

Przykład Sukcesu

Sektor: Stal i metale

Zastosowanie: Maszyny do odlewania ciągłego

Oszczędność: € 140.000

Wprowadzenie

An international steel manufacturer experienced regular failures on bearings in a continuous casting machine. This machine is used in the production of shaped sections and due to that, the bearings have to handle heavy loads. The problem was a short bearing life of the standard bearings due to wear and fatigue. The average bearing life was 124 weeks and they had experienced 3 failures to date. After an investigation, NSK suggested to apply a durability test with NSK's SWR Spherical Roller Bearings. These bearings are made of specially developed bearing steel, which has a much better wear resistance and resistance against fatigue. With the NSK solution, the customer could achieve a significant cost saving.

Kluczowe fakty

- Steel & Metals
- Continuous Casting Machine
- Short bearing life because of wear and fatigue
- Heavy operation conditions
- Longer bearing lifetime & reduced maintenance costs requested
- Special Spherical Roller Bearings (SWR Steel)
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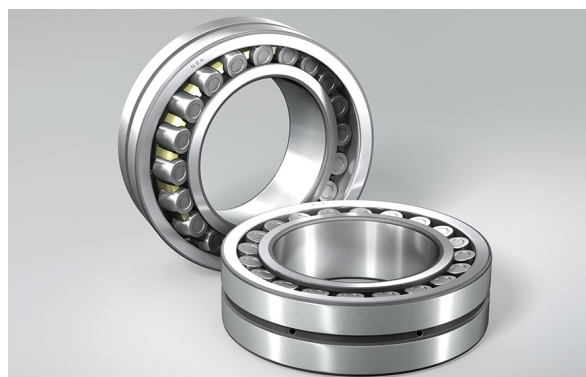
↑ Łożyska baryłkowe SWR i obudowa

Proponowane rozwiązania

- NSK engineers conducted an Application Review including a Bearing Condition Report
- This resulted in SWR Spherical Roller Bearing recommendation.
- Recommended test with SWR Spherical Roller Bearing
- Bearing reached 60% longer life time

Cechy produktu

- Bearing reached 60% longer life time
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- Improved wear resistance - three times compared to AISI 52100 bearing steel
- Minimized outer-ring friction to extend bearing life
- Improved flaking life property - five times compared to AISI 52100 bearing steel
- Material strength improved to prevent breakage of the outer ring after the occurrence of flaking - five times compared to AISI 52100 bearing steel
- SWR can replace standard SRB without modifying the axle boxes



↑ Łożyska baryłkowe SWR

Opis obniżki kosztów przed i po wprowadzeniu rozwiązania NSK

Przed		Roczny koszt	Po	Roczny koszt
	Starty w produkcji na skutek uszkodzenia łożysk	€ 100.000	Brak strat w produkcji	€ 0
	Koszty robocizny związane z wymianą łożysk	€ 40.000	Brak kosztów robocizny	€ 0
Koszt całkowity		€ 140 000		€ 0