Service Bulletin

JAGUAR Daimler

DATE: SEPTEMBER 1993

REF: JD 26/93

00 ERRATA

PLEASE NOTE THE FOLLOWING ERRATA IN RECENT SERVICE BULLETINS:

1. JD 17/93 dated August 1993 Page 6 FOURTH DIGITS

   The Fourth Digit codes J and V have been duplicated.
   Please delete code J, so that in future only code V will be used for "Thread Damage".

2. JD 17/93 dated August 1993 Page 7 Lines 21 & 22

   The entry 9YV is duplicated on these lines.
   The first entry should read: 9YU – Engine Compartment

3. JD 24/93 dated September 1993 Page 2 Line 12

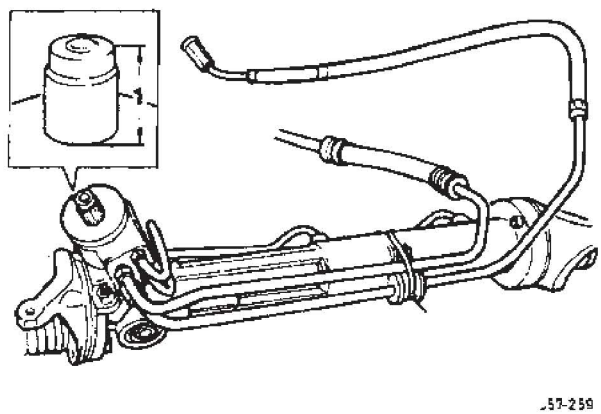
   This line should read: 44–15–39/09 As 44–15–39 (Less JDS .. etc)

XJ6 AND XJ12 1994 MY ALL VARIANTS **ITEM: 26**

00 INFORMATION ADDITIONAL TO THE 94 MY TECHNICAL GUIDE

The 1994 Model Year specification is enhanced by the inclusion of two new features designed to refine both the handling and cosmetic qualities of Jaguar saloons.

INTRODUCTION OF THE ZF PHASE 2 STEERING RACK



57-259

FIG. 1

The ZF Phase 2 Steering Rack (Fig. 1) is added to the 1994 MY specification. The rack body consists of two aluminium pressure diecastings; the rack mounting is unchanged. The pinion height (1, Fig. 1) is increased by 7mm; the steering column is altered to accommodate this change. The fluid pipe union positions in the valve block are also altered, with the fluid pipes being modified accordingly. The steering rack assembly is a non-serviceable item.

INTRODUCTION OF REAR WHEEL ALIGNMENT ADJUSTMENT

A system of rear wheel alignment adjustment is now incorporated in the rear suspension assembly.

The lower suspension arm has a plate, with a rectangular recess machined in the centre, added to the rear pivot eye (1, Fig. 2). The suspension arm pivot bolt hole (2, Fig. 2) is elongated, horizontaly, at this point.

The pivot bolt has an integral eccentric (3, Fig. 2) below the bolt head, which, when in position in the plate, has a slight clearance at the sides but full clearance at the top and bottom. Rotation of the bolt head, with the eccentric constrained between the vertical faces, causes the bolt shank to be moved in the horizontal plane, thus displacing the hub carrier and effecting wheel alignment adjustment.

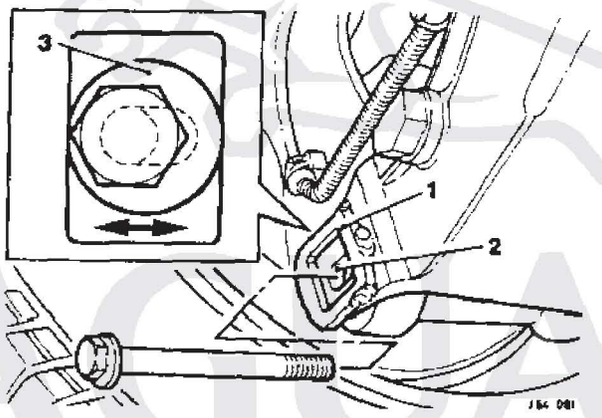


FIG. 2

XJS FROM VIN 187900 **ITEM: 27**

30 EXHAUST SYSTEM - DETAIL CHANGES

From the above VIN a number of changes, mainly to dimensions, have been introduced to exhaust systems. The object of the changes is to improve clearance between exhaust system components, the seat pan heat shield and the rear axle, thus giving less possibility of fouling. The items affected are:

1. Intermediate pipe - shortened by 10mm.
2. New 'Torca' clamp - tack-welded in production (for ease of assembly) to the rear catalytic convertor, to clamp to the intermediate pipe.

   Note that in service the tack-welds may be cut away with a chisel, enabling the clamp to be discarded. New clamps should always be used when the exhaust system is being re-assembled.
3. The rear catalytic convertors (with attached clamps, as above) have a longer outlet pipe. The convertors fit lower in the vehicle than previously, improving clearance between convertors and the seat pan heat shield.

New Part Nos.	Description	Market Application
NMB 6740AA	Intermediate pipe	All markets
EBC 9257/7	Clamp	All markets
EBC 11122	Catalytic Convertor RH	EEC (inc. GB), Middle East,
EBC 11123	Catalytic Convertor LH	Malta, Cyprus, Poland.
EBC 11128	Catalytic Convertor RH	All other markets
EBC 11129	Catalytic Convertor LH	All other markets

XJ6 AND XJ12 **ITEM: 28**

51 IDENTIFICATION OF FINAL DRIVE UNITS / LIMITED SLIP DIFFERENTIALS

Dealers may find that certain owners, particularly those who may also drive high–performance vehicles under sporting or competition conditions, express concern that their saloon vehicle appears to have a defective or inoperative limited slip differential unit, or that the final drive appears to be of a "plain" or conventional type.

Some clarification is therefore necessary concerning the performance characteristics and identification of limited slip differential units.

A Powr–Lok differential essentially varies from a conventional bevel gear unit in having the addition of friction plates between the output bevel gears and differential casing; the friction plates are loaded by input torque to the differential unit, in addition to a static pre–load. The mode of operation of such a unit is that the speed of rotation of a slipping road wheel is limited by the braking action of the friction plates, and greater torque is applied to the road wheel having the better grip on the road surface. This principle is common to all friction plate differential units.

The capacity to transfer torque is expressed as the "Bias Ratio", which can be modified to suit the vehicle application. The selection of "Bias Ratio" is a complex process, being a compromise between vehicle handling, refinement, and traction. A HIGH "Bias Ratio" will tend towards a locked differential condition, as may be suited to a high–performance vehicle tuned for competition purposes; a vehicle so fitted will benefit from greater traction capabilities than one fitted with a low "Bias Ratio" unit, but at the expense of refinement and ease of handling.

It is basically in the interests of refinement that the Powr–Lok differential units fitted to current Jaguar Saloon models is of the LOW "Bias Ratio" type, whilst still conferring the benefit of partial locking between the rear wheels under conditions of low tyre adhesion.

Dealers may confirm that a Powr–Lok differential is fitted to a particular vehicle by a BLACK CROSS on the identification label on the rear cover of the differential housing. In addition, from VIN 684618, all Powr–Lok differentials have a metal tag, stamped "P/L", attached to one of the bolts securing the rear cover.

XJS MODELS **ITEM: 29**

57 STEERING RACK ASSEMBLY

Commencing at VIN 188105 a revised pattern of steering rack assembly has been introduced on all XJS models.

These units (identified below) are fully interchangeable with the steering rack assemblies on all earlier XJS derivatives.

In common with the XJ6/XJ12 steering racks supplied through Jaguar Parts Operations, the racks will be supplied with a Centralising Pin installed. Upon fitment of the rack assembly to the vehicle, this pin must be removed and replaced by a screw and special washer, as listed below.

Whilst an Exchange Programme of rack assemblies will be introduced, initial units will all be new. The appropriate suffix, N or E, should be used.

