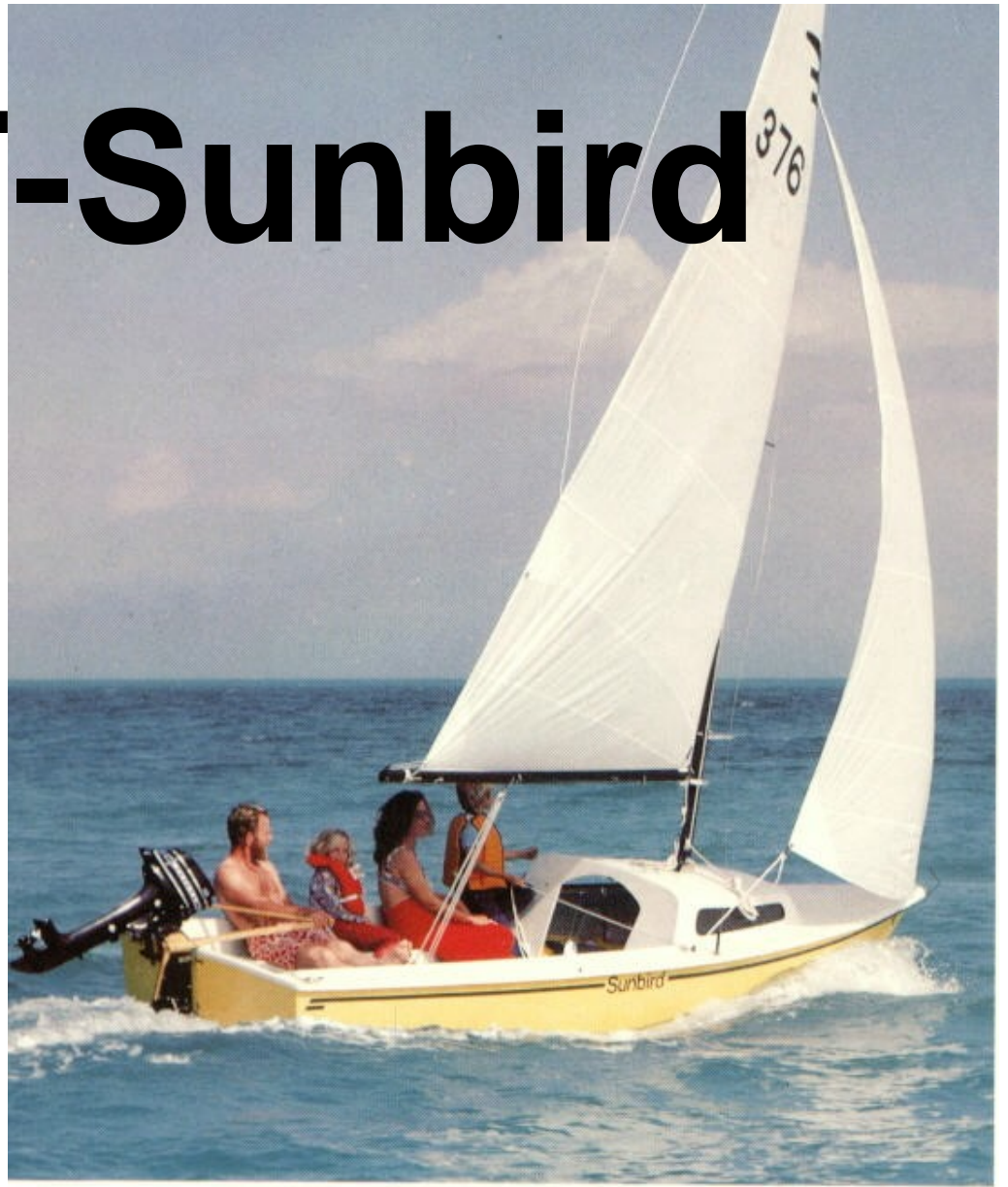


# AMF-Sunbird



## Owner's Manual



## I. INTRODUCTION

Thank you for buying a new AMF Alcort Sunbird\* daysailer. It is our hope that you will take as much pride in owning your new boat as we took in building her. This Owner's Manual is written to teach you a few things about your Sunbird which you will need to know before you take your first sail.


If you are a new sailor, this Manual alone will **not** provide sufficient information to make you a competent sailor. In the event that you are new to sailing, seek out your dealer or a knowledgeable friend and ask them to recommend some courses or books about the safe handling of small sailboats. You may want to call the Coast Guard Auxiliary station nearest your home. Their Power Squadron offers courses in seamanship and safe small boat handling which are free to the public.

\*Sunbird is a Trademark of AMF Incorporated.

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Beaufort Wind Velocity Scale,  
often used in weather maps and broadcasts.

BEAUFORT WIND VELOCITY SCALE		
(Beaufort is pronounced bö 'fert)		
<b>Force 1</b> 0-3 Knots Light air Ripples		<b>Force 2</b> 4-6 Knots Light breeze Small wavelets
<b>Force 3</b> 7-10 Knots Gentle breeze Large wavelets		<b>Force 4</b> 11-16 Knots Moderate breeze Small waves
<b>Force 5</b> <sup>+</sup> 17-21 Knots Fresh breeze Whitecaps		<b>Force 6</b> 22-27 Knots Strong breeze Large waves
<b>Force 7</b> 28-33 Knots Moderate gale Spindrift		<b>Force 5</b> <sup>+</sup> 17-21 Knots Fresh breeze Whitecaps
<b>Force 8</b> 34-40 Knots Fresh gale High waves		<b>Force 6</b> 22-27 Knots Strong breeze Large waves
<b>Force 9</b> 41-47 Knots Strong gale Higher waves		<b>Force 7</b> 28-33 Knots Moderate gale Spindrift
<b>Force 10</b> 48-55 Knots Whole gale Very big waves		<b>Force 8</b> 34-40 Knots Fresh gale High waves
<b>Force 11</b> 56-66 Knots Storm Extra big seas		<b>Force 9</b> 41-47 Knots Strong gale Higher waves
<b>Force 12</b> over 66 Knots Hurricane Huge seas		<b>Force 10</b> 48-55 Knots Whole gale Very big waves
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<b>Force 12</b> over 66 Knots Hurricane Huge seas		<b>Force 12</b> over 66 Knots Hurricane Huge seas
<b>Force 12</b> over 66 Knots Hurricane Huge seas		

## II. TAKE HEED!

There are certain key sections in this Manual which contain warnings issued for the safety of you, your passengers and your crew. Therefore, read the whole Manual carefully. A brief summary follows:

- 1) **Always** look for high tension wires before raising your mast. Accidental contact between the mast and such wires could divert a lethal dose of current down the spars and rigging.
- 2) **Do not allow** passengers and particularly children to ride in the cuddy while under sail.
- 3) **Always** carry an anchor, a fog horn or whistle and at least one Coast Guard approved life jacket for each passenger. It is strongly advised that **passengers be urged to wear their personal flotation devices at all times.**
- 4) **Never** venture out of sight of land or sail at night or where fog is frequent without proper charts and navigational equipment.
- 5) If, for any reason, your Sunbird should become capsized on the water and you and your crew are unable to right her, **do not swim away.** It is considered far wiser to stay with your boat for three reasons:



- 1) The boat will float indefinitely.
  - 2) The boat is more easily spotted by rescue craft than are swimmers.
  - 3) The land is **always** farther away than it looks, especially when swimming against rough water or current.
- 6) When boarding the Sunbird, step onto the cockpit seat (or directly onto the cockpit sole if possible). **Do not stand or walk on the hiking decks.** It is recommended that you wear sneakers or deck shoes.

