

MacDon™

**R80 Pull-Type
Rotary Disc Mower Conditioner
Unloading & Assembly Instructions**



PULL-TYPE ROTARY DISC MOWER CONDITIONER

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INTRODUCTION

This instruction describes the unloading, set-up and pre-delivery requirements for the Model R80 Pull-Type Rotary Disc Mower Conditioner. Use the table of contents to guide you to specific areas.

CAREFULLY READ ALL THE MATERIAL PROVIDED BEFORE ATTEMPTING TO UNLOAD, ASSEMBLE, OR USE THE MACHINE.

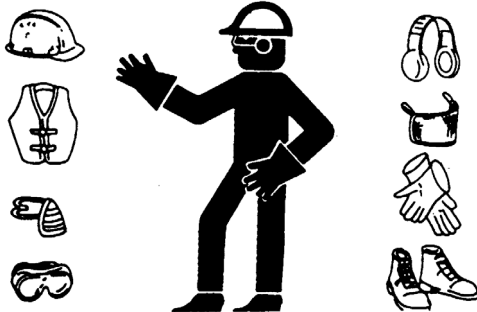
GENERAL SAFETY



CAUTION

The following are general farm safety precautions that should be part of your operating procedure for all types of machinery.

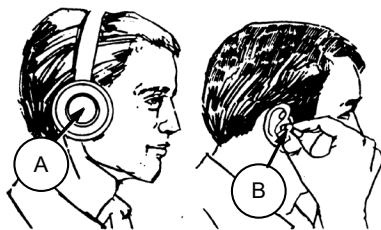
Protect yourself.



When assembling, operating and servicing machinery, wear all the protective clothing and personal safety devices that **COULD** be necessary for the job at hand. Don't take chances.

You may need:

- a hard hat.
- protective shoes with slip resistant soles.
- protective glasses or goggles.
- heavy gloves.
- wet weather gear.
- respirator or filter mask.
- hearing protection. Be aware that prolonged exposure to loud noise can cause impairment or loss of hearing. Wearing a suitable hearing protective device such as ear muffs (A) or ear plugs (B) protects against objectionable or loud noises.



Provide a first-aid kit for use in case of emergencies.

Keep a fire extinguisher on the machine. Be sure the extinguisher is properly maintained and be familiar with its proper use.



Keep young children away from machinery at all times.

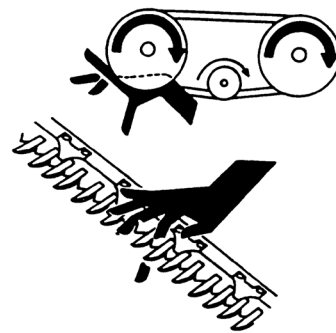
Be aware that accidents often happen when the operator is tired or in a hurry to get finished. Take the time to consider the safest way. Never ignore warning signs of fatigue.

Wear close-fitting clothing and cover long hair. Never wear dangling items such as scarves or bracelets.

Keep hands, feet, clothing and hair away from moving parts. Never attempt to clear obstructions or objects from a machine while the engine is running.



Keep all shields in place. Never alter or remove safety equipment. Make sure driveline guards can rotate independently of the shaft and can telescope freely.



Use only service and repair parts made or approved by the equipment manufacturer. Substituted parts may not meet strength, design, or safety requirements.

Do not modify the machine. Unauthorized modifications may impair the function and/or safety and affect machine life.

Stop engine and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.

Keep the area used for servicing machinery clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment. Be sure all electrical outlets and tools are properly grounded.



Use adequate light for the job at hand.

Keep machinery clean.

Do not allow oil or grease to accumulate on service platforms, ladders or controls. Clean machines before storage.

Never use gasoline, naphtha or any volatile material for cleaning purposes. These materials may be toxic and/or flammable.

When storing machinery, cover sharp or extending components to prevent injury from accidental contact.

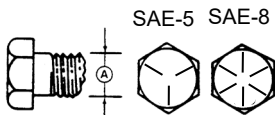
RECOMMENDED TORQUES

I. GENERAL

The tables shown below give correct torque values for various bolts and capscrews.

- Tighten all bolts to the torques specified in chart unless otherwise noted throughout this manual.
- Check tightness of bolts periodically, using bolt torque chart as a guide.
- Replace hardware with the same strength bolt.
- Torque figures are valid for non-greased or non-oiled threads and heads unless otherwise specified. Do not grease or oil bolts or capscrews unless specified in this manual. When using locking elements, increase torque values by 5%.

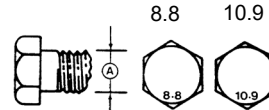
II. SAE BOLTS



Bolt Dia. "A"	NC Bolt Torque*			
	SAE 5		SAE 8	
	lb-ft	N·m	lb-ft	N·m
1/4"	9	12	11	15
5/16"	18	24	25	34
3/8"	32	43	41	56
7/16"	50	68	70	95
1/2"	75	102	105	142
9/16"	110	149	149	202
5/8"	150	203	200	271
3/4"	265	359	365	495
7/8"	420	569	600	813
1"	640	867	890	1205

* Torque categories for bolts and capscrews are identified by their head markings.

III. METRIC BOLTS



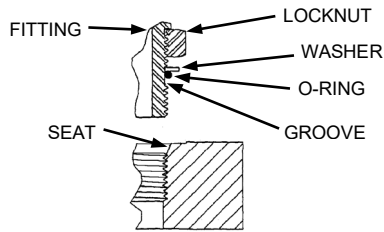
BOLT DIA. "A"	NC BOLT TORQUE*			
	8.8		10.9	
	lb-ft	N·m	lb-ft	N·m
M3	0.4	0.5	1.3	1.8
M4	2.2	3	3.3	4.5
M5	4	6	7	9
M6	7	10	11	15
M8	18	25	26	35
M10	37	50	52	70
M12	66	90	92	125
M14	103	140	148	200
M16	166	225	229	310
M20	321	435	450	610
M24	553	750	774	1050
M30	1103	1495	1550	2100
M36	1917	2600	2710	3675

* Torque categories for bolts and capscrews are identified by their head markings.

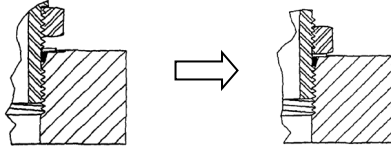
IV. HYDRAULIC FITTINGS

O-RING TYPE

Refer to illustration and proceed as follows:



- Inspect O-ring and seat for dirt or obvious defects.
- On angle fittings, back off the lock nut until washer bottoms out at top of groove.



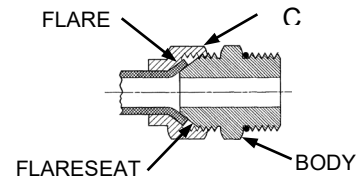
- Hand tighten fitting until back up washer or washer face (if straight fitting) bottoms on face and O-ring is seated.
- Position angle fittings by unscrewing no more than one turn.
- Tighten straight fittings to torque shown.
- Tighten angle fittings to torque shown in the following table while holding body of fitting with a wrench.

THD SIZE (in.)	NUT SIZE ACROSS FLATS (in.)	TORQUE VALUE*		RECOMMENDED TURNS TO TIGHTEN (AFTER FINGER TIGHTENING)	
		lb-ft	N·m	Flats	Turns
3/8	1/2	6	8	2	1/3
7/16	9/16	9	12	2	1/3
1/2	5/8	12	16	2	1/3
9/16	11/16	18	24	2	1/3
3/4	7/8	34	46	2	1/3
7/8	1	46	62	1-1/2	1/4
1-1/16	1-1/4	75	102	1	1/6
1-3/16	1-3/8	90	122	1	1/6
1-5/16	1-1/2	105	142	3/4	1/8
1-5/8	1-7/8	140	190	3/4	1/8
1-7/8	2-1/8	160	217	1/2	1/12

* The torque values shown are based on lubricated connections as in reassembly.

FLARE TYPE

Refer to illustration and proceed as follows:



- Check flare and flare seat for defects that might cause leakage.
- Align tube with fitting before tightening.
- Lubricate connection and hand tighten swivel nut until snug.
- To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

TUBE SIZE O.D. (in.)	NUT SIZE ACROSS FLATS (in.)	TORQUE VALUE*		RECOMMENDED TURNS TO TIGHTEN (AFTER FINGER TIGHTENING)	
		lb-ft	N·m	Flats	Turns
3/16	7/16	6	8	1	1/6
1/4	9/16	9	12	1	1/6
5/16	5/8	12	16	1	1/6
3/8	11/16	18	24	1	1/6
1/2	7/8	34	46	1	1/6
5/8	1	46	62	1	1/6
3/4	1-1/4	75	102	3/4	1/8
7/8	1-3/8	90	122	3/4	1/8

* The torque values shown are based on lubricated connections as in reassembly.

ENGLISH/METRIC EQUIVALENTS

ENGLISH	FACTOR	SI UNITS (METRIC)
acres	x 0.4047	hectares (ha)
ft/min	x 0.3048	= meters/min (m/min)
ft/s	x 0.3048	= meters/sec (m/s)
US gal	x 3.7854	= liters (L)
US gal/min (gpm)	x 3.7854	= liters/min (L/min)
hp	x 0.7457	= kilowatts (kW)
in ³	x 16.3871	= cubic centimeters (cm ³ or cc)
lbf.	x 4.4482	= newtons (N)
lbf.ft or ft-lb	x 1.3558	= newton meters (N·m)
lbf.in or in-lb	x 0.1129	= newton meters (N·m)
mph	x 1.6063	= kilometers/hour (km/h)
oz.	x 29.5735	= milliliters (ml)
psi	x 6.8948	= kilopascals (kPa)
psi	x .00689	= megapascals (MPa).

UNLOADING AND ASSEMBLY

- g. Check for shipping damage and missing parts.

STEP 1. UNLOAD HITCH



CAUTION

To avoid injury to bystanders from being struck by machinery, do not allow persons to stand in unloading area.



CAUTION

Equipment used for unloading must meet or exceed the requirements specified below. Using inadequate equipment may result in chain breakage, vehicle tipping or machine damage.

LIFTING VEHICLE	
MIN. LIFTING CAPACITY	8000 LB. (3630 KG)
MIN. LIFTING HEIGHT	15 FT. (4.5 M)

CHAIN	
TYPE	OVERHEAD LIFTING QUALITY (1/2 INCH)
MIN. WORKING LOAD	5000 LB. (2270 KG)

- a. Remove hauler's tie down straps and chains.



- b. Attach chain to two brackets on top of hitch as shown.
c. Adjust chain lengths so hitch is lifted evenly.
d. Raise hitch off deck, back up until unit clears trailer and slowly lower to 6 inches (150 mm) from ground.

IMPORTANT

Take care not to contact the other machine if load is two-wide.

- e. Take to storage or set-up area and set hitch down securely on level ground.
f. Repeat for second hitch if required.

UNLOADING AND ASSEMBLY

STEP 2. UNLOAD HEADER



CAUTION

To avoid injury to bystanders from being struck by machinery, do not allow persons to stand in unloading area.



CAUTION

Equipment used for unloading must meet or exceed the requirements specified below. Using inadequate equipment may result in chain breakage, vehicle tipping or machine damage.

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<i>CHAIN</i>	
TYPE	OVERHEAD LIFTING QUALITY (1/2 INCH)
MIN. WORKING LOAD	5000 LB. (2270 KG)



WARNING

Be sure forks are secure before moving away from load. Stand clear when lifting.

- a. Remove hauler's tie down straps and chains.



- b. Approach windrower from either its "underside" or "topside" and slide forks in underneath lifting framework as far as possible.

NOTE

When possible, approach from the underside to minimize potential for scratching the unit.

- c. Raise windrower off deck.

IMPORTANT

Take care not to contact the other machine if load is two-wide.

- d. Back up until unit clears trailer and slowly lower to 6 inches (150 mm) from ground.
- e. Take to storage or set-up area set machine down securely on level ground.
- f. Repeat for other header if required.
- g. Check for shipping damage and missing parts.

UNLOADING AND ASSEMBLY

STEP 3. LOWER HEADER

- a. Drive lifting vehicle to approach windrower from its "underside".



- b. Attach chain hooks to hooks on either side of header.

CHAIN	
TYPE	OVERHEAD LIFTING QUALITY (1/2 INCH)
MIN. WORKING LOAD	5000 LB. (2270 KG)



CAUTION

Stand clear when lowering, as machine may swing.

NOTE

Do not lift at hooks when unloading from trailer. This procedure is only for laying the machine over into working position.

