THANK YOU FOR YOUR PURCHASE  You have received a high quality, extremely versatile attachment that will increase your machine’s capability. The multi-purpose is a versatile-durable tool used as a trenching, grading or clamshell bucket and from gripping and loading. This attachment increases the tasks a single machine can perform; reducing the number of dedicated task machines needed on a job site.

TELL US WHAT YOU THINK Werk-Brau would like what you think about its products. Please visit our website & share your experience with us!
General Safety Guidelines

Cautionary Notices

Before beginning installation of the PowerGrip®, there are several cautionary notices that should be considered. If you are not comfortable with installation or maintenance of this product, contact your local dealer or Werk-Brau’s Customer Service Department for assistance.

1. **WARNING**
   - To avoid personal injury and machinery damage:
   - Read the Installation Manual for proper installation procedures.

2. **WARNING**
   - Pinch point hazard:
   - Moving parts can cause serious injury.
   - Keep clear during operation.

3. **WARNING**
   - To avoid personal injury and machinery damage:
   - Make sure PowerGrip does not come in contact with dipperstick boom, boom cylinder and/or operator area.

4. **WARNING**
   - Crushing hazard:
   - Falling material can cause serious injury.
   - Keep clear during operation.

5. **WARNING**
   - To avoid personal injury and machinery damage:
   - Do not use PowerGrip to lift excessive weight objects or oversize material that can upset the stability of the machine.

6. **NOTICE**
   - To avoid damage to seals or other internal components:
   - Do not weld directly onto the PowerGrip when it is fully assembled. Modifications may void product warranty.

Other Safety Guidelines and Precautions

1. PowerGrip should only be used to perform tasks for which it was designed. Abusing the product and/or using it for purposes for which it was not intended can expose the operator and others to hazards as well as result in damage to the PowerGrip, carrier and/or other attachments.

2. The operation of the PowerGrip Bucket is similar to the operation of OEM buckets in trenching and material handling applications. However, the PowerGrip Bucket has the added ability to grip, hold and lift materials in a pick and place capability. This attachment is not designed for long term holding of materials.

   Refer to the carrier manufacturer’s instructions regarding safe material handling practices.

   The bucket jaw should only be opened when needed for specific tasks. Failure to close the jaw can result in damage to the dipper arm.

3. Modification to the PowerGrip is done at the owner’s risk and may void the Werk-Brau Corporation, Attachments Division warranty.

4. It is the owner’s responsibility to be sure all safety equipment is in place and operating properly at all times. If safety decals fade, are damaged or become unreadable from a distance of 10 feet, they should be replaced immediately.

   Be sure to post the warning decal provided by Werk-Brau to the cab of the carrier machine.

5. PowerGrip should be used in conjunction with attachments that do not adversely affect the stability of the machine.
Installation and Mounting

Each PowerGrip is engineered for a specific backhoe or excavator and is designed to be pin mounted directly to the machine.

Installing the PowerGrip Bucket onto the Carrier

All PowerGrip models should be mounted to the carrier according to the instructions outlined below.

1. Position the PowerGrip close to the carrier boom to ensure easy use of the lifting reach and range of the carrier boom.

2. Lower the dipper to approximately 2-3 inches (50-75 mm) above the PowerGrip. Roll out the bucket cylinder to lower the link bars to the PowerGrip.

3. Align the PowerGrip and link bar holes and install the link pin.

4. Slowly lift the PowerGrip to a safe height with the bucket and boom cylinders.

5. Curl the bucket cylinder until the PowerGrip and dipper holes align and install the bucket pivot pin. Rotate the pins as necessary and install the required retainers.

Removing the PowerGrip Bucket from the Carrier

To remove the PowerGrip bucket follow the instructions outlined below.

1. Position the bucket so it is lightly supported by the ground and in a position so it will not move or fall when a pin is removed.

2. Remove the bucket pivot and link pins.

PowerGrip Installation

6. Safety check. Check that the Werk-Brau attachment is fitting correctly by maneuvering it with the machine and at the same time watching for any interference or resistance to movement that may exist. If there is any sign of problems with the smooth functioning of the PowerGrip, DO NOT attempt to carry out any modifications to it, or the host machine. Instead contact Werk-Brau’s Customer Service Department who will advise as necessary.
### Hydraulic Requirements and Plumbing

**Important Notice**

Werk-Brau does not assume any responsibility beyond the design and performance of its construction equipment attachment products. The customer is solely responsible for engineering of mating structures, fasteners, and other associated components related to the installation of the product and its ultimate application.

**Hydraulic Requirements**

The Typical PowerGrip Circuit Chart and the Tool Circuit Requirements Table (shown on this page) illustrate the control circuit requirements for the PowerGrip. The hydraulic pressures and flow requirements must be observed or damage to the actuator can occur.

The installer of the PowerGrip is responsible for selecting control circuits that are compatible with the excavator and meet the tool circuit requirements. Werk-Brau can be contacted for additional control circuits and methods for controlling the PowerGrip.

**NOTICE**

PowerGrips are equipped with a standard pressure control/load lock manifold welded to the bucket shell. Refer to the Suggested Hose Routings Diagram on Page 6 for the recommended routings.

**Hydraulic Kits**

Werk-Brau does not provide hydraulic kits for the PowerGrip.

