PW8
Pick-Up Header

Unloading and Assembly Instructions (North America)

169505 Revision A

Original Instruction

PW8 Combine Pick-Up Header

Published in March, 2014

Serial Number

The Serial Number plate is located on the left endsheet (A).

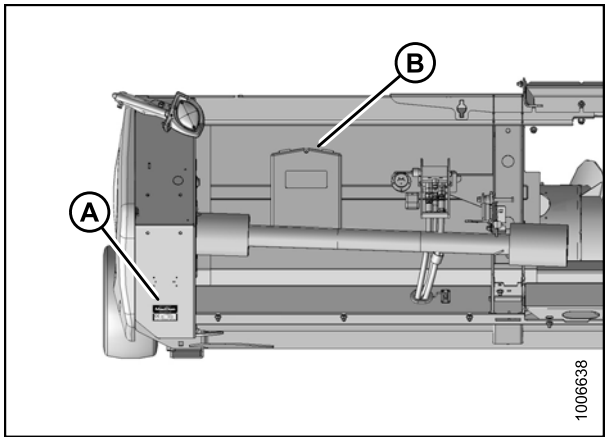


Figure 1

Introduction

This manual describes the unloading, setup, and predelivery requirements for the MacDon® PW8 Pick-Up Header for North America.

Combine	Model
Case IH	5088, 6088, 7088, 7010, 8010, 7120, 8120, 9120, 5130, 6130, 7130, 7230, 8230, 9230, 5140, 6140, 7140
John Deere	60, 70, and S Series
New Holland	All CR/CX Series

CAREFULLY READ ALL THE MATERIAL PROVIDED BEFORE ATTEMPTING TO UNLOAD, ASSEMBLE, OR USE THE MACHINE. Store this operator's manual and the parts catalog in the manual case (B) attached to the back of the header.

Use this manual as your first source of information about the machine. If you follow the instructions given in this manual, the pick-up header will work well for many years. 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.

TABLE OF CONTENTS

1 Safety

1.1 Signal Words

Three signal words, DANGER, WARNING, and CAUTION, are used to alert you to hazardous situations. The appropriate signal word for each situation 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 may also be used to alert against unsafe practices.

CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor, or moderate injury. It may be used to alert against unsafe practices.

1.2 General Safety

CAUTION

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

Protect yourself

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

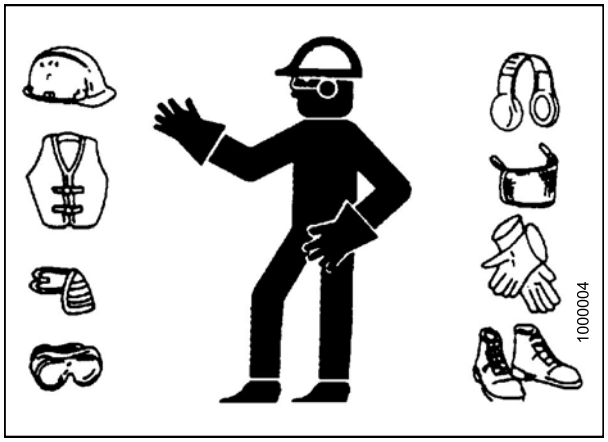


Figure 1.1

- You may need:
  - A hard hat
  - Protective footwear with slip resistant soles
  - Protective glasses or goggles
  - Heavy gloves
  - Wet weather gear
  - A respirator or filter mask
  - Hearing protection
    Be aware that exposure to loud noise can cause impairment or loss of hearing. Wearing suitable hearing protection devices such as ear muffs or ear plugs. These will help protect against objectionable or loud noises.

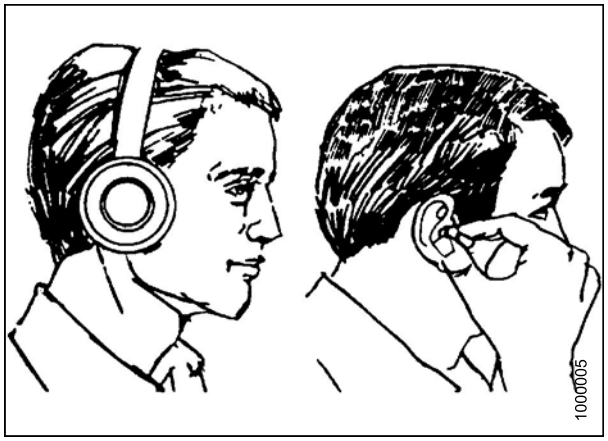


Figure 1.2

- Provide a first aid kit for use in case of emergencies.
- Keep a fire extinguisher on the machine. Be sure the fire extinguisher is properly maintained. Be familiar with its proper use.
- Keep young children away from the machinery at all times.
- Be aware that accidents often happen when the Operator is tired or in a hurry to get finished. Take the time to consider the safest way. Never ignore warning signs of fatigue.

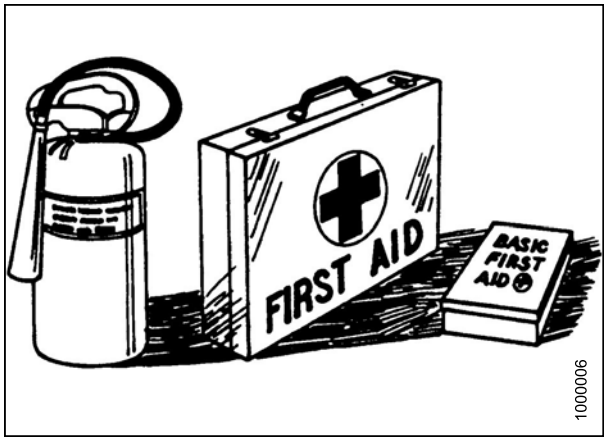


Figure 1.3

- Wear close fitting clothing and cover long hair. Never wear dangling items such as scarves or bracelets.
- Keep all shields in place. Never alter or remove safety equipment. Make sure driveline guards can rotate independently of the shaft and can telescope freely.
- Use only service and repair parts, made, or approved by the equipment manufacturer. Substituted parts may not meet strength, design, or safety requirements.

Figure 1.4

- Keep hands, feet, clothing, and hair away from moving parts. Never attempt to clear obstructions or objects, from a machine while the engine is running.
- Do **NOT** modify the machine. Non-authorized modifications may impair machine function and/or safety. It may also shorten the machine's life.
- Stop engine and remove key from ignition before leaving operator's seat for any reason. A child or even a pet could engage an idling machine.

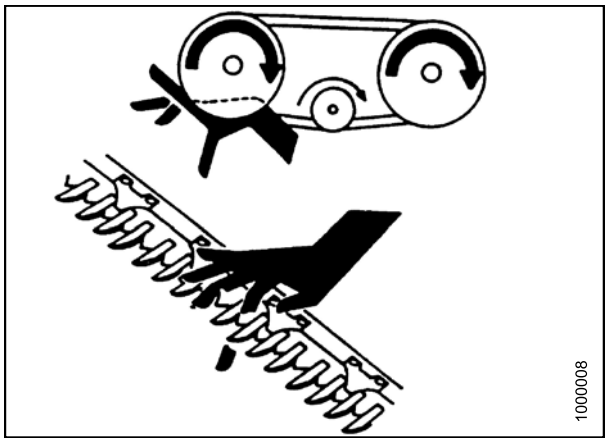


Figure 1.5

- Keep the area used for servicing machinery clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment. Be sure all electrical outlets and tools are properly grounded.
- Keep work area well lit.
- Keep machinery clean. Straw and chaff, on a hot engine, are a fire hazard. Do **NOT** allow oil or grease to accumulate on service platforms, ladders, or controls. Clean machines before storage.
- Never use gasoline, naphtha, or any volatile material for cleaning purposes. These materials may be toxic and/or flammable.
- When storing machinery, cover sharp or extending components to prevent injury from accidental contact.

Figure 1.6

1.3 Maintenance Safety

To ensure your safety while maintaining the machine:

- Review the operator's manual and all safety items before operation and/or maintenance of the machine.
- Place all controls in Neutral, stop the engine, set the park brake, remove the ignition key, and wait for all moving parts to stop before servicing, adjusting, and/or repairing.
- Follow good shop practices:
  - Keep service area clean and dry.
  - Be sure electrical outlets and tools are properly grounded.
  - Use adequate light for the job at hand.
- Relieve pressure from hydraulic circuits before servicing and/or disconnecting the machine.
- Before applying pressure to a hydraulic system, make sure all components are tight and that steel lines, hoses, and couplings are in good condition.
- Keep hands, feet, clothing, and hair away from all moving and/or rotating parts.
- Clear the area of bystanders especially children when carrying out any maintenance and repairs or when making any adjustments.
- Install transport lock or place safety stands under the frame before working under the header.
- If more than one person is servicing the machine at the same time, be aware that rotating a driveline or other mechanically driven component by hand (for example, accessing a lube fitting) will cause drive components in other areas (belts, pulleys, and knife) to move. Stay clear of driven components at all times.
- Wear protective gear when working on the machine.
- Wear heavy gloves when working on knife components.

Figure 1.7: Slip on Puddle

Figure 1.8: Keep Away

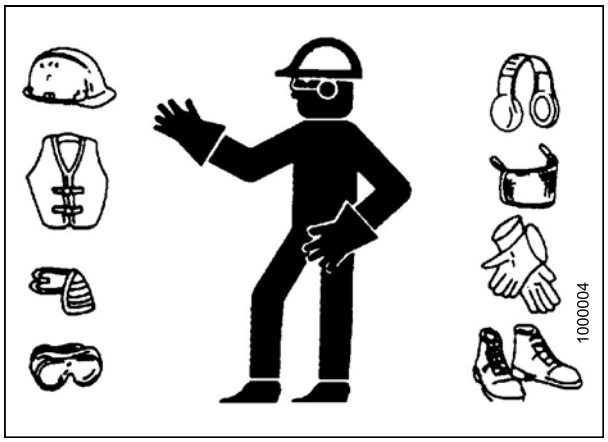


Figure 1.9: Safety Gear

1.4 Hydraulic Safety

- Always place all hydraulic controls in Neutral before dismounting.
- Make sure that all components in the hydraulic system are kept in good condition and clean.
- Replace any worn, cut, abraded, flattened, or crimped hoses and steel lines.
- Do not attempt any makeshift repairs to the hydraulic lines, fittings, or hoses by using tapes, clamps, cements, or welding. The hydraulic system operates under extremely high pressure. Such makeshift repairs will fail suddenly and create a hazardous and unsafe condition.

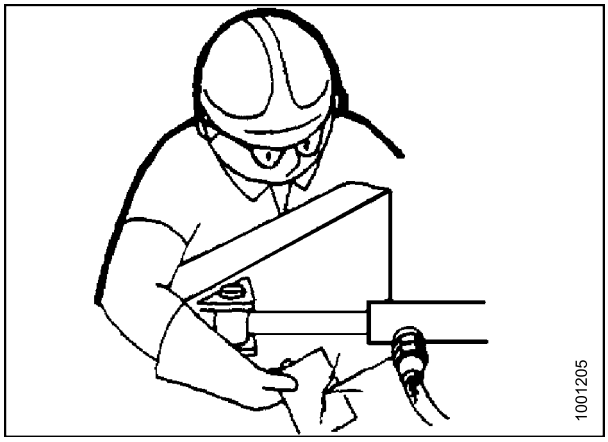


Figure 1.10: Checking Hydraulic Leaks

- Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of cardboard as a backstop instead of hands to isolate and identify a leak.
- If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin.

Figure 1.11: Hydraulic Pressure Hazard

- Before applying pressure to a hydraulic system, make sure all components are tight and that steel lines, hoses, and couplings are in good condition.

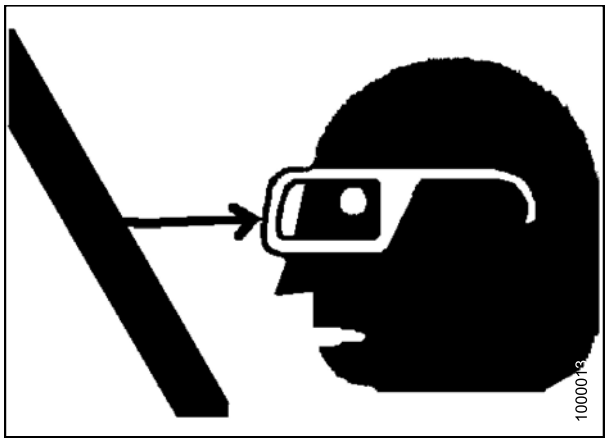


Figure 1.12: Wear Safety Glasses

1.5 Safety Signs

- 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.

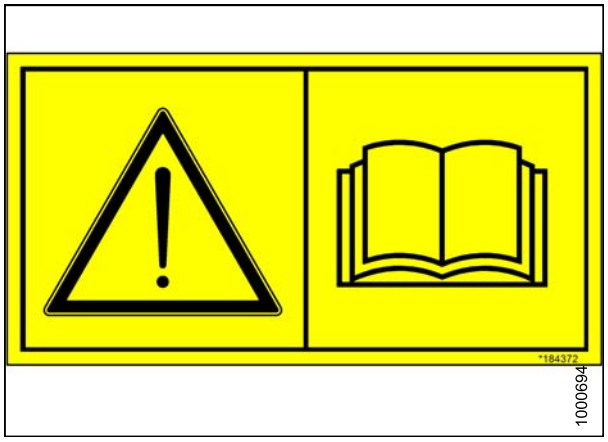


Figure 1.13: Read Operator's Manual before Operating

1.6 Safety Sign Locations

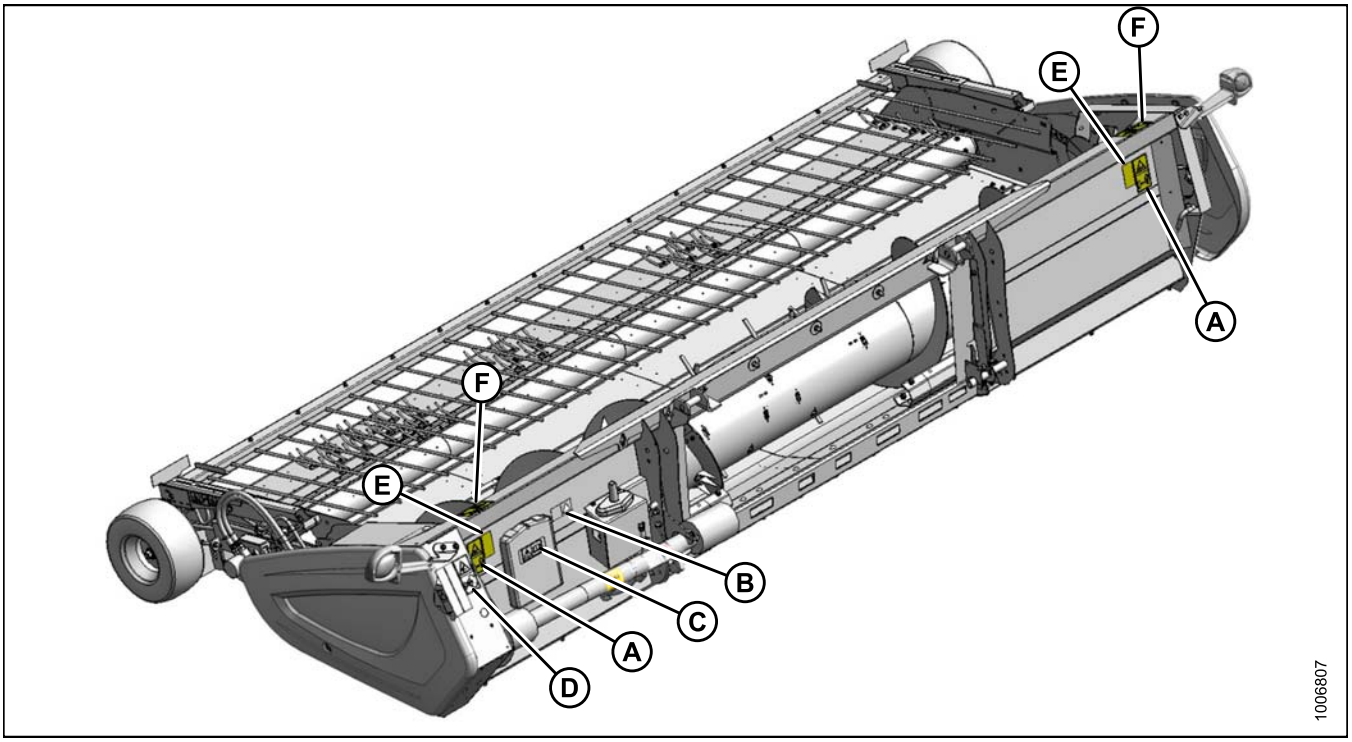
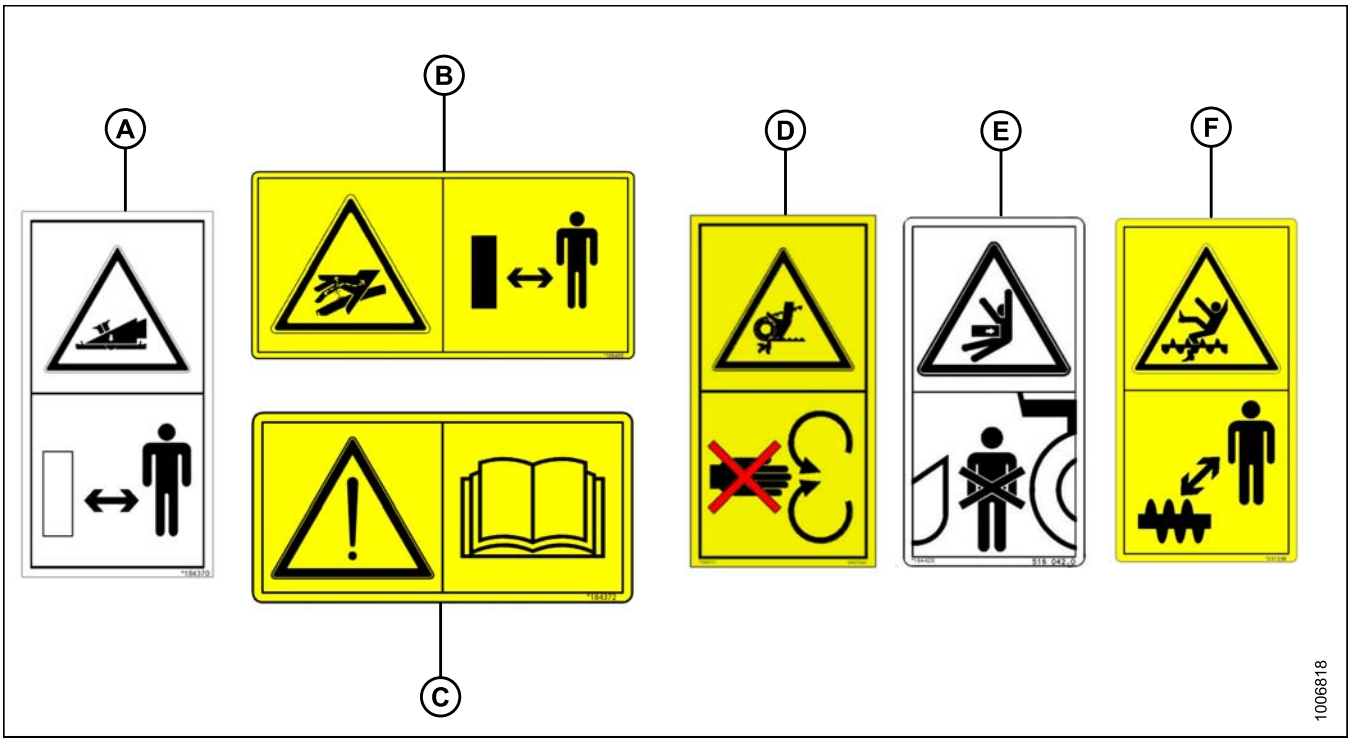


