

EX-CUT | PLT | PMH

CRAIG UTILITY, PROGRESSIVE LINK, AND HYDRAULIC PAD MOUNT THUMBS

Craig Hydraulic Thumbowner's manual. Read before operating. Important safety and operation instructions inside.

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READ BEFORE OPERATING

CRAIG
PORTAL
PORTAL.CRAIGATTACHMENTS.COM

WHEN YOU NEED A
PARTS BREAKDOWN
AND QUOTE FAST

HARTLAND BRANCH

96 McLean Avenue
Hartland, New Brunswick
E7P 2K5 Canada

CAMBRIDGE BRANCH

315 Thompson Drive
Cambridge, Ontario
N1T 2B3 Canada

BLACKFALDS BRANCH

88 27323 TWP Rd 394
Lacombe County, Alberta
T4M 0S1 Canada

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408 Commerce Way
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EX-CUT | PLT | PMH OWNER'S MANUAL



PREFACE

Congratulations on the purchase of your new Craig Manufacturing Ltd. 100PH Universal Plow Harness. This manual provides safety, operation and maintenance information. To keep your wing in good condition, please read this manual and follow all recommendations. Failure to do so may invalidate your warranty.

When parts or service are necessary contact Craig at 1-800-565-5007 for genuine Craig Parts. Before using your snowplow, make sure your machine is equipped with all the OEM recommended requirements for plowing.

CRAIG FACTORY ORIGINAL PARTS

The best way to ensure equipment reliability is to use only genuine Craig Manufacturing Ltd. Factory Original Parts. Our parts department can help you not only find the right part for your application but also offer advice and support for the repair. Using aftermarket non-approved parts can alter your plow's performance characteristics and may affect your warranty.

To help ensure that correct parts are ordered, please record the serial number of your plow. In time serial tags can become tarnished or difficult to read. Please supply this serial number to your dealership when ordering parts and it will ensure the correct part gets ordered.



Serial:

Machine:

Model:

In-Service Date:

Purchased From:



Never let anyone operate this unit without reading the "Safety Precautions" and "Operating Instructions" sections of this manual. Always choose hard, level ground to park the vehicle on and set the brake so the unit can not roll.

The illustrations and data used in this manual were current (according to the information to us) at the time of printing, however, we reserve the right to redesign and change the attachment as may be necessary without notification.

SAFETY

SAFETY PRECAUTIONS BEFORE OPERATION CHANGE

The primary responsibility for safety with this product falls to the operator. Make sure the product is operated only by trained individuals that have read and understood this manual. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or Craig Manufacturing Ltd. Keep this manual available for reference.

GENERAL SAFETY PRECAUTIONS



Read Manual Prior to Installation

Improper installation, operation, and/or maintenance of your Craig Manufacturing Ltd. attachments can cause bodily injury, property damage, and damage to your equipment. Read and understand labels and this booklet before operating or making adjustments. Failure to do so may affect your warranty.



Understand All Safety Decals and Statements

Lower the blade when the machine is not in use. Temperature changes can change hydraulic pressure, allowing the blade to drop unexpectedly causing injury or damaging hydraulic components.



Personal Safety

Remove ignition key and immobilize the machine during installation, inspection or service. Always follow safe work practices when installing, servicing or inspecting your product by wearing only snug-fitting clothing, removing jewelry, and securing long hair. Wear safety goggles to protect your eyes from hydraulic fluid, sparks, dirt and dust. Always have a fire extinguisher rated BC on hand for flammable liquid and electrical fires. Lastly, always lift with your legs, and use lifting equipment when applicable.



Lower or Support Unstable/Raised Equipment

Never trust that the hydraulic system will not fail. Always lower booms and attachments to the ground before leaving the cab or operator's station. Do not work under or around attachments or heavy items not supported by stands, blocks or safety chains. Furthermore, it is important to use chains and/or stands to steady stable attachments like snow wings or couplers.

SAFETY



Do Not Alter Attachment

Any alterations to this product could affect the safety and performance of the attachment. When making repairs, use only Craig Manufacturing Ltd. parts, and follow the provided procedures. If the parts and procedures are not used the warranty is void and any alterations may cause the attachment to become unsafe. Any modifications must be authorized in writing by Craig Manufacturing Ltd.



Hydraulic Safety

Always inspect hydraulic components before operating your product. Replace any damaged or worn parts immediately. Temperature changes can change hydraulic pressure, which allow the cylinders to drop unexpectedly, causing injury or damaging hydraulic components. Hydraulic fluid under pressure can cause bodily harm. If you suspect a hydraulic leak keep the following points in mind:

- The high pressure of the hydraulic lines can cause leaks that can puncture flesh. Therefore, it is important to keep uncovered body parts such as face, eyes, and arms away from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by leaking hydraulic fluid, see a doctor immediately. Hydraulic fluid could have injected into the wound and it may not be known.
- Before disconnecting hydraulic lines, wait until the fluid cools down. Hot hydraulic fluid can cause severe burns.
- Always wear protective clothing, such as gloves and safety glasses, and use a piece of cardboard when searching for hydraulic leaks. **DO NOT USE YOUR HANDS.**

ATTACHMENT SAFETY PRECAUTIONS



Remove Paint Before Welding or Heating

When paint is heated by welding, or by using a torch, hazardous fumes/dust can be generated. Therefore, it is important to do all work in a well-ventilated area and dispose of paint and solvent properly. **REMOVE PAINT BEFORE WELDING OR HEATING.**

When removing paint:

- It is important to wear an approved respirator when sanding or grinding paint.
- If you use a paint stripper or solvent, remove the stripper with soap and water.
- Remove solvent or paint stripper containers and other flammable material from the welding/heating area.
- Allow fumes to disperse at least 15 minutes before welding or heating.

SAFETY



Operating Attachment

- Read your machine's owner's manual and always be aware of capacities and heights of all materials moved are within the machine's stated operational capacity.
- Never use your attachment as a work platform or personnel carrier.
- Never lift, move, or swing an attachment over anyone.
- Before exiting the machine, lower the attachment to the ground, apply the brakes, turn off the engine and remove the key.
- Do not use attachment for lifting materials outside of its purpose. This attachment is not a lifting device unless approved for your jurisdiction.



Maintaining the Attachment

- Before performing maintenance, lower the attachment to the ground, apply the brakes, turn off the engine and remove key.
- Never perform any work on the attachment unless you are authorized and qualified to do so.
- Always read the operator service manuals before any repair is made.
- Worn, damaged, or illegible safety decals must be replaced. New safety decals can be ordered from your local dealer.
- Never make hydraulic repairs while the system is under pressure. Serious personal injury or death could occur.
- Never work under a raised attachment.



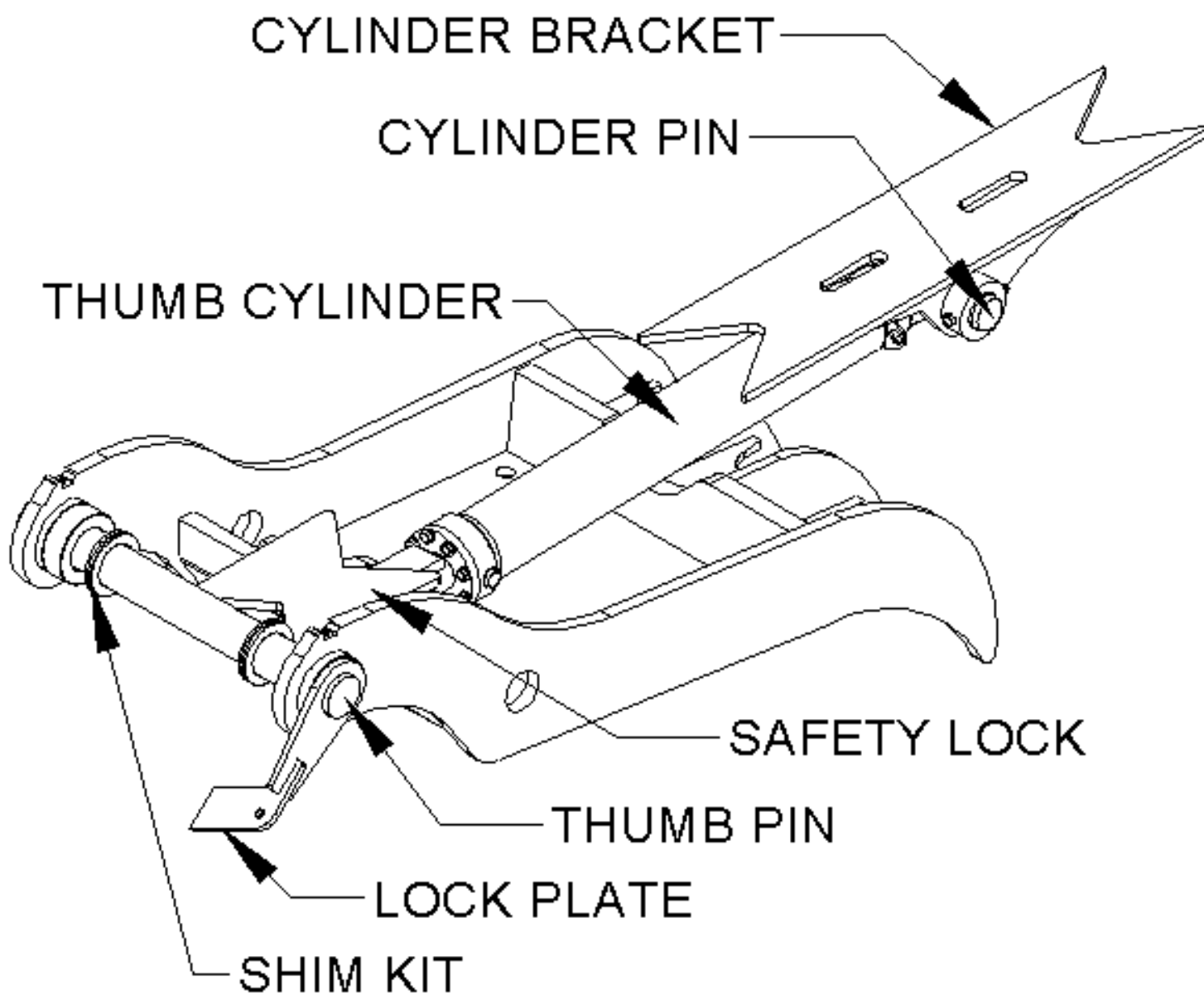
Transporting the Attachment

- Travel only with the attachment in a safe transport position to prevent uncontrolled movement. Drive slowly over rough terrain and slopes.
- When transporting on a trailer, secure attachment using tie downs in recommended locations to maintain attachment stability.
- When driving on public roads use safety lights, reflectors, and slow-moving vehicle signs to prevent accidents. Check local government regulations that may affect you.
- Do not drive close to ditches or excavations, because a cave-in could occur.

