

## 2. SERVICE DATA

**2**

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## 2-1. Tightening Torque Schedule

In threaded fastening parts holding down a component in place, the holding force is preserved primarily in the male and female threads in contact. Screw threads are capable of withstanding this force up to a certain limit. Here occurs the need to tighten them without exceeding the limit, and this need can be met by using torque wrenches.

Fastening parts, for which the limit is specified because their fastening or holding function is critical, is listed below. Use torque wrenches and adhere to the torque specifications when tightening them at the time of periodical inspection or overhauling or servicing.

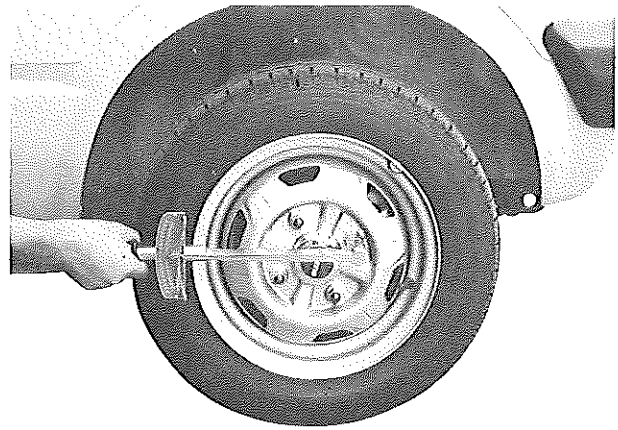


Fig. 2-1

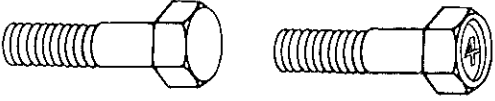
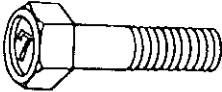
| System                   | Fastening parts                      | Tightening torque |             |             |
|--------------------------|--------------------------------------|-------------------|-------------|-------------|
|                          |                                      | N.m               | kg-m        | lb-ft       |
| Engine                   | Cylinder head bolt                   | 55 - 60           | 5.5 - 6.0   | 40.0 - 43.0 |
|                          | Spark plug                           | 20 - 30           | 2.0 - 3.0   | 14.5 - 21.5 |
|                          | Inlet & exhaust manifold nut         | 18 - 23           | 1.8 - 2.3   | 13.0 - 16.5 |
|                          | Camshaft timing pulley bolt          | 50 - 60           | 5.0 - 6.0   | 36.5 - 43.0 |
|                          | Valve adjusting nut                  | 15 - 20           | 1.5 - 2.0   | 11.0 - 14.0 |
|                          | Timing belt cover bolt               | 3 - 4             | 0.3 - 0.4   | 2.5         |
|                          | Crankshaft pulley bolt               | 50 - 60           | 5.0 - 6.0   | 36.5 - 43.0 |
|                          | Connecting rod bearing cap nut       | 28 - 32           | 2.8 - 3.2   | 20.5 - 23.0 |
|                          | Crankshaft bearing cap bolt          | 43 - 48           | 4.3 - 4.8   | 31.5 - 34.5 |
|                          | Flywheel bolt                        | 40 - 45           | 4.0 - 4.5   | 29.0 - 32.5 |
|                          | Oil pressure unit                    | 12 - 15           | 1.2 - 1.5   | 9.0 - 10.5  |
|                          | Oil filter Ass'y                     | 10 - 15           | 1.0 - 1.5   | 7.5 - 10.5  |
|                          | Oil filter stand                     | 20 - 25           | 2.0 - 2.5   | 14.5 - 18.0 |
|                          | Oil pan bolt                         | 4 - 5             | 0.4 - 0.5   | 3.0 - 3.5   |
|                          | Oil drain plug                       | 20 - 25           | 2.0 - 2.5   | 14.5 - 18.0 |
|                          | Cylinder head cover bolt             | 4 - 5             | 0.4 - 0.5   | 3.0 - 3.5   |
|                          | Engine suspension frame bolt         | 30 - 55           | 3.0 - 5.5   | 22.0 - 40.0 |
|                          | Engine mounting frame side nut (L&R) | 40 - 60           | 4.0 - 6.0   | 29.0 - 43.0 |
|                          | Engine mounting nut (L & R)          | 40 - 60           | 4.0 - 6.0   | 29.0 - 43.0 |
| Engine rear mounting nut | 40 - 60                              | 4.0 - 6.0         | 29.0 - 43.0 |             |

