

Rigging Projects

Locking Headboard Car

2.5T

User Guide



RP4425 - HB2.5 - UG - 01

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Introduction

This manual provides an overview of the Rigging Projects 2.5T Locking Headboard Car system and its maintenance. Please read this manual carefully before installation, use or maintenance, to ensure that you have understood and are familiar with all relevant details.

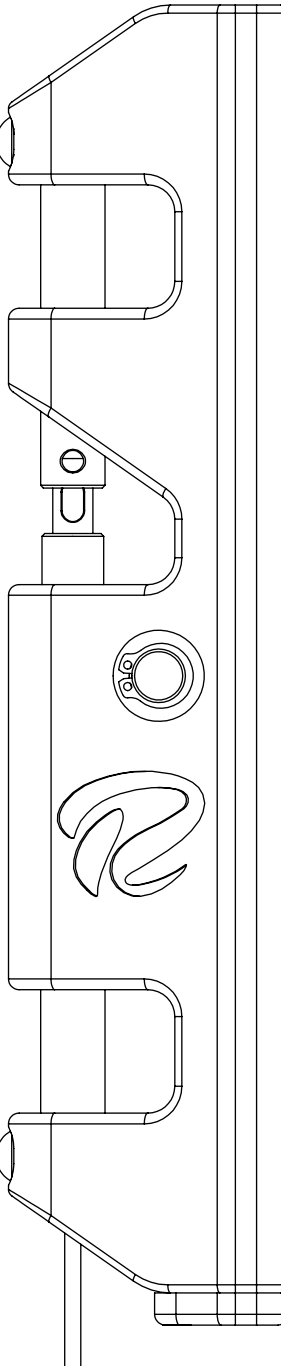
Prior to using this product, all persons should be made aware of the possible hazards associated with its operation and use. Any service work, repairs maintenance or equivalent work carried out on the product should be undertaken by technically qualified persons.

Key Design Features

- Aluminium carriage with independent titanium locking cartridge
- Titanium cartridge carries all the vertical load, hence lowering the centre of effort in the car & reducing track levering
- Impossible to false lock on fastener holes in track

Caution

The Rigging Projects Headboard Car has been tested extensively to ensure the safety and function of the product. However, it is important for the users to understand the risks involved in the event of a mechanical failure. Care should be taken to stow the halyard appropriately to avoid entanglement should the sail drop unexpectedly. Failure to take safety precautions could lead to severe injury or death.



Headboard Car	Recommended Halyard Ø (mm)	Max Halyard Load 80% BL (T)	Min. Gate length (mm)
2.5T	8	3.6	265

Installing Headboard Car onto Track

1. Remove gate track section from mast
2. Slide the locking headboard car on to track ensuring the barrel section of the car is at the lower end
3. Reinstall gate section. Ensuring track joins are seamlessly aligned

High Load Track Section Installation

If retrofitting the headboard car, the track section must be installed by a Rigging Projects technician.

Halyard Indicators

Rigging Projects recommends marking your halyard at full hoist and at all reef point with a whipping in different colours.

