TECHNICAL BULLETIN

JAGUAR SERVICE

Steering Pull – Correction Procedure

60-7

MODEL **Sedan Range 1988 - 94 MY** DATE **2/96**

ISSUE:

Steering pull on Sedan Range vehicles may be caused by a camber imbalance between the right and left side front suspension. A method of shimming a V-mount on one side has been developed to reduce this camber imbalance. In extreme cases, caster may have to be biased to reduce the steering pull.

ACTION:

In cases of customer complaints of steering pull, proceed as follows:

1. Inspect all front suspension components for wear or damage. Verify that the tires are the correct size, brand and type, and are properly inflated. If all four tires are not identical, advise the customer that it may not be possible to eliminate the steering pull.
2. Install the suspension mid-laden tools. Adjust the front mid-laden tools (JD133) to the correct setting height. Check the wheel alignment. For current specifications, refer to Bulletin 60-5.
3. Attempt to correct the camber imbalance using up to three 1mm shims. If this does not eliminate the steering pull, bias the caster.

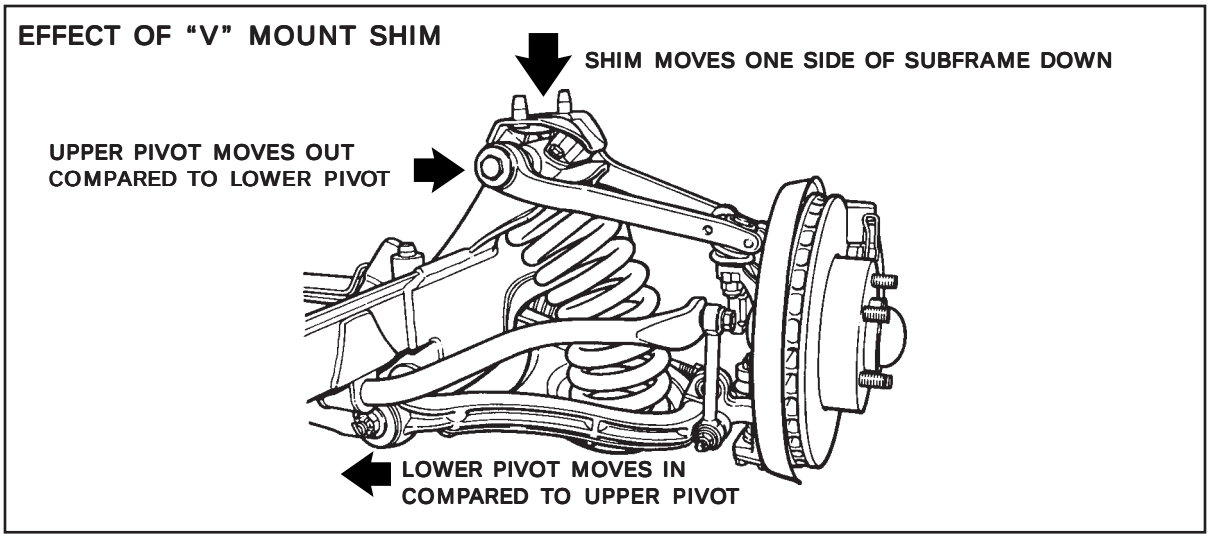
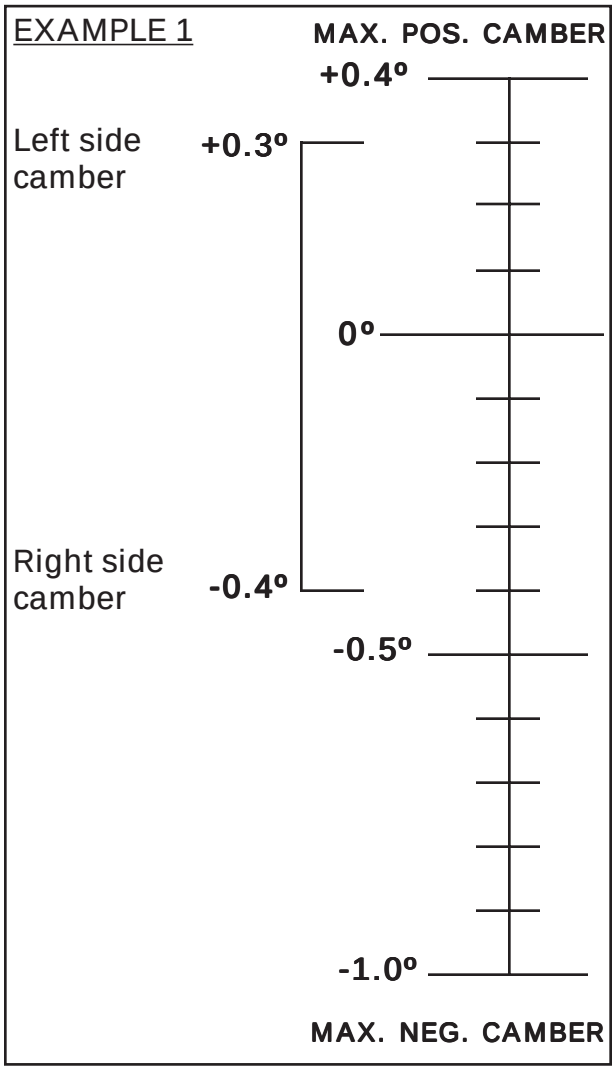
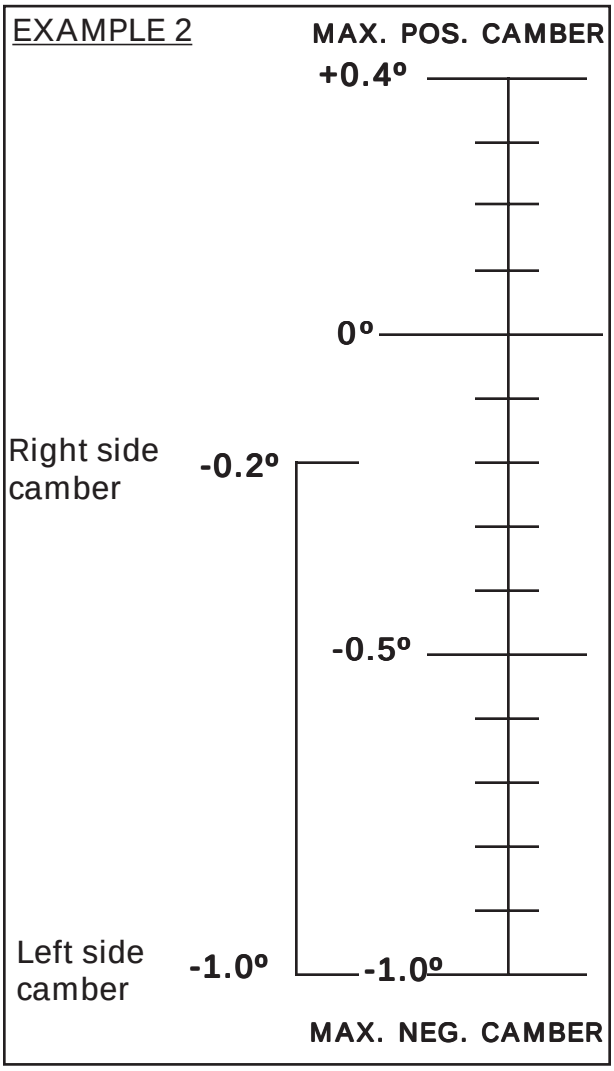


ILLUSTRATION 1

CAMBER IMBALANCE ADJUSTMENT

- After ensuring that the alignment is within specifications (+4º to -1.0º camber) and that no suspension components are bent, ADD shims to the side of the vehicle with the MORE NEGATIVE (LESS POSITIVE) measurement.
- Shimming one "V" mount causes the camber on that side to change toward a more positive (less negative) measurement (Illustration 1). At the same time, camber on the side opposite the shim moves toward more negative (less positive). This change has an equalizing effect that reduces the camber imbalance.
- Each 1 mm shim corrects 0.1º of camber imbalance. The shims must not exceed a total thickness of 3 mm.
- Two examples are given on page 3.