| System                        | Fastening parts                 | Tightening torque |             |               |
|-------------------------------|---------------------------------|-------------------|-------------|---------------|
|                               |                                 | N.m               | kg-m        | lb-ft         |
| Engine                        | Rocker arm shaft screw          | 9 - 12            | 0.9 - 1.2   | 7.0 - 8.5     |
|                               | Camshaft thrust plate screw     | 9 - 12            | 0.9 - 1.2   | 7.0 - 8.5     |
|                               | Oil pump gear plate screw       | 9 - 12            | 0.9 - 1.2   | 7.0 - 8.5     |
| Gearshifting control          | Gearshift control rod rear nut  | 8 - 10            | 0.8 - 1.0   | 5.5 - 7.5     |
|                               | Gearshift control rod front nut | 8 - 10            | 0.8 - 1.0   | 5.5 - 7.5     |
|                               | Control lever guide plate bolt  | 8 - 10            | 0.8 - 1.0   | 5.5 - 7.5     |
|                               | Control lever housing bolt      | 25 - 40           | 2.5 - 4.0   | 18.0 - 29.0   |
|                               | Control lever housing nut       | 15 - 20           | 1.5 - 2.0   | 10.5 - 14.5   |
|                               | Extension rod nut               | 25 - 40           | 2.5 - 4.0   | 18.0 - 29.0   |
| Transmission and Differential | Oil drain plug and level plug   | 30 - 50           | 3.0 - 5.0   | 22.0 - 36.0   |
|                               | Rear mounting nut               | 23 - 28           | 2.3 - 2.8   | 16.5 - 20.0   |
|                               | Differential case bolt          | 80 - 100          | 8.0 - 10.0  | 58.0 - 72.0   |
| Suspension                    | Leaf spring U bolt nut          | 30 - 45           | 3.0 - 4.5   | 21.5 - 33.0   |
|                               | Leaf spring front nut           | 45 - 70           | 4.5 - 7.0   | 32.5 - 51.0   |
|                               | Leaf spring shackle pin nut     | 30 - 55           | 3.0 - 5.5   | 21.5 - 40.0   |
|                               | Front strut support nut         | 18 - 28           | 1.8 - 2.8   | 13.0 - 20.0   |
|                               | Front strut lock nut            | 40 - 60           | 4.0 - 6.0   | 28.5 - 43.5   |
|                               | Front strut bracket lock nut    | 70 - 90           | 7.0 - 9.0   | 50.5 - 65.5   |
|                               | Stabilizer bar castle nut       | 40 - 90           | 4.0 - 9.0   | 28.5 - 65.5   |
|                               | Stabilizer bar mount bolt       | 30 - 55           | 3.0 - 5.5   | 21.5 - 40.0   |
|                               | Wheel nut                       | 50 - 70           | 5.0 - 7.0   | 36.0 - 51.0   |
|                               | Drive shaft castle nut          | 150 - 270         | 15.0 - 27.0 | 108.0 - 195.5 |
|                               | Lower arm bolt                  | 50 - 70           | 5.0 - 7.0   | 36.0 - 51.0   |
|                               | Lower ball joint bolt           | 50 - 70           | 5.0 - 7.0   | 36.0 - 51.0   |
|                               | Rear axle castle nut            | 80 - 120          | 8.0 - 12.0  | 57.5 - 87.0   |

