

At the IFB Main Hub Terminal Antwerp

STACKING CONTAINERS SKY HIGH

The Belgian multimodal cargo service provider Inter Ferry Boats (IFB) chose Konecranes' straddle carriers for the daily operations at its main hub terminal in the port of Antwerp. The clincher for the deal was not only smart machines, but also the full maintenance provided by Konecranes.

KONECRANES®

Operational for more than a year now, the straddle carriers are proving to be up to the challenge of meeting a variety of daily needs for Inter Ferry Boats.

Personnel from the day shift of IFB's main hub start unloading and loading trains and trucks at six in the morning, keeping the firm's daily business running on the northern outskirts of the city.

For already two hours huge rail mounted gantry cranes (RMG) have muscled quick and quiet over the rail tracks on the southern edge of the 150,000 square meter (1.6 million square feet) terminal area as the morning fog burns off, and the first rays of the sun reveal endless rows of blue, green and red containers.

Different company names on the containers make it immediately apparent that this is one of the places where huge amounts of goods from all over the world enter and exit Belgium—and Europe.

This is also the place where the international cargo meets with Konecranes' state-of-the-art engineering: between the rows of containers several spiders of steel are towering 15 meters (49 feet) into the sky. They are Konecranes' diesel-electric driven straddle carriers, which were delivered to Inter Ferry Boats' main hub last year.

Several of the carriers are already in operation this morning. Numbers 22, 19, 14 and 21 are still waiting as IFB personnel generally need 5 to 7 carriers at first to move and sort the containers delivered by shuttle trains. At the start they are handled by the three RMGs. All nine straddle carriers have a lifting capacity of 50 metric tons: they can stack containers up to 4 high, and can handle all sea transport ISO containers with lengths of 20, 30, 35, 40 and 45 feet (6, 9, 10.6, 12 and 13.7 meters).

Everything starts with preventive maintenance

When we visited the terminal, the transferred container This morning Konecranes' IFB site supervisor **Stephen Verhulst** is taking care of a very important task. One which is crucial to the agreement IFB made when they chose Konecranes' straddle carriers—maintenance. For one of the carriers



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it's time for its regular 2,000-operational-hours preventive check-up.

This means checking every single bolt, changing the oil and filters, checking the electrics and cables in a maintenance hall standing 17 meters (57 feet) high and built out of containers.

"Taking care of the maintenance on a single carrier is a 60 man hour task, so it would take more than a week to finish the maintenance alone," Verhulst says.

A Konecranes straddle carrier is designed to require less maintenance than conventional machines.

It is of crucial importance for Inter Ferry Boats to keep the machines up and running without any unexpected downtime. As with other industries, the most effective way of avoiding trouble in the cargo and logistics business is to prevent it. That's been Verhulst's core task at the IFB terminal site since 2008. He knows there will be a lot to do in the future: IFB and Konecranes have a 30,000 working hour maintenance contract for the straddle carriers.

New equipment, more capacity

Keeping the straddle carriers running isn't the only advantage IFB gained as it gave up using its old rubber tired gantry crane (RTG) from another manufacturer and reach stacker based system and ordered nine Konecranes straddle carriers in 2008. It also made it possible for the company to speed up container handling and expand the capacity of the main hub intermodal terminal from some 200,000 units per year to up to 300,000 units per year. And to boost it reliably, the operator needs well-designed equipment like the Konecranes carrier which is actually based on the knowhow bought by Konecranes several years ago.

"Konecranes actually redesigned the straddle carrier completely to incorporate the solution synergy widely used in other Konecranes products. The development process was no paint and stickers trick," Konecranes' Port Equipment Branch Manager **Tom Colpaert** says.

"This is a completely new product which expands our port equipment portfolio. With IFB, we've landed our first straddle carrier deal from Belgium."

On the border of Europe

The early morning shift leaves the IFB terminal area and new operators enter the cockpits. Foreman **Michel Vlieghe** observes the straddle carriers moving around in the terminal area and gives some orders via walkie-talkie. Every now and then there's a need for special instructions despite IFB's sophisticated computer system controlling the ballet of straddle carriers and RMG cranes in the terminal yard. Sometimes the carrier operator just needs an extra pair of eyes on the ground to be able to deliver his load exactly to the right spot.

The computer system also needs an operator of its own. Today the main brain in IFB main hub cargo handling



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activities is Paul Jonckers. He's the man who will conduct the cranes, carriers, containers and trucks in an effective logistics symphony—the man who knows precisely where to unload, load and stack the containers and to enter all the information needed into special software running on three interconnected computer displays on his office desk.

"The computer system tells the straddle carrier operator where to pick up a container and where to put it down. All the stack positions and loading positions have been numbered for this reason. And if something should change, the operator automatically receives a request to refresh his mobile terminal screen to bring the orders up-to-date," Vlieghe explains.

This way Paul Jonckers and other coordinators manage some 15,000 to 20,000 containers every month at IFB's main hub terminal.

A very special feature in Inter Ferry Boats' control system is the built-in, real time access for the Belgian customs authorities. They can see all the data at any time and, when suspicious, take the measures needed for law enforcement.

"They can block any container at any time online," says **Johan Gemels**, General Manager of IFB Terminals.

The Belgian customs authorities consider the IFB main hub terminal in Antwerp as the border of Europe.

When leaving Antwerp by IFB shuttle train to the port of Zeebrugge, every single overseas container has virtually left the EU even though it is still in-country.

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