■ENERGY ABSORBING MECHANISM

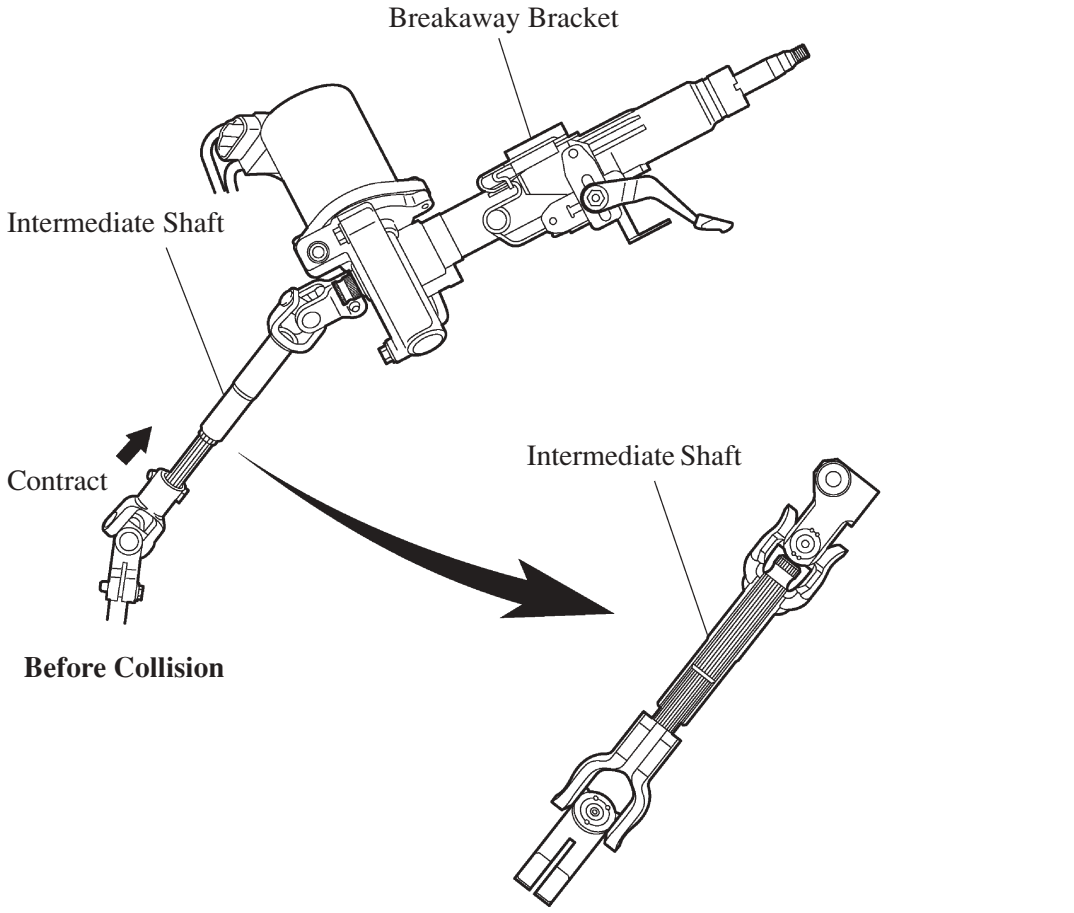
1. General

The energy absorbing mechanism in the steering column consists of the breakaway bracket, intermediate shaft, pinion shaft, and column tube. The steering column is mounted on the instrument panel reinforcement via a breakaway bracket. The steering column and the steering gear box are connected with a contractile intermediate shaft.

2. Operation

- When the steering box moves during a collision (primary collision), the intermediate shaft contracts, thus helping reduce the possibility of the steering column and the steering wheel protruding into the cabin.

