



5/40/2021



# Town Class Seminar Four

## Go Fast

Nick Cann  
Bill Key

May 13, 2021



# Agenda

- 1<sup>st</sup> Section (Nick): Technique
- 2<sup>nd</sup> Section (Bill): Rigging for Speed



# Before you Leave the Mooring

- Clean the Bottom
- Have a Masthead Windex and Sail Telltails
- Check CB position, make sure its vertical,
- Stopper Knot in the Pennant at Full Down
  - Mark the Pennant for 3/4 Down, 1/2 Down, 1/4 Down
- Invest in your Sails...it'll make you faster
- Replace the traditional hard traveler with a soft traveler
  - More Control of the boom
  - Can bring the Boom in to the Centerline



# Speed Tips

- Have your Boat's Bottom Scrubbed starting mid summer until the end of the season.
- Fouled Bottom kills boat speed and fouling is worse as the water gets warmer.
- Experienced Bottom Scrubber
  - Tucker Braun, Kelley's son and 3<sup>rd</sup> classman at Mass Maritime
  - [Tucker.braun@maritime.edu](mailto:Tucker.braun@maritime.edu), 781-910-9541
  - \$40 for a single bottom clean,
  - \$200 for the summer once a week, including a scrub before the Townie Worlds



# The Inside Line (CYC Porch to Pin)

- Find the Starting Line....
  - Line is Almost Always Obscured by Moored Boats
  - Sight from the Pin to the Porch
  - Note Moored Boats on the Starting line for Reference
- Practice Starting and Sailing Toward the First Mark
  - Make a Pre-Start decision about Which Tack and Course to Sail to the First Mark
  - Determine sail trim for that Course and Remember the Details
- All of the Above Preparation is So that At the Start... which is Chaotic,...you limit the Decisions Required





# On the Run (Most of the Inside Line Starts)

- Get Clear Air
  - Nothing Slower than Townies Clumped Together Downwind
  - Get Clear of Other Boats as You Can
- Get the Board full up or Just Slightly Down to Help Steering
  - Look over your Shoulder to see if Boat is Crabbing
  - If Yes, put Board Down only Enough to stop Crabbing
- Ease the Sail Controls to make the Sails Fuller
  - Main Outhaul
  - Jib Halyard Tension
- Set the Vang Loosely to keep Boom for Rising in Puffs





# On the Run (continued)

- Keep the Jib pulling Nicely
  - Don't use the Whisker Pole unless you Have to
    - Anything Remotely Close to Downwind Requires the Pole
    - Keep the Pole Down Until the Race Starts for Ease in Manuvering
  - Typically, Faster with Main and Jib on Same Side
    - Improved Flow over Main
- Weight Way Forward to Get the Transom out of the Water
  - Transom Drag is High
  - Use Tiller Extension to get Skipper Forward as Well as Crew
  - Heel Boom to Windward to Minimize use of Rudder





# On the Run (continued)

- Keep Looking at the Windex...wind shifts all the time
- Fastest Way Downwind
  - Sail Lower (off the Wind) in the Puffs
  - Sail Higher (closer to the wind) in Lulls
  - Steady Wind, Sail your Course to the Mark
- Light Air Downwind Tricks
  - Avoid Sailing Directly Downwind...Too Slow
  - Sail off the Wind and Jibe Often ....Zig Zag course
- If Boat Speed No Good
  - Make Adjustments....Don't Just Sit There





# On the Run (continued)

- In Light Air
  - Have Crew Hold the Boom Out
  - Have Crew Steady the Boom in Waves...no flapping back and forth
- Downwind Strategy
  - Stay in Clear Air
  - Jibe to Stay Clear of other Boats....if Appropriate
  - Aggressively Luff to Discourage Boats from Passing to Windward
  - Take the Wind from the Boat Ahead
  - If you Pass to Windward, be Prepared to Respond to an Aggressive Luff
    - Leave Plenty of Room as Townie Booms Stick Out a Long Way



5/10/2021



# Mark Roundings

- Plan your Rounding Ahead of Time
  - Determine if you Have an Overlap on Boat Ahead
  - Of if the Boat Behind has an Overlap on You
  - Don't be Surprised at the Last Minute
    - There Typically is Chaos at a Mark Rounding...Plan Ahead
- Actions before the Mark
  - Take Down the Pole
  - Get the Board Down a few Yards Out from the Mark
    - Use the “Knot on the CB Pennant” Trick
  - Tighten up the Main Outhaul and Halyards to Shape the Sails

PM Fri Apr 30

July 19, 2020  
10:48 AM



5/10/2021

30

July 19, 2020  
10:48 AM



17



# Mark Roundings (continued)

- Rounding Strategy
  - Be Prepared,
    - Roundings are Chaotic with Opportunities to Pick Up Places
  - Approach Wide, then Cut Close to the Mark Inside of the Others
  - Round Mark Smoothly, While Sheeting in the Main and Jib
  - Try to Keep Sails Pulling at all Times during the Transition...No Luffing
  - After Rounding, If Getting Bad Air from Boat Ahead, Tack Immediately
    - Don't Sit in Bad Air



5/10/2021

July 19, 2020  
10:48 AM



19



# Windward Leg

- Boat Heel
  - Keep Boat Flat for best Performance
  - Heel Slightly in Light Air to Help Keep Sails Full in Chop
- Crew Weight
  - Shift as Wind Requires to Match Heel to Conditions
  - Crew Weight Forward
- Telltails
  - Leech Telltails should be oscillating between Lifting and Fluttering
  - Jib Telltails should be streaming normally
- Soft Traveler
  - Sheet Boom Close to Centerline





# Windward (continued)

## Sailing Fast Tips

- Sail on Jib Luff and Jib Telltails with Occasional Windex Scan
  - Don't Oversteer or Keep Wiggling the Rudder...Amazing Water Brake
  - Keep Nudging the Boat to Windward to Test the Wind
  - If Patchy Wind, Scan the Water Surface for Wind Ripples
  - Watch Your Competitors and other Boats for Their Wind Conditions
  - Avoid Powerboat Wakes, Tack Away if Necessary... Townies Stop On Wakes
  - If Boat Speed is Low, Avoid Tacking, if Possible
- Headers
    - Tack into a Header
    - Use a Compass to Watch for Headers...Sometimes Hard to See