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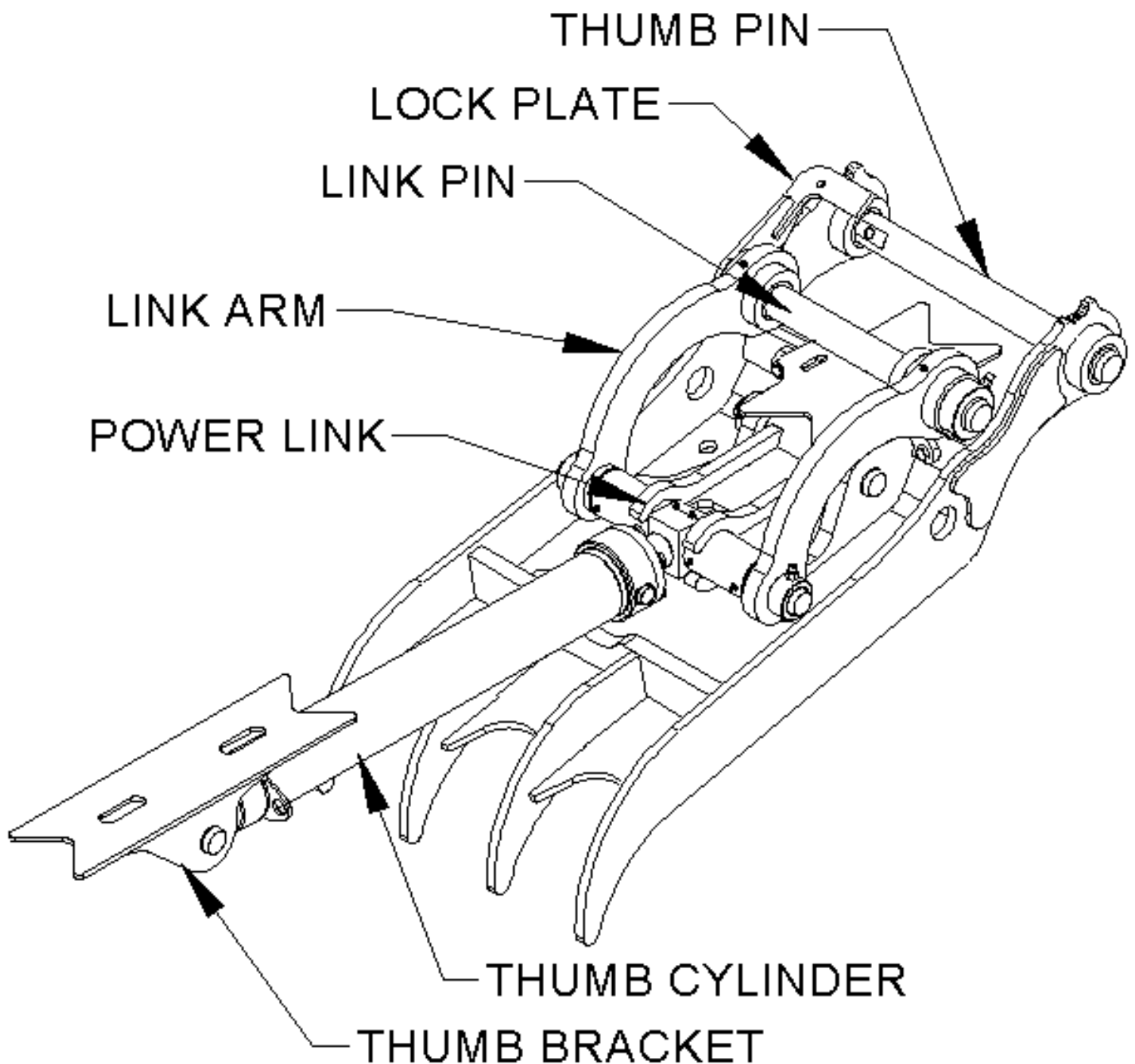
OVERVIEW EX-CUT



EX-CUT | PLT | PMH OWNER'S MANUAL



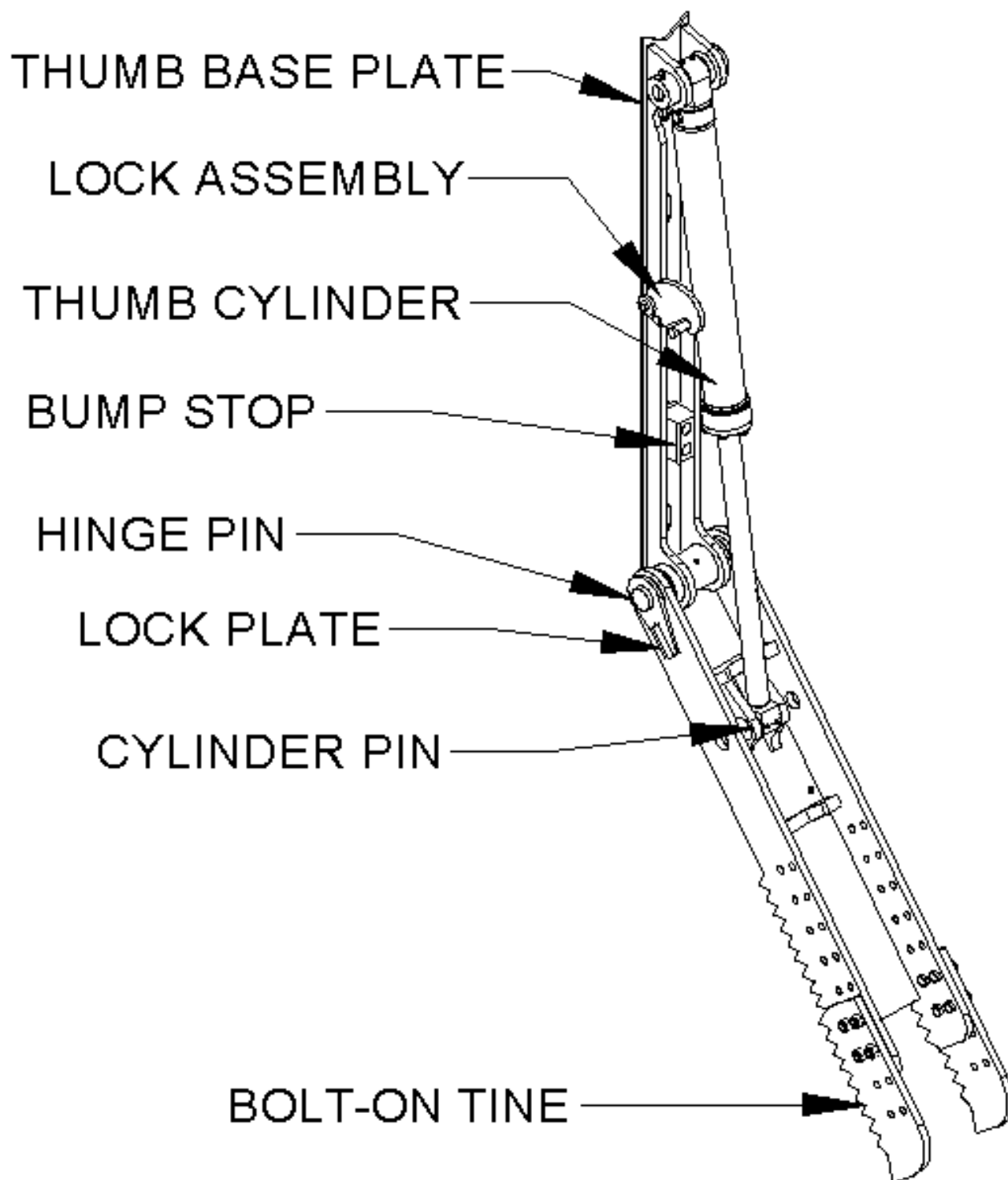
OVERVIEW EX-PLT



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OVERVIEW EX-PMH



NOTE: YOUR PRODUCT MAY NOT APPEAR EXACTLY AS SHOWN

OVERVIEW

TERMINOLOGY

Hinge (Thumb) Pin:	Shared with the excavator bucket, the hinge pin acts as a point of rotation for the thumb weldment. Typically made from CS4140, this pin replaces your current bucket pin.
Cylinder Pins:	The pins that fit through the lugs on the cylinder to attach the cylinder to the thumb weldment and the cylinder bracket.
Cylinder Bracket:	The weld-on bracket that attaches the thumb cylinder to the stick of the machine.
Thumb Cylinder:	The hydraulic cylinder that actuates and rotates the thumb.
Lock Plate:	A weld-on plate that prevents a pin from rotating relative to the part that the lock plate is welded to.
Shim Kit:	A set of shims that can be used to reduce side to side play of the thumb on the excavator
Power Link:	The link that connects the cylinder to the thumb to allow for further rotation of the thumb weldment found in a progressive link thumb.
Link Arm:	The link that guides the travel of the power link through the thumb rotation.
Link Pin:	The pin that connects the link arms to the stick of the machine. This pin replaces your current link pin.
Thumb Base Plate:	The weld on mounting plate that attaches the entire pad mount thumb to the stick of the machine.
Lock Assembly:	Keeps the thumb weldment secured to prevent leak down while the thumb is not in use.
Bump Stop:	Cushions the stop when the thumb is fully retracted. When combined with the lock assembly, this helps keep the thumb tight to the stick and the lock secure.
Bolt-on tine:	The bolt-on end plates on a pad mount thumb that are used to adjust the length of the thumb to better suit the bucket.

ACCESSORIES AND OPTIONS

Hardox 400 Tine Tips	Improves wear characteristics of the tips of the thumb
Serrated Tines	Improves the grip of the thumb when using it to pick up objects

INSTALLATION

INSTALLATION AND REMOVAL

Read all safety precautions before installing the attachment. Refer to the machine's owner's manual for direct pin-on installation instructions. If a coupler system is involved ensure that the coupler is working properly before use. In addition, refer to the manufacturer for the coupler owner's manual to familiarize yourself with its proper procedures and operations. Craig coupler owner's manuals can be found by going to:

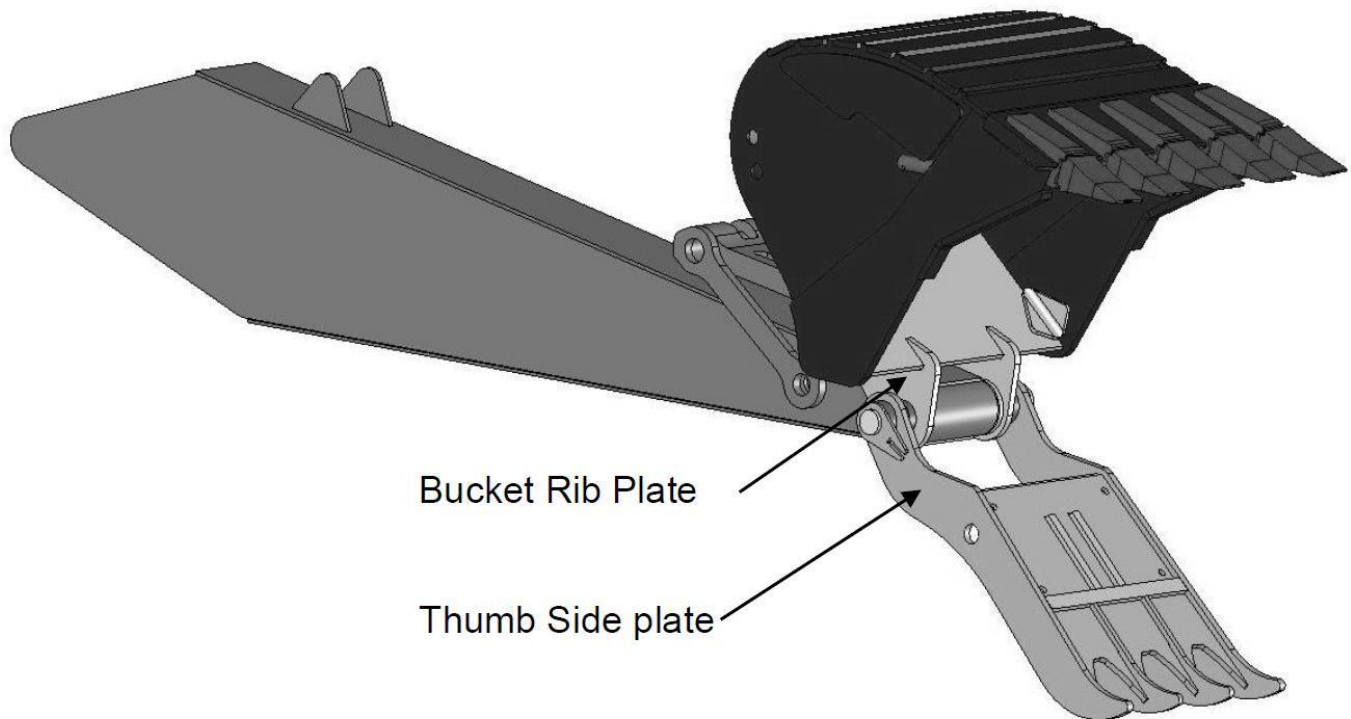
www.craigattachments.com/technicaldocuments

