

**ENGINE 642 in MODEL 209.3 /4, 211.2, 219.3, 211.0 /6**

**ENGINE 642.9**  
**in MODEL 461.3,**  
**463.3 up to 31.5.12**

**ENGINE 642 in MODEL 203.0, 164.8, 251.0, 203.2, 164.1, 251.1 up to model year 2008**  
**/YoM 07**

Idle speed control keeps the idle speed of the engine constant at approx. 700 rpm. The CDI control unit (N3/9) does this by reading the following information:

- "COMP\_OFF" (refrigerant compressor (A9) deactivated) from the EIS [EZS] control unit (N73) via the Controller Area Network bus Class C (engine compartment) (CAN-C) (except model 461)
- The fuel pressure of the rail via the rail pressure sensor (B4/6)
- Coolant temperature from the coolant temperature sensor (B11/4)
- The position of the accelerator pedal via the accelerator pedal sensor (B37)
- The engine speed via the crankshaft Hall sensor (B70).
- The selector lever position "P" or "N" from the electronic selector lever module control unit (N15/5) (models 203, 209, 211, 219, 461, 463) or DIRECT SELECT gear selector switch (S16/13) (models 164, 251) via CAN-C

The CDI control unit uses the signal from the crankshaft Hall sensor to calculate the engine speed (actual value) and compares this actual value with the respective specified value stored in the performance map, which is dependent on other variables and messages. The CDI control unit subsequently regulates the fuel pressure in the rail via the quantity control valve and the pressure regulator valve (Y74) and the injection time via actuation of the fuel injectors (Y76).

**i** The fuel pressure in the rail and injection timing of the fuel injectors gives the injection quantity.

	Component description for fuel injector	Y76	GF07.03-P-6120P
	Component description for crankshaft Hall sensor	B70	GF07.04-P-6220P
	Coolant temperature sensor, component description	B11/4	GF07.04-P-6040P
	Component description for rail pressure sensor	B4/6	GF07.04-P-6210P
	Component description for quantity control valve	Y94	GF07.05-P-6010P
	Component description for CDI control unit	Model 203, 209 N3/9 Model 211, 219 N3/9 Model 164, 463 N3/9 Model 251 N3/9 Model 461 N3/9	GF07.16-P-6000P GF07.16-P-6000T GF07.16-P-6000GZ GF07.16-P-6000RT GF07.16-P-6000GX
	Accelerator pedal sensor, component description	Model 203, 209, 211, 219 B37 Model 164, 463 B37 Model 251 B37	GF30.20-P-2010P GF30.20-P-2010GZ GF30.20-P-2010RT