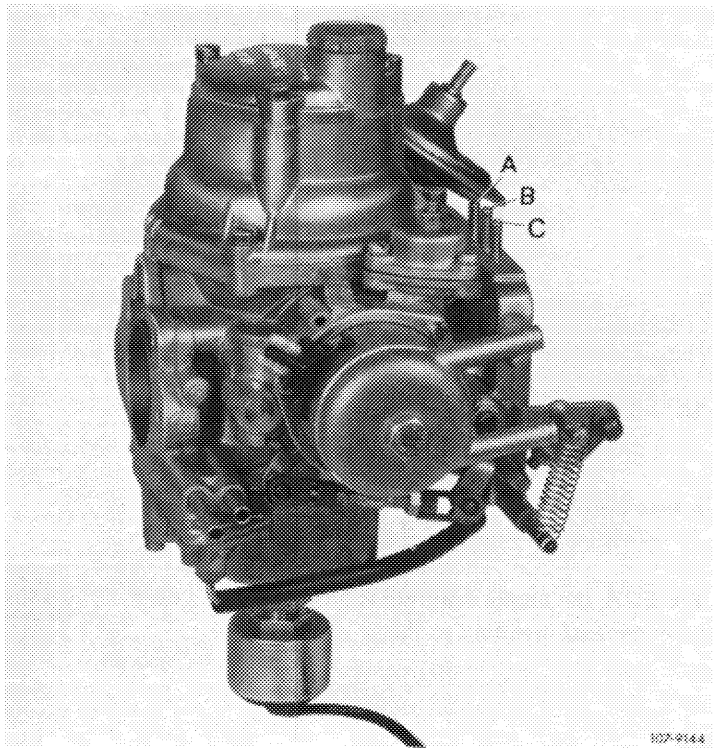
C. (USA) model year 1974–1976

(USA) model year 1974

Differences as compared with model year 1973

Carburetor

- Damper oil supply tank.



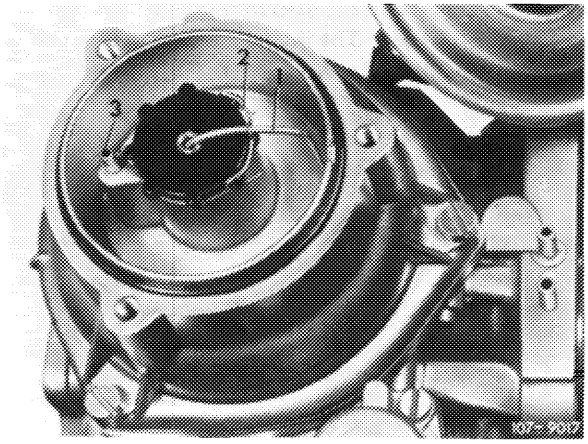
Damper oil supply tank

The oil supply tank for air piston damper is located in carburetor cover.

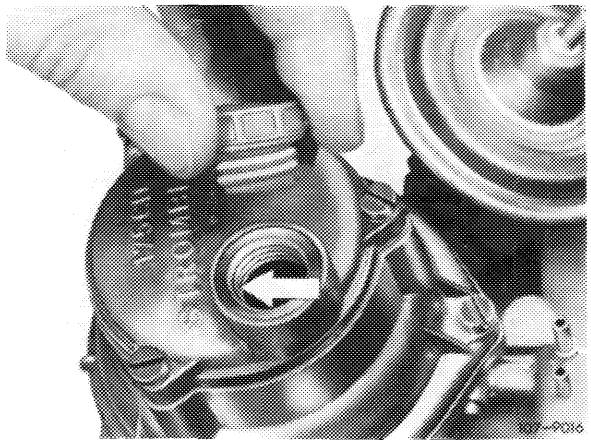
The oil supply for damper piston shaft proceeds by way of capillary tube (1).

The capillary tube is located by means of spring clamp (2) in such a manner that the oil is taken from lowest point of oil supply tank.

