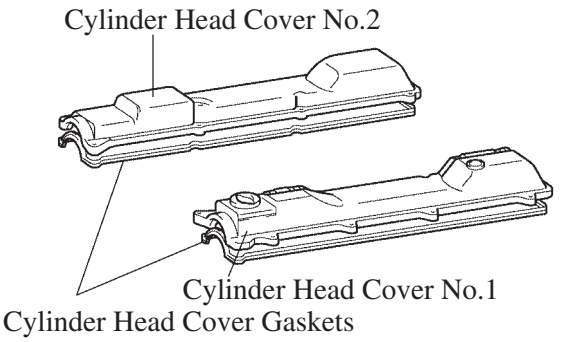
■ENGINE PROPER

1. Cylinder Head Cover

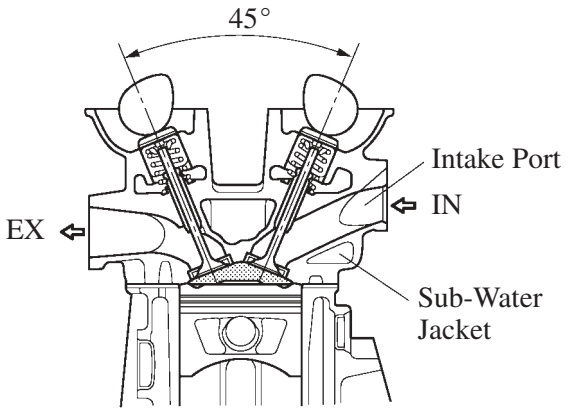
- No.1 and No.2 cylinder head covers are made of magnesium for weight reduction.
- The cylinder head cover gaskets are made of acrylic rubber with a superior heat resistance capacity.



204EG02

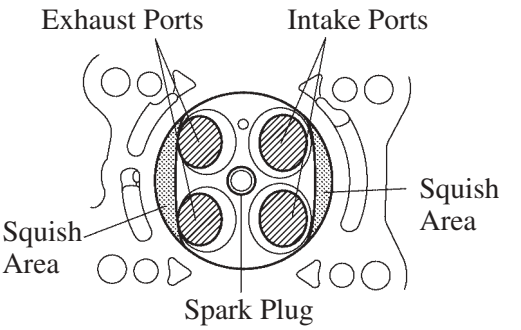
2. Cylinder Head

- The cylinder head is made of an aluminum alloy having good thermal conductivity.
- The spark plugs are located at the near center of the combustion chamber with a superior anti-knocking performance and combustion efficiency.
- This engine has upright and small-diameter intake ports.
- For cooling the intake ports, the sub-water jackets are provided.
- Plastic region tightening bolts are used for the cylinder head.
- The squish areas are adopted. It causes turbulence in the intake air for increased combustion efficiency.

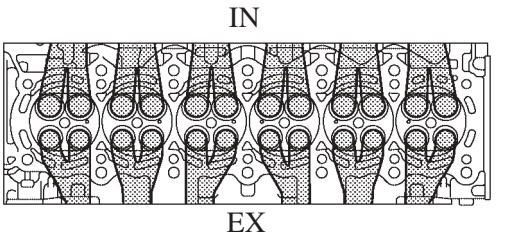


Pentroof Type Combustion Chamber

204EG03



204EG04

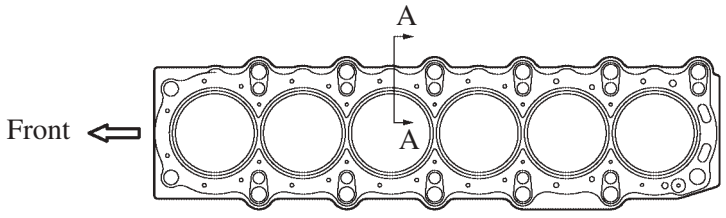


Cross Flow Layout (View of Back Side)

