

BAUER BG 38

Rotary Drilling Rig

Base Carrier BS 80

ValueLine

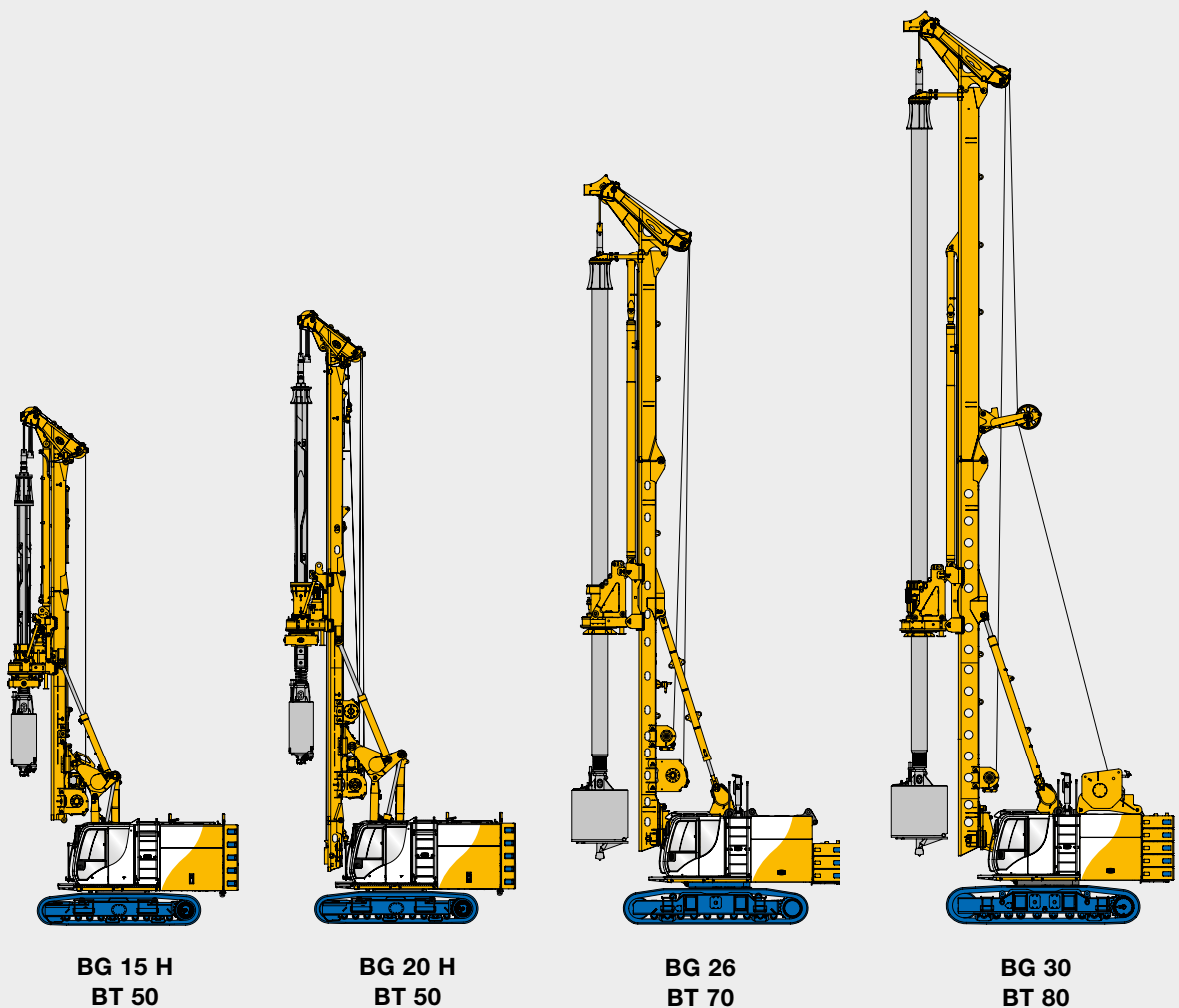


The BG ValueLine

*Perfection is achieved
when there is nothing left to take away.*

Drilling uncased deep boreholes stabilized by drilling fluid, or drilling cased boreholes with installing casings by the rotary drive or by a hydraulic casing oscillator. If Kelly drilling is your task, then the BG ValueLine is our solution. The machines of the ValueLine are specifically adapted to no other purpose than Kelly drilling – and that perfectly.

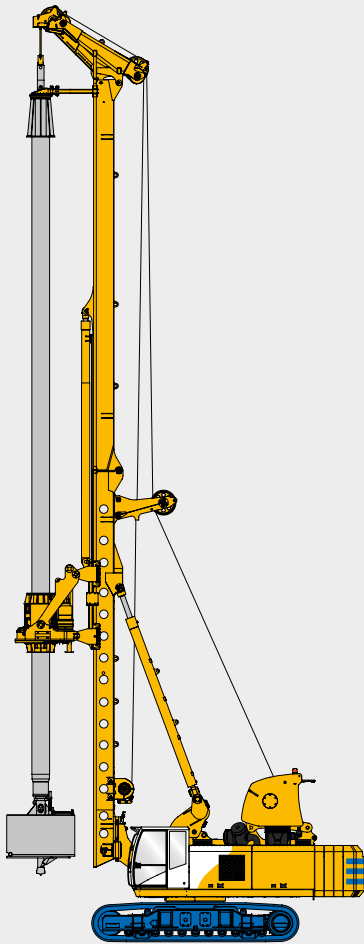
You can expect superior Bauer performance and customary Bauer durability at affordable costs for acquisition and operation. How we do it? By applying cutting-edge technology, reduced to nothing less than the essentials.



