
PARKING BRAKES

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36-2 PARKING BRAKE – Service Specifications / Lubricants / Special Tools

The parking brake is designed as a drum-in-disc brake acting on the rear wheel. This brake is a little different in construction between EVOLUTION-IV and EVOLUTION-V but much alike in the service procedure of the parking brake section. In this group, therefore, the description is made only for EVOLUTION-IV.

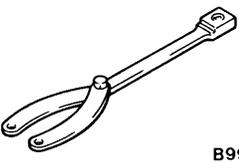
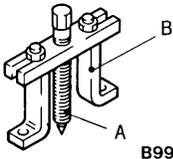
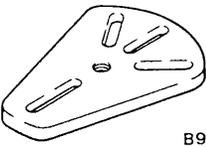
SERVICE SPECIFICATIONS

Items	Standard value	Limit
Parking brake lever stroke (operating force approx. 196 N {20 kgf})	5 – 7 notches	–
Brake lining thickness mm	2.8	1.0
Brake drum I.D. mm	168	169

LUBRICANTS

Items	Specified lubricant	Quantity
Backing plate	CHUO YUKA AKB100	As required
Shoe & lining assembly		
Adjuster		

SPECIAL TOOLS

Tool	Number	Name	Use
 <p>B991367</p>	MB990767	End yoke holder	Fixing of hub
 <p>B990241</p>	MB990241 A: MB990242 B: MB990244	Axle shaft puller A: Puller shaft B: Puller bar	
 <p>B991354</p>	MB991354	Puller body	

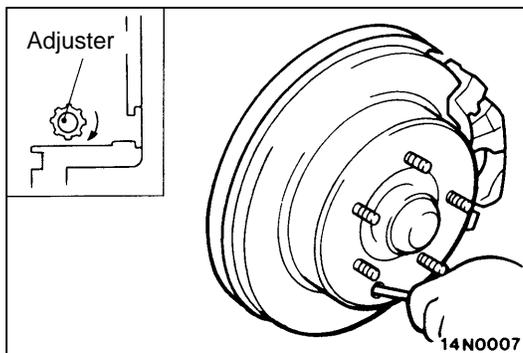
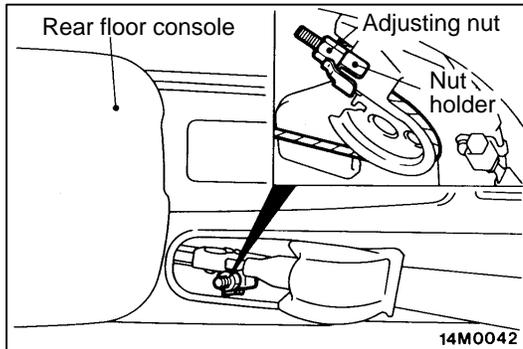
ON-VEHICLE SERVICE

1. PARKING BRAKE LEVER STROKE CHECK AND ADJUSTMENT

1-1 STROKE CHECK

Standard value: 5 – 7 notches

[Operating force of approx. 196 N {20 kgf}]



1-2 STROKE ADJUSTMENT

If the parking brake lever stroke is not the standard value, adjust as described below.

- (1) Loosen the adjusting nut at the floor console to release the cable.
 - (2) Remove the adjustment hole plug, and then use a flat-tip (-) screwdriver to turn the adjuster in the direction of the arrow (the direction which expands the shoe) until the disc cannot be rotated by both hands. Return the adjuster five notches in the direction opposite to the direction of the arrow. (Reference: shoe clearance on one side 0.19 mm)
 - (3) Turn the adjusting nut to adjust the parking brake lever stroke to the standard value. After adjusting, check that there is no space between the adjusting nut and the parking brake lever. Check also that the adjusting nut is firmly held by the nut holder.
- Caution**
If the parking brake lever stroke is below the standard value and the braking is too firm, the rear brakes may drag.
- (4) After adjusting the parking brake lever stroke, jack up the rear of the vehicle. Release the parking brake and turn the rear wheels to check that the rear brakes are not dragging.

