



Faiveley *Stemmann-Technik*
A **Wabtec** Company

/// **Going Green on Shore Power**

Reimund Glückhardt

Tender Leader Industry, Stemmann-Technik

Power Collection Industry, a Wabtec Company

Stemmann-Group, Gerken Group, Transtech, Akapp, GT/GTAE

/// Facts & Figures of Stemmman-Technik

Key Facts

Founded: 1912 in Luxembourg
since 1950 in Schüttorf · Germany

Legal form: limited liability company [GmbH]
Employees: about 500 [Schüttorf · Germany]
about 120 [France · Netherlands · Poland]

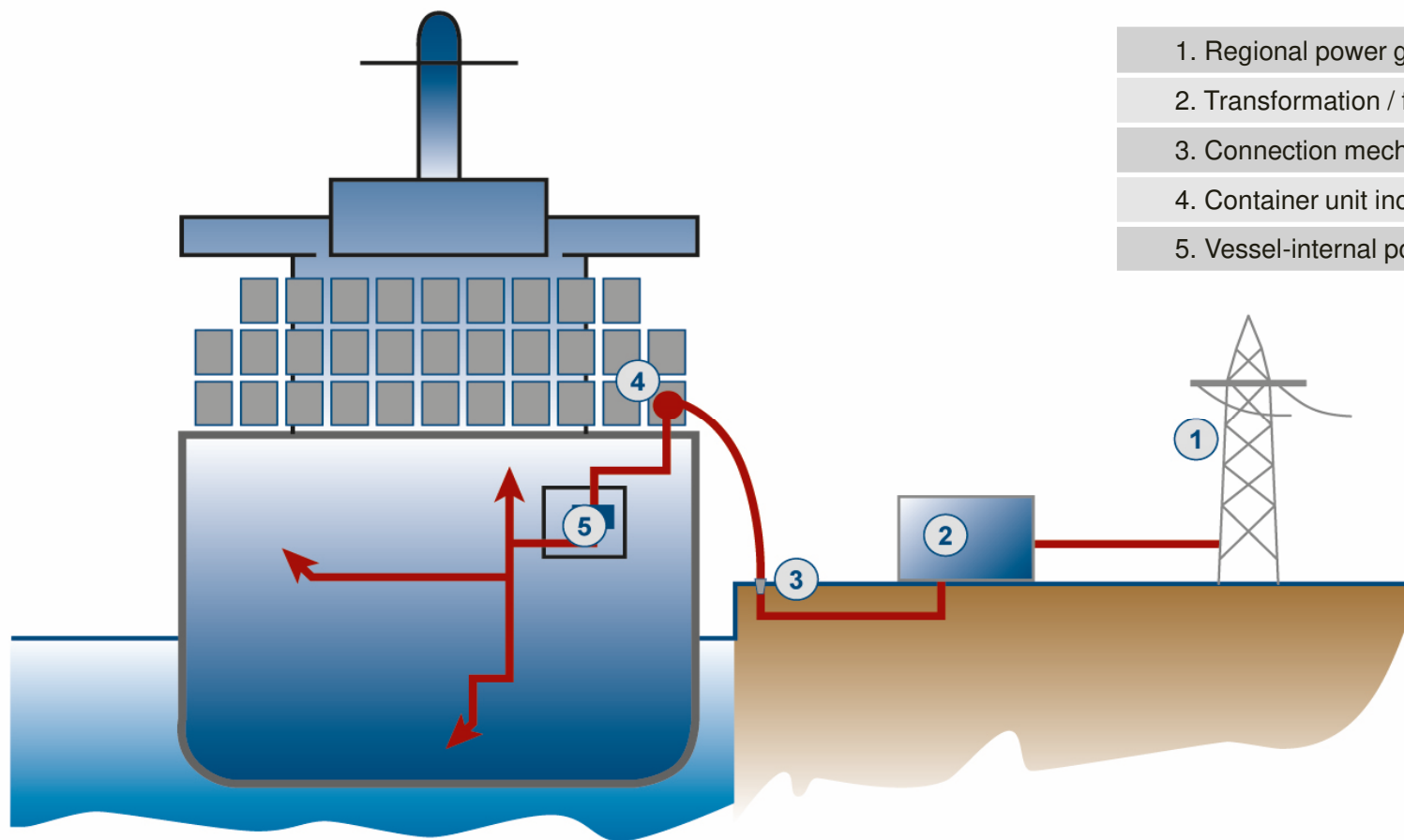
Areal: 56.000 m²
Workshop: 15.000 m²
Office: 2.700 m²

Owner: **Wabtec Corporation since 2014** (Westinghouse Air Break Technology)
components for railway industry (incl. Faiveley Transportation & GE Transportation)
(breaks, pantographs, doors, air condition, several electrical components)
about 27.000 people, 8 bn US\$



/// ShoreCONNECT & FerryCHARGER

Stemmann Scope



1. Regional power grid
2. Transformation / frequency adjustment in the port
3. Connection mechanism at the quays
4. Container unit incl. cable reel
5. Vessel-internal power grid