Figure 1.14: Header Decals

A - MD #184370
B - MD #166466
C - MD #184372
D - MD #184371
E - MD #184420
F - MD #237298



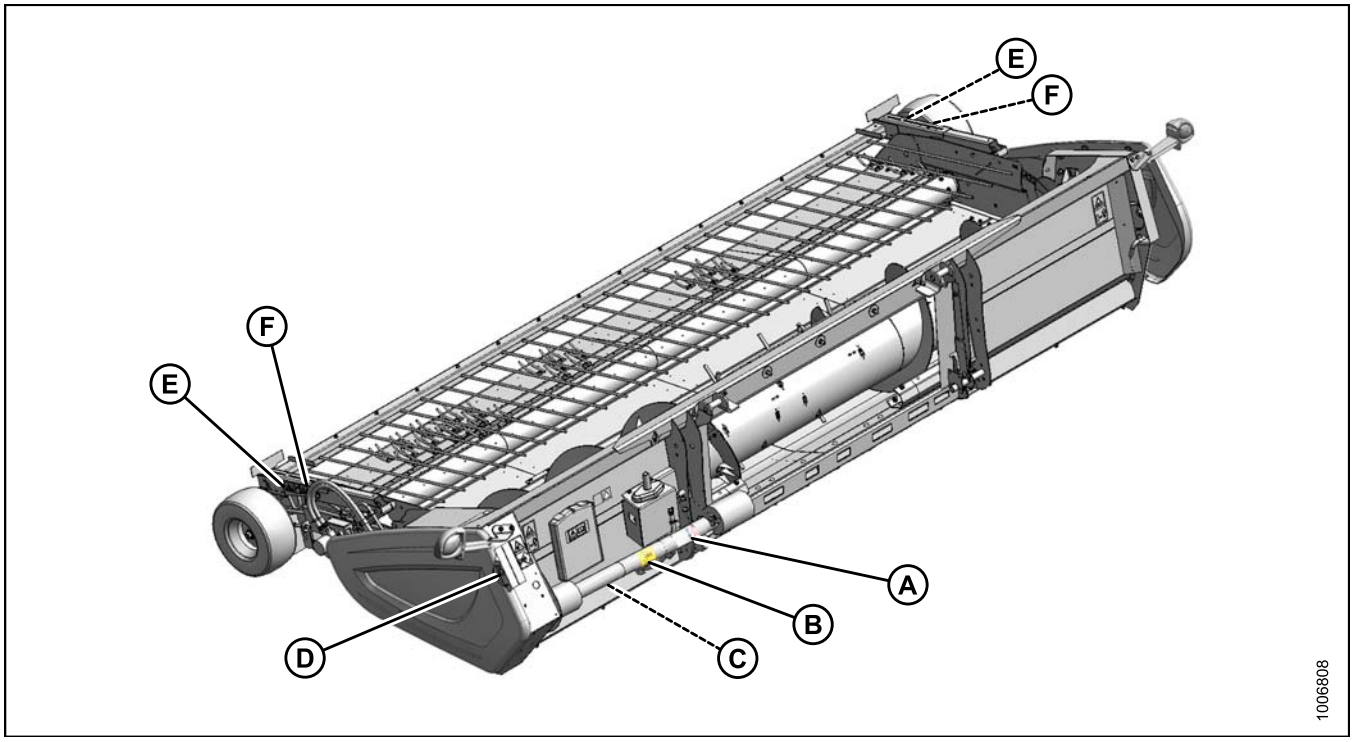
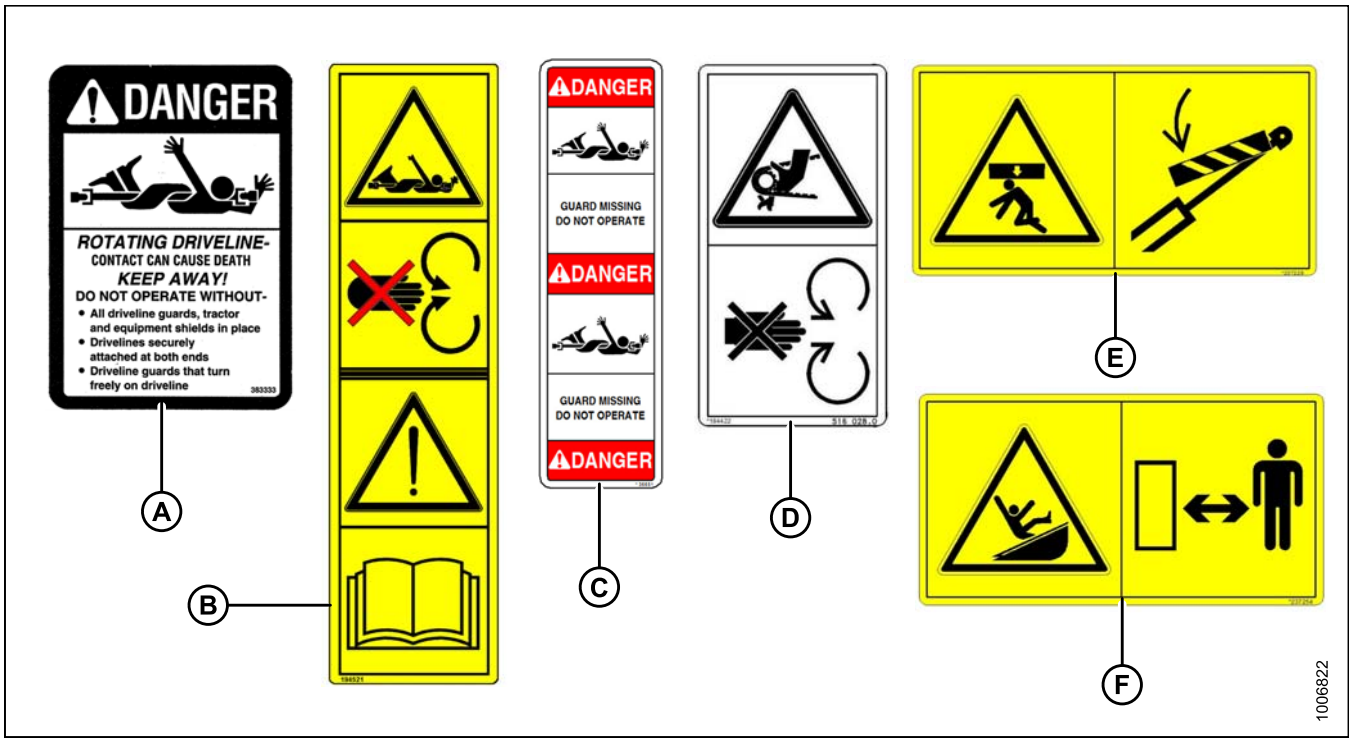


Figure 1.15: Driveline and Hold-Down Decals

A - MD #30316
B - MD #191099
C - MD #36651
D - MD #184422 (Behind Endshield)
E - MD #237229
F - MD #237254



2 Torque Specifications

2.1 Torque Specifications

The following tables give correct torque values for various bolts, cap screws, and hydraulic fittings.

- Tighten all bolts to the torques specified in chart (unless otherwise noted throughout this manual).
- Replace hardware with the same strength and grade bolt.
- Check tightness of bolts periodically, using the tables below as a guide.
- Torque categories for bolts and cap screws are identified by their head markings.

2.1.1 Metric Bolt Specifications

Table 2.1 Metric Class 8.8 Bolts and Class 9 Free Spinning Nut

Nominal Size	Torque (ft·lbf) (*in·lbf)		Torque (N·m)	
	Min.	Max.	Min.	Max.
3-0.5	*13	*14	1.4	1.6
3.5-0.6	*20	*22	2.2	2.5
4-0.7	*29	*32	3.3	3.7
5-0.8	*59	*66	6.7	7.4
6-1.0	*101	*112	11.4	12.6
8-1.25	20	23	28	30
10-1.5	40	45	55	60
12-1.75	70	78	95	105
14-2.0	113	124	152	168
16-2.0	175	193	236	261
20-2.5	341	377	460	509
24-3.0	589	651	796	879

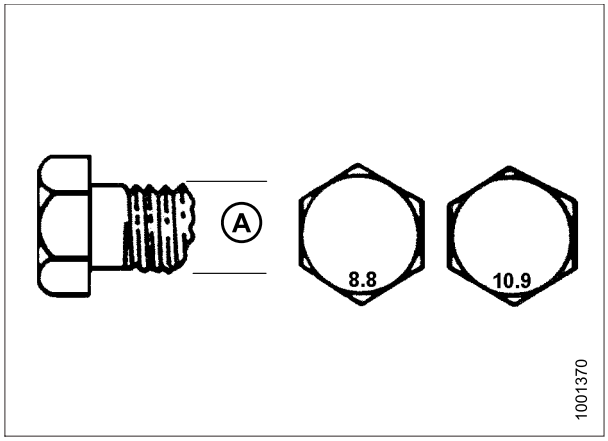


Figure 2.1

A - Nominal Size

Table 2.2 Metric Class 8.8 Bolts and Class 9 Distorted Thread Nut

Nominal Size	Torque (ft·lbf) (*in·lbf)		Torque (N·m)	
	Min.	Max.	Min.	Max.
3-0.5	*9	*10	1	1.1
3.5-0.6	*14	*15	1.5	1.7
4-0.7	*20	*22	2.3	2.5
5-0.8	*40	*45	4.5	5
6-1.0	*69	*76	7.7	8.6
8-1.25	*167	*185	18.8	20.8
10-1.5	28	30	37	41
12-1.75	48	53	65	72
14-2.0	77	85	104	115
16-2.0	119	132	161	178
20-2.5	233	257	314	347
24-3.0	402	444	543	600

Table 2.3 Metric Class 10.9 Bolts and Class 10 Free Spinning Nut

Nominal Size	Torque (ft·lbf) (*in·lbf)		Torque (N·m)	
	Min.	Max.	Min.	Max.
3-0.5	*18	*19	1.8	2
3.5-0.6	*27	*30	2.8	3.1
4-0.7	*41	*45	4.2	4.6
5-0.8	*82	*91	8.4	9.3
6-1.0	*140	*154	14.3	15.8
8-1.25	28	31	38	42
10-1.5	56	62	75	83
12-1.75	97	108	132	145
14-2.0	156	172	210	232
16-2.0	242	267	326	360
20-2.5	472	521	637	704
24-3.0	815	901	1101	1217

Table 2.4 Metric Class 10.9 Bolts and Class 10 Distorted Thread Nut

Nominal Size	Torque (ft·lbf)(*in·lbf)		Torque (N·m)	
	Min.	Max.	Min.	Max.
3-0.5	*12	*13	1.3	1.5
3.5-0.6	*19	*21	2.1	2.3
4-0.7	*28	*31	3.1	3.4
5-0.8	*56	*62	6.3	7
6-1.0	*95	*105	10.7	11.8
8-1.25	19	21	26	29
10-1.5	38	42	51	57
12-1.75	66	73	90	99
14-2.0	106	117	143	158
16-2.0	165	182	222	246
20-2.5	322	356	434	480
24-3.0	556	614	750	829

2.1.2 Metric Bolt Specifications Bolting into Cast Aluminum

Table 2.5 Metric Bolt Bolting into Cast Aluminum

Nominal Size	Bolt Torque			
	8.8 (Cast Aluminum)		10.9 (Cast Aluminum)	
	ft·lbf	N·m	ft·lbf	N·m
M3			1	
M4			2.6	4
M5			5.5	8
M6	6	9	9	12
M8	14	20	20	28
M10	28	40	40	55
M12	52	70	73	100
M14				
M16				

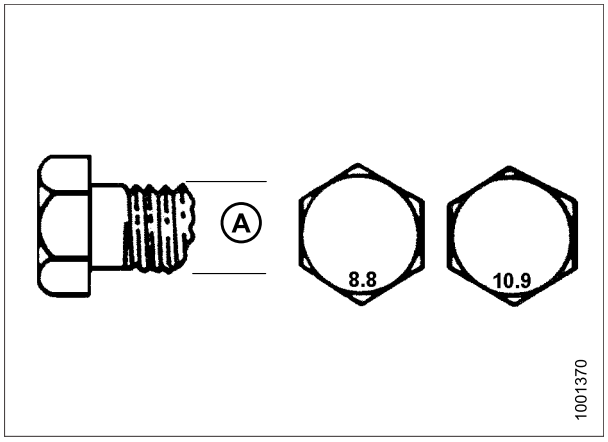


Figure 2.2

A - Nominal Size

2.1.3 Flare-Type Hydraulic Fittings

1. Check flare (A) and flare seat (B) for defects that might cause leakage.
2. Align tube (C) with fitting (D) and thread nut (E) onto fitting without lubrication until contact has been made between the flared surfaces.
3. Torque the fitting nut (E) to the specified number of FFFT or to a given torque value shown in the following table.
4. To prevent the fitting (D) from rotating, use two wrenches. Place one wrench on the fitting body (D) and tighten the nut (E) with the other wrench to the torque shown.
5. Assess the final condition of the connection.

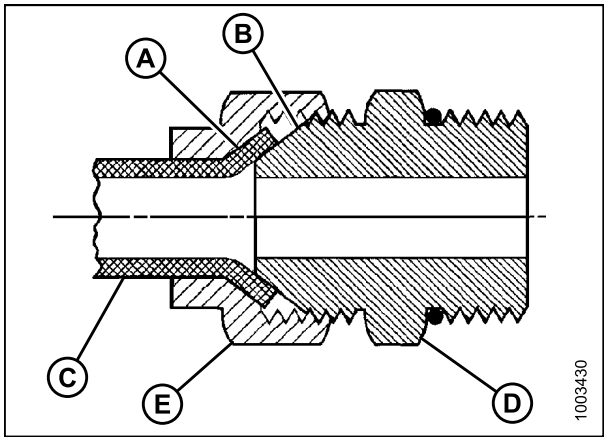


Figure 2.3

A - Flare
B - Flare Seat
C - Tube
D - Body
E - Nut

Table 2.6 Flare-Type Hydraulic Tube Fittings

SAE No.	Tube Size O.D. (in.)	Thread Size (in.)	Nut Size Across Flats (in.)	Torque Value[1]		Flats From Finger Tight (FFFT)	
				ft·lbf	N·m	Flats	Turns
3	3/16	3/8	7/16	6	8	1	1/6
4	1/4	7/16	9/16	9	12	1	1/6
5	5/16	1/2	5/8	12	16	1	1/6
6	3/8	9/16	11/16	18	24	1	1/6
8	1/2	3/4	7/8	34	46	1	1/6
10	5/8	7/8	1	46	62	1	1/6
12	3/4	1-1/16	1-1/4	75	102	3/4	1/8
14	7/8	1-3/8	1-3/8	90	122	3/4	1/8
16	1	1-5/16	1-1/2	105	142	3/4	1/8

1. Torque values shown are based on lubricated connections as in reassembly.

2.1.4 O-Ring Boss (ORB) Hydraulic Fittings (Adjustable)

1. Inspect O-ring (A) and seat (B) for dirt or obvious defects.
2. Back off the lock nut (C) as far as possible. Ensure that washer (D) is not loose and is pushed toward the lock nut (C) as far as possible.
3. Check that O-ring (A) is not on the threads, adjust if necessary.
4. Apply hydraulic system oil to the O-ring (A).

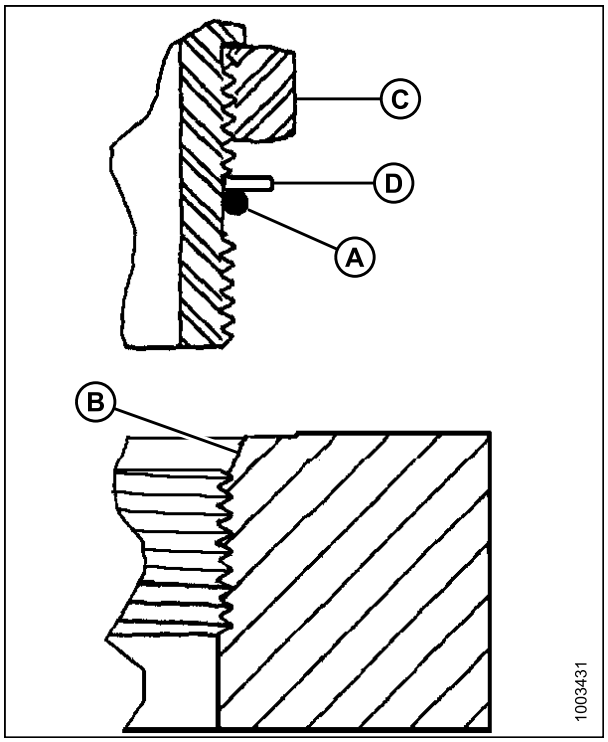


Figure 2.4

A - O-Ring **B - Seat** **C - Nut**
D - Washer

5. Install fitting (B) into port until back up washer (D) and O-ring (A) contacts on part face (E).
6. Position angle fittings by unscrewing no more than one turn.
7. Turn lock nut (C) down to washer (D) and tighten to torque shown. Use two wrenches, one on the fitting (B) and the other on the lock nut (C).
8. Check the final condition of the fitting.

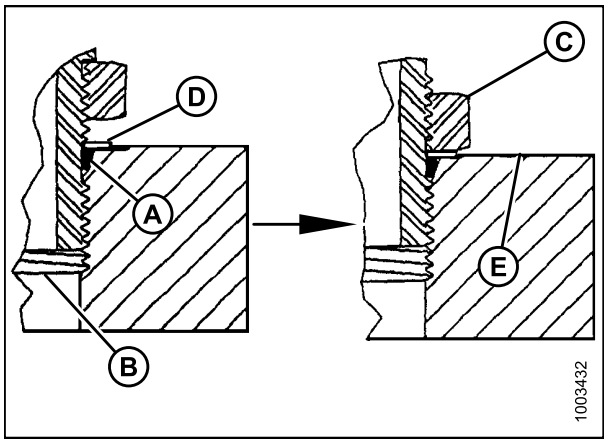


Figure 2.5

A - O-Ring **B - Fitting** **C - Nut**
D - Washer **E - Part Face**

Table 2.7 O-Ring Boss (ORB) Hydraulic Fittings (Adjustable)

SAE Dash Size	Thread Size (in.)	Torque Value[2]	
		ft·lbf (*in·lbf)	N·m
-3	3/8-24	*106–115	12–13
-4	7/16–20	14–15	19–21
-5	1/2–20	15–24	21–33
-6	9/16–18	19–21	26–29
-8	3/4–16	34–37	46–50
-10	7/8–14	55–60	75–82
-12	1-1/16-12	88–97	120–132
-14	1-3/8-12	113–124	153–168
-16	1-5/16-12	130–142	176–193
-20	1-5/8-12	163–179	221–243
-24	1-7/8-12	199–220	270–298

2. Torque values shown are based on lubricated connections as in reassembly.

2.1.5 O-Ring Boss (ORB) Hydraulic Fittings (Non-Adjustable)

1. Inspect O-ring (A) and seat (B) for dirt or obvious defects.
2. Check that O-ring (A) is not on the threads, adjust if necessary.
3. Apply hydraulic system oil to the O-ring.
4. Install fitting (C) into port until fitting is hand tight.
5. Torque fitting (C) per value in chart. See table 2.8 O-Ring Boss (ORB) Hydraulic Fittings (Non-Adjustable), page 16.
6. Check the final condition of the fitting.

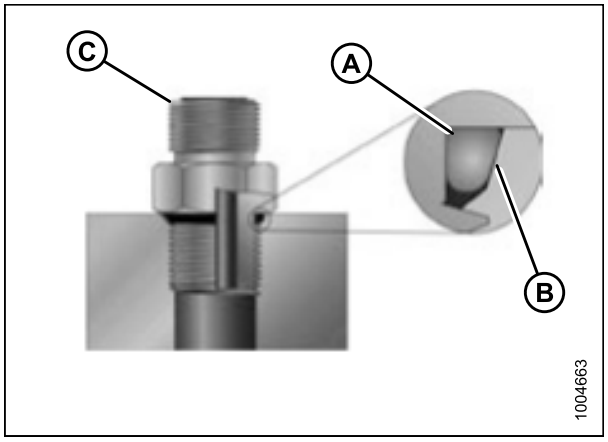


Figure 2.6

Table 2.8 O-Ring Boss (ORB) Hydraulic Fittings (Non-Adjustable)

SAE Dash Size	Thread Size (in.)	Torque Value[3]	
		ft·lbf (*in·lbf)	N·m
-3	3/8-24	*106–115	12–13
-4	7/16–20	14–15	19–21
-5	1/2–20	15–24	21–33
-6	9/16–18	19–21	26–29
-8	3/4–16	34–37	46–50
-10	7/8–14	55–60	75–82
-12	1-1/16-12	88–97	120–132
-14	1-3/8-12	113–124	153–168
-16	1-5/16-12	130–142	176–193
-20	1-5/8-12	163–179	221–243
-24	1-7/8-12	199–220	270–298

3. Torque values shown are based on lubricated connections as in reassembly.

2.1.6 O-Ring Face Seal (ORFS) Hydraulic Fittings

To tighten O-ring face seal (ORFS) hydraulic fittings, follow these steps:

1. Check components to ensure that the sealing surfaces and fitting threads are free of burrs, nicks, and scratches or any foreign material.

Figure 2.7

2. Apply hydraulic system oil to the O-ring (B).
3. Align the tube or hose assembly so that the flat face of the sleeve (A) or (C) comes in full contact with O-ring (B).
4. Thread tube or hose nut (D) until hand-tight. The nut should turn freely until it is bottomed out.
5. Torque fitting further to the torque value in the table shown in the opposite column.

NOTE: If applicable, hold the hex on the fitting body (E) to prevent rotation of fitting body and hose when tightening the fitting nut (D).

6. When assembling unions or two hoses together, three wrenches will be required.
7. Check the final condition of the fitting.

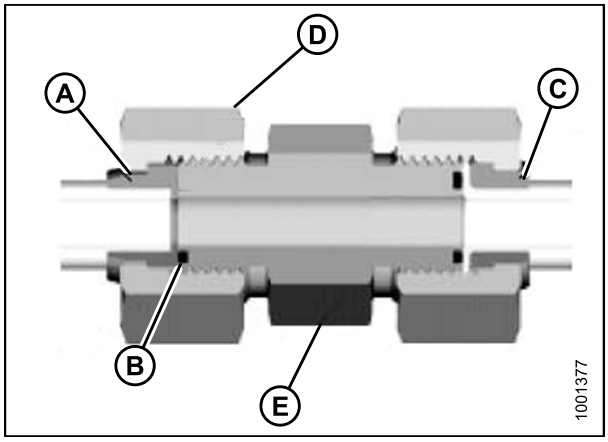


Figure 2.8

A - Brazed Sleeve
B - O-ring
C - Two Piece Sleeve
D - Nut
E - Fitting Body

Table 2.9 O-Ring Face Seal (ORFS) Hydraulic Fittings

SAE Dash Size	Thread Size (in.)	Torque Value[4]	
		ft·lbf (*in·lbf)	N·m
-3	Note [5]	–	–
-4	9/16–18	18–21	25–28
-5	Note [5]	–	–
-6	11/16-16	29–32	40–44
-8	13/16-16	41–45	55–61
-10	1–14	59–65	80–88
-12	1-3/16-12	85–94	115–127
-14	Note [5]	–	–
-16	1-7/16-12	111–122	150–165
-20	1-11/16-12	151–167	205–226
-24	2–12	232–256	315–347
-32	2-1/2-12	376–414	510–561

4. Torque values and angles shown are based on lubricated connection, as in reassembly.
5. O-ring face seal type end not defined for this tube size

3 Conversion Chart

Quantity	Inch-Pound Units		Factor	SI Units (Metric)	
	Unit Name	Abbreviation		Unit Name	Abbreviation
Area	acres	acres	x 0.4047 =	hectares	ha
Flow	US gallons per minute	gpm	x 3.7854 =	liters per minute	L/min
Force	pounds force	lbf	x 4.4482 =	Newtons	N
Length	inch	in.	x 25.4 =	millimeters	mm
	foot	ft.	x 0.305 =	meters	m
Power	horsepower	hp	x 0.7457 =	kilowatts	kW
Pressure	pounds per square inch	psi	x 6.8948 =	kilopascals	kPa
			x .00689 =	megapascals	MPa
			÷ 14.5038 =	bar (non-SI)	bar
Torque	pound feet or foot pounds	ft·lbf	x 1.3558 =	newton meters	N·m
	pound inches or inch pounds	in·lbf	x 0.1129 =	newton meters	N·m
Temperature	degrees fahrenheit	˚F	(˚F-32) x 0.56 =	Celsius	˚C
Velocity	feet per minute	ft/min	x 0.3048 =	meters per minute	m/min
	feet per second	ft/s	x 0.3048 =	meters per second	m/s
	miles per hour	mph	x 1.6063 =	kilometres per hour	km/h
Volume	US gallons	US gal	x 3.7854 =	liters	L
	ounces	oz.	x 29.5735 =	milliliters	ml
	cubic inches	$in.^3$	x 16.3871 =	cubic centimetres	cm^3 or cc
Weight	pounds	lbs	x 0.4536 =	kilograms	kg

4 Shipping Data

The following data includes shipping stands:

Length	Width	Height	Weight[6]
17 ft.– 5 in. (5318 mm)	39–3/8 in. (1000 mm)	8 ft.– 5-1/2 in. (2579 mm)	3550 lb. (1612 kg)

6. Weight is approximate and depends on combine completion package

5 Unloading the Header

Follow each of the procedures in this chapter in order.

