

Inspection of Fuel Tank Harness –  
Possible Connector Damage –  
Service Action S947

MODEL 2004 MY  
X-TYPE

VIN D55232-D70130

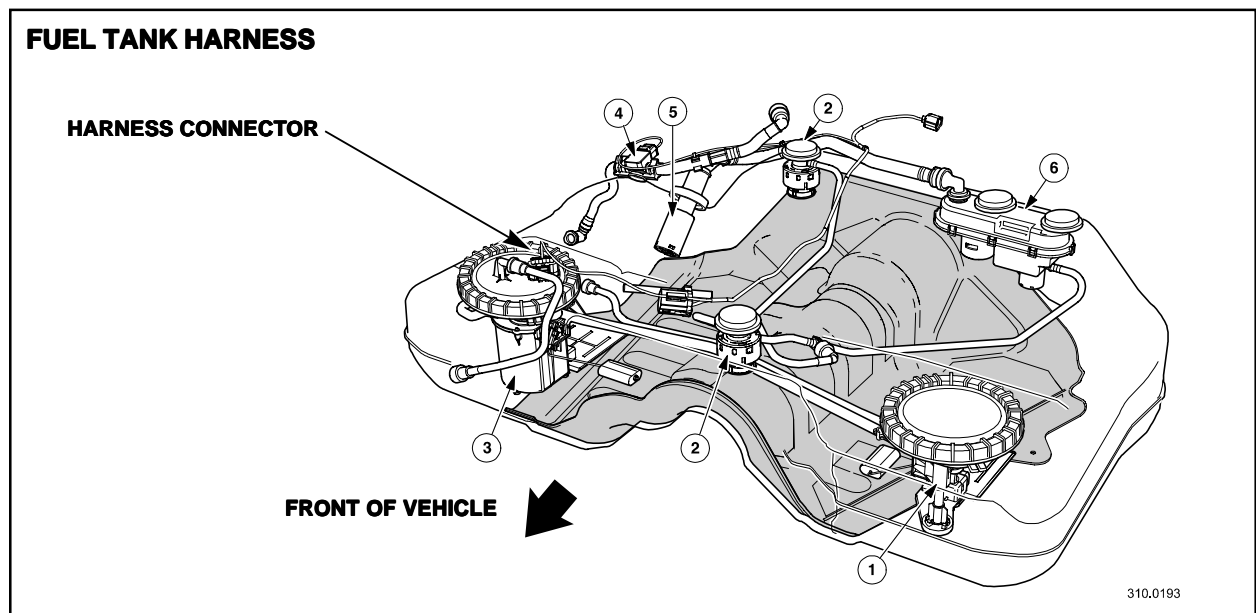
**Issue:**

A concern has been identified on a number of 2004 MY X-TYPE vehicles within the above VIN range. The fuel tank harness may have been damaged at the fuel pump connector joint during the manufacturing process. It is possible that water could enter the harness, resulting in corrosion of the connector. As a consequence the engine could cut out with the inability to restart.

**Action:**

Please ensure that the vehicles are eligible for repair completion by checking DDW prior to performing any inspection/rework activity.

Inspect the fuel tank harness for signs of damage on 2004 MY X-TYPE vehicles in the above VIN range. If harness damage is evident, replace the fuel tank harness link lead. Perform this repair at the first available opportunity.



**NOTE: THE INFORMATION IN TECHNICAL BULLETINS IS INTENDED FOR USE BY TRAINED, PROFESSIONAL TECHNICIANS WITH THE KNOWLEDGE, TOOLS, AND EQUIPMENT TO DO THE JOB PROPERLY AND SAFELY. IT INFORMS THESE TECHNICIANS OF CONDITIONS THAT MAY OCCUR ON SOME VEHICLES, OR PROVIDES INFORMATION THAT COULD ASSIST IN PROPER VEHICLE SERVICE. THE PROCEDURES SHOULD NOT BE PERFORMED BY "DO-IT-YOURSELFERS." DO NOT ASSUME THAT A CONDITION DESCRIBED AFFECTS YOUR CAR. CONTACT A JAGUAR RETAILER TO DETERMINE WHETHER THE BULLETIN APPLIES TO YOUR VEHICLE.**

## Workshop Procedure

1. Install fender protection kit.
2. Raise the vehicle on a suitable ramp to gain full access to the underside
3. From the underside of the vehicle, face rearward in line with the front of the fuel tank and slightly to your left of vehicle centerline as indicated in Illustration 1.



