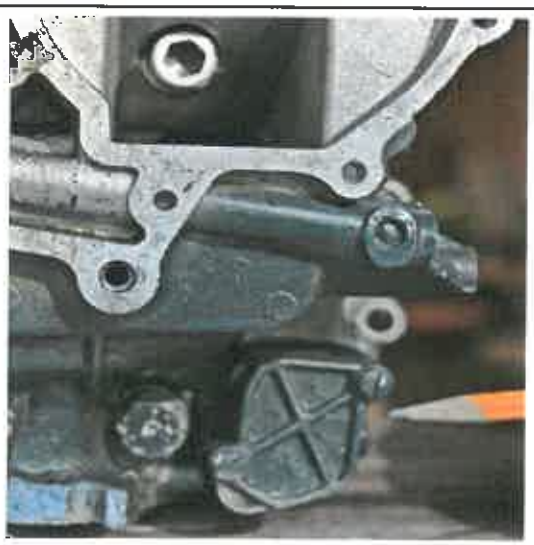
By: Rob Abbott

Prevent That Gas Slick

One of the drawbacks of running these old outboards is the rainbow of gas that often emanates from them as you start them up. Assuming it isn't from a leaking fitting or a misfiring cylinder, most of this is from the crankcase bleeder system. Formerly atomized fuel and oil drawn into the crankcase that either condensed or dropped out pools at the low point in the crankcase. This is particularly evident when the engine is cold, on start-up, and at lower speeds, when the air/fuel mixture velocity inside the crankcase is lower. To prevent this pooled fuel from building up, or suddenly getting re-entrained into the flow entering the cylinder, on older outboards it is typically dumped directly, or indirectly via the exhaust leg, overboard.

On the larger classic OMC motors, a simple modification can be made that recovers this otherwise dumped fuel. A number of years ago, club member Don Husack wrote an article for this newsletter detailing this modification. I tried it on my 57 Big Twin, and after having run about 100 gallons of mix through the engine without any trouble, (and in the process recovering about 10 gallons of gas that would have otherwise been dumped to the lake) I thought it might be worthy of a repeat; this time with a few photos.



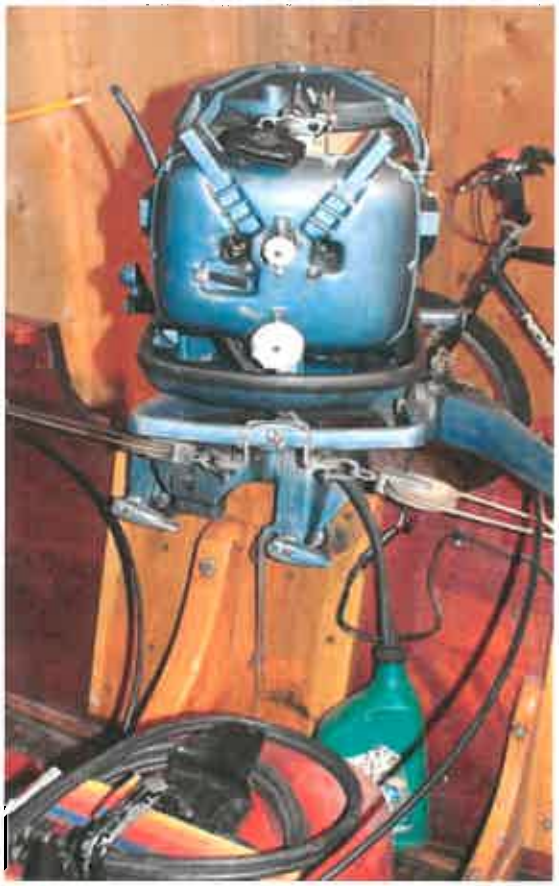
On the 50's and 60's era 25 hp and up OMC engines, there is is a small parallelogram shaped cover plate at the lower front of the engine. It's accessible with the lower engine pan on, but difficult to see, so for the purposes of photos, I've used a parts-donor 33 hp block.

Remove this cover plate and you will see the backside of two check valves and, at the lowest point, a small hole. With every power stroke, any fuel/oil pooled in the cylinder's crankcase is blown through these check valves and out the bleed hole in the block to the exhaust leg.

Plug the bleed hole. In my motor, I epoxied in an aluminum nail head. Opposite the bleed hole, drill and tap (or just epoxy) the cover plate for a hose fitting. Make sure your plug and hose fitting aren't going to interfere with the cover gasket seal.

Reinstall the cover plate, connect a hose to the fitting and run it to an approved gasoline container. At least that's what **you** should do. As you can see, I ran mine to an old oil bottle.

Since there are going to be pressure pulses of an explosive mix of fuel and air pumping the fuel into the container, it is imperative that the container be vented, but not into the bilge of the boat. I used an old piece of double line hose, venting the recovery container back to the engine hood near the air intake (see pencil in upper left corner of photo with motor on boat). This way, the fumes get drawn back to, and through, the engine. Just make sure the vent line is higher than the feed line to the container. Otherwise you could be sending slugs of fuel into the carburetor.



My experience has been, if I operate for extended periods at less than cruising speed, I collect almost a litre of fuel and oil per 20 litre tank of fuel burned. This I just simply pour back into the tank when I refill it. However, if I run predominately at cruising speed (well, being honest, wide open throttle) I'll collect only about a cup per tank.

For those of you operating those thirsty early V4 OMC's you'll definitely need a much larger container, as this crankcase bleed system is the primary reason for their high fuel consumption.

Now, does anyone need a busted 33 hp block?

Rob Abbott