

The logo features a stylized 'IC' where the 'I' is a vertical bar and the 'C' is a large, bold, blocky letter. Above the 'C' is a horizontal bar that tapers to the right, resembling a crane hook or a crane arm.

**INTERNATIONAL
IC TOWER
CRANES
CONFERENCE & RECEPTION**

Jörg Hegestweiler

CEO, BKL Baukran Logistik GmbH

**The changing environment
for tower crane operations.**

TOWER CRANES.

A STEP INTO THE FUTURE?

2019 June 27

50
YEARS



AGENDA.

1. Introduction
2. BKL Baukran Logistik GmbH
3. Environment for tower crane operations
4. Challenges for rental companies
5. Roadmap to the future
6. Conclusion
7. Questions & discussion





INTRODUCTION.



50
YEARS

» INTRODUCTION

BKL

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BKL BAUKRAN LOGISTIK GMBH (BKL)

One of Europe's largest
full-service providers of
crane solutions.

» **CEO**

Jan. 2018 – present



PERI GMBH

Leading global manufacturer
and distributor of formwork and
scaffolding.

» **Market Unit Director
Middle East and Africa**

Aug. 2013 – Oct. 2017



LIEBHERR GROUP

One of the world's largest
manufacturers of construction
machinery.

» **MD – Saudi Liebherr
Company Ltd.**
(All Liebherr products in KSA)
» **Area Sales Manager**
» **Sales Engineer/Consultant**
» **Project Manager CRM**
» **Trainee – Customer Service**

Jul. 1995 – Jun. 2013





BKL BAUKRAN LOGISTIK GMBH.



BUSINESS AREAS.

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At BKL, we firmly believe that the successful execution of lifting operations only calls for one thing: a strong partner like BKL.

A family-owned business with 50 years of experience, we are one of the largest full-service providers of crane solutions. With six strategic locations in Germany, we offer a comprehensive range of services for building sites in every corner of Europe.



CRANE HIRE



CONSULTANCY &
LOGISTICS



SERVICE



CRANE SALES

PORTFOLIO.

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ENVIRONMENT FOR
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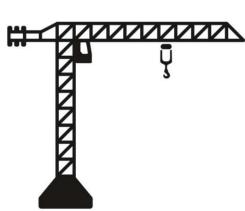
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Our large fleet means a wide selection of crane types is always available:



>500

FROM 13 TO
1.000 MT

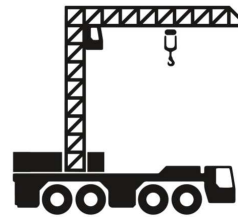
» 21LC1050



>100

FROM 30 TO
500 T

» LTM 1500-8.1



>10

UP TO
140 MT

» MK 140



>60

UP TO
85 MT

» PK 92002-SH

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INTERNATIONAL BUSINESS WORLDWIDE:



REFERENCES.

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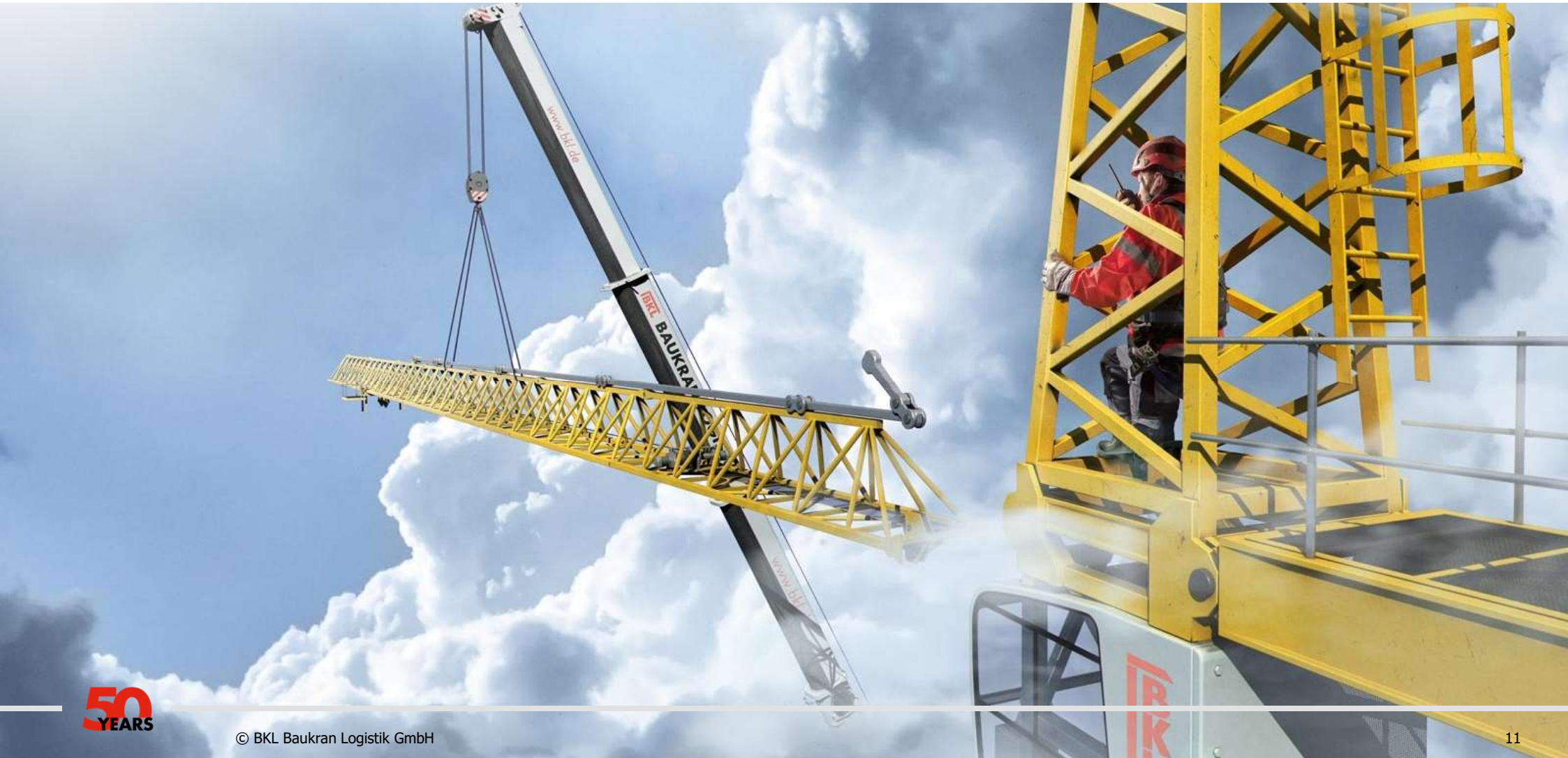
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ENVIRONMENT FOR TOWER CRANE OPERATIONS.