Disclaimer

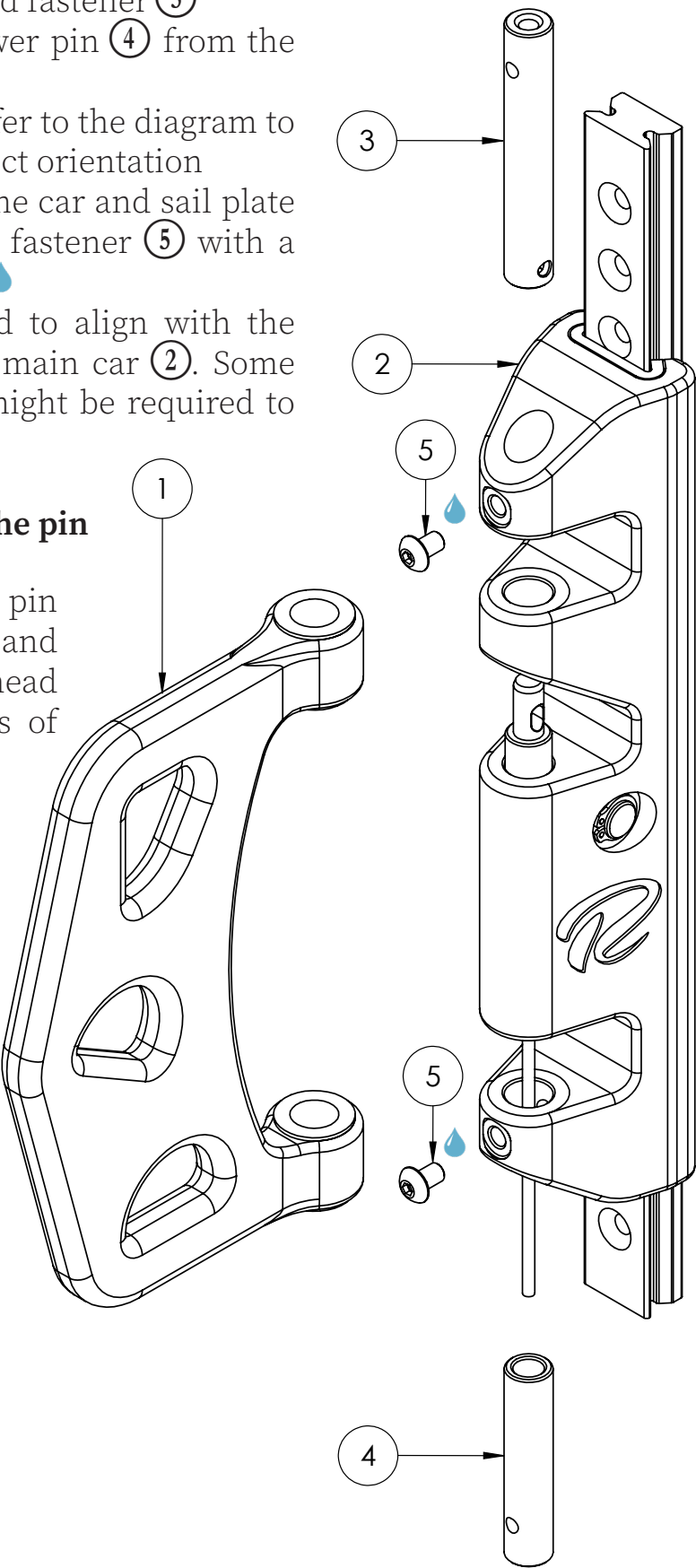
It is not permitted to modify the product or its parts, other than replacing parts specified in this manual. Rigging Projects Ltd is not liable for any dangerous situation, accidents, damage and consequences thereof caused when deviating from the instructions, guidelines and procedures described in this manual. To retain warranty do not deviate from the instructions, guidelines and procedures described in this manual.

Secure Sail Plate on Head Board Car

1. Undo the retaining button head fastener ⑤
2. Remove upper pin ③ and lower pin ④ from the main car ②
3. Align sail plate ① in place, refer to the diagram to ensure the plate is in the correct orientation
4. Insert upper pin ③ through the car and sail plate and secure with button head fastener ⑤ with a few drops of blue Loctite 423
5. The upper pin ③ is required to align with the pawl shaft located inside the main car ②. Some alignment of the pawl shaft might be required to seat main pin correctly.

Do not use a hammer to secure the pin

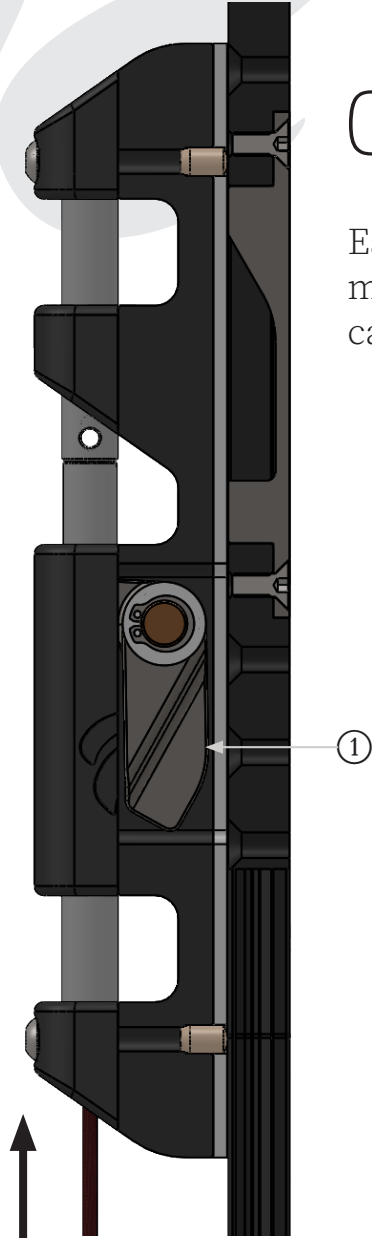
6. Thread tripline through lower pin ④ and insert through the car and sail plate. Secure with button head fastener ⑤ with a few drops of blue Loctite 423



