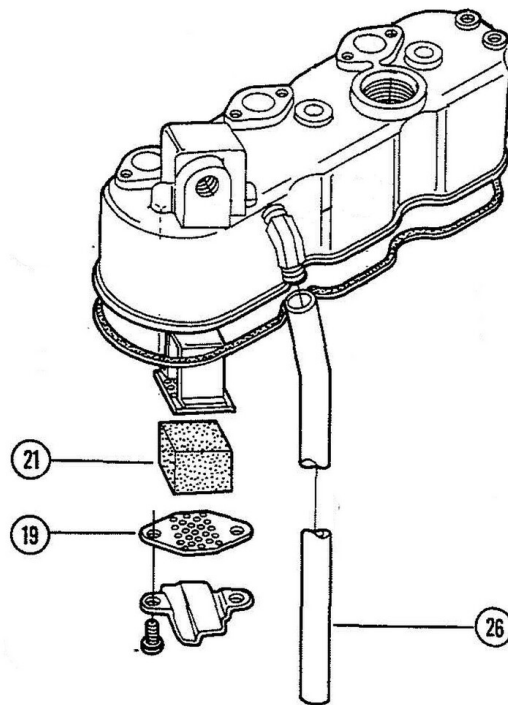


Options to Route the Crankcase Breather to the Air Intake

On Older Engines (M-25/XP, M-35, etc.)

The OEM engine crankcase breather hose (# 26) dropped straight down into the bilge and dumped noxious crankcase fumes into the boat. Under the valve cover are a screen and foam filter (# 19 and #21 that can get gunked up from oil and unburned fuel vapors.)



Typical Engine Valve Cover

There are various options to route the breather hose to the air intake, some more involved than others. The next page shows a few:

NOTE: It's important to make sure that, for whichever method, an errant nut or fitting cannot loosen and drop into the intake manifold and eventually engine cylinder. That could ruin your day.

Another method is to drill and tap the intake manifold and use a hose barb (the B-series engines, e.g. M- 25XPB, M-30B, actually have a knockout in the intake manifold to connect the breather hose - see below.)



Brass 90 Female NPT x hose barb (to fit the breather hose.)

OPTION: use a male NPT hose barb to fit the ID thread of the hex bushing.

Once tightened up, thru-drill the hose barb and bushing to install small cotter pin.

(Belt & Suspenders overkill to prevent the bushing from falling into the air intake.)



Brass NPT pipe nut on top of plate to fit OD of hex bushing.

(OPTION: Tighten, then deform threads w/ a centerpunch so that the nut "can't" loosen on the bushing (Murphy are you listening?))

← Drill plate for a "tight fit" on the hex bushing.



Brass NPT hex reducing bushing -
Outside thread to fit female hose barb elbow
(or inside thread to fit male hose barb elbow)



Nylon hose barb elbow to fit the crankcase breather hose.

Drill plate and install neoprene grommet sized for a "tight fit" on the hose barb,



KN adapter that fits its air filters.

Sandwich between intake cover and bottom plate
(trim to length as necessary.)

Poke hole thru foam silencer and Clampett the hose.

order here:

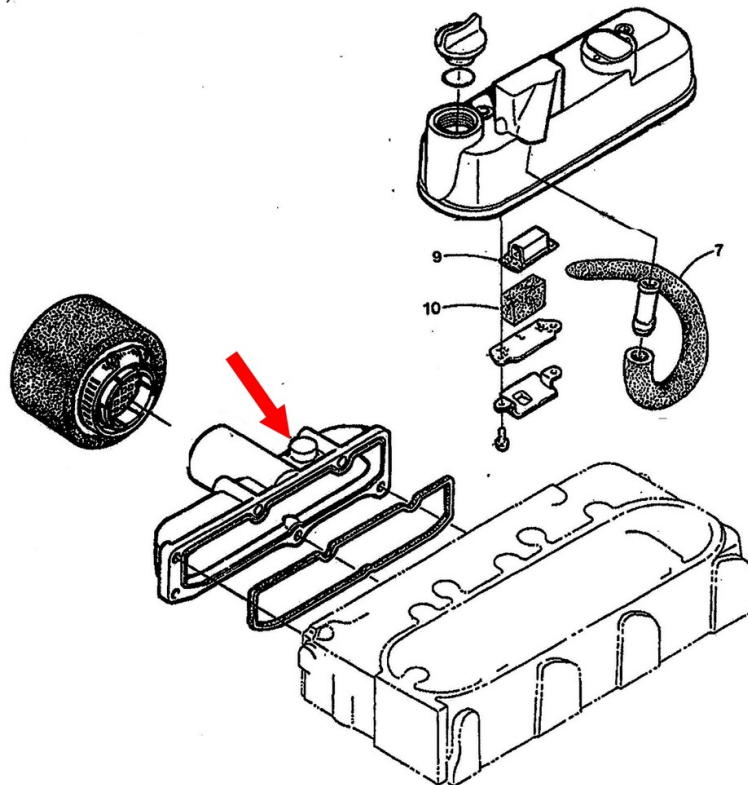
<http://www.knfilters.com/marine/boats.aspx>

On the B-Series Engines (M-25XPB, etc.)

Westerbeke chose a lame (i.e., cheap \$\$) method to bring the crankcase fumes to the air intake, which was to cut the hose (#7) at a 45 and zip-tie it next to the air silencer foam. Like the earlier engines, these valve covers also have a screen and foam filter (#10.)

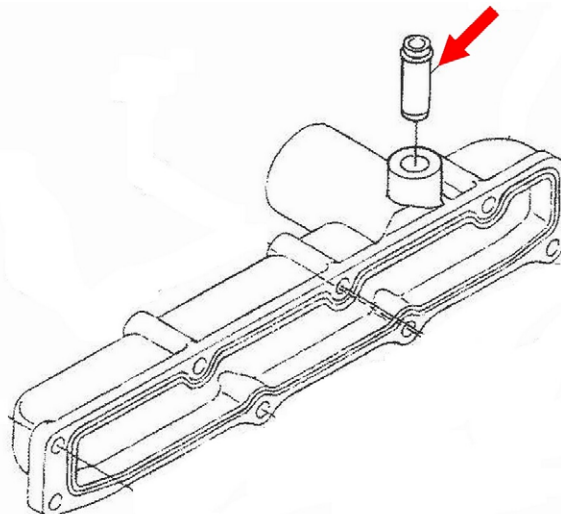
The methods above for older engines can also be used on the B-series engines.

However, another option is that these engines have a port on the intake manifold to accept the breather hose (which is used on engines used in some Kubota tractors and other applications):



Typical B-engine Valve Cover and Intake Manifold

Once the port is drilled out, insert a (***Kubota part number 16241-05550***) hose nipple to attach the breather hose:



Kubota Manifold Nipple for the Breather Hose