

Search history

Search TAC=(Method for reducing churning loss of combined thrust bearing) (Results 1)

1:

Search fn=(63950651 or 64757208 or 58140821 or 45894147 or 45928725 or 55824711 or 58140821 or 30650256 or 33281775 or 51103943 or

2: 53094535 or 56580249 or 32593535 or 23152831 or 10486810 or 1018897 or 1559960) (Results 16)

1) Family number: 1018897 (US3685617A)

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Title: BEARING AND LUBRICATION MEANS

Abstract: Source: US3685617A [EN] A bearing lubrication system used to lubricate and cool the thrust and journal bearings of a shaft of a rotating machine, such as, for example, a centrifugal compressor. The system incorporates a shaft mounted centrifugal pump discharging lubricating fluid directly into a chamber sealed by a thrust and a journal bearing.

Classifications:**International (IPC 8-9):** F16C33/10 F16N7/36

F16N7/40 (Advanced/Invention);

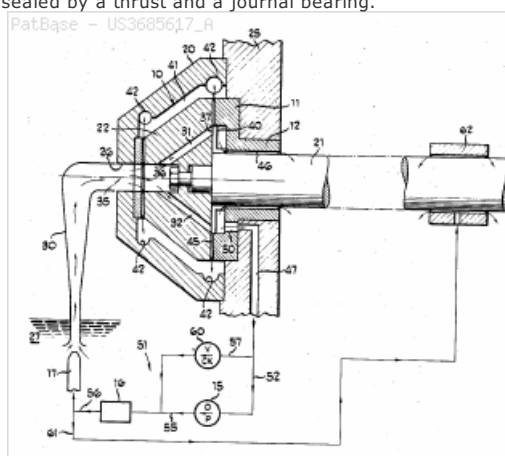
F16C33/04 F16N7/00 (Core/Invention)

International (IPC 1-7): F16N29/02 F16N7/36**CPC:** F16C33/1085 F16C2360/44 F16N7/363 F16N7/40 F16N2210/14

F16N2210/16 F16C17/10 F16C33/1045

European: F16C33/10L5R F16N7/36C F16N7/40 R16N210/14

R16N210/16

US: 184/6.16 184/6.28 184/6.3 308/168 384/368

Family:

Publication number	Publication date	Application number	Application date
US3685617 A	19720822	US19710104373	19710106

Priority:

US19710104373 19710106

Probable Assignee: BORG WARNER**Assignee(s):** (std): BORG WARNER**Assignee(s):** BORG WARNER A DE CORP CORP ; BORG WARNER CORP**Inventor(s):** (std): GARDNER WILLIS W**Inventor(s):** WILLIS W GARDNER

2) Family number: 1559960 (US4308464A)

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Title: Bulb type tubular turbine-generator

Abstract: Source: US4308464A [EN] A bulb type turbine generator in which upper and lower stay vanes house upper and lower oil tanks. The upper oil tank is connected to the rotary shaft bearing portion of the generator through an oil conduit and the lower tank is connected to a bearing portion. The oil conduits are disposed in the interior of the outer case so that oil passing through is cooled by the fluid flow. The outer casing together with the upper and lower stay vanes are divided to facilitate transportation and installation.

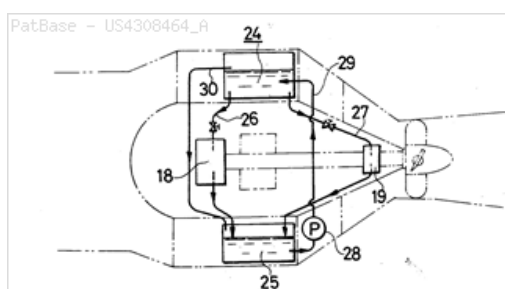
Classifications:**International (IPC 8-9):** F03B11/00 F03B11/06 F03B3/04 H02K5/16

H02K7/18 (Advanced/Invention);

F03B11/00 (Core/Invention)

International (IPC 1-7): F01D5/08 F03B11/06 F03B3/04 H02K5/16

H02K7/18

CPC: F03B11/00 Y02B10/50 Y02E10/226 Y02E10/223**European:** F03B11/00 Y02B10/50 Y02E10/22B Y02E10/22D**US:** 290/52 415/175

Family:

Publication number	Publication date	Application number	Application date
CA1134894 A1	19821102	CA19790325918	19790419
JP1195207 C3	19840312	JP19780046062	19780419
JP54138929 A2	19791027	JP19780046061	19780419
JP54138930 A2	19791027	JP19780046062	19780419
JP58025871 B4	19830530	JP19780046062	19780419
US4308464 A	19811229	US19790027704	19790406

Priority:

CA19790325918 19790419 JP19780046061 19780419 JP19780046062 19780419

Probable Assignee: FUJI ELECTRIC CO LTD

Assignee(s): (std): FUJI ELECTRIC CO LTD

Assignee(s): YAMAMOTO KAZUO ; FUJI ELECTRIC CO

Inventor(s): (std): YAMAMOTO KAZUO

Agent(s): GEORGE H RICHES AND ASSOCIATES

3) Family number: 10486810 (JP5252695A)

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Title: LUBRICANT COOLING CIRCULATOR FOR VALVE TURBINE GENERATOR

Abstract: Source: JP5252695A [EN] PURPOSE: To eliminate dedicated system for cooling the lubricant of bearing in a valve turbine generator and lower lubricant tank for circulating the lubricant. CONSTITUTION: A cooling chamber 14 is disposed in the peripheral direction along the sheath of a valve 1 and lubricant heated through a generator bearing 4 and a turbine bearing 5 is introduced into the cooling chamber 14. Since the lubricant in the cooling chamber 14 is cooled through the water flow in a water channel 2, dedicated cooling water supply system is eliminated and thereby manpower for maintenance is reduced. Furthermore, since a conventional lower lubricant tank is eliminated, installation space of machine can be reduced.

