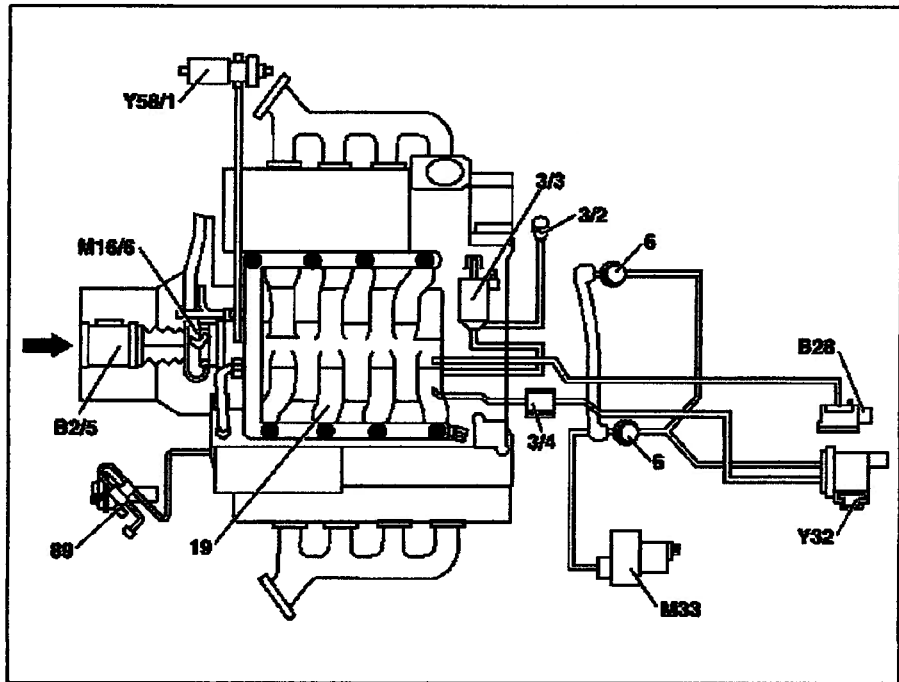


Shown on engine 113 with USA version code 494a

- 3/2 Vacuum control unit control flap intake manifold
- 3/3 Control flap switchover valve (intake manifold)
- 3/4 Check valve
- 6 Air injection combination valve
- 19 Intake manifold
- 89 Exhaust gas recirculation valve
  
- B2/5 Hot film mass air flow sensor
- B28 Pressure sensor
- M16/6 Throttle valve actuator
- M33 AIR pump
- Y32 Air pump switchover valve
- Y58/1 Purge control valve

