



MODEL
XJ

DATE
15 SEPT 2009

NUMBER
J012
(Issue 2)

Service

TECHNICAL BULLETIN

ISSUE '2' CHANGES ARE HIGHLIGHTED WITH GRAY BACKGROUND

SECTION: 206

Safety RECALL: Under Floor Brake Pipe Corrosion

AFFECTED VEHICLE RANGE:

XJ (X350)

VIN: G00584 - G27877

Model Year: 2004

CONDITION SUMMARY:

Situation: A concern has been identified with corrosion to brake pipes at the junction between the twin under floor pipes and the rear crossmember pipes fitted on some 2004 model year XJ vehicles.

A review of vehicle build shows that a touch condition can exist between the under floor brake pipes and the Noise Vibration Harshness (NVH) pad at the rear of the under floor undertray. Where a touch condition exists, water and dirt can collect and be held in contact with the pipes and their unions reducing the corrosion life of the pipes accordingly. In these cases the corrosion can lead to loss of the mechanical integrity of one or both pipes. This can result in extended brake pedal travel combined with reduced braking performance in the corresponding circuit, and a simultaneous display of the 'fluid level low' warning light. In the event of both pipes losing integrity at the same time, complete loss of service brakes will occur.

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 Inspection and Repair Procedures outlined below to inspect the under floor brake pipes and, where red dust is visible on the brake pipes or unions, replace the under floor brake pipes.

PARTS:

C2C 33198K	Brake Pipe	Qty: 1
C2C 29560K	Brake Pipe	Qty: 1
C2C 31221	Brake Fluid	Qty: 2
XR8 5049	Fuel / Jet pump gaskets	Qty: 2

TOOLS:

Refer to Workshop Manual (GTR) for any required special tools

WARRANTY:

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

△ **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 'J012' together with the relevant Option Code; 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.

NOTE: The information in Technical Bulletins is intended for use by trained, professional Technicians with the knowledge, tools, and equipment required 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'. If you are not a Dealer, do not assume that a condition described affects your vehicle. Contact an authorized Jaguar service facility to determine whether this bulletin applies to a specific vehicle.



TECHNICAL BULLETIN

NUMBER
J012
(Issue 2)

Program Code	Option Code	Description	SRO	Time (hours)	Parts	Qty
J012	B	Check brake pipes; no further action	70.91.48	0.30	N/A	N/A
J012	C	Check brake pipes; no further action	70.91.48	0.30	N/A	N/A
		Drive in / drive out	10.10.10	0.10		
J012	D	Check and replace brake pipes	70.91.49	2.90	C2C 33198K	1
					C2C 29560K	1
					C2C 31221	2
J012	E	Check and replace brake pipes Drive in / drive out	70.91.49 10.10.10	2.90 0.10	C2C 33198K	1
					C2C 29560K	1
					C2C 31221	2
J012	F	Check and replace brake pipes including drain fuel tank	70.91.50	3.60	C2C 33198K	1
					C2C 29560K	1
					C2C 31221	2
					XR8 5049	2
J012	G	Check and replace brake pipes including drain fuel tank Drive in / drive out	70.91.50 10.10.10	3.60 0.10	C2C 33198K	1
					C2C 29560K	1
					C2C 31221	2
					XR8 5049	2

CUSTOMER REIMBURSEMENT

If a customer has indicated that they have already paid to replace the brake pipes for this concern prior to the date on the customer letter as a normal retail repair (vehicle outside warranty period), a copy of the repair invoice must be produced. The Dealer must reimburse the customer and a claim for recovery of this cost should be made using the related damage procedure.

Refer to Service Bulletin **7-58CAN / 7-58USA** for further administration information.

Claims should be submitted quoting Program Code **'J012'** and by clicking the 'Related Damage' radio button on the claim submission screen. Supplementary claims for related damages can only be made once the Field Service Action claim has been paid / accepted.

The Warranty Claim should be submitted using Option Code **'X'** and entering the cost to be reimbursed against the Sundry Code **'ZZZ001'**.

