

01 Crankcase, cylinder head

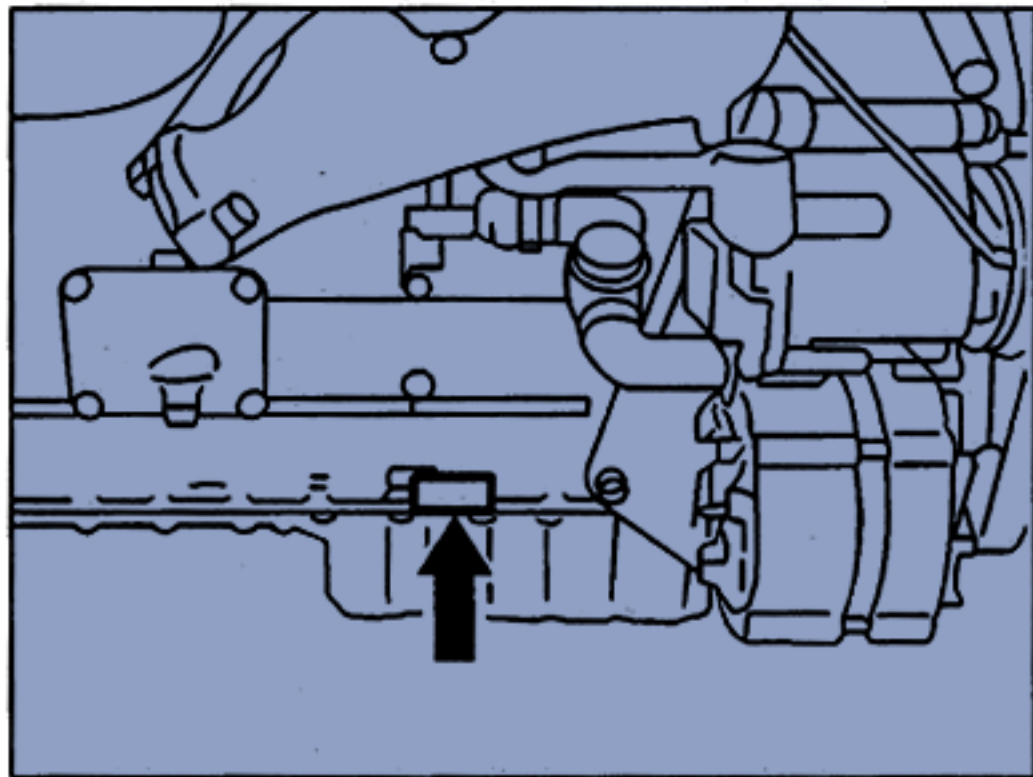
Crankcase

Cylinder bore diameter increased to 91.0 ± 0.015 mm.

Repair size increased to 91.5 ± 0.015 mm.

An AMG engine number (AMG 36 plus four-digit number) is stamped into the crankcase (arrow) near the existing MBAG engine number.

