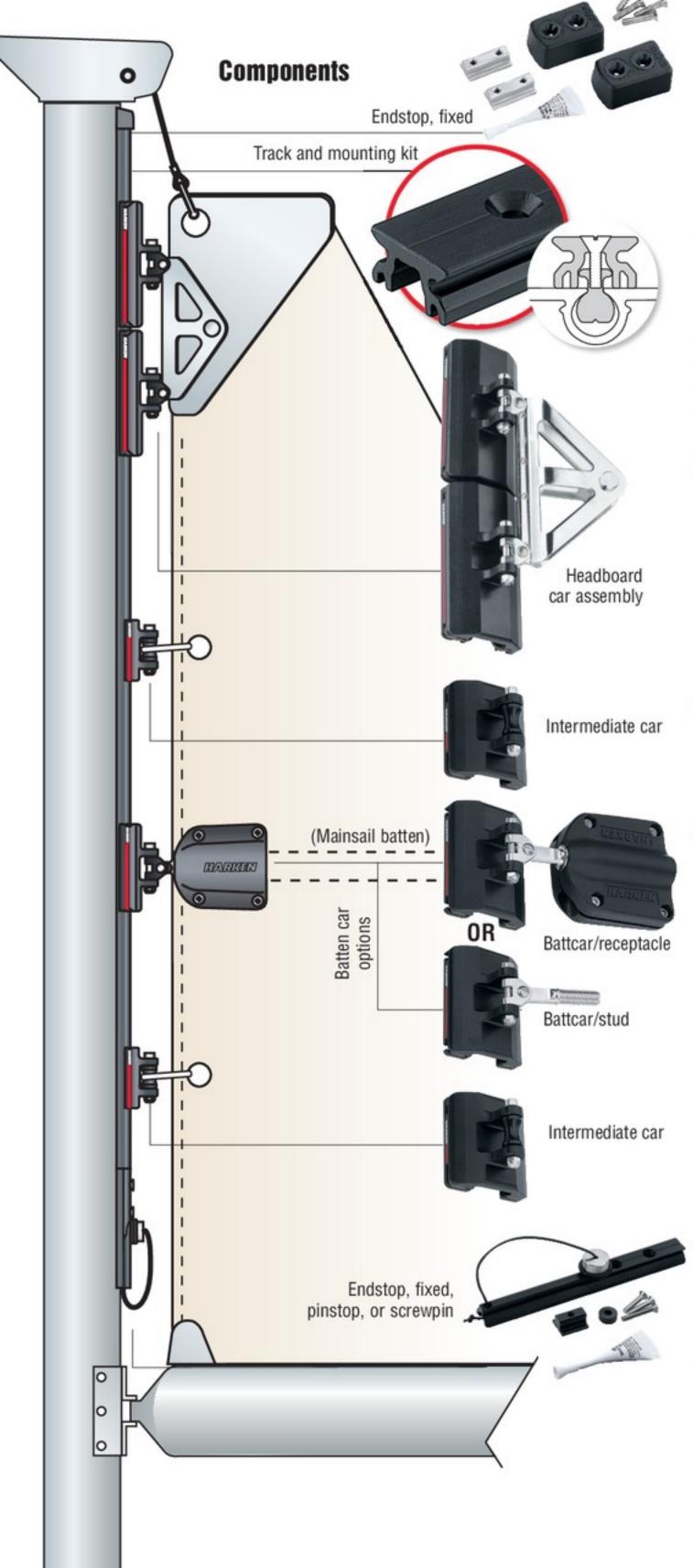


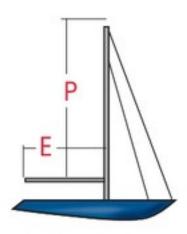
@ Maxi Yachts

Ordering Battcar Systems



1. Determine System Size

The four sizes, systems AA, A, B, and C, are based on sail area (pages 138-145). If you need to reduce car stack height on mast, see **Switch T-Track Battcar Systems** (pages 146-151).



