

MacDon™

**R80 Rotary Disc
Self-Propelled Windrower Header
Unloading & Assembly Instructions**



MACDON SELF PROPELLED ROTARY DISC HEADER

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INTRODUCTION

This instruction describes the unloading, set-up and pre-delivery requirements for the MacDon Model R80 Rotary Disc Self-Propelled Windrower Header. 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.

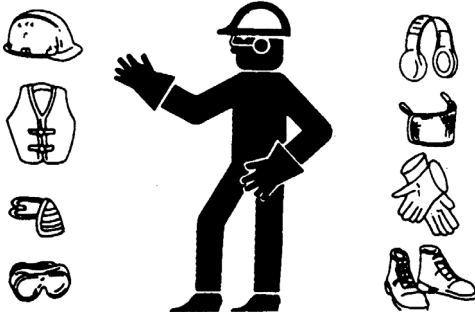
GENERAL SAFETY



CAUTION

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

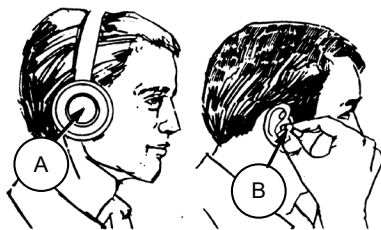
Protect yourself.



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.

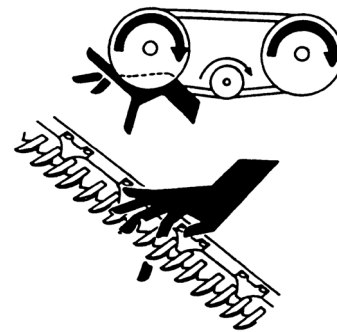
Be aware that accidents often happen when the operator is tired or in a hurry to get finished. Take the time to consider the safest way. Never ignore warning signs of fatigue.

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.

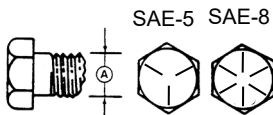
RECOMMENDED TORQUES

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%.

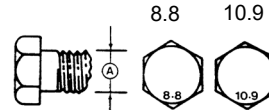
II. SAE BOLTS



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



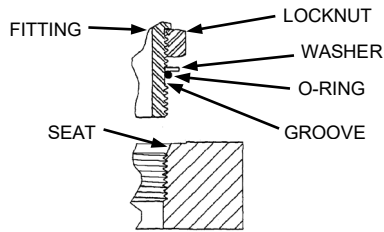
BOLT DIA. "A"	NC BOLT TORQUE*			
	8.8		10.9	
	lb-ft	N·m	lb-ft	N·m
M3	0.4	0.5	1.3	1.8
M4	2.2	3	3.3	4.5
M5	4	6	7	9
M6	7	10	11	15
M8	18	25	26	35
M10	37	50	52	70
M12	66	90	92	125
M14	103	140	148	200
M16	166	225	229	310
M20	321	435	450	610
M24	553	750	774	1050
M30	1103	1495	1550	2100
M36	1917	2600	2710	3675

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

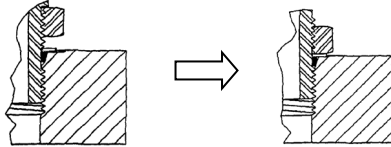
IV. HYDRAULIC FITTINGS

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.



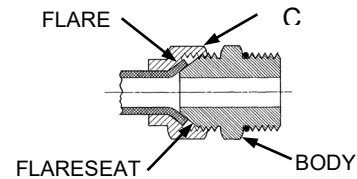
- Hand tighten fitting until back up washer or washer face (if straight fitting) bottoms on face and O-ring is seated.
- Position angle fittings by unscrewing no more than one turn.
- Tighten straight fittings to torque shown.
- Tighten angle fittings to torque shown in the following table while holding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

STEP 1. 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.

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

<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 header from its "underside" and slide forks in underneath lifting framework as far as possible.
- c. Raise header 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.



- f. Set machine down securely on level ground.
- g. Check for shipping damage and missing parts.

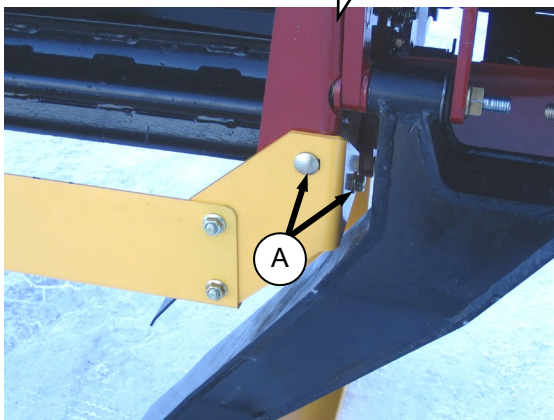
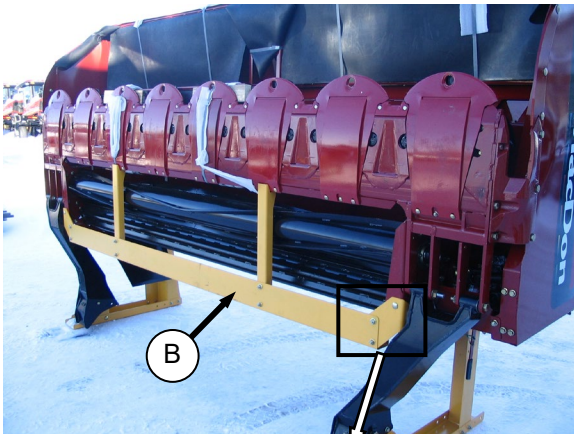
UNLOADING AND ASSEMBLY

STEP 2. REMOVE UNDERSIDE SHIPPING STAND



CAUTION

Keep feet clear when removing final bolts.



- a. Remove two bolts (A) on each end of stand and remove shipping stand (B). Discard stand and hardware.

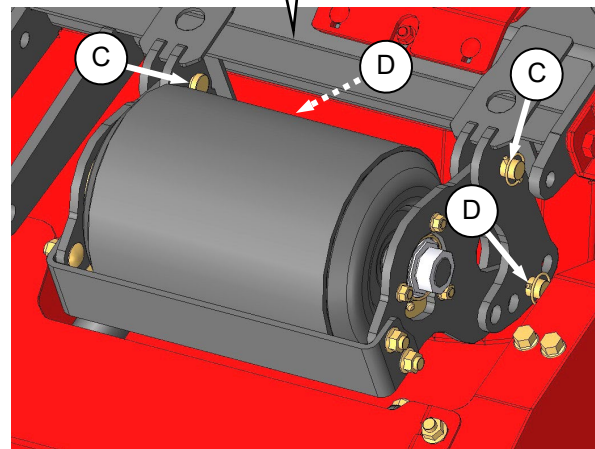
STEP 3. INSTALL GAUGE ROLLERS – 16 FT ONLY

If kit not supplied proceed to Step 4, otherwise install kit as follows:

NOTE

This kit may be installed later in the header assembly sequence but it may be easier prior to laying the header down.

- a. Unpack gauge roller bundle.



- b. Remove four clevis pins from roller assembly.
- c. Position gauge roller assembly on frame and secure with two pins (C). Secure pins with lynch pins.
- d. Adjust roller assembly to desired height and install two pins (D). Secure with lynch pins.
- e. Repeat above steps for opposite side. Set both gauge rollers to same position.

UNLOADING AND ASSEMBLY

STEP 4. LOWER HEADER

- a. Drive lifting vehicle to approach header 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.

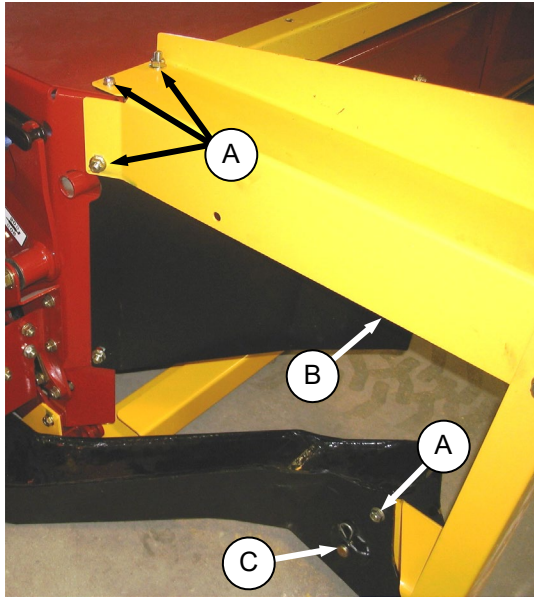
- c. Raise forks until lift chains are fully tensioned.



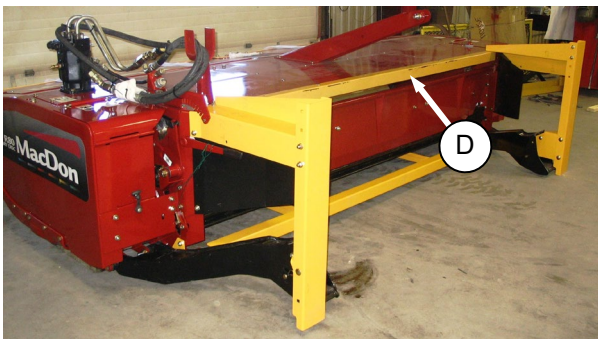
- d. Back up SLOWLY while simultaneously lowering machine until cutterbar rests on ground.
- e. Remove chain from header.

