

Vintage Marblehead Class Rules

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These revised Vintage Marblehead (VM, 50/800) Rating Rules of 2022 shall govern Vintage Marblehead activities from date of publication until revised by consensus or recommendation by Vintage Marblehead class owners.

It is reasonable to expect that the class rules or plans may evolve with time to improve clarity, correct unforeseen problems, or embrace advancing R/C technology. It is the intent of the class that any potential changes not disqualify existing boats.

All Vintage Marblehead model yachts participating in racing competition sponsored by US VMYG must comply with these class-rating rules. It is the responsibility of each skipper to prepare his boat in accordance with the Rules and Specifications referenced or included in this document. The intent of the US VMYG is to encourage participation and to simplify any certification or measurement processes as much as is consistent with fair racing.

The rating rules for the Vintage M divisions are based on the Marblehead 50/800 Class rule adopted by the Model Yacht Racing Association of America (predecessor of the American Model Yachting Association) April 14, 1932 and corrected June 1, 1939. Subsequent editions were “corrected” to accommodate the evolving Marblehead 50/800 development class.

For racing purposes, Vintage Marblehead fleets may be separated into “Traditional”, “High Flyer”, and “Classic M” divisions. The separation is based on design characteristics. In general:

Early vintage design types (“Traditional”) are identified by practices such as skeg- or keel-mounted rudders and relatively shallow draft; this is typical of design practices in the period roughly from 1930 to 1945.

Later vintage designs (“High Flyer”) may have spade or balanced rudders (*i.e.*, rudders not attached to a skeg or keel) and somewhat deeper draft; this is typical of design practices roughly from 1945 to 1970.

Designs in the period roughly from 1970 through the mid-1980s (“Classic M”) adopted more modern materials and somewhat deeper keels, and they loosened the restrictions on keel shape (*e.g.*, prognathous keels were permitted).

Note that the determining factor is the design type, not the actual date of the design. This is meant to encourage new designs that fall within the spirit of Vintage Marblehead design types and also to encourage reproductions of earlier designs.

For the purposes of these Class Rules, the following Definitions apply:

1. Keel: A fixed appendage along the centerline of the boat's underbody. Its requirements and constraints are specified in the "Hull" and "Prohibited" sections of the Class Rules.
2. Centerboard: An appendage to the boat's underbody that can be extended below the surface of the water that is neither a "keel" nor a "rudder/skeg" as those terms are defined herein. In common usage, a "centerboard" is an unweighted or lightly weighted movable underwater appendage.
3. Rudder: An underwater appendage used for steering. Its requirements and constraints are specified in the Rules.
4. Skeg: A fixed appendage to which a rudder may be attached. Its required attributes are described in the "Hull" section of the Rules.
5. Bilge-boards: Also known as bilge keels. Underwater appendages, usually found in pairs, that are attached to or protrude from slots in the hull in the region of the turn of the bilge.
6. Leeboards: Similar to bilgeboards, except that they typically attach to the topsides and extend down into the water immediately adjacent to the boat.

The detailed specifications used to distinguish the different divisions are given below.

Traditional Vintage Marblehead (period roughly from 1930 to 1945)

Design Formula

A Vintage Marblehead model is a sloop-rigged monohull model sailing yacht with an overall length of 50 ± 0.25 in. Total sail area shall not exceed 800 in².

Prohibited

- Sliding or adjustable keels
- Centerboards
- Leeboards
- Bilge-boards
- Bowsprits
- Transom-mounted rudders or rudders that extend aft of the transom
- Outriggers, pontoons, or twin hulls
- Moveable or shifting ballast
- Prognathous keels: No portion of the keel appendage, including the lead, may project forward of the leading edge of the keel fin

- Metal fin keels
- Materials with a density greater than lead
- Carbon fiber or Kevlar in the hull, keel, rudder, or rig
- Fabric, film, balsa, foam or fiberglass decks
- Mylar or other modern plastic-like materials in sails
- Swing rigs