Mainsail Area

-				-		_
	Ρ	X	E	X	.5	,

	M	aximun	n sail ar	ea		Typical bo	at length			
System	Monohull Multihull				Mo	nohull	Multihull			
size	ft ²	m ²	ft ²	m²	ft	m	ft	m		
AA	350	32	275	25	to 37	to 11.3	to 30	to 9.1		
Α	600	56	500	46	37 - 50	11.3 - 15.2	30 - 40	9.1 - 12.2		
В	900	83	700	65	50 - 60	15.2 - 18.3	40 - 50	12.2 - 15.2		
С	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

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

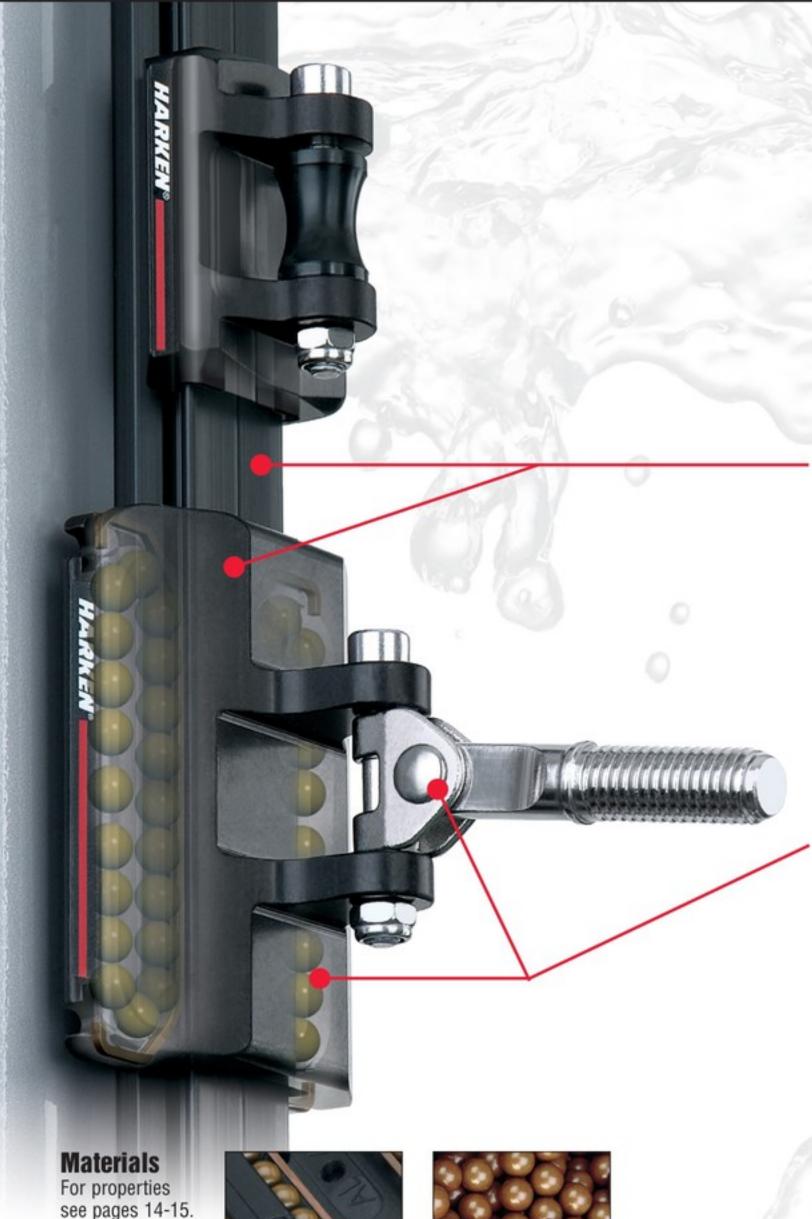
^{*}Boats without full battens should use 1 intermediate CB or slider car per 1.2 m (4') and no Battcars.

