REDEKOP™

SEED CONTROL UNIT

JD S7 - FC, XFC

FOR REDEKOP MAV CHOPPER

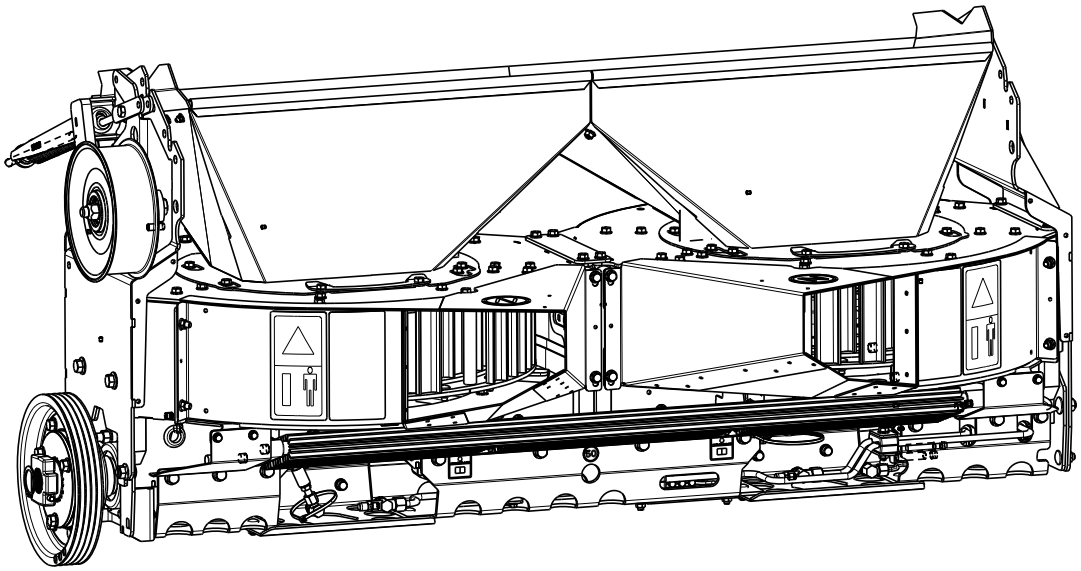
INSTALLATION MANUAL

PRODUCT NUMBER: **850-130H**

SC003-07_R0

REDEKOP™

REDEKOP™



Seed Control Unit

for JD S7 Redekop MAV Chopper Installation Manual

Table of Contents

Section

0 Safety
- Safety Instructions 0.1
- Safety Decals 0.21
- Information Decals 0.22
- Serial Number 0.23
- Terminology / Abbreviations 0.24

1 OEM Chopper Removal
- OEM Chopper Removal 1.1

2 MAV Straw Chopper Modifications
- MAV SCU Floor Installation 2.1

3 Combine Modifications for SCU
- OEM Sieve Extension Removal 3.1
- Beater Extension Installation 3.2
- Straw Tine Deflector Installation 3.3
- Vent Cover Installation 3.4
- Vent Cover Blank Out Installation 3.5
- New Sieve Extension Assembly 3.6
- Chopper and SCU Sealing Plates Installation 3.7
- Divider Panel Installation 3.8

4 MAV Chopper Installation
- MAV Chopper Installation 4.1

5 SCU Installation
- SCU Installation 5.1
- Hopper Inlet Installation 5.2
- Sieve Extension Pan Assembly Installation 5.3

6 Tailboard Installation
- Tailboard Installation 6.1
- Tailboard Fin Installation 6.2
- Gas Spring and Tailboard Guard Installation 6.3

7 Drive Reconfiguration
- Chopper Drive Installation 7.1
- OEM Chopper Drive Modification 7.2
- Upper Combine Drive Installation Installation 7.3
- Jackshaft Modification - XFC 7.4
- Belt Tensioner Installation 7.5
- Drive Belt Installation 7.6

Seed Control Unit

for JD S7 Redekop MAV Chopper Installation Manual

Table of Contents

Section

8 Electronics Installation

OEM Speed Sensor Installation 8.1
Straw Chopper Speed Sensor Installation 8.2
ECU Installation 8.3
CAN Bus Adaptor Installation 8.4
ECU Power and CAN Bus Harness Installation 8.5
ECU / Chopper Harness Installation 8.6
SCU Door Position Sensor Harness Installtion 8.7

9 Shield, Axle Stop, Discharge Chute Installation

Drive Shield Installation 9.1
Inlet Screen Cover Panel Installation 9.2
Axle Stop Installation 9.3
Discharge Outlet Installation 9.4

10 SCU Monitor System

Configure Cab Monitor Software 10.1
ISOBUS Display 10.2
Installed Features Screen 10.3
Redekop Screen 10.4
Settings Screen 10.5
ECU Diagnostics Screen 10.6
Alarm Displays 10.7
Creating a Redekop Run Page for S7 Series Combine 10.8
Changing Monitor to Chopper Service Mode 10.9

11 Tablet Installation

Tablet Mount Installation 11.1
John Deere Combine Software Configuration 11.2

0 Safety

0.1 Safety Instructions

0.1.1 IMPORTANT: Read through this instruction manual thoroughly and familiarize yourself with the Seed Control Unit before installation of these components.

This instruction manual explains the proper procedure for installation of the Redekop Seed Control Unit. Do not skip steps or perform them out of order.

0.2 Recognize Safety Information

0.2.1 This is a safety-alert symbol. When you see this symbol on your straw chopper 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 Seed Control Unit 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 manual.

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

Keep your Seed Control Unit in proper working condition. Unauthorized modifications to the Seed Control Unit may impair the function and/or safety and affect the Seed Control Unit's life.

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

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.

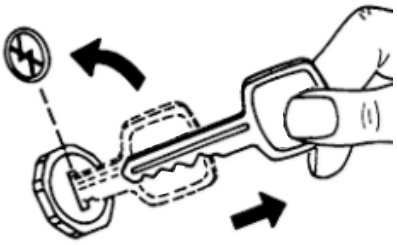
Never leave combine unattended as long as engine is running.

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. Keep hands, feet and clothing away from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

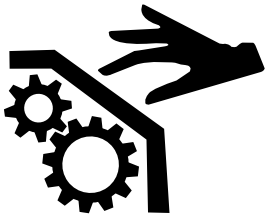
Securely support any machine elements that must be raised for service work.

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

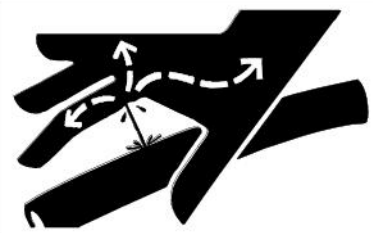
0.10.1 Keep guards and shields in place at all times. Ensure that they are serviceable and maintained correctly.



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 Seed Control Unit when it is running.

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 braid 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 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.

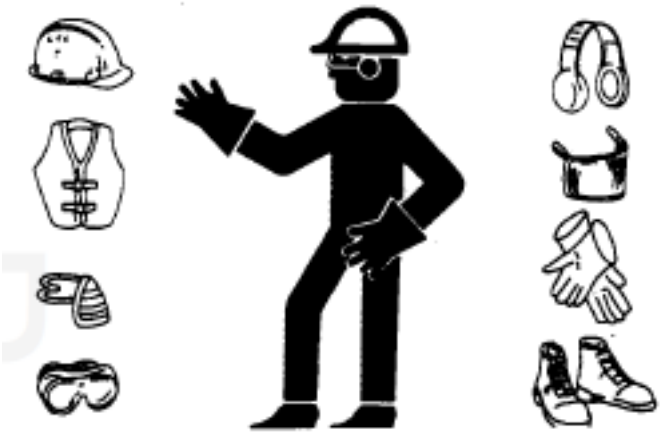
Follow recommended procedure for removal and installation of components in the manual.

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!

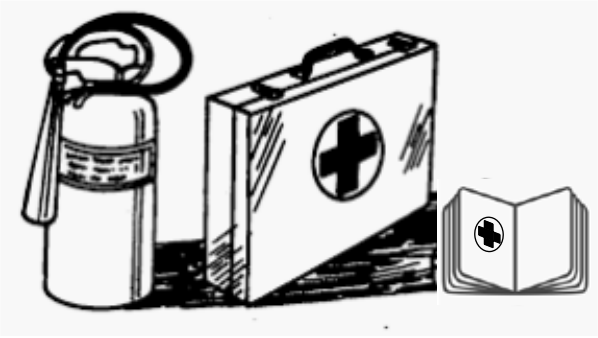
Interference with speech communication, acoustic signals is possible.

0.17 Prepare for Emergencies

0.17.1 Be prepared if a fire starts.

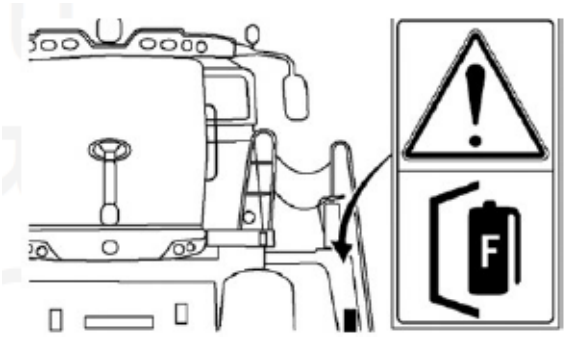
Keep a first aid kit and fire extinguisher handy.

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, near bearings and 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. Get off the machine immediately and move away from the fire. Do not return to the machine or fire!

CAUTION: Avoid personal injury.
If a fire is too far advanced, do not try to extinguish it.
Call the fire department!
The number one priority is safety. Always put the safety of the operator and bystanders first.

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

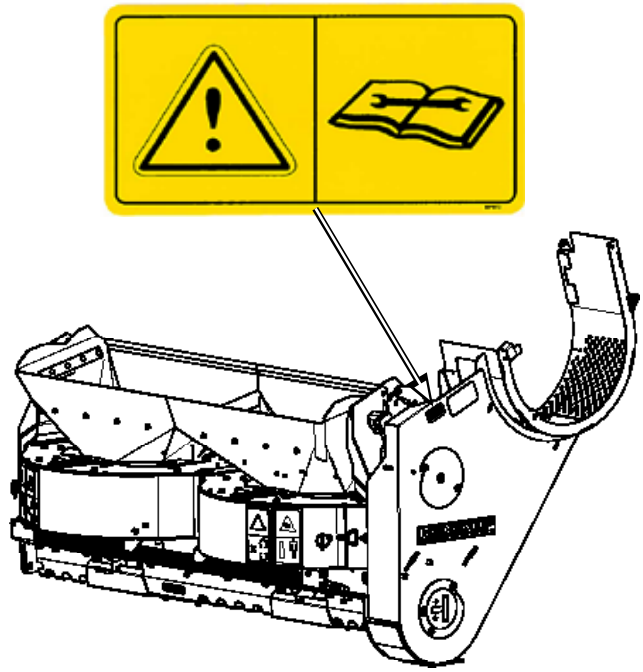
1. Remove fire extinguisher from bracket and carry it to the area of fire.
2. Approach area of fire with your back to the wind.
3. Pull the safety pin out of actuating lever.
4. Hold extinguisher upright, pointing nozzle away from you and aim hose at base of the flames.
5. Squeeze the lever slowly and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

0.21 Safety Decals

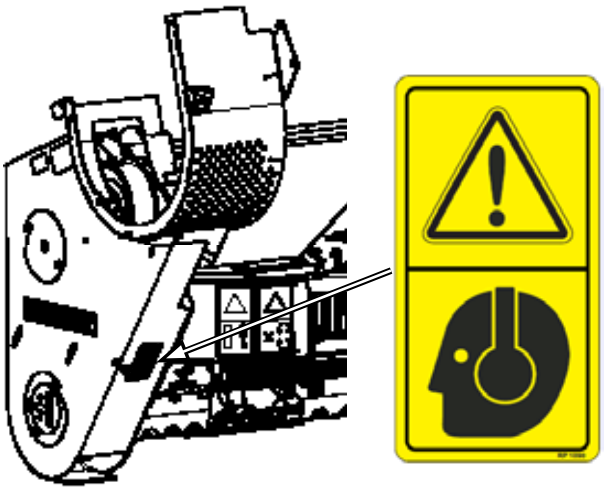
Pictorial Safety Signs

At several important places on this machine, safety signs are affixed intending to signify potential danger. The hazard in identified by a pictorial in a warning triangle. An adjacent pictorial provides information on how to avoid personal injury. These safety signs, their placement on the machine, and a brief explanatory text follow.

Caution / Check Service Manual
RP1188
This operator's manual contains all important information necessary for safe machine operation. Carefully observe all safety rules to avoid accidents.

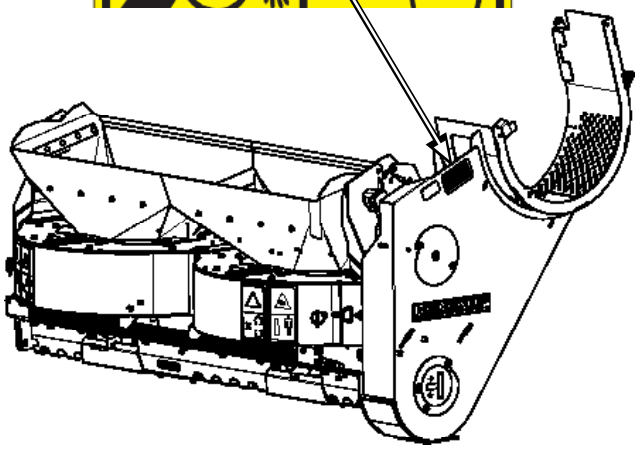


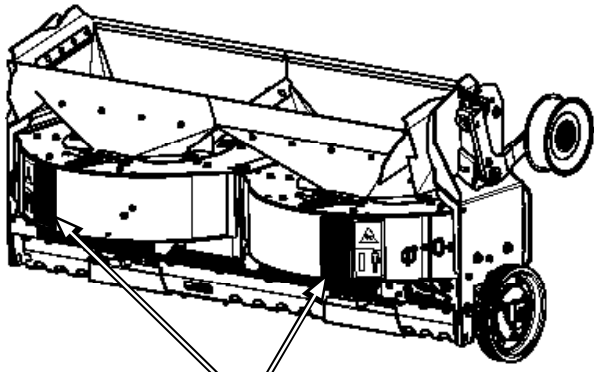
Caution / Hearing Protection Required
RP1090
Use hearing protection whenever operating the machine.



Keep Hands out of Belt Area / Rotate Danger
RP1122

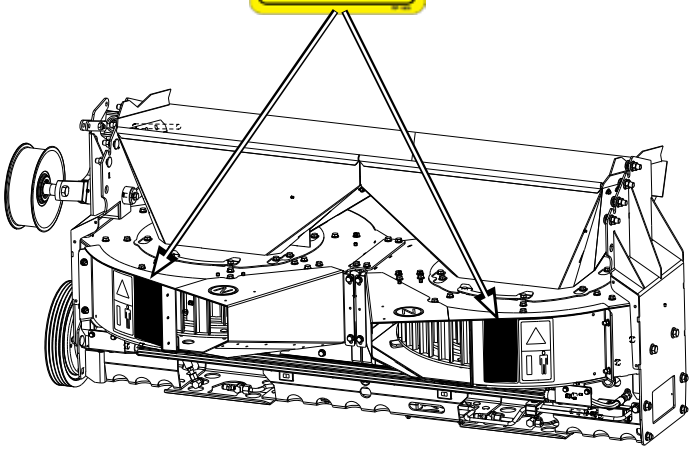
Do not touch any moving parts. Wait until all moving parts have stopped.

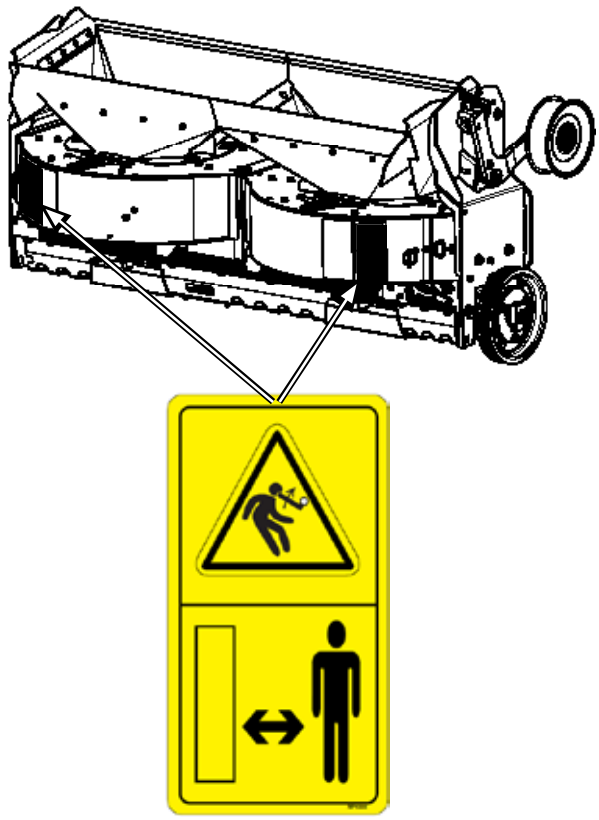




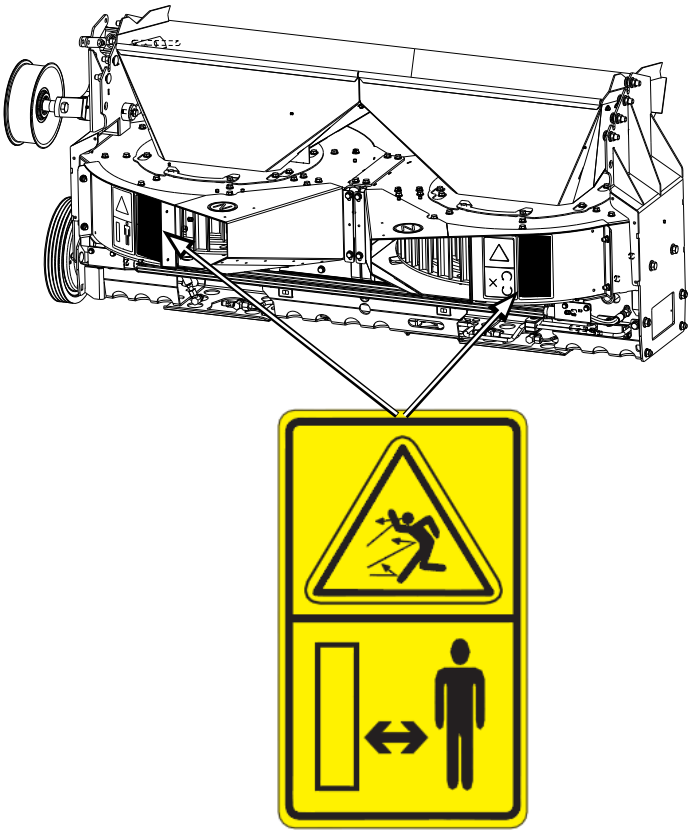
Hand Injury / Rotate Danger
RP1089

Risk of injury caused by rotating parts.





Kickback Hazard / Stand Clear
RP1086
Avoid personal injury. Kickback hazard when removing access panel.



Projectile Hazard / Stand Clear
RP872
Stay clear of these components when the engine is running.

0.22 Information Decals

Seed Control Unit Serial Number Plate

Grease Every 12 Hours
RP1091

Grease Every 50 Hours
RP1092

Oil - use SAE 75W90 GL5 Synthetic
RP1093

0.23 Serial Number

1. Seed Control Unit serial number (**A**):
- located on the Seed Control Unit frame, non-drive side

0.24 Terminology / Abbreviations

The following abbreviations will be used in this manual

SCU = Seed Control Unit

FC = Fine Cut Chopper

XFC = Extra Fine Cut Chopper

TB = Tailboard

VTB = Vane Tailboard

PC = Power Cast

PPC = Premium Power Cast

PVTB = Premium Vane Tailboard

EU = Europe

1 OEM Chopper Removal

1.1 Remove OEM Chopper

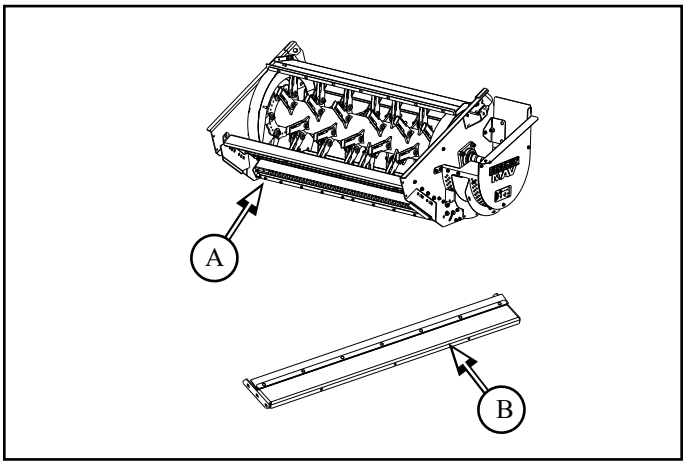
- follow steps in MAV Chopper Housing installation manual CD0303-04

2 MAV Chopper Modifications

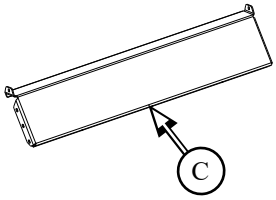
2.1 MAV SCU Floor Installation

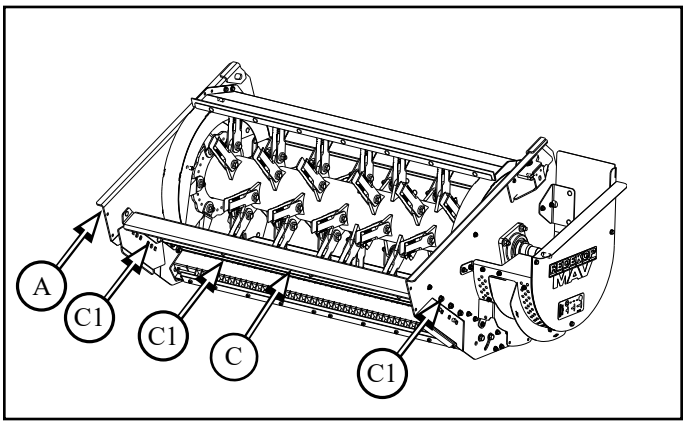
Parts List:
Part located in SC1369SB crate

CD1510GA	S7 MAV Chopper (**A**)	Qty 1
(located with chopper packaging)		
CD1505GA	Floor, MAV SCU JD S7 (**B**)	Qty 1

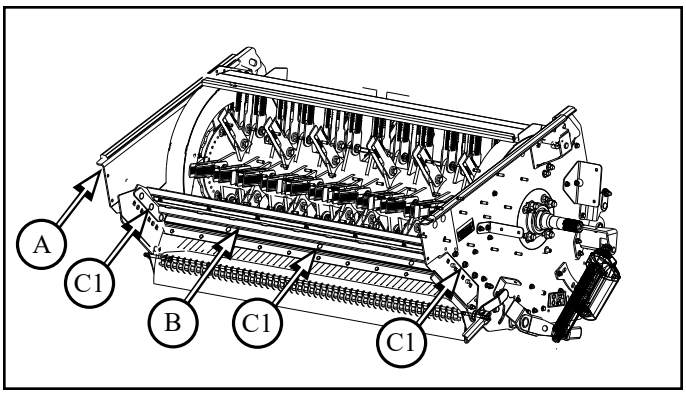


2.1.1 Remove floor (**C**) from MAV chopper (**A**)
- not to be reused
- mounting hardware (**C1**) to be reused





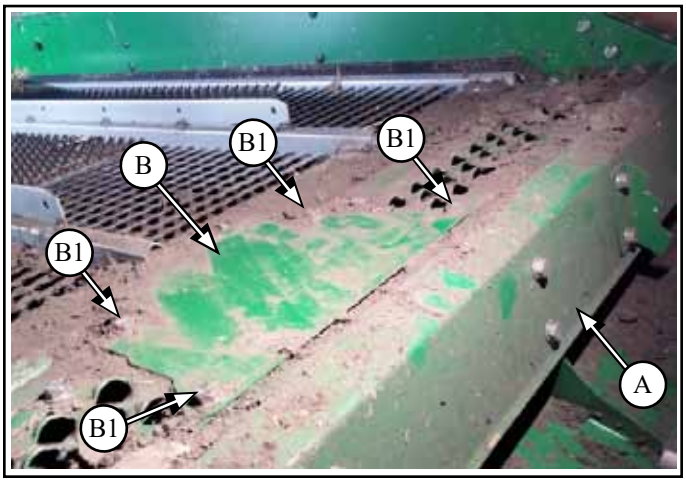
2.1.2 Install new floor (**B**) to MAV chopper (**A**), with:
- reuse original mounting hardware (**C1**)



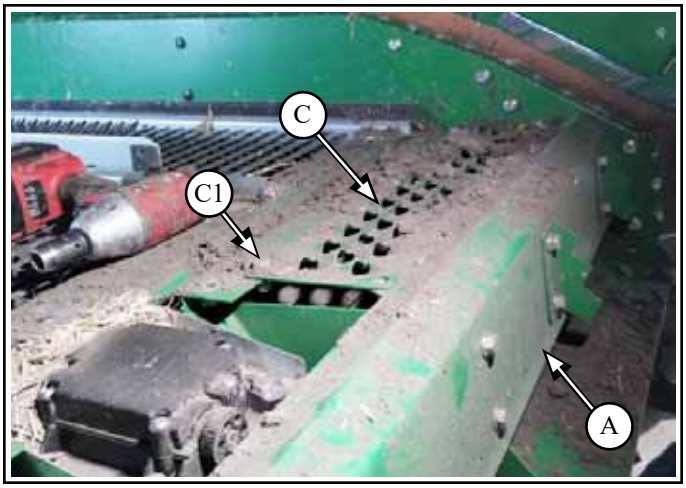
3 Combine Modifications for SCU

3.1 OEM Sieve Extension Removal

3.1.1 Remove center cover plate (**B**) from top of sieve extension (**A**)
- to be reinstalled
- mounting hardware (**B1**) x4 to be reused

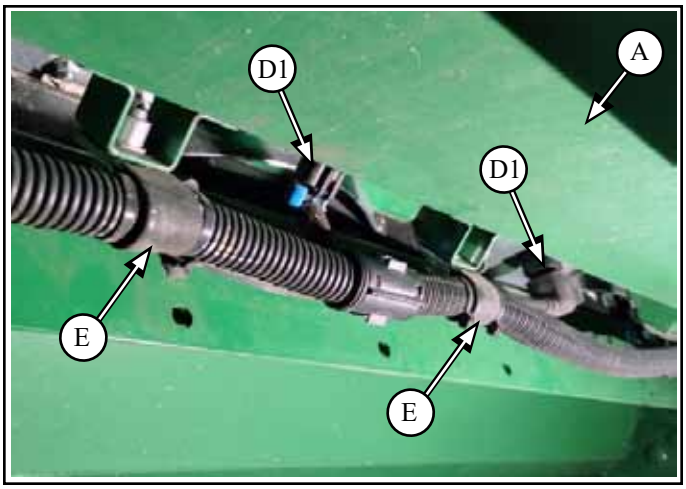


3.1.2 Remove end cover plate (**C**) x2 from top of sieve extension (**A**)
- to be reinstalled
- mounting hardware (**C1**) x6 to be reused



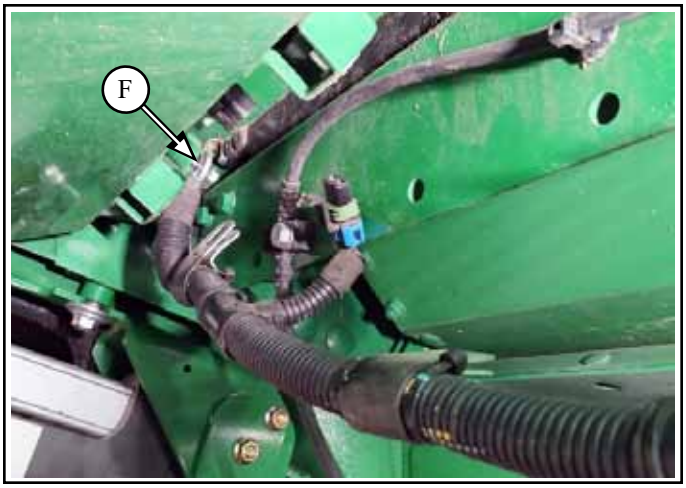
3.1.3 Disconnect all grain loss sensor (**D**) plugs (**D1**) underneath sieve extension (**A**)

3.1.3.1 Disconnect all grain loss sensor harness P Clips (**E**)

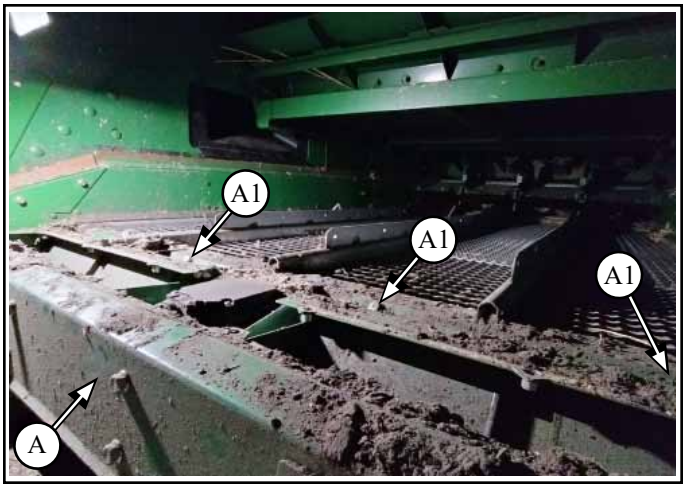


3.1.3.2 Disconnect ground wire (**F**)

3.1.3.3 Harness will remain in place and be paired with new sieve extension once installed

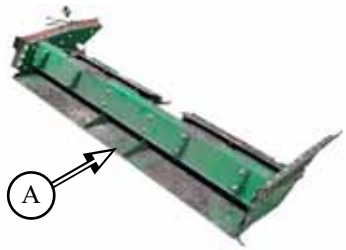


3.1.4 Remove mounting hardware (**A1**) holding sieve extension (**A**) to end of cleaning shoe
- to be reused

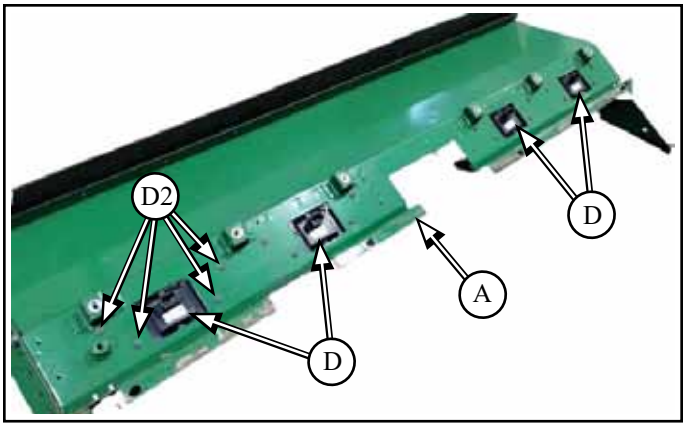


3.1.4.1 Remove all mounting hardware (**A2**) x4 holding sieve extension (**A**) to side of combine
- both sides

3.1.5 Slide sieve extension (**A**) out of combine
- not to be reused



3.1.6 Remove loss sensor (**D**) x4 from sieve extension (**A**)
- to be reinstalled on new sieve extension
- mount hardware (**D2**) to be reused



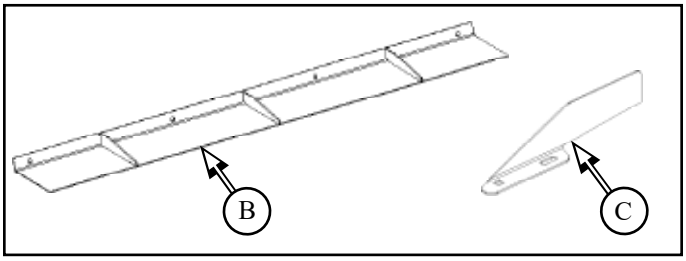
3.2 Beater Extension Installation

Note: If installing Beater Floor Cover Kit SC637GK, install now while beater floor is most accessible

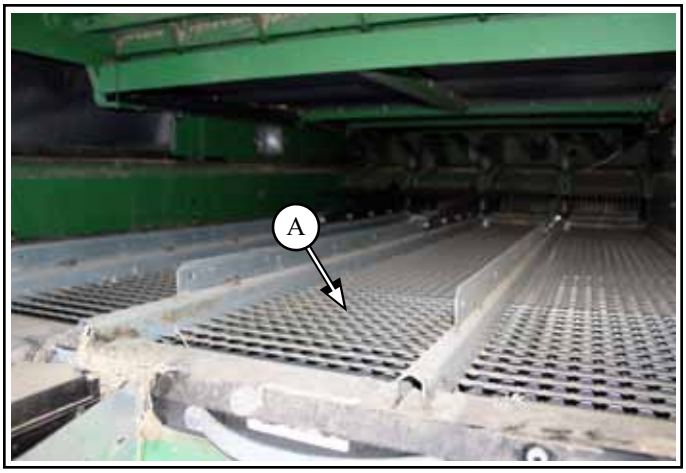
Beater extension is only required on Combines without Overshot Beater Option

Parts List:

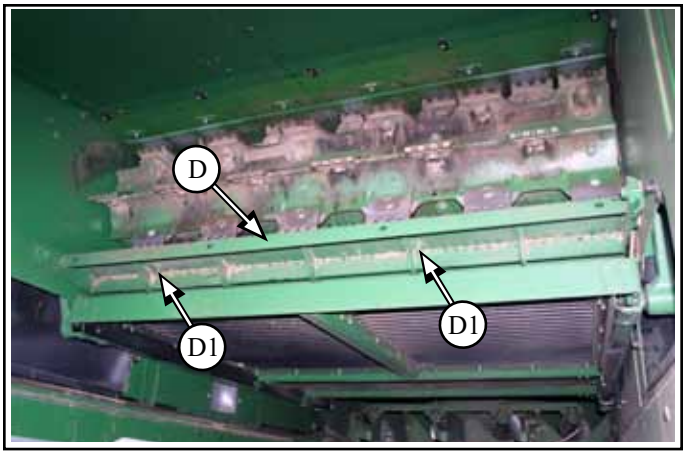
SC200G	Beater Extension JD Series **(B)**	Qty 1
CD733G	Fin Beater S-Series (**C**)	Qty 2



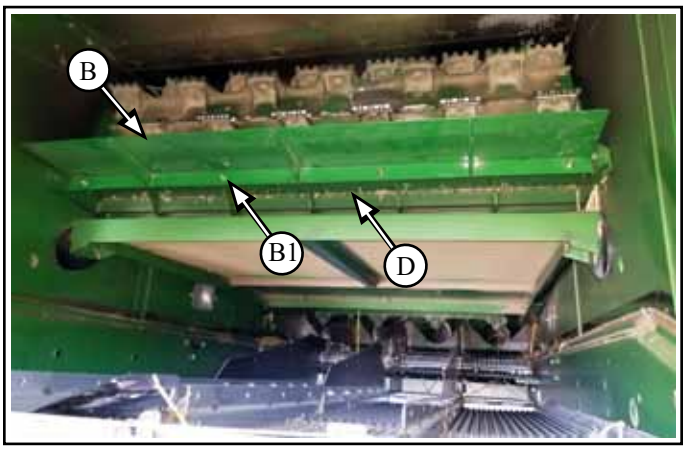
3.2.1 Adjust combine sieves (**A**) to closed position (so they are laying flat) in order to prevent damage when installing the beater components. To avoid louver damage, protect with a board overtop of sieves.



