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.
The Rotary Drilling Rig
BG 15 H BT 50

Maximum rig configuration
Drilling diameter: 1,500 mm | 59.05 in
Drilling depth: 44.0 m | 144.36 ft
Torque: 150 kNm | 110,634 lbf ft
Engine: CAT C7.1: 186 kW @ 1,800 rpm
\[250 \text{ HP} @ 1,800 \text{ rpm}\]
Height: 18.2 m | 59.7 ft

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
Spotlights

Efficiency
- CAT-engine
- 6 m | 19.7 ft casing string
- High-performance hydraulic system
- Single-layer winch operation

Mobility
- Transportation width 2.5 m | 8.2 ft
- Transportation height 3.3 m | 10.8 ft
- Transportation length 15 m | 49.21 ft
- Transportation weight 45 t | 99,208 lb
- Fast mobilisation
- Remote control basic
Flexibility
- Drilling power data
- CFA option
- Giant Drill with crowd winch system
- Variety of configurations

Comfort
- Comfortable cabin
- Air-suspended driver’s seat
- Simplified operating concept
- B-Control screen
- Integrated service platform
- No working @ height
- Easy access to service points
Dimensions

Operating weight approx. 45.0 t | 99,210 lb
(as shown)
Technical Specifications

**Rotary drive**

<table>
<thead>
<tr>
<th>KDK 150 KL</th>
<th>KDK 150 SL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque (nominal) at 330 bar</td>
<td>145 kNm</td>
</tr>
<tr>
<td>Speed of rotation (max.)</td>
<td>32 rpm</td>
</tr>
</tbody>
</table>

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**Crowd Cylinder Winch**

| Crowd force push/pull (effective) | 120 / 210 kN | 26,975 / 47,210 lbf |
| Crowd force push/pull * | 160 / 210 kN | 35,970 / 56,200 lbf |
| Speed (down / up) | 5 / 5 m/min | 16.5 / 16.5 ft/min |
| Fast speed (down / up) | 15 / 20 m/min | 49.2 / 65.6 ft/min |

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**Main winch**

- M6 / L3 / T5
- Line pull (1st layer) effective / nominal: 136 / 175 kN | 30,575 / 39,340 lbf
- Rope diameter: 22 mm | 0.87 in
- Line speed (max.): 80 m/min | 260 ft/min

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**Auxiliary winch**

- M5 / L2 / T5
- Line pull (1st layer) effective / nominal: 43 / 54 kN | 9,670 / 12,140 lbf
- Rope diameter: 16 mm | 0.63 in
- Line speed (max.): 28 m/min | 92 ft/min

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**Base carrier**

- BT 50
- Engine: CAT C 7.1
- Engine conforms to EEC 97/68 EC
- EPA/CARB
- GB20891:2014
- Stage 3 A
- Tier 3
- Stage 3

- Diesel tank capacity/AdBlue: 540 l / 32 l | 145 Gal / 8.5 Gal
- Ambient air temperature (at full power) up to: 45° C | 113° F
- Hydraulic power output (measured at inlet to rotary drive): 150 kW | 200 HP
- Hydraulic pressure: 350 bar | 35 MPa

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**Undercarriage**

- UW 50
- Crawler type: B 60
- Traction force effective / nominal: 340 / 400 kN | 76,450 / 90,000 lbf

* measured at the casing drive adapter
**Base Carrier**

**Standard**
- Removable counterweight 5.0 t | **11,023 lb**
- Engine diagnostic system
- Gratings on side and in front of operator’s cab
- Camera system for rear area surveillance
- Multi-grade hydraulic oil
- Bauer comfort operator’s cab with streamline concept, Fig. B
  - On-board lighting system LED
  - Air-conditioning system
  - Radio with CD, MP3, USB and Bluetooth c/w hands-free kit
  - Air-cushioned operator’s seat with seat heating
  - Protective roof guard
- Integrated service platform, Fig. A

**Optional**
- Comfort handling kit
  - Camera system for winch surveillance
  - Central lubrication system
  - Electric refueling pump
  - Swivel for auxiliary rope
  - Test ports in upper carriage
  - Tool tray in front of operator’s cab
  - Service tool kit
- Air compressor 1,000 l/min | **220 gal/min**
- Park heating with timer