EXAMPLE 1

Left side camber = +0.3º
Right side camber = -0.4º

Camber imbalance = 0.3 - (-0.4)º
= 0.7º

Action:
Insert 3 shims on right side "V" mount to reduce imbalance to 0.4º.

EXAMPLE 2

Left side camber = -1.0º
Right side camber = -0.2º

Camber imbalance = -1.0 - (-0.2)º
= -0.8º

Action:
Insert 3 shims on left side "V" mount to reduce imbalance to -0.5º.

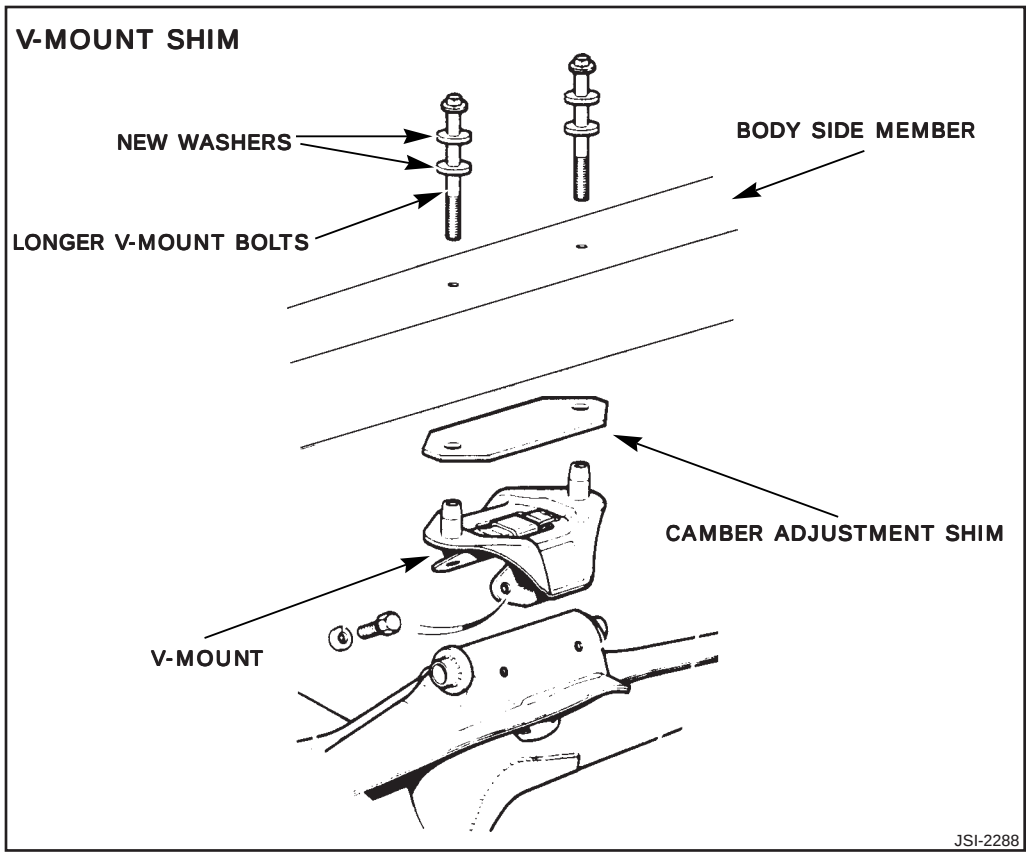


ILLUSTRATION 2

- The camber adjustment shims are installed between the side member and the V-mount (Illustration 2).