1 Capillary tube
2 Spring clamp
3 Vent pipe



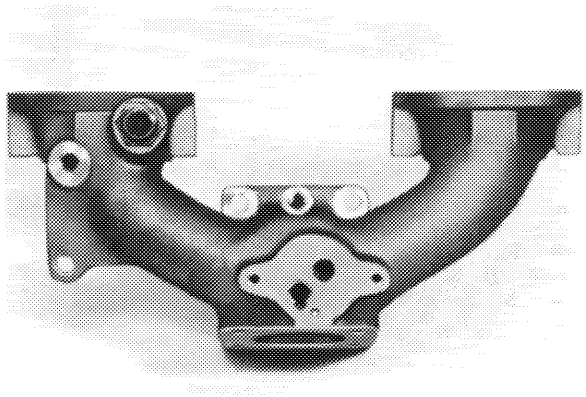
The oil level can be checked by way of filler plug (arrow). The oil should be up to lower edge of threads. Add ATF, if required.



14 Intake manifold, exhaust manifold

Intake manifold

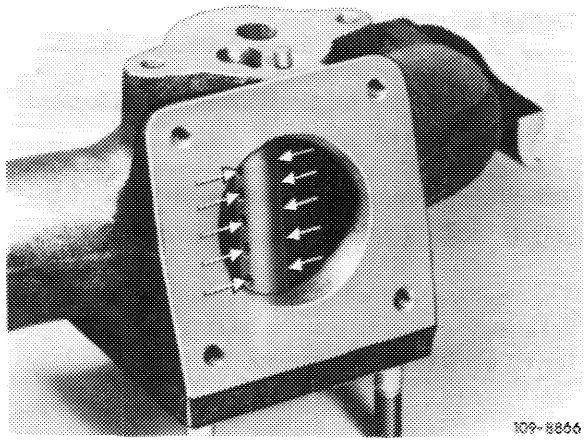
For EGR, the intake manifold is provided with a duct from exhaust manifold to flange of EGR valve.



109-8867

The exhaust gases are routed into intake manifold through EGR valve. The intake manifold has a tube with lateral holes (arrows).

The returned exhaust gases are distributed to the drawn-in fuel-air mixture.



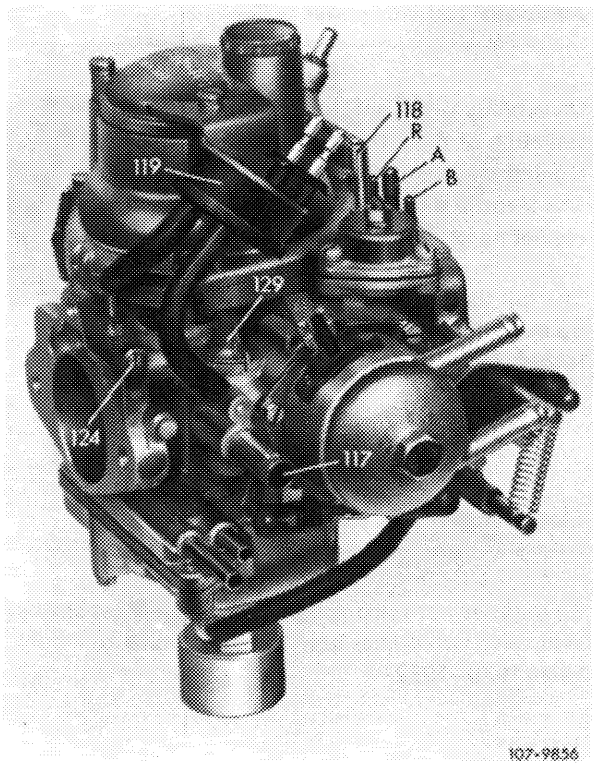
109-8866

(USA) model year 1975

Differences as compared with model year 1974

Carburetor

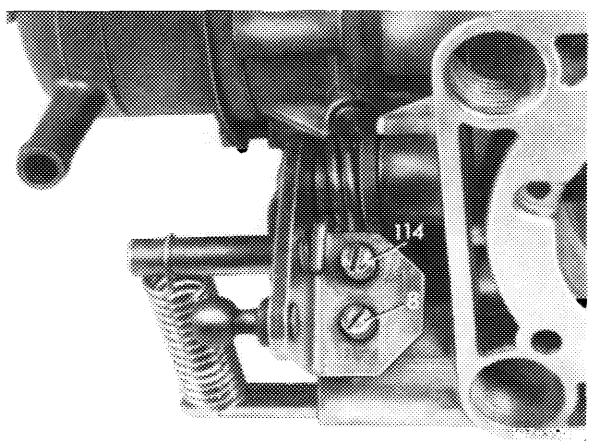
- Warm-up adjusting screw.
- Adjusting slot in choke housing newly located.
- Additional regulating lever.
- Float chamber vent valve.
- Draw-off connection for fuel evaporation system.
- Thermo switchover valve for automatic choke.
- Start enrichment valve is no longer required.