5. Contact

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



CB & SLIDER BATTCAR SYSTEMS



6061-T6 aluminum:

Hard Lube-anodized cars; hardcoatanodized track



Torion® thermoplastic: Ball bearings

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.

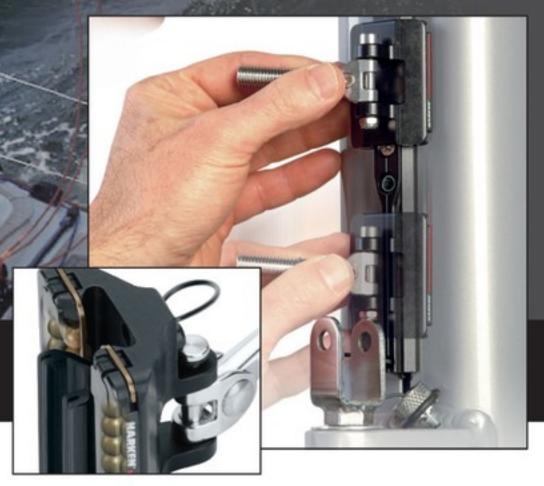
Low-friction ball bearing cars for easy adjustment under load

- 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.









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.





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

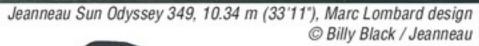
Typical boat size:

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.













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.

Part		Len	gth	Width Weight		ight		adboard iness	Maximum working load				
No.	Description	in	mm	in	mm	OZ	g	in	mm	lb	kg		
Typical Bo	pical Boat Length: monohulls to 11.3 m (37'); multihulls to 9.1 m (30')												
3813	CB headboard car assembly	5 3/16	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 3/16	56	1 9/16	40	1.7	48			130	59		
3816	CB Battcar/10 mm stud*	2 3/16	56	1 9/16	40	3	85			220	100		

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		Len	Length Weight		ight	Faste spac		Fastening
No.	Description	in	m	oz/ft	g/m	in	mm	method
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 102	Drilling and tapping



Kazahaya, Parigi 30, Alessandro Comuzzi architect @ Alessandro Comuzzi

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.

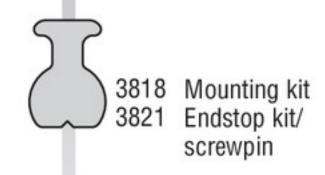


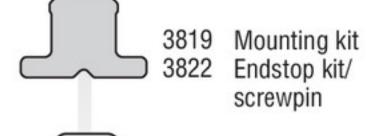


Mainsail I	Number of 3817	
ft*	m*	track sections
19'7" - 26'3"	5.98 - 8.00	4
26'4" - 33'	8.03 - 10.06	5
33'1" - 39'9"	10.08 - 12.11	6
39'10" - 46'5"	12.13 - 14.16	7

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









13 mm (1/2")

9 mm



2707 Micro traveler track

ENDSTOP KIT/SCREWPIN



Track Mounting Kits: Slug Mount*

			Mounti	ng slug				Connec	tor slug			Fits	Fits flat mast groove ga		gap
Part		Ler	igth	Wei	ght	Mounting	Len	gth	Wei	ight	Connector	M	in	M	ax
No.	Description	in	mm	OZ	g	slugs/kit	in	mm	0Z	g	slugs/kit	in	mm	in	mm
3818	Round mast groove	3/4	19	0.14	4	19	2 5/8	67	0.54	15	1				
3819	Flat mast groove	3/4	19	0.17	5	19	2 5/8	67	0.6	17	1	5/16	8	7/16	11
3820	Wide flat mast groove	3/4	19	0.25	6	19	2 5/8	67	0.94	23	1	7/16	11	1/2	13

Endstop Kits: Slug Mount & Drill/Tap*

Part		Track en	d length	Wei	ght	
No.	Description	in	mm	OZ	g	Mounting slugs/kit
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.

















