

WERK-BRAU CO., INC.

PRODUCT AND

INSTALLATION

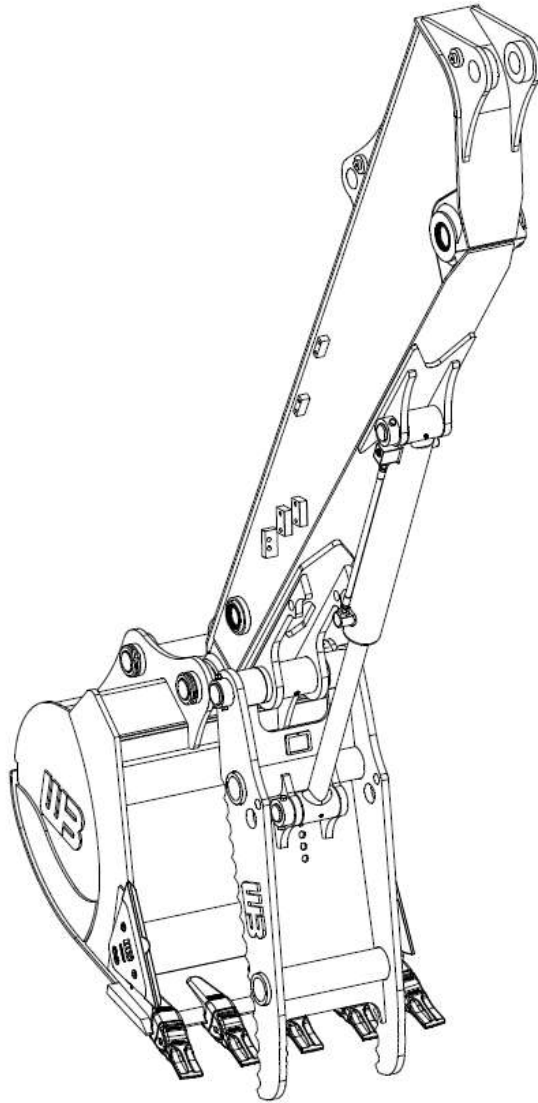
MANUAL

EZG-STICK MOUNT

STICK MOUNTED THUMB



PROUDLY MANUFACTURED IN FINDLAY, OH
Werk-Brau.com



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. **Please note that the Werk-Brau stick-mounted thumb is a universal style thumb by design. The thumb is designed for each specific machine class; however, our stick-mounted thumbs are not designed to mesh specific bucket teeth.**

TELL US WHAT YOU THINK

Werk-Brau would like what you think about its products. Please visit our website & share your experience with us!

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 couple attachments 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.

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

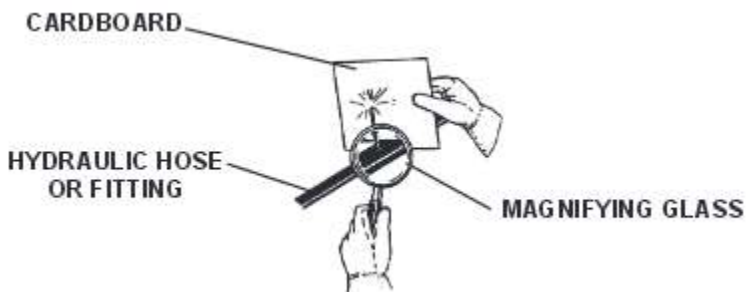
OIL CLEANLINESS REQUIREMENTS All hydraulic fluid shall be filtered before use in any FFC product to obtain the ISO cleanliness standard of 20/18/15. Unless explicitly specified otherwise.

