

Field campaign

Topic	Mulsanne - Auxiliary coolant pump hose replacement (SC12/16)
Market area	Russische Föderation (5RU), Russian Federation 935 Volkswagen Group RUS (6935), United Kingdom E01 Bentley UK (6E01), Germany E02 Bentley rest Europe (6E02), Australia E04 Bentley rest Asia and Australia (6E04), United States E05 Bentley USA and rest America (6E05), United Arab Emirates E06 Bentley Middle East and Africa (6E06)
Brand	Bentley
Transaction No.	2029557/1
Campaign number	E776
Note	
Type	Workshop Campaign
US code	

Vehicle data**Mulsanne****Sales types**

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
3Y2*	2011	E		*	*	*
3Y2*	2012	E		*	*	*
3Y2*	2013	E		*	*	*

Chassis numbers

Manufacturer	Filler	Type	Filler	MY	Factory	From	To	Prod from	Prod to
SCB	B**	**	*	*	C	000001	017537		

Documents

Document name
master.xml
outline_hose_group.jpg
outline_hose_group_s2.jpg
outline_hose_group_s3.jpg
pump_hose_removal.jpg
pump_screw_removal.jpg
master.doc


Notes

Technical background

The four hoses through which engine coolant flows in the auxiliary pump (V51) circuit have an internal upper pressure specification that is less than the systems peak operating pressures. This may in high ambient conditions lead to hose failure and subsequent coolant loss.

In the event of a coolant hose failure the following red, priority one, warnings will be displayed



Low coolant warning symbol  accompanied by three audible warnings and a displayed message "Switch off engine and check coolant level"

Coolant temperature gauge will indicate a rapid raise in temperature the needle moving into the 120-125°C red segment

Coolant symbol  and message displayed Coolant temperature too high

At the same time water vapour may visible from the front of vehicle accompanied by an odour (warm engine coolant has a musty odour)

If engine shut down is expedited no permanent damage will have occurred. If warnings are not acted on then severe engine damage is likely

Remedy

The pressure specification of this hose group has been increased and new hoses released under new part numbers.

The cars applicable to this campaign must have original hoses removed and replaced with the new specification parts. The removed hoses must be rendered unusable before disposal

Customer notification

Workshop campaign

Please notify customers who have taken delivery of one of the affected vehicles when the vehicles are in the workshop.

Please ensure that all affected vehicles are checked and repaired during the next service visit. Make a note of the required campaign on the workshop order before signature by the customer.

If it is omitted to perform the work required for the campaign during a workshop visit, notify the customer about the campaign immediately (registered mail with advice of receipt).

You should also pass on this information to your new and used car sales department so that the vehicles affected are checked and, if necessary, repaired immediately.

Warranty accounting instructions

Warranty Type	790 or 710
Labour Operation Code	19 62 20 11
Damage Service Number	E776
Damage Code	00 66
Criteria ID	01
Time	260 time units

Genuine parts

The required replacement parts should be ordered from Bentley Motors Limited Crewe or through your regional Bentley parts distribution centre

Parts supply

New Part Number	Description	Displaced Part	Quantity
07V 121 051B	Hose	07V 121 051A	1
07V 121 157B	Hose	07V 121 157A	1
07V 121 049 B	Hose	07V 121 049 A	1
07V 121 052 B	Hose	07V 121 052 A	1

Consequential Parts

Part Number	Description	Quantity
JNV 862 564	Coolant G12 ++	2 = (2x5 litres)
N 907 834 02	'O' ring	2

Parts despatch control

N/A


Repair instructions

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Check

If the campaign identification mark is not evident (see Figure 18), or there is no evidence that the parts have not been fitted in a previous repair (check claim history in SAGA 2) then carry out the required work in accordance with these instructions

