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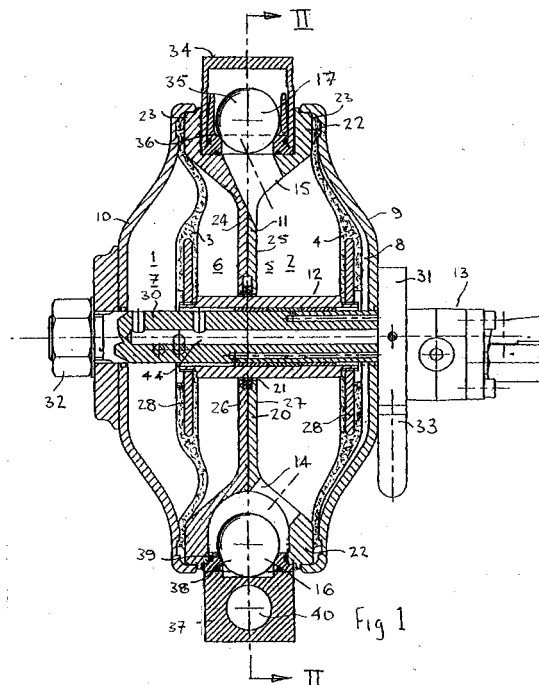
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(54) **Double-diaphragm pumps**

(57) A double diaphragm pump comprises a pair of axially spaced apart pumping chambers (1,2), each chamber has a pumping diaphragm (3,4) to divide each chamber into an inner (5,6) and an outer compartment (7,8). The outer end of each pumping chamber is closed by a cover (9,10) and the inner ends of both pumping chambers (1,2) are closed by a central element (11). Connection cylinder (12) extend between the diaphragms (3,4) and through the central element (11). The supply (13) of operating fluid to the outer compartments (7,8) causes the diaphragms (3,4) to oscillate and vary the capacities of the inner compartments (5,6). Each of the inner compartments (5,6) has an inlet (14) and outlet port (15) leading to unidirectional valves (16,17) to allow fluid to be drawn into one of the compartments (5,6) when the appropriate diaphragm (3,4) moves outwardly and expelled from that compartment when the diaphragm moves inwardly. The central element has a unitary partition wall (20) which extends between and closes the inner ends of the inner compartments (5,6), said wall being substantially solid over a major portion of its area apart from a sealed aperture (21) to allow the connection cylinder (12) to pass through it and being enlarged at its outer periphery (22) to carry the inlet and outlet ports (14,15) which are located respectively at the lower and upper portions of the element (11).



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# EUROPEAN SEARCH REPORT

Application Number  
EP 00 31 1302

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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		14 November 2001	Kolby, L
CATEGORY OF CITED DOCUMENTS		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	
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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