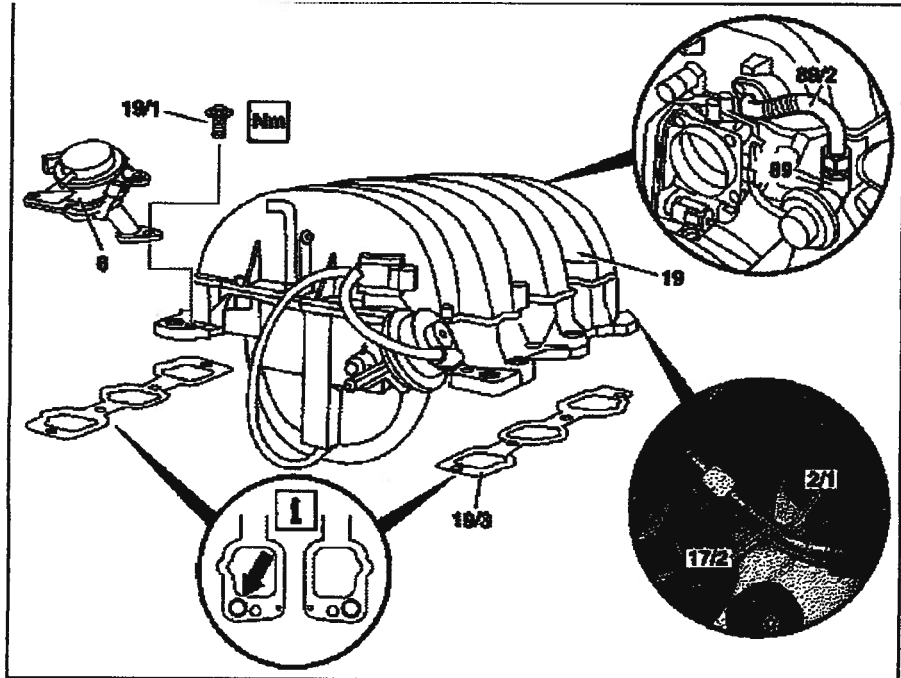


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ENGINE 112.910 in MODELS 202.026 /086  
ENGINE 112.920 in MODELS 202.029 /089  
ENGINE 112.921 in MODELS 210.063 /081 /263 /281  
ENGINE 112.922 in MODEL 220.063  
ENGINE 112.923 in MODEL 129.059  
ENGINE 112.940 in MODELS 208.365 /465  
ENGINE 112.941 in MODELS 210.065 /082 /265 /282  
ENGINE 112.942 in MODEL 163.154  
ENGINE 112.943 in MODEL 129.064  
ENGINE 112.944 in MODELS 220.065 /165  
ENGINE 113.940 in MODELS 210.070 /270  
ENGINE 113.941 in MODELS 220.070 /170  
ENGINE 113.960 in MODELS 215.375, 220.075 /175  
ENGINE 113.961 in MODEL 129.068  
ENGINE 113.944 in MODELS 202.033 /093  
ENGINE 113.942 in MODEL 163.172  
ENGINE 113.980 in MODELS 210.074 /274  
ENGINE 113.943 in MODELS 208.370 /470  
ENGINE 113.984 in MODEL 208.374  
ENGINE 113.981 in MODEL 163.174  
ENGINE 112.912 in MODELS 203.061 /261, 209.361 /461  
ENGINE 112.946 in MODELS 203.064 /264  
ENGINE 112.947 in MODEL 170.465  
ENGINE 113.963 in MODEL 230.475  
ENGINE 113.968 in MODELS 209.375 /475  
ENGINE 112.913 in MODEL 211.061  
ENGINE 112.949 in MODEL 211.065  
ENGINE 113.967 in MODEL 211.070  
ENGINE 113.987 in MODELS 209.376 /476  
ENGINE 112.955 in MODELS 209.365 /465  
ENGINE 112.916 in MODELS 203.081 /281  
ENGINE 112.953 in MODELS 203.084 /284  
ENGINE 112.970 in MODEL 163.157  
ENGINE 112.972 in MODELS 220.067 /167  
ENGINE 112.973 in MODEL 230.467  
ENGINE 113.965 in MODEL 163.175  
ENGINE 112.975 in MODELS 220.087 /187  
ENGINE 113.948 in MODELS 220.083 /183  
ENGINE 113.966 in MODELS 220.084 /184  
ENGINE 112.917 in MODELS 211.080 /280  
ENGINE 112.954 in MODELS 211.082 /282  
ENGINE 113.969 in MODELS 211.083 /283  
ENGINE 113.988 in MODELS 203.076 /276  
ENGINE 113.989 in MODEL 171.473

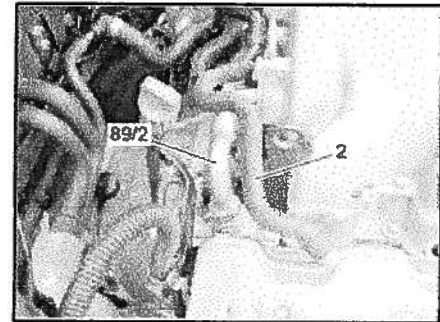
shown on engine 112

- 2/1 Screw of cylinder head cover
  - 6 Combination valve
  - 17/2 Feed line
  - 19 Intake manifold
  - 19/1 Bolt
  - 19/3 Seal
  - 89 Exhaust gas recirculation valve
  - 89/2 Cable
- Arrow: Hole for combination valve









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- 2 Crankshaft ventilation hose
- 89/2 Cable



