



Steering Linkage

REMOVAL & INSTALLATION

NOTE: Before working on any of the following steering linkage components, disconnect the battery cable, raise the front of the truck and support it with safety stands. Always use new cotter pins upon installation.

Fig. 1: Steering linkage — 1989 2wd models

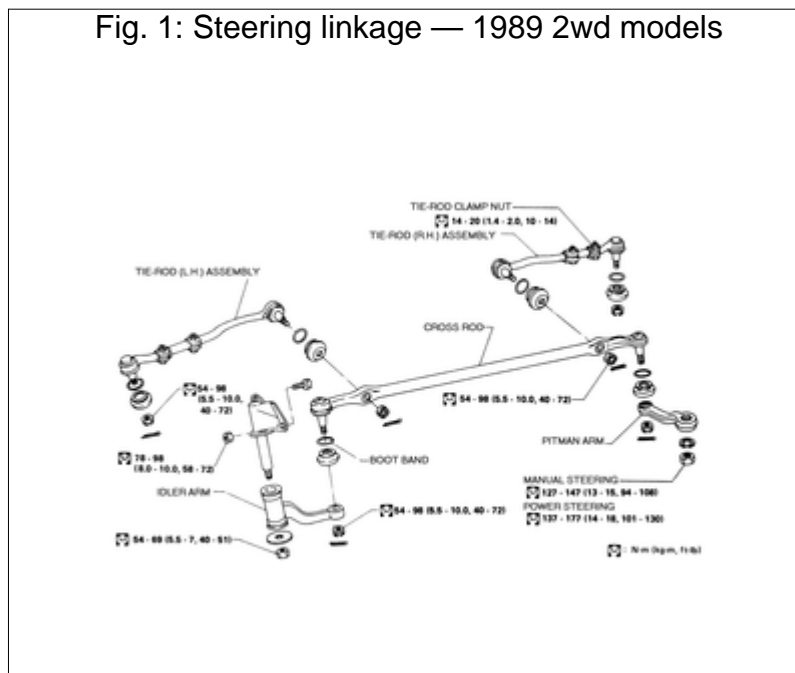


Fig. 2: Steering linkage — 1990-95 2wd models

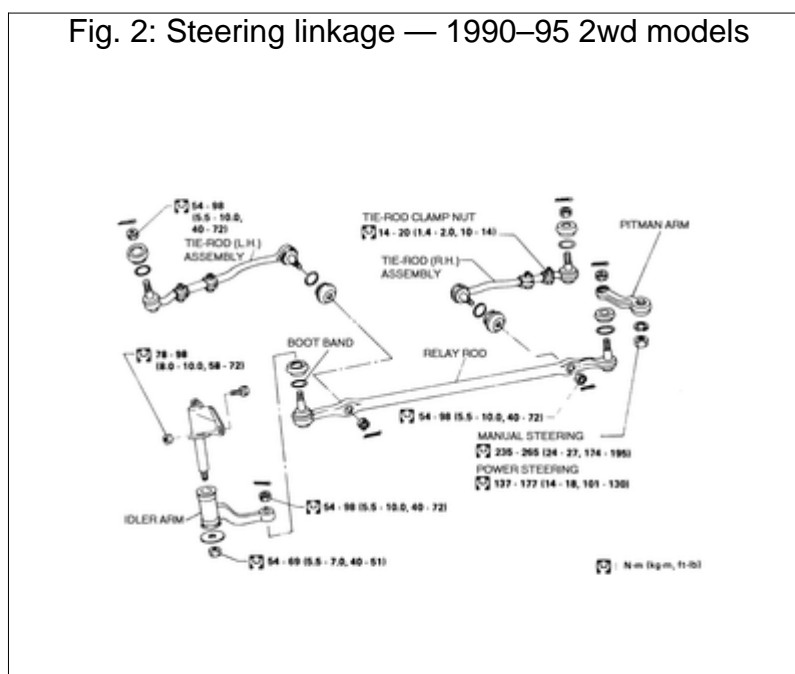


Fig. 3: Steering linkage — 1989 4wd models

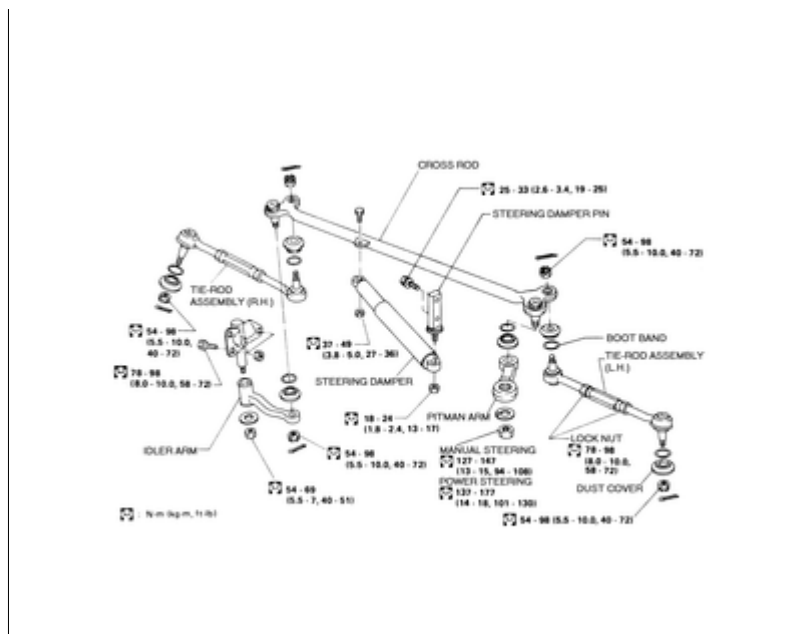
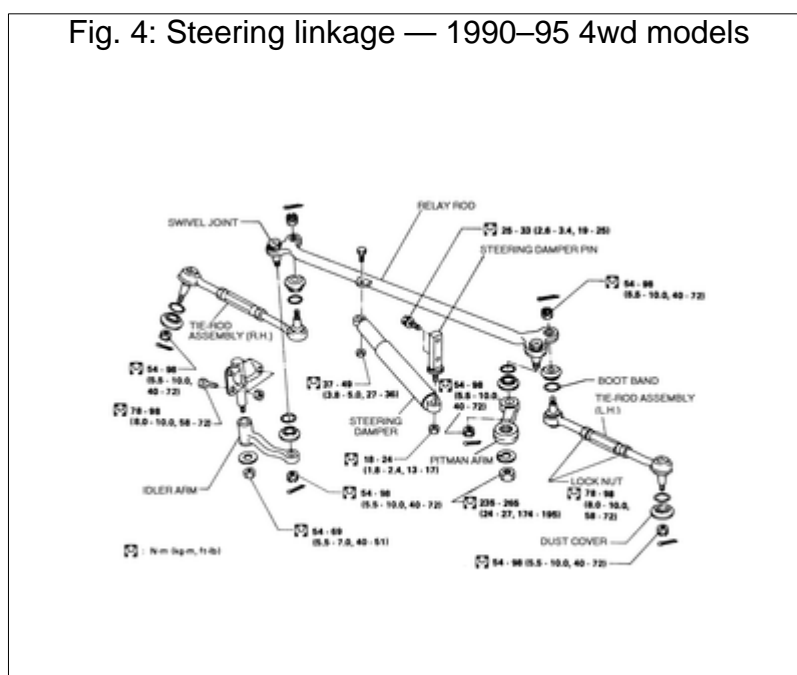


Fig. 4: Steering linkage — 1990–95 4wd models



Pitman Arm

1989 MODELS

1. Remove the strut bar.
2. Loosen the pitman arm nut.
3. Using a tie rod end puller or equivalent, disconnect the pitman arm from the sector shaft.
4. Using a tie rod end puller or equivalent, disconnect the pitman arm from the cross rod.

To install:

5. Align the marks on the pitman arm and sector shaft and connect them. Tighten the nut to 94–108 ft. lbs. (127–147 Nm) on models with manual steering; or 101–130 ft. lbs. (137–177 Nm) on models with power steering.
6. Connect the arm to the cross rod and tighten the nut. Install a new cotter pin.
7. Install the strut bar.

1990–95 MODELS

1. Remove the strut bar.
2. Loosen the pitman arm nut.
3. Using a tie rod end puller or equivalent, disconnect the pitman arm from the sector shaft.
4. Using a tie rod end puller or equivalent, disconnect the pitman arm from the relay rod.

