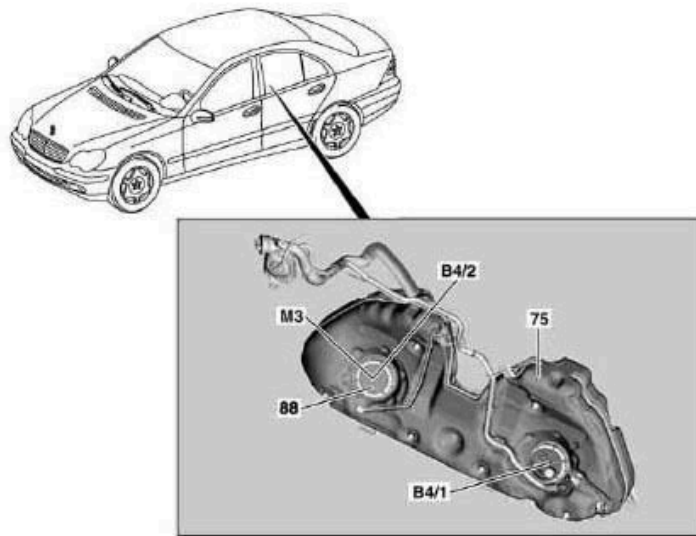


2001-2006 ENGINE**Fuel System - 203 Chassis****BASIC KNOWLEDGE****FUEL TANK - DESCRIPTION OF COMPONENTS - GF47.10-P-2000PE****MODEL 203 with ENGINE 271.921****MODEL 203, 209 with ENGINE 271.940****MODEL 203 with ENGINE 271.946****MODEL 203 with ENGINE 271.948****MODEL 209 with ENGINE 271.955**

- 75 Fuel tank
- 88 Fuel delivery module
- B4/1 Left tank half fuel level sensor
- B4/2 Right tank half fuel level sensor
- M3 Fuel pump



P47.10231906

Fig. 1: Identifying Fuel Tank Components - Model 203, 209 With Engine 271.940 (1 Of 2)

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

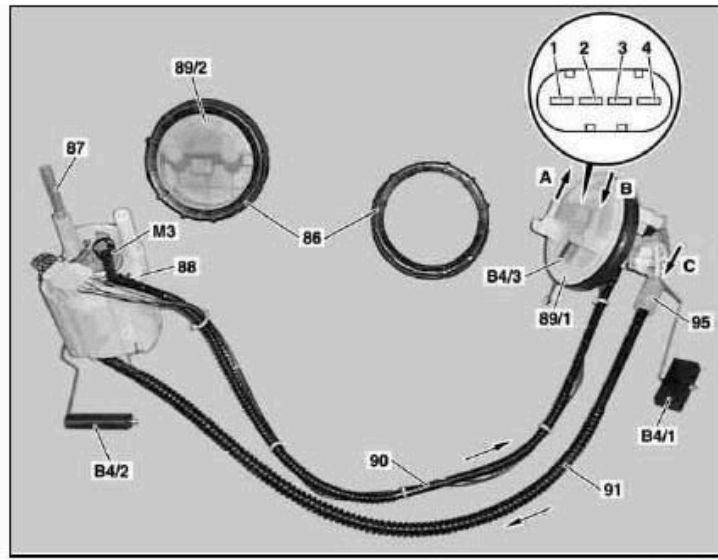
Design

The fuel tank is made of double-layer plastic. Due to the "U"-shaped cut-out, the fuel tank is divided into two interconnected chambers.