NEW Part No.	REPLACES Part Nos.	Applications
CCC 6012	CCC 5660 & CCC 5666	V12 Sportspack RHD & 3.6/4.0 Litre Coupe RHD
CCC 6013	CCC 5661 & CCC 5667	V12 Sportspack LHD & 3.6/4.0 Litre Coupe LHD
CCC 6014	CCC 5662 & CCC 5668	V12 (Standard Spec.) RHD & 4.0 Litre Convertible RHD
CCC 6015	CCC 5663 & CCC 5669	V12 (Standard Spec.) LHD & 4.0 Litre Convertible LHD
JZS 100046	Screw	All above applications
JZW 100019	Washer	All above applications

In common with XJ6 and XJ12 models, the above assemblies can not be serviced. To assist identification where warranty claims are submitted for the fitment of replacement units, the following NEW warranty codes should be utilised:

5PA	Power Steering Rack & Pinion
5PD	Rubber Gaiter
5PF	Rack Pipes
5PG	Rack Pipe Unions
5PH	Track Rod LH
5PJ	Track Rod RH
5PK	Rack Mounting Bush LH
5PL	Rack Mounting Bush RH
5PM	Rack Mounting Bracket LH
5PN	Rack Mounting Bracket RH
5PQ	Front Wheel Tracking
5PR	Outer Track Rod Ball Joint LH
5PS	Outer Track Rod Ball Joint RH
5PT	Rack Mounting Bracket Fixings

XJ6 1993 MY **ITEM: 30**

74 HUB CAP DAMAGE

To prevent distortion to the hub caps, arising from over–tightening of the securing screw, a new plastic "snap on" pattern of hub cap has been introduced from VIN 684705.

The road wheels affected are the 'Roullet' alloy (Part No. CCC 2708) and the 'Radial' alloy wheel (Part No. CCC 3524).

The new pattern of hub cap is available as Part No. CCC 5281.

ALL XJ6, XJ12, XJS MODELS **ITEM: 31**
FROM VIN 673299 XJ12, 676725 XJ6, 188105 XJS

74 16 INCH ALLOY WHEELS

A new surface finish is now being applied to 16 inch Alloy wheels which will provide increased protection against corrosion and pitting arising from brake dust.

Dealers should bring to the attention of owners concerned that ONLY the Jaguar–approved wheel cleaner should be used; acid–based cleaning products may lead to discoloration of alloy wheels.

The revised–condition wheels are available through Jaguar Parts Operations under Part Number MHB 6115AA.

XJS FROM VIN 187645 **ITEM: 32**

76 DOOR ARM REST ESCUTCHEON

A re–designed chrome escutcheon (securing screw concealer) for the door arm rests has been introduced from VIN 187645.

This revised item (Part No. BEC 23781) provides an increased clearance between the escutcheon and the trim cover of the arm rest, compared to the previous condition.

XJ6 4.0 & 3.2, XJ12 **ITEM: 33**

80 HEATER MATRIX – COOLANT LEAKS

Investigations into heater matrix units returned with the complaint of coolant leakage have resulted in design changes. Modifications to the top and bottom tanks and collector plates have been introduced to correct this concern.

Heater units incorporating the modified matrix assemblies were introduced at VIN 680591.

All current stock held by Jaguar Parts Operations is to the revised condition.

XJ6 / XJ12 SERVICE MANUAL **ITEM: 34**

82 ERRATUM – SECTION 82 PAGE 82–23

Your attention is drawn to an error in the text on the above page, in Issue 2, dated January 1993. The correct version of the text is included below; a revision bar is placed to the left of the changed text, which is also underlined. Until this section is re–issued, please amend the Service Manual page concerned.

> See 82.10.20. 82.10.08 for removal ..... etc.
> ... Reassembly and fitting is the reversal of this procedure noting that special tool JD 164 must be placed over the compressor shaft for seal installation and that the replacement seal must be fitted with the aid
> ■ of JD 197.