EVOLUTION.

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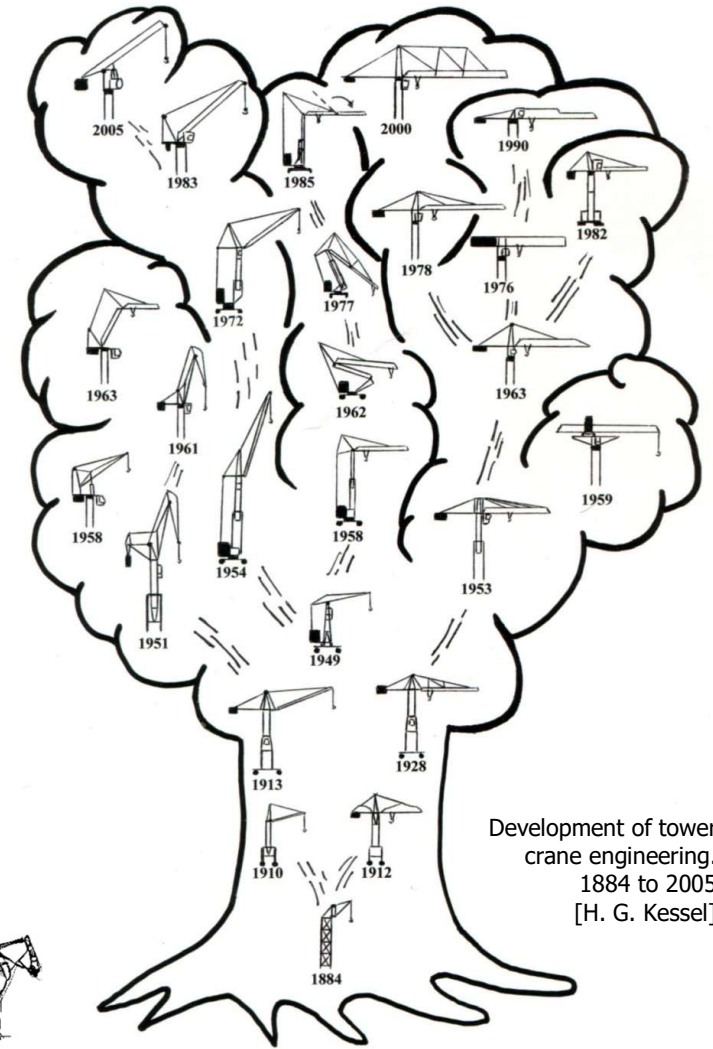
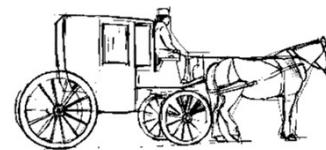
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DEVELOPMENT OF TOWER CRANE ENGINEERING 1884 TO 2005

**What happened
in the last 25 years?**

**What a difference
in approx. 120 years TC
development**



Development of tower crane engineering. 1884 to 2005 [H. G. Kessel]

PORTFOLIO.

