

EX-CMG

CRAIG ROTATING MAT GRAPPLE

OWNER'S MANUAL

Important safety and operation instructions inside

Read thoroughly before operating

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Congratulations on the purchase of your new Craig Manufacturing Ltd. product. This manual provides safety, operation, and maintenance information. To keep your product 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 product, make sure your machine is equipped with all the OEM recommended requirements for your product application.

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 offers advice and support for the repair. Using aftermarket non-approved parts can alter your product's performance characteristics and may affect your warranty.

To help ensure that correct parts are ordered, please record the serial number of your product. Over 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-Servic <mark>e Date:</mark>	
Purchased From:	



Never let anyone operate this unit without reading the "SAFETY INSTRUCTIONS" and "OPERATION INSTRUCTIONS" sections of this manual.

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



INTRODUCTION

As the new owner and/or operator of the Craig rotating mat grapple we require you take the time to read this Owner's Manual carefully before commencing work.

FOLLOW THE SAFETY INSTRUCTIONS

- Carefully read all the safety information contained in this manual.
- Make sure all safety decals are securely fitted in the cab.
- Immediately replace any safety decals that are missing or damaged.
- Before starting work make sure you have a copy of this Operator's Manual in the cab and are familiar with all the safety procedures and instructions contained in this manual.

INFORMATION FOR THE USER

The user of the Craig attachment is obliged to ensure that the equipment is always in safe working order in accordance with accident prevention regulations, Occupational Safety and Health regulations or any other official instructions.

ENHANCED WARRANTY FOR ELIGIBLE PRODUCTS

Craig offers an enhanced warranty from 12 months (or 2,000 hours which ever comes first) to 36 months (or 6,000 hours) for **eligible products**. To take advantage of this enhanced warranty the eligible product must be registered within 30 days of receiving the product. You can register your product at the following website:

https://www.craigattachments.com/product-registration/

Refer to the contents of this manual to remedy faults and contact Craig at 1-800-565-5007 if you require assistance. Notice that unauthorized modifications to this equipment is prohibited and will void warranty.



This is an alert symbol. It indicates an imminent or potential hazard. Signal words "DANGER", "WARNING", and "CAUTION" qualify this alert symbol into the following categories:



Hazardous situation which, if not avoided, WILL result in death or serious injury

Hazardous situation which, if not avoided, COULD result in death or serious injury

Hazardous situation which, if not avoided, could result in minor or moderate injury

The signal word "*NOTICE*" indicates important information that, if not followed, could result in severe damage to equipment or property.

SAFETY PRECAUTIONS BEFORE OPERATION

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.





Read Manual Prior to Installation, Operation or Maintenance Improper installation, operation, and/or maintenance of your Craig Manufacturing Ltd. attachments can cause death or bodily injury, property damage, or damage to your equipment. Read and understand this manual and all labels before operating or doing any work on the equipment. NEVER allow anyone to operate this unit without first reading the safety and operating instructions. Failure to do so may affect your warranty.

Read you<mark>r machines owner's manua</mark>l and always be aware of capacities and heights of all materials moved are within the machines stated operational capacity.

Understand All Safety Decals and Statements

Become familiar with and inform users about all safety decals and safety statements in all manuals and on the back of the attachment prior to operating or working on this product. Know and follow all national occupational safety regulations, local laws, and other professional guidelines. As well as all good work practices when working on or with this product. Know your equipment capabilities and operations.

Worn, damaged, or illeg<mark>ible safety deca</mark>ls must be replaced. New safety decals can be ordered from your local dealer.





SAFETY INSTRUCTIONS



Inspect all equipment prior to operating and ensure all components are in proper working order. Check hardware for tightness and that all guards and safety devices are in place. Know all decals and check for legibility. Replace anything damaged, worn or missing. Make sure operator cab is clean and free of any distracting objects or spills.

Be aware of overhead or buried utilities. Contact your local utilities to locate any underground lines or other hazards.

Make sure all levers, pedals, switches, or other controls are in neutral position prior to starting the engine.

Before exiting the machine, for any reason, follow the "MANDATORY SHUT DOWN PROCEDURE".

MANDATORY SHUT DOWN PROCEDURE

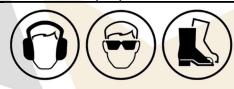
- 1. Stop the machine on level ground.
- 2. Lower the attachment to the ground.
- 3. Move throttle to the idle position.
- 4. Disengage all power to the attachment.
- 5. Apply the brakes.
- 6. Turn off the engine and remove the key.

