

TIRE AND WHEEL INSPECTION

1. INSPECT TIRE

(a) GS430:

Check the tires for wear and for the proper inflation pressure.

Cold tire inflation pressure

(Tire size: 235/45ZR17)

Vehicle speed	Front kPa (kgf/cm ² , psi)	Rear kPa (kgf/cm ² , psi)
Less than 160 km/h (100 mph)	*1230 (2.3, 33) *2230 (2.3, 33)	*1230 (2.3, 33) *2240 (2.4, 35)
160 – 230 km/h (100 – 143 mph)	*1240 (2.4, 35) *2250 (2.6, 36)	*1240 (2.4, 35) *2280 (2.9, 41)
More than 230 km/h (143 mph)	*1260 (2.7, 38) *2280 (2.9, 41)	*1260 (2.7, 38) *2340 (3.5, 49)

(b) GS300:

Check the tires for wear and for the proper inflation pressure.

Cold tire inflation pressure

Europe and G.C.C. countries

(Tire size: 225/55R16 94V)

Vehicle speed	Front kPa (kgf/cm ² , psi)	Rear kPa (kgf/cm ² , psi)
Less than 160 km/h (100 mph)	*1220 (2.2, 32) *2240 (2.4, 35)	*1220 (2.2, 32) *2250 (2.6, 36)
160 – 210 km/h (100 – 131 mph)	*1230 (2.3, 33) *2240 (2.4, 35)	*1230 (2.3, 33) *2280 (2.9, 41)
More than 210 km/h (131 mph)	*1240 (2.4, 35) *2260 (2.7, 38)	*1250 (2.6, 36) *2340 (3.5, 49)

Europe (Tire size: 235/45ZR17)

Vehicle speed	Front kPa (kgf/cm ² , psi)	Rear kPa (kgf/cm ² , psi)
Less than 160 km/h (100 mph)	*1230 (2.3, 33) *2230 (2.3, 33)	*1230 (2.3, 33) *2240 (2.4, 35)
160 – 210 km/h (100 – 131 mph)	*1240 (2.4, 35) *2250 (2.6, 36)	*1240 (2.4, 35) *2280 (2.9, 41)
More than 210 km/h (131 mph)	*1260 (2.7, 38) *2280 (2.9, 41)	*1260 (2.7, 38) *2340 (3.5, 49)

Australia (Tire size: 225/55R16 94V)

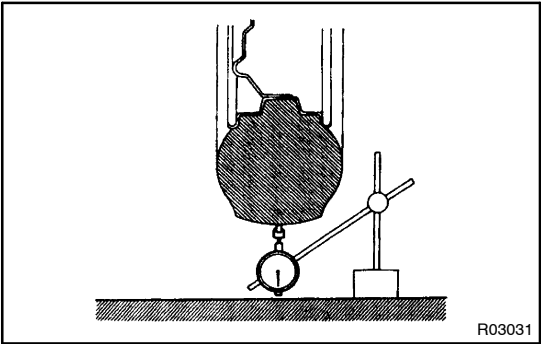
Vehicle speed	Front kPa (kgf/cm ² , psi)	Rear kPa (kgf/cm ² , psi)
Less than 140 km/h (87 mph)	*1220 (2.2, 32) *2240 (2.4, 35)	*1220 (2.2, 32) *2270 (2.8, 39)
More than 140 km/h (87 mph)	*1240 (2.4, 35) *2300 (3.1, 44)	*1250 (2.6, 36) *2340 (3.4, 49)

Australia (Tire size: 235/45ZR17)

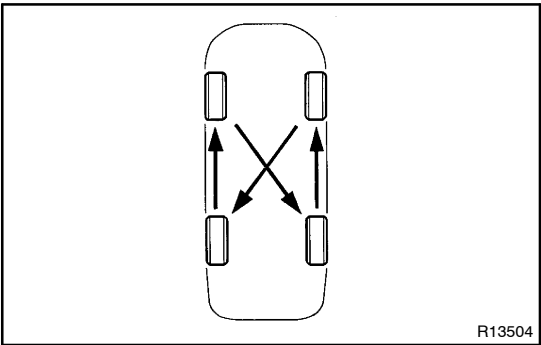
Vehicle speed	Front kPa (kgf/cm ² , psi)	Rear kPa (kgf/cm ² , psi)
Less than 140 km/h (87 mph)	* ¹ 230 (2.3, 33) * ² 230 (2.3, 33)	* ¹ 230 (2.3, 33) * ² 270 (2.8, 39)
More than 140 km/h (87 mph)	* ¹ 260 (2.7, 38) * ² 280 (2.9, 41)	* ¹ 260 (2.7, 38) * ² 340 (3.5, 49)