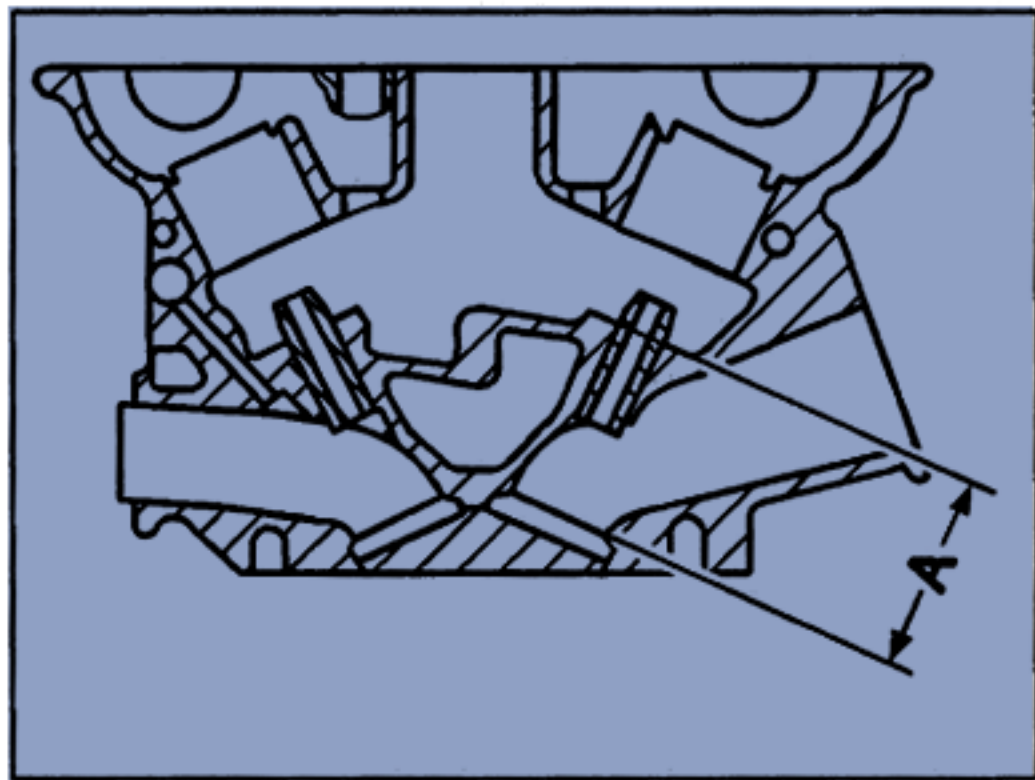
A flange is installed in the crankcase to mount the oil spray nozzles.



Cylinder head

The intake valve spring plates (A) have been lowered 0.2 – 0.4 mm.

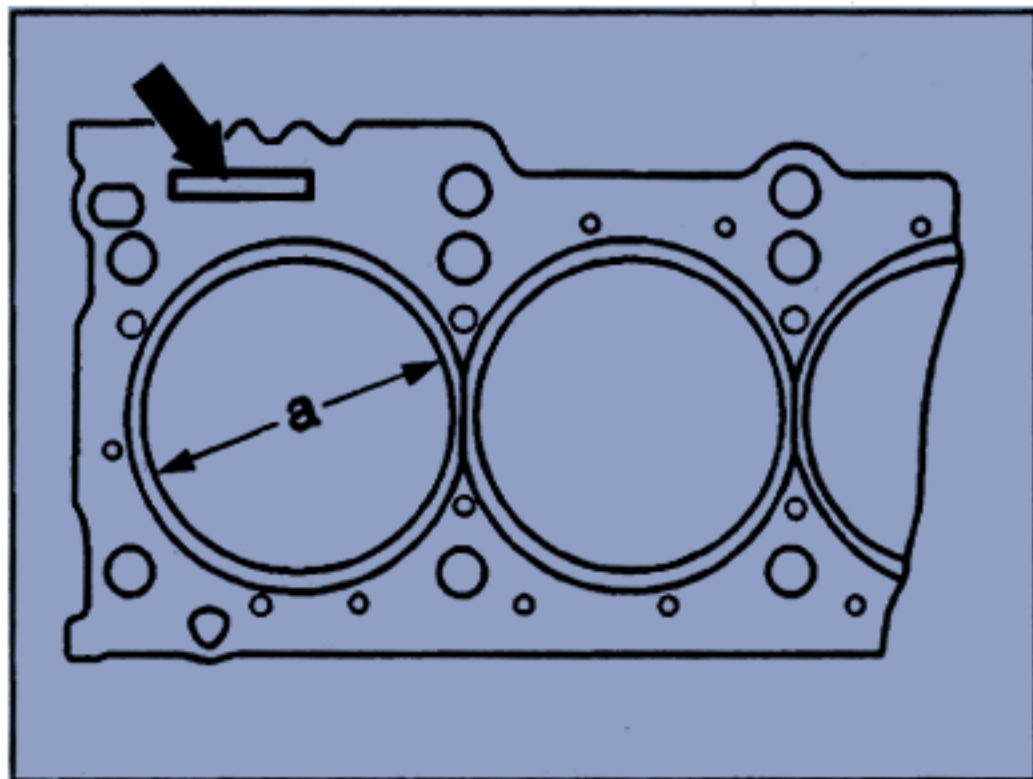
The exhaust ports on the cylinder head were enlarged.



Cylinder head gasket

Diameter "a" increased to 92.1 mm.

The part number is stamped onto the gasket (arrow).



