



SKF Explorer spherical roller bearings

Setting the industry
standard – again.



Excellence in design and performance

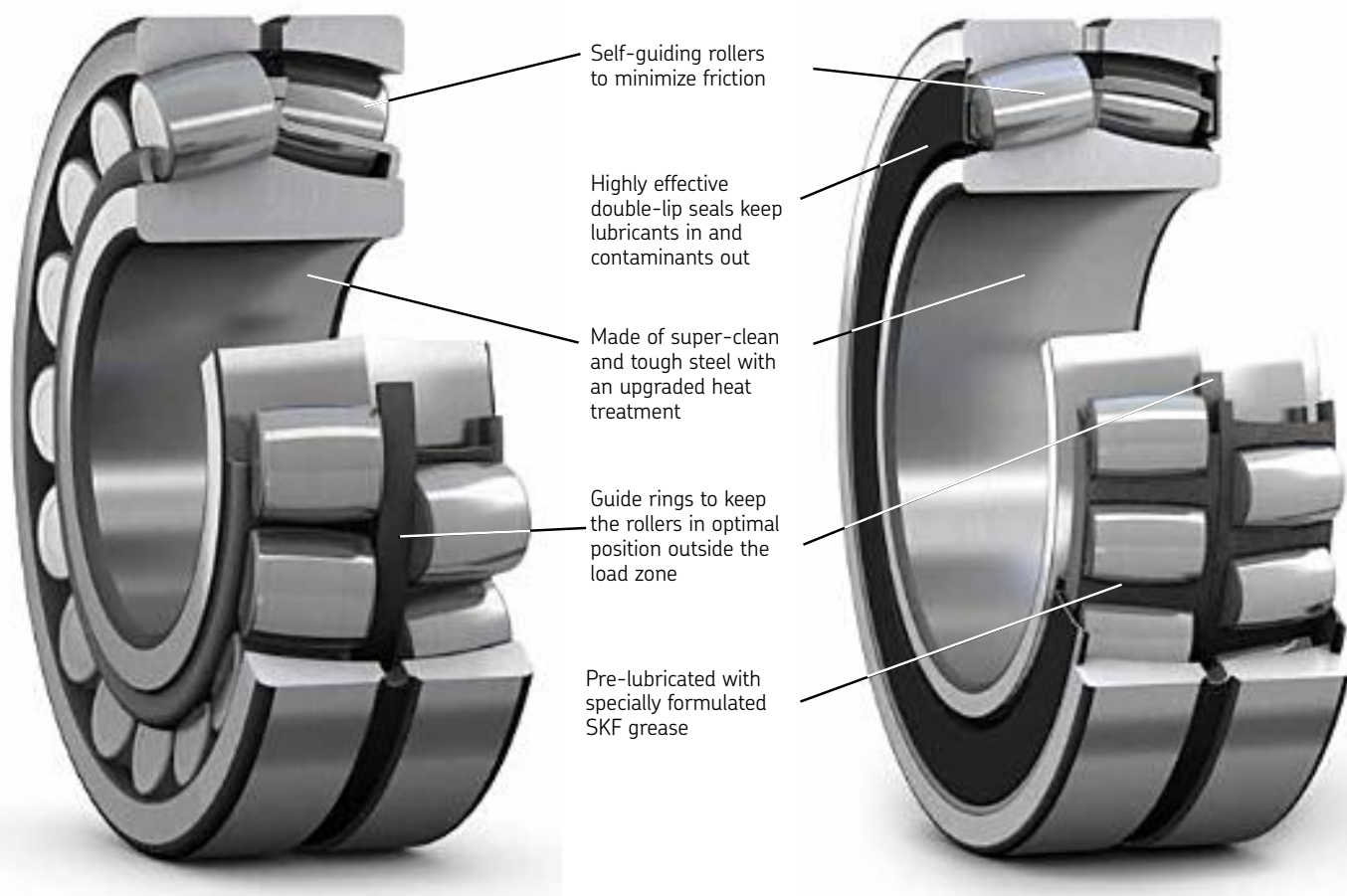
A commitment to innovation and improved bearing performance

From the start, SKF has taken the lead in the development of self-aligning bearings. We introduced spherical roller bearings in 1919 and have been consistently improving them.

Today, all spherical roller bearings are in the SKF Explorer performance class and have been upgraded, featuring a combination of high-quality steel and an improved heat treat process.

Tests conducted in SKF laboratories show that upgraded SKF Explorer spherical roller bearings can last up to twice as long as previous bearings under contaminated or poor lubrication conditions.

Upgraded SKF Explorer spherical roller bearings are marked with "WR" on the package and the bearing outer ring.

