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(71) Applicant: **Honda Giken Kogyo Kabushiki Kaisha**
Minato-ku, Tokyo 107-8556 (JP)

(72) Inventors:
• **KIMURA, Yasunari,**
K. K. Honda Gijutsu Kenkyusho
Wako-shi, Saitama 351-0193 (JP)
• **ENDO, Tsuneo,**
K. K. Honda Gijutsu Kenkyusho
Wako-shi, Saitama 351-0193 (JP)

• **NIIKURA, Hiroyuki,**
K. K. Honda Gijutsu Kenkyusho
Wako-shi, Saitama 351-0193 (JP)
• **TAKAHASHI, Tsutomu,**
K. K. Honda Gijutsu Kenkyusho
Wako-shi, Saitama 351-0193 (JP)

(74) Representative:
Prechtel, Jörg, Dipl.-Phys. Dr. et al
Weickmann & Weickmann
Patentanwälte
Postfach 86 08 20
81635 München (DE)

(54) **ROTARY FLUID MACHINERY**

(57) A rotary fluid machine is provided that includes a rotor chamber (14), a rotor (41), vanes (48) guided by vane channels formed in the rotor (41), and pistons (47) slidably fitted in cylinders (44) provided in the rotor (41). Rollers (71), which have a greaseless bearing structure and are provided on support shafts (48d) of the vane (48), are rollably engaged with annular channels (74) of a casing (11) so as to interconvert reciprocation of the pistons (47) and rotational movement of the rotor (41). By guiding water for a hydrostatic bearing that supports the vane (48) in the vane channel in a floating state from a recess (48e) of the vane (48) to a hydrostatic bearing (71) of the roller (71) via water passages (W19 to W22), an outer member (71b) of the roller (71) is supported in a floating manner relative to an inner member (71a).

FIG.7