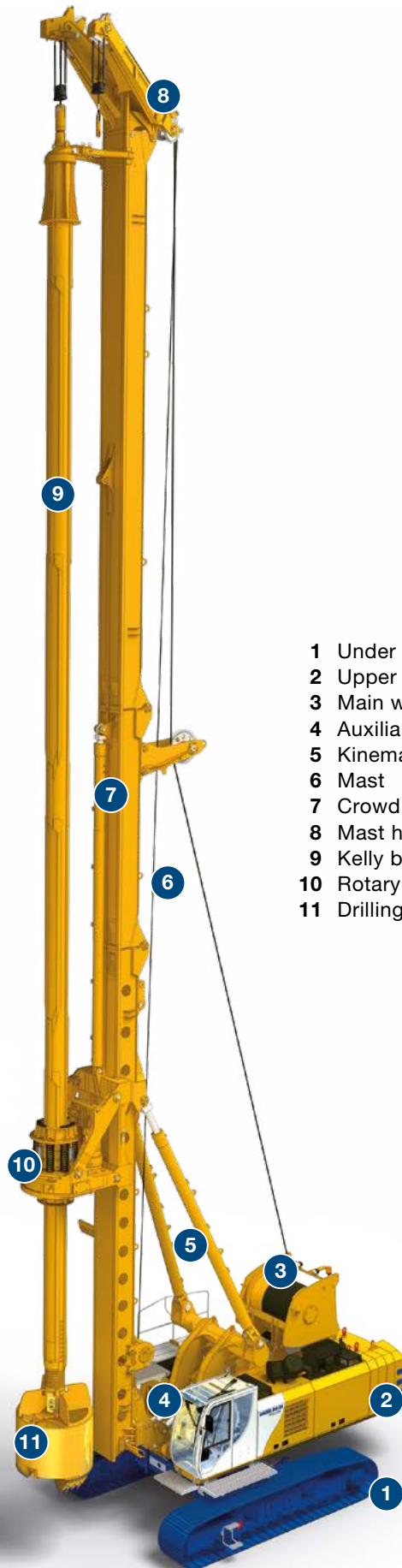
- Long mast for more drilling depth
- Large drill axis for big diameters
- Well balanced concept for high productivity and economic operation
- Hydraulic system for high dynamic performance
- Easy handling, easy maintenance
- Variable transport concept

The Rotary Drilling Rig BG 38 ValueLine (BS 80)

Max. drilling diameter:	3,000 mm
Max. drilling depth:	105.0 m
Torque:	380 kNm
Engine:	CAT C 15
Power:	354 kW @ 1,800 rpm
Max. height:	32.6 m



BG 38
BS 80



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



Kinematic system

- Proven Bauer kinematic system with support trestle and backstay cylinders for maximum stability

KDK rotary drive

- High dynamic performance
- Kelly drilling assistant for maximum operating comfort, primarily when drilling in rock
- Adjustment to various soil conditions with 4 selectable modes of operation
- Protection of the rotary drive with an integrated Kelly damping system



Inclination supervision system

- Redundant electronic and optical control of mast inclination
- Continuous control of inclination for operator and banksman

Under carriage

- Solid Bauer design for 360° drilling working radius
- Hydraulically extendable tracks
- Large footprint to resist high overturning moments
- High traction forces



Patented crowd cylinder system

- Inverted crowd cylinder installation
- No hydraulic lines in upper mast section
- Simple transport without disconnecting hydraulic hoses

Winches

- Single layer winch for minimized rope wear
- High measured effective line pull and line speed
- Load classification M6/L3/T5 for heavy-duty, continuous operation
- Pinned connection for easy mounting and dismantling of winches on mast and upper carriage
- Transparent ring for easy oil check



Modern, ergonomic cabin design

- FOPS compliant
- B-Tronic 3.1: Electronic monitoring, control and visualization system
- Bauer comfort cab meets the highest comfort standards
- Clear layout of instruments and display screens