*1: Up to 4 passengers

*2: More than 4 passengers

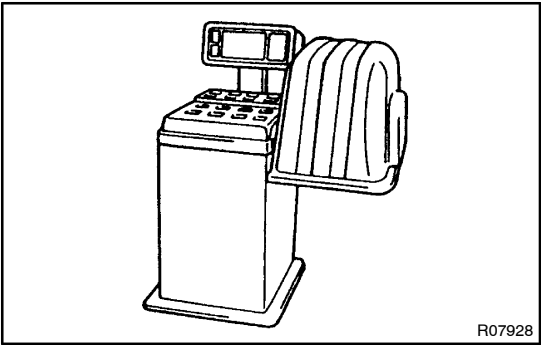


- (c) Check the tire runout.
Tire runout: 1.4 mm (0.055 in.) or less



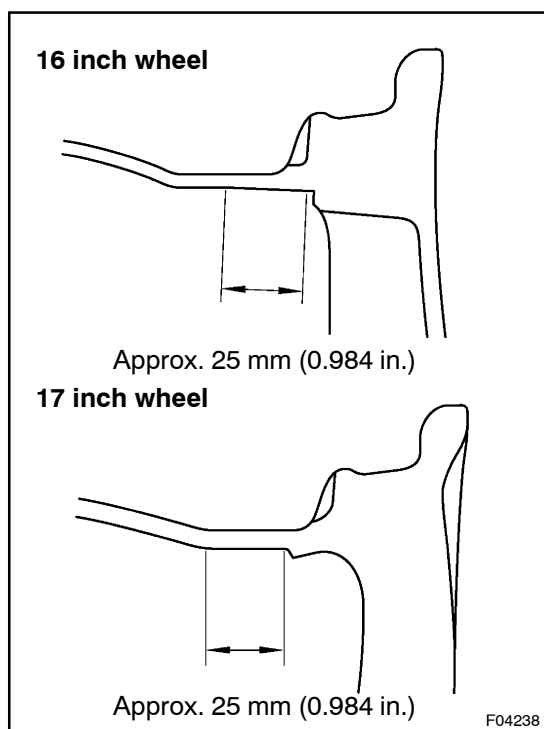
2. ROTATING TIRES

HINT:
See the illustration for where to rotate each tire.

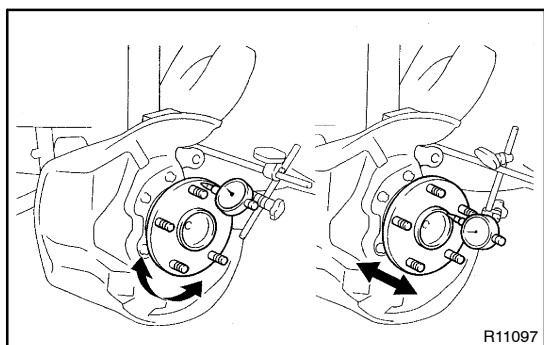


3. INSPECT WHEEL BALANCE

- (a) Check and adjust the off-the-car balance.
(b) If necessary, check and adjust the on-the-car balance.
Unbalance after adjustment: 8.0 g (0.018 lb) or less

**NOTICE:**

- Adhere the sticking type balance weight to the flat position shown in the illustration.
- Push the balance weight securely with a finger to adhere it to the position.
(Pushing force: 10 kgf/more than 2 secs.)
- After cleaning the surface which the balance weight will be adhered to of dirt, oil and water with a cleaning detergent, adhere the balance weight to the surface.
- Do not touch the sticking surface of the tape.
- Do not use the once used balance weight.
- Please use the TOYOTA genuine sticking type balance weight.

**4. CHECK WHEEL BEARING LOOSENESS**

- (a) Check the backlash in the bearing shaft direction.

