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**GROUP 37**

**POWER STEERING**

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## GENERAL DESCRIPTION

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### FEATURES

Power steering has been adopted in all vehicles to make the steering easier.

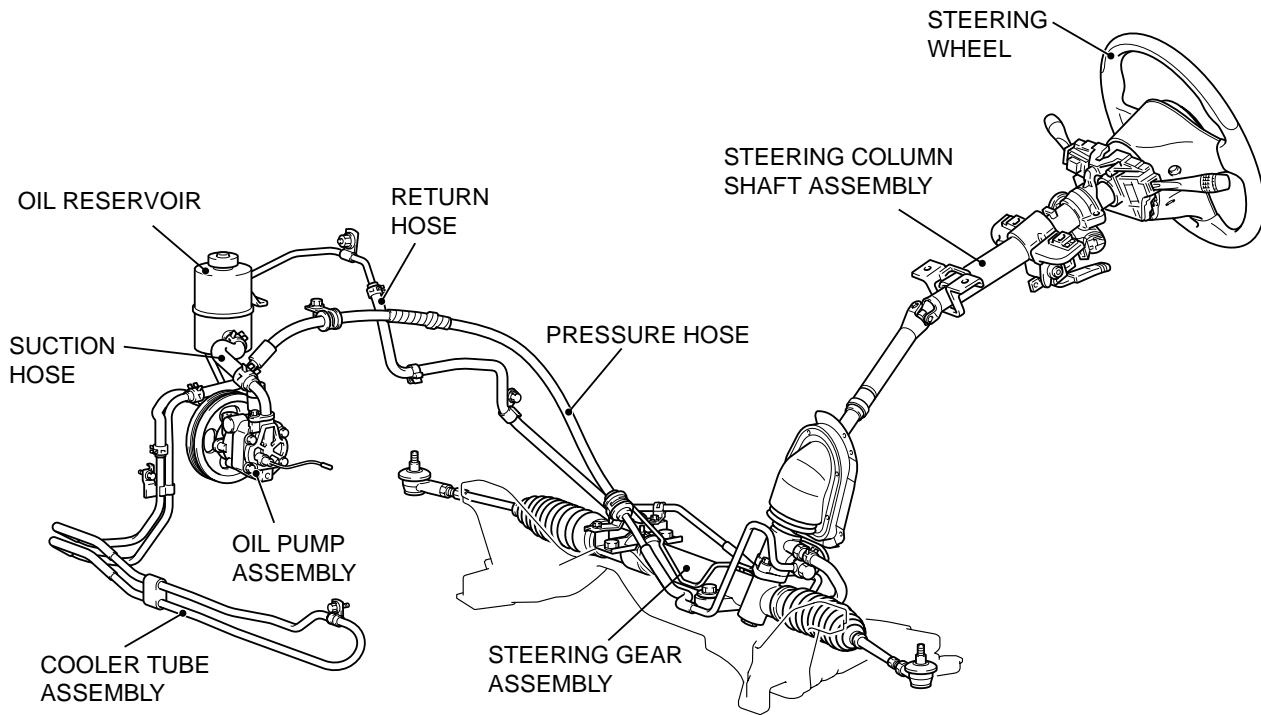
- MOMO leather-wrapped 3-spoke steering wheel is used.
- The steering column has a shock-absorbing mechanism and a tilt steering mechanism.

- A rack and pinion steering gear provides steering that feels more direct and for ample handling performance.
- An oil pump responsive to engine RPM is used, which, with tuning for a rigid gear box mount, provides stable steering at high speeds.
- The separate oil reservoir is rubber-mounted.

