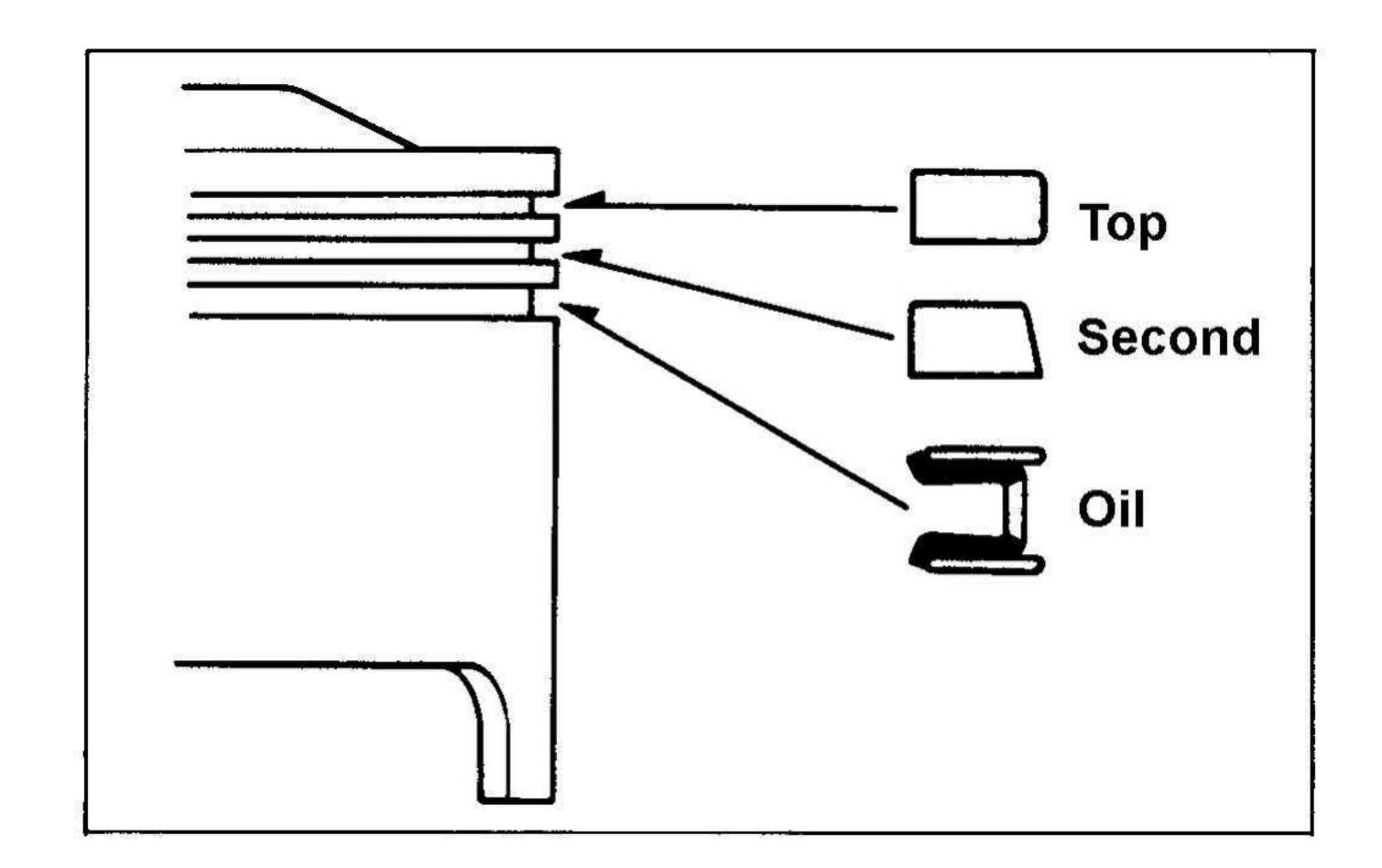
# 9. Cylinder, Piston, Crankshaft

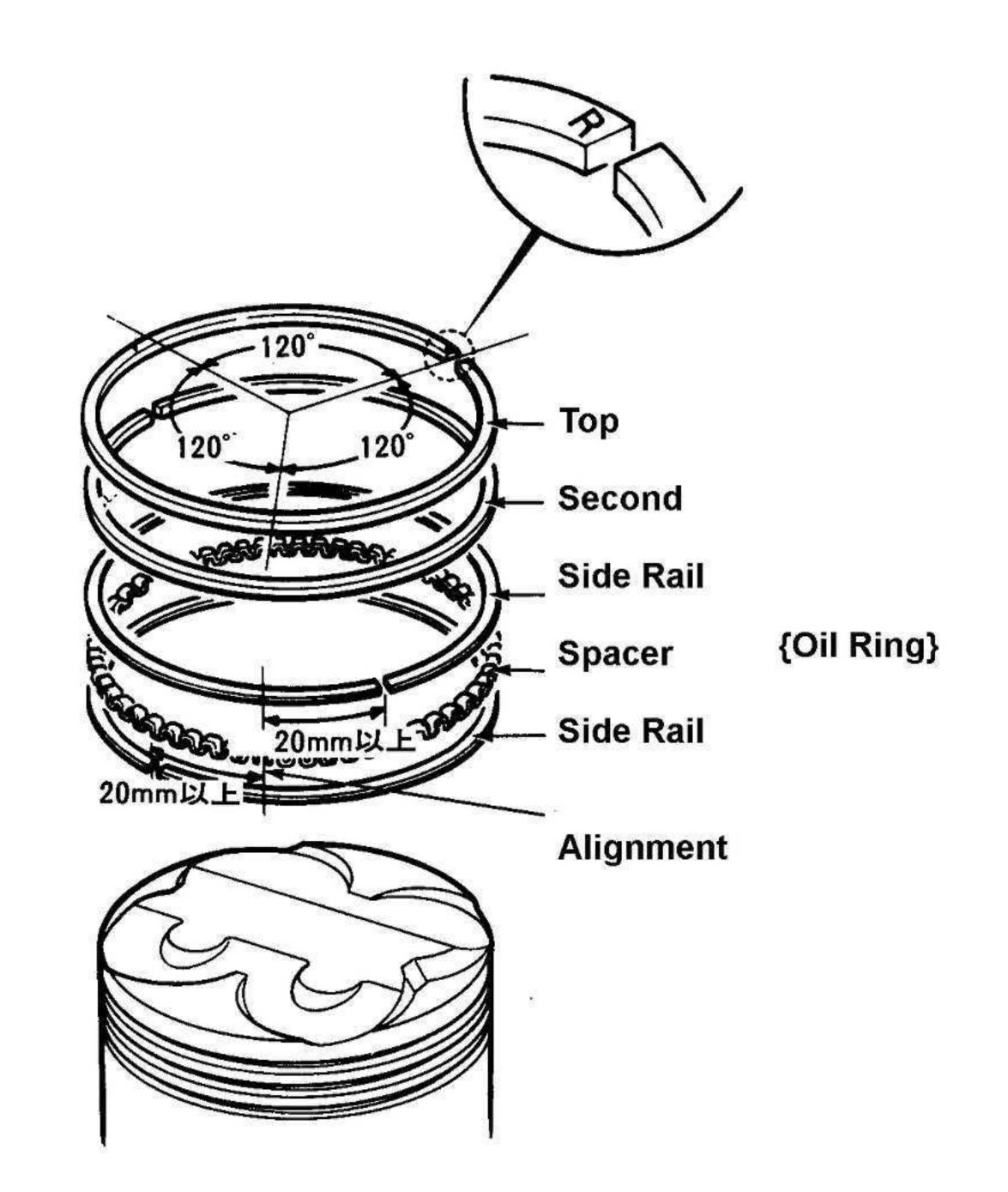
### **Piston Ring**

Remove the carbon on the piston head and ring slits.

Attach the piston rings.

- Exercise caution not to damage the piston or the ring.
- Marked face on the ring should face up.
- Ensure 120° offset between the alignment slit.
- Avoid attaching the ring on piston pin hole direction and perpendicular to the pin.
- Offset the alignment slits on side rails to left and right.
- After attaching the rings, confirm the smooth movement of the rings.