On The Lock

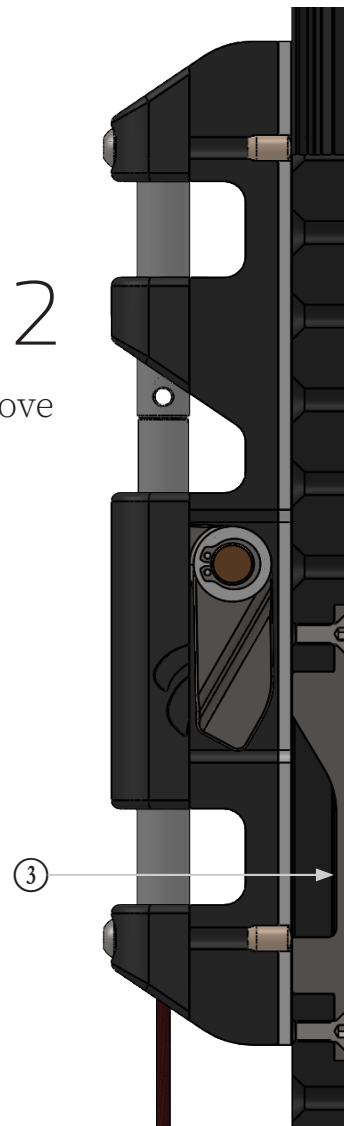
01 During Hoist Pawls Retracted

Ease main sheet, vang and tack tension before the manoeuvre. The pawl ① is retracted into the main car body.



Over Hoist 02

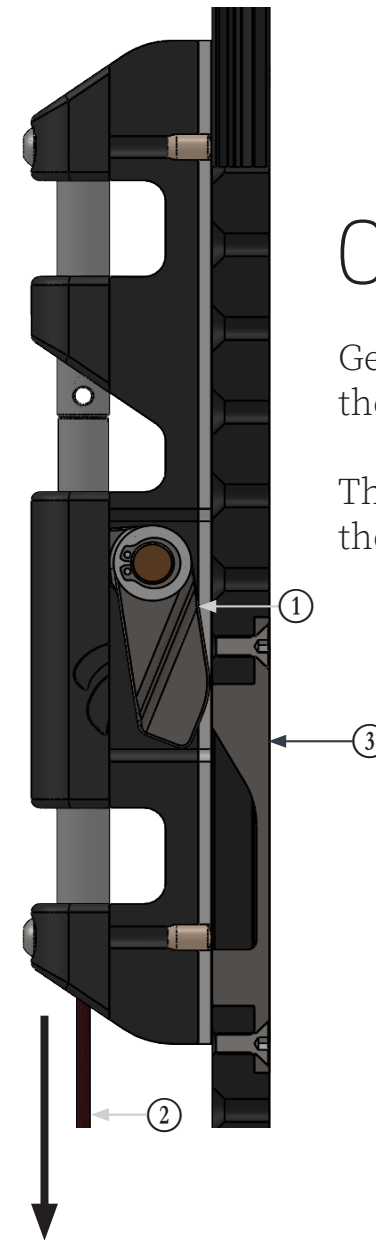
Hoist the halyard so the car is above the high load track section ③