### **III. RIGGING YOUR SUNBIRD**

#### **GETTING TO KNOW YOUR SUNBIRD**

Like any new boat, there are certain components and hardware items on the Sunbird which may have been pre-rigged and assembled by the dealer when you took delivery. These items should all be re-checked by you to familiarize yourself with their function. If your Sunbird was delivered with the mast rigged, lower it (see Section on Raising the Mast and follow the procedure in reverse) at the first opportunity, and check the spreaders, toggles, shackle pins and circle clips aloft for proper installation. Finally, tape them with weather-proof tape as a precaution against corrosion and snagging sails.

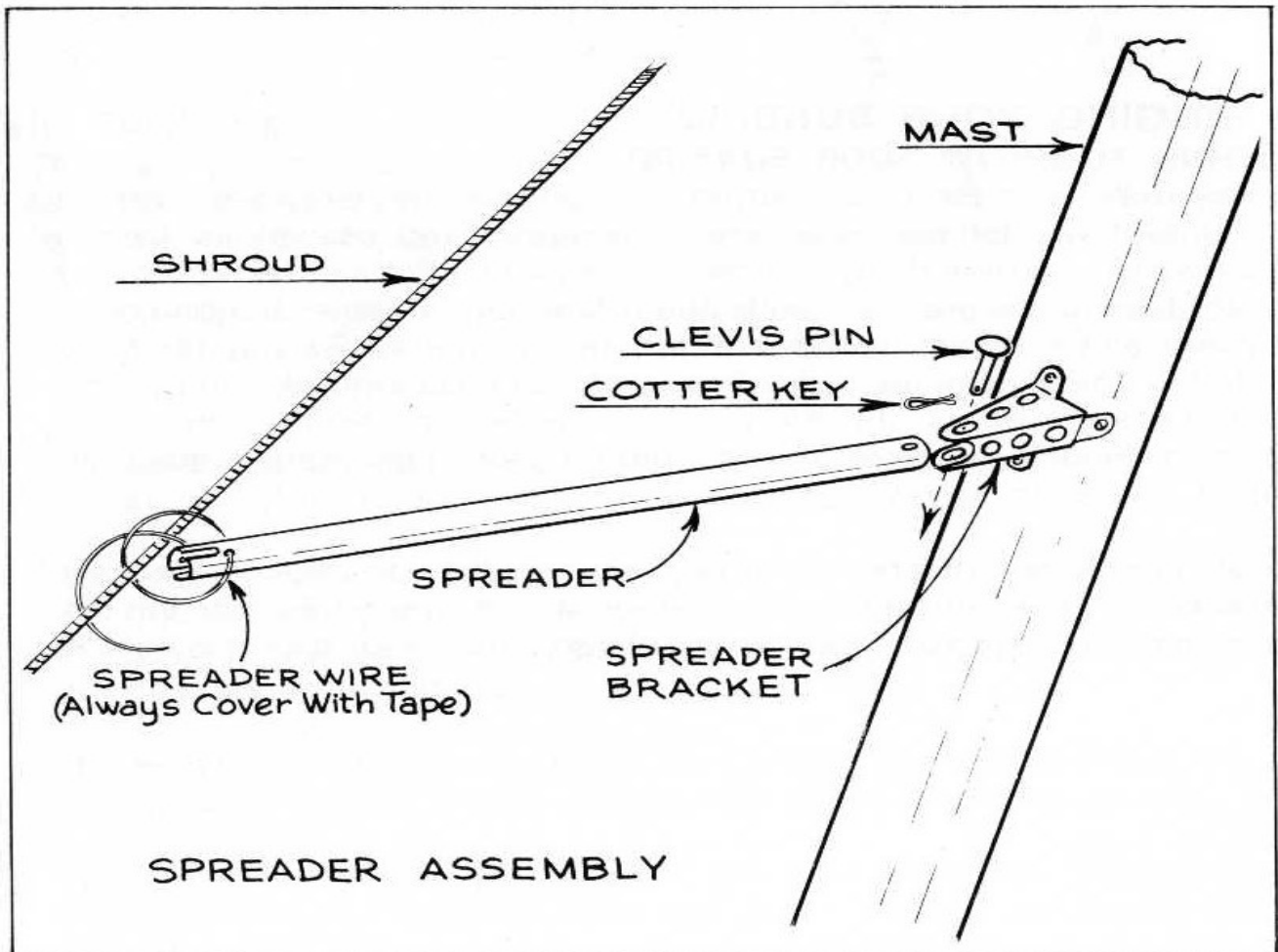
If your Sunbird is delivered un-rigged, you will have to unpack the mast and boom and lay out all the guy wires and halyards. Except for the spreaders, everything you need to assemble in order to raise the mast is

already pre-rigged. The tangs and shackles, clevis pins and cotter pins should be in place but you should check that they are turned down and/or spread. You should tape them to prevent the accidental snagging of sails and halyards.

### SPREADER PREPARATION

Each spreader has an inboard and an outboard end (diagram 1). The inboard ends have a single hole drilled through them and the outboard ends have a slot and a hole.

The spreader brackets have three alignment holes. The hole in the inboard end of each spreader should be aligned with the **outermost** hole of its bracket and pinned with the clevis pin provided. Install the clevis pin with the head up and the cotter key down. Do not be concerned that the spreader swivels freely in its bracket.



When you have laid out the port and starboard shrouds, insert each shroud into its slot in the outboard end of its spreader. Cut the spreader wire in half and use each half to secure each shroud within its slot, running each wire through the outer spreader hole and winding it around the shroud to keep it within the slot. Finally, criss-cross several wraps of water-proof tape around the outboard end of the spreader and the shroud to protect the wire from unwinding and to prevent chafe.

The spreaders should be left in place when the mast is lowered (with the shrouds wired and taped in place).

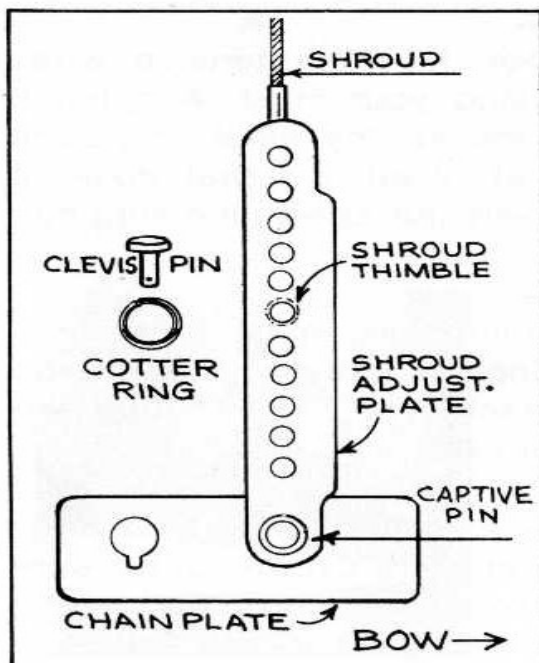
### PREPARING THE MAST FOR RAISING (ON LAND)



2

Put your paddle/mast support into the rudder gudgeons and lay your mast in the notch (diagram 2), with the mast butt tabernacle pin inserted in the tabernacle slot.

