ASSEMBLY INSTRUCTIONS

Equipment required

To effectively assemble a Magic 25, you will need the following equipment:

1 x slot headed screwdriver

2 x adjustable spanners

1 x Model 'B' Loos Rig Tension Gauge

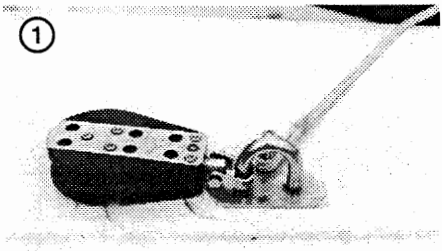
1 x 300mm Rule or Tape Measure

Black PVC Electrical Tape or Black self amalgamating tape

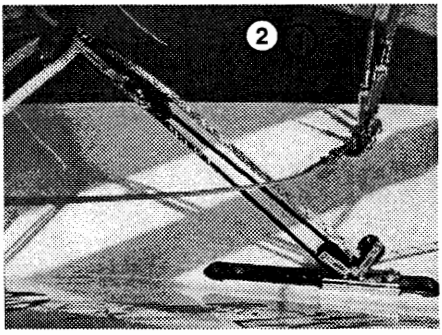
1 x Wind indicator (if desired)

Hull Assembly

1. Ropework: The majority of factory supplied Magic 25's have most systems 'pre-run', i.e: Bow Pole Out , Bow Pole In, Spinnaker Tackline, Boom Vang, Cunningham and Traveller Bridle.



2. Loose Fittings:
   a) Spinnaker Blocks: Shackle 57mm sheave Harken blocks to forward leg of aft tribolt padeyes on either side of boat. (See diagram 1) Shackle Ratchet blocks to inboard leg of forward tribolt padeyes with the white knobbed ratchet on the starboard side and the black knobbed ratchet on the port side.

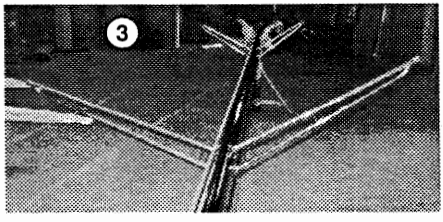


   b) Jib Clew Blocks: Run the Jib Sheets (3:1) as diagram 2 illustrates with the short tapered end of the jib sheets, tying off to the Becket blocks.

Mast Assembly

1. Unwrap and wipe down.

2. Fit the two sets of spreaders as per diagram 3.



3. Insert Top Mast Shroud (TM's) T-balls to masthead T-ball sockets and seize the TM's to top spreaders using the seizing wire provided.

4. Unravel Hounds Shrouds (Hounds) and fit the trapeze strops to the Hounds T-Balls by feeding the spectra core eye splice through the welded eyelet and then passing the eye splice over the top of the T-ball. Insert Hounds T-

balls to T-ball sockets at top spreaders. Unravel Trapeze lines and run them to the bottom of the mast passing the lower spreaders on the aft side. Tape them to the mast near the gooseneck fitting. Then seize the Hounds to the forward recess in the end of the lower spreaders. Seize the TM's to the spreaders in the aft recess. It is important that these two shrouds are seized independently.

5. Heavily tape the 4 spreader ends using black tape.

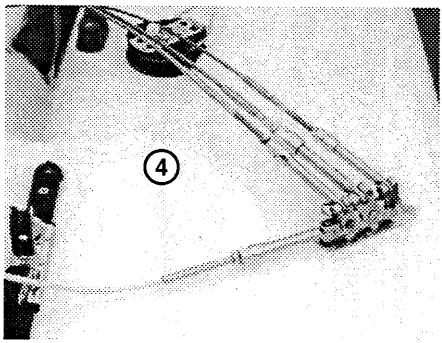
6. Insert lower diagonal shroud (D1's) T-balls into T-ball slots at lower spreaders. Fit forestay into forward T-ball slot at top spreader band. Shackle Gooseneck shrouds (GN's) to gooseneck using screwdriver. Tape all shrouds together at gooseneck level.