Program Code	Option Code	Description	SRO	Time	Sundry Item Code	Value
J012	X	Reimbursement to owner	-	-	ZZZ001	Dealer entered

A copy of the invoice must be attached to the repair order for Warranty audit purposes.

A brief comment should be entered in the 'Technician Comments' field on the claim to itemize and explain the charges.

Only vehicles eligible for Recall Action J012 are included in this process. Only one claim per vehicle for related damages will be accepted.

Warranty Claims should be submitted in accordance with the current Jaguar Warranty Policy and Procedures Manual and its amendments unless stated otherwise in this Recall Action.

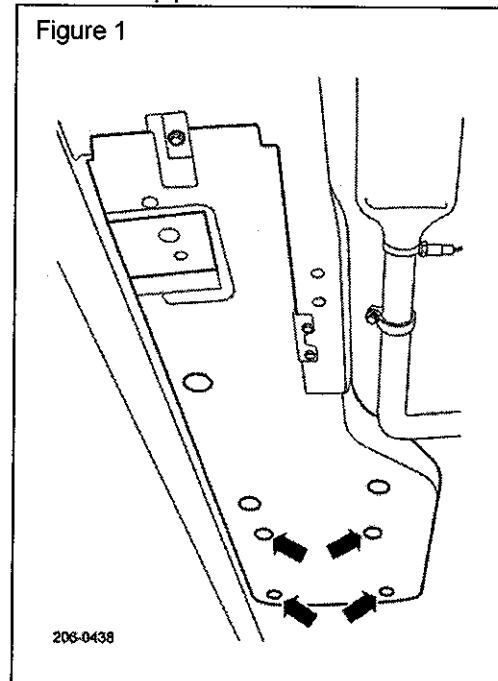
Normal warranty policy and procedures apply.

REPAIR PROCEDURE

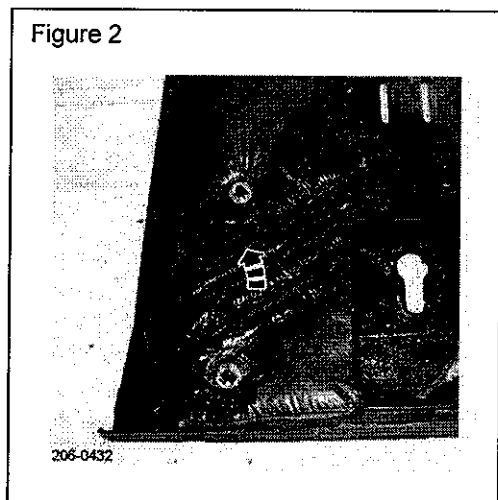
INSPECT UNDER FLOOR BRAKE PIPES AND UNIONS

△ **NOTE:** Global Technical Reference (GTR) lookup sequence is as follows:
GTR Home > NAS > X350 - XJ > Service Information > 2004 > Workshop Manual

1. Refer to Workshop Manual (GTR) section 100-02: Jacking and Lifting and raise vehicle on a suitable two- post lift.
 - Ensure vehicle is in the neutral gear position.
2. Release the rear edge of the right-hand (RH) undertray to expose the brake pipes
 - Remove the rear bolts. (Figure 1)



3. Remove the Noise Vibration Harshness (NVH) pad from the under tray. (Figure 2)
 - Remove the spring clips; discard the NVH pad and clips.
4. Clean the brake pipes with a damp cloth.



NOTE: If evidence of a previous repair is apparent, the vehicle should still be inspected, and repaired if necessary, as per the Repair Procedure.

5. Inspect brake pipes for red rusting (Figure 3).

! **CAUTION:** Red rusting indicates that the corrosion has begun to penetrate the steel inner pipe. (Figure 4)

- If evidence of red rusting is present on any of the brake pipes, continue to **REPLACE UNDERFLOOR BRAKE PIPES**. (Figure 4)
- If no red rusting is evident proceed to step 6.

