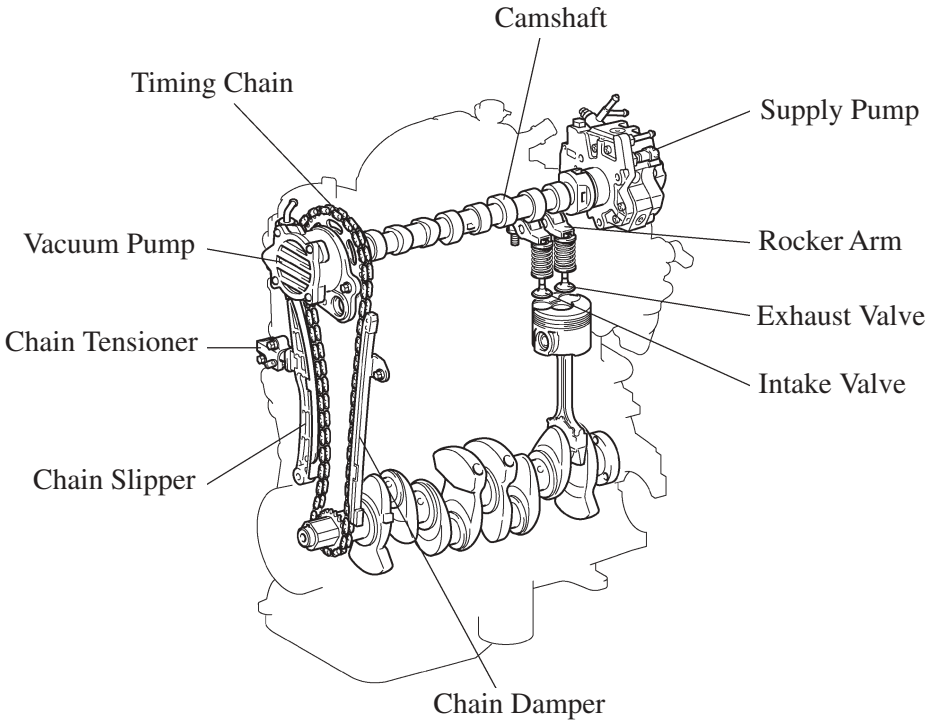
■VALVE MECHANISM

1. General

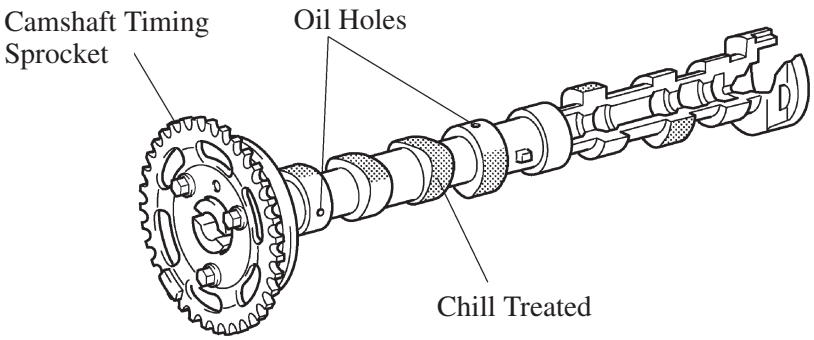
- The camshaft is driven by a timing chain. The camshaft drives the vacuum pump and supply pump in order to reduce the number of parts and realize a lightweight and compact design.
- The intake and exhaust valves are opened and closed via the rocker arms.
- The rocker arm consists of the rocker arm and roller.



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2. Camshaft

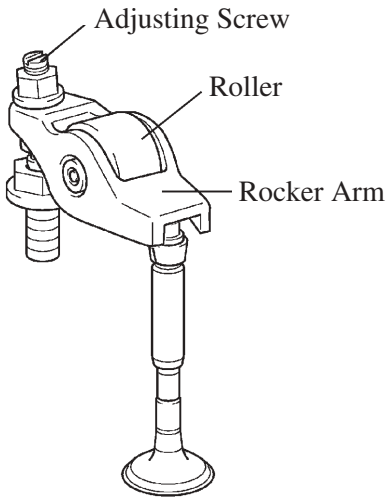
- The camshaft is made of cast iron.
- The hollow type camshaft is used to realize lightweight.
- The cam nose has been chill treated to realize excellent durability.
- The camshaft timing sprocket is provided with timing rotor to trigger the camshaft position sensor.
- Oil holes are provided in the camshaft in order to supply engine oil pressure to the rocker arm.



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3. Rocker Arm and Valve

- The rocker arm mechanism consists of the rocker arm and roller.
- Narrow valve stems are used to realize lightweight.



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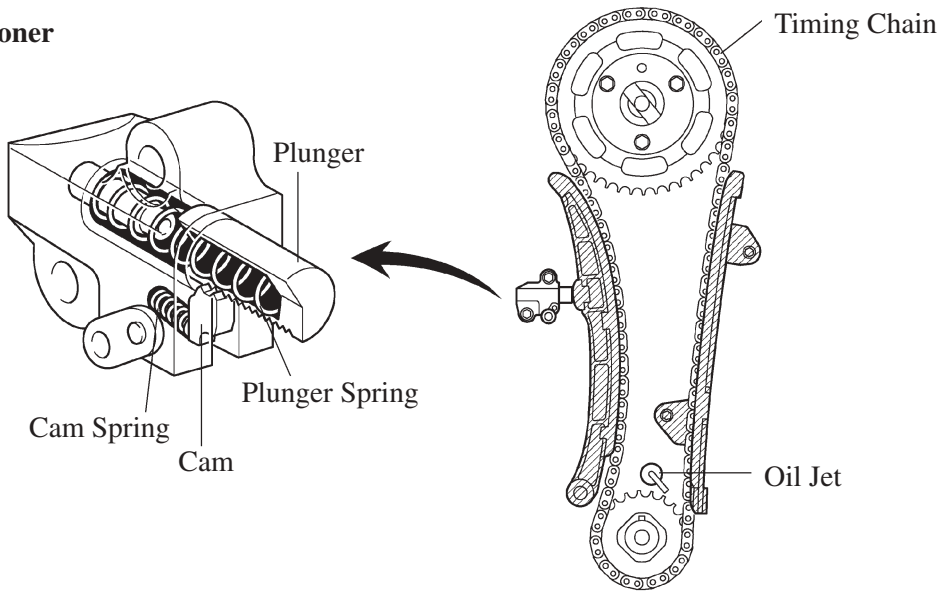
Service Tip

Loosening and tightening the adjusting screw accomplish the adjusting of the valve clearance.
SST (09248-56010) is used due for the adjustment.
For details, refer to the Yaris Repair Manual (Pub. No. RM00S1E).

4. Timing Chain and Chain Tensioner

- A bushed chain with 9.525 mm (0.375 in.) pitch is used to realize lightweight and maintenance-free operation.
- An oil jet lubricates the timing chain.
- The chain tensioner uses a spring and oil pressure to maintain proper chain tension at all times.
- The chain tensioner suppresses noise generated by the chain.
- A ratchet type with backlash mechanism is used.

Chain Tensioner



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