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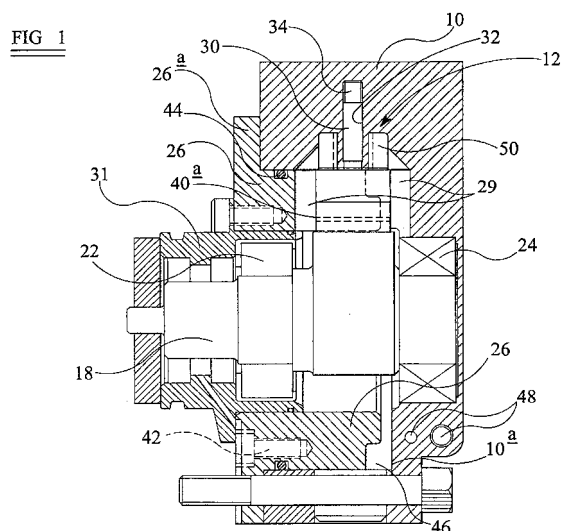
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(54) **Fuel pump**

(57) A fuel pump for use in an engine comprises a pump housing (10) and a plunger member (30) which is reciprocable within a plunger bore (32) provided in the pump housing (10) under the influence of a cam drive arrangement (20, 36, 38) so as to cause pressurisation of fuel within a pumping chamber (34). The cam drive arrangement includes a reciprocable shoe (36) and a roller member (38) and is driven, in use, by means of an associated drive shaft (18). The roller member (38) is located radially inward of the shoe (36) and is cooperable with a cam surface (20a) of the cam drive arrangement so as to impart reciprocable movement to the shoe (36) upon rotation of the drive shaft (18). The pump also includes a tubular member (26) which is secured to the pump housing (10) and arranged such that it is substantially coaxial with the drive shaft (18), the tubular member (26) being further arranged such that it guides reciprocal movement of the shoe (36), in use.





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 02 25 0126

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	JP 63 201370 A (MITSUBISHI HEAVY IND LTD) 19 August 1988 (1988-08-19)	1-3	F02M37/06
A	* figures 3A,3B *	13	
A	JP 2000 104656 A (UNISIA JECS CORP) 11 April 2000 (2000-04-11) * figures 1,2 *	1,13	
A	IT 1 217 259 B (WEBER SRL) 22 March 1990 (1990-03-22) * figures 2,3 *	1,13	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F02M F04B
Place of search	Date of completion of the search	Examiner	
THE HAGUE	31 October 2003	Alconchel y Ungria,J	
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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EP 02 25 0126

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82