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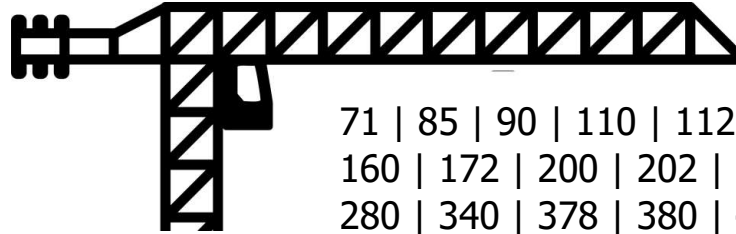
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**CRANE
TOP**



71 | 85 | 90 | 110 | 112 | 125 | 130 | 140 | 150
160 | 172 | 200 | 202 | 220 | 224 | 240 | 250 | 278
280 | 340 | 378 | 380 | 420 | 550 | 630 | 1.000 mt

26

**CRANE
TOWER**



1,20 | 1,80 | 1,90 | 2,30 | 2,44 | 2,45 m

6

**CRANE
BASE**



3,0 | 4,5 | 6,0 | 8,0 | 10,0 m

5

LOGISTICS.

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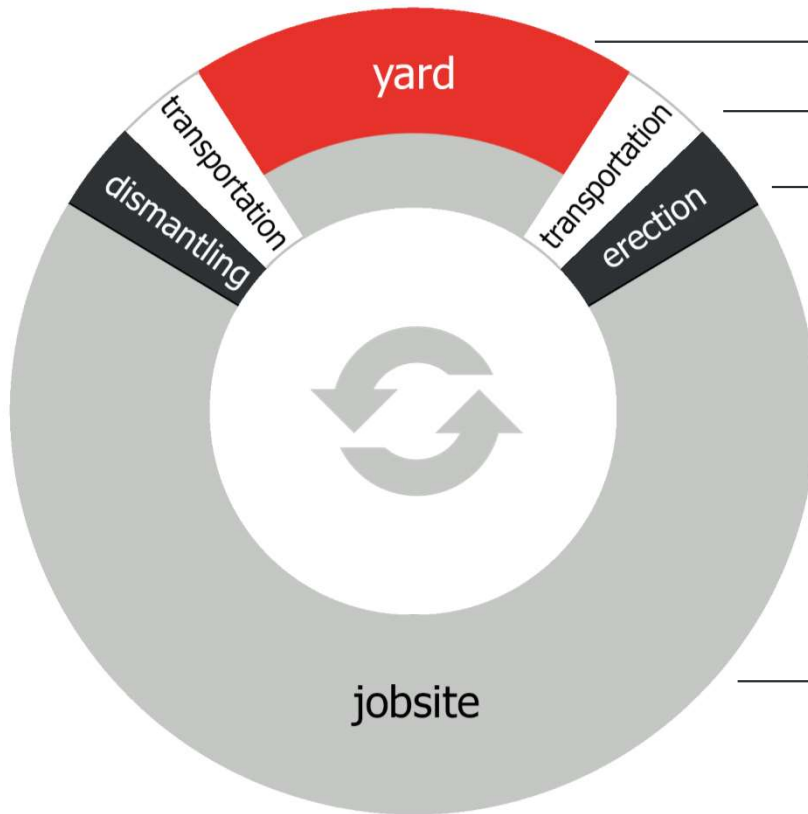
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yard



transportation



erection



jobsite



TECHNOLOGY.

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THE MOST IMPORTANT DEVELOPMENTS IN THE PAST 25 YEARS

PLC



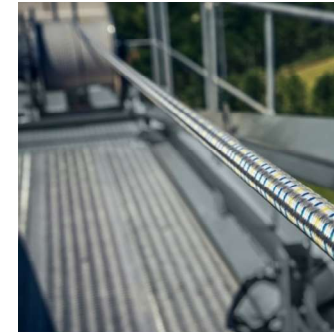
Frequency Drive



Flat Top



Fiber Rope



■ —————> 90's

■ —————> 2020 ?

CHALLENGES FOR RENTAL COMPANIES.



CHALLENGES FOR THE CONSTRUCTION MARKET IN DEVELOPED COUNTRIES

- » Lack of specialists and workers
- » High labor costs
- » Demand for “social work life balance”
- » “Just in time” – shorter construction time
- » Price pressure
- » New economic environment
“globalization/regionalization”
- » Risk of an economic downturn



CONSTRUCTION PROCESS.

