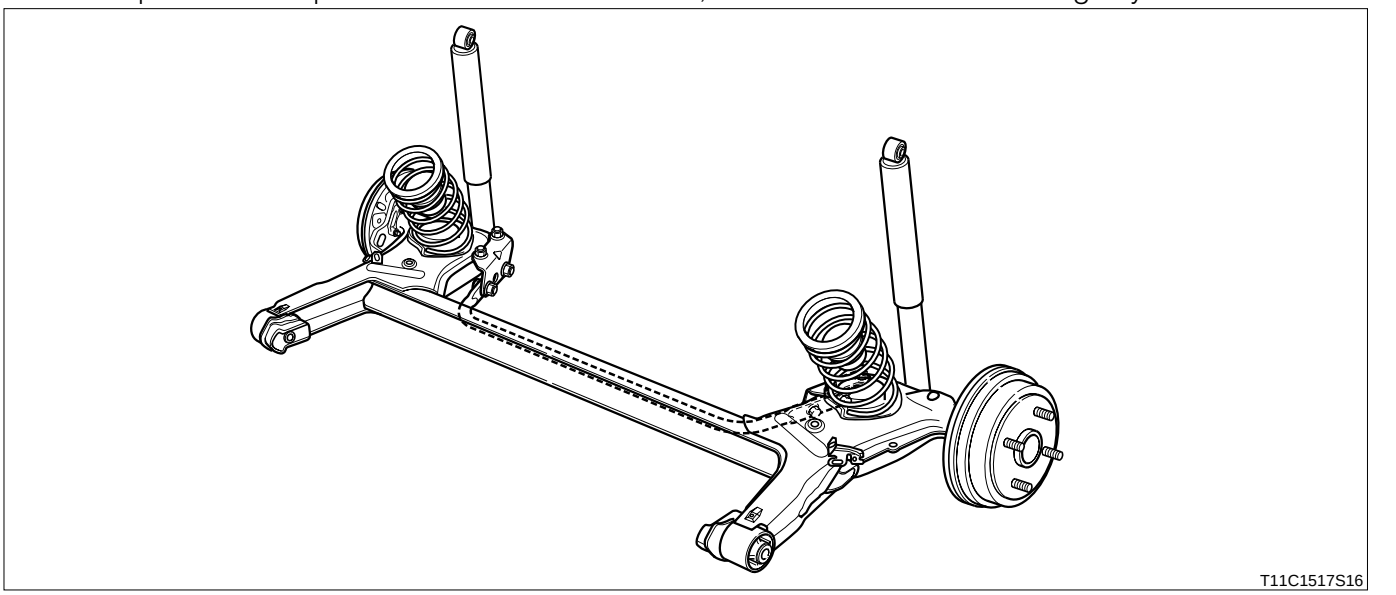
TO INDEX

C2 REAR SUSPENSION

1 OUTLINE

1-1 DESCRIPTION

1.A trailing arm type suspension with torsion beam has been employed.
2.For assured excellent controllability and riding comfort, the trailing arm section employs a toe correct bush.
3.Some specifications provide the rear stabilizer bar, which offers sufficient roll rigidity.



1-2 SPECIFICATION

1-2-1 REAR WHEEL ALIGNMENT SPECIFICATIONS

Vehicle model	M300RS	M300LS	M301RS	M301LS
Toe-in [mm]	3			
Camber angle	−0˚45´			

2 CONSTRUCTION AND OPERATION

2-1 TORSION BEAM TYPE SUSPENSION

2-1-1 DESCRIPTION

This type of suspension is capable of containing changes in alignment which occur as a result of movements and input from the suspensions. Furthermore, for optimum strength and rigidity, a U-shaped beam and an open end arm have been adopted. For excellent driving stability and riding comfort, the bushing characteristics can vary, depending on the input direction of the suspension.

