

Installation of Fleming on Tayana 37

Harvey Karten, Night Heron Hull #84; August 2006

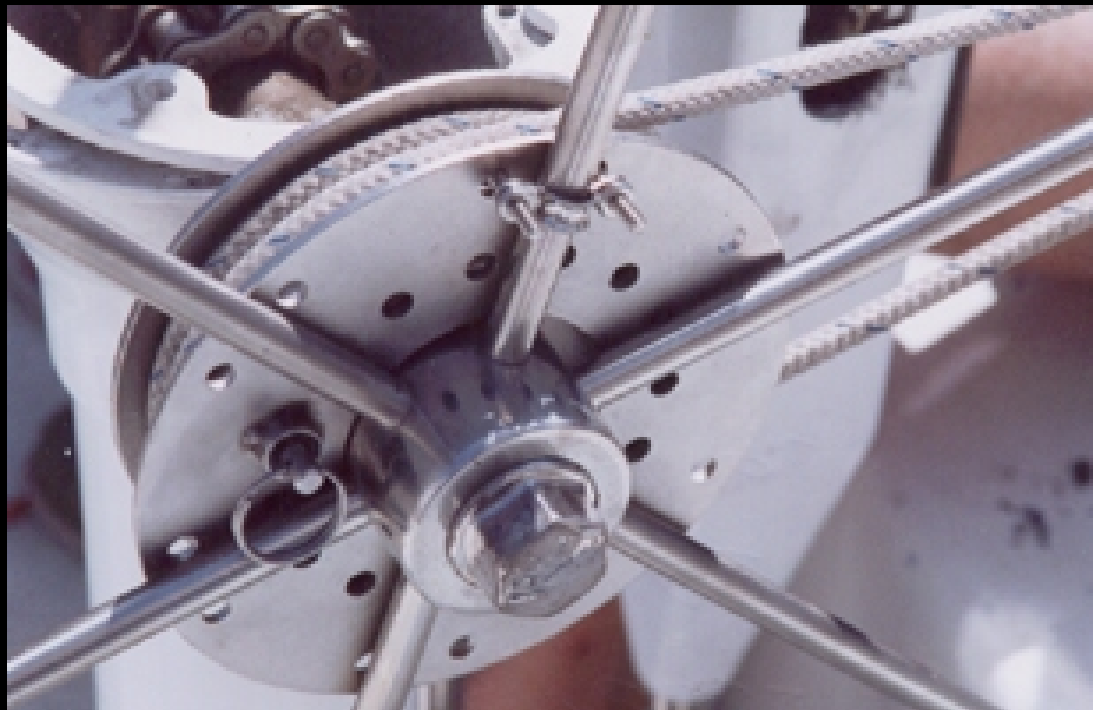
- Mounted close to stern – limited overhang.
- Easy access from cockpit
- Turret tower clears stern running light
- Airfoil clears top of pushpit
- Compact when paddle is folded
- Sails well from close hauled to dead downwind – from 4 knots of wind to as strong as we have had.







***Fleming Wheel
Adapter
Fore vs. Aft of
Wheel***



Monitor Adapter vs. Fleming Adapter

Easily able to mount fore or aft of steering wheel. Fleming has to be factory specified for location

Clutch pin on Monitor is positive locking, less likely to slip. However, Monitor clutch pin is difficult to reach when forward of the wheel

Drive rope is directly fastened to the drum on the Monitor. Fleming relies on friction.

However, the Fleming can be modified by owner to correct these deficiencies.

Typical Mounting Aft of Wheel



Clutch Pin Mods

- Original clutch pin relied on ball bearing insert on shaft, and was held in place by close tolerance of holes in opposing plate
- Spring on clutch pin protruded, catching clothing, and would cause sudden unanticipated release of pin.
- Clutch was activated by pushing in and pulling out. Small pin was difficult to grasp

