

## **A4.6 EXTERIOR TRIM**

### **A4.6.1 BUMPERS**

#### **A4.6.1.1 Major Components**

The sedan range bumper system comprises of:

- Bumper cover.
- Mounting struts.
- Beam.
- Guide blocks.
- Integrated lamps.
- Chromium plated stainless steel upper trim blades.
- Brake ducts.
- Under tray.
- Grille vane

**Fig. 1 Front bumper - Typical components**



### A4.6.1.2 Features

**NOTE:**

The grille vane **MUST** be removed before the front towing eye may be used. Quick release fasteners fix the vane to the cover and are accessed from the front.

- One-piece moulded bumper / spoiler, finished in body colour (see note, sub section A4.1.6).
- All components and harnesses may be sub-assembled on the bench and the complete assembly then fitted to the vehicle.
- Fully height adjustable front and rear (strut or mounting) and side (guide block).
- Energy absorbing struts on North American market vehicles, which comply with US and Canadian legislation (FMVSS 007 and CMVSS 215).
- Fixed struts on 'rest of world' vehicles.
- Aluminium beam on North American market vehicles.
- Plastic beam on 'rest of world' vehicles.
- Indicator, fog and reflective (or illuminated) side marker lamps are removable from front and the fog lamps are adjustable from beneath.
- Blanking grilles fitted where fog lamps are not specified.

### A4.6.1.3 SERVICE PROCEDURES

#### A4.6.1.4 Fitted Condition (Front)

The following procedures may apply should any part of the bumper mounting system, or cover, be renewed but should not be necessary if the cover is removed for service reasons.

- The front mountings must initially be set for 'cross car' pitch and center within the clearances around the strut to body fixings.
- In order that the bumper top face, headlamp surrounds and grille lower have the correct relationship the strut height adjusters must be finally set **AFTER** the cover is fitted..
- Set the guide blocks to the specified dimension to achieve the correct bumper to fender gap, **BEFORE** fitting the cover because adjustments can only be made with the cover off..
- With all fixing points set, the bumper cover may be fitted and adjusted as necessary to achieve the specified gap conditions..
- Tighten all fixings to specification..