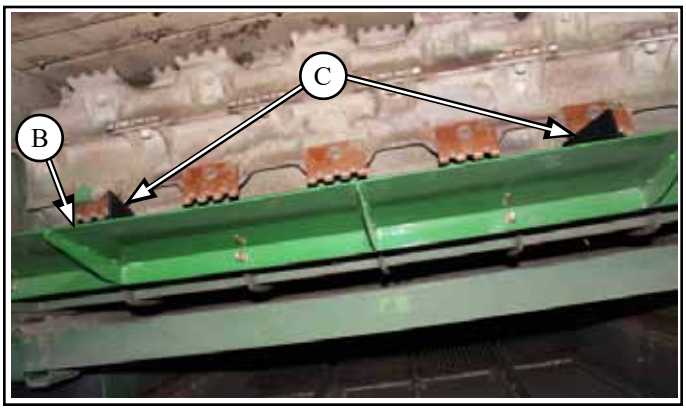
3.2.2 Remove existing M10 x 25 round head bolt and flange nuts (**D1**) x4 from existing beater plate (**D**)
- hardware (**D1**) to be reused

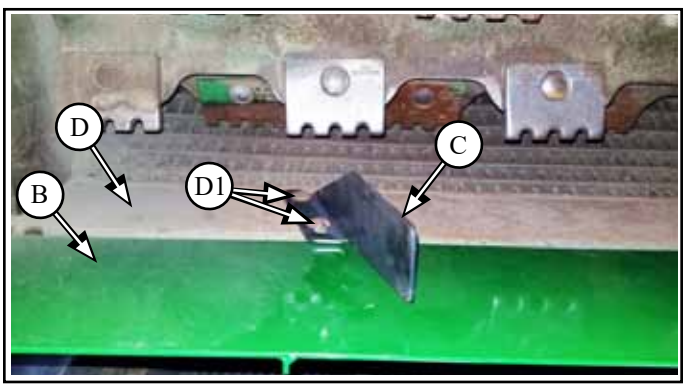


3.2.3 Install beater extension (**B**) to beater plate (**D**) - flat surface up, with:
- M10 x 25 flange bolt and flange nut (**B1**) x4



3.2.4 Install beater fins (**C**) x2 on top of factory beater plate (**D**) one on each end, with:
- reuse existing M10 x 25 round head bolt and flange nut (**D1**) x4





3.3 Straw Tine Deflector Installation

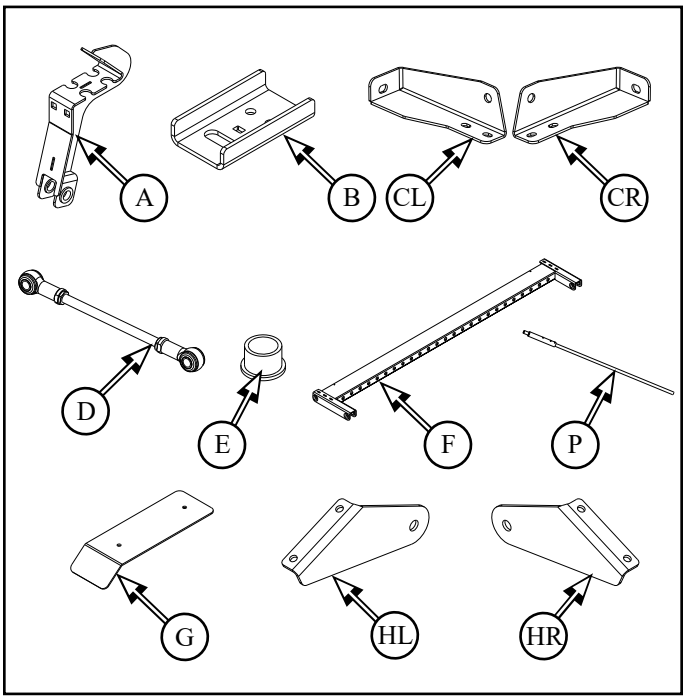
Parts List:
Parts located in SC731SB box

SC733G	Shoe Mount Bracket (**A**)	Qty 2
SC734G	Bottom Shoe Mount Bracket (**B**)	Qty 2
SC1421GL	Beater Ext Support Brkt Left (**CL**)	Qty 1
SC1421GR	Beater Ext Support Brkt Right (**CR**)	Qty 1
SC732A	Link Tine Assy (**D**)	Qty 2
RP1368	Flanged Bushing (**E**)	Qty 10
SC731G	Straw Tine Deflector Frame (**F**)	Qty 1
SC1159A	Tine Rod Assy (**P**)	Qty 25

SC731S Hardware Bag

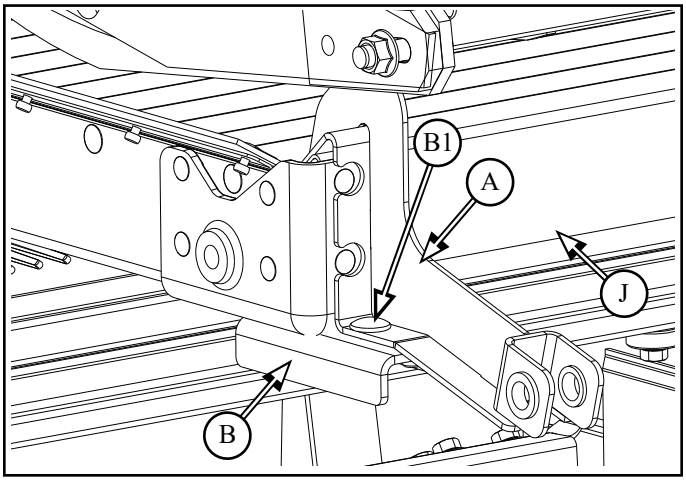
Mounting Brackets for Overshot Beater:

SC790-01_Template	Drill Template (**G**)	Qty 1
SC790GL	Upper Mount Bracket Left (**HL**)	Qty 1
SC790GR	Upper Mount Bracket Right (**HR**)	Qty 1

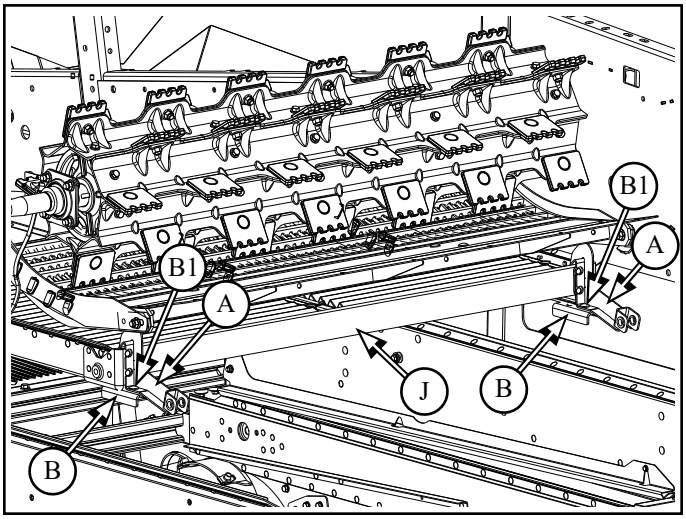


Mounting Brackets:
3.3.1 Place shoe mount bracket (**A**) onto left and right corner of shoe platform (**J**)

3.3.1.1 Attach bottom shoe mount bracket (**B**) to shoe mount bracket (**A**), with:
- M10 x 25 round head bolt and lock nut (**B1**) x2
- both sides



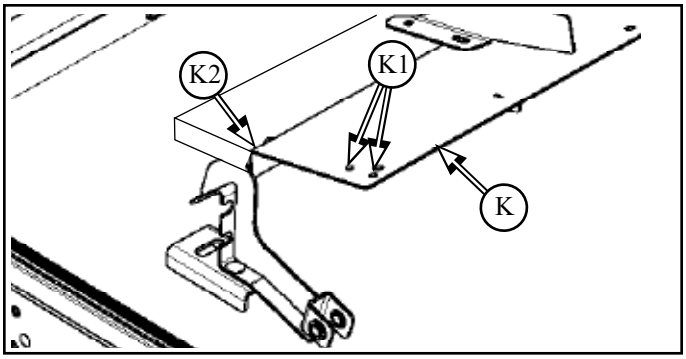
3.3.1.2 Overall view with shoe mount brackets (**A**) installed



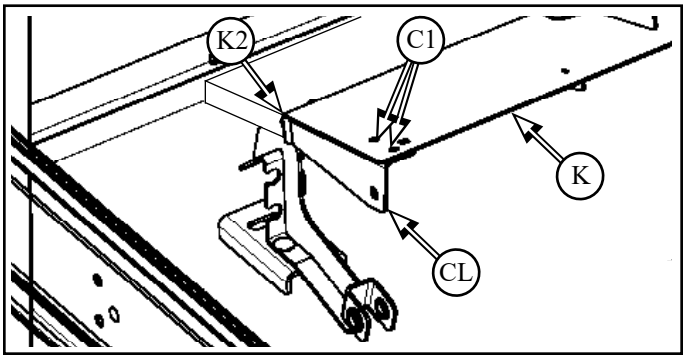
Without Overshot Beater:

3.3.2 Punch out knock-out holes (**K1**) x2 from top of beater floor extension (**K**)
- both sides

3.3.2.1 Remove beater floor extension (**K**) mounting bolt (**K2**) at end
- both sides



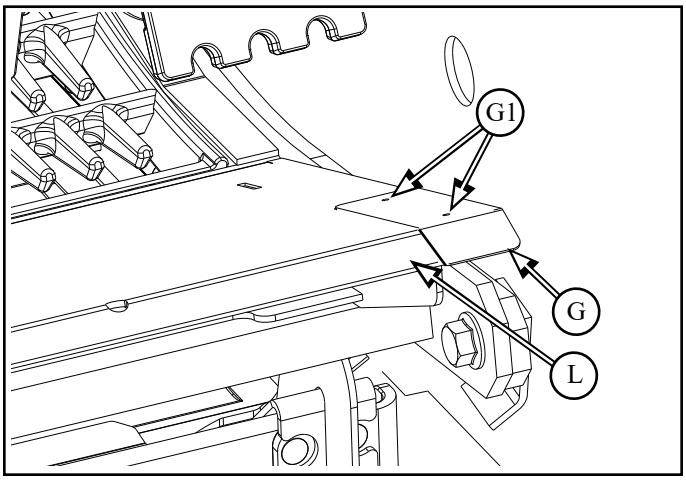
3.3.2.2 Install upper tine mount bracket (**CL**) to underside of beater floor extension (**K**), with:
- M8 x 16 round head allen socket bolt and flange nut (**C1**) x2
- both sides
- reuse beater floor extension mounting bolt (**K2**)
- both sides



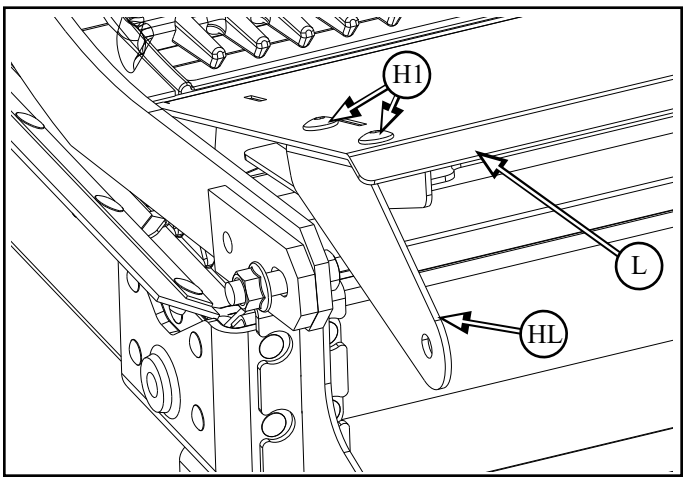
With Overshot Beater:

3.3.3 Clamp drill template (**G**) to overshot beater floor extension (**L**) aligning to side edge.
- both sides

3.3.3.1 Drill 8.5mm hole (**G1**) x2 thru overshot beater floor extension (**L**)
- both sides



3.3.3.2 Install upper tine mount bracket (**HL**) to underside of overshot beater floor extension (**L**) thru holes (**G1**) just drilled, with:
- M8 x 16 round head allen socket bolt and flange nut (**H1**) x2
- repeat for otherside

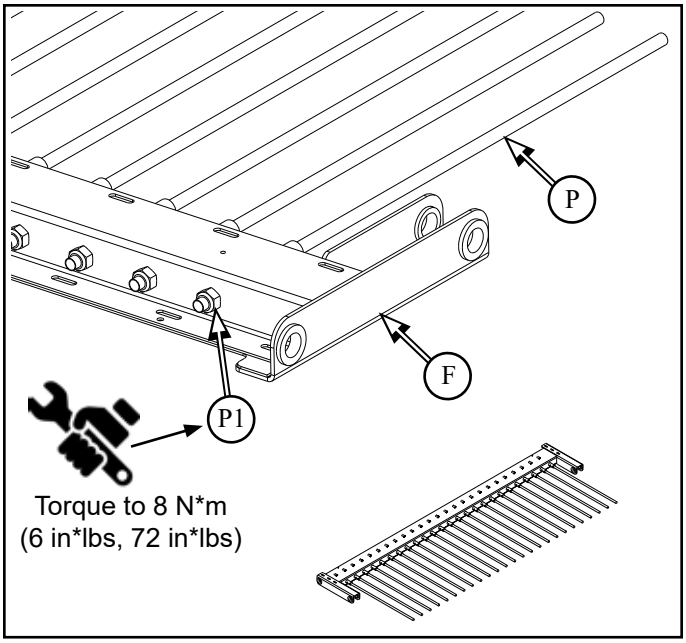


3.3.4 Install tine rod assembly (**P**) x25 to straw tine deflector frame (**F**), with:
- M8 nylon lock nut (**P1**) x25

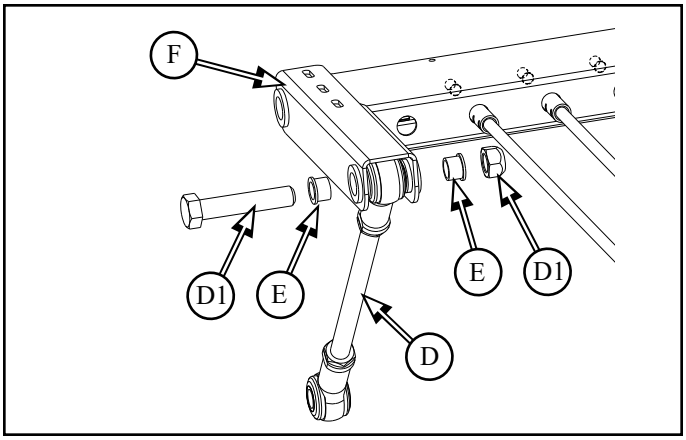
Do Not use an Impact Wrench

3.3.4.1 Torque (**P1**) to 8 N*m (6 in*lbs, 72 in*lbs)

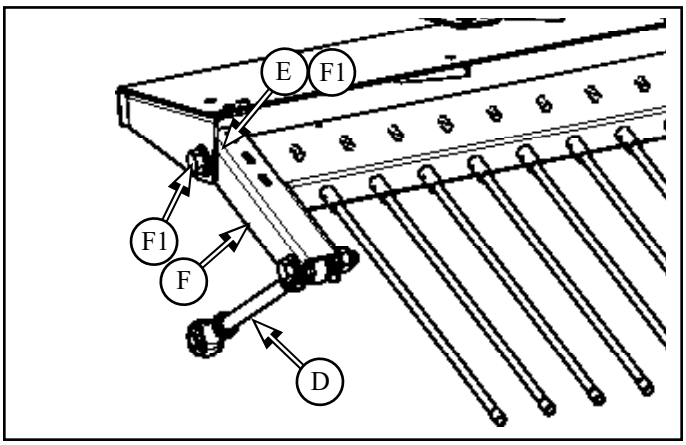
Do Not overtighten - aluminum threads will strip



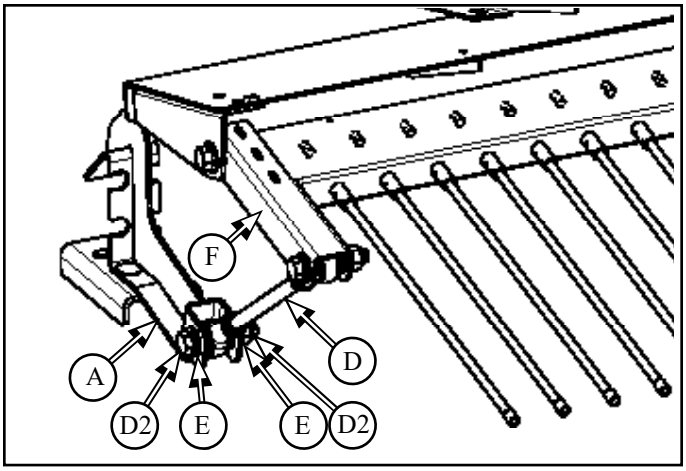
3.3.5 Install link assembly (**D**) into arms of straw tine deflector assembly (**F**), with:
- M12 x 65 hex bolt and lock nut (**D1**)
- flanged bushing (**E**) x2
- both sides



3.3.6 Install straw tine deflector assembly (**F**) to upper tine mount bracket (**CL**) (or **H** with overshot beater) with:
- M12 x 30 flange bolt and lock nut (**F1**)
- flanged bushing (**E**) on nut side
- both sides

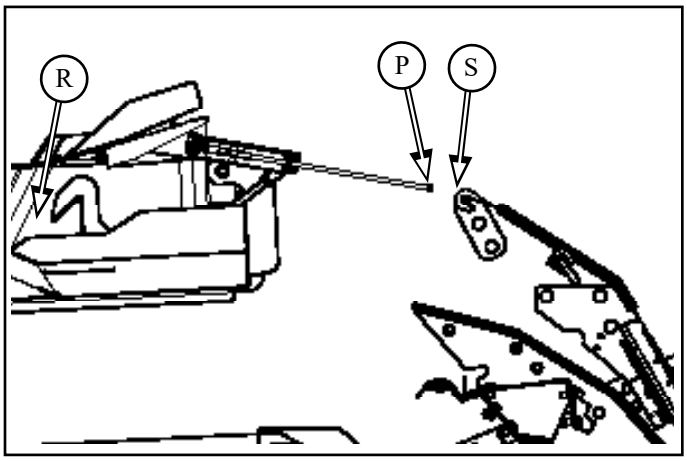


3.3.7 Install link assembly (**D**) into shoe mount bracket (**A**), with:
- M12 x 65 hex bolt and lock nut (**D2**)
- flanged bushing (**E**) x2
- both sides

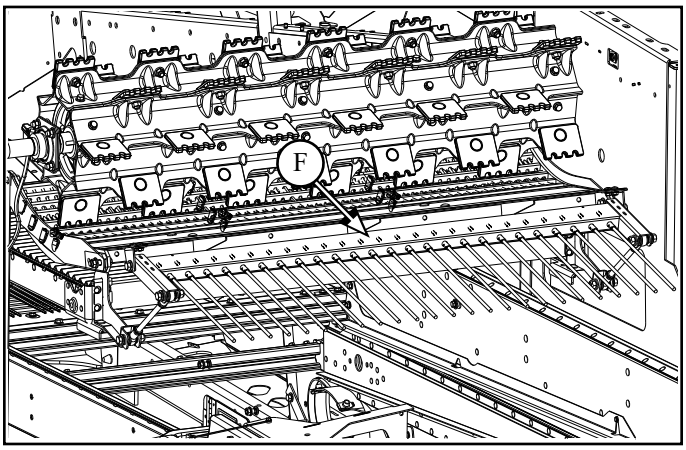


3.3.8 Turn threshing system so that the return pan (**R**) is fully forward

3.3.8.1 Set position of tine assembly so that end of tines (**P**) are positioned at middle of nose of panel (**S**)



3.3.9 View with straw tine deflector assembly (**F**) installed

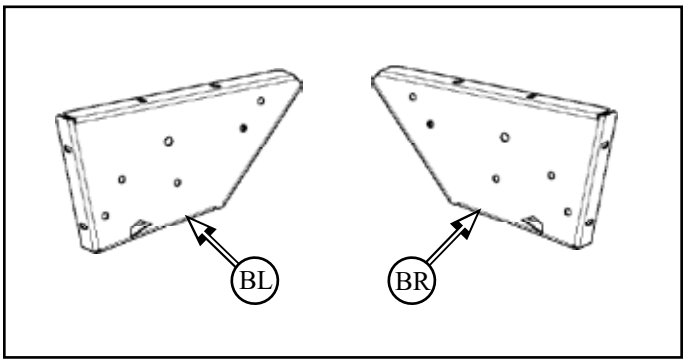


3.4 Vent Cover Installation

Parts List:
Parts locate in SC1440SB box

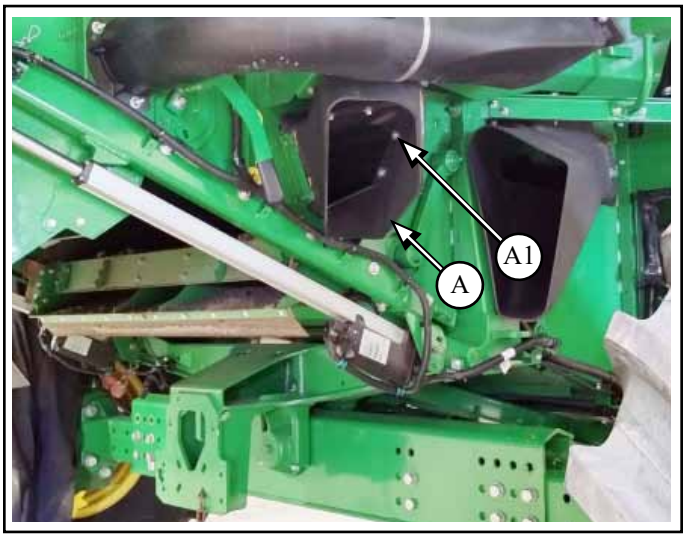
CD1336GL Vent Cover Lt **(BL)** Qty 1
CD1336GR Vent Cover Rt (**BR**) Qty 1

CD1336S Hardware Bag



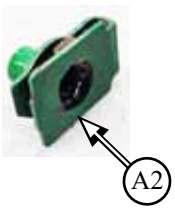
3.4.1 Remove right rear discharge chute (**A**)
- chute (**A**) and mount hardware (**A1**) not to be reused

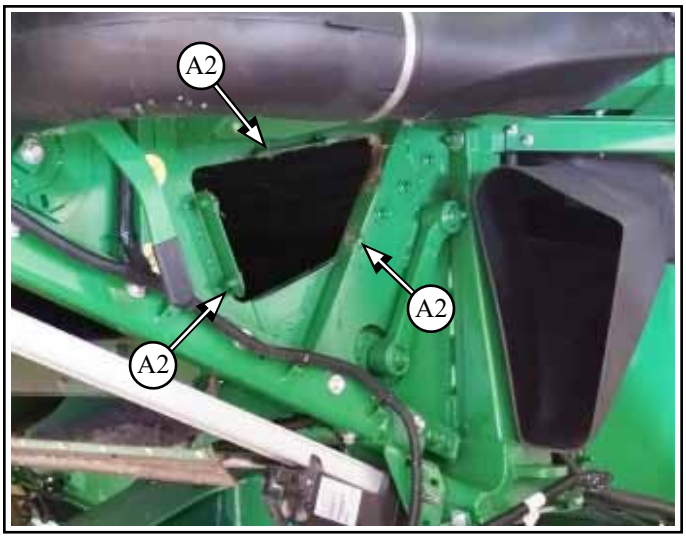
3.4.1.1 Repeat for left side
- not to be reused



3.4.2 Remove all nut clips (**A2**)
- not to be reused

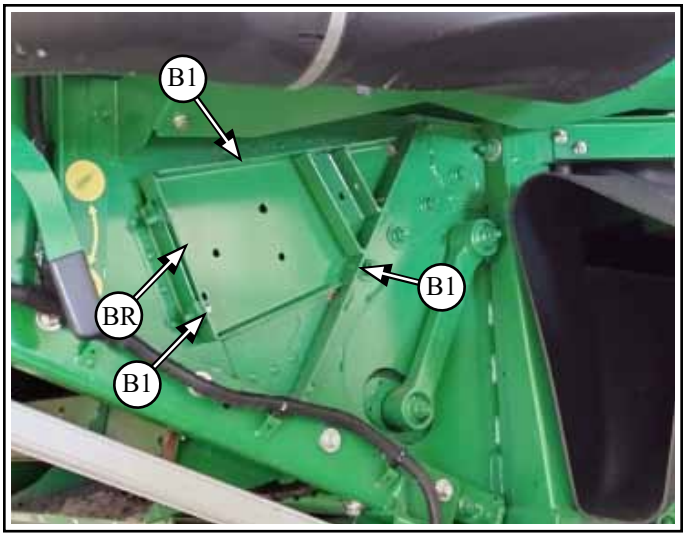
3.4.2.1 Repeat for left side





3.4.3 Install right vent cover (**BR**) in location where discharge chute (**A**) was removed, with:
- M10 x 25 flange head bolt and flange nut (**B1**) x6
- **do not tighten at this stage**

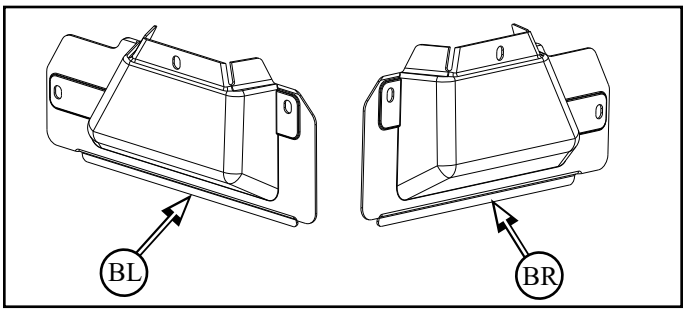
3.4.3.1 Repeat for left side



3.5 Vent Cover Blank Out Installation

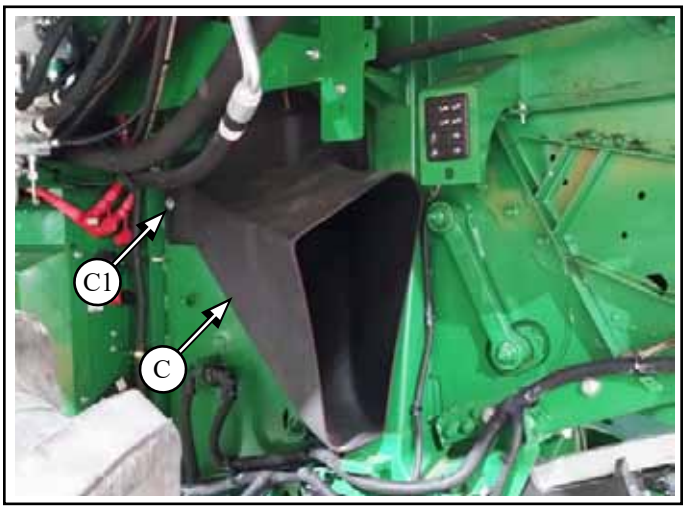
Parts List:
Parts located in SC1369SB crate

HXE73659	Vent Cover Lt (**DL**)	Qty 1
HXE73660	Vent Cover Rt (**DR**)	Qty 1



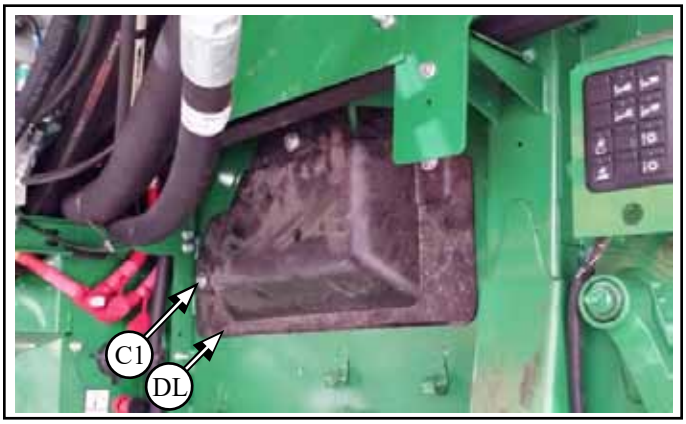
3.5.1 Remove left front discharge chute (**C**)
- not to be reused
- mount hardware (**C1**) to be reused

3.5.2 Repeat for right side



3.5.3 Install left discharge cover (**DL**) in location where discharge chute (**C**) was removed, with:
- reuse mount hardware (**C1**) x3

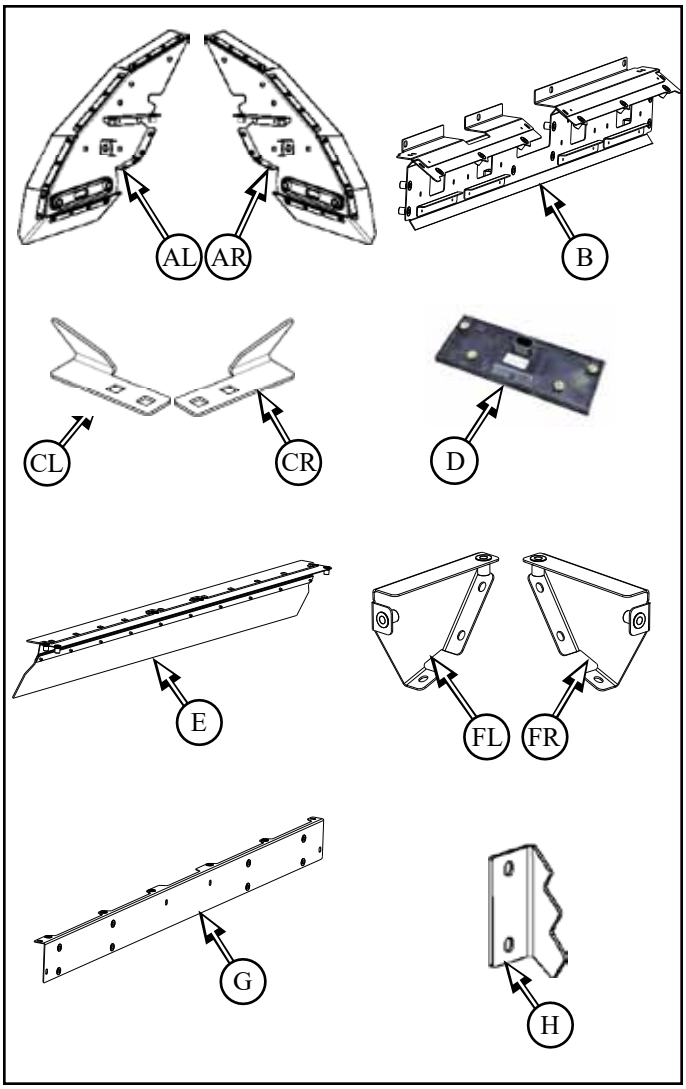
3.5.4 Repeat for right side



3.6 New Sieve Extension Assembly

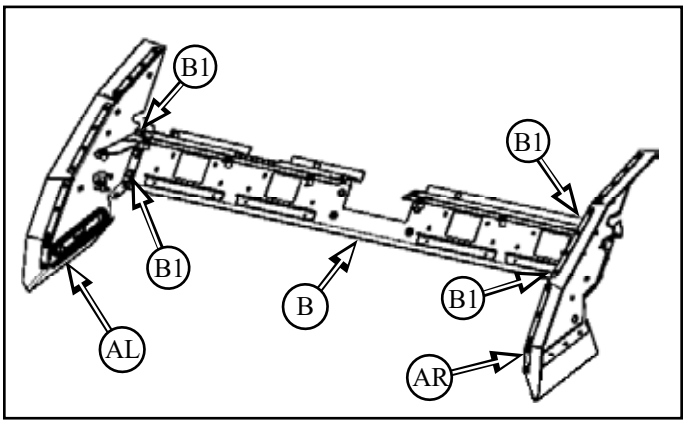
Parts List:
Parts located in SC1366SB crate, SC1440SB box

CD1306GAL Sieve Ext End Plate Assy Lt (**AL**)	Qty 1
CD1306GAR Sieve Ext End Plate Assy Rt (**AR**)	Qty 1
CD1382GA Sieve Ext Sensor Cross Member (**B**)	Qty 1
CD1314GL Sieve Ext Front Tab Lt (**CL**)	Qty 1
CD1314GR Sieve Ext Front Tab Rt (**CR**)	Qty 1
OEM Loss Sensor (**D**)	Qty 4
CD1383GA Sieve Ext Bottom Pan Assy (**E**)	Qty 1
CD1375GAL Sieve Ext Support Bracket Lt (**FL**)	Qty 1
CD1375GAR Sieve Ext Support Bracket Rt (**FR**)	Qty 1
CD1374GA Sieve Extension Cap Assy (**G**)	Qty 1
CD1428G Sawtooth Plate (**H**)	Qty 4
CD1306S Bag Hdw SC1316GA Mount	Qty 1
CD1428S Bag Hdw SC1428G Mount	Qty 1
CD1382S Bag Hdw SC1382GA Mount	Qty 1
CD1374S Bag Hdw SC1374GA Mount	Qty 1
CD1314S Bag Hdw SC1314GA Mount	Qty 1



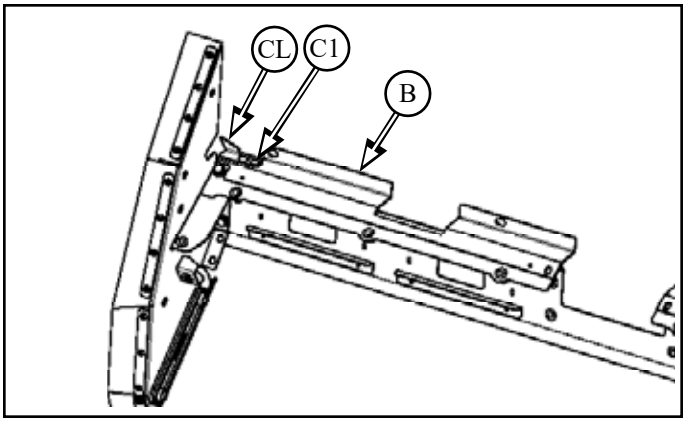
To assist in assembly, it is recommended not to tighten hardware until completely assembled

3.6.1 Install seive extension sensor cross member (**B**) to sieve extension end plates (**AL** & **AR**), with:
- M8 x 20 flange head bolt (**B1**) x6

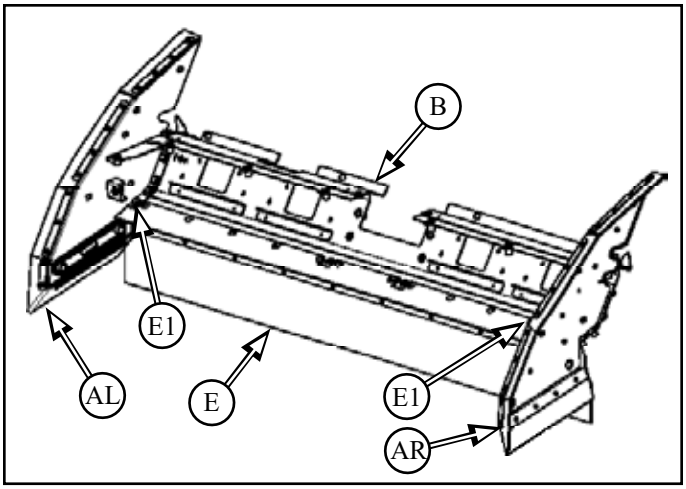


3.6.2 Install left seive extension front tab (**CL**) to sieve extension cross member (**B**), with:
- M6 x 16 flange head bolt and flange nut (**C1**) x2

