JAGUAR

TECHNICAL BULLETIN

No: J016
Issue: 1
Date: 30 OCT 2009

CIRCULATE TO:	Service	Parts	Warranty	Body Shop
	✓	✓	✓	✓

SECTION: 310

SAFETY RECALL: Fuel Transfer Tube

AFFECTED VEHICLE RANGE:

XF (X250) 4.2L V8 *Only*

VIN: R46314 - R63008
Model Year: 2010

CONDITION SUMMARY:

Situation: It is possible that the fuel transfer tube in the fuel tank assembly is kinked or the fuel transfer tube has been over-inserted into the in-tank fuel delivery module during fuel tank assembly. This may cause the vehicle to experience fuel starvation while indicating the presence of approximately one-quarter (¼) of a tank of fuel on the fuel gauge.

This kink in the fuel transfer tube or incorrect assembly of the fuel transfer tube into the fuel delivery module restricts fuel being transferred from one side of the fuel tank to the fuel pump causing fuel starvation at low fuel levels. Fuel starvation to the engine leads to engine stumble followed by engine cut-out with minimal warning and could potentially cause a crash.

When the vehicle speed drops below the torque converter speed lock-up threshold, i.e.; the point at which the rear wheels disengage from the engine, Power Assisted Steering (PAS) and Brake Vacuum Reservoir replenishments will be lost; however, the mechanical steering will remain functional with some increase in steering effort and the braking system will remain functional with some increase in brake pedal effort.

Once the engine has cut out the vehicle will not restart until it has been refueled.

⚠ **CAUTION: Ensure vehicle has less than three-quarters (¾) of a tank of fuel before beginning the Repair Procedure.**

△ **NOTE: Affected vehicles must be repaired in conjunction with Service Action K050.**

Action: Dealers are required to update the affected vehicles within their control and withhold them from retail delivery pending completion of the rework action. Refer to the Repair Procedure outlined below to repair the fuel tank transfer tube.
For Recall notification details, refer to Service Bulletins 7-62CAN and 7-62USA.

PARTS:

△ **NOTE: Due to the current limited stock of the flange seals, Dealers were automatically shipped an initial allocation of flange O-ring seals 29 October 2009. These initial allocation seals should be used for urgent customer vehicle repairs or to repair affected new vehicles prior to being delivered to customers. Additional parts will be available to order early-November. The part number will initially be an 'SA' Service Action Block and dealers should order reasonable quantities only. Please contact the Unipart DOC team to have orders released.**

C2Z 7361.....Flange O-ring seal **Qty: 1**

TOOLS:

310-123.....Fuel pump module lock ring tool

WARRANTY:

△ **NOTE: Always check DDW to verify that the vehicle is affected by this Recall Action or any other Service Action prior to undertaking any repair as some vehicles may have been repaired in port. DDW reflects only those vehicles affected and un-repaired. Affected vehicles must be repaired in conjunction with Service Action K050.**

△ **NOTE: Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to DDW to obtain the latest repair time.**

Warranty claims should be submitted quoting the Program Code '**J016**' together with the relevant Option Code '**B**' or '**C**'; this will result in payment of the stated time. As Option Codes are used, there is no requirement to enter SRO information; these are displayed for information only. The option that allows for drive in / drive out may only be claimed if the vehicle is brought back into the workshop for this action alone to be undertaken.

Program Code	Option Code	Description	SRO	Time (hours)	Parts	Qty
J016	**B**	Repair fuel transfer tube	19.91.97.01	0.50	C2Z 7361	1
J016	**C**	Repair fuel transfer tube Drive in / drive out	19.91.97.01 10.10.10	0.50 0.10	C2Z 7361	1

Normal warranty policy and procedures apply.

