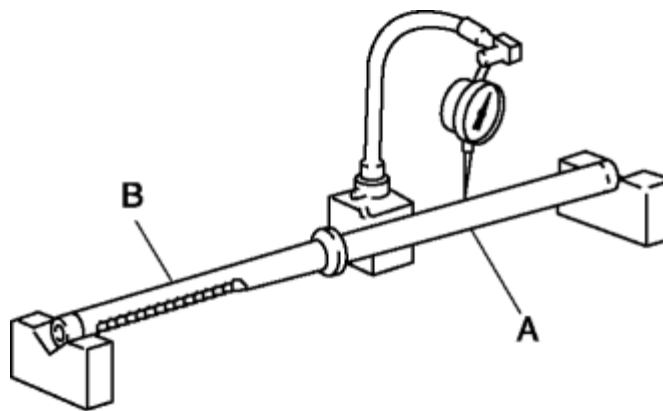


2012 - Mazda6 - Steering

STEERING GEAR AND LINKAGE INSPECTION

Rack Inspection

1. Inspect the rack for cracking, damage, and tooth wear. Replace it if necessary.
2. Measure the runout of the rack.

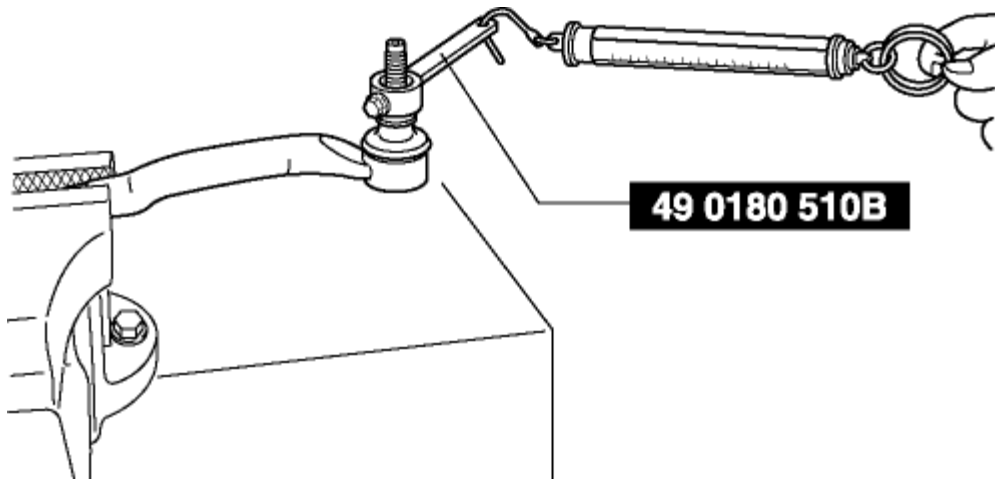


Steering rack runout

- Large diameter portion (near point A): 0.15 mm {0.006 in} max.
 - Small diameter portion (near point B): 0.20 mm {0.008 in} max.
3. If not within the specification, replace the rack.

Tie-rod End Inspection

1. Inspect the tie-rod end for damage and boot cracks. Replace it if necessary.
2. Inspect the ball joint for looseness. Replace the tie-rod end if necessary.
3. Rotate the ball joint five times.
4. Measure the rotation torque of the ball joint using the **SST** and a pull scale.



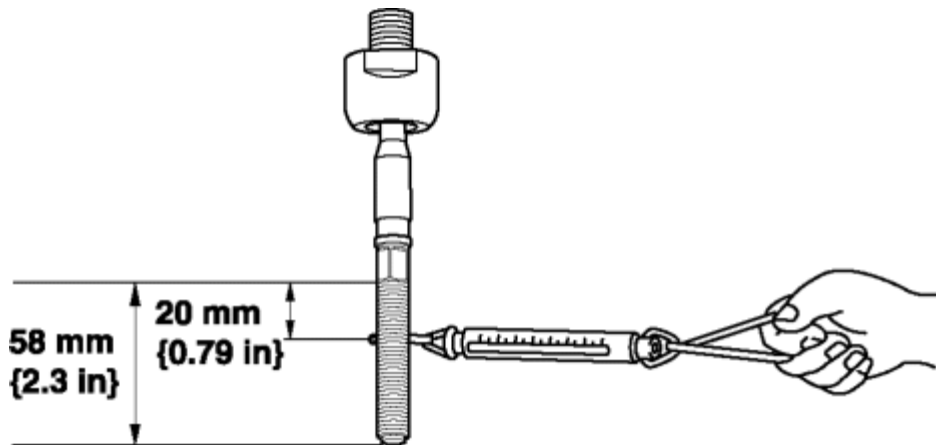
Tie-rod end rotational torque

- 0.6—2.0 N·m {6.2—20 kgf·cm, 5.4—17 in·lbf}
- [Pull scale reading: 5.9—19.6 N {0.61—1.99 kgf, 1.4—4.4 lbf}]

5. If not within the specification, replace the tie-rod end.

Tie rod Inspection

1. Inspect the tie rod for bending and damage. Replace it if necessary.
2. Inspect the ball joint for looseness. Replace the tie rod if necessary.
3. Swing the tie rod five times.
4. Measure the swinging torque using a pull scale.



