



G-Force
YACHTS

G-Force Rebel Dinghy

Owners Manual

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1. General introduction for the Rebel owner's manual

This manual has been compiled to help you operate your Rebel dinghy with safety and pleasure. It contains details of the craft; the equipment supplied or fitted its systems and information on their operation. Please read it carefully and familiarize yourself with the craft before using it.

The owner's manual is not a course on boating safety or seamanship. If the Rebel is your first boat, or if it is different from what you are familiar with, for your own comfort and safety please ensure that you obtain handling and operating experience before "assuming command" of the boat. Your dealer or national sailing federation or yacht club will be pleased to advise you of local sailing schools or competent instructors.

Ensure that the anticipated wind and sea conditions will correspond with the design category of the Rebel and that you and your crew are able to handle the boat in these conditions.

Even when your boat is categorized for them, the sea and wind conditions corresponding to the design categories A, B, C and D range from severe storm conditions for category A, to strong conditions for the top of category D, open to the hazards of a freak wave or gust. These are therefore dangerous conditions, where only a fit, competent and trained crew using a well maintained craft can satisfactorily operate.

The owner's manual is not a detailed maintenance or trouble shooting guide. In the case of difficulty, refer to the boat builder or his representative. If a maintenance manual is provided, use it for the boat's maintenance.

Always use trained and competent people for maintenance, fixing and modifications. Modifications that may affect the safety characteristics of the boat shall be assessed, executed and documented by competent people. The boat builder cannot be held responsible for modifications that he has not approved.

In some countries, a driving license or authorization is required, or specific regulations are in force.

Always maintain your Rebel properly and make allowance for the deterioration that will occur in time and as a result of heavy use or misuse of the boat.

Any boat, no matter how strong it may be, can be severely damaged if not used properly. This is not compatible with safe boating. Always adjust the speed and direction of the boat to sea conditions.

The Rebel has been designed as a simple, cost effective, high performance sailing dinghy. It is suitable for both racing and cruising for either two adults/teenagers or one adult and two children, with a maximum all up weight of 160kg. For the purposes of this document, we draw your attention to Table 1.

Table 1 – Degree of hazard and corresponding safety labels

Danger	Denotes that an extreme intrinsic hazard exists which would result in a high probability of death or irreparable injury if proper precautions are not taken
Warning	Denotes that a hazard exists which can result in injury or death if proper precautions are not taken
Caution	Denotes a reminder of safety practices or directs attention to unsafe practices which could result in personal injury or damages to the craft or components or to the environment

You should be aware that not carrying out your responsibilities as owner of your Rebel dinghy carry the following risks:

Caution	The boat and all its components are properly maintained
Caution	It is sailed as it was designed, for instance <ul style="list-style-type: none"> • All hatch covers must be securely in place • The transom drainage bung must be securely in place • The rudder blade must be pinned down in the stock • Pins must be held securely in place with splits pins/rings • Any water in the hull cavity should be removed prior to sailing • It is never overloaded with people or equipment
Warning	It is your responsibility to ensure that everyone sailing on the boat is able to swim and wears a personal floatation device. In some countries, it is a legal requirement to wear a buoyancy aid that complies with their national regulations at all times.
Warning	You should also be aware of laws and regulations governing small craft in the region where you are sailing and must comply with these requirements – for instance, these could require you to carry flares, an anchor, etc
Danger	The Rebel carries an aluminium mast and this must not be allowed to come into contact with overhead power lines. We advise that the mast is only stepped close to the water’s edge and you are extremely cautious when sailing up rivers and other areas where overhead power lines may exist. A decal with the above warning is also on the mast.

PLEASE KEEP THIS MANUAL IN A SECURE PLACE AND HAND IT OVER TO THE NEW OWNER WHEN YOU SELL YOUR REBEL

2. General Information and Craft Data

2.1 Name of manufacturer:

Global Composites Pty (Ltd)

2.2 Name of model:

Rebel (Fire\ Radical)

2.3 Craft design category and statement explaining the design category:

Please refer to Directive 94/25/EC as amended by 2003/44/EC.

Category D. Sheltered waters – the Rebel is designed to operate on sheltered coastal waters, small bays, small lakes, rivers and canals when conditions up to, and including, wind force 4 and significant wave heights up to, and including, 0,3 m may be experienced, with occasional waves of 0,5 m maximum height, for example from passing vessels. The significant wave height is the mean height of the highest 1/3 of the waves, which approximately corresponds to the wave height estimated by an experience observer. Some waves will be double this height.).