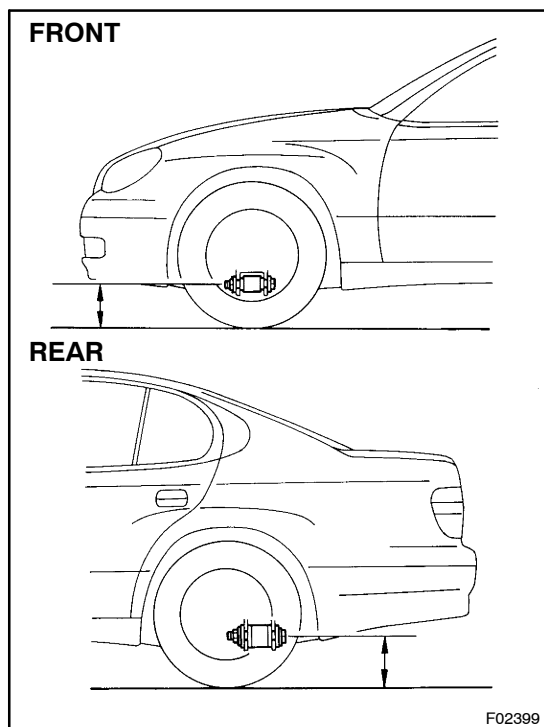
Maximum: 0.05 mm (0.0020 in.)

- (b) Check the axle hub deviation.

Maximum: 0.05 mm (0.0020 in.)

5. CHECK FRONT SUSPENSION FOR LOOSENESS**6. CHECK STEERING LINKAGE FOR LOOSENESS****7. CHECK BALL JOINT FOR LOOSENESS AND EXCESSIVE PLAY (See Pub. No. RM588E on page SA-34)****8. CHECK SHOCK ABSORBER WORKS PROPERLY**

- Check for oil leak
- Check mounting bushings for wear
- Bounce front and rear of the vehicle



FRONT WHEEL ALIGNMENT INSPECTION

SA0R3-03

1. MEASURE VEHICLE HEIGHT

Tire size	Front* ¹ mm (in.)	Rear* ² mm (in.)
225/55R16 94V	239 (9.41)	225 (8.86)
235/45ZR17	237 (9.33)	223 (8.78)

*¹: Front measuring point

Measure the distance from the ground to the center of the lower suspension arm mounting bolt.

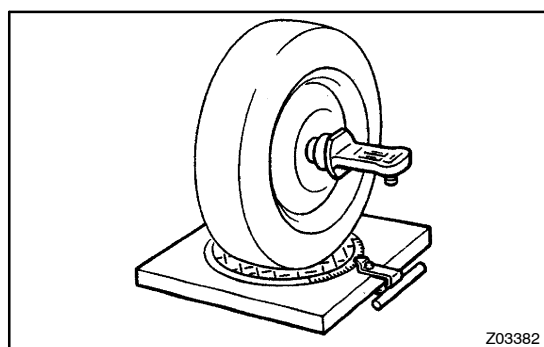
*²: Rear measuring point

Measure the distance from the ground to the center of the No.2 lower suspension arm mounting bolt.

NOTICE:

Before inspecting the wheel alignment, adjust the vehicle height to the specification.

If the vehicle height is not within the specification, try to adjust it by pushing down on or lifting the body.



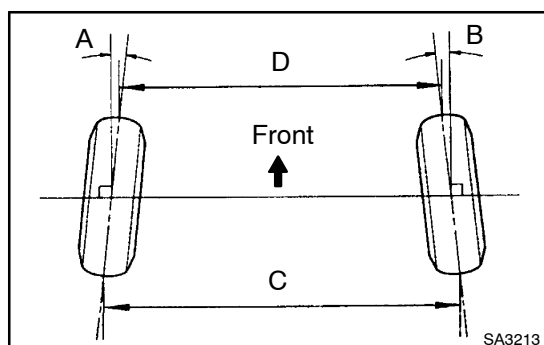
2. INSTALL CAMBER-CASTER-KINGPIN GAUGE ONTO WHEEL ALIGNMENT TESTER

Follow the specific instructions of the equipment manufacturer.

