# 1. Steering System

### A: SPECIFICATIONS

| Whole system                             | Minimum turning radius                   |          | m (ft)                         | 5.4 (17.7)   |
|--|--|----------|--------------------------------|--|
|  | Steering angle (Inside-Outside)          |          |                                | 34.4°±1.5° — 30.2°±1.5°                              |
|  | Steering wheel d                         | liameter | mm (in)                        | 385 (15.16)  |
|  | Overall gear ratio (Turns, lock to lock) |          |                                | 19.0 (3.4)   |
| Gearbox                                  | Туре                                     |          |                                | Rack and pinion, Integral                            |
|  | Backlash                                 |          |                                | 0 (Automatically adjustable)                         |
|  | Valve (Power steering system)            |          |                                | Rotary valve   |
| Pump<br>(Power steering system)          | Туре                                     |          |                                | Vane pump  |
|  | Oil tank                                 |          |                                | Installed on pump                                    |
|  | Output                                   |          | cm3 (cu in)/rev.               | 7.2 — 0.6 (0.439 — 0.037)                            |
|  | Relief pressure                          |          | kPa (kg/cm <sup>2</sup> , psi) | 7,355 (75, 1,067)                                    |
|  | Hydraulic fluid co                       | ontrol   |                                | Drooping in response to increased engine revolutions |
|  | Hydraulic fluid                          |          | $\ell$ (US qt, Imp qt)         | 1,000 rpm: 7 (7.4, 6.2)<br>3,000 rpm: 5 (5.3, 4.4)   |
|  | Range of revolution                      |          | rpm                            | 500 — 7,500  |
|  | Revolving directi                        | on       |                                | Clockwise  |
| Working fluid<br>(Power steering system) | Name                                     |          |                                | ATF DEXRON IIE or III                                |
|  | Capacity                                 | Oil tank | $\ell$ (US qt, Imp qt)         | 0.3 (0.3, 0.3)                                       |
|  |  | Total    | $\ell$ (US qt, Imp qt)         | 0.7 (0.7, 0.6)                                       |

#### **B: SERVICE DATA**

| Steering wheel                                | Free play  |                        | mm (in)           | 17 (0.67)  |
|---|--|------------------------|-------------------|--|
| Turning angle                                 | Inner tire & wheel                                   |                        |                   | 34.4°±1.5°   |
|   | Outer tire & wheel                                   |                        |                   | 30.2°±1.5°   |
| Steering shaft                                | Clearance between steering wheel and column cover    |                        | mm (in)           | 3.0 (0.118)  |
|   | Sliding resistance                                   |                        | N (kg, lb)        | 304.0 (31.0, 68.4) or less   |
| Steering gearbox<br>(Power steering system)   | Rack shaft play in radial direction                  | Right-turn steering    | mm (in)           | 0.15 (0.0059) or less  |
|   |  | Left-turn steering     | mm (in)           | Horizontal movement: 0.3 (0.012) or less<br>Vertical movement: 0.15 (0.0059) or less             |
|   | Input shaft play                                     | In radial direction    | mm (in)           | 0.18 (0.0071) or less  |
|   |  | In axial direction     | mm (in)           | 0.1 (0.004) or less  |
|   | Turning resistance                                   |                        | N (kg, lb)        | Within 30 mm (1.18 in) from rack center in straight ahead position: Less than 11.18 (1.14, 2.51) |
|   | 1=   |                        |                   | Maximum allowable value: 12.7 (1.3, 2.9)   |
| Oil pump<br>(Power steering system)           | Pulley shaft   | Radial play            | mm (in)           | 0.4 (0.016) or less  |
|   |  | Axial play             | mm (in)           | 0.9 (0.035) or less  |
|   | Pulley   | Ditch deflection       | mm (in)           | 1.0 (0.039) or less  |
|   |  | Resistance to rotation | N (kg, lb)        | 9.22 (0.94, 2.07) or less  |
|   | Regular pressure                                     |                        | kPa (kg/cm², psi) | 981 (10, 142) or less  |
|   | Relief pressure                                      |                        | kPa (kg/cm², psi) | 7,355 (75, 1,067)  |
| Steering wheel effort (Power steering system) | At standstill with engine idling on a concrete road  |                        | N (kg, lb)        | 29.4 (3.0, 6.6) or less  |
|   | At standstill with engine stalled on a concrete road |                        | N (kg, lb)        | 294.2 (30, 66.2) or less   |

# C: RECOMMENDED POWER STEERING FLUID

| Recommended power steering fluid | Manufacturer |
|----------------------------------|--------------|
|                                  | B.P.         |
|                                  | CALTEX       |
| ATF DEXRON IIE or III            | CASTROL      |
| ATE DEXICON IIE OF III           | MOBIL        |
|                                  | SHELL        |
|                                  | TEXACO       |

**4-3** [S1C0]
1. Steering System

## SPECIFICATIONS AND SERVICE DATA

MEMO: