

Part 573 Safety Recall Report

21V-716

Manufacturer Name : Volvo Car USA, LLC**Submission Date :** SEP 15, 2021**NHTSA Recall No. :** 21V-716**Manufacturer Recall No. :** R10120**Manufacturer Information :**

Manufacturer Name : Volvo Car USA, LLC

Address : 270 Three Point Drive
Ridgeville SC 29472

Company phone : 201-768-7300

Population :

Number of potentially involved : 9

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2021-2021 VOLVO S90L

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : Supplier Continental Teves AG&CO. oHG informed Volvo of serial number range of potential faulty Hydraulic Units. 9 VINS affected for sold vehicles in the US. Only these VINS were equipped with this specific Hydraulic Unit.

Production Dates : NOV 02, 2020 - DEC 12, 2020

VIN Range 1 : Begin : LVYPDL1D7MP210929 End : LVYPDL1D4MP216445 Not sequential

Vehicle 2 : 2020-2021 VOLVO XC60

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : HYBRID ELECTRIC

Descriptive Information : Supplier Continental Teves AG&CO. oHG informed Volvo of serial number range of potential faulty Hydraulic Units. 9 VINS affected for sold vehicles in the US. Only these VINS were equipped with this specific Hydraulic Unit.

Production Dates : JUN 14, 2019 - MAR 08, 2021

VIN Range 1 : Begin : LYVUZBMVDLB427444 End : YV1LF06E7M1717827 Not sequential

Vehicle 3 : 2020-2021 VOLVO XC90

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : HYBRID ELECTRIC

Descriptive Information : Supplier Continental Teves AG&CO. oHG informed Volvo of serial number range of potential faulty Hydraulic Units. 9 VINS affected for sold vehicles in the US. Only these VINS were equipped with this specific Hydraulic Unit.

Production Dates : MAY 16, 2019 - NOV 27, 2020

VIN Range 1 : Begin : YV1LFBMTDL1531733 End : YV1LF06E7M1717827 Not sequential

Description of Defect :

Description of the Defect : There may be a risk that the welding between the motor's rotor shaft and the magnet package (armature) can partially or fully be missing. The welding defect can potentially result in a failure if magnet segments aren't sufficiently welded. The risk of the potential slip between the motor shaft and the magnet package is likely to appear suddenly in situations when high motor torque* is requested and/or in combination with high motor rpms. Decreased motor performance will be detected and result in a redundant hydraulic fall back.

- No brake boost
- ABS disabled
- ESC disabled
- All other hydraulic control functions are disabled except EBD (Electronic brake force distribution)
- Red Brake warning light, ABS and ESC warning light activated.
- IPB (Integrated parking brake) related functions remain active. FSI (Fallback Support by IPB) available.

*high motor torque is requested when a high pressure and/or pressure gradient are required. Those situations are relatively rare i.e. hard emergency braking.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : There may be a risk that the welding between the motor's rotor shaft and the magnet package (armature) can partially or fully be missing. The welding defect can potentially result in a failure if magnet segments aren't sufficiently welded. The risk of the potential slip between the motor shaft and the magnet package is likely to appear suddenly in situations when high motor torque* is requested and/or in combination with high motor rpms. Decreased motor performance will be detected and result in a redundant hydraulic fall back.

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 - IPB (Integrated parking brake) related functions remain active. FSI (Fallback Support by IPB) available.
- *high motor torque is requested when a high pressure and/or pressure gradient are required. Those situations are relatively rare i.e. hard emergency braking. This can result in serious injury or crash conditions. Volvo Cars centrally has not received any reports alleging injuries, fatalities, or crashes related to this condition.

Description of the Cause : The welding between the motor's rotor shaft and the magnet package (armature) can partially or fully be missing.

Identification of Any Warning that can Occur : Red Brake warning light, ABS and ESC warning light activated. Based on theoretical study at the supplier shows that hydraulic fall back will be set if the failure occurs. This will require a higher pedal force and longer pedal travel resulting in less deceleration than normal.

The redundancy requirement in case of hydraulic unit failure is still fulfilled. In case of failure, it occurs suddenly and without any prior warning. No active support functions are available except EBD (Electronic Brake force Distribution). The brake ECU (Electronic Control Unit) is still working properly, so communication with other ECU's are available.

Volvo Cars centrally has not received any reports alleging injuries, fatalities, or crashes related to this condition.

Involved Components :

Component Name 1 : Hydraulic Unit

Component Description : Hydraulic Unit (Brake System/Hydraulic Unit)

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : Continental Teves AG&CO. oHG

Address : Guerickestr.7
Frankfurt am Main Foreign States 60488

Country : Germany

Chronology :

June 17th - Aug 25th lack of information from Conti regarding potential severity of this issue, creating potential delayed communication with NHTSA. Aug 26th – VCUSA receives the inquiry from NHTSA that Conti filed a 573 report. Aug 27th – VCC Gothenburg (PCO) receives the 573 report and sets up an internal meeting and begins an investigation in to how this impact Volvo vehicles. VCC contact Conti asking why VCC is in this report. Aug 30th – Meeting with Conti to get requested information why there is no risk for the Volvo vehicles. Aug 31st - email from Conti apologizing for the miscommunication regarding the potential severity of the issue, creating potential delayed communication with NHTSA. Sep 1st - VCUSA meeting with NHTSA. Sep 8th – Condition considered as Critical by Critical Concern Management Team. Sep 15th – Field action decision confirmed by Volvo Car Corporation. Sep 16th – Implementation date. Condition detected by Supplier. Number of vehicles reports with the condition, reported to Volvo Cars from National Sales Company zero (0). Total number of cars included in Vehicle Reports concerning the condition zero (0).

Description of Remedy :

Description of Remedy Program :	To remedy the concerned vehicles, Volvo Cars will replace the Hydraulic Unit, free of charge to the customer.
How Remedy Component Differs from Recalled Component :	Improved part – Hydraulic Unit with sufficient welding.
Identify How/When Recall Condition was Corrected in Production :	New Improved part for the identified recall vehicles which were sold to customers. All other parts stock were updated prior to any VINS assembled with a Hydraulic Unit.

Recall Schedule :

Description of Recall Schedule :	Remedy Notices
Planned Dealer Notification Date :	SEP 15, 2021 - SEP 15, 2021
Planned Owner Notification Date :	NOV 12, 2021 - NOV 12, 2021

* NR - Not Reported