Illustration 1

4. Place an extended dental mirror up in front of the tank to the right of the left tank strap and to the left of the exhaust pipe as viewed by operator.
5. Shine flashlight up onto the mirror and look for the large white pump module cap. Maneuver the mirror until the link lead and/or fuel pipe are located, and focus in on the harness connector area.
6. Defective link leads have damage visible on the connector housing and/or wiring. The damage is usually at the yellow wire end of the connector block. However, you are requested to inspect all wires.
7. If no damage is present, no further action is required.

If damage is present, continue with step 7 to replace the fuel tank harness link lead.

### **WARNINGS:**

**Place the vehicle in a well-ventilated, quarantined area and arrange 'no smoking-gas fumes' signs about the vehicle.**

**Before any work is carried out on the fuel system, electrically ground the vehicle and maintain the ground connection until the work is complete.**

**Do not smoke or carry lighted tobacco or an open flame of any type when working on or near any fuel-related components. Highly flammable vapors are always present and may ignite. Failure to follow these instructions may result in personal injury.**

**Do not carry or operate cellular phones when working on or near any fuel-related components. Highly flammable vapors are always present and may ignite. Failure to follow these instructions may result in personal injury.**

**This procedure involves fuel handling. Be prepared for fuel spillage at all times and always observe fuel-handling precautions. Failure to follow these instructions may result in personal injury.**

8. Disconnect the battery (see Workshop Manual, section 414-01).
9. Remove the fuel filler cap.
10. De-pressurize the fuel system (see Workshop Manual, section 310-00).
11. Remove the rear seat cushion (see Workshop Manual, section 501-10).

12. Detach the wiring harness grommet (Illustration 2).

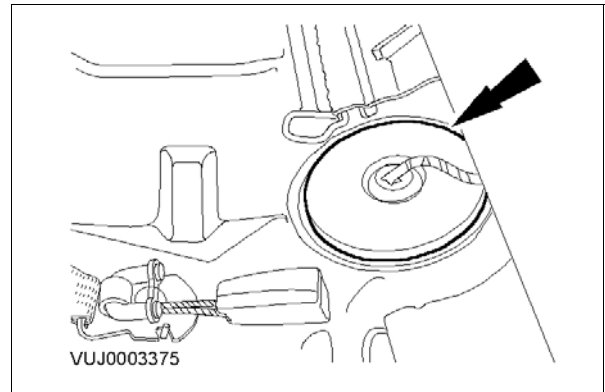


Illustration 2

13. Detach the electrical connector (Illustration 3).

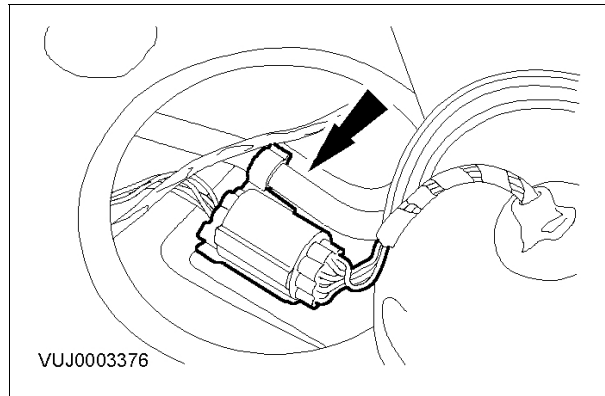


Illustration 3

14. Disconnect the electrical connector (Illustration 4).

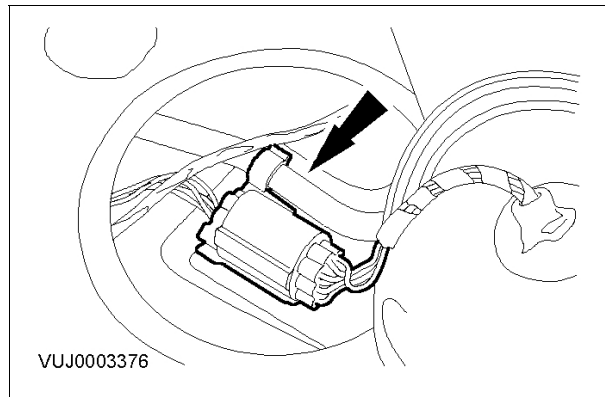


Illustration 4

15. Using a suitable suction device drain the fuel tank filler pipe (Illustration 5).

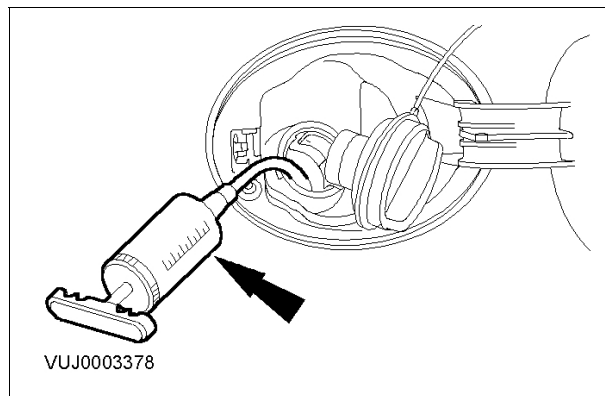


Illustration 5

16. Raise vehicle on two-post ramp.

**Note:** To prevent the vehicle becoming unstable after the fuel tank has been removed install the vehicle tie-down straps.

