McLaren Artura Transmission Oil Leak Diagnosis Guide

Document Information

Location: Powertrain / Hybrid

Topic: McLaren Artura Transmission Oil Leak Diagnosis Guide

Condition: N/A

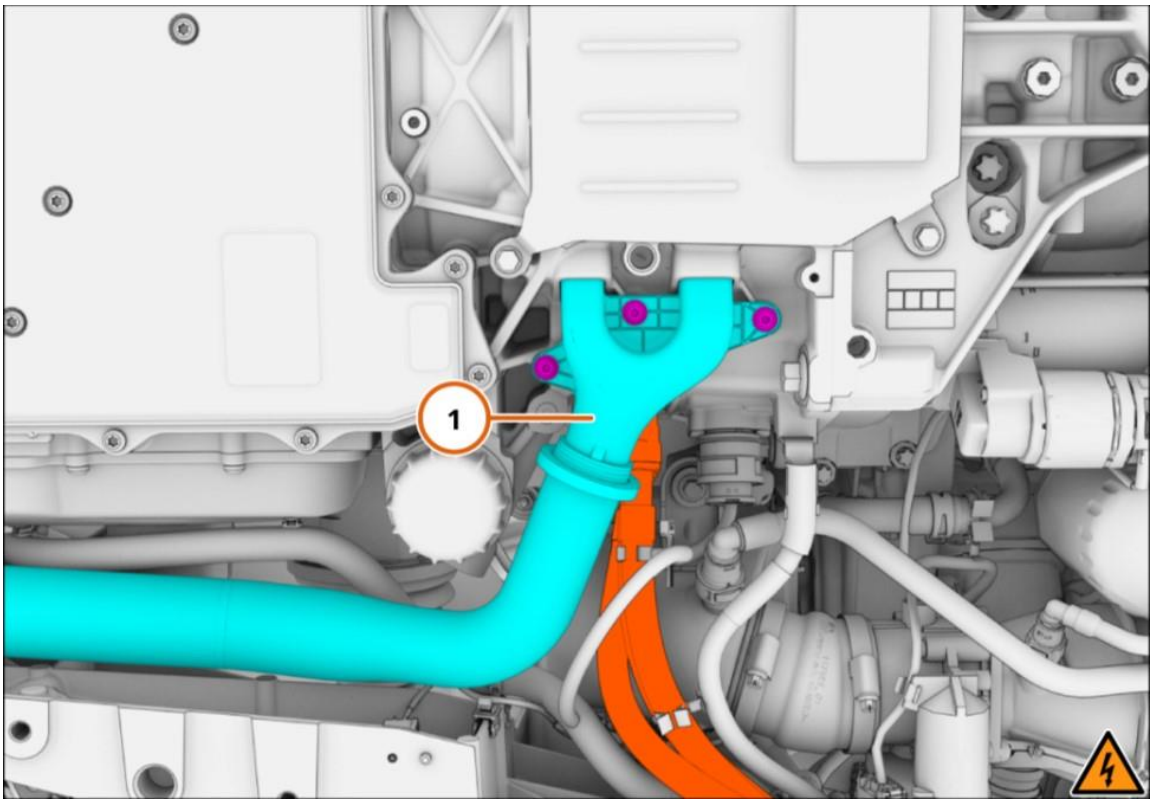
Diagnostic Trouble Codes: N/A

Measure

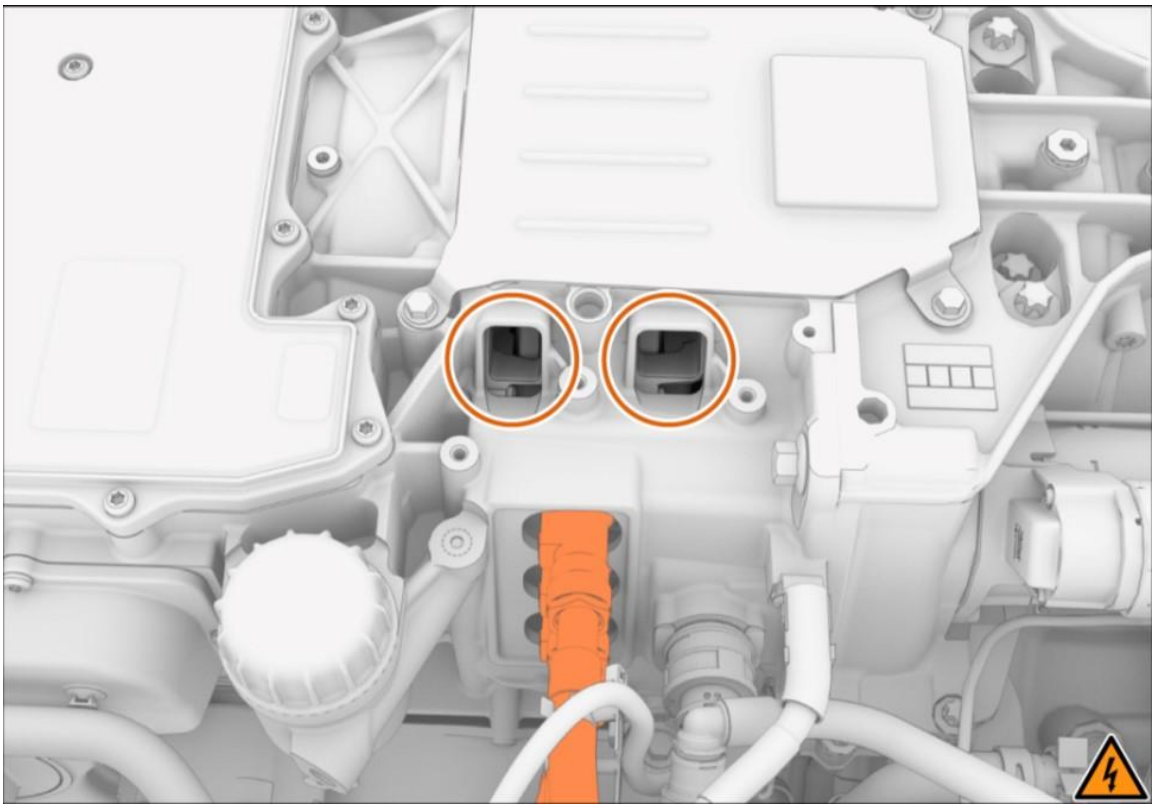
This guide will help to correctly diagnose oil leaks identified on the transmission of the McLaren Artura. With the integration of the hybrid power unit (eMotor) in the transmission, there are different oils that need to be identified to identify where the leak may be coming from.

