

SERVICE INFORMATION BULLETIN

TITLE : Rattle from HVAC Compressor at engine idle and low revs when A/C is switched off

DOCUMENT # : 11 F 004

AFFECTED VEHICLES: 12C's built from June 2011 to January 2012

SITUATION : Quality Engineering at McLaren Automotive has highlighted that when the air conditioning is switched off and the engine RPM is between 600 - 1500, potentially an evident rattle may develop from the HVAC compressor drive coupling.

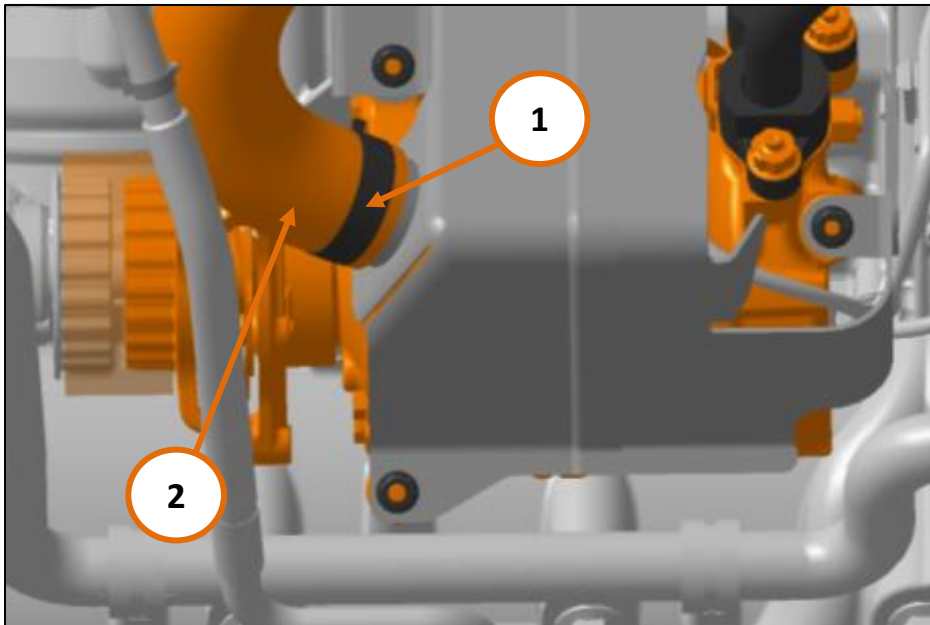
PROCEDURE : In the event of a customer complaint, please proceed to replace the HVAC Compressor drive coupling.
The following repair procedure details the correct process to remove and install the HVAC drive coupling.

REMOVAL :

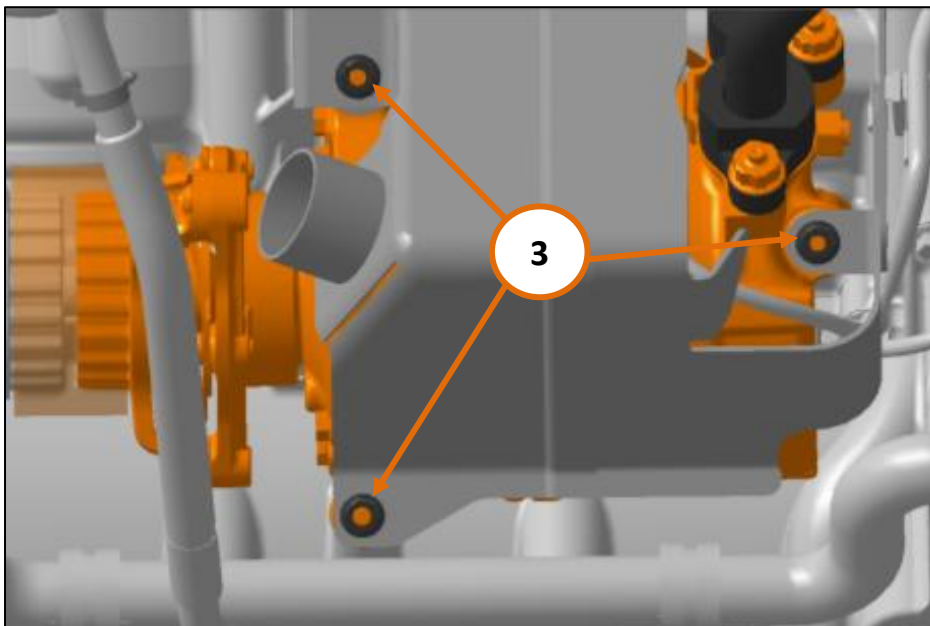
1. AA-RM-02A04-04-007 – Lift vehicle on lifting platform.
2. AA-RM-02A04-04-001 – Remove/install floor panel – engine/fuel tank.

