

McLaren P1 & Speedtail HAD Shaft Seal Leaks

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Document Information

Location: Powertrain

Topic: McLaren P1 & Speedtail HDA Shaft Seal Leaks

Condition: Fluid leak present on input shaft seal and motor shaft seal

Diagnostic Trouble Codes: N/A

Measure

During long periods of vehicle storage or display, a low-level clutch fluid leak can occur through the shaft seals of the vehicle's Hybrid Drive Assembly (HDA). This is normal when the vehicle is left parked/unused for extended periods of time and does not indicate a specific fault is present.

A leak from the HDA seals can manifest itself at the rear floor underneath the vehicle.



Image 1 Clutch fluid present at the rear floor of the vehicle

If this condition is identified during inspection, follow the procedure below to confirm if the leak requires rectification:

1. Remove rear floor and the transmission NVH cover
2. Clean the area removing all the oil present on the floors, NVH cover and any internal surface visible within the transmission

Care Point: Use absorbent cloths/sheets to remove fluid from the NVH foam (nitto foam) so as not to damage it
Care Point: Do not remove the NVH foam from the cover during cleaning process



3. Carry out 2 warm up cycles: Run the engine up to operating temperature then allow to cool for 20 minutes. Then run up to operating temperature again and switch off the vehicle
4. Leave vehicle to stand overnight with a clean piece of paper under the opening for the transmission NVH cover
5. If no further clutch fluid has actively leaked on to the paper, no replacement of parts are required. Go to step 7
6. If the same or more clutch fluid is present, please proceed to order seal kit 12GA014CP and replace all seals in the kit following the relevant McLaren Service Portal instructions Hybrid Drive Assembly (HDA) Repair

Care Point: 13 items of tooling are required to complete the repair procedure, please check on the table under parts information that you have all the necessary tools to complete the repair

7. Follow McLaren Service Portal instructions Drain/Fill Oil - Clutch to ensure the system has the correct volume of fluid

Parts Information

12GA014CP - Hybrid Drive Assembly Seal Kit

Tooling required listed below

MAL PART NUMBER	DESCRIPTION	ADDITIONAL INFORMATION
23SA520CP please check your stock before ordering	TOOLING ASSY. - MULE EMOTOR GEAR SEAL	Tooling existed within 12GA007CP,
23SA521CP please check your stock before ordering	TOOLING ASSY. - CLUTCH GEAR SEAL	Tooling existed within 12GA007CP,
12SA032CP	TOOL - HVAC SEAL INSTALL	
12SA033CP	TOOL - HVAC SEAL MANDREL	
12SA034CP	PRESS TOOL - HVAC COVER FITTING	
12SA035CP	PRESS TOOL - HVAC COVER GUIDE	
12SA036CP	TOOL - SQUARE DRIVE SOCKET	
12SA037CP	PRESS TOOL - HVAC DGB BEARING	
12SA038CP	TOOL - BEARING BASE	
12SA039CP	PRESS TOOL - HVAC BEARING	
12SA040CP	TOOL - HVAC PULLEY REMOVAL	
12SA041CP	TOOLING ASSY. - TENSIONER	
12SA044CP	TOOLING ASSY. - HVAC DRIVEN PULLEY	

In addition to the McLaren supplied tooling, please source locally the following tools

PART DESCRIPTION	ADDITIONAL INFORMATION
PULLER TOOL 8 x 1.25mm thread	SLIDE HAMMER required
SONIC TENSION METER	100Hz - 300Hz minimum range required

Attachments

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