Hull

- Wooden hulls may be built using plank on frame or horizontal and vertical lifts. It is permissible to cover a wood hull and deck with a light layer of fiberglass cloth to prevent leakage. Balsa wood is not permitted in the hull fairbody (i.e., the “canoe-body”). Balsa may be used as a filler material in the core of a rudder or keel, but balsa cannot be considered the primary strength in these appendages.
- Fiberglass hulls laid up in a mold are permitted. Minimum weight of fiberglass hulls is 2 lb.
- Garboards: Garboards shall be hollow, with not less than a 1-in radius in the area of the keel fin. This may be checked by use of a disk 2 in in diameter fitted to the garboard at amidships section.
- Modern adhesives are permitted to produce a strong hull impervious to leaks.
- Draft, measured from the waterline to the bottom of the keel or keel bulb, shall not exceed 12 in on a model yacht fully rigged and ready to sail.
- All ballast must be fixed and shall not be changed during a race or series of races.
- Model total weight shall be in keeping with that of the period.
- Bumpers are mandatory and are limited to 0.5-in overhang. Bumpers are not included in the overall hull measurement.
- Rudders shall be keel- or skeg-mounted in keeping with the design characteristics of the period. It is permitted to enlarge the area of the rudder from its original size to achieve acceptable steering with radio control. The area of a skeg must be at least 50% of the area of the rudder; for this calculation, “rudder” is the portion of the rudder/skeg combination that articulates and does not include the area of the fixed skeg. Balanced or spade rudders are not allowed. Changing rudders during a race or series of races, except in *bona fide* cases of damage, is prohibited. There can be no more than one rudder.
- The minimum keel fin chord length is 5 in. No more than one keel fin is permitted. The keel must be attached to the hull underbody on the centerline. Neither the keel nor any part of it shall be movable (e.g., keel “trim tabs” are not permitted). Rudders may be attached to the trailing edge of the keel, in which case they are the single permitted rudder.

Deck

Decks shall be constructed of wood: solid, planked, or plywood.

Rig

- Bermuda, Marconi, jib-headed mainsail, gaff, gunter, wishbone, and other types may be used.
- Alternate rigs are permitted provided the sail area does not exceed 800 in². Any such alternate rigs must have examples in design practices of the period.
- Masts and spars shall be constructed of the materials of the period, primarily wood. Round aluminum tubing is permitted. "Round aluminum tubing" means: 1) a constant round cross section over the full length of the mast; 2) the tubing must not be slotted; 3) no external structure that creates a slotted sail track may be affixed to the mast. The diameter of the round aluminum tubing shall be ≥ 0.75 in. Note that traditional jacklines and lashings or loops of line may be used to hold and support the sail.
- Maximum diameter of round wooden spars is 0.75 in. If spars are airfoil-shaped, rectangularly shaped, or otherwise not round, then the maximum permitted cross-sectional dimension of a spar is 0.75 in.
- Maximum height of the head of the mainsail above the deck (see sail measurement) is 85 in.
- Height of the jib head stay above the deck shall not exceed 80% of the height of the head of the mainsail above the deck.
- Hollow masts and spars, permanently bent masts and spars, and rotating and bipod masts are allowed.

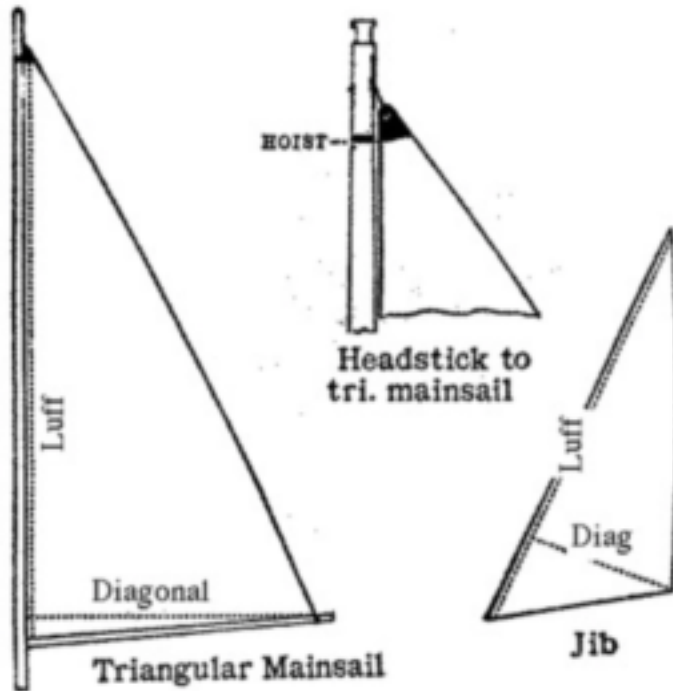
Fittings

Fittings for deck and rig should be made of brass, stainless steel, or other non-corrosive metal in keeping with materials and practices of the period.