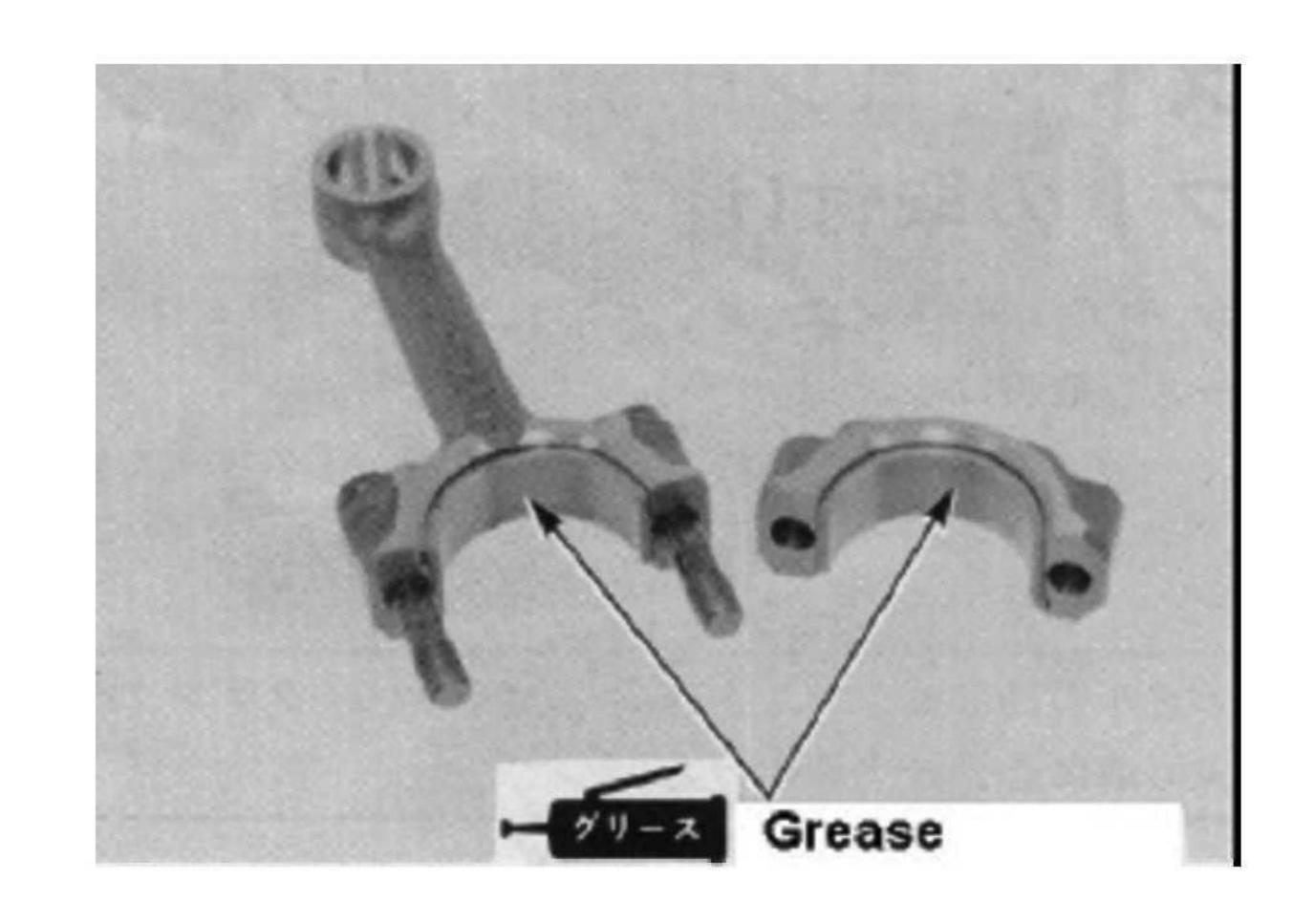




### Assembly of the piston and the conrod

Attach the bearing to the conrod and bearing cap.

- Align the key on the bearing to the key slit on the conrod and bearing cap.
- Apply MoS<sup>2</sup> Grease on the bearing surface.



## 9. Cylinder, Piston, Crankshaft

Apply oil to the conrod little end, piston pin external surface and piston pin hole surface. Attach the piston to the conrod.

Attach the piston pin and set the piston pin clip to the piston slit firmly.

- Face the IN mark on the piston to the slit on the conrod.
- Align the marks which where made on disassembly



Apply oil on external surface of the piston. Insert the conrod and piston to the top of the cylinder on the crankcase.

Compress the piston ring by using a piston ring compressor and insert the piston to the cylinder by lightly pushing the piston head.

