

BAUER BG 23

Drilling Rig Base Carrier BT 65



The Bauer drilling rig stand for multifunction equipment for a variety of foundation construction systems. The selection between two model ranges allows an optimum choice for differing project or transportation requirements.

Specific highlights of the drilling rigs are:

- High safety standards
- Environmental sustainability, economic efficiency and performance
- Easy transport and short rigging time
- High quality standard
- Long lifetime and excellent resale value



Kelly Drilling



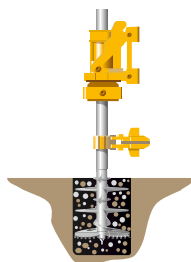
Cased Kelly Drilling
installation with oscillator



CFA
Continuous Flight
Auger Drilling



FDP
Full Displacement Piling
(Standard or Lost Bit)

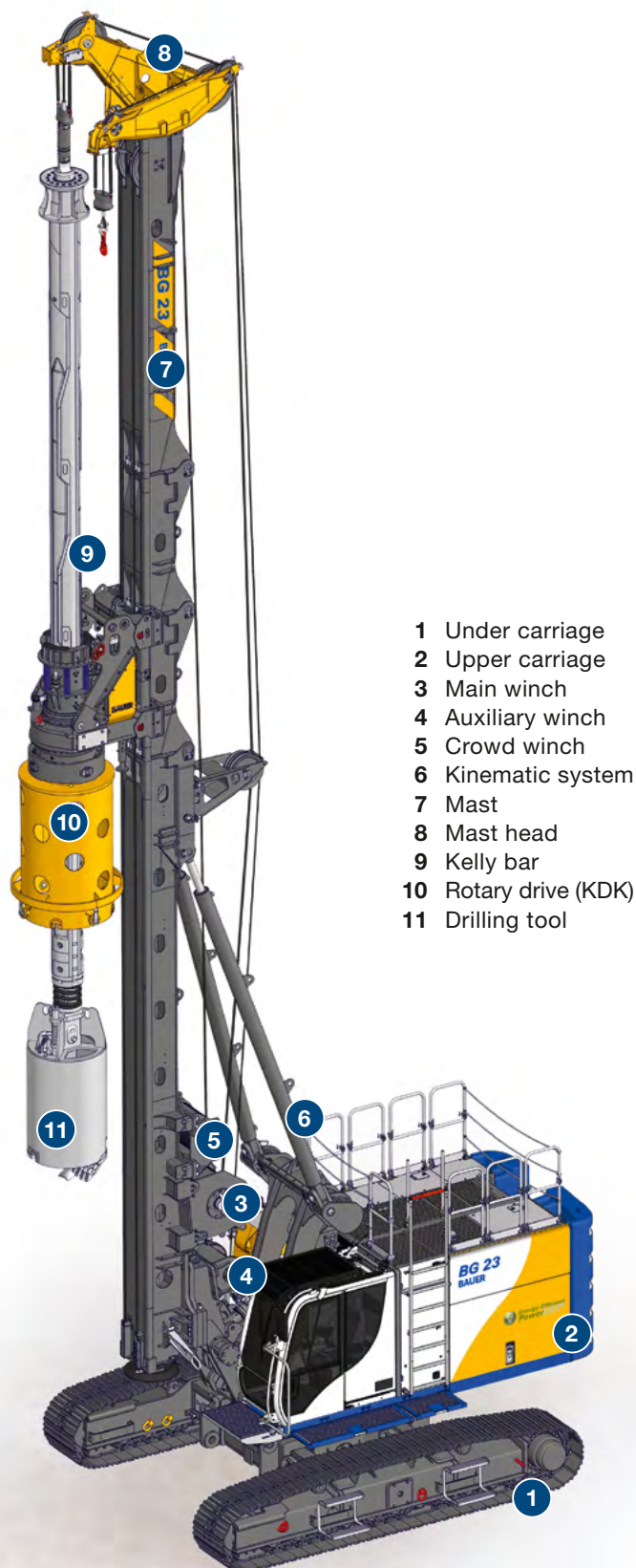


SCM
Single Column Mixing



The Drilling Rig BG 23 BT 65

Max. drilling diameter: 1,700 mm
 Max. drilling depth: 51.4 m
 Max. torque: 235 kNm
 Max. height: 21.7 m
 Engine: CAT C 7.1 186 / 238 kW



- 1 Under carriage
- 2 Upper carriage
- 3 Main winch
- 4 Auxiliary winch
- 5 Crowd winch
- 6 Kinematic system
- 7 Mast
- 8 Mast head
- 9 Kelly bar
- 10 Rotary drive (KDK)
- 11 Drilling tool



Modern, ergonomic operator cab

- FOPS compliant with additional protective roof guard
- Premium operator seat, air-sprung
- Joystick controls with high functionality

Powerful CAT engines

- C 7.1 186 kW (UN/ECE R96*) or C 7.1 238 kW (EU Stage V, EPA/CARB Tier 4 final)
- Diesel particulate filter in exhaust emission standard EU Stage V, EPA/CARB Tier 4 final
- Low noise emission
- Worldwide CAT service partners



Safety equipment

- Integrated service platforms in the upper carriage for easy and safe maintenance work
- Retractable gratings beside the cab
- Guardrails on top of the upper carriage (foldable for transport)
- Rear view cameras