**BG Attachment**

**Standard**
- H-type kinematic system, Fig. C
- Mast head foldable for transportation
- Crowd cylinder
- Main winch with hydraulic freewheeling control, Fig. D
- Swivel for main rope

**Optional**
- CFA kit
- Mast support
- Crowd winch
### KDK Rotary Drive

**Standard**
- Rotary drive 150 KL (single gear drive), Fig. E and F
- Selectable modes of operation
- Kelly drive adapter for outer casings 343 mm | 13.5 in
- Exchangeable Kelly drive keys
- Quick release couplers on hydraulic hoses

**Optional**
- Rotary Drive KDK 150 SL (multi gear drive)
- Cardanic joint
- Trigger plate

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### Measuring and Control Equipment

**Serial Equipment, Fig. G and H**
- B-Control monitor with integrated diagnostic function
- Display of fault messages as plain text
- Digital display of loads and torque
- Mast inclination measurement on x/y axes (digital/ analoguous display)
- Automatic vertical alignment of mast
- Electric load sensing on main and auxiliary rope
- Speed sensing device on KDK
- Electronic limitation of horizontal displacement
- Defined torque setting for KDK
- Crowd stroke measurement
- Kelly drilling assistant
- Automatic crowd control
- One-directional spoil discharge assistant
- Bi-directional spoil discharge assistant
- Casing extraction assistant
- Slewng angle display for upper carriage

**Additional Equipment**
- Remote transmission of machine data (DTR-module)
- Additional camera with monitor for rear area surveillance
- Active mast support

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Overview

Rig Configurations

<table>
<thead>
<tr>
<th></th>
<th>Standard</th>
<th>Upgrade 1</th>
<th>Upgrade 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilling axis</td>
<td>800 mm</td>
<td>31.5 in</td>
<td>800 mm</td>
</tr>
<tr>
<td>Crowd system</td>
<td>Cylinder</td>
<td>Cylinder</td>
<td>Winch</td>
</tr>
<tr>
<td>Counterweight</td>
<td>5 t</td>
<td>11,025 lb</td>
<td>5 t</td>
</tr>
<tr>
<td>Lower mast extension</td>
<td>No</td>
<td>Yes</td>
<td>Long</td>
</tr>
<tr>
<td>Giant drill</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Kelly – casing combination</td>
<td>3/15 with 4 m (13.1 ft) casing string</td>
<td>3/21 with 4 m (13.1 ft) casing string</td>
<td>3/15 with 6 m (19.7 ft) casing string</td>
</tr>
</tbody>
</table>
Cased Kelly Drilling

**Standard**

- Length of casing (m): 15260 (50.1 ft)

**Upgrade 2**

- Length of casing (m): 17810 (58.4 ft)

### Kelly bar specifications

- Kelly bar BK 130/343/4...
- Kelly bar BK 170/343/3...

### Casing diameters

- Standard: Ø ≤ 1180
- Upgrade 2: Ø ≤ 1000

<table>
<thead>
<tr>
<th>Length of casing (m)</th>
<th>Length of casing (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
<td>0 12 15 18 21 24</td>
<td>0 12 15 18 21 24</td>
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<td>0 12 15 18 21 24</td>
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<td>0 12 15 18 21 24</td>
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</tr>
</tbody>
</table>
Upgrade 2 with CFA Equipment

Drilling diameter (mm)

- **Without extension**
- **With extension**
**Transport – Dimensions and Weights**

G = Weight  
B = Width  

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

### Standard with upper Kelly guide

**G = 43.0 t | 94,800 lb (+ Weight of Kelly bar)**  
**B = 2,500 mm | 98.4 in**

### Upgrade 1

**G = 45.5 t | 100,310 lb (optionally + Weight of Kelly bar)**  
**B = 2,500 mm | 98.4 in**

### Upgrade 2

**G = 45.0 t | 99,210 lb (+ Weight of Kelly bar)**  
**B = 2,500 mm | 98.4 in**

Base carrier with UW 50

**G = 3.5 t | 7,716 lb**  
**B = 1,550 mm | 5.1 ft**

Rotary drive

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