

Title (en)
DEVICE FOR ADJUSTING THE ANGLE OF ROTATION OF A CAMSHAFT OF AN INTERNAL COMBUSTION ENGINE RELATIVE TO A DRIVE GEAR

Title (de)
VORRICHTUNG ZUR RELATIVEN DREHWINKELVERSTELLUNG EINER NOCKENWELLE EINER BRENNKRAFTMASCHINE ZU EINEM ANTRIEBSRAD

Title (fr)
DISPOSITIF PERMETTANT DE REGLER L'ANGLE DE ROTATION D'UN ARBRE A CAMES D'UN MOTEUR A COMBUSTION INTERNE PAR RAPPORT A UNE ROUE MOTRICE

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Application
EP 03706369 A 20030123

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Abstract (en)
[origin: WO03067034A1] The invention relates to a device for adjusting the angle of rotation of a camshaft relative to the crankshaft of an internal combustion engine. Said device comprises an adjusting element (2) that can be impinged hydraulically, the adjusting displacement of said element directly or indirectly modifying the phase position of the camshaft. The adjusting element (2) is delimited by two pressure chambers (28a to 29d and 30a to 30d), which can be hydraulically impinged or relieved by control lines (L4, L9, LST1, LST2). The device also comprises a control valve (102, 114, 168), which transports the oil flow that is delivered by an oil pump (106, 172) from an oil reservoir (T) to a first pressure chamber (28a to 28d and 30a to 30d) via a first control line, depending on the operating condition of the internal combustion engine, whilst the oil from a second pressure chamber (30a to 30d and 28a to 28d) is returned to the oil reservoir (T) via a second control line and vice versa. At least one controlled bypass (L6, L12, LB) is provided between the two pressure chambers (28a to 28d and 30a to 30d). This enables the adjustment speed of the camshaft adjustment device to be advantageously increased.

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