3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

Camber	$-0^{\circ}18' \pm 30'$ ($-0.3^{\circ} \pm 0.5^{\circ}$)
Left-right error	30' (0.5°) or less
Caster	$7^{\circ}28' \pm 30'$ ($7.47^{\circ} \pm 0.5^{\circ}$)
Left-right error	30' (0.5°) or less
Steering axis inclination	$8^{\circ}54' \pm 30'$ ($8.9^{\circ} \pm 0.5^{\circ}$)
Left-right error	30' (0.5°) or less

If the camber is not within the specification, adjust it by adjusting cam.



4. INSPECT TOE-IN

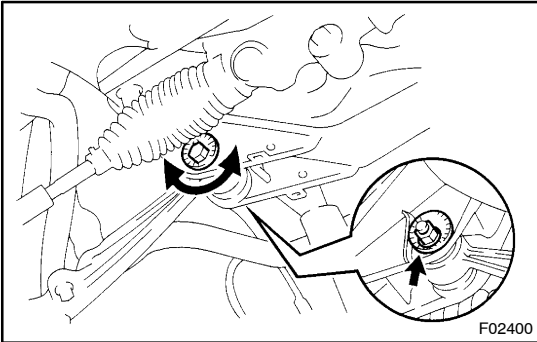
Toe-in (total)	A + B: $0^{\circ}09' \pm 12'$ ($0.15^{\circ} \pm 0.2^{\circ}$) C - D: 1.5 ± 2 mm (0.06 ± 0.08 in.)
----------------	--

If the toe-in is not within the specification, adjust it at the rack ends.

5. ADJUST CAMBER

HINT:

- After adjusting the camber, inspect the caster and toe-in.
- Try adjusting the camber to the center value of the specification.



F02400

- Loosen the camber adjusting cam nut of the lower suspension arm.
- Turn the camber adjusting cam of the lower suspension arm and adjust the camber.

HINT:

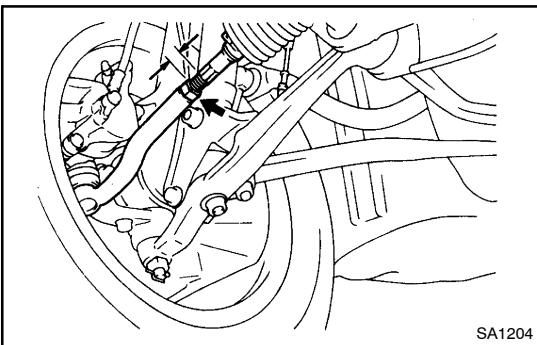
Camber changes about 5' (0.08°) with each graduation of the adjusting cam.

- Torque the camber adjusting cam nut of lower suspension arm.

Torque: 172 N·m (1,755 kgf·cm, 127 ft·lbf)

6. ADJUST TOE-IN

- Remove the boot clips.



SA1204

- Loosen the tie rod end lock nuts.
- Turn the left and right rack ends an equal amount to adjust the toe-in.

HINT:

- Try to adjust the toe-in to the center value.
- Make sure that the lengths of the left and right rack ends are same.

Rack end length difference: 1.5 mm (0.059 in.) or less

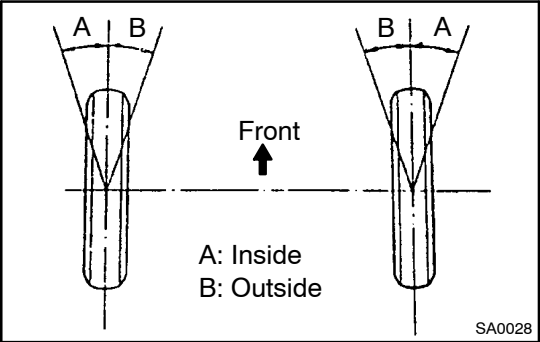
- Torque the tie rod end lock nuts.

Torque: 56 N·m (570 kgf·cm, 41 ft·lbf)

- Place the boot on the seat and clamp it.

HINT:

Make sure that the boots are not twisted.



7. INSPECT WHEEL ANGLE

Turn the steering wheel fully, and measure the turning angle.

Inside wheel	38°51' (36°51' – 39°51') 38.85° (36.85° – 39.85°)
Outside wheel (Reference)	32°08' 32.13°

If the wheel angles differ from the standard of the specification, inspect the toe-in.