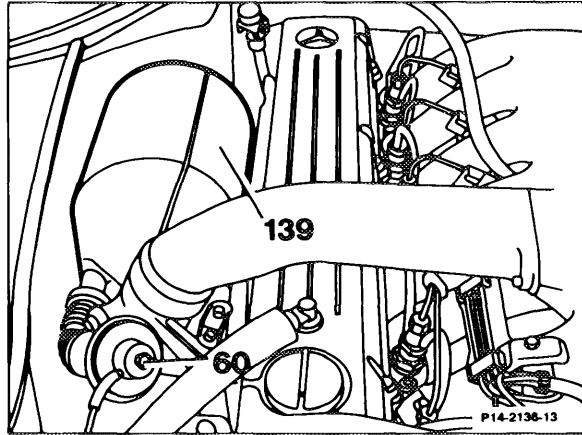


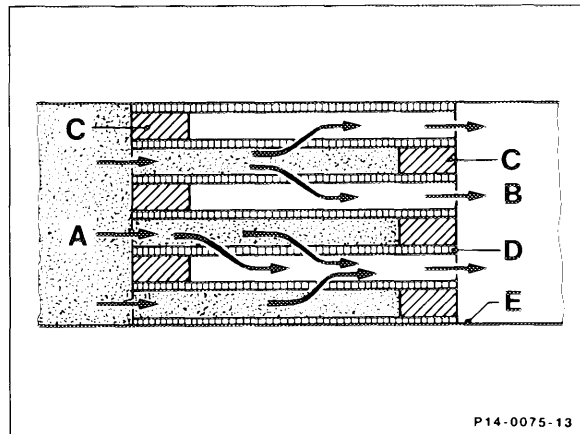
## 14-050 Function of trap oxidizer - Turbodiesel

The trap oxidizer is a self-regenerating filter installed between the exhaust manifold and turbocharger. It consists of a ceramic monolith surrounded by a metal plate and coated with silver alloy. This enables the oxidizing process to occur even at low exhaust temperatures.

The passages of the filter are closed alternately, forcing the exhaust gases to flow through the porous cell walls. The solid particles trapped as a result are oxidized at various engine operating phases at a high exhaust temperatures as a result of the residual oxygen which is always present in the diesel exhaust.



60 EGR valve  
139 Trap oxidizer



A Exhaust with soot  
B Cleaned exhaust  
C Ceramic monolith  
D Porous cell walls  
E Metal casing

Regeneration is dependent on:

- Temperature
- Oxygen content
- Load condition of engine
- Velocity of exhaust gases
- Duration

This oxidizing process begins at > 360 °C. If the exhaust temperatures are > 580 °C for prolonged periods, the trap oxidizer is completely regenerated.

The final product produced as a result of the oxidation of the soot in the filter is almost exclusively carbon dioxide (CO<sub>2</sub>).