P09.20-2137-01

☒ ☒	Remove/Install		
⚠ <b>Danger!</b>	<b>Risk of explosion</b> caused by fuel igniting, <b>risk of poisoning</b> caused by inhaling and swallowing fuel as well as <b>risk of injury</b> to eyes and skin caused by contact with fuel.	No fire, sparks, open flames or smoking. Pour fuels only into suitable and appropriately marked containers. Wear protective clothing when handling fuel.	AS47.00-Z-0001-01A
1.1	Remove key from electronic ignition switch	<p><b>i</b> Only for vehicles with electronic ignition switch.</p> <p><b>i</b> Vehicles with Keyless Go, Code 889: Switch off engine, remove Keyless Go cards out of vehicle and store outside of the transmitter range.</p>	
2.1	Remove cover on front side of engine	<b>i</b> Only models 129, 211, 215, 220, 230	
3.1	Remove engine trim panel with integrated air filter	<b>i</b> The air filter is integrated in the engine cover. Remove engine cover or air filter by pulling vertically up and away from the cylinder head covers.	
3.2	Remove air filter housing	Model 171.473 Model 203.076/ 276 Model 209.376 /476 as of 24.4.04	AR09.10-P-1150AC

4	Remove hot film mass air flow sensor with air intake pipe	Engines 112.910/ 920/ 921/ 940/ 941/ 942/ 970 Engine 113.940 Engines 112.922 /944 /972 /973 /975 Engines 113.941/ 948/ 960/ 961/ 963/ 966 Engines 112.912/ 913/ 916/ 917/ 946/ 947/ 949/ 954/ 953/ 955 Engines 113.968/ 967/ 969/ 987/ 988/ 989 Engines 112.923/ 943 Engines 113.943 /944 /980 /984 Engine 113.942/ 965/ 981	AR07.07-P-1454A  AR07.07-P-1454AA  AR07.07-P-1454SV  AR07.07-P-1454AG  AR07.07-P-1454MV
5	Disconnect the lead line (17/2) at the fuel distributor	 Release fuel pressure via service valve and collect fuel.  Disconnect fuel feed line at fuel rail  Pressure hose	*BA07.52-P-1001-01A *119589046300
6	Removing fuel rail with injection valves	Engines 112.910/ 920/ 921/ 923/ 940/ 941/ 942/ 943/ 970 Engines 113.940/ 942/ 943/ 944/ 961/ 965/ 980/ 981/ 984 Engines 112.912 /913 /916 /917 /922 / 944 /946 /947 /949 /953 /954 /955 /972 / 973 /975 Engines 113.941 /948 /960 /963 /966 / 967 /968 /969 /987 /988 /989	AR07.03-P-1451A  AR07.03-P-1451AA
7.1	Unscrew bolt of cylinder head cover (2/1)	Model 230.475 only  Screw of cylinder head cover	*BA01.20-P-1001-01E
7.2	Remove crankshaft ventilation hose (2) and line (89/2) and place aside	 Only Model 171.473.  Remove cylinder head cover bolt (2/1) to loosen the bracket of the exhaust gas recirculation valve.  Screw of cylinder head cover	*BA01.20-P-1001-01E
8.1	Disconnect vacuum lines from intake pipe (19)	 Observe intake manifold connection diagram, see: ↓ Engine 112 except 112.913 /917 /949 /954 Engines 112.913 /917 /949 /954 Engine 112 with USA version, code 494, except engines 112.913 /916 /917 /949/ 953 /954 /975 Engines 112.913 /916 /917 /949 /953/ 954 /975 with USA version, code 494 Engine 113 except 113.967/ 969 Engine 113.967/ 969 Engine 113 with USA version, code 494, except engines 113.948 /963 /966 /984 / 967 /969 /988 /989 Engines 113.948 /963 /966 /984 /967 / 969 /988 /989 with USA version, code 494a	AR09.20-P-1310-01A AR09.20-P-1310-01T AR09.20-P-1310-01AA  AR09.20-P-1310-01AU AR09.20-P-1310-01TA AR09.20-P-1310-01AC
9	Disconnect electrical connectors		
10	Unscrew acorn nut from pipe (89/2) to exhaust gas recirculation valve (89)	 Counterhold connection fitting when unscrewing.  Union nut of exhaust gas recirculation pipe to exhaust gas recirculation valve	*BA14.20-P-1002-01B
11.1	Unscrew screw (19/1)	Except engine 113.987 as of 24.04.04, Engines 113.988/ 989  Bolt of intake manifold to cylinder head	*BA09.20-P-1001-01D
11.2	Remove bolts from right combination valve (6) and left combination valve (6)	Only for engine 113.987 as of 24.04.04 Engines 113.988/ 989  Bolt of intake manifold to cylinder head	*BA09.20-P-1001-01D

