

1) Family number: 22732073 (FR1261800A)

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Title: PROCEDE DE CONSTRUCTION D'UNE ROUE DE **TURBINE** FRANCIS, ET ROUE OBTENUE PAR CE PROCEDE METHOD FOR CONSTRUCTION OF FRANCIS **TURBINE** WHEEL AND WHEEL OBTAINED BY THE METHOD (Machine translation)

Abstract: Source: FR1261800A [FR] (Claim 1) du fond 5 par rapport a la bride 2. Le fond 5 presente un epaulement 10 sur lequel vient s'appuyer une bride 11 faisant partie du fond superieur 12 de la couronne 4, cette bride 11 s'etendant en direction de l'axe 1.

Machine translation: (Claim 1) the bottom 5 relative to the flange 2. The base 5 has a shoulder 10 which abuts a flange 11 of bottom part 12 of the upper ring 4, the flange 11 extending in an axial direction.

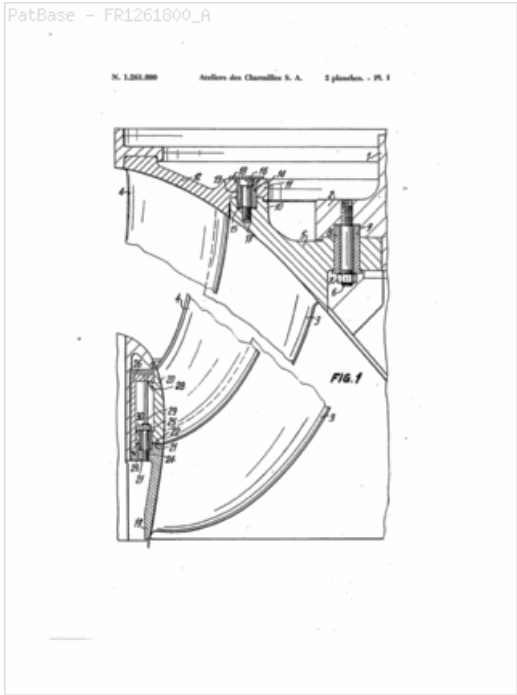
Classifications:

International (IPC 8-9): F03B3/12 (Advanced/Invention); F03B3/00 (Core/Invention)

International (IPC 1-7): F03B3/12

CPC: F03B3/125 Y02E10/223

European: F03B3/12C Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
FR1261800 A	19610519	FR19600832234	19600706

Priority:

FR19600832234 19600706

Probable Assignee: CHARMILLES ATELIERS SA

Assignee(s): (std): CHARMILLES ATELIERS SA ; CHARMILLES SA ATELIERS

Assignee(s): ATELIERS DES CHARMILLES

2) Family number: 32065086 (WO05061886A1)

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Title: HYDRODYNAMIC **TURBINE** FOR SEA CURRENTS

Abstract: The invention relates to a hydrodynamic **turbine** comprising a rotor which uses the energy of the sea currents and which also acts as a suction pump since it is equipped with hollow **turbine** blades having pointed tips which, by means of the venturi and centrifugal effect, draw in an inner current at a greater velocity. The aforementioned current can be used to actuate a **turbine** having a much smaller diameter and more revolutions than the rotor and to which the electrical generator can be solidly connected without a mechanical multiplier, such as to produce a hydrodynamic multiplier. The fluid flow with greater energy density can be conveyed to other points of the fluid medium through tubular support structures for applications such as desalting water or producing H2 by means of electrolysis. The invention also relates to different configurations for the anchoring and self-orientation of the **turbines**, as well as underwater coupling systems for maintenance operations (minimal). In this way, the invention offers technology to compete with other energy sources, which also constitutes a predictable generation-type renewable energy.

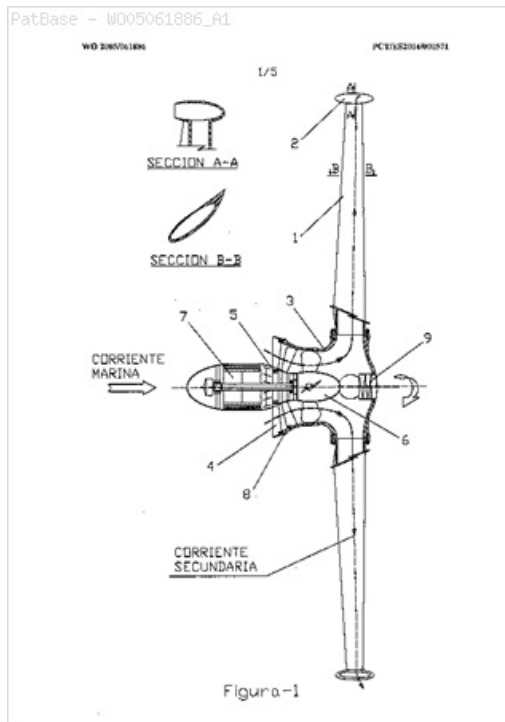
Classifications:

International (IPC 8-9): F03B17/06 (Advanced/Invention)

International (IPC 1-7): F03B17/06

CPC: F03B17/061 F05B2240/30 F05B2240/97 Y02E10/28

European: F03B17/06B R05B240/30 R05B240/97 Y02E10/28



Family:

Publication number	Publication date	Application number	Application date
ES2235647 AA	20050701	ES20030003026	20031222
ES2235647 BA	20061101	ES20030003026	20031222
W005061886 A1	20050707	W02004ES00571	20041221

Priority:

ES20030003026 20031222

Probable Assignee: BALSEIRO PERNAS ANTONIO

Assignee(s): (std): BALSEIRO PERNAS ANTONIO

Inventor(s): (std): BALSEIRO PERNAS ANTONIO

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

3) Family number: 30965111 (US3354833A)

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Title: DEVICE FOR THE MAGNETIC TRANSMISSION OF TORQUE

Abstract: ABSTRACT OF THE DISCLOSURE Magnetic torque transmission device have a first mag-netic member and second magnetic membcr mounted _gt;o that its axis intersects the axis of the first macerie member at a fixed point whereby one membcr will have universal movement with respect to the other member.

Classifications:

International (IPC 8-9): F04D13/02 F04D15/00 F04D15/02 F04D25/02 F04D29/18 F04D29/58 F04D7/02 F16C39/06 H02K11/00 H02K17/10 H02K17/16 H02K21/12 H02K49/10 H02K5/128 H02K7/09 H02K7/11 H02K7/14 (Advanced/Invention); H02K5/128 (Advanced/Non-invention); F04D13/02 F04D15/00 F04D15/02 F04D25/02 F04D29/18 F04D29/58 F04D7/00 F16C39/00 H02K11/00 H02K17/02 H02K17/16 H02K21/12 H02K49/00 H02K5/12 H02K7/09 H02K7/10 H02K7/14 (Core/Invention); H02K5/12 (Core/Non-invention)

International (IPC 1-7): F04D13/02 F04D17/00 F16C32/00 F24D3/02 F24D3/02 H02H5/04 H02K17/02 H02K49/00 H02K49/06 H02K49/10

CPC: H02K5/12 F04D13/025 F04D29/668 H02K5/1282 H02K7/09 H02K17/10 H02K21/12 H02K7/11 H02K7/14 F04D29/0467 F04D17/04 F04D17/16 F04D13/026 F04D13/027 H02K17/16 F04D13/0626 F04D13/0633 F04D13/064 H02K49/108 F16C25/045 H02K5/128 H02K49/104 F16C39/063 F04D29/5806 F04D25/026 F04D29/586 F04D7/02 F04D13/024 F04D15/0016 F04D15/0263 F04D25/022 F04D29/186 H02K11/25 H02K2201/12 F16C32/0429

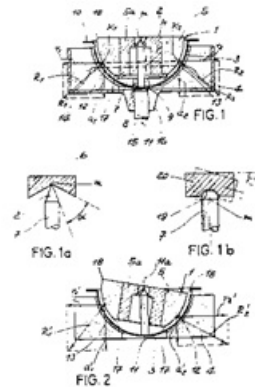
European: F04D13/02B3 F04D15/00B3 F04D15/02C3 F04D25/02B F04D29/18C F04D29/58P F04D7/02 F16C25/04M F16C39/06A H02K11/00E H02K11/00F3 H02K17/10 H02K17/16 H02K21/12 H02K49/10C H02K49/10C2 H02K5/128B H02K7/09 H02K7/11 H02K7/14 T02K201/12 T02K5/128

US: 310/104 417/353 417/420 417/423.7

JP F-Term: 5H649 5H649/BB04 5H649/GG08 5H649/GG15 5H649/HH08 5H649/HH15 5H649/JK01 5H649/JK02 5H649/JK06

JP F-Index: H02K49/10/A

Nov. 28, 1967 N. LAING 3,354,833
 METHOD FOR THE MAGNETIC TRANSMISSION OF FORCE
 Filed Nov. 26, 1965 (4 Sheets-Sheet 1)

**Family:**

Publication number	Publication date	Application number	Application date
DE1463800 A1	19701126	DE19641463800	19641127
DE1463800 B2	19720907	DE19641463800	19641127
DE1463800 C3	19730329	DE1964A047710	19641127
DE1538715 B1	19720914	DE19661538715	19660816
DE1538715 C2	19730329	DE1966A053267	19660816
DE1728415 A1	19720810	DE19661728415	19660816
DE1728505 A1	19730809	DE19661728505	19660816
DE1779920 A1	19720413	DE19661779920	19660816
DE1779921 A1	19720330	DE19661779921	19660816
DE1779921 B2	19760616	DE19661779921	19660816
DE1779921 C3	19821125	DE19661779921	19660816
DE1788116 A1	19720309	DE19661788116	19660816
DE1788116 B2	19721102	DE19661788116	19660816
DE1788116 C3	19730628	DE19671788116	19660816
DE1788117 A1	19720224	DE19661788117	19660816
DE1797546 A1	19720413	DE19661797546	19660816
GB1134228 A	19681120	GB19650050210	19651125
JP48024967 B4	19730725	JP19650070908	19651119
NL146991 B	19750815	NL19650015318	19651125
NL6515318 A	19660531	NL19650015318	19651125
US3354833 A	19671128	US19650509714	19651126