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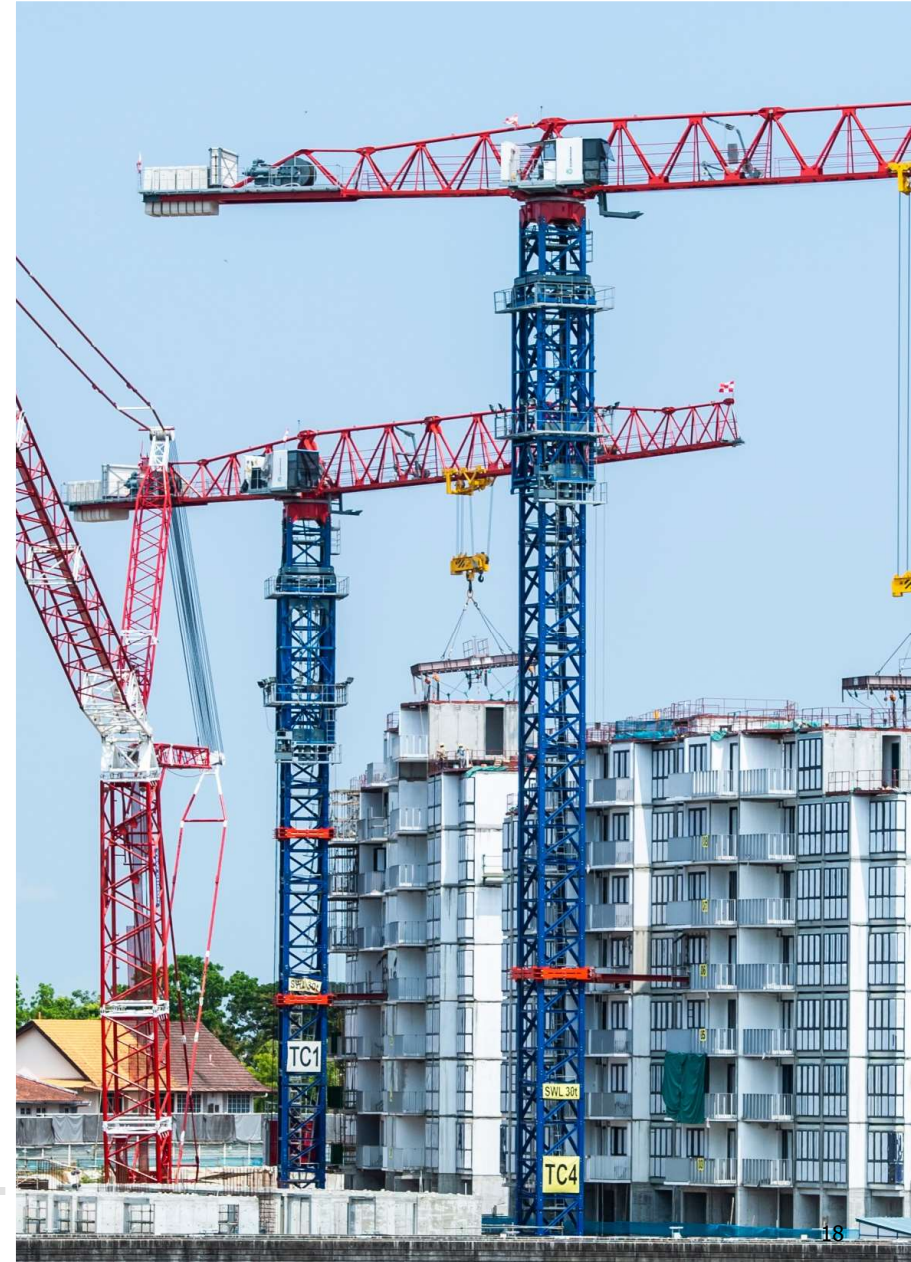
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RISING DEMAND FOR MODULAR BUILDINGS

- » Pre-fabricated concrete
- » Pre-fabricated Prefinished Unit (PPU)
- » Pre-fabricated Bathroom Unit (PBU)
- » Pre-fabricated Prefinished Volumetric Construction (PPVC)



FLEET MANAGEMENT. „UNUSED“ COMPONENTS.

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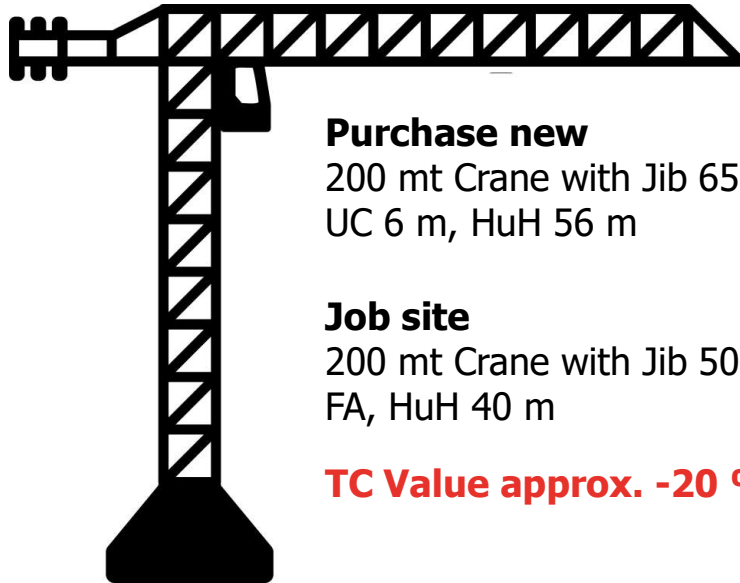
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RENTAL EQUIPMENT / BUY FULLY EQUIPPED



Purchase new

200 mt Crane with Jib 65 m,
UC 6 m, HuH 56 m

Job site

200 mt Crane with Jib 50 m,
FA, HuH 40 m

TC Value approx. -20 %

UC undercarriage „base“
FA foundation anchor
HuH height under hook
TC Tower Crane

**Is your rental utilisation
calculated by crane units
or value ?**

In general: **Estimated 10 %**
of your capital (components)
“Sitting in our rental yard”

TYPES OF FINANCING IN GERMANY

EXTERNAL FINANCING	Short Term Finance	Long Term Finance
	<ul style="list-style-type: none"> » Current Account – overdraft » Supplier Credit » Schedule Credit 	<ul style="list-style-type: none"> » Shareholder Loans » Bank Loans » equity financing
INSIDE FINANCE	Cash Flow	
OWN FINANCE	Equity (introduced capital increase)	

- ! – Finance Lease with residual value (partial amortization)
- Finance Lease without residual value (full pay)
- Operate Lease with open residual value

DIGITALISATION.

