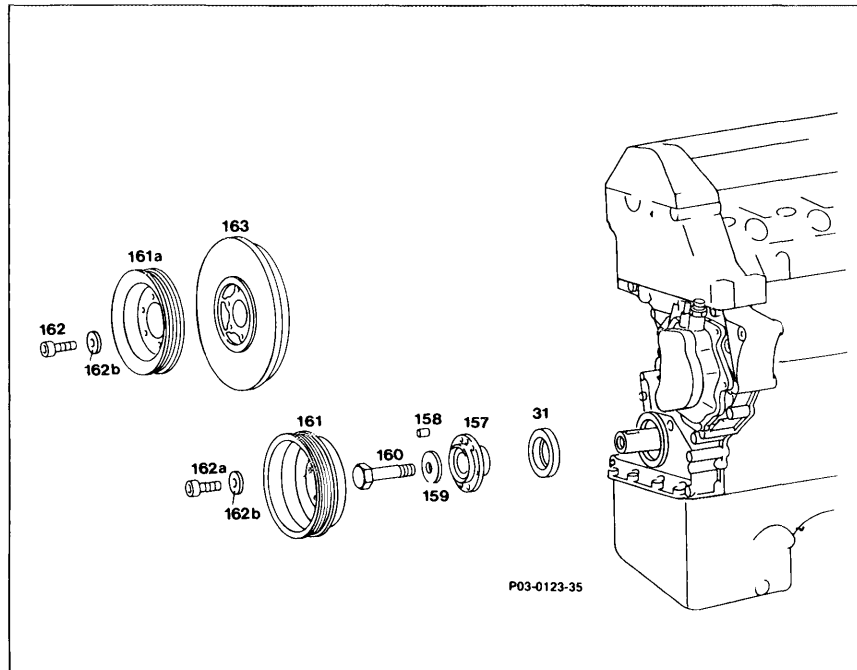


03-341 Removal and Installation of crankshaft pulley and hub



Engines 602, 603:

Crankshaft pulley (161 a) and vibration damper (163)

remove, install, use washers (162 b) and Allen screws (162), 25 Nm. Use lock 601 589 02 40 00 (items 1, 3).

Note

The crankshaft pulley and vibration damper are centered by the cylindrical pin (158).
Do not mix up vibration dampers.

Hub (157)

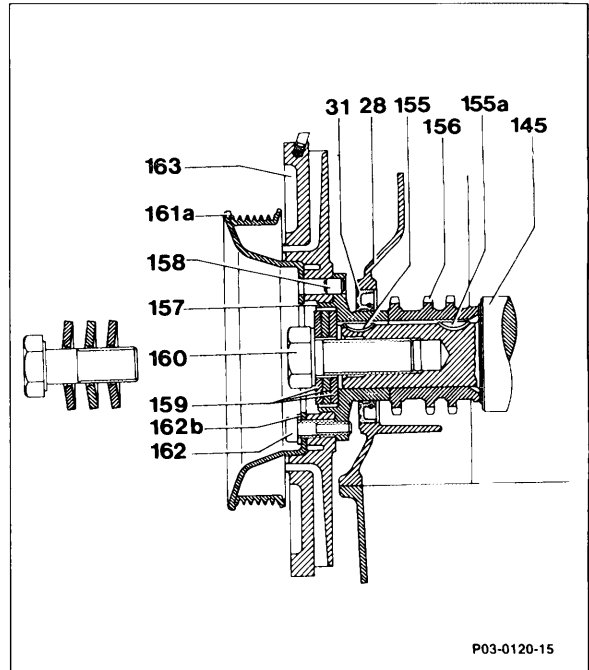
Crankshaft radial seal (31)

remove, install, hex. head bolt (160) 320 Nm.
 Install Belleville washer (159) with arched side
 toward crankshaft pulley. Use puller
 103 589 00 33 00 (items 2 - 4).
 replace (03-324) (item 5).

Engines 602 and 603

The scale and TDC pin are located in the
 vibration damper.

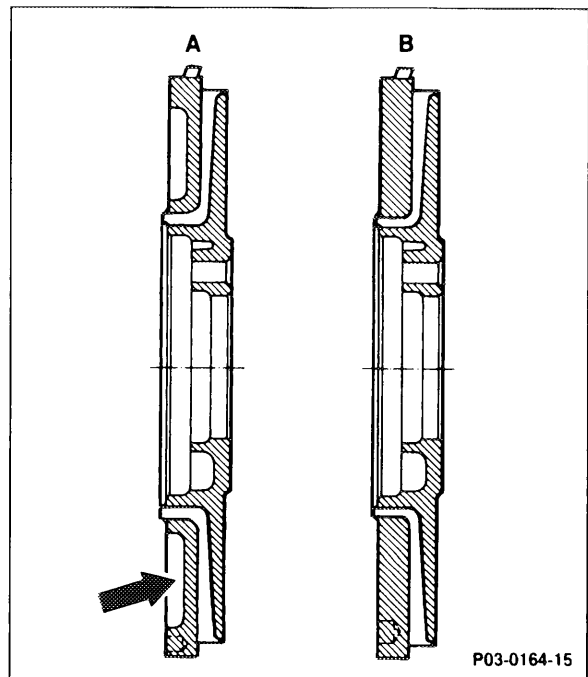
- 28 Timing case cover
- 31 Crankshaft radial seal
- 145 Crankshaft
- 155 Woodruff key
- 155a Woodruff key
- 156 Crankshaft sprocket
- 157 Hub
- 158 Cylindrical pin 8 x 8 mm
- 159 Belleville washer
- 160 Bolt M 18 x 1.5 x 50
- 161a Crankshaft pulley
- 162 Allen bolt M 8 x 28
- 162b Washer B 8



Engine 602

The vibration damper on engine 602 has a 35
 mm wide machined recess (arrow) on the front
 and are therefore lighter.