Service Bulletin

JAGUAR Daimler

DATE: AUGUST 1994

REF: JD 41/94

SRO: 57-91-08

THIS SERVICE BULLETIN SHOULD BE READ IN CONJUNCTION WITH THE REVISED DATA FOR FRONT SUSPENSION GEOMETRY PUBLISHED IN ** ISSUE 2 ** OF SERVICE BULLETIN REF: JD 04/94. (** ISSUE 2 ** DATED AUGUST 1994)

MODELS : XJS, XJ6 & XJ12

SUBJECT : STEERING PULL

CUSTOMER CONCERN : Light Steering Pull

ADVICE TO CUSTOMER: The front suspension geometry will be checked and adjustments made where possible, which should improve the condition.

DEALER ACTION : Yes - where necessary

REPAIR METHOD : BACKGROUND

The concern arises from an imbalance between the Camber Angles on opposite sides of the vehicle.

For Saloon models, a method for Camber adjustment has now been developed, allowing imbalance to be corrected.

SALOON MODELS

1. Position the vehicle at mid-laden ride height, using the setting links.

2. Measure the Camber Angle of both front wheels.

continued../

3. Calculate the camber imbalance by subtracting the lower or negative figure from the higher figure obtained.

EXAMPLE 1

Left Hand Camber = + 0.3°
Right Hand Camber = - 0.4°

Camber Imbalance = 0.3 - (- 0.4)°
= 0.7°

EXAMPLE 2

Left Hand Camber = - 1.0°
Right Hand Camber = - 0.2°

Camber Imbalance = - 1.0 - (-0.2)°
= - 0.8°

See Fig. 1 below.

