T-Track Battcar systems: see feature pages at beginning of this section.



SLUG MOUNT

Mounting Kits: Slug Mount

Part No.	Description	Mounting slug				Connector slug				Flat mast groove gap			
		Length in	mm	Weight oz	g	Mounting slugs/kit	Length in	mm	Weight oz	g	Connector slugs/kit	Min in	Max in
Switch Mounting Kits													
HC8918	Round mast groove	2	51	.32	9	3	—	—	—	—	—	—	—
HC8919	Flat mast groove	1 3/4	45	.28	8	3	—	—	—	—	5/16	8	7/16
HC8921	Wide flat mast groove	1 3/4	45	.56	16	3	—	—	—	—	7/16	11	5/8
Track Mounting Kits													
HC9106	Round mast groove	3/4	19	.14	4	19	2 5/8	67	.54	15	1	—	—
HC9702	Round mast groove, extras*	3/4	19	.14	4	10	—	—	—	—	—	—	—
HC9107	Flat mast groove	3/4	19	.17	5	19	2 5/8	67	.60	17	1	5/16	8
HC9703	Flat mast groove, extras*	3/4	19	.17	5	10	—	—	—	—	—	5/16	8
HC9108	Wide flat mast groove	3/4	19	.25	6	19	2 5/8	67	.94	23	1	7/16	11
HC9704	Wide flat mast groove, extras*	3/4	19	.25	6	10	—	—	—	—	—	7/16	11

*Extra slug kit for HC8811 track. Order one kit in addition to HC9106, HC9107 or HC9108 for sail headboard location at full hoist and when sail is reefed.

Track

Part No.	Description	Length		Width		Weight		Fasteners mm	Fastener spacing mm
		in	mm	in	mm	oz	g		
Slug Mount									
HC8798	Switch/short	24	610	2 5/8	67	32	907	5	—
HC8799	Switch/long	33 3/4	857	2 5/8	67	47	1336	5	—
HC8800	T-Track	80 13/16	2051	2 1/32	21	27	758	5	100
HC8811	T-Track/high-load	80 13/16	2051	2 1/32	21	26	748	5	50
Drill/Tap									
HC10417	Switch**	33 3/4	857	3	76	26.7	758	5	75
HC7827	3 m T-Track	118 1/8	3000	2 3/32	18	38.9	1106	5	75
HC9597	2 m T-Track/high load	78 3/4	2000	2 3/32	18	25.5	723	5	50
HC8230	Splice link	7/8	22	1/8	3.2	.02	.57	—	—

**Switch may be shortened to 605 mm (23 13/16").

DRILL/TAP

26 mm, 32 mm, 50 mm Switch T-Track Battcar Systems

Patented Battcar switch systems cut sail stack height in half by automatically splitting cars onto two tracks.

Use HC8879 and HC8880 for headboard reefed position. See page 169. Gate track is removed to load and unload cars.

Spherical bushings let headboard cars pass through switch.

Fits Boats:

26 mm: Monohulls: 15 - 24 m (50 - 80');
Multihulls: 12 - 18 m (40 - 60')

32 mm: Monohulls: 24 - 43 m (80 - 140');
Multihulls: 18 - 27 m (60 - 90')

50 mm: Monohulls: over 43 m (140');
Multihulls: over 27 m (90')

About Switch T-Track Battcar systems: see feature pages at beginning of this section.