- 17. Remove the driveshaft (see Workshop Manual, section 205-01).
- 18. Remove the front muffler (see Workshop Manual, section 309-00).
- 19. Use the special tool HTJ1200-2, to support the rear drive axle/differential (Illustration 6).

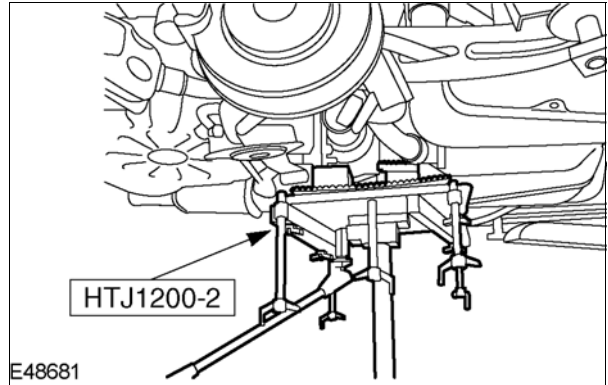


Illustration 6

- 20. Remove the rear drive axle/differential rear retaining bolt (Illustration 7).

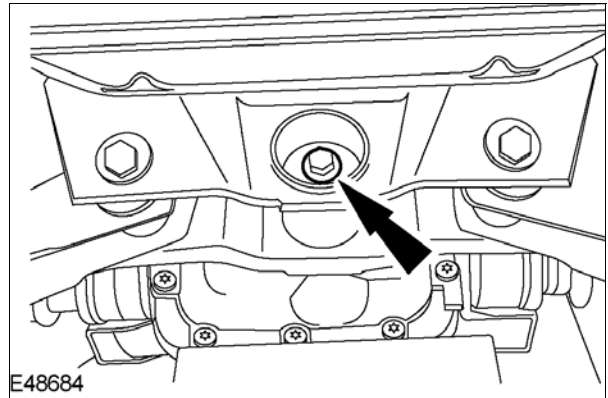


Illustration 7

- 21. Remove the rear drive axle/differential front retaining bolts (Illustration 8).

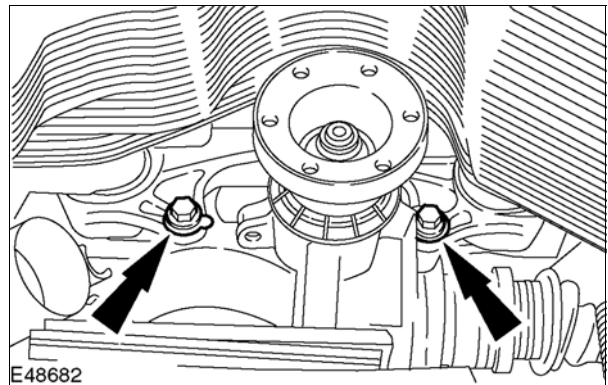


Illustration 8

- 22. Use the special tool, to lower the rear drive axle/differential approximately 75 mm (2.95 inches).

23. Install the chain supplied with the special tool HTJ1200-2 to the rear drive axle/differential front support bracket (Illustration 9).

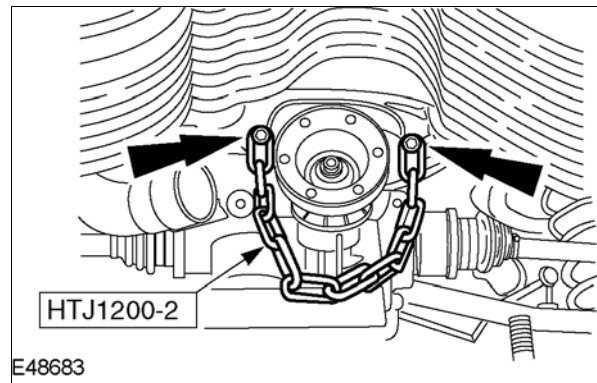


Illustration 9

24. Install the securing strap supplied with the special tool HTJ1200-2 to the rear drive axle/differential (Illustration 10).

