

KABELSCHLEPP



CABLE & HOSE CARRIER SYSTEMS FOR CRANES



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TSUBAKI
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Tsubaki KABELSCHLEPP

60 years since the initial **idea** became a **patented solution**



1953
Invention of the **cable carrier**
Dr.-Ing. Gilbert Waninger
an employee of von
H.A. Waldrich in Siegen



1954
Foundation of
KABELSCHLEPP GmbH
Dr.-Ing. E.h. Oskar Waldrich



Wenden-Gerlingen Headquarters

Everything under one roof.



- Production of all cable carrier systems made of steel and plastic
- Assembly plant
- Project division
- Design and engineering of all products
- Laboratory
- Worldwide distribution center
- Quality management

2010: Integration into the TSUBAKI Group

- For **more than 40 years**, both companies have been closely cooperating partners.
- With this integration, we will leverage our successful business relationship in **one strategic enterprise**.



TSUBAKI KABELSCHLEPP Headquarters
Wenden, Germany



TSUBAKIMOTO CHAIN Kyotanabe Plant
Kyoto, Japan

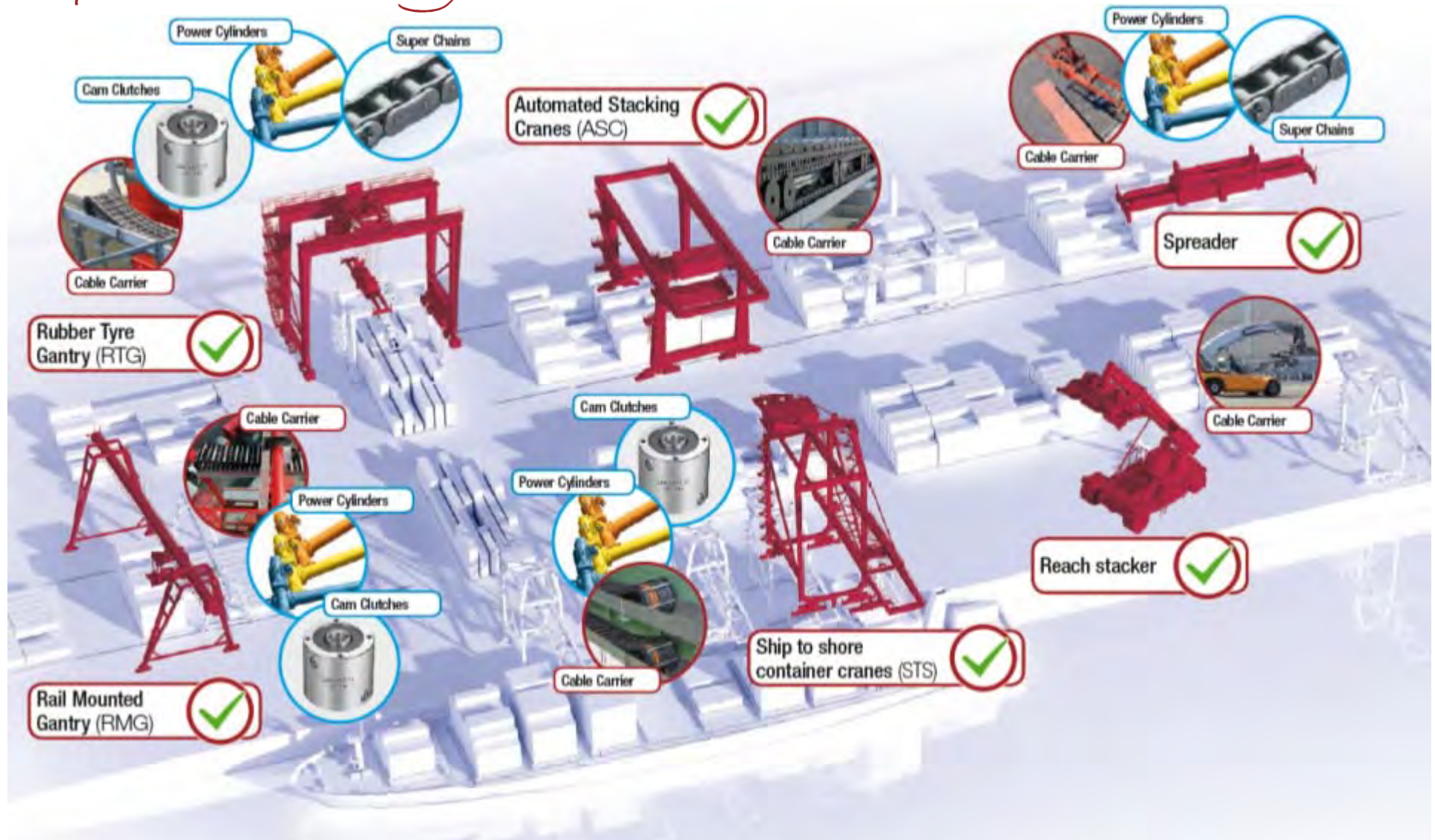
a global Network of specialists available at more than 80 places... even close to you