2.4 Certification:

CE Certified by European Certification Bureau Nederland (ECB). Their contact details are as follows: Tel +31 299 323123 or www.ecb.nl

2.5 Mass of the craft in light craft (unladen) condition (kg) which is the light craft mass according to ISO 8666:

102 kg

2.6 Maximum recommended load, according to ISO 14946:

160kg (includes crewmembers and their equipment)

2.7 Main dimensions:

L_H – length hull - 4.32m

B_H – beam hull - 1.495m

L_{max} – $4.325 + 0.865 + 0.81 = 6.0m$

B_{max} – 3.23m

2.8 Drafts:

Maximum height – $5.98m + 0.51m = 6.49m$

Maximum draft in the fully loaded condition – $0.861m + 0.193m = 1.054m$

2.9 Type of propulsion:

Sail

2.10 Basic information about sails and rigging:

- The Rebel has a mast which is 5.98m long and a mainsail boom is 2.45m long. It may be fitted with an asymmetrical spinnaker pole which is 1.47m long.
- The boat is fitted with a mainsail and a jib and may be fitted with an asymmetrical spinnaker. The maximum dimensions of the sails are below:

	Mainsail	Jib	Spinnaker
Luff	5.27m	4.00m	5.30m
Leech	5.68m	3.77m	4.24m
Foot	2.36m	1.30m	2.76m



2.11 Maximum number of persons:

The Rebel is designed to be sailed by two adults/teenagers or one adult and up to two children

WARNING - Do not exceed the maximum recommended number of persons. Regardless of the number of persons on board, the total weight of the persons and equipment must never exceed the maximum recommended load.

