



## Industry: Steel & Metals

## Application: Material Handling, Walking Beam

**Cost Savings: EUR15,556**

### Introduction

In a steel plant a walking beam moves material in bar form along a conveyor while it cools. This used plain bush type bearings that failed about 6 times per year. NSK analysed the application and suggested a rolling element bearing solution to save downtime and improve output. The plain bush bearings currently used was replaced with spherical roller bearings, these gave a theoretical life calculation of 7.2 years. The bearings were fitted and performed for a year without any intervention. Contaminant ingress reduced and lubrication reduced, giving greater savings to the customer.



↑ Steel Industry - Walking Beam

### Key Facts

- High failure rate, plain bearings used, contaminated environment, high loads
- Outside location, material transport of steel bars
- NSK suggested a solution to save downtime and improve the production output
- The NSK Spherical Roller Bearings have a longer life calculation than actually used bearings
- The NSK products performed for more than one year without any intervention
- Large cost savings were obtained from reduced maintenance and lost production cost

### Value Proposals

- NSK analysed the application suggested a rolling element bearing solution to save downtime and improve output
- NSK Spherical roller bearing with very high load capacity and long life replaced the existing product
- The bearings were fitted and performed for a year without any intervention
- Contaminant ingress reduced and lubrication reduced, giving greater savings to the customer

**Product Features**

- Optimum raceway design & surface finishing
- Up to twice the operating life
- Highest load rating SRB's
- High cleanliness Z-steel
- Temperature stability: up to 200° C
- Up to 20% higher limiting speed
- Lower maintenance cost and improved productivity



↑ Spherical Roller Bearings

**Cost Saving Breakdown**

Previous Solution	Costs p.a.	NSK Solution	Costs p.a.
 Bearing costs	€721	Bearing costs	€430
 Engineering costs	€655	Engineering costs	€0
 Cost of lost production	€14,611	Cost of lost production	€0
<b>Total Costs</b>	<b>€15,986</b>		<b>€430</b>