UNLOADING AND ASSEMBLY

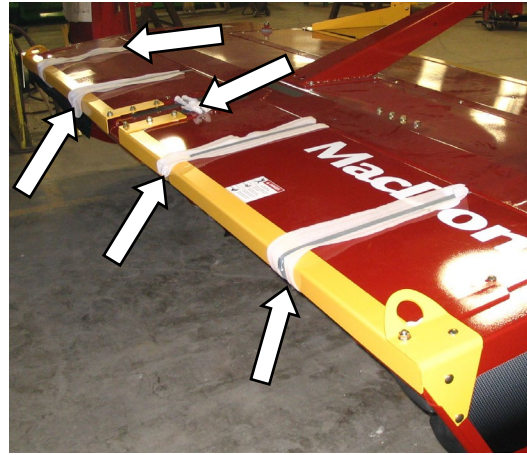
STEP 5. REMOVE SHIPPING STANDS



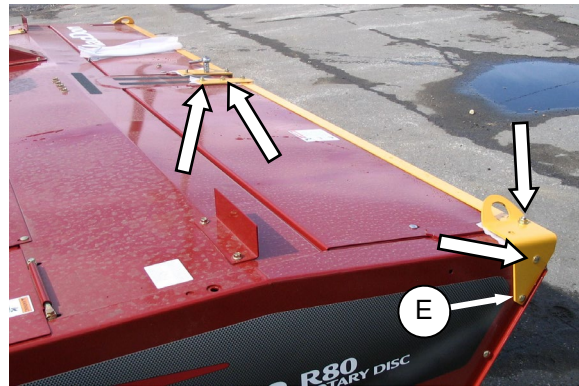
- Remove four bolts (A) from shipping stand (B).
- Rotate stand down to floor.
- Remove hairpin from pin (C).
- Hold shipping stand (B), remove pin (C), and remove stand. Re-insert pin (C) in header boot. Discard stand and hardware.
- Repeat above steps for opposite shipping stand.



- Remove bolts in angle (D) and remove angle. Discard angle and hardware.



- Cut all banding at cutterbar doors.



- Remove five bolts and nuts on each door and remove front angles and lift hooks. Retain lower side bolt (E) for re-installation at same location after hook is removed.



WARNING

Ensure cutterbar 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.



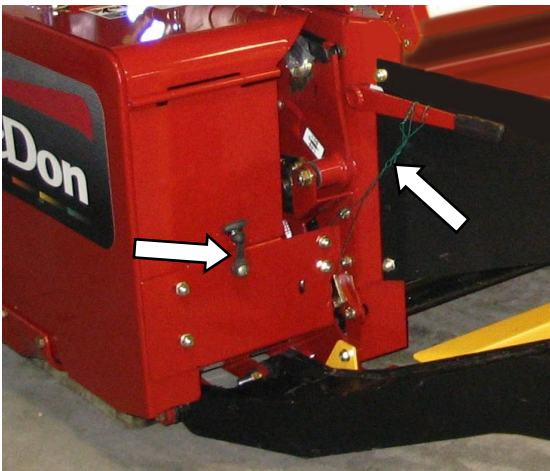
- Open cutterbar doors and check cutterbar area for debris and foreign objects. Ensure all material is removed.

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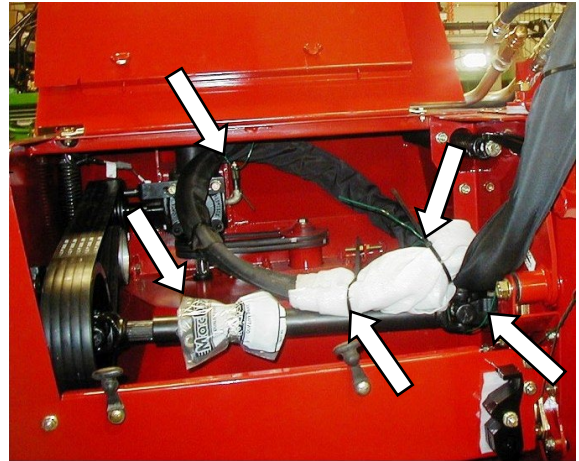
UNLOADING AND ASSEMBLY



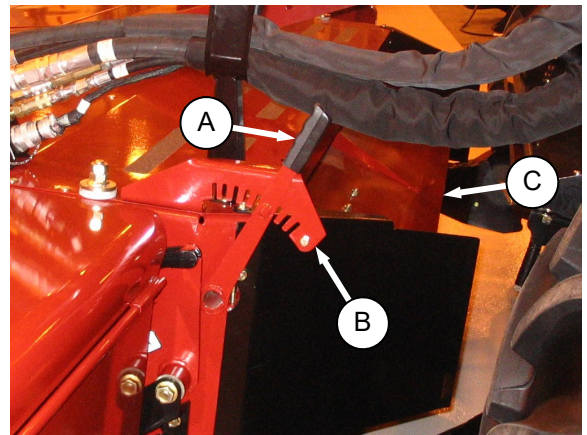
- j. Close cutterbar doors. Ensure that curtains hang properly and completely enclose cutterbar area. Minor creases in curtains will eventually straighten out.



- k. Cut shipping wire securing crop deflector lever and drive shield latches.
l. Open LH drive shield.



- m. Cut shipping wire/bands securing hose bundle inside drive compartment.
n. Remove hose bundle and lay it on header.
o. Remove plastic bag from driveshaft.
p. Close drive shield.

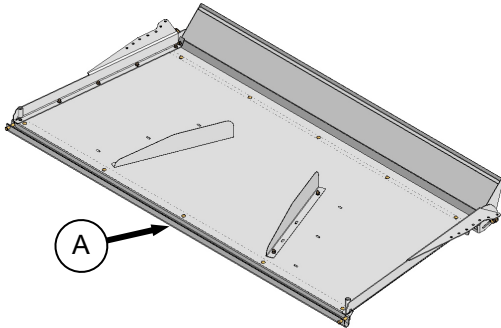


- q. Move crop deflector lever (A) upward and pull lever slightly away from bracket (B) to engage slots in bracket. Release it at the center position to lock crop deflector (C) in desired position.

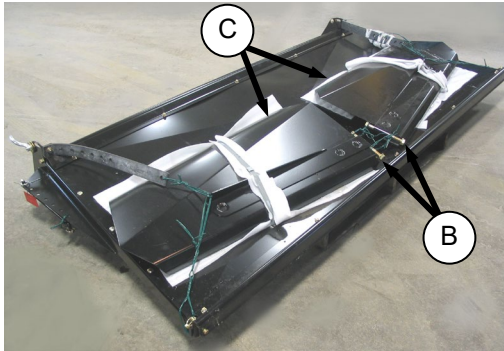
UNLOADING AND ASSEMBLY

STEP 6. ASSEMBLE FORMING SHIELD

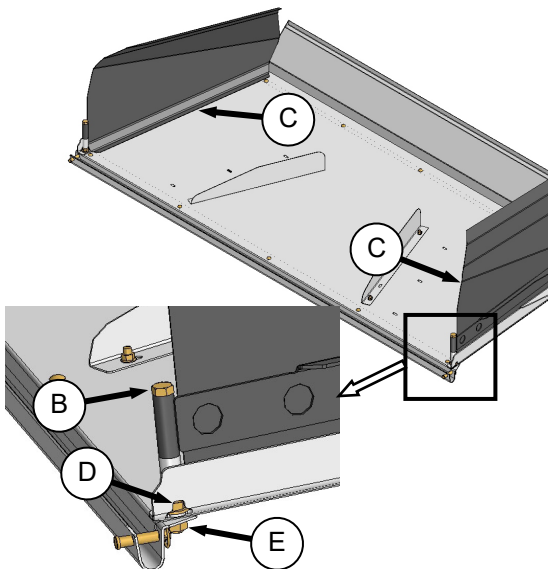
- a. Unpack and remove shipping material.



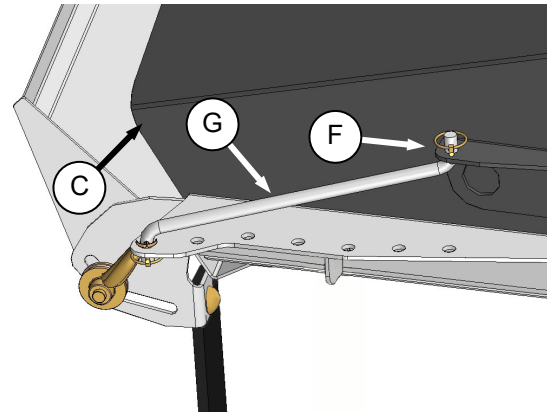
- b. Lay cover (A) upside down on a flat surface.



- c. Remove bolts (B) from side deflectors (C).



- d. Assemble side deflectors (C) to cover (A) with bolts (B), jam-nut (D), and nut (E) from previous step. Hardware must be tight enough to hold deflectors in position, but still allow positioning with adjuster rod.



- e. Remove lynch pin (F) from adjuster rod (G) and locate rod in hole in side deflector (C). Secure with lynch pin (F).
f. Repeat for other deflector.

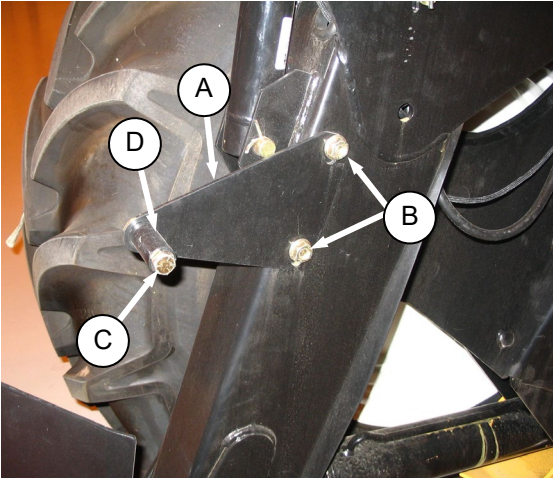


- g. Invert forming shield to installation position as shown.

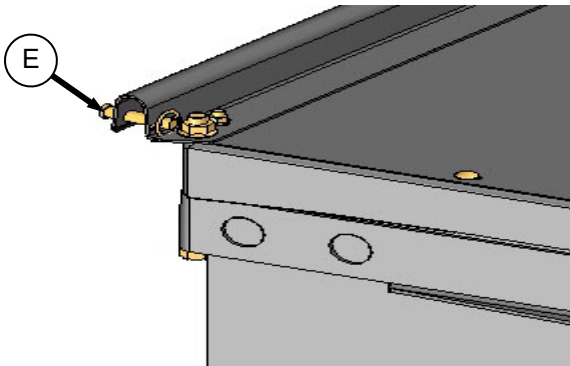
UNLOADING AND ASSEMBLY

STEP 7. INSTALL FORMING SHIELD

- a. Remove the header from the tractor if attached for ease of installation of the forming shield.
- b. Unpack forming shield bundle.