05 Engine timing, valve train

Intake camshaft

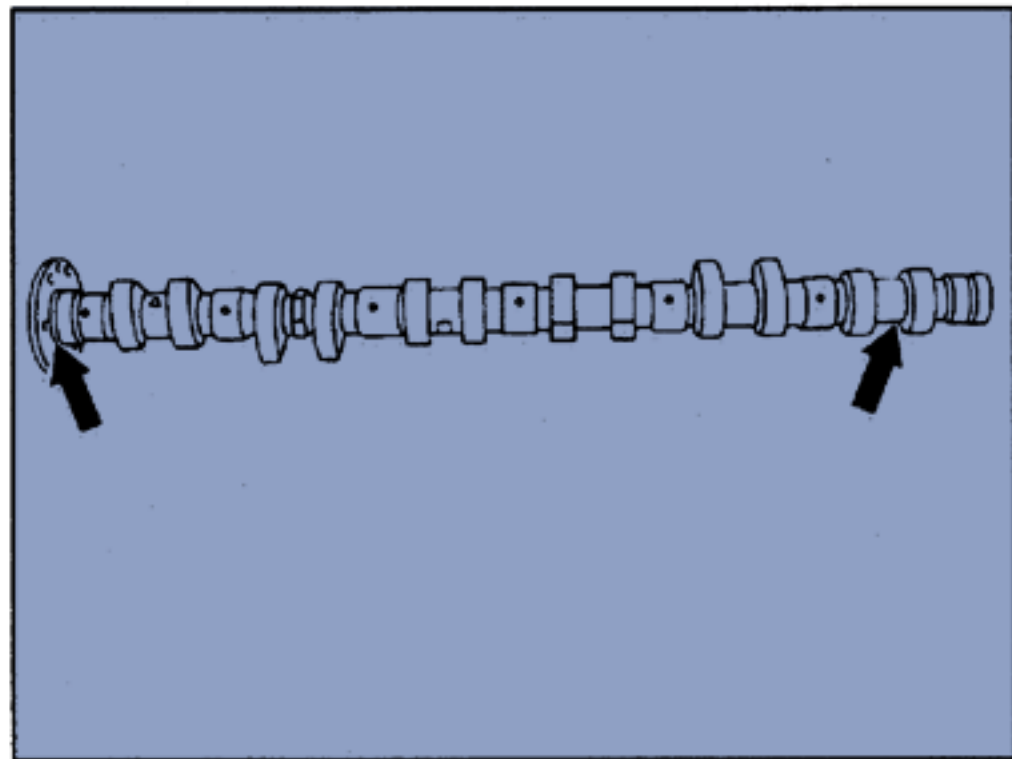
Modified cam profile.

Camshaft is marked (arrows).

Note:

The exhaust camshaft is unchanged.

Exhaust duration was changed with new dowel pin locations (identified by "U") on camshaft sprocket.

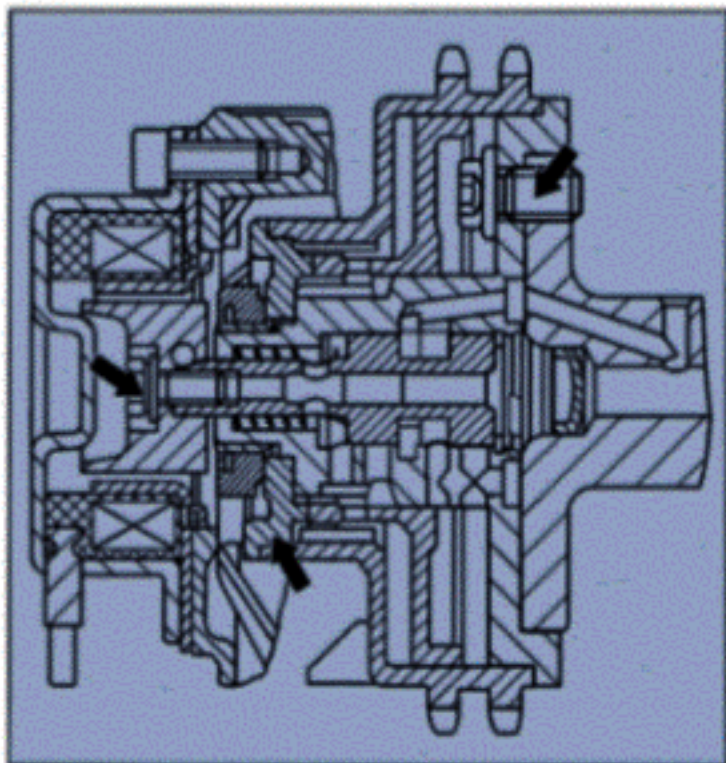


Camshaft timing adjuster

The adjustment range of the camshaft timing adjuster has been reduced by replacing the cover with a new version with a higher collar (lower arrow).

