

BAUMALIGHT™

INCISOR IXP SERIES HYDRAULIC TREE SHEAR OPERATOR'S MANUAL

Issue Date: Oct 2016

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1 INTRODUCTION

1.1 Overview

Congratulations on your choice of a Baumalight Incisor Tree Shear to complement your operation. This equipment has been designed and manufactured to meet the needs of a discriminating buyer.

This new and unique design allows us to build it very economically and makes it a very compact unit for storage and transport. The enhanced visibility make the tree shear easy and efficient to operate. Hydraulic controls are easy to adjust and operate.

The debris guard is standard equipment on all tree shears. It is recommended that the tree shear never be operated with out one.

Safe, efficient and trouble free operation of your tree shear requires that you and anyone else who will be operating or maintaining the tree shear, read and understand the Safety, Operation, Maintenance and Troubleshooting information contained within the Operator's Manual.

This manual covers the Baumalight excavator mounted Incisor Tree Shear. Use the Table of Contents as a guide to locate required information.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your Baumalight dealer, distributor or the factory if you need assistance, information or additional copies of the manuals.

OPERATOR ORIENTATION - The directions left, right, front and rear, as mentioned throughout this manual, are as seen from the operator's seat and facing in the direction of travel.

1.2 Intended Use And Foreseeable Misuse

The tree shear is designed to be used by an experienced operator. Operator must be trained in the safe operation of a excavator and hazards related to using the tree shear and the safe use of the tree shear for the intended purpose. Operators will require personal protective equipment to reduce the risk from some hazards that cannot be completely eliminated or controlled by the design of the tree shear.

Care is required to ensure that the tree shear will not come in contact with metallic objects, stones or other materials.

Tree shears are not designed for use in hazardous atmospheres where there is a risk of fire or explosion due to flammable gases or vapors. Use in hazardous, explosive atmospheres is prohibited. Serious injury or death of the operator or bystanders may be caused if shear is misused. Misuse may also cause damage to the machine carrying the shear.

2 SAFETY

2.1 Safety Alert Symbol And Safety Words

You must read, understand and follow the instructions given by the operating unit manufacturers, as well as the instructions in this manual.


The safety information in this manual is denoted by the safety alert symbol:




This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

The level of risk is indicated by the following signal words:


 DANGER
DANGER - Indicates a hazardous situation, which, if not avoided, WILL result in death or serious injury.


 WARNING
WARNING - Indicates a hazardous situation, which, if not avoided, could result in death or serious injury.


 CAUTION
CAUTION - Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE
NOTICE - Indicates a situation that could result in damage to the equipment or other property.

2.2 Operational Hazards

 WARNING
Prevent death or serious injury.
Read and understand this manual before operating tree shear.
Always lower shear to ground, stop engine and remove key before leaving operators seat.
Never allow anyone in near tree shear or in area where tree may fall during operation.
Travel at a safe speed.

 WARNING
Prevent death or serious injury from moving parts.
Moving parts can crush and dismember.
Do not operate without guards and shields in place.
Disconnect and lockout power source before adjusting or servicing.

 WARNING
Use tree shear only for the designed applications.
Any other use may result in personal injury, damage to equipment and may void the warranty.

⚠ WARNING

Prevent death or serious injury.

Verify tree shear is locked to quick attach hitch before operation or transport.

⚠ WARNING

Protect from flying debris.

Wear proper safety glasses, goggles, or a face shield to protect from flying debris.

Carefully read all safety messages in this manual and on equipment safety signs. Keep safety signs in good condition and replace missing or damaged safety signs.

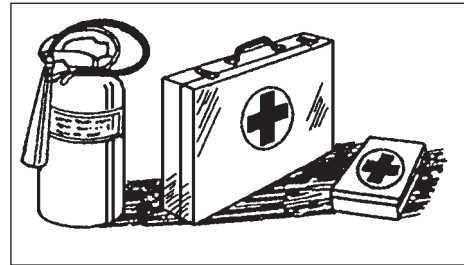
New equipment components and repair parts must include the current safety decal.

Learn how to properly operate equipment. NEVER operate or work around this equipment without proper instruction, while fatigued or under the influence of alcohol, prescription or non-prescription medication or if feeling ill.

Keep your equipment in proper working condition. Know the regulations and laws that apply to you and your industry. This manual is not to replace any regulations or laws. Additional information may be found at: www.asae.org or www.osha.gov. If you do not understand any part of this manual, contact Baumalight at 866-820-7603.