Never use your attachment as a work platform or personnel carrier

Never lift, move, or swing an attachment over anyone.

Do not use attachment for lifting materials outside of its purpose. This attachment is not a lifting device unless approved for your jurisdiction.

Never perform any work on the attachment unless you are authorized and qualified to do so. Work in pairs. Always read the operator service manuals before any repair is made. Wear proper PPE.



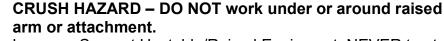
Personal Protective Equipment (PPE) Required Remove ignition key and immobilize the machine during installation, inspection, or service. Always follow safe work practices when installing, servicing, or inspecting your product by wearing

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.

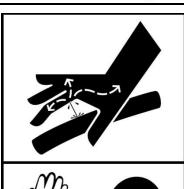


SAFETY INSTRUCTIONS





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 unstable attachments or heavy components that may fall if being disconnected.



Skin Injection Hazard

- Relieve pressure before working on system
- Wear gloves & eye protection
- Detect leaks with wood or cardboard
- NEVER use hands to detect leaks
- Fluid injected in skin must be surgically removed **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 note the following:

- 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.

Never make hydraulic repairs while the system is under pressure. Serious personal injury or death could occur. Never work under a raised attachment. Check the weight of the attachment and use handling equipment of sufficient capacity. Always tag "DO NOT OPERATE" until all problems are corrected.



SAFETY INSTRUCTIONS

Lubricants may contain toxins, cause adverse health effects or be hazardous to the environment. Ensure environmentally safe disposal. Observe all safety labels.

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.

Safe Transport

- 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.

Keep attachment close to the ground when engaging/disengaging attachments! Visually check that the attachment is securely locked before operating. Follow the procedures outlined in the operation section of this manual. If coupler is not functioning properly, it must be checked/repaired by a qualified service technician prior to use. Failure to do so could result in serious injury or death.



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. TURN OFF ENGINE AND DISCONNECT BATTERY PRIOR TO WELDING. Refer to machine's owner's manual for procedure. 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.



DECALS

ltem	Part #	Description	Quantity	
1	164958-XX	Decal, pinch point hazard	1	
2	170193-XX	Decal, crush hazard	1	
3	159478-XX	Decal, read owner's manual	1	
4	170199-XX	Decal, clearance hazard 1		
5	164953-XX	Decal, grease frequently	1	
6	159025-XX	Decal, pressure setting	1	





DROP / CRUSH HAZARD Ensure personnel remains a safe distance when moving material. Improperly loaded material may fall from attachment which can

170193-EN



Attachment may contact upper structure of machine including cab and boom. Be aware of changes in performance of machine and potential interferences prior to use.

170199-EN



This attachment must be connected to a valve section that is set no higher than:

3000 psi (Clamp Circuit), 16-20 gpm

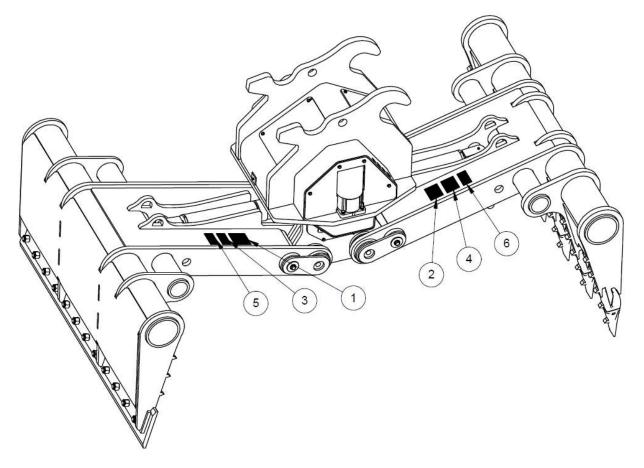
2500 psi (Rotate Circuit), 12 gpm

495499-EN





DECALS



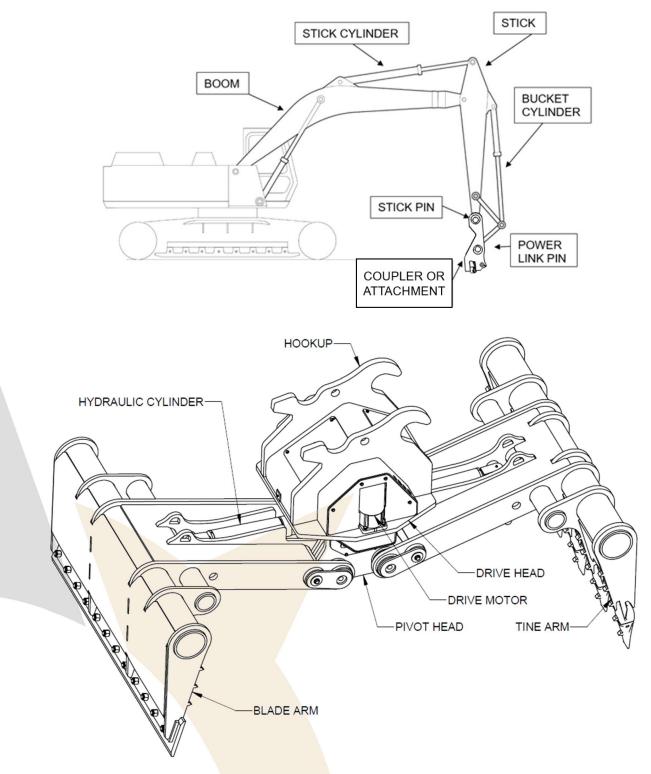
NOTE: YOUR PRODUCT MAY NOT APPEAR EXACTLY AS SHOWN





INSTALLATION INSTRUCTIONS

NOMENCLATURE



NOTE: YOUR PRODUCT MAY NOT APPEAR EXACTLY AS SHOWN





INSTALLATION INSTRUCTIONS

TERMINOLOGY

Hookup:	The connection between the machine to the coupler or attachment.
Drive Head:	The structure welded to the hookup that holds the drive motors
Drive Motor:	Dual drive motors power the gears that rotate the mat grapple
Pivot Head:	The pivoting structure that is driven by the motors and serves as
	the hinge point for the arms and cylinders
Hydraulic Cylinder:	A hydraulic cylinder supplies the clamping force for each arm
Blade Arm:	The grapple arm that has a cutting blade
Tine Arm:	The grapple arm that has several tines/teeth

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

LUBRICATION

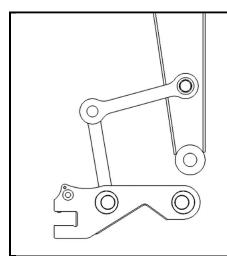
The attachment must be properly lubricated at installation. Refer to maintenance section for details.



INSTALLATION INSTRUCTIONS

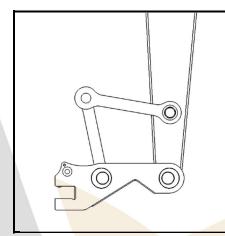
INSTALLING COUPLER OR ATTACHMENT TO MACHINE

Refer to the OEM manual of the machine for more information and specific instructions for installing pin-on attachments on to the machine.



STEP 1:

Align the rear bosses of the coupler or attachment with the power link of the machine and insert the power link pin. Fit shims and Orings as required. Reference the OEM manual for details.



STEP 2:

Align the front bosses of the coupler or attachment with the machine stick and insert the stick pin. Fit shims and O-rings as required. Reference the OEM manual for details. Fit retaining bolts into the pinlocks of the coupler or attachment.



INSTALLATION INSTRUCTIONS

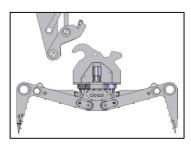
COUPLING TO GRAPPLE WITH WEDGE-LOCK COUPLER

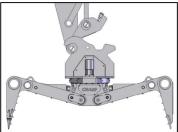
Due care and attention are necessary when installing your Craig grapple. Be aware of all possible pinch points during installation and operation.