INSTALLATION

EX-CUT

STEP 1

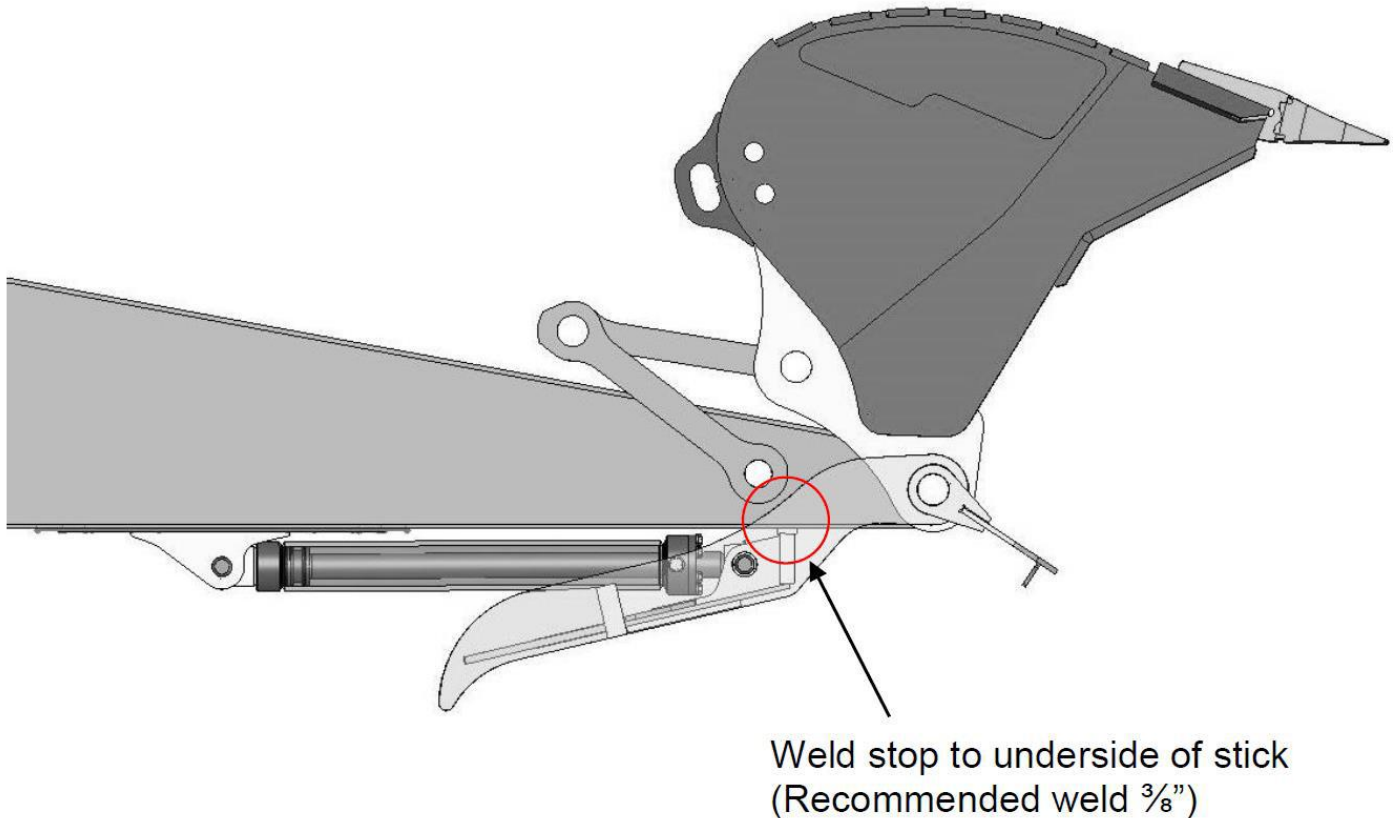
Using the new bucket pin, attach the thumb and bucket to the excavator stick as shown. The side plates of the thumb should straddle the rib plates of the bucket.



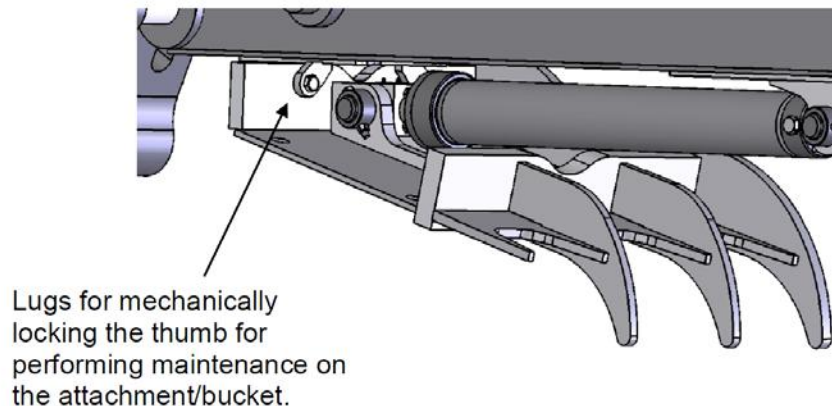
INSTALLATION

STEP 2

Rotate the thumb back until the stop comes into contact with the bottom plate of the stick. Break tacks from thumb and weld stop in place to the bottom of the stick.



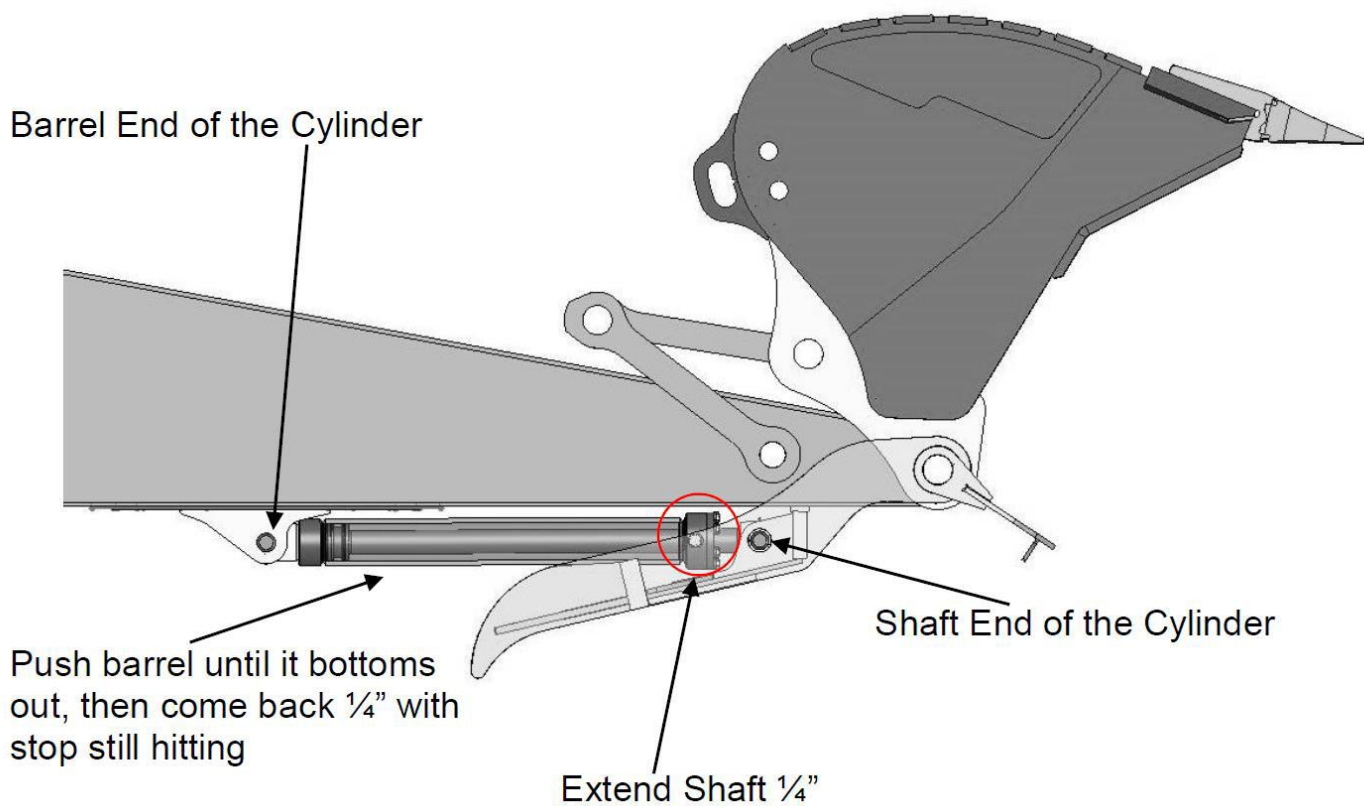
This stop has two lugs on it which are intended to bolt to the thumb weldment to act as a safety maintenance lock. The lugs are sent "tacked" from Craig and are to be set and welded during thumb installation.



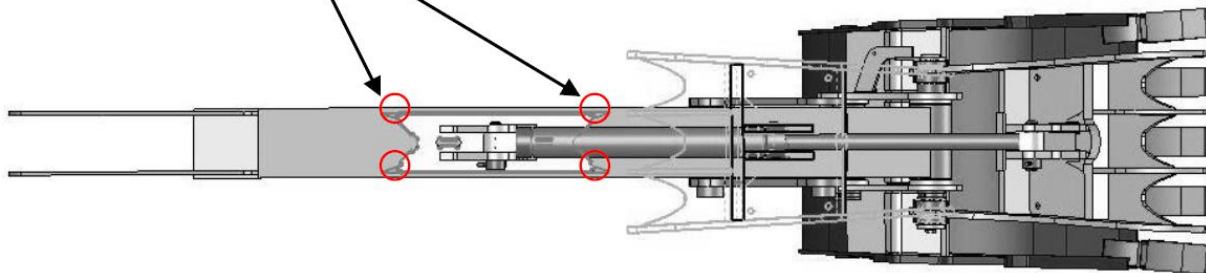
INSTALLATION

STEP 3

To locate the cylinder bracket, pin the shaft end of the cylinder to the thumb. Using the other pin, connect the barrel end of the cylinder to the cylinder bracket. Retract the cylinder until it "bottoms out", then extend the cylinder shaft 1/4" (to allow the thumb stops to hit the bottom of the stick before the cylinder bottoms out).

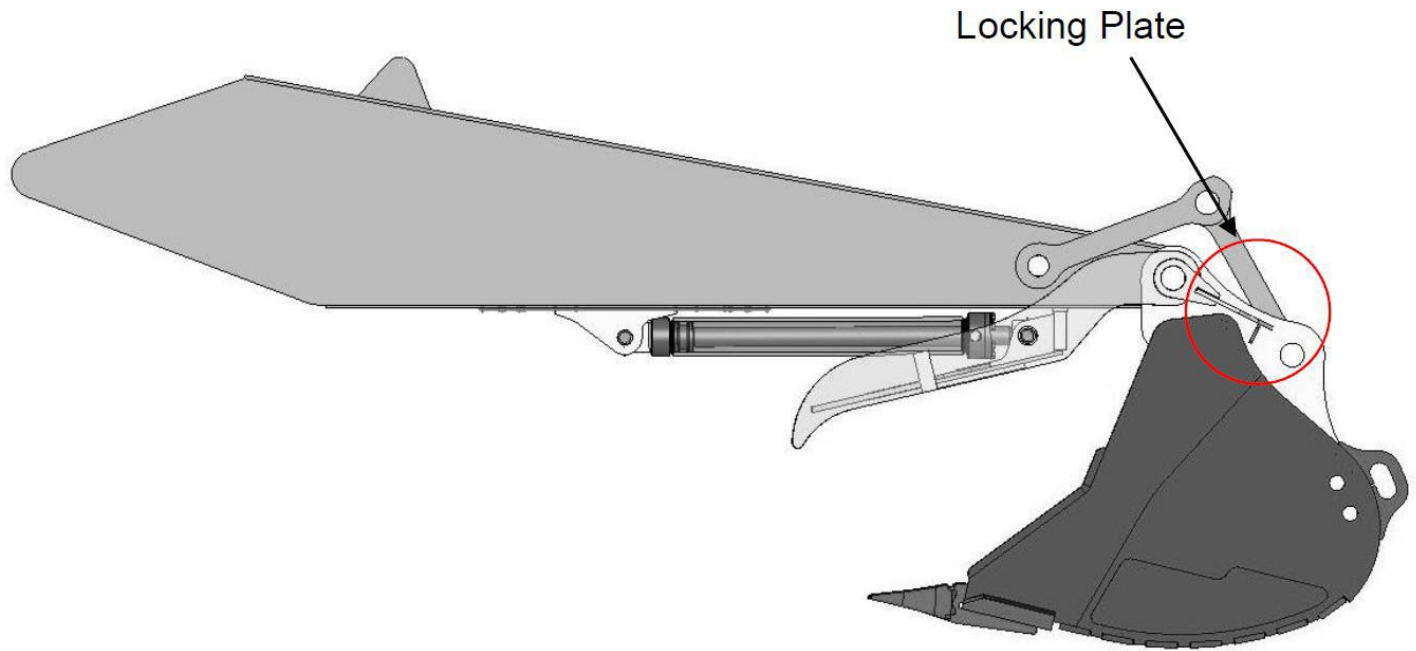


Extend welds past ends 2-1/2" then taper down weld flush within 1/16" of mating surface



The cylinder bracket must be centered on the stick and the cylinder must lay parallel to cylinder lugs and stick. (See page 24 for detailed welding instructions)

INSTALLATION



To position pin locking plate:

- (1) Break tacks between locking plate and pinhead weld
- (2) Put the bucket in dump position
- (3) Position the thumb tucked up under the stick
- (4) Weld the locking device to side of rib or side of male coupler making sure that it does not interfere with thumb (Trimming of locking plate may be required) (Recommended weld 3/8")
- (5) Check full range of motion ensuring no interferences.

