



Another tightly grouped rounding at the weather mark, typical for the day at all marks. Mike Hansow image.

## Gig Harbor MYC Regatta #7 – IOM Class (September 9, 2017 at Surprise Lake)

Kelly Martin Reporting & Scoring:

Surprise Lake surprised us once again! We had moderate A rig winds from the SW, with some light spots and a few puffs. We enjoyed 17 heats of good sailing and were challenged frequently by the typical Surprise Lake shifts. Once all the boats were tuned properly, there was very little difference in boat speed. Thanks to Daryl Ruff and Joe D'Amico for setting up the course. Special thanks to Mike Hansow for race management duties. Mike was unable to sail due to a hand injury from a wolverine attack. After the regatta, we enjoyed refreshments, food, and lots of stories (not all factual).

See you at the upcoming SMYC Regatta on Sept 16 at Coulon Park. Remember that we start at **9 AM**.

### Results after 17 Races with 3 Throw-outs:

Position	Skipper	Sail #	Club/City	Hull	Score	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Kelly Martin	77	DPMYC	V-10	15.0	1.0	4.0	1.0	1.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	2.0
2	Joe D'Amico	86	Sequim MYC	BritPop!	31.0	7.0	1.0	2.0	2.0	6.0	2.0	2.0	2.0	2.0	4.0	5.0	2.0	2.0	6.0	2.0	2.0	1.0
3	David Jensen	68	SMYC	RR II Woody	47.0	4.0	5.0	4.0	4.0	1.0	3.0	3.0	6.0	3.0	5.0	3.0	3.0	3.0	3.0	6.0	7.0	3.0
4	Daryl Ruff	67	SMYC	SMX	56.0	6.0	2.0	5.0	6.0	2.0	5.0	4.0	4.0	4.0	7.0	4.0	7.0	5.0	2.0	3.0	5.0	5.0
5	Bob Wells	7	SMYC	Kantun S	57.0	5.0	3.0	3.0	3.0	5.0	4.0	5.0	5.0	5.0	2.0	6.0	5.0	4.0	5.0	5.0	4.0	4.0
6	Steve Young	73	GHMYC	Cheinz	61.0	3.0	7.0	6.0	5.0	7.0	6.0	7.0	3.0	7.0	3.0	2.0	4.0	7.0	4.0	4.0	1.0	6.0
7	Bill Wilson	69	DPMYC	SMX	83.0	2.0	6.0	7.0	7.0	4.0	7.0	6.0	7.0	6.0	6.0	7.0	6.0	6.0	7.0	7.0	6.0	7.0



Daryl Ruff's Kantun SMX showed a new black stripe on the topsides, and the boat looks very different. The flat vinyl coating is from a spray can - Dupli-Color HVP111 Charcoal Gray High Performance Vinyl and Fabric Spray (I think he said?). Bob Wells Photo.



Three V10s at the front of the fleet at Deception Pass MYC's 2017 Wednesday Series on August 30<sup>th</sup> moving nicely in light air. Eight of the eleven boats were V-boats by Ian Vickers, but a Pikanto won this one. Jerry Brower photo.

### DPMYC Wednesday Series – IOM Class (5 regattas: 8/2 – 8/30 at Bowman Bay, WA)

Larry Stiles Reporting:

Sometimes the best families are the ones you choose.

The 2017 August Wednesday series was very well attended and very well contested. The overall conditions were great even if the last event had some of the markings of a mud wrestling match, with green mud. Weeds.

The first four regattas were taken by Kelly Martin with the last one being gobbled up by Jerry Brower. I'm told that Jerry's philosophy was to follow the leader and let them plow a way through the weeds. I'll have to think about that.

Heartfelt thanks and a really cool trophy go out to the mighty Trish for scoring and maintaining order and to Steve Sutton who dealt with the dinghy and mark setting.

Following is a link to photos on Jerry's Ibextrax site. <http://www.ibextrax.com/RC2017/0830DP/>

Enjoy and thanks.