IMPORTANT

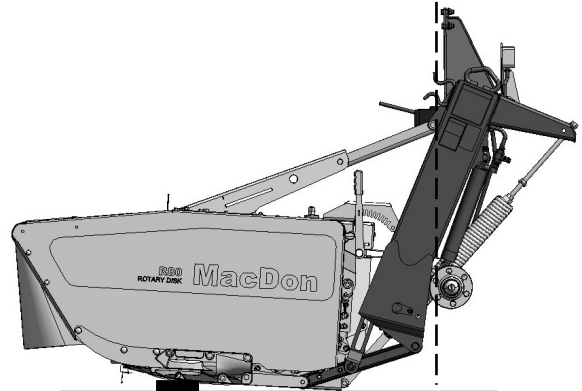
Chain length must be sufficient to provide a minimum 4 feet (1.2 m) vertical chain height.

- c. Raise forks until lift chains are fully tensioned.



- d. Back up SLOWLY while simultaneously lowering machine until cutterbar rests on ground.

MAST PERPENDICULAR TO GROUND



ADJUST HEIGHT AS REQUIRED

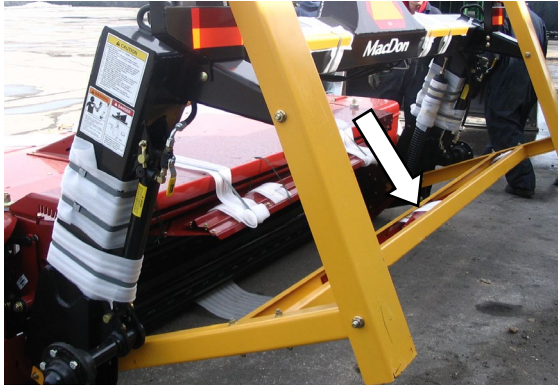
NOTE

The front face of the carrier mast should be approximately vertical for easier assembly of the hitch.

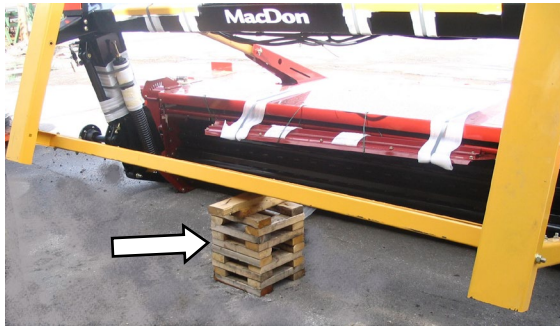
- e. Remove chain from windrower.

UNLOADING AND ASSEMBLY

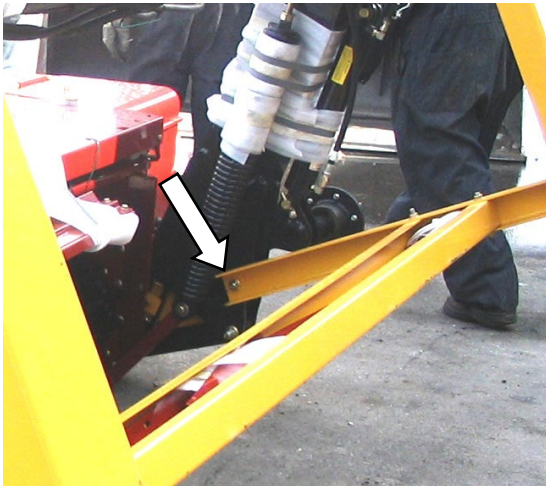
STEP 4. REMOVE SHIPPING CHANNELS AND BLOCKING



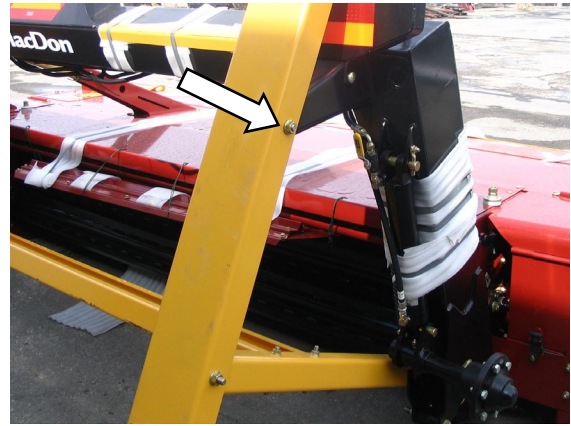
- a. Cut the banding on the shipping beam at the rear of carrier frame and remove components from inside the shipping beam. Set these components aside for a later assembly step



- b. Place blocks under the shipping beam at the rear of the carrier frame.



- c. Loosen the shipping stand bolt at the lower end of each carrier frame leg.



- d. Remove the bolt that secure shipping stand at each float spring anchor.
e. Remove the support blocks and lower the shipping stand to the ground.

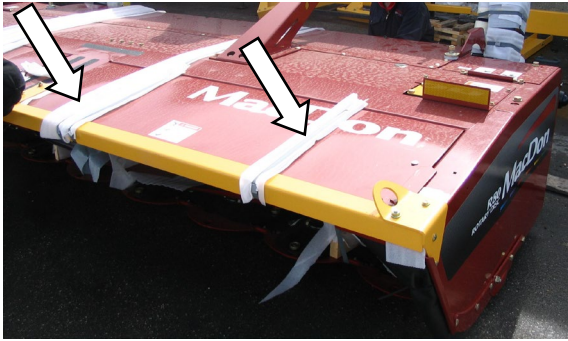


- f. Remove bolts at carrier frame legs and remove shipping stand frame.



- g. Cut banding that secures angles to carrier frame tube and remove angles.

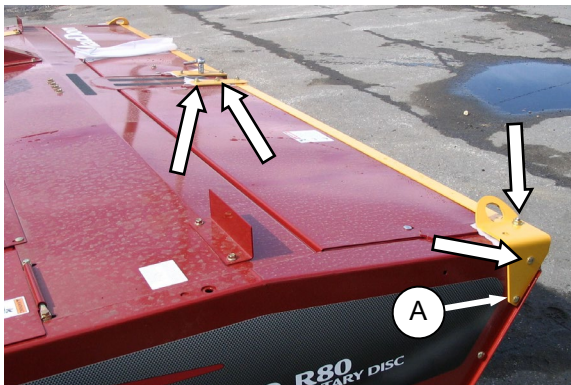
UNLOADING AND ASSEMBLY



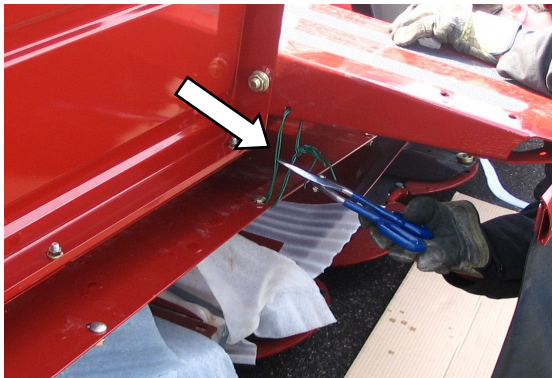
- h. Cut all banding at header front covers. The two center bands also secure the forming shield top cover inside the header.



- l. Slide top cover out from front of header and set aside for later installation.



- i. Remove five bolts and nuts on each door and remove front angles and lift hooks. Retain lower side bolt (A) for re-installation at same location after hook is removed.
- j. Open cutterbar doors fully.



- k. Remove shipping wire holding forming shield top cover to header.

UNLOADING AND ASSEMBLY

STEP 5. REMOVE CUTTERBAR COMPONENTS



- a. Cut banding securing forming shield side deflectors to cutterbar and remove components from cutterbar. Set aside for later installation.



WARNING

Ensure cutterbar is completely clear of foreign objects. These objects can be ejected with considerable force when the machine is started and may result in serious injury or machine damage.

- b. Thoroughly check cutterbar area for wooden blocking, banding, and hardware that may have fallen between discs.



- c. Close cutterbar doors. Ensure that curtains hang properly and completely enclose cutterbar area. Minor creases in curtains will eventually straighten out.

UNLOADING AND ASSEMBLY

STEP 6. UNPACK HITCH



- a. Attach chain from lifting vehicle or hoist to hitch hooks, and raise it two feet off ground.

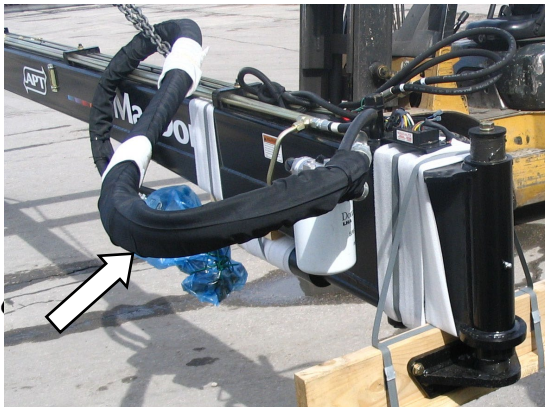


- b. Cut banding securing hydraulic motor and hoses to underside of hitch.



CAUTION

Hold motor to keep it from dropping to the ground when cutting band around motor.



- c. Route motor and hoses to the left side of the hitch.



- d. Secure the motor to the steering cylinder with shipping wire.



- e. Remove the two bolts securing wooden stand to hitch pin.

NOTE

Bolt and washer at top of pin keeps pin in hitch when bolts are removed.



- f. Cut banding securing wooden stand to hitch and remove wooden stand.

UNLOADING AND ASSEMBLY



- g. Remove bolt and washer securing pin to hitch.

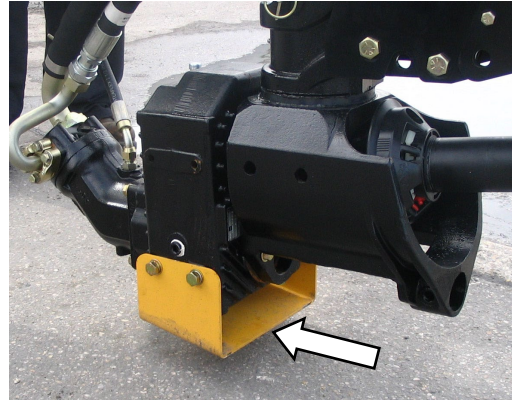


CAUTION

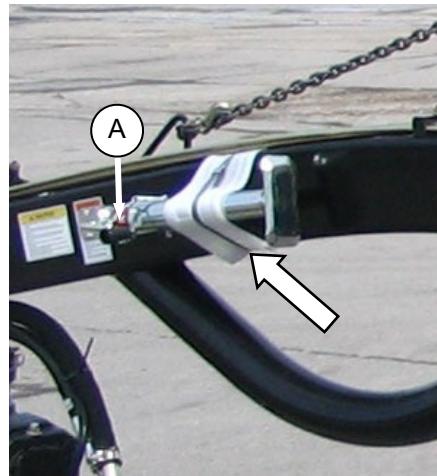
Hold pin from falling to the ground when bolt is removed.



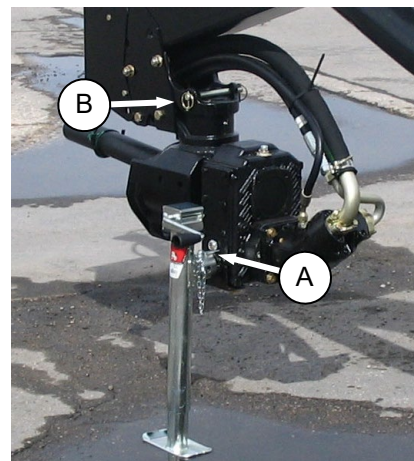
- h. Remove pin and reinsert pin in hitch from top.



- i. Remove four bolts securing shipping bracket at front of hitch, and remove bracket.
j. Remove banding from jack.



- k. Remove pin (A) securing jack to hitch and remove jack from shipping position.



- l. Install at jack location at front of hitch and secure with pin (A).

IMPORTANT

Ensure articulated hitch lock pin (B) is installed and secured with lynch pin.

