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GROUP: 23 - Body

DATE: August 25, 2020

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SUBJECT:

Rear Heater Coolant Tube Repair

OVERVIEW:

This bulletin involves inspecting and possibly repairing the rear heater coolant return tube.

MODELS:

2018 - 2020 (WD) Dodge Durango

NOTE: This bulletin applies to vehicles within the following markets/countries: North America, EMEA and LATAM.

SYMPTOM/CONDITION:

Customers may comment on one or more of the following:

- A coolant leak or fluid appearing from under the vehicle.
- Elevated engine coolant temperature and/or indication of overheating.

DIAGNOSIS:

If the customer describes the symptom/condition listed, perform the Diagnostic Procedure.

1. Perform a cooling system pressure test. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info> 07 - Cooling/Diagnosis and Testing.
2. Raise and support the vehicle. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info> 04 - Vehicle Quick Reference/Hoisting/Standard Procedure.
3. Was coolant found to be leaking from the rear heater auxiliary coolant tubes at the engine/bulkhead area?
 - YES >>> Proceed to [Step 4](#) of the Diagnostic Procedure.
 - NO >>> Coolant was not leaking from this area. This Bulletin does not apply. Normal diagnosis should be performed.

4. Using a mirror, inspect the rear heater coolant return tube located above the transmission on the left side of the vehicle (Fig. 1) and (Fig. 2) , for contact on the transmission oil heater tube clamp.

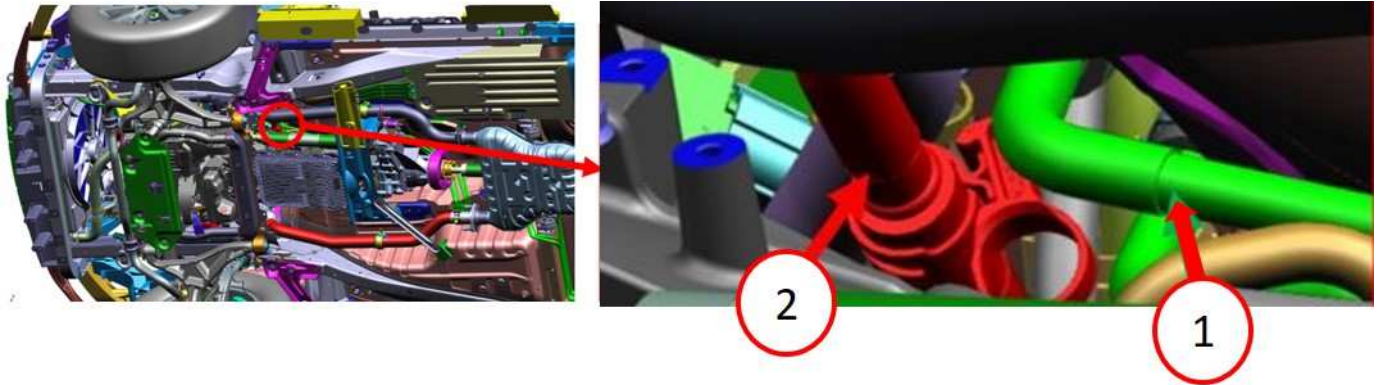


Fig. 1
Location Of Tubes

- 1 - Rear Heater Coolant Return Tube (Inspect This Tube)
2 - Transmission Oil Heater Tube