### 2017 Bowman Bay August Wednesday Series #5 Deception Pass Park. 8/30.

Pls	Skipper	Sail	Club/City	Hull	Score	1	2	3	4	5	6	7	8	9	10	11	12
1	Jerry Brower	42	Lake Stevens	Pikanto	24.0	12.0	4.0	2.0	2.0	3.0	3.0	1.0	3.0	7.0	2.0	2.0	2.0
2	Kelly Martin	77	Bellingham	V10	30.0	1.0	5.0	8.0	1.0	1.0	1.0	7.0	1.0	9.0	1.0	4.0	10.0
3	Joe D'Amico	86	Sequim	V10	36.0	5.0	1.0	5.0	7.0	6.0	2.0	2.0	8.0	1.0	4.0	6.0	4.0
4	Jullian Lee	40	Anacortes	V10	39.0	2.0	2.0	1.0	9.0	12.0	4.0	8.0	6.0	3.0	9.0	3.0	1.0
5	Bill Matheson	4	Anacortes	V7	43.0	4.0	7.0	3.0	3.0	5.0	7.0	4.0	5.0	5.0	3.0	5.0	6.0
6	Steve Bechtold	46	Anacortes	V10	46.0	3.0	6.0	4.0	5.0	4.0	5.0	5.0	4.0	4.0	6.0	10.0	9.0
7	Steve Sutton	38	La Conner	V9	60.0	7.0	8.0	6.0	6.0	8.0	6.0	3.0	7.0	2.0	10.0	9.0	7.0
8	Jack Pulliam	43	Oak Harbor	V10	61.0	6.0	3.0	7.0	8.0	7.0	8.0	9.0	9.0	12.0	7.0	1.0	5.0
9	Mike Doherty	33	Ancortes	britPOP!	80.0	12.0	12.0	12.0	12.0	12.0	12.0	6.0	2.0	8.0	5.0	8.0	3.0
10	Doug White	146	anacortes	V7	101.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	6.0	8.0	7.0	8.0
11	Bill Wilson	69	Port Ludlow	SMX	102.0	12.0	12.0	12.0	4.0	2.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0

Hosted by Deception Pass Model Yacht Club. Line Judge: Trich; Bouy Boat / Kelp Russler: Mike; Dogs: Julian.

[Excel](#)



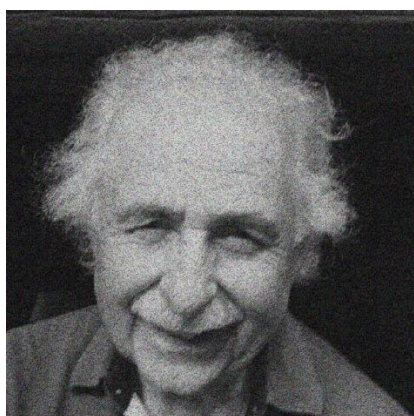
Video: Killer drone vid of the venue by Larry Vaniwarden here: <https://www.youtube.com/watch?v=k7aq4ohlGt&feature=youtu.be>. The venue looks perfect for radio sailing, but it is a bit of a walk from the control area at the end of the 400' dock from parking. And, the restroom is adjacent to parking. Crabbers are messy too. Yep, nearly perfect...

### 2017 Bowman Bay August Wednesday Series - Deception Pass State Park

Pls	Skipper	#1 8/2		#2 8/9		#3 8/16		#4 8/23		#5 8/30		Net
		Pl	Pt	Pl	Pt	Pl	Pt	Pl	Pt	Pl	Pt	
1	Kelly Martin	1	12	1	13	1	14	1	14	2	10	63
2	Jerry Brower			2	12	2	13	2	13	1	11	49
3	Joe D'Amico	6	7	3	11	7	8	6	9	3	9	44
4	Julian Lee	4	9	6	8	5	10	8	7	4	8	42
5	Steve Bechtold	3	10	7	7	6	9	7	8	6	6	40
6	Larry Stiles	2	11			4	11	4	11			33
7	Barry Donaher			5	9	3	12	3	12			33
8	Vic Childs	5	8	4	10			5	10			28
9	Bill Matheson	10	3	9	5	12	3	10	5	5	7	23
10	Steve Sutton	11	2	12	2	9	6	11	4	7	5	19
11	Jack Pulliam	8	5	10	4	10	5	14	1	8	4	19
12	Bill Willson	7	6	11	3	11	4			11	1	14
13	Dennis Pittis	9	4	8	6	14	1	13	2			13
14	Mike Doherty					8	7			9	3	10
15	Doug White	12	1	13	1	13	2	12	3	10	1	8
16	Rich Cushing							9	6			6

hosted by Deception Pass Model Yacht Club. Line Judge: Trish. Boat: various. Dogs: Julian.