Genuine parts

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Work

The four hoses shown in figure 15 are to be replaced

1. Disconnect both batteries – Rep. Gr. 27 Batteries – To disconnect and connect

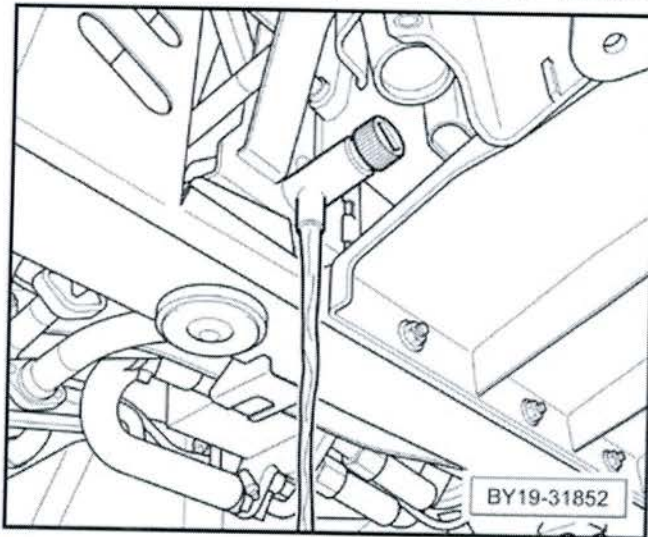


Figure 1

2. Drain the engine coolant – Rep Gr.19 Engine Coolant to Drain and Refill
3. Remove Front Bumper Grille

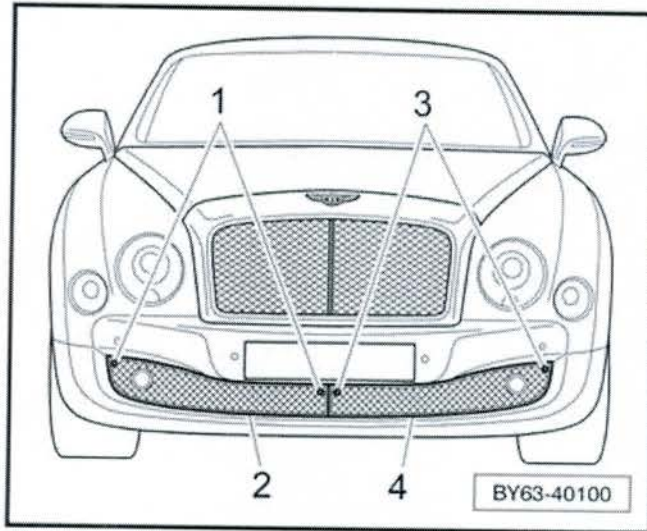


Figure 2

- Remove the fixings (1) and remove the right hand bumper grille (2)
- Remove the fixings (3) and remove the left had bumper grille (4)

4. Remove Radiator shell

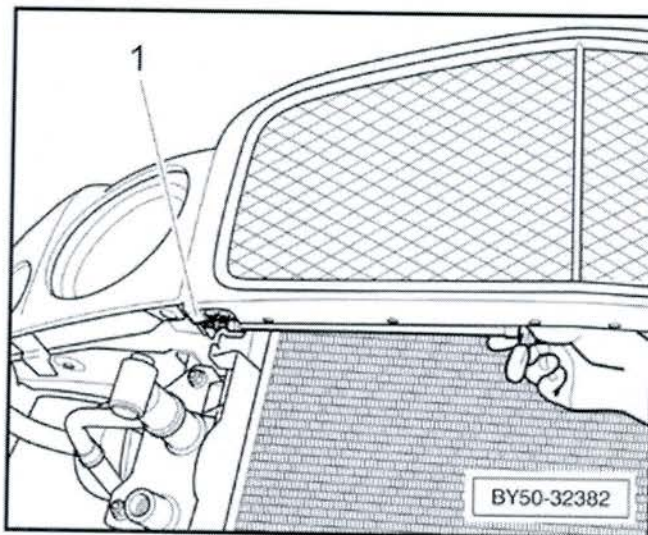


Figure 3 Note: Image shows bumper removed, this is only for illustration purposes

- Working through the front bumper grille aperture, remove the right hand fixing -1- securing the lower corner of the radiator. Carry out the same operation on the left hand fixing (see Figure 3)

