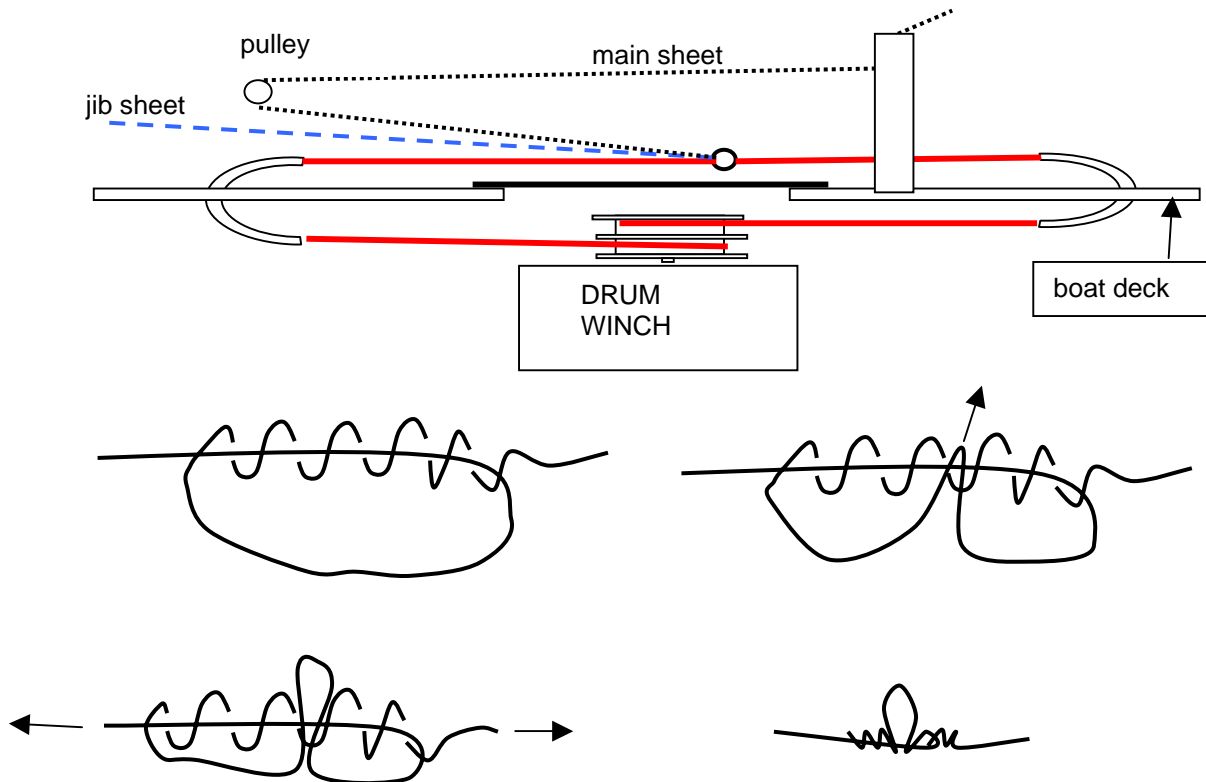


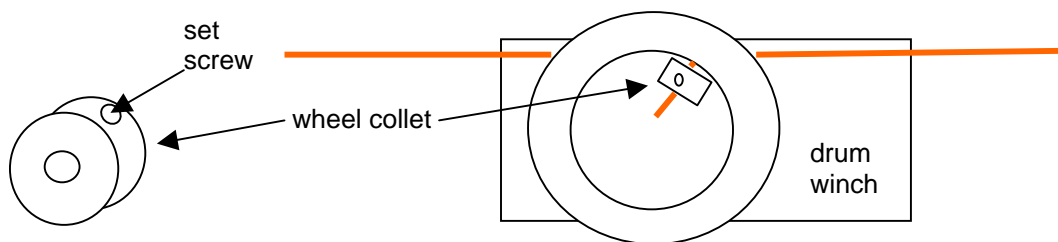
## A RACE TRACK SHEETING SYSTEM, by Rich Ellis

The application of drum type servos to control main and jib sheets requires a method of converting drum rotation to linear translation. What I will show here is a simple and durable system that needs little maintenance. While this configuration is not novel, there are three unique features, which enhance the installation as follows:

1. The race track line is monofilament (about 50 lb. test). The special feature of the use of monofilament is that it is elastic whereas the typical dacron multistrand line stretches very little so it requires a spring, O-ring or section of shock cord to maintain tension in the system. The elastic properties of the monofilament provide for constant tension on the system and give when a gust presses the sails. It is also more durable than springs, O-rings or rubber bands.



2. The second novel feature is that an in-line loop can be tied into the monofilament line. The knot is known as a "dropper loop knot". It is shown in The Little Rid Fishing Knot Book, by Harry Nilsson. I found the book in the local Orvis store. The knot allows for an attachment loop in the race track line that is integral to the line, thus less to come undone. I hope the drawings are clear, but in words....1. Make a loop in the line, 2. Wrap the loop five times, 3. Take the center of the unwrapped segment of the loop and push it through the center wrap, 4. Stick a pencil through the new little loop and pull the ends of the line to tighten up the wraps on the line and lock the new loop in place. Now you have a place to tie the jib and main sheets.



3. The last novel feature incorporates a convenient method to adjust and lock the monofilament race track line on the servo drum. At most hobby shops wheel collets or push rod collets are available. They have a set screw that can be tightened while the line is manually tensioned.

Most of the features of this system were found on the R/C Lazer and worked very well.