| System   | Fastening parts               | Tightening torque |            |             |
|----------|-------------------------------|-------------------|------------|-------------|
|          |                               | N.m               | kg-m       | lb-ft       |
| Steering | Steering shaft nut            | 25 - 40           | 2.5 - 4.0  | 18.0 - 28.5 |
|          | Steering shaft joint bolt     | 20 - 30           | 2.0 - 3.0  | 14.0 - 22.0 |
|          | Steering column bolt          | 11 - 17           | 1.1 - 1.7  | 7.5 - 12.5  |
|          | Steering gear case bolt       | 20 - 30           | 2.0 - 3.0  | 14.0 - 22.0 |
|          | Steering pinion securing nut  | 55 - 80           | 5.5 - 8.0  | 40.0 - 57.5 |
|          | Tie rod end lock nut          | 35 - 55           | 3.5 - 5.5  | 25.5 - 39.5 |
|          | Tie rod end castle nut        | 40 - 70           | 4.0 - 7.0  | 28.5 - 51.0 |
| Brake    | Rear brake backing plate bolt | 18 - 28           | 1.8 - 2.8  | 13.0 - 20.0 |
|          | Brake master cylinder nut     | 25 - 40           | 2.5 - 4.0  | 18.0 - 28.5 |
|          | Brake tube union nut          | 15 - 18           | 1.5 - 1.8  | 11.0 - 13.0 |
|          | Brake flexible hose nut       | 20 - 40           | 2.0 - 4.0  | 14.5 - 28.5 |
|          | Brake pipe 2-way joint bolt   | 6 - 10            | 0.6 - 1.0  | 4.5 - 7.0   |
|          | Proportioning valve bolt      | 6 - 10            | 0.6 - 1.0  | 4.5 - 7.0   |
|          | Brake bleeder plug            | 9 - 13            | 0.9 - 1.3  | 6.5 - 9.5   |
|          | Wheel cylinder mounting nut   | 7 - 11            | 0.7 - 1.1  | 5.0 - 8.0   |
|          | Front brake caliper pin bolt  | 22 - 32           | 2.2 - 3.2  | 15.5 - 23.0 |
|          | Front brake disc bolt         | 40 - 60           | 4.0 - 6.0  | 28.5 - 43.0 |
|          | Front brake carrier bolt      | 70 - 100          | 7.0 - 10.0 | 50.5 - 72.0 |
|          | Brake flexible hose bolt      | 20 - 25           | 2.0 - 2.5  | 14.0 - 18.0 |

For other bolts and nuts not listed above, refer to this chart:

#### Tightening Torque

| Thread diameter (mm) |  |             |  |                 |             |               |
|----------------------|---|-------------|--|-----------------|-------------|---------------|
|                      | Conventional bolt   |             |  | "7" Marked bolt |             |               |
|                      | N.m   | kg-m        | lb-ft  | N.m             | kg-m        | lb-ft         |
| 4                    | 1 - 2   | 0.1 - 0.2   | 0.7 - 1.5  | 1.5 - 3.0       | 0.15 - 0.30 | 1.0 - 2.2     |
| 5                    | 2 - 4   | 0.2 - 0.4   | 1.4 - 2.9  | 3 - 6           | 0.3 - 0.6   | 2.1 - 4.5     |
| 6                    | 4 - 7   | 0.4 - 0.7   | 2.8 - 5.5  | 8 - 12          | 0.8 - 1.2   | 5.5 - 9.0     |
| 8                    | 10 - 16   | 1.0 - 1.6   | 7.0 - 12.0   | 18 - 28         | 1.8 - 2.8   | 13.0 - 20.5   |
| 10                   | 22 - 35   | 2.2 - 3.5   | 15.5 - 25.5  | 40 - 60         | 4.0 - 6.0   | 28.5 - 43.5   |
| 12                   | 35 - 55   | 3.5 - 5.5   | 25.0 - 40.0  | 70 - 100        | 7.0 - 10.0  | 50.5 - 72.5   |
| 14                   | 50 - 80   | 5.0 - 8.0   | 36.0 - 58.0  | 110 - 160       | 11.0 - 16.0 | 79.5 - 116.0  |
| 16                   | 80 - 130  | 8.0 - 13.0  | 57.5 - 94.5  | 170 - 250       | 17.0 - 25.0 | 122.5 - 181.0 |
| 18                   | 130 - 190   | 13.0 - 19.0 | 94.0 - 137.5   | 200 - 280       | 20.0 - 28.0 | 144.5 - 203.0 |