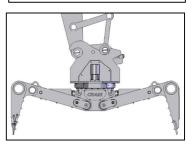
- 1. Place the grapple on level ground
- 2. Position the excavator to allow alignment of the attachment and the coupler.
- 3. Insert the stick end of the coupler into the wedge-lock hooks.
- 4. Rotate the coupler to seat the coupler in the wedgelock hooks.
- 5. Engage the coupler wedge and safety mechanism.
- 6. Connect the attachment's jumper hoses to the machine.
- 7. Set the auxiliary flows and pressures:

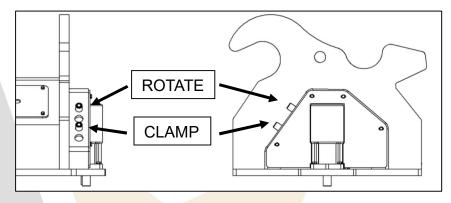
CLAMP CIRCUIT: 16-20gpm 3000psi

ROTATE CIRCUIT: 12gpm 2500psi









Setting the recommended flow rates and pressures will ensure smooth and controlled functionality



OPERATION INSTRUCTIONS

INTENDED USE

The Craig Rotating Mat Grapple is intended for loading, unloading, placing, and cleaning mats. Use outside of this scope is considered misuse.

WARNING Operator and maintenance personnel must be trained and familiar with the entire manual. The operator is responsible for safety. If there is any portion of this manual or function you do not understand, contact your local authorized dealer, or Craig Manufacturing Ltd.

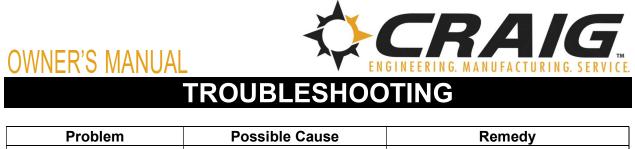
PRIOR TO OPERATION

- Inspect machine and all equipment prior to use. Refer to "MAINTENANCE" section and perform all periodic inspections and maintenance.
- Ensure operator cab is clean and free of distracting objects or spills.
- No passengers allowed.
- Make sure all levers, pedals, switches, or other controls are in neutral position prior to starting the engine.
- Ensure the weight of the grapple and mats are appropriate for the machine

OPERATION

- Keep the mat grapple close to the machine for maximum stability.
- Keep the mat grapple as level as possible when moving mats to avoid slip.
- If using a coupler, attach & detach the grapple on level ground.
- DO NOT use the grapple to push against objects or the ground when the cylinders are fully extended. Damage to cylinders may result.

WARNING DO NOT operate grapple near anyone. Ensure all personnel stay clear of the working area and any potential falling trees. Death or serious injury may result.



Problem	Possible Cause	Remedy
Cracks in steel structure or weld	Overloading or side loading	Immediately stop use and contact Craig Tech Support at 1-800-565- 5007
	Leaking hose or fittings	Check for pinched hose or damaged fittings. Refer to safety instructions for proper procedure to check for leaks.
Cylinder is slow or fails to actuate	Insufficient hydraulic flow	Recommended flow for a 6" X 3- 1/2" Shaft X 36" Stroke is around 35 GPM. This will give a retraction time 5 seconds and an extension time 8 seconds.
Excessive wear on pins	Lack of grease	Ensure all pins are greased regularly. Replace any worn parts.



MAINTENANCE

GENERAL INFORMATION

It is the operator's responsibility to inspect all equipment daily. Regular maintenance is necessary to prolong the life of the equipment, avoid costly shutdowns, and keep things running optimally.

WARNING Operator and maintenance personnel must be trained and familiar with the entire manual. Refer to the "SAFETY INSTRUCTIONS" on and follow the "MANDATORY SHUTDOWN PROCEDURE" prior to doing any

section and follow the "MANDATORY SHUTDOWN PROCEDURE" prior to doing any work on the machine.

PERIODIC MAINTENANCE TABLE					
Procedure	8 hours	100 hours			
Clean attachment of dirt/debris prior to inspection, especially around cylinder.	Х				
Inspect all equipment for damage, worn parts, cracked welds, etc. If a crack is found in either the steel structure or welds, the attachment must be removed from the machine and Craig Contacted immediately. <i>Contact Craig Tech Support (1-800-565-5007) for recommended weld procedures.</i>	х				
Check pins and bushings for play or wear. Replace if worn	Х				
Hardware - replace missing or damaged bolts/fasteners, tighten as necessary. <i>See bolt torque checks (following pages)</i>	Х				
Check for kinked/pinched or worn hoses. Repair/reroute as necessary	Х				
Hoses - check for leaks. <i>Repair/tighten as necessary</i>	Х				
Decals - replace worn or missing	Х				
Lubricate grease points except the slewing ring bearing	Х				
Lubricate the slewing ring bearing		Х			
Ensure daily checks are completed		Х			

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.