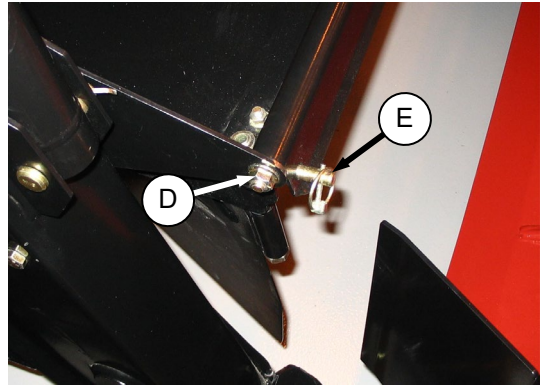
- c. Attach plate (A) to tractor leg with two $\frac{1}{2}$ x 5.0 hex bolts (B) and nuts. Repeat for opposite leg. Hardware is supplied with forming shield bundle.
- d. Install a $\frac{1}{2}$ x 3.25 hex bolt (C) with spacer (D), and nut on each plate. Hardware is supplied with forming shield kit.



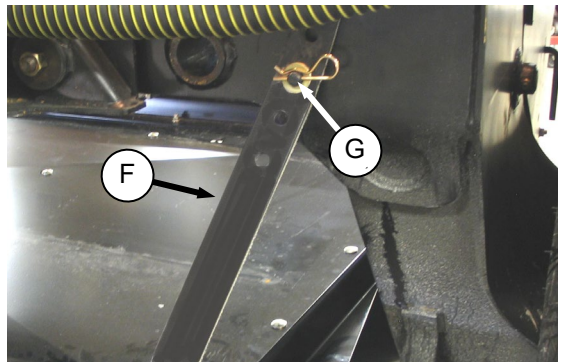
- e. Remove the two clevis pins (E) from forming shield forward end.



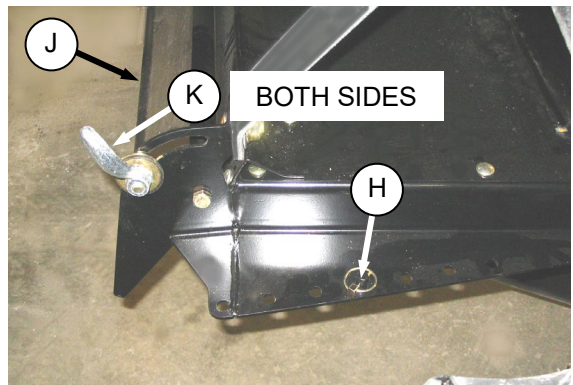
- f. Position forming shield under the tractor frame.



- g. Locate forming shield onto spacers (D) on tractor leg and secure with clevis pins (E) and lynch pin.



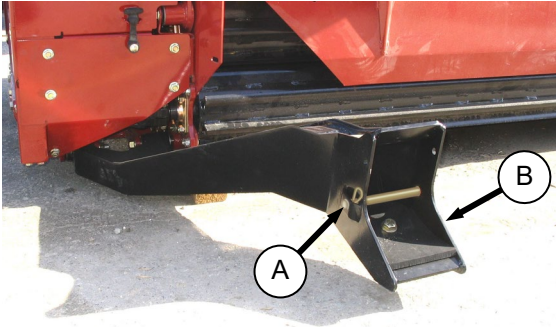
- h. Lift the aft end of the forming shield and attach straps (F) to pins (G) on tractor frame. Install washer and hairpin to secure strap. Use the middle hole and adjust height to suit the crop.



- i. Set forming shield side deflectors to desired width by repositioning adjuster bars (H). Use same hole location on both sides.
- j. Adjust fluffer shield (J) to middle position. Loosen handles (K) if required.

UNLOADING AND ASSEMBLY

STEP 8. ATTACH HEADER TO TRACTOR

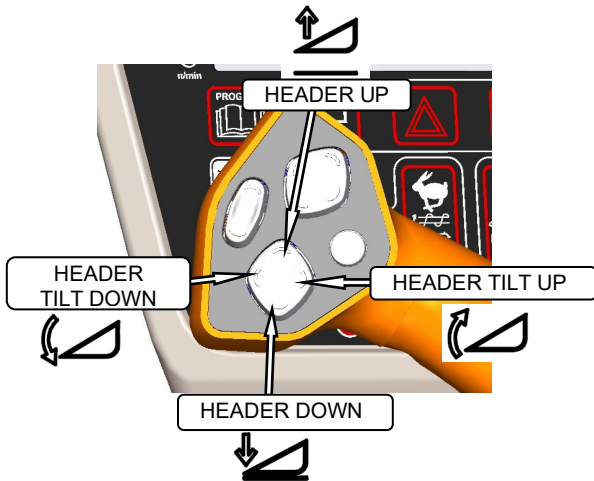


- a. Remove hairpin from pin (A), and remove pin from left and right header boots (B).

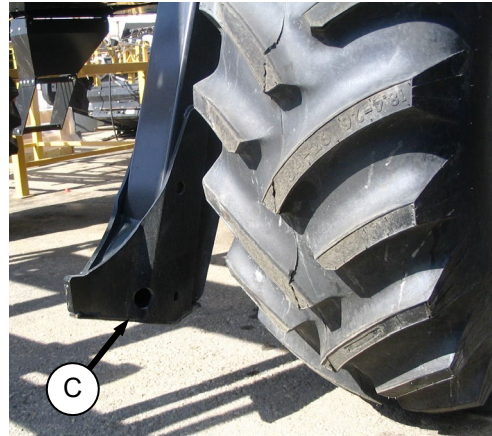


CAUTION

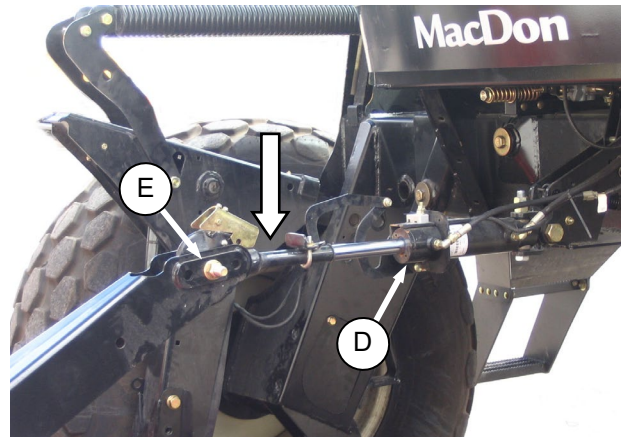
Check to be sure all bystanders have cleared the area.



- b. Start the engine and activate header down button on the GSL to fully retract header lift cylinders.



- c. Slowly drive tractor forward so that feet (C) on tractor enter boots (B) on the header. Continue to drive slowly forward until feet engage the boots, and header nudges forward.



- d. Activate header tilt cylinder switches on GSL to position center link cylinder (D) so that it can connect to header.
e. Push down on rod end of link cylinder until hook engages pin (E) on header and is locked.

NOTE

If optional auto-connect system is installed, activate link lift cylinder from in the cab to lower center link onto header.

- f. Raise the header fully with the header up switch on the GSL. Stop engine and remove key.



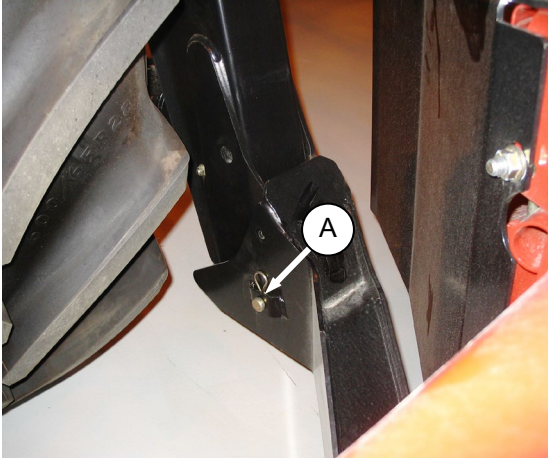
DANGER

To avoid bodily injury from fall of raised header, always engage header lift cylinder stops when working on or around raised header.

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UNLOADING AND ASSEMBLY

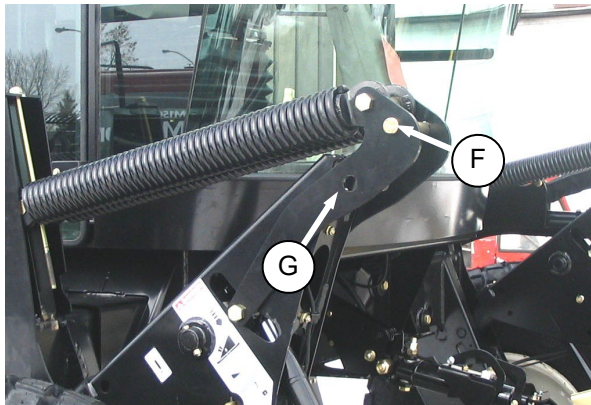
- g. Engage lift cylinder stops on both lift cylinders.



- h. Install pin (A) through each boot and foot and secure with hairpin.

IMPORTANT

Ensure pin (A) is fully inserted and hairpin is installed behind bracket.



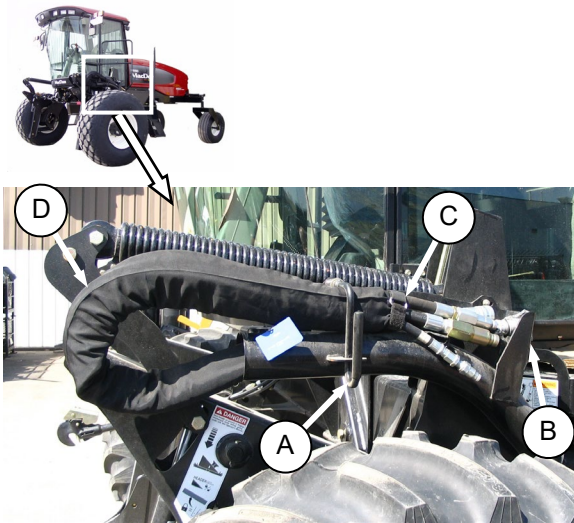
- i. Remove pin (F) from storage position in linkage and insert in hole (G) to engage float springs. Secure with hairpin.
- j. Disengage lift cylinder stops.
- k. Start engine, and activate header lift cylinder switch on GSL to lower header fully. Stop engine and remove key.