July 19, 2020  
11:07 AM



July 19, 2020  
11:07 AM





# Windward (continued)

- 200 Yard From the Windward Mark Strategy
  - Think Ahead when Approaching Windward Mark or Finish Line
    - Gets Crowded and Chaotic Quickly
    - Maintain Clear Air...Alternately, Tack on your Competitor to Block their Wind
    - Don't Tack too Early onto the Lay Line to the Mark, or Someone will Tack on your Wind
- High Level Strategy
  - Boat Speed Poor, Change Something....Don't Sit There
- When in Doubt, Let it Out



# Part Two Rigging for Speed

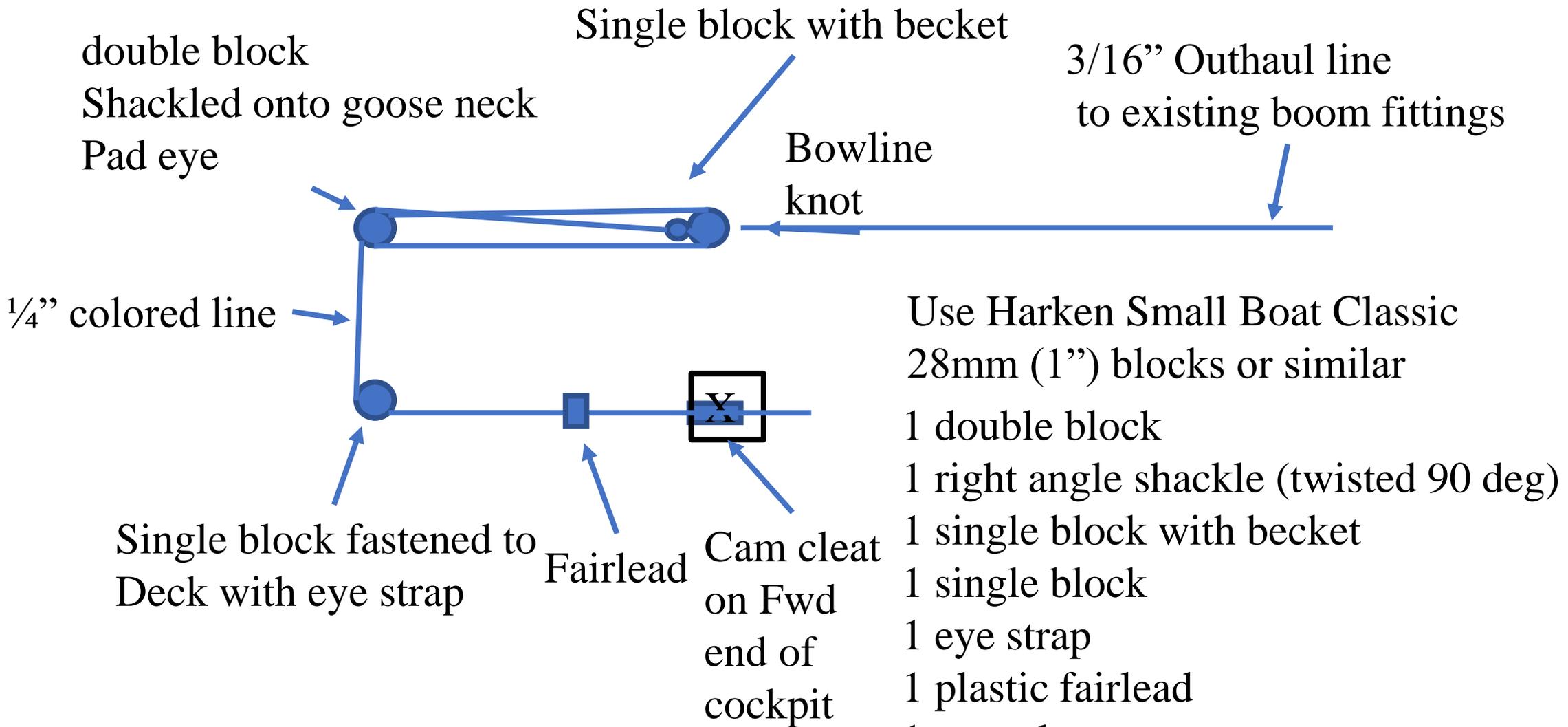
# Sail Trim Devices....Why ?

- Sail shape is controlled by sail trim devices
- Required sail shape changes with breeze levels
  - Light air requires a full sail with shape in correct place
  - Heavy air requires a flat sail with shape in the correct place
- Outhaul, Cunningham and Vang control main shape
- Jib Tension controls jib shape



# Mast Bands

- Why Worry ? Sails all come From One Sailmaker
  - No One Cheats
- Hoist Sail, Look at Lower Band
  - If not within Bands, Hoist More
- Life Isn't Fair
  - Don't Give Up Any Advantage
  - Ensure Sail is at the Top of the Mast



- Use Harken Small Boat Classic 28mm (1") blocks or similar
- 1 double block
  - 1 right angle shackle (twisted 90 deg)
  - 1 single block with becket
  - 1 single block
  - 1 eye strap
  - 1 plastic fairlead
  - 1 cam cleat
  - 3/16 Outhaul line (measure length)
  - 1/4 or 3/16 Tackle Line "Green"

