

**Shumway Marine**

Store | Service | Dockage | Storage | **Ideal 18** | Sonar | Schooner's

**IDEAL 18****Ideal 18 Class Rules**

- Specifications and pricing of the Ideal 18

- Club Programs can revitalize racing and training participation

- Used Ideal 18's on the lot and ready to go

- Parts & Lines to keep your Ideal 18 sailing smoothly

- Handling Tips for varying wind conditions

- Class Rules for one-design Ideal 18 racing

**IDEAL 18**

The **Ideal 18** has strict one-design racing rules which are described below.

Last update: *May 14, 2002*

**1. Objectives of the Class**

**1.1** The IDEAL 18 is a one-design sailing class created to fulfill the needs of recreational sailors, such as fun one-design racing and performance daysailing. These rules are intended to preserve important design characteristics; identical performance among boats, low cost of ownership, ease and simplicity of handling.

**1.2** Except where specific variations are permitted within these rules, class boats shall be alike in hull, deck, keel, rudder, spars, weight, weight distribution, sailplan and racing equipment.

**1.3** All boats shall comply with official building plans, building specifications and the class rules. No alterations or modifications to factory-installed equipment are permitted unless explicitly stated in these rules.

**2. Administration**

**2.1** The class authority shall be the IDEAL 18 Class Association (hereafter named ICA), in accordance with rules of the International Yacht Racing Union and the prescriptions of the United States Sailing Association. The governing board of ICA, which may consult with licensed builders and the copyright holder, shall make interpretations of these rules.

**2.2** The official language of ICA shall be English. The words "must" and "shall" are mandatory; the word "may" is permissive.

**2.3** IDEAL 18s shall be built only by builders licensed to do so by IDEAL 18 Sailboats, a division of Ontario Properties, Inc. (40 Marina Drive, Rochester, NY, USA 14617) and shall conform to the building plans set forth by the copyright holder.

**2.4** A building fee shall be payable to IDEAL 18 Sailboats when the molding of the hull commences.

**2.5 Registration and Measurement**

**2.5.1** A boat shall be deemed to be an IDEAL 18 when it is completed with a building number assigned by IDEAL 18 Sailboats molded into the transom.

**2.5.2** A sequential sail number shall be assigned to each IDEAL 18 by the ICA authority of the owner's home country.

**2.5.3** Only boats built and certified by IDEAL 18 licensed builders may be sailed in ICA-sanctioned events. Licensed builders shall maintain a listing of all boats they build and certify.

**2.5.4** Change of ownership shall invalidate a boat's registration and shall require re-registration by the new owner.

**2.5.5** Alterations to the hull, deck, spider pan, keel, rudder, rudder post or spars invalidates a boat's certification and shall require remeasurement by a licensed builder or ICA measurer. Major repair of any of the foregoing equipment may also invalidate a boat's certification.

**2.5.6** It is the sole responsibility of the owner to ensure that his/her IDEAL 18 conforms in every way to class rules.

## **2.6 Advertising**

**2.6.1** The ICA may authorize advertising in accordance with current prescriptions of IYRU and the national governing authority.

## **2.7 Measurement**

**2.7.1** Only recognized ICA measurers and certified builders shall measure boats.

**2.7.2** A measurer shall not measure a boat, spars, sails or equipment owned by them, or in which they are an interested party.

**2.7.3** The builder's weight shall not be less than 1230 lbs., nor more than 1270 lbs., all up weight, less spars, running rigging and sails. Corrector weights installed by a builder shall not be removed or altered.

**2.7.4** Tolerances provided in these rules allow for minor building variation and age distortion.

**2.7.5** The measurer shall report anything considered a departure from the intended specification of the boat.

## **3. Construction**

**3.1** The hull, deck, rudder, keel, spars, running rigging, standing rigging, sails, and fitting types and positions shall conform to building specifications and class rules.

**3.2** Any suspected alterations to a boat automatically invalidates its certification as an IDEAL 18 until official remeasurement is completed.

**3.3** When a change to factory building specification is made, all yachts built before the changed may upgrade to the current specification. The ICA shall notify all owners of such changes.

## **4. Hull**

**4.1** The hull shall be molded fiberglass built to ICA approved lamination

schedule.

**4.2** Cockpit, seats, hull reinforcement, chainplates, mast position, bulkheads, rudder post, and keel sump shall conform to the building specifications.

