

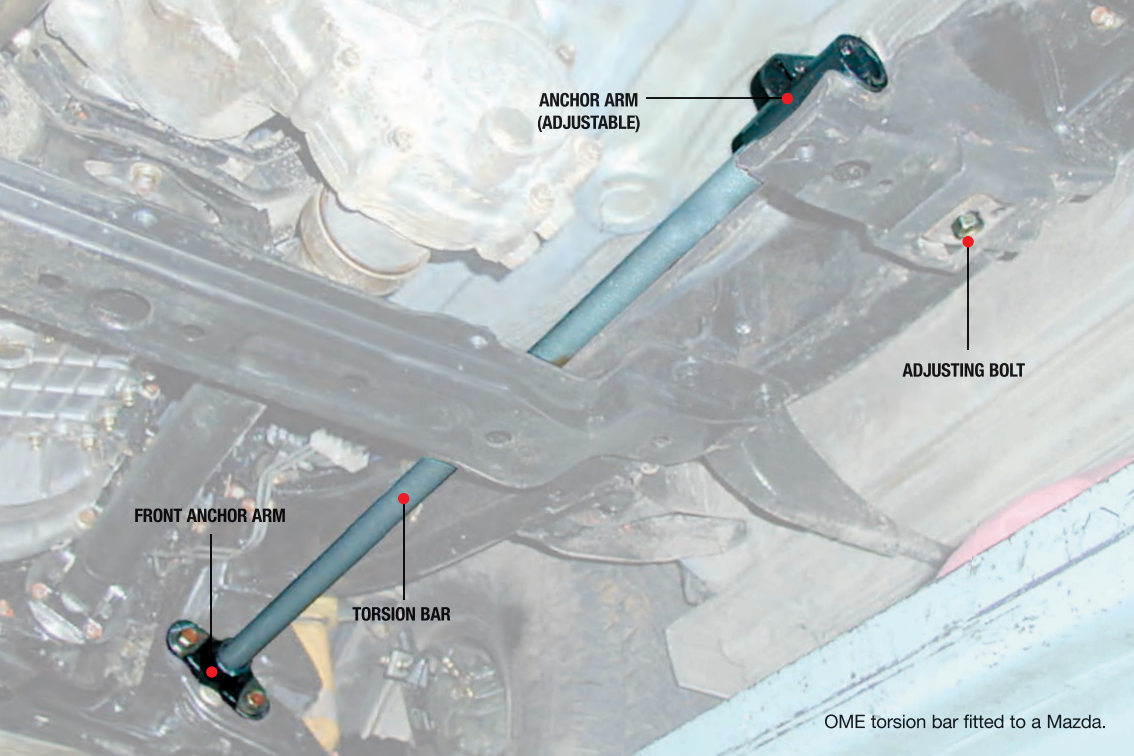


# TORSION BAR FITTING GUIDE



**OLD MAN EMU**

4X4 SUSPENSION BY ARB



**ANCHOR ARM  
(ADJUSTABLE)**

**ADJUSTING BOLT**

**FRONT ANCHOR ARM**

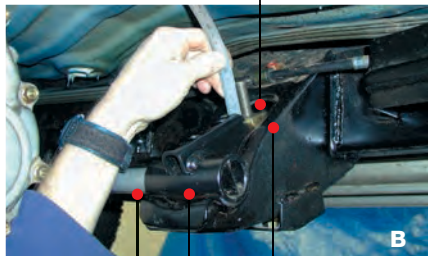
**TORSION BAR**

OME torsion bar fitted to a Mazda.

## TORSION BAR REMOVAL



ADJUSTING BOLT

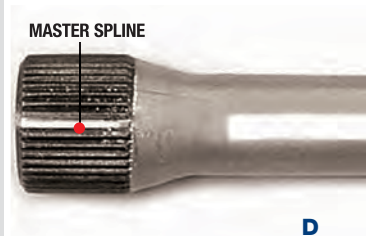


TORSION BAR ANCHOR ARM NUT

1. Before removing the original torsion bars, the vehicle's front and rear rim to guard measurements must be taken and noted down, as per image A. **Image A:** Ride height is measured from the bottom of the rim to the wheel arch vertically through the centre of the hub.
2. Using either a hoist or axle stands, raise the vehicle so that the front suspension is off the ground.
3. **Image B:** After cleaning and lubricating the two adjusting bolts, in the torsion bar anchor arms, measure and note the amount of thread protruding through the lock nut.
4. Using only hand tools loosen and remove the adjusting bolts.
5. Remove torsion bar and anchor arm assembly. Slide anchor arm and dust covers (if applicable) off the torsion bars.
6. Thoroughly clean the anchor arms, adjusting bolts and dust covers.

## TORSION BAR INSTALLATION

7. **Image C:** As each OME torsion bar is preset they are marked (LH) and (RH) and because of this they must only be installed as marked.  
**As viewed from the drivers seat:** **LH** - to the left hand side.  
**RH** - to the right hand side.
8. **Image D:** Where there is a master spline on the torsion bars (shown in white) on installation they must be aligned to the anchor arms. Where the torsion bars have the same spline sizes at each end, the torsion bar can be installed with either end to the front.
9. Slide the dust cover (if applicable) over the Old Man Emu torsion bars and apply grease to all splines and threads.
10. Install the torsion bar and align the anchor arm so the adjusting bolt is just protruding through the anchor nut. If required, the torsion bar can be rotated one spline at a time to adjust the position of the anchor arm.
11. Tighten the adjusting bolts so the same amount of thread, as noted in step 3, protrudes. Install dust covers.
12. Lower the vehicle back onto its wheels and drive a short distance to settle the front suspension.





**NB** - All torsion bar adjustments must be done with the vehicle raised off the ground and the front suspension hanging. Do NOT adjust the torsion bars with the vehicle wheels on the ground.

## **TORSION BAR ADJUSTMENT**

- 13. Image E:** Park the vehicle on level ground and measure the vehicle's rim to guard measurements.
- 14.** Use the torsion bar anchor arm adjusting bolt to raise or lower the vehicle's ride height, also to trim the vehicle from side to side, to the desired height.

## **FRONT SUSPENSION DROOP CHECK**

- 15.** To maintain good drive shaft, ball joint angles and to stop constant front suspension top out, it is important to check after adjusting the vehicle's ride height, that the vehicle has enough front wheel droop.  
**Generally, a vehicle must have a minimum of 50 to 70mm of downward wheel travel (droop)**
- 16. Image E:** Front suspension droop is checked by taking the vehicle's front rim to guard measurement, while the wheels are on the ground and noting it down.  
**Image F:** Then raise the front until the wheels are off the ground and take another rim to guard measurement and note it down.  
By subtracting the E image measurement from the F image measurement, the amount of droop will be obtained. Carry out any adjustment that may be required.
- 17.** All vehicles will require a headlight, front end alignment, and tyre pressure check after the fitment of new torsion bars.