5.1 Unloading with a Forklift

The Header/Pick-Up combination units are shipped from the factory in the vertical position

NOTE: Extra hardware shipped with units can be found inside the manual storage case at the back of the header. Loose parts are strapped to the header.

NOTE: The proper method for lifting the pick-up/header by lift truck while in the shipping configuration is shown below.

NOTE: It is recommended that the unit be stored in the horizontal position after being received. If being stored in the vertical position, ensure that the storage surface is flat and hard.

WARNING

Be sure all persons/pets are clear when moving the pick-up/header.

CAUTION

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

CAUTION

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

Lifting Vehicle (Forklift or equivalent)	
Minimum lifting capacity*	5000 lb (2270 kg)
Minimum fork length	78 in. (1981 mm)

* At 48 in. (1220 mm) from back end of forks.

IMPORTANT:

Forklifts are normally rated for a load located 24 inches (610 mm) from back end of forks. To obtain forklift capacity at 48 inches (1220 mm), check with your forklift distributor.

To unload headers from a trailer, follow these steps:

UNLOADING THE HEADER

1. Move trailer into position on level ground, and then block trailer wheels.
2. Lower trailer storage stands.
3. Approach side of trailer with forklift.
4. Adjust width of forks to line up with shipping stand pockets (A).
5. Slowly slide the forks into the shipping stand pockets.

WARNING

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

CAUTION

Avoid lifting the second header and ensure the forks do not interfere with the shipping frame. If the forks contact the second header, damage to the headers may occur.

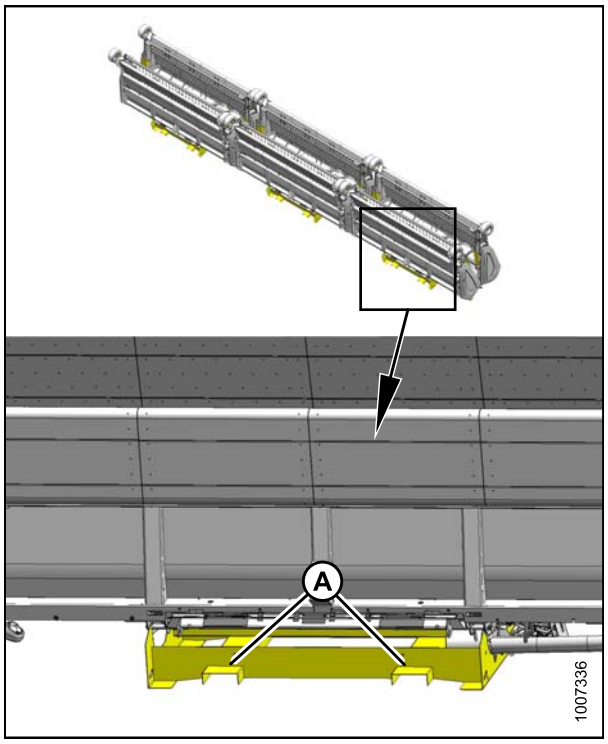


Figure 5.1: Header Shipping

IMPORTANT:

Attempting to lift header/pick-up with forks not engaged in lift pockets may result in an unstable load and/or damage to shipping stands.

6. Raise header off deck and back up until forks clear trailer.
7. Slowly lower to 6 in. (150 mm) from ground.
8. Take header to storage or set up area, and place on level hard ground.
9. Check header for shipping damage, and check shipment for missing parts.
10. Repeat above steps for remaining headers.

Figure 5.2: Unloading the Header

5.2 Lowering Header

IMPORTANT:

These instructions are for lowering the unit only. Lifting should only be done using a forklift and the shipping stand.

1. Attach a spreader bar (A) to forklift or equivalent. Spreader bar should have a minimum working load of 5000 lb. (2270 kg).
2. Attach the spreader bar chains (B) to the lifting lug (C) on each end of the pick-up as shown. Do not attach chains to, or through hold-down components.

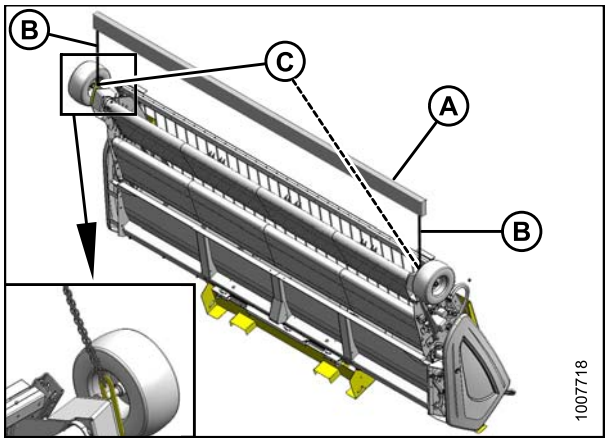


Figure 5.3: Attaching Spreader Bar

A - Spreader Bar **B - Chains** **C - Lifting Lugs**

IMPORTANT:

Damage to pick-up/header resulting from lowering the unit with alternate methods will not be covered by warranty.

3. Slowly back up forklift while lowering the header to the ground.
4. Remove chains (A) from header lugs.
5. Proceed to 5.3 Removing Shipping Stands, page 26.

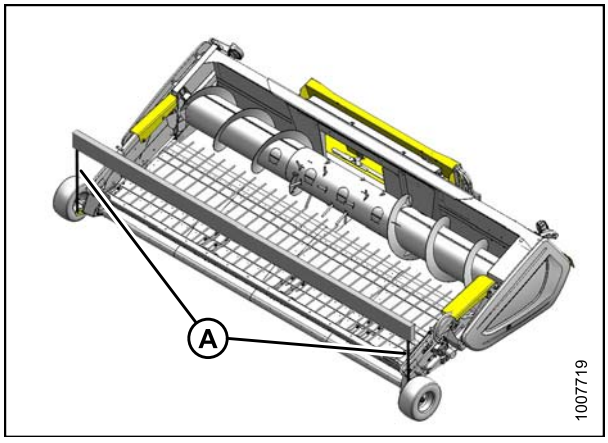


Figure 5.4: Lowering Header

5.3 Removing Shipping Stands

The removable stands are painted yellow.

NOTE: Unless otherwise specified, discard stands as well as all shipping material and hardware.

CAUTION

Shipping stands are extremely heavy. Use caution when detaching shipping stands.

1. Slightly raise the rear of the header with a forklift or equivalent and place wooden blocks (A) under the lower beam as shown.
2. Lower header onto blocks so that shipping stand (B) is off the ground.

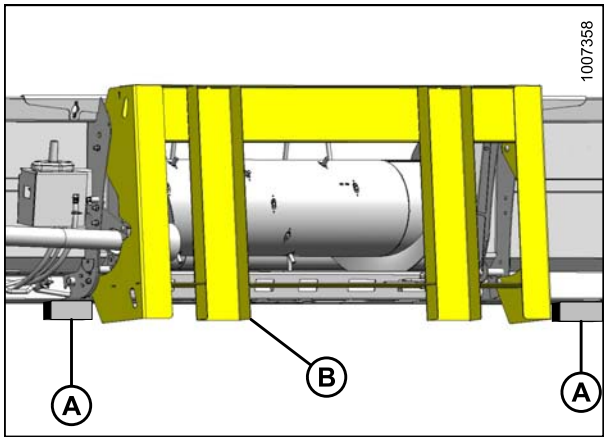


Figure 5.5: Supporting the Header

3. Remove the two bolts (A) near the top of the stand and allow the stand to rotate aft until it rests on the ground.
4. Remove the two lower bolts (B) and remove stand.

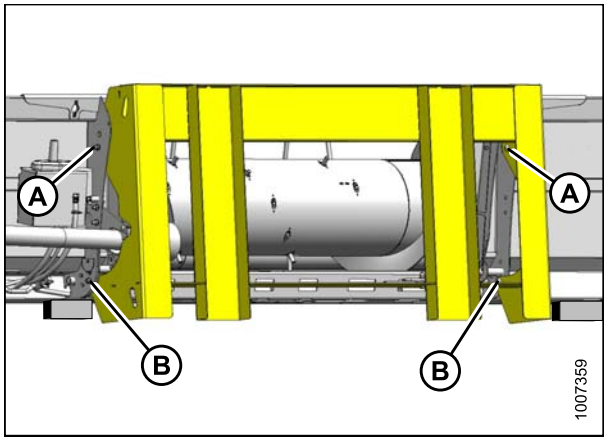


Figure 5.6: Removing Stand

5. Relieve load on support bolts (A) and (B) by lifting draper deck until bolts are loose.
6. Remove bolts (A) and (B) and remove support (C).
7. Similarly remove support from opposite end of header.

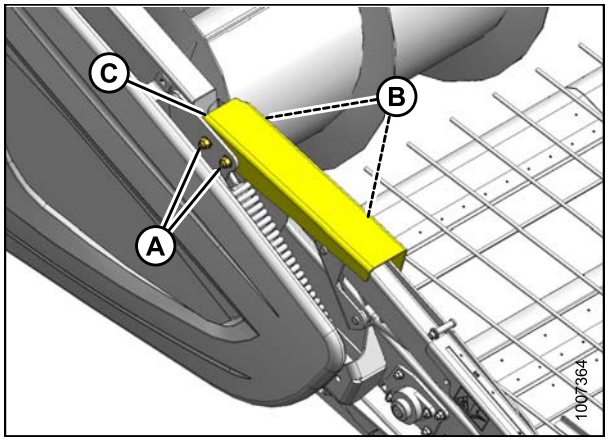


Figure 5.7: Removing Support

8. Remove bolt (A) from lifting lug (B).
9. Loosen bolt (C) and slide lug (B) in direction of arrow until bolt (C) disengages slot in pickup.
10. Similarly remove lug from opposite end of header.

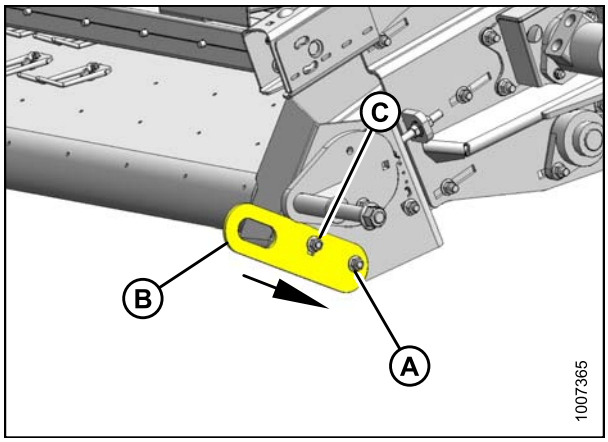


Figure 5.8: Removing Lug

11. Remove two nuts (A).
12. Loosen two nuts (B) and remove bumper (C).

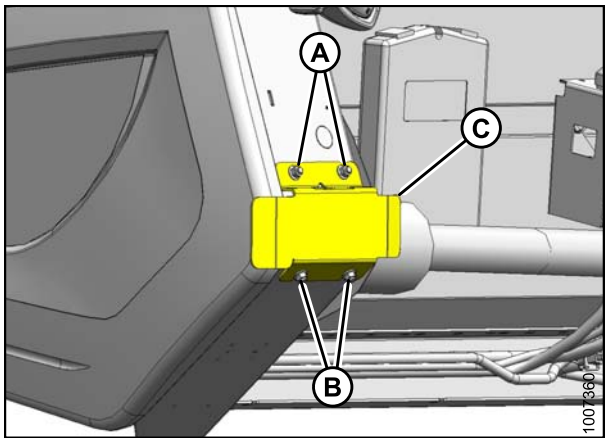


Figure 5.9: Removing Bumper

13. Open the left endshield. See 5.3.1 Opening LH Endshield, page 28
14. Remove four bolts (A). Discard the hardware.
15. Leave endshield open for next procedure.

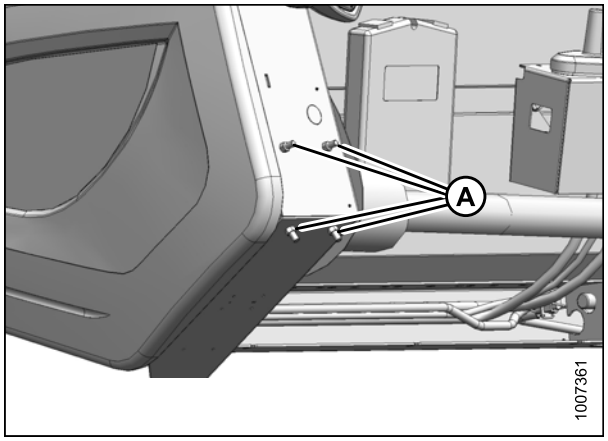


Figure 5.10

5.3.1 Opening LH Endshield

1. Unlock endshield (B) by turning latch (A) counterclockwise until it stops (slightly more than one-half turn) using a standard end screwdriver.

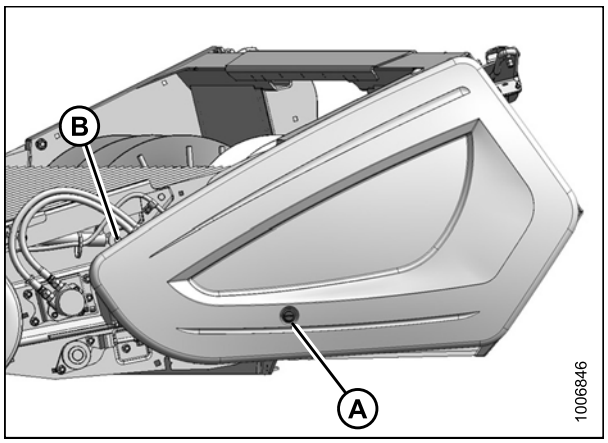


Figure 5.11: Endshield Closed

2. Grasp forward end of endshield (A) and pull open until support (B) engages and holds endshield in open position.

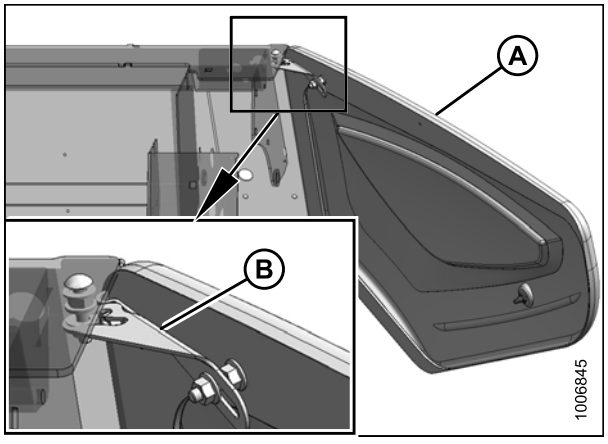


Figure 5.12: Endshield Open

6 Assembling the Header

6.1 Installing Crop Deflectors

The crop deflectors are provided for operation in crops where there is a tendency for stems to collect under the hold-down support arm pivot. If they will not be installed, remove them from the auger drive compartment and store them in the combine cab or other suitable location.

1. If closed, open the left endshield.
2. Remove bolt (A) and remove the crop deflectors (B) and bag of installation hardware from inside the left endsheet.
3. Close the endshield. See 6.1.1 Closing LH Endshield, page 30.

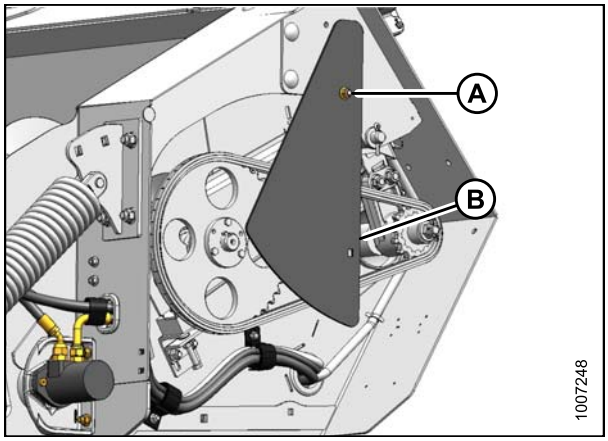


Figure 6.1: Crop Deflectors

4. Position crop deflector (A) onto header endsheet as shown and install with two M12x25 bolts (B) and nuts provided in bag. Bolt heads must face inboard.
5. Repeat above step for opposite deflector.

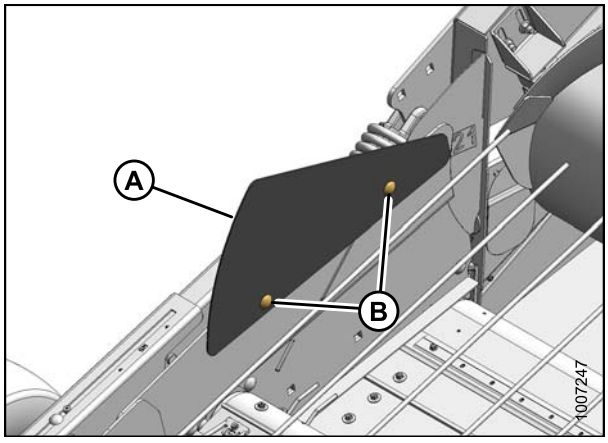


Figure 6.2: Installing Deflector

6.1.1 Closing LH Endshield

1. Move the endshield (A) slightly so that support (B) can be moved out of lock position.

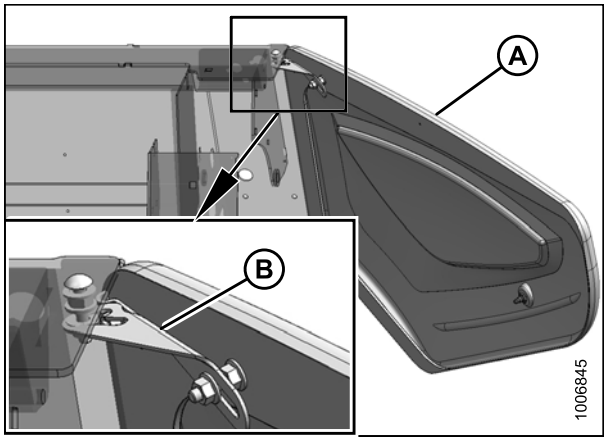


Figure 6.3: Disengaging Support

2. Close shield (A), ensuring that magnet (B) and stop (C) in header frame are aligned. This will ensure that the latch (D) will line up with the receptacle (E).

NOTE: Latch (D) and magnet (B) positions are properly adjusted at the factory.

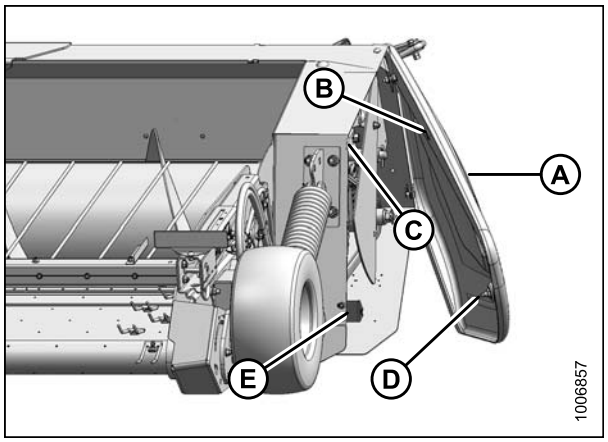


Figure 6.4: Closing Endshield

3. If required, loosen nuts (B) on clips (C) at the back of the shield (A) and reposition the shield as required. Tighten the nuts (B) but do not overtighten to prevent damage to the shield.

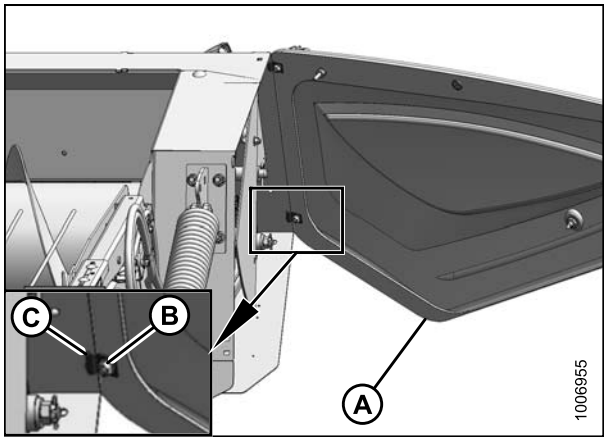


Figure 6.5

4. Close the shield and turn latch (A) clockwise until it stops (slightly more than one-half turn) using a standard end screwdriver.
5. Check that magnet (B) on endshield is against the header endsheet and that latch is engaged.

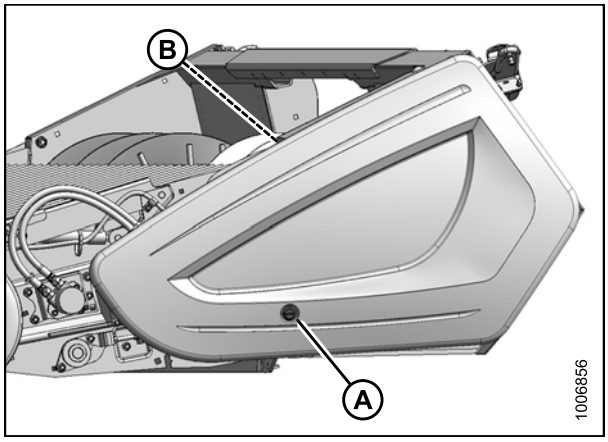


Figure 6.6: Endshield Closed

6.2 Repositioning Driveline Storage Bracket

1. Remove shipping wire securing driveline to header.
2. Rotate locking disc (A) as shown, and remove driveline from bracket (B).
3. Remove the two bolts (C) securing bracket (B) to header leg and remove bracket.