2. LINING RUNNING-IN

Carry out running-in by the following procedure when replacing the parking brake linings or the rear brake disc rotors, or when brake performance is insufficient.

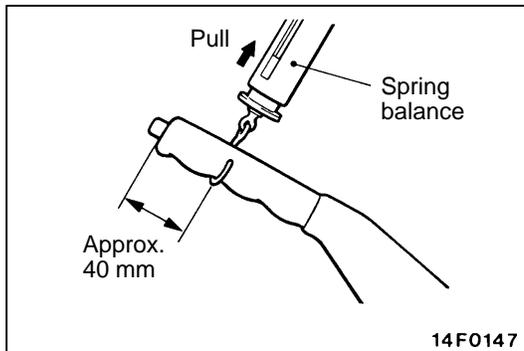
Caution

Carry out running-in in a place with good visibility, and pay careful attention to safety.

- (1) Adjust the parking brake stroke to the specified value.

Standard value: 5 – 7 notches

[Operating force of approx. 196 N {20 kgf}]



- (2) Hook a spring balance onto the center of the parking brake lever grip and pull it with a force of 98 – 147 N {10 – 15 kgf} in a direction perpendicular to the handle.
- (3) Drive the vehicle at a constant speed of 35 – 50 km/h for 100 metres.
- (4) Release the parking brake and let the brakes cool for 5 – 10 minutes.
- (5) Repeat the procedure in steps (2) to (4) 4 – 5 times.