Priority:

DE1964A047710 19641127	JP19650070908 19651119	DE19661728415 19660816
DE19661728505 19660816	DE19661779921 19660816	DE19661788116 19660816
DE19661779920 19660816	DE19661797546 19660816	DE19661788117 19660816

Probable Assignee: BETEILIGUNGS HAUSTECHNIK AG

Assignee(s): (std): ACCESSAIR SA ; BETEILIGUNGS AG HAUSTECHNIK ; STANDARD MAGNET AG ; BETEILIGUNGS HAUSTECHNIK AG ; LAING NIKOLAUS ; STANDARD MAGNET AG HUENENBERG ZWITZERLAND ; STANDARD MAGNET HUENENBERG SCHWEIZ AG ; BETEILIGUNGS F HAUSTECHNIK GLARUS SCHWEIZ AG

Assignee(s): NIKOLAUS LAING ; BETEILIGUNGS F HAUSTECHNIK AG ; BETEILIGUNGS F HAUSTECHNIK GLARUS AG ; BETEILIGUNGS AG FUER HAUSTECHNIK ; BETEILIGUNGS AG FUER HAUSTECHNIK GENEVE CH ; ACCESSAIR S A

Inventor(s): (std): LAING NIKOLAUS

Inventor(s): LAING NIKOLAUS 7141 ALDINGEN DE ; NIKOLAUS LAING

4) Family number: 21118172 (GB946185A)

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Title: Improvements in and relating to **turbines**

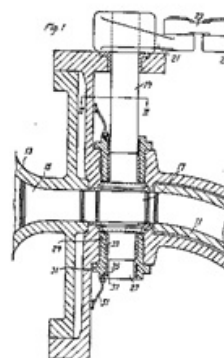
Abstract: 946,185. Hydraulic **turbines**. KARLSTADS MEKANISKA WERKSTAD A.B. June 22, 1962 [June 26, 1961], No. 24025/62. Heading F1T. In an hydraulic **turbine**, or **turbine** which may be used as a pump, adjustable guide vanes are mounted on trunnions and a locking device therefore is provided in which the trunnion or a casing enclosing the trunnion has a cavity expanded hydraulically to effect frictional engagement. A Francis type **turbine**, has fixed guide vanes 15 and adjustable vanes 17 mounted on trunnions 27 enclosed in a casing 29. An annular cavity 37 has a thin wall 35 and the cavity is supplied with oil under pressure through a pipe 51 to lock the vane in position. In an alternative embodiment, the trunnion itself has a thin walled hollow portion to which oil is supplied under pressure (Fig. 8, not shown).

Classifications:

International (IPC 8-9): F03B3/18 (Advanced/Invention);

F03B3/00 (Core/Invention)
International (IPC 1-7): F03B3/18
CPC: F03B3/183 Y02E10/223
European: F03B3/18B Y02E10/22B

PatBase - GB946185_A



Family:

Publication number	Publication date	Application number	Application date
FR1326881 A	19630510	FR19620901953	19620626
GB946185 A	19640108	GB19620024025	19620622

Priority:

SE19610006625 19610626 SE19610006625 19610626 FR19620901953 19620626

Probable Assignee: KARLSTAD MEKANISKA AB

Assignee(s): (std): KARLSTAD MEKANISKA AB

Assignee(s): KARLSTADS MEKANISKA WERKSTAD AB ; AKTIEBOLAGET KARLSTADS MEKANISKA WERKSTAD

5) Family number: 23115176 (US1936767A)

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Title: SHAFT BEARING FOR HYDRAULIC **TURBINES**

Abstract: 1. Having thus described the invention, what I claim as new, and desire to secure by Letters Patent is:- 1_ The combination with a rotatable shaft, of a stationary member having an opening through which the shaft projects, a wall formed in said member and surrounding the shaft in spaced relation thereto, a skeleton cage mounted in the member, said cage being composed of angle irons which parallel the shaft and plates arranged at right angles to the angle irons and integrally united thereto, pockets formed by the opposed side walls of each pair of angle irons, a bearing block disposed in each pocket and having a surface for bearing against the shaft, opposite surfaces for engaging the sides of each pair of angle irons, and a surface opposite to the shafting engaging surface, means for rigidly holding the cage in said member, and means carried by the member and engaging the bearing blocks for shifting the positions of said bearing blocks relative to the angle irons,

Classifications:

International (IPC 8-9): F16C33/18 (Advanced/Invention);

F16C33/04 (Core/Invention)

International (IPC 1-7): F03B11/06

CPC: F16C33/18

European: F16C33/18

US: 384/267

Publication number	Publication date	Application number	Application date
US1936767 A	19331128	US19310562731	19310914

US19310562731 19310914

Assignee(s): (std): MORGAN SMITH S CO

Assignee(s): S MORGAN SMITH CO ; S MORGAN SMITH COMPANY ; MORGAN SMITH CO S

Inventor(s): (std): MCCORMACK DANIEL J

Abstract: In a hydraulic machine, a stay ring is provided with an upper bearing and an intermediate bearing so that an upper spindle of a guide vane is supported thereon. A bottom ring is provided with a lower bearing so that a lower spindle of the guide vane is supported thereon. The hydraulic machine is designed so that a **runner** and the guide vane can be removed from the bottom side if the bottom ring and an upper draft tube are removed. The guide vane is supported on the stay ring so as to make a head cover compact and to be capable of lifting the head cover through an upper pit liner if the head cover is formed as an integral structure.

International (IPC 8-9): F03B11/00 F03B3/02 F03B3/12

F03B3/18 (Advanced/Invention);

F04D1/02 (Advanced/Non-invention);

F03B11/00 F03B3/00 (Core/Invention)

International (IPC 1-7): F03B11/00 F03B11/02 F03B3/02 F03B3/12

F03B3/18 F04D1/02 F04D29/56 F04D29/60

CPC: F03B3/02 F03B3/128 Y02E10/223 Y02E10/226

European: F03B3/02 F03B3/12F Y02E10/22B Y02E10/22D

US: 415/150

JP F-Term: 3H072 3H072/AA07 3H072/AA27 3H072/BB01
3H072/BB07 3H072/CC08 3H072/AA02 3H072/BB02 3H072/BB06
3H072/CC25 3H072/CC27 3H072/CC42 3H072/CC69

JP F-Index: F03B11/00/A F03B11/00/Z F03B3/02 F03B3/18/A
F03B3/18/Z

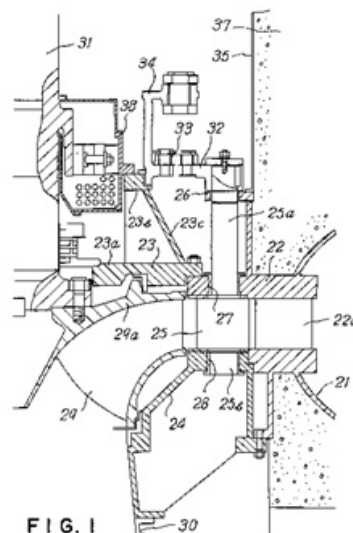


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
CN1100205 C	20030129	CN19971000422	19970123
CN1162070 A	19971015	CN19971000422	19970123
DE69715058 D1	20021010	DE19976015058	19970122
DE69715058 T2	20030605	DE19976015058T	19970122
DE69715058 T3	20050915	DE19976015058T	19970122
EP0786594 A2	19970730	EP19970100961	19970122
EP0786594 A3	20001220	EP19970100961	19970122
EP0786594 B1	20020904	EP19970100961	19970122
EP0786594 B2	20050302	EP19970100961	19970122
JP2004360705 A2	20041224	JP20040244262	20040824
JP3798457 B2	20060719	JP19960009466	19960123
JP9195917 A2	19970729	JP19960009466	19960123
KR100229199 B1	19991101	KR19970001653	19970121
KR19970059508 A	19970812	KR19970001653	19970121
US5871331 A	19990216	US19970786935	19970123

Priority:

JP19960009466 19960123 JP20040244262 20040824

Probable Assignee: TOSHIBA CORP**Assignee(s):** (std): TOSHIBA CORP ; TOSHIBA KAWASAKI KK ; TOSHIBA KK**Assignee(s):** TOSHIBA K K ; KABUSHIKI KAISHA TOSHIBA ; KABUSHIKI KAISHA TOSHIBA KAWASAKI**Inventor(s):** (std): YAMAZAKI MASAO ; ITABASHI SHIGEKI ; YAMAJAKI MASAO ; MOKI HAYAHASHI ; MASAO YAMASAWA**Inventor(s):** YAMASAWA MASAO ; HAYAHASHI MOKI**Agent(s):** NAGAI HIROSHI**Designated states:** CH DE FR LI**7) Family number: 30090330** (US2002059907A)

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Title: HOMOGENOUS CHARGE COMPRESSION IGNITION AND BARREL ENGINES

Abstract: A homogenous charge compression ignition barrel engine includes an engine housing with a first and second end. An elongated power shaft is longitudinally disposed in the engine housing and defines a longitudinal axis of the engine. A plurality of cylinders surround the longitudinal axis with each cylinder having a closed end and an open end. Each cylinder has a central axis. The open ends of the cylinders are each generally directed toward the first end of the housing. An intake system is operable to introduce a combustible mixture of air and fuel into each of the cylinders. A track is disposed between the first end of the housing and the open ends of the cylinders such that a portion of the track is disposed generally in alignment with the central axis of each of the cylinders. The track has a cam surface that longitudinally undulates with respect to the open ends of the cylinders. A portion of the cam surface is disposed generally in alignment with the central axis of each of the cylinders. The track and the cylinders are rotatable with respect to each other such that the undulating cam surface moves with respect to the open ends of the cylinders. A piston is moveably disposed in each of the cylinders such that a combustion chamber is defined between the piston and the closed end of the cylinder. Each piston is in mechanical communication with the cam surface of the track such that as the cylinders and the track move with respect to each other, the pistons reciprocate within the cylinders. Each cylinder is operable to compress a combustible mixture until the mixture auto ignites, without the introduction of a spark.