NOTE: For Case and New Holland combines, re-install bolts (C) to secure locking mechanism (D). For all other combines, retain hardware.

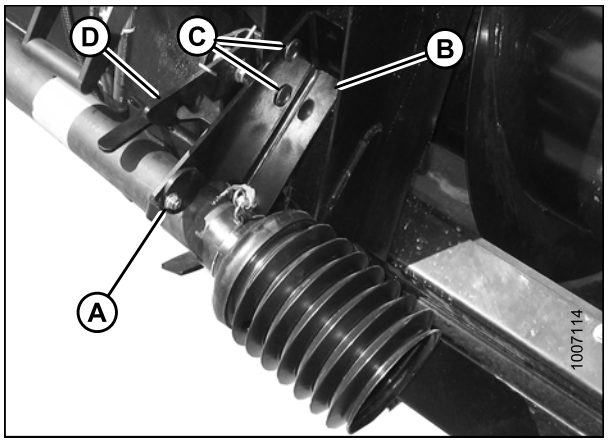


Figure 6.7: Removing Bracket

A - Locking Disc **B - Bracket**
C - Two Bolts **D - Locking Mechanism (Case, NH)**

4. For Case New Holland, retrieve two M12x30 carriage bolts and locking nuts from hardware bag (B) in manual case (A).

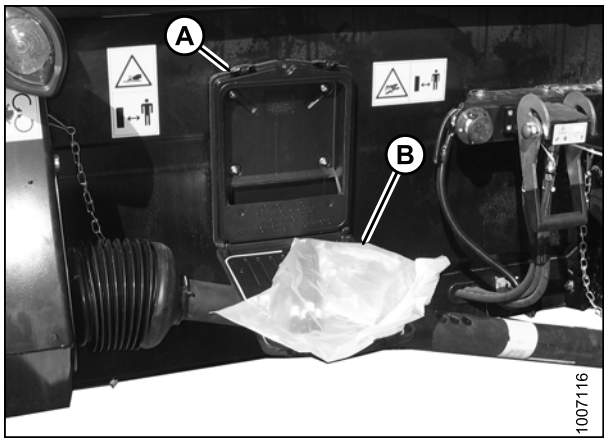


Figure 6.8: Hardware Bag

5. Loosely install one carriage bolt (A) and locking nut in bracket (B), and the other bolt and nut in slot (C) in header frame.

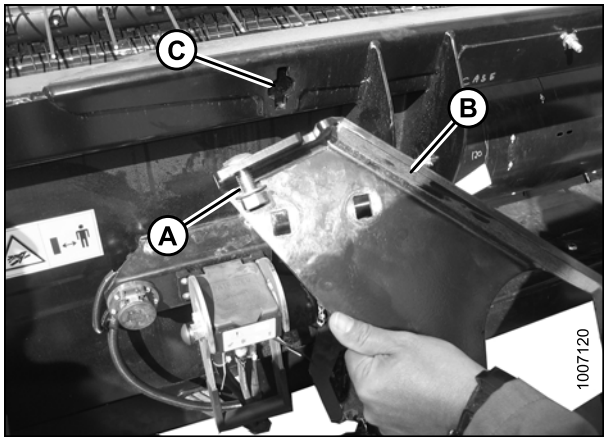


Figure 6.9: Pre-Installing Hardware

A - Carriage Bolt **B - Bracket** **C - Slot**

6. Position bracket (A) against header frame, and locate the pre-installed bolt (B) in bracket, into upper slot in frame.
7. Swivel bracket (A) so that slot in bracket engages bolt (B) in lower slot in frame.
8. Tighten the two nuts.

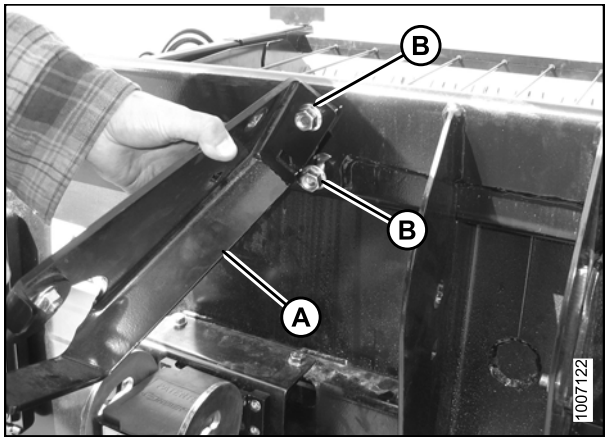


Figure 6.10: Installing Bracket

9. Place driveline in bracket, ensuring that locking disc (A) keeps driveline in place.

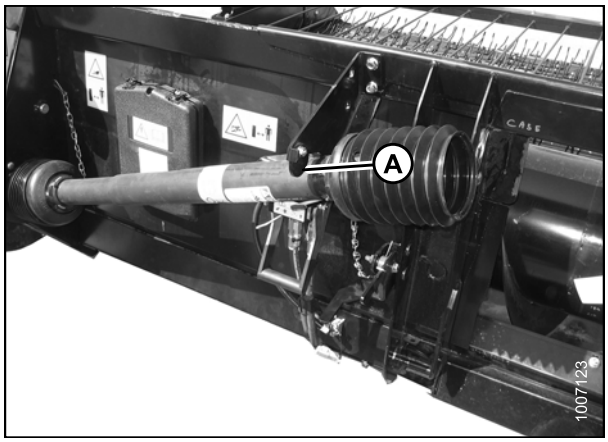


Figure 6.11: Storing Driveline

6.3 Adjusting Transport Lights

The transport lights are located at each end of the header, and are used when driving the combine on the road with the header attached. They should be positioned perpendicular to the endsheet. If they require repositioning, swivel the lights to the correct position with hand force.

1. If the swivel is too loose or too tight, loosen jam nut (A), and turn nut (B) so that the light maintains its position and can be moved with hand force. Do not over-tighten.
2. Tighten jam nut (A).

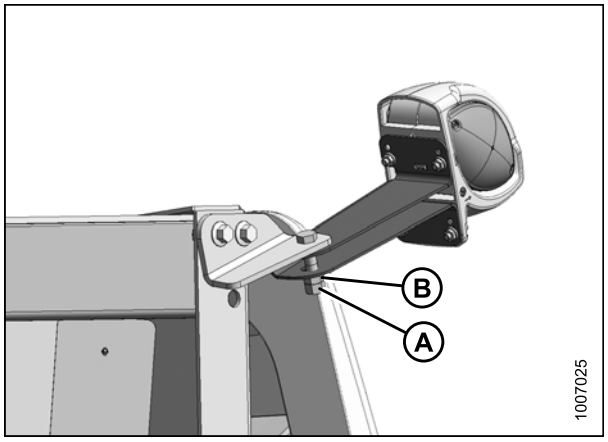


Figure 6.12: Transport Light

6.4 Extending Hold-Down To Field/Working Position

The hold-down needs to be extended to the working position.

1. If necessary, lift hold-down (A) slightly to gain access to bolts (B) inside hold-down arms.
2. Loosen four bolts (B) (two per side) in hold-down frame with a 18 mm socket.

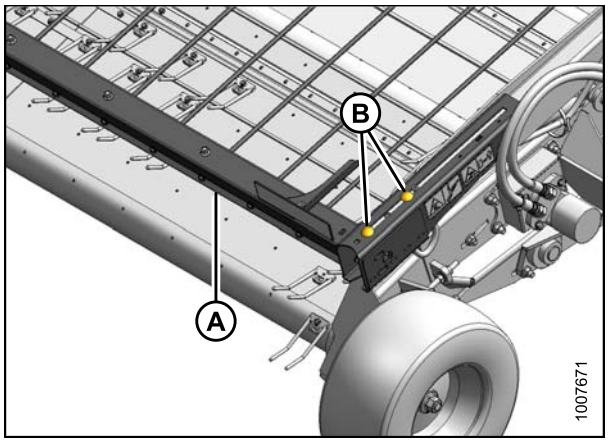


Figure 6.13: Extending Hold-Down

3. Pull the hold-down frame (A) fully forward.
4. Tighten bolts (B) in hold-down arms.

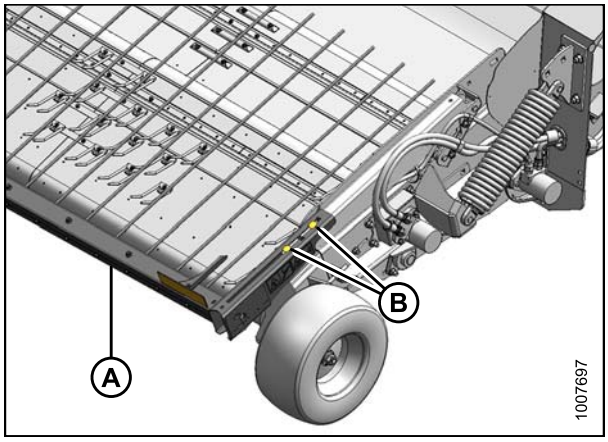


Figure 6.14: Operating Position

7 Re-Configuring Headers

All PW8 combine pick-up headers are shipped from the factory in a configuration to suit a particlular combine make, model and feeder house size to minimize the set up at the dealer. This chapter describes how to modify the header to accommodate the various feeder house configurations offered by the combine manufacturers.

7.1 Converting Headers for John Deere

PW8 pick-up headers are configured at the factory for combine models 9550, 9650, 9750, 9660, 9760, and 9860 with a 55 inch (1397 mm) feeder house. This procedure describes how to modify the header for model 9610 with a 65 inch (1651 mm) feeder house.

7.1.1 Moving Stripper Assemblies

This procedure describes the repositioning of the stripper assemblies to increase the header opening.

1. Loosen three bolts (A) and remove cover (B) on both sides of header to expose stripper assembly attachment hardware.

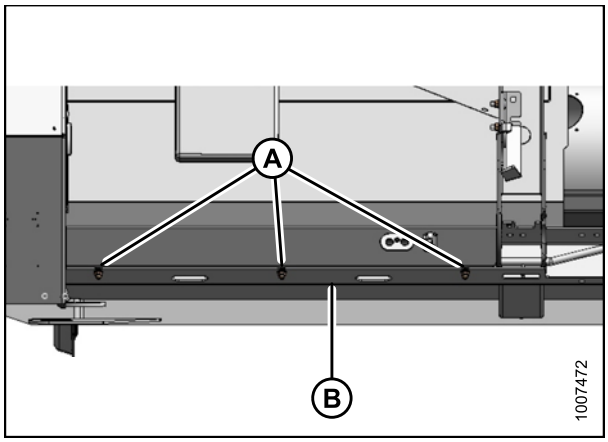


Figure 7.1: Left Cover – Right Side Opposite

2. Remove the four bolts (A) attaching the left stripper assembly (B) to the frame.

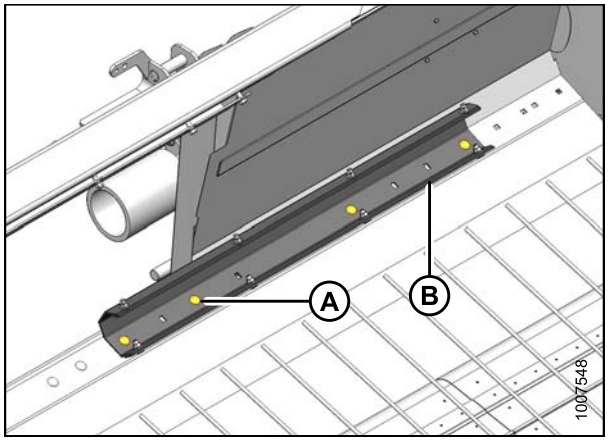


Figure 7.2: Left Stripper– Narrow Opening (Auger Not Shown for Clarity)

3. Move the left stripper assembly (A) outboard to achieve 27–9/16 in. (700 mm) dimension (B) as shown from header centerline (C). (The centerline is the location where the header pans meet).

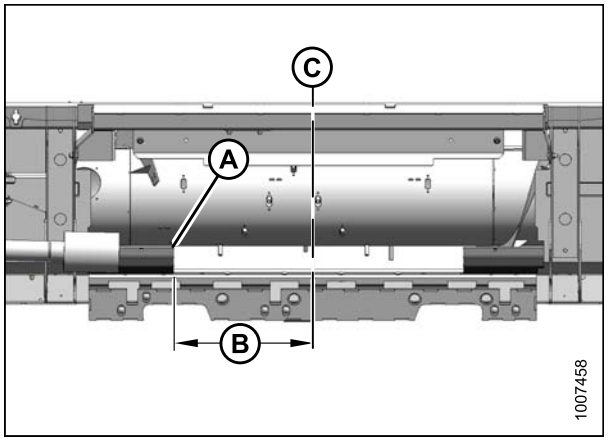


Figure 7.3: Left Stripper – Wide Opening

A - Stripper **B - Dimension** **C - Centerline**

4. Re-install the four bolts (A) at locations where stripper assembly (B) mounting holes line up with frame. Tighten bolts.
5. Install M12x30 carriage bolt (C) and nut provided into existing hole as shown.

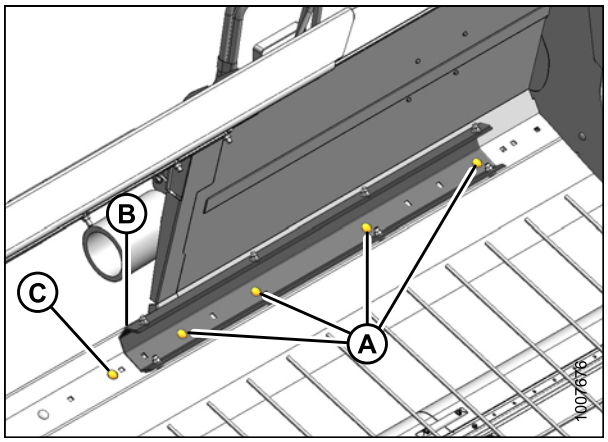


Figure 7.4: Left Stripper– Wide Opening

6. Remove the four bolts (A) attaching the right stripper assembly (B) to the frame.

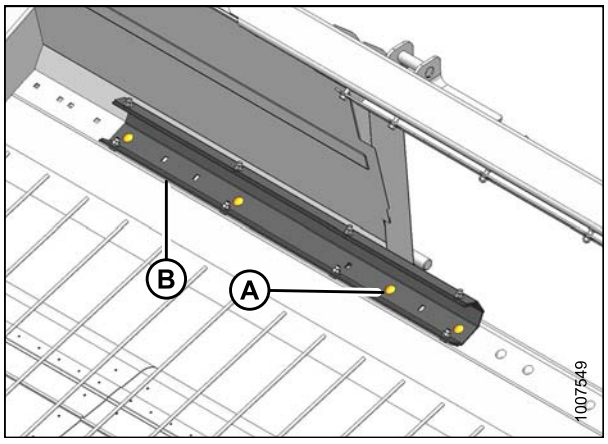


Figure 7.5: Right Stripper – Narrow Opening

7. Move the right stripper assembly (A) outboard to achieve 27–9/16 in. (700 mm) dimension (B) as shown from header centerline (C).
8. Check distance (D) between stripper assemblies is 55–1/8 in. (1400 mm).

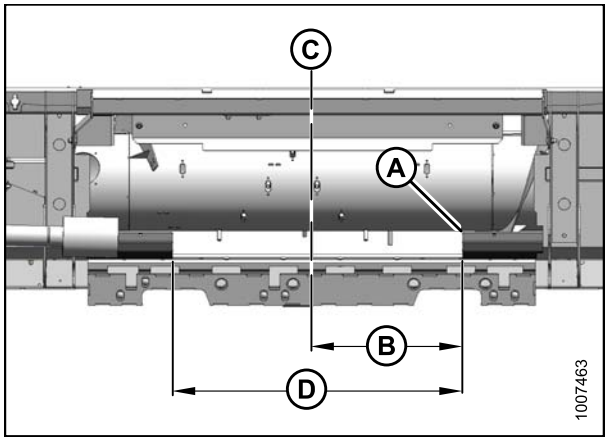


Figure 7.6: Right Stripper – Wide Opening

A - Stripper **B - Dimension**
C - Centerline **D - Dimension**

9. Re-install the four bolts (A) at locations where stripper assembly (B) mounting holes line up with frame. Tighten bolts.
10. Install M12x30 carriage bolt (C) and nut provided into existing hole as shown.
11. Manually rotate the auger and check the clearances between the auger flighting and stripper plates. The clearance should be 1/8–1/4 in. (3–6 mm). If necessary adjust clearance as per Section Adjusting Stripper Plate Clearance

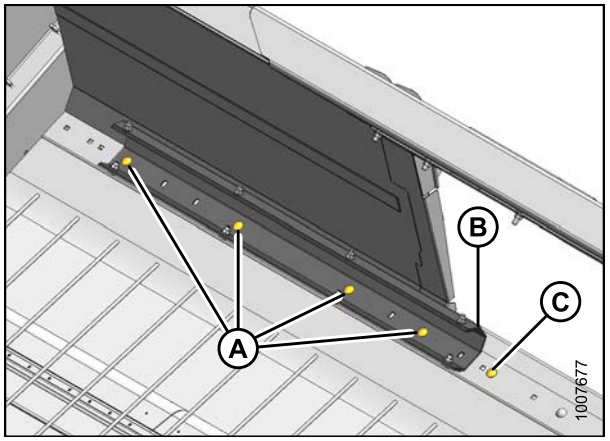


Figure 7.7: Right Stripper – Wide Opening

12. Re-install covers (B) and tighten bolts (A).

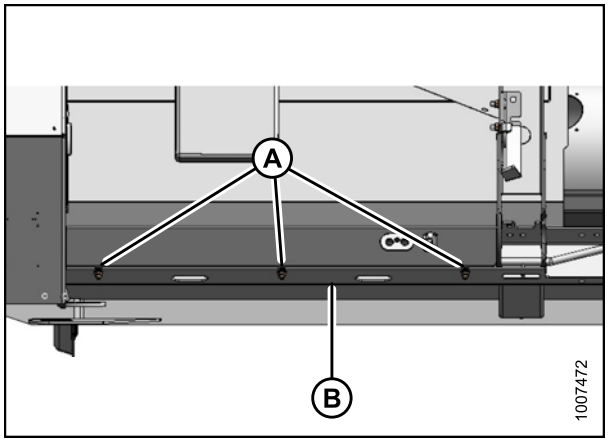


Figure 7.8: Left Cover – Right Side Opposite

7.1.2 Modifying the Auger

To accommodate the larger feeder house on the combine, the auger flighting extensions are removed and four more fingers are installed in the auger. Proceed as follows:

1. Retrieve the bag of hardware from the manual storage case located on the back of the header.
2. Remove access two covers, one either side of center.

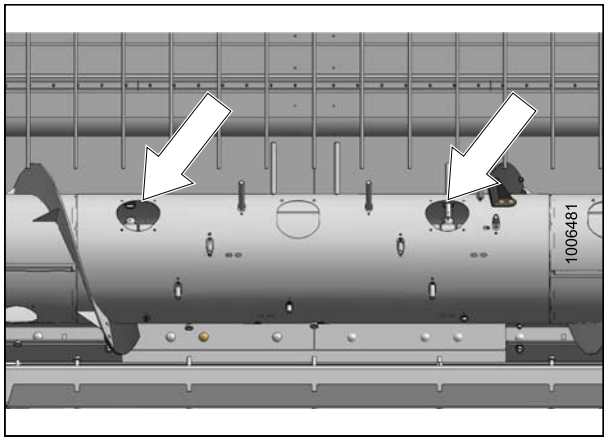


Figure 7.9: Access Holes

3. Remove hardware (A) securing existing left and right auger flighting extensions (B) and remove extensions. Discard hardware and extensions.

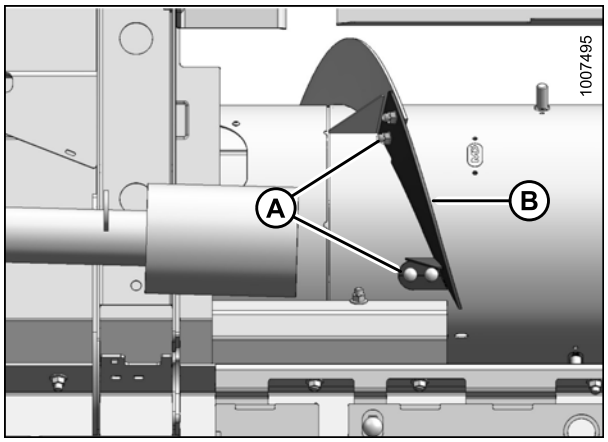


Figure 7.10: Left Flighting Extension – Right Extension Opposite

4. Replace plastic plugs with plastic guides at the two locations (A) next to the last finger on both ends of auger center section as follows:

   a. Remove screws (B) securing plug (C) to auger and remove plug from inside the auger.

   b. Retrieve four plastic guides (D) from the bag of hardware.

   c. Position plastic guide (D) in hole from inside the auger and secure with hex socket screws (E) and tee nuts (F) provided in bag of hardware.

   d. Torque screws to 75 in·lbf (8.5 N·m).

   e. Repeat above steps for remaining locations.

