## **Volvo Penta MD11C Oil Change**

The oil change is straight forward. Most of the details here describe how to configure things to increase space to work, as well as how to prevent oil from spilling into the bilge.

On *My Cyn* (a 1979 Pearson 323), most of the work and access to change the engine oil is from the starboard side cockpit locker.

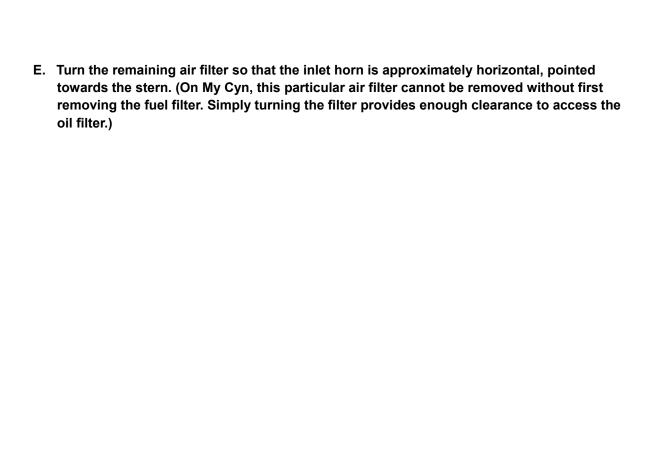
## **Tools and Supplies:**

- Chevron Delo 400 SAE 30 oil, API Service Class CF/SL (3 quarts)
- Oil Filter:
  - Standard capacity Volvo filter #834337 (Fram equivalent is # PH3614)
  - Higher capacity Volvo filter #3517857 (Fram equivalent is # PH16) \*\*shown in photos\*\*
- Oil absorbent pads
- Oil absorbent pillows
- Cardboard (cut to fit) and binder clips as required
- Pela 6000 oil extractor pump
- Oil filter wrench
- Bladed screw driver
- Work lights

First, run the engine to suspend particulates in the oil, as well as to warm the oil up, making it less viscous and easier to pump. 15 minutes minimum. Longer is better.

The following steps are to provide access to the engine to facilitate the oil change:

- A. Remove peg board inside the starboard locker.
- B. Disconnect the forward cockpit scupper hose on the starboard side from the fitting at the underside of the cockpit. (This allows the scupper hose to be moved out of the way so the oil filter can be removed.)
- C. Remove the air filter closest to the stern.
- D. Remove oil filler cap and breather tube.



## Steps to change the oil

- 1. Place oil absorbent pads and pillows beneath the oil filter to catch drips. See figures 1 thru 5.
- 2. Remove the dip stick from the engine.
- 3. Insert the tube from the oil extractor pump into the dip stick hole.
- 4. Pump oil from the engine.
- 5. Replace dip stick.
- 6. Unscrew oil filter, catching as much dripped oil as possible with absorbent pads and pillows.
- 7. Install new filter following manufactures instructions.
- 8. Add oil per the Volvo-Penta manual.
- 9. Confirm oil level using dip stick.
- 10. Remove oil absorbent pads.
- 11. Replace/reorient air filters.
- 12. Replace oil filler cap.
- 13. Restart engine to check for leaks at oil filter and to confirm that oil pressure is normal.
- 14. Restore items described in steps A thru E.



Figure : Oil absorbent pad cut to fit and mounted on cardboard platform with binder clips.



Figure : Details showing how pad is larger than cardboard, allowing it to be folded up underneath filter.



Figure: Oil absorbent pads mounted on cardboard platform shown under filter prior to removal. Extra pads have been folded and placed beneath filter. This photo shows how access was improved by following steps A thru E.



Figure: Approximately ¼ cup of oil escapes upon oil filter removal. Oil absorbent pads caught most of the escaped oil. Photo shows how a larger binder clip is used to secure pad and cardboard platform to engine bed.



Figure : Oil absorbent pillow wedged between oil pan and engine bed captured any oil bypassing the pads.