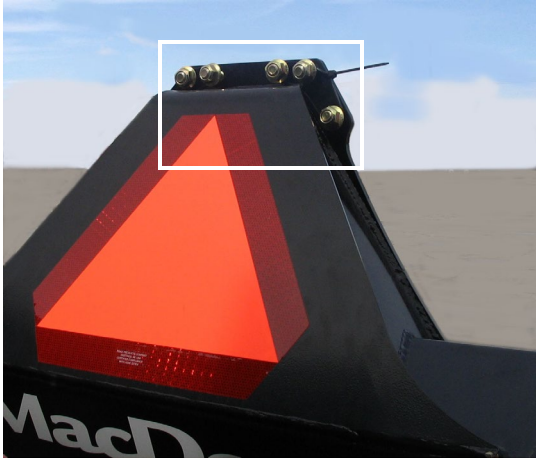
UNLOADING AND ASSEMBLY

STEP 7. ATTACH HITCH

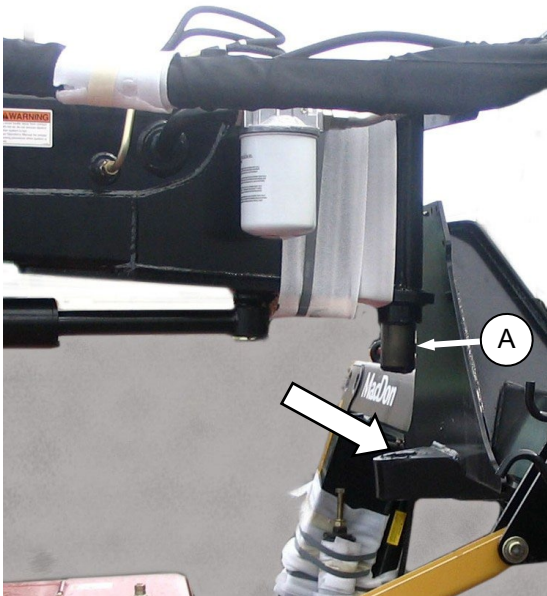


CAUTION

Keep hands clear when lowering hitch.



- a. Remove the six bolts and nuts from frame and retain for reinstallation.



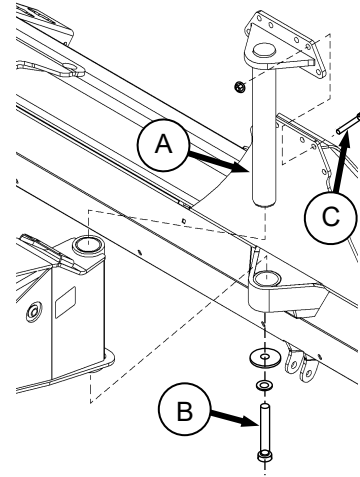
- b. Using a forklift or equivalent, manoeuvre hitch into position and install pivot pin (A) into windrower frame.

NOTE

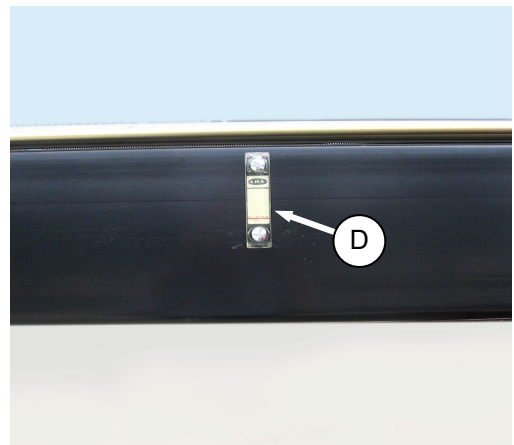
Use the jack to adjust the pitch of the hitch for proper alignment when installing pivot pin.

NOTE

Pin may need to be tapped into final position with a hammer due to the tight clearances.



- c. Secure pivot pin to frame by installing six 5/8 x 1.75 long Gr. 8 bolts (C) with lock nuts removed at step a. Install bolts with heads facing aft.
- d. Torque to 250 ft-lb (339 N·m).
- e. Install bolt (B), lockwasher, and flatwasher removed at STEP 6g. at lower end of pivot pin and tighten bolt.
- f. Position hitch with jack so that rear span of hitch is approximately horizontal. Remove lifting chain from hitch.



- g. Check oil level in site glass (D) on the left side of the tongue, is between ADD and FULL.

UNLOADING AND ASSEMBLY

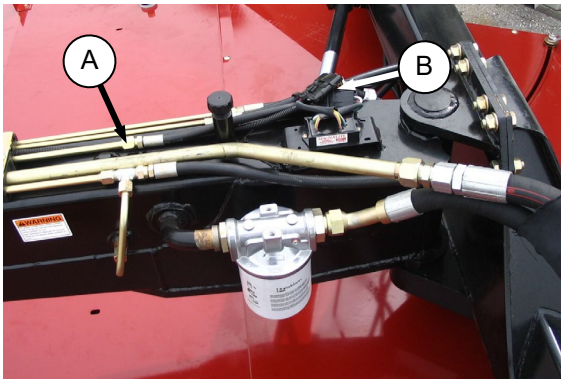
STEP 8. CONNECT LIFT HOSE

IMPORTANT

Hoses should be routed so there are no twists or sharp bends and no locations where contact with the frame is likely. Ensure that there is sufficient length of hose and wiring in span to accommodate full swing of hitch in both directions. Relocate plastic ties if necessary to provide suitable slack in hoses and wiring.

IMPORTANT

To prevent contamination of the hydraulic system, extreme care must be taken to avoid dirt entering at connection points. To minimize exposure to contamination, remove cap from one hose and its mating connection and connect before removing other caps and plugs.



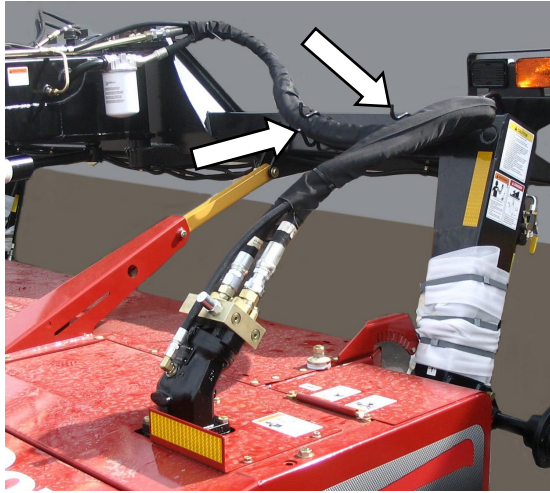
- a. Connect the lift cylinder hose (A) to the fitting on the hitch.
- b. Connect electrical wiring harness (B) at rear of hitch as shown.

UNLOADING AND ASSEMBLY

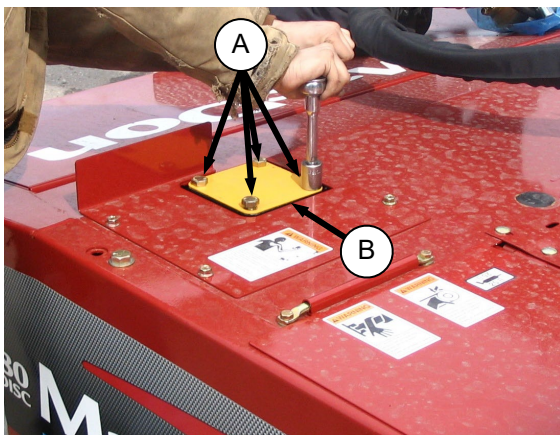
STEP 9. INSTALL HYDRAULIC MOTOR



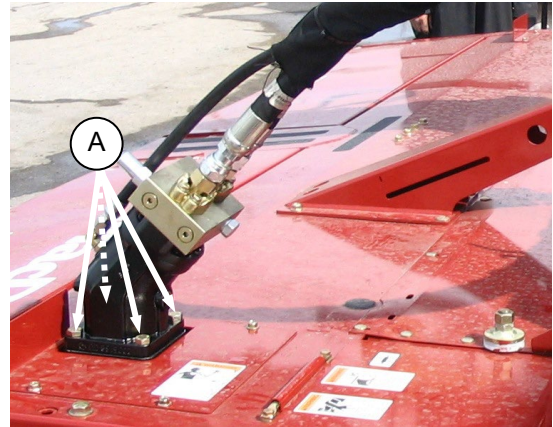
- a. Remove shipping wire that holds motor to steering cylinder.



- b. Route the motor and main drive hoses from the hitch to the left side of the carrier frame.
c. Route hoses through hose guides.



- d. Remove four bolts (A) securing plate (B) to gearbox and remove plate. Retain bolts.



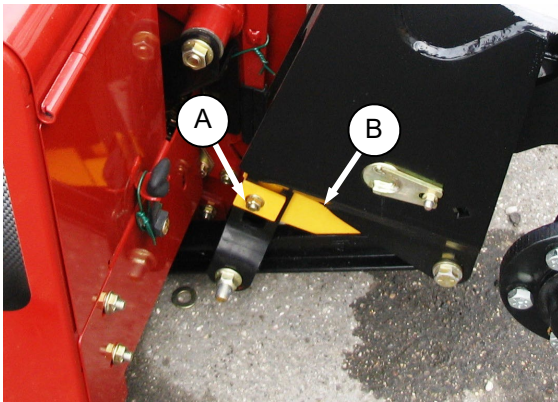
- e. Position motor on gearbox as shown and re-install the four bolts (A). If required, loosen the hose swivel fittings at the motor ports to remove any twist in the hose routing from the hitch. Re-tighten fittings.

UNLOADING AND ASSEMBLY

STEP 10. INSTALL WHEELS



- a. Attach a lifting chain to the hook at one end of the carrier frame. Attach the other end to a forklift or equivalent.
- b. Lift frame so that the cutterbar is slightly off the ground.



- c. Remove bolt (A) securing shipping wedge (B) at the lower lift link and remove wedge.



CAUTION

Do not drive out this bolt. If carrier frame is lifted high enough, bolt becomes free to remove.

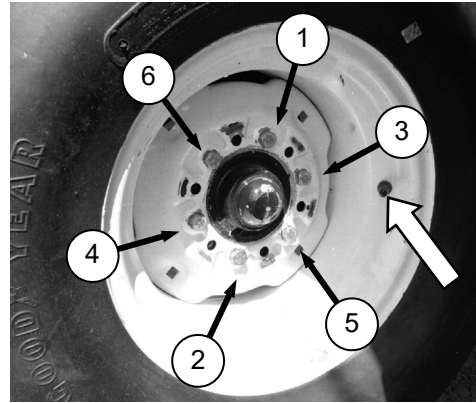
- d. Remove wheel bolts from wheel hub.



CAUTION

When installing wheel be sure to use the holes that are countersunk to match bolt head profile. The uncountersunk holes do not seat the bolts correctly.

- e. Install wheel with existing bolts. Be sure valve stem points away from wheel support.



- f. Torque bolts to 120 ft lb (160 N·m) following tightening sequence shown.

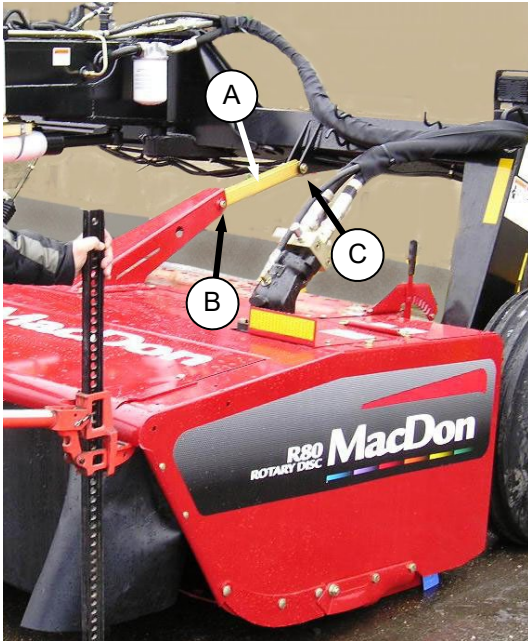
IMPORTANT

Follow proper bolt tightening sequence shown.

- g. Lower carrier frame and repeat steps a. to f. for other end of carrier frame.
- h. Check tires inflated to 30 psi (207 kPa).