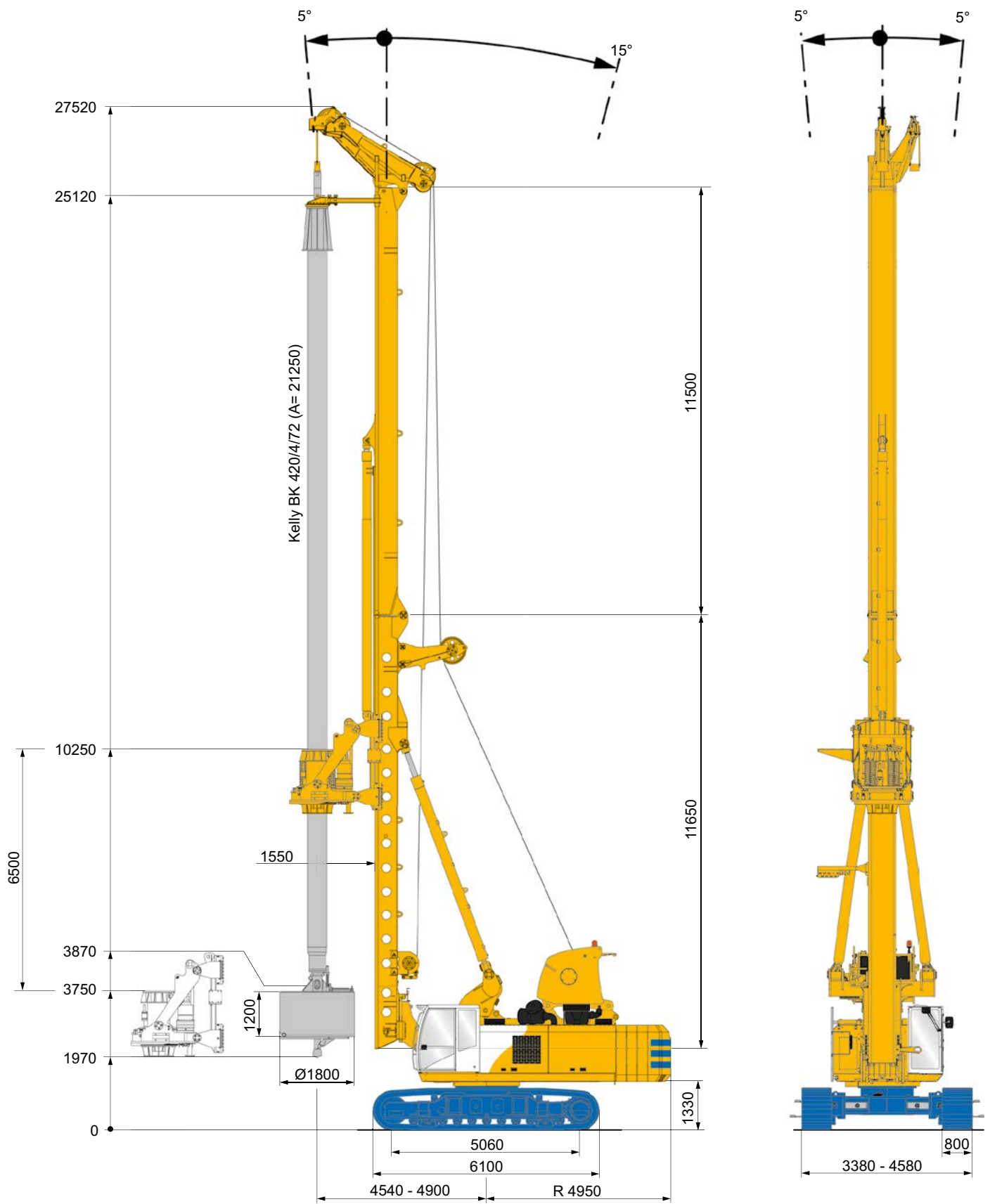
Upper carriage – HSE features

- Access ladder to upper carriage
- Service-friendly catwalk on side and in front of operator's cab
- Handrails on upper carriage
- Heavy-duty base frame optimized for attachment of front-end equipment
- Rear view camera, warning beacon and audible reverse warning system
- Multigrade oil for reducing fuel consumption



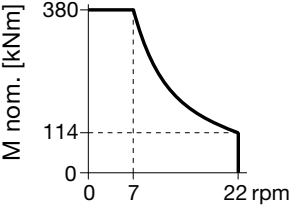
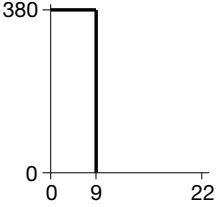
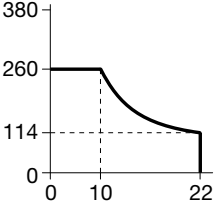
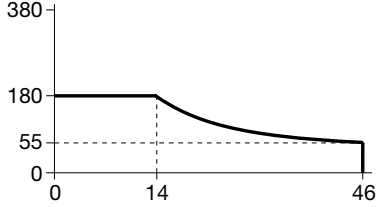
Final inspection and test run

- Comprehensive Bauer testing program
- Optimal adjustment and calibration of all components
- Heat transfer test
- Noise emission measurements
- Electromagnetic compatibility test



Operating weight
(as shown)

approx. 135 t

Rotary drive		KDK 380 S	
Torque (nominal) at 320 bar		380 kNm	
Speed of rotation (max.)		46 rpm	
1 st gear Standard mode	1 st gear rpm reduced	1 st gear M _D reduced	2 nd gear Standard mode
			
Not to scale			
Crowd cylinder			
Crowd force push / pull (effective)		250 / 400 kN	
Crowd force (measured at the casing drive adapter)		350 / 320 kN	
Speed (down/up)		3.5 / 7.0 m/min	
Fast speed (down/up)		20 / 20 m/min	
Main winch – single layer		standard	
Winch classification		M6 / L3 / T5	
Line pull (1 st layer) effective/nominal		355 / 450 kN	
Rope diameter		36 mm	
Line speed (max.)		80 m/min	
Auxiliary winch		M6 / L3 / T5	
Line pull (1 st layer) effective/nominal		100 / 125 kN	
Rope diameter		20 mm	
Line speed (max.)		55 m/min	
Base carrier		BS 80	
Engine		CAT C 15	
Rated output ISO 3046-1		354 kW @ 1,800 rpm	
Engine conforms to		EU 2016/1628 ORA * EPA/CARB	
Diesel tank capacity		800 l	
Ambient air temperature (at full power) up to		45 °C	
Sound pressure level in cabin (EN 791, Annex A)		LP _A 80 dB(A)	
Sound power level (2000/14/EG u. EN 791, Annex A)		LP _A 114 dB(A)	
Hydraulic power output (measured at inlet to rotary drive)		270 kW	
Hydraulic pressure		320 bar	
Flow rates (main circuits + auxiliary circuit)		2 x 320 + 1 x 130 l/min	
Hydraulic oil tank capacity		900 l	
Under carriage (Retractable crawler frames)		UW 115	
Crawler type		B 7	
Traction force effective/nominal		730 / 860 kN	

