

# Brake Technology and Assistance Tools for Safer and More Efficient Port Operations



**MEDITERRANEAN**  

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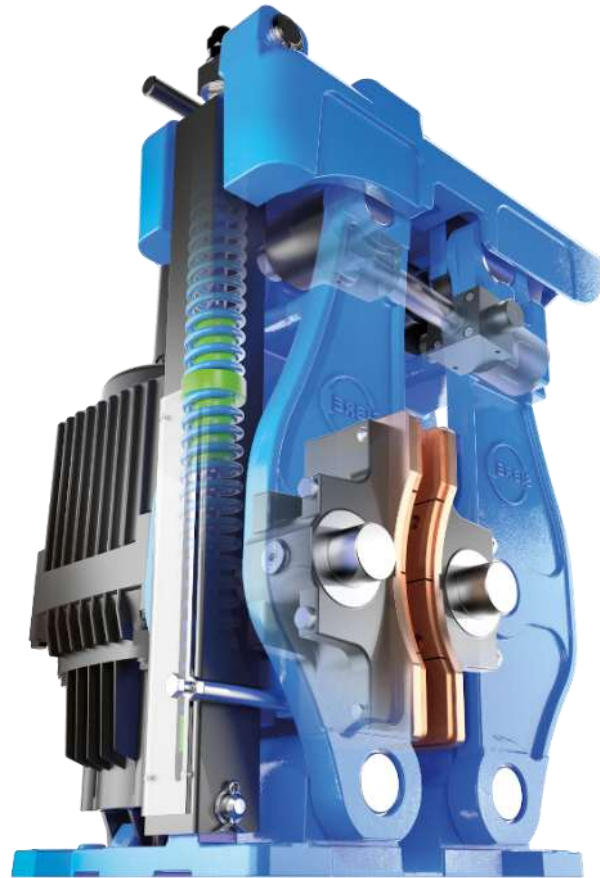
Ports and Logistics **2026**  
Porto | Portugal

# About SIBRE

- Industrial brake and drive components manufacturer since 1958
- Private German owned company
- Headquarters in Germany and International presence
- 13 Subsidiaries and >50 partners/agents around the world



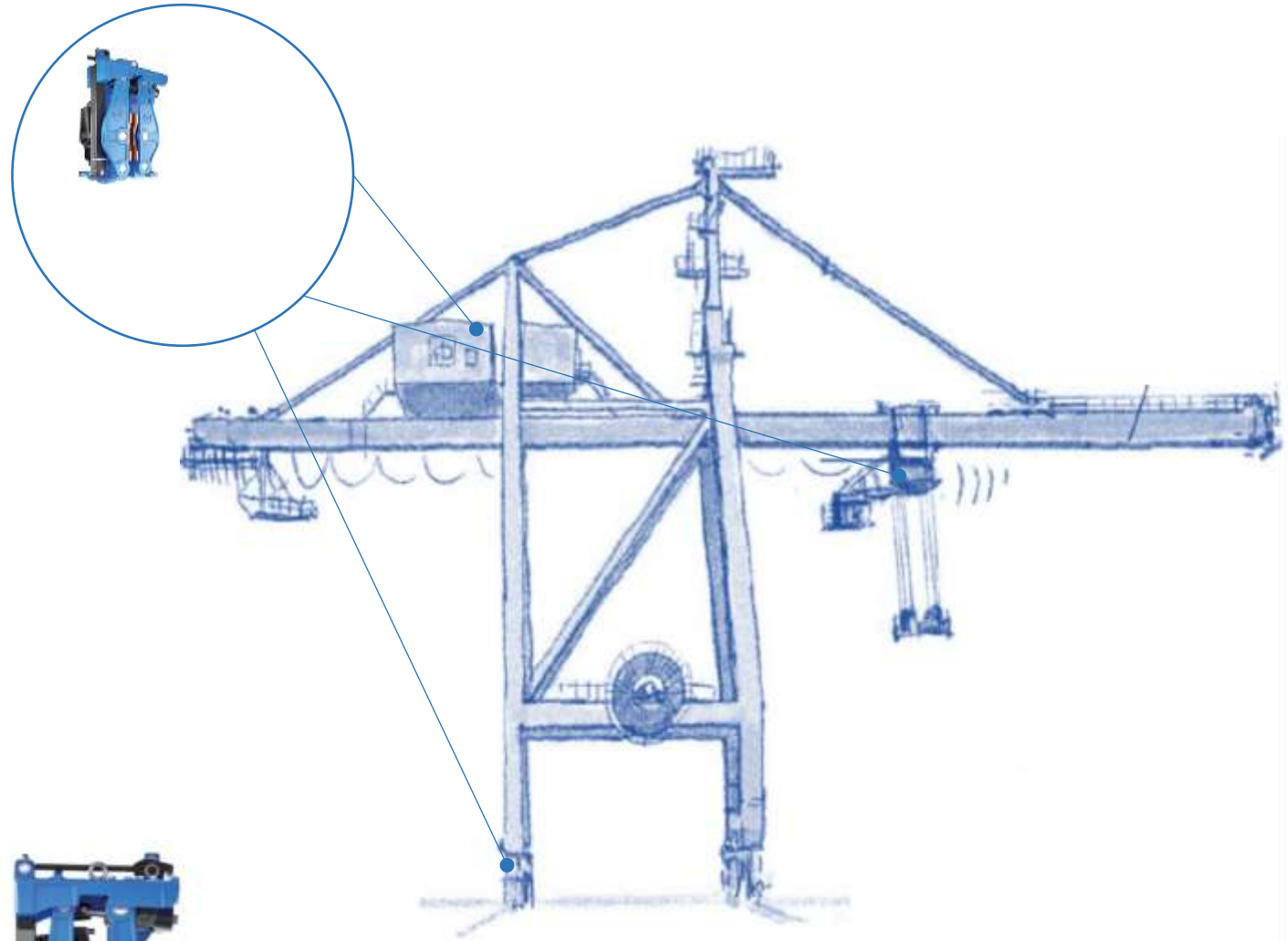
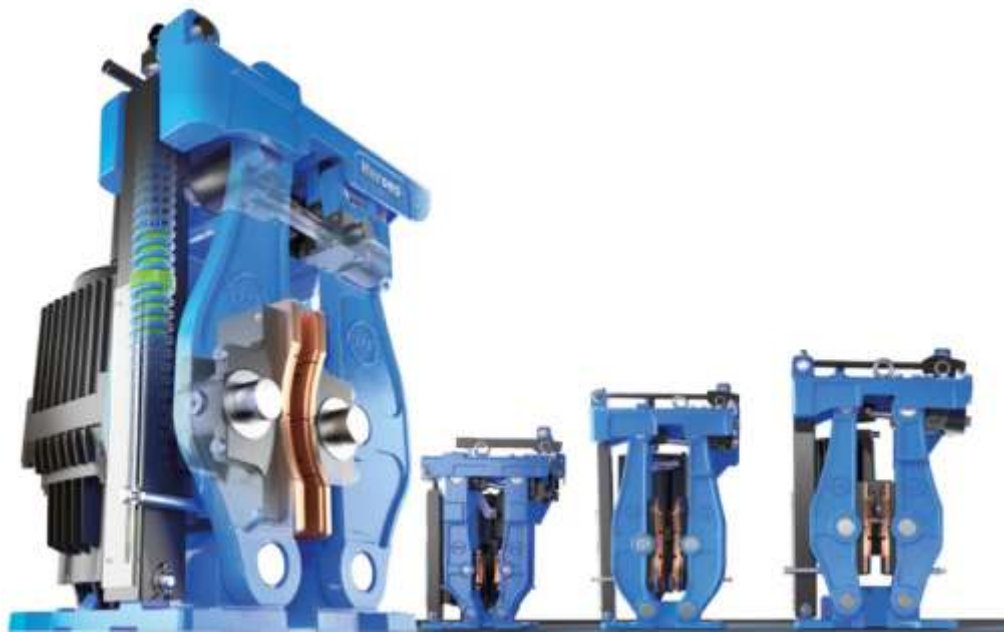
# BRAKES