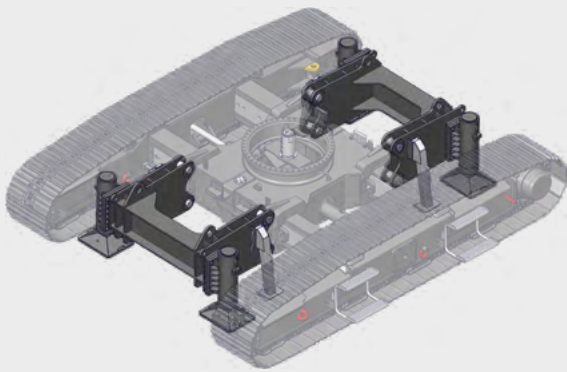
**Energy-Efficient
Power**

- Reduction of fuel consumption by up to 30%
- Increased productivity through improved efficiency
- Significantly reduced noise levels
- Tried and proven suitability for practical application
- Optimized parallel operation of main and auxiliary consumers

* Exhaust emission equivalent EPA Tier 3 and EU Stage III A

Safe and easy transport

- Mobilization kit with hydraulically operated pin connection
- Quick-release hydraulic couplers on upper carriage
- Hydraulic locking of support trestle
- Activated by remote control multi



Jack-Up-System

- Enables lifting without additional equipment
- Quick and easy disassembly of the crawler
- Safe loading onto the low-loader

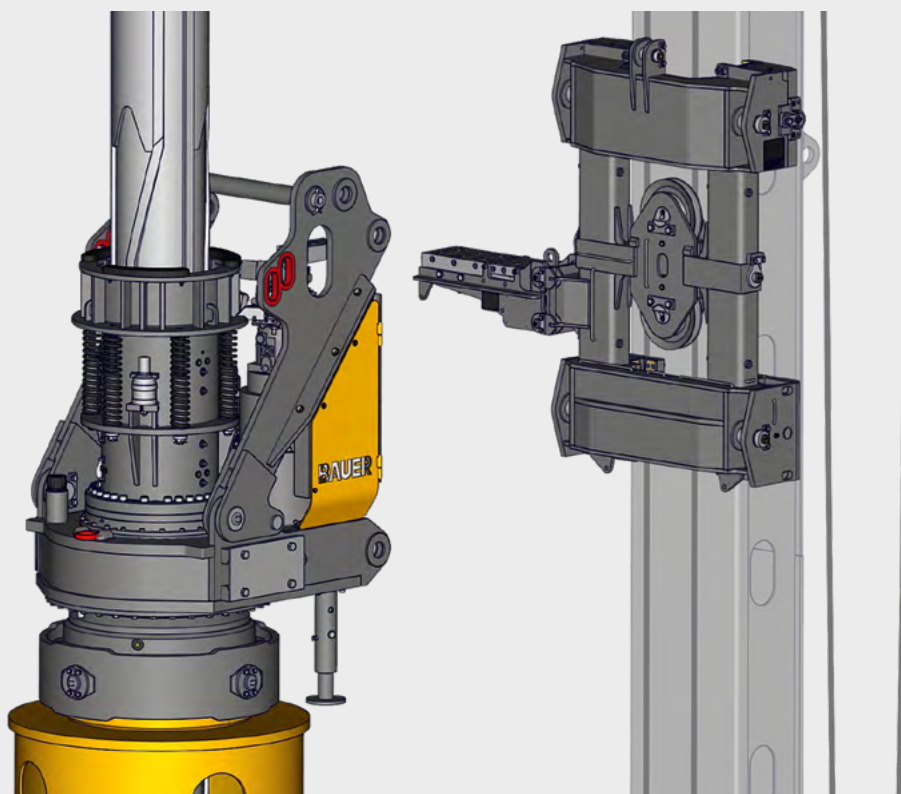
Flexible transport concept

- Easy disassembly of the device using V-kinematics
- Transport possible with or without lower mast section
- Transport without crawlers
- Transport units < 25 t achievable



< 25 t



**Kelly set-up**

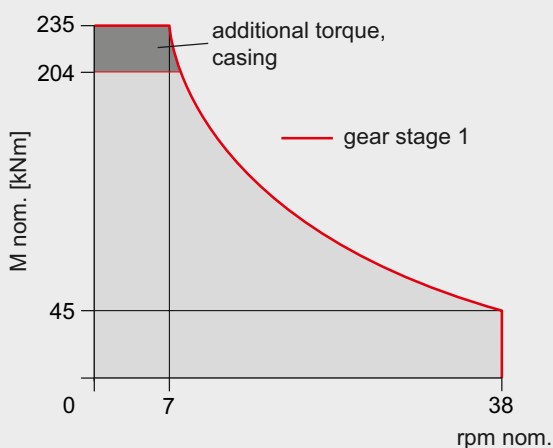
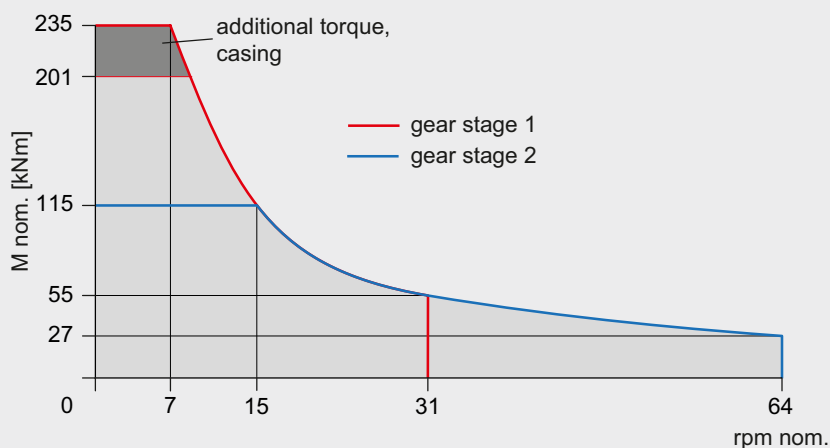
- Long Kelly guide
- Integrated shock absorbing spring system
- Kelly visualization (see page 9)
- Enhanced drilling performance
- High operation comfort
- Reduction of wear on Kelly bars and drive keys