# OUTHAUL



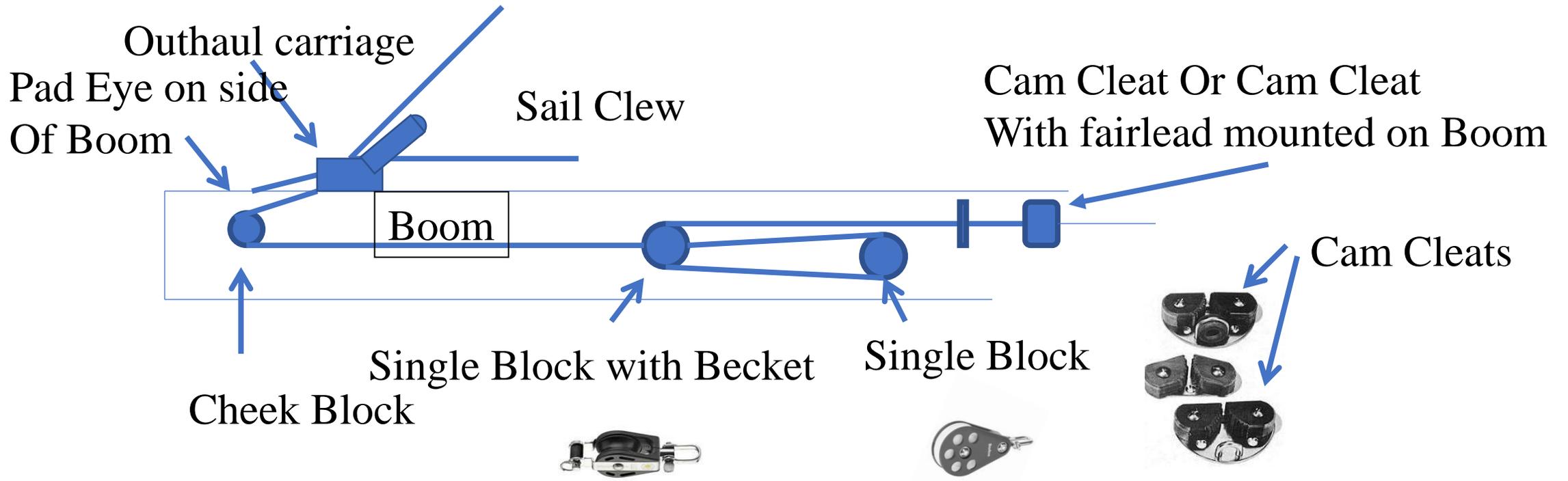
## Tackle for outhaul #2093

**Double block with 90 deg shackle attached**

**Single Block with Becket**

**OUTHAUL**





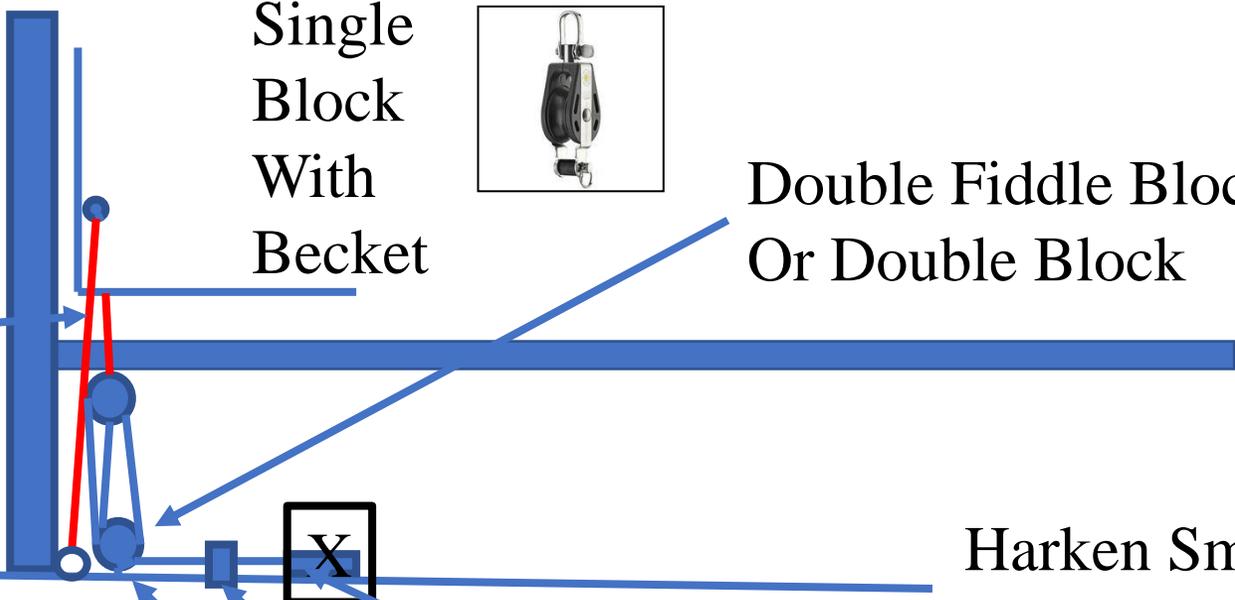
Use 28mm (1") blocks Harken or similar blocks

## ALTERNATE OUTHAUL TACKLE



3/16" Vectran (slippery)  
Through Cunningham  
Grommet on sail  
(about 12" up from  
Tack grommet)

Some implementations use  
a hook that hooks directly  
into the Cunningham  
grommet



Single  
Block  
With  
Becket



Double Fiddle Block  
Or Double Block



Harken Small Boat Classic  
28 mm(1") blocks or simila

Eye Strap to deck

Fairlead

Cam  
Cleat on  
Fwd end  
of  
cockpit

- 1/4" Vectran (measure length)
- 1 eye strap
- 1 carabiner
- 1 Single block with becket
- 1 double or fiddle block
- 1 plastic fairlead
- 1 cam cleat
- 1/4" Tackle line Red (measure