UNLOADING AND ASSEMBLY

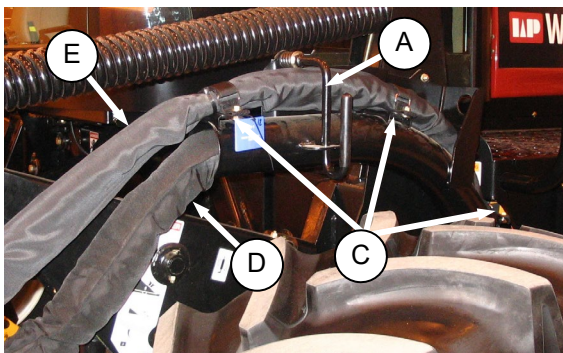
STEP 9. CONNECT HYDRAULICS

A. 16 FT

I. M200 TRACTOR CONNECTIONS

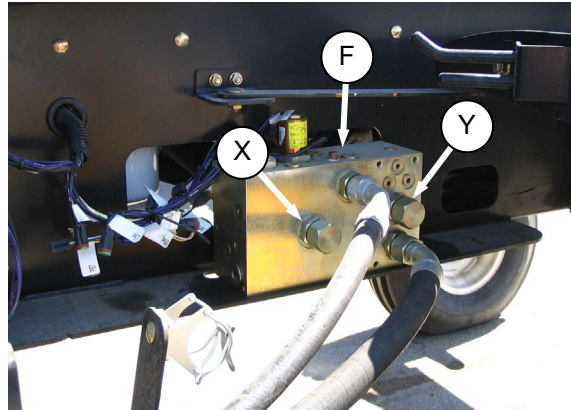


- Disengage and rotate lever (A) counter-clockwise to fully up position.
- Remove cap (B) securing electrical connector to frame.
- Undo Velcro strap (C) and move hose bundle (D) from tractor to header.
- Move tractor left side platform to open position.

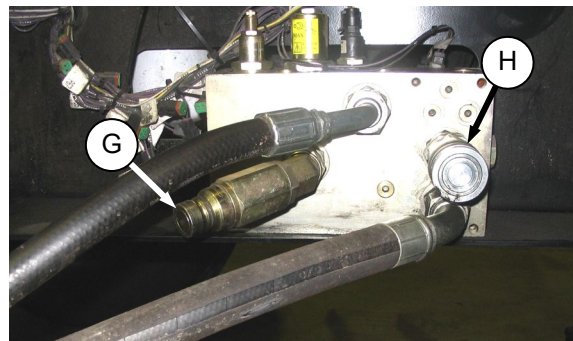


- Route header return and pressure hose bundle (E) from header to tractor, and locate bundle above existing hose bundle (D) as shown.
- Secure with three straps (C).
- Lower and lock lever (A).

- Route header hose bundle (E) to valve block (F).
- Disconnect fittings at bundle (E) hose ends.



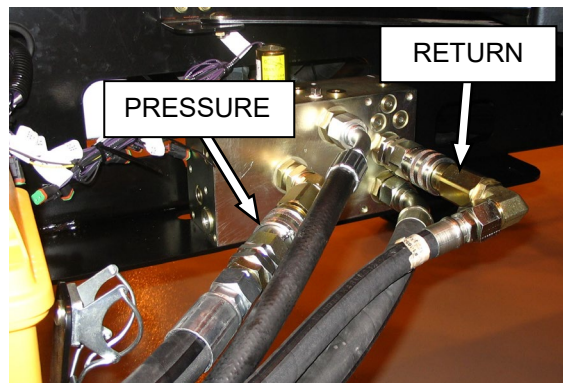
- Remove fittings at ports (X) and (Y) on valve (F).



- Install male 45 degree fitting (G) in port (X), and female straight fitting (H) in port (Y).

NOTE

Male fitting (G) may need to be disassembled prior to installing on valve block.



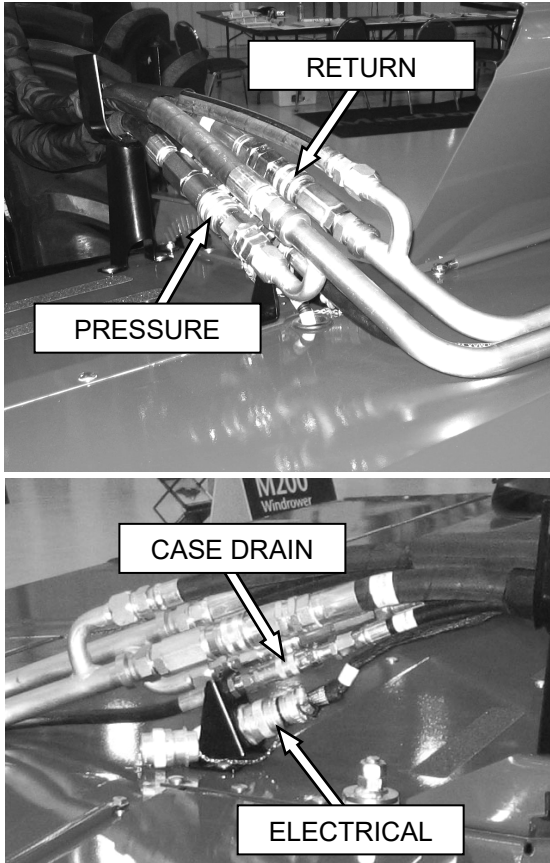
- Connect hoses from header to fittings as shown.
- Move tractor platform to closed position.

(continued next page)

UNLOADING AND ASSEMBLY

II. M200/16 FT HEADER CONNECTIONS

- a. Remove caps and plugs from hoses and lines.

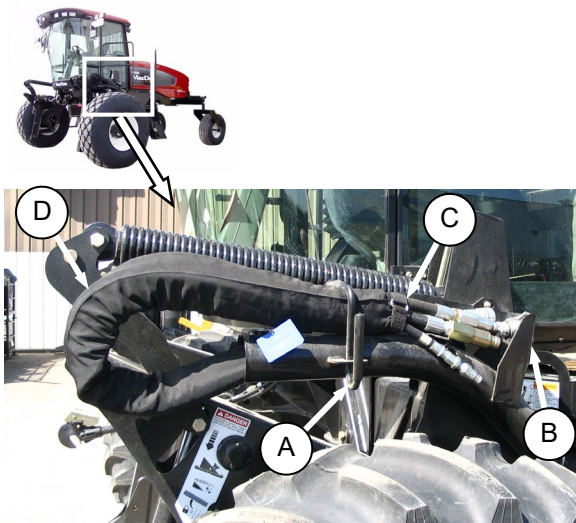


- b. Connect the three hoses from tractor to the fittings on the header as shown.
- c. Assemble electrical connector as shown.

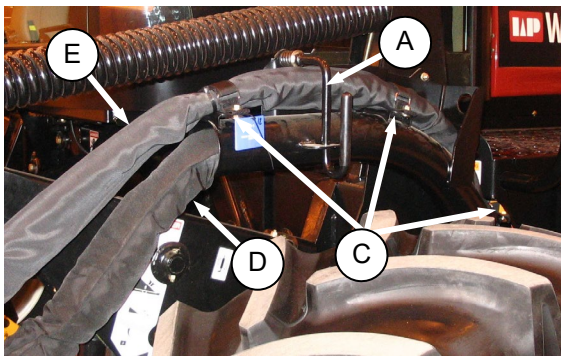
UNLOADING AND ASSEMBLY

B. 13 FT

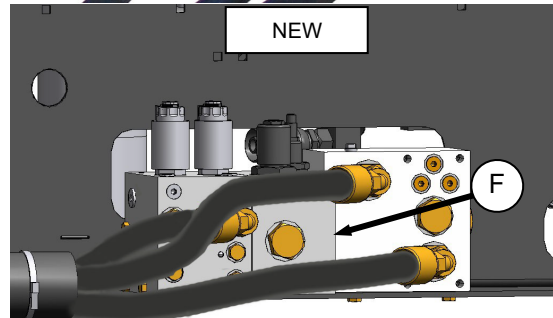
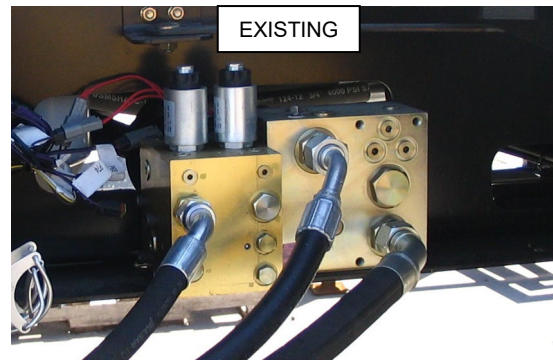
I. M150/13FT TRACTOR CONNECTIONS



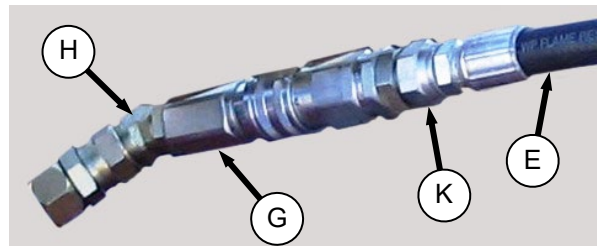
- Disengage and rotate lever (A) counter-clockwise to fully up position.
- Remove cap (B) securing electrical connector to frame.
- Undo Velcro strap (C) and move hose bundle (D) from tractor to header.
- Move tractor left side platform to open position.
- Route header return and pressure hose bundle (E) from header to tractor, and locate bundle above existing hose bundle (D) as shown.



- Secure with three straps (C).
- Lower and lock lever (A).