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.
- **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

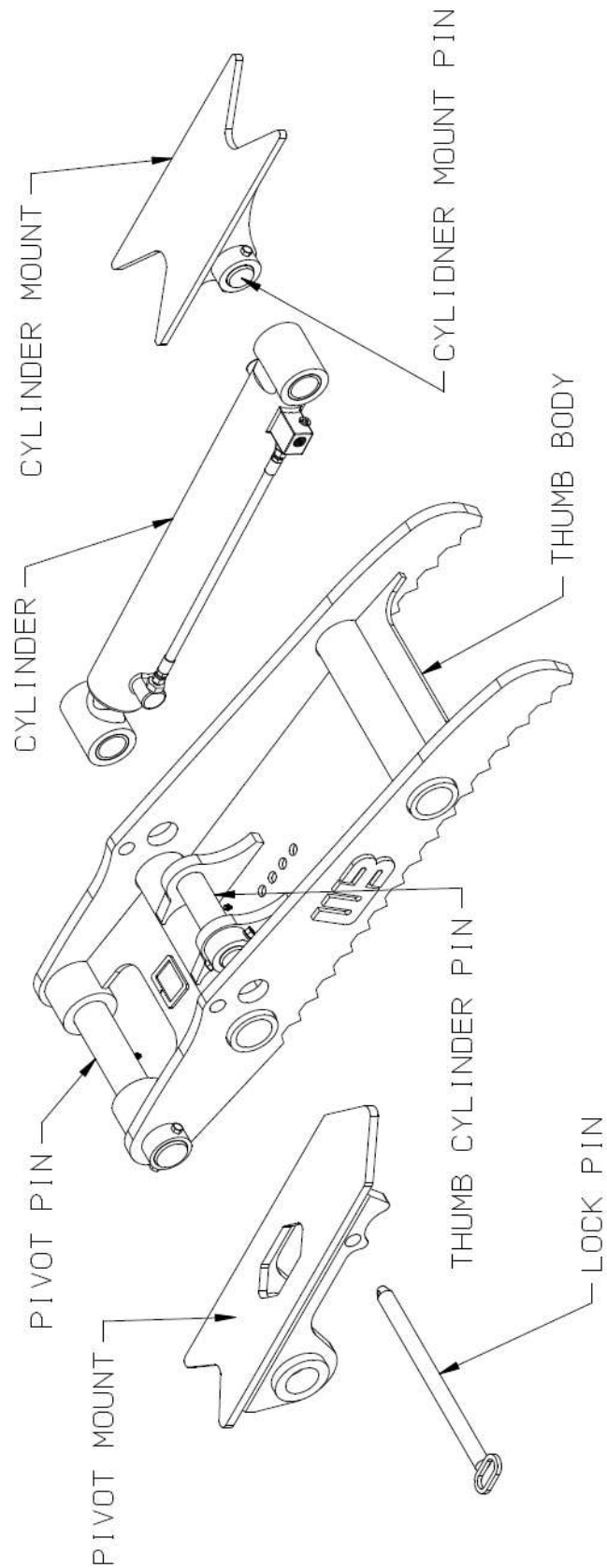
NOTICE

