

V.A.G Service.

Workshop Manual Audi 100 1983 ▶, Audi 200 1984 ▶

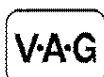
Engine Code letters	3B								
Booklet	5 Cylinder F. I. engine (4 valve), mechanics								

Edition 05.89

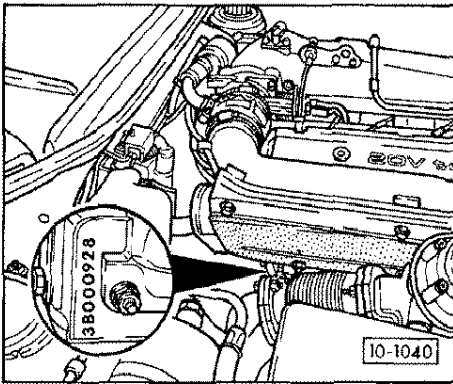


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Service Department. Technical Information



TECHNICAL DATA
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ENGINE CODE AND SERIAL NUMBER

← Engine code and serial number are stamped on the right hand side at the rear of the cylinder head.

00-1

LIST OF ENGINES

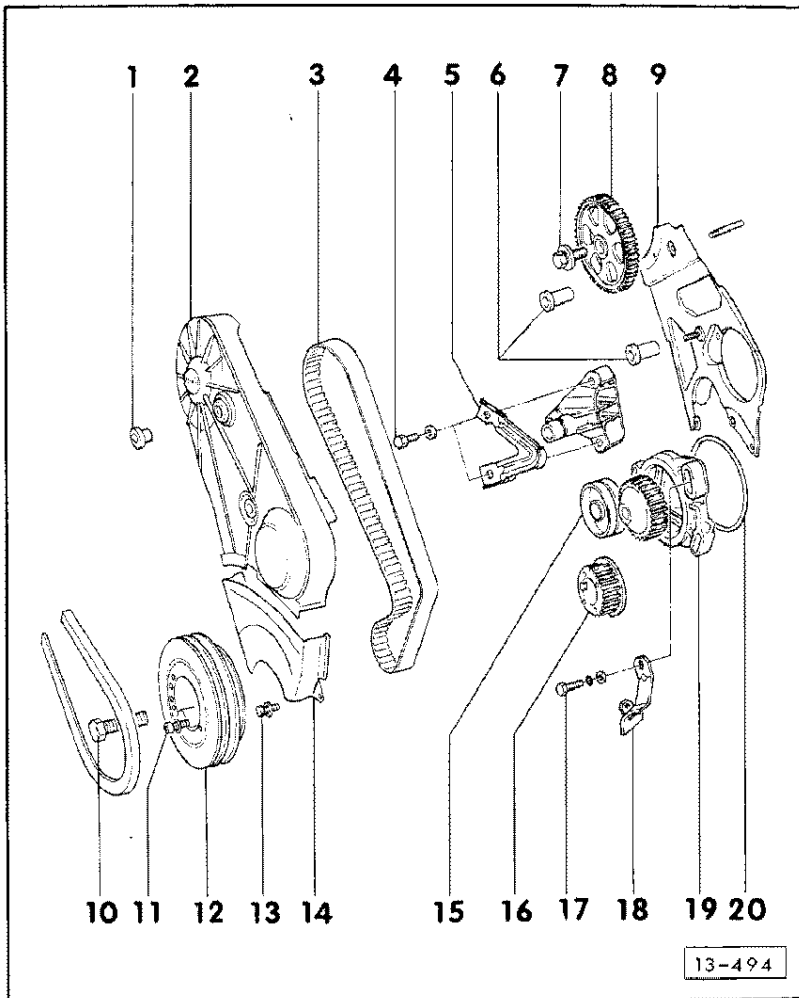
Engine code		3 B	
Engine characteristics			
Manufactured	from 09.88 to		Valve timing for 1mm valve lift and 0 mm valve clearance
No. of cylinders	5		Inlet opens after TDC
Capacity	l 2.226		Inlet closes after BDC
Output	kW/rpm 162/5700		Outlet opens before BDC
Torque	Nm/rpm 309/1950		Outlet closes before TDC
Bore	mm ø 81		RON min. 95
Stroke	mm 86.4		Fuel injection system
Compression ratio	9.3		Exhaust gas recirculation
			Catalytic converter
			Lambda control
			Turbocharger
			Vehicle is specially tuned for:
			Low pollutant exhaust