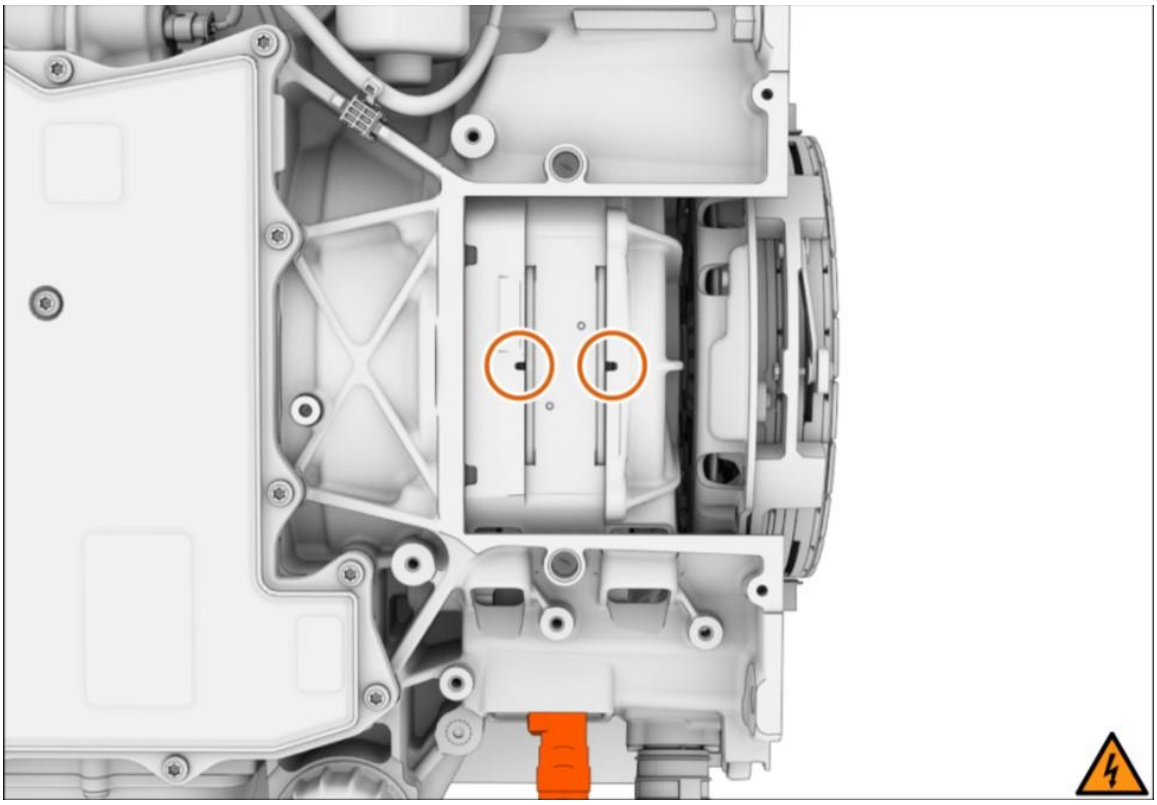
If a McLaren Artura is found to have oil traces on the underside of the vehicle behind the transmission NVH cover, please follow the steps below to evaluate.

1. Raise vehicle on ramp as per SIS instructions
2. Remove engine underfloor
3. Capture images prior to any cleaning (before and after removing transmission NVH cover), clearly showing the leaking area. Label images: “Pre-Cleaning”
4. Take picture of transmission serial number and eMotor serial number (add images of serial numbers)
5. Check dielectric oil and record level when vehicle cold, top up to maximum level according to service portal instructions if necessary
6. Remove air cooling duct (1), refer to McLaren Service Portal instructions REMOVE/INSTALL AIR COOLINGASSEMBLY - ROTOR



7. Clean inside transmission casing through areas circled thoroughly using degreaser/solvent until clean, then dry gently with compressed air