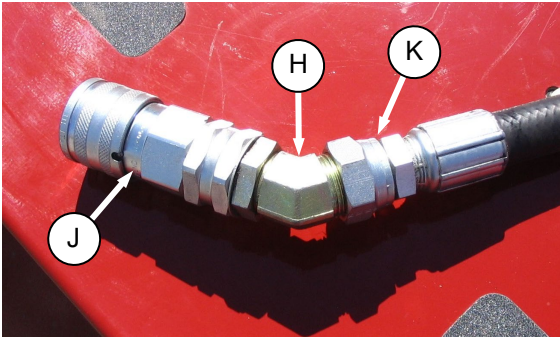
- Install valve block (F) that is supplied with the tractor (ref. B4657). Refer to installation instructions supplied in the kit.



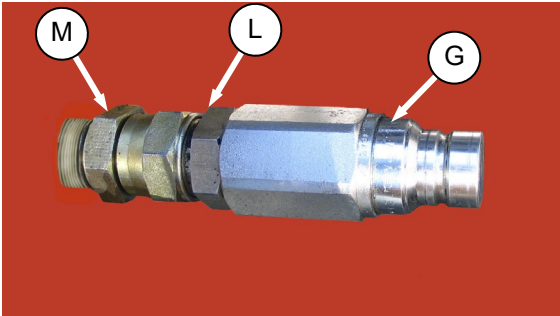
- Disconnect quick-disconnect at end of header hose (E).
- If, on hose (E) from header, the male quick-disconnect fitting (G) has a straight fitting attached to it, proceed to step k. If the male quick-disconnect fitting (G) has a 45 degree elbow (H) attached as shown, re-arrange fittings as follows:
 - Disassemble all fittings up to hose adapter (K) from hose (E).

(continued next page)

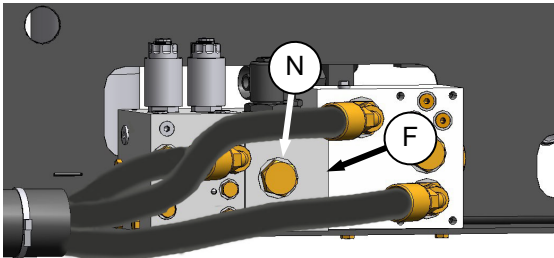
UNLOADING AND ASSEMBLY



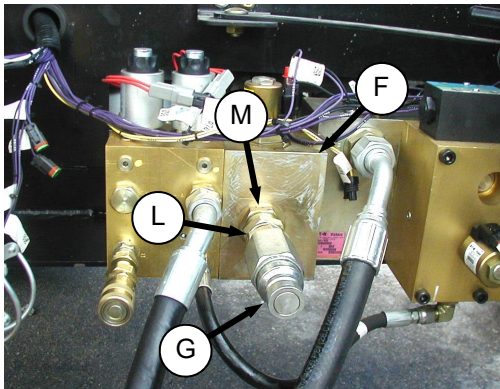
2. Assemble 45 elbow (H) to female quick-disconnect (J) and attach to hose (E) with adapter (K).



3. Assemble straight fitting (L), O-ring fitting (M), and male quick-disconnect (G) as shown.



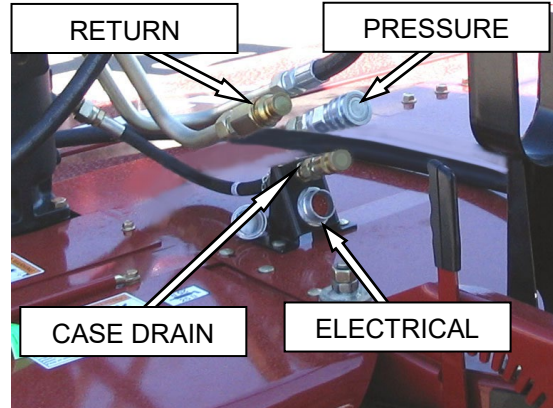
- k. Remove plug (N) from valve (F).



- l. Install O-ring fitting (M), adapter (L), and male quick-disconnect (G) onto valve block (F) at this location.
- m. Connect hose (E) from header to fitting (G).

II. M150/13 FT HEADER CONNECTIONS

- a. Remove caps and plugs from hoses and lines.



- b. Connect the three hoses from tractor to the fittings on the header as shown.
- c. Connect harness from tractor to electrical connector.
- d. Move tractor platform to closed position.

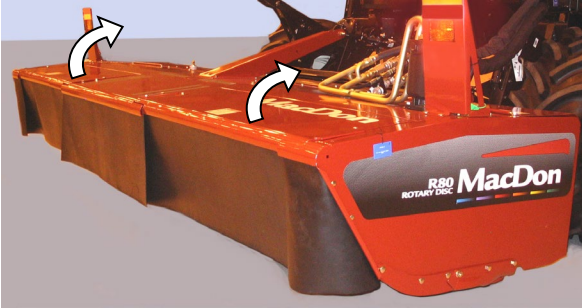
UNLOADING AND ASSEMBLY

STEP 10. INSTALL OPTIONS

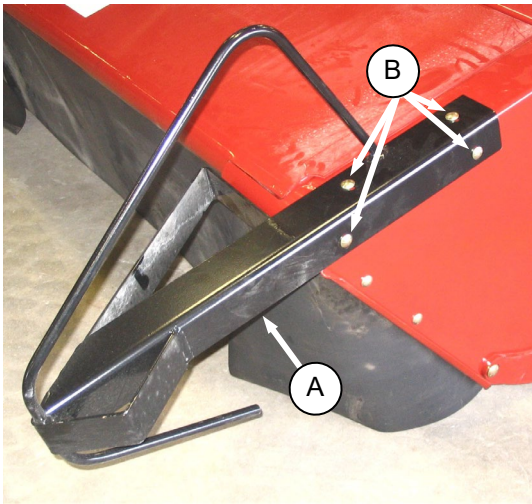
I. TALL CROP DIVIDER KIT

If kit not supplied, proceed to II. TALL CROP FEED PLATE KIT. Otherwise, proceed as follows:

- a. Unpack kit.



- b. Open cutterbar doors.

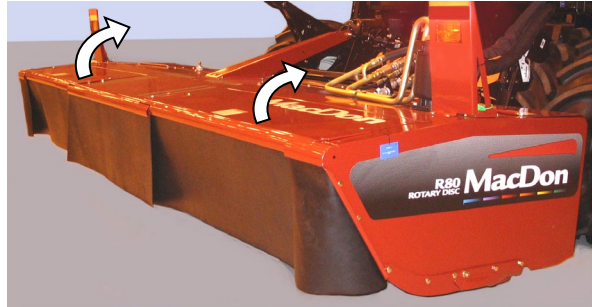


- c. Locate LH divider (A) on header LH front corner and install with four bolts (B) and nuts supplied with kit in existing holes. Tighten hardware.
d. Repeat for RH side.
e. Lower cutterbar doors.

II. TALL CROP FEED PLATES (16 FT ONLY)

If kit not supplied, proceed to STEP 11. PERFORM PRE-DELIVERY CHECKS. Otherwise, proceed as follows:

- a. Unpack kit.

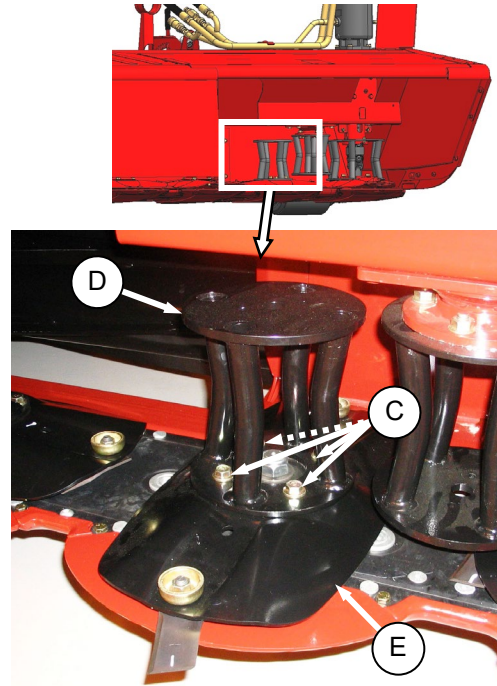


- b. Open cutterbar doors.



CAUTION

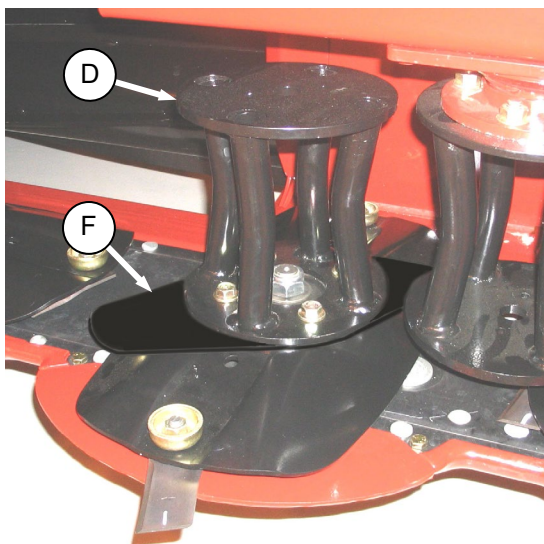
Cutter blades have two cutting edges. Exercise caution when working around the blades. Blades are sharp and can cause serious injury. Wear gloves when handling blades.



- c. Remove and discard four bolts (C) from inboard disc.
d. Remove deflector (D).

(continued next page)

UNLOADING AND ASSEMBLY



- e. Locate feed plate (F) on the disc ensuring that hole in feed plate registers on disc. Position plate approximately as shown and align holes.

IMPORTANT

Feed plate should be located so that when holes are aligned, it is closer to the cutter blade leading edge than the trailing edge.

- f. Re-position deflector (D) and align holes.
g. Install four hex M12 x 1.75" (45 mm) lg. bolts in locations of original hardware. Tighten to 66 ft lbs (90 N-m).
h. Repeat above steps for opposite side.
i. Manually rotate discs to check for interference of feed plate and adjacent parts.

