INVESTIGATOR 5.63 TRAILER YACHT

SPECIFICATIONS

Length	5.63 m	
Beam	2.1 m	
Draft	54 cm	
	1.14 m	
Sail Area:	Main	10 sq.m
	Jib	7 sq.m
Displacement	750 kg	

CONSTRUCTION

Maintenance free fibreglass to the highest specifications.

FEATURES

Exterior	Colour moulded non skid deck. Pop-top and companionway hatches. Timber or anodised aluminium hand rails. Timber gunwales. Large self draining cockpit. Aluminium framed windows. Cockpit stowage for outboard motor fuel tank and ice box. Anchor well.
Interior	Moulded fibreglass furniture and bulkhead. Sleeping accommodation for four. Slide-away stove (Port) and sink (Starboard). Timber trim. Saloon table. Toilet.
Rigging	Stainless steel with aluminium mast and boom. Roller reefing. Stainless steel main-sheet traveller. Jib furling gear.

AVAILABLE IN VARIOUS STAGES OF COMPLETION

For further details, please contact:

INVESTIGATOR YACHTS
BAY 20: 1 CAMPBELL PARADE
MANLY VALE 2093
TELEPHONE: 949-2357 After Hours ~~939-2447~~ 928076. Ken Shepherd

SCHEDULE TO CONSTITUTION OF INVESTIGATOR YACHT ASSOCIATION INCORPORATED

INVESTIGATOR 563 SAIL MEASUREMENTS

Bands on Spars

Mast - A lower and upper band each 2 cms wide must be permanently marked as follows:

The top edge of the lower band .62m above the heel of the mast (including the casting);

The bottom edge of the upper band 5.93m above the top edge of the lower band.

Boom - One band 2cm wide must be permanently marked on the boom with the inner edge 2.32m from the back of the mast.

Sails

Mainsail - Must be set within the bands on the mast and boom at all times. The maximum leech measurement is 6.4m. The maximum cross-measurements are 1.43m at 1/2 height, and 0.79m at 3/4 height.

The cross-measurements are to be taken from the leech measurement points (as defined below) to the nearest points on the fore edge of the sail (including the bolt rope).

The points on the leech from which the cross-measurements are taken must be determined bridging any hollows in the leech with straight lines. The mid-point of the leech is determined by folding the head to the clew and the three-quarter leech point is determined by folding the head to the mid-point of the leech.

Battens - 4 only in the mainsail, the top batten being a through batten. The top batten on the leech must not be lower than 1.4m from the forward edge of the headboard. Maximum batten lengths are: 1. (.76m), 2. (.61m), 3. (.61m), 4. (.61m).

Headboard - The maximum measurement at its widest point is 10cm.

Genoa Luff 5.95m, Foot 3.15m, Foot Round .30m, Leech 5.65m.

Jib - Luff 5.95m, Foot 2.53m, Leech 5.17m. The leech must not extend the straight line between head and clew. Foot round .15m.

Storm Jib - May have any dimensions which combine to give an area less than that of the jib. The suggested dimensions are: Luff 4.80m, Foot 2.29m, Leech 3.76m, Foot Round .15m.

Spinnaker - Luffs 6.350m, 1/2 Foot 1.9m, 1/2 cross measurement at right angle to the Luff 2.050m.

Measurements are to be read in conjunction with the I.Y.R.U measurement manual.

The Moreton Investigator Association

We urge you to join the Moreton Investigator Association. These notes are the result of pooling our experience as members of the Association. In addition, the Association organises cruises and race-cruises and other functions which will greatly enhance your enjoyment of your boat.

The Association officers are:

President: Mr I. Clarke, 64 Wade St., Virginia 266 2186 (h) 31 0341 (w)
Secretary: Mrs Rosemary Quinlan, 45 Duncan St., Wynnum West 396 2849 (h) 52 3161 (w)
Treasurer: Mrs J. Gibson, 24 Cordick St., Carina 398 5718 (h) 52 4354 (w)

The Association plans to publish a newsletter, and supplements to these notes as required.