118 Draw-off connection for fuel evaporation control
A Vacuum connection closed
B Vacuum connection for switchover valves
R Vacuum connection for EGR

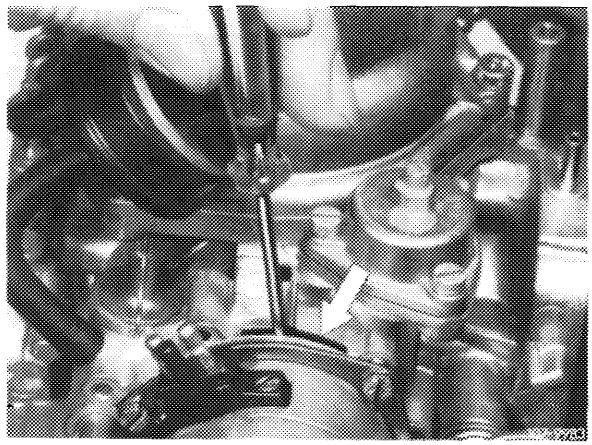
Warm-up rpm adjusting screw

Warm-up speed is no longer adjusted as before by way of the connecting rod, but by means of adjusting screw (114).



Adjusting slot in choke housing

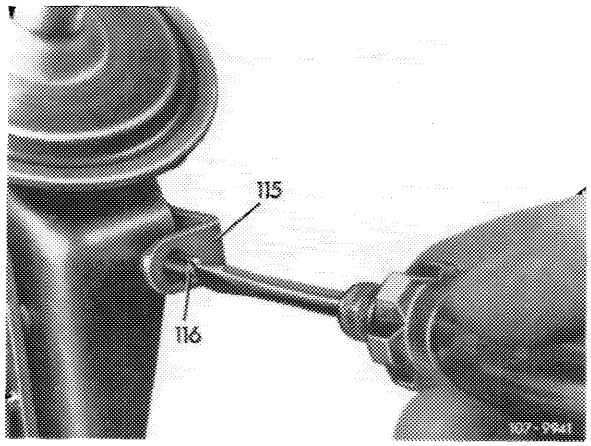
To facilitate operation of fast idle cam when adjusting cold starting speed, the slot (arrow) in choke housing has been newly located and extended.



Additional regulating lever

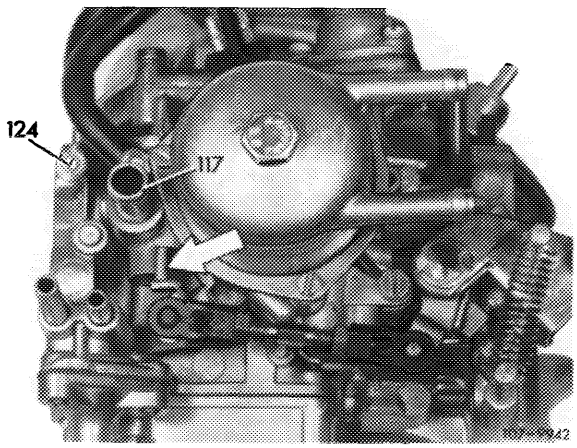
On vehicles with California emission control, the installation of the catalyst resulted in a change of the regulating system for reasons of available space. The throttle valve is now actuated by way of the regulating lever (115).

The full throttle stop on this lever can be adjusted by means of screw (116). Adjustment of idle speed is the same as before.



Float chamber vent valve

To improve hot starting characteristics, a float chamber vent valve (arrow) has been installed similar to model years 1970–1972.