12.1	Remove combination valve (6)	Except engine 113.987 as of 24.04.04 Engines 113.988/ 989 <b>i</b> Installation: Install new gasket	
12.2	Loosen right combination valve (6) and left combination valve (6) and place aside	Only for engine 113.987 as of 24.04.04 Engines 113.988/ 989 <b>i</b> Installation: Install new gasket	
13	Dismount intake manifold (19)	<b>i</b> Plug intake ducts. Use dowel bolt for exact positioning of intake manifold and for centering the gasket (19/3). <b>Nm</b> Bolt of intake manifold to cylinder head <b>S</b> Set of dowel bolts	*BA09.20-P-1001-01D *112589026200
14	Replace gasket (19/3)		
15	Install in the reverse order		

**Nm** Crankcase ventilation, cylinder head cover

Number	Designation	Engine	Engines	Engine
		112.910/911/ 912/913/914/ 915/916/917/ 920/921/922/ 923/940/941/ 942/943/944/ 945/946/947/ 949/951/953/ 954/955/960/ 961/970/972/ 973/975/976	113.940/ 941/942/943/ 944/948/960/ 961/962/963/ 964/965/966/ 967/968/969/ 971/980/981/ 982/984/986/ 992	113.989
BA01.20-P-1001-01E	Screw of cylinder head cover	Nm 8	10	8

**Nm** Fuel rail

Number	Designation	Engine
		112 except 112.945/ 951/960/ 961
BA07.52-P-1001-01A	Disconnect fuel feed line at fuel rail	Nm 38

**Nm** Fuel rail

Number	Designation	Engine	Engines	Engine
		113.987	113.940/941/ 942/943/944/ 945/946/948/ 960/961/962/ 963/964/965/ 966/967/968/ 969/971/980/ 981/982/984/ 986/988	113.989
BA07.52-P-1001-01A	Fuel feed line to fuel distributor	Nm 38	38	38

**Nm** Intake manifold

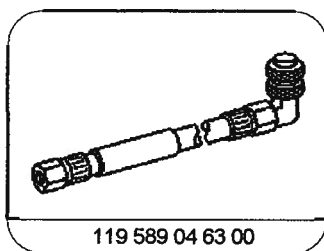
Number	Designation	Engine	Engines	Engine 113.989
		112.910/911/ 912/913/914/ 915/916/917/ 920/921/922/ 923/940/941/ 942/943/944/ 945/946/947/ 949/951/953/ 954/955/960/ 961/970/972/ 973/975/976	113.940/941/ 942/943/944/ 945/946/948/ 960/961/962/ 963/964/965/ 966/967/968/ 969/971/980/ 981/982/984/ 986/987/988/ 990/991/992	
BA09.20-P-1001-01D	Bolt, intake manifold to cylinder head M8 Nm	20	20	20

**Nm** Exhaust gas recirculation

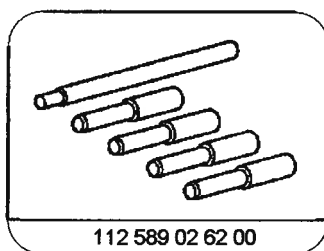
Number	Designation	Engine	Engine	Engines	Engine
		112.910/912/916/ 920/921/922/923/ 940/941/942/943/ 944/945/946/947/ 953/972/975	112.913/ 917/949/ 954/955/ 970/973	113.940/941/942/ 943/944/948/960/9 61/962/964/965/96 6/967/968/969/971 /980/981/982/984/ 987/988	113.963
BA14.20-P-1002-01B	Acorn nut, exhaust gas recirculation pipe to exhaust gas recirculation valve Nm	40	40	40	23

**Nm** Exhaust gas recirculation

Number	Designation	Engine
		113.989
BA14.20-P-1002-01B	Acorn nut, exhaust gas recirculation pipe to exhaust gas recirculation valve Nm	40



Pressure hose



Set of dowel bolts