# CUNNINGHAM #2093

# CUNNINGHAM #2093

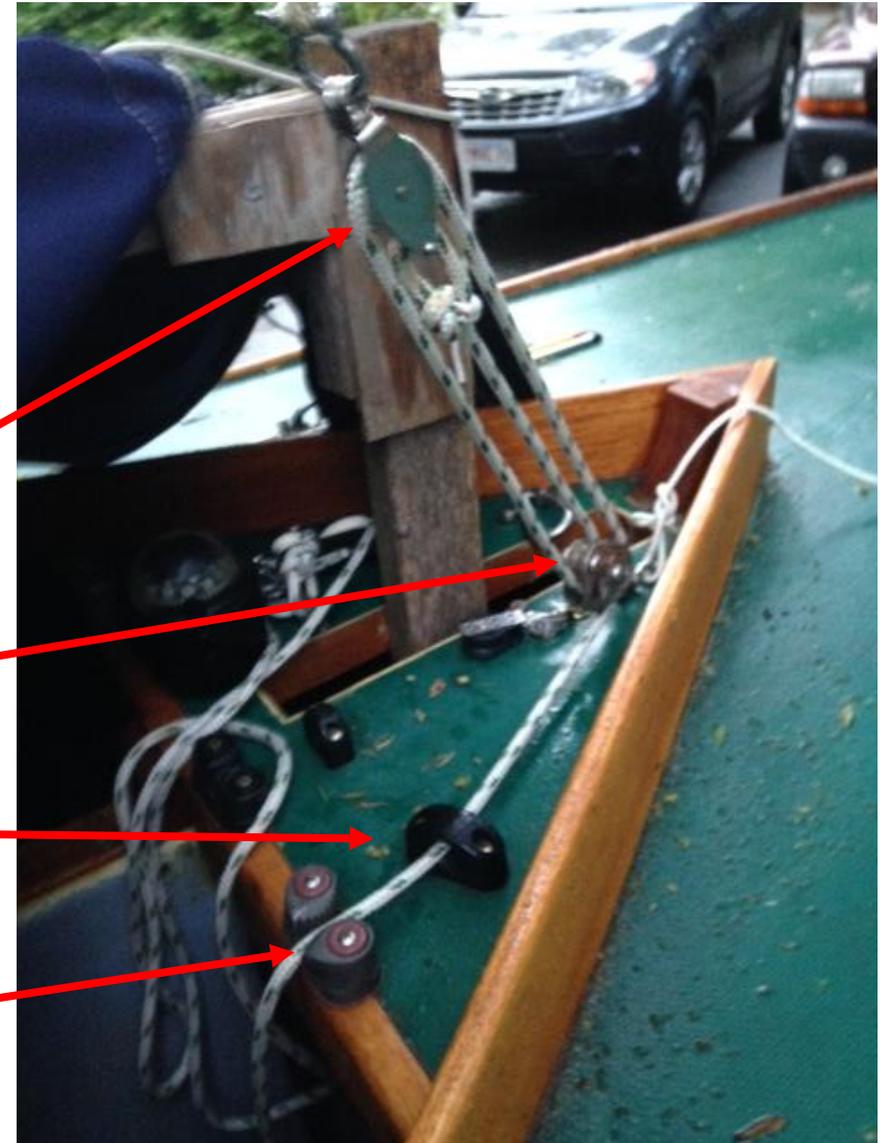
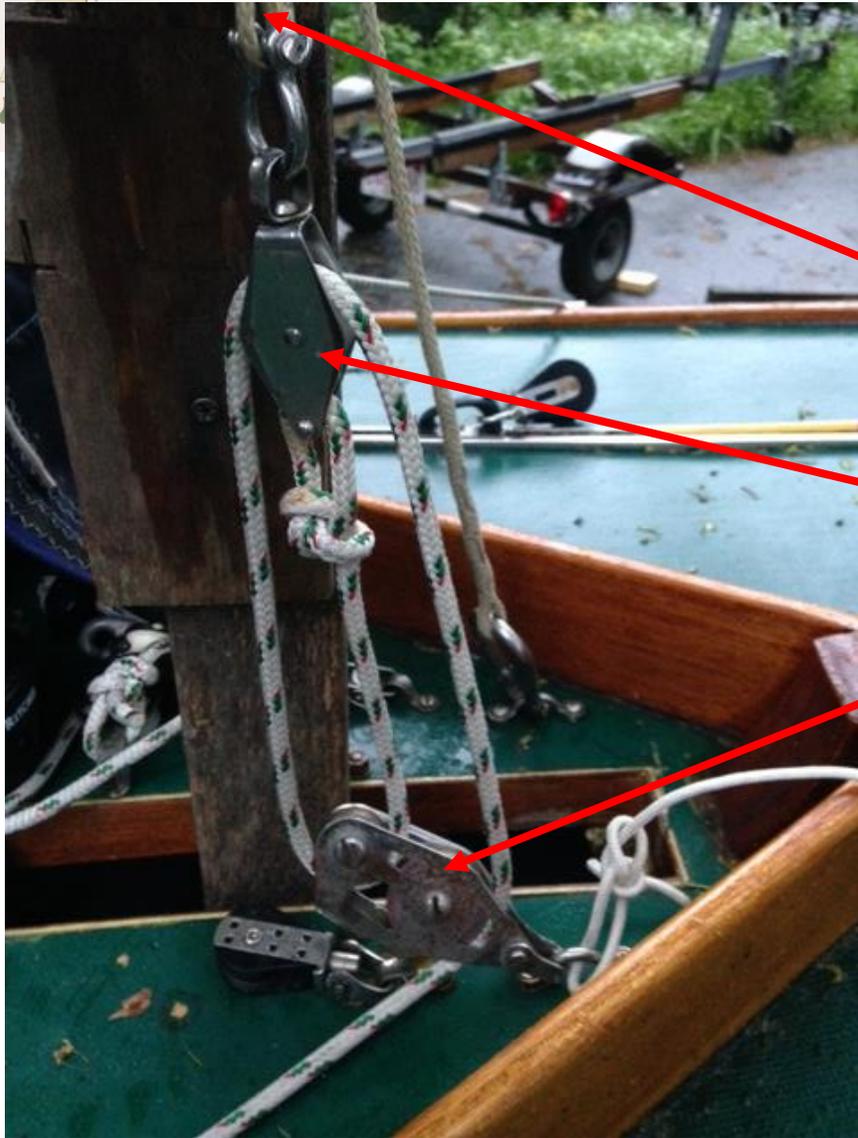
3/16" Vectran through  
Cunningham grommet  
to Carabiner on Deck