7. If you wish to fit a wind indicator, now is the time to do it. We suggest a "Windex - WDX" fitted to forward side of mast at the very tip. The WXD has fasteners supplied which should be utilised.

8. Run Halyards down to within 1 metre from the base and tie the shackles off to the halyard tails.

9. Place the mast onto the yacht pinning the base to the Hydraulic Ram (Ram), piston and placing the aft end of the mast on the spar support at the stern of the yacht. The Ram will need to be pumped up at least 20mm to avoid the mast base fitting touching the Ram Mounting Flange.

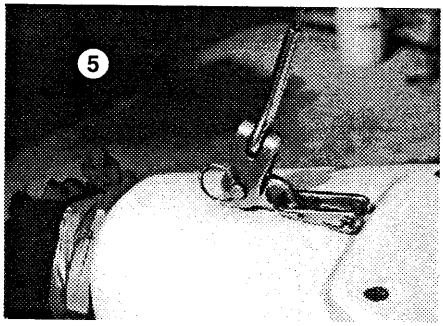
10. Attach turnbuckles to chainplates with TM's to the outside, hounds in the middle and D1's and GN's together on the inboard hole (see diagram 4). Ensure there are no twists in the shrouds particularly between the TM's and Hounds. Also ensure that all turnbuckles are unthreaded to at least half the adjustment.



Raising Mast

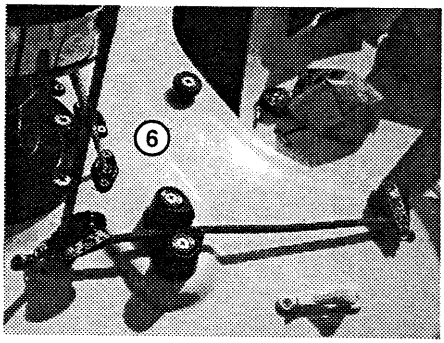
1. Attach a lanyard (at least 3 metres long) to the forestay.

2. Have two people in the cockpit manually lifting the mast with a third person standing on the ground in front of the bow, pulling on the forestay lanyard. Once mast is raised, attach the forestay toggle to the forward hole in the stemhead fitting as per diagram 5.



3. Run the Main, Jib and Spinnaker halyards as per diagram 6. Tie figure 8 stopper knots in all halyards.

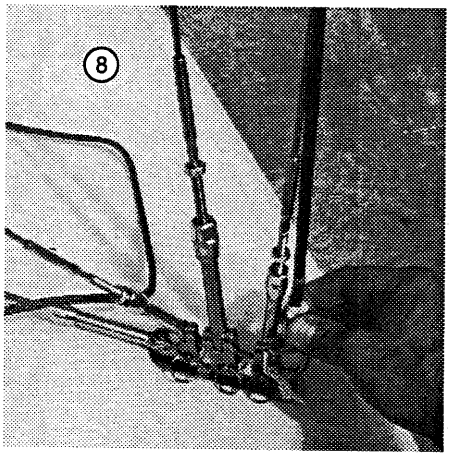
4. Run the main halyard as per diagram 7.



Tuning Mast

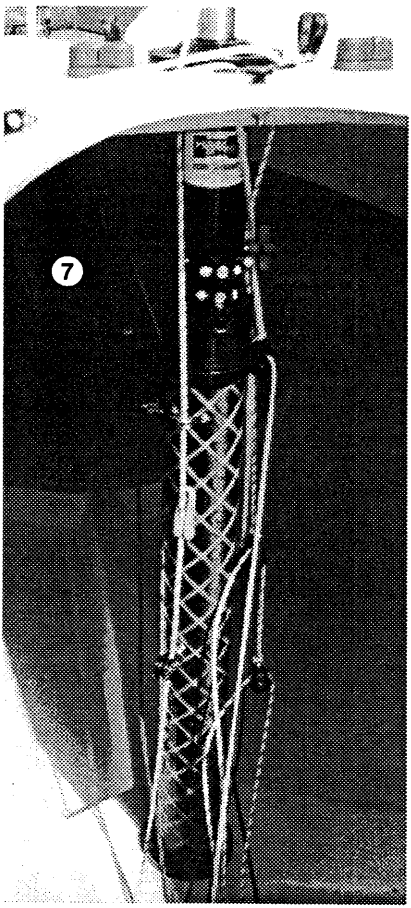
1. With Ram at the bottom of its travel, hand tighten TM's. Pump ram up 20mm. TM's should measure 20 on the Loos Gauge. Ensure all other shrouds are very slack.