2007 Mercedes-Benz C230

2001-2006 ENGINE Fuel System - 203 Chassis

- 1 Pin 1 Fuel pump ground
- 2 Pin 2 : fuel signal
- 3 Pin 3 : fuel signal
- 4 Pin 4 Fuel pump circuit 87
- 86 Union nut
- 87 Compression spring
- 88 Fuel delivery module
- 89/1 Left closing plate
- 89/2 Right closing plate
- 90 Fuel pressure line to fuel filter with integrated fuel pressure regulator
- 91 Fuel line (from the suction jet pump to the fuel delivery module)
- 95 Suction jet pump



P47.10-2050-06

- B4/1 Left tank half fuel level sensor
- B4/2 Right tank half fuel level sensor
- B4/3 Tank pressure sensor (ON )
- M3 Fuel pump

- A Fuel to fuel filter with integrated fuel pressure regulator
- B Fuel return from fuel pressure regulator
- C Fuel intake from left fuel tank chamber

Fig. 2: Identifying Fuel Tank Components - Model 203, 209 With Engine 271.940 (2 Of 2)

The fuel pump (located in the left tank chamber) pumps the fuel via a fuel pressure line to the fuel filter with integrated fuel pressure regulator. The fuel filter with integrated fuel pressure regulator is secured from the outside to the left fuel tank chamber.

Excess pumped fuel flows from the fuel pressure regulator via the fuel return to the suction jet pump back to the left fuel tank chamber. As a result, there is a differential pressure in the suction jet pump that draws the fuel from the deepest point in the left fuel tank chamber and pumps it to the fuel delivery module into the right tank chamber. This ensures that the left fuel tank chamber is properly emptied.

The filtered fuel, at a regulated fuel pressure of around 3.8 bar, is pumped from the fuel pressure regulator via the fuel pressure line to the engine (single-line system).

The housing of the fuel delivery module serves as a swirl pot. A swirl pot prevents the fuel pump drawing in air when cornering with a low level of fuel in the tank.

Each fuel tank chamber contains a fuel level indicator for detection of the fuel level.

FUEL TANK COMPONENT DESCRIPTION - GF47.10-P-2000PS

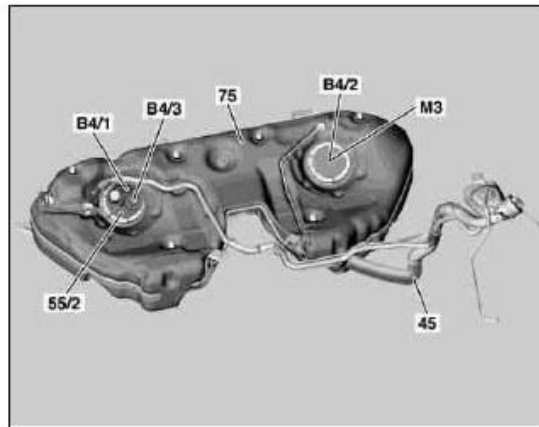
MODEL 203 with ENGINE 113.988

MODEL 209 with ENGINE 113.987

2007 Mercedes-Benz C230

2001-2006 ENGINE Fuel System - 203 Chassis

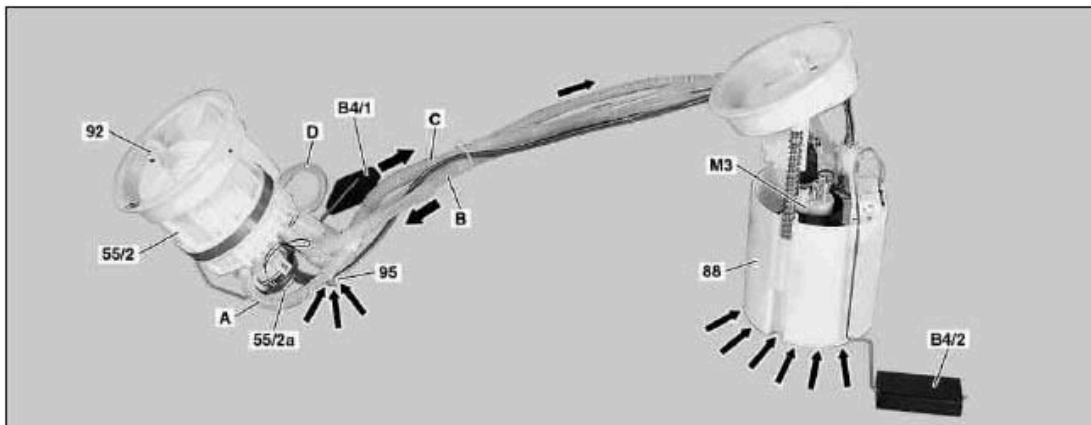
- 45 Fuel filler neck
- 55/2 Fuel filter with fuel pressure controller (in fuel tank)
- 75 Fuel tank
- B4/1 Fuel gage sensor, left half of tank
- B4/2 Fuel gage sensor, right half of tank
- B4/3 Tank pressure sensor (at 55/2)
- M3 Fuel pump



