

## INTRODUCTION

This Manual contains information on the adapter which is required to allow attachment of the MacDon Model 962 and 972 Harvest Header to the various models of combines (see list on cover).

**NOTE:** This supplement does not provide all the information required to operate the header. It must be used in conjunction with your Harvest Header and Combine Operator's Manuals.

CAREFULLY READ ALL MANUALS TO BECOME FAMILIAR WITH RECOMMENDED PROCEDURES BEFORE ATTEMPTING TO UNLOAD, ASSEMBLE OR USE THE MACHINE.

This manual is divided into sections on: Safety, Attaching and Detaching the Header, Operation and Maintenance/Service. In addition, Assembly and Adapter Mounting Instructions for each type of combine are found at the back of this book.

Use the Table of Contents and the Index to guide you to specific areas. Study the Table of Contents to familiarize yourself with how the material is organized.

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

**NOTE:** Right hand (R/H), and Left hand (L/H) designations are determined from the operators position, facing forward.

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## SPECIFICATIONS

FEED DRAPER DRIVE	Hydraulic: Pump driven from right side of feeder house, reversible with combine feeder chain
FEED DRAPER SPEED	600 to 765 feet/min. (180 to 230 metres/min.), varies with combine
FEED DRAPER MATERIAL	Self-tracking rubber coated polyester fabric with rubber slats
FEED DRAPER WIDTH:	
John Deere & New Holland TX, Cat Lexion	55.9 inches (1420 mm)
Case, Gleaner, & New Holland TR	38.4 inches (975 mm)
FEED AUGER DRIVE	Hydraulic: Pump driven from right side of feeder house, reversible with combine feeder chain
FEED AUGER SPEED	187 to 233 RPM, varies with combine
FEED AUGER DIAMETER	12 inches (300 mm)
HEADER SIDE DRAPER DRIVE	Hydraulic: Pump driven from right side of feeder house
HEADER SICKLE DRIVE	Mechanical: Driveline from left side of feeder house
HEADER FLOTATION	7 inches (175 mm) vertical and 4.5° lateral
HEADER REEL DRIVE	Hydraulic from combine oil supply

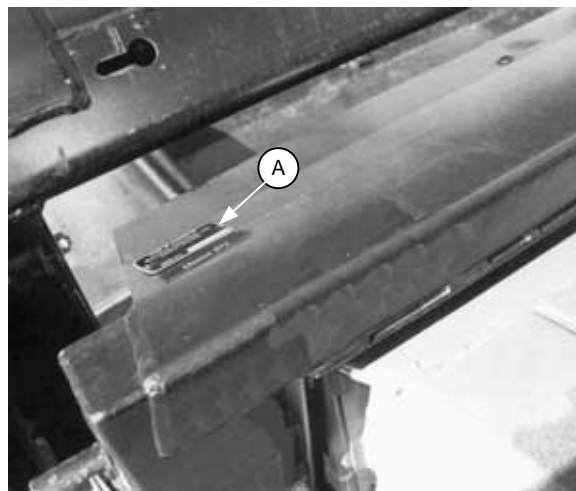
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## SERIAL NUMBER LOCATION

Record the serial number in the space provided.

871 Combine Adapter: \_\_\_\_\_

Plate (A) is located on left side of adapter frame.



COMBINE ADAPTER SERIAL PLATE

**NOTE:** When ordering parts and service, be sure to give your dealer the complete and proper serial number.

# SAFETY

## SAFETY ALERT SYMBOL



This safety alert symbol indicates important safety messages in this manual and on safety signs on the header.

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

Carefully read and follow the safety message accompanying this symbol.

Why is SAFETY important to you?

- 3 BIG REASONS
- ACCIDENTS DISABLE AND KILL
  - ACCIDENTS COST
  - ACCIDENTS CAN BE AVOIDED

## SIGNAL WORDS

Note the use of the signal words DANGER, WARNING, and CAUTION with safety messages. The appropriate signal word for each message has been selected using the following guidelines:



**DANGER** – Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



**WARNING** – Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. It is also used to alert against unsafe practices.



**CAUTION** – Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It is also used as a reminder of good safety practices.

# SAFETY

## SAFETY SIGNS

- The safety signs below appear on the combine adapter.
- Keep safety signs clean and legible at all times
- Replace safety signs that are missing or become illegible.
- If original parts on which a safety sign was installed are replaced, be sure the repair part also bears the current safety sign.
- Safety signs are available from your Dealer Parts Department.

### To install safety signs:

1. Be sure the installation area is clean and dry.
2. Decide on the exact location before you remove the decal backing paper.
3. Remove the smaller portion of the split backing paper.
4. Place the sign in position and slowly peel back the remaining paper, smoothing the sign as it is applied.
5. Small air pockets can be smoothed out or pricked with a pin.

**Rest header on ground or engage mechanical locks before going under unit.**



## HEADER ATTACHING & DETACHING

### ATTACHING HEADER TO COMBINE AND ADAPTER

1. Attach adapter to combine feeder housing. See "Adapter Mounting Instruction" at back of book.

**NOTE:** If header has been previously attached to windrower, remove linkage supports from header lower legs. Connector shaft on header back tube may remain installed.

2. Choose an area that is as level as possible, and support both ends of cutterbar 8" (200 mm) off ground (A).
3. For headers with gauge wheels, block both wheels front and rear, and be sure gauge wheel pins are in stand position (L), both sides, to support rear of header.

For headers without gauge wheels, be sure header stand is secure in the down position and supported 4 inches (100 mm) off ground (B).



**CAUTION:** Be sure area is clear of bystanders before starting engine.

4. Slowly drive combine forward, aligning float leaf springs under header legs, until top link can be connected. Connect top link (C).

**NOTE:** For headers with hydraulic top link, see instruction in "Unloading & Assembly" section.



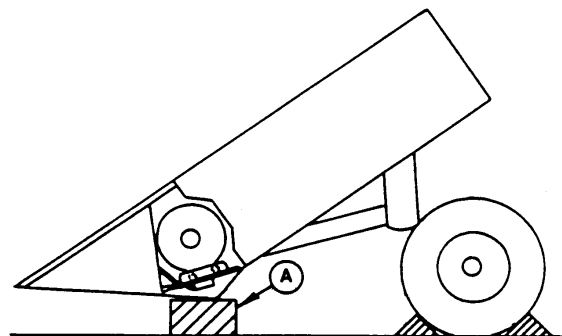
**CAUTION:** Always connect top link before raising header.

**IMPORTANT:** Take care not to crush hydraulic hoses when driving into header.

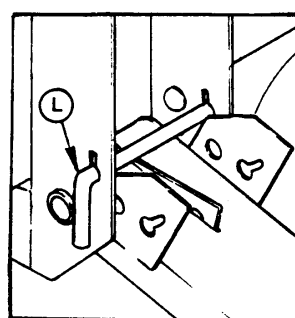
5. Raise adapter slowly, making sure float leaf springs engage in header legs. Continue to lift until header is fully raised. Stop engine and remove key.



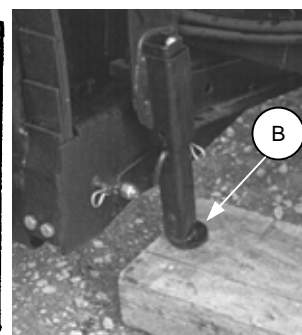
**DANGER:** To avoid bodily injury from fall of raised header, engage header lift cylinder stops when working on or around raised header. See your Combine Operator's Manual for details.



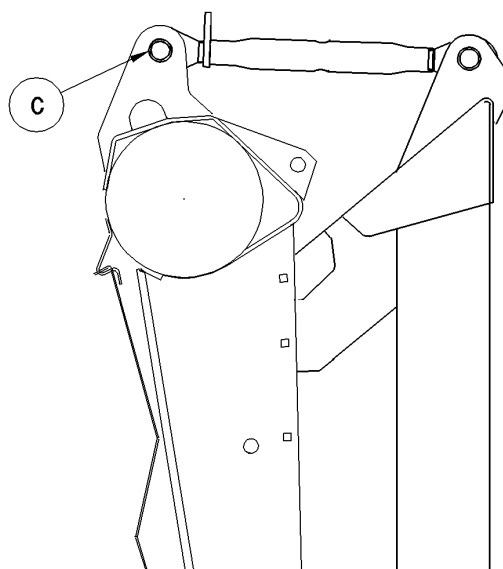
BLOCK CUTTERBAR



GAUGE WHEELS



HEADER STAND



CONNECT TOP LINK BEFORE LIFTING

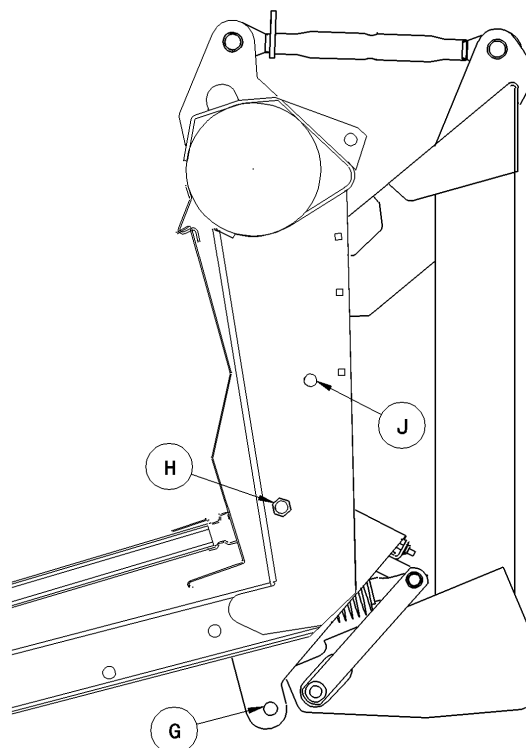
## HEADER ATTACHING & DETACHING

### ATTACHING HEADER TO COMBINE AND ADAPTER (continued)

6. Remove  $\frac{3}{4}$  x 7  $\frac{1}{2}$ " bolt and lock nut from storage position (J) (or, on first use, from shipping position [G]) and install to lock adapter to header at (H). Move clevis pin from float lockout position (G) to storage position (J). Install lynch pin to capture clevis pin.

**NOTE:** It may be necessary to rock header by lifting at divider to properly position float frame at header leg joint.

Repeat at other leg.



PIN FROM FLOAT LOCKOUT TO STORAGE

7. Install sickle driveline on combine feeder house shaft. Ensure driveline locking mechanism engages. See your combine Operator's Manual.



**DANGER:** Entanglement with rotating driveline will cause serious personal injury or death. Keep all driveline shields in place. Close all hinged covers.



ATTACH DRIVELINE

## HEADER ATTACHING & DETACHING

### ATTACHING HEADER TO COMBINE AND ADAPTER (continued)

8. Make the hydraulic line connections:

Reel drive pressure and return lines:

Connect two hoses between header and combine.

Reel lift line: Connect one hose between header and combine.

Draper drive pressure and return lines:

Connect two hoses between header and adapter.

**NOTE:** As an aid in connecting hydraulics, the following colour coding has been used:

ORANGE - Draper Drive Pressure

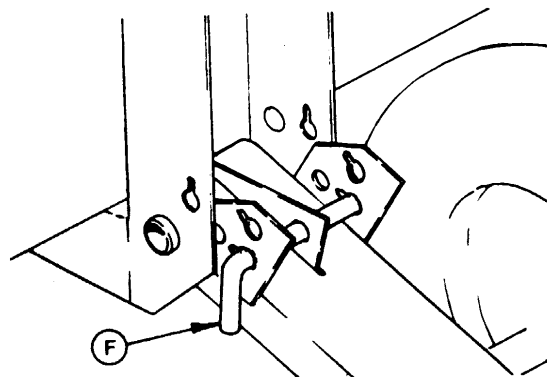
BLUE - Draper Drive Return

YELLOW - Reel Drive Return

Reel fore-aft lines (if equipped): Connect two hoses between header and combine.

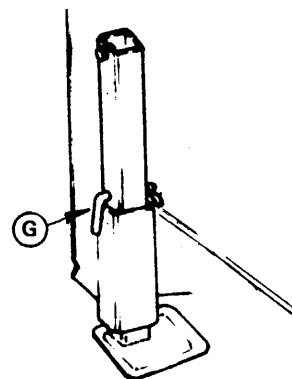
9. Connect wiring harness between header and combine. **NOTE:** A harness adapter is supplied with adapter completion package.
10. For headers with gauge wheels, remove pins at gauge wheels and place in field position (F). See "Cutting Height" in Header Operator's Manual to choose between alternate field positions. (For headers with gauge wheel/transport option, gauge wheel support is not exactly as illustrated. See decal at support.)

**NOTE:** Rotate pin to align roll pin with key slot for removal and installation. Roll pin locks inside to secure the position.



GAUGE WHEELS - FIELD POSITION

11. For headers without gauge wheels, raise header stand to storage position (G).
12. Place 8" (200 mm) block under front of adapter feeder pan. Ensure all feeder pan-to-cutterbar anchors are removed or turned sideways to prevent damage to anchors when cutterbar is lowered. Adjust feed pan fully forward for initial setting. (See next page.)
13. Disengage header lift cylinder stops and slowly lower header until adapter feeder pan rests on block, and cutterbar rests on feeder pan.



HEADER STAND - STORAGE POSITION



## HEADER ATTACHING & DETACHING

### ATTACHING HEADER TO COMBINE AND ADAPTER (continued)

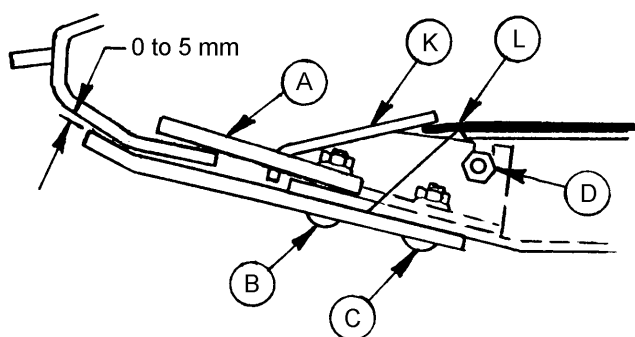
14. Install anchors to clamp feed pan to cutterbar as shown.
15. Check for 0 to 5 mm (3/16 inch) clearance between front of adapter feed pan and cutterbar. Adjust clearance as follows:
  - a. Raise the header. Stop engine and remove key.



**DANGER:** To avoid bodily injury from fall of raised header, engage header lift cylinder stops when working on or around raised header. See your Combine Operator's Manual for details.

#### b. 972 Header:

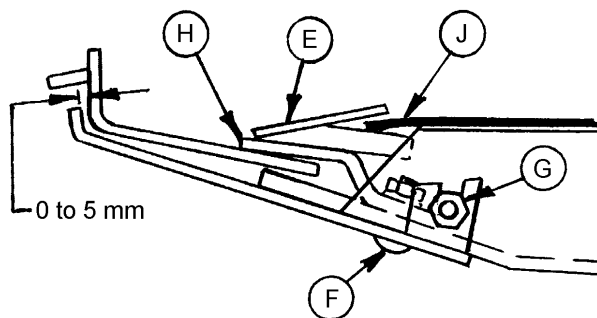
- Loosen three bolts (B), three bolts (C) and two bolts (D).
- Adjust feed pan clearance to cutterbar to 0 to 5 mm (3/16 inch).
- Tighten bolts (B) (C) and (D).
- Remove all blocks, disengage header lift cylinder stops and lower header to ground.
- Ensure that outside supports (K) are installed as shown, with rubber seal (L) under top plate.



SIDE VIEW  
ADJUST FEED PAN - 972 HEADER

#### 962 Header:

- Loosen bolts (F) and (G).
- Adjust feed pan clearance to cutterbar to 0 to 5 mm (3/16 inch).
- Tighten bolts (F) and (G).
- Remove all blocks, disengage header lift cylinder stops and lower header to ground.
- Ensure that outside anchors (E) are installed as shown, with rubber seal (J) under top plate of anchor.



SIDE VIEW  
ADJUST FEED PAN - 962 HEADER

## HEADER ATTACHING & DETACHING

### DETACHING HEADER FROM COMBINE AND ADAPTER

Using this procedure, adapter will remain attached to the combine. This would be appropriate when header is to be used as a windrower. Instructions for detaching both header and adapter from combine are given on page 12.

1. Choose a level area. Lower the reel and raise the header. Stop engine and remove key.



**DANGER:** To avoid bodily injury from fall of raised header, engage header lift cylinder stops when working on or around raised header. See your Combine Operator's Manual for details.



**DANGER:** Wait for all movement to stop. A rotating driveline can cause entanglement resulting in serious personal injury or death.

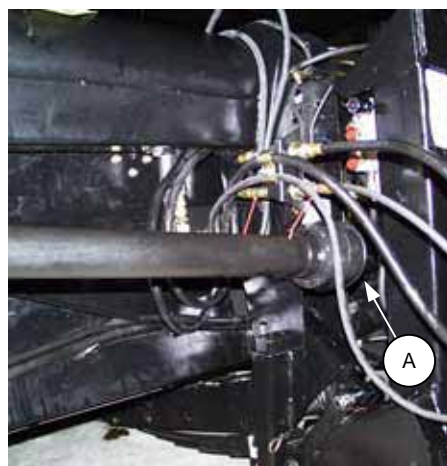
2. Disconnect driveline from combine feeder house shaft and store at bracket (A) on header left leg.
3. Disconnect hydraulic lines:
  - Reel lift between header and combine.
  - Reel drive pressure and reel return between header and combine.
  - Draper return (blue) and draper drive pressure (orange) between adapter and header.
  - Reel fore-aft hoses between header and combine (if equipped).

**IMPORTANT:** Couple or cap all lines to prevent hydraulic system contamination except as noted in Warning below. Be sure header stored hoses and combine stored hoses are not entangled.

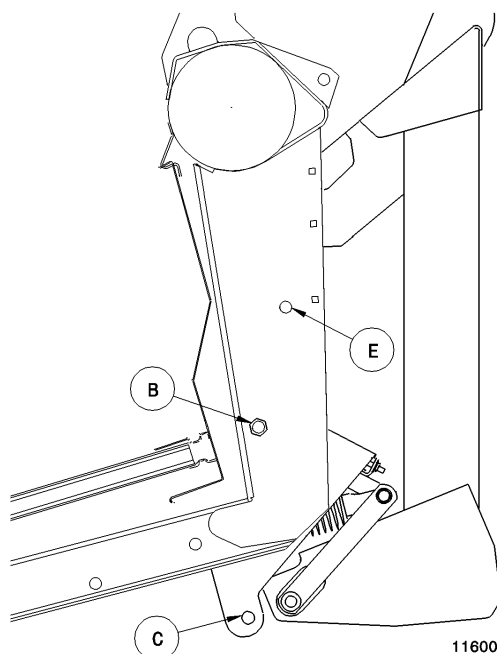


**WARNING:** For headers with hydraulic reel fore-aft, never connect the fore-aft couplers to each other. This would complete the circuit and allow the reel to creep forward in transport, resulting in instability.

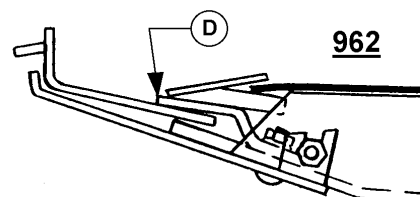
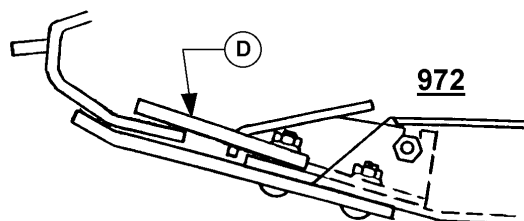
4. Disconnect wiring harness between header and combine.
5. Remove lynch pin and clevis pin from storage position (E) and install in float lockout position (C). Remove  $\frac{3}{4}$  X 7  $\frac{1}{2}$ " bolt and lock nut from adapter lock position (B) and place in storage position (E). Repeat at other leg.
6. Set 8" (200 mm) blocks under the adapter feeder pan.
7. Disengage header lift cylinder stops and lower header so feeder pan rests on blocks.
8. Loosen and rotate cutterbar anchors (D) away from cutterbar.
9. Raise header and engage header lift cylinder stops.



STORE DRIVELINE



MOVE BOLT TO STORAGE POSITION



RELEASE CUTTERBAR ANCHORS

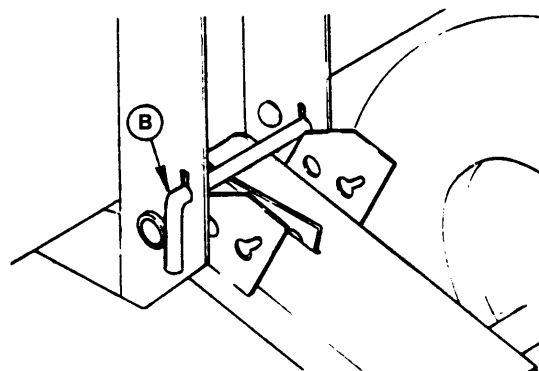
## HEADER ATTACHING & DETACHING

### DETACHING HEADER FROM COMBINE AND ADAPTER (continued)

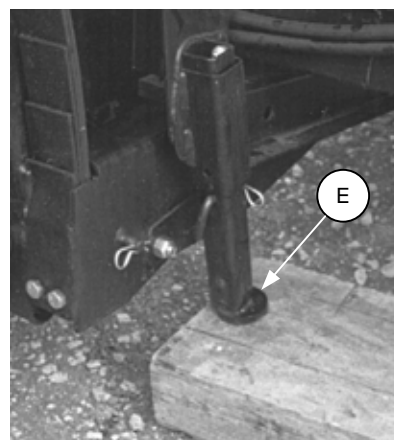
10. Move blocks from under adapter feeder pan to the outside, about 18" (450 mm) from each end of header.

11. For headers with gauge wheels, remove pins at gauge wheels and place in stand position (B). Block both gauge wheels.

For headers without gauge wheels, lower header stand (E) and place a 4 inch (100 mm) block beneath stand.



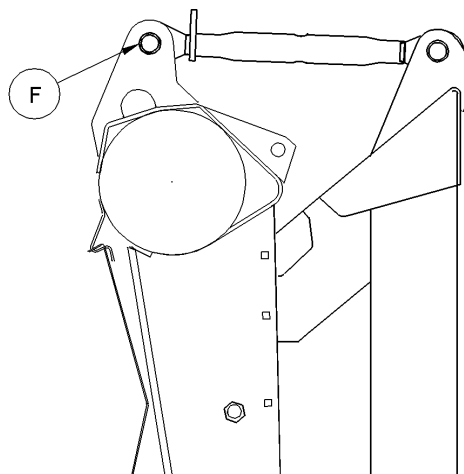
GAUGE WHEELS - STAND POSITION



HEADER STAND - LOWERED

12. Disengage header lift cylinder stops and lower header onto blocks. Lower adapter until top link is loose. Detach top link (F).

13. Lower adapter until float leaf springs are clear of header legs and slowly back away from header.



DISCONNECT TOP LINK

## HEADER ATTACHING & DETACHING

### DETACHING HEADER AND ADAPTER FROM COMBINE

Using this procedure, adapter will remain attached to the header. This would be appropriate when detaching header for transport. Instructions for detaching header only from adapter and combine are given on page 10.

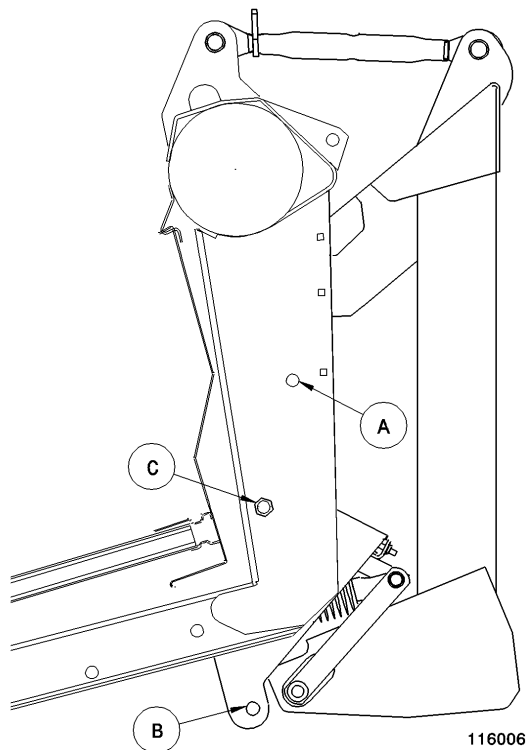
1. Choose a level area. Lower the reel and raise the header. Stop engine and remove key.



**DANGER:** To avoid bodily injury from fall of raised header, engage header lift cylinder stops when working on or around raised header. See your Combine Operator's Manual for details.

2. Remove lynch pin and clevis pin from storage position (A) and install in float lockout position (B). Repeat at other leg. Note that bolt in adapter lock position (C) remains in place.
3. Disconnect hydraulic lines between header and combine:
  - Reel drive pressure line.
  - Reel drive return line.
  - Reel lift line.
  - Reel fore-aft lines (if equipped).

**NOTE:** For units with hydraulic center link, before disconnecting cylinder hoses, turn off oil flow at shut-off valve. This allows easier reattachment of couplers at combine. Remember to restore oil flow at shut-off valve before next use.



INSTALL PIN IN LOCKOUT POSITION

**IMPORTANT:** Couple or cap all lines to prevent hydraulic system contamination except as noted in Warning below. Be sure header stored hoses and combine stored hoses are not entangled.



**WARNING:** For headers with hydraulic reel fore-aft, never connect the fore-aft couplers to each other. This would complete the circuit and allow the reel to creep forward in transport, resulting in instability.

4. Disconnect wiring harness between header and combine.



**DANGER:** Wait for all movement to stop before approaching driveline. A rotating driveline can cause entanglement resulting in serious personal injury or death.

5. Disconnect driveline from combine feeder house output shaft and store at header left leg.
6. Disconnect pump from combine feeder house output shaft and store on adapter. See Mounting Instruction for your make of combine at back of book.
7. Disengage the header lock system. See Mounting Instruction for your make of combine at back of book.



DISCONNECT AND STORE DRIVELINE

8. Disengage header lift cylinder stops, start engine and lower header to ground.
9. Slowly back combine away from header.

## HEADER ATTACHING & DETACHING

### ATTACHING HEADER AND ADAPTER TO COMBINE

1. If applicable, block both gauge wheels front and rear (B).

**NOTE:** Choose an area that is as level as possible.



**CAUTION:** Be sure area is clear of bystanders before starting engine.

2. Drive combine slowly forward and engage feeder house lifting device in adapter top cross member. See Mounting Instruction for your make of combine at back of book for details.

3. Raise header, stop engine and remove key.



**DANGER:** To avoid bodily injury from fall of raised header, engage header lift cylinder stops when working on or around raised header. See your Combine Operator's Manual for details.

4. Connect feeder house lock system at bottom of adapter. See Mounting Instruction for your make of combine at back of book.

5. Install sickle driveline on L/H feeder house output shaft. Ensure driveline locking mechanism engages. See your combine Operator's Manual.



**DANGER:** Entanglement with rotating driveline will cause serious personal injury or death. Keep all driveline shields in place.