Modification to Mount Forward of Wheel and Redesign of Clutch



Adapter Disassembled and Original Sleeve Removed

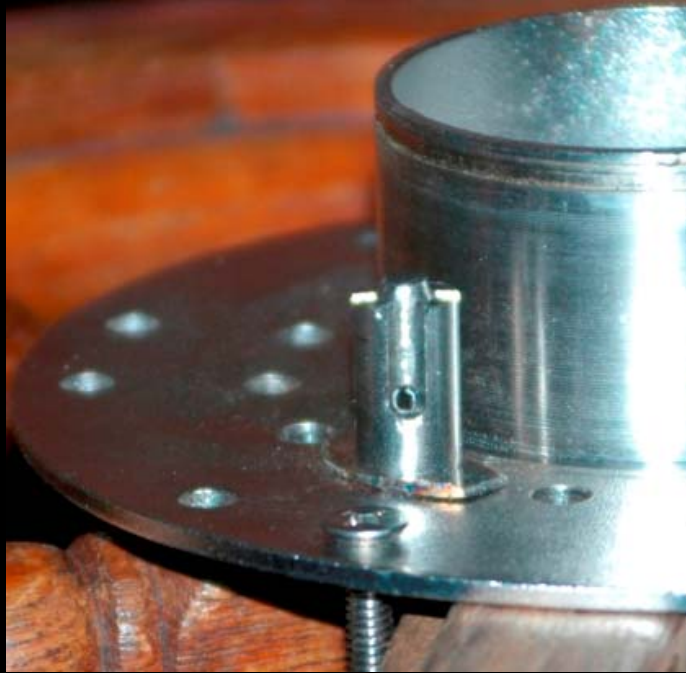


Modification to Drum

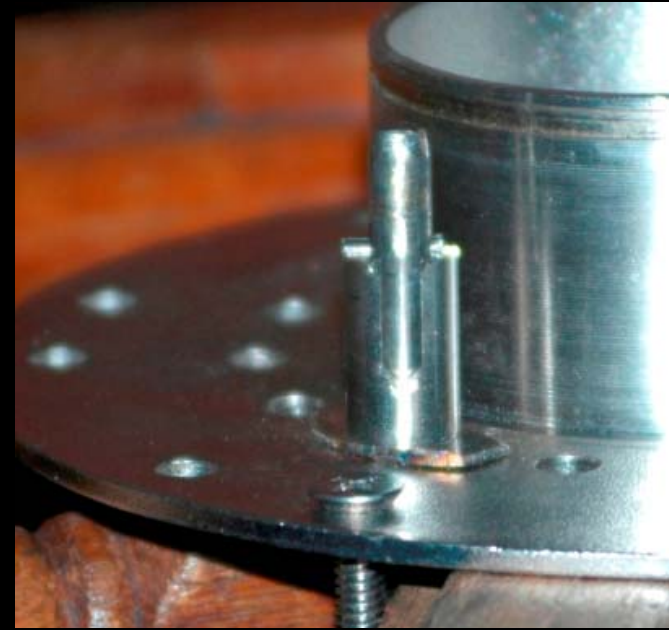
- Remove original slotted sleeve.



