

EXRESS 37 RULE CHANGE
PROPOSAL – FOR DEVELOPMENT AND REFINEMENT

Explanation of proposed changes to Express 37 sail limitations:

Contents:

Page 1: Describe differences between current and proposed rules

Page 2 - 4: The proposed new rule

Page 5 and 6: Notes and verbatim copy of our current class rules

Goal: Reorganize (sort by individual sail) and clarify our One Design Sail Limitations.

List of actual changes:

- Mainsail: specify dry weight, but specify no limit on batten lengths
- 155% Genoa: specify dry weight
- #3 Jib: specify dry weight, allow top batten to be full length, not restricted to 2.5'
- #4 Jib: allow top batten to be full length, not restricted to 2.5', remove cloth limitation (old = Dacron or Mylar)
- Spinnaker: New measurement procedure to match what is used by PHRF and other current (2017) measurement systems. Our old rule specified maximum girth (horizontal measurement across the spinnaker) as nowhere greater than 25.79' (maxgirth). New proposal specifies measuring girths only at the mid point down the luffs (midgirth) and across the foot (foot girth). These values stay at 25.79' BUT girths in other locations are not measured. Practical result: girths below the midgirth will grow larger than 25.79' and then shrink back to 25.79' if you check the girths closer to the foot. The actual area of new spinnakers built to this rule will be slightly larger than what is currently legal in our class. When measuring an existing sail (2016) under the proposed rule, the sail will measure as having the same area, and it will be a legal sail, but in fact it will be slightly smaller than what is proposed. How big will the speed difference be?
 - Case (1) 2 spinnakers that both measure in using the old class rules, one is 4 years old, the other is brand new. The 4 year old sail has been doing the YRA Series and midwinters and beer can regattas. Over that time frame, the old sail has become quite porous, which allows the air to 'leak' through the sail. This leakage is largely responsible for what slows down older spinnakers. The speed difference between the old sail and the new sail will be substantial.
 - Case (2) 1 brand new spinnaker measured under the old rule, and 1 brand new spinnaker measured under the proposed new rule. I estimate the speed difference between these 2 sails as .2 to .4 times the speed difference in Case (1).

EXPRESS 37 RULE CHANGE
PROPOSAL – FOR DEVELOPMENT AND REFINEMENT

Paragraphs 3, 4, 5 and 6: see proposed new text aimed at removal of “basic” and “optional” sails from the rules, and other details. Changes are in red, and strike-through red.

EXPRESS 37 RULE CHANGE
PROPOSAL – FOR DEVELOPMENT AND REFINEMENT

2017 Proposed new sail limitations

Article 13: Qualifications of Yachts

e) Sails

1) Class yachts are limited to a mainsail, a genoa, a #3 jib, a #4 jib and symmetric spinnakers with the following restrictions:

Mainsail:

- Cloth: any commercially available,
- Minimum dry weight: 30 lbs. excluding battens
- Battens: unrestricted
- Maximum girths:
MGT = 3.0'
MGU = 5.3'
MGM = 9.0'
MGL = 12.3'

155% Genoa:

- Maximum LP 22.21 feet.
- Minimum LP 20.75 feet.
- Cloth: any commercially available
- Minimum dry weight: 31 pounds.
- Shall not have battens.

#3 Jib:

- Maximum LP: 14.33 feet.
- Cloth: any commercially available
- Minimum dry weight: 28 pounds excluding battens.
- Battens:
Maximum of 4
Divide the leech into even parts +/- 0.5 feet
The top batten may be full length
Remaining battens may not be longer than 2.5 feet.

#4 Jib:

- Cloth: any commercially available.
- Maximum LP 12.18 feet (85%)
- Battens:
Maximum of 4
Divide the leech into even parts +/- 0.5 feet
The top batten may be full length
Remaining battens may not be longer than 2.5 feet.

Spinnaker:

- Maximum luff: 48.27 feet.

EXPRESS 37 RULE CHANGE
PROPOSAL – FOR DEVELOPMENT AND REFINEMENT

- Maximum midgirth: 25.79 feet.
- Maximum foot girth: 25.79 feet.
- Must be symmetric sails.
- Minimum cloth weight: 40 grams/sq meter.
- Cloth: woven nylon

2) PHRF Racing Sail Limitations:

Currently (January, 2017) PHRF rates the Express 37 at 72. When sailing under PHRF at that rating, we are entitled to race with the following sail limitations:

- Maximum LP of any headsail: 155%.
- Any headsail 155% and smaller is allowed.
- Any number of headsails is allowed.
- No weight restrictions on any sails.
- There is no limitation on materials for spinnakers.
- Asymmetric spinnakers are allowed
 - as long as they are not larger in area than the class spinnaker using the following formula:
 $(ASLU+ASLE) \times .25 \times ASF + (ASMG-.5ASF) \times (ASLU+ASLE)/3$
where ASLU is asymmetric spinnaker luff
ASLE is asymmetric spinnaker leech
ASF is asymmetric spinnaker foot
ASMG is asymmetric spinnaker mid girth
 - The tack of the asymmetric spinnaker may be fastened to the bow via an adjustable line, or to the class spinnaker pole and may be squared back as desired.

Inserting our Class Spinnaker luff and girth into the above formula yields a maximum area of 1037.6 square feet. Substitute

ASLU = ASLE = 48.27' (symmetric spinnaker luff)

ASF = ASMG = 25.97' (symmetric foot and midgirth)

Minimum mid-girth for all spinnakers is 75% of the foot.