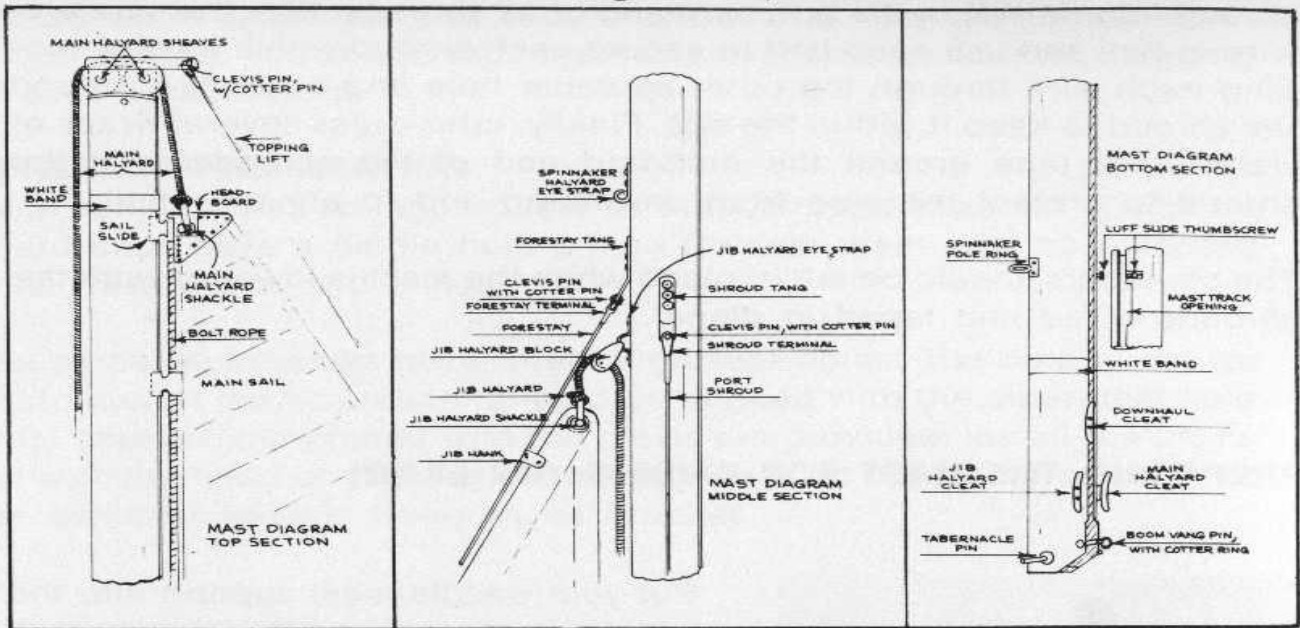
Lay out the shrouds port and starboard and attach each to its shroud adjustment plate with the clevis pin provided (diagram 3). Then attach each shroud adjustment plate to the forward hole of its chainplate making sure that the captive pin is twisted to its locked position.



3

Lay out the forestay, (be sure that the turnbuckle is backed off to 3/4 position), the halyards and the topping lift so that they will hang free as the mast is raised. Check all tangs, clevis pins, cotter keys, toggles and sheeves aloft for wear, kinks and corrosion before raising the mast. Tape all connections wherever possible.

**RAISING THE MAST — See Diagrams 4, 5 and 5a for mast details**



4

5

5A

Be sure that the halyards are free to hang within reach when the mast is raised and that the shrouds are attached. When raising the mast

on the trailer, be sure that the boat is strapped down and that the trailer is prevented from tipping back.



6

**STEP 1 —**

**Always** look for high tension wires before raising your mast. Accidental contact between the mast and such wires could divert a lethal dose of current down the spars and rigging.



7

**STEP 2 —**

While holding the mast with both hands, keeping forward pressure on the tabernacle pin, begin lifting the mast (photo 6).

**STEP 3 —**

When the mast is overhead, be sure the tabernacle pin is dropping into the tabernacle slot and that you have sufficient control to keep the mast from moving left or right (photo 7).



**STEP 4 —**

Photographs 8, 9 and 10 should be performed as a continuous motion. Heave the mast to the full upright position in one strong push. **DON'T WORRY ABOUT THE MAST TIPPING OVER FORWARD** because the shrouds will prevent this. The primary concern is that the mast moves to the full forward position without tipping sideways. Once the mast is upright the shrouds will prevent side to side motion also.

**STEP 5 —**

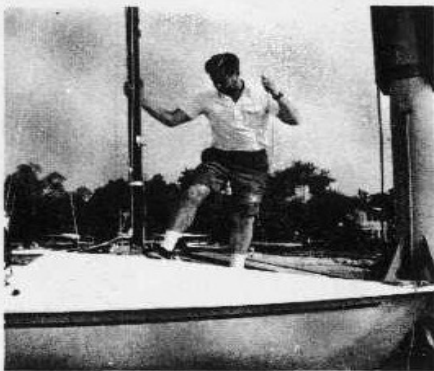
While holding forward tension on the mast, attach the forestay to the bow fitting, using the **forward hole**. Once this attachment is made, the mast is secure. (photos 11, 12, 13, 14.)



8

9

10



11



12



13



14

## TUNING THE RIG

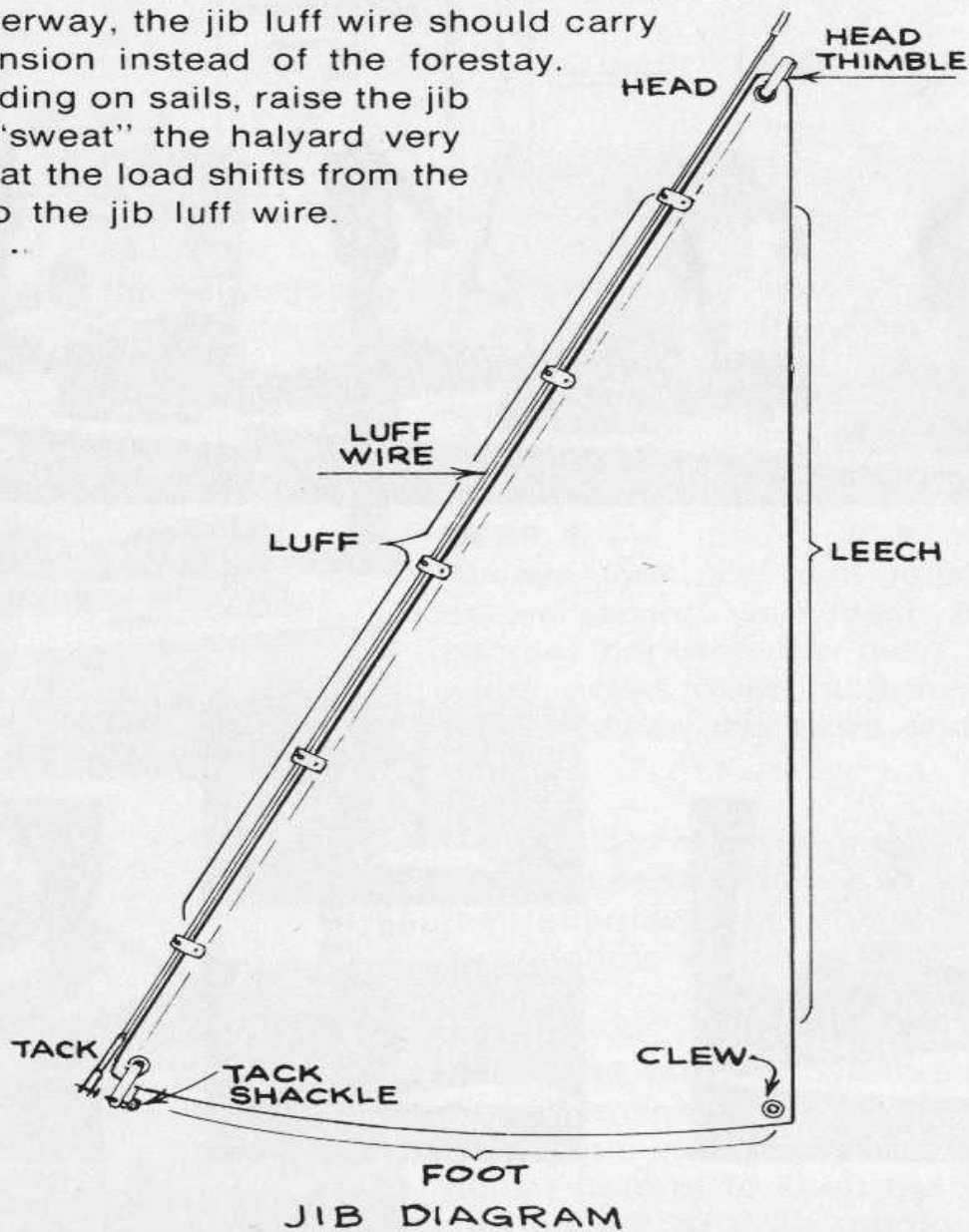
When the mast is secured in the upright position, you will want to adjust the rig for proper shroud tension. The shrouds and forestay will stretch as you use the Sunbird so you may find that you will have to adjust the forestay turnbuckle and use different holes for the shroud adjustment plates as time passes.

