

## ■ FEATURES OF 1ZZ-FE ENGINE

The 1ZZ-FE engine has been able to achieve the following performance through the adoption of the items listed below.

- (1) High performance and fuel economy
- (2) Low noise and vibration
- (3) Lightweight and compact design
- (4) Good serviceability
- (5) Clean emission

| Item                                                                                                                        | (1) | (2) | (3) | (4) | (5) |
|-----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|
| The VVT-i system is used.                                                                                                   | ○   |     |     |     | ○   |
| A partition plate has been provided between the exhaust manifold and the exhaust front pipe to achieve a dual construction. | ○   |     |     |     | ○   |
| A heat insulator has been adopted in the exhaust manifold.                                                                  |     | ○   |     |     | ○   |
| Intake Air Flow Control System has been adopted.                                                                            |     | ○   |     |     |     |
| Intake manifold made of plastic has been adopted.                                                                           |     |     | ○   |     |     |
| A cylinder block made of aluminum alloy has been adopted.                                                                   |     |     | ○   |     |     |
| The DIS (Direct Ignition System) makes ignition timing adjustment unnecessary.                                              |     |     |     | ○   |     |
| Serpentine belt drive system has been adopted.                                                                              |     |     | ○   | ○   |     |
| 12-hole type fuel injectors have been adopted.                                                                              | ○   |     |     |     | ○   |
| A TWC (Three-Way Catalytic Converter) with optimized internal construction has been adopted.                                |     |     |     |     | ○   |
| A rearward exhaust layout has been adopted to realize an early activation of the catalyst.                                  |     |     |     |     | ○   |