

Piston

DISASSEMBLY

NOTICE: During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces, that enters the oil passages, coolant passages or the oil pan, can cause engine failure.

1. Remove and discard the piston rings.

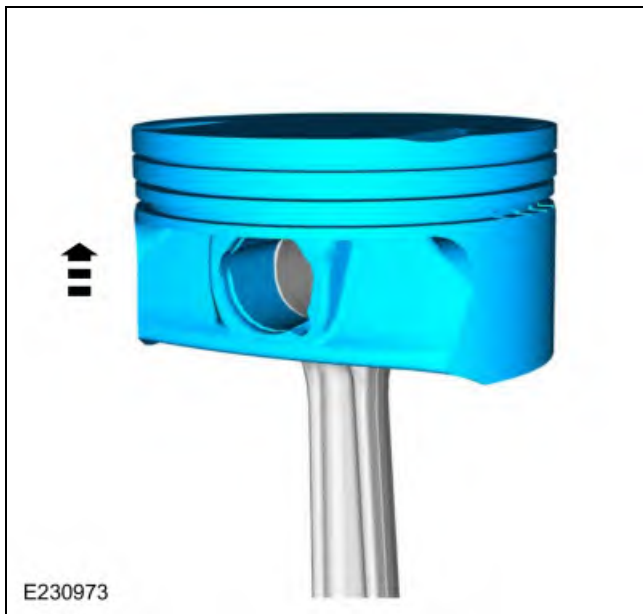


2.
 - Remove and discard the piston pin retainers.
 - Remove the piston pin.



3. **NOTE:** If the piston and connecting rod are to be reinstalled, they must be assembled in the same orientation. Mark the piston orientation to the connecting rod for reassembly.

Remove the piston from the connecting rod.

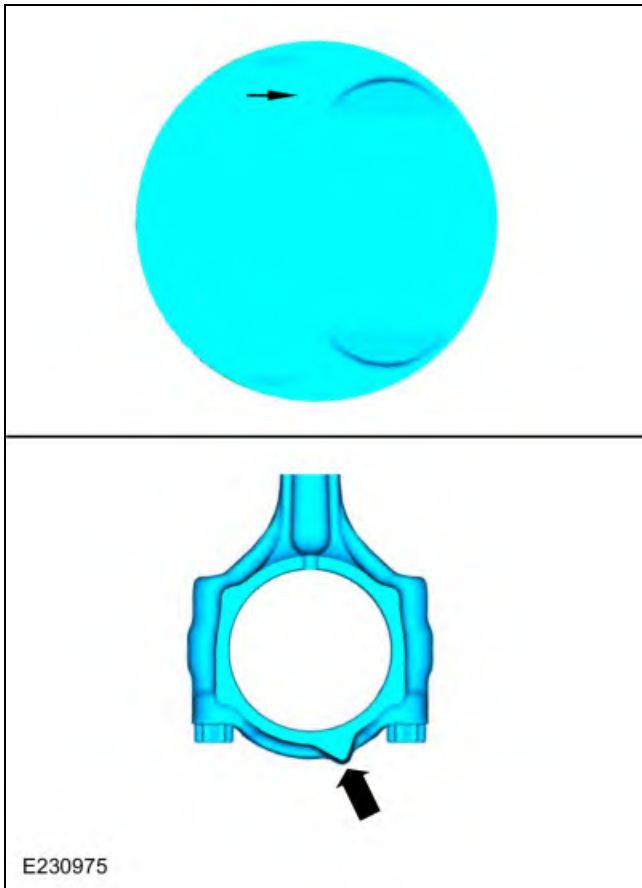


- Inspect the piston and the connecting rod.
Refer to: Piston Inspection (303-00 Engine System - General Information, General Procedures).



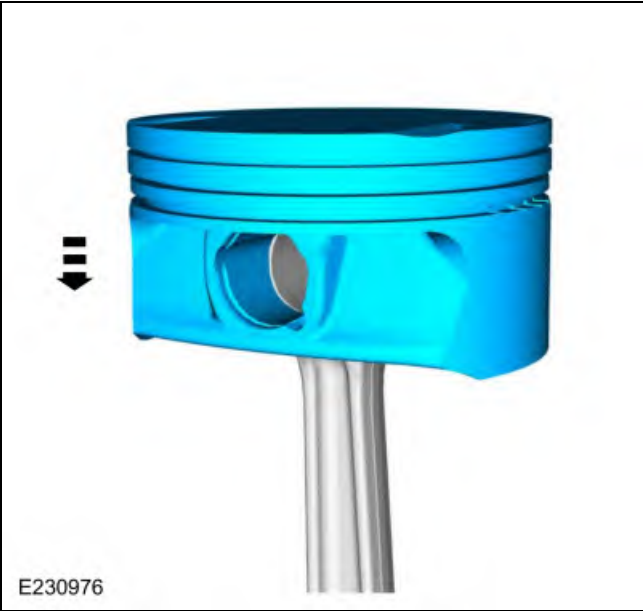
ASSEMBLY

- If the piston and/or connecting rod are being installed new, the connecting rod orientation marks and the arrow on the top of the dome of the piston should be facing toward the front of the engine block.