Classifications:

International (IPC 8-9): A61F2/20 A61N1/18 B01J19/08 F01B3/00
 F01B3/04 F01B3/06 F01B7/02 F01B7/16 F01B9/06 F01P7/16
 F02B1/12 F02B17/00 F02B19/10 F02B25/08 F02B3/06 F02B41/04
 F02B47/02 F02B51/04 F02B53/00 F02B57/00 F02B57/08 F02B65/00

F02B75/02 F02B75/04 F02B75/18 F02B75/22 F02B75/26 F02B75/28 F02B75/36 F02D13/02 F02D15/02 F02D19/12 F02D21/08 F02D23/00 F02D41/02 F02D41/04 F02D45/00 F02F3/26 F02F7/00 F02G5/00 F02M25/022 F02M31/04 F02M31/20 F02M33/00 F02M7/00 F02P13/00 F02P15/00 F04B39/10 F04B41/04 H01J27/02 (Advanced/Invention); F02B1/12 F02B3/06 F02B75/02 (Advanced/Non-invention); A61F2/20 A61N1/18 B01J19/08 F01B3/00 F01B7/00 F01B9/00 F01P7/14 F02B1/00 F02B17/00 F02B19/00 F02B25/00 F02B41/00 F02B47/00 F02B51/00 F02B53/00 F02B57/00 F02B65/00 F02B75/00 F02B75/02 F02D13/02 F02D15/00 F02D19/00 F02D21/00 F02D23/00 F02D41/02 F02D41/04 F02D45/00 F02F7/00 F02G5/00 F02M25/00 F02M31/00 F02M31/02 F02M7/00 F02P13/00 F02P15/00 F04B39/10 F04B41/00 (Core/Invention); F02B1/00 F02B3/00 F02B75/02 (Core/Non-invention)

International (IPC 1-7): A61N1/18 B01J19/08 F01B3/00 F01B7/02 F01B7/16 F01B9/06 F01P7/16 F02B1/12 F02B41/04 F02B47/02 F02B51/04 F02B53/00 F02B57/00 F02B57/08 F02B65/00 F02B75/00 F02B75/02 F02B75/04 F02B75/06 F02B75/18 F02B75/26 F02D13/02 F02D15/02 F02D19/12 F02D21/08 F02D23/00 F02D41/02 F02D41/04 F02D45/00 F02F3/26 F02M25/022 F02M31/04 F02M31/20 F02P13/00 F02P15/00
CPC: A61F2/20 Y02T10/125 F01B3/0005 F01B3/0085 F01B3/0035 F02B75/26 F04B39/1073 F04B41/04 F02B19/12 F02B19/165 F02B19/18 F02M25/0227 F02M25/028 F02M25/03 F02B57/08 F02B75/36 F05C2253/16 Y02T10/121 F01B3/04 F02B1/12 F02B3/06 F02B41/04 F02B47/02 F02B51/04 F02B75/02 F02B75/04 F02B2075/025 F02B2075/027 F02F7/0087 Y02T10/126 G10L13/00 G10L13/04

European: A61F2/20 F01B3/00A2 F01B3/00B2 F01B3/00D3 F01B3/04 F02B1/12 F02B19/12 F02B19/16B F02B19/18 F02B41/04 F02B47/02 F02B51/04 F02B57/08 F02B75/02 F02B75/04 F02B75/26 F02B75/36 F02F7/00G1 F04B39/10R F04B41/04 R02B1/12 R02B3/06 R02B75/02S2 R02B75/02S4 R05C253/16

US: 123/241 123/25.00CP 123/258 123/25C 123/295 123/295S 123/43 123/43.00A 123/43.0AA 123/435 123/43A 123/43AA 123/48.00R 123/48.00RP 123/48R 123/51.00B 123/51B 123/536 123/55.7 123/55.700S 123/551 123/56.1 123/56.2 123/56.200S 123/56.7 123/56.700P 123/56.8 123/56.800S 123/78.00A 123/78.00D 123/78A 123/78D 607/2 607/2P

JP F-Term: 3G011 3G019 3G019/BA00 3G019/KA01 3G019/KA16 3G019/KA21 3G023 3G023/AA01 3G023/AB05 3G023/AC02 3G023/AC07 3G044 3G054 3G084 3G084/AA01 3G084/AA03 3G084/BA00 3G084/BA07 3G084/BA08 3G084/BA09 3G084/BA11 3G084/BA16 3G084/BA20 3G084/BA22 3G084/BA23 3G084/BA26 3G084/DA02 3G084/DA03 3G084/DA38 3G084/FA02 3G084/FA20 3G084/FA25 3G084/FA38 3G084/FA39 3G092 3G092/AA01 3G092/AA02 3G092/AA05 3G092/AA06 3G092/AA11 3G092/AA12 3G092/AA17 3G092/AA18 3G092/AB17 3G092/BA04 3G092/BA08 3G092/DA01 3G092/DA02 3G092/DA03 3G092/DA12 3G092/DD08 3G092/FA06 3G092/FA24 3G092/HA04 3G092/HA13 3G092/HA14 3G092/HA16 3G092/HB05 3G092/HC05 3G092/HE08 3G100 3G112 3G144 3G301 3G301/HA01 3G301/HA02 3G301/HA04 3G301/HA06 3G301/HA11 3G301/HA13 3G301/HA19 3G301/JA02 3G301/JA22 3G301/LA07 3G301/MA01 3G301/PC08 3G301/PE03 3G301/PE04 3G301/PE08 3G384 3G384/AA00 3G384/AA01 3G384/AA02 3G384/AA03 3G384/AA04 3G384/AA13 3G384/BA00 3G384/BA07 3G384/BA09 3G384/BA22 3G384/BA26 3G384/BA27 3G384/BA37 3G384/BA41 3G384/DA01 3G384/DA02 3G384/DA04 3G384/DA05 3G384/DA14 3G384/DA18 3G384/DA34 3G384/DA36 3G384/DA56 3G384/EA02 3G384/EB02 3G384/EB08 3G384/EG08 3G384/FA29 3G384/FA33 4G075 4G075/AA03 4G075/BA10 4G075/CA18 4G075/CA62 3G035

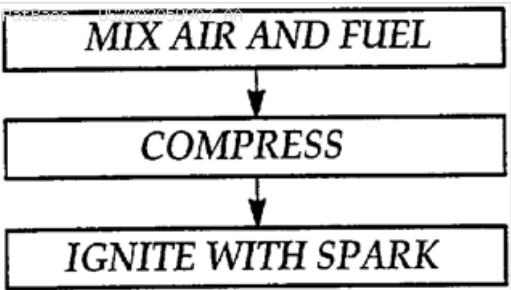
JP F-Index: B01J19/08/C F01B3/06 F01B9/06 F01P7/16/505/Z F02B1/12 F02B47/02 F02B65/00/D F02B75/26 F02D13/02/G F02D15/02/Z F02D19/12/A F02D21/08/301/Z F02D23/00/A F02D41/02/351 F02D41/02/380 F02D41/04/305/Z F02D45/00/368/B F02M25/02/H F02M25/02/K F02M25/02S/K F02M25/03 F02M31/04/A F02M31/20/A F02P13/00/302/B F02P15/00/Z F01B3/04 F01B7/02 F02B57/00/A F02B53/00

Family:

Publication number	Publication date	Application number	Application date
AU200037704 A1	20001009	AU20000037704	20000322
AU200037704 A5	20001009	AU20000037704	20000322
AU2002230876 AA	20020515	AU20020230876	20011030
AU200230876 A1	20020515	AU20020030876	20011030
AU200230876 A5	20020515	AU20020030876	20011030
AU2002353789 AA	20030422	AU20020353789	20021003
AU2003232045 AA	20031117	AU20030232045	20030430
CA2366360 AA	20010920	CA20002366360	20000322
EP1337746 A1	20030827	EP20010991130	20011030
EP1451456 A1	20040901	EP20020789177	20021003
EP1451456 A4	20041103	EP20020789177	20021003
EP1499797 A1	20050126	EP20030747656	20030430
EP1499797 A4	20050518	EP20030747656	20030430
JP2004530068 T2	20040930	JP20020539674T	20011030
JP2005511939 T2	20050428	JP20030534737T	20021003
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JP4148773 B2	20080910	JP20020539674T	20011030
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US2003079715 AA	20030501	US20020263264	20021002
US2004035385 AA	20040226	US20030426547	20030429
US2004163619 AA	20040826	US20040791453	20040302
US2005004604 AA	20050106	US20040861960	20040604
US2005145207 AA	20050707	US20040997443	20041124
US2006037567 AA	20060223	US20050255804	20051021
US2007131184 AA	20070614	US20060503846	20060814
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US6834636 BB	20041228	US20030426547	20030429
US6986342 BB	20060117	US20040791453	20040302
US7464673 BB	20081216	US20060503846	20060814
US7469662 BB	20081230	US20050255804	20051021
WO0057044 A1	20000928	WO2000US07743	20000322
WO0236949 A1	20020510	WO2001US48499	20011030
WO03031784 A1	20030417	WO2002US31452	20021003
WO03093662 A1	20031113	WO2003US13831	20030430

Priority:

US19990125798P 19990323	US19990134457P 19990517	US19990141166P 19990625
US19990147584P 19990806	US20000937543 20000312	WO2000US07743 20000312
US20000937543 20000322	WO2000US07743 20000322	US20000244349P 20001030
US20000252280P 20001121	US20010260256P 20010108	US20010261060P 20010111



