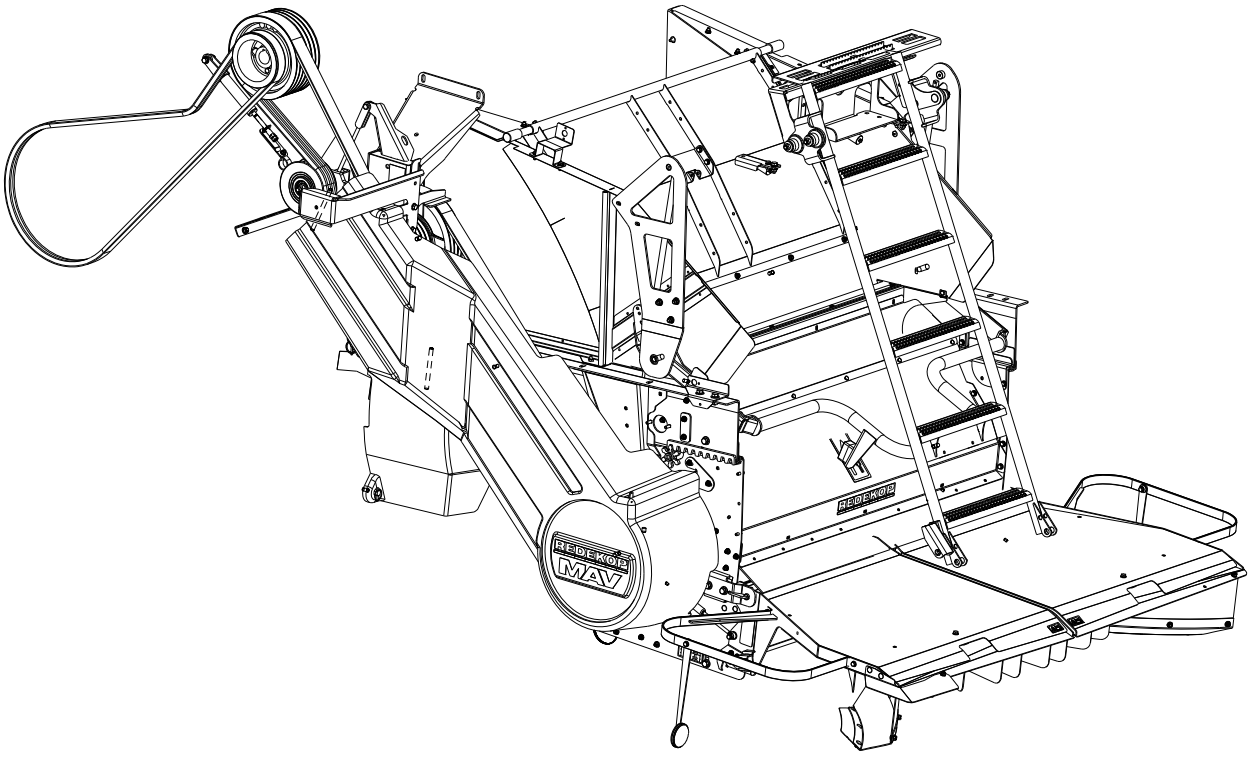
REDEKOP™
Straw and Chaff Management

MAV - 220
Case IH AFX 120, 230, 240 & 250 Series
Model Year 2017 (MY17) - 2021 (MY21)
Field Chopper Installation Guide



CS0297-01_R4_Jan_2021

Case IH AFX 230 & 240 Series
Complete Redekop MAV Chopper Installation Manual
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Case IH AFX 230 & 240 Series
Complete Redekop MAV Chopper Installation Manual
Component Reference

1A. Air Tank - 240S

1B. Air Tank - 230S

2. DEF Tank

4. Hydraulic Lines

5. Sieve Extension

6. Chaff Deflectors

7. AFX Ladder

8. Straw Door

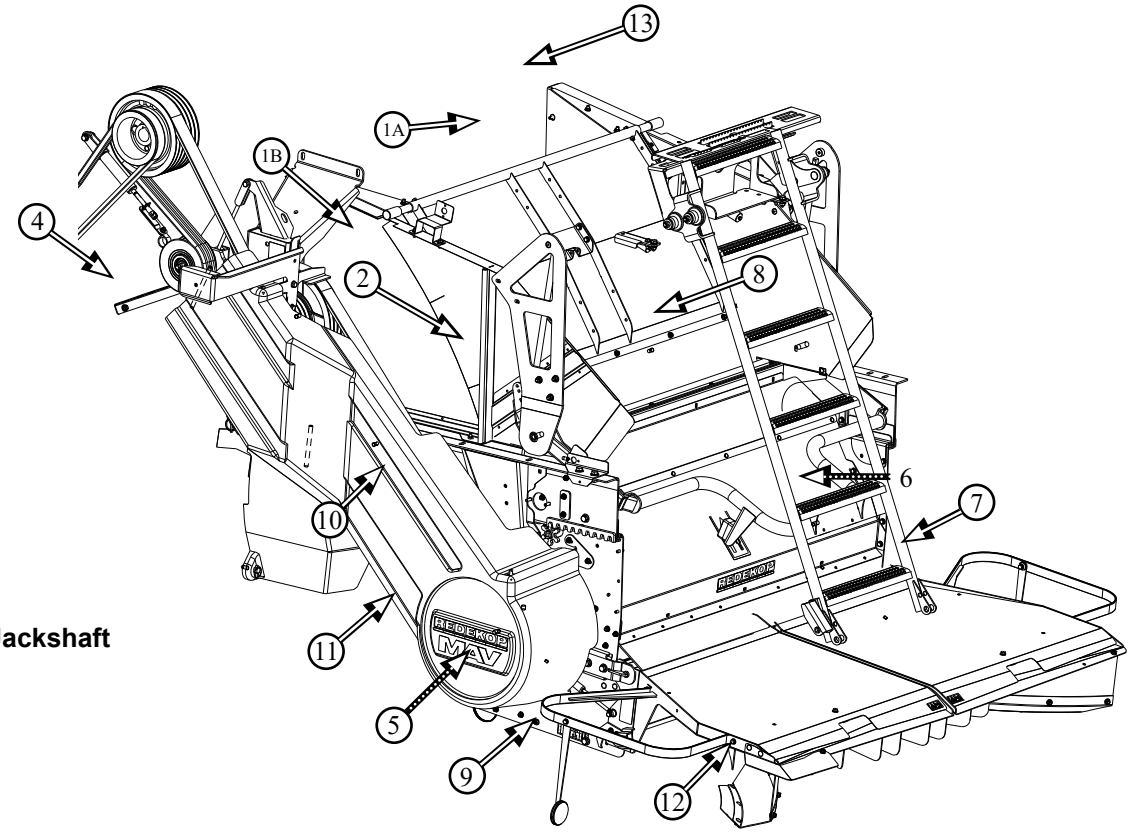
9. Chopper

10. Chopper Drive - 3B Jackshaft

11. Drive Shields

12. Tailboard

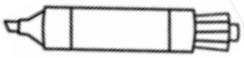
13. Hydraulic Oil Level



Supplies required to assist during the installation procedure:

Requirements:

Marker



Drill

Drill bit - 10mm dia or 13/32 in dia.
- required for section 3.9.4

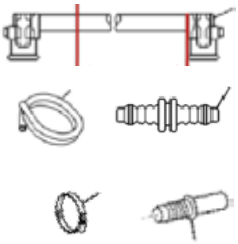
Drill bit - 12mm dia or 1/2 in dia.
- required for section 3.1.4

Pipe Sealant Tape
- required for section 1.4

DEF parts
required for 240 Series, section 3.7

- 47777353	DEF Line w/ SV246 NG8 Elbow Connector	Qty 2
- 47777447	Barbed Connector for DEF Line	Qty 4
- 84480613	EPDN Hose 40”	Qty 2
- 84480601	Hose Connector for coolant line	Qty 4
- 86625022	Hose Clamp	Qty 4
- 47655259	Tool Box	Qty 1

Required parts will have to be ordered through Case IH Parts system



Decal
- required for section 3.6
- **#47692590A** Qty 1
Order from Case IH Parts system

Laser Alignment Tool
Order RP956 if Required
- required for section 10.2.4

0 Safety

0.1 Introduction

0.1.1 IMPORTANT: Read through this instruction thoroughly and familiarize yourself with the machine before removing these components. Do not skip steps or perform them out of order.

This instruction manual explains the proper procedure for preparing the combine and removing the Factory Spreader Components in order to install the Redekop MAV Chopper

0.2 Recognize Safety Information

0.2.1 This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

0.3 Understand Signal Words

0.3.1 A signal word - DANGER, WARNING, or CAUTION - is used with the safety-alert symbol. DANGER identifies the most serious hazards.

WARNING or CAUTION safety signs are located near specific hazards or precautionary areas in this manual.

0.4 Follow Safety Instructions

0.4.1 Carefully read all safety messages in this manual and on your machine. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your dealer.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator’s manual.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.

Other languages are available for this machine. Please contact Redekop

0.5 Safe Operating Practices

0.5.1 DO NOT stand near the straw chopper and Seed Control Unit when combine is running.

ALWAYS refer to your Combine Operator's Manual, and review the Safety section before operating machine. The Combine Operator's Manual details safe operating practices that must be followed to protect you and others from accidental injury and/or death.

Operate Seed Control Unit only when all guards are correctly installed.

Before moving away, always check immediate vicinity of Seed Control Unit (e.g. for children). Ensure adequate visibility. Use a horn as a warning immediately before moving away.

When making turns, always take into consideration the width of the attachment and the fact that the rear end of the machine swings out. Attachments and ground conditions affect the driving characteristics.

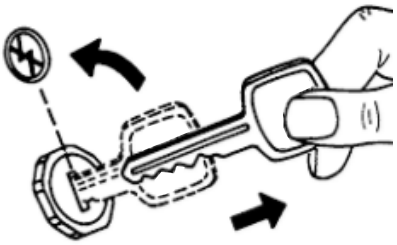
Never leave combine unattended as long as engine is running.

0.6 Work In Ventilated Area

0.6.1 Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.

0.7 Remove Key from Ignition



0.7.1 ALWAYS shut off combine engine prior to working on it.

Apply park brake, remove key and lock operators cab.

If the combine is equipped with an additional safety master power switch, turn this to the Power OFF position.

0.8 Block Wheels

0.8.1 Park the combine on level ground.

Always engage the park brake and block the combine wheels prior to working to prevent the combine from moving.

0.9 Practice Safe Maintenance

0.9.1 Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust Seed Control Unit while it is moving. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

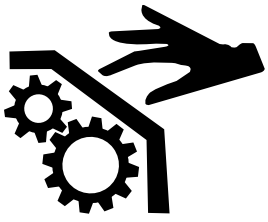
Keep hands, feet and clothing away from power-driven parts. Tie long hair behind your head. Do not wear rings, jewelry, a necklace, a necktie, scarf, or loose clothing when you work near machine or moving parts. If these items were to get caught, severe injury could result.

Securely support any Seed Control Unit elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on Seed Control Unit.

0.10 Guards and Shields



0.10.1 Keep guards and shields in place at all times. Ensure that they are serviceable and maintained correctly.

0.11 Avoid Contact With Moving Parts

0.11.1 Keep hands, feet and clothing away from power driven parts. Never clean, lubricate or adjust machine when it is running.

Never attempt to clear obstructions from machine unless it is disengaged, engine shut off and key removed.

0.12 Avoid High-Pressure Fluids

0.12.1 Inspect hydraulic hoses periodically - at least once per year - for leakage, kinking, cuts, cracks, abrasion, blisters, corrosion, exposed wire brand or any other signs of wear or damage.

Replace worn or damaged hose assemblies immediately.

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

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.

0.13 Dispose of Waste Properly

0.13.1 Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste includes such items as oil, fuel, coolant, brake fluid, filters and batteries.

Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

0.14 Use Proper Lifting Equipment

0.14.1 Lifting heavy components incorrectly can cause severe injury or Seed Control Unit damage.

Follow recommended procedure for removal and installation of components in the manual.

Ensure lifting equipment is rated for the job

Ensure operator is appropriately licensed to operate lifting equipment

0.15 Personal Protective Equipment (PPE)

0.15.1 A Qualified Person designated by the employer, who is knowledgeable about and familiar with all relevant specifications and assembly instructions and is capable of identifying existing or potential hazards in surroundings or working conditions which may be hazardous or dangerous to employees shall determine appropriate Personal Protective Equipment required for this assembly.

Personal Protective Equipment (PPE) are devices worn by the employees to protect against hazards in the environment. Examples include safety glasses, face shields, respirators, gloves, hard hats, steel-toe shoes, and hearing protection. Wear close fitting clothing and safety equipment appropriate for the job.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

0.16 Sound Level

0.16.1 This product produces sound pressure levels in excess of 90 dB within 10m of discharge area.

Hearing protection is required!

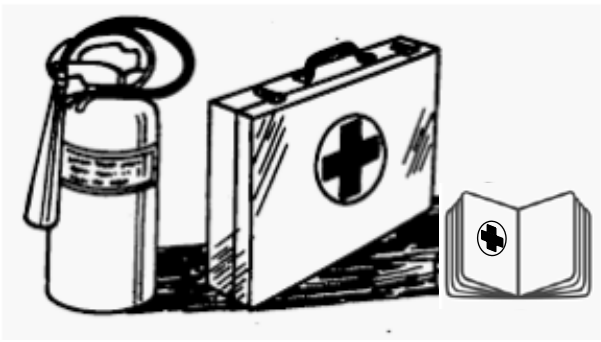
Interference with speech communication, acoustic signals is possible.

0.17 Prepare for Emergencies

0.17.1 Be prepared if a fire starts.

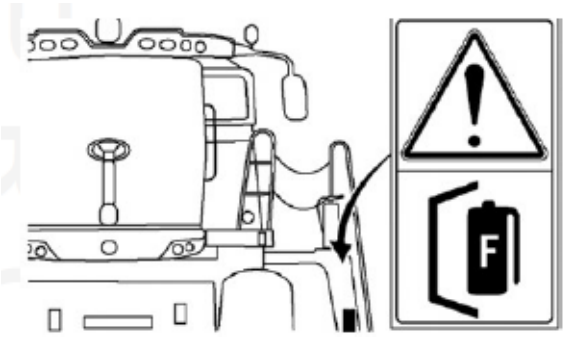
Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.



0.18 Fire Extinguisher

0.18.1 A 6 kg (15 lb) general-purpose fire extinguisher meeting national certification requirements must be installed on left side of operator's platform.



Maintain fire extinguisher to keep it in operating condition.

Make sure that the fire extinguisher is always ready for use. Refer to the fire extingisher's manual for instructions on how to operate it. Once extinguisher is operated - no matter how long - it must be recharged.

Keep the engine clean and free of dust, chaff and straw to prevent the possibility of fire.

0.19 Remove Accumulated Crop Debris

0.19.1 The build up of chaff and crop debris in the engine compartment, on the engine, and near moving parts is a fire hazard. Check and clean these areas frequently.

0.20 In the Event of Fire

0.20.1 Stop work immediately at first sign of fire. This may be the smell of smoke or the sight of smoke or flames.

CAUTION: Do not risk personal injurty. If a fire is too far advanced, do not try to extinguish it.

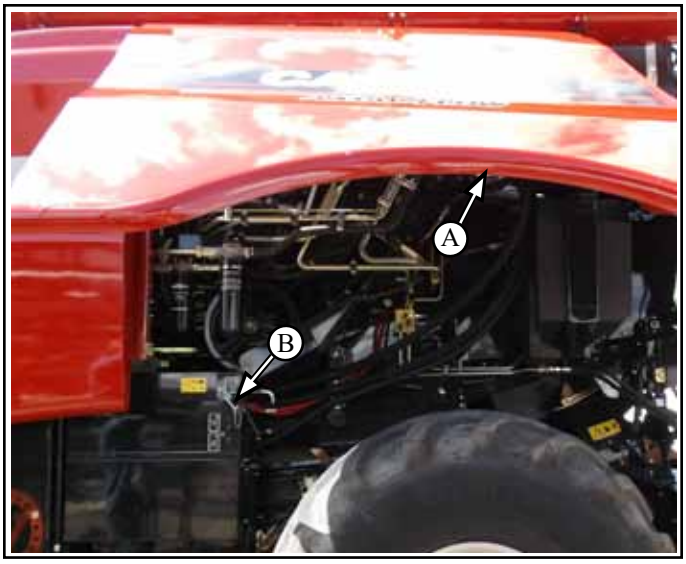
If a fire can be safely extinguished, procedd carefully and follow these guidlines:

1. Remove fire extinguisher from bracket and carry it to the area of fire.
2. Approach area of fire wind to your back.
3. Pull the safety pin out of actuating lever.
4. Hold extinguisher upright and aim hose at base of flames.
5. Squeeze lever to discharge fire extinguisher.
6. Move hose to cover the source of the fire evely with extinguishing agent.

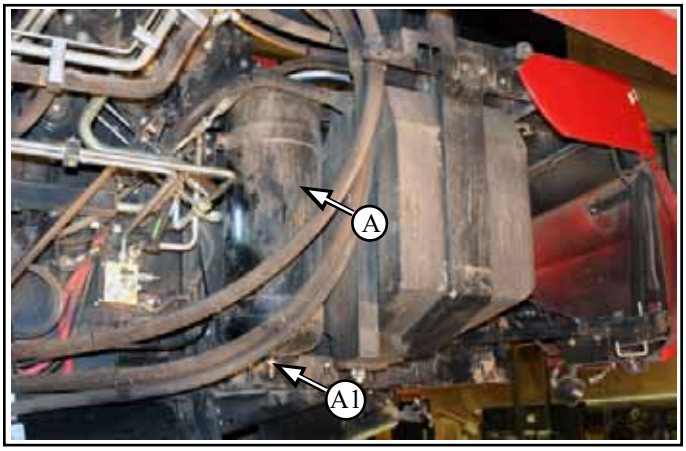
Torque Table		
Nominal Size	Class 8.8	Class 10.9
	Nm / (ft-lbs)	Nm / (ft-lbs)
M8 - flanged	27 / (20)	39 / (29)
- non flanged	25 / (18)	35 / (26)
M10 - flanged	54 / (40)	57 / (42)
- non flanged	49 / (36)	70 / (51)
M12 - flanged	93 / (69)	134 / (98)
- non flanged	85 / (63)	121 / (90)
M16 - flanged	231 / (171)	331 / (244)
- non flanged	210 / (155)	301 / (222)

Master Power

1. Shut off engine, remove keys from the combine cab
2. Block wheels on level ground
3. Lift up the left rear side access panel (**A**)
4. Turn Master Power Off (**B**)



1 Air Tank Removal / Relocation
- if equipped
- 230 Series only

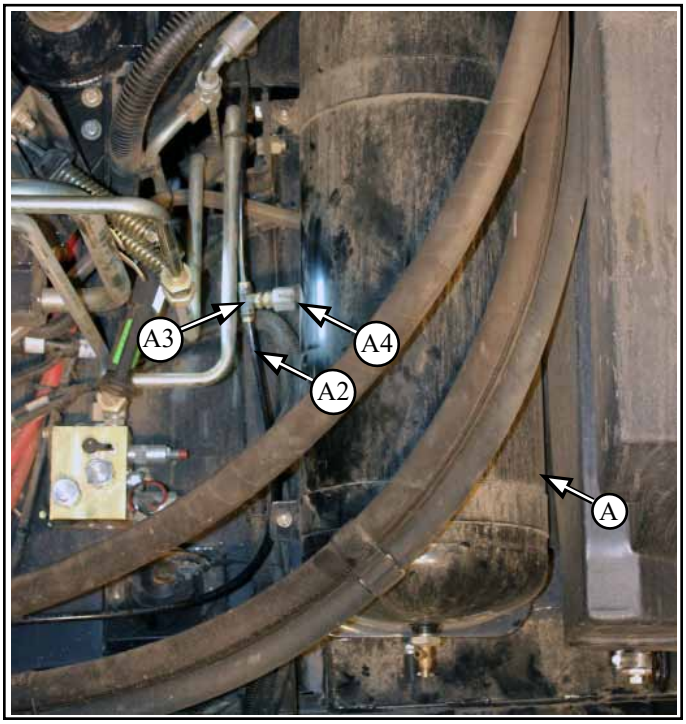


1.1 Drain Air Tank

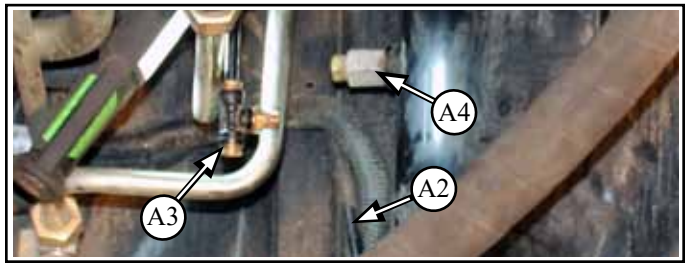
1.1.1 Open bottom valve **(A1)** on air tank **(A)** to release air pressure

1.2 Disconnect Air Line

1.2.1 Remove bottom air line **(A2)** from Tee fitting **(A3)**

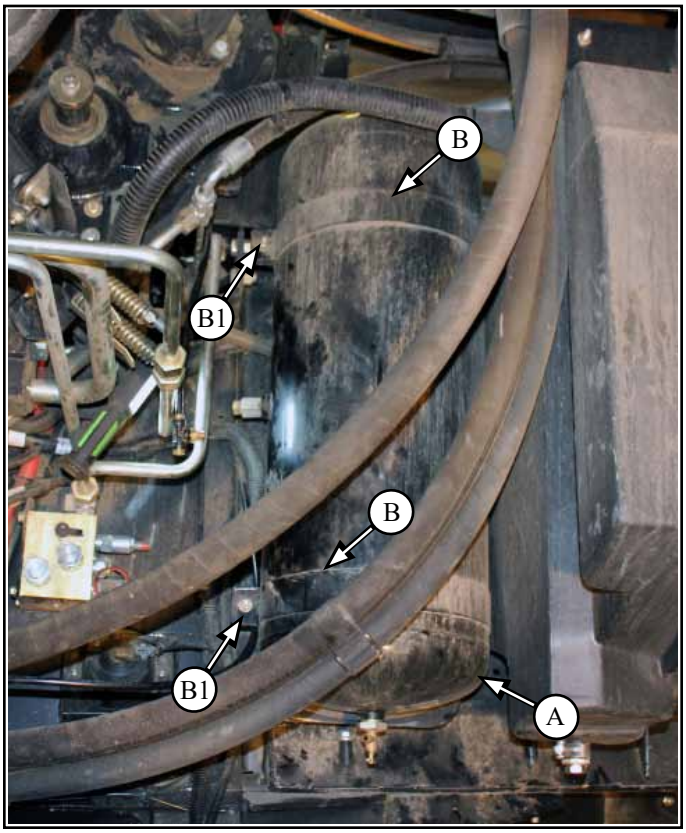


1.2.2 Disconnect Tee fitting **(A3)** from fitting **(A4)** on air tank **(A)**



1.3 Remove Air Tank

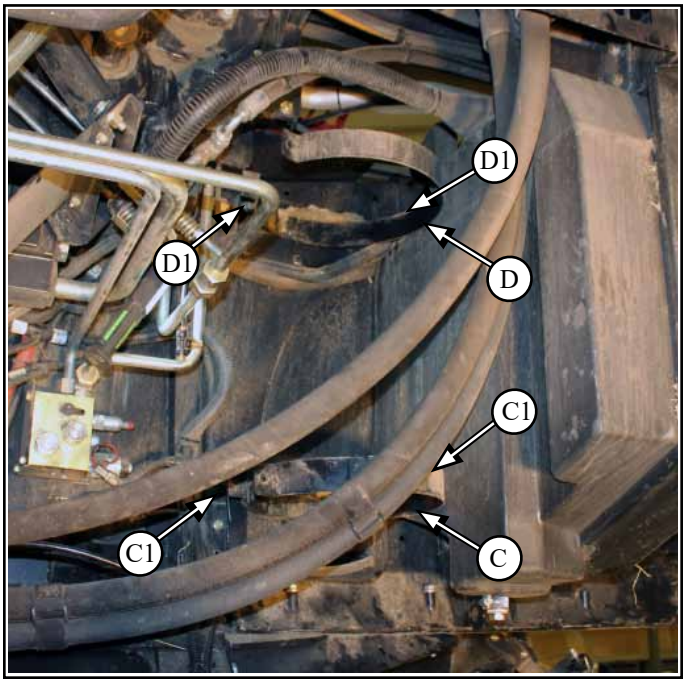
1.3.1 Remove hardware **(B1)** from air tank straps **(B)** x2 holding the air tank **(A)** in place



1.3.1.1 Remove air tank **(A)**

- to be reinstalled at a different location

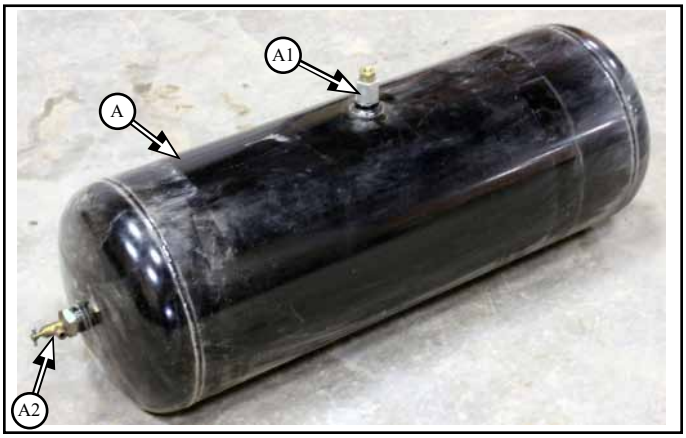
1.3.2 Remove hardware **(C1)** x2 mounting the bottom air tank mounting bracket **(C)** to combine wall



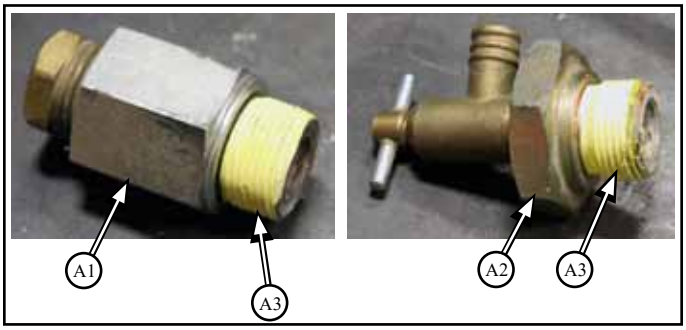
1.3.3 Remove hardware **(D1)** x2 mounting the top air tank mounting bracket **(D)** to combine wall

1.4 Air Fitting Relocation

1.4.1 Remove existing fittings (**A1 & A2**) from air tank (**A**)

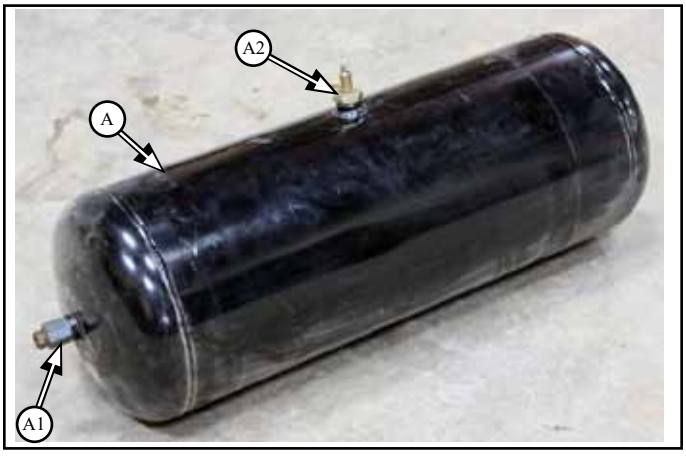


1.4.2 Apply sealant tape (**A3**) to ends of fittings (**A1 & A2**)



1.4.3 Reinstall fitting **(A1)** into end of air tank (**A**)

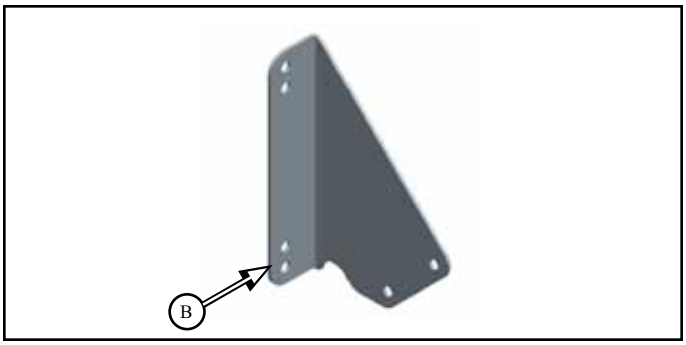
1.4.4 Reinstall fitting **(A2)** into body of air tank (**A**)



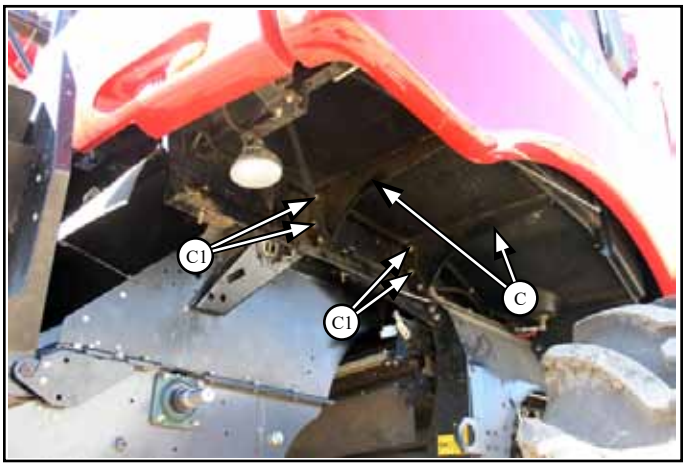
1.5 Air Tank Mount Bracket Installation

Parts List:
parts located in CS970S box
hardware located in CS510S bag

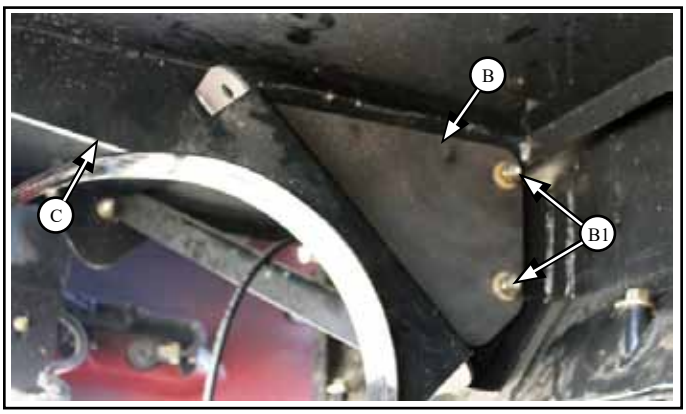
CS862B	Air Tank Mount Bracket **(B)**	Qty 2



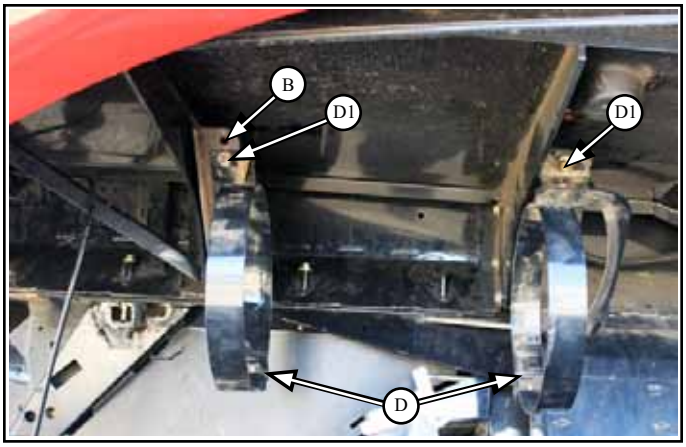
1.5.1 At right rear corner of combine, remove upper hardware **(C1)** x2, mounting brace **(C)** x2 to combine wall



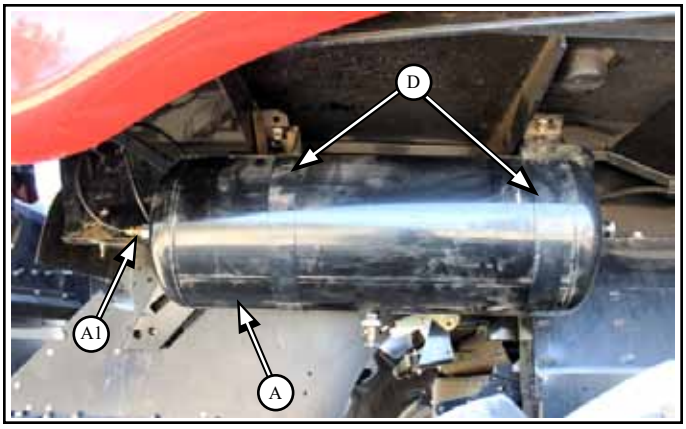
1.5.2 Mount new air tank mount bracket (**B**) x2 to front side of mounting braces (**C**) with:
- M12 x 25 flanged head bolts and flange nuts (**B1**) x4



1.5.3 Mount existing air tank mount bracket (**D**) x2 to mounting brackets (**B**) with:
- existing M12 x 20 flanged head bolts and flange nuts (**D1**) x4 from step 1.3.1



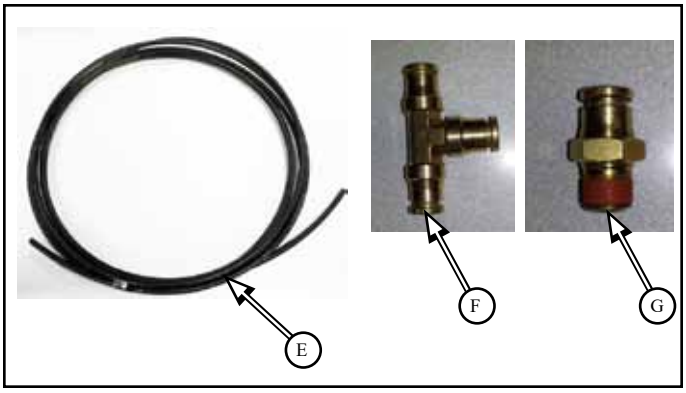
1.5.4 Mount air tank (**A**) into mounting brackets (**D**) - ensure end with fitting (**A1**) is facing rearward



1.6 Air Hose Installation

Parts List:
parts located in CS970S box

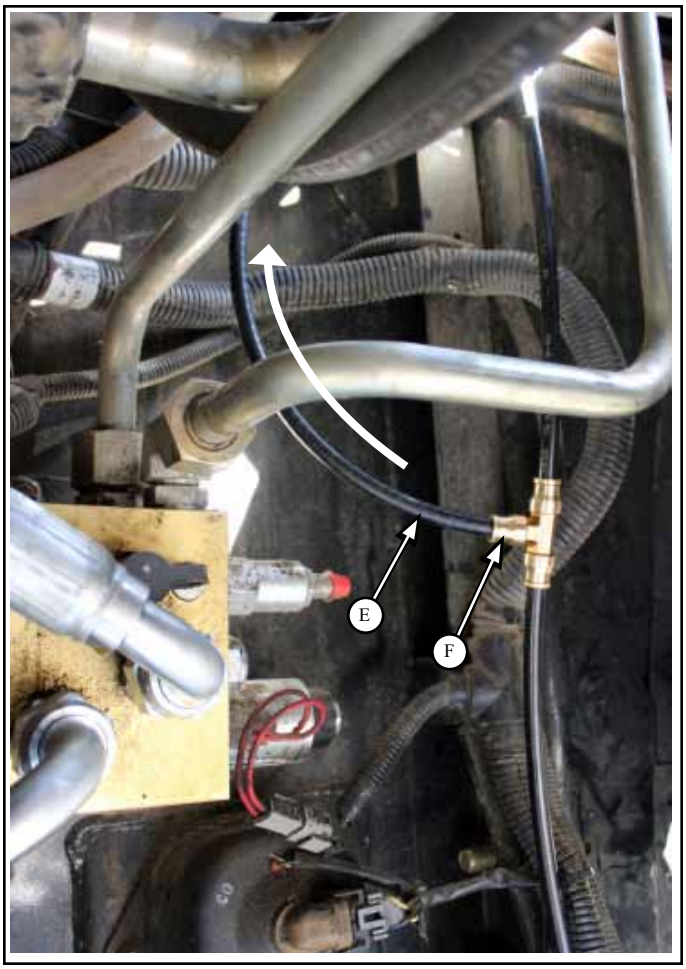
CS860-01	Air Hose 3/8 x 16ft (**E**)	Qty 1
RP836	Fitting Tee Air Push In .375 (**F**)	Qty 1
RP837	Fitting Air .375 Push In .25 NPT Nip (**G**)	Qty 1



1.6.1 Replace existing air tee fitting (**A3**) with new tee fitting (**F**)

1.6.2 Insert new air hose (**E**) into tee fitting (**F**)

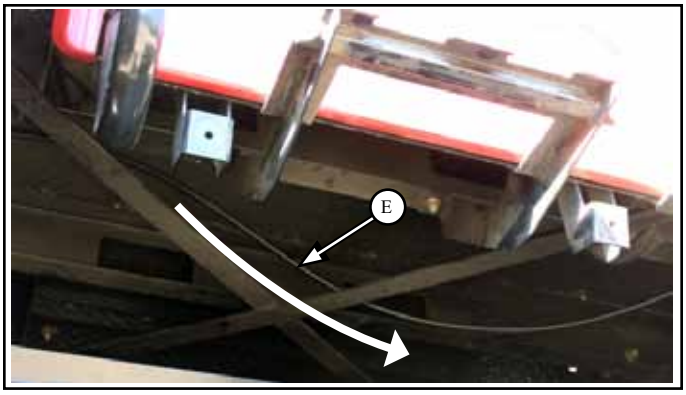
1.6.3 Run air hose (**E**) up under top platform over to new location of air tank (**A**) at right rear corner



Previous

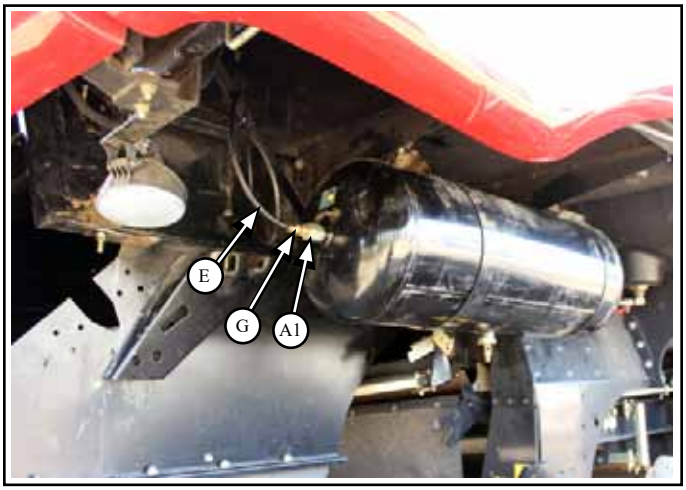
New

1.6.3.1 Run air hose (**E**) up under top platform over to new location of air tank (**A**)

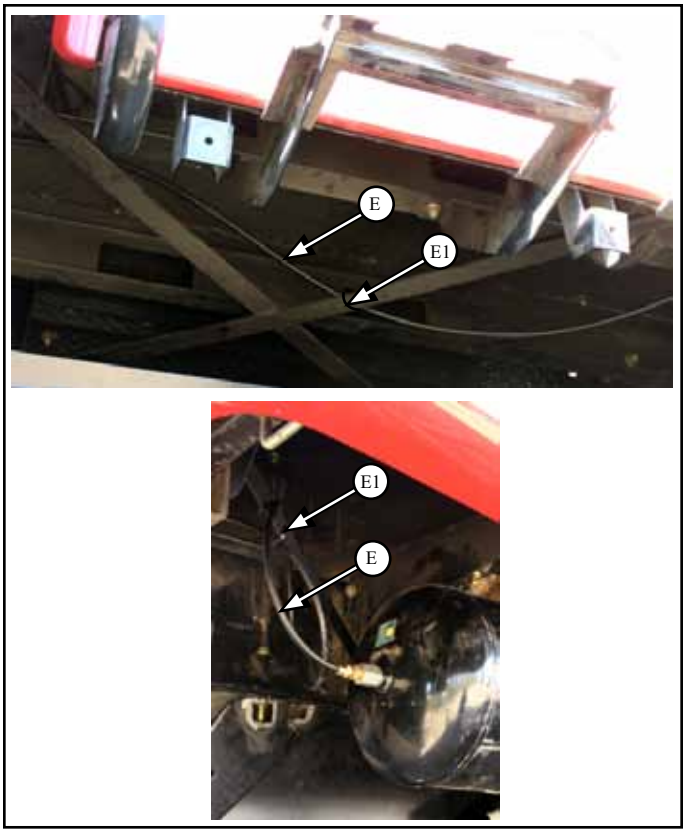


1.6.3.2 Connect air fitting (**G**) to air tank fitting (**A1**)

1.6.3.3 Connect air hose (**E**) to air fitting (**G**)



1.6.4 Secure air hose (**E**) to combine with tie straps (**E1**) as required



2 Diesel Exhaust Fluid (DEF) Tank Relocation Preparation - 230/240 Series

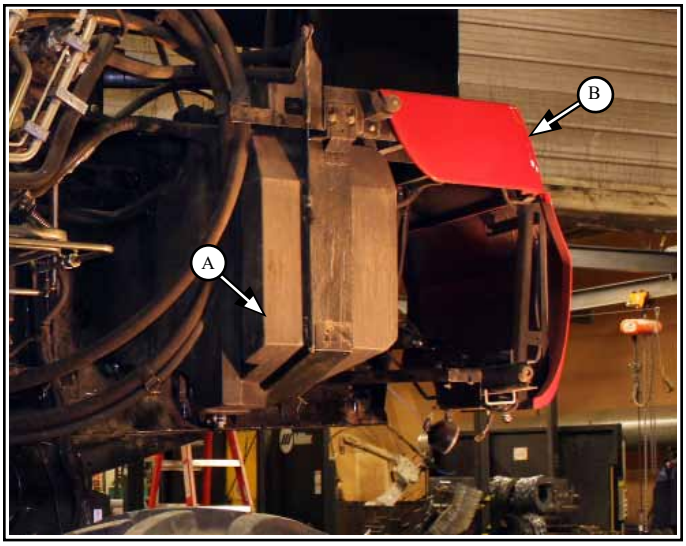
2.1 Drain DEF Tank

2.1.1 Open drain valve (**A1**) at bottom of DEF tank (**A**)

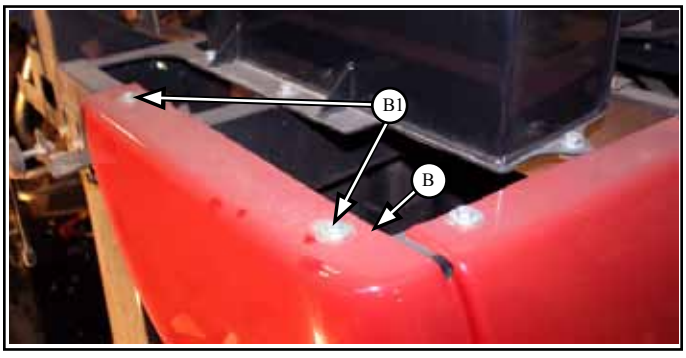
2.1.1.1 Drain fluid into a clean container (**A2**)

2.2 Remove Top Left Corner Panel

2.2.1 Remove hardware (**B1**) x2 mounting the top left rear corner panel (**B**) to the combine top frame

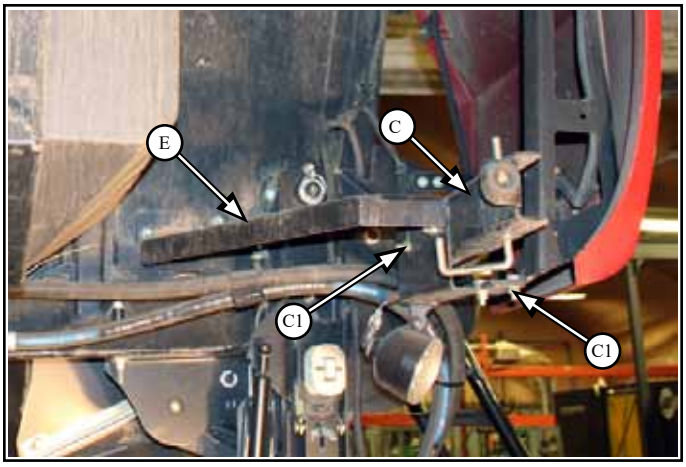


- to be reinstalled

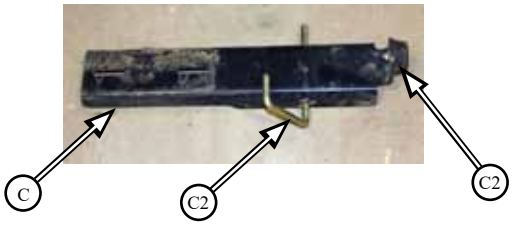


2.3 Remove Rear Support Arm

2.3.1 Remove hardware (**C1**) x4 mounting the rear support arm (**C**) to rear support bracket (**E**)



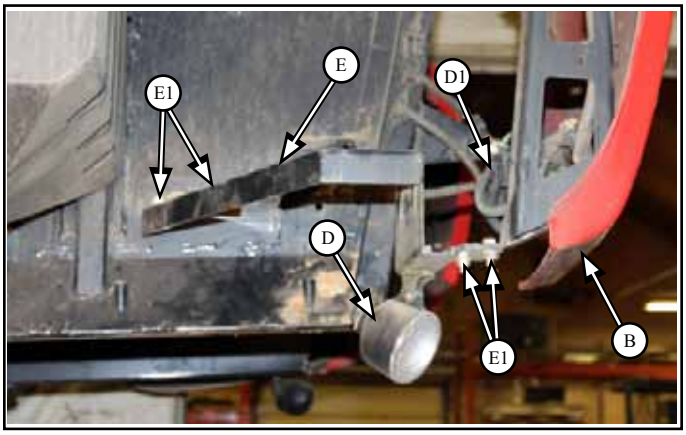
2.3.2 Remove pin, spring, rubber stop and hardware (**C2**)
- to be reinstalled
- bracket (**C**) not to be reused



2.4 Remove Rear Support Bracket

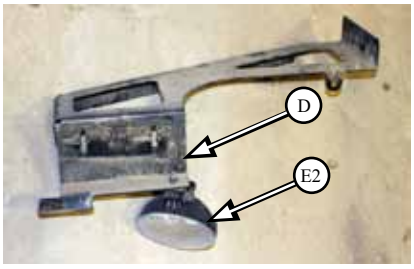
2.4.1 Disconnect wire harness connector (**D1**) from light (**D**)

2.4.1.1 Tie up wire harness (**D1**) into corner panel (**B**)
- to be reconnected



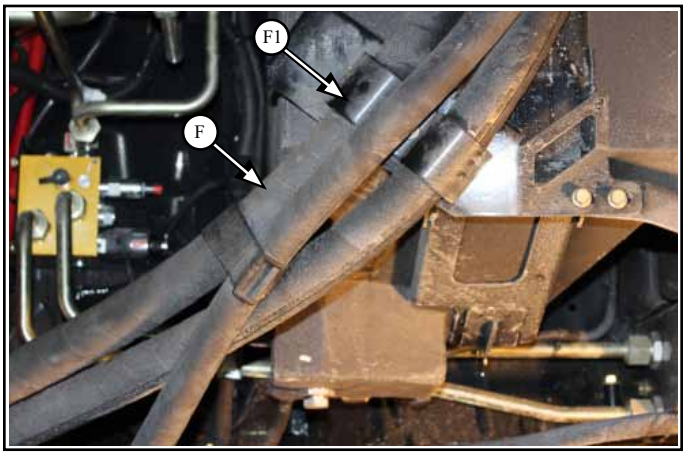
2.4.2 Remove hardware (**E1**) x4 mounting the rear support bracket (**E**) to left combine wall and rear corner panel (**B**)

2.4.3 Remove light (**D**) from support bracket (**E**)
- to be reinstalled
- support bracket (**E**) not to be reused



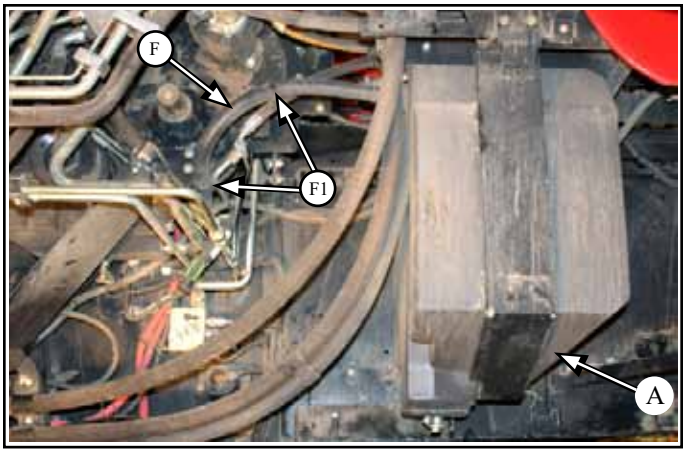
2.5 Prepare DEF Lines

2.5.1 Remove hose clamps (**F1**) from ground drive hoses (**F**)

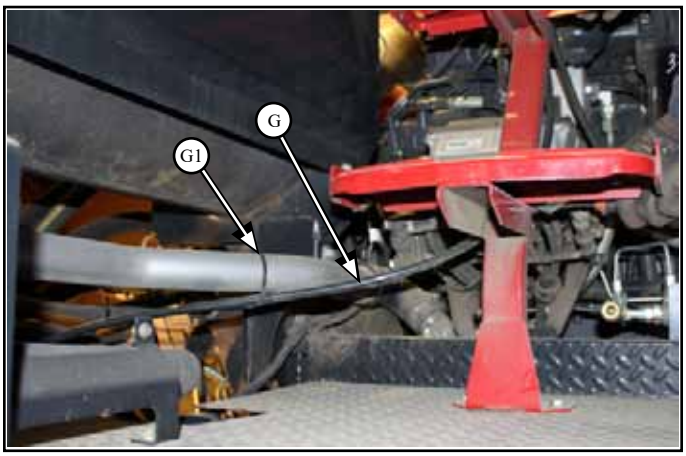


- Hoses will now be loose and will be reclampled into place upon completion of the MAV Chopper

