

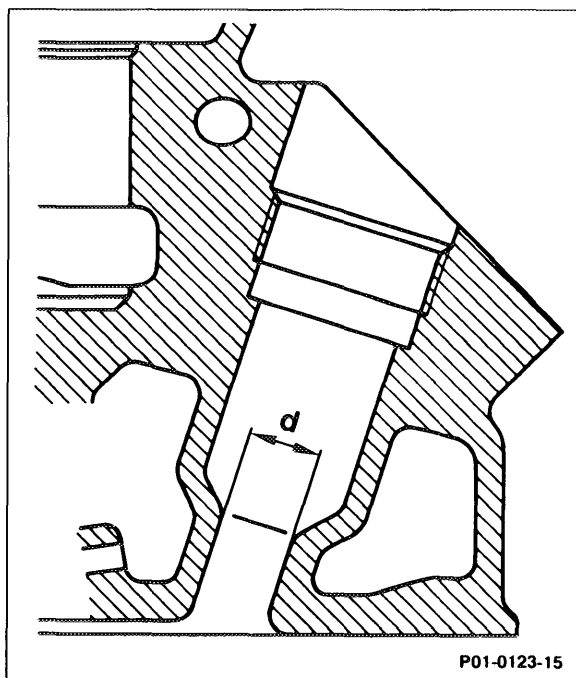
## A. Engine 602, 603

### Differentiation of cylinder heads for naturally aspirated and turbo-engines

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The cylinder heads for turbo-engines 602.96, 603.96 and 603.97 are reinforced at the water jacket due to the higher combustion pressures.

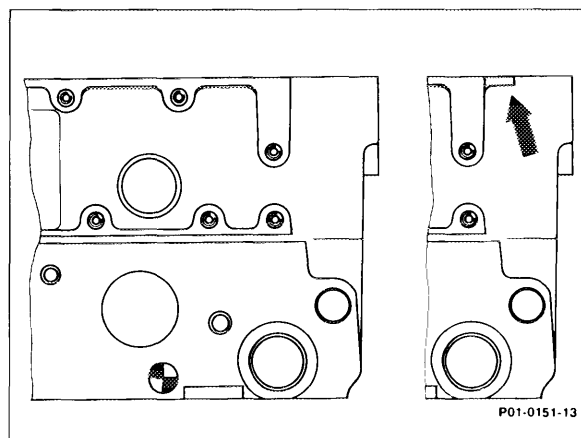
On turbo-engines the diameter (d) of the pre-combustion chamber bore is 15 mm, on naturally aspirated engines 14 mm.



The cylinder heads on turbo-engines are provided with an identification strip. This identification strip (arrow) is located on the parting surface for the cylinder head cover at the front right.

#### Caution!

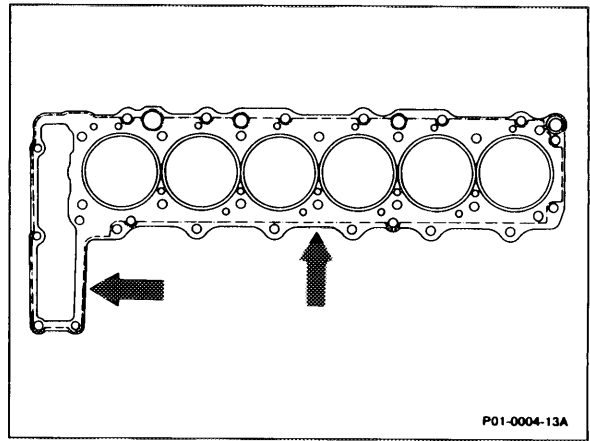
Do not mix up cylinder heads for turbo-engines and naturally aspirated engines.



The cylinder head gasket for the turbo-engines has stainless steel inserts around the combustion chambers (arrow).