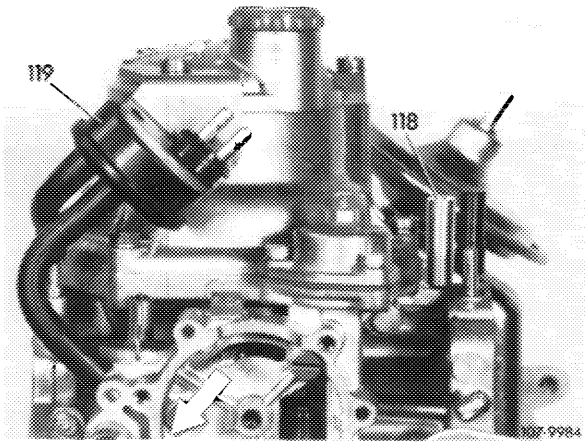
Arrow = float chamber external vant valve
117 Connection for float chamber vent (toward charcoal canister)

At idle and with engine stopped, the valve switches over to float chamber external venting, under control of regulating linkage.

As a result, the fuel vapors will flow via connection (117) through hose in charcoal canister for storage.

Draw-off connection for fuel evaporation control system

The fuel vapors from fuel tank and float chamber stored in charcoal canister are drawn off via draw-off connection (118) with the engine running.

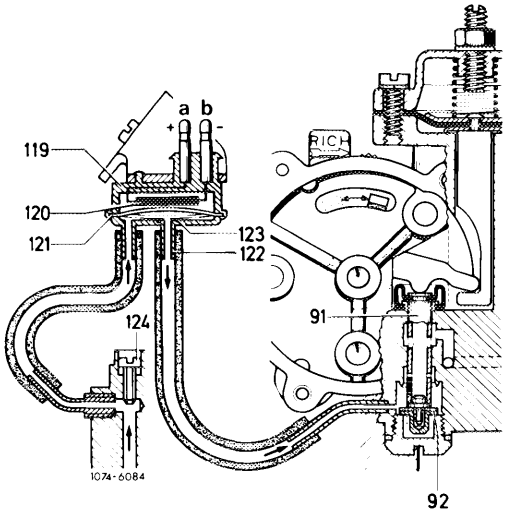


Thermo switchover valve

To improve engine running characteristics during warm-up period, the warm-up mixture is made leaner for a short period (approx. 10–30 seconds) after the engine fires. The mixture is made leaner by adding auxiliary air. This auxiliary air is controlled by thermo switchover valve.

The warm-up CO value is set by means of adjusting screw (124).

With the ignition switched on, the heater resistance (120) heats the bimetallic plate (121), as a result of which the plate snaps over after attaining a given temperature and thereby opens the air duct (122).



91 Choke slide valve
92 Valve plate
120 Heater resistance
121 Bimetallic plate
122 Auxiliary air duct
123 Rubber sealing ring
124 Warm-up CO adjusting screw

The auxiliary air flows to choke slide valve via air duct (122) and makes the warm-up mixture leaner.

Starting at approx. 40 °C the bimetallic plate will snap over also without being heated and opens the air duct.

The quantity of the auxiliary air can be set by means of adjusting screw (124).

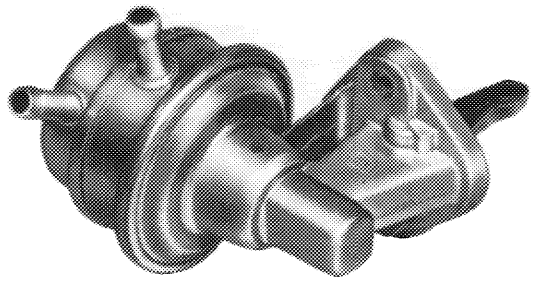
Mounting of carburetor

Two insulating flanges are mounted one each in front of and behind shielding plate.

Fuel pump

Starting model year 1974 the engines are provided with air injection for emission control.

Owing to installation of air pump, the fuel pump has been designed as an angular pump for reasons of available space.