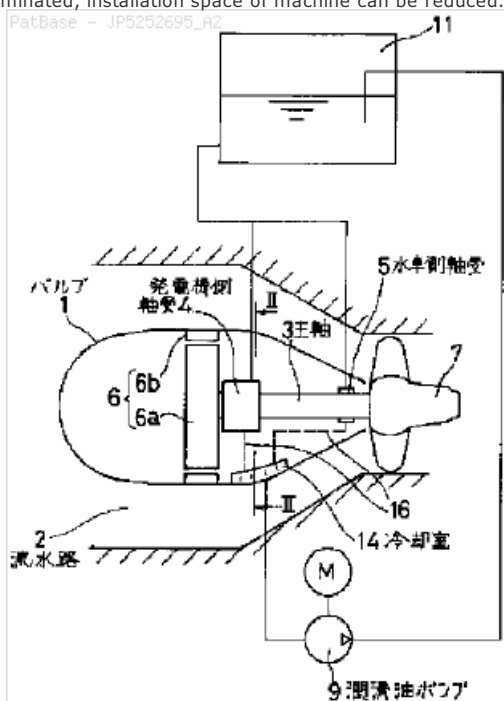
Classifications:

International (IPC 8-9): F16C37/00 F16N39/02 H02K5/16 H02K5/167 H02K7/18 (Advanced/Invention);

F16C37/00 F16N39/00 H02K5/16 H02K5/167

H02K7/18 (Core/Invention)

International (IPC 1-7): F16C37/00 F16N39/02 H02K5/167 H02K7/18



Family:

Publication number	Publication date	Application number	Application date
JP5252695 A2	19930928	JP19920083304	19920305

Priority:

JP19920083304 19920305

Probable Assignee: FUJI ELECTRIC CO LTD

Assignee(s): (std): FUJI ELECTRIC CO LTD

Inventor(s): (std): MIYAJIMA TAKEO

4) Family number: 23152831 (JP2002022095A)

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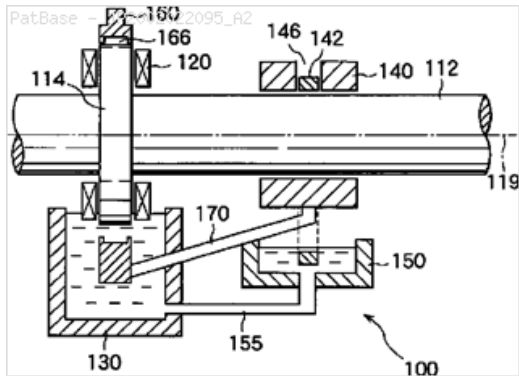
Title: SELF-LUBRICATING TYPE BEARING DEVICE

Abstract: Source: JP2002022095A [EN] PROBLEM TO BE SOLVED: To provide a self-lubricating type bearing device efficiently feeding lubricating oil to a thrust bearing and a journal bearing in the whole rotation speeds of a rotary main shaft. SOLUTION: This self-lubricating type bearing device 100 supporting the rotary main shaft 112 of a horizontal shaft rotary machine is provided with the thrust bearing 120 being so disposed as to support a large diameter part 114 being formed in the rotary main shaft 112 in the thrust direction; the journal bearing 140 being disposed in the outer circumferential part of the rotary main shaft 112 separated from the thrust bearing 120 in the axial direction; a thrust bearing oil tank 130 having the large diameter part 114 and a part of the thrust bearing put therein and being dipped in the lubricating oil; a journal bearing oil tank 150 being disposed under the journal bearing and communicated with the thrust bearing oil tank; a circulator 160 being disposed in the large diameter part and feeding the lubricating oil to the thrust

bearing; a feed pipe 170 feeding the lubricating oil from the circulator 160 to the journal bearing; and an oil ring 142 feeding the lubricating oil to the journal bearing.

Classifications:

International (IPC 8-9): F16C33/10 F16H57/04 F16N7/36 (Advanced/Invention);
F16C33/04 F16H57/04 F16N7/00 (Core/Invention)
International (IPC 1-7): F16C33/10 F16H57/04 F16N7/36



Family:

Publication number	Publication date	Application number	Application date
JP2002022095 A2	20020123	JP20000203222	20000705
JP3637269 B2	20050413	JP20000203222	20000705

Priority:

JP20000203222 20000705

Probable Assignee: MITSUBISHI HEAVY IND LTD
Assignee(s): (std): MITSUBISHI HEAVY IND LTD
Assignee(s): MITSUBISHI HEAVY INDUSTRIES LTD
Inventor(s): (std): AKAI RYOZO ; KAIKOGI TAKAAKI ; YAMASHITA KAZUHIKO

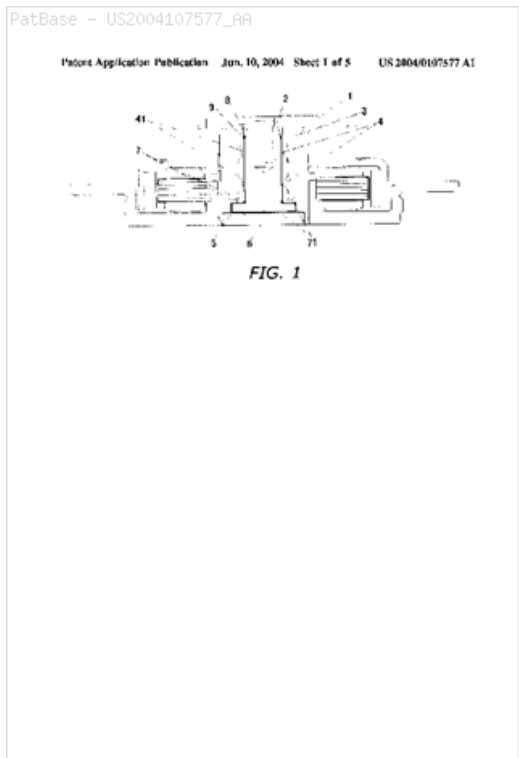
5) Family number: 30650256 (US2004107577A) © PatBase