P47.10.2310-11

Fig. 3: Identifying Fuel Tank Components - Model 203 With Engine 113.988 (1 Of 2)

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



P47.10.2164-08

- | | | |
|---------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 55/2 Fuel filter with fuel pressure regulator | B4/1 Fuel gage sensor, left half of tank | B Fuel pressure line from fuel pump to fuel filter (uncontrolled fuel pressure) |
| 55/2a fuel pressure regulator | B4/2 Fuel gage sensor, right half of tank | C Fuel delivery line from suction jet pump to fuel delivery module |
| 88 Fuel delivery module | M3 Fuel pump | D Fuel pressure line for supplying suction jet pump |
| 92 Fuel pressure line to the engine (regulated fuel pressure) | A Return flow from fuel pressure regulator to fuel delivery module | |
| 95 Suction jet pump | | |

Fig. 4: Identifying Fuel Tank Components - Model 203 With Engine 113.988 (2 Of 2)

Design

The fuel tank consists of two-layer plastic and is divided into two chambers due to the U-shaped recess clearance. The chambers are connected to each other.

Function

The fuel flows from the two-stage fuel pump (M3) into the fuel delivery module (88), out of the right fuel tank chamber, through the fuel pressure line (B) to the fuel filter with fuel pressure regulator (55/2) into the left fuel

| |
|--------------------------------------------|
| 2007 Mercedes-Benz C230 |
| 2001-2006 ENGINE Fuel System - 203 Chassis |

tank chamber.

A junction with the fuel pressure line (D) supplies the suction jet pump (95). A suction effect is produced in the suction jet pump which draws the fuel from the deepest point out of the left fuel tank chamber to the fuel delivery module.

(C).

Moreover excess fuel flows from the fuel pressure regulator to the fuel delivery module (A).

This ensures that the left fuel tank chamber is properly emptied.

The filtered fuel with controlled fuel pressure (to around 3.8 bar) is supplied to the engine (92) via the fuel pressure line (single-line system).

The housing of the fuel delivery module serves as a swirl pot. While cornering with a low level of fuel in the fuel tank, it prevents the fuel pump from drawing air.

A fuel strainer is installed as a coarse filter at the bottom in the fuel delivery module at the feed to the fuel pump.

Each fuel tank chamber has a fuel level sensor (B4/1, B4/2). Both resistance values are sent separately to the rear SAM control unit with fuse and relay module (N10/2).