US20010327859P 20011008
US20020377011P 20020430

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US20020377072P 20020430

WO2001093754 20011030
US20020377053P 20020430

US20020376638P 20020430
US20030426527 20030429
US20040791453 20040302
US20050255804 20051021

US20020263264 20021002
US20030426547 20030429
US20040861960 20040604
US20060503846 20060814

WO2002US31452 20021003
WO2003US13831 20030430
US20040997443 20041124
US20080274513 20081120

Probable Assignee: THOMAS ENGINE CO

Assignee(s): (std): BRANYON DAVID P ; HAUSER BRET R ; RUSSELL THOMAS C ; THOMAS ENGINE CO LLC ; THOMAS CHARLES RUSSELL ; THOMAS C RUSSELL ; THOMAS CHARLES R ; THOMAS ENGINE COPANY ; THOMAS ENGINE COMPANY ; THOMAS ENGINE COMPANY LLC ; THOMAS ENGINE CO

Assignee(s): THOMAS C ; SOUTHWEST RESEARCH INST ; SOUTHWEST RESEARCH INSTITUT ; LIEBLER JERRY ; C RUSSELL THOMAS ; CHARLES RUSSELL THOMAS

Inventor(s): (std): CHARLES RUSSELL THOMAS ; DAVID P BRANYON ; LIEBLER JERRY ; BRANYON DAVID P ; BRET R HAUSER ; THOMAS C RUSSELL ; THOMAS CHARLES R ; THOMAS CHARLES RUSSELL ; HAUSER BRET R

Inventor(s): HAUSER BRET ; BRANYON DAVID ; THOMAS CHARLES ; C RUSSELL THOMAS ; THOMAS C

Agent(s): RIDOUT AND MAYBEE LLP ; GIFFORD KRASS GROH SPRINKLE ANDERSON AND CITKOWSKI PC ; DOUGLAS L WATHEN GIFFORD KRASS GROH SPRINKLE ; GIFFORD KRASS SPRINKLE ANDERSON AND CITKOWSKI PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

8) Family number: 23111351 (FR1365281A)

© PatBase

Title: MOTEURS A COMBUSTION INTERNE MUNIS DE PALES ROTATIVES ET SUSCEPTIBLES DE SUBIR DES PRESSIONS ELEVEES INTERNAL COMBUSTION ENGINES EQUIPPED WITH ROTARY BLADES AND MAY SUFFER HIGH PRESSURE (Machine translation)

Abstract: Source: FR1365281A [FR] (Claim 1) mande. Des separations de ce genre des chambres de combustion hors de l'arbre de commande et la subdivision des arbres de commande en des arbres speciaux de commande des compresseurs et en des arbres speciaux de commande des detendeurs permettent des realisations particulieres des dimensions des chambres de combustion, des refroidissements, des chutes thermiques, des modes de combustion, l'utilisation de carburants speciaux, etc.

Machine translation: (Claim 1) request. Separations of this type of combustion chambers out of the drive shaft and the subdivision of the drive shafts of the trees in special control compressors and special trees reducing valves allow control of particular embodiments of the dimensions of the combustion chambers, chills, thermal falls, modes of combustion, the use of special fuels, etc..

Classifications:

International (IPC 8-9): F02B53/00 (Advanced/Invention);

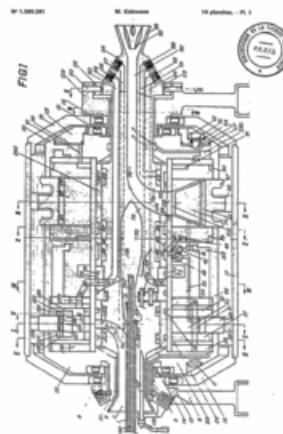
F02B53/00 (Core/Invention)

International (IPC 1-7): F01C1/34

CPC: F02B53/00 F02B2730/01 Y02T10/17

European: F02B53/00 R02B730/01

PatBase - FR1365281_A



Family:

Publication number	Publication date	Application number	Application date
FR1365281 A	19640703	FR19620909706	19620918

Priority:

FR19620909706 19620918

Inventor(s): (std): EICKMANN KARL

9) Family number: 1052374 (FR2314378A)

© PatBase

Title: TWO-STAGE HIGH PRESSURE PUMP **TURBINE** SET - HAS BACK-TO-BACK IMPELLER BLADES AND GUIDE VANES IN

Abstract: Pump/**turbine** sets for stored water power stations operate as pumps as well as **turbines**. The two stages are arranged in such a way that the impeller blades of one stage are back-to-back with the impeller blades of the other stage. The guide vanes of one stage are connected in tandem with the guide vanes of the other stage. The guide vane pairs thus connected have a common pitch control drive, consists of two or more parts and are frictionally connected with each other. The guide vane pairs can be fitted with individual servomotors, or a single servomotor acts on all guide vane pairs by intermediary of a governor ring.

Classifications:

International (IPC 8-9): F03B3/10 F04D1/06 F04D15/00

F04D29/46 (Advanced/Invention);

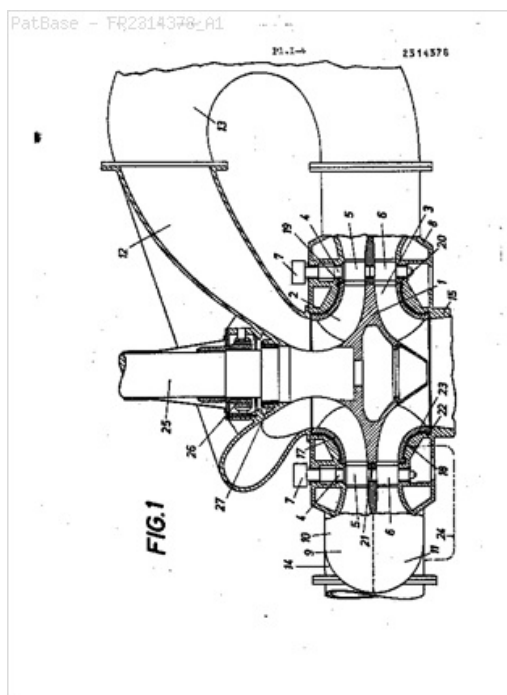
F03B3/00 F04D1/00 F04D15/00 F04D29/46 (Core/Invention)

International (IPC 1-7): F01D1/16 F03B3/00 F03B3/10 F04D1/06

F04D13/02 F04D15/00

CPC: F04D1/06 F04D29/466 Y02E10/223

European: F04D1/06 F04D29/46P Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
AT336523 B	19770510	AT19750004471	19750612
AT447175 A	19760815	AT19750004471	19750612
BR7603724 A	19770208	BR19760003724	19760610
DE2623872 A1	19761230	DE19762623872	19760528
FR2314378 A1	19770107	FR19760017701	19760611
IT1068830 A	19850321	IT19760012666	19760609
JP52001246 A2	19770107	JP19760068643	19760611
SE7606581 A	19761213	SE19760006581D	19760610
SE7606581 L	19761213	SE19760006581	19760610

Priority:

AT19750004471 19750612

Probable Assignee: VOEST AG

Assignee(s): (std): VOEST AG ; VOEST ALPINE MONTAN AG

Assignee(s): VOEST ALPINE MONTAN AG ; VEREINIGTE OSTERREICHISCHE EISEN UND STAHLWERKE ALPINE MONTAN AKTIENGESELLSCHAFT ; VEREINIGTE OSTERREICHISCHE EISEN UND STAHLWERKE ALPINE M VER ; MONTAN AG ; OSTERREICHISCHE EISEN UND STAHLWERKE ALPINE M VER ; OSTERREICHISCHE EISEN VER ; VEREINIGTE OSTERREICHISCHE EISEN UND STAHLWERKE ALPINE MONTAN AG ; VEREINIGTE OSTERREICHISCHE EISEN ; VEREINIGTE OSTERREICHISCHE EISEN STAHLWERKE AG

Inventor(s): (std): IBO BUSUKOBUIKU ; LUKESCH N ; NORUBERTO RUUKESHIYU ; VUSKOVIC I

10) Family number: 18085481 (GB139414A)

© PatBase

Title: Improvements in hydraulic **turbines**

Abstract: 139,414. Moody, L. F. Aug. 18, 1919. Screw motors casings regulating working- fluid supply.-An hydraulic **turbine** comprises a screw rotor 45, Fig. 1, mounted upon a vertical shaft. Water is admitted by way of a volute inlet channel 43 to fixed directing vanes 83. The discharge conduit 47 is also volute-shaped and is provided with fixed diffusion vanes 40. Regulation is effected by a fluid-operated cylindrical valve 28 which partially or wholly masks the vanes 33. The vanes 33, 40, together with their metal shrouding rings, act as supports for the concrete structure which contains the **turbine**. The vanes 33, 40 may be of varying obliquity along their length. The lower end of the **turbine** shaft is mounted in a lignum vit[um] step-bearing 14 to which water under pressure is led by a pipe 49 for the purpose of cooling the bearing and washing away sand or other deposit. In a modification, the rotor 63, Fig. 5, is mounted upon a horizontal shaft. Water is admitted by way of a conduit 62 to fixed directing vanes 60. The discharge channel 66 is volute-shaped and is fitted with a ring of fixed diffusion vanes 68. In this modification, the fluid-operated regulating-valve 76 (shown in the closed position) is situated behind the rotor.