REPAIR PROCEDURE

REPAIR FUEL TRANSFER TUBE

⚠ **WARNING: Place the vehicle in a quarantined area and arrange 'No Smoking/Petrol Fumes' signs about the vehicle.**

⚠ **WARNING: Before any work is carried out on the fuel system, ground the vehicle to earth and maintain the ground connection until the work is complete.**

⚠ **WARNING: Do not smoke or carry lighted tobacco or 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.**

⚠ **WARNING: The fuel system remains pressurized for a long time after the ignition is switched off. The fuel pressure must be relieved before attempting any repairs. Failure to follow these instructions may result in personal injury.**

⚠ **WARNING: After carrying out repairs, the fuel system must be checked visually for leaks. Failure to follow these instructions may result in personal injury.**

⚠ **WARNING: 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.**

⚠ **WARNING: If taken internally, do not induce vomiting, seek immediate medical attention. Failure to follow these instructions may result in personal injury.**

⚠ **WARNING: If fuel contacts the eyes, flush the eyes with cold water or eyewash solution; seek immediate medical attention.**

⚠ **CAUTION: Ensure vehicle has less than three-quarters (3/4) of a tank of fuel before beginning Repair Procedure.**

1. Ensure fuel level is less than three-quarters (¾) of a tank.

△ **NOTE: Global Technical Reference (GTR) lookup sequence is as follows: GTR Home > NAS > X250 - XF > Service Information > 2010 > Workshop Manual**

2. Refer to Workshop Manual (GTR) section 310-00 and depressurize the fuel system.
3. Refer to Workshop Manual (GTR) section 414-01 and disconnect the negative battery cable.
4. Refer to Workshop Manual (GTR) section 501-10 and remove the rear seat cushion.
5. Remove the right-rear door scuff plate trim panel. (Figure 1)

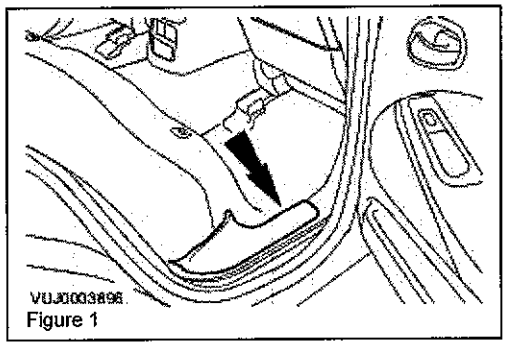

Figure 1

6. Detach and reposition the floor covering. (Figure 2)

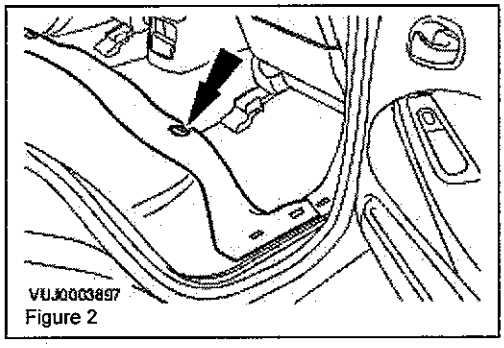

Figure 2

7. Detach and reposition the rear seat cushion insulation. (Figure 3)

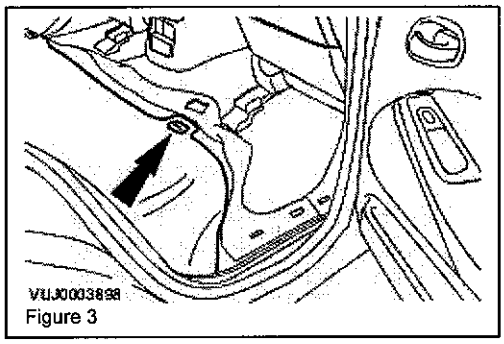

Figure 3

8. Remove the floor aperture cover. (Figure 4)

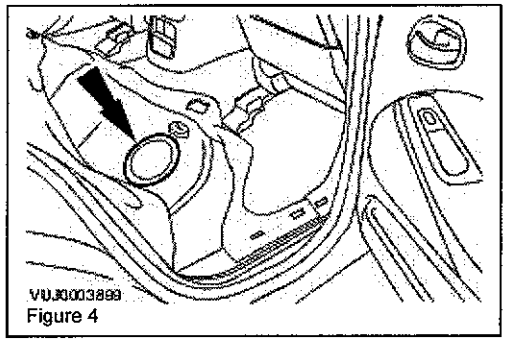

Figure 4

9. Disconnect the fuel pump module electrical connector. (Figure 5)
10. Detach the fuel pump module wiring harness from the retaining bracket. (Figure 5)
11. Disconnect the fuel pump module quick release coupling. (Figure 5)

⚠ WARNING: Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

12. Raise and support the right-hand (RH) side of the vehicle to enable the transfer of fuel to the left-hand (LH) side of the tank; this will expose the fuel transfer pipe connection in the module.

