Title (en)

VALVE CONTROL MECHANISM

Title (de)

VENTILANTRIEBSVORRICHTUNG

Title (fr)

MECANISME DE COMMANDE DE SOUPAPES

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Abstract (en)

[origin: WO9530081A1] The present invention provides (with reference to the figure) a valve control mechanism suitable for use in a valve train which transmits lifts from a cam (11) located on a camshaft (10) of an internal combustion engine to a cylinder head valve (217) of the internal combustion engine and which has a first abutment member (212) in abutment with the cam (11) and a second abutment member (215) in abutment with the top of the stem of the cylinder head valve (217). The valve control mechanism comprises a first tappet member (212) slidable in a bore in the engine, a second tappet member (213) moveable relative to the first tappet member (212) and locking means (220, 221, 222, 223) capable of locking the first (212) and the second (213) tappet members to move together. When the locking means (220, 221, 222, 223) locks the first (212) and second (213) tappet members to move together, the valve control mechanism transmits all of the lift of the cam (11) to the cylinder head valve (217). When the locking means (220, 221, 222, 223) allows the first (212) and second (213) tappet members to move relative to each other at least a part of the lift of the cam (11) causes relative motion between the first (212) and second (213) tappet members rather than lift of the cylinder valve (217), whereby the valve control mechanism reduces the amount of lift that is transmitted from the cam (11) to the cylinder head valve (217). In the first aspect of the invention the valve control mechanism is characterised in that one of the tappet members (212, 213) is connectable with the camshaft only via the other tappet member (212, 213). In a second aspect, the invention is characterised in that the locking means (220, 221, 222 and 223) comprises biasing means (222, 223) which apply a permanent bias on the locking means (220, 221, 222, 223) acting to bias the locking means (220, 221, 222, 223) into a first operating condition in which the locking means (220, 221, 222, 223) lock the first (212) and the second (213) tappet members to move together.

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