Work port relief on valve section should be set at 2500 psi

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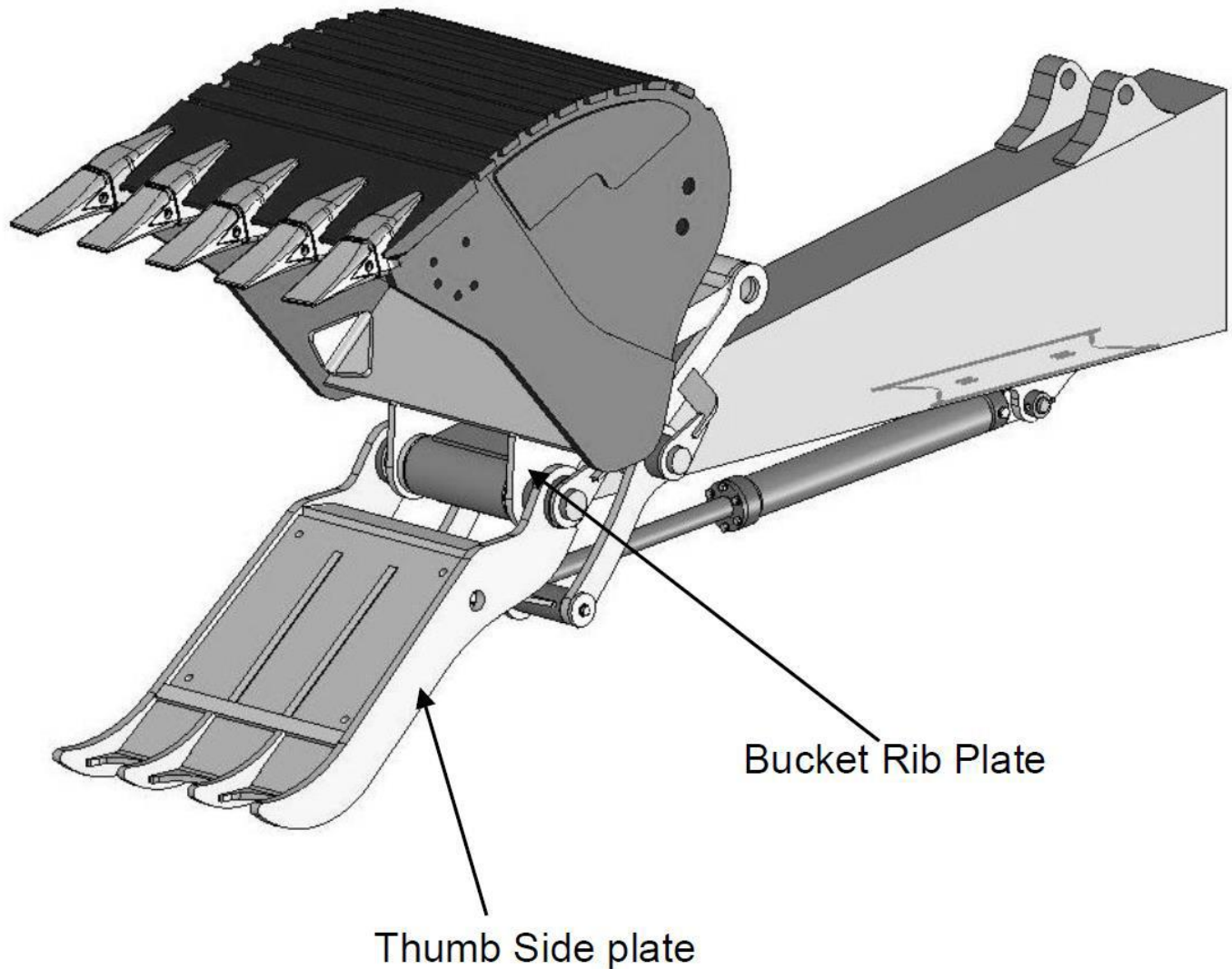


INSTALLATION

EX-PLT

STEP 1

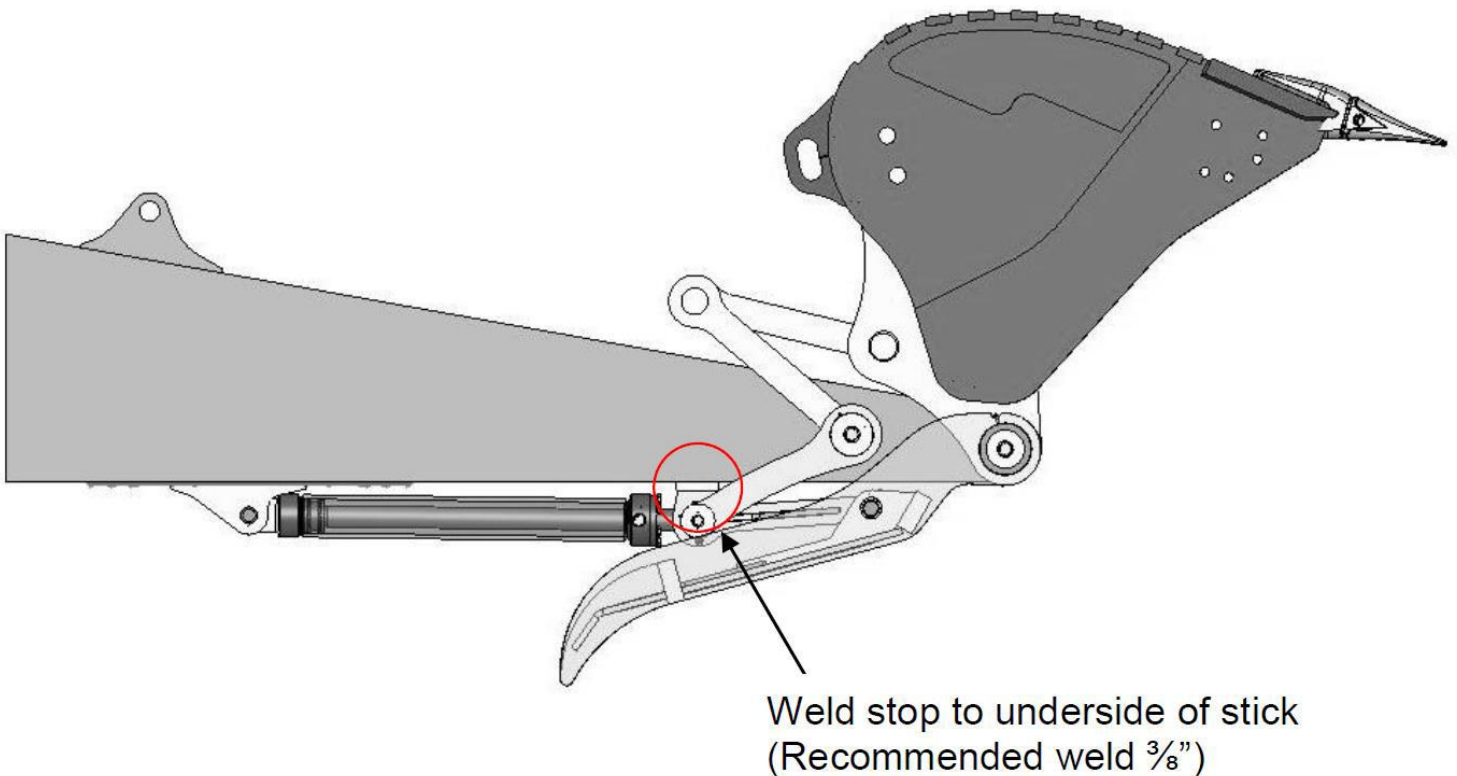
Using the new bucket pin, attach the thumb and bucket to the excavator stick as shown. The side plate of the thumb should straddle the rib plate of the bucket.



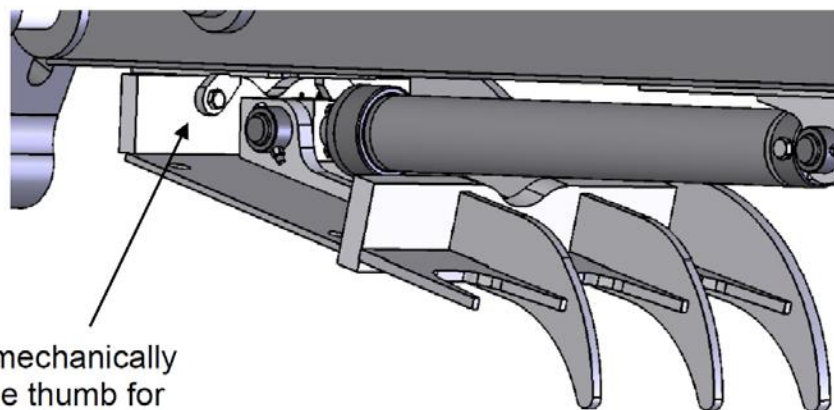
INSTALLATION

STEP 2

Rotate the thumb back until the stop comes into contact with the bottom plate of the stick, break tacks from thumb and weld stop in place to the bottom of the stick.



This stop has two lugs on it which are intended to bolt to the thumb weldment to act as a maintenance lock. The lugs are sent "tacked" from Craig and are to be set and welded during thumb installation.

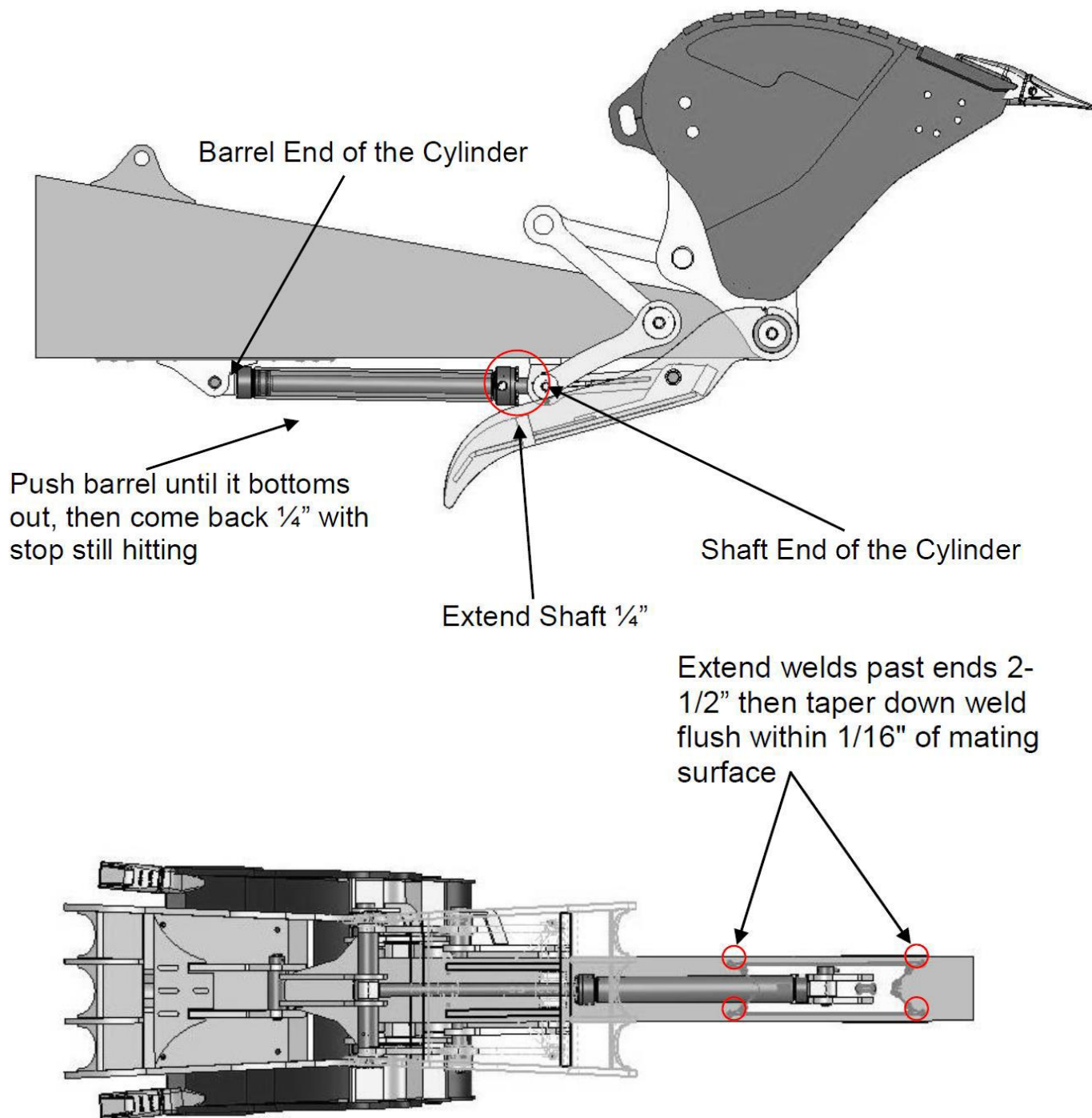


Lugs for mechanically
locking the thumb for
performing maintenance on
the attachment/bucket.

