

Tanzer 16 Specifications

Article S-1: Purpose, One-Design Principle

1. It is the purpose of these specifications to control modifications to Tanzer 16 sloops which compete in sanctioned events such that no boat will have an inherent speed advantage over any other.
2. The Association recognizes that the Tanzer 16 is primarily manufactured as a daysailer, and equipped as such. In order to increase the satisfaction of Association members who race the Tanzer 16, certain modifications are allowed which make the boats more uniform and easier to handle in racing conditions.
3. It is impossible to foresee every possible innovation. Hence, if a modification to the Tanzer 16 is not explicitly permitted by these specifications or by a ruling of the Chief Measurer, it is prohibited.

Article S-2: Official Plans

The official plans are the property of Tanzer Industries (or their successors), and are provided for reference only. Those features of the Tanzer 16 which are regulated by the Association are described in this measurement by-law.

Article S-3: Hull and Appurtenances

1. The Boat: shall be constructed of molded fiberglass by Tanzer Industries Limited (or their successors) or by a manufacturer formally licensed by them. Except for the following items, modifications to the hull and deck are not allowed:
 - a. Holes may be made in the hull and deck of the Tanzer 16 to mount allowed fittings. This includes holes to allow running rigging to pass through the deck.
 - b. The hull, deck and underwater fins of the Tanzer 16 may be painted at the owner's discretion, except that painting the hull or underwater fins with polymer type paint is prohibited. Waxing of the hull and deck may be carried out at the owner's discretion. Sanding or polishing of the hull or underwater fins is permitted.
 - c. Repairs which return the hull and deck to their originally manufactured condition are permitted.
 - d. Plywood hull and deck core material may be replaced with other materials, such as balsa or Airex foam, at the discretion of the owner.
 - e. Installation of safety equipment, such as flotation tanks, is at the owner's discretion. The Association recommends that older boats without bow flotation tanks should have such tanks installed.
 - f. Installation, of through-hull bailers and drains may be made at the owner's discretion

- g. A spinnaker launcher of any design may be installed through the deck.
2. The Hull and Deck Weight: shall not be less than 425 pounds when stripped of all normally removable gear such as spars, sails, rudder, tiller and extension, standing rigging, running rigging, anchors, boom crutch, etc. If weight is below the minimum, the difference shall be made up by the addition of ballast permanently attached to the inside of the hull. Such ballast may be distributed along the keelson and centerboard trunk, but it must all be fixed in place by bonding with epoxy resin or some other permanent method.
3. The Boat's Official Number: shall be in digits, minimum ½" high, marked on a card which shall be permanently affixed by molding and under clear polyester resin on the inner surface of the hull at the transom.
4. The Centerboard: shall be of anodized aluminum plate, 5/16" thick, with a total weight of 20 pounds, plus or minus one pound. The outline of the centerboard shall conform to the official plans. Any surface finish is allowed, except polymer paint. Edges may be faired or finished at the owner's discretion. Method of hoisting centerboard is optional.
5. The Rudder Blade: The rudder plate shall be of anodized aluminum, 3/16" thick. The outline of the rudder blade shall conform to the official plans. Any surface finish is allowed, except polymer paint. Edges may be faired or finished at the owner's discretion, as long as the shape of the rudder blade below the waterline satisfies the outline requirements.
6. The Rudder Head, Tiller, and Hiking Stick: are optional in-design.

Article S-4: Spars, Riggings and Fittings

1. The Mast: shall be of aluminum, of the dimensions shown in the official plans, with an integral sail luff track. It must be of the same cross section through- out its length. The weight of the mast, including mast fittings as shown in the official plans, and rigged with forestay, shrouds and halyards shall not be less than 31½ pounds.
2. The Boom: shall be of aluminum, of the dimensions shown in the official plans, with in integral sail foot track, and shall not weigh less than 8½ pounds including boomvang, clew outhaul, and mainsheet blocks and the other fittings shown in the official plans. It shall be of the same cross section throughout its length.
3. The Standing Rigging: shall conform as to position, number and length of stays with the official plans and shall not be expanded or contracted during racing. The shrouds shall be of stranded wire rope of 1/8" minimum diameter. The point of attachment of the shrouds and forestay to the mast shall be in accordance with the official plans.
4. The Running Rigging: Running rigging is defined as being those devices which control the shape and position of the sails. Modifications or replacement of the original running rigging to include any of the following shall be PERMITTED:
 - a. Any type of locking devices for halyards 6 feet or lower above the heel of the mast.
 - b. Any type of external adjustable mainsail clew outhaul that does not use magic boxes, hyfield levers, or winches.
 - c. An adjustable mainsail traveler of any type, no longer than 48" wide and mounted on