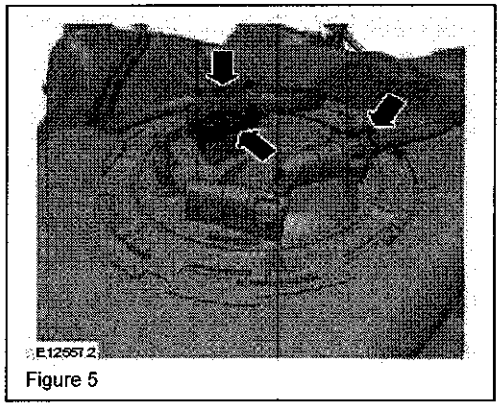

Figure 5

13. Using special tool 310-123, remove the fuel pump module locking ring. (Figure 6)
14. Remove and discard flange O-ring seal.

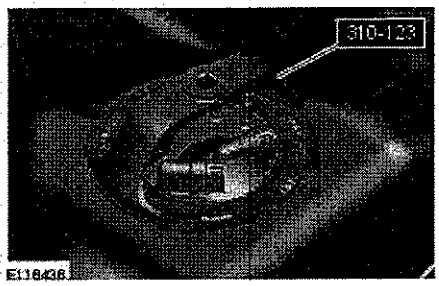

Figure 6

15. Disconnect the fuel transfer module transfer feed tube. (Figure 7)

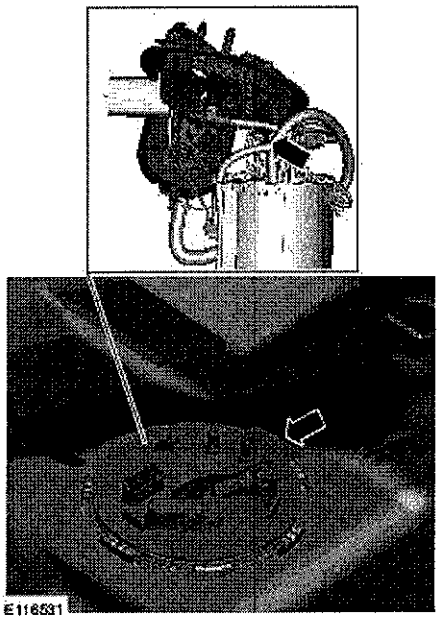

Figure 7

16. Reposition the fuel transfer module transfer feed tube; cut away and discard 150mm (6 in) from the disconnected end of the tube. (Figure 8).

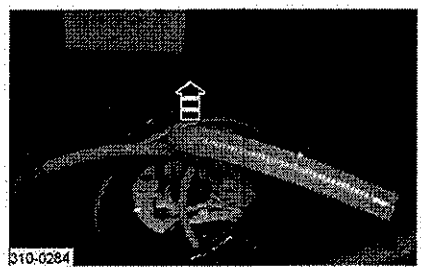

Figure 8

17. Insert the fuel transfer module transfer feed tube into the triangular-shaped hole in the swirl pot. (Figure 9)

Figure 9

⚠ **CAUTION: Ensure the arrow on the fuel transfer module and the 'NA' marker on the fuel tank are aligned.**

18. Secure the fuel pump module:
    - Press down and rotate the base of the fuel pump module clockwise. (Figure 10)
19. Install new flange O-ring seal (**C2Z 7361**).
20. Use special tool 310-123 to install the fuel pump module lock ring:
    - Tighten to **60Nm (45 lbf ft)**.
21. Lower vehicle.
22. Connect the fuel pump module quick release coupling:
    - Ensure the quick release coupling has latched onto the fuel pump module by pulling the tube after the connection has been made. (Figure 11)