Care Point: Relevant personal protective equipment must be worn when carrying out this repair.

3. Remove bolts securing clutch cooler P-clips to the ladder frame.
4. Remove constant pressure clip from hose (1).
5. Disconnect hose from heat shield (2).



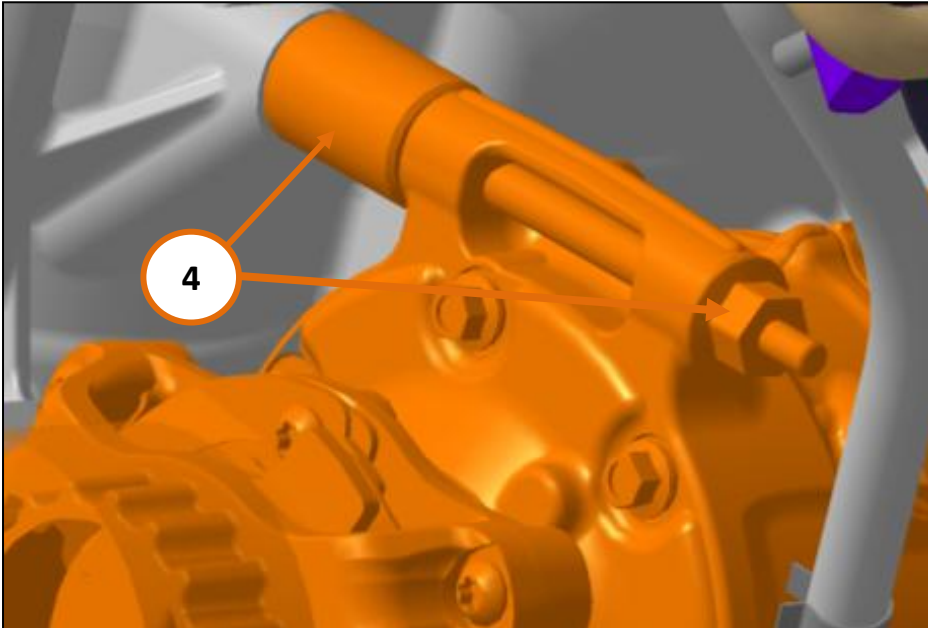
6. Remove nuts retaining the heat shield (3) (M6, 8Nm).



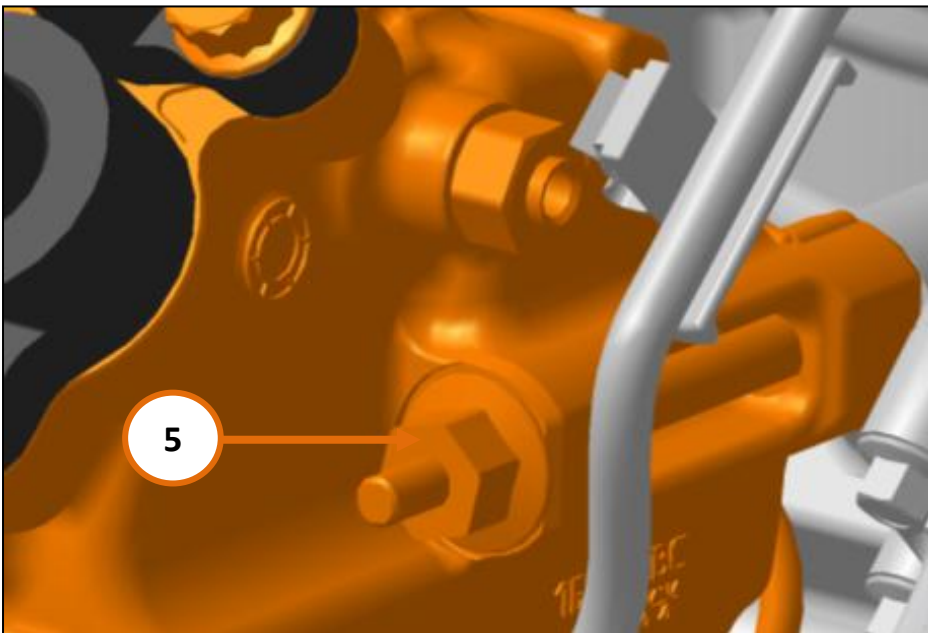
Care Point: Heatshield cannot be removed; it will require securing out of position to gain access to the HVAC compressor stud bolts.