**4.3** Chainplates shall be positioned and affixed by the builder. No change to chainplate location is permitted for any reason.

**4.4** Construction of the hull/deck flange shall not be modified.

**4.5** Installation of an outboard motor bracket to the transom is permitted.

**4.6** Bottom paint may be applied to the hull surface below the top waterline stripe.

**4.7** Prohibitions:

- a.** Grinding, drilling or fairing the hull surface.
- b.** Alteration to the laminate schedule or core.
- c.** Reshaping the hull profiles or contour.

## **5. Keel**

**5.1** The keel shall be built of molded lead to ICA specification.

**5.2** The keel encapsulation of GRP epoxy shall not be modified or changed in thickness. Any modification other than wetsanding to the keel casing invalidates the measurement certificate.

**5.3** The weight of the keel assembly shall be 700 lbs., +/- 10 lbs.

**5.4** No shaping of the leading or trailing edges is permitted.

**5.5** Bottom paint may be applied to the keel.

## **6. Deck**

**6.1** The deck shall be molded fiberglass built to the approved ICA lamination schedule and specification.

**6.2** Fittings placed by the factory shall not be altered or removed. Replacement of factory-placed fittings with identical components in original locations is permitted. Drilling of holes and placement of additional fittings on the deck are prohibited.

**6.3** Prohibitions: same as 4.7, Hull.

**6.4** Through-deck inspection hatches are permitted. Inspection hatches shall be self-sealing type of commercial manufacture. Inspection hatches shall be tightly closed at all times while racing.

## **7. Rudder and Tiller**

**7.1** The rudder shall be built to ICA building specification by a licensed builder.

**7.2** External dimensions and planform of the rudder at each station shall

comply with ICA specification. Rudders built after 8/92 shall conform to the updated planform approved by ICA. Building tolerances of +/- .125 inches in any dimension are permitted.

**7.3** Bottom paint may be applied to the rudder.

**7.4** Weight of the rudder shall be 21 lbs., +/- 1.0 lbs.

**7.5** The rudderpost shall not be moved, reinforced or modified. Rudder parts may be replaced with identical components in the original locations.

**7.6** The tiller shall be made of wood. Dimensions and materials shall be the same as factory-supplied original components.

**7.7** A tiller extension of any type and material may be fitted.

## **8. Spars**

Spars shall be built of aluminum extrusion, conforming to building specification, and shall be supplied by an ICA approved builder. No alterations to mast and boom extrusion are permitted.

### **8.1 Mast**

**8.1.1** Mast fittings shall be factory-supplied length.

**8.1.2** Fittings may be replaced with fittings of original type and size, in original locations. Any variation in mast fittings from factory specification invalidates the Measurement Certificate and requires re-certification by an ICA measurer.

**8.1.3** Mast position at the butt and partners shall be fixed in factory supplied locations. Temporary or permanent changes to mast or butt or partners location is prohibited.

**8.1.4** No shaving, etching, or laminating to the mast section is permitted.

**8.1.5** Holes may be drilled: at the masthead to accept one wind direction indicator, below the gooseneck to accept a compass mount and at the partners to attach a mast collar. Any hole drilled in the mast shall be filled with a fastener.

**8.1.6** The mast shall not be blocked or chocked at deck level in a fore and aft direction.

**8.1.7** The mast may be supported athwartship at deck level by two chocks of 1/8th inch material fitted either side of the mast between the mast gate and the mast.

**8.1.8** A replacement Vang fitting may be bolted to the foot of the mast.

### **8.2 Boom**

**8.2.1** The boom shall be factory supplied length.

**8.2.2** The boom shall not be permanently bent.

**8.2.3** The boom may have the following fittings as supplied by the builder: outhaul, boom vang, cunningham, mainsheet blocks, reefing gear, gooseneck. Fittings shall be of the same type, sizes and mechanical advantage as original.

**8.2.4** The outhaul shall have 2-to-1 purchase.

**8.2.5** The boom vang shall have a 6-to-1 purchase and shall be made entirely from rope.

**8.2.6** The cunningham shall have 2-to-1 purchase.

**8.2.7** Any style of shackle may be used to attach the outhaul and boom vang.

**8.2.8** The mainsheet may be retied to reduce its mechanical advantage.

**8.2.9** Holes may be drilled in the boom to accommodate mainsheet preventer fasteners and spinnaker pole holders. Any hole drilled in the boom must be filled with a fastener.

