

Front wheel Alignment

NOTE:

There are two wheel alignment specifications depending on difference of the coil springs. Which specification should be applied can be identified by market code in Identification plate. For identification of the market code, refer to Identification Plate.

Coil spring specification	Market code
A	P02, P22, P24, P43
B	P06, P10, P37, P71, P90

Preparation

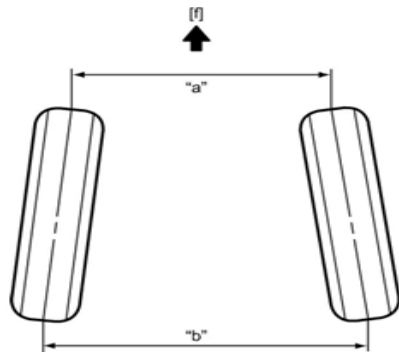
Perform the following items before checking and adjusting front wheel alignment.

- Check each tire as follows:
 - Check that tire is of specified size. Replace tire with correct one if necessary.
 - Check that tire is inflated correctly. Adjust pressure if necessary.
 - Check that tire does not have abnormal wear and is not worn more than the other tires. Replace tire with proper one if necessary.
 - Check that tire is of the same brand as the other tires. Replace tire with one of correct brands if necessary.
- Check that wheel bearing is not damaged. Replace wheel bearing if defective.
- Check wheel (with tire) for deflection. If necessary, repair or replace.
- Check if each suspension part is installed properly. If faulty condition is found, repair or replace.
- Check that each suspension part is free from bend, dent, wear or damage.
- Place vehicle in non-loaded state on level surface.
- Set steering wheel in straight ahead position.
- Bounce vehicle up and down several times to stabilize suspension.
- Check that ground clearance at the right and left is almost the same.

Toe Inspection

Measure toe using toe-in gauge (1).

If toe is out of specification, adjust it at tie-rod.



Front toe (Total) "b" - "a"

: IN 1 ± 1 mm (IN 0.04 ± 0.04 in.)

[f]:Forward

Toe Adjustment

NOTICE:

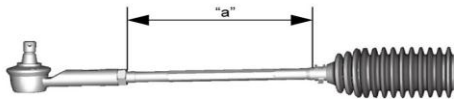
The rack boot may break if it is twisted.

Check that the rack boot does not get twisted during adjustment of front wheel alignment.

NOTE:

Never adjust only right or left tie-rod, adjust both tie-rods by the same amount.

- 1) Loosen tie-rod end lock nuts.
- 2) Tighten or loosen right and left tie-rods by the same amount to adjust toe to
- 3) Check that length "a" on right tie-rod is equal to that on left tie-rod. If they are not
- 4) After adjustment, tighten tie-rod end lock nuts to specified torque.



Reference Information

Side slip

Side slip (On one person)

: 0 to IN 3 mm/m (0 to IN 0.12 in./3.3 ft.)

If side slip deviates from specification greatly, front wheel alignment may be out of specification.

Toe angle

Front toe angle (Each wheel)

: IN 0° 03' ± 0° 03'

Front toe angle (Total)

: IN 0° 06' ± 0° 06'

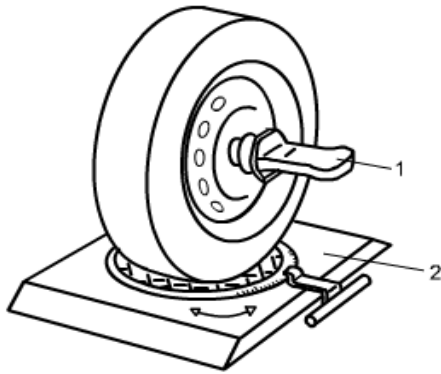
If front toe angle is out of specification, adjust it at the tie-rod.

Camber, Caster and Kingpin Inclination Angle Inspection

Check camber, caster and kingpin inclination angle using camber caster kingpin gauge (1) and turning radius gauge (2). If measured value is not as specified, check the following items for damage, deformation and crack. Repair or replace any defective part.

- Strut assembly components
- Suspension arms and bushings
- Front suspension frame

- Front wheel hubs, steering knuckles and wheel bearings
- Vehicle body



Front camber "a"

Coil spring spec. A:

: $-0^{\circ} 18' \pm 1^{\circ} 00'$

Coil spring spec. B:

: $-0^{\circ} 10' \pm 1^{\circ} 00'$

Front caster "b"

Coil spring spec. A:

: $3^{\circ} 41' \pm 2^{\circ} 00'$

Coil spring spec. B:

: $3^{\circ} 35' \pm 2^{\circ} 00'$

Front kingpin inclination angle "c"

Coil spring spec. A:

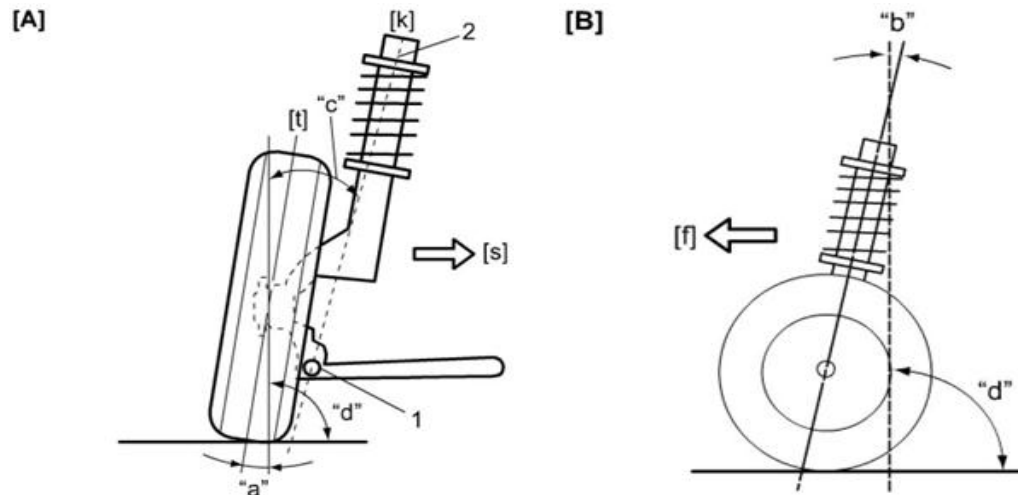
: $12^{\circ} 18' \pm 2^{\circ} 00'$

Coil spring spec. B:

: $12^{\circ} 04' \pm 2^{\circ} 00'$

NOTE:

Camber, caster and kingpin inclination angle are not adjustable. If they are out of specification, repair vehicle body or replace related part.



[A]:Camber and kingpin inclination angle	[f]:Forward
[B]:Caster (Side view)	[k]:Center line of kingpin
"d":90°	[s]:Vehicle body center
1.Suspension arm joint	[t]:Center line of wheel
2.Strut support	

Steering Angle Inspection and Adjustment

When tie-rod or tie-rod end is replaced, check toe and then also steering angle using turning radius gauge. If measured value is not as specified, check and adjust toe.

Inside steering angle

Coil spring spec. A:

: $38^{\circ} 36' \pm 2^{\circ} 00'$

Coil spring spec. B:

: $38^{\circ} 54' \pm 2^{\circ} 00'$

Outside steering angle (Reference)

Coil spring spec. A:

: $32^{\circ} 12' \pm 2^{\circ} 00'$

Coil spring spec. B:

: $32^{\circ} 24' \pm 2^{\circ} 00'$

Rear wheel Alignment

NOTE:There are two wheel alignment specifications depending on difference of the coil springs. Which specification should be applied can be identified by market code in Identification plate. For identification of the market code, refer to Identification Plate.

Coil spring specification	Market code
A	P02, P22, P24, P43
B	P06, P10, P37, P71, P90

Preparation

Before checking rear wheel alignment, perform the following items.

- Empty luggage compartment.
- Check tires for specified size.
If not, replace tires with those of the specified size.
- Check that inflation pressure of each tire is adjusted properly. If necessary, adjust tire pressure, repair or replace tire.
- Check all tires for even wear and that they are of the same brand. Replace tire(s) if necessary.
- Check that wheel bearing is not damaged. Replace wheel bearing if defective.
- Check each wheel (with tire) for deflection. If necessary, repair or replace wheel.
- Check that each suspension part is installed properly. If faulty condition is found, repair or replace part.
- Check that each suspension part is free from bend, dent, wear or damage.
- Place vehicle in non-loaded state on level surface.
- Bounce vehicle up and down several times to stabilize suspension.
- Check that ground clearance at the right and left is almost the same.

Inspection

Measure toe and camber.

NOTE: Rear toe and camber are not adjustable. If they are out of specification,

Rear toe (Total)

Coil spring spec. A:

: IN 5.2 ± 2.6 mm (IN 0.20 ± 0.10 in.)

Coil spring spec. B:

: IN 4.5 ± 2.6 mm (IN 0.18 ± 0.10 in.)

Rear camber

: -1° 00' ± 1° 00'

If measured value is not as specified, check the following parts for damage, deformation

- Rear axle (torsion beam)
- Spindle, wheel hub or wheel bearing
- Vehicle body

Reference Information

Toe angle

Reference rear toe angle when measured with total wheel alignment tester or the like,

Rear toe angle (Each wheel)

Coil spring spec. A: 0° 17' ± 0° 13'

Coil spring spec. B: 0° 15' ± 0° 13'