Sailing Experiences

As a result of sharing our experiences of the vessel we can state that the Investigator lives up to the claims that have been made for her. Thus, (1) Investigators have been sailed hard enough to make them take water over the cockpit coaming. The vessels concerned rounded up of their own accord, righted themselves and carried on; (2) one of our members was caught on a falling tide. His boat took the sandy bottom, heeled over to the point where sleeping on her was practically impossible, and as the tide returned, righted herself without taking water; (3) another Investigator was caught off Margate en route to Moreton Island in extremely heavy weather, with seas estimated at 12'. The vessel was turned round and made it back to Cabbage Tree Creek on the jib only; (4) notwithstanding her long keel, the Investigator will broach when running before the wind and surfing off heavy following seas. The drill is to sheet on slightly to make her reach in the trough and so pick up speed before resuming the run.

Sails and Wind-strength

There is general agreement amongst members that the standard sails need to be reduced at about 15 knots wind-strength. A No. 2 jib (which we loosely refer to as a storm jib) is available from Q Sails, and it would seem to be capable of balancing the main reefed down to either of the two positions indicated by the rows of eyelets. This No. 2 jib and reefed main is suitable to about 25-30 knots, at which point you might consider going home on jib alone or jib and motor. The Investigator will sail quite happily on jib only, but it does not seem to be too happy on the main alone.

The Association strongly recommends the purchase of a No. 2 jib before indulging in a spinnaker (also available from Q Sails).

Reefing

Most of the boats come from the manufacturer equipped with roller reefing on the main. This gives an infinitely variable amount of reefing, but it has the disadvantage that a boom vang cannot be used when the sail is rolled, and it is easier to use at a quiet mooring than in conditions when reefing is most needed. Jiffy reefing is easy and inexpensive to arrange, and it can be used from the mast end of the boom. See Des Williams or Michael Easton, Easton Marine, Cartwright Street, Windsor, 57 4824.

Boom Vangs

The Investigator does not come equipped with a boom vang. The maker claims that as the vang will foul the raised pop-top, it is better not to fit a vang. But as a vang so effectively takes twist out of a sail, many of us would prefer to fit a vang and keep the pop-top down whilst sailing.

A vang is essentially a small block and tackle fitted between the foot of the mast (a hole is thoughtfully provided) and the boom. A key way is rivetted to the underside of the boom at a point which is about the same distance from the goose-neck as the goose-neck is above the mast foot. The "bits" for a vang can be got from Robinson Marine (see Rosemary first) for about $8.

Heavy Weather Sailing Generally

Apart from using the smaller jib and reefing down, there are the well-known techniques of luffing up in the gusts and/or easing the sheets. But it is not so generally realised that pressure on the main can be eased by (1) bending the mast backwards with the adjustable back-stay, (2) vanging down hard, (both of which help to flatten the sail), and (3) moving the main track slides as far out as possible.

Estimating wind pressure is deceptive. It is always heavier than it appears to be at the boat ramp or mooring. And the true strength of the wind is more evident when pointing rather then reaching or running (especially the latter).

Motors

Somehow the name Volvo became assosiated with the Investigator in the advertising material. The Association is not an agent for Volvo! There is though general appreciation of the larger motor (such as the Volvo 90) which transforms the boat into an extremely economical and highly satisfactory displacement cruiser. Some of our members though manage without a motor at all, or with a small large-propellored Sea Gull.

There seems to be general agreement that the transom bracket is not the place to trail the motor (except for the shortest distances); but it is a good place for mounting a motor to flush it out in a plastic rubbish bin. Not all the manuals say so, but it is a good practice to run the carburettor dry before leaving the motor for any length of time. And it is always a good precaution to put a safety line between the motor and the push pit.

Some rudders foul the propellors of some motors. If the Volvo 90 is clamped to the transom bracket as far as possible from the rudder, this can be avoided.

RIGGING THE INVESTIGATOR

Dry Run

Members of the Association will gladly help you commission your yacht.

If you wish to check that you have all the bits and to get in some practice away from prying and critical eyes, it is possible to rig the boat and hoist the sails on the trailer, provided you choose a still day, a protected spot, and face boat and trailer into what wind there is. Otherwise, a jammed sheet could result in your boat's being blown off the trailer.