● Tsubaki Global Network

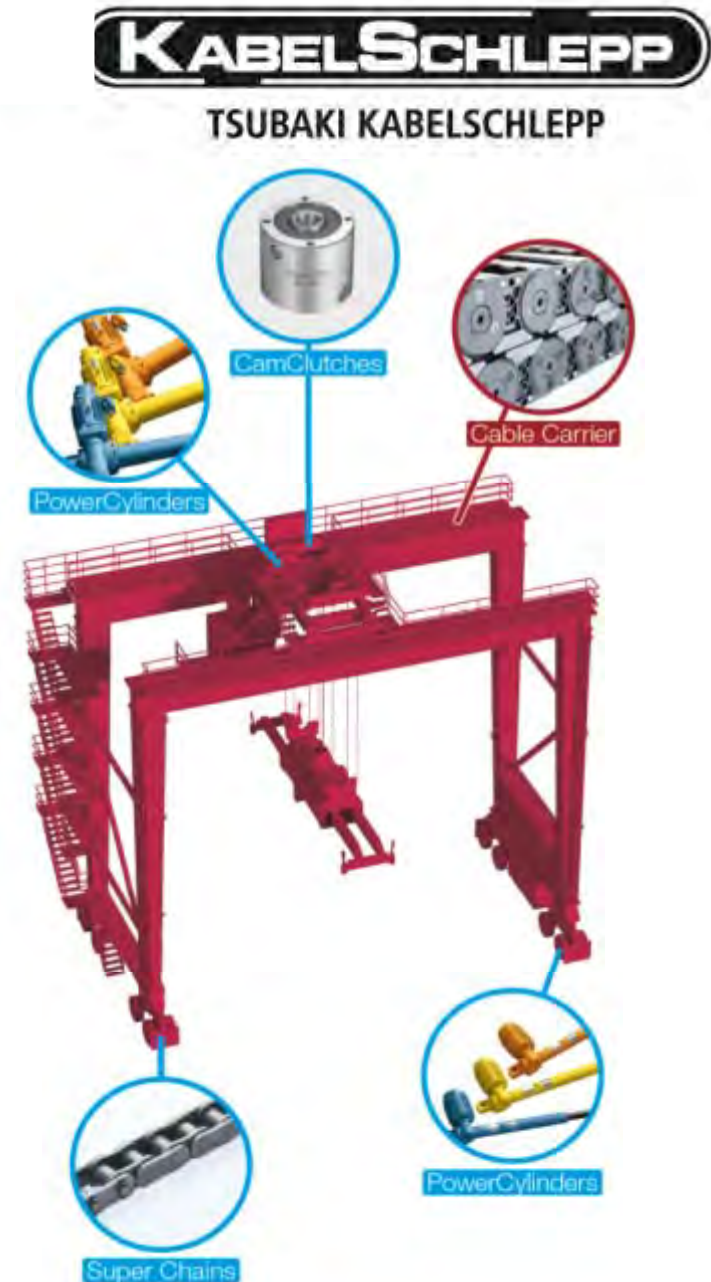
● Tsubaki Kabelschlepp Global Network (subsidiaries und certified distributors)

Innovative technologies
for the crane industry



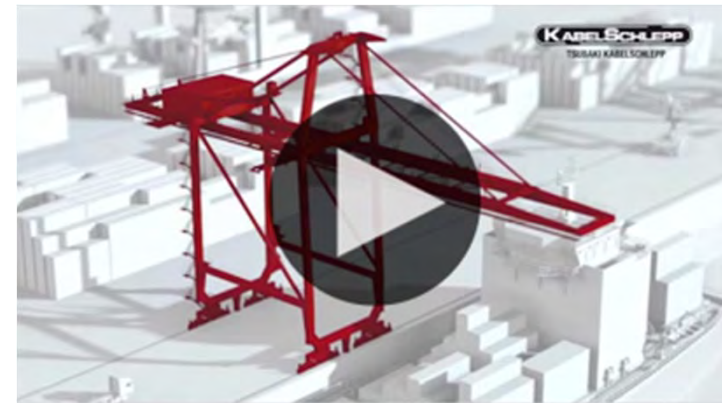
Innovative technologies
for the crane industry

- **TSUBAKI** Innovation in Motion PowerCylinders/
Electronical Actuators
- **TSUBAKI** Innovation in Motion Super Chains/
Heavy Duty Chains
- **TSUBAKI** Innovation in Motion Cam Clutches/ One
Way Clutch
- **KABELSCHLEPP** Cable Carrier
Systems incl. **TRAXLINE** cables



Cable Carriers for crane applications benefits for crane builder and enduser

- Space saving design
- No loop station and also no additional steel structure for loop station
- No additional drives necessary
- No control system necessary
- All kind of media (power, data, hydraulics, pneumatics, ...) in one System
- No addition mechanical stress to the cables
- Short cable length Easy to maintain
- Safe data transfer via light velocity



MC cable carrier with screwed RM/RMF-stays

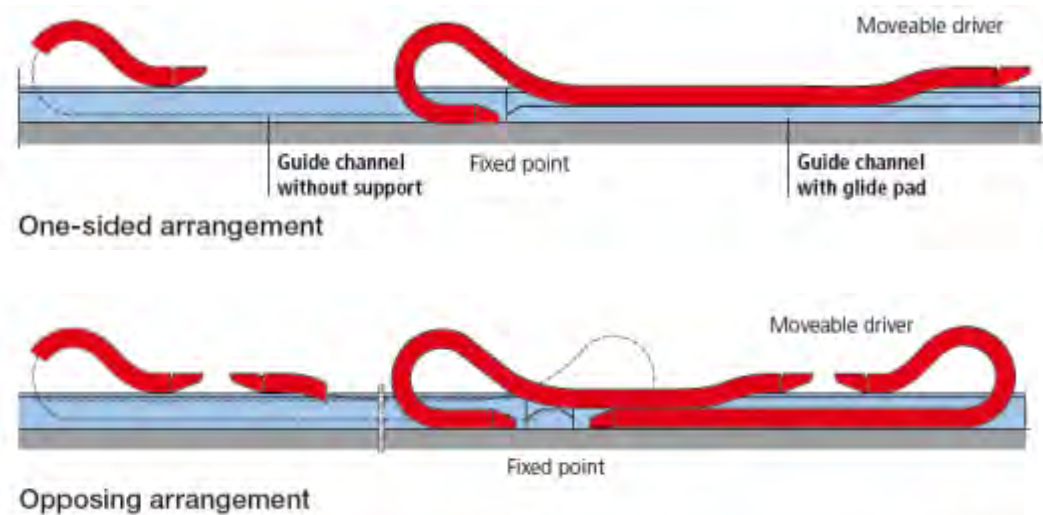
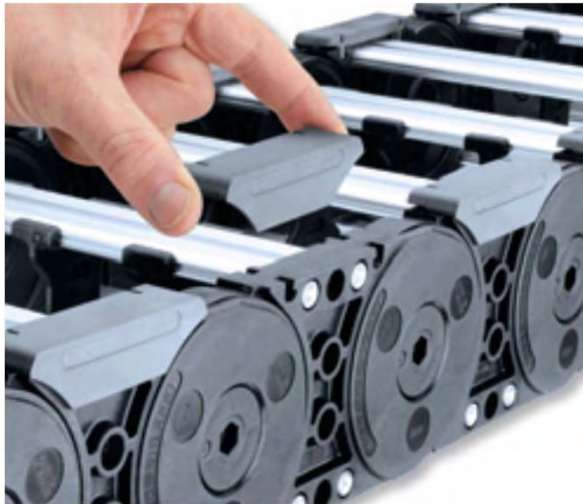


