Title (en)

Structure of oil control valve for variable lift of engine valve

Title (de)

Struktur eines Ölsteuerventils für variablen Lift eines Motorventils

Title (fr)

Structure de soupape de commande d'huile pour levage variable de soupape de moteur

Publication

**EP 2634386 B1 20150506 (EN)**

Application

**EP 13154304 A 20130207**

Priority

TW 101106778 A 20120301

Abstract (en)

[origin: EP2634386A1] The present invention relates to a structure of oil control valve for variable lift of engine valve. The engine (3) at least comprises a crankcase (31), a cylinder block (32) mounted on the crankcase (31), and a cylinder head (33) mounted on the cylinder block (32). The cylinder block (32) comprises a timing chain compartment (34), which extends upward to the cylinder head (33). The timing chain compartment (34) receives a timing chain (341) mounted therein. The cylinder head (33) comprises a rocker arm compartment (35), which comprises a cam assembly (351), a rocker arm assembly (352), and a valve assembly (353) mounted therein, wherein the rocker arm assembly (352) comprises an oil-control driving mechanism (354) and the oil-control driving mechanism (354) is controlled by an oil control valve (4). An oil control valve mounting base (334) is mounted on a surface of the cylinder head (33) that is on the same side as the intake port (331). The oil control valve mounting base (334) comprises a coupling seat (3341) and an insertion seat (3342). The oil control valve (4) comprises a valve body (4a) and an insertion section (4b). The insertion seat (3342) of the oil control valve mounting base (334) receives the insertion section (4b) of the oil control valve (4) to insert therein, wherein the insertion seat (3342) of the oil control valve mounting base (334) and the cylinder head (33) are spaced from each other by a spacing distance. As such, the oil control valve (4) is set distant from the high temperature site of the engine (3) to prevent the oil control valve mounting base (334) from forming a heat accumulation object thereby improving the durability of the oil control valve (4), easing the installation of the oil control valve (4), and preventing the oil control valve (4) from interfering with the maintenance operation of other components. Further, this also helps shorten the controlling oil passage (41) between the oil control valve (4) and the oil-control driving mechanism (354) to thereby reduce loss of oil pressure and make the oil control valve (4) controlling and driving the oil-control driving mechanism (354) more precisely.

IPC 8 full level

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