

## Engine Combustion

Engines 112.912 /946

### 47.10 Fuel tank location/design/function

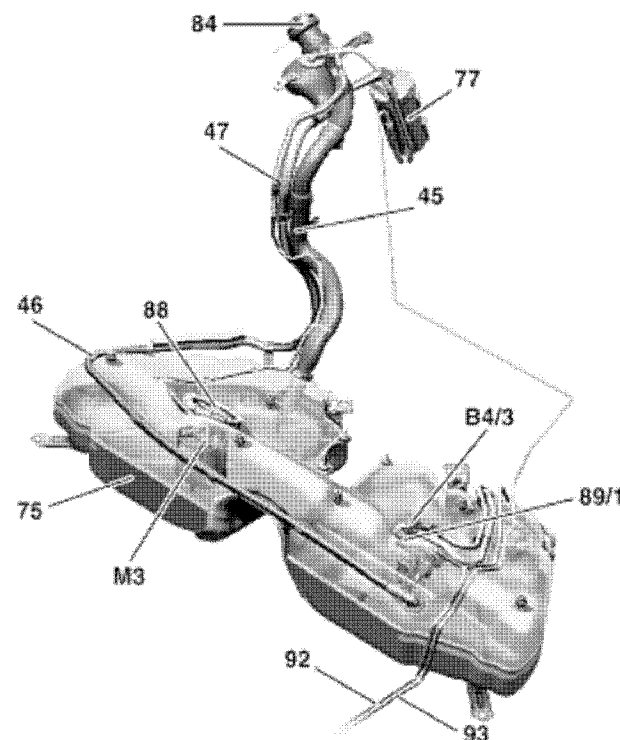
#### Location

The fuel tank (75) is positioned at the frame floor ahead of the rear axle (because of the through-loading facility from trunk into passenger compartment).

#### Design

The fuel tank (75) is split into two chambers because of the "U"-shaped recess. The chambers are interlinked.

- 45 Filler neck
- 46 Air admission line of fuel tank
- 47 Fuel line (switching off nozzle when refueling)
- 75 Fuel tank
- 77 Activated charcoal canister
- 84 End cover
- 88 Fuel delivery module
- 89/1 Closing plate left
- 92 Fuel pressure line to engine
- 93 Purge line to purge control valve
- B4/3 Tank pressure sensor
- M3 Fuel pump



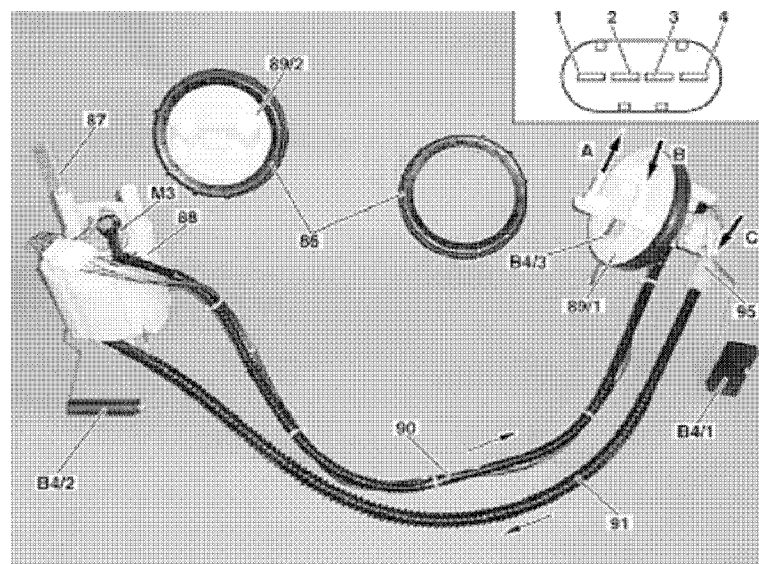
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#### Function

- 86 Union nut
- 87 Compression spring
- 88 Fuel delivery module
- 89/1 Closing plate left

Pin 1 Fuel pump ground  
 Pin 2 Fuel gauge sensor  
 Pin 3 Fuel gauge sensor  
 Pin 4 Fuel pump circuit 87

89/2 Closing plate right  
 90 Fuel pressure line  
 to connection A  
 91 Fuel connection line



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95 Suction spray pump  
 B4/1 Fuel gauge sensor left  
 B4/2 Fuel gauge sensor right  
 B4/3 Tank pressure sensor I  
 M3 Fuel pump

A To fuel filter with integrated fuel pressure regulator  
 B Return flow from fuel pressure regulator  
 C Fuel induction from left fuel chamber to delivery module

The fuel delivery module (88) together with the fuel pump (M3) is positioned in the right chamber. A closing plate (89/1) with connection fitting, cable connector, suction spray pump (95), left fuel gauge sensor (B4/1) and the fuel tank pressure sensor (B4/3) are located in the left chamber.

The fuel flows from the 2-stage fuel pump in the delivery module along the line (90) to the left closing plate and on to connection A to the fuel filter with integrated fuel pressure regulator. Excess fuel flows back through connection B and the suction spray pump (95) and connecting line (91) into the right chamber. A suction effect is produced in the suction spray pump which draws the fuel from the lowest point out of the left fuel tank chamber to the delivery module. This ensures that the left chamber is properly emptied.

The fuel delivery module housing is used as a splash bowl. When cornering with a low level of fuel in the fuel tank, it prevents the fuel pump drawing in air.

Fuel strainers are provided at the bottom of the delivery module and at the inlet to the fuel pump. Each fuel tank chamber has a fuel gauge sensor (lever sensor with potentiometer and sliding contact). The resistances of the two

fuel gauge sensors are connected electrically in series (each 100  $\Omega$ ). Fuel tank full: approx. 0  $\Omega$   
Fuel tank empty: approx. 200  $\Omega$

**Note:**

The fuel tank has no outlet valves. It is drained through the fuel line in the engine compartment.