



**FL 1630**  
For technical personnel only!  
1/2

# APPLICATION INFO

## PERMAGLIDE® PLAIN BEARINGS: BALL HEAD IN STEERING LINKAGES

**Sector:** Agricultural machinery

**Product:**

Permaglide® plain bearing spherical shell design **PAX ... P200**

**Function**

The steering system of a tractor is connected to the steering levers on the wheel via the steering linkage. A ball joint in the tie rod carries out the force transmission with spring suspension.

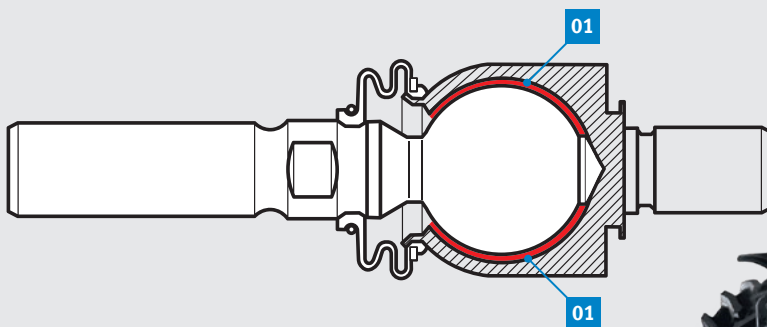
The bearings of the ball joint are constantly subjected to the influences of dirt, moisture, temperature fluctuations and vibrations with heavy impacts under extremely harsh operating conditions.

No play may occur in the ball joint over the entire service life. The ball joint should be maintenance-free over the entire service life.

**Bearing with Permaglide® plain bearing spherical shell design PAX ... P200**

The bearing with Permaglide® plain bearing spherical shells design PAX ... P200 fulfils these requirements and guarantees precise guidance over the long-term despite all these influences. The high wear resistance of the Permaglide® plain bearings ensures that the ball joints have a long service life.

Solid plastic bearing shells are less suited to the application, as plastic bearing shells have a tendency towards creepage or cold flow under the stresses, resulting in play.



Ball head in tractor steering linkage, bearing with Permaglide® plain bearing spherical shells design PAX ... P200 (1)





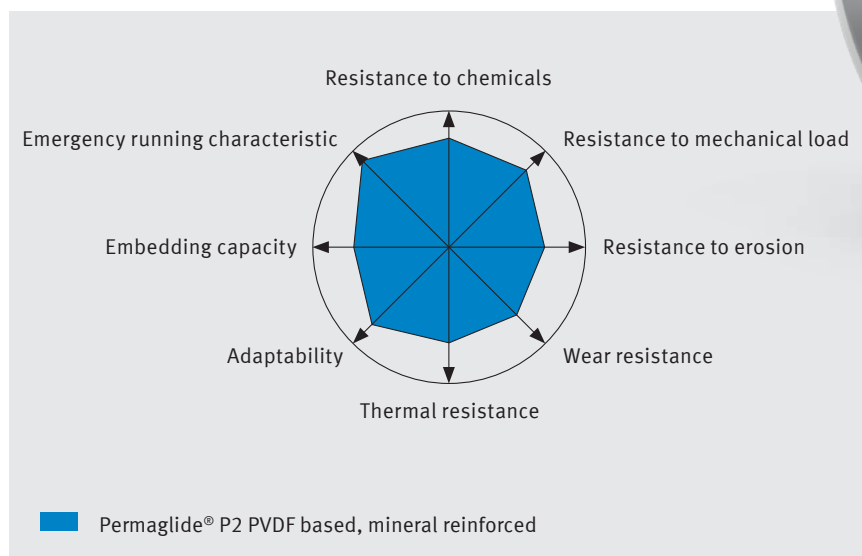
The Permaglide® plain bearings used are rigid and free from play thanks to their multi-layer composite system. The sliding surface also has oil distributing pockets and is initially lubricated to guarantee maintenance-free, low friction values over the entire service life. The bearing is protected from dirt with a rubber sleeve.

#### Advantages of Permaglide® P200 plain bearings

- High wear resistance
- Insensitivity to shocks and impacts
- Highly stressable
- Free-of-play bearing
- Resistant to moisture, no swelling tendency
- Low frictional losses, meaning hardly any loss of power on the steering system
- High damping performance
- Maintenance-free with initial lubrication
- Lead-free
- Compliant with Directive 2011/65/EU (RoHS II)



Permaglide® plain bearing spherical shell design P200



Characteristic profile Permaglide® P2 PVDF based, mineral reinforced



**Further information on**  
**Permaglide® plain bearings**  
Permaglide® catalogue, item  
no. 50003863-02