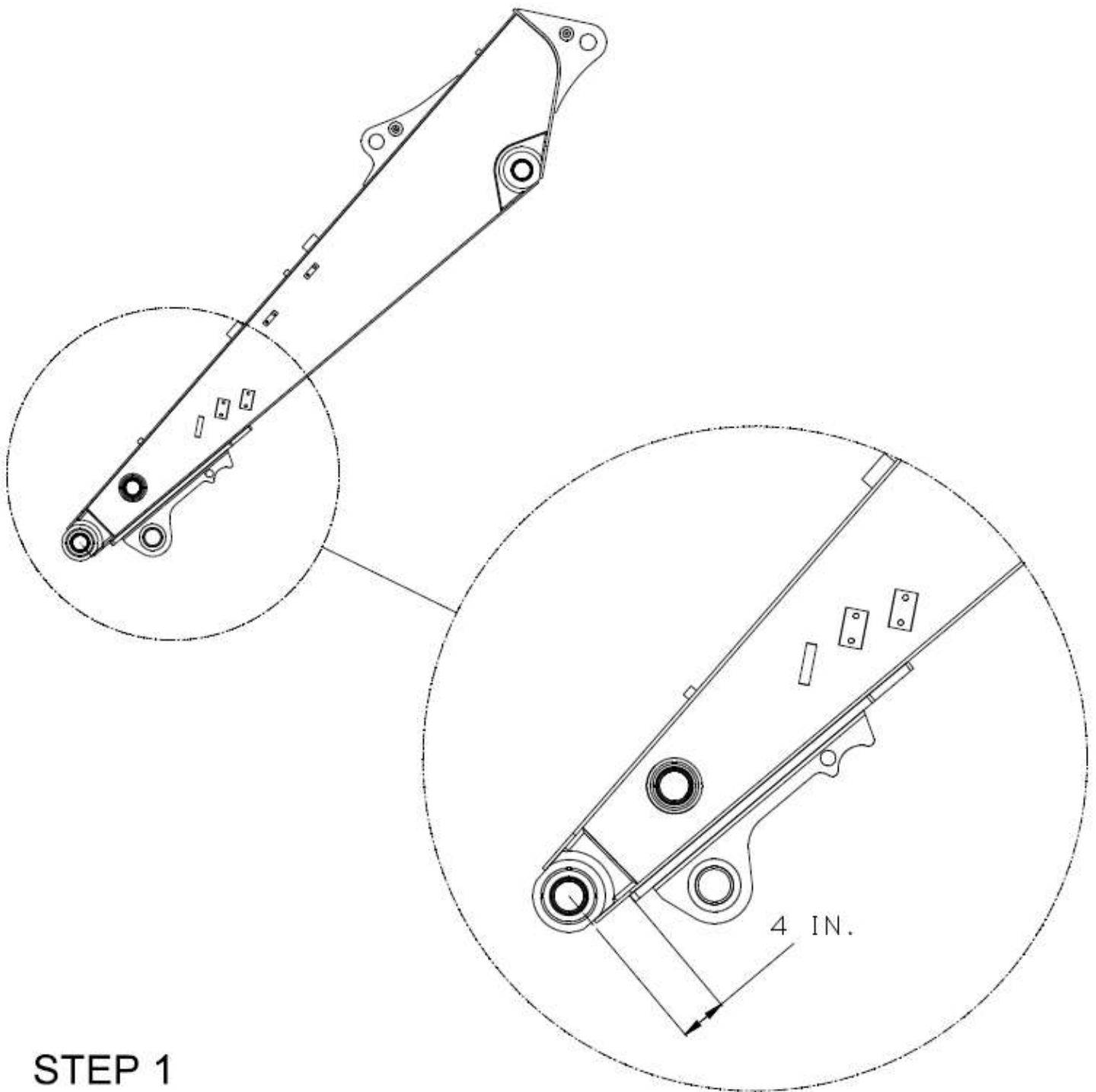
Check all rotation clearances before welding into place. Damage can be caused to the machine, cylinders or attachments.

