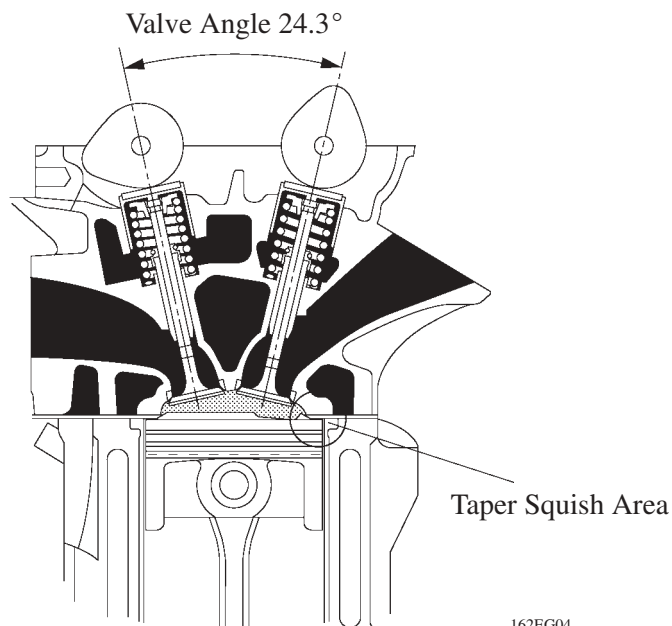


ENGINE PROPER

1. Cylinder Head

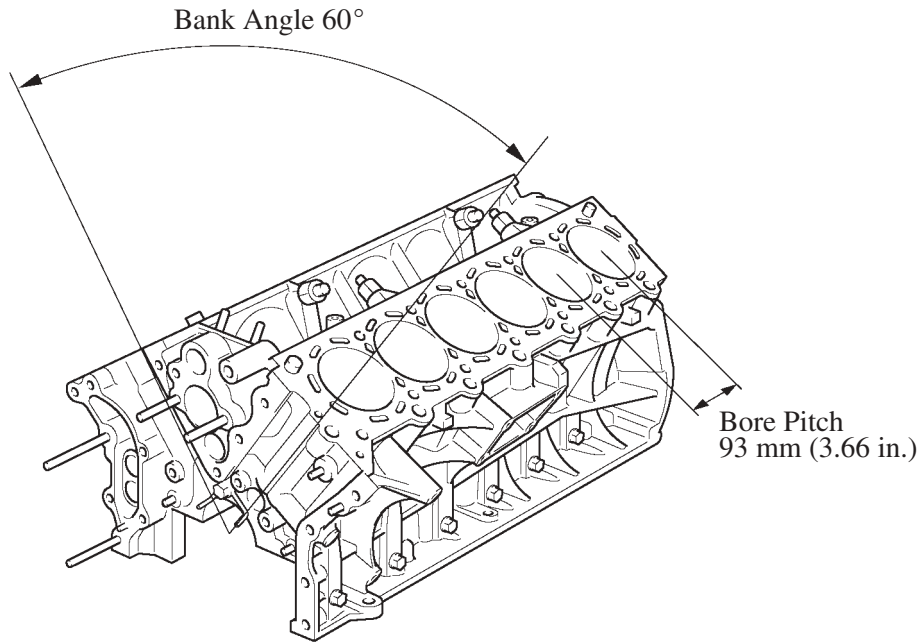
- The cylinder head, which is made of aluminum, has adopted a pentroof-type combustion chamber. The spark plug has been located in the center of the combustion chamber in order to improve the engine's anti-knocking performance.
- The angle of the intake and exhaust valves is narrowed and set at 24.3° to permit a compact cylinder head.
- A taper squish combustion chamber has been adopted to improve anti-knocking performance and intake efficiency. In addition, engine performance and fuel economy have been improved.
- Plastic region tightening bolt is used for the cylinder head bolts for good axial tension.



162EG04

2. Cylinder Block

- Lightweight aluminum alloy is used for the cylinder block.
- Thin-walled cast iron liners are pressed into the cylinder bores to improve the engine's reliability and cooling performance, as well as to shorten the overall length of the block.
- Side bolts, which are tightened from the outside of the cylinder block, are used for installing the bearing caps in order to improve the cylinder block's torsional rigidity.
- The cylinder block has a bank angle of 60° and a bore pitch of 93 mm (3.66 in.). This has resulted in a block that is compact in length and width despite its displacement.