2.5.2 Remove hose clamps (**F1**) from DEF conduit (**F**)



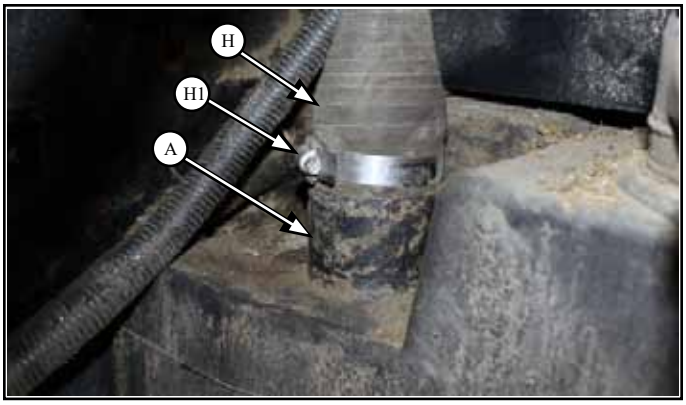
40 Series has vent line bolted above DEF line which is to be moved and reattached with bracket provided



40 Series DEF lines only

2.5.4 Loosen hose clamp (**H1**) from DEF fuel fill line (**H**)

2.5.4.1 Remove DEF fuel fill line (**H**) from DEF tank inlet (**A**)



2.5.4.2 Seal (**A3**) top of DEF fuel tank inlet (**A**) to prevent contamination in the tank

DEF Tank relocation installation completed in section 3

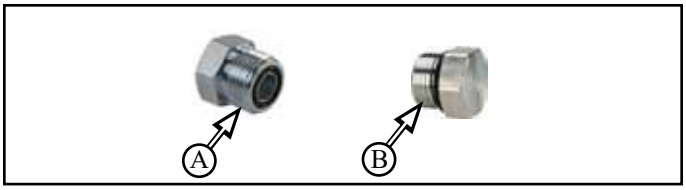
2.6 Remove Left Fuel Tank

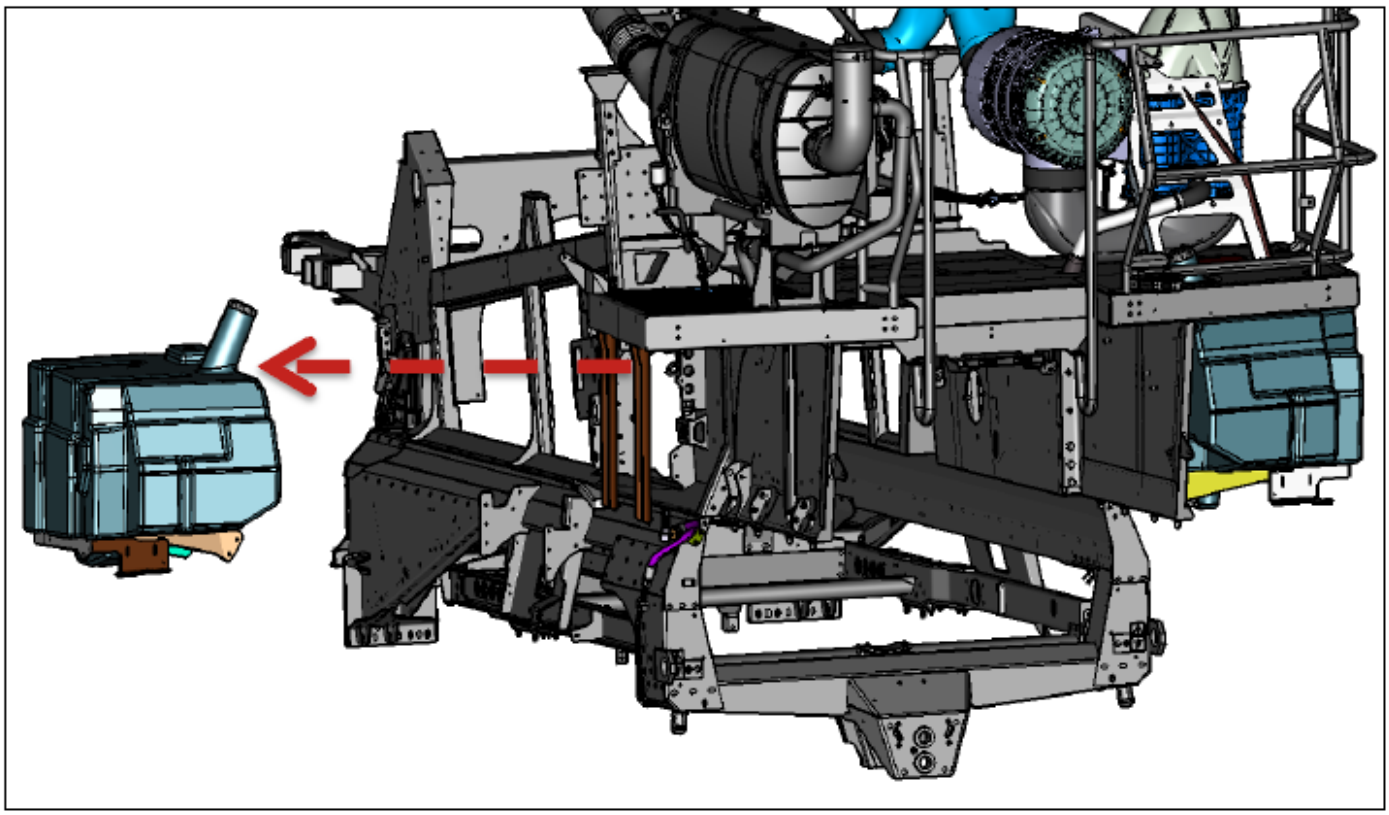
Left fuel tank is standard on the 9240 and an option on the 8240

Required in order to move Def tank back to provide space for the chopper drive system

Parts List:
parts located in CS971S bag

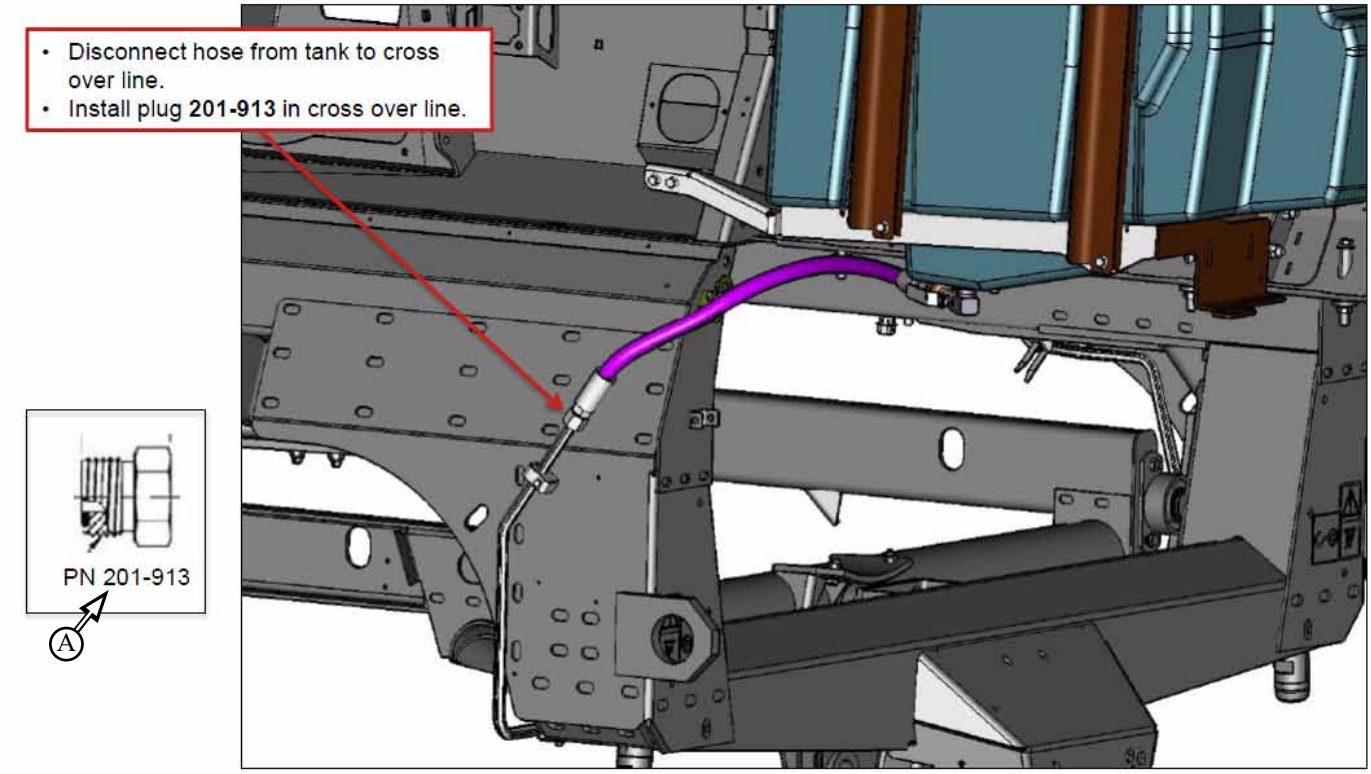
H17-10 Plug, ORFS 1-14 5/8 Tube (201-913) (**A**) Qty 1
H15-16 Plug, ORB 1-5/16-12 1.0 Tube (273916) (**B**) Qty 1



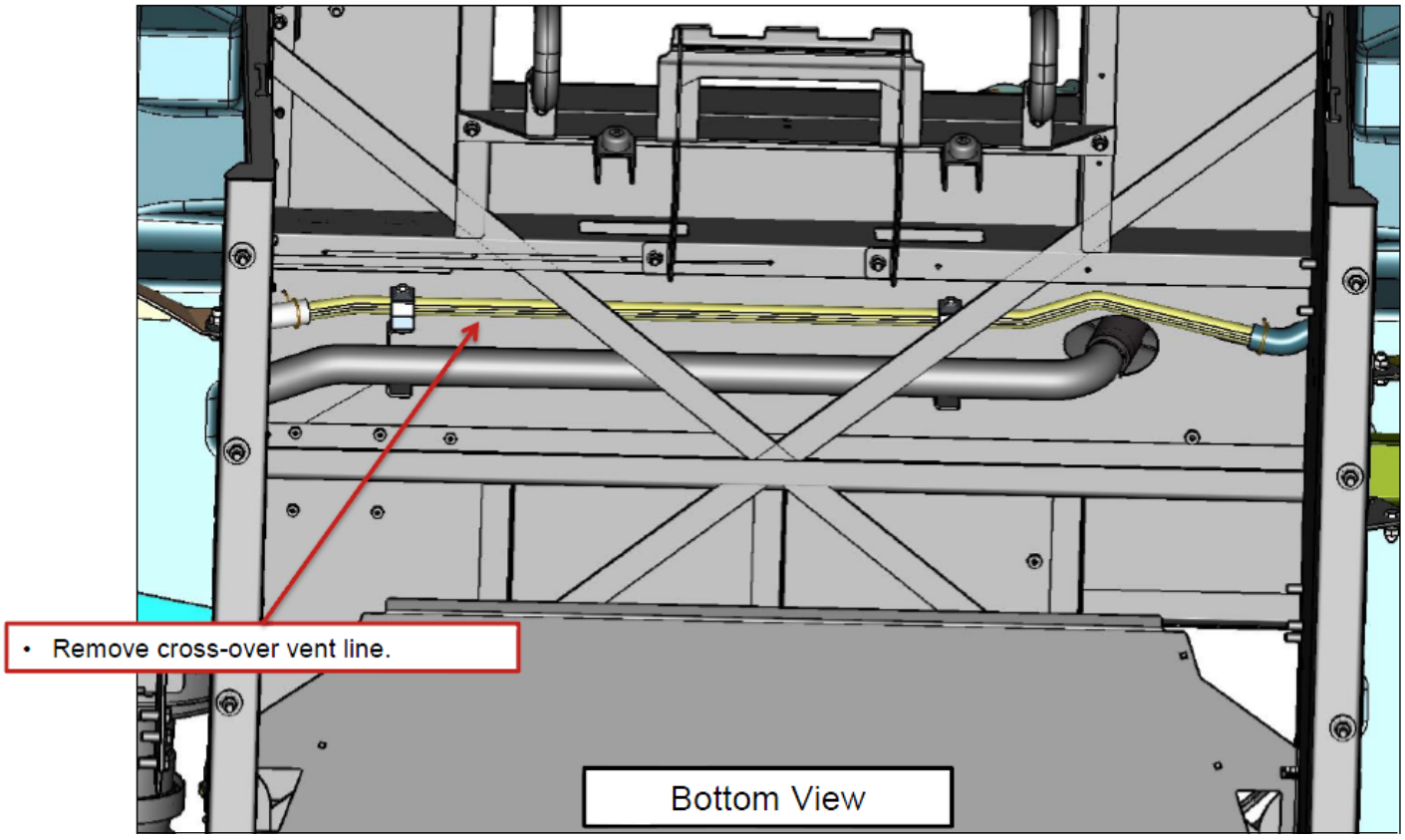


2.6.1 Disconnect LH Tank Cross-Over LIne

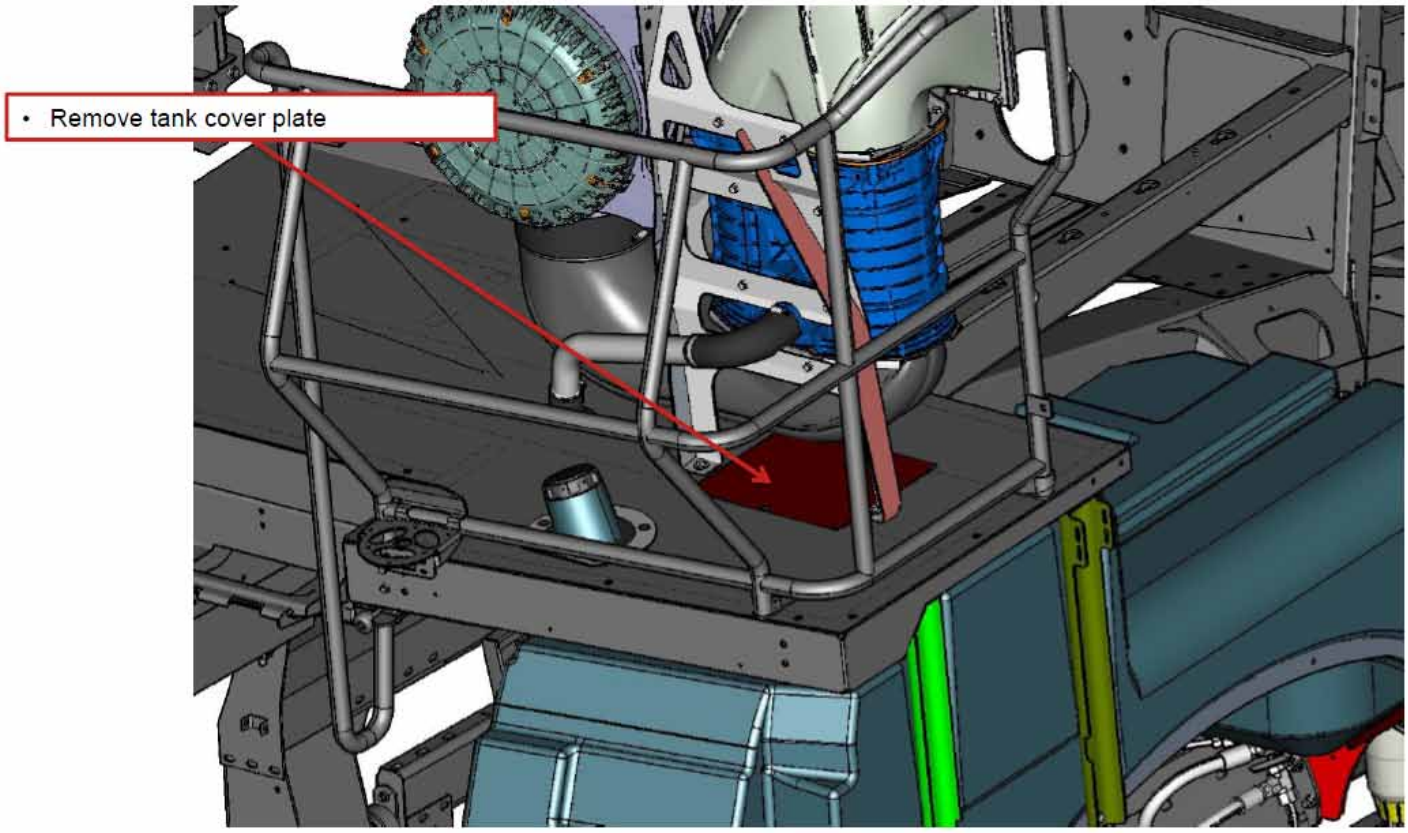
2.6.1.1 Add plug (**A**)



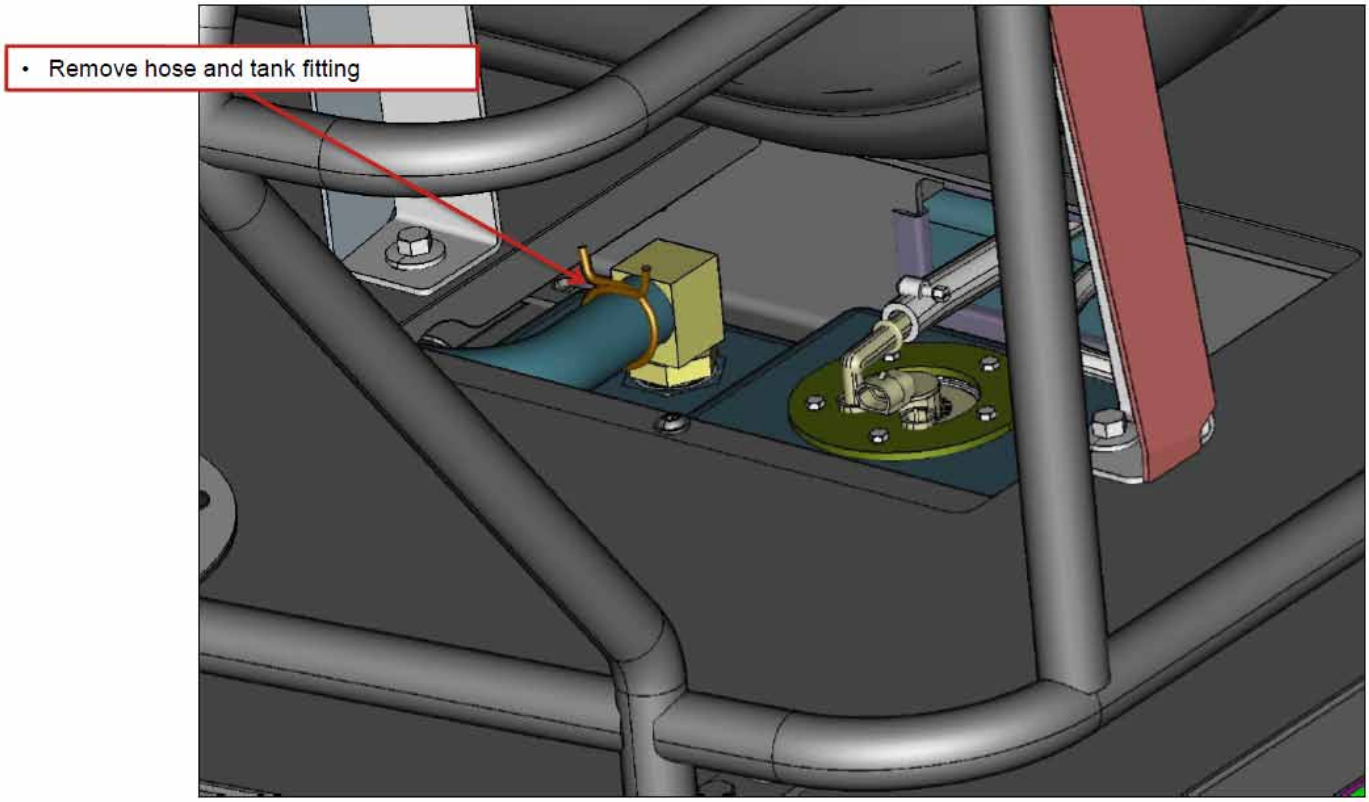
2.6.2 Remove LH Tank Vent LIne



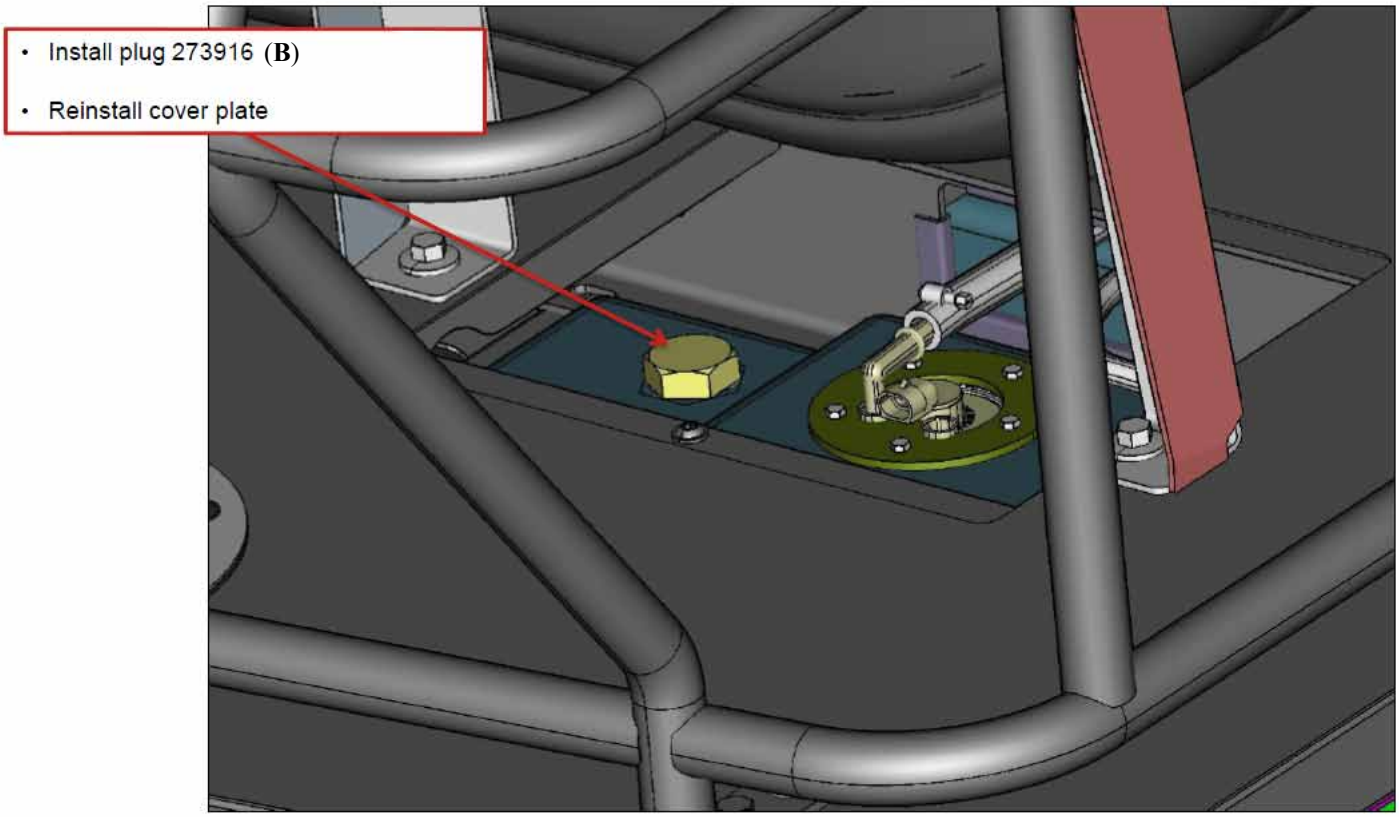
2.6.2.1 Remove Tank Cover Plate



2.6.2.2 Remove hose and tank fitting



2.6.2.3 Install plug (**B**)

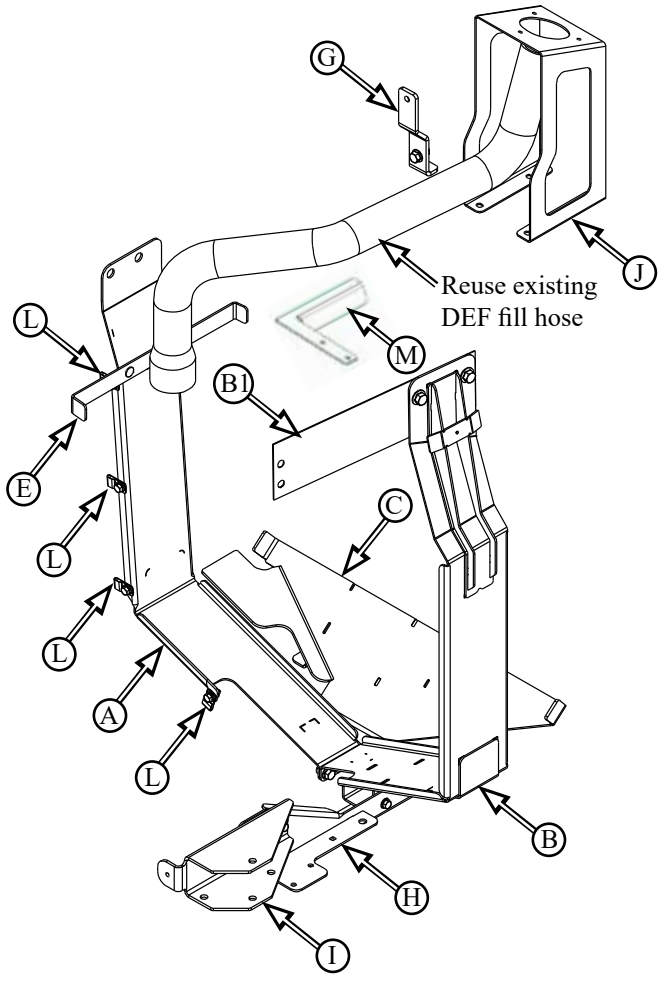


2.6.3 Remove fuel tank mounting brackets and fuel tank as required
- parts are not to be reused

3 Diesel Exhaust Fluid (DEF) Tank Relocation Installation 230/240 Series

Parts List:
parts located on pallet and in CS917BS and CS970S boxes

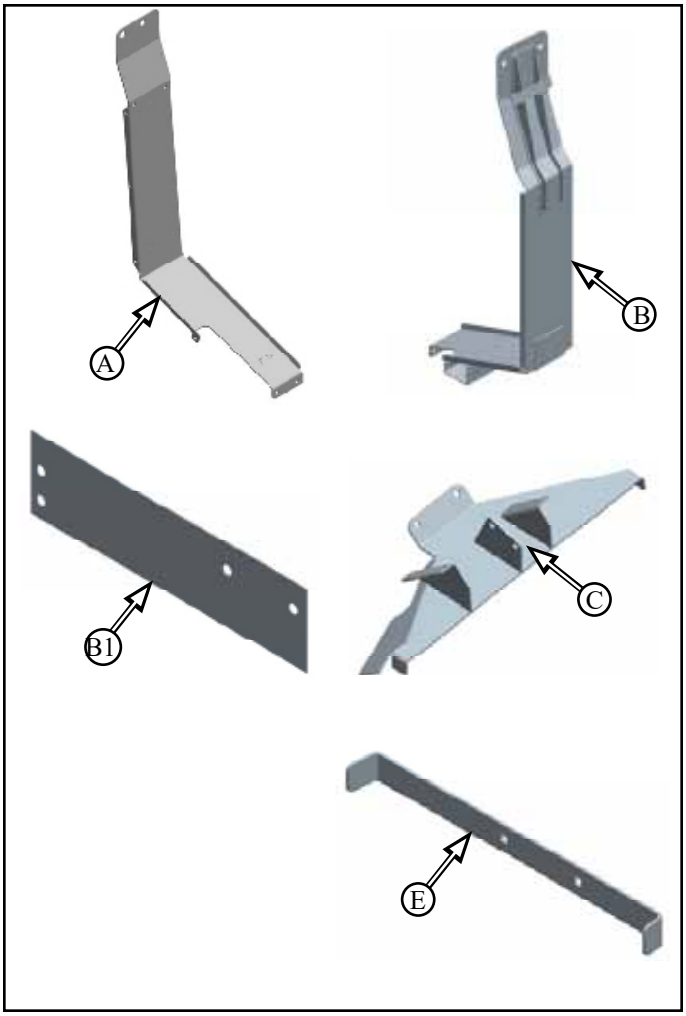
CS890B Hanger Front DEF AFX **(A)**	Qty 1	CS829B Bracket Rear DEF Hanger **(B)**	Qty 1
CS829_TEMPLATE Bracket Rear DEF Hanger **(B1)**	Qty 1	CS826B Bottom DEF Mount Plate **(C)**	Qty 1
CS891B Bracket Top DEF Guide **(E)**	Qty 1	CS835B Bracket DEF Vent Mount **(G)**	Qty 1
CS831B Arm Panel Latch **(H)**	Qty 1	CS786B Bracket Panel Lock **(I)**	Qty 1
CS805B Bracket DEF Fill Tube Mount **(J)**	Qty 1	RP220 P-Clip 2W .375D x.75 Insulated **(L)**	Qty 4
CS875B Bracket DEF Fill Guard (**M**)	Qty 1		



3.1 DEF Tank Installation

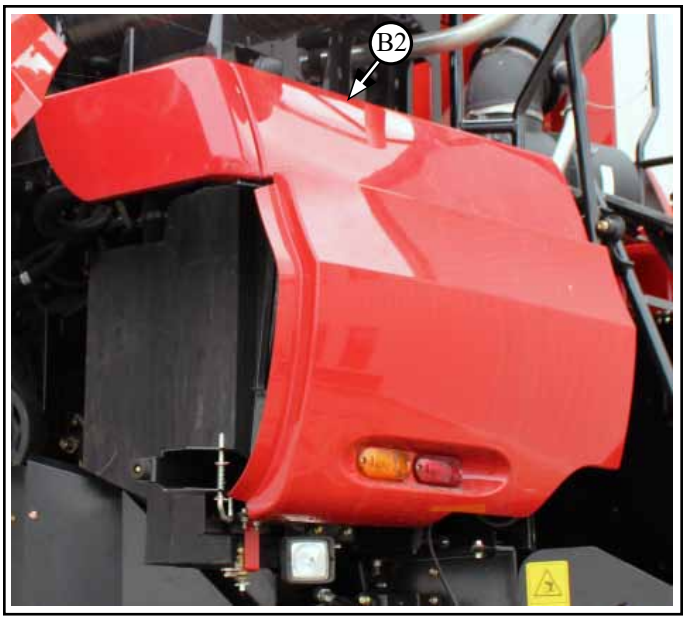
Parts List:
parts located on pallet and in CS917BS box
hardware located in CS850S bag

CS890B	Bracket Front DEF Hanger **(A)**	Qty 1
CS829B	Bracket Rear DEF Hanger **(B)**	Qty 1
CS826B	Bottom DEF Mount Plate **(C)**	Qty 1
CS829_TEMPLATE	Bracket Rear Def Hanger **(B1)** (located in CS970S)	Qty1
CS891B	Bracket Top DEF Guide **(E)**	Qty 1



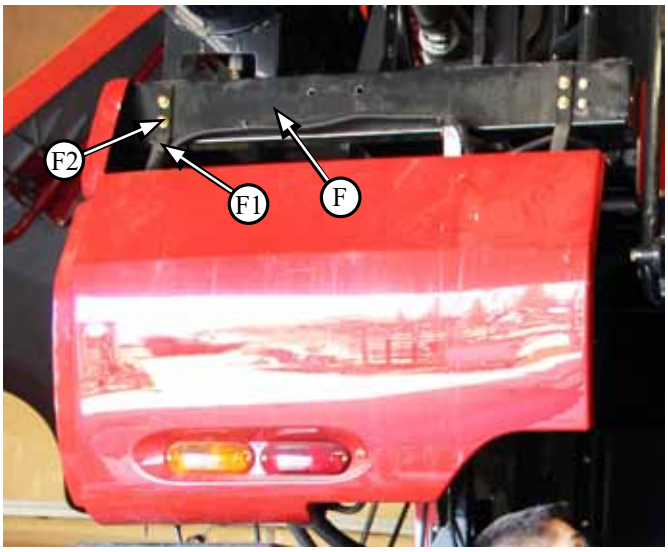
3.1.1 Remove Top Left Rear Panel (**B2**)

-To be reinstalled



Not Required for MY17 & Current Machines
Holes are in Frame
Steps 3.1.2 to 3.1.4.2

3.1.2 Remove hardware (**F2**) mounting bracket (**F1**) to top combine frame (**F**)

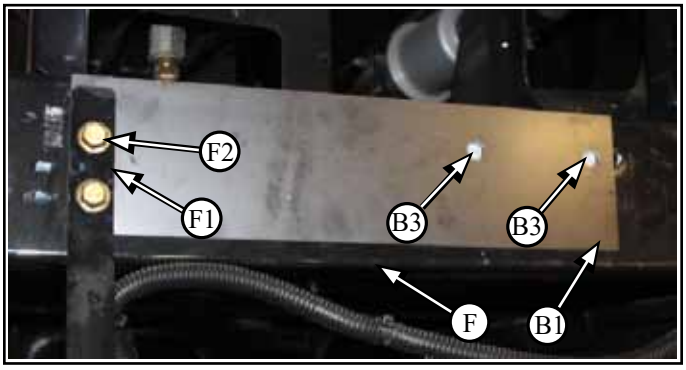


3.1.3 Attach template (**B1**) to top combine frame (**F**) with mounting bracket (**F1**) and hardware (**F2**)
Note: Not required for MY17 - holes are in the frame

3.1.4 Mark holes (**B3**) x2 through holes in template (**B1**) onto frame (**F**)

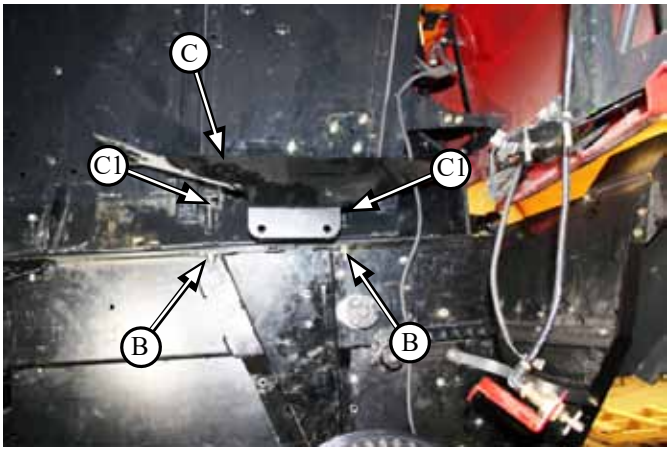
3.1.4.1 Drill 12mm (.5 in) holes (**B3**) x2 through top frame (**F**)

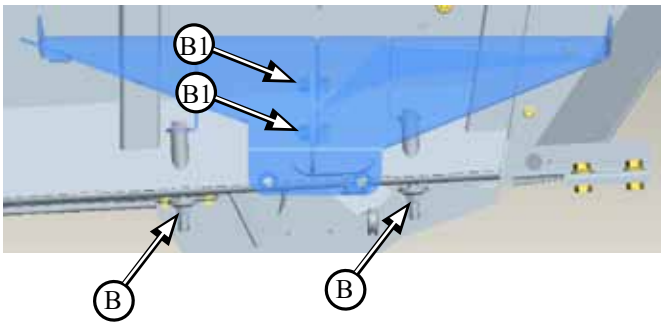
3.1.4.2 Remove template (**B1**) and reattach bracket (**F1**) to combine frame (**F**)



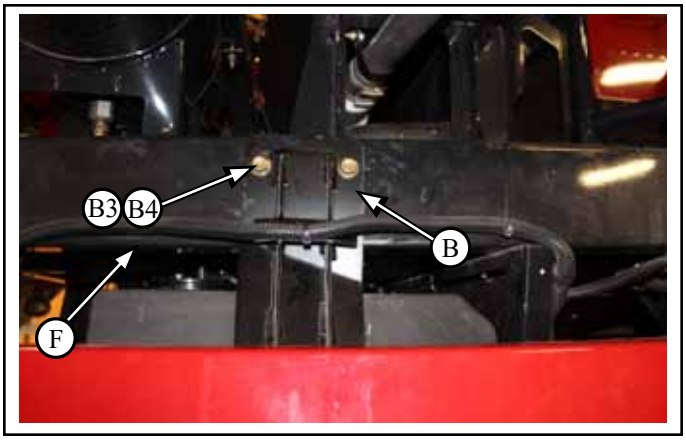
3.1.5 Install bottom DEF mount plate **(C)** to the top of the last two bolt locations **(C1)** on combine frame with:
- existing M12 x 120 flange bolts and flange nuts **(B)**
Note: Do not tighten the nuts on bolts untill the chopper is installed

- M12 x 30 flange bolt and M12 flange nut **(B1)** x2

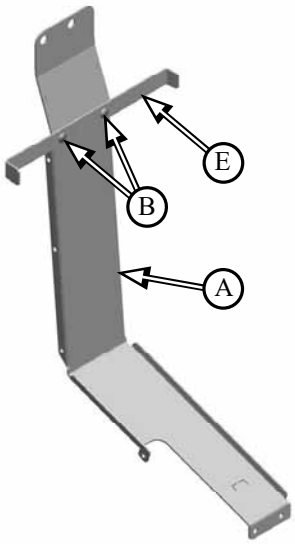




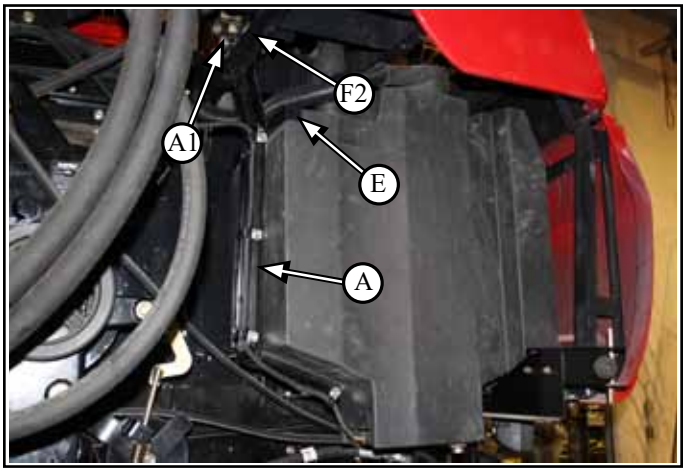
3.1.6 Install rear DEF hanger bracket (**B**) to the top rail (**F**) holes (**B3**) just drilled with:
- M12 x 30 flange bolt and flange nut **(B4)** x2



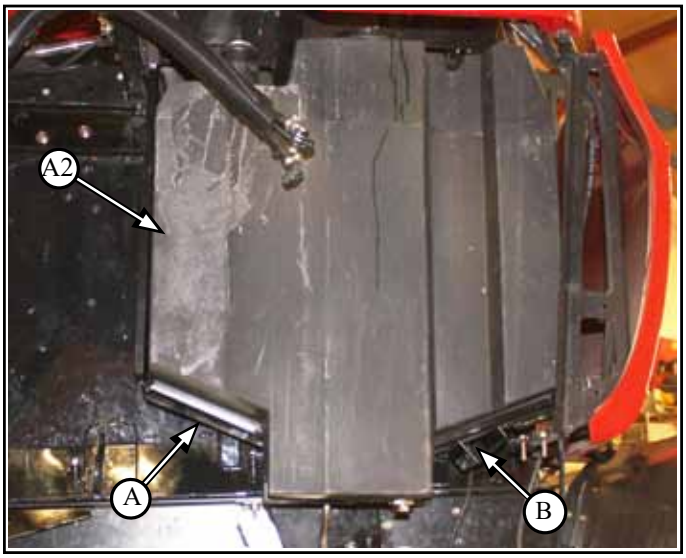
3.1.7 Assemble CS891B Bracket Top DEF Guide **(E)** to front DEF hanger bracket **(A)** with:
- M8 x 20 round head bolt and flange nut **(B)** x2



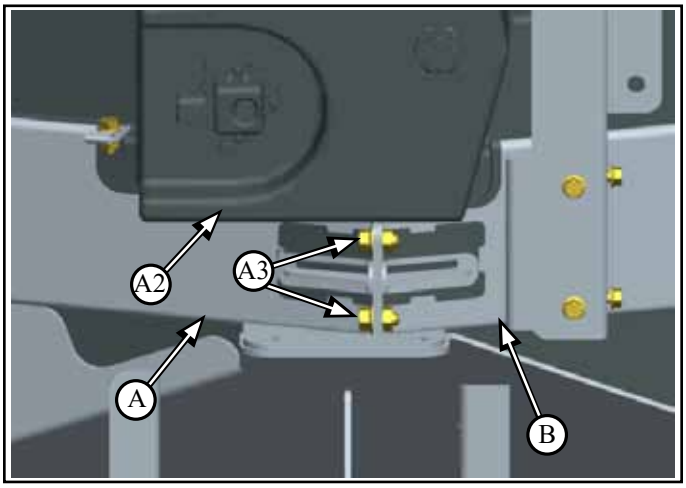
3.1.8 Install front DEF hanger bracket **(A,E)** to the top combine rail frame **(F2)**, with existing hardware:
- M16 bolts and flange nuts **(A1)** x2



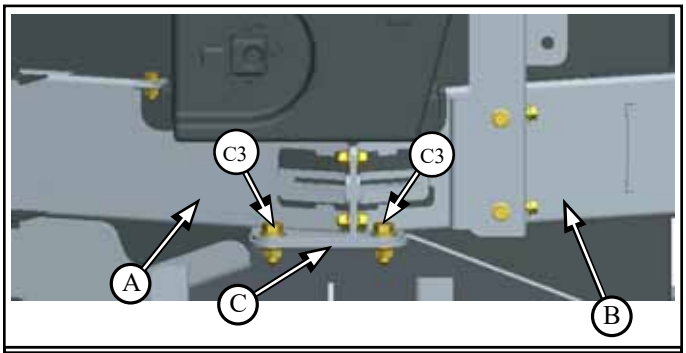
3.1.9 Place DEF tank (**A2**) into place in to hangers (**A**) and **(B)**



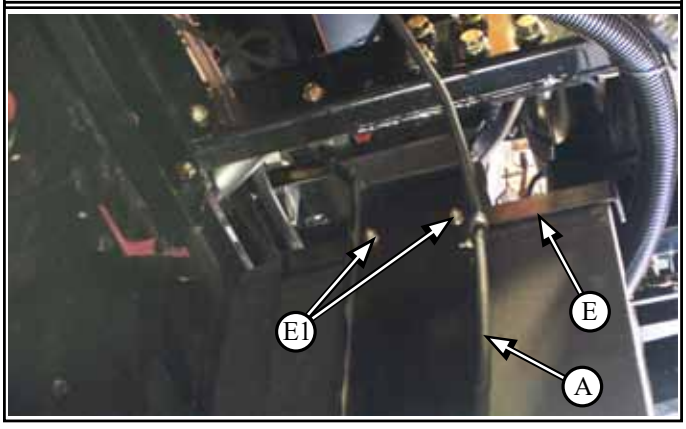
3.1.10 Connect bottom of hanger brackets **(A)** and (**B**) together below DEF tank **(A2)** with:
- M10 x 25 flange bolt **(A3)** x2



3.1.10.1 Connect bottom of hanger brackets **(A)** and (**B**) to bottom DEF tank mount plate **(C)** with:
- M12 x 30 flange bolt and flange nut (**C3**) x2



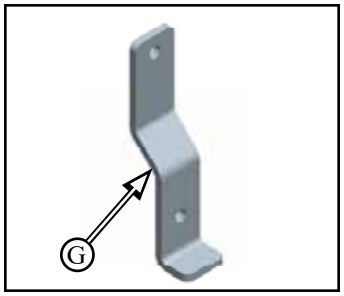
3.1.11 Install top DEF mount guide (**E**) to top of front hanger bracket (**A**)
- to be mounted in between DEF tank (**A2**) and bracket (**A**) with:
- M8 x 20 round head bolt and flange nut (**E1**) x2
Note: Place round head of the bolt towards the tank and the nut to the outside



3.2 Bracket def ventilation mount Installation

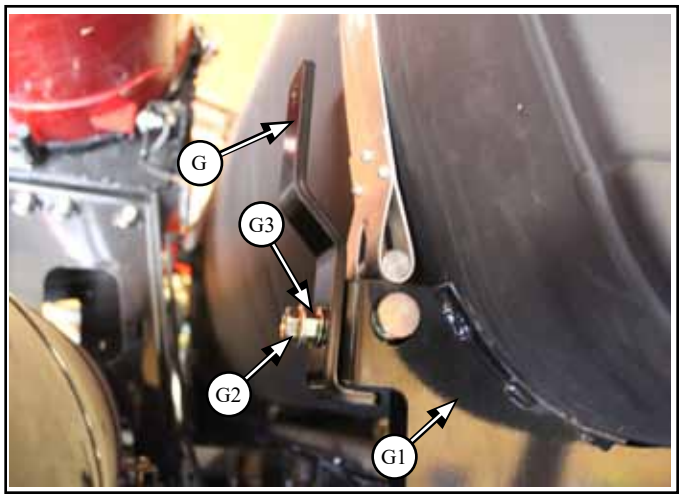
Parts List:
part located in CS917BS box
hardware located in CS850S bag

CS835B Bracket def vent mount - Black **(G)** Qty 1

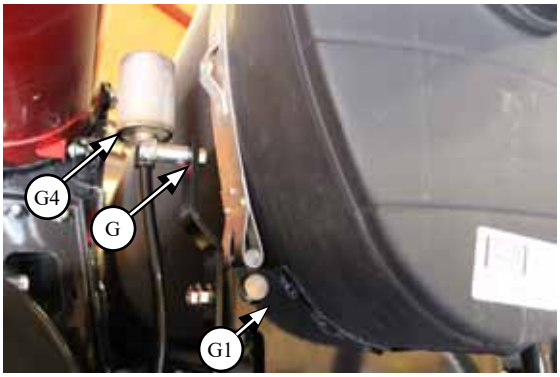


Use on 240 Series only

3.2.1 Mount def vent mount bracket **(G)** beside air tank **(G1)** with:
M10 x 25 flange bolt **(G2)** x1, M10 flange Nut **(G3)** x2



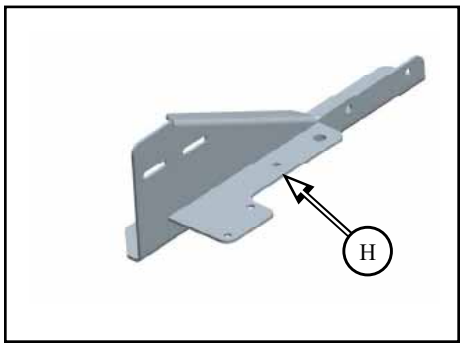
3.2.2 Mount Factory Vent **(G4)** on the top hole of **(G)**



3.3 Arm Panel Latch Installation

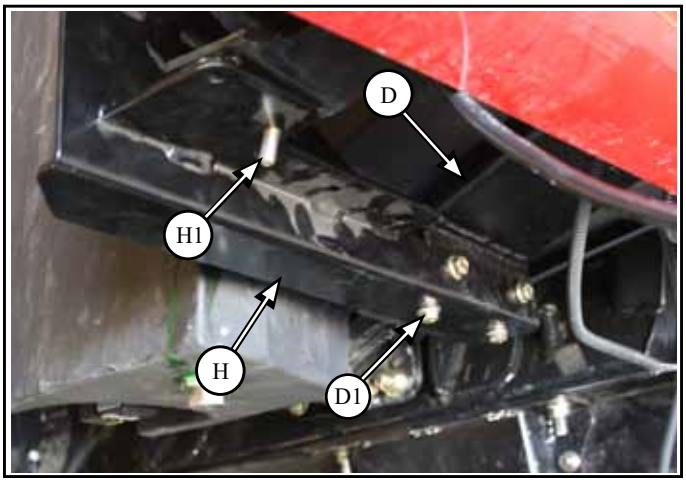
Parts List:
part located in CS917BS box
hardware located in CS850S bag

CS831B Arm Panel Latch - Black **(H)** Qty 1



3.3.1 Mount Arm Panel Latch **(H)** onto the bottom of Hanger **(D)** thru welded holes, with:
M8 x 20 flange bolt and flange nut **(D1)** x4

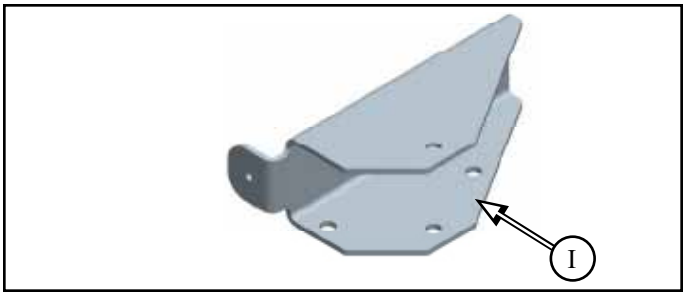
Secure Arm Panel Latch **(H)** to the factory combine frame with:
- existing hardware **(H1)**