New Clutch Pin & Slotted Collar

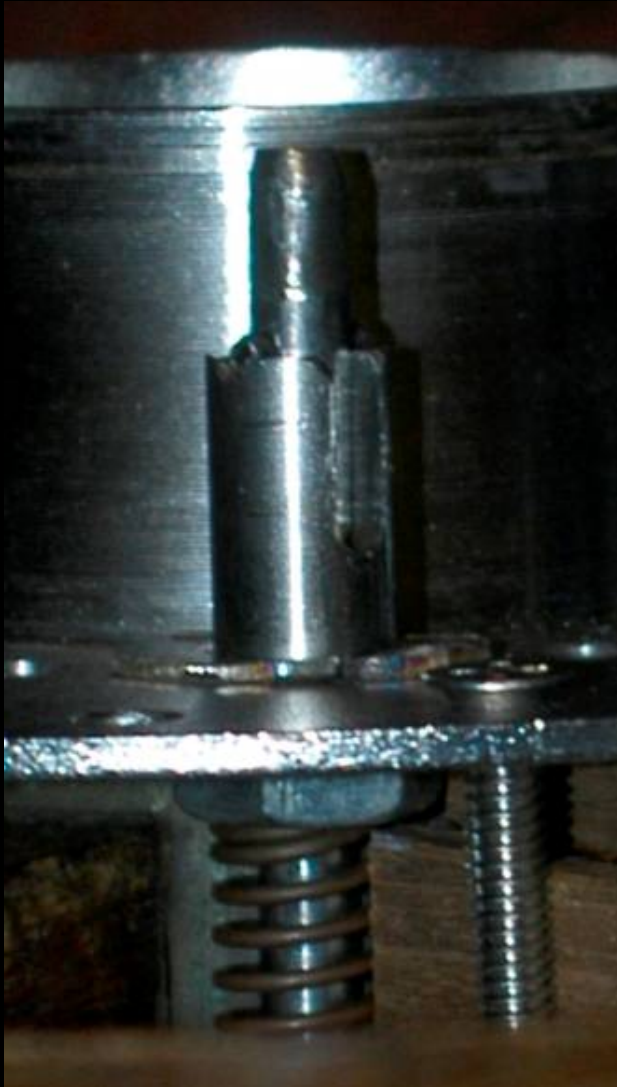


Unlocked



Locked

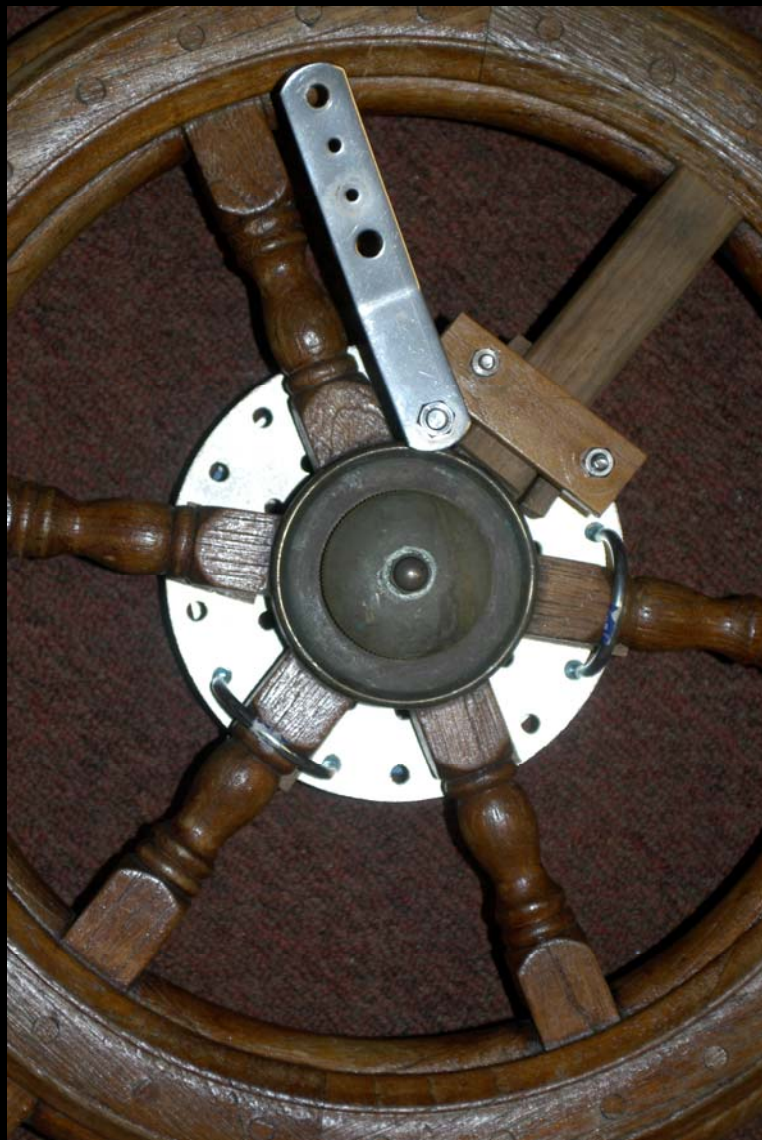
Slotted Collar with Détente Easily Installed with Nut (trimmed to fit)



- Forward position of adapter reduces clutter in cockpit
- New clutch design provides positive visual indication of Lock/Unlock status
- Easy to Lock/Unlock
- Simple conversion to Fore/Aft. (Drill $\frac{1}{2}$ " hole in each part of drum. Use small threaded insert in $\frac{1}{2}$ " hole to reduce diameter to shift to desired plate)

- New Clutch has large handle, easy to grasp.
- Easy to determine when it is Locked or Unlocked.