107-9099

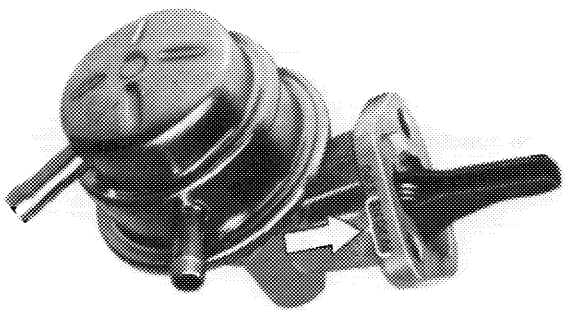
(USA) model year 1976

Differences as compared with model year 1975

Fuel pump

The fuel pump has a **diaphragm-controlled shutoff valve,** which is closed when engine is stopped.

This is done to prevent fuel from fuel tank escaping into the open air through fuel pump and carburetor following an accident.



107-10953

Identification:

The closing cap of this fuel pump is brazed to housing and can no longer be removed. In addition, the pump flange carries the punched-in mark **PE 20 215** (arrow).

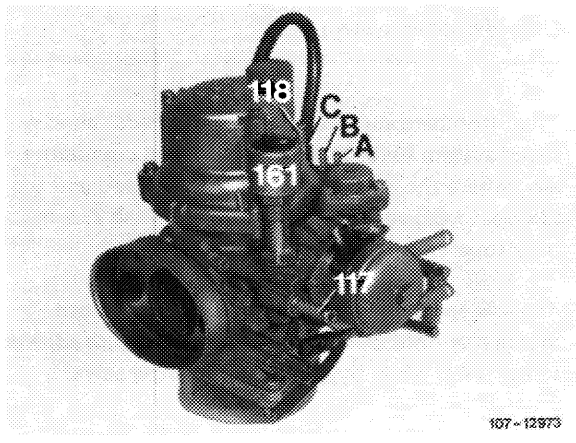
Repair note

In the event of repairs, the new fuel pump can be installed to replace the former version.

D. (J) (USA) starting model year 1977

Differences as compared with model year 1976

Carburetor



- New idle speed system.
- Location of idle speed shutoff valve.
- Electric float chamber vent valve.
- Draw-off connection for fuel evaporation vapors (USA) starting 1975.
- Thermo switchover valve for automatic choke no longer required.
- Vacuum connection pipe for air cleaner.
- Vacuum connection pipe for EGR.
- Throttle (orifice) for vacuum governor.

- Choke housing with warm-up CO adjusting screw.
- New diaphragm cover for choke.
- Air piston lift via drag lever.
- Altitude correction ((J) and (USA) Federal version only).
- Protective cap for fuel adjusting screw ((USA) California version only).
- Warm water heater of carburetor no longer required.
- Additional regulating lever no longer required.
- Mounting of carburetor.

New idle speed system

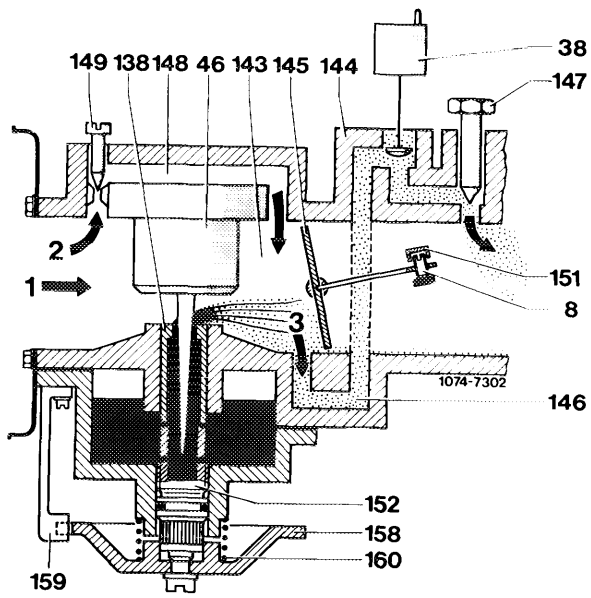
The Stromberg carburetor is provided with an idle speed system (with bypass mixture and circulating air), where the adjustment of the idle speed and the idle speed CO value is possible to a limited extent only (operation 07.2–090).

The idle speed is set by adding the mixture into intake manifold by means of bypass mixture adjusting screw (147) while bypassing the throttle valve.