READING PRODUCT TAG

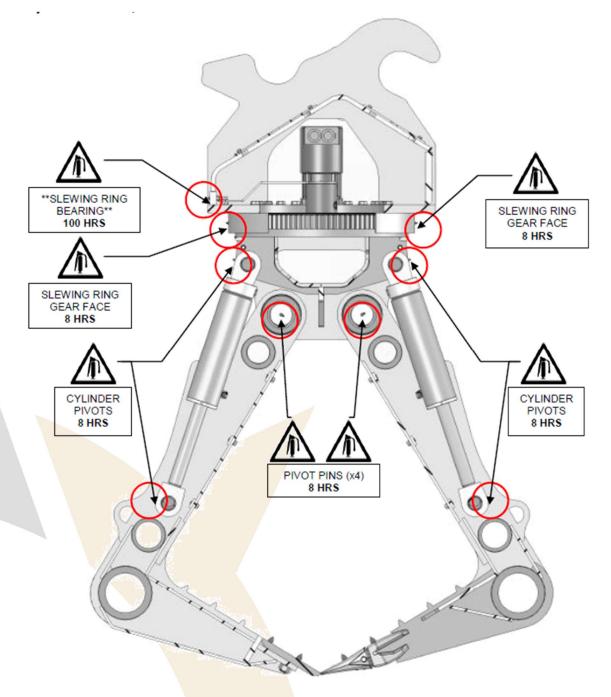
Craig Manufacturing Ltd. stamps a blue serial tag onto every attachment. The tag is often located on the rear of the attachment in the upper left corner. The information contained on this tag will be required for parts and support. Craig serial numbers begin with a "T" followed by the year then month of construction. For example, T1203 would denote the year 2012 and 03 the month of March.



MAINTENANCE

LUBRICATION

A proper greasing technique involves pumping grease onto the fitting until you can visibly see the grease coming out around the joint. It is important to have grease come out into the gap in the joint because it protects the area surrounding from dirt getting in and causing abrasive wear on the metal surfaces in the joint.



Slewing Ring Bearing only needs to be greased every 100 hours



MAINTENANCE

SLEWING RING MAINTENANCE

The precision gearing of the Craig Mat Grapple requires routing maintenance to ensure optimum performance and long life. It is important to follow the service recommendations contained in this manual.

CHOOSING A LUBRICANT

Some of the more commonly used lubricants from major manufacturers are shown in the table below.

Manufacturer	Internal Bearing Grease	Open Gear Grease
BP	Energrease LS-EP 1	
Castrol	HD Lithium 1	Open Gear 800
Chevron	Dura-Lith EP 1	Chevron Open Gear Grease
ExxonMobil	Mobilux EP 1	Mobiltac 375NC (drum) Gearlube 375NC (spray can)
Klüber	Klüberplex BEM 41-141	Klüberplex AG 11-462
Lubricants USA (FINA)	Marson EPL 1	Marson Open Gear Lubricant
Shell	Alvania EP 1	Malleus GL
Техасо	Multifak EP 1	Crater 2X (asphaltic based)

BEARING

Lubrication of the bearing is recommended every 100 hours.

GEAR

Lubrication of the gear is recommended every 8 hours.

The meshing action of the gear tends to purge the lubricant; thus, the gear should be regreased frequently with a small amount of lubricant. A well-maintained gear will provide long, smooth, and quiet service.

BOLTS

If the bolts on your slewing ring are ever removed, they should be replaced with new bolts. Using the correct hardware, assembly procedure, and maintenance checks is critical to functionality and long life of your product.

BOLT TORQUE CHECKS

All 3/4" UNC grade 8 bolts are tightened to a final dry torque of 376 ft-lbs from factory and should be checked as recommended below to help diagnose problems and prevent failures.



