

## SERVICE INFORMATION BULLETIN

**TITLE:** McLaren 12C Improved Track Cooling Performance

**DOCUMENT NUMBER:** 11 F 023

**AFFECTED VEHICLES:** McLaren 12C Coupe and Spider

**SITUATION:** The 12C Coupe and Spider can experience high temperature gauge readings in the Instrument Cluster for the coolant and oil systems and in some cases a Clutch Overheat warning if driven on a track in high ambient temperatures.

**PROCEDURE:** Follow the procedure outlined in the document.

**Instructions:**

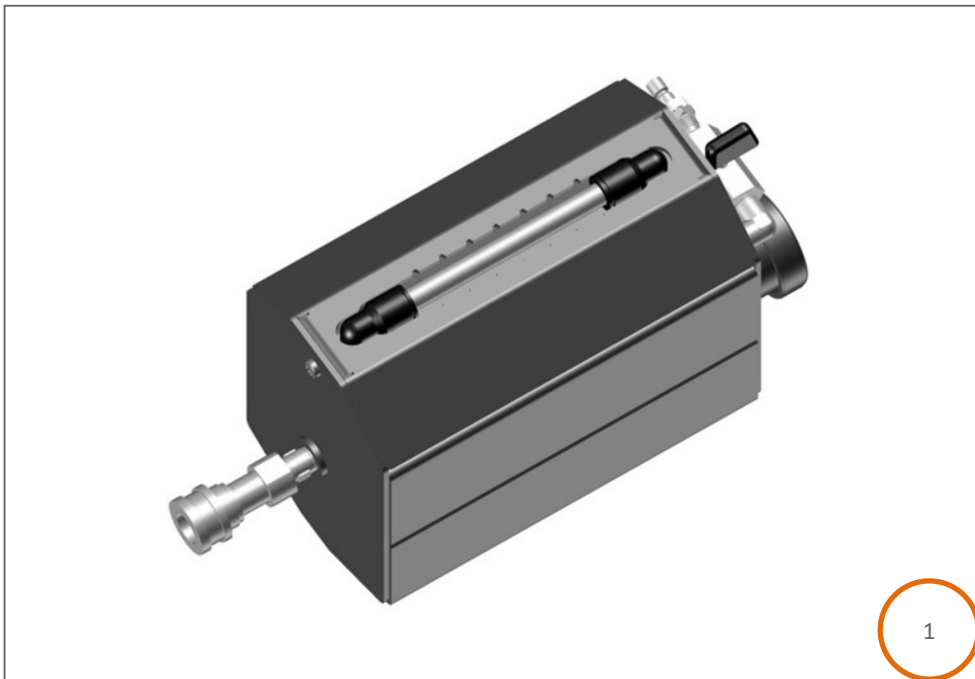
1. Check for any Diagnostic Trouble Codes (DTC) logged in the Engine Control Module (ECM) and Powertrain Chassis Control Unit (PCCU) and attach results to the Work Package.

**Care point:** Replacement tyre spoilers are chargeable to the customer.

**Care point:** If the vehicle is fitted with a McLaren Special Operations front bumper or a Non standard front bumper, then raise a technical request after the proceeding checks have been carried out.

2. Check that the tyre spoilers are fitted and are in good condition, as missing or damaged tyre spoilers can affect cooling performance, which may cause the vehicles cooling system to run one to three degrees higher when driven on a track. Please refer to AA-RM-02A04-04-006 - Remove/install tyre spoilers, front guide vanes, rear guide vanes if replacement is required. Replacement is chargeable to the customer.

3. Check the coolant displacement using the coolant displacement tool 11S4797CP (1), and make a note of the results. The displacement should not exceed 800ml, if the displacement exceeds 800ml this indicates that the cooling system contains air. Pro-



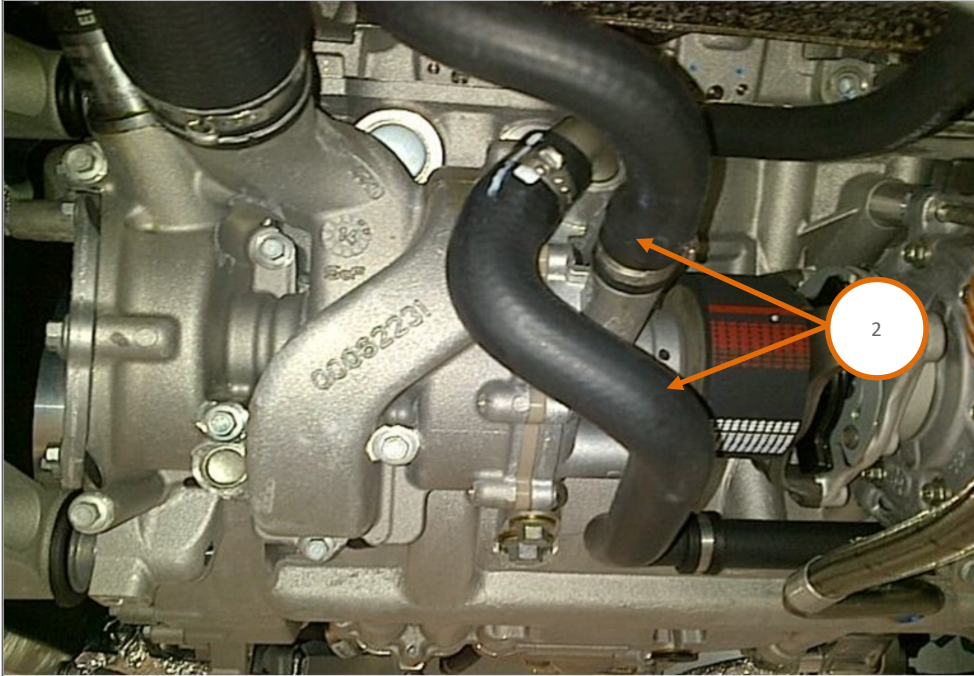
4. Check for coolant leaks.