**Fig. 1 Front bumper setting dimensions**

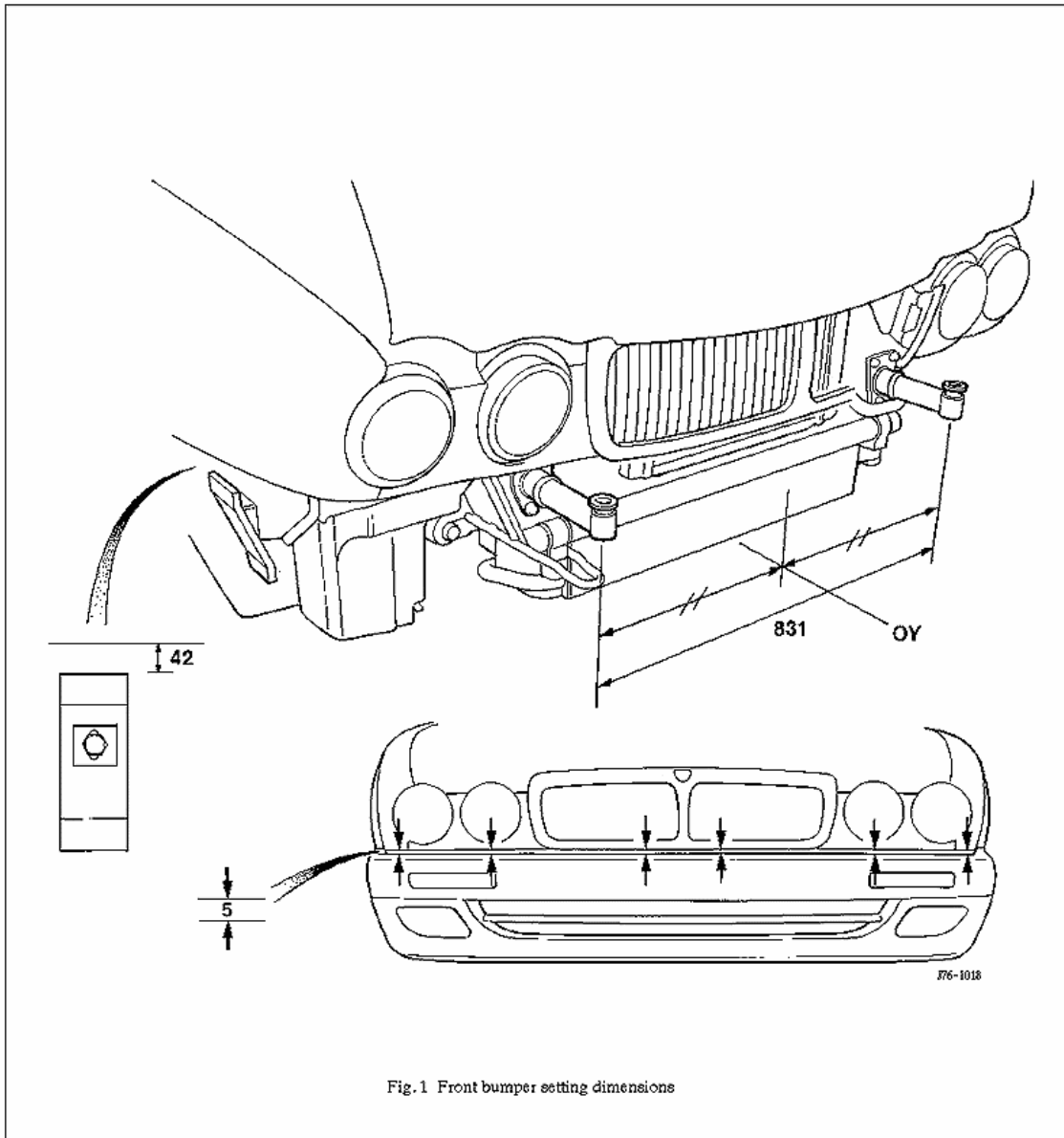


Fig. 1 Front bumper setting dimensions

#### A4.6.1.5 Fitted Condition (Rear)

The following procedures may apply should any part of the bumper mounting system, or cover, be renewed but should not be necessary if the cover is removed for service reasons.

#### NOTE:

Access to the beam height adjusters may be made with the cover fitted by removing the tailpipe trims.

- The rear mountings must initially be set for 'cross car' pitch and center within the clearances around the strut to body fixings.
- To initially achieve the relationship between the bumper top face and the rear panel, the strut height adjusters should be set to the dimension shown (Fig. 1) BEFORE the cover is fitted.
- Set the guide blocks to the specified dimension to achieve the correct bumper to fender gap, BEFORE fitting the cover, because adjustments can only be made with the cover off.
- With all fixing points set, the bumper cover may be fitted and adjusted as necessary to achieve the specified gap conditions.
- With the bumper correctly adjusted to the body and all fixings tightened to specification, it is important that the exhaust tailpipes are then centered within the bumper cover cut-outs. This may be achieved by slackening the rear section clamp and rotating the rear exhaust assembly. Please note that this may only be achieved before the tailpipe trims are fitted; these must also be correctly aligned for good appearance.

