

Jeff Frank - Sailrite Enterprises, Inc.

From: Jeff Frank - Sailrite Enterprises, Inc.
Sent: Friday, April 07, 2017 11:24 AM
To: Jeff Frank - Sailrite Enterprises, Inc.
Subject: millimeter class rules

3 battens

Main Max Luff ~~3970~~ 3970mm

Max Foot 1520mm

bat #1 Top 250mm

#2 > 450mm
#3

1. NAME

The name of the association shall be the MILLIMETER CLASS RACING ASSOCIATION.

2. INSIGNIA

The emblem of the class shall be two capital "M"'s, one atop the other, located over a horizontal bar. The color of the emblem may be black, blue, red or green.

3. OBJECTIVES AND POLICY

3.1 The objective of the class rules shall be:

3.2 The policies of the Class rules are intended that:

- a. To promote, develop, and govern MILLIMETER CLASS RACING under uniform rules.
- b. To create a non-design class to fill the diverse needs of one-design cruising, racing and recreational sailors,
- c. To preserve important design characteristics, including but not limited to ease of handling, low cost of ownership (without handicapping ability or encouraging neglect in conditioning yachts), safety and comfort,
- d. To cooperate with all other yachting organizations, in return for which, the observance and enforcement of the rules of the MILLIMETER CLASS are expected.
- a. Except where variations are explicitly permitted, yachts of the MILLIMETER CLASS shall be alike in hull, deck, keel, mast construction, weight, and weight distribution, sail plan, rudder and steering.
- b. Further, all yachts shall comply with official building specifications and class rules. No alterations or modifications are permitted unless specifically stated in these Class Rules.
- c. Alterations or modifications to official building specifications and class rules shall only be permitted with the joint approval of the copyright holder and the MCRA (MILLIMETER CLASS RACING ASSOCIATION).

4. BUILDERS, LICENSES AND HULL NUMBERS

- 4.1 a. MILLIMETERS shall be built only by builders licensed to do so under the copyright of MILLIMETER MARINE (P.O. Box 598, San Rafael, California, 94915, USA) and shall comply to the building specifications detailed by the copyright holder.
- b. Applications for building licenses shall be made to: MILLIMETER MARINE (P.O. Box 598, San Rafael, California, 94915, USA) and shall comply with the building specifications detailed by the copyright.
- c. The building fee shall be payable to MILLIMETER MARINE when the molding of the hull commences.
- 4.2 No yacht shall be deemed to be a MILLIMETER until it has been completed with a building number assigned by MILLIMETER MARINE molding into the transom.
- 4.3 The first five (5) digits of the building number compose the hull number. The hull number may be referred to after dropping any zeros (0) preceding the first real integer.

5. ORGANIZATION5.1 Fleet Charters

- a. A new fleet may be granted a charter upon application to MCRA with six (6) or more MILLIMETER owners or prospective owners of six (6) or more MILLIMETERS not within the locality of an organized fleet.
- b. An individual wishing to join the association shall join through the local fleet on whose waters he or she normally sails. The power to accept or reject applications for membership is vested in each fleet.
- c. The fleet, a territorial branch or unit, is open to all eligible persons within its territory, elects its own officers, which shall include a fleet secretary, and is self-governing in local matters not conflicting with these CLASS RULES.
- d. Groups of fleets in distinctive localities shall constitute districts.
- e. The MCRA has jurisdiction over all MILLIMETER activities.

6. MEMBERSHIP

- 6.1 There shall be four categories of membership, as follows:
 - a. Senior Racing—

A senior racing member may hold office, vote and helm a Millimeter yacht in Continental Championships, regardless of age, sex, race or creed. He or she must be an owner, part owner, designated syndicate representative, or bona fide charterer of a MILLIMETER.

b. Junior Racing—A junior racing member is as described in 6.1 (a) except that the individual has not and will not reach his or her 21st birthday in the current calendar year. Further, the individual is eligible to compete in any competition sanctioned by the MCRA.

c. Associate—An associate member is a non-owner of a MILLIMETER, who wishes to support the endeavors of the MCRA. This member may not vote, hold an association office or compete in Continental.

d. Commercial—A commercial membership may be obtained by any corporation or company wishing to support the endeavors of the MCRA. Further, a commercial member owning one or more MILLIMETER yachts may advertise their commercial logo and/or name along the topsides of their yacht. To this end, USYRU and IYRU Rule 26 are deleted for the purposes of MCRA competition.

6.2 Dues

a. Association dues shall be fixed by MCRA, and are as follows:

Senior Racing - \$30.00 annually

Junior Racing - \$10.00 annually

Associate - \$10.00 annually

Commercial - \$75.00 annually

7. GENERAL FLEET RESPONSIBILITIES

7.1 Each fleet shall hold an annual meeting.

7.2 Results of election of fleet officers shall be filed promptly with MCRA.

7.3 Each fleet shall collect its members' association dues. Newly collected dues and the completed registration forms shall be forwarded each month to MCRA.