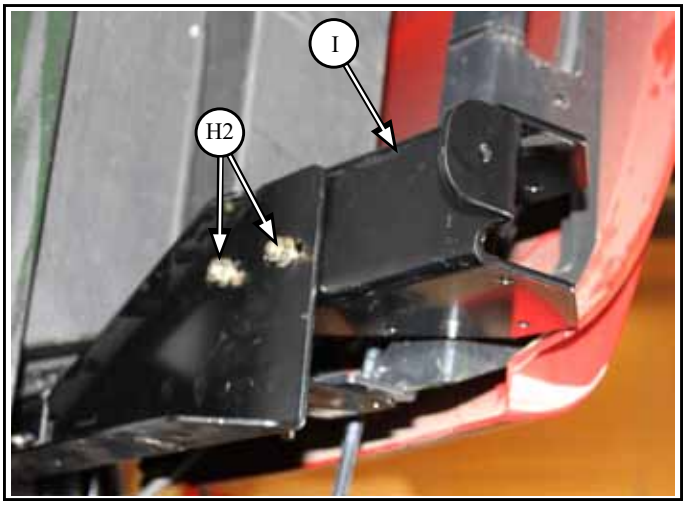
3.4 Bracket Panel Lock Installation

Parts List:
part located in CS917BS box
hardware located in CS850S bag

CS786B Bracket Panel Lock - Black **(I)** Qty 1



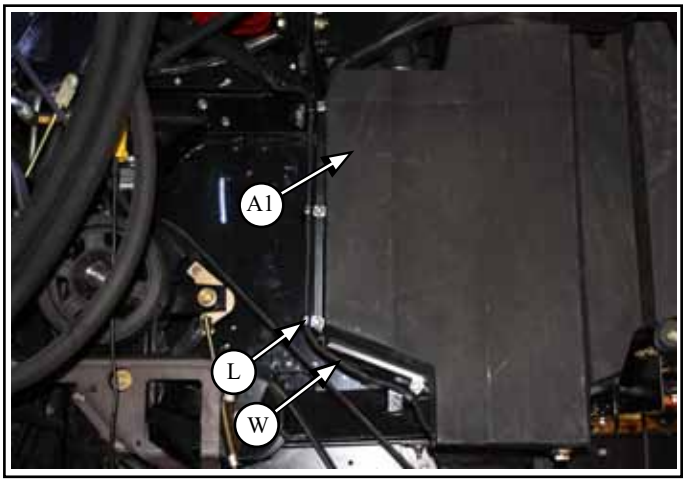
3.4.1 Mount Bracket Panel Lock **(I)** thru the top side holes in the Arm Panel Latch **(H)** with:
M8 x 20 flange bolt and flange nut **(H2)** x2

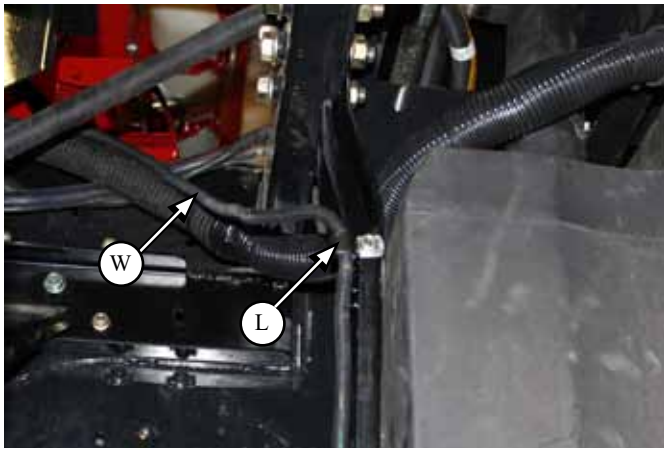


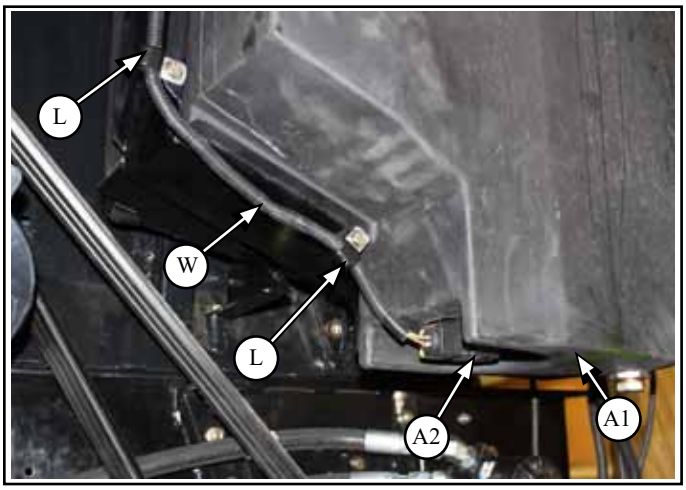
3.5 Existing DEF harness re-attacment

Parts List:
240 Series only - DEF quality sensor harness **(W)** Qty 1

9.7.1 Plug DEF harness **(W)** at the bottom of DEF tank **(A1)** into the socket **(A2).** Mount cable **(W)** around def tank **(A1)** all the way to the top. Use RP220 **(L)** to secure wire x4



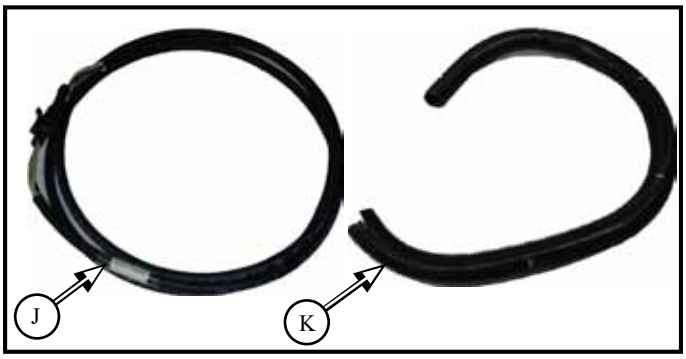




240 Series Only
3.6 Plastic Cable Loom 52 in long Installation

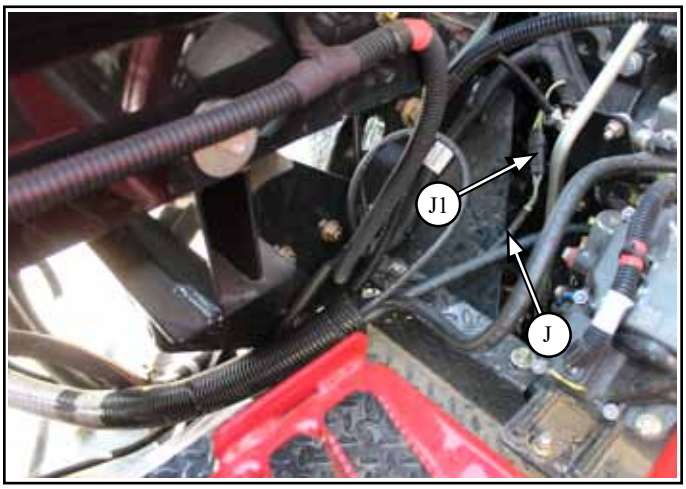
Parts List:
parts located in CS970BS box

RP925 Harness Electric 3W x 7ft AMP - 240S **(J)** Qty 1
CS905-01 Plastic Cable Loom 52 in long **(K)** Qty 1



230 Series DEF lines not extended

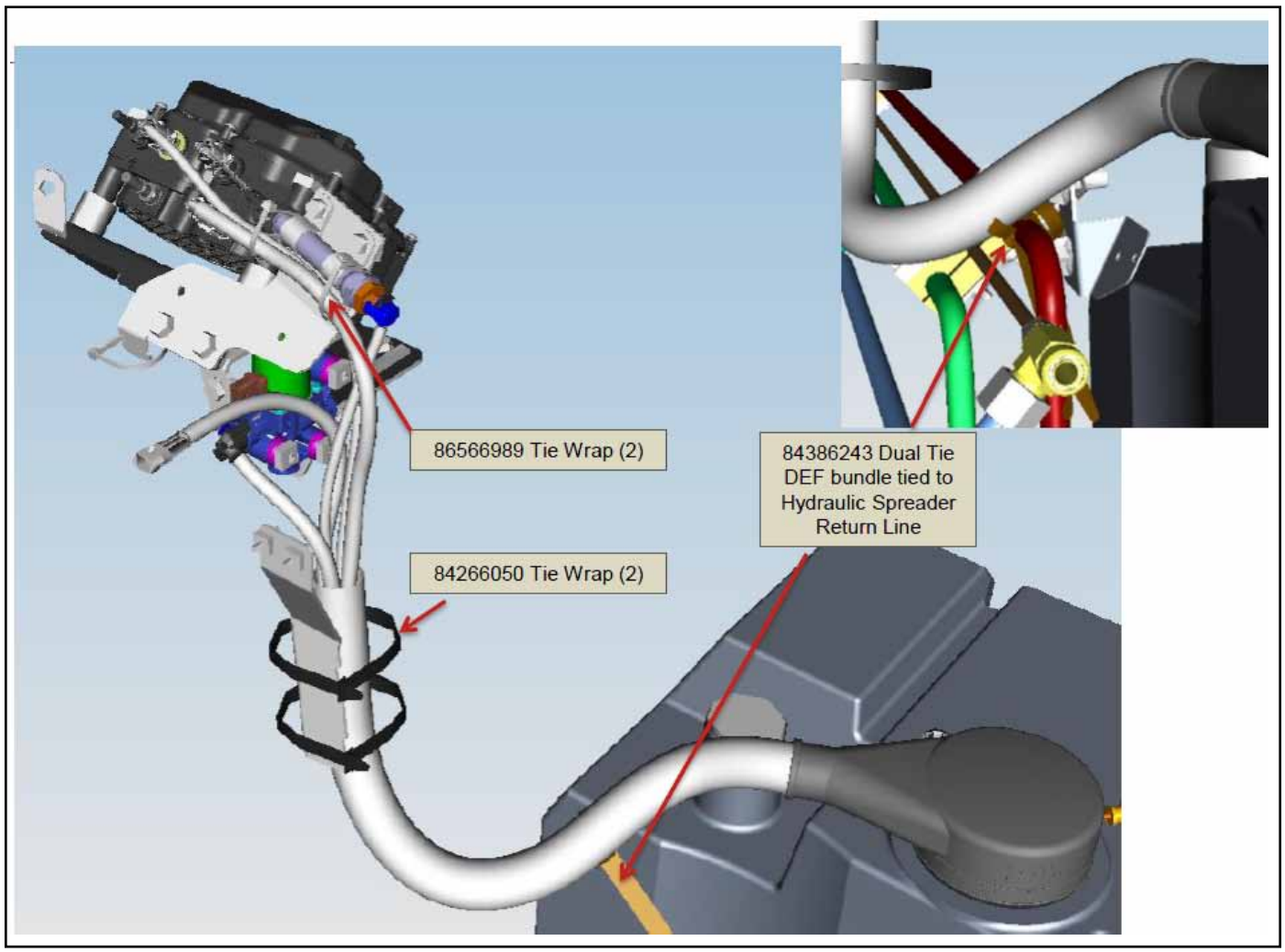
3.6.1 Connect harness **(J)** at the top roof of combine to into the socket **(J1)**



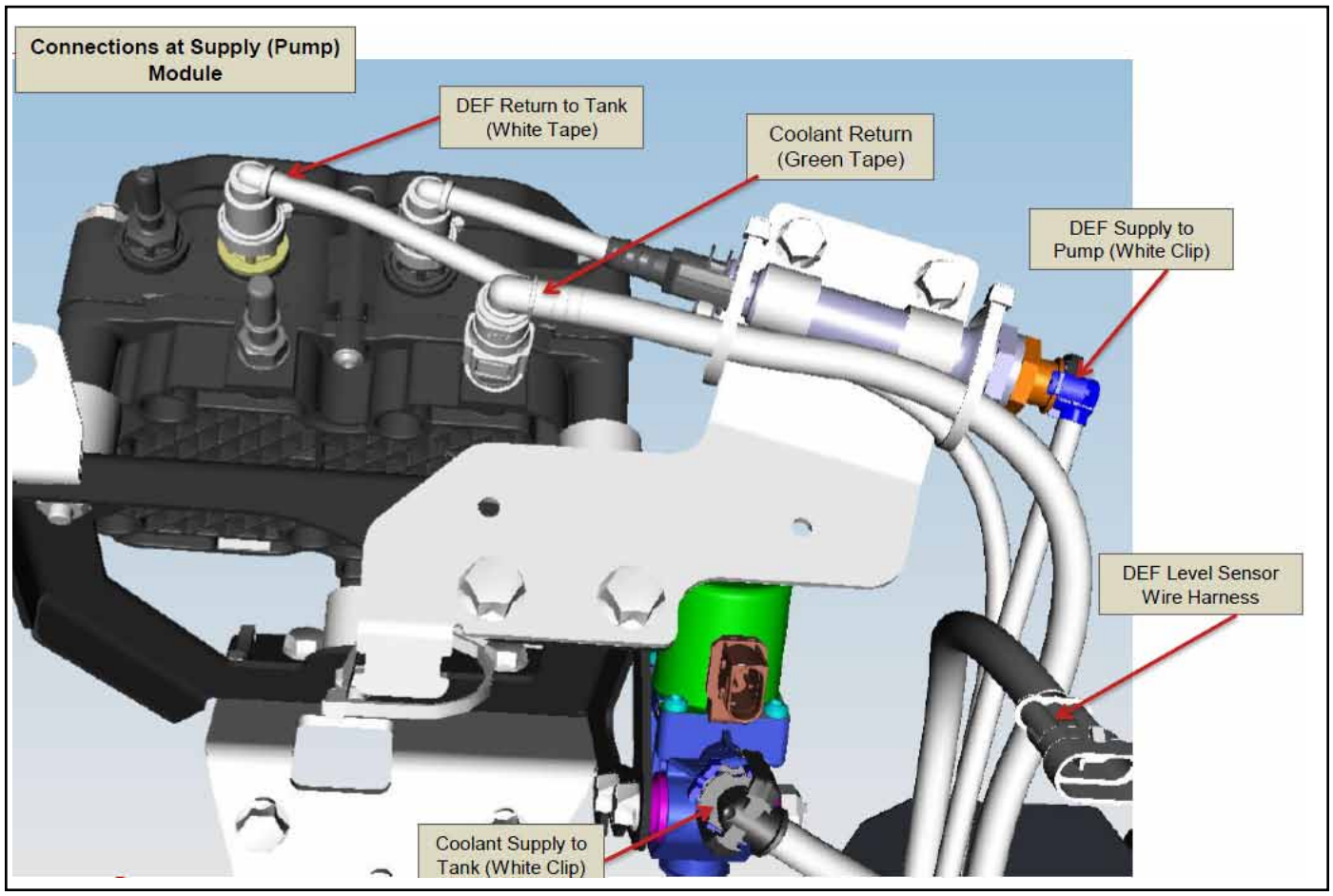
Please review detailed def tank harnesses installation guide below provided by CNH

3.7 240 Series DEF Line Extension - not required for 230 Series
240 Series MY17 - Order DEF Bundle From CNH Service Parts

3.7.1 47776423 DEF Bundle - Tank to Supply Module

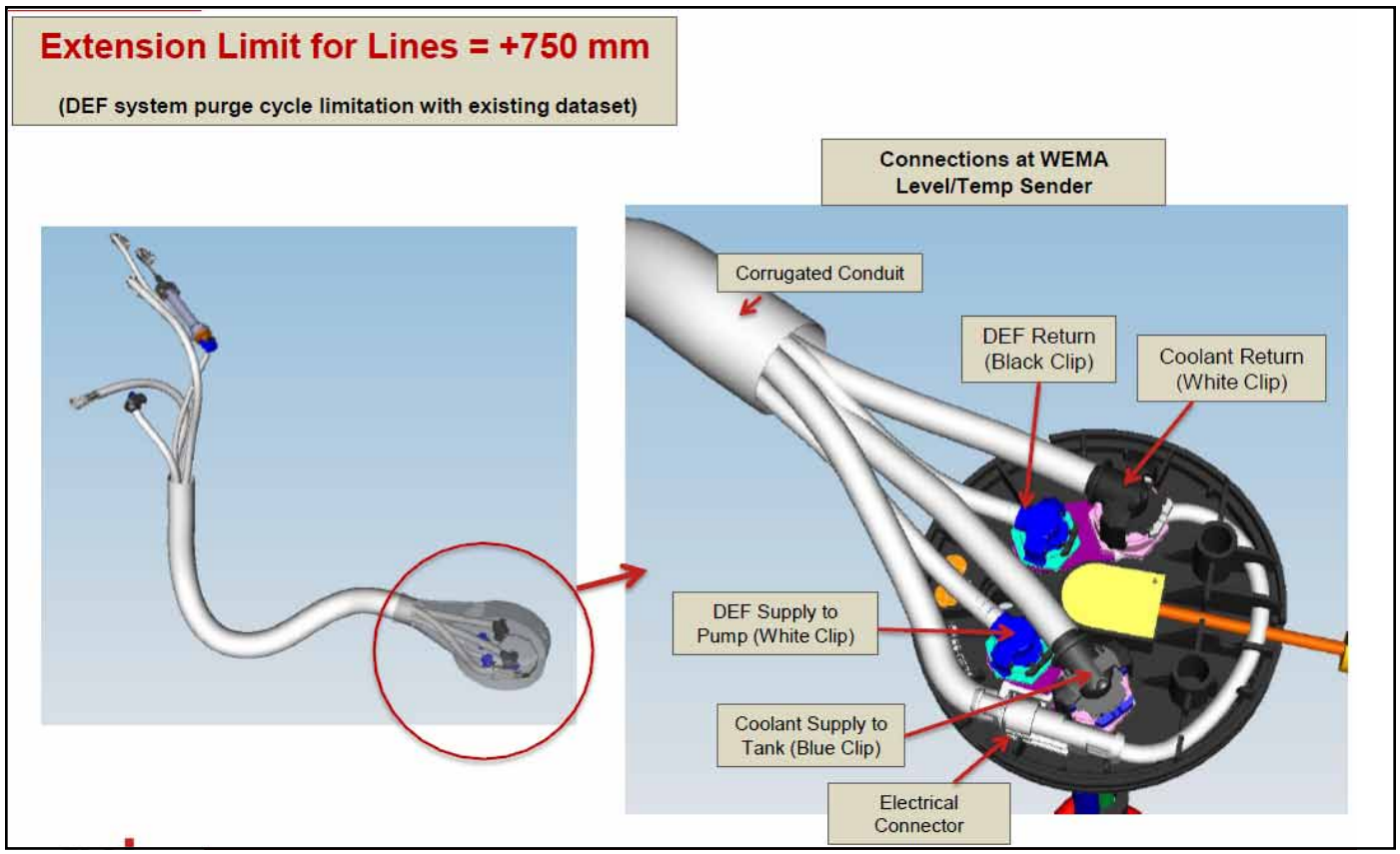


3.7.1.1 47776423 DEF Bundle - Tank to Supply Module

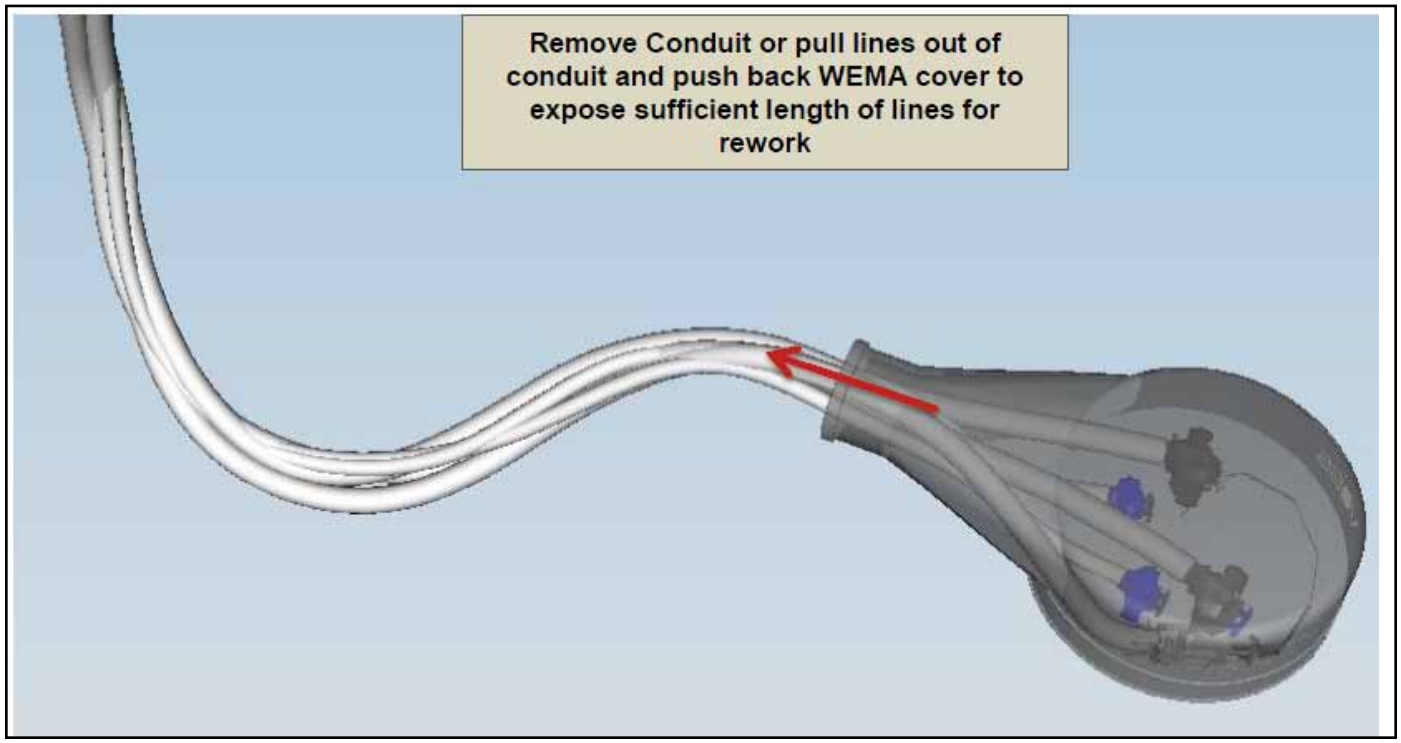


3.7.1.2 47776423 DEF Bundle - Tank to Supply Module

47776423 DEF Bundle can be replaced with 48037151 or extended using procedure below
**** Full 750mm extension required ****



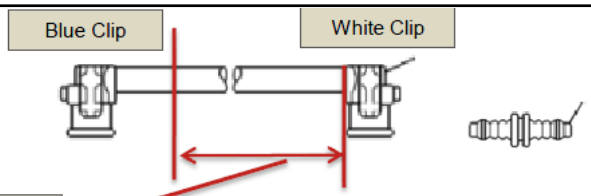
9.9.1 47776423 DEF Bundle - Tank to Supply Module



3.7.2 Extending DEF Lines

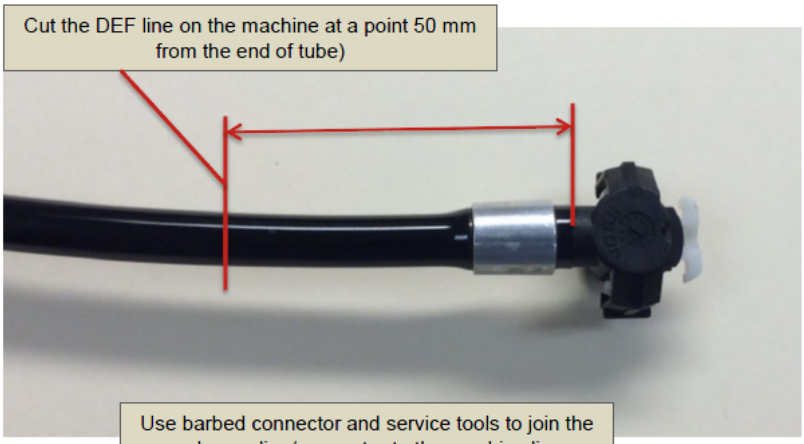
CNHi Service Parts Needed:

47777353 (qty 2) DEF Line w/ SV246 NG8 Elbow Connector
47777447 (qty 2) Barbed Connector for DEF line
47655259 Tool Box



Cut service line from desired connector end (blue or white) at a length of 800 mm from end of tube

Cut the DEF line on the machine at a point 50 mm from the end of tube)



Use barbed connector and service tools to join the new longer line/connector to the machine line – see video link below

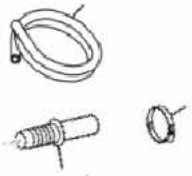
https://www.youtube.com/watch?v=Kdo9zG0Jrt8

Use of the tool starts at the 9 ½ minute mark

3.7.3 Extending Coolant Lines

CNHi Service Parts Needed:

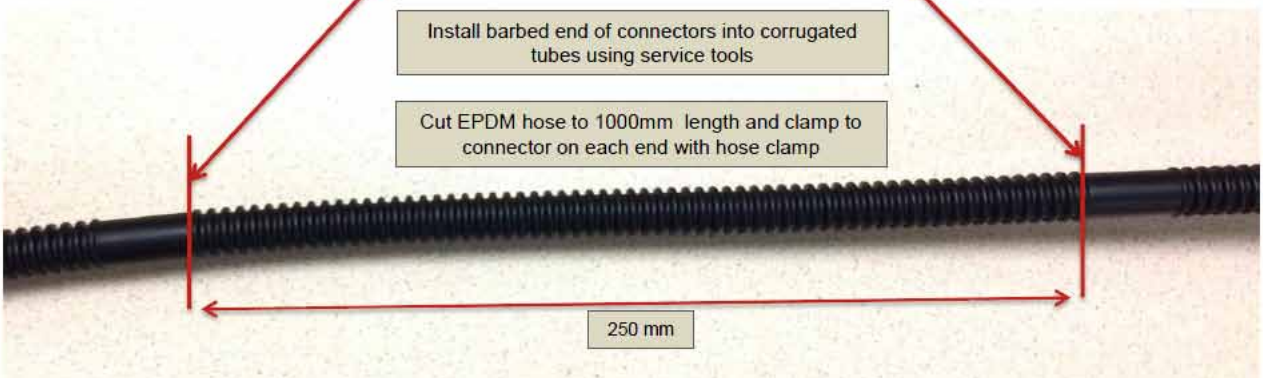
84480613 EPDM Hose
84480601 (qty 2) Hose Connector for coolant line
84480356 (qty 2) Hose Clamp
47655259 Tool Box



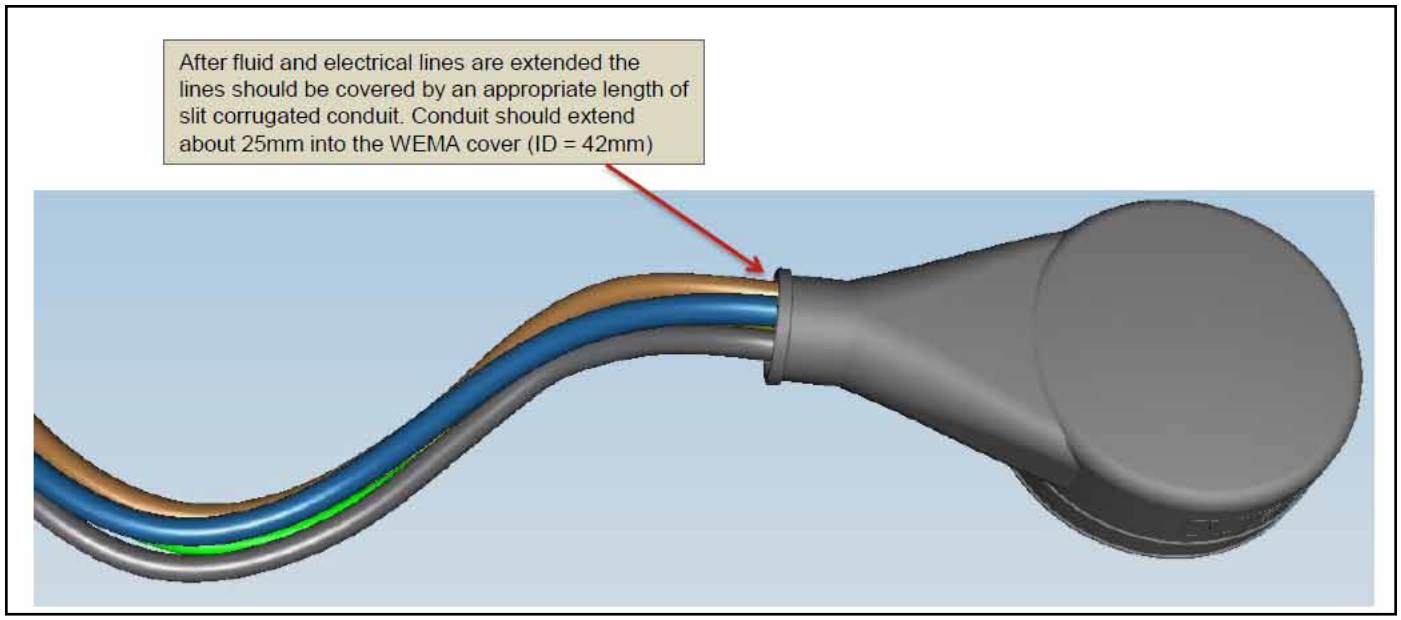
Cut coolant line here – Leaving smooth section for installation of barbed end of connector

Install barbed end of connectors into corrugated tubes using service tools

Cut EPDM hose to 1000mm length and clamp to connector on each end with hose clamp



3.7.4 47776423 DEF Bundle - Tank to Supply Module

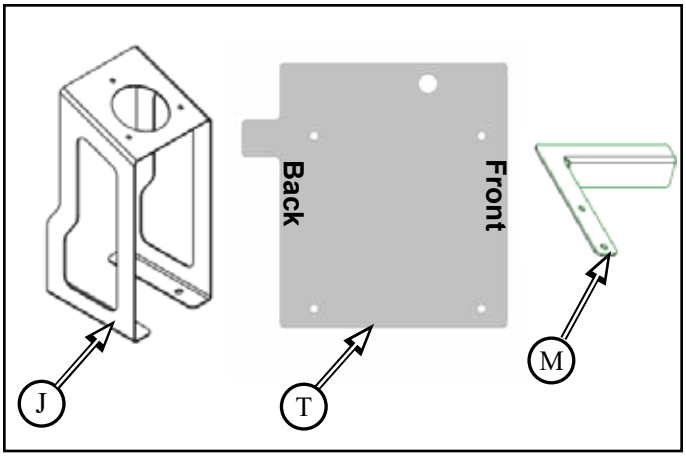


3.9 DEF Tank Fill Tube Relocation

Parts List:
parts located in CS917BS box

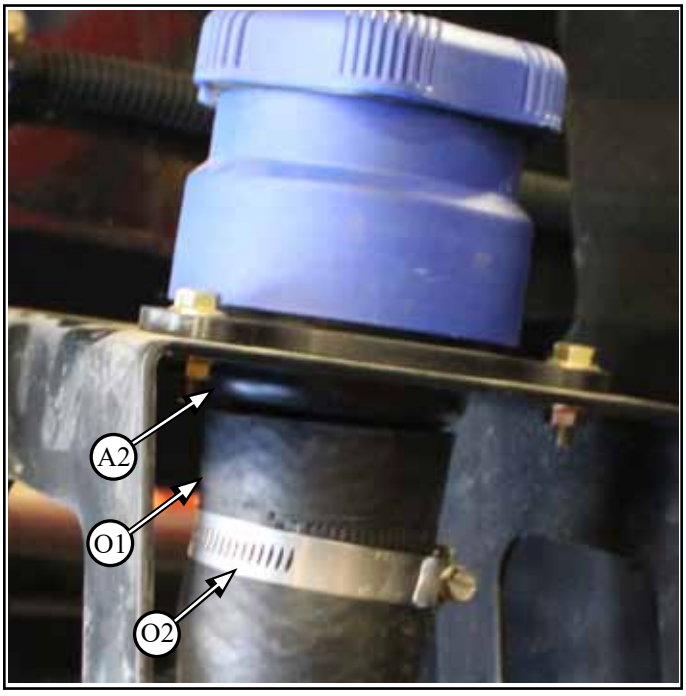
CS805B Bracket Def Fill Tube Mount **(J)**	Qty 1
CS975B Bracket DEF Fill Guard (**M**)	Qty 1
Decal **#47692590A (O4)** (not supplied)	Qty 1
CS805_Template DEF Fill Bracket Template **(T)** (located in CS970S kit)	Qty 1

Note: Template works for MY17 only



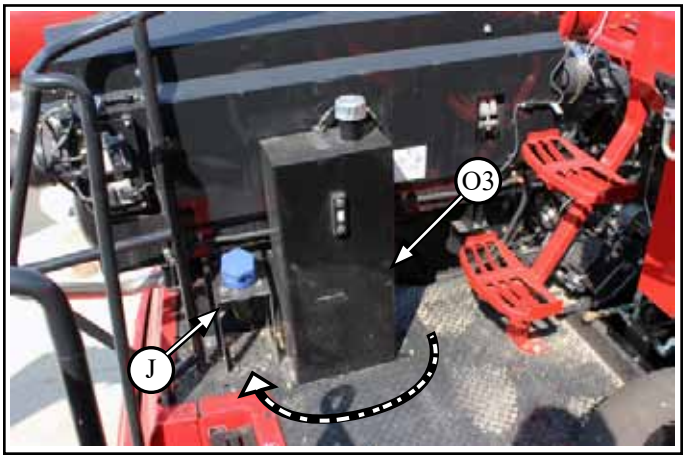
3.9.1 Loosen hose clamp (**O2**) around filler tube **(O1)** at DEF filler cap neck(**A2**)

3.9.1.1 Disconnect filler tube **(O1)** from DEF filler cap neck (**A2**)

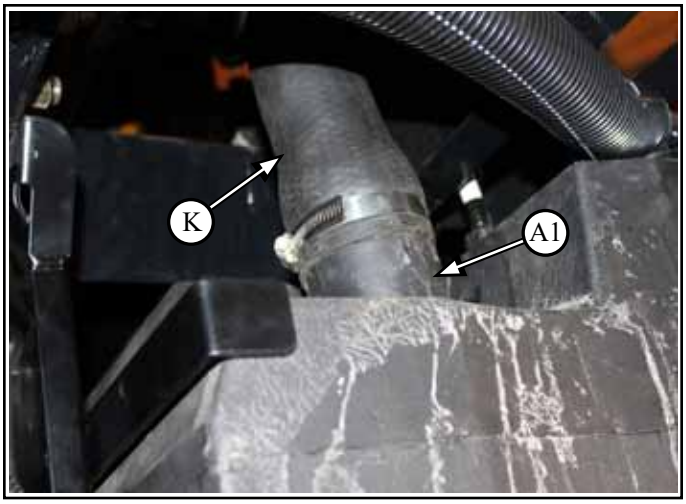


3.9.2 Relocate filler tube mount bracket from front of reservoir tank **(O3)** to rear of tank

- original mount bracket is not to be reused, use new DEF fill mount bracket **(J)**

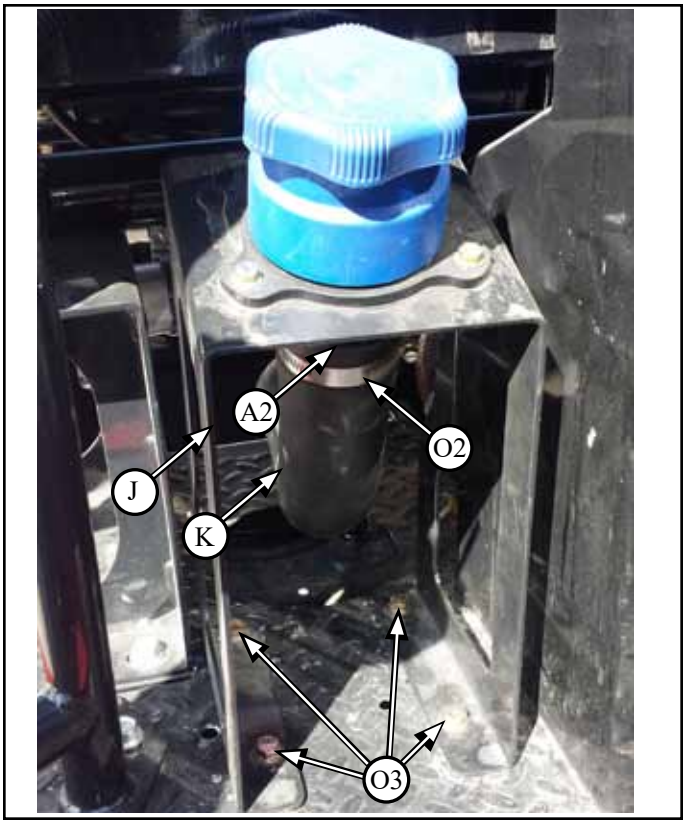


3.9.3 Reinstall DEF Filler Hose **(K)** to the DEF Tank (**A1**) - tighten hose clamp



Not Required for MY17 & Current Machines
Holes are in Deck
Step 3.9.4.

3.9.4 Drill 10mm (13/32in) holes **(O3)** x4 into the floor to mount filler tube bracket **(J)**
Use CS805_Template **(T)**
Note: Not required for MY17 Machine



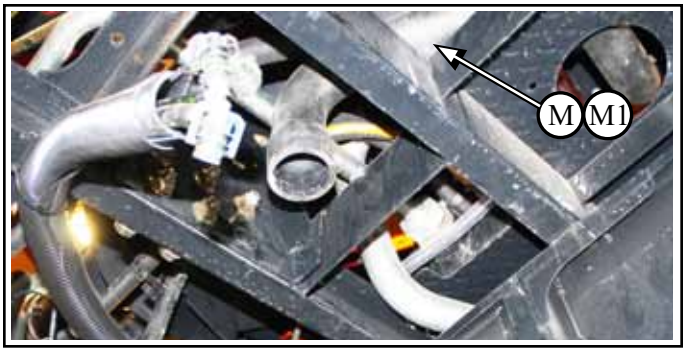
3.9.5 Reattach DEF filler hose **(K)** to the DEF Tank filler cap neck **(A2)** - tighten hose clamp **(O2)**

3.9.6 Attach filler tube mount bracket **(J)** to the floor with existing factory hardware **(O3)**

3.9.7 Apply decal **(O4)** in new location **(O5)** just above relocated DEF filler hose cap **(A)**

Decal #47692590A - order from Case IH Parts

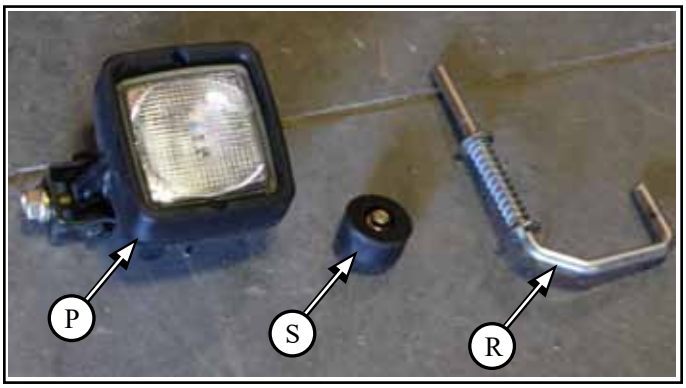
3.9.7 Install DEF fill hose guard (**M**) on upper platform underneath hose to protect from sharp edges, with:
- M8 x 20 flange bolt and flange nut (**M1**)



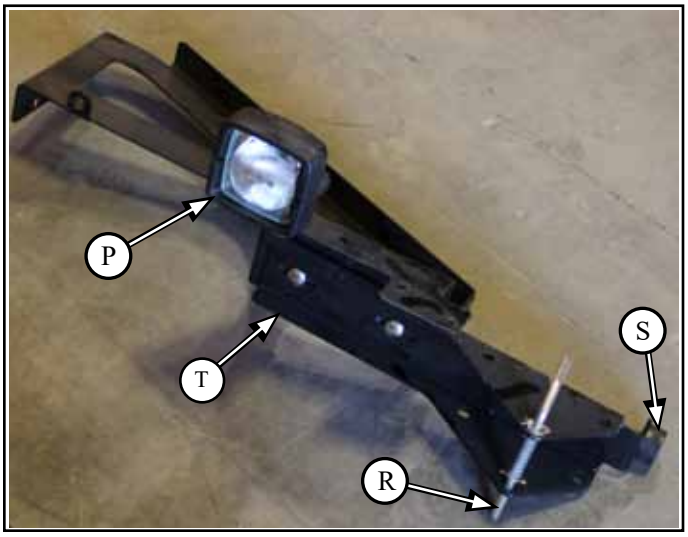
3.10 Rear Left Light Components Install

Parts List:
to be re-installed from the factory assembly

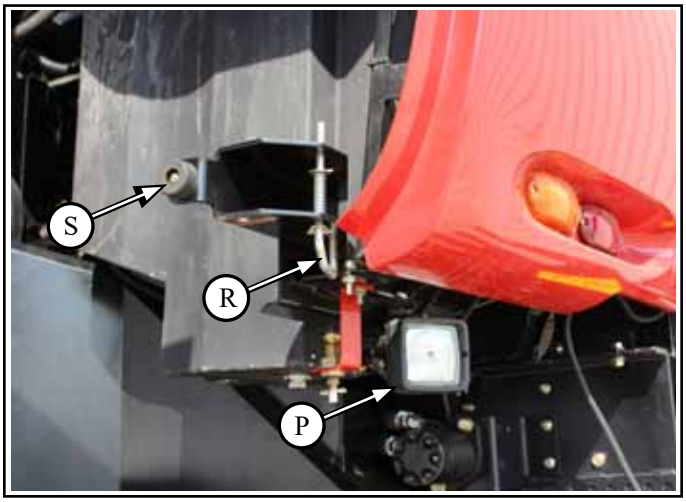
Rear Left Light **(P)**	Qty 1
Body panel Door Pin **(R)**	Qty 1
Rubber Bumper Stop **(S)**	Qty 1



3.10.1 Remove listed above parts **(P), (R), (S)** from the factory bracket **(T)**



3.10.2 Install parts **(P), (R), (S)** on the rear beauty panel of combine in showen locations

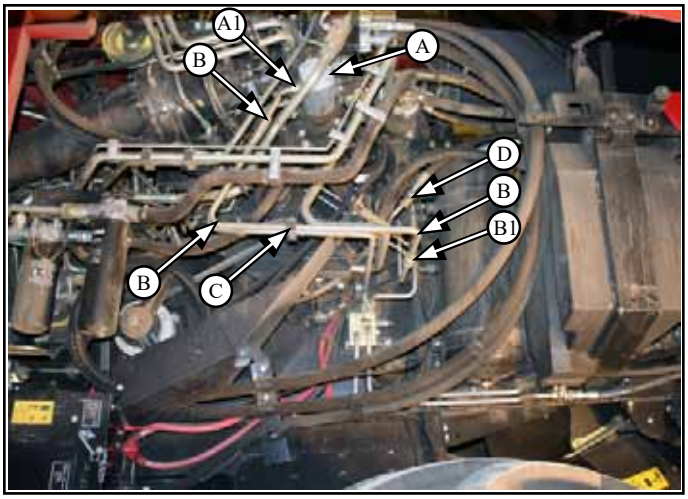


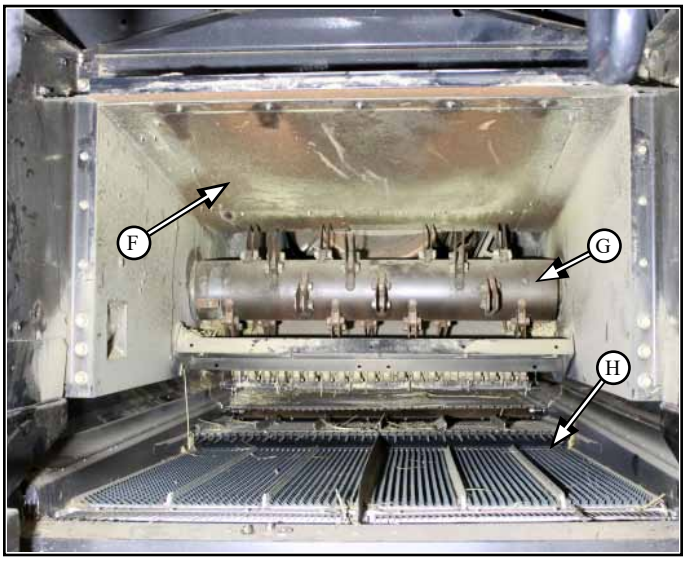
4 Hydraulic line modifications

Not Required for MY17 & Current Machines
Hydraulic Line Modified
Steps 4.1 to 4.3.9

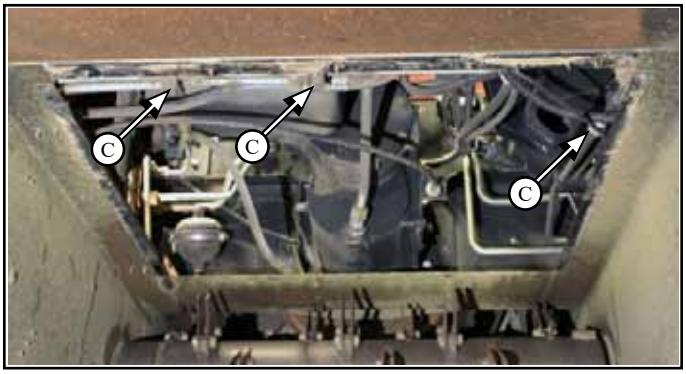
Reference:

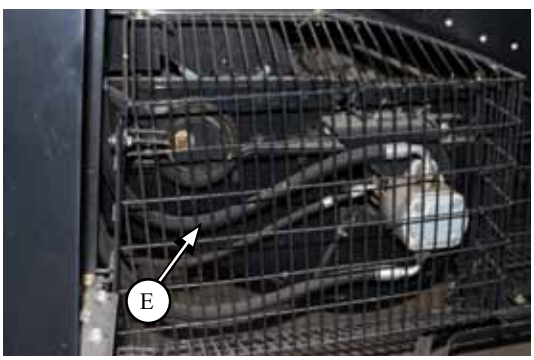
A - Pump
A1 - Pump Connection
B - Hydraulic Steel Tube (to be removed)
B1 - Hydraulic Steel Tube Connection
C - Hydraulic Steel Tube Clamp
D - Hydraulic Hose Return Line Connection
E - Hydraulic line (fan side)
F - Upper Internal Access Panel
G - Internal Chopper Rotor
H - Sieve

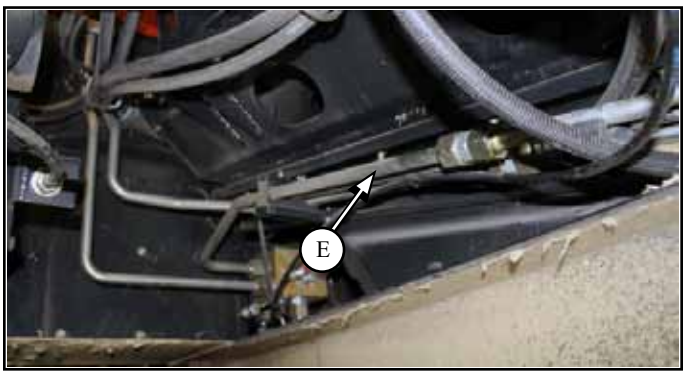




NOTE: Newer models already have the hydraulic line **(L)** relocated as seen in the picture above



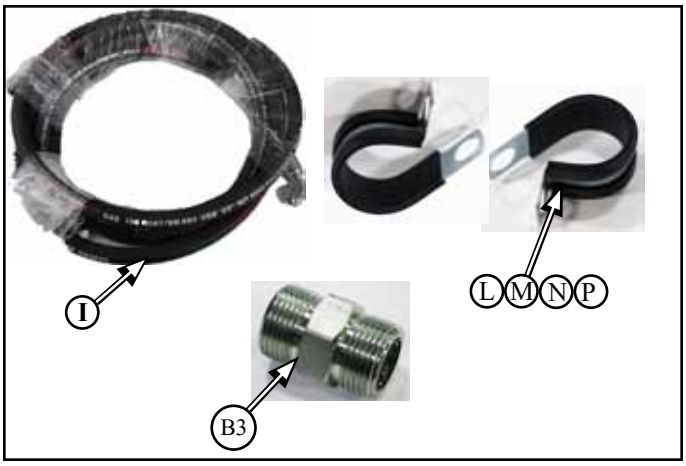




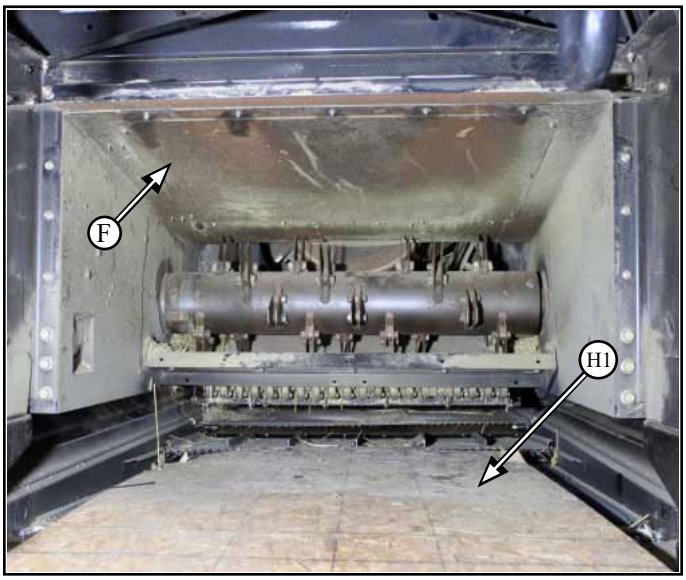
4.1 Hydraulic line changes at PTO
**** If available - use vacuum at reservoir to reduce oil leakage ****

