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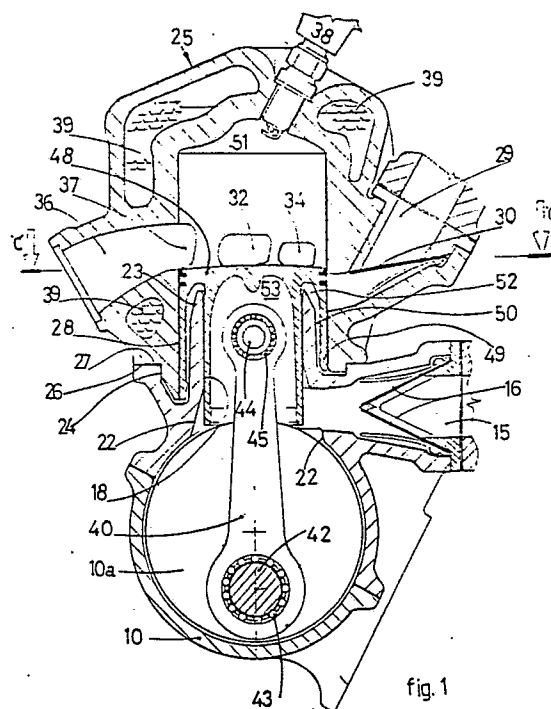
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(54) **An Internal combustion engine.**

(57) A two-stroke internal combustion engine has a duplex piston (48) slidable in co-axial cylinders (18,28). The engine has an inlet (15) for air/fuel mixture, an air inlet (29) and an exhaust outlet (36), and the combustion chamber has air inlet ports (32) and air/fuel transfer ports (34). The piston is arranged to pump a fresh air charge into the combustion chamber slightly in advance of the air/fuel charge to assist in scavenging and avoid unburnt fuel being passed directly to exhaust. The crankcase may or may not be used for charge compression.



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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.4)
X	EP-A-20806 (VIALETTE) * abstract; figures 1-3, 5 *	1-3, 14, 15, 18	F02B33/12 F02B33/04 F02B25/22
Y	* page 2, line 25 - page 3, line 15 *	4-10, 12, 13, 16, 17	
Y	US-A-4598673 (POEHLMAN) * column 1, lines 5 - 8; figures 1-4 *	4-10, 12, 13, 17	
A	* column 2, line 48 - column 3, line 5 * * column 3, line 43 - column 4, line 66 *	11	
Y	* column 5, lines 16 - 59 *	16	
X	PATENT ABSTRACTS OF JAPAN vol. 9, no. 261 (M-422)(1984) 18 October 1985, & JP-A-60 108530 (IWA0 MAEYAMA) 14 June 1985, * the whole document *	1-3, 14, 15, 18	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
X	FR-A-340142 (BRILLIE) * page 1, lines 34 - 54; figure 1 *	1-3, 14, 15, 18	F02B
X	* page 2, lines 21 - 46 *	1-3, 14, 15, 18	
A	DE-C-659313 (KUHNAST) * page 1, line 62 - page 2, line 12; figures 1, 2 *	1, 4, 5, 7, 12-15	
A	CH-A-152982 (SOLLERS) * page 1, right-hand column, line 7 - page 2, right-hand column, line 19; figures 1, 2 *	11	
A	DE-A-2943496 (VEB MOTORRADWERK ZSCHOPAU) * page 5, line 22 - page 6, line 15; figures 1, 2 *		
	* page 7, lines 1 - 4 *		
	* page 8, line 6 - page 31 *		
	* page 9, lines 10 - 15 *		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 FEBRUARY 1990	Examiner JORIS J.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 I : document cited for other reasons & : member of the same patent family, corresponding document			