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Owner's Manual

BLADE

Sailing on the Edge



Vectorworks Sail

Statement

**Vectorworks Sail
Blade F16**

This manual covers the basic assembly of the above listed models. Before starting assembly, familiarize your self with the contents of the containers and the steps in this manual. There are variations between models and may be some minor variations based on model year and options, be sure to follow the appropriate procedures where applicable.

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1.0- Contents

***** Need list of contents and picture of them

***** List of required tools

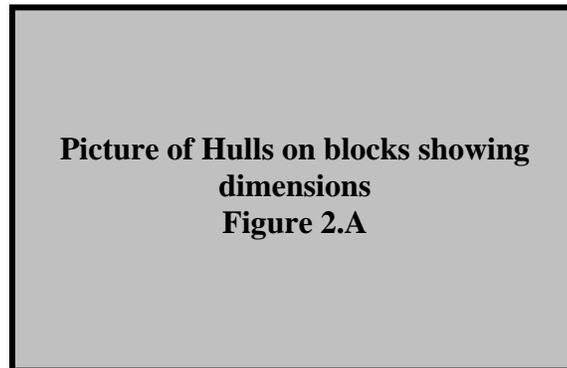
***** List of required Supplies (silicone...)



Some parts may vary slightly from what is pictured.
The exact contents may differ depending on model and options

2.0– Hull Assembly

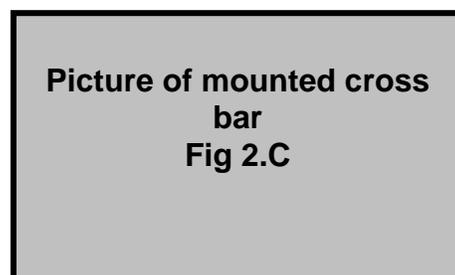
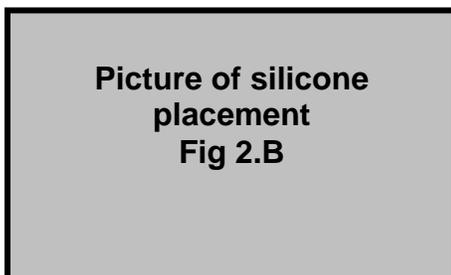
After unpacking the hulls, verifying the contents and verifying they did not receive any damage in transport, find a flat soft area to begin the assembly of your boat. Place the hulls on carpet, foam blocks, or other smooth item where they can be moved without damaging the surface. First check the width spacing while trying to keep them as close to the same fore and aft setting as possible. The centerline width of the hulls should be 7'. Check at the bow and stern. Once this is set, measure the diagonals of the hulls to make sure they are not skewed. This should be within 1/8" of each other. Adjust the fore and aft position of the hulls as required, and recheck the width measurement to ensure it has not changed. This may take several iterations. It is very important that this be done very carefully as severe damage could occur to the beams or hulls if they are tightened with the hulls out of alignment. (Figure 2.A).



Warning

Warning: Diagonal measurements need to be within 1/8" of each other or damage to the beams and/or hulls could occur.

Once the hulls are set, remove the bolts from the cross bars and set on the hulls. Dry fit the bolts to ensure everything will fit smoothly. The hulls were pre-assembled in the factory, so if they are aligned properly, the bolts should slide smoothly into the hulls. After you are confident of the fit, lift the beams and place a bead of silicone around the bolt holes and another small amount around the perimeter of the beam landings. This will seal the holes to help prevent minor leaking of the boat. Now install the bolts and tighten to 18 to 20 ft/lbs with a torque wrench, always making sure the hulls have not shifted. Note these bolts need to be kept tight. Always check them before sailing the boat. They will need tightening the first few times the boat is sailed. They should settle in after a few sails.



3.0 – Trampoline Assembly



Fig 3.A



Fig 3.B



Fig 3.C

After the cross bars are adequately tightened, now it is time to string the trampoline. Find the edge on the tramp with the larger bolt rope, and slide it into the groove in the front cross bar with the zippered pocket facing up. (Figure 3.A)

Now feed the 2 smaller bolt ropes along the tracks located on the hulls. Note this is a diagonally cut tramp and you will need to pull them down the tracks at the same time, this will either take patience, or an additional person. Once the tramp bolt ropes are pulled, slide the 6' fiberglass rod into the pocket located on the aft end of the tramp, and center. (Figure 3.B)

Find the 5/32" x 20' long line labeled "Tramp Lacing" and tie one end to either of the grommets located in the aft outside corner of the tramp. Pull the line snug and bring back under the rear cross bar and wrap over the first of the tramp lacing buttons located on the aft side of the cross bar. Bring the line forward and wrap over the exposed end of the fiberglass rod, and then back to the first lacing button again. Pull the line over the top of the first button and string over the top of the second. Once over the top of the second, go back under the cross bar and wrap around the fiberglass rod at the first notch, bringing it back to the second button, over this button then to the third. (Figure 3.C)

Continue across the entire tramp finishing the opposite side in a mirror of the start. Note the tramp will be loose and will take several tightenings to become fully taught. Once the back is laced, remove the 1/8" x 30" lines and tie the foot straps to the saddles provided on the rear cross bar.

