



Engineering

Initial Inspection Report

Volkswagen Scirocco TSI 2009 Reg No:

<u>Reported condition of vehicle</u>	
White smoke coming out of exhaust	1
Low compression on cylinder 4	2

<u>Condition of vehicle on arrival</u>	
Smoke coming from exhaust	1
Car drivable, uneven idle	2
Heavy start	3
Lack of power	4

<u>Report (Please see attached images to the bottom of document)</u>	
All injectors pour too much fuel. This can be seen from the large amount of soot on the cylinder head.	1
Loss of compression on all cylinders due to crack in piston/s.	2
Severely worn/broken piston rings	3
Scored & damaged pistons	4

Turbo mixing oil and coolant then throwing it out to the intercooler	5
Head cylinder incorrectly skimmed, shown by the heavy scoring on the cylinder head. As if someone used sandpaper.	6

Conclusion and diagnosis

Most probably the main cause of failure were the injectors pouring too much fuel into the cylinders, resulting in an undesired fuel-air mixture, higher combustion temperature, more stress on the internal components, soot and gunk build-up on the head/piston. As well as fuel mixing in with the oil, causing loss in lubrication qualities of the oil.

This is a common fault for this engine and can be avoided if the injectors are replaced/reconditioned before this develops into a severe fault.

Repairs

Injectors - we **strongly recommend** that the injectors are replaced as we believe that they are the reason the engine has failed. Given the high cost to replace we often offer a 2-week time period to replace the injectors without voiding the warranty.

As the engine has not been overheated, the Oil pump and Water pump are in good shape, though we believe that for the benefit of the engine and any future work these parts are serviced as well.

VVT Timing wheel, this is purely optional. This is a component with moving parts and some people opt in to replace it with the timing kit, we recommend you consider the last time this was changed and the mileage it has done.

Mandatory

<u>Desc</u>	<u>Price.</u>	<u>Qty</u>	<u>Total</u>
OEM Piston	£75	4	£300
Reconditioned Turbocharger	£240	1	£240
NGK Spark Plugs	£15.85	4	£63.40

Advisories

<u>Desc</u>	<u>Price.</u>	<u>Qty</u>	<u>Total</u>
Injectors (Strongly Recommended)	£39.99	4	£159.99
VVT Camshaft wheel	£100	1	£100
Oil Pump	£148	1	£148
Water Pump	£60	1	£60

Example Costs

<u>Current Costs</u>	<u>Price.</u>	<u>Qty</u>	<u>Total</u>
Engine rebuilding	£1,950	1	£1,950
Piston	£75	4	£300
Reconditioned Turbocharger	£240	1	£240
Spark Plugs	£15.85	4	£63.40
Injectors (Strongly Recommended)	£39.99	4	£159.96
Total			£2713.36

IMPORTANT: Though advisories are not mandatory they are recommended for the benefit and longevity of your engine, as the owner you need to consider if you want this additional work to be done on your engine, and the choice is entirely up to you. You are advised to carefully consider the risks and the state of the parts in the engine and the last time they have been replaced.

We cannot be held responsible if the advised component fails and has not been replaced.

Components which are **strongly advised**, should be replaced by us or within or as soon as possible, not to void your warranty.

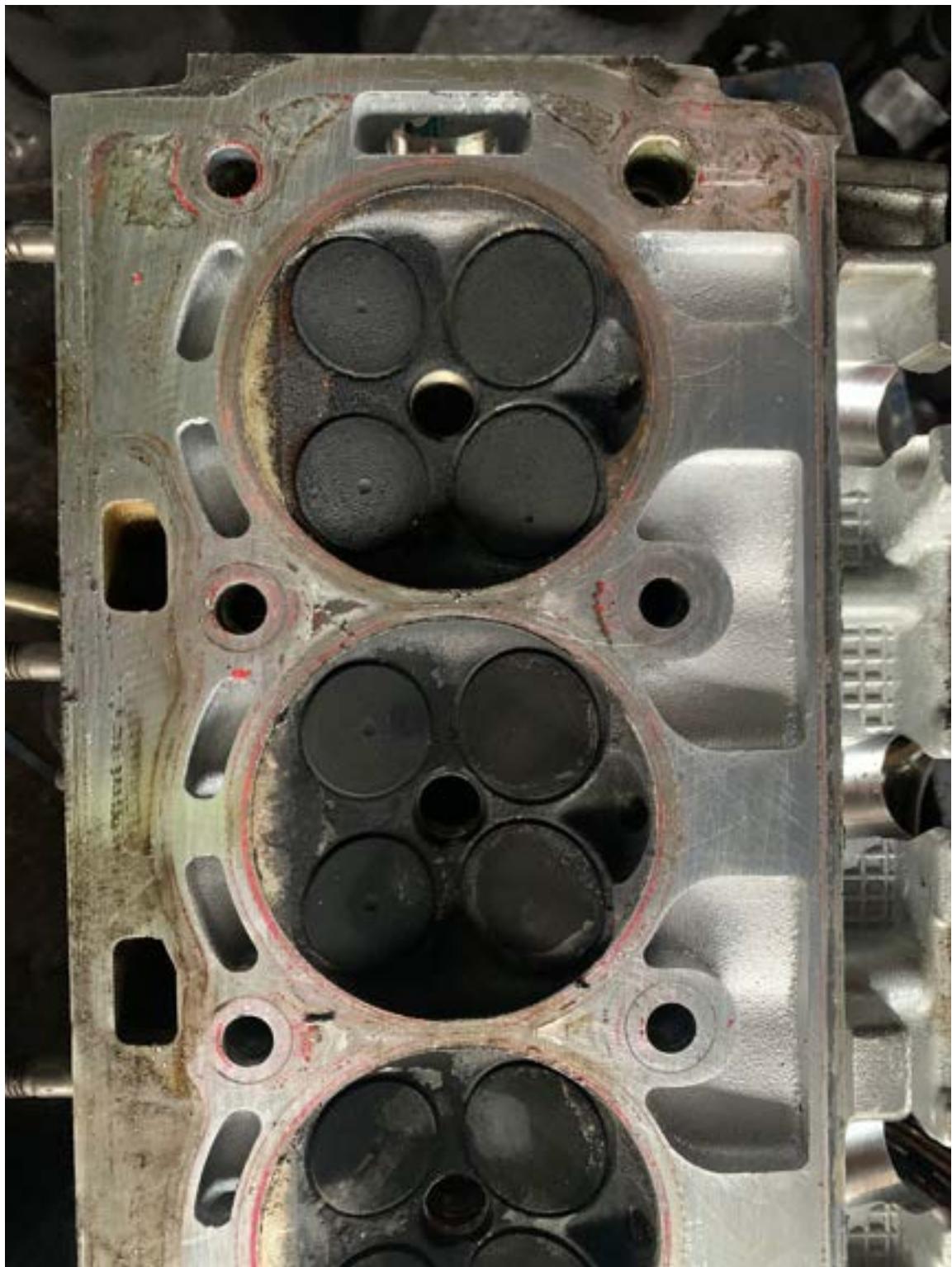
This is **NOT** a final quotation, components such as sensors, actuators, thermostat etc... cannot be tested until the engine is started. The customer will be responsible for replacement of all such parts and diagnosis time.

NOTE: This is not a legal document, and should not be used to claim against any garage. For complete and accurate diagnosis you should use an independent garage.

Report Images	
----------------------	--









2





3 &
4





5