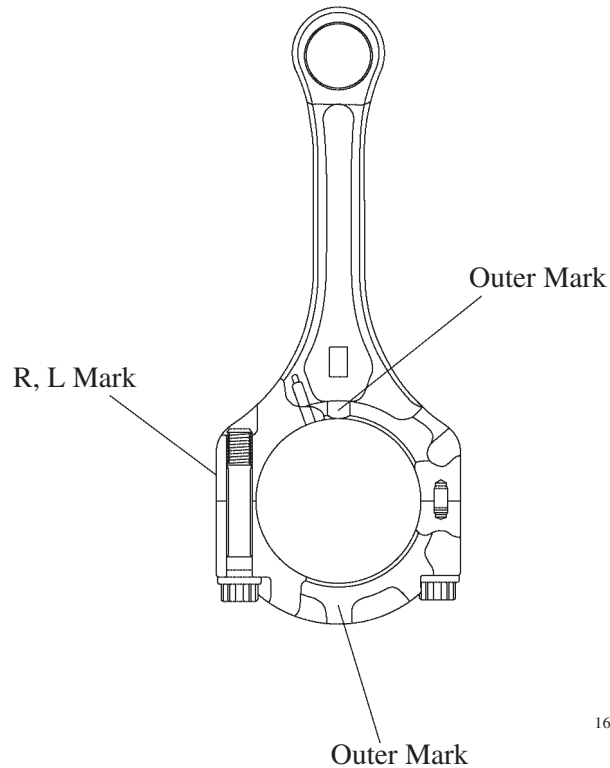
162EG05

3. Piston

- The piston is made of aluminum alloy.
- The piston head portion has adopted a taper squish to improve the fuel combustion efficiency.
- Semi floating type piston pins are used.

4. Connecting Rod

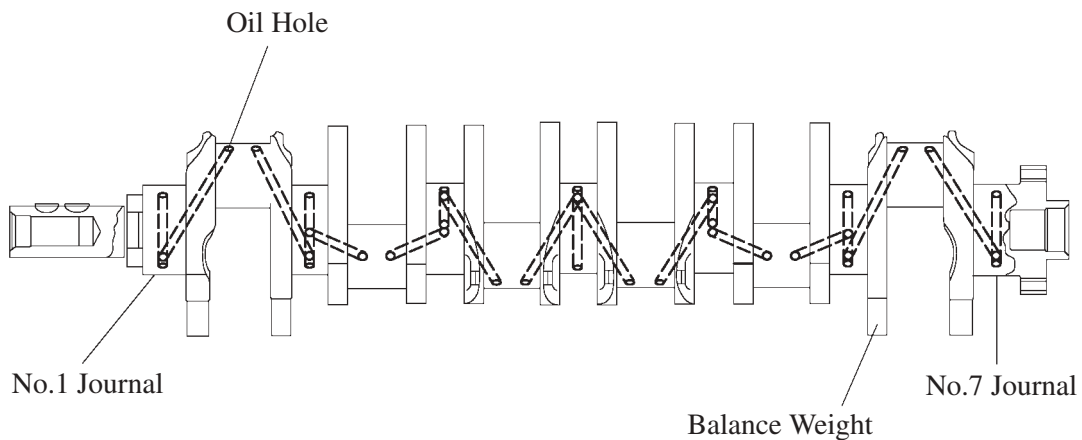
- The sintered and forged connecting rod is very rigid and has little weight fluctuation.
- Because the connecting rods have been designed separately for the right and left banks (due to the asymmetric thickness as measured from the connecting rod center) each rod has R, L mark.
- The connecting rods for the right and left banks are placed in opposite directions with the outer marks facing the crankshaft.