Beware of damaging the piston and piston ring

#### **Exclusive tool:**

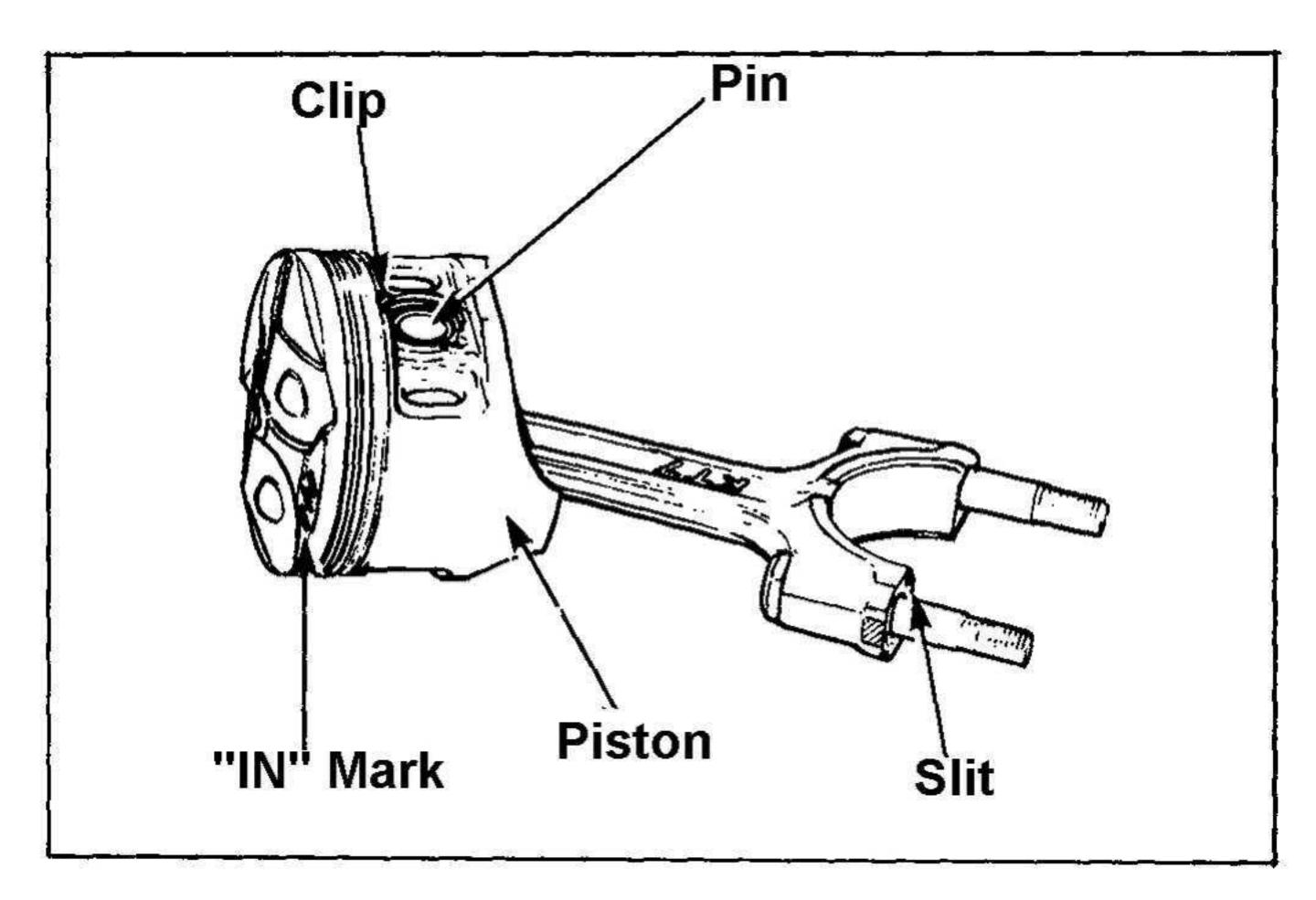
Piston ring compressor 07955 – ZG0000

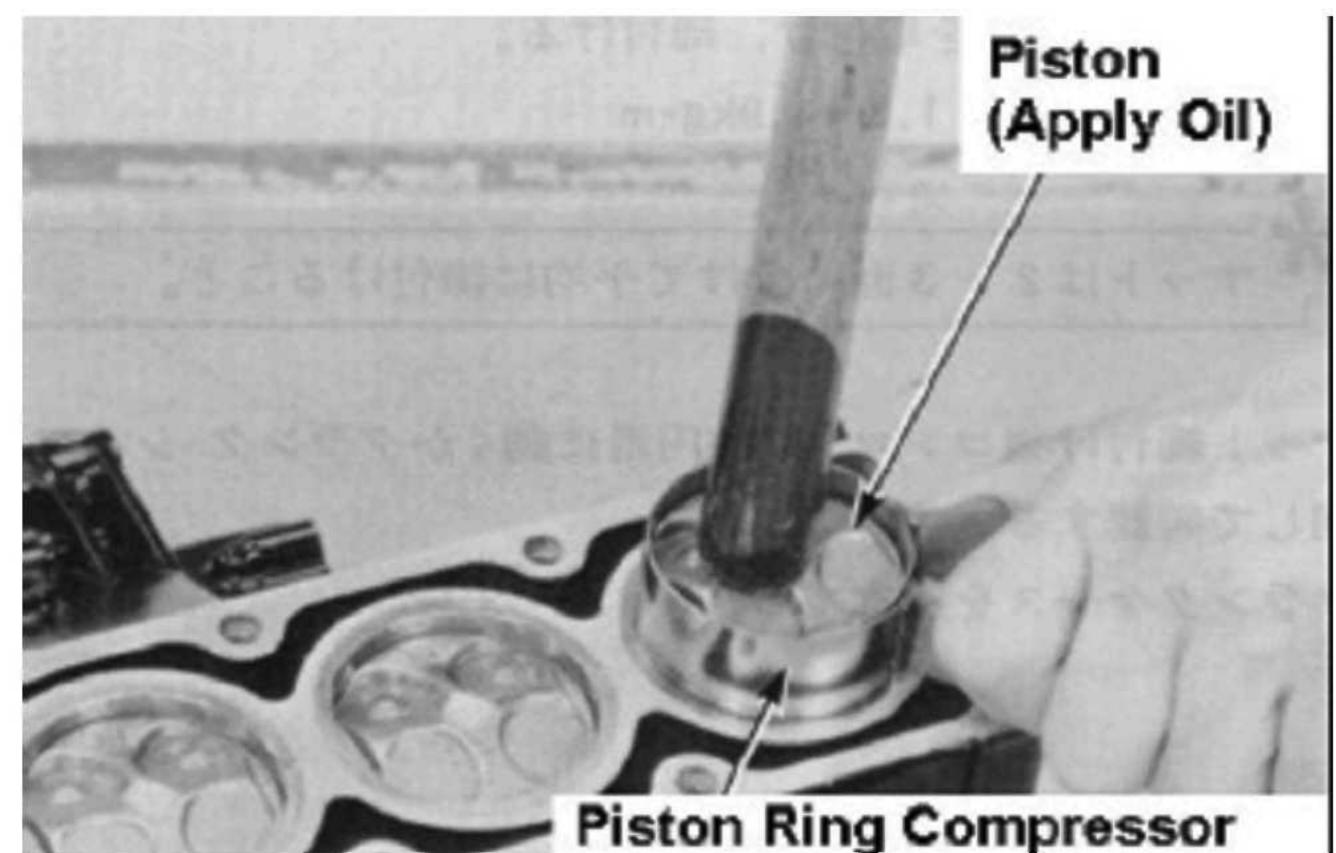
Confirm the IN marks are facing towards the intake side.