Parts List:
parts located in CS970S Field Install box and CS971S bag
hardware located in CS839S bag

HH112	Hydraulic Hose .625 x 148L (**I**)	Qty 1
H99-12	Hose Clamp .75 (**L**)	Qty 8
H99-14	Hose Clamp .875 (**M**)	Qty 8
H99-18	Hose Clamp 1.125 (**N**)	Qty 6
H99-20	Hose Clamp 1.25 (**P**)	Qty 4
H28-1212	Fit Hyd Str 12 MORFS-12 MORFS (**B3**)	Qty 1

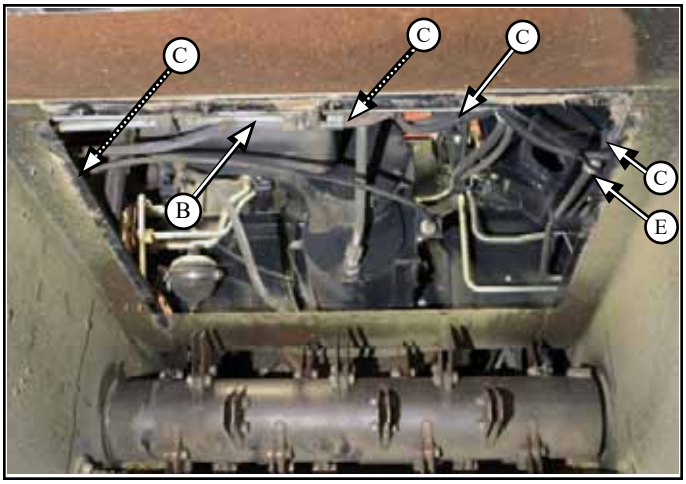


4.1.1 Lay plywood (**H1**) on top of sieve (**H**) to prevent damaging sieve **(H)**.

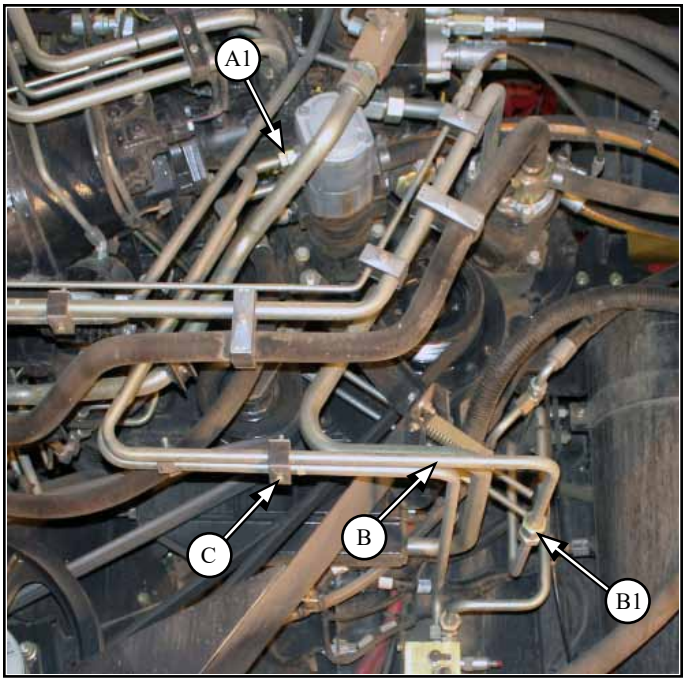


4.1.2 Remove upper access panel (**F**)
**** Nuts are not welded on combine at rear of panel, use caution not to lose them ****
- to be reinstalled
- keep all factory hardware

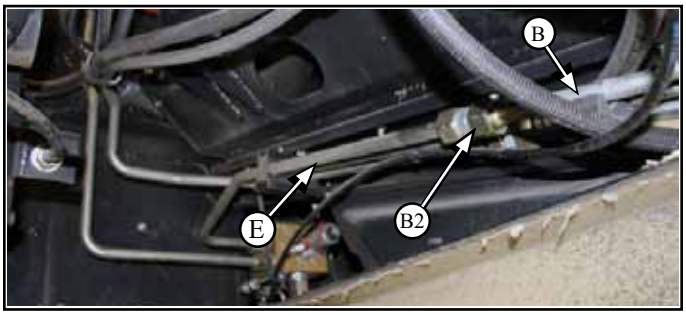
4.1.3 Remove hose clamps (**C**) securing steel hydraulic line (**B**) running from pump (**A**) on outer combine wall to connection (**E**) in upper access area
- qty as required



4.1.4 Remove hose clamps (**C**) securing hydraulic steel line (**B**) on outside of left combine wall (drive side).
- qty as required

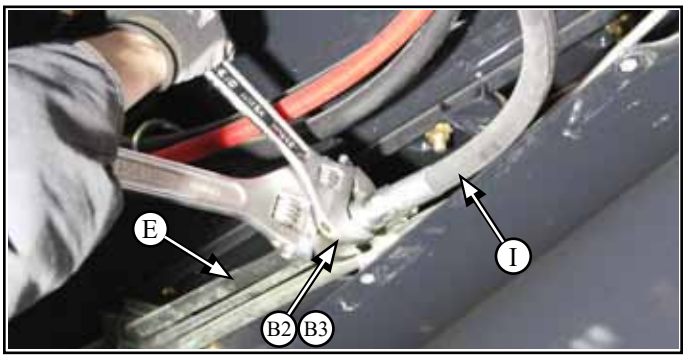


4.1.5 In combine upper access panel - Quickly disconnect hydraulic steel line **(B)** from fan side hydraulic line **(E)** at fitting (**B2**)
- have a container ready to catch any fluid that may leak
- plug end of steel line removed or drain fluid in line after disconnecting

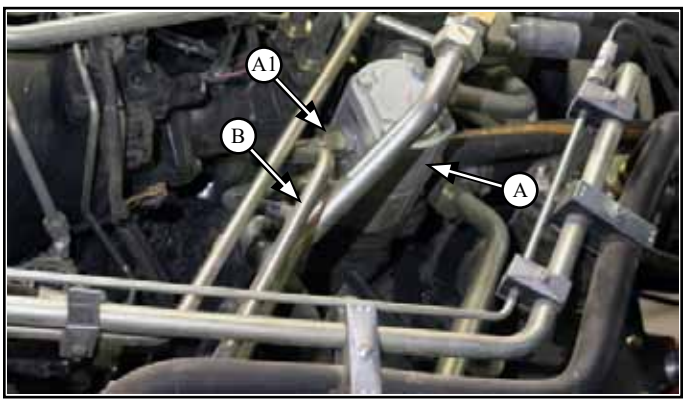


4.1.6 Connect new hydraulic rubber hose (**I**) to line (**E**) at fitting (**B2**)

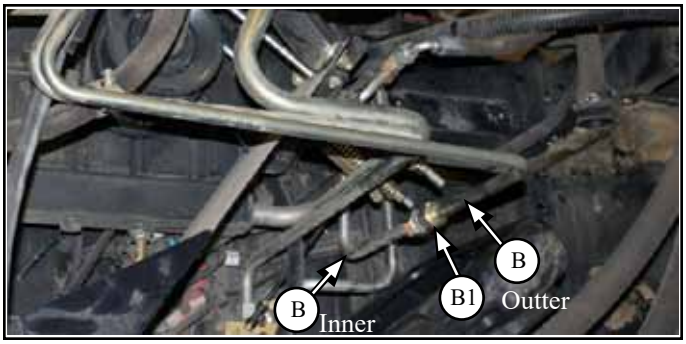
Some machines require adapter
- H28-1212 Fit Hyd Str 12 MORFS-12 MORFS (**B3**) x1



4.1.7 Quickly disconnect steel hydraulic line **(B)** from pump (**A**) at fitting (**A1**)
- have a container ready to catch any hydraulic fluid that may leak out from the steel line **(B)** or pump **(A)**
- plug end of steel line removed or drain fluid in line after removing

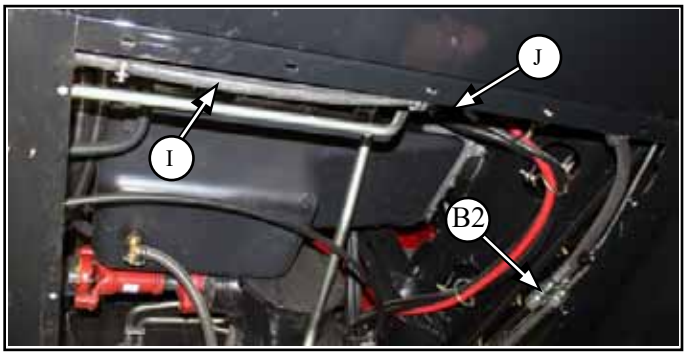


4.1.8 Disconnect outter hydraulic steel line (**B**) from inner hydraulic steel line at fitting (**B1**)
- not to be reused

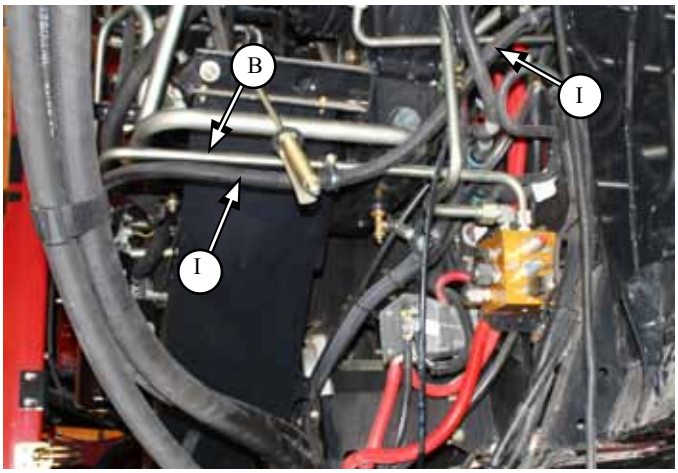


4.1.9 Rotate inner hydraulic steel line (**B**) and pull out left side of combine
- not to be reused

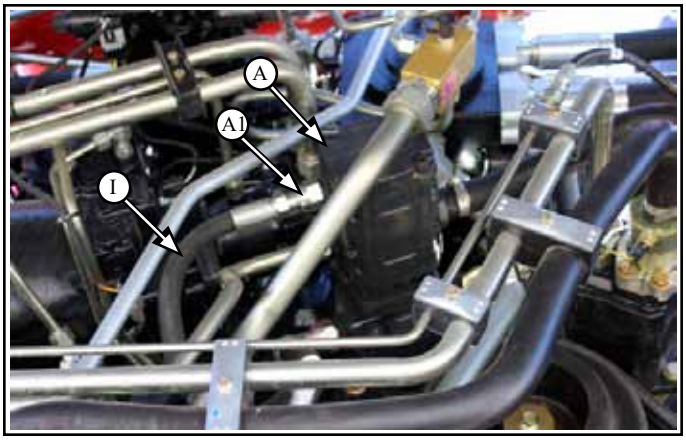
4.1.10 Place new hydraulic rubber hose (**I**) from connection (**B2**) up along upper access edge (**J**) to the outside thru left combine side wall hole (same direction as previous steel line)



4.1.11 Place new hydraullic rubber hose (**I**) along the existing steel line (**B**) up to the pump (**A**)



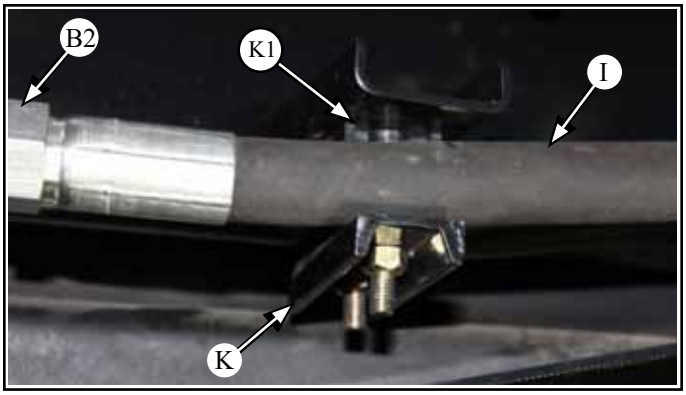
4.1.12 Connect new hydraulic rubber hose **(I)** to pump **(A)** at fitting (**A1**)
- have a container ready to catch any hydraulic fluid that may leak out from the pump **(A)**



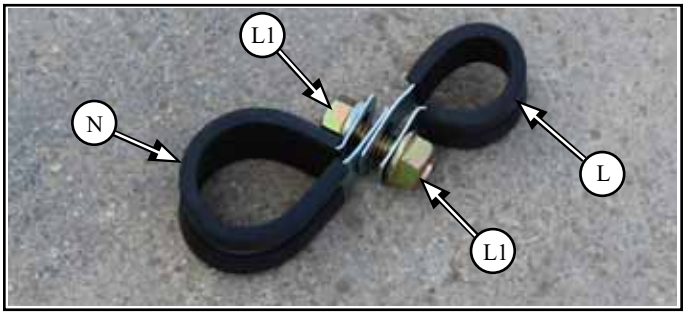
4.1.13 Re-attach factory hose clamp bracket **(K)** to new hydraulic rubber hose **(I)** at connection (**B2**) in upper access

4.1.13.1 Cut plastic (K1) in half from steel line hose clamp being replaced

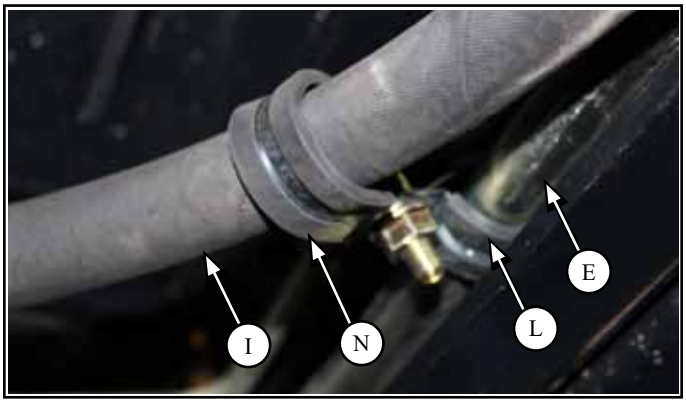
4.1.13.2 Place over hose and in between steel clamp for hose protection



4.1.14 Assemble hose clamp .75 (-12) (**L**) and 1.125 (-18) (**N**) together x11, with:
- M8 x 20 flange bolt and flange nut (**L1**) x11

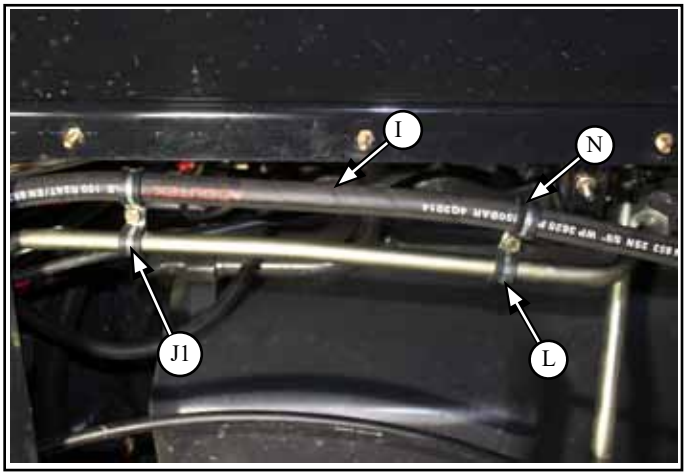


4.1.15 In upper internal access area, install hose clamp assembly (**N**) onto hydraulic rubber hose (**I**) and secure clamp (**L**) to hydraulic steel line (**E**)

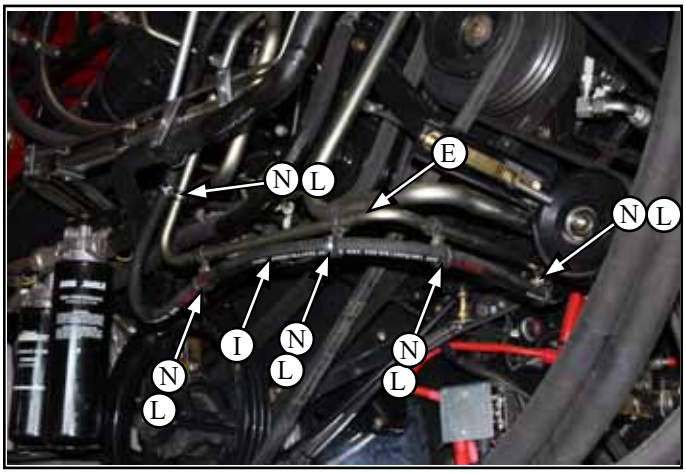


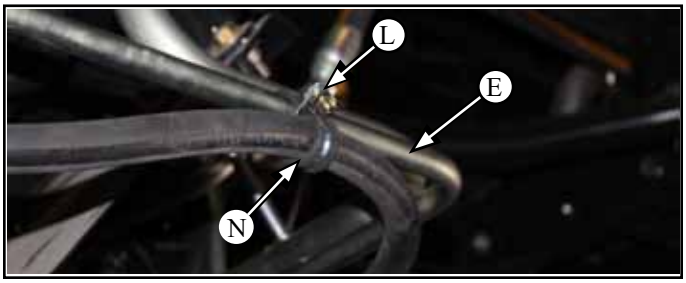
4.1.15.1 Install 2 hose clamp assemblies at each corner (**J1**)

4.1.16 Install hose clamp assembly between (**J1**) onto hydraulic rubber hose (**I**) and steel line



4.1.17 Install hose clamp assemlbies x5 1.125 (18) (**R**) onto hydraulic rubber hose (**I**) and secure clamp .75 (12) (**L**) to hydraulic steel lines (**E**)
- ensure clamps are tight and hose is not rubbing on any moving parts

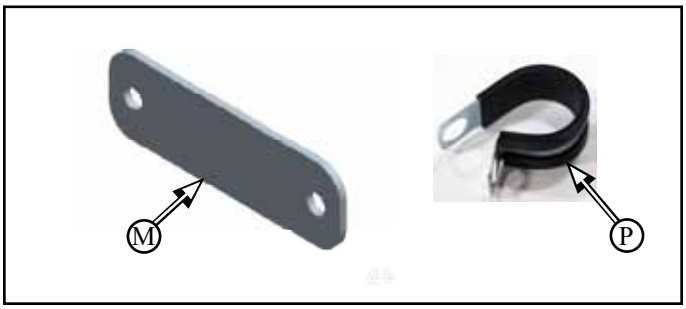




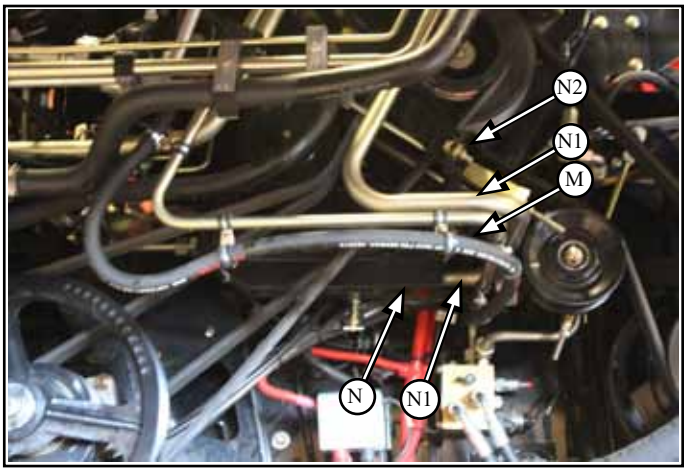
4.1.19 Secure PTO Gearbox Return Tube

Parts List:
parts located in CS825S bag

CS874Z	Strap AFX Sump Line **(M)**	Qty 1
H99-20	Hose Clamp 1.25 (**P**)	Qty 1

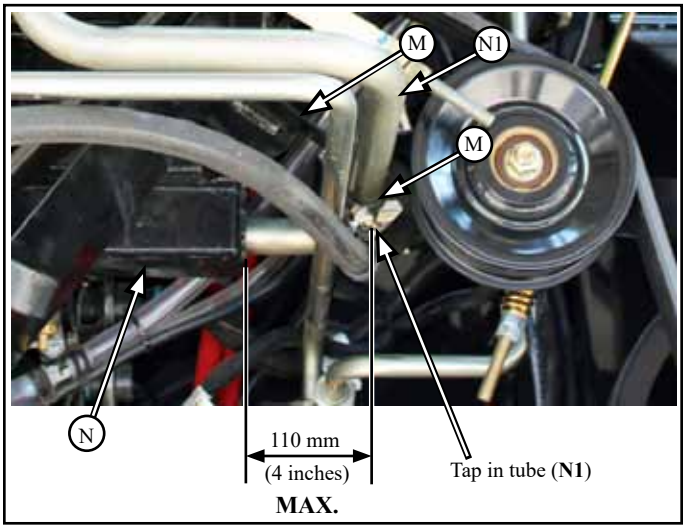


4.1.19.1 Secure PTO Gearbox Return Tube (**N1**) to combine tensioner bracket (**N2**) with Strap (**M**)



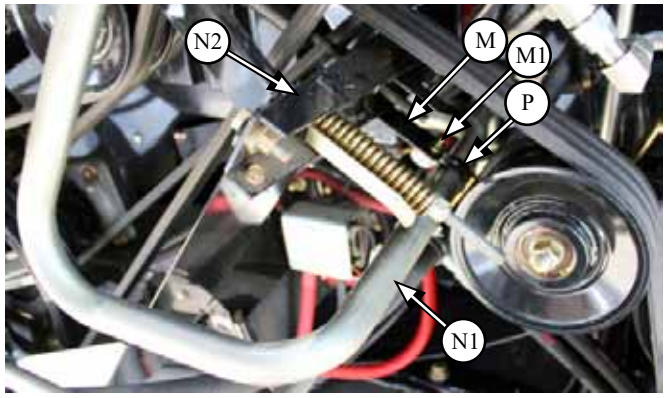
4.1.19.2 Ensure PTO Gearbox Return Tube (**N1**) is 110mm (4 inches) max from PTO Reservoir (**N**)
- tap tube (**N1**) into PTO Reservoir (**N**) as required (tube is held into reservoir by a pressue fit o-ring and can be pushed or pulled in or out of the reservoir easily)

** Fitting at pump may need to be loosened to move steel line **

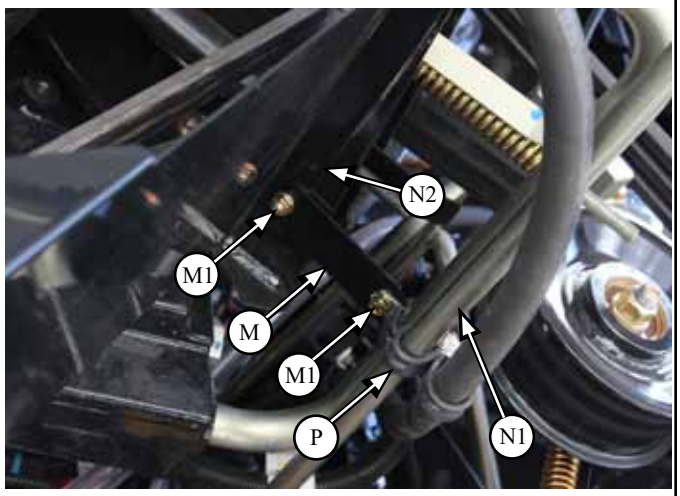


4.1.19.3 Attach strap (**M**) to bottom of combine tensioner mount bracket (**N2**) with:
- M8 x 25 flange bolt and flange nut (**M1**)

4.1.19.4 Attach hose clamp 1.25 (-20) (**P**) to tube (**N1**) and fasten to clamp (**M**) with:
- M8 x 25 flange bolt and flange nut (**M1**)

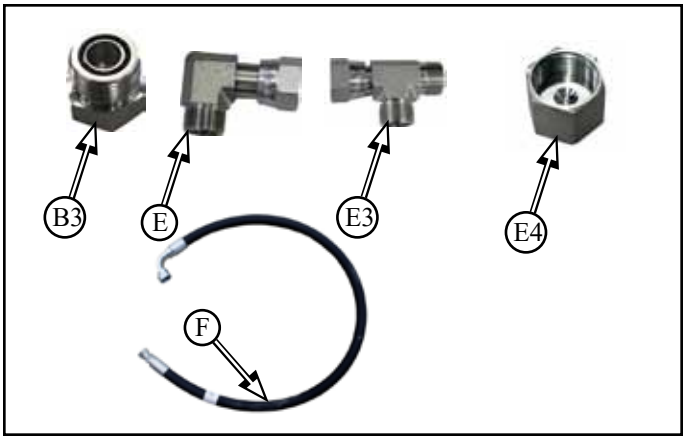


View from above - looking down



View from below - looking up

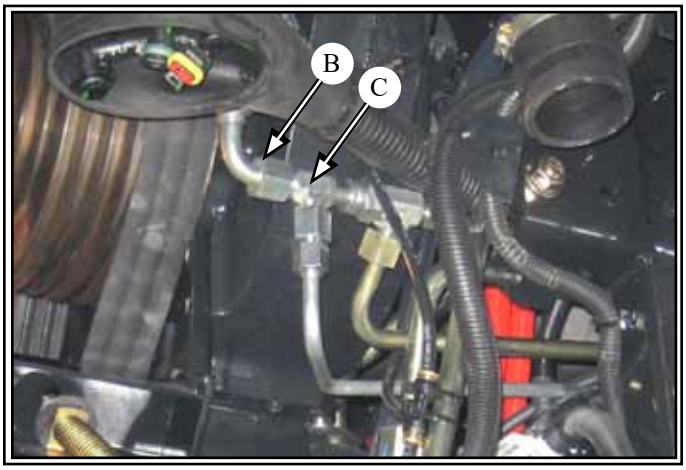
4.2 Return Line Changes - if equipped with hydraulic knifebar valve (A)
**** This procedure is easiest when upper internal access panel is removed ****



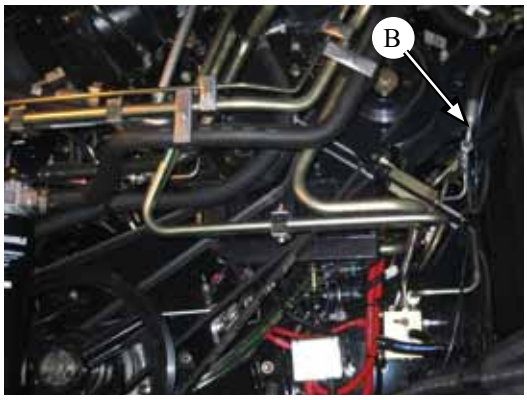
Parts List:
parts located in CS970S field install box and CS971S bag

H17-10	Fit Hyd Plug Hex 10 MORFS (**B3**)	Qty 1
H38-1010FFX	Fit Hyd 90deg 10 MORFS-10FORFSX (**E**)	Qty 3
H49-1010FOFS	Fit Hyd Tee 10 MORFS-10 MORFS (**E3**)	Qty 2
H14-10F	Fit Hyd Cap 10 FORS (**E4**)	Qty 1
HH114	Hydraulic Hose .5 x 57L (**F**)	Qty 1

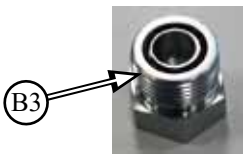
4.2.1 Disconnect hydraulic hose (**B**) from tee fitting (**C**) - have pail ready to catch oil flow from disconnected hose - **LARGE FLOW!!**



** Note: If vacuum is applied to Resevoir, oil leak will be minimal **

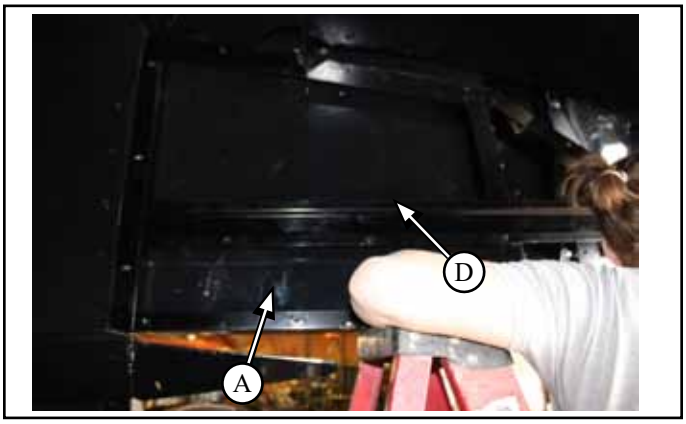


4.2.1.2 Insert new hydraulic cap (**B3**) into hydralic hose (**B**) just disconnected to stop oil flow from hydraulic reservoir tank



4.2.2 Disconnect steel hyd line (**D**) from knifebar valve (**A**) - have pail ready to catch oil flow from hyd line (**D**)

4.2.2.1 Drain steel hyd line (**D**)

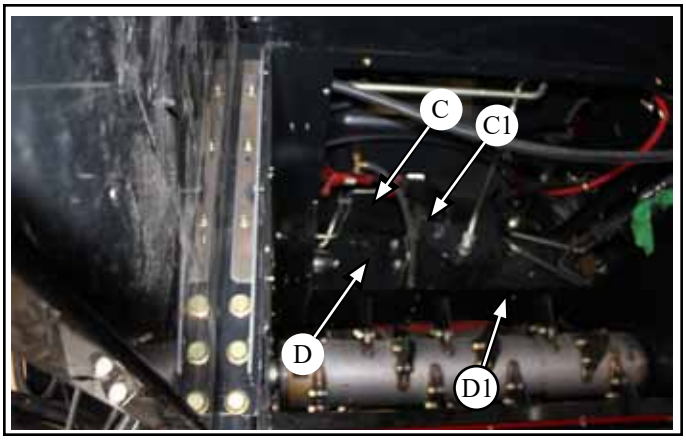


4.2.3 Disconnect steel hyd line (**D**) from tee fitting (**C**)

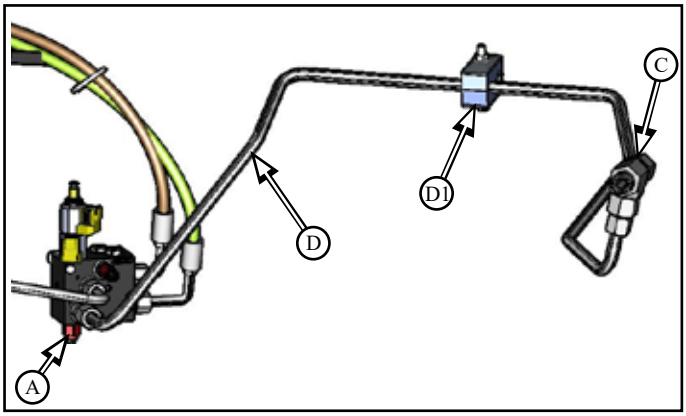
4.2.4 Remove hose clamp (**D1**) from steel hyd line (**D**)

4.2.5 Remove steel hyd line (**D**)
- not to be reused

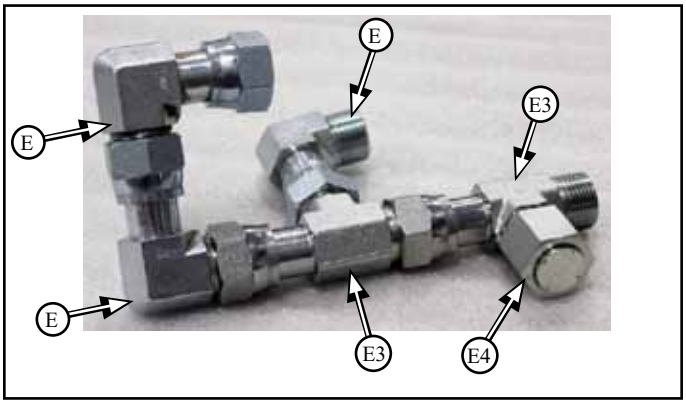
4.2.6 Disconnect tee fitting (**C**) from hyd line/fitting (**C1**)



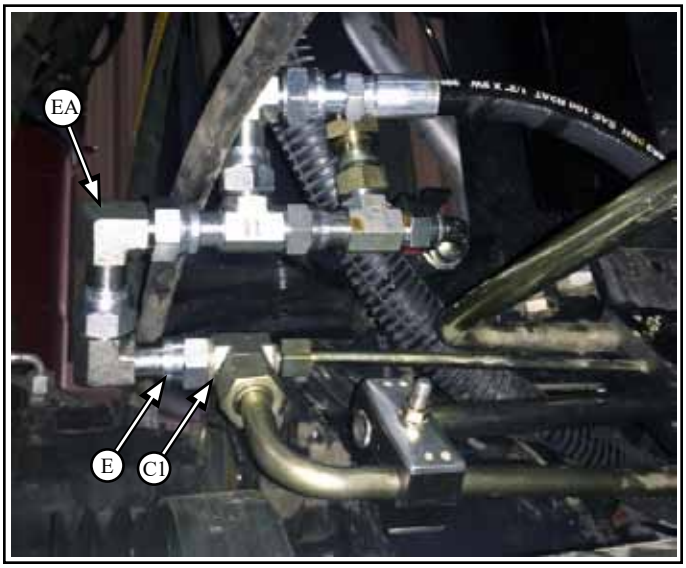
Reference illustrating hydraulic steel tube (D) being removed



4.2.7 Assemble hydraulic fittings into configuration as shown (**EA**)

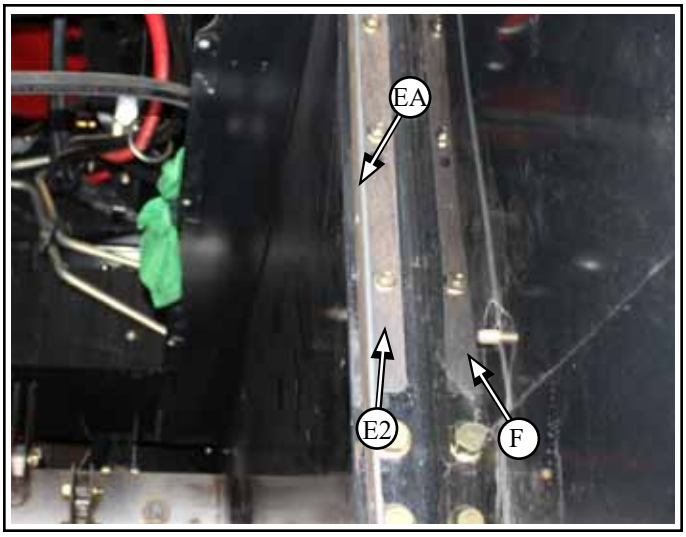


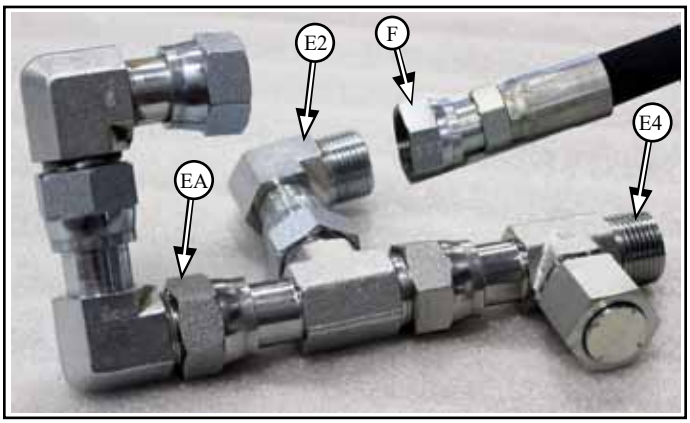
4.2.8 Connect new hydraulic fitting assembly (**EA**) end (**E**) to hyd line/fitting (**C1**)



4.2.9 Connect new hydraulic rubber line (**F**) to new hydraulic fitting assembly (**EA**) at end (**E2**)

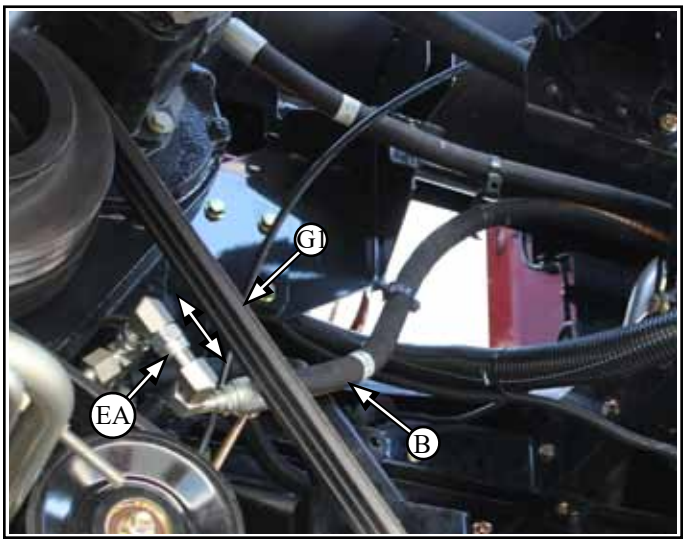
4.2.9.1 Connect new hydraulic rubber line (**F**) to hydraulic knifebar valve (**A**)
- use same routing as hydraulic steel line (**D**) just removed





4.2.10 Connect hydraulic hose (**B**) from reservoir tank to new hydraulic fitting assembly (**EA**) at end (**E4**)
- quickly remove plug (**B1**) from end of hose (**B**) and connect to minimize oil leakage

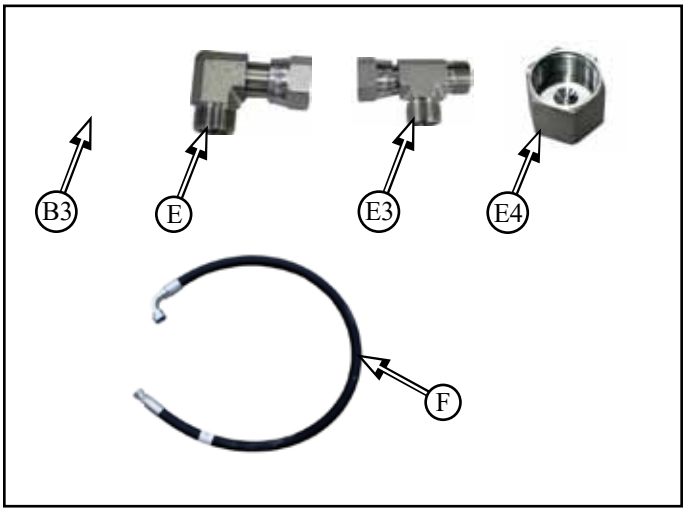
4.2.10.1 Orientate fittings (**EA**) in line with belt (**G1**)



4.3 Return Line Changes - if NOT equipped with hydraulic knifebar valve (A) (Relocation of reservour hydraulic line)

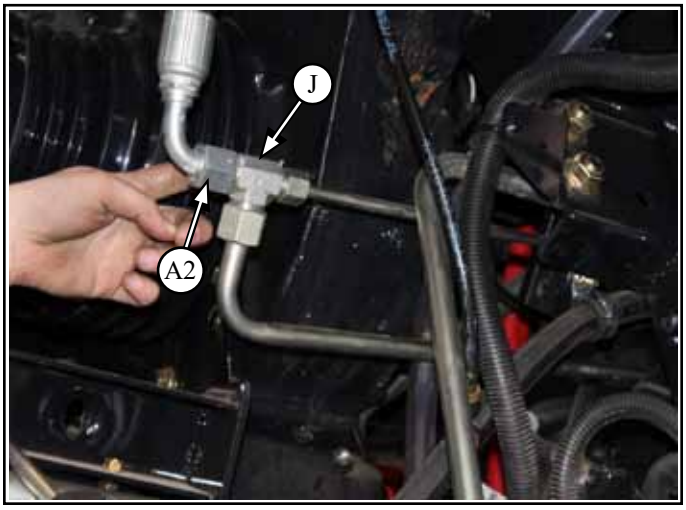
Parts List:
parts located in CS970S field install box and CS971S bag

H17-10	Fit Hyd Plug Hex 10 MORFS (**B1**)	Qty 1
H38-1010FFX	Fit Hyd 90deg 10 MORFS-10FORFSX (**E**)	Qty 2
H49-1010FOFS	Fit Hyd Tee 10 MORFS-10 MORFS (**E3**)	Qty 1
H14-10F	Fit Hyd Cap 10 FORS (**E4**)	Qty 1
HH114	Hydraulic Hose .5 x 57L (**F**)	Qty 1

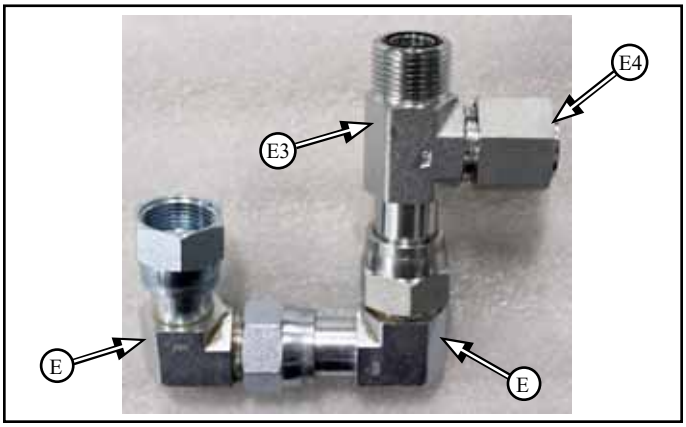


4.3.1 Disconnect factory hydraulic line (A2) from tee fitting (J)
- have oil pail ready - **LARGE FLOW!!**

4.3.1.1 Install hydraulic plug (**B1**) into end of hose (A2) to stop oil flow



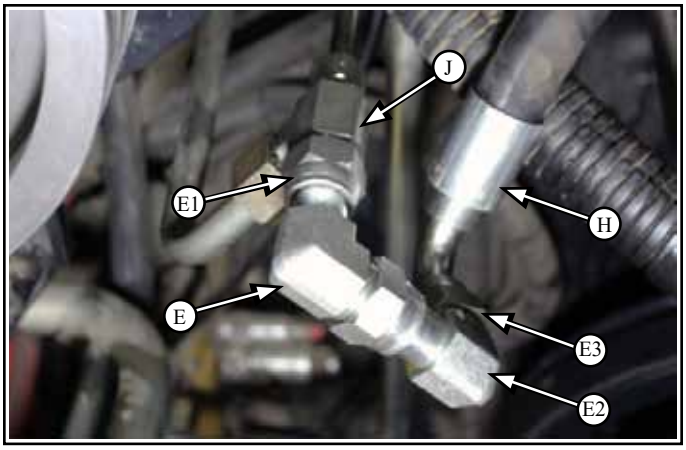
4.3.2 Connect 90 degree hydraulic fittings (**E**) x2, tee (**E3**) and cap (**E4**) together



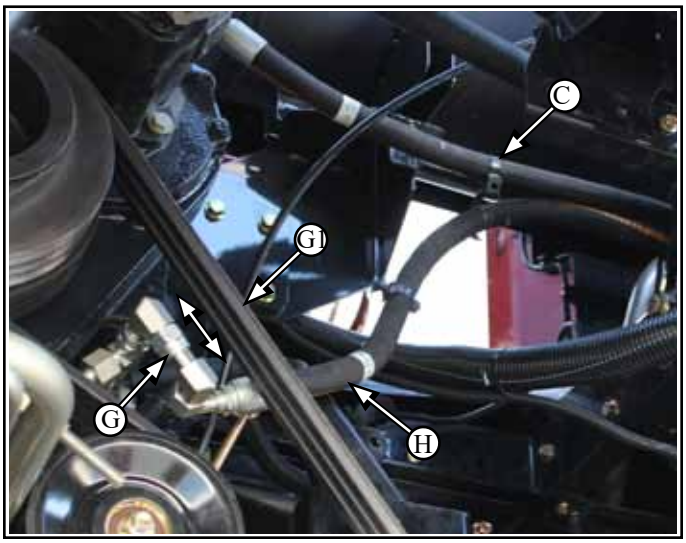
4.3.5 Connect hydraulic fittings **(E)(E1)** to tee **(J)**
- rotate fittings down

4.3.6 Connect hydraulic hose **(H)** to fitting **(E)** at end **(E2)**

4.3.7 Ensure all connections are tight

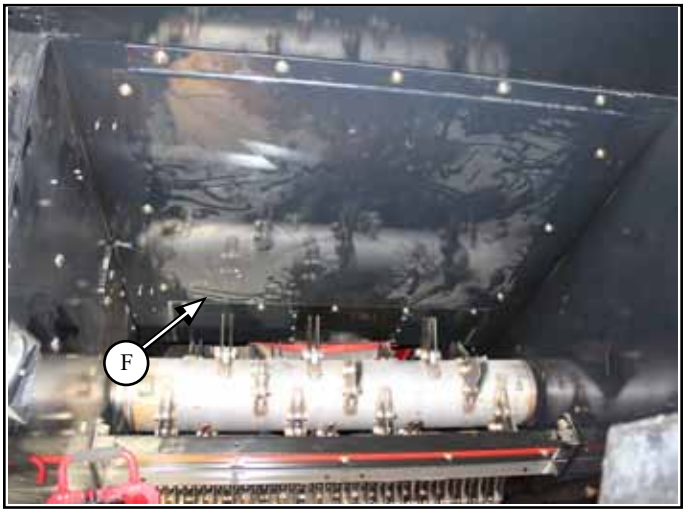


4.3.7.1 Orientate fittings (**G**) in line with belt (**G1**)



4.3.8 Secure hydraulic hose **(H)**
- use tie straps and tube clamps

4.3.9 Reinstall upper access panel **(F)** with existing CASE Hardware

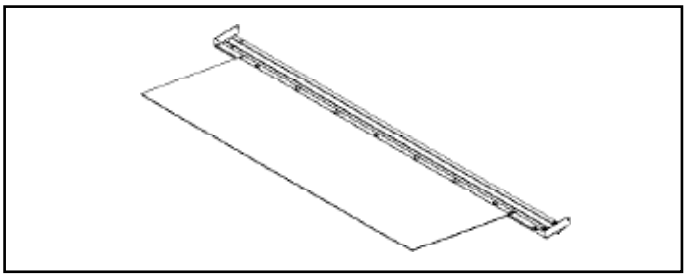


5 Sieve Extension Installation

5.1 Sieve Extension Installation

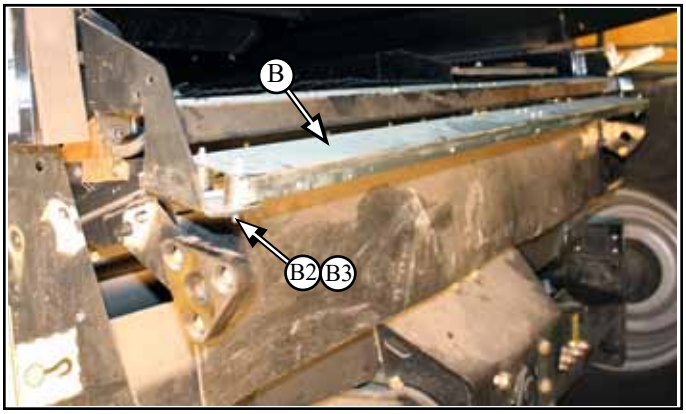
Parts List:
parts located on pallet CS857BS
hardware located in CS625S bag

CS1037BA Sieve Extension Assy AFX (**A**) Qty 1

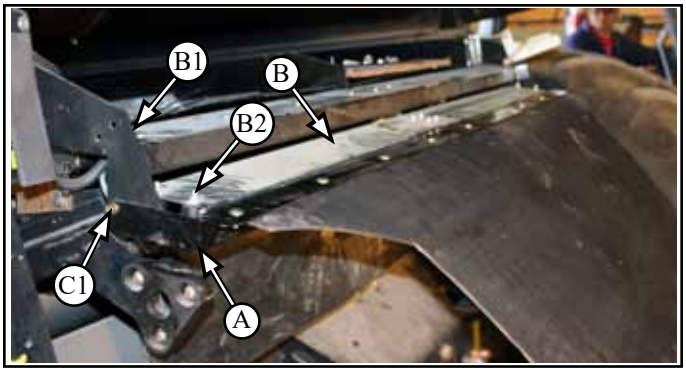


5.1.1 Remove existing nuts and flat washers (**B3**) x4 from bottom of grain loss monitor pan (**B**)

5.1.2 Install sieve extension assembly (**A**) to the bottom of grain loss monitor pan (**B**) on to existing bolts (**B2**)

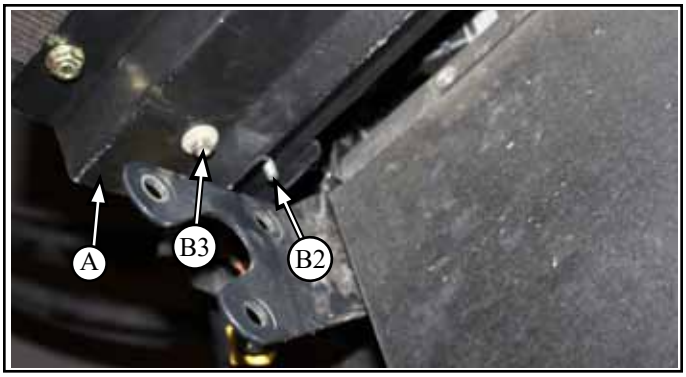


5.1.3 Mount side of sieve extension assembly (**A**) to combine side bracket (**B1**) with:
- M6 x 16 flange bolts and flange nuts (**C1**) x2



5.1.4 Use existing flat washers and nuts (**B3**) x4 to mount to the existing bolts (**B2**) through the grain loss monitor pan (**B**) (2 on each side)

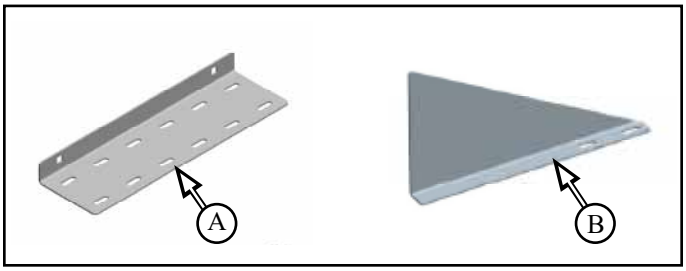
** Do Not over tighten as it will effect grain loss monitor **



5.1.5 Installed sieve extension (**A**) view

Do not pinch grain loss sensor wire when installing sieve extension!