Title: METHOD AND APPARATUS FOR CHARGING OIL INTO FLUID-DYNAMIC-PRESSURE BEARINGS, SPINDLE MOTOR UTILIZING FLUID-DYNAMIC-PRESSURE BEARINGS, AND SIGNAL RECORD-AND-PLAYBACK DEVICE UTILIZING FLUID-DYNAMIC-PRESSURE BEARINGS

Abstract: Source: US2004107577A [EN] Manufacturing method enabling optimal volume oil-fill even where differing from bearing to bearing due to machining fluctuations in volume-production dynamic pressure bearings. In a first charging method, injection of oil is divided into two cycles. The first is carried out under reduced pressure, following which the pressure is raised a predetermined amount to force the oil into the bearing gap. The oil-fill status is thereupon checked, the shortage is reckoned, and in the second cycle the shortage is injected. In a second charging method, in a first cycle a surplus volume is injected under reduced pressure and the pressure is raised a predetermined amount to force the oil into the bearing gap. Following that, what is in excess of the appropriate amount is removed from the bearing. The first cycle of injection and the pressure elevation may be implemented multiple times, in between which repeat pressure-reduction can be carried out.

Classifications:

International (IPC 8-9): B21D53/10 F16C17/10 F16C33/10 F16C33/14 F16C43/02 F16N7/00 G11B19/20 H02K15/14 H02K7/08 (Advanced/Invention);
B21D53/10 F16C17/00 F16C33/04 F16C43/00 F16N7/00 G11B19/20 H02K15/14 H02K7/08 (Core/Invention)
International (IPC 1-7): B23P19/04 F16C17/10 F16C32/06 F16C33/10 F16C33/14 F16C43/02 H02K15/14 H02K7/08
CPC: F16C2370/12 F16C17/107 F16C33/103 F16C33/107 G11B19/2018 Y10T29/49639 Y10T29/53104
European: F16C17/10G4 F16C33/10L2 F16C33/10L5G G11B19/20A1
US: 29/724 29/724S 29/898.02 29/898.020P G9B/019.029 G9B/19.029 G9B/19.029S



Family:

Publication number	Publication date	Application number	Application date
CN1287098 C	20061129	CN200310103127	20031031
CN1499093 A	20040526	CN200310103127	20031031
JP2004150605 A2	20040527	JP20020319076	20021031

JP2005098393 A2	20050414	JP20030333162	20030925
JP4369108 B2	20091118	JP20020319076	20021031
US2004107577 AA	20040610	US20030605811	20031029
US7043839 BB	20060516	US20030605811	20031029

Priority:

JP20020319076 20021031 JP20030333162 20030925

Probable Assignee: NIDEC CORP

Assignee(s): (std): NIDEC CORP ; NIHON DENSAN KK ; NIPPON DENSAN CORP ; NIPPON ELECTRONICS IND CO LTD

Assignee(s): NIPPON ELECTRONICS IND CO

Inventor(s): (std): HAYASHI HIROYUKI ; HIRO HAYASHI ; KIMURA TOSHIHIRO ; SUZUKI YUZO ; TATSUYA YOSHIDA ; YOSHIDA TATSUYA ; YUZO HAYASHI HIRO YOSHIDA TATS ; YUZO SUZUKI ; HAYASHI HIRO

Inventor(s): HAYASHI HIRO YOSHIDA TATSUYA SUZUKI YUZO

Agent(s): JAMES

6) Family number: 32593535 (CN2746145Y)

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Title: Cooling device of thrust bearing of hydroelectric generating set

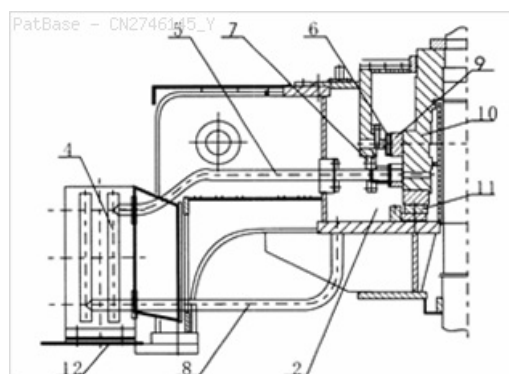
Abstract: Source: CN2746145Y [EN] The utility model discloses a cooling device of thrust bearing of hydroelectric generating set, comprising an air cooler 4. The air cooler 4 is connected with an oil outlet pipe 5 and an oil return pipe 8. The oil collecting tank 6 is the C-shaped annular oil collectin device positioned outside the internal thrust head 10 of the hydroelectric generating set. The inner side of the oil collecting tank near the thrust head 10 is provided with an oil outlet 7 connected with the air cooler 4. The circumference of the internal thrust head 10 of the hydroelectric generating set positioned between the guide bearing block 9 and the thrust block 11 is provided with a nozzle opening. The air outlet 12 of the air cooler 4 is connected with the air channel of the hydro-generator set and is completely sealed. The utility model adopts the air cooler to conduct cold working on the thrust bearing without cooling water, power unit driving the cooling water to circulate and move, or detection device detecting whether the cooling water penetrates the lubricating oil. Thus the structure is simplified and the cooling cost is decreased.