Prepare For Emergencies

- Be prepared in case of emergencies.
- Keep a fire extinguisher and first aid kit close to the machine.
- Keep emergency phone numbers close to your phone.
- Know your address so emergency services can locate you if an emergency arises.



Replace Safety Signs

- Replace missing or damaged safety signs.
- Safety signs are identified in Section 3 of this manual.
- Replacement safety signs are available from your Baumalight dealer.

Do Not Allow Riders

- NEVER lift or carry anyone on tree shear.
- NEVER use tree shear as a work platform.
- NEVER allow passengers on tree shear.

Lower Operating Speed

Keep tree shear low and move at slow speeds on rough or uneven terrain.

Avoid Rollover

The equipment may rollover, resulting in death or serious injury. To help prevent rollover:

- Travel at a slow speed.
- Avoid sharp turns & sudden movement on slopes.
- Carry tree shear close to the ground.
- Avoid holes, ditches and other obstructions which may cause equipment to rollover.
- Balance load so weight is evenly distributed and load is stable.
- Use caution when operating on slopes and do not operate on excessively steep slopes.
- Do not exceed load capacity of equipment.

Avoid Powerlines

<p>⚠ DANGER</p> <p>Prevent electrocution.</p> <p>Death or serious injury can result if equipment comes near or contacts power lines.</p> <p>Electrocution can occur without direct contact.</p>

- Check clearance before raising equipment.

DO NOT leave the operator's seat if any part of the equipment contacts electric lines or cables.

Detach Tree Shear Safely

Detach tree shear on a firm and level surface. Tree shear may fall over if detached on unlevel or soft surface. Be sure people, livestock and pets are clear of machinery.

Relieve hydraulic pressure before disconnecting hydraulic hoses.

Raised Attachment

<p>⚠ WARNING</p> <p>Crushing hazard.</p> <p>Raised, unsupported tree shear can fall, resulting in death or serious injury.</p> <p>Never enter the area under a raised tree shear.</p>

A raised tree shear can lower unexpectedly, resulting in death or serious injury.

NEVER enter area under a raised tree shear.

Lower tree shear to ground, engage parking brake, shut off engine and remove key before servicing.

Hazards From Modifying Equipment

Do not make any alterations to your tree shear. Altering may cause your equipment to be unsafe and may void the manufacturers' warranty.

Avoid High Pressure Fluids

WARNING

Pressurized fluids can penetrate the skin.

Hydraulic hoses can fail from age, damage and exposure.

Use body and face protection while searching for leaks. A tiny, almost invisible leak can penetrate the skin, thereby requiring immediate medical attention.

Use wood or cardboard to detect hydraulic leaks, never use your hands.

Escaping fluid under pressure can penetrate the skin causing serious injury.

Prevent the hazard by relieving pressure before connecting or disconnecting hydraulic lines. Verify all connections are tight before applying pressure. Search for leaks with a piece of cardboard or wood. Protect hands and body from high pressure fluids. If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or serious infection may result.

Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.

Avoid Loud Noise

WARNING

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

2.3 Maintenance Hazards

Before servicing, park machine on a firm and level surface, set parking brake and place a “Do Not Operate” tag on control panel. Read and understand this manual. If you do not understand any part of the manual, contact Baumalight at 866-820-7603.

Always wear face and/or eye protection, safety shoes, and other protective equipment appropriate for the job.

Do not make unauthorized modifications. Contact Baumalight at 866-820-7603. Before you weld, cut/drill holes, or make any other modifications.

Always use Baumalight replacement parts.

WARNING

Moving parts can crush and cut.

Keep clear of moving components.

Follow lockout procedure before servicing.

WARNING

Crushing hazard.

Before performing inspections, service or maintenance:

Park machine on firm, level surface.

Engage parking brake.

Turn engine off and remove key.

Place “Do Not Operate” tag on control panel.

WARNING

Entanglement hazard.

Keep clear of moving components.

Wear proper protective equipment appropriate for the job.