03 Engage Trip Line

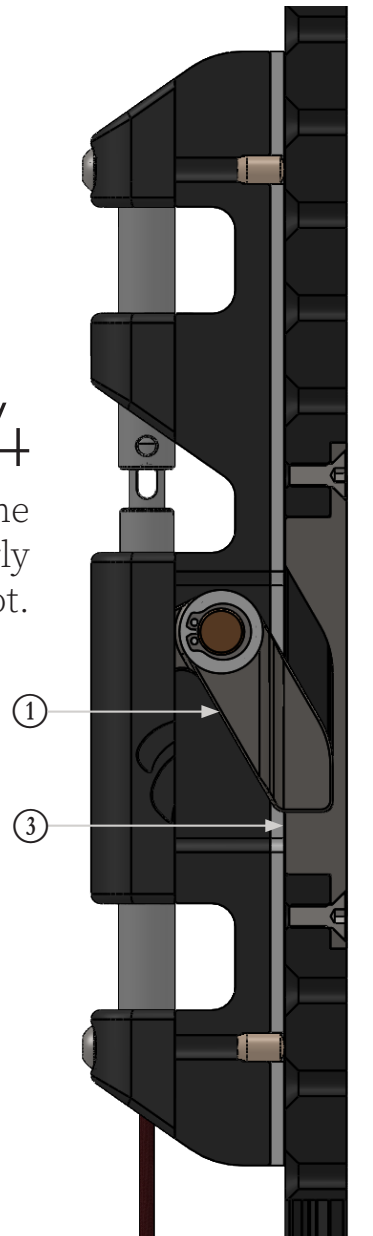
Gently pull on the trip line ② while **slowly easing** the halyard to activate the pawl ①

The mechanism causes a chain reaction to activate the pawl ① into the high load track section ③.



On the Lock 04

There will be no weight on the halyard if the pawl ① is properly engaged. Repeat the process if not.

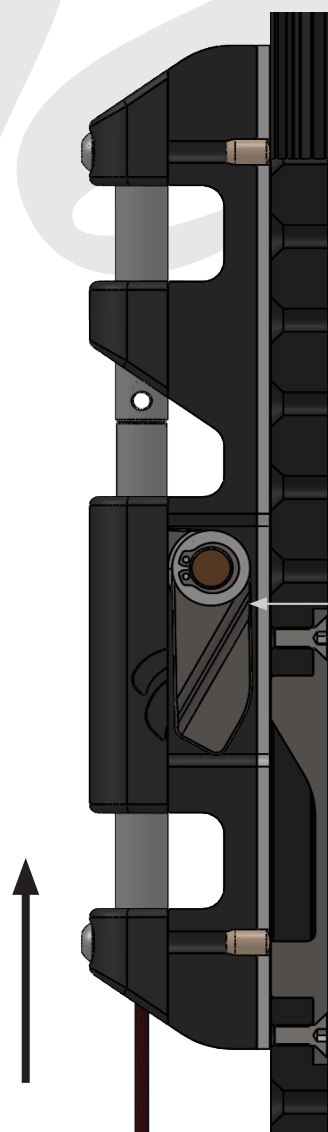


Important

Due to the nature of mechanism for the manual trip line it is important the line is **free to run** if not in use.

Please ensure the halyard is stowed appropriately so that there is no risk of entanglement in the event of mechanical failure and the sail drops unexpectedly.

Off The Lock



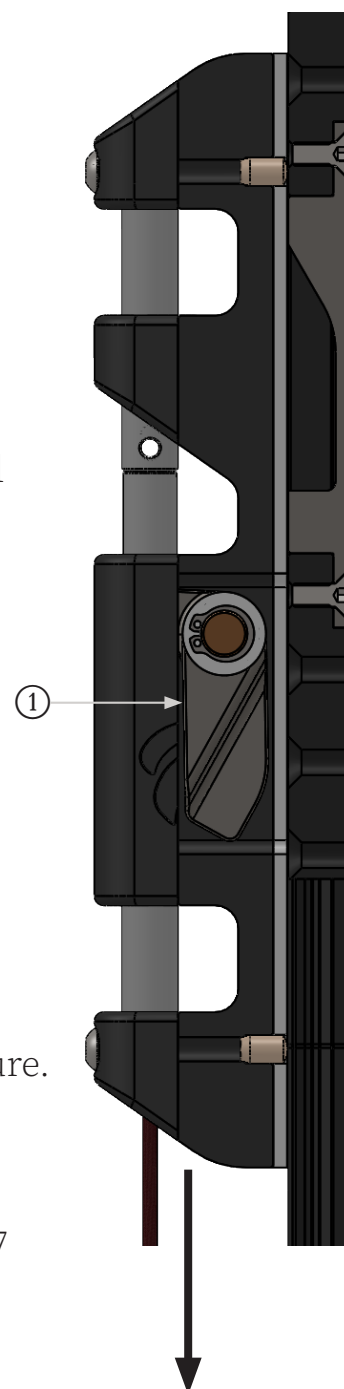
01 Over Hoist

1. Ease main sheet, vang and tack tension before manoeuvre
2. Hoist the halyard 200mm

During the hoist the pawl automatically retracts disengaging from the highload track section.