2. Using the spinnaker halyard, adjust the TM shrouds to establish mast tip in the middle of the yacht in relation to the chainplates (see diagram 8).



3. With TM's measuring 20 on the Loos gauge, adjust the Hounds so that there is 130mm of slack (measuring back towards the mast) on both sides of the yacht. This measurement of 130mm is taken 1200mm up from the chainplate, and measured from the TM shroud to the Hound shroud.

4. Pump the mast up approximately 50mm from bottom of travel so that hounds measure approximately 20 on Loos gauge. Adjust the Hounds Turnbuckles so that mast is in column between tip and deck. Pump ram up to 60mm from bottom of travel. Hounds should now measure 30 while TM's should now measure 29. Ensure D1's and GN's are slack.



5. Hand tighten D1's. Release ram approximately 20mm. Tighten D1 turnbuckles 10 full turns each. When the Ram is pumped back up, the D1 may need to be adjusted to ensure the mast is in column between the tip and deck.

6. Pump rig up to 60mm again. Shrouds should measure as follows.

   TM's = 29/30
   Hounds = 30/31
   D1's = 22/23
   Forestay = 26/27

7. Hand tighten GN wires ensuring that the mast is correctly aligned fore/aft. Lower ram 5mm. Tighten gooseneck wires 3 full turns each and then pump mast back to 60mm. Assuming that mast is in column, lock off all turnbuckles using locking nuts.

Final Rigging

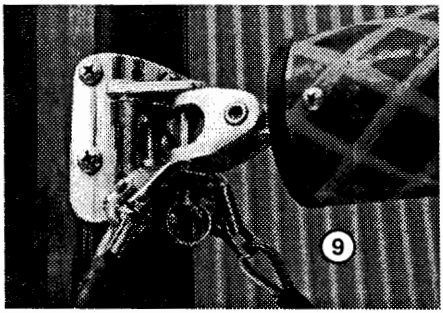
1. Fit boom to Gooseneck fitting at mast as per diagram 9.

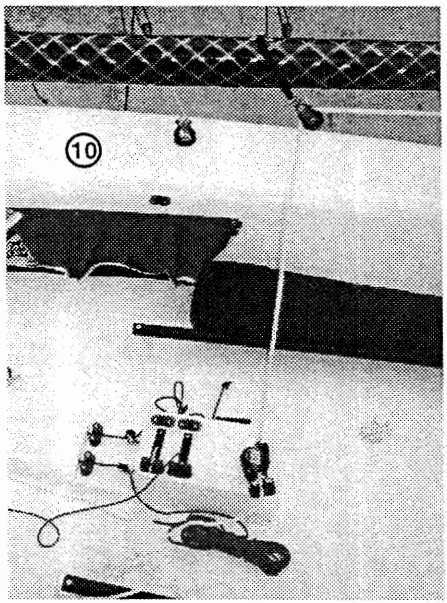
2. Run Mainsheet as per diagrams 10 and 11.

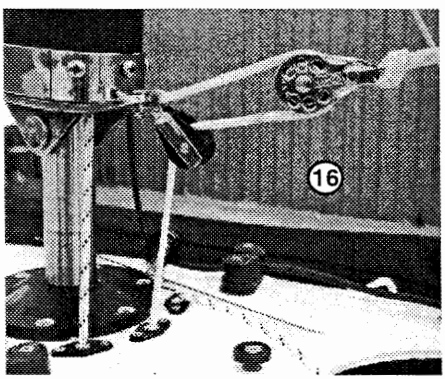
3. Run continuous spinnaker sheet with tapered tails returning to portside of mast for a port bear away set or visa versa for a starboard set. Also, bring halyard back to plastic clip with sheets. See diagram 12. Please note that we recommend you set and retrieve the spinnaker in between the GN's and the D1's.