## 2-2. Service Data

### ENGINE

| Item                             |                                       | Standard  | Service Limit                                       |                        |
|----------------------------------|---------------------------------------|---|---|------------------------|
| Compression pressure             |                                       | 13.5 kg/cm <sup>2</sup> (192.0 psi) 400 r/min                   | 10.0 kg/cm <sup>2</sup> (142.2 psi) 400 r/min       |                        |
|                                  | Difference between cylinders          | _____   | 1.0 kg/cm <sup>2</sup> (14.2 psi) 400 r/min         |                        |
| Valve clearance (Inlet, Exhaust) | Cold                                  | 0.13 ~ 0.18 mm (0.005 ~ 0.007 in.)                              | _____   |                        |
|                                  | Hot                                   | 0.23 ~ 0.28 mm (0.009 ~ 0.011 in.)                              | _____   |                        |
| Ignition Timing                  |                                       | 7° B.T.D.C. below 900 r/min (rpm)                               | _____   |                        |
| Cylinder head                    | Flatness of gasketed surface          |   | _____   |                        |
|                                  | Flatness of manifold seat             | Inlet   | _____   |                        |
|                                  |                                       | Outlet  | _____   |                        |
|                                  | Valve seat                            | Seating width   | Inlet 1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)            | _____                  |
|                                  |                                       |   | Exhaust 1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)          | _____                  |
| Seating angle                    |                                       | 45°   | _____   |                        |
| Valve, Valve spring & Cam shaft  | Camshaft/Journal clearance            |   | 0.050 ~ 0.091 mm (0.0020 ~ 0.0036 in.)              |                        |
|                                  | Camshaft thrust clearance             |   | 0.050 ~ 0.150 mm (0.0020 ~ 0.0059 in.)              |                        |
|                                  | Cam height (Base circle + lift)       | Inlet   | 36.152 mm (1.4233 in.)                              | 36.100 mm (1.4212 in.) |
|                                  |                                       | Exhaust   | 36.152 mm (1.4233 in.)                              | 36.100 mm (1.4212 in.) |
|                                  |                                       | Fuel pump cam   | 33.300 mm (1.3110 in.)                              | 33.000 mm (1.2992 in.) |
|                                  | Camshaft deflection                   |   | _____   | 0.10 mm (0.0039 in.)   |
|                                  | Valve stem diameter                   | Inlet   | 6.965 ~ 6.980 mm (0.2742 ~ 0.2748 in.)              | _____                  |
|                                  |                                       | Exhaust   | 6.955 ~ 6.970 mm (0.2738 ~ 0.2744 in.)              | _____                  |
|                                  | Valve guide I.D.                      | Inlet   | 7.000 ~ 7.015 mm (0.2755 ~ 0.2761 in.)              | _____                  |
|                                  |                                       | Exhaust   | 7.000 ~ 7.015 mm (0.2755 ~ 0.2761 in.)              | _____                  |
|                                  | Valve guide-to-valve stem clearance   | Inlet   | 0.020 ~ 0.050 mm (0.0008 ~ 0.0019 in.)              | 0.07 mm (0.0027 in.)   |
|                                  |                                       | Exhaust   | 0.030 ~ 0.060 mm (0.0012 ~ 0.0023 in.)              | 0.09 mm (0.0035 in.)   |
|                                  | Thickness of valve head periphery     | Inlet   | 0.80 ~ 1.20 mm (0.0315 ~ 0.0472 in.)                | 0.6 mm (0.0236 in.)    |
|                                  |                                       | Exhaust   | 0.80 ~ 1.20 mm (0.0315 ~ 0.0472 in.)                | 0.7 mm (0.0275 in.)    |
|                                  | Contact width of valve and valve seat | Inlet   | 1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)                  | _____                  |
|                                  |                                       | Exhaust   | 1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)                  | _____                  |
|                                  | Valve spring free length              | Inlet   | 47.7 mm (1.8779 in.)                                | 46.5 mm (1.8307 in.)   |
| Exhaust                          |                                       | 47.7 mm (1.8779 in.)  | 46.5 mm (1.8307 in.)                                |                        |
| Valve spring preload             | Inlet                                 | 26 ~ 30 kg (57.3 ~ 66.1 lb) for fitting length 40 mm (1.57 in.) | 24 kg (52.9 lb) for fitting length 40 mm (1.57 in.) |                        |
|                                  | Exhaust                               | 26 ~ 30 kg (57.3 ~ 66.1 lb) for fitting length 40 mm (1.57 in.) | 24 kg (52.9 lb) for fitting length 40 mm (1.57 in.) |                        |