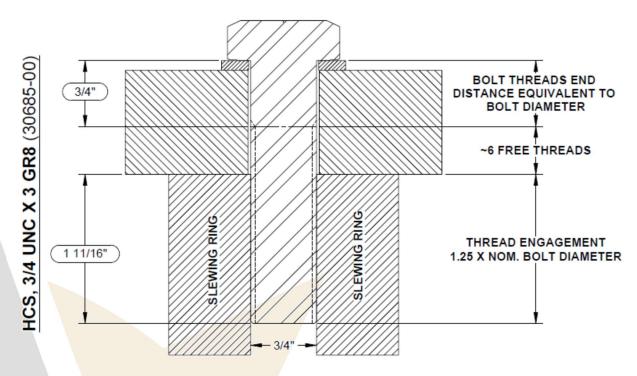
MAINTENANCE

- Check torque after 200 hours. If 3 or more bolts are loose, re-inspect again after 200 hours.
- Check torque after 600 hours.
- Check torque after 2000 hours. If any bolt is less than 300 ft-lbs, replace it and the two adjoining bolts. If 5 or more bolts are less than 300 ft-lbs, replace all bolts.

BOLT SELECTION

Only <u>3/4" UNC x 3" grade 8 hex cap screws with a 3/4" shoulder</u> should be used in conjunction with grade 8 flat washers.

DO NOT use lock washers or locking compound on the bolts



BOLT INSTALLATION

Follow the torque sequences below and use the specified 3-steps to achieve final torque.

Final Torque: 376 ft-lbs (dry)

Step 1: 112 ft-lbs

Step 2: 300 ft-lbs

Step 3: 376 ft-lbs



MAINTENANCE

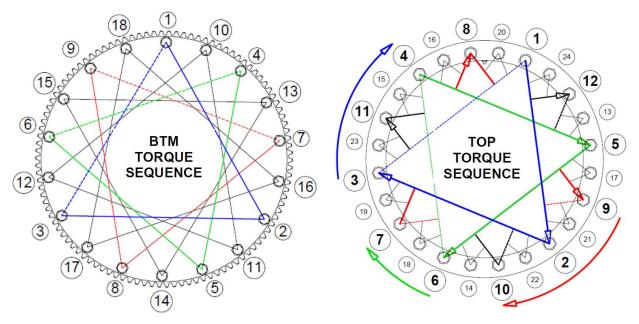
Hardware:

HCS, 3/4" UNC x 3" GR.8 (Craig part number 30685-00)

FLATWASHER, 3/4" GR.8 (Craig part number 11471-00)

DO NOT use lock washer

DO NOT use locking compound



NOISE, ROUGHNESS, AND VIBRATION

Continued monitoring of equipment noise, roughness, and vibration during operation can assist in early detection of poor or unsafe components, structural failure, or poor bearing performance. Operators should be familiar with typical operating conditions and investigate any noted changes.

MOTOR REPAIR OR MAINTENANCE

In the event that a motor needs to be replaced or temporarily removed, it is critical to adhere to the hardware specifications and assembly procedure when re-installing.

Instructions to Install Motor:

- Use <u>new</u> 1/2"-13 x 2-1/4" Grade 8 hex cap screws (Craig part number 258073-00). **Because of the specific torque required, the motor bolts should be replaced with new ones in the event that a motor is removed and re-installed or replaced**
- 2. Use 1/2" Nord-Lock bolt securing washers (Craig part number 167100-00)
- 3. Step the motor to a final torque of 100 ft-lbs using the sequence below:

4



MAINTENANCE

3 1

2

Step 1: 30 ft-lbs

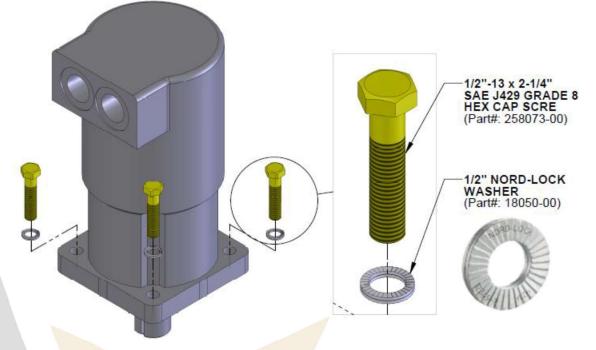
Step 2: 80 ft-lbs

Step 3: 100 ft-lbs

The specified torque is critical to ensuring long motor and gear life

**DO NOT use a locking compound (i.e. Loctite) **

DO NOT use flat washers



MAINTENANCE OF GROUND ENGAGINE TOOL (G.E.T) HARDWARE

CAUTION

Do Not Apply Any Lubricant of Any Type to G.E.T. Hardware. Any type of fasteners, like bolts and pins, work because of friction. If

you apply lubricant to such fasteners, then it will be much easier for them to back off during operation.

