

Siegerland Bremsen

## **SIBRE** Siegerland Bremsen GmbH

THE WORLD OF ADVANCED BRAKE TECHNOLOGY

# Sibre Germany

- Private owned Company
- Founded in 1958
- Headquarter in Haiger
- Assembly plant in Eschenburg
- Total production area 17.500 m<sup>2</sup>





### International presence

- More than 250 employees
- 11 SIBRE subsidiaries
- Approx. 50 partners / agents



#### SIBRE Siegerland Bremsen GmbH SIBRE Brakes S.E.A. Pte. Ltd. Germany Singapore SIBRE Brakes CO. LTD. SIBRE Brakes USA LP China USA Mericom SIBRE Drive Contr. Co SIBRE Fluidotehnic Serbia China SIBRE Brakes (India) Pvt. Ltd. SIBRE Scandinavia AB Sweden India SIBRE Brakes Spain S.L. SIBRE Australia Spain Australia SIBRE Brakes Italia s.r.l. SIBRE Brasilia Italy Brasilia

#### SIBRE Holding GmbH & Co Kg



#### USB5 – The latest generation of thruster disc brakes Developed for container cranes





### Designed for all applications in a crane



#### Standardized functional principle, available in 5 different sizes



#### USB5-05

brake torque: 100 - 690 Nm centre height: 160 mm weight: 46 kg



#### USB5-I

brake torque: 550 – 5.500 Nm centre height: 230 mm weight: 85 kg



#### USB5-II

brake torque: 1.300 - 9.800 Nm centre height: 280 mm weight: 175 kg



#### USB5-III

brake torque: 3.500 - 26.000 Nm centre height: 370 mm weight: 250 kg



#### USB5-V

Brake torque: 6.000 - 29.000 Nm centre height: 280 mm weight: 285 kg



### Parallel opening of brake shoes

Simplified alignment of the brake system Minimized risk of sliding between disc and linings





### Optimized spring unit

Reduced noise emission Extended lifetime of brake spring



2 short springs instead of 1 long spring -> reduced sidewise deflection

Guiding piston made of synthetic material -> reduced wear and noise

All sizes with square spring tube -> possible to close the scale opening

Optionally with top mounted torque scale -> easy access from each side





#### Enhanced corrosion protection

By design features and improved coating





Optimized cover without any deepening -> no stagnant water

All screws, bolts and washers made of stainless steel -> grade A4-80 (if available) -> outer screws additionally protected with covers

Unpainted parts made of higher grade material and Sinox coated (Instead of tenifer treatment)

All unused holes closed with plugs



#### Additional options for status monitoring

All USB5 brakes are prepared for additional sensors





Load cells for brake force and torque measurement

PT 100 temperature sensors for brake linings

Position sensor (4-20mA) for thruster stroke

Position sensor (4-20mA) for torque adjustment





### Many thanks for your attention !

sure to be safe





Siegerland Bremsen

# SIBRE emergency brake SHI





#### SHI application







#### SHI design benefits



- *3)* transmission to pressure pins
- **4)** transmission to linings/disc

- + favorable force-transmission on disc
- + no radial forces on piston/ sealings
- + simple and fast wear compensation
- + suitable for different disc-dimensions



#### SHI customer benefits



- favorable force-transmission [maintenance/spares/ safety]
- less leakage-risk
  [reduced risk of downtime/ safety]
- less maintenance requirements [time, budget]
- Discs, consoles, brake-sizes [flexibility]



#### SHI options



- sensor-technology
- extreme temperature application
- corrosion-protection C3-C5 (EN ISO 12944)
- Individual design of console/ brackets
- individual design of power packs (plug & play)



### hydraulic power packs

- compact design
- well proven (since 1998)
- more than 2000 pcs.in operation
- no external piping required
- cost effective
- low maintenance requirements & easily replaceable components
- many options available
- vertical and horizontal mounting position is possible

#### PLUG & PLAY SOLUTION FOR EMERGENCY BRAKES

## SIBRE during Covid-19

- + increase of internal capacities
- + maintenance-tutorials (upon request)
- + online services & support (upon request)

#### Future chances and opportunities (SIBRE)

- structure & products
- education and online-training
- digitalization
- SIBRE-partnership





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