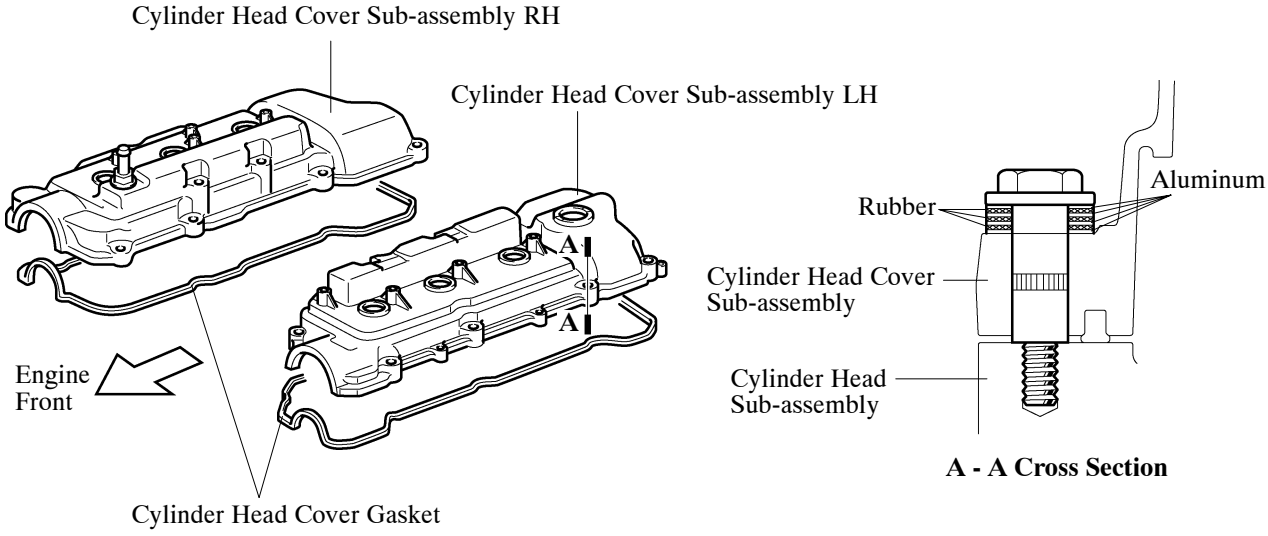
■ENGINE PROPER

1. Cylinder Head Cover Sub-assembly

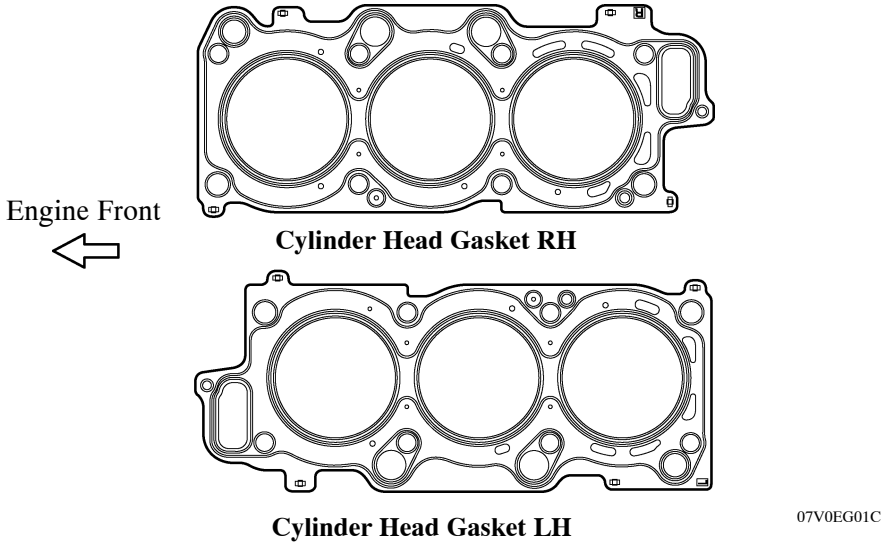
- Lightweight yet high-strength aluminum diecast cylinder head cover sub-assemblies are used.
- An aluminum washer made of vibration-damping laminated aluminum sheet is used on the evenly spaced shoulder bolts which fasten the cylinder head cover sub-assemblies.



