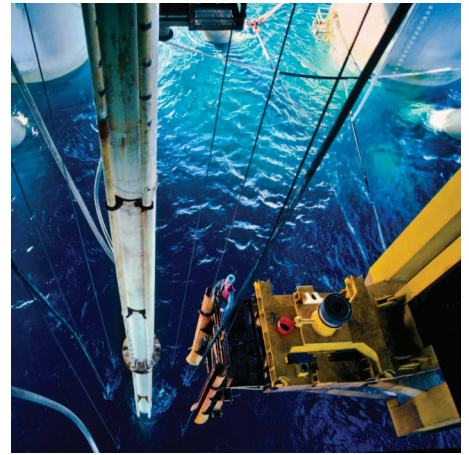


Gimbal Bearing Assembly

Energy management system controls riser string movement for offshore drilling

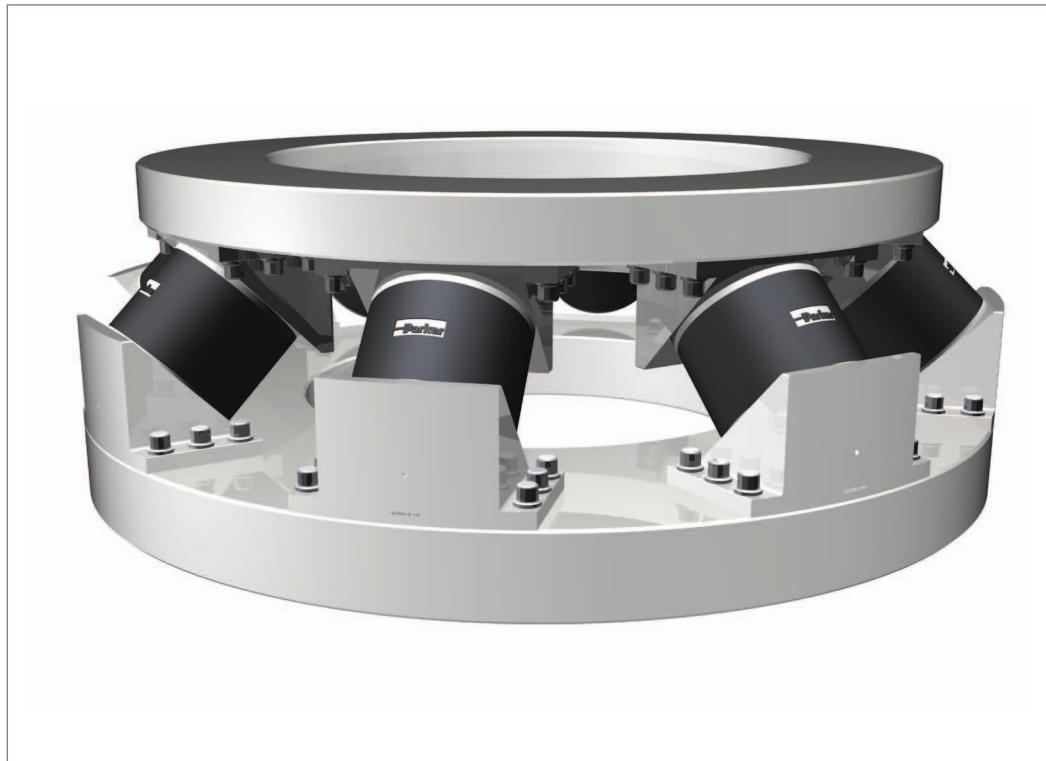


Safeguard drilling risers

Parker offers offshore drillers a competitive, custom, short lead-time solution for energy management gimbal bearing assemblies.

When the requirement is to safeguard multi-million dollar drilling equipment and maintain optimal load distribution under stresses of pitch and roll, customers can rely on Parker's proven performance and design experience. Assembly designs capable of managing riser working loads of 2.5 million pounds are available.

Call the Oil & Gas experts at Parker to learn more.



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www.parker.com/eps

Product Features:

- Design verification to loads of 5.4 million pounds
- Full table assemblies or individual bearing brackets
- Multiple configurations available depending on weight and assembly requirements
- Custom designs to fit existing mating components
- Finite Element Analysis (FEA) optimization on all designs
- Short lead times
- Complete assembly and logistics management



ENGINEERING YOUR SUCCESS.

Qualified Designs

Parker designs gimbal bearing arrangements to fit your application depending on weight and assembly requirement. Our engineering and manufacturing portfolio includes design configurations verified to loads of 5.4 million pounds (*see Figures 1, 2, and 3*).