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00-2

DISMANTLING AND ASSEMBLING ENGINE

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Note:

- Always renew all seals, gaskets and oil seals on shafts
- See manual gearbox assembly for repairs to clutch
- Removing and installing sump - Figs. 3 and 4
- Checking compression - Repair Group 15

1- 10 Nm

2- Toothed belt guard, upper

3- Toothed belt

- Installing - page 13-7
- Turn coolant pump to left to tension - page 13-9

4- 43 Nm

5- Vee-Belt deflection limiter (right)

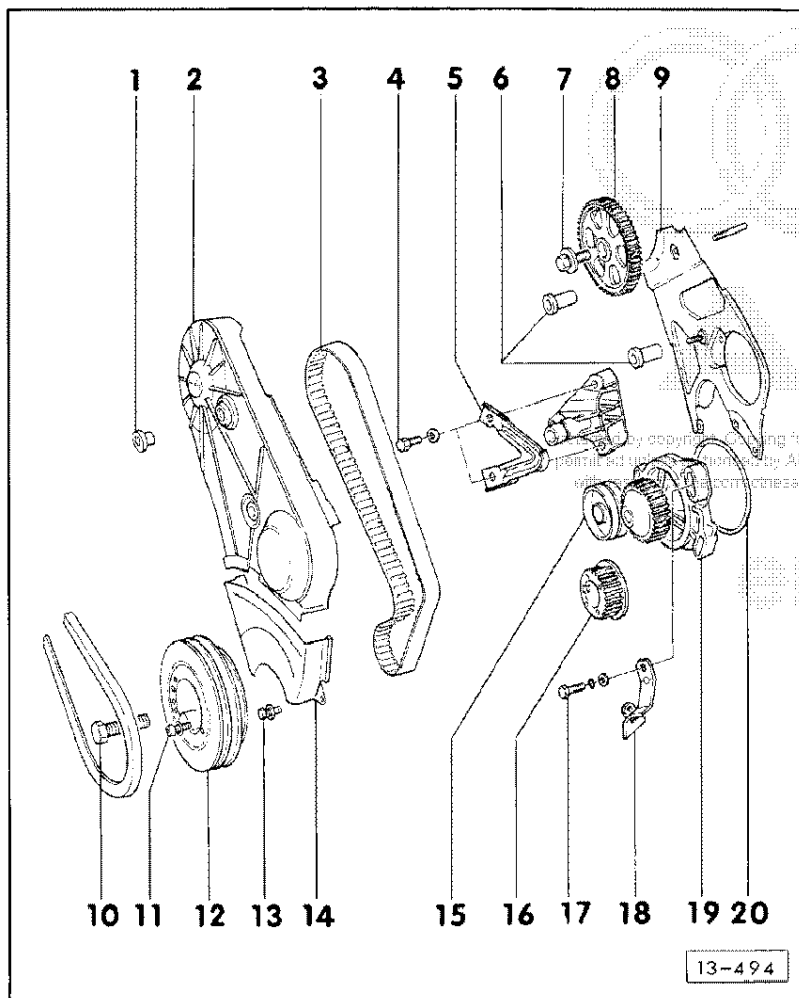
6- Spacer bushes

- Long spacer bush (top)
- Short spacer bush (bottom)

7- 67 Nm

8- Camshaft sprocket

13-1



9- Toothed belt cover, rear

10- 350 Nm - Fig. 1

11- 22 Nm

12- Vibration damper

- Note method of securing when fitting to toothed belt sprocket, position when fitting toothed belt - page 13-9
- Assembly of vibration damper with crankshaft toothed belt sprocket only possible in one position - holes offset

13- 10 Nm

14- Toothed belt guard, lower

15- Idler pulley

- Removing - Fig. 2
- When installing, tighten to 10 Nm

16- Toothed belt sprocket

- Crankshaft

17- 22 Nm

18- Vee-belt deflection limiter (left)