# Brake systems

Brakes for all drive systems

- Service brakes

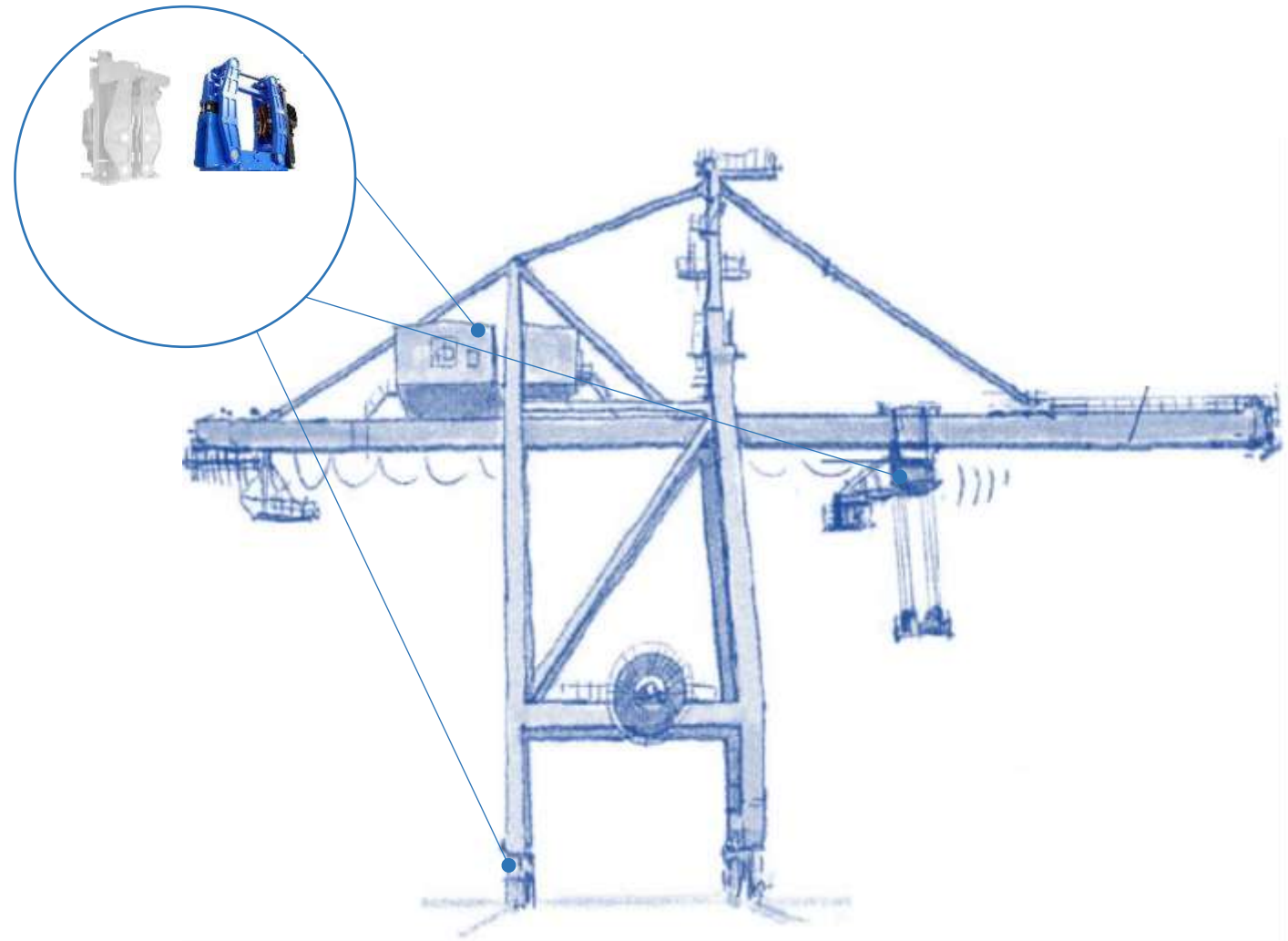


USB: All Size for all Applications

# Brake systems

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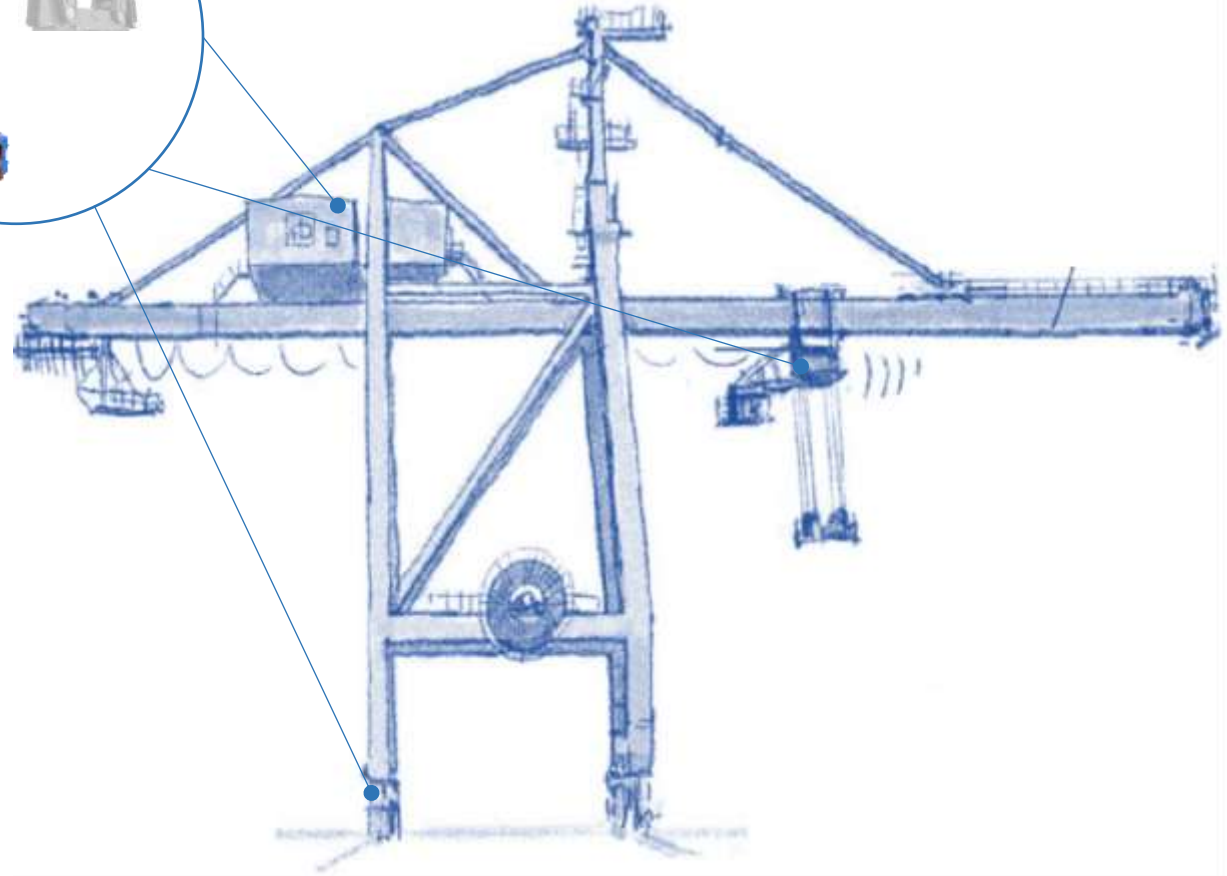
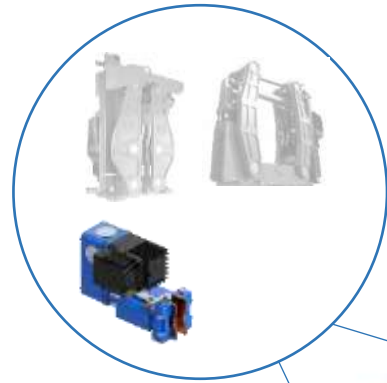
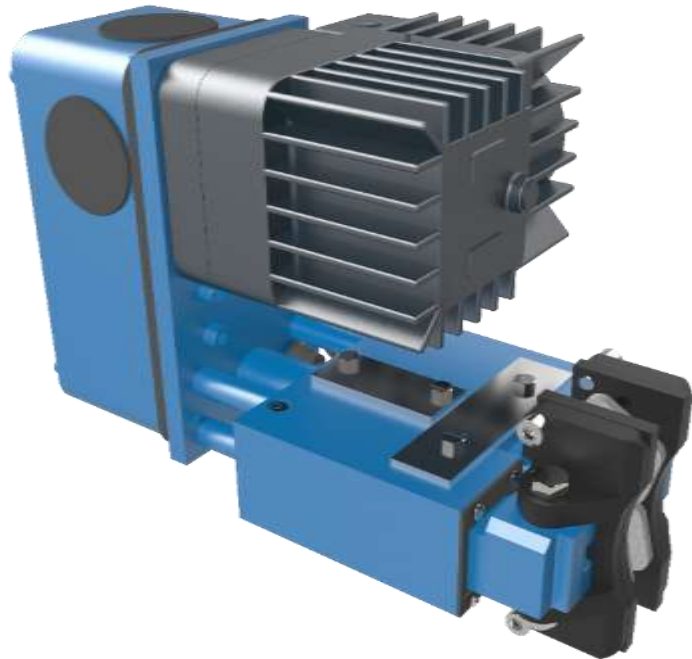


TEXU: Unique Twin Caliper Service Brake

# Brake systems

Brakes for all drive systems

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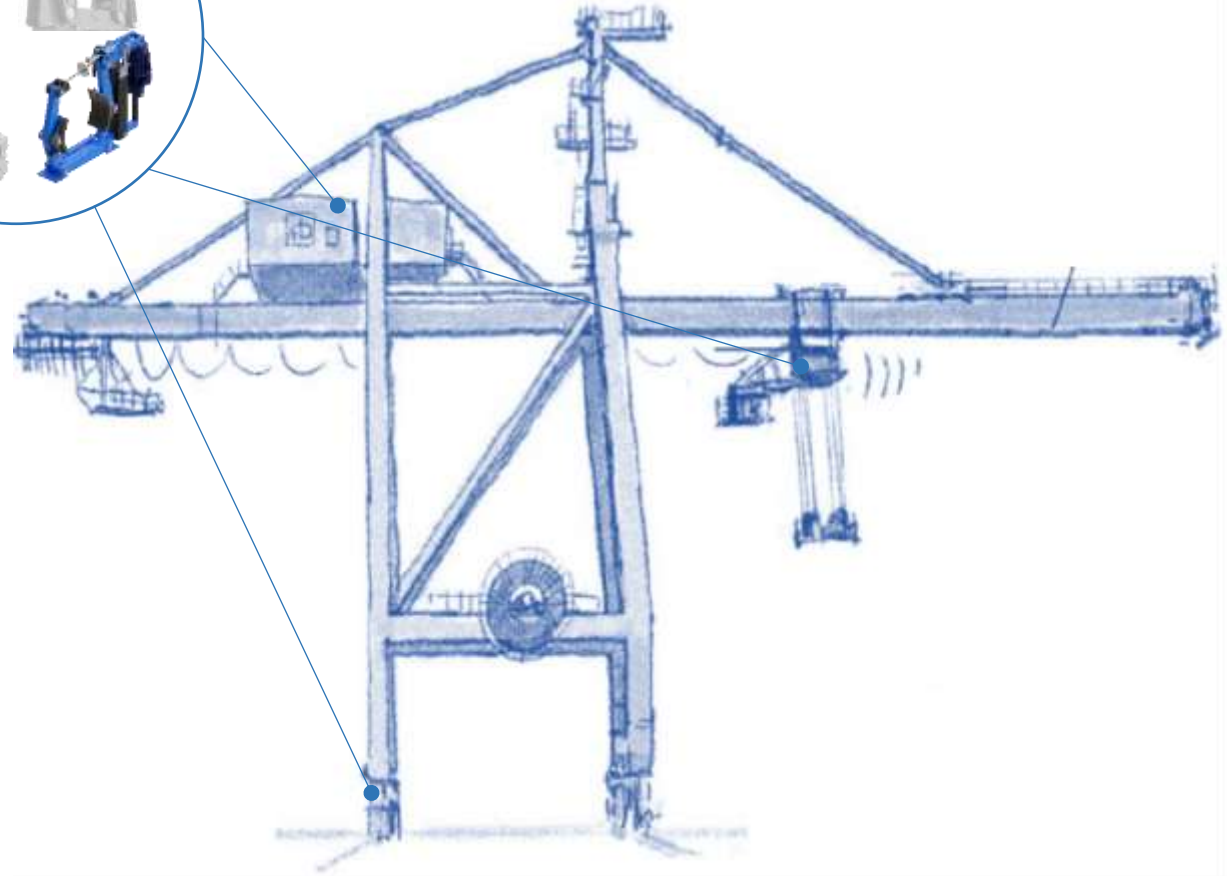
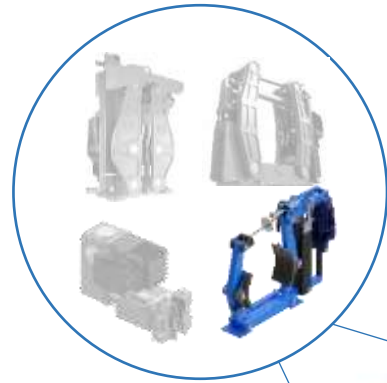


CB8: Unique Free Maintenance Compact Brake

# Brake systems

Brakes for all drive systems

- Service brakes

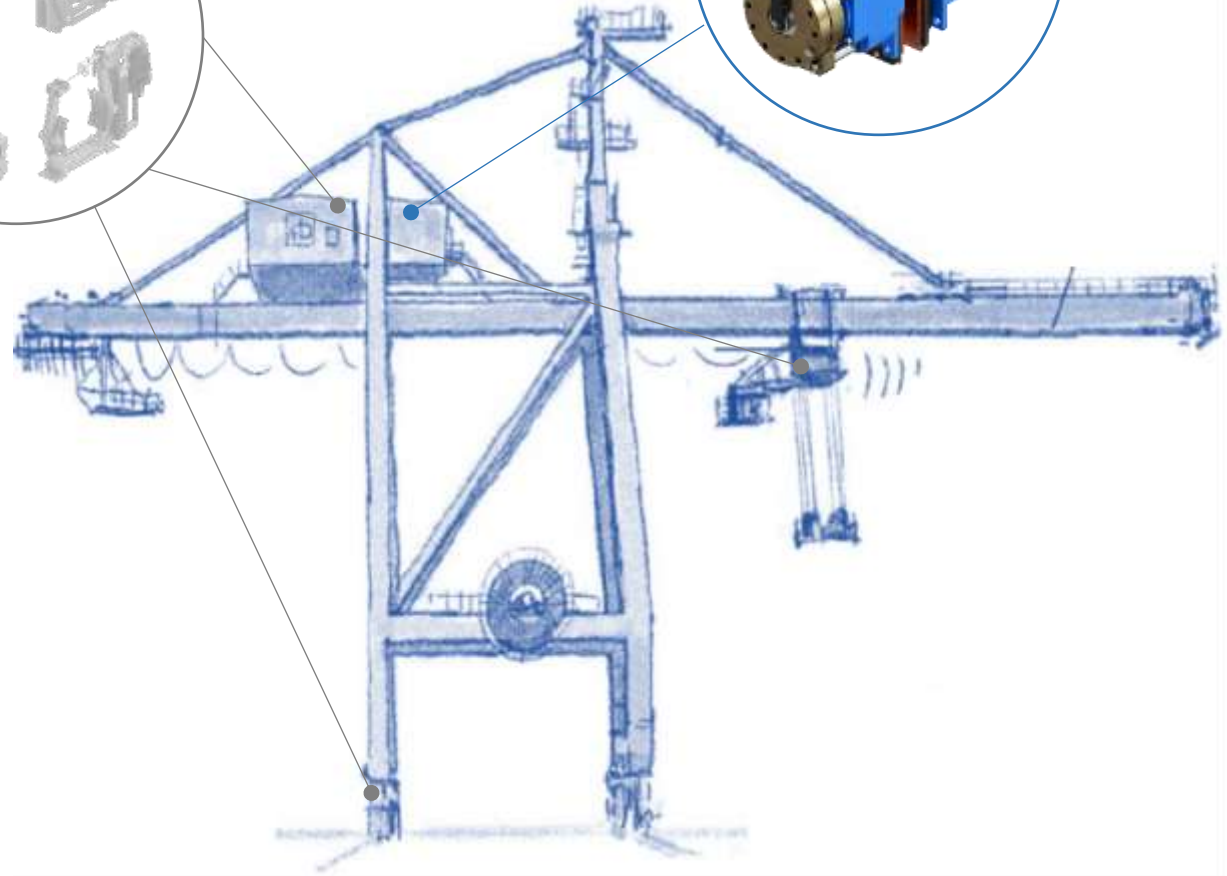
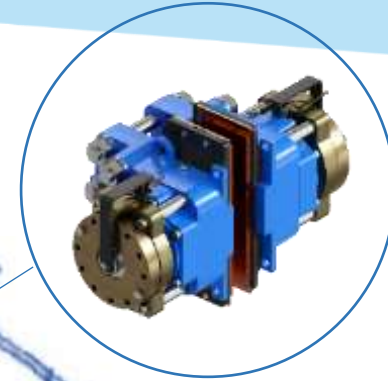
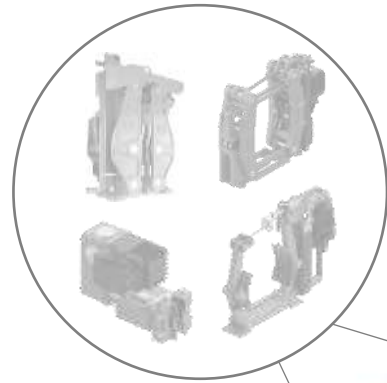
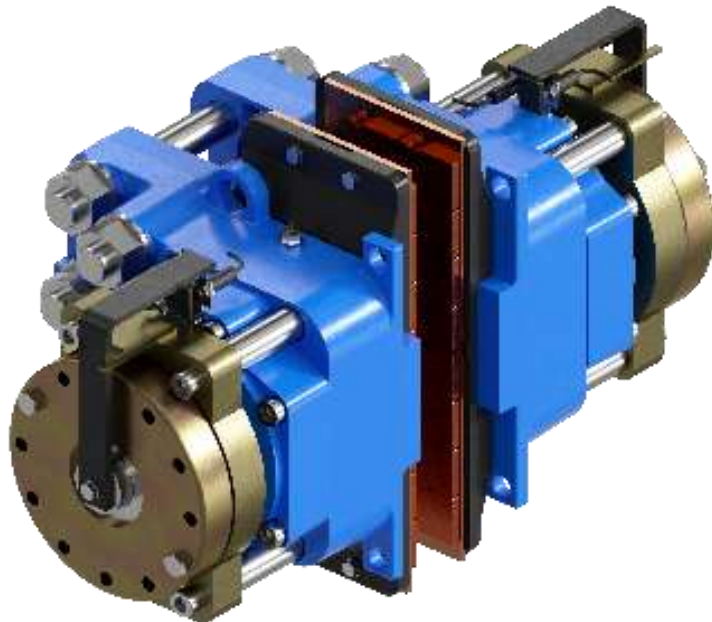


