

Traveler Systems
Dan Duggan, Fleet 2
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In the previous article on balancing the boat, we emphasized the importance of a traveler that can be eased to leeward to maintain boat balance and provide better control when the wind picks up. In this article, we will describe and evaluate several travelers which we have found to do this effectively. We thank Jerald Skeen for the permission to include material from his 1991 traveler article here. We also thank Bill Duggan for his diagrams.

Why is the Traveler so important?

The traveler works with the mainsheet to control the shape and position of the mainsail when going to windward in different wind conditions. Without a good traveler, we won't go well to windward!

In light air, a Day Sailer moves to windward best with the boom centered or very nearly centered. Without a traveler, we could tighten the mainsheet very hard to bring the boom in, but this would excessive downward pressure on the leech of the mainsail, distorting its shape. With a traveler exerting some pull to windward, we can bring the boom into center with just enough downward pressure to properly shape the main.

When a puff hits or the wind picks up, the boom must be able to move to leeward without moving upward. The pressure pulling the boom to windward must remain. The mainsail will keep its shape as it moves to leeward, and the tendency of the boat to heel and require more weather helm will be reduced.

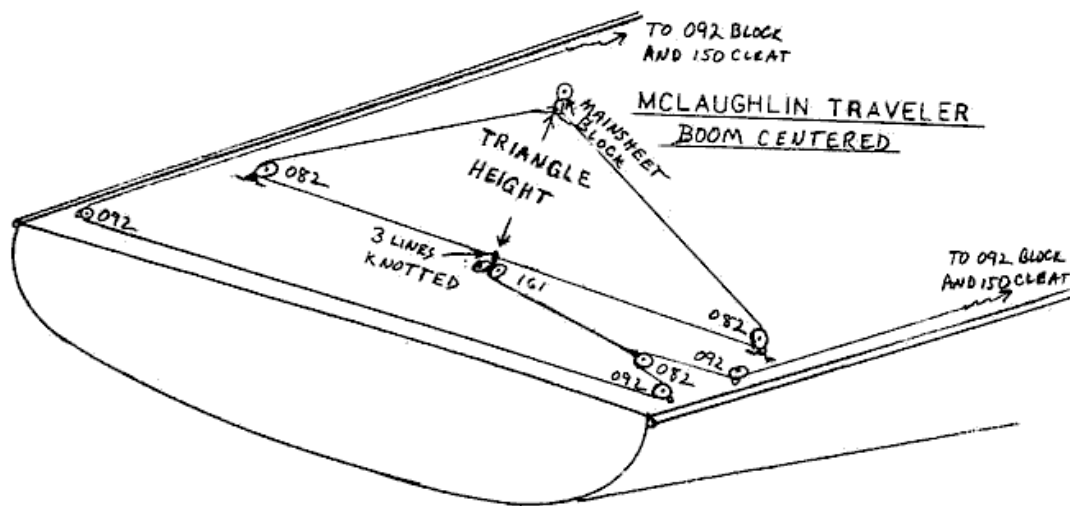


FIG. A

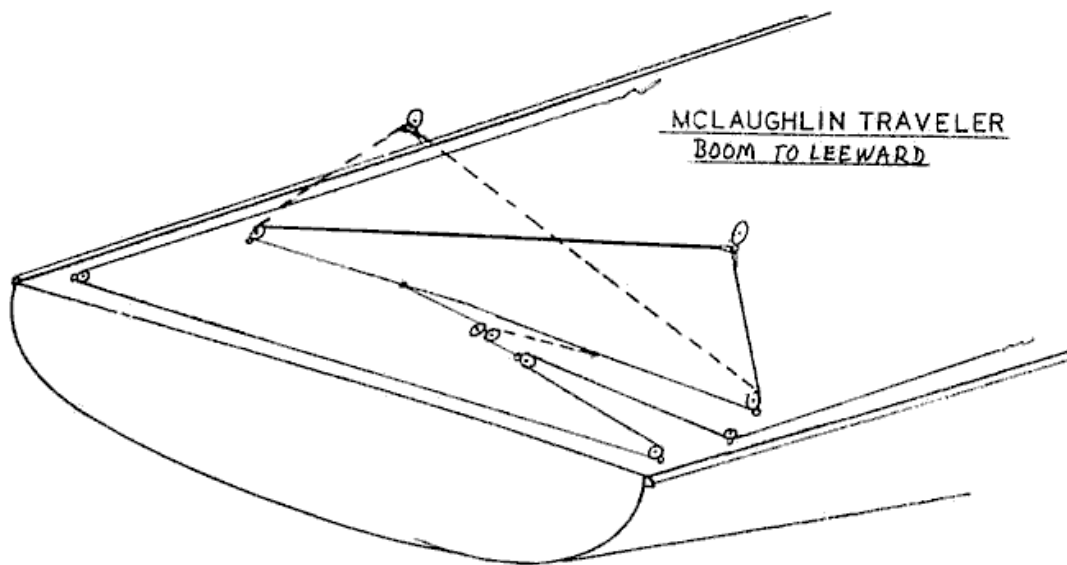


FIG. B

The travelers we have seen and will describe here will enable us to control the main property in light and in heavy air. They are fairly simple to set up and easy to use.

The McLaughlin Traveler

Jerald Skeen's article describes the traveler system delivered on the McLaughlin boats. Because of its simplicity and effectiveness, this traveler has been copied on many other boats. It is shown in Figures A and B. Figure A includes the Harken part numbers for each block and cleat. These same parts can also be used for the other travelers.

This traveler has two components. The first is a triangle which is sized to control the height of the boom.. The triangle must be high enough to allow the boom to be pulled to center without causing excessive downward pressure on the leech of the main, but not so high that it makes the mainsail leech too loose. We'll see how we set this height later in the article.

The second part of the traveler consists of the lines which are used to pull the boom to center in light air and allow it to move to leeward in heavier air.

There is a long control line which can be adjusted from either side of the boat, and a short line with a single block to connect the control line to the triangle.

When the long line is tight, it pulls the moveable block and the short line tight, causing the triangle and the boom to be centered as shown in Figure A. When the control line is loosened, the triangle can move, allowing the apex of the triangle and the boom to move to leeward as shown in Figure B.

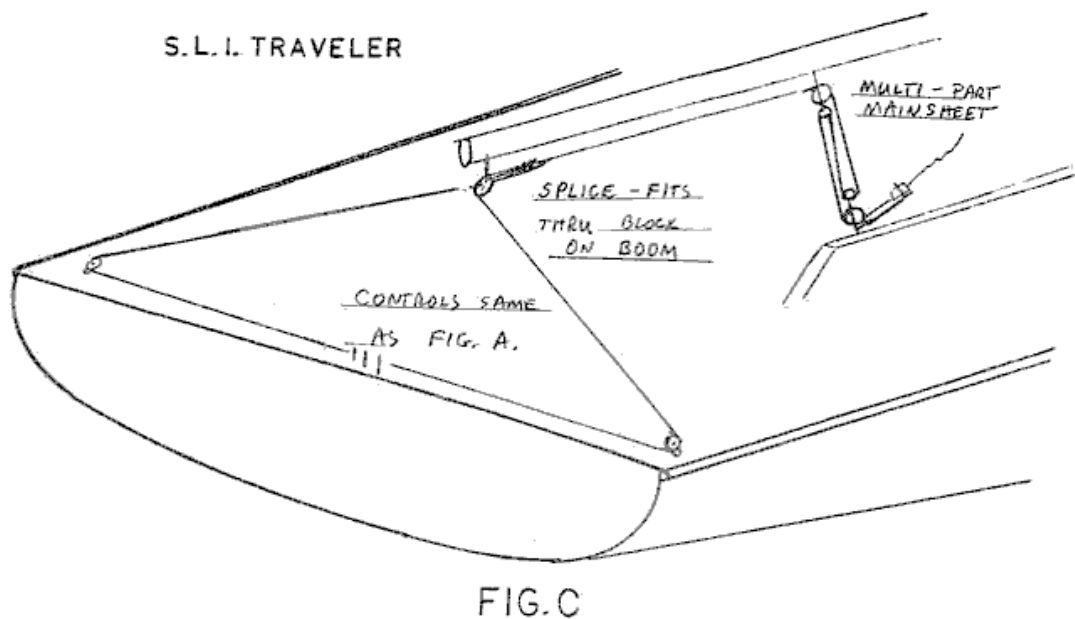
This traveler can be set up with the bottom of the triangle and the control lines below the deck, or with the entire traveler set above deck. For clarity, we have shown the control lines aft of the triangle, but they are usually placed forward of it.