19- Coolant pump

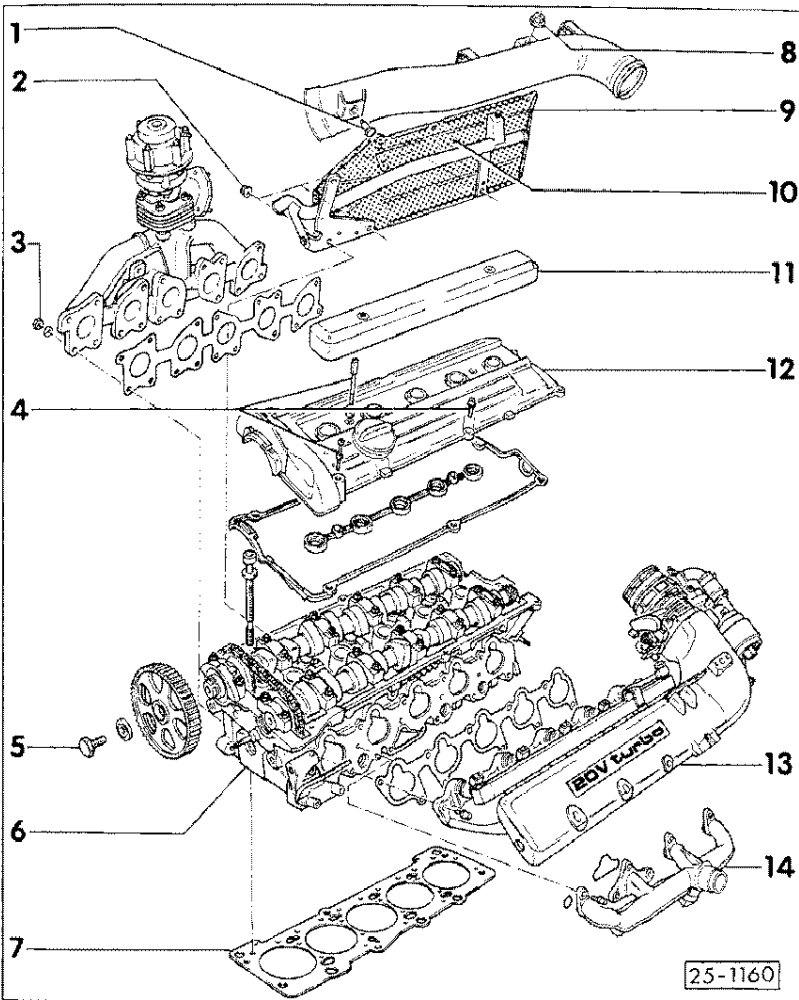
- Turn to left to tension toothed belt - page 13-9