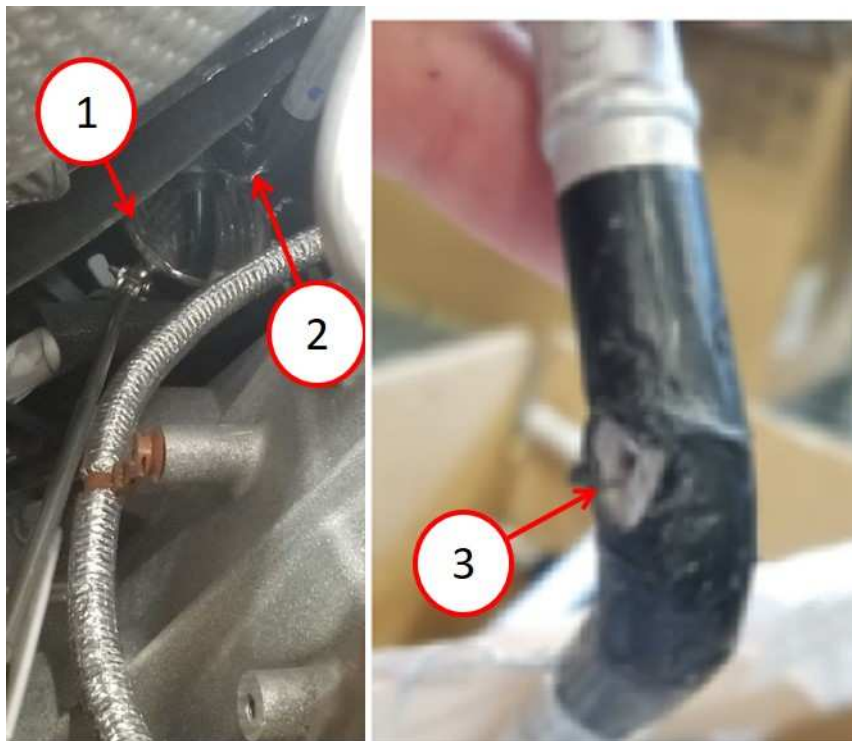


Fig. 2
Inspecting For Damage With Mirror

- 1 - Mirror
2 and 3 - Rear Heater Coolant Return Tube Damage/Leak

5. Are there any signs of a leak, deep wear, or gouging on the aluminum rear heater coolant return tube (Fig. 2) ?
- YES >>> Repair the rear heater coolant return tube. Proceed to [Step 1](#) of the Repair Procedure.
 - NO >>> Coolant is not leaking from the rear heater coolant tube. This bulletin does not apply. Further diagnosis should be performed.

PARTS REQUIRED:

Qty.	Part No.	Description
1 (AR)	05069003AA	1/2" Coupling, Line Repair Kit
1 (AR)	68319146AD	Coolant Tube, Outlet
2 (AR)	68103040AA	Clip, A/C Line Spacer 4-Way
(AR)	68163848AB	Mopar Antifreeze/Coolant 10 Year/150,000 Mile Formula OAT (Organic Additive Technology) meeting the requirements of Material Standard MS-90032

SPECIAL TOOLS/EQUIPMENT REQUIRED:

Equipment No.	Description
8456	A/C Line Repair Tool

REPAIR PROCEDURE:

1. Disconnect and isolate the negative battery cable.
2. Partially drain the engine cooling system. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info> 07 - Cooling/Standard Procedure.
3. Disconnect the heater hose from the underbody heater tube in circled area only (Fig. 3) .

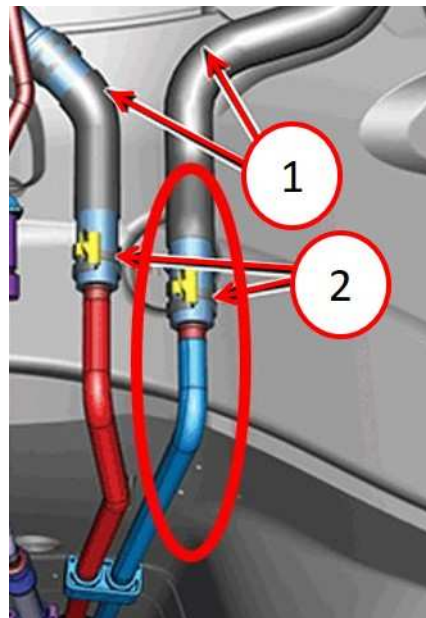


Fig. 3
Heater Hoses And Tubes

- 1 - Heater Hoses
- 2 - Underbody Heater Tube To Disconnect

NOTE: It may be necessary to heat exhaust fasteners to avoid damaging exhaust components.

4. Lower (**do not remove**) the transmission as necessary to access the rear heater coolant return tube. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info>21 - Transmission and Transfer Case/Automatic - 8HP70/Removal.
5. Partially remove the heat shield from the underbody (Fig. 4) .