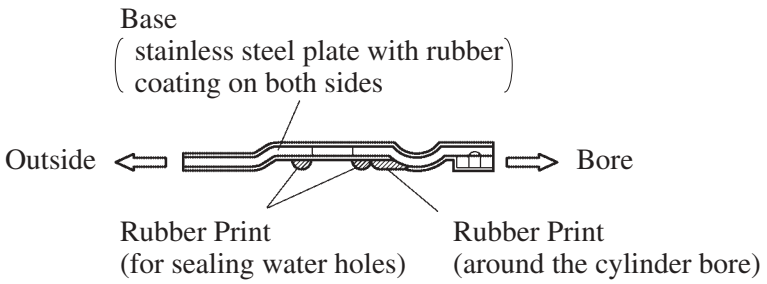
204EG05

3. Cylinder Head Gasket

A single-layered metal gasket provides good sealing performance and durability.



204EG06



A – A Cross Section

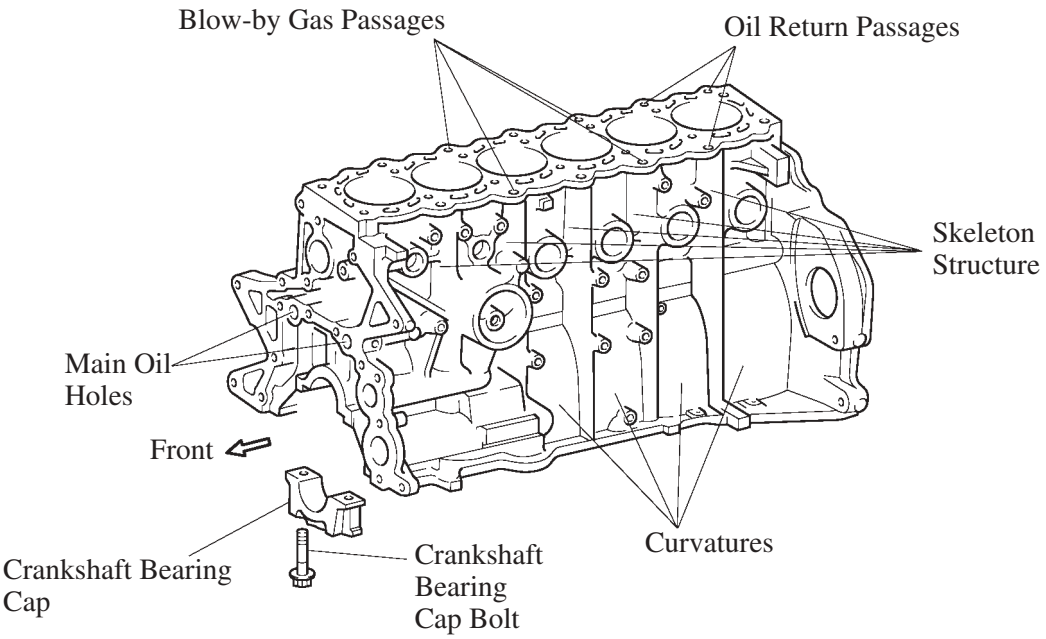
204EG07

4. Cylinder Block

- The cylinder block is made of cast iron.
- The cylinder block is having a skeleton structure consisting the followings:

  1) Oil return and blow-by gas passages

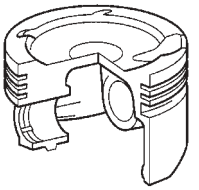
  2) Main oil holes
- The external block walls are curved for noise reduction while enhancing rigidity.
- The air conditioner compressor, alternator and other auxiliary components are attached directly to the cylinder block.
- The crankshaft bearing caps are fitted using plastic region tightening bolts.



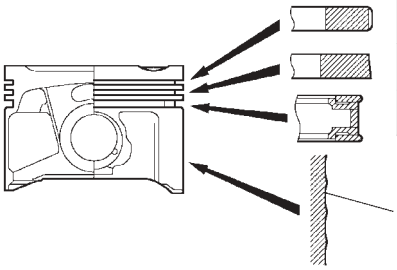
204EG08

5. Piston, Piston Pin and Piston Ring

- The piston is made of aluminum alloy.
- The short skirt construction has been adopted for weight reduction.
- The skirt area has been coated with resin for decreased friction characteristics.
- The piston rings used are highly wear resistance performance.
- Fully floating type piston pins are used.