* Exhaust emission equivalent Tier 3 / Stage III A emission standards

Base carrier, Fig. A

Standard

- Removable counterweight
- Engine diagnostic system
- Gratings on side and in front of operator's cab
- Rear view camera
- Electric refuelling pump
- Multigrade hydraulic oil
- Bauer comfort operator's cab (FOPS compliant), **Fig. B**
- On-board lighting set
- Air conditioning system
- Radio with CD, MP3 and USB
- Lashing lugs on crawler units

Optional

- Central lubrication system
- Air compressor 1,000 l/min
- Bauer service kit
- Vise attachment
- Arctic kit
- Operator's cab front and roof grates
- Cab space heater with automatic timer
- Under carriage UW 110
- Quick-release couplings for removable crawler side frames
- Service tool set

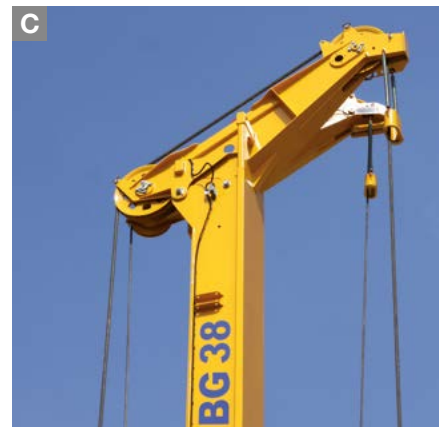
BG attachment

Standard

- Bauer V-type kinematic system
- Mast head for optional use with drill axis 1,350 or 1,550 mm, **Fig. C**
- Inverted crowd cylinder
- Crowd speed fast and slow mode
- Swivel for main rope
- Pivoted anchor point for main and auxiliary rope
- Transport supports for upper and lower mast sections

Optional

- Swivel for auxiliary rope
- Mast extension (5.1 or 2.3 m)
- Upper Kelly guide
- Drill axis 1,550 mm
- Attachment of casing oscillator up to BV 2000



KDK rotary drive, Fig. D

Standard

- Integrated Kelly damping system
- Wear pads exchangeable without removal of rotary drive
- Exchangeable Kelly drive adapter assembly KA 800/470
- Exchangeable Kelly drive keys
- Quick-release couplers on hydraulic hoses
- 4 selectable modes of operation
- Transport supports
- Trigger plate
- Lifting sling set for rotary drive

Optional

- Cardanic joint
- Torque multiplier BTM 720 K (torque 500 kNm)

Main winch, Fig. E

Standard

- Hydraulically controlled freewheeling
- Automatic rope tensioning facility
- Swivel alignment function
- Depth sensing device on main rope
- Electronic load sensing
- Overload protection device

- Winch drum with special grooving
- Pin connection
- Transparent ring for easy oil check
- Camera for main winch surveillance
- Single layer operation down to 105 m

Measuring and control equipment

Standard

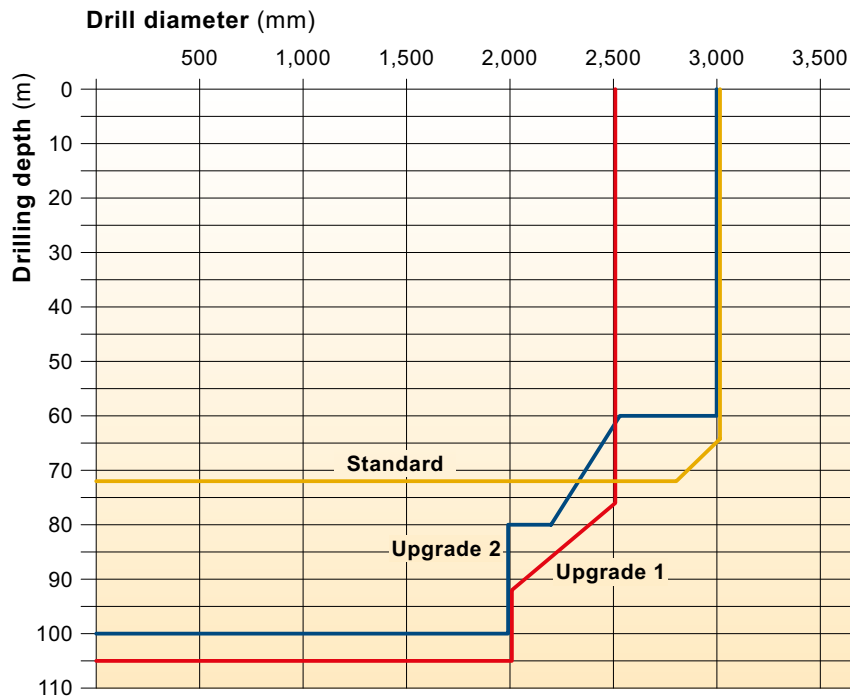
- Bauer B-Tronic incl. integrated diagnostic capability, Fig. F
- Display of fault messages as plain text
- Mast inclination measurement on x/y axes (digital / analog display)
- Automatic vertical alignment of mast
- Optical mast inclination control system
- Uni-directional impact function on KDK (for spoil discharge)
- Hydraulic load sensing on auxiliary winch
- Speed sensing device on KDK
- Hoist limit switch on main and auxiliary winch