3) A **newly purchased** yacht never raced (under these Articles) **by the new owner** shall have the right to declare a maximum of four (4) **"basic" class** sails at any time during her first calendar year of racing. Effective March 1, 1987, any yacht previously raced shall have the right to acquire no more than two (2) **replacement class** sails ~~of the "basic" sail inventory~~ in any one calendar year. This replacement sail rule is to be applied on a cumulative basis so that if the replacement rights are not exercised in any calendar year (beginning in 1987) they may accumulate and be exercised in a future year or years. In no event shall more than four **"basic" class** sails be replaced in any one calendar year. No other replacement sail may be acquired unless the sail to be replaced has been damaged beyond repair or was

EXRESS 37 RULE CHANGE
PROPOSAL – FOR DEVELOPMENT AND REFINEMENT

defective beyond repair in the first instance, both in the opinion of the measurer. The only sails eligible for replacement due to damage or defect shall be the most recently measured ~~“basic” or “optional”~~ class sails.

4) Any acquired class sail, ~~“basic” or “optional”~~, must be registered with the Measurer, and conform to the standards and dimensions as described in this Article, ~~and be stamped~~ before being used in any one-design class race. All sails shall be measured in accordance with the published IMS (or suitable replacement rule) sail measurement technique and shall comply with non-penalty restrictions.

5) Only those sails which conform to the ~~“basic or “optional”~~ descriptions in this Article and have been registered with the Measurer may be carried and used during a one-design race. Any conforming sail previously measured may also be carried.

6) For purposes of this Article, all sails registered with the Measurer shall be deemed to belong to that specific yacht and not the owner or charterer.

EXPRESS 37 RULE CHANGE
PROPOSAL – FOR DEVELOPMENT AND REFINEMENT

Below are our current sail limitations.

This has been taken off the web site today, Jan 29, 2017.

Note: Relevant to a portion of our discussion at the 2017 Class Meeting, every reference of the word `batten` is highlighted in red. There is no current mention of batten length with respect to mainsails. Historically batten length was used to limit roach (extension of sail area beyond a straight line from head to clew) on mainsails. In modern times it is universally agreed that measuring the girth of a mainsail is the best method to limit/determine the sail's area. This has been adopted in our class rules as stated below.

=====

Article 13: Qualifications of Yachts

e) Sails

1) The “basic” sail inventory shall consist of a mainsail, a #1 Genoa (155%), a #3 Jib and a Spinnaker. The cloth type and weights shall be as follows:

Mainsail – Cloth of any commercially available, total weight not less than 30 lbs. excluding battens (4/1/2003)

#1 Genoa (155%) -Cloth of any commercially available, total weight not less than 31 lbs.. (4/1/2003)

#3 Jib -Cloth of any commercially available, total weight not less than 28 lbs. excluding battens. (4/1/2003)

Spinnaker – woven nylon; not lighter than 30 x 30 denier; nominal .75 oz. per sailmaker's yard nylon ripstop(.50 oz. and 30 x 20 denier cloth are prohibited).

The maximum dimension of non-spinnaker sails are as shown on Carl Schumacher, Drawing #24-3 Revision 4, dated Jan 1 2002. A #1 Genoa shall also have a minimum LP of 20 feet, 9 inches. A #3 Jib shall have a maximum LP of 14 feet, 4 inches.

Mainsail girth shall comply with the following limitations:

Mainsail:

- MGT = 3.0'
- MGU = 5.3'
- MGM = 9.0'
- MGL = 12.3'

EXRESS 37 RULE CHANGE
PROPOSAL – FOR DEVELOPMENT AND REFINEMENT

The No. 3 Jib and No. 4 Jib may have a maximum of four **battens** placed so as to divide the jib leach into even parts within one-half foot of tolerance and each **batten** may not be longer than 2 feet 6 inches.

The #1 Genoa (155%) shall not have **battens**.

It is the intention of this rule to prevent ultra-light sails. Over-standard sail hardware will disqualify sail weights.

2) The “optional” sail inventory shall consist of an additional headsail (#4 Jib) and an additional spinnaker (1.5 oz.).

#4 Jib – Dacron or mylar of suitable weight. The sail above shall have a maximum LP of 85% of J (12.18’).

Spinnaker (1.5 oz.) – Woven nylon; nominal 1.5 oz. per sailmaker’s yard nylon ripstop (or heavier); shall not exceed “basic” spinnaker in any dimensions.

3) A yacht never raced (under these Articles) shall have the right to declare a maximum of four (4) “basic” sails at any time during her first calendar year of racing. Effective March 1, 1987, any yacht previously raced shall have the right to acquire no more than two (2) replacement sails of the “basic” sail inventory in any one calendar year. This replacement sail rule is to be applied on a cumulative basis so that if the replacement rights are not exercised in any calendar year (beginning in 1987) they may accumulate and be exercised in a future year or years. In no event shall more than four “basic” sails be replaced in any one calendar year. No other replacement sail may be acquired unless the sail to be replaced has been damaged beyond repair or was defective beyond repair in the first instance, both in the opinion of the measurer. The only sails eligible for replacement due to damage or defect shall be the most recently measured “basic” or “optional” sails.

4) Any acquired sail, “basic” or “optional”, must be registered with the Measurer, conform to the standards and dimensions as described in this Article, and be stamped before being used in any one-design class race. All sails shall be measured in accordance with the published IMS sail measurement technique and shall comply with non-penalty restrictions.

5) Only those sails which conform to the “basic or “optional” descriptions in this Article and have been registered with the Measurer may be carried and used during a one-design race. Any conforming sail previously measured may also be carried.

6) For purposes of this Article, all sails registered with the Measurer shall be deemed to belong to that specific yacht and not the owner or charterer.

[end of paragraph E) SAILS under Article 13, Qualification of Yachts]