To install:

5. Align the marks on the pitman arm and sector shaft and connect them. Tighten the nut to 174–195 ft. lbs. (235–265 Nm) on 2wd models with manual steering and all 4wd models; or 101–130 ft. lbs. (137–177 Nm) on 2wd models with power steering.
6. Connect the arm to the relay rod and tighten the nut. Install a new cotter pin.
7. Install the strut bar.

Fig. 5: Install a pitman arm/tie rod puller on the sector shaft



Fig. 6: Removing the pitman arm from the sector shaft — note arm is keyed for proper installation



Tie Rod

All Models

1. Using a tie rod end puller, disconnect the tie rod from the cross rod.
2. Using a tie rod end puller, disconnect the tie rod from the knuckle arm.
3. Remove the tie rod and remove the tie rod ends.

To install:

4. Screw the tie rod ends onto the tie rod. The tie rod length should be 13.54 in. (344mm) for 2wd models and 11.06 in. (281mm) on 4wd models.

The remaining length of threads on both ends should always be equal. The tie rod ends should

always be screwed on at least 1.38 in. (35mm).

5. Turn the tie rod ends so they cross at about 90° on 2wd models or 17.5° on 4wd models. Tighten the clamp nuts to 10–14 ft. lbs (14–20 Nm) on 2wd models. Tighten the lock-nuts to 58–72 ft. lbs. (78–98 Nm) on all 4wd models.
6. Connect the tie rod to the knuckle arm and cross rod and tighten the mounting nuts to 40–72 ft. lbs. (54–98 Nm).