Care Point: Ensure that care is taken when removing the top stud bolt so that you do not drop or damage the spacer fitted between the engine and HVAC compressor.

7. Remove top stud bolt and spacer (4) (M8x140, 25Nm).

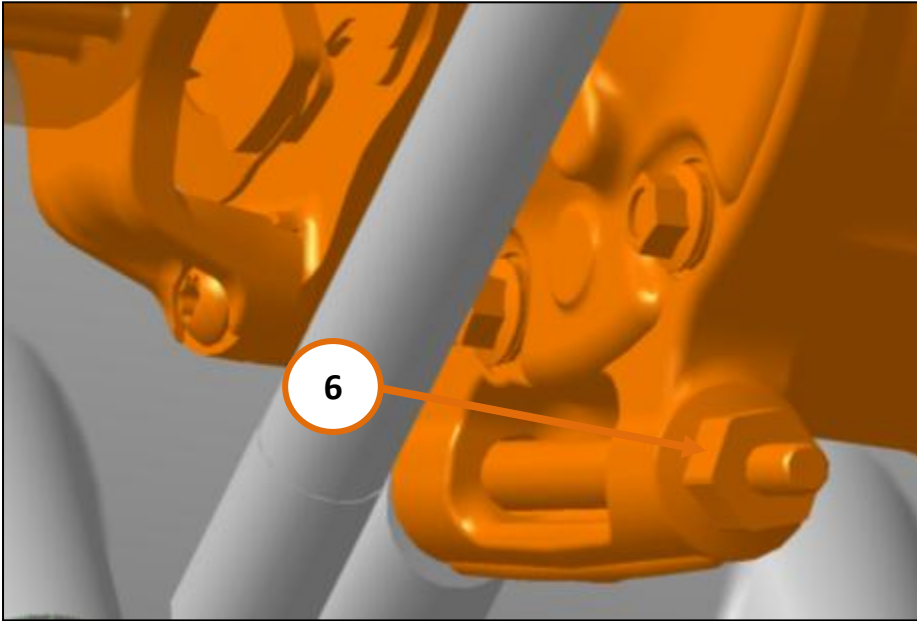


8. Remove rear stud bolt (5) (M8x108, 25Nm).

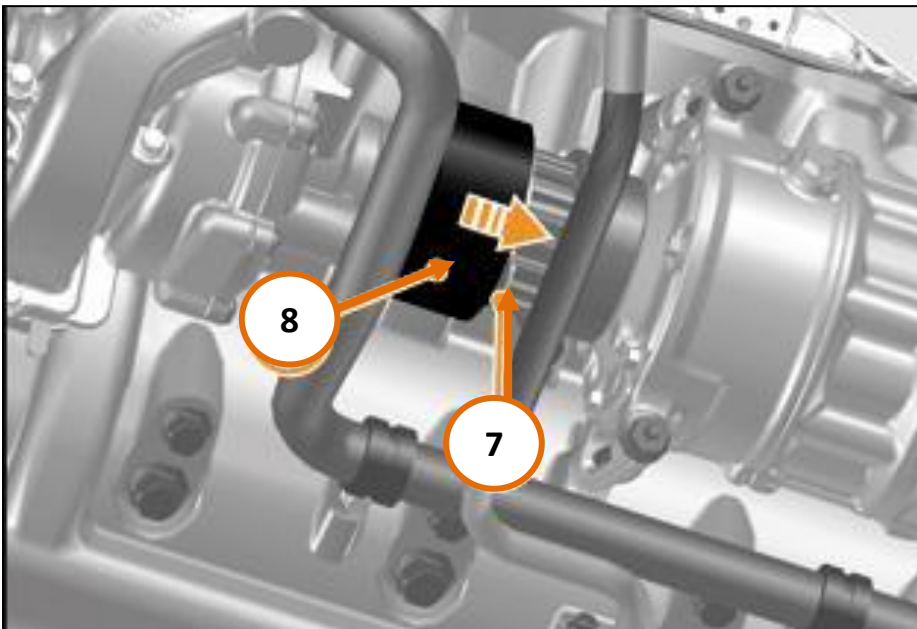