Tie rod swing torque

- 0.4—4.0 N·m {4.1—40 kgf·cm, 3.6—35 in·lbf}
- [Pull scale reading: 20—200 N {2.1—20.3 kgf, 4.5—44.9 lbf}]

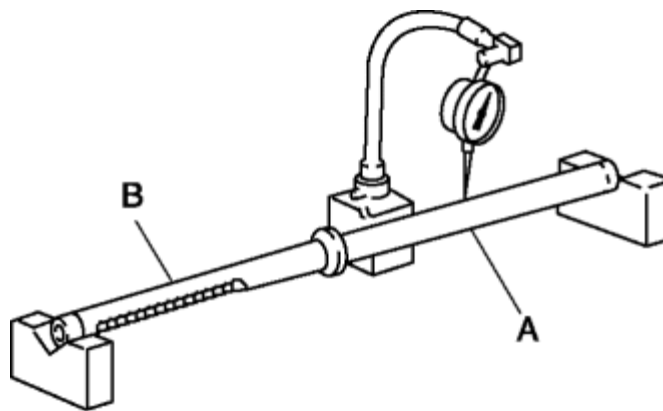
5. If not within the specification, replace the tie rod.

2012 - Mazda6 - Steering

STEERING GEAR AND LINKAGE INSPECTION

Rack Inspection

1. Inspect the rack for cracking, damage, and tooth wear. Replace it if necessary.
2. Measure the runout of the rack.

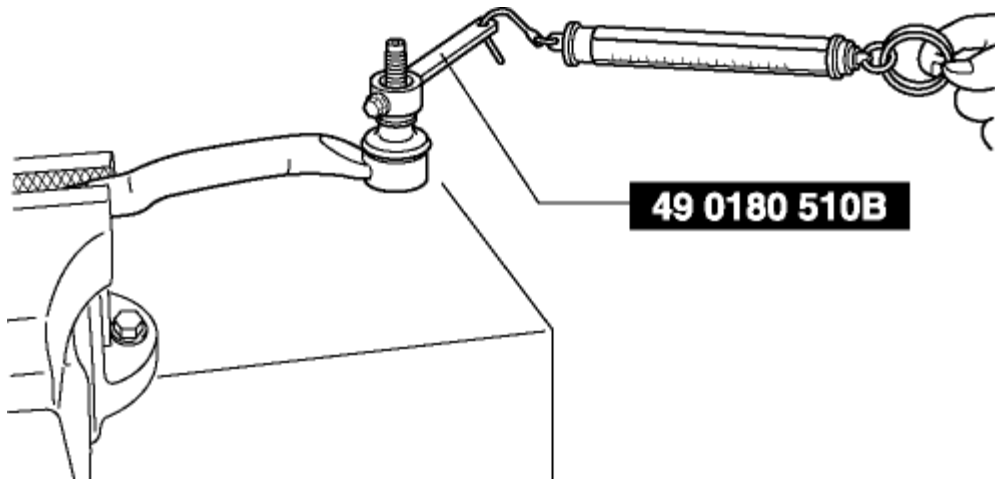


Steering rack runout

- Large diameter portion (near point A): 0.15 mm {0.006 in} max.
 - Small diameter portion (near point B): 0.20 mm {0.008 in} max.
3. If not within the specification, replace the rack.

Tie-rod End Inspection

1. Inspect the tie-rod end for damage and boot cracks. Replace it if necessary.
2. Inspect the ball joint for looseness. Replace the tie-rod end if necessary.
3. Rotate the ball joint five times.
4. Measure the rotation torque of the ball joint using the **SST** and a pull scale.



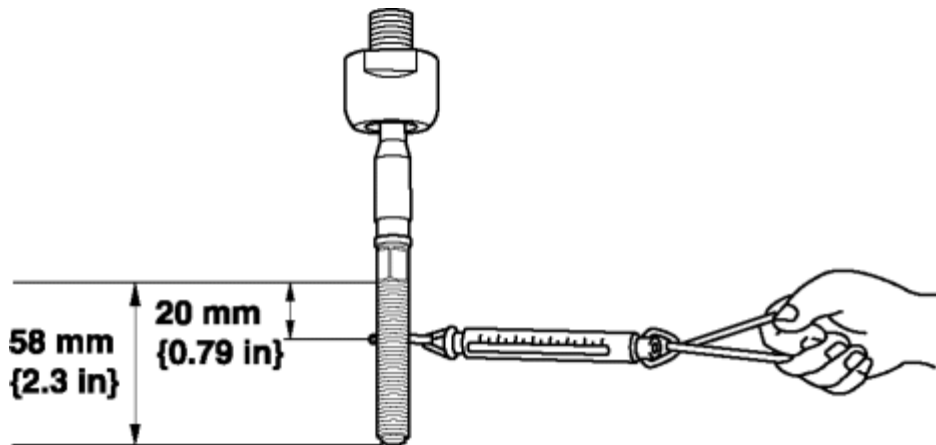
Tie-rod end rotational torque

- 0.6—2.0 N·m {6.2—20 kgf·cm, 5.4—17 in·lbf}
- [Pull scale reading: 5.9—19.6 N {0.61—1.99 kgf, 1.4—4.4 lbf}]

5. If not within the specification, replace the tie-rod end.

Tie rod Inspection

1. Inspect the tie rod for bending and damage. Replace it if necessary.
2. Inspect the ball joint for looseness. Replace the tie rod if necessary.
3. Swing the tie rod five times.
4. Measure the swinging torque using a pull scale.



Tie rod swing torque

- 0.4—4.0 N·m {4.1—40 kgf·cm, 3.6—35 in·lbf}
- [Pull scale reading: 20—200 N {2.1—20.3 kgf, 4.5—44.9 lbf}]

5. If not within the specification, replace the tie rod.

