

Title (en)
VALVES AND VALVE TIMING FOR INTERNAL COMBUSTION ENGINE.

Title (de)
VENTILE UND VENTILSTEUERUNG FÜR BRENNKRAFTMASCHINE.

Title (fr)
SOUPAPES ET DISTRIBUTION DE SOUPAPES POUR MOTEUR A COMBUSTION INTERNE.

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Application
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Abstract (en)
[origin: WO9402717A1] An exhaust valve assembly (30) selectively covers an exhaust manifold (42) circumferentially located about a top wall of a cylinder (20) without interfering with segments of a piston (21). The exhaust valve assembly includes a ring-shaped portion (22b) of a cylinder lining which is configured to selectively obstruct air from escaping radially from the top of the cylinder. The exhaust manifold (42) is opened and closed by the lifting of the exhaust valve assembly (30) by a vertical guillotine-type motion. An intake valve assembly (50) is provided on a cylinder head (26) and has a ring or washer shape. The timing of both valves is facilitated by a single spring (100) and induction and exhaust gear-like, planar timing bearings (70, 110). Each of the induction timing bearing (70) and the exhaust timing bearing (110) have a caming surface provided thereon to face the other bearing. The induction timing bearing (70) and the exhaust timing bearing are followed by respective roller tappets (72, 112). The valving and timing arrangement facilitate the flexibility in the design of a combustion chamber (21a).

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