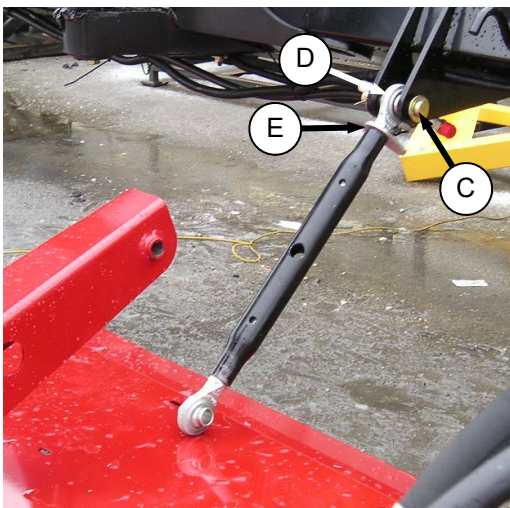
UNLOADING AND ASSEMBLY

STEP 11. INSTALL CENTER LINK

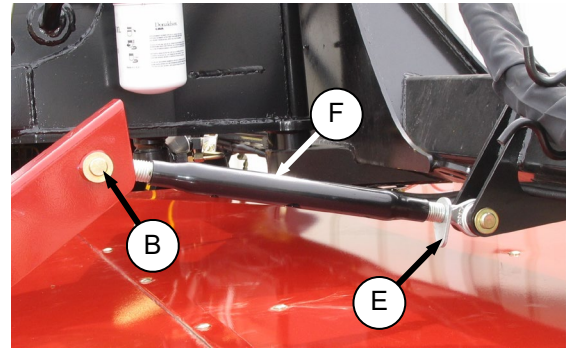


- Lift front corner of header using a lift jack until the shipping brace (A) is loose.
- Remove clevis pins (B) and (C) securing brace to header and carrier frame and remove brace (A). Retain pins for re-installation.
- Lower header to ground.
- Raise front of hitch with jack to allow installation of the adjustable mechanical center link or optional hydraulic link.

A. MECHANICAL LINK



- Attach mechanical link (D) to carrier frame with clevis pin (C). Secure with cotter pin.
- Loosen nut (E).



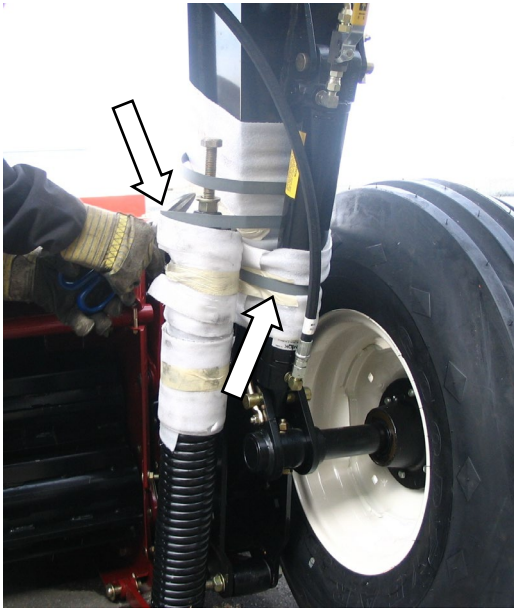
- Rotate the turnbuckle sleeve (F) so that link can be connected to header. Insert clevis pin (B) when holes are aligned and secure with cotter pin.
- Snug up nut (E) but do not over tighten. A slight tap with a small hammer is sufficient.

B. HYDRAULIC LINK

- Refer to instructions provided with hydraulic link kit for installation procedures.

UNLOADING AND ASSEMBLY

STEP 12. REMOVE FLOAT SPRINGS



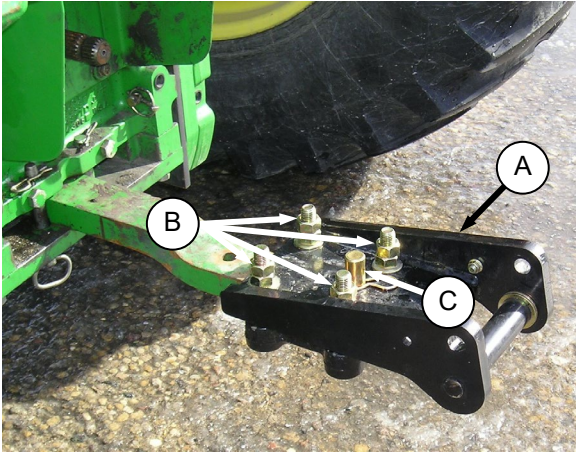
- a. Cut the banding that secures the LH and RH lift cylinders and header float springs to the carrier frame. Lay float springs on the ground.

UNLOADING AND ASSEMBLY

STEP 13. ATTACH TRACTOR

A. DRAWBAR EXTENSION

- Secure the drawbar so the hitch-pin hole is directly below the driveline.
- Unpack hitch parts bundle.
- Attach the drawbar extension (A) to the tractor drawbar as follows and as shown:



- Loosen bolts (B) on extension assembly and slide onto drawbar. Install pin (C).
- Tighten the four bolts to 265 ft-lb (359 N·m).



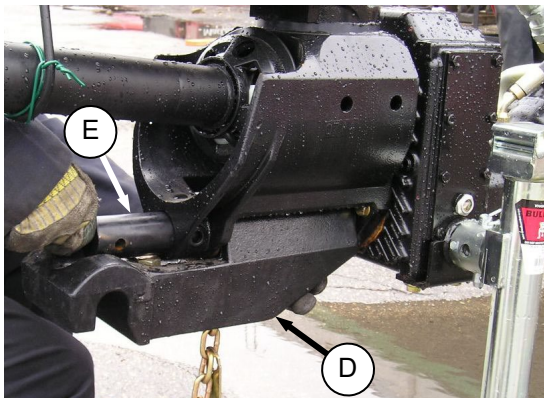
CAUTION

Shut off tractor, engage parking brake and remove key before working around hitch.

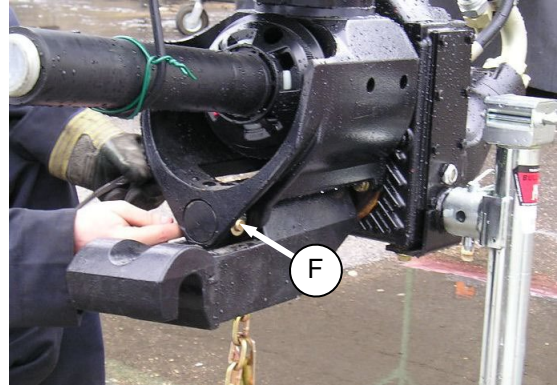


CAUTION

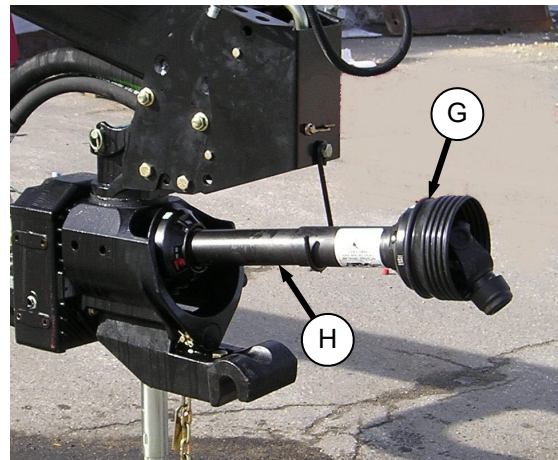
Never attach windrower to tractor rear axle or three-point hitch arms.



- Attach the swivel hitch member (D) with pin (E) onto the windrower hitch.



- Secure swivel pin with pin (F) and lynch pin.



- Assemble PTO driveline male half (G) onto PTO shaft (H) on hitch. Push male half so that PTO shaft is at its fully compressed length.

UNLOADING AND ASSEMBLY

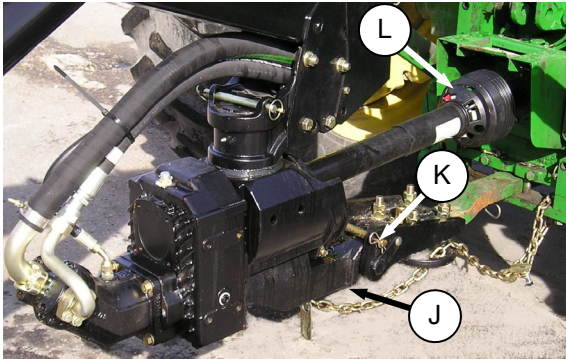
B. ATTACH TO TRACTOR



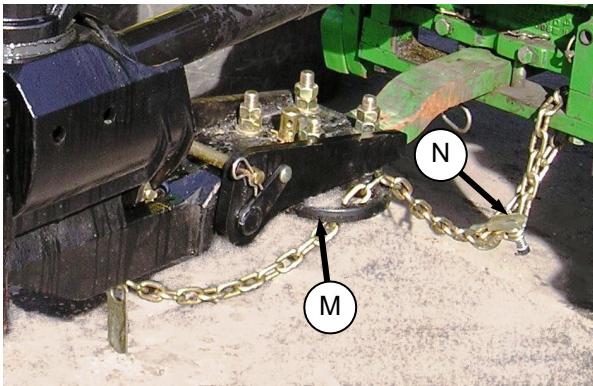
CAUTION

Stop engine and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.

- a. Set park brake, stop engine and remove key.



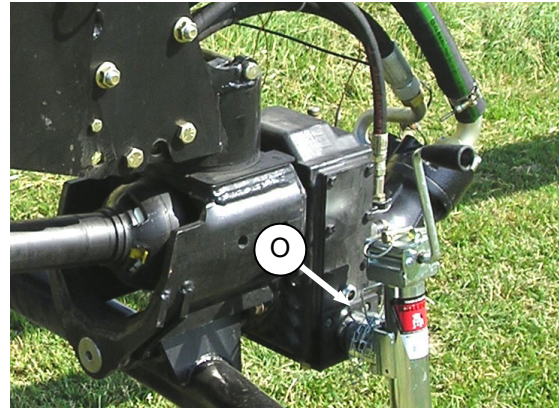
- b. Back up tractor to hitch and align hitch member (J) with pin on drawbar extension. Lower jack so that member engages pin.
- c. Install hitch-pin (K) and secure with hairpin.
- d. Attach driveline (L) to tractor PTO shaft as follows:
1. Position driveshaft onto tractor PTO shaft.
 2. Pull back collar on driveshaft and push driveshaft until it locks. Release collar.



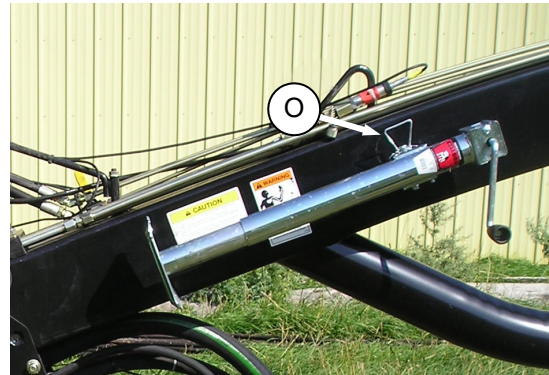
- e. Route hitch safety chain from windrower through chain support (M), around drawbar support and lock the hook (N) on chain.

IMPORTANT

Adjust chain length to remove all slack except what is needed for turns.



- f. Pull pin (O) securing jack and move jack to storage position on side of tongue.

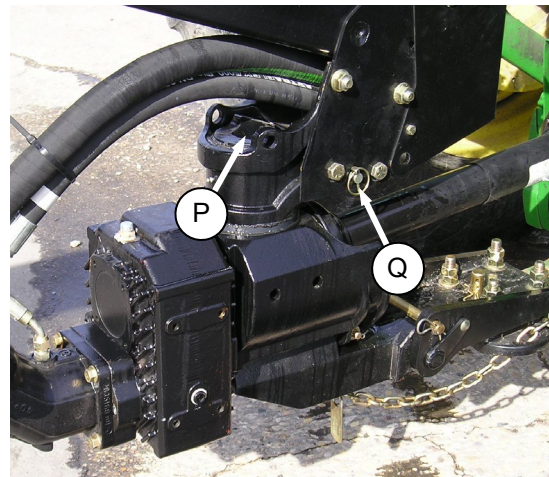


- g. Secure jack with pin (O).



CAUTION

Locking pin must be moved to storage position prior to moving header to prevent serious damage to the articulating system.



- h. Remove articulated hitch lock pin from lock position (P) and locate in storage position (Q). Secure with lynch pin.

UNLOADING AND ASSEMBLY

C. HYDRAULICS/ELECTRICAL



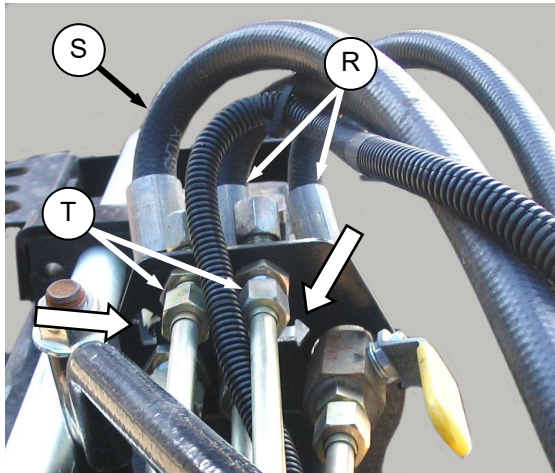
WARNING

Do not use remote hydraulic system pressures over 3000 psi (20684 kPa). Check your tractor manual for remote system pressure.