There are several advantages of this traveler:

1. it is easy to rig and use.
2. It provides excellent control in most conditions.
3. It doesn't' require resetting every time you tack.

There are also some small disadvantages to this traveler:

1. The height of the triangle must be readjusted if you change the mains or retune the boat. Most of us who have used it haven't found this to be a big problem.
2. Since the height of the triangle is essentially fixed, this traveler may not be as effective as some of the others when it comes to making the small adjustments that a very experienced sailor makes when going upwind. It is, however, an excellent traveler to start with and many of us have made it work very effectively over a long period of time.



The SLI Traveler.

The racing models of the SLI Day Sailers used a light modification of this traveler. Instead of attaching a block for the mainsheet to the apex of the triangle, the ends of the lines which formed the triangle are spliced into the mainsheet at that point. The splice is small enough to pass through the mainsheet block at the end of the boom. This allows the height of the triangle to be adjusted by simply tightening or loosening the mainsheet. To make up for the leverage lost by going to one part of the mainsheet at the end of the boom instead of two parts, an extra part was added to the mainsheet between the boom and the top of the trunk. See Figure C. The major advantage of this traveler is that it has the ability to adjust the height of the triangle easily. It has two possible disadvantages:

- The small spliced lines tend to twist. (This doesn't seem to be a problem unless they twist very tightly.)
- The downward pressure exerted by the extra mainsheet part to the trunk could cause excessive tension on the leech of the main, but this does not seem to be a problem with North sails (which came on the SLI boats). In any case, Peter Johnstone used this traveler to win the MidWinters and the NACs in 1992.

The Traveler on Cherry Bomb.

For the 1996 NACs, Jonathan Foot, after some discussion, rigged our boat with a somewhat different and very effective stern traveler. The first part of this traveler is an adjustable triangle. It consists of a line which is dead-ended on one side of the afterdeck. On the other side, it runs through a block and then forward to a two-part tackle and a deal A block, called the traveling block, is free to run on this line and the block for the mainsheet is attached to the traveling block. This part of the traveler is shown in Figure D.

