BAUER BG 15 H
Rotary Drilling Rig
Base Carrier BT 50
The BAUER 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 @ 1,800 rpm
          250 HP @ 1,800 rpm
Height: 18.2 m | 59.7 ft
**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 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 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 KDK 150 KL
- Torque (nominal) at 330 bar: 145 kNm | 106,950 lbf ft
- Speed of rotation (max.): 32 rpm

#### Rotary drive KDK 150 SL
- Torque (nominal) at 330 bar: 150 kNm | 110,634 lbf ft
- Speed of rotation (max.): 52 rpm

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#### Crowd Cylinder Winch
- Crowd force push/pull (effective): 120 / 250 kN | 26,975 / 56,200 lbf
- Crowd force push/pull *: 160 / 210 kN | 35,970 / 47,210 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

#### Main winch
- 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

#### Auxiliary winch
- 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

#### Base carrier
- Engine: CAT C 7.1
- Rated output ISO 3046-1: 186 kW | 250 HP
- Engine conforms to EU 2016/1628 EPA/CARB GB20891-2014:
  - Engine: ORA **
  - Stage V Tier 4 final
- 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
- Undercarriage: UW 50

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* measured at the casing drive adapter

** 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 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

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
## 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>

### Diagram

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

- **Standard**
- **Upgrade 1**
- **Upgrade 2**

<table>
<thead>
<tr>
<th>Drilling diameter (mm)</th>
<th>600</th>
<th>850</th>
<th>1100</th>
<th>1350</th>
<th>1600</th>
<th>1850</th>
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</thead>
<tbody>
<tr>
<td>Drilling depth (m)</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
</tbody>
</table>

- **Standard**
- **Upgrade 1**
- **Upgrade 2**
BG 15 H

Uncased Kelly Drilling

**Standard**

- Drilling diameter (mm): 3-part Kelly, 4-part Kelly
- Drilling depth (m): 15260 | 50.1 ft

**Upgrade 1**

- Drilling diameter (mm): 3-part Kelly, 4-part Kelly
- Drilling depth (m): 18120 | 59.4 ft
Standard

Upgrade 2

Length of casing (m)

Kelly bar BK 130/343/4/... (m)

Kelly bar BK 170/343/3/... (m)

Length of casing (m)

Kelly bar BK 130/343/4/... (m)

Kelly bar BK 170/343/3/... (m)

17810 | 58.4 ft

15260 | 50.1 ft
Transport – Dimensions and Weights

<table>
<thead>
<tr>
<th>Standard with upper Kelly guide</th>
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</thead>
<tbody>
<tr>
<td><strong>G</strong> = 43.0 t</td>
</tr>
<tr>
<td><strong>B</strong> = 2,500 mm</td>
</tr>
<tr>
<td><img src="image1.png" alt="Diagram 1" /></td>
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</table>

<table>
<thead>
<tr>
<th>Upgrade 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G</strong> = 45.5 t</td>
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<tr>
<td><strong>B</strong> = 2,500 mm</td>
</tr>
<tr>
<td><img src="image2.png" alt="Diagram 2" /></td>
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<table>
<thead>
<tr>
<th>Upgrade 2</th>
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</thead>
<tbody>
<tr>
<td><strong>G</strong> = 45.0 t</td>
</tr>
<tr>
<td><strong>B</strong> = 2,500 mm</td>
</tr>
<tr>
<td><img src="image3.png" alt="Diagram 3" /></td>
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<table>
<thead>
<tr>
<th>Base carrier with UW 50</th>
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</thead>
<tbody>
<tr>
<td><strong>G</strong> = 3.5 t</td>
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<tr>
<td><strong>B</strong> = 1,550 mm</td>
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<td><img src="image4.png" alt="Diagram 4" /></td>
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<table>
<thead>
<tr>
<th>Rotary drive</th>
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</thead>
<tbody>
<tr>
<td><strong>G</strong> = 3.5 t</td>
</tr>
<tr>
<td><strong>B</strong> = 1,550 mm</td>
</tr>
<tr>
<td><img src="image5.png" alt="Diagram 5" /></td>
</tr>
</tbody>
</table>

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

**G** = Weight

**B** = Width

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