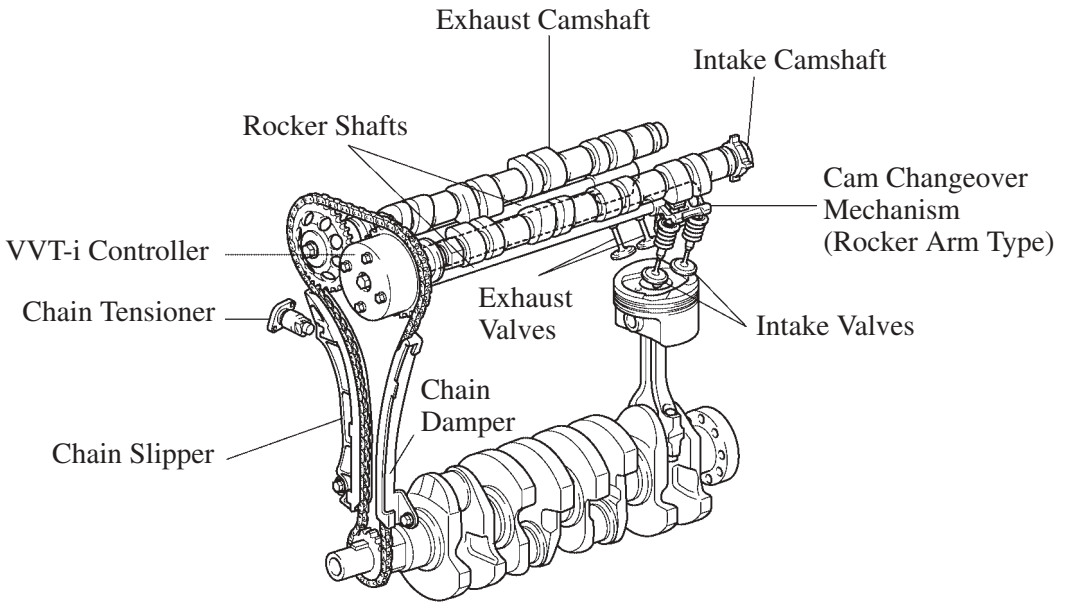
■ VALVE MECHANISM

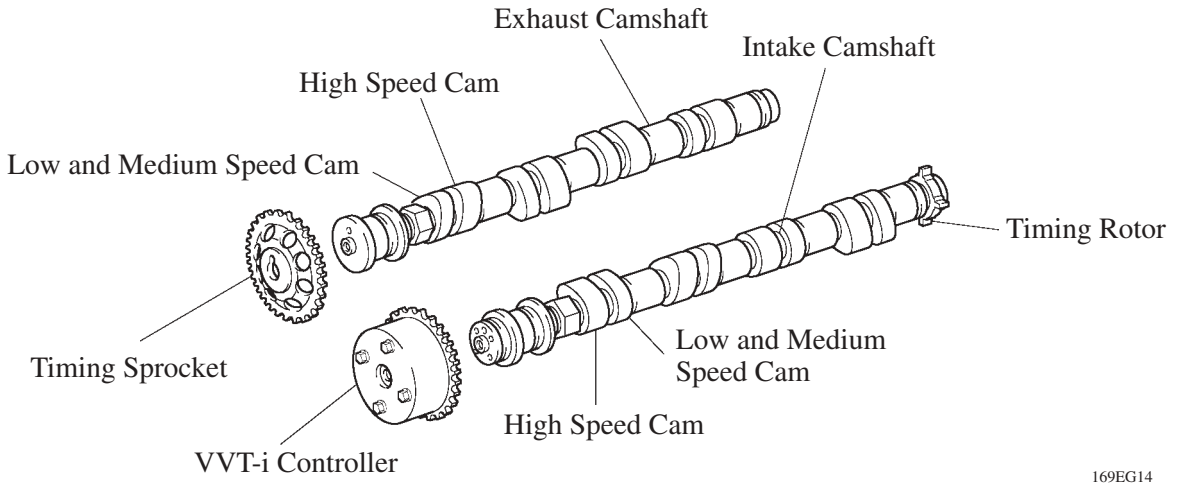
1. General

This engine uses a newly developed VVTL-i (Variable Valve Timing and Lift-intelligent) system to improve fuel economy and engine performance, and to reduce exhaust emissions. In addition to the conventional VVT-i system, this system has adopted a cam changeover mechanism that varies the amount of lift of the intake and exhaust valves. This mechanism uses rocker arms, and its intake and exhaust camshafts have two different types of cams on them: the high-speed cams, and the low-and medium-speed cams.



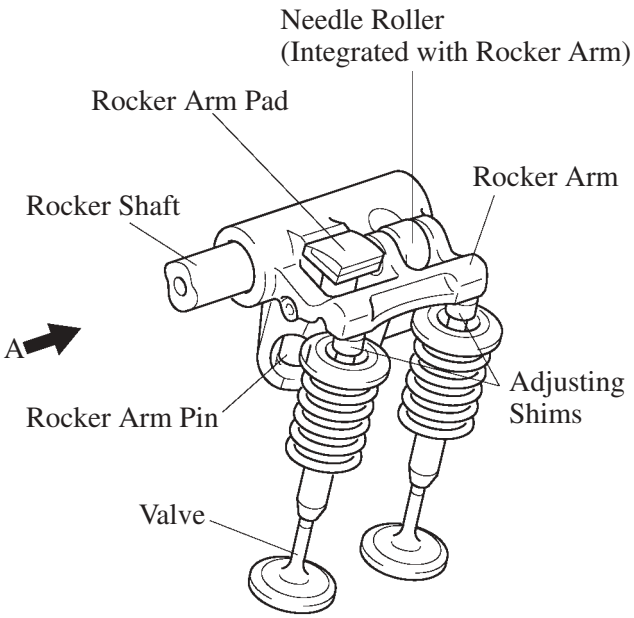
2. Camshafts