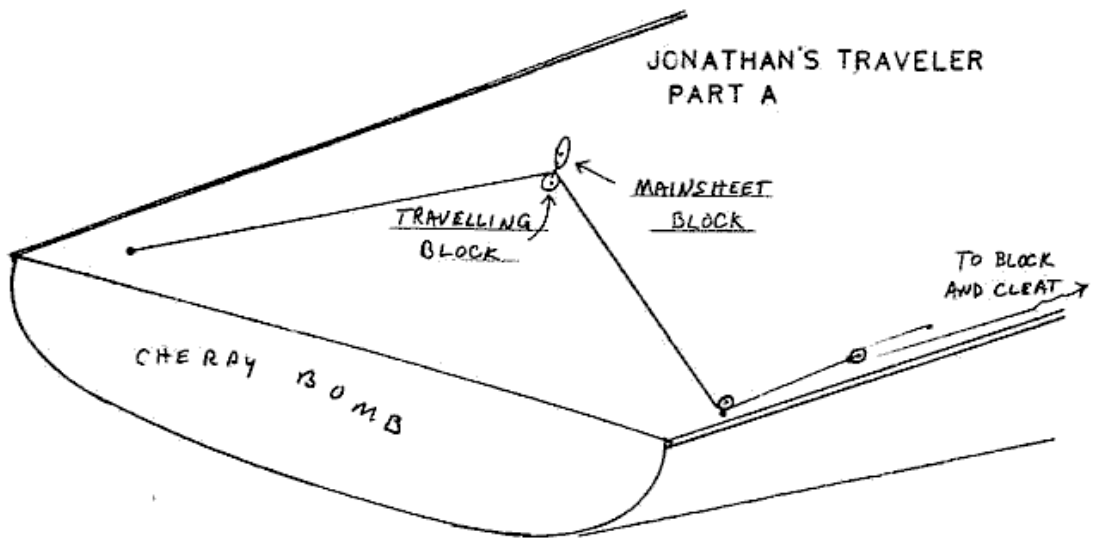


FIG. D

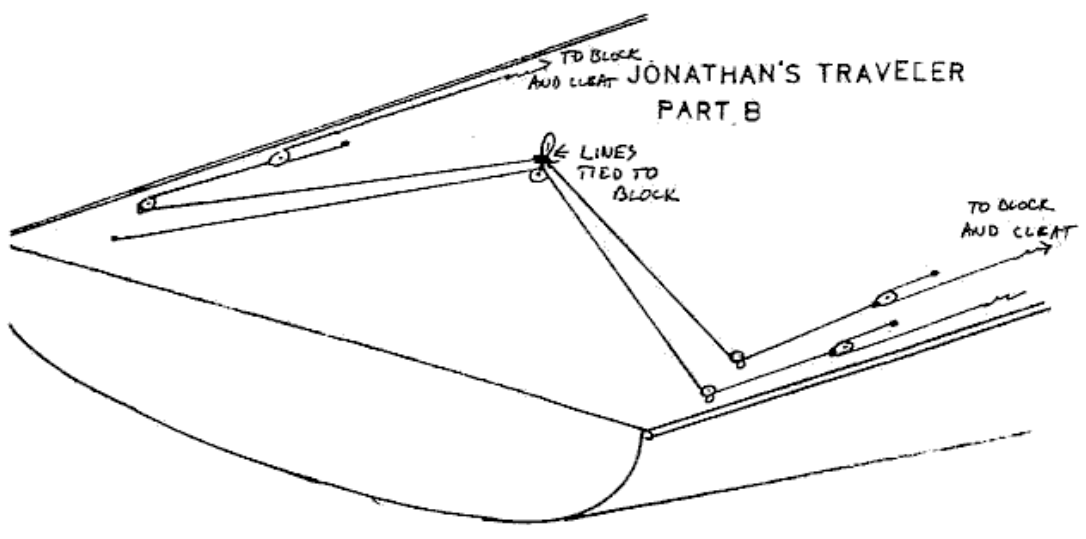


FIG. E

This provides a triangle which is easily adjustable in height, thereby controlling the height of the boom.

The rest of this traveler consists of the control lines which adjust the position of the traveling block, and thus, the position of both the mainsheet block and the boom. These are set up as two-part to give the necessary leverage and run to cleats set between the skipper and crew. See Figure E.

There are significant advantages to this traveler:

1. The height of the boom is easily adjustable by just changing the triangle adjustment.
2. In light air, this traveler can be set to bring the boom to center and leave it there, or it can be used to make fine adjustments on each tack like a mid-boom.
3. It can be used to make very small adjustments in sail shape as conditions change.

The disadvantages are very small.

1. It requires a bit more hardware than the other stern travelers.
2. It has a narrower range of horizontal adjustment than a mid-boom traveler.

Setting up the control lines for Stern Travelers.

