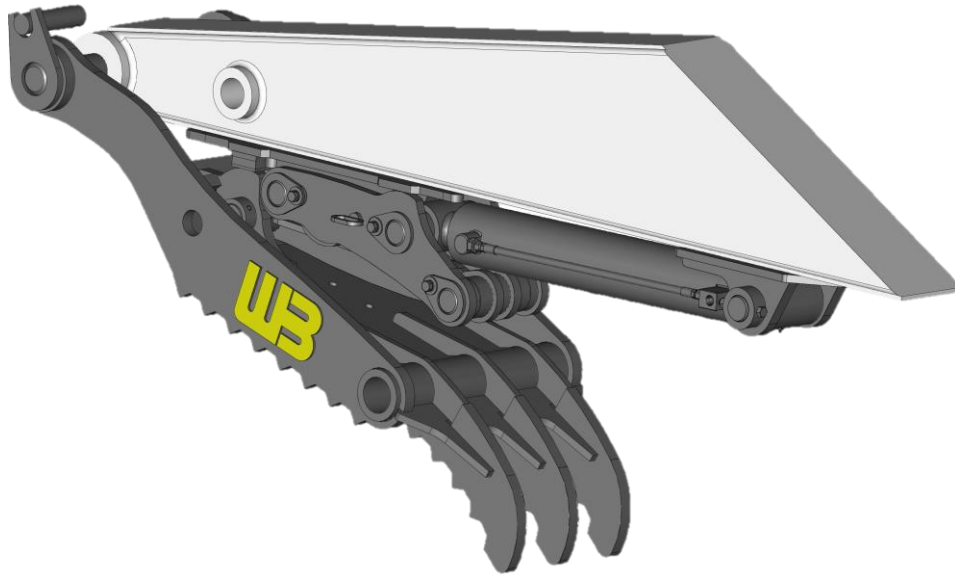


# WERK-BRAU CO., INC. PRODUCT AND INSTALLATION MANUAL

EZG-PRO SERIES  
(Pro-Link Series Multi-Tined Grip)



Serial No: \_\_\_\_\_

Model No: \_\_\_\_\_

Date Manufactured: \_\_\_\_\_

**PROUDLY MANUFACTURED IN FINDLAY, OH**  
**Werk-Brau.com**



# STOP!!!

Before welding an attachment or operating any attachment, clearance checks must be made. This means cautiously putting the machine and attachment through all movements. This is at the responsibility of the attachment installer. In some cases, clearance issues are unavoidable so the operator must be made aware prior to operating the machine. If your attachment did not come with a decal for this possible interference, please contact your Werk-Brau representative to help assist. Werk-Brau is not responsible for clearance issues or damaged caused by attachment interference.

For all hydraulic attachments ensure that the machines pressure is at the recommended setting.

The thumb should always give to the bucket, 1500-2250 relief pressure but your set up may require for the pressure to be set lower. The flow should also should be set so that the thumb is not slamming but works a reasonable rate.

# SAFETY STATEMENT GUIDE

## **DANGER**

Danger tags are used in major hazard situations where an immediate hazard presents a threat of death or serious injury to operator and anyone about.

## **WARNING**

Warning tags are used to represent a hazard level between “Caution” and “Danger”, instead of the required “Caution” tag, provided that they have a signal word of “Warning,” an appropriate major message.

## **CAUTION**

Caution tags are used in minor hazard situations where a non-immediate or potential hazard or unsafe practice presents a lesser threat of injury.

## **NOTICE**

A notice label is used where equipment or property damage could result if the instructions are not followed properly.



This symbol by itself or used with a safety signal word throughout this manual is used to call your attention to instructions involving your personal safety or the safety of others. Failure to follow these instructions can result in injury or death.