- a. Install quick disconnect couplers onto hydraulic hoses at front of hitch as per following table. Use #8 ORB (3/4 inch – 16 UNF Thread).

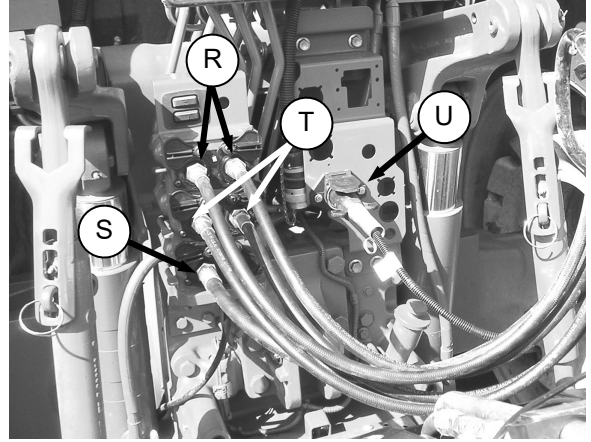
SYSTEM	HOSE	TRACTOR HYDRAULICS
Steering	R (2 Hoses)	Control 1
Lift	S (1 Hose)	Control 2
Header Tilt	T (2 Hoses)	Control 3 *

* Not required with tilt cylinder package #B4851 (with selector valve), or with mechanical center link).



NOTE

Arrows cut into plate indicate system for hoses. \uparrow LIFT \longleftrightarrow STEERING



- b. Connect two **steering** cylinder hoses (R) as follows:

CONTROL LEVER POSITION	CYLINDER MOVEMENT	WINDROWER DIRECTION
Forward	Extend	Right
Backward	Retract	Left

- c. Connect one **lift** cylinder hose (S) as follows:

CONTROL LEVER POSITION	CYLINDER MOVEMENT	HEADER MOVEMENT
Forward	Retract	Lower
Backward	Extend	Raise

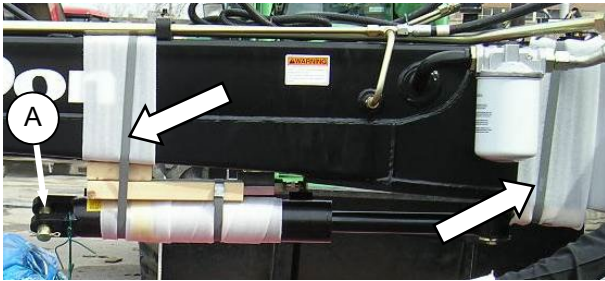
- d. Connect two **header tilt** cylinder hoses (T) as follows: (Not required with tilt cylinder package #B4851 (with selector valve), or with mechanical center link)

CONTROL LEVER POSITION	CYLINDER MOVEMENT	HEADER MOVEMENT
Forward	Retract	Lower
Backward	Extend	Raise

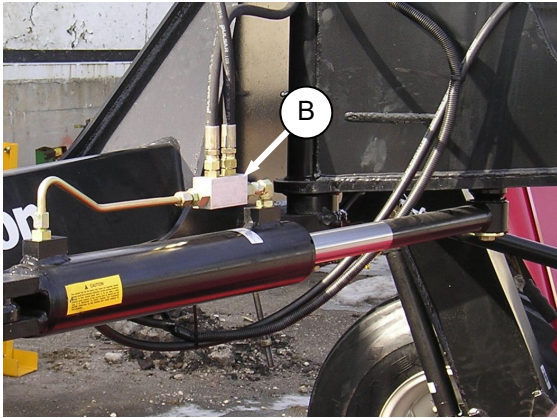
- e. Connect the windrower wiring harness plug (U)

UNLOADING AND ASSEMBLY

STEP 14. INSTALL STEERING CYLINDER



- a. Cut the banding that secures the cylinder to the hitch and swing the cylinder out from under the hitch.
- b. Cut banding around cylinder and remove shipping material from cylinder.
- c. Remove the pin (A) from barrel end of cylinder and retain for re-installation.



- d. Manually rotate the cylinder barrel so that the check valve (B) is positioned directly above cylinder.



DANGER

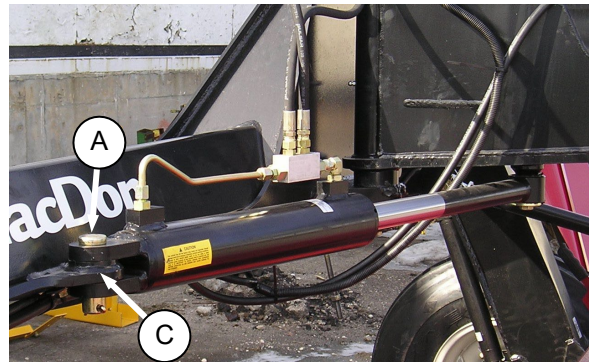
Never start or move the machine until you are sure all bystanders have cleared the area.



IMPORTANT

To allow hitch to swing, the valve on the hitch must be in the working or open position (handle in line with hitch).

- e. Start tractor.
- f. Stroke the cylinder to full extension and retraction 5 or 6 times to ensure that cylinder and hydraulic lines are fully charged with oil.



- g. Stroke the cylinder so that the cylinder can be slipped onto the bracket (C) on the frame.



CAUTION

Stop engine and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.

- h. Stop engine and remove key.
- i. Slip cylinder onto bracket and install pin (A) if holes are aligned. If holes are not aligned, stroke cylinder or pivot header until pin can be installed. Secure pin (A) with cotter pin.

UNLOADING AND ASSEMBLY

STEP 15. FILL LIFT CYLINDERS



- a. Open lift cylinder lock out valve on both lift cylinders.



DANGER

Never start or move the machine until you are sure all bystanders have cleared the area.

- b. Start tractor.
c. Cycle the header lift cylinders five or six times to maximum lift to fully charge the cylinders and hydraulic lines.
d. Raise header to full height, stop tractor and remove key.



CAUTION

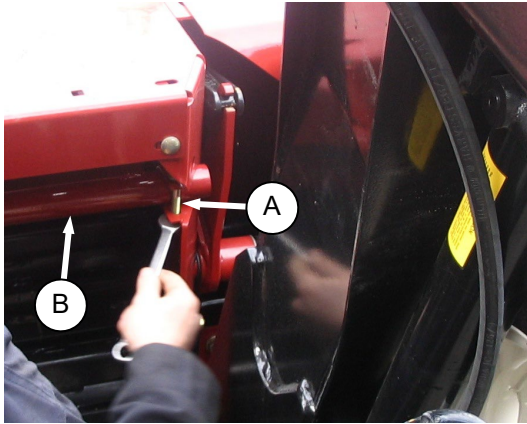
Stop engine and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.



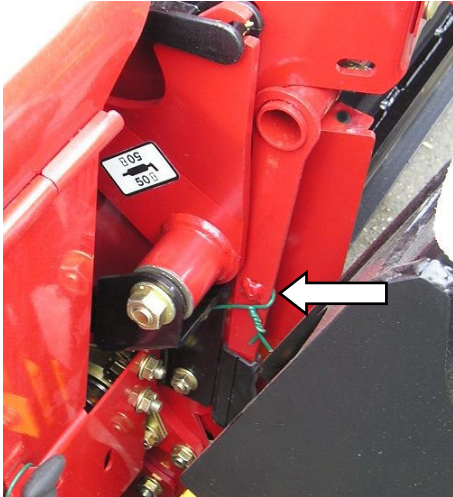
- e. Close lock-out valve on both lift cylinders.

UNLOADING AND ASSEMBLY

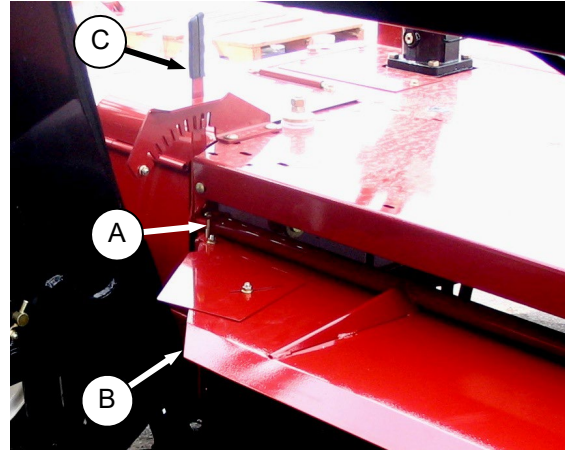
STEP 16. INSTALL CROP DEFLECTOR



- a. Remove bolt (A) on each end of crop deflector (B).



- b. Remove shipping wire securing handle to frame and remove deflector (B) from shipping position.



- c. Re-install in same location ensuring handle (C) is upright and engaged into adjuster slots.
d. Re-install bolts (A) and tighten.

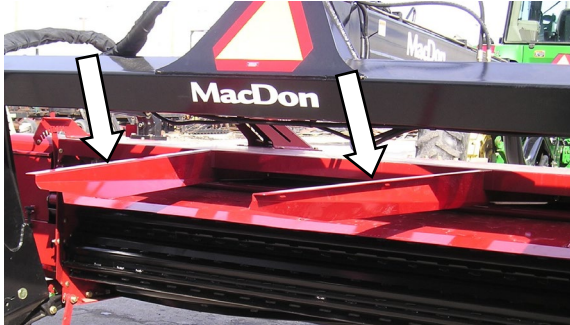
UNLOADING AND ASSEMBLY

STEP 17. INSTALL FORMING SHIELD

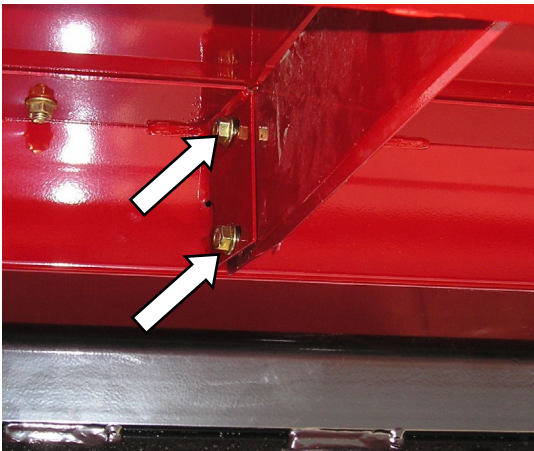
- a. Retrieve forming shield bundles that were removed from shipping locations in earlier steps.
- b. Remove banding and packing material.

A. INSTALL FINS

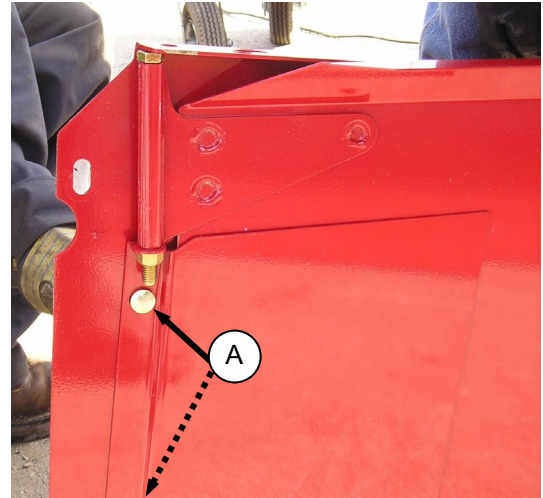
- a. Remove hardware from forward ends of fins.



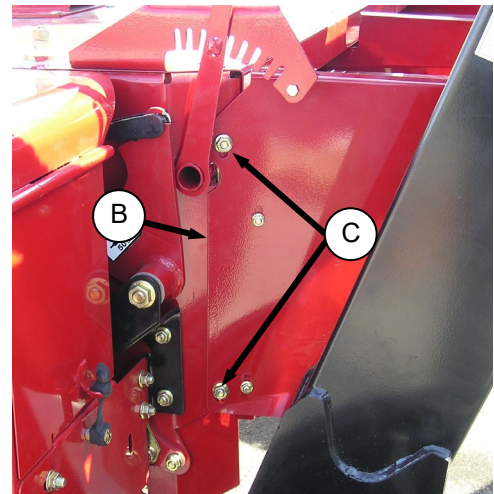
- b. Position forming shield fins on header as shown and secure with two bolts and nuts in each fin. Do not fully tighten hardware.



