Part 573 Safety Recall Report 24V-712

Manufacturer Name : Aston Martin The Americas
Submission Date : SEP 30, 2024
NHTSA Recall No. : 24V-712
Manufacturer Recall No. : RA-03-1973

Manufacturer Information :

Manufacturer Name : Aston Martin The Americas
Address : Banbury Road
Gaydon Warwick, United Kingdom 00
CV35 0DB
Company phone : 999

Population :

Number of potentially involved : 1,095
Estimated percentage with defect : 1 %

Vehicle Information :

Vehicle 1 : 2024-2025 Aston Martin DBX707
Vehicle Type : LIGHT VEHICLES
Body Style : SUV
Power Train : GAS
Descriptive Information : Aston Martin manufactured 336 DBX 707 vehicles intended for sale in the USA with a potentially defective oil cooler hose between October 2022 and July 2024. Aston Martin manufactured a further 1348 DBX 707 vehicles for sale in other countries between September 2022 and July 2024 with the same oil cooler hose.
Of those vehicles, 2 US vehicles and 7 in other countries have had failures and had replacement parts installed.
Previously, 2 US vehicles and 6 in other countries have had failures of the same oil cooler hose due to a different failure mode and had replacement parts installed. A campaign was launched NHTSA 24V249000 that affected 720 US vehicles.

Production Dates : OCT 11, 2023 - JUL 03, 2024
VIN Range 1 : Begin : SD7VUJBW3PTV07145 End : SD7VUJDW5STV11641 ☐ Not sequential

Vehicle 2 :	2024-2025 Aston Martin DB12
Vehicle Type :	LIGHT VEHICLES
Body Style :	2-DOOR
Power Train :	GAS
Descriptive Information :	Aston Martin manufactured 336 DBX 707, 719 DB12 and 40 Vantage vehicles intended for sale in the USA with a potentially defective oil cooler hose between October 2022 and July 2024. Aston Martin manufactured a further 1348 DBX 707, 1838 DB12 and 163 Vantage vehicles for sale in other countries between September 2022 and July 2024 with the same oil cooler hose. Of those vehicles, 2 US vehicles and 7 in other countries have had failures and had replacement parts installed. Previously, 2 US vehicles and 6 in other countries have had failures of the oil cooler hose due to a different failure mode and had replacement parts installed. A campaign was launched (RA-03-1926 / NHTSA 24V249000) that affected 720 US vehicles (2054 worldwide).
Production Dates :	JAN 09, 2023 - JUN 13, 2024
VIN Range 1 :	Begin : SCFRMFFWXRGL12052 End : SCFRMFGW7SGM14767 ☐ Not sequential

Vehicle 3 :	2025-2025 Aston Martin Vantage
Vehicle Type :	
Body Style :	
Power Train :	NR
Descriptive Information :	Aston Martin manufactured 336 DBX 707, 719 DB12 and 40 Vantage vehicles intended for sale in the USA with a potentially defective oil cooler hose between October 2022 and July 2024. Aston Martin manufactured a further 1348 DBX 707, 1838 DB12 and 163 Vantage vehicles for sale in other countries between September 2022 and July 2024 with the same oil cooler hose. Of those vehicles, 2 US vehicles and 7 in other countries have had failures and had replacement parts installed. Previously, 2 US vehicles and 6 in other countries have had failures of the oil cooler hose due to a different failure mode and had replacement parts installed. A campaign was launched (RA-03-1926 / NHTSA 24V249000) that affected 720 US vehicles (2054 worldwide).
Production Dates :	JAN 04, 2024 - MAY 23, 2024
VIN Range 1 :	Begin : SCFSMGFW9SGN08898 End : SCFSMGFW0SGN08918 ☐ Not sequential

Description of Defect :