Fig. 1 Rear bumper setting dimensions

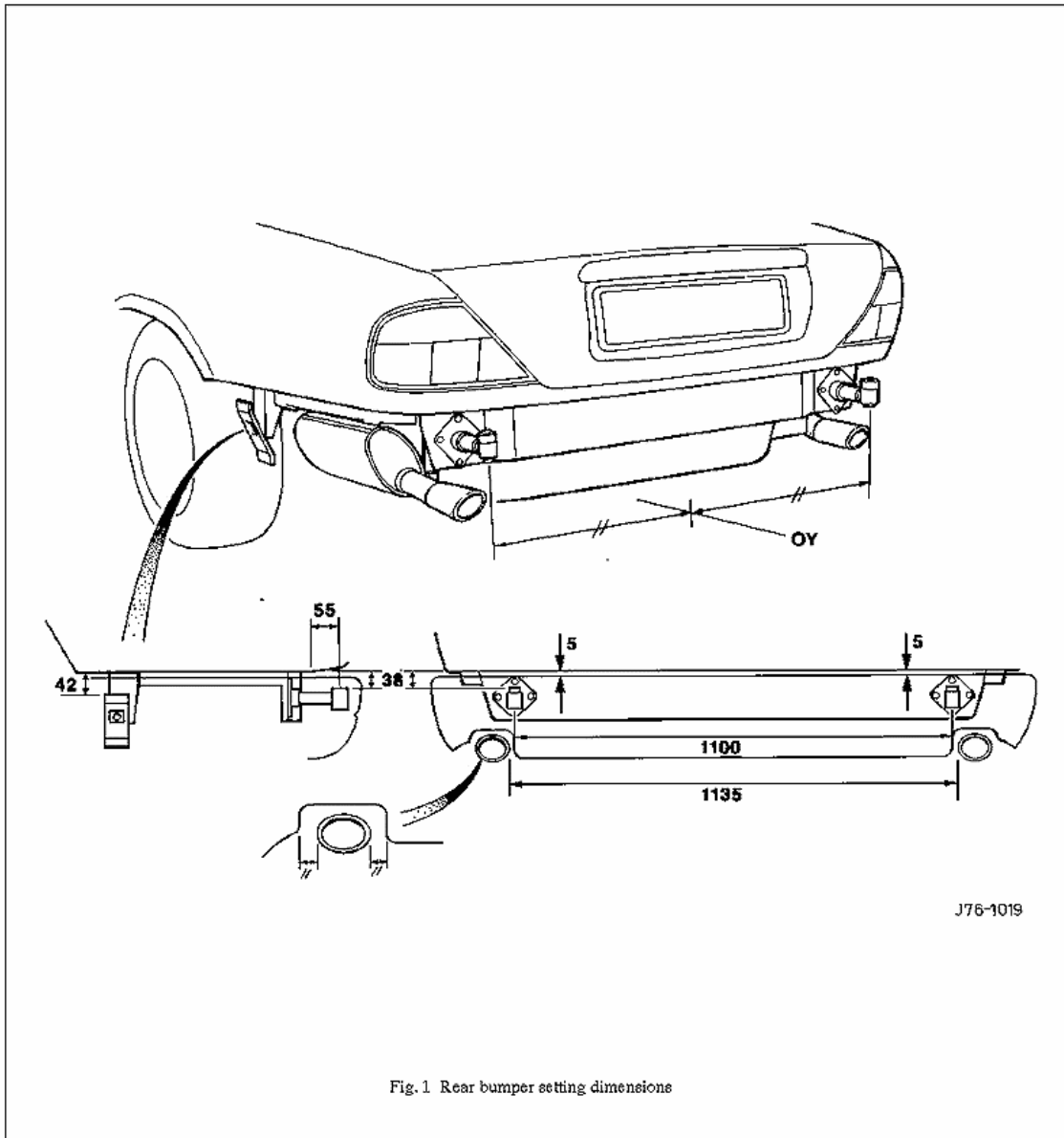


Fig. 1. Rear bumper setting dimensions

## A4.6.2 COVER DAMAGE

### A4.6.2.1 Damage Assessment

Prior to any action, damage should be assessed and categorized in accordance with the following, noting that if the cover has been 'holed' or torn, it should be discarded. The following categories are the only conditions which may be repaired.

**⚠ CAUTION:**

**Cosmetic appearance must not override safety.**

Category	Damage
Cosmetic	Abrasion to surface paint finish only
Substrate surface	Deep scratches, gouges or localized radial stress cracks.
Substrate penetration	Splits not exceeding 100mm. Splits radiating from a gouge and accompanied by localized stress cracks.

### A4.6.2.2 Repair Materials

Repair of accepted damage for categories 2 and 3 may be carried out using products from;

3M '5900 FPRM' (Flexible part repair material)

Kent Industries 'Urepatch'

It is essential that the repair product manufacturer's recommendations and procedures are followed carefully.

#### A4.6.3 REFINISHING

The paint refinishing system must be approved by Jaguar Cars Ltd., and be appropriate for polyurethane substrate application. It is important that the finishing clear lacquer includes a plasticising ingredient (mixed to the manufacturer's recommendation) to reflect the 'semi-flex' condition of the factory finished item.

The effect of heat decreases the cover rigidity to the point that paint-cure temperatures require that the cover must be supported to prevent distortion and sagging; these comments apply to 'off-car' repairs.

##### A4.6.3.1 Original

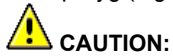
On an original unit where damage has been repaired, the beam will provide sufficient support for the forward part of the unit. It is recommended that the side armatures are supported as they would be on the vehicle.

##### 4.6.3.2 New

Where a new cover is required, the beam may be temporarily fitted prior to painting to provide the necessary support.