- Robust design, suitable even for the toughest ambient conditions
- Ideal for extremely long travel lengths
- No fixed inner width
- Bolted crossbars
- Certified Seawaterresistant
- Easy to assemble and maintain



Off-road Glide Shoes for the M-Series

All gliding and rolling applications are affected by wear. To extend the lifetime of a cable carrier, Kabelschlepp developed **exchangeable glide shoes**.



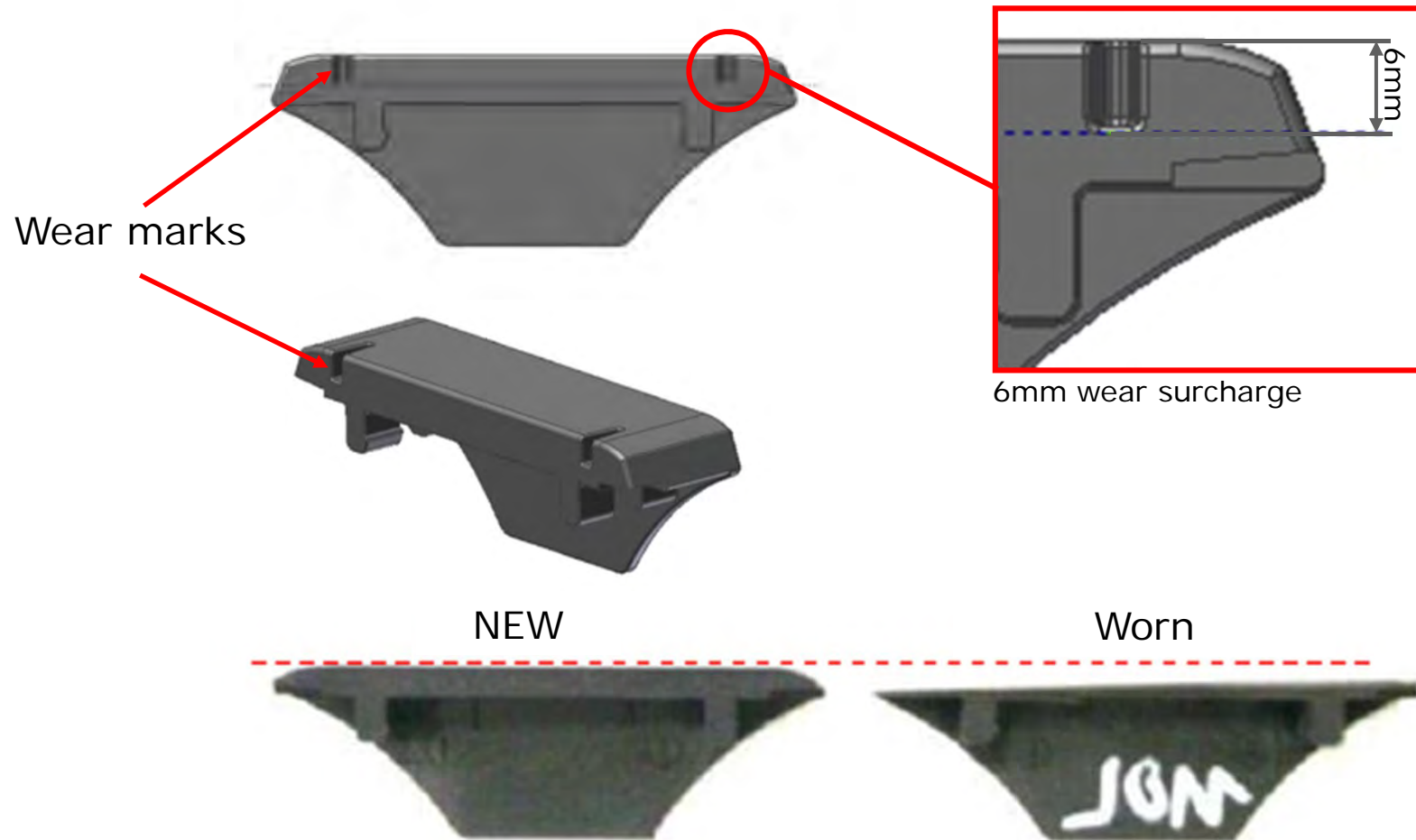
Biggest advantage:

Instead of changing the whole cable carrier by disassembling it on-site, only the attached glide shoes need to be replaced.

The glide shoes can be removed with a normal screwdriver. Replacing one glide shoe takes only a couple of seconds.