Classifications:

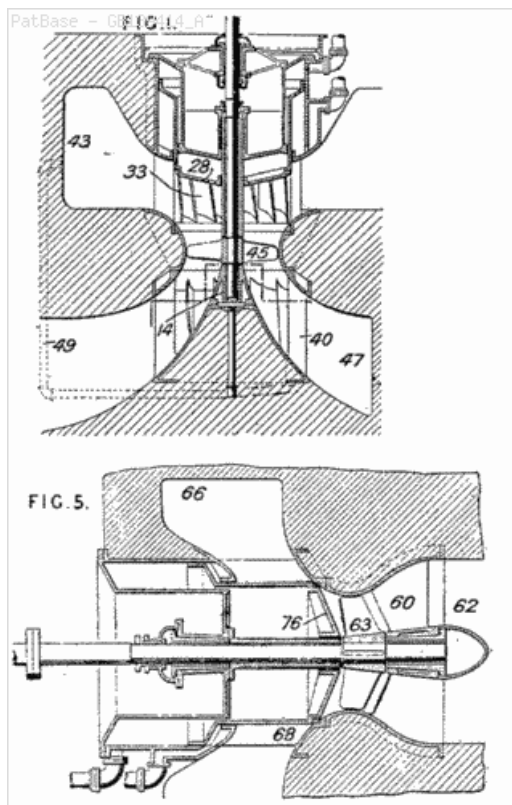
International (IPC 8-9): F03B15/02 (Advanced/Invention);

F03B15/00 (Core/Invention)

International (IPC 1-7): F03B15/02

CPC: F03B15/02 Y02E10/226

European: F03B15/02 Y02E10/22D



Family:

Publication number	Publication date	Application number	Application date
GB139414 A	19200304	GB19190020324	19190818

Priority:

GB19190020324 19190818

Probable Assignee:

LEWIS FERRY MOODY

Assignee(s): (std):

LEWIS FERRY MOODY

11) Family number: 11675492 (US5346359A)

© PatBase

Title: METHOD OF ADJUSTING A WICKET GATE

Abstract: The invention relates to a method to calculate optimum wicket gate positions based on only the initial face-to-face readings comprising the steps of measuring the initial gate openings, determining an optimum unit opening, and rotating each gate to the optimum opening. The method results in a one time adjustment that is more accurate and faster than conventional methods.

Classifications:

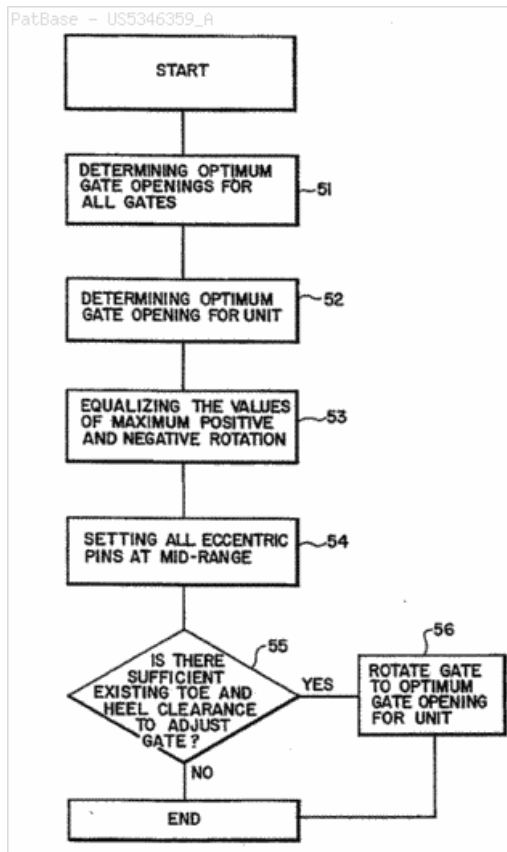
International (IPC 8-9): F03B3/18 (Advanced/Invention);
F03B3/00 (Core/Invention)

International (IPC 1-7): F01D17/16

CPC: F03B3/183 Y02E10/223 Y10T29/49318 Y10T29/49771

European: F03B3/18B Y02E10/22B

US: 29/407 29/407.05 29/889.1 415/1 415/118 415/160 415/163
415/164

**Family:**

Publication number	Publication date	Application number	Application date
US5346359 A	19940913	US19920946140	19920917

Priority:

US19920946140 19920917

Probable Assignee:

PROPST CHARLES W

Assignee(s): (std):

PROPST CHARLES W

Inventor(s): (std):

PROPST CHARLES W

12) Family number: 22705601 (GB1066645A)

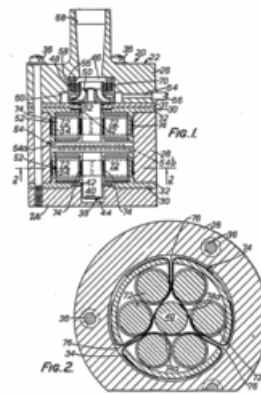
© PatBase

Title: Improvements relating to bearings

Abstract: 1,066,645. Bearings. GARRETT CORPORATION. July 9, 1964 [July 11, 1963 (2)], No. 28452/64. Heading F2A. A fluid bearing has, as an additional bearing support, at least one relatively thin flexible element. The flexible element may be made of polyethylene terephthalate or of spring steel for example. In an embodiment, three thin flexible elements (74), Fig. 2 (not shown), are provided, each of which is partly wrapped around a pair of posts (72), is secured to a support (34) of a housing and has its centre portion (74a) engaging a shaft (40) so that the latter is supported thereby. In use, a film (f), Fig. 4 (not shown), of fluid is generated by the rotating shaft (40) and damping is facilitated by the elements (74). In another embodiment, three posts (130), Fig. 7 (not shown), are provided, each of which has a flexible element (132) anchored thereto. Each element (132) engages a shaft (137) and an adjacent post (130); is suitably bent for engagement by an adjusting-screw (138); and is attached to a leaf spring (134), the latter being anchored to pins (136). In a further embodiment, a shaft (204), Fig. 8 (not shown), is supported by elements (210), each of which has its ends passed through axial slots (208) in a **bush** (202), the ends of the elements being attached to the periphery of the **bush**. For another embodiment, a **bush** (230), Fig. 10 (not shown), has a triangular-shaped extension formed and then bored so as to provide three supports (238), each of which has an element (246) attached thereto. The elements each extend from a support (238) to which it is attached and engage an adjacent support (238), a shaft (236) being engaged by the elements as shown. Cushions (244), Fig. 15 (not shown), and (252), Fig. 16 (not shown), may be provided, the former being crumpled polythene.terephthalate for example and the latter being spring material with slits therein. In other embodiments, single and double cone bearings having flexible elements are described.

Classifications:**International (IPC 8-9):** F16C17/12 (Advanced/Invention)**International (IPC 1-7):** F16C17/02 F16C32/00**CPC:** F16C17/024 F16C17/10**European:** F16C17/02F F16C17/10

106645 COMPLETE SPECIFICATION
9 SHEETS This drawing is a reproduction of the Original in a reduced scale Sheet 1

**Family:**

Publication number	Publication date	Application number	Application date
GB1066645 A	19670426	GB19640028452	19640709

Priority:

US19640294386 19640711 US19640294387 19640711

Probable Assignee:

GARRETT CORP

Assignee(s): (std):

GARRETT CORP

13) Family number: 20176624 (US1817654A)

© PatBase

Title: ADJUSTABLE SEAL FOR HYDRAULIC **TURBINE** GATES AND THE LIKE

Abstract: 1. In an hydraulic **turbine** or similar device having gates of the pivoted type and having bearings entering the **crown** plate, the improvement providing means for adjusting the clearance at the ends of the gates, which comprises a ring on the **crown** plate through which the adjacent bearings of said gates pass, resilient devices for forcing said ring outward and adjustable retaining members engaging said ring to hold the ring in position and to determine the amount of clearance between said gates and said ring.

Classifications:

International (IPC 8-9): F03B3/18 (Advanced/Invention);

F03B3/00 (Core/Invention)

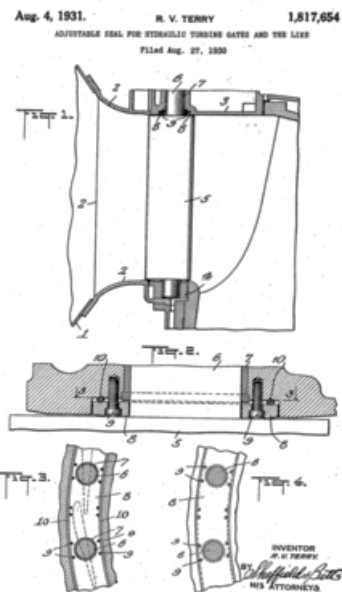
International (IPC 1-7): F03B3/18

CPC: F03B3/183 Y02E10/223

European: F03B3/18B Y02E10/22B

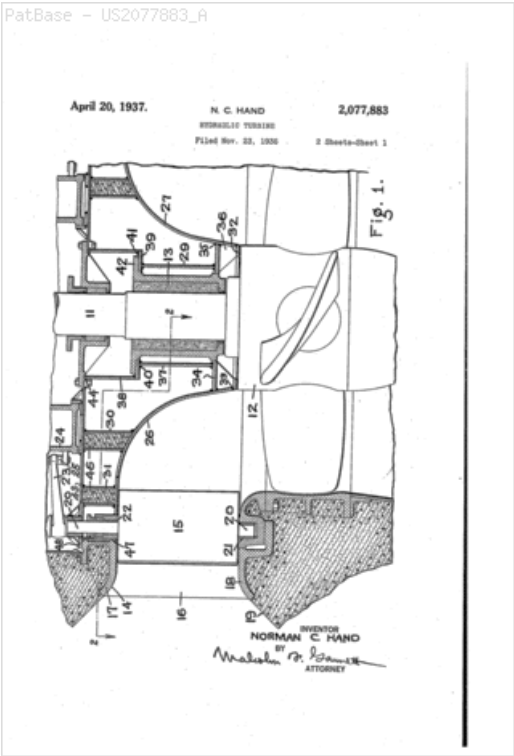
US: 251/307 415/163

PatBase - US1817654_A

**Family:**

Publication number	Publication date	Application number	Application date
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F03B11/00 (Core/Invention)
International (IPC 1-7): F03B3/06
CPC: F03B11/025 Y02E10/226
European: F03B11/02B Y02E10/22D
US: 415/182.1 415/215.1 415/221 415/224



Family:

Publication number	Publication date	Application number	Application date
US2077883 A	19370420	US19360112226	19361123

Priority:

US19360112226 19361123

Probable Assignee: MORGAN SMITH S CO

Assignee(s): (std): MORGAN SMITH S CO

Assignee(s): S MORGAN SMITH CO ; S MORGAN SMITH COMPANY ; MORGAN SMITH CO S

Inventor(s): (std): HAND NORMAN C

16) Family number: 34645799 (ES1035309Y) © PatBase

Title: TURBINA FLOTANTE Y SUMERGIBLE IMPULSADA POR CORRIENTES Y CASCADAS.