02 Halyard Ease

1. Ease the halyard to drop the sail



Important

The manual trip line must be **free to run**

Reefing

To reef the sail, please follow the same 'On The Lock' procedure.

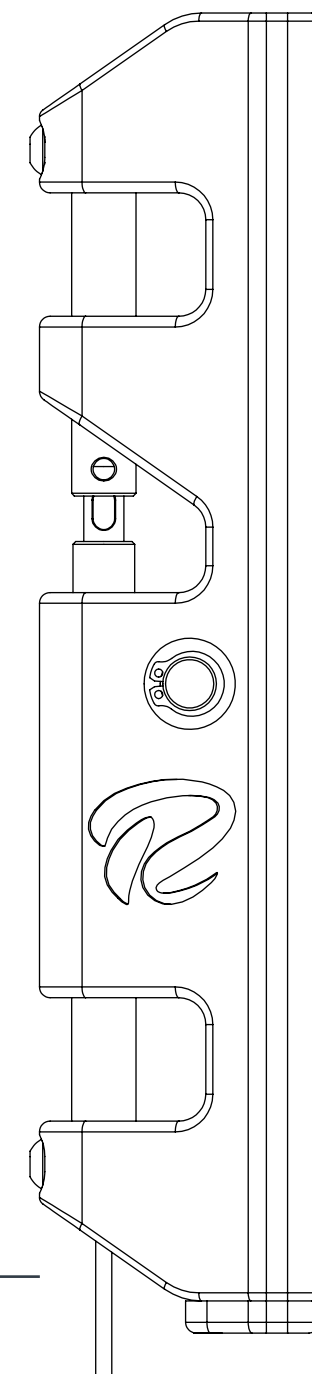
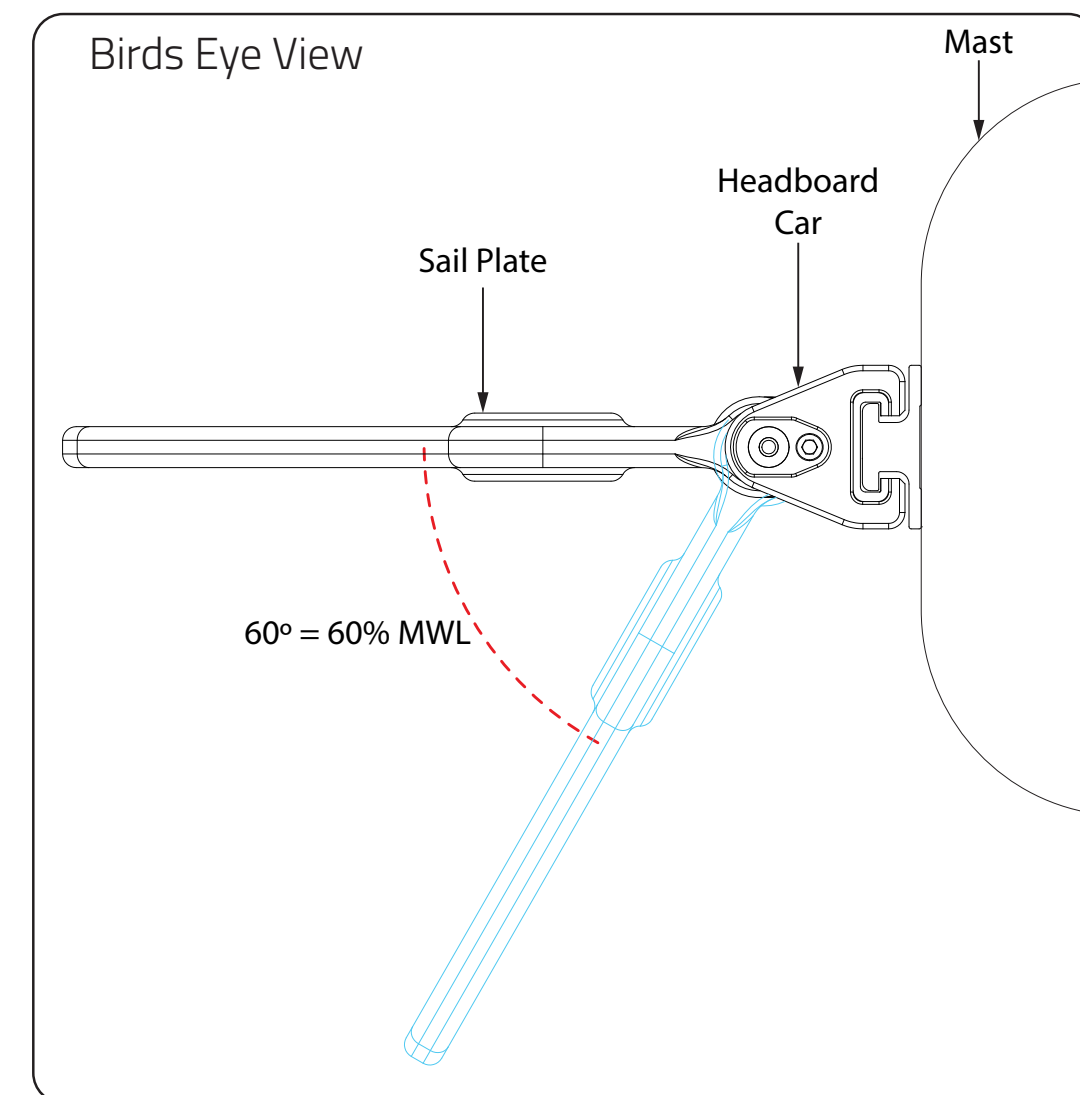
1. Over hoist the car above the high load track section
2. **Slowly ease** the halyard to next reef point
3. Gently pull the trip line to engage the pawl as per page 7