Care Point: On removal of the final stud bolt the HVAC compressor must be supported and secured manually as the A/C system has not been discharged

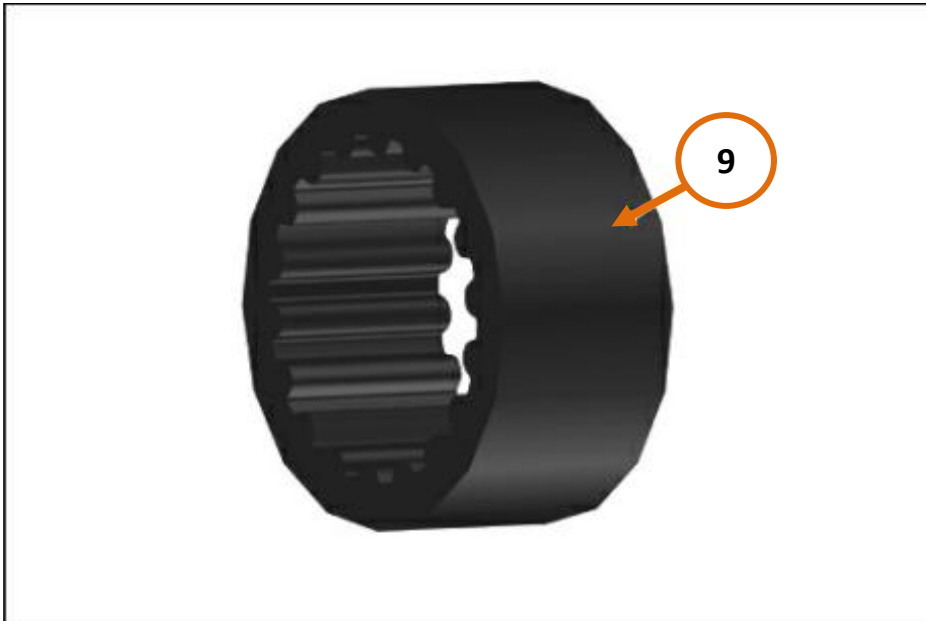
9. Remove front stud bolt (6) (M8x108, 25Nm).



8. Cut cable tie on pulley.
9. Cut cable tie and remove from pulley groove (7).
10. Slide Eurogrip sleeve in direction of arrow to disengage from water pump (8).