Optional

- Remote transmission of rig data (DTR-module)
- Electronic load sensing on auxiliary rope



Drilling capabilities diagram (uncased)



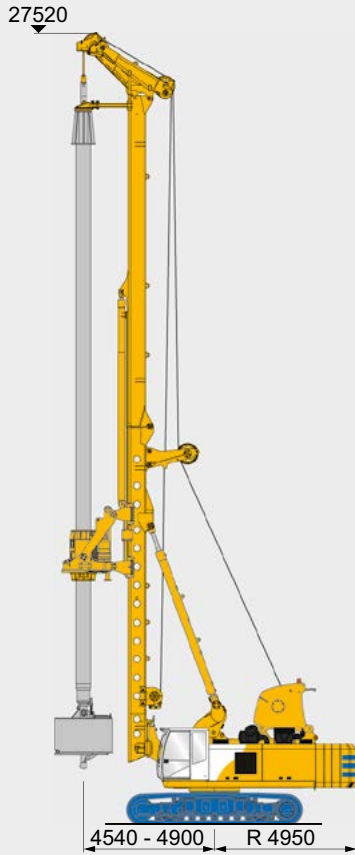
Rig configuration

	Standard	Upgrade 1	Upgrade 2
Under carriage	UW 115	UW 115	UW 115
Main winch	355 kN (single layer)	355 kN (single layer)	355 kN (single layer)
Counterweight	26.5 t	28.8 t	26.5 t
Mast extension	—	5.1 m	2.3 m
Drill axis	1,550 mm	1,350 mm	1,550 mm

Data shown are valid for minimum horizontal mast reach and using Bauer attachment. For more information, please contact the Bauer Sales Department.

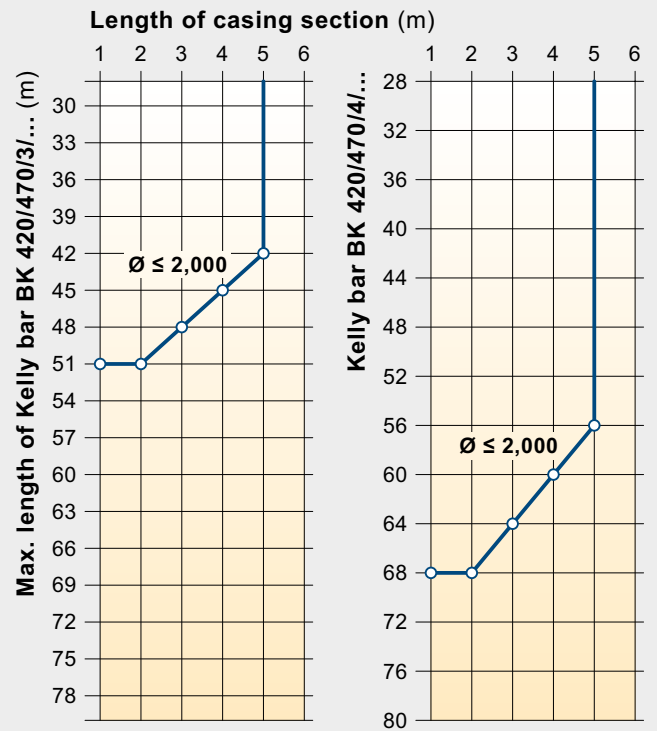
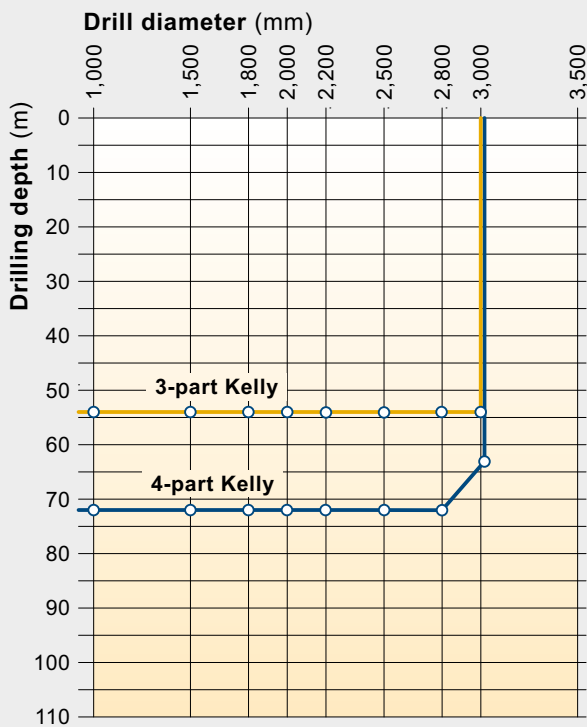
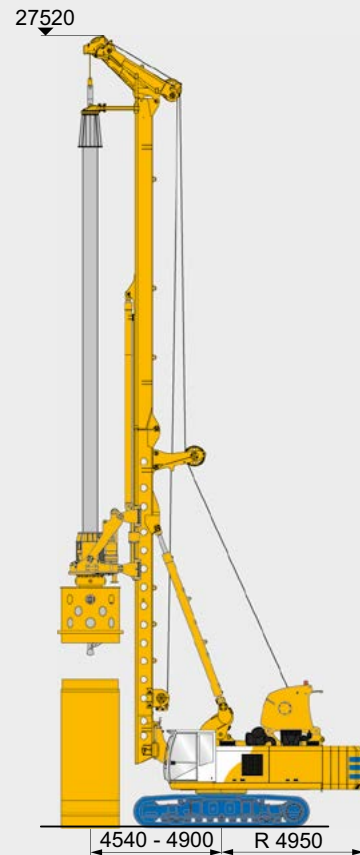
Standard configuration – uncased