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2. Cylinder Head Gasket RH and Cylinder Head Gasket LH

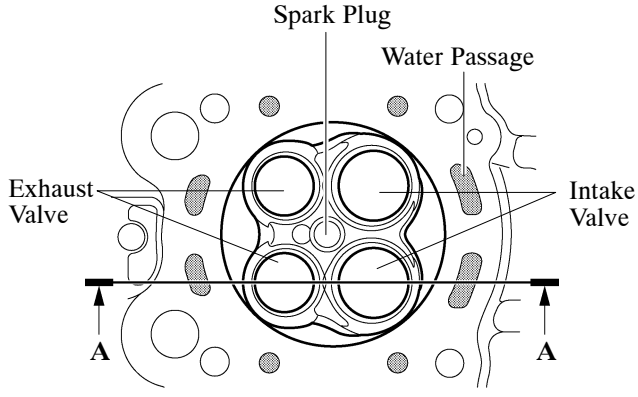
Metal type cylinder head gaskets which offers superior pressure resistance and sealing performance are used.



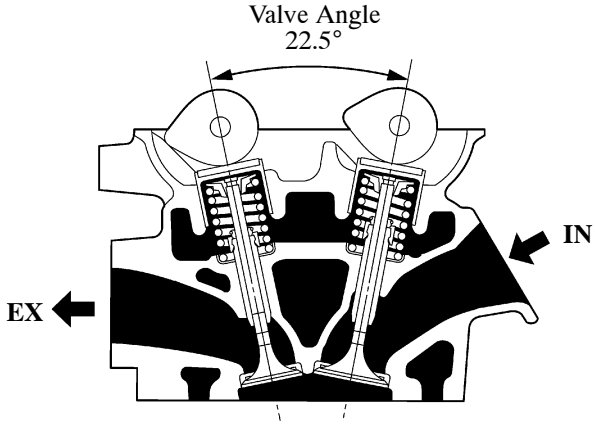
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3. Cylinder Head Sub-assembly

- The cylinder head sub-assemblies, which are made of aluminum, use a pentroof-type combustion chamber. The spark plug is located in the center of the combustion chamber in order to improve the engine's anti-knocking performance.
- The angle of the intake and exhaust valves is set at 22.5° to permit a compact cylinder head.
- Upright, small-diameter intake ports are used to improve the torque at low-to-medium speeds.
- In order to reduce intake and exhaust air resistance, the cross section of the protrusion of the valve guide into the intake port is reduced by decreasing the valve stem diameter and the valve guide outer diameter.
- Plastic region tightening bolts are used for the cylinder head bolts for good axial tension.



View of Back Side 07V0EG73C

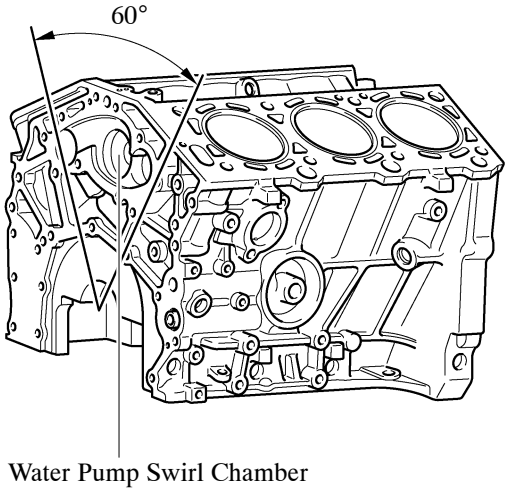


Section A - A 187EG06

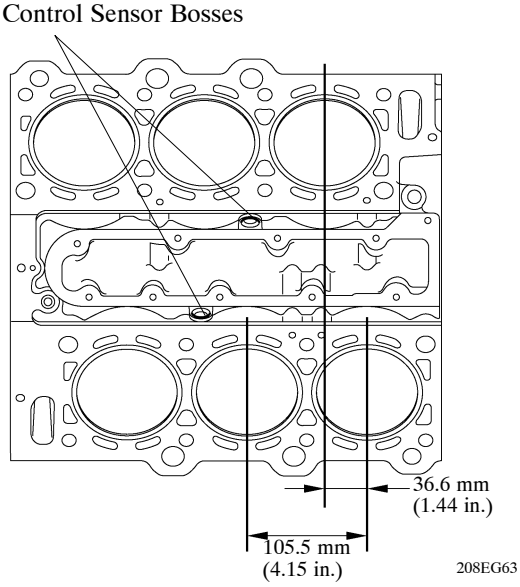
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4. Cylinder Block Sub-assembly

- The cylinder block sub-assembly is made of aluminum alloy, so it is lightweight.
- The cylinder block sub-assembly has a bank angle of 60°, a bank offset of 36.6 mm (1.44 in.) and a bore pitch of 105.5 mm (4.15 in.), resulting in a compact block.
- A thin cast-iron liner is press-fit inside the cylinder to ensure an added reliability. It is not possible to rebore a block which uses this type of liner.
- A water pump swirl chamber and an inlet passage to the pump are provided in the V-bank to help make the engine compact.
- Installation bosses for the two knock control sensors are located on the inside of the left and right banks.