Classifications:

International (IPC 1-7): F01M5/00 F03B1/00 F16C37/00

CPC: Y02E10/223

European: Y02E10/22B



Family:

Publication number	Publication date	Application number	Application date
CN2746145 Y	20051214	CN200420061314U	20040921

Priority:

CN200420061314U 20040921

Probable Assignee: SICHUAN DONGFENG ELRCTRIC

Assignee(s): (std): SICHUAN DONGFENG ELECTRIC MACHINERY WORKS CO LTD ; SICHUAN DONGFENG ELRCTRIC

Assignee(s): SICHUAN DONGFENG ELECTRIC MACHINE CO ; SICHUAN DONGFENG ELECTRIC MACHINE CO LTD

Inventor(s): (std): HE CHENGANG ; ZHOU ZHIYONG ; ZOU CHUNYANG

Inventor(s): ZHIYONG ZHOU ; CHENGANG HE ; CHUNYANG ZOU

7) Family number: 33281775 (CN100412409C)

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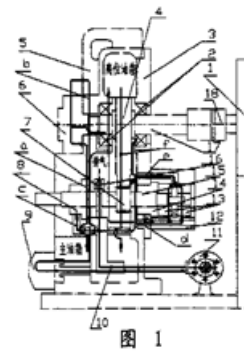
Title: HIGH SPEED GEAR SPEED INCREASER HAVING AUTOMATIC LUBRICATING SYSTEM

Abstract: Source: CN100412409C [EN] The invention discloses a high speed gear speed increaser with auto-lubricating system, and its structure: an electric motor is connected with a low speed shaft, the low speed shaft engages with a high speed shaft by gear, an oil pump is installed on the low speed shaft, an oil circuit (a) is connected with a main oil tank, the oil pump, and a left-end ball bearing and an oil circuit (b); the oil circuit (b) is connected in turn with a filter, a cooler and an oil circuit block; the outlet of the oil circuit block is divided into three parts, one part is connected with an oil circuit (c) which is connected with a front radial bearing, one part is connected with an exhaust valve and another part is connected with an oil circuit (d); the oil circuit is connected in turn with a rear radial bearing, and two thrust bearings; one end of an oil circuit (e) is connected with the two thrust bearings and the other end is connected with a right-end ball bearing, the engaging place of the low speed gear and the high speed gear and a high level oil tank; an oil circuit (f) is connected with the high level oil tank and the main oil tank. The invention uses an electric machine to drive the speed increaser and the oil pump at the same time, having simple structure and good lubricating effect.

Classifications:

International (IPC 8-9): F16H1/06 F16H57/04 (Advanced/Invention);

F16H1/04 F16H57/04 (Core/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
CN100412409 C	20080820	CN200510200689	20051110
CN1793691 A	20060628	CN200510200689	20051110

Priority:

CN200510200689 20051110

Probable Assignee: GUIZHOU QUNJIAN GEAR CO LTD**Assignee(s):** (std): GUIZHOU JUNJIAN GEAR CO LTD ; GUIZHOU QUN JIAN GEAR CO LTD ; GUIZHOU QUNJIAN GEAR CO LTD**Assignee(s):** GUIZHOU JUNJIAN GEAR CO ; GUIZHOU QUNJIAN GEAR CO**Inventor(s):** (std): CHEN YUANQIN ; YUANQIN CHEN**8) Family number: 45894147** (CN101718386A)

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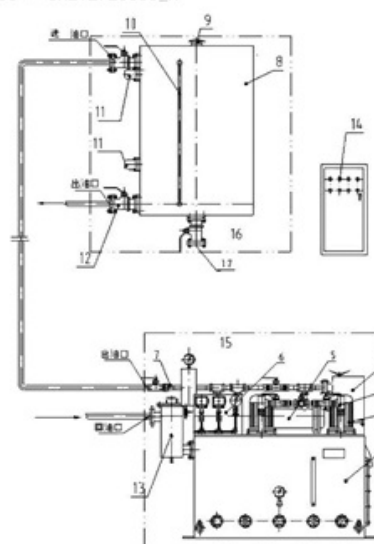
Title: THIN OIL LUBRICATION DEVICE FOR MILL DYNAMIC PRESSURE BEARING

Abstract: Source: CN101718386A [EN] The invention relates to a thin oil lubrication device for mill dynamic pressure bearings, comprising an integral thin oil station, a high-level oil tank and an electrical control system, wherein the integral thin oil station and the high-level oil tank are connected through a circulation loop, and the electrical control system is connected with the integral thin oil station and the high-level oil tank. The device has simple and compact structure and reasonable design, energy consumption reduction and mechanical and electrical integration and can realize automatic circulation, thereby being extremely suitable for lubricating mill main bearings; the device has low cost and is easy to popularize and use.

Classifications:

International (IPC 8-9): B02C17/18 F16N33/00 F16N39/02 F16N39/06 F16N7/40 (Advanced/Invention); B02C17/00 F16N33/00 F16N39/00 F16N7/00 (Core/Invention)

PatBase - CN101718386_A

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

CN201010123125 20100312

Probable Assignee: JINAN HEAVY MACH JOINT STOCK**Assignee(s):** (std): JINAN HEAVY MACH JOINT STOCK ; JINAN HEAVY MACHINERY JOINT ST**Assignee(s):** JINAN HEAVY MACHINERY JOINT STOCK CO**Inventor(s):** (std): QIAOYUN CHEN ; YUNFENG GAO**Inventor(s):** CHEN QIAOYUN ; GAO YUNFENG**9) Family number: 45928725 (CN101761442A)**