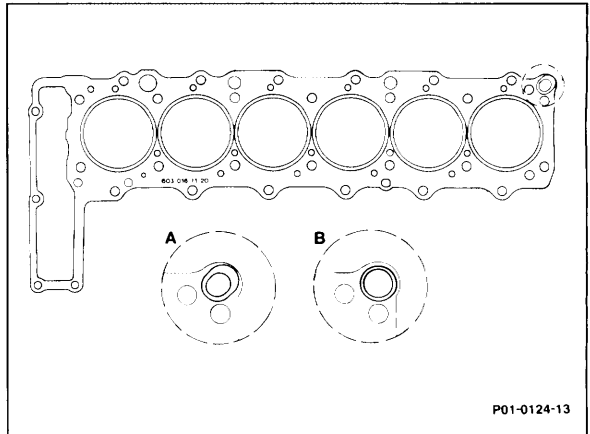
The combustion chamber inserts on the standard gaskets installed on naturally aspirated engines consist of normal sheet steel.

Only the cylinder head gaskets with stainless steel inserts are available as replacement parts for both the naturally aspirated and turbo-engines.



### Cylinder head gasket with Viton sealing ring

A Viton sealing ring is inserted at the rear oil return passage to prevent oil leakage.



- A 1st version with sheet metal jacket
- B 2nd version with Viton sealing ring

### **Production breakpoint: 03/87**

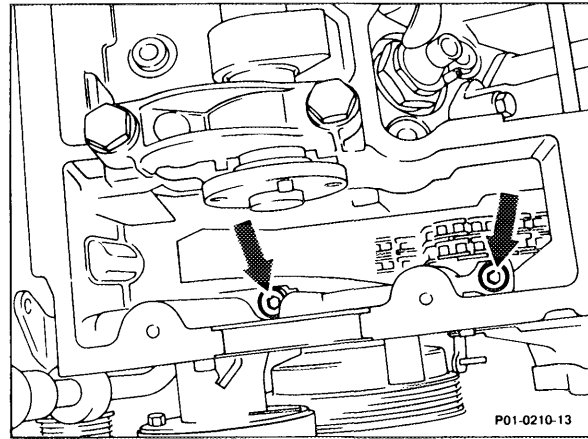
Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
124.133 124.193	603.960	–	011489	*	*
126.125	603.961	–	010966	*	*

\* not available

### Modifications in area of timing chain case

For production reasons the height of the bridge in the cylinder head in the area of the timing chain case was increased to 32 mm (previously 12 mm).

This modification made it necessary to change the dimensions of the two cylinder head bolts (arrow). The new bolt length is M 8 x 50 (previously M 8 x 30).



### Production breakpoint: 09/87

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
201.126	602.911	052292	011264	*	*

\* not available

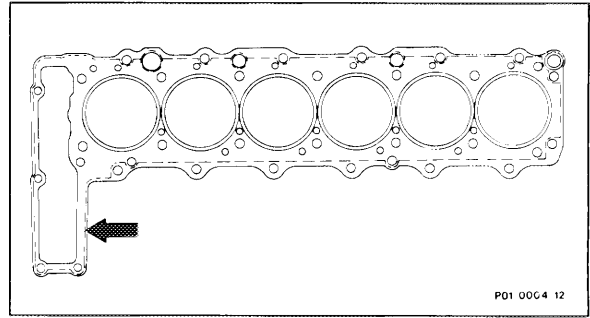
### Production change for protection against cracks in water jacket

The bolt flutes on the exhaust side have been reinforced and the recesses (hollows) between the coolant ducts on the outlet side filled to prevent cracks in the cylinder head water jacket.

The baseplate on the intake side was reinforced from previously 11 mm to 14 mm.

**Cylinder head gasket for improved sealing**

The cylinder head gasket has been equipped with circumferential silicone sealing strips (arrow) on both sides and a Viton sealing ring at the oil return passage at the rear right to better prevent water and oil leakage.