Glide Shoes for the M-Series

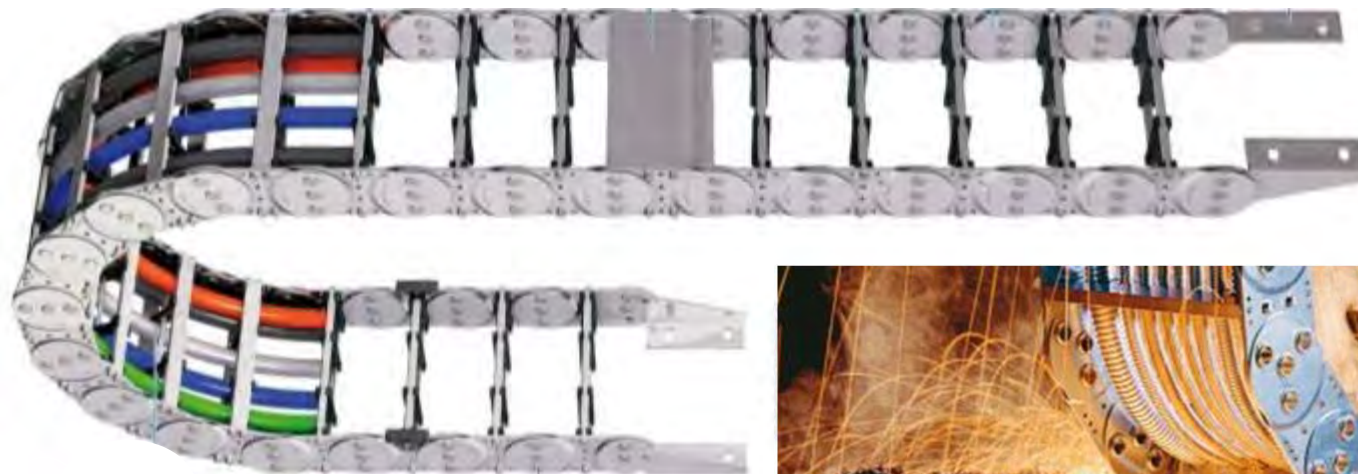
Maintenance and inspection friendly design thanks to visible wear marks!



EXTREME applications

Steel Cable Carriers

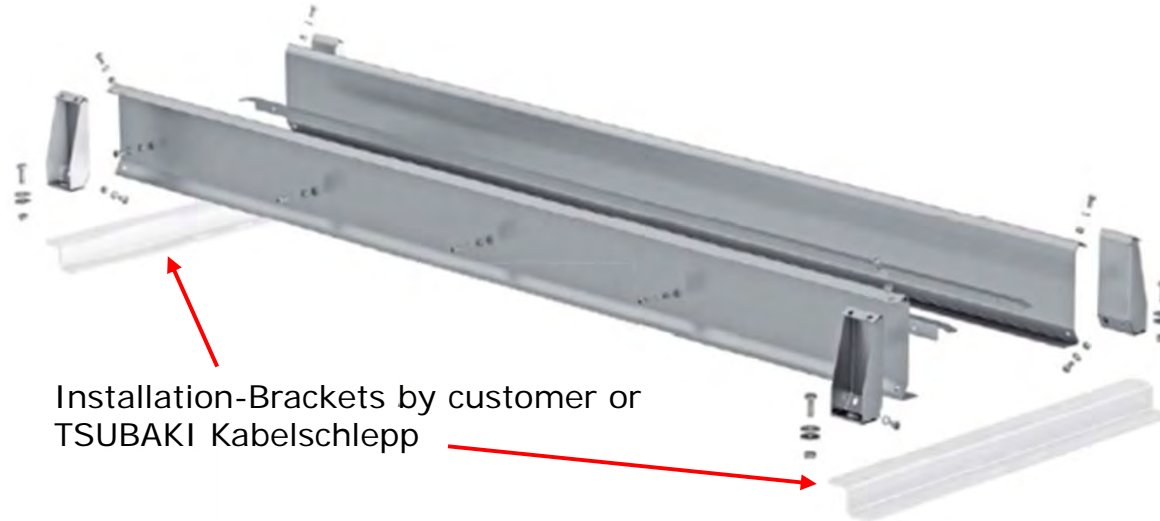
- Robust design for heavy mechanical loads,
- high additional loads and long unsupported lengths possible,
- best suited for extreme and particular environmental influences,
- heat-resistant.



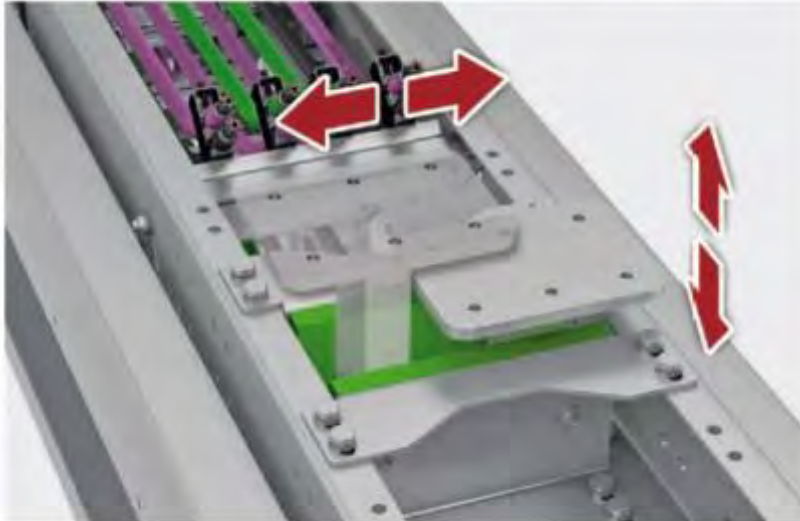
Guide channel

Advantages

- **Standardized** for all M Series cable carriers,
- **Available** in galvanized steel and stainless steel,
- **Heavy Duty design** with reinforced brackets and sideparts,
- **Preassembled** delivery,
- **No welded parts** – No heat affected zones,
- **No weldseams** – No cracks because of vibrations

