BLACK BRUIN HYDRAULIC ROTATORS
SUPERIOR PISTON TECHNOLOGY
ABOUT OUR ROTATORS

Black Bruin harvester rotators are commonly seen in job sites where others just don’t get the job done. Many demanding applications in forestry are powered by Black Bruin. With Black Bruin rotators, these professionals know that they will get their jobs done in a productive and profitable manner.

RELIABILITY INCORPORATED

Black Bruin rotator design is based on the radial piston motor, thus giving the same highly efficient power seen in the motors. The power does not run out and a harvester head can be precisely turned to the wanted position.

OVER 50 YEARS OF EXPERIENCE

For over 50 years, our aim has been high quality in all areas. From design to manufacturing, we strive to meet our customers’ high demands and give them powerful, reliable and high quality hydraulic rotators. Customer satisfaction and consistent quality of Black Bruin rotators are further ensured by our own R&D testing laboratory, in which we continuously work to develop even better solutions for all conditions and needs.

We listen to the customer and develop innovative rotator solutions to fit their needs.

INTRODUCTION 3 | PISTON TECHNOLOGY 5 | HARVESTER ROTATORS 7 | LINKS 9 | BRAKES 11 | HYDRAULICALLY CONTROLLED SWING DAMPER 13 | ORDERING CODE 15

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A good rotator is one that is easy to use, rugged, and above all, dependable in extreme conditions. Black Bruin rotators meet all of this criteria — and many others into the bargain. Their superior technical performance has gained the unreserved regard of professionals all over the world.

DURABILITY GUARANTEED

The key to the popularity of Black Bruin rotators is piston technology. Due to durable piston design, the rotator is very accurate in its operation. The radial piston-cam curve design is precisely balanced, providing a constant ripple-free output torque. High torque is achieved with small oil flow and it remains constant throughout the turning range. Accurate Black Bruin rotator maintains torque characteristics throughout its long service life. This means productive and efficient contracting!

BLACK BRUIN PISTON TECHNOLOGY

OPTIMUM PERFORMANCE

HIGHLIGHTS:

- Wear-free piston design — no harmful particles into system
- Constant high torque throughout the turning range
- Precise control
- Durable construction
- Long service life with torque that lasts

SUPERIOR, LONG LASTING TORQUE

"Accuracy, strength and endurance are the key features a rotator must have. We developed the radial piston structure of our Black Bruin rotators precisely for this. With our special design, Black Bruin rotators provide superior efficiency, and maintain their characteristics in the long run."
HIGHLIGHTS:
- Case drain line for maximal performance
- Excellent load capacity in radial and axial direction
- Constant high torque throughout the turning range
- Built-in relief valves protect the hydraulic system
- All-season sealing for demanding work environments

BLACK BRUIN HARVESTER ROTATORS
BBR H / RH3016

BBR H SERIES
BBR H rotator for harvester heads makes forest harvesting efficient. You can trust its durability and usability, thanks to its excellent load capacity and constant high torque throughout the turning range.

The highly recommended case drain line guarantees maximal power. Low case pressure ensures long bearing and seal service life.

BBR H stands for power, reliability, and productivity for all harvester head applications.

RH3016
RH3016 is the most powerful Black Bruin rotator to date. With high torque, it is the top choice for heavy-duty harvesting, where productivity, strength and endurance are required. The durable bearing design, added with the benefits of case drain line handles the most demanding loads.

The robust RH3016 maintains its performance in the long run. Operating is precise and reliable. The sealing solution is easy to service for higher productivity.

BBR H SERIES

<table>
<thead>
<tr>
<th>ROTATOR</th>
<th>BBR H81</th>
<th>BBR L15</th>
<th>BBR 10H</th>
<th>BBR 15H</th>
<th>RH3016</th>
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<tbody>
<tr>
<td>Application</td>
<td>Small size harvesters</td>
<td>Mid-size harvesters</td>
<td>Large harvesters</td>
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Black Bruin offers a variety of links, suitable for many types of cranes. Links can be equipped with single or dual multiscopic brakes.

**APPLICATION REQUIREMENTS**

Light brake link guarantees smooth working by damping the harvester head swinging efficiently. Dual brake link offers damping in both directions. You can select single or dual brake link to best fit your application requirements.

**TR LINKS**

With TR links, the brakes can be fitted symmetrically on both sides of the link. You’ll get more compact overall structure with higher brake torque. See page 11 for more details.

**HIGHLIGHTS:**

- Light and compact construction
- Various types for harvester use
- 1J – single brake, lower
- 2J – dual brake, upper and lower
- 2K – dual brake, upper and lower (with option for asymmetric lower brake)

**BLACK BRUIN LINKS**

H-O74 / H-O80 / H-O85

**NEW!**

**ADVANCED LINK OPTIONS**

<table>
<thead>
<tr>
<th>LINK / ROTATOR</th>
<th>H-074 (BBR 08)</th>
<th>H-080 (BBR 15)</th>
<th>H-085 (BBR 16)</th>
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<tr>
<td>Max dimensions</td>
<td>R155 L080 2J</td>
<td>R240 L080 1J</td>
<td>R240 L100 2J</td>
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<tr>
<td></td>
<td>R240 L080 2J</td>
<td>R240 L100 1J</td>
<td>R240 L100 2J</td>
</tr>
<tr>
<td></td>
<td>R240 L100 1J</td>
<td>TR240 L100 2K</td>
<td>TR240 L100 2K *</td>
</tr>
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<td></td>
<td>R240 L100 2J</td>
<td>TR240 L100 2K *</td>
<td>TR240 L100 2K *</td>
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<tr>
<td>Weight [kg]</td>
<td>11.5</td>
<td>15.2</td>
<td>19.7</td>
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<tr>
<td></td>
<td>13.5</td>
<td>19.9</td>
<td>22.7</td>
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<tr>
<td></td>
<td>19.9</td>
<td>23.0</td>
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</tbody>
</table>

Ordering code example: H-080 TR240 L100 2K.* Consult the manufacturer for TR links with single brake (lower) option only.
Black Bruin rotators can be equipped with one or two multi-disc brakes. Black Bruin brakes increase the rotator’s value to the user. Brake guarantees smooth working by damping the harvester head swinging efficiently.

Unique multi-disc design is wear-proof and easy to service, thus giving the long operational life with constant braking force.

Wide range of Black Bruin damping solutions offer an alternative for any working conditions. Brake torque is either pre-adjusted mechanically or continuously controlled by hydraulics.

**HIGHLIGHTS:**
- Unique multi-disc design
- Durable brake discs – constant braking force
- Well-protected and service friendly structure
- Long maintenance interval
- Spring-loaded or hydraulically controlled models

**BLACK BRUIN BRAKES**

<table>
<thead>
<tr>
<th>Type</th>
<th>X</th>
<th>SH</th>
<th>XH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New!</strong></td>
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<td></td>
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</tr>
</tbody>
</table>

- Spring loaded, adjustable multi-disc brake torque [Nm]: 800...1100
- Hydraulically controlled multi-disc brake torque [Nm]: 1600...2200
- Weight [kg]: 3.2

*Brake can be installed symmetrically only for TR-links.*
The hydraulically controlled swing damper is the newest addition of the Black Bruin rotator family. It makes the control of the harvester head extremely versatile and boosts work efficiency.

Braking force can be easily controlled by the user and a harvester head locked to any position, allowing trees to be grappled precisely and efficiently. This is a valuable feature in forest thinnings and multi-tree handling, when harvester head needs to be manoeuvred between trees.

The operating pressure is delivered to upper brake and led to lower brake through link’s internal channel. No additional damage prone hoses are required.

The braking force remains constant throughout the rotator’s operating life. This also reduces the brake wear, and there is no need for adjustment.

Compact Black Bruin swing damper with powerful radial piston rotator is an unbeatable combination!

We constantly monitor our rotators at work in real-world conditions. We see and hear what our clients and end-users need, and how our rotators can be developed to meet these needs. This is why Black Bruin rotators truly help people perform their everyday work better.

HIGHLIGHTS:
- Compact construction with precise control = efficiency and productivity
- Less strain on boom
- No additional hoses are required
- Braking force applied as needed – precise control and manoeuvrability
- Low brake disc wear – no need for adjustment
- Holds braking force throughout the service life

BLACK Bruin HYDRAULICALLY CONTROLLED SWING DAMPER
FOR BBR 15H / BBR 16H / RH3016

ENHANCED PRECISION

COMPATIBLE MODELS
RENTER | BBR 15H | BBR 16H | RH3016
--- | --- | --- | ---
* Retrofitting is possible.
BLACK BRUIN ORDERING CODE

ROTATORS / LINKS / BRAKES

ORDERING CODE EXAMPLES:

<table>
<thead>
<tr>
<th>ROTATOR</th>
<th>LINK</th>
<th>LOWER BRAKE</th>
<th>UPPER BRAKE</th>
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</thead>
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<tr>
<td>H-07 4</td>
<td>H-080</td>
<td>R155.L100 1J</td>
<td>H-080 S</td>
</tr>
<tr>
<td>H-080</td>
<td>TR240.L100 2K</td>
<td>R155.L100 2J</td>
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When ordering rotator, link or brake separately, the correct pin kit is always required for assembly.

BLACK BRUIN ORDERING CODE

PIN KITS

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<tr>
<th>ROTATOR</th>
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Please note! The correct pin kit is always required for a complete rotator assembly.

UPPER BRAKE KIT

UPPER PIN KIT

LOWER BRAKE KIT (A)

LOWER PIN KIT

UPPER PIN KIT

LOWER BRAKE KIT (B)

UPPER BRAKE KIT

UPPER PIN KIT

LOWER BRAKE KIT (A)

LOWER PIN KIT

UPPER PIN KIT

LOWER BRAKE KIT (B)

UPPER BRAKE KIT

UPPER PIN KIT

LOWER BRAKE KIT (A)

LOWER PIN KIT

UPPER PIN KIT

LOWER BRAKE KIT (B)

UPPER BRAKE KIT

UPPER PIN KIT

LOWER BRAKE KIT (A)

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LOWER BRAKE KIT (A)

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UPPER BRAKE KIT

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LOWER BRAKE KIT (A)

LOWER PIN KIT

UPPER PIN KIT

LOWER BRAKE KIT (B)
INNOVATIVE HYDROSTATIC TRANSMISSION AND ROTATION SOLUTIONS

Black Bruin Inc. is one of the world’s leading suppliers of radial piston hydraulic motors and rotators. Our trade mark Black Bruin offers a high quality solution for agriculture, construction and mining, road building and forestry equipment applications. As an international operator located in Jyväskylä, Central Finland, we employ more than 100 fully trained professionals and have a distribution network which covers over 25 countries.