Load Diagram

Headboard Car Load Diagram

Rotation from Center	% of Maximum Working Load
0°	100%
15°	100%
30°	85%
45°	70%
60°	60%
More than 60°	Not advised
105°	Maximum Rotation

This diagram shows the operating range of a mainsail headboard car relative to the boat's centerline. As the headboard car rotates away from the centerline, its load capacity decreases.



Inspection Intervals

During each interval please carry out preceding inspection advisories

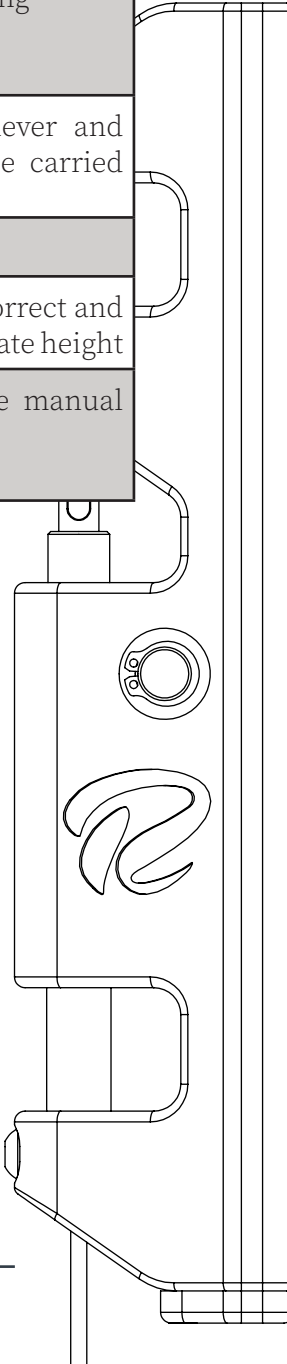
Interval	Advisories
Inshore Racing Daily Inspection	Visual inspection over the body for signs of wear and tear
	Ensure all fasteners are secure of the high load track section, sail plate and the main car
	Rinse thoroughly with fresh water
	Inspection of top of car for deformation
Offshore Sailing or 2 Months or 2500nm	Inspect the top hat bushings of the sail plate for signs of wear and tear
	Inspect the upper and lower pin for alignment and deformation
	Check the sail plate is free to rotate on the upper & lower pins
	Check for chafe on the trip line
2 years or 35,000nm	Send back to Rigging Projects HQ for full inspection

