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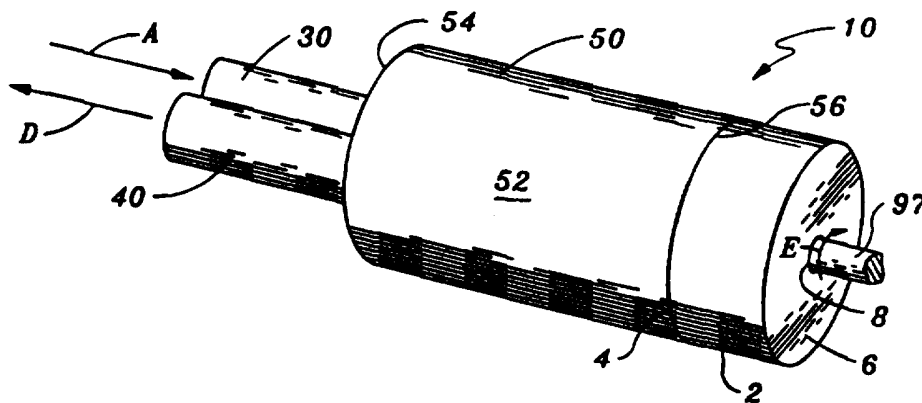
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(54) Title: FLUID REACTION DEVICE

(57) Abstract

A fluid reaction device (10) is provided having a rotor (90) with vanes (92) pivotably connected thereto. The device (10) includes an entrance (30) for elevated pressure fluid and an outlet (40) for discharge of the fluid after contacting the rotor (90). The elevated pressure fluid passes from the entrance (30), into a high pressure chamber (80). The high pressure chamber (80) is in contact with inlet ports (74) accessing a cylinder (72) within the device (10). The cylinder (72)

supports the rotor (90) with a rotational axis (M) of the rotor (90) off center with respect to a central axis (N) of the cylinder (72). The elevated pressure fluid causes the rotor (90) and an attached output shaft (97) to rotate. The rotor (90) includes a trunk (24) with a plurality of posts (93) extending therefrom and with vanes (92) connected to the posts (93) through hinges (94). The vanes (92) can pivot from a first position collapsed against the trunk (24) to a second position spaced away from the trunk (24). The vanes (92) thus can contact a cylindrical wall (78) of the cylinder (72) while the rotor (90) rotates. Exhaust ports (76) are spaced from the inlet ports (74) and provide communication with a low pressure chamber (82) which exhausts low pressure fluid to the outlet (40).



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/10686

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :FO1C 1/00

US CL : 418/236, 259

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 418/225, 227, 236, 259, 266; 415/141

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONEElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US, A, 2,203,974 (WEINHARDT) 11 June 1940, entire document.	1 - 9 and 11 - 24
Y	US, A, 1,343,115 (CURRENT) 08 June 1920, entire document.	1-9 and 11 - 24
A	US, A, 3,510,229 (SMITH) 05 May 1970, Figs. 1 & 2.	1, 11, 16, and 21
A	US, A, 2,463,118 (MOORE) 01 Mar 1949, Fig. 1.	1, 11, 16, and 21
A	DE, A, 803,306 (HOLLMANN) 02 April 1951, entire document.	1, 11, 16, and 21
A	US, A, 1,601,397 (KOCHENDARFER) 28 Sep 1926, entire document.	1, 11, 16, and 21

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

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"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

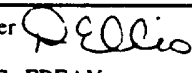
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/10686

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SE, A, 12,584 (MUNSON) 17 March 1903, entire document.	9