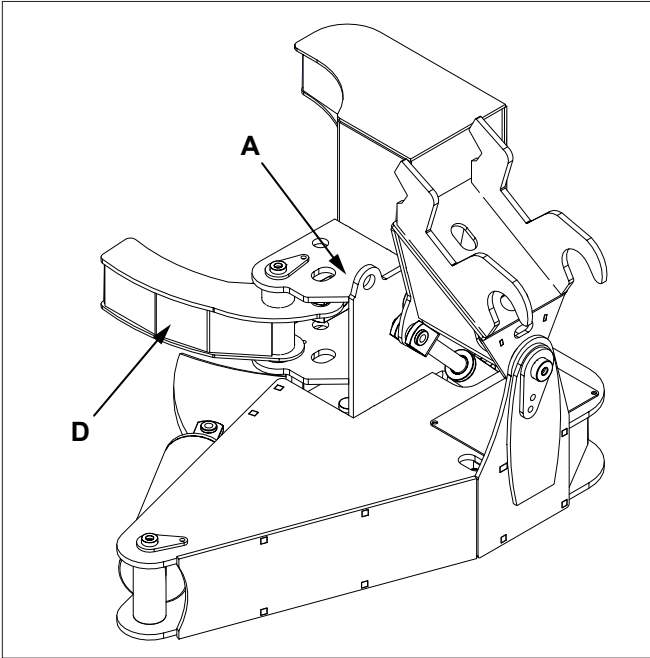
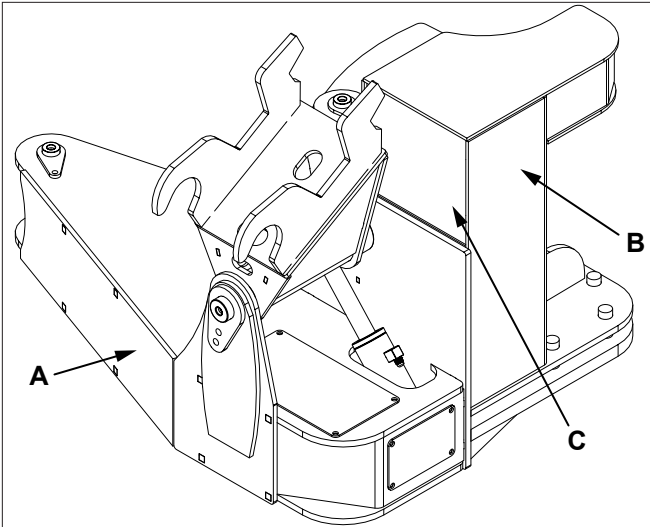
WARNING

Burn hazard.

Hot and high pressure hydraulic oil.

Allow oil to cool before servicing.

3 SAFETY SIGNS



A. MTB-065 Safety Sign



C. MTB-182 Safety Sign



B. MTB-052 Safety Sign



D. D003375 Safety Sign



4 OPERATION

4.1 Preparation For Use

Although the tree shear has been carefully inspected and checked prior to shipment from manufacturer, it is recommended that the unit be thoroughly inspected.

Check all bolts for tightness and remove all shipping tags, bags, skids, and blocking.

Remove any masking materials affixed during painting. Inspect equipment to verify that nameplates and all safety warning, caution signs and decals provided with the equipment are in place and clearly visible.

Visually inspect the tree shear before each start up. Check for loose or missing parts and any damage that may have occurred during moving or shipping.

Review all excavator pre-start instructions, and ensure that all recommended steps and procedures have been followed.

4.1.1 HYDRAULIC CONNECTIONS

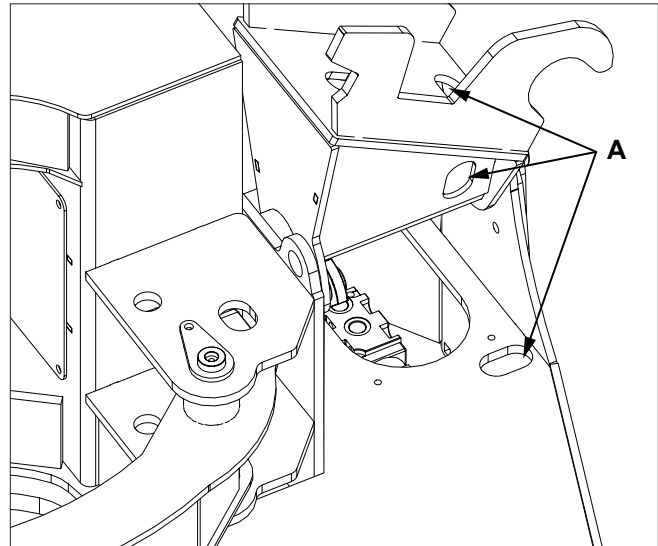
⚠ WARNING

Pressurized fluids can penetrate the skin.