[Excel](#)



**Ask Albert:** This is our column to learn more about sailing IOMs, including building, preparation, design, and race management. We have a radio sailing genius in our club, Joe Damico, and we intend to share some of his knowledge here. Joe's likeness to Einstein is a happy coincidence that we don't mind having fun with, and maybe it will add credibility to this?

**Question #4:** *Albert, I was in a booth last Saturday afternoon at Puerto Vallarta restaurant in Milton fascinated by you guys talking about your little sailboats. Most old guys talk about their aches and pains, but you guys are passionate about your boats. I couldn't believe it when you went out to your car and returned with a custom tension meter scaled to your boats. How do you make it and what does it do? **Curious in the next Booth.***

**Answer for "Curious in the next Booth":** *I feel kind of silly responding to somebody I don't know anything about, but it is a good question. I like a good question, so here goes:*

*Big and small sailboats use tension meters to measure stay tension so they can record and repeat fast rig settings. Our IOM sailboats are highly refined, and skippers in our class can benefit from this data too. I use it for shroud and backstay tensions, and I have been known to measure a competitor's rig tension when they have a fast setting – with their permission. It is particularly useful for assisting in getting a new boat or a new rig up to speed, but I don't use it regularly otherwise.*

*The tension meter I use was developed for model yacht scale by Larry Robinson when Seattle MYC was focused on the EC12 class and later published in his excellent Optimizing the EC-12 book. An excerpt is attached in the following pages, and it is used here with the author's permission. I encourage you to make one.*

*Larry's "tensionometer" uses a small spring to measure the tension. Interestingly, Zvonko Jelacic of Jelacic Sailing in Split, Croatia prefers to use gravity over a spring for accuracy in his personal custom tension meter. Larry's refined tool is more than accurate enough in my opinion, and it travels much better without the lead weight. (Zvonko is the IOM World Champion in 2009 and now 2017, and supports his family with his radio sailing business that produces excellent and innovative racing model sailboats and sails.)*

## Making A Tensionometer

Measuring the tension of shrouds and stays is a basic part of big boat tuning. Many fleets have evolved to the point where exact values for various settings are recommended by the fleet to help newcomers get up to speed quickly. There are several devices on the market that make these measurements. The most common is



Using The Tensionometer

the Loos Tension Gauge. It measures in arbitrary units, thus you will see references to setting a shroud to a certain value on the Loos Gauge. Until Larry made the first (we think) tension gauge for model yachts about three or four years ago, this important aspect of tuning had been neglected by the model yachting community. With his new device, Larry developed tuning methods that were otherwise not possible. At first there was little interest and the tension gauge (tensionometer) was regarded as an interesting oddity. However, as Bob Wells and Jerry Brower began to have success with 'tuning by the numbers' more of the local group began asking Larry to make one for them. The result was a small production run of 30, made to the drawing in **Figure 1**. These have long since been sold and since doing this sort of work is not very high on Larry's fun to do list, there are no current plans to make more. If the situation changes, it will be announced.

You may see a few of these tensionometers at the race site under the (tongue in cheek) name of Tune-O-Matic II by Larco. (No --- Larry is not associated in any way with Ronco or the Veg-A-Matic.) The current edition shown in **Figures 1, 2, and 3** is lighter and a little smaller than the

one shown in the *EC-12 Manual*. Reducing weight is desirable because the device will hang more easily from the shrouds or stays and its own weight will not distort readings as much. A number of smaller improvements have been made too. You might be tempted to make the device out of aluminum with fancy Teflon bearings, etc. When Larry tried it, the tensionometer ended up heavier and with more stickiness in its action. We recommend that you stay with the simple but effective bearings as drawn.