Drill axis 1,350 mm



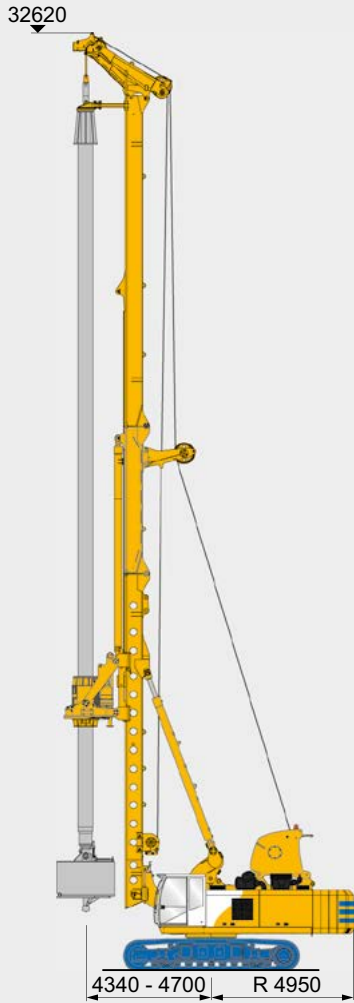
Standard configuration – cased

Drill axis 1,350 mm



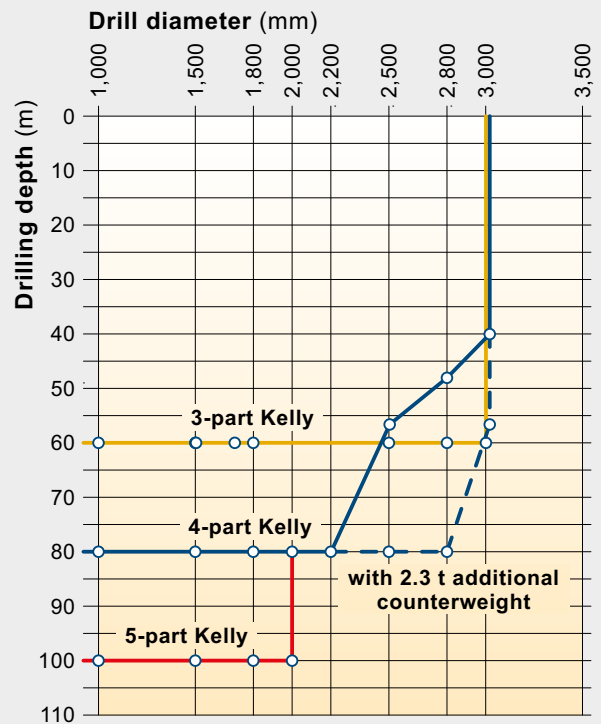
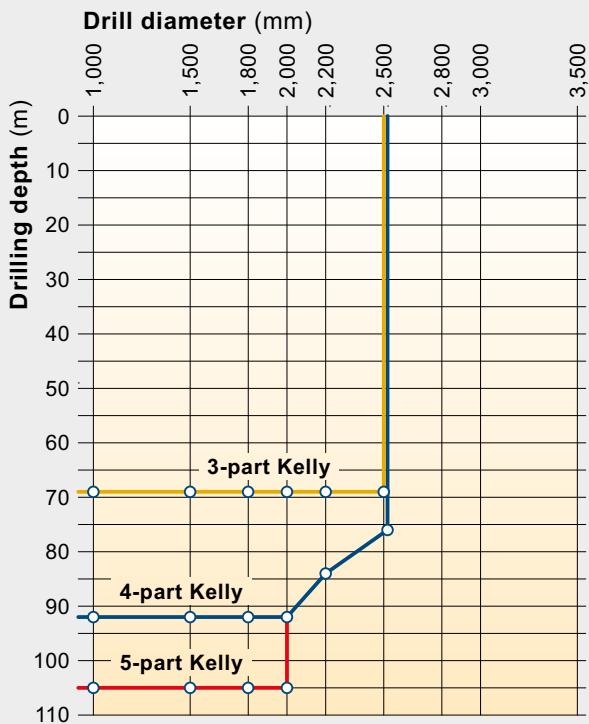
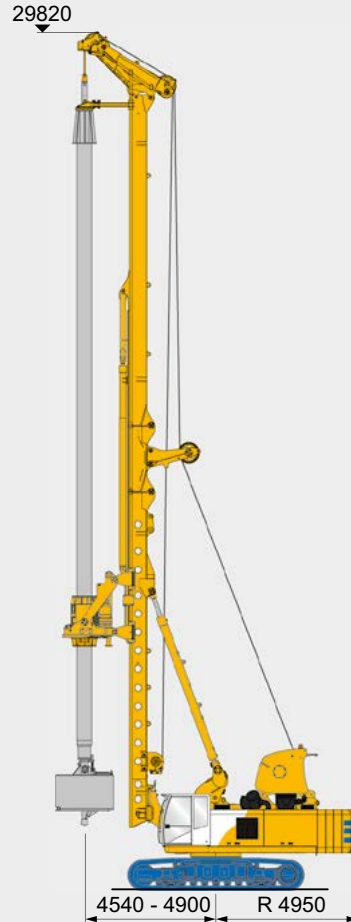
Upgrade 1

