

Title (en)

METHOD FOR ADJUSTING THE POSITION OF THE ANGLE OF ROTATION OF THE CAMSHAFT OF A RECIPROCATING PISTON INTERNAL COMBUSTION ENGINE IN RELATION TO THE CRANKSHAFT

Title (de)

VERFAHREN ZUM EINSTELLEN DER DREHWINKELLAGE DER NOCKENWELLE EINER HUBKOLBEN- VERBRENNUNGSMASCHINE RELATIV ZUR KURBELWELLE

Title (fr)

PROCEDE POUR REGLER LA POSITION D'ANGLE DE ROTATION DE L'ARBRE A CAMES D'UN MOTEUR A COMBUSTION INTERNE A PISTON ALTERNATIF, PAR RAPPORT AU VILEBREQUIN

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2006042494A1] The invention relates to a method for adjusting the position of the angle of rotation of the camshaft (3) of a reciprocating piston of an internal combustion engine in relation to the crankshaft (5). The crankshaft is drivingly connected to the camshaft (3) by means of an adjusting drive (1), which is embodied as a triple-shaft gear mechanism comprising a drive shaft which is fixed to the crankshaft, an output shaft fixed to the camshaft and an adjusting shaft. According to the invention, a phase angle signal (e_{ACT}) for the position of the angle of rotation of the camshaft in relation to the crankshaft is detected. A stop travel is carried out during which a stop element (6) connected to the drive shaft is moved towards a counter-stop element (7) that is connected to the camshaft, while the reaching of a stop position is monitored. A phase angle value relative to the stop (e_{STOP}) is determined when the stop position is detected. The phase angle signal relative to the stop is adjusted to a provided target angle phase signal (e_{SET}). An adjacent or adjoining phase angle region is allocated to the phase angle value relative to the stop, and the phase angle signal is then compared with the phase angle region. In the event that the theoretical phase angle signal lies within the range of the phase angle region, the adjustment of the phase angle signal to the theoretical phase angle signal is interrupted in order to carry out another stop travel. To this end, the stop element is moved towards the counter-stop element, while the reaching of the stop position is monitored. When detecting the stop position the phase angle value relative to the stop is newly determined and subsequently the adjustment of the phase angle signal to the theoretical phase angle signal is continued.

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