Description of the Defect :	A variable control of pressure during the extrusion process can cause inconsistencies in the inner wall thickness of the oil cooler hose. When the hose is fitted to the mandrel to be shaped, these inconsistencies can be torn or folded causing scoring to the inner wall of the hose. These scores can become weak spots during the temperature and pressure pulsation of the oil hoses that occurs during vehicle operation. Oil cooler hoses manufactured with this defect may be prone to split with a resulting loss of oil and oil pressure. This potential defect is not detected by the supplier's 25 bar end of line pressure test.
FMVSS 1 :	NR
FMVSS 2 :	NR
Description of the Safety Risk :	On affected vehicles, certain oil hoses for the engine oil cooler may be prone to split with a resulting loss of oil and oil pressure. Sudden and rapid loss of oil and oil pressure could lead to the engine stalling or seizing which could increase the risk of accident or fire (in the presence of an ignition source). Aston Martin has not received any report of an accident or injury caused by this defect.
Description of the Cause :	The root cause results from an inconsistent inner diameter of the hose. A variation in pressure control during the manufacturer's extrusion process can cause "ribbing" . When the hoses are fitted to the mandrel to be shaped, these "ribs" can become folded or torn. This can lead to score marks on the inner wall of the hose. The oil system of the vehicle pressurises and depressurises each time the engine is started, and the pressure also varies during normal usage. Over time, these scored areas can become weak points in the inner wall of the hose and then split due to the repeated temperature and pressure pulsation.
Identification of Any Warning that can Occur :	After failing, a warning message may show on the instrument panel to warn of low oil level and pressure. After failing, the driver may also see smoke from the engine bay area.

Involved Components :

Component Name 1 :	ENG OIL COOL HS ASY
Component Description :	HOSE ASSEMBLY, OIL COOLER INLET
Component Part Number :	PY83-6B747-CB

Component Name 2 :	ENG OIL COOL HS ASY
Component Description :	HOSE ASSEMBLY, OIL COOLER OUTLET
Component Part Number :	PY83-6B748-CB

Supplier Identification :

Component Manufacturer

Name :	Imperial Auto Industries
Address :	Plot 8A-B, Krishna Nagar, Sector 20, Faridabad, Haryana Foreign States 121006
Country :	India

Chronology :

1. 22nd April 2024, a split hose was reported on a DBX707. This opened an investigation.
2. On the 3rd of June 2024 and 17th of June 2024, 3 DB12s were reported to have suffered the same split hose.
3. It was identified that the failures were due to a manufacturing defect during the extrusion process. Temperature and pressure pulsation can cause the hose to split during vehicle operation.
4. 16th June 2024 borescope inspection process of the hoses introduced.
5. 22nd June 2024 a robust mechanical lock system was introduced on the pressure regulator in the supplier's manufacturing process to ensure consistent inner diameter of hose.
6. The Company's Technical Review Group (TRG) met regularly throughout the investigation.
7. The Company's Critical Concerns Review Group (CCRG) met on 04/09/2024 to assess the nature and scope of potential concerns related to the oil cooler hose.
8. The CCRG reviewed the technical data and recommended the matter should be reviewed by the Recall Committee.
9. The Recall Committee convened on 11/09/2024 and determined that:

a) a potential defect could occur in the relevant vehicle population;
b) this defect could lead to a potential safety risk; and
c) a second voluntary safety recall of all affected vehicles be implemented.

10. Aston Martin recall campaign RA-03-1926 is not related to RA-03-1973. However any vehicle repaired in RA-03-1926 prior to 15th of August 2024 will not have used the latest level of parts and therefore those vehicles are included in RA-03-1973.

Description of Remedy :

Description of Remedy Program :	Aston Martin will replace the hoses with new parts for the oil cooler on all affected vehicles.
How Remedy Component Differs from Recalled Component :	A robust and repeatable manufacturing process was introduced in June 2024 to make sure consistent hose wall thickness/inner diameters were produced which corrects the rib condition. A borescope inspection processes for each hose manufactured was also introduced at this time. A sample of each batch produced is tested using temperature and pressure pulsation.
Identify How/When Recall Condition was Corrected in Production :	16th June 2024 a borescope inspection process of the hoses was introduced. 22nd June 2024 a more robust mechanical lock system was introduced on the pressure regulator in the supplier's manufacturing process to ensure consistent inner diameter of hose.

Recall Schedule :

Description of Recall Schedule :	It is Aston Martin's intention to notify all customers. Aston Martin will provide copies of the notification schedule, including mail dates for the owner letter, when available.
Planned Dealer Notification Date :	SEP 24, 2024 - MAR 31, 2025
Planned Owner Notification Date :	OCT 07, 2024 - MAR 31, 2025

* NR - Not Reported