Wheel Alignment

Two Wheel Steering-2WS

Preparation

1. Check the tire pressure.
2. Check the steering wheel angle. If significantly off center, it may be necessary to remove the steering wheel and reposition it on the splines. Turn the steering wheel to the straight-ahead position.
3. Alignment should be checked/adjusted in one continuous procedure: caster, front camber, rear camber, rear toe, front toe and re-check.

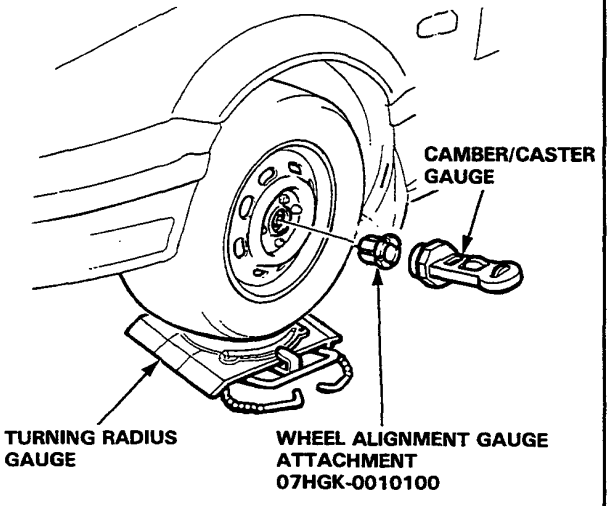
Front Caster:

1. Install the Wheel Alignment Gauge Attachments on the wheels.

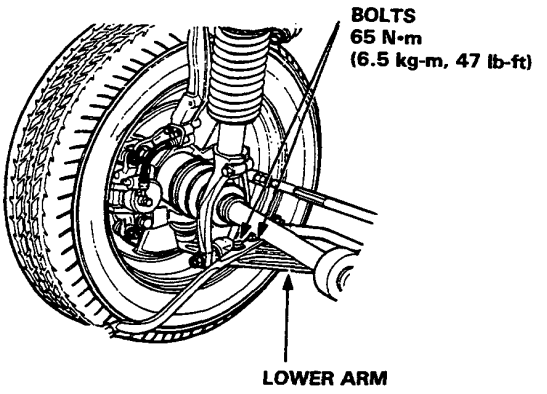
   NOTE: Make sure the wheel hubs are clean and rust-free before installing the wheel alignment attachments.

2. Install a camber/caster gauge on the Wheel Alignment Gauge Attachment and apply the front brake. Turn the wheel 20° inward.
3. Turn the adjust screw so that the bubble in the caster gauge is at 0°.
4. Turn the wheel 20° outward and read the caster on the gauge with the bubble at the center of the gauge.

   Caster Angle: 2° 20′ ± 30′



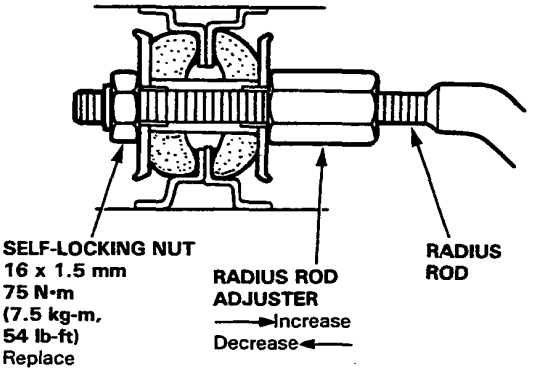
5. If adjustment is required, record the caster reading, then go to step 6. If adjustment is not required, proceed to step 11.
6. Loosen the radius rod attaching bolts at the lower arm.



7. Loosen the self-locking nut on the end of the radius rod.
8. Adjust the caster by turning the radius rod adjuster as required.

   To increase: Turn the adjuster in.
   To decrease: Turn the adjuster out.

   NOTE: Turning the adjuster one full turn moves the radius rod 1.5 mm (0.06 in) and changes the caster 0° 20′.



9. Tighten the radius rod attaching bolts at the lower arm.
10. Hold the radius rod adjuster nut in place and tighten self-locking nut.
11. Recheck the caster angle.