EG

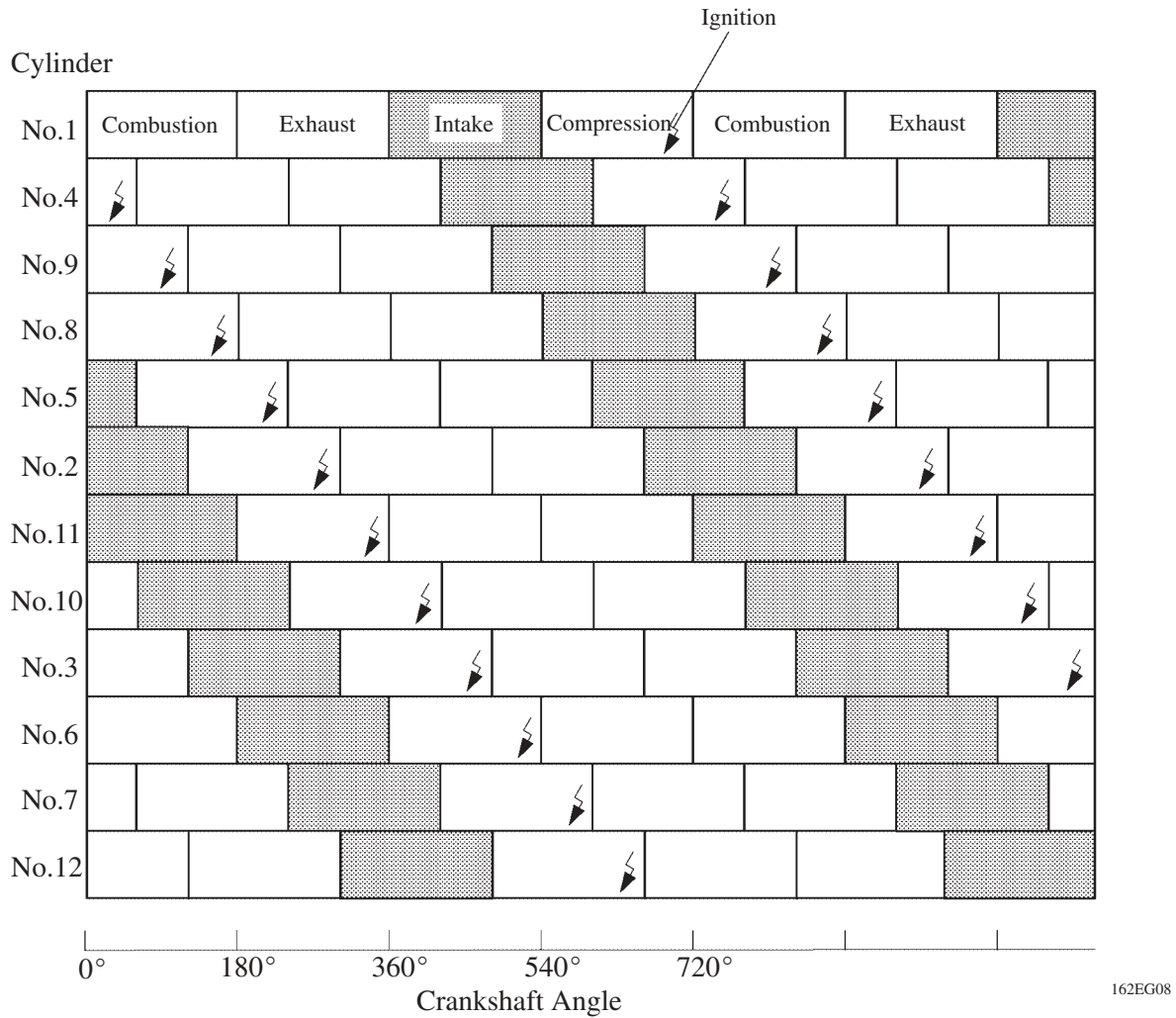
5. Crankshaft

- The forged crankshaft has 7 journals and 12 balance weights.
- The crankshaft bearing is made of aluminum alloy.



162EG07

- Crankshaft angles and engine strokes (intake, compression, combustion and exhaust) are shown in the table below. The firing order is 1-4-9-8-5-2-11-10-3-6-7-12.



6. Crankshaft Pulley

The rigidity of the torsional damper rubber has been optimized to reduce noise.