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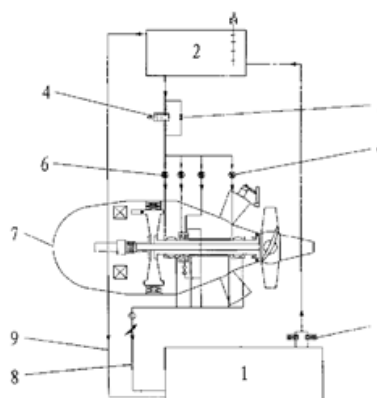
Title: Bulb tubular set lubricating oil system

Abstract: Source: CN101761442A [EN] The invention relates to a bulb tubular set lubricating oil system which is characterized in that a variable-frequency pump set is adopted for transmitting lubricating oil in an oil diluting device to a high level oil box; the lubricating oil in the high level oil box firstly goes through a self-maintaining electrical ball valve or a manual ball valve, then goes through an automatic flow control valve arranged on an oil inlet branch pipe with temperature control to be divided to four routes to be respectively transmitted to a motor radial bearing, a reverse thrust bearing oil supply pipeline, a positive thrust bearing oil supply pipeline and a hydroturbine radial bearing in a bulb tubular set, and at last flows back to the oil diluting device through an oil return pipeline; and a lubricating oil recycling system is formed. When the system is used, the oil consumption is effectively controlled, futile cycle of the lubricating oil is avoided, the reduction of total amount of the oil consumption is realized at last, and the consumption of the lubricating oil is reduced. The power consumption of auxiliary power needed by the variable-frequency pump set is greatly reduced, the energy consumption is reduced, and the increase of the total amount of power generation is realized. The entire set can more safely and steady run, and provide guarantee for the entire and long-term economic benefits of a generating plant.

Classifications:

International (IPC 8-9): F03B13/00 F16N7/40 (Advanced/Invention);
F03B13/00 F16N7/00 (Core/Invention)

PatBase - CN101761442_A

**Family:**

Publication number	Publication date	Application number	Application date
CN101761442 A	20100630	CN201010019545	20100121

Priority:

CN201010019545 20100121

Probable Assignee: SHAOGUAN ZHONGLI GENERATING EQ**Assignee(s):** (std): SHAOGUAN ZHONGLI GENERATING EQ**Assignee(s):** SHAOGUAN ZHONGLI GENERATING EQUIPMENT CO**Inventor(s):** (std): BEIFU WEN ; YAOWU HONG**Inventor(s):** HONG YAOWU ; WEN BEIFU**10) Family number: 51103943 (CN202215917U)**

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Title: EXTERNAL CYCLING STRUCTURE FOR RUNNER PUMP

Abstract: Source: CN202215917U [EN] The utility model belongs to the technical field of hydraulic generator sets and particularly relates to an external cycling structure for a runner pump of a hydraulic generator. The external cycling structure comprises a thrust runner, a thrust bearing, an oil cooler and an annular oil tank, wherein the thrust runner is arranged at a main shaft, and the oil cooler is arranged at a frame. The external cycling structure is characterized in that: the annular oil tank is sleeved at the main shaft; the thrust runner and the thrust bearing are positioned in the oil tank; a guide bearing is sleeved outside the thrust runner; an oil outlet which is communicated with an oil inlet pipe of the oil cooler is arranged on the guide bearing; an oil drain pipe of the oil cooler is communicated with the annular oil tank; and an inclined through hole which is communicated with the oil outlet of the guide bearing is arranged in the thrust runner. According to the external cycling structure for the runner pump, lubricating oil is driven to cycle by pressure generated through the auto gyration of the generator, and an electric pump is not needed; and the oil cooler is arranged on a support arm of the frame outside the annular oil tank, so that the internal structure of the oil tank is simple, the oil cooler is very convenient to mount, maintain and overhaul, and oil drainage is not needed during overhauling.

Classifications:

International (IPC 8-9): F03B11/00 F16N13/00 F16N21/00
F16N39/02 (Advanced/Invention)

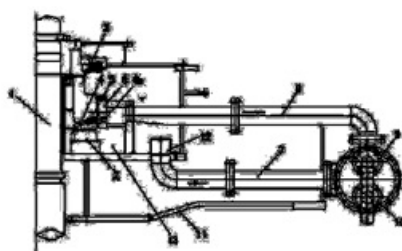


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Family:

Publication number	Publication date	Application number	Application date
CN202215917 U	20120509	CN201120304018U	20110819

Priority:

CN201120304018U 20110819

Probable Assignee: ZHEJIANG SHUNFEI HEAVY POWER GENERATION EQUIPMENT MFG CO LTD**Assignee(s):** (std): ZHEJIANG SHUNFEI HEAVY POWER GENERATION EQUIPMENT MFG CO LTD**Assignee(s):** ZHEJIANG SHUNFEI HEAVY POWER GENERATION EQUIPMENTMANUFACTURING CO**Inventor(s):** (std): JUNFENG LE ; JUNHUA LING ; LIJUN JING ; ZHIQI YANG**Inventor(s):** JING LIJUN ; LING JUNHUA ; YANG ZHIQI ; LE JUNFENG**11) Family number: 53094535 (CN102937145A)**

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Title: HYDRO-GENERATOR THRUST BEARING COCURRENT RUNNER PLATE PUMP OUTER CYCLE STRUCTURE

Abstract: Source: CN102937145A [EN] The invention discloses a hydro-generator thrust bearing cocurrent runner plate pump outer cycle structure and relates to the technical field of thrust bearings. The structure comprises a bearing seat, a separation block which is installed in the bearing seat and a runner plate which is located on the upper portion of the separation block, an outer diameter oil tank and an inner diameter oil tank which is communicated with outer diameter oil tank are arranged inside the bearing seat, a tile-to-tile overcurrent area is arranged in the separation block, the bearing seat is connected with an oil inlet pipe which is communicated with the tile-to-tile overcurrent area, an oil baffle plate is installed at one end of the tile-to-tile overcurrent area, the oil baffle plate is arranged at one end which is close to the inner diameter oil tank, the other end of the tile-to-tile overcurrent area is communicated with the outer diameter oil tank, a pump hole which is communicated with the inner diameter oil pipe is arranged on the runner plate, the pump hole is connected with an oil outlet pipe, and the oil outlet pipe is connected with the oil inlet pipe through a cooler. According to the structure, and the disadvantage that the tile-to-tile oil flows from the outer diameter to the inner diameter due to the fact that the runner plate pump pumps oil from the inner diameter is overcome, so that the tile-to-tile oil flows along a centrifugal force direction, and the flow resistance is reduced.