Here's what you are looking for: The mast, when properly tuned, with the sails off, should be approximately perpendicular to the waterline.

The shrouds should be tight enough so that they are quite taut at all times. You will find that when sailing on a tack, the leeward shroud will lose tension. This is normal.

When underway, the jib luff wire should carry the rig tension instead of the forestay.

When bending on sails, raise the jib first and "sweat" the halyard very tight so that the load shifts from the forestay to the jib luff wire.



## BENDING ON THE JIB (diagram 15)

### STEP 1 —

Shackle the jib tack to the bow fitting using the second hole aft. (diagram 16)

### STEP 2 —

Attach the jib hanks onto the forestay starting at the bottom and working up.

### STEP 3 —

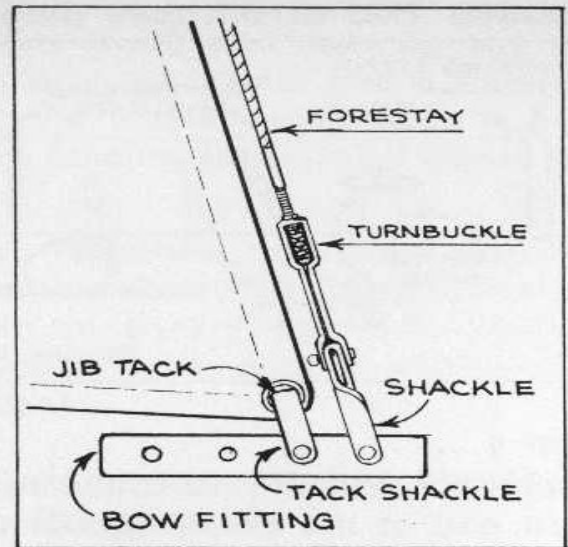
Shackle the jib halyard shackle to the head grommet. (photo 17)

### STEP 4 —

Tie the jib sheet to the jib clew by a girth hitch knot at a point equidistant to the sheet ends. (photo 18)

### STEP 5 —

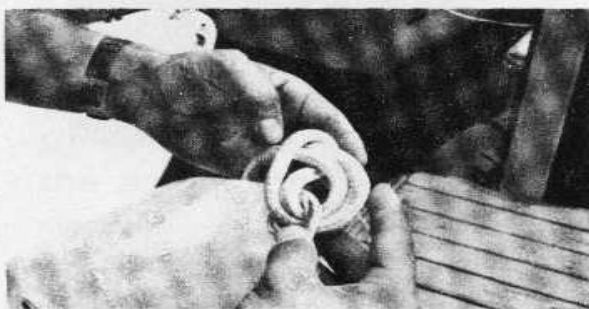
Raise the jib and cleat it to the port mast cleat. (The starboard cleat is used for the main halyard because, when reefing, you will be working on the starboard side of the boom.) Now lead each sheet through its fairlead to its cleat. Put a Figure 8 stop knot in the end of each sheet. (photo 19, Diagram 39A)



16



17

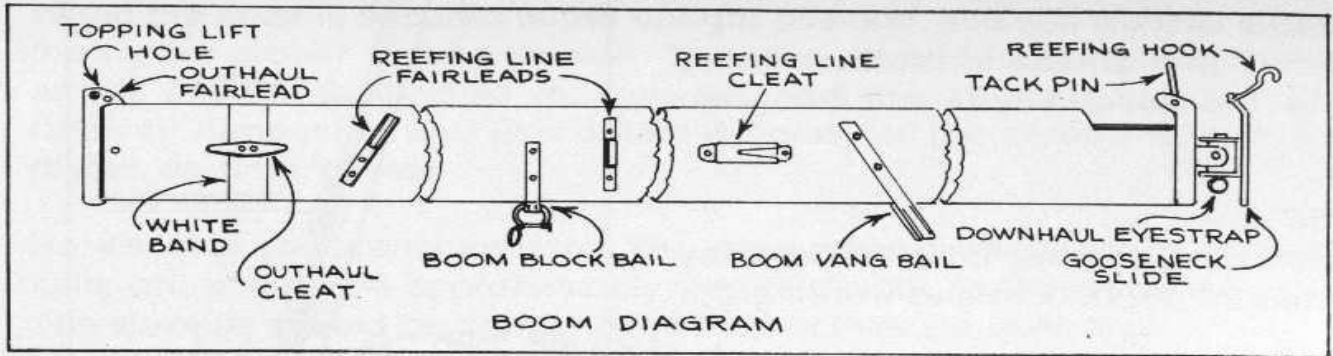


18



19

## RIGGING THE BOOM (see diagram 20)



20

### STEP 1 —

Shackle the topping lift to the **rear** hole in the boom fitting at the out-board end of the boom. (photo 21)

### STEP 2 —

Lift the boom and push it aft until the topping lift is supporting the boom and the gooseneck slide is adjacent to the mast.

### STEP 3 —

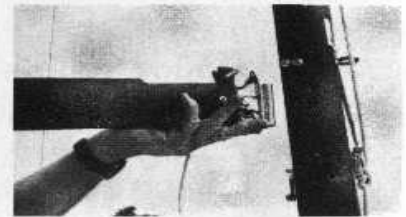
Place the gooseneck slide in the mast track opening and slide it down the track until it comes to rest. (photos 22, 23)



21



22



23



24

### STEP 4 —

Reeve the mainsheet as follows:

- A) Lead the mainsheet directly down from the boom and through the upper sheave on the mainsheet cleat fitting from fore to aft. (photo 24)
- B) Lead the sheet back up to and through the boom block from **aft to fore**. (photo 25)



25



26



C) Lead the sheet back down to the cleat fitting and run it under the lower sheeve from **fore** to **aft** and then up and out through the fairlead over the cams. (Tie a Figure-8 knot in the end of the mainsheet to keep it from accidentally coming unreeved.) (photo 26)