TE: Drum Brake with 60 years of Experience

# Brake systems

Brakes for all drive systems

- Service brakes
- Emergency brakes

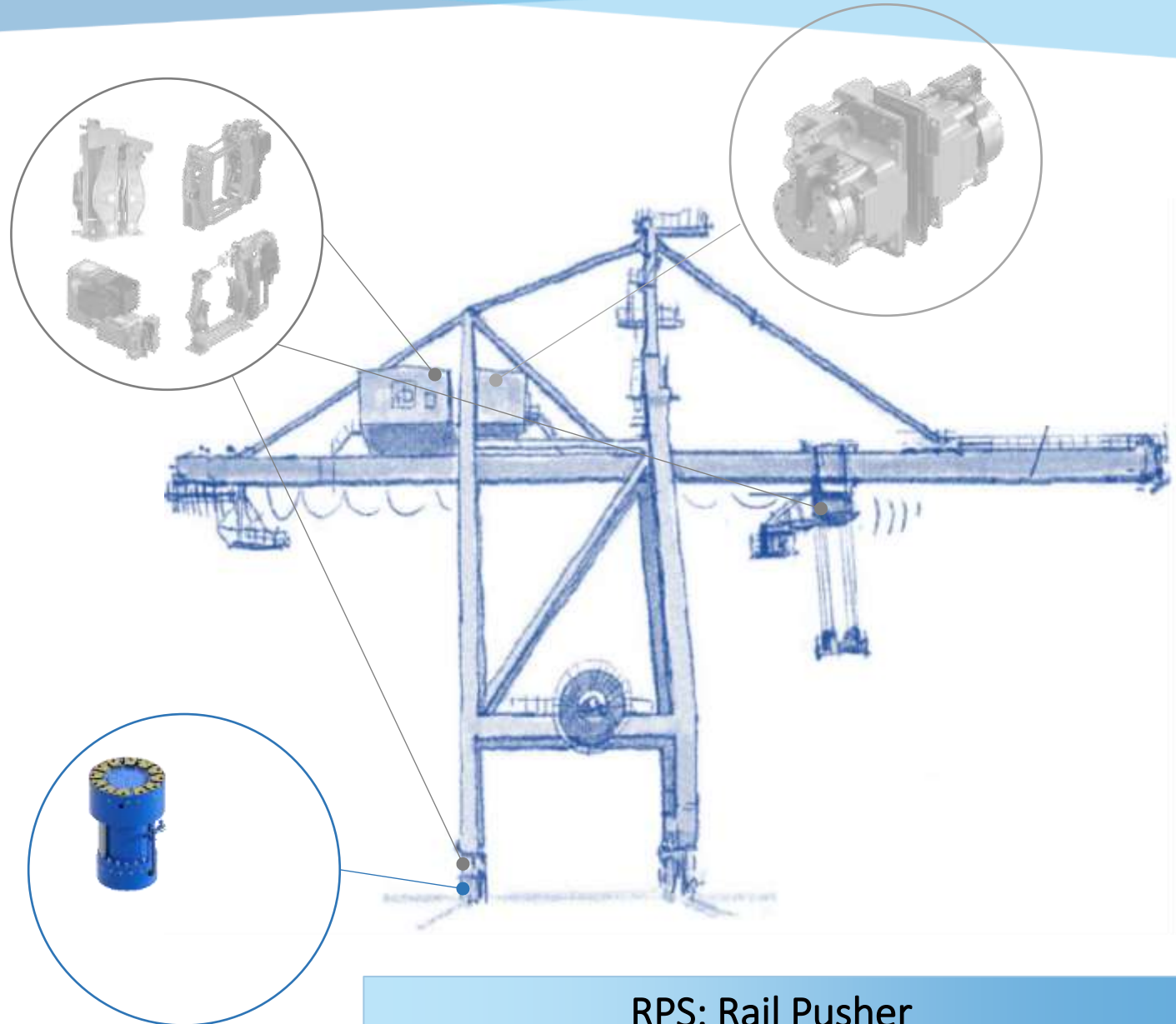


SHI: Unique Design for Free Leakage

# Brake systems

Brakes for all drive systems

- Service brakes
- Emergency brakes
- Storm brakes

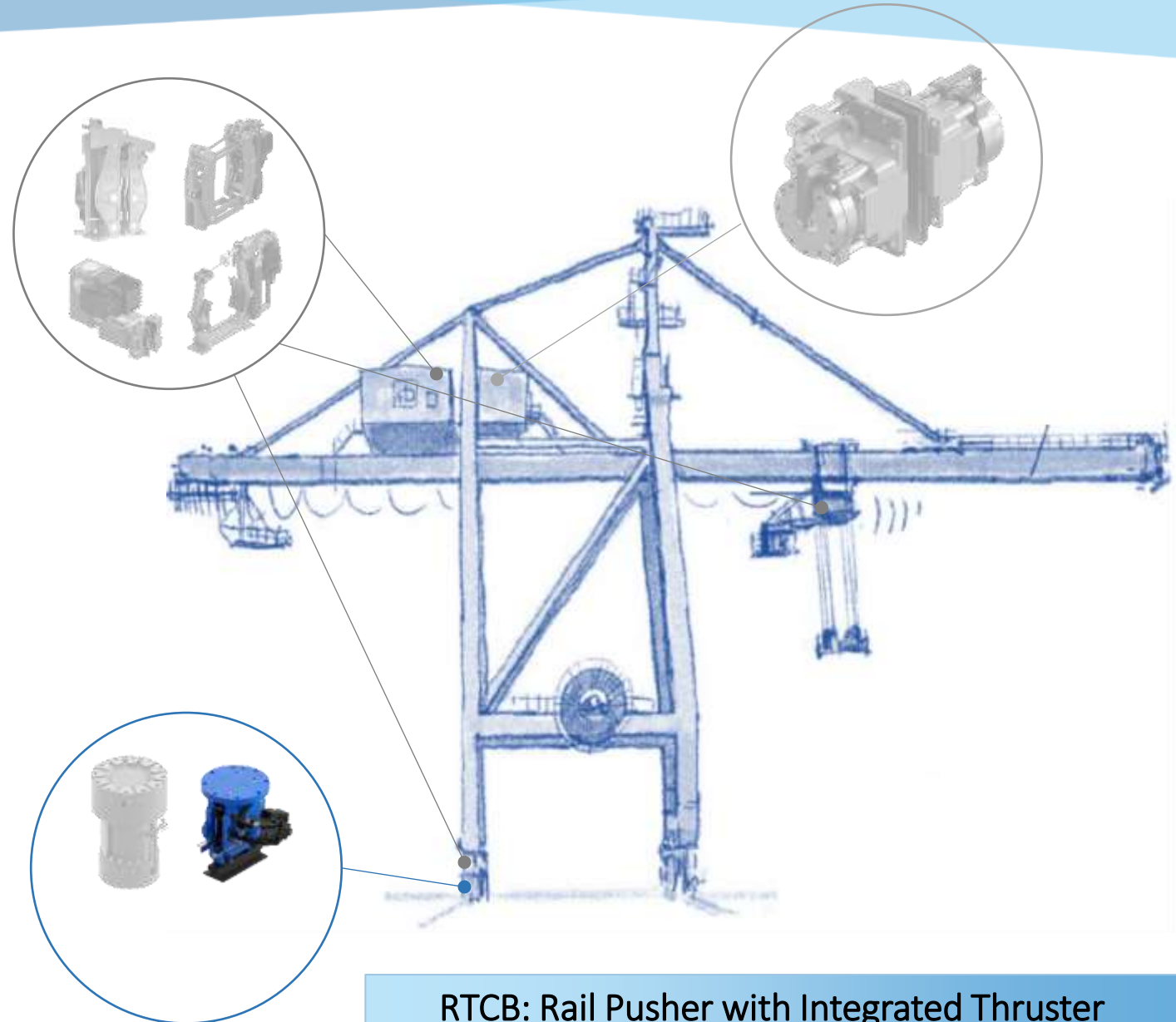
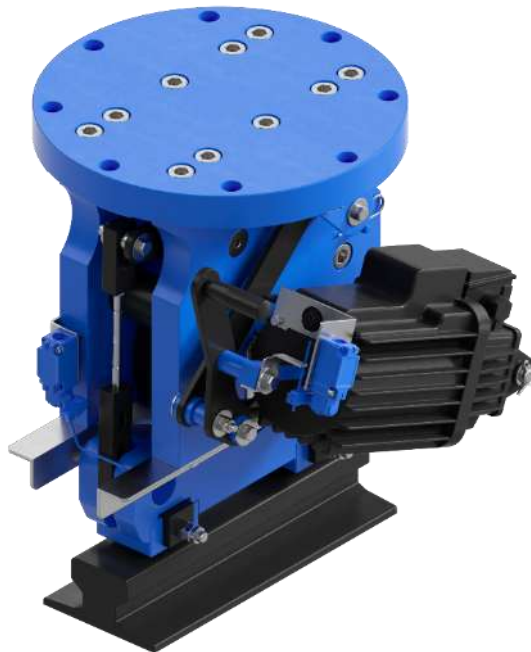