# GENERAL SAFETY PRECAUTIONS

## **DANGER**

### **READ MANUAL PRIOR TO INSTALLATION**

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual as well as all manuals related to this equipment and the operating machine thoroughly before beginning installation, operation, or maintenance. **FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE OPERATING MACHINES MANUAL.**

## **WARNING**

### **READ AND UNDERSTAND ALL SAFETY STATEMENTS**

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing or operating this equipment.

## **DANGER**

### **KNOW YOUR EQUIPMENT**

Know your equipment's capabilities, dimensions and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to assure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn and hard to read.

## **NOTICE**

### **PROTECT AGAINST FLYING DEBRIS**

Always wear proper safety glasses, goggles with a face shield when driving pins in or out or when any operation causes dust, flying debris, or any other hazardous material.

## **WARNING**

### **LOWER OR SUPPORT RAISED EQUIPMENT**

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower the boom(s) to ground level or onto block(s). Lower the boom(s) and attachment(s) to the ground before leaving the cab or operator's station.

# GENERAL SAFETY PRECAUTIONS

## WARNING

### USE CARE WITH HYDRAULIC FLUID PRESSURE

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your operating machines operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities. Wear safety glasses, protective clothing, and use a sound piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS**
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research immediately to determine proper treatment.

## WARNING

### DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. For loaders, never modify any ROPS (Roll Over Protection System) equipment or device.

**!!!Any modifications must be authorized in writing by Werk-Brau or the manufacturer!!!**

## DANGER

## NOTICE

### SAFELY OPERATE THE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements.

See your operating machines manual for these instructions.

- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Be sure that all bystanders are out of harms way when operating.
- Do not allow riders on the attachment or operating machine
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with this attachment in a raised position.
- Do not alter or remove any safety feature from the operating machine or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.



### SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing, or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tool for the job at hand. Make sure tools are in good condition.
- Wear all protective equipment specified by the tool manufacturer.

# OPERATING PRECAUTIONS

## **WARNING**

### **DO NOT IMPROPERLY USE THIS ATTACHMENT**

This grip is designed to grab objects and debris and not for any other use.

## **DANGER**

### **BE AWARE OF SURROUNDING UTILITIES**

Operator must be aware of all utility line and overhead electrical lines. Operations must be able to clear all lines safely.

## **NOTICE**

## **DANGER**

### **BE AWARE OF OVERHEAD DANGER**

Operator must be aware of all possible overhead dangers that are within the range of motion of the operating machine.

## **WARNING**

### **DO NOT OPERATE WITH A LOOSE ATTACHMENT**

Visually check the coupler to verify attachments are secure and lock is fully engaged and that the center to center of the attachment matches the up with the attachment.

## **WARNING**

### **PINCH POINTS**

Personal injury could result from the careless misuse of this coupler. Keep hands and body parts clear of the coupler when it's in the process of hooking up to an attachment. Be sure the machine is off and the attachment is on the ground prior to making adjustments.



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P.O. Box 545 Findlay, Ohio 45839-0545

1-800-537-9561 *phone*

419-422-7207 *fax*

**Werk-Brau.com**

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If at any time in the future, you require additional information on this product or any aspects of its use, please do not hesitate to contact Werk-Brau Co., Inc.

# Introduction

## 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. 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!

# Torque Specifications

Please observe these approved torque specs. Failure to follow these specifications can result in damage and other undesirable results.

Dash Size	Tube O.D. (Ref)	Thread Size	37° Flare		Straight Thread	
			Ft-lbs	Nm	Ft-lbs	Nm
4	1/4	7/16-20	10-12	14-16	15-19	20-25
5	5/16	1/2-20	13-16	18-21	20-25	27-33
6	3/8	9/16-18	20-25	27-33	32-40	43-54
8	1/2	3/4-16	34-42	46-56	54-67	73-90
10	5/8	7/8-14	46-58	62-78	74-92	100-124
12	3/4	1-1/16-12	64-80	87-108	102-128	138-173
14	7/8	1-3/16-12	80-100	109-135	128-160	173-216
16	1	1-5/16-12	97-117	131-158	150-187	203-253
20	1-1/4	1-5/8-12	145-165	197-223	227-264	308-357
24	1-1/2	1-7/8-12	230-250	312-338	363-400	492-542

\*Apply enough pipe sealer to contact all threads.

