

NTCA NEWSLETTER



Issue No. 2

Date: August 1971

This is the second issue of the National Town Class Association Newsletter and is largely devoted to the report on the National Regatta and the mast and boom measurement survey made over the winter. I'm afraid we have relatively little news from any of the Fleets other than Marblehead, Nahant and Quannapowitt. It is your Newsletter and to make it a success we need your inputs. Let's get with it, Newburyport, Parker River and Sharon!

NATIONAL ASSOCIATION MEETING

The 1971 Spring Meeting was held at Nahant Country Club and the following officers were elected for a three year term.

President	- R. L. Forrest	(Nahant)
Secretary/Treasurer	- P. C. Dustin	(QYC)
Chairman, Specifications Committee	- P. L. Sutcliffe	(QYC)

The meeting discussed the revised By-Laws and approved their release to members. The Chairman of the Specifications Committee reported on the mast and boom survey; the full report is included in this Newsletter. He also covered the agreement that a full width rigid traveller at the transom was allowable as were aluminum centerboards. The new shape rudder is allowable in the National Regatta provided that it is used for each race. Members should note the above changes in their copy of Issue 2 of the Specifications.

FLEET # 1 - MARBLEHEAD

The first half of the 1971 season saw about 15 boats regularly competing in the Saturday afternoon races, with similar numbers in the Twilight and Sunday morning series.

The Fleet officers for 1971 are as follows:

President	- Nate Nichols
Secretary/Treasurer	- Larz Anderson
Chairman, Specs Committee	- John Read
Chairman, Tuning Committee	- Len Meredith
Publicity	- Trisha Howells

Newt Clemson won the first two series with consistent sailing throughout. As noted later, he led the Marblehead contingent at the Nationals, getting a third overall.

FLEET # 2 - NAHANT DORY CLUB

At the time of the Town Class Nationals, ten boats are actively racing in the Saturday and Sunday Series and five boats in the Wednesday Evening Series.

Danny Perepelitza is leading by 4-1/2 points in the Saturday Series, by 10 points in the Sunday Series and by 1 point in the Wednesday Series.

In second place are:-

Wilson Tibbo	- Saturday Series
Harriet Steeves	- Sunday Series
Robin Tibbo	- Wednesday Evening Series

In third place are:-

John Cort	- Saturday Series
Robin Tibbo	- Sunday Series
Walter Forrest	- Wednesday Evening Series

New faces in the winning circle for the Saturday and Sunday Series are John Cort (3 wins) and William Gilday with 3 wins.

FLEET # 5 - LAKE QUANNAPOWITT

The QYC Fleet is still very active and healthy, with 21 boats in the water and another two registered but not yet launched. The Spring Series started badly with the first two races cancelled because of pouring rain and zero wind, and the next two cancelled because of 30-40 knots and gusty. (Seven boats capsized within a few minutes, including one Townie, the Editor's!)

The abbreviated series of six races to count, out of eight, was won by Peter Sutcliffe with 5-3/4 points, Bruce Morang was second with 17-3/4 and Bob Davidson third with 18-3/4.

The Summer I Series consisted of 10 races, 8 to count, and was also won by Peter Sutcliffe with 8-1/2 points, Mike Ferro took second with 15-1/2 points and Bob Davidson got another third with 35 points.

The Fleet officers for the 1971 season are:-

Fleet Captain	- Bob Davidson
Fleet Correspondent	- Russ Knower
Fleet Measurer	- Mike Ferro

FLEET # 6 - NEWBURYPORT

The 1970 season results were received just too late for inclusion in the first Newsletter, so here they are:-

SERIES I

1	Ray Walton	Hot Spur	70
2	Dave Estabrooks	Bonnie	1049
3	Ed Caughlin	Julie III	2055

SERIES II

1	Dave Estabrooks	Bonnie	1049
2	Ray Walton	Hot Spur	70
3	Claude Levesque	Party Doll	11

FINAL STANDINGS

1	Ray Walton	Hot Spur	70
2	Dave Estabrooks	Bonnie	1049
3	Claude Levesque	Party Doll	11

1971 NATIONAL REGATTA

The 1971 National Regatta was held at Nahant on August 7-8th, twenty-three boats from five Fleets participating. The weather was good but the winds were fluky in two of the four races, and never got above 10 knots throughout the series.