CB BALL BEARING CARS

3811











Part		Len	gth	Wid	dth	Wei	ight		adboard ness	Wid		oatten	Ø		Maxi workin	
No.	Description	in	mm	in	mm	OZ	g	in	mm	in	mm	in	mm	Batten	lb	kg
CB Cars	: Typical Boat Length: Monohulls 1	1.3 - 15	.2 m (3	7 - 50');	; Multil	hulls 9.1	- 12.2	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						ili 50		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	50							600	272
3882	Long batten car/12 mm 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 C	ars: Typical Boat Length: Monohull	s 11.3 -	15.2 m	ı (37 - 5	(O'); MI	ultihulls	9.1 - 1	12.2 m (30 - 40')						
3827	Headboard car assembly	6	153	1 3/8	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	6.38	181			1 5/8	41	5/8	16	Flat/Round	350	159

*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. See page 273 for replacement balls. 140 ‡ 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		Len	gth	We	ight	Faste spac	Fastening	
No.	Description	in	m	oz/ft	g/m	in	mm	method
3807	Slug-mount track	80 3/4	2.05	4.44	413	4 15/16	125	Mounting slugs
3878.2M	Flanged track	78 3/4	2	6.7	626			Adhesive
3878.6M	Flanged track	236 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 104	Drilling and tapping

Mounting Kits and Endstops

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

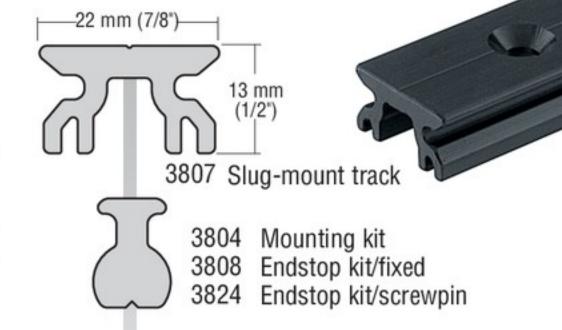
Use screwpin endstop to easily remove cars and mainsail. Order one kit only.





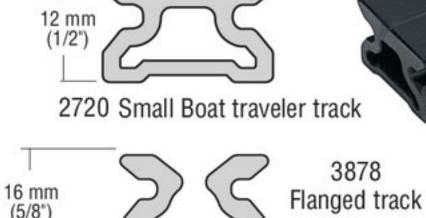
Mainsail	Mainsail luff length						
ft*	m*	track sections					
26'4" - 33'	8.03 - 10.06	5					
33'1" - 39'9"	10.08 - 12.11	6					
39'10" - 46'5"	12.13 - 14.16	7					
46'6" - 53'2"	14.19 - 16.21	8					
53'3" - 59'11"	16.24 - 18.26	9					

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



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

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



45 mm

22 mm (7/8*)



Track Mounting Kits: Slug Mount*

			Mounti	ng slug				Connec	tor slug			Fits flat mast groove gap			
Part		Ler	ngth	Wei	ght	Mounting	Len	igth	Wei	ight	Connector	M	in	M	ax
No.	Description	in	mm	0Z	g	slugs/kit	in	mm	0Z	g	slugs/kit	in	mm	in	mm
3804	Round mast groove	3/4	19	0.14	4	15	2 5/8	67	0.54	15	1				
3805	Flat mast groove	3/4	19	0.17	5	15	2 5/8	67	0.6	17	1	5/16	8	7/16	11
3806	Wide flat mast groove**	3/4	19	0.25	6	15	2 5/8	67	0.94	23	1	7/16	11	5/8	16

Endston Kits: Slug Mount*

Part		Track e	nd length	We	ight	
No.	Description	in	mm	OZ	g	Mounting slugs/kit
3808	Round mast groove/fixed (pair)			0.5	14	2
3809	Flat mast groove/fixed (pair)	(4)		0.52	15	2
3810	Wide flat mast groove/fixed (pair)**			0.67	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

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.



