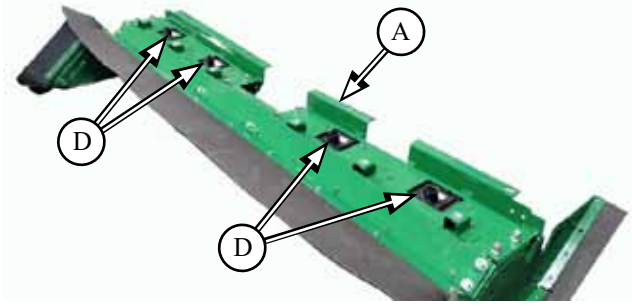
3.6.2.1 Repeat for right side

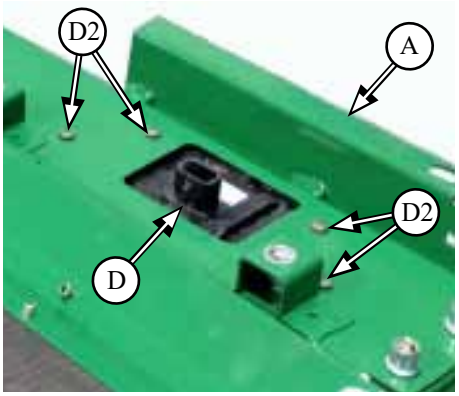


3.6.3 Install seive extension bottom pan assembly (**E**) to sieve extension cross member (**B**) and to end plates (**AL** & **AR**), with:
- M8 x 20 flange head bolt (**E1**) x4

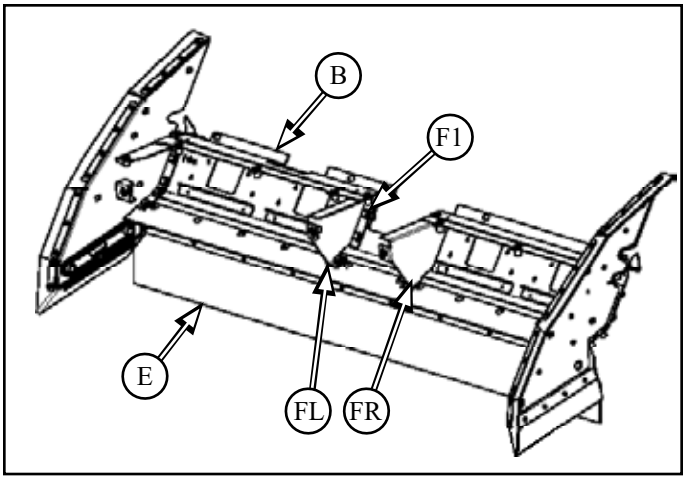


3.6.4 Install OEM loss sensor (**D**) x4 to sieve extension (**A**), with:
- reuse mount hardware (**D2**)
- tighten all loss sensor mount hardware (**D2**)

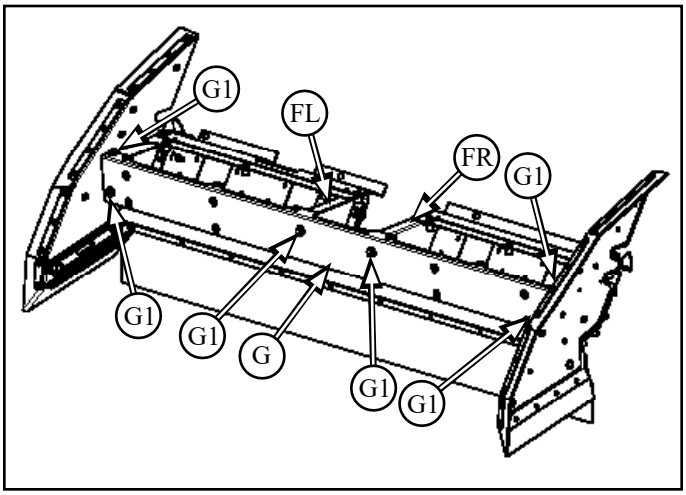




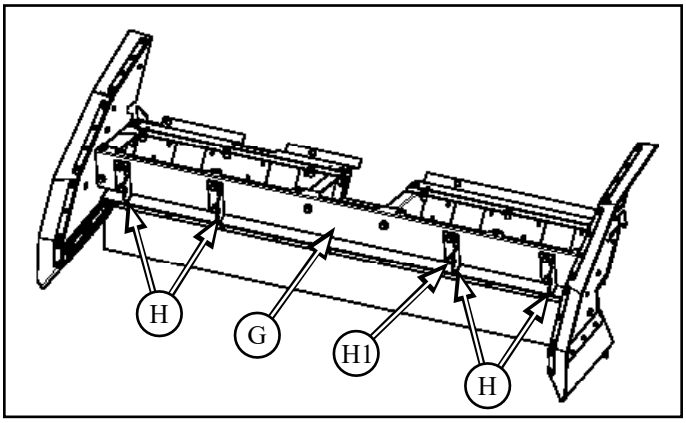
3.6.5 Install Sieve Ext Support Brackets (**FL** & **FR**) to seive extension sensor cross member (**B**) and bottom pan assembly (**E**), with:
- M8 x 20 flange head bolt (**F1**) x6



3.6.6 Install seive extension cap (**G**) to sieve extension support brackets (**FL** & **FR**) and side plates, with:
- M8 x 20 flange head bolt (**G1**) x6

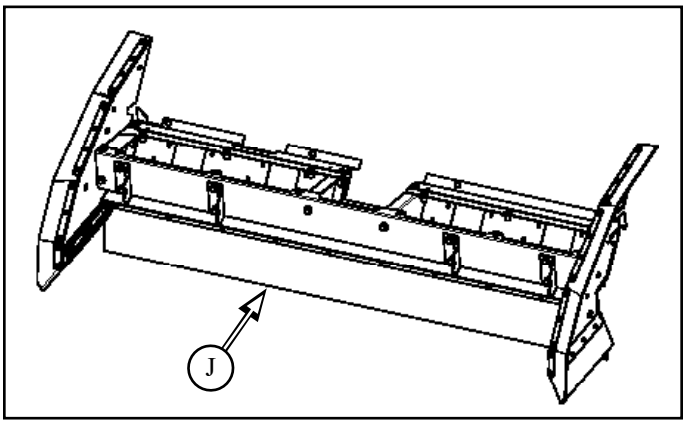


3.6.7 Install sawtooth plate (**H**) x4 to sieve extension cap (**G**), with:
- M8 x 20 flange head bolt (**H1**) x8

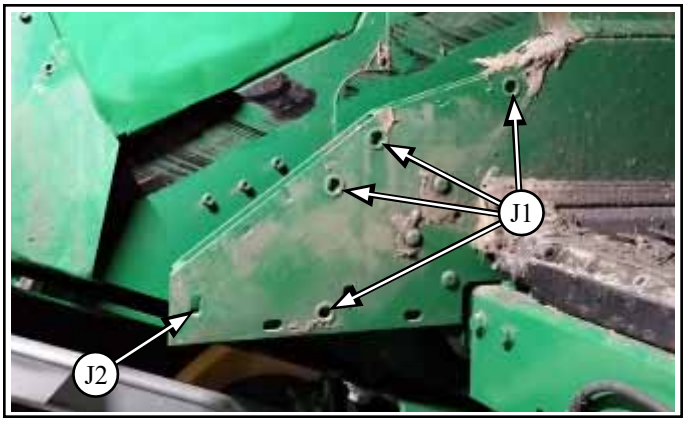


3.6.8 Tighten all hardware

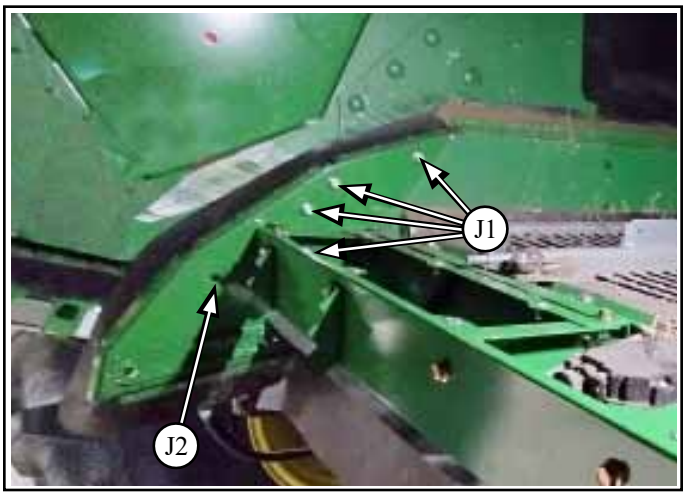
3.6.9 Complete new sieve extension assembly (**J**)



3.6.10 Sieve extension assembly (**J**) to be installed to side plates inside rear of combine at holes (**J1** & **J2**)
- both sides

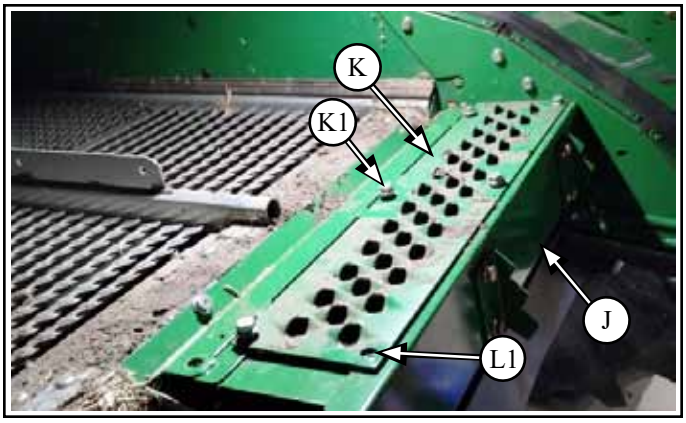


3.6.10.1 Install Sieve extension assembly (**J**) to side plates - both sides, with:
- M8 x 20 flange head bolt (**J1**) x8
- M8 x 16 round head bolt and flange nut (**J2**) x2



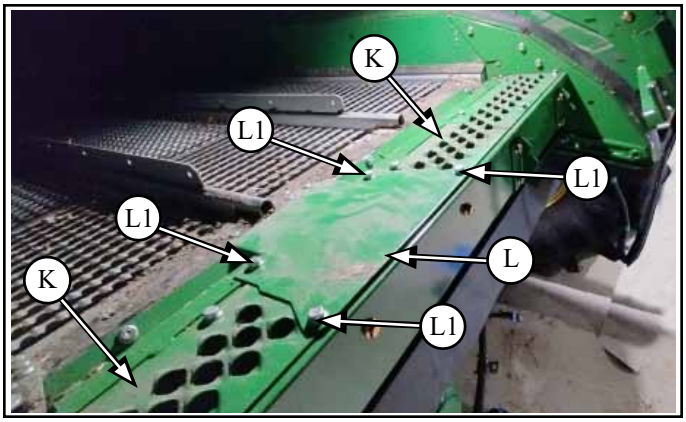
3.6.11 Install end cover plate (**K**) to top of sieve extension (**J**), with:
- reuse mounting hardware (**K1**) x5
- do not install hardware in (**L1**) until next step
- do not tighten hardware at this time
- if the holes are not aligning, try turning the part until they do, it is not symetrical

3.6.11.1 Repeat for other side

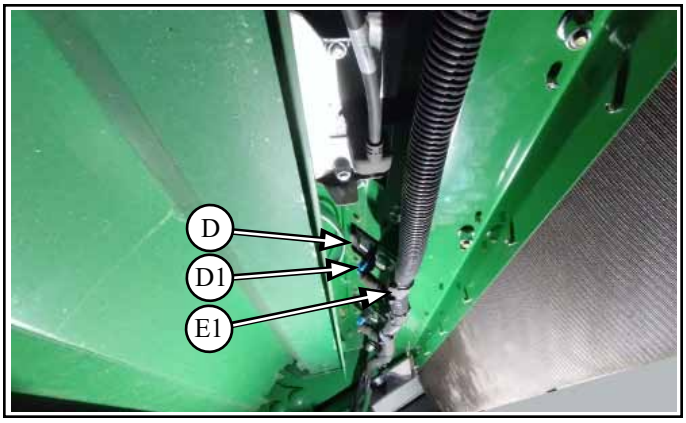


3.6.11.2 Install center cover plate (**L**) to top of sieve extension (**J**) overlapping end cover plates (**K**) , with:
- reuse mounting hardware (**L1**) x4
- do not tighten hardware at this time

3.6.11.3 Tighten all hardware



3.6.12 Connect all grain loss sensor (**D**) plugs (**D1**) underneath sieve extension



3.6.12.1 Secure grain loss sensor harness in place with:
- reuse P Clips (**E**)

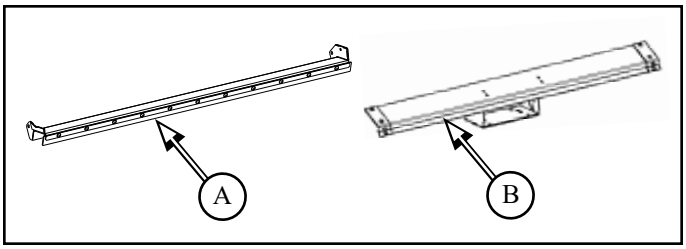
3.6.12.2 Connect ground wire (**D3**)

3.7 Chopper and SCU Sealing Plates Installation

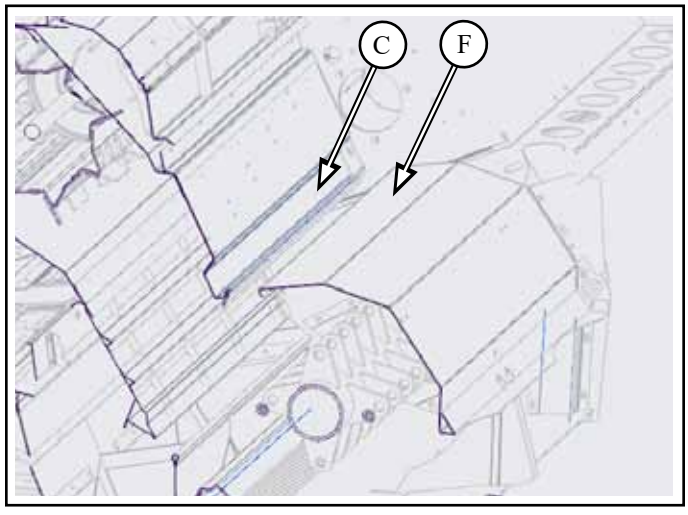
Parts List:
Parts located in SC1366SB crate

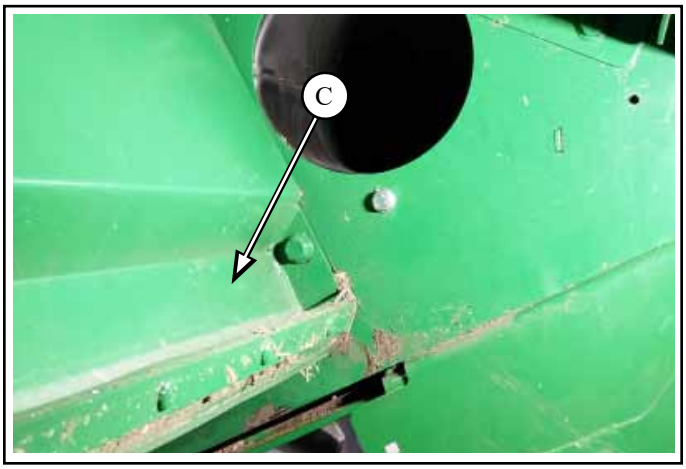
CD1434GA	Chopper Filler Plate Assy (**A**)	Qty 1
CD1369GA	Front SCU Seat Transition (**B**)	Qty 1

CD1369S Hardware Bag

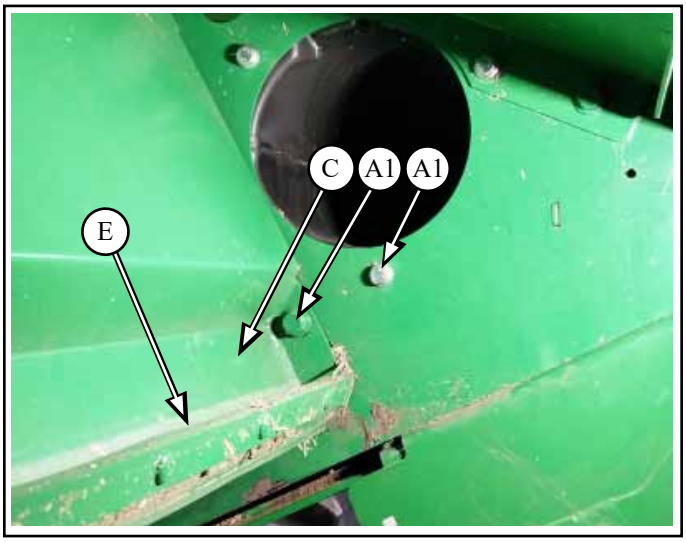


3.7.1 Chopper filler plate assembly (**A**) to be installed into bottom lip of straw hood (**C**) to span the gap created from the new raised chopper position between the straw hood (**C**) and chopper hood (**F**)



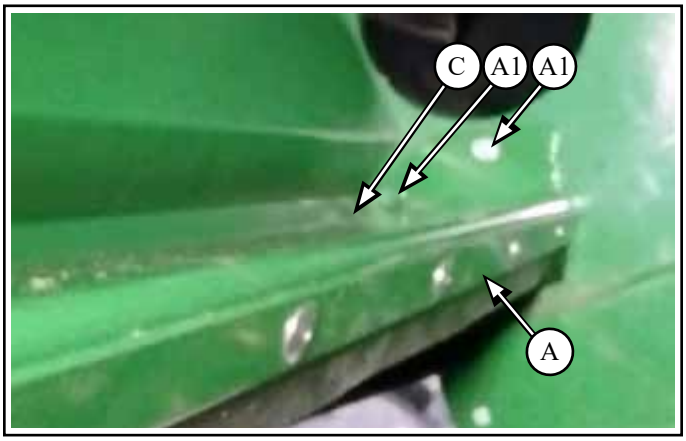


3.7.2 Chopper filler plate assembly (**A**) to be installed into bottom lip of straw hood (**C**)
- remove and reuse mounting hardware (**A1**) x3
  - 2 shown on right side, 1 on left side not shown



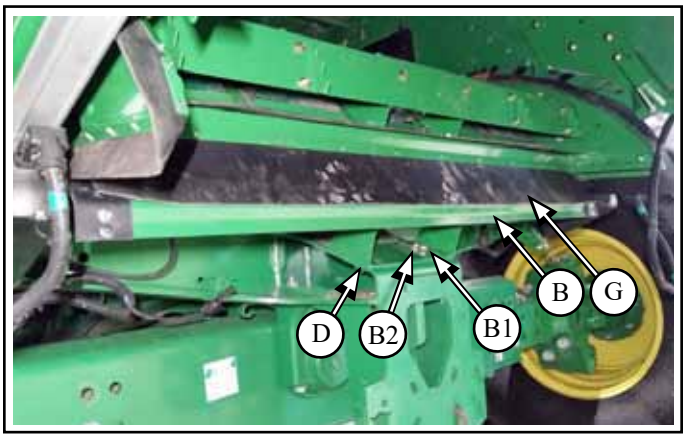
3.7.2.1 Clean out any material present in this area (**E**) before installing

3.7.2.2 Install chopper filler plate assembly (**A**) into bottom lip of straw hood (**C**) with slots around rivets in bottom, with:
- reuse mounting hardware (**A1**) x3



3.7.3 Install front SCU seat transition plate (**B**) to top of hitch plate (**D**), with:
- M8 x 30 flange head bolt and flange nut (**B1**) x2
- M10 x 30 flange head bolt and flange nut (**B2**) x2

3.7.3.1 Ensure sieve extension belting (**G**) is over top of transition plate (**B**)

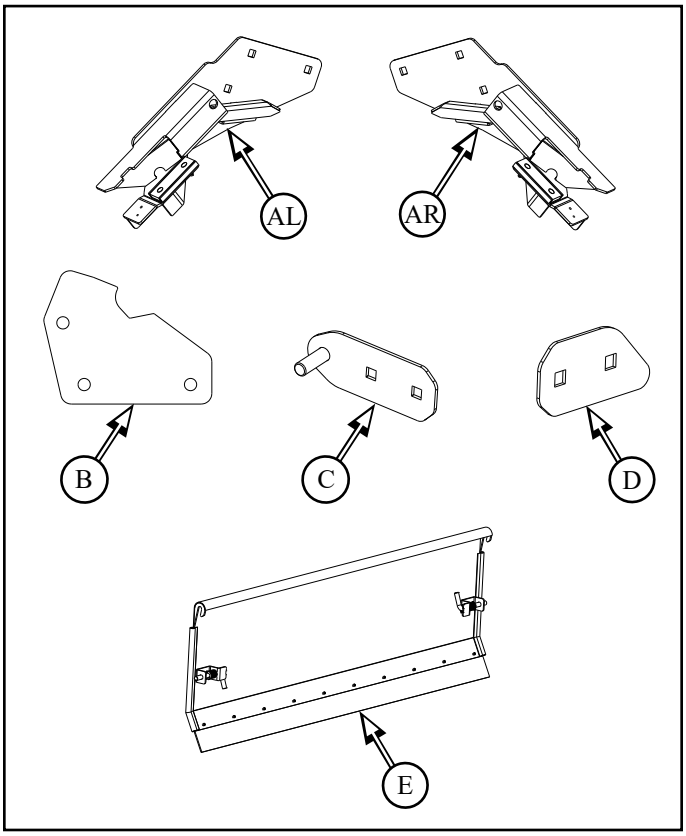


3.8 Divider Panel Installation

Parts List:
Parts located in SC133SB crate & SC1440SB box

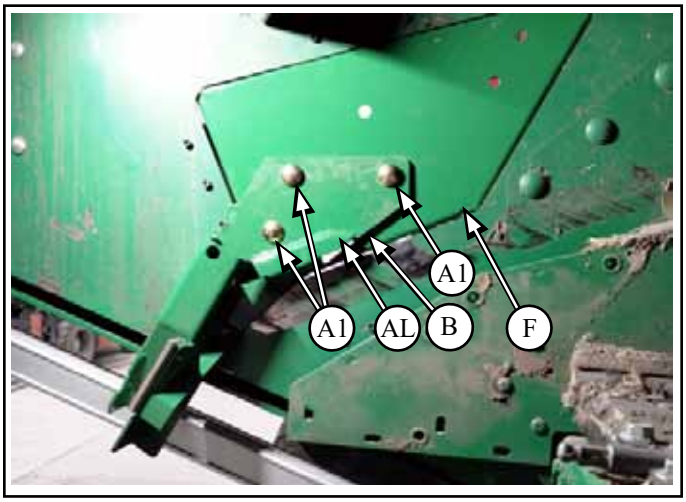
CD1337GAL	Magnet Door Catch Left (**AL**)	Qty 1
CD1337GAR	Magnet Door Catch Right (**AR**)	Qty 1
CD1338G	Shim Vent Cover (**B**)	Qty 2
CD1458G	Chaff Divider Mount Pin (**C**)	Qty 2
CD1457G	Chaff Divider Spacer Plate (**D**)	Qty 2
CD1417GA	Chaff Divider Panel (**E**)	Qty 1

CD1337S Hardware Bag
CD1458S Hardware Bag



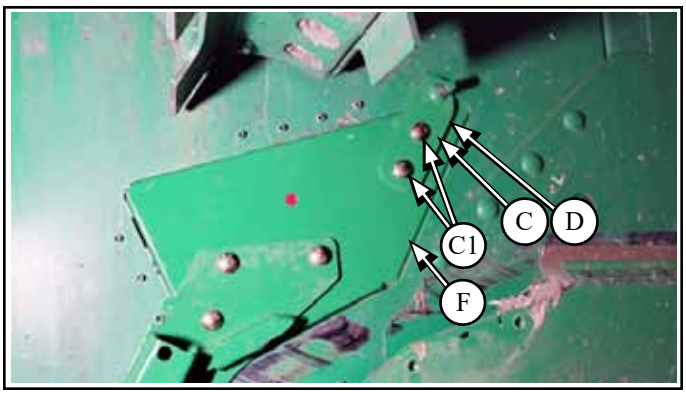
3.8.1 Install left magnet door catch (**AL**) with shim (**B**) to inside of vent cover plate (**F**), with:
- M10 x 25 round head bolt and flange nut (**A1**) x3
- ensure shim (**B**) is between door catch (**AL**) and cover plate (**F**)

3.8.1.1 Repeat for right side

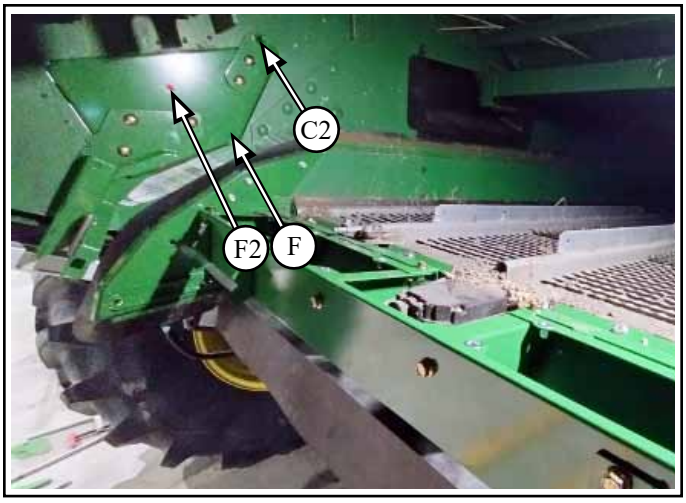


3.8.2 Install chaff divider mount pin (**C**) with shim (**D**) to left inside of vent cover plate (**F**), with:
- M10 x 25 round head bolt and flange nut (**C1**) x2
- ensure shim (**D**) is between door catch (**C**) and cover plate (**F**)

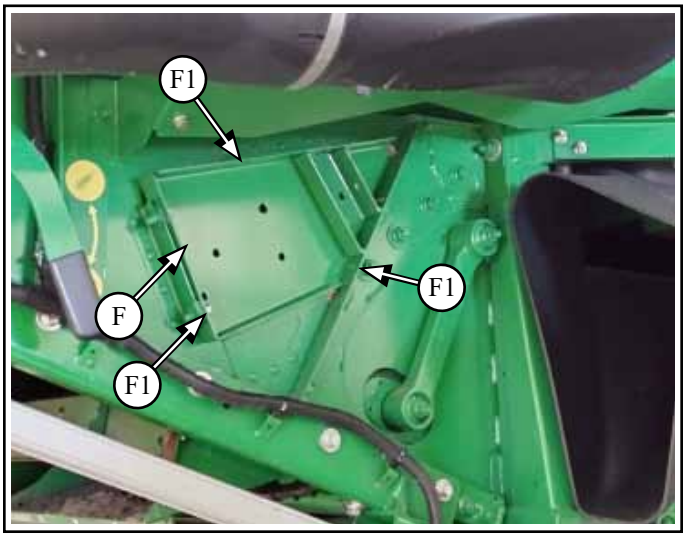
3.8.2.1 Repeat for right side

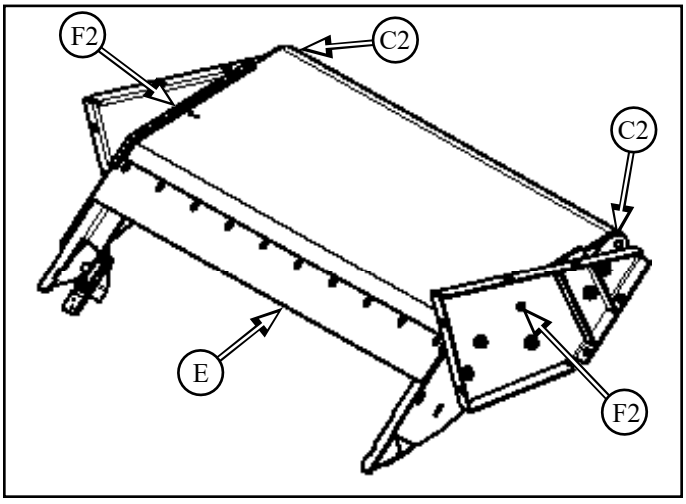


3.8.3 Chaff divider panel (**E**) to be installed onto mount pin (**C2**) and pin to lock into hole (**F2**) in cover plate (**F**) - both sides



3.8.4 Tighten vent cover (**F**) mount hardware (**F1**) x6 that was left loose in step 1.11.1.3 - both sides





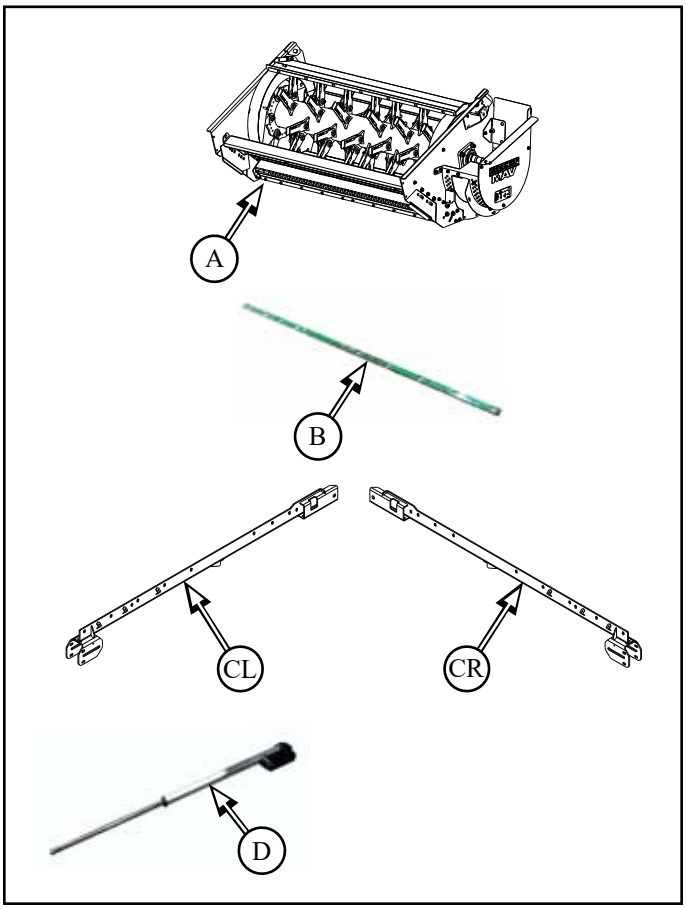
4 MAV Chopper Installation

4.1 MAV Chopper Installation

Parts List:
Parts located in SC1369SB crate and OEM Chopper

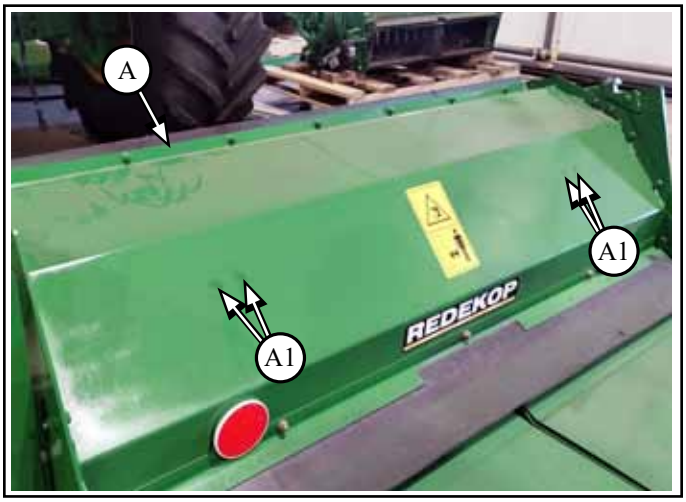
CD1510GA	S7 MAV Chopper (**A**)	Qty 1
	OEM Spacer Plate (**B**)	Qty 2
CD1516GL	Chopper Slide Rail - Left (**CL**)	Qty 1
CD1516GR	Chopper Slide Rail - Right (**CR**)	Qty 1
	OEM Chopper Actuator (**D**)	Qty 2
CD1505GA	Floor, MAV SCU JD S7 (**J**)	Qty 1

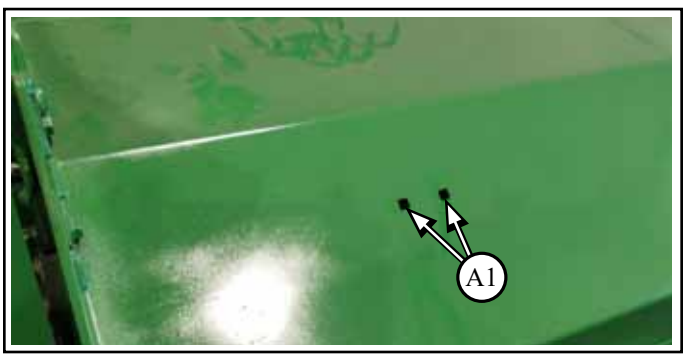
OEM Slide Rail Mount Hardware - reused
CD1510S Hardware Bag (located in CD1512S w/Chopper)



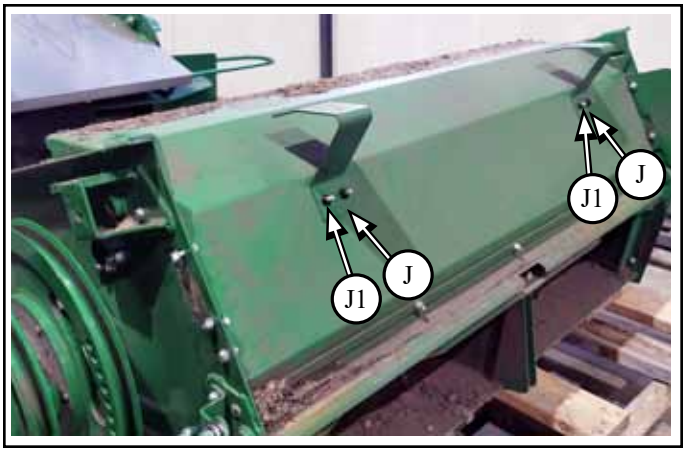
4.1.1 OEM Deflector Bracket Relocation (if machine is equipped with chop to drop door)

4.1.1.1 With a punch and hammer, tap out knockout tabs (**A1**) x4 on top of new chopper (**A**) roof panel





4.1.1.2 Remove deflector brackets (**J**) x2 from OEM chopper roof panel
- bracket (**J**) x2 and mounting hardware (**J1**) x4 to be installed on new chopper

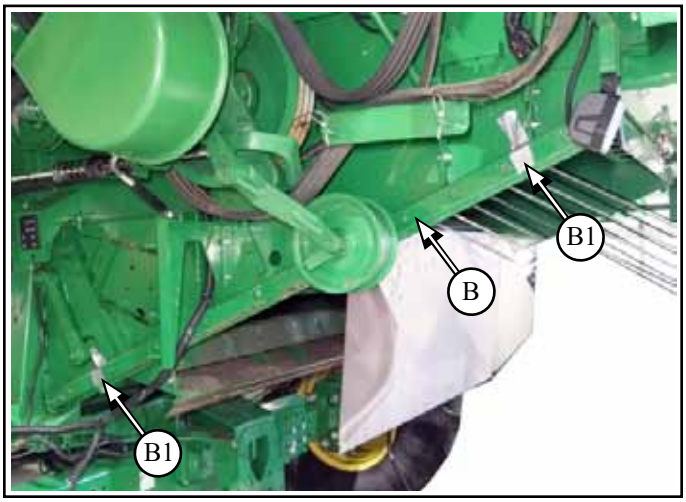


4.1.1.3 To allow actuators to move for chopper installation, see section 6.8 Changing Monitor to Chopper Service Mode. This is recommended to aid in chopper reinstallation.