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WHY
digital
presence
?

new contacts

teamwork

efficiency

innovation

productivity

communication

working conditions



ROADMAP TO THE FUTURE.



PORTFOLIO. STREAMLINE.

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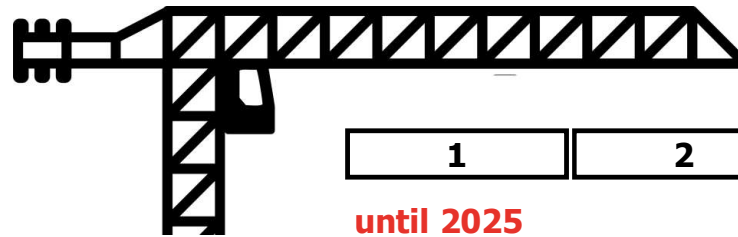
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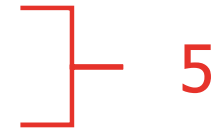
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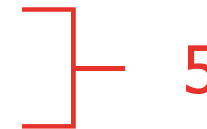
QUESTIONS &
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until 2025



1,20 | 1,80 | ~~1,90~~ | 2,30 | 2,44 | 2,45 m



~~3,0~~ | 4,5 | 6,0 | 8,0 | 10,0 m



PORTFOLIO. REDUCTION IN COMPLEXITY.

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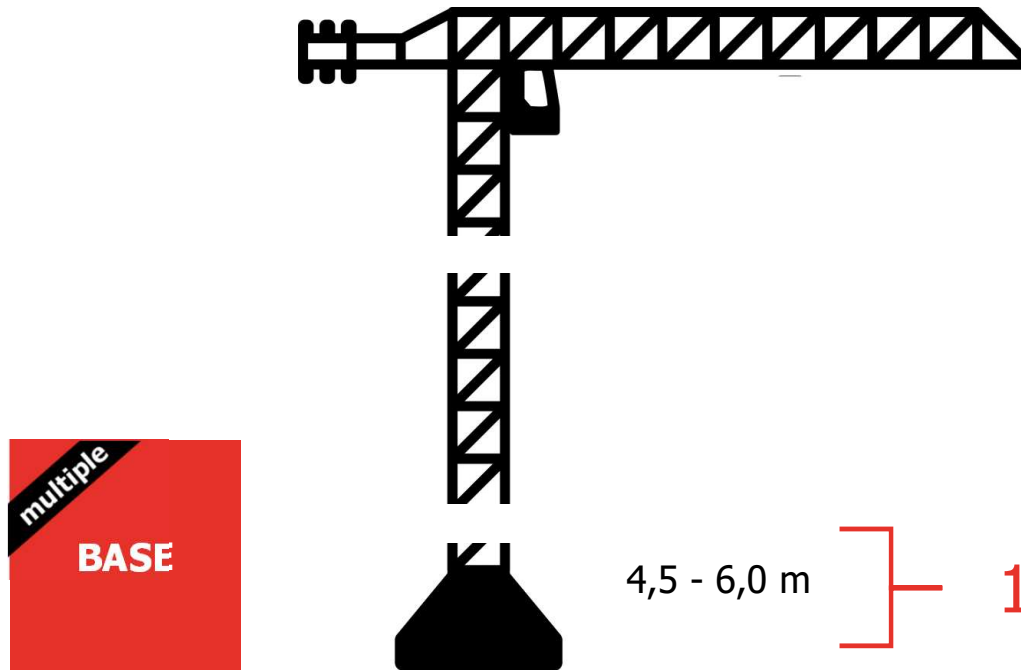
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UNIVERSAL USABLE CRANE BASE



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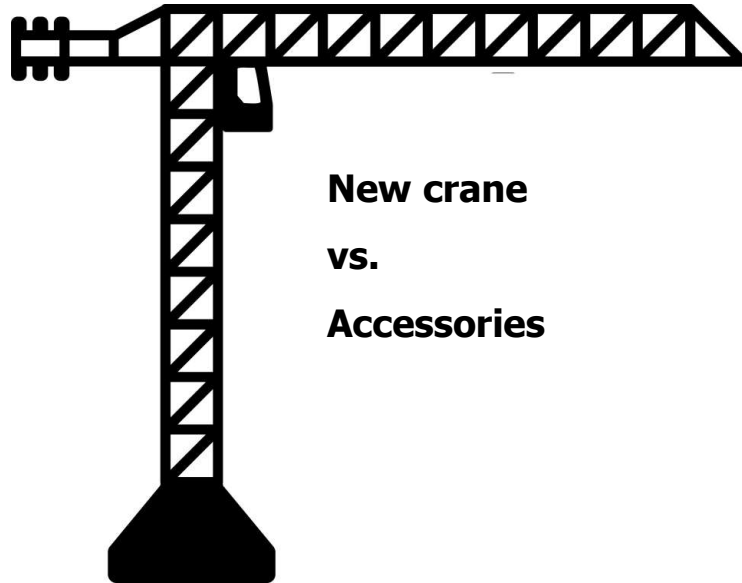
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PRICING MODEL FOR COMPONENTS



New crane

vs.

