

Telephone:
Fax:
VAT Registration No.:

Important note

NOTE: Timing belt check and replacement intervals are subject to change at any time. To ensure that you are using the most up-to-date and accurate information available connect to Autodata Online. Contact your distributor about connecting to Autodata Online.

Important Note

All service items are vital to the smooth running and reliability of a vehicle, none more so than the timing belt and its associated components. For this reason we have highlighted important information from the manufacturers' service schedules covering the intervals for checks and replacements. Be sure that you make the vehicle owner aware of this information. Industry best practice is to ensure that the vehicle owner is made aware of the importance of replacing the timing belt and its associated components according to the manufacturers' specification. The service history and the use of the vehicle must be considered when deciding the correct course of action. If there is any doubt to the serviceability of the belt and its components, they should be replaced.

Timing belt replacement intervals

- Where possible the recommended intervals have been compiled from vehicle manufacturers' information. In a few instances no recommendation has been made by the manufacturer and the decision to replace the belt must be made from the evidence of a thorough examination of the condition of the existing belt.
 - Apart from the visible condition of the belt, which is explained fully in the General Instructions/Toothed Timing Belts section, there are several other factors which must be considered when checking a timing belt:
1. Is the belt an original or a replacement?
 2. When was the belt last replaced and was it at the correct mileage?
 3. Is the service history of the vehicle known?
 4. Has the vehicle been operated under arduous conditions which might warrant a shorter replacement interval?
 5. Is the general condition of other components in the camshaft drive, such as the tensioner, pulleys, and other ancillary components driven by the timing belt, typically the water pump, sound enough to ensure that the life of the replacement belt will not be affected?
 6. If the condition of the existing belt appears good, can you be satisfied that the belt will not fail before the next check or service is due?
 7. If the belt does fail, have you considered the consequences? If the engine is an INTERFERENCE type then considerable expensive damage may well be the result.
 8. The cost of replacing a belt as part of a routine service could be as little as 5 to 10% of the repair cost following a belt failure. Make sure your customer is aware of the consequences.
 9. If in doubt about the condition of the belt - RENEW it.
 10. Refer to the Toothed Timing Belts/Service Replacement section for further information relating to arduous or adverse operating conditions, inspection and service replacement.

Replacement Interval Guide

Replacement Interval Guide

Audi recommend replacement every 120,000 kilometres (74,564 miles).

NOTE: Audi UK recommend the timing belt is replaced every 5 years.
NOTE: The vehicle manufacturer publishes this information only in kilometres. The conversion to miles is included for reference purposes only.
The previous use and service history of the vehicle must always be taken into account.

Check For Engine Damage

Check For Engine Damage

CAUTION:This engine has been identified as an INTERFERENCE engine in which the possibility of valve-to-piston damage in the event of a timing belt failure is MOST LIKELY to occur. A compression check of all cylinders should be performed before removing the cylinder head.

Repair Times - hrs

Repair Times - hrs

Check & adjust	0,50
Remove & install	1,10

Special Tools

Special Tools

- Crankshaft pulley holding tool - No.3197.
- Crankshaft pulley alignment tool - No.3211.
- Sprocket holding tool - No.3036.
- Camshaft timing tools - 2 x No.3199.
- Two-pin wrench - Matra V.159.

Special Precautions

Special Precautions

- Disconnect battery earth lead.
- DO NOT turn crankshaft or camshaft when timing belt removed.
- Remove spark plugs to ease turning engine.
- Turn engine in normal direction of rotation (unless otherwise stated).
- DO NOT turn engine via camshaft or other sprockets.
- Observe all tightening torques.

Removal

Removal

1. Drain coolant.
2. Remove:
 - Engine undershield.
 - Auxiliary drive belt.
 - Auxiliary drive belt tensioner.
 - Air filter housing and pipes.