INSTALLATION

STEP 3

To locate the cylinder bracket, pin the shaft end of the cylinder to the thumb. Using the other pin connect the barrel end of the cylinder to the cylinder bracket. Retract the cylinder until it "bottoms out" then extend the cylinder shaft $\frac{1}{4}$ " (to allow the thumb stops to hit the bottom of the stick before the cylinder bottoms out).

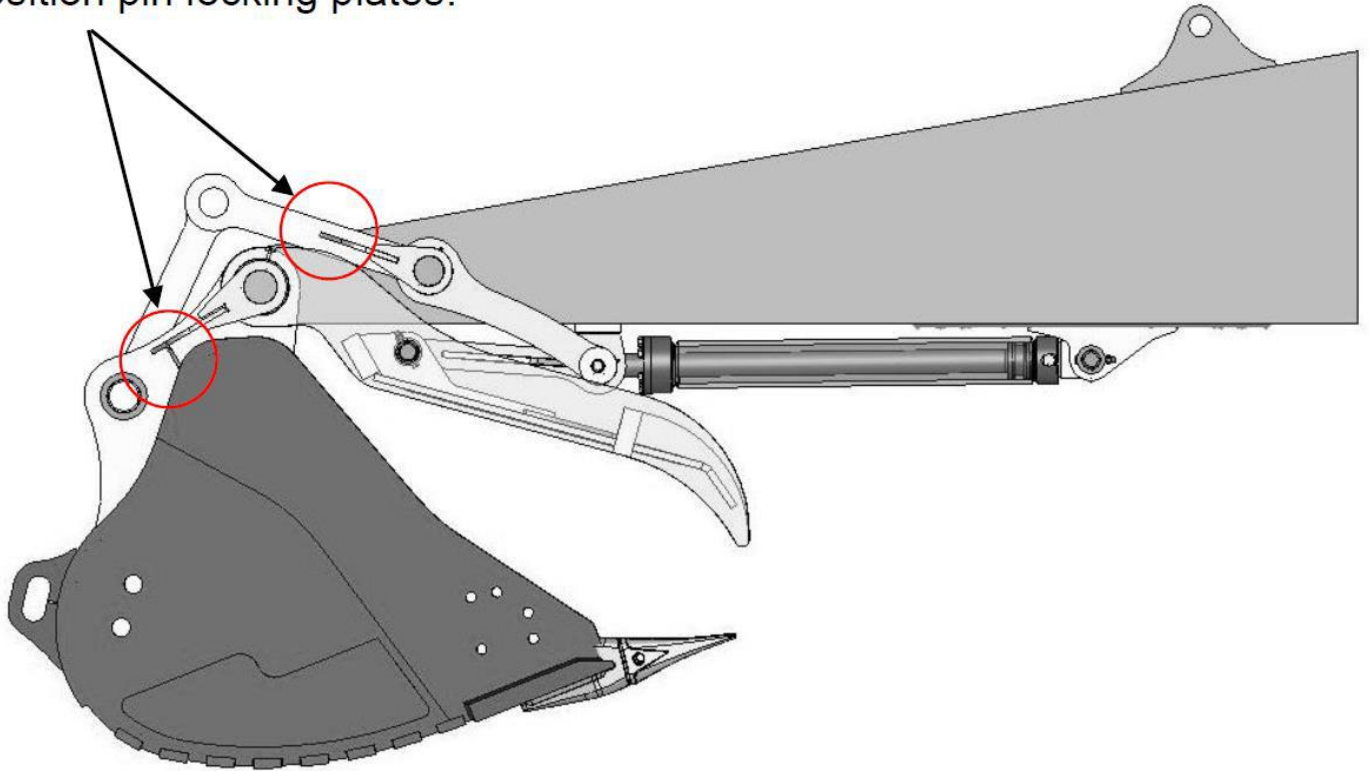


The cylinder bracket must be centered on the stick and the cylinder must lay parallel to lugs and stick.

INSTALLATION

STEP 4

To position pin locking plates:

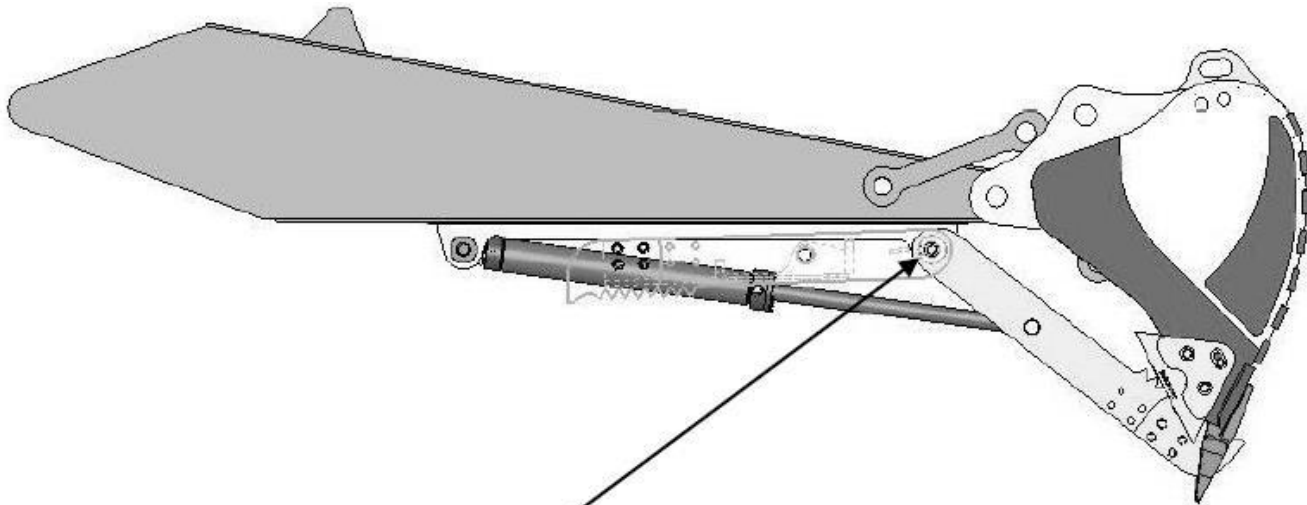


- (1) Break tacks between locking plates and pinhead weld
- (2) Put the bucket in dump position
- (3) Position the thumb tucked up under the stick
- (4) Weld the hinge pin locking device to side of rib, or side of male coupler making sure that it does not interfere with thumb (Trimming of locking plate may be required) (Recommended weld ")
- (5) Weld the link pin locking device to side of the excavator link arm. (See page 21 for detail installation instructions)

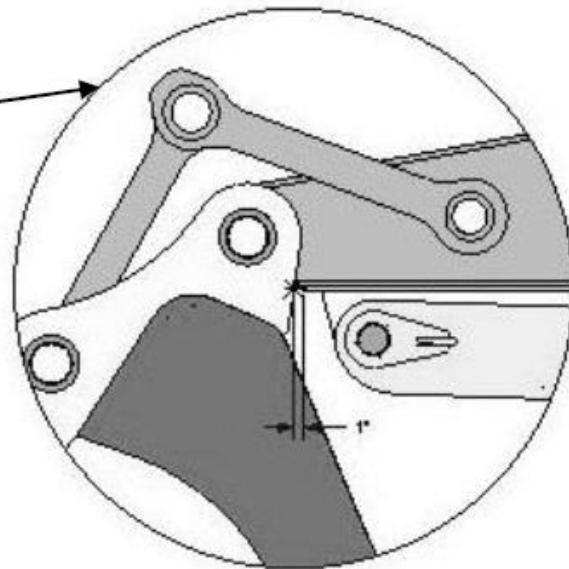
Work port relief on valve section should be set at 2500 psi

INSTALLATION

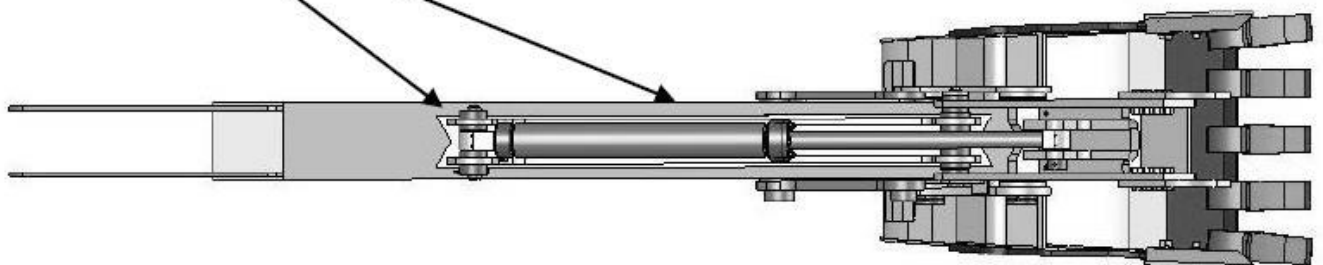
This is a universal thumb intended to work with a wide range of coupler systems and buckets from a 10 to 30-ton range machine. Bucket teeth and thumb may not “mesh” together as a CRAIG custom designed stick pin-on thumb will. Customer maybe required to trim and shorten the thumb to suit bucket.



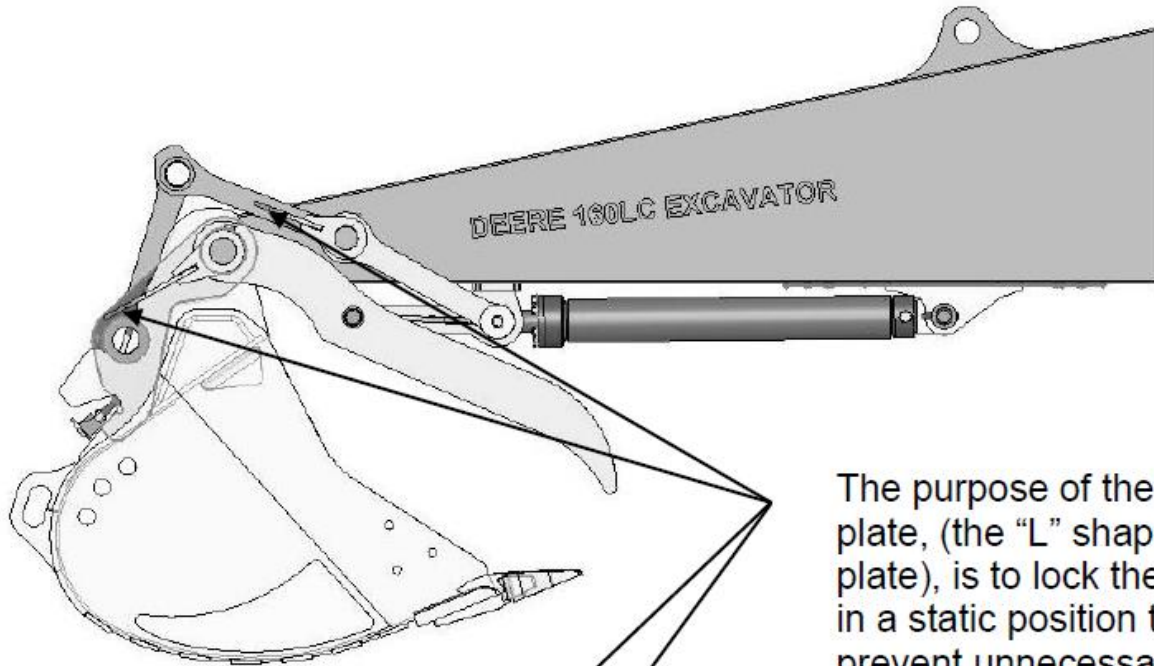
Put thumb base plate weldment as close to the stick pin as possible leaving approximately 1" from the cylinder bracket and your bucket in its closed position.