Rotary drive

- Optional single gear drive or multi gear drive
- Max. torque 235 kNm
- Max. speed 64 rpm
- Various modes of operation, partially selectable speed of rotation and torque

Hydraulically operated pin connection on the crowd sledge

- Pin connection controlled via the remote control
- Simple and secure attachment of the rotary drive, no working at heights unsecured

KDK 235 K**KDK 235 S**

Base carrier BT 65**Standard**

- Retractable gratings beside cab
- Cameras for rear area surveillance
- Integrated service platforms
- Guard rails on the upper level
- Hydraulic couplers on the upper level
- Remote control Multi

Optional

- Compressor 1,000 l/min
- Electric generator 13 kVA
- Weather protection
- Quick-release hydraulic couplers on the undercarriage
- Jack-Up-System
- Premium operator seat with air-condition
- Grating on side of cab with handrail and grating in front of cab

Drilling rig attachment**Standard**

- Three-sectional mast
- Sturdy V-type mast kinematic system
- Main winch with hydraulic free-wheel control
- Hydraulic locking for support trestle

Optional

- Mast support unit
- Mobilization kit
- Hydraulic bolt connection on rotary sledge for easy mounting and demounting of rotary drive
- Extension package Super Low Head

Rotary drive**Standard**

- Rotary drive KDK 235 K
- Selectable modes of operation
- Kelly drive adapter for outer Kelly tube 368 mm
- Quick-release hydraulic couplers

Optional

- Rotary drive KDK 235 S

Measuring and control system**Standard**

- Automatic mast alignment with memory function
- Crowd stroke monitoring
- Kelly visualization
- Electronic mast limit control

Optional

- Electronic load sensing for auxiliary winch
- Recording of concrete pressure and volume for Single-Pass processes
- Software modules for further applications
- Adaptive Kelly speed assistant
- Automatic drilling and extraction control for Single-Pass processes
- Bauer Enhanced CAN Interface (BECI)
- Crowd Plus
- Stability Plus

B-Tronic

With the Bauer B-Tronic system, you can reliably and precisely accomplish your tasks on the construction site, even under extreme application conditions.

- The high-resolution touchscreen display makes operation extremely user-friendly
- By changing the brightness, color scheme and day/night mode, the display of the operating situation and light exposure can be optimally adjusted
- The main parameters, such as pump pressures, torque and drilling depths are visible at a glance



B-Drive

The B-Drive is a central operating and visualization system

- B-Drive combines configurable potentiometer values in one display
- Ergonomic placement of the display on the right column of the operator's cab

Tablet

The tablet is the multifunctional tool for your Bauer machine

- You have online access to the customer portal, manuals, equipment management and lots more
- Default internet connection via the DTR module located in the machine
- The operator screen can be mirrored live onto the tablet in order to follow the ongoing work process



Equipment networking

DTR module

- With the DTR module, equipment and product data can be provided to a range of users

WEB-BGM

- WEB-BGM is a software for accessing equipment data and locations of the equipment fleet even when you are not on site

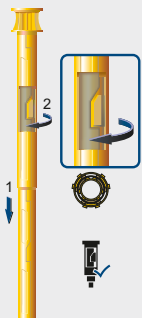
Report for production data

- Standardized reports to document drilling progress and as proof of performance and quality



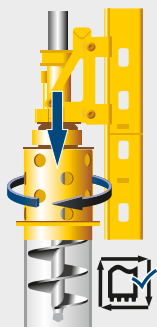
Adaptive Kelly speed assistant

The assistant raises and lowers the Kelly bar safely and quickly and allows an easy operation. The automatic control of the speed of the main winch reduces the speed at the transition points of the Kelly sections. This provides maximum safety with minimum wear. The permanent monitoring of the parameters prevents a locked Kelly bar from being raised or lowered accidentally and thus causing damage.



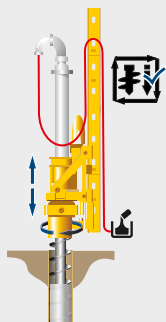
Kelly visualization

Display of the locking recesses, as well as representation of the controlled extension and retraction of the Kelly bar on the B-Tronic system. The rapid approach of the locking position results in a considerably enhanced drilling performance. In addition, the level of wear that the Kelly bar and drive keys are.



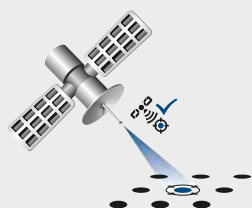
Kelly drilling assistant

Saves the current crowd speed and the speed of the rotary drive. It enhances drilling performance with simultaneous hands-free operation. Drilling parameters can be adjusted during the automated drilling procedure.



Automatic drilling and extraction control for Single-Pass processes

The system controls the drilling and/or extraction speed of the crowd system and enables hands-free operation. This ensures the production of a high-quality pile while simultaneously minimizing the amount of concrete.



Satellite-based positioning

The BAUER Assistant Positioning System (B-APS) allows the position of a bored pile to be located extremely accurately. Documentation is provided for the nominal and actual coordinates, as well as the corresponding accuracy of each bored pile. Manual marking of the piles is no longer required.

Many other assistance systems are available in our portfolio.

Stability Plus

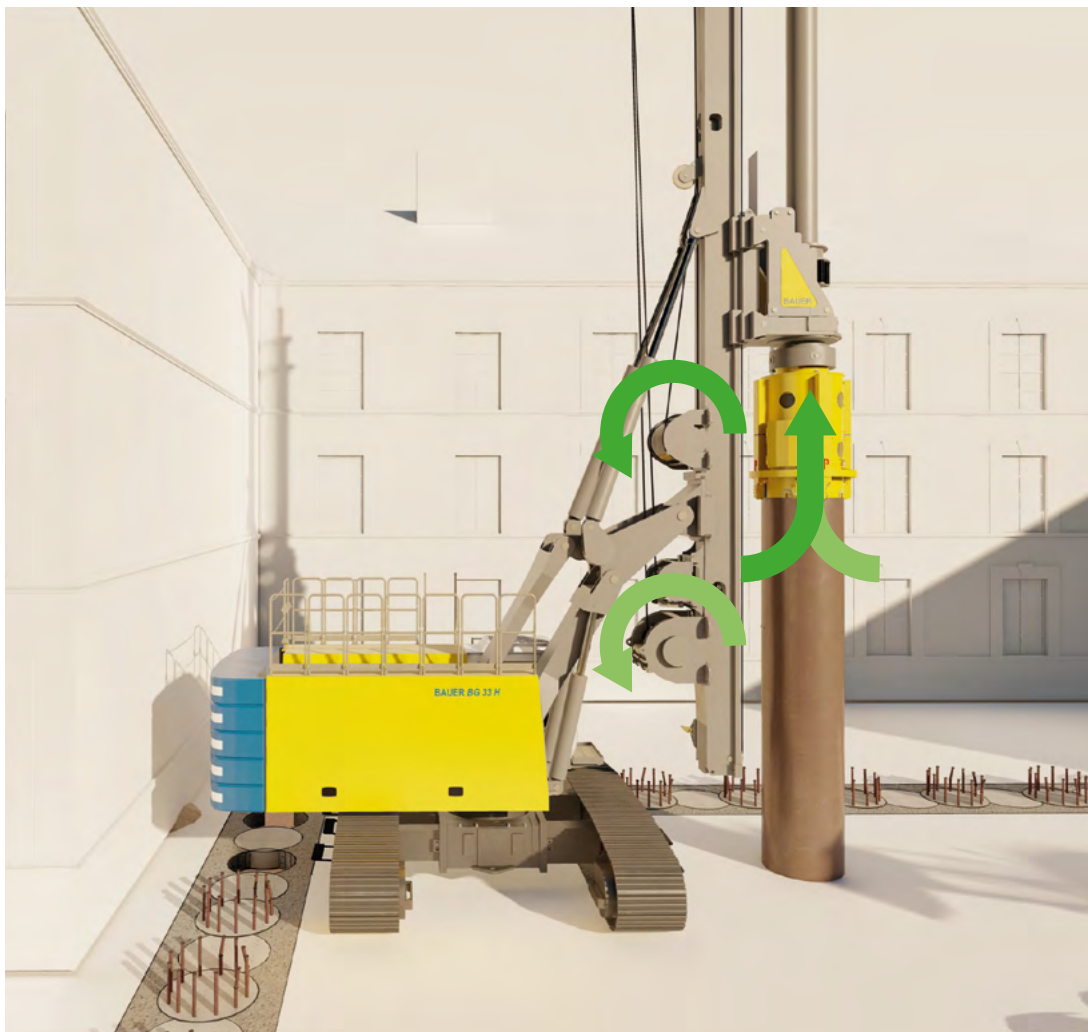
- Safe work even in the extended range of outreach (safety sensors monitor swinging speed and rotary drive position)
- The usual agility of the drilling rig during Kelly drilling is fully maintained
- Enhanced performance thanks to extended outreach during drilling (light green area)
- Laborious relocation to reach drilling locations, particularly in corners, is avoided. This enables simplified handling on tight sites
- The strain on the equipment operator is reduced
- Display of permitted equipment parameters on the B-Tronic in real time
- Easy data transfer of stability values to B-Tronic
- All stability values calculated for the equipment are saved in B-Tronic and can be selected and activated quickly and easily



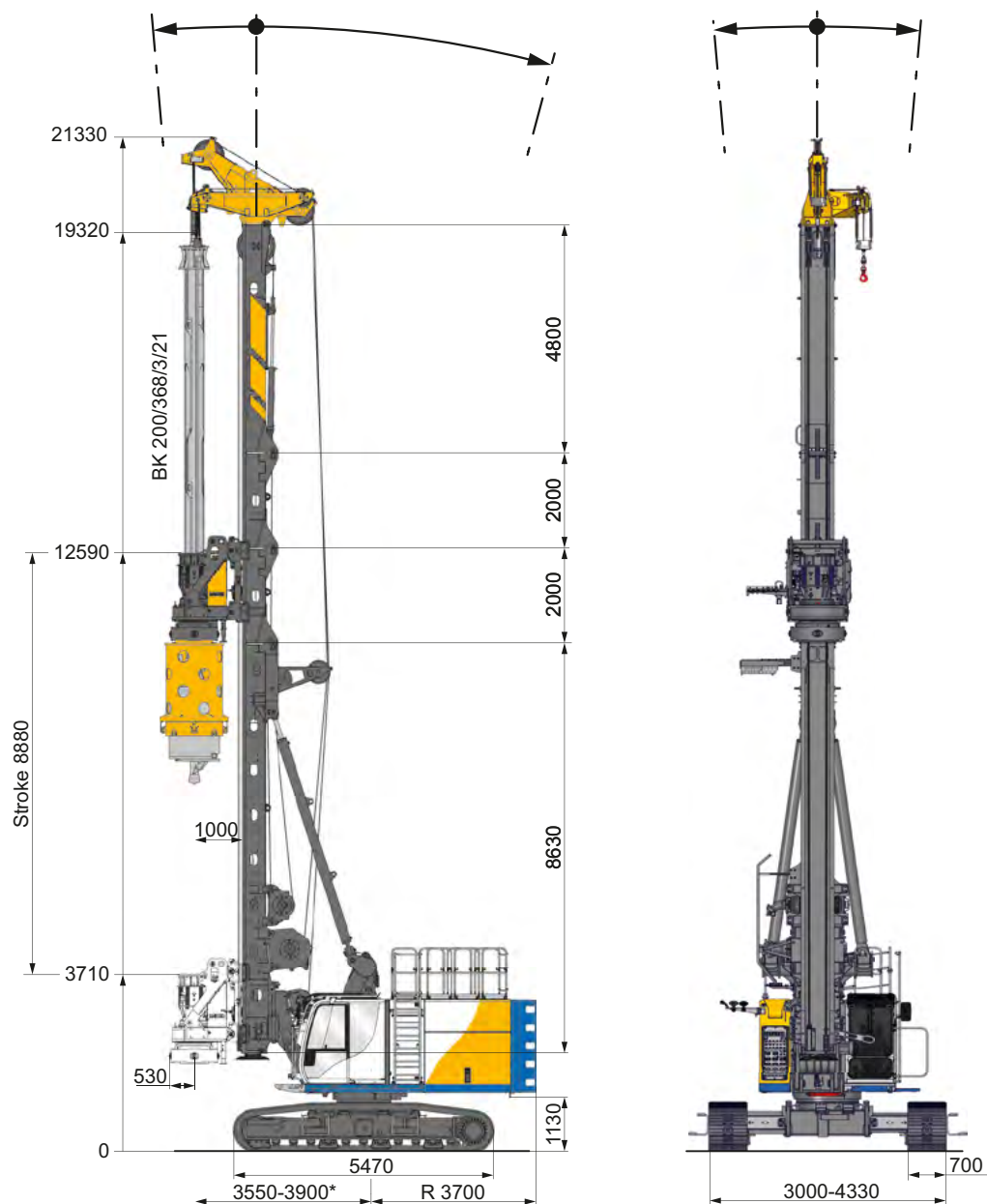
Only for reference to show working principle

Crowd Plus

- Increased retraction force for extracting casing pipes by coupling the main and crowd winch
- Control via a single joystick
- Single-line pulling with the main winch possible
- Function only permitted when using a suitable pulling plate (pulling plate not included)
- Full single-line main winch pulling force can only be activated when using the mast support (reduced pulling force without mast support)
- Function available only for Kelly drilling



Only for reference to show working principle

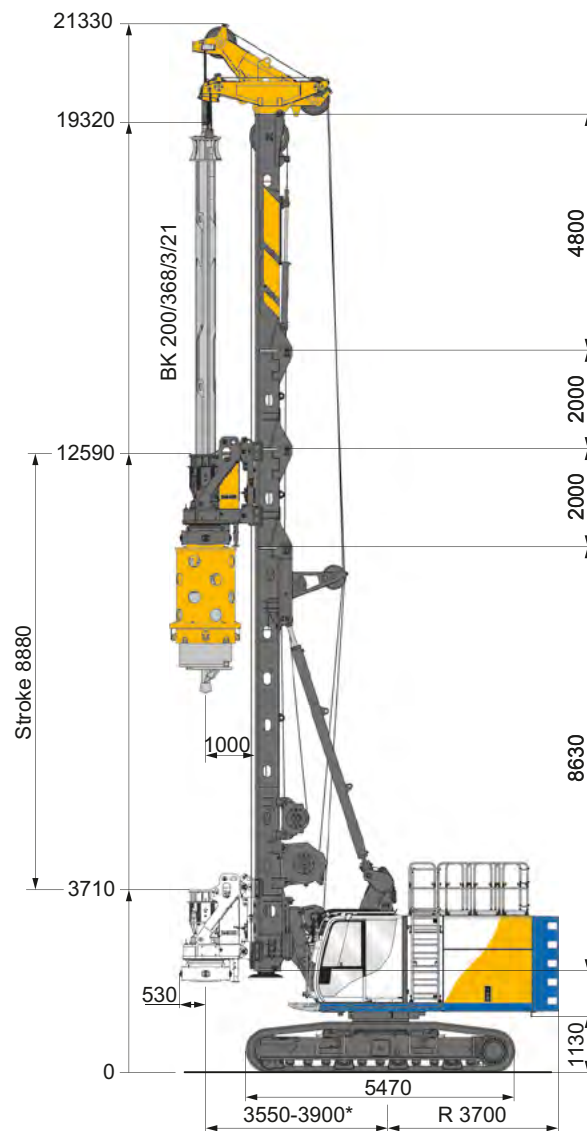


Operating weight 72.0 t
(as shown)

* depending on equipment

| Rotary drive (selectable) | KDK 235 K | KDK 235 S |
|---|-----------------------------------|-------------------------------------|
| Torque (nominal) for casing operation at 350 bar | 235 kNm | 235 kNm |
| Torque (nominal) for drilling at 350 bar | 204 kNm | 201 kNm |
| Max. speed of rotation | 38 rpm | 64 rpm |
| Crowd winch | | |
| Winch classification | M6 / L3 / T5 | |
| Max. sledge stroke | 15,075 mm | |
| Crowd force push effective / nominal | 260 / 333 kN | |
| Crowd force pull effective / nominal | 260 / 333 kN | |
| Extraction force Crowd Plus effective / nominal with mast support unit | 430 / 550 kN | |
| without mast support unit | 360 / 460 kN | |
| Rope diameter | 22 mm | |
| Speed (down / up) | 10.5 m/min | |
| Fast speed (down / up) | 30.5 m/min | |
| Main winch | | |
| Winch classification | M6 / L3 / T5 | |
| Line pull (1st layer) effective / nominal | 170 kN | |
| Rope diameter | 22 mm | |
| Max. line speed | 86 m/min | |
| Auxiliary winch | | |
| Line pull (1st layer) effective / nominal | 55 kN | |
| Rope diameter | 15 mm | |
| Max. line speed | 55 m/min | |
| Base carrier (EEP) | | |
| Engine | CAT C 7.1 | CAT C 7.1 |
| Rated output ISO 3046-1 | 186 kW @ 1.850 rpm | 238 kW @ 1.850 rpm |
| Exhaust emission | UN/ECE R96* | EU Stage V EPA/CARB Tier 4 final |
| Diesel tank capacity / AdBlue Tank | 540 / – l | 540 / 34.5 l |
| Sound pressure level in the cabin (EN 16228, Annex B) | LP _A 80 dB (A) | |
| Sound power level (2000 / 14 / EC u. EN 16228, Annex B) | LW _A 108 dB (A) | |
| Hydraulic pressure | 350 bar | |
| Hydraulic tank capacity | 450 l | |
| Flow rates | 2 x 220 + 1 x 280 + 1 x 135 l/min | |
| Under carriage | | |
| Crawler type | B 60 | |
| Traction force effective / nominal | 450 / 530 kN | |

* Exhaust emission equivalent EPA Tier 3 and EU Stage III A



Kelly Drilling

Max. drilling diameter

uncased

1,700 mm

cased

1,400 mm

Operating weight approx.

72 t

with Kelly BK 200 / 368 / ...