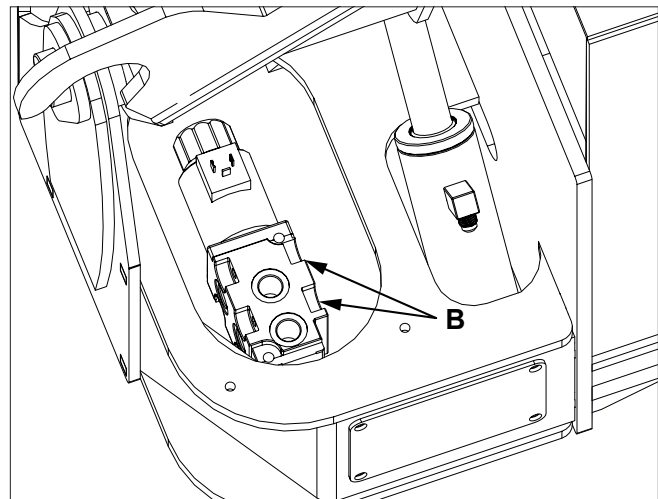
Disconnect and lock out power source before disconnecting and/or connecting hydraulic hoses.

Hydraulic hoses that connect Incisor control valve to excavator are not provided with the Incisor. The IXP308G uses 3/8 in. hoses. All other IXP models will use 1/2 in. hoses. Hose length will vary based on size of excavator.

1. Route hoses through openings (A) in frame.



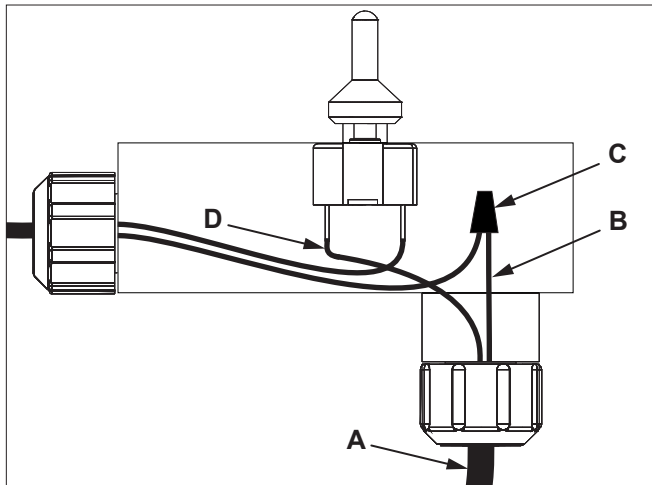
2. Remove cover and connect supply hose and return hose to A ports (B) on valve. Install cover.
3. Route hoses along boom and connect to excavator hydraulic system.



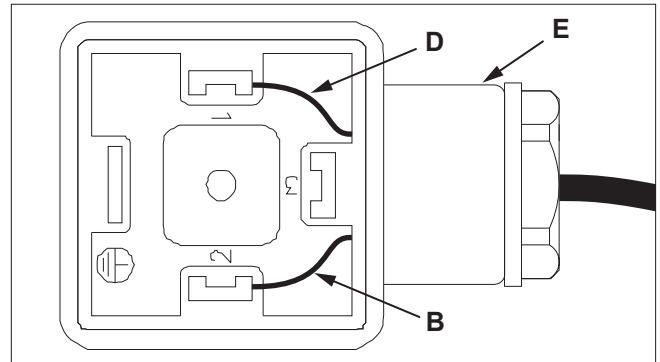
4.1.2 ELECTRICAL CONNECTIONS

Electrical wire that runs from the Incisor valve to the remote pendant is not provided with the Incisor. Wire length will vary based on size of excavator.

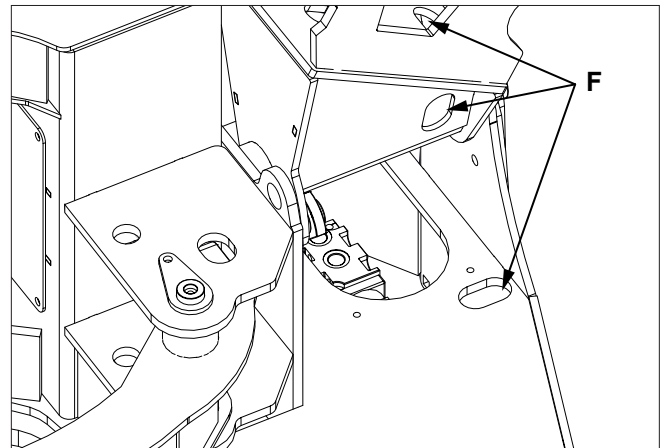
1. Remove cover from remote pendant.
2. Route 12 gauge or larger wire (A) into pendant through port on back of pendant.
3. Connect negative (-) wire (B) to free wire from 12v power supply wire with supplied connector (C).
4. Attach supplied ring terminal to positive (+) wire (D). Attach ring terminal to open terminal on switch.
5. Install pendant cover.