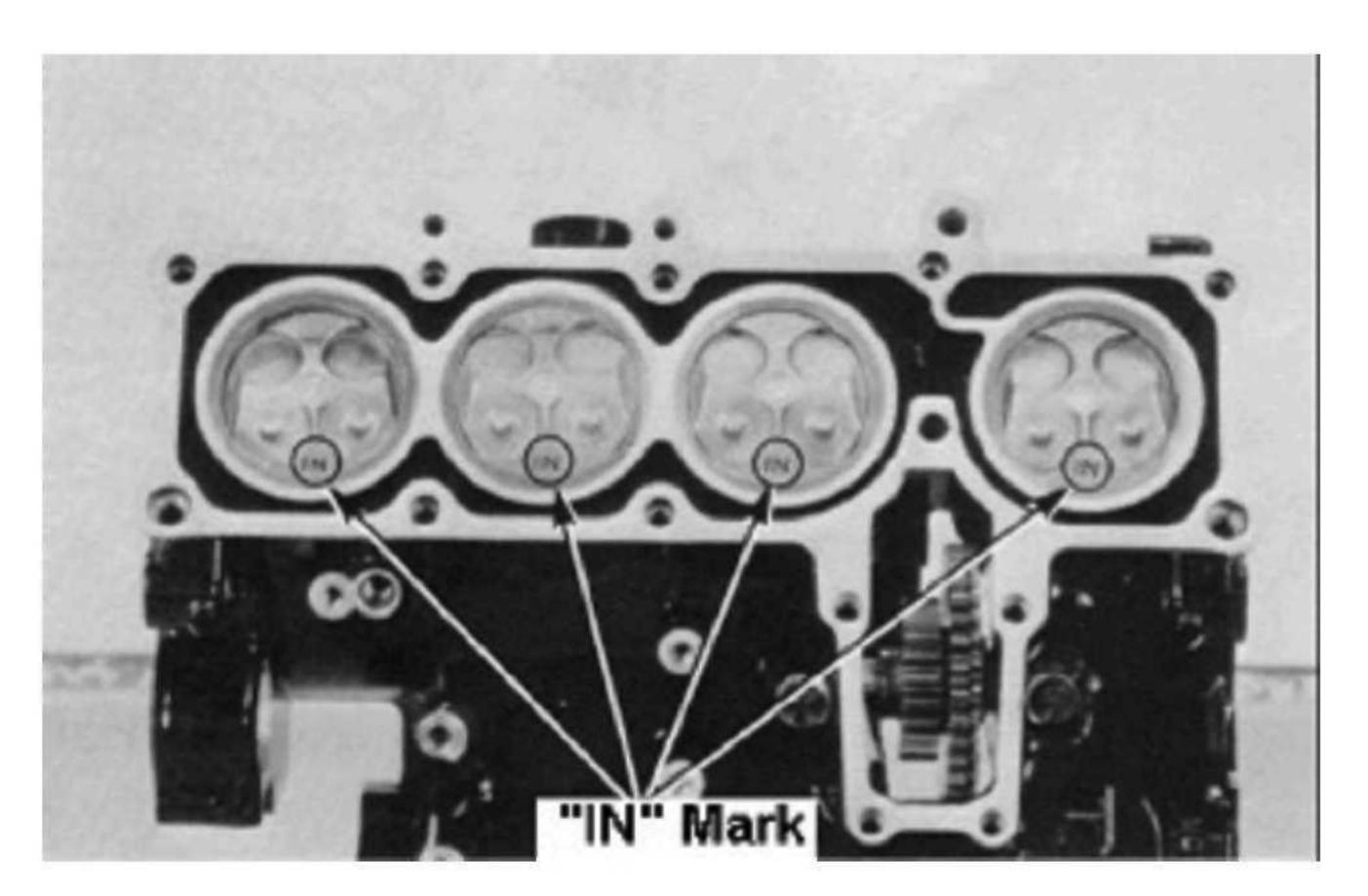
#### Attachment of the crankshaft

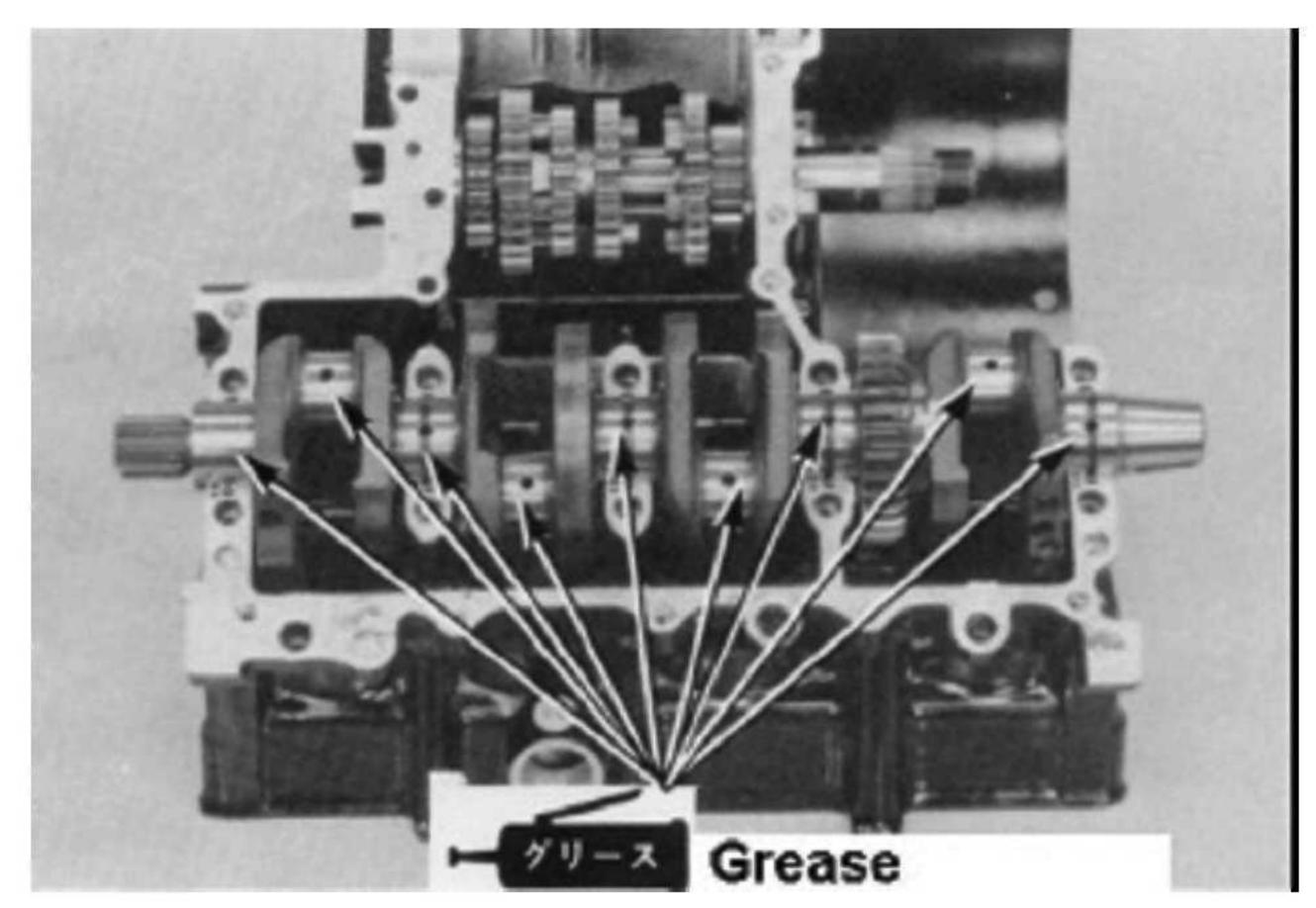
Apply MoS<sup>2</sup> grease to the journal of the crankshaft and the crankpin and attach to the cylinder block.