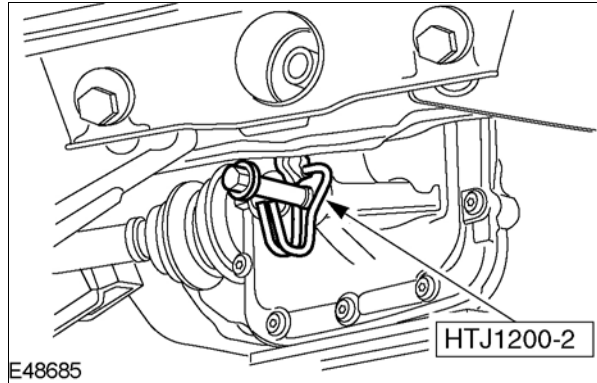


Illustration 10

25. Attach the securing strap supplied with the special tool HTJ1200-2 to the rear towing eye thread and support the rear drive axle/differential (Illustration 11).

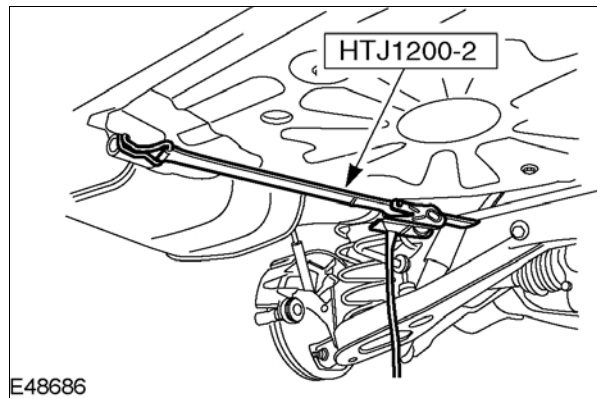


Illustration 11

26. Remove the special tool HTJ1200-2.  
27. Slacken the fuel filler pipe hose to fuel tank securing clip (Illustration 12).