### SPECIFICATIONS

ITEM		SPECIFICATION
Steering wheel	Type	MOMO leather-wrapped 3-spoke type
	Outside diameter mm (in)	365 (14.4)
	Maximum number of turns	2.1
Steering column	Column mechanism	Shock absorbing mechanism and Tilt steering mechanism
Power steering type		Integral type
Oil pump	Type	vane pump
	Basic discharge amount cm <sup>3</sup> /rev. (cu in/rev)	9.6 (0.59)
	Relief pressure MPa (psi)	8.3– 9.0 (1,204–1,305)
	Reservoir type	Separate type (plastic)
	Pressure switch	Equipped
Steering gear	Type	Rack and pinion
	Stroke ratio (Rack stroke/Steering wheel Maximum turning radius)	68.61
	Rack stroke mm (in)	146 (5.7)
Steering angle	Inner wheel	32°
	Outer wheel	27°
Power steering fluid	Specified lubricants	GENUINE MITSUBISHI POWER STEERING FLUID
	Quantity dm <sup>3</sup> (qt)	Approximately 1.0 (1.1)

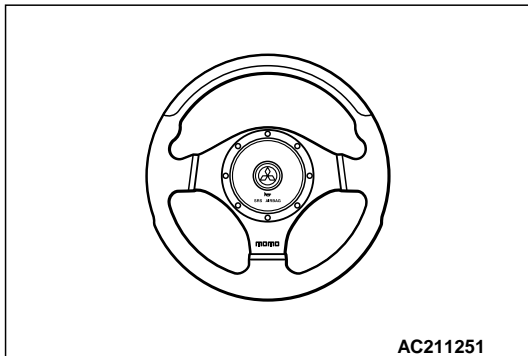
CONSTRUCTION DIAGRAM



AC211250 AB

STEERING WHEEL

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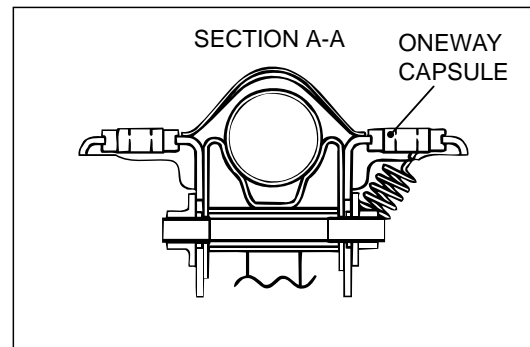
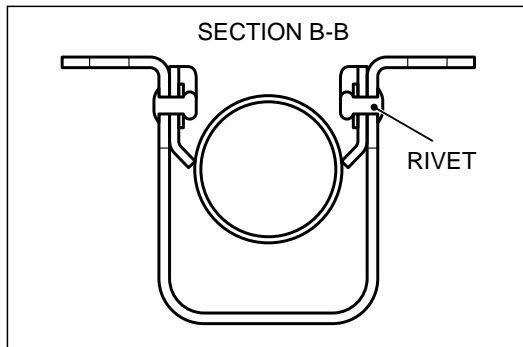
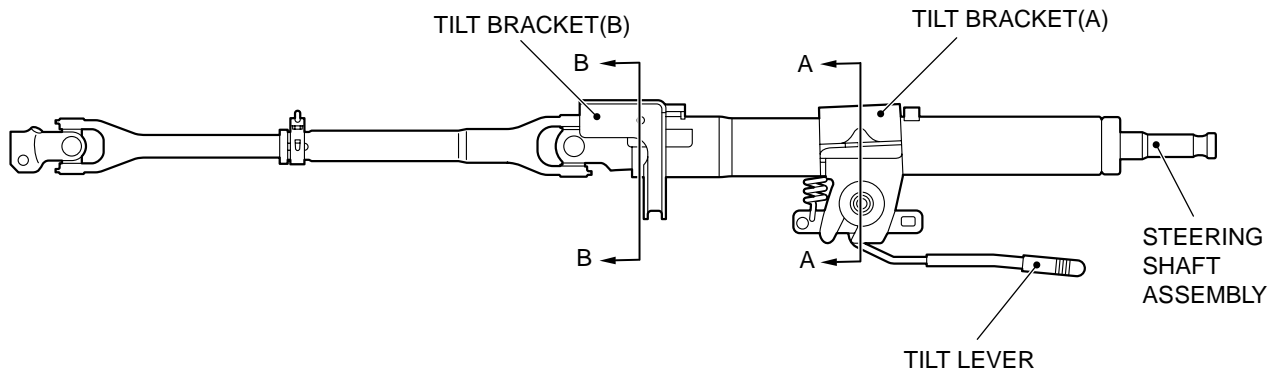


The steering wheel has the following features:

- It has 3-spoke-type MOMO leather-wrapped steering.
- It incorporates an airbag module to protect the driver in the event of a frontal collision.
- The airbag module is equipped with an inflator that does not contain sodium azide.

