



# Owner's Manual

# Congratulations on buying a **kaskazi** kayak!

This owners manual and safety guide will help ensure your kayak has a long and productive life, and you have many years of trouble free use. Happy kayaking!

## Construction of your kayak

The **kaskazi** philosophy is to hand-build rugged and exclusive composite kayaks. We only use materials that deliver the best results in terms of strength, stiffness and weight without compromising the legendary durability of **kaskazi** kayaks. Key benefits of composite kayaks are:

- high strength and stiffness
- low weight
- ease of repair (temporary repairs can even be done on the beach)

All **kaskazi** kayaks are laminated using a sandwich construction to maximise stiffness with minimum weight. The lay-up of the conventional polyester glass kayaks consists of a gel-coat to provide a hard-wearing external finish, a first layer of glass fibre, a core material and a second layer of glass fibre finished with peel ply on the internal surfaces to provide a uniform and impregnable surface which does not hold dirt. Load carrying areas are reinforced with additional layers. An extra layer of glass fibre is used along the keels of all our kayaks to provide more wear resistance.

Using epoxy resin in the construction of composite kayaks enables a weight reduction without compromising strength. All **kaskazi** kayaks built with epoxy resin are vacuum-bagged to ensure the best strength to weight ratio. Replacing the second

layer of glass fibre with carbon fibre enables a further weight reduction and results in a kayak of remarkable stiffness.

The hulls and decks are bonded together with a glass fibre tape on the inside of the seam. Thereafter the outside of the seam is carefully ground down and a glass fibre tape is applied to the external seam as well. The external seam is then brushed by hand with flow coat to provide a durable cosmetic finish. The bonding of the external seam ensures that no cracks showing unsightly salt lines appear.

All the fittings used on **kaskazi** kayaks are designed to be functional, strong and simple. Only the best materials and fittings are used to minimise the risk of failure. Our approach to fittings is to keep the kayak as 'clean' as possible by using only those fittings which are really necessary to make the overall system functional but simple.

## **Operation and Safety Checks**

Kayaks are beautifully simple to operate which is a major part of the appeal of kayaking. It is important that you familiarise yourself with all aspects of your kayak and carry out regular safety checks to minimise the risks you face when paddling. Sea kayaking can be an extreme sport, but if you paddling within your capabilities and your equipment is in good condition, it is 100% safe.

### ***Bulkheads***

All **kaskazi** kayaks are fitted with fibreglass bulkheads which separate the kayak into compartments providing both buoyancy and storage areas. Bulkheads are an important safety feature and should be checked regularly to ensure their integrity especially if the kayak suffers a hard impact in the region of the bulkheads. When paddling in very extreme conditions the safety of the kayak can be enhanced by the use of inflatable buoyancy bags in the storage areas.

Even our sit-on-top kayaks are fitted with bulkheads. In this case the top of the rear bulkhead is fitted with a bung in the event that water gets into the compartment between the bulkheads.

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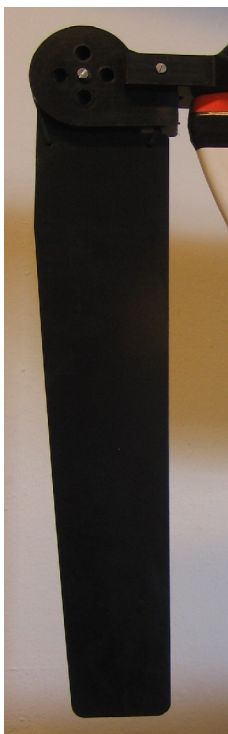
### ***Hatch Covers***

Touring kayaks need large hatch covers so that they can be loaded with large gear. Generally the larger the hatch cover, the more difficult it is to seal. Always ensure that the hatch cover seals are in good condition and that the hatch covers are properly fitted before you go paddling. Never open the storage hatches at sea! If paddling in extreme conditions use buoyancy bags in the hatches. The hatch openings are fitted with coamings to accept neoprene hatch covers which improve the sealing if the type of paddling you do requires it.