4.0 – Trap Bungee

The forward trap bungee has already been installed in the forward cross bar. Remove the bungee from the packaging and slide the bungee through the black grommet located on the hull near the side stay attachment. Then feed the line through the nearest tramp grommet, under the tramp and back up the opposite side. Fix the ends with the ball stops and hog rings in identical fashion to the forward set up. (Figure 4.A)



Fig 4.A

5.0 – Mast Rotation

Find the 5/32" line labeled "Mast Rotation". Feed this line through the cleat located on the hull just aft of the front cross bar, and then under the tramp. Bring the line back up through the tramp at the grommet located in the center of the tramp just aft of the storage pocket. Run this line through the turning block provided and back through the center grommet, under the tramp and back up through the cleat on the opposite hull. Note: the turning block will be attached to the line run through the mast rotation arm on the mast after the mast is stepped to control rotation.

6.0 – Mast Assembly

6.1 - Spreaders: Attach the spreader arms to the fittings located approximately 1/2 way up the mast. Use the barrel nut to adjust the rake of the spreaders such that they are equally positioned and a straight edge placed between them will provide a gap of at least 1 1/2" measured between it and the mast. Adjust the extensions and rake of the spreaders so that they measure approximately 27 1/2" tip to tip, and 1 1/2" of rake. Note: these measurements are made from the location of the wire, and not the end of the retention clips on the spreaders. Make sure both are set at the same angle, as failure to do so may put a permanent twist in the mast.



Fig 6.A

6.2 - Diamond wires: To install the diamond wires, first place a bead of silicone in the holes located on the mast sides above the spreaders. When wet, place the ball-T end of the diamond wires in the hole, and bring the threaded end down to the mast base. Place the threaded end of the diamond wire through the holes on the side of the mast base, putting one of the jam nuts on each side of the base plate (2 per wire) It is very important the adjusting end is completely lubricated with anti-seize, oil or other suitable lubricant, as stainless will cold weld itself if the nuts are tightened under load. Once the threads have been started, pull the diamond wire onto the spreader bars, as if you were stringing a crossbow. The wires can then be tightened to the proper setting. A good starting point will be at least 1 ¼ - 1 ½” of pre-bend as measured with a string line from the mast base to the sail hook. Note it is best to tighten the wires when they are not under load to prevent seizing. This may take several iterations to get the proper tension and ensure that the mast is straight. Once set, tighten the jam nut located on the top of the mast base, to ensure the wire do not loosen while sailing. These setting are a starting point, and you will need to adjust them to fit your own sail, weight and sailing conditions. **Always ensure diamond wires have adequate tension.** If you notice you diamond wires loose at any time during sailing, stop and tighten them. Sailing with loose diamond wires can lead to mast failure or collapse.

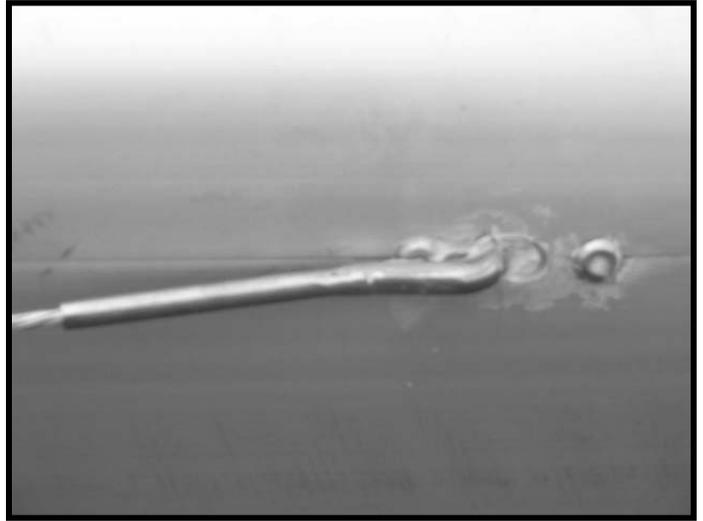


Fig 6.B

Warning

Warning: Always tape spilt rings to prevent them from coming loose during sailing.

Sailing with loose diamond wires can lead to mast failure or collapse.

6.3 - Main Halyard: Attach the main halyard line to the main sail hook as shown. Run the opposite end of the line up the exterior of the mast and through the pulley located on the top of the mast and then back down the inside of the sail track. The end will then exit through the turning pulley located just above the mast base.



Fig 6.C

6.4 - Spin Halyard: Run the spin halyard through the pulley tied to the bail approximately 4' from the top of the mast. Feed the hoist end down the starboard side of the mast, through the spreader arms. Keep the spin head end outside of the mast and clear of the standing rigging.



Fig 6.D

6.5 - Standing rigging: Find the shrouds and forestay wires and attach to the lower hole in the mast hound with the 5/16" bow shackle as shown. Note the forestay wire should be placed in between the 2 shroud wires on the shackle.



Fig 6.E

Find the trapeze wires and attach them in the upper hole of the mast hound with the ¼" bow shackle.

Feed the jib halyard wire through the pulley located on the pigtail attached to the forestay wire.

Attach the shroud adjuster on the hulls using a ¼" clevis pin as shown.