△ **NOTE:** White corrosion indicates zinc plating working correctly.

- If there is evidence of white corrosion but **NO** red rusting, no further action is required. Proceed to step 6. (Figure 5)

Figure 3

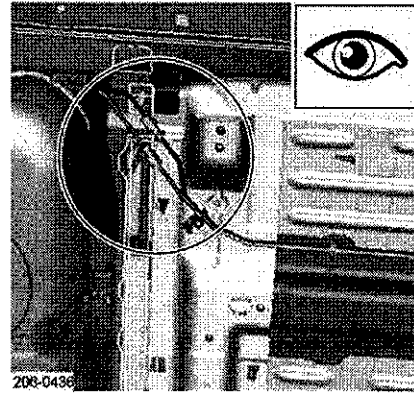


Figure 4

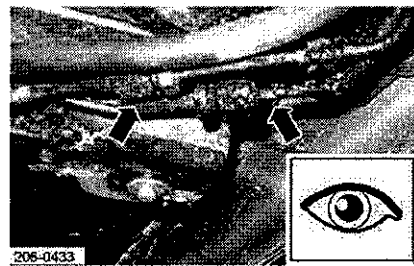
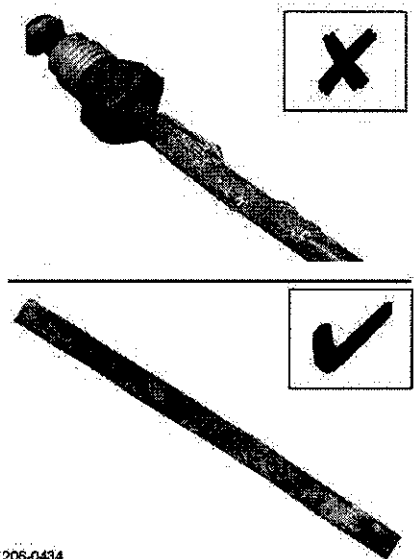
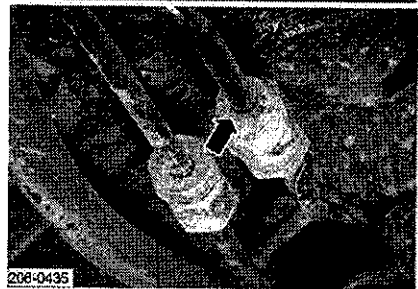
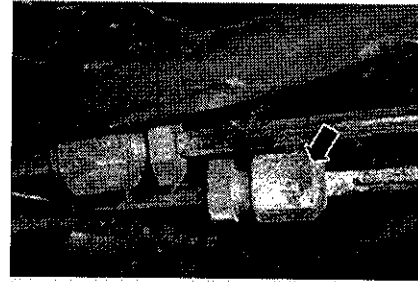


Figure 5















- If red rusting is present on the flat and front faces of the tube nuts **ONLY** (Figure 6), then the brake pipes are acceptable. Proceed to step 6
 - If the red rusting has progressed onto the brake pipe, proceed to **REPLACE UNDER FLOOR BRAKE PIPES** below.
6. Spray the brake pipes and unions with a suitable anti-corrosion spray.
 7. Install the RH undertray.
 - Install and tighten the rear bolts.
 8. Lower vehicle on ramp and return the vehicle to the customer.