| Item                             |                                      | Standard                                 | Service Limit                            |                      |
|----------------------------------|--------------------------------------|--|--|----------------------|
| Rocker arm shaft and rocker arm  | Rocker shaft O.D.                    | 14.965 ~ 14.980 mm (0.589 ~ 0.590 in.)   | _____                                    |                      |
|                                  | Rocker arm I.D.                      | 14.985 ~ 15.005 mm (0.590 ~ 0.591 in.)   | _____                                    |                      |
|                                  | Shaft-to-arm clearance               | Inlet                                    | 0.005 ~ 0.040 mm (0.0002 ~ 0.0016 in.)   | 0.07 mm (0.0027 in.) |
|                                  |                                      | Exhaust                                  | 0.005 ~ 0.040 mm (0.0002 ~ 0.0016 in.)   | 0.07 mm (0.0027 in.) |
| Rocker shaft deflection          |                                      | _____                                    | 0.06 mm (0.0023 in.)                     |                      |
| Cylinder                         | Flatness of gasketed surface         |  | _____                                    |                      |
|                                  | Cylinder bore (S.T.D.)               |  | 68.505 ~ 68.520 mm (2.6970 ~ 2.6976 in.) |                      |
|                                  | Difference in bore between cylinders |  | _____                                    |                      |
|                                  | Wear limit on bore                   |  | _____                                    |                      |
|                                  | Cylinder-to-piston clearance         |  | 0.045 ~ 0.055 mm (0.0018 ~ 0.0022 in. )  |                      |
| Piston                           | Piston diameter                      | Standard                                 | 68.450 ~ 68.475 mm(2.6949 ~ 2.6959 in.)  |                      |
|                                  |                                      | Oversize:0.25 mm(0.0098in.)              | 68.700 ~ 68.725 mm(2.7047 ~ 2.7057 in.)  |                      |
|                                  |                                      | Oversize:0.50 mm(0.0196in.)              | 68.950 ~ 68.975 mm (2.7146 ~ 2.7155 in.) |                      |
|                                  | Piston ring groove width             | Top ring                                 | 1.52 ~ 1.54 mm (0.0598 ~ 0.0606 in.)     | _____                |
|                                  |                                      | 2nd ring                                 | 1.51 ~ 1.53 mm (0.0594 ~ 0.0602 in.)     | _____                |
|                                  |                                      | Oil ring                                 | 2.81 ~ 2.83 mm (0.1106 ~ 0.1114 in.)     | _____                |
|                                  | Piston pin diameter                  |  | 15.995 ~ 16.000mm(0.6297 ~ 0.6299 in.)   | _____                |
| Piston pin clearance in con. rod |                                      | 0.003 ~ 0.016 mm (0.0001 ~ 0.0006 in.)   | 0.05 mm (0.0020 in.)                     |                      |
| Piston ring                      | Piston ring thickness                | Top ring                                 | 1.47 ~ 1.49 mm (0.0578 ~ 0.0586 in.)     |                      |
|                                  |                                      | 2nd ring                                 | 1.47 ~ 1.49 mm (0.0578 ~ 0.0586 in.)     |                      |
|                                  |                                      | Oil ring                                 | 0.45 mm (0.0177 in.)                     |                      |
|                                  | Ring clearance in groove             | Top ring                                 | 0.03 ~ 0.07 mm (0.0012 ~ 0.0027 in.)     | 0.12 mm (0.0047 in.) |
|                                  |                                      | 2nd ring                                 | 0.02 ~ 0.06mm (0.0008 ~ 0.0023 in.)      | 0.10 mm (0.0039 in.) |
|                                  | Piston ring end gap                  | Top ring                                 | 0.15 ~ 0.35 mm (0.0059 ~ 0.0137 in.)     | 0.7 mm (0.0275 in.)  |
|                                  |                                      | 2nd ring                                 | 0.10 ~ 0.30 mm (0.0039 ~ 0.0118 in.)     | 0.7 mm (0.0275 in.)  |
|                                  |                                      | Oil ring                                 | 0.30 ~ 0.90 mm (0.0118 ~ 0.0354 in.)     | 1.8 mm (0.0708 in.)  |
|                                  | Crankshaft                           | Crankshaft deflection (middle)           |  | _____                |
| Crank pin diameter               |                                      | 37.985 ~ 38.000mm (1.4954 ~ 1.4960 in.)  |  |                      |
| Crank pin clearance in con. rod  |                                      | 0.020 ~ 0.040 mm (0.0008 ~ 0.0016 in.)   |  |                      |
| Connecting rod small end bore    |                                      | 16.003 ~ 16.011 mm (0.6300 ~ 0.6303 in.) |  |                      |
| Crank journal diameter           |                                      | 49.985 ~ 50.000 mm (1.9679 ~ 1.9685 in.) |  |                      |
| Bearing-to-journal clearance     |                                      | 0.020 ~ 0.040 mm (0.0008 ~ 0.0016 in.)   |  |                      |