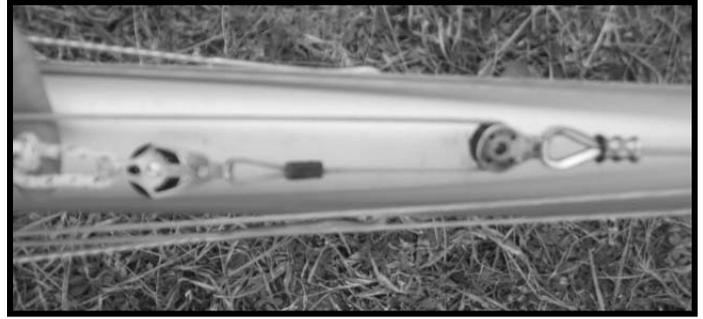


Fig 6.F



Fig 6.G

6.6 - Pelican striker assembly: The bridal wires should attach to the center of the pelican striker tube as shown with a ¼" bow shackle. The opposite ends of the bridal wires then are fastened to each hull bow tang. Ensure the jib attachment tang on the striker tube faces aft.

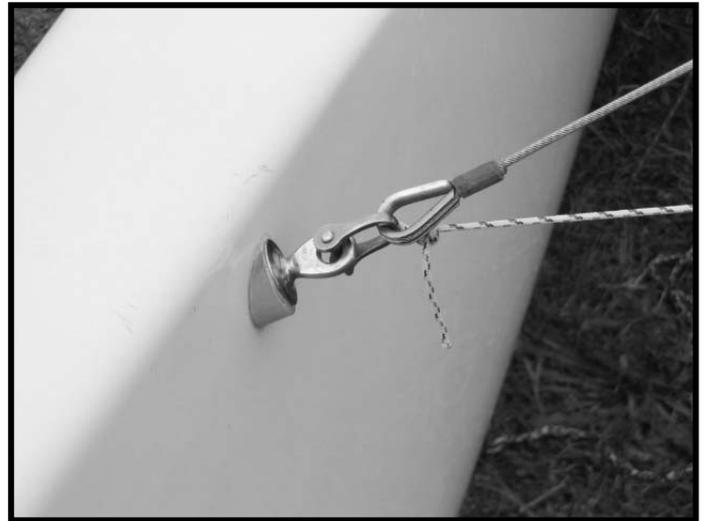


Fig 6.H

7.0 Stepping the Mast

Caution

Caution: Always check for overhead wires when raising or lowering the mast. Contact with electrical power lines can cause serious injury or death.

Before Raising the Mast:

1. Make sure the boat is on level ground. If the surface is not level, place the bows so they are facing down hill.
2. If the boat is on the trailer, make sure it is still tied down and that the trailer tongue is secured so that it will not lift during the procedure.

Place the mast lengthwise on the boat with the base pointing forward and the mast track down. Attach the side stays to the shroud adjuster plates with the pin located in the top hole.

Walk the mast aft until the mast base is in line with the front cross bar. Rotate the mast 180 degrees and pin the mast base to the mast pivot located under the mast cone. Use the split rings with the rigging pin to keep it from coming loose during the raising procedure. Note, to ensure alignment with the base and cone you need to keep the mast held 180 degrees off until it is lifted into the vertical position.



Fig 7.A

Make sure the rigging is clear of the hulls, rudders or any other obstructions, and that the forestay is not wrapped in the shrouds before you begin to lift the mast.

One person should stand on the tramp at the rear beam. The second person should walk the mast up to the person standing on the tramp. They should then raise the mast to their shoulders and walk forward extending their arms pushing the mast into a vertical position with tension on the shrouds. At this point rotate the mast 180 degrees back to a normal position and continue to hold the mast forward. While keeping pressure on the mast hand the forestay to the second person and have them pin it in the pelican striker assembly.

Tighten the rig by putting weight on the trapeze wires and adjusting the pins in the shroud adjusters to the appropriate shroud chain plate holes. The mast should be located somewhere from true vertical to slightly angled aft. This is a tuning adjustment and will vary with sail cut, personal preference weight and sailing conditions.

Caution

Caution: Ensure there is adequate tension in your rig before continuing. Raising sails or sailing with a loose rig can cause the mast to separate from the mast step and the rig to come down.

8.0 Rudders

8.1 – Surf System: The rudders will already be installed in the heads with ¼” bolts. Tie the short piece of 4mm line to the horns of the rudders in a loose loop. Run the ¼” bungee cord from this loop through saddle located on the tiller arm and back to the loop. Tighten until the rudder will stand in the raised position solely from the tension in the bungee cord.

Feed the longer piece of 4mm line through the small hole located on the leading edge of the rudder. Bring it through and out the 1” reinforced opening in the rudder and tie a figure 8 knot, then pulling the line back into the opening snug. This line will then feed through the turning block mounted in the rudder head.

Install the rudder assembly on the gudgeon pintles so the angle of the rudder arms aims inboard. Pin the rudders in place with the retaining clip in each of the lower gudgeons. Note: the rudders will not stay attached to your boat if they are not properly pinned prior to use.

The 4mm hold down line should be run from the rudder head inside the upper gudgeon and through the turning block located on the top of the transom. The line will feed then through a hole located on the aft cross on the hull centerline, and out the opposite face through another turning block. Loosely run the line inboard along the rear cross bar and attach in the pivot cleat mounted approximately 2/3 of the way inboard.

Attach the tiller tie bar to the pins mounted on each tiller arm. They will be secured in place by the metal ring attached to the bungee and rudder head.

Install the hiking stink on the rear tiller cross bar with the hardware attached.



Fig 8.A

8.2 - Rudder Alignment: To lower the rudders, pull on the 4mm line now run on the inboard face of the rear cross bar. With the rudders in the down position, measure the distance between the rudders at the forward and then aft edges at a point approximately 4-6” bellow the hull bottom. If this number is not the same, the toe of the rudders may be adjusted by detaching the tiller cross bar from the tiller arm on the side fitted with a threaded end and turning. Continue to adjust the rudder toe until you have an equal distance between the rudder edges both fore and aft.



Fig 8.B

9.0 Spin Pole

Install the aluminum spin pole. The aft end will slide over a bracket mounted to the front edge of the front cross just below the mast step. Pin the pole with the 2" rigging pin provided at the front cross bar, and then slide the saddle, mounted just aft of the spin hoop on the spin pole, into the bottom of the pelican striker tube assembly. This will then be pinned in place with the 2 stage halyard shackle. Ensure the halyard shackle faces aft when complete and has the 30mm blocks for the jib sheet attached.



Fig 9.A



Fig 9.B

Locate the 3mm lines labeled false bridal. Tie each to the spin pole at the pelican striker attachment point. Tie the ends to the bridal tang at each hull. Tie tightly as this will support the jib under sail.

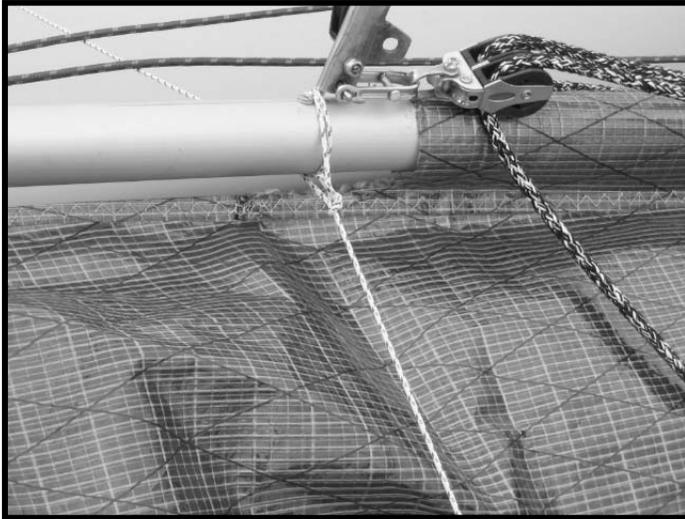


Fig 9.C

Locate the 4mm lines labeled spin bridal. Tie each of these to the outboard end of the spin pole and then back to the holes located at the top of the bow. Note: a small section of plastic tubing and 3mm spectra have been provided to run as a tie loop through the bow hole if desired. The bridal should be tied to provide a small amount of downward pre-bend in the spin pole. 2-4" should be sufficient. Too much bend can permanently deform the pole, while too little will not provide enough support while the spinnaker is being flown.

Failure to rig the spin bridal before sailing or before raising the spinnaker will result in breaking the spin pole.

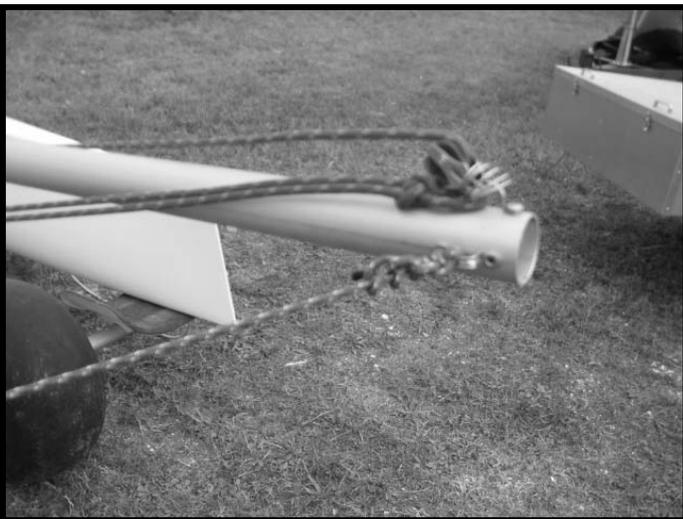


Fig 9.D

Warning Failure to rig the spin bridal before sailing or before raising the spinnaker will result in breaking the spin pole.

10.0 - Jib Sheet System

Install the 20mm single block on the jib traveler car, mounted to the front cross bar, with the 1/8" bow shackle.

10.1 - Jib Rotation Limiter

Tie the 3mm jib traveler line to the center of the jib car. Feed this line then through the single pivot block mounted approximately 1 foot forward on the spin pole. After exiting this block then return the line through either of the 2 cam cleats mounted on the forward cross bar between the jib track pylons. By pulling on this line and cleating, the jib travel is restricted. Releasing this line will allow the jib car to travel further outboard.



Fig 10.A

10.2 - Jib Sheet

Run the 3mm spec tine through the block now mounted on the jib traveler car. Tie a 1/8" bow shackle to the upper side, which will be used to connect to the jib clew plate. ON the lower side of this line, tie the 30mm single block.



Fig 10.B

the other forward block on the pelican striker. Return the final time back through the opposite pivot cleat mounted on the other side of the jib track. The loose ends of the jib sheet can then be tied or run to make convenient for your sailing style.

Feed the 6mm jib sheet line first through the pivoting cleat mounted on either of the jib track pylon posts. Run this then forward through one of the blocks attached to the pelican striker assembly. Then turn aft and through the 30 block attached to the jib clew line, and then back again to



Fig 10.C

11.0 - Boom

Attach the end of the boom gooseneck assembly to the mast bracket with the 1 ½" rigging pin.



12.0 - Mast Rotation

Connect the single 20mm block, which is already attached to the rotation line coming through the center of the tramp, to the end of the mast rotation arm with a bow shackle or short piece of line depending on the style of arm fitted on your boat.



Fig 11.A

With the approximately 2' long piece of 4mm line tie the end of the mast rotator arm to the eyelet mounted on the lower boom face. When complete the rotation arm should be set approximately parallel to the tramp as to adequately clear the storage pocket.

Fig 12.A

13.0 – Mainsail

Roll out the mainsail on a clean flat surface. Insert the battens into the appropriate pockets. Make sure they are inserted fully, and lie flat to allow them to go all the way into the cap sleeves on the sail luff. Tie each batten in place. Fold the batten tie line in half and loop through the grommet on 1 side of the sail. Lead both lines then through the hole in the batten and then



Fig 13.A

through the grommet on the other side. Tie an overhand knot while pushing the batten firmly into the pocket on the sail with your thumbs. Tension the battens firmly enough to remove the wrinkles in the sail. Check to see that they are evenly tensioned and no one batten is bowed more than the others.

13.1 - External Downhaul:

With the external downhaul system, with a short piece of line tie the 2 blocks together with the line through the grommet on the tack of the main sail.



Fig 13.B

14.0 Raising the Sail

Make sure the boat is first facing directly into the wind. Connect the main sail ring shackle to the head of the sail, and start feeding the sail into the mast groove, and remove the slack from the main halyard line. Continue to pull on the halyard line while making sure the sail is feeding properly into the sail track while being raised. If the luff rope in the sail comes out of the track at the bottom, stop, lower the sail slightly and continue as before. When the sail is fully raised, the ring will catch on the halyard hook at the top of the mast. Pull firmly on the foot of the sail several times to ensure that the ring is fully attached. Coil up the halyard line and tuck into the storage pocket to keep out of the way.



Fig 14.A

15.0 Lowering the Mainsail

Make sure the boat is facing into the wind and that the mast rotation controls are untied or very loose, and that the downhaul is likewise disconnected. To lower main sail, uncoil the halyard, and pull firmly to raise the sail above the height of the halyard hook. Turn the mast 90 degrees, release the tension on the line and pull down on the foot of the sail. Once the sail moves a small ways, it is OK to let the mast rotate back straight and continue to gently pull the sail the rest of the way down.

16.0 - Mainsheet

Thread the main sheet line. Either lay them on the ground, or attach them to the boom as if sailing. Start by feeding the line through the cleat on the lower block and continue as shown. Once strung, the lower block will attach to the main traveler car with a ¼" shackle, while the upper block will attach to the loop on the main sail clew, which will also have the boom threaded through it.

The loose end of the main sheet will serve as the traveler adjustment. Feed the end back through the cleat on the traveler car and through the sheaves mounted between the car and the main blocks. This will then be feed through the eyelet and tie a figure eight knot to secure.

17.0 – Downhaul

External: Rout the 5mm line for the down haul through the cleat and up one of the pivot cleats mounted on the bottom of the mast. Tie both pieces of 4mm line to each one of the cascading blocks, and then feed one of these block through the 5mm main line. Continue to feed the main line back through the cheek block mounted at the base of the mast sail track, and back up to the other block and 4mm line on the opposite side of the mast. This will then go back through the opposite pivot cleat and back onto the tramp. The 2 loose ends of the main control line can be tied together, kept loose, tied to one of the trap lines or routed in any of a variety of other methods that fits your sailing needs and style.