2. **NOTE:** *Align the piston-to-connecting rod orientation marks made during disassembly.*

Install the piston to the connecting rod.

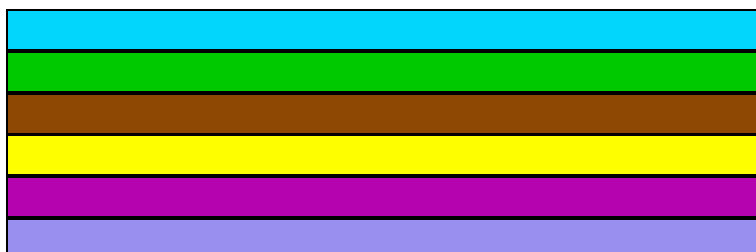


3. Lubricate with clean engine oil and install the piston pin.



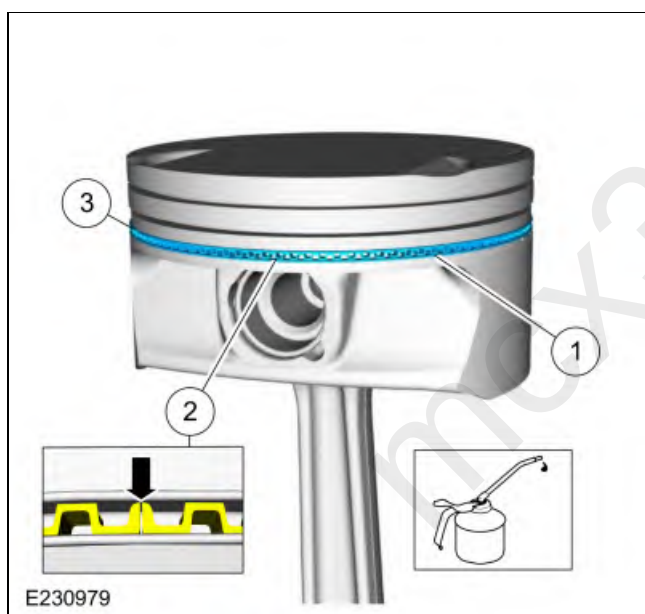
4. Install the piston pin retainers.





5.

1. Lubricate with clean engine oil and install the lower oil control ring.
2. Lubricate with clean engine oil and install the oil control expander ring with the expander tips up.
3. Lubricate with clean engine oil and install the upper oil control ring.





6. Lubricate with clean engine oil and install the lower compression ring with the hook feature pointing down toward the bottom of piston.

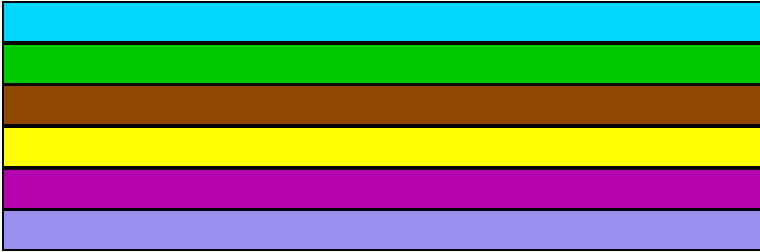
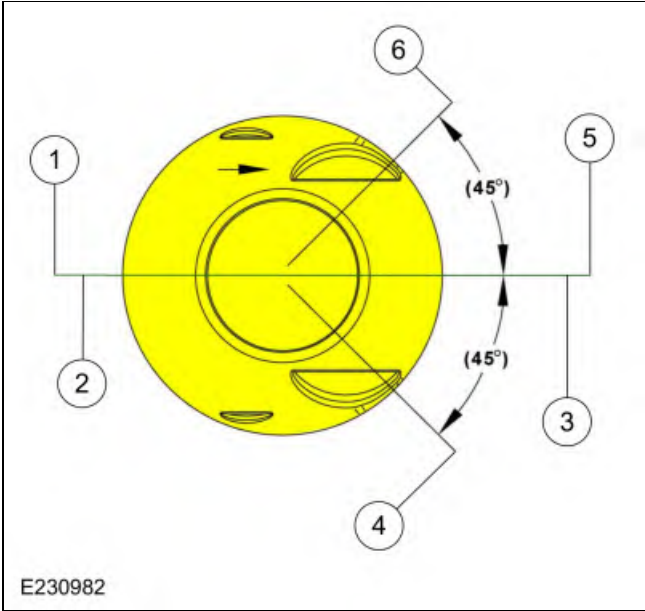


7. Lubricate with clean engine oil and install the upper compression ring with the "O" mark on the ring pointing up toward the top of the piston.



8. **NOTE:** The arrow on the top of the piston indicates the front of the engine.

1. Center line of the piston parallel to the wrist pin bore.
2. Upper compression ring gap location.
3. Lower compression ring gap location.
4. Upper oil control segment ring gap location.
5. Oil control expander ring gap location.
6. Lower oil control segment ring gap location.



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