- A Vibration damper, engine 602
- B Vibration damper, engine 603



Engine 602.96

The vibration damper for engine 602.96 is a two-mass vibration damper. The diameter (D) was increased by 9 mm for a total of 228 mm (naturally aspirated engines, single-mass vibration damper 219 mm).

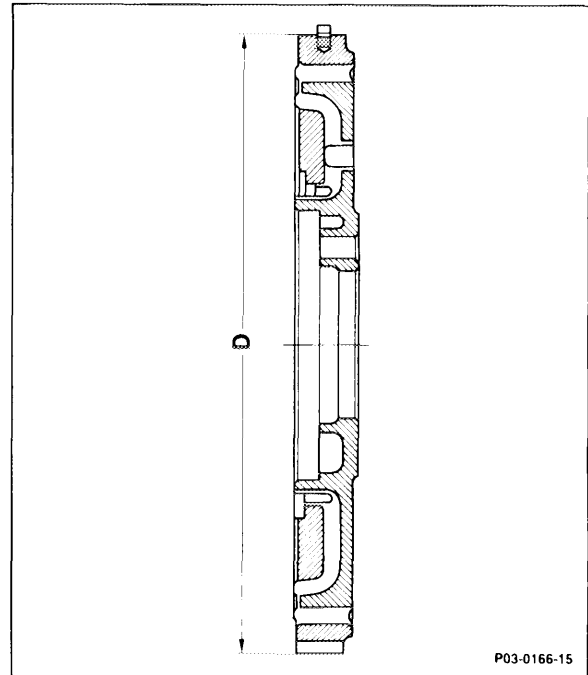
Caution!

These vibration dampers cannot be installed on engine 602.91.

Engine 603.96

The vibration damper of engine 603.96 is a single-mass vibration damper and identical with that of the naturally aspirated engine except for the resonant frequency. Do not interchange.

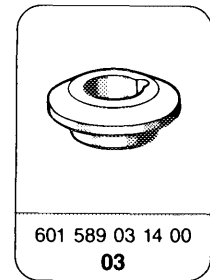
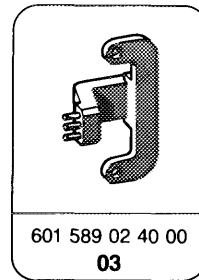
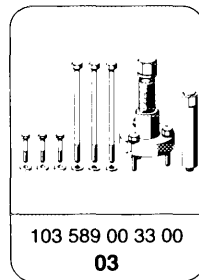
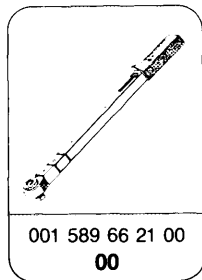
Engine 603.96 Color: grey



Tightening torques

	Nm
Allen bolts on pulley	25
Crankshaft flange bolt	320

Special tools



Commercially available tool

Adapter 3/4" square socket to 1/2" square head

e.g. Hazet,
D-5630 Remscheid
Order No. 1058 R-1

Engines 602 and 603

3 Unbolt crankshaft pulley (161a) and vibration damper (163) and remove.

Screw out hex. head bolt (160).

Installation note

Install Belleville washers (159) with arch toward crankshaft pulley (161a). The crankshaft pulley (161a) and vibration damper (163) are centered with the cylindrical pin (158).

Do interchange vibration damper (163).

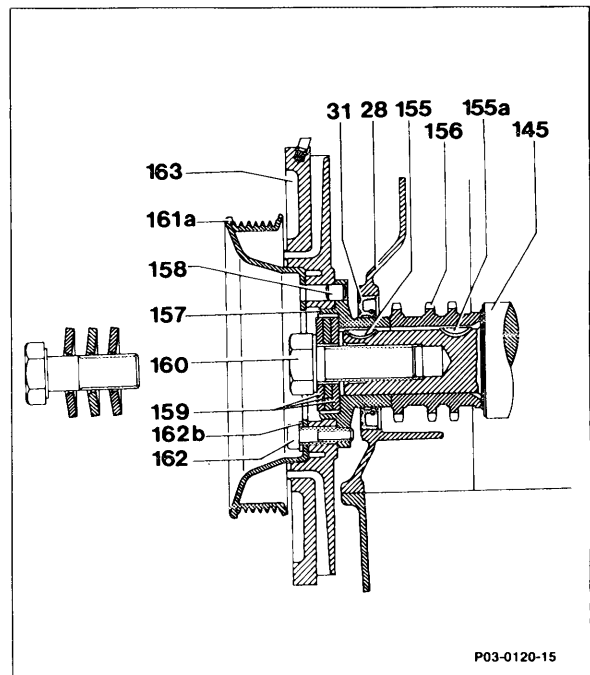
Tightening torques

Hex. head bolt (160)

320 Nm,

Allen bolts (162)

25 Nm.



- 28 Timing case cover
- 31 Crankshaft radial seal
- 145 Crankshaft
- 155 Woodruff key
- 155a Woodruff key
- 156 Crankshaft sprocket
- 157 Hub
- 158 Cylindrical pin 8 x 8 mm
- 159 Belleville washers
- 160 Bolt M 18 x 1.5 x 50
- 161a Crankshaft pulley
Dia. 152 mm engines 601, 602
Dia. 173 mm engine 603
- 162 Allen screw M 8 x 28
- 162b Washer B 8

4 Pull hub off of crankshaft journal with puller 103 589 00 33 00.

5 Replace crankshaft radial seal (03-324).

6 Install in opposite order.