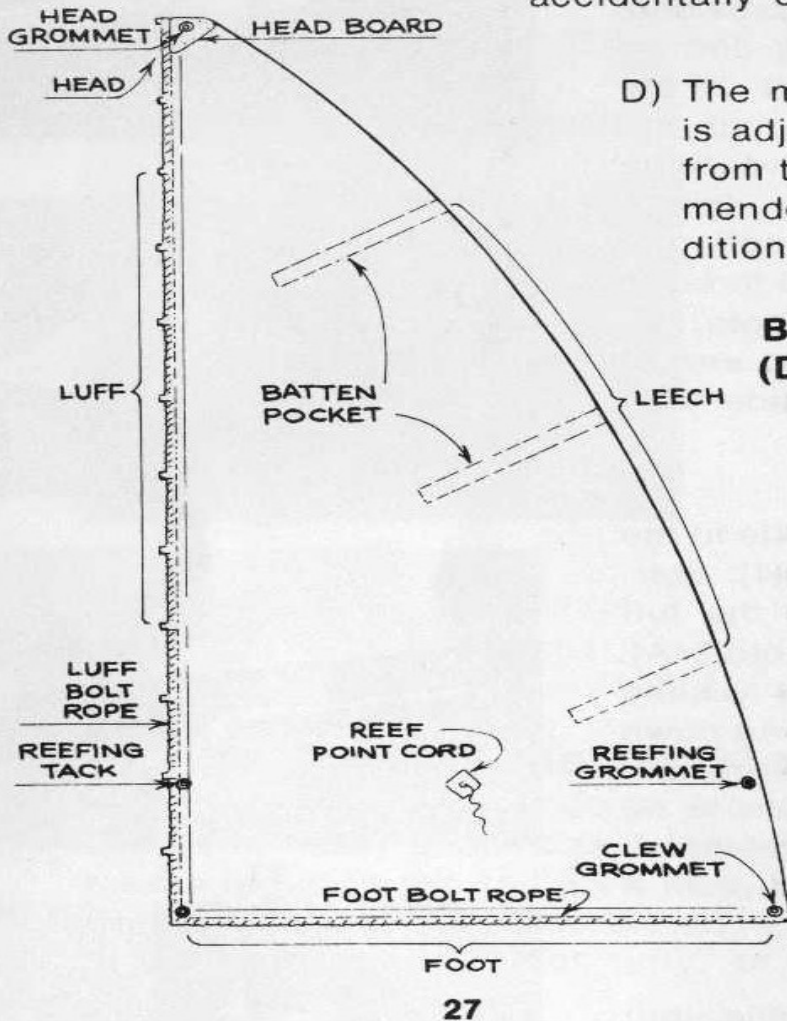
D) The mainsheet cam cleat platform is adjustable. The 2nd position up from the cockpit sole is the recommended position for all sailing conditions.

### BENDING ON THE MAINSAIL (Diagram 27)

**STEP 1 —**  
Insert the battens.

**STEP 2 —**  
Feed the clew of the sail into the boom track (from the forward end) and run the whole length of the foot bolt rope out to the aft end of the boom. (photo 28)

**STEP 3 —**  
Fasten the tack pin through the tack. (photo 29)



**STEP 4 —**  
Take up tension on the outhaul line, leading it from the clew to the outhaul fairlead and back to the outhaul cleat. The foot should be tightened to the point where the clew almost reaches the white band on the boom. (photo 30)



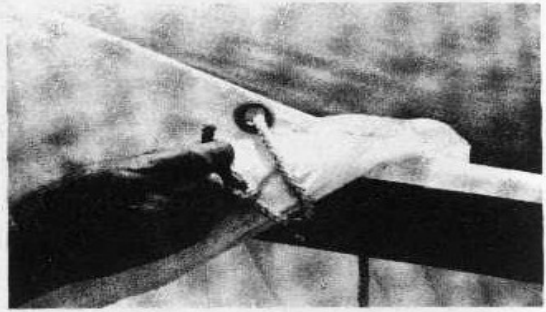
28

29

30

**STEP 5 —**

At this time the jiffy reefing line should be rigged. It should be dead ended with a Figure-8 knot on the port side of the boom at the eyestraps provided. (photo 31). Lead the running end up through the reefing grommet in the mainsail, back down and through the fairlead provided at the aft end of the boom on the starboard side. (photo 32). Lead it forward through the reefing fairleads provided and through the reefing line jam cleat. (photo 33). Tie a Figure-8 knot in the free end of the line to keep it from accidentally coming unreeved.



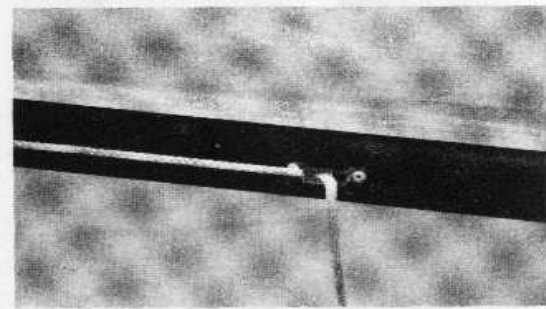
31



32

**STEP 6 —**

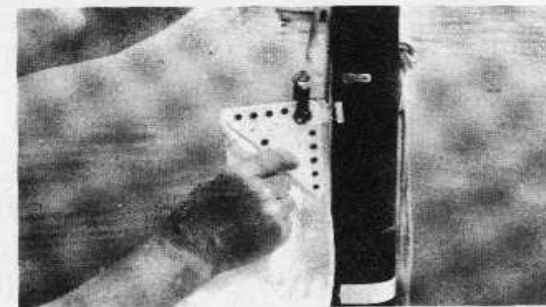
Attach the main halyard shackle to the mainsail headboard. (photo 34). Starting at the headboard, feed the luff slides into the mast track. (photo 34A). Tighten the knurled set screw to keep the lower luff slides from sliding down the track. Be sure that the mainsheet is uncleated to allow the main to be raised all the way to the white headband. Raise the main sail and cleat it to the starboard mast cleat.



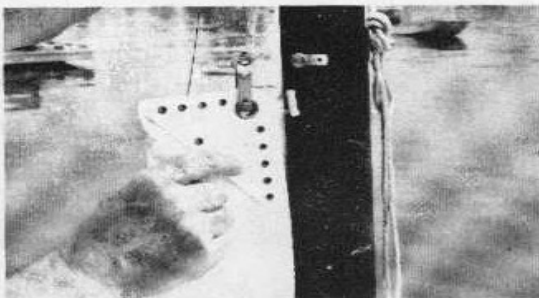
33

**STEP 7 —**

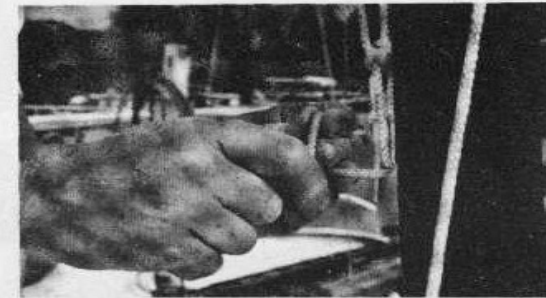
Tighten the boom downhaul line until the tack grommet is at the white line on the mast and the sail luff tension is taut. Secure the downhaul line to the cleat on the mast track. (See Diagram 5)



34



34A



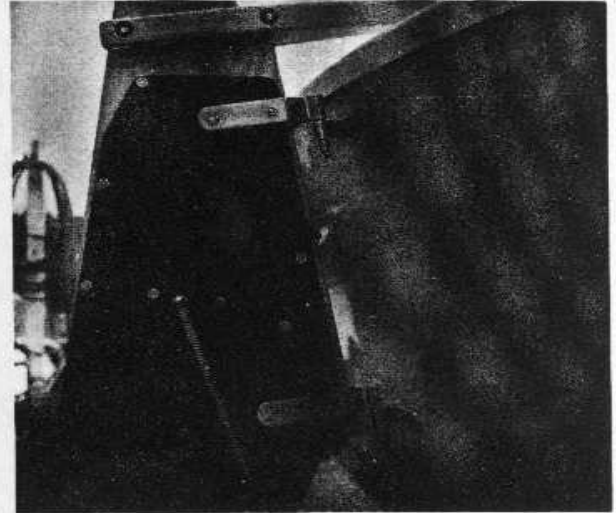
34B

## **RUDDER MOUNTING**

When mounting the rudder, be sure that the pintles and gudgeons snap tight and that the rudder lock is swiveled into position. (photos 35 and 36)