FUEL TANK - COMPONENT DESCRIPTION - GF47.10-P-2000VB

MODEL 211 with ENGINE 272.922

MODEL 211 with ENGINE 272.943

MODEL 211 with ENGINE 272.944

MODEL 221 with ENGINE 272.946

MODEL 203, 209 with ENGINE 272.960

MODEL 211, 219 with ENGINE 272.964

MODEL 221 with ENGINE 272.965

MODEL 203 with ENGINE 272.970

MODEL 211 with ENGINE 272.972

MODEL 221 with ENGINE 272.975

2007 Mercedes-Benz C230

2001-2006 ENGINE Fuel System - 203 Chassis

MODEL 221 with ENGINE 273.922

MODEL 221 with ENGINE 273.924

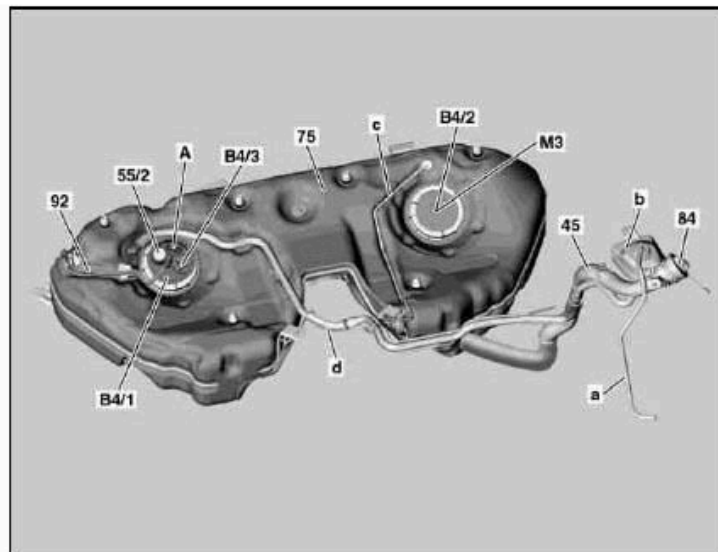
MODEL 211, 219 with ENGINE 273.960

MODEL 216, 221 with ENGINE 273.961

MODEL 211 with ENGINE 273.962

MODEL 209 with ENGINE 273.967

MODEL 221 with ENGINE 273.968



P47.10.2178.06

- 45 Filler neck
- 55/2 Fuel filter with integrated fuel pressure regulator
- 75 Fuel tank
- 84 Cap
- 92 Fuel pressure line to the engine
- B4/1 Left tank half fuel level sensor
- B4/2 Right tank half fuel level sensor
- B4/3 Fuel tank pressure sensor (GA)
- M3 Fuel pump (in fuel feed module)

- A Electrical connection (fuel gage sensor, fuel pump)
- a Vent line to activated charcoal canister
- b Expansion reservoir
- c Fuel tank air admission line
- d Fuel tank vent line

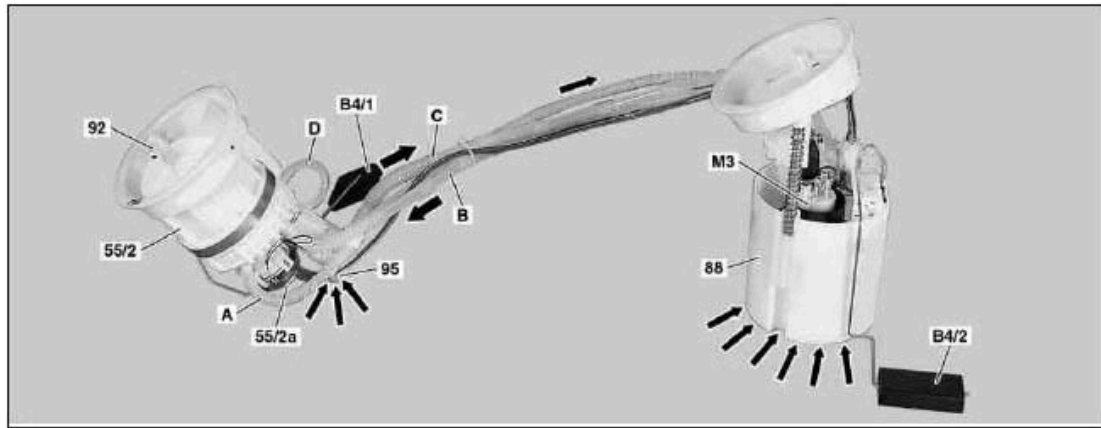
Fig. 5: Identifying Fuel Tank Components - Model 203 With Engine 272.970/960 (1 Of 2)

Location

The fuel tank 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 is made of sheet steel or two-layer plastic and is divided into two chambers due to the U-shaped recess clearance. The chambers are connected to each other.