\*\*Do not use an excess amount that will squeeze into the hydraulic lines.

## **Storage**

- Clean the unit thoroughly, removing all mud, dirt and grease.
- Inspect for visible signs of wear, breakage or damage. Order any parts required and make the necessary repairs to avoid delays upon removal from storage
- Tighten loose nuts, cap screws and hydraulic connections.
- Coat exposed portions of the cylinder rods with grease.
- Lubricate grease fittings.
- Seal hydraulic system from contaminants and secure all hydraulic hoses off the ground to help prevent damage.
- Replace decals that are damaged or in unreadable condition.
- Store unit in a dry and protected place. Leaving the unit outside will materially shorten its life.

## **Precautions for Long Term Storage**

- Touch up all unpainted surfaces with paint to prevent rust.
- Remove cover.
- Wash unit and replace any damaged and/or missing parts.
- Lubricate grease fittings.
- Check hydraulic hoses for damage and replace as necessary.

# Maintenance and Service

Procedure	Daily	Every 40 Hrs
Check all bolts and nuts for tightness	X	
Replace any missing bolts or nuts with approved replacement parts	X	
Check hydraulic system for hydraulic oil leaks. See procedure below.	X	
Visually inspect the machine for worn parts or cracked welds, and repair as necessary.	X	
Lubricate all grease fittings		X

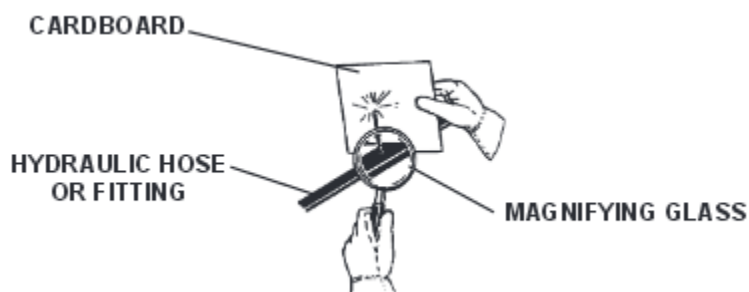
**OIL CLEANLINESS REQUIREMENTS** All hydraulic fluid shall be filtered before use in any FFC product to obtain the ISO cleanliness standard of 20/18/15. Unless explicitly specified otherwise.

**FITTINGS/HOSES INSPECTION GUIDELINES** Stop the prime mover engine and release hydraulic pressure before servicing or adjusting hydraulic system.

**WARNING** Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.

If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research it immediately to determine proper treatment.



**IMPORTANT** When replacing parts, use only factory approved replacement parts. Manufacturer will not claim responsibility for use of unapproved parts or accessories, and/or other damages as a result of their use.

## QUESTIONS

For replacement parts, questions, and other matters please call your local dealer. If you cannot reach a local dealer please call and we will be happy to find a dealer for you and answer any questions.

## **Weld Instructions**

- **Dipper Mounting Bracket & Return Stop**
  - a.) Disconnect battery before welding.
  - b.) Use a low hydrogen electrode.
  - c.) Clean weld area – weld completely around bracket.
  - d.) Weld a 3/8 fillet on the sides of the bracket to the stick.
  - **NOTE: Some models include side plates which transfer the loads onto the stick. See the enclosed illustrations for these models (Case 580 D & E, and all Extend-a-hoes). The Case 580K, L & N requires a special mount due to dipper material. See the enclosed instructions for the installation of this mount.**
- NOTICE** • **DO NOT WELD ANYTHING IN PLACE BEFORE CHECKING ROTATION AND CLEARANCES!!!!**

**\*For detailed welding recommendations, see Werk-Brau's "Welding Guide for Attachments."**

# Installation

## NOTICE

Check all rotation clearances before welding into place. Damage can be caused to the machine, cylinders or attachments.