Control lines that are easy to use and stay where they are set are critical to the successful use of any traveler, and we had a problem in this area. We originally mounted the turning blocks and the cam cleats for our control lines on the side of the wooden coamings. We found that we were knocking the lines out of the cams as we moved about in the boat. We then moved the turning blocks to the inner side of the carlin (the structural member to which the coaming is fastened), bored holes in the deck for the lines to come through, and moved the cleats to the deck as shown in Figure F. We had no further problem, and the traveler was still very easy to adjust.

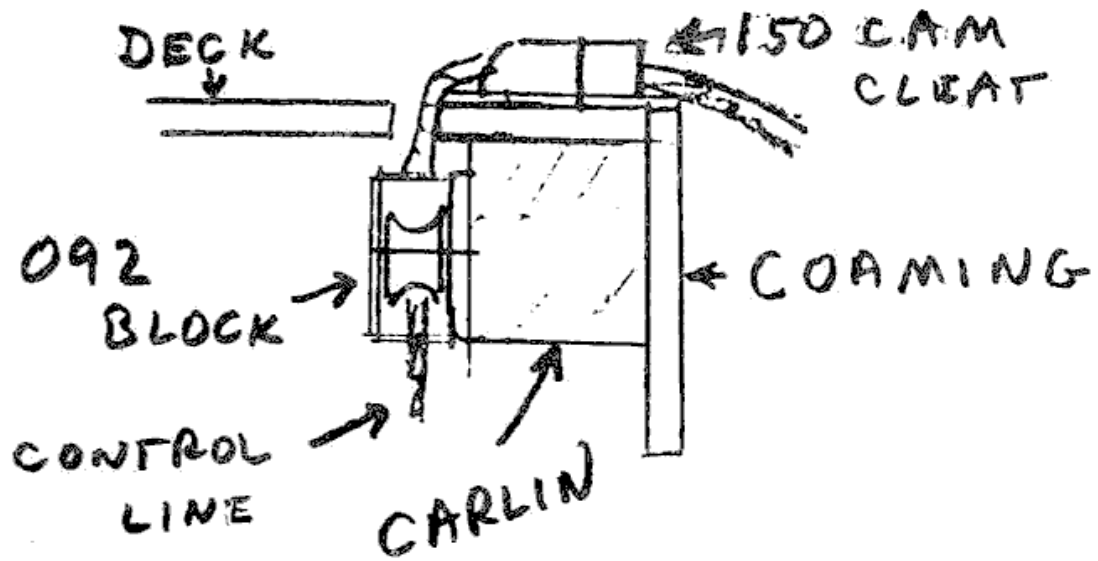


FIG. F

We also found a convenient way to bring the control line through the deck near the stem. Our boat is an old O'Day with raised areas for the stem cleats. We simply drilled through the rear side of these areas as shown in Figure G and led the lines through these holes and forward to the turning blocks under the deck on the carlin.

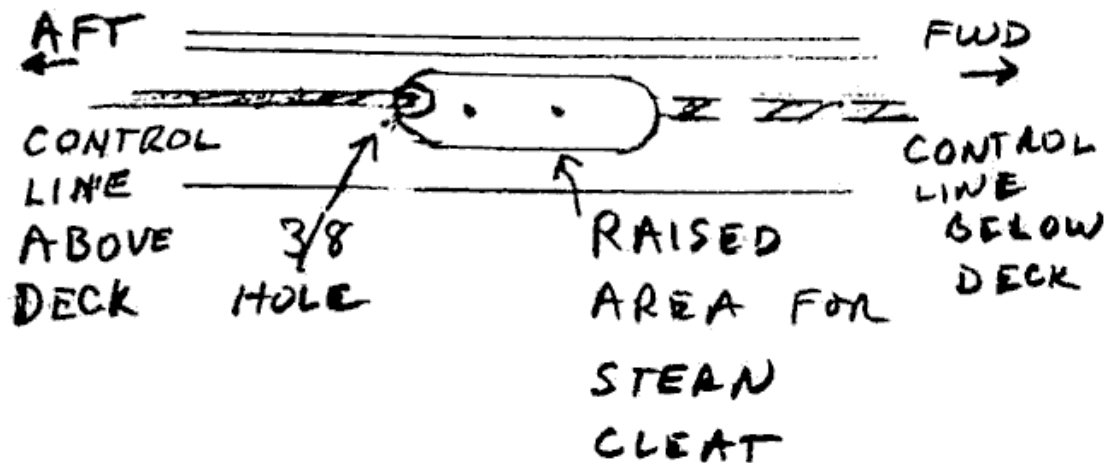


FIG. G

The Mid-Boom Traveler.