### Typical PowerGrip Circuit

<table>
<thead>
<tr>
<th>Tool Circuit Requirements</th>
<th>PG06</th>
<th>PG07</th>
<th>PG08</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Sizes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Displacement</td>
<td>in³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cm³</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>84.8</td>
<td>118.5</td>
<td>211</td>
</tr>
<tr>
<td>Required Oil Flow</td>
<td>gpm</td>
<td>liters/minute</td>
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<tr>
<td></td>
<td>2-7</td>
<td>(8-28)</td>
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</tr>
<tr>
<td></td>
<td>3-10</td>
<td>(12-39)</td>
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</tr>
<tr>
<td></td>
<td>5-18</td>
<td>(21-70)</td>
<td></td>
</tr>
<tr>
<td>Port Connections*</td>
<td>SAE</td>
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</tr>
<tr>
<td></td>
<td>BSP</td>
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<td></td>
<td>6</td>
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<tr>
<td></td>
<td>(1/4)</td>
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<td></td>
</tr>
<tr>
<td>Hydraulics Circuit</td>
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<tr>
<td>Min. Hose Tube Size</td>
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<td>(mm)</td>
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</tr>
<tr>
<td></td>
<td>1/2</td>
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<tr>
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<td>5/8</td>
<td>(16)</td>
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<tr>
<td></td>
<td>5/8</td>
<td>(16)</td>
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</tr>
<tr>
<td>Whip Hose Size</td>
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<td>(10)</td>
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<td></td>
<td>3/8</td>
<td>(10)</td>
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<tr>
<td></td>
<td>3/8</td>
<td>(10)</td>
<td></td>
</tr>
<tr>
<td>Hydraulic Pressures</td>
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<tr>
<td>Cross Port Relief Valve Pressure (opening)</td>
<td>1,000-1,500 psi</td>
<td>1,030-1,060 psi</td>
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</tr>
<tr>
<td>Cross Port Relief Valve Pressure (closing)</td>
<td>3,200-3,300 psi</td>
<td>3,250-3,300 psi</td>
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<tr>
<td>Circuit Pressure</td>
<td>3,650-3,750 psi</td>
<td>3,700-3,750 psi</td>
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<tr>
<td>Maximum Circuit Back Pressure</td>
<td>580 psi</td>
<td>580 psi</td>
<td></td>
</tr>
</tbody>
</table>

* 3-10 second open/close time
Hydraulic Requirements and Plumbing

Installing and Removing Hydraulic Lines

The manifold incorporates two ports for hydraulic hose connections, Port V1 and Port V2. When pressure is applied to Port V1 the jaw opens; when pressure is applied to Port V2 the jaw closes.

After installing the PowerGrip onto the equipment and attaching the hydraulic lines, it is important that all safety devices are properly reattached.

Plumbing

Hose and tube size recommendations can be found in the Tool Circuit Requirements Chart shown on Page 4.

The position of the hoses is important for reliable operation. Refer to the Suggested Hose Routings Chart on Page 6 for suggested hose routings.

Connect hydraulic hoses to the appropriate ports. Be sure the hoses do not cross, foul, crush or chafe when operating the PowerGrip or machine. Verify proper hose routing for all possible positions of the PowerGrip and all attachments, which are to be used with the PowerGrip. Repair any oil leaks immediately.

NOTICE

When installing a new tool circuit or hydraulic lines, flush all the tool circuit lines with hydraulic oil prior to connecting the PowerGrip. This will help remove any contaminants from the circuit components which may have accumulated during manufacturing and/or installation.
Hydraulic Requirements and Plumbing

Suggested Hose Routings
Maintenance

Daily

1. Grease the PowerGrip at the two grease fittings with a high quality Lithium-based grease. Apply grease until clean grease flows from the grease reliefs. Severe operating conditions such as abrasive dust or prolonged submersion in water may require more frequent grease applications.

2. Make sure the grease reliefs are functioning properly. Open or replace non-functioning grease reliefs immediately.

   NOTICE
   Never replace the grease relief valves with grease fittings or plugs.

   NOTICE
   Do not operate the PowerGrip if the grease reliefs are not functioning.

3. Inspect the PowerGrip for loose, worn or damaged components and replace or repair immediately.

4. Mounting pins should be greased upon installation and thereafter according to the equipment manufacturer's instructions.

Werk-Brau Customer Service

To contact our Service Department call:
1-800-537-9561
www.Werk-Brau.com

Technical Support

To contact Technical Support e-mail us at warranty@werk-brau.com

Parts Support

To contact a parts representative e-mail us at sales@Werk-Brau.com

Service & Repair Support

To contact a service and repair representative e-mail us at sales@Werk-Brau.com

Important Notice


Warranty Information

Refer to our website for more information regarding Warranty Policy, Warranty Return Policy, and Warranty Cancellation Policy, and Procedure:
www.werk-brau.com/warranty-claims
IMPORTANT  This instruction manual describes the installation, operation, and maintenance for a Werk-Brau PowerGrip attachment. Please take the time to record the information listed below.

Serial No.:______________________________________________
Model No.:______________________________________________
Date Manufactured:________________________________________

ABOUT WERK-BRAU  Since 1947, Werk-Brau has manufactured the highest quality and most innovative specialty products for the heavy equipment industry. Werk-Brau is respected internationally for providing outstanding customer service and being dedicated to excellence in all aspects of our business. Duke Werkheiser and Dutch Brautigan, for whom the company is named after, first opened their blacksmith shop in Findlay Ohio. Still today Werk-Brau manufactures and produces in Findlay Ohio, in a state of the art facility.

Over the decades Werk-Brau has grown and become so much more than a simple blacksmith operation. Today Werk-Brau proudly employs an industry leading team of professionals who work hard to follow the vision set by the founders of Werk-Brau to "Provide Excellence in Customer Service". As a modern company Werk-Brau is efficient, high-tech, dedicated to its customers, and deeply proud of the quality of products manufactured.

Werk-Brau manufactures a complete line of O.E.M. and replacement attachments for excavators, mini excavators, backhoes, mini and full size loaders and crawler loaders. All over the world Werk-Brau attachments can be found hard at work in the toughest of conditions.

THANK YOU FOR YOUR PURCHASE!

WORK SAFE