6. Connect hydraulic lines between header and combine:

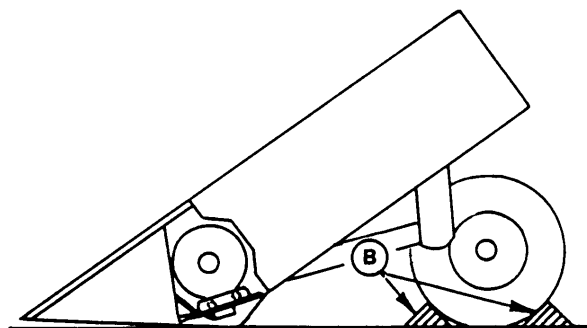
- Reel drive pressure line.
- Reel drive return line.
- Reel lift line.
- Reel fore-aft lines (if equipped).

7. Connect wiring harness between header and combine.

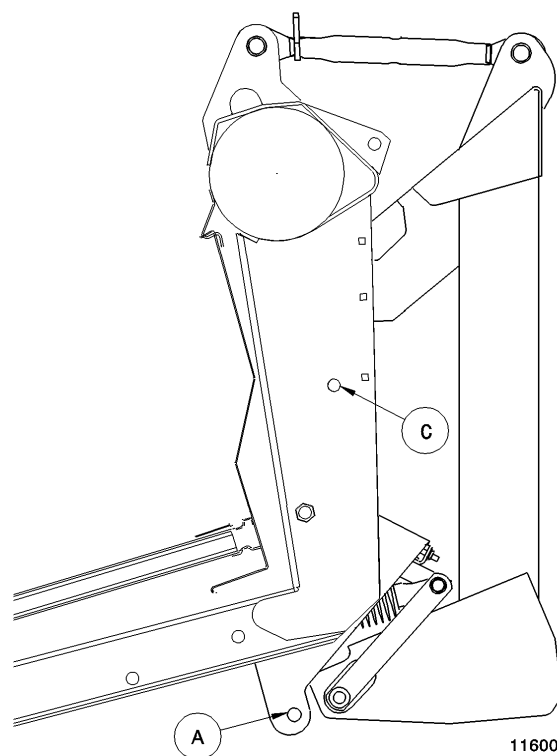
8. Remove lynch pin and clevis pin from float lockout position (A) and install in storage hole (C). Repeat at other leg.

9. Install pump on R/H feeder house output shaft. See Mounting Instruction for your make of combine at back of book.

10. Disengage header lift cylinder stops and lower header.



BLOCK GAUGE WHEELS



116006

REMOVE PIN FROM FLOAT LOCKOUT

## OPERATION

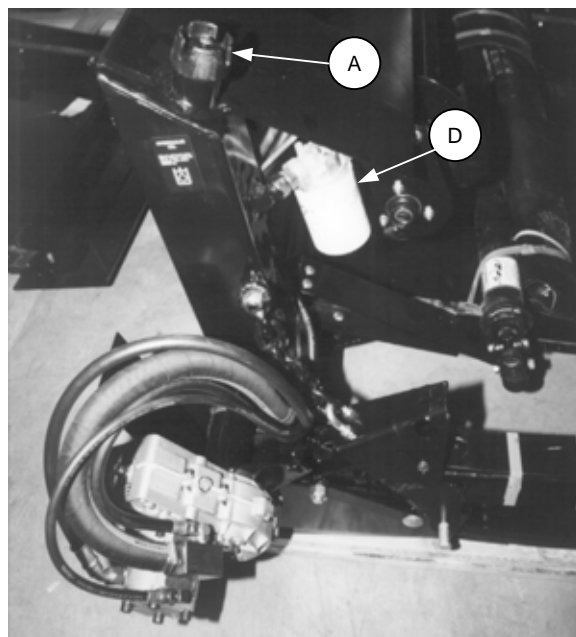
### **BREAK-IN PERIOD**

1. Run drapers slowly for 5 minutes to fill hydraulic lines, then check oil level at (A). Maintain level between LOW and FULL when oil is cold.

**NOTE:** Breather screw on cap (A) has been tightened for shipping. Loosen screw before operating adapter.

2. Change the hydraulic oil filter (D) on combine adapter after 50 hours operation and every 250 hours thereafter.
3. Change gearbox oil after 50 hours operation and every 1000 hours or 3 years thereafter.

See "Break-In Period" in Header Operator's Manual for further information on break-in maintenance.



CHECK HYDRAULIC OIL LEVEL  
CHANGE OIL FILTER & GEARBOX OIL

### **DRAPER SPEED CONTROL**

Draper speed is adjusted at the flow control on the combine adapter. Rotate flow control knob (C) to a number suited to the crop. The higher the number, the faster the draper speed. The following settings are recommended for optimum feeding capacity.

**NOTE:** If sufficient draper speed cannot be achieved, a possible cause is low relief pressure. See "Flow Control Relief Pressure" in Maintenance/Service section.



DRAPER SPEED CONTROL

CROP	DIAL NO.
Barley	3
Beans, Edible	4
Canola	3
Flax	5
Lentils	3
Milo	3
Oats	3
Peas	3
Rice	5
Safflowers	4
Soybeans	5
Sunflowers	4
Wheat	3

# OPERATION

## HEADER FLOTATION

### IMPORTANT:

To avoid:

- frequent breakage of sickle components
  - scooping soil
  - soil build-up at cutterbar in wet conditions,
- set header float as light as possible without causing excessive bouncing.

### To check header float:

1. Raise feeder house and engage lift cylinder stops.
2. Be sure float lock out pins are removed from position (C).
3. Disengage lift cylinder stops and lower header so the cutterbar is 1 to 6 inches (25 to 150 mm) above the ground.

**NOTE:** When cutterbar is in the range from 0 to 16 inches (400 mm) off ground, float arm should touch or be within  $\frac{1}{4}$  inch (6 mm) of angle at (A). If gap at (A) is greater than  $\frac{1}{4}$  inch, float is set too light, causing the header to float up.

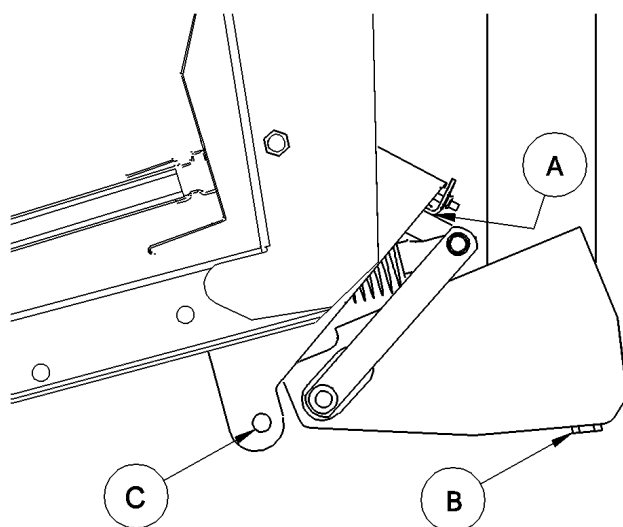
**NOTE:** Header gets lighter and gap at (A) increases when steepening header angle. Adjust float after changing header angle or reel fore-aft position. *For best float, gap at (A) should never exceed  $\frac{1}{4}$  inch (6 mm).*

4. With cutterbar 1 to 6 inches (25 to 150 mm) above the ground, grasp the crop divider rod and lift up. Under normal conditions it should require 50 to 70 lbs. force (220 to 300 N) to lift cutterbar off ground at either end. If adjustment is required, proceed as follows:

### To adjust header float:

1. Raise feeder house and engage lift cylinder stops.
2. Turn bolts (B) at both sides of adapter clockwise to increase float (which makes header lighter when lowered to ground). Turn bolts counter-clockwise to decrease float (which makes header heavier when lowered).

**IMPORTANT:** For 21 ft. 972 headers only. If header still has excess float with float adjustment bolt fully backed off, it may be necessary to remove the 3<sup>rd</sup> leaf spring from the top on both sides of the adapter to provide proper flotation. See Unloading and Assembly section for removal instructions.



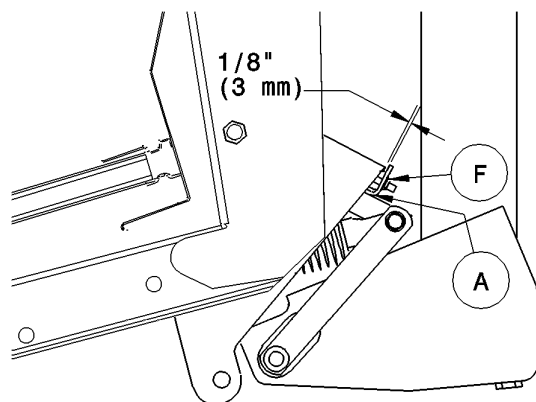
FLOAT ADJUSTMENT

## OPERATION

### HEADER LEVELLING

Adjust header levelling with header at the flattest angle. See Header Angle, below.

1. With header on level ground, lower header so cutterbar is 2 to 4 inches (50 to 100 mm) off the ground.
2. Check level of header by measuring cutterbar to ground at both ends.
3. To lower cutterbar on one end, remove a shim (C) from between rubber pads (D) and angle (E). Adjust shim quantity side to side, placing from 0 to 2 shims to level header. To add or remove a shim:
  - Lower cutterbar to ground and continue lowering feeder house so gap at (A) increases.
  - Remove nut (F) and add or remove shim(s) as required.
  - Reassemble, maintaining 1/8 inch (3 mm) between angle and float support as shown.

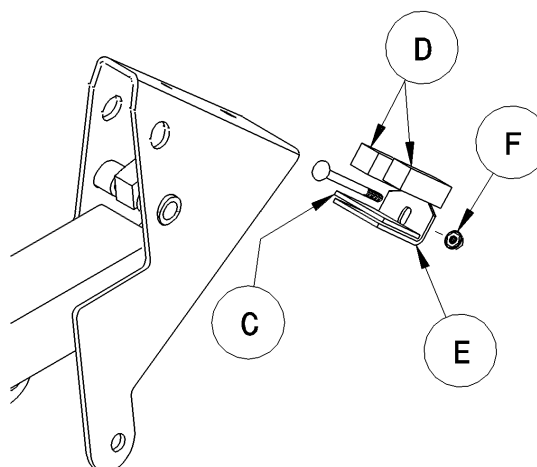


### HEADER ANGLE

The header (or guard) angle can be adjusted from 15° to 20° below horizontal. (Actual angle may vary with combine set-up.)

See Combine Operator's Manual for header levelling and additional header angle adjustments.

**IMPORTANT:** The flat header angle (15°) is recommended for normal conditions. A flatter header angle reduces sickle section breakage and reduces soil scooping or build-up at the cutterbar in wet conditions. Use a steeper angle to cut very close to the ground, or in down crop for better lifting action.



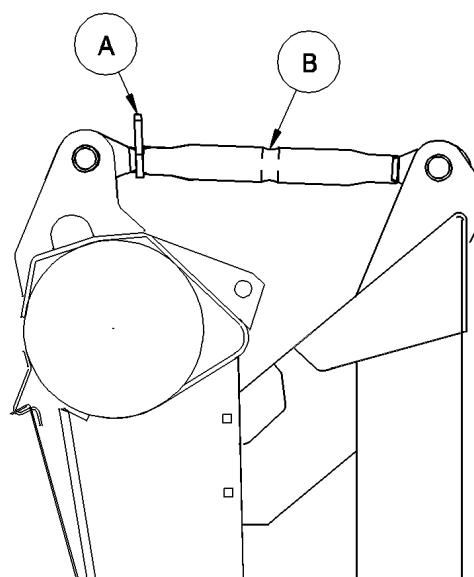
**IMPORTANT:** Header flotation gets lighter as header angle increases, and must be readjusted. See "Header Flotation", on page 15.

To adjust header angle with mechanical link:

1. Lower cutterbar to ground and continue lowering to drop feeder house another 2 to 5 inches (50 to 125 mm).
2. Back off the locking collar (A) on top link turnbuckle.
3. Using a punch in hole in turnbuckle (B), turn to adjust header angle.

**Longer top link = steeper header angle  
( = lighter float )**

4. At desired adjustment, tighten locking collar (A) securely against turnbuckle to fix the position.



HEADER ANGLE MECHANICAL ADJUSTMENT

### HEADER ANGLE HYDRAULIC ADJUSTMENT

An optional kit is available which allows adjustment of header angle from the combine cab by means of a hydraulic cylinder.

See "Unloading and Assembly" section for information on assembly and use of this option.



# MAINTENANCE/SERVICE

## SERVICE PROCEDURES



**CAUTION: To avoid personal injury, before servicing machine or opening drive covers:**

1. Fully lower header and reel. If it is necessary to service in the raised position, first engage header lift cylinder stops and reel props.
2. Disengage header drive clutch.
3. Stop engine and remove key.
4. Engage park brake.
5. Wait for all moving parts to stop.

Park on level surface when possible. Block wheels securely. Follow all recommendations in your Combine Operator's Manual.

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

Wear protective shoes with slip resistant soles, a hard hat, protective glasses or goggles and heavy gloves.

Be prepared if an accident should occur. Know where the first aid kit and fire extinguisher are located and how to use them.

Keep the service area 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.

Replace all shields removed or opened for service.

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

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

## MAINTENANCE/SERVICE

### RECOMMENDED LUBRICANTS

#### **GREASE**

SAE Multi-Purpose High Temperature Grease with Extreme Pressure (EP) Performance and containing at least 1.5% molybdenum disulphide.

Also acceptable is an SAE Multi-Purpose Lithium Base Grease.

#### **HYDRAULIC OIL**

Use single grade trans-hydraulic oil. To prevent machine damage, do not use engine oil.

The following oil company and equipment manufacturer brand names are **recommended**:

Petro Canada Duratran  
Case IH Hy-Tran Plus®  
John Deere Quatro® J20C  
Agco Power Fluid 821XL

The following oil company and equipment manufacturer brand names are acceptable:

New Holland Hydraul  
Esso/Exxon Hydraul 56  
Shell Donax TD

#### **GEARBOX OIL**

SAE 85W-140 gear lubricant (API Service Classification GL-5)

#### **CAPACITIES**

Adapter Gearbox - 450 mL (15 U.S. oz.)  
Adapter Hydraulic System (Draper Drive)  
Full system: 25 litres (6.6 U.S. gals.)  
Tanks only: 17 litres (4.5 U.S. gals.)

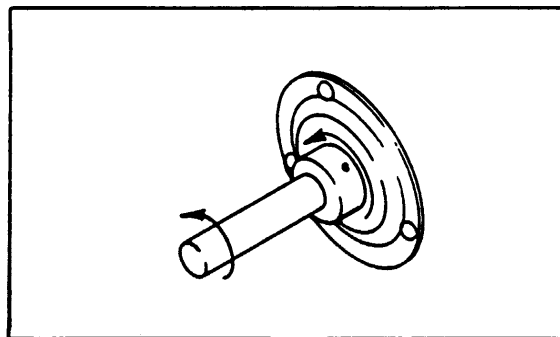
#### **STORING AND HANDLING LUBRICANTS**

Your machine can operate at top efficiency only if clean lubricants are used. Contaminant in lubricants is the most likely cause of bearing and hydraulic system failure. Use clean containers to handle all lubricants. Store lubricants in an area protected from dust, moisture and other contaminants. Keep hydraulic couplers and connectors clean.

---

### SEALED BEARING INSTALLATION

1. Clean shaft and coat with rust preventative.
2. Install flange, bearing, flange and lock collar. The locking cam is only on one side of the bearing.
3. Install and tighten the flange bolts.
4. When the shaft is located correctly, lock the lock collar with a punch. The collar should be locked in the same direction the shaft rotates. Tighten the set screw in the collar.
5. Loosen the flange bolts on the mating bearing one turn and re-tighten. this will allow the bearing to line up.



TIGHTEN COLLAR IN DIRECTION  
SHAFT ROTATES

## **MAINTENANCE/SERVICE**

### **GREASING THE ADAPTER**

See "Recommended Lubricants" in this section for recommended greases.

The adapter has four greasing points as shown on the following page. Use the hour meter in the combine cab and the "Maintenance Checklist" provided to keep a record of scheduled maintenance.

Procedure:

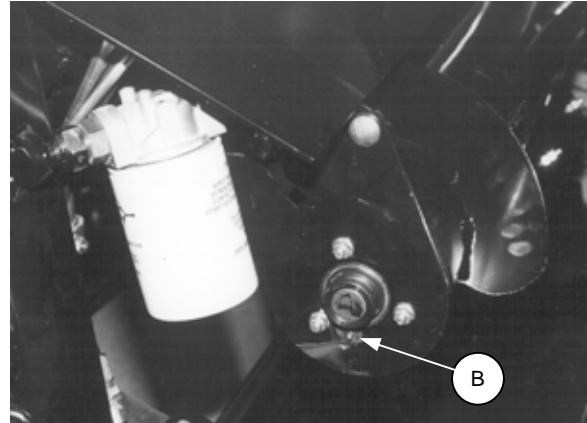
1. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
2. Inject grease through fitting with grease gun until grease overflows fitting.
3. Leave excess grease on fitting to keep out dirt.
4. Replace any loose or broken fittings immediately.
5. If fitting will not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

## MAINTENANCE/SERVICE

### GREASING THE ADAPTER (continued)

#### 100 Hours or Annually:

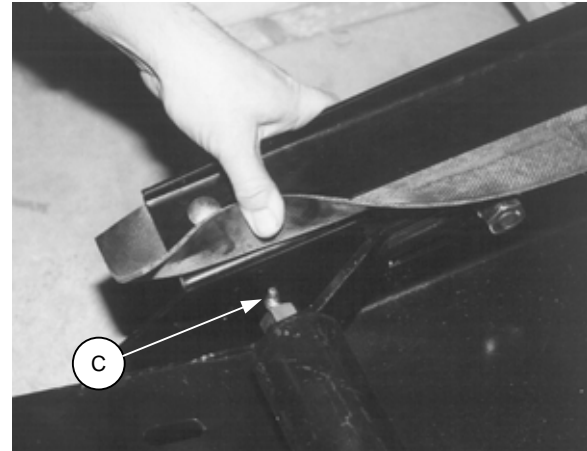
1. Cross Auger Bearing (B) - one fitting



CROSS AUGER BEARING

2. Feed Draper Idler Roller Bearings (C) - two fittings

Replace bearings every 500 hours or annually.

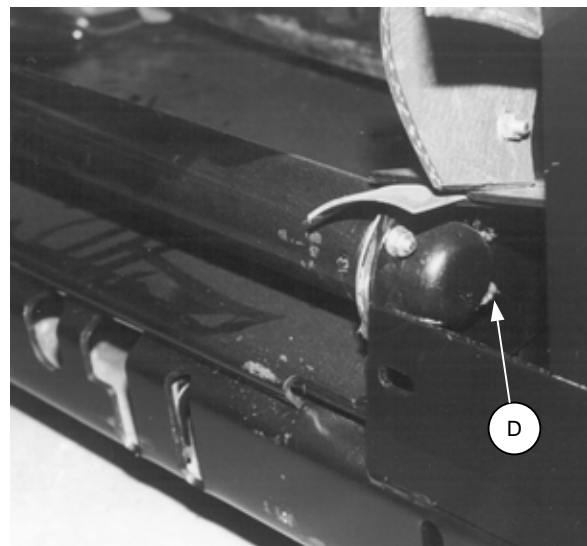


FEEDER DRAPER IDLER ROLLER BEARINGS

3. Feeder Draper Drive Roller Bearing (D) - one fitting

**NOTE:** To avoid damage to bearing seal, when greasing drive roller bearing use a single slow stroke of grease gun.

Replace bearing every 500 hours or annually.



FEEDER DRAPER DRIVE ROLLER BEARING

## MAINTENANCE/SERVICE

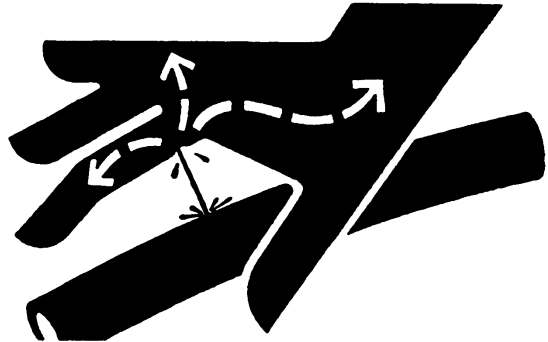
### HYDRAULIC SYSTEM

#### Hydraulic Hoses and Lines

Check hydraulic hoses and lines daily for signs of leaks.



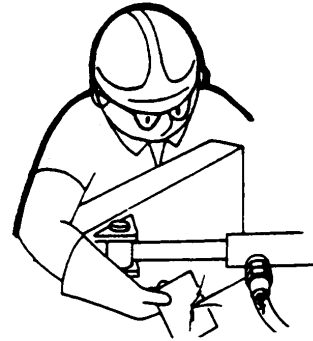
**WARNING:** Avoid high-pressure fluids. Escaping fluid can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles that eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. IF ANY fluid is injected into the skin, a doctor familiar with this type of injury must surgically remove it within a few hours or gangrene may result.



AVOID HIGH PRESSURE FLUIDS

#### **IMPORTANT:**

- Ensure all hydraulic couplings are fully engaged before operating header.
- Keep hydraulic coupler tips and connectors clean. Dust, dirt, water and foreign material are the major causes of hydraulic system damage.
- To prevent improper mixing of oils:  
If header is to be switched back and forth from combine to windrower, change oil in windrower tractor (or Bi-Directional Tractor) hydraulic system to match combine hydraulic system.



CHECK PROPERLY FOR LEAKS

## MAINTENANCE/SERVICE

### HYDRAULIC SYSTEM (continued)

#### Hydraulic Oil

The combine adapter's hydraulic system provides oil for the draper and feed auger drives.

Check oil level every 25 hours at dipstick (A). Maintain level between "LOW" and "FULL" marks.

Capacity:

- Full system: 25 litres (6.6 U.S. gallons)
- Tanks only: 17 litres (4.5 U.S. gals.)

Type – See recommended lubricants, page 18.

Change hydraulic oil every 1000 hours or 3 years

To change hydraulic oil:

1. Remove dipstick cap (A).
2. Remove plug (B) at right reservoir and hose (E) at left reservoir.

**NOTE:** A drain pan with a capacity of 15 litres (4 U.S. gallons) will be required for each reservoir.

3. Replace the hydraulic oil filter. See below.
4. Replace plug (B) and hose (E) and fill the reservoirs through female coupler (D) from a pressurized oil source.

**NOTE:** Do not use cap port (A) to fill system. Oil will not reach left reservoir. If a pressurized source of oil is not available, pump oil from right reservoir to left as follows:

- Fill R/H reservoir with oil through cap port (A).
  - Run the adapter pump until cross auger stops turning.
  - Re-fill R/H reservoir.
  - Repeat procedure until oil level in R/H reservoir remains between LOW and FULL on dipstick.
5. Replace cap (A).

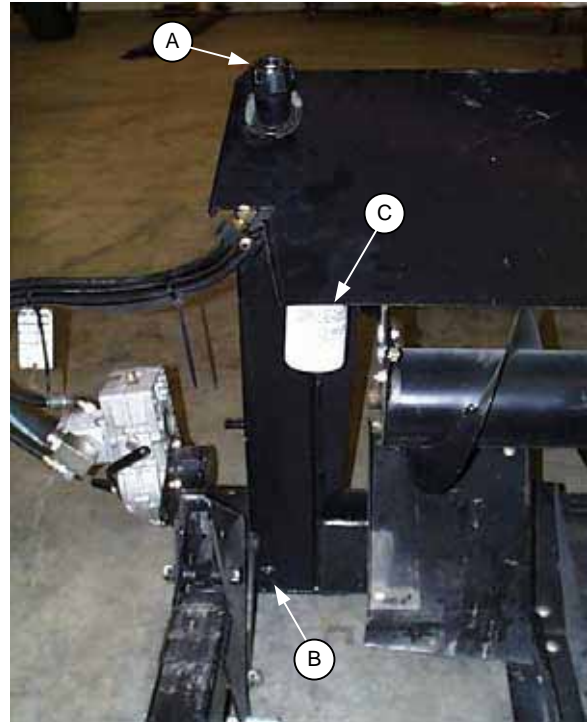
#### Hydraulic Oil Filter

Change hydraulic oil filter (C) after the first 50 hours operation and every 250 hours thereafter.

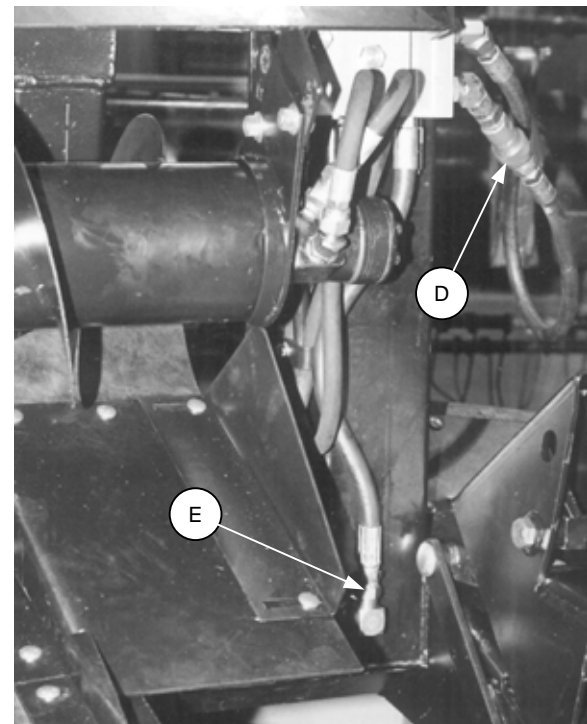
To change:

1. Clean around the filter head.
2. Remove the filter and clean the gasket surface of the filter head.
3. Apply a thin film of clean oil to the gasket on the new filter.
4. Install the new filter. Turn the filter onto the mount until the gasket contacts the filter head. tighten the filter an additional 1/2 to 3/4 turn by hand.

**IMPORTANT:** Do not use a filter wrench to install the filter. Over-tightening can damage gasket and filter.



RIGHT HYDRAULIC RESERVOIR



LEFT HYDRAULIC RESERVOIR

## MAINTENANCE/SERVICE

### HYDRAULIC SYSTEM (continued)

#### Flow Control Relief Pressure

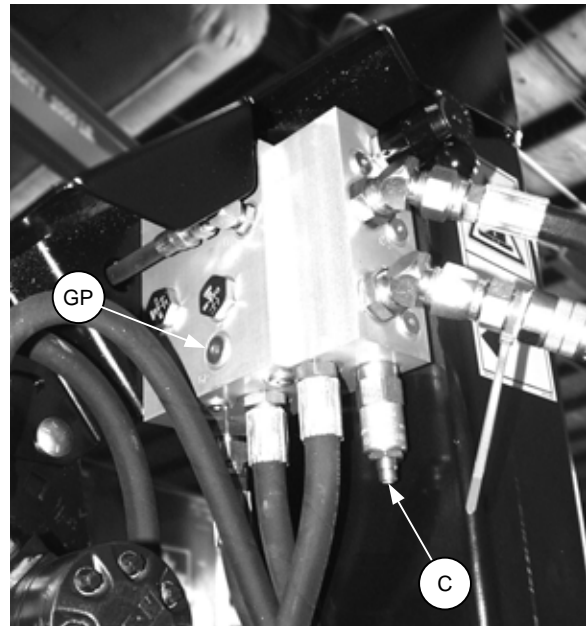
A possible cause of insufficient draper speed is low relief pressure.