Any discussion of travelers must include the mid-boom, Where does it fit in? Many (among them people with names like Blake, Braese, Dickson, Fiock, Poster, and at least one Skeen) prefer it to any stem traveler arrangement. The mid-boom has several advantages:

1. The horizontal and vertical position of the boom can be adjusted precisely and easily.
2. The mainsheet can be shorter and all the parts of it can be grasped to throw the boom over when jibing.
3. You can get a wider range of horizontal adjustment than with a stern traveler. This can be useful when reaching.
4. There is little hardware, other than the track and car. The afterdeck is completely clear.

There are also some disadvantages:

1. In light-to-moderate air, the traveler must be pulled to windward after every tack. This can keep you very busy in a tacking duel, but the Harken car which releases the leeward line can help.
2. The traveler bar forms a barrier than you have to climb around in the middle of the cockpit.

The mid-boom traveler works best when mounted far enough forward to allow the skipper to sit aft of it. Although this puts more strain on all parts of the traveler in heavy air, many consider this to be the ideal traveler system. Since this traveler can also put a lot of bending pressure on the boom, the mainsheet blocks should be attached at two

different points (unless you have a very strong boom).

Which traveler to pick?

Which one is best? Many serious racers will only be happy with Jonathan's traveler or the mid-boom, but the McLaughlin should also be seriously considered. Although it is very simple, you can quickly set it for the conditions at hand, reset it when they change, and then concentrate on sailing the boat. So, pick the traveler you like, rig it thoughtfully, and use it!

Setting the height of the Stern Traveler.

OK. Let's assume we have selected and installed a stem traveler. Now-how do we set the height of the triangle so the mainsail is shaped properly? The basic procedure is not so complicated, and is somewhat like balancing the boat.

Adjusting the triangle height must be done out on the water. We sail upwind in light air, about 5-to-8 knots in fairly smooth water. While sailing upwind, we bring the mainsheet and the traveler control lines up tight so that the boom is at or very near the centerline of the boat. We then lean down under the boom, looking up the windward side of the mainsail at the top batten. We want to see how the top batten aligns with the boom:

1. If the top batten is parallel to the boom, the tension on the leech of the main is correct for these conditions and the height of the triangle is also correct. We can leave the triangle adjustment as it is.
2. If the top batten is not parallel to the boom, with its outer end hooking to windward, the leech is too tight and the triangle is too low. We must adjust the triangle to make it higher.
3. If the top batten is not parallel to the boom, with its outer end falling off to leeward, the leech is too loose, and the triangle is too high. We must adjust the triangle to make it lower, Or, like the mythical Clancy, we must lower the boom.

You really need a minimum of 4-or-5 knots to make this adjustment. If the wind is too light, the weight of the boom will pull the sail down regardless of the triangle settings, so be patient and pick the right day.

If you're using the McLaughlin traveler, set the height so that you get the batten parallel to the boom with normal tension on the mainsheet. When you pull really hard on the mainsheet so that the mainsheet blocks at the end of the boom jam together, the batten should hook slightly to windward. This will enable you to vary the position of the batten slightly by making small adjustments to the mainsheet. You'll find that you will want to do this as the wind varies and your feel for the adjustment improves.

The above procedure is the starting point for good windward performance. Using it with

a good traveler should get you moving in the range of conditions which we most often encounter. There are also some nuances to fine-tuning in different wind conditions and well plan to deal with these in another article.

Good luck, good traveling, and good sailing!