Figure 6

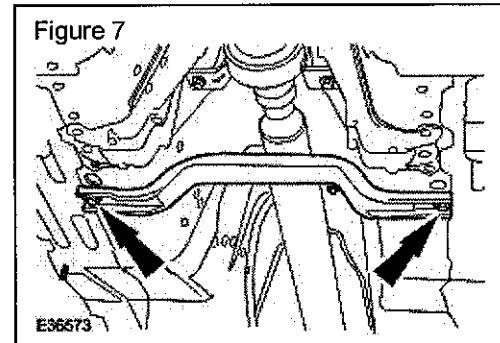




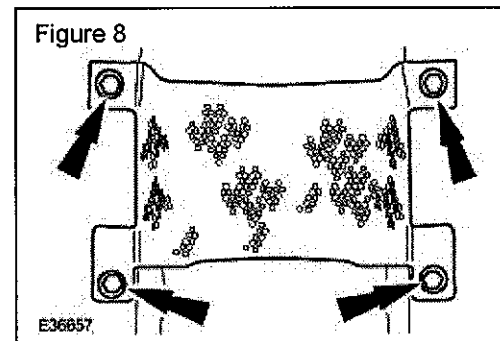
REPLACE UNDERFLOOR BRAKE LINES

-  **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:** 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.
 -  **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 and seek medical attention.
 -  **WARNING:** Wash hands thoroughly after handling, as prolonged contact may cause irritation. Should irritation develop, seek medical attention.
 -  **NOTE:** Global Technical Reference (GTR) lookup sequence is as follows:
GTR Home > NAS > X350 - XJ > Service Information > 2004 > Workshop Manual
 -  **NOTE:** If the vehicle fuel level is above $\frac{1}{4}$, proceed to step 1. If the vehicle fuel level is below $\frac{1}{4}$, proceed to step 2.
1. Refer to Workshop Manual (GTR) section 310-00: Fuel System - General Information and drain the fuel tank.
 2. Refer to Workshop Manual (GTR) section 414-01: Battery, Mounting and Cables (86.15.19) and disconnect the battery ground cable.
 3. Refer to Workshop Manual (GTR) section 309-00: Exhaust System and remove the front muffler and tail pipes.

4. Remove the support bracket. (Figure 7)

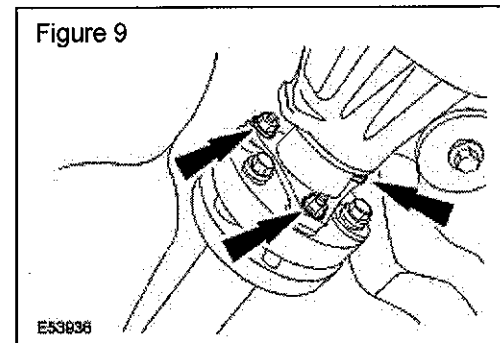


5. Remove the driveshaft heat shield. (Figure 8)



△ **NOTE:** Mark the position of the driveshaft in relation to the rear drive axle flange.
 Mark the position of the balance nut (if fitted) in relation to the rear drive axle flange.
 Mark the position of each nut and bolt to the rear drive axle flexible joint. (Figure 9)

6. Detach the driveshaft from the rear drive axle flange. (Figure 9)



⚠ **CAUTION:** Support the driveshaft front and rear sections. Note the position of the driveshaft centre bearing spacers.

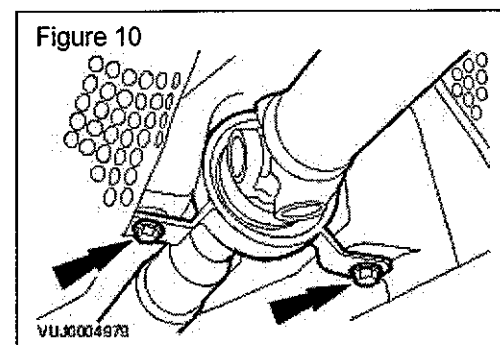
7. Remove the driveshaft centre bearing spacers. (Figure 10)

8. Remove the driveshaft.

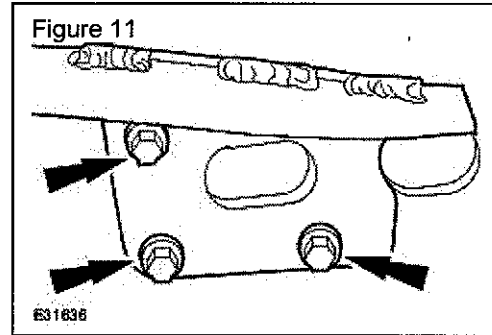
9. Refer to Workshop Manual (GTR) section 204-04: Wheels and Tires (74.20.05) and remove the rear wheels.