Lock/Unlock by rotating handle 90 degrees



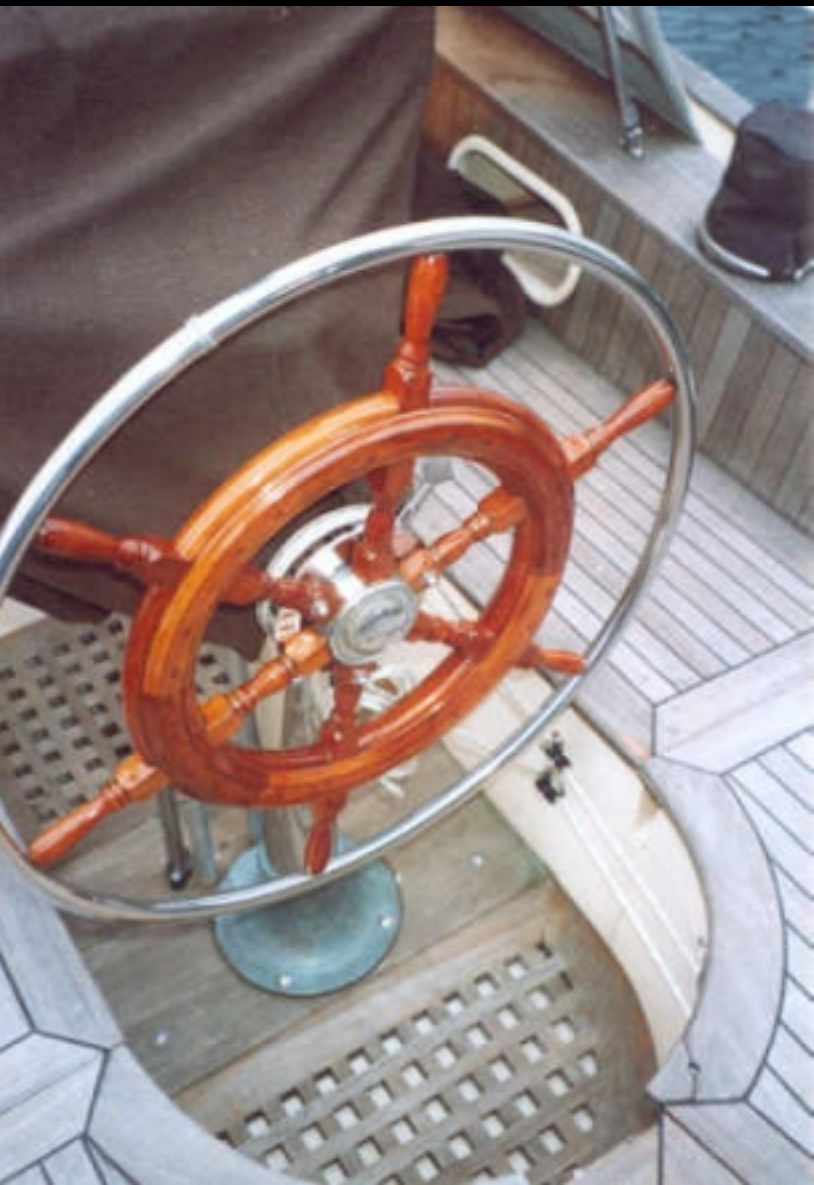
Course and Location of Control Lines:

Monitor and Fleming both recommend running control lines across the cockpit bench from coaming to steering wheel. This obstructs passage, is hazardous in emergency, and interferes with access to jib sheets, furling lines, etc.

Alternately, they suggest that it is possible to keep the lines inside the cockpit well to minimize obstructions of the lines.

Following images show how owners of Tayanas and Hans Christians have dealt with this.

Running lines through cockpit well: Both lines on one side



Running lines through cockpit well: Single line on each side



Choices:

Mount single line on each side vs. both lines on one side? – Both on same side reduces clutter.

Mount high or low along side walls of cockpit well? -

Mechanism for adjusting tension on control lines?

Ease of replacing damaged lines?

MOST CRITICAL: How to run control lines from servo-pendulum into cockpit well.

Lines on Fleming take off from top.