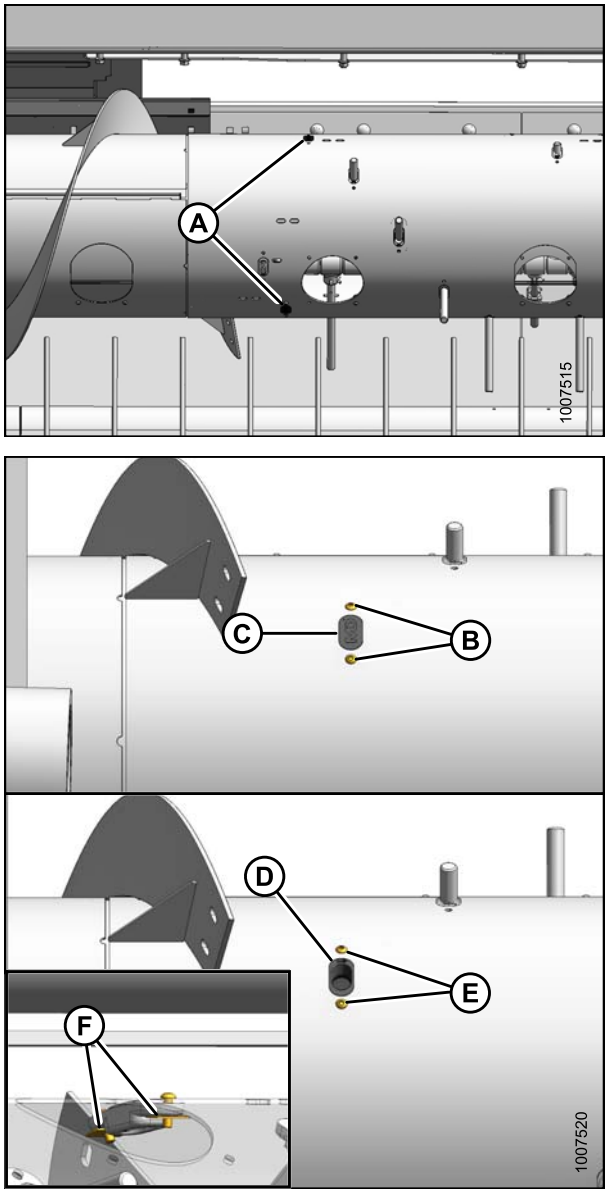


Figure 7.11: Plastic Guides

5. Install two fingers on each end in free bushings next to occupied bushings as follows:

   a. Insert finger (A) through plastic guide (B) from inside the auger.

   b. Insert finger into bushing (C).

   c. Secure finger (A) in bushing with hairpin (D). Install hairpin with closed end leading with respect to auger forward rotation.

   NOTE: The total number of fingers should be 22.

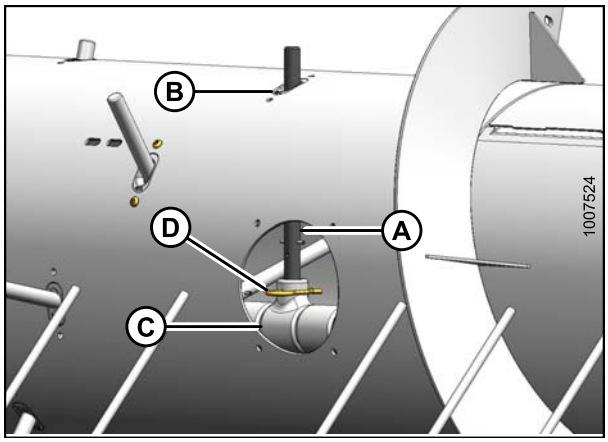


Figure 7.12: Installing Fingers

IMPORTANT:

To avoid damage to auger, check that all loose hardware and tools are removed from inside the auger.

6. Check that inside of auger is clear of excess hardware or tools.
7. Replace access covers (A) and secure with existing screws (B). Torque to 95 in·lbf (11 N·m).

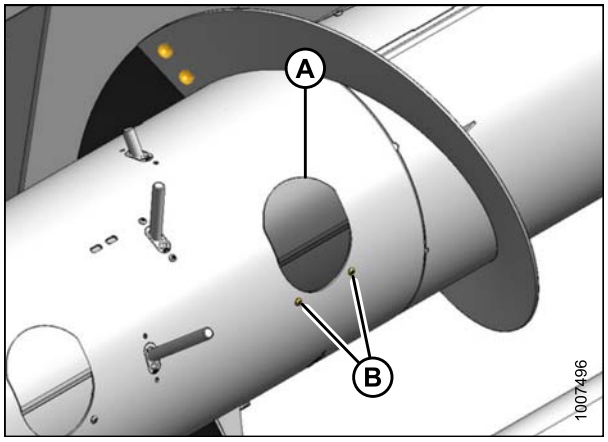


Figure 7.13: Access Cover

7.2 Converting Headers for New Holland CX

PW8 pick-up headers are configured at the factory for combine models CR970 and CR980 with a 50 inch (1270 mm) feeder house. This procedure describes how to modify the header for model CX with a 60 inch (1524 mm) feeder house.

7.2.1 Moving Stripper Assemblies

This procedure describes the repositioning of the stripper assemblies to increase the header opening.

1. Loosen three bolts (A) and remove cover (B) on both sides of header to expose stripper assembly attachment hardware.

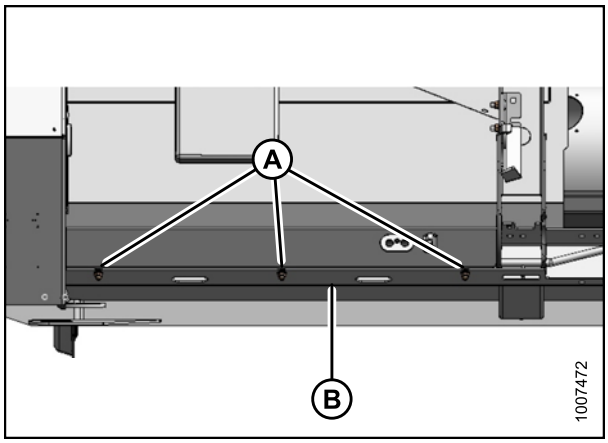


Figure 7.14: Left Cover – Right Side Opposite

2. Remove the four bolts (A) attaching the left stripper assembly (B) to the frame.

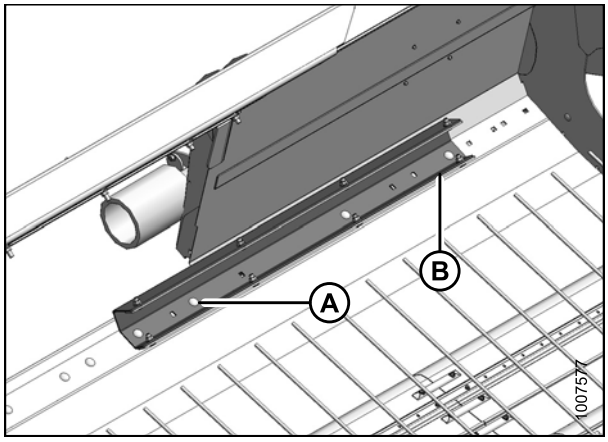


Figure 7.15: Left Stripper– Narrow Opening (Auger Not Shown for Clarity)

3. Move the left stripper assembly (A) outboard to achieve 27–9/16 in. (700 mm) dimension (B) as shown from header centerline (C). (The centerline is the location where the header pans meet).

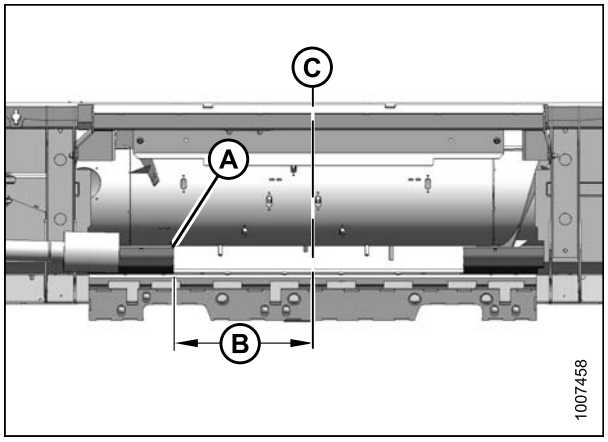


Figure 7.16: Left Stripper – Wide Opening

A - Stripper **B - Dimension** **C - Centerline**

4. Re-install the four bolts (A) at locations where stripper assembly (B) mounting holes line up with frame. Tighten bolts.
5. Install M12x30 carriage bolt (C) and nut provided into existing hole as shown.

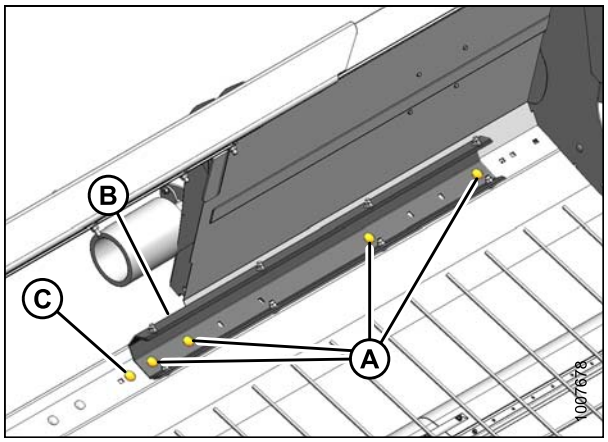


Figure 7.17: Left Stripper– Wide Opening

6. Remove the four bolts (A) attaching the right stripper assembly (B) to the frame.

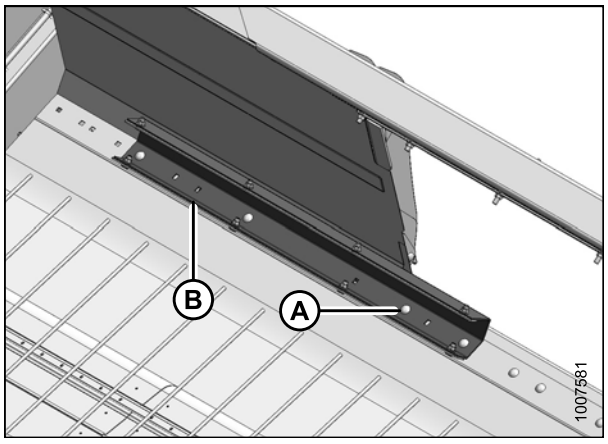


Figure 7.18: Right Stripper – Narrow Opening

7. Move the right stripper assembly (A) outboard to achieve 27–9/16 in. (700 mm) dimension (B) as shown from header centerline (C).
8. Check distance (D) between stripper assemblies is 55–1/8 in. (1400 mm).

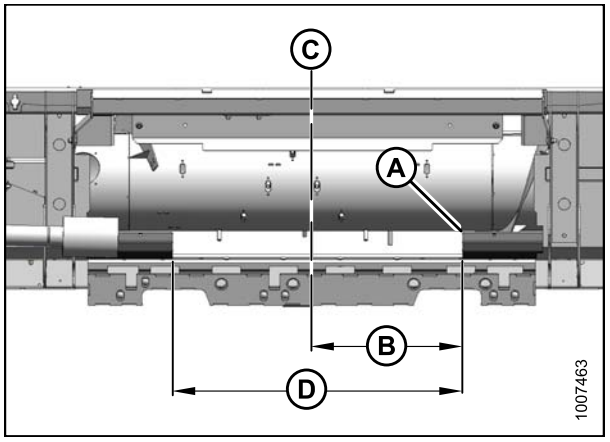


Figure 7.19: Right Stripper – Wide Opening

A - Stripper
B - Dimension
C - Centerline
D - Dimension

9. Re-install the four bolts (A) at locations where stripper assembly (B) mounting holes line up with frame. Tighten bolts.
10. Install M12x30 carriage bolt (C) and nut provided into existing hole as shown.
11. Manually rotate the auger and check the clearances between the auger flighting and stripper plates. The clearance should be 1/8–1/4 in. (3–6 mm). If necessary adjust clearance as per Section Adjusting Stripper Plate Clearance

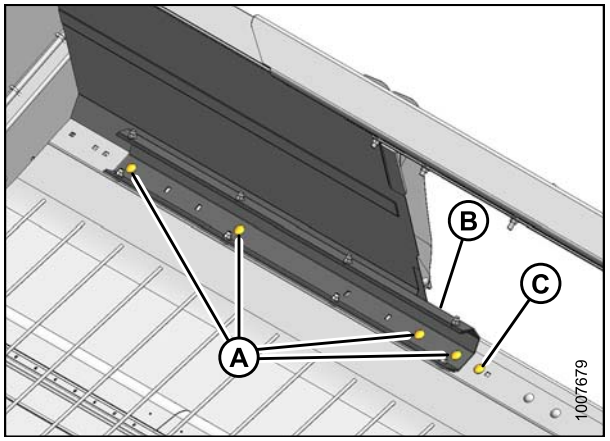


Figure 7.20: Right Stripper – Wide Opening

12. Re-install covers (B) and tighten bolts (A).

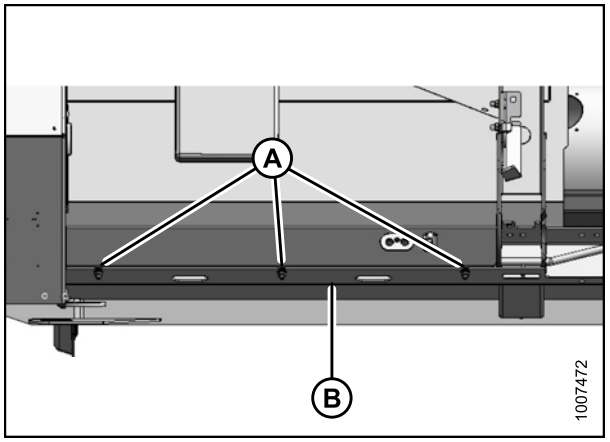


Figure 7.21: Left Cover – Right Side Opposite

7.2.2 Modifying the Auger

To accommodate the larger feeder house on the combine, the auger flighting extensions are removed and four more fingers are installed in the auger. Proceed as follows:

1. Retrieve the bag of hardware from the manual storage case located on the back of the header.
2. Remove access two covers, one either side of center.

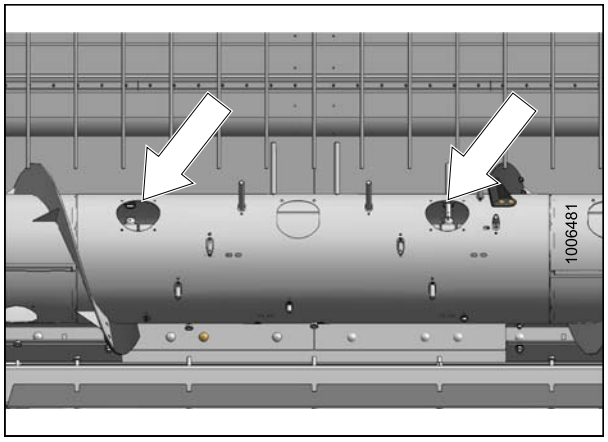


Figure 7.22: Access Holes

3. Remove hardware (A) securing existing left and right auger flighting extensions (B) and remove extensions.

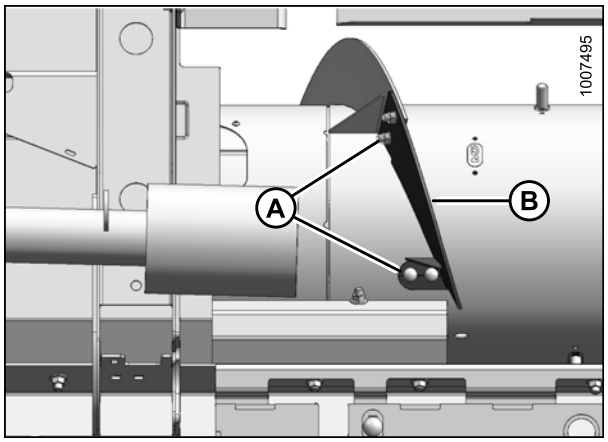


Figure 7.23: Left Flighting Extension – Right Extension Opposite

4. Replace plastic plugs with plastic guides at the two locations (A) next to the last finger on both ends of auger center section as follows:

   a. Remove screws (B) securing plug (C) to auger and remove plug from inside the auger.

   b. Retrieve four plastic guides (D) from the bag of hardware.

   c. Position plastic guide (D) in hole from inside the auger and secure with hex socket screws (E) and tee nuts (F) provided in bag of hardware.

   d. Torque screws to 75 in·lbf (8.5 N·m).

   e. Repeat above steps for remaining locations.

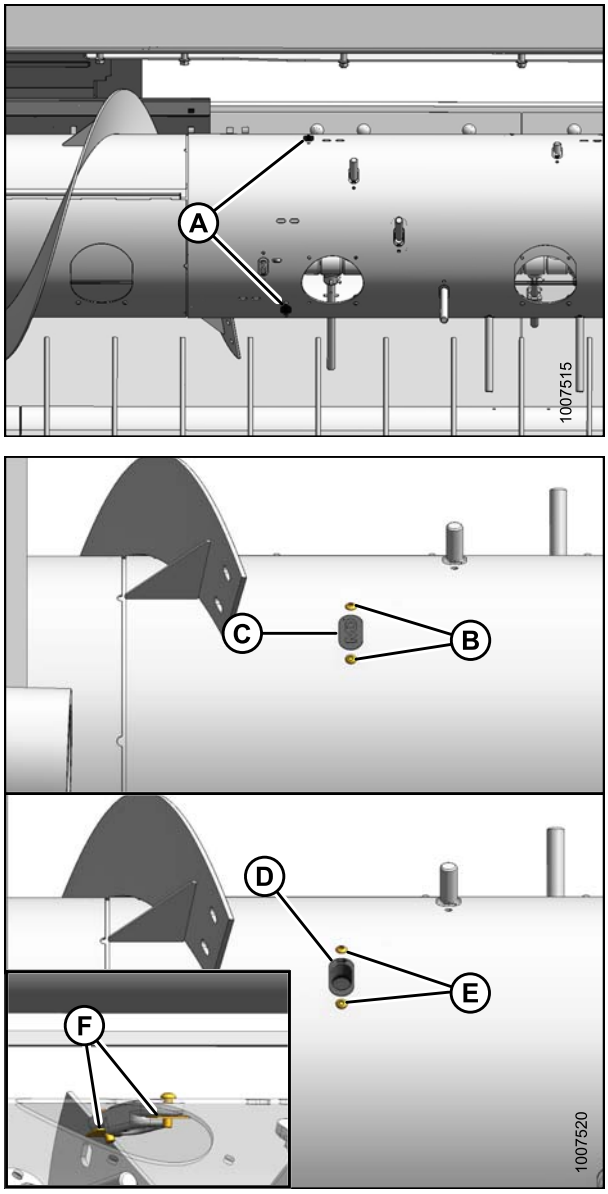


Figure 7.24: Installing Plastic Guides

5. Install two fingers on each end in free bushings next to occupied bushings as follows:

   a. Insert finger (A) through plastic guide (B) from inside the auger.

   b. Insert finger into bushing (C).

   c. Secure finger (A) in bushing with hairpin (D). Install hairpin with closed end leading with respect to auger forward rotation.

   NOTE: The total number of fingers should be 22.

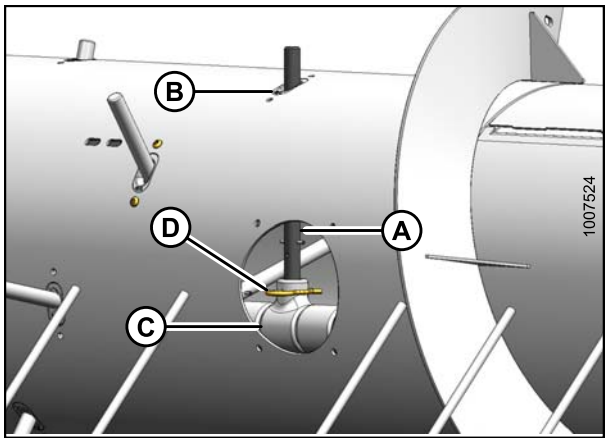


Figure 7.25: Installing Fingers

IMPORTANT:

To avoid damage to auger, check that all loose hardware and tools are removed from inside the auger.

6. Check that inside of auger is clear of excess hardware or tools.
7. Replace access covers (A) and secure with existing screws (B). Torque to 95 in·lbf (11 N·m).

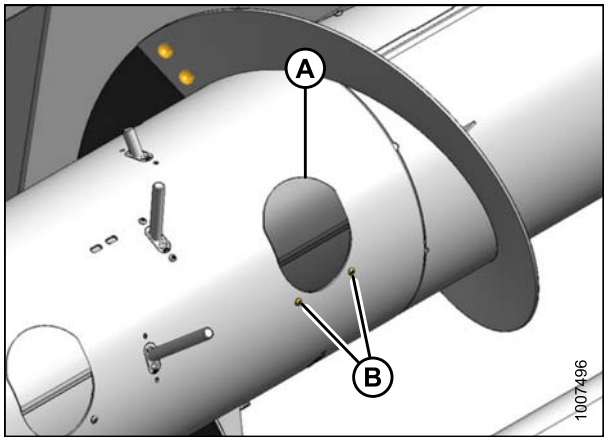


Figure 7.26: Access Cover

7.3 Converting Headers for New Holland CR Series

PW8 pick-up headers are configured at the factory for combine models CR970 and CR980 with a 50 inch (1270 mm) feeder house. This procedure describes how to modify the header for models CR920, CR940 and CR960 with a 40 inch (1016 mm) feeder house.

7.3.1 Moving Stripper Assemblies

This procedure describes the repositioning of the stripper assemblies to accommodate the narrower feeder house opening.

1. Loosen three bolts (A) and remove cover (B) on both sides of header to expose stripper assembly attachment hardware.

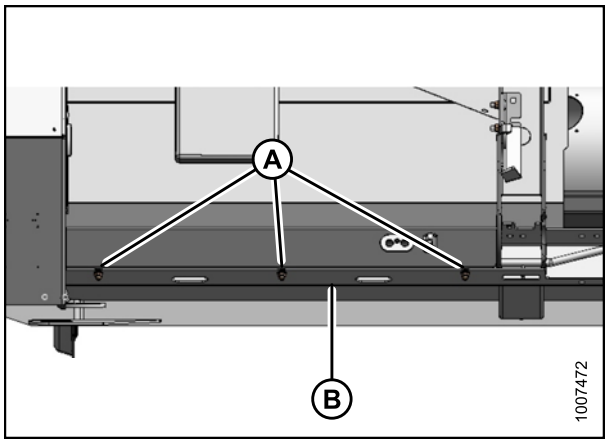


Figure 7.27: Left Cover – Right Side Opposite

2. Remove the four bolts (A) attaching the left stripper assembly (B) to the frame.

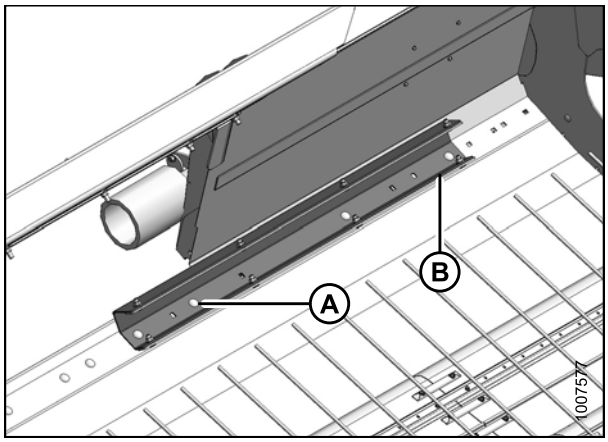


Figure 7.28: Left Stripper (Auger Not Shown for Clarity)

3. Move the left stripper assembly (A) inboard to achieve 16-7/16 in. (417 mm) dimension (B) as shown from header centerline (C). (The centerline is the location where the header pans meet).

