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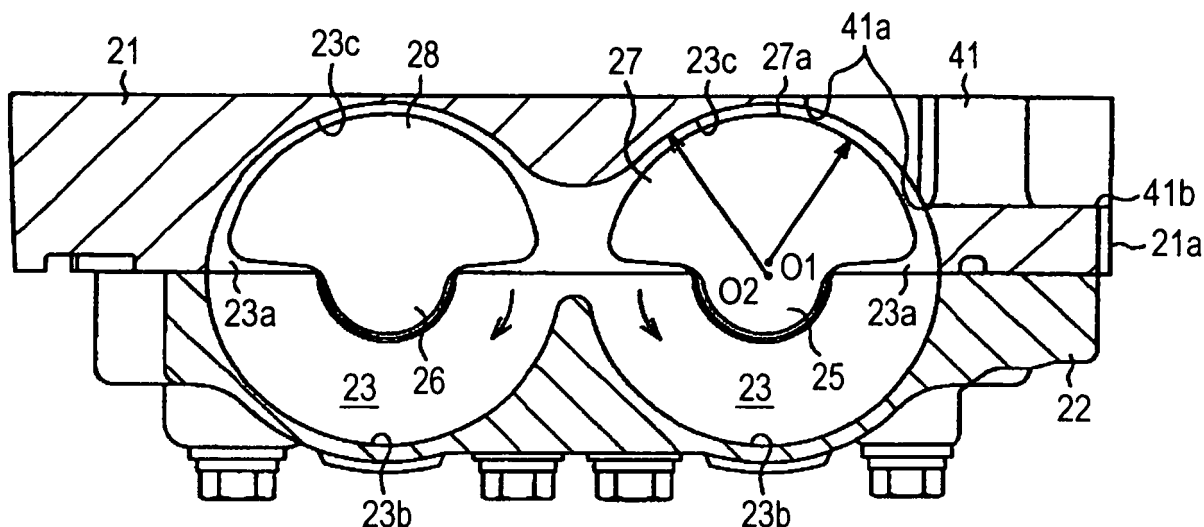
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(54) **Engine balancer**

(57) To provide an engine balancer that facilitates discharge of an oil. A distance between a balance shaft (25) and an inner peripheral surface (23c) is gradually reduced to an opening (41a) of an oil discharging path (41) of an oil discharging path (41) in a rotational direction (counterclockwise direction in the drawings). Since the

distance between the balance shaft (25) and the inner peripheral surface (23c) of a weight chamber (23) is reduced, a force is applied in such a direction as to compress the flowing oil. The applied pressure pushes out the oil flowing along the balance shaft (25) into the oil discharging path (41).

FIG. 4A





EUROPEAN SEARCH REPORT

Application Number
EP 06 00 5873

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	WO 00/00726 A (SIMPSON IND INC [US]; KILLION DAVID L [US]) 6 January 2000 (2000-01-06) * the whole document *	1-3	INV. F01M1/02 F16F15/26
A	EP 1 484 488 A (HONDA MOTOR CO LTD [JP]) 8 December 2004 (2004-12-08) * the whole document *	1	
A	EP 1 081 345 A (HONDA MOTOR CO LTD [JP]) 7 March 2001 (2001-03-07) * abstract *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			F16F F01M
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 10 December 2008	Examiner Mouton, Jean
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 00 5873

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The members are as contained in the European Patent Office EDP file on
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10-12-2008

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0000726	A	06-01-2000	DE 19983328 T0	21-06-2001
			GB 2354803 A	04-04-2001
			US 6170453 B1	09-01-2001

EP 1484488	A	08-12-2004	AU 2003211859 A1	22-09-2003
			CN 1639449 A	13-07-2005
			CN 1982671 A	20-06-2007
			CN 1982672 A	20-06-2007
			CN 1982673 A	20-06-2007
			WO 03076778 A1	18-09-2003
			JP 3845321 B2	15-11-2006
			JP 2003269186 A	25-09-2003
			US 2006191506 A1	31-08-2006
			US 2005268877 A1	08-12-2005
			US 2008216789 A1	11-09-2008

EP 1081345	A	07-03-2001	CN 1288117 A	21-03-2001
			DE 60020036 D1	16-06-2005
			DE 60020036 T2	06-10-2005
			ID 27718 A	26-04-2001
			JP 3643506 B2	27-04-2005
			JP 2001074105 A	23-03-2001
			TW 493047 B	01-07-2002
			US 6371071 B1	16-04-2002
