

## PCV System

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What does a PCV system do on car engines — at least that is for our LBC's? Lets' start from the beginning.

On earlier cars, prior to 1960, oil fumes from the engine simply vented into the atmosphere. As for MGs, this was true for the MGA and earlier cars. There was a large pipe pointing downward that let the gasses, resulting from engine compression, escape to the atmosphere. Shortly thereafter the U.S. government mandated that those gases and oil fumes must no longer escape to the air, so stopping the pollution that they were causing. Hence, automakers had to add a positive crankcase valve system, or PCV valve as it's usually called. In essence, what this does is suck the gases and oil fumes back into the intake manifold where it is burned through normal engine operation. In our LBC's, MGBs, it is called a gulp valve.

What happens when it doesn't work, for example, when the PCV system is clogged or the diaphragm in the gulp valve ruptures? Pressure then builds up in the engine oil pan and side covers and causes oil leaks, that's because seals become pressurized to a level greater than that they were designed to withstand, and so leak over time. Your car will now leak oil and use more oil than it normally would. All running engines exhibit crankcase pressure resulting from the pistons and rings allowing gasses to leak by them. The older the engine gets, the more they leak, which is termed blow-by by most mechanics. It is easy to see: if you pull off the oil fill cap on valve cover you will see smoke coming out heavily, although a little is normal. The PCV system keeps this to around 3 lbs. which is about normal. For those that have regular stock MGBs, this is no problem. However, if your car has been modified with a Weber carb for instance , most of these only have a hose to hook to breather pipe on the front side cover and go to the carb, which is a very poor setup because it makes the air cleaner more messy with oil, which in turn makes it less efficient. This, because of relatively no PCV system on your car will lead to oil leaks and burning oil because of increased pressure in oil pans and valve covers. The best thing to do in this case is to install a PCV system on or try to find one that will work.

One other thing; the front side cover for the MGB is no longer available. Because the cars are all now quite old, the side cover should be cleaned out. They have a piece of filter material inside them rather like a copper cleaning pad that is used for household cleaning. Nylon pads or steel wool is too tightly wound for this application. If there is no filter material, then oil will be sucked directly into the engine from there and so something similar will need to be installed. This part gets clogged up. To clean it, soak in mineral spirits for at least a half day then shake it and blow it out with compressed air, if available, so to not get the mineral spirits in engine. It won't harm the engine, but it is better to keep it out if possible.