The idle speed CO value is set by adding air into mixing chamber by means of bypass air adjusting screw (149) while bypassing the air piston.

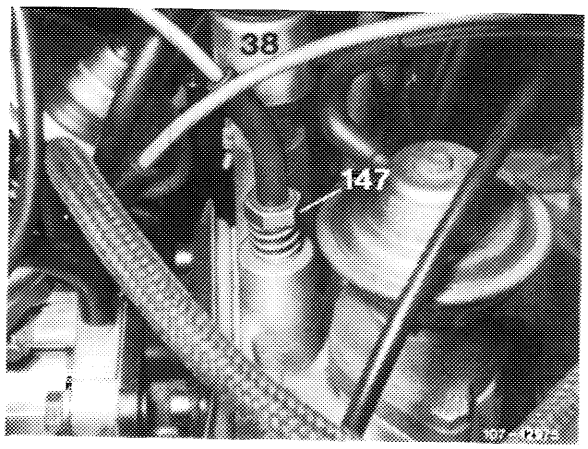
Attention!
The throttle valve and the fuel adjusting screw are set by manufacturer and may not be readjusted **except in exceptional cases.**

1 Air intake
2 Circulating air
3 Bypass mixture
8 Throttle valve adjusting screw
38 Idle speed shutoff valve
46 Air piston
138 Fuel jet
143 Mixing chamber
144 Intake pipe
145 Throttle valve
146 Bypass mixture duct
147 Bypass mixture adjusting screw
148 Circulating air duct
149 Circulating air adjusting screw
150 Safety cap
151 Safety cap
152 Fuel adjusting screw
158 Hand wheel for altitude adjustment
(J) and (USA) Federal version only)
159 Stop
160 Compression spring



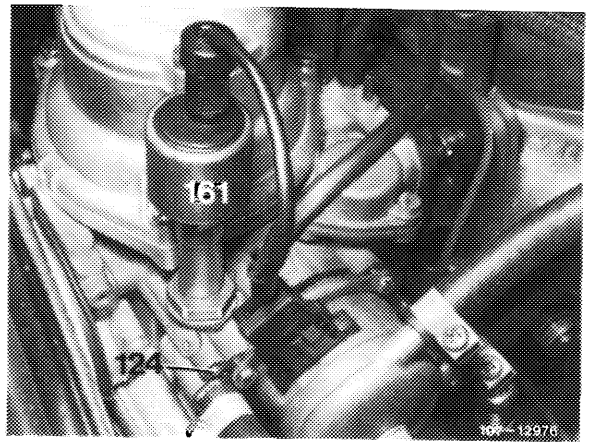
Idle speed shutoff valve location

The idle speed shutoff valve (38) is screwed into intake pipe.

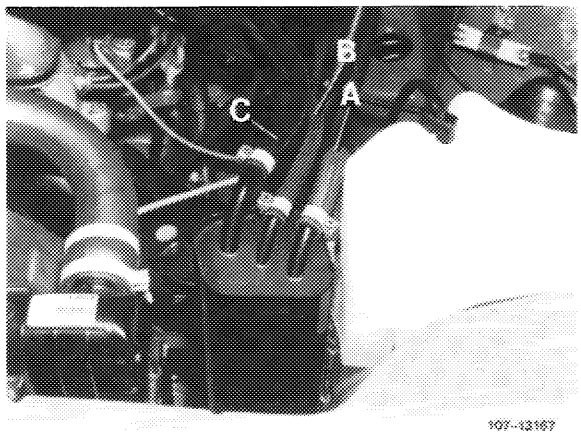


Electric float chamber vent valve

The float chamber vent valve is electrically operated and serves to improve hot start.



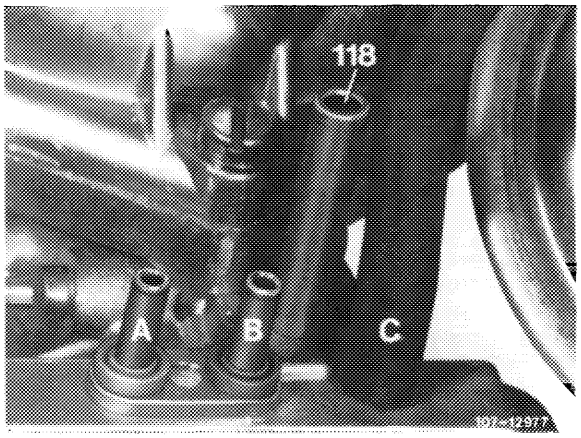
As soon as the ignition is switched off, the valve is deenergized and opens, the fuel evaporation vapors from float chamber will then flow into charcoal canister.