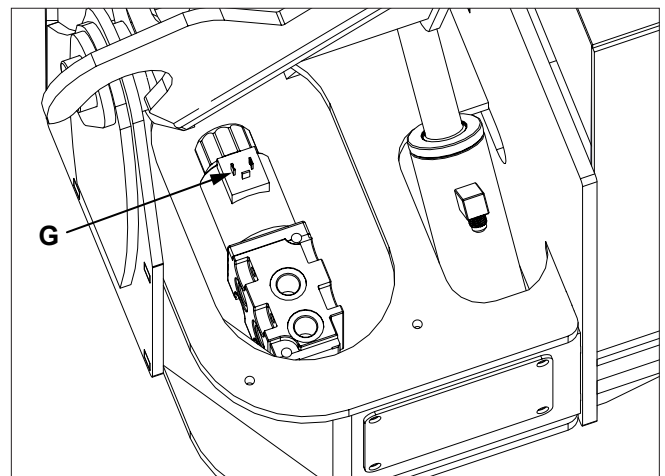
6. Disassemble plug (E) and route other end of wire (A) into plug.
7. Connect positive (+) wire (D) to terminal 1.
8. Connect negative (-) wire (B) to terminal 2.
9. Assemble plug (E).



10. Route connector (E) along boom and through openings (F) in frame.

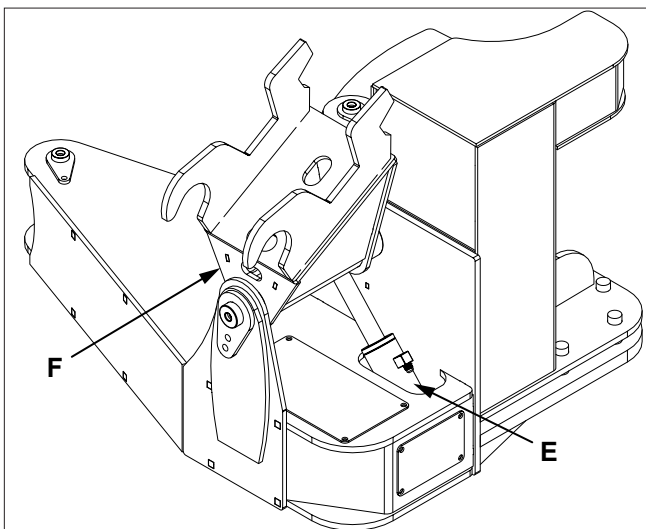
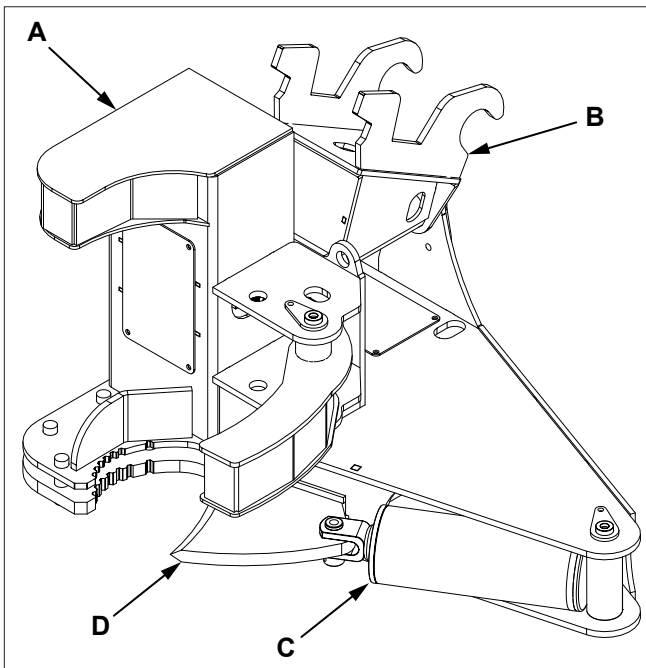


