

# STEERING

## Specifications

|                 |                                              |                   |                                         |                  |                       |  |
|-----------------|----------------------------------------------|-------------------|-----------------------------------------|------------------|-----------------------|--|
| Steering column | Steering wheel freeplay<br>Pawl stopper      | Maximum           | 40 mm                                   |                  | 1.58 in.              |  |
|                 |                                              | Mark              |                                         |                  |                       |  |
|                 |                                              | 1 or A            | 12.65 — 12.75 mm                        |                  | 0.4980 — 0.5020 in.   |  |
|                 |                                              | 2 or B            | 12.55 — 12.65 mm                        |                  | 0.4941 — 0.4980 in.   |  |
|                 |                                              | 3 or C            | 12.45 — 12.55 mm                        |                  | 0.4902 — 0.4941 in.   |  |
|                 |                                              | 4 or D            | 12.35 — 12.45 mm                        |                  | 0.4862 — 0.4902 in.   |  |
|                 |                                              | 5 or E            | 12.25 — 12.35 mm                        |                  | 0.4823 — 0.4862 in.   |  |
| Power steering  | Drive belt tension                           | New belt          | 125 ± 25 lb                             |                  |                       |  |
|                 |                                              | Used belt         | 80 ± 20 lb                              |                  |                       |  |
|                 | Maximum rise of oil level                    |                   | 5 mm                                    |                  | 0.20 in.              |  |
|                 | Oil pressure at idle speed                   | Minimum           | 80 kg/cm <sup>2</sup>                   | 1,138 psi        | 7,845 kPa             |  |
|                 |                                              |                   | 4 kg                                    | 8.8 lb           | 39 N                  |  |
|                 | Steering effort                              | Maximum           |                                         |                  |                       |  |
|                 | Rotor shaft bushing oil clearance            | STD               | 0.01 — 0.03 mm                          |                  | 0.0004 — 0.0012 in.   |  |
|                 |                                              | Maximum           | 0.07 mm                                 |                  | 0.0028 in.            |  |
|                 | Vane plate to rotor groove clearance         |                   |                                         |                  |                       |  |
|                 |                                              | Maximum           | 0.028 mm                                |                  | 0.0011 in.            |  |
|                 | Vane plate                                   | Minimum height    | 8.1 mm                                  |                  | 0.319 in.             |  |
|                 |                                              | Minimum thickness | 1.797 mm                                |                  | 0.0707 in.            |  |
|                 |                                              | Minimum length    | 14.988 mm                               |                  | 0.5901 in.            |  |
|                 | Vane plate length                            |                   |                                         |                  |                       |  |
|                 | Rotor and cam ring mark                      |                   |                                         |                  |                       |  |
|                 |                                              | None              | 14.996 — 14.998 mm                      |                  | 0.5904 — 0.5905 in.   |  |
|                 |                                              | 1                 | 14.994 — 14.996 mm                      |                  | 0.5903 — 0.5904 in.   |  |
|                 |                                              | 2                 | 14.992 — 14.994 mm                      |                  | 0.5902 — 0.5903 in.   |  |
|                 |                                              | 3                 | 14.990 — 14.992 mm                      |                  | 0.59016 — 0.59024 in. |  |
|                 |                                              | 4                 | 14.988 — 14.990 mm                      |                  | 0.5901 — 0.5902 in.   |  |
|                 | Flow control valve spring length             |                   | 35 — 37 mm                              |                  | 1.38 — 1.46 in.       |  |
|                 | Pump rotating torque                         |                   | 2.8 kg-cm (2.4 in.-lb, 0.3 N·m) or less |                  |                       |  |
|                 | Steering rack runout                         | Maximum           | 0.15 mm                                 |                  | 0.0059 in.            |  |
|                 | Cross shaft adjusting screw thrust clearance |                   | 0.03 — 0.05 mm                          |                  | 0.0012 — 0.0020 in.   |  |
|                 | Worm gear. preload                           | at Starting       | 3 — 5.5 kg-cm                           | 2.6 — 4.8 in.-lb | 0.3 — 0.5 N·m         |  |
|                 | Total preload                                | at Starting       | 7.5 — 11 kg-cm                          | 6.5 — 9.5 in.-lb | 0.7 — 1.1 N·m         |  |

## Torque Specifications

| Steering column                | Part tightened                          | kg-cm | ft-lb     | N-m |
|--------------------------------|-----------------------------------------|-------|-----------|-----|
| Steering column                | Steering wheel set nut                  | 350   | 25        | 34  |
|                                | Column tube x Body                      | 250   | 18        | 25  |
|                                | Breakaway bracket x Body                | 260   | 19        | 25  |
|                                | Column hole cover x Body                | 130   | 9         | 13  |
|                                | Main shaft x Intermediate shaft         | 350   | 25        | 34  |
|                                | Intermediate shaft x Worm shaft         | 350   | 25        | 34  |
|                                | Turn signal bracket x Upper column tube | 50    | 43 in.-lb | 4.9 |
|                                | Tilt pawl set nut                       | 60    | 52 in.-lb | 5.9 |
|                                | Compression spring set bolt             | 80    | 69 in.-lb | 7.8 |
|                                | Tilt lever retainer set nut             | 150   | 11        | 15  |
|                                | Dust seal x Column hole cover           | 60    | 52 in.-lb | 5.9 |
|                                | Clamp x Column tube                     | 195   | 14        | 19  |
| Power steering (PS pump)       | Pressure tube x PS pump                 | 370   | 27        | 36  |
|                                | PS pump x Bracket                       | 450   | 33        | 44  |
|                                | PS pump x Adjusting stay                | 400   | 29        | 39  |
|                                | Adjusting stay x Bracket                | 400   | 29        | 39  |
|                                | Pulley set nut                          | 440   | 32        | 43  |
|                                | Reservoir set bolt 12 mm bolt           | 130   | 9         | 13  |
|                                | 14 mm bolt                              | 420   | 30        | 41  |
|                                | Pressure port union                     | 700   | 51        | 69  |
| Power- steering (Gear housing) | Pressure and return tube                | 450   | 33        | 44  |
|                                | Universal joint                         | 350   | 25        | 34  |
|                                | Gear housing x Body                     | 1,450 | 105       | 142 |
|                                | Gear housing x Pitman arm               | 1,800 | 130       | 177 |
|                                | Cross shaft adjusting screw set nut     | 470   | 34        | 46  |
|                                | Cross shaft end cover lock bolt         | 620   | 45        | 61  |
|                                | Plunger guide nut                       | 205   | 15        | 20  |
|                                | Worm gear valve body set bolt           | 620   | 45        | 61  |
| Steering linkage               | Pitman arm x Relay rod                  | 925   | 67        | 91  |
|                                | Relay rod x Steering damper             | 750   | 54        | 74  |
|                                | Steering damper x Damper hinge          | 750   | 54        | 74  |
|                                | Damper hinge x Body                     | 400   | 29        | 39  |
|                                | Relay rod x Knuckle arm                 | 925   | 67        | 91  |
|                                | Tie rod x Knuckle arm                   | 925   | 67        | 91  |
|                                | Tie or relay rod clamp                  | 375   | 27        | 37  |