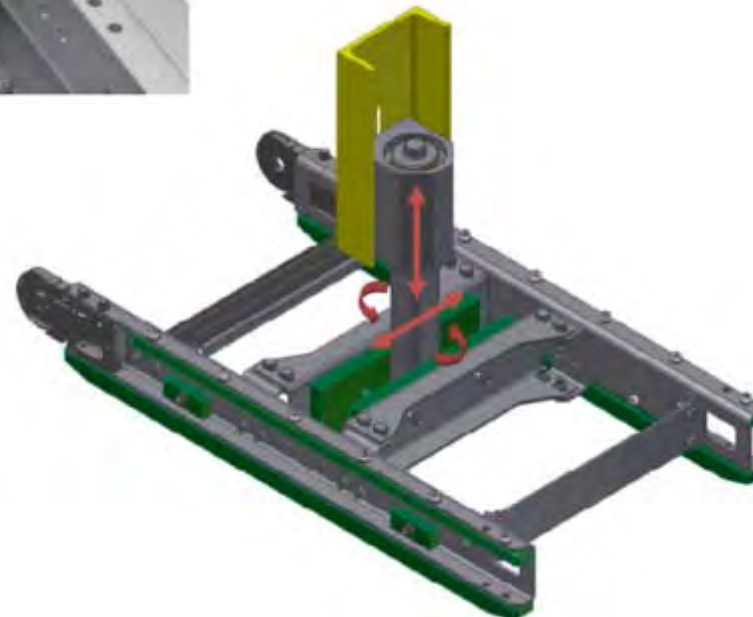


Driver sledge and rotary insert



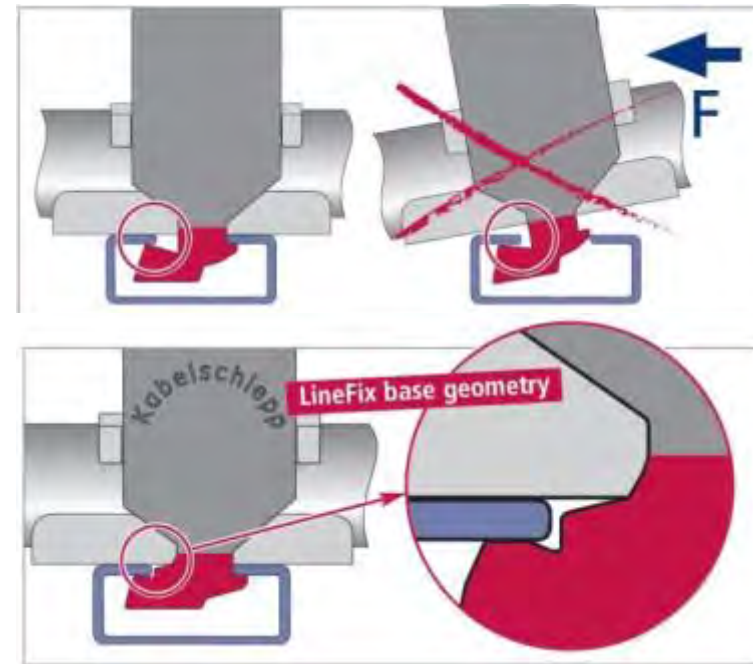
Purpose of a driver sledge

- Compensate vertical/horizontal misalignment
- Compensate torsional forces



Line-Fix Saddle Clamps

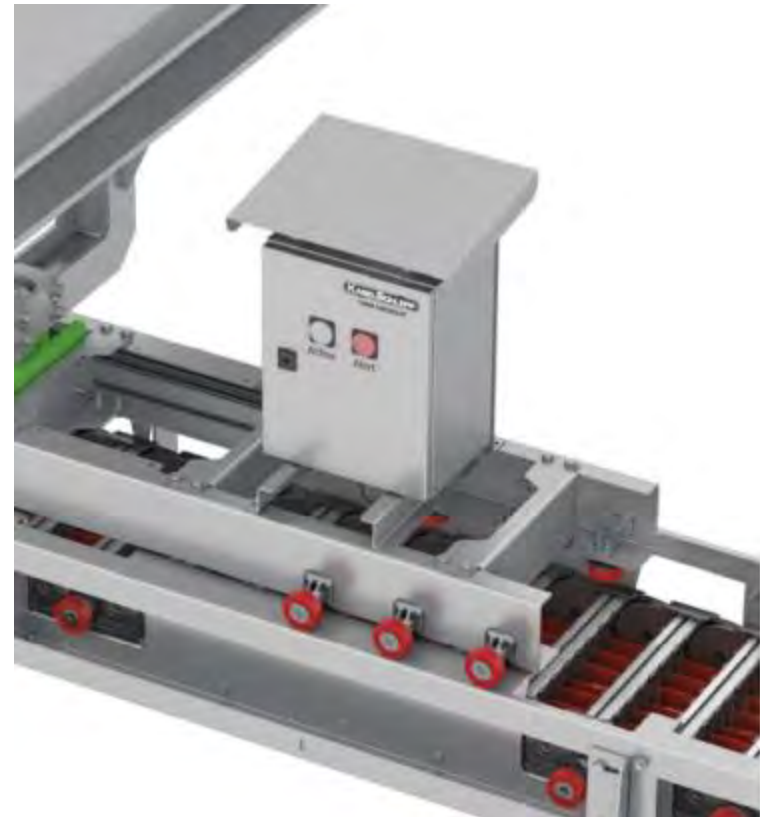
- Clamps, screws made of steel or stainless steel
- Optimized base geometry
- Plain design with retaining ribs
- Label visible, even after installation
- Multi-layer arrangement possible
- Fixed with a defined torque



Safety Devices for Cranes

Push-/Pull-Force Monitoring System

- signal is usable for a fully-automatic emergency stop-system
- direct measurement of the push-/pull-forces at the moving point
- force limits freely programmable (lower limit, upper limit)
- error indication if the limits are exceeded
- outgoing signal PLC usable (full stop, slow down)
- internal data storage
- maintenance free (no battery change)
- no speed limit
- for long travel ways
- protection class IP67



TRAXLINE Cables for Motion

High-flex TPE cables for projects and cranes

Developed for

- heavy load and long travel
- crane and conveyor equipment
- systems, mechanical and crane engineering
- clean room duties
- limited space solutions
- permafrost using
- outdoor applications