A Tank vent connection
B Draw-off connection toward engine
C Float chamber vent valve connection

Draw-off connection for fuel evaporation control ((J) only)

The fuel evaporation vapors from fuel tank and float chamber stored in charcoal canister are drawn off via draw-off pipe (118) and burnt while the engine is running.

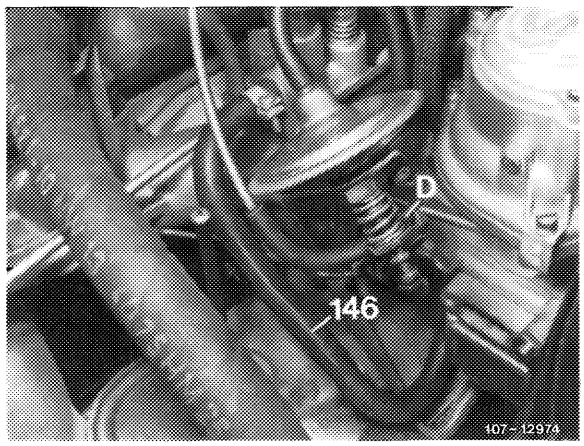


Vacuum connection for air cleaner

Connection "A" serves for actuating the vacuum-controlled intake air preheating system.

Vacuum connection for EGR

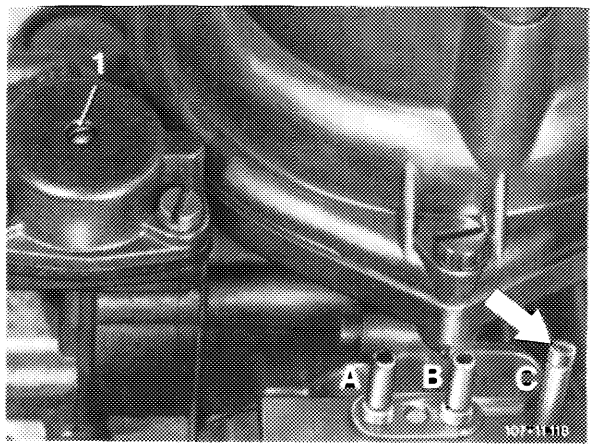
The vacuum supply for vacuum-actuated EGR valve proceeds via connection "D".



NEXT

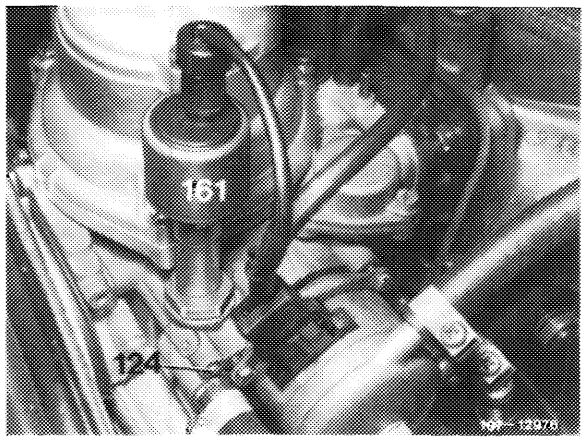
Throttle (orifice) for vacuum governor

For a slightly delayed closing of throttle valve during deceleration the vacuum pipe "C" is provided with a throttle (orifice).



Choke housing with auxiliary air adjusting screw

For better adaptation of warm-up mixture to engine the choke housing has an auxiliary air adjusting screw (124). Corrections of warm-up CO value are made by means of this adjusting screw (07.2–125).



New diaphragm cover for choke

The adjusting screw (97) for diaphragm stroke is designed as a set screw and adjusted by manufacturer.

Attention!
Do not readjust this adjusting screw. The warm-up CO value is set with adjusting screw (124).