CAUTION

Safety Glasses Must Be Worn When Striking Bolt Heads. When striking the head of a bolt, it is possible for either sparks to develop or for pieces of the head to break off. ALWAYS WEAR SAFETY GLASSES



STORAGE

Disconnection from the machine and installation must be done by a gualified technician. 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 unstable attachments or heavy components that may fall if

END OF SEASON

being disconnected.

- Clean equipment thoroughly
- Inspect for damage and order any replacement parts.
- Tighten all hardware and make sure there are no loose connections.
- Paint all replacement parts.
- Paint any bare surfaces to prevent rust.
- Lubricate all grease points. Refer to maintenance section.
- Coat exposed portions of cylinder rods with grease.
- Seal hydraulic system from contaminants.
- Secure all hoses in a manner that prevents potential damage during transport.
- Replace any illegible or missing decals.
- Store unit inside a clean, dry area to prolong life.

BEGINNING OF SEASON

- Review entire operator's manual.
- Clean equipment
- Install any replacement parts.
- Secure all fasteners.
- Check hydraulic hoses for damage and replace as necessary.
- Replace missing or illegible decals. •
- Refer to installation section for important information.
- Fully understand this manual and the prime mover operator's manual and take proper precautions prior to testing.



SPECIFICATIONS

TORQUE CHART - COURSE THREAD									
		SAE J429 Grade 5			E	SAE J429) Grade 8		
			Tighter	ning Torque	(ft-lbs)		Tighter	ning Torque	(ft-lbs)
				Thread-				Thread-	
Nominal	Threads	Clamp	Lubricated	locker	Zinc & Dry	Clamp	Lubricated	locker	Zinc & Dry
Dia. (in.)	per inch	Load (lbs.)	K = 0.15	K = 0.17	K = 0.20	Load (lbs.)	K = 0.15	K = 0.17	K = 0.20
1/4	20	2029	6.3	7.2	8.5	2864	9.0	10.1	11.9
5/16	18	3342	13	15	17	4719	18	21	25
3/8	16	4940	23	26	31	6974	33	37	44
7/16	14	6777	37	42	49	9568	52	59	70
1/2	13	9046	57	64	75	12771	80	90	106
9/16	12	11599	82	92	109	16375	115	130	154
5/8	11	14408	113	128	150	20340	159	180	212
3/4	10	21322	200	227	267	30101	282	320	376
7/8	9	29436	322	365	429	41556	455	515	606
1	8	38616	483	547	644	54517	681	772	909
1 1/4	7	53786	840	952	1121	87220	1363	1545	1817
1 3/8	6	64096	1102	1249	1469	103939	1786	2025	2382
1 1/2	6	77991	1462	1657	1950	126473	2371	2688	3162

Refer to serial tag on the attachment for identification. NOTE: your serial tag may not appear exactly as shown below.

CRAIG MANUFACTURING LTD 96 MCLEAN AVE, HARTLAND, NB, E7P 2K5 77M 1-800-565-5007 CRAIGATTACHEMENTS.COM			
SERIAL NUMBER	PART NUMBER		
MACHINE	MANUFACTURE DATE		
WEIGHT	SAFE WORKING LOAD (SWL)		
LBS KG	LBS KG		
WORKING PRESSURE (MAX)	WORKING PRESSURE (MIN)		
PSI MPA	PSI MPA		
MADE IN CANADA PATENT NO.10,400,419 B2			



PARTS

To provide you with the most UP-TO-DATE part information, parts diagrams for this attachment have been moved to our Portal website. Please use these diagrams and parts lists to locate your replacement parts.

https://portal.craigattachments.com/

When servicing your attachment, remember to use only original manufacturer replacement parts. Substitute parts may not meet the standards required for safe and dependable operation.

To facilitate parts ordering when contacting any of our branches, please have the product serial number or product part number for your attachment ready to ensure that you receive the correct parts for your attachment.

The product serial number and product part number for your attachment should be recorded in the space provided in this manual. This information may be obtained from the serial number identification plate located on your attachment.

NOTE: Most parts orders (in stock) received by 12:00pm (Atlantic Standard Time) can be shipped the same day or following business day.