Troubleshoot

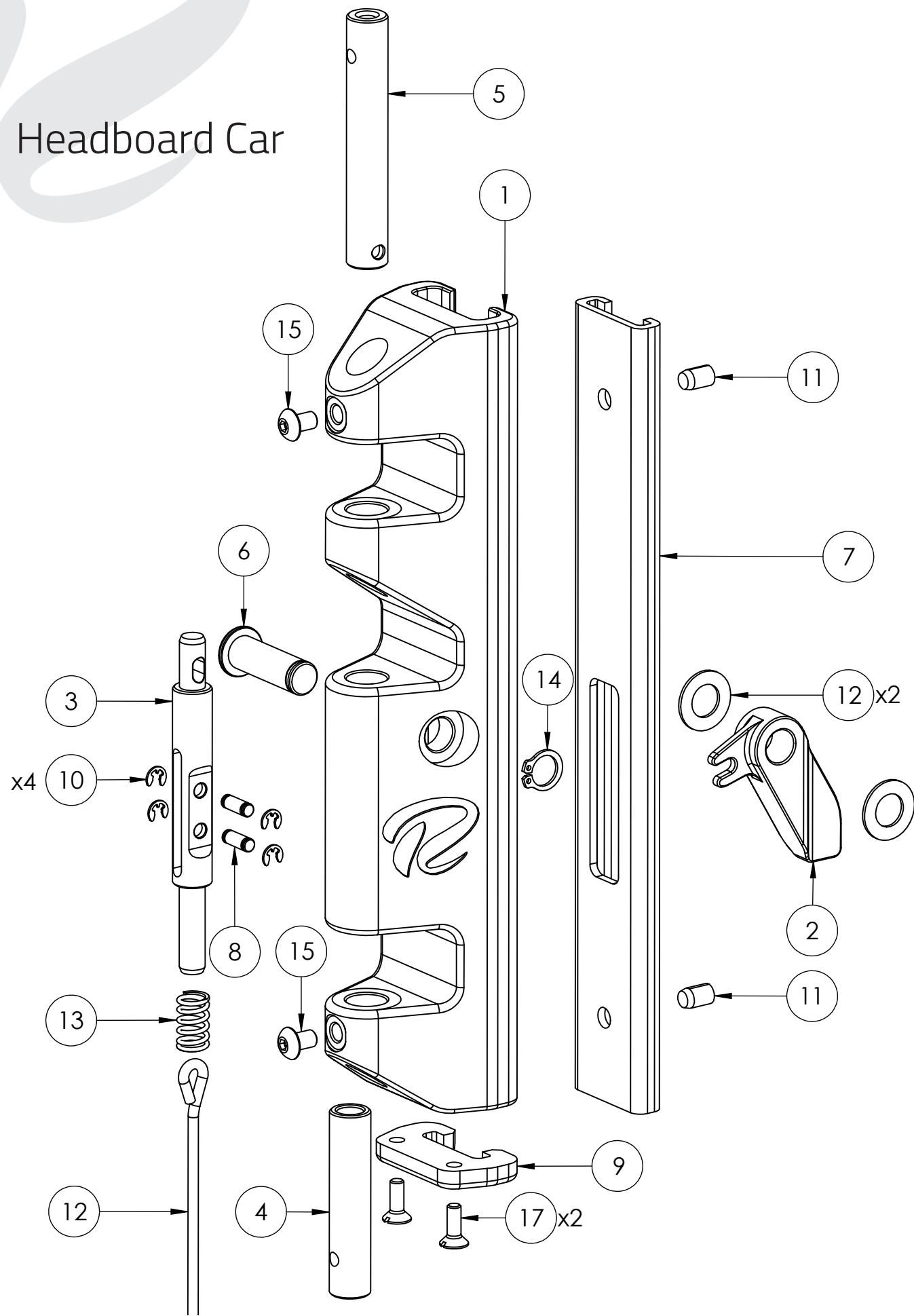
Problem	Probable Cause	Solution
Car binds on track	Slider damaged or missing	Check or replace slider and dowels
	Track misaligned	Check alignments on track
	Track fasteners protruding	Check all track fasteners are properly secured
Car jams when hoisting	Headboard is catching on running rigging e.g. lazy jacks, reef lines and halyard	Use topping lift to hold boom and pull lazy jacks forward if possible
Luff on sail is loose and car is engaged	Check range of Cunningham and luff length	Adjust Cunningham or luff length
Luff of sail is tight and not engaging	Incorrect set up of control lines	Mainsail tack should be eased, or consider floating tack car instead of lashing
Car is not locking	Trip line damaged	Check trip line is activating lever and replace if necessary (Should be carried out by qualified personnel)
	Trip line under tension	Ensure the trip line slack
	The car is not moving past the high load track section	Ensure the halyard marks are correct and the car has reached the appropriate height
Car is not unlocking	Manual trip line is under tension and forcing the pawl to engage	Go aloft to visually inspect the manual trip line is slack

