

ENGINES 646.985 /986 in MODEL 906 with CODE (MF4) Low-emission engine conforming to EU4 group 3

ENGINES 646.984 /985 /986 /989 in MODEL 906 with CODE (MS9) Engine version Euro 4

Function requirements:

- Battery voltage 11 to 14 V
- Shortly after engine start
- Engine speed > 500 rpm
- Partial load

Exhaust gas recirculation (EGR) take place depending on the engine load, engine speed and residual oxygen content in the exhaust gas.

After evaluating input signals, the CDI control unit uses a stored performance map to actuate the exhaust gas recirculation positioner (Y27/11) by means of a pulse width modulation (PWM) signal. The orifice area is enlarged, downsized or closed completely by the exhaust gas recirculation positioner, depending on actuation by the CDI control unit.

For this purpose, the CDI control unit (N3/21) reads the signals from the following components:

- Hot film mass air flow sensor (B2/5)
- Boost pressure sensor (B5/1)
- Charge air temperature sensor (B17/9)
- Intake manifold pressure sensor (B28)
- Accelerator pedal module (B37/3)
- Oxygen sensor (B85)
- Crankshaft sensor (L5/7)

More, less or no exhaust at all is fed back into the charge air manifold depending on the valve position. The nitrogen oxide (NO_x) content in the exhaust gas is lowered through the EGR,; this is done through the following 3 processes:

- Reduces the (O₂) concentration in the combustion chamber
- Reduction in the volume of exhaust gas discharged
- Reduction in combustion temperature

i To increase the effectiveness of the EGR, the exhaust gas is passed through the exhaust gas recirculation cooler.

	Component description for an oxygen sensor		GF07.04-D-6101HA
	Component description for crankshaft Hall sensor		GF07.04-D-6220HA
	Component description for charge air temperature sensor		GF07.04-D-6050HA
	Component description for pressure sensor downstream of air filter		GF07.04-D-6061H
	Hot film mass air flow sensor, component description		GF07.07-D-6000HA
	Component description for CDI control unit		GF07.16-D-6000HA
	Component description for boost pressure sensor		GF07.04-D-6051HA
	Component description for catalytic converter temperature sensor		GF07.04-D-6110HA
	Component description for temperature sensor on diesel particulate filter		GF07.04-D-6111HA
	Component description for diesel particulate filter pressure differential sensor		GF07.04-D-6121HA
	Component description for exhaust gas recirculation cooler		GF14.20-D-2020HA
	Component description for exhaust gas recirculation actuator		GF14.20-D-4007HA
	Component description for diesel particulate filter		GF14.40-D-2010HA
	Accelerator pedal sensor, component description		GF30.20-D-2010HA
	Throttle valve actuator, component description		GF30.20-D-2020HA
	Component description for the exhaust system		GF49.00-D-3010HA
	Component description for oxidation catalytic convertor		GF49.10-D-3006HA