

# 1,7 million km passenger train bearing unit from SKF

The world's first bearing capable of a 1,7 million km service interval finally allows consolidation of wheelset bearing with wheelset maintenance.

## Benefits

- Extend bearing maintenance intervals up to 1,7 million km
- Cut maintenance costs and time
- Increase bearing service life by up to 40%
- Operating temperature reduced by up to 15 °C
- Reduce fatigue failures
- Contributes to increased safety
- Reduce Total Cost of Ownership
- Alignment of axlebox bearing and wheel maintenance

## Achieving maintenance alignment

The passenger rail industry is constantly looking to increase service intervals without compromising safety. Operators stand to make considerable efficiency gains by aligning wheelset bearing maintenance with wheelset maintenance.

SKF's next-generation tapered roller bearing unit (TBU), for maximum speeds of 160-250 km/h, meets the needs of railway operators looking for ways to reduce maintenance costs and time without impacting safety. The bearing enables OEMs to offer extended bearing service intervals to match wheel-set service intervals. This means that rail operators can align maintenance operations to reduce instances of service interruption and keep their trains in operation as long as possible. Enabling two maintenance operations in one stop with fewer bearing replacements also means a significant reduction in overall maintenance costs.



This new TBU for passenger railway applications also reduces fatigue failures and boosts bearing service life by up to 40% compared to the existing comparable offers, helping OEMs and end users to increase safety and maximize profit.



## Increased maintenance intervals, plus a 40% increase in bearing service life



### Improved features for improved performance

Operational features of the new tapered roller bearing unit include higher wear resistance and slower crack propagation.

The optimized contact geometry of the bearing unit decreases friction – lab tests indicate a 30% friction moment decrease – and maintains carrying capacity. This reduction in friction leads to reduced operating temperatures for a longer grease life and extended maintenance intervals.

SKF has also shown in testing that the new bearing unit's enhanced central spacer leads to less fretting corrosion and thus longer grease life. In addition, SKF's patented heat treatment "SKF Xbite II" improves overall robustness and performance of the bearing.

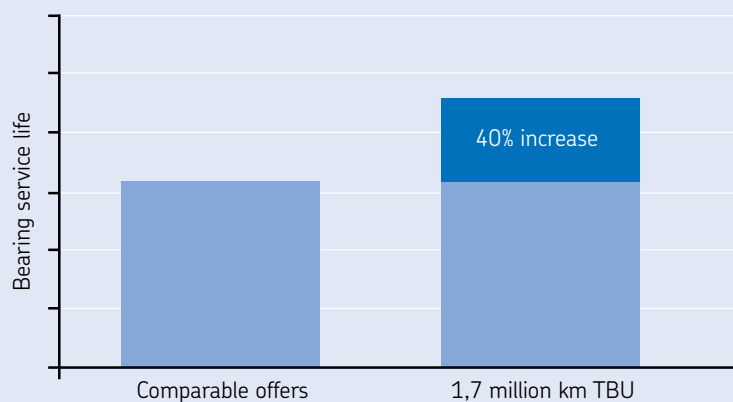
### Technical features

- New heat treatment for rings (Xbite II)
- Optimized raceway/roller contact geometry
- Optimized raceway surface finish
- Change of material for the central spacer to reduce fretting

### Benefits

- Maintenance interval of 1,7 million km
- Alignment of axlebox bearing and wheel maintenance
- Lower maintenance cost
- Lower operating temperature
- Increased total service life and safety
- Reduced Total Cost of Ownership

TBU's 40% greater service life with current comparable offers



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