P47.10216408

55/2 Fuel filter with fuel pressure regulator
55/2a fuel pressure regulator
88 Fuel delivery module
92 Fuel pressure line to the engine (regulated fuel pressure)
95 Suction jet pump

B4/1 Left tank half fuel level sensor
B4/2 Right tank half fuel level sensor
M3 Fuel pump
A Return flow from fuel pressure regulator to fuel delivery module

B Fuel pressure line from fuel pump to fuel filter (uncontrolled fuel pressure)
C Fuel delivery line from suction jet pump to fuel delivery module
D Fuel pressure line for supplying suction jet pump

Fig. 6: Identifying Fuel Tank Components - Model 203 With Engine 272.970/960 (2 Of 2)

Function

The fuel flows from the two-stage fuel pump into the fuel delivery module (88), out of the right fuel tank chamber, through the fuel pressure line (B) to the fuel filter with fuel pressure regulator (55/2) into the left fuel tank chamber.

A junction at the fuel filter with the fuel pressure line (D) supplies the suction jet pump (95). A suction effect is produced in the suction jet pump which draws the fuel from the deepest point out of the left fuel tank chamber to the fuel delivery module.

(C).

Moreover excess fuel flows from the fuel pressure regulator to the fuel delivery module (A).

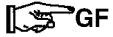
This ensures that the left fuel tank chamber is properly emptied.

The filtered fuel with controlled fuel pressure is supplied to the engine via the fuel pressure line (92) (single-line system).

The housing of the fuel delivery module serves as a swirl pot. While cornering with a low level of fuel in the fuel tank, it prevents the fuel pump from drawing air.

A fuel strainer is installed at the bottom in the fuel delivery module at the feed to the fuel pump.

Each fuel tank chamber has a fuel level indicator sensor. The resistance values are transmitted separately to the rear SAM control unit with fuse and relay module, which processes the signals accordingly and transmits them to the instrument cluster over the CAN databus.



For maintenance and repair work, loosen the screw rings or the nuts at the top of the fuel tank only when the fuel tank is filled 2/3 to maximum capacity.

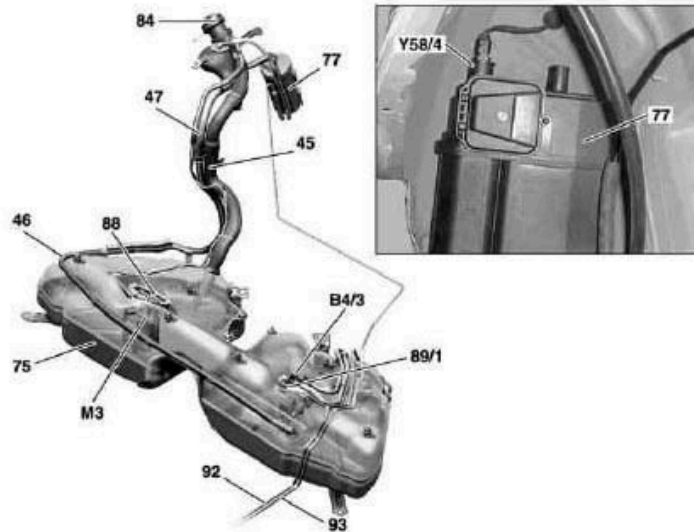
The fuel tank has no outlet valves. It is drained through the fuel pump via the fuel line in the engine compartment.