PARKING BRAKE CABLE

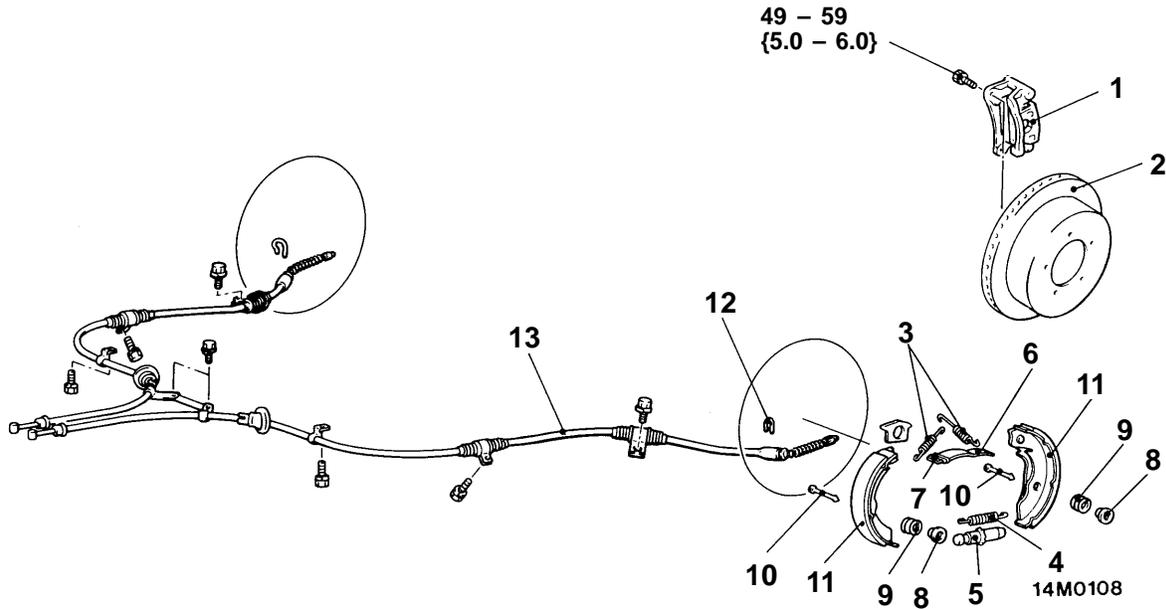
REMOVAL AND INSTALLATION

Pre-removal Operation

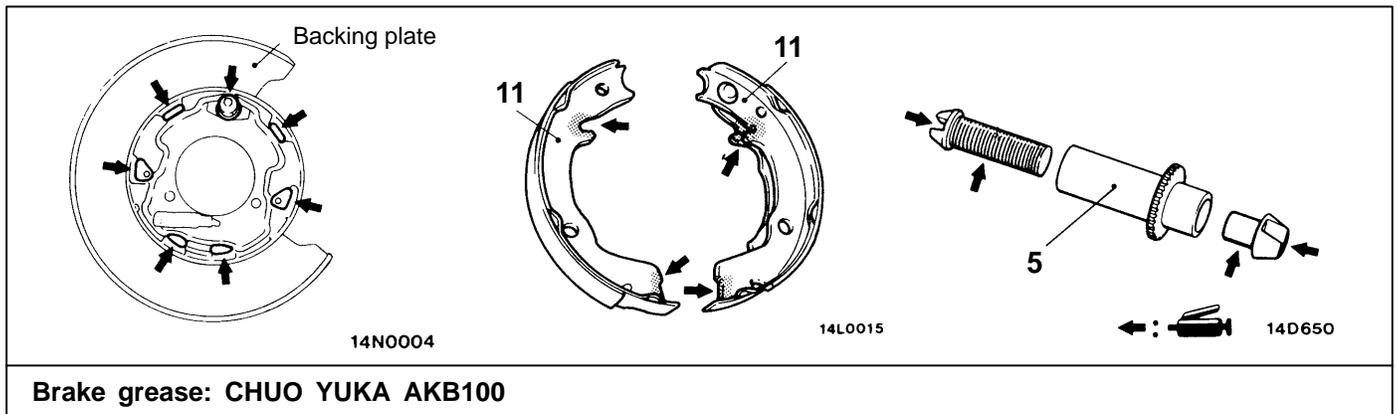
- Floor Console and Rear Seat Removal

Post-installation Operation

- (1) Parking Brake Lever Stroke Check and Adjustment (Refer to P.36-3.)
- (2) Floor Console and Rear Seat Installation



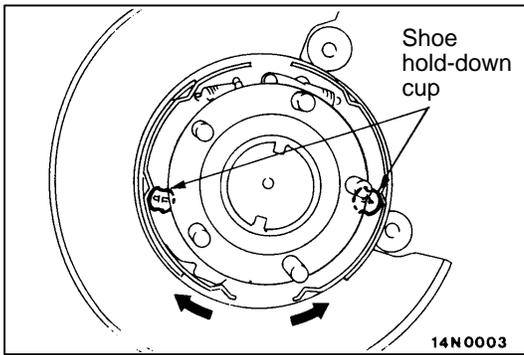
Unit: Nm {kgf·m}



Removal steps

- ◀A▶ 1. Rear brake caliper assembly
- ▶B▶ 2. Rear brake disc
- ▶B▶ 3. Shoe-to-anchor spring
- ▶A▶ 4. Adjusting screw spring
- ▶A▶ 5. Adjuster
- 6. Strut
- 7. Strut return spring

- ◀B▶ 8. Shoe hold-down cup
- 9. Shoe hold-down spring
- 10. Shoe hold-down pin
- 11. Shoe and lining assembly
- 12. Clip
- 13. Parking brake cable



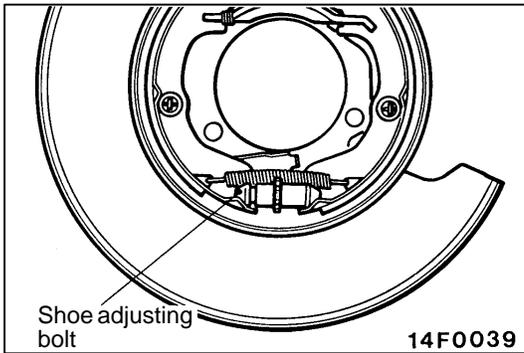
REMOVAL SERVICE POINTS

◀A▶ REAR BRAKE CALIPER ASSEMBLY REMOVAL

Remove the rear brake caliper assembly and support it with wire or similar.

