

# TIMKEN® BELTS HELP RETURN STRANDED CARGO SHIP TO SMOOTH SAILING

## CHALLENGE ▼

The design failure of a cargo ship's drive system created a critical problem for a European shipbuilder and design company. Belt life was unable to surpass 72 hours, and each replacement required 1.5 days, leaving the ship stranded and unable to sail without a functioning belt. This posed a significant operational risk, with the looming threat of multimillion-dollar claims against the shipbuilder and design company. The initial design relied on calculations based on a two-pulleys drive system and lacked a tensioner, which exacerbated the situation and called for immediate corrective action.

## TIMKEN BELTS SOLUTION ▼

With the exceptional expertise of Timken engineers, a new belt solution was proposed to address the failure. The chosen design was an RCK245-6 banded belt constructed of aramid cord and chloroprene rubber with an anticipated lifespan of 5,000 hours. Additionally, the tensioner was reconfigured to the proper position, ensuring optimal functionality of the drive system and smooth installation. Expedited shipping promptly delivered the engineered belts to the customer.

## RESULTS THAT MATTER ▼

The MTO (made-to-order) belts in conjunction with the redesigned tensioner and newly installed belt drive system proved to be a resounding success. At the time of publication, the installed belts had been running smoothly for nearly three months without any issues. The corrective measures not only circumvented the immediate crisis but also delivered a reliable, long-term solution, mitigating the potential ~\$1.5 million claims and restoring confidence in the ship's operations.



**26X BELT LIFE!**

BELT LIFE  
(COMPETITOR'S)  
**3 DAYS**



BELT LIFE  
(TIMKEN BELTS)  
**78+ DAYS**

RCK245-3 Shown

Timken Belts is part of The Timken Company's growing portfolio of engineering bearings and industrial motion products. Timken Belts manufactures premium-performance power transmission belts that help keep industry in motion and the world more productive.

Performance Driven. **Performance Proven.**

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