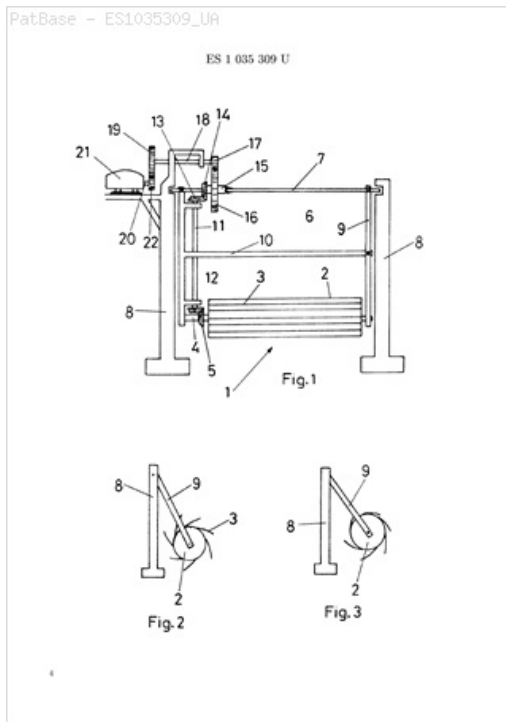
Abstract: Source: ES1035309U [ES] 1. TURBINA FLOTANTE Y SUMERGIBLE IMPULSADA POR CORRIENTES Y CASCADAS; CARACTERIZADA POR QUE COMPRENDE UN RODETE CILINDRICO CON ALAS O PALAS DISPUESTAS EN EL SENTIDO DE LA GENERATRIZ POSICIONADO POR SU EJE EN UNA ESTRUCTURA GIRATORIA O BASCULANTE ALREDEDOR DE UN EJE EXTREMO QUE APOYA EN SENDAS COLUMNAS LATERALES, TRANSMITIENDOSE EL GIRO DEL RODETE POR IMPULSION DE AGUA, A TRAVES DE EJES SECUNDARIOS, AL EJE DE UN GENERADOR O ALTERNADOR DE CORRIENTE ELECTRICA UTILIZANDO PARA ELLO TRANSMISIONES DE ENGRANAJES. **Machine translation:** 1. Submersible floating turbine driven by currents and waterfalls; characterized in that it comprises an impeller cylindrical with WINGS OR BLADES ARRANGED IN THE DIRECTION OF THE GENERATRIX BY ITS AXIS POSITIONED ON A ROTATABLE STRUCTURE OR SWINGABLE around an axis end which rests on respective lateral columns, TRANSMITTING THE ROTATION OF THE impeller for pumping water through secondary axes, TO THE SHAFT OF A GENERATOR OR ALTERNATOR ELECTRICAL CURRENT using gear transmissions.

Classifications:

International (IPC 8-9): H02K7/18 (Advanced/Invention);

H02K7/18 (Core/Invention)

International (IPC 1-7): H02K7/18

**Family:**

Publication number	Publication date	Application number	Application date
ES1035309 UA	19970401	ES19960002587U	19961010
ES1035309 Y1	19971016	ES19960002587U	19961010
ES1035309 YA	19971016	ES19960002587U	19961010

Priority:

ES19960002587U 19961010

Probable Assignee:

BIBIAN CASTRO JOSE

Assignee(s): (std):

BIBIAN CASTRO JOSE

Inventor(s): (std):

BIBIAN CASTRO JOSE

17) Family number: 20294807 (US1945071A)

© PatBase

Title: HYDRAULIC **TURBINE**

Abstract: 1. In a hydraulic **turbine**, a **runner** comprising a hub having a spherical surface, a plurality of vanes rotatably adjustable in said hub about axes meeting in the center of said spherical surface, and an enclosing wall for the outer extremities of the vanes, said wall having a spherical surface concentric with said first named spherical surface, the inner and outer extremities of the vanes being curved to conform to circles struck from the center of said spherical surfaces.

Classifications:

International (IPC 8-9): F03B15/12 (Advanced/Invention);
F03B15/00 (Core/Invention)

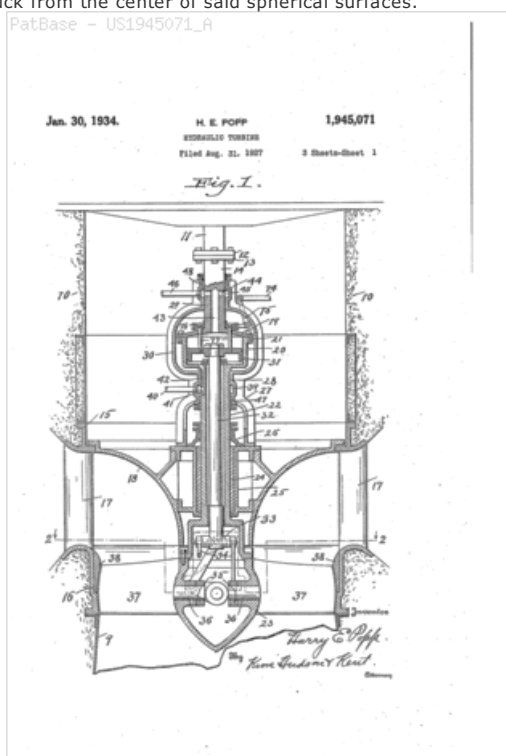
International (IPC 1-7): F04D27/00

CPC: F03B15/12 Y02E10/226

European: F03B15/12 Y02E10/22D

US: 415/32 415/33

PatBase - US1945071_A



Family:

Publication number	Publication date	Application number	Application date
US1945071 A	19340130	US19270216514	19270831

Priority:

US19270216514 19270831

Probable Assignee:

POPP HARRY E

Assignee(s): (std):

POPP HARRY E

Inventor(s): (std):

POPP HARRY E

18) Family number: 11478808 (US5601411A)

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Title: STAINLESS STEEL TYPE 13Cr5Ni HAVING HIGH TOUGHNESS, AND USAGE THE SAME

Abstract: High toughness stainless steel type 13Cr5Ni containing C: 0.008-0.03 percent (by weight, all of the following elements), Si: max. 1 percent, Mn: max. 2 percent, Cr: 10.0-14.0 percent, Ni: 4.0-7.0 percent, and Mo: 0.2-2.0 percent, in which (Cr/Ni) ratio is in a range of 2.0-3.0 or (C/Mo) ratio is in a range of 0.015-0.1, as a structural material for fluid machinery, austenitic stainless steel containing C: 0.10-0.30 percent (by weight, all of the following elements), Si: max. 1 percent, Mn: max. 2 percent, Cr: 16.00-23.00 percent, Ni: 1.00-8.00 percent, and Co: 2.00-9.00 percent, and Ni+Co: 6.00-12.00 percent as a weld padding layer forming material, and fluid machinery using the same.

Classifications:**International (IPC 8-9):** B23K35/30 B23K9/04 B32B15/01

C22C33/04 C22C38/00 C22C38/44 C22C38/58 F03B3/02

F03B3/12 (Advanced/Invention);

B23K9/04 (Advanced/Non-invention);

B23K35/30 B23K9/04 C22C33/00 C22C38/00 C22C38/44

C22C38/58 F03B3/00 (Core/Invention)

International (IPC 1-7): B23K35/22 B23K35/30 B23K9/04

C22C33/04 C22C38/00 C22C38/44 C22C38/58 F01D5/14 F03B3/02

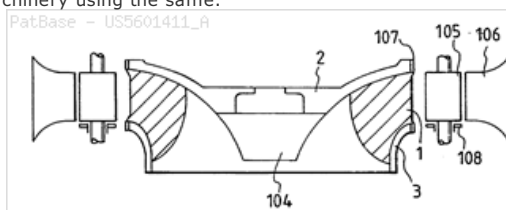
F04D29/38

CPC: Y02P70/525 B23P6/007 B23K9/04 B23K35/3086 B32B15/011 F03B3/12 F03B3/125 F05B2280/1071 F05C2201/046

Y02E10/223

European: B23K35/30H8B B23P6/00A2 B32B15/01B F03B3/12 F03B3/12C L23K9/04 R05B280/1071 R05C201/04S4S

Y02E10/22B

US: 415/200 416/223.00R 416/223R 416/241.00R 416/241R**JP F-Term:** 3H072 3H072/AA02 3H072/BB03 3H072/BB09 3H072/CC91 4E001 4E075 4K054**JP F-Index:** B23K35/30/340/B B23K9/04/L B23K9/04/P F03B3/02 C22C33/04/N C22C38/00/302/Z C22C38/58**Family:**

Publication number	Publication date	Application number	Application date
CN1041642 C	19990113	CN19951007044	19950616
CN1120599 A	19960417	CN19951007044	19950616
JP3220329 B2	20011022	JP19940158247	19940617
JP8001375 A2	19960109	JP19940158247	19940617
JP8092704 A2	19960409	JP19950168509	19950704
US5601411 A	19970211	US19950492449	19950619
US5879132 A	19990309	US19960749323	19961114

Priority:

JP19940158247 19940617

JP19940175114 19940727

US19950492449 19950619

JP19950168509 19950704

US19960749323 19961114

Probable Assignee: HITACHI LTD**Assignee(s):** (std): HITACHI LTD

Inventor(s): (std): FUSHIMI TSUGIO ; KANDA MAKOTO ; KAWAKAMI MASAO ; ONUMA TSUTOMU ; SAKAMOTO FUMIO ; TAKAYASU HIROSHI ; USAMI KENICHI ; YOSHIKAWA TSUGIO ; KONUMA TSUTOMU ; KARITA MAKOTO

Inventor(s): KENICHI USAMI ; HIROSHI TAKAYASU ; TSUTOMU ONUMA

19) Family number: 32633848 (US2006041448A)

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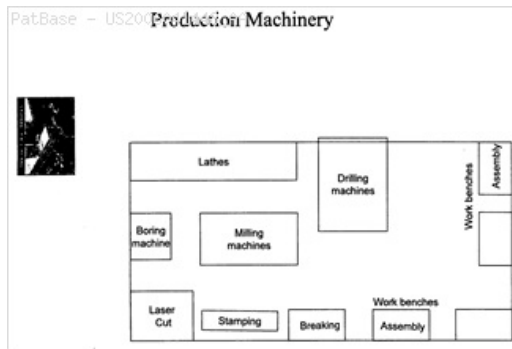
Title: NUMBER OF NEW AND UNIQUE MANUFACTURING AND ASSEMBLY METHODS AND PROCESSES TO COST EFFECTIVELY REFIT AND MARKET LEGACY IMPLEMENTS LIKE "THE GILHOLIE" PRESENTLY NAMES "THE WILI GRIP" TM

Abstract: The invention: involves a unique set of mass production process and evaluation tools to reappraise intricate otherwise costly products to produce or reproduce and manufacture them best in a high cost of living society and low cost of living society. The techniques described here are to specifically bring back a legacy kitchen aids tools, products and other such devices like (The Gilhoolie renamed the WiliGrip(TM)). "The Wili Grip" is a perfect example of intricate craftsmanship that was possible to make when labor was inexpensive in the United States and other industrial countries but has become more difficult to reproduce or compete without inexpensive labor. The invention teaches a variety of metal fabrication production techniques designed to provide technically advanced nations like the US a competitive set of modalities to maintain jobs domestically and compete with low cost labor operations world wide. The production technologies are not limited to aiding industrialized countries, but also presented to teach world leaders, commercial interests and societies how to plan the best use of their assets and technology to proficiently develop competitive commercial product progressively and reduce negative environmental and socio economic impacts, due to gaps in production technology.

Classifications:**International (IPC 8-9):** G06Q99/00 (Advanced/Invention);

G06Q99/00 (Core/Invention)

CPC: G06Q90/00 G06Q10/101 G06Q10/103**European:** G06Q10/101 G06Q10/103 G06Q90/00**US:** 705/1 705/300 705/300S 705/301 705/301P 705/7

**Family:**

Publication number	Publication date	Application number	Application date
US2006041448 AA	20060223	US20050204160	20050816

Priority:

US20040602861P 20040820 US20050204160 20050816

Probable Assignee: PATTERSON ROBBIE L

Assignee(s): (std): PATTERSON ROBBIE L ; STEPHENS RICHARD L JR ; WALKER RICHARD C

Inventor(s): (std): PATTERSON ROBBIE L ; STEPHENS RICHARD L JR ; WALKER RICHARD C

Inventor(s): STEPHENS RICHARD LEWIS ; PATTERSON ROBBIE LYNNE ; PATTERSON ROBBIE ; STEPHENS RICHARD LJR ; WALKER RICHARD ; STEPHENS RICHARD

Agent(s): RICHARD WALKER

20) Family number: 21422883 (US2084369A)

© PatBase

Title: HYDRAULIC MACHINE

Abstract: 1. In a hydraulic machine, the combination With a gate shifting ring and a pivotally mounted gate adapted to be turned by said ring, of a link; a bolt pivotally connecting one end of said link with said ring, the other end of said link having a. slotted opening formed therein, and a member carried by said gate~and having a. pair of parallel plain surfaces adapted to receive the slotted end of said link when said link is detached from the ring and disposed in one position, said member in all other positions of the link being adapted to provide means for pivotally connecting the slotted end of said link with said gate whereby the gate may be turned by the link from said ring when the opposite end of said link is pivotally connected to said ring. . '

Classifications:

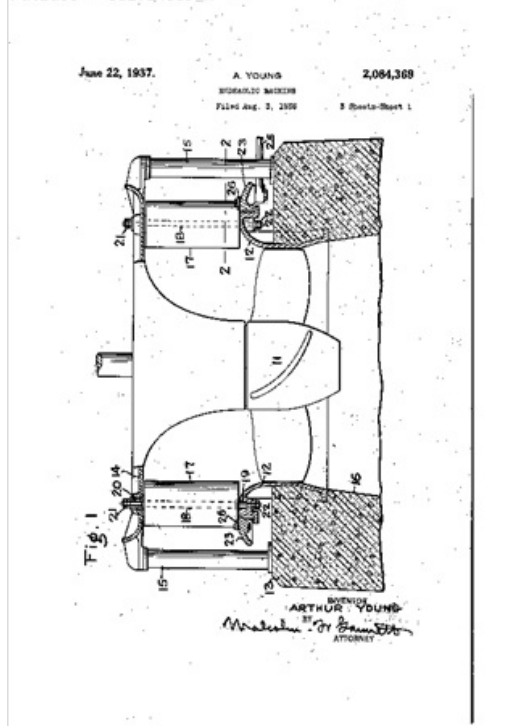
International (IPC 8-9): F03B3/18 (Advanced/Invention); F03B3/00 (Core/Invention)

International (IPC 1-7): F03B3/18

CPC: F03B3/183 Y02E10/223

European: F03B3/18B Y02E10/22B

US: 251/228

**Family:**

Publication number	Publication date	Application number	Application date
US2084369 A	19370622	US19360094009	19360803

Priority:

US19360094009 19360803

Probable Assignee: MORGAN SMITH S CO

Assignee(s): (std): MORGAN SMITH S CO

Assignee(s): S MORGAN SMITH CO ; S MORGAN SMITH COMPANY ; MORGAN SMITH CO S

Inventor(s): (std): ARTHUR YOUNG

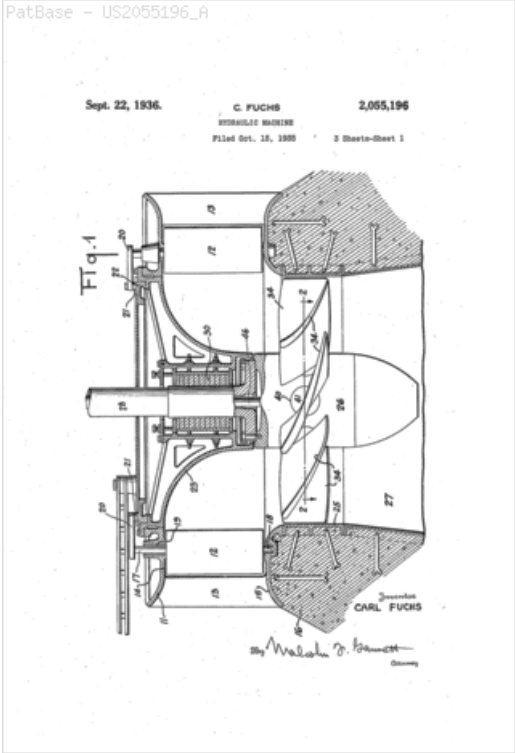
21) Family number: 21196896 (US2055196A) © PatBase

Title: HYDRAULIC MACHINE

Abstract: 1. A **runner** for hydraulic machines comprising a. hub, a plurality of blades having trunnions rotatably mounted in the hub, a lever arm secured to the trunnion of each blade and depending at an angle downwardly therefrom, an angle lever pivotally mounted within the hub beneath the trunnion of each blade, a link connecting said lever arm with said angle lever, a cross head mounted for movement parallel to the axis of rotation of the **runner**, and a link connecting said angle lever with said cross head.

Classifications:

International (IPC 8-9): F03B3/14 (Advanced/Invention);
F03B3/00 (Core/Invention)
International (IPC 1-7): F03B3/14
CPC: F03B3/145 F05B2260/76 Y02E10/223
European: F03B3/14B R05B260/76 Y02E10/22B
US: 416/168A 416/168R 416/245R



Family:

Publication number	Publication date	Application number	Application date
US2055196 A	19360922	US19350045041	19351015

Priority:

US19350045041 19351015

Probable Assignee:

VOITH GMBH J M

Assignee(s): (std):

VOITH GMBH ; VOITH GMBH J M

Assignee(s):

J M VOITH

Inventor(s): (std):

CARL FUCHS

Inventor(s):

FUCHS CARL

22) Family number: 23091933 (US3406535A) © PatBase

Title: COUPLING BETWEEN THE SHAFT OF THE COMPRESSOR DRIVE **TURBINE** AND THE COMPRESSOR SHAFT OF GAS **TURBINE** DRIVE UNITS

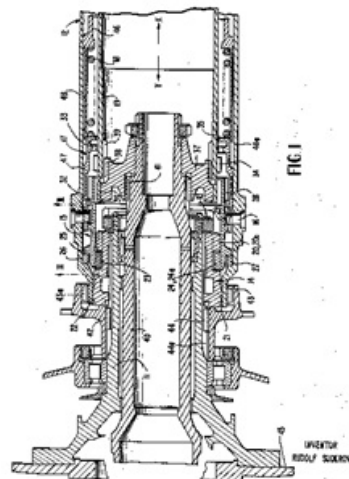
Abstract: ABSTRACT OF THE DISCLOSURE

A coupling arrangement, especially for use in gas **turbine** drive units, wherein the **turbine** drive shaft and the compressor shaft are releasably coupled by means of a form-locking connection which provides for transmission of driving torque in the circumferential direction and for absorption of thrust in the axial direction, while allowing for angular movement of one shaft with respect to the other while in the coupled condition. The coupling, according to the present invention, can be actuated, i.e., engaged or disengaged, by manipulation of an assembly key or wrench positioned within the **turbine** drive shaft, thereby obviating disassembly of the combustion chamber to effect coupling actuation. The present invention further contemplates that the assembly key or wrench might be in the form of a shaft of an output or load **turbine**, where such second **turbine** is employed, said shaft being disposed coaxially within the hollow **turbine** drive shaft. Further, the output or load **turbine** shaft may itself be of hollow construction, thus permitting the operating media to be conducted therethrough.