11. Remove Eurogrip sleeve from A/C compressor pulley (9).



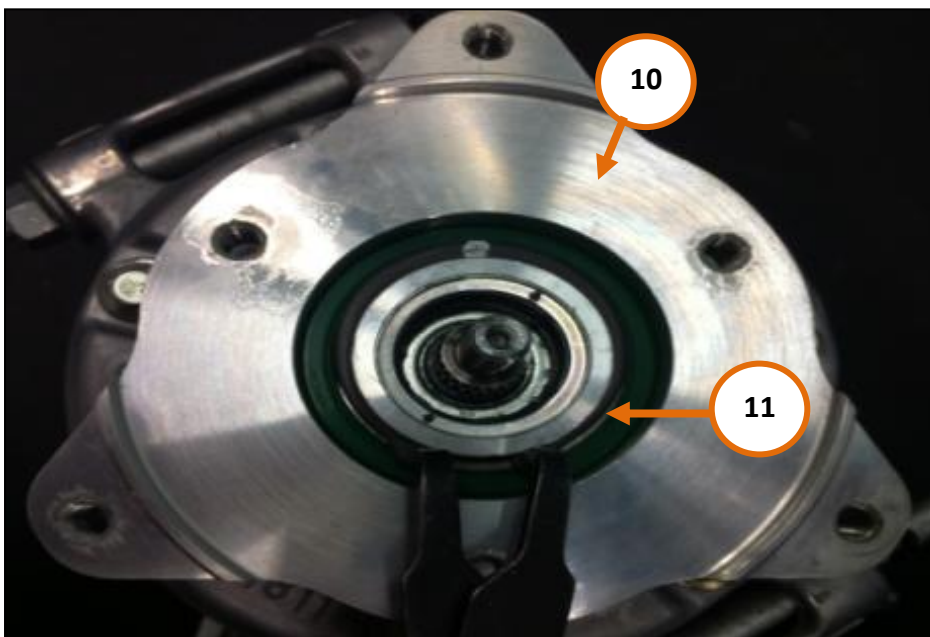
Care Point: A/C Compressor must be supported manually during steps 12 of the removal section.

12. Angle A/C compressor downwards at the front and remove nut from pulley/shaft (M8, 24Nm). Remove pulley from A/C compressor.

INSTALLATION:

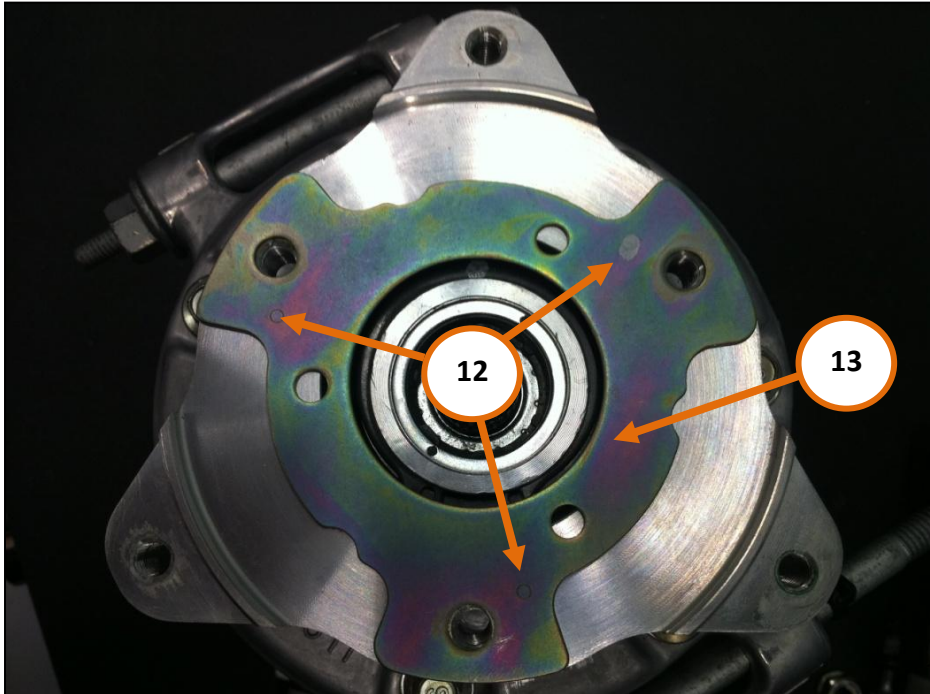
Care Point: A/C Compressor must be supported manually during steps 1 -16 of the installation.