**35**

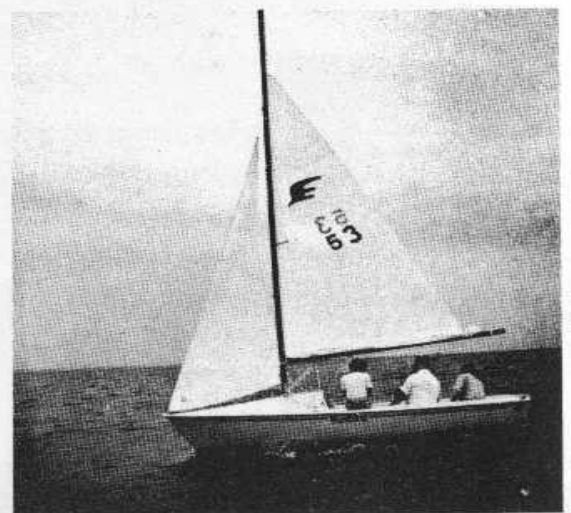


**36**

## **WHY THE SUNBIRD HAS "JIFFY" REEFING**

Should you ever wish to go for a sail in gusty winds or should you get caught in heavy conditions it is advisable to "reef" the mainsail. This means reducing the sail area. This is the most conservative way to sail when winds are unpredictable and strong enough to cause a capsize. The Sunbird is rigged for "jiffy" or "slab" reefing. (photo 36A)

With "jiffy" reefing you can reduce your mainsail area by 30% and thereby make the Sunbird less susceptible to "heeling" to the wind.



**36A**



## SIX STEPS TO "JIFFY" REEFING WHILE UNDERWAY

### STEP 1 —

Bring the Sunbird head to wind and come dead in the water. Check to make sure that the main topping lift is attached. Slack the mainsheet and jib sheet.

### STEP 2 —

Lower the main halyard carefully until the reefing tack comes within reach of the reefing hook. (Be sure the knurled set screw to keep the mainsail slides from falling out of the track while lowering the sail.)

### STEP 3 —

Hook the reefing tack to the reefing hook. (photo 37).

### STEP 4 —

Take up the slack in the main halyard and cleat it.

### STEP 5 —

Take up the jiffy reefing line until the reefing cringle is snugged down tight against the top of the boom and cleat it at the reefing cleat. (photo 38). Coil the reefing line and tuck it under the tight part of the reefing line.

### STEP 6 —

Roll up the loose folds of reefed mainsail and tie them up with the reef point cords on the sail around and under the boom. (photo 39).

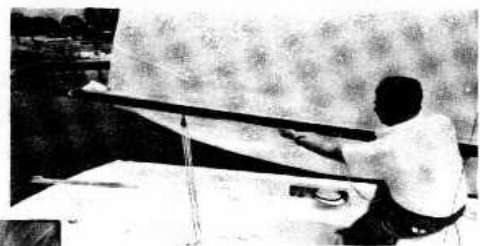
**The jiffy reefing line should always be rigged while sailing.** Leave it just slack enough that it does not affect the leech when sailing unreefed.



37



39



38



#### **IV. USING AN OUTBOARD MOTOR**

An outboard motor (maximum horsepower, 6 h.p.) with a long shaft may be mounted on the Sunbird transom. It is recommended that rubber pads or aluminum plates be placed under the motor clamps to prevent crushing the gelcoat or bruising the fiberglass. The stern is reinforced to accept the strains caused by running under power.

When using an outboard motor, remove the rudder and place it in the cuddy. Steer with the motor, not with the rudder. When sailing with the motor mounted and swiveled up over the transom, be sure that the rudder is not inhibited from swinging through its full radius.

#### **V. CARE AND MAINTENANCE**

##### **CENTERBOARD REMOVAL**

To remove your centerboard, unscrew the screws in the centerboard retaining spring, remove the spring and pivot the board up and off the centerboard pin. Reverse this procedure to reinstall the board using a marine sealant in the screw holes before you seat them. To re-lead the centerboard pennant, feed a thin line through the pennant hole and use it as a messenger line to retrieve the centerboard pennant. Keep a Figure-8 knot in the centerboard pennant at all times to prevent it from accidentally pulling through this hole.

##### **CENTERBOARD "PUSH-ROD"**

The centerboard "push-rod" is stored in the starboard cockpit cubby hole. If floating debris, seaweed or other flotsam jam in the trunk, the centerboard can always be mechanically lowered with the centerboard push-rod. Insert this dowel in the pennant hole and push down. This action will dislodge the centerboard and its own weight will carry it to the full down position.

##### **CARE OF YOUR DECK AND HULL**

The Sunbird deck and hull are fiberglass and are resistant to all forms of corrosion and marine borers. Keep their gelcoat surfaces clean with automobile cleanser (or rubbing compound for particularly hard to remove stains). Certain rusts and indelible ink stains can be removed with nail polish remover or acetone. To polish your hull and restore the gloss to the gelcoat after heavy exposure to the sun, a rubbing compound and an auto wax will do very well. If you continually leave your hull in the water you may wish to apply an anti-fouling bottom paint to prevent the accumulation of algae and other marine growth.

Always hose down the hull and deck (and the centerboard slot if possible) after use in salt water in order to wash off the salt from the wood parts, lines, stainless steel fittings and rivets.

### **CARE OF YOUR SPARS**

Your mast and boom are anodized aluminum and made to last for years. You should hose these down whenever possible. Scratches in the black anodized surface can usually be buffed off with a mild abrasive. Always check all the rivets and mast and boom fittings periodically to look for wear, corrosion and fatigue.

### **CARE OF YOUR WOOD PARTS**

To maintain your rudder, tiller and hatch board, hose them down periodically and varnish wherever the finish needs a touch-up. Hose the salt off all wood parts whenever possible and check the seating of the wood screws and the tightness of the nuts and bolts from time to time.

### **CARE OF YOUR SAILS**

Your main and jib are woven from resin impregnated dacron. They should last you for many seasons if properly cared for.

Always wash salt and dirt from the sails and shake off loose water before bagging them. This prevents the formation of mildew. Dacron will not rot so the sails may be bagged for **short** periods of time while wet.