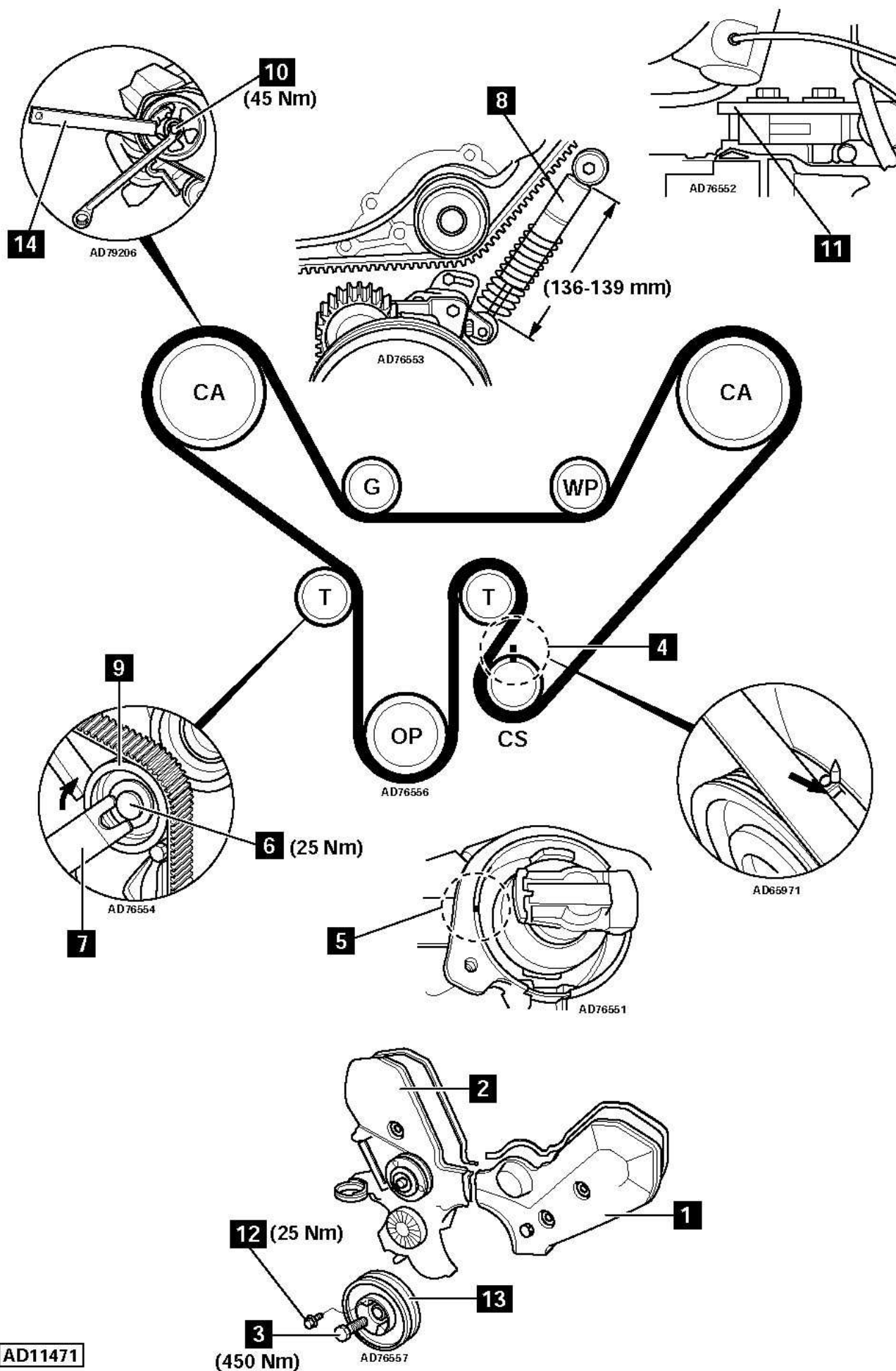
- Top and bottom radiator hoses.
 - Viscous fan and cowling (fan has LH thread).
 - Front engine support.
 - Timing belt LH and RH covers [1] & [2] .
 - Distributor caps.
3. Hold crankshaft pulley. Use tool No.3197. Slacken crankshaft bolt one turn [3] .
 4. Turn crankshaft to TDC on No.1 cylinder.
 5. Ensure timing marks aligned [4] .
 6. Ensure each distributor rotor arm aligned with mark on distributor body [5] .
 7. Disconnect coil HT leads. Remove distributors.
 8. Slacken tensioner pulley nut [6] . Move tensioner pulley away from belt. Use wrench Matra V.159 [7] .
 9. Compress tensioner damper [8] . Remove timing belt from tensioner pulley [9] .
 10. Remove timing belt from camshaft sprockets.
 11. Hold camshaft sprockets. Use tool No.3036 [14] . Slacken both bolts two turns [10] .
 12. Install timing tool at each distributor position [11] . Tool No.3199. Secure using a distributor bolt.
 13. Tap each camshaft sprocket gently with plastic hammer to loosen sprocket from taper.
 14. Remove:
 - Crankshaft pulley bolts (4 bolts) [12] .
 - Crankshaft bolt [3] .
 - Crankshaft pulley [13] .
 - Timing belt.

NOTE: DO NOT remove crankshaft sprocket. Mark direction of rotation on belt with chalk if belt is to be reused.

Installation

Installation

1. Ensure each camshaft sprocket can turn freely on taper.
NOTE: Tighten bolts [10] finger tight then slacken approximately one turn.
2. Fit timing belt to crankshaft sprocket.
3. Fit crankshaft pulley [13] . Lightly tighten bolts [12] .
4. Fit crankshaft bolt. Lightly oil threads and contact face [3] . Tighten bolt finger tight.
5. Fit crankshaft pulley alignment tool. Tool No.3211.
6. Fit timing belt in anti-clockwise direction to remaining sprockets and pulleys. Ensure belt is taut between sprockets.
7. Turn tensioner pulley clockwise until it contacts belt [7] . Use wrench Matra V.159. Lightly tighten nut [6] . Ensure tensioner pulley can still be turned by hand.
8. Tighten crankshaft pulley bolts to 25 Nm [12] .
9. Turn tensioner pulley clockwise until tensioner damper length is 136-139 mm [8] . Use wrench Matra V.159 [7] .
10. Tighten tensioner pulley nut [6] . Tightening torque: 25 Nm.
11. Hold camshaft sprockets. Use tool No.3036. Tighten bolts to 45 Nm [10] .
12. Remove:
 - Timing tools [11] .
 - Crankshaft pulley alignment tool.
13. Turn crankshaft two turns clockwise. Ensure timing marks aligned [4] .
14. Tighten crankshaft bolt [3] . Tightening torque: 450 Nm.
15. Check length of tensioner damper is 136-139 mm [8] .
16. If not: Repeat tensioning procedure.
17. Install components in reverse order of removal.
18. Refill cooling system.



AD11471