### **8.3 Standing Rigging**

**8.3.1** The mast shall be supported by upper shrouds, spreaders, lower shrouds and jib luff wire only, in original locations with fittings of factory-supplied type and size.

**8.3.2** The jib luff wire shall be 20.8 ft., +/- .25 inches in length, measured at the pin bearing surfaces. Jib wire length shall remain fixed while racing.

**8.3.3** Spreaders shall be 27.75 inches from the mounting pin centerline to the outer end of the extrusion.

**8.3.4** Upper and lower shroud turnbuckles shall be the same type and size as factory supplied. Any style of cotter pin may be used to secure upper and lower shrouds.

**8.3.5** A wire rope bridle, 1/8", 7x19 wire, of the same as original manufacture, shall be fitted; with nicopressed loops in each end and at the center. The overall length of each side shall be 2.34ft. +/- .25 inches.

**8.3.6** Ronstan Medium Carbon Fiber C-Cleats, Parts #5010 and 5015, or Harken Regular Cam-Matic Cleats, Parts #H150 or #H365 and #H328, may be used to replace original jib sheet cleats. One wedge (#RF5012 or #H145) may be placed under the each jibsheet cleat. All other cam cleats on the console shall remain the same specification as original.

## **9. Sails**

- a.** Sails shall be built by ICA approved manufacturers.
- b.** Sails must be measured and certified before they are used for racing.
- c.** Each sail shall have an ICA royalty emblem permanently installed near the tack, on the starboard side. Removal of a royalty emblem invalidates that sail for racing.
- d.** The following sails may be used in ICA regattas: mainsail, jib, and spinnaker.
- e.** Mainsail and jib may each have transparent windows of any material, of not more than three square feet per sail.

- f. Sails shall be built of a single layer of fabric except for corner, reinforcements, constructional seams, tablings, reefing points, camber lines, numbers and insignias. Sails shall be made of woven polyester or Nylon so that when a sail is torn it shall be possible to separate the fibers without evidence of a film.
- g. One mainsail, one jib and one spinnaker may be purchased each calendar year for each registered boat.

### **9.1 Mainsail**

**9.1.1** The mainsail shall, at all times, fit within the limits defined by the mast and boom.

**9.1.2** The mainsail weight shall be minimum 5.0oz. per sailmakers yard.

**9.1.3** The mainsail shall have attachment slugs along the luff and attachment boltrope along the foot. Slug type, number and position are optional.

**9.1.4** Four mainsail battens shall be fitted. The upper two battens shall be transverse. The lower two battens shall each be maximum 3.0ft.

**9.1.5** The top and bottoms battens shall be minimum 4.9 ft. from their respective corners. Intermediate battens shall be evenly spaced relative to the top and bottom battens.

**9.1.6** Mainsail leech shall be no longer than 25.0 ft., measured from the forward upper corner of the sail, including boltrope, to the aft lower corner of the sail including boltrope.

**9.1.7** Girths shall be taken from the one-quarter, one-half and three-quarter points on the leech, located when the head is folded to the clew for the half-height point, and when the head and the clew are folded to the half-height point, to determine the one-quarter and three-quarter points.

- a. The maximum three-quarter-height width between the leech and the nearest point on the luff shall be 3.5ft.
- b. The maximum one-half height width between the leech and the nearest point on the luff shall be 5.95 ft.
- c. The maximum one-quarter height width between the leech and the closest point on the luff shall be 7.8ft.

**9.1.8** The mainsail shall be fitted with a headboard that may be of any material, with a maximum width of 4.5 inches, and shall not extend more than 5.0 inches aft of the head when measured at the right angle to the luff, starting at the outer edge of the boltrope.

**9.1.9** At least one functional reef shall be built into the mainsail. The bearing surface of the leech ring shall be minimum 3.0 ft., measured in a straight line along the leech, above the clew.

**9.1.10** A class insignia, of contrasting color, shall be fitted to each side of the sail, starboard side higher. The insignia shall be minimum 40 inches. Both insignias shall be placed between the upper two battens.

**9.1.11** A cunningham or downhaul hole may be fitted to the luff and may be "floating" type (not permanently attached to the gooseneck fitting.)

**9.1.12** Draft stripes or camber lines may be fitted.

**9.1.13** A sequential sail number, corresponding to the national registration of the boat, shall be fitted to each side of the mainsail.

**9.1.14** A leechline may be fitted.

## **9.2 Jib**

**9.2.1** A jib shall have a minimum 1/8" diameter luff wire installed. This luff wire shall be attached at all times and be non-adjustable.