Single Block with  
Becket

Double Fiddle Block

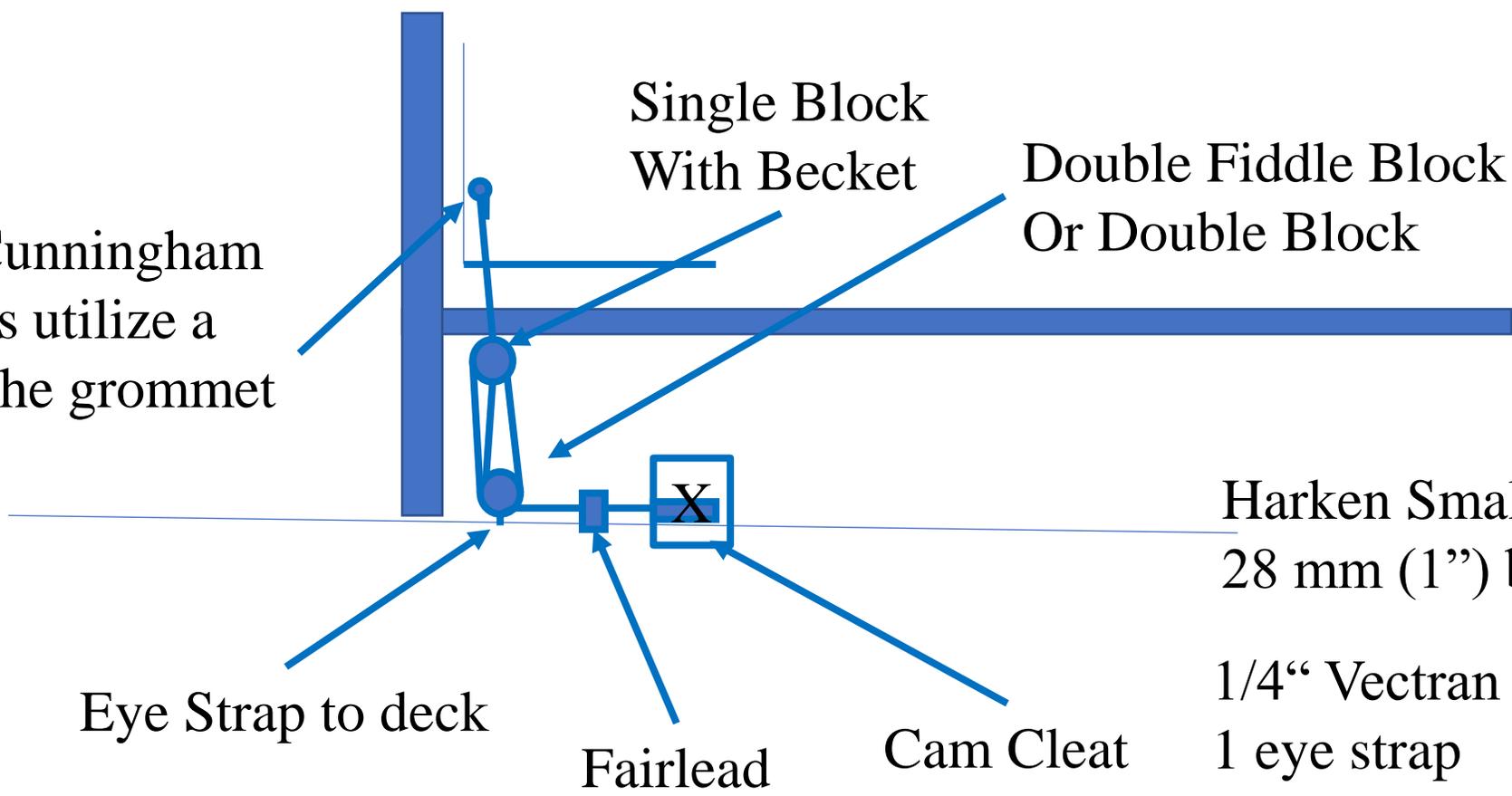
Fairlead

Cam Cleat





Alternate Cunningham Installations utilize a Hook into the grommet on the sail



Harken Small Boat Classic  
28 mm (1") blocks or similar

1/4" Vectran (measure length)

1 eye strap

1 carabiner

1 Single block with becket

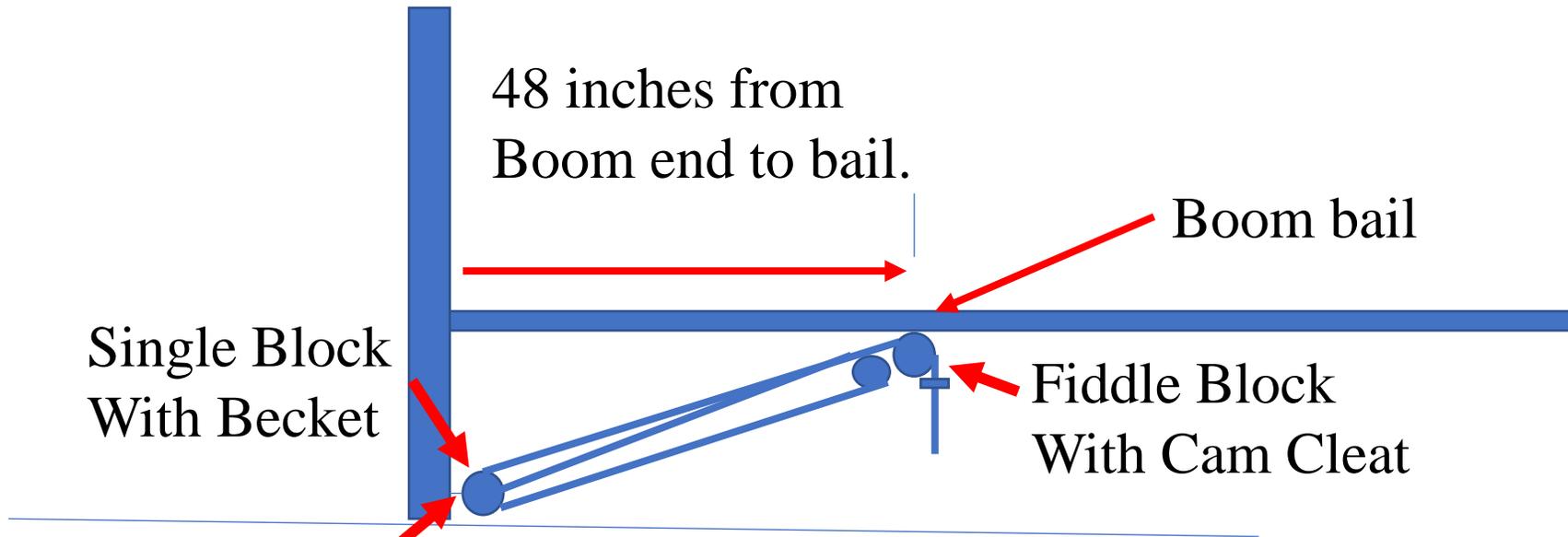
1 double or fiddle block

1 plastic fairlead

1 cam cleat

1/4" line Red (measure length)

# ALTERNATE CUNNINGHAM



Deck Pad Eye through bolted on mast at deck edge. Use old jib sheet Brass Deck pad eye.

- 1 single block with becket
- 1 fiddle block with cam cleat  
(Alternate double block with clam cleat On boom)
- 1 plastic fairlead
- 1 boom bail
- 1 heavy pad eye bolted on mast (use deck pad eye)
- 1/4" tackle line Speckled Red(measure length)