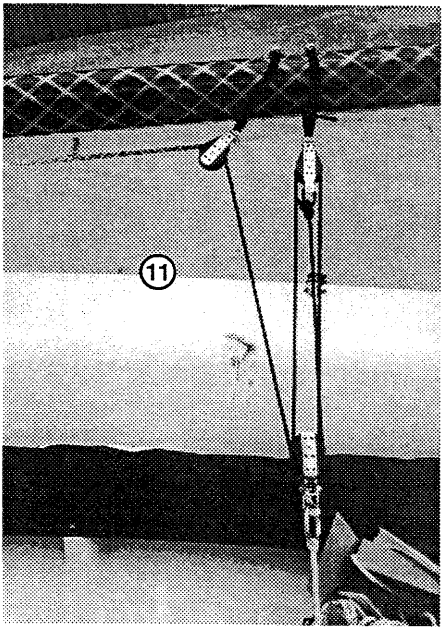
4. Attach trapeze lines to shockcord retaining lines as shown in diagrams 13 and 14.

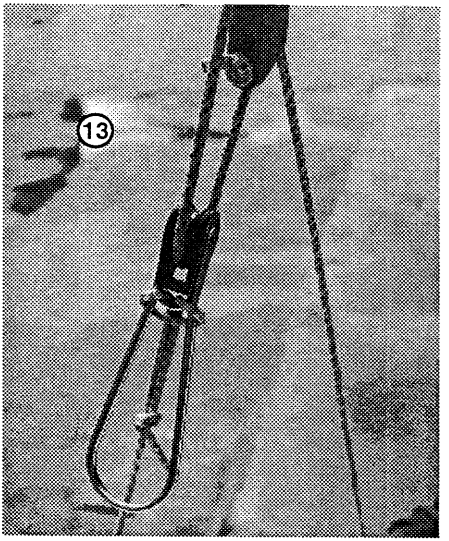
5. Undo shackle in Spectra vang strop on boom and run the strop through the eye splice in the spectra core vang rope. Then run the vang strop around the boom for two full turns as shown in diagram 15. Shackle the strop as per diagram. Shackle the vang turning block and the dead end for 2:1 vang strop to mast base as per diagram 16.