III. SHOE LIFT KIT

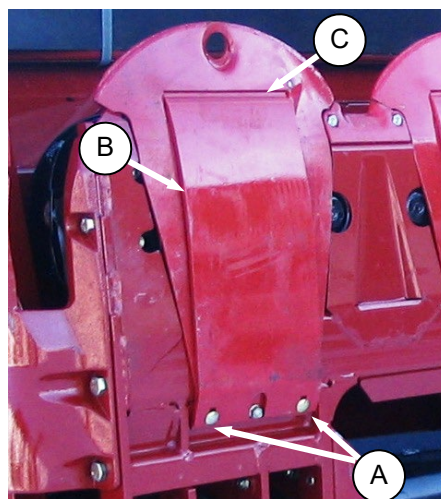
- a. Unpack kit.



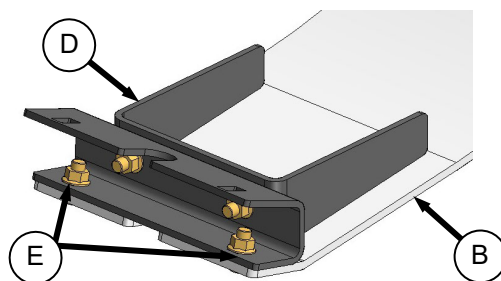
WARNING

To avoid bodily injury or death from unexpected start-up or fall of raised machine, stop engine, remove key and engage lift cylinder stops before going under machine to adjust skid shoes or for any reason.

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



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



2. Attach shoe lift (D) to skid shoe as shown with hardware (E) supplied in kit. Tighten bolts.
3. 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 11. PERFORM PRE-DELIVERY CHECKS



WARNING

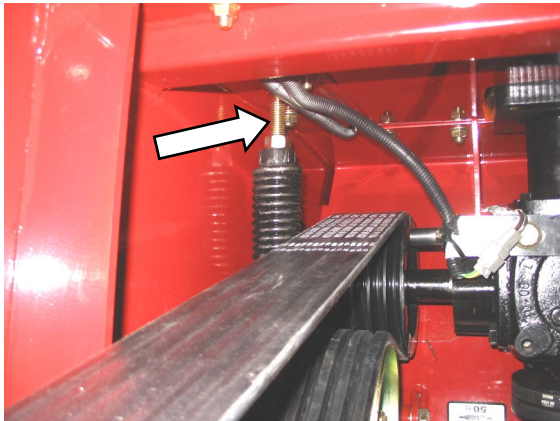
Stop windrower engine and remove key before making adjustments to machine. A child or even a pet could engage the drive.

IMPORTANT

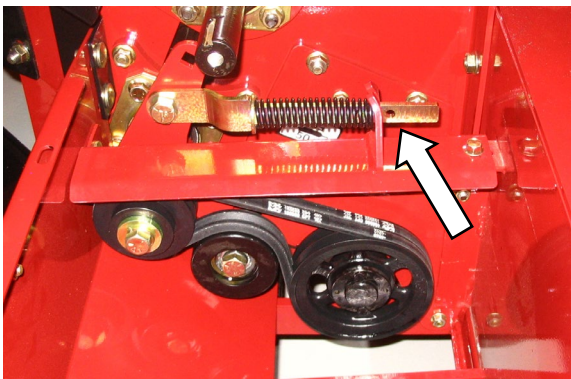
To avoid machine damage, check that no shipping dunnage has fallen down between auger and pans.

- Perform the final checks and adjustments as listed on the "Pre-Delivery Checklist" (yellow sheet) to ensure the machine is field-ready. Refer to the following 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

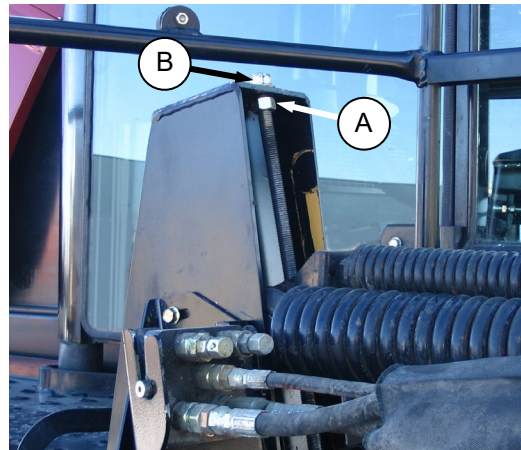
- Set the float fine adjustment to mid-range with the tractor float adjustment system in the cab. Refer to the M150 Self-Propelled Windrower Operator's Manual.
- Check float by grasping the divider rod and lifting. The force to lift should be 75-85 lbs (335-380 N) and should be approximately the same at both ends.
- Perform the following steps to adjust the float if necessary:



DANGER

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.

- Raise the header fully, shut down the engine, and remove the key.



- Loosen nut (A) on linkage spring drawbolt.
- Turn drawbolt (B) clockwise to increase float (makes header lighter) or counterclockwise to decrease float (makes header heavier).
- Tighten nut (A) to lock drawbolt.
- Recheck the float.

PRE-DELIVERY CHECKS

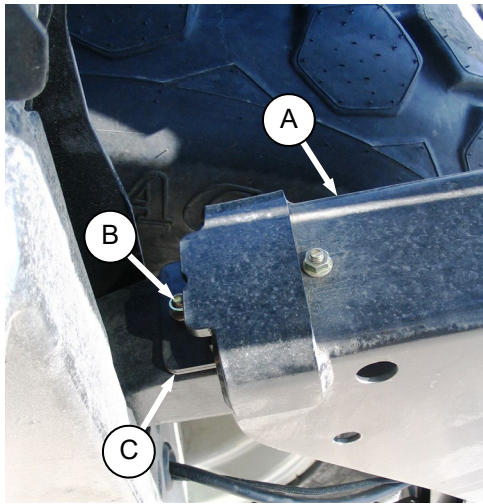
C. CHECK LEVEL OF HEADER

- a. Park windrower on level ground and raise header approximately 6 inches (150 mm) off ground.
- b. Check that clearances between header and ground at each end of the header are approximately the same.

IMPORTANT

The header float springs are not used to level the header.

- c. If header needs levelling, proceed as follows:
 1. Place wooden blocks under header cutterbar and legs.



2. Lower header onto blocks so that linkage (A) lifts at tractor leg and off of shims.



DANGER

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.

3. Shut down the engine and remove the key.
4. Remove nut, washer and bolt (B) that attaches shims (C) to link.
5. Remove one or both shims (C) and reinstall the hardware (B).
6. Check level of header.
7. If additional levelling is required, install the removed shim on the opposite linkage.

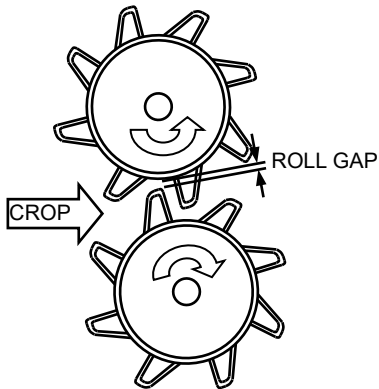
NOTE

Float does not require adjustment after levelling header.

PRE-DELIVERY CHECKS

D. CONDITIONER ROLLS

I. ROLL GAP



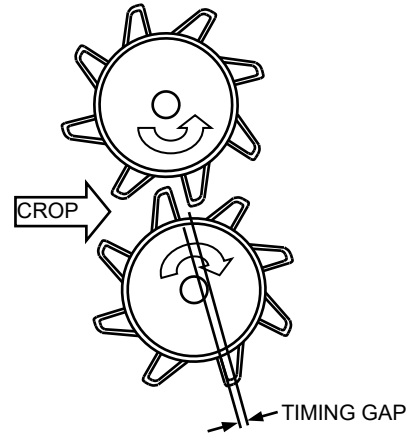
- a. The amount of thread protruding through jam nut should equal roll gap. Factory setting should be 0.125 in. (3 mm).

II. ROLL TIMING

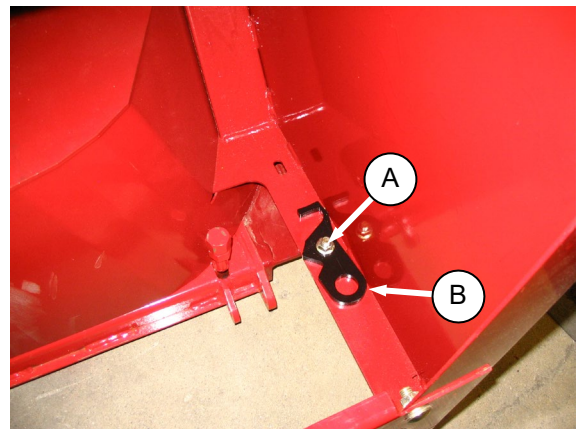


DANGER

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.



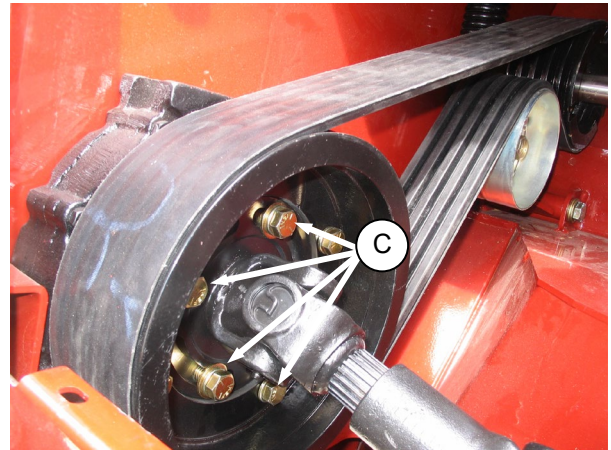
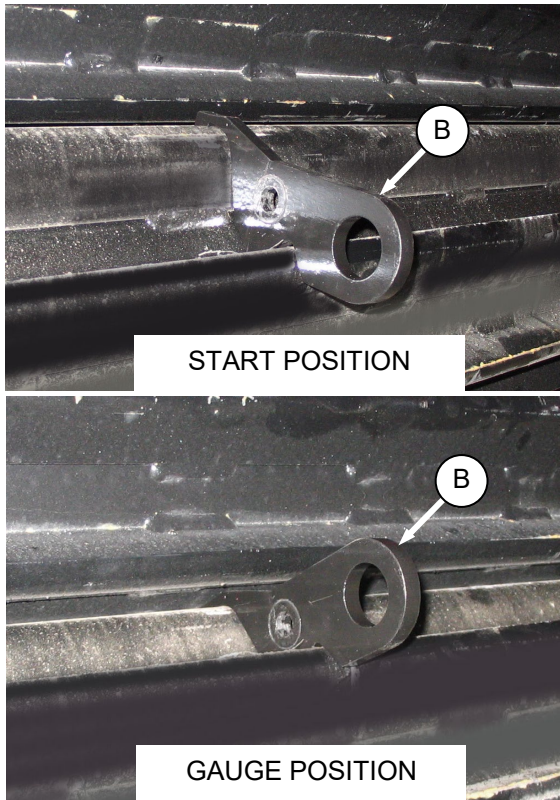
- a. Lower header to ground, shut down tractor and remove key.
- b. Open drive shields.