To check relief pressure:

1. Attach a 5000 psi (34.5 MPa) pressure gauge in gauge port (GP) of valve block.
2. Install a needle valve between orange colour coded male coupler on adapter and orange colour coded female coupler on header.
3. Set flow control knob to number 6 on dial.
4. Run combine engine at operating speed.
5. Engage header drive.
6. Close needle valve until flow stops. Pressure reading should be 2850 psi (19.7 MPa).



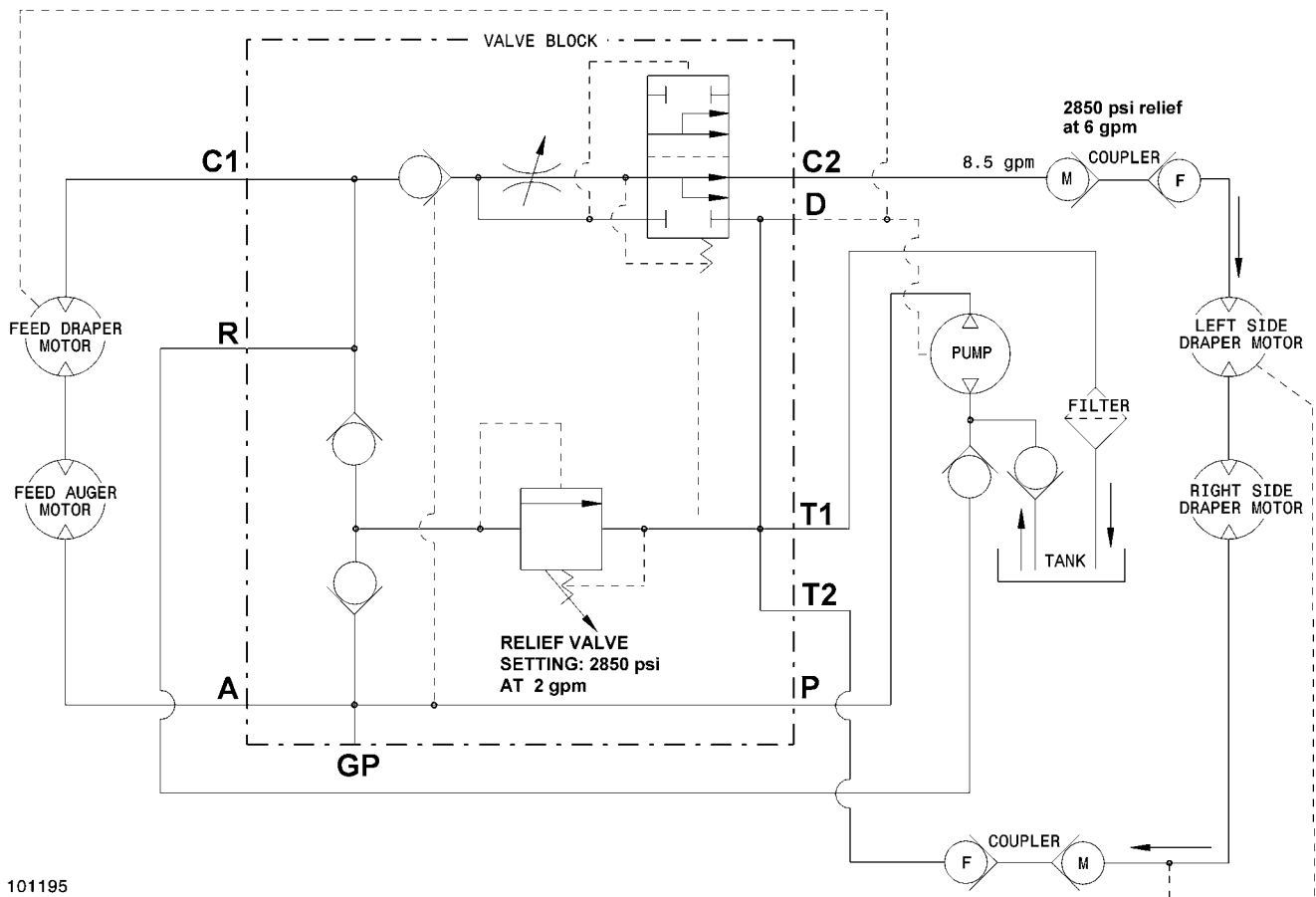
**WARNING:** To avoid bodily injury from bursting hoses and/or exploding components, do not exceed 3100 psi pressure (21.4 MPa). Do not continue closing needle valve if pressure exceeds 3100 psi (21.4 MPa).



FLOW CONTROL RELIEF ADJUSTMENT

If relief pressure requires adjustment:

1. Loosen jam nut (C).
2. Turn relief screw until relief pressure is correct.
3. Tighten jam nut.



101195

COMBINE ADAPTER HYDRAULIC SCHEMATIC

## MAINTENANCE/SERVICE

### GEARBOX LUBRICATION

Change gearbox oil every 1000 hours or 3 years.

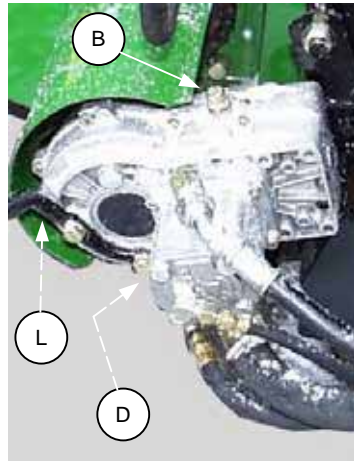
**Box capacity:** 450 mL (15 U.S. oz.)

**Lubricant:** SAE 85W-140 gear lube (API Service Classification GL-5).

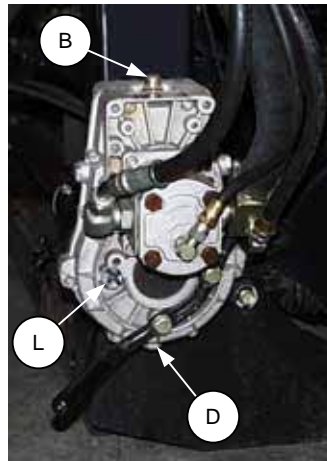
Breather plug – (B)

Level plug – (L)

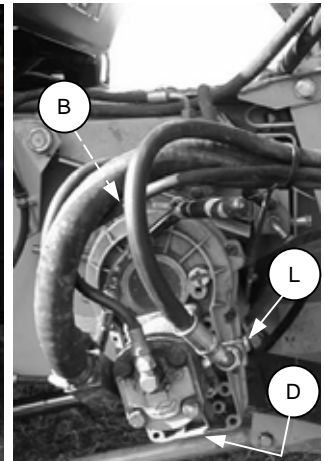
Drain plug – (D)



NH, JD Contour Master  
& JD 50 Series Level Land



CASE, GLEANER & JD  
Level Land prior to 50 Series



CAT LEXION

### CROSS AUGER

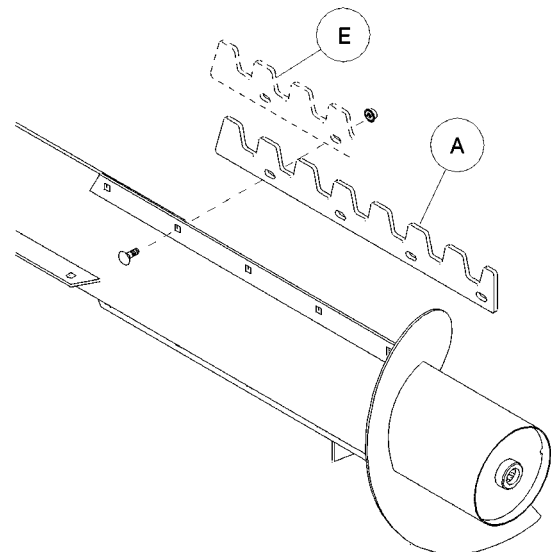
Crops such as flax may wrap on cross auger. To remedy this, try removing beaters (A). If crop still wraps, remove the cross auger completely.

To remove cross auger:

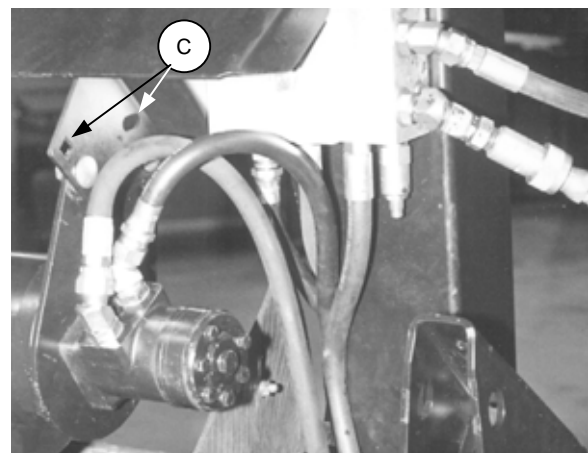
1. Detach R/H auger support from frame.
2. Pull auger off of motor spline shaft at L/H side.
3. Leave motor attached and connected to hydraulics.

**NOTE:** Auger beaters are factory positioned to suit the most common feeder house opening size for your make of combine. For models with narrower openings (e.g. Case 1666, 2166, 2366), move beaters inboard by one hole position as shown at (E) to align end of beater with edge of feeder house opening.

**NOTE:** In extremely heavy crop conditions, it may be necessary to raise auger to prevent material plugging between auger and feed draper. Alternate mounting holes (C) in auger support (both sides) are provided for this purpose.



REMOVE BEATERS IN WRAPPING CROP -  
REPOSITION BEATERS IF REQUIRED



RAISE AUGER IN VERY HEAVY CROP



# MAINTENANCE/SERVICE

## **MAINTENANCE SCHEDULE**

The following maintenance schedule is a listing of periodic maintenance procedures, organized by service intervals. For detailed instructions, see the specific headings in Maintenance/Service section. Use "Recommended Lubricants" as specified under that heading.

### **Service Intervals**

The recommended service intervals are in hours of operation. Use the hour meter in the combine to indicate when the next service interval has been reached.

**IMPORTANT:** Recommended intervals are for average conditions. Service the adapter more often if operated under adverse conditions (severe dust, extra heavy loads, etc.).

Regular maintenance is the best insurance against early wear and untimely breakdowns. Following this schedule will increase machine life.

Where a service interval is given in more than one time frame, e.g. "100 hours or Annually", service the machine at whichever interval is reached first.



**CAUTION: Carefully follow safety messages given under "Service Procedures".**

AT FIRST USE: See "Break-In Period" in Operation section.

---

### **10 HOURS OR DAILY**

1. Check hydraulic hoses, lines and components for leaks
- 

### **25 HOURS**

1. Check hydraulic oil level at reservoir
- 

### **100 HOURS OR ANNUALLY \***

1. Grease cross auger bearing
  2. Grease feed draper idler roller bearings
  3. Grease feed draper drive roller bearing
  4. Check gearbox lubricant level
- 

### **250 HOURS**

1. Change hydraulic oil filter
- 

### **500 HOURS OR ANNUALLY \***

1. Change feed draper roller bearings
- 

### **1000 HOURS OR 3 YEARS**

1. Change hydraulic oil in reservoir
2. Change gearbox lubricant

\* It is recommended that Annual Maintenance be done prior to start of operating season.

# MAINTENANCE RECORD

Adapter Serial No. \_\_\_\_\_

Combine this record with the record in the Harvest Header Operator's Manual.  
See Maintenance/Service section for details on each procedure. Copy this page to continue record.

ACTION:		✓ - Check				● - Lubricate				▲ - Change							
	Hour Meter Reading:																
	Serviced By:																
	Maintenance Procedure																
BREAK-IN		See "Break-In Period" in Operation section for checklist.															
10 HOURS OR DAILY																	
✓	Hydraulic Hoses and Lines																
25 HOURS																	
✓	Hydraulic Oil Level																
100 HOURS OR ANNUALLY																	
●	Cross Auger Bearing																
●	Feed Draper Idler Roller Brgs.																
●	Feed Draper Drive Roller Brg.																
✓	Gearbox Lubricant Level																
250 HOURS																	
▲	Hydraulic Oil Filter																
500 HOURS OR ANNUALLY																	
▲	Feed Draper Roller Bearings																
1000 HOURS OR 3 YEARS																	
▲	Hydraulic Oil																
▲	Gearbox Lubricant																

## TROUBLESHOOTING

<u>SYMPTOM</u>	<u>PROBLEM</u>	<u>SOLUTION</u>	<u>REF.</u>
<b>HYDRAULICS</b>			
Insufficient draper speed.	Speed control set too low.	Increase control setting.	14
	Relief pressure too low.	Increase relief pressure to 2750 psi.	23
<b>FEEDING</b>			
Cross auger back-feeds.	Side drapers running too fast, piling material in center of feeder draper.	Reduce draper speed.	14
	Auger too far from front drum of feeder house.	Swing auger back or move front drum forward. (Check clearance with drum fully floated.)	*
	Build-up of material at corners of feeder house.	Adjust feeder deck rear deflectors to eliminate corners.	30
	Dust shield on front of feeder house.	Remove dust shield	*
	Improper header delivery opening.	Cut or add to header side drapers for proper opening.	30
	<u>John Deere</u> : Feeder chain running too slow.	Run feeder chain at high speed.	*
	<u>John Deere</u> : Equipped with feeder chain with 4 pitches per bar.	Replace with 6 pitch per bar feeder chain, or remove every other bar.	*
	<u>Case IH</u> : Stone retarding drum installed.	Install standard drum or fill slots in stone retard. drum.	**
Hesitation in flow of bulky crop.	<u>NH-TR</u> : Stone ejection roll set too low.	Adjust roll position.	*
	Header angle too flat.	Steepen header angle.	16
	Reel too far back.	Move reel forward on support arms.	***

\* See your Combine Operator's Manual

\*\* See your Combine Dealer

\*\*\* See your Header Operator's Manual

## TROUBLESHOOTING

<u>SYMPTOM</u>	<u>PROBLEM</u>	<u>SOLUTION</u>	<u>REF.</u>
<b>FEEDING (continued)</b>			
Cross auger wraps crop.	Crop susceptible to wrapping. e.g. flax	<ul style="list-style-type: none"> <li>Remove auger beaters.</li> <li>Remove cross auger.</li> </ul>	24
Crop backs up on feed draper.	Fluffy crop not aggressively fed by auger.	Extend auger beaters.	24
	Heavy crop plugging between auger & feed draper	Raise auger.	24
Crop back feeds on center feed draper	Excessive clearance from combine feed drum to adapter feed draper.	Add feeder chain links as necessary to achieve less clearance between feed drum and feed draper. Ensure a 1-3" (25-75 mm) clearance between the feed drum and feed auger. (Drum floated up).	*
Side drapers back-feed.	Side drapers running too slow in heavy crop.	Increase draper speed.	14
	Side drapers improperly set with respect to feed draper.	Center side draper drive rollers over feed draper side deflectors.	***
Crop is thrown across opening and under opposite side draper.	Side drapers running too fast in light crop.	Reduce draper speed.	14
	Excessive overlap of feeder draper.	Center side draper drive rollers over feed draper side deflectors.	***
Hesitation in crop flow at feeder house.	Rear deflector fins set too wide.	Set fins approximately 1/2" (13 mm) inside feeder house opening.	30
<b>FLOTATION</b>			
Combine feeder housing pushes dirt when trying to pick up down crop.	Feeder housing lowered too far, eliminating header float.	Raise feeder housing until float linkage bottoms, change header to steeper angle to pick up down crop.	16
	Float too light, header legs do not rest on stops.	Adjust to heavier float.	15
Cutterbar does not float or pushes dirt.	Float set too heavy.	Adjust to lighter float.	15
	Float lockout not disengaged.	Raise header, disengage float lockout.	7
Excessive vibration of adapter and header.	Feed pan clearance to cutterbar is incorrect.	Adjust feed pan clearance.	9

\* See your Combine Operator's Manual.

\*\*\* See your Header Operator's Manual.

\*\*\*\* See Mounting Instructions at back of book.

## ATTACHMENTS

### PLASTIC WEAR STRIP

WholeGoods order no: B2896 – Case, Gleaner, NH TR  
B2897 – John Deere, Cat, NH TX

For use in conditions where soil adheres to steel. Plastic wear strip attaches to feed pan skid plate. Installation instructions are included with kit.



PLASTIC WEAR STRIP

### HEADER HEIGHT CONTROLLER

WholeGoods order no: B2898 – Case 2100 & 2300 Series  
B2899 – John Deere 9500, 9600 & CTS Series

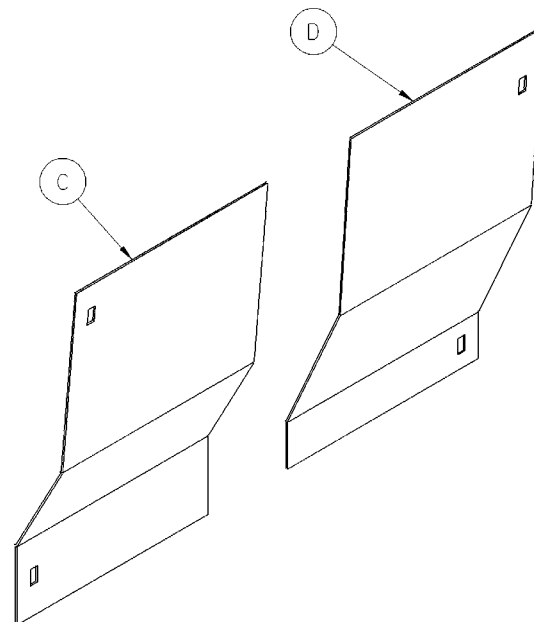
For use in conjunction with Auto Header Height Control option on combines, this attachment sends a signal to the combine to allow maintaining a consistent cutting height as the header follows ground contours.

## ASSEMBLY

### INSTALL 962 HEADER COMPLETION PARTS

**NOTE:** This section applies to Model 962 Header only.

1. Deck backsheet extensions (C) and (D) are shipped with the Combine Adapter. These are installed at the delivery opening. Install extension (C) on left side of delivery opening and (D) on right side. Extensions mount to rear of deck backsheet with 3/8 x 3/4 bolts and flange locknuts. Install hardware with bolt heads on draper side.

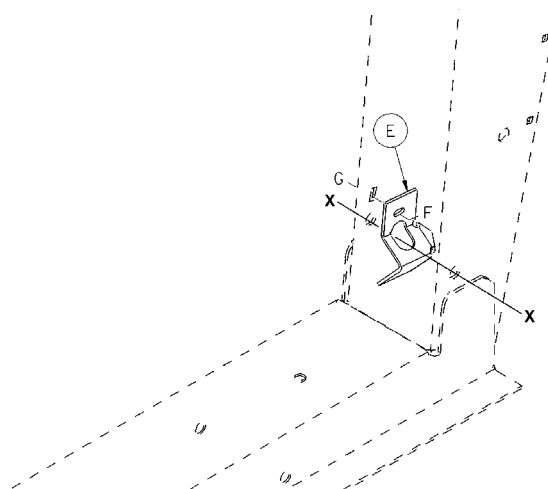


2. Retainers (E) are shipped with the Combine Adapter. These are installed inside header center legs to secure header to adapter when full float is reached. Retainers also restrict side movement.

Install retainer (E) at inside of left center leg, using existing 0.41 x 0.81" slot. Secure with 3/8 x 3/4 carriage bolt (F) and flange locknut (G). When tightening, ensure that header pin fits freely through leg and retainer at (X).

**NOTE:** L/H leg is shown. Retainer (E) mounts to leg side wall closest to center delivery opening. Left and right retainers (E) are different. Be sure they are correctly positioned.

Repeat at right center leg.



# ASSEMBLY

## INSTALL HEADER SIDE DRAPERS & SET DECK DEFLECTORS

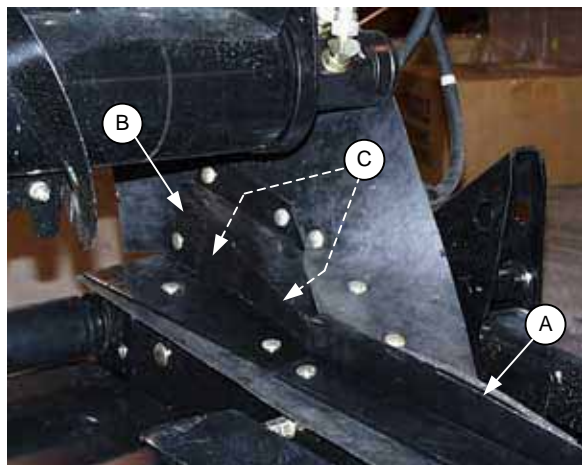
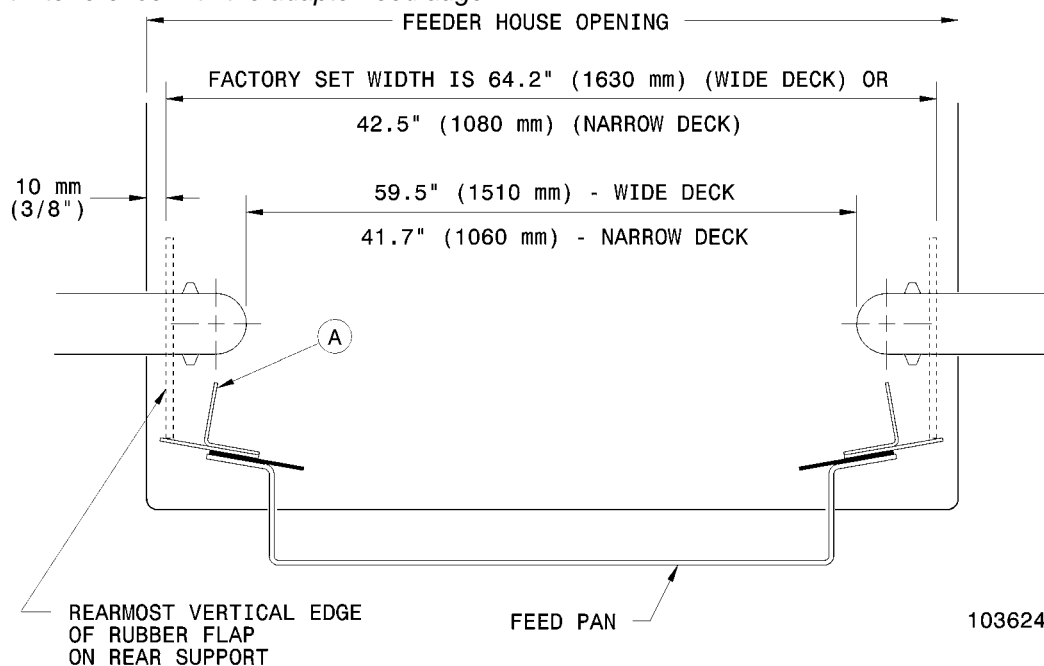
1. Connect side drapers according to chart supplied with drapers, or see your Header Operator's Manual.  
**IMPORTANT:** Cut off any excess flap only after drapers have been connected and tensioned and overlap at sides of feed draper deck has been checked (Step 2).

2. For proper feeding in most crops, the header side draper idler rollers should be set to an opening of:  
**59.5" (1510 mm) for wide deck adapters: John Deere and New Holland TX**  
**41.7" (1060 mm) for narrow deck adapters: Case, Gleaner & New Holland TR**  
with the side deflectors (A) and rear deflectors (B) set as shown below.

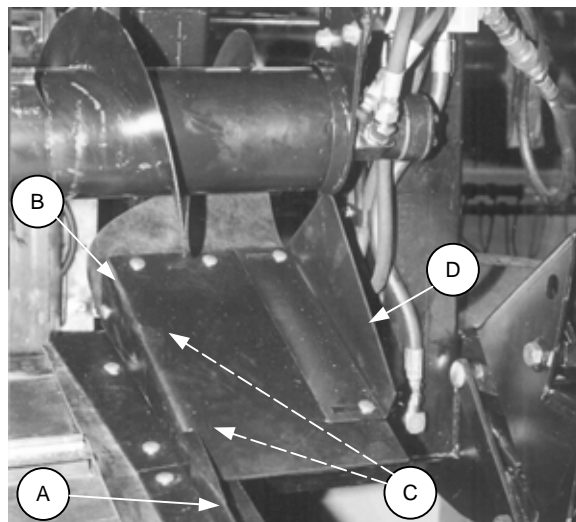
**NOTE:** Rear deflectors are factory set for a feeder house opening of 64.2" (1630 mm) for wide deck adapters, and 42.5" (1080 mm) for narrow deck adapters. The rear vertical edge of the rubber flaps attached to deflectors (B) should just fit inside feeder house opening. If factory setting is not correct for your model of combine, loosen two bolts (C) (hidden in photos) and adjust rear of deflector to suit feeder house opening.

*Special Cases: For narrow deck only - If deflectors (B) are adjusted inward, readjust side support angles (D) to maintain vertical position outboard of auger tube.*

*John Deere Contour Master – Move side deflectors (A) and side drapers out to the maximum width to prevent interference with the adapter feed auger.*



WIDE DECK ADAPTERS



NARROW DECK ADAPTERS

# ASSEMBLY

## ADAPTER PREPARATION

1. Remove shipping brace (painted yellow) and parts strapped to adapter.
2. Install pump in storage position. (See Mounting Instruction for your combine, beginning on page 34.)

## INSTALL FEED DRAPER ON COMBINE ADAPTER

1. Loosen nut (G), both sides, and pull up on idler roller to rotate to position (A). Nut (G) must be loose enough that idler arm easily passes by adjusting rod (J).

**NOTE:** Rod (J) may come out of position when lifting idler roller. It will return to proper position when roller is moved to working position (B).

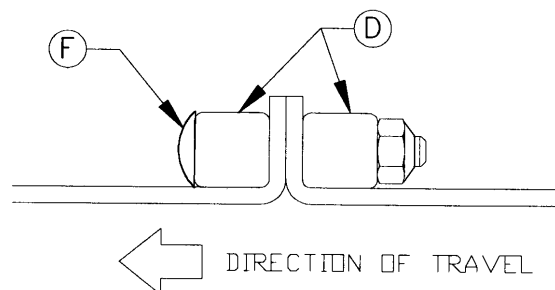
Try moving idler roller from position (A) back to working position (B). If roller does not pivot over, loosen bolt (G) further. When nut (G) is properly loosened, pull roller up to position (A) for installation of draper.

2. Install feed draper on adapter rollers, ensuring belt on underside seats properly on left side of both rollers.

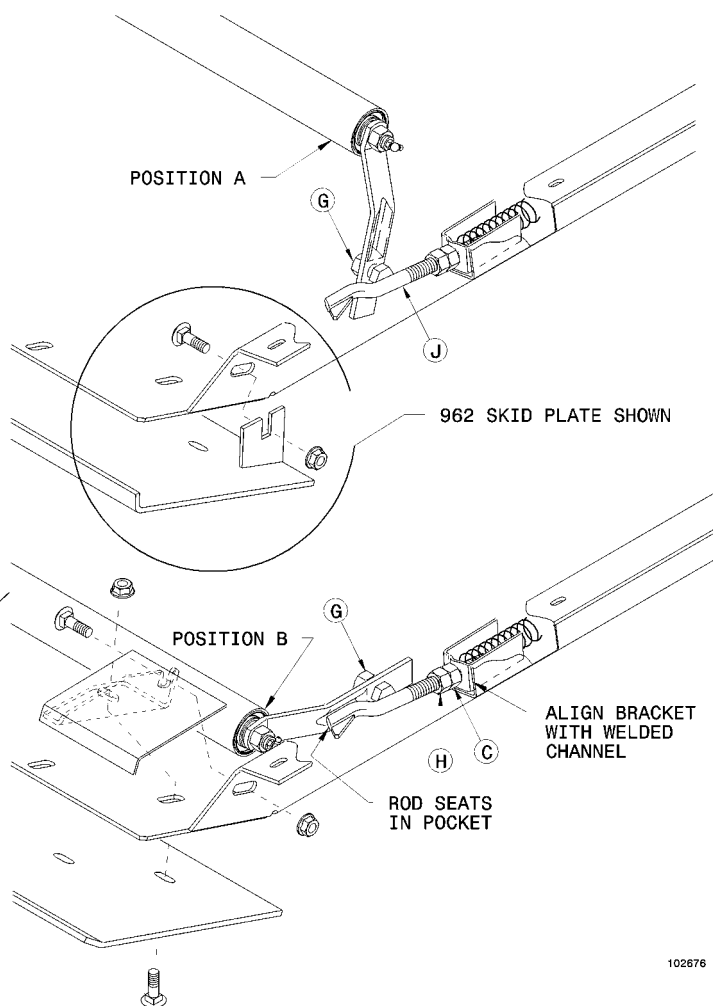
3. Pre-install screws (F) in connector slat. Screws fit tightly into slat holes. To install, support slat on both sides of hole and hammer screw into hole. Position connector slats (D) as shown with heads leading in direction of travel.