11. Attach connector (E) to valve (G).



4.2 Machine Components

- A. Grabber Assembly
- B. Pin-On Wedge Coupler
- C. Shear Cylinder
- D. Shear Blade
- E. Pivot Cylinder
- F. Pivot Assembly



4.3 Attach To Excavator

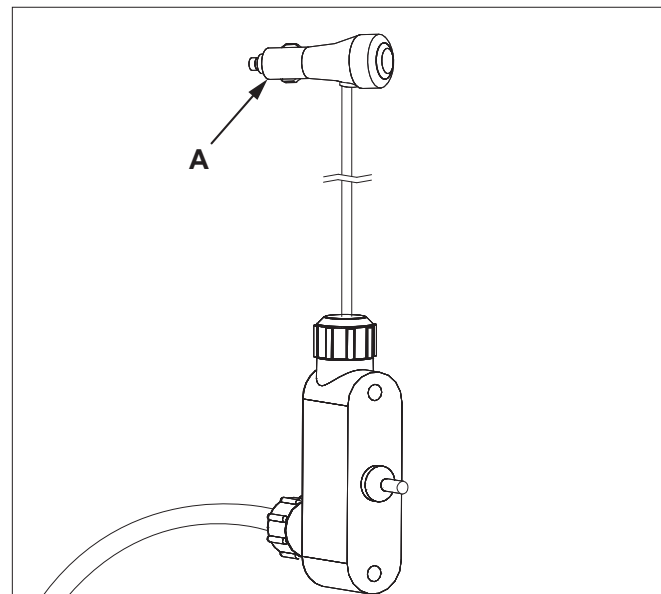
⚠ WARNING

To prevent injury or machine damage put transmission in "Park".

Never position yourself between excavator and tree shear.

Only experienced and properly trained operator's may operate excavator and tree shear.

1. Read and follow all safety instructions.
2. Attach tree shear to excavator. See excavator operator's manual.
3. Connect hydraulic hoses. Verify hydraulic hoses are clear of pinch areas and moving parts.
4. Connect remote pendant connector (A) to excavator 12 volt power supply.



5. Move to a clear open area to test functions.

4.4 Detach From Excavator

WARNING

Prevent death or serious injury caused by unexpected movement:

1. Park excavator on a level surface.
2. Engage excavator parking brake.

1. Park excavator on a level surface.
2. Lower tree shear to the ground.
3. Shut off engine and remove key.
4. Disconnect hydraulic hoses.
5. Disconnect electrical connector.
6. Detach tree shear from excavator. See excavator Operator's Manual.

4.5 Transporting

1. Verify all reflectors and Slow Moving Vehicle (SMV) sign are visible.
2. Raise tree shear slightly off ground.
3. Travel at a reasonable and safe speed.

WARNING

Always stop engine and remove key before leaving operators seat.

4.6 First Time User Tips

Operate all functions in an open area with excavator at idle to get a good feel for the controls.

Run throttle only at half speed for first time users.

WARNING

Always stop engine and remove key before leaving operators seat.

4.7 Field Operation

WARNING

Prevent serious injury or death caused by unexpected movement:

1. Park excavator on a level surface.
2. Lower shear to ground.
3. Engage excavator parking brake.
4. Shut off engine and remove key.

WARNING

Never operate tree shear when other people are in the vicinity.

Keep all shields in place.

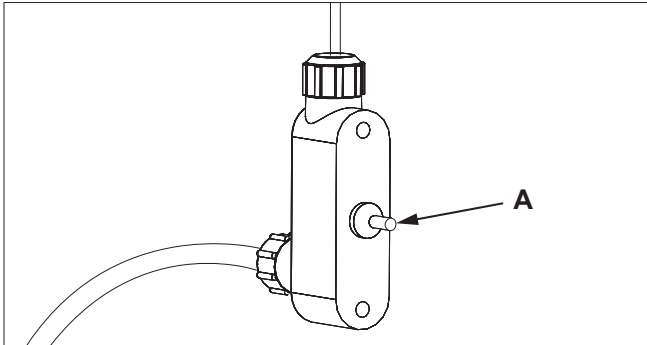
Do not allow riders on excavator.