Classifications:**International (IPC 8-9):** F03B11/06 F16C37/00 F16N13/00

F16N39/02 (Advanced/Invention)

CPC: Y02E10/226

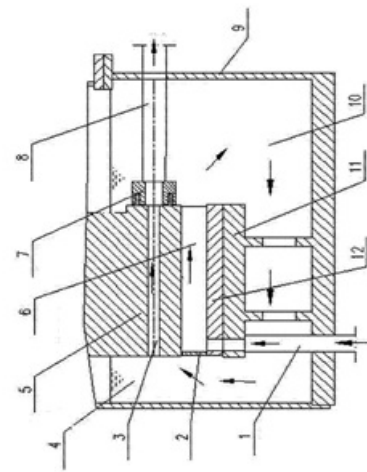


图 1

Family:

Publication number	Publication date	Application number	Application date
CN102937145 A	20130220	CN201210455364	20121114
CN202955137 U	20130529	CN201220598597U	20121114

Priority:

CN201210455364 20121114 CN201220598597U 20121114

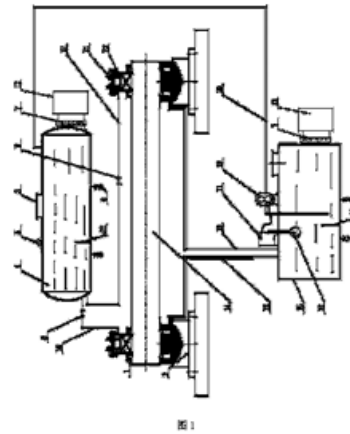
Probable Assignee: DEC DONGFANG ELECTRIC MACH CO**Assignee(s):** (std): DEC DONGFANG ELECTRIC MACH CO ; DEC DONGFANG ELECTRIC MACHINERY CO LTD ; DONGFANG ELECTRIC MACHINERY CO LTD DONGFANG ELECTRIC CORP**Assignee(s):** DEC DONGFANG ELECTRIC MACHINERY CO**Inventor(s):** (std): HUANG ZHIXIN ; LIAO YIGANG ; YANG PEIPING ; YANG SHIFU ; ZHANG TIANPENG**12) Family number: 55824711 (CN203560703U)**

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Title: COAL MILL BEARING LUBRICATION SYSTEM

Abstract: Source: CN203560703U [EN] The utility model relates to a coal mill bearing lubrication system, and aims to solve the problems that in the prior art, when a coal mill bearing lubrication system operates, owing to long operating time of an oil pump, mechanical wear is high, oil amount is adjusted frequently, since oil excess, oil lack or oil finish occur often, bearings can be burnt, equipment can be damaged, environment and safe production can be influenced, owing to large on-site noises, much dust and poor environment, staff on site can be physically and mentally damaged, and working efficiency is low. The lubrication system comprises a sponge member, a high level oil tank, an oil pump, a limit contact device, a float, a shaft, a low level oil tank, a first oil inlet pipe, a second oil inlet pipe, a first oil outlet pipe, a second oil outlet pipe, an oil return pipe, a spiral adjusting rod, a pressing plate, two bearing seats with bearings, two level meters and two level control boxes. The system is adaptable to a coal mill bearing lubrication system.

Classifications:**International (IPC 8-9):** F16N31/00 F16N7/40 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
CN103604033 A	20140226	CN201310628369	20131202
CN203560703 U	20140423	CN201320775060U	20131202

Priority:

CN201310628369 20131202 CN201320775060U 20131202

Probable Assignee: CHINA COAL HEILONGJIANG COAL CHEMICALS CO LTD

Assignee(s): (std): CHINA COAL ENERGY HEILONGJIANG COAL CHEMICAL CO LTD ; CHINA COAL HEILONGJIANG COAL CHEMICALS CO LTD

Assignee(s): CHINA COAL HEILONGJIANG COAL CHEMICALS CO

Inventor(s): (std): ZHANG XUEQUAN ; WANG YUELUN ; WANG WEIDONG ; WANG HONGSHENG ; LIU YUE ; CHU HAIBIN

13) Family number: 56580249 (CN203628221U)

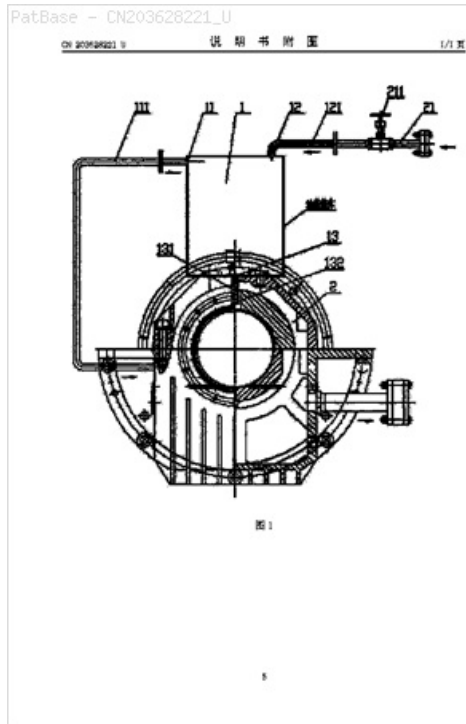
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Title: TOP OIL TANK AND ELASTIC METAL PLASTIC BUSH SLIDING BEARING PROVIDED WITH TOP OIL TANK