**!!!CHECK ALL CLEARANCES BEFORE FINAL WELD!!!**

Always operate any attachment through its motion **SLOWLY** to check clearances.

**Figure A:** With some combinations of buckets and couplers there is a chance the Thumb and the teeth can contact the boom. In these situations trimming the tines may be required. Also the cylinder mount may be into the knuckle and the mount end may need to be trimmed.

**Figure B:** Ensure that the Cylinder Rod does not come into contact at any point. If so an adjustment will need to be made.

Figure A

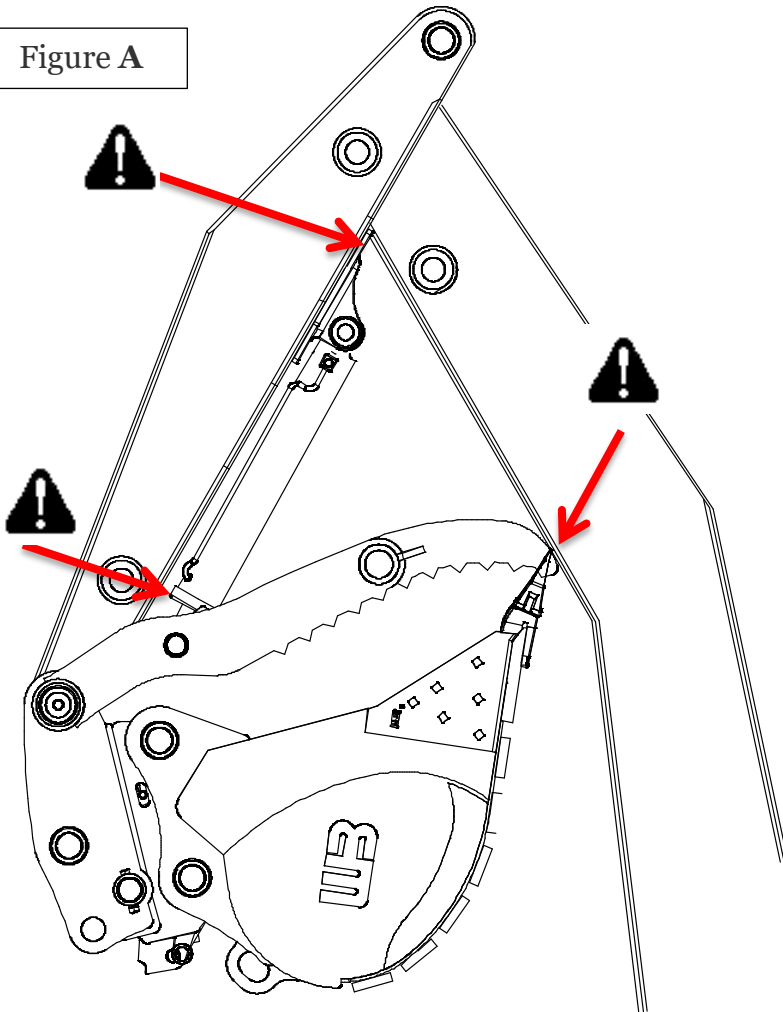
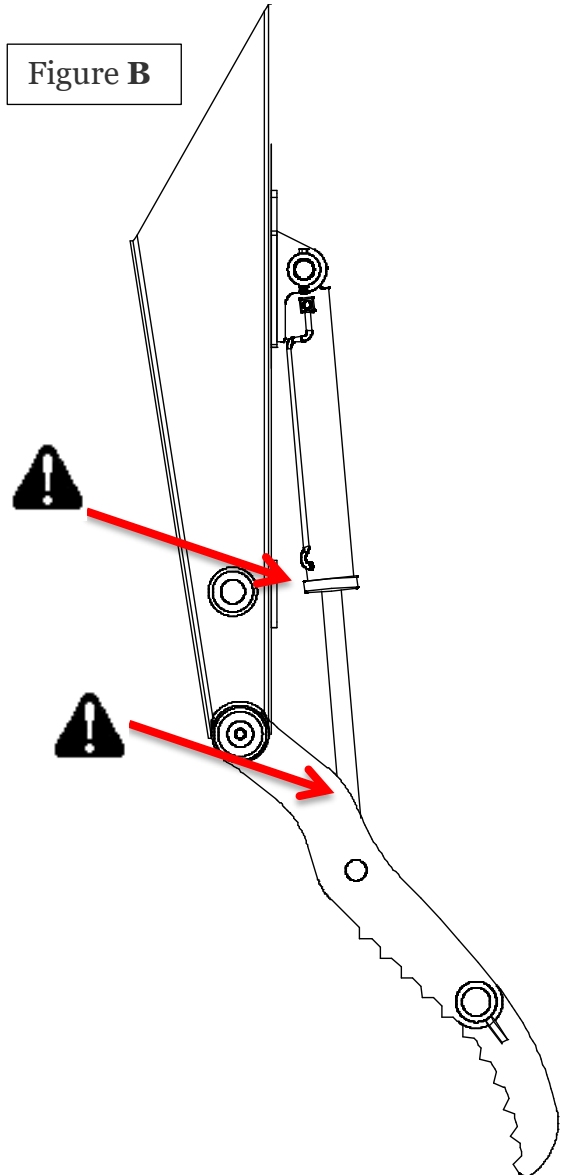
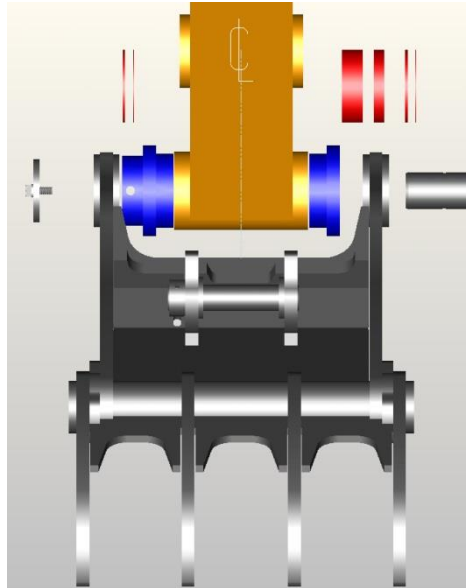