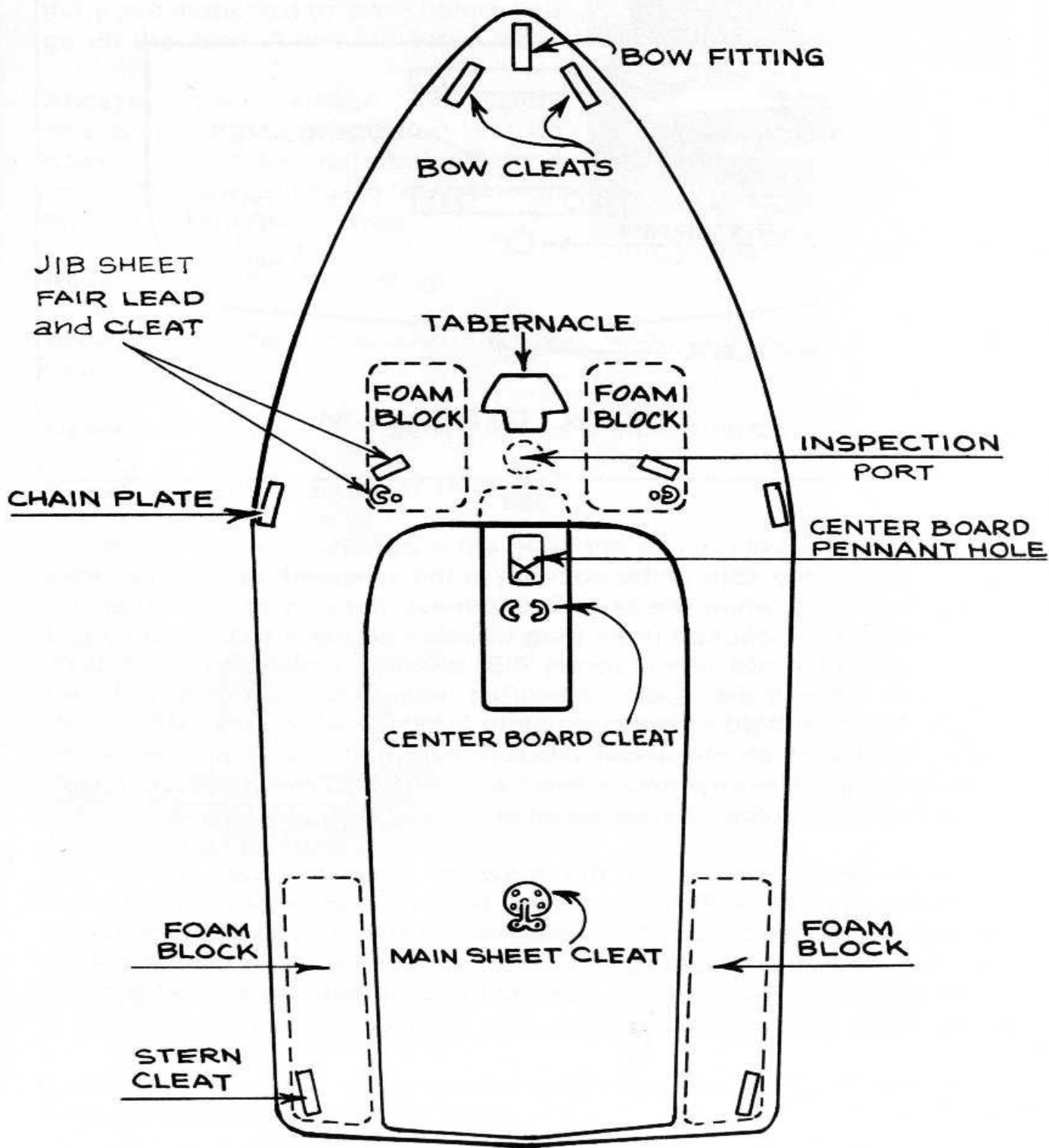
Your jib and mainsail can be cleaned with a mild detergent but for major stains a local sailmaker should be consulted. Likewise, for minor tears and thread failures, a local sailmaker should be given the repair job.

The sails should be rolled or "flaked" before bagging. To flake a sail lay out the foot and pile up accordion folds over the foot (20-25 inches wide) back and forth until the whole sail is folded into one long band. Then roll the sail (starting at the luff end) and bag it.

### **FOAM FLOATATION BLOCKS, BILGE INSPECTION PORT**

Your Sunbird has foam blocks bonded to the deck and hull which will make the hull and rig buoyant even if its watertight inner hull void is holed and fills with water. These foam blocks make the hull virtually un-sinkable. (See diagram 39A for the location of the blocks.)

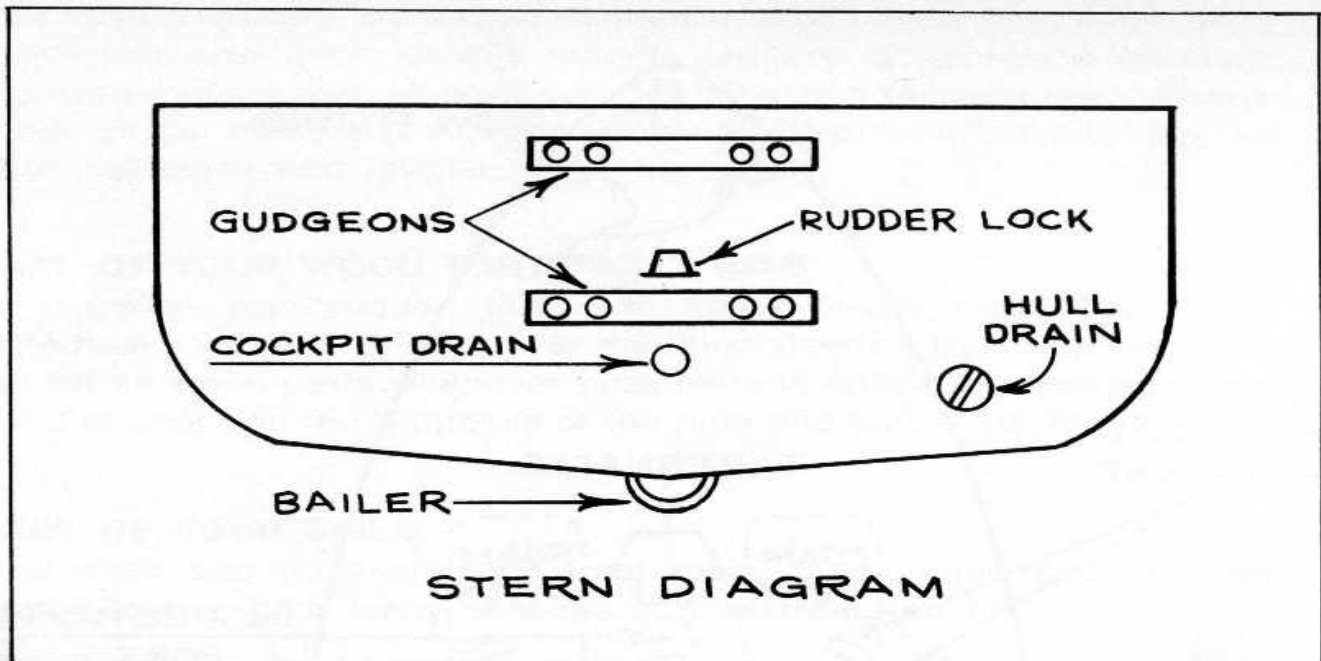
By untwisting the cover of the inspection port counterclockwise, (located on the cuddy sole immediately forward of the centerboard trunk) you may inspect the inner hull or sponge up casual water which may accumulate there. (see diagram 39A).



DECK LAYOUT

39A

## BAILER, COCKPIT DRAIN PLUG, HULL DRAIN PLUG



39B

The bailer (on the sole of the cockpit) in the sump will drain water from the boat cockpit when the boat is underway (moving at more than 1-2 knots). When the cockpit drain plug (located on the inside transom just above the bailer cap, see diagram 39B) is left out, water in the cockpit sump will drain to the level of the drain hole, provided that you do not have so much weight in the stern as to immerse the cockpit drain hole below the waterline. The bailer has a floating-ball check to keep water from backing up into the sump. The bailer cap must be open (unscrewed a few turns) to allow the passage of water through its core.

The hull drain (located on the transom, starboard side, below the waterline, see photo 39B) is provided for the purpose of draining bilge water from the inner hull. You must incline the boat to drain all water from the inner hull since the forefoot of the boat is lower than the stern where the hull drain is located. **Always** have the hull drain plug tightly in place when afloat.



## VI. TRAILERING

If you have never trailed a boat before, there are many tips to learn before you go on the road. A few are listed here.

**Always** double check the safety chains, the lighting hook up, the tie downs and the ball lock before going on the highway (and also the frame-tilt latch if your rig has one).