Call the Oil & Gas experts at Parker to take advantage of the full range of our capabilities, including:

- Finite Element Analysis (FEA) utilization for all designs
- Independent Proof-Load and Design-Verification
- State of the art large diameter manufacturing
- Complete assembly and packaging
- Worldwide shipping and logistics

COMPRESSION TESTS OF PARKER 12.5" GIMBAL BEARING ASSEMBLY
Proof Load to 720 kip and Design Verification Load to 1080 kip

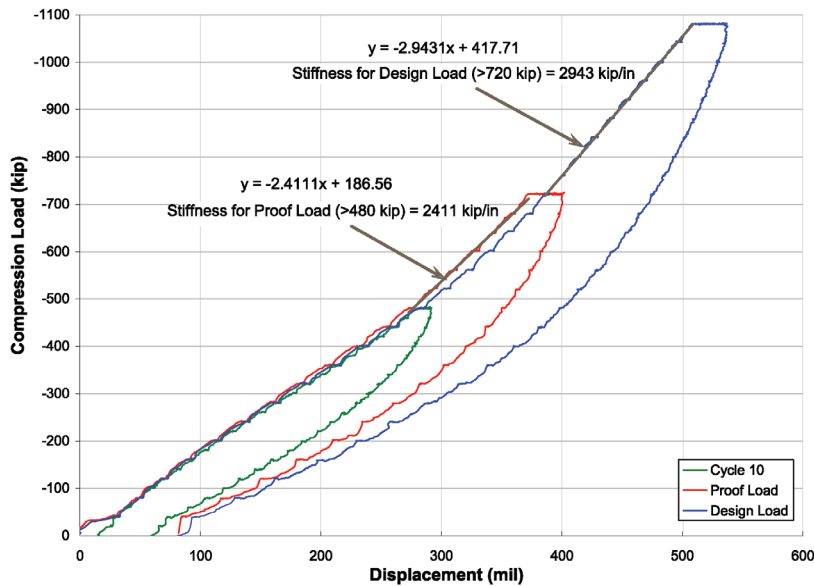


Fig. 1: Proof-Load and Design-Verification Results for Parker 12.5" Gimbal Bearing Assembly

COMPRESSION TESTS OF 12.5" GIMBAL BEARING ASSEMBLY
Gimbal Materials: Parker vs. Competitor
Design Verification Loads to 1080 kip
(Aligned for Comparison)

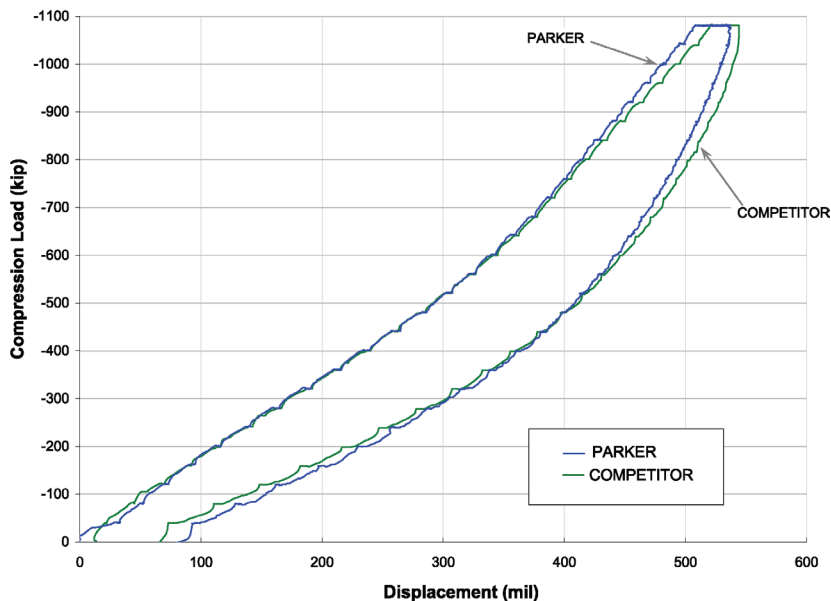


Fig. 2: Comparison of Design Verification Results

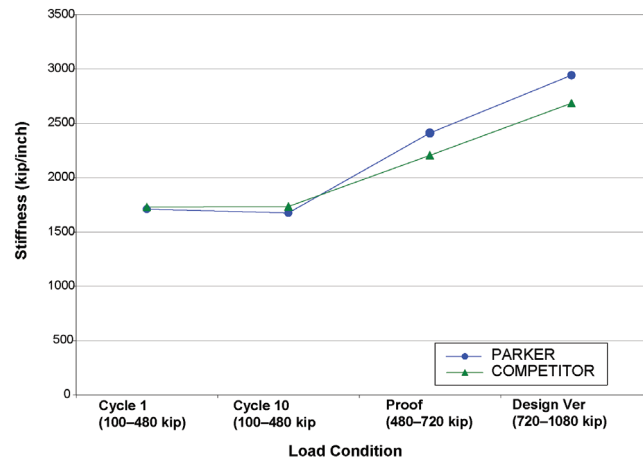


Fig. 3: Comparison of Calculated Stiffness Values