7.4 Each fleet shall file an annual report with the association before January 31, each year.

7.5 It is the responsibility of each fleet to maintain a minimum quota of six yachts with at least one senior, junior or commercial member for each yacht. The charter for any fleet shall be suspended on March 1 for failure to have filed an annual report and dues for at least six such members, or for other adequate cause. Suspended fleets may not be reinstated until all requirements have been fulfilled.

7.6 Each fleet will be responsible for organizing and maintaining a racing schedule of at least six or more fleet sanctioned regattas. Other fleet events may be substituted for no more than two regattas.

8. YACHTS NAME AND NUMBER

8.1 Names of yachts must be recorded with the MCRA.

8.2 Yacht's sail numbers shall be as described in rule 4.3.

9.1 The rules of the International Yacht Racing Union and the prescriptions of the national authority shall apply in all MILLIMETER races, unless otherwise stated in the sailing instructions. If, however, such rules conflict with these class rules, the latter shall supercede.

9.2 Sailing instructions and local fleet rules or published notices to its members, not conflicting with MCRA Rules, must be observed. Verbal instructions or unrecorded rules are not official.

9.3 The penalty for a foul or for the violation of a published rule is disqualification. The responsibility for knowing and understanding the rules is with the member.

10.1 Hull

10.2 Rudder and Steering

10. MEASUREMENT RESTRICTIONS

a. The hull, deck and cockpit liner shall be only as supplied by MILLIMETER MARINE or its licensees. These parts shall only be molded in glass fiber reinforced plastics to the building specifications of lamination.

b. Coring, drilling out, rebuilding, replacement of materials, grinding in any way to reduce weight, or to centralize weight to improve the moments of inertia is prohibited.

c. Reshaping of the hull or keel foil is prohibited.

d. Sanding, fairing, and painting underwater surfaces is allowable under the provision that Class Rule 10.1 (b) & (c) are not violated.

e. A set of fairing flaps or fairing plug may be fitted between the skeg and the leading edge of the rudder, but may not flair around the rudder's edge any more than what would be a straight line from the skeg.

f. The cockpit liner must be kept watertight.

a. The rudder, stock and rudder head (T-quadrant) shall be supplied by a licensed builder.

b. The foot pedals shall be as supplied by a licensed builder.

c. The foot pedals may be adjustable on a track no longer than 295 millimeters, located as supplied.

d. The linkage between the foot pedals and the rudder shall be of synthetic rope and/or wire rope. The linkage shall be led under the deck. It is prohibited to run the linkage through the cockpit liner.

e. No other type of steering shall be used other than the foot operated system.

f. Reshaping of the rudder foil is prohibited.

11.1 The spars shall be of an aluminum extrusion as supplied by a licensed builder. No alterations or modifications to the spar are permitted except to facilitate the attachment of rigging and fittings as specified in these Rules.

11.2 All dimensions are in millimeters measured from the bottom of the mast tube.

11.3 Mast and Step Beam

11.4 Main Boom and Spinnaker Boom

a. The mast shall be stepped on a beam supplied by a licensed builder.

b. Two upper shrouds, two intermediate shrouds, and two lower shrouds shall be attached to the step beam in the six receiving holes in the beam. These receiving holes shall not be relocated.

c. Any number of turning blocks, cleats or other fittings to facilitate handling may be attached to the step beam or the mast.

d. The step beam shall be fitted into the slot in the deck forward of the cockpit. The beam shall be attached to the deck by two bolts, mounted through the beam and deck in the holes provided by a licensed builder.

Additional mounting holes may not be drilled into the step beam.

e. The mast shall be rigged with shrouds as stated in Rule 11.3 (b), as well as backstay, that may be adjustable while racing. There shall be no forestay, forestay pennant, or other stays that support the mast.

f. The standing rigging may be of stainless or galvanized steel multi-strand wire, and shall have a diameter of at least 1.6 mm. The standing rigging may be of solid wire of at least 1.4mm diameter.

g. The mast shall be 4300mm. Long measured from the top to bottom not including the crane of the step beam.

h. A goose neck shall be located so that the pintle would intersect the mast at 3.30mm. +/- 12mm. Above the bottom.

i. Spreaders shall be only as supplied by the licensed builder. Intermediate and lower shrouds must be attached to the spreaders. The spreaders and their locations may not be altered in any fashion.

j. The intersection of the jib luff wire or rope with the top of the deck must be 1115mm. +/- 11mm. From the front of the mast.

a. The main boom shall not be altered to induce a permanent bend nor shall it be tapered or cut with lightening holes.

b. The boom may be fitted with attachment points for an adjustable outhaul, mainsheet blocks, boom vang, reefing equipment and spinnaker boom storage.