> **NOTE:** When shims are installed, the existing bolts, must be replaced by longer bolts, part no. JZB 100057, along with 2 washers, part no. C 21069 between the head of each bolt and the upper surface of the side member.

- Road test the vehicle.
- In cases where installing the maximum of 3 shims does not solve the customer complaint, it is possible to bias the self-centering effect of the caster angle.

CASTER ADJUSTMENT

- Caster is adjusted by transferring shims from one side of the upper ball joint to the other (Illustration 3). Do not change the total amount of shims by adding or subtracting shims.

> **NOTE:** The caster measurement must remain within the specifications of +2º to +7º.

For example, to reduce a pull to the right:
INCREASE the Caster angle on the RIGHT side to become MORE positive, or
DECREASE the caster angle on the LEFT side to become LESS positive,
to bias the steering to the LEFT.

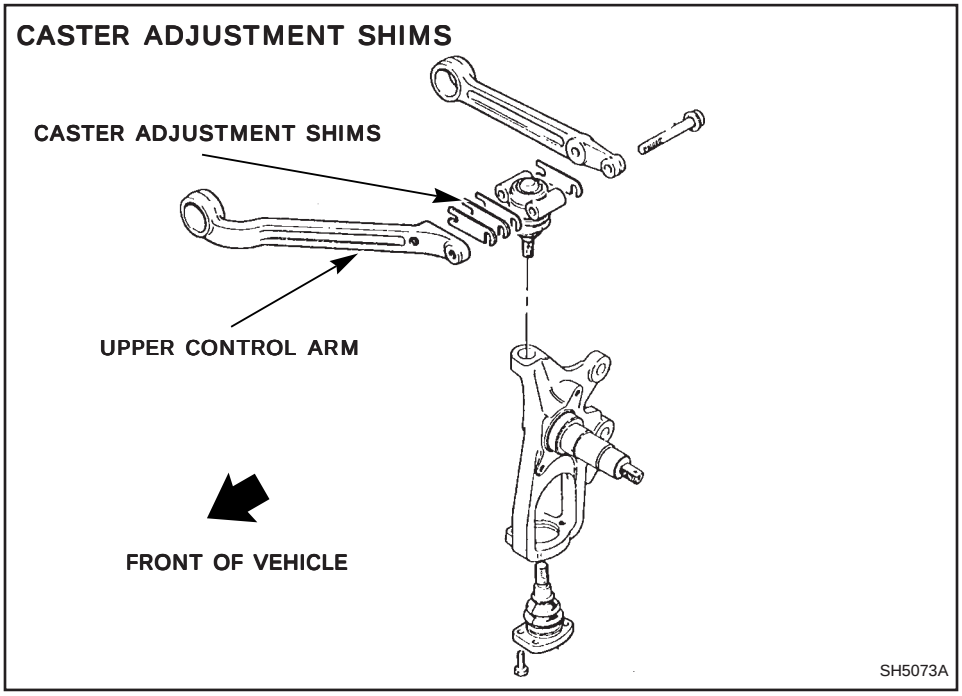


ILLUSTRATION 3

PARTS INFORMATION:

DESCRIPTION	PART NUMBER	QTY
Camber adjustment shim 1 mm	MMD 2258AA/1	3 max.
Bolt	JZB 100057	2
Washer	C 21069	2

WARRANTY POLICY:

Wheel alignment is covered under the Jaguar New Car Waranty for a period of 12 months or 12,500 miles, whichever comes first, from first retail sale.

Wheel alignments may not be performed under warranty without a customer complaint. “Before” and “after” settings must be recorded and kept with the repair order in the vehicle file.

WARRANTY INFORMATION:

FAULT CODE	R.O. NUMBER	DESCRIPTION	TIME ALLOWANCE
GB HB GG	57.65.01	Front wheel alignment - check and adjust	0.75 hrs.
GH HC MQ	57.91.08	Camber setting incorrect, adjustment	2.35 hrs.