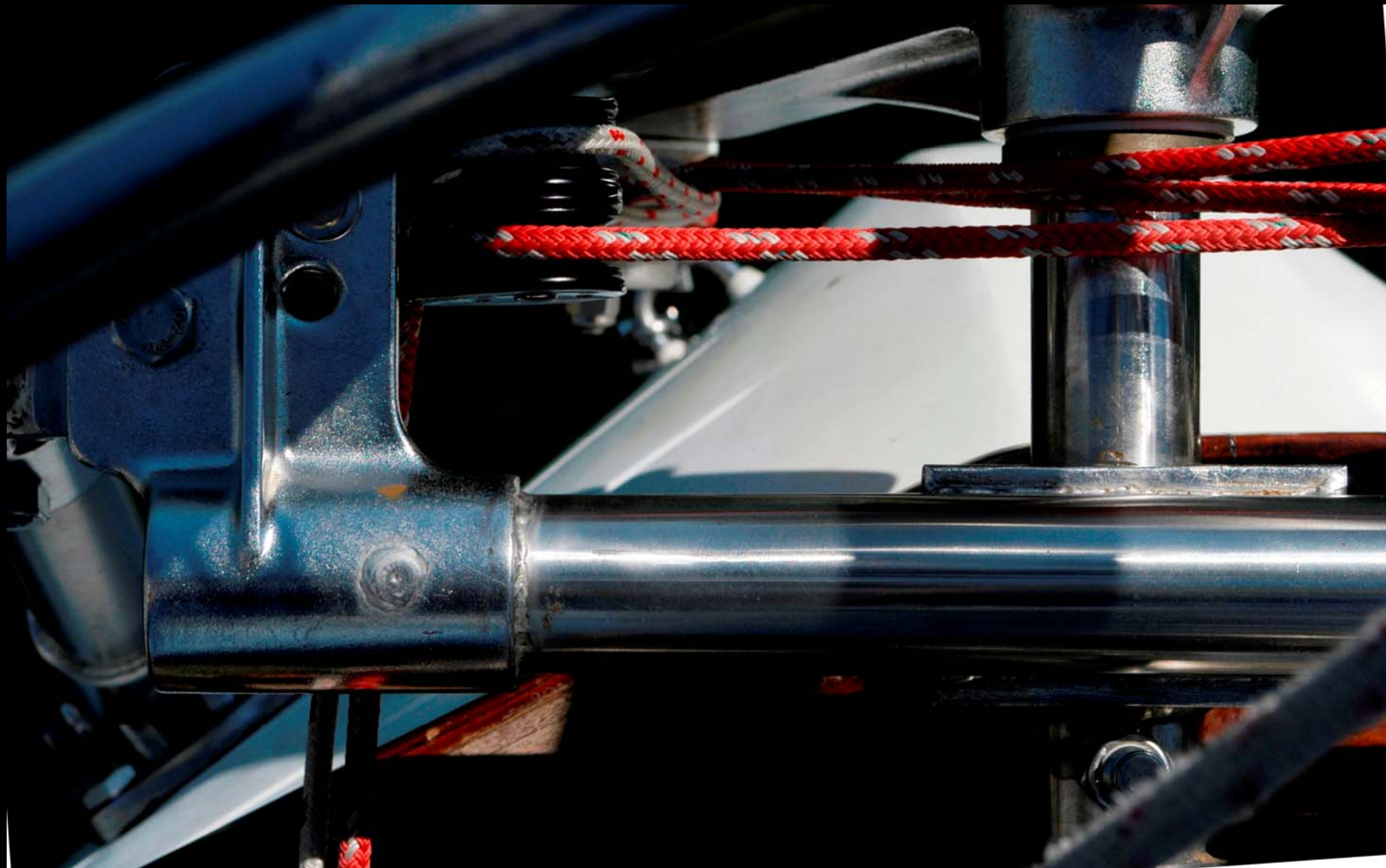
Mounting a double block on upper starboard or port bracket allows redirecting lines vertically downward and offset from midline.

Select vertical location for holes in stern based on where you want lines to emerge in cockpit well.