2-1-2 TOE-CORRECT BUSHING

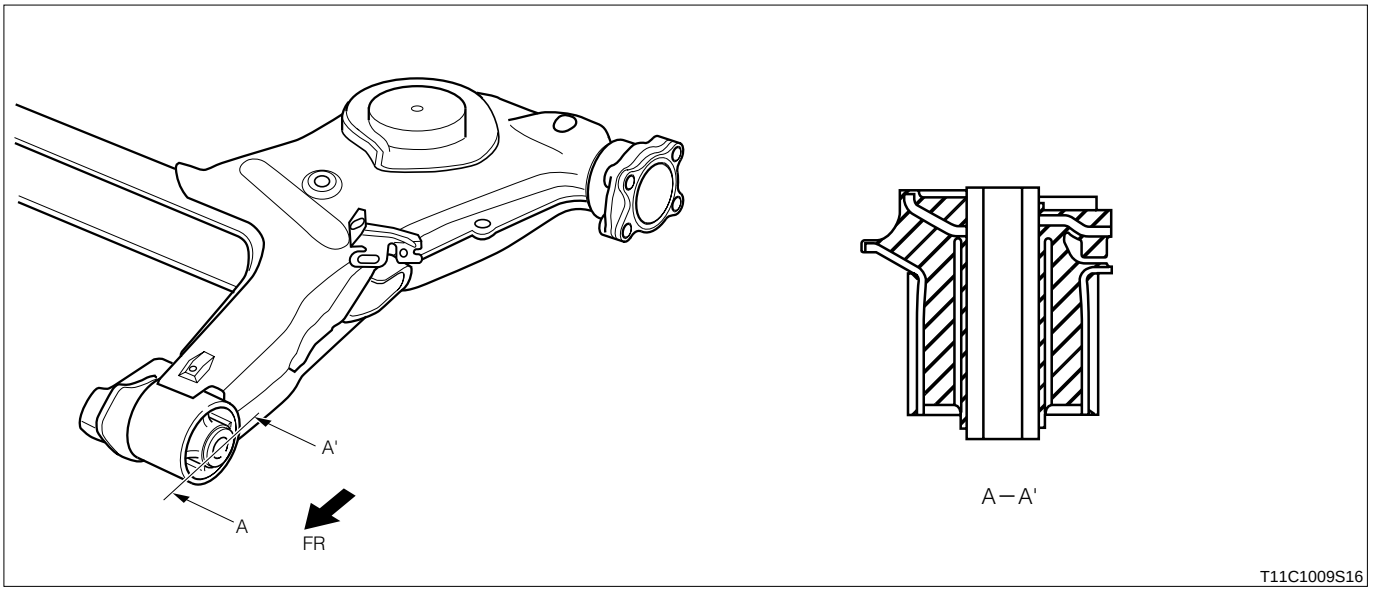
(1) Construction

With regard to the bushing construction in which the body and trailing arm have been joined, the setting has been made in such a way that the compliance *1 characteristics differ between the fore-and-aft direction and the right-and-left direction of the body.

Both excellent controllability and riding comfort have been achieved by generating a compliance steer *2, using deflection that occurs due to the longitudinal force and lateral force that are generated while the vehicle is cornering.

*1Compliance: This denotes flexibility of suspension

*2 Compliance steer: When longitudinal and lateral forces are applied to the ground contact section of the tire, this generates deflections at the arm and bush that constitute the suspension. These deflections alter the alignment, thus producing a steer angle and. As a result, the effect as if the steering wheel was turned is obtained.



(2) Operation

Due to the longitudinal force and lateral force of the vehicle body generated while the vehicle is turning, the bushing attached at the trailing arm will be deformed. At the right turning side, the right trailing arm will tend to move to the front side, whereas the left trailing arm will tend to move to the rear. As a whole, the trailing arm will turn in the same direction as the steering operation. Thus, a force is generated to correct the entire vehicle to the under steer side, using the longitudinal force and lateral force which occur, while the vehicle is turning, due to the shape of the bushing attached at the trailing arm. Consequently, the steering angle of the rear wheels is optimized.