

Title (en)  
Hydraulic Pump

Title (de)  
Hydraulische Pumpe

Title (fr)  
Pompe hydraulique

Publication  
**EP 1435456 A2 20040707 (EN)**

Application  
**EP 03257660 A 20031205**

Priority  
GB 0228559 A 20021206

Abstract (en)  
A sinusoidal hydraulic pump that is particularly suitable for use as a high pressure pump for a fuel injection system of a compression ignition engine. The pump includes first and second plungers, a filling plunger (110) and a delivery plunger (112), each of which is reciprocable within a respective bore (120, 122) provided in a pump housing (124) under the influence of a respective cam (114, 116) mounted upon a common cam shaft (118). The bores (120, 122) communicate with each other at their uppermost ends (in the orientation shown) and define, together with end surfaces of the filling and delivery plungers (110, 112), a pump chamber (126) for receiving fuel through a pump inlet port (130) provided in a wall of the pump housing (124). The filling plunger (110) cooperates with the inlet port (130) to provide a means for controlling fuel flow into the pump chamber (126) from a low pressure fuel supply. A delivery port (132) is also provided in the pump housing (124) in the region of the bore (122), and the outer surface of the delivery plunger (112) cooperates with the delivery port (132) to provide a means for controlling the delivery of pressurised fuel from the pump chamber (126) to a high pressure fuel volume. <IMAGE>

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**F04B 1/04**; **F04B 49/12**

IPC 8 full level  
**F04B 1/04** (2006.01); **F04B 7/04** (2006.01); **F04B 49/12** (2006.01)

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Cited by  
DE112007002818B4; US8496449B2; KR101030794B1

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