Local talent shone throughout; the first race was won by Danny Perepelitza of Nahant in Endeavor; Tom Forbes of Marblehead was second and Mike Ferro of QYC third; Wilson Tibbo, last year's champion, was fourth. The second race saw the fleet turned inside out as the wind died after the first mark; Mike Ferro went from second to twentieth and Wilson Tibbo found some air to come from behind to win. Trisha Howells from Marblehead was second, and Bob Stuart from QYC was third.

The third race on Sunday morning was late starting due to a dying wind which later came up from the ocean. The race was long and again saw the lead change drastically as Wilson Tibbo found his own private vacuum and went from first to about twentieth on the run as boats passed him on either side. The final beat home proved again that Danny Perepelitza can make his boat go to windward as he beat out Nate Nichols who led round the leeward mark. Len Meredith made a fine comeback from ninth at the leeward mark to third at the finish.

The final race was a fairly short triangle with about 8-10 knots of wind. Barry Nichols of Marblehead led all the way; Wilson Tibbo was second and Newt Clemson was third.

The series was won by Danny Perepelitza with 17-1/2 points; Wilson Tibbo was second with 18-3/4 and Newt Clemson of Marblehead was third with 24.

The Nahant Dory Club is to be congratulated on running a fine regatta; the arrangements were excellent and much appreciated by the vistor. Dick Forrest and his Race Committee ran four good races under trying wind conditions and then had to wrassle with a final protest that had a direct bearing on the National Championship.

As Dick pointed out in the prize giving ceremony, a record was set for the Nationals. Twenty-three skippers said they would participate, twenty-three turned up, twenty-three started in every race, and twenty-three finished every race.

Well done Danny, Wilson, Newt, Dick and the whole of the Nahant Dory Club.

(Peter Sutcliffe)

A N N O U N C E M E N T

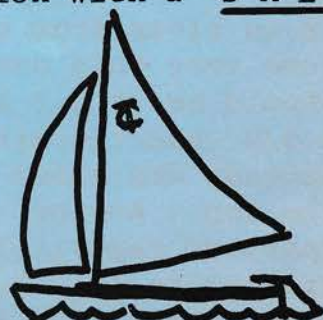
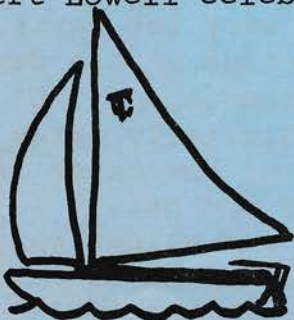
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on remaining 1971 inventory

of

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Deposit - 50% of sale price. Sale ends - September 15, 1971.
If you prefer early spring 1972 delivery, your deposit will assure
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of sale price due when ready for delivery in spring of 1972.

PARKER RIVER MARINE

Telephone Number:- 462-4453

REPORT ON MAST AND BOOM MEASUREMENT SURVEY

Introduction

At the Fall 1970 General Meeting, the Specifications Committee was asked to survey existing mast and boom dimensions and to establish, if possible, a set of spar specifications. The Specifications Committee sent out a questionnaire to all registered Townie owners in December asking for spar dimensions at specified locations. Twenty completed forms were received, nine from Marblehead and eleven from Quannapowitt. The results of this sample of about 20% of the membership have been analyzed and the results are as follows:

Results of the Survey

Thirteen dimensions were requested, representative of those shown on the official mast plans. A summary of the plan dimensions, the average of those measured, and the highs and lows are shown in Table 1. The critical dimensions from the point of view of spar weight and flexibility are the mast and boom cross sections and the height of start of taper of the mast. Those boats showing greatest differences from the plan values are summarized in Table 2.

Discussion of Spar Dimensions

It is clear from these results that we have some very fat masts and some very thin ones. For instance, the cross section at the deck should be 3" x 2 1/4" whereas the maximum dimensions are 3 1/8" x 2 3/8" and the minimum are 2 9/16" x 1 15/16". Similarly large spreads are shown in the dimensions at the start of the taper and at the top. Another dimension that varies widely is the height to the start of taper. The plans show 12' whereas measured values range from 8' to 17' 7". Admittedly this dimension is subject to error in measurement, but it is clear that wide differences exist.