Pelagic Australis, Pelagic Expeditions @ Skip Novak

Part		Len	gth	Wid	Ith	We	ight	Max hea thick	adboard ness		mum ig load
No.	Description	in	mm	in	mm	OZ	g	in	mm	lb	kg
B Cars: T	ypical Boat Length: Monohulls 1	5.2 - 18.3 r	n (50 - 60	'); Multihull	12.2 - 1	5.2 m (40 - 5	iO')				100
3852*	Headboard car assembly	10 1/2	267	2 3/4	70	41.4	1173	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 3/16	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				
lider Cars	s: Typical Boat Length: Monohull	s 15.2 - 18	.3 m (50 -	60'); Multih	ulls 12.2	- 15.2 m (40) - 50')				
3833	Headboard car assembly †	7 1/2	190	1 11/16	42	14.8	420	9/16	16	3200	1450
3836	Intermediate car	2 3/16	56	1 11/16	42	2.9	82			1260	571
3834	Battcar/10 mm stud**	2 3/16	56	1 11/16	42	4.5	128			1260	571
3835	Battcar/12 mm stud**	2 3/16	56	1 11/16	42	4.9	140			1260	571

System B

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

Mainsail	Mainsail luff length						
ft*	m*	track section					
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		Len	gth	We	Fastener Weight spacing			Fastening
No.	Description	in	m	oz/ft	g/m	in	mm	method
3844	Slug-mount track	81 1/8	2.06	5.66	527	3 15/16	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	0.4	22.4	636	2 15/16	75	Fasteners/adhesive

^{*}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 109	Drilling and tapping

3851

3865

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. 3850



MOUNTING KIT

ENDSTOP KIT/FIXED



ENDSTOP KIT/SCREWPIN



3849

Flanged track

ENDSTOP/FEEDER KIT

Track Mounting Kits: Slug Mount*

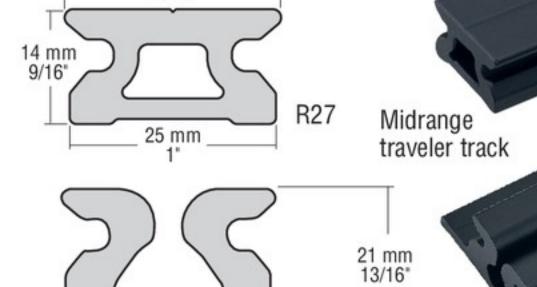
		Mounting slug						Connector slug					Fits flat mast groove gap			
Part		Ler	igth	Wei	ght	Mounting	Le	ngth	Wei	ght	Connector	M	in	M	ax	
No.	Description	in	mm	OZ	g	slugs/kit	in	mm	OZ	g	slugs/kit	in	mm	in	mm	
3845	Round mast groove	7/8	22	0.43	12	19	3	76	1.27	36	1	7/16	11	5/8	16	
3846	Flat mast groove	7/8	22	0.56	16	19	3	76	1.71	48	1	7/16	11	5/8	16	
3864	Flat mast groove‡	7/8	22	0.48	14	19	3	76	1.29	37	1	3/8	9.5	7/16	11	

Endston Kits: Slug Mount*

iiustop	Kita. Olug mount		6	No.		040
Part		Track en	d length	We	ight	
No.	Description	in	mm	0Z	g	Mounting slugs/kit
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/fixed (pair)			3.3	94	2
3851	Flat mast groove/fixed (pair)			3.7	105	2
3865	Flat mast groove/fixed‡			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.



51 mm (2")

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.