20- 'O' ring

13-2

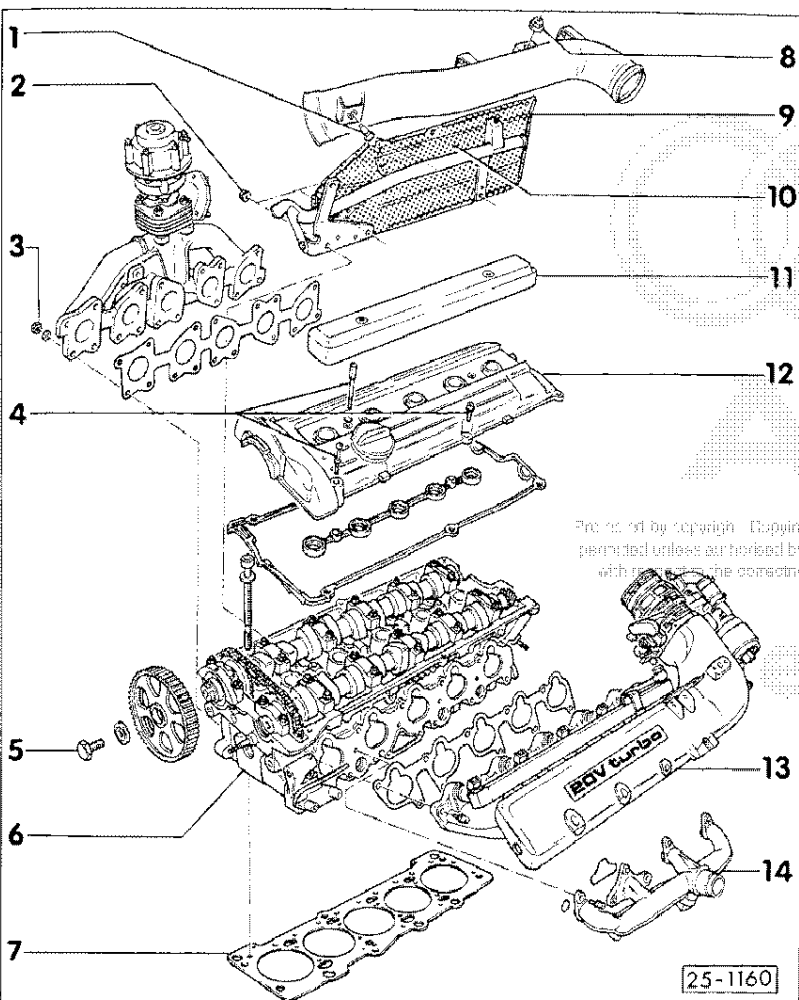
DISMANTLING AND ASSEMBLING ENGINE

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- 1- 22 Nm
- 2- 22 Nm
- 3- 25 Nm
- 4- 10 Nm
- 5- 67 Nm
- 6- Cylinder head
 - Removing and refitting - repair group 15
- 7- Cylinder head gasket
 - Ensure correct installation position. The marking "OBEN" or the part number must face the cylinder head.
 - Fit over locating pin in cylinder block.
- 8- 22 Nm
- 9- Heat shield
- 10- Crankcase breather pipe
- 11- Ignition cable cover

13-3



- 12- Cylinder head cover
 - Remove throttle valve housing before removing cylinder head cover.
- 13- Induction manifold
 - Tighten securing bolts to 22 Nm.
 - Use hex key V.A.G 1669 for removal and installation.

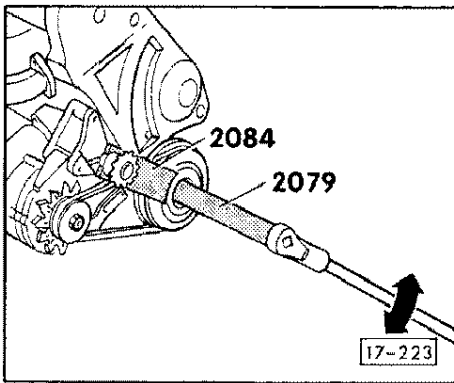
Vehicles equipped with CCS cruise control:

 - Remove CCS vacuum unit before removing the induction manifold - see page 13-10.
- 14- Coolant manifold
 - Tighten securing bolts to 10 Nm.

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13-4

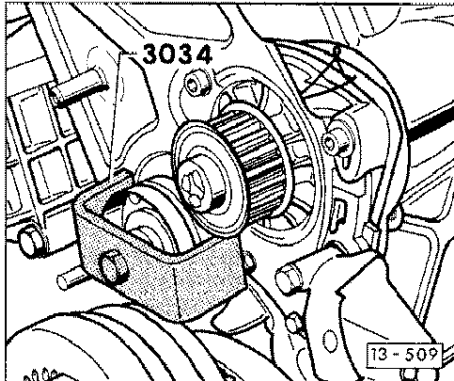


◀ Fig. 1 Removing and installing vibration damper

- Tightening torque 350 Nm.
- Use special tools 2079 and 2084.
- Coat threads and contact surface of bolt head with anti-corrosion compound AMV 188 000 02.

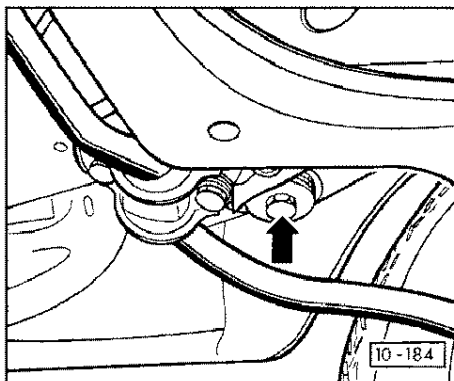
Caution

The tightening torque applies when using the special tool 2079 and this tool must be flush with the torque wrench during this operation.



◀ Fig. 2 Removing idler pulley using 3034

13-5



◀ Fig. 3 Removing and installing oil sump

Caution

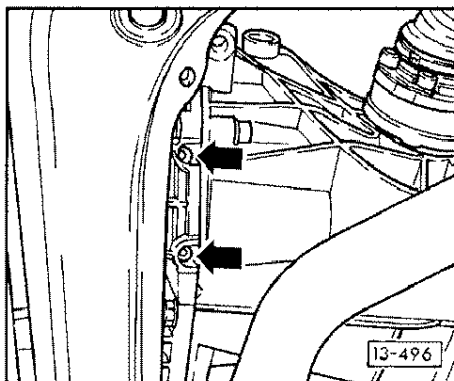
The subframe will suddenly drop approx. 100mm.