FUEL TANK - DESCRIPTION OF COMPONENTS - GF47.10-P-2000VD

MODEL 203 with ENGINE 272.920 /940 /941

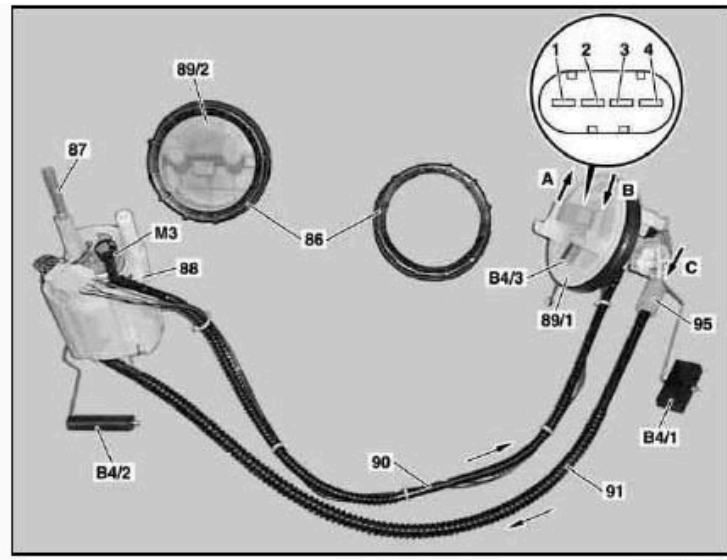
MODEL 209 with ENGINE 272.940

- 45 Filler neck
- 46 Fuel tank air admission line
- 47 Fuel line shuts off nozzle when refueling
- 75 Fuel tank
- 77 Activated charcoal canister
- 84 Cap
- 88 Fuel feed module (under closing plate, right)
- 89/1 Left closing plate
- 92 Fuel pressure line to the engine
- 93 Purge line to purge control valve
- B4/3 Fuel tank pressure sensor (USA)
- M3 Fuel pump
- Y58/4 Activated charcoal canister shut-off valve (USA)



P47.10.2070.06

Fig. 7: Identifying Fuel Tank Components - Model 203 With Engine 272.920 /940 /941 (1 Of 2)



P47.10.2050.06

| | | | | | |
|-------|--------------------------------------|------|-------------------------------------------------------|---|-------------------------------------------------------------------|
| 86 | Union nut | 91 | Fuel line (from suction jet pump to fuel feed module) | A | Connection to fuel filter with integrated fuel pressure regulator |
| 87 | Push spring | 95 | Suction spray pump | B | Return line connection from fuel pressure regulator |
| 88 | Fuel feed module | | | C | Fuel intake from left fuel tank chamber to fuel supply module |
| 89/1 | Left closing plate | B4/1 | Fuel level sensor, left side of the tank | | |
| Pin 1 | Fuel pump ground | B4/2 | Right fuel level sensor | | |
| Pin 2 | Fuel level sensor | B4/3 | Fuel tank pressure sensor | | |
| Pin 3 | Fuel level sensor | M3 | Fuel pump | | |
| Pin 4 | Fuel pump, circuit 87 | | | | |
| 89/2 | Right dosing plate | | | | |
| 90 | Fuel pressure line (to connection A) | | | | |

Fig. 8: Identifying Fuel Tank Components - Model 203 With Engine 272.920 /940 /941 (2 Of 2)

Location

The fuel tank 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 consists of 2-layer plastic. it is split into two chambers because of the "U"-shaped recess. The chambers are connected to each other. The fuel filter with fuel pressure regulator is located in the outside of the fuel tank.

Function

The fuel feed module (88), with the fuel pump (M3) and the "Fuel level sensor, left half of tank" (B4/2), is located in the right fuel tank chamber. A closing plate (89/1) with connection fitting, cable connector, suction spray pump (95), left fuel gage 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 fuel feed module along the fuel pressure line (90) via the connection (A) to the fuel filter with integrated fuel pressure regulator. Excess fuel flows back through the return line connection (B) via the suction spray pump (95) and the fuel line (91) into the right tank chamber. A