The adjustment range is 26° CKA.

The bolts (arrows) can not be reused.



Timing

Timing in ° CKA with 2 mm valve stroke

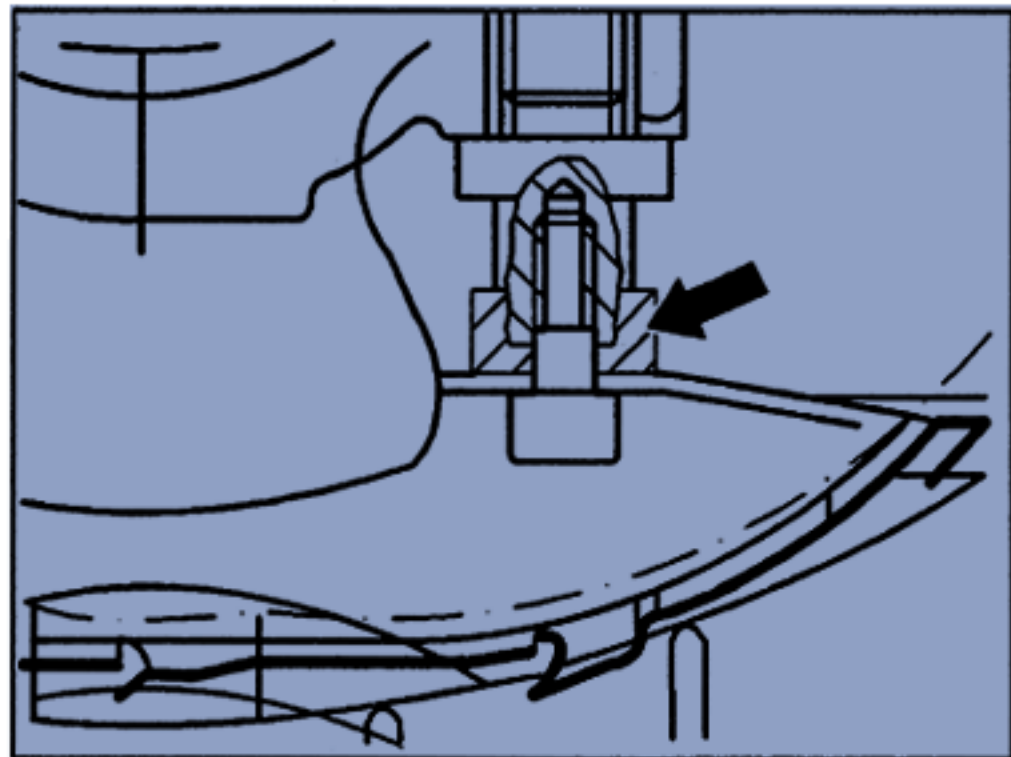
	Intake valve opens after TDC	Exhaust valve closes before TDC
Camshaft timing adjuster in retard adjustment position	26°	16.5°
Tolerance	+ 2°	+ 1.5°

18 Engine lubrication, engine oil cooling

Oil deflection shield

The oil deflector shield was lowered 2 mm to ensure adequate clearance between the piston rod and shield.