11.5 Only the following running rigging may be used as specified below:

12.1 Two main, two genoas, one jib and two spinnakers may be measured and used in any one-championship regatta. One main, one genoa or jib and one spinnaker shall be carried during racing.

c. The main boom shall have a contrasting stripe of at least 10mm in width located 1520mm. +/-6mm. From the aft portion of the mast.

d. The spinnaker boom shall have an overall length of not greater than 1200mm. Including fittings.

e. The spinnaker boom shall be fitted with a topping lift that shall attach toward the middle of the spinnaker pole. Spinnaker boom bridles shall not be used.

f. A spinnaker boom fore guy may be attached.

g. A spinnaker boom eye may be either permanently attached or mounted on a sliding track on the front of the mast. More than one eye may be fitted to the mast for use with the spinnaker boom, but no eyes or tracks may be fitted above 500mm from the base of the mast.

a. One spinnaker halyard of synthetic rope not less than 8mm in diameter which shall bear no more than 20mm forward of the mast or more than 3410mm above the base of the mast.

b. One mainsail halyard may be stopped on either the mast or the deck.

c. One jib halyard of synthetic and/or wire rope may be fitted, and may be stopped on either the mast or the deck. The halyard shall bear no more than 20mm forward or more than 3370mm above the base of the mast.

d. A vang shall be installed at the base of the mast and on the boom. The vang may be of synthetic and/or wire rope, may incorporate a lever, or may be solid.

e. One mainsail outhaul may be fitted to the main boom. The outhaul adjustment line shall be of synthetic and/or wire rope. A claw tie down is allowed.

f. One Cunningham control of synthetic rope may be fitted.

g. One back stay adjuster tackle may be fitted above or below the deck. The backstay adjuster control line may be double ended so as to adjust from more than one place in the yacht.

h. One travel control line of synthetic rope may be used.

i. One main sheet of synthetic rope shall be used.

j. Head sail and spinnaker barberhaulers of synthetic rope may be used.

k. Head sail and spinnaker sheets of synthetic rope shall be used.

12. SAILS

12.2 The mainsail jib and genoa may be fitted with transparent windows of any material. If fitted, no dimension of any window shall be more than 100.000mm and the edge of the window shall not be closer than 100mm from the edge of any sail.

12.3 Distinguishing numbers shall be carried on the mainsail as described in MCRA Rule 4.3.

12.4 There shall be no restriction as to the type of the weight of the materials used for the sails.

12.5 Three battens shall be used in the mainsail. The upper batten shall be no longer than 250mm. The middle and lower battens shall be no longer than 450mm. Each. The battens shall be spaced equally along the leach +/- 25mm. Battens may not be used in the jib or genoa.

12.6 The headboard of the mainsail shall fit wholly under the masthead crane.

12.7 The method for measuring the $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ midgirth of the mainsail shall be by folding the leach in half, then in half again and measuring the shortest point of the luff (to the front of the boltrope). These midgirth measurements shall be no greater than in diagram 12 (a).

12.8 The headboard shall be measured from the intersection of the leach and the top of the headboard to the front of the boltrope (or its extension) as illustrated in Diagram 12 (b).

12.9 The leach of the mainsail must be a fair curve and be essentially straight between battens.

12.10 Corners of all sails are measured as the intersection of two adjacent edges as illustrated in Diagram (12).

12.11 The jib shall have maximum LP as illustrated in diagram 12 (d).

12.12 The genoa shall have maximum LP as illustrated in diagram 12 (e).

12.13 The spinnaker shall have a minimum luff and maximum girth (at any point) as illustrated in diagram 12 (f).

12.14 All sails shall meet the measurement specifications when subjected to the temperature and humidity of the place of measurement for any length of time.

13. INTERNAL BALLAST

13.1 The helmsman and internal ballast must weight 430 lbs +/- 10 lbs. Except that there shall be a minimum of 210 lbs of ballast (in the form of lead) and a maximum of 330 lbs. Of internal ballast (in the form of lead).

MILLIMETER RIGGING GUIDE

Congratulations on choosing the Millimeter as your new boat. We at Millimeter Marine feel that the easy rigging and handling of our boat will allow you to enjoy many happy years of sailing and allow you more time on the water and less time at the dock.

Rigging the Millimeter to sail takes only a few brief minutes, and is facilitated by these simple instructions.

Before launching make sure that all the lines are lead properly and according to these guidelines:

1). The jib sheet is led from the fore deck back to the barber hauler situated on the cockpit combing. This barber hauler is a short piece of line ending on the Jr. Clam cleat. From here the sheet is led through the Harken thru-deck and then forward to the cheekblock on the liner tank. If you desire to have a continuous jib sheet (which is how we supply the sheet run it directly over to the cheek block located on the opposite tank and simply reverse the procedure described above. The cam cleats below the cheekblocks will act as jib sheet cleats.