WARRANTY

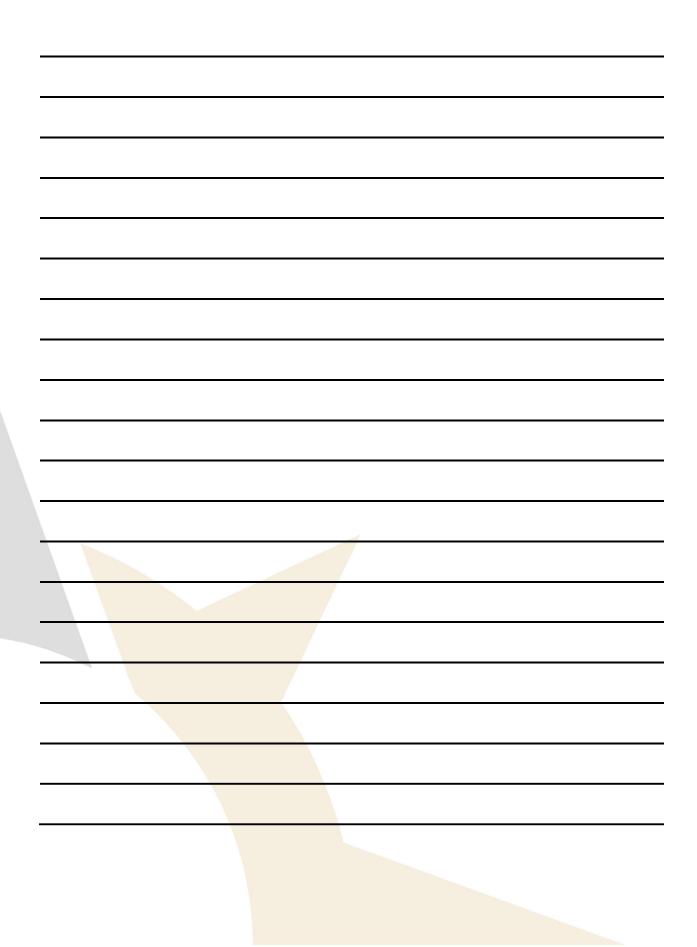
To provide you with the most UP-TO-DATE warranty information, warranty procedures, technical documents, product terms, and product registration, please go to our website at:

https://www.craigattachments.com/





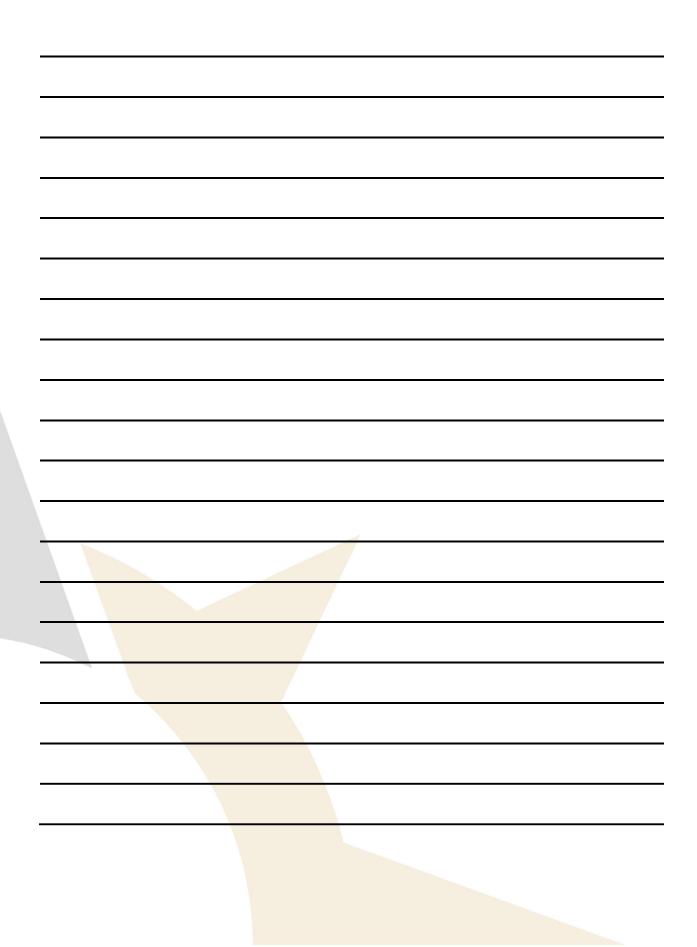
NOTES







NOTES





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 LAWRENCEBURG BRANCH 408 Commerce Way Ethridge, Tennessee 38456 USA

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