1. Fit A/C Compressor hub to A/C Compressor nose (10).
2. Install circlip (11) in to groove.



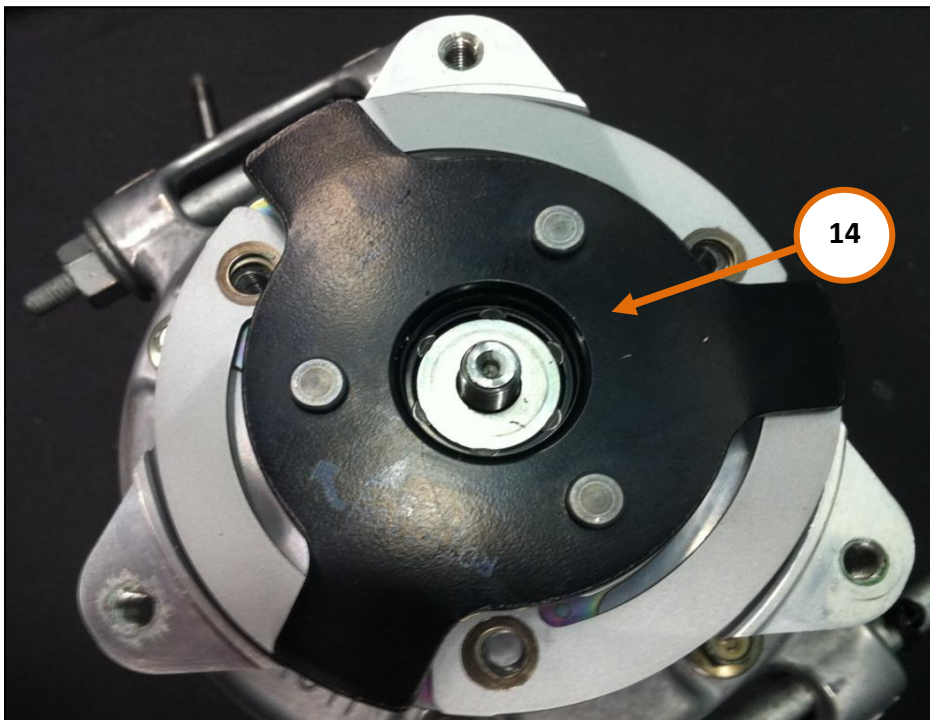
Care point: Indentation marks (12) on the spacer plate must face towards the front of the vehicle.

3. Install spacer plate (13) to hub.



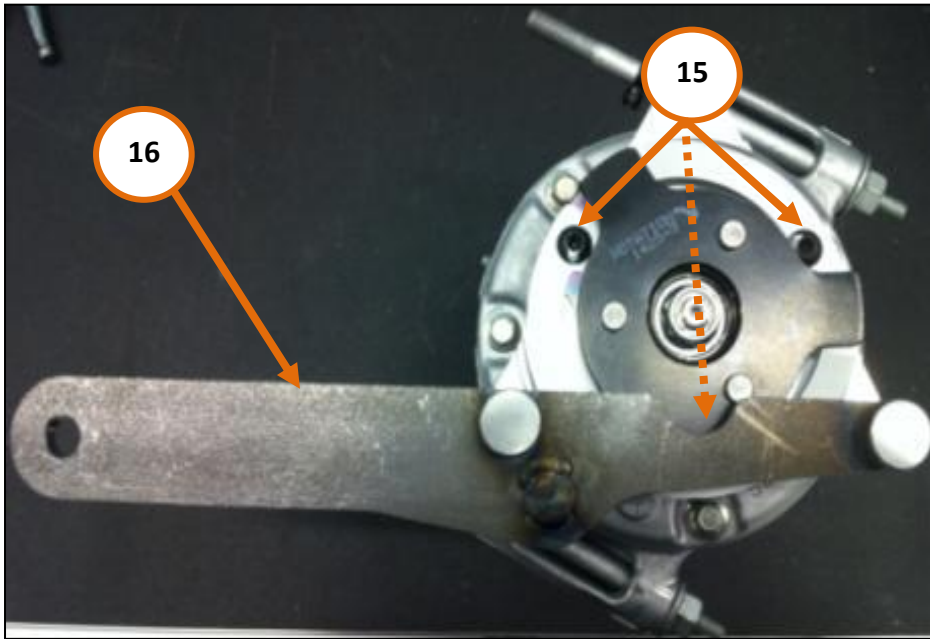
Care Point: Fuse assembly will engage onto the shaft splines.

4. Install mechanical fuse assembly (14) to hub.



Care Point: Ensure that bolts have pre-encapsulated Loctite applied to them. If not, please apply Loctite 243 to each thread.

