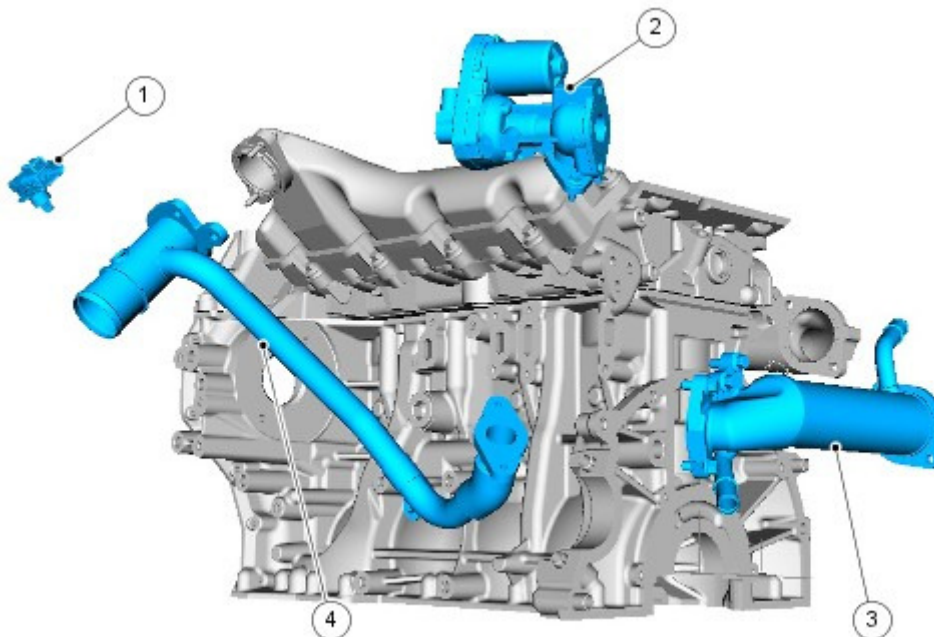


Engine Emission Control

EGR (exhaust gas recirculation) COMPONENT LOCATION



E63622

Item	Part Number	Description
1		MAP (manifold absolute pressure) sensor (shown for location purposes only)
2		EGR (exhaust gas recirculation) valve
3		EGR (exhaust gas recirculation) cooler
4		Gas transfer and mixer pipes

OVERVIEW

The EGR (exhaust gas recirculation) system comprises:

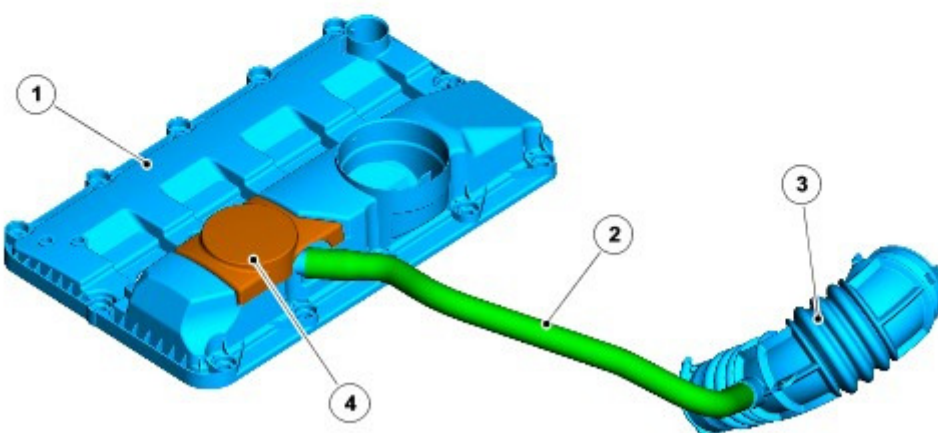
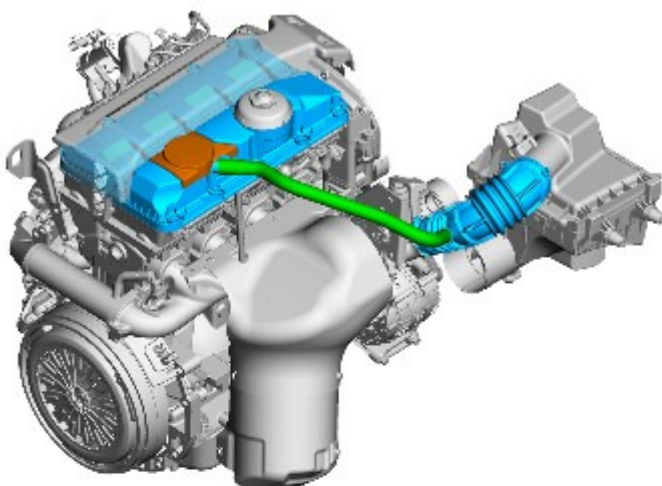
- EGR (exhaust gas recirculation) modulator
- EGR (exhaust gas recirculation) cooler
- Gas transfer pipe and mixer

The EGR (exhaust gas recirculation) cooler receives exhaust gas directly from the exhaust manifold, where it is cooled by a water matrix which is integrated into the overall engine cooling system.. Attached to the Cool side of the cooler is the EGR (exhaust gas recirculation) valve. This valve is motor driven – controlled by the ECM (engine control module) to provide varying amounts of EGR (exhaust gas recirculation) recirculation depending on the engine operation. At engine switch off the valve opens and closes several times to clear any deposits which may have accumulated during running.

The EGR (exhaust gas recirculation) pipe transports the cooled gas to the mixer where it is blended into to the incoming air stream.

The ECM (engine control module) monitors the EGR (exhaust gas recirculation) system function and stores fault codes in the event of failure. The EGR (exhaust gas recirculation) valve can also be activated for testing using the Land Rover recommended diagnostic tool.

CRANKCASE VENTILATION COMPONENT LOCATION



E86519

Item	Part Number	Description
1		Cylinder head cover
2		Gas transfer pipe
3		Air intake tube
4		Oil separator

OVERVIEW

The crankcase ventilation system on the engine manages the positive pressure built up during running. In order to prevent excessive oil loss/consumption the separator ensures that all gasses emitted from the crankcase during engine running are separated from any oil particles.

Crankcase gas enters the oil separator unit located in the engine cam cover due to the pressure differential between the crank case and the air induction duct. The oil separator removes oil from the crankcase gasses. The crank case pressure is released into the air induction system via the Crank Case Vent Tube. The separated oil drains from the separator to the oil pan via the engines internal oil galleries.