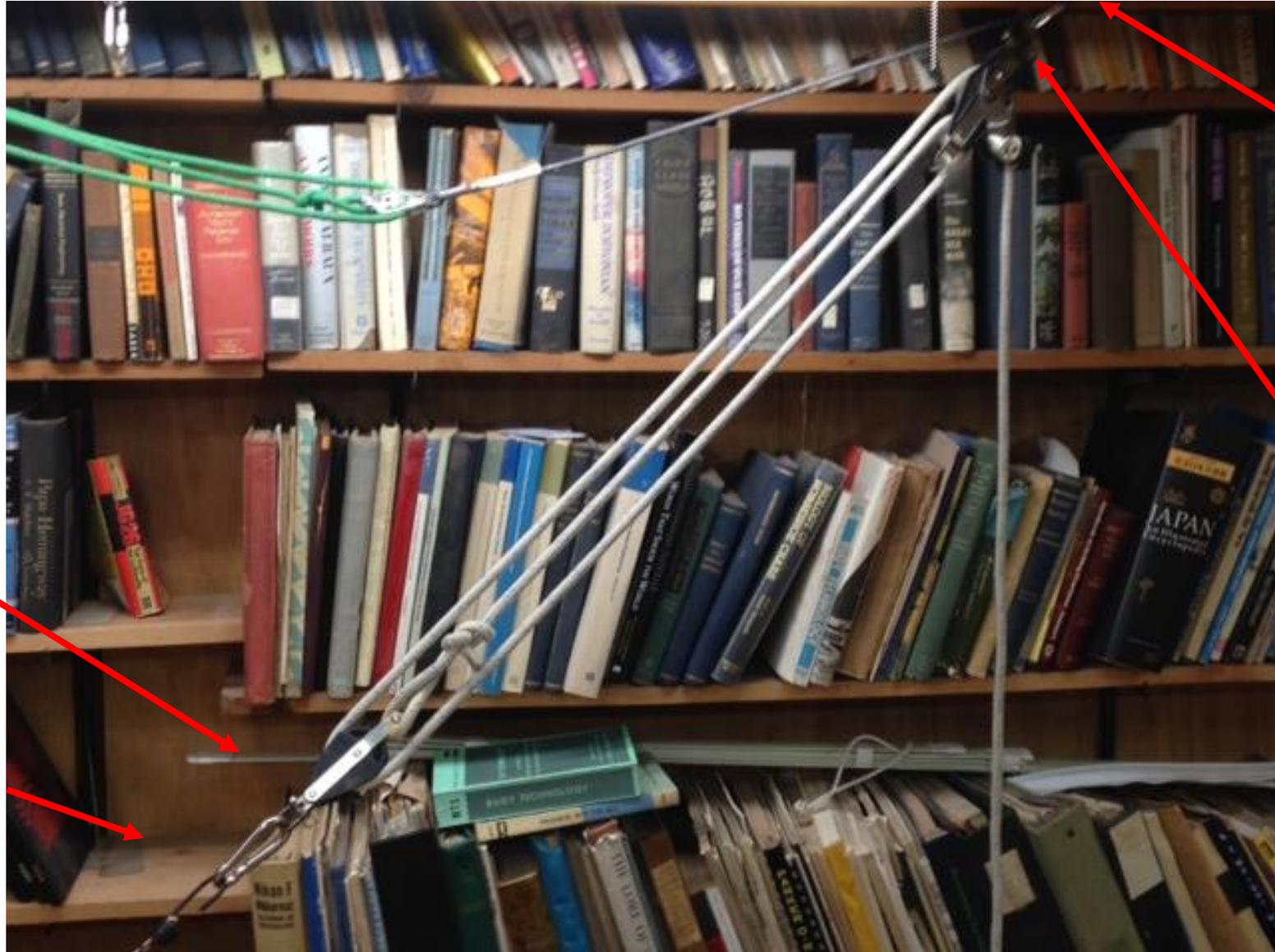
## BOOM VANG TOP CAM CLEAT

Harken Small Boat Classic  
28 mm (1") blocks



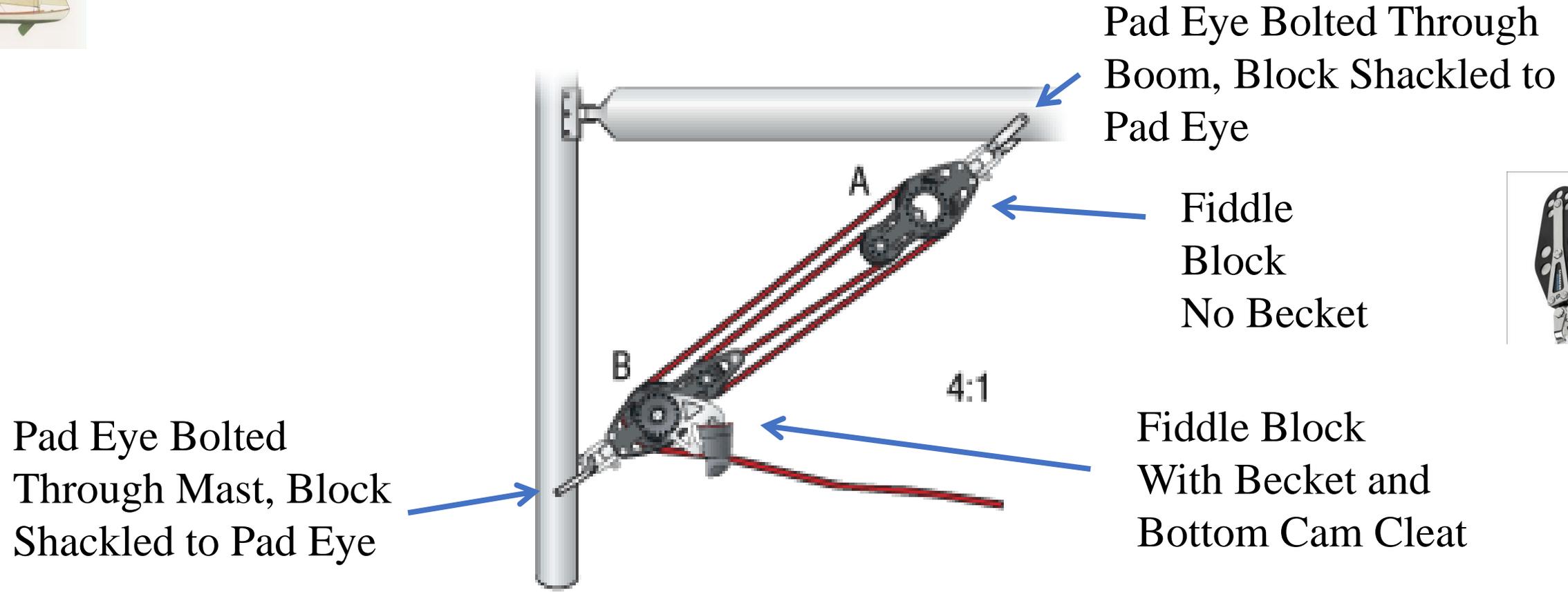
Single Block  
With Becket

Carabiner to bail  
On Mast just above  
Deck.