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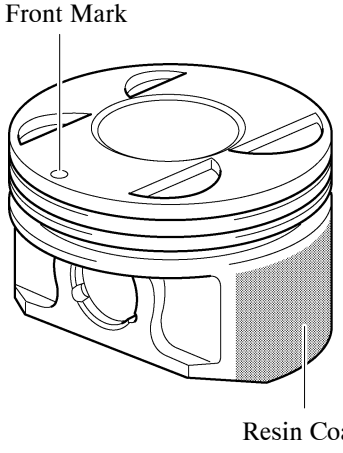


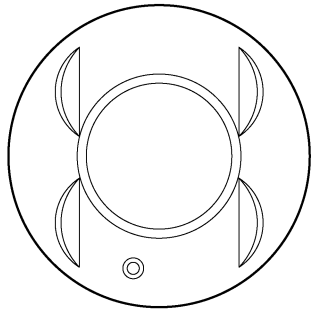
208EG63

View of Top Side

5. Piston

- The pistons are made of aluminum alloy and skirt area is made compact and lightweight.
- The piston skirts are coated with resin to reduce friction losses.
- Full-floating piston pins are used.
- Due to increased machining precision of the cylinder bore diameter, it is not necessary to produce pistons with different diameters.



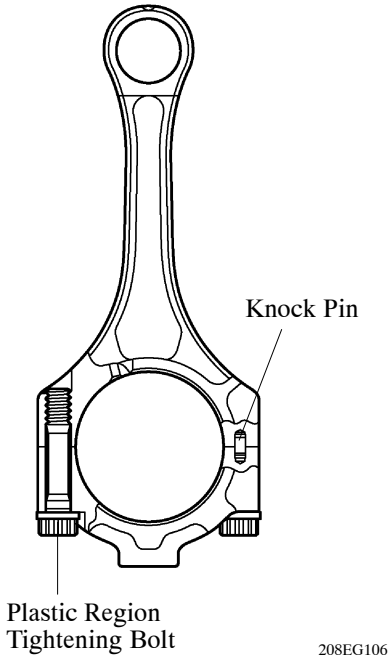


View from the Top

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6. Connecting Rod Sub-assembly

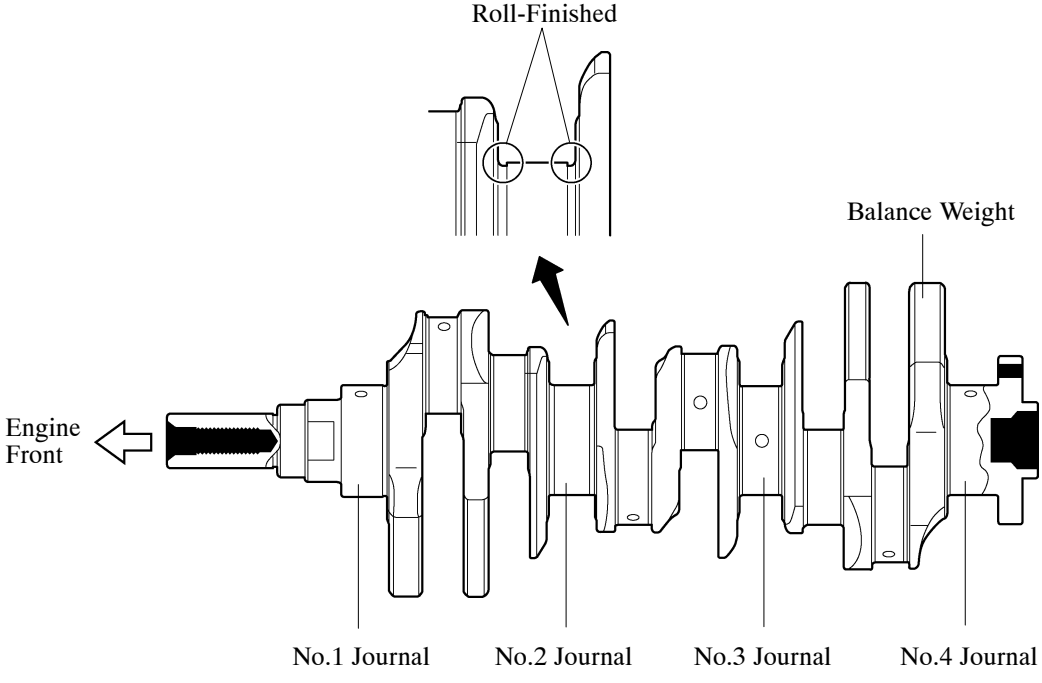
- Connecting rod sub-assemblies that have been forged for high strength are used for weight reduction.
- Knock pins are used at the mating surfaces of the connecting rod caps to minimize the shifting of the connecting rod caps during assembly.
- Nutless-type plastic region tightening bolts are used on the connecting rod sub-assemblies for a lighter design.
- Aluminum bearings are used for the connecting rod bearings.