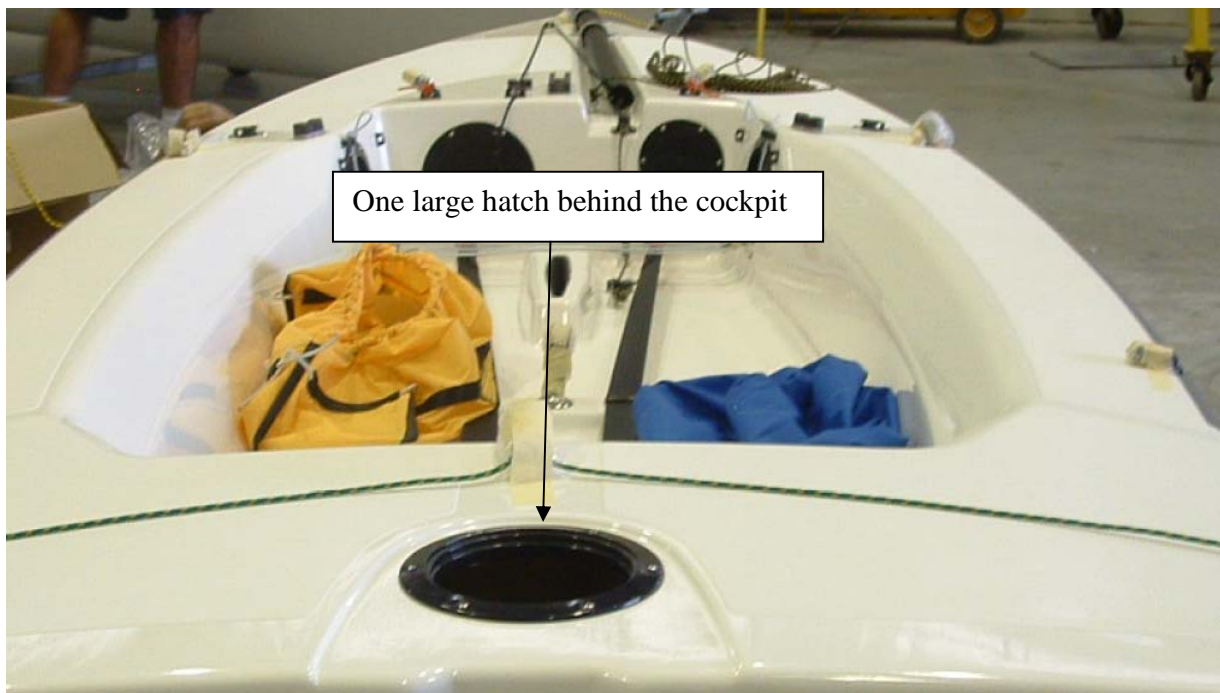
2.12 Loading

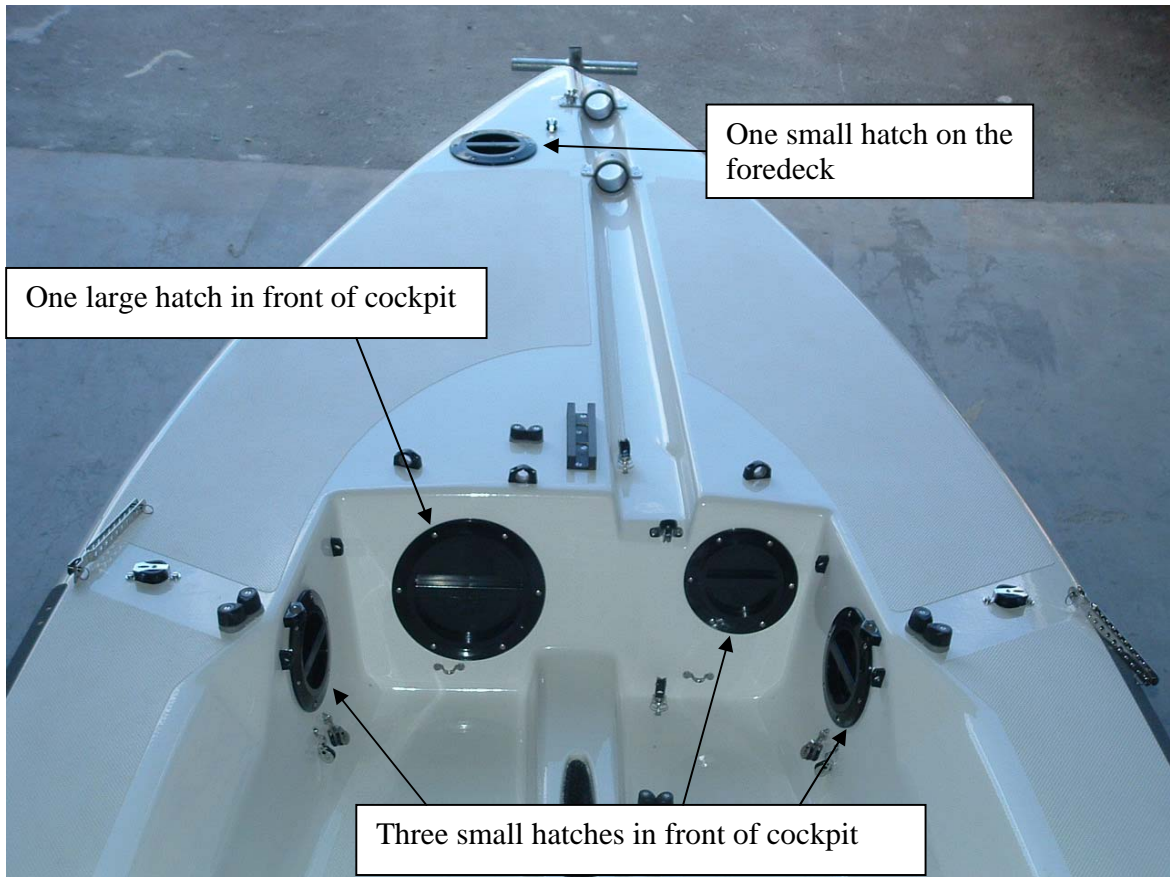
The maximum recommended load includes the weight of all persons onboard, all provisions and personal effects, any equipment not included in the light craft mass, cargo (if any) and all consumable liquids (water, fuel, etc)

