

**95-0090**

The invention relates to the internal combustion engines and it is directed to improve efficiency thereof. The Meritt internal combustion engine contains a set two cylinders (12, 14). At the same time the first cylinder has a greater displacement volume than the second one (14), and each cylinder contains the first piston (16) and the second one (18) respectively, which are moved in a cyclic manner at the same frequency.

The intake air hole (24) and the exhaust one are connected with the first cylinder while the fuel injector (34) provides feeding of the second cylinder. The combustion chamber (20) has a connection with both cylinders during at least a part of expansion stroke. The second piston has a body and bottom (35). The bottom is shifted out from body and possesses an edge (37), which is small in axial direction, compared with the distance between bottom and body in axial direction. The combustion chamber (20) is formed between the piston bottom, body and lateral wall (14a) and the space of the second cylinder.

The constructional specific features of the engine provides the selection of the operational conditions.

Claims: 32