Figure B



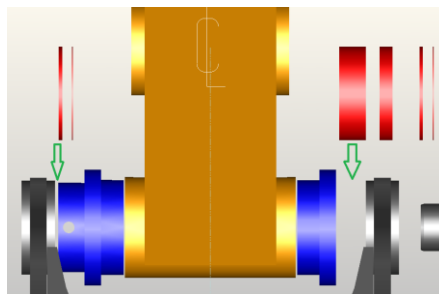
# Installing shims

1. Using a measuring tape centralize thumb body on the stick of the excavator.

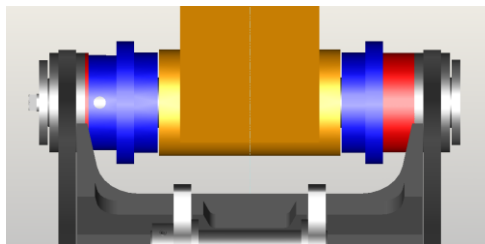


2. When centralized, measure the gap remaining on either side to determine the best combination of shims to use.

**Note:** Fit should be as tight as possible and should have no more than 1/16"-1/8" play across the entire assembly.



3. Install selected shims while inserting pivot pin (one side at a time)



4. Retain extra shims with machine for future.

## Hydraulics Chart

GRIP PART NO.	CYLINDER BORE	PORT SIZE	Relief PRESSURE	FLOW RATE
05MN	2"	6 SAE O-RING	1,500-2,250 PSI	12-15 GPM
76MN – 1MN – 15MN	2 ½"	10 SAE O-RING	1,500-2,250 PSI	12-15 GPM
2MN	3 ½"	10 SAE O-RING	1,500-2,250 PSI	12-15 GPM
3MN – 4MN	3 ½"	10 SAE O-RING	1,500-2,250 PSI	12-15 GPM
5MN	4"	12 SAE O-RING	1,500-2,250 PSI	16-20 GPM
EX12 – EX15	4"	12 SAE O-RING	1,500-2,250 PSI	16-20 GPM
EX20 – EX35	5"	12 SAE O-RING	1,500-2,250 PSI	25-30 GPM
EX40 – EX50	6"	12 SAE O-RING	1,500-2,250 PSI	40-50 GPM

**ALWAYS BE SURE TO DOUBLE CHECK HYDRUALICS** Make sure all hydraulic lines and fittings are tight and secure before starting the machine. In the event of a hydraulic problem or failure, discontinue use of the attachment immediately.

### NOTICE

The thumb should always give to the bucket, 1,500-2,250 PSI is the relief pressure range but your set up may require for the pressure to be set lower. The flow should also should be set so that the thumb is not slamming but works a reasonable rate.

## Troubleshooting

### Problem #1

**EZG tip radius does not line up with bucket.**

#### Corrective Action

- A.) Verify that pivot pin is not through the link hole, and is in stick pin hole.
- B.) Check to see if T.R. was ordered correct for attachments

### Problem # 2

**Pivot pin is squeaking or even prematurely wearing.**

#### Corrective action

- A.) Make sure that pin is greased either through stick or pivot pin.
- B.) Verify that the pivot pin is retained and not spinning.

# MINI EXCAVATOR PRO-LINK THUMB INSTALLATION INSTRUCTIONS

## OPERATING PRESSURE RANGE IS 1500-2250 psi MAX

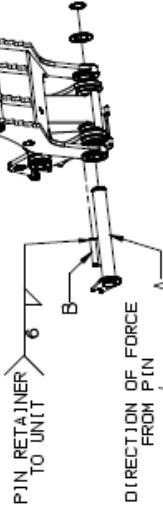
### THUMB SHOULD GIVE TO THE BUCKET ALL THE WAY

DISCONNECT THE BATTERY BEFORE USING WELDER ON MACHINE

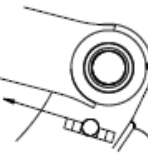
CONNECT THUMB TO MACHINE USING PIVOT PIN A.

PINS USE TWO TYPES OF RETENTION SYSTEM, EITHER A BOLT THROUGH PIN RETAINER ON EARS OF BUCKET OR COUPLER, OR A WELD ON STUD B.

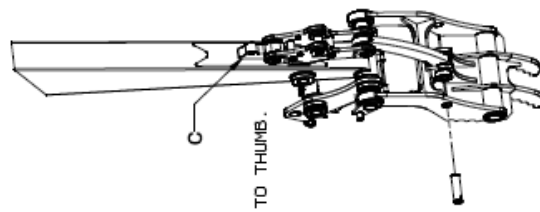
MAKE SURE STUD BASE IS IN LINE WITH THE FORCE AND IS WELDED ALL AROUND AT BASE AND IS WHERE IT DOES NOT CAUSE INTERFERENCE.



DIRECTION OF FORCE FROM PIN



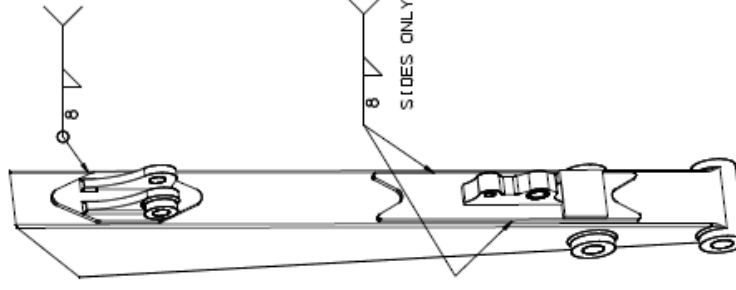
CONNECT LINK C TO THUMB.



