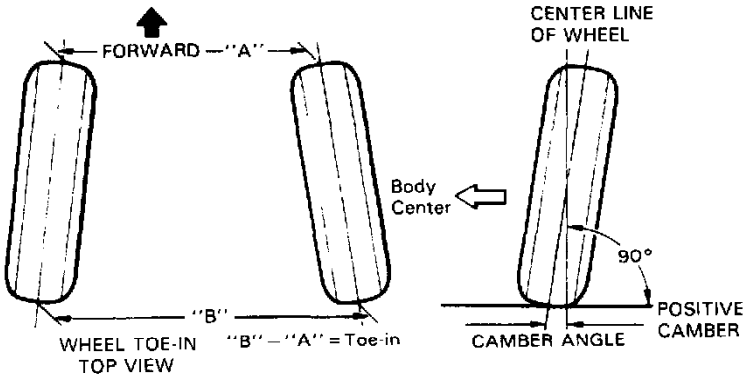
Alignment: Adjustments

Front

SPECIFICATION



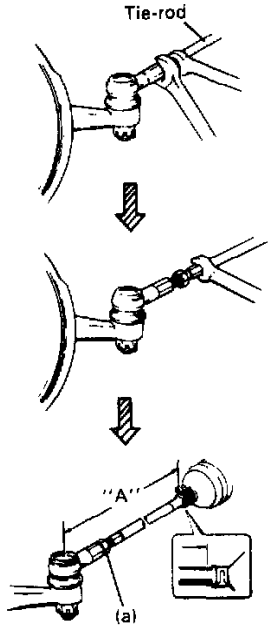
Alignment service data	
Toe-in (Toe-in gauge measurement)	0 ± 2 mm (0 ± 0.079 in.)
Camber	0° ± 1°
Caster	2.7° ± 2° (24.7 mm, 0.97 in.)
Kingpin inclination	12°36' ± 3°

NOTE:
Toe-in value given above was measured by using a toe-in gauge.

Front alignment refers to the angular relationship between the front wheels, the front suspension attaching parts and the ground. Generally, the only adjustment required for front alignment is toe setting.

Camber and caster can't be adjusted. Therefore, should camber or caster be out of specification due to the damage caused by hazardous road conditions or collision, whether the damage is in body or in suspension should be determined. If the body is damaged, it should be repaired and if suspension is damaged, it should be replaced.

TOE ADJUSTMENT



Toe is adjusted by changing the tie rod length. Loosen right and left tie rod end lock nuts first and then rotate right and left tie rods by the same amount to align toe-in to specification. In this adjustment, right and left tie rods should become equal in length ("A" in figure shown).

Before rotating tie rods, apply grease between tie rods and rack boots so that boots won't be twisted.

After adjustment, tighten lock nuts to specified torque and make sure that rack boots are not twisted.

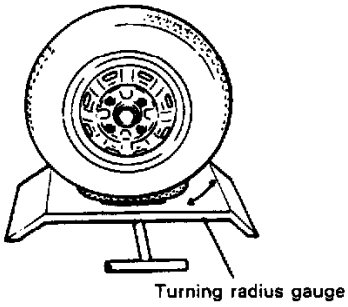
Tightening Torque (a): 45 Nm (4.5 kg-m, 33.0 ft. lbs.)

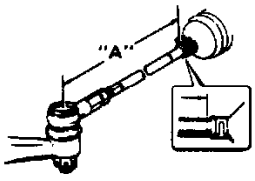
CAMBER AND CASTER ADJUSTMENT

Should camber or caster be found out of specifications upon inspection, locate its cause first. If it is in damaged, loose, bent, dented or worn suspension parts, they should be replaced. If it is in vehicle body, repair it so as to attain specifications.

To prevent possible incorrect reading of camber or caster, vehicle front end must be moved up and down a few times before inspection.

STEERING ANGLE





When tie rod or tie rod end was replaced, check toe and then also steering angle with turning radius gauge.
If steering angle is not correct, check if right and left tie rods are equal in length ("A").

NOTE: If tie rod lengths were changed to adjust steering angle, reinspect toe-in.

Steering angle
Inside: 39° ± 3°
Outside: 34° ± 3°

Reference Information:
Side slip:
For inspecting front wheel side slip with side slip tester:
Side slip limit: Less than 3 mm/m (Less than 0.118 inch/3.3 ft.)
If side slip exceeds above limit, toe-in or front wheel alignment may not be correct.