5. Hand tighten bolts (15) (M6x20, 10Nm).
6. Fit torque reaction spanner (16) to hub. Tool number 11F1169CP

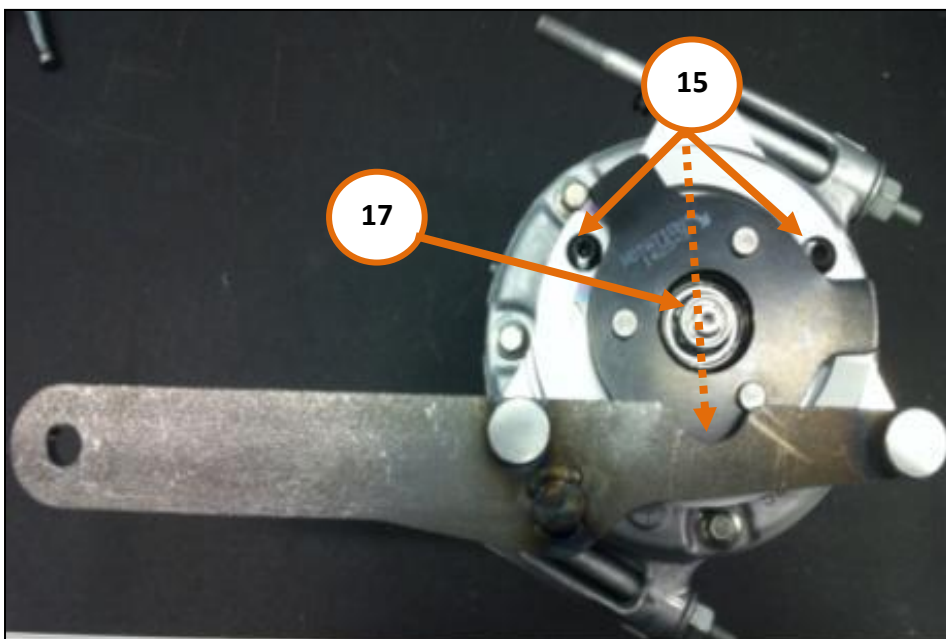


Care Point: Hold torque reaction spanner in place with one hand to allow correct torque value to be achieved.

7. Fit nut to shaft (17) (M8, 24Nm) and torque.

Care Point: Hold torque reaction spanner in place with one hand to allow correct torque value to be achieved.