1. Attach tree shear to excavator. See Attaching/ Detaching in this section.
2. Operate hydraulics to open shear and clamps.
3. Position shear so tree is as far into rear of blade opening as possible for most cutting power.
4. Position tree shear as low as possible when cutting tree. Shear tree perpendicular to grain. Do not cut with shear blade skewed to tree axis. Shear blade may be damaged.

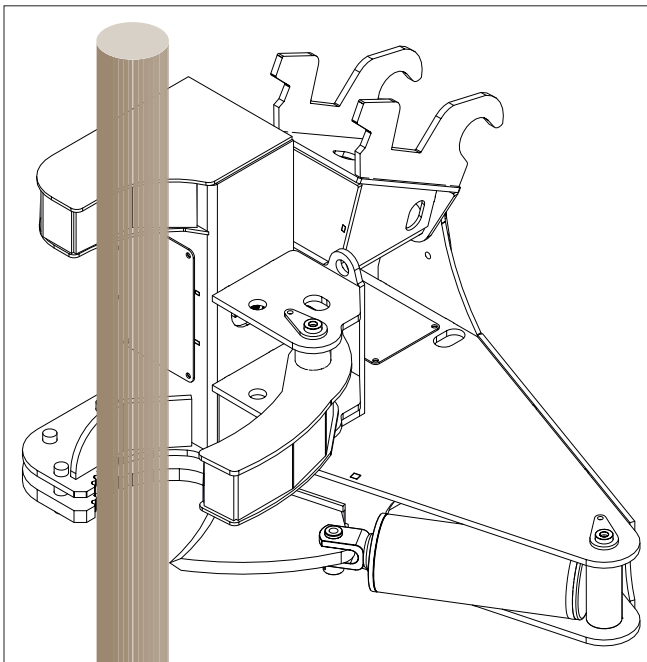
5 SERVICE AND MAINTENANCE

5.1 Lubrication

5. Move and hold pendent switch (A) and operate hydraulics to rotate shear head perpendicular to grain of tree.



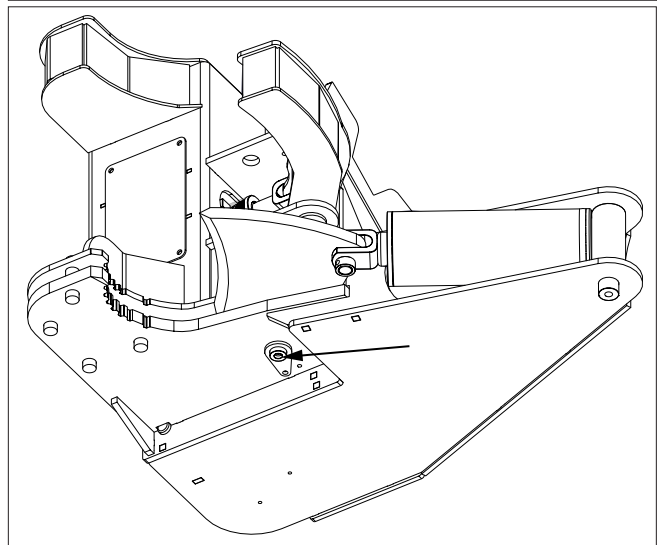
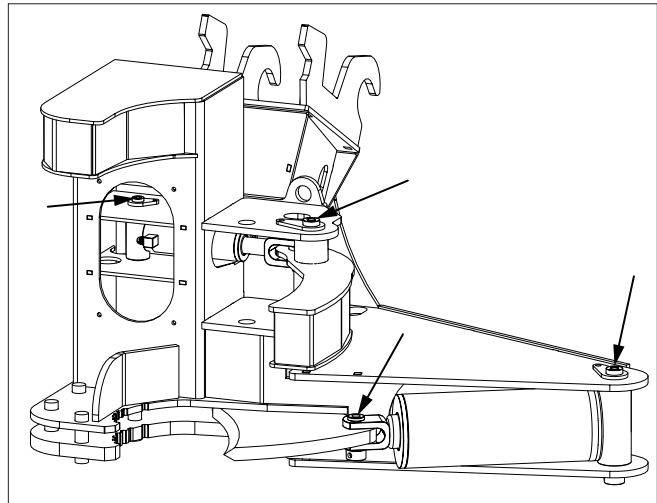
6. Release control box switch and operate hydraulics to close clamps and close shear blade, cutting tree.
7. Swing or move excavator to desired location and operate hydraulics to open clamps to drop tree.