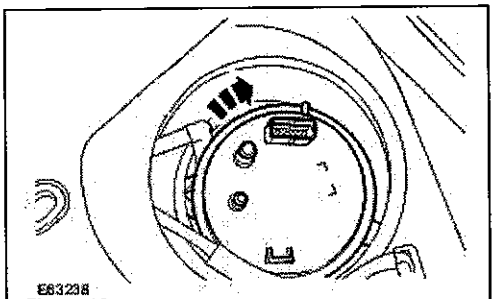

Figure 10

23. Attach the fuel pump module wiring harness to the retaining bracket. (Figure 11)
24. Connect the fuel pump module electrical connector. (Figure 11)
25. Install the floor aperture cover.
26. Attach the rear seat cushion insulation.
27. Attach the floor covering.
28. Install the right-rear door scuff plate trim panel.
29. Refer to Workshop Manual (GTR) section 501-10 and install the rear seat cushion.
30. Refer to Workshop Manual (GTR) section 414-01 and connect the negative battery cable.

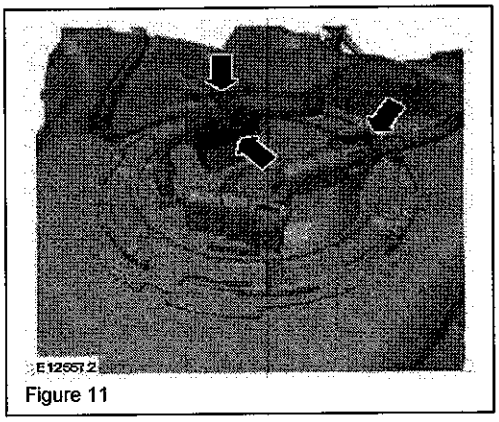

Figure 11

31. Ensure no fuel leakage.
32. Connect the Midtronics PSC-550 Vehicle Power Supply to the vehicle battery, connect the IDS to the vehicle, and clear Diagnostic Trouble Codes (DTC).

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Safety Recall J016
Technical Q & A

Main Message:

A concern has been identified with the fuel tanks of 2010 MY XF 4.2-Liter vehicles.

The fuel transfer tube inside the fuel tank assembly has been incorrectly designed resulting in a variable assembly condition which can lead to the fuel transfer tube becoming either kinked sufficiently to prevent fuel flow or allow incorrect assembly by the fuel tank supplier which can lead to the fuel transfer tube being inserted too far into the fuel delivery module which can also prevent fuel flow.

Under certain driving conditions with a kinked fuel transfer tube, or a tube that has been incorrectly assembled, the vehicle may suffer fuel starvation to the engine whilst showing a low fuel level, circa just under a ¼ of a tank still available on the fuel gauge. This fuel starvation leads to engine stumble followed by engine cut out with minimal warning.

Engine restart will not be possible until the vehicle has been refueled.

Q1 **Why is Jaguar recalling certain XF models?**

A Jaguar Cars is conducting a voluntary safety recall for all 2010 model year 4.2L XF vehicles to modify the fuel transfer tube within the fuel tank assembly to ensure that correct fuel flow to the engine is maintained when at low fuel levels.

Q2 **Can you tell me more about what is wrong with the vehicles?**

A The fuel tank on a Jaguar XF is a 'saddle' tank design and the fuel transfer tube inside the fuel tank transfers fuel from one side of the tank to the other to ensure that the fuel delivery module (FDM) can deliver all of the fuel within the fuel tank to the engine as the fuel level lowers while driving.

The fuel transfer tube has been incorrectly designed as it is 190mm too long. This results in a variable assembly condition which can lead to the fuel transfer tube becoming either kinked sufficiently to prevent fuel flow, or allow incorrect assembly by the fuel tank supplier, which can also lead to the fuel transfer tube being inserted too far into the FDM which again can restrict fuel flow.

