

From the  
Experts

# Martin 242

Class experts Michael Clements and Don Martin explain how to get to the front of the fleet in this unique Canadian-built one-design keelboat.

1. Forestay should be maximum length: 27' 1 1/4". 2. Block the mast all the way forward in the partners. 3. Use 600 lbs. of tension on upper shrouds, and tighten lowers to keep mast in column. 4. Keep cunningham loose until wind is above 15 knots. 5. The jib halyard runs down the luff of the sail, and is adjusted just above the tack. Mark the sail at the hook to duplicate fast settings.





A 242 blasting downwind off Los Angeles. The relatively large rudder area of this design helps keep the boat under control in heavy-air conditions.

**T**he Martin 242 is a 24-foot, high-performance, family-oriented day racer and weekender. Over 230 have been built since 1981, and there are large fleets on the West Coast of Canada and the U.S. (There are currently 30 in the Los Angeles fleet.) The M242 Class is unique in that it has very rigid class rules to control expense and to ensure even competition. Each boat is equipped with sails cut from the same design, using individual panel templates for each piece of cloth. In order to control costs, sail purchases are limited to one sail per year, and can only be bought from a class-approved sailmaker. The total sail inventory consists of a main, jib, and spinnaker. The roller-furling jib dramatically simplifies boathandling and encourages family crews. With a PHRF handicap of 153 seconds per mile, it seems that the PHRF handicappers certainly respect the performance ability of the M242. The simplicity of the boat has made her popular for many open-type events—the next Mallory Cup championship will be held in the M242, and the Canadian Yachting Association has selected the boat for its next national keelboat championship.

Although this article is meant specifically for Martin 242 sailors, many of the suggestions here are applicable to any day-racing keelboat.

## Boat Preparation

The preparation required to get a stock 242 racing is minimal, but as with any tough class this work is essential if you want to make it to the top. Before you make any changes, be sure to check the class rules. One important (and legal) modification is to drill extra holes in the stock jib tracks to allow more precise positioning of the jib lead. The modified tracks should have holes 5/8" from center to center. Another important change is to substitute a 3/8" Kevlar line for the standard pre-stretch Dacron main halyard. We also suggest you get tapered Kevlar spinnaker sheets—they should be 60 feet of 3/16" Kevlar, covered with 40 feet of 3/8" polyester casing. These tapered sheets are easy to handle, do not stretch, and lift easily in light airs.

Additionally, a good compass is essential. The class has banned electronic compasses, but a popular alternative is the Silva model 103R, the type used on many Lasers. Position this on the top of the companionway hatch cover where it is out of the way and can be seen on both tacks by the whole crew.



## Rig Tuning

Tuning the 7/8ths rig on the 242 is a relatively simple exercise. First, make sure that your factory-supplied forestay is the maximum-allowed length of 27' 1 1/4". Next, the mast should be blocked forward in the mast collar (partners) as far as possible, which will straighten the mast in the area of the mainsail luff and keep the forestay tighter. The upper shrouds should be very tight—approximately 600 pounds of tension if you use a tension gauge. When beating in 12 to 14 knots of (true) wind, the uppers on the leeward side should be firm. At the same time, the lowers should be tightened so that the mast is as straight as possible athwartships. The spreader angle is not adjustable.

## Mainsail Trim

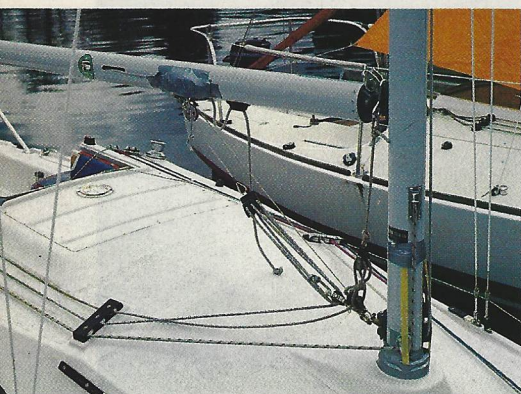
The mainsheet has two functions: It controls the leech of the main, and it provides headstay tension for the jib. Don't use the backstay to bend the mast or tension the headstay—this will overflatten the main, and leech tension will be lost. The leech should be kept straight with a tight mainsheet. From about 7 to 14 knots upwind the telltale on the top batten on the main should be stalled about two-thirds of the time, and below seven knots the sheet should be eased enough to keep the telltale just flying all the time. In winds above 14 knots the upper part of the tapered mast will automatically bend to open the main leech and flatten the main, so once again the backstay isn't necessary. In very



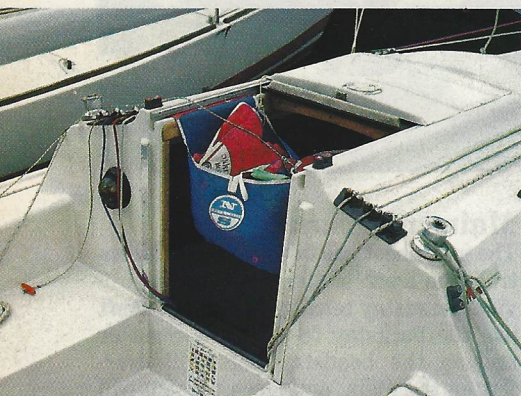
windy and rough conditions it may be faster to ease the mainsheet four to six inches to open up the main leech even more.