Some owners habitually launch their boats fully rigged. Others launch and rig at anchor. But if you do launch with the mast up, watch out for overhead power and telephone lines. The Jacobs Well ramp (which, by the way, is not suitable at other than fairly high tide) has no less than two sets of lines across its approach!

Rigging

(a) Erecting the mast

In case you are wondering, the mast can easily be carried by one man.

Use the mast shoe on the up-turned rudder; or make up a mast crutch (see note

Slide the mast out astern through the jaws of the mast holder, with the sail track downwards, until the foot of the mast is aligned with the hole in the tabernacle, visible when the pin is withdrawn. In sert this pin and replace its keeper.

Fix the shrouds (side stays) into the chain plates (inverted U's appearing through the deck near the toe rail, about mid-ships.) This fixing is adjustable, and the position of the pins determines the rake of the mast. If anything, the mast should be raked slightly aft to give the boat the desired amount of weather helm. The precise positioning of the pins in the shroud adjusters can only be determined by experiment; and the position may have to be varied as the shrouds stretch.

Make sure that the back stay is free, and that the forestay and shrouds are not snagged. The mast can then be raised by one person pulling on the forestay and another pushing up from astern. A better way: use a handy-billy, which is a block permanently shackled to the spare hole in the fore-peak fitting and a line snap shackled to the thimble thoughtfully swaged to the forestay for just this purpose. As the mast is lifted from astern, the handy-billy line is used to haul it up. This line gives sufficient purchase to fix the forestay with considerable tension to the forepeak fitting. (Without this tension, the jib will fall away badly, spoiling the boat's ability to point).

Attach the back-stay, which as it comes supplied with a double sheave, can be very easily over-tightened. Most authorities maintain that a 7/8 rig such as ours should have a slight backward bend to the mast at all times to counter pumping. The bend is increased (within reason) to flatten the sail as the wind builds up.

(b) Bending on the main sail

There is only one halyard on the mast, which removes any ambiguity.

Tie a figure of eight knot in the end of the halyard or otherwise guarantee that it cannot be pulled up and lost inside the mast. (The only cure for that minor disaster is to drop the mast, take it home, find a high verandah, thread some nylon fishing line in over the top sheave and allow a small sinker to take it to the bottom of the mast where it can be picked out through the sheave. Then pull the halyard into place with the nylon. Do this once and you'll never loose the halyard again!).

Shackle the head of the sail to the halyard and start hauling on the halyard as you feed the nylon slides into the track. If you are still on the trailer, don't haul too far: about two feet is enough to accomodate all the slides in the track. Retain them there with a stop made up of a short $\frac{1}{8}$" brass bolt, 2 washers and a wing nut. As you haul up the sail, the battens must be slid into their pockets. The top batten is the shorter and you may may have to cut it to fit the pocket. The other three battens are equal in length. The weaker, thinner part of the batten faces forward.

Slide the boom on to the bolt rope at the foot of the sail and fix the tack of the sail to the fitting at the forward end of the boom. Something seems to be wrong with the design here: you will not be able to fix the tack eye to the sprung pin supplied. The answer is to fit a fairly large twisted shackle permanently to the tack eye and pin the shackle to the boom. Tie the outhaul to the small saddle provided at the out extremity of the boom. The out haul on our vessel is simply a piece of cord attached to the clew of the sail. This should be pulled out fairly tightly and on a heavy day very tightly.

Hold the boom up with a length of line to the back stay; or better still make a topping lift by swaging or whipping a short length of stainless wire to the back stay with a snap shackle swaged on. When this is not holding up the boom it can be shackled out of the way on to the back stay. Use a length of line or some shock cords to gather the sail around the boom until you are ready to hoist sail. This is particularly necessary for the sake of vision if you have to motor out of a mooring or harbour.

Attach the main sheet to the swivelling fitting at the outer end of the boom, making sure that the sheet does not jamb in the cleat provided.

Fit the vang, but leave it loose.

When the time comes to hoist the sail, pull it up as far as possible with the halyard which is cleated on the mast. Then pull down the goose neck on its slide, moderately in light weather, hard in heavy. Check that there are no undesirable tension bulges in the sail. These can be removed by varying the tension on the luff or the foot of the sail.