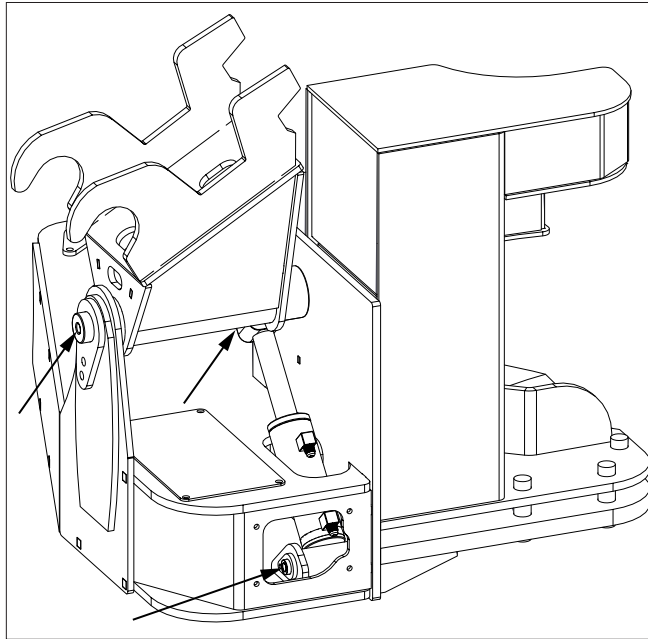


⚠ WARNING

Prevent serious injury or death caused by unexpected movement:

1. Park excavator on a level surface.
 2. Lower shear to ground.
 3. Engage excavator parking brake.
 4. Shut off engine and remove key.
1. Pump grease into all pivot point lubrication fittings until adequately lubricated.





5.2 Inspect Hoses

⚠ WARNING

Pressurized fluids can penetrate the skin.

Hydraulic hoses can fail from age, damage and exposure.

Use body and face protection while searching for leaks. A tiny, almost invisible leak can penetrate the skin, thereby requiring immediate medical attention.

Use wood or cardboard to detect hydraulic leaks, never use your hands.

⚠ WARNING

Prevent serious injury or death caused by unexpected movement:

1. Park excavator on a level surface.
2. Lower shear to ground.
3. Engage excavator parking brake.
4. Shut off engine and remove key.

Inspect hydraulic hoses for damage and wear. Replace damaged or worn hoses before operating shear.

6 TROUBLESHOOTING

PROBLEM	CHECK	SOLUTION
Shear does not close.	Shear jammed.	Remove material from shear.
	Low oil.	Check oil level in excavator. Add if necessary.
	Not enough oil flow.	Check flow control on excavator. See your dealer.
Shear does not have much power.	Low oil.	Check oil level in excavator. Add if necessary.
	Oil filter plugged.	Replace excavator oil filter.
	Excavator relief valve not set properly.	Set relief valve. Pressure should be between 3,500 and 4,000 psi. See your dealer.
	Not enough oil pressure.	Check hydraulic pressure on excavator. See your dealer.

7 WARRANTY

This product is warranted to be free of defects in materials and workmanship under normal use and service, for a period of one year from the date of purchase, when operated and maintained in accordance with the Operating and Maintenance Instructions supplied with this unit. This warranty does not cover misuse or negligence.

Under no circumstances will the manufacturer be liable for any consequential damage or expense of any kind, including loss of profits. The manufacturer is under no circumstances liable for excavator damage of any kind. The manufacturer is not liable for the maintenance of the product.

This warranty is extended only to the original purchaser. Warranty is void if repairs are attempted by anyone other than an Authorized Service Center.

If a difficulty develops with the product, you should contact your nearest Authorized Repair Center, or distributor. Only these locations are authorized to make repairs to the product or affect the replacement of defective parts, which will be done at no charge within a reasonable time after the receipt of the product. Units or parts should be returned at the customer's expense to the nearest repair location or Authorized Service Center. Pack unit in a strong carton and pad tightly to avoid damage. Damage in-transit is not covered by warranty. Include original purchase receipt with any claim (keeping a copy for your files).

The Manufacturer's Liability is limited to repair of the product and/or replacement of parts and is given to the purchaser in lieu of all other remedies including incidental and consequential charges. There are no warranties, expressed or implied other than those specified herein. For the nearest Authorized Service Center call the manufacturer.

Please note the following details and file this information in an appropriate place.

Model Number: _____ S/N: _____

Date of Purchase: _____ Owner's Name _____

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