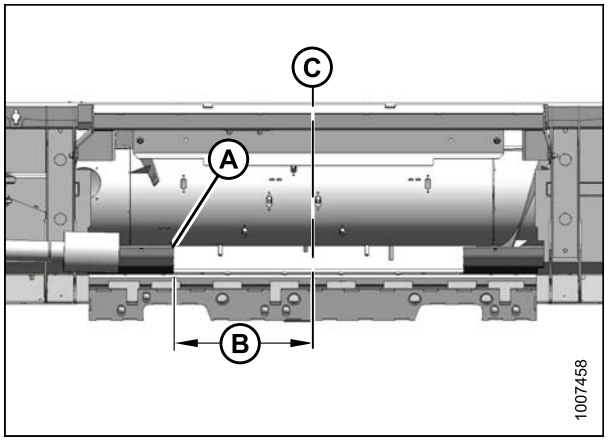


Figure 7.29: Narrow Opening

A - Stripper **B - Dimension** **C - Centerline**

4. Re-install four bolts (A) at locations where stripper assembly (B) mounting holes line up with frame. Tighten bolts.

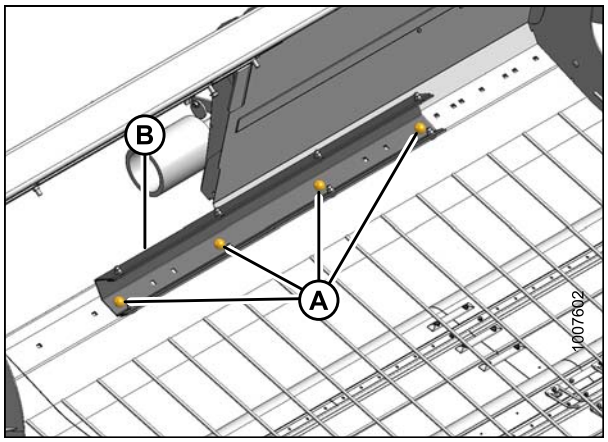


Figure 7.30: Left Stripper– Narrow Opening

5. Remove the four bolts (A) attaching the right stripper assembly (B) to the frame.

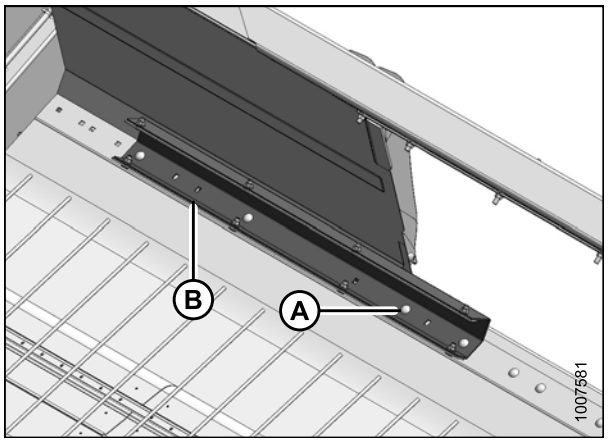


Figure 7.31: Right Stripper

6. Move the right stripper assembly (A) inboard to achieve 16–7/16 in. (417 mm) dimension (B) as shown from header centerline (C).
7. Check distance (D) between stripper assemblies is 32–13/16 in. (834 mm).

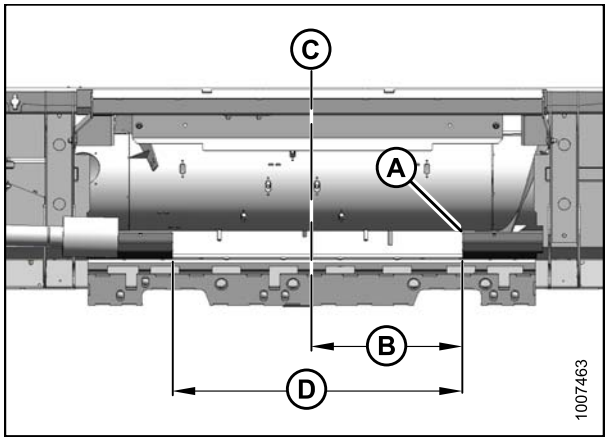


Figure 7.32: Narrow Opening

A - Stripper **B - Dimension**
C - Centerline **D - Dimension**

8. Re-install four bolts (A) at locations where stripper assembly (B) mounting holes line up with frame. Tighten bolts.

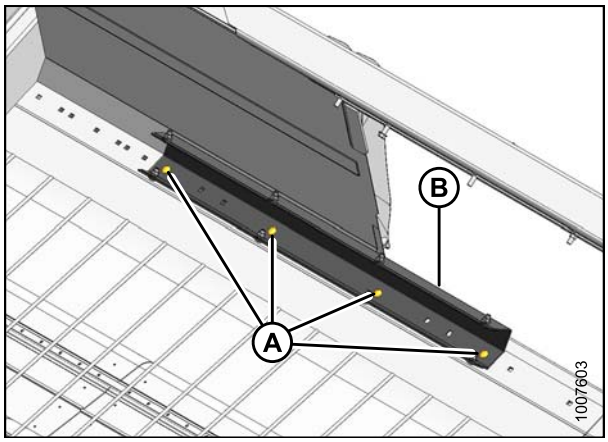


Figure 7.33: Right Stripper – Narrow Opening

9. Re-install covers (B) and tighten bolts (A).

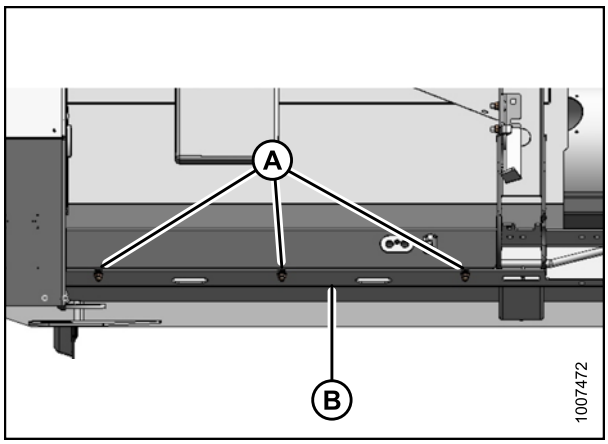


Figure 7.34: Left Cover – Right Side Opposite

7.3.2 Modifying the Auger

The auger is modified by installing longer flighting extensions and removing two fingers to accommodate the narrower feeder house. The extensions are strapped to the auger and additional hardware is provided in the manual case at the back of the header.

1. Remove the two flighting extensions (A) that are strapped to the auger.

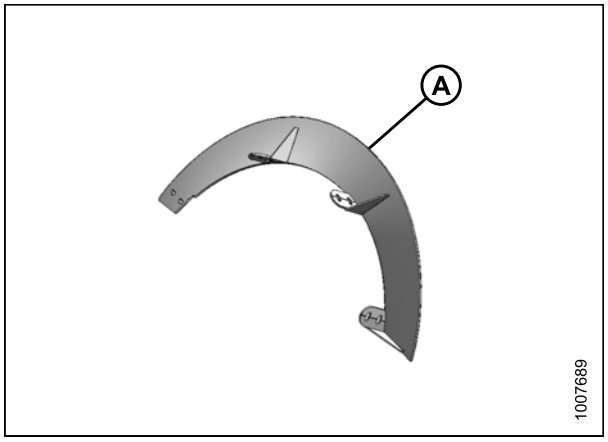


Figure 7.35: Left Extension – Right Opposite

2. Remove access two covers, one either side of center.

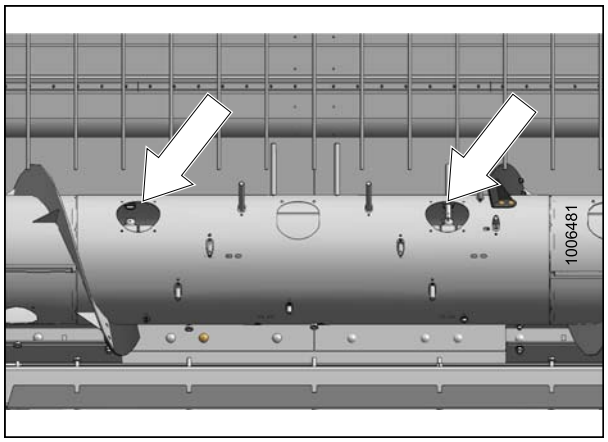
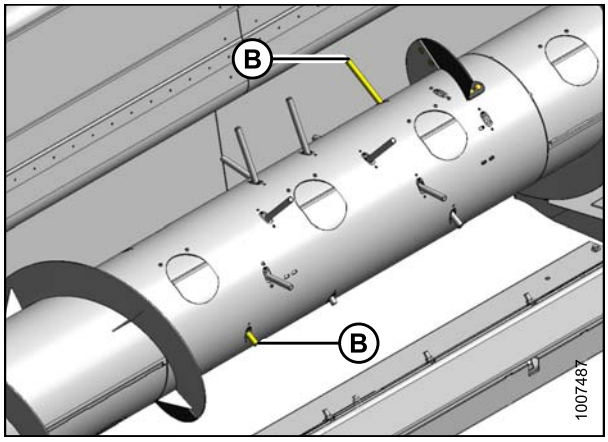


Figure 7.36: Access Holes

3. Remove the two outermost fingers (B) as follows:
   a. From inside the auger, remove hairpin (A), and pull finger (B) out of bushing (C).
   b. From inside the auger, swivel finger away from bushing, pull from plastic guide (D), and remove from auger.
   c. Assemble hairpin to finger and store in manual case.
   d. Repeat above steps for the other finger.



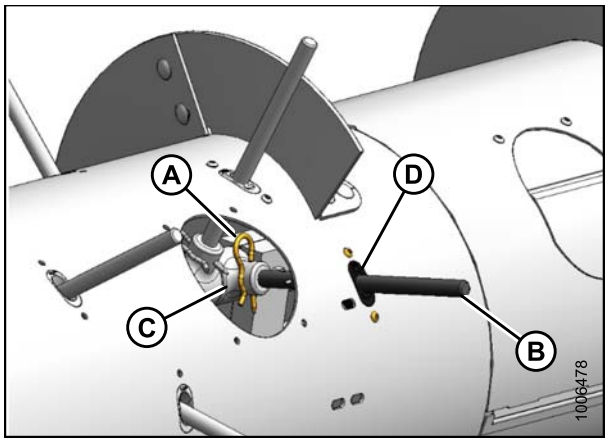


Figure 7.37: Removing Fingers

4. Install plugs as follows at the two locations where the fingers were removed:
   a. Remove screws (A) securing plastic guide (B) to auger and remove guide from inside the auger.
   b. Retrieve plugs and hardware from hardware bag in manual storage case.
   c. Position plug (C) in hole from inside the auger and secure with existing M6x20 long hex socket screws (A).
   d. Torque screws to 75 in·lbf (8.5 N·m).
   e. Discard or store removed hardware in manual storage case.

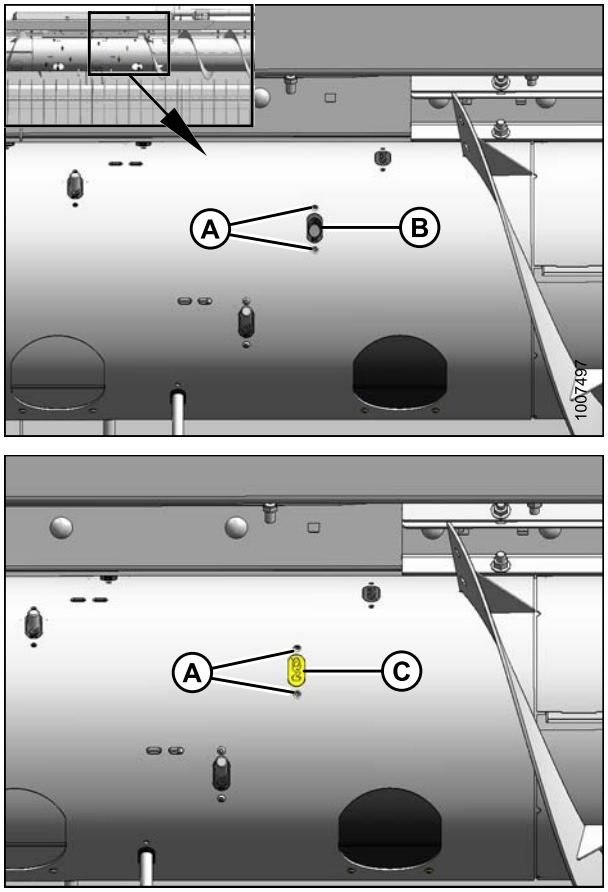


Figure 7.38: Installing Plugs

5. Remove hardware (A) securing existing left and right auger flighting extensions (B) and remove extensions. Retain hardware.

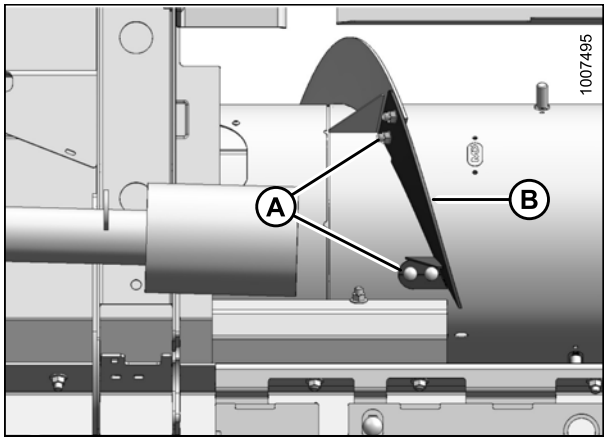


Figure 7.39: Short Flighting Extension

6. Retrieve longer flighting extensions (A) and hardware provided in the manual storage case.
7. Place the new flighting extension (A) on auger, ensuring new flighting locates on the outboard side of the existing flighting (B).
8. Secure flighting extension (A) to auger with existing hardware and additional M8x20 bolts (C) and locknuts provided in hardware bag. Bolts (C) that join the flighting must be installed with heads facing inboard.
9. Discard or store removed components in a safe place.
10. Manually rotate the auger and check the clearances between the auger flighting and stripper plates. The clearance should be 1/8–1/4 in. (3–6 mm). If necessary adjust clearance as per Section Adjusting Stripper Plate Clearance

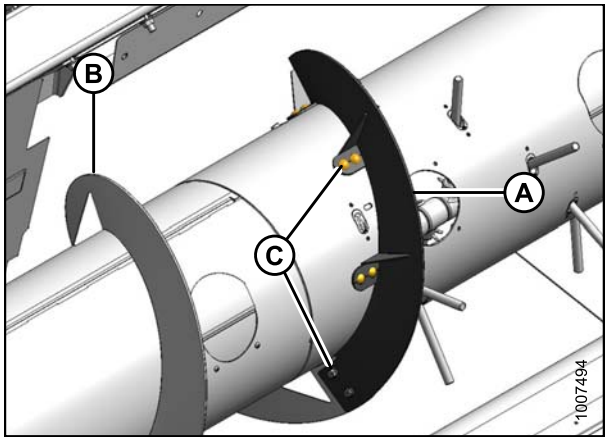


Figure 7.40: Long Flighting Extension

IMPORTANT:

To avoid damage to auger, check that all loose hardware and tools are removed from inside the auger.

11. Replace access cover (A) and secure with existing screws (B). Torque to 95 in·lbf (11 N·m).

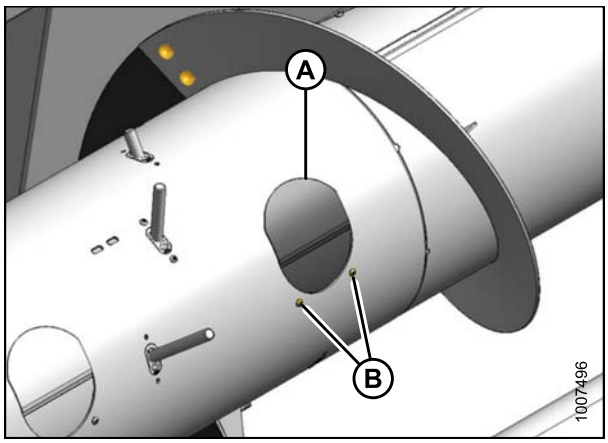


Figure 7.41: Access Cover

8 Attaching Pick-Up to Combine

This section includes instructions on attaching PW8 headers to the combines listed below.

PW8 headers are configured for each particular model of the combine. If applicable, you should have already installed the completion kit for a particular combine.

Combine	Refer to Section
Case IH	8.1 Attaching to Case IH Combine, page 57
John Deere 60, 70 and S Series	8.2 Attaching to John Deere 60, 70 and S Series Combine, page 60
New Holland CR, CX Series	8.3 Attaching to New Holland CR/CX Series Combine, page 64

8.1 Attaching to Case IH Combine

1. Pull handle (A) on combine to raise hooks (B) on both sides of the feeder house.

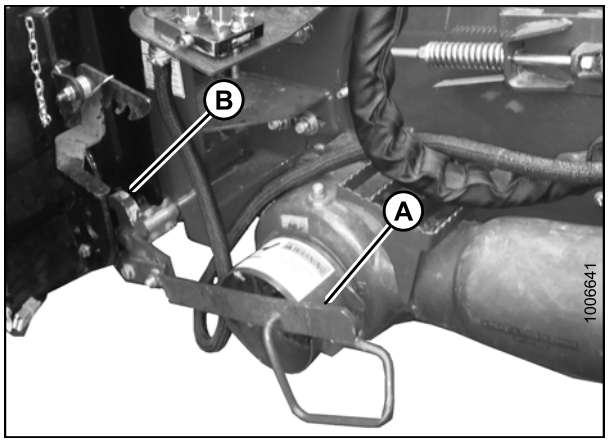


Figure 8.1: Feederhouse Locks

2. Slowly drive combine up to header until feeder house saddle (A) is directly under the header top cross member.
3. Raise feeder house slightly to lift header, ensuring feeder saddle is properly engaged in header frame.

WARNING

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

4. Stop engine, and remove key from ignition.

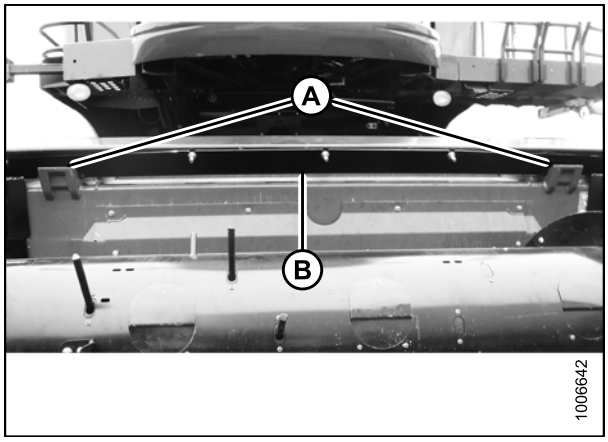


Figure 8.2: Header on Combine

5. Lift lever (A) on header at left side of feeder house, and push handle (B) on combine to engage locks (C) on both sides of the feeder house.
6. Push down on lever (A) so that slot in lever engages handle (B) to lock handle in place.
7. If locks (C) do not fully engage pins (D) on header, loosen nut (E), and adjust position of pin (D) as necessary (both sides). Tighten nut.
8. To obtain full lock on pin (D) when (A) and (B) are engaged, loosen bolts (F), and adjust lock as required. Retighten bolts.

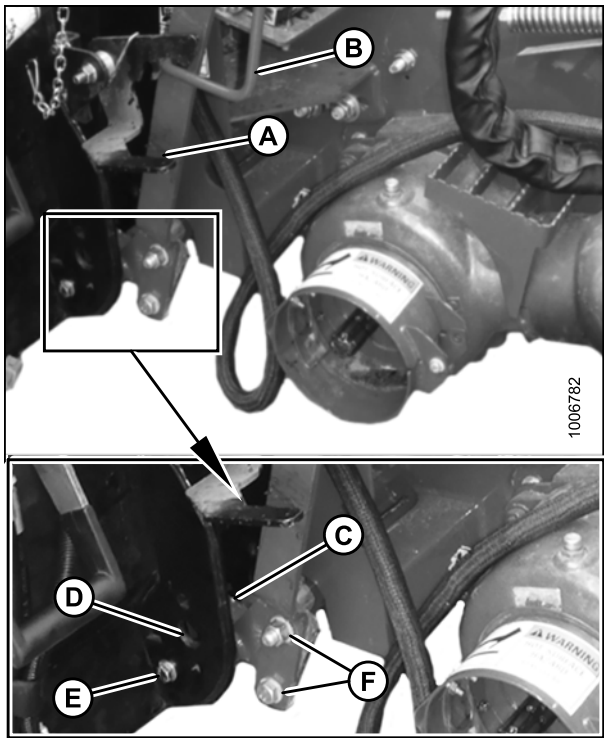


Figure 8.3: Engaging Locks

9. Rotate disc (B) on header driveline storage hook (A), and remove driveline from hook.

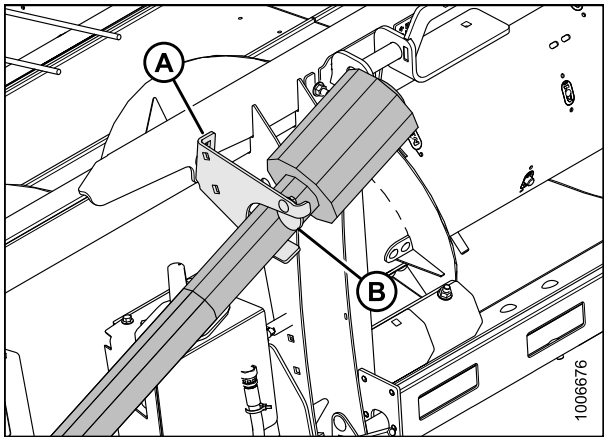


Figure 8.4: Driveline

10. Pull back collar (A) on end of driveline, and push onto combine output shaft (B) until collar locks.

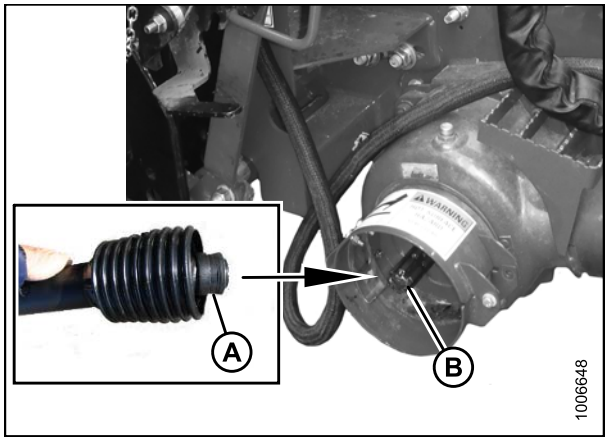


Figure 8.5: Attaching Driveline

11. Open cover (A) on header receptacle.
12. Push in lock button (B), and pull handle (C) upward to full open position.
13. Remove coupler (D) from combine, and clean mating surfaces.