In order to avoid damaging the crankshaft with the conrod, align the larger edge of the conrod to the crankpin.





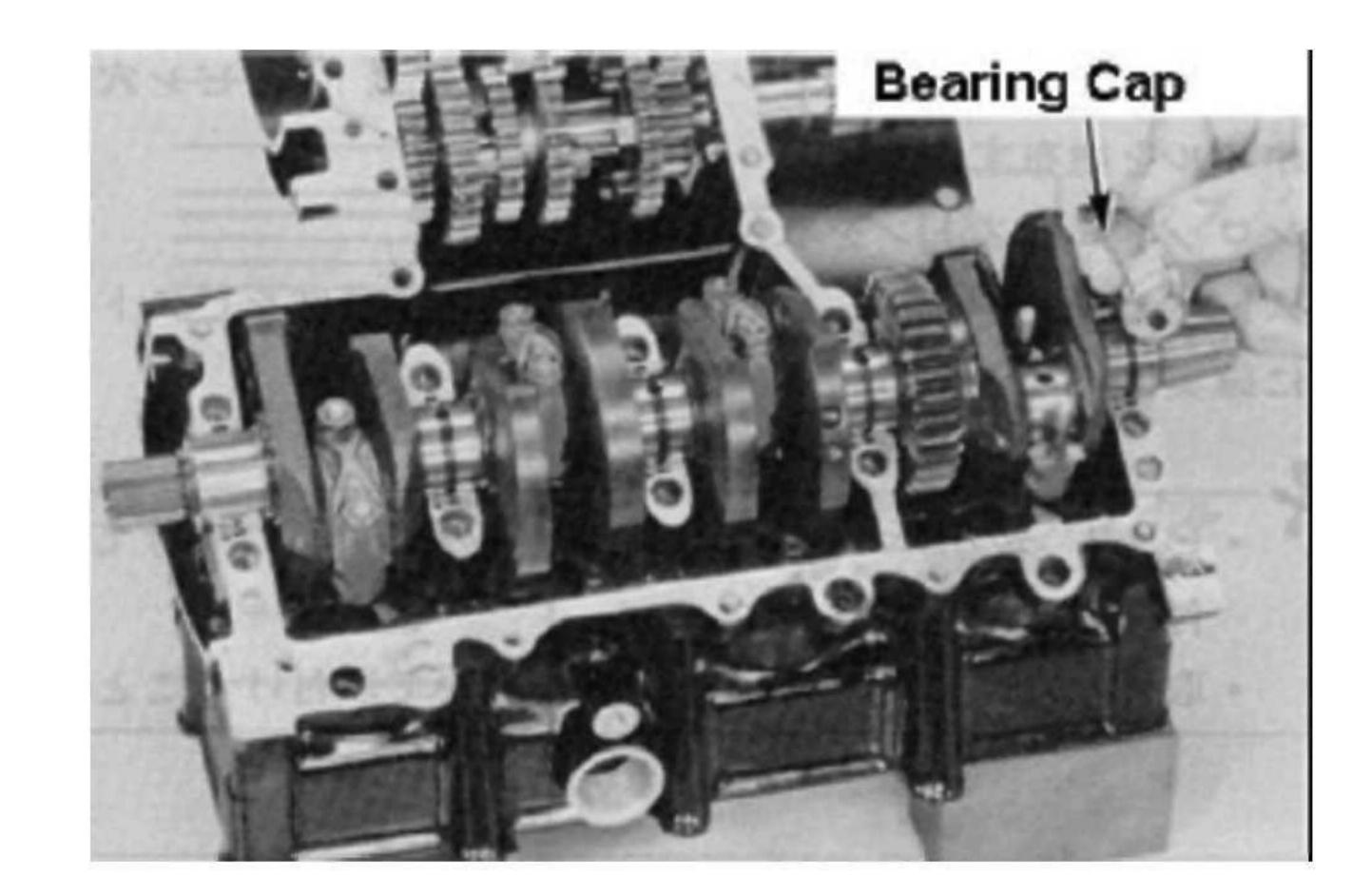




# 9. Cylinder, Piston, Crankshaft

Attach the conrod bearing cap.