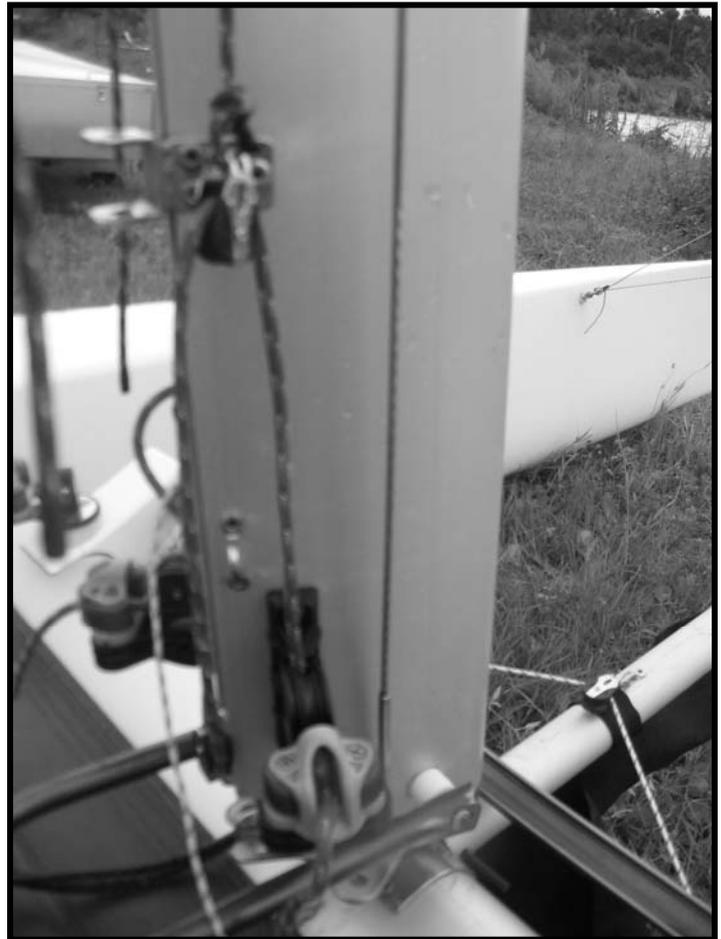


Fig 17.A

To connect to the main sail, feed the 4mm line attached to the cascading blocks through the blocks tied to the main sail track.

Make sure that the lines are not crossed and the individual lines go through the sail block on the side of the mast that the cascading block is on. Pull down on the line at this point to pre tension the main, and tie to the eyelet mounted near the mast base. Do this separately on both sides and make sure that the main sail is started in the lower section of the sail track.



Fig 18.A

18.0 Outhaul

Make sure the fabric loop on the mainsail clew is around the boom. The upper block of the main sheet system will attach to the lower side of the loop. Ensure the outhaul line is uncleated, and pull the loose line from the outboard end of the boom firmly. Feed this line through the eyelet on the mainsail clew, and then back through the hole in the end of the boom. Tie an eight knot in the line, and then adjust the tension as required in the outhaul by pulling on the line at the lower face of the boom.

19.0 Jib

To raise the jib, attach the jib halyard wire to the head of the jib sail with the shackle. Start the jib luff zipper over the forestay with the halyard line included. Raise the sail while closing the zipper as you go. When the sail is fully raised, attach the jib sail tack to the pelican striker assembly with the shackle. Take the end of the of the halyard and feed through 1 of the cheek blocks mounted to the base of the striker assembly, and then back up through the small bucket block located on the opposite side of the halyard wire. This will then be brought down through the opposite cheek block, and led back to either of the cam cleats mounted on the front cross bar. Gently tension at first and adjust as required while sailing. Note the forestay. It should be tight when tension is applied to jib luff. If it is loose within the jib, the rig will need to be tightened or you will risk tearing the sail.



Fig 19.A

On some systems there is only a single cheek block and an additional small section of line is used to tie off the sail at the bottom of the pelican striker. With this, remove the longer halyard line for use in derigging, or tie off as appropriate.

Attach the jib clew with the shackle on the end of the control line running through the jib traveler car. Choose the hole location in the jib clew plate that provides near equal tension to the sail foot and leech when applying tension to the jib sheets.

20.0 Spinnaker

Mount the spin sheet turning blocks to the front beam, and depending on model, attach the other blocks to the saddle located on the hulls just forward of the side stay tang, or shackle directly to the chain plate adjuster

20.1 - Halyard Run: Temporarily tie the free end of the spin halyard line to the top of the pelican striker assembly. Pull the end running down the starboard face of the

mast and feed it through the spin halyard pulley mounted to the front of the forward cross bar. Feed one side of the back to back blocks onto the line at this point and bring the line into the spin lock located at the out side edge of the forward cross bar. Run the line to the rear cross bar and down through the tramp going through the spin halyard pulley on the aft cross bar. Bring the line back under the boat and going through the port side opening between the dolphin striker and the forward beam, feed it into the back of the spin bag, and up to the spin hoop. Temporarily tie this end of the line to the spin hoop. Clip off the ends of the spin bag to a tie line run under the tramp and connected to the foot strap lacing grommets.