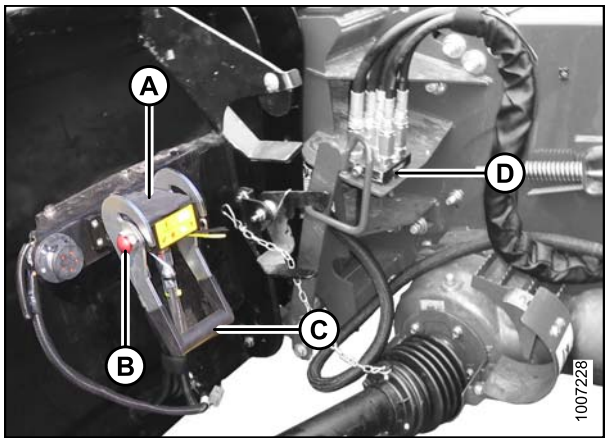


Figure 8.6: Coupler Lock

14. Position coupler (A) onto header receptacle, and push handle (B) downward to engage coupler pins into receptacle.
15. Push handle to closed position until lock button (C) snaps out.
16. Open cover on header electrical receptacle (D).
17. Remove electrical connector (E) from storage cup on combine, and route to header receptacle (D).
18. Align lugs on electrical connector (E) with slots in receptacle, push connector onto receptacle (D), and turn collar on connector to lock it in place.
19. Proceed to Chapter 9 Pre-Delivery Inspection, page 69

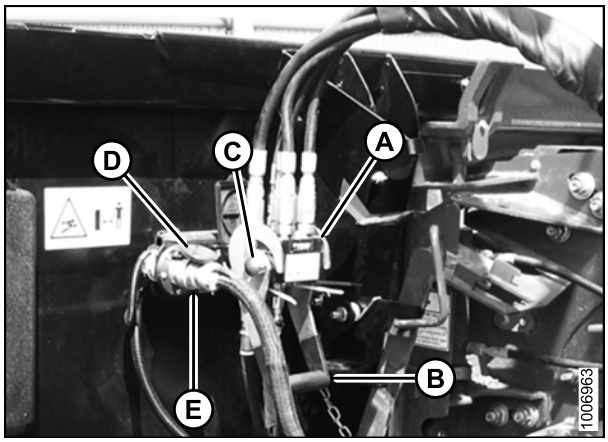


Figure 8.7: Attaching Coupler

8.2 Attaching to John Deere 60, 70 and S Series Combine

1. Push handle (A) on combine coupler toward feeder house to retract pins (B) at bottom corners of feeder house.

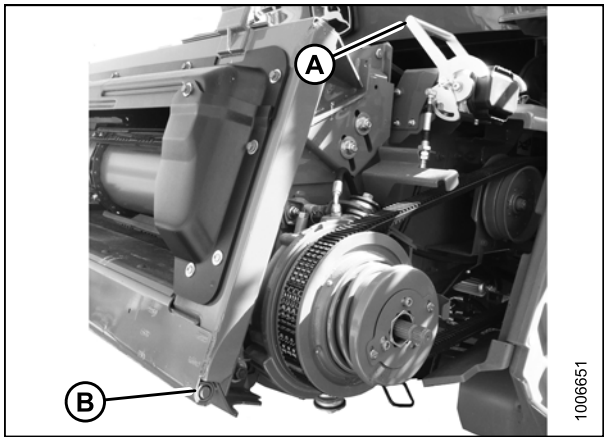


Figure 8.8: Feederhouse Locks

2. Slowly drive combine up to header until feeder house saddles (A) are directly under the header top beam (B).
3. Raise feeder house to lift header, ensuring feeder saddles are properly engaged in header frame.
4. Position header until slightly off the ground, stop engine and remove key from ignition.

WARNING

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

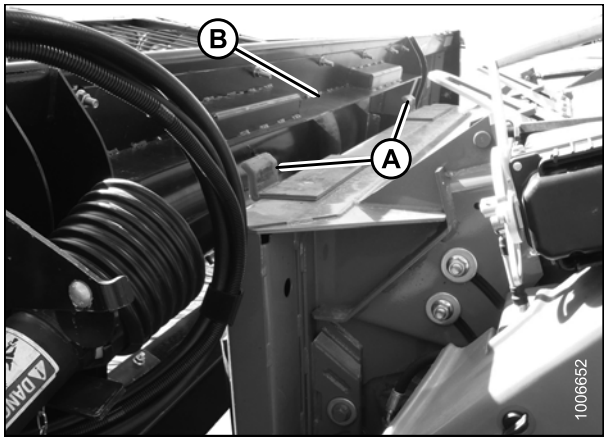


Figure 8.9: Header on Combine

5. Open driveshield on combine feeder house.

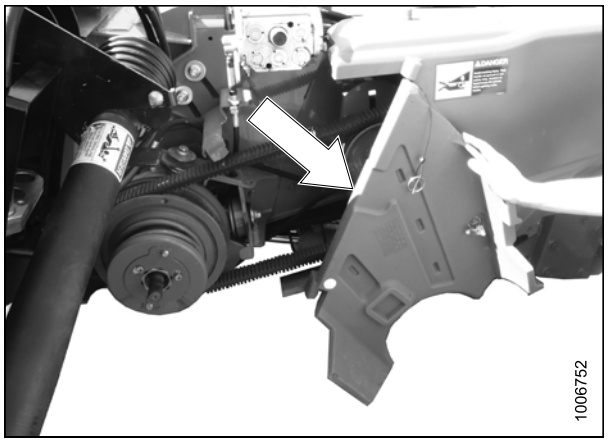


Figure 8.10: Combine Driveshield

6. Rotate disc (B) on header driveline storage hook (A), and remove driveline from hook.

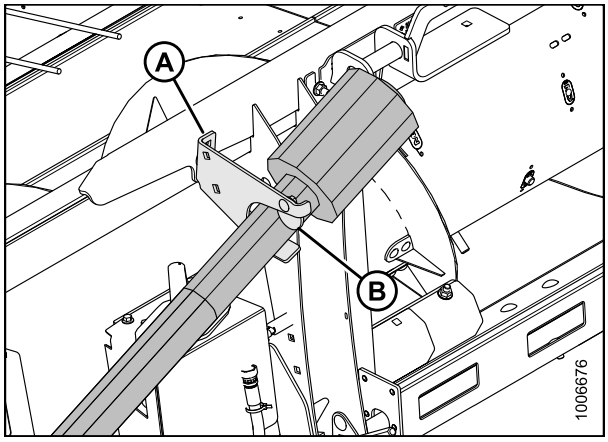


Figure 8.11: Driveline

7. Pull back collar (A) on end of driveline and slide driveline on feeder house driveshaft until the collar locks.
8. Close feeder house driveshield.

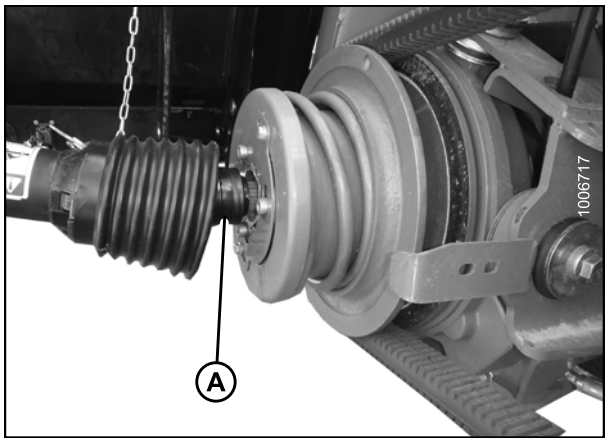


Figure 8.12: Attaching Driveline

9. Remove cover (A) from combine multi-coupler receptacle.

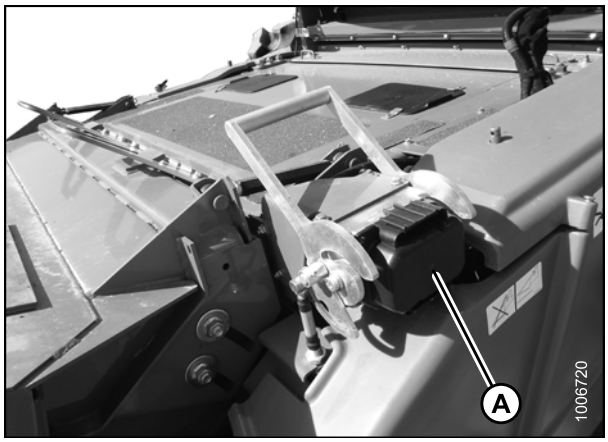


Figure 8.13: Combine Receptacle

10. Pull handle (A) on header to release multi-coupler (B) from storage position. Remove coupler, and push handle back into header to store.

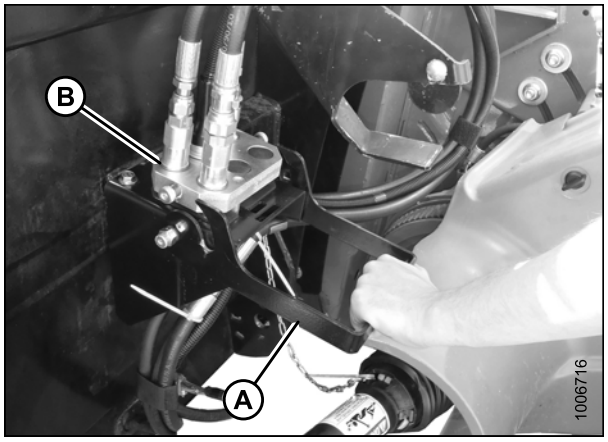


Figure 8.14: Releasing Coupler

11. Place coupler (A) onto combine receptacle.
12. Pull out knob (B) to release handle, and pull handle (C) to engage pins in coupler.

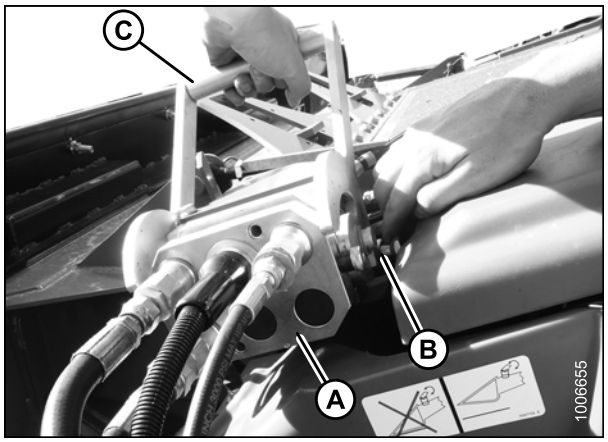


Figure 8.15: Engaging Coupler

13. Pull handle (A) to full horizontal position as shown to fully engage coupler, and to extend pins (B) at base of feeder house into the locking plates (C). Knob (D) will engage handle to lock handle.

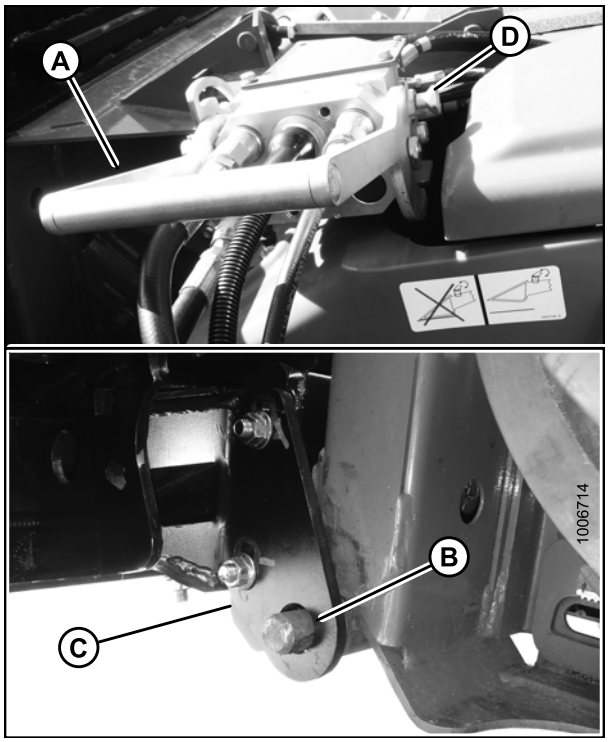


Figure 8.16: Locking Feederhouse

NOTE: If handle does not move to full horizontal position, check alignment of locking plates (A) on the header with locking pins (B) on both sides of the feeder house. If necessary, loosen nuts (C), and adjust plates (A) to line up with pins (B). Retighten nuts.

14. Proceed to Chapter 9 Pre-Delivery Inspection, page 69

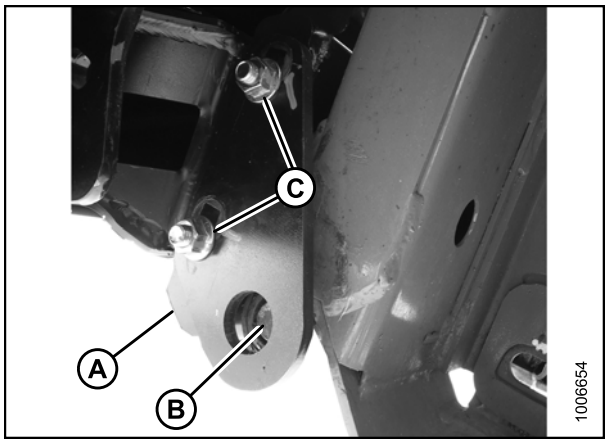


Figure 8.17: Aligning Locking Plates

8.3 Attaching to New Holland CR/CX Series Combine

WARNING

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

1. Pull handle (A) on combine to raise hooks (B) on both sides of the feeder house.

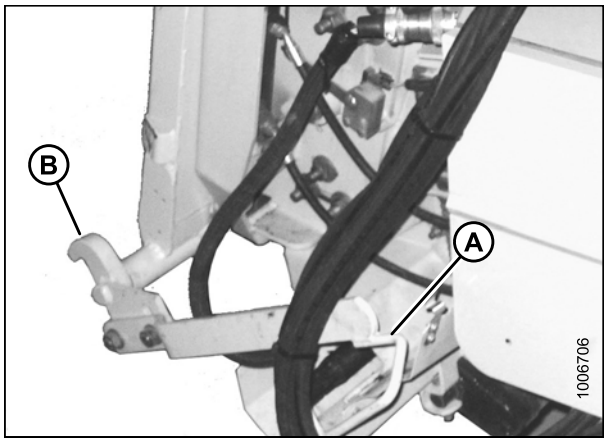


Figure 8.18: Feeder House Locks

2. Slowly drive combine up to header until feeder house saddle (A) is directly under the header top beam (B).
3. Raise feeder house to lift header, ensuring feeder saddle (A) is properly engaged in header frame.

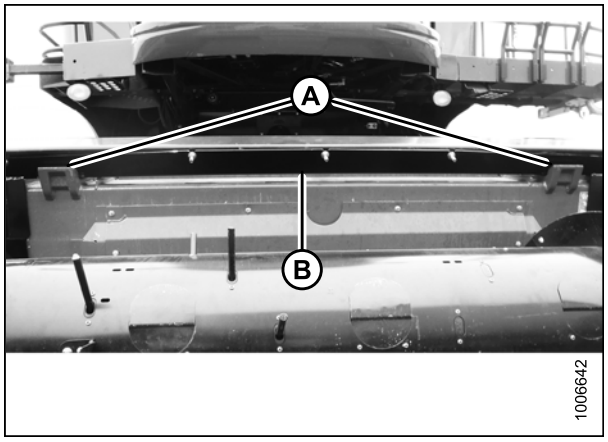


Figure 8.19: Header on Combine

4. Lift lever (A) on header at left side of feeder house and push handle (B) on combine so that hooks (C) engage pins (D) on both sides of the feeder house.
5. Push down on lever (A) so that slot in lever engages handle to lock handle in place.
6. If locks (C) do not fully engage pins (D) on header, loosen nut (E) and adjust position of pin (D) as necessary (both sides). Tighten nut.
7. To obtain full lock on pin (D) when (B) and (A) are engaged, loosen bolts (F), and adjust lock as required. Retighten bolts.

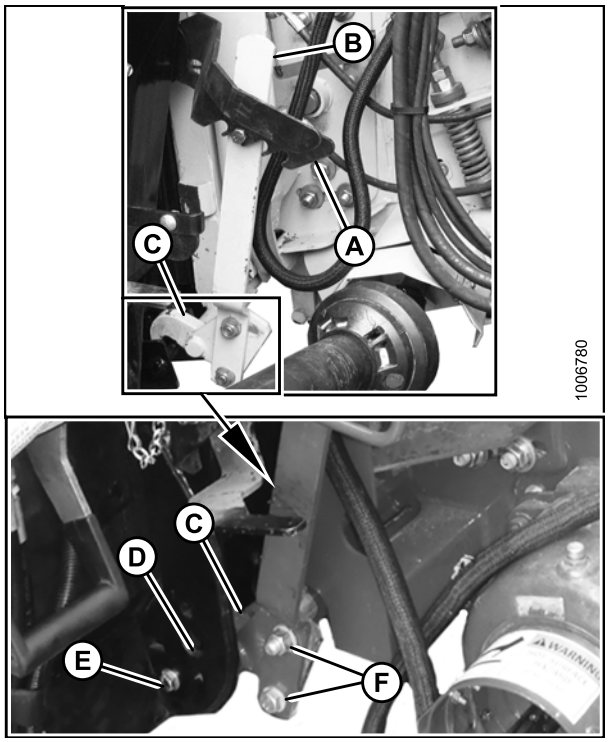


Figure 8.20: Engaging Locks

8. Rotate disc (B) on header driveline storage hook (A), and remove driveline from hook.

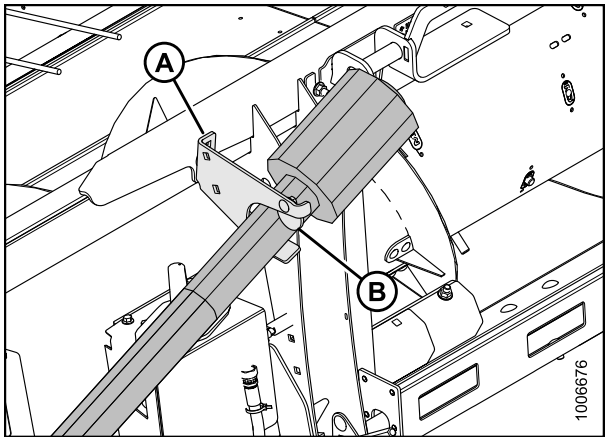


Figure 8.21: Driveline

9. Pull back collar (B) on end of driveline, and push onto combine output shaft (A) until collar locks.

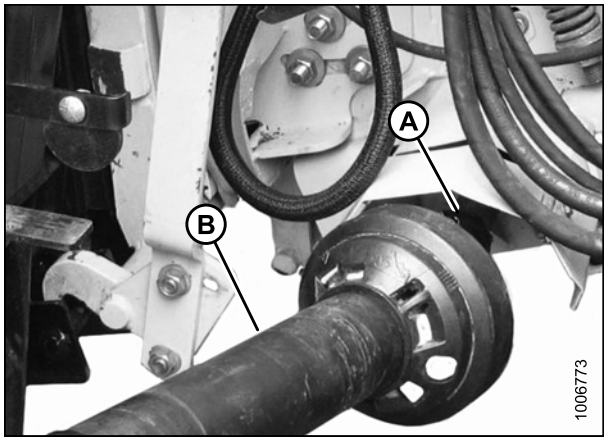


Figure 8.22: Attaching Driveline

10. Open cover (A).
11. Push in lock button (B), and pull handle (C) halfway up to open position.

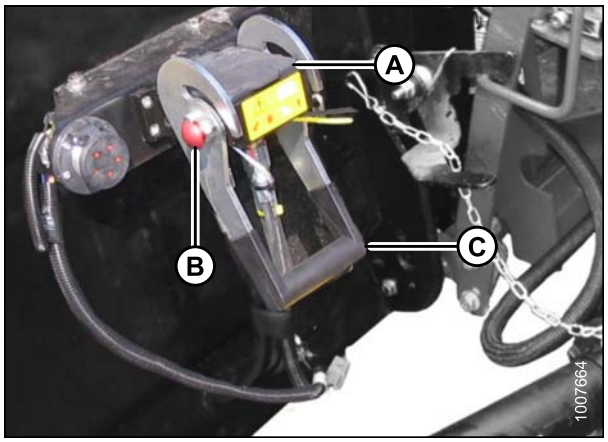


Figure 8.23: Header Receptacle

12. Remove coupler (A) from storage location on combine, and clean mating surface of coupler.

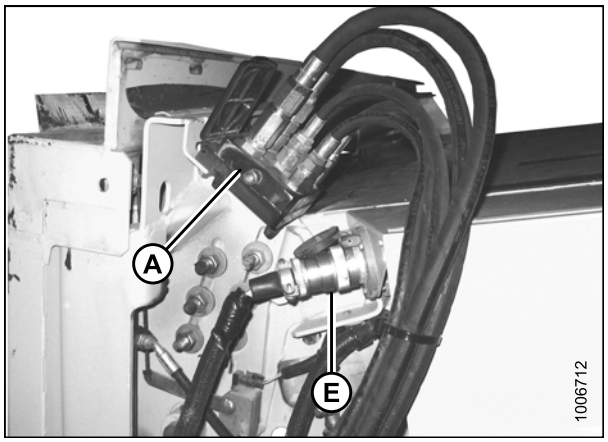


Figure 8.24: Combine Coupler/Connector

13. Position coupler onto header receptacle (A), and push handle (B) downward to engage pins into receptacle.
14. Push handle (B) to closed position until lock button (C) snaps out.
15. Open cover (D) on header electrical receptacle.
16. Remove electrical connector (E) from combine.
17. Align lugs on electrical connector (E) with slots in header receptacle, and push connector onto receptacle. Turn collar on connector to lock it in place.