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

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

Components

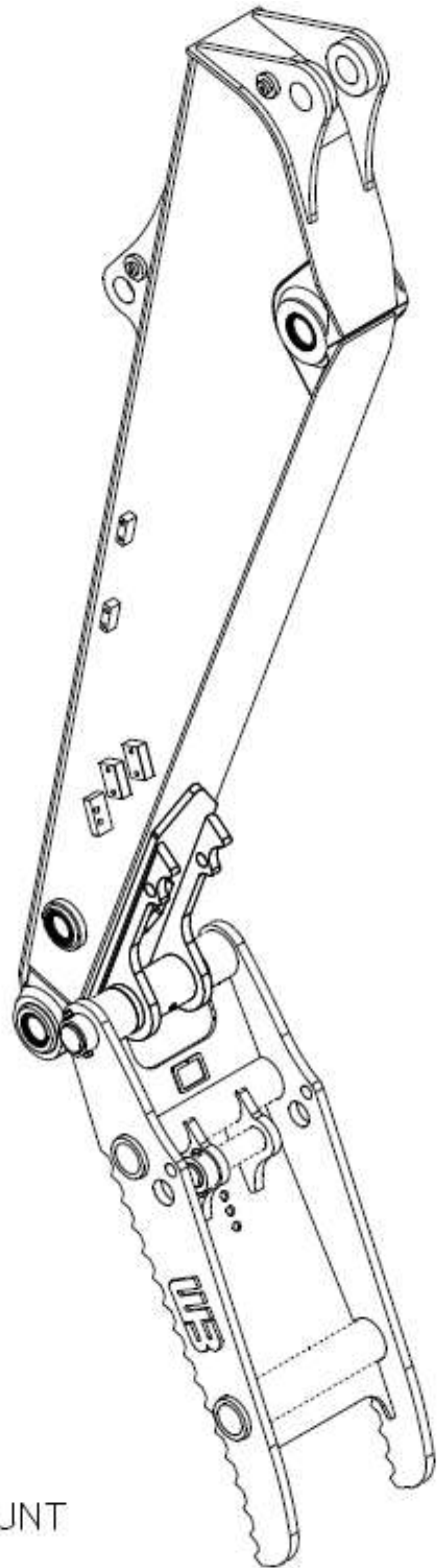




STEP 1

- UNPIN THUMB KIT & SEPARATE THE PIVOT MOUNT OUT
- MARK A LINE ON THE BOTTOM SIDE OF THE ARM 4 INCHES FROM THE CENTER OF THE MAIN PIN TO THE END OF THE PIVOT MOUNT BASE PLATE.
- TACK THE MOUNT PLATE IN PLACE WELL ENOUGH FOR A DRY-RUN

