

# TORQUE SPECIFICATION

| Part tightened   |                | N·m   | kgf·cm | ft·lbf     |
|--|----------------|-------|--------|------------|
| Fuel prefilter upper body x Fuel prefilter lower body        |                | 16.7  | 170    | 12         |
| Fuel prefilter x Bracket                                     |                | 18    | 185    | 13         |
| Fuel damper x Body   |                | 7.5   | 80     | 66 n.·lbf  |
| Nozzle holder body x Nozzle holder retaining nut             | 1HZ            | 46.58 | 475    | 34         |
|  | 1HD-T          | 34.3  | 350    | 25         |
|  | 1HD-FTE        | 29.4  | 300    | 22         |
| Injection nozzle x Cylinder head                             | 1HZ            | 63.7  | 650    | 47         |
|  | 1HD-T          | 39.2  | 400    | 29         |
|  | 1HD-FTE        | 25    | 255    | 18         |
| Injection pipe x Injection nozzle, Injection pump            | 1HZ            | 14.7  | 150    | 11         |
|  | 1HD-T, 1HD-FTE | 24.5  | 250    | 18         |
| Injection pipe clamp x Intake manifold, Injection pipe clamp |                | 6.4   | 65     | 56 in.·lbf |
| No.3 nozzle leakage pipe x Intake manifold                   | 1HD-FTE        | 19.6  | 200    | 14         |
| Nozzle leakage pipe x Injection nozzle                       | 1HZ            | 29.4  | 300    | 22         |
|  | 1HD-T          | 12.3  | 125    | 9          |
|  | 1HD-FTE        | 11.3  | 115    | 8          |
| Nozzle leakage pipe x Cylinder head                          | 1HD-FTE        | 19    | 186    | 14         |
| Delivery valve holder x Distributive head                    | 1HZ, 1HD-T     | 58.85 | 600    | 43         |
| Fuel inlet hollow screw x Injection pump body                | 1HZ, 1HD-T     | 36.8  | 375    | 27         |
| Regulator valve x Injection pump body                        | 1HZ, 1HD-T     | 8.8   | 90     | 78 in.·lbf |
| Feed pump cover x Injection pump body                        | 1HZ, 1HD-T     | 2.9   | 29.5   | 25 in.·lbf |
| Timer cover x Injection pump body                            | 1HZ, 1HD-T     | 8.35  | 85     | 74 in.·lbf |
| Timer adjusting screw x Timer cover                          | 1HZ, 1HD-T     | 14.2  | 145    | 11         |
| Governor link support x Injection pump body                  | 1HZ, 1HD-T     | 14    | 140    | 10         |
| Distributive head x Injection pump body                      | 1HZ, 1HD-T     | 12    | 120    | 9          |
| Governor shaft x Injection pump body                         | 1HZ, 1HD-T     | 27    | 275    | 20         |
| Overflow screw x Governor cover                              | 1HD-T          | 24.55 | 250    | 18         |
| Control lever x Governor cover                               | 1HZ, 1HD-T     | 6.85  | 70     | 61 in.·lbf |
| Governor cover x Injection pump body                         | 1HZ, 1HD-T     | 8.3   | 85     | 74 in.·lbf |
| Wire clamp x Governor cover                                  | 1HZ, 1HD-T     | 8.35  | 85     | 74 in.·lbf |
| Idle speed adjusting screw x Governor cover                  | 1HZ, 1HD-T     | 6.9   | 70.4   | 61 in.·lbf |
| Adjusting lever x Governor cover                             | 1HZ, 1HD-T     | 8.35  | 85     | 74 in.·lbf |
| Pickup sensor x Injection pump body                          | 1HZ, 1HD-T     | 20.6  | 210    | 15         |
| Distributive head plug x Distributive head                   | 1HZ            | 69    | 700    | 51         |
|  | 1HD-T          | 88    | 900    | 65         |
| Distributive head plug bolt x Distributive head plug         | 1HZ, 1HD-T     | 16.7  | 170    | 12         |
| Pneumatic bellows cover x Governor cover                     | 1HZ w/ HAC     | 7.35  | 75     | 65 in.·lbf |
| Diaphragm x Push rod   | 1HD-T          | 7.35  | 75     | 65 in.·lbf |
| Diaphragm cover x Governor cover                             | 1HD-T          | 7.35  | 75     | 65 in.·lbf |
| Lever control spring x Governor cover                        | 1HZ, 1HD-T     | 11.3  | 115    | 8          |
| Injection pump stay x Injection pump                         | 1HZ, 1HD-T     | 8.35  | 85     | 74 in.·lbf |
|  | 1HD-FTE        | 19.6  | 200    | 14         |
| Fuel cut solenoid x Distributive head                        | 1HZ, 1HD-T     | 22    | 225    | 16         |
| Lead wire x Fuel cut solenoid                                | 1HZ, 1HD-T     | 1.7   | 17     | 15 in.·lbf |
| Cap x Injection pump   | 1HD-T          | 11    | 115    | 8          |

1HZ, 1HD-T, 1HD-FTE ENGINE (RM617E)

## SERVICE SPECIFICATIONS – ENGINE FUEL

|  |                       |       |       |            |
|--|-----------------------|-------|-------|------------|
| Thermo wax x Injection pump body                           | w/ ACSD               | 8.35  | 85    | 74 in.·lbf |
| Idle-up lever x Injection pump body                        | 1HZ, 1HD-T Short bolt | 8.35  | 85    | 74 in.·lbf |
|  | Long bolt             | 11.75 | 120   | 9          |
| No.2 nozzle leakage pipe, Fuel inlet pipe x Injection pump | 1HZ, 1HD-T            | 22.1  | 225   | 16         |
| Idle-up actuator x Idle-up lever                           | 1HZ, 1HD-T            | 9.35  | 95    | 83 in.·lbf |
| Fuel temperature sensor x Injection pump                   | 1HD-FTE               | 22.1  | 225   | 16         |
| Fuel inlet pipe x Injection pump                           | 1HD-FTE               | 24.5  | 250   | 18         |
| Fuel outlet pipe x Injection pump                          | 1HD-FTE               | 22.1  | 225   | 16         |
| Injection pump x Timing gear case                          |                       | 18    | 185   | 13         |
| Pump stay x Injection pump                                 | 1HZ, 1HD-T            | 69    | 700   | 51         |
| Pump stay x Injection pump, Cylinder Block                 | 1HZ, 1HD-T            | 69    | 700   | 51         |
| Pump stay bracket x Injection pump                         | 1HZ, 1HD-T            | 39    | 398   | 29         |
| Injection pump drive gear x Injection pump                 | 1HZ, 1HD-T            | 103   | 1,050 | 76         |
|  | 1HD-FTE               | 137   | 1,400 | 101        |