RPS: Rail Pusher

# Brake systems

Brakes for all drive systems

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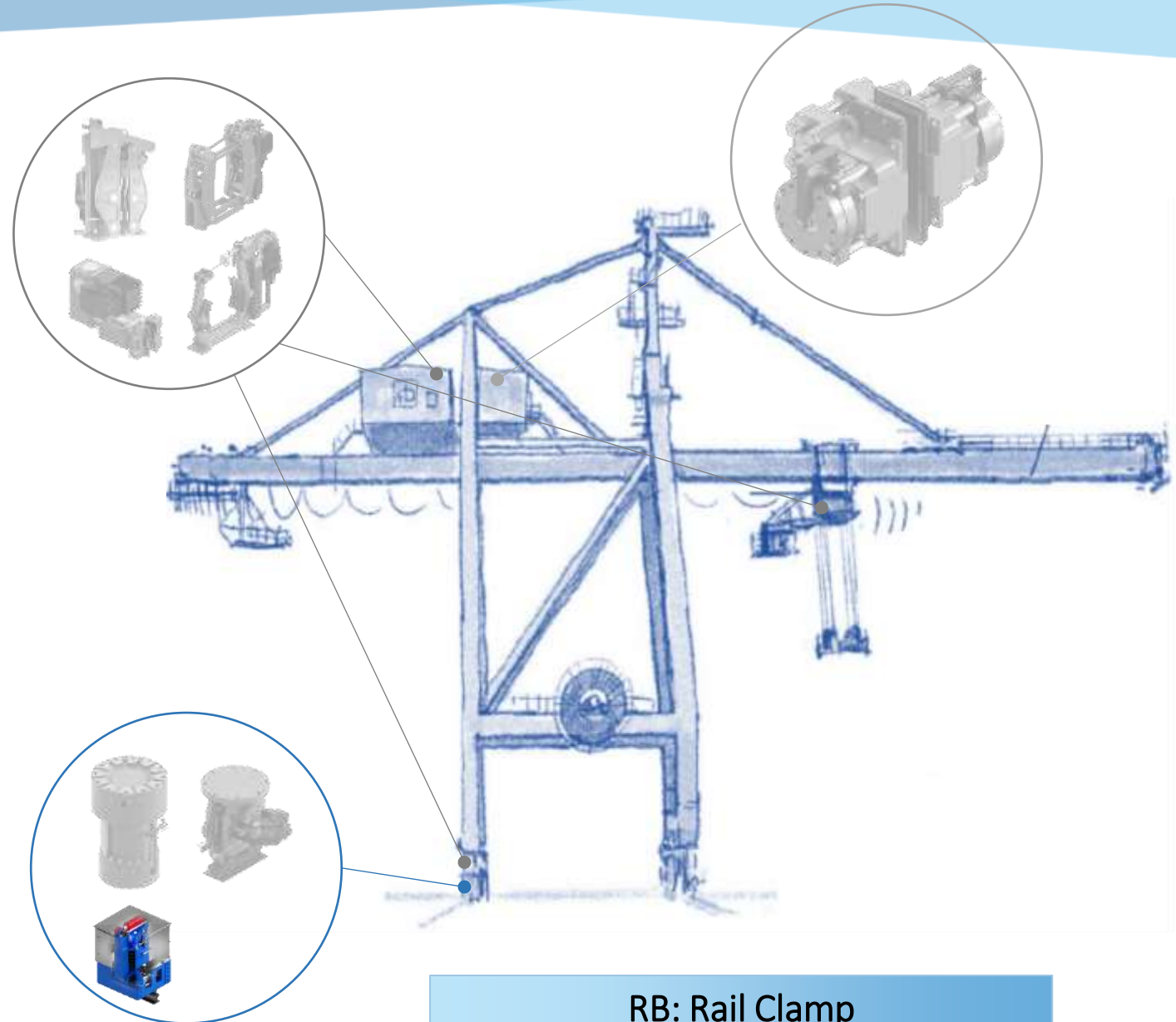
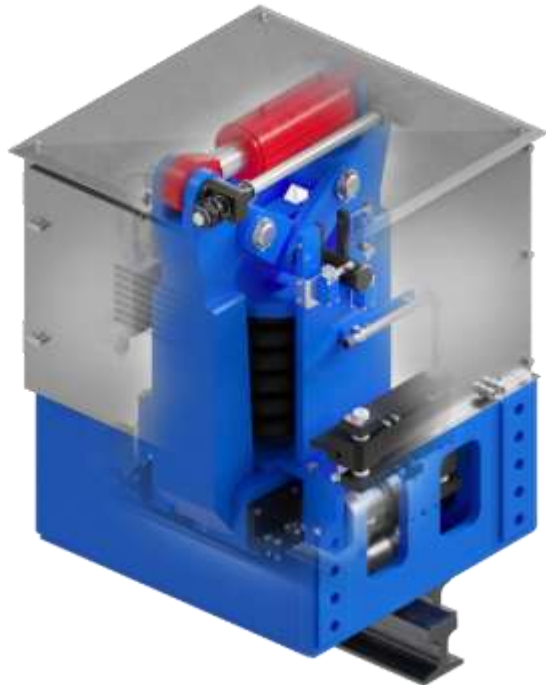


RTCB: Rail Pusher with Integrated Thruster

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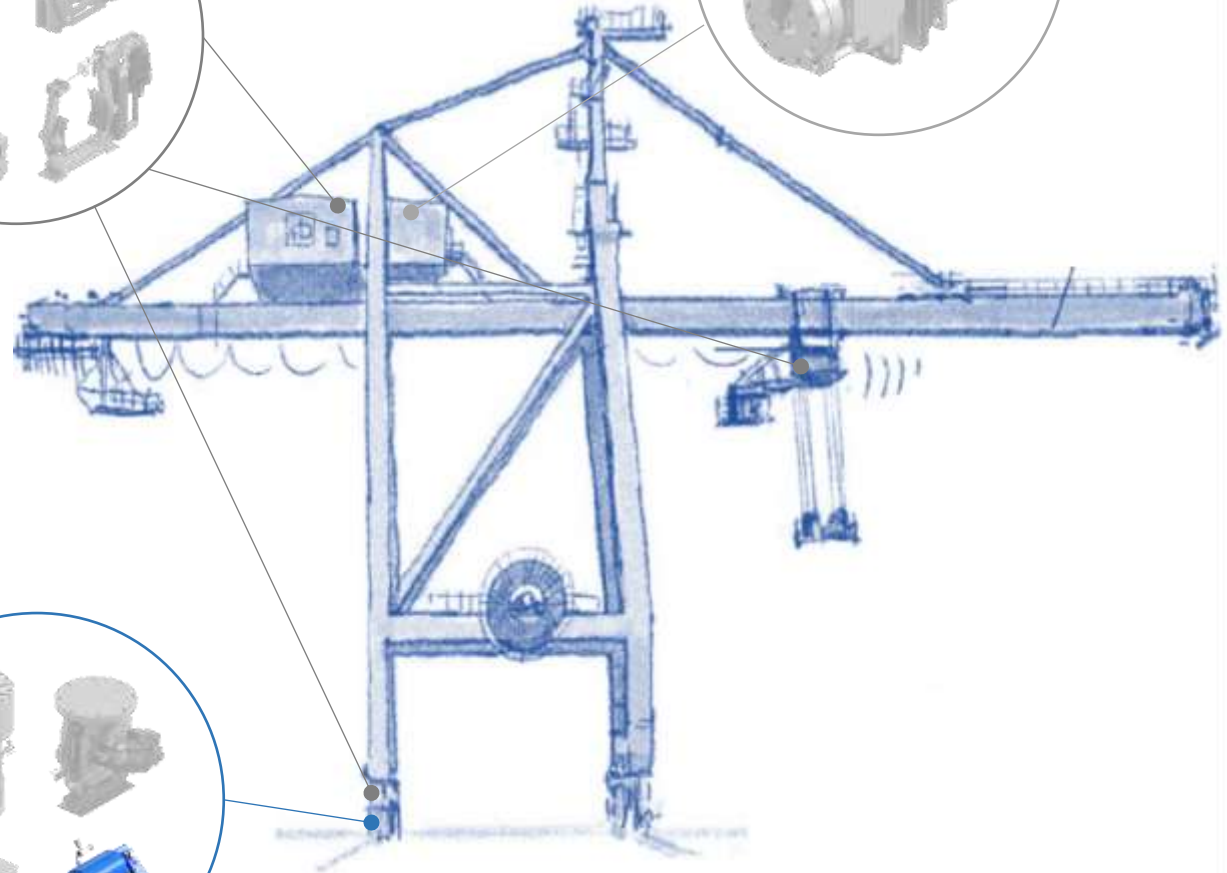
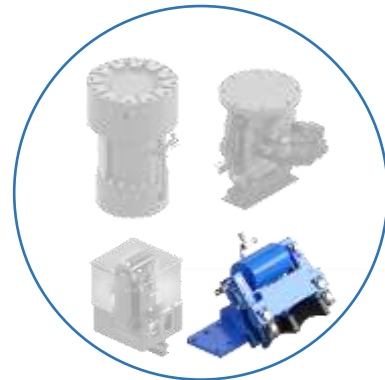
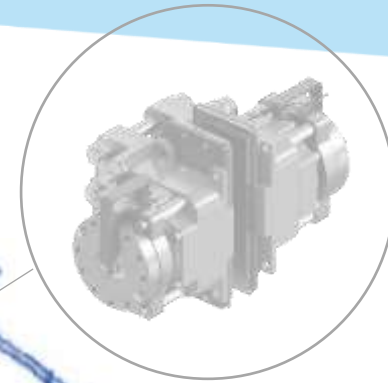
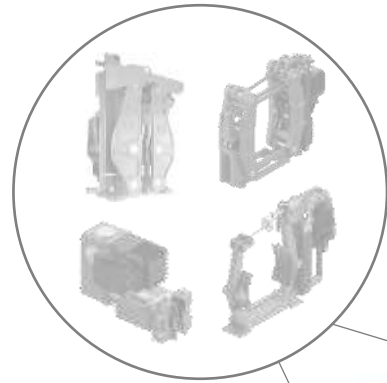
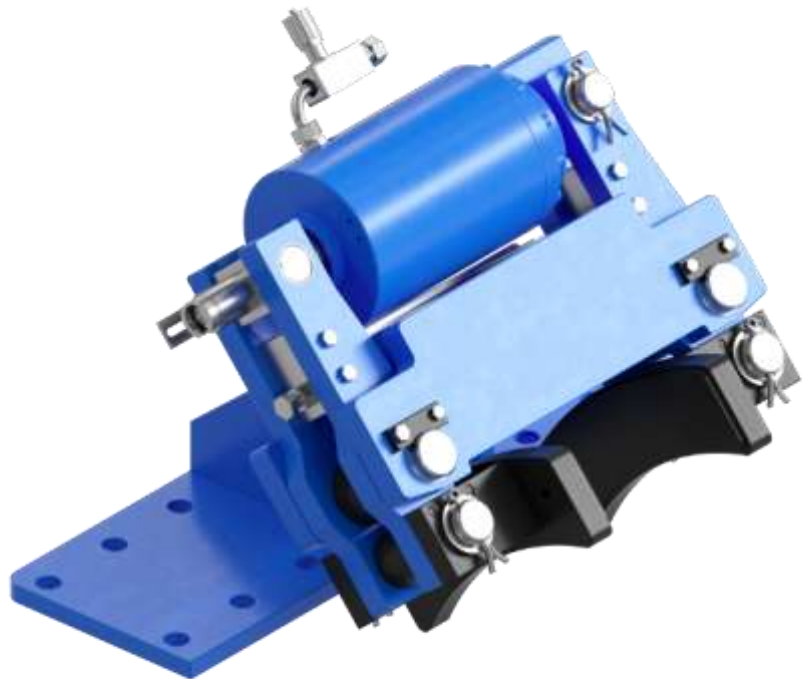