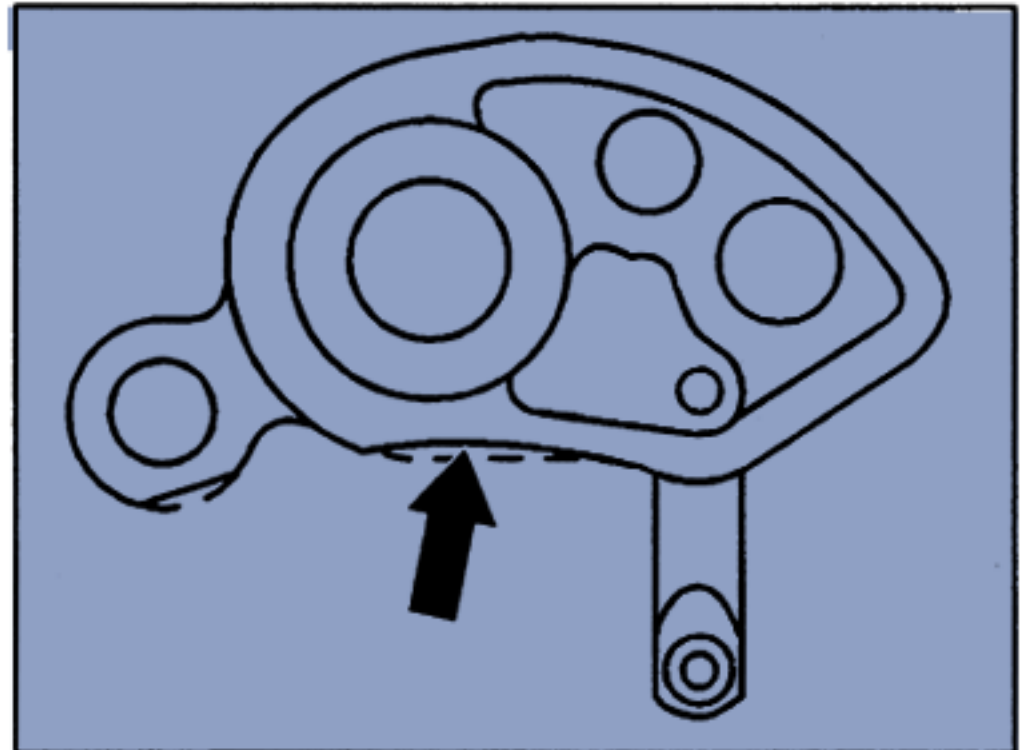
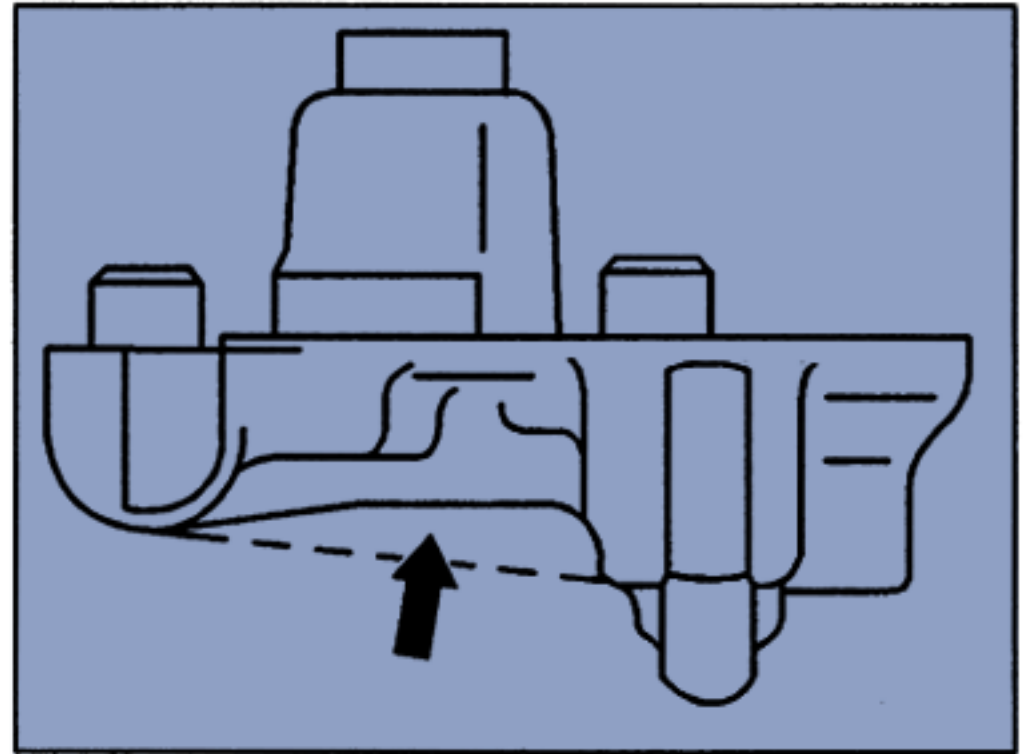
Spacer caps (arrow) were installed on the crankshaft bearing cap bolts to increase the clearance.