Important

Rigging Projects equipment is designed for minimal maintenance, but some maintenance is required for optimum and safest possible operation and to comply with the Rigging Projects limited warranty. In general, the most important aspect of maintenance is to keep your equipment clean by frequently flushing with fresh water. In corrosive atmospheres, stainless parts may show discolouration around holes and screws. This is not serious and may be removed with a fine abrasive. Exposure to some caustic solutions can result in discolouration of part and is not covered under the Rigging Projects warranty.



Headboard Car



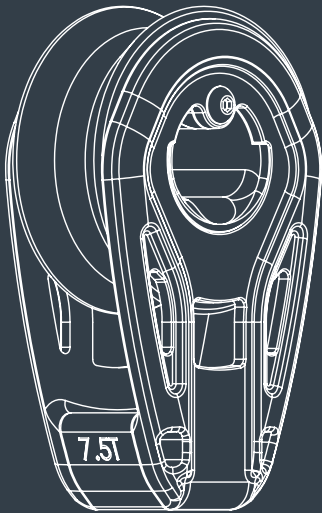
Parts List

Item #	Description	Qty
1	MAIN CAR BODY - HB2.5	1
2	PAWL - HB2.5	1
3	PAWL SHAFT - HB2.5	1
4	LOWER PIN - HB2.5	1
5	UPPER PIN - HB2.5	1
6	PAWL PIN - HB2.5	1
7	SLIDER - HB2.5	1
8	PIN - TRIP LINE	2
9	RUBBER BUFFER	1
10	E CLIP - DIN6799 - D1500	4
11	6 x 10 DOWEL PIN - MISUMI	2
12	IGUS THRUST WASHER - IGLIDUR X	2
13	COMPRESSION SPRING - LEE SPRING	1
14	CIRCLIP FOR SHAFT	1
15	M5 x 8 SOCKET BUTTON HEAD SCREW ISO 7380	2
17	M4 x 12 SLOTTED CSK HEAD SCREW - ISO 2009	2

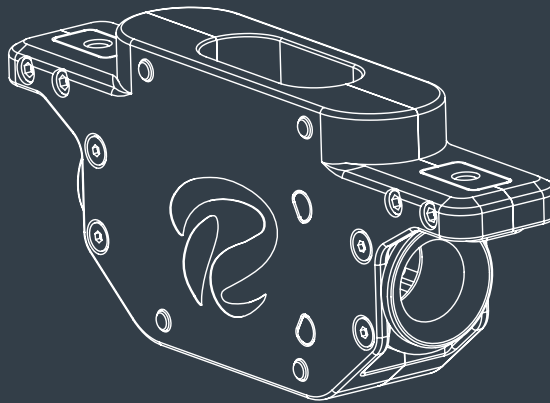
Customer Support

Info@riggingprojects.com

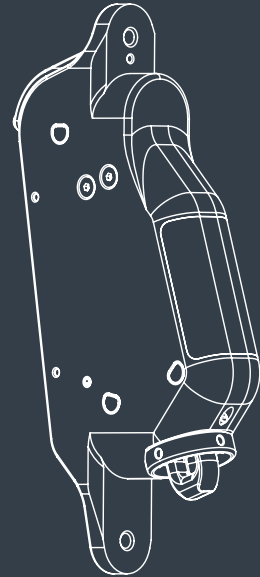
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X- Glide Range



Internal Lock Range



Fwd Lock Range

Newport RI, USA

Southampton, UK

Zaandam, Netherlands

Palma de Majorca, Spain

AHEAD OF THE CURVE

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-  Sail Handling
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