the deck at the stern. No mid-boom traveler or horse is permitted. At least one part of the mainsheet must connect the aft end of the boom to a horse, bridle, or traveler of any design aft of the cockpit, with the free end led to a block mounted on the aft end of the centerboard trunk.

- d. Any type of mainsail cunningham or downhaul that does not use magic boxes or winches.
 - e. A boomvang of any type that does not use magic boxes or winches and the mainsheet are the only permitted devices used to induce spar bending and the flattening of the mainsail for heavy air.
 - f. Jib sheets must be lead from blocks or fairleads on a single 14" or shorter track on the deck and lead no further inboard than 2" from the edge of the cockpit. A moveable car on this track shall be the only permitted means for changing the sheeting position or angle of the headsail. Any configuration of jib sheet locking devices, jib sheet ratchets blocks or jib sheet winches is permitted.
 - g. Gooseneck Fitting: A sliding gooseneck is permitted. The level of the top edge of the boom when projected to the mast shall not be less than 4'2" from the heel of the mast as shown in the official plans.
 - h. The Spinnaker Pole: shall have a maximum length of 6'9" overall including fittings. Only one spinnaker pole is to be carried on board when racing. A whisker pole is permitted; maximum length shall be 7'9" overall including fittings. Either pole may be rigged while racing, but never both at the same time.
 - i. Miscellaneous Fittings and Hardware: As shown in the official plans are recommended, but are not mandatory.
5. Miscellaneous Equipment: The following Miscellaneous equipment is PERMITTED at all sanctioned events:
- a. Spinnaker launching chutes
 - b. Trap door (Elvstrom) bailers and transom flaps
 - c. Below deck spinnaker sheets and guys
 - d. Jiffy slab reefing
 - e. Any type of timing device
 - f. Non-electronic compasses
6. Movable Ballast. No movable ballast other than the weight of the crew is allowed. Hiking straps of any design which restrain the weight of the crew at the ankles are allowed. No hiking aids which restrain the weight of the crew above the ankles, such as trapezes, hiking boards, or Soling type harnesses, are permitted.

Article S-5: Grandfather Clause

Boats equipped with original equipment shall be deemed to satisfy this specification, with the exception that the minimum hull weight requirement must be satisfied.

Article S-6: Racing Safety Equipment

The following safety equipment must be carried when racing:

1. An anchor of any approved design with a minimum of 50' of attached line.
2. One wearable type 1, 11, or III personal flotation device for each person on board.
3. One throwable type IV flotation device.
4. One paddle.
5. One bucket suitable for bailing.

Article S-7: Sails

1. The object of this article is to insure that no boat shall have an undue advantage over any other through material or size of sails. Sails which, in the opinion of the Chief Measurer, are made such that they violate the intent of this rule, even though they satisfy the letter of the rule, are not allowed.
2. Sails are to be marked by a measurer authorized by the Chief Measurer to say that it has passed his inspection. It is within the authority of race committees of events sanctioned by the Association to allow only such sails to be used in that event, although such requirement must be clearly stated in the regatta notice.
3. New sails may not be purchased more than once every two years unless specifically authorized by the Chief Measurer in writing, and then only for the reason that the sail to be replaced has been destroyed or rendered unusable.
4. Sails must be constructed from woven material only.
5. All sails must be capable of being lowered when underway.
6. Windows in sails are allowed at the discretion of the owner.
7. All sails shall be measured in a dry state and laid on the floor with tension adequate to remove wrinkles along the dimension being measured.

Mainsails

8. Mainsail cloth weight shall be a minimum of 3 ounces per square yard and maximum of 7 ounces per square yard, both weights based on a linear yard 36" in width.
9. The class insignia, which is a winged "C" as indicated on the sail of the official plans, shall be at least 12" high and shall be placed on both sides of the mainsail. Underneath it shall be placed the official number of the boat in Arabic numerals, at least 12" high, in accordance with IYRU rules.