Under certain driving conditions with a kinked tube or a tube that has been incorrectly assembled the vehicle may suffer fuel starvation to the engine whilst showing a low fuel level, circa just under a ¼ of a tank still available on the gauge. This fuel starvation leads to engine stumble followed by engine cut out with minimal warning.

Q3 **How would the customer become aware of potentially having this concern?**

A Under certain driving conditions with a kinked tube or a tube that has been pushed in so far in to the swirl pot that it cannot physically be inserted any further; the vehicle will suffer fuel starvation whilst showing a low fuel level circa just under one-quarter (¼) of a tank of fuel still available on the gauge. This fuel starvation leads to engine stumble followed by engine cut out with minimal warning.

Power Assisted Steering (PAS) will be lost once the vehicle speed drops below the torque converter speed lock-up threshold; i.e. the point at which the rear wheels will be disengaged from the engine; however, the mechanical steering will remain functional with some increase in the steering effort required.

Brake vacuum reservoir replenishment will also be lost once the torque convertor speed lock up threshold is reached, at this point depending upon brake use, the vehicle will lose brake power assistance; however, the brakes will remain functional with some increase in pedal effort for a given vehicle deceleration.

Engine restart will not be possible until the vehicle has been refueled.

Q4 **Does this concern affect vehicle safety?**

A Jaguar has determined that engine cut out with the fuel gauge indicating the presence of fuel, with minimal warning in conjunction with the fact that the vehicle cannot be restarted until it has been refueled could pose a risk to vehicle safety.

Q5 **Has Jaguar received many complaints?**

A Jaguar Cars has received six complaints for this issue.

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Technical Q & A

Q6 **Have there been any accidents or injuries?**

A There have been no reports of accidents or injuries relating to this concern of which Jaguar is aware.

Q7 **How was the condition discovered?**

A The condition was identified through Jaguars dealer reporting process.

Q8 **How long has Jaguar known about this problem?**

A Jaguar became aware of this issue in September 2009.

Q9 **Is the defect leading you to any concerns regarding the reliability of a system, which is supposed to be designed and engineered for the passengers' safety? What type of measures are you planning to take?**

A We have no concerns with the overall reliability of the vehicle. Jaguar carefully monitors field data to ensure that any matters relating to safety and compliance are rigorously investigated.

Q10 **What has Jaguar done in production?**

A Production vehicles have now been fitted with revised fuel tank assemblies with modified fuel transfer tubes to prevent this issue.

Q11 **What will Authorized Repairers do to the vehicles?**

A Authorized Repairers will gain access to the FDM / fuel transfer tube within the fuel tank, remove 150mm from the end of the fuel transfer tube and reposition it into an aperture within the FDM to prevent the kink or over insertion conditions occurring. The fuel tank assembly will be reassembled using a new fuel tank seal.

Q12 **Which vehicles are affected by this recall?**

A All 4.2L 2010MY XF vehicles within the VIN range R46314 - R63008.

Q13 **Are other Jaguar models affected by these actions?**

A No other models are known to be affected.

Q14 **Are parts available to rework vehicles?**

A Parts are available for Jaguar Authorized Repairers to conduct this repair.

Q15 **How much will the recall cost Jaguar?**

A Cost was not a factor in deciding to recall these vehicles.

Q16 **How do I know if my XF vehicle is affected?**

A All owners of potentially affected vehicles will shortly receive a letter inviting them to contact a Jaguar Authorized Repairer for the work to be carried out.

Q17 **How long does it take for the car to be inspected and repaired?**

A The work will be carried out as quickly and efficiently as possible in order to minimize inconvenience to customers and is expected to take no longer than one hour to complete. Naturally, due to dealer schedules, vehicles may be required for longer.

Q18 **Can I continue to drive my XF vehicle safely until it has been repaired?**

A Customers are advised to maintain a fuel level of one-half (½) of a tank or greater until the recall repairs are completed. Contact an Authorized Jaguar Repairer with any concerns you may have over the running of your vehicle.

NOTE: **Please ensure that any Press enquiries are referred to the Jaguar Public Affairs office**