Technical Details

- shielded continuous bending
- top flexdesign TPE power cables
- TPE inner jacket
- special shielding with 85 % coverage
- top flexdesign copper wires
- KS-PP core insulation
- outer jacket color: black



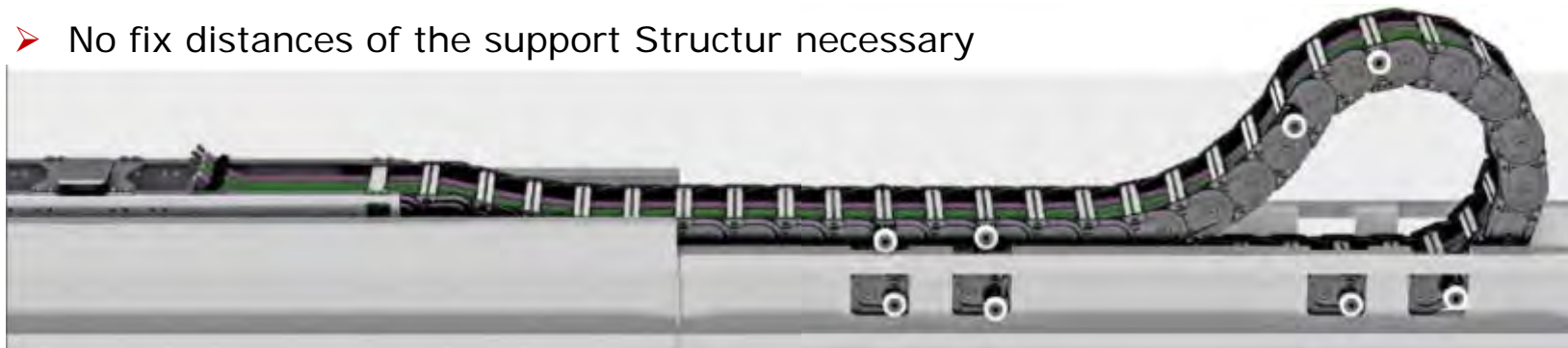
NEW

The full TRAXLINE TPE program:
www.traxline1000.de

RSC-System for Long Travel and Cranes (Roller Supported Chain)

- Rolling instead of gliding
- 90% less force compared to a gliding System
- Quiet and less-vibration
- High travel speed and acceleration
- Minimum stress for cable carrier and cables
- Very long travels possible
- Easy to maintain
- Only visual inspection
- Easy Installation (self aligning)
- No fix distances of the support Structur necessary

**100% Rolling System!!!
the upper Run never
touches the lower Run**



Tested at our full automatic crane Test-Center

Total Trax Turnkey System for your crane Application

- Full harnessed Systems with System warranty.
- From the first sketch to the final check everything from one supplier.
- Full System documentation.
- Installation service on site.



MC cable carrier with screwed RM/RMF-stays



Free span tests



Bending moment tests

short and long term tests for all energychains and cables



Long span tests



Push-pull forces tests



Long travel tests

RSC-Crane Test Facility

(Roller Supported Chain)

Proven under real conditions on outside test facility



- Test facility for 2 distinct systems
- Travel lengths of more than 100 m
- Test speeds up to 5 m/s
- Test under real weather conditions
- Automatic Test in 24/7





References



Shiploader/-unloader

With new **Roller Supported Chain System**

Spezifikation:

Amount:	1 Set
Country:	USA
Applicationtyp:	Grain Unloader
Travelway:	147m
Speed:	1,0 m/s
acceleration:	0,5 m/s ²
Additional load:	12 kg/m
Cable carrier:	MC1300.330.RMF-320-79170

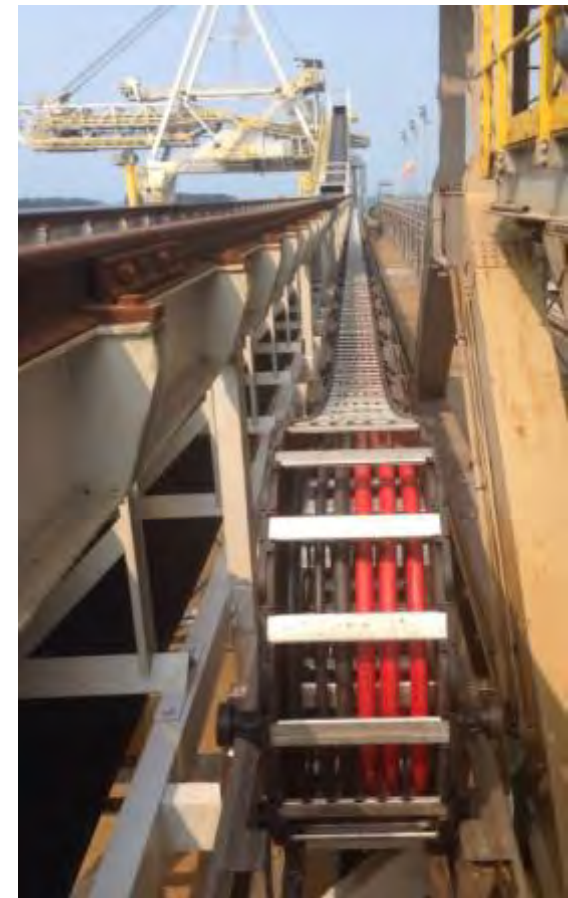


Shiploader/-unloader

With new **Roller Supported Chain System**

Spezifikation:

Amount:	1 Set
Country:	Indonesia
Applicationtyp:	Ship-Unloader
Travelway:	300m
Speed:	1,5 m/s
acceleration:	0,5 m/s ²
Additional load:	15 kg/m (incl. Medium Voltage Cables)
Cable carrier:	MC1300.330.RMF-320-79170