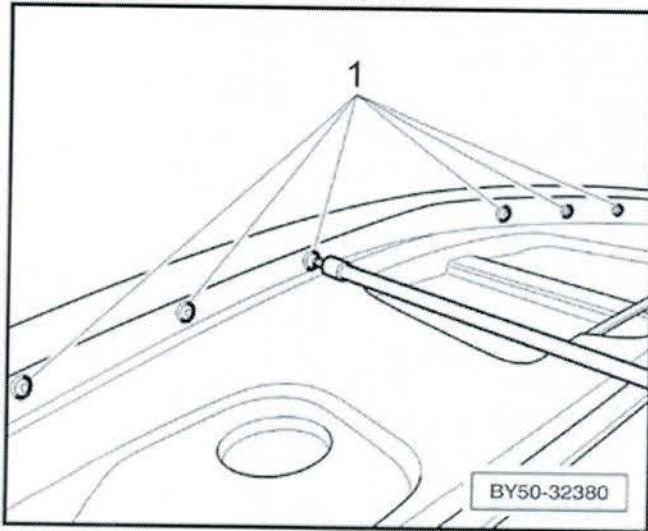


Figure 4

- Remove the fixings securing the top of the radiator shell (see Figure 4)

5. Remove bonnet Crossmember and Cover

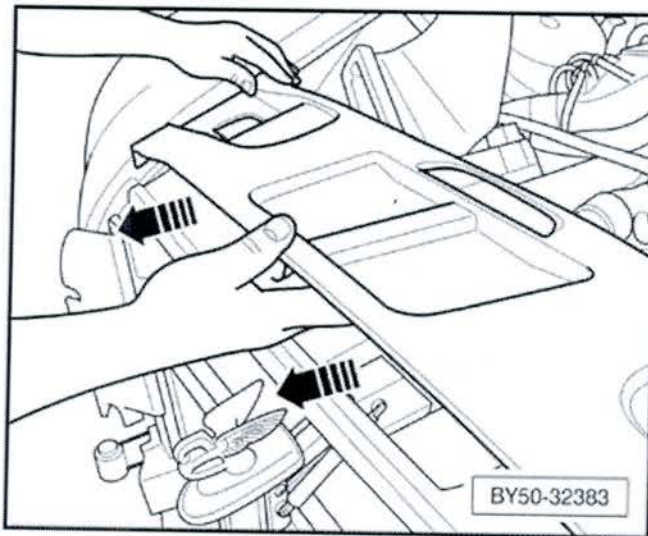


Figure 5

- Partially remove the bonnet seal
- Pull the plastic bridge moulding towards the front and remove the moulding (see Figure 5)
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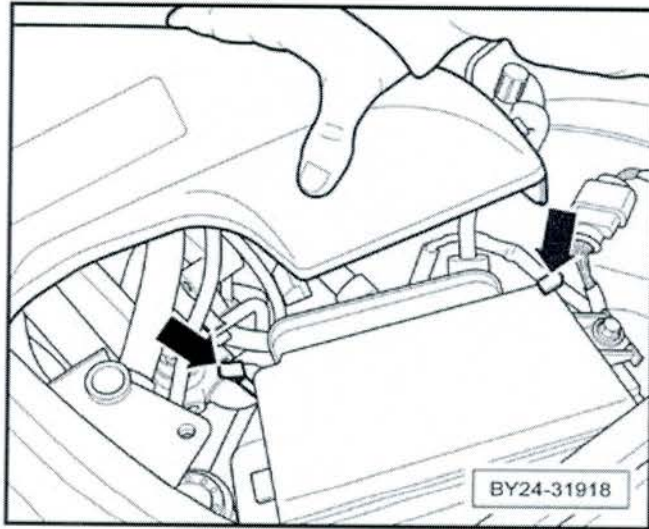


Figure 6

- Release the two spring clips – arrows- on both sides of the intake air duct and partially lift out from the air cleaner housing (see Figure 6)