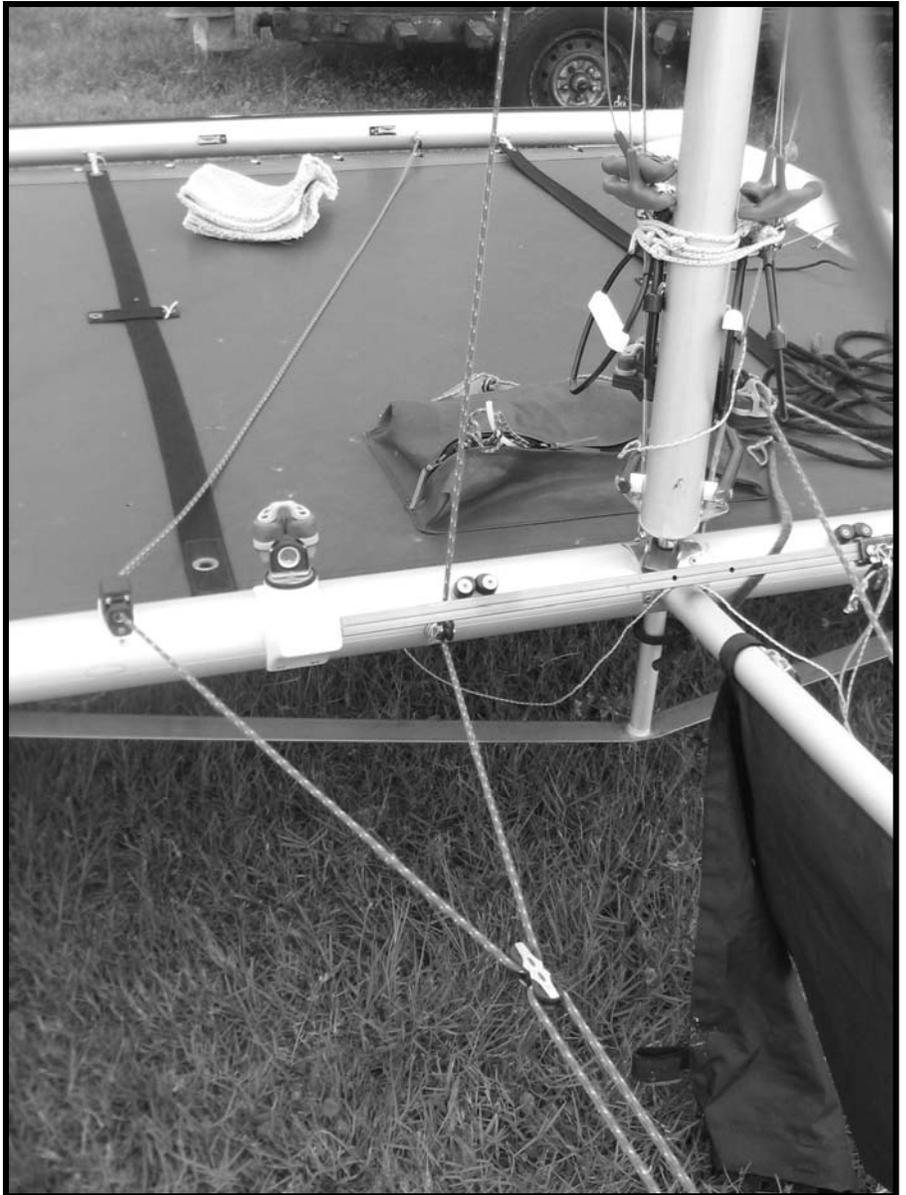


Fig 20.A

20.2 – Attaching the Spin: Untie the free end of the spin halyard and fasten to the head of the spin.

Attach the spin tack line to the tack of the spin. Feed the line through the stand-up block at the end of the spin pole. Bring the line back and through the other side of the back to back blocks, and then forward to the stand-up block on the end of the spin pole. Tie of the tack line at this point. Make sure this line is fed between the bridal and the false bridal to prevent it from dragging in the water while sailing.

Untie the opposite end of the spin halyard exiting from the spin hoop, and feed up the back side of the spin through each of the pull patches in order from lowest to highest. Tie off the line on the upper patch

To raise the sail pull the halyard line from the front just behind the spin lock until it is all the way up. Push down on the line right behind the lock to lower the cam and hold the sail in place. To lower, raise the halyard line in a sharp motion just behind the lock to release the cams, and begin pulling the halyard line from the rear of the boat. The sail will snuff into the mid pole hoop. With a new sail this may pull a little hard at first. Also note when testing on land with a slight head wind, or no wind, the sails may bunch up on the bridals or around the pole. Avoid using excess force to snuff the sail when it may be caught over or under an obstacle as you may rip the patches.

21.0 - Spin Sheet

Tie a short section of line through the clew of the spin. Tie one of these to the spin sheet, and begin feeding it through the turning blocks. Start by going to the first one located at the side stay, and then up to the forward cross bar. Bring the excess to the rear of the tramp and repeat the opposite moving to the other side of the boat. Make sure that you follow the arrows on the ratchet blocks for the first side and opposite as you exit the other. Bring the opposite spin sheet end around the forestay and tie off on the spin clew as well. Your first few times it may be advisable to dry run the spin to ensure everything is free prior to hitting the water.



Fig 20.B

YOUR READY TO GO!

22.0 - Sailing and Beaching

Remember these important guidelines while using your catamaran:



- Be familiar with your area and its hazards, especially overhead power lines and underwater obstacles that could damage your craft
- Know what the weather may have in store for you while you will be out.
- Know your limitations, and never sail in conditions above your ability putting yourself or others in danger.
- Always wear a life jacket while sailing
- Always carry the proper safety gear while sailing
- When launching into the surf, always head directly into the waves
- Always know the direction the wind is blowing before launching
- Secure drain plugs prior to sailing
- After sailing remove drain plugs to equalize pressure in the hulls
- Carry your catamaran or use beach wheels with cradles whenever possible to minimize wear.

General notes prior to sailing:

- All crewmembers should receive suitable training before operating the catamaran.
- The catamaran shall not carry more than the maximum load indicated for the appropriate model and trapezes shall not be used when carrying more than two persons.
- All inspection ports and drain plugs shall be closed while sailing.
- Bilge water shall be kept at a minimum.
- Do not breach watertight compartments.
- The stability of the craft is reduced when weight is added up high.

23.0 Righting after a capsize

At some point in your sailing experience, you are likely to experience a capsize. As an owner, familiarize your self with the boat and how to right it, so that you can be prepared in an unpleasant situation.

Never sail with out a righting line installed on your boat. This can consist of an approximately 15' long line tied to the dolphin striker post and stored in the tramp storage bag, or a specifically designed system purchased from a variety of sail chandleries. If you are not of a sufficient weight to right the boat by your self and sailing single handed, you should carry a righting bag for assistance.