- A VVT-i controller has been installed on the front of the intake camshaft to vary the timing of the intake valves.
- The intake camshaft is provided with timing rotor to trigger the camshaft position sensor.
- The camshafts are provided with high-speed cams and low-and medium-speed cams for operating the VVTL-i system.

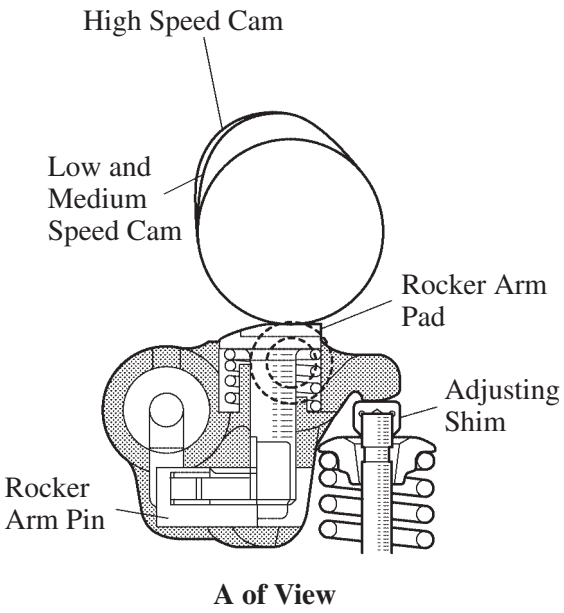


3. Rocker Arm and Valve

- The main components of the rocker arm mechanism are the rocker arm, rocker arm pad, rocker arm pin and the rocker shaft.
- An adjusting shim for adjusting the valve clearance is provided at the valve stem end.
- Narrower valve stems have been adopted to reduce the intake and exhaust resistance and for weight reduction.



169EG15



A of View

169EG16

EG