8. Torque bolts (15) (M6x20, 10Nm).

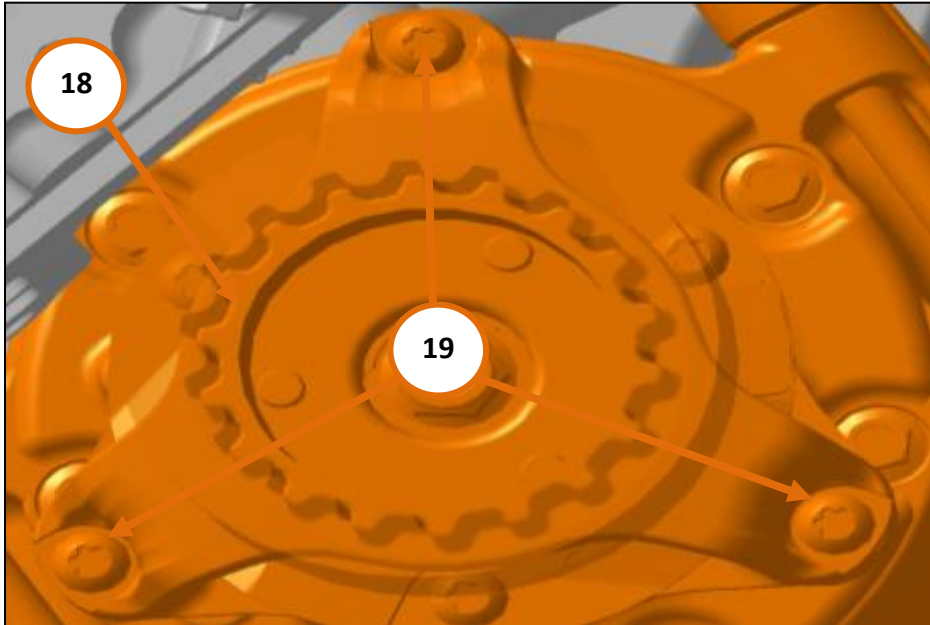


9. Remove torque reaction spanner from hub

10. Fit Eurogrip pulley (18) to hub.

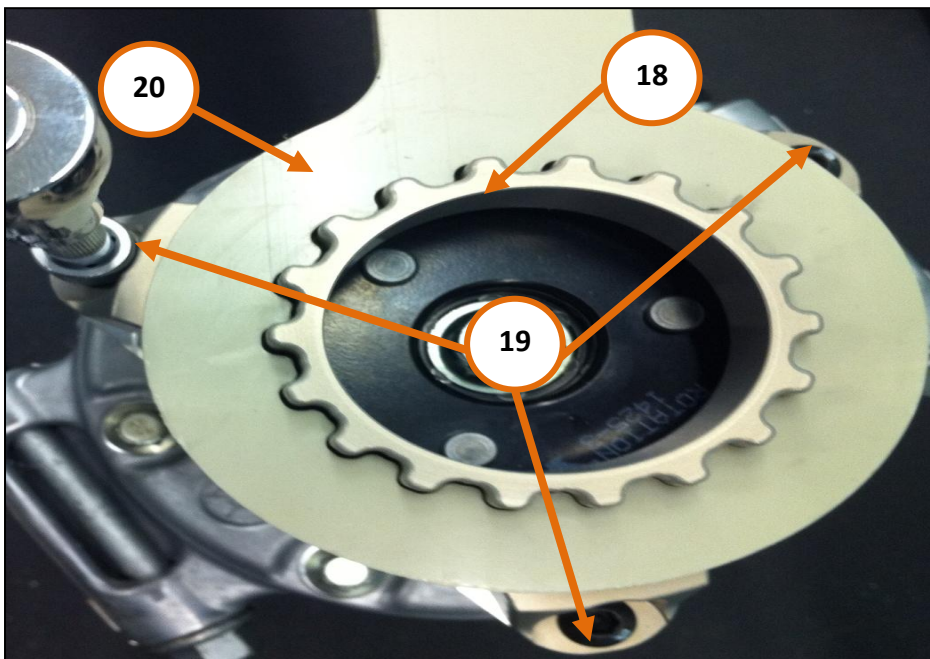
Care Point: Ensure that bolts have pre-encapsulated Loctite applied to them, if not apply Loctite 243 to each thread.

11. Hand tighten bolts (19) (M6x20, 10Nm).



12. Fit Eurogrip spanner (20) to pulley (18). Tool number 11F1168CP

13. Torque bolts (19) (M6x20, 10Nm).



14. Remove tooling from hub assembly.

15. Refit Euro grip sleeve to pulley on rear of water pump assembly

16. Reposition A/C compressor to engine and engage on Euro grip pulley on back of water pump.

Care Point: Do not fully tighten bolt to aid installation of rear stud bolt.

17. Install top stud bolt and spacer (4) (M8x140, 25Nm).

Care Point: Do not fully tighten bolt to aid installation of front stud bolt.

18. Install rear stud bolt (5) (M8x108, 25Nm).

Care Point: Once front stud bolt has been installed, torque all stud bolts to 25Nm.

19. Install front stud bolt (6) (M8x108, 25Nm).

20. Install heat shield.

21. Install nuts (3) (M6, 8Nm).

22. Install hose to heat shield and secure with constant pressure clip.

23. Install bolts and P-clips to secure clutch cooler hose to ladder frame.

24. Install components in reverse order.

25. Check functionality.

Please contact your Regional Aftersales Manager should you have any queries relating to the information contained within this bulletin.

WARRANTY INFORMATION

DESCRIPTION	RESOLUTION CODE	TOTAL REPAIR TIME
Replace HVAC drive coupling	A0A50181A11C9901	1 hour

PARTS INFORMATION

PART DESCRIPTION	PART NUMBER	QUANTITY	ORDER PROCESS
Fuse kit – AC compressor	11F1163CP	1	Order via Unipart