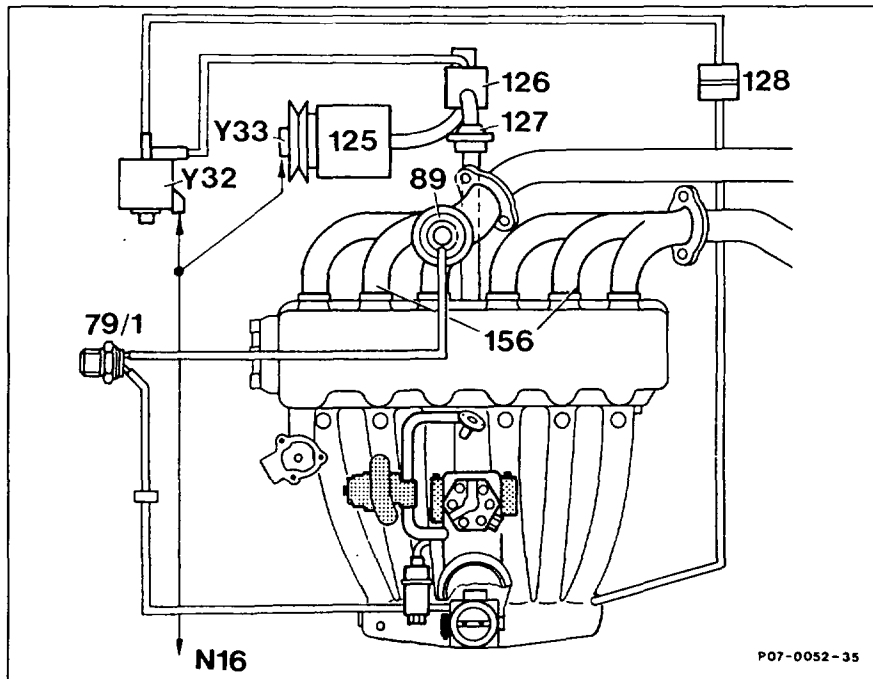


# 14-7611 Testing exhaust gas recirculation

Preceding work:  
Testing, adjusting engine (07.3-1100).

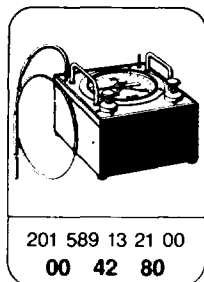
Operation no. of operation texts and work units or standard texts  
and flat rates:  
14-7611.



Function diagram air injection and exhaust gas recirculation

79/1	70/35 °C thermoventil	128	Non-return valve (vacuum)
89	Exhaust gas recirculation	156	Exhaust manifold
125	Air pump	N16	Engine systems control unit MAS
126	Air shutoff valve	Y32	Air pump switchover valve
127	Non-return valve (injected air)	Y33	Air pump electromagnetic clutch

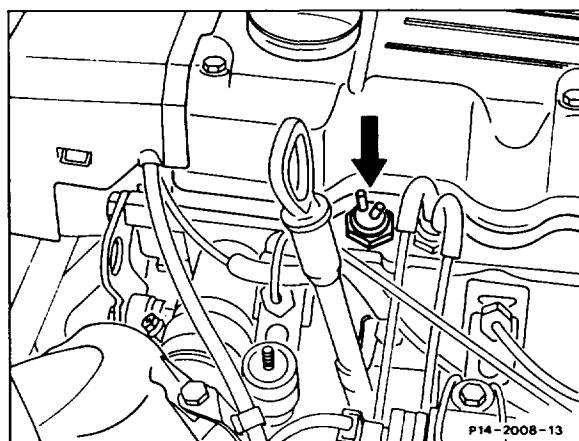
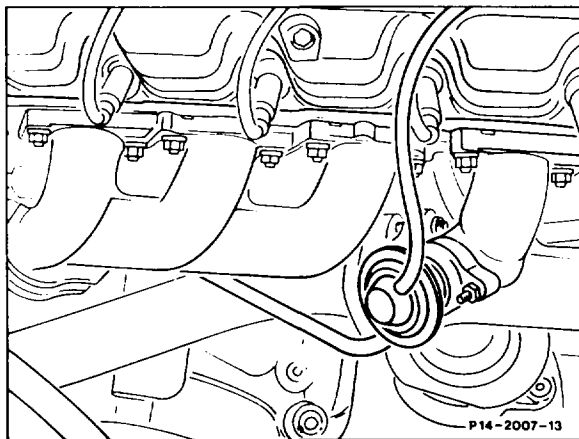
## Special tool



Test step	Test scope	Tester/ Test connection	Operation/ Requirement	Specifi- cation/ Function	Possible cause/Remedy
1	ARF valve	at ARF valve	Ignition: <b>OFF</b> Apply 300 mbar vacuum to ARF valve Detach vacuum line	ARF valve closes audibly	Replace ARF valve
		at ARF valve	Engine: <b>idling</b> Pressurize ARF valve with 300 mbar	Engine runs ir- regularly	Replace ARF valve
2	Vacuum line connection	Connect ws/vibr vacuum line from ARF valve with Y distributor	Increase engine speed to n = 4000/min	P > 400 mbar	Vacuum line, Line connection at throttle valve body
2.1	Thermo- valve	Connect ws/vibr vacuum line from ARF valve with Y distributor	Ignition: <b>OFF</b> Detach both vacuum lines at thermal valve. Connect vacuum tester to angled connector and apply vacuum.	Coolant tempera- ture: > 70°C: passage; < 60°C: no passage	Therموالve
3		Connect ws/vibr vacuum line from ARF valve with Y distributor	Seal at straight connection. Apply vacuum to angled connection	Vacuum remains	Therموالve

### Exhaust gas recirculation (only KAT version)

The exhaust gas recirculation valve is located on the exhaust manifold for cylinders 1 – 3. The exhaust gas recirculation valve is a single-stage valve and is pressurized with vacuum from a coolant temperature of +70 °C through the thermostatic valve (arrow) and at a throttle valve angle of >11°.



**Note models 124, 129, 201**

### Exhaust gas recirculation valve

Diaphragm modified to improve sealing

**Production breakpoint: 09/91**

Model	Engine	Engine end no. manual transmission	Engine end no. automatic transmission
124.007 (USA) 124.026/027	103.940	036778	106442
124.030 (USA) 124.050/090	103.983	044891	264101
124.230 (USA) 124.290	103.985	018429	-
129.060	103.984	000839	004296
201.029 (USA)	103.942	020056	065697