Part		Leng	jth	Wi	dth	Heig	ght	We	ight	Max hea			imum ng load
No.	Description	in	mm	in	mm	in	mm	OZ	g	in	mm	lb	kg
CB Cars: T	ypical Boat Length: Monohulls 18.3	- 27 m (60 - 90	'); Mul	tihulls 15	.2 - 21	m (50 - 70) ')						
3867	Headboard car assembly*	18 5/8	473	3 3/8	85			107	2980	9/16	15	6300	2858
3871	Intermediate car	3 3/4	96	3 3/8	85			17	493			1530	695
3868	Battcar/12 mm stud**	5 3/8	136	3 3/8	85			29	834			2100	953
3869	Battcar/14 mm stud**	5 3/8	136	3 3/8	85			30	844			2100	953
3870	Battcar/16 mm stud**	5 3/8	136	3 3/8	85			31	860			2100	953
3872	Universal Battcar**	5 3/8	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	9/16	14	10 5/8	269	33.8	958.4	1/2	13		
3877	Web-on headboard plate/flat-top*	11 1/16	281	9/16	14	11 5/16	288	43	1343	1/2	13		

See page 273 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		Fastener Length Weight spacing						Fastening
No.	Description	in	m	oz/ft	g/m	in	mm	method
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 115	Drilling and tapping

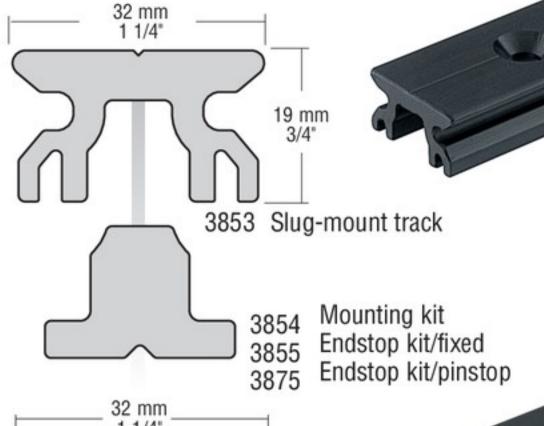
Mounting Kits and Endstops

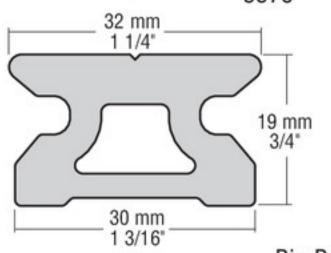
Mounting kit slugs are available for flat mast grooves. Order one kit per track section.

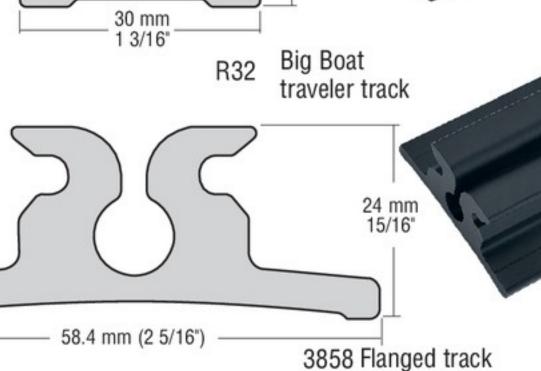
Use pinstop endstop to easily remove cars and mainsail. Order one kit only.

Mainsail	Number of 385			
ft*	m*	track sections		
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.













Track Mounting Kits: Slug Mount

		Mounting slug Connector slug					Fits flat mast groove gap								
Part		Lei	ngth	Wei	ight	Mounting	Len	igth	Wei	ght	Connector	M	in	M	lax
No.	Description	in	mm	0Z	g	slugs/kit	in	mm	OZ	g	slugs/kit	in	mm	in	mm
3854	Flat mast groove	1	25	0.6	17	19	4 1/8	105	2.49	70	1	17/32	13	5/8	16

Endstop Kits: Slug Mount

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



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 on top of the boom; stores cars on parallel tracks.
- Headboard cars articulate, pass through switch for further stack height reduction (26, 32, and 50 mm).
- Long switches available to accommodate more cars on boats with large sail areas.