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7. Crankshaft

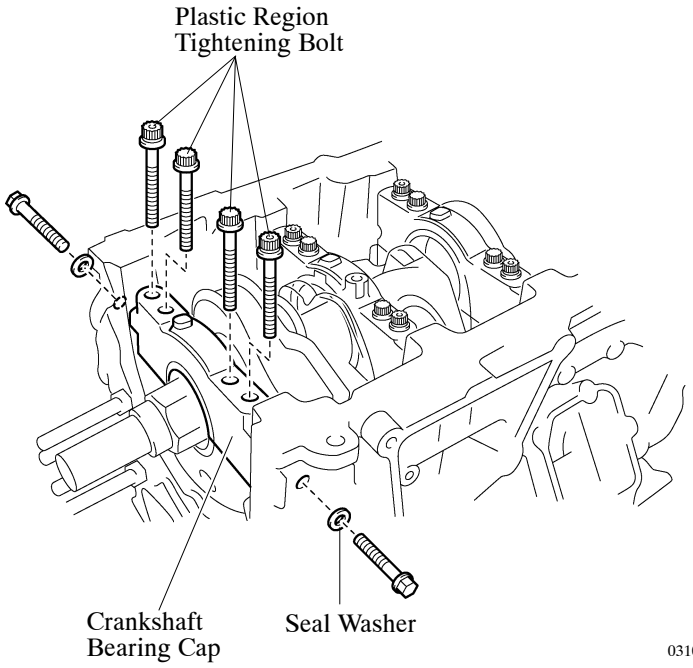
- The crankshaft has 4 main journals and 9 balance weights.
- The crankshaft is made of forged steel.
- All pin and journal fillets are roll-finished to maintain adequate strength.
- The crankshaft bearings for the No.1 and No.4 journals are wide to decrease noise and vibration, and those for the No.2 and No.3 journals are narrow to reduce friction.



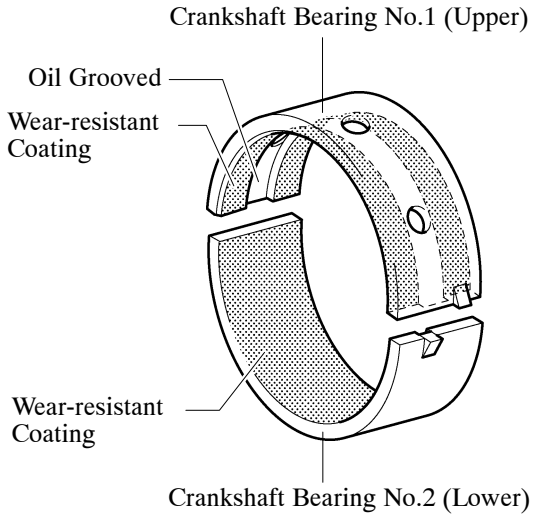
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8. Crankshaft Bearing and Crankshaft Bearing Cap

- The crankshaft bearing caps are tightened using 4 plastic-region tightening bolts for each journal. In addition, each cap is tightened laterally to improve its reliability.
- A wear resistant coating is used on the sliding surfaces of the crankshaft bearings for the upper and lower parts of the No.1 and No.4 journals.



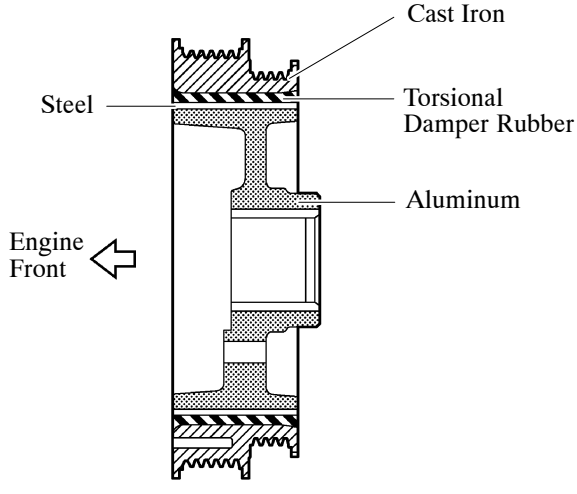
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9. Crankshaft Pulley

- The crankshaft pulley hub is made of aluminum to reduce weight and vibration.
- The rigidity of the crankshaft pulley with its built-in torsional damper rubber reduces noise.



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