4. Apply draper tension as follows:

- a. With nut (G) loosened per step 1, swing roller from position (A) to working position (B), standing on ends of roller if necessary. Take care not to damage roller or draper seal.
- b. Back off nut (H) and adjust position of nut (C) to align bracket with welded channel as shown. This position provides proper spring tension. Tighten nut (H) against nut (C) to secure the position. Repeat at other side.
- c. Tighten nut (G), both sides, ensuring that formed end of adjusting rod seats properly in pocket formed into idler arm and that rod is positioned at bottom of cut-out in side of pan.



FEEDER DRAPER CONNECTION



## INSTALL SKID PLATE ON ADAPTER FEED PAN

Attach skid plate to adapter feed pan, using  $\frac{1}{2} \times 1$  carriage bolts and flange nuts as shown. Position hardware at front of slots and leave finger tight. When attaching to header, adjust clearance to cutterbar as described on page 9.

**NOTE:** Plates are different depending on header model (962 or 972).

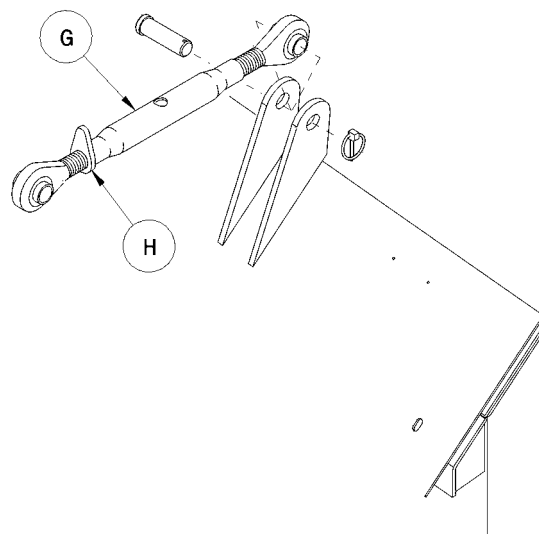
# ASSEMBLY

## ATTACH CENTER LINK

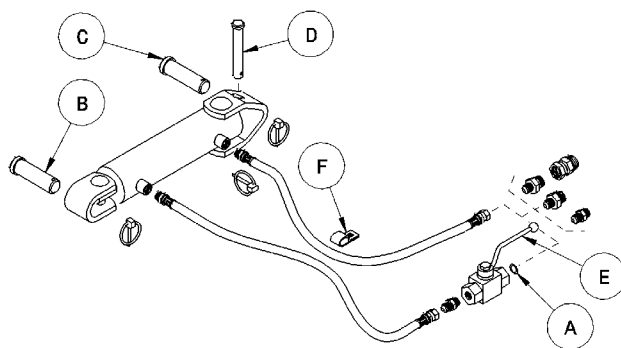
For mechanical center link (G), attach to adapter frame with clevis and lynch pins as shown, with locking collar (H) forward and pointing upward.

For hydraulic center link:

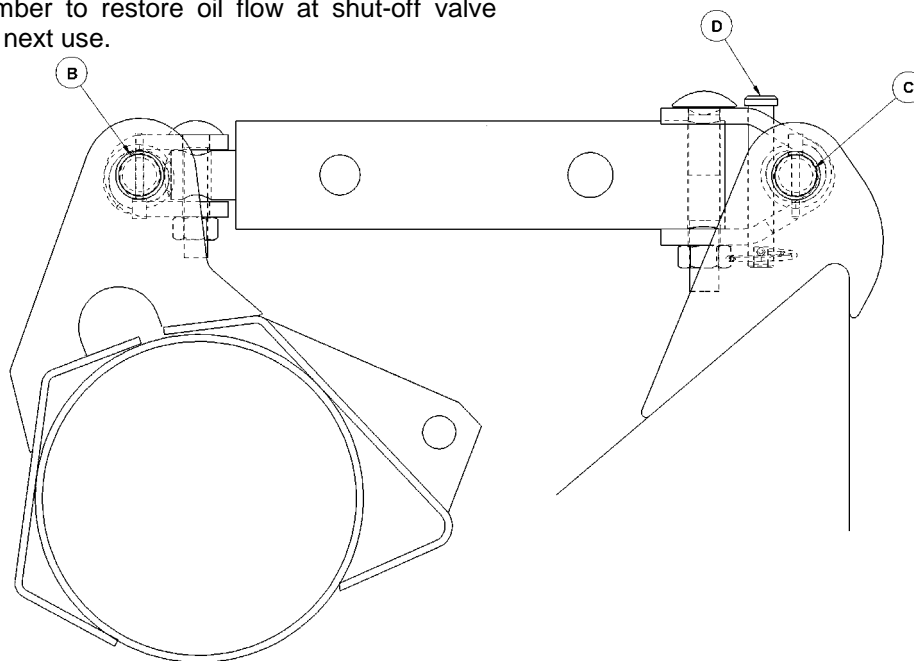
- 1) Attach quick-couplers (not included) matching the type on your combine to end of hoses. Adapter fittings are included in kit to allow installation of quick couplers on hoses. Use the O-ring (A) (provided in kit) on the 3/8 tube of the selected adapter fitting. This connects into shut-off valve for proper seal.
- 2) Attach cylinder assembly as follows:
  - a) Attach larger clevis end of cylinder to adapter with 1-inch dia. clevis pin and lynch pin at (C). *Remove the 5/8" clevis pin and lynch pin at (D).*
  - b) With adapter connected to combine, connect couplers to combine hydraulics.
  - c) Drive combine close enough to header and extend or retract cylinder to allow attaching cylinder to header with 1-inch dia. clevis pin and lynch pin at (B).
  - d) Once header is fully raised, and combine lift cylinder stops engaged, install 5/8" clevis pin and lynch pin at (D).
  - e) Route hoses along header tube and secure with clamp (F), using 3/8 x 3/4 carriage bolt and nut for 962 header and 3/8 x 5/8 thread rolling screw for 972 header.
- 3) When detaching adapter from combine, before disconnecting quick couplers, turn off oil flow at shut-off valve (E). This allows easier reattachment of couplers at combine. Remember to restore oil flow at shut-off valve before next use.



MECHANICAL CENTER LINK



HYDRAULIC CENTER LINK





# ASSEMBLY

## **ELECTRICAL HARNESS**

Attach electrical harness extension, (shipped with adapter) to your header wiring harness. This allows connection to combine harness for operation of amber lights on header.

**NOTE:** For combines that do not have a harness connector for feeder house attachments, order Wiring Harness (MacDon Part No. 40435), and splice into combine harness as follows:

Dark Blue Wire: to L/H turn signal circuit

Light Blue Wire: to R/H turn signal circuit

Black Wire: to Ground

**NOTE:** If combine will be used with Hydraulic Deck Shift Header for end delivery windrowing, order B-2407 Harness and Support for deck shift switch. Installation instructions are included with the package. The deck shift switch is supplied with the Hydraulic Deck Shift Header.

## **ATTACH ADAPTER TO COMBINE**

Attach combine adapter to feeder housing of combine. See Mounting Instructions for your particular make of combine on the following pages:

John Deere - page 34

Case IH - page 39

Gleaner - page 45

New Holland - page 52

Cat Lexion – page 59

**NOTE:** If a combine is not available, adapter can be attached to header with use of a forklift. See instruction on page 65.

## **ATTACH HEADER**



**CAUTION:** Read the Operator's Manuals carefully to familiarize yourself with procedures and controls before attaching header to combine.

**NOTE:** Hydraulic hose lengths and couplings are provided based on the latest available information from combine manufacturers. Should these not be suitable for a particular model or production series, modify or purchase the necessary components.

See page 6 for "Attaching Header to Combine".

See Header Operator's Manual for assembly instructions not related to the adapter.

## **ADJUSTMENTS & CHECKS**

1. Check that feed draper rear roller moves up and down freely.
2. Run drapers slowly for 5 minutes to fill hydraulic lines, then check oil level at adapter reservoir.

Perform final adjustments and checks as listed on the "Pre-Delivery Checklist" (yellow insert) in the Header Operator's Manual to ensure the machine is field-ready. Use the Operator's Manual for directions.

# Adapter Mounting Instructions for John Deere Combines

## PREPARING THE HEADER

1. Mount reel lift coupler assembly (F) to outside of left header leg with two 3/8 NC x 3/4 carriage bolts and flange nuts as shown.

Connect header reel lift hose to reel lift coupler assembly (F).

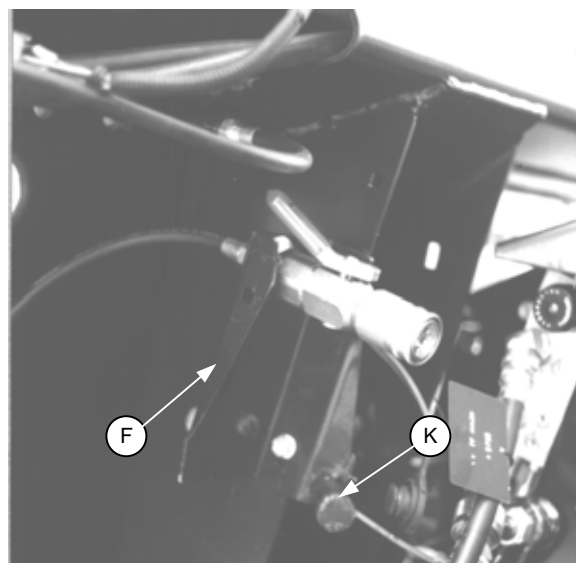
962 Header only: Attach reel lift hose (from header completion package) at left of delivery opening as follows:

For 30' headers the reel lift hose connects to hydraulic line (D).

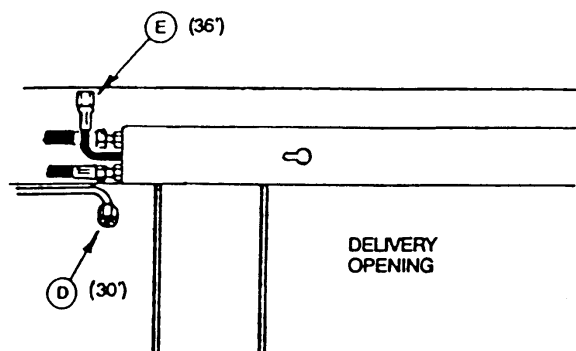
For 36' headers the reel lift hose connects to hose (E).

2. Attach driveline supplied with adapter to header sickle drive shaft. Secure clamp yoke to shaft with 1/2 NC hardware provided.

For storage, attach other end of driveline to anchor (K) provided on reel lift coupler mounting bracket (F) installed in step 1.



INSTALL REEL LIFT COUPLER



INSTALL REEL LIFT HOSE - 962 HEADER

3. Single Sickle:

Bolt the sheet metal pulley (A) provided with the adapter on the sickle drive pulley (962) or drive hub (972) at the left end sheet, using three 3/8 x 1 bolts with lock washers.

Double Sickle 972:

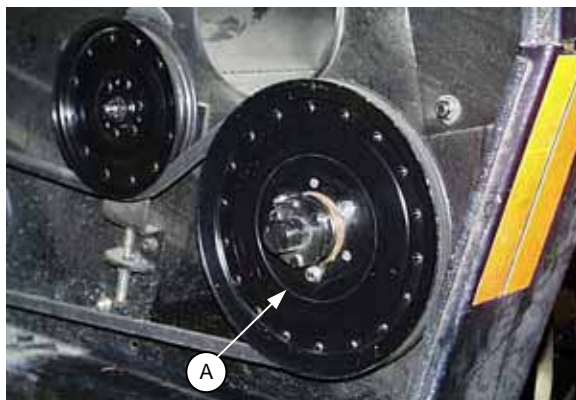
See 972 Operators Manual "Unloading and Assembly" section.

4. Install wiring harness extension provided with adapter onto header wiring harness.

**NOTE:** Two harnesses are provided. The harness with the small diameter connector is for combines prior to 50 Series. The harness for 50 Series combines has a larger diameter connector. If combine does not have an electrical connector, see page 33.

5. Contour Master:

Move side drapers out to provide a minimum 63" (1600 mm) opening to clear auger flighting when header is floated and header angle is flat. See "Assembly" section, page 30.



INSTALL SICKLE DRIVE PULLEY

# Adapter Mounting Instructions for John Deere Combines

## PREPARING THE ADAPTER

1. Level Land Prior to 50 series Feeder House: Install pump torque arm support (A) to bolt welded to R/H frame member of adapter using 3/4" locknut at (K). Orient support as shown.

Contour Master and 50 series Level Land Feeder House: Install pump torque arm support (B) to bolt welded to R/H frame member of adapter using 3/4" locknut at (L). Orient support as shown.

**NOTE:** For 9650 Combine, bolt torque arm (C) (with two bends) to existing torque arm using three M12 x 30 bolts.

2. Attach locking channels (H) to adapter frame, using locking bar (J) between channel and lock nuts. Install channels with single-hole leg outboard and narrower clearance to bottom on two-hole leg as shown.

**NOTE:** Lock pins at bottom of combine feeder house engage these channels. Adjust position of channels (H) by loosening hardware and sliding channels up and down for proper alignment.

3. Level Land Prior to 50 series Feeder House: Attach shield (D) to left side of adapter frame with 5/16 x 3/4" flange bolt and nut.

**NOTE:** Install nut "upside down", that is, with serrated flange down, so flats of hex engage in slot in adapter frame.

**NOTE:** For 9600 and 8820 combines, shield (G) is not required. Remove prior to installation of shield (D). Swing shield (D) forward for end transport situations.

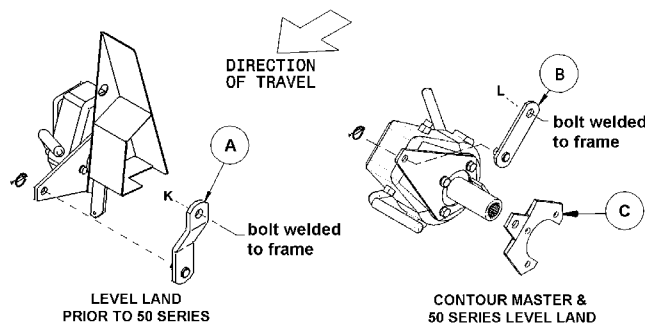
4. Position feed auger as follows:  
Level Land Prior to 50 series Feeder House: Place feed auger in position (F), the most forward of two positions.

50 series Level Land Feeder House: Place feed auger in position (M), the middle of three positions. Combine dust shields **must** be removed. See "Preparing the Combine", next page.

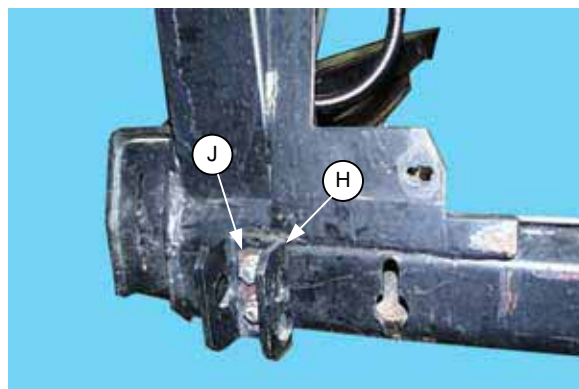
Contour Master Feeder House: Place feed auger in position (L), the most forward of three positions.

To adjust:

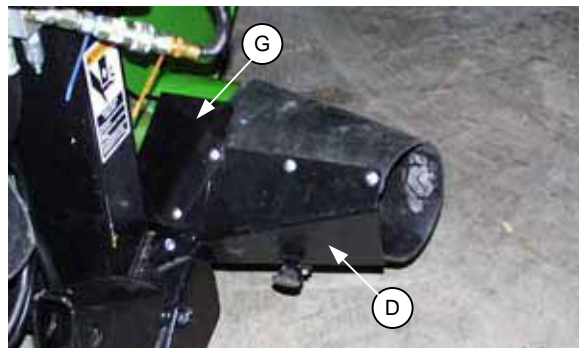
- a. Loosen bolts at (E) and (K).
- b. Remove bolts at (F) (L) or (M) and swing auger to desired position.
- c. Replace and tighten hardware.



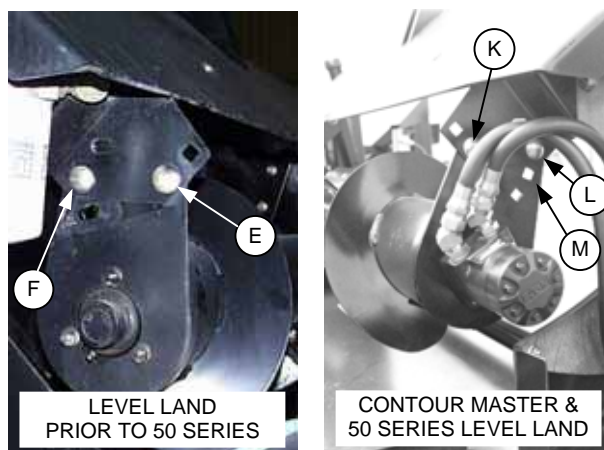
## INSTALL PUMP TORQUE ARM SUPPORT



## INSTALL LOCKING CHANNELS



## ATTACH L/H SHIELD: LEVEL LAND



## POSITION FEED AUGER

# Adapter Mounting Instructions for John Deere Combines

## PREPARING THE COMBINE

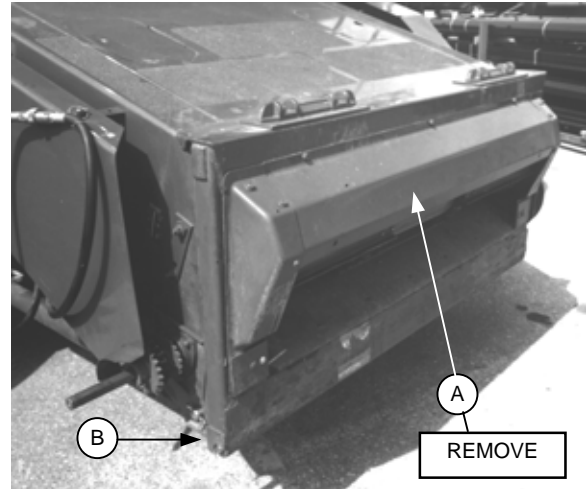
1. For 7720, 9500 and CTS combines, check with Combine dealer to ensure combine is equipped with tire size, rear ballast etc. to carry larger headers.
2. **IMPORTANT:** To prevent damage to feeder house and/or adapter feed auger, remove feeder house dust shields (A).  
**NOTE:** Contour master shields are not removable. The adapter feed auger has been moved forward to compensate for this.
3. Lock pin (B) both sides must be in retracted position before attaching adapter.
4. If combine is equipped with variable speed header drive, set header drive speed to 520 RPM.
5. Set feeder chain to high speed. Additional chain links will be required. Refer to Combine Operator's Manual.
6. Move front drum back to the mid-position or further to loosen feeder chain. After adapter is attached to combine, tighten feeder chain. If there is interference with the feed auger, remove a link from the feeder chain. Recheck clearance when the front drum of the feeder house is floated fully up.
7. Level Land Prior to 50 Series Feeder House: Attach spline shaft provided with adapter to feeder house L/H output drive as follows:

### 7720, 9500, 9510 & CTS

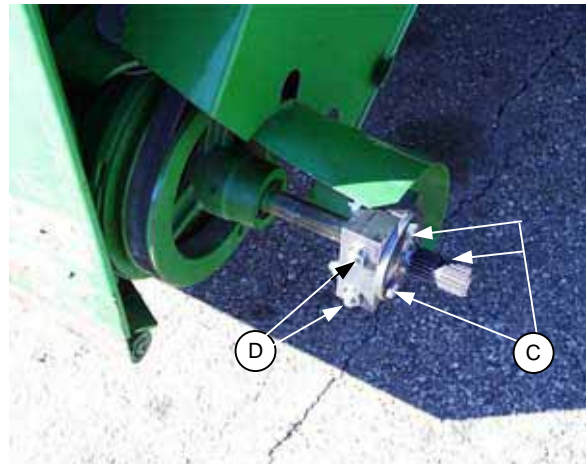
- a. Remove existing sprocket coupler.
- b. Ensure that the three 3 inch long bolts (C) are just tight enough to eliminate gaps between parts, but no tighter.
- c. Position spline shaft & clamp assembly onto shaft and tighten the two 4-½ inch long bolts (D) evenly to 80 ft.lbs. (110 N·m).
- d. Tighten the three 3 inch long bolts (C) to 80 ft.lbs. (110 N·m).

### 8820, 9600 & 9610

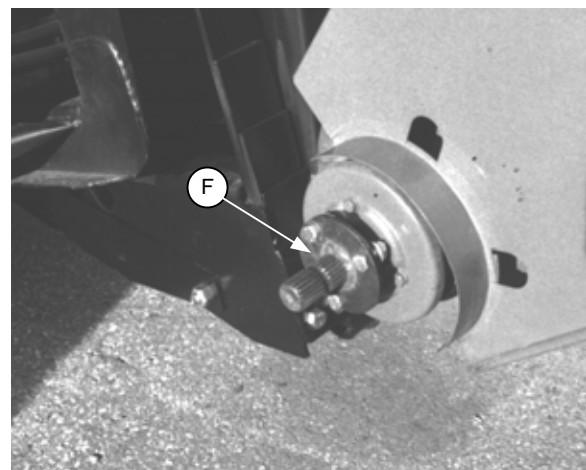
- a. Remove the three 3 inch long bolts connecting spline shaft (F) to clamp halves.
- b. Attach spline shaft (F) directly to sprocket with three 1/2 x 1-1/4 bolts and flange nuts provided.



LOCK PINS RETRACTED



LEVEL LAND PRIOR TO 50 SERIES:  
7720, 9500, 9510 & CTS - ATTACH  
SPLINE SHAFT & CLAMP



LEVEL LAND PRIOR TO 50 SERIES:  
8820, 9600 & 9610  
ATTACH SPLINE SHAFT

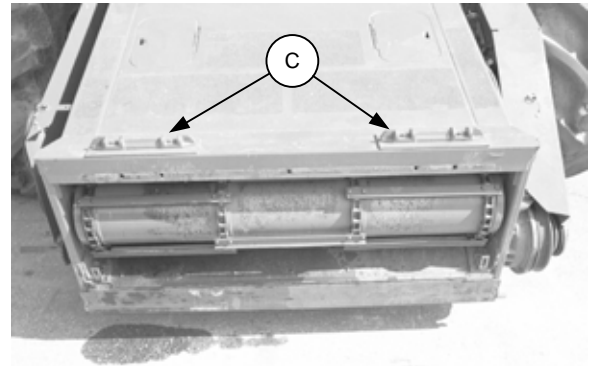
# Adapter Mounting Instructions for John Deere Combines

## ATTACHING ADAPTER TO COMBINE

1. Slowly drive combine up to adapter until lift lugs (C) are directly under adapter top cross member.
2. Raise feeder house to lift adapter, ensuring lift lugs are properly engaged. Raise adapter fully.

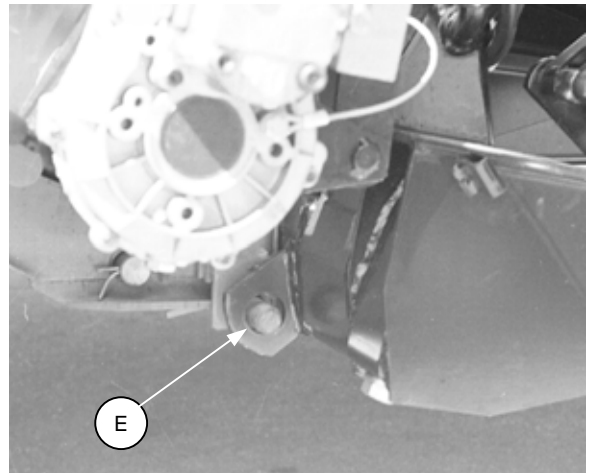


**WARNING:** To avoid bodily injury or death from unexpected start-up or fall of raised attachment; stop engine, remove key and engage lift cylinder stop before proceeding with hook-up.



ALIGN LIFT LUGS UNDER ADAPTER FRAME

3. Engage lock pins (E) in adapter brackets, both sides.



ENGAGE LOCK PINS - BOTH SIDES



# Adapter Mounting Instructions for John Deere Combines

## ATTACHING ADAPTER TO COMBINE (continued)

4. Install pump as follows:

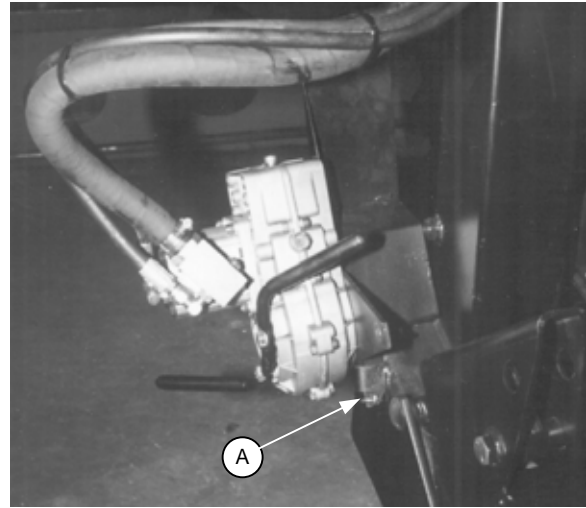
- a. Remove pump from storage position (A) on adapter and slide pump onto R/H feeder house output shaft.

**NOTE:** The first time the pump is installed, hoses may have to be loosened for proper alignment. Tighten hoses after installation.

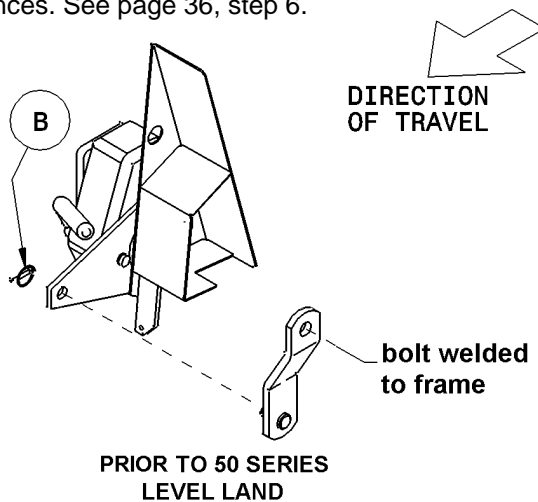
- b. Engage pump torque arm on support arm on adapter and secure with lynch pin at (B).