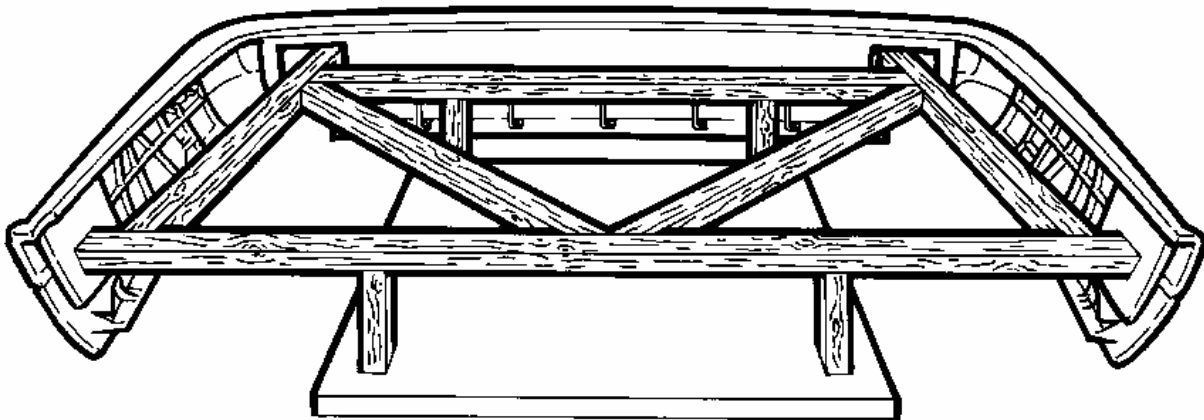
##### A4.6.3.3 All

A simple jig (Fig. 1) should be made to hold the unit in the correct working attitude for both damage repair and refinishing.



**CAUTION:**

**During heat cure, the effective panel temperature must not exceed 95°C.**



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Fig. 1

#### A4.6.4 REPLACEMENT COVERS

Replacement covers will be supplied in a primed condition and therefore must be finished in accordance with A4.6.3, this page.

Bumper covers and replacement fixings such as bumper beam adjusters and guide blocks must be fitted and adjusted as detailed in A4.6.1.4 and A4.6.1.5, this section.

#### A4.6.5 RECYCLED MATERIALS - GENERAL NOTE

The aluminium bumper beam, as fitted to North American specification vehicles, should not be over-looked as a component for recycling.

Side armatures will be fully assembled in replacement bumper covers, please see 'note' Recycled materials, this section, for important information.

#### A4.6.6 BODY-SIDE MOULDINGS

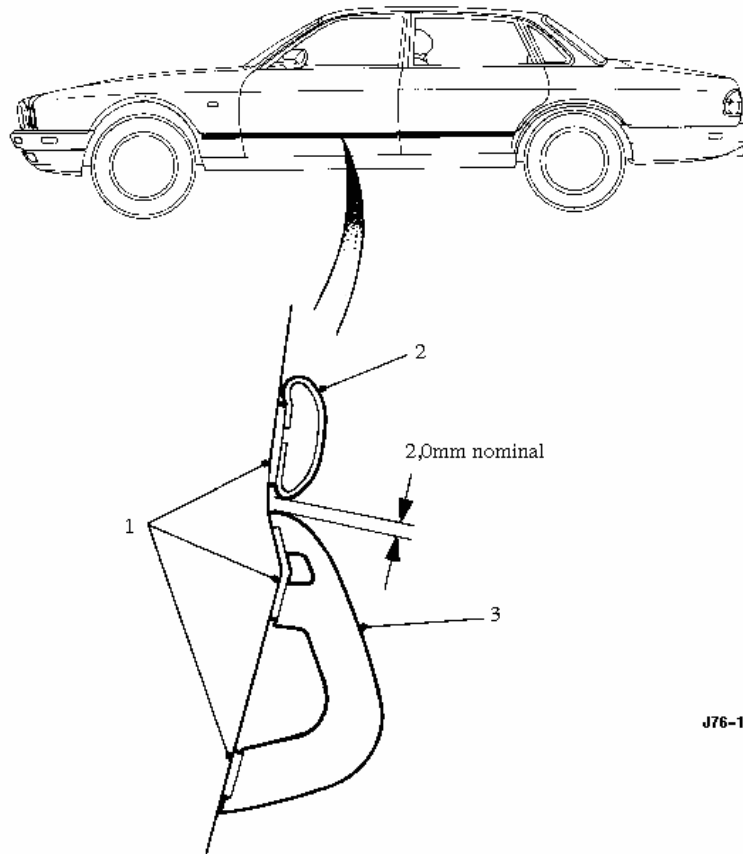
##### A4.6.6.1 Introduction

There are two types of moulding fitted to the standard wheelbase sedan.

The lower moulding is 'self-locating' on the body / door lower feature line and therefore provides a fixed datum for the location of the upper moulding (where fitted). Replacement lower mouldings will be supplied in a primed condition and therefore must be finished in accordance with A4.6.3, this section.