Stitch weld around the bracket

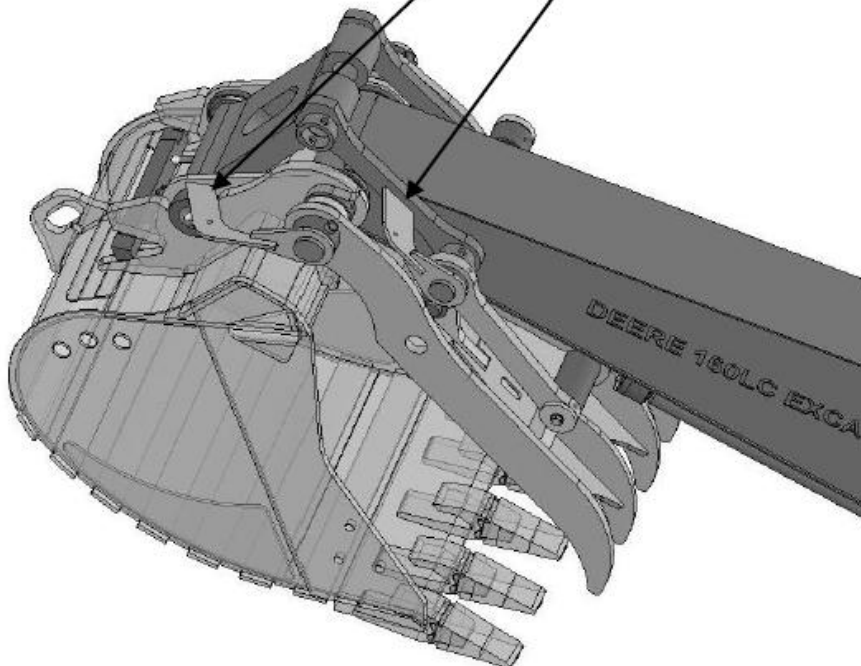


INSTALLATION



The purpose of the locking plate, (the "L" shaped plate), is to lock the pin(s) in a static position to prevent unnecessary wear of bosses on your bucket or coupler.

It is crucial to weld the locking plates in a position as to not interfere with the rotation of your bucket, or operation of your coupler.



When using your thumb with a coupler system the locking plate must be welded directly to the coupler as to not interfere with the buckets hook-up (as shown).

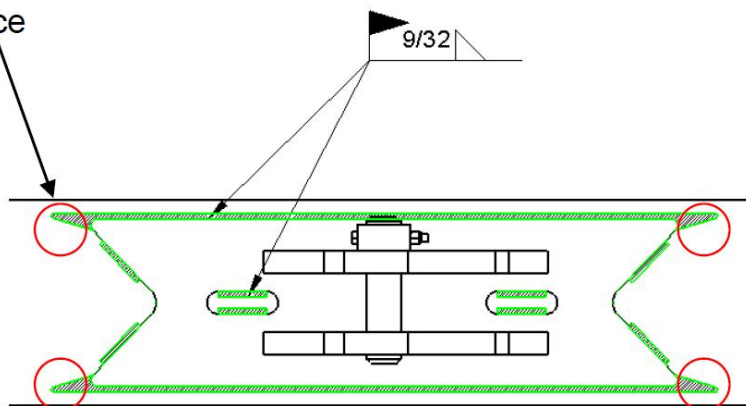
In the case of a direct hook-up the locking plate is welded directly to the rib of the bucket.

INSTALLATION

CYLINDER BRACKET WELDING INSTRUCTIONS

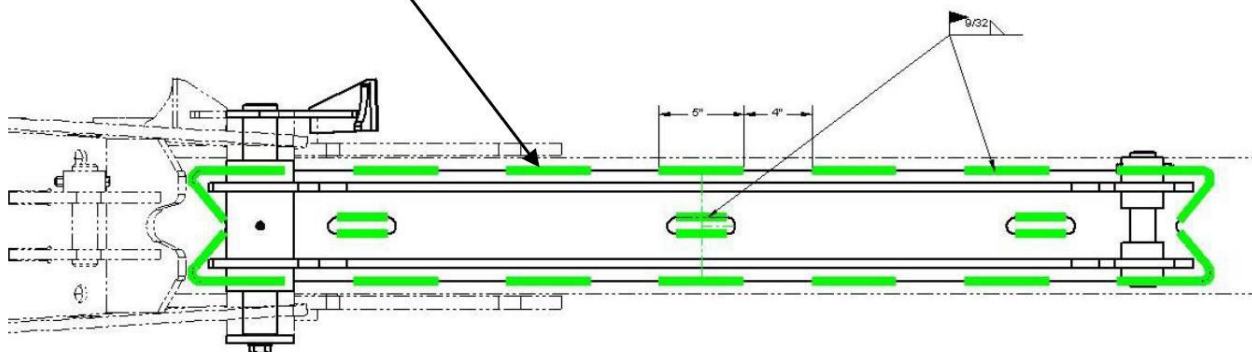
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Extend $\frac{9}{32}$ " welds past ends $2\frac{1}{2}$ "
Then taper down weld flush within
 $\frac{1}{16}$ " of mating surface



EX-PMH

Stitch $\frac{9}{32}$ " weld around the
bracket 5" Stitch, 4" Spacing



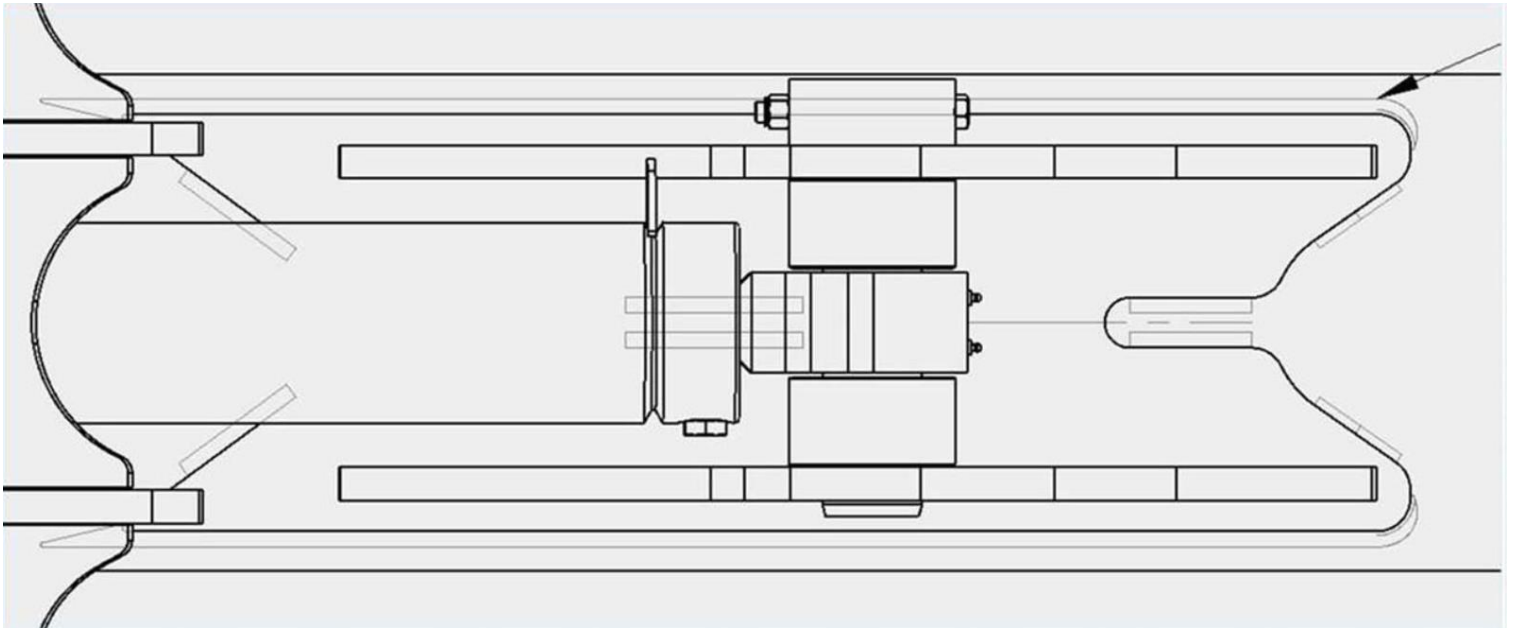
The cylinder bracket must be centered on the stick and the cylinder must lay parallel to cylinder lugs and stick.

DO NOT WELD STRAIGHT ACROSS (90° TO SIDE PLATES) THE BOTTOM FACE OF THE STICK. DOING THIS COULD CAUSE A WEAK POINT IN THE EXCAVATOR STICK.

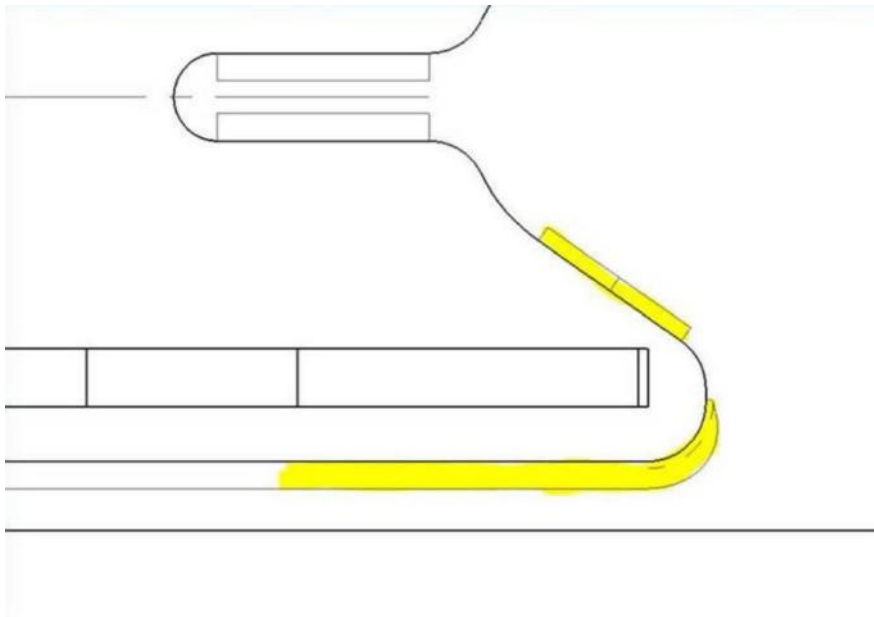
INSTALLATION

The idea is still the same with a large thumb (blending the welds into the stick) but they don't extend out the same that they would on the opposite end of the bracket.