**Note: For re-locating purposes, make a note of the position of the clip prior to loosening.**

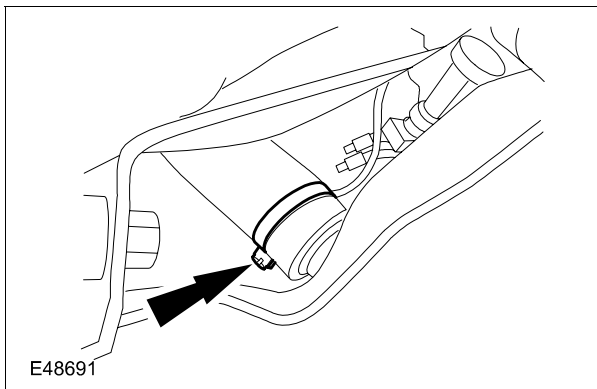


Illustration 12

28. Disconnect the evaporative emissions canister purge hose quick release coupling (Illustration 13).

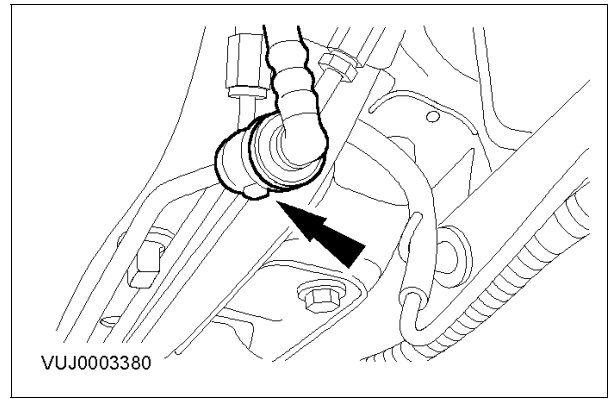


Illustration 13

29. Disconnect the fuel filter line quick release coupling (see Fig 14).

**Note: Install blanking plugs to the male and female connectors.**

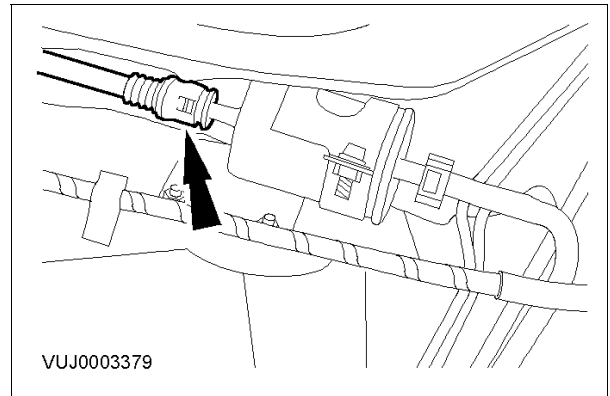


Illustration 14

30. Disconnect the evaporative emissions canister close valve electrical connector (Illustration 15).

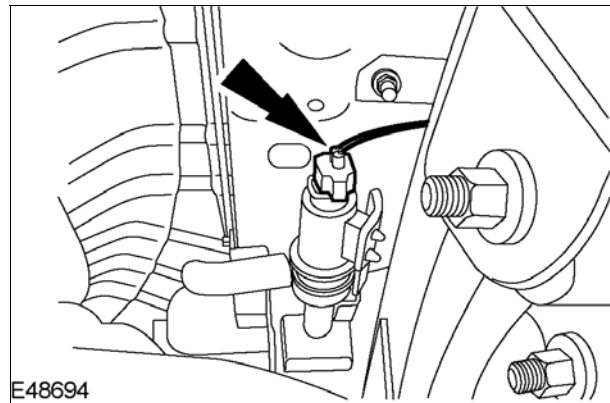


Illustration 15

31. Detach the evaporative emissions canister purge hose from the fuel tank (Illustration 16).

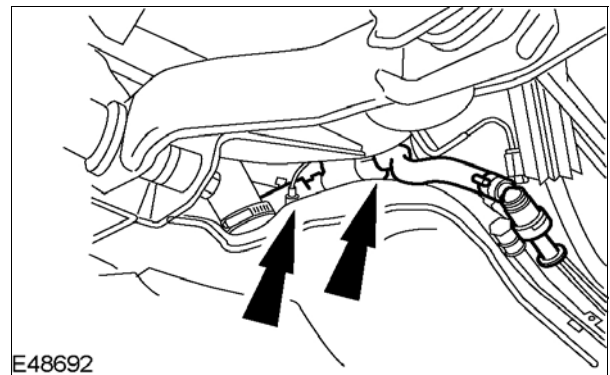


Illustration 16

**CAUTION: Use packing blocks supplied with special tool HTJ1200-2 to prevent damage to the underside of the fuel tank.**

- 32. Using the special tool, support the fuel tank (Illustration 17).

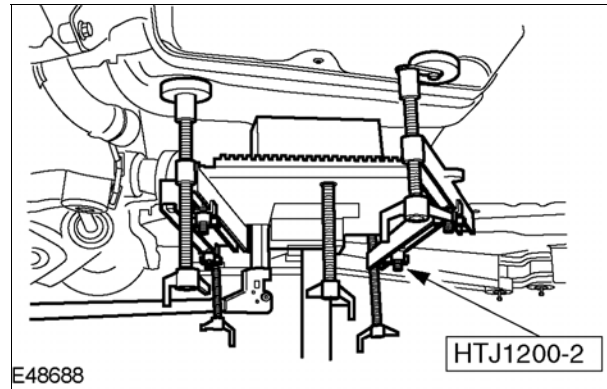


Illustration 17

- 33. Undo and remove the fuel tank support straps securing bolts (Illustration 18).

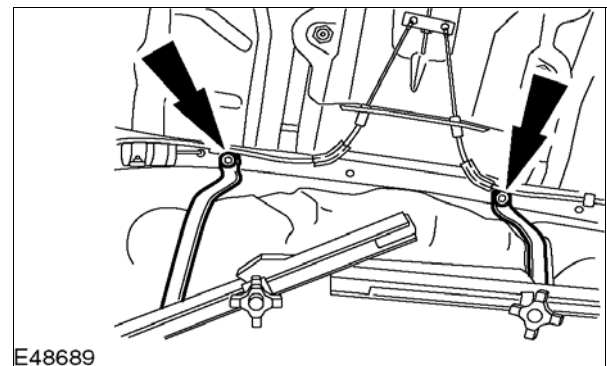


Illustration 18

- 34. Remove the fuel tank support straps.
- 35. Using the special tool lower the fuel tank approximately 100 mm (3.94 inches).
- 36. Disconnect the fuel filler pipe hose from the fuel tank and install blanking plugs.
- 37. Install the securing strap supplied with the special tool HTJ1200-2 to secure the fuel tank to the special tool (Illustration 19).

