

For the engines of the Model OM 621, the pistons can only be removed towards top.

Removal:

1. Remove the cylinder head
(see Job No. 01-3).
2. Remove the oil pan (see Job No. 01-21).
3. Unscrew the connecting rod bolt nuts. Apply slight blows (using a plastic hammer) to the connecting rod bolts to knock them back, loosen and remove the caps. Then press out the connecting rods including the piston towards **top**.
4. Use pliers to remove the wire snap rings from the grooves in the piston pin bosses.
5. On a heater plate, heat the piston to approx. 40–60° C and press out the piston pin.

the bearing shells as well as the cylinder number of the connecting rod are left, if seen in driving direction (see Figure 03-11/1) and that the arrow on the piston head points forward, thus the recess in the piston head for the pre-chamber burner is left and the cut-outs for the valve heads are right (see Figure 03-11/8).

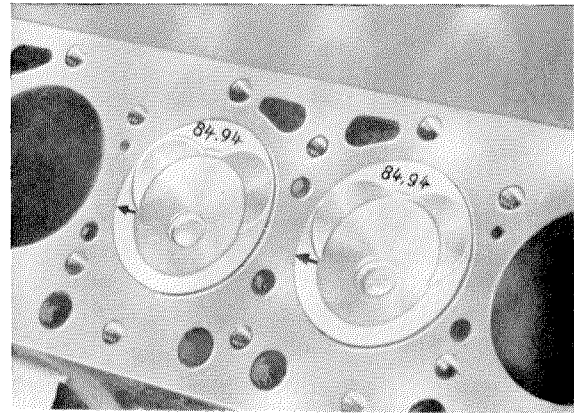


Figure 03-11/8

Installation:

6. Place the piston without piston pin on a heater plate and heat up to approx. 40–60° C.

Clean the small end bore of the connecting rod.

Place the heated piston over the connecting rod and insert a control arbor through the piston pin bore and the boss. Then oil and press in the piston pin, if necessary, make use of a plastic hammer. Press in the piston pin so far until it is exactly in the centre and the grooves for fitting the wire snap rings are free.

Do not confound the piston pins of the individual pistons. Observe the colour marks in the piston pin and on the boss (see Job No. 03-13 and 03-15).

Note: Mount the piston onto the connecting rod in such a way that the fixing lugs for

7. Insert the wire snap rings into the grooves of the piston pin bosses. Check the wire snap rings for firm seat in the grooves by turning.
8. Check the parallelism of axis and the twist of the connecting rod (see Job No. 03-13, item 5).
9. Turn the piston rings in such a way that the ring gaps are offset by 90° with respect to one another.
10. Clean the cylinder walls, apply graphited oil to the pistons and use a piston ring compressor to insert them into the bores of the cylinder crankcase.

Insert the big end bearing shells and mount the caps (see Job No. 03-5, Section B, items 9, 18 and 19).

Note: When inserting the connecting rods with pistons, see to it that the crankpins are not damaged by the connecting rod bolts, that no piston ring is damaged and that the appertaining parts such as connecting rod, piston and cylinder bore, are correctly fitted and mounted. (The arrow on the piston head must, with assembled piston, point forward, see Figure 03-11/8).

11. Set the pistons to TDC and use a depth gauge to measure the distance between piston head and separating surface of the cylinder crankcase. With the OM 621, the piston must not project above the separating surface by more than 0.7 to 1.2 mm, the respective value should be identical with all 4 cylinders.
12. Mount the oil pan and the cylinder head (see Job No. 01-21 and 01-3).