

---

## GROUP 27

# REAR AXLE

### CONTENTS

GENERAL INFORMATION .....	<b>27-2</b>	WHEEL BEARING AXIAL PLAY CHECK ..	<b>27-3</b>
SERVICE SPECIFICATIONS.....	<b>27-2</b>	WHEEL BEARING ROTARY-SLIDING RESISTANCE CHECK .....	<b>27-3</b>
SPECIAL TOOLS.....	<b>27-3</b>	HUB BOLT REPLACEMENT.....	<b>27-4</b>
ON-VEHICLE SERVICE.....	<b>27-3</b>	<b>REAR AXLE HUB ASSEMBLY .....</b>	<b>27-5</b>
		REMOVAL AND INSTALLATION .....	<b>27-5</b>
		INSPECTION.....	<b>27-5</b>

## GENERAL INFORMATION

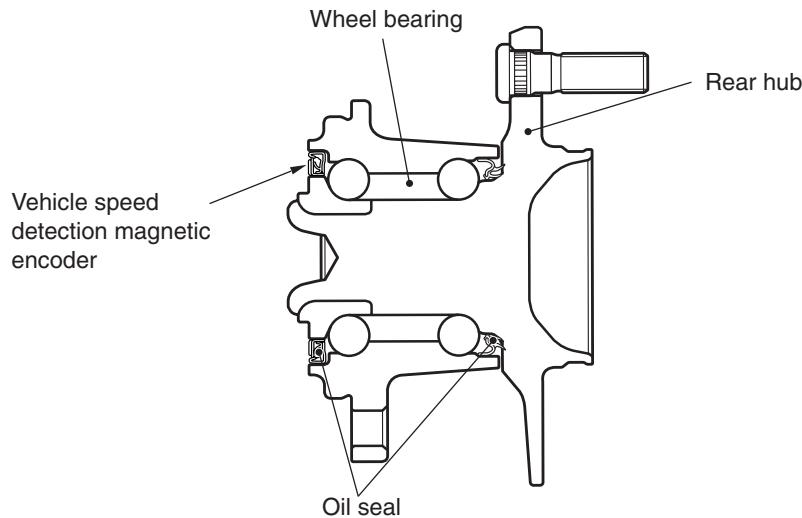
The rear axle has the following features:

- The wheel bearing is a unit ball bearing (double-row angular contact ball bearing) for reduced friction.
- The wheel bearing incorporates vehicle speed detection magnetic encoder for ABS to reduce the quantity of parts.

- The rear wheel hub assembly combines the hub, wheel bearing, housing, and oil seal in a single unit for fewer parts, better durability, improved assembly precision, and better structural organization.

M1271000100371

## CONSTRUCTION DIAGRAM



AC313350AB

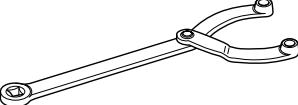
## SERVICE SPECIFICATIONS

M1271000300546

Item	Limit
Wheel bearing axial play mm	0.05
Wheel bearing rotary-sliding resistance N	19

## SPECIAL TOOLS

M1271000600558

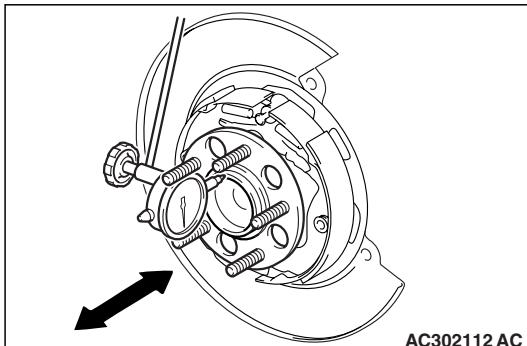
Tool	Number	Name	Use
 B990767	MB990767	End yoke holder	Hub fixing
 MB991618	MB991618	Hub bolt remover	Hub bolt removal

## ON-VEHICLE SERVICE

## WHEEL BEARING AXIAL PLAY CHECK

M1271000900504

1. Remove the caliper assembly, and suspend the caliper assembly with a wire and remove the brake disc.



AC302112 AC

2. Check the bearing's axial play. Place a dial gauge against the hub surface; then move the hub in the axial direction and check whether or not there is axial play.