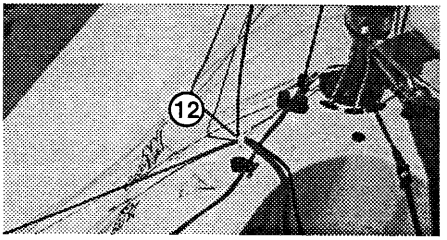


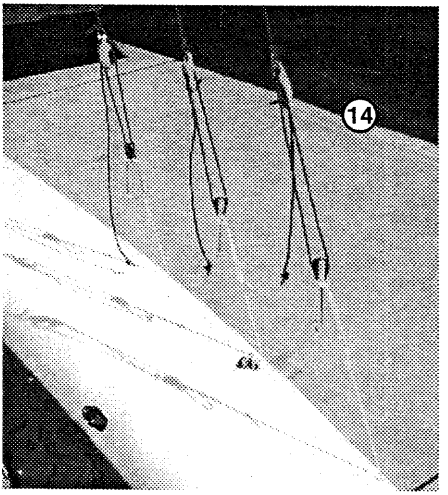


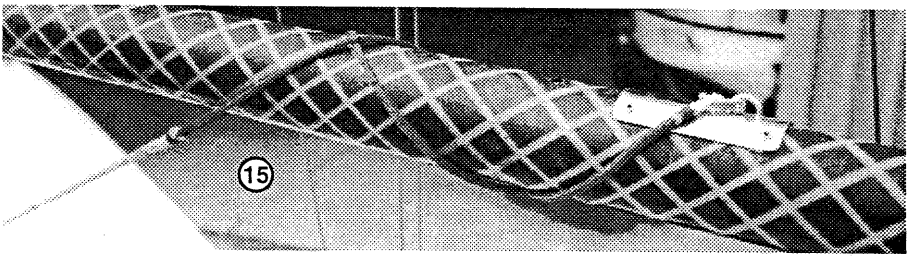



11

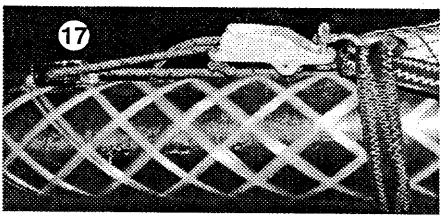

13


12

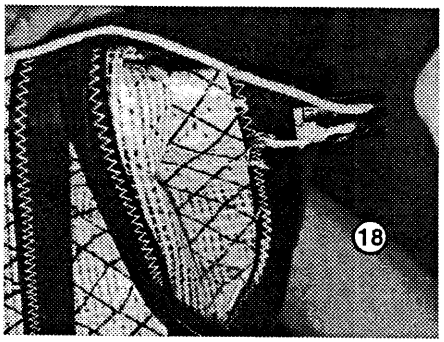

14


15

Mainsail



1. Remove from bag and place clew band over outboard end of boom as shown. Shackle tack to tack strop on mast and shackle outhaul system to clew as per diagram 17.



2. Unroll Mainsail and tighten full length battens as tight as possible using the knot shown in diagram 18.

3. When it is time to hoist the main, ensure there are no twists in the 2:1 main halyard prior to attachment to headboard. Pass headboard through sailfeeder prior to feeding it into the sail track. Hoist carefully while yacht is head to wind. After main is hoisted to maximum height, run the cunningham line through the tack cringle and tie it off with a bowline to the gooseneck fitting. Ensure the cunningham control is fully eased prior to the knot being tied.

Jib

1. Remove from bag and shackle tack to tack shackle on stemhead fitting. Shackle the clew to the Jib clew block ensuring no twists in the jib sheets.

2. Unroll sail. Hank sail onto forestay and shackle 2:1 Jib Halyard to head ensuring no twists in halyards.

3. When it is time to hoist the Jib, ensure that all hanks are still attached.

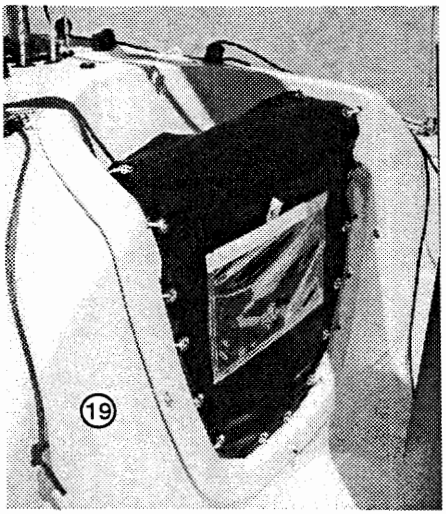
Spinnaker

1. Place spinnaker hatchway into position as shown in diagram 19. This hatchway is lockable by placing a padlock through the hole in the bottom stainless steel fitting.

2. Remove spinnaker from bag and pack it firmly into the spinnaker pouch

ensuring no twists.

3. Attach halyard and sheets to head and clew respectively. Then retrieve tackline from bow pole end and attach it to the tack over the top of both spinnaker sheets. This will ensure that when the sail is set, the windward ("lazy") sheet passes between the spinnaker tack and the forestay, rather than running around the bow pole extension.



Launching

By Crane:-

1. Shackle Jib Halyard to stemhead fitting on bow. Lower ram to bottom of travel. Pull on Jib Halyard very firmly which rakes mast forward and moves the mast away from the crane arm.