Drill axis
1,350 mm



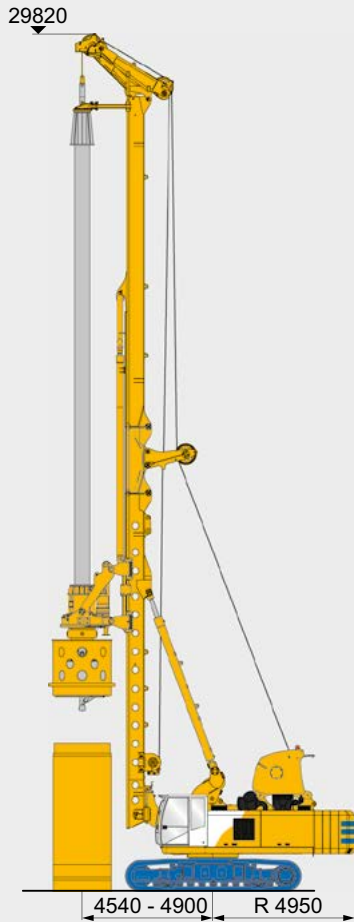
Upgrade 2

Drill axis 1,550 mm



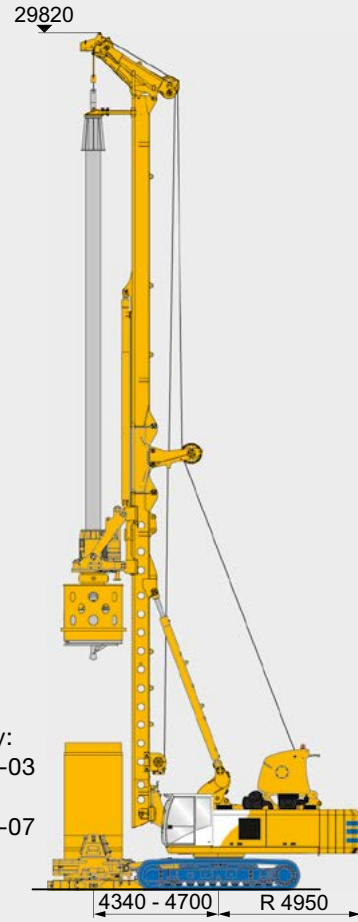
Upgrade 2 with rotary drive KDK

Drill axis 1,550 mm

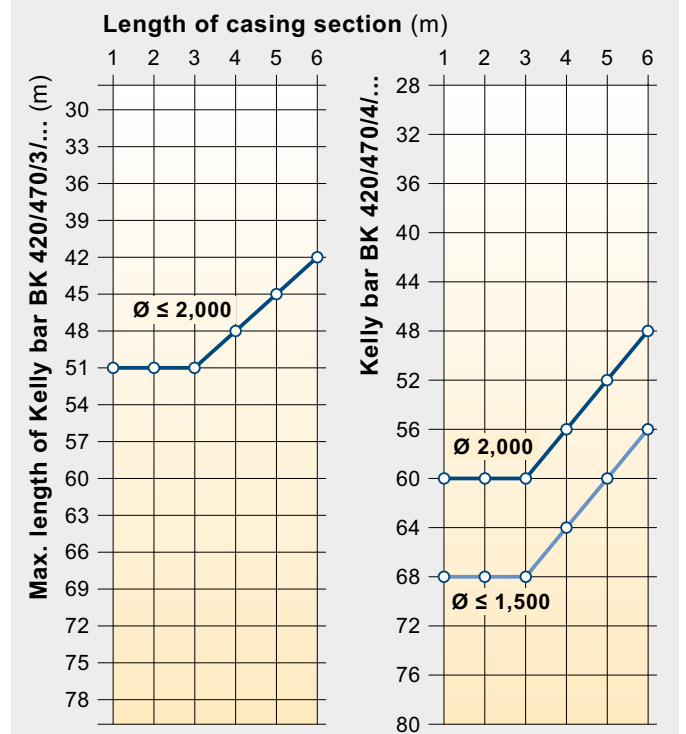
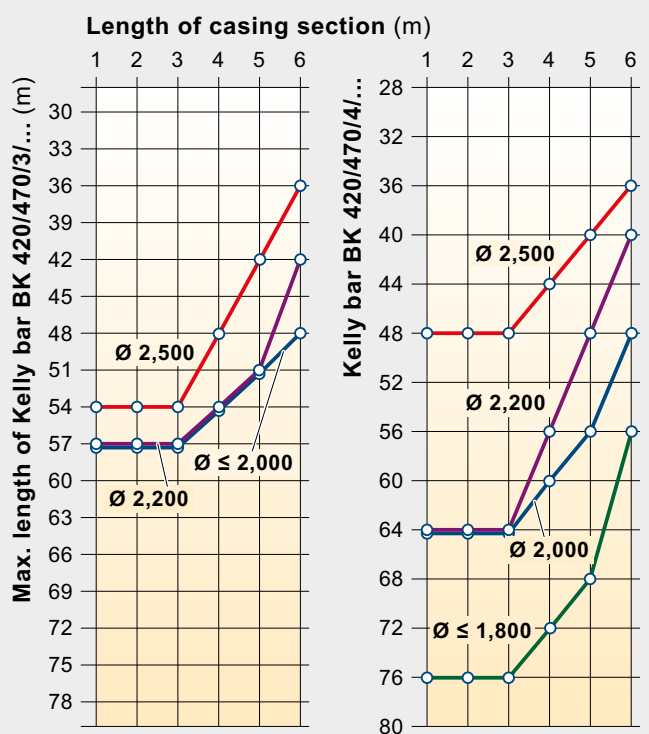