/// Average Power Requirements

...for various vessels types, **LVSC/HVSC**, according to IEC Standard



Container Ship	up to 7 MW
Cruise Ship	up to 20 MW
Reefer	up to 8 MW
Ro-Ro/ Ferry	up to 8 MW
Tanker	up to 6 MW
Bulk general cargo ship	up to 4 MW

ShoreCONNECT

/// Container Vessels



/// Cable Reel Container Systems

...for container vessels / mobile socket



ShoreCONNECT

/// RoRo / RoPax / Special Vessels



/// Project Rotra Vente ShoreCONNECT Cuxhaven

...for various vessels types



/// ShoreCONNECT Variants

for various vessels types including connection box land side and/or onboard unit



ShoreCONNECT

/// Cruise Ships



/// Onshore Power Supply for Cruise Liner

...fast and simple connection to the cruise ship



/// Onshore Power Supply for Cruise Liner

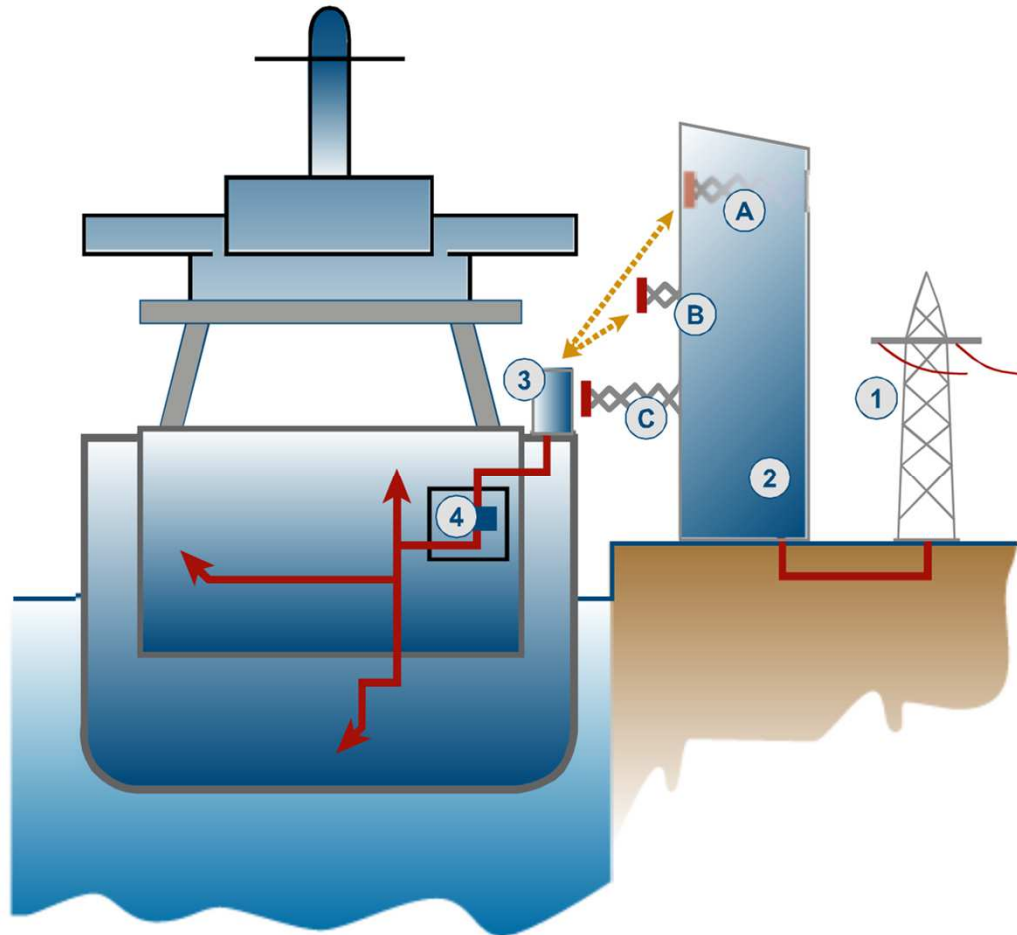
...it can be handled by any person



/// FerryCHARGER for Electric Ferries – Fully Automated Connector System – Overview

automated tower solution within 10 seconds

- ① Regional power grid
- ② Onshore system (tower)
- ③ Onboard system (shipside unit)
- ④ Ferry internal power grid
- A Arm in parking position
- B Arm movement
- C Arm connection



/// FerryCHARGING – Fully Automated Connector System

Crossing Anda-Lote, Norway, MF Gloppefjord & MF Eidsfjord



/// FerryCHARGING – Fully Automated Connector System

automated tower solution within 10 seconds



shipside unit

various
tower
heights



tower

/// FerryCHARGING – Fully Automated Connector System

Crossing Anda-Lote, Norway, MF Gloppefjord & MF Eidsfjord



/// Battery drive systems in the future ?

...German cities with coming up restricted areas for diesel cars in Germany starting latest on April 1st 2019

Dieselfahrverbote

gerichtlich angeordnet oder bereits in Kraft





Reimund Glückhardt

Tender Leader – Industry

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