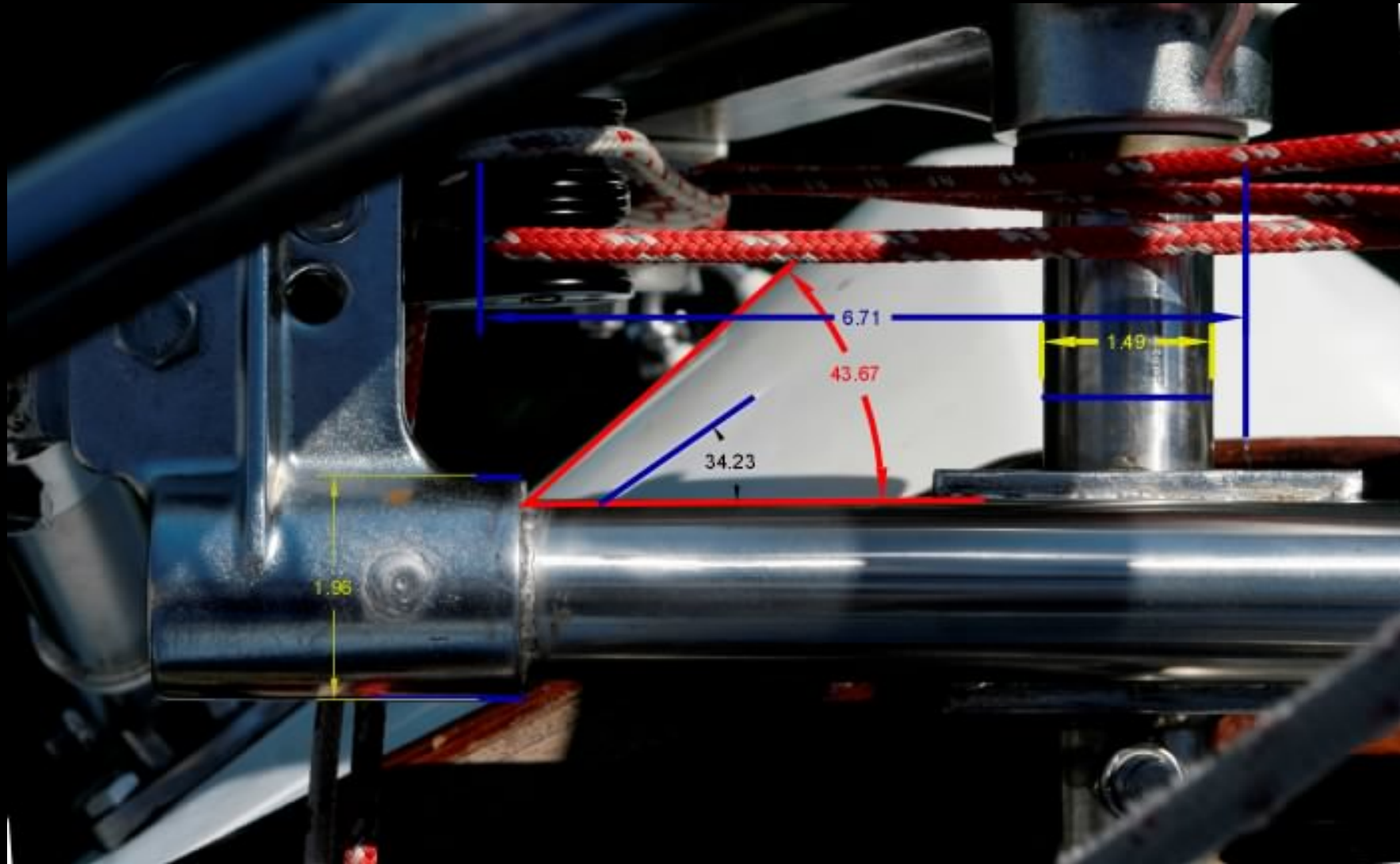
Mount turning blocks for that location.

Run lines into lazarette through bull's eye fairleads

Horizontal Crossbar on CapRail. Lines Descending on Starboard Side via Double Block



Dimensions of X-Bar



Stainless Bracket with Turning Blocks (Schaeffer)



Lines Across Cockpit Sole to Steering Wheel



Adjusting Tension on Control Lines

Control lines must be under equal tension, and centered, relative to wheel adapter.

Trucker's hitch, or "Monitor hitch" is difficult to set with precision, and when released, clumsy to re-set. This also requires tying a loop-knot in each control line.

The whole process is tedious, and adjusting tension distracting.

Use of Holt Allen rolling camcleats, one on each control line, simplifies adjustments.