### ***Rudder***

The unique **kaskazi** 3-piece rudder makes for a compact over-stern rudder with maximum immersion of the rudder blade. Most **kaskazi** kayaks are fitted with rudders as standard. Rudders are very useful in assisting you to maintain a straight course without interfering with your paddling stroke. Rudders also assist you to turn the kayak quickly.



For the rudder to work effectively it should be vertical in the water. If you paddle over seaweed, flotsam or shallow water the rudder with kick up. Check that it is vertical by tugging the [down-haul](#) line forward.

**kaskazi** kayaks are designed to track well and behave neutrally in cross winds. Even if the rudder system fails, the kayak can be controlled by body steering and the appropriate paddle strokes.

### ***Steering Pedal System***

The rudder is controlled from pedals in the cockpit which are connected to the rudder by means of rudder control lines. The pedal system can be moved forwards or backwards to accommodate paddlers of different height. The steering lines adjust automatically when the position of the steering pedals is adjusted. The angle and balance of the pedals can be

changed by adjusting the length of the rudder lines.



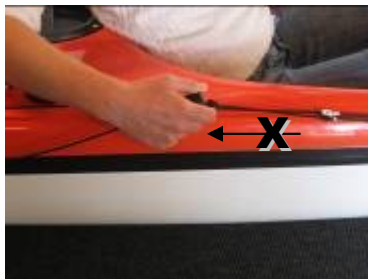
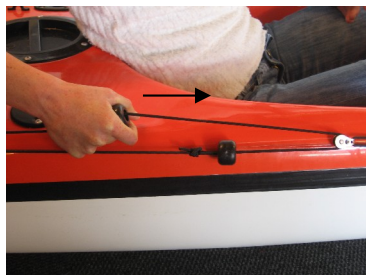
### ***Rudder Lines***

Dyneema with a breaking strain of 320kg is used for the rudder lines. Dyneema has very low stretch and friction making it

ideal for this application. We prefer not to use stainless steel cable since it invariably rusts where it is crimped and strands break out resulting in potential injury. The lines run from the cockpit area through the rear bulkhead to the rear of the kayak inside plastic conduits. The rudder lines should be replaced if they show any sign of wear.

### ***Up-haul / Down-haul Lines***

The rudder can be raised or lowered from the cockpit by means of the up-haul / down-haul lines. The two up-haul / down-haul lines run from the rudder and around a pulley in front of the paddler. Each line is fitted with a plastic bobble situated near the paddler. The pulley is attached by a loop of shock cord in order to tension the up-haul / down-haul lines.



To operate the up-haul down-haul system, always grab the rear most bobble and pull it toward the front of the kayak. The bobbles then swap positions, so to reverse the operation, you once again pull the rear most bobble toward the front of the kayak.

Don't pull the bobbles backwards against the tension of the pulley! The shock cord could break resulting in the pulley hitting your knuckles!

During fast downwind runs and when paddling through shallows or seaweed, the rudder may partially lift up from the vertical down position - remember to give the odd tug on the down-haul to keep the rudder firmly in the vertical position.

## **Seats**

The seats in **kaskazi** kayaks are comfortable and provide excellent support for the majority of paddlers. Extra padding or support is generally not necessary. Remember that when you are paddling you should not be resting against the backrest. Your posture should be upright to protect your spine. The backrest is there for when you are relaxing and taking in the surroundings!



## **Deck Rigging**

We fit deck rigging which suits most customers as standard. Additional deck rigging can be fitted to suit individual requirements. The shock cord deck rigging provides convenient storage for items on the deck. The attachment points are also conveniently placed for the sail rig and for clipping deck bags on. We generally use saddles for attaching the deck rigging because they are simple, strong and provide additional attachment points for lashing items to the deck or attaching leashes. The rivets used for fixing saddles to the deck are specially designed to prevent cracking of the composites.



### ***Carry Handles***

The carry handles not only provide for comfortable carrying of your kayak, but also serve as secure points for lashing while transporting or storing, or for towing the kayak in emergencies. Although the carry handles are strong, don't attempt to lift a kayak full of water, since it could easily weigh over 100kg. Always empty the kayak on the water before trying to lift it!

### ***Drainage Systems***

All our sit-on-top models are fitted with a unique self-bailing system with recessed venturis. The venturis quickly drain all the water from the foot well area even at low speed. Bungs are supplied to close the drains to keep the kayak dry when paddling in calm conditions or with a spray deck.