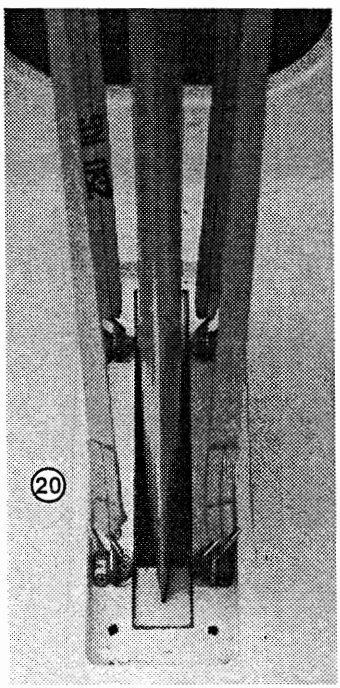
2. Place yacht on trailer underneath crane.

3. Tie trapeze lines forward to shrouds on both sides.

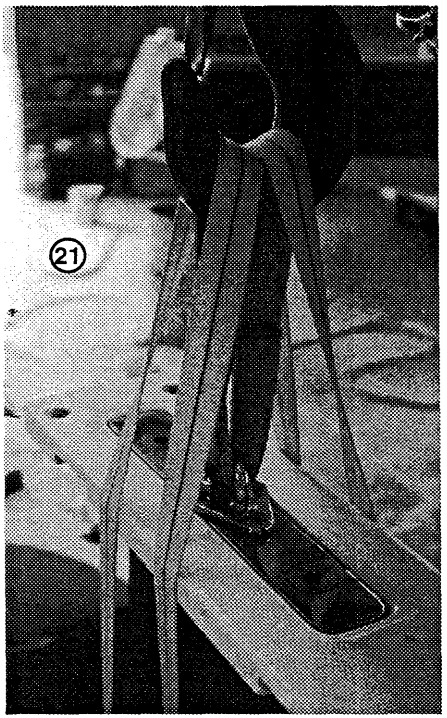
4. Lower Hook to within 75mm of keel lift padeye. Run main lifting sling and hull lifting slings as per diagrams 20 and 21. Place all slings onto lifting hook.

5. Ensure all loose items are as far forward in the yacht as possible. A handy tip is to place the rudder (in its bag) onto the foredeck.

6. Raise yacht. If the yacht is too stern heavy, place more weight forward. When yacht is in the water, lower the keel fin to within 300mm of it's final position. One person should step aboard yacht and remove the



hull slings ensuring the folding padeyes are folded down (inboard). While ensuring no equipment is in the keel well, lower the keel fin top plate to its final position. Remove the main lifting sling and manoeuvre the crane away from the yacht.



7. Screw the 4 keel lockdown bolts into position with the longer bolts to the front, using the Allen Key provided. Do not overtighten.

8. Install rudder and tiller.

9. To remove yacht from the water, simply reverse these steps.

At Ramp:-

1. Manoeuvre yacht on trailer to top of ramp. Install davit post and lift keel up at least 25mm. Remove webbing cable and shackle from towing eye on stem. Attach bow and stern lines.

2. Lower trailer down ramp so that yacht floats. Manoeuvre yacht carefully away from trailer ensuring that keel bulb does not touch aft hull support.

3. Remove trailer from water.

4. Lower keel, remove davit post and install 4 keel lockdown bolts with long bolts to the front. Do not overtighten.

5. Install rudder and tiller.

6. To retrieve yacht from water via a trailer ramp, simply reverse the steps.

Some other Hints

1. HYDRAULIC RAM: The ram is factory set to a pressure, not a height. Do not lower the ram while sailing. With sail loadings, the ram will not return to the same height.

2. CREW WEIGHT: The class rules dictate a maximum trapezing weight of 230kgs. While sailing in mixed fleets or cruising, do not exceed 260kg on trapeze. This will overload the designed rigging loads.

   While sailing in winds in excess of 12-15 knots, do not sail with more than 430kg on board the yacht. The Magic 25 is designed to plane. With too much crew weight, the yacht cannot plane and the righting moment is greatly increased, therefore loading up the rigging beyond design limits.