Ensure the bearing cap is attached in the direction the same as before disassembly.

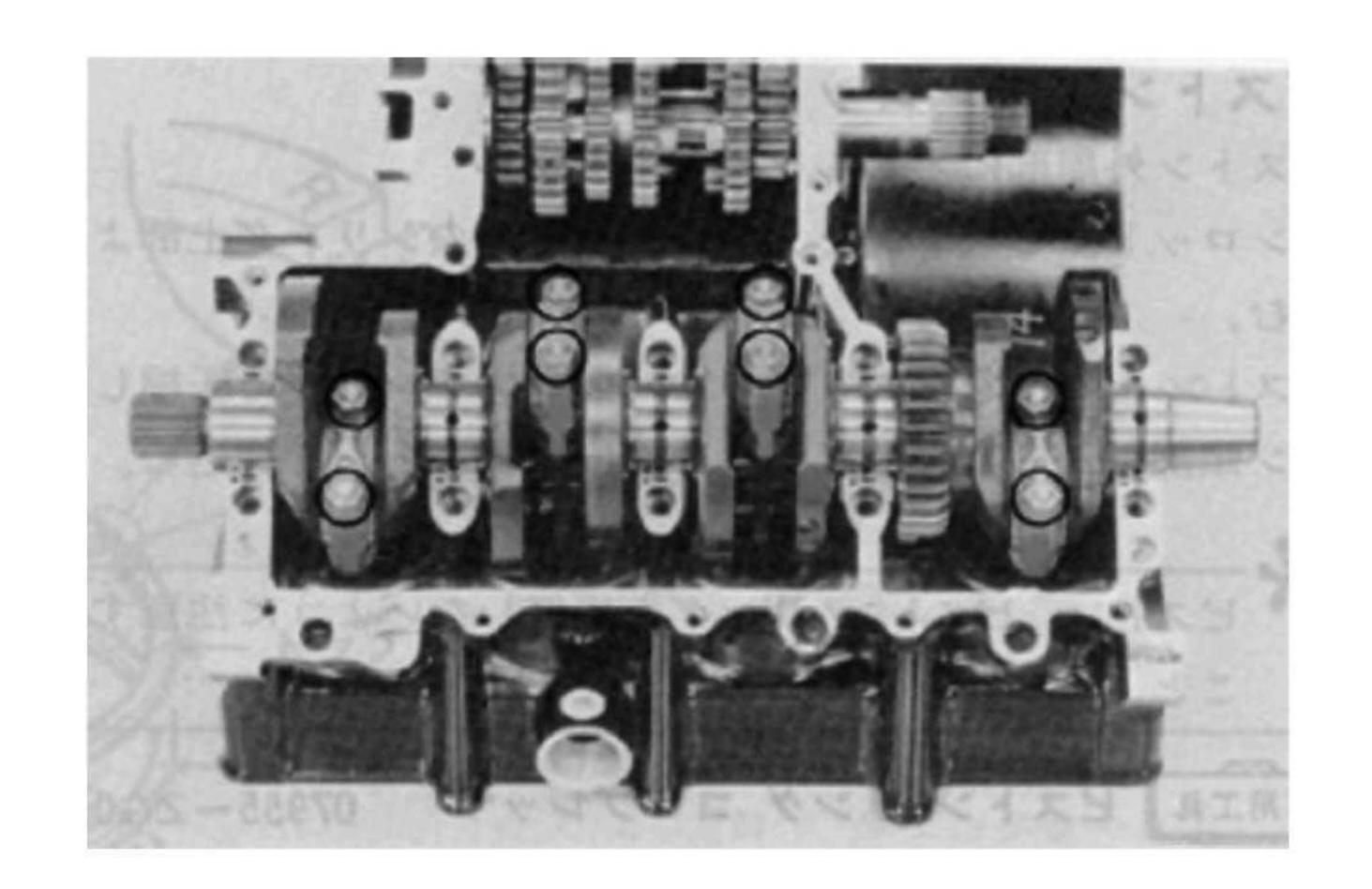


Attach cap nuts and tighten.

Tightening Torque: 1.5 ~ 1.9 kg m

Tighten the nuts in parallel so as to have equal torque among the nuts.

After tightening the nuts, confirm the smooth movement of the conrods by rotating the crankshaft.



### Assembly