| Item       |   | Standard |                                      | Service Limit        |
|------------|---|----------|--------------------------------------|----------------------|
| Crankshaft | Crankshaft thrust play                  |          | 0.13 ~ 0.28 mm (0.0051 ~ 0.0110 in.) | 0.35 mm (0.0138 in.) |
|            | Connecting rod big end thrust clearance |          | 0.10 ~ 0.20 mm (0.0039 ~ 0.0078 in.) | 0.30 mm (0.0118 in.) |
|            | Connecting rod                          | Twist    | _____                                | 0.10 mm (0.0039 in.) |
|            |   | Bow      | _____                                | 0.05 mm (0.0020 in.) |

## CLUTCH & TRANSMISSION

| Item         |  | Standard    |                                      | Service Limit       |                   |
|--------------|--|-------------|--------------------------------------|---------------------|-------------------|
| Clutch       | Pedal play   |             | 15 - 25 mm (0.6 - 1.0 in.)           | _____               |                   |
|              | Facing wear (Rived head depression)                |             | 1.2 mm (0.05 in.)                    | 0.5 mm (0.02 in.)   |                   |
|              | Facing-input shaft serration backlash              |             | _____                                | 0.5 mm (0.02 in.)   |                   |
|              | Clutch release arm play                            |             | 2 ~ 4 mm (0.08 ~ 0.16 in.)           | _____               |                   |
| Transmission | Clearance between gears and rings                  |             | 0.8 ~ 1.2 mm (0.03 ~ 0.05 in.)       | 0.5 mm (0.02 in.)   |                   |
|              | Key slot width of synchronizer ring                |             | Low gear                             | 7.8 mm (0.31 in.)   | 8.1 mm (0.32 in.) |
|              |  |             | Second, third and top gear           | 9.6 mm (0.38 in.)   | 9.9 mm (0.39 in.) |
|              | Fork shaft locating spring & Gear shift arm spring | Free length | 19.5 mm (0.767 in.)                  | 17.0 mm (0.669 in.) |                   |
|              | Low & second gear backlash                         |             | 0.10 ~ 0.15 mm (0.0039 ~ 0.0059 in.) | 0.3 mm (0.0118 in.) |                   |
|              | Third & top gear backlash                          |             | 0.15 ~ 0.20 mm (0.0059 ~ 0.0078 in.) | 0.3 mm (0.0118 in.) |                   |
|              | Reverse gear-reverse idle gear backlash            |             | 0.15 ~ 0.30 mm (0.0059 ~ 0.0118 in.) | 0.4 mm (0.0157 in.) |                   |