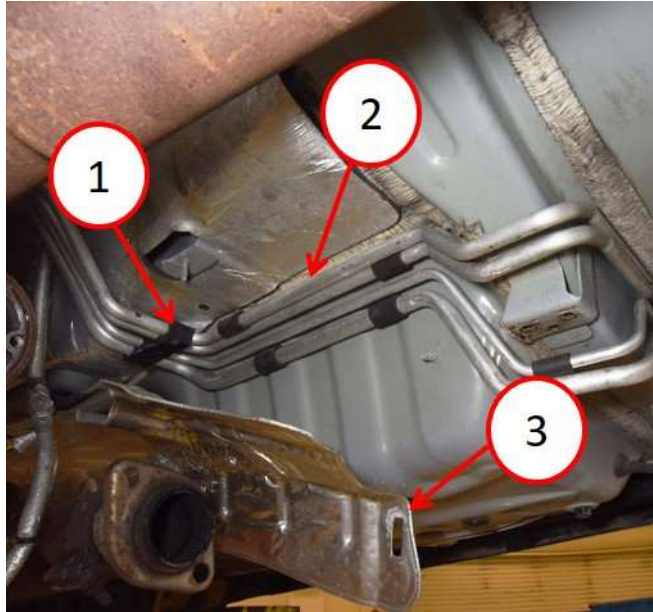


Fig. 4
Cut Line, Spacer And Heat Shield

- 1 - Four Way A/C Line Spacer Clip
 - 2 - Section Of Tube To Be Cut - Cut Line Location
 - 3 - Heat Shield
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6. Remove and discard the two A/C line spacer clips from the lines and tubes (Fig. 4) .
7. Disconnect the original rear heater coolant return tube from the upper heater hose.

CAUTION! Clean/buff both of the cut rear heater coolant return tube ends with a rotational motion around the tube to avoid longitudinal scratches in the tube. Failure to do so may result in a coolant leak.

- Using a suitable pipe cutting tool, measure and mark a cut location on the original rear heater coolant return tube on the vehicle half way on the straight section of the tube (Fig. 5) .

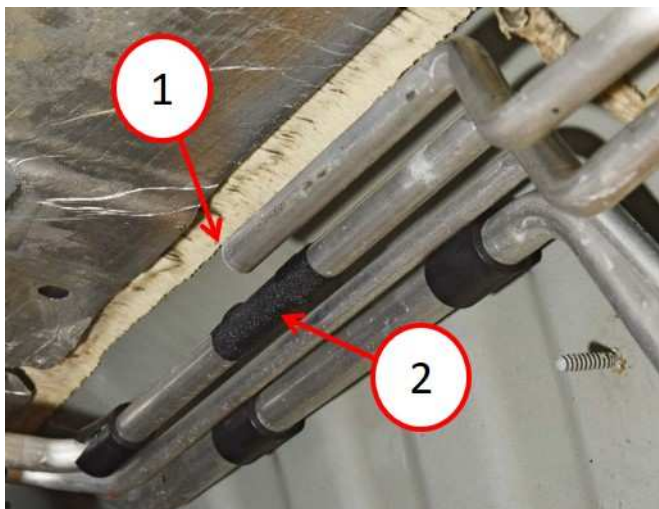


Fig. 5
Original Coolant Return Tube

- Cut Line On Original Coolant Return Tube
- Adjacent Tube Wrapped With Tape

- Wrap the adjacent tube with Tesa tape or equivalent, to prevent the tube splice from making contact with the tube (Fig. 5) .

NOTE: Do not replace the entire coolant return tube. The Repair Procedure is to repair the coolant return tube with a splice.

- Using a suitable small pipe cutter or equivalent cutting tool and the new coolant tube P/N **68319146AB**, mark and cut the line shown in (Fig. 6) in the same location as the new coolant return tube cut in Step 8.

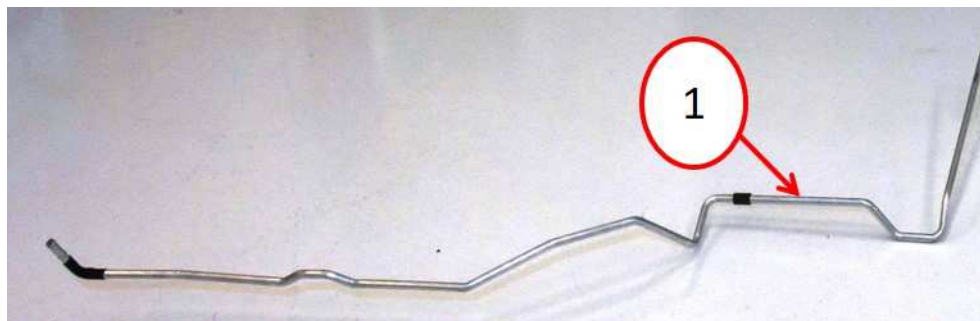


Fig. 6
New Coolant Return Tube

- Cut Line On New Coolant Return Tube

11. Using **coupling P/N 05069003AA**, **outlet coolant tube splice P/N 68319146AD** and the original rear heater coolant return tube on the vehicle cut in the previous step, splice the tubes together (Fig. 7) . Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info>24 - Heating and Air Conditioning/Plumbing, Rear/Lines, A/C Underbody/Standard Procedure.

