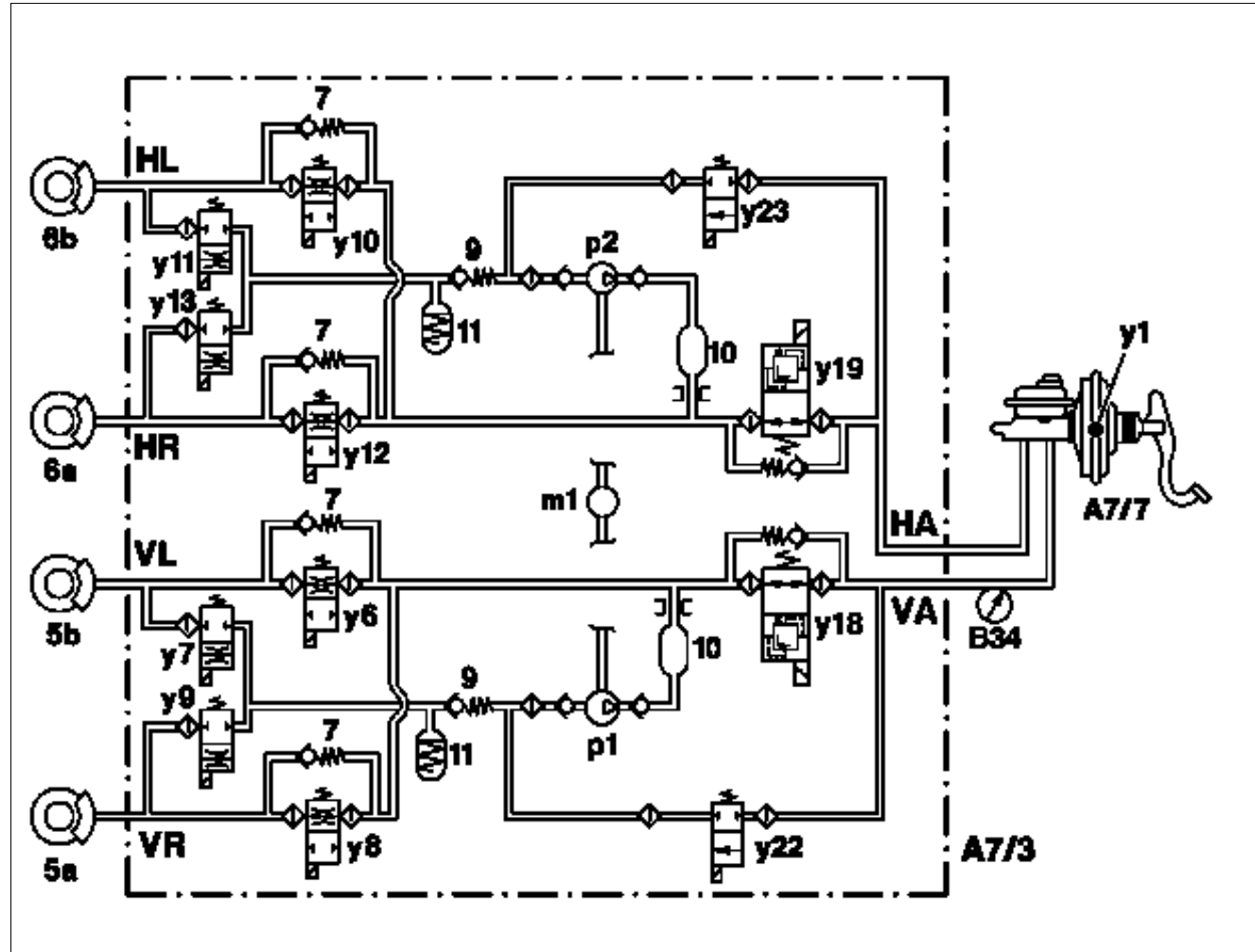


Document title Traction systems hydraulic unit, function

Document number gf4250p400004b

GF42.50-P-4000-04B	Traction systems hydraulic unit, function	Models 129, 208 with engines 112, 113 Model 202 with engines 112, 113, 604 Model 210 with engines 111, 112, 113, 604, 605, 606, 611, 612, 613 Models 215, 220	GF
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- 5a Right front wheel brake
- 5b Left front wheel brake
- 6a Right rear wheel brake
- 6b Left rear wheel brake
- 7 Non-return valve
- 9 Return pump non-return valve
- 10 Silencer
- 11 Low pressure accumulator
- A7/3 Traction systems hydraulic unit
- m1 High pressure and return pump
- p1 Front axle high pressure and return pump
- p2 Rear axle high pressure and return pump
- A7/3y6 Left front axle solenoid valve (hold)
- A7/3y7 Left front axle solenoid valve (release)
- A7/3y8 Right front axle solenoid valve (hold)
- A7/3y9 Right front axle solenoid valve (release)



P42.45-0269-06

- A7/3y10 Left rear axle solenoid valve (hold)
- A7/3y11 Left rear axle solenoid valve (release)
- A7/3y12 Right rear axle solenoid valve (hold)
- A7/3y13 Right rear axle solenoid valve (release)
- A7/3y16 Front axle precharge solenoid valve
- A7/3y17 Rear axle precharge solenoid valve
- A7/3y18 Front axle switchover solenoid valve

- A7/3y19 Rear axle switchover solenoid valve
- A7/3y22 Front axle inlet solenoid valve
- A7/3y23 Rear axle inlet solenoid valve
- A7/7 BAS brake booster
- A7/7y1 BAS solenoid valve
- B34 ESP brake pressure sensor

The ABS, ASR and ESP switching components are combined in the traction systems hydraulic unit.

Solenoid valves (hold) (release) (A7/3y6-y13)

For the control, one 2/2-way valve is used for each wheel for pressure build-up/pressure holding and pressure holding/pressure reduction function in ABS control mode.

Inlet solenoid valves (A7/3y22 and y23)

The inlet solenoid valves (Y22 and Y23) which are resistant to high pressure are located in the suction lines to the high pressure and return pumps (p1 and p2). Their task is to allow the pilot pressure of 3-5 bar through to the high pressure and return pumps (p1 and p2) during ASR and ESP control. They are also used to control the circuit pressure. They are closed during ASR and ESP control - pressure holding.

Switchover solenoid valves (A7/3y18 and y19)

The switchover solenoid valves for front or rear axle circuits (A7/3y18 and y19) shut off the line system between the wheel brakes and master brake cylinder during ASR and ESP control - pressure build-up and pressure holding. They are open during ASR and ESP control - pressure reduction.

At the same time they are designed as pressure limiting valves and open at approx. 170 bar. The brake fluid flowing away via the switchover solenoid valves is led back to the master brake cylinder.

High pressure and return pump (A7/3m1)

The high pressure and return pumps (p1 and p2) integrated in the hydraulic unit (A7/3) are used for ASR and ESP pressure supply and return during ABS, ASR or ESP controls. There is a silencer (10) in each brake circuit to damp the delivery noise.

The low pressure accumulators (11) take up the brake fluid flowing back in the ABS/ASR/ESP pressure reduction phase and deliver it to the high pressure and return pumps.

The low pressure accumulators (11) take up the brake fluid flowing back in the ABS/ASR/ESP pressure reduction phase and deliver it to the high pressure and return pumps

ESP brake pressure sensor (B34)

The ESP brake pressure sensor is attached to the inlet of the line for the front axle circuit.