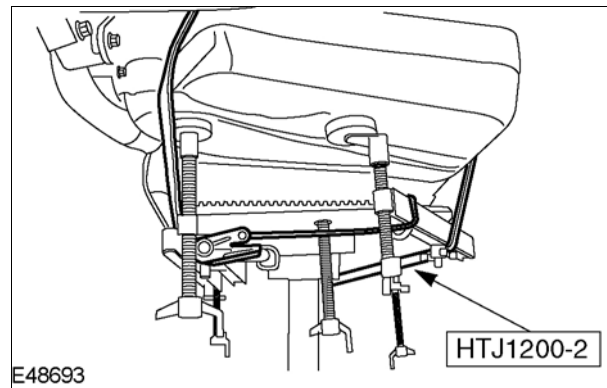


Illustration 19

38. Disconnect the evaporative emissions canister purge hose from the evaporative emissions canister (Illustration 20).

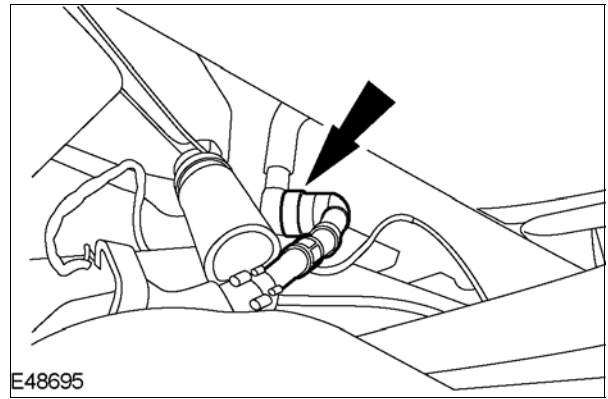


Illustration 20

**WARNING: The fuel tank cannot be drained in vehicle. Due to the heavy weight, ensure that the fuel tank is securely attached to the special tool HTJ1200-2 while removing.**

39. Using the special tool remove the fuel tank (Illustration 21).

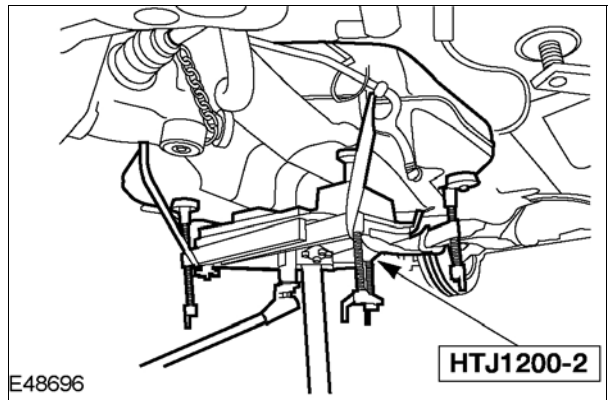


Illustration 21

40. Disconnect fuel tank harness electrical connector from fuel pump module.
41. Displace one side of foam pad from top of fuel tank.
42. Displace harness from under foam pad.
43. Disconnect fuel tank harness electrical connector from fuel tank pressure sensor.
44. Displace the fuel tank harness securing clips from the evaporative emissions canister purge hose.
45. Remove the fuel tank harness from the fuel tank.
46. Install new fuel tank harness to the fuel tank.
47. Secure fuel tank harness securing clips to the evaporative emissions canister purge hose.
48. Connect fuel tank harness electrical connector to fuel tank pressure sensor.
49. Position fuel tank harness under foam pad and secure foam pad in original position to top of fuel tank.
50. Connect fuel tank harness electrical connector to fuel pump module.



51. Using the special tool, position the fuel tank approximately 100 mm (3.94 inches) lower than the fully installed position (Illustration 22).

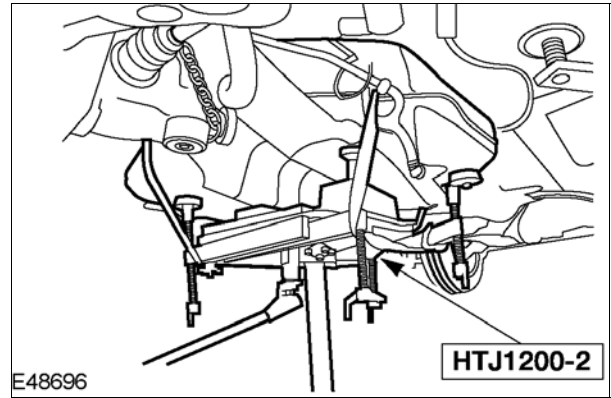


Illustration 22

52. Connect the evaporative emissions canister purge hose to the canister.  
53. Remove the securing strap from the fuel tank and special tool HTJ1200-2.  
54. Remove blanking plugs from the fuel tank and fuel filler pipe hose.  
55. Raise fuel tank to fully installed position.

**Note: Ensure the fuel filler pipe hose is installed to the fuel tank as it is raised.**

56. Install the fuel tank support straps.  
57. Install and fully tighten fuel tank support straps' securing bolts to 25 Nm (Illustration 23).