BATTEN CARS



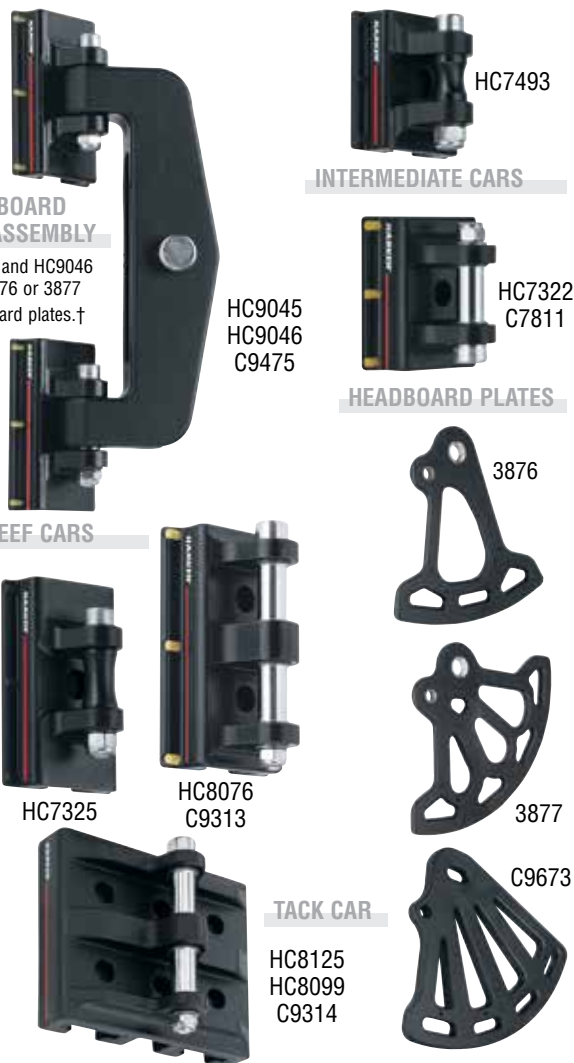
Cars

Part No.	Description	Length		Width		Weight		Max headboard thickness		Maximum sail area				Maximum working load	
		in	mm	in	mm	oz	g	in	mm	ft ²	m ²	ft ²	m ²	lb	kg
26 mm															
HC9045	Headboard car*	10 ⁵ / ₈	270	2 ⁵ / ₈	60	34.3	973	2 ¹ / ₃₂	17	1730	160	1300	120	4500	2045
HC7493	Intermediate car	2 ⁵ / ₈	60	2 ⁵ / ₈	60	5.6	159	—	—	1730	160	1300	120	1000	455
HC7324	Batten car/12 mm stud	2 ¹⁵ / ₁₆	75	2 ⁵ / ₈	60	8.8	250	—	—	1730	160	1300	120	1500	682
HC7325	Reef car*	3 ¹⁷ / ₃₂	90	2 ⁵ / ₈	60	7.2	205	—	—	1730	160	1300	120	2100	955
HC8125	Tack car	3 ¹⁷ / ₃₂	90	4 ⁷ / ₈	111.2	14.4	409	—	—	1730	160	1300	120	3800	1727
32 mm															
HC9046	Headboard car*	11	280	2 ³ / ₄	70	44.7	1266	2 ¹ / ₃₂	17	3780	350	2400	225	8000	3635
HC7322	Intermediate car	2 ¹⁵ / ₁₆	75	2 ³ / ₄	70	10.4	297	—	—	3780	350	2400	225	2800	1273
HC8098	Batten car/12 mm stud	3 ¹⁷ / ₃₂	90	2 ³ / ₄	70	11.2	319	—	—	3780	350	2400	225	4000	1818
HC7316	Batten car/14 mm stud	3 ¹⁷ / ₃₂	90	2 ³ / ₄	70	11.2	319	—	—	3780	350	2400	225	4000	1818
HC8076	Reef car*	4 ¹⁷ / ₃₂	115	2 ³ / ₄	70	14.4	409	—	—	3780	350	2400	225	6000	2722
HC8099	Tack car	4 ¹⁷ / ₃₂	115	5 ⁷ / ₁₆	132	29.2	830	—	—	3780	350	2400	225	7900	3590
50 mm															
C7811	Intermediate car**	3 ¹⁵ / ₁₆	100	4 ⁷ / ₁₆	110	36.8	1043	—	—	3780 +	350 +	2400 +	275 +	4500	2045
C7814	Batten car/16 mm stud**	5 ⁹ / ₁₆	141	4 ⁷ / ₁₆	110	60.8	1724	—	—	3780 +	350 +	2400 +	275 +	7500	3408
C9299	Batten car/18 mm stud**	5 ⁹ / ₁₆	141	4 ⁷ / ₁₆	110	63	1782	—	—	3780 +	350 +	2400 +	275 +	7500	3408
C9313	Reef car**	7 ⁷ / ₈	200	4 ⁷ / ₁₆	110	168	4763	—	—	3780 +	350 +	2400 +	275 +	12500	5670
C9314	Tack car**	7 ⁷ / ₈	200	8 ⁷ / ₁₆	205.3	168	4763	—	—	3780 +	350 +	2400 +	275 +	19842	9000
C9475	Headboard car**	17 ³ / ₄	450	4 ⁷ / ₁₆	110	214	6078	1	25	3780 +	350 +	2400 +	275 +	16500	7500