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

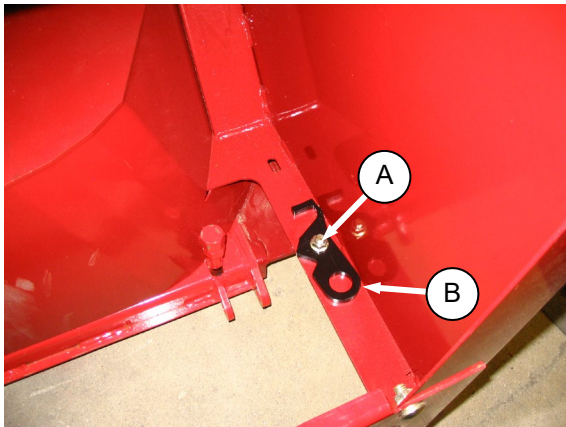
(continued next page)

PRE-DELIVERY CHECKS



- g. Check timing flange bolts (C) are tight.
- h. Close drive shields.

- d. Locate gauge (B) at center of rolls as shown and manually turn rolls to limits of gauge. Rolls will engage the gauge if timing is correct.
- e. Manually turn rolls to release gauge.



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

PRE-DELIVERY CHECKS

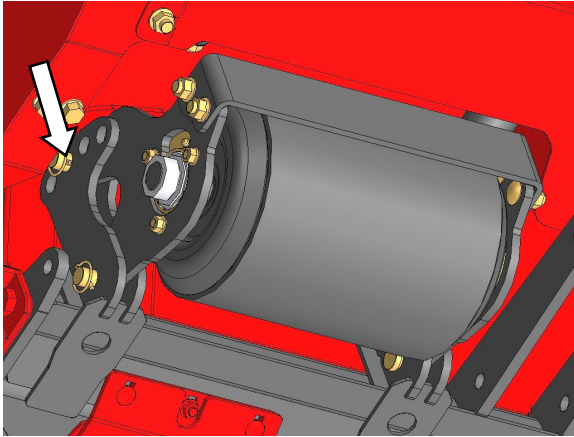
E. GAUGE ROLLERS



WARNING

To avoid bodily injury or death from unexpected start-up or fall of raised machine, stop engine, remove key and engage lift cylinder stops before going under machine to adjust skid shoes or for any reason.

- a. Raise header and engage lift cylinder stops.



- b. Both gauge rollers should be set at the same position.

F. LUBRICATE THE HEADER



WARNING

To avoid bodily injury or death from unexpected start-up or fall of raised machine, stop engine, remove key and engage lift cylinder stops before going under machine to adjust skid shoes or for any reason.


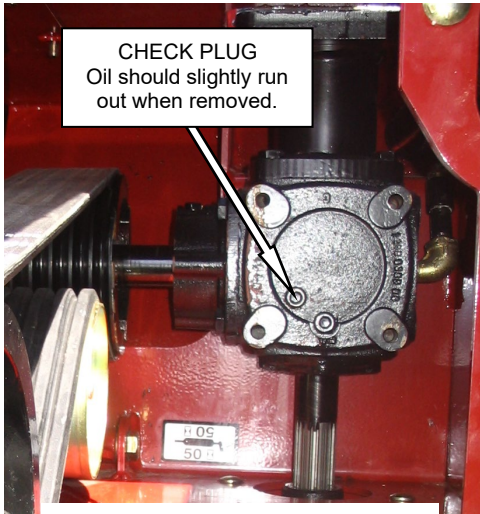
- a. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
- b. Inject grease through fitting with grease gun until grease overflows fitting, except where noted.
- c. Leave excess grease on fitting to keep out dirt.
- d. Replace any loose or broken fittings immediately.
- e. If fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.
- f. Refer to the illustrations on following pages for lubrication points.

(continued next page)

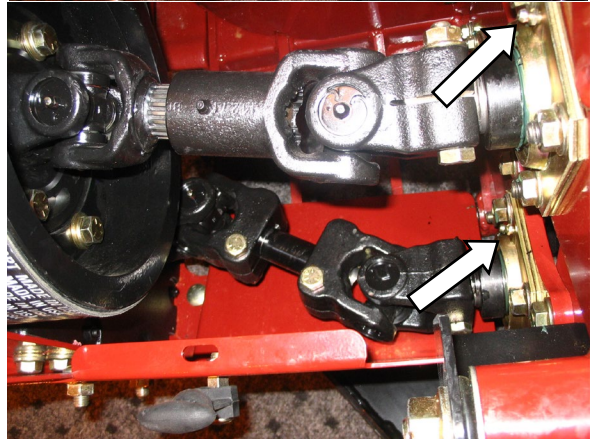
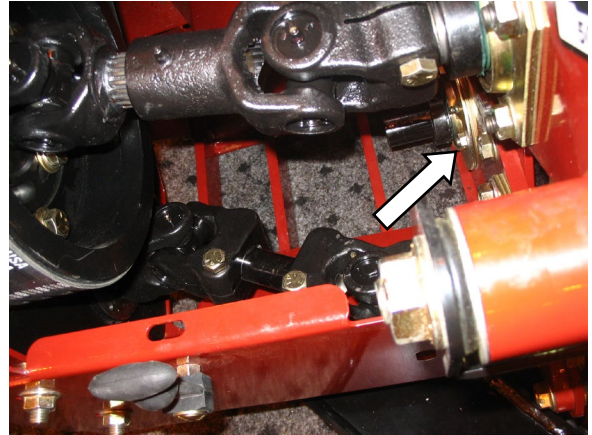
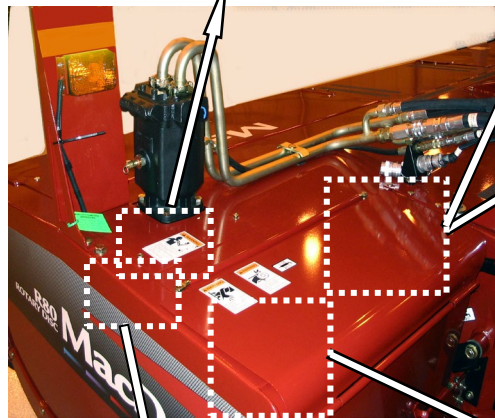
PRE-DELIVERY CHECKS

LUBRICATE HEADER – 13 FT

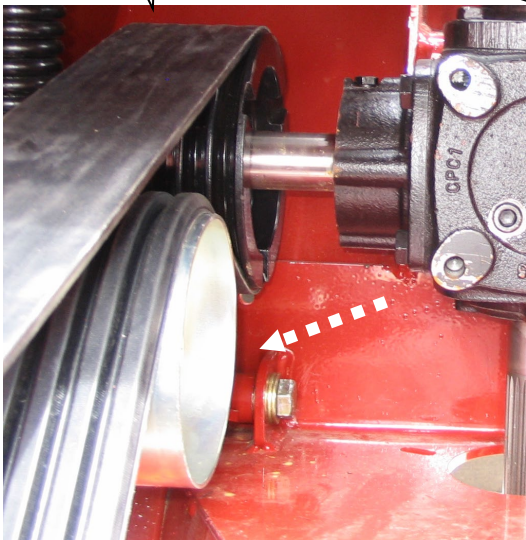
High Temp. Extreme Pressure (EP2) Performance With 1% Max Molybdenum Disulphide (NLGI Grade 2). Lithium Base

GEARBOX OIL LEVEL



ROLL SHAFT BEARINGS (3 PLCS)



BELT TENSIONER PIVOT (1 PLC)

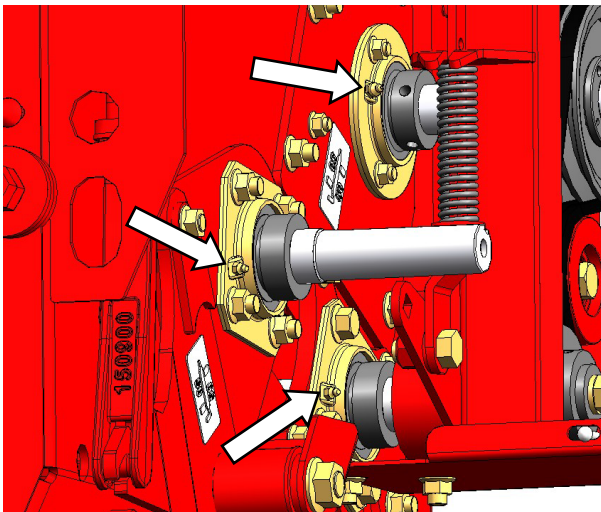


DRIVELINE UNIVERSALS (4 PLCS)
DRIVELINE SHAFT (1 PLC)

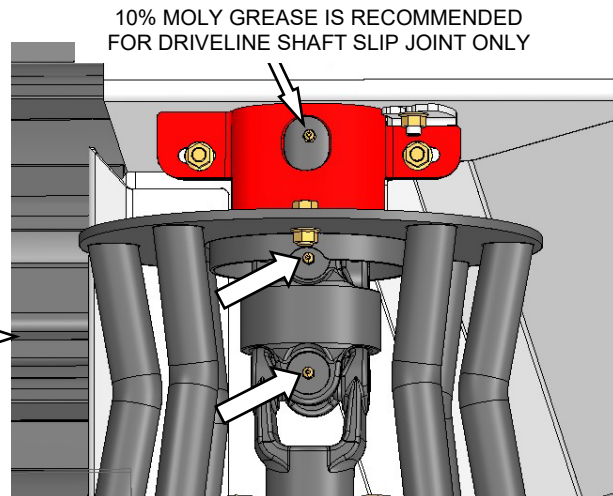
PRE-DELIVERY CHECKS

LUBRICATE HEADER – 13 FT (Cont'd)