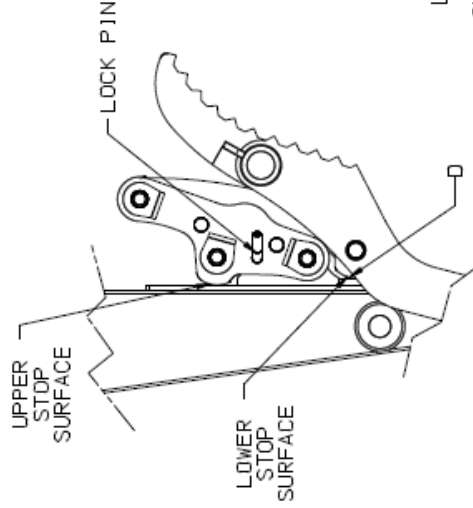
CONNECT CYLINDER AND MOUNT ASSEMBLY E TO LINKS. PULL CYLINDER SLIGHTLY (LESS THAN 5mm) FROM FULLY RETRACTED POSITION.

MAKE SURE ALL PAINT IS REMOVED UNDER CYLINDER MOUNT.

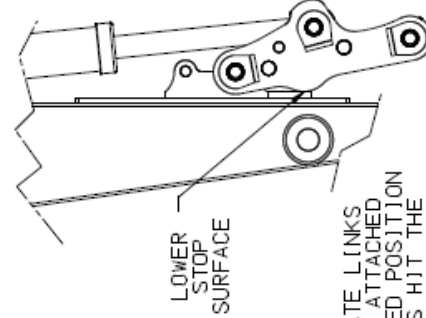
TACK CYLINDER MOUNT IN POSITION



SEE WB WELDING GUIDE FOR ATTACHMENTS



MANUALLY ROTATE LINKS WITH CYLINDER ATTACHED TO FULLY EXTENDED POSITION WHEN THE LINKS HIT THE LOWER STOP SURFACE. MAKE SURE THERE IS NO BINDING OR CYLINDER DOES NOT BOTTOM OUT BEFORE LINKS HIT STOP SURFACE BEFORE WELDING.