Fiddle Block  
shackled  
To bail on boom

Fiddle block with  
Attached Cam  
Cleat



Pad Eye Bolted Through Boom, Block Shackled to Pad Eye

Fiddle Block No Becket



Pad Eye Bolted Through Mast, Block Shackled to Pad Eye

Fiddle Block With Becket and Bottom Cam Cleat

4:1

Use 28mm (1") blocks

# ALTERNATE BOOM VANG BOTTOM CAM CLEAT



Jib halyard with Loop Knot within distance Of tensioner with carabiner

Brummel Hooks, Shackle or Carabiner On upper block



Single block With becket

Harken Small Boat Classic 28 mm (1") blocks or similar

Double Fiddle Block

Eye Strap

Fairlead

Cam Cleat



# JIB HALYARD TENSIONER #2093



- 1/4" jib halyard (measure to length)
- 1 small carabiner
- 1 single block with becket
- 1 double or fiddle block
- 1 eye strap
- 1 plastic fairlead
- 1 cam cleat
- 1/4 " tackle line Blue (measure length)



Brummel Hooks attach Jib Halyard to Tackle with tail of Halyard coiled below deck

Single Block with Becket

Double Fiddle Block Or plain Double Block

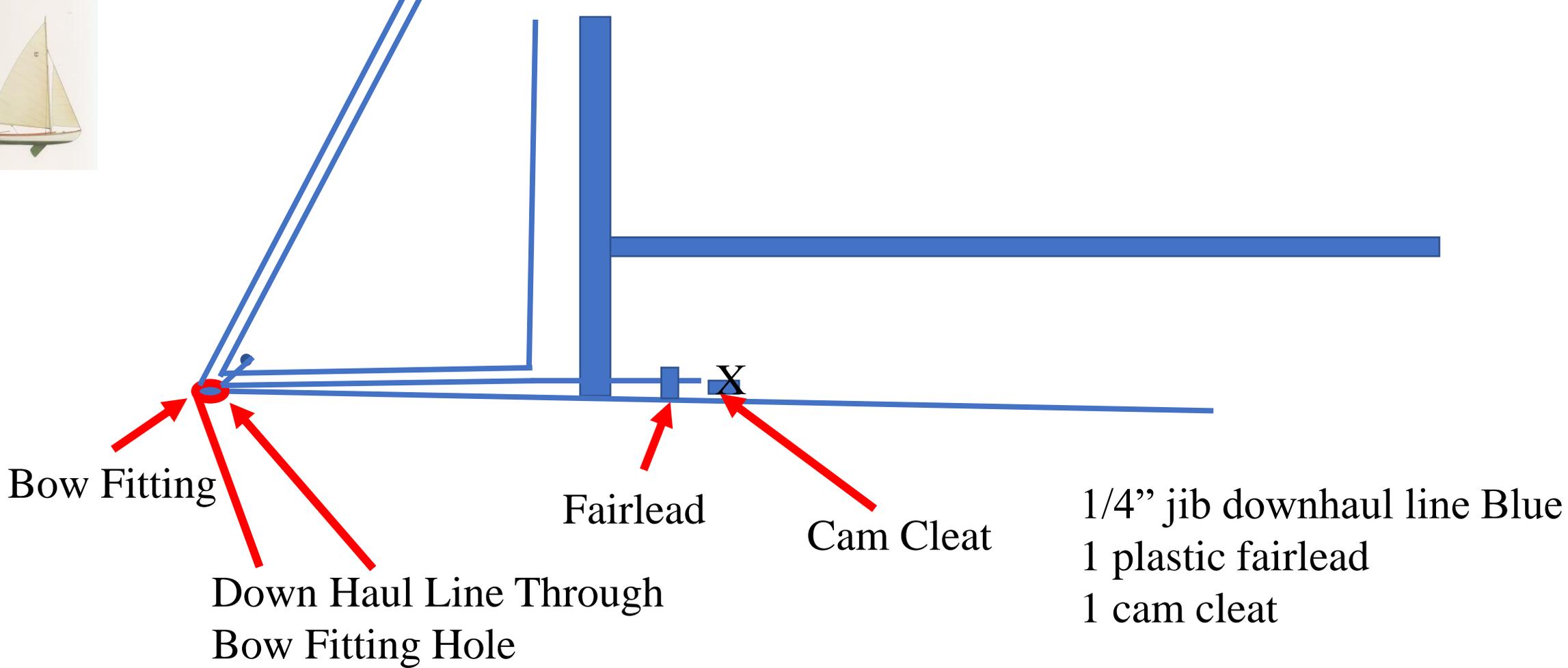
Eye strap on Deck

Fairlead

Cam Cleat

## **JIB TENSIONER #2093**

NOTE: This is a double Fiddle block because it lines Up better, but costs more than Standard double block, so take Your choice. Double block twists A little more but is workable.



