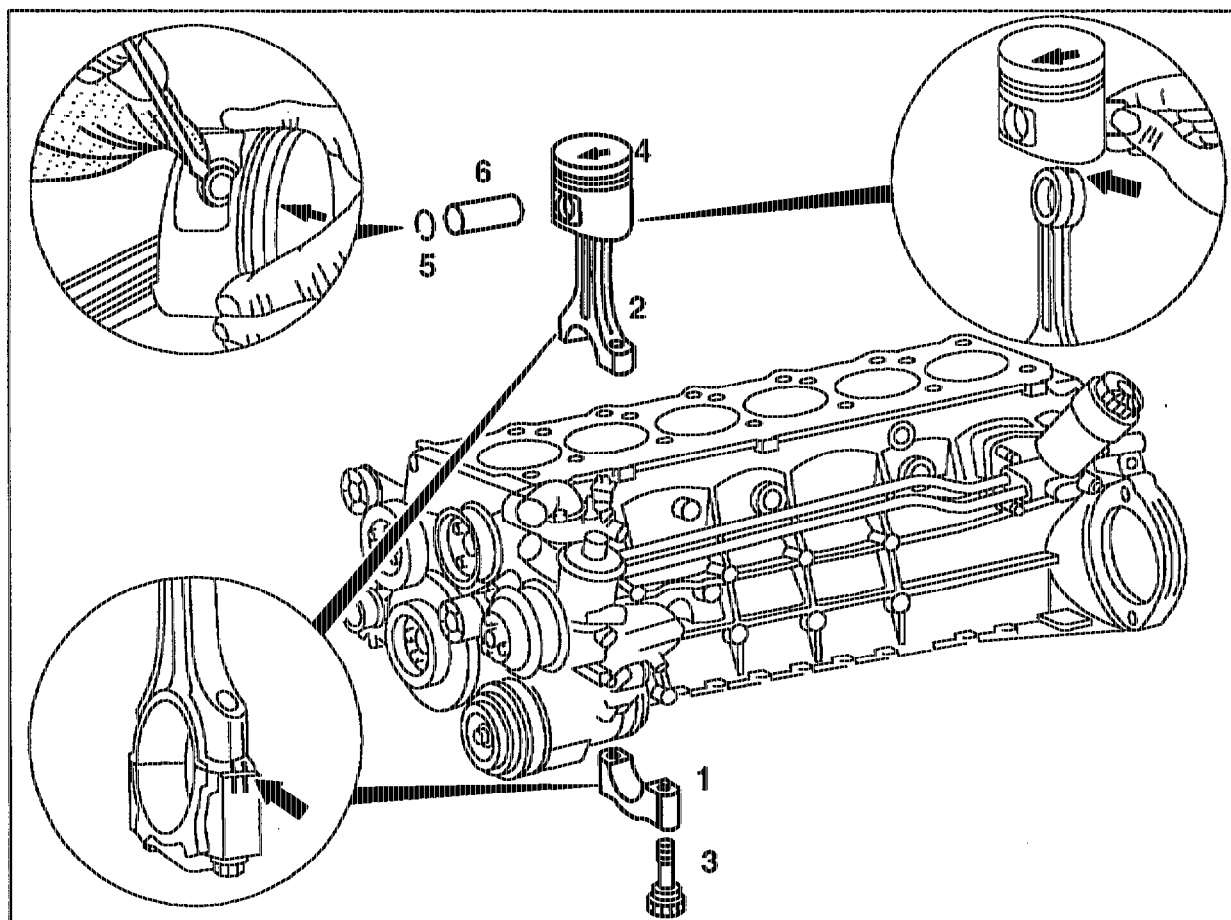


03-3160 Removing and installing pistons

Preceding work:

Engine removed (01-0300).
 Cylinder head removed (01-4150).
 Oil pump removed (18-2100).
 Oil shield removed (18-2180).

Operation no. of operation texts and work units or standard texts
 and flat rates:
 03-7061



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Removing pistons

Conrod bearing cap (1) unbolt.

Note

Conrod (2) and conrod bearing cap (1) are marked together.

Conrod (2) with piston (4) remove upward.

Note

The direction of travel arrow is stamped at the top in the piston crown.

On certain versions, the direction of travel arrow is no longer visible if the piston is worn; in this case, mark direction of travel on piston.

