

Success Story

Industry: Automotive Production

Application: Exhaust Ventilation Application

Cost Savings: € 15 000

Introduction

An international car manufacturer experienced increasing temperatures of their Spherical Roller Bearings in an exhaust ventilation application. NSK was asked to find a solution to this problem in order to reduce temperature generation. NSK Engineering carried out an Application Review including a temperature survey revealing high preload leading to significant temperature increase. NSK suggested using NSK Spherical Roller Bearings. In addition NSK recommended a Training "Application of NSK Bearings". A trial was conducted, resulting in a considerable temperature reduction.

Key Facts

- Exhaust Ventilation Application
- Temperature increase leading to early bearing failure
- NSK's solution: Using NSK Spherical Roller Bearings. NSK Training "Application of NSK Bearings"
- No temperature increase and therefore no bearing failures for more than 12 months
- Productivity improvement
- Cost saving generated



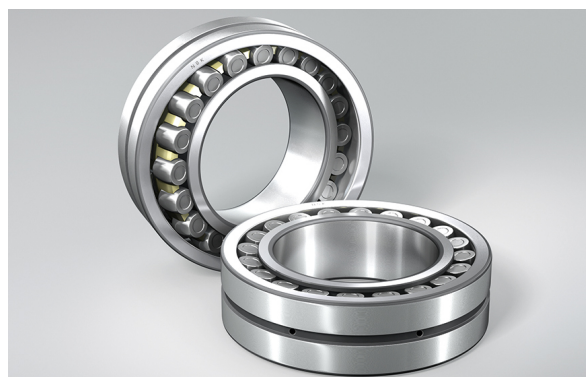
↑ Exhaust Ventilation

Value Proposals

- NSK engineering conducted a Bearing Failure Analysis showing high bearing preload leading to temperature rise
- NSK suggested using Spherical Roller Bearings and a training "Application of NSK Bearings" for the staff
- A trial was agreed which resulted in an increase of bearing life from 6 month to over 12 months
- The implementation of the NSK recommendations has been supervised by the NSK engineering team
- The customer benefited from increased productivity and reduced maintenance costs
- No bearing failure for over 12 months
- Cost saving was realised

Product Features

- Highest load rating SRB's
- High load rating enables downsizing
- Optimum raceway design & surface finishing
- Brass cage design (CAM) or strengthened steel cage (EA)
- Lower maintenance cost and improved productivity
- Temperature stability: up to 200° C
- 40 mm to 260 mm bore size
- Up to twice the operating life
- Up to 20% higher limiting speed
- Dynamic load rating: 25% higher



↑ NSK Spherical Roller Bearing

Cost Saving Breakdown

Before	Cost p.a.	NSK Solution	Cost p.a.
 Mounting - Dismounting	€ 1.000	No mounting costs	€ 0
 Production downtime	€ 14.000	No production downtime	€ 0
Total Costs	€ 15 000		€ 0