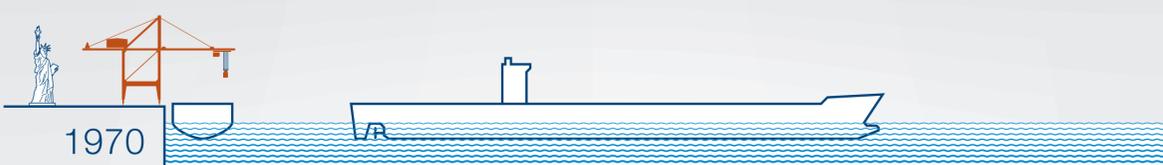


Smooth operator Controlling ship-to-shore cranes remotely

The cranes of the world's container terminals move several hundred million containers each year and, with the volume of international trade growing annually and the need to reduce fuel costs, there is a trend towards larger ships needing higher ship-to-shore cranes with longer outreach.



x4 Container ships today carry four times more cargo than their 1970s predecessors

x2 To handle the largest ships, the lifting height of cranes has doubled since 1970



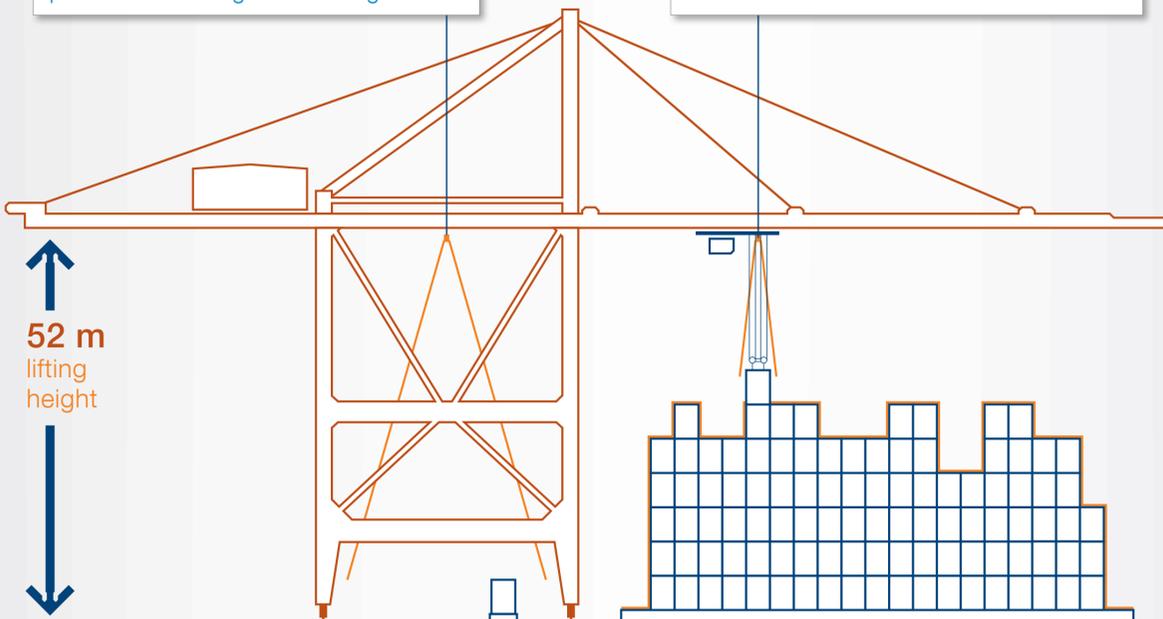
ABB innovations over the past few decades have transformed the way containers and cargo are handled – by automating crane and terminal operations, goods can be moved **quickly** and **safely**, with **precision**, with **increased productivity** and with **energy efficiency**. These minimize expensive berthing times and **reduce** the total cost of cargo transportation.

With bigger ships comes the need for new innovative ways of thinking

Cameras provide superior visibility, improving performance and enabling operators to supervise the process remotely from a central control room.

Precision vehicle positioning guides transport vehicles to the optimal position for loading or unloading.

Eliminates pendulum motion even in windy conditions and when the container is unbalanced.



Profiling ship for speed and efficiency
Using ABB's system the ship's profile is created and used to identify the fastest and most efficient route between the ship and the shore to provide fast and efficient loading and unloading.

2 cm

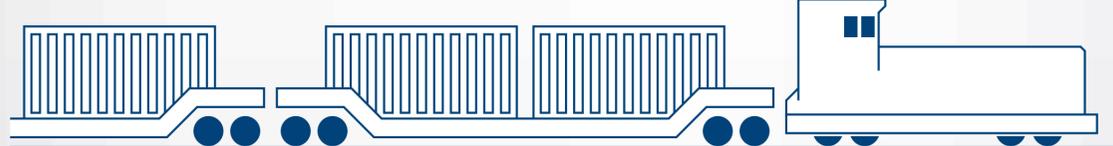
ABB innovations enable containers to land on vehicles to within 2 cm accuracy, roughly the width of a US 1 cent coin.

If all the containers on a modern cargo ship were loaded onto a train it would span more than 71 km.



One container
can hold 25,000 bananas

71 km
long freight train



The increased volume of container traffic demands higher speed transfers to and from ships. This places enormous strain on the operators sitting high in their cabins, hunched over controls, looking down between their feet to position containers while shuttling back and forth on the crane.



Remotely operated crane technology **gets crane drivers out of the moving cabins** and **into ergonomically designed control rooms** with cameras providing better views of ships, containers and transporters than ever before.

Sources:

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