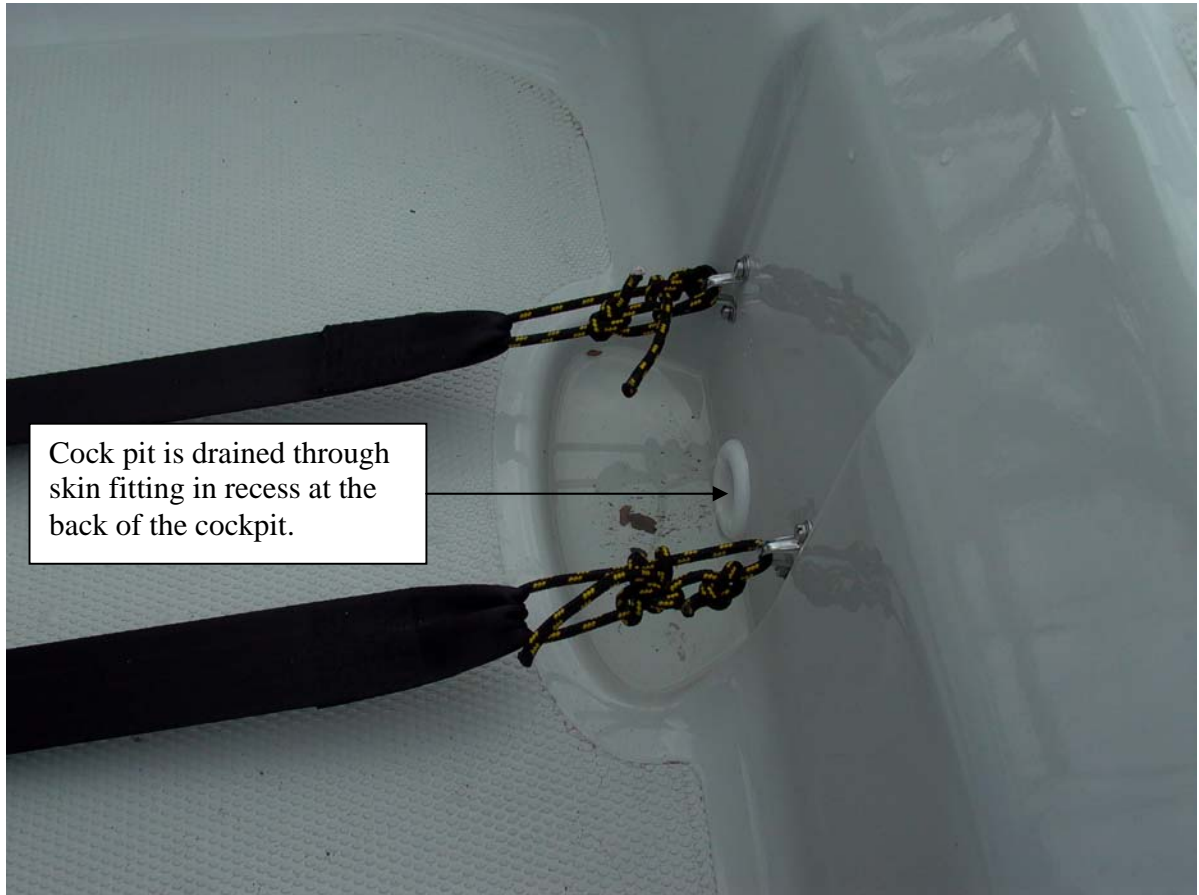
WARNING – When loading the Rebel, never exceed the maximum recommended load. Always load the boat carefully and distribute loads appropriately to maintain design trim (approximately level). Avoid placing heavy weights high up.

2.13 Openings in the hull and deck

- The location of hatch covers, the transom drainage bung and the cockpit drain is shown in the photographs below







- The hatch covers and transom drainage bung must be kept tightly closed when the boat is on the water
- The hatch covers and/or the transom drainage bung must be removed when the boat is stored and when it is being transported by ship, plane or road
 - This is to allow it to ventilate and to enable the hull to adjust to different atmospheric pressure. Keeping the hull sealed could result in it being damaged
- The cockpit drain may be left open at all times

2.14 Bilge pumps and bailing

It is the responsibility of the owner/operator to have at least one bucket/bailer onboard, secured against accidental loss.

2.15 Stability and buoyancy

Being a sailing dinghy, the Rebel's stability comes mainly from correct weight placement of its crew. Keep the boat as flat as possible by moving crew weight appropriately. In strong wind, this will involve hooking your feet under the hiking straps provided, or even using the trapeze system (when so equipped).



- Any changes in the disposition of the masses aboard may significantly affect the stability, trim and performance of the Rebel
- Water in the hull and the cockpit should be kept to a minimum
- Stability may be reduced when towing or being towed
- The hull cavity should not be punctured

- Breaking waves are a serious stability hazard

2.16 Capsize recovery

The Rebel is able to capsize. Should this happen, your first priority is to ensure that all the crew are accounted for and are not trapped underneath the boat. Once you have satisfied that everyone on the boat is safe, we recommend the following technique for righting it:

Assuming the boat has turned upside down:

	<p>Climb onto the bottom of the boat, grab hold of the bottom of the centreboard (which will be standing vertically), and move your feet outboard until you are standing in the lip on the edge of the boat where the deck overlaps the hull</p>
	<p>The boat should start to heel towards you. Use your weight to keep pulling it over</p>