Abstract: Source: CN203628221U [EN] The utility model provides a top oil tank and an elastic metal plastic bush sliding bearing provided with the top oil tank. The top oil tank comprises an oil tank body, wherein the oil tank body is provided with an oil inlet, an oil outlet and an oil overflowing port; the oil inlet is located in the upper portion of the oil tank body; the oil overflowing port is located in one side wall of the oil tank body; the oil outlet is located in the bottom of the oil tank body. The elastic metal plastic bush sliding bearing provided with the top oil tank comprises the oil tank body and an elastic metal plastic bush sliding bearing body, wherein the oil tank body is installed on the elastic metal plastic bush sliding bearing body; the oil inlet of the oil tank body is communicated with an oil inlet pipeline of a circulating oil lubrication system through a pipeline; the oil overflowing port is communicated with an oil inlet in the other side of the elastic metal plastic bush sliding bearing body through a pipeline; the oil outlet is communicated with an oil inlet in the upper end of the elastic metal plastic bush sliding bearing body through a pipeline. The structure is simple, action is reliable, and the running safety of the elastic metal plastic bush sliding bearing is effectively improved.

Classifications:

International (IPC 8-9): F16C33/02 F16N19/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN203628221 U	20140604	CN201320847420U	20131221

Priority:

CN201320847420U 20131221

Probable Assignee: HUNAN SUND IND AND TECHNOLOGICAL CO LTD

Assignee(s): (std): HU NAN SUND INDUSTRIAL AND TECHNOLOGICAL CO LTD ; HUNAN SUND IND AND TECHNOLOGICAL CO LTD

Assignee(s): HUNAN SUND INDUSTRIAL AND TECHNOLOGICAL CO

Inventor(s): (std): CHEN SENZHU ; FENG YI ; LING LI ; LUO BI ; ZHANG YABIN ; ZHU JIE

14) Family number: 58140821 (WO16033994A1)

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Title: METHOD FOR REDUCING CHURNING LOSS OF COMBINED THRUST BEARING

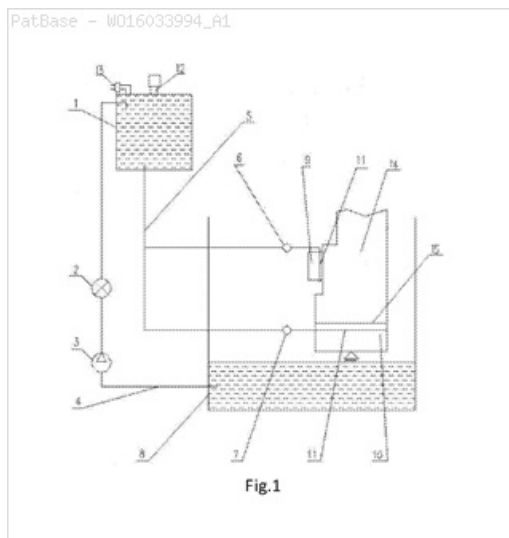
Abstract: A method for reducing a churning loss of a combined thrust bearing, comprising the following steps: a, injecting lubricating oil into an oil sump (8) to enable a guide bearing bush (9) to be immersed in the lubricating oil; b, providing a high-level oil tank (1) with a one-way vent valve (13), utilizing an oil supplying pump (3) to inject the lubricating oil in the oil sump (8) into the high-level oil tank (1), and injecting the lubricating oil in the high-level oil tank (1) between a runner plate (15) and a thrust pad (10) and/or between a bearing thrust head (14) and the guide bearing bush (9), such that the lubricating oil circulates between the oil sump (8) and the high-level oil tank (1), and an oil inlet quantity of the high-level oil tank (1) is greater than an oil outlet quantity thereof; c, with an increase in the oil quantity of the high-level oil tank (1), enabling, via the one-way vent valve (13), the oil outlet quantity of the high-level oil tank (1) and the oil inlet quantity of the high-level oil tank (1) to be gradually the same, a level of the lubricating oil in the oil sump (8) being below the thrust pad (10). The method solves the problem in the prior art that a thrust bearing is immersed in the lubricating oil in operation, thus avoiding generating a churning loss.

Classifications:

International (IPC 8-9): F16N39/02 F16N7/28

F16N7/38 (Advanced/Invention)

CPC: F16N7/28 F16N39/02



Family:

Publication number	Publication date	Application number	Application date
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CN104251374 A	20141231	CN201410447946	20140904
CN104251374 B	20170104	CN201410447946	20140904
CO20170003262 A2	20170410	CO20170003262	20170403
WO16033994 A1	20160310	WO2015CN080008	20150528

Priority:

CN201410447946 20140904 WO2015CN080008 20150528 WO2015CN80008 20150528

Probable Assignee: DEC DONGFANG ELECTRIC MACH CO

Assignee(s): (std): DEC DONGFANG ELECTRIC MACH CO ; DONGFANG ELECTRIC MACHINERY CO LTD ; DONGFANG ELECTRIC MACHINERY CO LTD DONGFANG ELECTRIC CORP