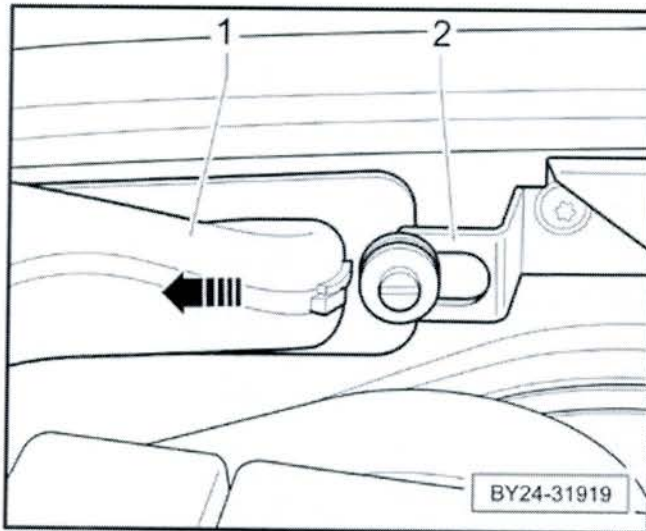


Figure 7

- Slide the duct inwards –1- to disengage from the forked bracket –2- (see Figure 7)
6. Using a soft lead pencil mark the position of the bonnet release mechanism prior to removal. Undo two torx fixings

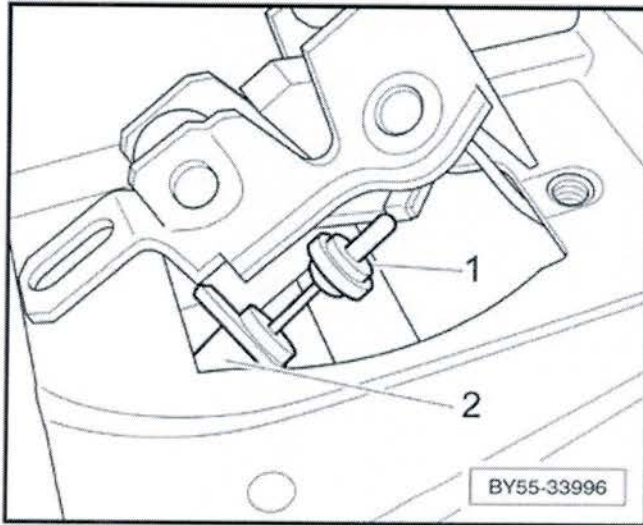


Figure 8



Figure 8A

7. Partially lift the mechanism to access and unclip the white cable retainer –1- slide and remove cable –2- from the release mechanism, the mechanism can now be lifted and rotated so as to be passed through the hole in the bonnet crossmember (see Figure 8 and 8A)
8. **Note:** the release mechanism can remain electrically connected

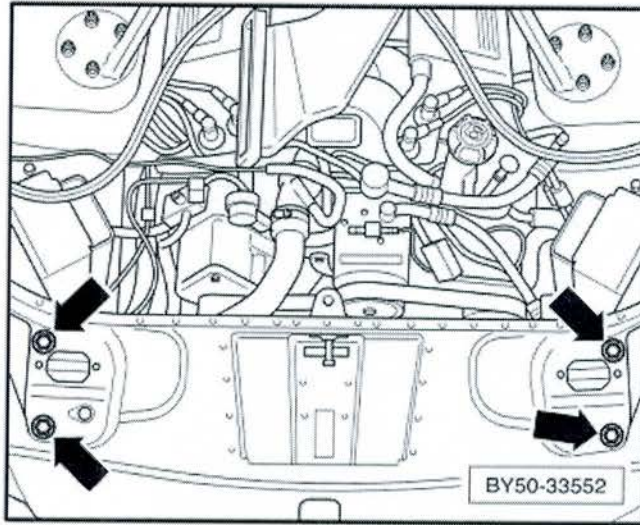


Figure 9

9. Remove the four bolts securing the crossmember –arrow-. Partially lift the crossmember, unclip the bonnet release cable from the underside before fully removing the crossmember