6 Chaff and Internal Deflectors



6.1 Internal Deflector Installation

Parts List:
parts located in CS974BS box
hardware located in CS625S bag

CS170B	Internal Baffle Mount Plate **(A)**	Qty 2
CS921B	Internal Fin **(B)**	Qty 2

INTERNAL DEFLECTOR SETTING

The internal deflectors (**B**) are used to adjust and distribute straw evenly into the Redekop Straw Chopper

6.1.1 Mount baffle mount plates (**A**) flush with top of pan (**C**) with:
- M10 x 20 flange head bolt and flange nut x4

6.1.2 Mount deflector fins (**B**) to 2nd inside mounting hole on mounting plates (**A**) with:
- M10 x 20 round head bolt and flange nut (**B1**) x4

6.1.3 Adjust angle of deflector fins (**B**) starting with deflectors set as shown:

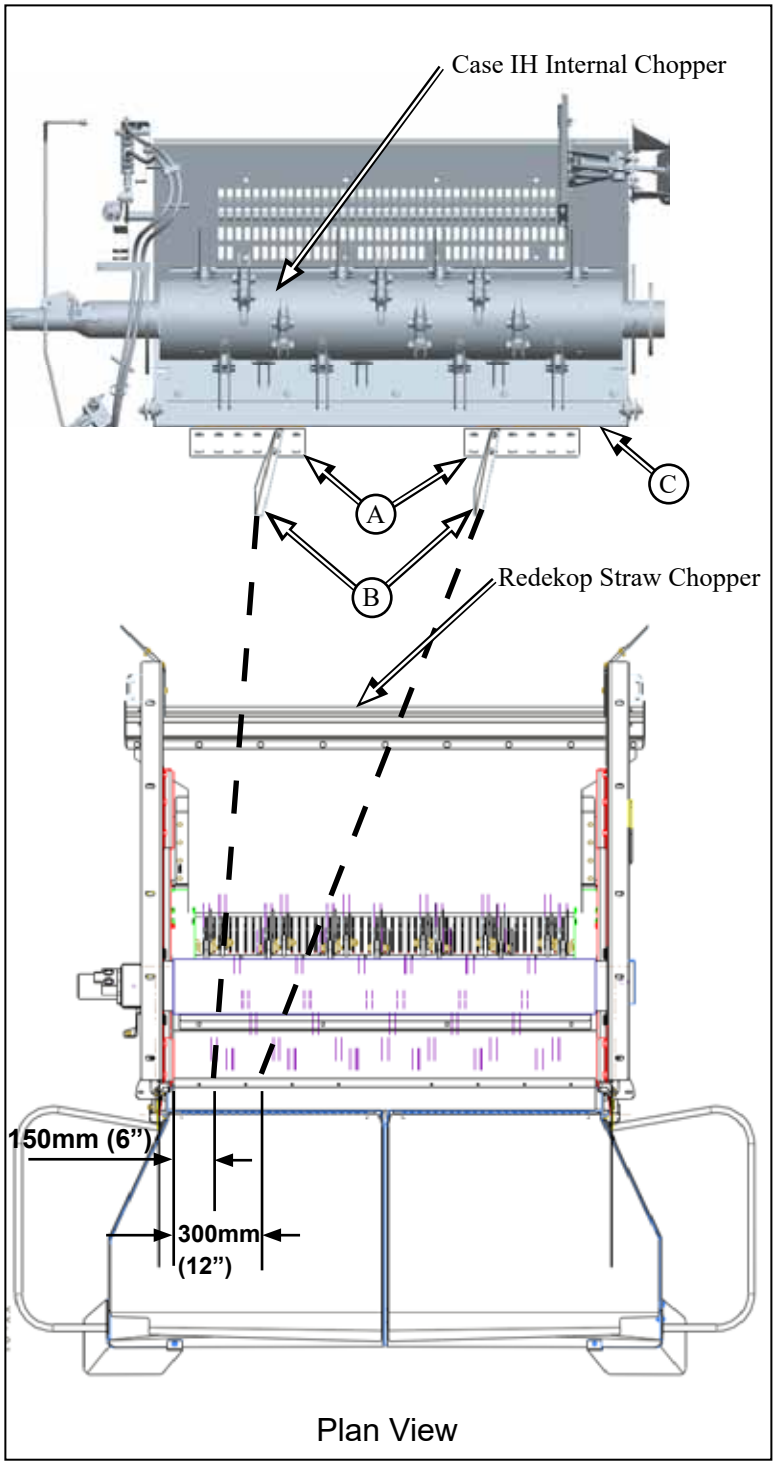
- position left deflector aimed 150mm (6”) inwards to left rear of chopper

- position right deflector aimed 300mm (12”) inwards to left rear of chopper

This is the typical layout for most applications. Adjust angle, spacing of deflector to obtain even distribution

- Check distribution by windrowing. If the swath is even, the distribution into the straw chopper will be even

NOTE:
Residue must be evenly distributed across the width of the chopper.
Each user may be required to adjust the angle of fins or fin type due to different crop conditions or combine performance.

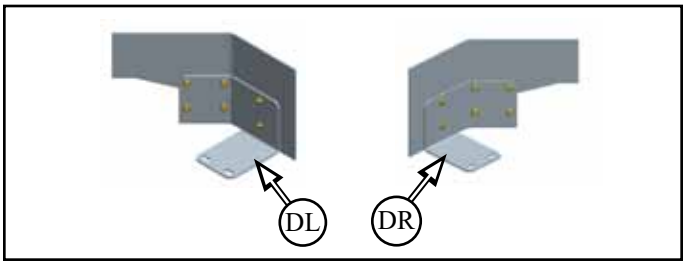


Plan View

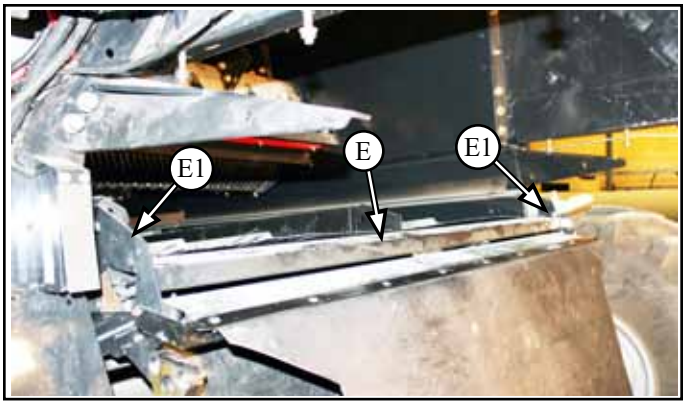
6.2 Chaff Deflector Installation

Parts List:
parts located in CS974BS box
hardware located in CS625S bag

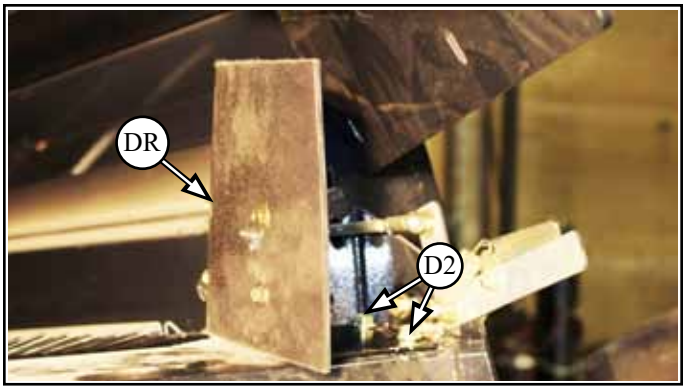
CS599BAL Sieve Ext. Deflector Lt Assy (**DL**) Qty 1
CS599BAR Sieve Ext. Deflector Rt Assy (**DR**) Qty 1



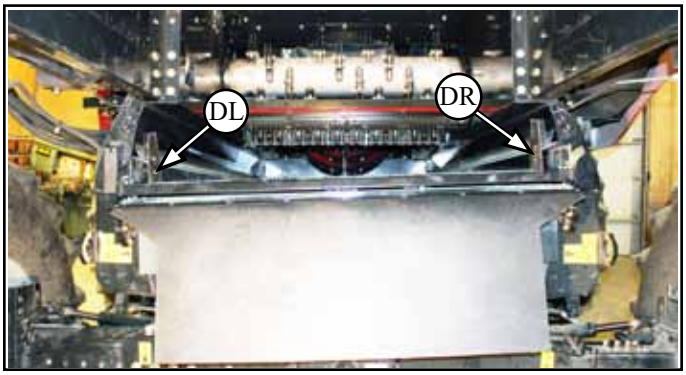
6.2.1 Place each deflector (**DL** & **DR**) at each end of the sieve (**E1**)



6.2.2 Attach bottom of deflector (**DR**) into existing holes with:
- M8 x 25 flange bolts and flange nuts (**D2**) x2
- both sides



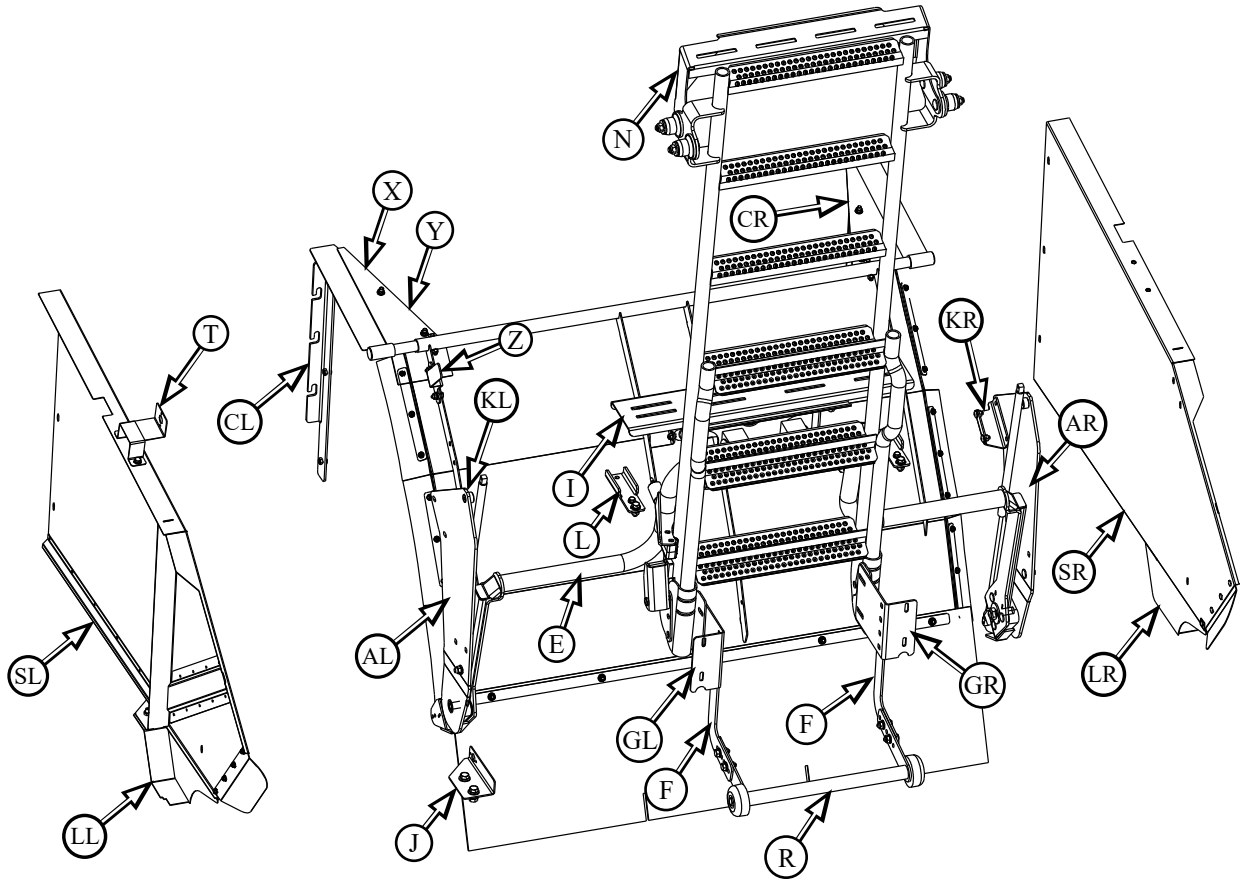
6.2.3 Installed deflectors (**DL**) and **(DR)** view



7 Ladder Installation Kit Overview

Parts List:
Parts located on pallet and in CS975BS box

CS1008BL	Plate Ladder Mount Left **(AL)**	Qty 1	CS1008BR	Plate Ladder Mount Right (**AR**)	Qty 1
CS811BL	Bracket Front Subwall Mount Left **(CL)**	Qty 1	CS811BR	Bracket Front Subwall Mount Right **(CR)**	Qty 1
CS669	Belt Roof Seal **(Y)**	Qty 2	CS468B	Roof Filler Plate **(X)**	Qty 2
CS951BR	Bracket Ladder Handle Mount Right **(GR)**	Qty 1	CS951BL	Bracket Ladder Handle Mount Left **(GL)**	Qty 1
CS944BL	Bracket Top Skin Mount Right **(BR)**	Qty 1	CS944BL	Bracket Top Skin Mount Left **(BL)**	Qty 1
CS949BA	Plate Ladder Handle AFX **(F)**	Qty 2	CS812Z	Plate Spacer Ladder Pivot **(O)**	Qty 2
CS857B	Plate Ladder Handle Side **(J)**	Qty 1	CS851B	Bracket Door Prox Sensor **(U)**	Qty 1
CS950BA	Handle Ladder AFX Assy **(D)**	Qty 1	CS1028B	Top Ladder Step **(N)**	Qty 1
CS927B	Case IH Ladder Lever **(E)**	Qty 1	CS1026B	Top Step (**V**)	Qty 1
CS933BL	Skin Ladder AFX Left **(SL)**	Qty 1	CS933BR	Skin Ladder AFX Right **(SR)**	Qty 1
CS836B	Bracket Ladder Rail Relocate **(L)**	Qty 2	CS851B	Bracket Door Prox Sensor **(Z)**	Qty 1
CS1073BR	Deflector Chaff Rt **(LR)**	Qty 1	CS1073BL	Deflector Chaff Lt **(LL)**	Qty 1
CS851B	Straw Door Proximity Sensor Mount **(T)**	Qty 1			

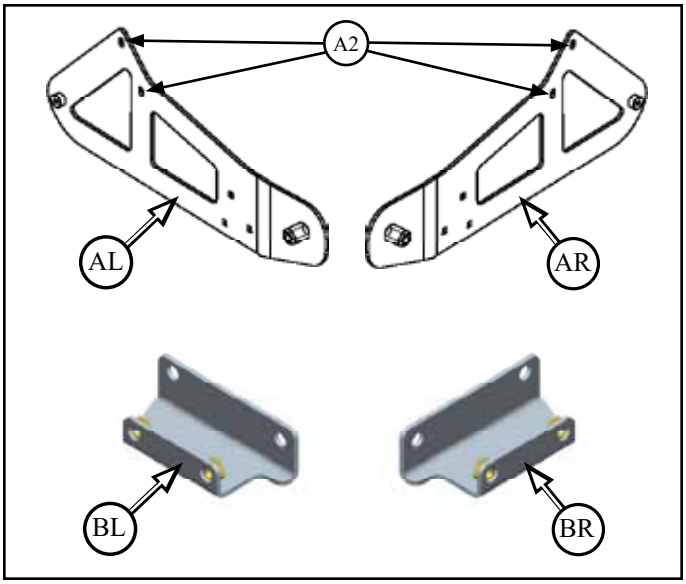


7 AFX Ladder Installation

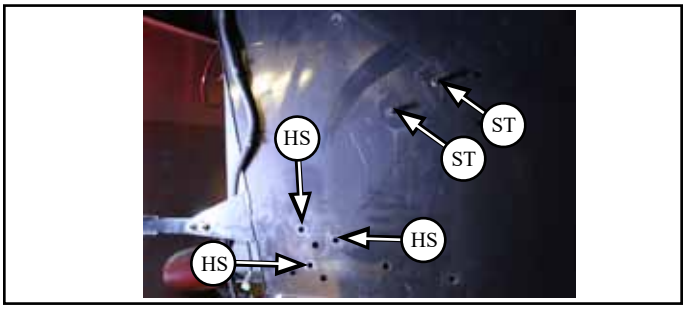
7.1 Ladder Mount Installation

Parts List:
parts located in CS975BS box
hardware located in CS859S bag

CS1008BL	Plate Ladder Mount Left (**AL**)	Qty 1
CS1008BR	Plate Ladder Right Right (**AR**)	Qty 1
CS944BL	Bracket Top Skin Mount Left (**BL**)	Qty 1
CS944BR	Bracket Top Skin Mount Right (**BR**)	Qty 1

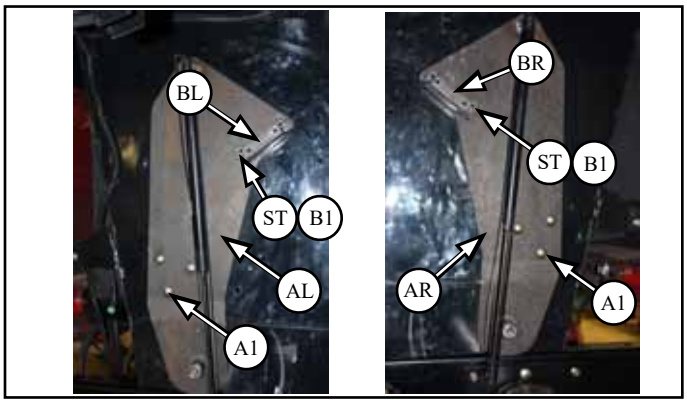


7.1.1 Install left ladder mount **(AL)** to the left inside combine wall:
- mount with holes (**A2**) onto existing two wall studs (**ST**)
- line up with the three holes (**HS**) in wall, install with:
- M10 x 25 round head bolt and flange nut (**A1**) x3



7.1.2 Install left skin mount bracket (**BL**) onto existing wall studs (**ST**) cup side up, with:
- M10 flange nut (**B1**) x2

7.1.3 Repeat procedure for right ladder mount **(AR)** and right skin mount bracket (**BR**) on the right inside combine wall



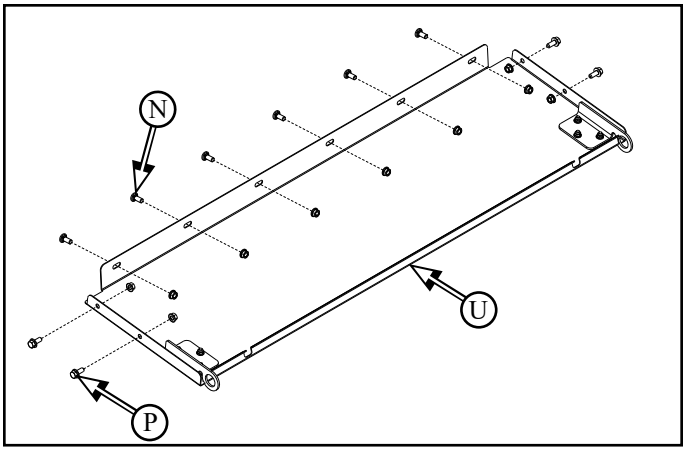
7.1.4 CASE AFX 120 Series Roof Upgrade:
NOTE: AFX 120 Series Only

Parts List:
Parts located in CS961K Kit

CS961BA	AFX 120'S Roof Upgrade **(U)**	Qty 1

- Remove Factory Straw Hood and Install the AFX 120'S Roof Upgrade Assembly **(U)** with:

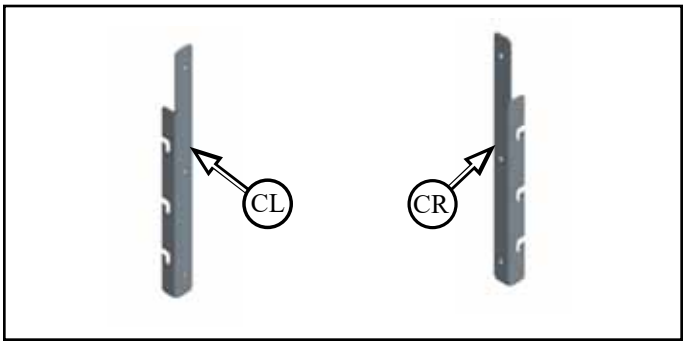
- M10 x 25 round head bolts and flange nuts (**N**) x6
- M10 x 25 flange bolts and flange nuts (**P**) x4



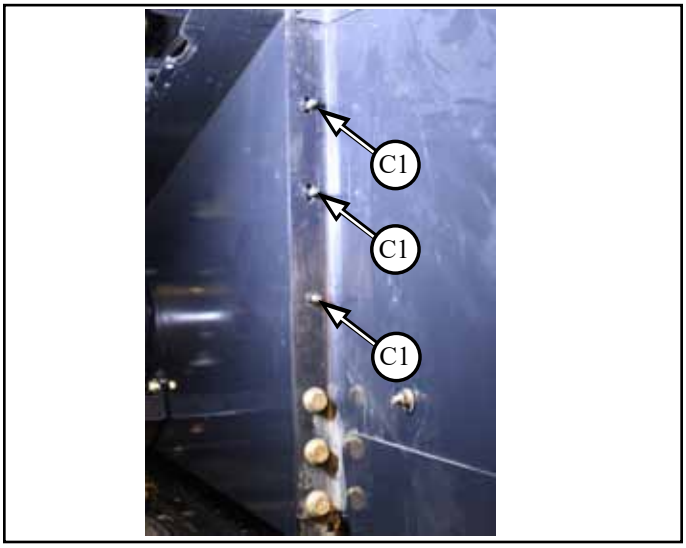
7.2 Bracket Front Subwall Mount Installation

Parts List:
parts located in CS975BS box

CS811BL Bracket Front Subwall Mount Left (**CL**) Qty 1
CS811BR Bracket Front Subwall Mount Right (**CR**) Qty 1

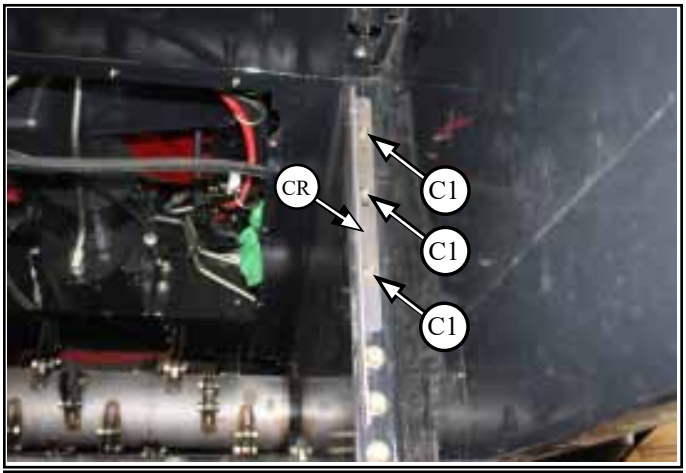


7.2.1 Mount right front subwall bracket (**CR**) to the right front corner of combine wall, with:
- Do Not remove nuts (**C1**)
- loosen nuts (**C1**) x3 enough to allow bracket to slip in behind

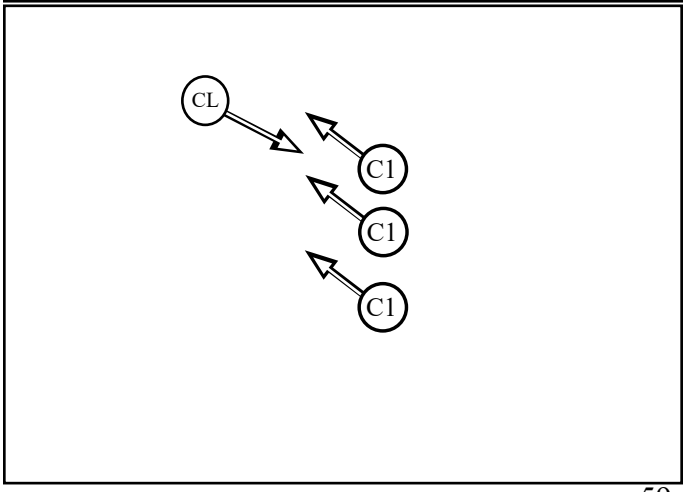


Do not push bolts (B) out from the back panel - leave them inserted There is no access on the fuel tank side to replace bolts

7.2.2 Slide bracket **(CR)** onto bolts in behind nuts (**C1**) x3 and tighten



7.2.3 Repeat procedure for left front subwall mount bracket **(CL)** on left side of combine wall

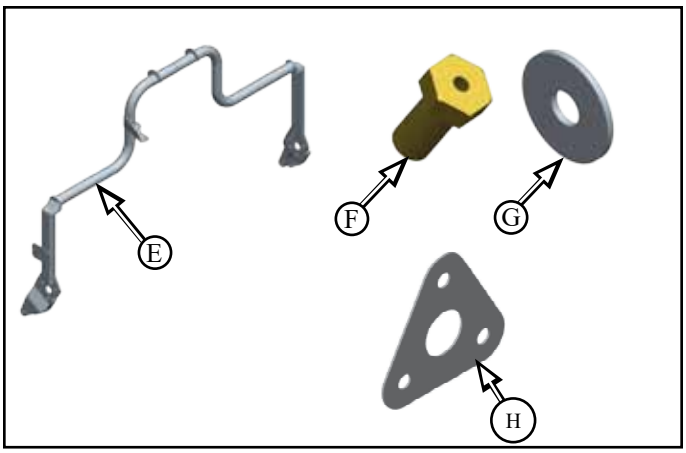


7.3 Ladder lift arm installation

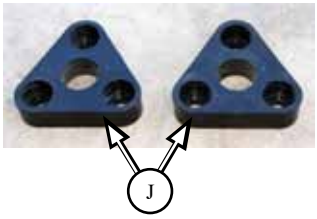
Parts List:
parts located on pallet
hardware located in CS859S bag

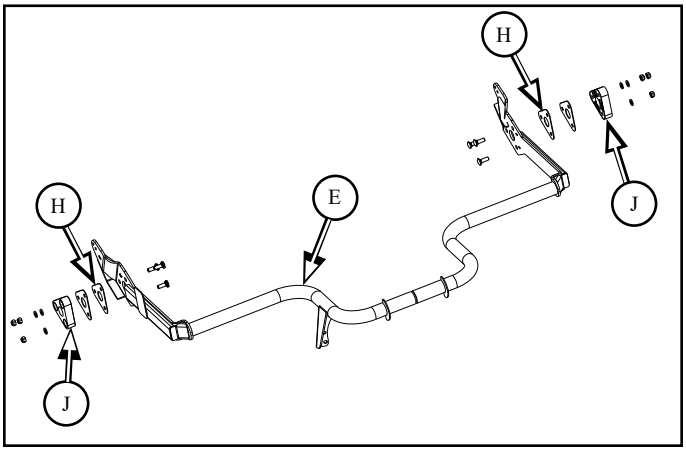
CS927B	Ladder Lift Arm (**E**)	Qty 1
CS934Z	Bolt Ladder Skin (**F**)	Qty 2
CS935Z	Washer Ladder Frame (**G**)	Qty 2
CS976-01	Ladder Shim Plate (**H**)	Qty 4

Reuse:
87105202 Pivot Tube Blocks **(J)**

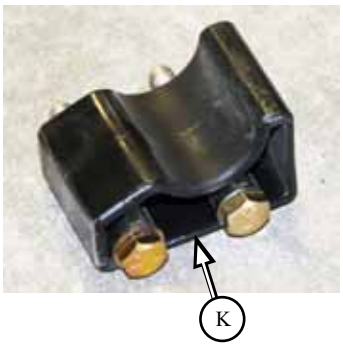


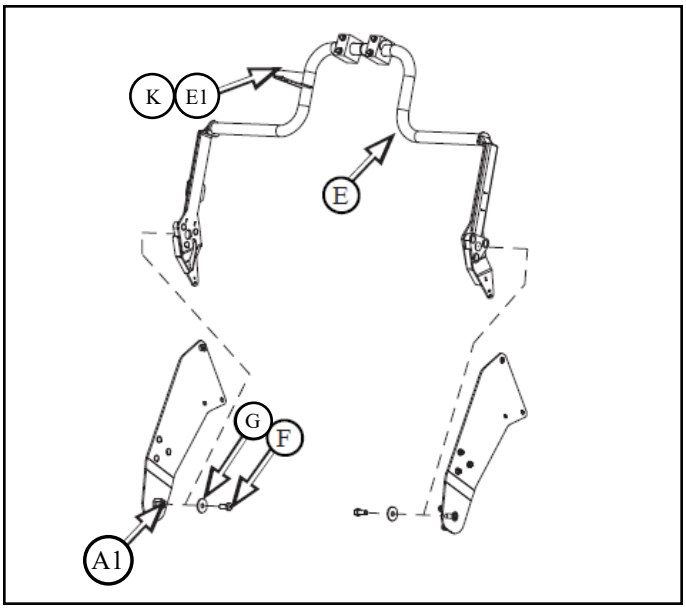
7.3.1 Install Shims (**H**) between Pivot Tube Blocks (**J**) to the outside of ladder lift arms (**E**) with existing hardware:
- M10 x 30 bolts, nuts and washers x6





7.3.2 Install existing CNH Ladder Latch (**K**) onto arm bracket (**E1**) on ladder lift arm (**E**), reuse existing hardware

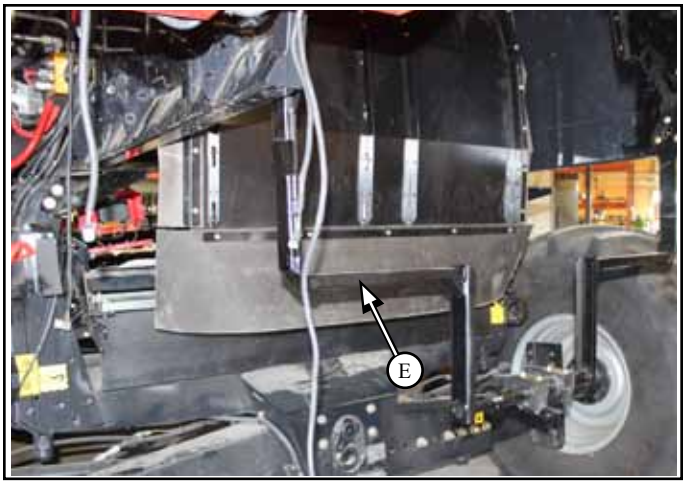




7.3.2 Lift the ladder arm **(E)** and connect it onto ladder mount pins (**A1**) with:
- ladder frame washer (**G**) x2
- M16 x 35 ladder skin bolt (**F**) x2

Ensure ladder lift arm (E) is orientated with the bracket (E1) to the left when installing

7.3.3 Ladder lift arm **(E)** installed view

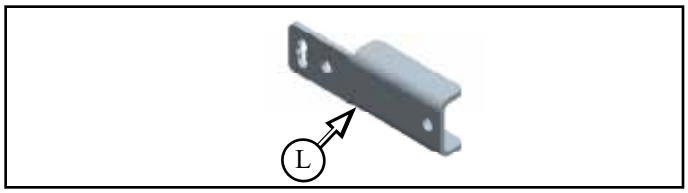


7.4 Ladder Rail Extension

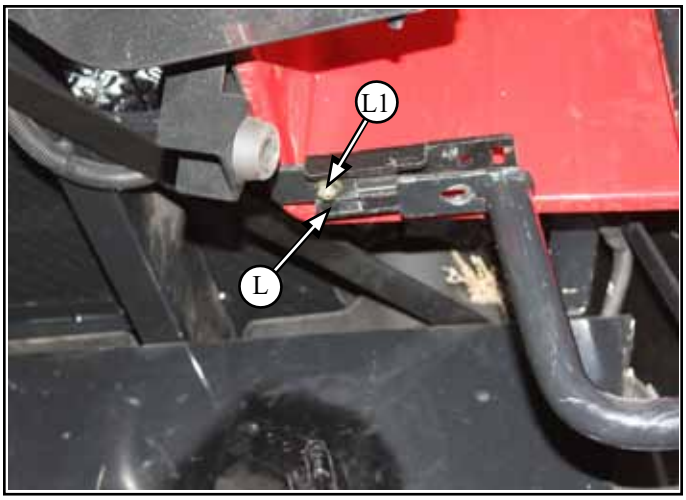
7.4.1 Ladder Rail Relocate Brackets Installation

Parts List:
part included in CS812BS box

CS836B Bracket Ladder Rail Relocate **(L)** Qty 2

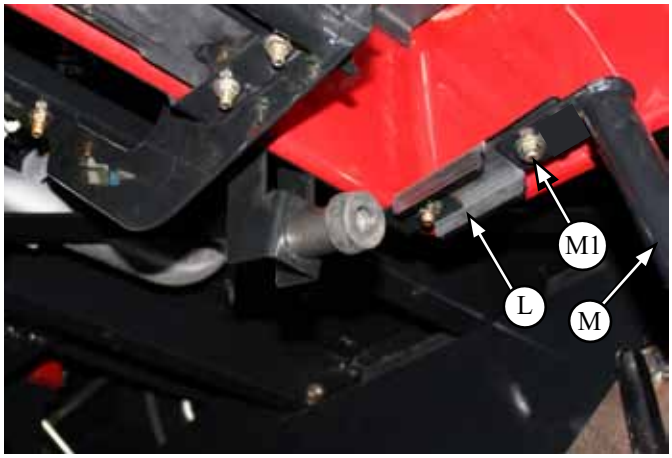


7.4.1.1 Install extension bracket **(L)** cup side down, over bottom rail mount tab with existing hardware:
- M10 x 25 flange bolt and flange nut **(L1)**

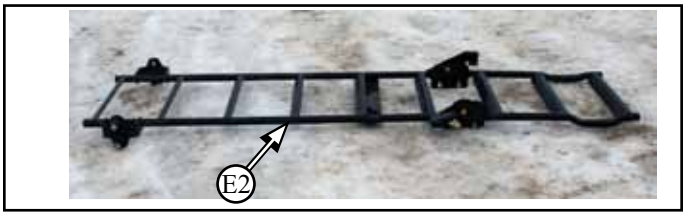


7.4.1.2 Attach ladder rail (**M**) to underside of extension bracket (**L**) with:
- M8 x 25 flange bolt and flange nut (**M1**) x1
- do not tighten at this stage

7.4.1.3 Repeat for other side



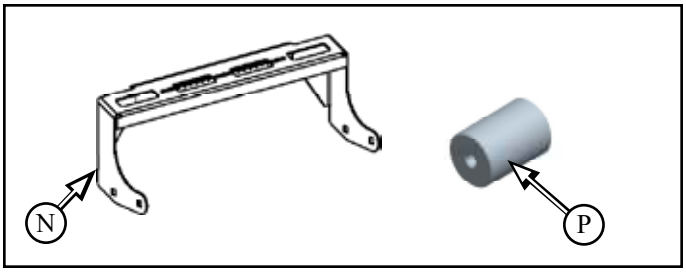
7.4.2 Find factory Ladder (**E2**) from (Section **3.3.2** from Removal Guide)



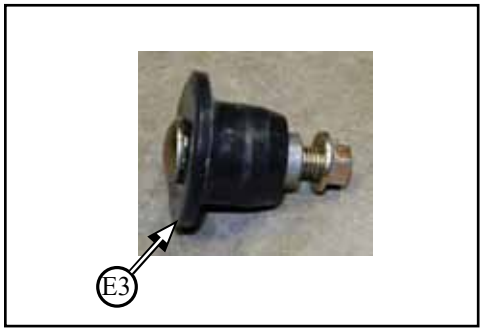
7.4.3 Bracket Ladder Stop Installation

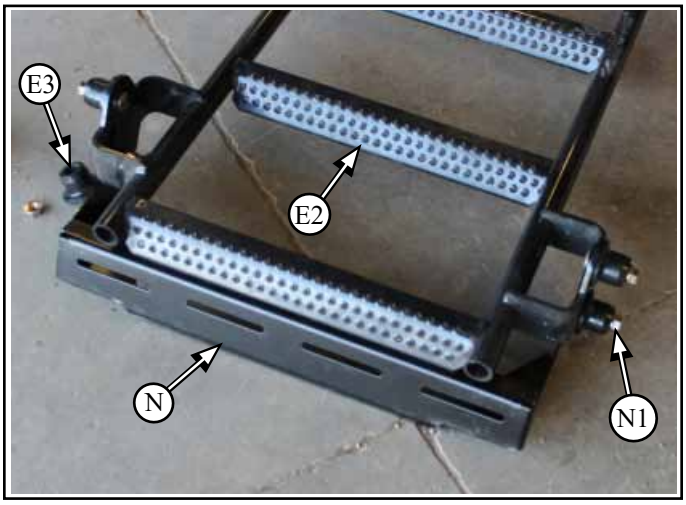
Parts List:
parts located in CS975BS box
hardware located CS859S bag

CS1028B	Top Ladder Step **(N)**	Qty 1
CS948Z	Ladder Bumper Spacer **(P)**	Qty 2

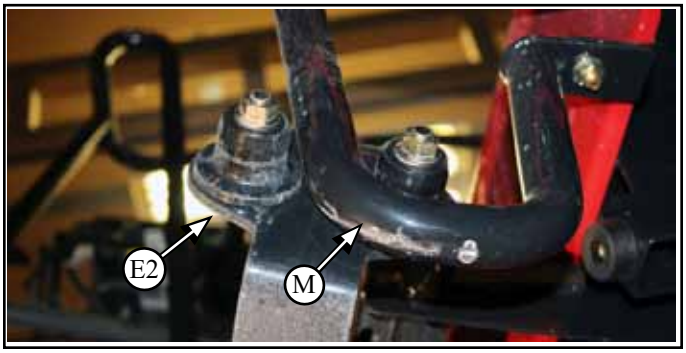


7.4.4 Assemble **b**racket ladder stop (**N**) on the top side of ladder (**E2**) by re-attaching factory rollers (**E3**) x4 with existing hardware:
- M10 x 40 round head bolt and flange nut (**N1**) x4

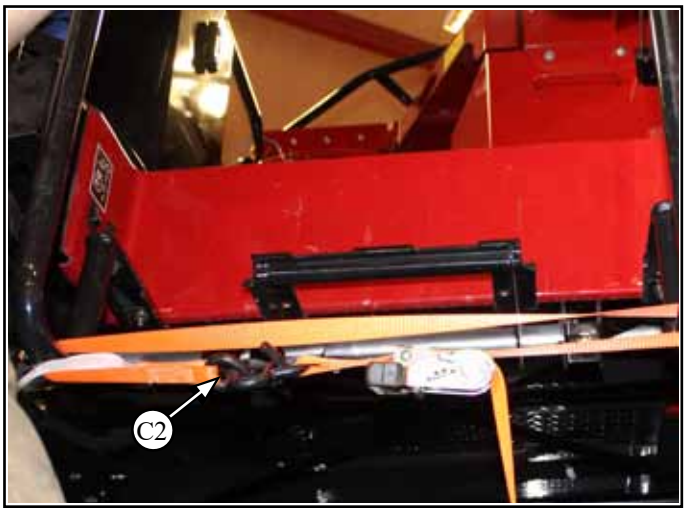


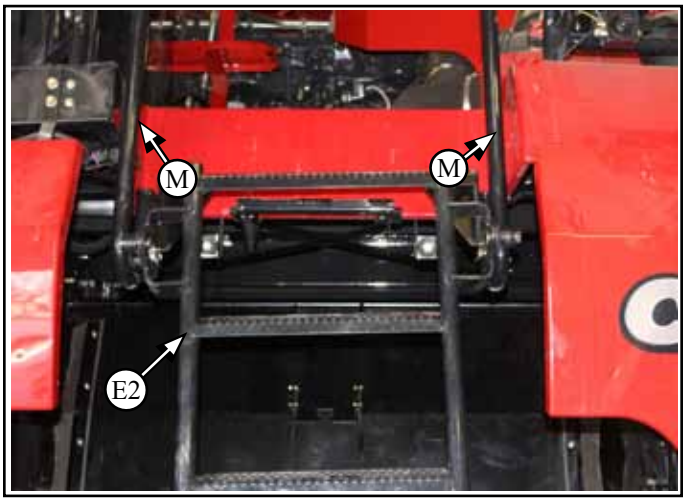


7.4.5 Slide factory Ladder (**E2**) in between rails **(M)** from **Step 7.4.1.2**
- ensure ladder slides smoothly up and down along the pivot tubes **(M)**



7.4.5.1 With a strap **(C2)** tighten to keep ladder rails **(M)** aligned
- Measure width of Ladder at rollers
- Pull the rails slightly narrower than the Ladder width before tightening hardware, so they spring back to Ladder width

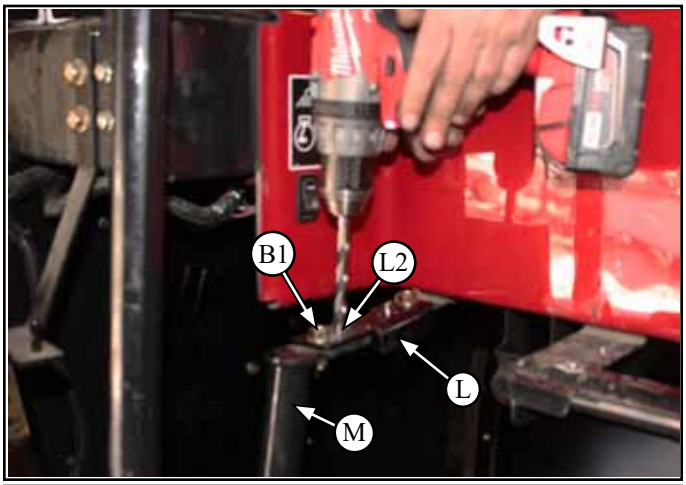




7.4.6 If 2nd mounting hole does not exist in ladder rail: Set the center to center rail spacing to 660 mm (26 inches).

7.4.6.1 Use CS836B (**L**) as a drill guide for drilling hole (**L2**)

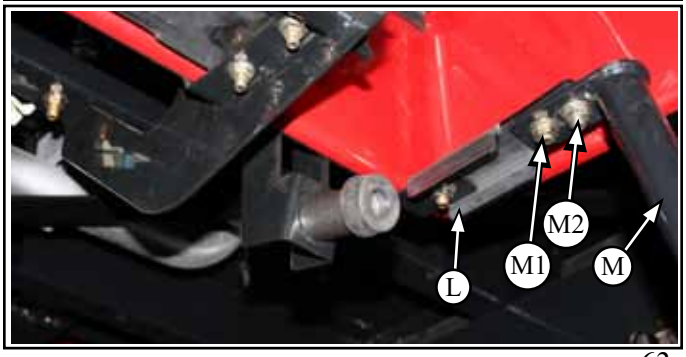
7.4.6.2 Drill 8mm (11/32 in) hole **(L2)** on each rail flange if 2nd hole does not exist



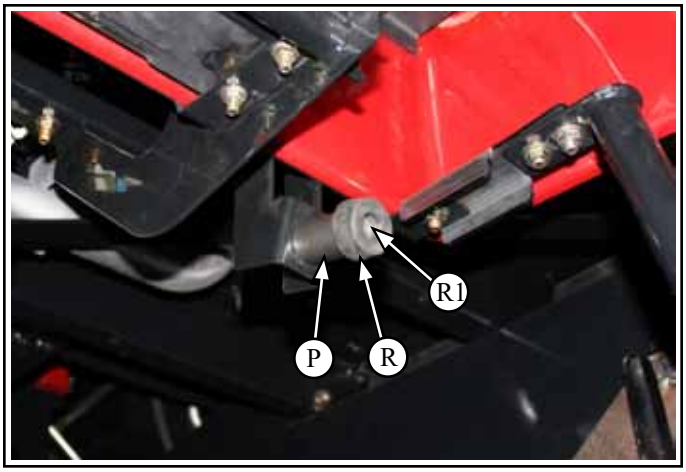
7.4.6.3 Fasten rail plate (**M**) through 2nd hole (**L2**) onto bracket (**L**) with:
- M8 x 25 flange bolt and flange nut (**M2**) x1

7.4.6.4 Tighten all hardware (**M1** & **M2**)

7.4.6.5 Repeat for other side



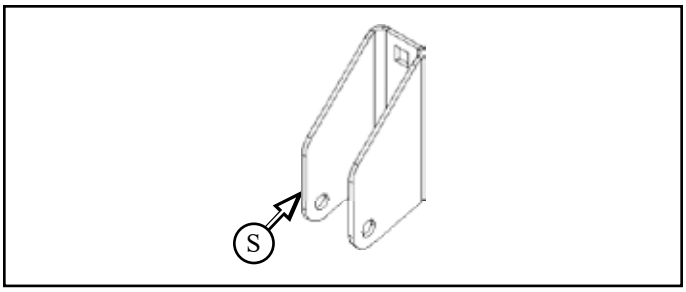
7.4.7 Reinstall existing rubber bumper (**R**) and new spacer (**P**) with:
- M6 x 70 hex bolt and flange nut (**R1**) x1
- repeat for other side



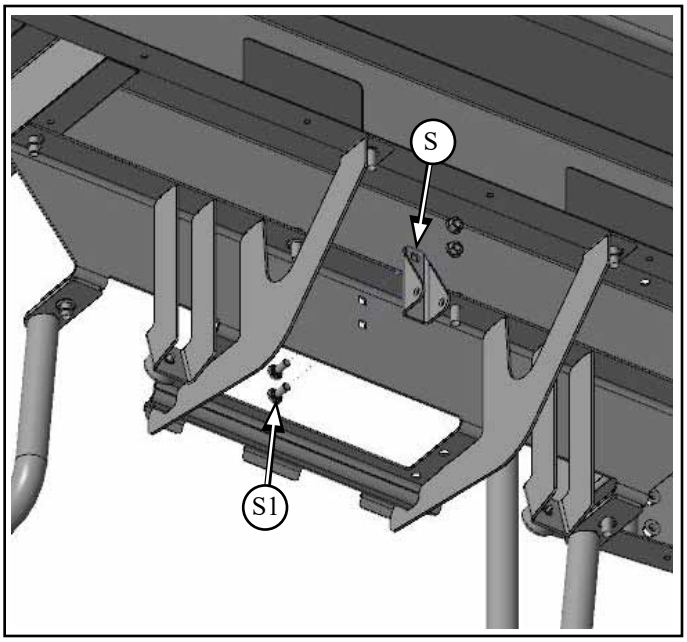
7.5 Straw Door Linkage Bracket Installation

Parts List:
parts and hardware located CS859S bag

CS1012Z Straw Door Clevis (**S**) Qty 1



7.5.1 Install straw door linkage bracket (**S**) to back of step mount frame with:
- M8 x 20 flange bolt and flange nut (**S1**) x2

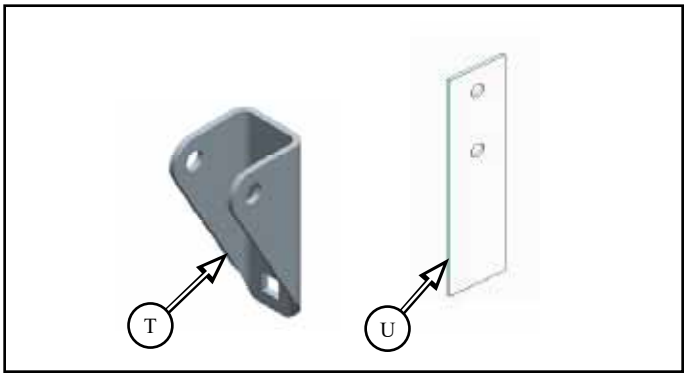


Not Required for MY17 & Current Machines
Holes are in Machine

7.5.2 Straw Door Linkage Bracket Installation

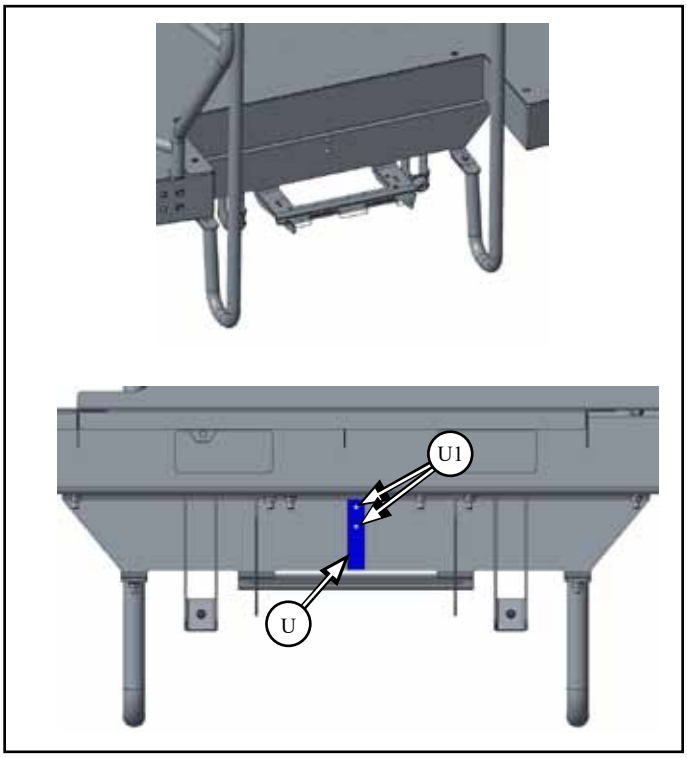
Parts List:
parts and hardware located CS961K 20S Conv Kit