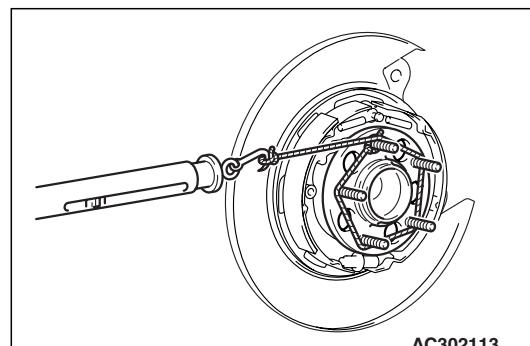
**Limit: 0.05 mm**

3. If the play exceeds the limit, replace the rear hub assembly.
4. After having checked, install the brake disc, the caliper assembly and tighten the caliper mounting bolt to the specified torque.

**Tightening torque:  $60 \pm 5 \text{ N}\cdot\text{m}$** WHEEL BEARING ROTARY-SLIDING  
RESISTANCE CHECK

M1271001100299

1. Remove the caliper assembly, and suspend the caliper assembly with a wire and remove the brake disc.
2. Turn the hub a few times to seat the bearing.



AC302113

3. Wind a rope around the hub bolt and turn the hub by pulling at a  $90^\circ$  angle with a spring balance. Measure to determine whether or not the rotary-sliding resistance of the wheel bearing is at the limit value.

**Limit: 19 N**

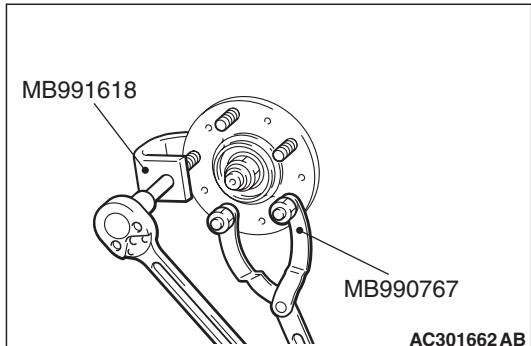
4. If limit value is exceeded, replace the rear hub assembly.
5. After having checked, install the brake disc, the caliper assembly and tighten the caliper mounting bolt to the specified torque.

**Tightening torque:  $60 \pm 5 \text{ N}\cdot\text{m}$**

## HUB BOLT REPLACEMENT

M1271001000300

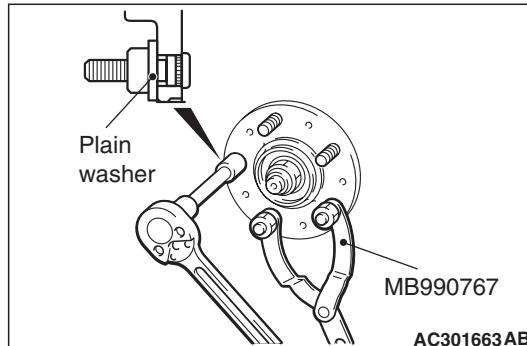
1. Remove the caliper assembly, and suspend the caliper assembly with a wire and remove the brake disc.



2. Use the following special tools to remove the hub bolts.
  - End yoke holder (MB990767)

- Hub bolt remover (MB991618)

*NOTE: To retain a space for removing the hub bolts, remove them near the retainer spring mounting position.*



