

Title (en)
DIRECT-ACTION VALVE LIFTER FOR INTERNAL COMBUSTION ENGINE

Title (de)
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Title (fr)
POUSOIR DE SOUPAPE À ACTION DIRECTE POUR MOTEUR À COMBUSTION INTERNE

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Application
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Abstract (en)
OBJECTS: To provide a direct-acting type valve lifter that is simple in structure, involves a small number of components, and is capable of switching its valve lift between a high and a low lift. MEANS FOR CARRYING OUT THE INVENTION: The valve lifter is mounted between a cam unit (20) and a valve stem (15). The cam unit (20) comprises a high-lift cam (22) and a low-lift cam (24) integrated to the high-lift cam. The valve lifter (30) is equipped with a side lifter (32) for slidably lifting the low-lift cams (24), a center lifter (40) for slidably lifting the high-lift cam, and hydraulic means (oil groove) (11b) for sliding the center lifter (40) so as to switch the valve lift in two levels, i.e. to switch between a high and a low lift. A cylindrical body of the valve lifter is provided on the top end thereof with a slit (33) for allowing the high-lift cam to freely rotate therein, and with sliding surfaces (32a) serving as a side lifter (32) to be in sliding contact with the low lift cam. Formed in the body of the valve lifter (lifter body) is a through-hole 34 perpendicular to the slit (33), which accommodate therein the piston type center lifter (40) such that the center lifter (40) can be slidably moved by a hydraulic pressure. When the center lifter (40) is located at a position aligned with the slit (33), the cam unit assumes a high lift mode. On the other hand, at a position well offset from the slit (33), the cam unit assumes a low lift mode. Thus, the valve lifter of the invention is composed of a small number of components, so that dimension tolerance demanded for the respective components are much relaxed, which permits easy assembly of the parts.

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