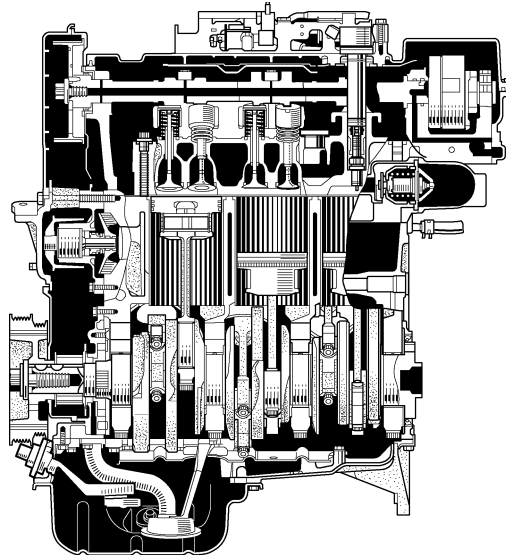


## ENGINE

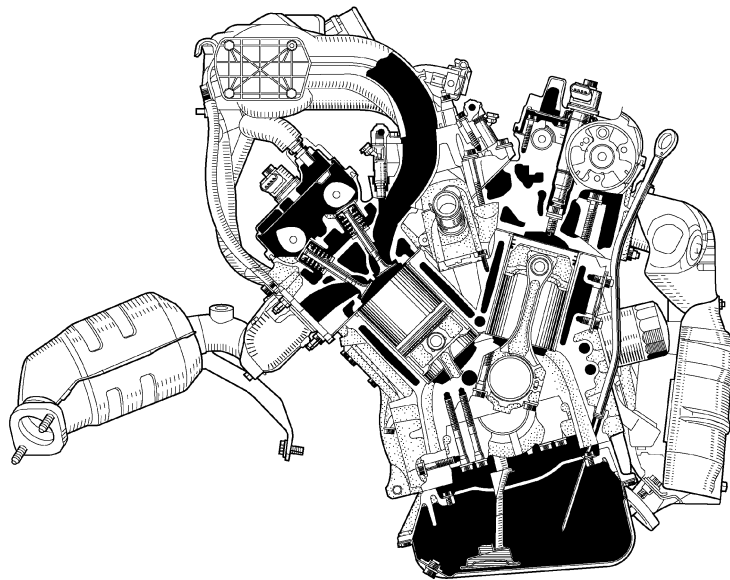
### 3MZ-FE ENGINE

#### ■ DESCRIPTION

The RX400h uses the 3MZ-FE engine that has been newly developed for hybrid system application. It is a V6, 3.3-liter, 24-valve DOHC engine. It is based on the 3MZ-FE engine of the RX330. Furthermore, the VVT-i (Variable Valve Timing-intelligent) system and the ETCS-i (Electronic Throttle Control System-intelligent) system have been changed to suit the hybrid system.



277EG01



277EG02

## ► Engine Specifications ◀

|                                                                |         |       |                                                  |                     |
|----------------------------------------------------------------|---------|-------|--------------------------------------------------|---------------------|
| Model                                                          |         |       | RX400h                                           | RX330               |
| Engine Type                                                    |         |       | 3MZ-FE                                           | 3MZ-FE              |
| No. of Cyls. & Arrangement                                     |         |       | 6-Cylinder, V Type                               | ←                   |
| Valve Mechanism                                                |         |       | 24-Valve DOHC,<br>Belt & Gear Drive (with VVT-i) | ←                   |
| Combustion Chamber                                             |         |       | Pentroof Type                                    | ←                   |
| Manifolds                                                      |         |       | Cross-Flow                                       | ←                   |
| Fuel System                                                    |         |       | EFI                                              | ←                   |
| Displacement                      cm <sup>3</sup> (cu. in.)    |         |       | 3,311 (202.1)                                    | ←                   |
| Bore × Stroke                      mm (in.)                    |         |       | 92.0 × 83.0 (3.62 × 3.27)                        | ←                   |
| Compression Ratio                                              |         |       | 10.8 : 1                                         | ←                   |
| Max. Output                                              (EEC) |         |       | 155 kw @ 5,600 rpm                               | 172 kw @ 5,600 rpm  |
| Max. Torque                                              (EEC) |         |       | 288 N·m @ 4,400 rpm                              | 328 N·m @ 3,600 rpm |
| Valve<br>Timing                                                | Intake  | Open  | 28°BTDC ~ 32° ATDC                               | 56°BTDC ~ 4° ATDC   |
|                                                                |         | Close | 32°ABDC ~ 92° ABDC                               | 4°ABDC ~ 64° ABDC   |
|                                                                | Exhaust | Open  | 56° BBDC                                         | ←                   |
|                                                                |         | Close | 4° ATDC                                          | ←                   |
| Firing Order                                                   |         |       | 1-2-3-4-5-6                                      | ←                   |
| Research Octane Number                                         |         |       | 95 or higher                                     | ←                   |
| Engine Service Mass* (Reference)<br>kg (lb)                    |         |       | 160 (352)                                        | ←                   |
| Oil Grade                                                      |         |       | API, SJ, SL, EC or ILSAC                         | ←                   |
| Tailpipe Emission Regulation                                   |         |       | EURO IV                                          | ←                   |
| Evaporative Emission Regulation                                |         |       | EURO IV                                          | ←                   |

\*: Weight shows the figure with the oil and engine coolant fully filled.

## ► Valve Timing ◀