### Materials List

- 1/8 inch thick five ply model aircraft plywood
- 4 each - #2 brass roundhead wood screws
- 2 each - #2 nylon washers (from hardware store or hobby shop)
- 1 each - Dubro Rigging coupler and #2-56 nut
- 1 each - 3/32 long x 1/8 inch OD. section of brass tube
- 1 each - ball point pen spring
- 1 each - small cup hook
- 0.031 & 0.046 inch diameter brass rod
- 0.015 inch thick sheet styrene
- A scale that can measure one to eight pounds with an accuracy of one to two ounces.

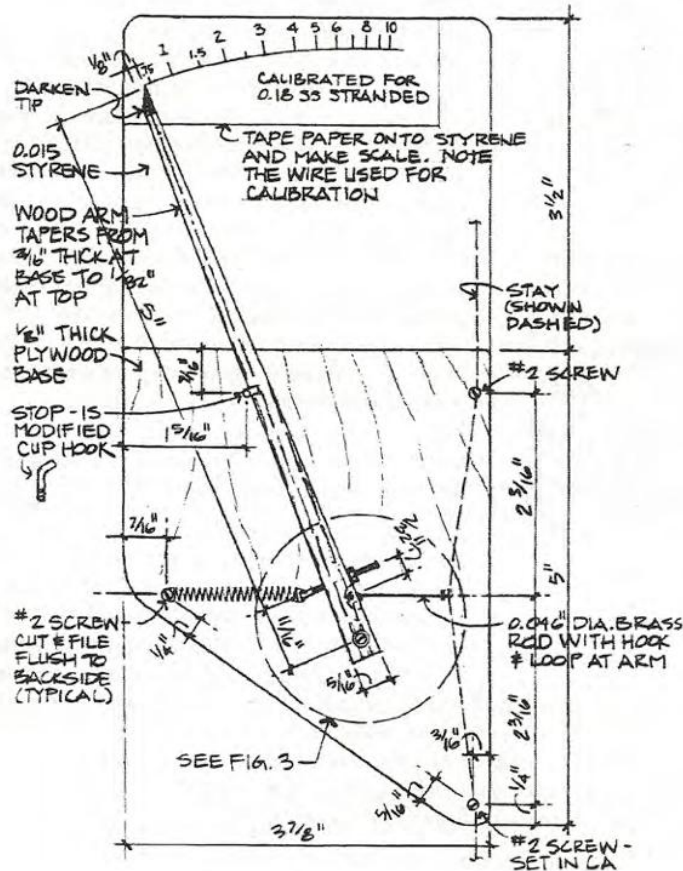


## Construction

1. Begin by cutting out and sanding the base board. You may want to put a  $\frac{1}{4}$  by 0.020 inch rabbet on the top of the backside to help align the plastic scale.
2. Drill the required holes as squarely as possible to the board. A drill press is recommended. We used a #56 drill bit for the #2 screws and a 0.31 inch drill for the small bale. Just use a section of the brass rod cut off with diagonal cutters for the drill if you don't have the proper size. Also drill the hole for the stop, which is made from the cup hook, cut off and bent.

Figure 1.

Model Yacht Tensionometer (Plan View)



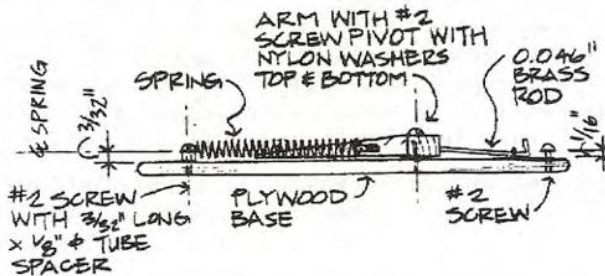
3. Apply some sort of sealer on the board. We used several coats of Watco Natural Oil Finish.
4. Make the arm to the dimensions shown in the drawing. Use a hardwood such as oak or maple. Drill the hole at the base with a #49 drill bit. This hole must be perpendicular to the bottom side of the arm so that the arm can move freely. Use of a drill press is advised. Also drill the hole for the rigging coupler with a #46 bit.
5. Rout out the small semicircular depression in the side of the arm for the hook. We used a suitable Dremel bit for this. With very small round nose pliers, bend a loop in the end of a two or three inch length of 0.046 inch diameter brass rod. Don't bend the hook on the other end yet. Install the rod with a 0.031 inch diameter brass pin as shown in the drawing. Also install the rigging coupler with a nut threaded on.