Location	Finish	Application	Fixing method
Upper	Polished stainless steel	Daimler / VDP	Adhesive tape
Lower	Body color	All models	Adhesive tape

##### A4.6.6.2 Body-side Moulding - Fitted Condition



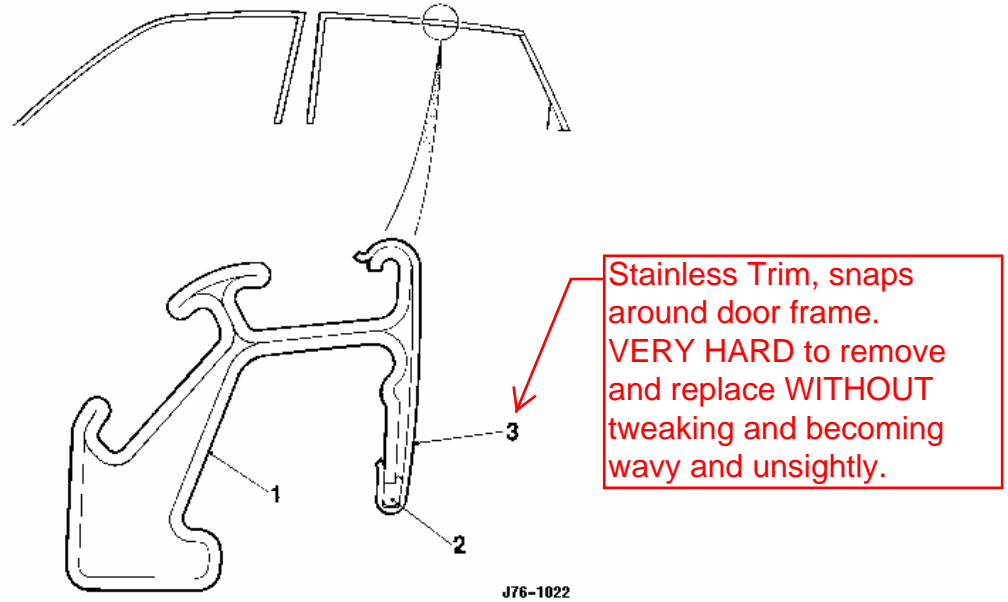
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##### A4.6.6.3 Fitting process

- 'Spirit wipe' appropriate body panel and where appropriate protect against damage.
- Gently warm body panel and moulding using infra-red lamp or similar.

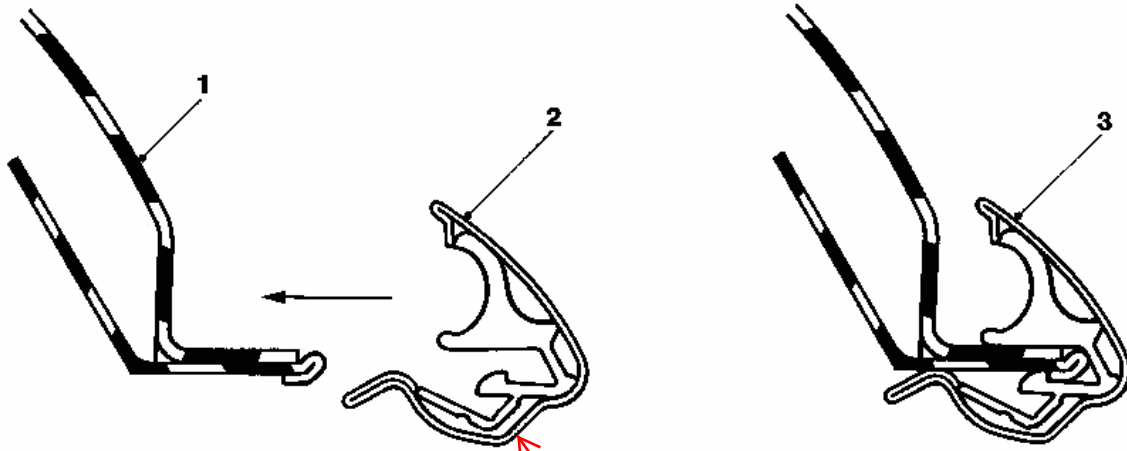
- Lower moulding - align to body feature and other mouldings if appropriate, and secure into position.
- Upper moulding - align to lower moulding for distance (Fig. 1) and parallelism and other mouldings if appropriate, and secure into position.
- Apply an even pressure along the moulding to fully secure to the panel.

#### A4.6.7 FINISHER - DOOR FRAME



#### A4.6.8 FINISHER - ROOF DRIP RAIL





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Same applies to Roof Drip Rails. Hard to remove and reinstall without damage, and may not latch back on properly.