



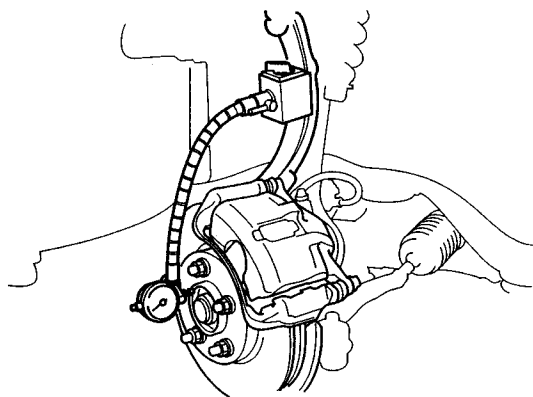
# Wheel Measurements

## Bearing End Play

1. Raise the car, and support it with safety stands in the proper locations (see [section 1](#)).
2. Remove the wheels, then reinstall the wheel nuts.
3. Attach the dial gauge as shown.
4. Measure the bearing end play by moving the disc in and out.

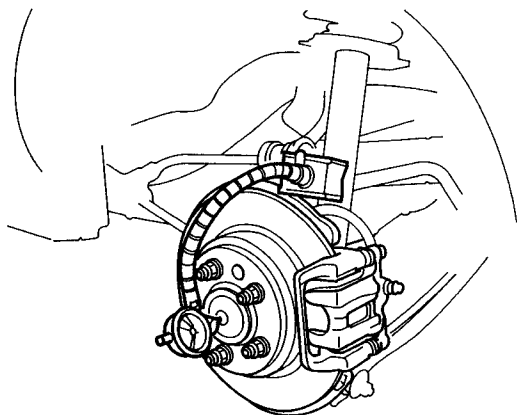
### Front Wheel End Play:

**Standard: 0–0.05 mm (0–0.002 in)**



### Rear Wheel End Play:

**Standard: 0–0.05 mm (0–0.002 in)**



5. If the bearing end play measurement is more than the standard, replace the wheel bearing.

## Runout

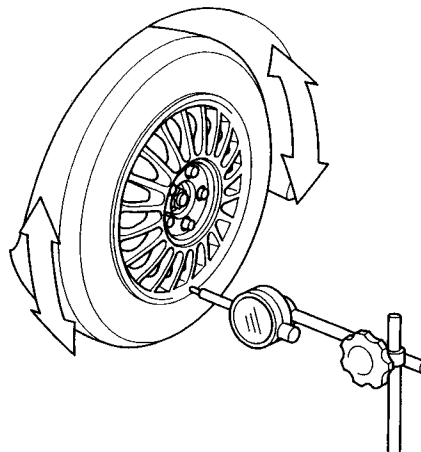
1. Raise the car, and support it with safety stands in the proper locations (see [section 1](#)).
2. Check for bent or deformed wheels.
3. Attach the dial gauge as shown.
4. Measure the wheel runout by turning the wheel.

### Front and Rear Wheel Axial Runout:

#### Standard:

**Aluminum Wheel: 0–0.7 mm (0–0.03 in)**

**Service Limit: 2.0 mm (0.08 in)**

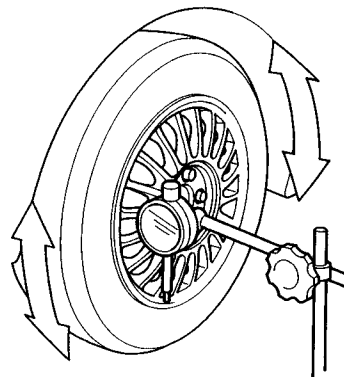


### Front and Rear Wheel Radial Runout:

#### Standard:

**Aluminum Wheel: 0–0.7 mm (0–0.03 in)**

**Service Limit: 1.5 mm (0.06 in)**



5. If the wheel runout is more than the service limit, replace the wheel.