**9.2.2** Jib weight shall minimum 5.0 oz. per sailmakers yard.

**9.2.3** Maximum leech length shall be 19.5 ft. The leech is measured from the forward upper point of the head to the clew point, which is defined as the point where the extension of the foot straight line and the leech straight-line measurements, meet.

**9.2.4** Maximum foot length shall be 5.8 ft. The foot is measured from the tack to the clew point.

**9.2.5** Maximum foot roach, measured below the straight line from tack to clew point, shall be 6.0 inches.

**9.2.6** A clewboard of any material may be fitted.

**9.2.7** Jib battens are prohibited.

**9.2.8** Draft stripes or camber lines are permitted.

**9.2.9** A leechline and a footline may be fitted.

## **9.3 Spinnaker**

**9.3.1** The spinnaker shall be a three-cornered sail, symmetrical about its vertical centerline.

**9.3.2** The spinnaker weight shall be minimum .75 oz. per sailmakers yard.

**9.3.3** The length of the leeches shall not be more than 20.5 ft. or less than 20.2ft.

**9.3.4** Girths shall be measured with the sail folded in half along its vertical centerline, using sufficient tension to remove wrinkles along the line of measurement. Maximum girth at any point along the leech to the nearest point on the folded centerline shall be 6.3 ft.

**9.3.5** The maximum distance from the head of the midfoot, measured in a straight line, shall be 23.0 ft.

**9.3.6** A sequential sail number, corresponding to the national registration number of the boat, may be attached to each side of the spinnaker.

**9.3.7** Leechlines and footline are prohibited.

## **10. Required Equipment While Racing**

**10.1** The following are required to be carried while racing: one gallon bucket, bilge pump, paddle, USCG Approved wearable lifejacket for each person aboard, a whistle attached to a throwable life preserver, three pound anchor, and 50 ft. of minimum 1/4" line anchor line which shall not be used as a sail control line.

**10.2** All factory-placed fittings and equipment shall be onboard while Racing.

## **11. Permitted Equipment**

**11.1** Two permanently mounted compasses.

**11.2** Whisker pole or spinnaker pole shall be factory supplied. Overall length shall not exceed 6 Ft. 3 inches. Pole outside diameter shall be minimum 1.25 inches

**11.3** Two spinnaker turning blocks, Harken #168, may be installed, one on each of the aft mooring eyes mounted on the deck.

**11.4** A spinnaker halyard, spinnaker sheets, twings and turning blocks (Ronstan #1981 or Harken #H166), topping lift and foreguy are permitted for ICA regattas.

**11.5** One mechanical masthead wind indicator.

**11.6** Radios and timing devices.

**11.7** Safety devices and equipment to owner's requirement or to comply with local regulations, or fleet rules.

**11.8** Spinnaker storage bag(s), mainsheet restrainer, spinnaker pole storage loops and mainsheet bridle restrainer (Two 1/4" may be drilled in the top of the tiller head for the restrainer); of any materials.

**11.9** A boom topping lift of at least 3/16" diameter line may be fitted. If fitted, the topping lift must be permanently attached at the masthead and to existing fittings near the end of the boom; and may not be tensioned while racing.

## **12. Prohibitions**

**12.1** Any equipment not specifically required or permitted in these rules and not provided on factory equipped standard yachts.

**12.2** Devices for altering the position of the mast at the mast butt or partners.

**12.3** Increase in mechanical advantage to sail control lines.

**12.4** Hiking straps.

## **13. Restrictions While Racing**

The following practices are prohibited while racing:

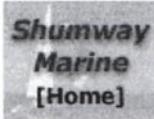
**13.1** The use of more than one mainsail, jib or spinnaker, or the alteration thereof, during the regatta. Damaged sails may be repaired or replaced with written permission from the race committee or jury.

**13.2** Notwithstanding the provisions of IYR Rules 54, 54.3, or 62, the following actions are prohibited while racing:

- a. Sudden body movement forward or aft (ooching).
- b. Sudden repeated body movement athwartship (rocking).
- c. Repeated pumping of the mainsail, jib or spinnaker sheets to promote acceleration of the yacht.

**13.3** Hiking. Crews shall be seated with legs inboard of the rail, but upper body may lean outboard. Droop hiking is prohibited.

**13.4** Number of crew. The boat shall be raced with two people.



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