**NOTE:** For 9650 combine, ensure torque arm (C) with 2 bends has been added to pump assembly. See page 35, Step 1.

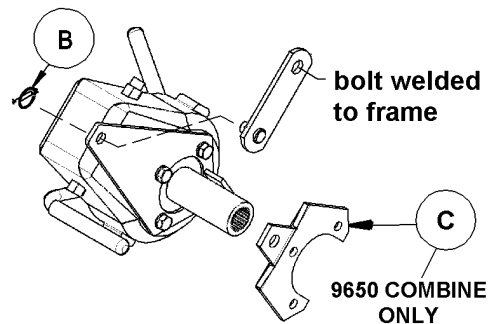
6. Tighten combine feeder chain and check clearances. See page 36, step 6.



PUMP STORAGE ON ADAPTER



PRIOR TO 50 SERIES  
LEVEL LAND



CONTOUR MASTER &  
50 SERIES LEVEL LAND

PUMP IN WORKING POSITION



CONTOUR MASTER & 50 SER. LEVEL LAND



COMBINE TO HEADER CONNECTIONS

# Adapter Mounting Instructions for Case IH Combines

## PREPARING THE HEADER

1. Attach the reel drive plumbing as follows:

### **962 Headers: (see next page for 972)**

- a. 30 ft. 962 Header: Remove the existing mount for the reel drive couplers at right header leg. Remove the two hoses connecting the couplers to steel lines.

36 ft. 962 Header: Detach the two rear hoses inside center reel arm (connected to hoses leading to the reel drive motor). Remove rear hoses, couplers and mounting plate.

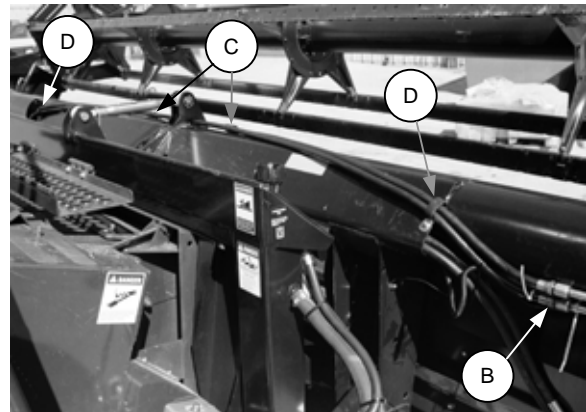
- b. Attach the reel drive mounting plate (A), provided with the adapter, to the left header leg with two 3/8 x 3/4 carriage bolts and flange nuts.
- c. Route reel drive hoses from assembly (A) as follows:

30' 962 Header - Attach hoses to lines at (B), matching yellow cable ties. Route hoses along back tube as shown and secure with four clamps. Use two 3/8 x 5/8 hex washer head machine screws at (C) and two 3/8 x 3/4 carriage bolts at (D). (Use one carriage bolt from reel drive coupler mounting plate removed above. Other parts and hardware supplied with header completion package.)

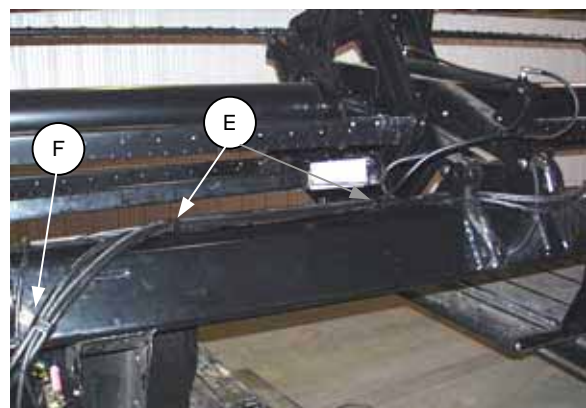
36' 962 Header - Attach hoses to hoses inside center reel arm leading to the reel drive motor, matching yellow cable ties. Route hoses along back tube as shown and secure with three clamps. Use two 3/8 x 5/8 hex washer head machine screws at (E) and one 3/8 x 3/4 carriage bolt at (F).



ATTACH REEL DRIVE MOUNTING PLATE  
TO HEADER L/H LEG



ROUTE REEL DRIVE HOSES – 30' 962



ROUTE REEL DRIVE HOSES – 36' 962

# Adapter Mounting Instructions for Case IH Combines

## PREPARING THE HEADER

1. Attach the reel drive plumbing as follows:

### **972 Headers: (see previous page for 962)**

- a. Headers with 2-Arm Reel: Remove the existing mount for the reel drive couplers at right header leg. (Remove the two elbows along with the couplers and mount.)

Headers with 3-Arm Reel: Detach the two hoses at the reel drive motor, and remove the couplers and mounting plate.

- b. Route reel drive hoses from assembly (A) (provided with the adapter) as follows:

Headers with 3-Arm Reel - Attach hoses to reel drive motor. Hose with yellow cable tie goes to bottom port of motor. Route hoses along back tube and secure with clamps and hardware provided with header completion package, similar to 962 36' Header shown on previous page.

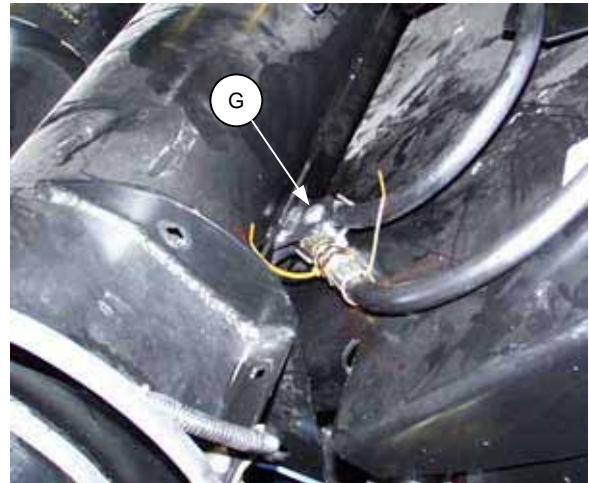
### Headers with 2-Arm Reel

- Hydraulic Deck Shift Headers only: Route hose from mounted coupler between deck shift hoses and L/H header leg.

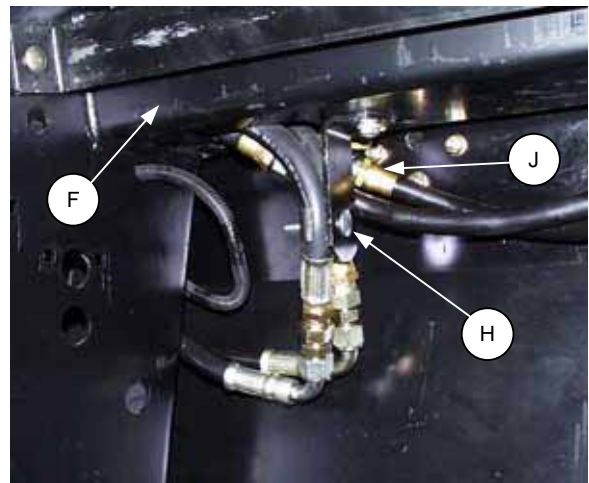
- All 2-Arm Headers: Remove the draper drive hose clamps (H), both sides, and clamp (G) to allow reel drive hoses to be guided past. Push hoses through channel (F) across header opening to the R/H side. This will be easier if hoses being pushed through are at back of channel (F) (rearward of other hoses in channel). Connect to header reel drive hoses at (J), matching the yellow cable ties. After connection, pull hoses back through on L/H side to position shown in bottom photo. Pull excess header hose on R/H side toward reel drive for best appearance.

- Replace clamps (H) and (G) on draper drive hoses.

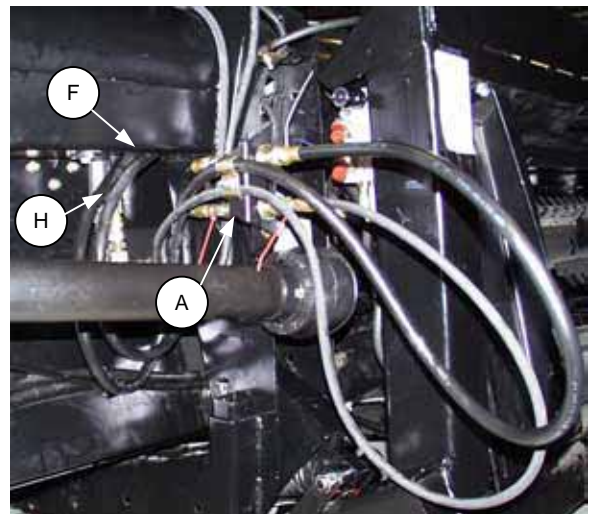
- c. Attach the reel drive mounting plate (A) to the left header leg with two 3/8 x 3/4 carriage bolts and flange nuts.



REMOVE DRAPER DRIVE HOSE CLAMP



REEL DRIVE HOSES – R/H SIDE



ATTACH REEL DRIVE MOUNTING PLATE  
TO HEADER L/H LEG



# Adapter Mounting Instructions for Case IH Combines

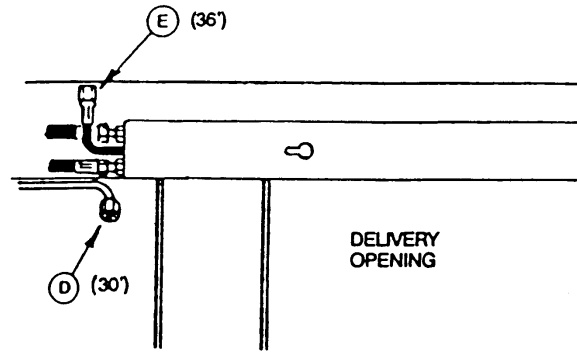
## **PREPARING THE HEADER (continued)**

2. Connect the male coupler with 1/4 NPT adapter (from combine adapter package) to the reel lift hose on the header.

962 Header only: Attach reel lift hose (from header completion package) at left of delivery opening as follows:

For 30' headers the reel lift hose connects to hydraulic line (D).

For 36' headers the reel lift hose connects to hose (E).



INSTALL REEL LIFT HOSE - 962 HEADER

3. Attach driveline supplied with adapter to header sickle drive shaft. Secure clamp yoke to shaft with 1/2 NC hardware provided.

For storage, attach other end of driveline to anchor (K).



DRIVELINE STORAGE LOCATION

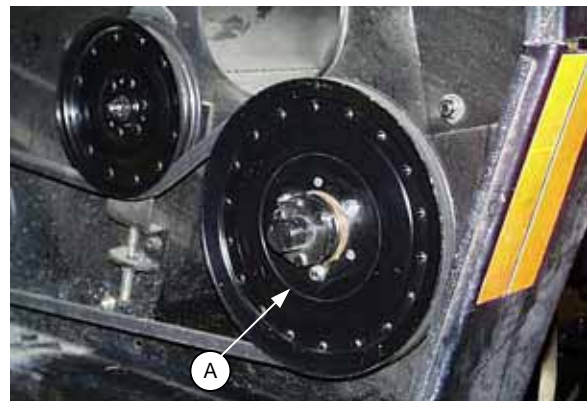
4. Single Sickle:  
Bolt the sheet metal pulley (A) provided with the adapter on the sickle drive pulley (962) or drive hub (972) at the left end sheet, using three 3/8 x 1 bolts with lock washers.

Double Sickle 972:

See 972 Operators Manual "Unloading and Assembly" section.

5. Install wiring harness extension provided with adapter onto header wiring harness.

**NOTE:** If combine does not have an electrical connector, see page 33.



INSTALL SICKLE DRIVE PULLEY

# Adapter Mounting Instructions for Case IH Combines

## PREPARING THE ADAPTER

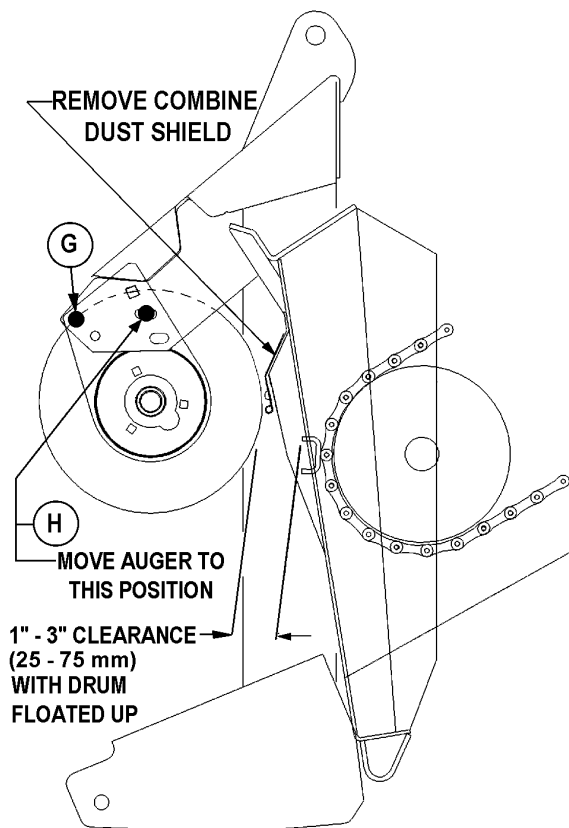
1. Install feeder house support (C) (from adapter package) onto the adapter frame with one 1/2 x 1 flange bolt at (D) and three 1/2 x 1 carriage bolts and flange nuts at (E). Repeat at other side.

**NOTE:** For attachment to top beam, engage carriage bolts in keyhole slots.

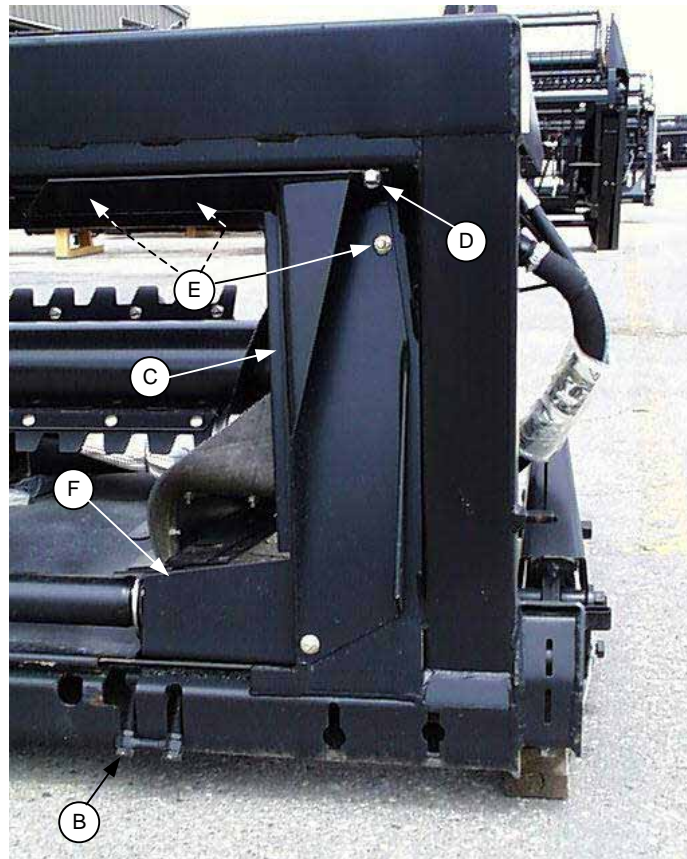
2. Attach filler (F) with one 1/2 x 1 1/4 carriage bolt and flange nut. Repeat at other side.
3. Install lower latch pivot bars (B) in adapter frame. Ensure pivot pin is installed inside frame in high position as shown.
4. Feed auger is shipped in forward position. *Best feeding occurs with auger in rearward position, however dust shield across top of feeder house opening must be removed to ensure adequate clearance for this auger position.*

To adjust auger position:

- a. Loosen bolt (G), both sides.
- b. Remove bolt (H), both sides and swing auger to desired position.
- c. Replace and tighten hardware.



MOVE FEED AUGER TO REARMOST POSITION  
WITH FEEDER HOUSE DUST SHIELD REMOVED



INSTALL ADAPTER COMPLETION PARTS

# Adapter Mounting Instructions for Case IH Combines

## PREPARING THE COMBINE

1. For 1460, 1660, 1666, 1668, 1480, 2166 and 2366 combines, check with Combine dealer to ensure combine is equipped with tire size, rear ballast etc. to carry larger headers.
  2. For 36 foot header on 1460, 1480, 1660 and 1680 combines, install optional third feeder house lift cylinder. Order numbers:  
Feed House Lift Cylinder Kit: Kind - 172, Code - 1092  
Accumulator Kit: Kind - 172, Code - 1084
  3. Remove dust shield across top of feeder house opening to allow positioning of adapter feed auger in rearmost position.
  4. Remove shield from R/H feeder house output shaft and replace with shield (A) and drive arm support (D) provided with adapter. This shield can be hinged out of the way for MacDon adapter and swung back into place for pick-up header.
- NOTE:** For narrower feeder house combines (1640, 1644, 1660, 1666, 2166 and 2366) also install shield extension (E).
5. Install shield (B) on L/H feeder house output shaft shield with 3/8 x 5/8 flange bolt and nut as shown.



L/H SHIELD

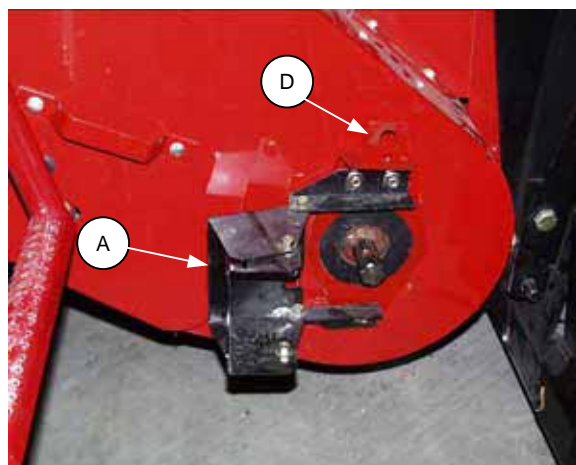
6. Set feeder house face plate to mid-position.

## ATTACHING ADAPTER TO COMBINE

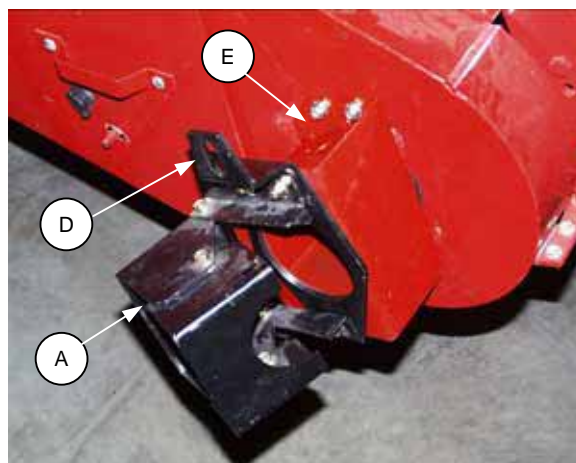
1. Slowly drive combine up to adapter until feeder saddle (C) is directly under adapter top cross member.
2. Raise feeder house to lift adapter, ensuring feeder saddle is properly engaged in adapter frame. Raise adapter fully.



**WARNING:** To avoid bodily injury or death from unexpected start-up or fall of raised attachment; stop engine, remove key and engage lift cylinder stop before proceeding with hook-up.



HINGED R/H SHIELD



HINGED R/H SHIELD – NARROW FEEDERS



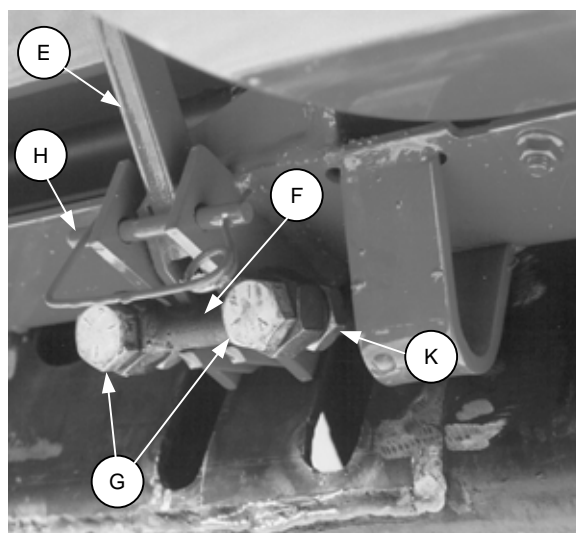
ALIGN FEEDER SADDLE UNDER  
ADAPTER FRAME



# Adapter Mounting Instructions for Case IH Combines

## ATTACHING ADAPTER TO COMBINE (continued)

3. Lower latch handle (E) (one each side of feeder house) to hook pivot bar (F). Lift handle to over-center position to lock. It should take 40 to 50 lbs. force (180 to 220 N) to move handle over-center. Adjusting the torque of bolts (G) will vary the handle force required. When handle force is correct, tighten jam nuts (K).
4. Install pin (H) as shown to secure the latch handle in locked position.

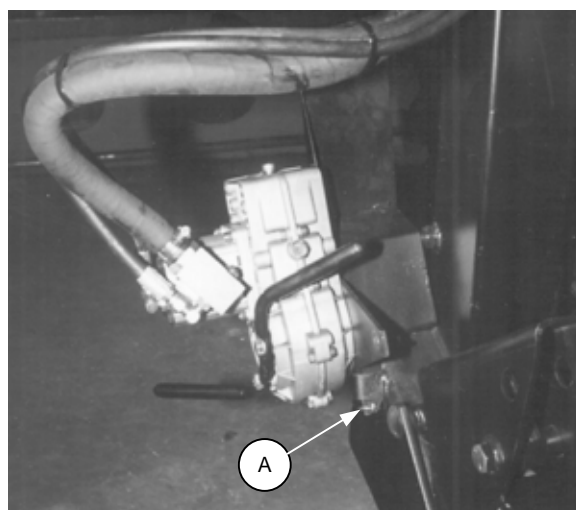


ENGAGE LOCKS - BOTH SIDES

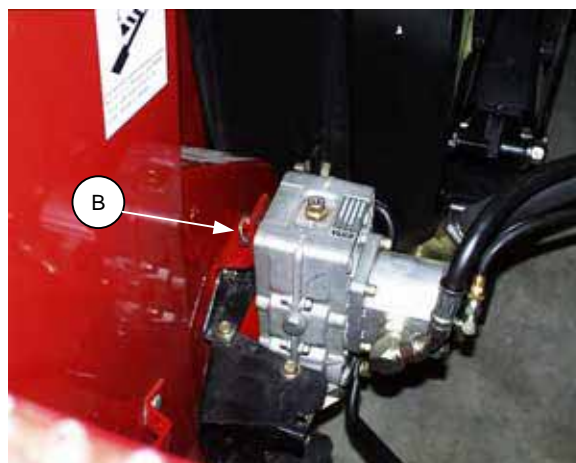
5. Install pump as follows:
  - a. Remove pump from storage position (A) on adapter and slide pump onto R/H feeder house output shaft.

**NOTE:** The first time the pump is installed, hoses may have to be loosened for proper alignment. Tighten hoses after installation.

  - b. Engage pump torque arm on support arm on adapter and secure with lynch pin at (B).



PUMP STORAGE ON ADAPTER



PUMP IN WORKING POSITION

# Adapter Mounting Instructions for Gleaner Combines

## PREPARING THE HEADER

1. Attach the reel drive plumbing as follows:

### **962 Headers: (see next page for 972)**

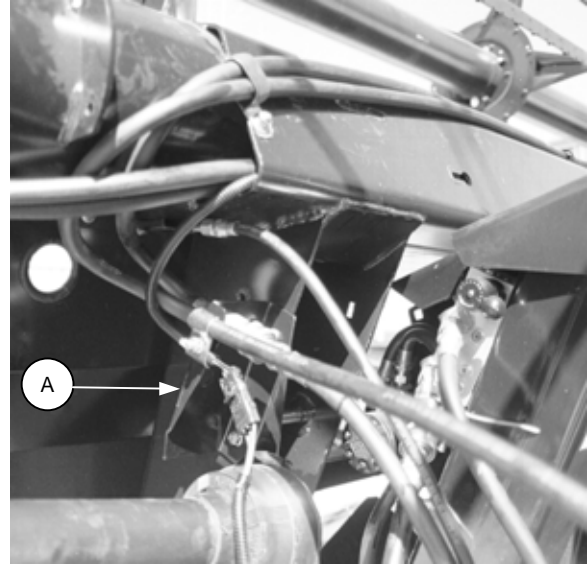
- a. 30 ft. 962 Header: Remove the existing mount for the reel drive couplers at right header leg. Remove the two hoses connecting the couplers to steel lines.

36 ft. 962 Header: Detach the two rear hoses inside center reel arm (connected to hoses leading to the reel drive motor). Remove rear hoses, couplers and mounting plate.

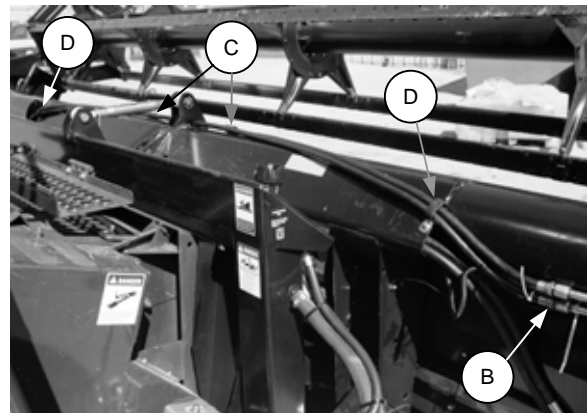
- b. Attach the reel drive mounting plate (A), provided with the adapter, to the left header leg with two 3/8 x 3/4 carriage bolts and flange nuts.
- c. Route reel drive hoses from assembly (A) as follows:

30' 962 Header - Attach hoses to lines at (B), matching yellow cable ties. Route hoses along back tube as shown and secure with four clamps. Use two 3/8 x 5/8 hex washer head machine screws at (C) and two 3/8 x 3/4 carriage bolts at (D). (Use one carriage bolt from reel drive coupler mounting plate removed above. Other parts and hardware supplied with header completion package.)

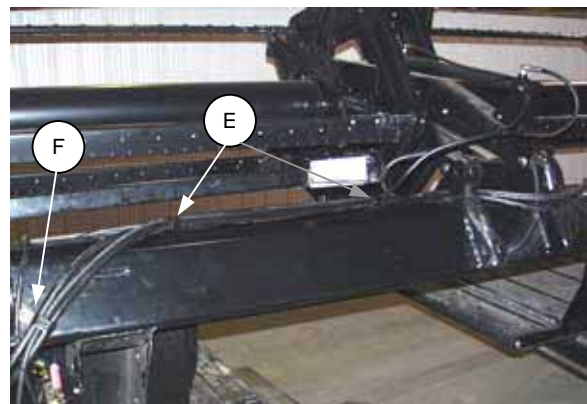
36' 962 Header - Attach hoses to hoses inside center reel arm leading to the reel drive motor, matching yellow cable ties. Route hoses along back tube as shown and secure with three clamps. Use two 3/8 x 5/8 hex washer head machine screws at (E) and one 3/8 x 3/4 carriage bolt at (F).