As the boat flips over it is important to lower your self to the bottom hull as quickly as possible to help prevent the boat from turning completely over (turtle) Avoid jumping into the sails, or on the boom or hull as damage to the boat or yourself is very likely. **Do not let go of the boat as the current or wind may make it impossible for you to be able to get back.**

If the boat does go turtle, sit on the leeward hull as close to the transom as possible and the bow should rise. If not, pull the righting line around the windward hull and apply gentle pressure until the hull begins to rise.

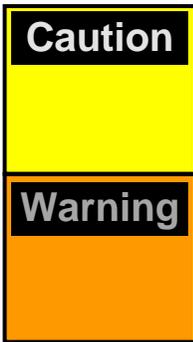
When the boat is sitting flat, make sure all the sail sheets are uncleated. If possible, snuff the spin to make righting easier. Throw the righting line over the top hull if it is not already strung. The boat should be pointed with the bows pointed directly or nearly directly into the wind. Move your weight forward or aft to swing the bows in the proper direction prior to righting.

With your weight at or just behind the front cross bar, grab the righting line and hike out backwards. Once the mast tip breaks free of the water the boat will come up very quickly. Move your weight inboard to control the speed to the righting boat. As it comes over and is falling freely, release the righting line and grasp a hold of the dolphin striker or the opposite hull to prevent the boat from continuing to capsize in the other direction, and ensure you keep attached to the boat. Once the boat is down and all crew is back on board, stow your righting line, organize yourself and your sheets and you are ready to start sailing again.

24.0 – Trailering and Storage

Remember these important guidelines while using your catamaran:

- Always use trailers and beach dollies with cradles designed to fit the hulls rather than single rollers.
- Always remove dagger boards, blocks and rigging when trailering. For long distances removal of the rudders and steering system is recommended. For short traveling distances be sure to secure the tiller tie bar so the system cannot turn. Also be sure to secure the rudders in the up position so they cannot be lowered accidentally while trailering. It is recommended that the rudder systems be removed prior to trailering in anything but a very short distance.
- Tie the boat down snugly using straps or Tie down lines. Be aware that tying down the boat too tight can result in hull damage. Do not use the dolphin striker for a tie down point or for pulling the boat. Use the main beam instead.
- Secure both ends of the mast. Be sure to have a red flag attached to the aft end of the mast.
- To protect against rocks, gravel and road debris, boat covers are recommended. They also provide protection from the weather and the elements.
- Mooring of your boat is not recommended.
- Always leave the drain plugs and inspection ports open to avoid the build up of air pressure and causing hull damage when not sailing.



Caution

Caution: Always check for overhead wires when raising or lowering the mast. Contact with electrical power lines can cause serious injury or death.

25.0 - Design Category

Design category “D” Inland coast or protected waters.

The “Blade” F16 is designed to the F16 class association rules for racing and is set up as a race boat exempt status.

Specific Information

This catamaran is capable of supporting the crew even when swamped. The Catamaran is also intended to be recovered by the crew after capsize. The F16 rules do not dictate a minimum crew weight for racing. There is a minimum crew eight for righting the boat after a capsize. This will vary on the conditions of the capsize. Be familiar with your boat and your capabilities and carry the proper equipment, righting bags or otherwise, anytime you leave the beach.

26.0 – Maintenance

- Inspect rigging for signs of wear, corrosion, kinks or frayed wires. Damaged or worn wires can easily break during sailing.
- Always check beam bolts for proper tension.
- Always check the steering system attachment points and fasteners are tight and in working order.
- Ensure all shackles are tight, and all split rings are taped to prevent loss or damage.
- Periodically inspect shackles, clevis pins and fasteners for wear or loosening.
- Periodically check the dolphin striker tension. It should not move more than 1". Tighten as necessary.
- Regularly inspect mast for water tightness and to ensure all fittings and attachment points are secure.
- Check hulls for excessive wear from beaching and dragging. Exposed raw fiberglass should not be visible. A bottom job should be done to replace any lost material before the hull is breached.
- If your hulls are taking on excessive water during sailing, check for leaks by applying soapy water around the fittings and blowing (with your lungs) into the hull. Do not use compressed air or power equipment such as vacuum cleaners as they will over pressurize you hull and damage it. Remove leaky fitting, clean and reinstall with fresh silicone. If the leak is in an area with a fitting, this should be reglassed using proper methods to ensure bonding.
- Periodically check all cars, cleats and bearings to ensure they run freely. Replace the bearings as necessary, and rinse thoroughly with fresh water to free up any that may be stuck.
- Rinse ENTIRE boat with fresh water after each use.
- Check the sails and trampoline for rips and wear. Repair immediately to prevent further damage.
- Always keep trampoline lacing tight.
- Ensure sails are completely dry before storing. If storing for more than a day, loosen batten tension
- If the boat is to be store for long periods of time, do not leave the rigging at race tight settings. If storing for winter, release diamond wire tension, and for long term mast up beach storage, slightly loosen the rig tension between sails.

Recommended and Maximum Load Table

Model	Light Displacement	Minimum Recommended Capacity	Maximum Recommended Capacity	Maximum Recommended	Maximum Loaded Displacement
	<i>Lbs/kgs</i>	<i>In Persons</i>	<i>In persons</i>	<i>Lbs/kgs</i>	<i>Lbs/kgs</i>