B. INSTALL SIDE SUPPORTS



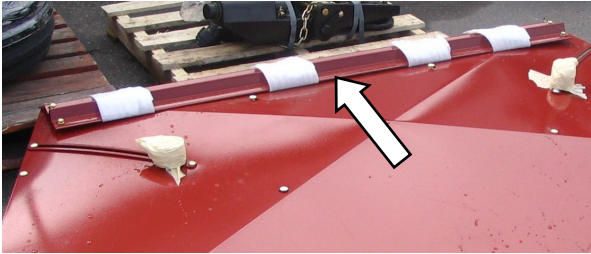
- a. Disassemble the LH and RH deflector/support assemblies by removing two bolts (A) and nuts from each assembly. Retain hardware.



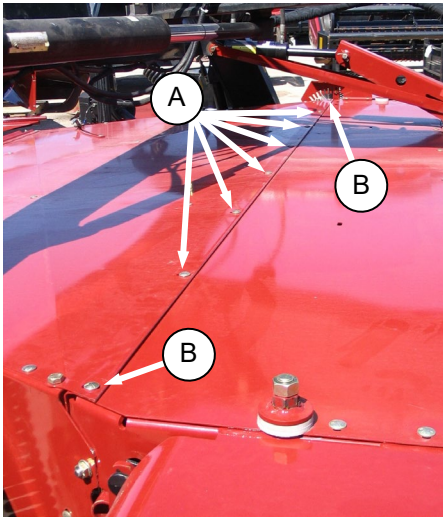
- b. Position side support (B) on header and secure with two existing bolts (C) and nuts. Bolt heads should face inboard. Do not tighten.
- c. Repeat above step for opposite side support.

UNLOADING AND ASSEMBLY

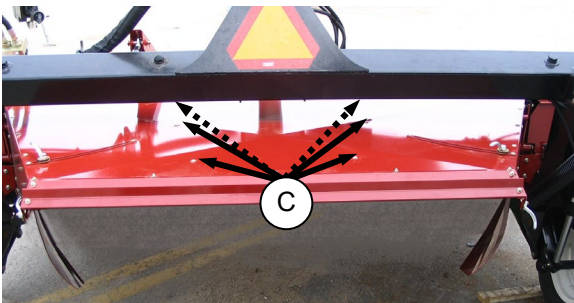
C. INSTALL TOP COVER



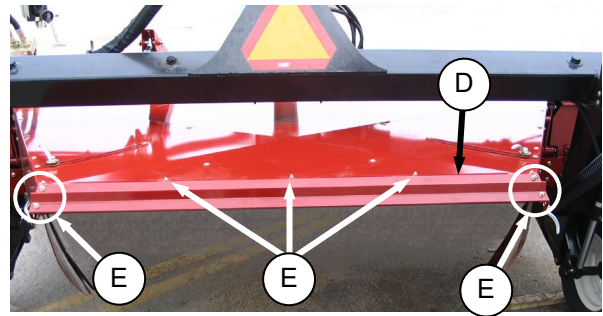
- Disassemble rear member from top cover. Retain hardware and remove packing foam from member.
- Remove hardware from top cover and retain for re-installation.
- Position top cover onto fins and side supports.



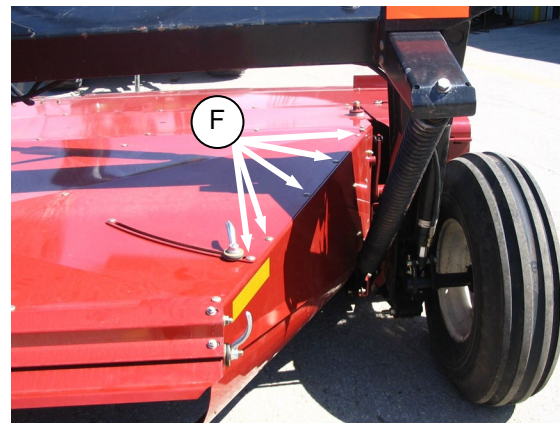
- Install six 3/8 x 0.75 bolts (A) and nuts, and two 3/8 x 1.25 bolts (B) and nuts along front of cover. Do not tighten.



- Install six 3/8 x 0.75 bolts (C) and nuts through cover into fins. Do not tighten.



- Position rear member (D) on aft end of top cover and secure with nine 3/8 x 0.75 bolts (E) and nuts but do not tighten.



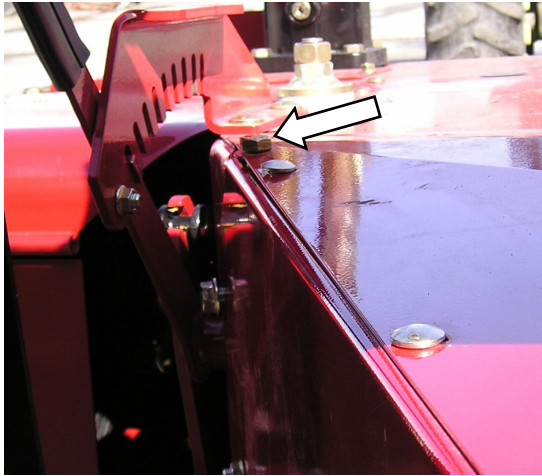
- Install five 3/8 x 0.75 bolts (F) and nuts along each side of top cover but do not tighten.



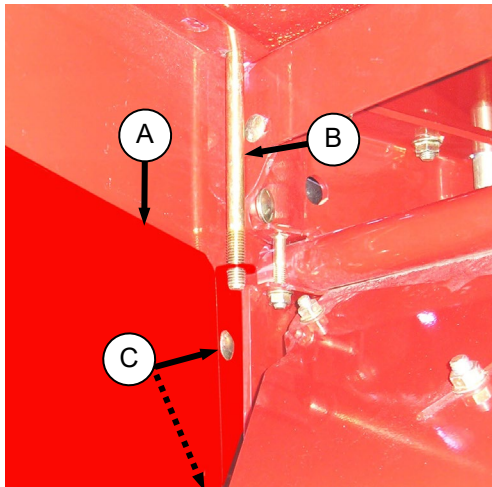
- Position rear baffle (G) at rear of forming shield to determine distance between LH and RH supports. Tighten member bolts (E) and then remove rear baffle.
- Tighten all bolts along front and sides of forming shield top cover.

UNLOADING AND ASSEMBLY

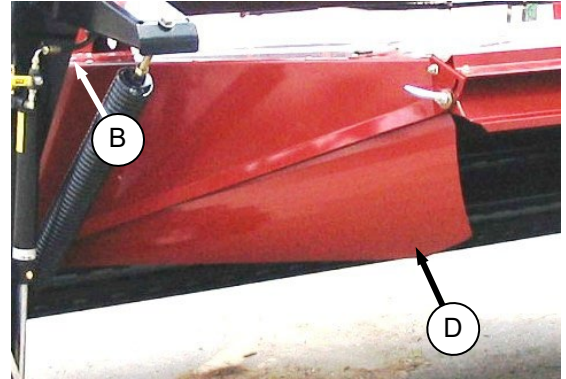
D. INSTALL SIDE DEFLECTORS



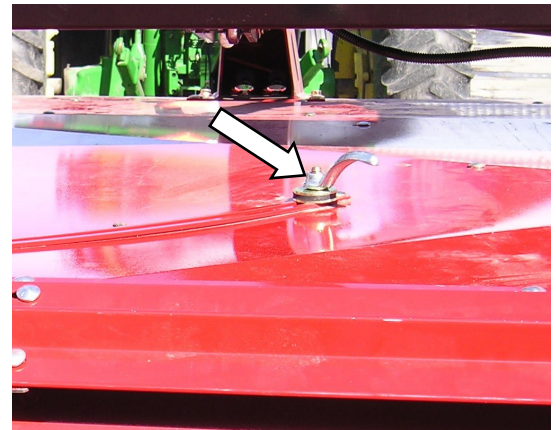
- a. Install side deflector hinge bolt through top cover.



- b. Position front deflector (A) inside side support and onto end of hinge bolt (B). Adjust front deflector position so that nut can be installed on bolt. Install two bolts (C) to secure front deflector piece. Bolt heads should face inboard.



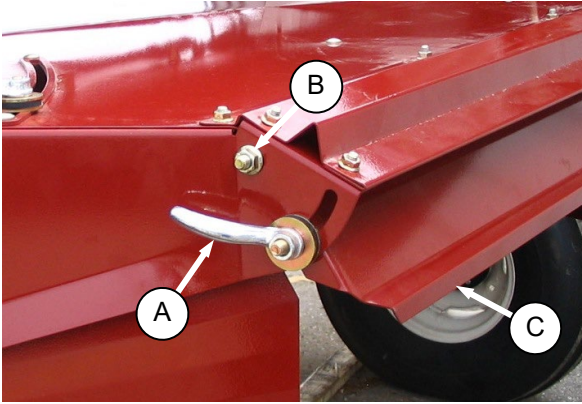
- c. Remove hinge bolt (B). Position side deflector (D) inside forming shield and locate hinge between hinge supports. Re-install hinge bolt (B), install nut and tighten.



- d. Install side deflector position adjuster bolt, washers, and handle. Position side deflector at mid position and tighten handle.
e. Repeat steps a. to d. for opposite side.

UNLOADING AND ASSEMBLY

E. INSTALL REAR BAFFLE



- a. Remove handle (A), washers, and bolt from aft end of each side support and retain for reinstallation.
- b. Remove nut (B) and bolt from each end of rear baffle (C).
- c. Locate rear baffle at rear of forming shield and install bolt (B) and nut at each end. Do not fully tighten.
- d. Install adjuster bolt, washers, and handle (A) at each end through baffle and slot in side support.
- e. Adjust baffle to middle position and tighten handle (A) to maintain position.

UNLOADING AND ASSEMBLY

STEP 18. INSTALL FLOAT SPRINGS

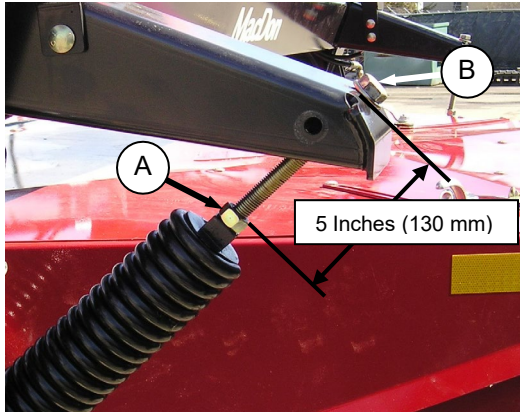


- Remove packing material from float spring.
- Loosen jam-nut (A) and remove drawbolt (B) from spring.

NOTE

The spring for the LH side has an internal spring and is heavier than the RH spring. Ensure springs are installed in proper location.

- Install drawbolt through anchor on carrier frame and reinstall into spring.



- Tighten spring drawbolt so that distance between spring anchor to locknut is approximately 5 inches (130 mm).



CAUTION

To prevent damage to the float spring system, do not lower the header before tightening jam nuts (A) against the springs.

IMPORTANT

Because header weight transfers to outside tire whenever header is swung from one side to the other, tires must be fully inflated (30 psi (207 kPa)) to minimize effects on header float.

- Lift either end of the header just off the ground. Header flotation springs are normally set to 100 lbs. (444 N) force is required to lift the header.
- Adjust springs as required with drawbolt (B).
- Tighten jam nuts (A) securely against float springs.

UNLOADING AND ASSEMBLY

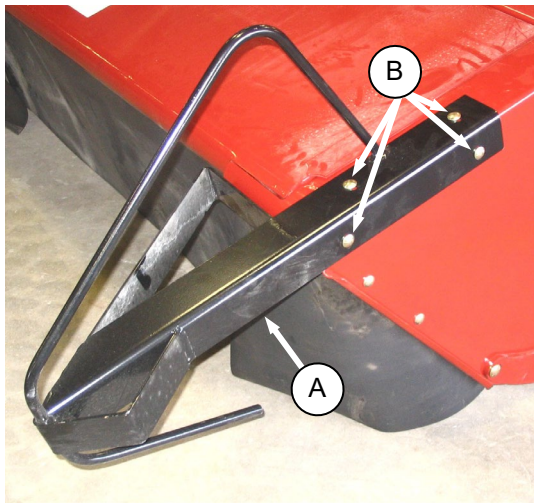
STEP 19. INSTALL OPTIONS

I. TALL CROP DIVIDER KIT

- a. Unpack kit.