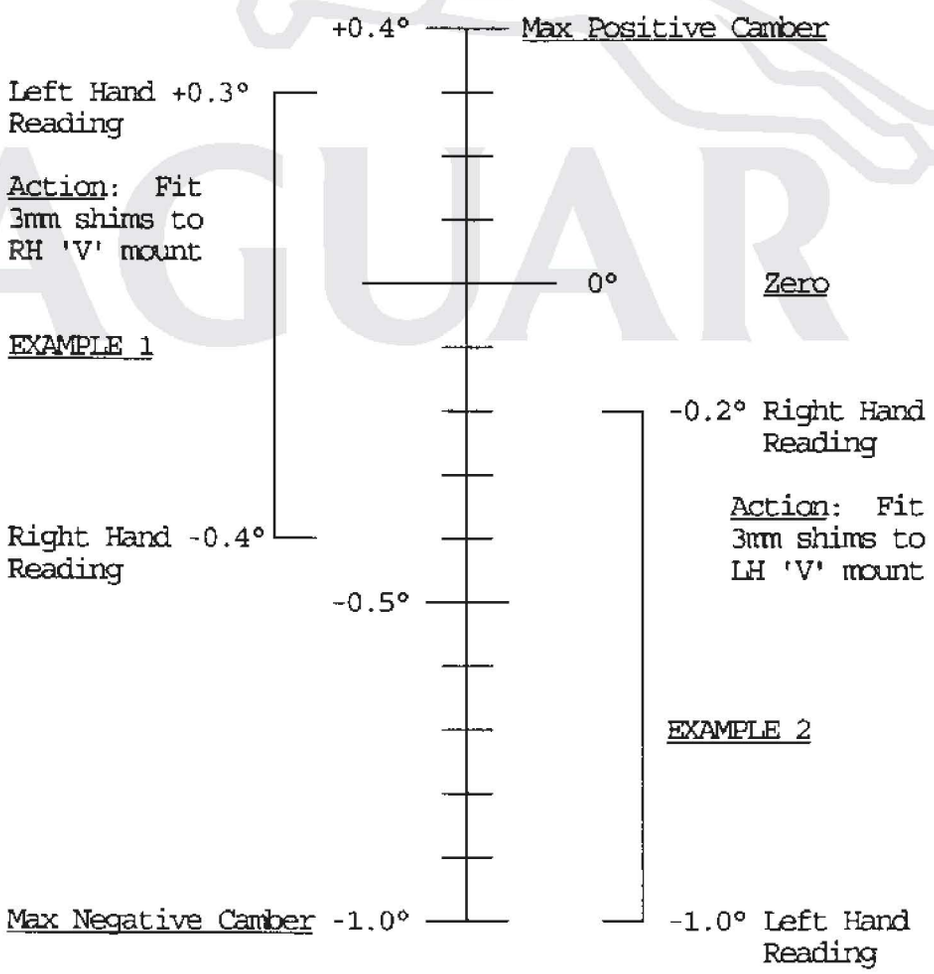


Fig. 1

4. ADD shims to the side of the vehicle on which the GREATER NEGATIVE or SMALLER POSITIVE reading was obtained.

   The objective is to reduce the measured camber imbalance by fitting a MAXIMUM of 3 adjustment shims. Each shim added corrects 0.1° of camber imbalance.

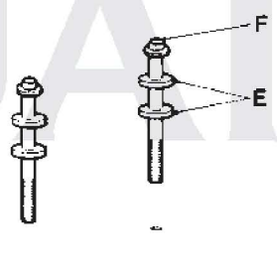
5. In cases where fitting the maximum of 3 shims does not fully rectify the customer's concern, it is possible to bias the self-centring effect of Castor Angle by moving Castor Shims at the front suspension upper ball joint mounting to the opposite face.

   Refer to Service Manual, Section 60. Part of SRO 60-15-02, Ball Joint, Upper.

   An INCREASE of Castor Angle on the RIGHT Hand side of the vehicle will bias the steering to the LEFT.

   Similarly, a DECREASE of Castor Angle on the LEFT Hand side of the vehicle will also have the effect of providing steering bias to the LEFT.

   I.E. Either of the above actions will reduce a concern of steering pull to the RIGHT.



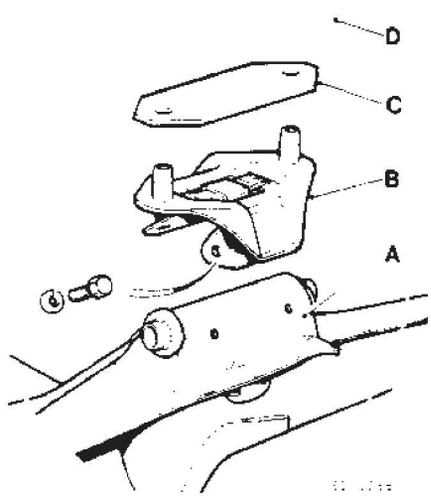


Fig. 2.

6. The Camber Angle Adjustment Shims (Item C, Fig. 2) are fitted between the crush tube (Item D) and the 'V' Mount (Item B), as indicated in Fig. 2.

IMPORTANT: WHERE SHIMS ARE FITTED, THE EXISTING BOLTS (ITEM F, Fig. 2) MUST BE REPLACED BY LONGER BOLTS, PART NO. JZB 100057, TOGETHER WITH 2 WASHERS, PART NO. C 21069 (ITEM E, Fig. 2) FITTED BETWEEN THE HEAD OF EACH BOLT AND THE UPPER FACE OF THE CRUSH TUBE.

XJS MODELS

Adjustment of Camber Angle is not applicable to XJS Models.

However, to reduce concerns of Steering Pull, process improvements have been introduced in manufacture at VIN 195487.

There are no changes to Suspension Geometry settings for XJS Models.

PARTS INFORMATION : Where required, the following Parts should be ordered via Jaguar Parts Operations:

DESCRIPTION	PART NO.	QTY/VEH
Camber Adjustment Shim 1mm	MMD 2258AA/1	3 Max.
Bolt	JZB 100057	2
Washer	C 21069	4

WARRANTY INFORMATION : WARRANTY CODE

Warranty claims for XJ6 & XJ12 vehicles should be submitted against Warranty Code: G H HC GG (Camber Setting Incorrect, Adjustment)

REPAIR OPERATION CODE & LABOUR TIME ALLOWANCE

SRO: 57-91-08 2.35 hours