Based on these results, the Specifications Committee attempted to come up with a simple set of tolerances that could be incorporated in the specifications. It was decided to try to specify three dimensions, the cross section at the deck, the cross section 12' from the step and the cross section at the top. The cross sections at the deck and 12' up would be the plan values with $\pm 1/4$ " tolerance on the fore and aft dimensions, and $\pm 1/8$ " on the athwartship dimensions. The top would be the plan values $\pm 1/8$ ".

T A B L E 1 - S p a r S t a t i s t i c s - S u m m a r y

Dimension	Plan		Average		High		Low	
	long	small	long	small	long	small	long	small
MAST								
Overall Length	24' 0"		23' 11.9"		24' 1.5"		23' 10.75"	
Distance From Bottom To Step	1.75"		1.54"		1.75"		1.00"	
Cross Section At Step	2.75" x	2"	2.84"	1.83"	3.13"	2.38"	2.59"	1.38"
Cross Section At Deck	3"	x 2.25"	2.89"	2.18"	3.13"	2.38"	2.56"	1.94"
Distance From Step To Start of Taper	12' 0"		13' 10.5"		17' 7"		8' 0"	
Cross Section At Start Of Taper	3"	x 2.25"	2.83"	2.19"	3"	2.50"	2.50"	2"
Distance From Step to Lower Shroud Tang	14' 3.5"		14' 1.71"		14' 3.50"		14' 0"	
Dis.From Low.Shro. Tang-Cen.Spr Plate	2.50"		2.76"		4.13"		2.38"	
Dis.From Step To Jib Stay Tang	17' 7"		17' 0.54"		17' 8"		15' 6"	
Dis.From Step To Upper Shroud Tang	22' 6"		22' 3.44"		22' 7.25"		21' 3.63"	
Dis.From Top To Centerline of Sheave	3"		3.033"		3.50"		2.38"	
Cross Section At Top	2"	x 1.88"	1.94"	1.78"	2.13"	2"	1.75"	1.50"
Length of Spreaders Cent.of Pin To End	20"		21.3"		25"		19"	
BOOM								
Overall Length	12' 2"		12' 0"		12' 3.38"		11' 5.75"	
Cross Section At Fwd End	2"	x 1.63"	1.90"	1.54"	2.06"	1.75"	1.63"	1"
Cross Section-6' Back from Fwd End	2"	x 1.63"	1.92"	1.62"	2.06"	1.75"	1.50"	1.38"
Cross Section At Aft End	2"	x 1.63"	1.83"	1.59"	2.06"	1.75"	1.43"	1.25"

T A B L E 2 - H i g h a n d L o w D i m e n s i o n s

Dimension	H I G H		L O W	
	long	small	long	small
MAST				
Cross Section At Deck	3.13" #2027/T.Forbes	2.38" #869/T. Hogan	2.56" #21/L. Campbell	1.94" #2007/Q. Theroux
Distance from Step to Start of Taper	17' 7" # 937/M. Ferro	-----	8' #21/L. Campbell	-----
Cross Section at Start of Taper	3.0" # 777/J.Read----- #2027/T.Forbes #2070/L.Campbell #2090/R.Dyer # 52/B.Nichols	2.5" #777/J. Read	2.5" #88/J.Morrell----- # 77/L. Tobin # 88/J. Morrell # 145/N. Nichols #2007/Q. Theroux	2" # 77/L. Tobin # 88/J. Morrell # 145/N. Nichols #2007/Q. Theroux
Cross Section at Top	2.13" # 76/J.Anderson #2027/T.Forbes	2" #2090/R. Dyer	1.75" # 16/D.Butterworth # 88/J.Morrell--- # 601/P.Sutcliffe # 887/R.Davidson #2053/L.Murphy	1.5" # 88/J. Morrell
BOOM				
Cross Section 6' Back From Fwd End	2.06" # 601/P.Sutcliffe #2070/L.Campbell	1.75" # 88/J.Morrell # 869/T.Hogan #2027/T.Forbes #2080/R.Knower	1.50" # 892/R. Rex----- # 77/L. Tobin	1.38" # 937/M. Ferro # 892/R. Rex
Cross Section at Aft End	2.06" #2070/L.Campbell	1.75" # 869/T.Hogan #2027/T.Forbes #2080/R.Knower	1.43" # 77/L. Tobin	1.25" # 892/R. Rex