◀B▶ SHOE HOLD-DOWN CUP REMOVAL

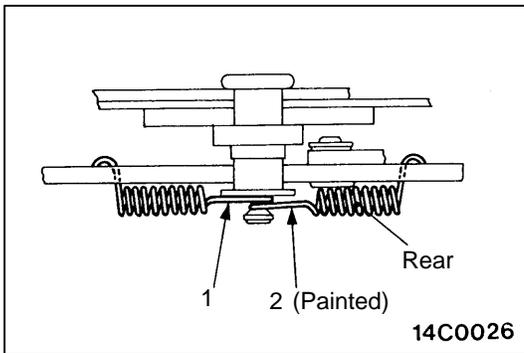
Extend the shoe and lining assembly, and remove the shoe hold-down cup.



INSTALLATION SERVICE POINTS

▶A◀ ADJUSTER INSTALLATION

Install the adjuster so that the shoe adjusting bolt of left hand wheel is attached towards the front of the vehicle, and the shoe adjusting bolt of right hand wheel is towards the rear of the vehicle.



▶B◀ SHOE-TO-ANCHOR SPRING INSTALLATION

Install the shoe-to-anchor springs in the order shown in the illustration.

Caution

The load on the respective shoe-to-anchor springs is different, so the spring in the figure has been painted.

NOTE

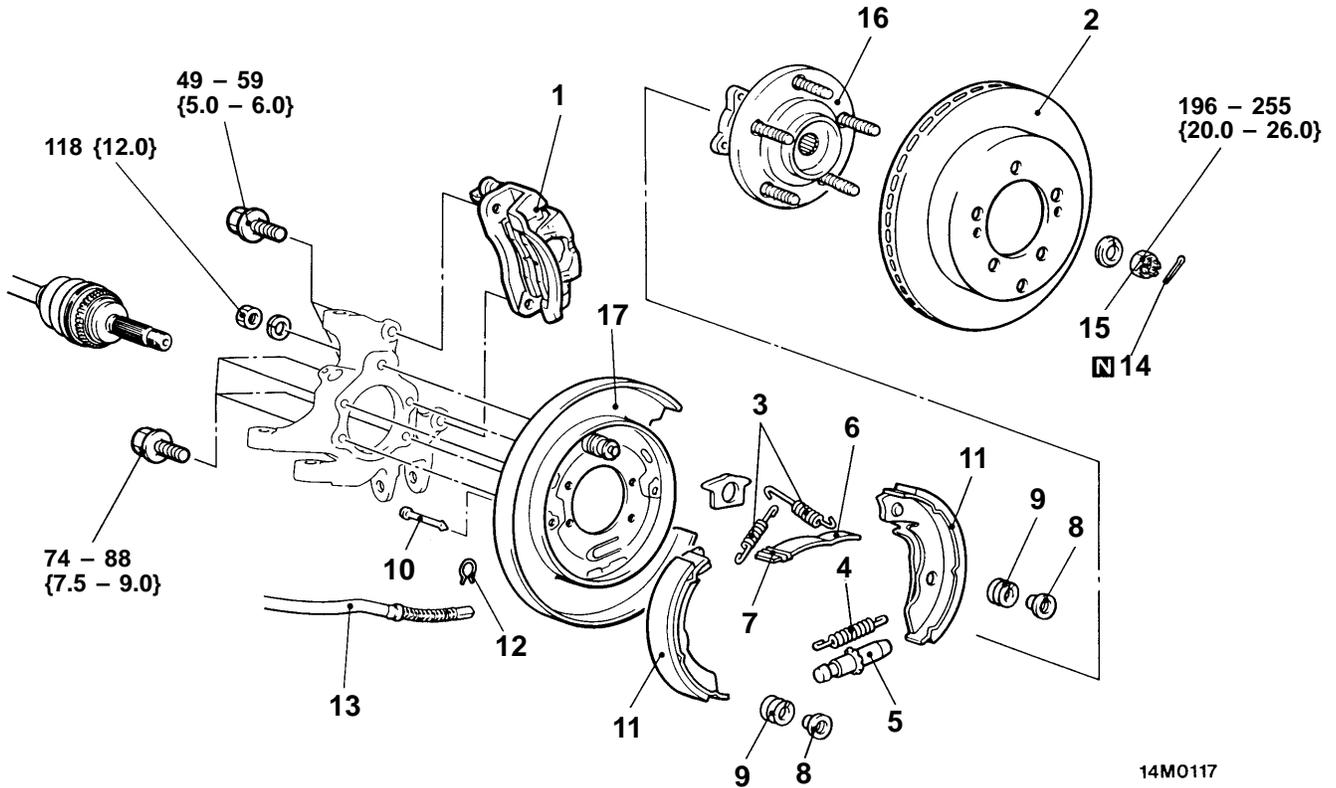
The figure shows the left wheel; for the right wheel, the position is symmetrical.