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



ROLL SHAFT BEARINGS (3 PLCS)

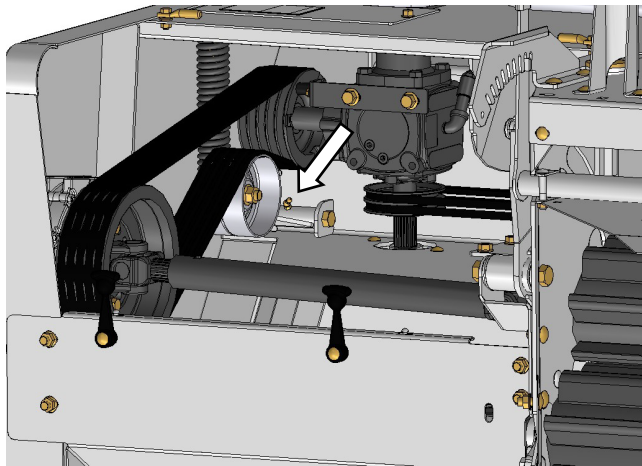


DRIVELINE UNIVERSALS (2 PLCS)
DRIVESHAFT (1 PLC)
BOTH SIDES

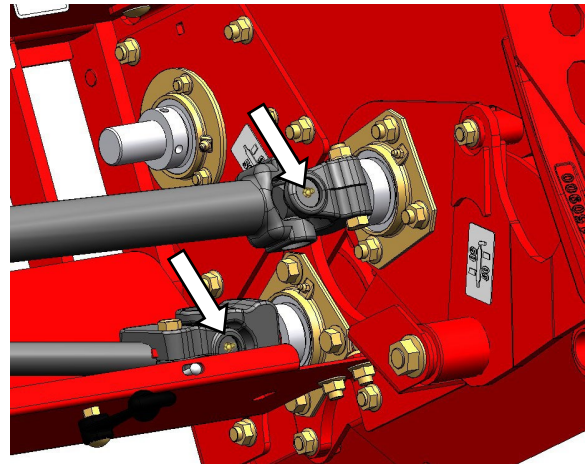
PRE-DELIVERY CHECKS

LUBRICATE HEADER – 16 FT

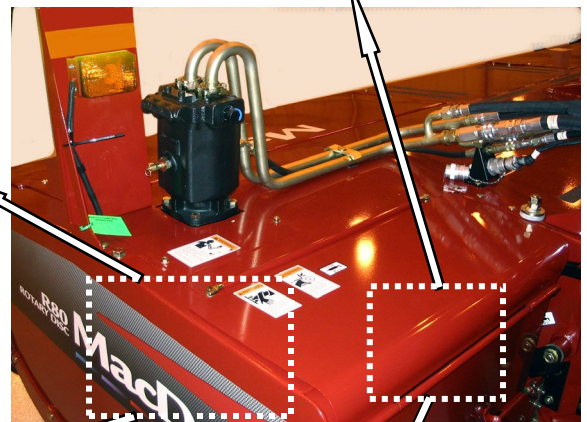
High Temp. Extreme Pressure (EP2) Performance With 1% Max Molybdenum Disulphide (NLGI Grade 2).Lithium Base



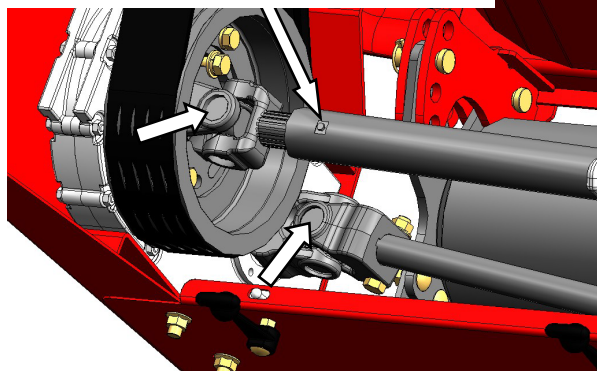
BELT TENSIONER PIVOT (1 PLC)



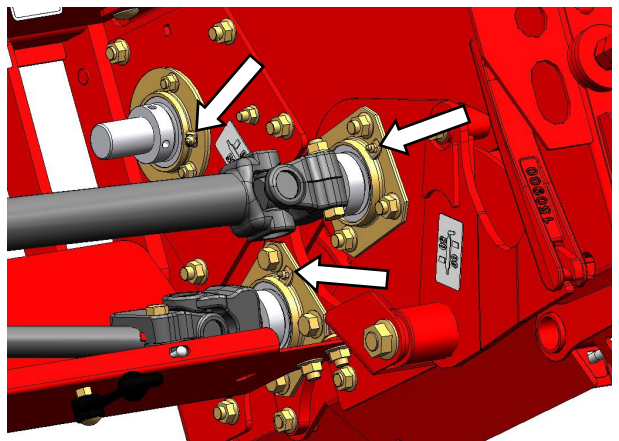
DRIVELINE UNIVERSALS (2 PLCS)



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



DRIVELINE UNIVERSALS (2 PLCS)
DRIVELINE SHAFT (1 PLC)


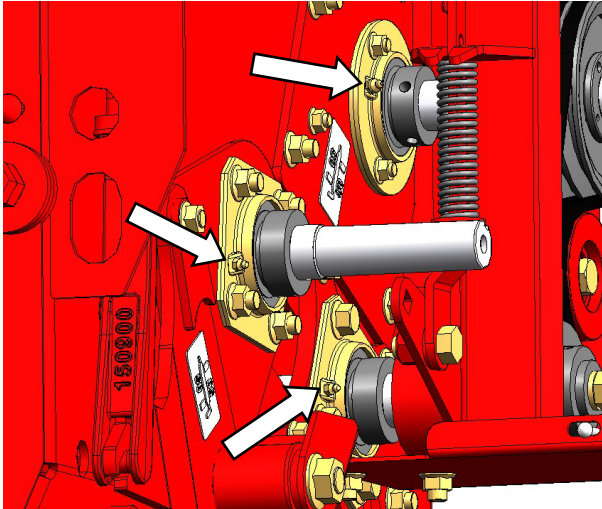


ROLL SHAFT BEARINGS (3 PLCS)

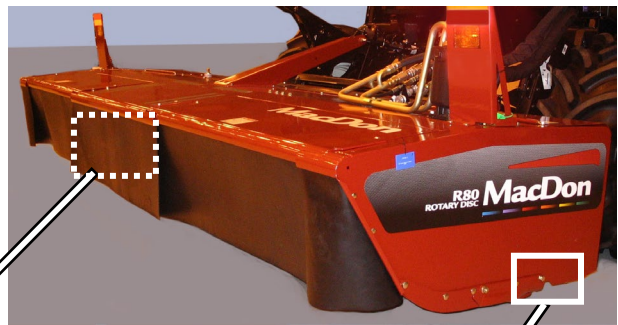
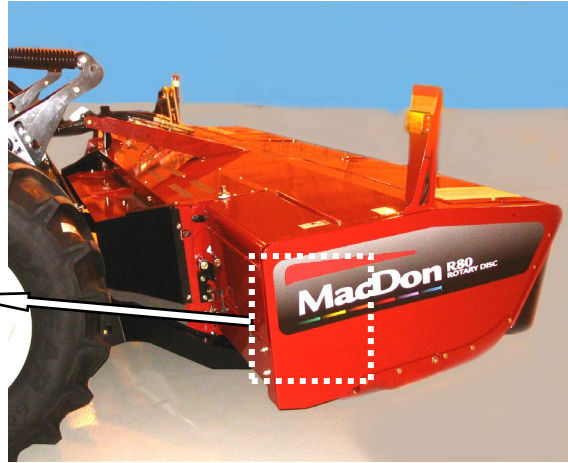
PRE-DELIVERY CHECKS

LUBRICATE HEADER – 16 FT (Cont'd)

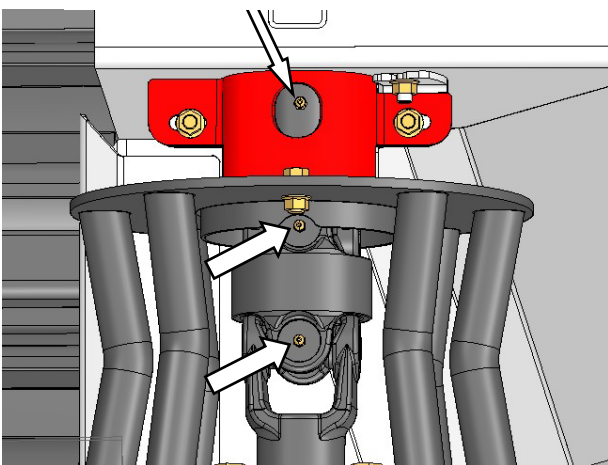
High Temp. Extreme Pressure (EP2) Performance With 1% Max Molybdenum Disulphide (NLGI Grade 2).Lithium Base

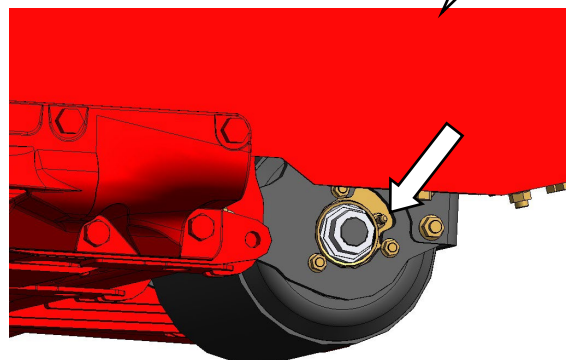
ROLL SHAFT BEARINGS (3 PLCS)



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



DRIVELINE UNIVERSALS (2 PLCS)
DRVESHAF (1 PLC)
BOTH SIDES



OPTIONAL GAUGE ROLL BEARINGS (2 PLCS)

PRE-DELIVERY CHECKS

G. OPERATOR'S MANUAL AND PARTS CATALOGUE

Place Operator's Manual and Parts Catalogue
in storage case in the tractor.