Upgrade 2 with casing oscillator

Drill axis 1,350 mm

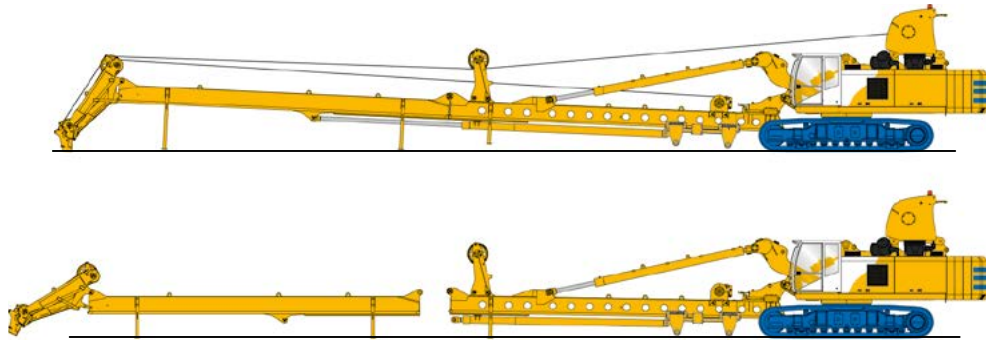


Applicability:
BV 1180HD-03
up to
BV 2000HD-07



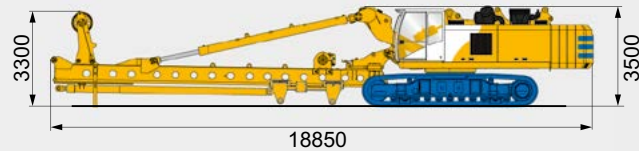
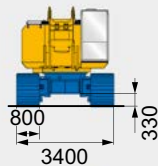
Safe and simple derigging

- Easy disassembling by removing a pin only
- No disconnection of hydraulic lines
- No oil lines in the upper mast section
- Hydraulic hoses stay connected (minimized risk of oil leakages at couplings)



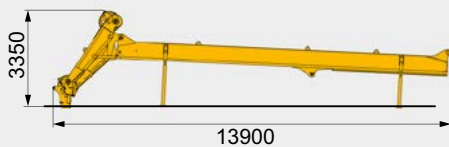
Transportation without upper mast section

G = 93.9 t

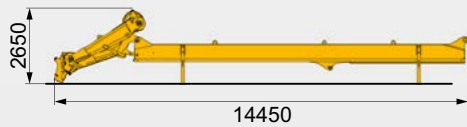


Upper mast section with mast head

G = 5.0 t B = 1900 mm

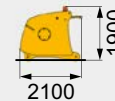


Telescopic transport supports
Mast head tilted



Main winch

G = 6.7 t B = 2450 mm



Rotary drive KDK

G = 7.5 t



G = Weight
B = Width, overall

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

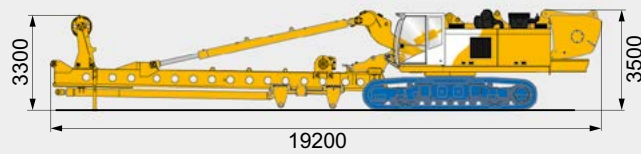
Transport

- Simple loading onto the truck trailer
- Easy handling and maneuvering for transport



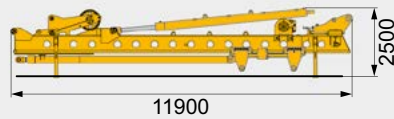
Transport without counterweights

G = 74.1 t



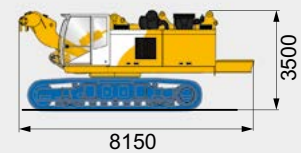
Lower mast section

G = 17.5 t B = 2300 mm



Base machine

G = 49.0 t

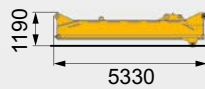


Mast extensions

G = 1.0 t B = 900 mm
optional

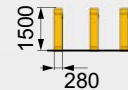


G = 1.9 t B = 900 mm
optional



Counterweights

G = 3 x 5.0 t
B = 3000 mm



G = 11.5 t
B = 3000 mm





Global Network



Service



Equipment



Training

International Service Hotline
+800 1000 1200* (freecall)
+49 8252 97-2888
BMA-Service@bauer.de



ValueLine



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

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