ATTACH REEL DRIVE MOUNTING PLATE  
TO HEADER L/H LEG



ROUTE REEL DRIVE HOSES – 30' 962



ROUTE REEL DRIVE HOSES – 36' 962

# Adapter Mounting Instructions for Gleaner Combines

## PREPARING THE HEADER

1. Attach the reel drive plumbing as follows:

### **972 Headers: (see previous page for 962)**

- a. Headers with 2-Arm Reel: Remove the existing mount for the reel drive couplers at right header leg. (Remove the two elbows along with the couplers and mount.)

Headers with 3-Arm Reel: Detach the two hoses at the reel drive motor, and remove the couplers and mounting plate.

- b. Route reel drive hoses from assembly (A) (provided with the adapter) as follows:

Headers with 3-Arm Reel - Attach hoses to reel drive motor. Hose with yellow cable tie goes to bottom port of motor. Route hoses along back tube and secure with clamps and hardware provided with header completion package, similar to 962 36' Header shown on previous page.

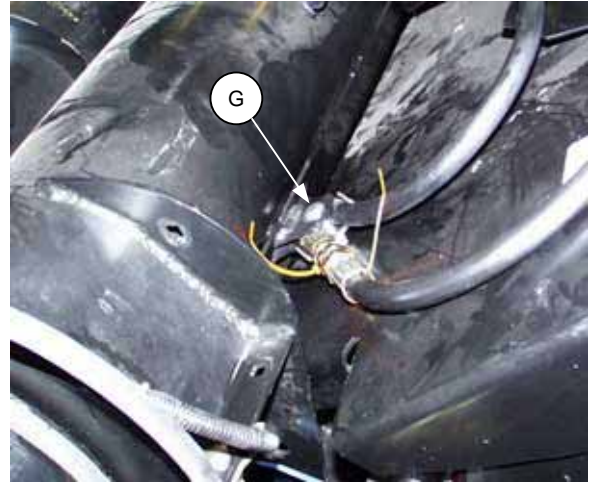
### Headers with 2-Arm Reel

- Hydraulic Deck Shift Headers only: Route hose from mounted coupler between deck shift hoses and L/H header leg.

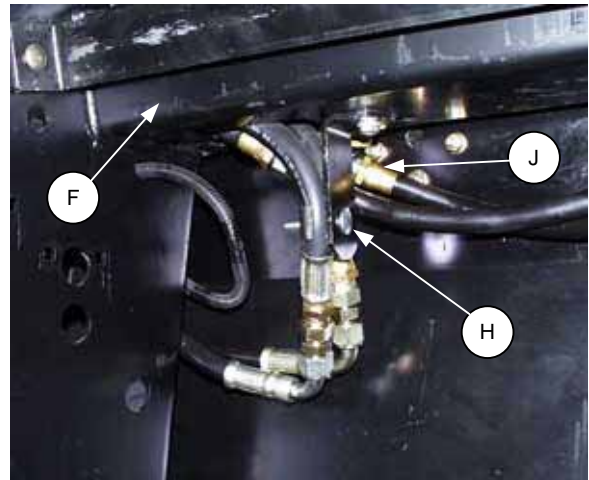
- All 2-Arm Headers: Remove the draper drive hose clamps (H), both sides, and clamp (G) to allow reel drive hoses to be guided past. Push hoses through channel (F) across header opening to the R/H side. This will be easier if hoses being pushed through are at back of channel (F) (rearward of other hoses in channel). Connect to header reel drive hoses at (J), matching the yellow cable ties. After connection, pull hoses back through on L/H side to position shown in bottom photo. Pull excess header hose on R/H side toward reel drive for best appearance.

- Replace clamps (H) and (G) on draper drive hoses.

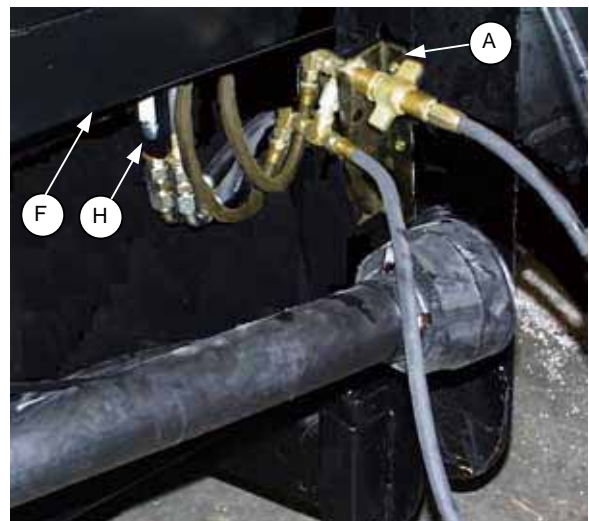
- c. Attach the reel drive mounting plate (A) to the left header leg with two 3/8 x 3/4 carriage bolts and flange nuts.



REMOVE DRAPER DRIVE HOSE CLAMP



REEL DRIVE HOSES – R/H SIDE



TO HEADER L/H LEG



# Adapter Mounting Instructions for Gleaner Combines

## PREPARING THE HEADER (continued)

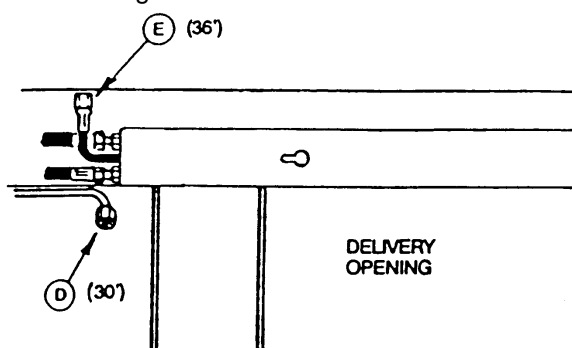
2. Connect the 1/4 NPT male coupler assembly (from combine adapter package) to the reel lift hose on the header.

**NOTE:** Install reel drive holder (H) in retracted position (shown), unless combine hose is not long enough to attach. Check this with header on ground. In this case, a second hole is provided in holder (H) to install in an extended position.

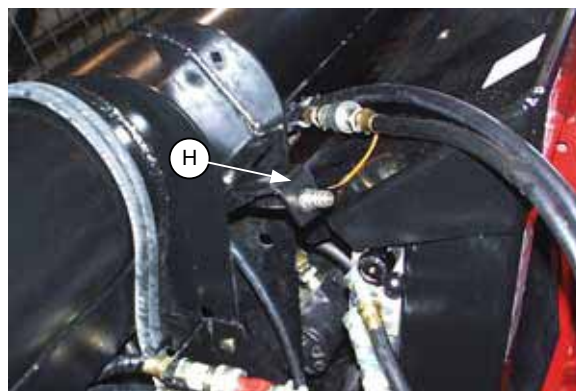
972 Header: Remove existing reel lift hose clamp at left header leg and attach coupler assembly at this location.

962 Header: Attach reel lift hose (from header completion package) at left of delivery opening as follows: For 30' headers the reel lift hose connects to hydraulic line (D). For 36' headers the reel lift hose connects to hose (E).

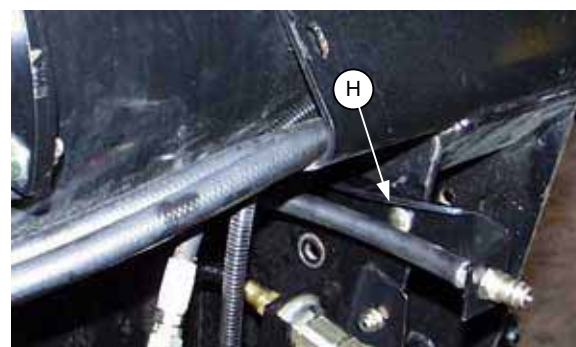
Secure coupler assembly to left header leg by attaching holder (H) with 3/8 x 3/4 carriage bolt and flange nut.



INSTALL REEL LIFT HOSE – 962 HEADER



INSTALL REEL LIFT COUPLER ASSEMBLY  
972 HEADER



INSTALL REEL LIFT COUPLER ASSEMBLY  
962 HEADER

3. Attach driveline supplied with adapter to header sickle drive shaft. Secure clamp yoke to shaft with 1/2 NC hardware provided.

For storage, attach other end of driveline to anchor on reel drive couplers mounting plate installed in step 1.

#### 4. Single Sickle:

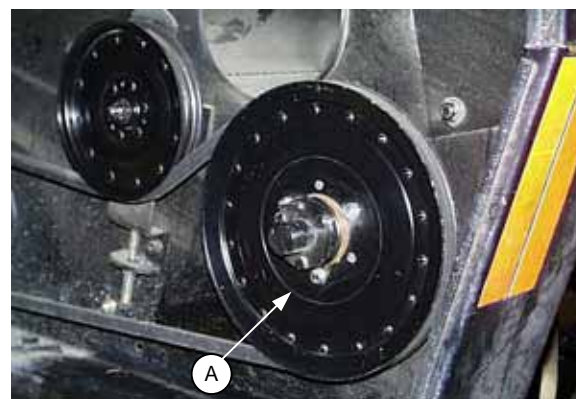
Bolt the sheet metal pulley (A) provided with the adapter on the sickle drive pulley (962) or drive hub (972) at the left end sheet, using three 3/8 x 1 bolts with lock washers.

#### Double Sickle 972:

See 972 Operators Manual “Unloading and Assembly” section.

5. Install wiring harness extension provided with adapter onto header wiring harness.

**NOTE:** If combine does not have an electrical connector, see page 33.



INSTALL SICKLE DRIVE PULLEY

# Adapter Mounting Instructions for Gleaner Combines

## PREPARING THE ADAPTER

1. Install upper beam (1) (from adapter package) onto the adapter frame with two 1/2 x 1 flange bolts (E) (one each side) and four 1/2 x 1 carriage bolts (C) and flange nuts (D) (two each side).

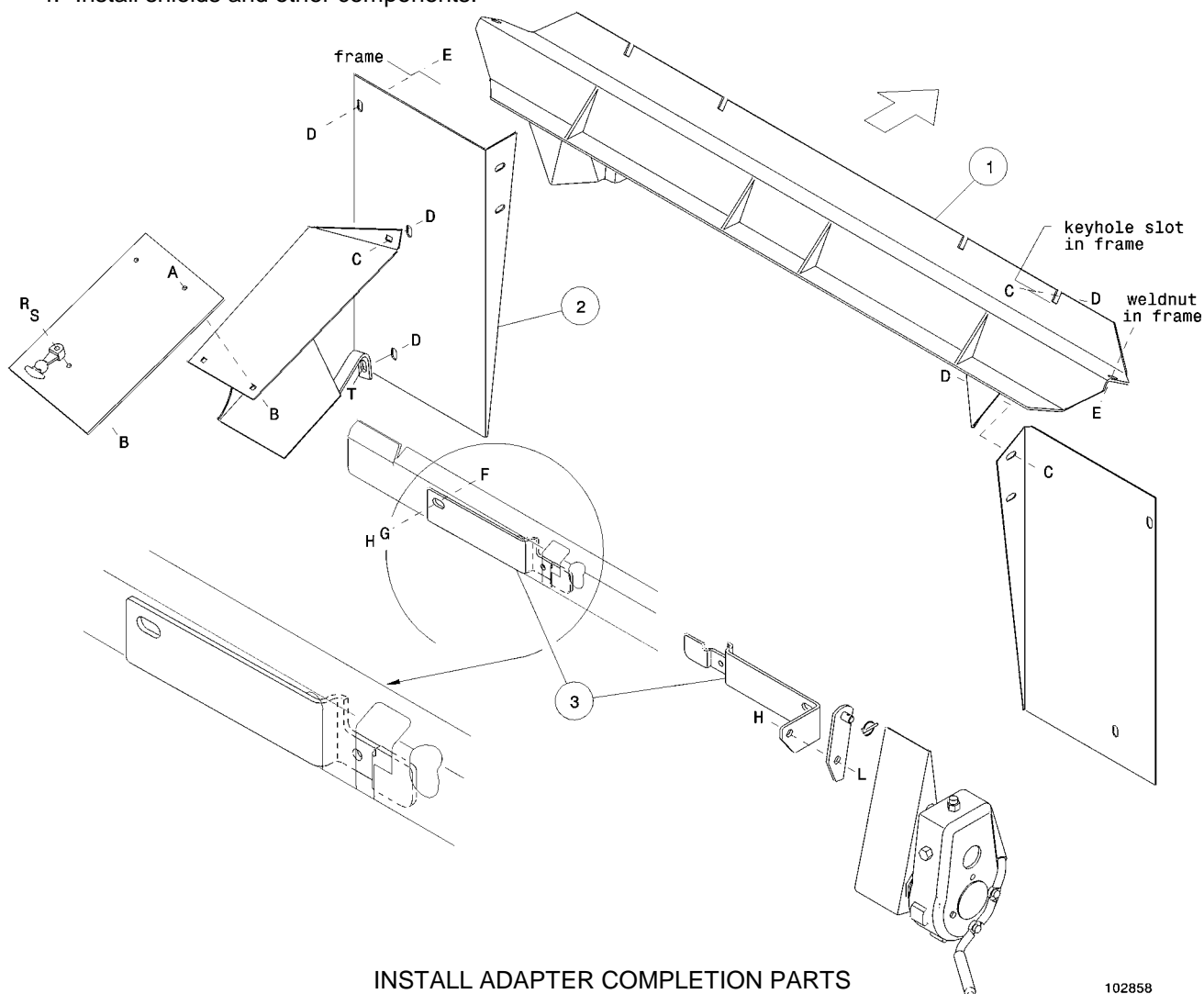
**NOTE:** For attachment to adapter at top beam, engage carriage bolts (C) in keyhole slots.

2. Attach left member (2) with three 1/2 x 1 carriage bolts (C), one 1/2 x 1 flange bolt (E) and flange nuts (D). Repeat at right side.

3. Insert lower latch support (3) into oblong slot in adapter frame as shown. Secure with 5/8 x 1-1/2 carriage bolt (F), flat washer (G) and nut (H). Repeat at other side.

4. Install shields and other components.

A	BOLT – round head, sq. neck, 3/8 NC x 3/4 in.
B	NUT - lock, smooth flange, 3/8 NC dist. thread
C	BOLT - round hd. short sq. nk, 1/2 NC x 1"
D	NUT - lock, smooth flange, 1/2 NC dist. thread
E	BOLT - flange head, 1/2 NC x 1 inch
F	BOLT - rnd. hd. sq. neck, 5/8 NC x 1-1/2 inch
G	WASHER - flat, 21/32 inch I.D.
H	NUT - lock, 5/8 NC distorted thread
L	BOLT - hex head, 5/8 NC x 1-1/2 inch
R	BOLT - hex head, 3/8 NC x 1-1/2 inch
S	WASHER - flat, 13/32 inch I.D.
T	BOLT – round head, sq. neck, 1/2 NC x 1-1/4"



INSTALL ADAPTER COMPLETION PARTS

102858



# Adapter Mounting Instructions for Gleaner Combines

## PREPARING THE ADAPTER (continued)

5. Place feed auger in rearward position.

To adjust:

- a. Loosen bolt (E), both sides.
- b. Remove bolt (F), both sides, and swing auger to desired position.
- c. Replace and tighten hardware.



FEED AUGER FULLY REARWARD

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## PREPARING THE COMBINE

1. For R62 combines, check with Combine dealer to ensure combine is equipped with tire size, rear ballast etc. to carry larger headers.
2. Rotate feeder house latches back into the feeder house.
3. Set feeder house face plate to mid-position.

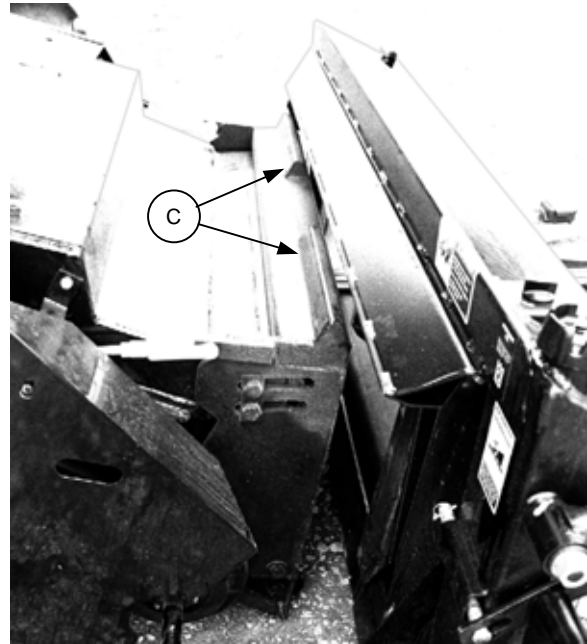
# Adapter Mounting Instructions for Gleaner Combines

## ATTACHING ADAPTER TO COMBINE

1. Slowly drive combine up to adapter until feeder house truss hooks (C) are directly under adapter top cross member.
2. Raise feeder house to lift adapter, ensuring truss hooks are properly engaged in adapter frame. Raise adapter fully, allowing the lower pins to penetrate the holes in the adapter back.

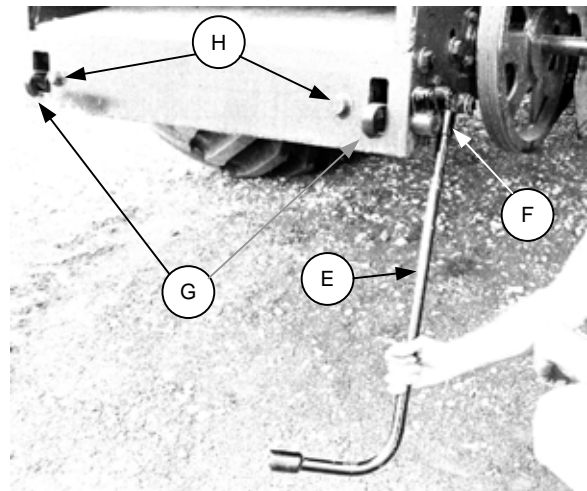


**WARNING:** To avoid bodily injury or death from unexpected start-up or fall of raised attachment; stop engine, remove key and engage lift cylinder stop before proceeding with hook-up.



ALIGN TRUSS HOOKS  
UNDER ADAPTER FRAME

3. Insert concave door tool (E) in latch socket (F) and rotate latch clockwise to lock hooks (G) into the adapter frame (both sides). MAKE CERTAIN that the latch is rotated over-center to securely lock the hooks. If it does not latch, check to determine if the lower pins (H) are seated in the adapter back. If not, place a block under the left end of the adapter and lower the adapter to reseat the pins. Re-latch the hooks.
4. Raise the adapter and lower it against the ground a few times to settle the adapter on the feeder housing.



LOCK HOOKS INTO ADAPTER FRAME  
BOTH SIDES

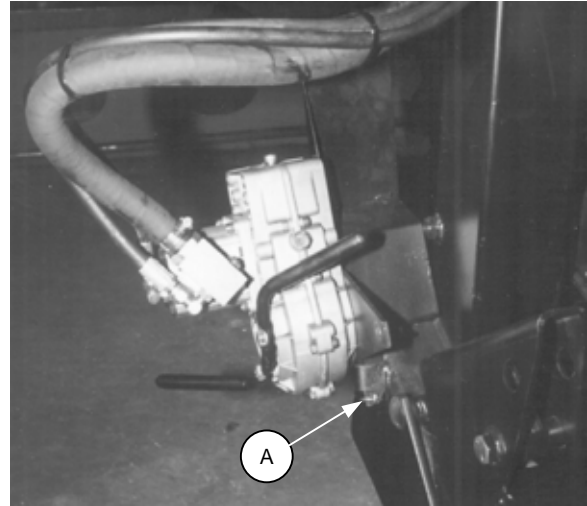
# Adapter Mounting Instructions for Gleaner Combines

## ATTACHING ADAPTER TO COMBINE (continued)

5. Install pump as follows:
  - a. Remove pump from storage position (A) on adapter and slide pump onto R/H feeder house output shaft.

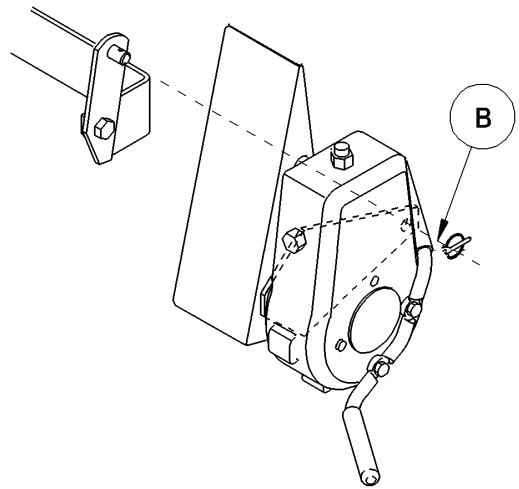
**NOTE:** The first time the pump is installed, hoses may have to be loosened for proper alignment. Tighten hoses after installation.

- b. Engage pump torque arm on support arm on adapter and secure with lynch pin at (B).



PUMP STORAGE ON ADAPTER

6. Float the feeder house front drum up and check for interference with feed auger. If so, remove a link from the feeder chain and move the front drum back. Re-tighten chain and check clearance again.



PUMP IN WORKING POSITION

# Adapter Mounting Instructions for New Holland Combines

## PREPARING THE HEADER

1. Attach the reel drive plumbing as follows:

### **962 Headers: (see next page for 972)**

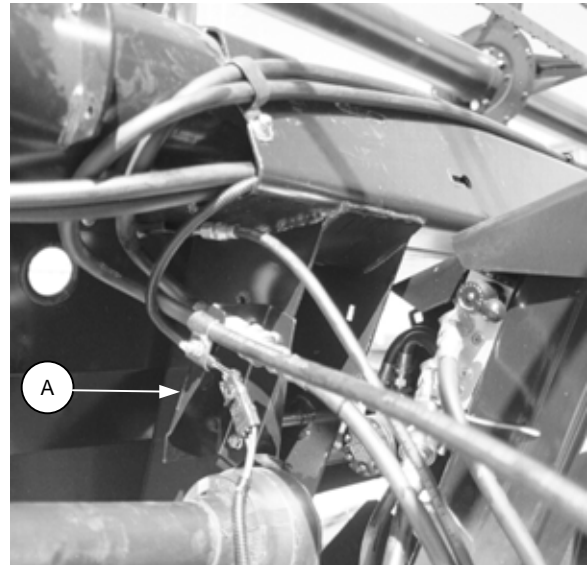
- a. 30 ft. 962 Header: Remove the existing mount for the reel drive couplers at right header leg. Remove the two hoses connecting the couplers to steel lines.

36 ft. 962 Header: Detach the two rear hoses inside center reel arm (connected to hoses leading to the reel drive motor). Remove rear hoses, couplers and mounting plate.

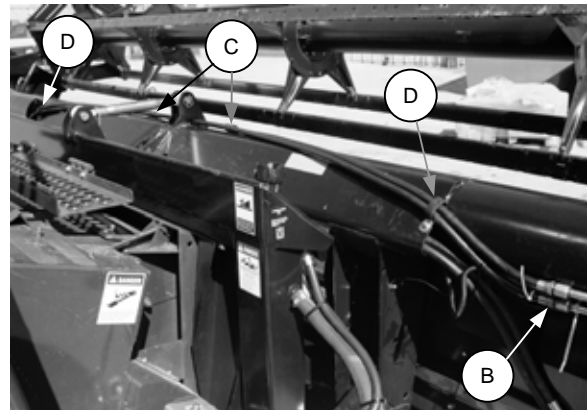
- b. Attach the reel drive mounting plate (A), provided with the adapter, to the left header leg with two 3/8 x 3/4 carriage bolts and flange nuts.
- c. Route reel drive hoses from assembly (A) as follows:

30' 962 Header - Attach hoses to lines at (B), matching yellow cable ties. Route hoses along back tube as shown and secure with four clamps. Use two 3/8 x 5/8 hex washer head machine screws at (C) and two 3/8 x 3/4 carriage bolts at (D). (Use one carriage bolt from reel drive coupler mounting plate removed above. Other parts and hardware supplied with header completion package.)

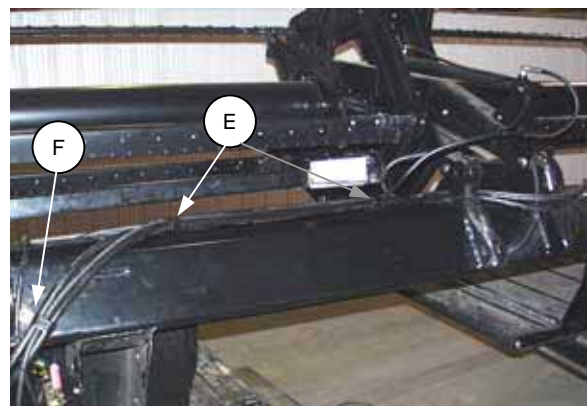
36' 962 Header - Attach hoses to hoses inside center reel arm leading to the reel drive motor, matching yellow cable ties. Route hoses along back tube as shown and secure with three clamps. Use two 3/8 x 5/8 hex washer head machine screws at (E) and one 3/8 x 3/4 carriage bolt at (F).



ATTACH REEL DRIVE MOUNTING PLATE  
TO HEADER L/H LEG



ROUTE REEL DRIVE HOSES – 30' 962



ROUTE REEL DRIVE HOSES – 36' 962

# Adapter Mounting Instructions for New Holland Combines

## PREPARING THE HEADER

1. Attach the reel drive plumbing as follows:

### **972 Headers: (see previous page for 962)**

- a. Headers with 2-Arm Reel: Remove the existing mount for the reel drive couplers at right header leg. (Remove the two elbows along with the couplers and mount.)

Headers with 3-Arm Reel: Detach the two hoses at the reel drive motor, and remove the couplers and mounting plate.

- b. Route reel drive hoses from assembly (A) (provided with the adapter) as follows:

Headers with 3-Arm Reel - Attach hoses to reel drive motor. Hose with yellow cable tie goes to bottom port of motor. Route hoses along back tube and secure with clamps and hardware provided with header completion package, similar to 962 36' Header shown on previous page.

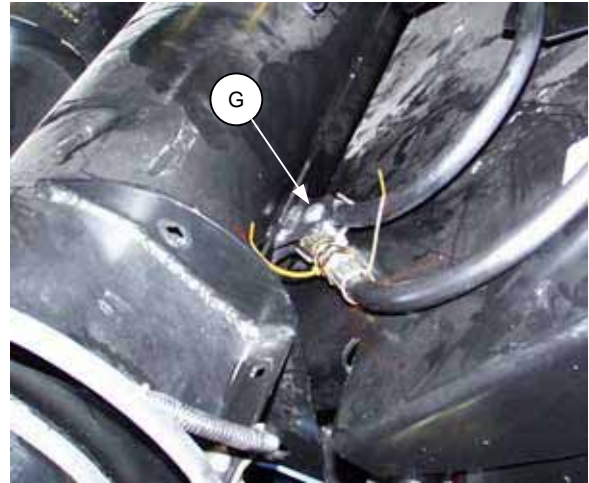
### Headers with 2-Arm Reel

- Hydraulic Deck Shift Headers only: Route hose from mounted coupler between deck shift hoses and L/H header leg.