4/21-S

with casing drive adapter

1,300 mm

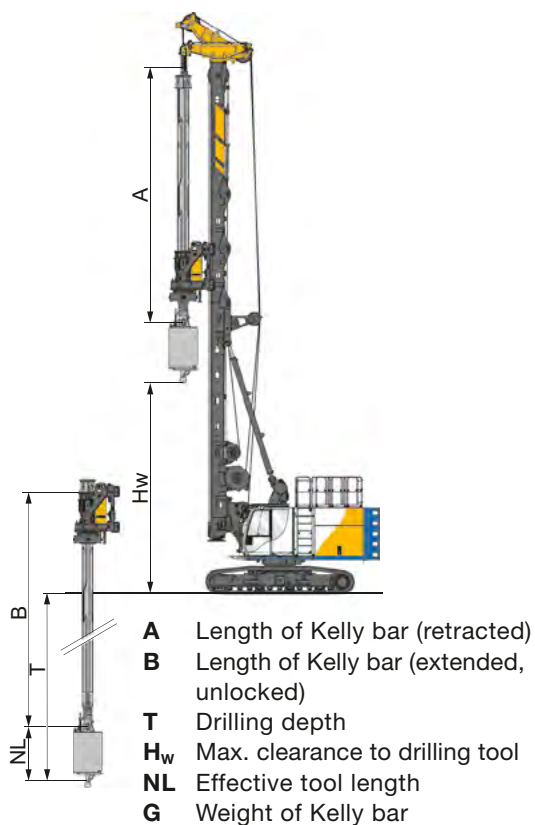
with bucket

1,180 mm

with counterweight*

7.6 t

* depending on equipment



Drilling depth – uncased Kelly drilling

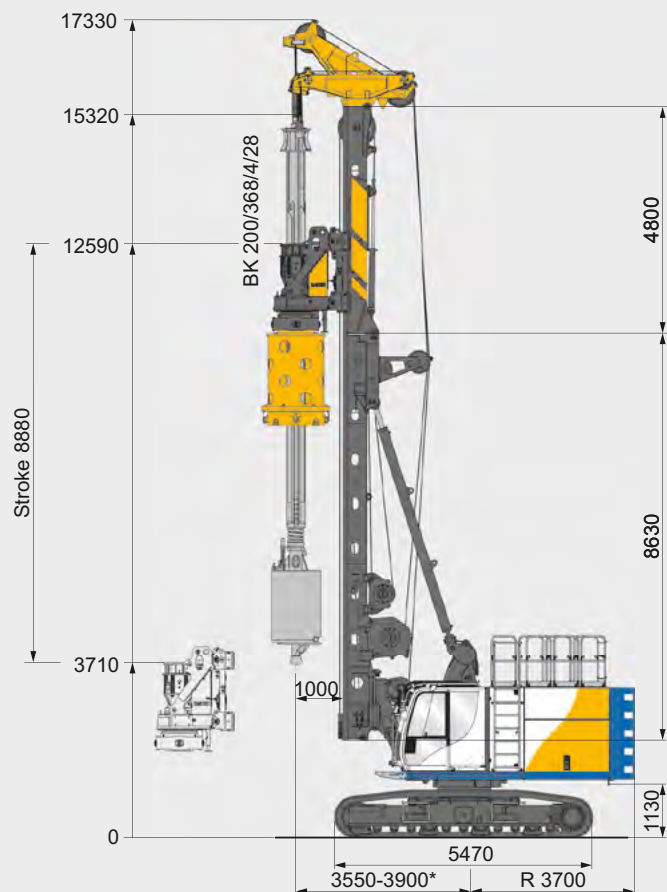
| 3-part Kelly | A (m) | B (m) | G (kg) | HW (m) | T (m) |
|----------------|-------|-------|--------|--------|-------|
| BK200/368/3/18 | 8.4 | 20.4 | 3,400 | 8.7 | 18.7 |
| BK200/368/3/21 | 9.4 | 23.4 | 3,750 | 7.7 | 21.7 |
| BK200/368/3/24 | 10.4 | 26.4 | 4,100 | 6.7 | 24.7 |
| BK200/368/3/30 | 12.4 | 32.4 | 4,750 | 4.7 | 31.0 |
| BK200/368/3/36 | 14.4 | 38.4 | 5,400 | 2.7 | 36.7 |
| 4-part Kelly | | | | | |
| BK200/368/4/28 | 9.5 | 31.1 | 5,050 | 7.6 | 29.4 |
| BK200/368/4/32 | 10.5 | 35.1 | 5,550 | 6.6 | 33.4 |
| BK200/368/4/40 | 12.5 | 43.1 | 6,500 | 4.6 | 41.4 |
| BK200/368/4/48 | 14.5 | 51.1 | 7,500 | 2.6 | 49.4 |
| BK200/368/4/50 | 15.0 | 53.1 | 7,750 | 2.1 | 51.4 |

Drilling data as shown are based on tool length NL = 1.9 m, minimum horizontal mast reach and using Bauer attachment.

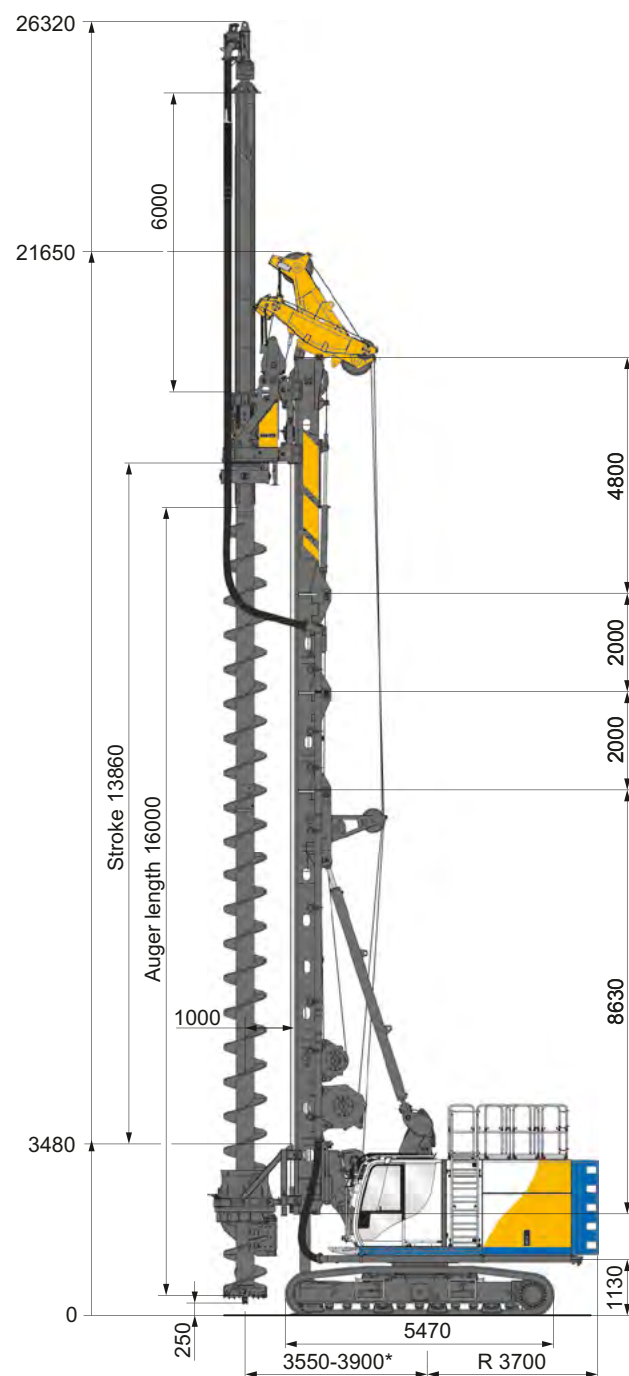
Drilling depth is increased by 0.28 m when using maximum horizontal mast reach.