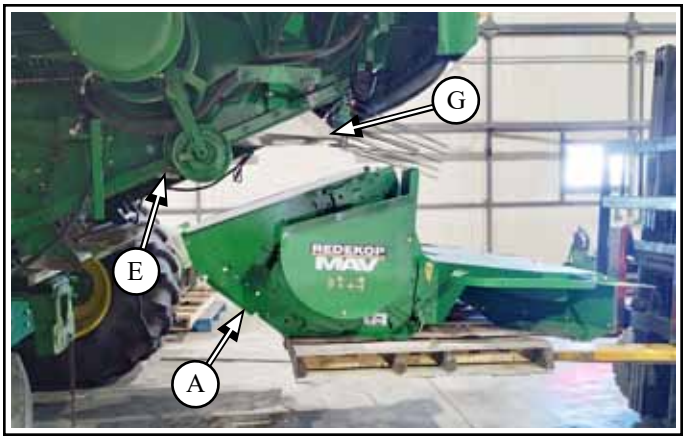
4.1.2 MAV Chopper Installation

4.1.2.1 Install OEM spacer plate (**B**) to left chopper mounting rail, with:
- hold in place with tape (**B1**) x2

4.1.2.2 Repeat for right side



4.1.2.3 Align MAV chopper (**A**) underneath rear of combine to mounting rails (**E**)
- ensure windrow chute (**G**) does not bind when chopper is raised if equipped on combine



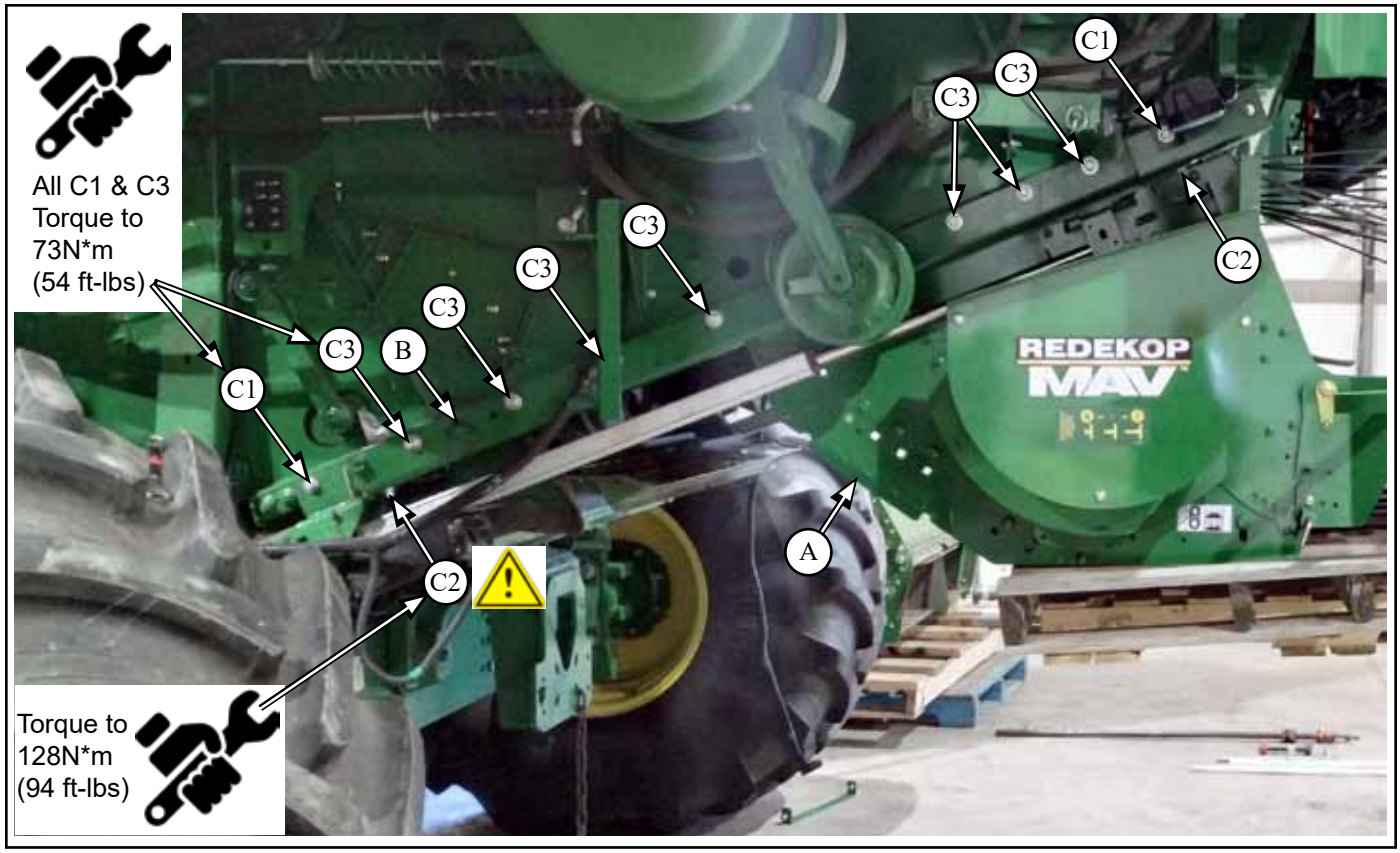
4.1.2.3.1 Raise MAV chopper (**A**) up tight to combine mounting rails (**E**)

4.1.2.3.2 Install chopper slide rail (**CL**) under the plastic guide (**A1**) and mounting rail (**E**) of combine side wall. Ensure the spacer plate (**B**) is between slide rail (**CL**) and mounting rail (**E**).

Important to install slide rail mount hardware as directed below
- bolts C2 can be slightly threaded in prior to installing rail

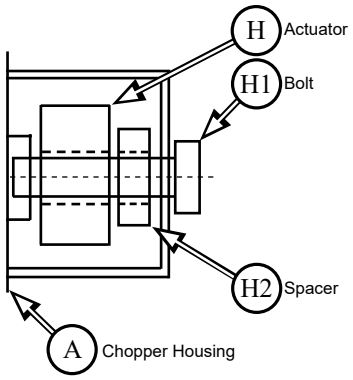
Fasten with existing flatwashers and bolt hardware in the following order:
- C1 tighten by hand
- C2 tighten to specification (128N*m / 94ft-lb) - ensure rail is pulled tight against frame
- C3 tighten by hand
- Verify that the chopper rail is flush to the side sheet
  - if spacer plate has fallen out of position it can create a gap which has to be corrected
- Tighten all hardware to specificaton (73N*m / 54ft-lb)

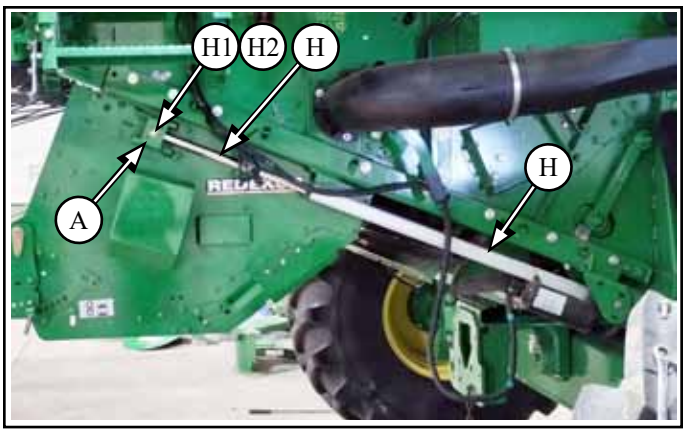
4.1.2.3.3 Repeat for right side



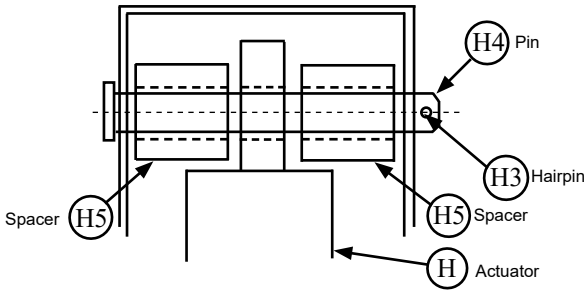
4.1.2 Actuator Reinstallation

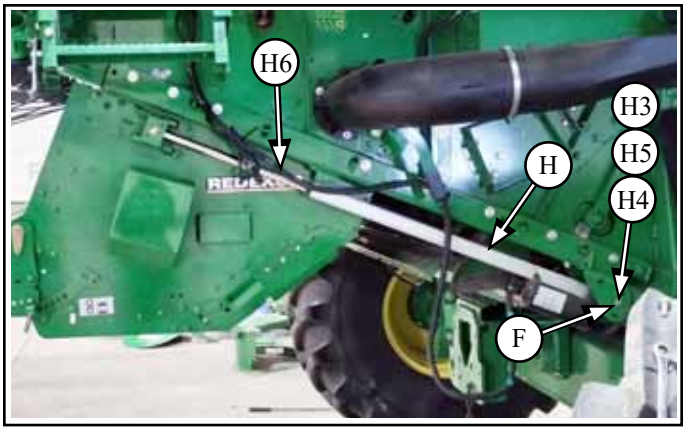
4.1.2.1 Attach head of linear actuator (**H**) to chopper housing (**A**), with:
- M12 x 60 flange head bolt (**H1**) & spacer (**H2**)





4.1.2.2 Attach bottom of linear actuator (**H**) to middle hole of slide rail bracket (**F**), with:
- reuse existing pin (**H4**), spacer (**H5**) x2 & hairpin (**H3**)





4.1.2.2.1 Repeat steps 2.12.3.1 and 2.12.3.2 for other

4.1.2.3 Reconnect actuator harness connector (**H6**) to main harness

4.1.2.3.1 Repeat for other side

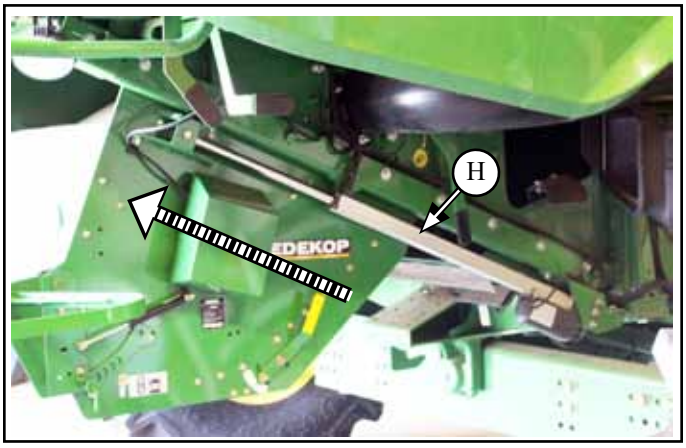
4.1.2.4 Connect actuator harness (**H6**) to main harness

Route and attach harness to ensure wire will not be pinched

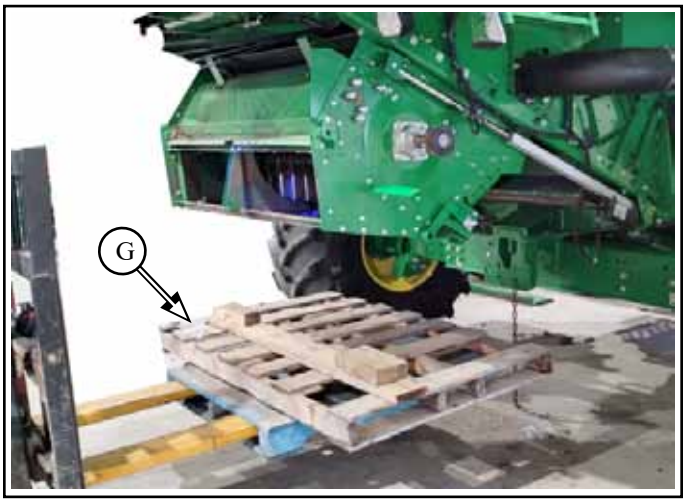
- both sides

4.1.2.5 Synchronize up the actuators (**H**) by fully extending the actuators (**H**) to run the chopper all the way up/rearward

- do not move chopper forward before syncing up actuators
- ensure inside of rails are clear of chaff and debris



4.1.2.6 Lower supporting pallet (**G**)



4.1.2.7 For ease of SCU installation, it is recommended to install the SCU prior to tailboard installaion

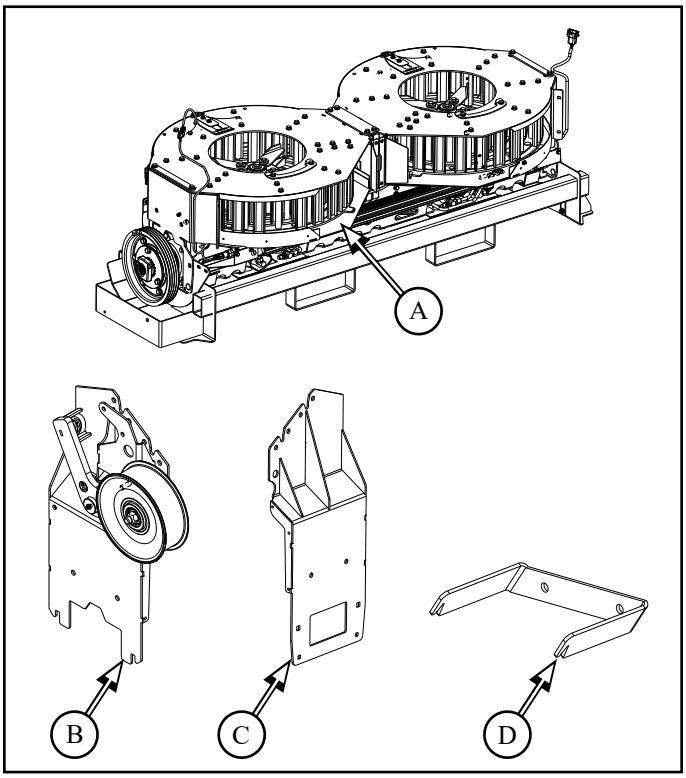
5 SCU Installation

5.1 SCU Installation

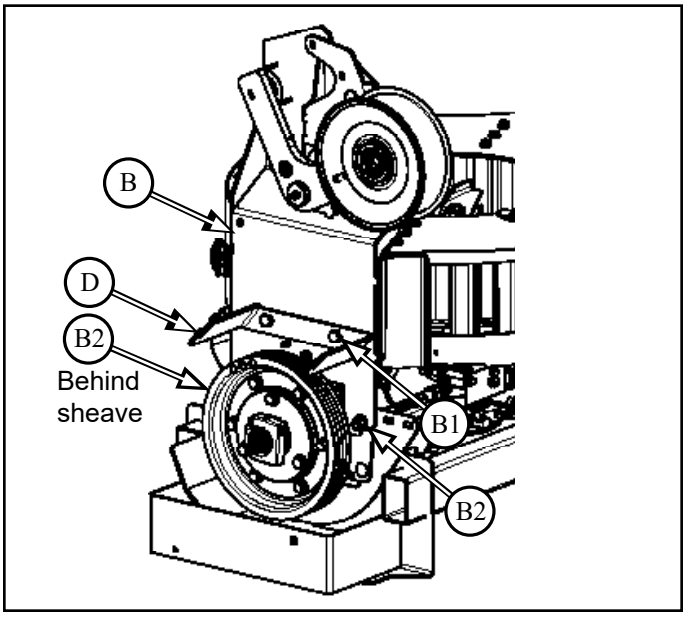
Parts List:
Parts located in SC1366SB crate & SC1441SB box

SC1360GA	SCU (**A**)	Qty 1
SC1445GAL	SCU Mount Plate - Left (**B**)	Qty 1
SC1255GR	SCU Mount Plate - Right (**C**)	Qty 1
SC1273G	Shield Mount Bracket (**D**)	Qty 1

SC1255S Hardware Bag
SC1360S Hardware Bag

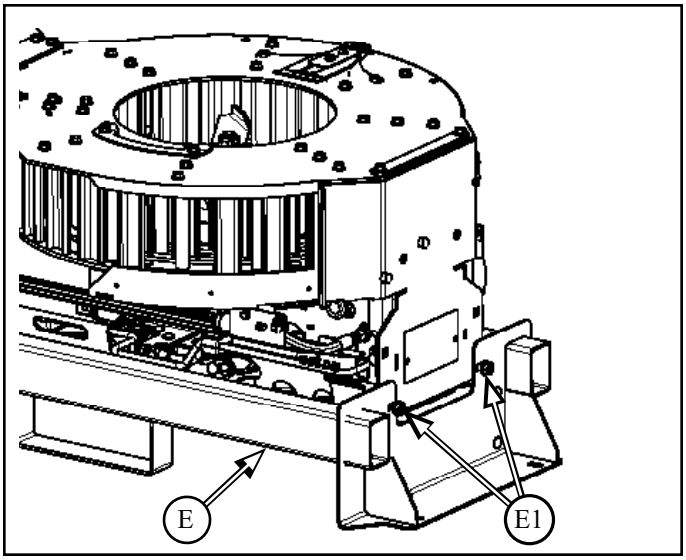


5.1.1 Install left SCU mount plate (**B**) and shield mount bracket (**D**) to left side of SCU, with:
- M12 x 25 flange head bolt (**B1**) x2
- M12 x 25 round head bolt and flange nut (**B2**) x2

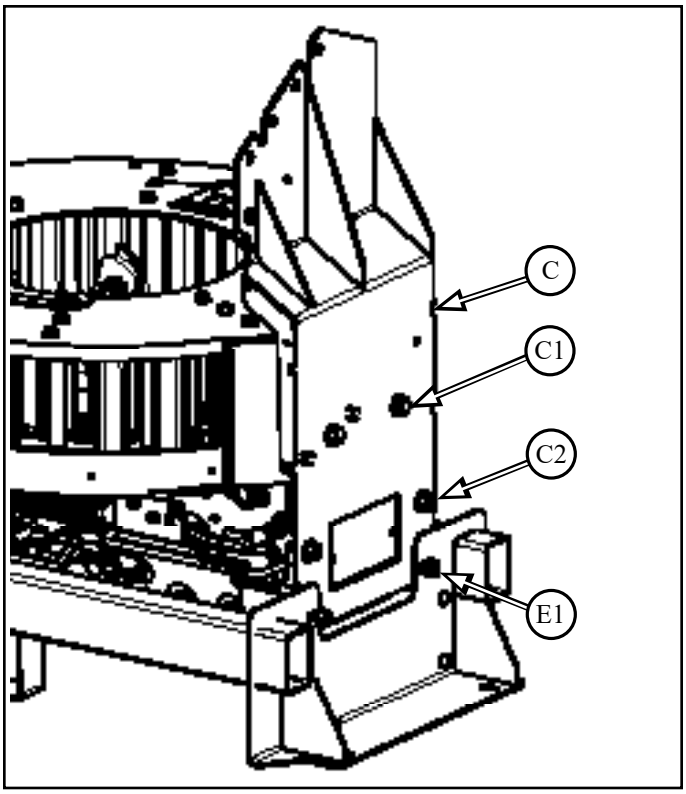


5.1.2 Install right SCU mount plate (**C**)

5.1.2.1 Remove top service frame (**E**) mounting hardware (**E1**) x2 on right side



5.1.2.2 Install right sideplate (**C**) to right side of SCU, with:
- M12 x 25 flange head bolt (**C1**) x2
- M12 x 25 round head bolt and flange nut (**C2**) x2
- reuse mount hardware (**E1**) x2

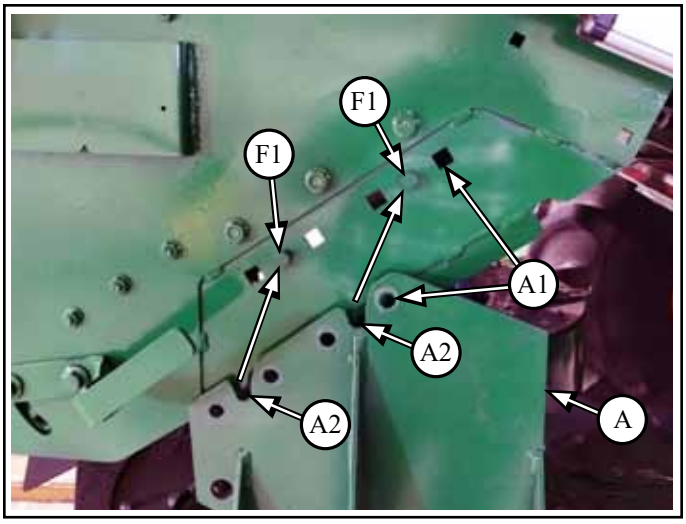


5.1.3 Keep SCU (**A**) mounted to service frame (**E**) during installation

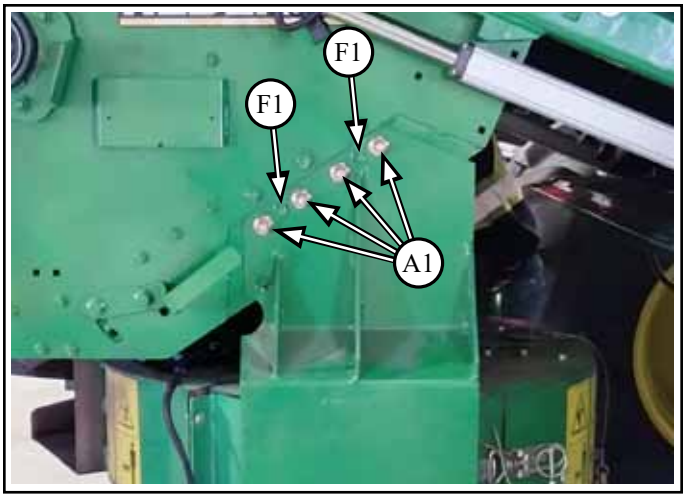
5.1.4 Move straw chopper (**F**) up to its rear most position

5.1.4.1 Install harness loop as per section 6.8 in order to operate actuators without tailboard installed

5.1.5 Lift SCU (**A**) up and align slots (**A2**) on side mount plates with the mounting pins (**F1**) to position SCU and align mounting holes (**A1**) x4

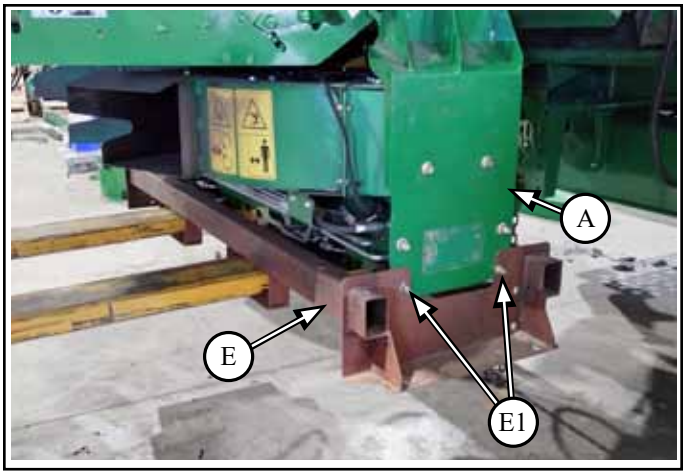


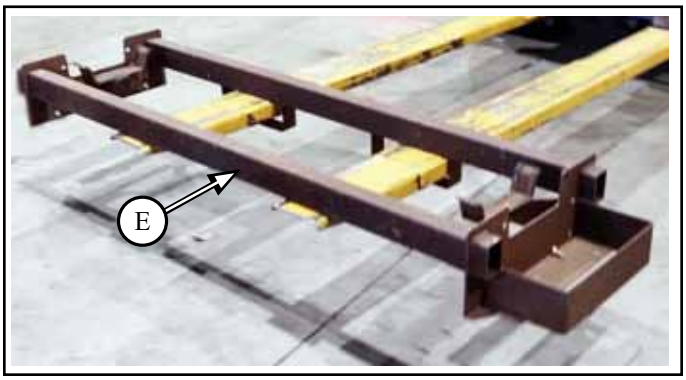
5.1.5.1 Secure in place, with:
- M12 x 35 round head bolt and flange nut (**A1**) x4 each side
- heads of bolts to be on inside



5.1.6 Remove service frame (**E**) from SCU
- it is recommended to install service frame mount hardware (**E1**) back into SCU frame for future use

5.1.6.1 Do not discard service frame (**E**), to be used for future removal of SCU for servicing

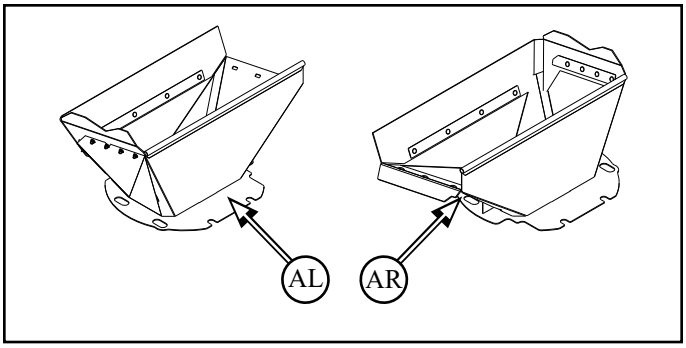




5.2 Hopper Inlet Installation

Parts List:
Parts located in SC1366SB crate

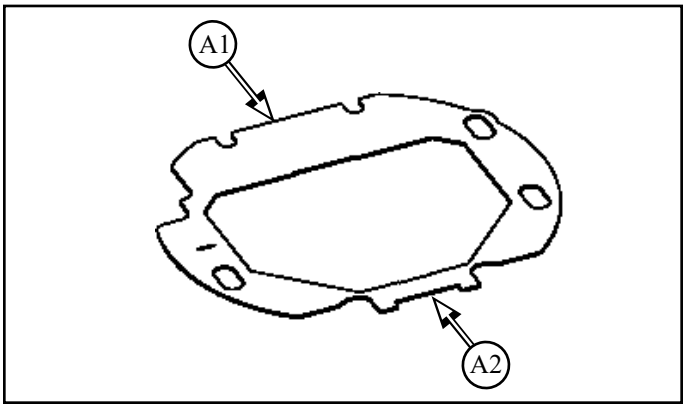
SC1258GAL	Hopper Inlet - Left (**AL**)	Qty 1
SC1258GAL	Hopper Inlet - Right (**AR**)	Qty 1

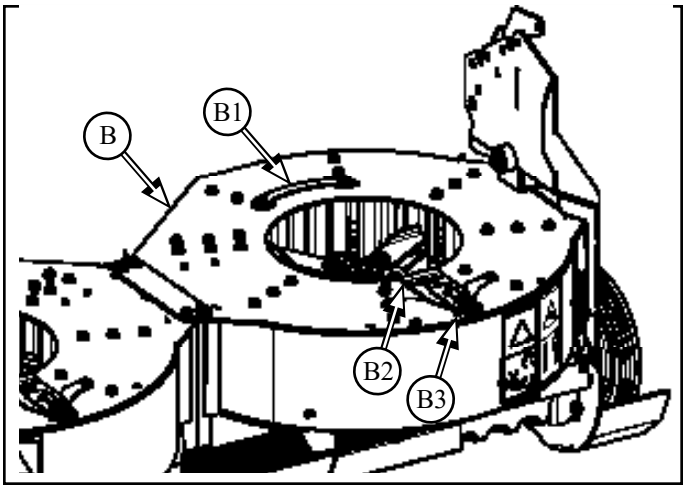


5.2.1 Rear (**A1**) of base plate of hopper inlets to be slid into plate (**B1**) on top of SCU (**B**)

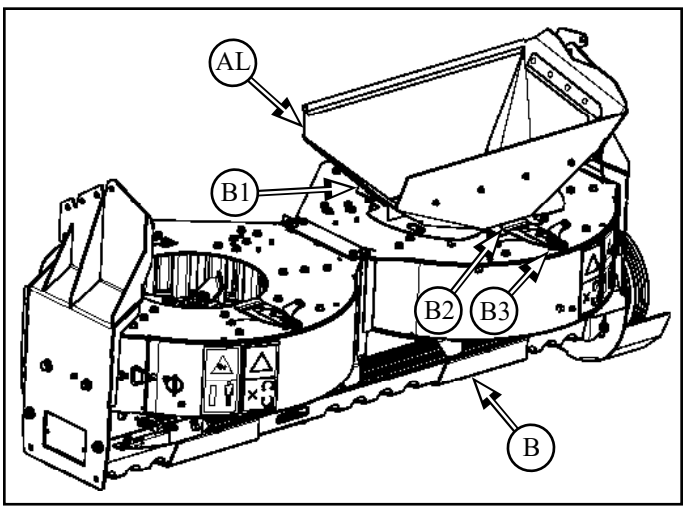
5.2.1.1 Front (**A2**) of base plate of hopper inlets to be slid under plate (**B2**) on top of SCU (**B**) and locked into place with pin (**B3**)

5.2.1.2 Both sides





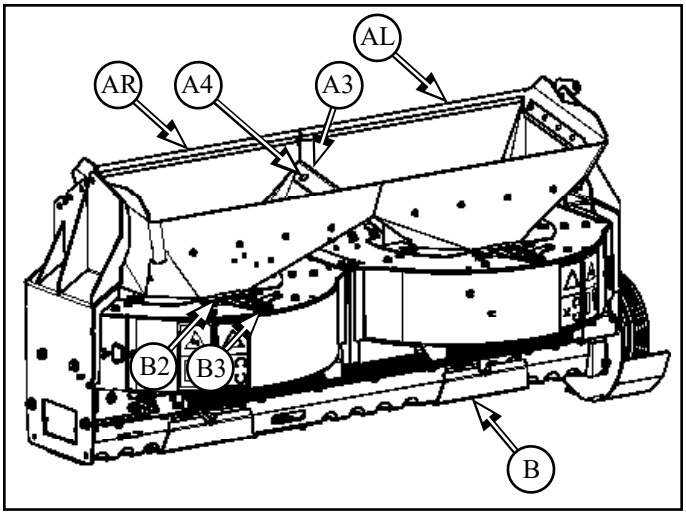
5.2.2 Install left hopper inlet (**AL**) to top left of SCU (**B**), with:
- slide into mounting bracets (**B1** & **B2**) and lock in place with pin (**B3**)



5.2.3 Install right hopper inlet (**AR**) to top right of SCU (**B**), with:
- slide into mounting bracets (**B1** & **B2**) and lock in place with pin (**B3**)

5.2.3.1 Ensure nose plate (**A3**) is overlapping and tight on left inlet

5.2.3.2 Adjust nose plate (**A3**) position if required, with:
- mounting hardware (**A4**) x3

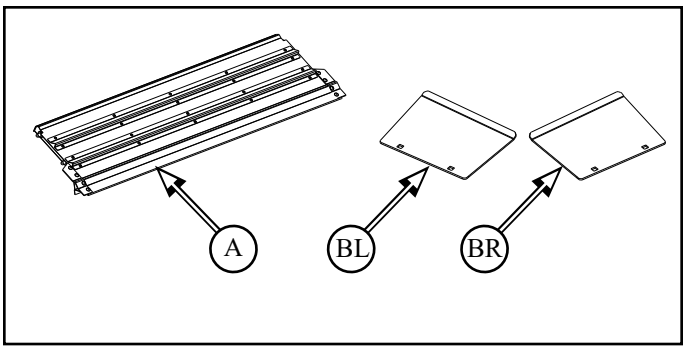


5.3 Sieve Extension Pan Assembly Installation

Parts List:
Parts located in SC1366SB crate & SC1440SB box

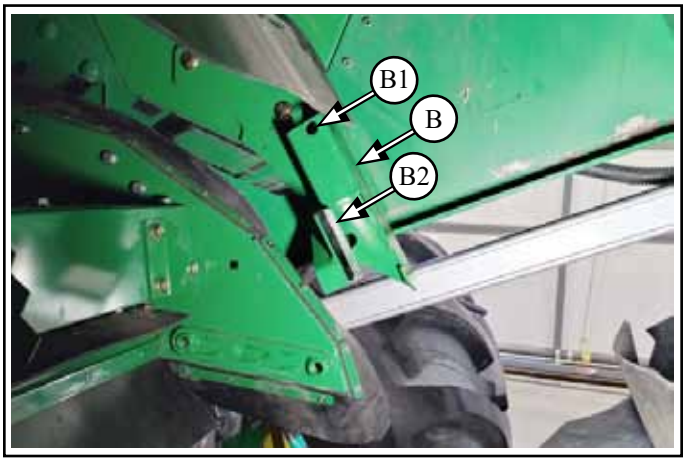
CD1427GA	Sieve Extension Pan Assy (**A**)	Qty 1
SC1267GL	Filler Plate - Left (**BL**)	Qty 1
SC1267GR	Filler Plate - Right (**BR**)	Qty 1

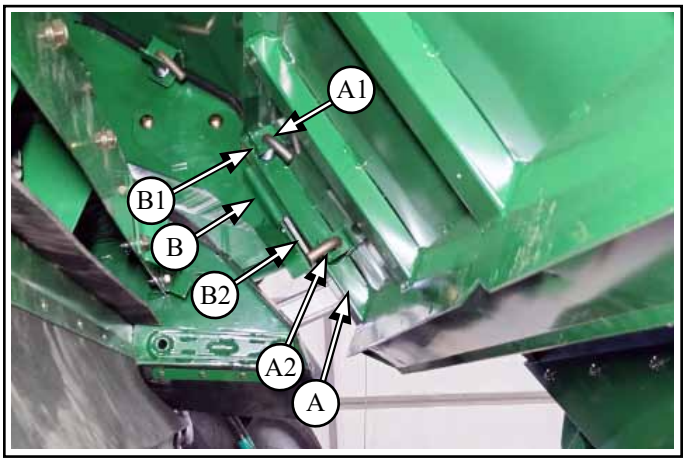
SC1267S Hardware Bag



5.3.1 Sieve extension pan (**A**) to be installed to magnet door catch bracket (**B**) with spring pin (**A1**) seated into top hole (**B1**) and frame seated onto magnet (**B2**)
- both sides

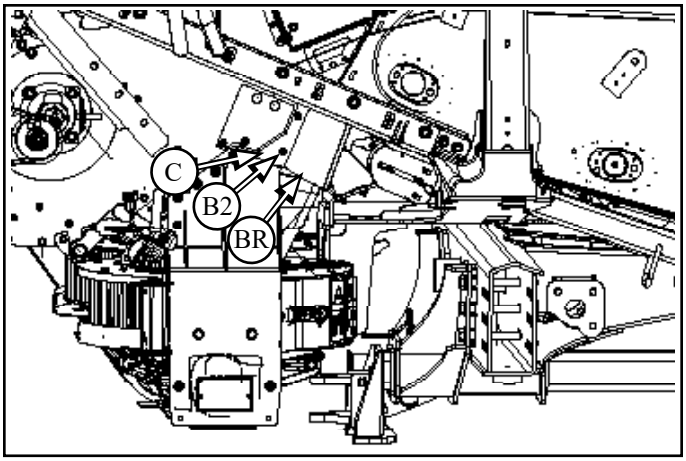
5.3.1.1 Second pin (**A2**) is required for by-pass mode only. In this position, there is no pin engagement position and can be left as is





5.3.2 Install right filler plate (**BR**) to inside of doubler plate (**C**) on chopper, with:
- M8 x 20 round head bolt and flange nut (**B2**) x2
- head of bolt on inside