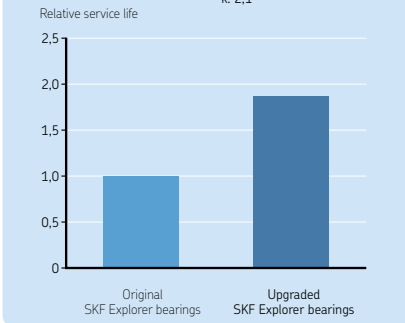




Sealed bearings for superior protection against contaminants

Test conditions
Bearings: 22220 E
The bearings were run-in under contaminated conditions.
 $h_t = 0,2$

Operating conditions after cleaning
Load: 140 kN
C/P: 3,0
Speed: 1 500 r/min
Lubricant: Turbo T 68 mineral oil
k: 2,1



The SKF Engineering & Research centre performed endurance tests under specific contaminated conditions to verify performance improvements of the upgraded SKF Explorer bearings. These test results show that upgraded SKF Explorer bearings provide up to twice the service life under contaminated operating conditions.



Sealed SKF Explorer spherical roller bearings can significantly increase bearing service life in contaminated environments.

These bearings are pre-lubricated with a specially formulated bearing grease and sealed with highly effective contact seals. The seals protect the bearing and lubricant from contaminants that might otherwise cause premature bearing failure.

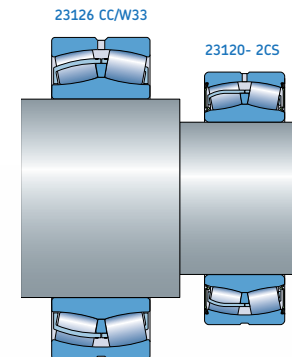
Potential for downsizing

When compared to an open bearing, the higher level of cleanliness inside a sealed spherical roller bearing makes it possible to down-size the bearing arrangement without negatively affecting the service life or performance of the application.

In many applications, these bearings can be considered lubricated for the life of the bearing. By eliminating or extending relubrication intervals, these bearings can significantly reduce the cost to purchase, apply and dispose of grease. Reduced maintenance costs can, in many cases, substantially reduce the total cost of ownership of an application.

Benefits include:

- Significantly reduced need for maintenance
- Minimized grease consumption and environmental impact
- Substantially increased uptime



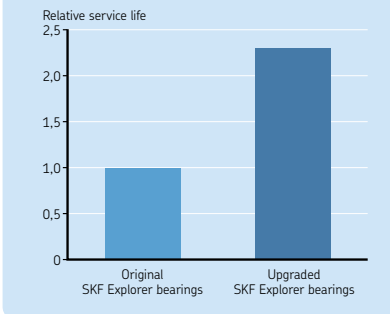
Operating conditions:

Load: 90 kN
Speed: 500 r/min
Typically contaminated environment
Lubrication: Standard SKF bearing grease

These two bearings provide the same rating life when used in a typically contaminated environment.

Test conditions
Bearings: 22220 E
Load: 140 kN
Speed: 1 500 r/min

Lubricant: Turbo T 9 mineral oil
k: 0,45
Operating temperature = 75 °C



Tests were also conducted to verify the service life of upgraded SKF Explorer bearings under poor lubrication conditions. The results show conclusively that upgraded SKF Explorer bearings last twice as long under poor lubrication conditions.

SKF sealed spherical roller bearing range

Bore [mm]	Series										Size
	213	222	223	230	231	232	239	240	241		
25	↔										05
30	↔										06
35	↔										07
40	↔	↔									08
45	↔	↔									09
50	↔	↔									10
55	↔	↔									11
60	↔	↔									12
65	↔	↔									13
70	↔	↔									14
75	↔	↔									15
80	↔	↔									16
85	↔										17
90	↔	↔									18
95	↔										19
100	↔										20
110	↔										22
120	↔										24
130	↔										26
140											28
150											30
160											32
170											34
180											36
190											38
200											40
220											44
240											48
260											52
280											56
300											60
320											64
340											68
360											72
380											76
400											80

= Spherical roller bearings assortment (d<400 mm)
 = Sealed spherical roller bearings
↔ = Sealed spherical roller bearings slightly wider than standard bearing

The SKF range of sealed spherical roller bearings is by far the widest among all manufacturers.





Bearings for specific applications



SKF Explorer bearings for vibratory applications are also available with a PTFE coated bore to virtually eliminate fretting corrosion at the non-locating bearing position. Available sizes: 22308-22348



Identified by the prefix E2, SKF Energy Efficient (E2) help reduce energy use and CO₂ emissions. Available sizes: 22209-22213



Virtually any SKF spherical roller bearing can be supplied as an SKF DryLube bearing.



Virtually any SKF spherical roller bearing can be supplied on request as a Solid Oil bearing.

To learn more, scan the QR code or visit skf.com/SRB



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