▶ Primary Collision ◀

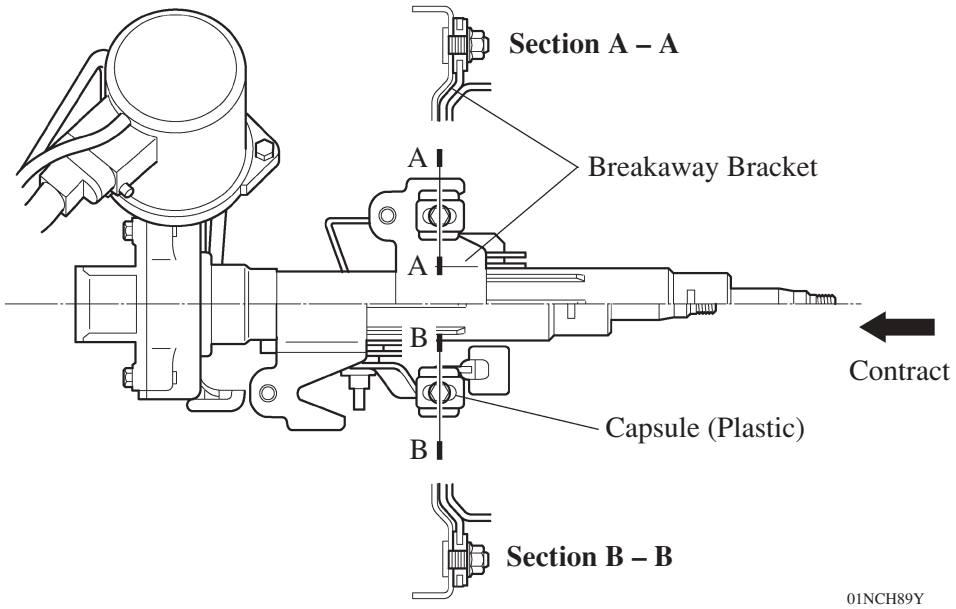


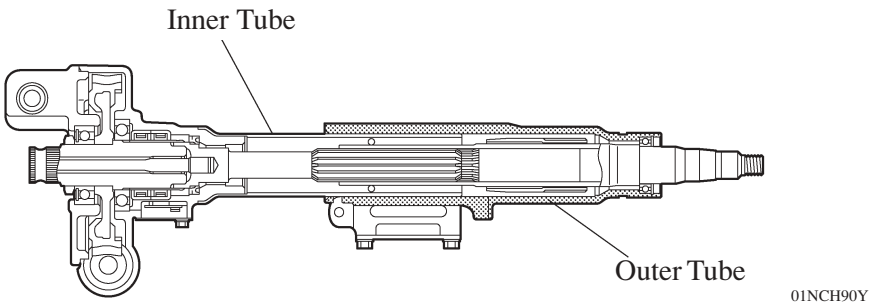
Before Collision

After Collision

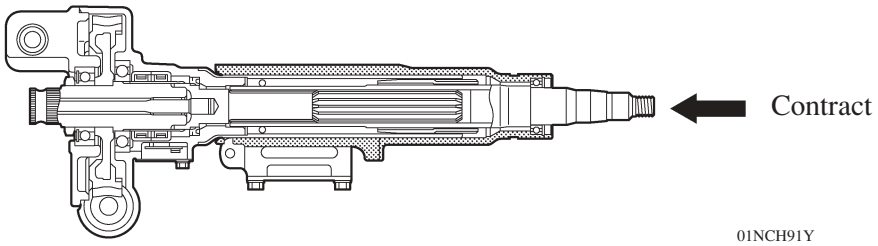
- When a collision impact is transmitted to the steering wheel (secondary collision), the steering wheel and the driver's airbag help absorb the impact. In addition, the breakaway bracket separates, and the column tube contracts. At this time, the friction resistance of the sliding portion, which is staked to the column tube, absorbs the energy. This sequential energy absorbing mechanism helps absorb the impact of the secondary collision.

▶ Secondary Collision ◀





Before Collision



After Collision
(Maximum Contraction)