RB: Rail Clamp

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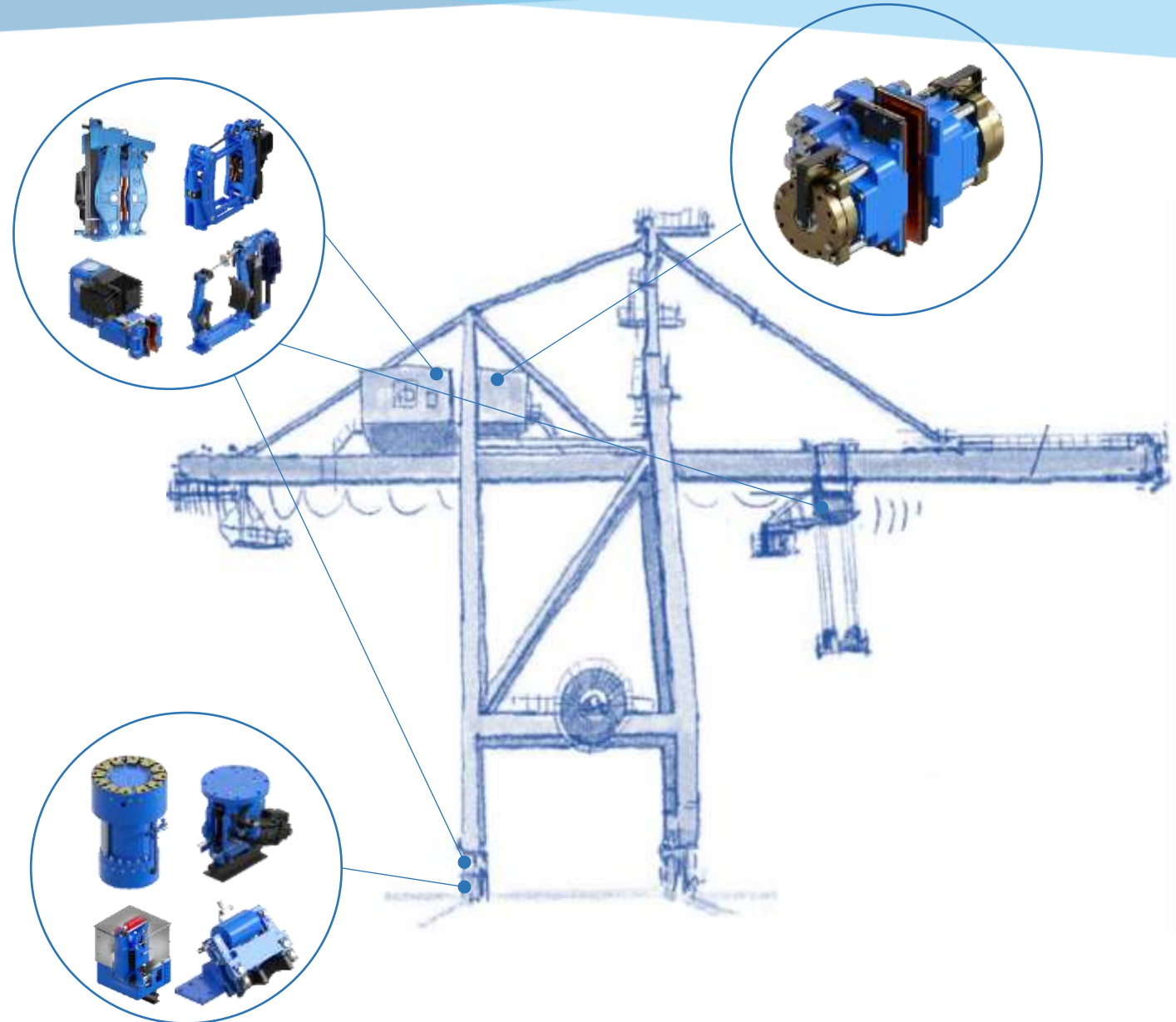


RHI: Wheel Brake

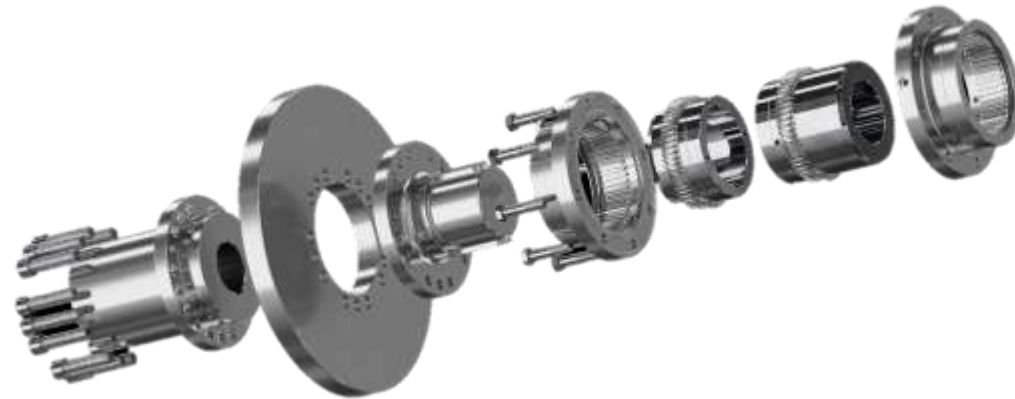
# Brake systems

## Brakes for all drive systems

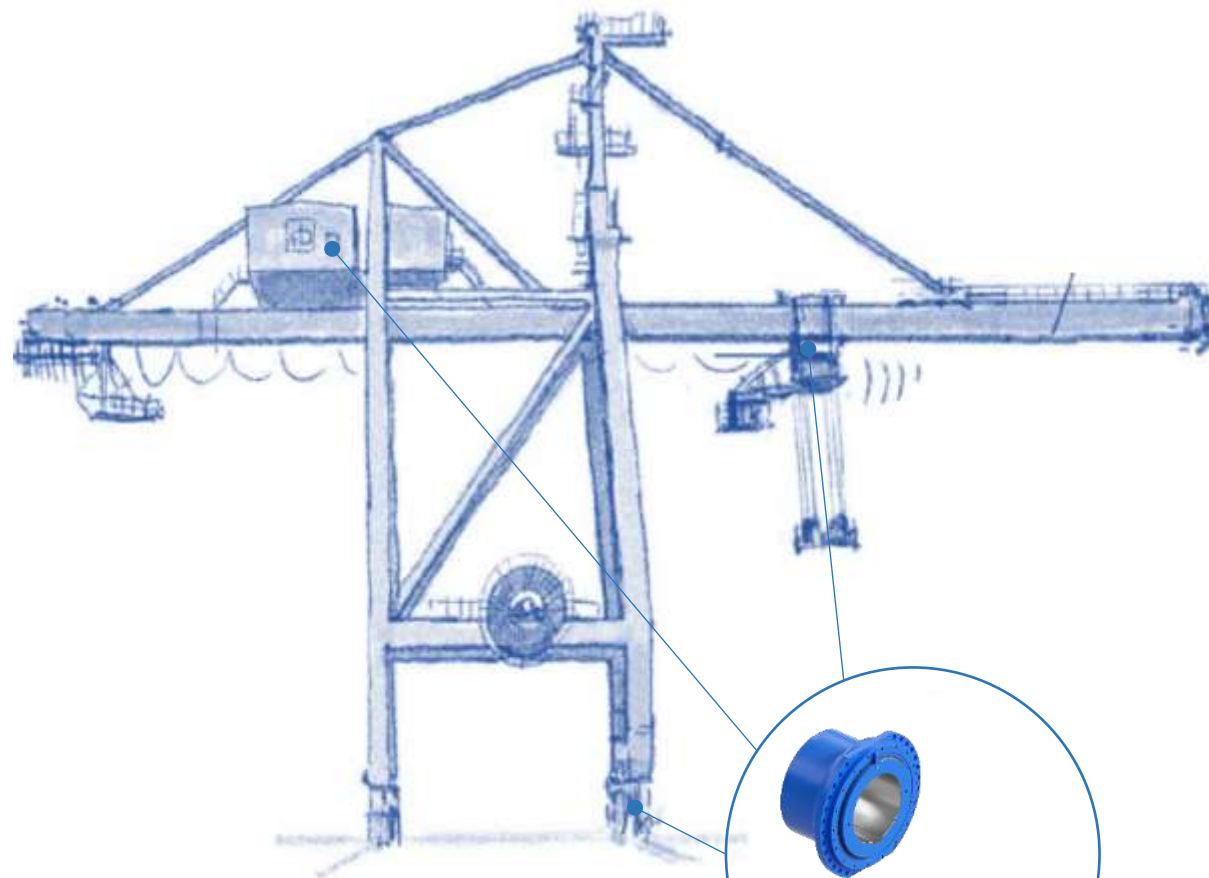
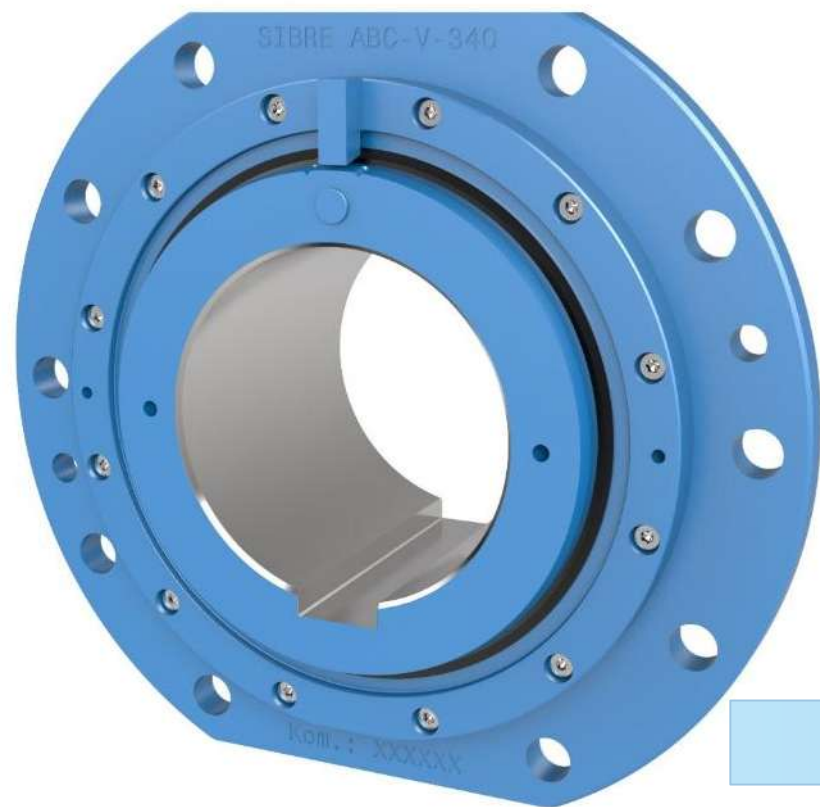
- Service brakes
- Emergency brakes
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# DRIVE COMPONENTS