**ALTERNATE JIB TENSIONER #2086**  
**(Tension by pulling down on jib tack)**

2086 Soft Traveler



2093 Soft Traveler



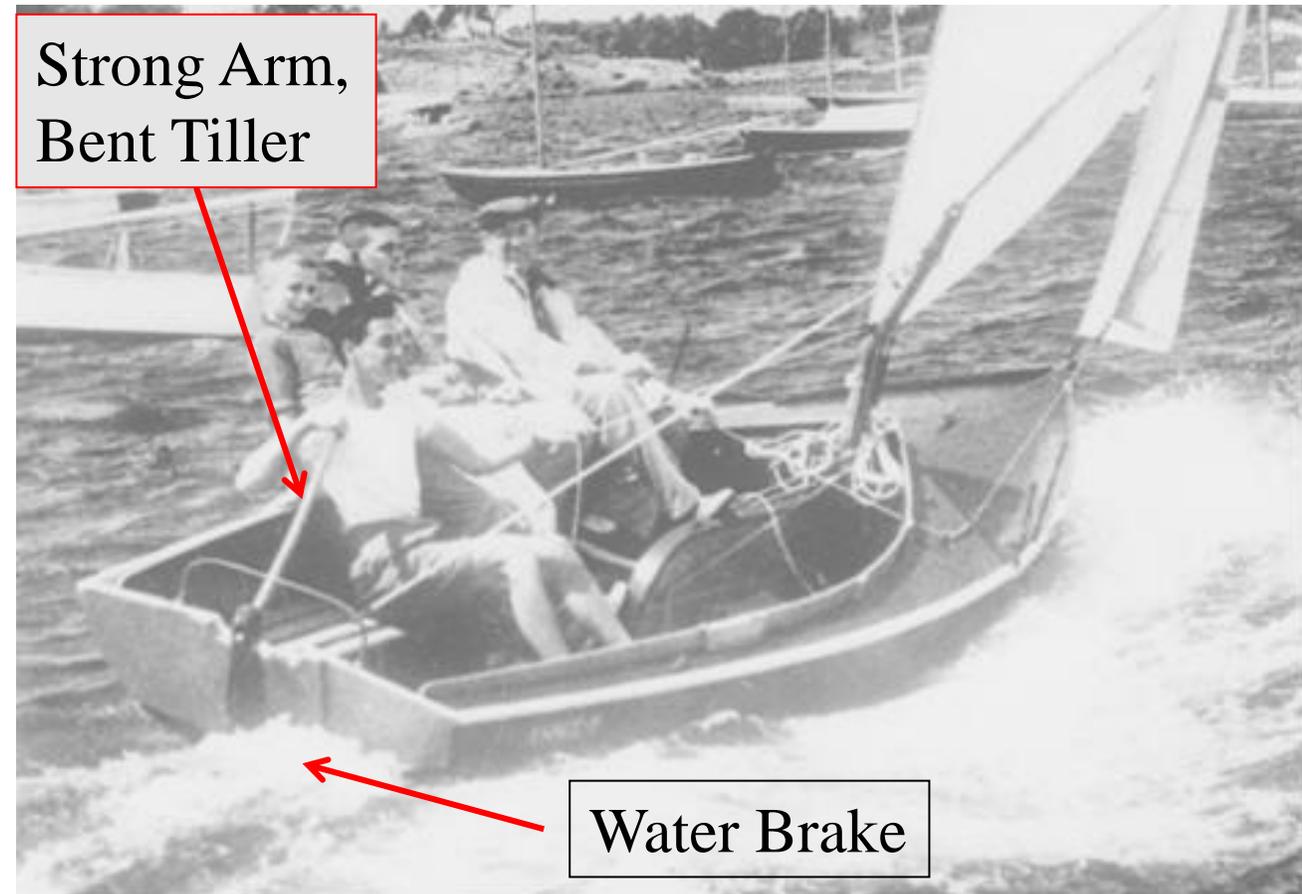
2086 Traveler Control Line detail





# Why worry about mast position and rake

- Town Class design is poorly balanced (old nautical term is “Crank”)
  - Have excessive weather helm
- Weather helm is bad
  - Rudder drag slows boat
  - Breaks tillers
- Fix
  - Move Sail CE Forward
    - Move Mast Forward
    - Rake Mast Forward
  - Move Center of Resistance Aft
    - Skeg to Class Specs





When things get really bad on the racecourse, one starts to have illusions....



5/10/2021

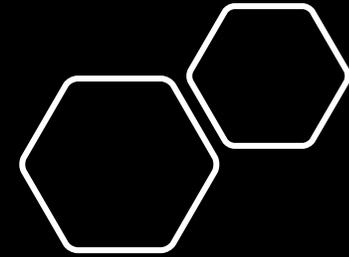
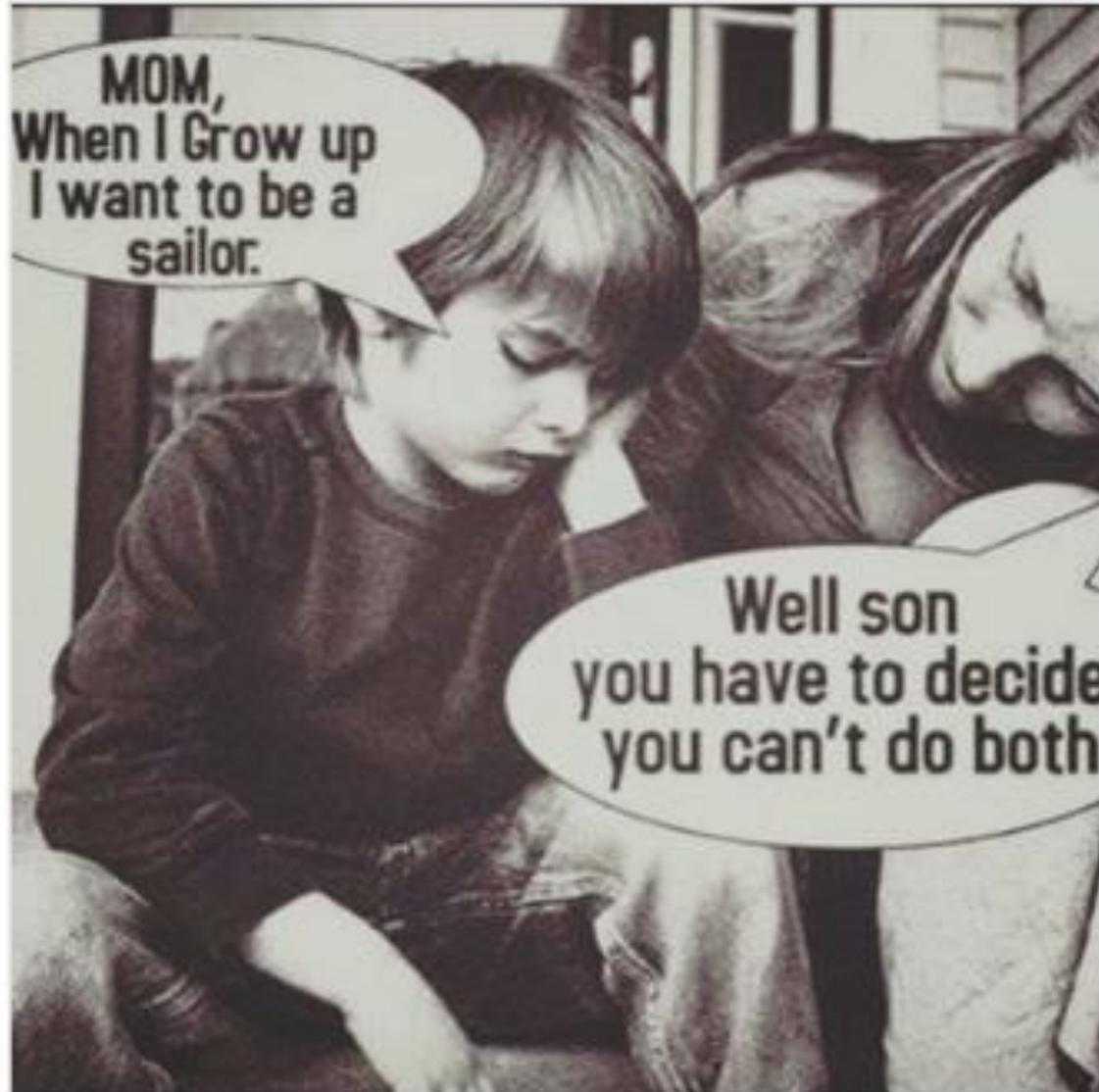
But there is always Hope for a Better Tomorrow...

43



# American Sailing Association

Monday at 10:28 AM · 🌐



5/10/2021