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 14-15.



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







Low-friction components

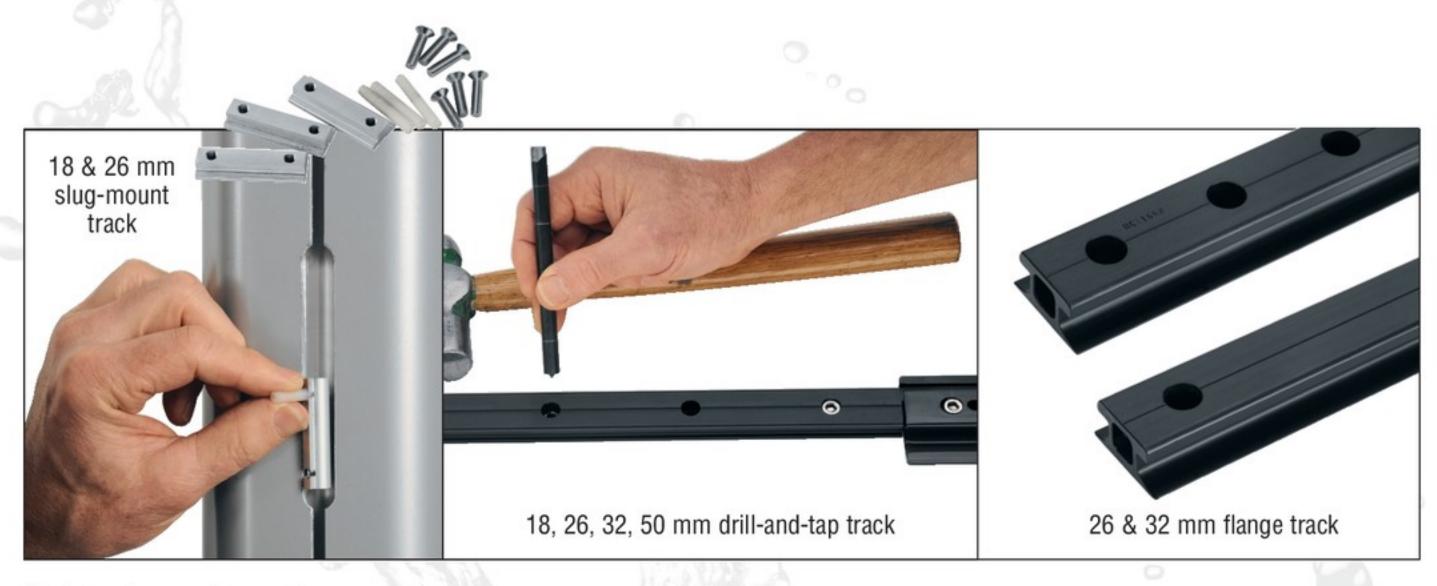
- · Cars run on low-friction plastic slides.
- Switch plate with no moving parts minimizes friction.

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.



Variety of mounting options

- 18 and 26 mm slug-mount track converts masts with sail grooves for mast-up installation. Boats under 12.2 m (40') use standard slug-mount track. Boats from 12.2 13.7 m (40' 45') require 18 mm high-load slug-mount track at full hoist and all reef point headboard locations. 18 mm systems available for round, flat, or wide flat mast grooves. Boats from 13.7 24.4 m (45' 80') use 26 mm slug-mount track. 26 mm available with flat mast groove slugs.
- 18, 26, 32, 50 mm drill/tap track and switches fit masts without sail grooves; join track sections with splice links.
- 26 and 32 mm flange track is available in bond and bolt-down versions. Bond track is joined to the mast with a structural
 adhesive to reduce weight aloft; eliminates the majority of track fasteners for lighter-weight system. Consult mast builder for
 bond track installation recommendations.