PARKING BRAKE DRUM

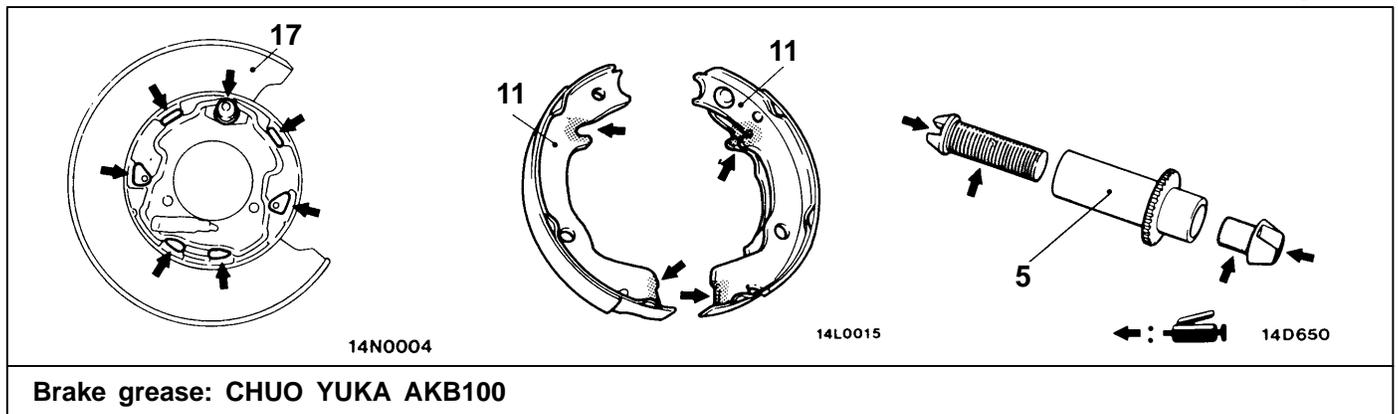
REMOVAL AND INSTALLATION

Post-installation Operation

- Parking Brake Lever Stroke Check and Adjustment (Refer to P.36-3.)