2). The spinnaker sheets run above decks, on top of and outside all other lines. The spinny sheets are led from the bow (making sure that they are forward of the jib tack) around the shrouds and back to the spring mounted bullet blocks near the aft portion of the cockpit. Lead them through the top of the bullet block then forward, under the jib sheets, outside the barber hauler, to the cheekblock mounted outside and forward of the cockpit combing. The small MiniClamcleat is then used as the spinnaker sheet cleat. The silver colored ClamCleave mounted outside the spinny cheek block is used as a spinnaker guy cleat. This allows easy access to the guy and also does away with the need for a spinnaker pole foreguy.

3). To set up the adjustable back stay reach under the after deck and find the becket block attached to the wire running through the transom. Make sure that the wire is led over the steering "T" quadrant, then attach the back stay line to the becket on the block. Run the line to the bullet block permanently attached under the afterdeck then back to the becket block. From here the line is led forward to the small fairlead block under the starboard combing then through the Harken thru deck block, mounted in the side of the cockpit combing. The cam cleat just aft of the thru deck will be your backstay cleat.

4). The control line for the jib furling system is led from the Harken furling drum through the bullseye mounted on the starboard bow, then aft, under the jib sheet and between the lower shroud and the mast (if the mast is already stepped). The side entry ClamCleave will serve as your furling system cleat. Make sure that before attaching the jib to the drum that about 6-8 turns have been made around the drum. The two bolts and wing nuts supplied. There you have it. No shrouds to attach to chain plates. No tuning. Just jib tack, backstay and bolts and she's stepped.

All that is left to do is the following simple steps:

Install the boom by sliding the goose neck pin through the hole in the end of the boom.

Tie the aft end of the main sheet to the pad eye on the after deck.

The forward end of the main sheet comes out of the boom and let to a block located on the step-beam on the starboard side of the mast, then to the combing cam cleat.

The boom vang is rigged from the becketblock at the base of the mast to the bullet block on the boom, back down to the becketblock then to the combing cam cleat.

Tie the Cunningham line to the pad eye above the goose neck. It then is led straight through the Cunningham grommet hole then down to the bullet block on the near port side of the mast, then aft to the combing cam cleat.

The two remaining blocks on the step-beam are for the spinnaker halyard on the far port side and the topping lift on the far starboard side.

Now you are ready to raise the mainsail. After attaching the headboard to the shackle on the halyard, guide the luff rope into the mast while pulling on the halyard.

When the main is completely raised, the nicropress sleeve is fitted into the halyard lock located near the top of the mast on the forward side. After this is accomplished, furl the halyard tail tightly and secure it to the spinnaker pole eye, on the front of the mast.

The tack of the main may be fastened to the eye directly above the goose neck, with the bitter end of the Cunningham. Shackle the clew of the main to the outhaul adjustment wire, then use the tie down line supplied, to keep the clew of the main close to the boom.

It sounds to me that you are completely ready to go sailing. These guidelines were made up to help you in rigging your Millimeter up for the first time. There is nothing to say that you won't find easier methods and other ways to rig your boat to facilitate rigging, unrigging and sailing enjoyment. Please let us know of your improvements, so that we may pass them along. Now go out and have a great time with your Millimeter. Be sure and wear your life jacket and use safe boating judgment.

INITIAL RIGGING GUIDE

To construct your Millimeter mast, start by inserting the spreaders through the slots located in the tube. The shorter spreaders fit in the top slot on top of each other so that the keyways match up on either side; likewise, with the longer spreaders in the lower slots. Take the two upper shrouds (already attached through the mast) and attach them to the 2" x 2" box beam in the forward outboard holes. Tighten these up with the nuts provided so that when they are placed in the grooves at the spreader tips they secure the box beam to the mast. (Slip the mast over the PVC disc mounted on the beam.) Now, the shrouds with terminals and ball swedges are your intermediates (longer) and lowers (shorter). The balls on the intermediates fit up through the keyways in the spreaders, when tension is applied, and the balls pushed towards the mast the shrouds will be secured in the spreaders. These are then lead to the aft outboard holes in the box beam and through-bolted with the nuts provided. The inboard holes in the box beam are for the lowers, which lead from the keyways in the lower spreaders. Now attach the backstay to the anodized mast crane with a shackle provided, attach the upper roller furling unit to the second eyestay from the top and your mast is basically constructed. The whole purpose of this design method is to ensure that this procedure only needs to be done once.

MAIN HALYARD

The main halyard is now a full-hoist, low-stretch braided line. When completely raised, the halyard should be led down the forward side of the mast to the black jam cleat on the port side of the mast just above the butt. The tail can then be coiled and hung off cleat.

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Thanks,
Jeff Frank



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