Classifications:

International (IPC 8-9): F01D5/02 F16D11/00 (Advanced/Invention);
F01D5/02 F16D11/00 (Core/Invention)
International (IPC 1-7): F02C7/00 F16D11/00
CPC: Y10S464/901 F01D5/026 F16D11/00
European: F01D5/02J F16D11/00
US: 464/158 464/160 464/901 60/804 64/9

Oct. 22, 1968 **N. SUDEROW** **3,406,535**
 COUPLING BETWEEN THE SHAFT OF THE COMPRESSOR DRIVE TORNADO
 AND THE COMPRESSOR SHAFT OF THE TORNADO DRIVE UNIT
 Filed June 27, 1966 2 Sheets-Sheet 1

**Family:**

Publication number	Publication date	Application number	Application date
DE1275836 B	19680822	DE1965D047625	19650701
GB1128110 A	19680925	GB19660029429	19660630
US3406535 A	19681022	US19660561320	19660627

Priority:

DE1965D047625 19650701

Probable Assignee: DAIMLER AG**Assignee(s):** (std): DAIMLER AG ; DAIMLER BENZ AG**Assignee(s):** DAIMLER BENZ AKTIENGESELLSCHAFT**Inventor(s):** (std): BIRGIT SUDEROW ; KATHE SUDEROW ; SIGRUN SUDEROW ; SUDEROW RUDOLF**Inventor(s):** SUDEROW SIGRUN ; SUDEROW BIRGIT ; SUDEROW KATHE**23) Family number: 21496953 (US2085233A)**

© PatBase

Title: HYDRAULIC **TURBINE**

Abstract: Having thus described my invention, what I claim is:- In a hydraulic **turbine**, a speed ring comprising an upper flange and a lower flange, guide vanes extending between said flanges for rigidly retaining said flanges in spaced relation to each other, the lower flange being set in a concrete setting, 2. **crown** plate disposed within the speed ring, a throat ring also mounted in said concrete setting and constituting a downward extension of the speed ring, a **runner** having a plurality of radially projecting blades disposed within said throat ring, a shaft connected to said **runner** and extending upwardly through said **crown** plate, a bearing for said shaft mounted in said **crown** plate, said **crown** plate having an upper outer peripheral flanged portion mounted on the inner peripheral edge of the upper flange of said speed ring and an inner central depending portion terminating adjacent the top of the hub of the **runner** and having a diameter equal substantially to the diameter of the hub of the **runner**, a plurality of rotatable wicket gates arranged alternately with respect to said guide vanes around said speed ring, a stem extending vertically through each wicket gate, a bearing formed in the lower flange of the speed ring for the lower end of said stem, a bearing formed in the upper flange of the speed ring for the upper projecting portion of said stem, a gate operating arm fixed to the upper end of each stem, a gate adjusting ring rotatably mounted within the upper outer peripheral flanged portion of said **crown** plate, and means pivotally connecting each gate operating arm with said gate adjusting ring whereby the wicket gates may be turned by the arms from said ring

Classifications:**International (IPC 8-9):** F03B3/18 (Advanced/Invention);

F03B3/00 (Core/Invention)

International (IPC 1-7): F03B3/18**CPC:** F03B3/183 Y02E10/223**European:** F03B3/18B Y02E10/22B**US:** 415/161

June 29, 1937.

J. D. SCOVILLE
HYDRAULIC TURBINE
Filed Oct. 24, 1936

2,085,233

2 Sheets-Sheet 1

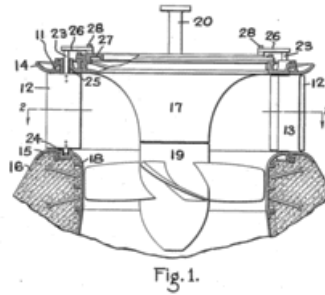


Fig. 1.

INVENTOR
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BY
Malcolm O. Parnell
ATTORNEY**Family:**

Publication number	Publication date	Application number	Application date
US2085233 A	19370629	US19360107381	19361024

Priority:

US19360107381 19361024

Probable Assignee: MORGAN SMITH S CO**Assignee(s):** (std): MORGAN SMITH S CO**Assignee(s):** S MORGAN SMITH CO ; S MORGAN SMITH COMPANY ; MORGAN SMITH CO S**Inventor(s):** (std): SCOVILLE JAMES D**24) Family number: 21001983 (US1898023A)**

© PatBase

Title: HYDRAULIC **TURBINE**

Abstract: 1. In a hydraulic **turbine**, the combination with a casing, of a **runner**, a shaft connected to the **runner**, a packing box supported by the casing, a bearing for the shaft carried by said packing box, and a packing gland interposed at a joint between said bearing and said packing box.

Classifications:

International (IPC 8-9): F03B11/00 (Advanced/Invention);
F03B11/00 (Core/Invention)

International (IPC 1-7): F03B11/06

CPC: F03B11/00 F03B11/006 Y02E10/226

European: F03B11/00 F03B11/00D Y02E10/22D

US: 415/175

Feb. 21, 1933.

H. E. SMYSER
HYDRAULIC TURBINE
Filed Jan. 29, 1933

1,898,023

2 Sheets-Sheet 1

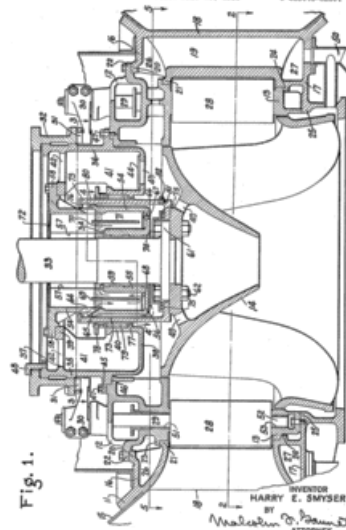


Fig. 1.

INVENTOR
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Family:

Publication number	Publication date	Application number	Application date
US1898023 A	19330221	US19320589561	19320129

Priority:

US19320589561 19320129

Probable Assignee: MORGAN SMITH S CO

Assignee(s): (std): MORGAN SMITH S CO

Assignee(s): S MORGAN SMITH CO ; S MORGAN SMITH COMPANY ; MORGAN SMITH CO S

Inventor(s): (std): SMYSER HARRY E

25) Family number: 22793998 (US2949540A)

© PatBase

Title: COMBINATION HYDRAULIC TURBINE AND ELECTRIC GENERATOR

Abstract: (Claim 1) A fluid turbine and electrical energy generating machine comprising activating fluid supply means, fluid flow valve means, Servomotor means constructed and arranged to operate said valve means, turbine speed-responsive control means constructed and arranged to control said Servomotor and fluid valve means, rotatable tubular conduit means constructed and arranged to convey fluid therethrough, turbine means including variable pitch impeller means disposed in said conduit to rotate said conduit responsive to flow of fluid through said conduit, electric generating means including rotor means carried and rotated by said tubular means and complementary electric stator means surrounding and electrically cooperating with said rotor means to generate electrical energy responsive to passage of fluid through said rotary conduit means, and electrical-mechanical governing and control means including a centrifugal governor to energize and control said Servomotor and fluid valve means to vary the activating turbine fluid supply, and variable pitch means for the turbine impeller means to maintain synchronous speed of said turbine, conduit and rotor means to supply varying electrical power load demands on the machine.

Classifications:

International (IPC 8-9): F03B13/08 F03B15/00

H02K7/18 (Advanced/Invention);

F03B13/00 F03B15/00 H02K7/18 (Core/Invention)

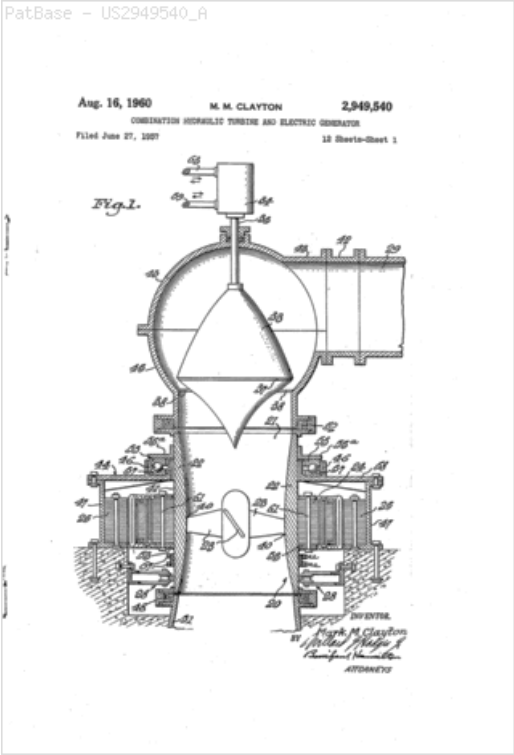
International (IPC 1-7): F03B3/06

CPC: F03B13/083 F03B15/00 H02K7/1823 Y02E10/22 Y02E10/226

European: F03B13/08B F03B15/00 H02K7/18A2 Y02E10/22

Y02E10/22D

US: 290/40R 290/4R 290/52 417/356



Family:

Publication number	Publication date	Application number	Application date
US2949540 A	19600816	US19570668579	19570627

Priority:

US19570668579 19570627

Probable Assignee:

CLAYTON MARK M

Assignee(s): (std):

CLAYTON MARK M

Inventor(s): (std):

CLAYTON MARK M