

(three are shown in the figure) is formed through the thickness of the carrier ring. It is positioned and sized to accommodate the insertion of a tool, such as a screwdriver. This tool is used to push the retaining ring seals (204a–c) out of a groove, thereby enabling users to manually remove the seals.

Patent number: WO/2017/152927

Inventors: A. Holmberg and F. Eriksson

Publication date: 14 September 2017

Shaft seal device for a rotating electric machine

Applicant: Mitsubishi Electric Corp, Japan

The main objective of this invention is to increase the efficiency of a degassing process unit and reduce the overall device size in a rotating electric machine with a shaft seal device. To achieve this, the rotating electric machine, with a shaft seal device, has inlet and outlet portions, mounted on a rotating shaft, for the seal oil. Also included is a main oil tank in which is stored the seal oil to be supplied to the shaft seal device of the rotating electric machine. In addition, there is also a seal oil clarification tank, which has an inlet portion connected to the outlet portion of the main oil tank and an oil-level adjustment valve. Other components are a degassing pump, with an inlet portion connected to the outlet portion of the seal oil clarification tank; a pressure control valve disposed between the outlet portion of the seal oil clarification tank and an outlet portion of the degassing pump; and a differential pressure control valve disposed between the outlet portion of the degassing pump and the inlet portion of the shaft seal device.

Patent number: WO/2017/154084

Inventors: S. Tanaka and Y. Tohoda

Publication date: 14 September 2017

Seal assembly for an oil-well tool

Applicant: Halliburton Energy Services Inc, USA

Oil-well tools and apparatus may include sealed shafts that translate along a longitudinal axis. Typically, linear reciprocating seals use wipers to keep abrasives out of the seal area. However, over a short time these wipers wear out and the seals break down causing mud to infiltrate the oil. Some linearly translating shafts may require a constant rotational orientation. Linearly translating shafts may receive too little or uneven lubrication, which may cause early seal wear or failure. Improper lubrication may also lead to a build-up of debris on the shaft. Linearly translating shafts

can become packed with lost circulation material, or silt at a seal interface and may become locked up. An example of this disclosure comprises a system and device, including a seal assembly. Seal assemblies used on linearly translating shafts can be improved by rotating the seal or by rotating the shaft. Rotary seals can be used in applications that have varying speeds. Because the rotary motion may not be used in a linear application, the rotation is set to the ideal condition for the seal, making it last longer. By rotating the seal or the shaft, a film of lubricant is maintained under the seal and the shaft surface is kept cleaner. In another example, a locked up shaft is freed by having the shaft rotated by a motor assembly.

Patent number: WO/2017/155536

Inventors: L.D. Chambers and M.A. Sitka

Publication date: 14 September 2017

Gasket and sealing device

Applicant: NOK Corp, Japan

This invention addresses the problem of providing a gasket that is capable of reliably protecting the opposing end surfaces of two members from contaminants such as dust, water droplets and brine. The inventor says that this problem is solved by providing the gasket with an annular gasket base-part, and an outer peripheral seal-part that consists of a rubber elastic material fixed along the outer peripheral edge portion of the base-part. The outer peripheral seal-part has a portion which, together with the gasket base-part, is sandwiched between the opposing end surfaces of two members when the gasket base-part is sandwiched between the end surfaces, and a protruding edge portion that through the entire periphery protrudes further outwards than do the outer-side surfaces of the two members.

Patent number: WO/2017/154615

Inventor: T. Amano

Publication date: 14 September 2017

Expansion joint seal for surface contact applications

Applicant: Schul International Co Llc, USA

A system for creating a durable seal between adjacent horizontal panels – including those that may be curved or subject to temperature expansion and contraction or mechanical shear – forms the subject of this patent. The durable seal incorporates a plurality of ribs, a flexible member between a cover plate and the ribs, and also may include a load-transfer plate to provide support to the ribs from below, and/or foam materials, each of which

has a different compressibility.

Patent number: WO/2017/155657

Inventor: S.R. Robinson

Publication date: 14 September 2017

Shuttle valve for water softener system

Applicant: Pentair Residential Filtration Llc, USA

Embodiments of this invention cover a piston assembly for a control valve that is part of a water softener system. The valve includes a drive mechanism, one or more fluid passage-ways and a seal assembly. The piston assembly includes a main piston that is capable of moving within the seal assembly and a first-end and second-end (opposite to the first end). A shuttle piston is also located within the seal assembly. The shuttle piston includes a first-end and second-end (opposite to the first end) and is configured to selectively engage the second-end of the main piston in order to form a seal between them and to selectively move relative to the second-end of the main piston to form an opening between the second-end of the main piston and the first-end of the shuttle piston, in response to movement of the main piston.

Patent number: WO/2017/160885

Inventors: S.T. Mueller, T.R. Bednar and P.W. Shefte

Publication date: 14 September 2017

Dust cover and sealing structure

Applicant: NOK Corp, Japan

The aim of this design is to create a dust cover and seal structure that enhances sealing action without increasing the number of components required. The sealing structure is characterised in that a seal part is provided with an inner peripheral component having a plurality of annular protrusions that are free to slide over the outer peripheral surface of a shaft part, and a dust seal part that is free to slide over the end-face of a knuckle. A third protrusion that is farthest to one end-side of the plurality of annular protrusions is formed so as to protrude towards the one end-side by the inner peripheral surface of the seal part and an annular recess that is recessed from the end-face of the one end-side towards the other end-side in the seal part. The inner peripheral surface of the third protrusion is configured so as to adhere in a freely slidable manner to the outer peripheral surface of a ridge part.

Patent number: WO/2017/154672

Inventors: K. Sera, H. Kanai and K. Sakai

Publication date: 14 September 2017