The welds are sketched here in a grey colour:



With the end highlighted here:



INSTALLATION

HYDRAULIC SETTINGS

-Pressure should not be set any higher than 2500 psi on the work port relief on the valve section

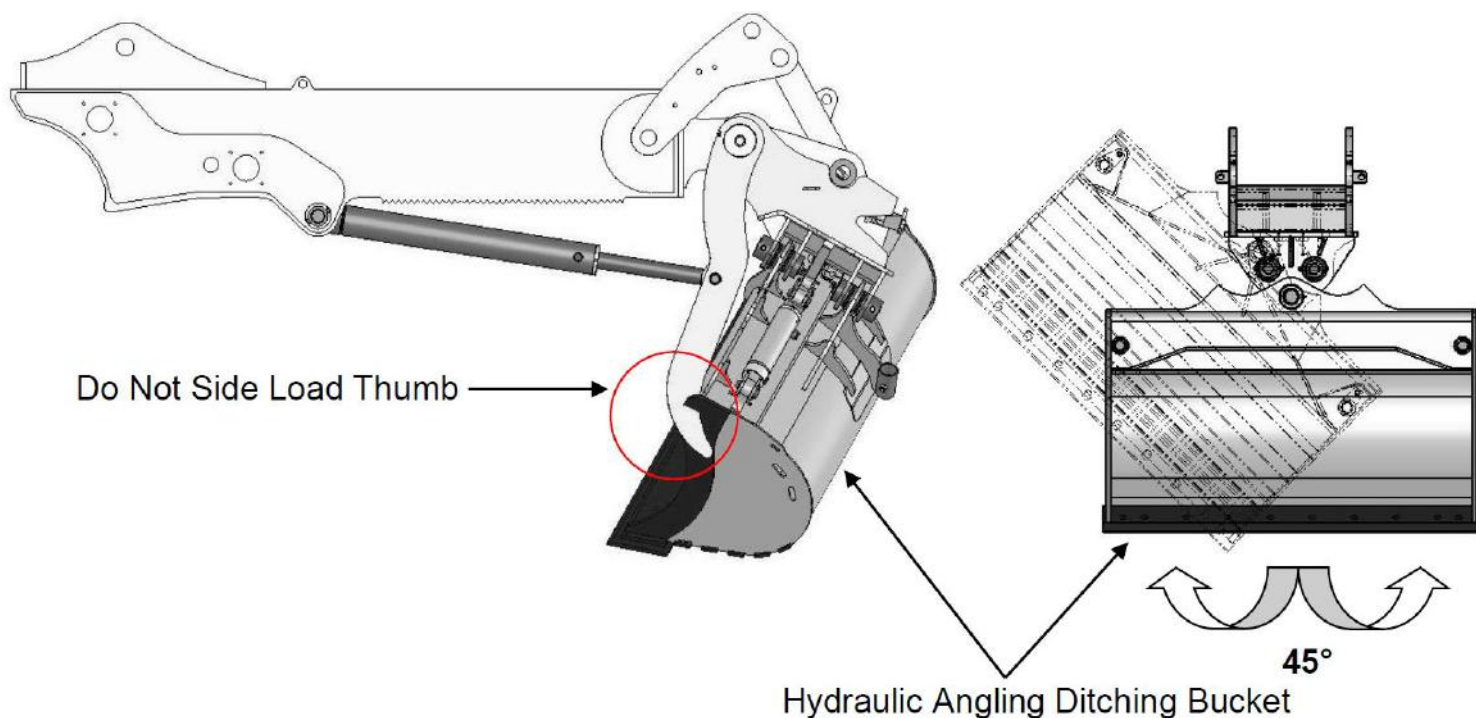
-Recommended flow for a 4" X 2-1/2" Shaft X 36" Stroke is around 20 GPM. This will give a retraction time of 3.5 seconds and an extension time 6.0 seconds.

The cylinder is typically ported for 3/4" hosing and typically uses 12ORB male fittings.

PRECAUTIONS

CRAIG thumbs are intended to be used in conjunction with a particular bucket, the thumb or bucket(s) are designed as a mating set and should be used as such. CRAIG thumbs are intended to be used to provide a clamping force with its mating bucket. CRAIG thumbs are not intended for digging or prying and should not be side loaded as this may damage the cylinder.

CRAIG thumbs are often designed to operate with Hydraulic Angling Ditching Buckets. This combination exploits an excavators versatility however if used incorrectly may cause severe damage. The Hydraulic Angling Ditching Bucket must not use its lateral tilting movement when operating a CRAIG thumb.



OPERATION

INTENDED USE

A Craig Hydraulic Thumb is intended to be used in general material handling. Craig thumbs are designed at time of order for specific coupler and bucket combinations. Craig thumbs provide superior grip and dexterity for day-in and day-out material handling.

OPERATING THE BUCKET

Read all safety precautions before operating the excavator bucket. Refer to the machine's owner's manual for further operation instruction.

TRANSPORTING

Follow all local government regulations that may apply along with recommended tie down points and any equipment safety precautions at the front of this handbook when transporting your attachment.

STORAGE

When storing your CRAIG attachment, a few maintenance tips can help ensure it's ready for the next season:








- 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, and caps crews.
- Cap the hydraulic hoses. This will help to ensure that oil does not leak out and moisture does not get into the hydraulic lines of the bucket.
- Grease all the fittings. This will help to keep rust and dirt away from the pins. Grease points are shown in figure 2. Keep in mind both ends of the main hinge pin have separate grease fittings. - Store unit in a dry and protected place. Leaving the unit outside will materially shorten its life.
- It is also a good idea to touch up all unpainted surfaces with paint to prevent rust if it is being stored for long periods of time.

MAINTENANCE

GENERAL INFORMATION

The following maintenance requirements are important to follow and will ultimately ensure long equipment life and safe operation. Read and follow all safety precautions before performing any maintenance or troubleshooting on this equipment.

MAINTENANCE SCHEDULE

PROCEDURE	DAILY	WEEKLY	NOTES
Check for cracked, bent, or broken components, distressed welds and missing parts.			If a crack is found in either the steel structure or welds, the attachment must be removed from the machine and Craig contacted immediately. Replace broken or missing parts if required.
Check that pins and bushings for play or wear.			Replace if worn.
Check all bolts and nuts. Tighten any loose bolts or replace if they are worn or missing.			Refer to torque table when replacing worn or missing bolts. Do not replace with bolts that are smaller or of a different grade.
Inspect rollback and dump stops.			See following pages.
Check base edge and wear pads.			Replace if thinning.
IF COUPLER IS USED MAKE SURE TO FOLLOW THE NEXT MAINTENANCE PROCEDURES			
Inspect coupler stops if equipped			See following pages.
Inspect coupler hooks.			Ensure there are no cracks, holes, or any other deformations in the hooks. Contact Craig Manufacturing if any are found.

PAINT

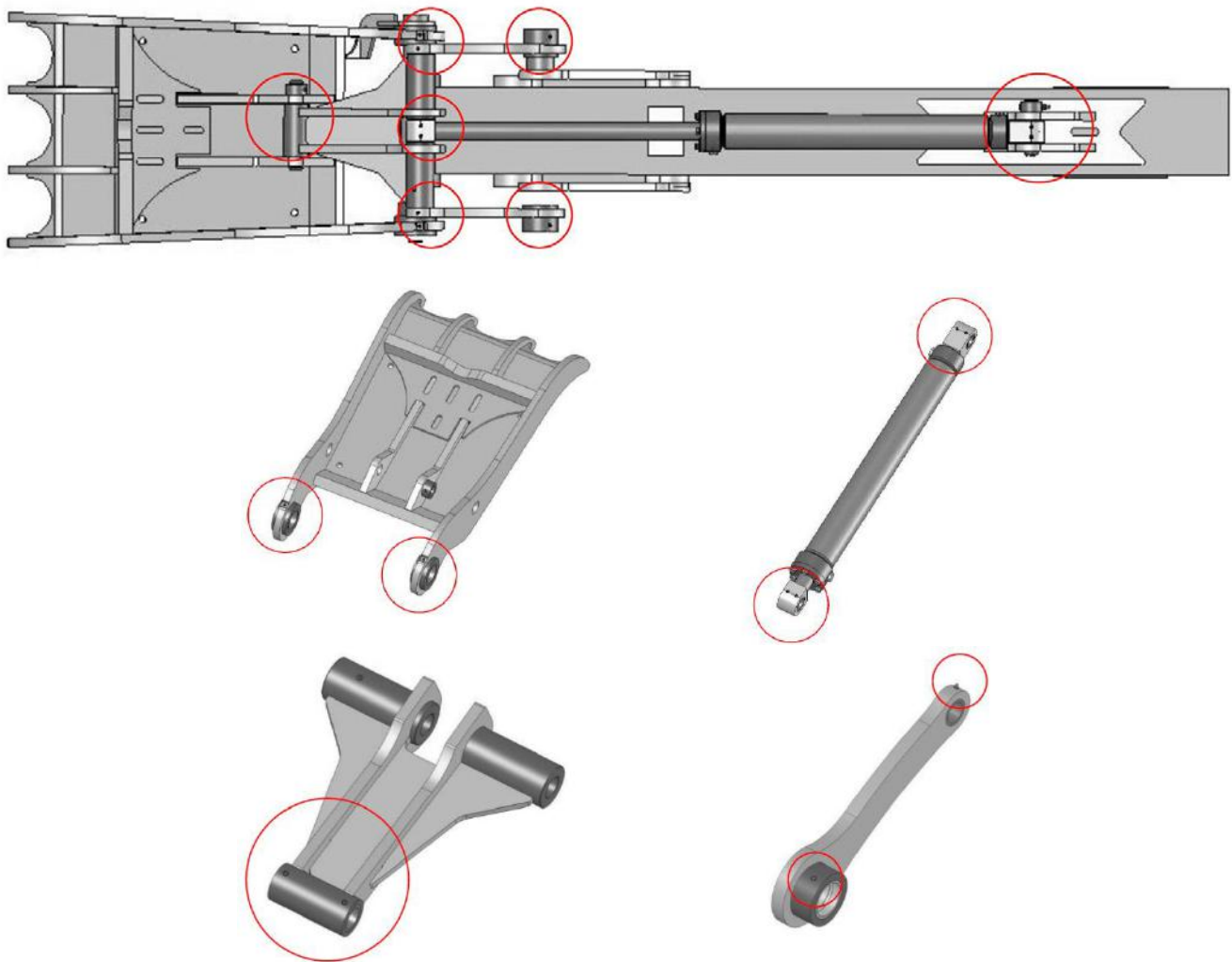
The finish on your Craig attachment has been applied with a special primer and adhesion enhancer to promote a durable finish. Because of the nature of heavy equipment attachments scuffing and wear are normal. The finish on your Craig attachment is not covered under warranty. For best results your Craig product should be cleaned, inspected and any areas where paint has worn away should be re-painted to prevent rust at the end of each season. Matching paint and primer can be purchased from your local original equipment dealer.

TECHNICAL SUPPORT

If you have followed the maintenance instructions contained in this manual you should have years of trouble-free operation from your Craig attachment. Should you encounter any issue or have any questions about your attachment please contact us at 1-800-565-5007 and ask for technical support.

MAINTENANCE

Craig thumbs require some maintenance to ensure a long and trouble-free life. The most crucial maintenance tip required for an excavator thumb is greasing. Greasing the pins on your thumb daily with use will help to ensure smooth operation over its lifetime. A well-greased pin keeps the metal to metal contact to a minimum and with it minimizes wear. A proper greasing technique involves pumping grease onto the fitting until you can visibly see the grease coming out around the pin. It is important to have grease come out into the gap around the pin because it protects the area surrounding the pin from dirt getting in and causing abrasive wear on your pins.



Inspection Before Use








- Check all bolts and nuts. Tighten any loose bolts or replace if they are worn or missing. When replacing worn or missing bolts, do not replace with bolts that are smaller or of a different grade.
- Check pins for excessive play or wear.
- Check hosing for frayed braiding or abrasive wear.

SPECIFICATIONS

SAE BOLT TORQUE REQUIREMENTS

The following chart is for determining SAE Bolt Torque Specifications when special torques are not given.

NOTE: The torque values below are for hardware that is zinc plated and/or dry.