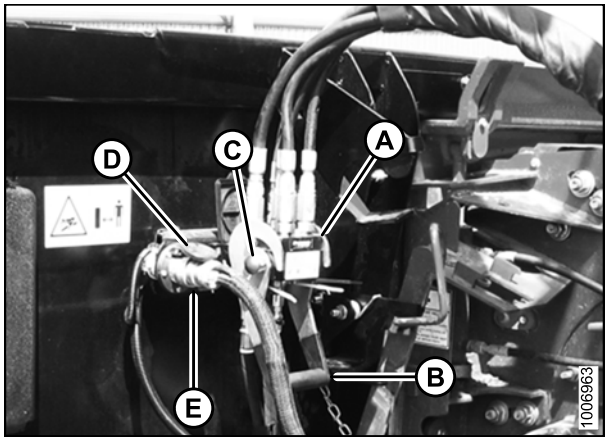


Figure 8.25: Attaching Coupler

9 Pre-Delivery Inspection

IMPORTANT:

To avoid machine damage, check that no shipping dunnage has fallen into machine.

1. Perform the final checks as listed on the yellow Pre-Delivery Checklist (Pre-Delivery Checklist, page 79) to ensure the machine is field-ready.
2. Refer to the following subsections for detailed instructions as indicated on the Checklist.
3. The completed Checklist should be retained either by the Operator or the Dealer.

IMPORTANT:

The machine has been set at the factory, and should require no further adjustments. However, perform the following checks to ensure your machine will provide maximum performance.

IMPORTANT:

Adjustments should be made only if absolutely necessary, and in accordance with the instructions in this manual.

9.1 Calibrating In-Cab Height Sensor

If your combine is factory equipped with Auto Height Control (AHC), refer to the following for operating and adjustment information.

IMPORTANT:

The header height sensor has been set at the factory, and should require no further adjustments. Adjustments should be made only if absolutely necessary, and in accordance with the instructions in this manual.

1. The optimum pick-up height is 12 in. (305 mm) off the ground under normal conditions, and the AHC should be set to the Neutral position.
2. Use the AHC to change the pick-up operating height to suit your specific crop condition. Refer to your combine operator manual for details.
3. If the AHC sensor requires adjustment, refer to the PW8 Pick-Up Header Technical Manual MD #169841, or your MacDon Dealer.

9.2 Checking Tire Pressure

Check tire pressure daily. Recommended pressure is 35–45 psi (240–310 kPa).

WARNING

- **Service tires safely.**
- **A tire can explode during inflation and cause serious injury or death.**
- **Do NOT stand over tire. Use a clip-on chuck and extension hose.**
- **Never increase air pressure beyond pressure specified on tire sidewall to seat the bead on the rim.**
- **Replace the tire if it has a defect.**
- **Replace a wheel rim, which has cracks, wear or severe rust.**
- **Never weld a wheel rim.**
- **Never use force on an inflated or partially inflated tire.**
- **Make sure the tire is correctly seated before inflating to operating pressure.**
- **If the tire is not in correct position on the rim, or is too full of air, the tire bead can loosen on one side, causing air to leak at high speed and with great force. An air leak of this nature can thrust the tire in any direction, endangering anyone in the area.**
- **Make sure all the air is removed from a tire before removing the tire from a rim.**
- **Do NOT remove, install or make repairs to a tire on a rim unless you have the proper equipment and experience to perform the job. Take the tire and rim to a qualified tire repair shop.**

9.3 Checking Draper Belt Tension

DANGER

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

The pick-up draper belts are set at the factory, but the draper tension should be checked before operating.

NOTE: There should be visible sag in the underside of the draper.

NOTE: Drapers may be sticky when new. Talcum or baby powder applied to the drapers should help to reduce the stickiness.

NOTE: Drapers may need to be looser than normal for the first few hours during break-in.

1. Raise the header fully, and engage the combine lift cylinder stops.
2. Stop engine and remove key from ignition.
3. There should be 1.0 in. (25 mm) of sag (C). When the draper is properly tensioned, it should be visible in the slot (B) in the deck frame, and lined up with the notch as shown.

NOTE: Ensure draper tension is the same for left and right side for optimum draper tracking.

4. If the tension requires adjusting, refer to Section 9.3.1 Adjusting Draper Belt Tension on Front Deck, page 72 or Section 9.3.2 Adjusting Draper Belt Tension on Rear Deck, page 72

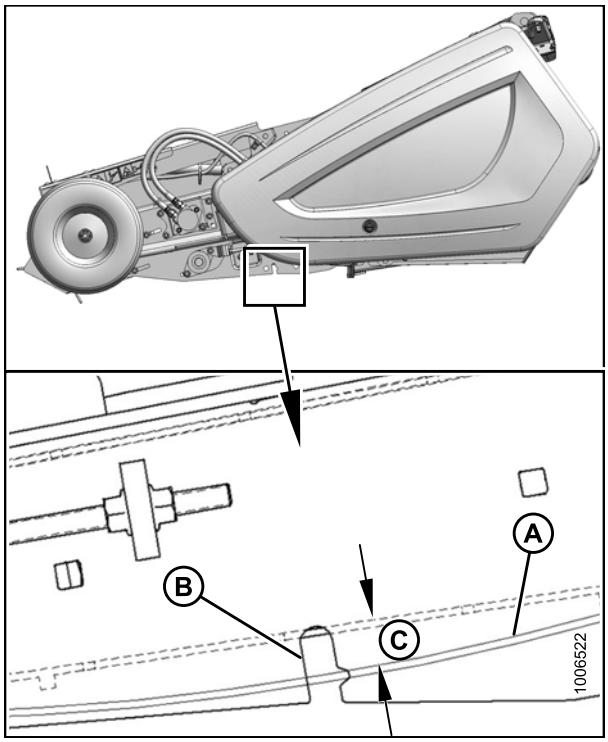


Figure 9.1: Draper Tension

A - Draper Belt B - Slot in Deck Frame C - Sag

9.3.1 Adjusting Draper Belt Tension on Front Deck

If the tension needs adjusting, proceed as follows:

IMPORTANT:

Draper tension only needs to be set to prevent slippage. Do **NOT** tighten draper above the indicator notch. Over-tightening may cause:

- Joining bolts to pull out of draper.
- Damage to the rollers or bearings.
- Twisting and wrinkling of drapers.

1. **Front Deck – Both Sides**
   a. Loosen three clamp bolts (A) on each side.
   b. Loosen jam nut (B).
   c. Turn adjuster nut (C) to set draper tension. Proper tension is achieved when the draper lines up with the indicator notch (D).
   d. Tighten clamp bolts (A) and jam nut (B).

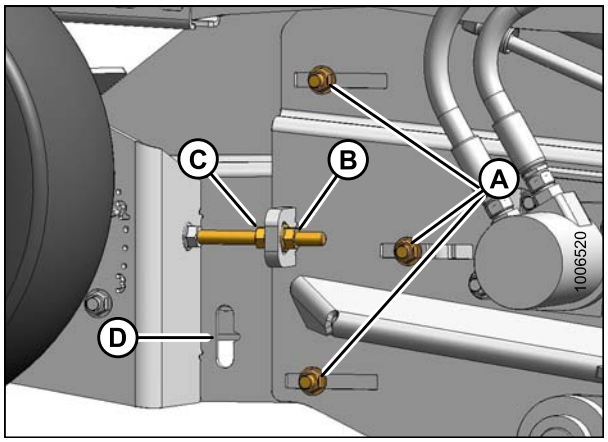


Figure 9.2: Front Deck – Left Side, Right Side Opposite

9.3.2 Adjusting Draper Belt Tension on Rear Deck

If the tension needs adjusting, proceed as follows:

IMPORTANT:

Draper tension only needs to be set to prevent slippage. Do **NOT** tighten draper above the indicator notch. Over-tightening may cause:

- Joining bolts to pull out of draper.
- Damage to the rollers or bearings.
- Twisting and Wrinkling of drapers.

1. **Rear Deck – Right Side**

   a. Loosen three clamp bolts (A).

   b. Loosen jam nut (B).

   c. Turn adjuster nut (C) to set draper tension. Proper tension is achieved when the draper lines up with the indicator notch (D).

   d. Tighten clamp bolts (A) and jam nut (B).

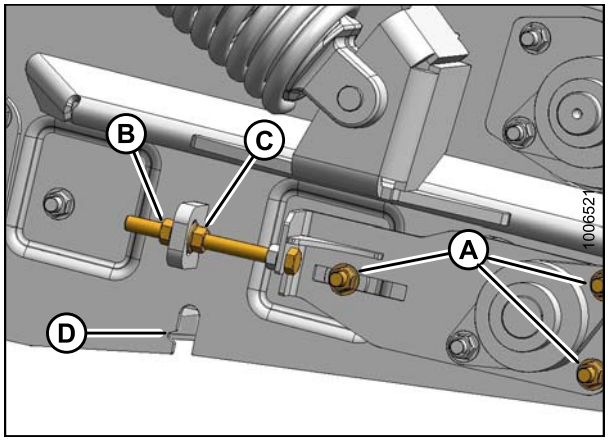


Figure 9.3: Rear Deck – Right Side

2. **Rear Deck – Left Side**

   a. Loosen two clamp bolts (A).

   b. Loosen jam nut (B).

   c. Turn adjuster nut (C) to set draper tension. Proper tension is achieved when the draper lines up with the indicator notch (D).

   d. Tighten clamp bolts (A) and nut (B).

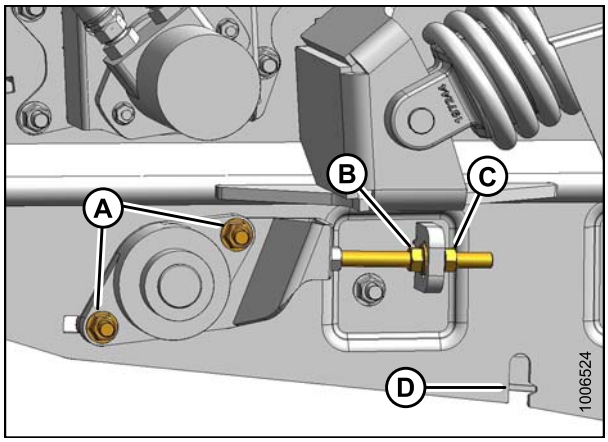


Figure 9.4: Rear Deck – Left Side

9.4 Lubrication

9.4.1 Lubricating the Pick-Up

Lubricant	Specification	Description	Use
Grease	SAE Multi-Purpose	High Temperature Extreme Pressure (EP2) Performance With 1% Max Molybdenum Disulphide (NLGI Grade 2) Lithium Base	As Required Unless Otherwise Specified.
		Extreme Pressure (EP) Performance With 1.5–5% Molybdenum Disulphide (NLGI Grade 2) Lithium Base	Drive Motor Shaft

WARNING

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

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

9.4.2 Lubricating Auger Drive Chain

DANGER

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

1. Lower header to ground, shut down combine, and remove key from ignition.
2. Open left endshield (A). Refer to Section 5.3.1 Opening LH Endshield, page 28.

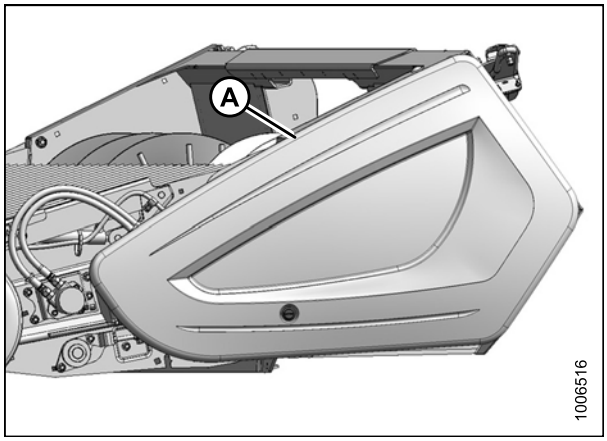


Figure 9.5: Endshield

3. Liberally apply SAE Multi-Purpose Grease to chain.

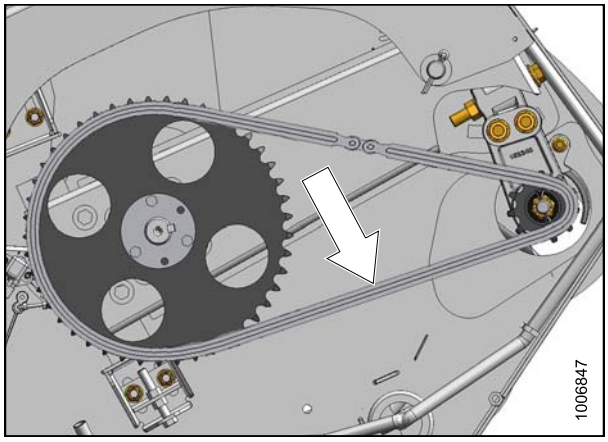


Figure 9.6: Lubricating Chain

4. Close endshield. Refer to Section 6.1.1 Closing LH Endshield, page 30.

9.4.3 Greasing Points

Every 100 Hours

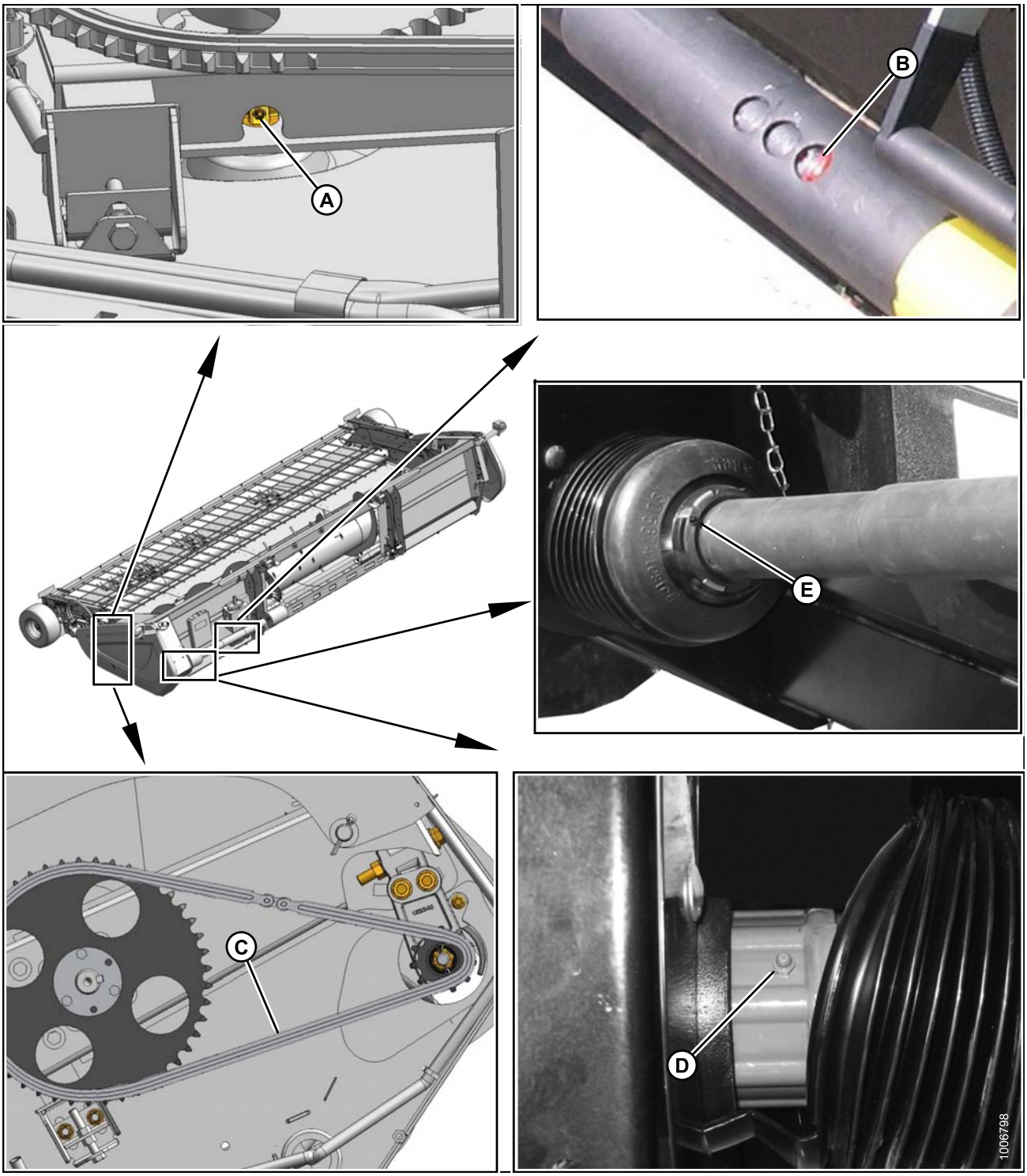


Figure 9.7: Lubricating Header

A - Auger Bearing
B - Driveline Slip-Joint
C - Auger Chain (see 9.4.2 Lubricating Auger Drive Chain, page 74)
D - Driveline Clutch
E - Driveline Guard (both ends)

9.5 Manuals

1. Remove plastic tie on manual case (A), and open case.

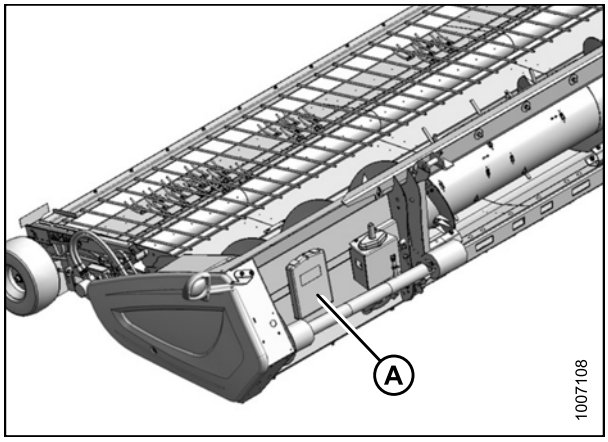


Figure 9.8: Manual Storage

2. Check that case contains the following manuals:

Description	Type	Part Number
PW8 Pick-Up Header	Operator's Manual	MD #169489
	Parts Catalog	MD #169497

3. Return manuals to the case, and close it.

9.6 Running-Up The Header

CAUTION

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

CAUTION

Clear the area of other people, pets etc. Keep children away from machinery. Walk around the machine to be sure no one is under, on, or close to the header.

CAUTION

Before investigating an unusual sound or attempting to correct a problem, shutdown engine, engage parking brake, and remove key.

1. Start combine, and run the machine at operating speed for 15 minutes. Run the header slowly for the first 5 minutes, watching and listening **FROM THE OPERATOR'S SEAT** for binding or interfering parts.
2. Test the function of the height controller as follows:
   a. Drive the combine over uneven ground and note the following:
      - If the front end of the pick-up goes up (as if going up a hill), the header height should move up to compensate.
      - If the pick-up front goes down (as if dropping into a hole), the header should drop to compensate.
3. Perform the run-up check as listed on the Pre-Delivery Checklist (Pre-Delivery Checklist, page 79), and the post run-up check to ensure the machine is field-ready.

9.6.1 Testing Hold-Down Hydraulics

NOTE: All testing performed with the header/pick-up in working position (wheels are on the ground and the distance from the ground to the center of the rear roller is about 14 in. [356 mm]). This is the standard operating height.

1. The hold-down is controlled by the reel lift control located in the combine cab. Activate the control to lift the hold-down. The cylinders should begin lifting simultaneously.
2. Lift the hold-down completely to the top. Continue to force the cylinders up for one to two seconds to ensure the cylinders re-phase. Both cylinders should be fully extended.
3. Lower the hold-down. The cylinders should lower at the same time and at the same rate. It should take from 12 to 18 seconds for the hold-down to lower from the highest point.
4. Completely lower the hold-down. The cylinders should stop at the same time. It is acceptable for the slave cylinder to remain from 0 to 1/2 in.(13 mm) extended when the master cylinder is fully retracted.

Pre-Delivery Checklist

Perform these checks and adjustments prior to delivery to your Customer. Adjustments are normally not required as the machine is factory assembled and adjusted. If adjustments are required, refer to the appropriate page number in this manual. The completed Checklist should be retained by either the Operator or the Dealer.

⚠ CAUTION

Carefully follow the instructions given. Be alert for safety related messages that bring your attention to hazards and unsafe practices.

PRE-DELIVERY CHECKLIST

Pre-Delivery Checklist	PW8 Pick-Up Header Serial Number: _____

Table 1 PW8 Pick-up Header Pre-Delivery Checklist – North America

✓	Item	Reference
	Check for shipping damage or missing parts. Be sure all shipping dunnage is removed.	—
	Check for loose hardware. Tighten to required torque.	2 Torque Specifications, page 9
	Check tire air pressure is 35–45 psi (240–310 kPa). Adjust as required.	9.2 Checking Tire Pressure, page 70
	Check hold-down in field/working position.	6.4 Extending Hold-Down To Field/Working Position, page 35
	Check machine is completely lubricated.	9.4.1 Lubricating the Pick-Up, page 74
	Check draper belt tension.	9.3 Checking Draper Belt Tension, page 71
	Check that transport lights are extended.	6.3 Adjusting Transport Lights, page 34
	Check height sensor is calibrated.	9.1 Calibrating In-Cab Height Sensor, page 69
RUN-UP PROCEDURE		
	Check hydraulic hose and wiring harness routing for clearance when raising or lowering header and hold-down.	—
	Check draper speed sensor is working.	See Combine Operator's Manual
	Check height controller is working.	9.6 Running-Up The Header, page 78
	Check transport lights are functional.	See Combine Operator's Manual
POST RUN-UP CHECKS. STOP ENGINE.		
	Check drives for heated bearings.	—
	Check for hydraulic leaks.	—
	Check that manual storage case contains PW8 Pick-Up Operator's Manual and Parts Catalog.	9.5 Manuals, page 77

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