Accessories

LOGISTICS. YARD AND TRANSPORT.

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YARD



TRANSPORT



LOGISTICS. YARD.

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ORGANIZATION: FORMWORK AND SCAFFOLDING



TECHNOLOGY. IMPROVE MATERIALS.

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LIGHT COMPONENTS

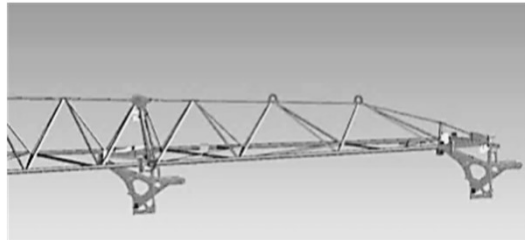
Available for mobile and mobile construction cranes:

MK 140:

L/W/H 5/0,6/0,6 m.

1-1,4 t @ 60-65 m 100 kg

(20 kg/m)



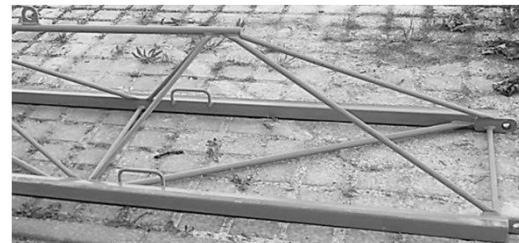
High potential for tower cranes:

81 K.1:

L/W/H 3/0,87/0,62 m.

1,35 t @ 48 m 85 kg

(33 kg/m)



100 mt Flat Top:

L/W/H 5/1/1,3 m.

1,37 t @ 55 m 375 kg

(75 kg/m)



TYPES OF FINANCING

EXTERNAL FINANCING

Long Term Finance

- » Finance Lease with residual value (partial amortization)
- » Finance Lease without residual value (full pay)
- » Operate Lease with open residual value

INSIDE FINANCE

Cash Flow

OWN FINANCE

Equity (capital increase)

ADMINISTRATIVE PROCESSES

Development and implementation of digital solutions at BKL in different areas, such as the App „Mein BKL“, digital archiving, workflows etc.

