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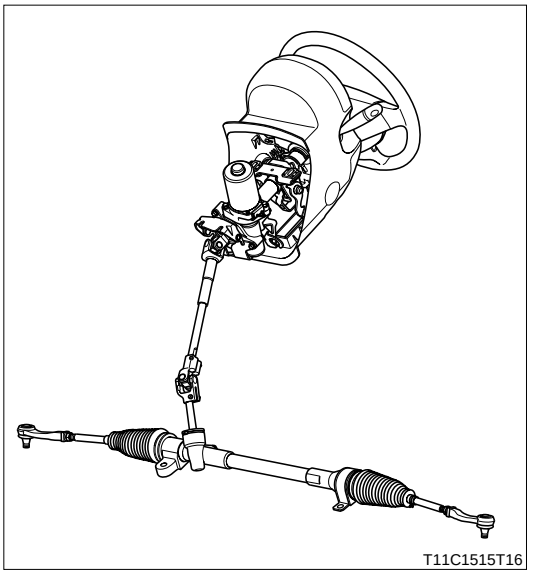
G1 STEERING

1 OUTLINE

1-1 DESCRIPTION

1.All vehicles employ an electric power steering (EPS).
2.A steering wheel with a built-in SRS airbag has been adopted as standard equipment on all models. For enhanced safety of occupants in the event of vehicle collision, etc., an impact absorption construction is employed on the steering column shaft and intermediate shaft.
3.All vehicles employ a tilt steering. Using this system, the driver can set the steering wheel to their desired position.



1-2 SPECIFICATIONS

1-2-1 STEERING SPECIFICATION

RHD vehicles

Vehicle model	M300RS	M301RS
Power steering	Electric	
Provided or not provided with tilt steering	Provided	
Number of lock-to-lock turns	3.8*1 3.5*2	3.5
Front wheel turning angle (inside)	45˚42´*1 40˚00´*2	40˚00´
Front wheel turning angle (outside)	37˚00´*1 33˚48´*2	33˚48´
Minimum turning radius [m]	4.3*1 4.7*2	4.7

*1: Vehicles equipped with 13-inch tire *2: Vehicles equipped with 14-inch tire

LHD vehicles

Vehicle model	M300LS	M301LS
Power steering	Electric	
Provided or not provided with tilt steering	Provided	
Number of lock-to-lock turns	3.8*1 3.5*2	3.5
Front wheel turning angle (inside)	45˚42´*1 40˚00´*2	40˚00´
Front wheel turning angle (outside)	37˚00´*1 33˚48´*2	33˚48´
Minimum turning radius [m]	4.3*1 4.7*2	4.7