Fig. 7: Measuring the tie rod length and angle — 2wd models

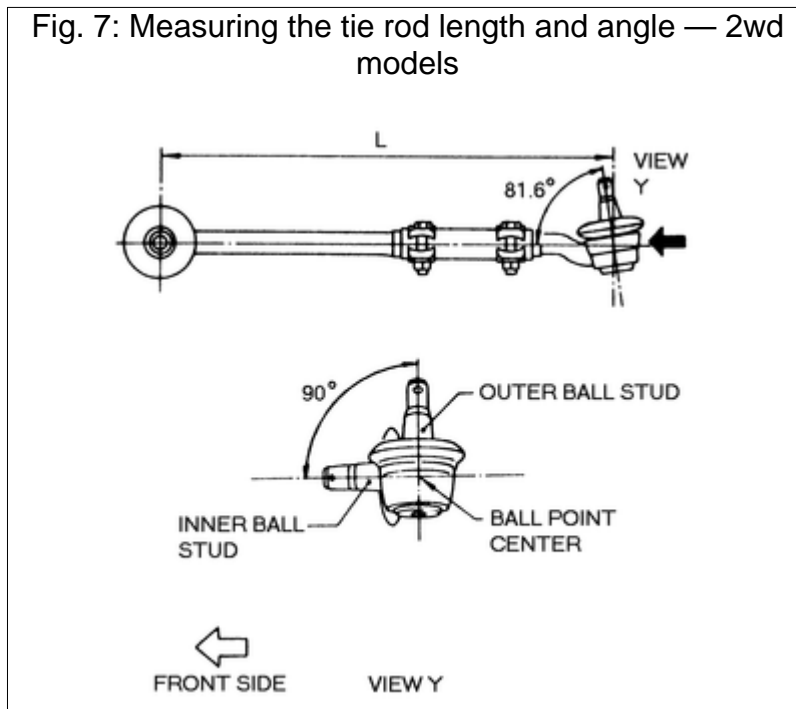


Fig. 8: Measuring the tie rod length and angle — 4wd models

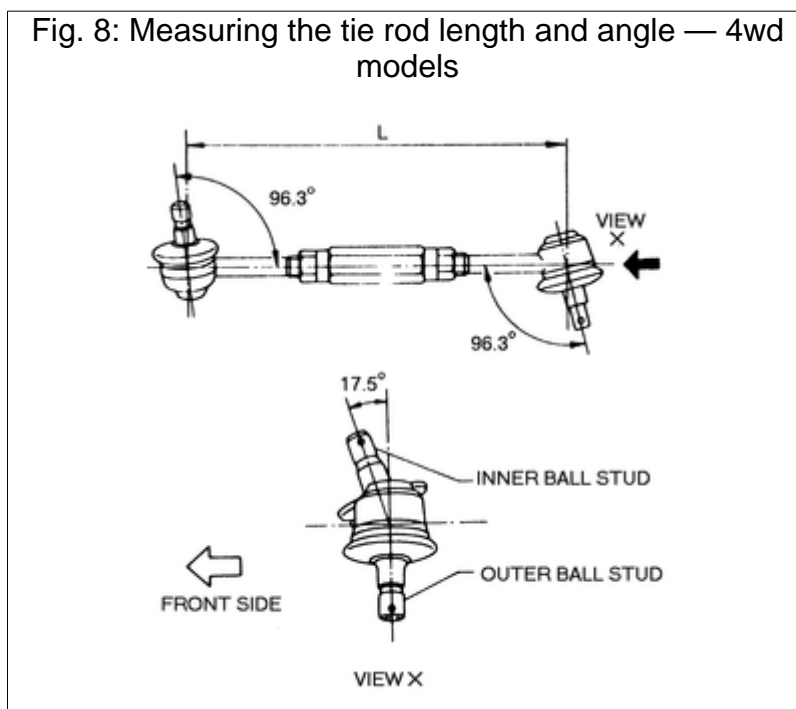


Fig. 9: Remove the cotter pin from the tie rod assembly — always replace the cotter pin with a new one upon installation



Fig. 10: Removing the tie rod assembly nut



Fig. 11: Install the tie rod puller to remove the tie rod



Fig. 12: After installing the puller, thread it down a few turns to loosen the tie rod, then remove the rod end from the spindle



Fig. 13: Loosen the tie rod lock-nut after installing the tie rod into the spindle



Cross Rod

1989 MODELS

1. Disconnect the tie rod ends from the cross rod.
2. Using a tie rod end puller, disconnect the pitman arm from the cross rod.
3. Using a tie rod end puller, disconnect the idler arm from the cross rod.
4. Remove the rod and inspect it for cracks or other damage.

To install:

5. Connect the cross rod to the idler arm and tighten the nut 40–72 ft. lbs. (54–98 Nm).
6. Connect the cross rod to the pitman arm and tighten the nut to 40–72 ft. lbs. (54–98 Nm).

7. Connect the tie rod ends to the cross rod and tighten the nuts to 40–72 ft. lbs. (54–98 Nm).

Relay Rod

1990–95 MODELS

1. Disconnect the tie rod ends from the relay rod.
2. Using a tie rod end puller, disconnect the pitman arm from the relay rod.
3. Using a tie rod end puller, disconnect the idler arm from the relay rod.
4. Remove the rod and inspect it for cracks or other damage.

To install:

5. Connect the relay rod to the idler arm and tighten the nut 40–72 ft. lbs. (54–98 Nm).
6. Connect the relay rod to the pitman arm and tighten the nut to 40–72 ft. lbs. (54–98 Nm).
7. Connect the tie rod ends to the relay rod and tighten the nuts to 40–72 ft. lbs. (54–98 Nm).

Steering Damper

1989 MODELS

1. Disconnect the steering damper at the cross rod.
2. Disconnect the damper at the frame and remove the damper with all washers and cushions.
3. Install the damper to the frame bracket and tighten the nut to 13–17 ft. lbs. (18–24 Nm).
4. Connect the other end of the steering damper to the cross rod and tighten the nut to 27–36 ft. lbs. (37–49 Nm).

1990–95 MODELS

1. Disconnect the steering damper at the relay rod.
2. Disconnect the damper at the frame and remove the damper with all washers and cushions.
3. Install the damper to the frame bracket and tighten the nut to 13–17 ft. lbs. (18–24 Nm).
4. Connect the other end of the steering damper to the relay rod and tighten the nut to 27–36 ft. lbs. (37–49 Nm).

Idler Arm Bracket

1989 MODELS

1. Disconnect the cross rod from the idler arm.
2. Remove the mounting bolts and remove the idler arm bracket with the arm attached.
3. Position the bracket and arm on the frame and tighten the bolts to 58–72 ft. lbs. (78–98 Nm).
4. Connect the idler arm to the cross rod and tighten the nut to 40–72 ft. lbs. (54–98 Nm). Install a new cotter pin.

1990–95 MODELS

1. Disconnect the relay rod from the idler arm.
2. Remove the mounting bolts and remove the idler arm bracket with the arm attached.
3. Position the bracket and arm on the frame and tighten the bolts to 58–72 ft. lbs. (78–98 Nm).
4. Connect the idler arm to the relay rod and tighten the nut to 40–72 ft. lbs. (54–98 Nm). Install a new cotter pin.