(c) Bending on the jib

Make sure that the line of the furler is fully wound into the furling drum.

The jib is tricky in that its halyard is made fast to the swivelling plate at the top of the furling drum. The jib halyard must have a removeable tail which is taken off when the halyard itself is made fast after raising the jib.

Shackle the tack of the jib to the vertical plate of the furler and the head of the sail to the halyard. Haul away on the halyard tail, feeding the jib hanks on to the forestay and bringing the halyard wire down through the hanks at the same time. This latter helps to overcome the jib's tendency to fall away to leeward. Because of the 7/8 rig this tendency is not cured by

tightening the back stay, as it would be on a mast-head rig. But nor is it helped by having a slack back stay.

As the boat comes from the manufacturer the jib halyard must be fixed tightly to the other side of the vertical swivelling plate on the furler by the awkward method of lashing. A rigging screw and snap shackle can be substituted if the handby billy is used to get sufficient tension to permit the snap shackle to be closed. If you ever have to change jibs in a sea way, you will appreciate this method of releasing and refixing the halyard.

Two blocks are shackled to the clew of the jib and they should be left there permanently, and another two left permanently on the No. 2 jib. The jib sheets are bowlined to their respective chain plates (there is room), led forward to these pulleys and back through the adjustable fairleads on the house to the cleats on the after corners of the deck house. Some boats have small snubbing winches at these points and if you have an all-girl crew, they might be appreciated. Furl the jib until you are ready to sail.

(d) Shipping the rudder

The fibre glass rudder floats! Many of them leak! Either way the rudder is hard to fit unless you saw $\frac{1}{2}$" off the top gudgeon pin which makes it possible to place the bottom pintle over its pin before you have to worry about sliding on the top one. This is an old dinghy sailors' trick which the designer and builder ought to know about.

The tiller needs a retaining pin which can be tied to the tiller.

A tiller extension has been tried without much success. What the rudder needs is a lifting tiller, and possibly a longer one. A future supplement may deal with this.

Trailing

Some trailers seem to lack sufficient outside supports and a few have already been modified. These must be carefully arranged or the boat becomes reluctant to leave the trailer.

Most owners take the tension off the centre-board line whilst the boat is on the trailer. But don't forget to haul the board up tightly before launching or it will protrude enough to catch on a roller and prevent the boat's sliding off.

BEATING INFLATION

A five-gallon plastic jerry can with a sink moulded in and complete with pump and drain cock can be purchased from camping shops for about $12. (See Open Air Living, Ross St., Newstead).

A Kangaroo Cooker costs $58 from Algas. It packs up like a small suitcase, has two burners, can be used for b king, and then you can wash up in the base and lid.

Barry and Roberts sell a plastic bucket with a sealing lid for $2.19. It fits under a loo seat with folding legs obtainable from Open Air Liv - ing for $8.40.

NOTES

Mast Crutches

A mast crutch can be made up using two pieces of ~~160~~ 400 x 35 x ~~20~~ 40 mm pine marine glued and boat nailed to form a T girder. Two simple Y's cut from marine ply and packed out to fit the upright hold the mast at the top and two small saddles are screwed to the bottom to hold the crutch on the rudder gudgeon pins.

This kind of crutch is ideal for rigging and trailing and for holding a weather cover central down the boat when it is left under the trees in the back yard. But for motoring with the mast unrigged it prevents the use of the rudder, and motoring on the motor's tiller is pretty awful. But the mast can be lashed to the pulpit and pushpit if it is placed centrally for- ward and located to one side at the stern.

Another crutch can be made to sit on the push-pit rail. It is good for every purpose except rigging the mast, unless a means can be devised to lock it securely to the rail.

Spinnakers

One or two members so far have acquired spinnakers. When we have had more experience with them, a supplement will be issued. In the meanwhile please contact Rosemary at the Sailing Centre.

Radio

If as we hope we will be participating in J.O.G. events. it is under- stood small marine band radios will have to be carried. Details will be advised; but on present indications such radios are available for as little as $50.

MORETON

Investigator 563