FAG

Tapered Roller Bearings E1

Cost-effective – reliable – energy-efficient

SCHAEFFLER GROUP
INDUSTRIAL

Premium quality: Increased efficiency in the application

Tapered roller bearings are characterized by high radial and axial load carrying capacity and by a large useable speed range. They are efficient at supporting forces and ensure a precise and rigid shaft guidance system due to the large effective distance between the bearings. They are adjustable, can be dismantled and are therefore easy to fit.

Why X-life?

Quite simply, tapered roller bearings should offer increased performance. They should operate for longer, generate as little friction as possible and of course be easy to maintain. We are therefore offering our proven catalog series in X-life quality. The geometry, surfaces and materials were optimized.

What improvements are offered by X-life?

- An increase in the basic dynamic load ratings (Cr) of up to 20 % compared to previous designs
- An increase in the basic rating life (L10) of approximately 70 % under the same operating conditions
- Up to 75 % less friction
- Extended maintenance intervals because of improved lubrication
- Lower lubricant demand due to reduced heat generation
- Less noise
- Downsizing possible

A convincing advantage of X-life are product characteristics that provide you with new design perspectives, for example, to design particularly low-noise or high load capacity systems solutions.

High performance
Downsizing
Lower energy consumption
Extremely reliable

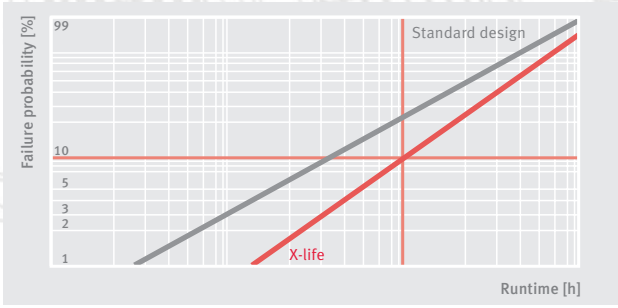
X-life: Improved performance in four dimensions

Higher dimensional and running accuracy

Significantly reduced dimensional and running tolerances compared with DIN 620 tolerance class PN ensure optimal load distribution. Stress peaks are avoided, which reduces material loading.

Through hardened premium material

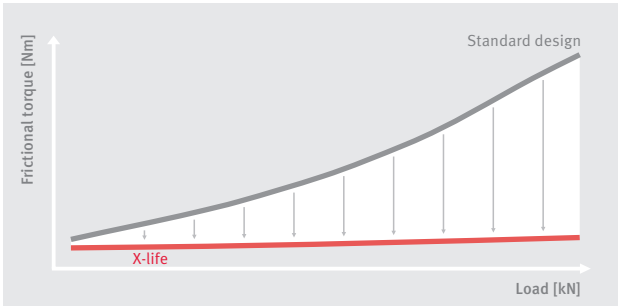
The specially heat treated premium material makes the surface of the inner and outer rings more resistant to solid particles and under mixed friction conditions. This considerably increases the life of the tapered roller bearings.



Optimized surfaces

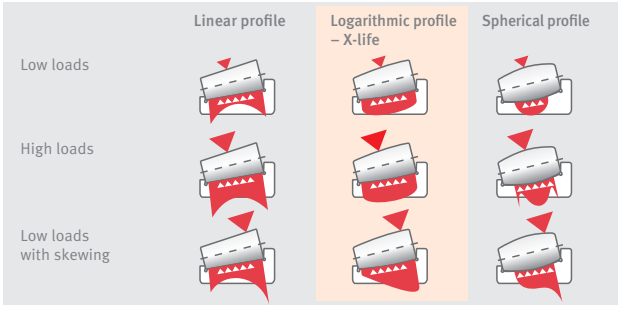
An elasto-hydrodynamic lubricant film is formed even at very low speeds due to the low surface roughness of the rings and the rollers. The bearings can be placed under very high loads directly after initial operation.

Along with the increased dimensional and running accuracy, the improved surface topography significantly reduces the development of friction and heat.



Improved geometry

A matched, logarithmic profile was further optimized for the raceways and the outside surface of the rollers, so that stress peaks under even higher loads and any possible skewing are compensated. The match between the contact geometry of the inner ring ribs and the roller end faces was improved again in order to further minimize friction and therefore reduce heat generation.







MATNR 036911712-0000 / PKE / US-D / 2011032 / Printed in Germany by mandelkow

Schaeffler Technologies
GmbH & Co. KG

Georg-Schäfer-Strasse 30
97421 Schweinfurt
Germany
Internet www.fag.com
E-Mail FAGinfo@schaeffler.com

In Germany:
Phone 0180 5003872
Fax 0180 5003873

From other countries:
Phone +49 9721 91-0
Fax +49 9721 91-3435

Issued: 2011, March