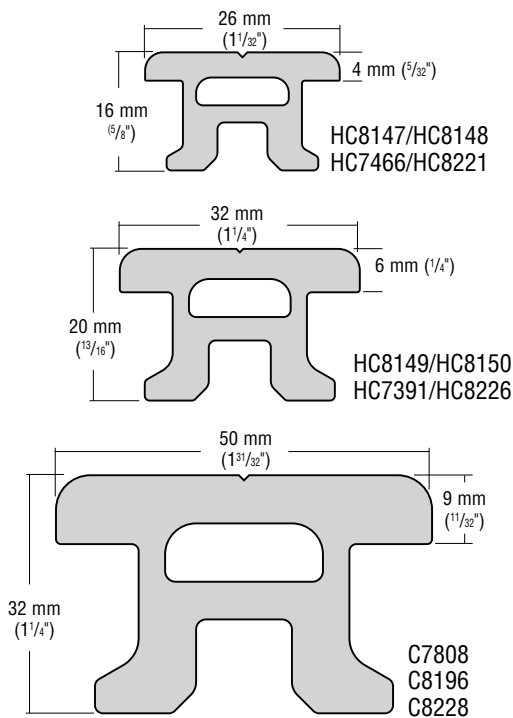
Headboard plates

3876	Web-on headboard plate†	10 ⁵ / ₈	269	7 ¹⁵ / ₁₆	201	33.8	958.4	1/2	13	—	—	—	—	—	Fits HC9045/HC9046
3877	Web-on headboard plate/flat-top†	10 ³ / ₄	273	11 ¹ / ₈	282	43	1343	1/2	13	—	—	—	—	—	Fits HC9045/HC9046
C9673	Web-on headboard plate†	15 ¹ / ₂	394	16 ³ / ₈	416	195	5498	1	25.4	—	—	—	—	—	Fits C9475

*May increase mwl by using track with closer hole spacing; contact Harken. **Allow 8 weeks lead time. †Contact Harken for headboard plate for older systems and boats with sail areas at the high and low ends of the size range. ‡If your boat or sail area is larger than the lengths and sail areas listed, please contact Harken.



Switch T-Track Battcar Systems: 26 mm, 32 mm, 50 mm



HC8220
HC7382
C7807

Gate track

Switch

Cars alternate automatically.