10.Remove the top hose

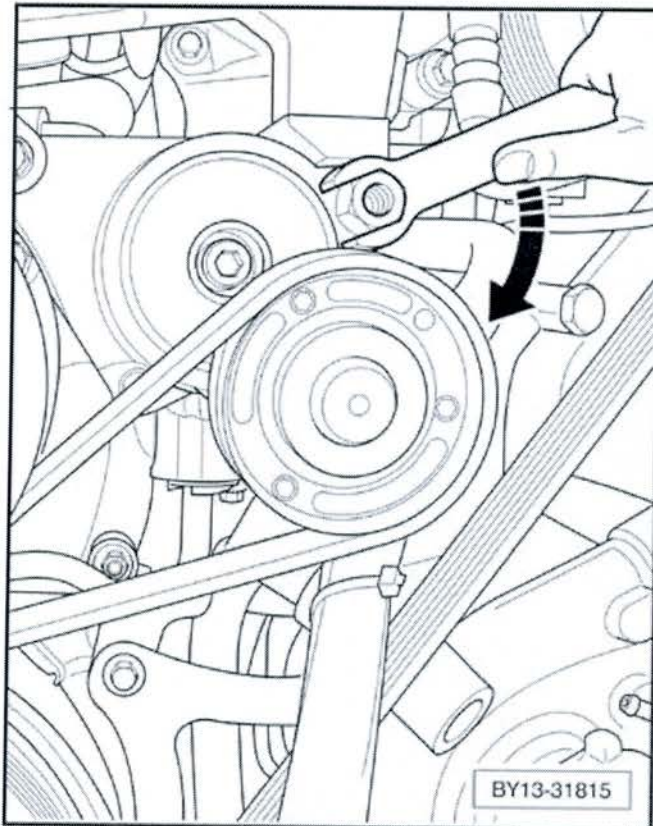


Figure 10

11.Remove the auxiliary drive belt

- Hold the belt tensioner pulley off the belt then slide the belt off the alternator pulley finally remove the belt from the other components (see Figure 10)

Caution

If the belt is to be re-used, inspect the belt for any signs of degradation.

Do not allow any engine oil or coolant to come into contact with the auxiliary drive belt

If the belt is contaminated with oil of any kind it MUST be replaced

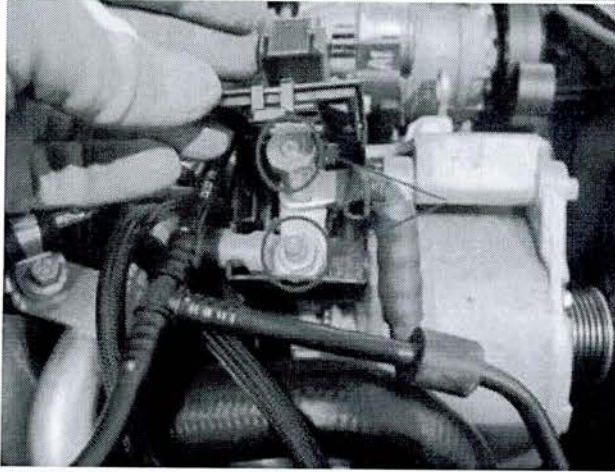


Figure 11

12. Disconnect both battery cables from the underbonnet charging post (see Figure 11)
13. Disconnect the low tension plug from the ignition coil attached to the charging post, coil A1