3. Install the plain washer to the new hub bolt, and install the bolt with a nut.

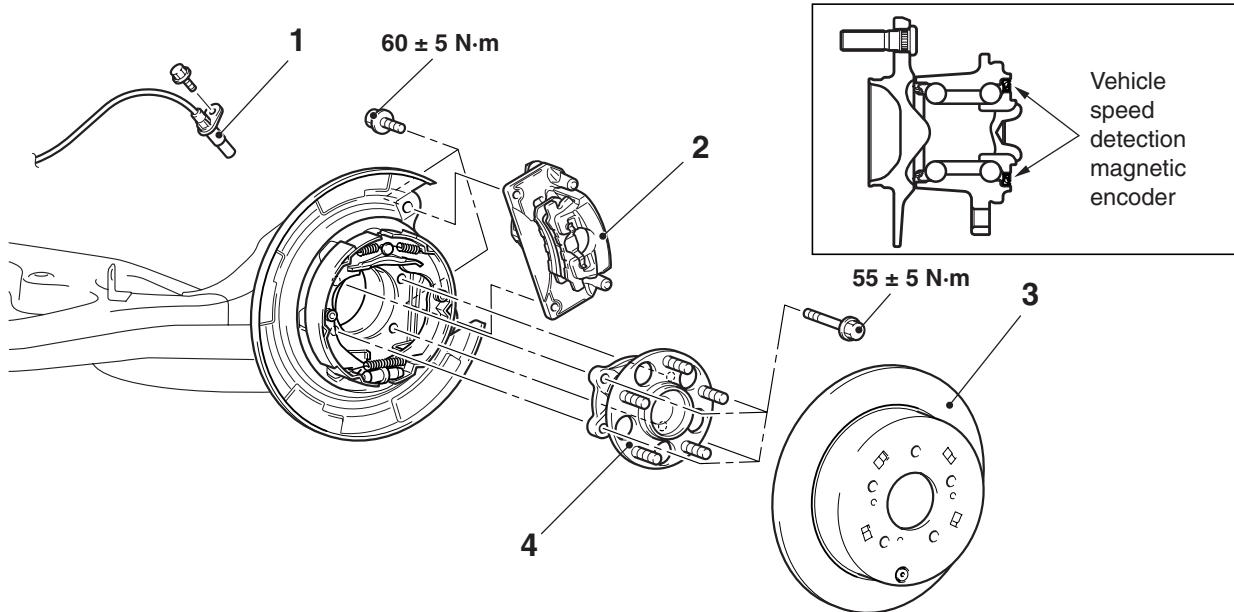
## REAR AXLE HUB ASSEMBLY

## REMOVAL AND INSTALLATION

M1271002000433

**CAUTION**

- Do not disassemble the rear wheel hub assembly.
- The vehicle speed detection magnetic encoder collects any metallic particle easily, because it is magnetised. Make sure that the magnetic encoder should not collect any metallic particle. Check that there is not any trouble prior to reassembling it.
- When the rear wheel hub assembly is removed and installed, make sure that the vehicle speed detection magnetic encoder does not contact with surrounding parts to avoid damage.
- When the rear wheel speed sensor is removed and installed, make sure that its pole piece does not contact with surrounding parts to avoid damage.



AC311498 AB

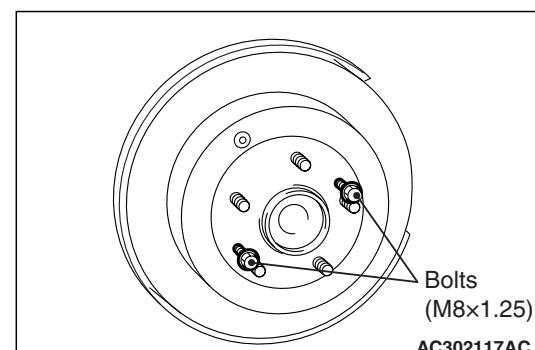
**Removal steps**

<b>&lt;&lt;A&gt;&gt;</b>	1. Rear wheel speed sensor
<b>&lt;&lt;B&gt;&gt;</b>	2. Caliper assembly
	3. Brake disc
	4. Rear wheel hub assembly

## REMOVAL SERVICE POINTS

**<<A>> CALIPER ASSEMBLY REMOVAL**

Secure the removed caliper assembly with wire, etc.



AC302117AC

If the brake disc is seized, install M8 × 1.25 bolts as shown, and remove the disc by tightening the bolts evenly and gradually.

**INSPECTION**

M1271002100281

- Check the rear hub assembly for crack or damage.