Track & Accessories

Part No.	Description	Length		Width		Weight		Fasteners	Fastener spacing
		in	mm	in	mm	oz	g		
26 mm									
HC8220	Switch*	25 ¹ / ₄	641	4	102	43.1	1225	6	—
HC8147	500 mm storage track*	19 ¹¹ / ₁₆	500	1 ¹ / ₃₂	26	10.2	291	6	50
HC8148	725 mm storage track*	28 ¹⁷ / ₃₂	725	1 ¹ / ₃₂	26	14.8	419	6	50
HC10060	725 mm double storage track*	28 ¹⁷ / ₃₂	725	3 ¹¹ / ₁₆	93.3	57.2	1623	6	50
HC7466	3 m T-Track*	118 ⁷ / ₈	3000	1 ¹ / ₃₂	26	61.1	1736	6	75
HC8879	2 m T-Track/high-load*	78 ³ / ₄	2000	1 ¹ / ₃₂	26	40.3	1141	6	50
HC8221	Gate track*	11 ¹³ / ₁₆	300	1 ¹ / ₃₂	26	6.1	174	6	75
HC8222	Splice link	—	—	1 ¹ / ₃₂	26	0.1	3	—	—
1522ASSY	Endstop	2 ² / ₃₂	55	1 ¹⁷ / ₃₂	39	—	—	—	—
32 mm									
HC7382	Switch*	28 ¹ / ₂	724	5	127	72.8	2068	8	—
HC8149	800 mm storage track*	31 ¹ / ₂	800	1 ¹ / ₄	32	25.6	728	8	50
HC8150	1025 mm storage track*	40 ¹¹ / ₃₂	1025	1 ¹ / ₄	32	32.8	933	8	50
HC7391	3 m T-Track*	118 ⁷ / ₈	3000	1 ¹ / ₄	32	96.2	2734	8	75
HC8880	2 m T-Track/high-load*	78 ³ / ₄	2000	1 ¹ / ₄	32	63.1	1790	8	50
HC8226	Gate track*	11 ¹³ / ₁₆	300	1 ¹ / ₄	32	9.6	273	8	75
HC8227	Splice link	—	—	—	—	0.2	5	—	—
HC11662	Glue-on track/high-load	74 ³ / ₄	1899	1 ¹ / ₄	32	62.1	1760	8	50
HC11663	Glue-on track	153 ¹ / ₂	3899	1 ¹ / ₄	32	136.2	3860	8	3850
548ASSY	Endstop	2 ²⁷ / ₃₂	72	2 ¹ / ₃₂	52	—	—	—	—
50 mm									
C7807	Switch*‡	44 ¹ / ₂	1134	7 ¹³ / ₁₆	198.44	276	7838	12	—
C7808	3 m T-Track*‡	118 ⁷ / ₈	3000	1 ³¹ / ₃₂	50	232	6589	12	75
C8196	6 m T-Track*‡	236 ¹ / ₄	6000	1 ³¹ / ₃₂	50	464	13173	12	75
C8228	Gate track*‡	11 ¹³ / ₁₆	300	1 ³¹ / ₃₂	50	23	659	12	75
C8229	Splice link ‡	—	—	—	—	0.46	13	—	—
C8217	Endstop*‡	2 ³ / ₄	70	3 ²³ / ₃₂	94	19	537	12	—

*Available in black or clear anodized. ‡Allow 8 weeks lead time.

Storage tracks

Trysail Switch System

The Trysail Switch allows the mainsail and trysail to share a single track, greatly reducing weight aloft. This asymmetrical switch installs above the standard system and provides a crossover for trysail cars to utilize the mainsail track. The trysail cars are loaded at deck level and travel past the gooseneck and flaked mainsail onto the mainsail track. Switching of the cars is totally automatic; only trysail cars can travel onto the trysail track, while the mainsail cars pass through to the standard switch and storage tracks.

Track

Use standard Switch system T-Track (see page 169).

The track's compound bend wraps around the mast section so cars pass next to the mainsail cars on the storage tracks, past the gooseneck and down to the deck. There, crew can safely load the trysail onto the track and raise the sail, leaving the mainsail flaked on the boom.

The compound track bend is determined by installer. Cars must not be under load in curved section.

About Switch T-Track Battcar systems: See feature pages at beginning of this section.



C9494
C9342
C9338



C9493
C9341
C9337
C9492
C9340
C9336



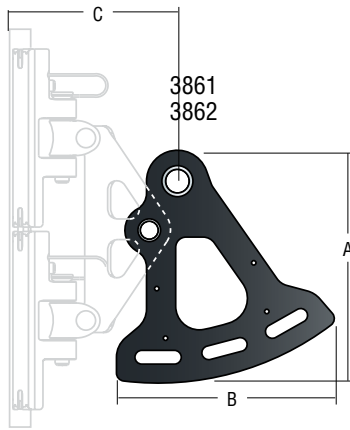
The Trysail Switch system integrates with the Switch T-Track Battcar system by sharing a single mast track to reduce weight aloft.