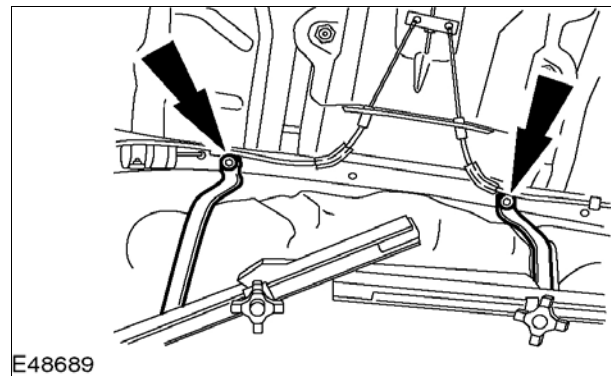


Illustration 23

58. Remove the special tool HTJ1200-2 from under fuel tank.  
59. Attach the evaporative emissions canister purge hose to the fuel tank (Illustration 24).

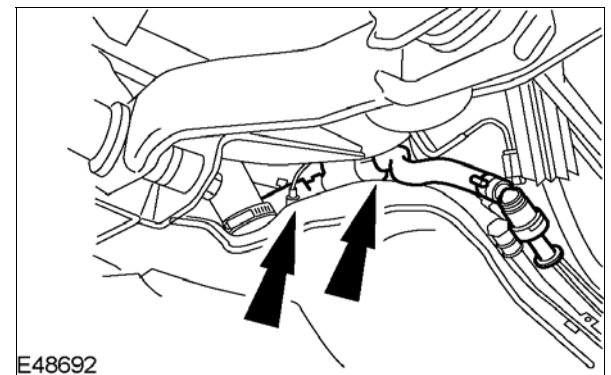


Illustration 24

60. Connect the evaporative emissions canister close valve electrical connector.  
61. Remove blanking plugs and connect the fuel filter line quick release coupling.  
62. Connect the evaporative emissions canister purge hose quick release coupling.

63. Fully tighten the fuel filler pipe hose to fuel tank securing clip.

**Note: Ensure the clip is in the correct position, marked previously in step 27 of this Service Action.**

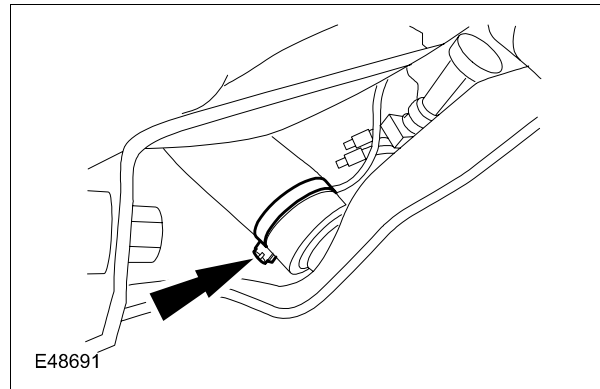


Illustration 25

64. Using the special tool HTJ1200-2 support the rear drive axle/differential.  
65. Detach the securing strap from the rear towing eye thread.  
66. Remove the securing strap from the rear drive axle/differential and discard the rear retaining bolt and washer.  
67. Install a new rear drive axle/differential washer (Illustration 26).

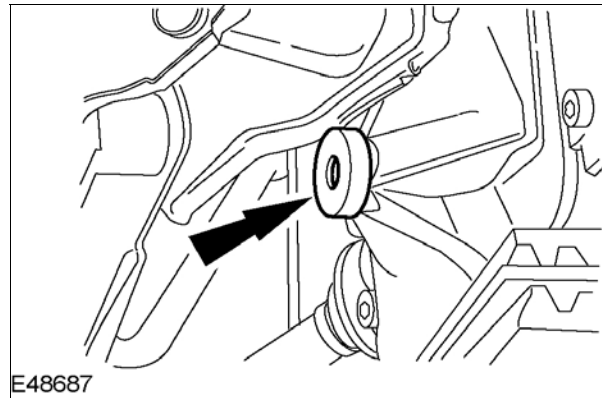


Illustration 26

68. Remove the chain from the rear drive axle/differential front support bracket.  
69. Raise rear drive axle/differential to fully installed position.  
70. Install, but do not fully tighten, rear drive axle/differential front retaining bolts.  
71. Install and fully tighten rear drive axle/differential rear retaining bolt to 110 Nm.  
72. Final tighten rear drive axle/differential front retaining bolts to 90 Nm.  
73. Remove the special tool HTJ1200-2 from under rear drive axle/differential.  
74. Install the front muffler (see Workshop Manual, section 309-00).  
75. Install the driveshaft (see Workshop Manual, section 205-01).  
76. Remove the vehicle tie-down straps and lower the vehicle.

