

# BASIC ENGINE COMPONENTS



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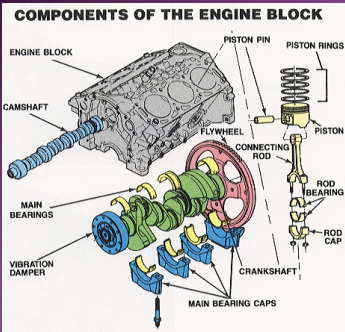
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## Internal Parts



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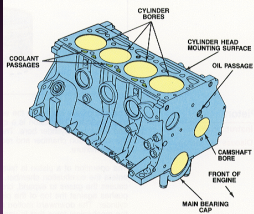
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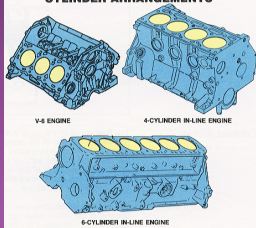
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### 4-CYLINDER IN-LINE ENGINE BLOCK



## The Block

### CYLINDER ARRANGEMENTS



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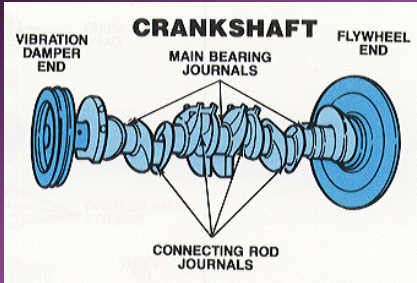
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## The Crankshaft



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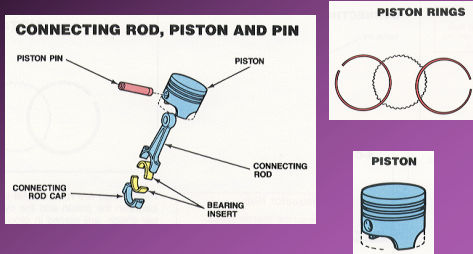
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## Piston & Connecting Rod



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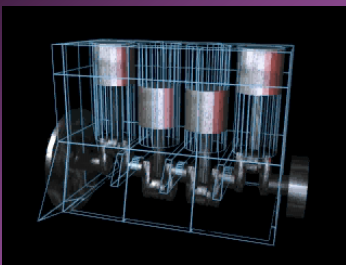
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## Crank, Piston, & Connecting Rod Working Together



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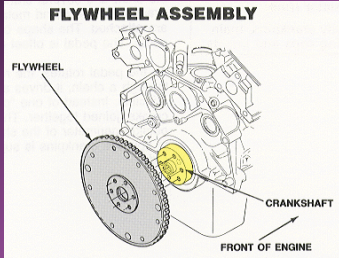
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## Flywheel



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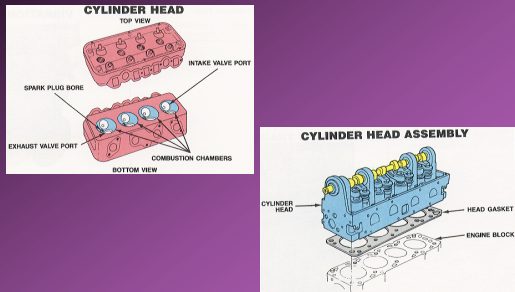
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## Cylinder Head



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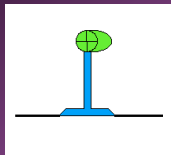
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## Valves



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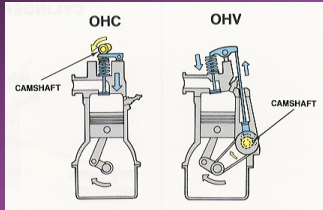
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## Valve Operating Systems (Cam Shaft)



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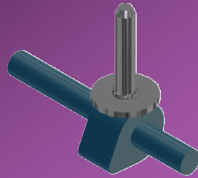
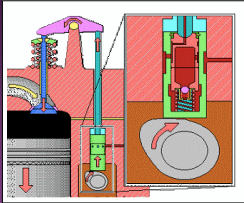
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## Valve Operating Systems (Tappets/Lifters)



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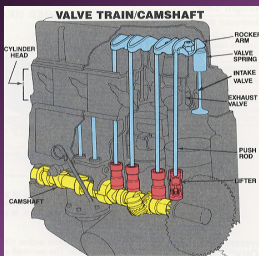
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## Valve Operating Systems (Push Rods)



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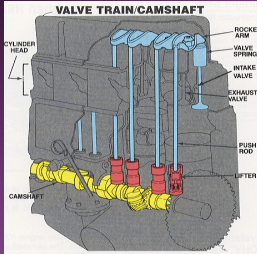
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## Valve Operating Systems Rocker Arm



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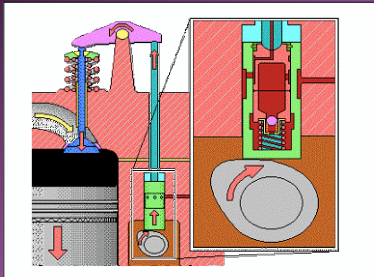
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## Valve Operating Systems (Valve Springs)



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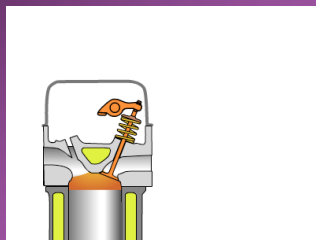
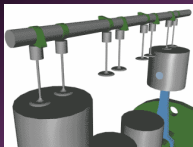
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## Valve Operating Systems



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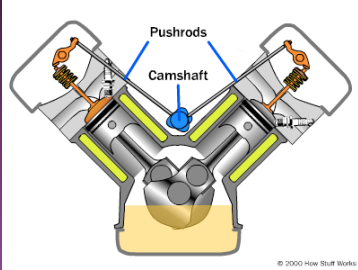
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## Valve Operating Systems



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A composite diagram showing three different valve operating systems. The top left shows a side view of a pushrod system with parts labeled A through S. The top right shows a cam-in-head system with labels 'Cams'. The bottom right shows another pushrod system with labels 'Pushrods' and 'Camshaft'. A four-quadrant diagram with numbers 1, 2, 3, and 4 is also present. Copyright notices '© 2000 How Stuff Works' are included.

Putting It All Together

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