**** THIS LOCATION IS A STARTING POINT ONLY****



STEP 2

- PIN THE THUMB BODY TO THE PIVOT MOUNT USING THE PIVOT PIN

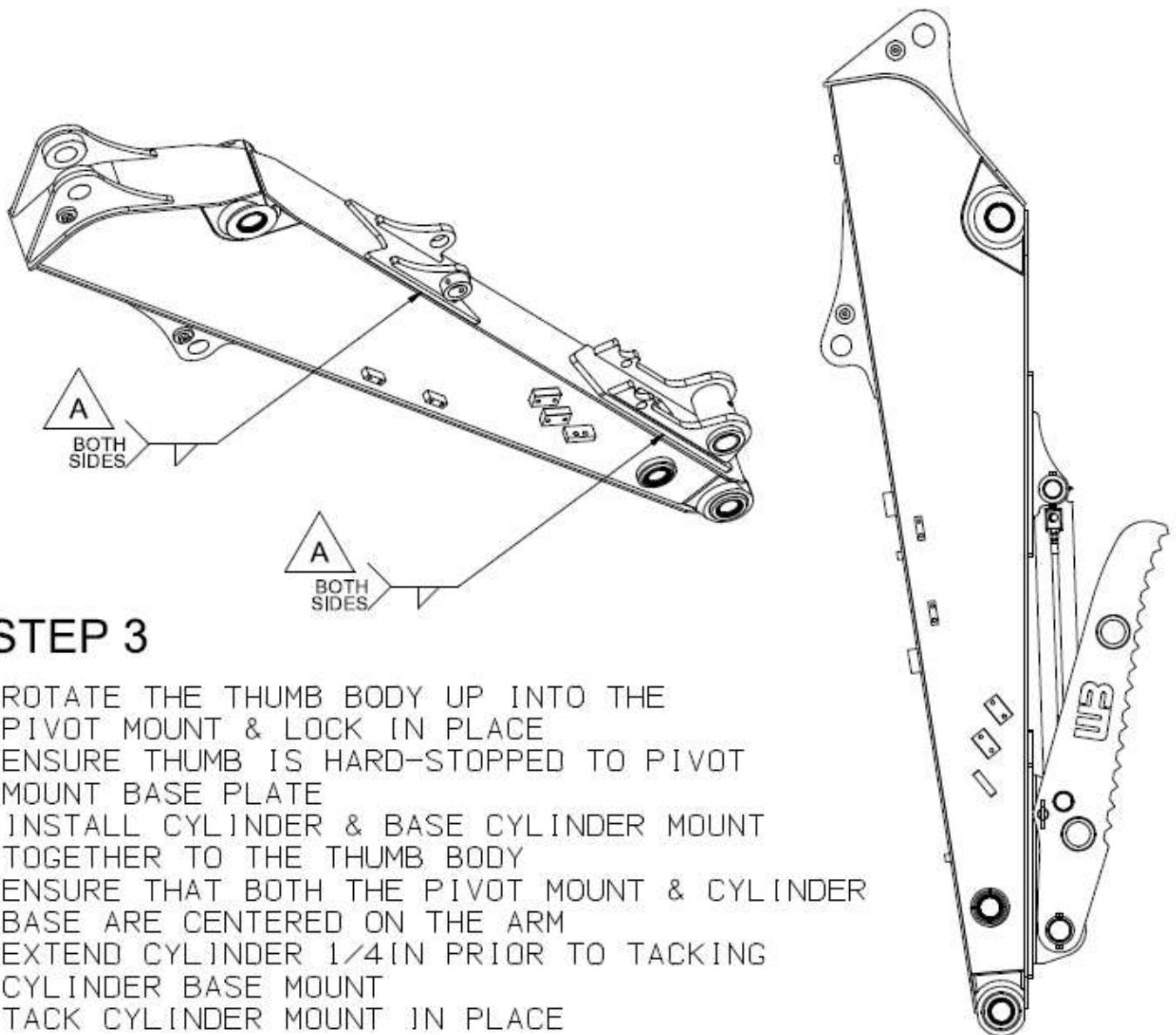
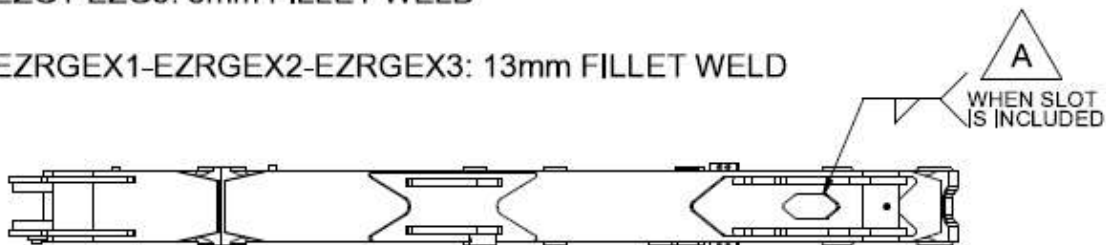
NOTE 

DISCONNECT BATTERY PRIOR TO WELDING

WELD SIZE BASED ON THUMB PART # PREFIX:

EZG1-EZG3: 8mm FILLET WELD

EZRGEX1-EZRGEX2-EZRGEX3: 13mm FILLET WELD



STEP 3

- ROTATE THE THUMB BODY UP INTO THE PIVOT MOUNT & LOCK IN PLACE
- ENSURE THUMB IS HARD-STOPPED TO PIVOT MOUNT BASE PLATE
- INSTALL CYLINDER & BASE CYLINDER MOUNT TOGETHER TO THE THUMB BODY
- ENSURE THAT BOTH THE PIVOT MOUNT & CYLINDER BASE ARE CENTERED ON THE ARM
- EXTEND CYLINDER 1/4IN PRIOR TO TACKING CYLINDER BASE MOUNT
- TACK CYLINDER MOUNT IN PLACE

Trial Run

Once the pivot mount and cylinder base mount are welded in place. Plumb the cylinder to your machine's auxiliary circuit. Carefully cycle the thumb ensuring that the thumb body tracks evenly, that there is zero binding, and the thumb clears the machine all throughout rotation. See Figure 1 below. By design, the thumb tines are wide not only for universal fitment but also to straddle the machine boom in some cases. Finish welding the mounts per pg. 15 instructions.

