I'm Not the Only "Teakie" Out There



C350 Association Technical Editor Bill Templeton

It appears I'm not the only "teakie" out there....or perhaps I should say "woodie". Rick Adlesic (hull #329 *Integrity*) from the Annapolis area has replaced the leaves and cover of his "factory" cockpit table with Sapele mahogany. As you will see in the article and pictures his result is outstanding ....paraphrasing the beatles, with a little help from his friends.

I have been monitoring the noise from my drivetrain for several years now. Clattering at idle would disappear at 1,000 RPM.... then 1,200 last Summer 1,500 and the time came to replace the damper plate. There are volumes of timely and invaluable information on the C350 Forum on how to go about the project so I won't rehash all of that, but, I did encounter a couple of wrinkles that I share in the following article. Not unique to boats, most projects becomes a series of projects....a domino effect. With everything apart I decided that after 11 seasons it would be a good idea to replace hoses, PSS bellows and anything else I discovered. I did not expect to find a very slow drip port side of the heat exchanger. A drip so slow no water ever appeared in the pan under the engine but over several years (11 ?) those drops of raw water on the portside engine mount "rust-welded" the mount to the bell housing further complicating raising the back of the engine to remove the transmission to reach the damper. Details to follow.

Pete Travers recently contacted me and asked if I had experienced any leaking of the opening ports. Yes, I have recently discovered water intrusion portside forward cabin. I haven't had the chance yet to look into the problem but my first suspicion is the gasket and lexan need to be clean and/or the gasket may have shrunk over time and the ends no longer meeting to keep water out. There are no mentions of leaks of the opening ports in the C350 Forum so I told Pete I'd put a "shutout" in this issue of *Mainsheet*. So here it is; has anyone experienced such leaks and if so how did you fit them? Please get back to me with any help and I will share it with everyone first opportunity in this section of Mainsheet. **–Bill Templeton**, pbtemp6816@verizon.net

Dampers, Drips and Dominoes

The chatter in my drive train has increased noticeably over the past five years. Where it once quieted at 1,000 RPM now it didn't "settle down" until 1,500. Time to change out the damper plate. The C350 Forum has almost as much information on damper replacement as it does on prop cavitation and reefer modifications. I won't go through the procedures listed on the Forum but suffice to say they were most helpful. Eleven years and over 750 hours since new I thought this would also be a good time to replace hoses and the PSS bellows. To replace the bellows requires removing the driveshaft flange. I read everything I could about this and was quite alarmed (scared) by the horror stories I read. I began collecting tools for the job and when I asked the mechanic at my marina about an appropriate puller he recommended the "socket between flanges" method (the same described in the C350 Forum). Unfortunately I had already removed the trans so that was not an option. He said he also uses a harmonic balancer puller, torch and hammer. OK, this stuff I had. Liberal soaking with an appropriate penetrating oil (WD-40, PB Blaster or the like), cranking tight the harmonic balancer puller, torching the flange around the keyway and some not so gentle rapping & tapping with a 4 lb. hammer it took over an hour to move the flange the first 1/2". I decided to let the whole business sit for two days (tension on the puller and liberal "juicing" with penetrant) and I would return to work for another hour or two then continue this routine until the flange came off. Meanwhile,



I decided to "stabilize" the shaft so each rap and tap of the hammer would do the most good I fashioned a 1" long spacer out of 1 1/2" ID schedule 40 plastic pipe. Removed my Flex-o-Fold and slid the spacer over the stub of the cutlass bearing so that any hammering would be isolated from the bearing. I remounted the Flex-O-Fold hub and tied everything snug up to the boat. Went on board ready to start torching/tightening/hammering and hoping for another 1/2". Before even lighting the torch I thought "... let me give it a hit..." smacked the flange once with my ball peen hammer (not even the 4 pounder) and lo-and-behold the flange moved another 1/2"....two more hits and it was off. Well, this wasn't as bad as I had feared. I was even able to remount the original flange. If I replace the bellows again (PYI recommends every 6 years) I will try the socket-between-flanges method.

C350 Forum descriptions of raising the rear end of the engine to remove the transmission are "spot-on"....unless you can't free the engine mounts from the bell housing. The port end cap on my heat exchanger was cracked and dripping raw water....for several years, perhaps since new). The slight leak wasn't even enough for water to collect in the pan under the engine but allowed raw water to drip onto the port rear engine mount. The combination of raw water (salt or brackish), steel stud of the engine mount and aluminum flange of the bell housing created a "rust-welded" mess. I had to unbolt the port rear engine mount from its bed to raise the rear of the engine and remove the trans. Next problem; I can't leave the

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mount frozen to the bell housing, that would prevent any shaft alignment in the future. I removed the bell housing, took it home to my garage, set it up to spray penetrant (PB Blaster), torch it (coefficient of expansion of aluminum greater than the steel stud) and rap/tap with a hammer. Each time I walked past it I hit it again (being careful not to damage the aluminum casting or the threads on the stud), sprayed it again and periodically torched it. After a few days, as I walked by and gave it a hit---boing, it popped apart. Now I had to clean up the adjusting nut and hope I could reuse the mount (for some reason the M35B uses mounts with 5" centers for the mounting bolts so OEM only can be used - $200 each if you're lucky). I took both rear mounts to my mentor (Josh, the mechanic at our marina) and got the answer I hoped for – they looked good to him.

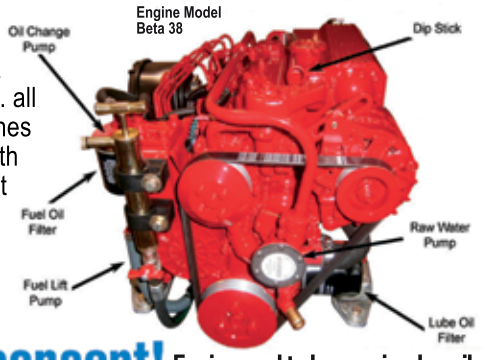
While I had the exhaust riser and exhaust hose off (to allow more room to work on the back of the engine/trans) I was able to inspect both carefully and was happy to find they were OK. I'm sure if I spent more time in full ocean salinity instead of various Atlantic Coast estuaries that might not have been the case.

I am now (early March) reassembling everything.... spending some time on the internet I located all the parts I needed (damper from PYI, heat exchanger endplate, gaskets, o-rings, hoses, PSS maintenance kit (bellows etc), antifreeze, assorted clamps, various compunds (threadlockers etc.) and even new impeller & air filter element – I spent $498. Fortunately I am a masochist so labor was free.... maybe a band-aid here and there.

Can't wait to launch and check out my work.....worst case I figure is to have Josh do the final shaft alignment.. **–Bill Templeton**, pbtemp6816@verizon.net

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