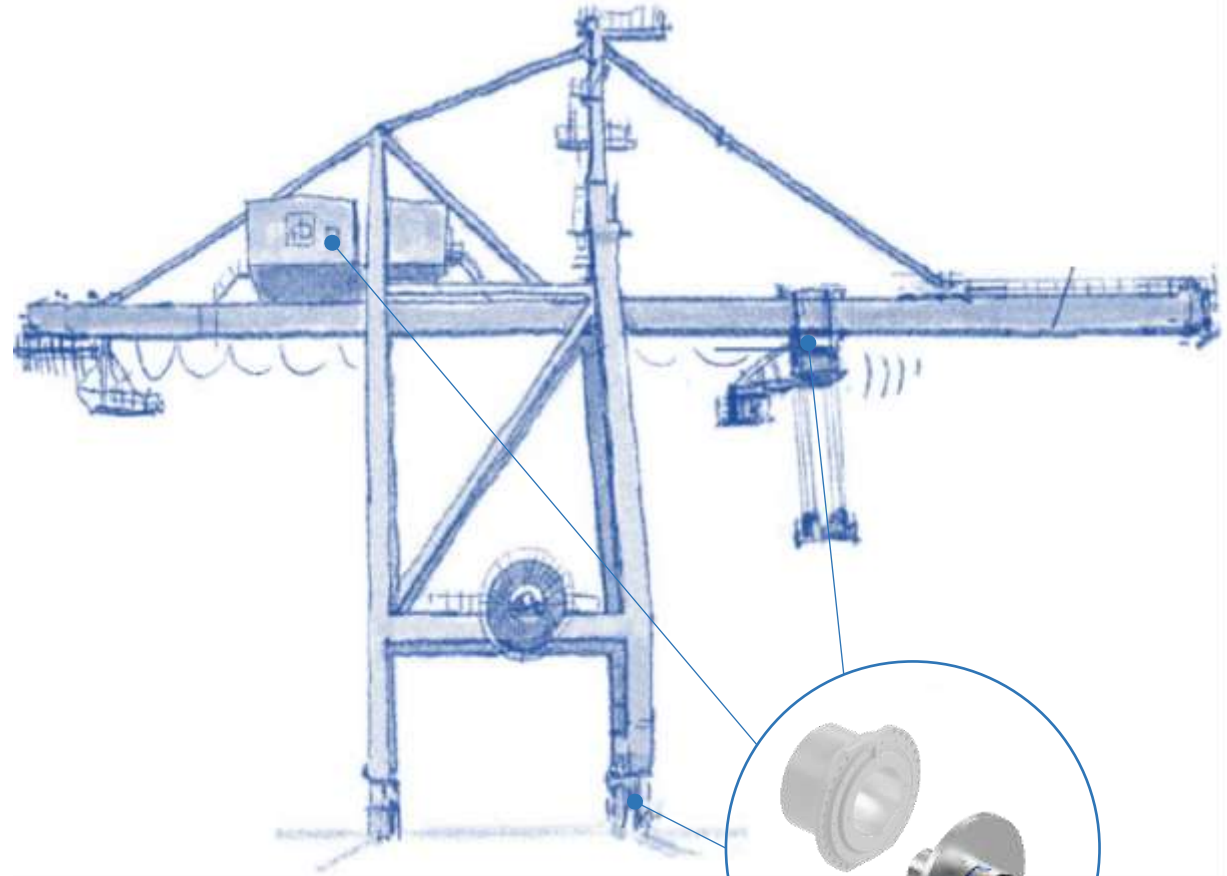
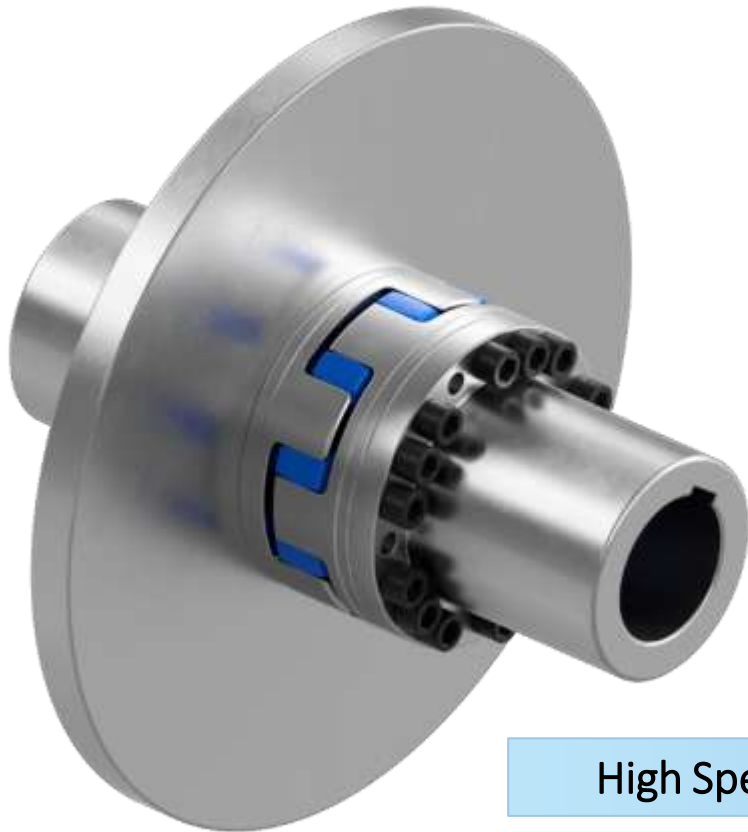
- Couplings