5.3.2.1 Repeat for left side



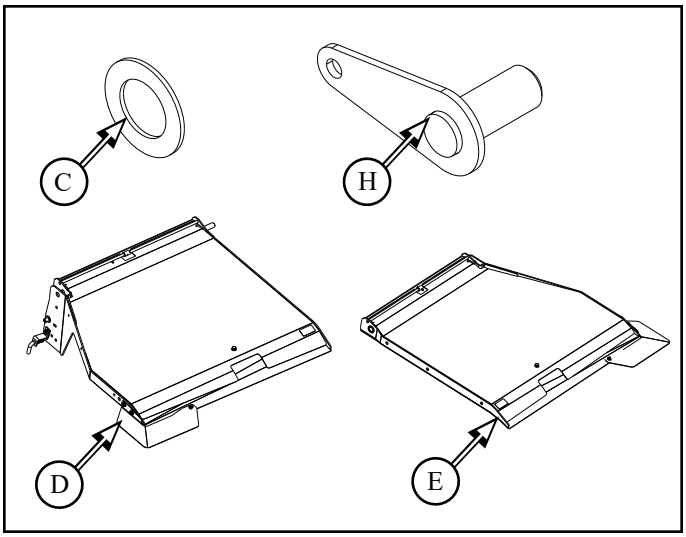
6 Tailboard Installation

6.1 Tailboard Installation

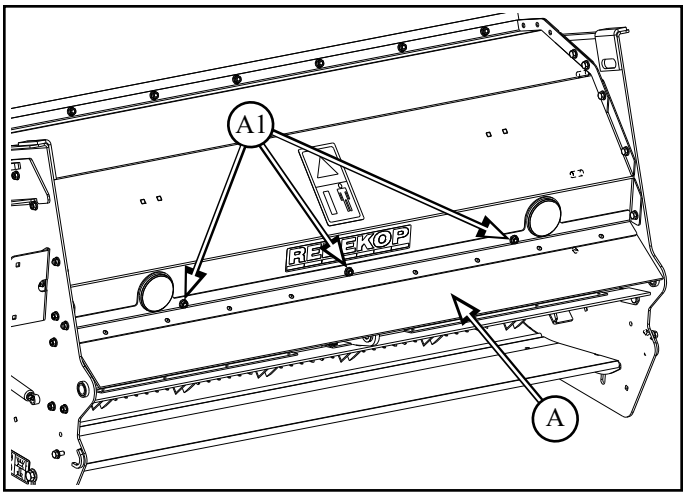
If short forks only available on the forklift for lifting, the tailboards may need to be installed after the choppper housing installation

Parts List:

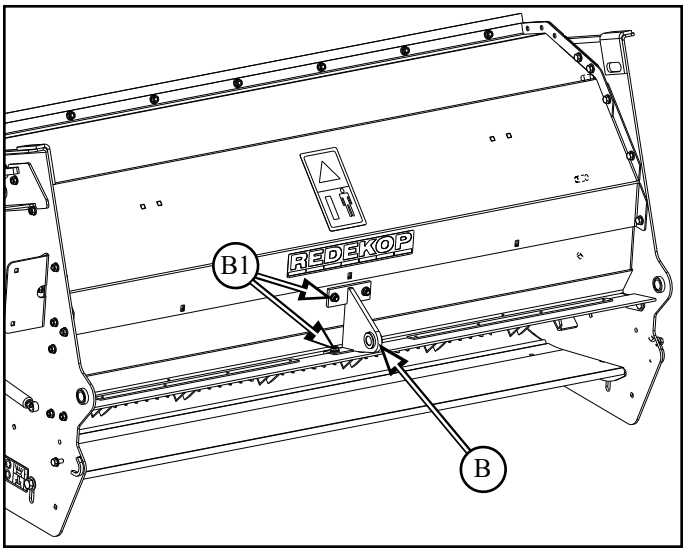
RP108	Machine Bushing .76 id x 1.25 od (**C**)	Qty 2
	- located in tailboard fin box hardware bag	
CC212Z	Pin Tailboard Pivot (**H**)	Qty 2
	Tailboard Lt (**D**)	Qty 1
	Tailboard Rt (**E**)	Qty 1



6.1.1 Remove top tailboard seal assembly (**A**) from rear of chopper
- seal assembly (**A**) and mount hardware (**A1**) to be reinstalled



6.1.2 Remove tailboard center mount bracket (**B**) from rear of chopper
- bracket (**B**) and mount hardware (**B1**) to be reinstalled

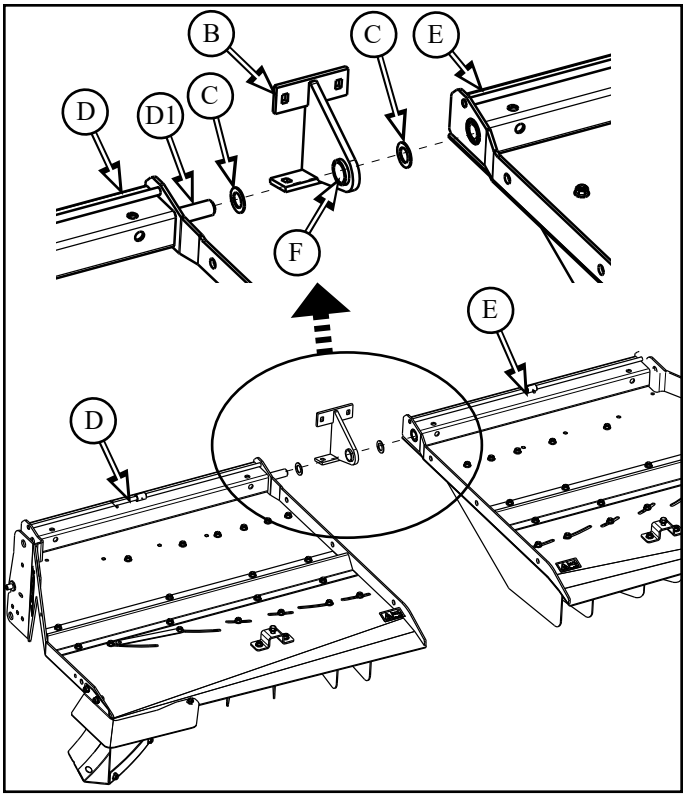


6.1.3 Slide machine bushing (**C**) onto left tailboard pin (**D1**)
- located in tailboard fin box hardware bag

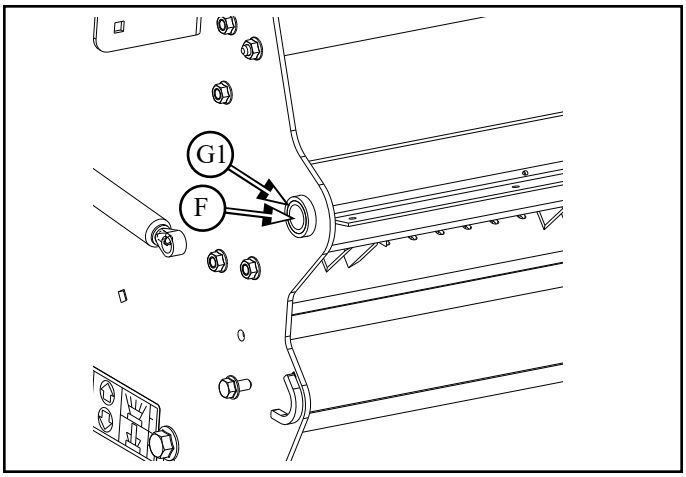
6.1.4 Slide tailboard mount bracket (**B**) onto tailboard pin (**D1**)
- ensure nylon bushing (**F**) is in hole of bracket (**B**)

6.1.5 Slide machine bushing (**C**) onto tailboard pin (**D1**)

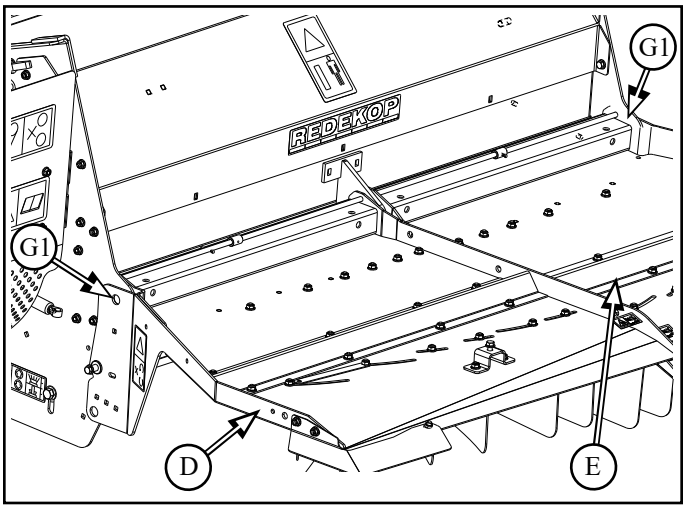
6.1.6 Slide right tailboard (**E**) onto tailboard pin (**D1**)



6.1.7 Ensure nylon bushing (**F**) is in chopper tailboard mount hole (**G1**), both sides

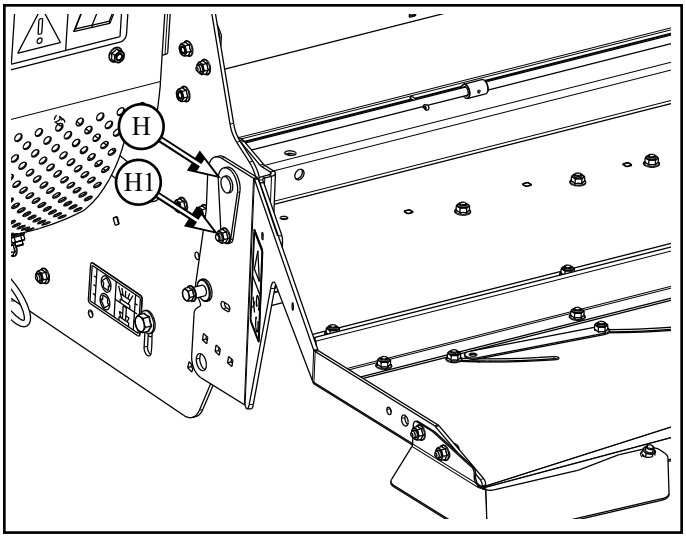


6.1.8 Lift tailboards (**D** & **E**) up into place on chopper
- align side holes of tailboard with mount holes (**G1**) on side wall of chopper

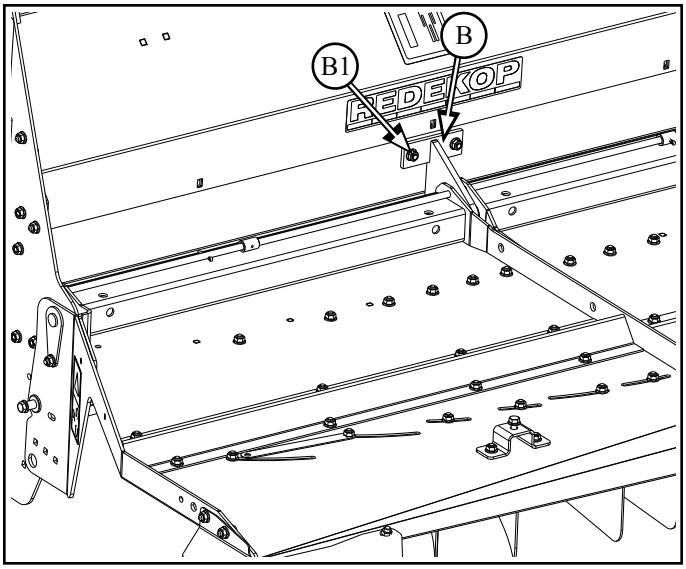


6.1.8.1 Secure tailboards into place, with
- pivot pin (**H**)
- both sides

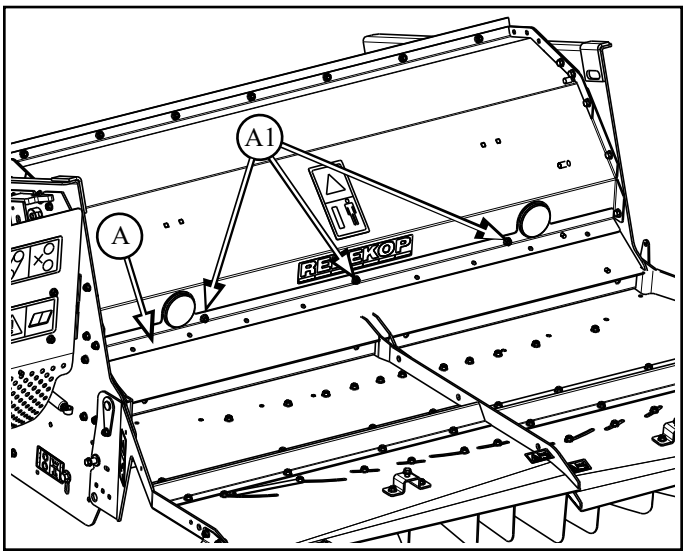
6.1.8.2 Secure pivot pin (**H**) in place, with:
- M8 x 20 round head bolt and flange nut (**H1**)
  - located in hardware bag with tailboard fins
- ensure head of bolt is on inside of tailboard
- repeat for other side



6.1.9 Fasten center tailboard mount bracket (**B**) to rear of chopper, with:
- reuse mount hardware (**B1**) x4



6.1.10 Reinstall top tailboard seal assembly (**A**) to chopper, with:
- reuse mount hardware (**A1**) x3

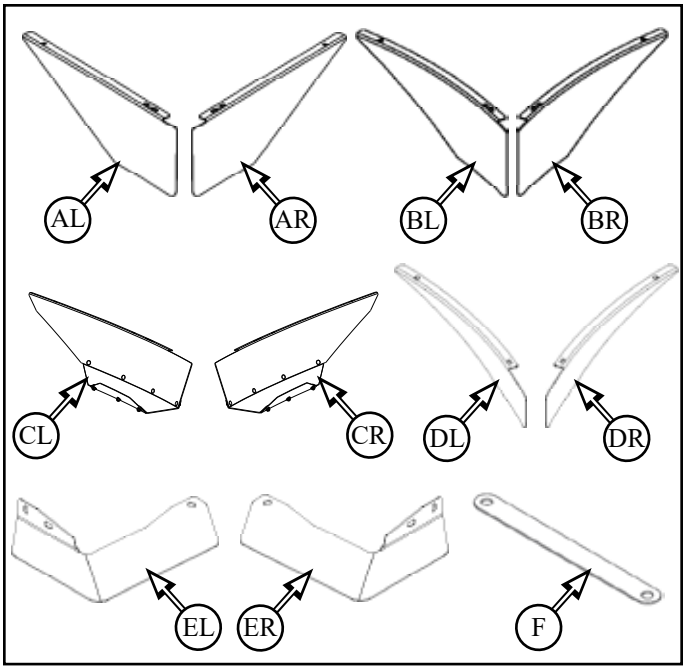


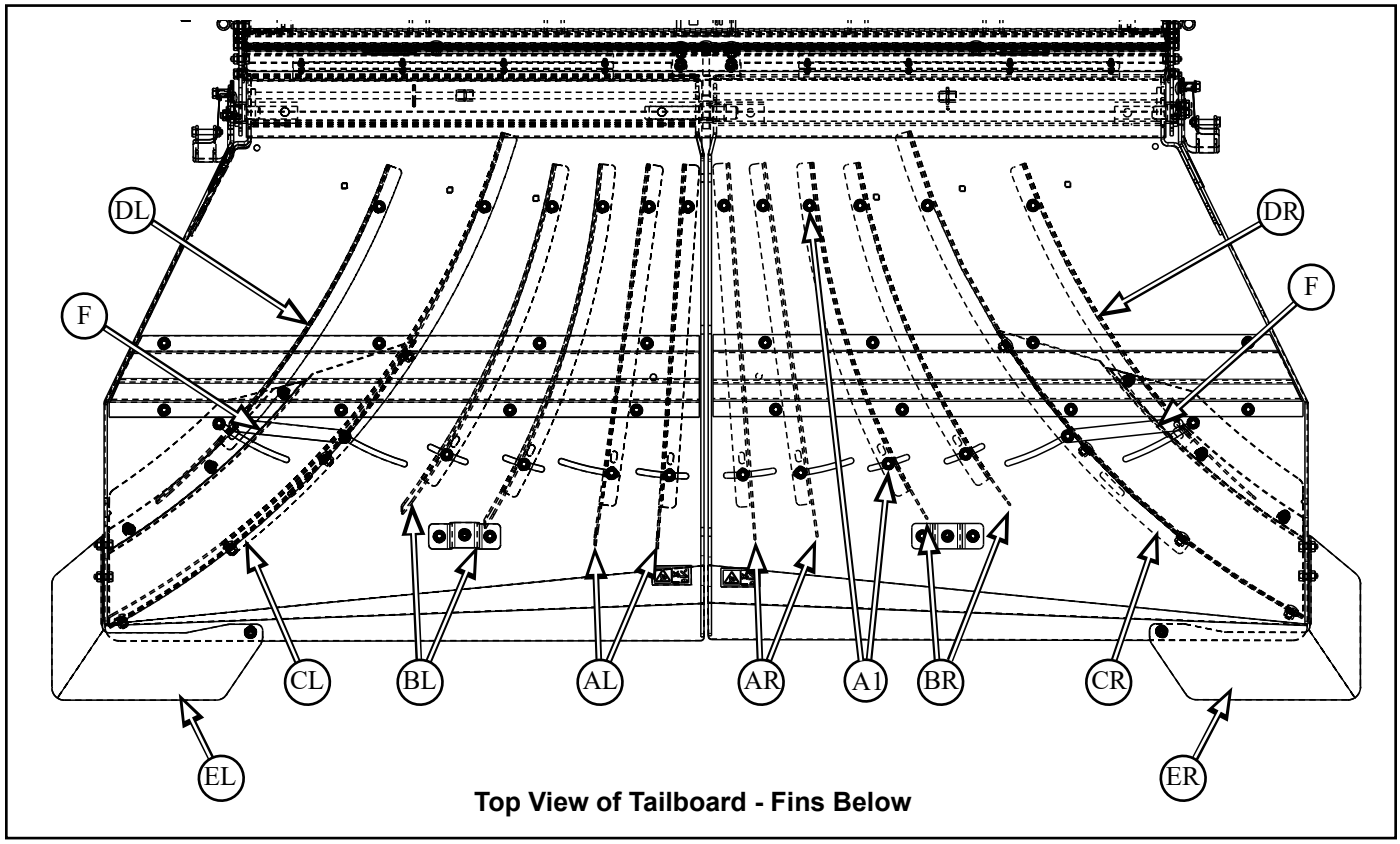
6.2 Tailboard Fin Installation

If Extra Wide Spread Kit is being installed, follow those instructions

Parts List:

CG116GL	Fin Straight 22L Lt (**AL**)	Qty 2
CG116GR	Fin Straight 22L Rt (**AR**)	Qty 2
CG120GL	Fin Curve 22L Lt (**BL**)	Qty 2
CG120GR	Fin Curve 22L Rt (**BR**)	Qty 2
CG237GAL	Fin Scooped Assy Lt (**CL**)	Qty 1
CG237GAR	Fin Scooped Assy Rt (**CL**)	Qty 1
CG761GL	Fin Curve 19L Lt (**DL**)	Qty 1
CG761GR	Fin Curve 19L Rt (**DR**)	Qty 1
CG478GL	Corner Extension Lt (**EL**)	Qty 1
CG478GR	Corner Extension Rt (**ER**)	Qty 1
CG733G	Connecting Link (**F**)	Qty 2





Top View of Tailboard - Fins Below

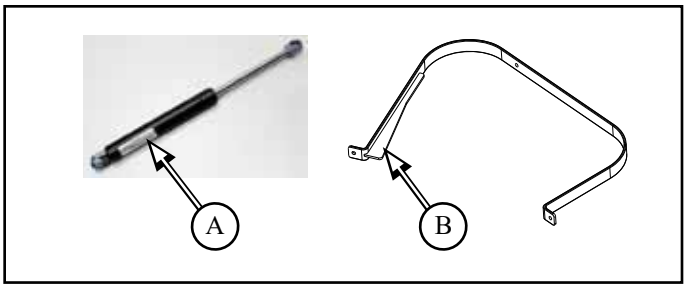
6.2.1 Install tailboard fins to underside of tailboards as shown, with:
- M8 x 16 round head bolt and flange nut (**A1**) x2 per fin
- ensure head of bolt is on bottom pointing up

6.2.2 Install connector link (**F**) to scooped fin and small curved fin (**D**) on top of tailboard
- both sides

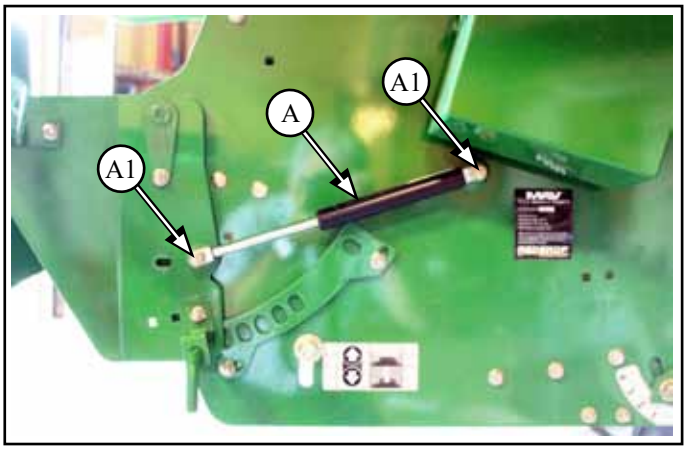
6.3 Gas Spring and Tailboard Guard Installation

Parts List:

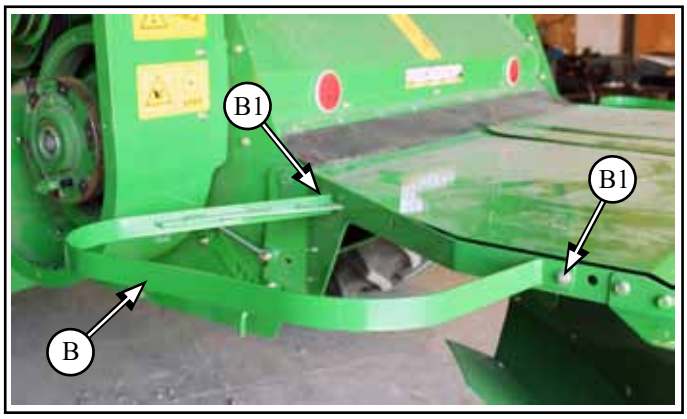
RP951A	Gas spring (**A**)	Qty 2
CS171G	Tailboard guard (**B**)	Qty 2



6.3.1 Install gas spring (**A**) onto side of chopper housing and tailboard studs with:
- M8 x 16 flange bolt (**A1**) x2
  - located in CD680S hardware bag
- both sides



6.3.2 Install tailboard guard (**B**) onto side of tailboard with:
- M8 x 20 flange bolts and flange nut (**B1**) x2
  - located in CD680S hardware bag
- ensure head of bolt is on inside of tailboard
- both sides



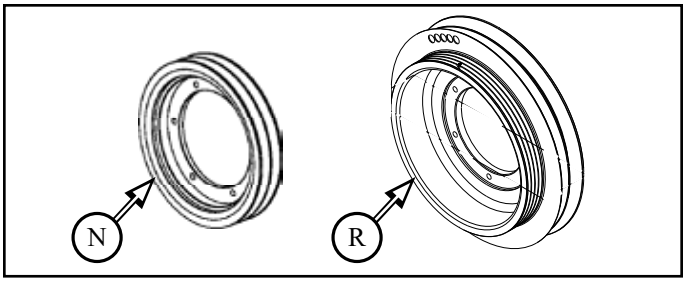
7 Drive Reconfiguration

7.1 Chopper Drive Installation

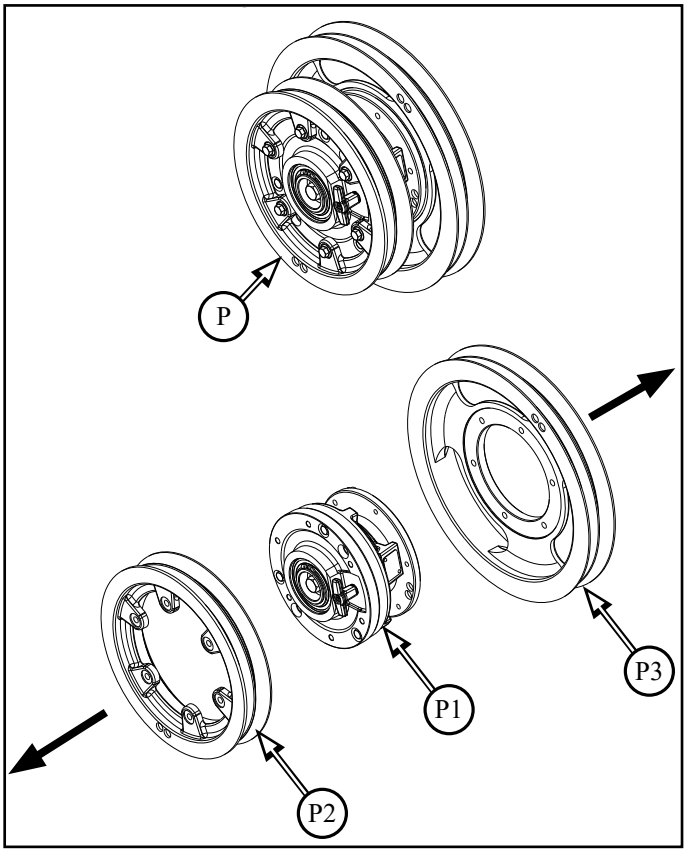
FC OEM Chopper Drive Only (If original OEM chopper was FC):

Parts List:

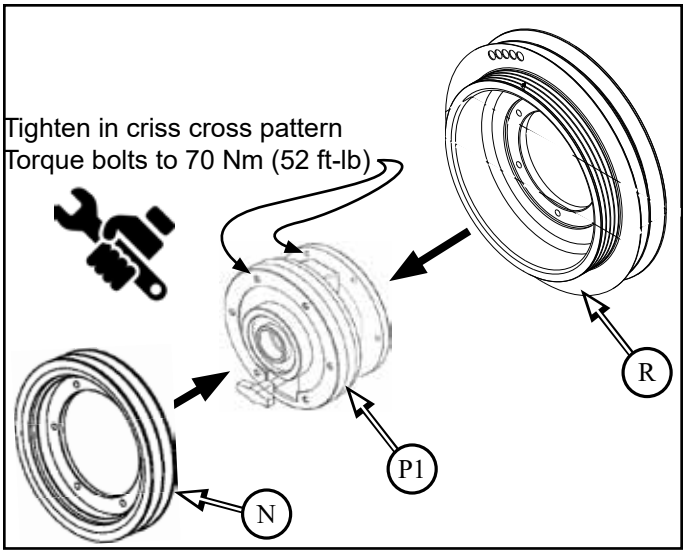
RP968	Sheave SC JD S-Series Driver **(N)**	Qty 1
RP1154	Sheave 2C 4PVM SCU JDS **(R)**	Qty 1



7.1.1 Remove from Deere speed shifter assembly (**P**):
- high speed sheave (**P2**) (small diameter sheave)
- slow speed sheave (**P3**) (large diameter sheave)
- hardware to be reused

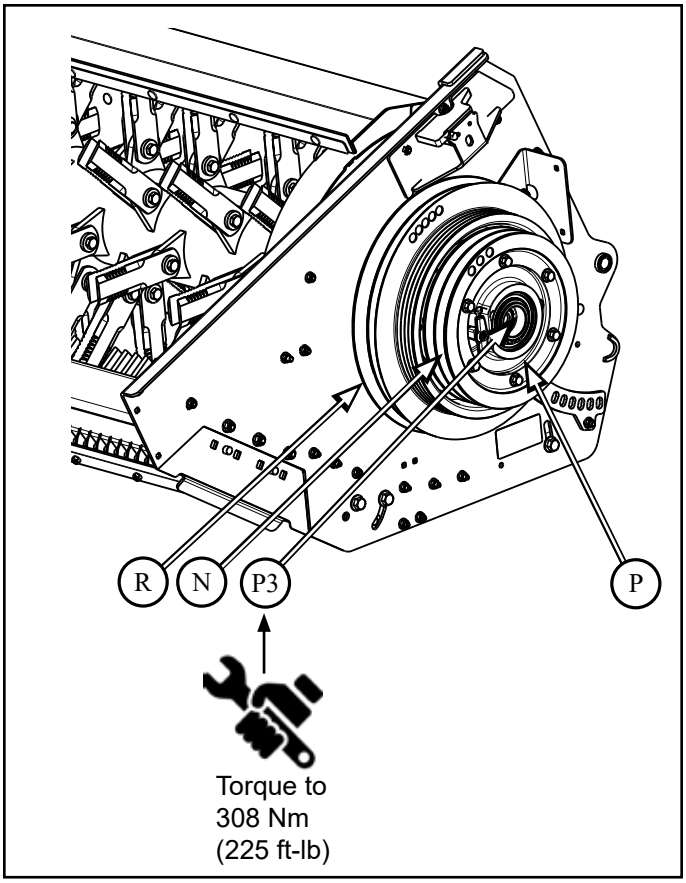


7.1.2 Attach to Deere speed shifter (**P1**):
- new slow speed drive pulley (**R**) to back
- new high speed drive pulley (**N**) to front
- reuse M10 x 35 flange bolts qty 12
- tighten in a criss cross pattern
- torque bolts to 70 Nm (52 ft-lb)



7.1.3 Install Deere speed shifter (**P**) assembled with slow (**R**) and high speed drive (**N**) pully onto chopper drive shaft with:
- reuse M16 x 60 flange bolt and washer (**P3**)

Block Chopper Rotor rotation and Torque Bolt (**P3**) to 308 Nm (225 ft-lb)



7.2 OEM Chopper Drive Modification
Required for S7 FC Combines which have 3-Rib Chopper Jackshaft Belt

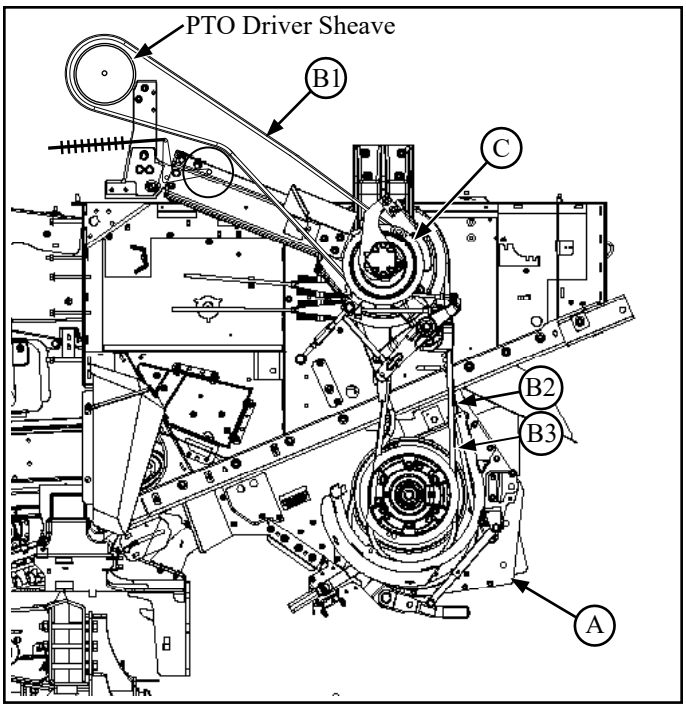
Section 7.2 is NOT REQUIRED FOR XFC Choppers (100 blades)

Belt "B1" and Sheave "C" replacement only required if combine is NOT equipped with a 4 rib belt "B1" and 4 rib pulley (S7 FC)

7.2.1 Loosen all belt tensioners
- remove shields, brackets, hoses and other necessary components as required. Refer to the relevant section of the combine Repair Technical Manual.
- to be reinstalled upon completion of the following steps

7.2.2 Remove 3 rib drive belt (**B1**) and discard
- to be replaced with a new 4 rib V belt

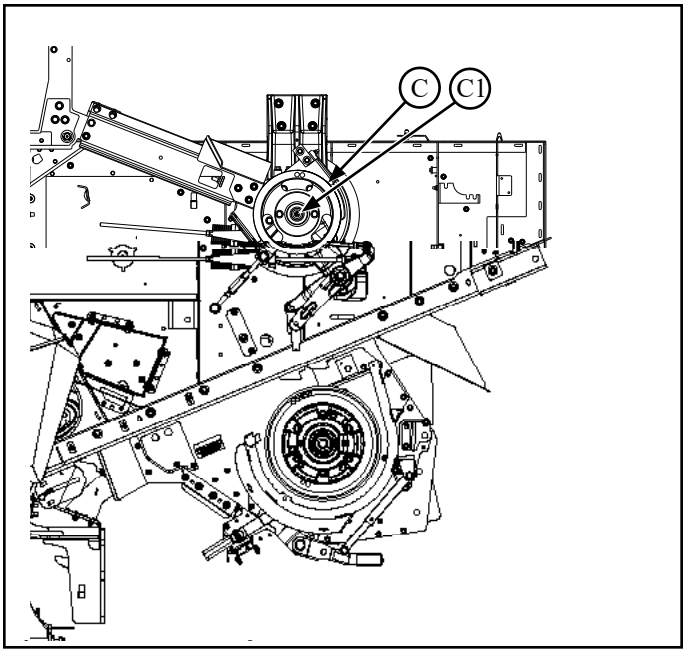
for S7 600 and 700:
- **check PTO driver sheave - ensure 4 grooves, otherwise order 4 groove sheave #CE20125 and 4 rib belt #BE4C127K**
- **installing the 4 groove sheave is done at own risk and may impact factory warranties**



7.2.2.1 Remove inner V belt (**B2**) from chopper (belt against combine wall - low speed)
- to be replaced

7.2.2.2 Remove outer V belt (**B3**)
- to be reused

7.2.3 Remove existing 3 groove upper drive sheave (**C**)
- not to be reused
- refer to the relevant section of the combine Repair Technical Manual for procedure
- will require a gear puller
- hardware (**C1**) to be reused



7.3 Upper combine drive installation

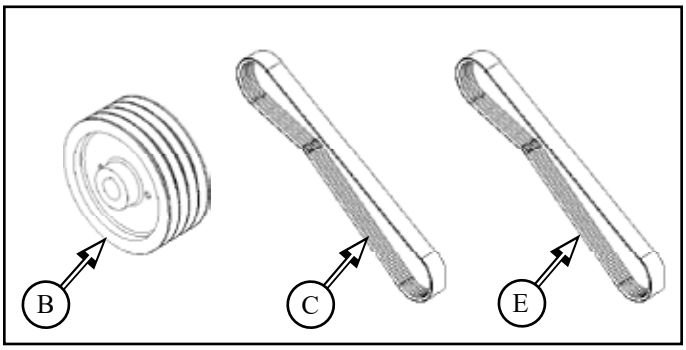
Parts List:
Required for S7 600 and 700 FC Combines:

RP967	Sheave 4 groove HC **(B)**	Qty 1
BE4C127K	V Belt 4C 127L (**C**)	Qty 1

- belt Be4C127K is not included in SCU package, order as required as noted in 7.2.2

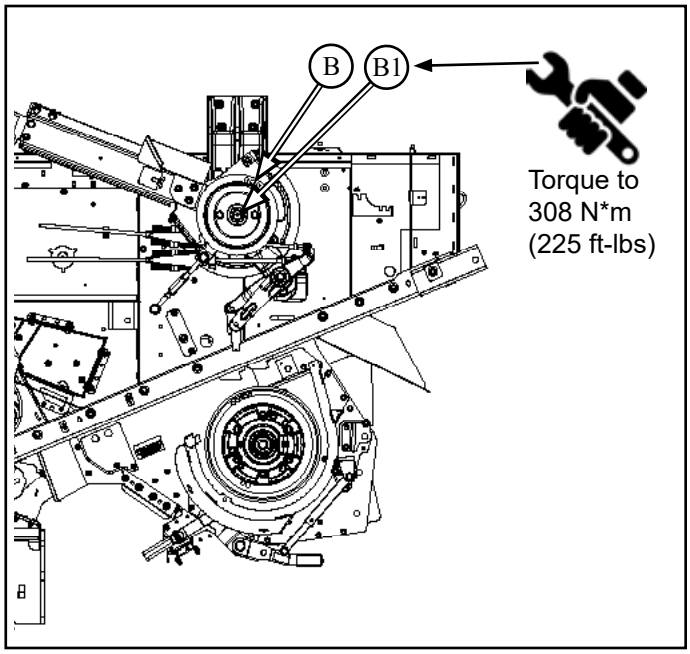
Required for S7 800 and 900 FC Combines:

RP967	Sheave 4 groove HC **(B)**	Qty 1
BE4C128K	V Belt 4C 128L (**E**)	Qty 1



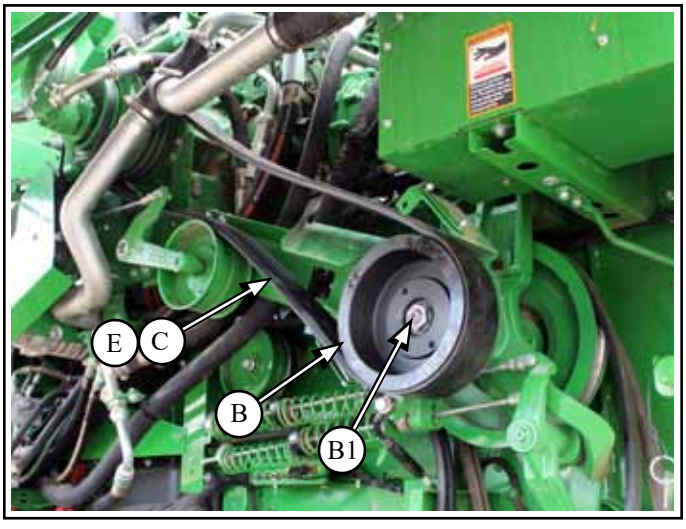
7.3.1 Install new 4 groove upper drive sheave (**B**) onto combine jackshaft with:
- reuse mounting hardware (**B1**)

Torque Nut to 308 N-m (225 lb-ft)



7.3.2 for S7 600 and 700 FC Combines:
Install new 4 rib upper drive V belt (**C**) onto combine drive sheave and new 4 groove sheave (**B**)
- tighten tensioner for belt (**C**) to indicated length
- reinstall upper shields, brackets and components
- reinstall pump if equipped with one
- reinstall shielding

7.3.3 for S7 800 and 900 FC Combines:
Install new 4 rib upper drive V belt (**E**) onto combine drive sheave and new 4 groove sheave (**B**)
- tighten tensioner for belt (**C**) to indicated length
- reinstall upper shields, brackets and components
- reinstall pump if equipped with one
- reinstall shielding

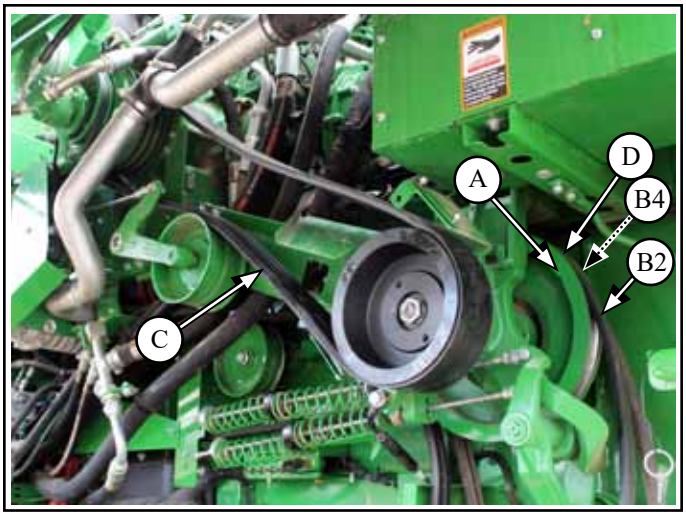


7.3.4 Install V belts onto inner side of chopper jackshaft sheave (**A**) in the following order:

1 - OEM chopper drive 2 groove V belt (**D**) onto large set of grooves on jackshaft sheave (**A**)

2 - Beater drive V belt (**B4**) onto middle set of grooves on jackshaft sheave (**A**) up to the beater sheave
- reattach V belt to front combine sheave
- tighten spring tensioner to indicated length

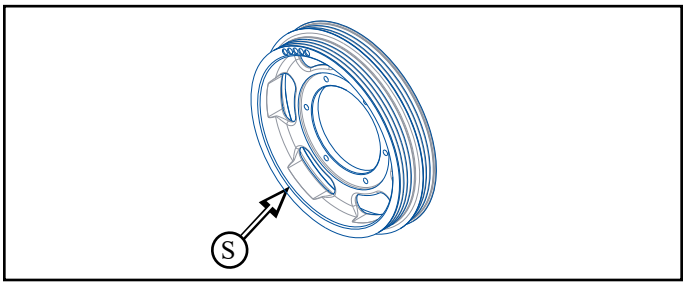
3 - Original low speed chopper drive belt (**B2**) closest to the side wall will be replaced



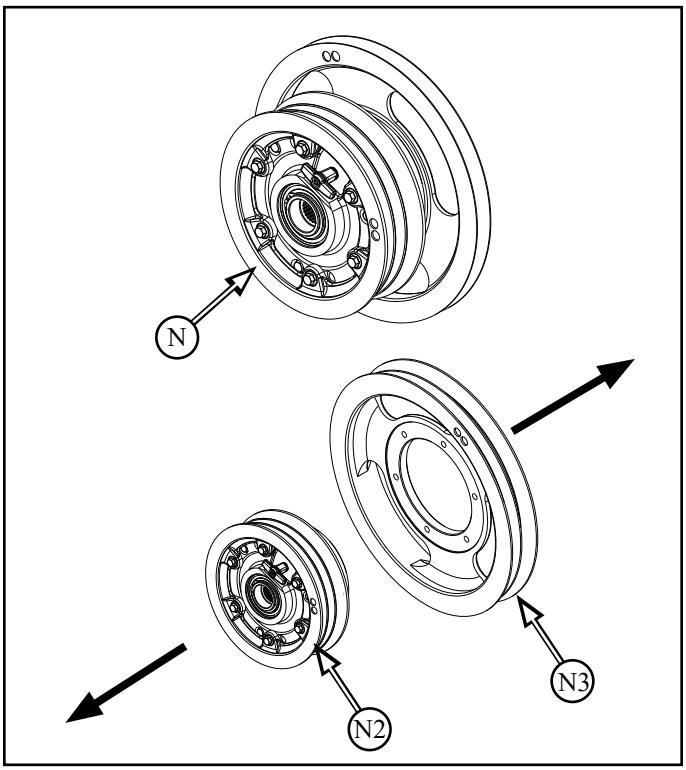
XFC OEM Chopper Drives Only (If combine original OEM chopper was XFC):

Parts List:

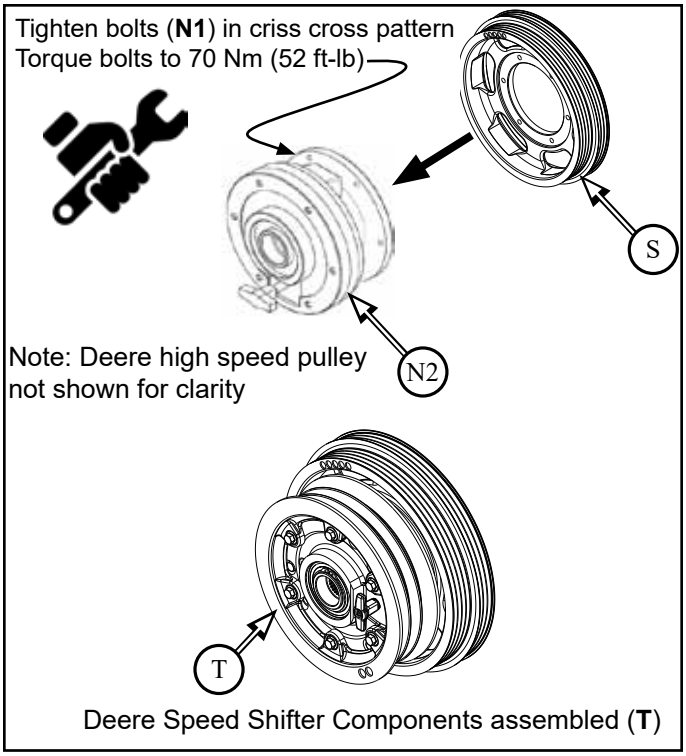
RP1148 Sheave SCU 3M/4M (**S**) Qty 1



7.3.5 Remove from Deere speed shifter assembly (**N**):
- remove slow speed sheave (**N3**) (large diameter sheave)
- hardware (**N1**) to be reused



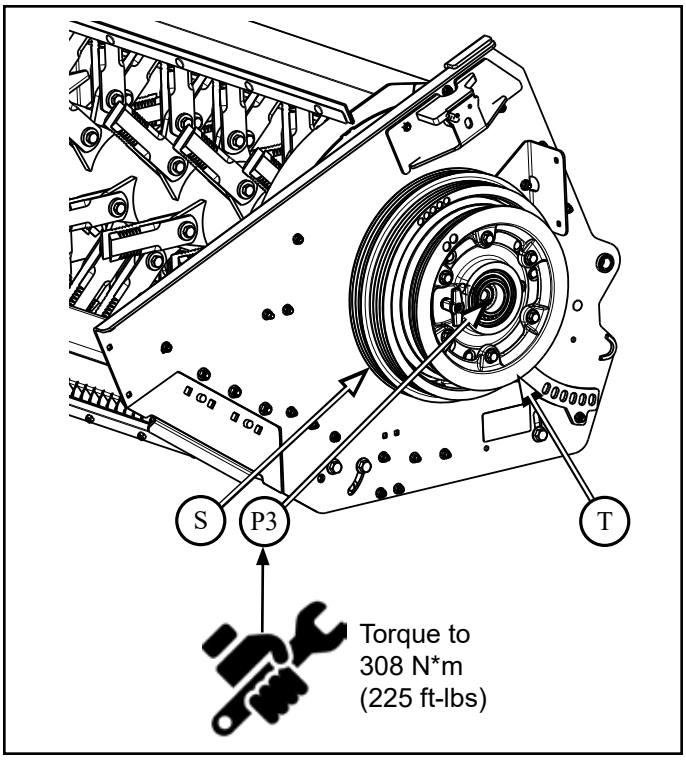
7.3.5.1 Attach to Deere speed shifter hub (**N2**):
- new slow speed drive pulley (**S**) to back
- reuse M10 x 35 flange bolts (**N1**) qty 6
- tighten in a criss cross pattern
- torque bolts to 70 Nm (52 ft-lb)



Deere Speed Shifter Components assembled (**T**)

7.3.5.2 Install Deere speed shifter assembly (**T**) onto chopper drive shaft with:
- reuse M16 x 60 flange bolt and washer (**P3**)

Block Chopper Rotor rotation and
Torque Bolt (**P3**) to 308 Nm (225 ft-lb)

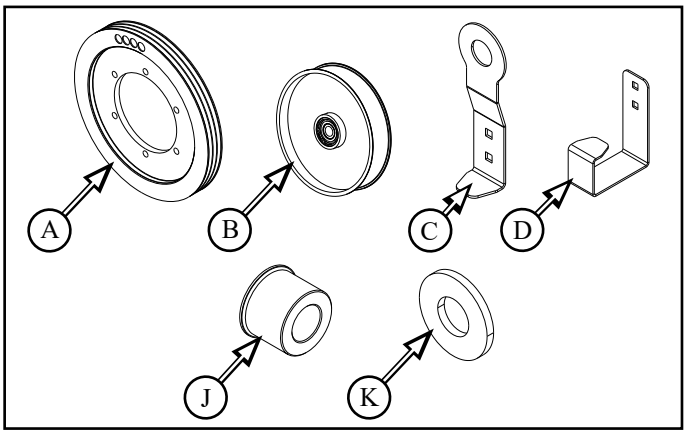


7.4 Jackshaft Modification - XFC

Parts List:

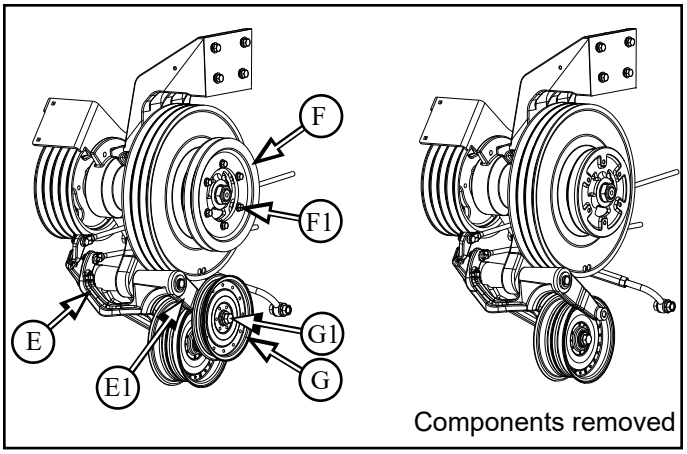
RP1147	Sheave Jackshaft 3M - slow speed (**A**)	Qty 1
SC478-01	Idler 8pd 2.0W 30mm ID (**B**)	Qty 1
SC198G	Inside Scraper (**C**)	Qty 1
SC199G	Outside Scraper (**D**)	Qty 1
SC479Z	Bushing Idler (**J**)	Qty 1
SC481Z	Washer 35.5 OD 3.416 Thk (**K**)	Qty 1

SC447S Hardware Bag



7.4.1 Remove the slow speed pulley (**F**) from the chopper jackshaft (**E**)
- discard pulley
- hardware (**F1**) to be reused

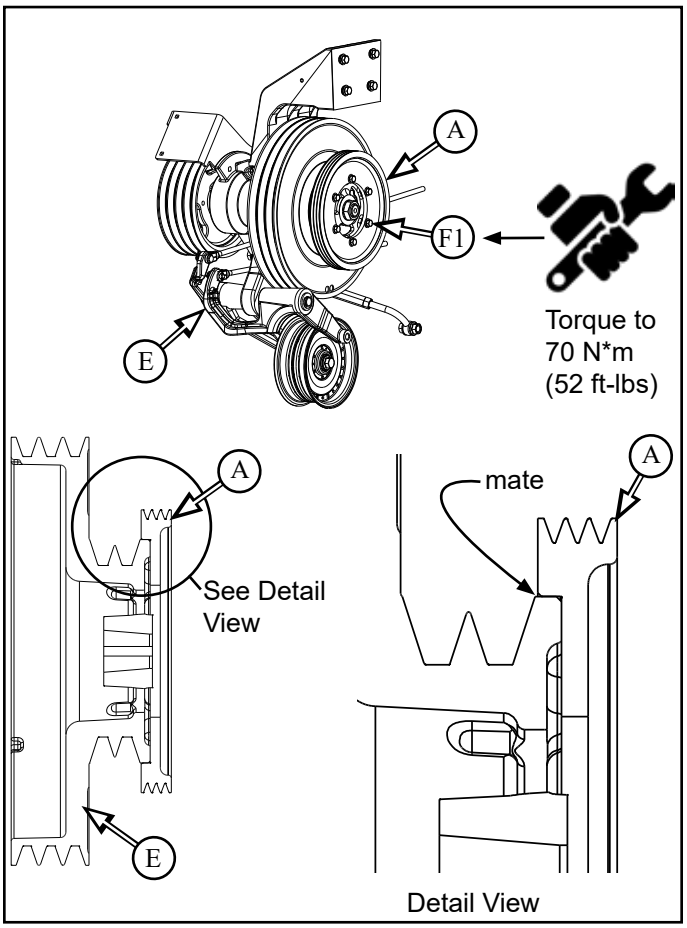
7.4.2 Remove the idler (**G**) on the tensioner arm (**E1**) for the slow speed belt on the chopper jackshaft (**E**)
- discard idler (**G**) and bolt (**G1**)
- tensioner arm (**E1**) is threaded so there is no nut



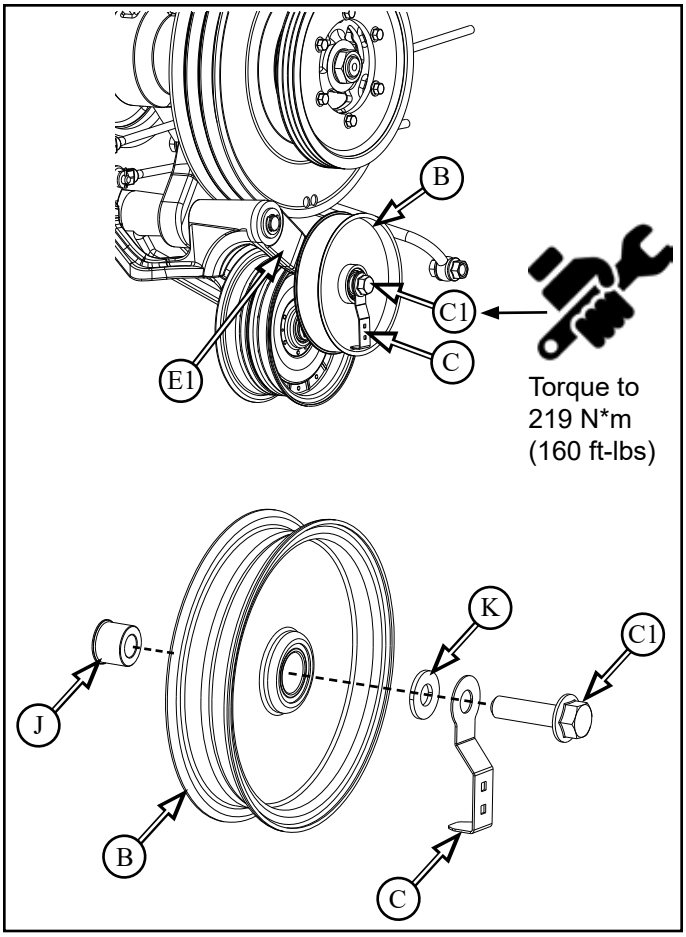
7.4.3 Install the 3M slow speed Jackshaft sheave (**A**) onto the chopper jackshaft (**E**)

- ensure sheave is mated onto jackshaft as shown

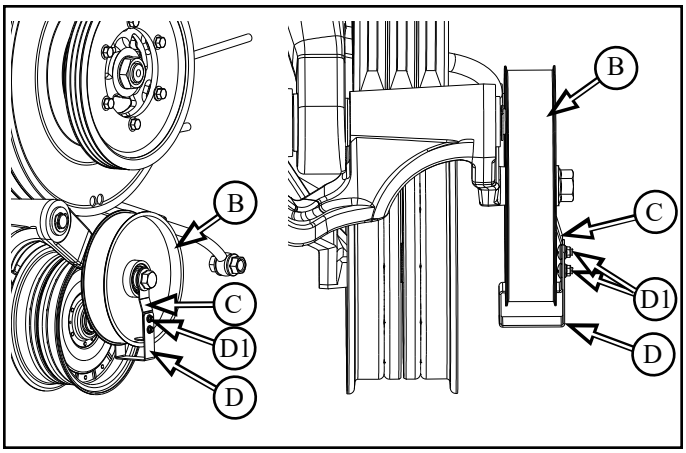
- reuse M10 x 25 bolts (**F1**) x6
- torque bolts to 70 Nm (52 ft-lb)



7.4.4 Install the idler (**B**) onto the tension arm (**E1**):
- slide bushing (**J**) into idler (**B**)
- washer (K)
- inside scraper (**C**)
- M16 x 60 flange bolt (**C1**)
  - torque to 219 Nm (160 ft-lb)



7.4.5 Install the outside scraper (**D**) to the inside scraper (**C**) with:
- M6 x 16 round head bolts and flange nuts (**D1**) x2

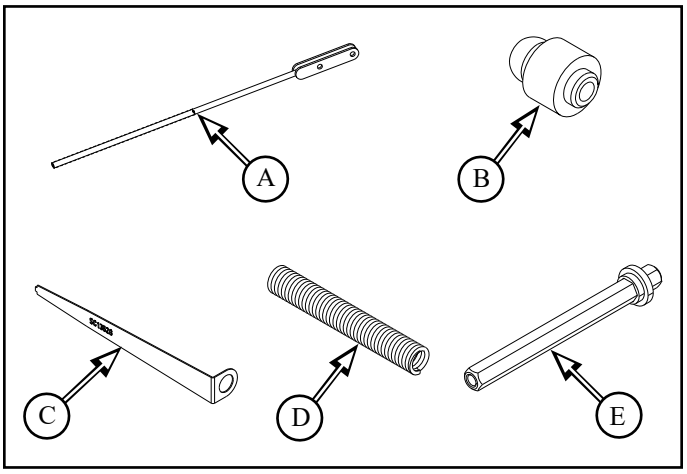


7.5 Belt Tensioner Installation

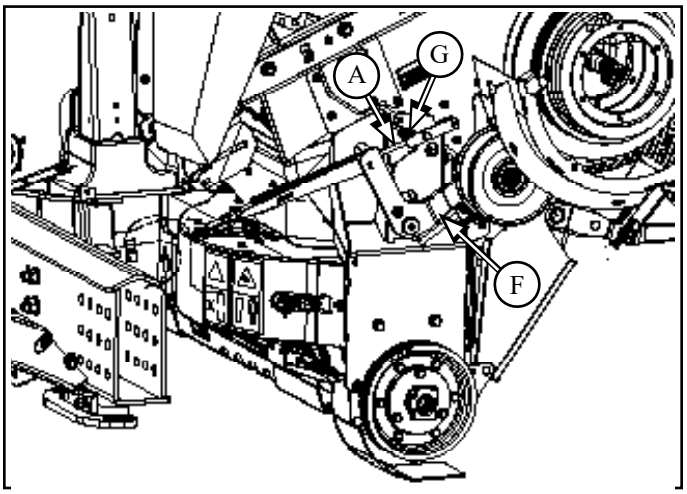
Parts List:
Parts located in SC1439SB box

SC642Z	Belt Tension Rod (**A**)	Qty 1
H170141	Pivot Bushing (**B**)	Qty 1
SC1352G	Indicator Spring (**C**)	Qty 1
RP1063	Spring (**D**)	Qty 1
SC313Z	Tension Adjustment Nut (**E**)	Qty 1

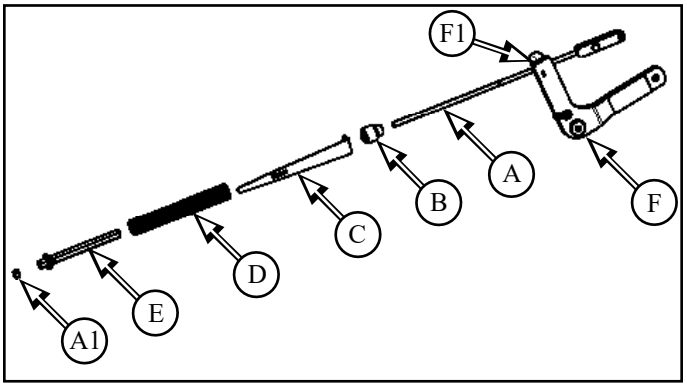
SC642S Hardware Bag



7.5.1 Install belt tension rod (**A**) into tensioner arm (**F**), assemble as shown below

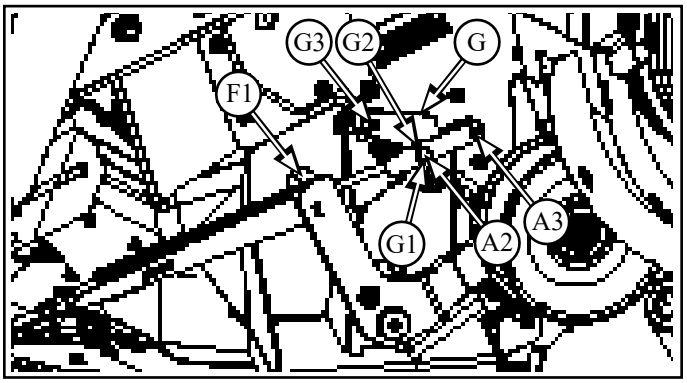


7.5.1.1 Assemble tension link (**A**):
- belt tension rod (**A**) through hole (**F1**) in tension arm (**F**)
- pivot bushing (**B**)
- spring indicator (**C**)
- spring (**D**)
- tension adjustment nut (**E**)
- M12 hex nut (**A1**)



FC
7.5.1.2 Ensure belt tension link hole (**A2**) is installed to hole (**G2**) on bracket (**G**), with:
- M10 x 35 hex bolt and lock nut (**G1**)

XFC
7.5.1.3 Ensure belt tension link hole (**A3**) is installed to hole (**G3**) on bracket (**G**), with:
- M10 x 35 hex bolt and lock nut (**G1**)

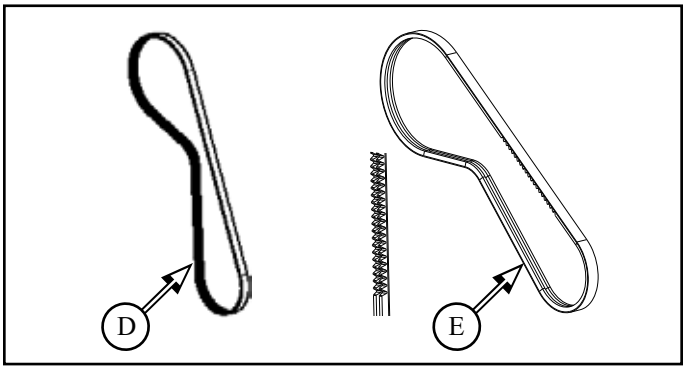


7.6 Drive Belt Installation

7.6.1 FC Choppers Only:

Parts List:

BE4M112K	V Belt 4M 112L Kevlar (**D**)	Qty 1
BE2CX114K	V Belt 2CX 114L Kevlar (**E**)	Qty 1

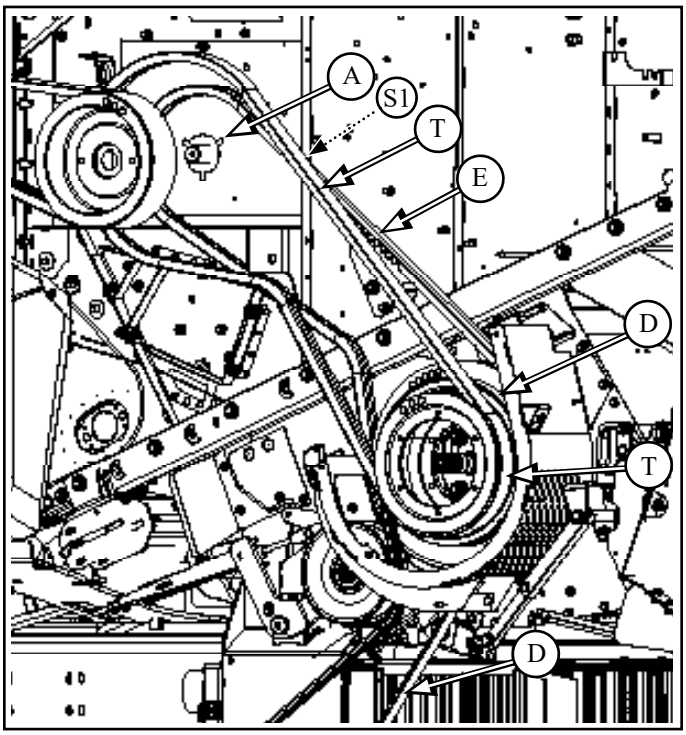


All belts must be placed on Jackshaft (**A**) before installing to chopper sheaves.

1st - Existing high speed belt (**T**) onto large Jackshaft sheave

2nd - Beater Belt (**S1**) onto middle sheave (not shown)

3rd - BE2CX114K (**E**) on sheave closest to wall



7.6.1.1 Install new BE2CX114K low speed drive belt (**E**) onto large drive sheave on chopper

7.6.1.2 Install new BE4M112K SCU drive belt (**D**) onto middle sheave on chopper

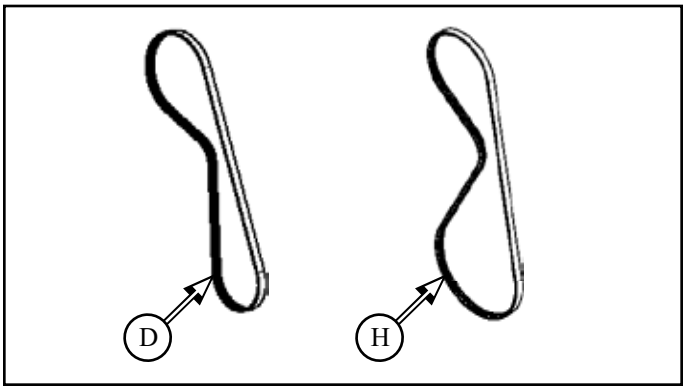
7.6.1.3 Install existing high speed 2 groove drive belt (**T**) onto small drive sheave on chopper

7.6.1.4 Tighten upper belt spring tensioners to indicated length

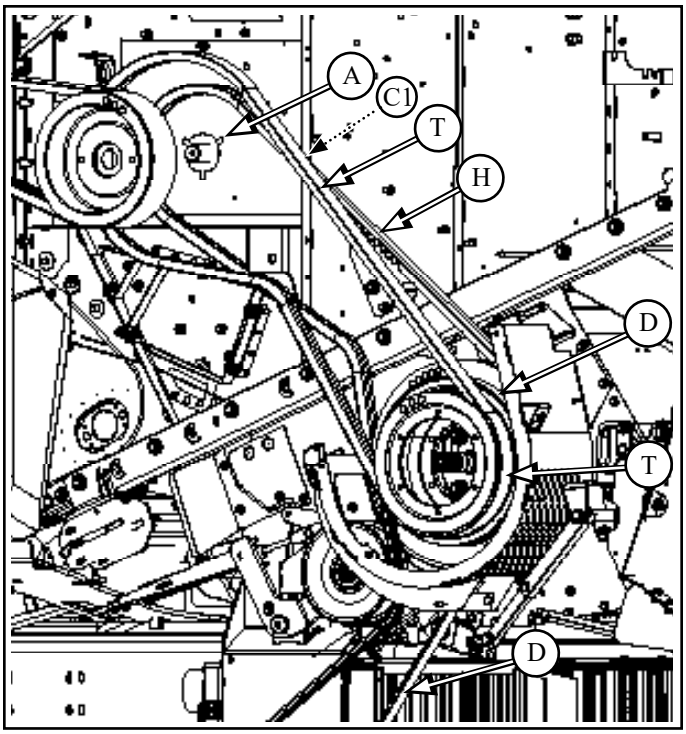
7.6.2 Extra Fine Cut (XFC) OEM Chopper Drives Only:

Parts List:

BE4M112K	V Belt 4M 112L Kevlar (**D**)	Qty 1
BE3M114K	V Belt 3M x 114 Kevlar (**H**)	Qty 1



All belts must be placed on Jackshaft (**A**) before installing to chopper sheaves.
1st - Existing high speed 3 groove belt (**T**) onto large Jackshaft sheave
2nd - Beater Belt (**C1**) onto middle sheave
3rd - BE3M114K (**H**) on sheave closest to wall



7.6.2.1 Install new BE3M114K low speed drive belt (**H**) onto large drive sheave on chopper

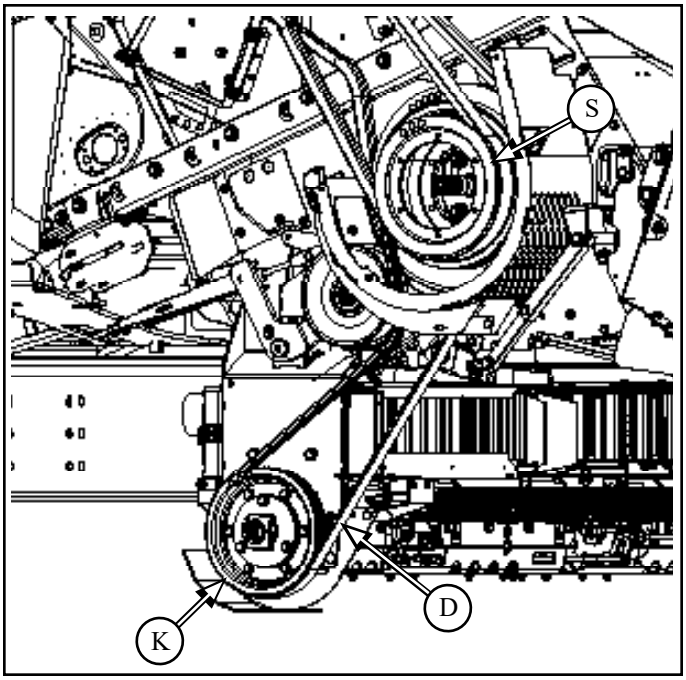
7.6.2.2 Install new SCU drive belt BE4M112K (**D**) onto middle sheave on chopper

7.6.2.3 Reinstall high speed 3 groove belt (**T**) onto small drive sheave on chopper

7.6.2.4 Tighten upper belt spring tensioners to indicated length

7.6.2.5 Install V belt (**D**) onto SCU drive sheave (**K**) from chopper sheave (**S**)

SCU has drive sheave (**K**) in FC orientation from factory.
For XFC, this sheave (**K**) will need to be mounted on the opposite face (different offset) to align with it's driving sheave.
Double check sheave alignment before tensioning

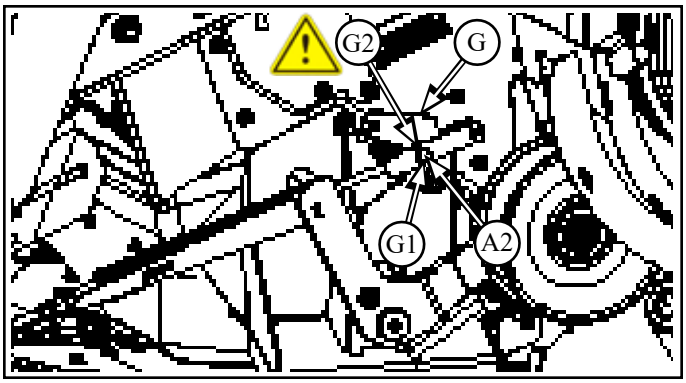


7.6.3 Tension SCU drive belt (**D**)

Ensure belt tension link is set correctly as per below

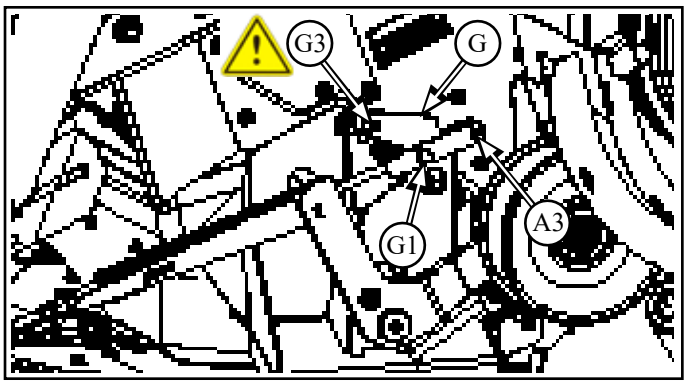
FC

7.6.3.1 Ensure belt tension link hole (**A2**) is installed to hole (**G2**) on bracket (**G**), with:
- M10 x 35 hex bolt and lock nut (**G1**)