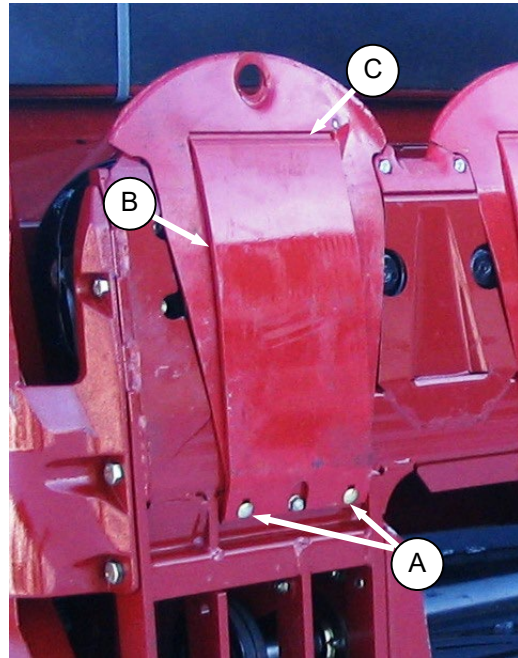
- b. Open cutterbar doors.



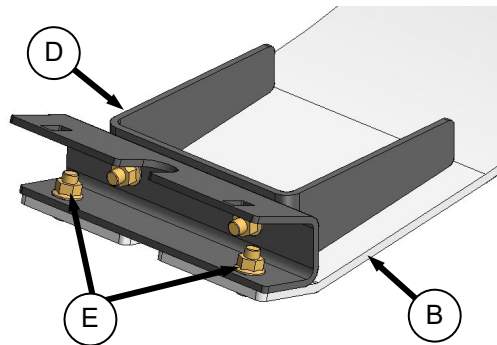
- c. Locate LH divider (A) on header LH front corner and install with four bolts (B) and nuts in existing holes. Tighten hardware.
- d. Repeat for RH side.

II. SHOE LIFT KIT

- a. Unpack kit.
- b. Start tractor and raise header fully.
- c. Stop engine, remove key, and engage lift cylinder valves.
- d. Install a lifts on each of the two end skid shoes, and on two additional shoes at equidistant locations as follows:



3. Remove two bolts (A), pivot skid shoe (B), and remove from slot (C) in rock guard.



4. Attach shoe lift (D) to skid shoe as shown with hardware (E) supplied in kit. Tighten bolts.
5. Position skid shoe (B) joggled end in rock guard slot (C) and locate aft end with lift (D) against rock guard. Secure with existing bolts (A).

PRE-DELIVERY CHECKS

STEP 20. PERFORM PRE-DELIVERY CHECKS



WARNING

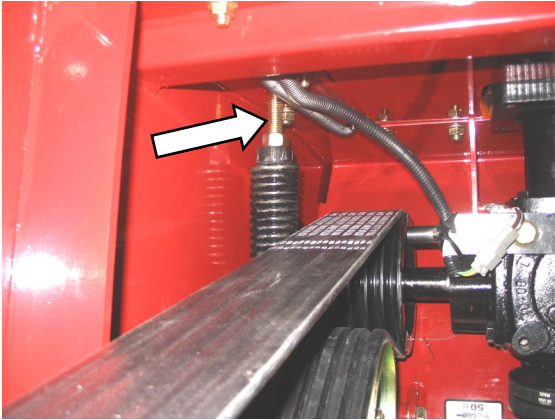
Stop tractor engine and remove key before making adjustments to machine. A child or even a pet could engage the drive.

IMPORTANT

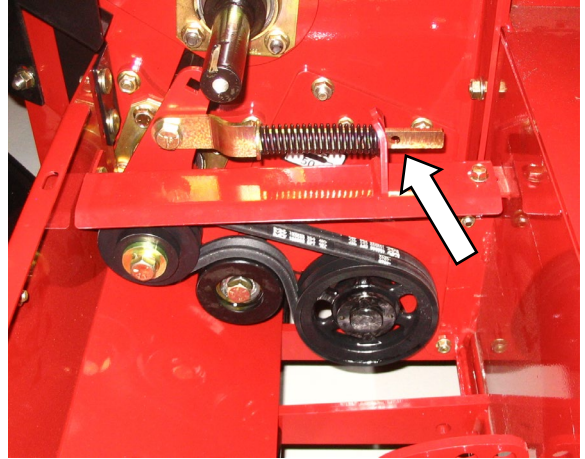
To avoid machine damage, check that no shipping dunnage has fallen down between auger and pans.

- Perform the final checks and adjustments as listed on the "Pre-Delivery Checklist" (yellow sheet attached to back of this instruction) to ensure the machine is field-ready. Refer to the pages for detailed instructions as indicated on the checklist.
- The completed checklist should be retained either by the operator or the dealer.

A. DRIVE BELTS



- Recommended tension of main drive belt is when spring is 20 +/- 5 mm longer than relaxed length. Note amount of visible thread on tensioner. Tension has been set at the factory.



- Lifting roll drive belt tension is factory adjusted. Hole in tensioner member should be visible.

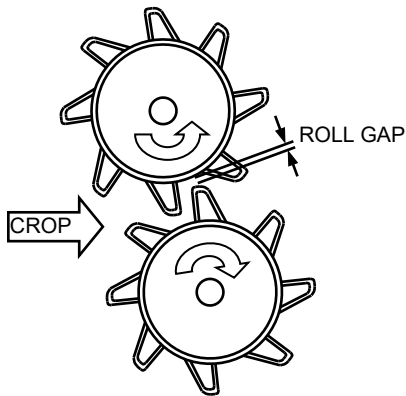
B. HEADER FLOTATION

- Position header directly behind tractor and lower to ground.
- Lift either end of the header just off the ground. Header flotation springs are normally set so 100 lbs. (444 N) force is required to lift the header.
- Adjust springs as required. Refer to STEP 20, ADJUST FLOAT SPRINGS.

PRE-DELIVERY CHECKS

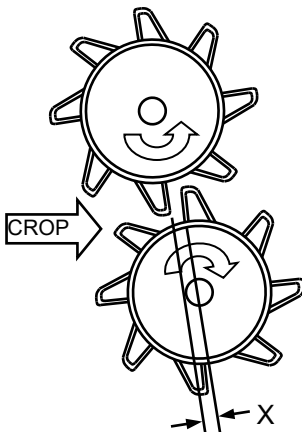
C. CONDITIONER ROLLS

I. ROLL GAP

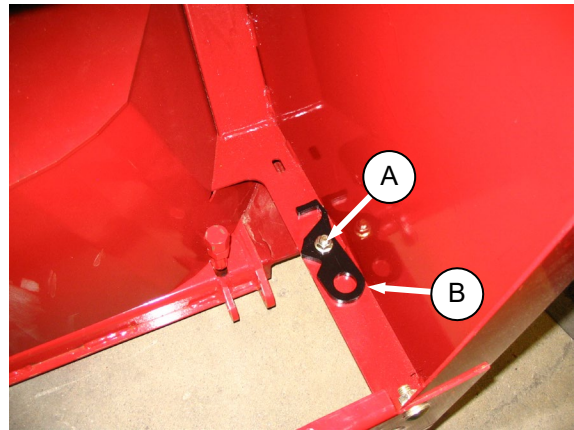


The amount of thread protruding through jam nut should equal roll gap. Factory setting should be 0.125 in. (3 mm) at each adjuster bolt.

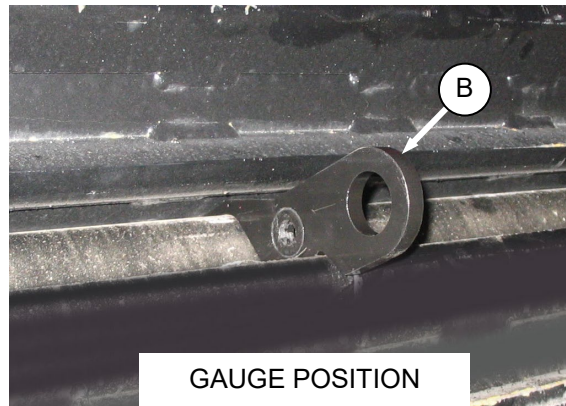
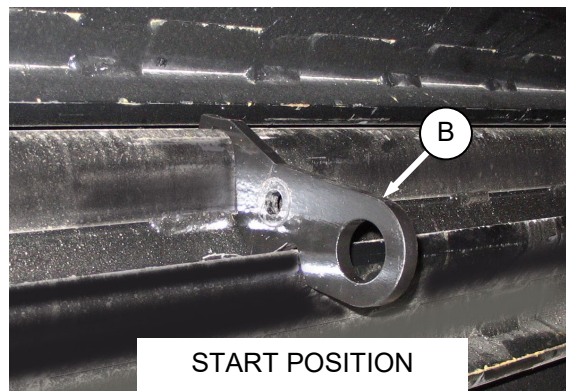
II. ROLL TIMING



- Lower header to ground, shut down tractor and remove key.



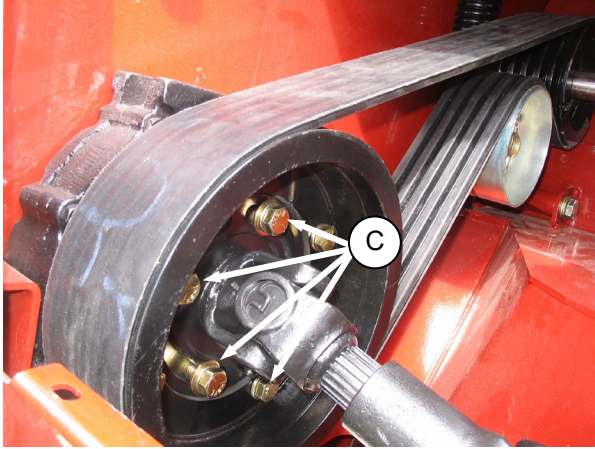
- Remove bolt (A) and nut, and remove gauge (B) from inside panel at RH end of header.



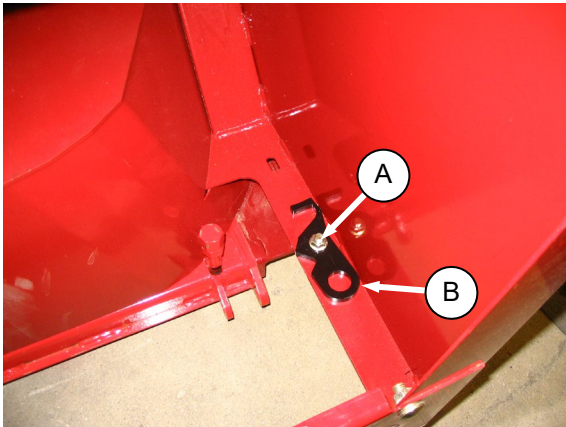
- From behind the header, locate gauge at center of rolls as shown and manually turn rolls to limits of gauge. Rolls will engage the gauge if timing is correct.

(continued next page)

PRE-DELIVERY CHECKS



- d. Check timing flange bolts (C) are tight.
- e. Manually turn rolls in opposite direction to release gauge.



- f. Replace gauge in header with bolt (A) and nut.

D. LUBRICATE THE HEADER

The header has been lubricated at the factory. However, it is recommended to lubricate the header prior to delivery to offset the effects of weather during outside storage and transport, and to familiarize the dealer with the machine.

Refer to the illustrations on the following pages for lubrication points.


- Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
- Inject grease through fitting with grease gun until grease overflows fitting, except where noted.
- Leave excess grease on fitting to keep out dirt.
- Replace any loose or broken fittings immediately.
- If fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

(continued next page)

PRE-DELIVERY CHECKS

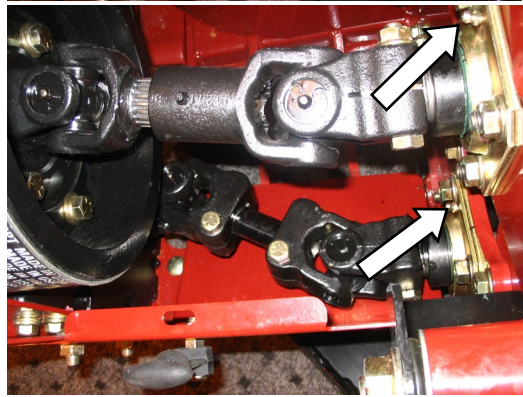
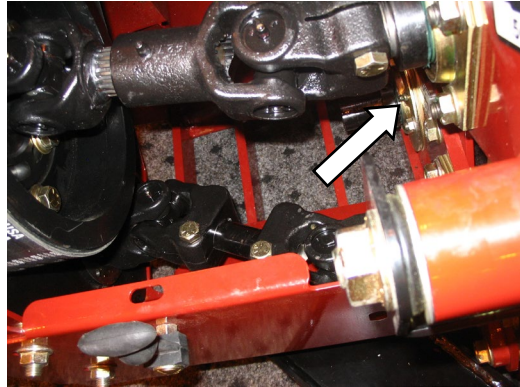
LUBRICATE THE HEADER (cont'd)

High Temp. Extreme Pressure (EP2) Performance With 1% Max Molybdenum Disulphide (NLGI Grade 2). Lithium Base

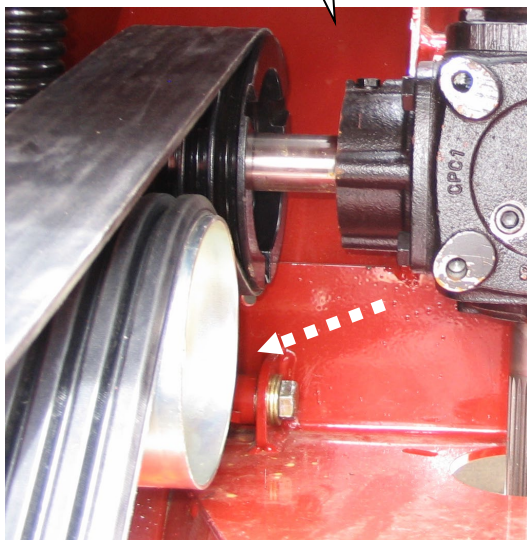
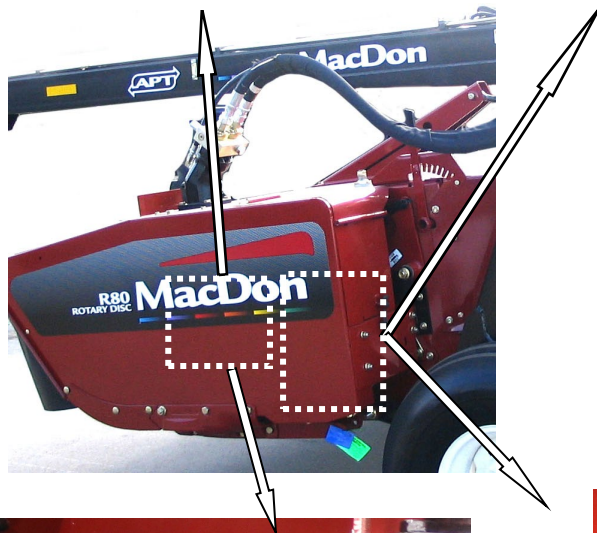



CHECK PLUG
Oil should slightly run out when removed.

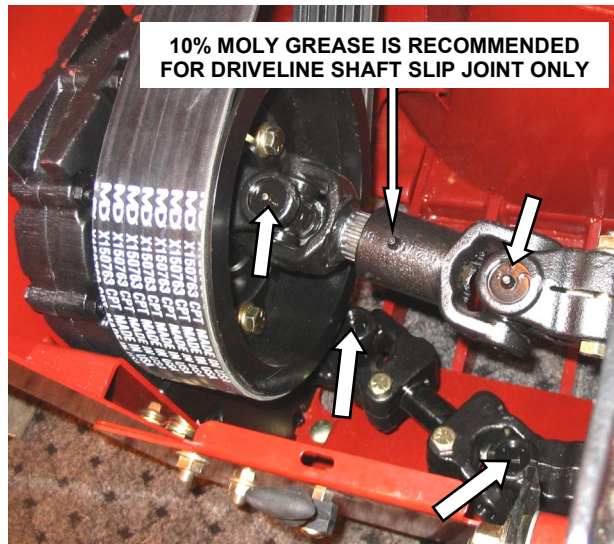
GEARBOX OIL LEVEL



ROLL SHAFT BEARINGS (3 PLCS)



BELT TENSIONER PIVOT (1 PLC)



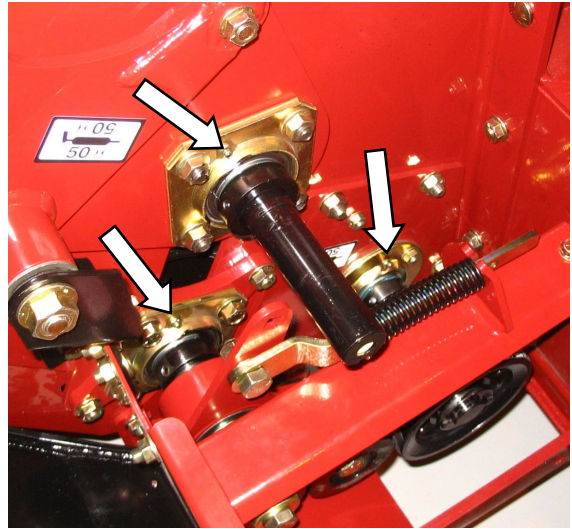
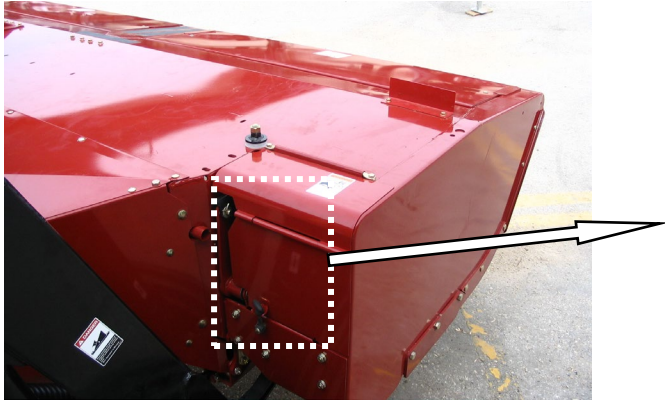

10% MOLY GREASE IS RECOMMENDED FOR DRIVELINE SHAFT SLIP JOINT ONLY

DRIVELINE UNIVERSALS (4 PLCS)
DRIVELINE SHAFT (1 PLC)

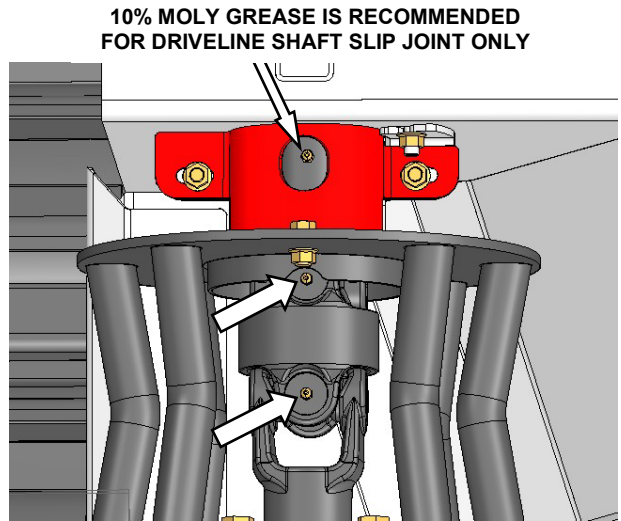
PRE-DELIVERY CHECKS

LUBRICATE THE HEADER Cont'd)

High Temp. Extreme Pressure (EP2) Performance With 1% Max Molybdenum Disulphide (NLGI Grade 2).Lithium Base



ROLL SHAFT BEARINGS (3 PLCS)

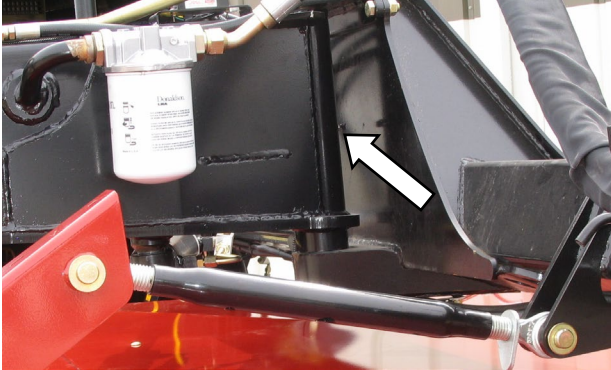



DRIVELINE UNIVERSALS & SHAFT (3 PLCS) BOTH SIDES

PRE-DELIVERY CHECKS

LUBRICATE THE HEADER (cont'd) CARRIER FRAME

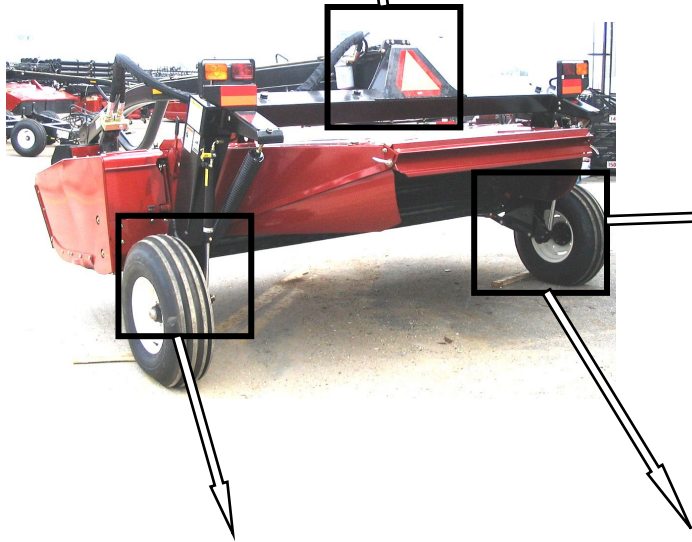
High Temp. Extreme Pressure
(EP2) Performance With 1%
Max Molybdenum Disulphide
(NLGI Grade 2).Lithium Base



TONGUE PIVOT



WHEEL BEARING – BOTH SIDES



CYLINDER PIVOT 1 PLC – BOTH SIDES

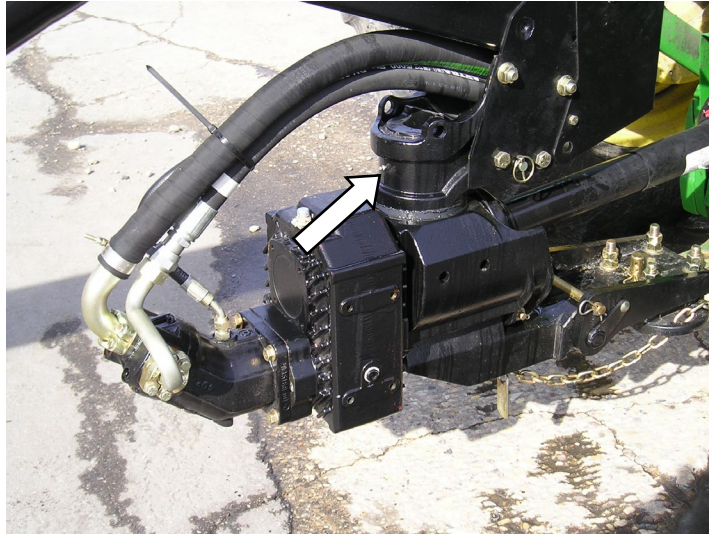


LIFT LINK 1PLC – BOTH SIDES

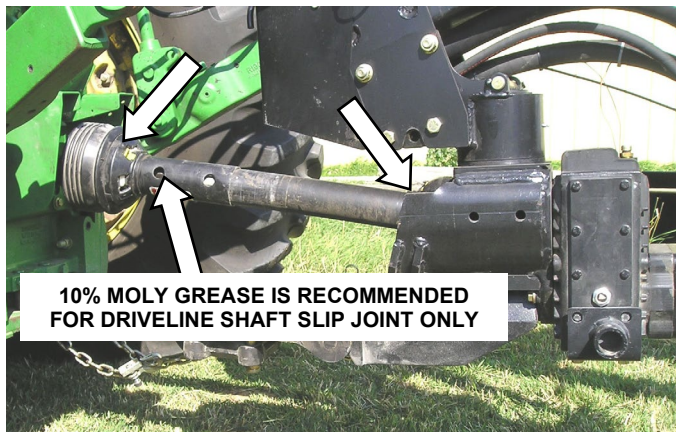
PRE-DELIVERY CHECKS

LUBRICATE THE HEADER (cont'd) DRIVELINE

High Temp. Extreme Pressure
(EP2) Performance With 1%
Max Molybdenum Disulphide
(NLGI Grade 2).Lithium Base



HITCH SWIVEL



PTO DRIVELINE

PRE-DELIVERY CHECKS

E. OPERATOR'S MANUAL AND PARTS CATALOGUE

Keep the Operator's Manual and Parts Catalogue with the tractor operator's manual.