△ **NOTE:** RH shown; left-hand (LH) similar. (Figure 1)

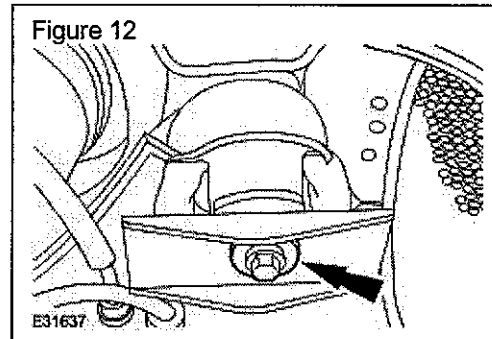
10. Remove the LH and RH undertrays. (Figure 1)



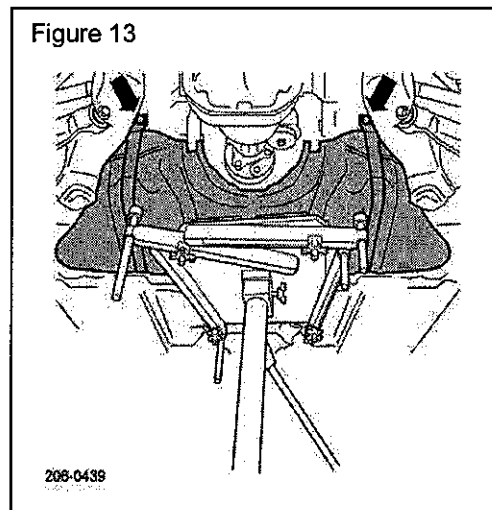
- △ **NOTE: LH shown; RH similar. (Figure 11)**
11. Remove the LH and RH NVH brace retaining bolts. (Figure 11)



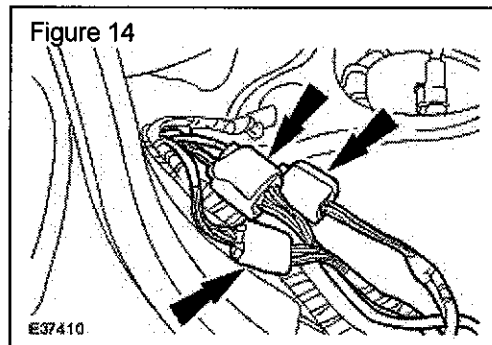
- △ **NOTE: LH shown; RH similar. (Figure 12)**
12. Remove the rear subframe rear mount retaining bolts. (Figure 12)
- Remove the NVH brace.
 - Install one of the rear subframe rear mount retaining bolts finger-tight to support the weight of the rear subframe.



- ⚠ **Caution: Use suitable packing material to prevent damage to fuel tank.**
13. Using a transmission jack, lower the fuel tank sufficiently only to access the top of the fuel tank. (Figure 13)
- Remove fuel tank support strap bolts.
 - Remove fuel tank support straps.



14. Disconnect fuel tank electrical connectors. (Figure 14)



15. Disconnect evaporative emission pipe. (Figure 15)

⚠ 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.

⚠ CAUTION: Use a suitable container to catch any escaping fuel.