**Production breakpoint: 10/88**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
124.133	603.960	-	019043	*	*
124.193					

\* not available

**Production breakpoint: 05/89**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
124.128	602.962	-	002254	*	*
201.128	602.961	-	006028	*	*

\* not available

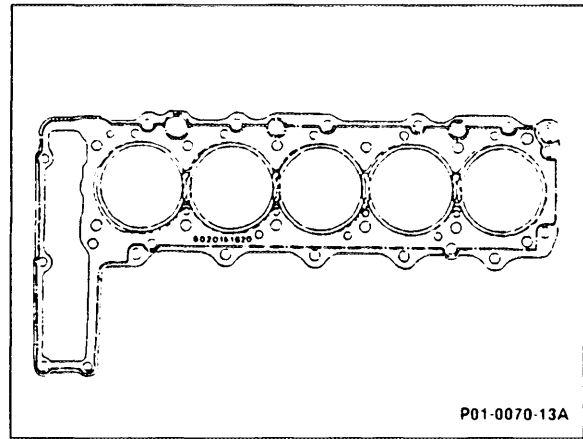
**Production breakpoint: 09/89**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
201.126	602.911	083460	016487	*	*

\* not available

**Cylinder head gasket, engines 602, 603  
(except for engine 603.970)**

The combustion chamber insert (dotted line) has been modified at the 1st cylinder on the cylinder block side.



**Production breakpoint: 01/90**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
124.128	602.962	-	004055	*	*
201.126	602.911	087394	017068	*	*
201.128	602.961	-	007574		

\* not available

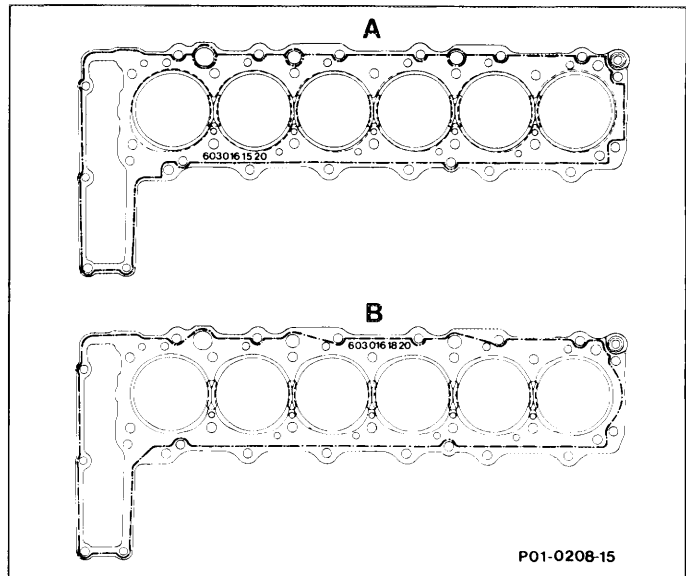
**Production breakpoint: 02/90**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
124.133	603.960	-	025726	*	*
124.193	603.963	-			

\* not available

## Cylinder head gasket, engine 603.970

Combustion chamber insert modified.  
Silicone sealing strip position changed on both sides.



- A. 1st version (Götze)
- B. 2nd version (Ering)

### **Production breakpoint: 01/90**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
126.135	603.970	–	000047	*	*

\* not available

### **Improvement to passage supports in water jacket**

The passage supports in the cylinder head water jacket were improved on the turbo-engines.

### **Production breakpoint: 12/88**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
124.128	602.962	–	000753	*	*
201.128	602.961	–	004872	*	*

\* not available

## Reinforcements at valve tappet guides and exhaust passages

The reinforcements at the valve tappet guides and exhaust passages have been reinforced. Modified cylinder heads can be recognized by the cast no. on the intake side, see table.

Engine	previous cast no.	new cast no.
602	602 016 03 01	602 016 07 01
602 Turbo	602 016 06 01	602 016 08 01
603 Turbo	603 016 15 01	603 016 17 01

### Production breakpoint: 07/89

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
124.133 124.193	603.960	-	022706	*	*

\* not available

### Production breakpoint: 09/89

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
201.126	602.911	083167	016457	*	*

\* not available

## **Combustion chamber recess**

The size of the combustion chamber recess (d) was increased to reduce the thermal load in the cylinder head.

### **Production breakpoint: 06/88**

Model	Engine	Engine end no.		Vehicle ident. end no.	
		manual transmission	automatic transmission	A	F
126.1	603.970	from start of production		*	*
201.126	602.911	065342	013489	*	*
201.128	602.961	-	003172	*	*

\* not available