6. Bend the last turn on each end of the spring out to 90 degrees and hook the spring through the rigging coupler. (Note: you may have to adjust the length of your spring later, or try another one in order to have your instrument measure the desired range of loads. You can also move the position of the spring support which holds the end of the spring if you have to.)
7. Polish the shank of a #2 roundhead screw by thrumming. That is, coat a length of cord with abrasive such as tripoli (or even toothpaste) and pull the cord back and forth around the shank. This will make a nice bearing surface. Install the arm with this screw, using a #2 nylon washer under the screw head and between the arm and the board. You may want to substitute a shop made Teflon washer here as we did.

8. Bend the small 'U' shaped bale from 0.031 inch diameter brass rod and install over the wire in the position shown. We drill the holes a little oversize (0.035 inch) to help the CA glue penetrate. Make the bale overly long at this point, install, but glue only after bending the hook and then adjusting the height of the bale as described below. Later you can cut off the excess on the back side and file off any sharp protrusions.

Figure 2.

#### Model Yacht Tensionometer (End View)

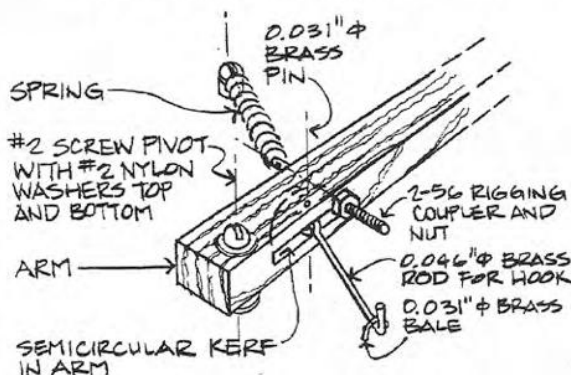


100 degrees (10 degrees more than a right angle). See the drawing to note the relationship between the pull on the hook, the position of the arm and the location of the spring. You should have all these forces in the same plane so as not to torque the arm and cause excessive friction.

12. Cut out and install the sheet styrene scale card. We stick it on the backside with double-stick tape.
13. Carefully check to see that the arm and hook move freely without binding.
14. Begin to calibrate your scale by preparing a two or three foot section of your standard rigging wire with a loop at each end. Tie one end to the ceiling and make some sort of hook for the lower end.

Figure 3.

#### Model Yacht Tensionometer (Detail)



the wire. Place a drop of glue on the nut so that the adjustment does not change. Mark the position of one side of the pointer on the sheet styrene. We like to bevel the top of the pointer so that there is no confusion about which side to read.

17. Add weight to the bucket until it weighs 1.0 lb. Hang on the wire and mark the position of the arm.
18. Add weight one pound at a time to about eight pounds, marking the scale each time.
19. Cover your scale with clear tape so that it does not get rubbed off.

9. Install the stop (made from the bent cup hook) and file off any excess on the backside of the board.

10. Install the spring support with its 3/32 x 1/8 inch OD. brass tube spacer. Hook the spring over the screw head so that the spacer holds the spring off the board.

11. Bend up the end of the 0.046 inch diameter brass rod to form a hook about 1/32 inch outside of the bale. The bend should be sharp, and the rod should be bent through about

15. Using the most accurate scale available to you, fill a bucket with water or whatever until it weighs about 3/4 lb. Hang the bucket from the wire and hook the tensionometer onto the wire. As shown on the drawing, the wire should pass to the right of the two screws at the right hand side of the instrument and should pass behind the hook so that the arm is pulled to the right as tension is applied. With practice you will find that you can do this with one hand.

16. Adjust the nut on the rigging coupler so that the arm just comes off the stop with the 3/4 lb. load on