Sails

- Sails may be constructed as either a single or multi-panel sail.
- The body of each sail shall be made of woven cloth, such as cotton, a cotton-synthetic blend, Dacron®, or nylon, such as light spinnaker cloth. No material other than woven sailcloth is allowed for tablings or corner reinforcements in the head, tack, or clew of any sail except sail reinforcing tape.
- Mylar or other modern plastic-like materials are not allowed.
- Roach of sails shall not exceed 2 in. Rounded foot of loose-footed sails shall not exceed 1 in.
- The roach and the rounded foot of sails shall be a continuous, arc-like curve from head to clew and from clew to tack.
- Mainsail battens shall not exceed four in number and 4 inches in length, and they shall divide the mainsail leech into approximately equal parts. Headsail battens shall not exceed three in number and 2 inches in length, and they shall divide the headsail leech into approximately equal parts.
- Headsticks or headboards shall not exceed 0.75 in across the base for headsails and mainsails. No other wire or stiffener shall be put in the head of the sails.

Sail measurement



- Rig and mainsail measurements are taken from the underside of the 0.75-in base of the mainsail headboard. Thus, the height of the mainsail above the deck measurement and the area of the mainsail are taken from this point.
- **Calculation of sail area:** The measurement of sails is specified in the 1958 MYRAA Handbook. Only the “triangular” sail area, excluding roaches and the rounded foot of loose-footed sails is measured. The above drawing indicates the layout for triangular sails. The luff is measured from the lowest point on the tack of the sail to the bottom edge of the stick or headboard. If the sail has no headboard, the measurement is taken from a point at the head of the sail where its width is 0.75 in. The diagonal is measured from the aft edge of the clew to the closest point on the luff. The sail area of each sail is given by:

$$\text{Sail Area} = \frac{\text{luff measurement} \times \text{diagonal measurement}}{2}$$

- The sum of the areas for the jib and mainsail must be less than 800 in².



[Download the [Class Insignia PDF](#) for full-size patterns of the class insignia.]

All Vintage Marblehead Model Yachts shall be officially [registered](#) with the VM Class Coordinator to obtain an official sail number. Sail numbers shall be preferably black, 3 in tall, 0.5 in thick, and they shall be affixed to both sides of the mainsail between the second and third battens on a line perpendicular to the leech. The VM insignia consists of a red “V” nested in the top of a black “M” as shown. The letters are 1.5 in tall, 1.25 in wide, and 0.25 in thick. The “V” is separated from the “M” by 1/16 in. The insignia should be placed in the upper quadrant of the mainsail and only on the starboard side.

Radio Control

Only the rudder, headsail sheet, and mainsail sheet may be adjusted by radio control.

High Flyer Vintage Marblehead (period roughly from 1945 to 1970)

Design Formula

A Vintage Marblehead sloop-rigged monohull model sailing yacht has an overall maximum length of 50 ± 0.25 in and a total sail area not to exceed 800 in².

The rules for the High Flyer division are the same as those for the Traditional division except for the following:

- Rudders may be of the spade or balanced type; that is, independently suspended and not attached to the keel or a skeg. Marbleheads of any design of the Traditional period that use a spade rudder shall be classified with the High Flyer division.

- Draft of a High Flyer model yacht fully rigged and ready to sail shall not exceed 16 in. There is no minimum keel fin chord length required, but fin profiles should conform to the practices of the era, e.g. “seal flipper” or tapered.

Classic M Vintage Marblehead (period roughly from 1971 to 1985)

Design Formula

A Vintage Marblehead sloop-rigged monohull model sailing yacht has an overall maximum length of 50 ± 0.25 in and a total sail area not to exceed 800 in².

The rules for the Classic M division are the same as those for the High Flyer division except for the following:

- Prognathous keels are permitted; the leading edge of the fin above the bulb must be vertical (*i.e.*, perpendicular to the waterline) or slant aft (*i.e.*, the top of the leading edge cannot be aft of the bottom of the leading edge).
- Draft of a Classic M model yacht fully rigged and ready to sail shall not exceed 20 in.
- There is no specification on minimum garboard radius.
- Carbon fiber may be used in rig, fin, or rudder.
- Slotted masts are permitted, and there is no minimum or maximum cross-sectional dimension.
- Mylar sails are permitted.

Historical Note (by Earl Boebert)

These rules impose a limit on the draft or keel appendage. This deviates from the Model Yacht Racing Association of America (MYRAA) rules, which lacked any such limit. Draft specification was never an issue in the free sail era as draft and appendages were automatically limited by the fact that you had to be able to sail your boat up to the shore to pole it on a beat. Even San Francisco, which tightly restricts free sailing M rules, does not bother with a draft limit. Since an R/C boat can avoid shallow water, the US VMYG had to do something to prevent “extreme” designs with deep keels, and so the draft/appendage limit was introduced.