77. Connect the electrical connector (Illustration 27).

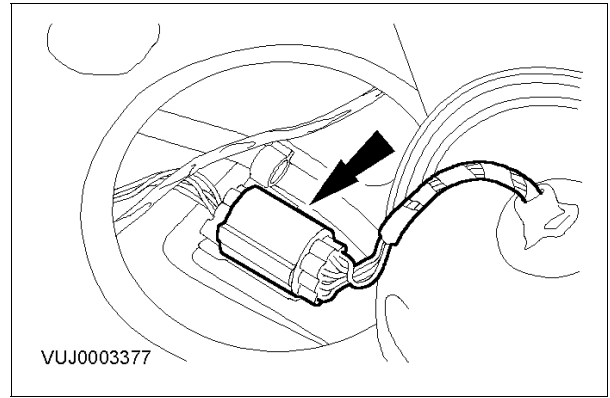


Illustration 27

78. Attach the electrical connector (Illustration 28).

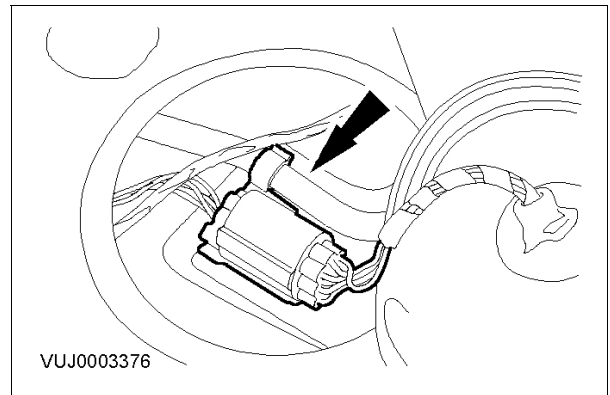


Illustration 28

- 79. Attach the wiring harness grommet.
- 80. Install the rear seat cushion (see Workshop Manual, section 501-10).
- 81. Fill the fuel tank with the fuel drained from the filler pipe and install filler cap.
- 82. Connect battery (see Workshop Manual, section 414-01).
- 83. Remove fender protection kit.

**Global Technical Reference (GTR):**Dealer Access: <https://hub.franchise.jaguar.com>Internet access: <http://www.jaguartechno.com>**Parts Information:**

<b><u>DESCRIPTION</u></b>	<b><u>PART NUMBER</u></b>	<b><u>QTY</u></b>
Fuel tank harness link lead	C2S 32370	1
Driveshaft bolts	C2S 16374	12
Link	C2S 4724	6
Driveshaft center bearing bolts	XR8 7676	2
Seat fixings	C2S 21086	2
Exhaust gasket	C2S 2755	1
Washer	C2S 19258	1
Bolt	C2S 18302	1

**Warranty Information:**

Warranty claims should be submitted quoting program code S947 together with the relevant option code from the table below.

**Service Action S947**

2004 MY 2.5L VIN Range

**4XD55232 - 4XD70130**

2004 MY 3.0L VIN Range

**4WD55232 - 4WD70130**

Program Code	Option	Description	SRO	Time	Part Number	Part Description	Qty
S947	A	Inspect for harness damage – no further action required	10.10.99	0.2	-	-	-
S947	K	Inspect for harness damage – no further action required	10.10.99	0.2	-	-	-
		Drive in/drive out	10.10.10	0.1 hrs.			
S947	B	Inspect and replace fuel tank harness	86.93.26	2.8	C2S 32370 C2S 16374 C2S 4724 XR8 7676 C2S 21086 C2S 2755 C2S 19258 C2S 18302	Harness link lead Driveshaft Bolts Link Center bearing bolts Seat mounts Exh. gasket Washer Bolt	1 12 6 2 2 1 1 1
S947	C	Inspect and replace fuel tank harness	86.93.26	2.8	C2S 32370 C2S 16374 C2S 4724 XR8 7676 C2S 21086 C2S 2755 C2S 19258 C2S 18302	Harness link lead Driveshaft Bolts Link Center bearing bolts Seat mounts Exh. gasket Washer Bolt	1 12 6 2 2 1 1 1
		Drive in/drive out	10.10.10	0.1 hrs.			

**NOTE:** Always perform a DDW claim search first to determine whether this service action has been performed on this vehicle. The “Review Claim History” function will provide a listing of all claims against the vehicle. If this service action number appears in the program code field, do not perform this service action.