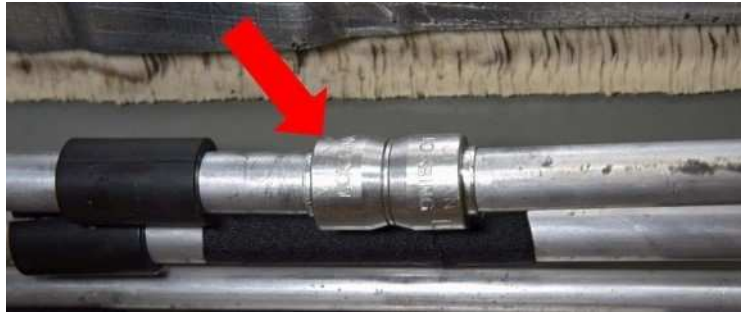


Fig. 7
Tube Splice

12. Connect the spliced rear heater coolant return tube to the upper heater hose on the vehicle.

CAUTION! Minimum spacing between the transmission oil heater clamp and rear heater coolant return tube is approximately 25 mm (.98 in.). Use a 22 mm (7/8 in.) socket, or socket of equivalent outside diameter as a gauge. Failure to space the tubes approximately 25 mm (.98 in.). Use a 22 mm (7/8 in.) may result in wear, or gouging in the aluminum rear heater coolant return tube.

13. Push the transmission oil heater tube forward to increase the clearance between the heater coolant return tube and transmission oil heater tube clamp (Fig. 8) .

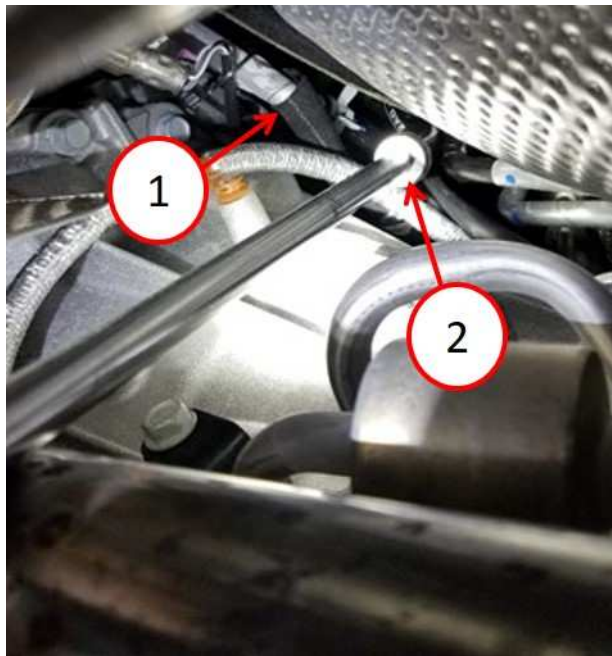


Fig. 8
Minimum Spacing Socket Location

- 1 - Transmission Oil Heater Tube
2 - 22 mm (7/8 in.) Socket

14. Install two new A/C line spacers on the tubes (Fig. 4) .
15. Install the heat shield on the underbody (Fig. 4) .
16. Raise the transmission into place. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info>21 - Transmission and Transfer Case/Automatic - 8HP70/Installation.
17. Lower the vehicle.
18. Connect the negative battery cable.
19. Pressure check the coolant system. Refer to the detailed service procedures available in DealerCONNECT>Service Library under: Service Info>07 Cooling / Diagnosis and Testing >Leak Testing>Pressure Tester Method.
20. Is coolant still leaking?
 - YES>>> Further diagnosis should be performed.
 - NO>>> This bulletin has been completed.
21. Top off the engine coolant. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info>07 - Cooling/Standard Procedure.
22. Start and warm the engine. Check for leaks.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
24-46-17-90	Coolant Return Tube, Rear Heater - Repair (2WD Vehicles Only) (1 - Semi-Skilled)	6 - Electrical and Body Systems	2.9 Hrs.
24-46-17-91	Coolant Return Tube, Rear Heater - Repair (4WD Vehicles Only) (1 - Semi-Skilled)	6 - Electrical and Body Systems	3.0 Hrs.

FAILURE CODE:

ZZ	Service Action
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