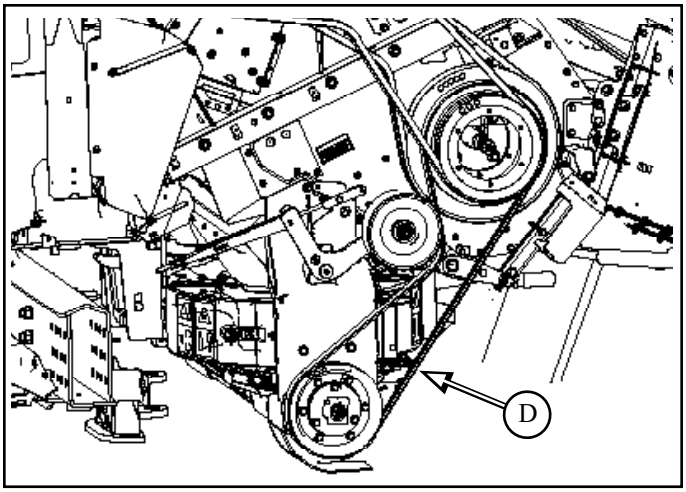
XFC

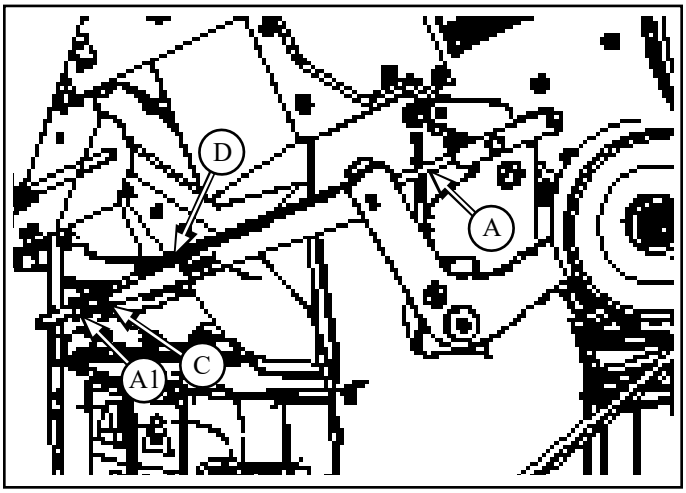
7.6.3.2 Ensure belt tension link hole (**A3**) is installed to hole (**G3**) on bracket (**G**), with:
- M10 x 35 hex bolt and lock nut (**G1**)



7.6.3.3 Tighten tensioner nut (**C**) to compress spring (**D**) to the indicated length

7.6.3.3.1 Add nut (**A1**) and tighten to end of tensioner nut (**C**) to lock tensioner in place



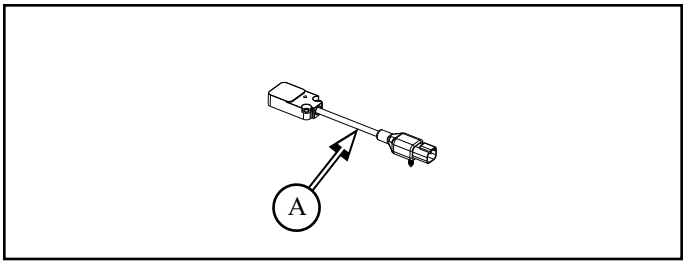


8 Electronics Installation

8.1 OEM Speed Sensor Installation

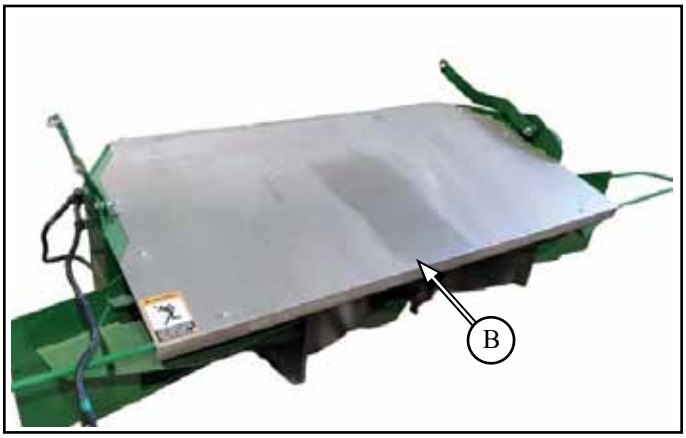
Parts List:

OEM Speed Sensor (**M**) Qty 1

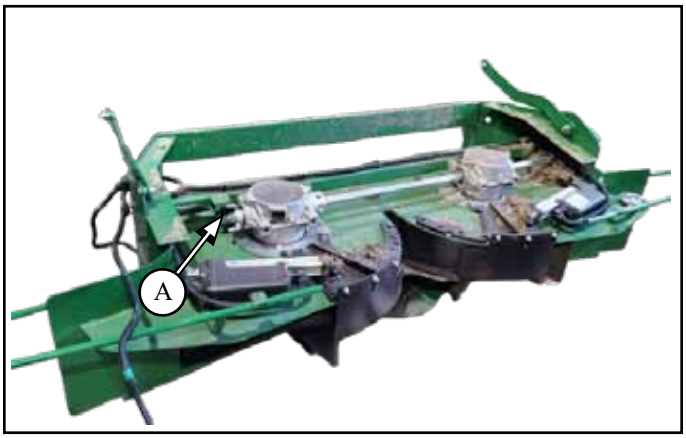


8.1.1 Procedure to remove OEM Speed Sensor on OEM Combine with Premium Power Cast Tailboard

8.1.1.1 Remove the top OEM tailboard panel (**B**) to access the speed sensor

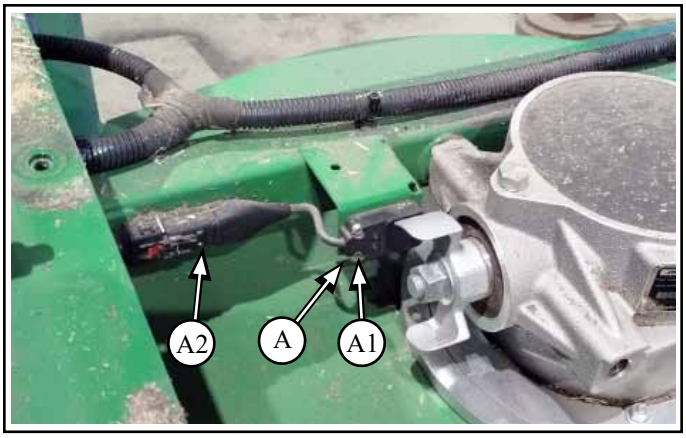


8.1.1.2 Location of OEM speed sensor (**A**) to be removed

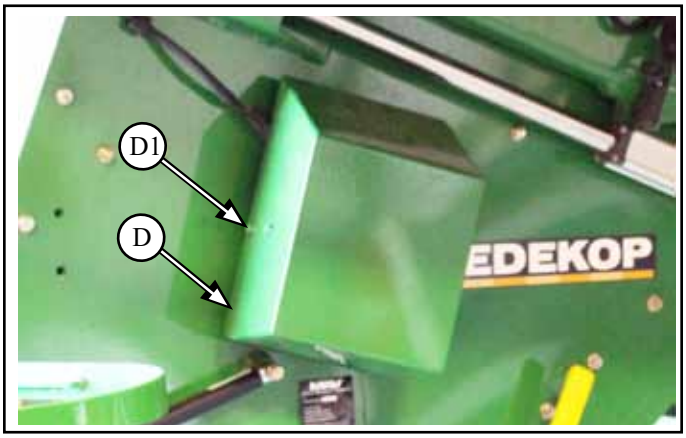


8.1.1.3 Remove OEM speed sensor (**A**)
- mounting hardware (**A1**) to be reused
- to be reinstalled on new MAV straw chopper

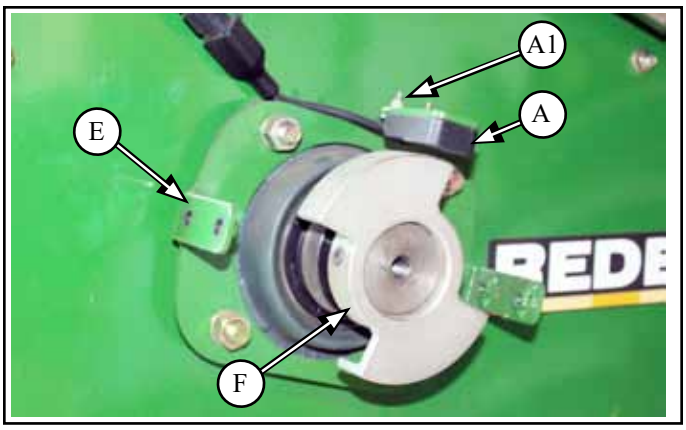
8.1.1.3.1 Disconnect OEM speed sensor (**A**) from OEM harness connection (**A2**)



8.1.2 Remove sensor shield (**D**) on right side of chopper housing from shield mounting bracket (**E**)
- shield and mounting hardware (**D1**) to be reinstalled



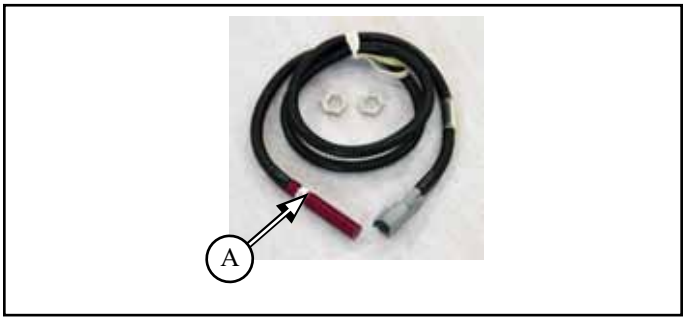
8.1.3 Install speed sensor (**A**) over the speed sensor target (**F**), with:
- reuse mounting hardware (**A1**) x2



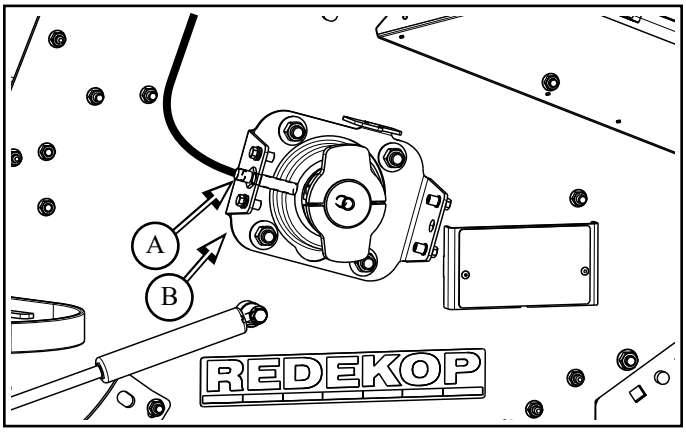
8.2 Straw Chopper Speed Sensor Intallation

Parts List:
Parts located in SC1370SB box

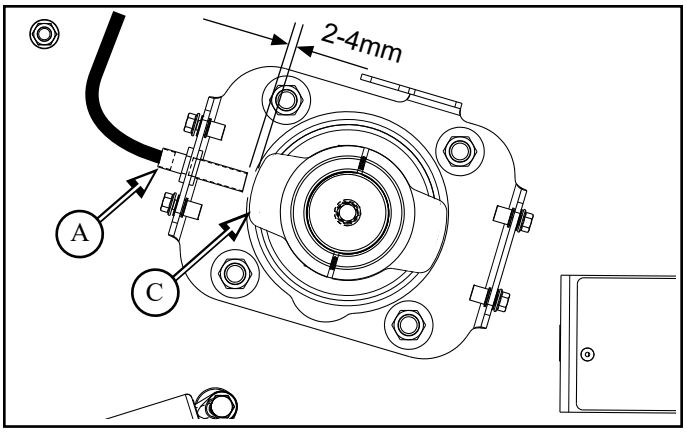
RP1124 Speed Sensor (**A**) Qty 1



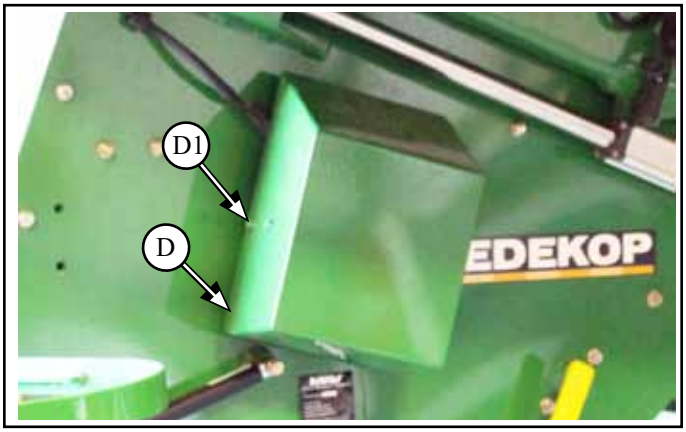
8.2.1 Install speed sensor (**A**) to shield mount bracket (**B**), with:
- mounting hardware (**A1**) included with speed sensor



8.2.2 Adjust speed sensor (**A**) to be 2-4mm from target lug (**C**)



8.2.3 Reinstall sensor shield (**D**) to shield mounting bracket (**E**), with:
- reuse mounting hardware (**D1**) x4

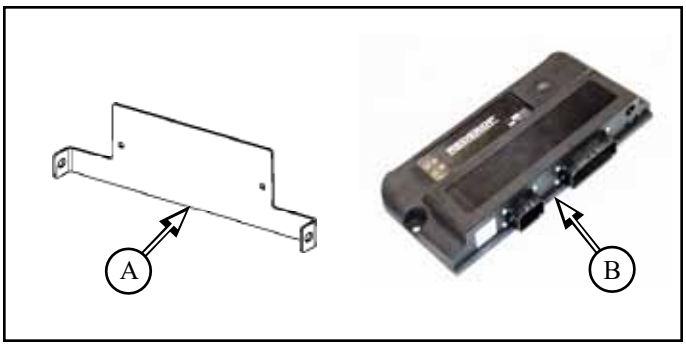


8.3 ECU Installation

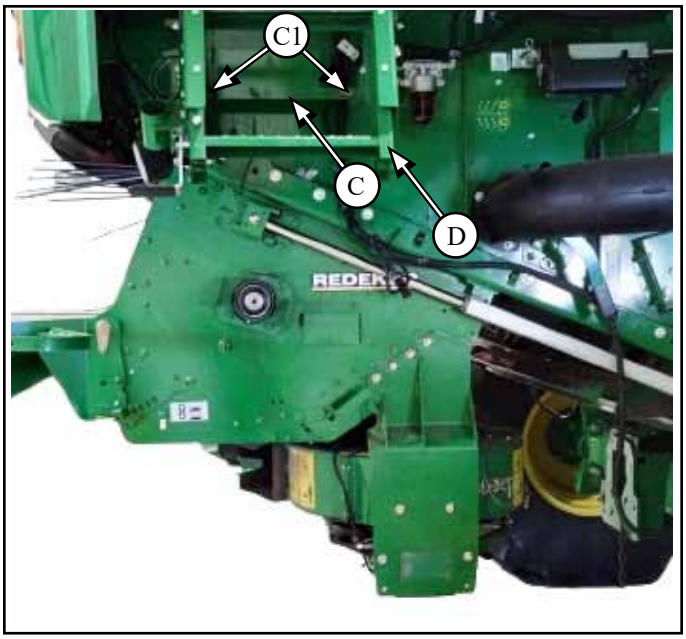
Parts List:
Parts located in SC1370SB box

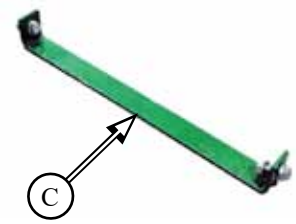
SC1401G	Bracket ECU Mount (**A**)	Qty 1
RP1021	ECU Tailboard/SCU (**B**)	Qty 1

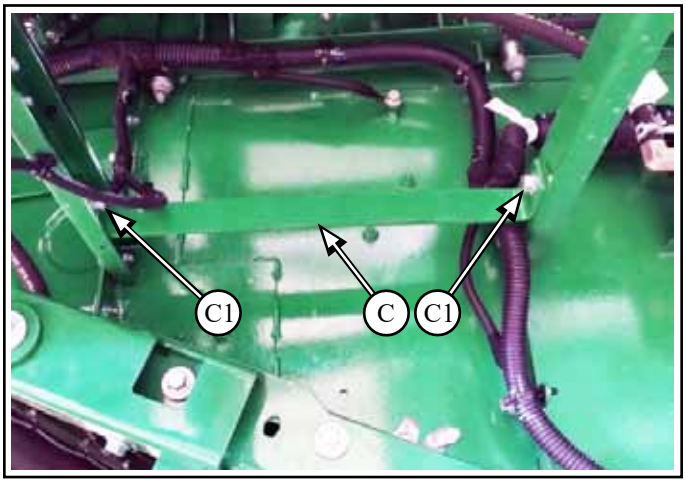
SC1353S Hardware Bag



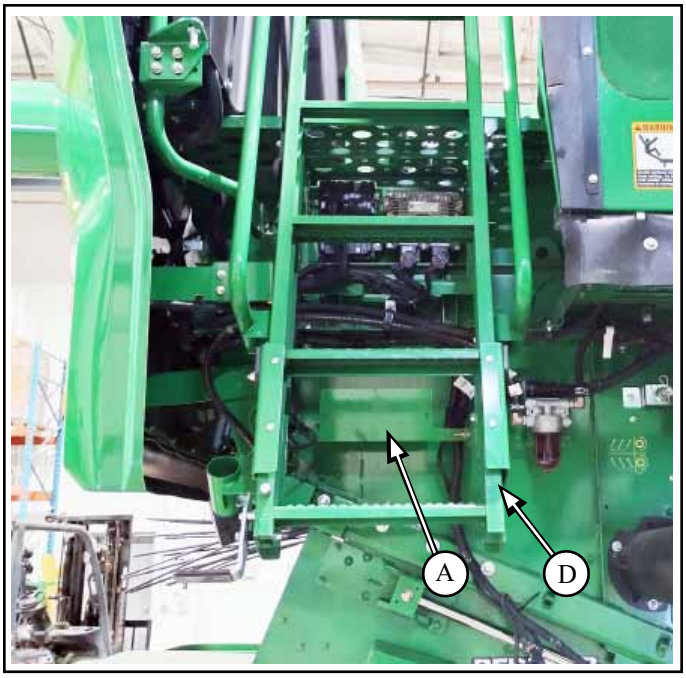
8.3.1 Remove brace strap (**C**) behind ladder (**D**)
- not to be reused
- mount hardware to be reused (**C1**)

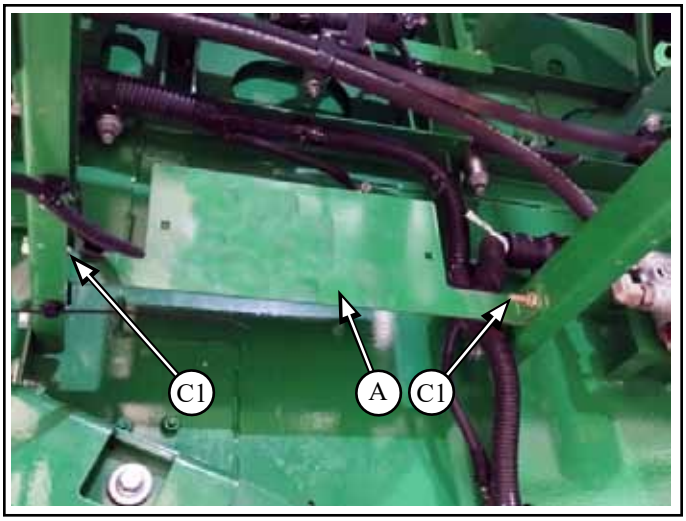




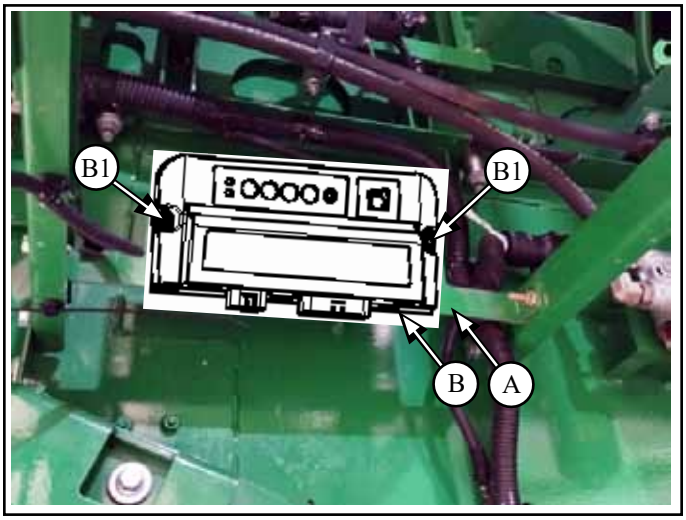


8.3.2 Install new ecu mount plate (**A**) behind ladder (**D**) where strap (**C**) was previously removed, with:
- reuse mount hardware (**C1**) x2





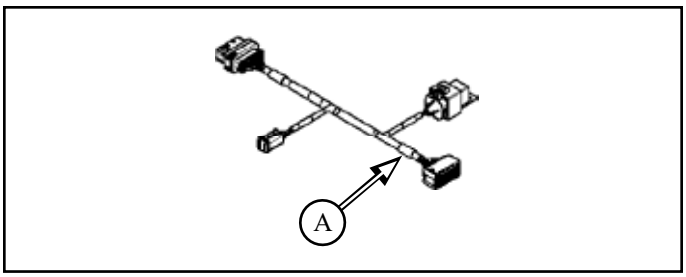
8.3.3 Install new ecu (**B**) to ecu mount plabe (**A**), with:
- M6 x 16 round head bolt and flange nut (**B1**) x2
- head of bolt on inside of bracket



8.4 CAN Bus Adaptor Installation

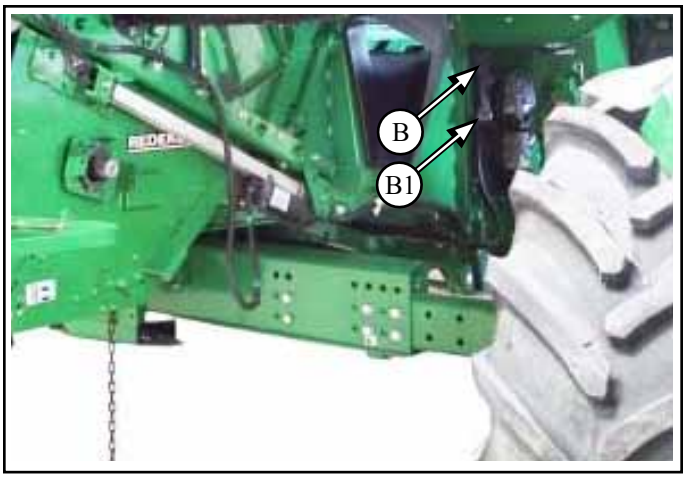
Parts List:
Parts located in SC1370SB box

RP1731 Adaptor CAN Bus JD S7 (**A**) Qty 1



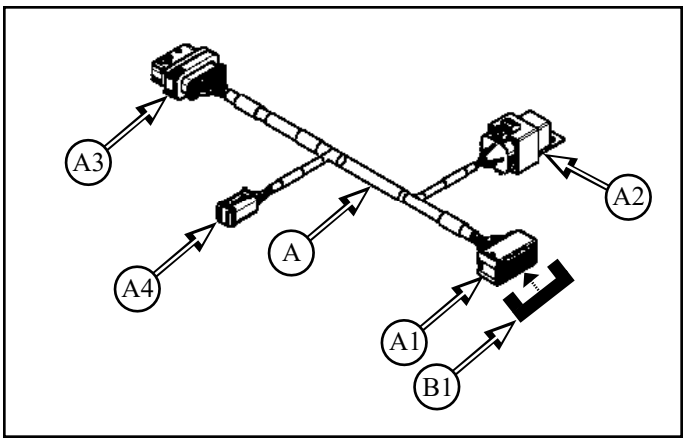
If this is being installed on a Model Year 2024 Combine, contact Redekop to obtain a RP1732 adaptor. This is to be used instead of RP1731

8.4.1 Remove cap (**B1**) from OEM harness (**B**) on right side of combine
- to be reinstalled on adaptor

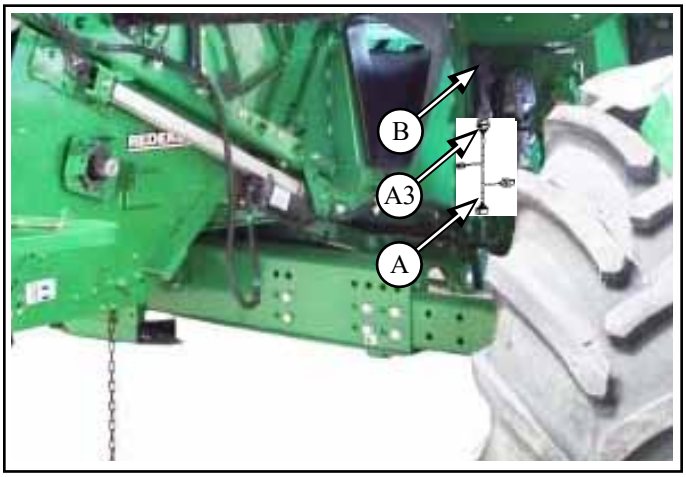


8.4.2 Install OEM cap (**B1**) into connector (**A1**) on adpator (**A**)

8.4.3 Zip tie relay (**A2**) to adaptor (**A**) wiring
- prevents from hanging loosely and being damaged



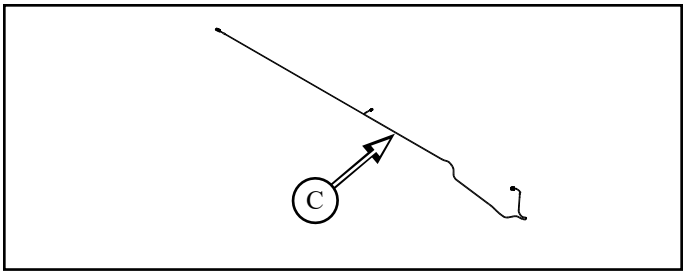
8.4.4 Install connector (**A3**) on adpator (**A**) into OEM harness (**B**) where cap (**B1**) was removed from



8.5 ECU Power & CAN Bus Harness Installation

Parts List:
Parts located in SC1370SB box

RP1373 Harness ECU Power & CAN Bus (**C**) Qty 1



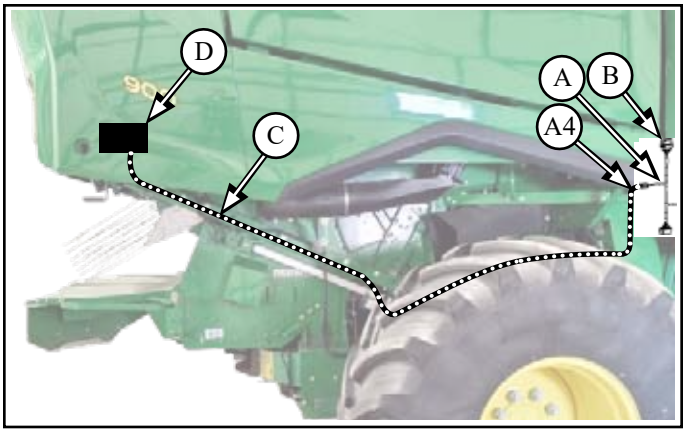
8.5.1 Install ecu power and CANbus harness (**C**) into ecu (**D**)

8.5.1.1 Run harness (**C**) down and along rail forwards to adaptor (**A**) plugged into OEM harness (**B**)

8.5.1.2 Connect harness (**C**) into connector (**A4**) on adaptor (**A**)

8.5.2 Zip tie harness (**C**) to existing harnesses and frame

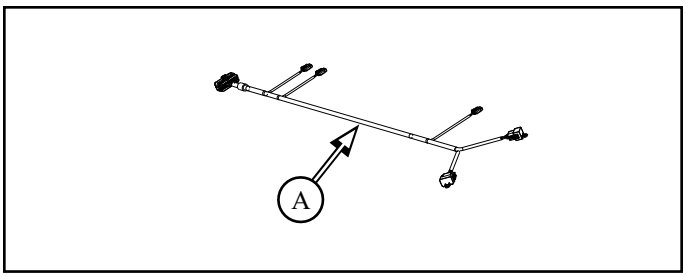
8.5.2.1 Ensure harness is clear of moving components and is not pinched when chopper is raised or lowered



8.6 ECU / Chopper w/Blockage and Conveyor Harness Installation

Parts List:
Parts located in SC1370SB box

RP1507 Harness ECU / Chopper w/Blockage (**A**) Qty 1



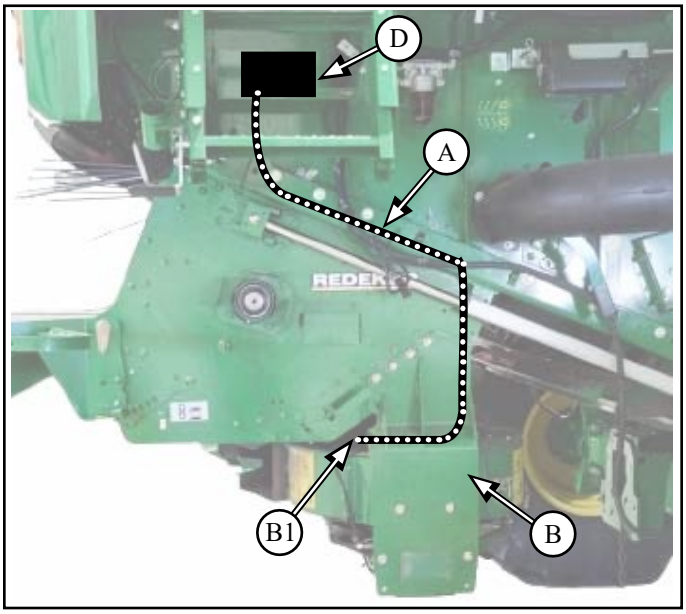
8.6.1 Install ecu chopper harness (**A**) into ecu (**D**)

8.6.1.1 Run harness (**A**) down and along rail forwards to front of SCU (**B**)

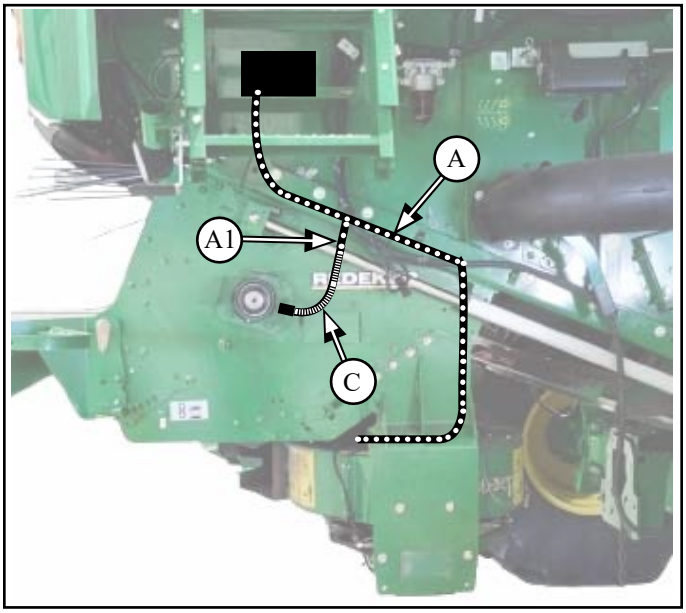
8.6.1.2 Connect harness (**A**) into SCU harness (**B1**)

8.6.2 Zip tie harness (**A**) to existing harnesses and frame

8.6.2.1 Ensure harness has room to move with chopper and is clear of moving components and is not pinched when chopper is raised or lowered



8.6.3 Connect speed sensor (**C**) to harness (**A1**) connector

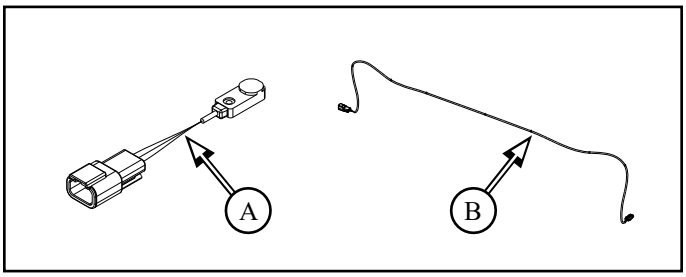


8.7 SCU Door Position Sensor Harness Installation

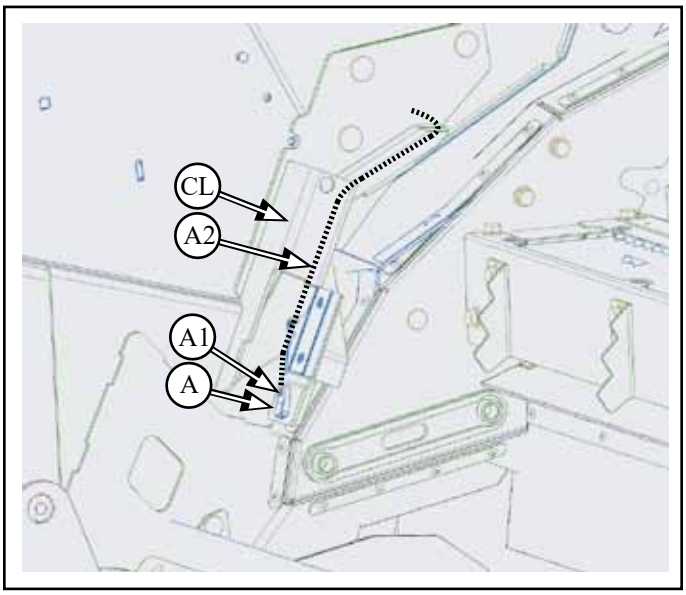
Parts List:
Parts located in SC1370SB box

RP1548	Proximity Sensor (**A**)	Qty 1
RP1168	Harness Extension (**B**)	Qty 1

SC1353S Hardware Bag (continued)

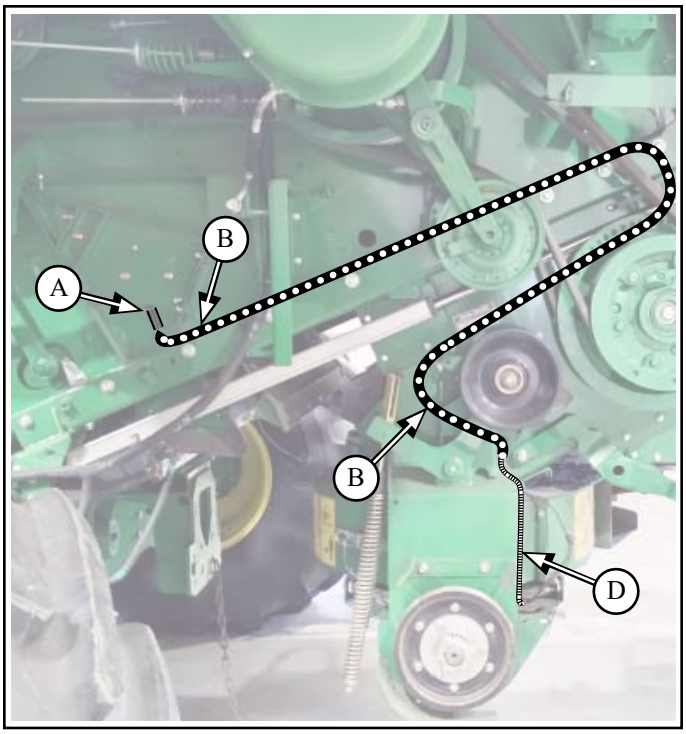


8.7.1 Install proximity sensor (**A**) to left magnet door catch (**CL**), with:
- M3 x 12 round torx head bolt and nylon lock nut (**A1**)