We then took the measured values and compared them to these possible specifications, with the following results:

Cross section at deck

Spec 2 3/4" to 3 1/4" x 2 1/8" to 2 3/8"

Average: 2 7/8" x 2 3/16"
High: 3 1/8" x 2 3/8"
Low: 2 9/16" x 1 15/16"

Fifteen of the twenty met the proposed specification tolerances.

Cross section at 12' up from step

No actual measurements were available at this point but the following were obtained at the start of taper:

Spec 2 3/4" to 3 1/4" x 2 1/8" to 2 3/8"

Average: 2 7/8" x 2 3/16"
High: 3 " x 2 1/2"
Low: 2 1/2" x 2 "

Fourteen of the twenty met the proposed specification tolerances.

Cross section at top

Spec 1 7/8" to 2 1/8" x 1 3/4" to 2"

Average: 1 15/16" x 1 3/16"
High: 2 1/8" x 2 "
Low: 1 3/4" x 1 1/2"

Thirteen of the twenty met the proposed specification tolerances.

The situation on boom dimensions is very similar and a proposed tolerance of $\pm 1/8"$ would have included fifteen of the twenty measured.

It should be noted that, in general, the average dimensions of the twenty measured boats are within the tolerances but in each case a considerable number of boats are outside the tolerances, the percentage varying from 25%-35%. Now if the twenty boats that returned their measurements are a representative sample of the 100 or so registered Townies, we may have between 20 and 30 boats who did not return measurements but are also out of specification. The number may be even higher than this because not all the same boats were outside each of the tolerances noted earlier. Thus, if we were to impose the new tolerances to be effective on new repaired or modified spars after, say, April 1971 it would be essential that all the people who have not measured their spars do so before that date so they can have evidence of being in or out of specification before the new tolerances are effective.

It is unlikely that we would be able to get all the spars measured in time; therefore it is highly probable that some of the unmeasured ones will be out of specification. We would then be faced with the possible situation that in a couple of years one of those boats could be protested at a Nationals and the skipper could not prove that he has not modified the mast or boom after April 1971. This seems to be an untenable situation.

The only other alternatives are either to put out the proposed tolerances and rigidly enforce them on all boats, or to open up the tolerances to include all those who measured their spars. The Specifications Committee believes that both these alternatives are untenable. We cannot force everyone who has a spar out of specification to either buy or make a new spar or to build up an undersized one. Conversely, if we adopt tolerances that include everything, what is the point of such tolerances?

Specifications are only of significance if they're rigidly applied and this is extremely difficult to do on a design as old as a Townie, particularly when the boats have had many owners, and possibly were not even within specification when made, simply because at the time of manufacture no tolerances existed.

Another point to be considered is, of course, does a relatively large reduction in mast dimensions provide a large advantage to the Townie. To attempt to obtain a measure of this, the dimensions of ten of the more successful boats of the twenty measured were compared. The results are shown in Table 3.