84127251 Straw Door Clevis (**T**) Qty 1
84127251_TEMPLATE
Template- 20s Straw Door Actuator (**U**) Qty 1

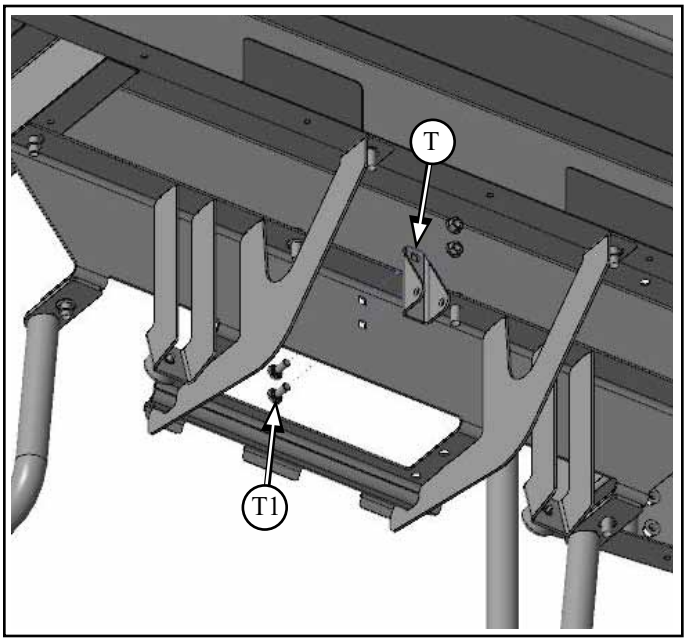


7.5.2.1 Center drill template (**U**) on the back side of the step mount frame and mark the hole locations (**U1**)

7.5.2.2 Drill 8mm (3/8 inch) holes (**U1**) x2



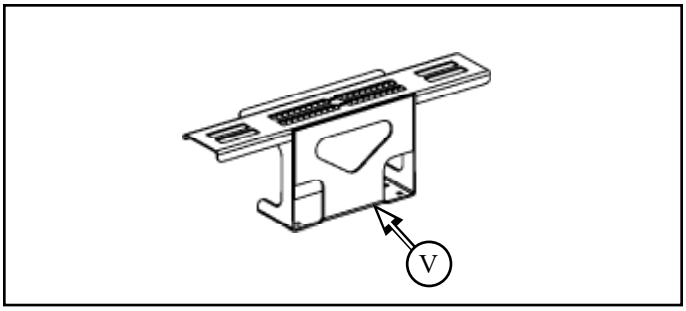
7.5.1 Install straw door linkage bracket (**T**) to back of step mount frame with:
- M8 x 20 flange bolt and flange nut (**T1**) x2



7.6 Top Ladder Step Installation

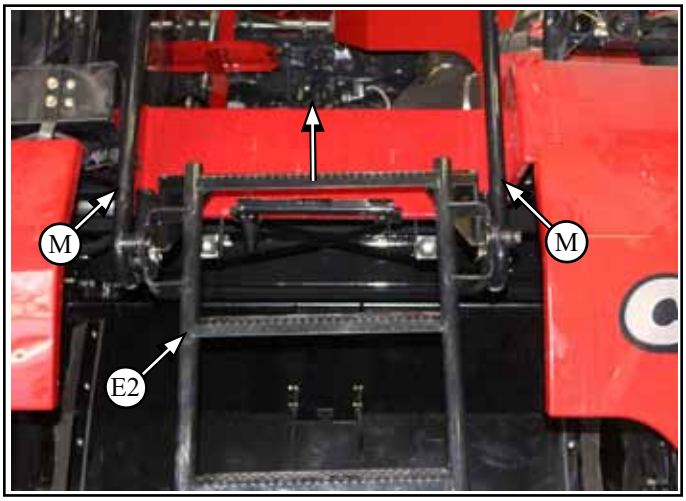
Parts List:
part included in CS975BS box
hardware located in CS859S bag

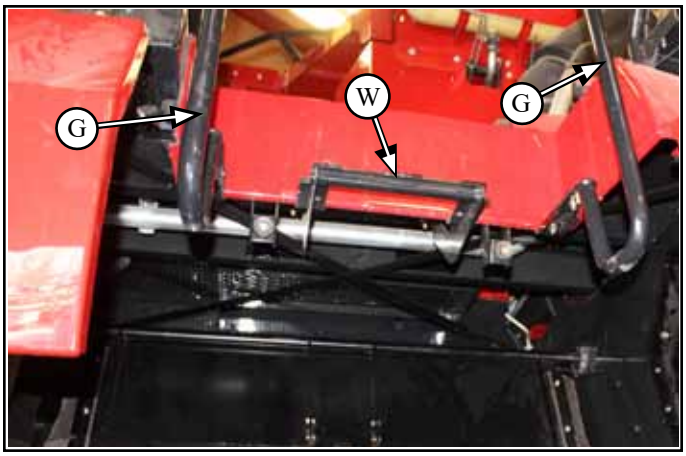
CS1026B	Step Top Ladder **(V)**	Qty 1



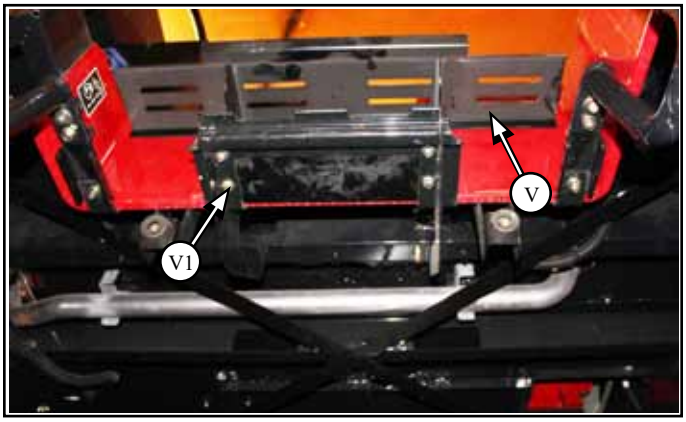
7.6.1 Ensure ladder (**E2**) is mounted on ladder rails (**M**) prior to installing top step (**V**)

7.6.2 Slide ladder (**E2**) up until ladder top step is above floor of engine service area, hold or block in place





7.6.3 Install Top Step (**V**) onto upper flange **(W)** between ladder rails (**G**) with:
- M10 x 25 round head bolt and flange nut (**V1**) x4
- insert bolts from above



7.6.4 Ladder now can be unblocked and slid down so that the ladder top step seats in lip of top step

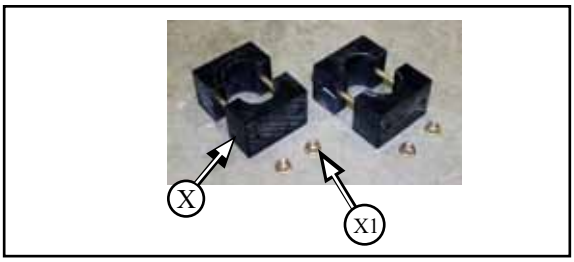
7.7 Ladder Connection to Ladder Lift Arm (E)

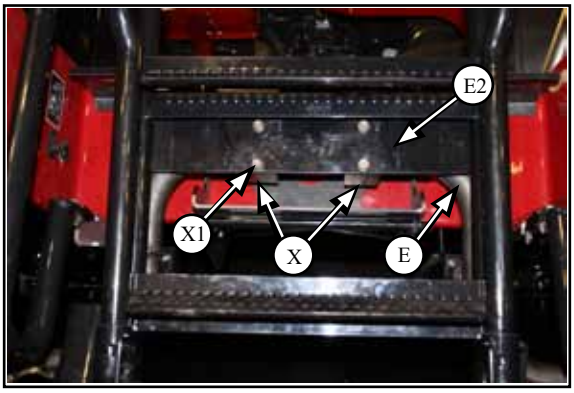
7.7.1 Reuse and Insert M8 x 90 flange bolts (**X1**) through the ladder backplate (**E2**)

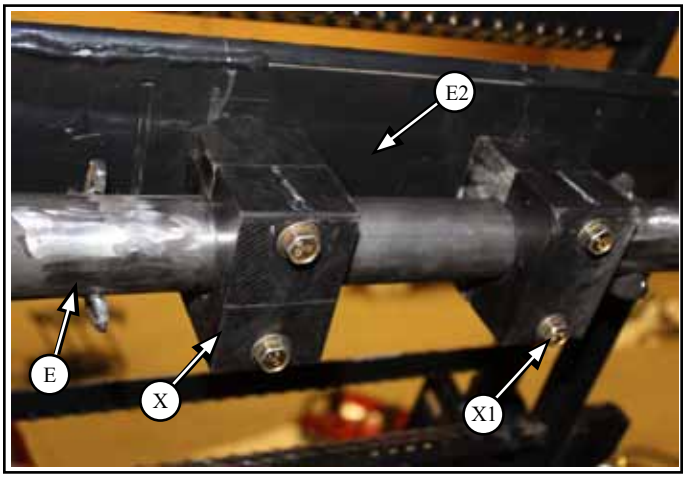
7.7.2 Slide one (1) piece of factory pivot blocks **(X)** (Section **3.3.1** from Removal Guide) on to the bolts (**X1**) through ladder backplate

7.7.3 Pivot ladder lift arm (**E**) up to seat into pivot blocks (**X**)

7.7.4 Slide 2nd piece of factory pivot blocks (**X**) x2 over pivot ladder arm (**E**) onto first piece and secure with:
- M8 flange nut (**X1**) x4



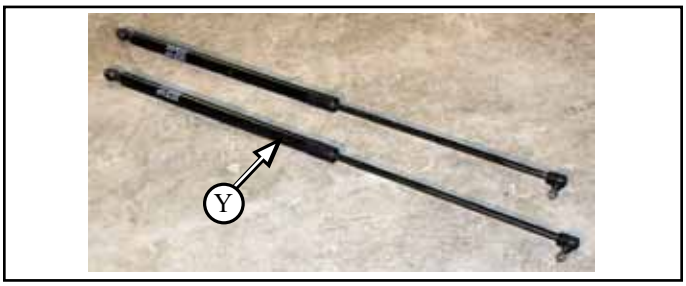




7.8 Gas spring installation

Parts List:
Reuse Gas Spring from disassembly

#47360439 Factory ladder gas spring (strut) **(Y)** Qty 2



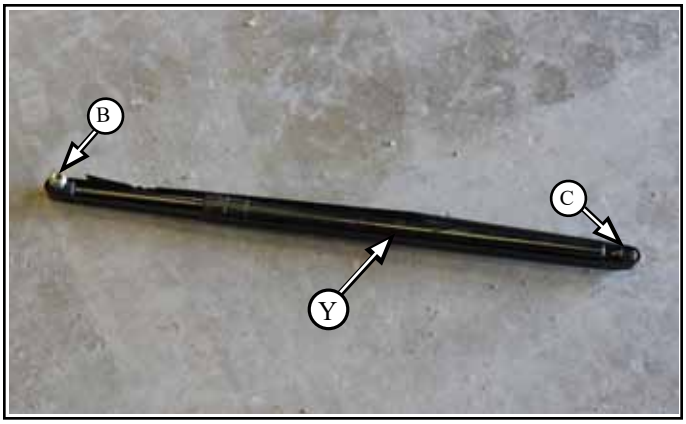
CAUTION

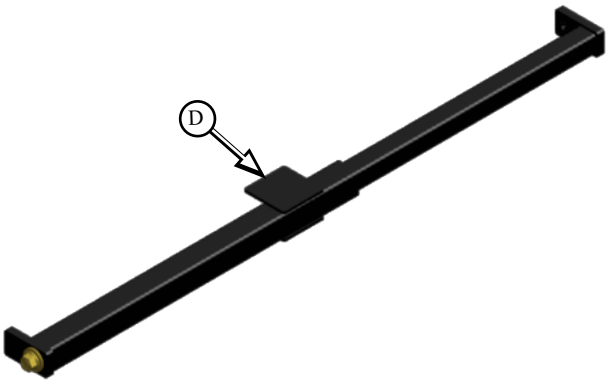
Gas Spring is under load and will extend when released

7.8.1 Compress existing gas springs (**Y**) to 712mm (28 in.) long

Short Stud **(B)**
Longer Stud **(C)**

- Order CS965BA Shock Compressor Tool **(D)** if required



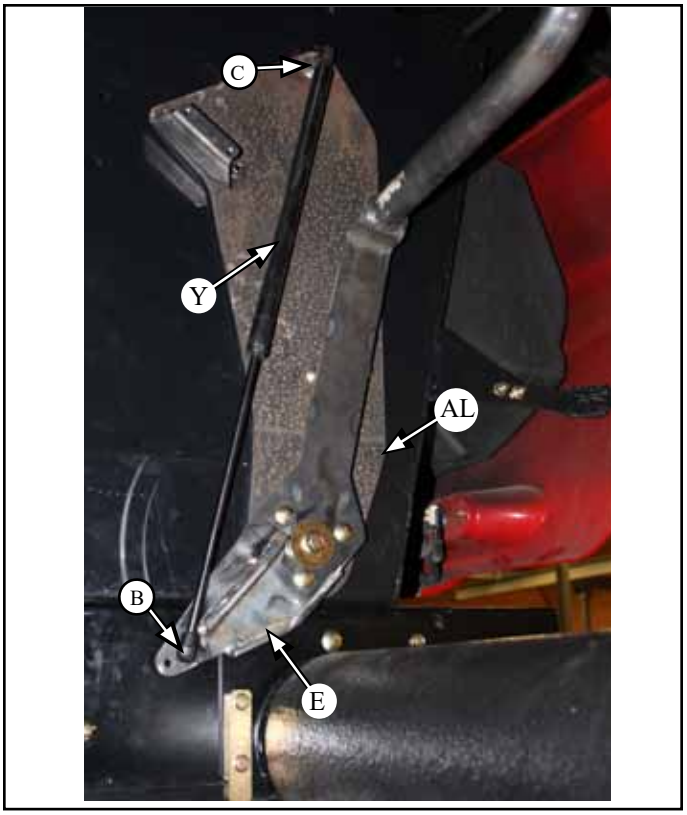


7.8.2 Mount gas spring **(N)** onto the left side ladder lift arm **(E)** with:
- factory hardware
- Gas shock should be mounted rod end down

Ensure Short Stud **(B)** is connected to ladder lift arm **(E)**
Ensure Longer Stud **(C)** is connected to left ladder mount plate **(AL)**

7.8.3 Repeat for right side

Ensure Short Stud **(B)** is connected to ladder lift arm **(E)**
Ensure Longer Stud **(C)** is connected to Plate Ladder Mount Left **(AR)**

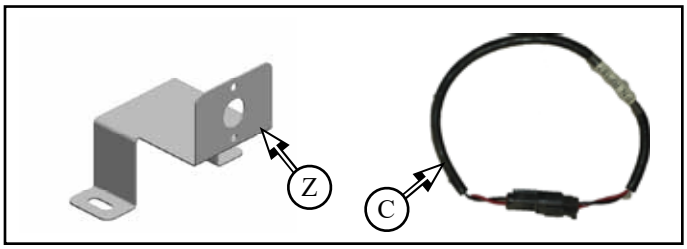


Longer stud should be located at the top of gas shock. They may need to be switched

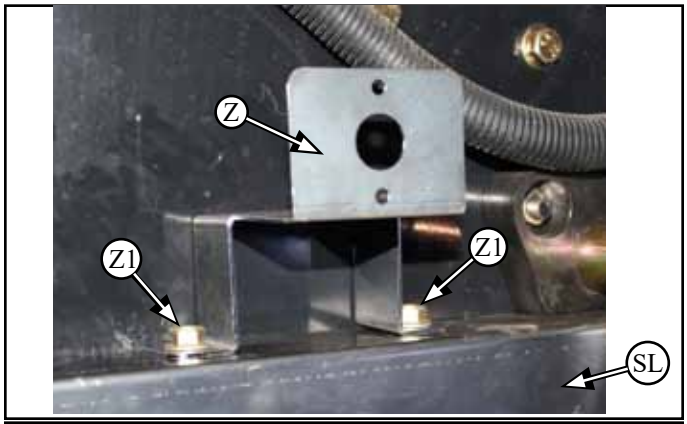
7.9 Door Proximity Sensor Bracket Installation

Parts List:
part included in CS975BS box
hardware located in CS859S

CS851B	Bracket Door Prox Sensor (**Z**)	Qty 1
RP953	Extension Harness (**C**)	Qty 1

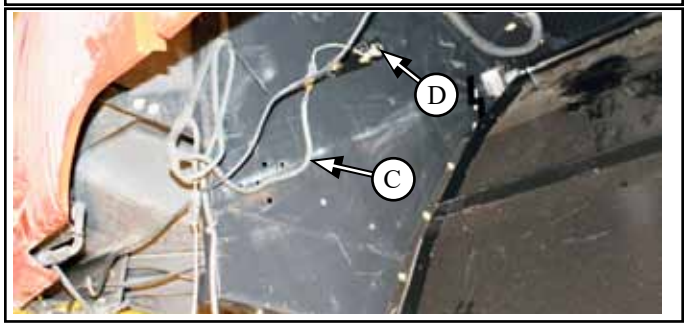


7.9.1 Install door proximity sensor mount bracket (**Z**) on to the top of the left ladder skin (**SL**) prior to installation of skin onto combine, with:
- M8 x 20 flange bolt and flange nut (**Z1**) x2



7.9.2 Install proximity sensor into sensor mount bracket (**Z**)
- reinstalled/relocated from spreader linkage
- final adjustment will occur after straw door has been installed

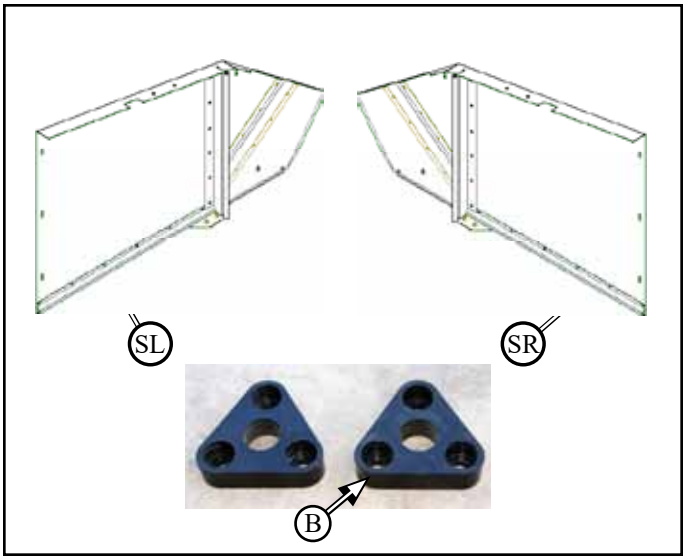
7.9.3 Connect wire extension harness (**C**) to proximity sensor (**D**) and to connector at original position of sensor on spreader linkage



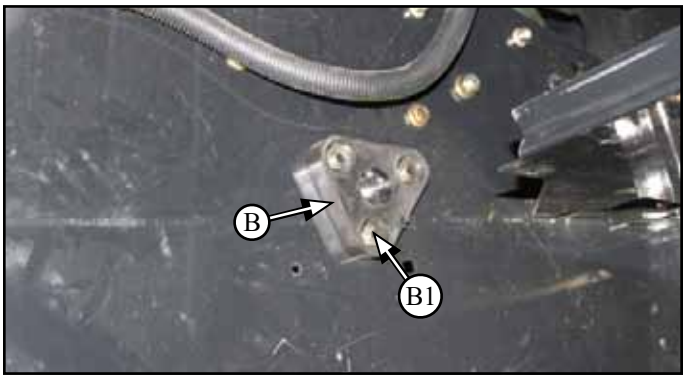
7.10 Panel Light Ladder Wall Installation

Parts List:
parts located on pallet
hardware located in CS859S bag

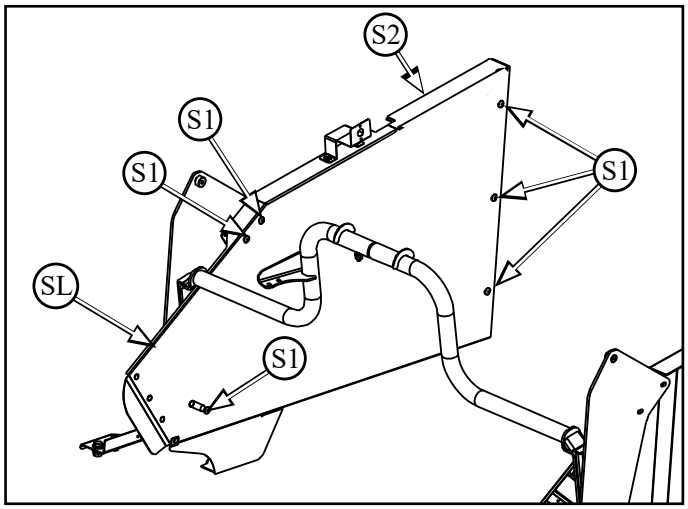
CS1041BAL Ladder Side Wall Panel Left **(SL)** Qty 1
CS1041BAR Ladder Side Wall Panel Right **(SR)** Qty 1
87105202 Pivot Tube Block **(B)** Qty 2
(reused from Internal Straw Door)



7.10.1 Reinstall pivot tube block (**B**) x2 on both sides of the combine with:
- M10 flange nut (**B1**) x3
- both sides



7.10.2 Install left ladder side wall panel **(SL)** on to left inner combine side wall with:
- M8 x 16 button head bolt **(S1)** x6
- Silicone gap (**S2**) between top flange of panel (**SL**) and side wall of combine

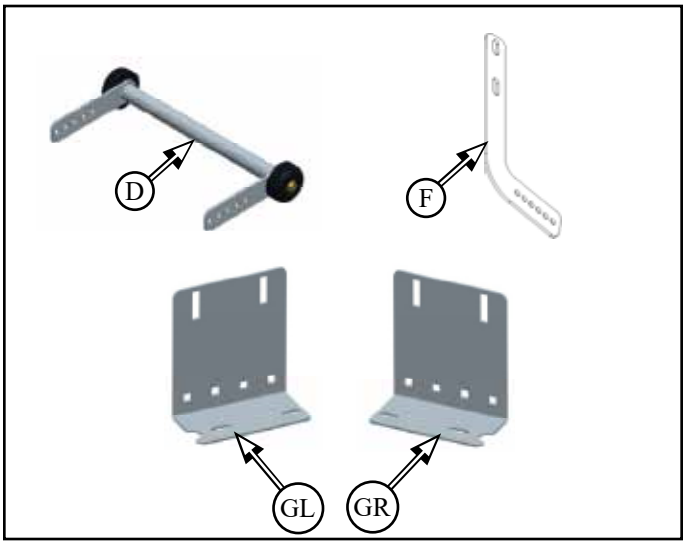


7.10.3 Repeat procedure for right ladder side wall panel **(RL)** on right side

7.11 Handle Ladder AFX Assembly Installation

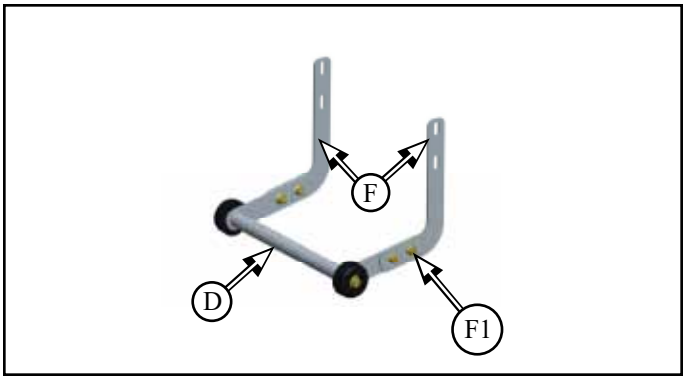
Parts List:
parts located in CS975BS box
hardware located in CS859S bag

CS950BA Handle Ladder AFX Assy **(D)**	Qty 1
**** ensure wheels spin freely ****	
CS949B Ladder Handle Plate **(F)**	Qty 2
CS951BR Ladder Handle Bracket Left **(GL)**	Qty 1
CS951BL Ladder Handle Bracket Right **(GR)**	Qty 1

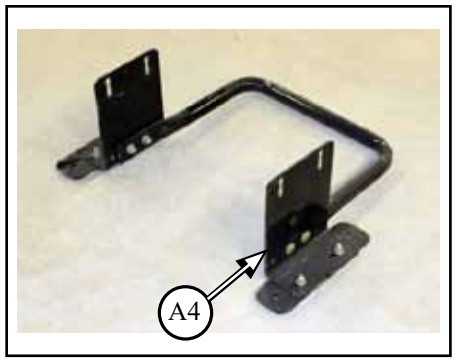


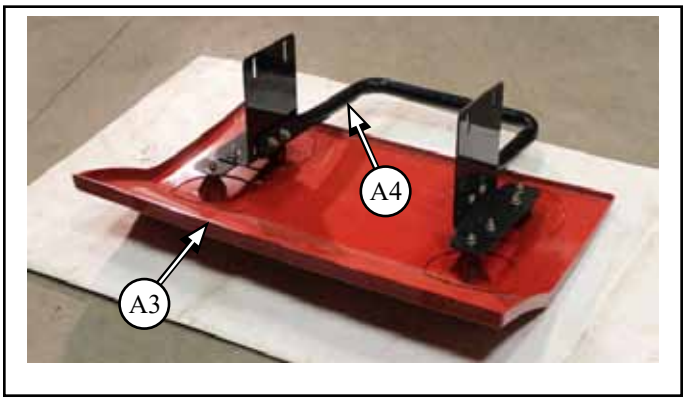
7.11.1 Assemble ladder handle plate (**F**) x2 to ladder handle (**D**) with:
- M10 x 25 flange bolt and flange nut (**F1**) x4
- see next page for suggested hole locations for mounting

**** ensure wheels spin freely ****



7.11.2 Find the glamour panel **(A3) (Section 3.1.4** from Removal Guide)
- Remove the Ladder Handle and brackets (**A4**) from glamour panel (**A3**)
- (**A4**) not to be reused



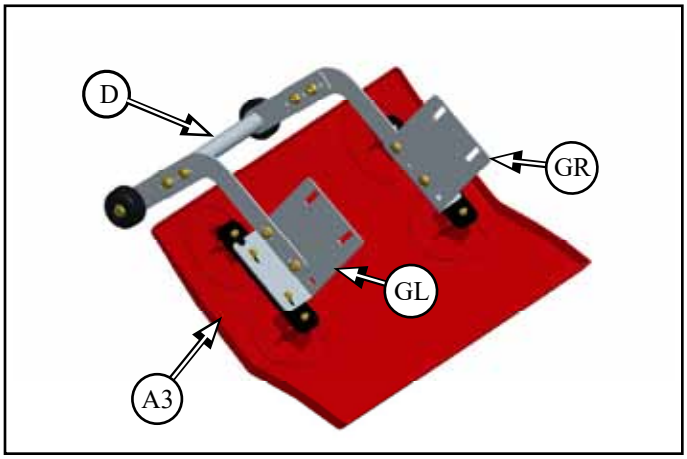


7.11.3 Install ladder handle brackets (**GL** & **GR**) to glamour panel (**A3**) with existing hardware from previous step.

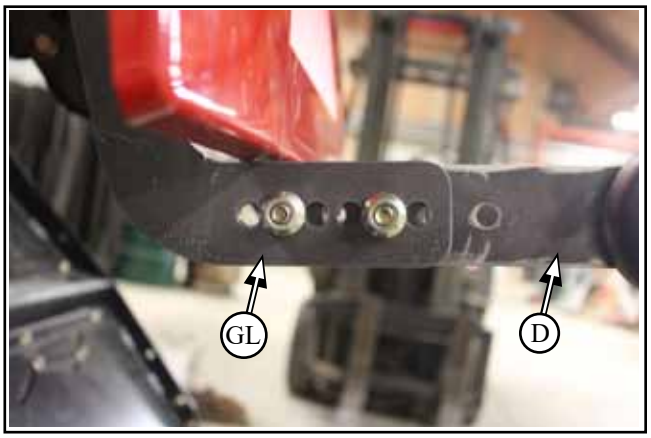
Note: Cutouts of (**GL** & **GR**) are facing to the bottom of the panel

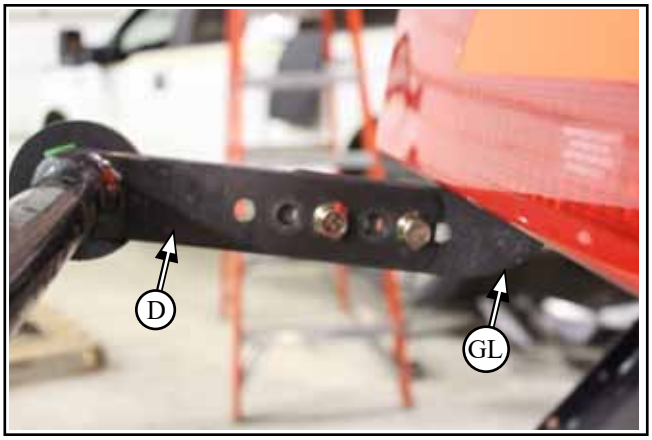
7.11.4 Assemble ladder handle assembly **(D)** to ladder handle **b**rackets (**GL** & **GR**) with existing hardware

**** Glamour panel and handle need to be adjusted so that the ladder catches on the top step and the Glamour panel clears the tail boards when in the down position ****



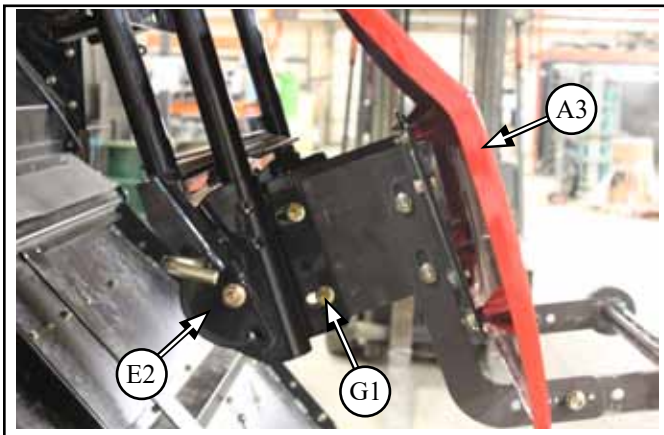
7.11.5 See Pictures for reference Bolt and Hole locations for the Ladder Handle and Glamour Panel Assembly.

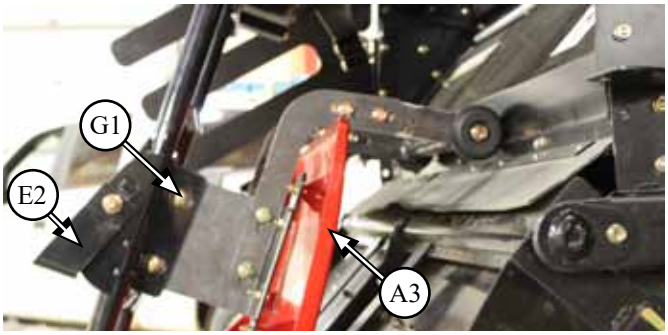




7.11.6 Mount glamour panel **(A3)** onto factory Ladder when lower ladder (**E2**) is folded up, with:
- M10 x 25 flange bolt and flange nut (**G1**) x4

7.11.6.1 Adjust bolts (**G1**) in slots to align the glamour panel with combine rear cowling when ladder is up.





7.11.7 Assembled ladder over view after Chopper has been mounted.

Chopper tailboard must be fully lowered to allow clearance between the Glamour Panel and the top of the tailboard.

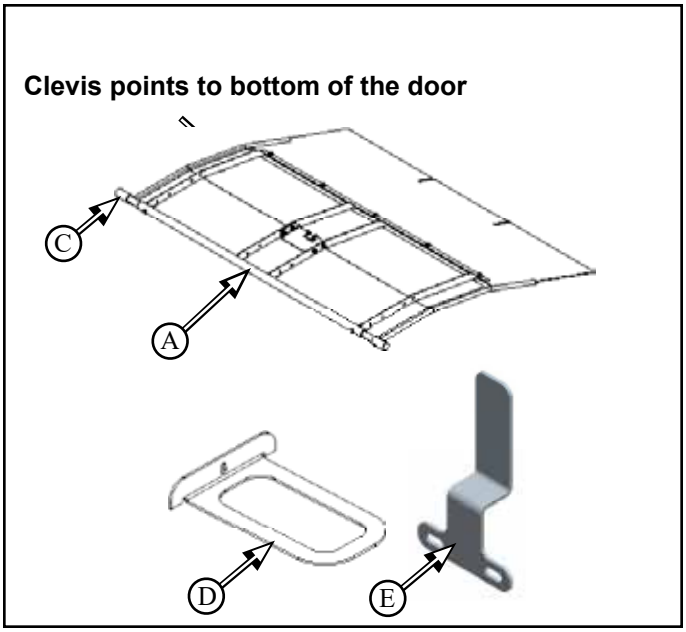
8 Straw Door Installation

8.1 Straw Door Assembly Installation

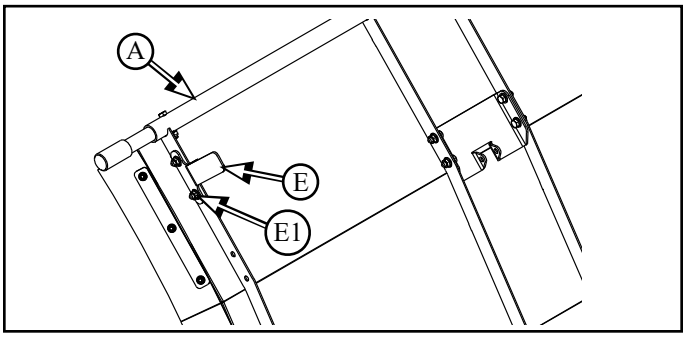
parts located on pallet
hardware located in CS859S bag

Parts List:

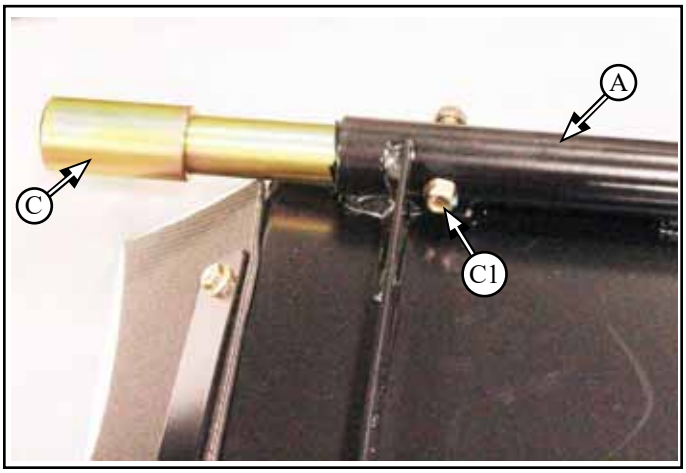
CS1010BA	Straw Door Assembly **(A)**	Qty 1
CS937Z	Pin AFX Straw Door **(C)**	Qty2
87547587	M10 Locknut **(C1)** (removed from Internal Straw Door)	Qty 6
CS1070B	Straw Door Handle **(D)**	Qty 1
CS943B	Target Straw Door Proximity **(E)**	Qty 1



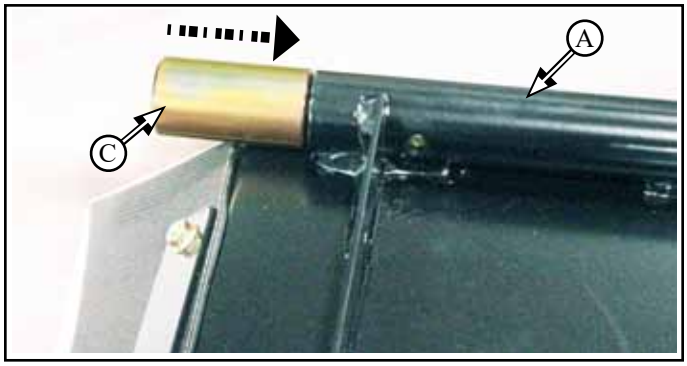
8.1.1 Install proximity sensor target plate (**E**) onto far left rib of straw door (**A**) with:
- M8 x 25 flange head bolt and flange nut (**E1**) x2



8.1.2 Remove pin (**C**) mounting hardware (**C1**) from straw door (**A**)
- both sides
- to be reused



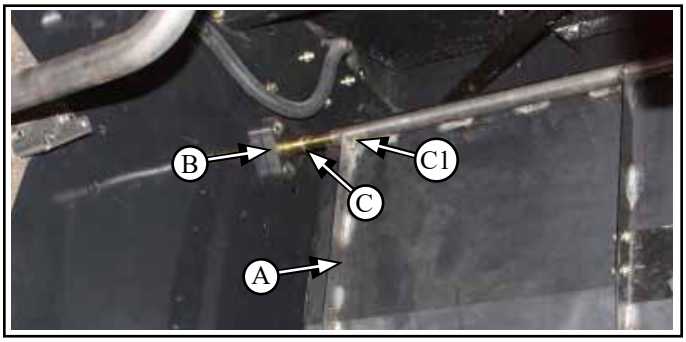
8.1.2.1 Slide pin (**C**) into straw door (**A**)
- both sides



8.1.3 Slide the straw door (**A**) up into the combine and alilgn pins (**C**) to the pivot tube blocks (**B**)

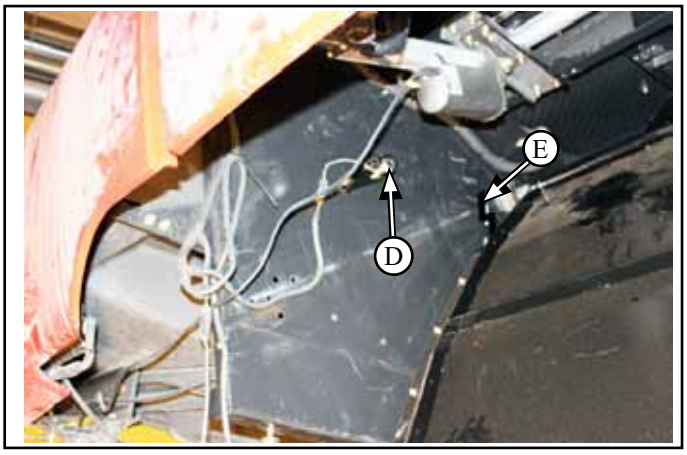
8.1.3.1 Slide the Pins (**C**) into the Pivot Tube Block (**B**)

8.1.3.2 Secure Pin (**C**) with existing hardware from 8.1.1:
- M8 x 45 hex head bolt and hex nut (**C1**)
- both sides



8.1.4 Straw door (**A**) installed

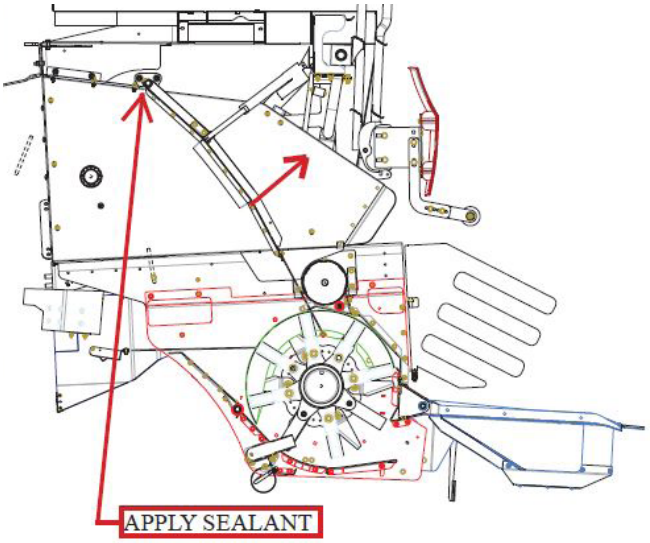
8.1.5 Align to proximity sensor (**D**) to target (**E**) on straw door
- space sensor to have 2 - 4mm of clearance to target (**E**)



8.1.6 Case AFX Straw Door Sealing

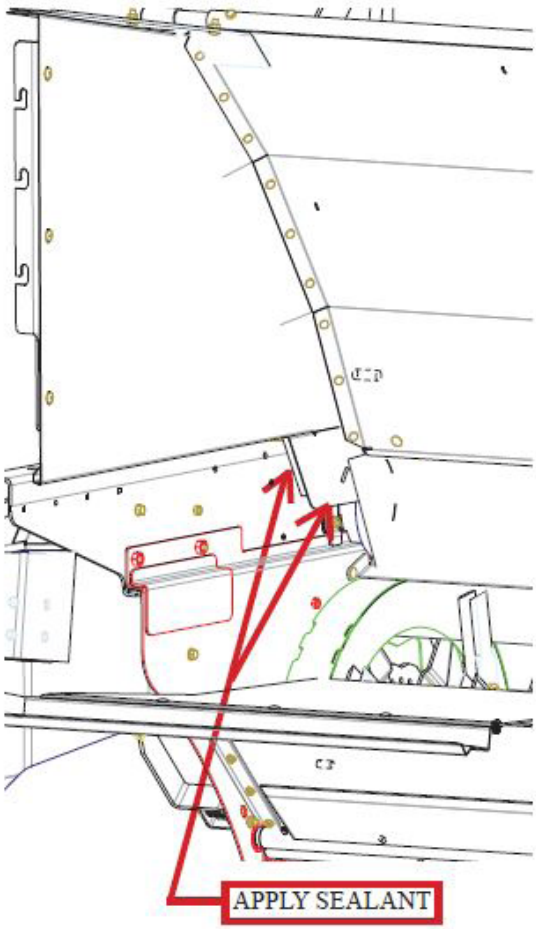
-Raise straw door to rear most position and apply a bead of RTV Silicone between the straw door pipe and roof.

-Apply Silicone to any other openings



8.1.6.1 Case AFX Chaff Deflector Sealing

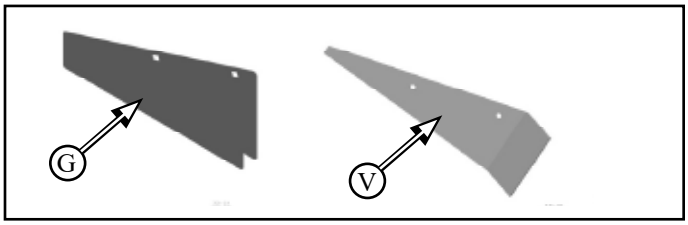
- Apply silicone to front and bottom of the chaff deflector against sidewall of chopper



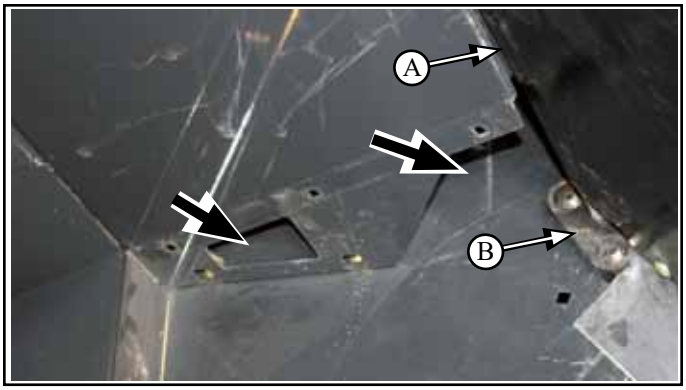
8.2 Top Filler Plates Installation

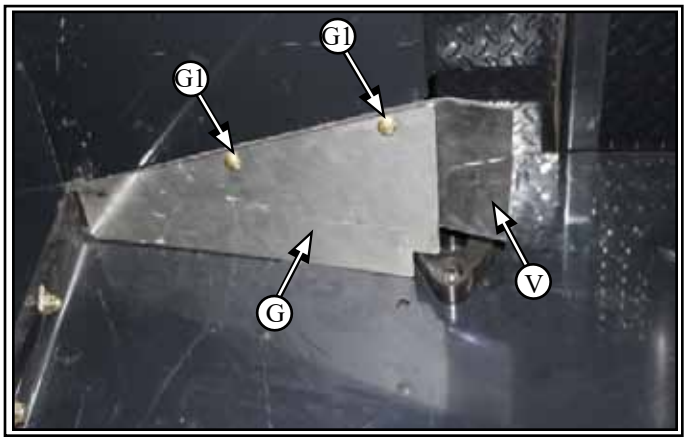
Parts List:
parts located in CS975BS box
hardware located in CS859S bag

CS468B	Top Filler Plate (**G**)	Qty 2
CS669-01	Roof Belt Seal (**V**)	Qty 2

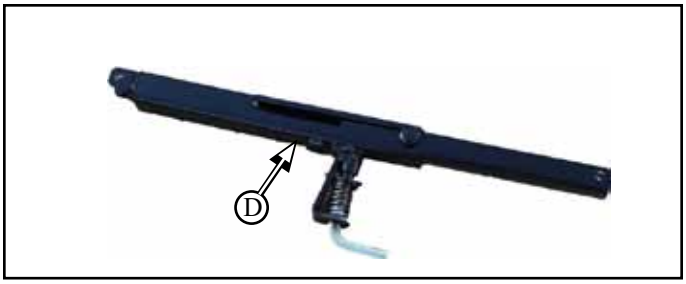


8.2.1 Install the roof belt seal (**V**) and plate (**G**):
- first place roof belt seal (**V**) and then the top filler plate (**G**) to cover the open areas on the left and right side of combine top panel, with:
- M8 x 20 round head bolt and flange nut (**G1**) x2
- both sides
- ensure the belting is between the roof and filler plate (**G**)



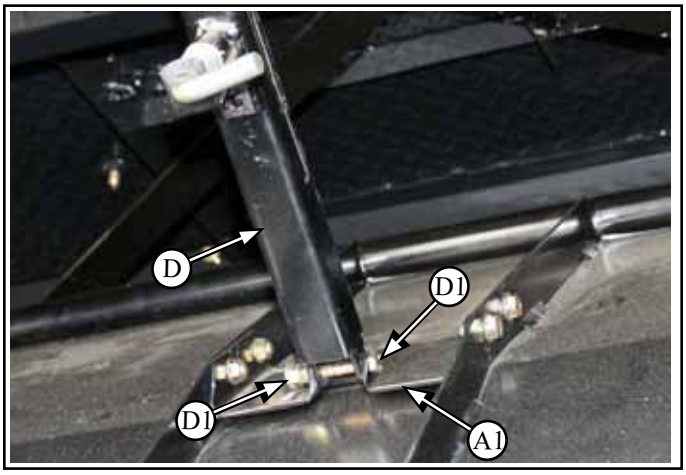


8.3 Straw Door Adjustment - Mechanical Linkage for Non-Windrow:
- Mechanical Linkage for Windrow - order #CS861K
- If combine is equipped with electric actuator - see Step 8.3.3 for installation

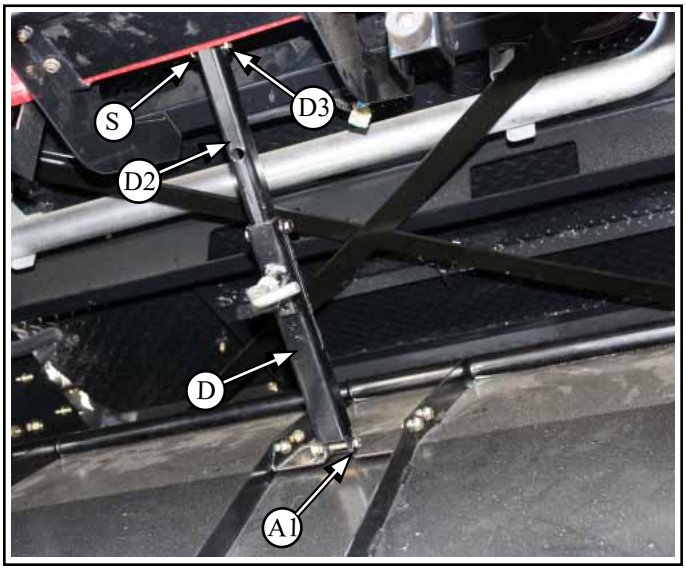


Parts List:
- parts located in CS975BS box
- hardware located in CS859S bag

CS910BA Straw Door Linkage Arm (**D**) Qty 1



8.3.1 Mount base of linkage arm (**D**) to mount plate (**A1**) on straw door (**A**) with:
- M8 x 50 hex head bolt and flange nut x2 (**D1**)

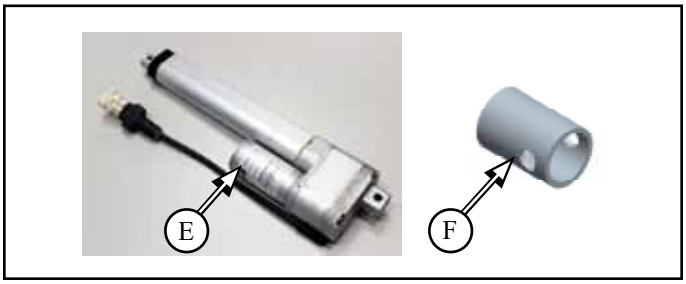


8.3.2 Mount top of linkage arm **(D2)** to top bracket (**S**) with:
- M8 x 50 hex head bolt and flange nut (**D3**)

8.3.3 Straw Door Adjustment for Electric Actuator:

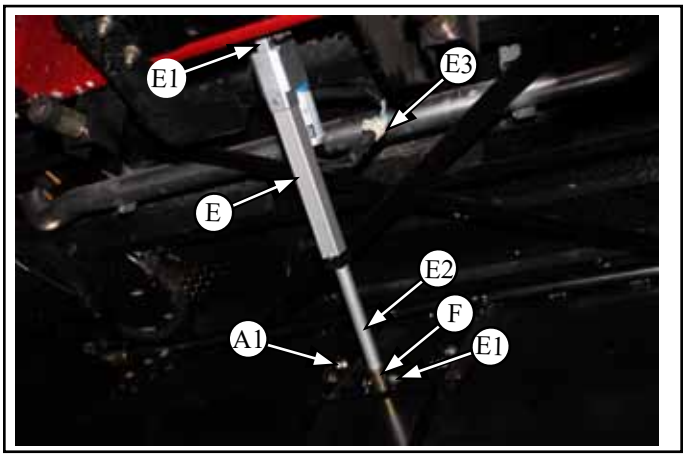
Parts List:
- parts located in CS812BS box
- hardware located in CS859S bag

RP1058 Electric Actuator (**E**)	Qty 1
CS960Z Stop Door Actuator (**F**)	Qty 1



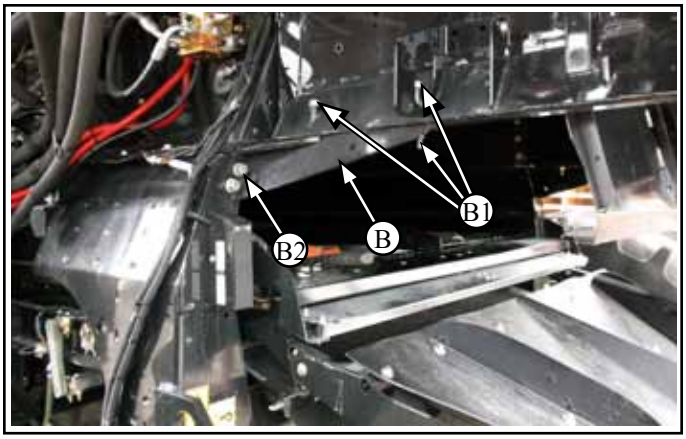
8.3.3.1 Mount base of actuator **(E)** to top bracket with:
- M8 x 50 hex bolt, flat washer and lock nut (**E1**)

8.3.3.2 Slide arm of actuator **(E2)** through door actuator stop (**F**) and mount to plate (**A1**) on straw door with:
- M8 x 50 hex bolt, flat washer and lock nut (**E1**)



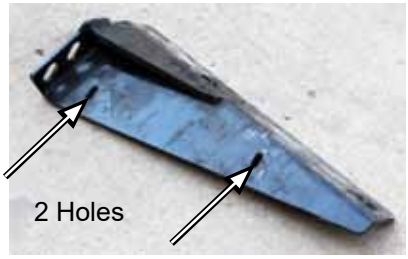
Note: A calibration is required to activate the straw door actuator. The actuator must be fully retracted before door will calibrate. If the combine is not equipped with straw door switches, a jumper may be required.