*1: Vehicles equipped with 13-inch tire *2: Vehicles equipped with 14-inch tire

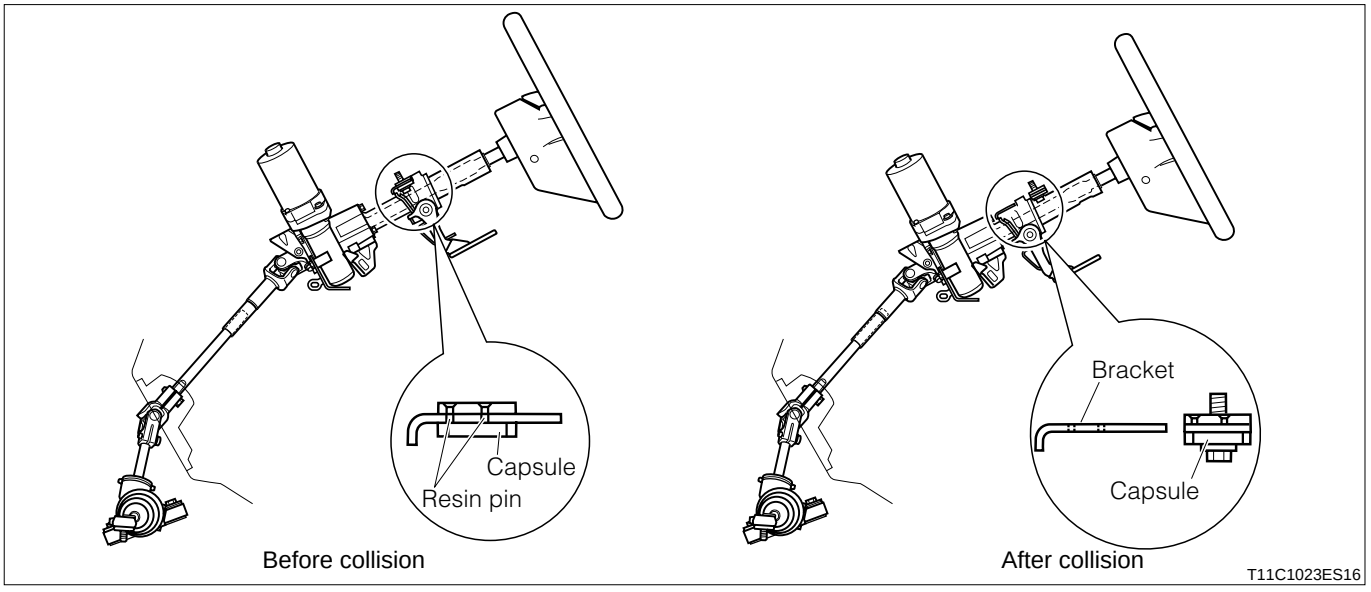
1-3 STEERING COLUMN

1-3-1 DESCRIPTION

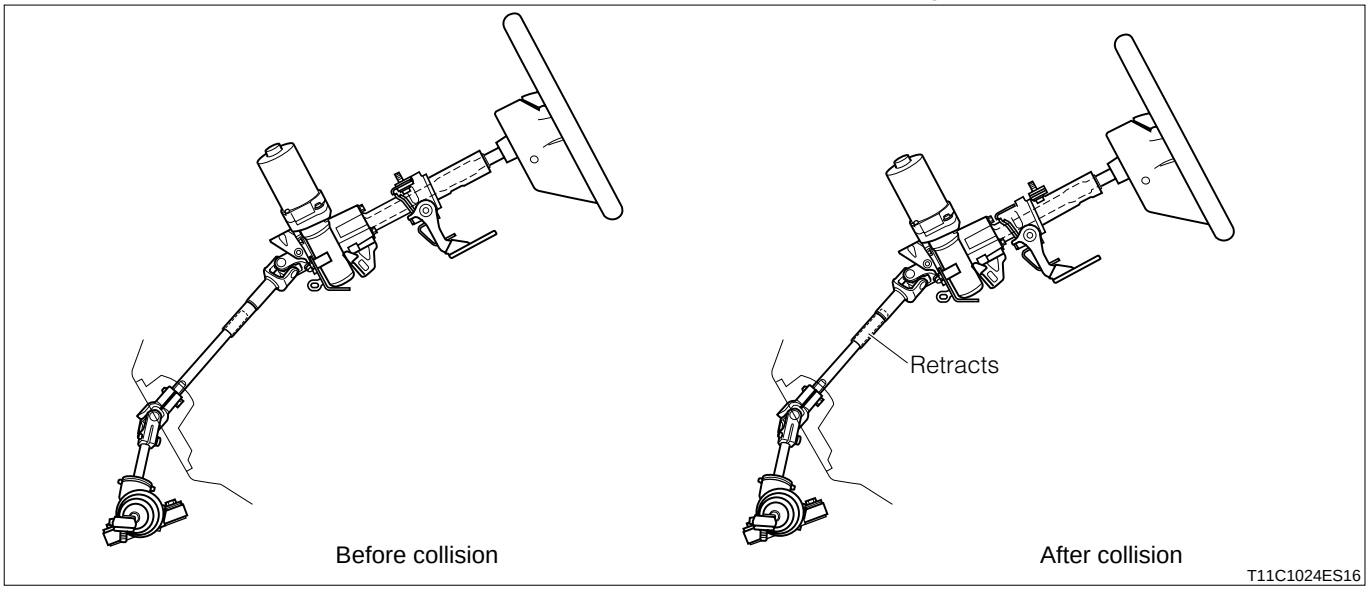
All vehicles employ a tilt mechanism and a impact absorption construction.

1-3-2 IMPACT ABSORPTION CONSTRUCTION

1. The upper and lower sections of the steering main shaft are joined by a serration section. As regards the steering column, the inner tube has been press-fitted to the outer side.
2. When the impact is transmitted to the steering column, the steering column tube at the inner side flares open the outer side, while shrinking. Thus, the steering main shaft shrinks while it receives the sliding resistance at the serration fitting section. In this way the impact is absorbed.
3. In addition to the above, the impact absorption construction employs a breakaway method for the collision (secondary collision) of the occupant against the steering wheel.
4. A flange is provided on the upper section of the steering column tube for attaching the steering column to the vehicle. A plastic capsule is attached to the flange by a plastic pin. When an impact is applied to the steering column, the plastic pin breaks and the plastic capsule is detached from the flange.Thus, the impact is absorbed as the steering column cover and the steering main shaft slide and shrink.

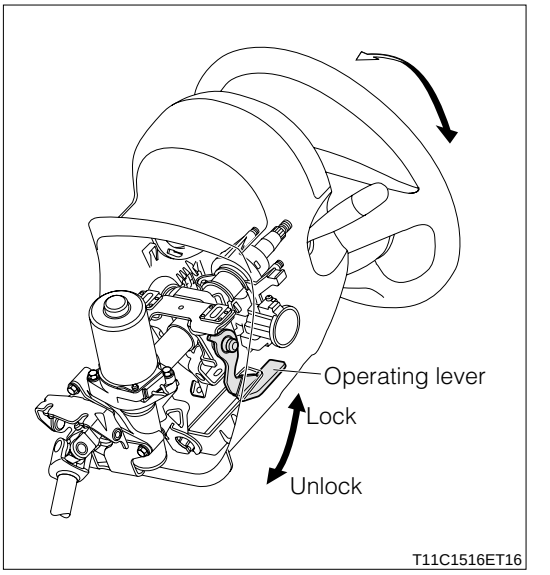


5. The upper and lower sections of the intermediate shaft are joined by a serration section.
6. In the event of impact, the shrinking takes place with the sliding resistance at the serration fitting section. This mechanism thus restrains the displacement of the steering column.



1-3-3 TILT MECHANISM

This is a mechanism which allows the steering wheel position to be adjusted up and down. The locking and unlocking operation is performed by means of the lever on the left-hand side of the steering column.



1-4 STEERING GEAR

1-4-1 DESCRIPTION

All vehicles employ a rack and pinion steering gear.