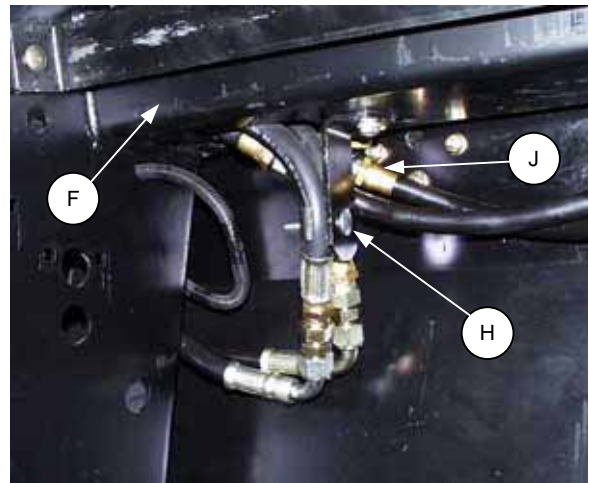
- All 2-Arm Headers: Remove the draper drive hose clamps (H), both sides, and clamp (G) to allow reel drive hoses to be guided past. Push hoses through channel (F) across header opening to the R/H side. This will be easier if hoses being pushed through are at back of channel (F) (rearward of other hoses in channel). Connect to header reel drive hoses at (J), matching the yellow cable ties. After connection, pull hoses back through on L/H side to position shown in bottom photo. Pull excess header hose on R/H side toward reel drive for best appearance.

- Replace clamps (H) and (G) on draper drive hoses.

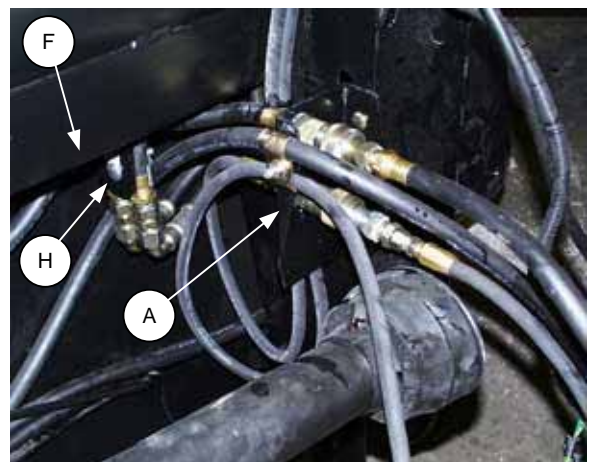
- c. Attach the reel drive mounting plate (A) to the left header leg with two 3/8 x 3/4 carriage bolts and flange nuts.



REMOVE DRAPER DRIVE HOSE CLAMP



REEL DRIVE HOSES – R/H SIDE



ATTACH REEL DRIVE MOUNTING PLATE  
TO HEADER L/H LEG



# Adapter Mounting Instructions for New Holland Combines

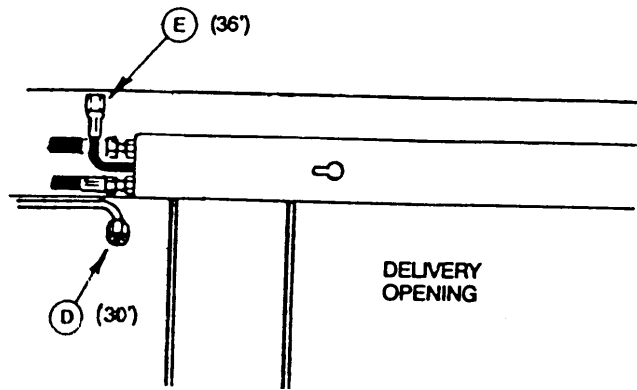
## PREPARING THE HEADER (continued)

2. Connect the 1/4 NPT male coupler (from combine adapter package) to the reel lift hose on the header.

962 Header only: Attach reel lift hose (from header completion package) at left of delivery opening as follows:

For 30' headers the reel lift hose connects to hydraulic line (D).

For 36' headers the reel lift hose connects to hose (E).



INSTALL REEL LIFT HOSE - 962 HEADER

3. Attach driveline supplied with adapter to header sickle drive shaft. Secure clamp yoke to shaft with 1/2 NC hardware provided.

For storage, attach other end of driveline to anchor (K).



DRIVELINE STORAGE LOCATION

4. Single Sickle:

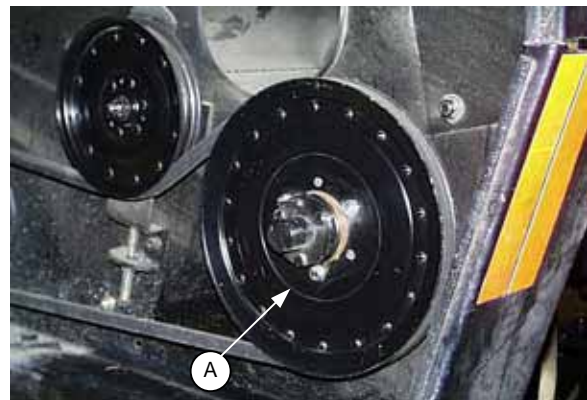
Bolt the sheet metal pulley (A) provided with the adapter on the sickle drive pulley (962) or drive hub (972) at the left end sheet, using three 3/8 x 1 bolts with lock washers.

### Double Sickle 972:

See 972 Operators Manual "Unloading and Assembly" section.

5. Install wiring harness extension provided with adapter onto header wiring harness.

**NOTE:** If combine does not have an electrical connector, see page 33.



INSTALL SICKLE DRIVE PULLEY

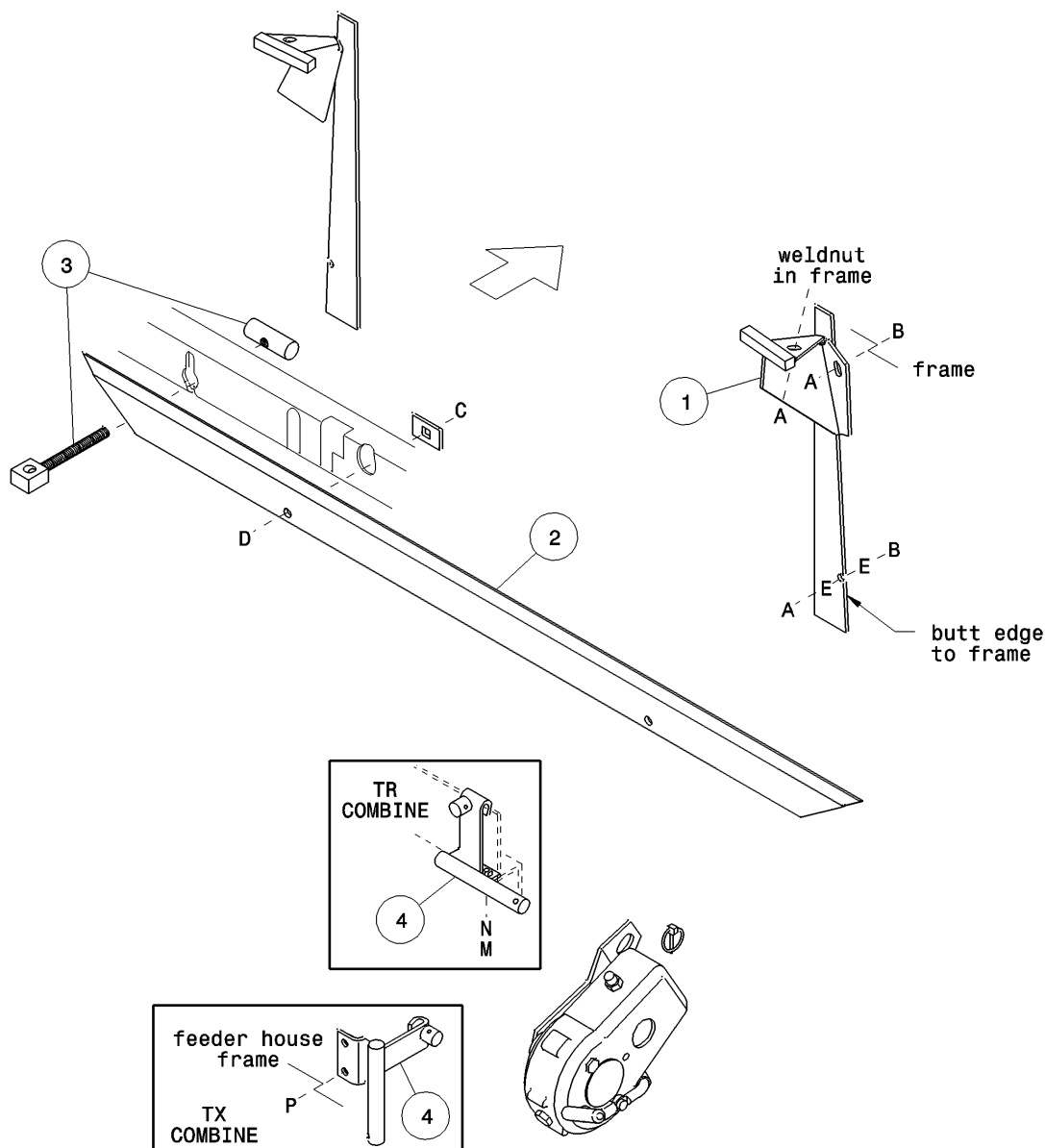
# Adapter Mounting Instructions for New Holland Combines

## PREPARING THE ADAPTER

1. Install feeder house guide (1) (from adapter package) onto the adapter frame with hardware shown. Repeat at other side.
2. Install lower feeder house beam (2) with hardware shown. Position bolts against the bottom of the slots in frame.
3. Install lower latch eyebolt assemblies (3) in adapter frame.
4. Attach gearbox support (4) to combine feeder house as shown.

**NOTE:** Orientation of support depends on combine model.

A	BOLT - flange head, 1/2 NC x 1 inch
B	NUT - smooth flange, 1/2 NC distorted thread
C	BOLT - round hd, square nk, 5/8 NC x 1-1/2"
D	NUT - lock, 5/8 NC distorted thread
E	WASHER - flat 21/32 inch I.D.
M	SETSCREW - 3/8 NC x 1 1/4 inch
N	NUT - hex jam, 3/8 NC
P	BOLT - flange head, 3/8 NC x 1 inch



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# Adapter Mounting Instructions for New Holland Combines

## PREPARING THE ADAPTER

5. Position feed auger in the forward position as follows:

### **New Holland TR Combine:**

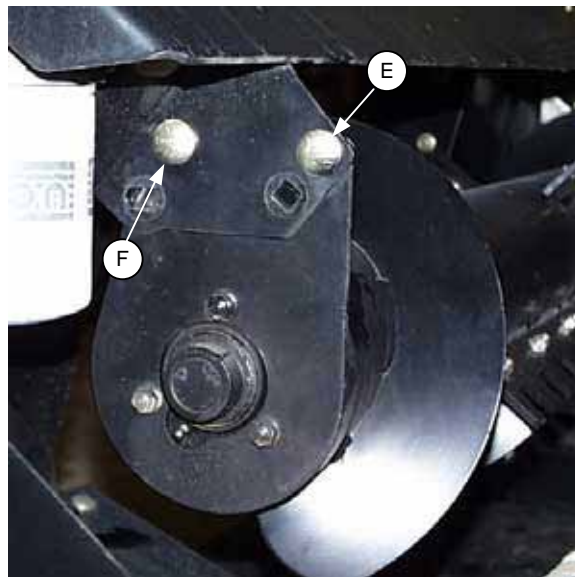
Use upper holes in frame plate.

### **New Holland TX Combine:**

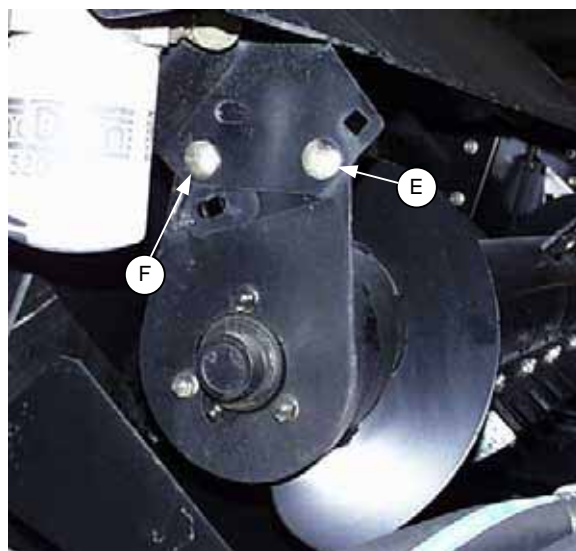
Use lower holes in frame plate.

To adjust: auger position:

- a. Loosen bolt (E), both sides.
- b. Remove bolt (F), both sides, and swing auger to desired position.
- c. Replace and tighten hardware.



NEW HOLLAND TR - FEED AUGER FORWARD  
(TOP HOLES IN FRAME PLATE)



NEW HOLLAND TX - FEED AUGER FORWARD  
(LOWER HOLES IN FRAME PLATE)

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## PREPARING THE COMBINE

1. For TR86, TR87, TR88 and all TX model combines, check with Combine dealer to ensure combine is equipped with tire size, rear ballast etc. to carry larger headers.
2. For TR model combines, if equipped with variable speed header drive, set header drive speed to 580 RPM.
3. **IMPORTANT:** On TR and TX combines, to prevent damage to feeder house and/or feed auger and draper, remove dust shields, auger stripper bars, and closure strips from front of feeder house.
4. Attach gearbox support (item 4 on previous page) to feeder house with hardware shown. Note proper orientation for TR or TX combine.



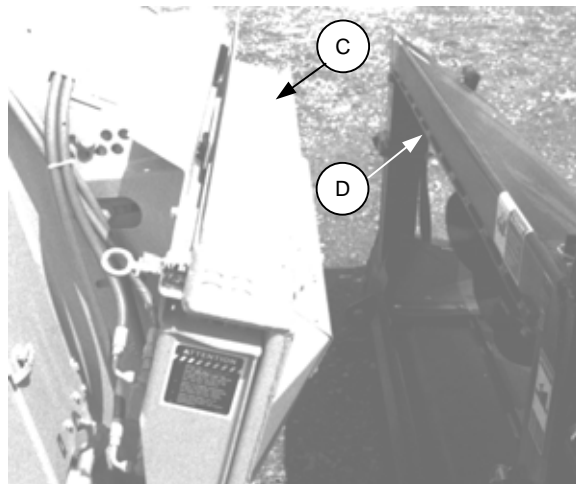
# Adapter Mounting Instructions for New Holland Combines

## ATTACHING ADAPTER TO COMBINE

1. Slowly drive combine up to adapter until feeder saddle (C) is directly under adapter top cross-member (D).
2. Raise feeder house to lift adapter, ensuring feeder saddle is properly engaged in adapter frame. Raise adapter fully.

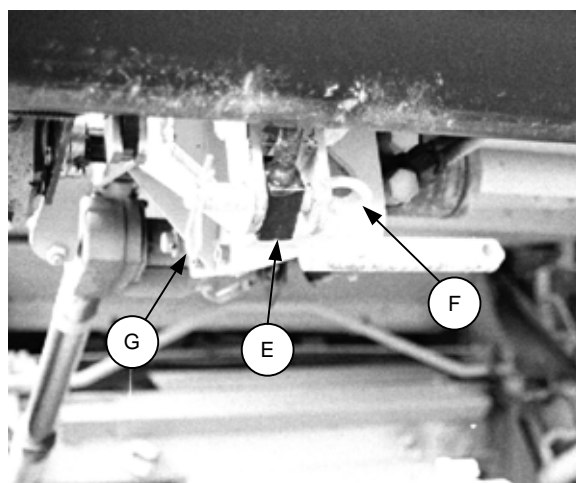


**WARNING:** To avoid bodily injury or death from unexpected start-up or fall of raised attachment; stop engine, remove key and engage lift cylinder stop before proceeding with hook-up.

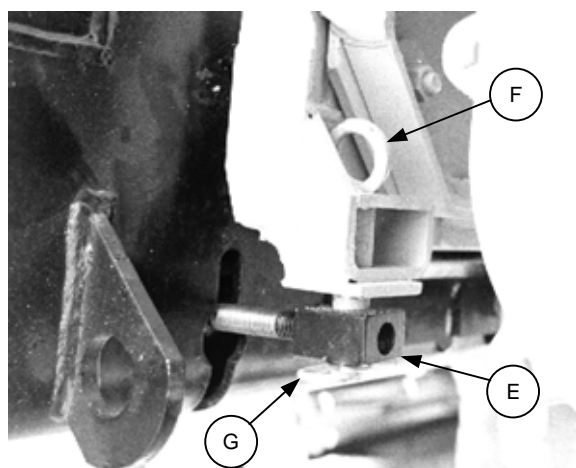


ALIGN FEEDER SADDLE UNDER  
ADAPTER FRAME

3. Raise eye bolt (E) up to feeder house. Turn eye bolt (E) until pin (F) on feeder house lines up with hole in eye bolt (E).
4. Install pin (F) through feeder house frame and eye bolt (E). Lock with hair pin (G).



ENGAGE LOCK PINS - BOTH SIDES (TX)



ENGAGE LOCK PINS - BOTH SIDES (TR)

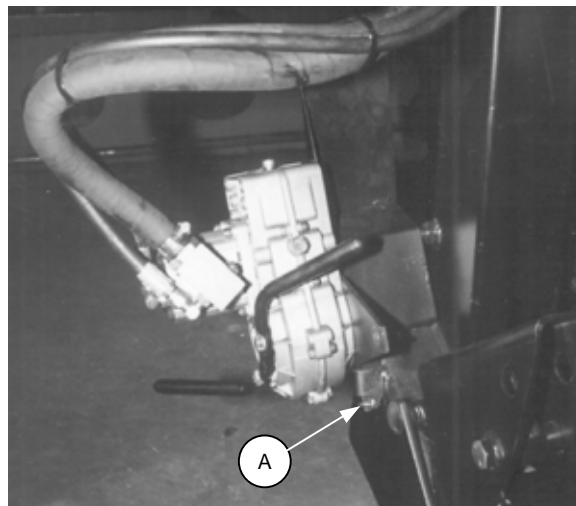
# Adapter Mounting Instructions for New Holland Combines

## ATTACHING ADAPTER TO COMBINE (continued)

5. Install pump as follows:
  - a. Remove pump from storage position (A) on adapter and slide pump onto R/H feeder house output shaft.

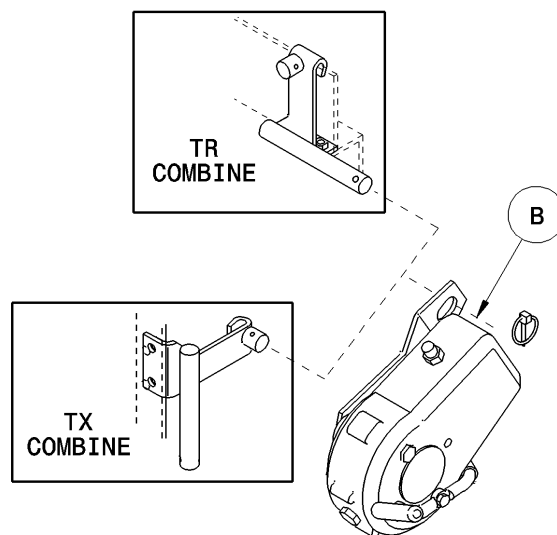
**NOTE:** The first time the pump is installed, hoses may have to be loosened for proper alignment. Tighten hoses after installation.

- b. Engage pump torque arm on support pin on adapter and secure with lynch pin at (B)



PUMP STORAGE ON ADAPTER

6. Float the feeder house front drum up and check for interference with feed auger. If so, remove a link from the feeder chain and move the front drum back. Re-tighten chain and check clearance again.

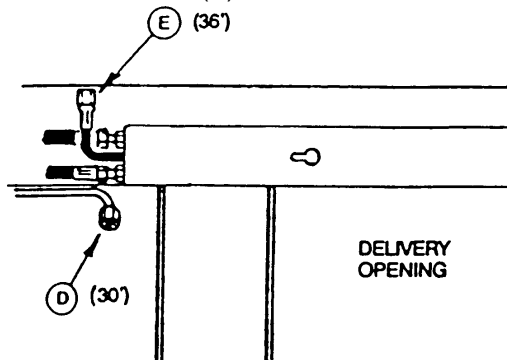


PUMP IN WORKING POSITION

# Adapter Mounting Instructions for Cat Lexion Combines

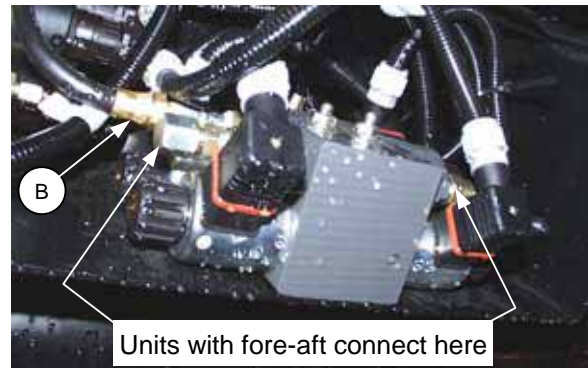
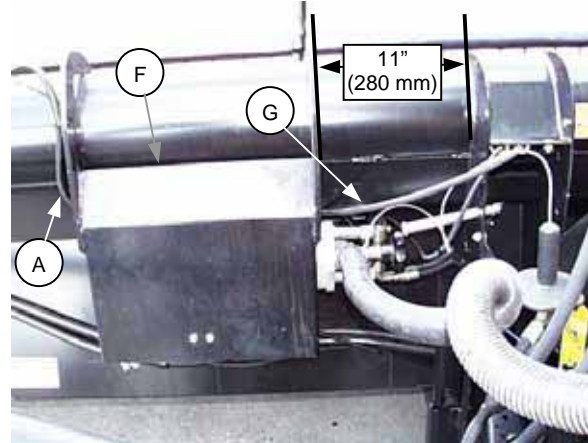
## PREPARING THE HEADER

1. Prior to assembly of reel, install auto reel speed and height sensors using instructions packaged with kit. See page 64 for harness connection at multi-link. Route harness (A) from auto speed & height sensors as shown on instructions.
2. Clamp control box (F) to header tube using the  $\frac{1}{2}$  x 4 inch bolt at both sides of box. Position box 280 mm (11 inches) away from left header lift leg as shown.
3. Route header reel lift hose (G) *through opening at top of control box* and connect to reel lift fitting (B). Coil excess hose inside control box cover. **962 Header only:** Attach reel lift hose (from header completion package) at left of delivery opening as follows:  
For 30' headers the reel lift hose connects to hydraulic line (D).  
For 36' headers the reel lift hose connects to hose (E).

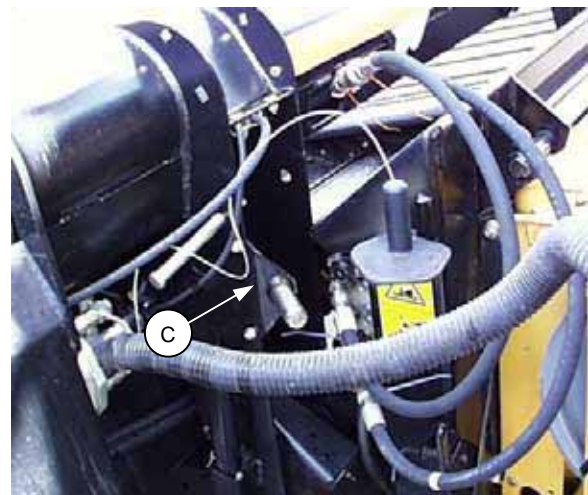


INSTALL REEL LIFT HOSE - 962

4. Install driveline support (C) to outside of left header leg with two  $\frac{3}{8}$  x  $\frac{3}{4}$  carriage bolts and flange nuts as shown.
5. Attach driveline supplied with adapter to header sickle drive shaft. Secure clamp yoke to shaft with  $\frac{1}{2}$  NC hardware provided. For storage, attach other end of driveline to anchor (C).



ATTACH CONTROL BOX

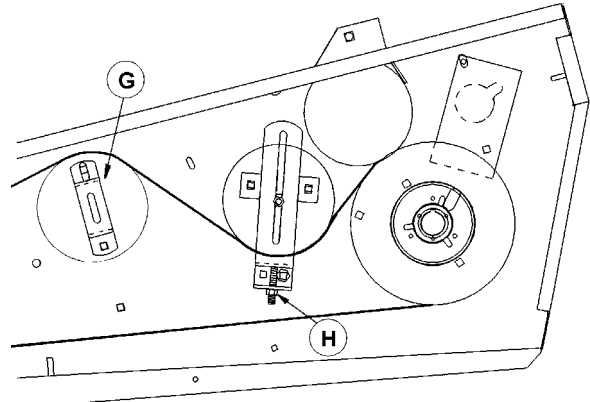


INSTALL DRIVELINE STORAGE SUPPORT

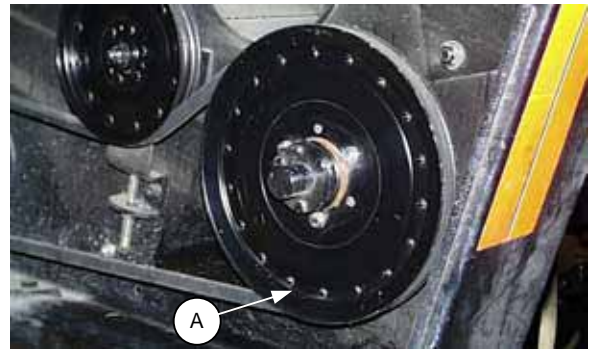
# Adapter Mounting Instructions for Cat Lexion Combines

## PREPARING THE HEADER (continued)

6. Prepare sickle drive as follows:  
**962 Header only:** Replace the existing sickle drive belt with belt provided with adapter.  
**972 Header only:** Move idler (G) to raised position shown. Belt provided with adapter is not used. Move nut (H) on idler adjusting bolt to lower position shown.  
**962 & 972 Single Sickle Headers:** Bolt the sheet metal pulley (A) provided with the adapter on the sickle drive pulley at the left end sheet, using three 3/8 x 1 bolts with lock washers.  
**Double Sickle 972:** See 972 Operators Manual "Unloading and Assembly" section for pulley positioning.
7. Install wiring harness connector provided with adapter into header wiring harness.



MOVE IDLER PULLEY – 972 HEADER

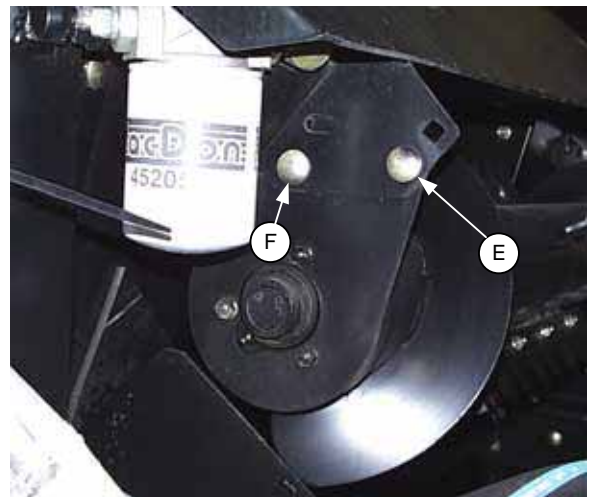


INSTALL SICKLE DRIVE PULLEY

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## PREPARING THE ADAPTER

1. Place feed auger in most rearward position.  
To adjust:
  - a. Loosen bolt (E), both sides.
  - b. Remove bolt (F), both sides and swing auger to desired position.
  - c. Replace and tighten hardware.

