

Innovation Infosheet

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Axial Sliding Bearing with Structural Sliding Surface

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- Mechanical Engineering

Keywords:

- Hydraulics
- Mechanical Engineering
- Pneumatics
- Power Transmission

The efficiency and effectiveness of hydraulic pumps is always a factor in hydraulic systems. One area that plays a major roll in the efficiency is the type of bearings used in the applications like axial and radial piston pumps and motors. In commonly used design systems, manufacturers make assumptions about gap height conditions within an assembly. This can lead to increased friction when these assumptions turn out to be incorrect.

Researchers at Purdue University have developed a bearing design that will reduce power loss and increase load carrying ability of both axial and sliding bearings. This saves money through reduced power consumption and increased efficiency through larger load bearing capability.

Advantages:

- -Decreased power loss
- -Increased efficiency
- -Increased load carrying

People:

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- Baker, Jonathan

Intellectual Property:

Application Date: November 16, 2010

Type: NATL-Patent

Country of Filing: United States Patent Number: 9,115,748 Issue Date: August 25, 2015

Application Date: April 1, 2009

Type: NATL-Patent

Country of Filing: South Korea Patent Number: 10-1276965 Issue Date: June 13, 2013

Application Date: April 1, 2009

Type: NATL-Patent Country of Filing: Japan Patent Number: 5286408 Issue Date: June 7, 2013

Application Date: April 1, 2009

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Type: Utility Patent

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