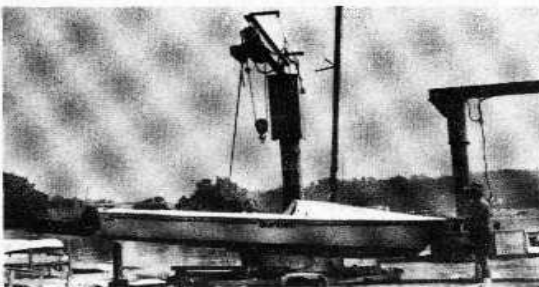
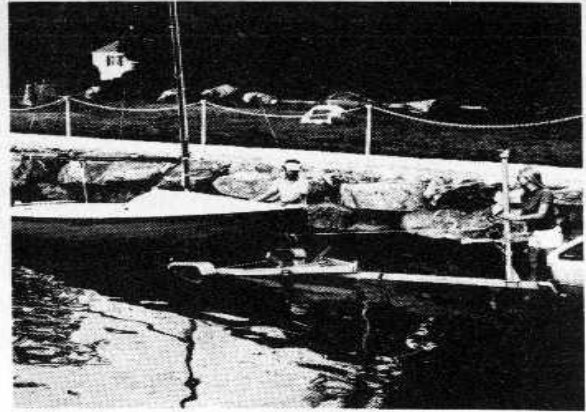
**Never** trail with the mast up!

**Always** keep the centerboard "full up" when launching, retrieving or trailering.

**Never** use the paddle/mast support as a mast support when trailering.

**Never** trail with the rudder in place.

**Check** the grease packings in the bearings on both sides of each wheel at least twice a season.



39C

The Sunbird is designed for easy hoist launching and retrieval. Consult with your dealer for advice on the purchase of a lifting sling and the proper use of a hoist. (photo 39C)

**If** you are unsure of your skills handling your rig on the highway, take your trailer to an empty school parking lot or shopping center and practice backing and turning. Have rear view mirrors installed on your hood if your Sunbird obscures your view of the highway.

**Load** your boat and trailer so that approximately 50 to 100 pounds of tongueweight is on the car hitch.

**Tie down** all loose objects in the boat and tape loose fittings to keep them from causing damage through vibration while underway on the road.

## **SUNBIRDS AND TRAILERS**

It is very important that the Sunbird **rest only on certain parts of its hull** when out of the water, particularly so when trailering. Your dealer is a source of excellent information on this subject.

Serious structural hull damage may result from the incorrect placement of trailer bunks, pads and rollers beneath the Sunbird. You should give your Sunbird hull as much support as possible, using rubber rollers in the centerline and padded bunks against the hull sides. The main load should be taken up by the centerline rollers while the padded bunks should only be used to steady the hull.

A rubber chock should be positioned high on the bow just beneath the flange. Always pull (or winch) your Sunbird up snug against this bow chock to keep the Sunbird from surging forward when braking.

The following recommended set-up is **suggested as a guideline only**. Whatever bunk arrangement you settle on should be reviewed by your dealer.

A Sunbird trailer should have at least four (4) rubber rollers (the aft three rollers should be at least 5" wide) evenly spaced fore and aft under the centerline. There should be at least two pivoting bunks or pads (contact patch at least 2" x 15" or 4" x 10") sloping against the forward hull to keep it from pitching. Two (2) more bunks should support the rear hull longitudinally. They should each be at least 24" x 4" and located just under the turn of the bilge and positioned well aft.

## **VII.**

### **SPECIFICATIONS** **Dimension, Materials and Features**

#### **HULL**

Fiberglass

Length: 15'11"      Beam: 5'9"      Weight (with board): 500 lbs. approx.

Draft — board down — 4'2"      board up — 8"

Flotation — positive, foam blocks

Crew capacity — 6 adults

Bailer — with ball check

Bow eye — stainless steel

Cockpit drain plug and collar

Bilge inspection port ( on cuddy sole)

Bow fitting — (headstay and jib tack)

Chainplates (2) stainless steel (forward hole for shroud plate, aft hole for lifting sling)

Cockpit storage ports

Bow cleats (2) — black epoxy coated aluminum

Stern cleats (2) — black epoxy coated aluminum

Mast tabernacle — stainless steel

Jib sheet cam cleat and snubbing post (2)

Mainsheet block with cam cleat, adjustable with double sheeves

Hiking strap, nylon web with stainless eyestraps (optional)

Hull drain plug — (on transom below waterline)

Non-skid surface on all walking surfaces

#### **RIG**

Sloop rig with "jiffy" reefing hardware

Mast — black anodized aluminum 20'10"

Boom — black anodized aluminum 10'2"

Height above waterline (bridge clearance) 23'4"

Spinnaker pole — aluminum 66" spring-loaded jaws (optional)

Whisker pole; aluminum, telescopic, 4' - 8' (optional)

#### **WOOD PARTS**

Cuddy hatch board — mahogany

Tiller — ash

Tiller extension — ash

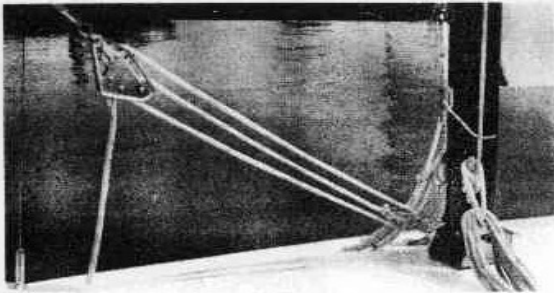
Rudder head — ash

Rudder blade — mahogany





## VIII. OPTIONAL EQUIPMENT

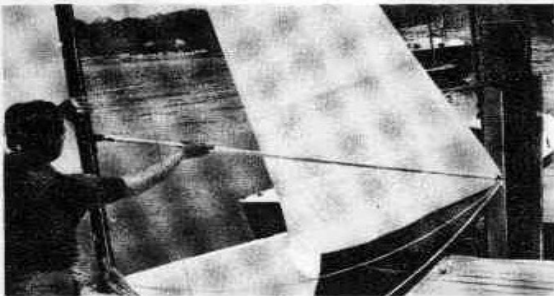


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### **BOOM VANG (see photo 40)**

The optional boom vang is used to keep downward tension on the mainsail when the boom is out over the side and the mainsheet can only exert a sideways force on the boom. The boom vang helps to prevent "twist" in the mainsail leech and will help to prevent downwind rolling and accidental jibes when sailing dead downwind and "by the lee".

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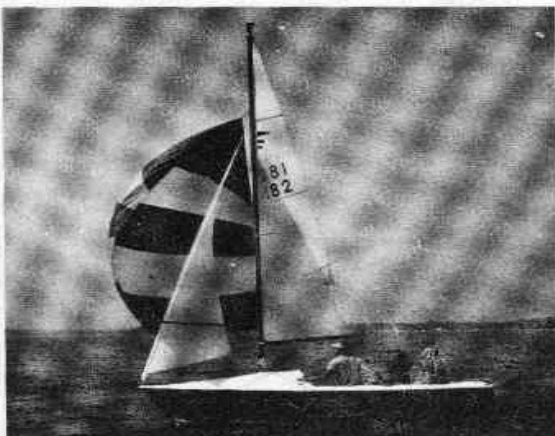


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### **WHISKER POLE (see photo 41)**

The optional whisker pole is used to "wing" the jib on the opposite side from the mainsail when running. When the pole point rests in the jib clew and the pole jaws are attached to the pole ring on the mast, then the jib will be fully presented to the wind and will hold its shape instead of flapping in the backwind of the mainsail.

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### **SPINNAKER GEAR (see photo 42)**

The optional spinnaker kit includes a spinnaker, a spinnaker turtle bag, a spinnaker pole, a spinnaker halyard with swivel block, two spinnaker guy/sheets, two spinnaker guy/sheet cam cleats, a spinnaker topping lift/foreguy assembly, and a spinnaker halyard cleat.