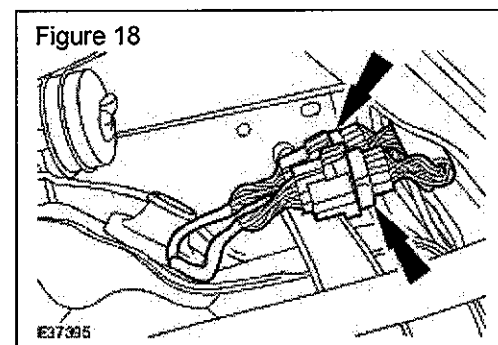
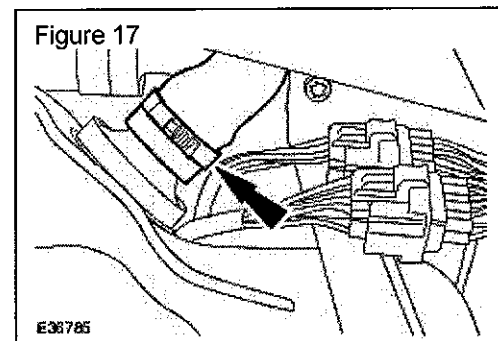
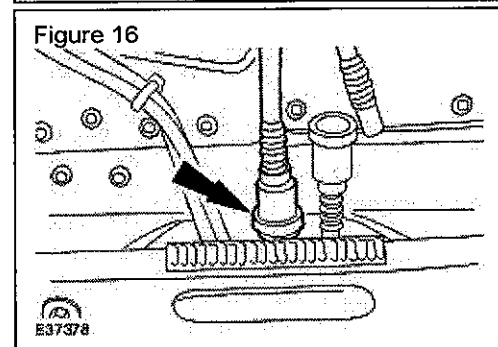
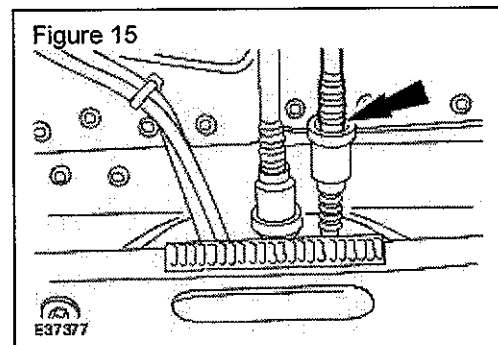
16. Disconnect fuel supply hose. (Figure 16)

⚠ CAUTION: Use a suitable container to catch any escaping fuel.

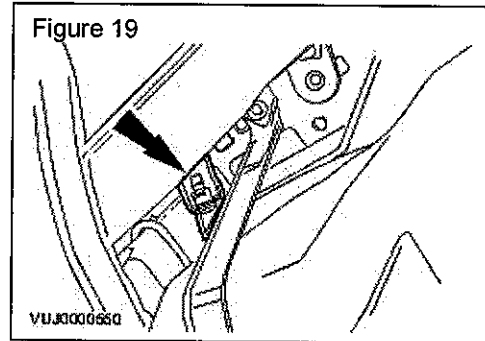
17. Remove the fuel tank filler pipe to fuel tank hose. (Figure 17)

- Blank off open end to prevent debris from entering tank.

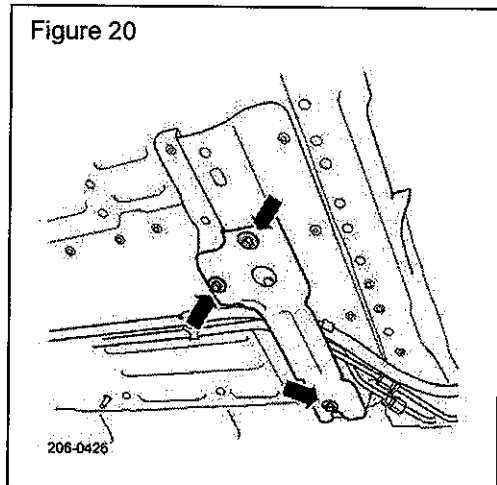
18. Disconnect rear axle electrical connectors. (Figure 18)



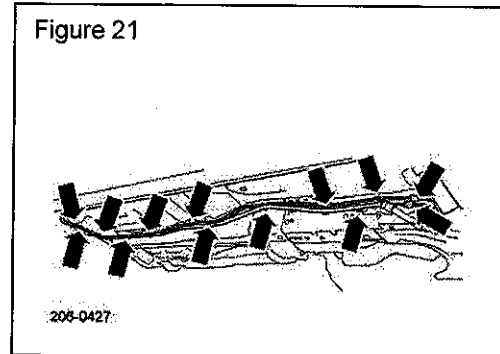
- 19. Disconnect the evaporative emission pipe. (Figure 19)
- 20. With assistance, lower and remove fuel tank from the vehicle.



