



Reducing grease for greater efficiency



SKF Explorer steel/steel plain bearings reduce cost and minimize environmental impact

Steel/steel spherical plain bearings require relubrication as part of a regularly scheduled maintenance program. The fresh grease that is pumped into the bearing free-space does little more than expel solid and liquid contaminants. Relubrication does extend bearing service life but not without cost. There are the hard costs including vehicle downtime, costs associated with the process of relubrication as well as grease usage and disposal, all which contribute to the total cost of ownership (TCO). Additionally, there are environmental costs from producing the grease which can be measured in CO₂ emissions.

To reduce environmental impact, SKF has developed SKF Explorer steel/steel plain bearings. These initially greased bearings, which last until the end of their service life without regreasing, are an excellent choice in applications where there are low to moderate levels of contamination.

To extend bearing service life, SKF Explorer steel/steel plain bearings are phosphated and then undergo further treatment to virtually eliminate corrosion and wear. Afterwards, a non-toxic grease is introduced into the bearing free-space. When sealed, this tribological system is so robust that relubrication is not necessary. As a result, grease consumption can be reduced by up to 90% and grease purged from the bearing can be eliminated completely, to further reduce environmental impact.

SKF Explorer steel/steel plain bearings last longer than other sealed spherical plain bearings because they virtually eliminate failures associated with poor relubrication practices which can lead to premature bearing failure. Longer bearing service life means fewer bearing replacements, which further reduces CO₂ emissions.

Environmental benefits*

- Reduced grease consumption
- Reduced grease leakage into the environment
- Reduced waste associated with maintenance
- Reduced CO₂ emissions

* compared to standard steel/steel bearings

SKF Explorer steel/steel plain bearings reduce grease consumption up to 90%.

SKF BeyondZero solutions can help reduce CO₂ emissions, preserve limited resources and protect the environment from the use and spread of toxic substances. For more details, including documentation of reduced environmental impact, visit www.beyondzero.com.



Meeting customer demands

SKF Explorer steel/steel plain bearings help to reduce total cost of ownership

Machinery designers in every industrial segment are focused on developing more environmentally friendly solutions that at the same time will improve reliability and reduce maintenance costs. This is particularly true for applications focusing on agricultural, forestry or construction industries.

To support that effort, SKF has developed SKF Explorer steel/steel plain bearings, a new variant of sealed steel/steel spherical plain bearings. These bearings, which are designed for applications where contamination levels are clean to moderate, can help reduce the total cost of ownership as well as reduce the environmental impact due to the elimination of the requirement to relubricate.

Take as an example, a tractor equipped with six SKF Explorer steel/steel plain bearings with a 100 mm bore. In the course of one year, a single bearing will save 876 g of grease. In total, that one tractor will save up to 5,2 kg of grease per year. That translates into a CO₂ saving of 7,7 kg per year.

The calculations are based upon grease saved by using bearings that are re-lubrication free. Additional benefits of using SKF Explorer steel/steel plain bearings are that they last longer and require fewer replacement intervals, which further reduces CO₂ emissions.

Operational benefits

- Greased-for-life product
- Up to 90% grease reduction
- Increased uptime
- Reduced total cost of ownership
- Elimination of grease leakage into the environment

Operational features

- 50% higher dynamic load ratings*
- Prolonged basic rating service life*
- Robust steel/steel bearings
- Heavy-duty triple lip seal
- High degree of corrosion and wear resistance
- Optimized tribological system
- High performance non-toxic grease

* compared to standard steel/steel bearings



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