Taking off, fitting on pistons

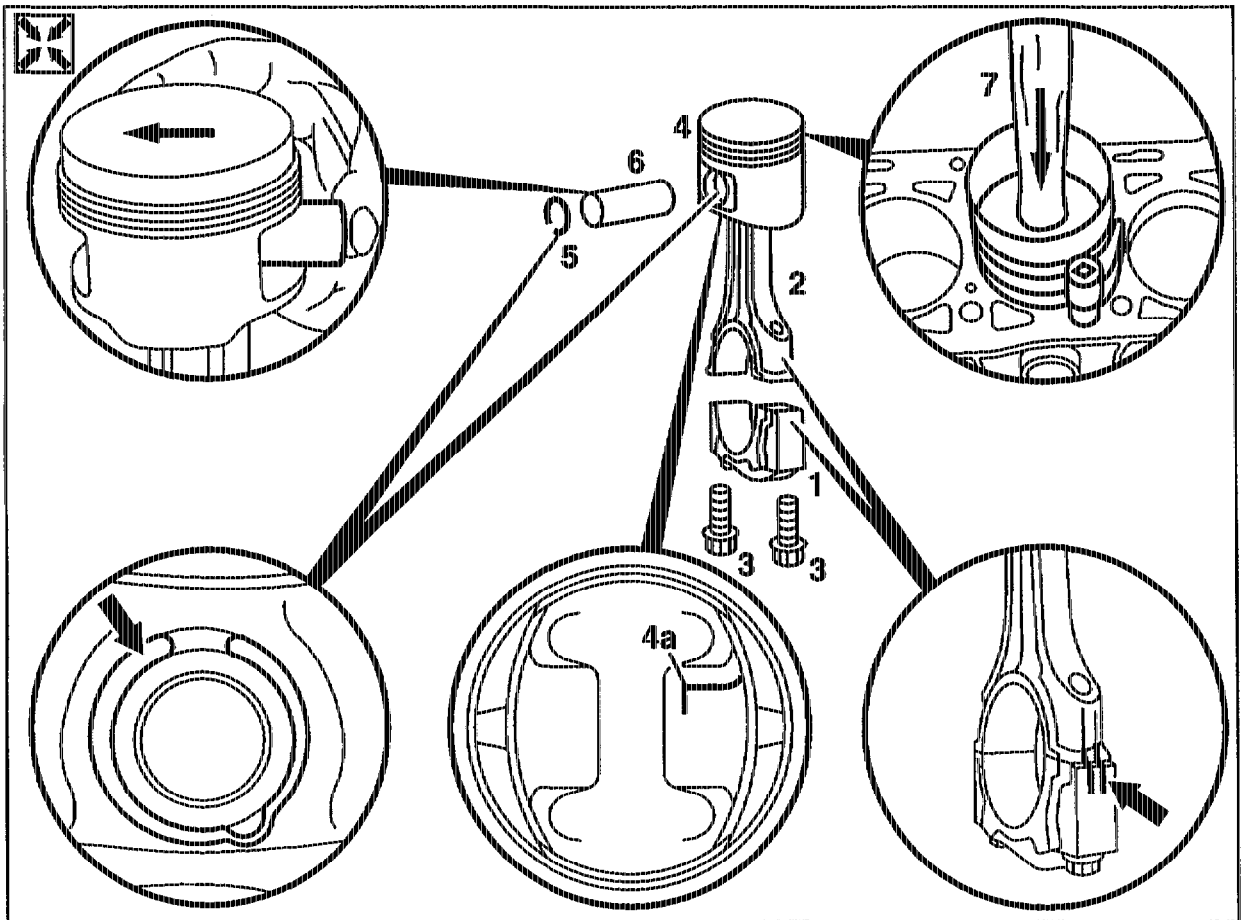
- Piston pin circlip (5)
- Conrod
- Piston ring gap and top clearance
- Piston pin (6) and conrod bushes
- Piston (4) and conrod (2)

prise out with a screwdriver.

⚠
 Use clean cloth as base.
 repair, align (03-3130).
 check (03-3170).
 oil.
 install together.

Note
 The retaining slots (8) of the conrod bearings must face toward the left side of the engine.
 The raised face (4a) on one of the two piston pin bosses must face in the opposite direction of travel.

⚠ Pay attention to matching pistons and dimensions (03-3165).



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- Piston pin (6) press in by hand.
- Piston pin circlip (5) insert into groove (arrow).
- Cleaned cylinder bores, conrod bearing journals, conrod bearing shells and piston (4) ... oil.

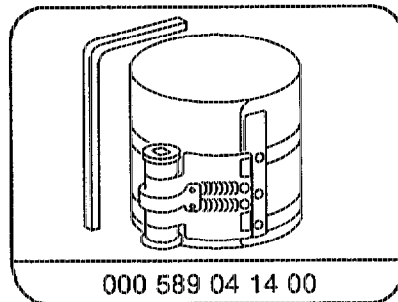
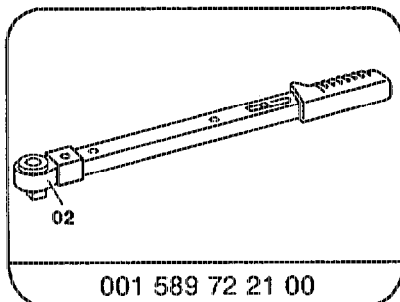


Install the conrod bearing shell with oil drilling into the conrod (2).

Installing piston

- Tensioning strap (7) 000 589 04 14 00 for piston rings fit on, tension.
- Piston (4) install with arrow in direction of travel.
- Conrod (2) and conrod bearing cap (1) install with marking (arrow) facing each other.
- Conrod bolts (3) check, tighten (03-3100).
- Crankshaft turn, check clearance.

Special tools



Note

Install new pistons with piston rings in used engines only if the cylinder bore does not have any abnormal wear, and is within the dimensional tolerances for cylinder shape and concentricity. The honing should be visible and undamaged.

In the case of reconditioned engines, determine repair size (01-1100), then order pistons on the basis of the valid parts documentation.

Pistons to prevent increased oil consumption**Production breakpoint:**

104.980 10 007 303

104.980 12 033 749

104.981 10 001 753

104.981 12 015 196