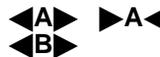


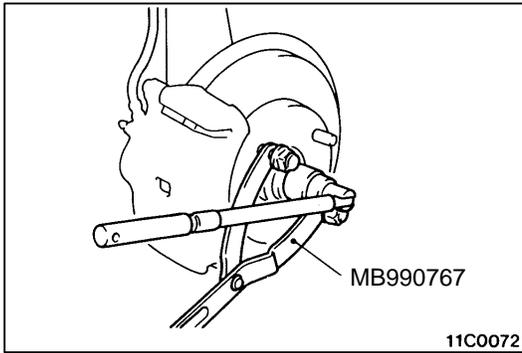
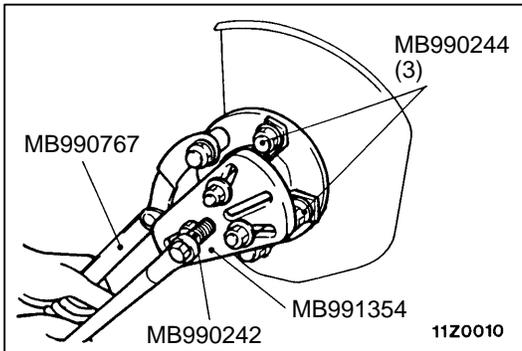
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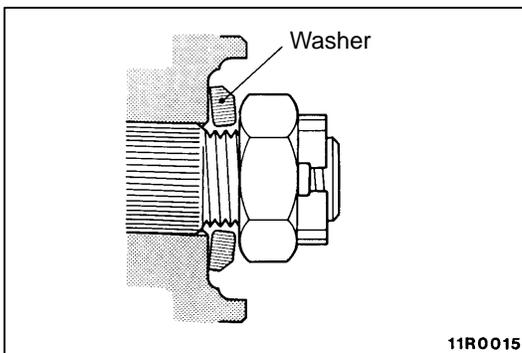
Removal steps

1. Rear brake caliper (Refer to P.36-6.)
2. Rear brake disc
3. Shoe-to-anchor spring (Refer to P.36-6.)
4. Adjusting screw spring
5. Adjuster
6. Strut
7. Strut return spring
8. Shoe hold-down cup (Refer to P.36-6.)
9. Shoe hold-down spring
10. Shoe hold-down pin
11. Shoe and lining assembly
12. Clip
13. Parking brake cable
14. Split pin
15. Drive shaft nut
16. Rear hub assembly
17. Backing plate



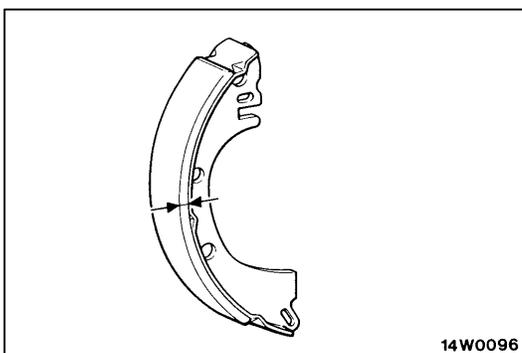
**REMOVAL SERVICE POINTS****◀A▶ DRIVE SHAFT NUT REMOVAL****◀B▶ REAR HUB ASSEMBLY REMOVAL**

- (1) Using the special tool, remove the drive shaft from the rear hub assembly.
- (2) Remove the mounting bolts and remove the rear hub assembly from the knuckle.

**INSTALLATION SERVICE POINT****▶A◀ DRIVE SHAFT NUT INSTALLATION**

- (1) Install the drive shaft washer in the direction shown.
- (2) Use the special tool as you did during removal and tighten the drive shaft nut to the specified torque.

Tightening torque: 196 – 255 Nm {20.0 – 26.0 kgf · m}

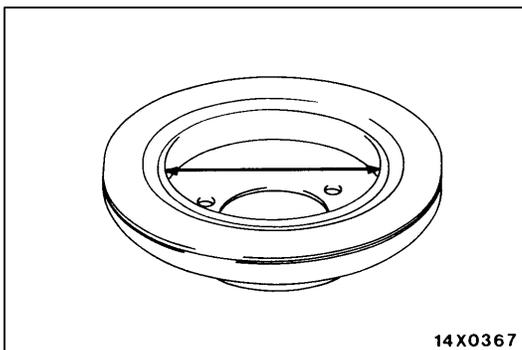
**INSPECTION****BRAKE LINING AND BRAKE DRUM WEAR CHECK**

- (1) Measure the thickness of the brake lining at a location that wears most.

Standard value: 2.8 mm

Limit: 1.0 mm

- (2) If the measurement exceeds the limit, replace the shoe & lining assembly of both sides as a set.



- (3) Measure I.D. of the brake disc at two or more places.

Standard value: 168.0 mm

Limit: 169.0 mm

- (4) If the measurement exceeds the limit or there is an excessive eccentric wear evident, replace the brake disc.