BAUER BG 15 H
Rotary Drilling Rig
Base Carrier BT 50
The BAUER BG 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.

- The whole system is optimized for economic Kelly drilling
- Increased efficiency leads to higher productivity and lower fuel consumption at the same time
- The integrated service platform for easy and safe maintenance is a key factor with regard to safety and service
- With the streamline concept, our modern and ergonomic operator cab is tailored to the rig operators
- Our assistance systems support the efficient and comfortable work - every day
- The easy, safe and fast assembling process enables lower unproductive times of the machine
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 | 250 HP
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
**Efficiency**
- CAT-engine
- 6 m | 19.7 ft casing string
- High-performance hydraulic system
- Single-layer winch operation
- B-Tronic M

**Mobility**
- Transportation width 2.5 m | 8.2 ft
- Transportation height 3.3 m | 10.8 ft
- Transportation length 13 m | 42.65 ft
- Transportation weight 45 t | 99,208 lb
- Fast mobilisation
- Remote control basic
Flexibility
- Drilling power data
- CFA option
- Giant Drill
- Variety of configurations
- Low Head

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
Operating weight approx. 45.0 t | 99,210 lb
(as shown)
### Rotary drive

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

### Crowd Cylinder Winch

<table>
<thead>
<tr>
<th>Crowd</th>
<th>Cylinder</th>
<th>Winch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crowd force push/pull (effective / nominal)</td>
<td>250 / 275 kN</td>
<td>56,200 lbf / 61,820 lbf</td>
</tr>
<tr>
<td>Speed (down / up)</td>
<td>5 / 5 m/min</td>
<td>16.5 / 16.5 ft/min</td>
</tr>
<tr>
<td>Fast speed (down / up)</td>
<td>15 / 20 m/min</td>
<td>49.2 / 65.6 ft/min</td>
</tr>
</tbody>
</table>

### Main winch

<table>
<thead>
<tr>
<th>Winch classification</th>
<th>Line pull (1st layer) effective / nominal</th>
<th>Rope diameter</th>
<th>Line speed (max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M6 / L3 / T5</td>
<td>136 / 175 kN</td>
<td>22 mm</td>
<td>80 m/min</td>
</tr>
<tr>
<td>Line pull (1st layer) effective / nominal</td>
<td>30,575 / 39,340 lbf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rope diameter</td>
<td>0.87 in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line speed (max.)</td>
<td>260 ft/min</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Auxiliary winch

<table>
<thead>
<tr>
<th>Winch classification</th>
<th>Line pull (1st layer) effective / nominal</th>
<th>Rope diameter</th>
<th>Line speed (max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M5 / L2 / T5</td>
<td>43 / 54 kN</td>
<td>16 mm</td>
<td>28 m/min</td>
</tr>
<tr>
<td>Line pull (1st layer) effective / nominal</td>
<td>9,670 / 12,140 lbf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rope diameter</td>
<td>0.63 in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line speed (max.)</td>
<td>92 ft/min</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Base carrier

<table>
<thead>
<tr>
<th>Engine</th>
<th>CAT C 7.1</th>
<th>CAT C 7.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated output ISO 3046-1</td>
<td>186 kW</td>
<td>250 HP</td>
</tr>
<tr>
<td>1,800 rpm</td>
<td>1,800 rpm</td>
<td></td>
</tr>
<tr>
<td>Engine conforms to EU 2016/1628 EPA/CARB GB20891-2014</td>
<td>ORA * Stage V Tier 4 final</td>
<td></td>
</tr>
<tr>
<td>Diesel tank capacity/AdBlue</td>
<td>540 l / 32 l</td>
<td>145 Gal / 8.5 Gal</td>
</tr>
<tr>
<td>Sound pressure level inside cabine (EN 16228, Annex B)</td>
<td>LPA 80 dB (A)</td>
<td></td>
</tr>
<tr>
<td>Sound power level (2000/14/EC u. EN 16228, Annex B)</td>
<td>LWA 105 dB (A)</td>
<td></td>
</tr>
<tr>
<td>Hydraulic pressure</td>
<td>350 bar</td>
<td>35 MPa</td>
</tr>
<tr>
<td>Traction force effective / nominal</td>
<td>340 / 400 kN</td>
<td>76,450 / 90,000 lbf</td>
</tr>
</tbody>
</table>

* Exhaust emission equivalent Tier 3 / Stage III A emission standards
**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
  - 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
- Electric generator
- Foldable guardrails
- Weather protection

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**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
- Low head kit
- Upper Kelly guide
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

Measuring and Control Equipment

Standard, 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/ analogous 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
- Slewing angle display for upper carriage

Optional
- Remote transmission of machine data (DTR-module)
- Additional camera with monitor for rear area surveillance
- Active mast support
- B-Tronic M
The BAUER B-Tronic M is your entrance to the BAUER device networking. Keep track of all your machines and projects with the help of the B-Tronic M systems. Reduce downtime by rapid evaluation of messages (including email messages) and utilize our state-of-the-art tools.

- The high-resolution touchscreen display ensures excellent user-friendliness
- The display can be optimally adapted to the operating situation and the amount of light present by changing the brightness level, the color scheme and the day / night mode
- The main parameters such as pump pressure, torque and drilling depths can be viewed at a glance

### Overview

![Drilling diameter and depth chart](chart.png)

### 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>800 mm</td>
<td>800 mm</td>
</tr>
<tr>
<td></td>
<td>31.5 in</td>
<td>31.5 in</td>
<td>31.5 in</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>5 t</td>
<td>5 t</td>
</tr>
<tr>
<td></td>
<td>11,025 lb</td>
<td>11,025 lb</td>
<td>11,025 lb</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>
Further Applications

Low Headroom with Standard Mast Head

- Drilling diameter (mm)
- Drilling depth (m)

Drilling diameter (mm)

- 2-part Kelly
- 4-part Kelly

Low Headroom with Special Mast Head

- Drilling diameter (mm)
- Drilling depth (m)

Drilling diameter (mm)

- 2-part Kelly
- 4-part Kelly
Upgrade 2 with CFA Equipment

Drilling diameter (mm)

<table>
<thead>
<tr>
<th>Drilling depth (m)</th>
<th>Without extension</th>
<th>With extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>450</td>
<td>750</td>
</tr>
<tr>
<td>2</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>550</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>630</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>42.7 ft</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>42.7 ft</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>42.7 ft</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>42.7 ft</td>
<td></td>
</tr>
</tbody>
</table>

Auger length 13000 | 42.7 ft

Without extension: 17710 | 58.1 ft
With extension: 2770-3470 | R 3590
9.1 – 11.4 ft | R 11.8 ft
Transport – Dimensions and Weights

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.

\[ G \text{ = Weight} \]
\[ B \text{ = Width} \]
Design developments and process improvements may require the specification and materials to be updated and changed without prior notice or liability. Illustrations may include optional equipment and not show all possible configurations. These and the technical data are provided as indicative information only, with any errors and misprints reserved.