8. Clean transmission NVH cover with degreaser/solvent, make sure NVH foam is not damaged, replace foam if necessary

9. Capture images of post clean

10. Start engine and run at 3000 RPM, in comfort, until transmission oil temp reaches 80 degrees then run varied rpms;

1000 RPM - 30 secs
2000 RPM - 30 secs
4000 RPM - 30 secs
1500 RPM - 15 secs
6000 RPM - 15 secs
1000RPM – 60 secs

11. Turn off engine and allow vehicle to stand for 20 minutes on the ramp in preparation for inspection

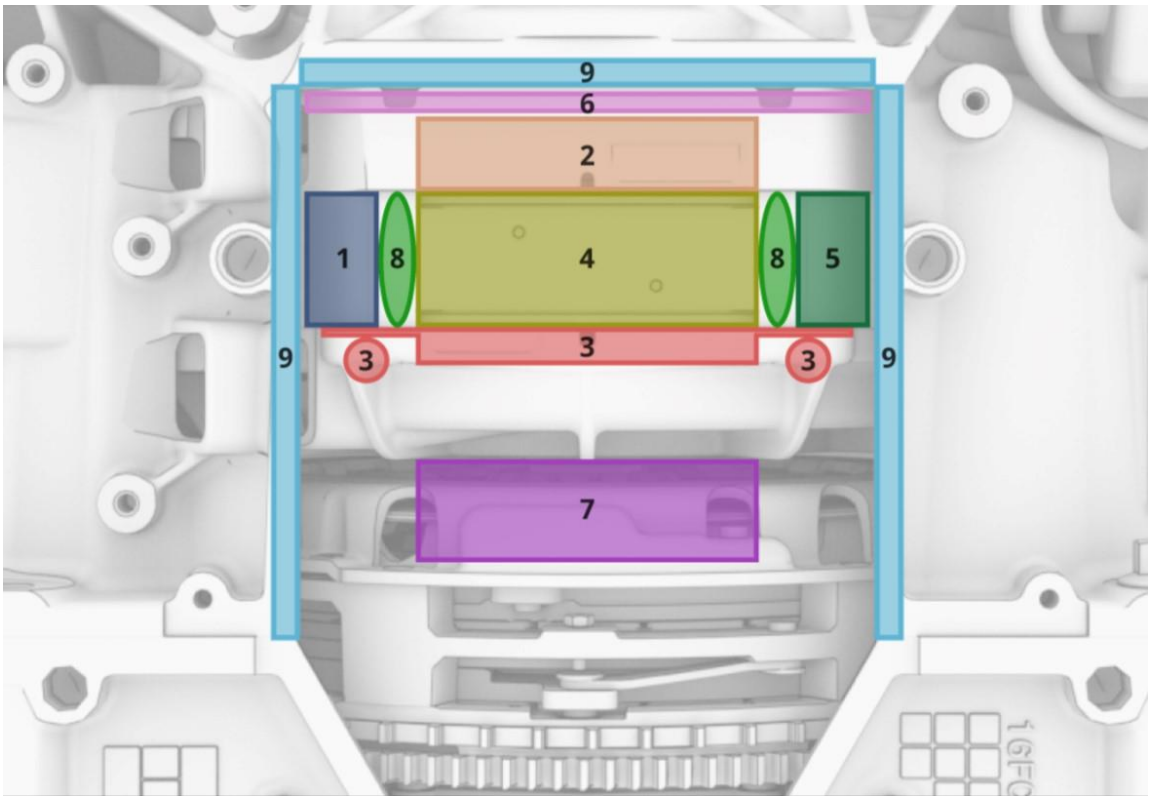
12. Inspect transmission. Capture images and label image folder "Cycle 1", apply UV light and capture images and label image folder “Cycle 1 UV”. Clean area again thoroughly, capture images and label image folder "After Cycle

13. Complete warm up/cool down cycle and inspection a further 4 times capturing images. Name image folders respectively;

    - “Cycle 2", “Cycle 2 UV” & "Post Cycle 2 (after cleaning)" "Cycle
    - 3", “Cycle 3 UV” & "Post Cycle 3 (after cleaning)"
    - "Cycle 4", “Cycle 4 UV” & "Post Cycle 4 (after cleaning)"
    - "Cycle 5", “Cycle 5 UV” & "Post Cycle 5 (after cleaning)"

Care Point: If no leak visible after cycle 5, please leave the vehicle overnight and recheck area for any signs of an oil leak.

14. If leak continues post Cycle 5 please fill in table in accordance with the leak path map below, check dielectric oil level when vehicle has cooled down and attach table, dielectric oil level and all images to a TR
If no leak present after overnight dwell period, no further action required.



	Oil Types				
Location	Clear dielectric oil, no UV reaction	Yellow tinge dielectric oil, hint of UV	New transmission oil, golden, green UV reaction	New engine oil, green UV	Red grease
1 Dark Blue					
2 Orange					
3 Red					
4 Yellow					
5 Dark Green					
6 Pink					
7 Purple					
8 Light Green					
9 Light Blue					

Parts Information

N/A

Atachments

N/A

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