

Success Story

Industry: Power Transmission

Application: Bus Gearbox

Cost Savings: 37,667 euros

Introduction

An international manufacturer of angle gears was experiencing frequent and irregular failures on gearboxes fitted to a bus application. NSK investigated this and found the bearing arrangement was complex involving many components from alternative suppliers. As a result, NSK proposed a customised solution with an integrated flanged bearing arrangement which simplified the assembly and gave superior performance. A trial proved this to be successful. The solution was adopted by the customer, resulting in reduced parts needed, consistent performance and guaranteed assembly. This gave the customer a significant cost saving with reduced maintenance costs and improved product performance.

Key Facts

- Bus gearbox
- Irregular and unscheduled failures
- Failures through complex and often incorrect assembly of bearings and components
- Demand for increased service life
- Trials with NSK flanged bearing units
- Approval of NSK product and adaption into production
- Result: reduction of assembly costs and labour costs



↑ Bus drive gear

Value Proposals

- NSK's investigation showed that problems arose during installation of the bearings
- NSK training of employees in the installation and removal of bearings
- Special NSK design solution using flanged bearing units
- Reduction of assembly costs and labour costs
- Great improvement in the bearing performance and reliability
- Cost savings of approx. €37,667 per annum

Product Features

- 35° contact angle for high axial forces
- Compact design
- Special shaft seal with vent hole
- Negative operating clearance
- Housing coated against rust
- Housing sealed by O-ring



↑ NSK Flanged Bearings for gearboxes

Cost Saving Breakdown

Before	Cost p.a.	NSK Solution	Cost p.a.
 Bearing costs (incl. parts)	€112.000	Costs of NSK flanged bearings	€146.000
 Assembly costs (4.000 x 466h)	€16.333	Assembly costs (4.000 x 133h)	€4.666
 Labour costs for replacing bearings	€60.000	Labour costs for replacing bearings	€0
Total Costs	€188.333		€150.666