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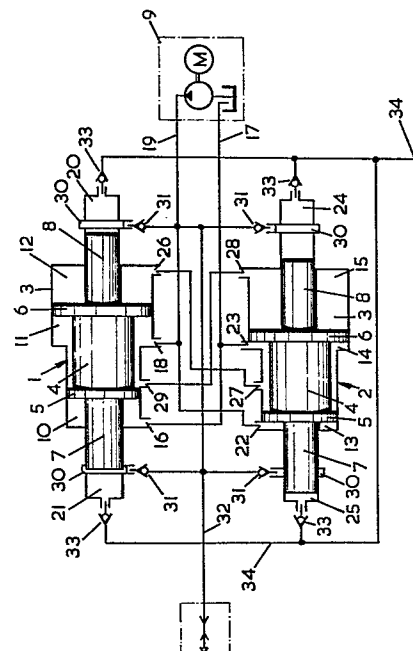
84 Designated Contracting States: **AT CH DE FR GB LI SE**

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54 **Continuous flow positive displacement pumps.**

57 A pumping device comprising two or more hydraulic cylinder arrangements, (1, 2) each comprising a double ended piston (4) the ends of which alternately pump fluid from an outlet in a respective piston cylinder. The pump is powered by a common hydraulic fluid supply (5) which supplies motive power to each of the hydraulic cylinder arrangements (1, 2) and the outlets (31) of the piston cylinders (20, 21, 24, 25) are all connected to a common outlet (32). An hydraulic cylinder arrangement is caused to start progressively to pump as a second hydraulic cylinder arrangement progressively and in a manner inversely proportional to the first ceases to pump.





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. ³)
Y	GB-A-1 458 513 (BUCKLEY) * Page 1, lines 9-98; page 2, lines 30-104 *	1,5	F 04 B 9/10 F 04 B 11/00
Y	--- US-A-3 847 511 (HALLIBURTON CO.) * Column 1, line 60 - column 2, line 37; column 3, line 61 - column 4, line 18 *	1	
A	--- US-A-3 981 622 (KELSEY-HAYES CO.) * Column 1, line 60 - column 2, line 19 *	1	
A	--- FR-A-2 208 462 (S.A. POMPES D.K.M.) * Page 7, lines 15-35 *	1	TECHNICAL FIELDS SEARCHED (Int. Cl. ³)
A	--- DE-A-2 446 805 (LEWA HERBERT OTT KG) * Page 3; claim 1 *	1	F 04 B 9/10 F 04 B 11/00
A	--- US-A-3 405 522 (TOYODA MACHINE WORKS LTD.) * Figure 15 *	2,3	

The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23-05-1984	Examiner PEETERS F.P.
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	

