

*Poor idle - Hesitation* condition on model/year 1989-1991 944 S2 built before VIN 42R01717 and some 1992-1994 968 built before VIN 42R50763:

All model/years were built before 2/2/1994

Engines may experience and develop a surging idle or off idle hesitation. Intake manifold and or cracked or leaking elbow connections at idle stabilizer.

Replace this elbow with part number 944 110 212 01 to resolve this probable cause.

*Erratic Idle and Loss of Power* condition 1989-1990 911 Carrera 2 and 4 models

This may be a problematic condition on this model causing inconsistent acceleration, erratic idle condition, loss of power and/or stalling. All of these symptoms may be due to a missing protective cover at the airflow meter harness plug. This allows a short to develop inside the harness near where the harness comes in contact with the engine venting hoses.

If this is the condition that you find, replace the entire harness, including the rubber boot that fits over the plug housing and the harness's protective cover. To complete the fix, bend the harness bracket on the right-hand shock absorber to prevent the harness from contacting the venting hoses.

*Hall Sensor DTC Stored* condition 1992-1993 968 built before 9/8/1992 (Coupe VIN 96XPS820198 - Cabrio VIN 96XPS840143

Regarding a DTC stored in the DME Control Unit for Hall Effects Sensor shorted to ground

This DTC may be caused by the engine momentarily rotates backwards when the engine stalls while pulling away on an incline.

However, if this DTC for the Hall Effects Sensor is persistent, the DME Control Unit may need replacement with an updated version that has a revised software EPROM.

These updated Control Modules can be identified by the bar code on top of the housing. The bar code number starts with 26SA2491

*Sulfur smell from exhaust system Model 944*

Complaint of a sulfur or "Rotten Egg" smell from the exhaust system on model/year 1991 944 may be caused by the follow:

Sulfur found in gasoline is normally converted during the combustion and catalytic after-treatment processes into sulfur dioxide (SO<sub>2</sub>). Under certain operating conditions, hydrogen sulfide (H<sub>2</sub>S) is formed instead of sulfur dioxide.

To what extent this occurs depends largely on two factors:

- 1.) The sulfur content of the fuel
- 2.) The operating conditions of the catalytic converter

When the engine is running in rich condition, as under acceleration or under heavy load, there may be a lack of oxygen available in the catalytic converter to form sulfur dioxide. Hydrogen sulfide is formed instead. If there is an excess of sulfur in the fuel, more hydrogen sulfide is formed, which produces the sulfur or "Rotten Egg" smell.

If you have a customer complaint along these lines, do the following:

- 1.) Make sure that there are no codes stored in the DME Control Module and that the engine and fuel systems are properly operating.
- 2.) If there are no problems found with these systems, advise the customer to change to a different fuel brand. Since the sulfur content of available fuels can vary greatly, changing the brand of fuel with lower sulfur content should reduce the formation of hydrogen sulfide.

It is noteworthy that replacement of any emissions-related components will not reduce the smell since the fuel is usually the primary cause.