BOLT SIZE	SAE GRADE 5 TORQUE				SAE GRADE 8 TORQUE				Bolt head Identification marks as per grade. NOTE: Manufacturing marks will vary. <div><div>GRADE 2</div><div>GRADE 5</div><div>GRADE 5</div></div>
	UNC		UNF		UNC		UNF		
Normal Diameter	Threads Per Inch	Pounds Feet	Threads Per Inch	Pounds Feet	Threads Per Inch	Pounds Feet	Threads Per Inch	Pounds Feet	
1/4	20	7	28	8	20	10	28	12	
1/3	18	15	24	16	18	21	24	23	
3/8	16	26	24	30	16	37	24	42	
4/9	14	42	20	47	14	59	20	66	
1/2	13	64	20	72	13	90	20	102	
4/7	12	92	18	103	12	130	18	146	
5/8	11	128	18	144	11	180	18	204	
3/4	10	227	16	253	10	320	16	257	
7/8	9	365	14	403	9	515	14	268	
1	8	547	14	614	8	772	14	867	
1-1/4	7	952	12	1055	7	1545	12	1710	
1-3/8	6	1249	12	1421	6	2025	12	2305	
1-1/2	6	1657	12	1865	6	2688	12	3024	

PLOW BOLT TORQUE REQUIREMENTS

The following chart is for determining Plow Bolt Torque Specifications when special torques are not given.

STANDARD MEASUREMENTS		METRIC MEASUREMENTS	
SIZE	TORQUE	SIZE	TORQUE
5/8"	200 ± 30 ft lbs	16mm	270 ± 40 N*m
3/4"	350 ± 45 ft lbs	19mm	475 ± 60 N*m
7/8"	550 ± 65 ft lbs	22mm	750 ± 90 N*m
1"	850 ± 110 ft lbs	25mm	1150 ± 150 N*m
1-1/4"	1700 ± 220 ft lbs	32mm	2300 ± 300 N*m

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WARRANTY POLICY 1 YEAR

OUR COMMITMENT TO YOU

Craig Manufacturing Ltd. ("CRAIG") warrants, for a period of (12) months starting from the attachment in-service date or 2,000 hours of machine use (whichever occurs first), to the original purchaser of a product manufactured by CRAIG that the product is free from defects in design, material and workmanship. If the in-service date cannot be proven to the satisfaction of CRAIG, the original invoice date will be considered the in-service date. In no event will the in-service date be later than (12) months after the original invoice date.

If a failure occurs during the warranty period CRAIG will make every effort to get you working again, and your claim resolved, within the shortest possible time.

WHAT TO DO IF SOMETHING GOES WRONG

If you find yourself with a CRAIG product that's causing you a problem that you suspect may be eligible for warranty you should:

- Call CRAIG Tech Support at 1-800-565-5007. Our experienced technicians may very well get you back working again with just a little technical guidance.
- If it looks like the call is going to need to be resolved through the warranty process, the technician will put you through to the Warranty Administrator for further help and guidance on how CRAIG will be working with you through your warranty claim.

NOTE: PLEASE SEEK GUIDANCE AND APPROVAL FROM THE CRAIG WARRANTY ADMINISTRATOR BEFORE ANY REPAIR IS INITIATED. FAILURE TO DO SO CAN VOID YOUR WARRANTY.

WHAT INFORMATION IS NEEDED TO PROCESS A CLAIM?

TAKE PICTURES — As part of our goal of continuous improvement, we request that all warranty claims be accompanied by photos of the failure. These are an invaluable tool in our product improvement process. If you've done APPROVED work in your shop or hired an APPROVED sublet service to resolve the failure, make sure to attach all required supporting documentation including: work orders, sublet invoices and any other related documents requested by the Warranty Administrator. "APPROVED" means approved by the CRAIG Warranty Administrator.

Please hold **ALL** defective parts for a period of 90 days after the failure. We may request that these be shipped back to our factory for inspection.*

NOTE: FAILURE TO SUBMIT ALL REQUIRED INFORMATION COULD RESULT IN WARRANTY DELAY OR DENIAL. FAILURE TO COMPLY WITH CRAIG PAYMENT TERMS MAY VOID PRODUCT WARRANTY.

IT'S FIXED — NOW HOW DO I GET COMPENSATED?

PARTS If a failure was caused by a part proven to be defective, it will be repaired, replaced, or at our option, credited back at dealer net value.

REPAIR If a failure has been repaired by an approved CRAIG dealer shop, a credit for the labour will be issued to that dealer at \$125 per hour or 70% of the dealer's posted in shop labour rate, whichever is less. Acceptable repair time will be determined by the CRAIG Warranty Administrator and only the hours deemed acceptable will be credited. No overtime will be reimbursed.

LIMITED Maximum warranty reimbursement allowed will not exceed the dealer net value of the attachment or option(s). Items such as hydraulic hoses and fittings are covered at a fixed rate. Call the CRAIG Warranty Administrator for details.

BE REALISTIC, NOT EVERYTHING IS COVERED

Due to the nature of heavy construction and industrial snow removal, there are certain things that are simply expected to wear. These are powerful machines and inexperienced or careless operation will also cause failures.

WARRANTY CLAIMS WILL NOT BE CONSIDERED FOR



- FAILURES DUE TO NEGLIGENCE OR MISUSE
- ITEMS NOT SUPPLIED BY CRAIG
- TRAVEL, DOWNTIME, LOSS OF PRODUCTIVITY, LOSS OF PROFIT
- ANY ADDITIONAL WARRANTY OR BENEFIT OUTSIDE THE CRAIG WARRANTY POLICY
- EXPOSURE TO THE ELEMENTS DUE TO IMPROPER STORAGE
- PAINT OR FINISH
- ALTERED ATTACHMENTS
- PERSONAL INJURY, OR DAMAGE TO MACHINE OR PROPERTY
- WEAR ITEMS AND CONSUMABLES
- SHOP SUPPLIES OR ENVIRONMENTAL CHARGES

* All warranty-related shipping FROM CRAIG will be covered by CRAIG. All warranty-related shipping TO CRAIG will be covered by the customer. Unpaid shipping TO CRAIG will result in a deduction to any warranty credit issued in the amount of the unpaid shipping fees.

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WARRANTY POLICY 3 YEAR

OUR COMMITMENT TO YOU

Craig Manufacturing Ltd. ("CRAIG") warrants to the original end-user of an eligible product manufactured by CRAIG that, from the warranty start date until the expiry of 36 months or 6,000 hours of machine use (whichever occurs first), the product will be free from defects in design, material and workmanship. This enhanced warranty is subject to the following conditions:

- Only the CRAIG products listed in Table 1 below will qualify for the enhanced warranty.
- To take advantage of the enhanced warranty, eligible product must be registered within 6 months of shipping from a Craig facility. The warranty card must be completed and sent by the end user within 30 days of purchasing the eligible product. The warranty start date is the date that CRAIG receives the completed warranty registration form for the product from the end user. Warranty registrations received after 6 month shipping date only qualify for standard 1 year warranty and start date is the shipping date from Craig facility. The warranty registration form is available on our website here or from any CRAIG location.
- The warranty start date is the date that CRAIG receives the completed warranty registration form for the product unless the product was shipped to the dealer more than 30 days before CRAIG received the completed warranty registration form from the end-user, in which case, the warranty start date is the date the product was shipped by CRAIG to the dealer.
- The enhanced warranty is void if the product is installed on any machine other than the original carrier in respect of which the warranty was registered with CRAIG.
- The enhanced warranty is not transferable between end-users.
- If an eligible product is not duly registered or if it fails to meet the conditions for the enhanced warranty, the enhanced warranty does not apply although the product may still qualify for CRAIG's 12-month limited equipment warranty.

COVERAGE LIMITS

The enhanced warranty coverage is subject to the following milestones:

Phase 1 - for the period from the warranty start date up to the first anniversary of the warranty start date or up to the date when 2000 hours of machine use have accrued (whichever occurs first), the enhanced warranty covers parts, labour and hydraulic components (including but not limited to cylinders, valves, hoses, etc.)

Phase 2 - for the period after Phase 1 up to the second anniversary of the warranty start date or up to the date when 4000 hours of machine use have accrued (whichever occurs first), the extended warranty covers parts and labour but not hydraulic components (including but not limited to cylinders, valves, hoses, etc.)

Phase 3 - for the period after Phase 2 up to the third anniversary of the warranty start date or up to the date when 6000 hours of machine use have accrued (whichever occurs first), the enhanced warranty covers parts and, if the customer covers freight costs to and from a CRAIG location, labour is also covered. Hydraulic components (including but not limited to cylinders, valves, hoses, etc.) are not covered during Phase 3.

- If a failure occurs during the enhanced warranty period CRAIG will make every effort to get you working again, and your claim resolved, within the shortest possible time.

WHAT TO DO IF SOMETHING GOES WRONG

If you find yourself with a CRAIG product that's causing you a problem that you suspect may be eligible for the enhanced warranty you should:

- Call CRAIG Tech Support at 1-800-565-5007. Our experienced technicians may very well get you back working again with just a little technical guidance.
- If it looks like the call is going to need to be resolved through the warranty process, the technician will put you through to the Warranty Administrator for further help and guidance on how CRAIG will be working with you through your warranty claim.

NOTE: PLEASE SEEK GUIDANCE AND APPROVAL FROM THE CRAIG WARRANTY ADMINISTRATOR BEFORE ANY REPAIR IS INITIATED. FAILURE TO DO SO CAN VOID YOUR WARRANTY.

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WARRANTY POLICY 3 YEAR

WHAT INFORMATION IS NEEDED TO PROCESS A CLAIM?

TAKE PICTURES — As part of our goal of continuous improvement, we request that all warranty claims be accompanied by photos of the failure. These are an invaluable tool in our product improvement process. If you've done APPROVED work in your shop or hired an APPROVED sublet service to resolve the failure, make sure to attach all required supporting documentation including: work orders, sublet invoices and any other related documents requested by the Warranty Administrator.

"APPROVED" means approved by the CRAIG Warranty Administrator.

Please hold ALL defective parts for a period of 90 days after the failure. We may request that these be shipped back to our factory for inspection.*

NOTE: FAILURE TO SUBMIT ALL REQUIRED INFORMATION COULD RESULT IN WARRANTY DELAY OR DENIAL. FAILURE TO COMPLY WITH CRAIG PAYMENT TERMS MAY VOID PRODUCT WARRANTY.

IT'S FIXED — NOW HOW DO I GET COMPENSATED?

PARTS If a failure was caused by a part proven to be defective, it will be repaired, replaced or, at our option, credited back at dealer net value.

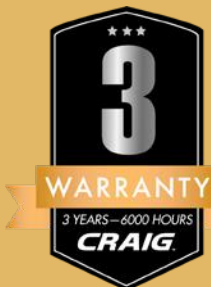
REPAIR If a failure has been repaired by an approved CRAIG dealer shop, a credit for the labour will be issued to that dealer at \$125 per hour or 70% of the dealer's posted in shop labour rate, whichever is less. Acceptable repair time will be determined by the CRAIG Warranty Administrator and only the hours deemed acceptable will be credited. No overtime will be reimbursed.

LIMITED Maximum cumulative warranty reimbursement allowed will not exceed the purchase value of the attachment. Items such as hydraulic hoses and fittings, when covered, are at a fixed rate. Call the CRAIG Warranty Administrator for details.

BE REALISTIC, NOT EVERYTHING IS COVERED

Due to the nature of heavy construction and industrial snow removal, there are certain things that are simply expected to wear. These are powerful machines and inexperienced or careless operation will also cause failures.

WARRANTY CLAIMS WILL NOT BE CONSIDERED FOR



- FAILURES DUE TO WEAR, NEGLECT OR MISUSE
- PAINT OR FINISH
- ITEMS NOT SUPPLIED BY CRAIG
- ALTERED ATTACHMENTS
- TRAVEL, DOWNTIME, LOSS OF PRODUCTIVITY, LOSS OF PROFIT
- PERSONAL INJURY, OR DAMAGE TO MACHINE OR PROPERTY
- ANY ADDITIONAL WARRANTY OR BENEFIT OUTSIDE THE CRAIG ENHANCED WARRANTY POLICY
- WEAR ITEMS AND CONSUMABLES
- SHOP SUPPLIES
- CARBON, FUEL OR ENVIRONMENTAL CHARGES
- EXPOSURE TO THE ELEMENTS DUE TO IMPROPER STORAGE

*All warranty-related shipping to and from CRAIG in Phases 1 and 2 will be covered and managed by CRAIG. In Phase 3 of the enhanced warranty the freight to and from Craig is the responsibility of the customer. **All warranty freight is to be shipped standard ground freight – Additional charges may apply for expedited or air freight.**

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NOTES

This image shows a full page of blank white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for writing or drawing. There are no margins, text, or other markings present.

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