(cont'd)

Wheel Alignment

Two Wheel Steering-2WS

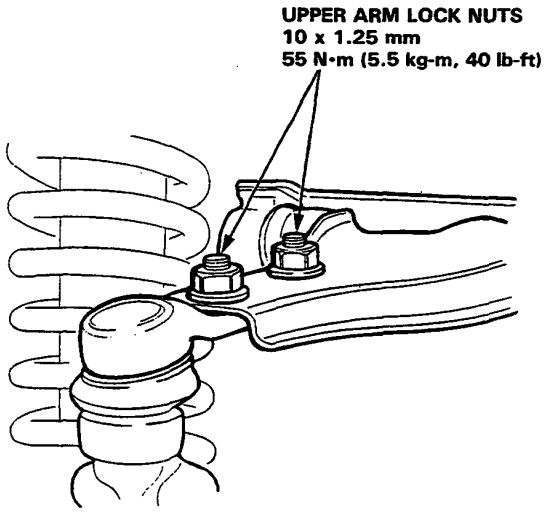
Front Camber:

12. Return the steering wheel to the straight-ahead position.

13. Read the front camber on the gauge with the bubble at the center of the gauge.

    Front Camber Angle: 0° 00′ ± 1°

14. Adjust the camber by loosening the upper arm lock nut and moving the knuckle/hub assembly.

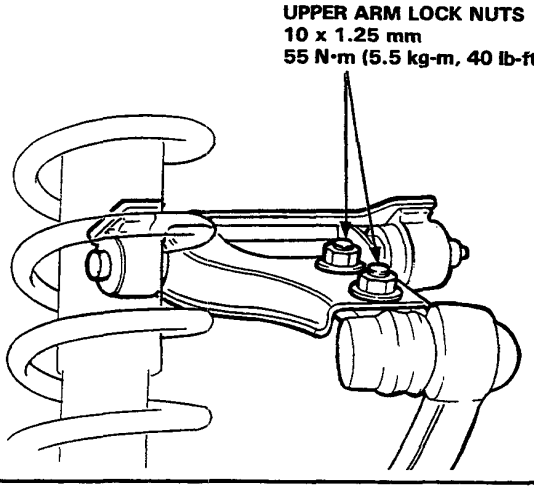


Rear Camber:

15. Read the rear camber on the gauge with the bubble at the center of the gauge.

    Rear Camber: −0° 20′ ± 1°

16. Adjust the rear camber by loosening the upper arm lock nuts and moving the knuckle/hub assembly.



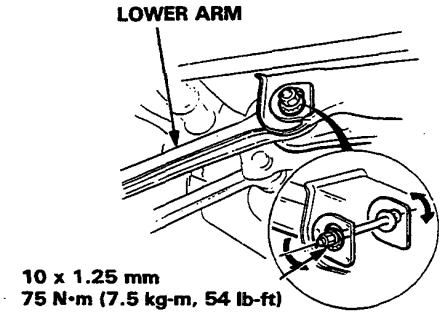
Toe:

17. Check the rear toe-in.

    Right Rear: 1 mm
    Left Rear: 1 mm
    Total: 2 ± 2 mm (0.08 ± 0.08 in)

    NOTE: Left and right toe should be the same.
    — If adjustment is required, go to step 18.
    — If no adjustment is required, proceed to step 21.

18. Hold the adjusting bolt on the rear lower arm A and loosen the locknut.
19. Adjust the rear toe by turning the adjusting bolt until toe is correct.
20. Install a new locknut and tighten while holding the adjusting bolt.



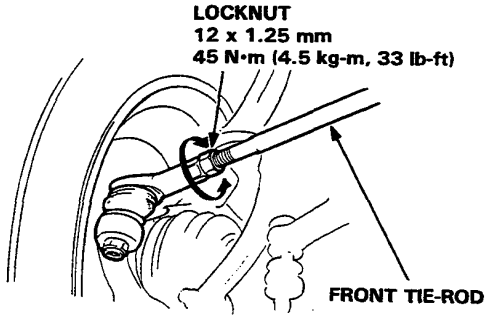
21. Check the front toe-in:

    Right Front: 0 mm
    Left Front: 0 mm
    Total: 0 ± 2 mm (0 ± 0.08 in)

    — If adjustment is required, go to step 22.
    — If no adjustment is required, proceed to step 24.

21. Loosen the tie-rod locknut and turn the tie-rod until toe-in is correct.
22. After adjusting, tighten the tie-rod locknuts.

    NOTE: Reposition the tie-rod boots if twisted or displaced after adjustment has been made.



24. Recheck the camber. If camber still as specified alignment is finished.

    Front Camber Angle: 0° 0′ ± 1°
    Rear Camber Angle: −0° 20′ ± 1°