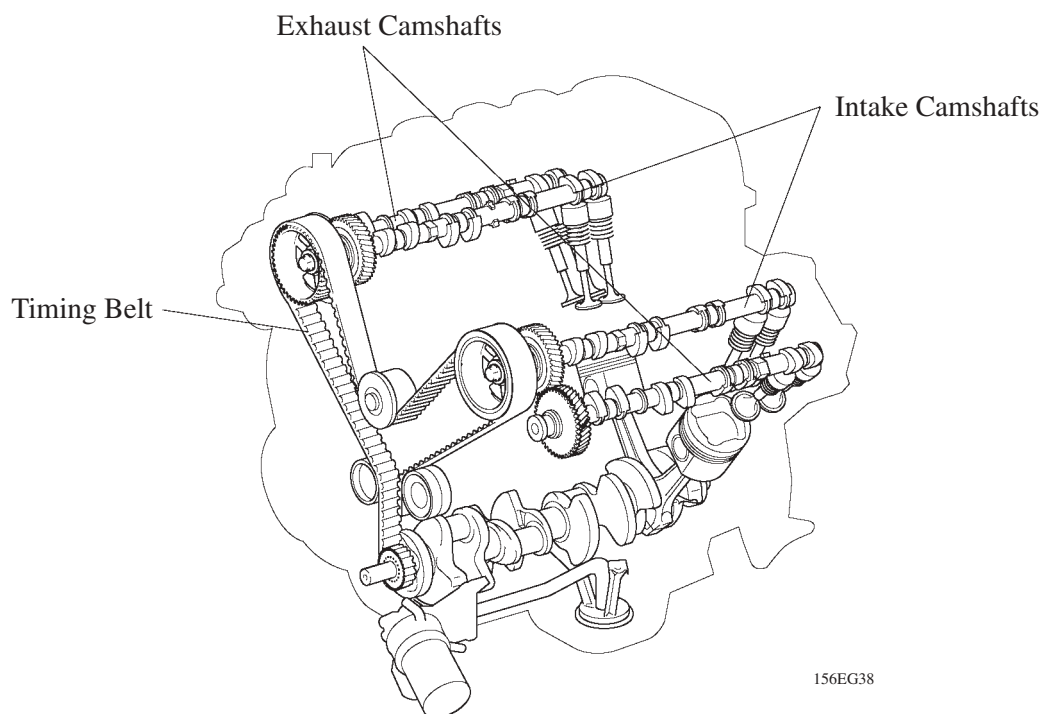


## ■ VALVE MECHANISM

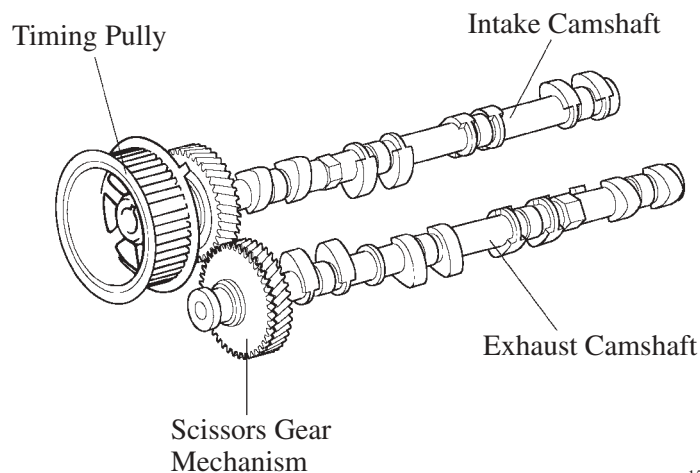
### 1. General

- Each cylinder has 2 intake valves and 2 exhaust valves. Intake and exhaust efficiency is increased by means of the larger total port areas.
- The valves are directly opened and closed by 4 camshafts.
- The intake camshafts are driven by a timing belt, while the exhaust camshafts are driven through gears on the intake camshafts.



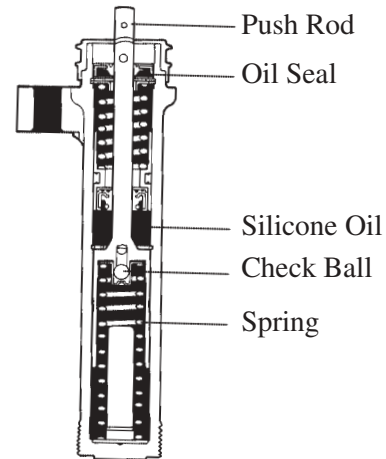
### 2. Camshafts

- The camshafts are made of cast iron alloy. The cam nose has been chill treated to increase its abrasion resistance.
- The exhaust camshafts are driven by gears on the intake camshafts. The scissors gear mechanism is used on the exhaust camshaft to control backlash and suppress gear noise.



### 3. Automatic Tensioner

The automatic tensioner is made up of a spring and oil damper, and maintains proper timing belt tension at all time. The automatic tensioner suppresses noise generated by the timing belt.



**Automatic Tensioner**

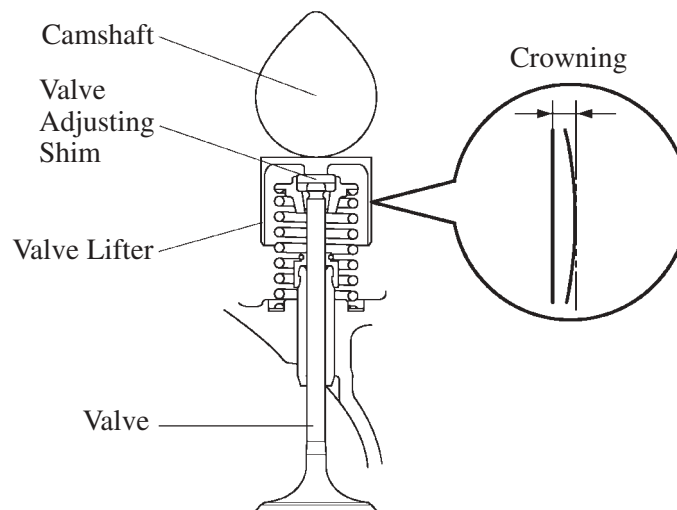
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### 4. Intake and Exhaust Valve and Valve Lifter

- Intake and exhaust valves with large-diameter valve face have been adopted to improve the intake and exhaust efficiency. In addition, narrower valve stems have been adopted to reduce the intake and exhaust resistance and for weight reduction.
- Inner shim type valve adjusting shims, which allow a greater amount of valve lift, have been adopted.
- Valve lifters made of steel have been adopted.

The valve lifter, which has been made lighter and thinner, provides crowning on its side sliding portion to reduce noise and friction.



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