## LUBRICATION

| Item        |   | Standard                            |  | Service Limit        |
|-------------|---|-------------------------------------|--|----------------------|
| Lubrication | Outer gear periphery clearance in pump case |                                     | 0.05 ~ 0.10 mm (0.0020 ~ 0.0039 in.)           | 0.15 mm (0.0059 in.) |
|             | Outer gear tooth clearance in pump case     |                                     | 0.058 ~ 0.310 mm (0.0023 ~ 0.0122 in.)         | _____                |
|             | Inner gear tooth clearance in pump case     |                                     | 0.177 ~ 0.328 mm (0.0070 ~ 0.0129 in.)         | _____                |
|             | Oil pump side clearance (flatness)          |                                     | 0.035 ~ 0.085 mm (0.0014 ~ 0.0033 in.)         | 0.15 mm (0.0059 in.) |
|             | Oil relief valve spring                     | Free length                         | 45 mm (1.77 in.)                               | _____                |
|             |   | 10.7 mm (0.42 in) Compressive force | 6.206 kg (13.681 lb)                           | 5.300 kg (11.684 lb) |
|             | Set pressure of oil pressure switch         |                                     | 0.2 ~ 0.4 kg/cm <sup>2</sup> (2.84 ~ 5.68 psi) | _____                |

## COOLING SYSTEM

| Item  | Standard                   | Service Limit |
|---|----------------------------|---------------|
| Fan belt tension as deflection under 10 kg (22 lb) push applied to middle point between pulleys | 10 ~ 15 mm (0.4 ~ 0.6 in.) | _____         |
| Thermostat start-to-open temperature  | 82 °C (179 °F)             | _____         |
| Thermostat full-open temperature  | 95 °C (203 °F)             | _____         |
| Valve lift  | 8 mm (0.31 in.)            | _____         |

## DIFFERENTIAL

| Item                | Standard                           | Service Limit |
|---------------------|------------------------------------|---------------|
| Side gear backlash  | 0.05 ~ 0.10 mm (0.002 ~ 0.004 in.) | _____         |
| Final gear backlash | 0.08 ~ 0.12 mm (0.003 ~ 0.005 in.) | _____         |

## SUSPENSION

| Item                          | Standard   | Service Limit |
|-------------------------------|--|---------------|
| Front coil spring rate        | 1.48 kg/mm (83 lb/in.)   | _____         |
| Rear leaf spring rate         | 2.17 kg/mm (122 lb/in.) *2.6 kg/mm (145.6 lb/in.)              | _____         |
| Front coil spring free length | 352 mm (13.9 in.)  | _____         |
| Rear leaf spring free height  | 135.5 mm (5.33 in.) ● 127.5 mm (5.02 in.)<br>*156 mm (6.1 in.) | _____         |
| Front strut stroke            | 135 mm (5.3 in.)   | _____         |
| Rear shock absorber stroke    | 160 mm (6.3 in.) *175 mm (6.9 in.)                             | _____         |

\* For rear leaf spring of three-leaf type

● For the right side leaf spring of a left hand steering vehicle.



## STEERING SYSTEM

| Item                    |       | Standard                                   | Service Limit |
|-------------------------|-------|--|---------------|
| Gear ratio (gear case)  |       | 17.5 : 1                                   | _____         |
| Steering angle, inside  |       | 38°  | _____         |
| Steering angle, outside |       | 32°  | _____         |
| Minimum turning radius  |       | 4.4 m (14.4 ft.)                           | _____         |
| Tire inflating pressure | Front | 190 kPa (1.9 kg/cm <sup>2</sup> , 27 psi)  | _____         |
|                         | Rear  | 190 kPa (1.9 kg/cm <sup>2</sup> , 27 psi)  | _____         |
|                         |       | *220 kPa (2.2 kg/cm <sup>2</sup> , 31 psi) | _____         |
| Toe-in                  |       | 2 ~ 4 mm (0.079 ~ 0.157 in.)               | _____         |
| Camber angle            |       | 1° 20'                                     | _____         |
| Trail                   |       | 13 mm (0.51 in.)                           | _____         |
| King pin inclination    |       | 12° 50'                                    | _____         |
| Caster angle            |       | 3° 15'                                     | _____         |