The centreboard should now be almost horizontal. While keeping your feet in the deck overlap, start to transfer all your weight onto the centreboard. Begin to climb up onto the centreboard

With the boat in its side (also valid when you have capsized but have managed to prevent the boat from going completely upside down)

- When you pull the boat upright, you don't want to have it capsize on top of you again, which can happen if it is not pointing head to wind, or if any of the sails are cleated. If the spinnaker is up, it will also help to pull it down and stow it in its bag at this stage
 - If your crew has helped you pull the boat up this far, ask them to go and hold the front of the bow and keep it pointing into the wind
 - Make sure the jib is uncled and that the mainsheet is free to run



Climb onto the centreboard, move your weight as close as possible to its tip, and pull by holding onto the deck overlap



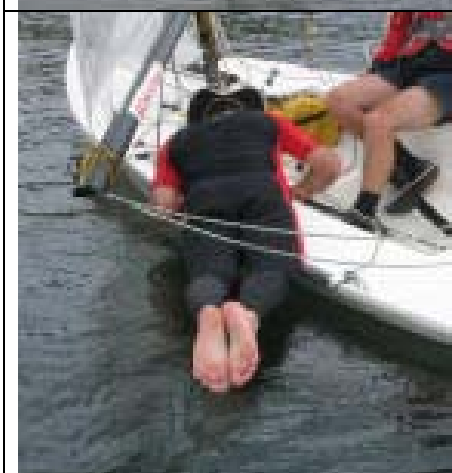
As the top of the mainsail starts to lift out of the water, start to pull the boat upright slower, and prepare to board the boat as it returns to an upright position



Get back on the boat as soon as it is upright



If a crewmember is not yet back in the boat, balance the boat by keeping your weight on the side opposite the person trying to reboard the Rebel



Getting back on the boat is easiest near the back of the cockpit (where the side of the boat is fairly low). Do so by grabbing one of the helmsman's toestraps and pulling yourself back on board

The Rebel should have virtually no water in the cockpit once it is righted. Any water that is remaining will exit via the cockpit drain.

3. Proper operation – Other recommendations and information

3.1 Man-overboard prevention and recovery

It is considered that only the cockpit area and the sidedecks (on each side of the cockpit) belong to the working deck area. The foredeck (area ahead of the mast) and aft-deck (area behind the back of the cockpit) shall not be used when the Rebel is underway.

Should a crew member fall overboard, the recommended way to reboard the boat is over the side of the boat near the back of the cockpit (where the side of the Rebel is relatively low). The crewmember should reach into the cockpit, grab a toestraps and use this to pull him/herself onboard. The crewmember that is still in the boat should use his/her weight to balance the boat.

3.2 Securing of loose equipment

Two pouches are provided in the spinnaker bag (when fitted) for carrying some loose items. Other equipment should be placed in a bag which can be closed, and then secured to a toestraps.

3.3 Respect for the environment

Be aware of local environment laws and respect codes of good practice. Local environment laws may prohibit disposal of any waste (including food) into the water and may also prevent boats from using some areas of a waterway, amongst other things.

3.4 Anchoring, mooring and towing

Being a high performance sailing dinghy, the Rebel is designed to be dry-sailed and should not be left at mooring or at anchor. Should it need to be moored, any bolted on fitting may be used to secure mooring ropes – however, this should be viewed as a temporary measure only. Should the boat need to be anchored, we recommend securing the end of the anchor line around the foot of the mast and again, this should only be viewed as a temporary measure.

- Being towed
 - Should the Rebel need to be towed, secure the end of the towrope around the foot of the mast. Ideally, the tail of the towrope should be held by a crewmember.
 - The centreboard should be raised about $\frac{3}{4}$ of the way up when the boat is under tow
 - The crew must balance their weight to keep the boat as flat as possible
- Towing
 - The Rebel is a high performance sailing dinghy and is not meant to fill the role of a towboat. However, in some circumstances, it is necessary to rescue a fellow sailor and, in these circumstances:
 - Secure the forward end of the towrope around the foot of the mast
 - Be aware that the rope will move from side to side of the boat when you tack or gybe
 - Instruct the boat you are towing to secure the towrope around his/her mast
 - Instruct him/her to stay as directly behind you as possible

3.5 Trailing

We recommend that, when trailing, you tie the Rebel down using the following:

- At least one tie down over the foredeck
- At least one tie down over the back half of the cockpit – this should be placed just ahead of the launching dolly axle
 - If this strap goes over the stick-on non-slip (provided on the gunwale for the trapeze crew), make sure there is a pad between the tiedown and the boat to prevent wear to the non-slip

The total trailing mass of the Rebel is 102 kg + 22 kg = 124 kg. Ensure that you use a trailer suitable for the Rebel and its mass.

