



# Technical Service Bulletin

## Camshaft Adjuster 3.0L - DTCs stored and/or oil leaks

15 07 01 2005587/4, Jan. 10, 2007. Supersedes Technical Service Bulletin Group 15 Number 06-05 dated Oct. 9, 2006 due to addition of DTC codes.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A4	2002 – 2006	All	V6/3.0 L Engine
A4 Cabriolet	2002 – 2006	All	
A6	2002 – 2006	All	

## Condition

- Oil leak at cylinder head around the camshaft adjuster(s)
- Oil leak around toothed belt drive coming from camshaft adjuster(s)
- One or more of the following DTCs may be present:

DTC	Description
P1519 (17927)	Intake Camshaft Control, Bank 1 - Malfunction
P1522 (17930)	Intake Camshaft Control, Bank 2 - Malfunction
P0015 (16399)	B Camshaft Position, Bank 1 - Timing over-retarded
P0025 (16409)	B Camshaft Position, Bank 1 - Timing over-retarded

and/or

DTC	Description
P1996 (18404)	Friction too high, code E1 (Intake - Bank 1)
P1997 (18405)	Friction too high, code A1 (Exhaust - Bank 1)
P1998 (18406)	Friction too high, code E2 (Intake - Bank 2)
P1999 (18407)	Friction too high, code A2 (Exhaust - Bank 2)

## Technical Background

Gaskets and/or sealing rings of camshaft adjusters and/or timing case might be leaking.

The internal bolts of camshaft adjuster(s) might have a reduced torque.

An oil leak also might cause one or more of the mentioned DTCs due to a reduced operating oil pressure in the camshaft adjusters.

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## Production Solution

Not applicable.

## Service

1. If one or more of the following DTCs are present:

DTC	Description
P1519 (17927)	Intake Camshaft Control, Bank 1 - Malfunction
P1522 (17930)	Intake Camshaft Control, Bank 2 - Malfunction
P0015 (16399)	B Camshaft Position, Bank 1 - Timing over-retarded
P0025 (16409)	B Camshaft Position, Bank 1 - Timing over-retarded

**Do not replace the camshaft adjusters (A) or the camshaft adjustment housings (B) if any DTC for a camshaft position sensor is present. (P0340 - P0348, P0365, P0368, P0390 - P0393)**

- Follow Guided Fault Finding test plan for diagnosis.
- Perform TPL 2005581 (01-03-06) if applicable for affected VIN.
- Check for sufficient oil pressure. If oil pressure is too low, also check for oil leaks from or around the camshaft adjusters.
- These DTCs can also be caused by a malfunctioning camshaft position sensor (G40/G163/G300/G301).

2. If one or more of the following DTCs are present:

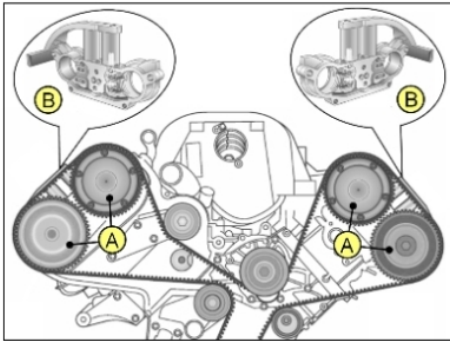
DTC	Description
P1996 (18404)	Friction too high, code E1 (Intake - Bank 1)
P1997 (18405)	Friction too high, code A1 (Exhaust - Bank 1)
P1998 (18406)	Friction too high, code E2 (Intake - Bank 2)
P1999 (18407)	Friction too high, code A2 (Exhaust - Bank 2)

**Do not replace the camshaft adjusters (A) or camshaft adjustment housings (B) because of these DTCs.**

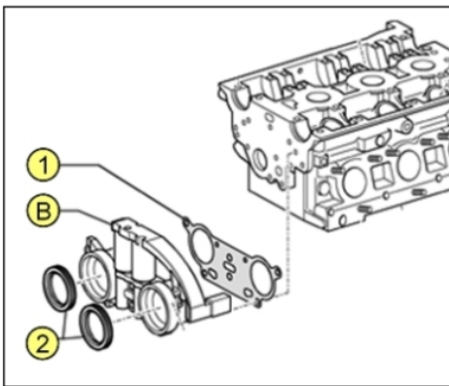
- Follow Guided Fault Finding test plan for diagnosis.
- Erase the DTC memory. *These DTCs only occur during the break-in period of the cylinder head and are not causing the MIL.*

- Check for sufficient oil pressure. If the oil pressure is too low, also check for oil leaks from/around the camshaft adjusters.

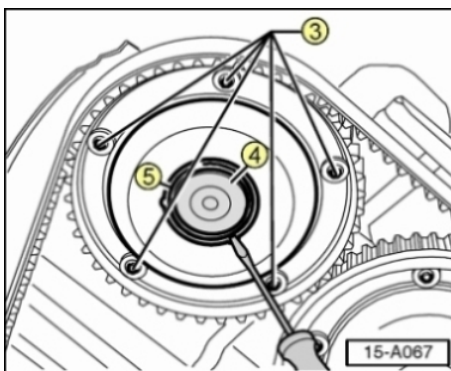
3. In case of an oil leak from a camshaft adjuster, perform the following repairs only on the affected side.



**Do not replace complete camshaft adjusters (A) or camshaft adjustment housings (B).**



- Replace gasket (1) between camshaft adjustment housing (B) and cylinder head.
- Replace both camshaft sealing rings (2) (See Repair Manual, Group 15, "Camshaft and camshaft adjusters, removing and installing")



### Before Reinstalling the Valve Covers

- Retorque all five outer bolts (3) on all four camshaft adjusters to 15 Nm. (The bolt heads are located on the back side of the camshaft adjuster gears.)
- Replace missing or damaged bolts (part number WHT 003 121).
- Replace caps (4) and O-Rings (5) and secure with securing ring (See Repair Manual, Group 15, "Camshaft and camshaft adjusters, removing and installing")
- Reassemble removed components and complete the repair.

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## Warranty

When procedure applies to vehicles within the New Vehicle Limited Warranty, use the following:			
Claim Type:	W2		
Part Identifier:	1590		
Damage Code:	1590 50 XXXX		
Labor Operations:		Perform Technical Bulletin on <u>ONE Cylinder Bank</u> . Contains 35 TUs for Re-Torquing of ALL 20 bolts of ALL 4 camshaft adjusters.	480 TUs
Labor Operations:		Perform Technical Bulletin on <u>TWO Cylinder Banks</u> . Contains 35 TUs for Re-Torquing of ALL 20 bolts of ALL 4 camshaft adjusters.	510 TUs
Diagnostic Time:	No Diagnostic Time Allowed.		
Claim Comment:	As per TPL #2005587/4		
All warranty claims submitted for payment must be in accordance with the Audi Warranty Policies and Procedures Manual. Claims are subject to review or audit by Audi Warranty.			

## Required Parts and Tools

Part Number	Part Description	Qty
06C 103 121 J	Gasket (1)	1 per affected bank
06C 103 085	Sealing Ring (2)	2 per affected bank
06C 109 144	Sealing Cap (4) including O-Ring (5)	1 per affected adjuster
N 909 804.01	Securing Ring (circlip)	based on need
WHT 003 121	M6 Bolt (if required)	based on need

All part and service references provided in this TSB are subject to change and/or removal. Always check with your Parts Dept. and service manuals for the latest information.