ERP-System : digital resSource planning

1. Scheduling



2. Dispatch

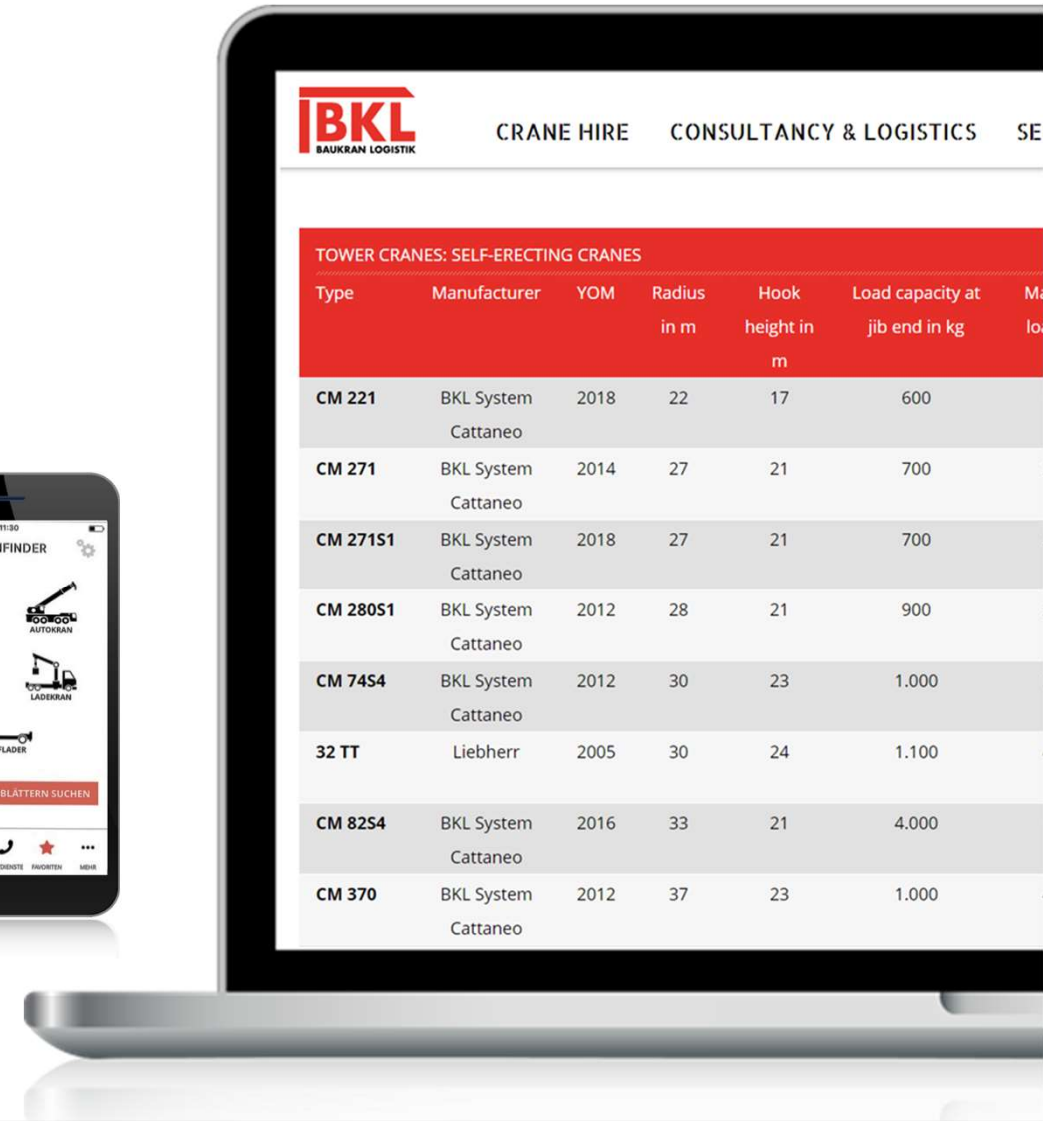


3. Realisation



DIGITAL SOLUTIONS

- » **Administration of machines & parts**
Scan Codes/Barcode / RFID Chip
(clear identification of components)
- » **Standards for databases?**
- » **rental marketplace platform**
- » **B2B rental exchange**
- » ...



TOWER CRANES: SELF-ERECTING CRANES

Type	Manufacturer	YOM	Radius in m	Hook height in m	Load capacity at jib end in kg	Ma lo
CM 221	BKL System Cattaneo	2018	22	17	600	
CM 271	BKL System Cattaneo	2014	27	21	700	
CM 271S1	BKL System Cattaneo	2018	27	21	700	
CM 280S1	BKL System Cattaneo	2012	28	21	900	
CM 74S4	BKL System Cattaneo	2012	30	23	1.000	
32 TT	Liebherr	2005	30	24	1.100	
CM 82S4	BKL System Cattaneo	2016	33	21	4.000	
CM 370	BKL System Cattaneo	2012	37	23	1.000	

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FLEET MANAGEMENT

for example Data-Transfer and
Positioning System provides:

- » Status reports at any time
- » Scaling data
- » Overload warnings
- » Service partnerships
- » Maintenance management
- » Various reports, statistics,
information



EVOLUTION.

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WHAT IS NEXT?

Tower crane development ?

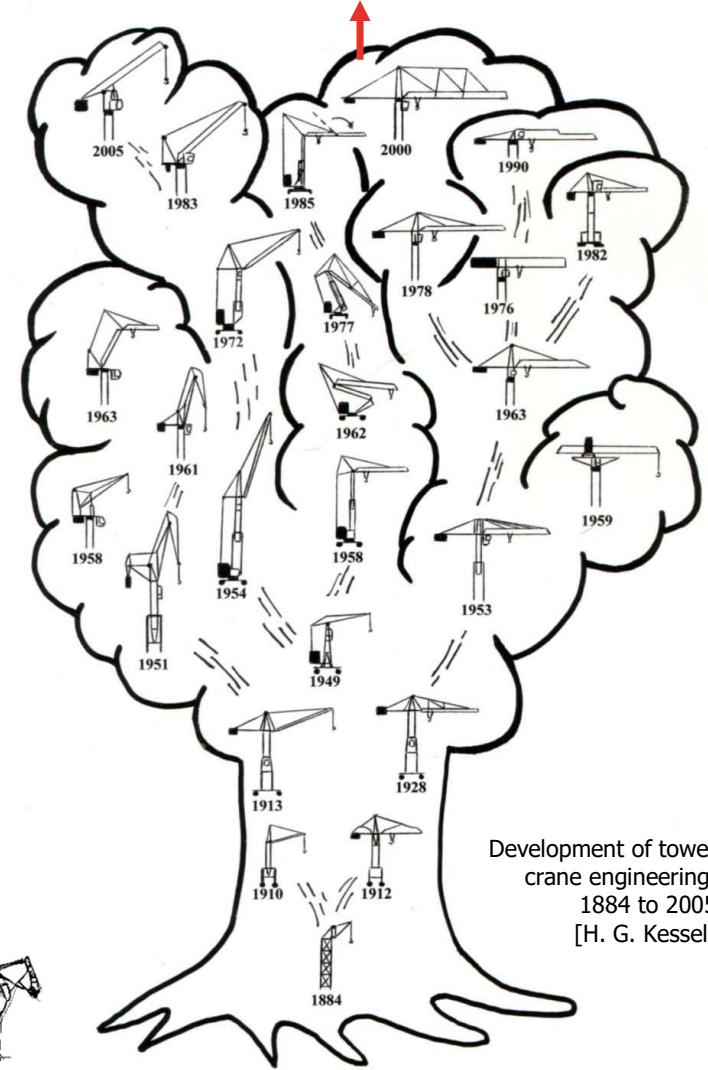
Benchmark competitions ?

