

Power Steering

Symptom Troubleshooting

Hard Steering

1. Check the power assist (see page 17-7).

K20A3 Engine model:

Is the starting load more than 37.2 N (3.8 kgf, 8.4 lbf)?

K20A2 Engine model:

Is the starting load more than 38.2 N (3.9 kgf, 8.6 lbf)?

YES—Go to step 2.

NO—Power assist is OK. ■

2. Measure steady-state fluid pressure from the pump at idle with T/N 07406-0010001 (see page 17-9), or T/N 07406-001000A (see page 17-10).

Is the pressure 1,500 kPa (15 kgf/cm², 213 psi) or less?

YES—Go to step 3.

NO—Go to step 7.

3. Measure the pump relief pressure at idle with T/N 07406-0010001 (see page 17-9), or T/N 07406-001000A (see page 17-10).

K20A3 Engine model:

Is the pressure 6,570–7,260 kPa (67–74 kgf/cm², 950–1,050 psi) or less?

K20A2 Engine model:

Is the pressure 7,160–7,850 kPa (73–80 kgf/cm², 1,040–1,140 psi) or less?

YES—Go to step 4.

NO—Faulty pump assembly. ■

4. With a spring scale, measure the power assist in both directions, to the left and to the right.

Are the two measurements within 2.9 N (0.3 kgf, 0.66 lbf) of each other?

YES—Go to step 5.

NO—Go to step 8.

5. Measure the fluid pressure with both pressure gauge valves open (if so equipped), while turning the steering wheel fully to the left and fully to the right.

K20A3 Engine model:

Is the pressure 6,570–7,260 kPa (67–74 kgf/cm², 950–1,050 psi) or less?

K20A2 Engine model:

Is the pressure 7,160–7,850 kPa (73–80 kgf/cm², 1,040–1,140 psi) or less?

YES—Go to step 6.

NO—Faulty gearbox. ■

6. Adjust the rack guide (see page 17-30) and retest.

Is the steering OK?

YES—Repair is completed. ■

NO—Faulty gearbox. ■

7. Check the feed and return lines between the pump and the gearbox for clogging and deformation.

Are the lines clogged or deformed?

YES—Repair or replace the lines. ■

NO—Faulty valve body unit or pump. ■

8. Check the cylinder lines for deformation (see page 17-11).

Are the lines deformed?

YES—Replace the lines. ■

NO—Go to step 9.

9. Check for a bent rack shaft or misadjusted rack guide (too tight).

Is the rack shaft bent or the rack guide adjusted too tight?

YES—Replace the rack shaft or readjust the rack guide. ■

NO—Faulty valve body unit. ■