9 Chopper Installation

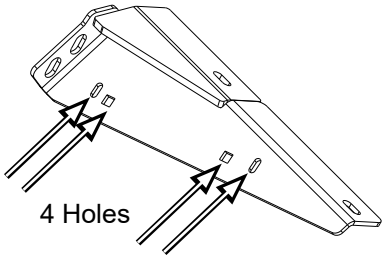


9.1 Remove Left Rear Gusset Support Brace

9.1.1 Check existing left gusset brace (**B**) on combine, if it only has two (2) holes in plate, replace as per following steps. If it has four (4) holes, skip step 9.1 and installation of new brace



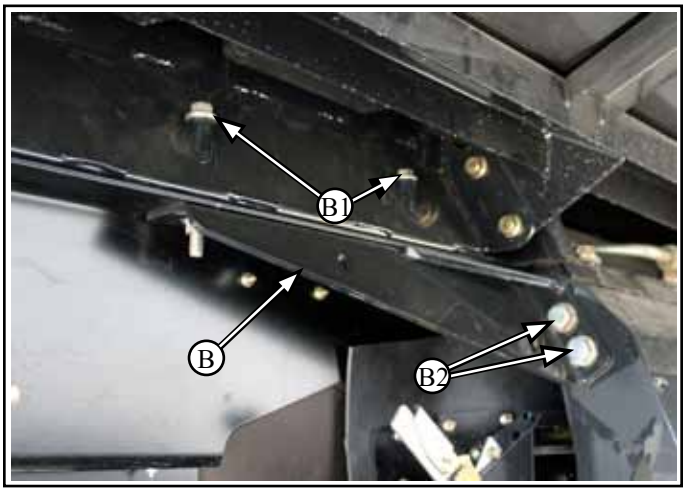
Existing gusset brace



New gusset brace

9.1.1 Remove hardware **(B1 & B2)** x2 mounting left rear gusset support brace **(B)**
- not to be reused
- hardware to be reinstalled

9.1.1 Remove top bolts and nuts (**B1**) x2 mounting the right hand side of rear gusset support plate (**B**) to the bottom of the combine

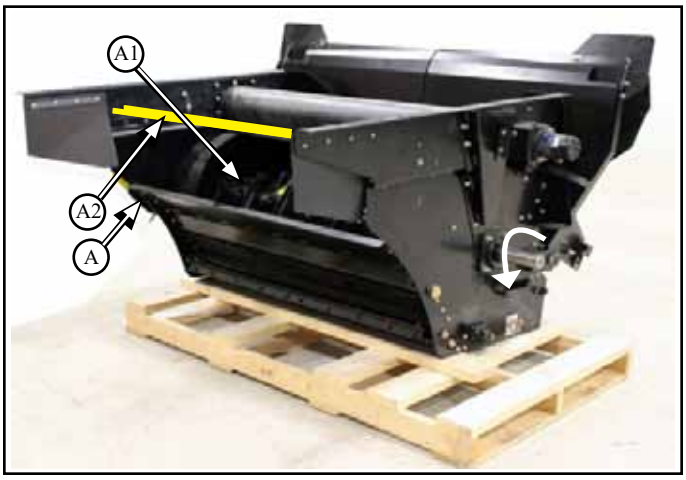


9.1.2 Loosen side bolts (**B2**) x2 mounting the right rear gusset support brace (**B**) to the combine

9.2 Install Redekop Chopper

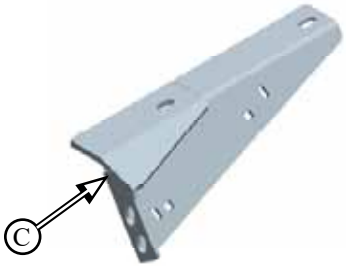
Parts List:
Chopper is located on pallet
parts are located in CS970S box

CS531BA2	AFX 40S Chopper (**A**)	Qty 1
CS796B	Gusset Support Brace (**C**)	Qty 1



CAUTION

This component weighs 1500 lbs / 680 kg
Use a forklift with appropriate capacity



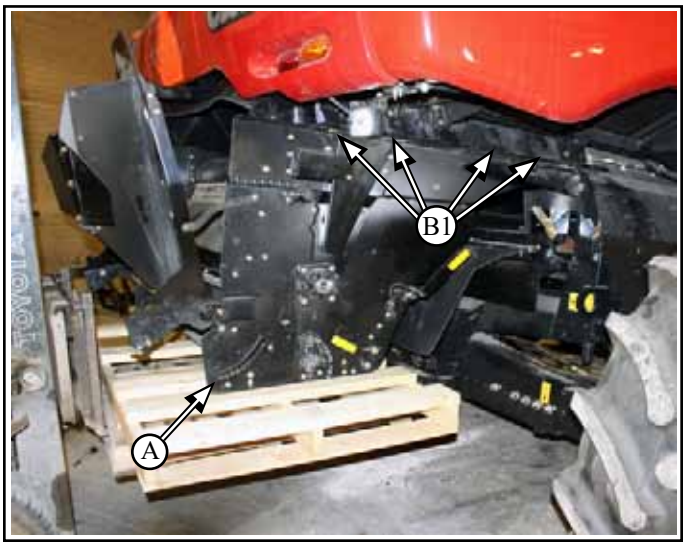
CAUTION

HAZARD / FALLING
Proper Safety Shoes and Apparel must be worn.
Pinching Hazard

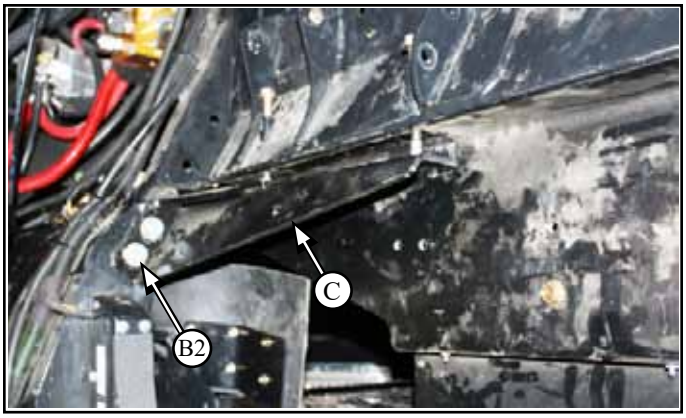
Leave Chopper strapped to the pallet during installaion. Cut straps off after mounted to combine.

Leave Cross Brace (A2) on in front of chopper until chopper has been mounted to combine

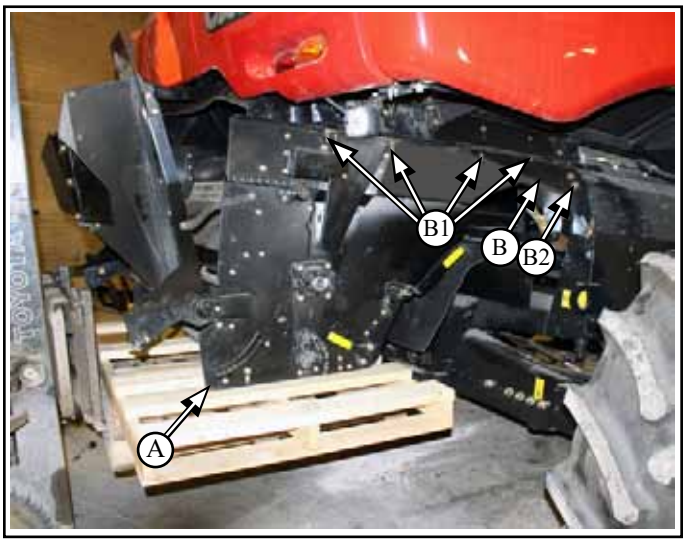
9.2.1 With a forklift, raise the Chopper (**A**) and align the top flange holes along the bottom of the combine mount plate to the bolt holes (**B1**) x4
- both sides



9.2.1 Install new gusset support brace (**C**) to left rear side of combine, with existing hardware:
- M16 x 40 hex head bolt and washers (**B2**) x2
- do not tighten - leave loose



9.2.2 Fasten chopper (**A**) to the combine and gusset support plate (**B**) - right side, with existing hardware:
- M12 x 120 flange bolts and flange nuts (**B1**) x4
- may have to pry the chopper top side plate to align and install bolts through the holes



9.2.3 Fasten chopper (**A**) to the combine and new gusset support plate (**C**) - left side, with existing hardware:
- M12 x 120 flange bolts and flange nuts (**B1**) x4
- may have to pry the chopper top side plate to align and install bolts through the holes

9.2.4 Ensure chopper is square to combine
- check distance from front - both sides

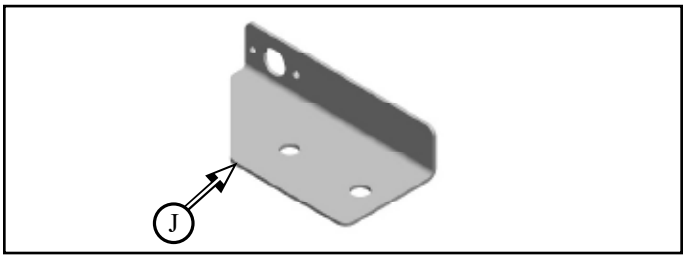
9.2.5 Hand tighten bolts **(B2)** and **(B1)** of the gusset support brace **(C)** to the rear of the combine.
The bolts **(B2)** and **(B1)** will be Torqued after the jack shaft is mounted and aligned in step **10.2.4**
- both sides

9.2.6 Remove cross brace (**A2**) from front of chopper
- discard

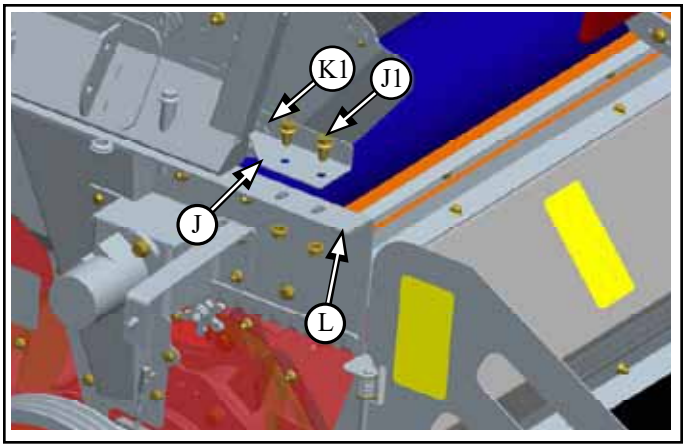
9.3 Ladder Proximity Sensor Mount Plate Installation

Parts List:
part included in CS975BS box
hardware located in CS859S

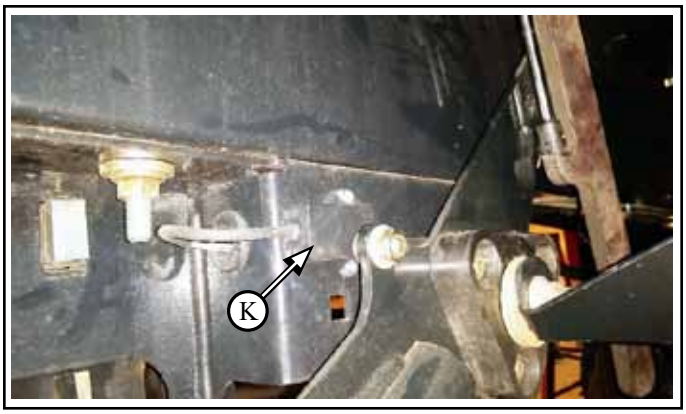
CS857B Ladder Proximity Sensor Mount Plate **(J)** Qty 1



9.3.1 Install proximity sensor mount plate (**J**) on to upper side wall flange (**L**) with:
- M12 x 25 flange bolt and flange nut (**J1**) x2



9.3.2 Relocate existing ladder proximity sensor (**K**) and install on new mount plate (**J**) in hole (**K1**)
- ensure sensor has 2-4mm clearance to ladder plate
- connect to wire harness



9.4 Chaff Deflector Plate Installation

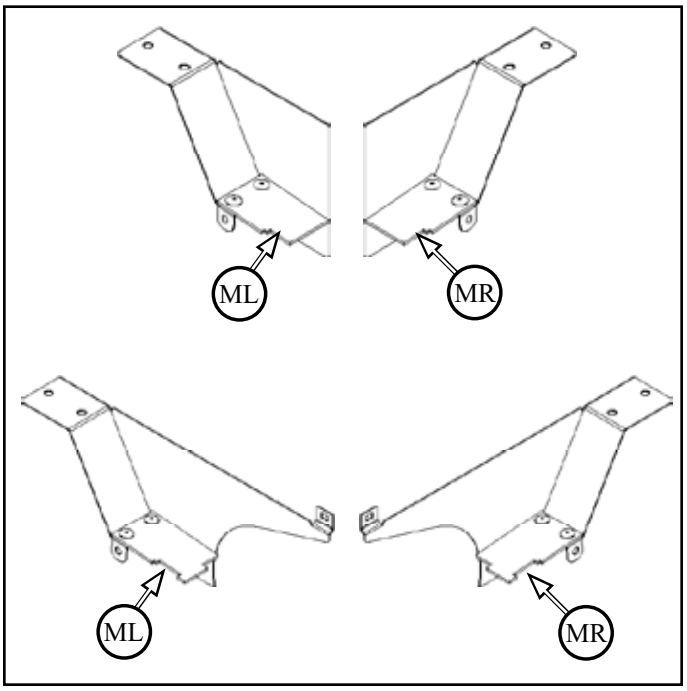
Non-Windrow Parts List:

parts included in CS975BS box
hardware located in CS859S

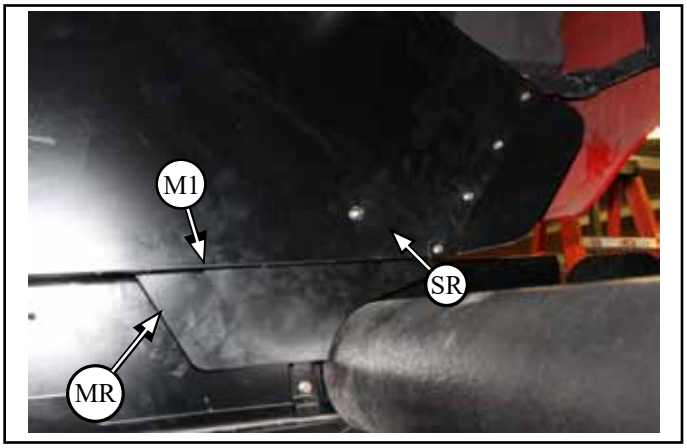
CS1073BAL Chaff Deflector Left **(ML)**	Qty 1
CS1073BAR Chaff Deflector Right **(MR)**	Qty 1

Windrow Parts List:
parts included in CS812BS box
hardware located in CS859S

CS1054BAL Chaff Deflector Left **(ML)**	Qty 1
CS1054BAR Chaff Deflector Right **(MR)**	Qty 1



9.4.1 Install left chaff deflector **(MR)** on to panel **(SR)** with:
- M8 x 20 flange bolt **(M1)** x 2
- both sides



9.5 Rotor Blade Clearance Inspection

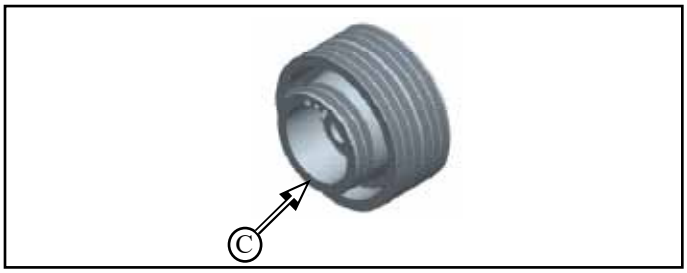
9.5.1 Rotate Chopper Rotor Manually to ensure that there is clearance between All Blades before running up the chopper.

Adjust Rotor if there are clearance issues
Not doing so could cause catistrophic failure

9.6 Sheave AFX PTO 3B Installation

Parts List:
part located in RP918S box

RP918 Sheave AFX PTO 3B **(C)** Qty 1



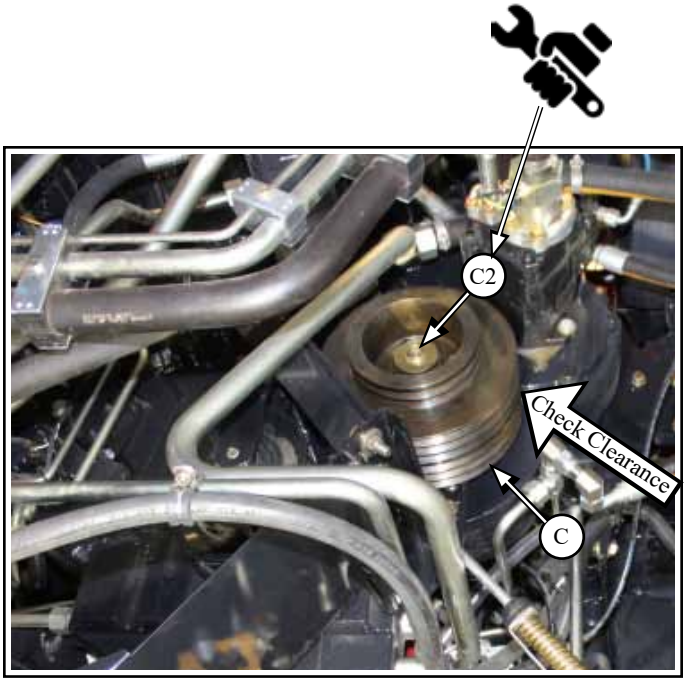
9.6.1 Remove the factory sheave **(C1)**
- not to be reused
- keep all hardware

9.6.2 Install new 3B Sheave **(C)** with:
- existing hardware
- ensure key is in place

9.6.2.1 Torque bolt **(C2)** to 95-105 N-m (70-77 ft-lb) Then firmly tap the sheave with a rubber mallet and torque again.

Do Not Use Impact Wrench

Torque to 95-105 N*m
(70-77 ft-lbs)



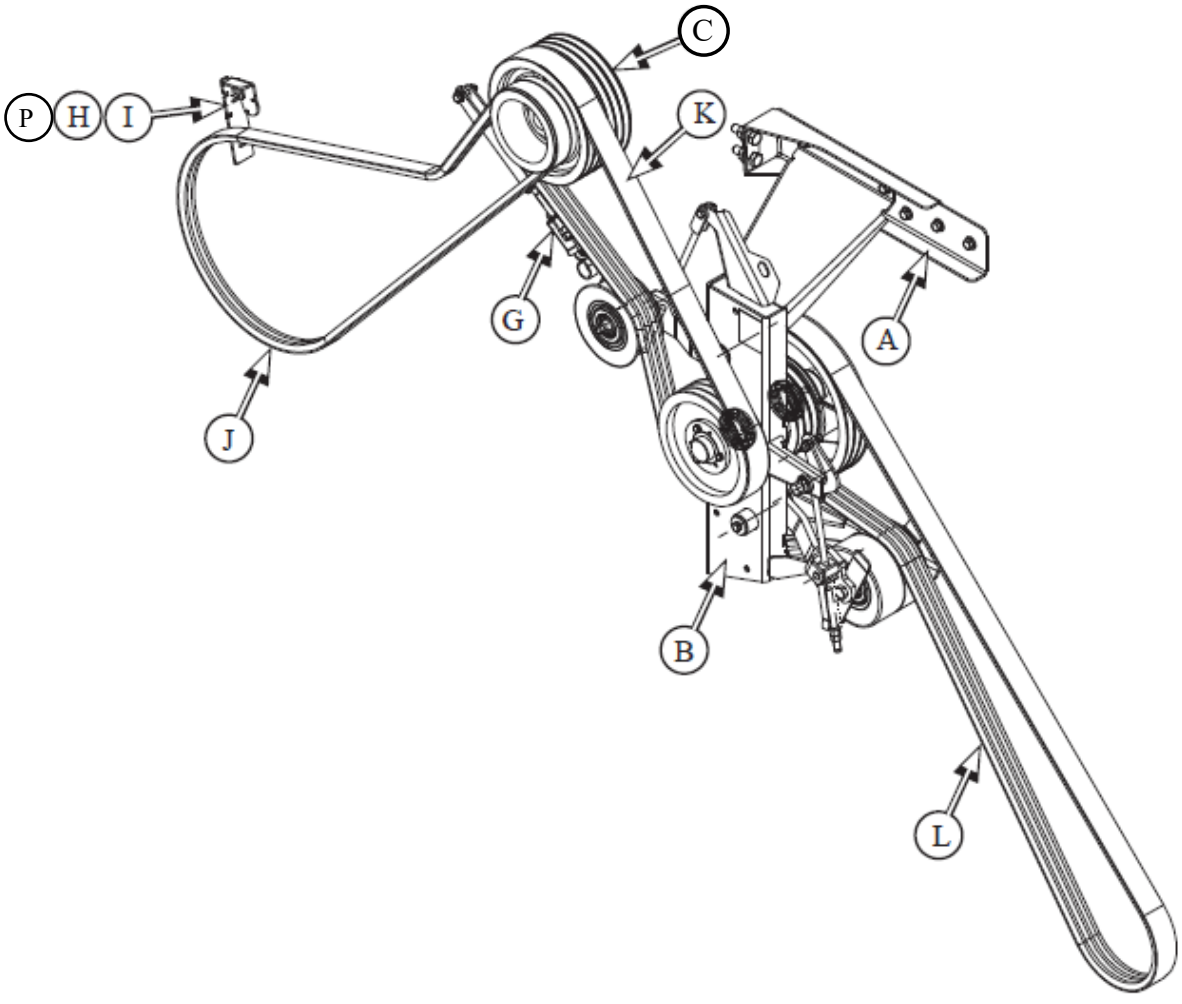
9.6.3 Check for clearance between back of sheave **(C)** and flange on rear gusset after sheave is tightened

9.6.4 If flange is to long, grind down flange to provide clearance

10 Chopper Drive 3B Jackshaft Installation

Parts List:
parts located on pallet and in CS918BS box and CS970BS box
hardware located in CS825S bag

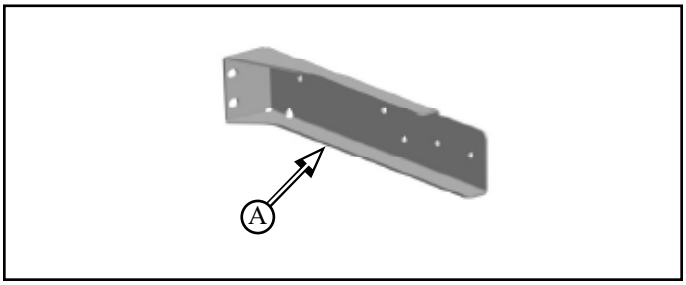
CS772B	Gusset JackShaft Mount **(A)**	Qty 1	CS771BA	Jackshaft AFX 3B 230/240S Assy **(B)**	Qty 1
CS883B	Gusset JackShaft Mount 20 Series **(A)** (located in CS961K)	Qty 1	RP918	Sheave AFX PTO 3B **(C)**	Qty 1
CS784BA	Spring Assy Weld Int Chopper HS **(G)**	Qty 1	CS837Z	Bracket Notched 240S KBar Adj 25% **(H)**	Qty 1
CS838Z	Bracket Notched Knife Bar Adj 25% **(I)**	Qty 1	BE2B117K	VBelt 2B 117L **(J)**	Qty1
BE3B88K	VBelt 3B 88L Kevlar **(K)**	Qty 1	BE3B135K	VBelt 3B 135L Kevlar **(L)**	Qty 1
CS1064Z	Internal Knife Lock-out **(P)**	Qty 1			



10.1 Top Jackshaft support gusset installation

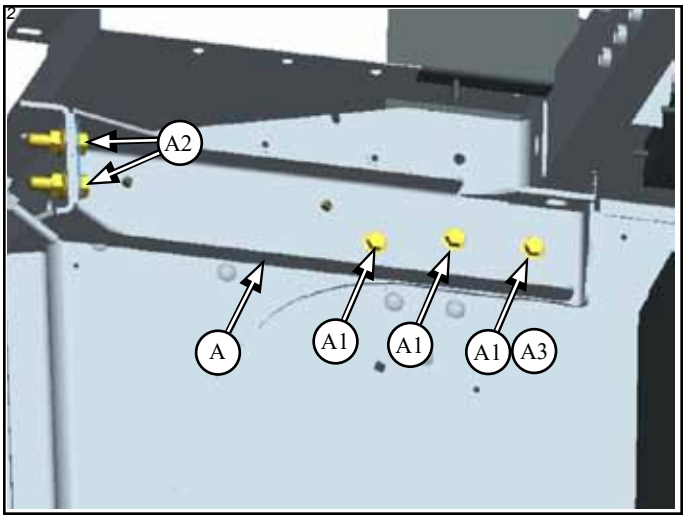
Parts List:
part located in CS918BS box
hardware located in CS825S and CS839S bag

CS772B Gusset JackShaft Mount **(A)** Qty 1
CS883B Gusset JackShaft Mount 20 Series **(A)** Qty 1



10.1.1 Install gusset jackshaft mount **(A)** on the outside of left combine side wall thru existing holes with:
- M12 x 40 flange bolt and flange nut **(A1)** x2
- M16 x 50 flange bolt and flange nut **(A2)** x2

Not Required for MY17 & Current Machines



10.1.2 Drill 12mm (1/2 in) hole **(A3)**

10.1.2.1 Complete installation with
- M12 x 40 flange bolt and flange nut **(A1)** x1
- leave bolts loose to make jackshaft installation easier

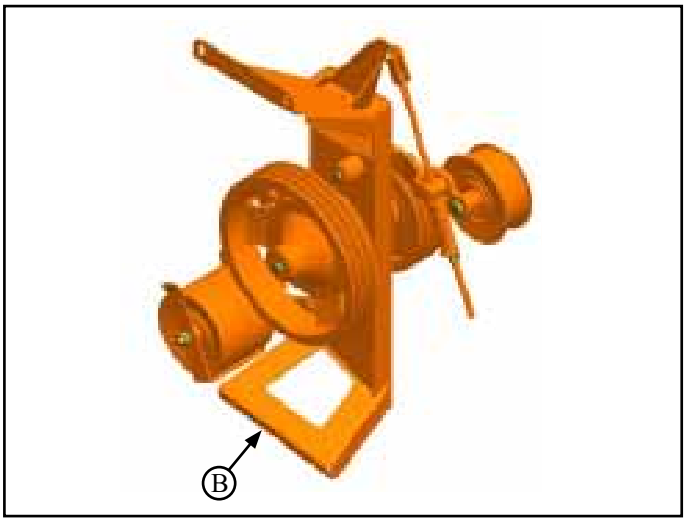
10.2 Jackshaft AFX 3B Install

Parts List:
part located on pallet
hardware located in CS825S bag

CS771BA Jackshaft AFX 3B 230/240S Assy **(B)** Qty 1

10.2.1 Lift Jackshaft **(B)** into place

Heavy - Use Hoist or Lifting Device
Step 10.2.1

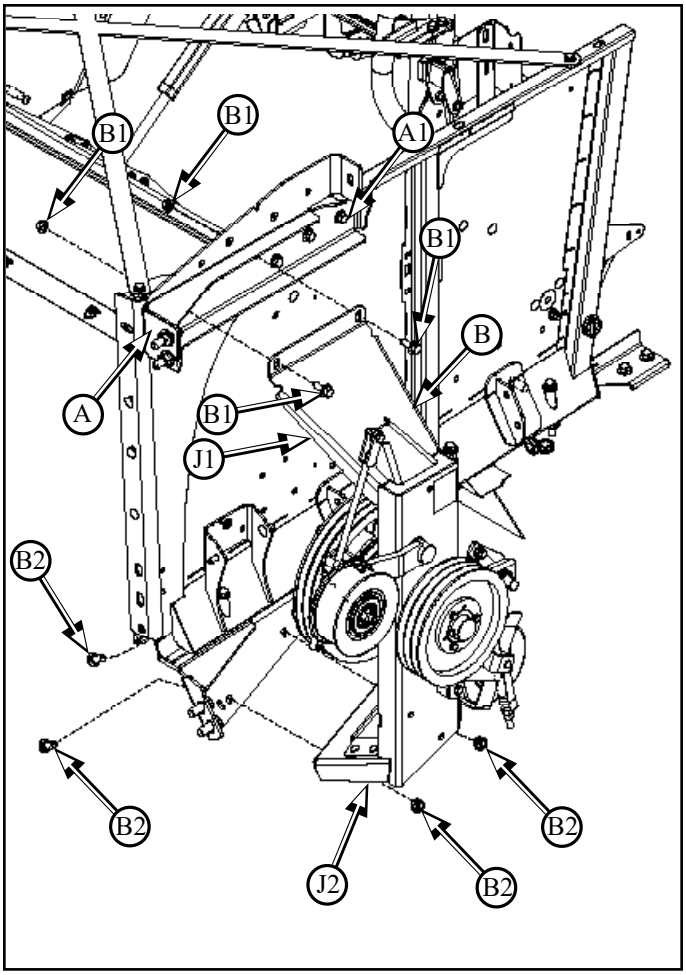


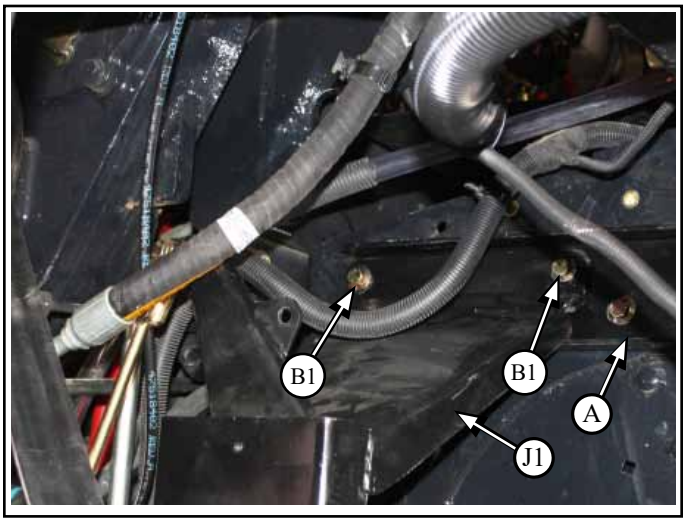
10.2.2 Secure top jackshaft mount bracket **(J1)** to the gusset jackshaft mount **(A)** with:
- M12 x 30 flange bolt and flange nut **(B1)** x2

10.2.3 Mount jackshaft assembly **(B)** in place by attaching lower jackshaft mount bracket **(J2)** to combine's replaced gusset with:
- M12 x 40 round head bolt and flange nut **(B2)** x2

Round head bolts (B2) to be mounted on inside of combine - Threads to the outside

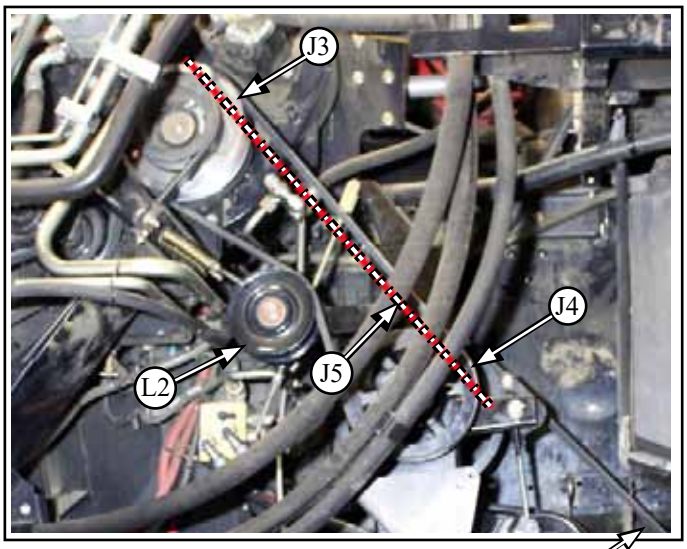
10.2.3.1 Tighten up bolts (**A1**) for jackshaft gusset (**A**) after jackshaft bolts (**B1**) are a few threads in





10.2.4 Align Jackshaft Sheave
- Align the Jackshaft Outter Sheave **(J4)** to the Combine PTO Sheave **(J3)** with laser alignment tool.

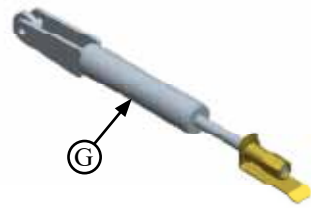
Note: Laser Alignment Kit can be purchased from Redekop if required. Part # RP956.
- Alignment can be corrected by moving bottom Gusset CS796B found in step **9.2.1**.
- adjust idler wheel **(L2)** alignment if necessary
- Once the Sheaves are aligned, tighten gusset bolts (B2) as shown in step **9.2.5**



Torque gussets to 210-285 N*m
(155-210 ft-lbs)

Torque Gusset Bolts to 210-285 Nm (155 - 210 ft-lbs)

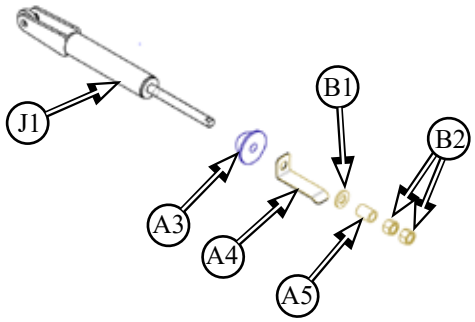
10.4 Spring Tensioner Assembly Installation for Internal High Speed OEM Chopper Belt



Parts List:
High Speed Tensioner Assembly **(G)** located in CS918BS box

CS784B Spring Assy Weld Int Chopper HS **(J1)** Qty 1
CS797Z Indicator Internal Chopper HS Spring **(A4)** Qty 1
CS856Z Spacer **(A5)** Qty1
Washer Flat M12 x 24 x 2.5 Yzd **(B1)** Qty1
Nut Hex M12 C8 Yzd **(B2)** Qty2
Re-use Plastic Spacer **(A3)** from factory tensioner

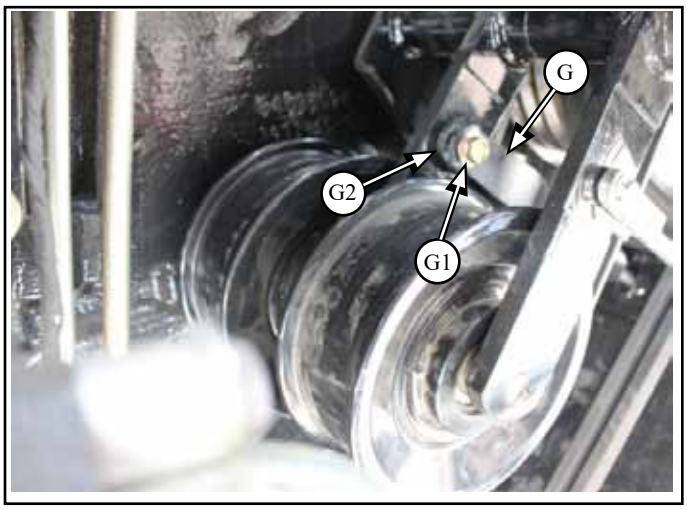
Tighten all belts by adjusting spring tensioners:

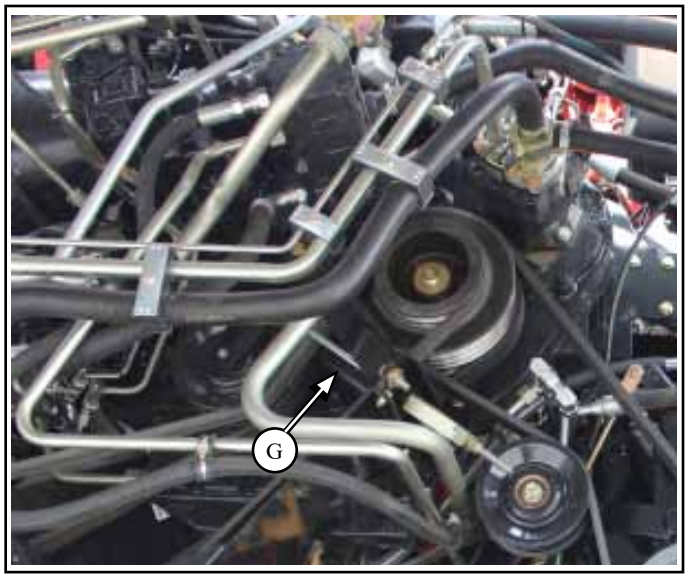


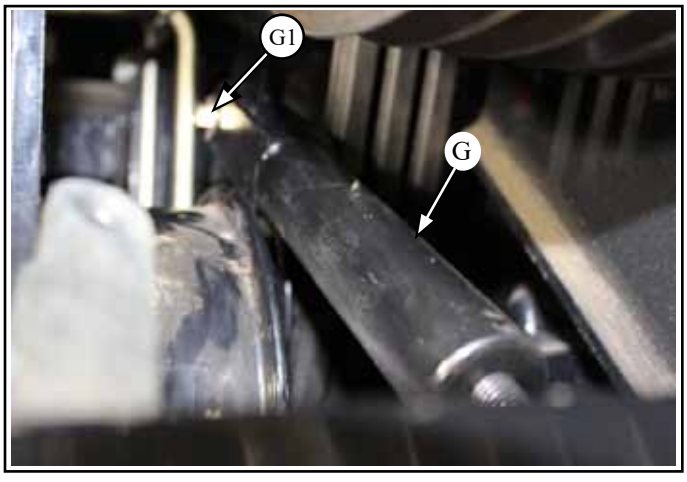
10.4.1 Mount high speed tensioner assembly **(G)** on the internal drive pulley shaft with:
- M10 x 45 flange bolt and lock nut **(G1)** x1

***Tighten nut (G1) to touch clevis but still turn freely ***

Install tensioner assembly with spacer (G2) on clevis as shown (towards outside) for belt clearance







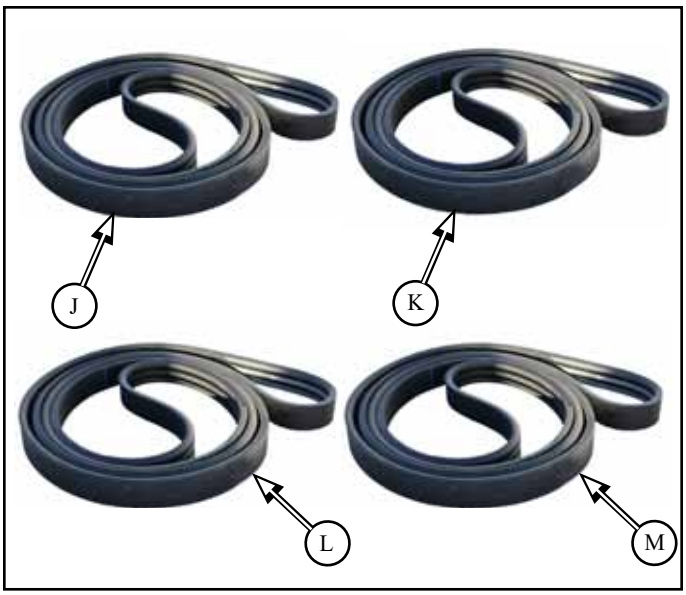
10.5 Re-install Drive Belts

Parts List:
Belts located in CS771BS Kit

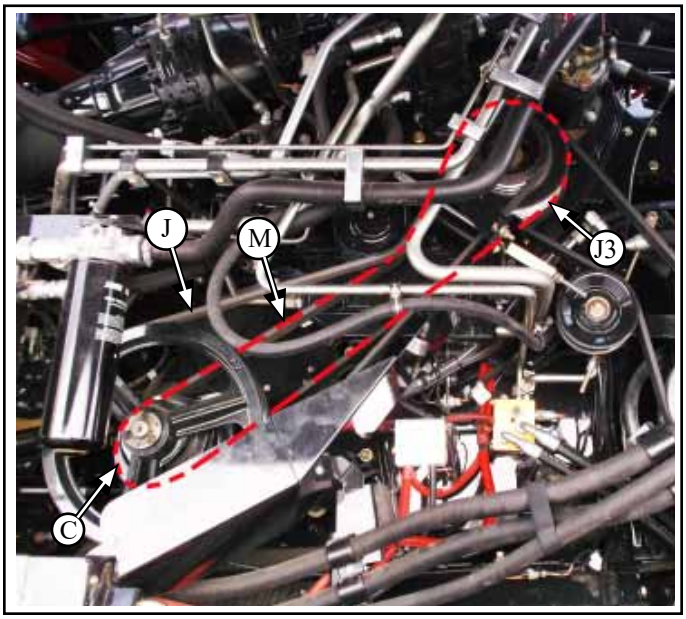
BE2B117K	VBelt 2B x 117L **(J)**	Qty1
BE3B88K	VBelt 3B x 88L **(K)**	Qty 1
BE3B135K	VBelt 3B x 135L **(L)**	Qty 1

AFX 120 Series Only
Belt Located in CS961K Kit

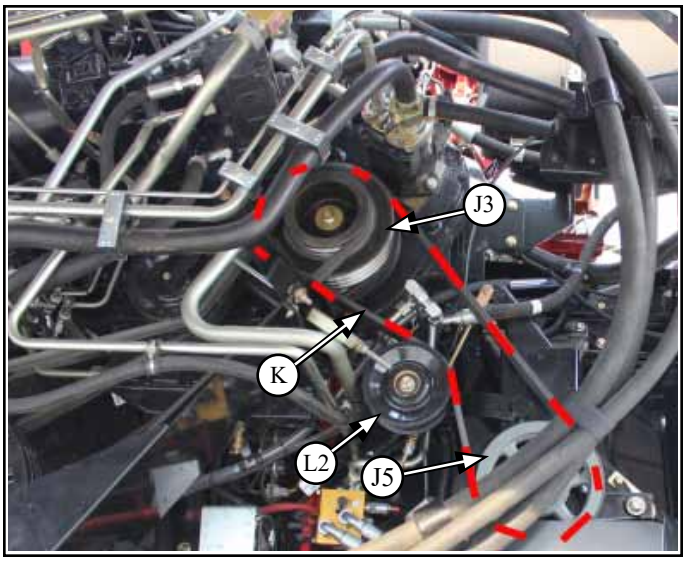
86976208	VBelt 3B 2720mm **(M)**	Qty 1



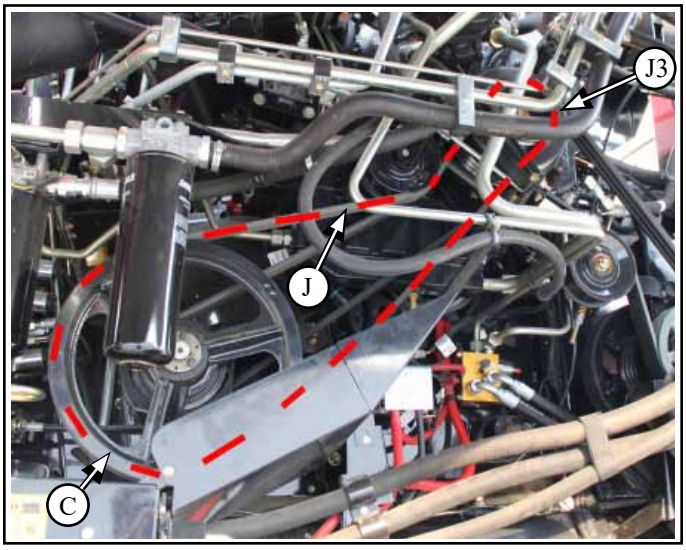
10.5.1 Install internal chopper high speed belt **(M)** - to inside of factory sheave **(C)** and inside 3 grooves of upper sheave **(J3)**
- reuse belt that was removed



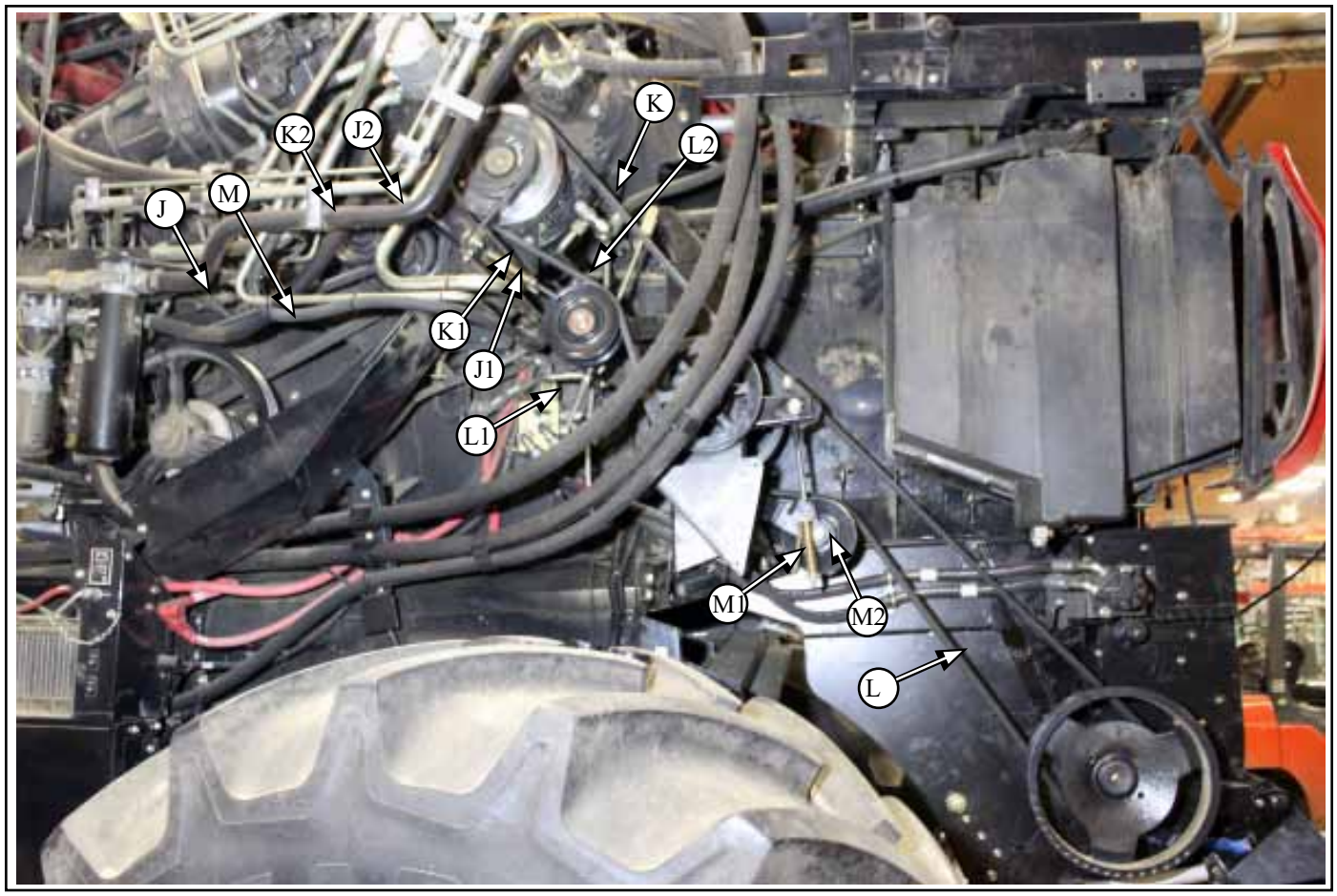
10.5.3 Install V belt BE3B88K **(L)** onto the upper sheave **(J3),** route around idler **(L2)** and install on to sheave (**J5**) on jackshaft