## **ARX Decks**



The cockpits of the Duo and Skua AR are designed to accommodate an optional deck and coaming. This enables you to use a spray deck with these sit-on-top models.



The decks on the ARX models can either be permanently bonded or attached with 7 button-head cap screws (allen screws) which are screwed into stainless steel well nuts fitted to the deck of the kayak. Don't over tighten the screws when attaching the deck.

## **Extras**

**kaskazi** kayaks are well suited to accommodate a range of extras. It is easy to customize your kayak with the addition of extra deck fittings, fishing rod holders, a day hatch and even the addition of a sail only requires the installation of a mast tube.



*Day hatch installed on a Skua*



*Fish finder fitted to a Dorado*

## **Service and Repair**

We guarantee **kaskazi** kayaks for life. If anything goes wrong that shouldn't have, we will put it right.

Kayaks require a minimum of maintenance. Rinsing your kayak with fresh water after use is ideal and will make the few

moving parts operate more easily. It will also prolong the life of the aluminium rivets, but it is not essential.

In terms of normal wear and tear, the first six months of your kayak's life is often the harshest – this is often the time when you learn to paddle and are most likely to have a minor mishap or two. We recommend you bring your kayak in for a service after this period. This allows us to check your kayak and do any minor cosmetic repairs. Should your kayak have a minor accident or a major accident like flying off a roof rack – bring it in. You will be amazed how structurally sound your kayak is and how well we can repair it.

## **Storing Your Kayak**

**Incorrect storage and transport of your kayak can cause damage. Never store the kayak with a large quantity of water in it or where it can collect water. Water can add a lot of weight which the kayak is not designed to support!**

The kayak can be stored:

- Upright or on its side on the ground
- Upright or on its side on racks which are padded and at least 50mm wide
- Inverted on racks where the racks are placed over the cockpit and hatches
- Upright or on its side in slings - the slings should ideally be positioned 2-4m apart
- Suspended from the carry handles

The kayak should not be stored upright on narrow beams. Don't leave your kayak on a wet non-breathable surface (plastic bag) for extended periods as this may lead to water absorption into the gel coat (osmosis) creating small water bubbles. If your kayak is stored outside, invert it so that it cannot accumulate water.

## ***Transporting Your Kayak***

Ensure your kayak is transported on secure roof racks. The roof racks should be compatible with the vehicle and secured properly. Regularly check the tightness of the racks. Transport your kayak on racks that are set as wide apart as possible – in an ideal world racks would be 2m apart. Should your racks be very close together consider having an additional roof rack support from the tow-bar. This third support is especially recommended for transporting double kayaks, when travelling long distances or in very windy conditions.

When transporting your kayak upright cradle the hull on wedges or slings. This transfers the main stress from the centre of the hull towards the chines where it is stronger. Wedges also provide excellent lateral support to prevent the kayak moving sideways if driving in a cross-wind.

Use webbing straps to secure the kayak on the roof racks. Straps are better than rope in that they distribute load over a greater area. Never trust elastic cord to keep your kayak secure. Do not over tighten the straps since this can cause stress cracks to the kayak.

## **Padding Safety**

“Wisest is he who knows he does not know” - Plato’s *Apology*

Always paddle within the limits of your capability. In so doing you will progress to be able to push your limits safely. Having a bad experience might mean that you never become a competent paddler!

## ***Safety Equipment***

Minimum requirements are:

- Appropriate clothing for the conditions
- Personal flotation device and whistle
- Paddle leash
- Spray deck for sit-inside kayaks

- Bailer or bilge pump
- Cell phone (where there is reception)
- Smoke marker for daytime use
- Pencil flares

Other useful safety items are:

- Orange visibility blanket
- Signalling mirror
- Sea anchor (drogue)
- Tow rope
- Radio

### ***Training and Experience***

This book does not provide the information required to become a proficient paddler. If you have access to training, at least learn the basics – it is well worth the effort and expense. Learn from the mistakes of others rather than your own! There are also several very useful training books and DVDs available. Learning from and with other paddlers is also invaluable. Paddling alone is much more risky than paddling with others.