To remove sump remove the two front bolts securing the subframe.

Caution

Renew these two subframe bolts when refitting.

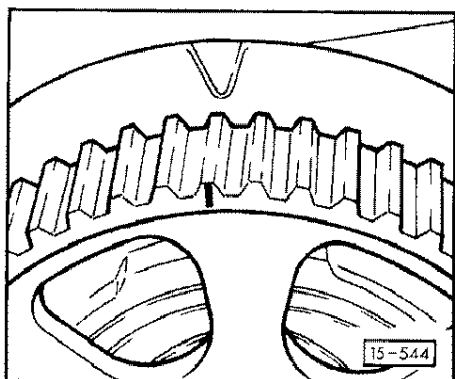
During refitting the two subframe bolts should be tightened to 65 Nm and further tightened a quarter turn.



◀ Fig. 4

- There are two cutouts on the flywheel side of the sump (see arrows). The bolts accessible through these cutouts are 5mm hexagon socket head bolts.
- When installing the sump tighten all bolts by hand and then tighten M6 bolts to 10 Nm and M8 bolts to 22 Nm.

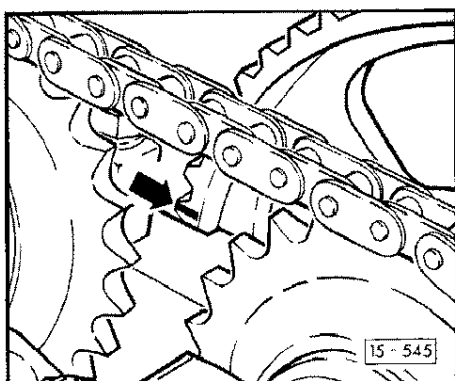
13-6



INSTALLING TOOTHED BELT

Cylinder head cover in situ

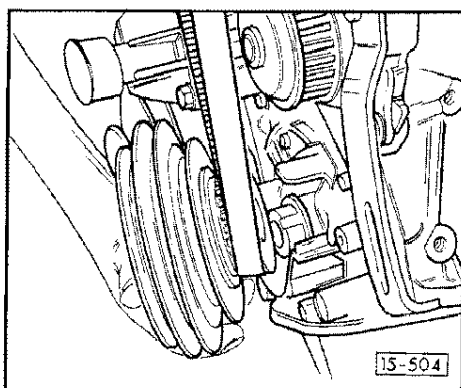
- ▶ - Mark on camshaft sprocket must align with arrow on cylinder head cover.



Cylinder head cover off

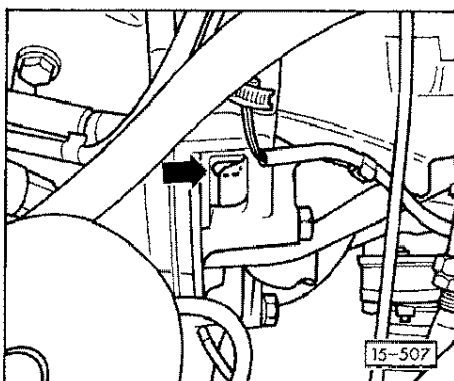
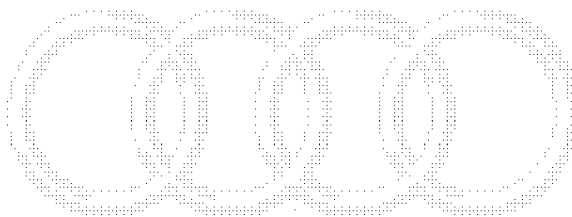
- Mark on camshaft sprocket must align with upper edge of cylinder head.

13-7



- ▶ - Fit toothed belt on crankshaft toothed belt sprocket and secure vibration damper to crankshaft - Fig. 1, page 13-5.

Caution
When securing vibration damper, the toothed belt must not become trapped between the oil pump and toothed belt sprocket.



- ▶ - Set crankshaft to TDC.

With engine in situ:

- Align TDC marking (0) with boss on clutch housing.

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13-8