10.5.4 Install V-belt BE2B117K **(N)** onto the upper sheave **(J3)** outter grooves and to large drive sheave **(C)** on combine

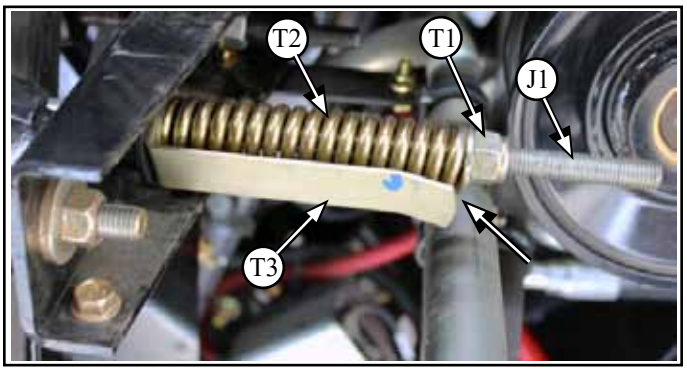


10.5.5 Adjust tension on belts:

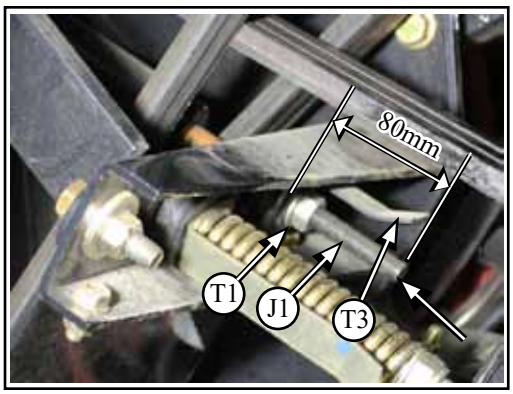


10.5.6 To adjust the tension on the belt, the idler needs to be adjusted to apply the correct tension to the belt

10.5.6.1 To apply idler tension (**K2, L2, M2**), adjust nut (**T1**) on tension rod (**K1, L1, M1**) to tighten spring (**T2**) until it lines up with the spring indicator (**T3**)
- typical for all belts except J



10.5.6.2 To apply idler tension (**J2**), adjust nut (**T1**) on tension rod (**J1**) until indicator (**T3**) lines up with the end of the rod
- 80mm of rod should be exposed behind pivot



10.8.5 Attach CASE IH speed sensor **(F3)** to existing mount plate **(D)** with:

Note: mount plate (**D**) is replaced with (**D2**) on 20S and may have to be replaced with (**D2**) on pre 40S in order for sensor to read off of alternate tooth pattern

Hardware included in CS622BS box - bag CS955S
- .5-20 hex jam nut **(F6)**
- .563-32 hex jam nut **(F7)**
- .563 flat washer **(F8)**

Bottom of sensor must be within 1-2mm of rotating tooth - adjust mount and add washer W11-09 (F8) as required

10.9 Knifebar Engagement limiting bracket Installation - Not required if combine is equipped with hydraulic knifebar adjustment

Replace existing knifebar lockout bracket with new bracket that is similar in shape

Parts List:
part included in CS970BS Kit

Internal Knife Lock-out Bracket:

CS838Z	Notched Bracket 240 Series Model Year <17, 230, 20, 10S KBar Adj 25% **(H)**	Qty 1
CS837Z	Notched Bracket 240S <Model Year 17 KBar Adj 25% **(I)**	Qty 1
CS1064Z	Notched Bracket 240S >Model Year 17 KBar Adj 25% **(P)**	Qty 1

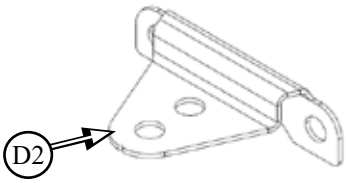
For 10, 20 & 230 Series

10.9.1 Remove factory bracket and replace with notched bracket **(H)** on the outside wall **(H1)** of internal knifebar with:
- exisitng hardware

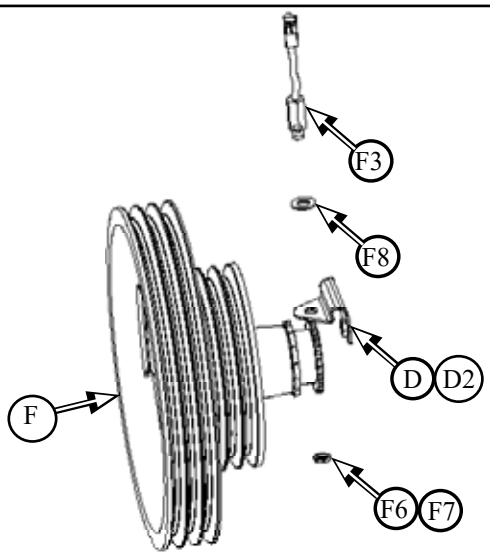
For 240 Series Only

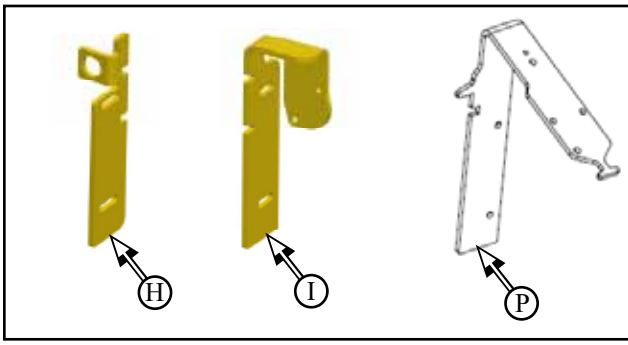
10.9.2 Remove factory bracket and replace with notched bracket **(I)** or (**J**) on the outside wall **(H1)** of internal knifebar with:
- exisitng hardware

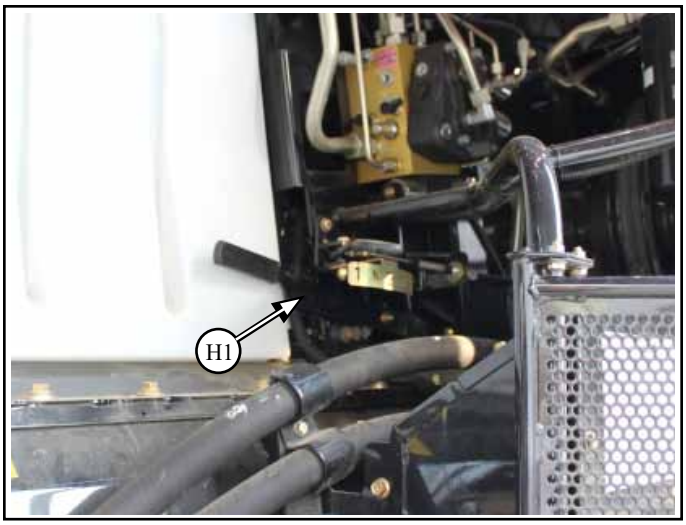
10.9.3 Remove factory sensor from existing bracket and relocate to new bracket in similar position, with
- reuse existing hardware



CS833Z Speed Sensor Mount Plate





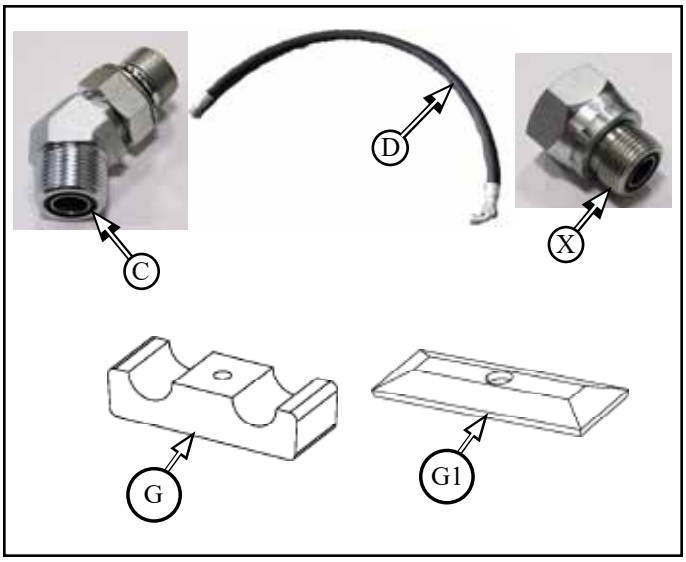


10.10 Windrow Hydraulics Installation - Optional

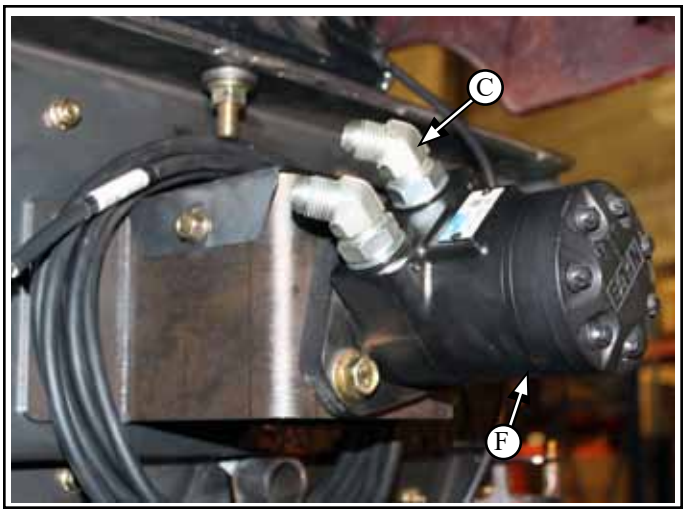
Parts List:
parts located in CS919S box:

H30-1010MF	Fitting Hyd 45 Deg (**C**)	Qty 2
HH115	Hyd. Hose .625 x 61L (**D**)	Qty 2
H28-1012FF	Fitting Hyd Str (**X**)	Qty 2
87000151	Hyd Hose Tube Clamp (**G**)	Qty 4
1186005	Hyd Hose Clamp Plate (**G1**)	Qty 2

WINDROW only



10.10.1 Install hydraulic fittngs (**C**) x2 into ports of windrow hydraulic motor (**F**)
- angle upwards



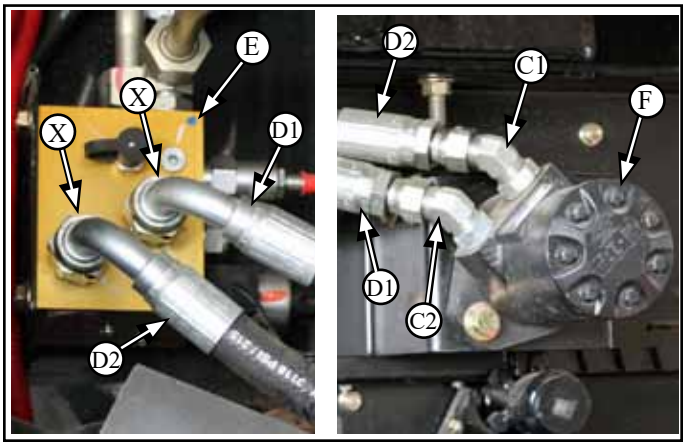
10.10.2 Install hydraulic addapter fittings **H28-1012FF (X)** onto hydraulic block **(E)**

10.10.2.1 Install hydraulic hose (**D1**) into right side port in the hydraulic block (**E**)

10.10.3 Install hydraulic hose (**D1**) into the fitting (**C2**) of the hydraulic motor (**F**)

10.10.4 Install hydraulic hose (**D2**) into left side port in the hydraulic block (**E**)

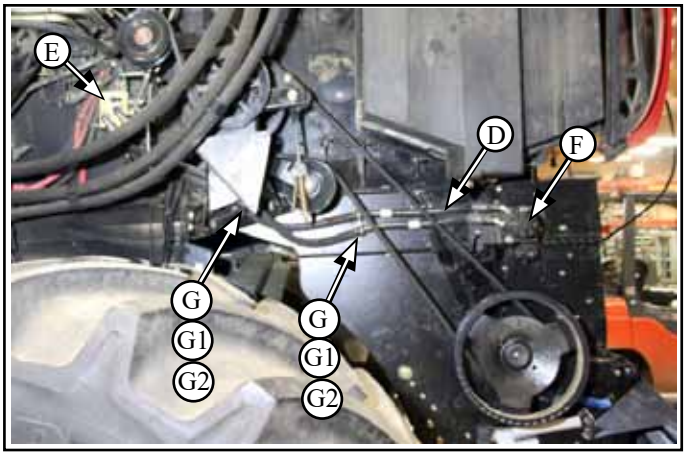
10.10.5 Install hydraulic hose (**D2**) into the fitting (**C1**) of the hydraulic motor (**F**)



10.10.6 Run hydraulic lines (**D**) below the def tank, along chopper wall and through the jackshaft frame

10.10.7 Attach hydraulic hoses (**D**) to chopper wall with:
- hose clamps (**G**) x2
- hose clamp plate (**G1**) x1
- M8 x 70 hex head bolt and lock nut (**G2**)

10.10.8 Attach hydraulic hoses (**D**) to jackshaft frame hose support plate with:
- hose clamps (**G**) x2
- hose clamp plate (**G1**) x1
- M8 x 70 hex head bolt and lock nut (**G2**)

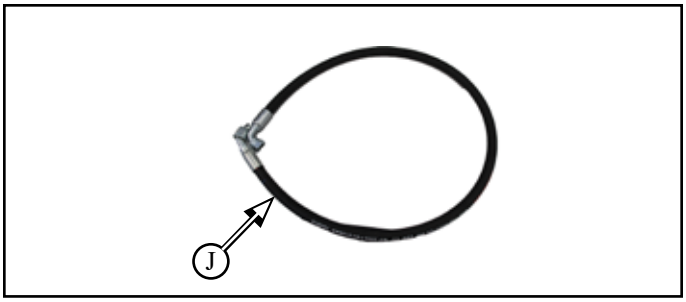


10.11 Non-**Windrow Hydraulics Installation - Optional**

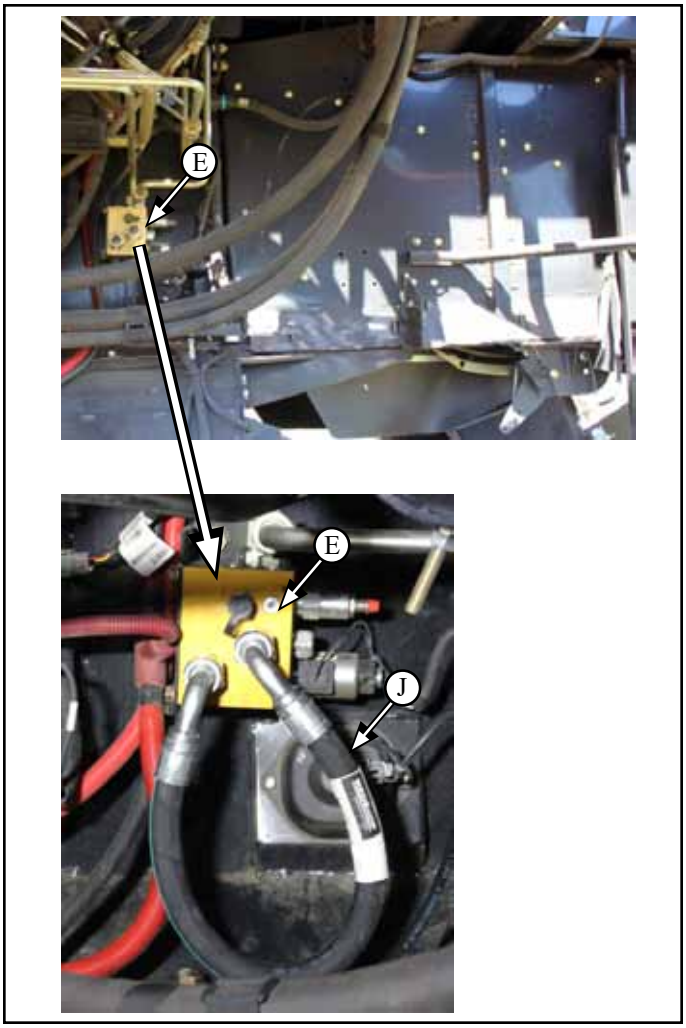
Parts List:
parts located in CS970S box

HH110	Hyd. Hose .75 x 26L (**J**)	Qty 1

NON - WINDROW only



10.11.1 Install new hydraulic rubber hose **(J)** into hydraulic block **(E)** to loop circuit

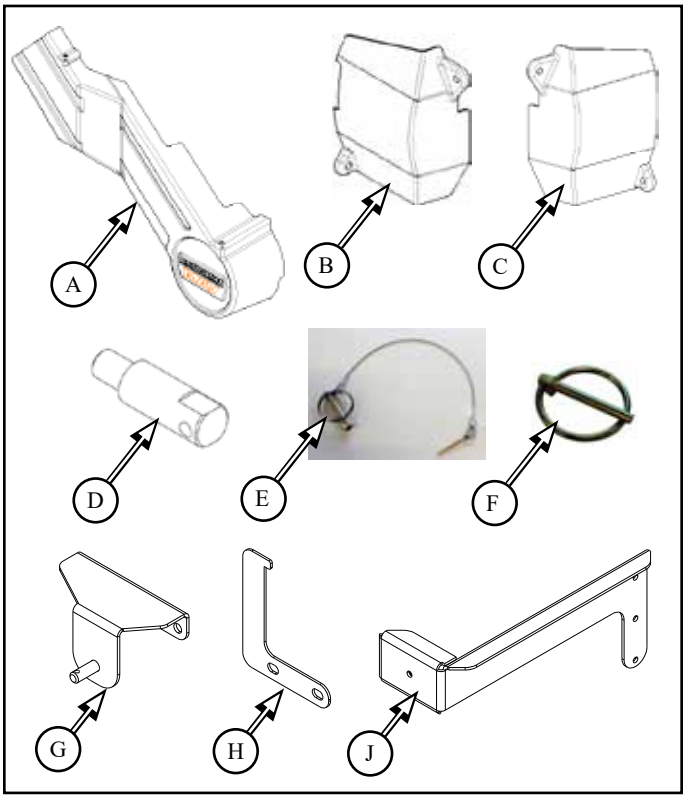


11 Chopper Drive 3B Jackshaft Shield Installation

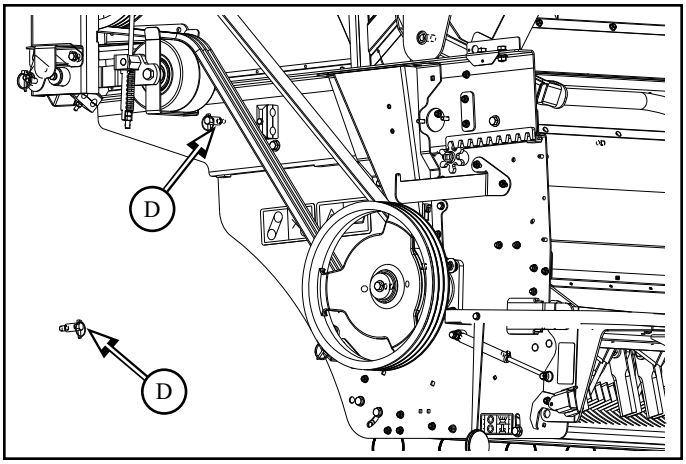
parts located on pallet
hardware located in CS825S and CS625S bags

Parts List:

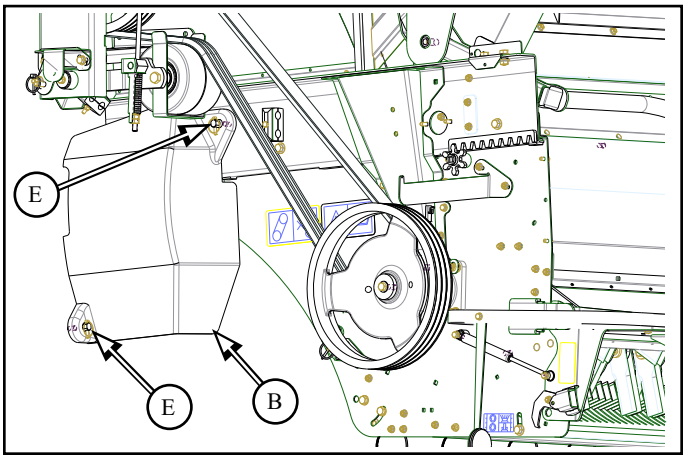
RP997 Shield Case AFX MY20 **(A)**	Qty 1
RP998 Vent AFX w/Notch Left **(B)**	Qty 1
RP1001 Vent AFX w/Notch Rightt **(C)**	Qty 1
CS1035Z Vent Pin Mount **(D)**	Qty 4
RP1094 Lynch Pin c/w Cable **(E)**	Qty 4
RP1105 Lynch Pin .188 x 1.25L **(F)**	Qty 4
CS1027B Bracket Shield Latch Jackshaft **(G)**	Qty 4
CS1063B Hanger Upper Shield **(H)**	Qty 4
CS1046B Hose Mount Bracket **(J)**	Qty 1



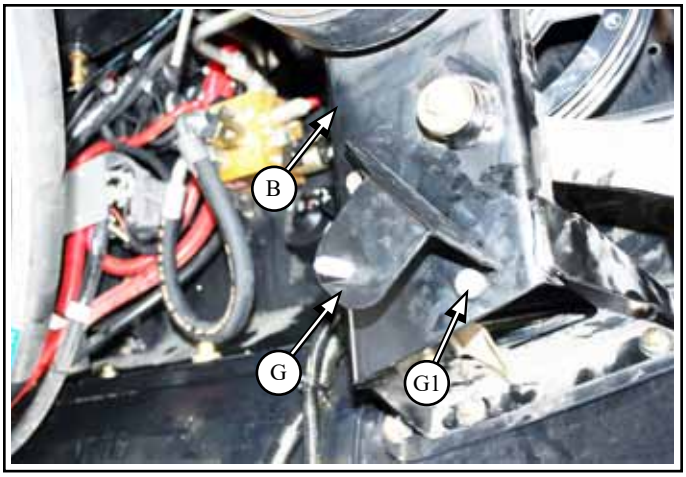
11.1 Install vent mount pins (**D**) x2 to upper front of chopper and rear combine frame
- both sides



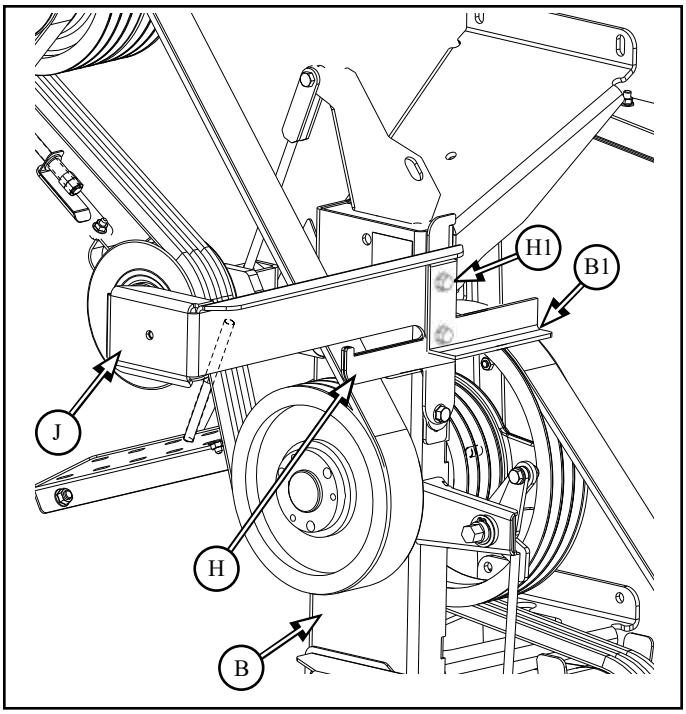
11.2 Install left vent (**B**) to pins (**D**), secure in place with:
- lynch pin (**E**) x2
- both sides



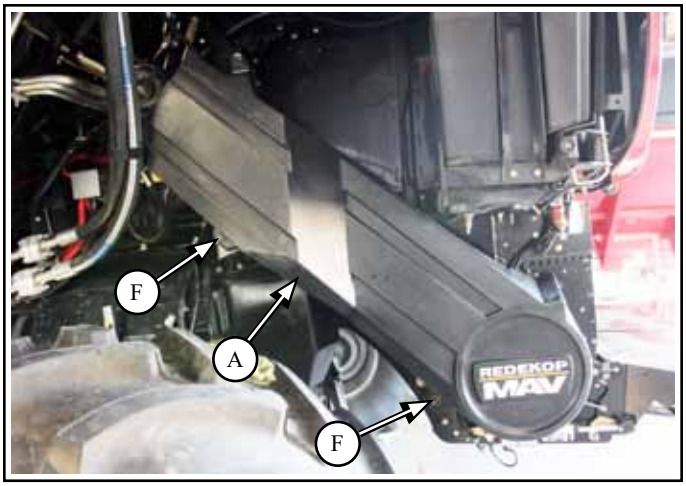
11.3 Install shield latch bracket (**G**) to jackshaft (**B**), with
- M10 x 25 flange bolt (**G1**) x2



11.4 Install hose mount bracket (**J**), upper shield support bracket (**H**) then belt guide (**B1**) on jackshaft (**B**),
- M10 x 25 flange bolt (**H1**) x3 (reuse 2 from belt guide)



11.5 Install shield on to pins and brackets on chopper and jackshaft.
- secure with lynch pins (**F**) x2

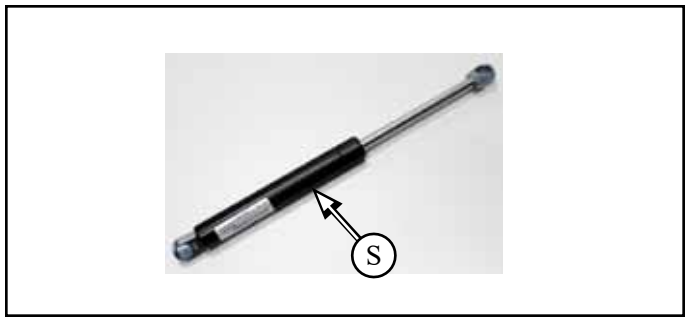


12 Tailboard Control

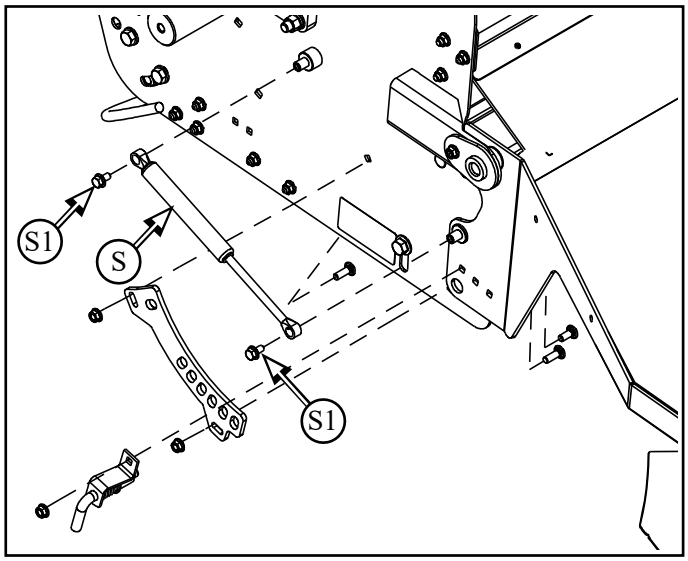
12.1 Gas Shock Installataion

Parts List:
part included in CS974BS box
hardware located in CS625S bag

RP951A Gas Spring **(S)** Qty 2



12.1.1 Install gas shock (**S**) on to chopper and tailboard studs, with:
- M8 x 20 flange bolt (**S1**) x2
- both sides



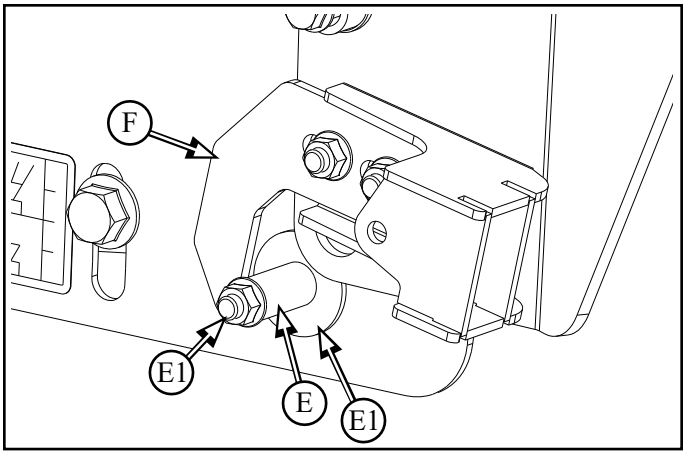
12.2 If your combine is equipped with electric actuators:

Parts List:
part included in CS622BS box
hardware located in CS625S bag

RP951A Gas Spring (**S**)	Qty 2
RP1058 Actuator (**A**)	Qty 2
CS171B Tailboard Guard (**B**)	Qty 2
CS990BA Reflector Bracket (**C**)	Qty 2
CS991Z Spacer Reflector (**D**)	Qty 2
CS972Z Tube Limiter (**E**)	Qty 2

12.2.1 Install tailboard actuator tube limiter (**E**) to chopper, with:
- M8 x 50 round head bolt, flat washer spacer bushing and flange nut (**E1**)
- both sides

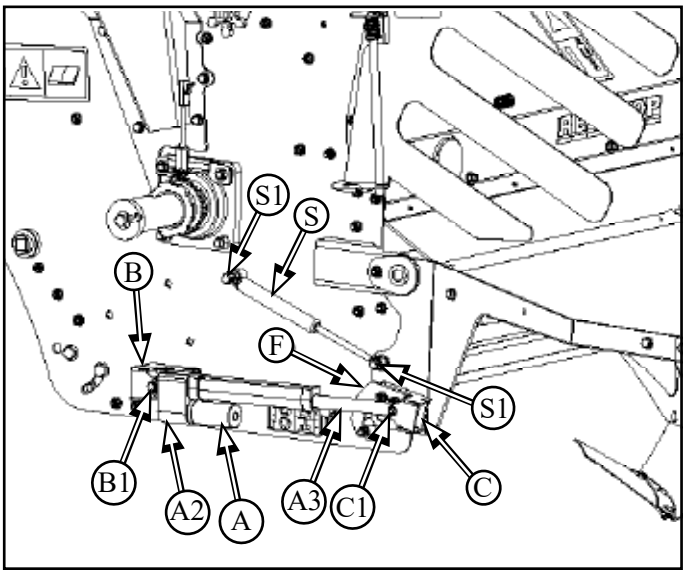
Note: Tailboard stop (**F**) can be adjusted if tailboards do not line up



12.2.2 Install gas shock (**S**) on to chopper and tailboard studs, with:
- M8 x 20 flange bolt (**S1**) x2
- both sides

12.2.3 Install Actuator RP1058 **(A)** x2

Install Actuators with the motor side down.



12.2.4 Install base **(A2)** of actuator **(A)** in to bracket **(B)** on chopper with:
- M8 x 40 flange bolt and lock nut **(B1)**

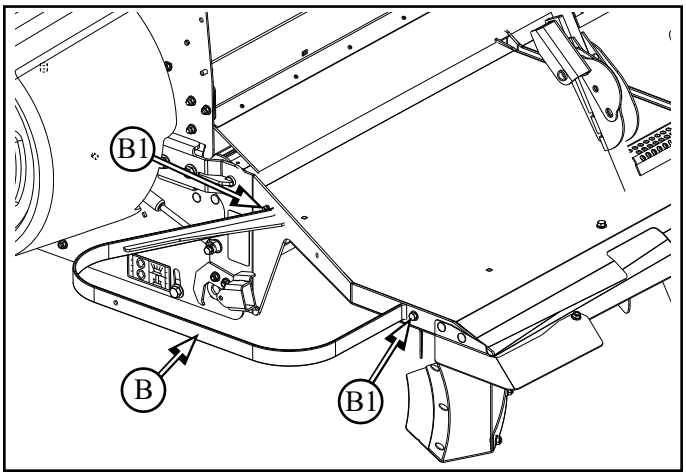
12.2.5 Install shaft **(A3)** of actuator **(A)** in to bracket **(C)** on tailboard with:
- M8 x 65 round head bolt and lock nut **(C1)**
- head of bolt to be on inside of tailboard

12.2.6 Adjust tailboard stops **(F)** so that there is still some stroke left in the gas shock **(S)**
124mm - 127mm (4 7/8” - 5”)

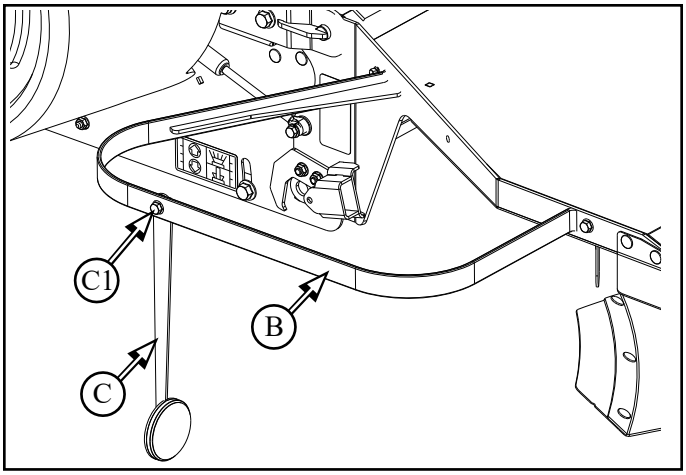
12.2.7 Repeat for other side

12.2.8 Install wire harness **RP892 (W)**

12.2.9 Install tailboard guard (**B**) to side of tailboard, with:
- M8 x 20 flange bolt and flange nut (**B1**) x 2
- both sides



12.2.10 Install tailboard hanging bracket reflector (**C**) to tailboard guard (**B**), with:
- M8 x 25 flange bolt, spacer bushing and flange nut (**B1**)
- both sides

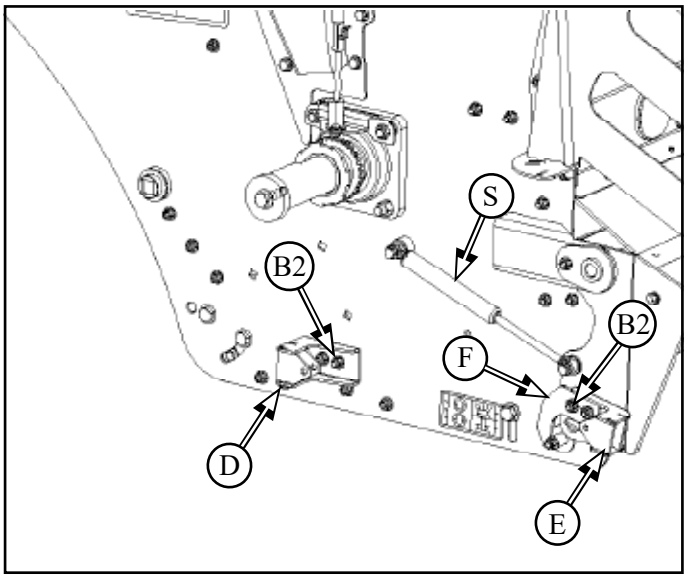


12.3 If your combine is NOT equipped with electric actuators and you require these, order kit #47941043 from Case IH

12.4 If your combine is **NOT** equipped with electric actuators and you require a mechanical control, order kit **#CG314K** from Redekop

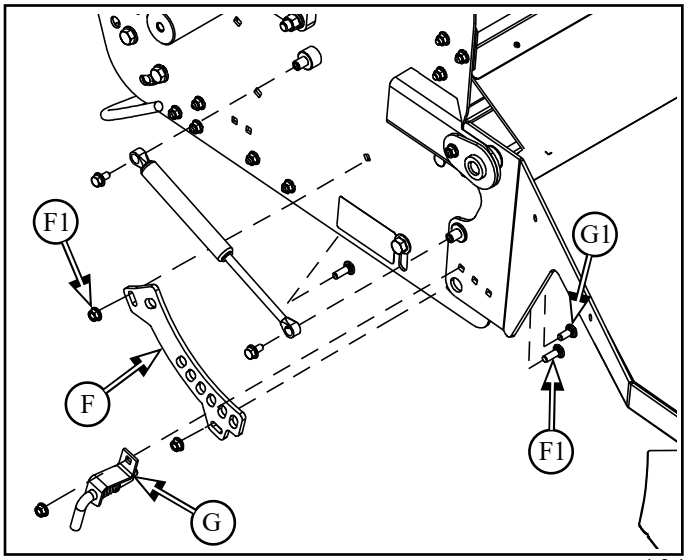
Manual Control

12.4.1 Remove electric actuator mount brackets and tailboard lug stop **(D, E & F)** from chopper housing
- both sides



12.4.2 Install tailboard adjustment lug CG314B **(F)** to side of chopper with:
- M8 x 25 round head bolt and flange nut **(F1)** x2
- both sides

12.4.3 Install tailboard adjustable latch assembly CG112BA **(G)** to tailboard with:
- M8 x 20 round head bolt and flange nut **(G1)**
- head of bolt on inside of tailboard
- both sides



13 Hydraulic Oil Level

CAUTION

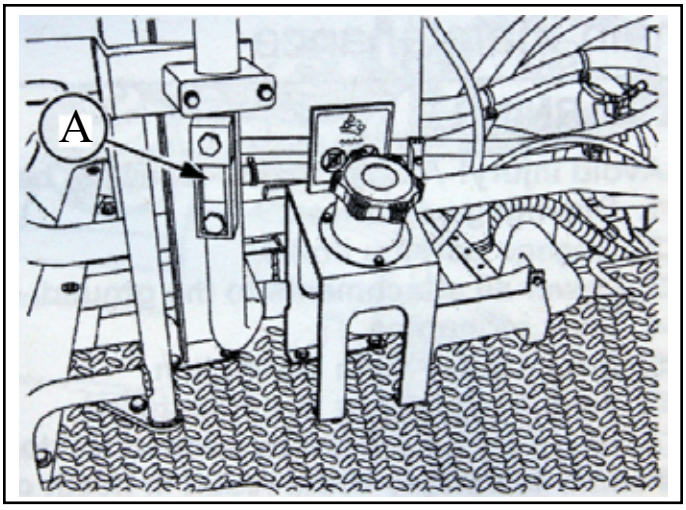
CHECK HYDRAULIC FITTINGS FOR LEAKS

CAUTION

DO NOT RUN THE COMBINE WITHOUT HYDRAULIC OIL

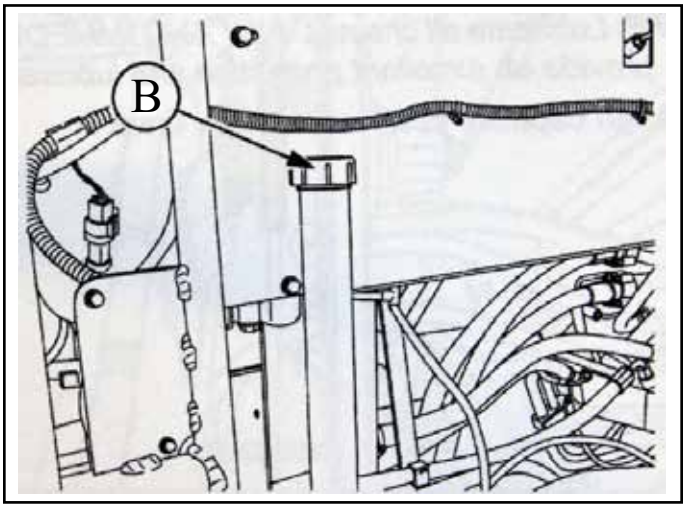
13.1 Check the hydraulic oil level before starting and moving the combine.

Oil level can be checked through the sight glass (**A**) located on the top rear deck. The oil level should at a minimum reach the bottom of the sight glass.



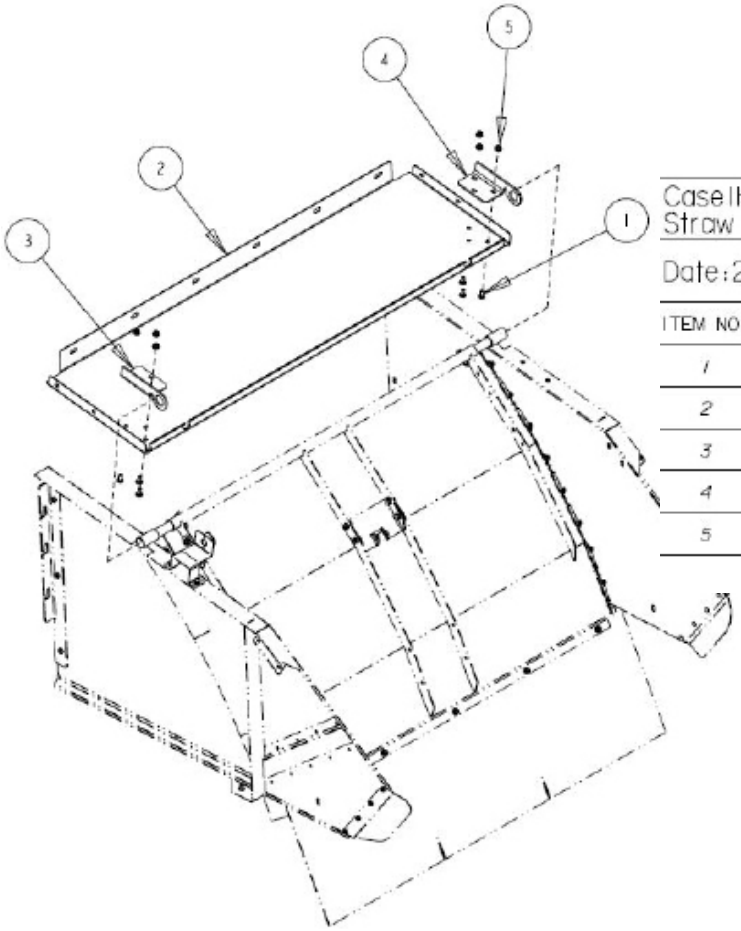
13.2 If necessary, add oil through filler opening (**B**)

Reference combine operator's manual for exact instructions



14 Case AFX 20S Roof Upgrade

14.1 If you have a 20 Series combine and you require a Roof Upgrade, order kit **#CS961K** from Redekop



CaseIH 9120 Series MAV Chopper
Straw Hood Roof Update Components

Date:24JAN2017 Serial No Range From: RM25015

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	B3M-0820	BOLT RH M8x20 C8.8 YZD ISO8678 Short Neck	6
2	CS961B	HOOD 20S AFX UPGRADE	1
3	CS978BL	PANEL SUPPORT BRACKET LT	1
4	CS978BR	PANEL SUPPORT BRACKET RT	1
5	N2M-08	NUT FLG M8 C8 YZD Iso4161	6

15 Software Update

30 and 40 Series

15.1 Update software:
Use the 240-Series EST to set the new configurations on 230-Series and 240-Series machines.
(after the S/N break below)

The new cab machines start at S/N YDG218540
Software update required is: UCM1 - V33.33.0.0 or newer, UCM2 - V33.34.0.0 or newer (for S/N above and newer)
Display Software (Part # 48109497 Combine Axial Flow) V30.8.0.0

Machines <YDG218540 do not get software update and would require the spreader/chopper speed sensor placed on the 7-tooth target.

15.1.2 Use EST to change the Machine Configuration for “Residue System.”

15.1.3 Set configuration to:

Configuration Name	Type ID	Value
Residue System Windrow*	0x209C	Impeller with 32cc Pump & 90cc Motor In-CAB Adjust
Residue System Non Windrow*	0x209C	None
Windrow Door	0x20A1	1 (installed)
Left Spread Deflector	0x2112	1 (installed)
Center Spread Deflector	0x2113	0 (not installed)
Right Spread Deflector	0x2114	1 (installed)
Hood Mount Chopper	0x2111	1 (installed)
Windrow Chute Extension	0x20A4	0 (not installed)

*For MY14 and newer machines with existing 90cc spreader motor and 32cc pump with in cab adjust, Value = 6
*For MY13 UCM machines with existing 74cc spreader motor and 28cc pump, Value = 3

*Note - Installing a Windrow Chopper on a Combine with a Beater; will require a Speed Sensor and Bracket to be installed. This is required to calibrate the Straw Door Actuator.

15.2 Calibrate the windrow door and spread control actuators following the instructions in the Owner’s Manual

15.3 Procedure to configure in cab parameters for Redekop Chopper on AFX

15.3.1 Select Toolbox icon (**A**)

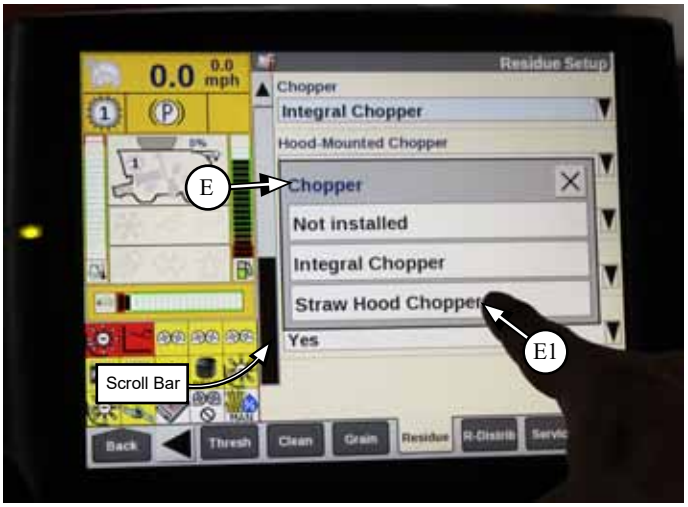
15.3.1 Select residue tab (**B**)

15.3.2 Select in Cab Chopper Speed (**C**)

15.3.2.1 Select No (**C1**)

15.3.3 Select in Cab Windrow Door (**D**)

15.3.3.1 Select Yes (**D1**)



15.3.4 Scroll down the page and select Chopper (**E**)

15.3.4.1 Select Straw Hood Chopper (**E1**)

15.3.5 Scroll down the page and select Hood Mounted Chopper (**F**)

15.3.5.1 Select Yes (**F1**)

15.3.6 Scroll down the page and select Center Spread Deflector (**G**)

15.3.6.1 Select No (**G1**)

CAUTION

Ensure that the Hydraulic Fittings have been tightened

CAUTION

CHECK HYDRAULIC FITTINGS FOR LEAKS

CAUTION

DO NOT RUN THE COMBINE WITHOUT HYDRAULIC OIL

WARNING

HYDRAULIC LINES MAY BE UNDER PRESSURE

Escaping fluid under pressure can penetrate the skin causing serious injury.
Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines.
Tighten all connections before applying pressure.

CAUTION

Wear Hearing Protection during operation

CAUTION

Check all fasteners to ensure they have been properly tightened

CAUTION

When starting chopper, be sure all people are clear of the rear of the combine

Start threshing module in low speed and listen for clearance problems. If a knocking noise is heard, stop the machine immediately! Fix problem and repeat procedure. Progress to full power when everything is running smoothly at lower speeds.

Torque Table		
Nominal Size	Class 8.8	Class 10.9
	Nm / (ft-lbs)	Nm / (ft-lbs)
M8 - flanged	27 / (20)	39 / (29)
- non flanged	25 / (18)	35 / (26)
M10 - flanged	54 / (40)	57 / (42)
- non flanged	49 / (36)	70 / (51)
M12 - flanged	93 / (69)	134 / (98)
- non flanged	85 / (63)	121 / (90)
M16 - flanged	231 / (171)	331 / (244)
- non flanged	210 / (155)	301 / (222)

WARRANTY CARD

Please send this warranty card in to Redekop Manufacturing
Fill in when the Straw Chopper has been fully installed and the following items have been checked

Email to: warranty@redekopmfg.com
or
Fax to: +1-306-933-1088

Selling Dealer Name and Location: _____

Customer Name: _____

Address:_____

_____

_____

Country: _____

Telephone #: _____

Email: _____

Combine Model # _____ **Hour Meter Reading** _____

Combine Serial # _____

Strawchopper Serial #_____

Jackshaft Serial # _____

Date Strawchopper installed: _____

Strawchopper installed by: _____ **Print:** _____

Knifebar Engagement Limiting Bracket installed (ref 10.9): _____

4 Belt Tensioners set to spring indicator (ref 10.5): _____

Strawchopper Rotor has been rotated manually to ensure clearances: _____

Strawchopper Blades clear with the knifebar: _____

Fan Blades clear rotating through the shroud : _____

Software has been updated: _____

Combine has been run with the threshing module in low speed and then progressed to full power when everything is running smoothly at lower speeds? _____

Are there any knocking noises? _____

Comments: _____
_____
_____