5. Check the Low and High temperature radiators for debris that could affect airflow through the radiators.

## Water Pump Test

**Care point:** Ensure the cooling system has cooled down to a coolant temperature of less than 60 °C .

6. Clamp the two coolant pipes that relate to the low temperature cooling circuit at the water pump (2).



7. Remove the two coolant pipes from the water pump (2).

8. Only a cup full of coolant should come out of the water pump, if coolant keeps coming out, then the water pump internal seal is leaking and the water pump must be replaced. Please refer to AA-RM-03L01-01-003 - Remove/install water pump.

9. If no coolant comes out from the water pump, attach a coolant pressure tester and apply 1 bar pressure.

10. If coolant comes out the water pump then the internal seal is leaking. The water pump must be replaced. Please refer to AA-RM-03L01-01-003 - Remove/install water pump.

**Care point:** If the water pump passes the test, please submit a Technical Request with your results.

11. If no coolant comes out from either test, the water pump is ok.

### McLaren 650S Coolant Reservoir Installation Procedure

12. McLaren 650S coolant reservoir has improved degassing of the engine cooling system.

13. You will need to modify the existing engine degas pipe to allow the coolant reservoir 11L0379CP to be installed.

14. Please refer to AA-RM-03L01-01-002 - Remove/install reservoir – Coolant.

**Care point:** Ensure you include the curved part of the hose when you measure the 140mm.

15. Measure 140mm from the end of the pipe and then cut that piece of pipe as below (3).

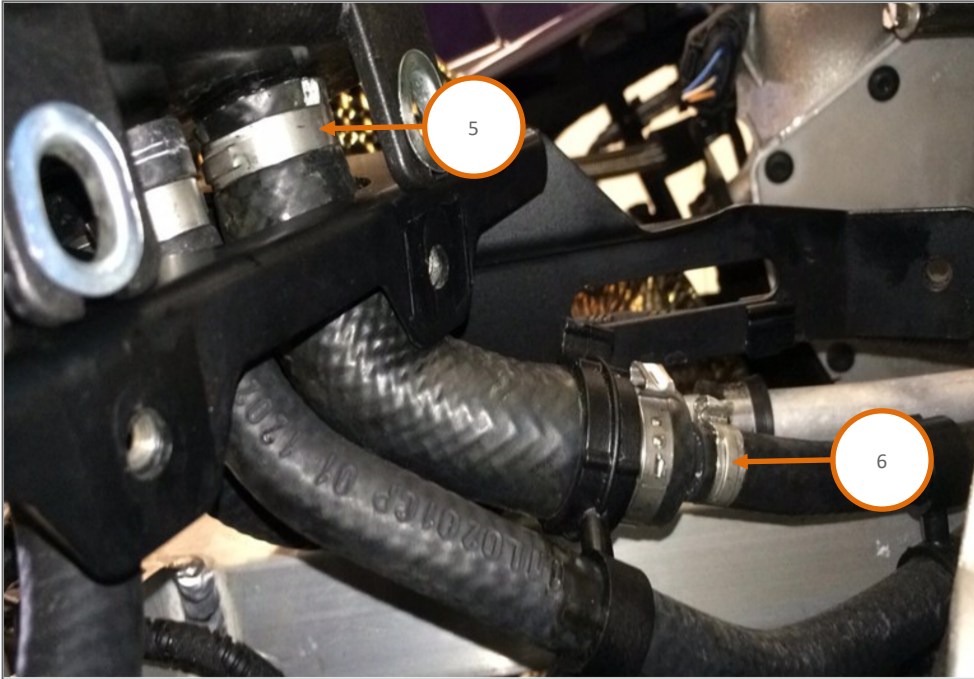


16. Take the new degas hose 11F1468CP and remove the spigot from the new hose (4) the remainder of the hose can be discarded.





17. Install the spigot onto the existing degas hose currently fitted onto the engine with a new clip 11F1003CP 16.2mm (5) and install the new coolant reservoir and then connect the new hose onto the coolant reservoir with clip 11F1012CP 27.1mm (6).



18. Please refer to the Fill Fluid-Coolant procedure which is located in AA-RM-03L01-01-005 - Drain/fill fluid – coolant section.

19. Carryout another coolant displacement check to ensure you do not exceed 800ml. If you exceed the 800ml then re-bleed the cooling system.

20. Road test the vehicle and recheck the coolant level once the vehicle has cooled down.

**Cooling Track Pack Kit Contents**

Parts	Quantity
Water Pump	1
Header Tank	1
Degas Hose Assembly	1
Engine Water Pump Gasket	1
Gasket water Pump Engine Cover	1

**Warranty information:** Claim and additional 3.00 hrs to replace the water pump and install the McLaren 650S coolant reservoir and engine degas hose.

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

## WARRANTY INFORMATION

DESCRIPTION	RESOLUTION CODE	TOTAL REPAIR TIME
Track Cooling Pack	E0 Powertrain F1 Power Unit 01 Power Unit 80 Water Pump - Engine A1 Mechanical 1A Broken 00 Undefined/Abuse 09 McL Use Only	1.40 hours

## PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY	ORDER PROCESS
Cooling Track Pack	11F2322CP	1	Unipart
Hose clamp	00RB089CP	1	Unipart
Hose clamp	00RB138CP	1	Unipart
Hose clamp	11F1012CP	1	Unipart
Hose clamp	11F1010CP	3	Unipart
Hose clamp	11F1003CP	3	Unipart