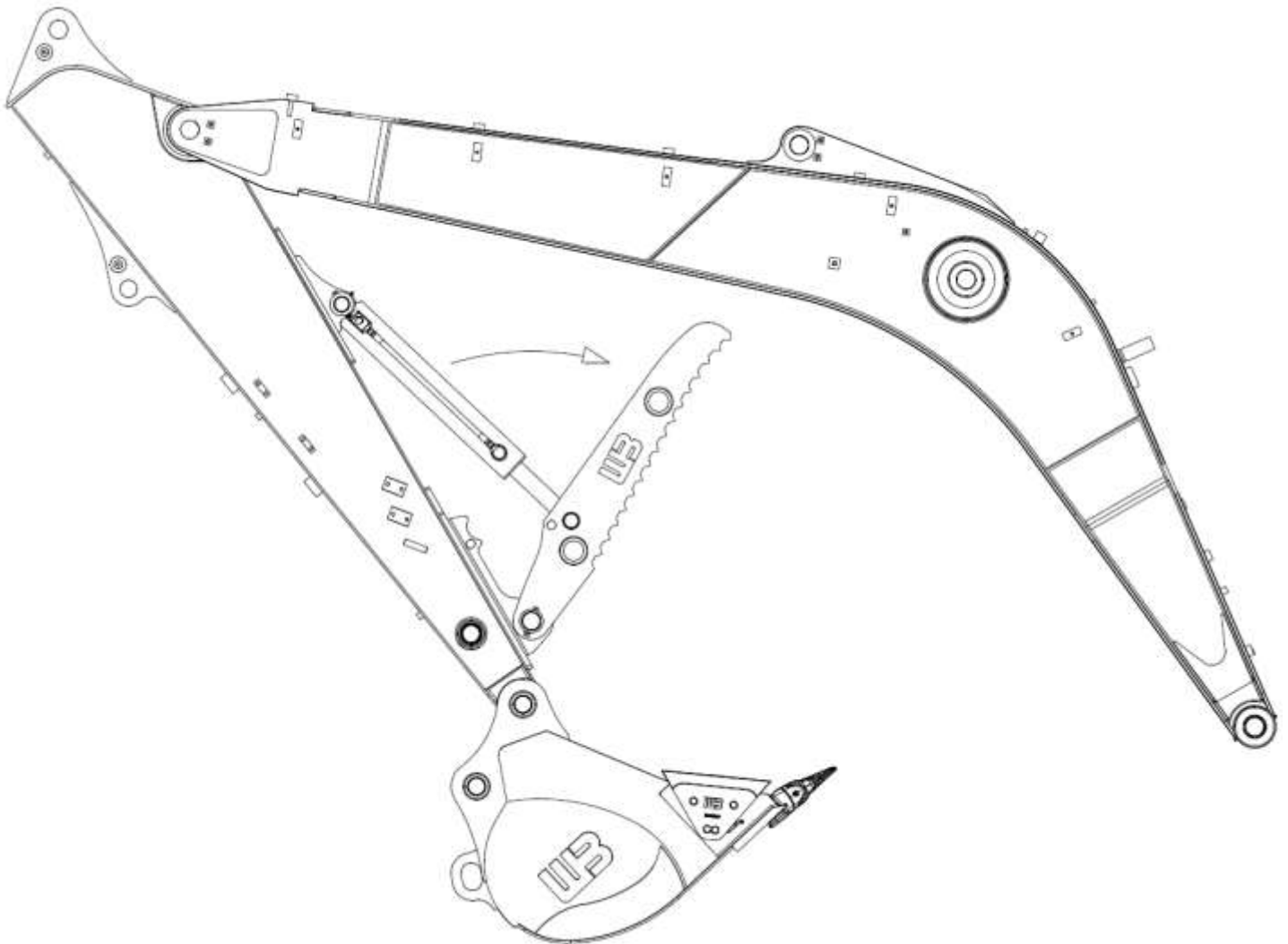


Figure 1

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.

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



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