## STEERING SHAFT AND COLUMN

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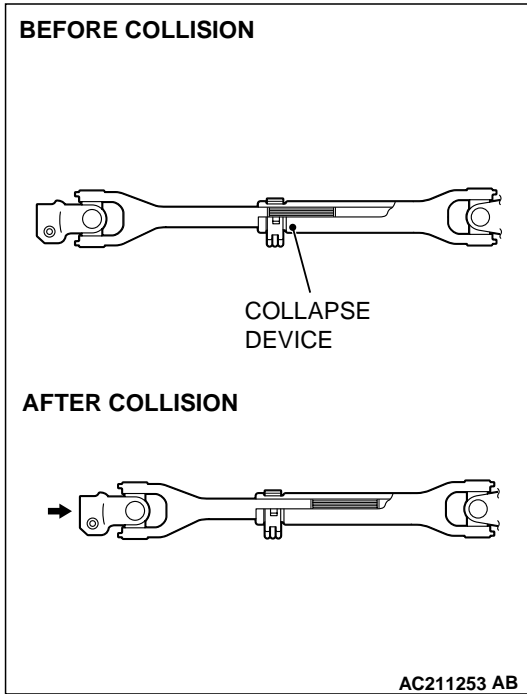
The steering column allows drivers to sit in their preferred driving position, and the tilt steering wheel offers easy access. In case of an accident, the following mechanisms improve driver safety.

- A collapsible intermediary shaft prevents the steering column from entering the passenger compartment during initial impact.
- A system for energy absorption is provided by the breakaway steering column which has a one-way capsule.

## SHOCK ABSORBING MECHANISM

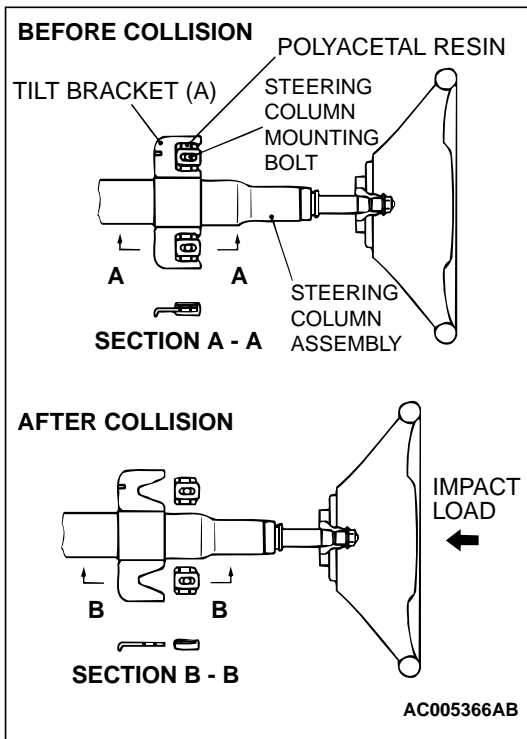
### PRIMARY IMPACT

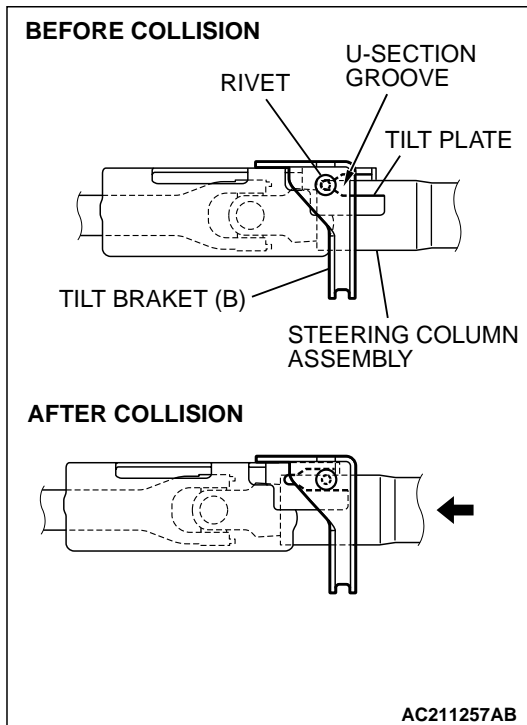
When the vehicle is in a collision and there is a force applied to the steering column assembly from the steering gear, the collapse device is contracted to absorb the shock load. This prevents the steering column from moving into the passenger compartment during the impact.