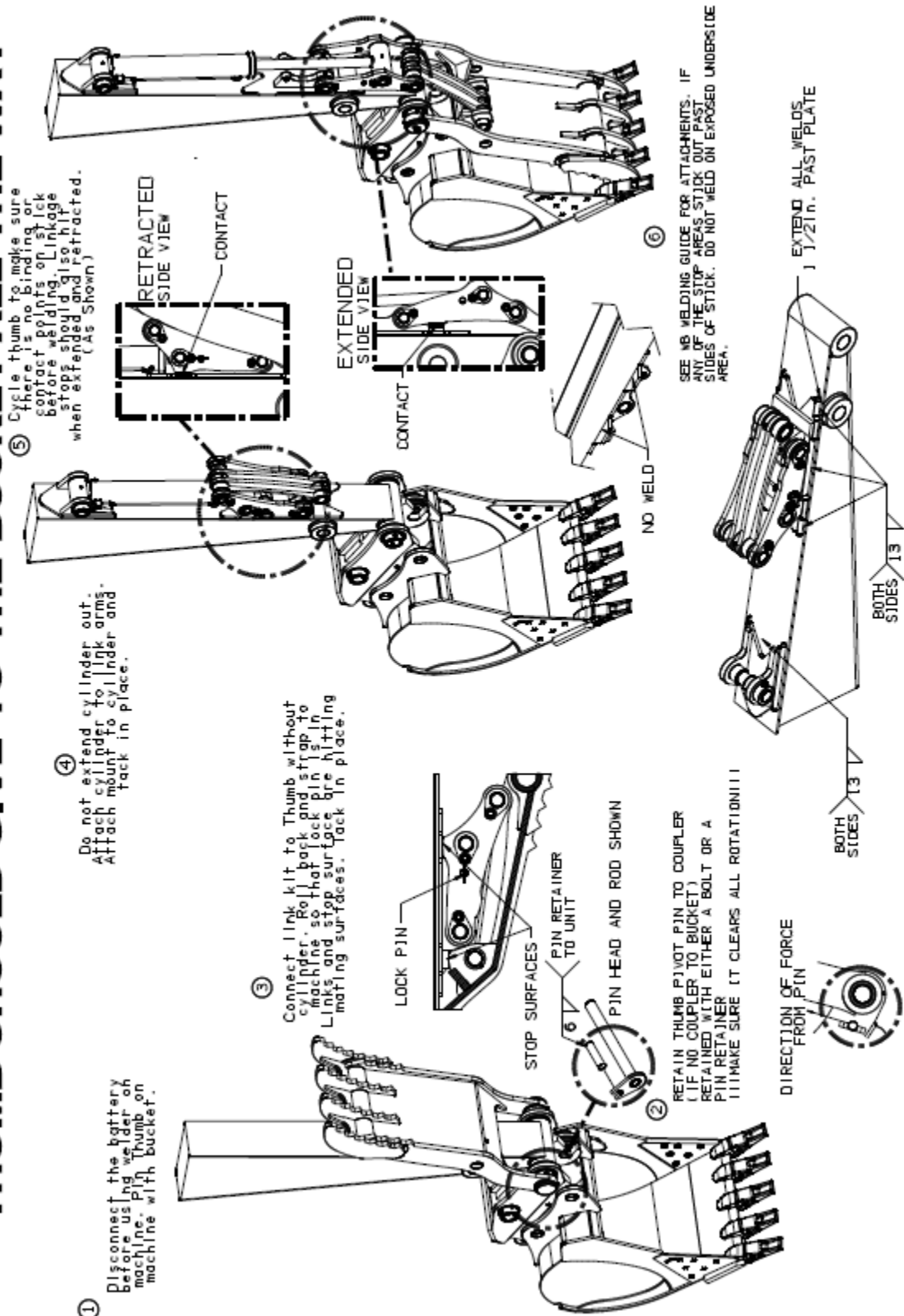


**WB** WERK-BRAU CO., INC.  
2800 FOSTORIA AVE. P.O. BOX 545 FINDLAY, OHIO 45840-0545  
www.werkbrau.com PHONE: 419-422-2912 FAX: 419-422-7207

REV	DATE	CHANGE DESCRIPTION	BY	CHECKED	WELD CHECK
B	10-4-18	UPDATED/ADDED WELD SIZES	AJZ	-	DBR
-	-	-	-	-	-
-	-	-	-	-	-

EZG-MN-PL-INST.ckd

# **PRO-LINK THUMB INSTALLATION INSTRUCTIONS** **OPERATING PRESSURE RANGE IS 1500-2250 psi MAX** **THUMB SHOULD GIVE TO THE BUCKET ALL THE WAY**



**WB WERK-BRAU CO., INC.**  
 2800 FOSTORIA AVE. P.O. BOX 545 FINDLAY, OHIO 45840-0545  
 www.werkbrau.com PHONE: 419-422-2912 FAX: 419-422-7207

REV.	DATE	CHANGE DESCRIPTION	BY	CHECKED	WELD CHECK
B	10-4-18	UPDATED/ADDED WELD SIZES	AJE	-	DBR
-	-	-	-	-	-
-	-	-	-	-	-

EZG-PL-INST.ckd

**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**

# **TOUGH JOBS DEMAND TOUGH ATTACHMENTS**



**WERK-BRAU CO.  
INC.,**

2800 Fostoria Rd  
P.O. Box 545  
Findlay, Ohio 45839

**1-800-537-9561** *phone*

**419-422-7207** *fax*

**[Werk-Brau.com](http://Werk-Brau.com)**