



# Electrical EGR-valve (Opel/Vauxhall)

## Adhesions/coke deposits on the valves

Vehicle	Product: electrical EGR-valve		
Opel/Vauxhall	PIERBURG No.	Replacement for	O.E. No.*
Corsa B 1.0	7.22414.04.0	7.22414.00.0/.50.0 7.22515.00.0	58 51 020, 8 51 706, 8 51 708, 90543031, 90570475, 90570476
Corsa B 1.2	7.22414.05.0	7.22414.01.0/.51.0 7.22515.01.0	58 51 029, 90117397, 90570477, 90570478
Astra G 1.2i	7.22414.07.0	7.22414.02.0/.52.0	58 51 027, 90571101
Agila 1.0i, 1.2i Corsa C 1.0i, 1.2i, 1.4i Astra G 1.2i Astra H 1.2i, 1.4i Meriva 1.4i Tigra B 1.4i	7.22875.13.0	7.22875.00.0	58 51 607, 8 51 593, 9157671, 9158987, 93185000



### Possible customer complaints:

- non-round idling
- jerkiness
- loss of performance
- engine goes into overdrive

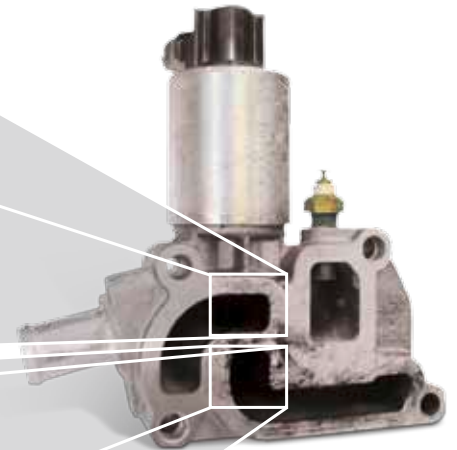
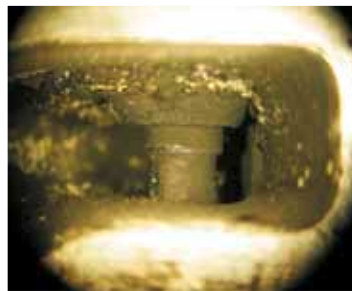
“Faulty EGR-valve” is the diagnosis determined on inspection in the workshop. The built-in electrical EGR-valves are adhering or are coked with oily deposits on the valve plate or seat.

The consequences are:

- The opening cross-section of the EGR-valve is reduced.
- The valve does not open or close fully.



The causes of these coke deposits are not to be found in the EGR-valve.



*For diagnostic tips and possible causes see overleaf*

The right of changes and deviating pictures is reserved. Assignment and usage, refer to the each case current catalogues, TecDoc CD respectively systems based on TecDoc.

\* The reference numbers given are for comparison purposes only and must not be used on invoices to the consumer.



**Diagnostic Tips**

The environment in addition to the components of the EGR system must be examined in the event of complaints, faults and damage to the EGR system.



Sensor faults may affect the function of the exhaust gas return.

The most frequent causes of faults in the case of the EGR-valves mentioned here are deposits on the valve plate or the valve seat. The EGR-valve must be inspected and changed if necessary.



In many cases updating the control-unit software can solve the problems of excessive coke deposits.

**Possible causes**

Unusually heavy deposits can occur as a result of:

- induction or charge air containing a lot of oil
- bad, unclean combustion
- error in engine management
- outdated software for the engine control unit
- frequent use for short journeys (especially at cold times of the year an oil-water emulsion can form, which then enters the engine ventilation)

Faults of this nature are only partly detected during the OBD and are occasionally wrongly attributed.

Causes for the induction or charge air containing a lot of oil may be:

- faults in the crankcase breather (e.g. oil separator, engine ventilation valve)
- increased Blow-by<sup>1</sup> gas expulsion as a result of increased wear on the pistons and cylinders
- turbocharger faults (e.g. worn bearings, blocked oil return line)
- exceeding the maintenance period (failure to change the oil or the oil filter)
- use of engine oil of a quality unsuitable for the intended purpose
- too high a level of engine oil
- worn valve shaft gaskets or guides and, as a result, increased transfer of oil into the induction channel

<sup>1</sup>Blow-by: Quantity of gas leaked, which bypasses the piston rings during normal combustion and enters the crankcase. These gases are fed back to the engine for combustion by the crankcase breather.



*Electrical EGR-valve in the Opel Corsa (highlighted)*



You will find tips on inspecting the EGR-valve in Service Information SI 0047. Help in finding faults in the EGR-system in the internal combustion engine can be found in Service Information leaflet SI 0038.