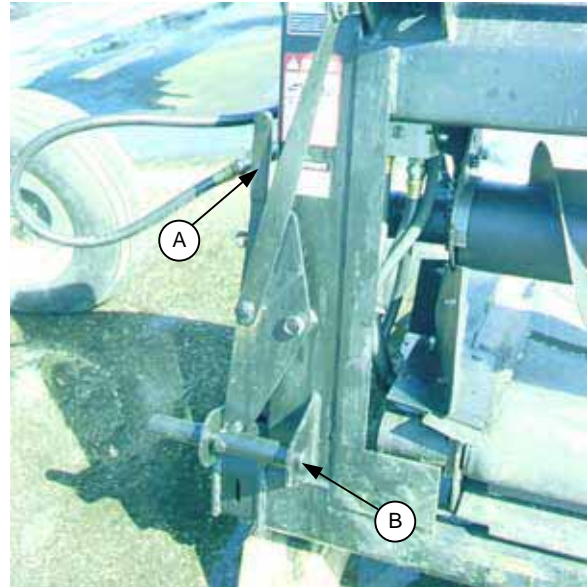


FEED AUGER FULLY REARWARD

# Adapter Mounting Instructions for Cat Lexion Combines

## PREPARING THE ADAPTER (continued)

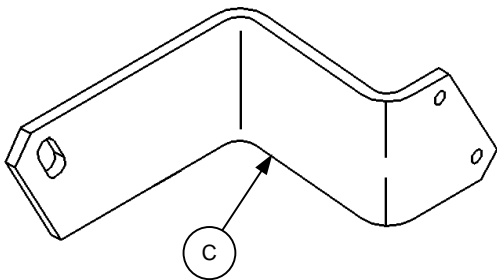
2. Release spring-loaded pin and push handle (A) inward to retract lower pins (B). This also rotates upper latches to raised position.



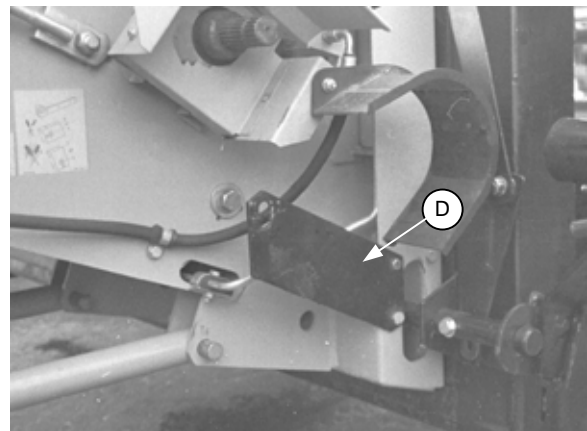
LOWER PINS RETRACTED

## PREPARING THE COMBINE

1. Check with Combine dealer to ensure combine is equipped with tire size, rear ballast etc. to carry larger headers.
2. Combine must be equipped with reel drive pump.
3. Install pump torque arm support (D) to right side of combine feeder house using 3/8 x 1-inch flange head bolts and nuts. Use straight support shown in photo for models 460/465 and 480/485. Use offset support (C) shown in illustration below for models 450/470.

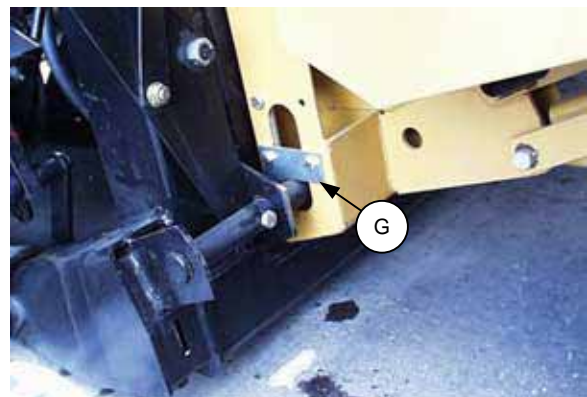


PUMP SUPPORT ARM (450/470 MODELS)



INSTALL PUMP SUPPORT ARM  
(460/465 AND 480/485 MODELS)

4. Remove dust shields (3) from feeder house.
5. Set variable speed header drive at 420 RPM.
6. Check that auto-contour cylinders on the feeder house are level and showing about 1-½ inches (38 mm) of the cylinder.  
**NOTE:** For CAC feeder houses, remove bars (G) at float slot, both sides. For non-CAC feeder houses, bars (G) are required.
7. Set feeder house lift cylinder springs to match weight of header.



REMOVE BARS – C.A.C. FEEDER

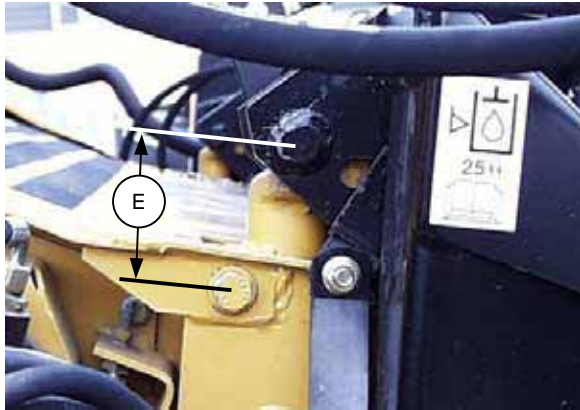


# Adapter Mounting Instructions for Cat Lexion Combines

## ATTACHING ADAPTER TO COMBINE

1. Slowly drive combine up to adapter until lift lugs (C) are hooked behind upper latches on adapter.

**NOTE:** For non-CAC feeder houses, check that dimension (E) is 148 mm (5.83"). This dimension may be 103 mm (4.05"). If so, modify header mounts per Service Bulletin 9943, or order kit B4208 from your MacDon Dealer.



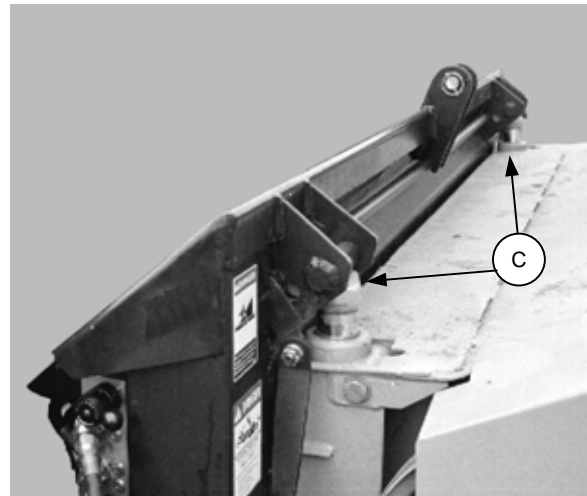
CHECK DIMENSION – NON C.A.C. FEEDER

2. Raise feeder house to lift adapter, ensuring lift lugs are properly engaged. Raise adapter fully.

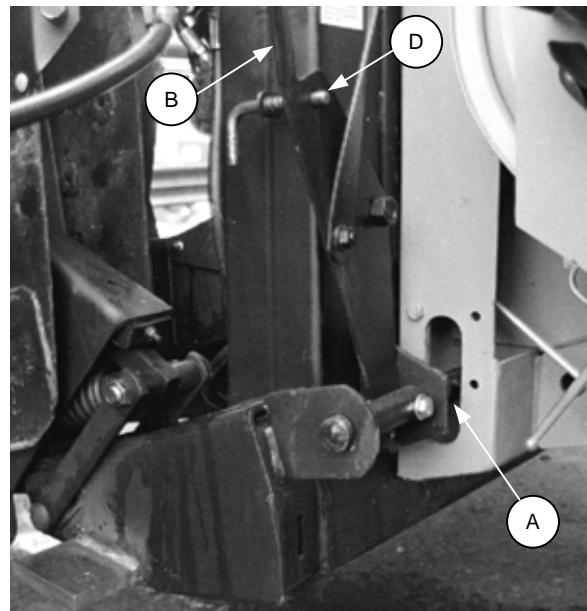


**WARNING:** To avoid bodily injury or death from unexpected start-up or fall of raised attachment; stop engine, remove key and engage lift cylinder stop before proceeding with hook-up.

3. Release spring-loaded pin and pull handle (B) outward to engage lower pins (A). Release spring-loaded pin to engage in slot (D).



ENGAGE LUGS BEHIND UPPER LATCHES



ENGAGE LOCK PINS

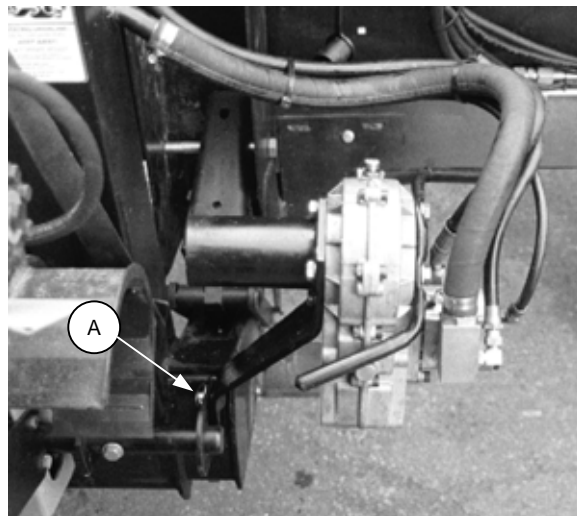
# Adapter Mounting Instructions for Cat Lexion Combines

## ATTACHING ADAPTER TO COMBINE (continued)

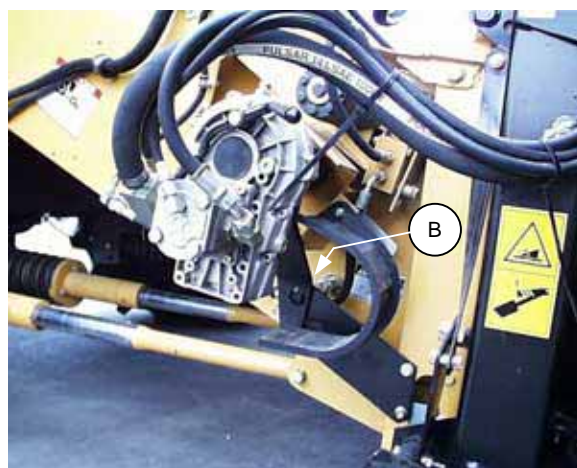
4. Install pump as follows:
  - a. Remove pump from storage position (A) on adapter and slide pump onto R/H feeder house output shaft.

**NOTE:** The first time the pump is installed, hoses may have to be loosened for proper alignment. Tighten hoses after installation.

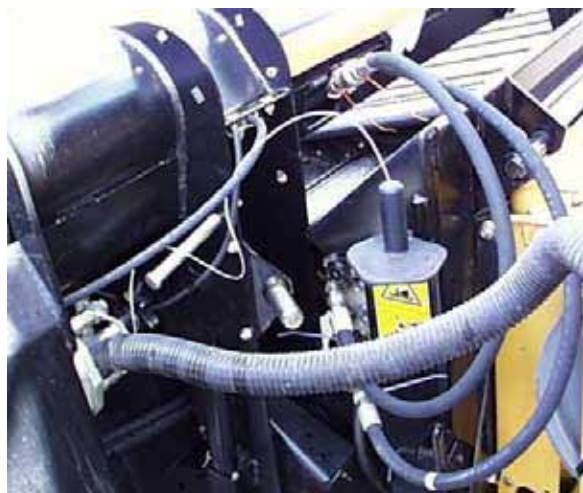
- b. Engage pump torque arm on support arm on combine and secure with lynch pin at (B).
5. Tighten combine feeder chain and check clearances.



PUMP STORAGE ON ADAPTER



PUMP IN WORKING POSITION



CONNECTIONS – LEFT SIDE

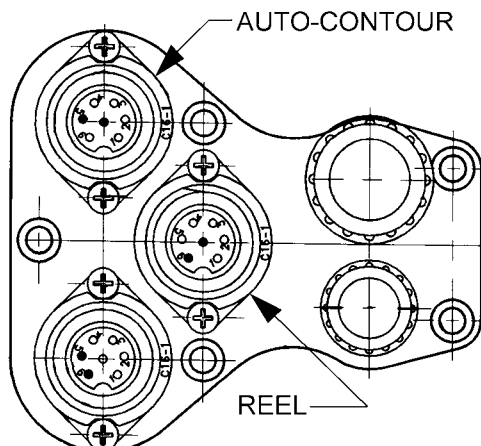


CONNECTIONS – RIGHT SIDE

# Adapter Mounting Instructions for Cat Lexion Combines

## TROUBLESHOOTING

<u>SYMPTOM</u>	<u>PROBLEM</u>	<u>SOLUTION</u>	<u>REF.</u>
Reel will not lift but hydraulic lines from combine flex when up/down button is pressed.	Multi-Link connector not threaded on completely or too loose.	Tighten multi-link connector.	
	Pressure and return improperly connected.	Correct hydraulic hose connections: The multi-block port closest to the hanger hook connects to the "T" port on valve block..	
Reel speed shows 0.0 in cab.	Reel speed sensor not picking up on sprocket.	Set sensor as follows: Turn sensor in until it touches a sprocket tooth, then back it off $\frac{3}{4}$ of a turn. If sensor is unable to touch sprocket, bend bracket as required.	
	Reel speed sensor is improperly wired.	Plug wiring harness from reel sensors into the middle port of the three ports in the multi-block. See below	
Unable to manually change reel speed, but getting a reel speed read-out in the cab.	Fuse blown in combine.	Check fuses carefully.	
Fuse in combine continues to blow when changing reel speed or height	A wire is grounding out.	Inspect header sensors and complete wiring harness	
		Disassemble multi-block and inspect internal wires.	
		Check wiring in combine.	



AUTO REEL SPEED/HEIGHT AND AUTO CONTOUR PORT CONNECTIONS



# Attaching Adapter to Header Without Combine

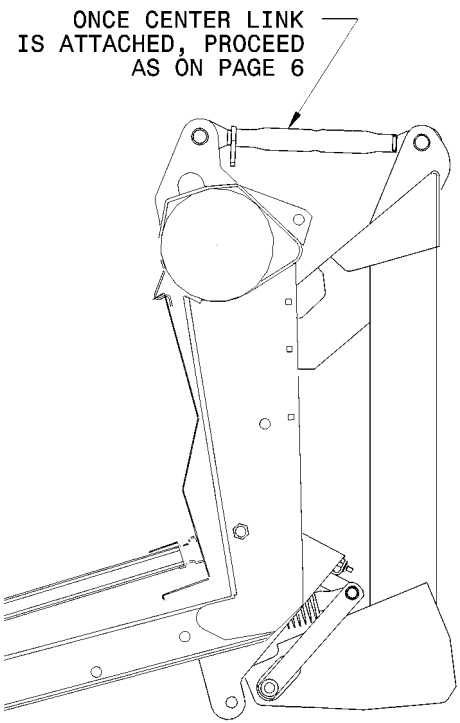
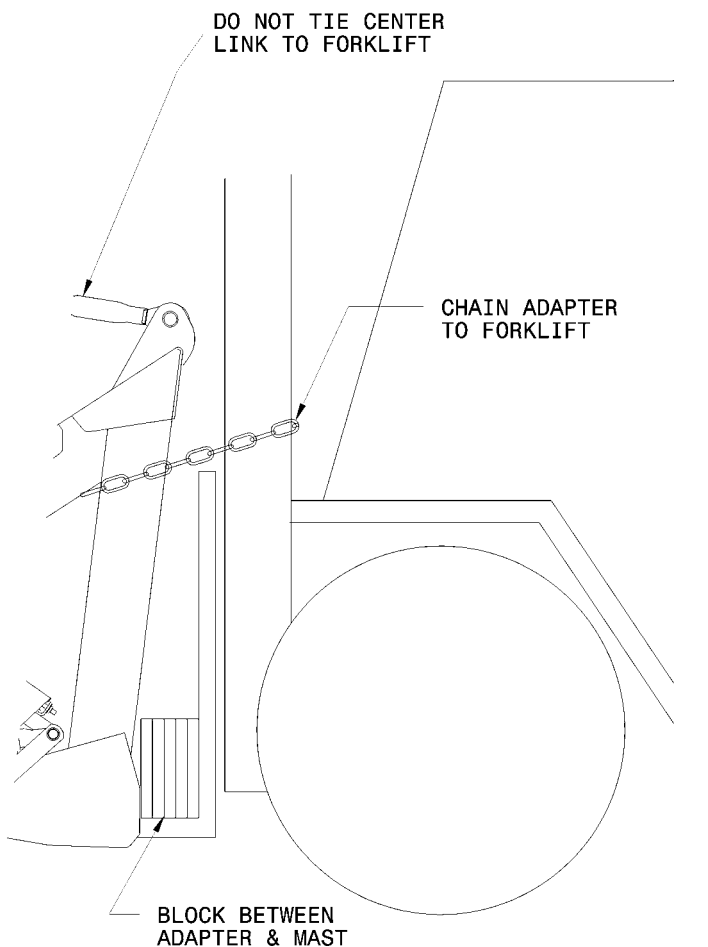
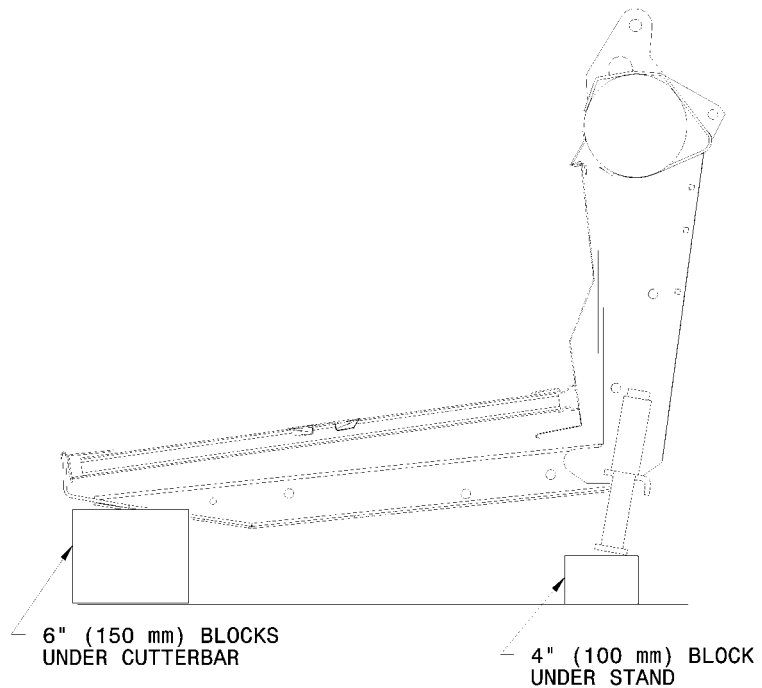
1. Block header as shown, with 6" (150 mm) blocks under cutterbar (just outboard of center legs), and a 4" (100 mm) block under header stand.

**NOTE:** When placing block under stand, position it outboard, so that viewed from back of header the block does not extend inboard where it will interfere with the adapter entering the header leg.

2. Chain the adapter to forklift mast and block at bottom between adapter and mast as shown below.

**NOTE:** Do not tie center link to forklift.

3. Drive forklift forward to insert adapter into header. If necessary, extend center link to allow connection to header. Readjust center link length after hook-up. Once the center link is attached, proceed with attachment as described on page 6.



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# 3<sup>rd</sup> FLOAT SPRING REMOVAL 21' 972 Headers

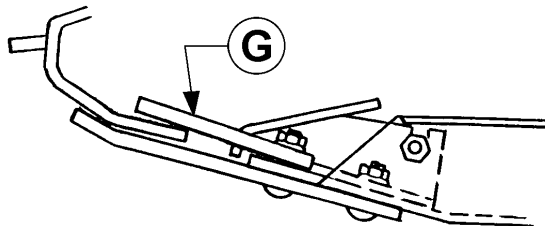
The 871 Adapter is equipped with 8 float springs per side to adequately float headers up to 36' wide. For the 21' 972 Header, this may cause header float to be excessive even when the float adjustment screw is fully backed off. In this case it may be necessary to remove the third float spring from the top on both sides of the adapter.

To remove float spring, proceed as follows:

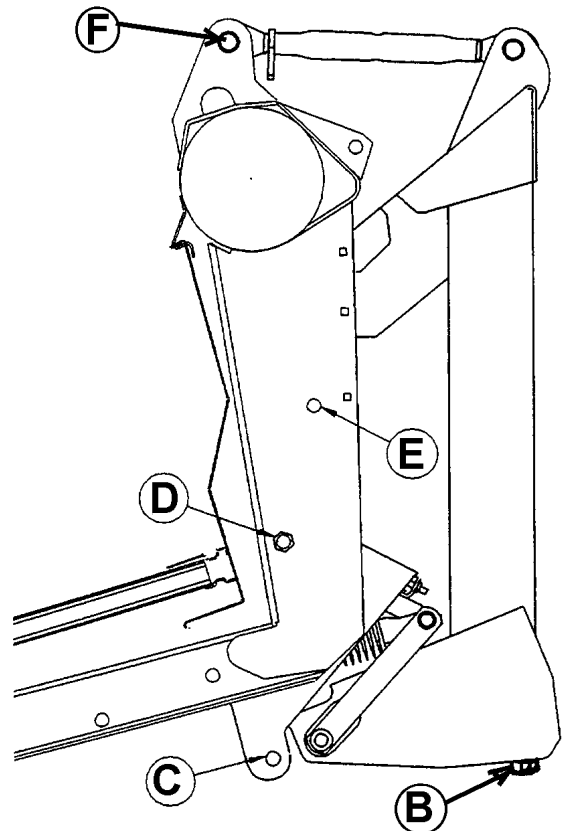
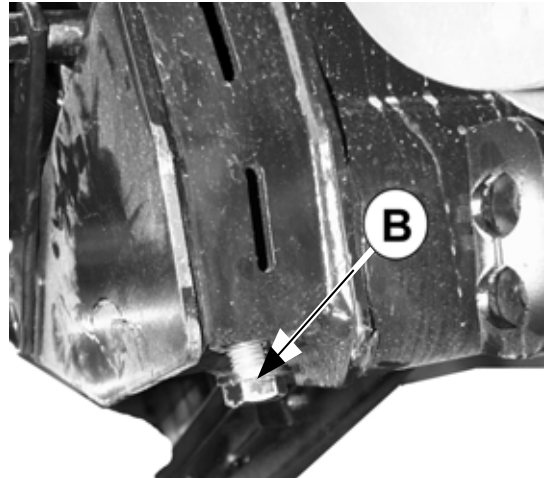


**CAUTION:** Spring removal must be done with adapter removed from header and leaf springs unloaded (stored energy released). The first steps of this procedure will safely unload leaf spring energy after removing adapter from the header.

1. Procedure MUST be performed on level area.
2. Raise reel to maximum height, engage reel props and lower reel onto props.
3. Raise header to maximum height and engage stops on feeder house cylinders.
4. Remove float lockout pins (C) and bolts (B).  
**NOTE:** It may be necessary to adjust float to allow removal of pins (C) and bolts (B). See "Header Flotation" in Operation section.
5. Remove bolts (D) which lock adapter into header.
6. Disconnect all hydraulic lines, wiring harness, drive line and pump/gearbox assembly. (Remove plastic wear strip from feed pan if necessary.)
7. Lower jack stand at left side of header.
8. Position 8" blocks at outward sides of adapter and 4" blocks under lowered jack stand.
9. Disengage feeder house cylinder stops.
10. Lower header onto blocks and place floor jack under feed pan of adapter. Loosen cutter bar anchor bolts and swing anchors (G) clear of cutter bar. Lower pan on blocks and remove jack.



11. Remove center link pin (F). It may be necessary to rotate link to allow removal.

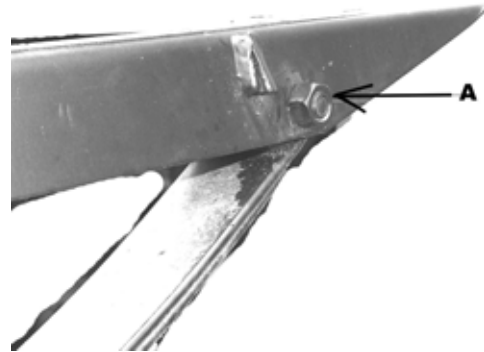


## 3<sup>rd</sup> FLOAT SPRING REMOVAL 21' 972 Headers

12. Lower adapter to clear header and slowly back adapter out of header.

13. Raise adapter to comfortable working height and support with jack stands.

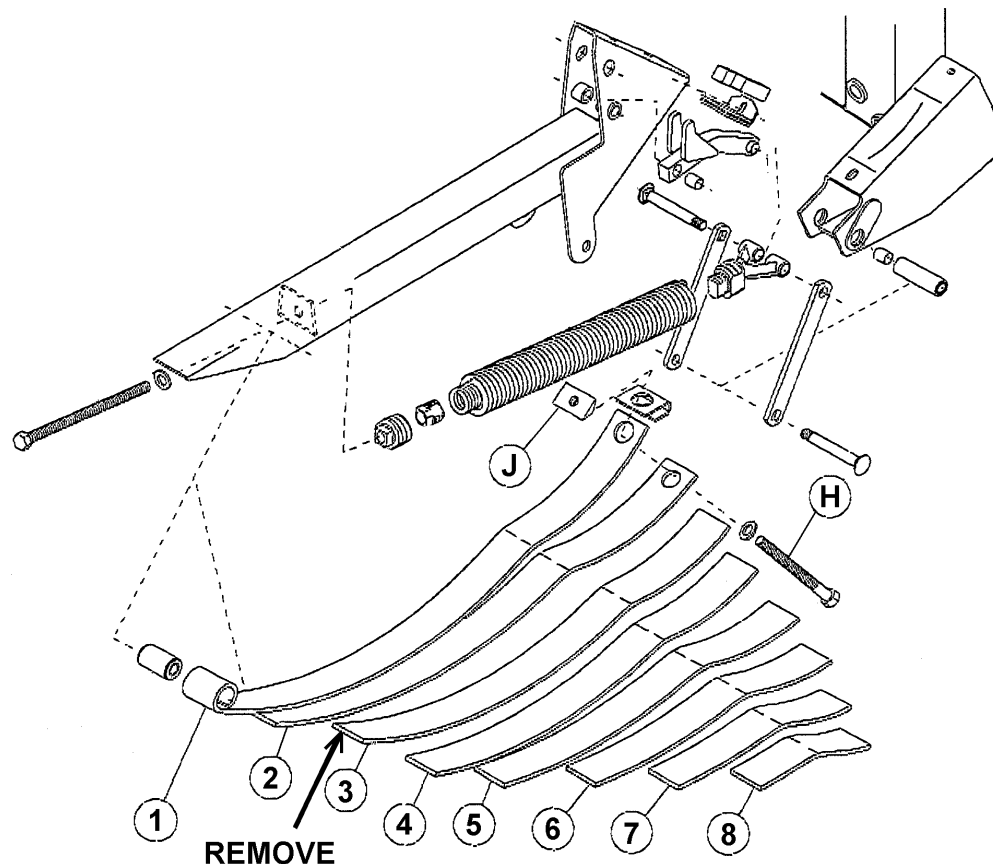
14. Remove bolts at (A) on front of leaf spring assembly.



15. Swing up tip of frame leg to clear springs and place a support. Remove banding around leaf spring and discard.

16. Remove top three springs from assembly until third leaf spring can be completely removed. Discard third spring from top and reinstall top two springs.

17. Carefully reinstall float adjusting bolt (H) into special nut (J) with tip of leaf springs raised and looking in inspection slot at rear of frame.



18. Reverse above procedure to re-install springs. Re-install adapter into header.

19. Adjust float. See "Header Flotation" in Operation section.

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