Next to the mainsheet, the traveler is the most important sail control. Mainsheet tension allows the 242 to point; dropping the traveler helps her foot. In getting the boat up to speed, start with the mainsheet in tight and the traveler down quite far. Let the boat pick up speed, and gradually raise the traveler to the point listed in Table I for the current wind speed. If your speed drops excessively, lower the traveler a little — think of the traveler as your gas pedal.

The main outhaul should be kept within 1" to 2" of maximum when sailing upwind in any breeze over about eight knots, and in lighter winds it should be eased slightly more. When



On this boat, the main halyard exits the mast and runs aft to a cleat on the starboard side. A batten taped over the turning block keeps the jib sheet from snagging on it during tacks.



All controls are led to the cabin top. On port side (l to r): jib furler, topping lift, foreguy, spinnaker halyard. On starboard side: boom vang, cunningham, main halyard.

reaching and running, most class experts ease the outhaul another 2" from the outhaul setting for that windspeed. The cunningham should be kept loose in all windspeeds under 15 knots — don't use it as a wrinkle remover — those wrinkles

**TABLE I—TRAVELER POSITION**

Windspeed	Traveler Position
0-5	Center-4" down
5-10	Center-4" up
10-15	Center-4" down
15-20	8-12" down
20-25	12-18" down

**TABLE II—JIB TRIM**

Windspeed	Jib Block to Jib Clew
0-5	4-6"
5-7	3-4"
7-15	1-2"
15-20	4-6"
20+	6"+

are fast! Once the wind reaches 15 knots, the cunningham can be pulled on quite tightly to keep the draft forward in the sail.

The boomvang on the 242 is very powerful (12:1) and is not normally used upwind. When reaching and running, be careful not to overtension the main leech with the vang — let the leech breathe and keep the telltales from stalling.

### Jib Trim

The first step in setting up the jib is to tighten the halyard adjuster inside the zippered luff of the sail until the slack is taken out of the jib luff (see drawing). Next, position the jib lead so that when the jib is pulled in tight, the leech and the foot have roughly equal tension — neither should be too tight. Then set the jib halyard tension so that the jib clew will just touch the lead block when the sheet is pulled in very tightly. This jib halyard tension is a good starting point for most wind conditions. Calibrate the halyard adjustment by marking the sail with a felt pen at the lowest part of the wire halyard when the sail is fully hoisted. When using the setting described above, the jib luff will appear quite loose — don't be alarmed, as this keeps the jib luff entry fine, and allows you to point high. Follow the guide in Table II for jib sheet tension.

As the windspeed rises above 14 knots, the jib leads should gradually be moved aft about 4". This allows the jib to twist off and open up the slot. If the main flogs in strong winds it means the jib is trimmed in too tight — move the leads aft or ease the sheet. A flogging main does not always mean it's too windy — it usually means that the trim between the main and the jib is not balanced. The most common sail-trimming error in strong winds is over-trimming.

### Spinnaker Trim

The 242 spinnaker is quite tall, and as a result the sail is very sensitive to pole

position. Generally speaking, the spinnaker clews should be level, or the pole clew (tack) should be up to 6" lower than the other clew. If in doubt, carry the pole clew slightly lower than level. Keep a close eye on the pole height, particularly in shifty conditions when constant adjustment will be required. The fore-and-aft position of the pole is also a sensitive adjustment. The sail is quite narrow, so 4" of guy adjustment can make a huge difference. Mark the spinnaker sheets near the winches when the clews are near the forestay to help you in reach-to-reach jibes and spinnaker sets.

### Weight Placement

Most of the top boats in the class sail with four, but the boat can be sailed by three easily. The heaviest boat at the nationals last year finished second, and had 780 pounds of crew weight, but 700 pounds is a better all-around weight.

As far as weight positioning goes, athwartships heel should be small (less than 12 degrees) in all but the very lightest conditions. When beating and running in under five knots, it will pay to use some heel to reduce wetted surface and keep the sails still. Fore-and-aft weight positioning is also important. In most wind speeds the crew weight should be centered about 30" aft of the cabin back, both up and downwind. When running and reaching in heavy air, move the weight back another 12" to 18".

The most common trim errors are having too much weight aft when running in heavy air, and not enough weight aft when reaching in moderate air. On a spinnaker reach in 12 to 14 knots of wind, the bow must be kept from digging in by shifting the crew weight aft. The spinnaker trimmer should be on the weather rail just forward of the cabin back, not at the mast. In light air when running, the crew weight should be centered fore-and-aft around the front of the companionway opening.

The Martin 242 is a straightforward boat to sail. Its simplicity allows less experienced sailors to get up to speed quickly, and to race evenly with the experts. Racing in this class is very close, and we hope this article will assist newcomers in their reach for the top.

*For more information, contact the Martin 242 Class Association, 3172 W. 28th Avenue, Vancouver, B.C., Canada V6L 1X5; 604/736-9538; or Martin Yachts, 4625 Puget Sound Dr., Vancouver, B.C., Canada V6L 1Y1 604/263-3079.*

*Michael Clements is a former Star and Laser Canadian champion, and actively sails his Martin 242 in Vancouver. Don Martin is the designer of the 242, and has won the national championship four times.*