10. There shall be four battens in the mainsail leech, of which the top one shall be no more than 18" long, and the rest no more than 24" long. All battens shall be straight and the maximum width shall be 1 5/8". The battens shall be placed so as to divide the unreefed leech into approximately equal sections.
11. Mainsails shall have an attached bolt rope in the foot and the luff, which shall be slid into the integral track in the mast and boom.
12. Measurement of the full luff and the foot shall be taken with 25 pounds of tension applied to the edge being measured, in order to stretch the bolt rope.
13. The top edge of the headboard shall not exceed 4½" in length (fore and aft), measured square to the mast.
14. The top measuring point of the luff and the leech of the mainsail shall be respectively at the uppermost luff and leech corner of the headboard. Other points of measurement shall be taken at the intersection of the extended lines of the extreme edges of the sails, including bolt ropes or tapes.
15. ½, ¾, and ¼ points of the leech and luff shall be determined by folding the sail onto itself at the leech and luff using the measuring points stated above.
16. Mainsails shall comply with the following dimensions:

	Maximum	Minimum
Length of Luff	19' 3"	19' 1"
Length of Leech	21' 6"	21' 4"
Length of Foot	9' 4½"	9' 2½"
Width at 75% of Height	3' 4½"	3' 1½"
Width at 50% of Height	6' 0"	5' 7"
Width at 25% of Height	8' 1½"	7' 10"

Headsails

17. Headsail Cloth Weight: shall be a minimum of 3 ounces per square yard, and a maximum of 7 ounces per square yard, both weights being based on a linear yard of 36" in width.
18. Headsails are to be triangular in shape.
19. The leech of all headsails must be straight line or a concave curve (no roach is allowed). A single batten, up to 12" long, is PERMITTED in headsails.
20. The maximum round to the foot, measured from the straight line joining the center of the tack and clew eyes, shall not exceed 3½". If either eye is outside the sail, the straight line shall be taken from the corner of the sail at that point.
21. Headsails shall be attached to the luff wire at the head and tack. Headsail cunninghams installed by the sailmaker on the headsail shall be permitted as long as they are not designed to be adjusted while racing.

22. The tack of the headsail when hoisted shall not be more than 2 inches from the deck.
23. The points of measurement shall be taken at the intersection of the extended lines of the extreme edges of the sail, not including hoisting pendants, external cringles, etc.
24. Jibs shall comply with the following dimensions:

	Maximum	Minimum
Length of Luff	14' 8"	14' 5"
Length of Leech	12' 1"	11' 10"
Length of Foot	5' 11"	5' 8"

25. Genoas shall comply with the following dimensions:

	Maximum	Minimum
Length of Luff	16' 1"	15' 10"
Length of Leech	15' 4"	15' 1"
Length of Foot	7' 3½"	7' ½"

Spinnakers

26. Spinnaker cloth weight shall be a minimum of ½ ounce per square yard (based on a linear yard of 36" in width), and a maximum of 1½ ounces per square yard.
27. Spinnakers shall be symmetrical when folded about a line joining the head to the center of the foot. This fold shall be known as the centerfold. The sail shall be substantially flat when folded about this line and laid on the floor. Measurements which involve the centerfold line shall be made with the sail folded and laid on the floor in this manner.
28. Luff and foot measurements shall be made with sufficient tension applied to the edge being measured to remove all wrinkles along that edge.
29. For measurements between corners, measurement points shall be taken at the intersection of the extended lines of the extreme edges of the sail at the point being measured.
30. The upper girth shall be measured between points on the extreme edge of the luff 8' below the intersection or the extended lines of the extreme edges of the luff and centerfold lines.
31. The maximum girth shall be taken at the greatest distance between any two points on the extreme edges of the luffs of the sail which are equidistant from the intersection of the luff and the foot.
32. Spinnakers shall comply with the following dimensions:

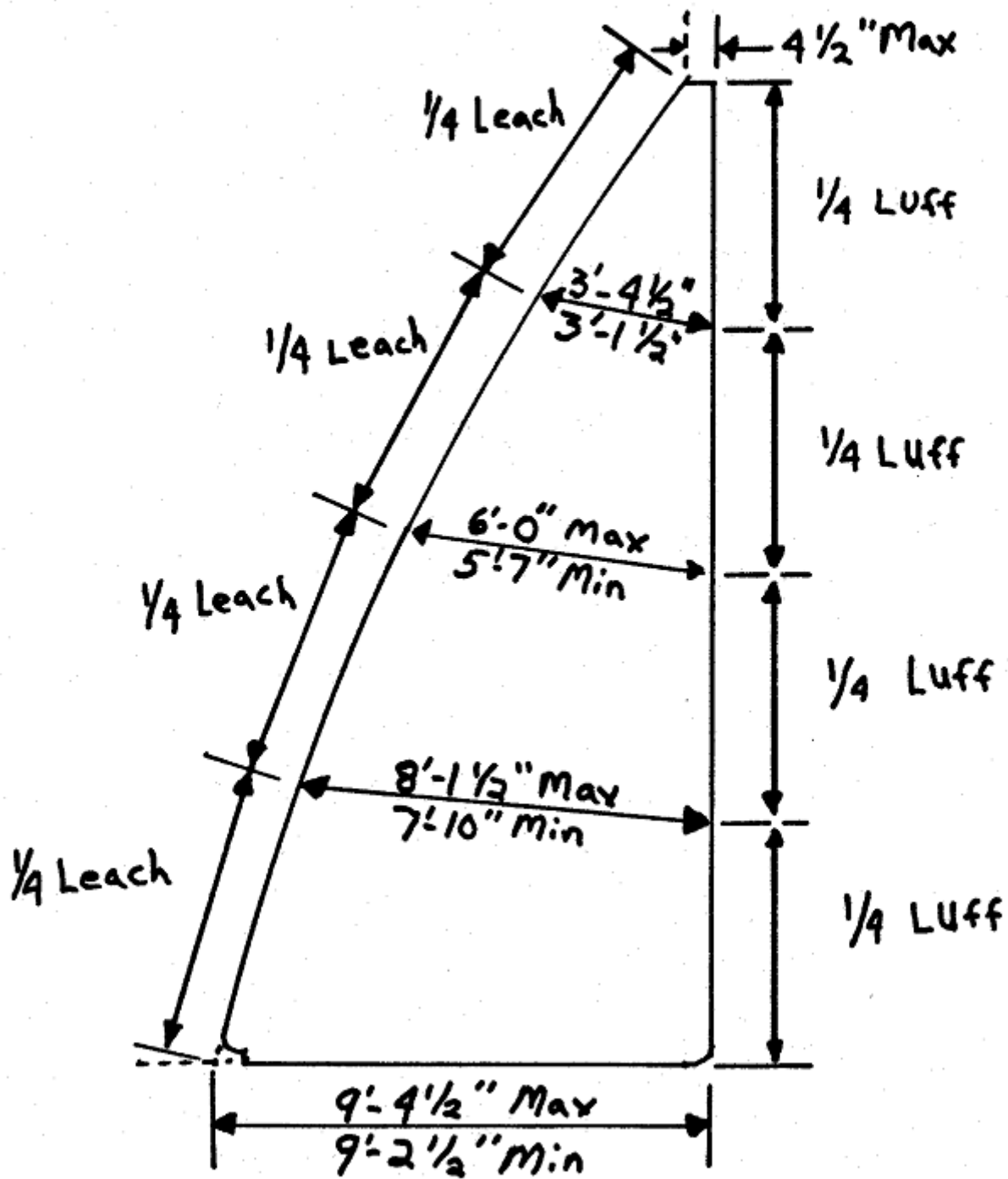
	Maximum
Length of Luffs	17' 3"
Length of Foot	13' 0"
Length of Long Diagonal	19' 0"

Upper girth	13' 0"
Maximum girth	14' 0"

Article S-8: Sail Measurement Diagrams

The diagrams are included to aid in the measurement of sails. If a discrepancy or ambiguity exists between the written specifications in Article S-7 and a diagram contained herein, the written specification in Article S-7 shall prevail.

Method of Measuring Mainsails



Method of Measuring Spinnakers

