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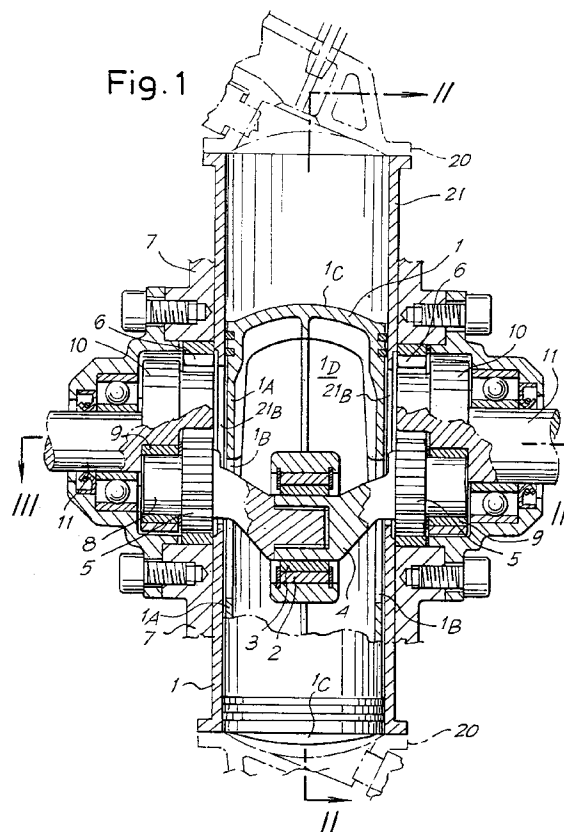
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(54) **Engine with double-acting pistons and without connecting rods.**

(57) An internal combustion engine comprises a crank-case (7), a cylinder (21), a piston (1) reciprocatingly slidable in said cylinder, an output shaft (11) and means for transforming the reciprocating motion of the piston into a rotating motion of the output shaft (11). According to the invention, the reciprocating motion of the piston is transformed into a rotating motion of the shaft by means of a hypocycloid gear transmission (5, 6) comprising a pair of externally toothed gears (5) connected to each other by means of a curved shaft (4) and a pair of internally toothed gears (6) solid to the crank-case (7). During reciprocating motion of the piston in the cylinder, the externally toothed gears roll along the internally toothed gears and transmit their motion to the output shaft by means of a flywheel (10).





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EUROPEAN SEARCH REPORT

Application Number

EP 91 83 0048

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	WO-A-8 907 704 (MAY) * claim 1; figures 1,1A,2 * ---	1-5, 8, 13, 15	F02B75/00
Y	PATENT ABSTRACTS OF JAPAN vol. 12, no. 434 (M-764)(3281) 16 November 1988 & JP-A-63 167 031 (TOSHIKI TSUJIOKA) 11 July 1988 * abstract *	1-5, 8, 13, 15	
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 434 (M-764)(3281) 16 November 1988 & JP-A-63 167 030 (TOSHIKI TSUJIOKA) 11 July 1988 * abstract *	14	
A	US-A-4 864 976 (FALERO) * claims 1,2; figures 1-3 *	1	
A	DE-A-3 607 421 (ZOTT) ---		
A	EP-A-0 265 546 (CRAIG SPURGEON BESHORE) -----		TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			F02B
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 09 OCTOBER 1992	Examiner THOMAS C.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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