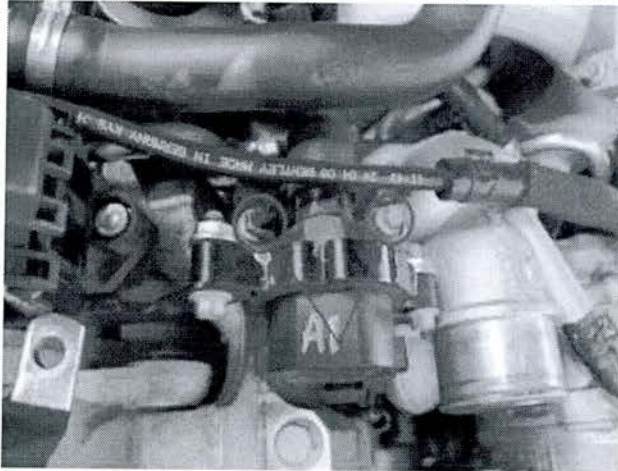


Figure 12

14. Remove the two fasteners securing the charging post bracket assembly and remove the assembly (see Figure 12)

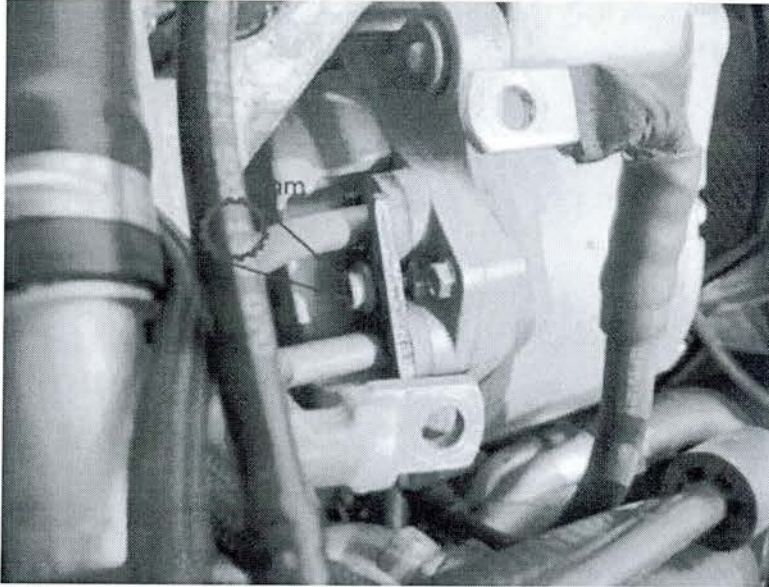


Figure 13

15. Disconnect the alternator coolant feed and return pipes (securing bolt is 8mm Multi point socket head screw) (see Figure 13)



Figure 14

16. Loosen the two alternator retaining bolts then apply a sharp hammer blow to the head of each bolt, this will partially push back the dowel pins at the rear of the bracket before fully removing the two bolts (see Figure 14)
17. Rotate the alternator out of the support bracket disconnect the sensing plug located at the rear of the unit and remove alternator