TABLE 3 - Comparison of Ten Good Boats

Boat	O w n e r	Cross Section at Deck (Plans 3" x 2 1/4")	Height of Start of Taper (Plans 12') (Plans 3" x 2 1/4")	Cross Section at Start of Taper (Plans 3" x 2 1/4")	Cross Section at Top (Plans 2" x 1 7/8")
16	R. Butterworth	3 " x 2 1/16"	14' 3"	2 7/8" x 2 3/16"	1 3/4" x 1 3/4"
21	L. Campbell	2 9/16" x 2 3/16"	8'	2 9/16" x 2 3/16"	2 " x 1 15/16"
52	B. Nichols	2 7/8" x 2 "	12' 10 5/8 3 "	x 2 1/4"	1 15/16 x 1 15/16"
76	J. Anderson	2 7/8" x 2 1/4"	13' 10"	2 7/8" x 2 1/4"	2 1/8" x 1 7/8"
88	J. Morrell	3 " x 2 1/4"	14' 6"	2 1/2" x 2 "	1 3/4" x 1 1/2"
145	N. Nichols	2 7/8" x 2 "	14' 1 3/4 2 7/8"	x 2"	2 " x 1 7/8"
601	P. Sutcliffe	2 7/8" x 2 1/4"	15' 9"	2 3/4" x 2 5/16"	1 3/4" x 1 11/16"
937	M. Ferro	3 " x 2 1/4"	17' 7"	2 3/4" x 2 1/4"	2 " x 1 3/4"
2007	Q. Theroux (ex-P. Beauchesne)	2 3/4" x 1 15/16	9'	2 3/4" x 2 "	2 " x 1 13/16"
28	L. Meredith *	2 7/8" x 2 1/4"	16'	2 7/8" x 2 1/4"	2 " x 1 7/8"

* Not measured, but built to maximum dimensions at Len's request.

+ Pert Lowell provides about 2 7/8" finished dimension from a 3" piece of spruce.

It is seen here that apart from Leo Campbell's old #21 and Phil Beauchesne's #2007*, the majority of the dimensions of these masts are very close to the values quoted on the plans. In the past, neither #21 nor #2007 were significantly better than the others in the list and this strongly suggests that trimmed-down masts alone do not provide a marked advantage on the Townie. This conclusion is in line with the findings on bendy rigs on high-performance boats. Here it has been found that there must be a very close match between the cut of the sail and the bend characteristics of the mast before a really effective combination is obtained. It is of little use cutting down the mast to provide bend if the sail is not recut to match. Furthermore, the skipper must be able to bend the mast to suit the conditions, which involves jumper struts, adjustable shrouds, backstays, etc. none of which is allowed on the Townie. Ultimately, the only obvious benefit from a trimmed-down mast is the reduction of weight aloft and hence reduction in pitching moment of inertia. However, the basic boat is very heavy for its size and the reduction of a few pounds in mast weight has a very small effect on the total moment of inertia.

Conclusions

Based on a survey of about 20% of the active Townie racing membership, it is concluded that:

- 1) Although wide variations in spar dimensions exist there is no direct evidence that suggests a strong effect of such variations, either high or low, on performance.
- 2) It would be impractical to impose tolerances on spar dimensions because (a) a large proportion of the boats could be out of tolerance if the tolerances were set at typically $\pm 1/4"$ or (b) the tolerances would have to be ridiculously large if all boats were included; and (c) in any case it is impractical to impose tolerances that cannot be enforced.
- 3) Reducing the dimensions of the mast to enhance mast bend is likely to be of little use unless

* The mast on #2007 broke a while ago when the boat was being tipped over for bottom cleaning.

the sail is recut to match, and means are provided to bend the spar to suit the prevailing conditions. Such equipment is not currently allowed in the Townie Specifications.

Recommendation

The Specifications Committee recommends that the following note be added to the Specifications on the subject of spar dimensions:

"The nominal spar dimensions are as follows:

<u>Mast</u> Length	24 ft
Cross section at deck:	3" x 2 1/4"
Cross section 12' above step:	3" x 2 1/4"
Cross section at top:	2" x 1 7/8"
<u>Boom</u> Length	12' 2"
Cross section:	2" x 1 5/8"

Owners should not reduce the size of their spars below the above dimensions since there is no evidence of a gain in overall performance, but there is a much greater possibility of breakage. The current shortage of Sitka spruce makes replacement spars extremely difficult to obtain and also very expensive." (\$105.00 plus tax as of August 1971)

N E X T I S S U E

We hope to issue the third edition of this Newsletter before the end of the year. We would like to include all Fleet series results and news so Fleet Correspondents should send this information to the Editor:

10 Oriole Drive
Andover, Massachusetts 01810
475-0417

as soon as possible after the close of your 1971 season.

Looking forward to hearing from you,

Peter Sutcliffe