Further drilling depths, diameters and other Kelly types on request.

Reduced Headroom Variant



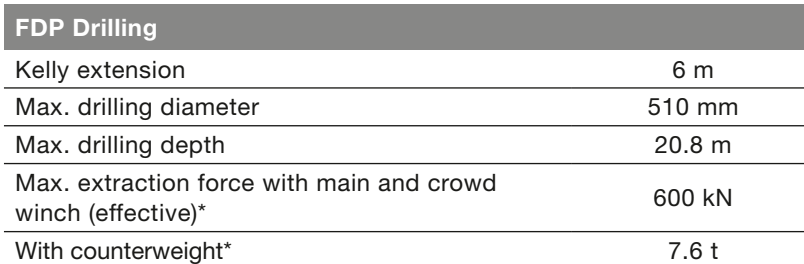
* depending on equipment



CFA Drilling

| | |
|--|--------|
| Kelly extension | 6 m |
| Max. drilling diameter | 900 mm |
| Max. drilling depth with auger cleaner | 19.5 m |
| Max. extraction force with main and crowd winch (effective)* | 600 kN |
| With counterweight* | 7.6 t |

* depending on equipment



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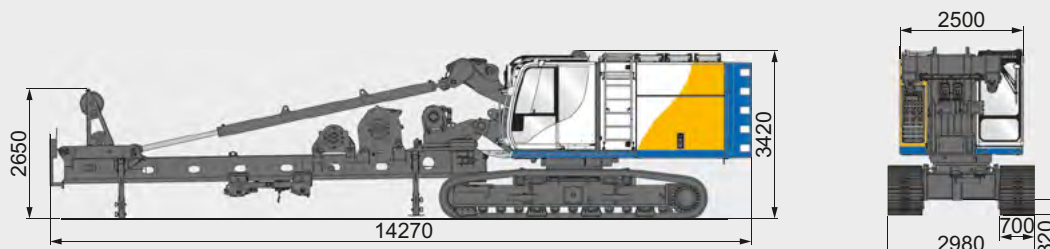
G = Weight
B = Width

Weights shown are approximate values; optional equipment may change the overall weight and dimensions.

Transport

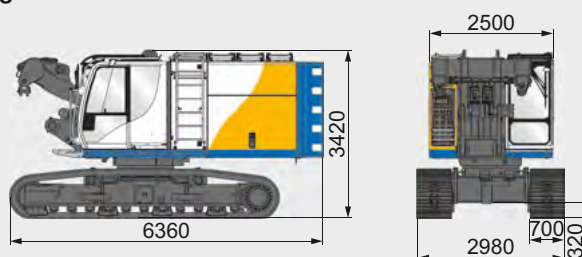
Base carrier with lower mast section

G = 55.6 t with 7.6 t counterweight



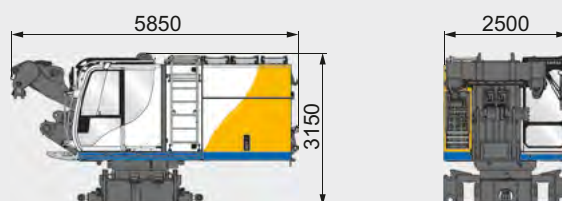
Base carrier without lower mast section

G = 41.6 t with 7.6 t counterweight



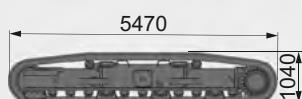
Base carrier without crawlers, without counterweight

G = 20.4 t



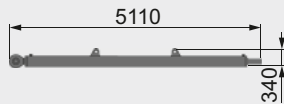
Crawlers

G = 2 x 6.8 t
B = 2,600 mm



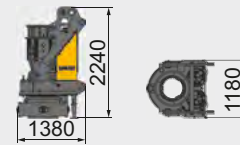
Backstay cylinders

G = 2 x 1.0 t
B = 200 mm



Rotary drive

G = 4.0 t KDK 235 K
G = 4.5 t KDK 235 S



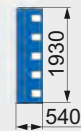
Mast head

G = 1.1 t
B = 1,800 mm



Counterweight

G = 7.6 t
B = 2,500 mm



2 x 2 m Mast extension

G = 1.8 t
B = 1,500 mm



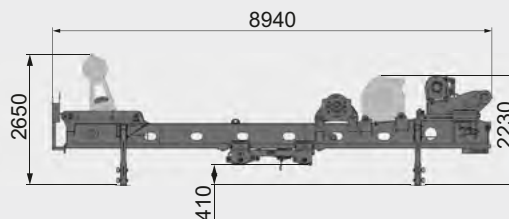
Upper mast section

G = 1.8 t
B = 1,500 mm



Lower mast section

G = 9.9 t with main winch, without deflection block
G = 12.0 t with main winch, with deflection block
B = 2,200 mm



**International Service Hotline
+800 1000 1200***

**+49 8252 97-2888
BMA-Service@bauer.de**

*toll-free number, where available

24/7



**BAUER Maschinen GmbH
BAUER-Strasse 1
86529 Schrobenhausen
Germany
Phone: +49 8252 97-0
bma@bauer.de
www.bauer.de**

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