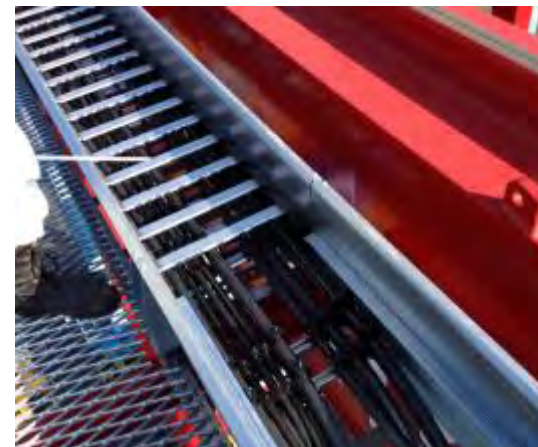
RTGs for



Specifications:

Company: Mitsui Engineering & Shipbuilding
Amount: 29 sets (since October 2013)
Type of crane: RTG
(Turkey, Japan, USA, Malaysia)

Travel length: approx. 20 m
Speed: 1,7 m/s
Acceleration: 0,3 m/s²
Additional load approx. 12 kg/m
Cable carrier: MC1300.320-RMF-320-12220





RTG for



Specifications:

Company: ZPMC Group, Shanghai
Place of usage: within China
Amount: several sets
Type of crane: RTG
Port environment

Travel length: up to 30 m
Speed: 1,2 m/s
Acceleration: 0,5 m/s²
Additional load up to 12 kg/m



RTGs for



Trans Gulf Port Cranes L.L.C

عبر الخليج لرافعات المرافى ذ.م.م

Specifications:

Company:	Trans Gulf Port Crane, Abu Dhabi
Amount:	13 Sets
Type of crane:	Rubber Tyred Gantry (RTG) Port environment
Travel length:	17,5 m
Speed:	1,2 m/s
Acceleration:	4 m/s ²
Additional load	12 kg/m
Installation:	
Cable carrier:	MC0950.352-RS-260



Framecontract for RTGs with

Specifications:



Company: Cargotec
 Place of usage: Finland
 Amount: Framecontract
 Type of crane: Rubber Tyred Gantry (RTG)
 Port environment

Travel length: 19,1 m
 Speed: 1,17 m/s
 Acceleration: 0,5 m/s²

Test RTG in Winter operation





RTGs for **NIKMNNOELL** SPECIAL CRANES

Container Terminal Istanbul , Turkey

Specifications:

- Type of crane: 26 Rubber Tired Gantry Crane (RTG)
Port environment
- Travel length: 18,40 m, center fixed point
- Speed: 1,17 m/s
- Acceleration: 0,3 m/s²
- Additional load: 10 kg/m
- Installation: 2000

KABELSCHLEPP MC 0950.429-RS/RM-260-10.545



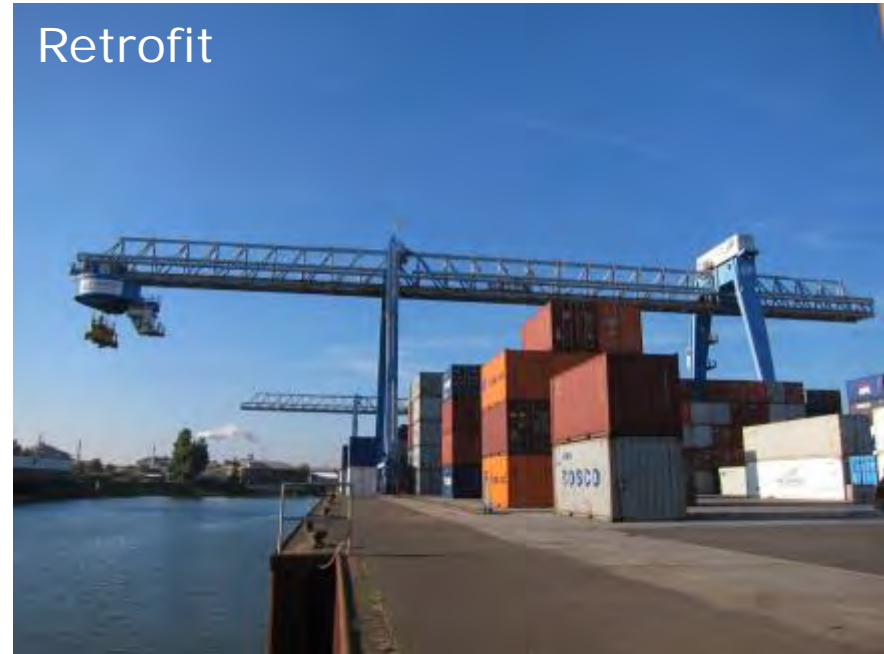
CONTARGO®

STS for ■■■ trimodal network

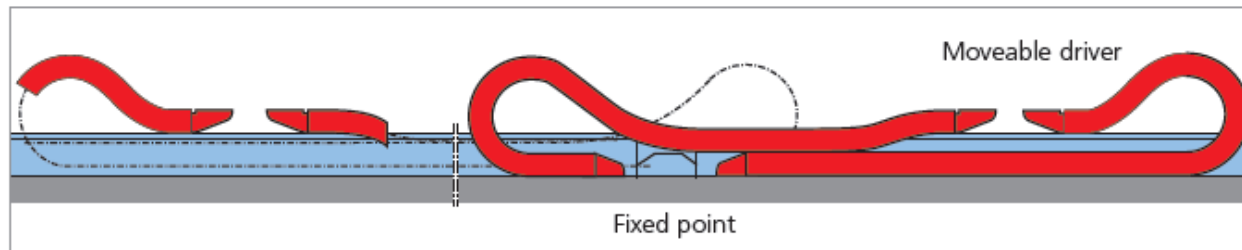
Specifications:

Company: CONTARGO, Ludwigshafen
 Amount: 1 Set
 Type of crane: STS
 Inland port

Travel length: 108 m
 Speed: 2 m/s
 Acceleration: 1 m/s²
 Additional load: 17 kg/m
 Installation:
 Cable carrier: MC1300.335-RMF-360-57200