ABC: Low Speed Barrel Coupling

# Drive components

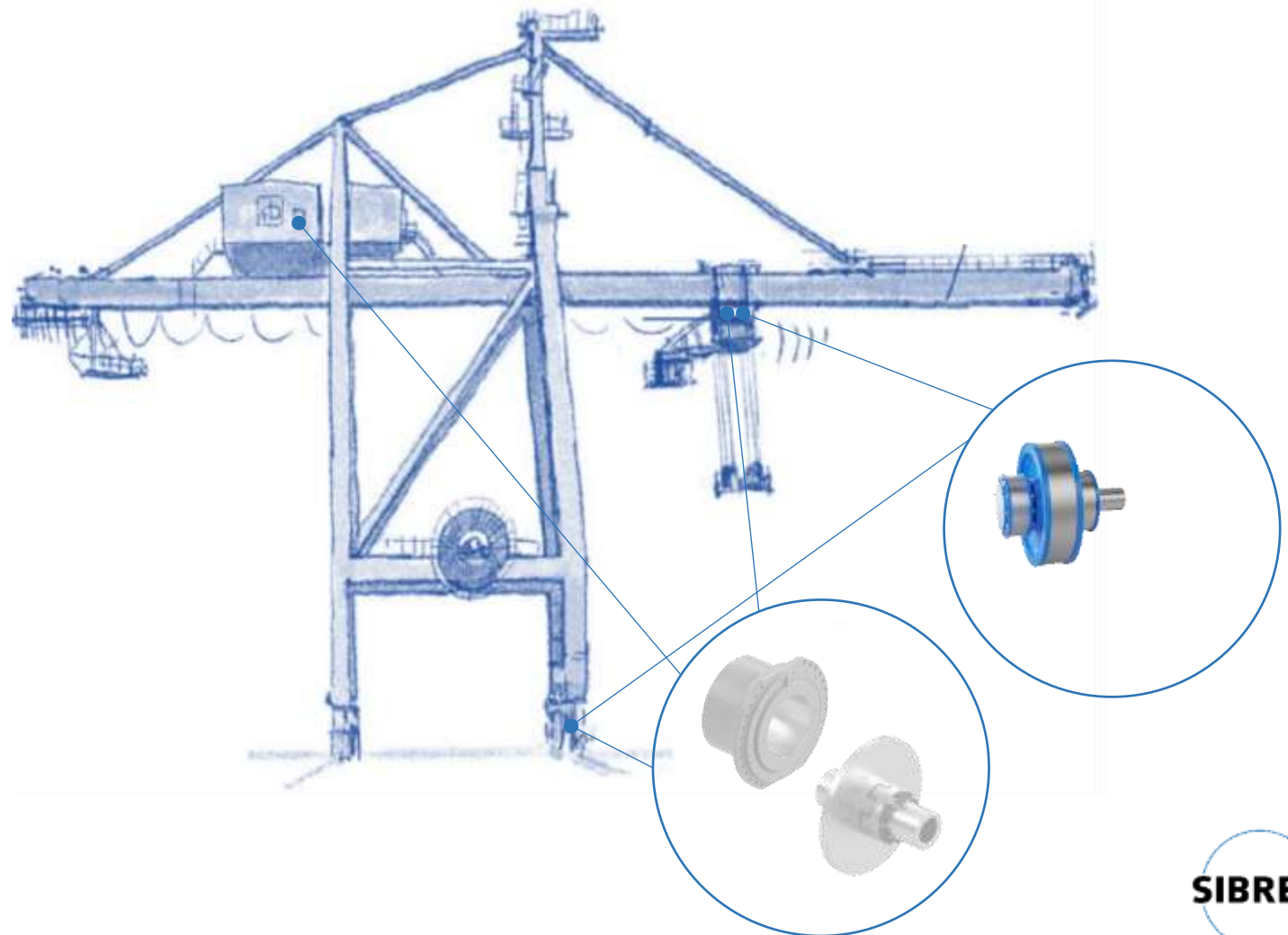
- Couplings



High Speed Couplings. Disk and Drum type

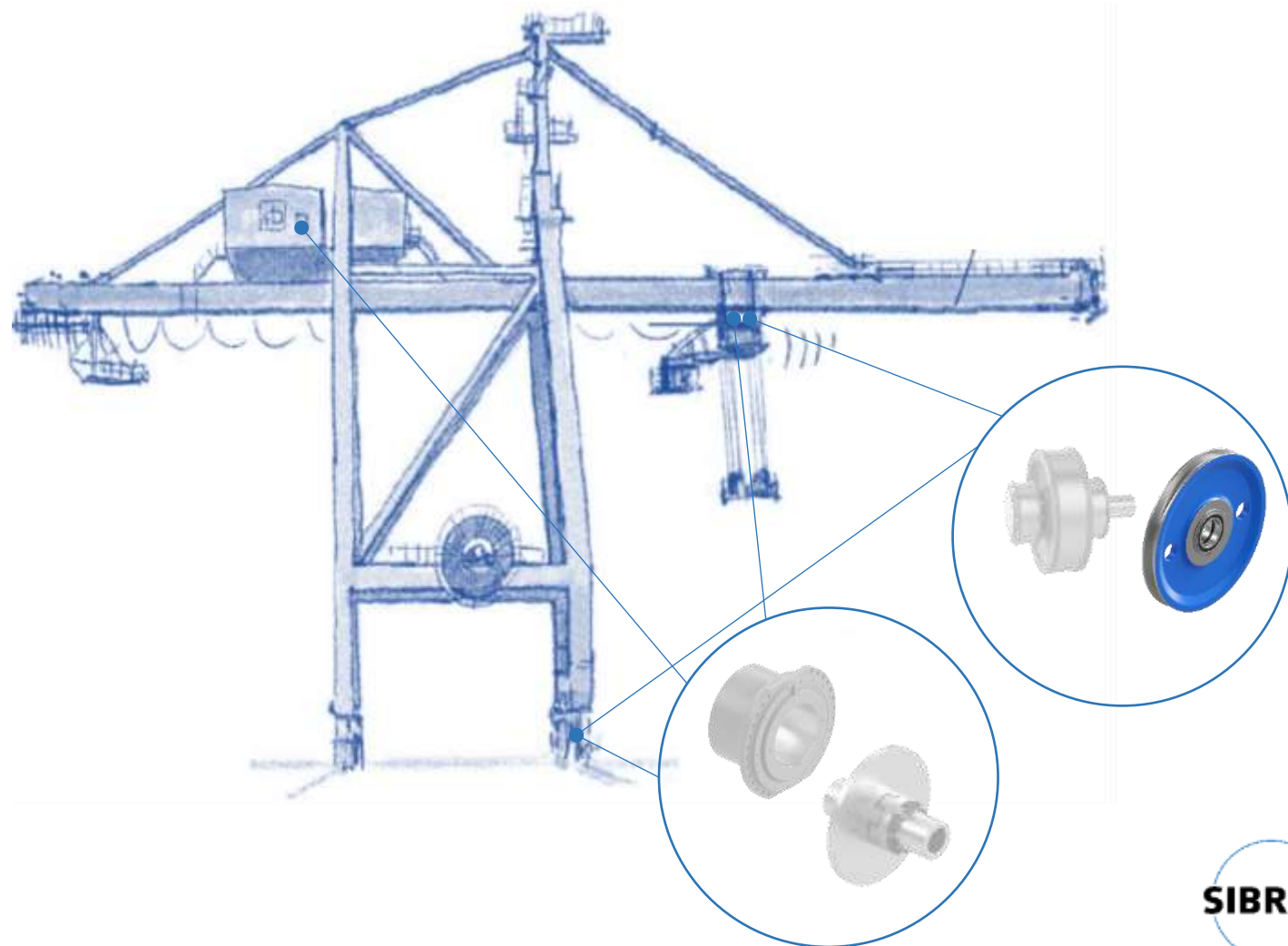
# Drive components

- Couplings
- Crane wheels



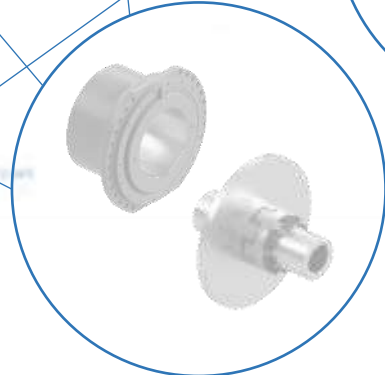
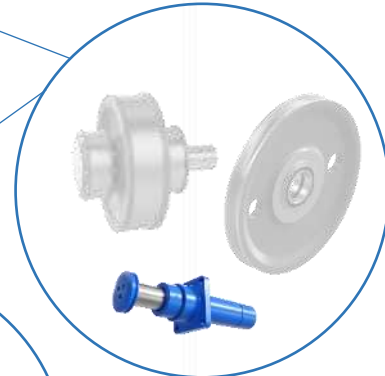
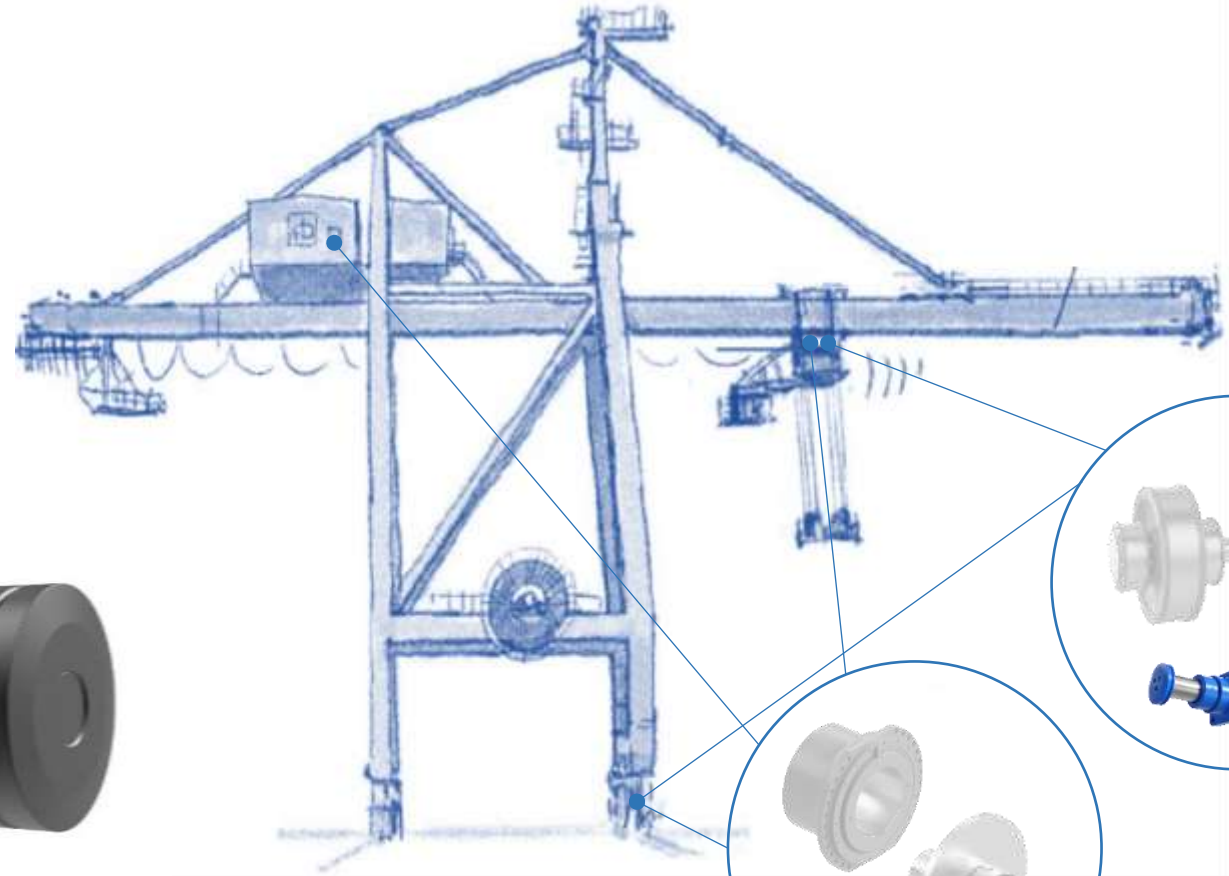
# Drive components

- Couplings
- Crane wheels
- Sheaves



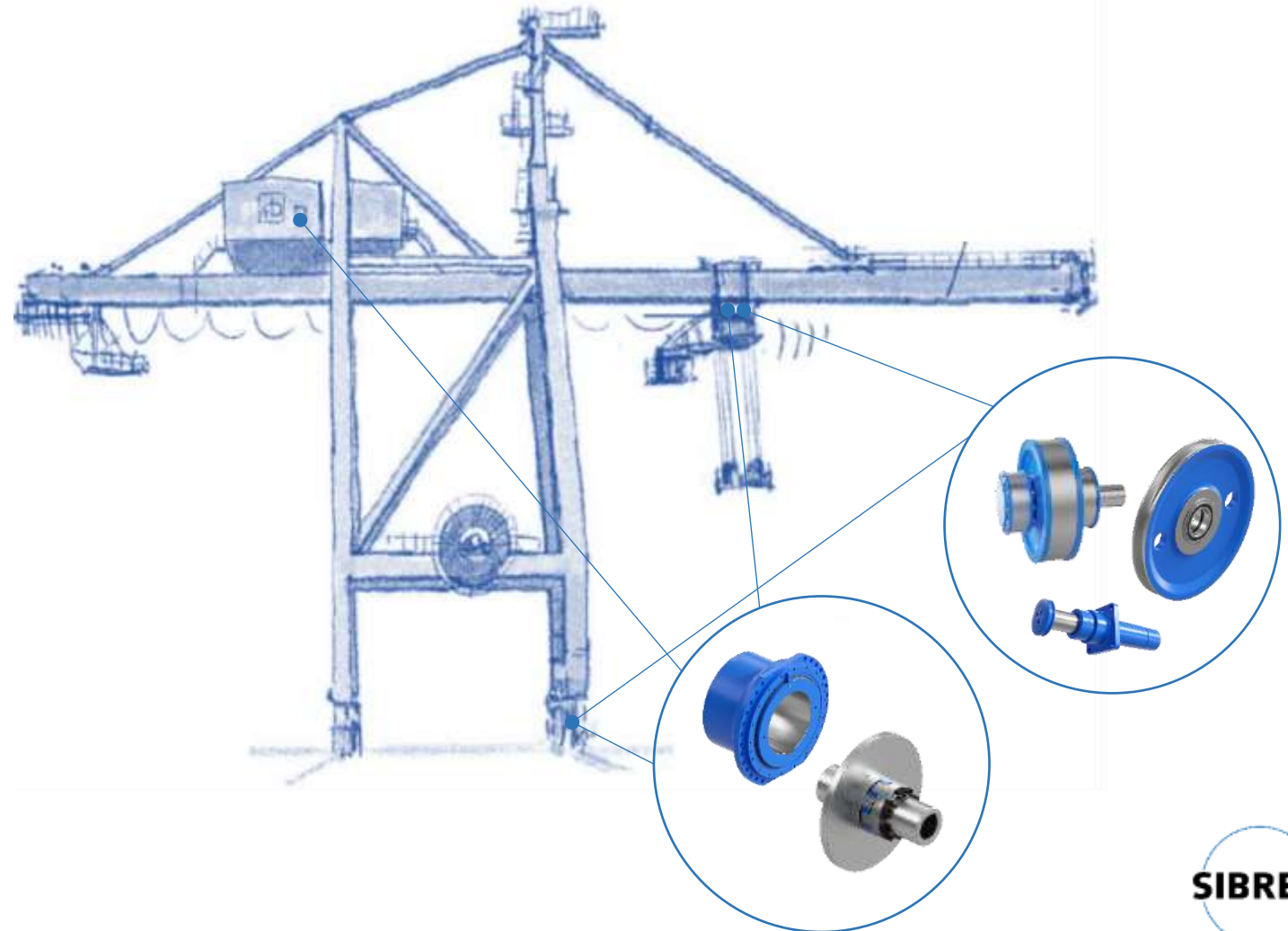
# Drive components

- Couplings
- Crane wheels
- Sheaves
- **Buffers**



# Drive components

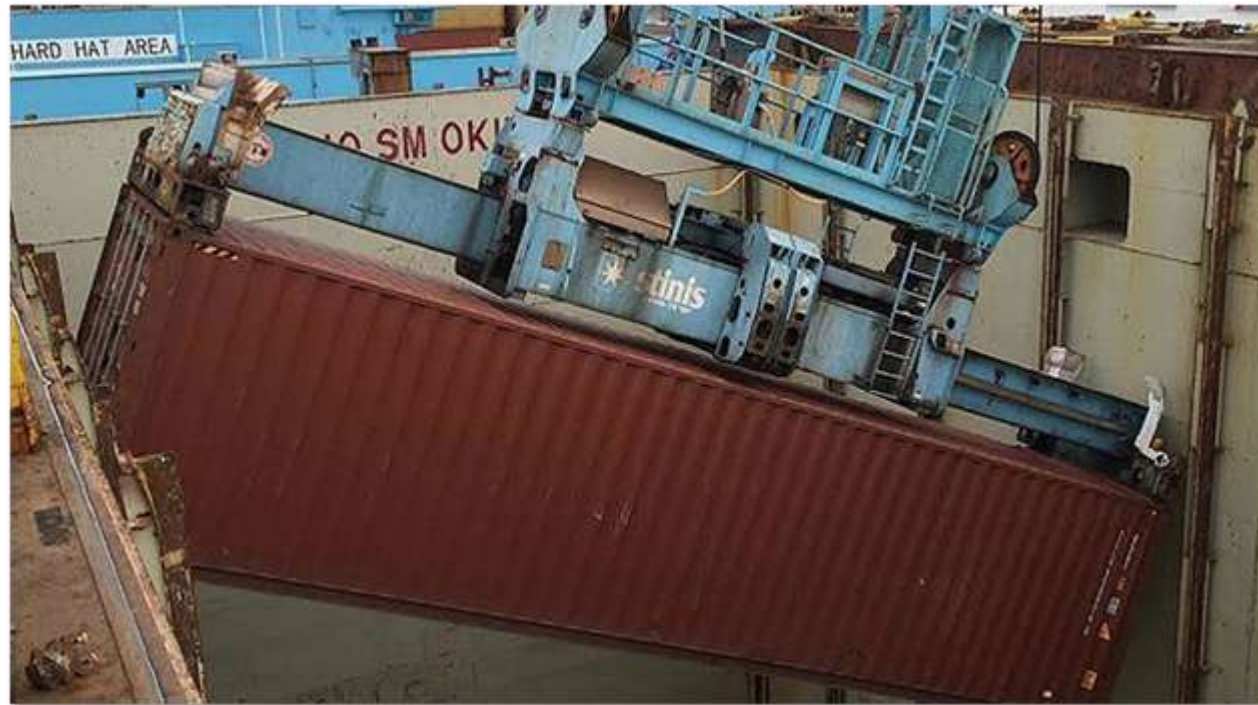
- Couplings
- Crane wheels
- Sheaves
- Buffers



# Anti-snag System



# Traditional Anti-snag System



## REACTIVE SYSTEMS

Antisnag system based on **tension**  
in the hoist wire ropes



Snag is required for reaction

Airbag



Impact is required for reaction

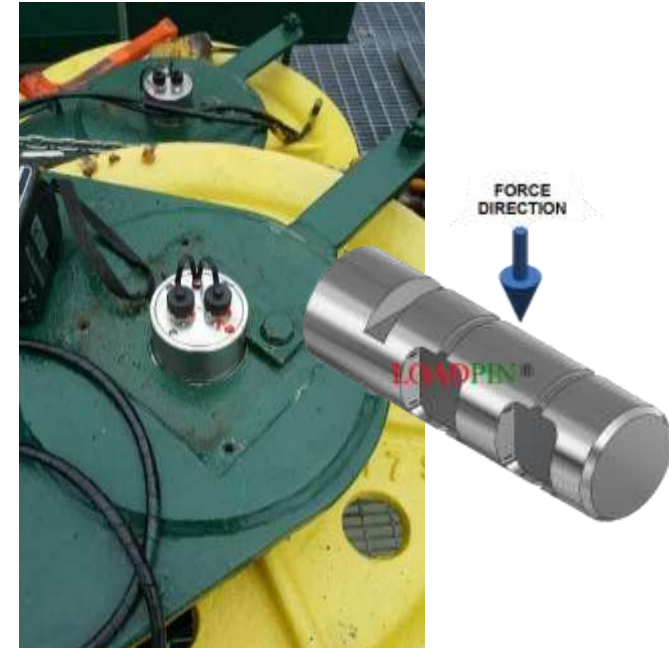
# Traditional Antisnag System

Reactive 'Antisnag' system based on tension in the hoist wire ropes:

## Hydraulic Cylinders

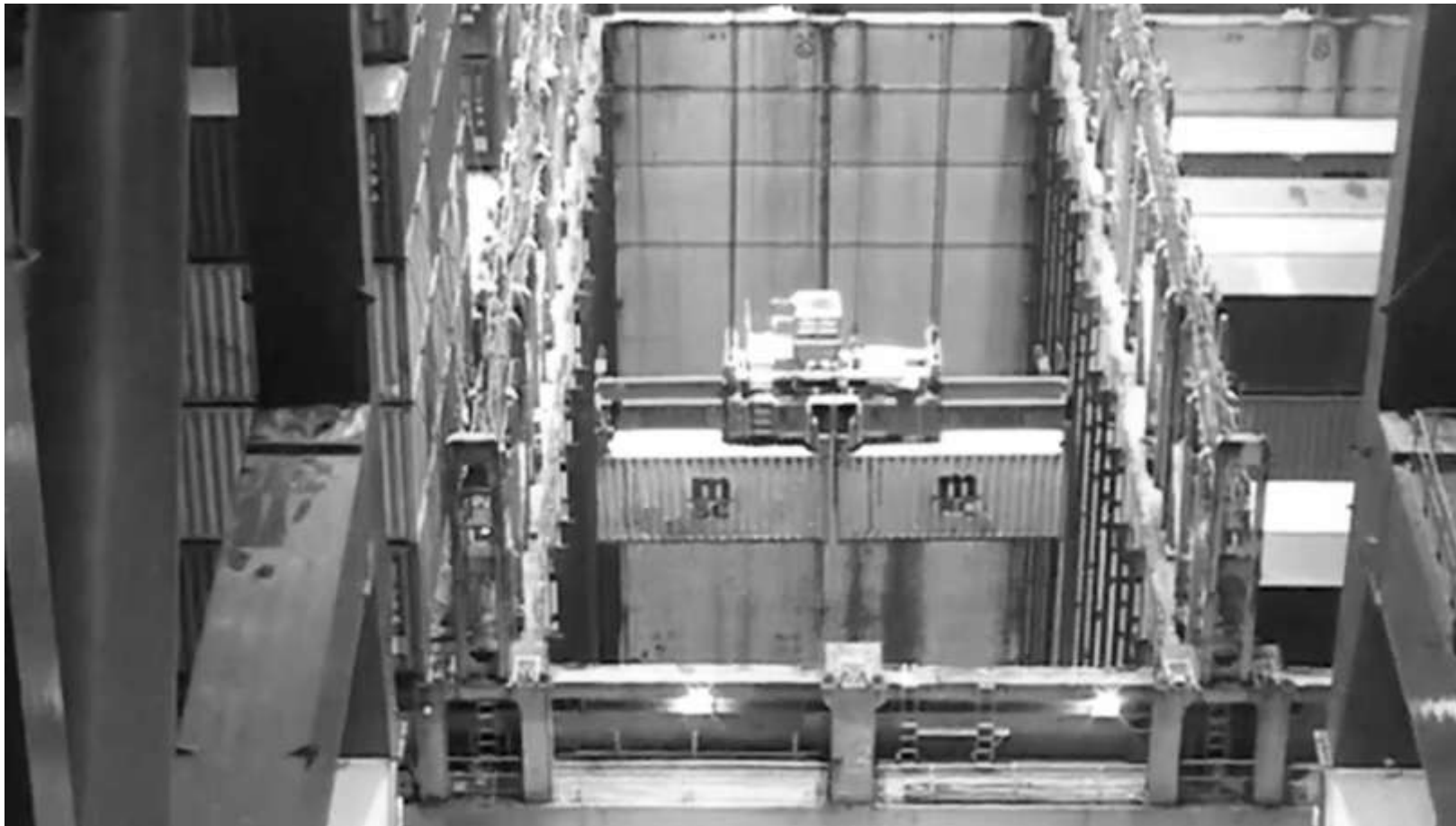


## Load Pins



# Traditional Antisnag System

- ❌ Traditional antisnag system (cylinders and load pins) **react after the snag** situation has occurred



# Traditional Antisnag System



**Snags occurring during entry into the cargo hold cannot be detected**, as there is no extra tension in the hoist wire ropes.

Additionally, the **container may become more stuck because hoisting is still allowed**, as the antisnag system does not detect the situation.



# SLP

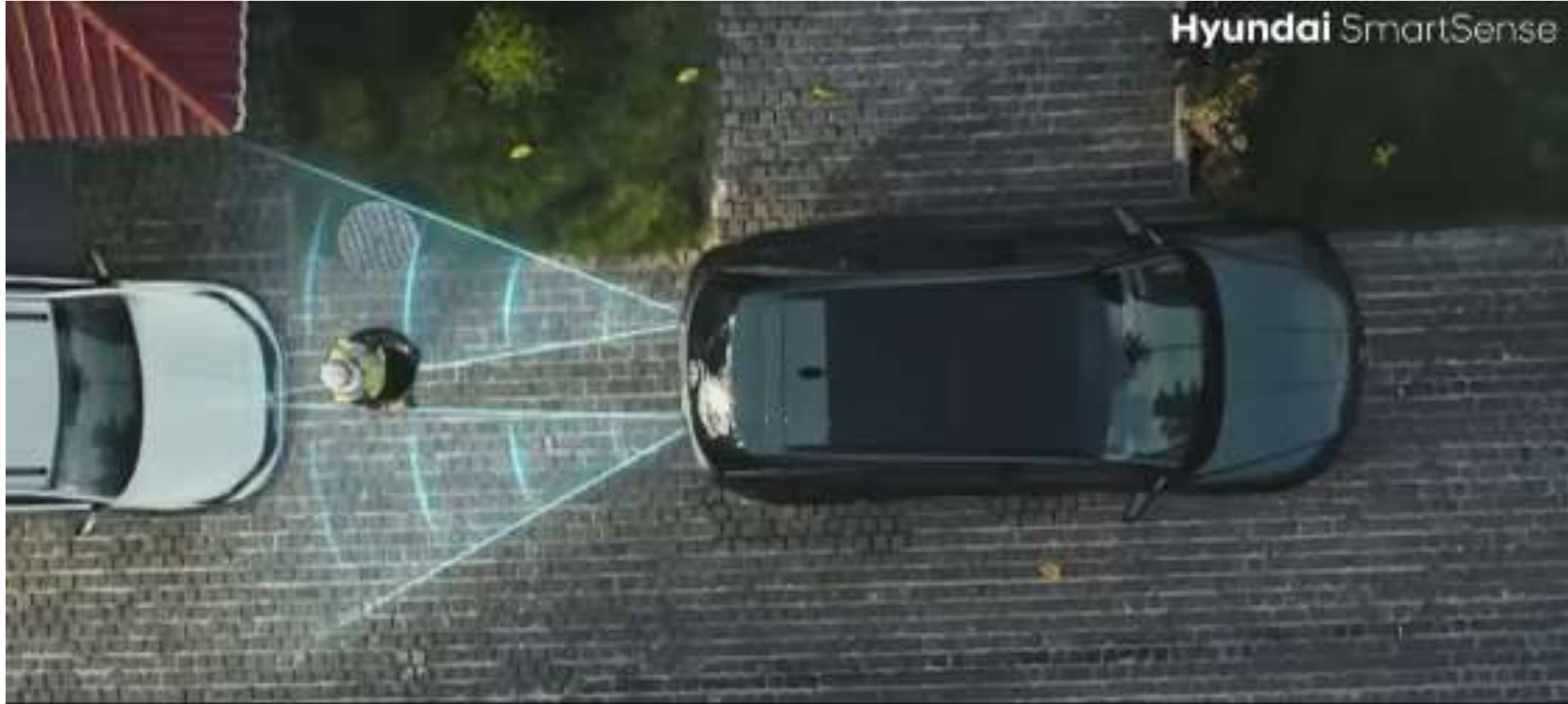
Snag Load Protection



# SLP · Innovation -> Based on an Electronic Inertial Measurement Unit



## PREVENTIVE SYSTEMS – Active Braking Assistance:



Proximity to object is required for trigger a reaction

# SLP · Snag in Hosting - Preventions Examples



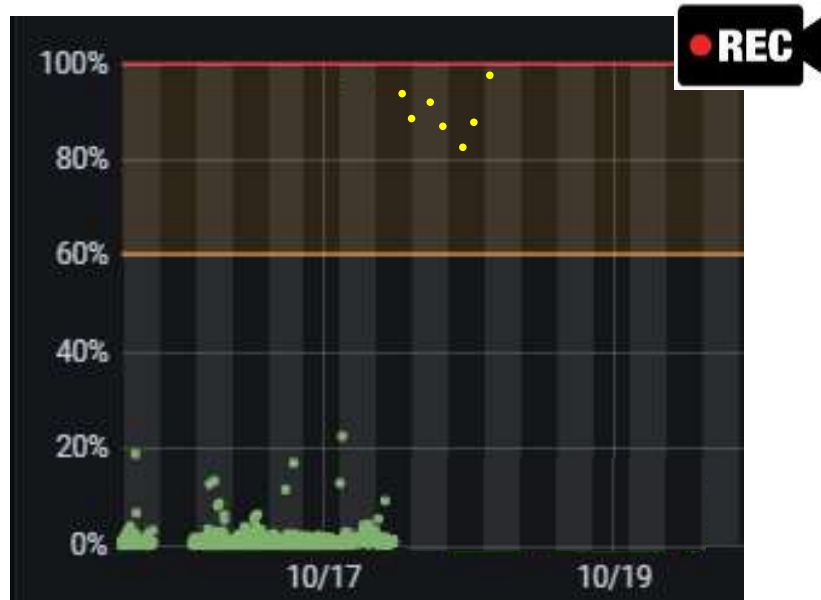
# SLP · Snag in Lowering (Stuck Container) - Preventions Examples



## Operation analysis

Data from SLP system allows:

- ✓ Snag alarms register
- ✓ Impact detection and analysis
- ✓ Cycle intensity dashboard
- ✓ Video recording of events



# SLP References



APMT Algeciras x4

APMT Salah x1

APMT Barcelona x5

APMT Valencia x2

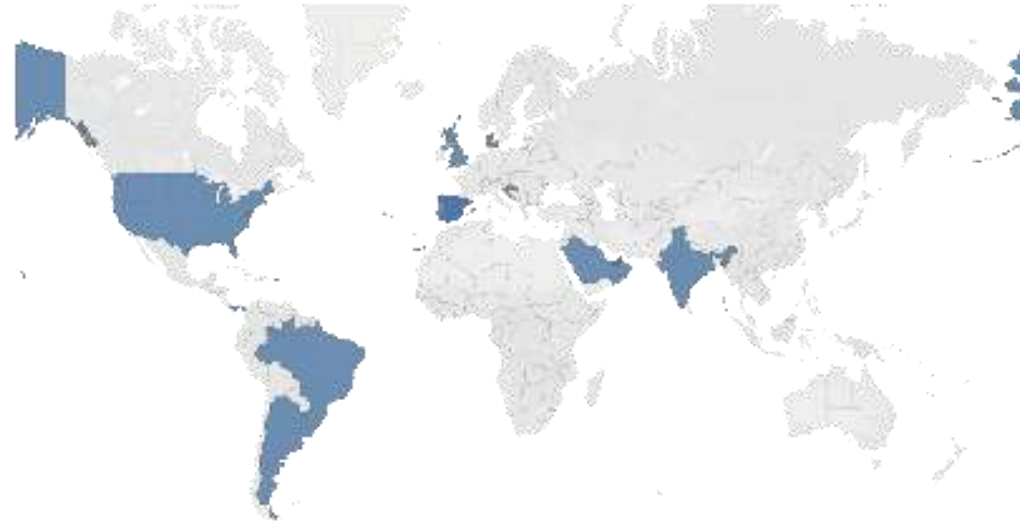
APMT Rijeka x4

MSCT Valencia x8

GPA Savannah x14

PSA Sines x1

DPW Jebel Ali x2



CMP Copenhagen x2

MIT Panama x1

CCT Panama x3

Neom Oxagon x1

Haldia Ports x1

MFZ Misurata x3





## — Ports 4.0 Fund of Puertos del Estado and the Port Authorities

Winner of Category:

**Commercial Project Award for  
Mature Technology Innovation**





## 2026 TT Club Innovation in Safety Awards

Winner of Category:

**New Ways to Make  
Operations Physically Safer**



AS A ONE STOP SUPPLIER,  
SIBRE DELIVERS COMPREHENSIVE  
SOLUTIONS FOR ALL DRIVES IN CRANES.



Many thanks for your attention!

*Sure to be safe*



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