3.6 General Maintenance and Care

Weekly

- You should ensure that when your boat is not in use that it is securely fastened to the ground. The sails should be stored dry.
- Any excess water in the hull should be drained via the transom bung.
- The keel line should be tilted towards the stern to allow any water that may find its way into the cockpit to drain via the bailer.

Monthly

- Ropes and rigging should be checked periodically for wear or damage.
- All moving parts such as jamming cleats and blocks should be lubricated lightly with WD40 or similar.

End of Season

- Thoroughly check your boat for any signs of damage or wear.
- Damaged or worn parts should be replaced using the Rebel parts list.
- The hull should be washed with fresh water and a protective cover placed over it.
- Spars and rigging should be washed thoroughly, dried and placed in a protective area.
- Sails should be washed thoroughly, dried, checked and stored in a dry place.
- The launching dolly and road trailer should be washed, checked and greased where necessary.

Gelcoat Repairs

Should you damage the Gelcoat surface of your boat, it is advisable to repair the damage as soon as possible. The correct Gelcoat colour can be obtained from your Rebel dealer. The procedure for repairing the Gelcoat is as follows:

- Using sand paper, sand back the damaged Gelcoat, ensuring that all flaking or damaged Gelcoat is removed.
- Mix the Gelcoat with approximately 2% of catalyst and apply to the damaged surface with a fine paintbrush. Cover the area with cellophane and let it dry.
- When the Gelcoat is dry, carefully remove the cellophane and sand the surface with water paper until it blends in with the rest of the boat.
- Finally polish the repaired area with fibre-glass rubbing compound or similar
- Equipment can be washed in acetone.

**PLEASE ENSURE THAT THIS MANUAL STAYS WITH THE BOAT
WHEN THE BOAT CHANGES OWNER.**

REBEL DINGHY

LIMITED WARRANTY

If, despite all due care being taken during the construction, a defect were to become evident, the Rebel Dinghy's are warranted under the following conditions:

1. The warranty covering the structure is limited to three months from date of purchase by the end user.
2. These warranties are exercised in the conditions described as follows:
 - 2.1 The principle of the warranty is to cover the occurrence of a defect and does not cover a depreciation of form, finish or functioning previously accepted at the time of acceptance of the dinghy
 - 2.2 The warranty covers operation under the following maximum conditions:
Sheltered coastal waters, small bays, small lakes, rivers and canals when conditions up to, and including, wind force 4 and significant wave heights up to, and including, 0,3 m may be experienced, with occasional waves of 0,5 m maximum height, for example from passing vessels. The significant wave height is the mean height of the highest 1/3 of the waves, which approximately corresponds to the wave height estimated by an experience observer. Some waves will be double this height.).
 - 2.3 The warranty cannot be upheld if the recommendations and instructions concerning maintenance are not adhered to.
 - 2.4 With regard to the three month warranty covering the structure, it covers the major structural elements of the dinghy, except in conditions exceeding those described in 2.2. Any surface defects are not covered by this warranty
 - 2.5 The warranty only covers the parts made by Global Composites. The fitted equipment is covered by the suppliers as per their specific warranties. The equipment supplied by a customer, even if installed by a boatyard is never guaranteed.
 - 2.6 The warranty expressly excludes the following elements:
 - 2.6.1 The stainless steel
 - 2.6.2 Galvanising
 - 2.7 If during the warranty period, and in the event of the failure of the structure of the Rebel Dinghy, due to poor workmanship or design, (bearing in mind the limitations imposed by clause 2.2) Global composites reserves the right to repair, replace or refund the cost of the warranty claim. A refund will be at the ex works price of the vessel.
 - 2.8 The warranty is limited to the replacement of the damaged part or to its repair. In no case does the warranty cover the operating losses or loss of enjoyment.
 - 2.9 The warranty is only acquired if the warranty procedure is conformed with.
 - 2.10 The warranty will fall away if Global Composites does not receive a copy of the receipt of the owner's manual.
 - 2.11 In the event of disagreement, the competent jurisdiction is the Durban Commercial Court (South Africa)

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