204EG09

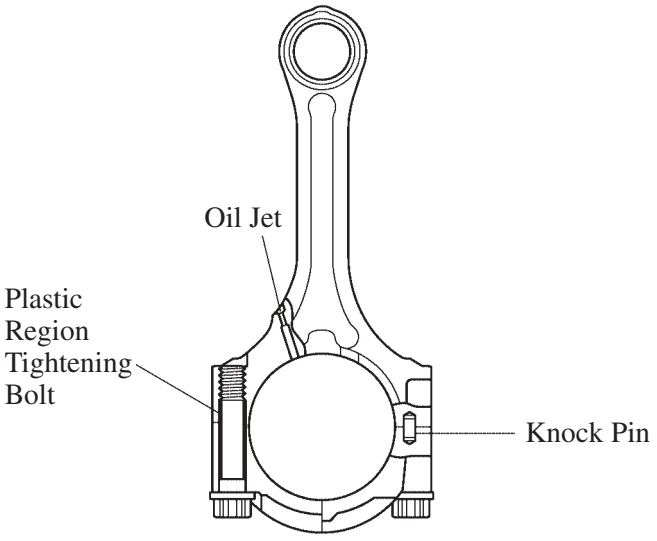


204EG10

Piston Ring	Type	Surface Treatment
Compression Ring No.1	Barrel Face	Chromium Plating
Compression Ring No.2	Taper Face	—
Oil Ring	—	Chromium Plating

6. Connecting Rod

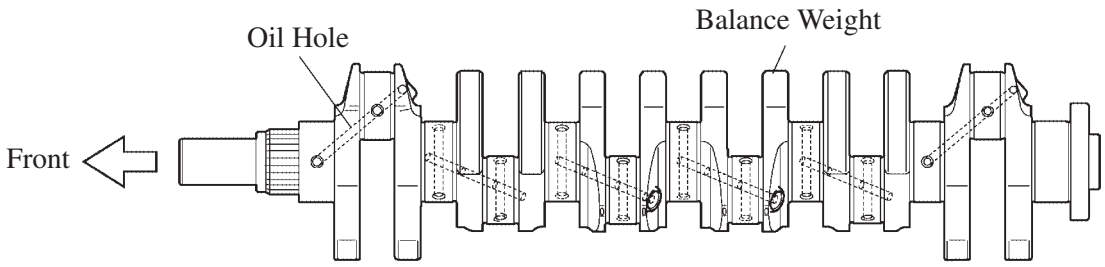
- The connecting rod is made of high-strength vanadium steel to realize weight reduction and high strength. In addition, to suppress the noise and vibration.
- The connecting rod and the connecting rod cap are joined with knock pins and plastic region tightening bolts.
- An oil jet is provided in the big end for cooling the piston.



204EG11

7. Crankshaft

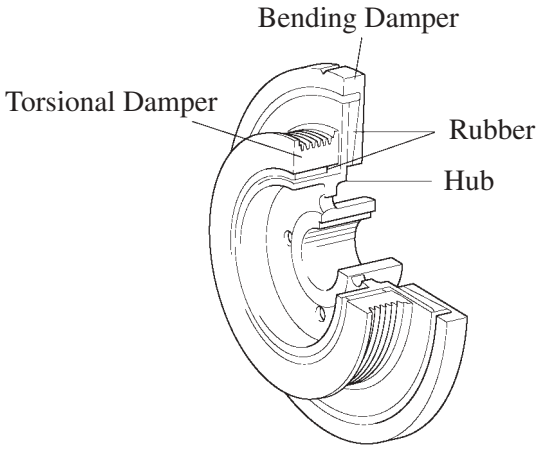
- The forged crankshaft has 7 journals and 12 balance weights.
- The pins and journals are induction-hardened to realize rigidity.
- Aluminum alloy bearings are used to realize wear resistance.



204EG13

8. Crankshaft Pulley

- The dual-mode damper pulley combines a torsional damper and a bending damper to suppress two types of crankshaft vibration-torsional vibration and bending vibration.
- An aluminum hub is used to realize weight and noise reduction.



204EG14