### SECONDARY IMPACT

1. When the driver's body falls against the deployed air bag, the tilt bracket (A) moves forward by crushing the polyacetal resin, causing the steering column assembly to move towards the engine compartment.





2. As the bracket breaks free, the rivet comes out of the U-section groove in the tilt plate, allowing the steering column assembly to move towards the engine compartment.

## OIL PUMP

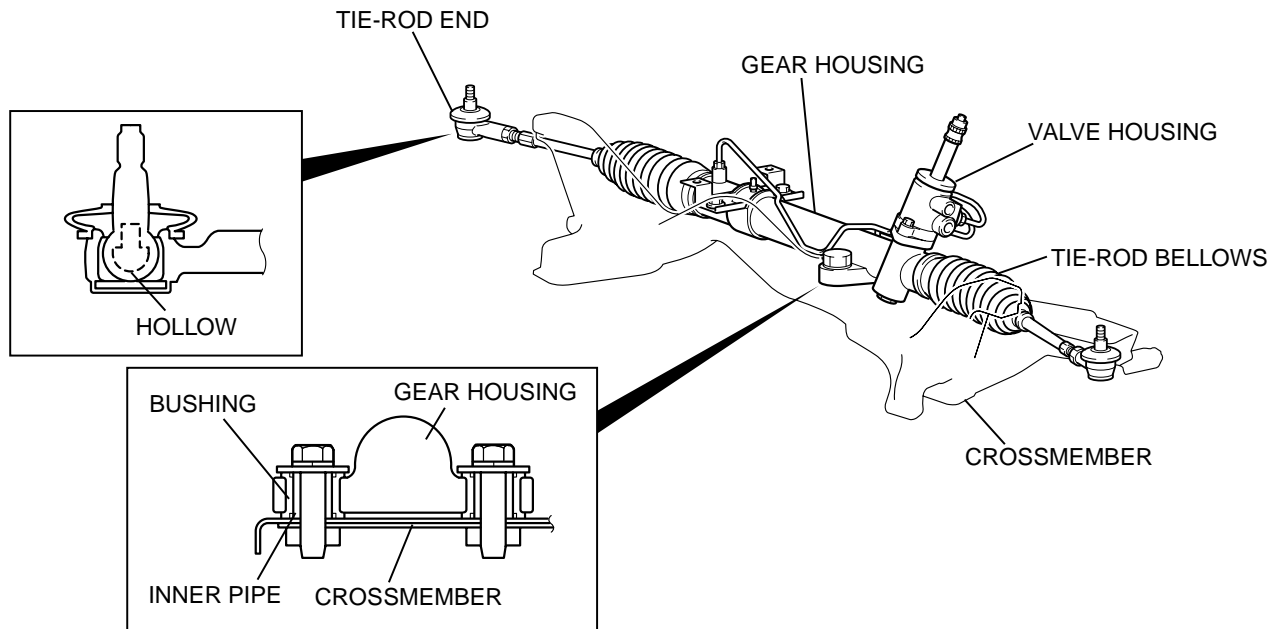
The oil pump is a vane type with a fluid flow control system. Steering wheel turning effort is reduced at low engine speeds and is increased at higher speeds.

The oil pump is the conventional type.

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# STEERING GEAR

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AC211252 AB

- Using the following parts have contributed to reduce weight: aluminium steering gear and linkage valve housing, plastic tie-rod bellows, and hollow-type tie-rod stud.
- The installation accuracy, rigidity and steering stability have been improved by using an eye bushing, which secures the steering gear to the crossmember.

# OIL RESERVOIR

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An oil reservoir is rubber-mounted.