\* For vehicle with rear leaf spring of three-leaf type

## BRAKE

| Item  |  | Standard                 | Service Limit       |
|---|--|--------------------------|---------------------|
| Brake drum inside diameter  |  | 180 mm (7.087 in.)       | 182 mm (7.165 in.)  |
| Brake drum "out-of-round"   |  | 0 mm (0 in.)             | 0.5 mm (0.02 in.)   |
| Brake lining thickness (lining + shoe rim)                          |  | 7.0 mm (0.27 in.)        | 3.0 mm (0.12 in.)   |
| Pedal-to-wall clearance<br>When pedal is depressed at 30 kg (66 lb) |  | 50 mm (1.97 in.) minimum |                     |
| Brake disc thickness  |  | 11 mm (0.433 in.)        | 9.5 mm (0.374 in.)  |
| Brake disc deflection   |  | _____                    | 0.15 mm (0.006 in.) |
| Pad thickness (lining + pad rim)                                    |  | 15.5 mm (0.610 in.)      | 6.5 mm (0.256 in.)  |

## ELECTRICAL

|                          | Item  | Standard  | Service Limit      |
|--------------------------|---|---|--------------------|
| Ignition system          | Ignition timing                             | 7° B.T.D.C. below 900 r/min (rpm)               | _____              |
|                          | Ignition order                              | 1 - 3 - 2                                       | _____              |
|                          | Breaker point gap                           | 0.4 - 0.5 mm (0.016 - 0.019 in.)                | _____              |
|                          | Cam dwell angle                             | 62°   | _____              |
|                          | Condenser capacitance                       | 0.25 microfarad                                 | _____              |
|                          | Ignition coil, Primary winding resistance   | About 3 ohm (inclusive of the 1.5-ohm resistor) | _____              |
|                          | Ignition coil; Secondary winding resistance | About 8 kilohms                                 | _____              |
| Starter motor            | Voltage                                     | 12 Volts  | _____              |
|                          | Output                                      | 0.6 kw  | _____              |
|                          | Rating                                      | 30 seconds                                      | _____              |
|                          | Brush length                                | 19 mm (0.75 in.)                                | 12 mm (0.47 in.)   |
|                          | Number of pinion teeth                      | 9   | _____              |
|                          | Commutator diameter                         | 32.5 mm (1.28 in.)                              | _____              |
|                          | Mica undercut                               | 0.5 - 0.8 mm (0.02 - 0.03 in.)                  | 0.2 mm (0.007 in.) |
| Charging system          | Nominal operating voltage                   | 12 Volts  | _____              |
|                          | Maximum alternator output                   | 40A   | _____              |
|                          | Effective pulley diameter                   | 65 mm (2.56 in.)                                | _____              |
|                          | Maximum permissible alternator speed        | 13,500 r/min (rpm)                              | _____              |
|                          | Working temperature range                   | -40 - 80° C (-104 - 176° F)                     | _____              |
|                          | Rotor; Ring-to-ring circuit resistance      | Several ohms                                    | _____              |
|                          | Brush length                                | 13.5 mm (0.53 in.)                              | 5.0 mm (0.20 in.)  |
|                          | Standard output voltage and current         | 13.8 - 14.8 Volts, 20 A minimum                 | _____              |
|                          | Regulated Voltage                           | 13.8 - 14.8 Volts                               | _____              |
|                          | Voltage-relay cut in Voltage                | 4.2 ~ 5.2 Volts                                 | _____              |
| Field circuit resistance | Several ohms                                | _____   |                    |