

LAS BAMBAS, PERU

Turnkey solution for thyssenkrupp overland conveyors



Sempertrans was entrusted by **thyssenkrupp** to supply and install conveyor belting for two overland conveyor systems in the Las Bambas copper mine in Peru.

thyssenkrupp Industrial Solutions has been collaborating with Sempertrans since 2012, trusting Sempertrans to support them in facing the challenges of the mining industry with innovative and reliable solutions.

In recent years, due to increasingly complex requirements in mining, there has been an upturn in the use of conveyor belts with high capacities and high performance. To respond to the critical nature of these tailored solutions, thyssenkrupp and Sempertrans have worked closely together in order to offer the most efficient and productive conveyor systems to customers.

Over the last few years both companies have successfully implemented several projects in South America, including the Las Bambas mine. These projects are part of Sempertrans' ambition to expand its footprint more widely in the region.

PROJECT IN NUMBERS

Transported material	Copper
Horizontal installation length	2.5 km from ore mine to processing plant
Conveyor length	2.6 and 2.7 km (overland conveyors); 206 m (sacrificial conveyor)
Conveyor belt length	Approx. 12 km
Conveyor belt width	1,830 mm
Conveyor belt tensile strength	5000 N/mm
Transport capacity	9,400 tph
Belt speed	6.5 m/s
Driving power	4.400kW

SUMMARY

PROJECT

Client: thyssenkrupp
Type: Copper mine
Location: Las Bambas, Peru
Date: 2013-2016

RESULTS

- Reliable transport at the highest capacity
- Longer service life
- Lower safety risks
- Reduced capital investments and operating costs

LAS BAMBAS: open-pit copper mine

- One of the most important mining projects undertaken in Peru
- Expected to become one of the largest global producers of copper
- Extends across 35,000 hectares between the Cotabambas and Grau provinces of Apurimac region
- Expected mine life of 20 years due to its considerable exploration upside potential
- Set to deliver 400,000 tonnes of copper per year during the first five years of production
- Boasts 6.9 million tonnes of copper reserves and a 10.5 million tonne resource



CUSTOMER CHALLENGES

- Transport large volumes of copper or iron ore across extended lengths of ground
- Sustain the operational pace of the high capacity mine
- Ensure durable and sustainable operations
- Reduce operating costs
- Provide added value for the end user via customised solutions



SEMPERTRANS SOLUTIONS:

- Design and supply of 12 km of Sempercord heavy steel cord belts
- Special technical and turnkey consultancy for OEMs by Sempertrans' Global Application Engineering team
- State-of-the-art splicing technology
- 24/7 on-site splicing supervision over several weeks by Sempertrans' Field Service technicians
- After-sales support to ensure smooth operations and customer satisfaction

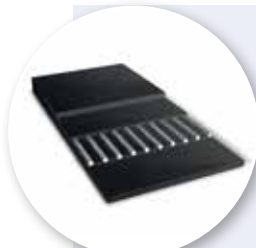
To make sure thyssenkrupp's conveyor systems have the longest service life possible in order to support the Las Bambas long-term project, Sempertrans supplied around 12 kilometres of steel cord belts with a tensile strength up to 5000 N/mm.

These high strength steel cord belts ensure reliable transport at the highest capacities and supply ultimate service life and utilisation. They are the perfect choice in the case of Las Bambas' heavy duty mining application, where steady performance and durability are key.

For this project Sempertrans also delivered adapted splicing kits. The splicing process was completed in July 2015 under Sempertrans supervision, guaranteeing top quality splices and splice longevity.

After-sales customer support was another value-add service thyssenkrupp benefitted from. After the belts were installed Sempertrans sent an Application Engineer on-site to provide expert appraisal and advice on optimum conditions for long-lasting conveying operations thanks to our belts.

SEMPERCORD™



Sempercord high strength steel cord belts are a combination of ultimate carcass breaking strength and lowest elongation. They are made with high-tech rubber compounds and in-house produced steel cords, thus ensuring complete control over the product quality.

Widely used in heavy duty mining applications, as well as industrial environments where reliable performance and availability are key, Sempercord belts comply with all major international standards as much as they can be specified for meeting individually exceeding requirements of high end users.

SEMPERCORD IS THE BEST CHOICE IN CASE OF:

- Heavy duty conditions
- Highest transport capacities
- Long centre distances
- High nominal belt strength requirements

ABOUT THYSSENKRUPP

The Industrial Solutions business area of thyssenkrupp is a leading partner for the engineering, construction and service of industrial plants and systems. Based on more than 200 years of experience, we supply tailored, turnkey plants and components for customers in the chemical, fertilizer, cement, mining and steel industries. As a system partner to the automotive, aerospace and naval sectors, we develop highly specialized solutions to meet the individual requirements of our customers. Around 19,000 employees at over 70 locations form a global network with a technology portfolio that guarantees maximum productivity and cost-efficiency.

ABOUT SEMPERTRANS

With production facilities in Poland, France, China, and India, Sempertrans is one of the largest and most technologically advanced conveyor belt manufacturers in the world. The portfolio includes textile belts and steel cord belts for the most demanding applications in the mining, cement and steel industries as well as other applications such as ports, quarries and chemical industry. Conveyor belts from Sempertrans are distinguished worldwide for their high reliability and long life. Thanks to customised production, they also have an impressive versatility. Sempertrans serves customers from design, through manufacturing and installation, to maintenance, and is represented worldwide by a production and distribution network with expert partners for service and systems design.