Part No.	Description	Length		Width		Weight		Fasteners	Maximum working load		Fits track
		in	mm	in	mm	oz	g		lb	kg	
26 mm											
C9493	Port Trysail Switch*	14 ¹ / ₂	368	4 ²⁵ / ₃₂	121	27	762	6	—	—	HC7466, HC8879
C9492	Starboard Trysail Switch*	14 ¹ / ₂	368	4 ²⁵ / ₃₂	121	27	762	6	—	—	HC7466, HC8879
C9494	Car body*	2 ³ / ₈	60	1 ¹ / ₃₂	26	5	143	—	1001	454	HC7466, HC8879
C10539	Push-button endstop	3 ¹⁵ / ₁₆	100	1 ¹ / ₃₂	26	3	79	6	435	197	HC7466, HC8879
32 mm											
C9341	Port Trysail Switch*	16	406	5 ⁷ / ₈	149	43	1222	8	—	—	HC7391, HC8880
C9340	Starboard Trysail Switch*	16	406	5 ⁷ / ₈	149	43	1222	8	—	—	HC7391, HC8880
C9342	Car body*	2 ¹⁵ / ₁₆	75	3 ¹ / ₃₂	77	11	309	—	2800	1270	HC7391, HC8880
C10419	Push-button endstop	5 ²⁹ / ₃₂	150	1 ¹⁷ / ₆₄	32	5	130	8	625	283	HC7391, HC8880
50 mm											
C9337	Port Trysail Switch*	25	635	8 ¹³ / ₁₆	223	158	4465	12	—	—	C7808, C8196
C9336	Starboard Trysail Switch*	25	635	8 ¹³ / ₁₆	223	158	4465	12	—	—	C7808, C8196
C9338	Car body*	3 ¹⁵ / ₁₆	100	4 ¹ / ₁₆	120	59	1658	—	4500	2041	C7808, C8196

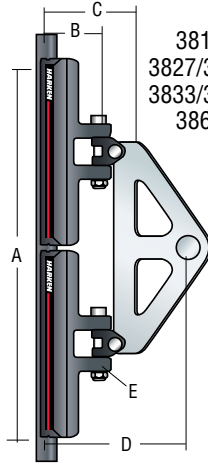
Allow 8 weeks lead time. *Available in black or clear-anodized.

Battcar Dimensions

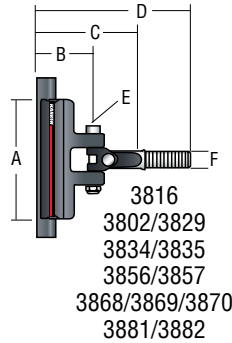
HEADBOARD PLATE



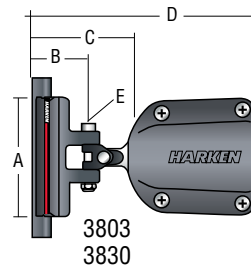
HEADBOARD CAR ASSEMBLY



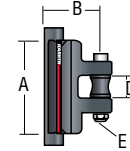
BATTCAR/STUD



BATTCAR/RECEPTACLE



INTERMEDIATE CAR, REEF CAR, UNIVERSAL BATTCAR



3814/3815
1777/3828
3812/3831/3836
3859/3860/3863
3871/3872/3873
3883

Dimensions (measured from aft face of mast)