Retrofit

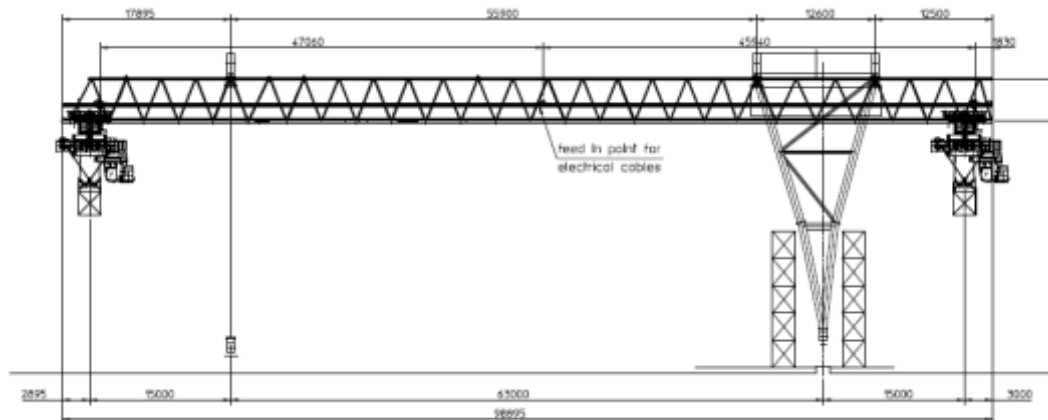


Opposing arrangement

RMGs for **Liebherr Container Cranes Ltd.**

Specifications:

Company: Liebherr Container Cranes
 Place of usage: Vladivostok, Russia
 Amount: 2 cranes
 Type of crane: RMG Crane
 Port environment,
 -40° C to +40° C
 Travel length: 94 m
 Speed: 2 m/s
 Acceleration: 1,0 m/s²
 Additional load 12,2 kg/m
 Cable carrier: MC1250.300-RM-260-50500

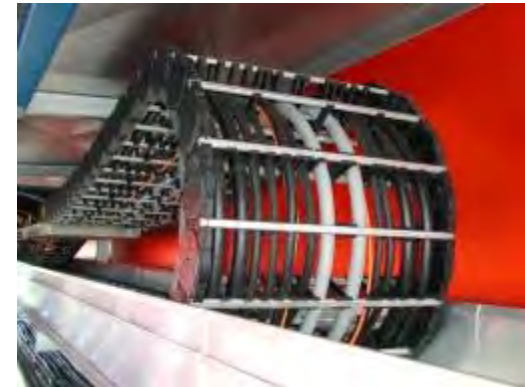


RMG for **künz**

Container Terminal Altenwerder (CTA), Germany

Specifications:

Amount:	52 Sets
Type of crane:	Rail-Mounted Gantry Crane (RMG) Port environment
Travel length:	32,30 m
Speed:	1,0 m/s
Acceleration:	0,3 m/s ²
Opposite Arrangement	
Additional load	12 kg/m (divided among two carriers)
Installation:	2001-2005

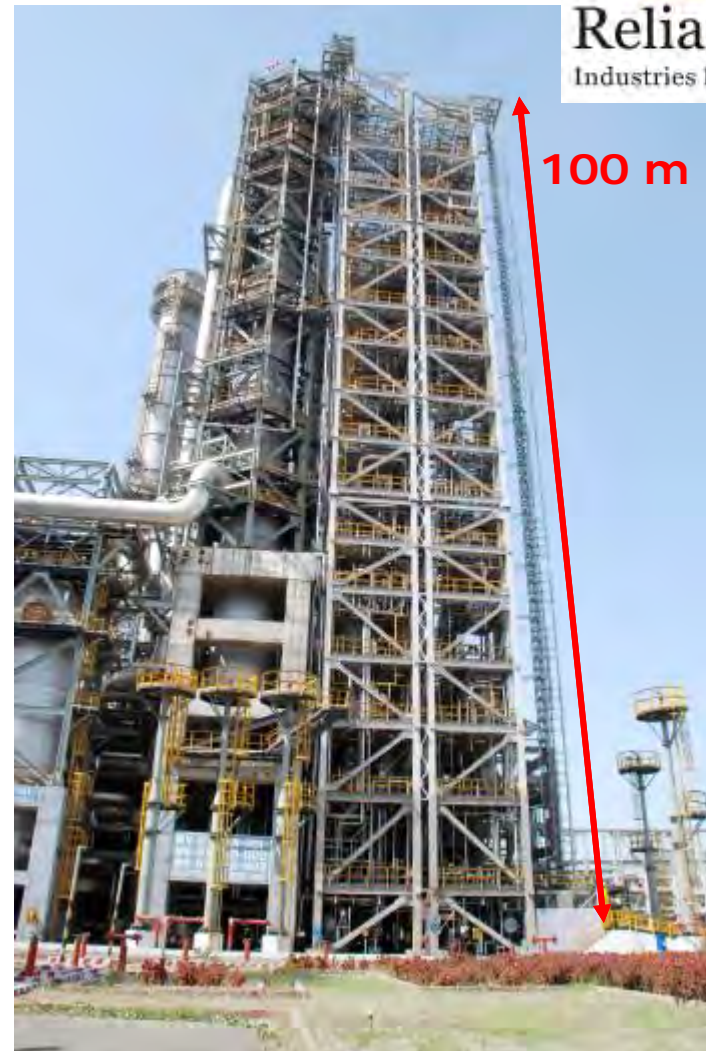


stx Goliath Cranes

- STX Shipbuilding, Dalian (China)
- Feed for Upper und Lower Trolley
- Travel distance: approx. 250 m
Additional load: max. 50 kg/m
(distributed among two carriers)
- MC1300 with double-sidebands in opposing arrangement



- Cable carrier system for elevator.
- Close project management between Kabelschlepp India and Germany.



And many more.....





Click the link below for video:

www.transportevents.com/presentations/melbourne2016/STS-Crane_RZ.wmv



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**Thank you
for your attention!**