The following four hoses are to be replaced

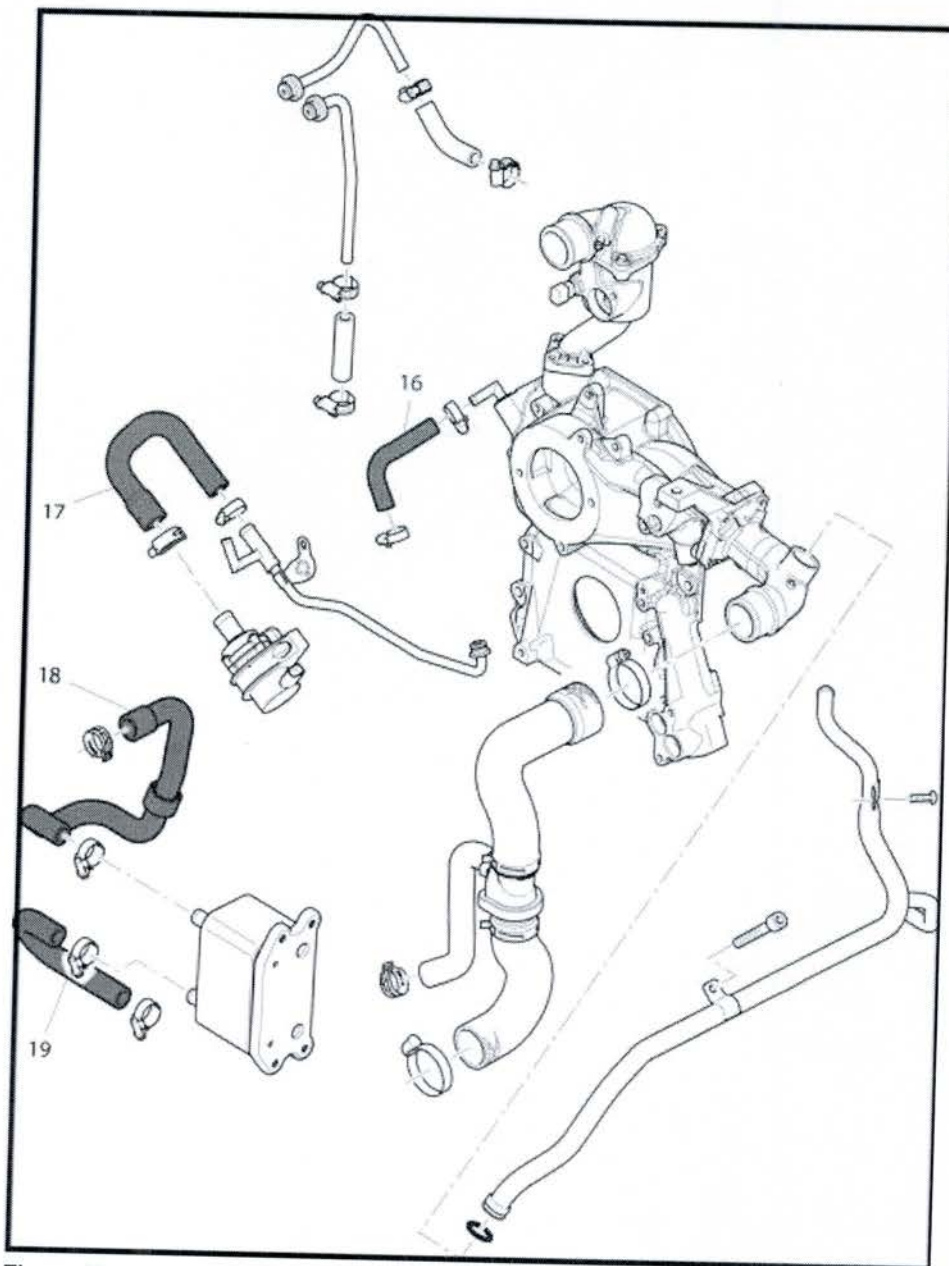


Figure 15

18. From underneath the car remove, discard and replace hose -19-
19. Disconnect oil cooler end of hose -18
20. From above remove and discard small link hose -16
21. Remove and discard hose -17- (see Figure 16)
22. Partially remove the after run electric water pump (V51)

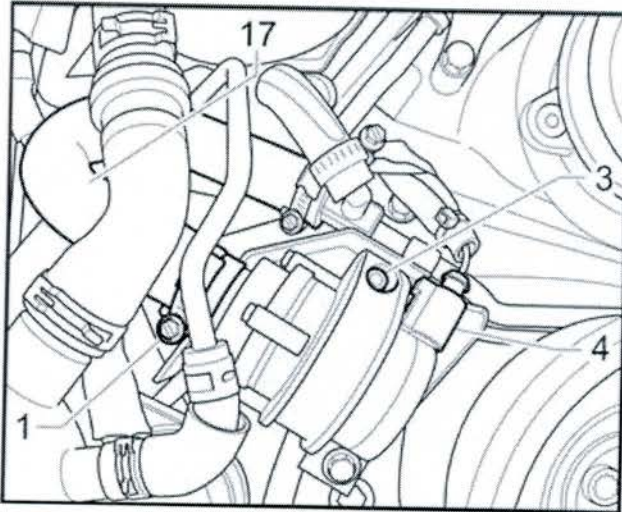


Figure 16

- Remove the screw – 3- (T25), partially withdraw the pump (see Figure 16)