High-rise construction without cranes ?

autonomous driving,
e-mobility...



2025





NEW TOWER CRANES FOR RENTAL FLEETS 2025.

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REQUIREMENTS / DEMAND

Portfolio

- » "Multi Crane TOP"
- » Reduce/LESS components
- » New design use of material
- » Pricing "accessories"

Digitalisation

- » Documentation
- » ERP-logistic
- » **Building Information Modeling BIM**

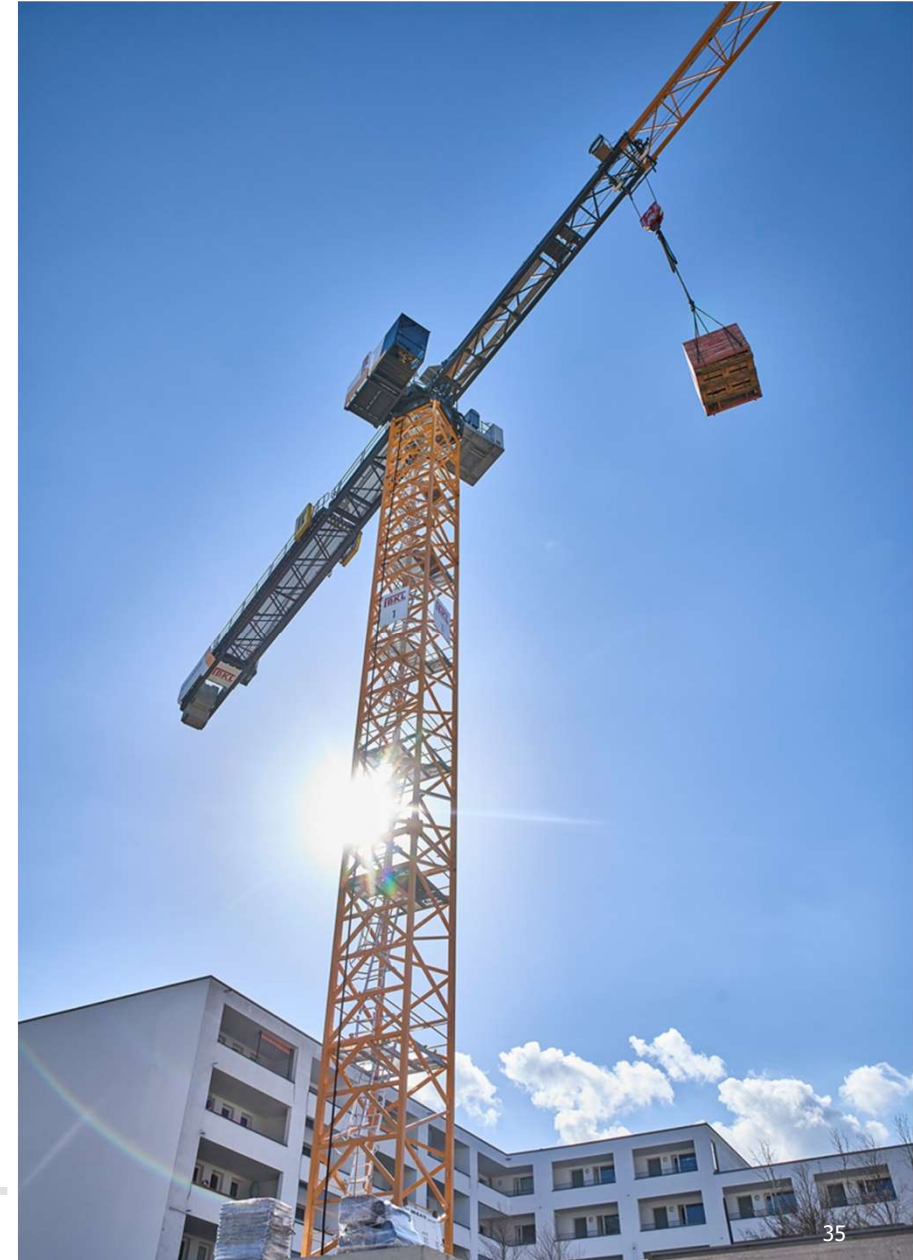
Logistics

- » Transport optimization "Assembly"
- » Yard logistics => accessories

Technology

- » Fiber Rope
- » s. Portfolio

**IT'S TIME
TO CHANGE!**



QUESTIONS & DISCUSSION.





THANK YOU.

50
YEARS



CONTACT.

BKL BAUKRAN LOGISTIK GMBH

T: +49 8121 2248-0

E: info@bkl.de

Römerstrasse 22

D-85661 Forstinning near Munich

www.bkl.de

YOUR CONTACT:

Jörg Hegestweiler

T: +49 8121 2248-186

E: joerg.hegestweiler@bkl.de





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