*Holt Allen CL253
Camcleat with roller.*

*One on each control
line is then attached
to the friction drive
line on the steering
wheel adapter.*

*Much simpler to
adjust tension and
balance both lines
than with a
“trucker’s hitch”. No
knot required in
lines.*

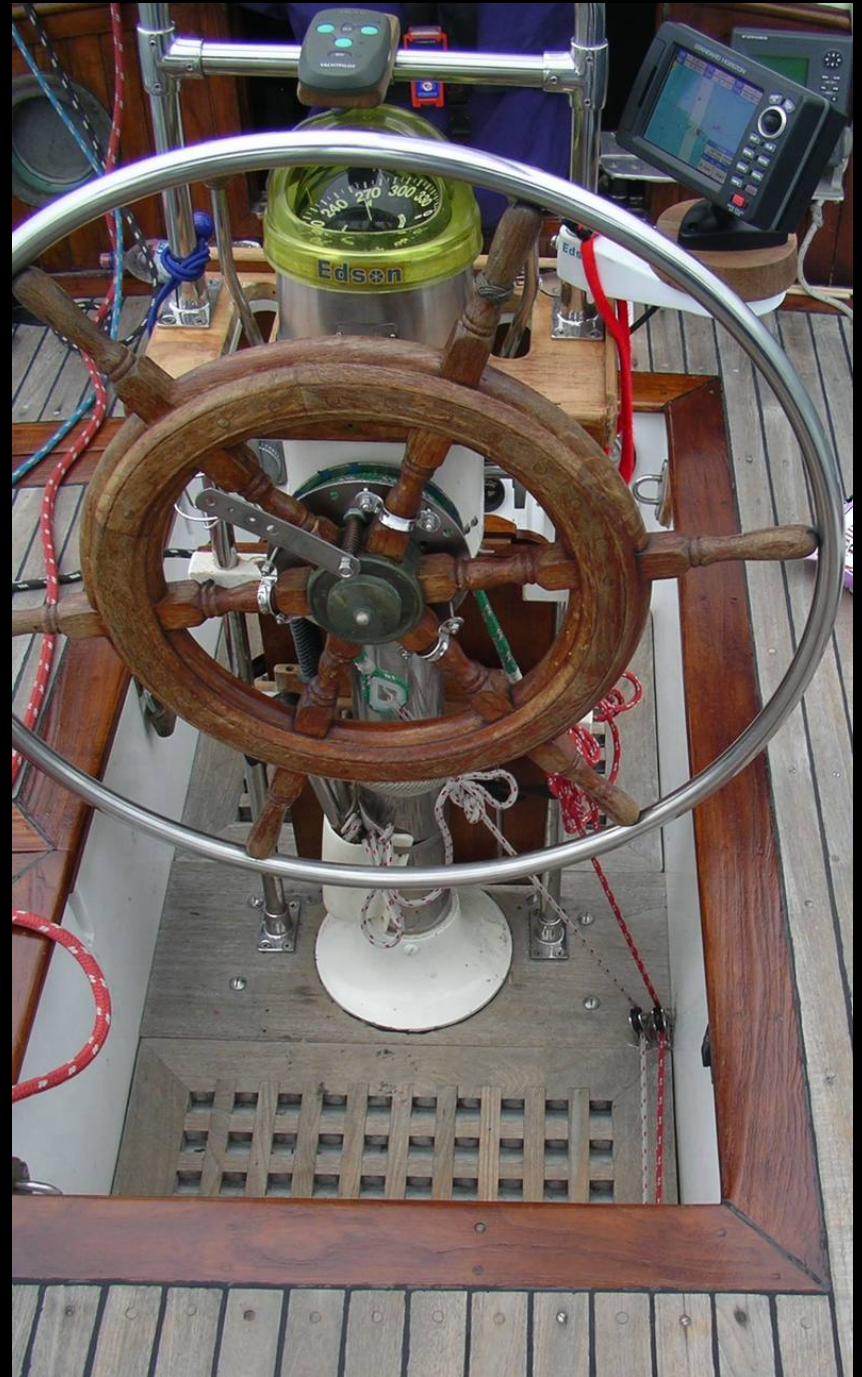


Final configuration:

- 1) Steering wheel adapter forward of wheel
- 2) Quick release handle on wheel adapter
- 3) Lines along cockpit sole.
- 4) Quick release cleat on control lines

Minimal clutter in cockpit,
unimpeded access to
benches, winches, furling
lines, etc.

HJK – March 2007





Sailing Under Control of Fleming Windvane