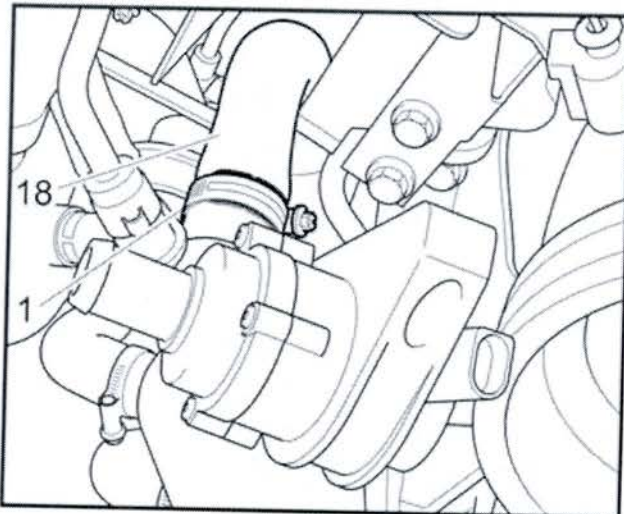


Figure 17

- With the pump partially withdrawn undo hose clip –1- and remove and discard hose –18-
 - Note: the pump can remain electrically connected whilst the hoses are replaced
23. From underneath feed up a new -18- hose
 24. Connect the new 18 hose to the electric water pump and tighten hose clip- 1- (see Figure 17)
 25. Refit electric water pump and tighten securing screw –3- (see Figure 16)
 26. Fit new -17- hose and secure hose clips (see Figure 16)
 27. Fit new -16- hose and secure hose clips
 28. Underneath connect oil cooler end of new 18 hose and secure hose clips
 29. Refit removed parts

- Installation is the reverse of removal procedure, noting the following
- Refit alternator with new coolant 'O' rings

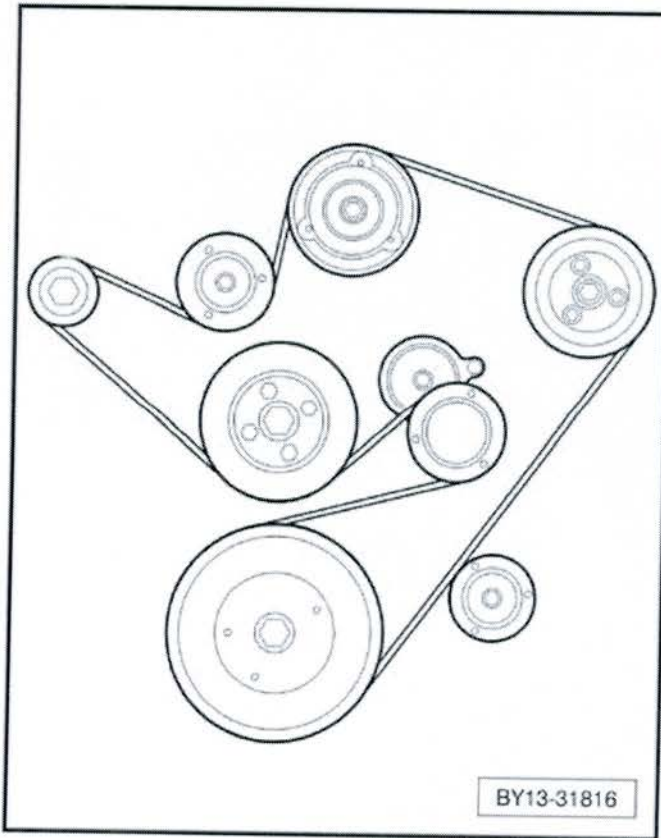


Figure 18

- Ensure the auxiliary drive belt is not contaminated
- Check and set the bonnet latches and cables Rep. Gr.55 Bonnet Release Mechanism – To Remove and Fit
- Carry out vacuum fill of coolant system. NEVER reuse engine coolant – Always replenish the system with a new engine coolant mixture. Rep. Gr.19 Engine coolant - To Drain and Refill

Identification



Figure 19

On completion apply a white campaign completion mark to the engine coolant thermostat housing (see Figure 19)