



## A Rose By Any Other Name... Remedy Exhaust Fumes In Your VW!

Our friends, Rob and Dave, were recently asked by a 1973 Super Beetle owner why, on some occasions, he can smell exhaust in the cabin. "I seem to be only experiencing this exhaust smell occasionally. It maybe happens once or twice on my 15-minute drive to work. I can get rid of the smell by briefly rolling down the windows. A short time later the smell comes back. Any idea what the problem might be? Luckily, Rob has an answer:

### Causes of Smelly Air in the Cabin:

*Rob suggested several possible causes of smelly air in the cabin:*

#### Tinware/Seals

You may not have all the engine tinware/seals in place (or open holes in the tinware) and underside air is "leaking" up into the upper engine compartment where it's drawn into the cooling fan and blown into the cabin heaters from there. If the smelly air has an oily tinge to it rather than a burnt gasoline smell, this is definitely a possible cause, since it would indicate that used cooling air (which gets oily from travelling over the engine) is the culprit, rather than the exhaust itself. Used cooling air will ALWAYS leak up into the low pressure area above the engine if holes are left open or tinware/seals are missing.

#### Lower Sleeve Fittings

There may be an exhaust leak near the lower sleeve fittings going into the muffler (rear end of the heat exchangers), and this is sending blasts or exhaust air forward, towards the heat exchangers. The heat





exchangers are only pressed metal around the exhaust header and there are gaps that can allow squirts of exhaust gas to get in around the donut fittings. The male (header) part of those fittings DOES wear as the car ages and it becomes difficult to seal that joint. The end fittings eventually rust out too, but they can be replaced by hammer-in replacement stubs, which also give you a new gas-tight fitting into the muffler.

### Flexible Heater Pipes

The flexible heater pipes from the engine to the body may be poorly fitted, though this is more likely to result in lost cabin heating air rather than letting in smelly air.

### Rust

You may have rusted out heater header pipes inside the heat exchangers. If this is the cause, the only solution is to replace the complete heat exchanger.

### But Wait – There’s More!

**Dave had some first-hand experience to share on this issue:** “After all I’ve done to resolve this problem, it’s still there – very exasperating. It must be the heater boxes; it can’t be much else.”

Dave replaced the heater boxes in his Super Beetle. Afterwards there was still a trace of smelly air when the car was idling, but no smell when cruising. There may be a tiny leakage into the heat exchanger “box” from the donuts perhaps, as there are small gaps in the molded tin “box” around the J tubes. At idle, the pressure of fresh air inside the box is small, but as the car speeds up the pressure inside would increase, keeping out the intruding smelly stuff.