Assignee(s): DEC DONGFANG ELECTRIC MACHINERY CO ; DONGFANG ELECTRIC MACHINERY CO

Inventor(s): (std): LUO LIN ; LIAO YIGANG ; YANG SHIFU ; ZHANG TIANPENG ; ZHENG XIAOKANG ; ZHONG HAIQUAN

Inventor(s): HAIQUAN ZHONG ; YIGANG LIAO ; LIN LUO ; SHIFU YANG ; TIANPENG ZHANG ; XIAOKANG ZHENG

Agent(s): JESUS MARIA MENDEZ BERMUDEZ ; CHENGDU TIANJIA PATENT OFFICE GENERAL PARTNERSHIP

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

15) Family number: 63950651 (CN106089332A)

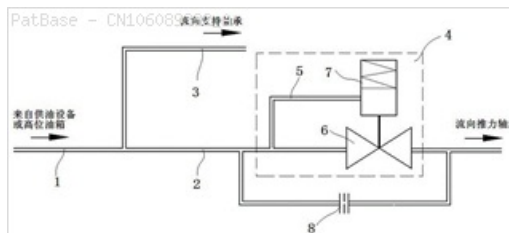
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Title: OIL SUPPLY METHOD AND DEVICE FOR THRUST BEARING

Abstract: Source: CN106089332A [EN] The invention discloses an oil supply method and device for a thrust bearing. The oil supply method comprises the following steps: 1) mounting a pressure flow control valve at an oil inlet tube of the thrust bearing, and introducing oil supply pressure at the front end of the valve into a control unit of the pressure flow control valve; 2) when detected oil pressure of a lubricating oil mother tube is set to be greater than 0.07 MPa (g), totally opening the valve while oil is supplied to the thrust bearing by oil supply equipment; and 3) when pressure of the lubricating oil mother tube is set to be smaller than 0.07 MPa (g), stopping a unit, automatically operating a high-level oil tank under action of gravity, totally closing the valve, and supplying little lubricating oil to the thrust bearing through a bypass throttle orifice plate. According to the oil supply method disclosed by the invention, capacity of the high-level oil tank is reduced by reducing oil amount that is supplied to the thrust bearing at an oil supply stage by the high-level oil tank, so that layout is further simplified, oil consumption of a system is reduced and capacity of an oil storage tank is reduced, and therefore, cost is effectively reduced and economic benefits are relatively great.

Classifications:

International (IPC 8-9): F01D25/18 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN106089332 A	20161109	CN201610684097	20160818
CN106089332 B	20170728	CN201610684097	20160818

Priority:

CN201610684097 20160818

Probable Assignee: DONGFANG TURBINE CO LTD DONGFANG ELECTRIC CORP

Assignee(s): (std): DONGFANG TURBINE CO LTD DONGFANG ELECTRIC CORP

Assignee(s): DONGFANG TURBINE CO

Inventor(s): (std): FANG BANGYI ; GUO YONG ; LU QIANKUI ; LYU KE ; YANG OU ; YANG ZUOWEI ; ZENG LINGGANG

16) Family number: 64757208 (CN106348240A)

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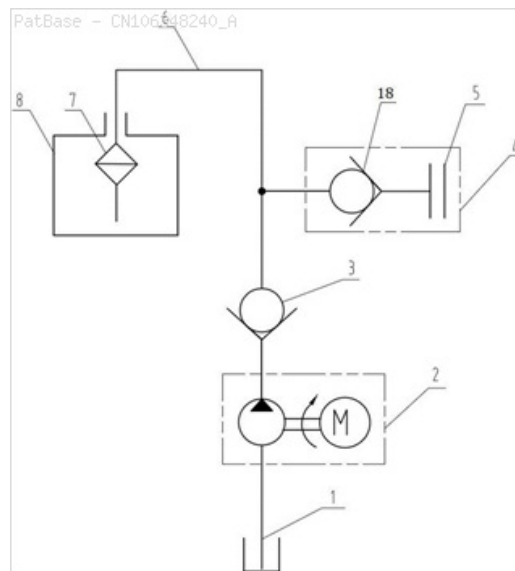
Title: HIGH-LEVEL OIL TANK LOW-LEVEL FUEL CHARGING SYSTEM

Abstract: Source: CN106348240A [EN] The invention relates to a high-level oil tank low-level fuel charging system and aims at solving the problem that a high-level oil tank needs high-level fuel charging and accordingly causes safety risk and providing a high-level oil tank low-level fuel charging system. The high-level oil tank low-level fuel charging system comprises an oil tank and is characterized by further comprising an oil pump, a motor driving the oil pump to rotate, a control circuit controlling the motor to rotate and a fuel charging pipe, wherein one end of the fuel charging pipe is connected with the oil tank, the other end of the fuel charging pipe is connected with an oil outlet of the oil pump, an oil suction pipe is connected to an oil inlet of the oil pump, a branch pipe is arranged on the fuel charging pipe, and a rapid connecting connector is arranged at the tail end of the branch pipe. The high-level oil tank low-level fuel charging system has the advantages of being simple in operation, automatic, convenient, fast, safe, reliable and the like, and more convenient and more effective service guarantee is provided for usage of engineering equipment.

Classifications:

International (IPC 8-9): B67D7/04 B67D7/46 (Advanced/Invention)

CPC: B67D7/46 B67D7/04



Family:

Publication number	Publication date	Application number	Application date
CN106348240 A	20170125	CN201610869736	20160930

Priority:

CN201610869736 20160930

Probable Assignee: LIUGONG MACHINERY CO LTD

Assignee(s): (std): GUANGXI LIUGONG MACHINERY CO LTD ; LIUGONG MACHINERY CO LTD

Assignee(s): LIUGONG MACHINERY CO

Inventor(s): (std): BAI JIANXIN ; FENG CHONG ; LIU GUANGXI ; LIU HENGZHI