- 21. Remove the floor pan cross brace. (Figure 20)

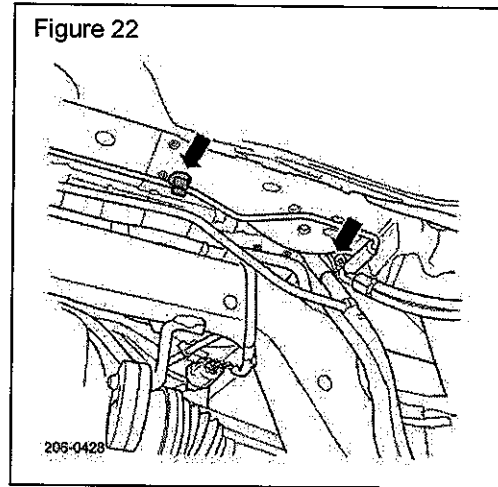


- 22. Release the longitudinal brake pipes from the clips. (Figure 21)



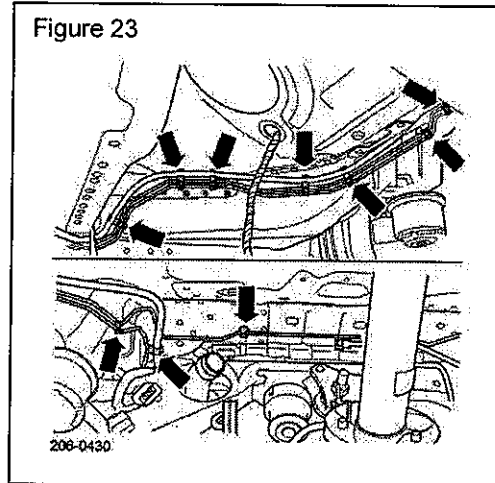
23. Release LH rear brake pipe from clips. (Figure 22)

Figure 22



24. Release the remaining brake pipe clips. (Figure 23)

Figure 23

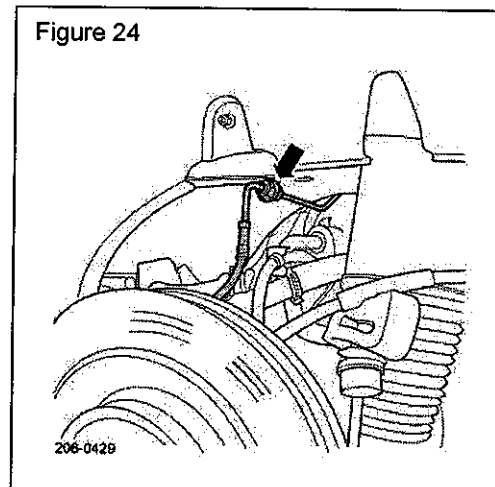



 **CAUTION:** Use a suitable container to catch any escaping brake fluid.

 **NOTE:** RH shown; LH similar.

25. Disconnect brake pipes from brake hoses. (Figure 24)

Figure 24



 **CAUTION: Use a suitable container to catch any escaping brake fluid.**

26. Release the longitudinal brake pipes from the front unions.
(Figure 25)
27. Remove brake pipes from the vehicle.
28. Install the new brake pipes to the vehicle.
 - Ensure all brake pipes are secured in clips.
 - Tighten brake pipe unions.
29. Reverse the removal procedure, omitting step 9.

 **NOTE: If the fuel tank required draining (step 1), ensure new fuel / jet pump gaskets (XR8 5049) are installed.**

- Refer to Workshop Manual (GTR) for appropriate torque values.
30. Refer to Workshop Manual (GTR) section 206-00: Brake System - General Information (70.25.03) and bleed the brake system.
 31. Refer to Workshop Manual (GTR) section 204-04: Wheels and Tires (74.20.05) and install the rear wheels:
 - Tighten wheel nuts to **125 Nm (92 lbf ft)**.

Figure 25