Oil spray nozzles

Oil spray nozzles are installed to reduce piston temperature.

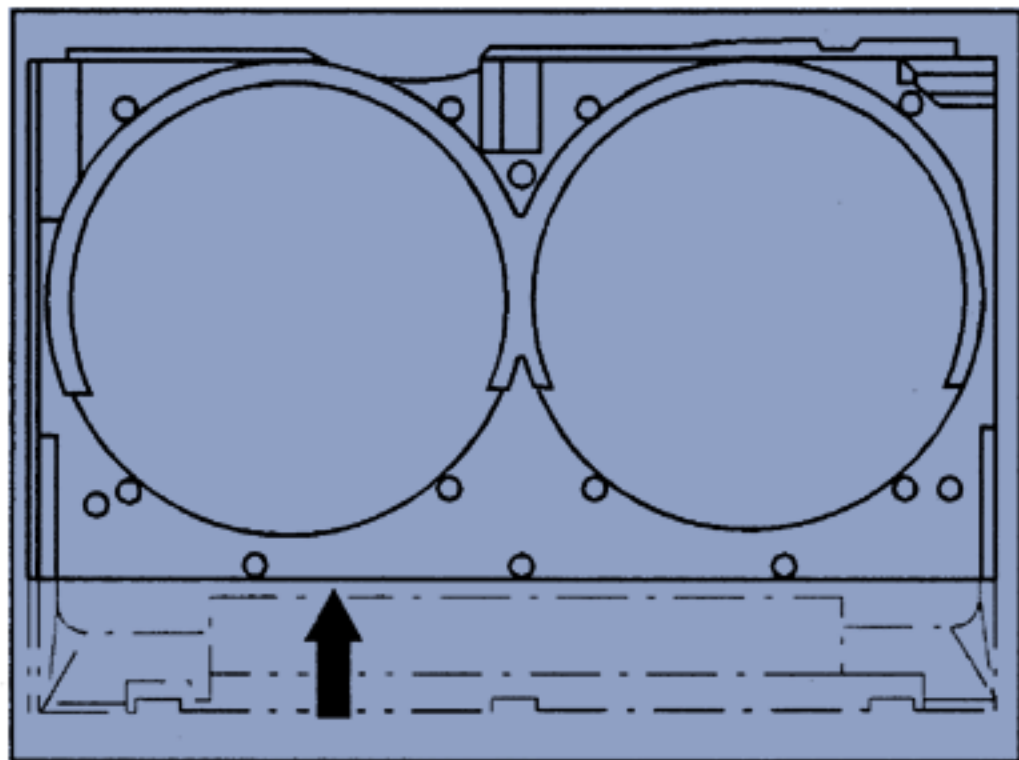
The oil spray nozzles were modified (arrows) to ensure adequate clearance between the connecting rod and piston.