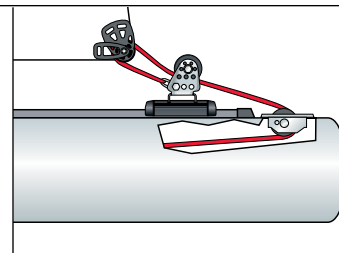
Part No.	Description	A		B		C		D		E		F
		in	mm	in	mm	in	mm	in	mm	Pin Ø	Stud Ø	
System AA CB												
3813	Headboard car assembly	5 ¹ / ₁₆	132	1	25	1 ¹³ / ₁₆	46	—	—	—	5	—
3814	Intermediate car	1 ³ / ₄	44	1 ⁵ / ₁₆	24	—	—	3 ¹ / ₄	19	—	5	—
3815	Intermediate car	2 ⁷ / ₁₆	56	1	25	—	—	3 ¹ / ₄	19	—	5	—
3816	Battcar/10 mm stud	2 ⁷ / ₁₆	56	1	25	1 ¹³ / ₁₆	46	3 ⁵ / ₁₆	84	—	5	10
System A Slider												
3827	Headboard car assembly	6	153	1 ¹ / ₁₆	27	2 ¹ / ₈	54	3 ¹¹ / ₁₆	94	3 ¹ / ₁₆	5	—
1777	Intermediate car/low-load	2	51	1 ¹ / ₈	28	—	—	3 ¹ / ₄	19	3 ¹ / ₁₆	5	—
3828	Intermediate car	1 ³ / ₄	44	1 ¹ / ₁₆	27	—	—	2 ¹ / ₃₂	17	3 ¹ / ₁₆	5	—
3802	Battcar/10 mm stud	1 ³ / ₄	44	1 ¹ / ₁₆	27	2 ¹ / ₈	54	—	—	3 ¹ / ₁₆	5	10
3803	Battcar/receptacle	1 ³ / ₄	44	1 ¹ / ₁₆	27	2 ¹ / ₈	54	5 ¹ / ₈	130	3 ¹ / ₁₆	5	—
System A CB												
3811	Headboard car assembly	8 ³ / ₈	213	1 ³ / ₈	35	2 ¹ / ₄ /2 ¹ / ₈ *	57/73*	4	102	3 ¹ / ₁₆	5	—
3812	Intermediate car	2 ¹ / ₄	57	1 ³ / ₈	35	—	—	3 ¹ / ₄	19	3 ¹ / ₁₆	5	—
3829	Battcar/10 mm stud	2 ¹ / ₈	73	1 ³ / ₈	35	2 ¹ / ₄	57	3 ¹¹ / ₁₆	94	3 ¹ / ₁₆	5	10
3830	Battcar/receptacle	2 ¹ / ₈	73	1 ³ / ₈	35	2 ¹ / ₈	73	5 ³ / ₄	146	3 ¹ / ₁₆	5	—
3831	Universal Battcar	2 ¹ / ₈	73	1 ³ / ₈	35	—	—	3 ¹ / ₄	19	3 ¹ / ₁₆	5	—
3881	Battcar/12 mm stud	2 ¹ / ₈	73	1 ³ / ₈	35	2 ³ / ₄	69	3 ⁷ / ₈	99	1 ¹ / ₄	6	12
3882	Long batten car/12 mm stud	4 ¹ / ₈	105	1 ³ / ₈	35	2 ³ / ₄	69	3 ⁷ / ₈	99	1 ¹ / ₄	6	12
3883	Reef car	4 ¹ / ₈	105	1 ³ / ₈	35	—	—	3 ¹ / ₄	19	1 ¹ / ₄	6	—
System B Slider												
3833	Headboard car assembly	7 ¹ / ₂	190	1 ¹ / ₄	32	2 ⁵ / ₁₆	59	4 ⁵ / ₈	119	1 ¹ / ₄	6	—
3836	Intermediate car	2 ⁷ / ₁₆	56	1 ¹ / ₄	32	—	—	—	—	1 ¹ / ₄	6	—
3834	Battcar/10 mm stud	2 ⁷ / ₁₆	56	1 ¹ / ₄	32	2 ⁵ / ₁₆	59	3 ⁹ / ₁₆	91	1 ¹ / ₄	6	10
3835	Battcar/12 mm stud	2 ⁷ / ₁₆	56	1 ¹ / ₄	32	2 ⁵ / ₁₆	59	3 ³ / ₄	96	1 ¹ / ₄	6	12
System B CB												
3852	Headboard car assembly	10 ¹ / ₂	267	1 ⁹ / ₁₆	39	3 ¹ / ₁₆	78	4 ¹ / ₁₆	102	3 ¹ / ₈	10	—
3863	Intermediate car	2 ⁷ / ₁₆	68	1 ⁹ / ₁₆	39	—	—	3 ¹ / ₄	19	1 ¹ / ₄	6	—
3856	Battcar/10 mm stud	4 ³ / ₁₆	109	1 ⁹ / ₁₆	39	3 ¹ / ₁₆	78	4 ³ / ₈	111	3 ¹ / ₈	10	10
3857	Battcar/12 mm stud	4 ³ / ₁₆	109	1 ⁹ / ₁₆	39	3 ¹ / ₁₆	78	4 ³ / ₈	111	3 ¹ / ₈	10	12
3859	Universal Battcar	4 ¹ / ₄	108	1 ⁹ / ₁₆	39	—	—	1	26	3 ¹ / ₈	10	—
3860	Reef car	5 ³ / ₁₆	132	1 ⁹ / ₁₆	39	—	—	1	26	3 ¹ / ₈	10	—
3861	Headboard plate	6 ³ / ₁₆	172	6 ³ / ₈	161	4 ¹ / ₈	124	—	—	—	—	—
3862	Headboardplate/flat-top	5 ⁹ / ₁₆	147	6 ³ / ₁₆	157	5 ² / ₃₂	145	—	—	—	—	—
System C CB												
3867	Headboard car assembly	18 ³ / ₈	473	2	51	3 ³ / ₈	92	5	126	1 ¹ / ₂	12	—
3871	Intermediate car	3 ³ / ₄	95	2	51	—	—	1	26	3 ¹ / ₈	10	—
3868	Battcar/12 mm stud	5 ³ / ₈	136	2	51	3 ³ / ₈	92	5 ¹ / ₁₆	128	1 ¹ / ₂	12	12
3869	Battcar/14 mm stud	5 ³ / ₈	136	2	51	3 ³ / ₈	92	5 ¹ / ₁₆	128	1 ¹ / ₂	12	14
3870	Battcar/16 mm stud	5 ³ / ₈	136	2	51	3 ³ / ₈	92	5 ¹ / ₁₆	128	1 ¹ / ₂	12	16
3872	Universal Battcar	5 ³ / ₈	136	2	51	—	—	1 ⁹ / ₁₆	33	1 ¹ / ₂	12	—
3873	Reef car	9 ¹ / ₈	231	2	51	—	—	1 ⁹ / ₁₆	33	1 ¹ / ₂	12	—