20 Engine cooling

Radiator shroud

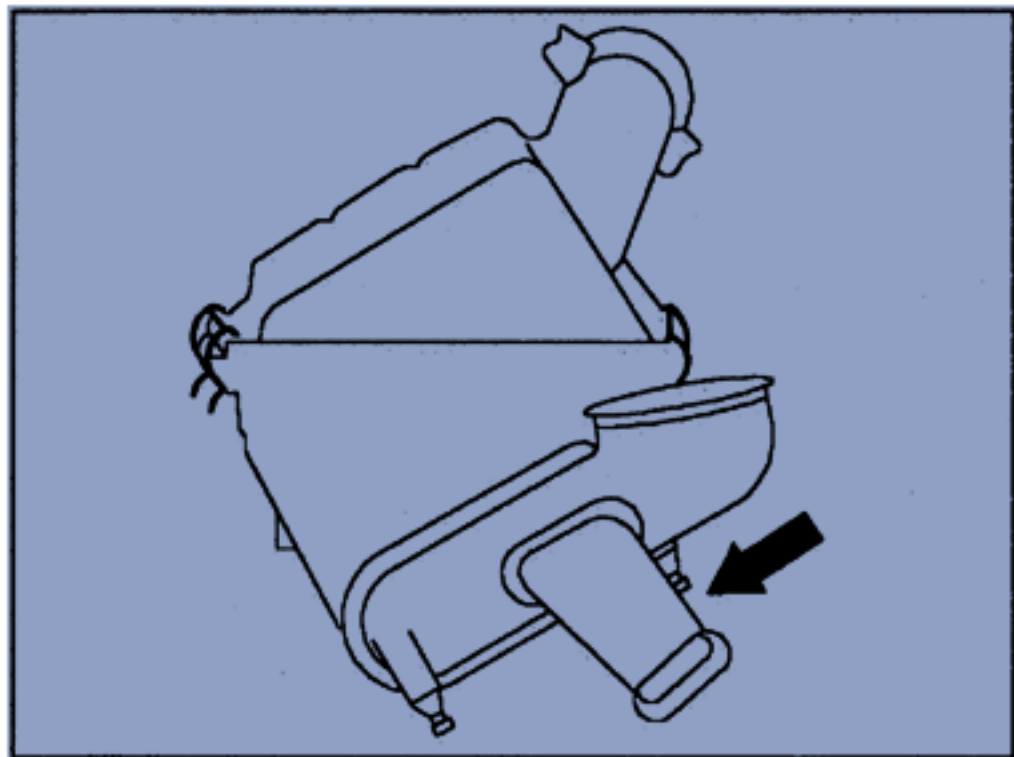
To increase cooling efficiency, the radiator shroud was modified (arrow).



09 Air cleaner

A second air intake (arrow) was added to the air cleaner to improve the air supply.

The output to the engine control module was shortened.



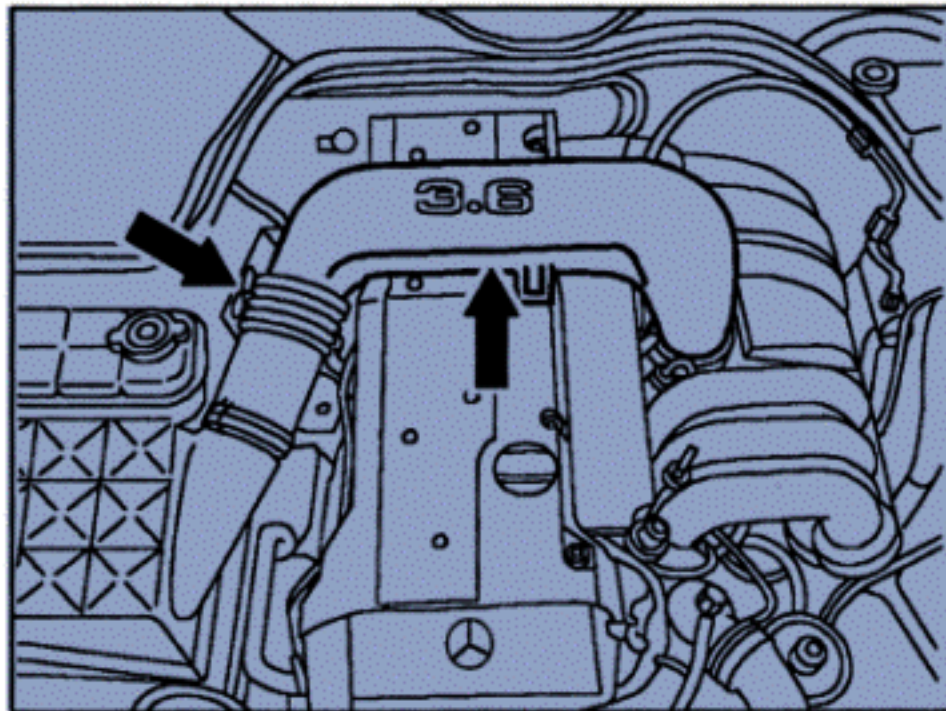
14 Emission control system

Intake duct

The cross section (arrow) of the intake duct was increased to improve performance.

The displacement of the engine is imprinted on the intake duct.

An AMG specific intake sleeve is installed (left arrow).



Intake manifold

The upper intake manifold from engine 104.992 (M104 E 32) is modified for use on the 3.6 liter engine.