*Batten car 3829/Batten car 3830.

Furling Mainsail Outhaul Systems

Use furling outhaul cars with in-mast or behind-the-mast furlers on boats up to 13.5 m (45'). Sheave carriers pivot side-to-side to accommodate changing lead angles. Systems have 2:1 purchase and ride on cars with Torlon® ball bearings. A deadend outhaul shackle is included.

Cars have axle-bearing sheaves.



1648



3076



3096

Torlon is a registered trademark of Solvay Advanced Polymers L.L.C.

Part No.	Description	Sheave Ø		Length		Weight		Car width		Maximum working load		Max sail area		Track
		in	mm	in	mm	oz	g	in	mm	lb	kg	ft²	m²	
1648	CB outhaul car	2	51	5¼	133	24	680	2¾	70	2300	1043	300	28	R27
3076	CB outhaul car	2½	64	5¼	133	34	964	3⅝	85	3000	1361	425	40	R32
3096	CB outhaul car	3	75	7¼	184	62	1758	3⅝	85	4500	2041	550	51	R32

See page 35 for replacement balls.

Lazy Jacks

Lazy Jacks contain mainsails while reefing and dousing. They work extremely well with full-batten mains, but can also be used with conventional sails.



252
253
254

See "Lazy Jacks" on page 30.

Part No.	Description	Boat length		Boom length		Mainsail luff length	
		ft	m	ft	m	ft	m
252	Small	21 - 28	6.4 - 8.5	7 - 13	2.13 - 3.96	21 - 32	6.4 - 9.75
253	Medium	27 - 37	8.2 - 11.3	10'6" - 16	3.2 - 4.9	32 - 42	9.75 - 12.8
254	Large	35 - 42	10.7 - 12.8	12 - 16	3.7 - 4.9	35'7" - 48	10.88 - 14.63