8.7.1.1 Run pigtail (**A2**) of proximity sensor (**A**) up behind plates of side wall mounts and thru the side wall to exterior

8.7.2 Ensure chopper and SCU are down in lowest position. Harness routing shown is for this position



8.7.3 Install harness extension (**B**)

8.7.3.1 Connect harness extension (**B**) to SCU harness connector (**D**)

8.7.3.2 Connect harness extension (**B**) to proximity sensor harness (**A**)

8.7.3.3 Ensure harness has room to move with chopper and is clear of moving components and is not pinched
- excess extension harness can be looped and tied together

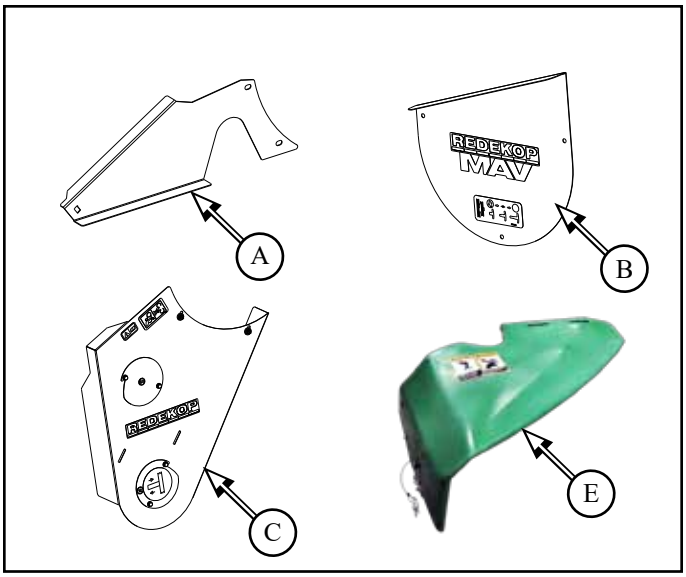
9 Shield, Axle Stop, Discharge Chute Installation

9.1 Drive Shield Installation

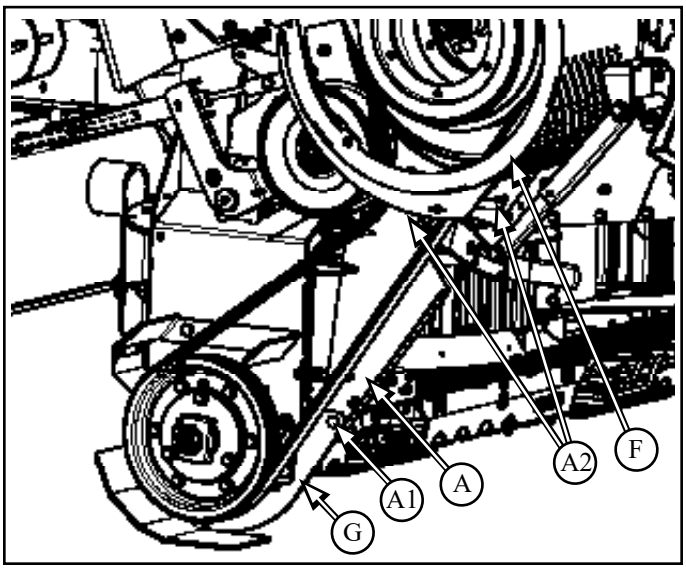
Parts List:
Parts located in SC1366SB crate & SC1441SB box

SC1271G	Shield Back Drive (**A**)	Qty 1
CD655GA	Bottom Drive Shield (**B**)	Qty 1
SC1270GA	Lower SCU Drive Shield (**C**)	Qty 1
	OEM Upper Shield (**E**)	Qty 1

SC1270S Hardware Bag
SC1271S Hardware Bag



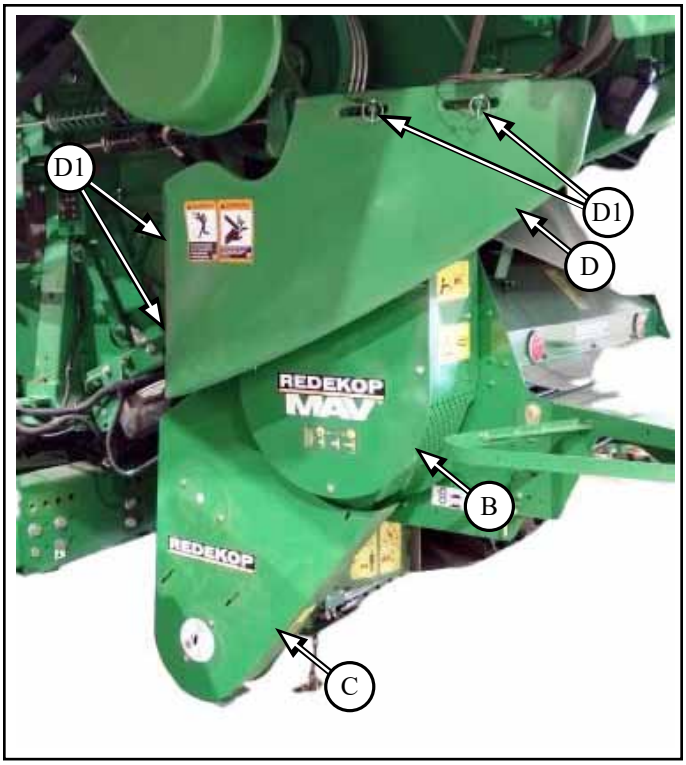
9.1.1 Install back drive shield (**A**) to chopper drive shield (**F**) and bottom shield (**G**), with:
- M8 x 25 round head bolt and flange nut (**A1**)
- M8 flange nut (**A2**) x2



9.1.2 Install bottom drive shield (**B**) to chopper drive shield (**F**) with:
- M8 x 16 flange head bolt (**B1**) x3

9.1.3 Install lower SCU drive shield (**C**) on to mount bracket (**C2**) and to chopper drive shield (**F**) with:
- Cam Lock (**C1**) x2

9.1.4 Install OEM upper shield (**D**) on to mount brackets (**J**), with:
- existing lynch pin (**D1**) x4 which are tethered to the shield mounts

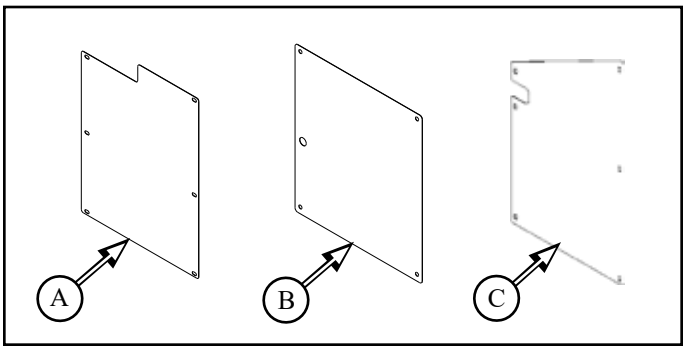


9.2 Inlet Screen Cover Panel Installation (Not required for European regions)

Parts List:

SC1431G	Cover JDS Lt Panel Front (**A**)	Qty 1
SC302G	Cover JDS700 Panel Rt (**A**)	Qty 1
SC281G	Panel Fan Blocker (**B**)	Qty 1

SC1431S Hardware Bag

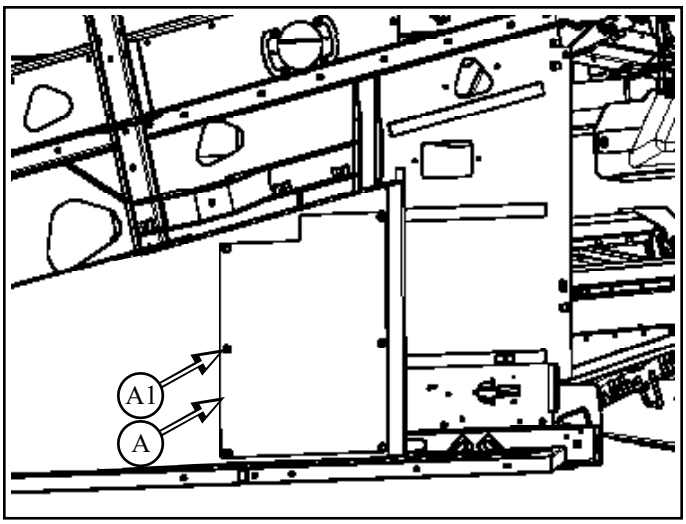


Required to reduce amount of soil into cleaning system and SCU. Without covers in place, SCU parts will show accelerated wear.

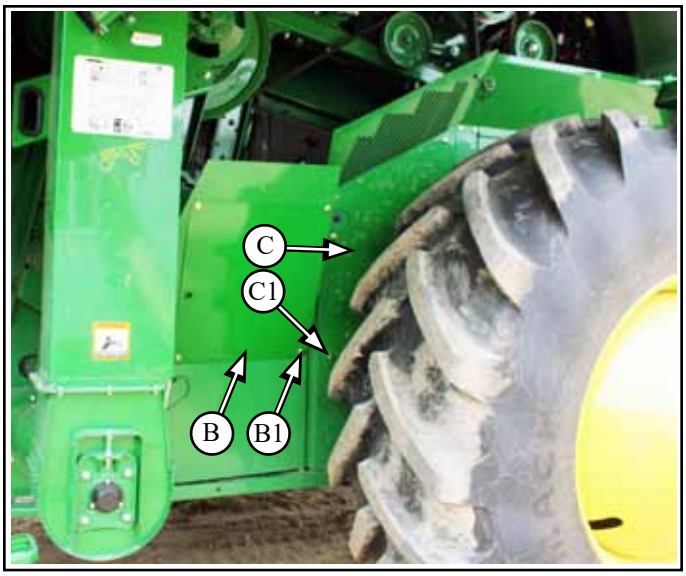
Do NOT Install if harvesting Corn / Soybeans

Note: These panels are designed for the S7 Series combine

9.2.1 On the left-hand side, install inlet cover panel (**A**) over inlet screen (**A2**), with:
- M10 x 20 flange head bolt and flange nut (**A1**) x6



9.2.2 On the right-hand side, install inlet cover panels (**B & C**) over the inlet screens (**B2** & **C2**) of the cleaning fan, with:
- M10 x 20 flange head bolt and flange nut (**B1**) x4
- M10 x 20 flange head bolt and flange nut (**C1**) x6

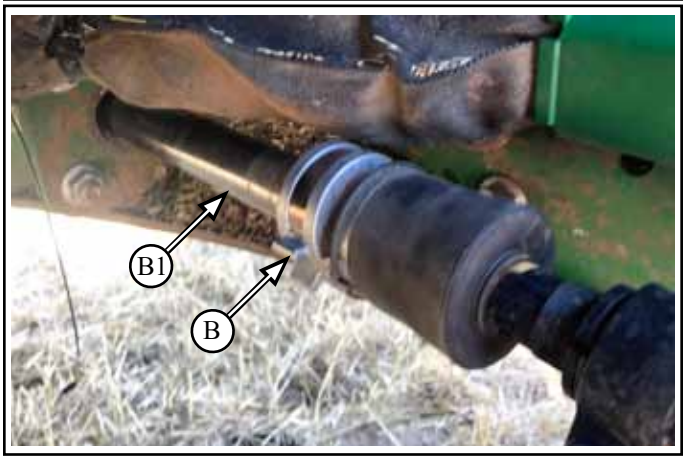


9.3 Axle Stop Installation

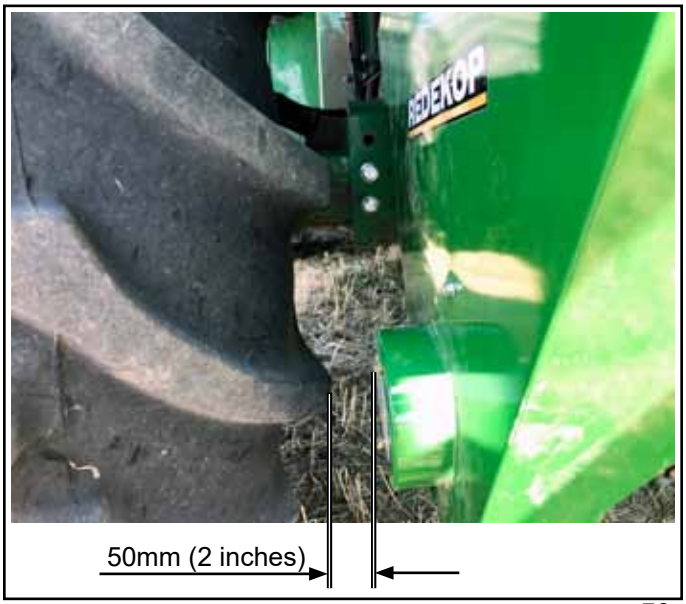
Parts List:
Parts found in SC1440SB box

AN233321 Axle Stop (**B**) Qty 2

9.3.1 Attach axle stop (**B**) onto rear steering rod (**B1**)
- both sides



9.3.2 Ensure that when wheels are fully turned to the left or right, there is 50mm (2 inches) of clearance between tire and shield
- add additional spacers as required



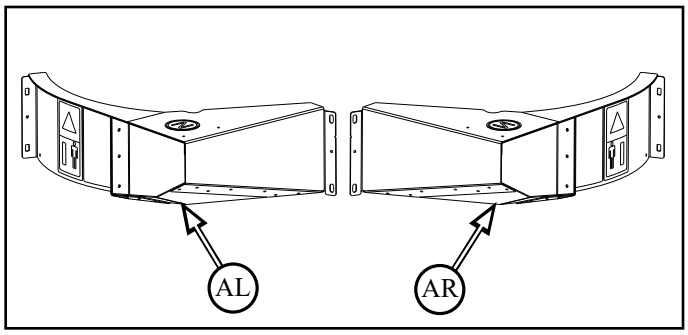
Tire Pressure:
The SCU adds 660kgs / 1450lbs to the rear of the combine.
Refer to the specifications of the tire and adjust tire pressures accordingly.

9.4 Discharge Outlet Installation

Parts List:
Parts found in SC180GSB box

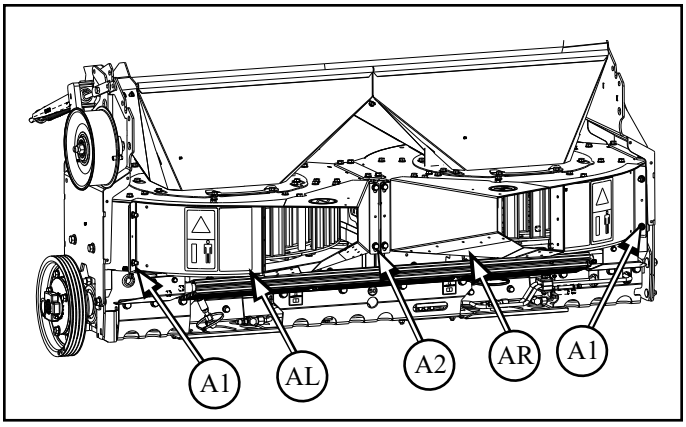
SC180GAL Discharge Outlet (**AL**)	Qty 1
SC180GAR Discharge Outlet (**AR**)	Qty 1

SC435S Hardware Bag



9.4.1 Install discharge outlet (**A**) to SCU housing with:
- M8 x 20 round head bolt and flange nut (**A1**) x2
- M8 x 20 flange head bolt (**A2**) x2

9.4.2 Repeat for other side



10 SCU MONITOR SYSTEM

The Redekop Control System is designed to be displayed on ISO compatible virtual terminals

The Home Screen for each combine version and version of the monitor will look different, however, the Redekop SCU Monitor and Tailboard Control System will appear on a separate page of the monitor once set up as a run screen – scroll to the right or left (**B**) to find the Redekop Home screen once the run screen has been setup.

10.1 Configure Cab Monitor Software

S7 Combine

Procedure to reconfigure software:
- Turn key switch ON. **DO NOT** start engine

10.1.1 Select Menu (**A**) in bottom right corner

10.1.2 Select System (**B**)

10.1.3 Select Diagnostics Center (**C**)

10.1.4 Select Controllers (**D**)

10.1.5 Scroll down (**E**)

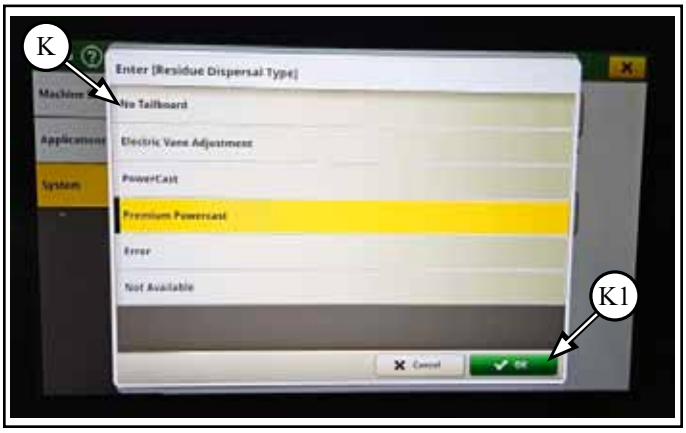
10.1.6 Select HAD Controller (**F**)

10.1.7 Select the Search Bar (**G**)

10.1.8 Type Residue (**H**) and select OK (**H1**)

10.1.9 Select Residue Dispersal Type (**J**)

10.1.10 Select No Tailboard (**K**) and select OK (**K1**)



10.1.11 Select X (**L**) to go back to Search

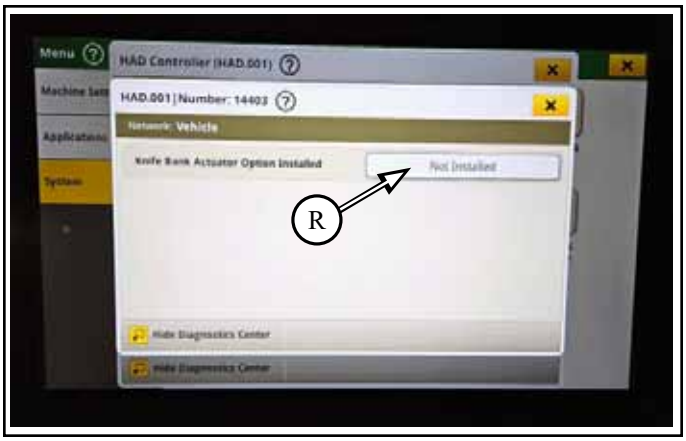
If machine was equipped with an actuated knife bar, need to uninstall feature:

10.1.12 Search for Knife (**M**) and select OK (**M1**)

10.1.13 Select Knife Bank Actuator Option Installed (**N**)

10.1.14 Select Installed (**P**)

10.1.15 Changes to Not Installed (**P**)



10.2 ISOBUS Display

(A) - Run Page

(B) - Next or Previous Run Page Buttons

(C) - Menu Button

Locate Redekop screen upon initial connection:
select <Menu> button (**C**)

select <Applications> button (**D**)

select <ISOBUS VT> button (**E**)

select <Sensor System / RM (Redekop)> (**F**)

The following monitor icons display throughout the pages:

(**A**) = Straw Chopper

(**B**) = SCU

(**C**) = Settings Screen

(**D**) = Home / Parent Screen

(**E**) = ECU Information

(**F**) = Alarm History

(**G**) = Defaults Screen

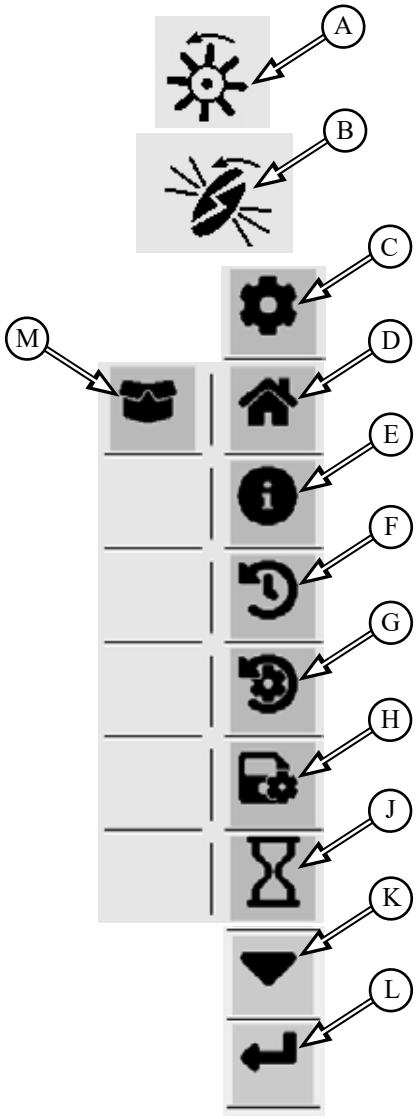
(**H**) = Save Settings

(**J**) = Time

(**K**) = Page Up or Down

(**L**) = Back one page

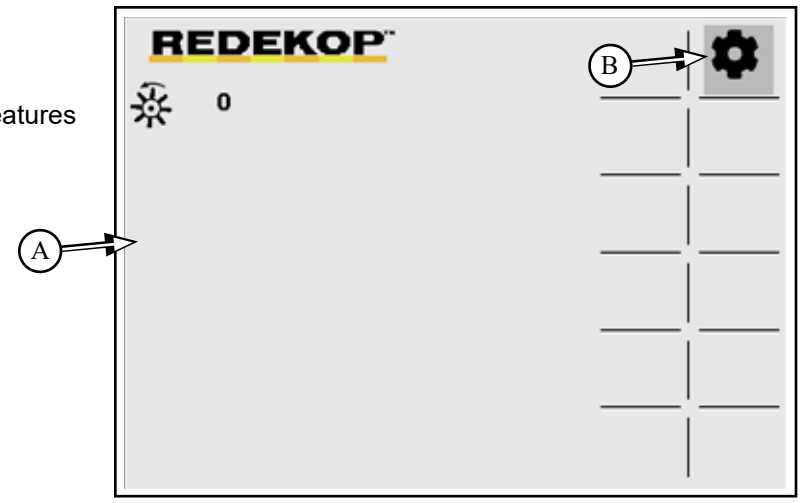
(**M**) = Installed Features Screen



10.3 Installed Features Screen

Redekop Home screen (**A**)

Select <Settings> button (**B**) to display Installed Features page (**C**)

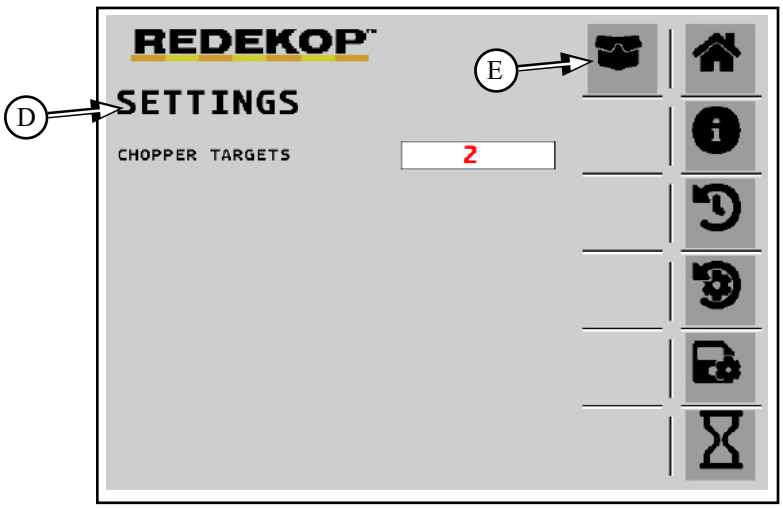


10.3.1 Installing SCU Feature

SCU feature needs to be installed with software code

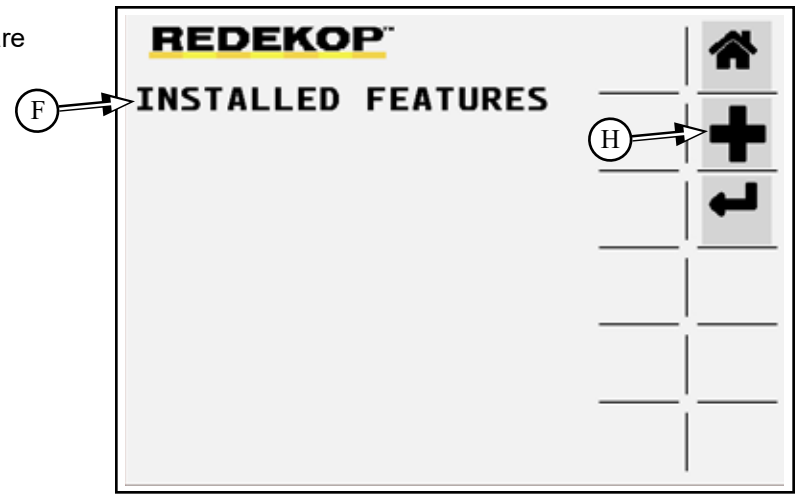
From the installed features screen, select <plus sign> button (**C**) to display Settings screen (**D**)

Select <Installed Features> button (**E**)

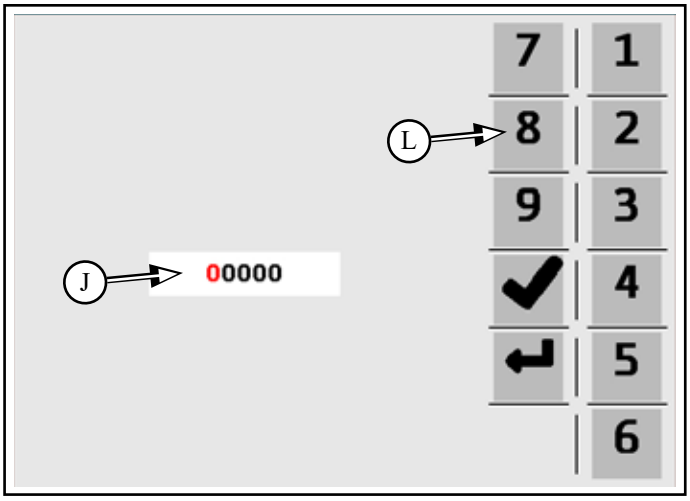


Installed Features screen (**F**) displays list of software features that are installed

Select <Plus Sign> (**H**)



Screen defaults to code input screen displaying 00000 (**J**)

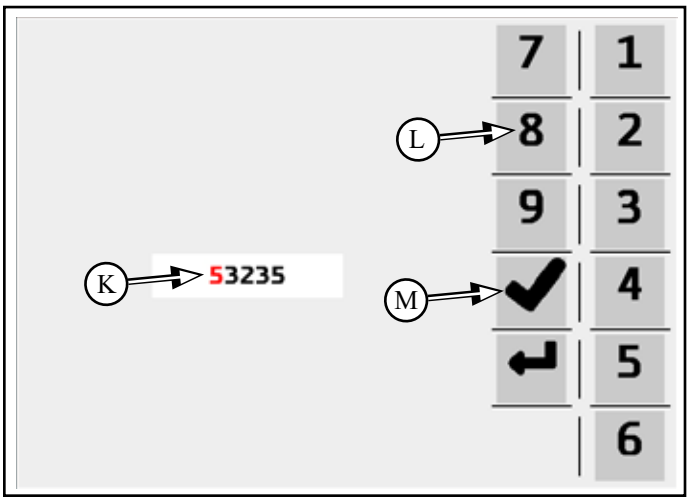


To enter new code (**K**), select <numbers> (**L**) on sidebar, code (**K**) will dispay in center of screen.
To correct a mistyped number, start over. The cursor returns to the first digit after the last digit is entered.

SCU Code: 53235

For tailboard actuator - if equipped:

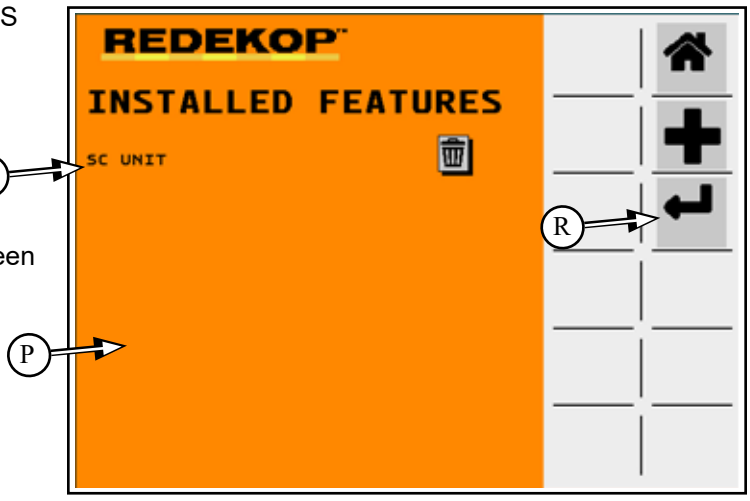
Tailboard Actuator Code: 22114



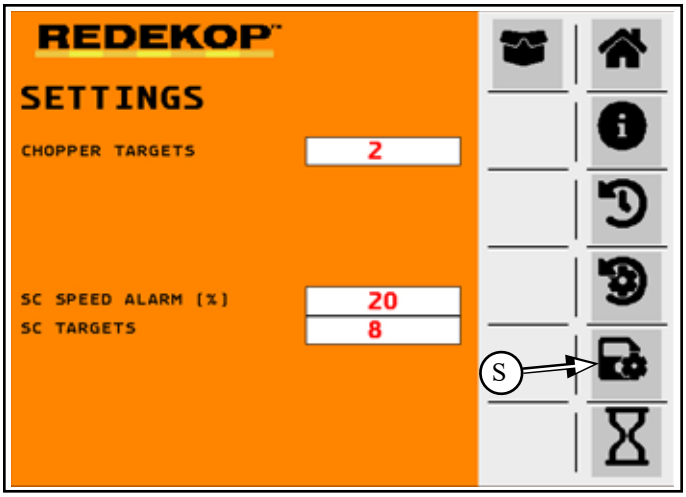
SC Option (**N**) now displays on INSTALLED FEATURES page

Orange color (**P**) display signifies unsaved feature

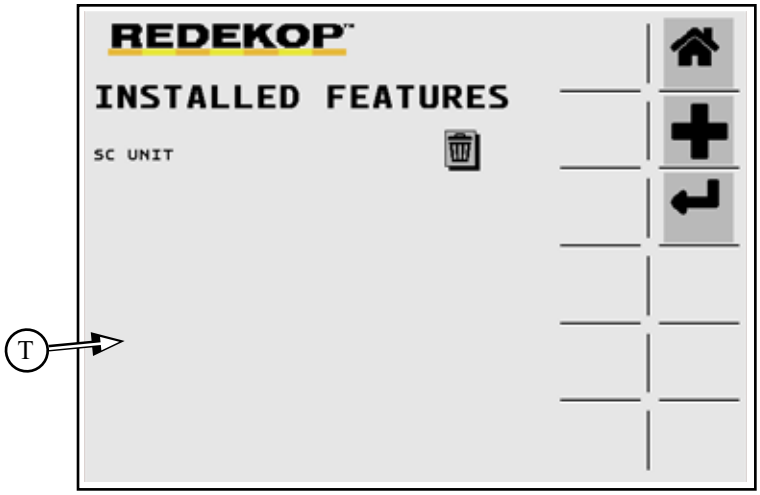
Select <Back Arrow> button (**R**) to display settings screen to save feature code



Select <Save> button (**S**)

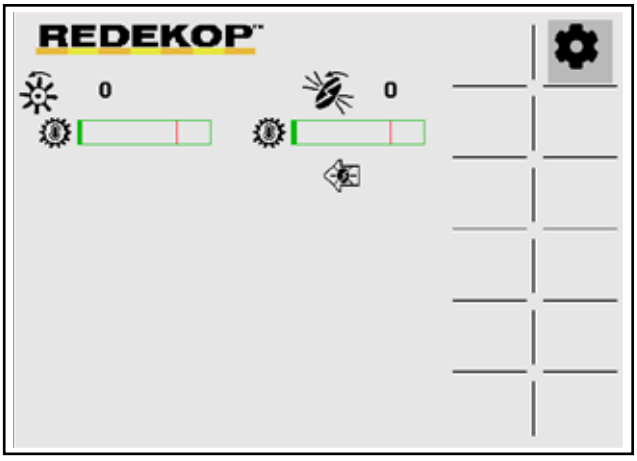


Installed Features screen now displays in gray (**T**)



10.4 Redekop Screen

REDEKOP page is displayed and ECU verified connected



To create a Redekop run screen, see 4.8 or consult your combines operators manual

After run screen has been created, the Redekop page appears, the following information is displayed:

(**A**) = Chopper Operating Speed

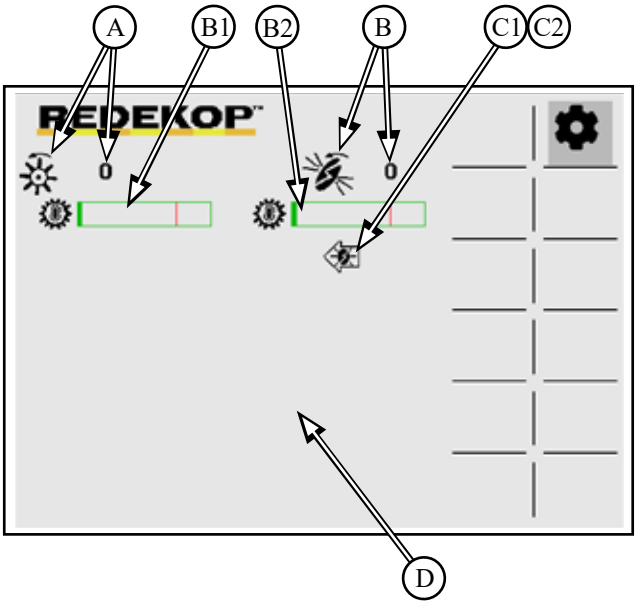
(**B**) = SCU Operating Speed

(**B1**) = Temperature Indicator of the left-hand side Gearbox

(**B2**) = Temperature Indicator of the right-hand side Gearbox

Chopper Door Position Indicator
(**C1**) = SCU Position
(**C2**) = Chopper only mode

(**D**) = Alarm Display Zone to display the alarms. See Settings Screen in this section for defined alarm setpoints.

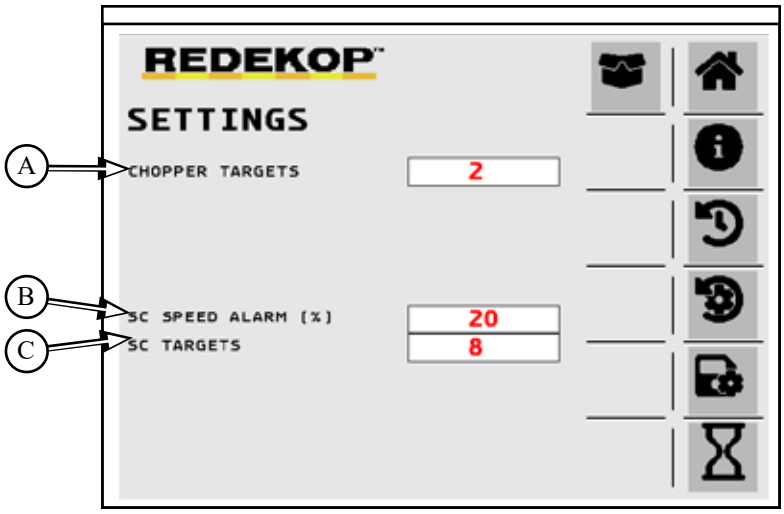


10.5 Settings Screen

CHOPPER TARGETS (**A**) - targets recorded per revolution of the chopper shaft (default is 2 for JD S7-Series)

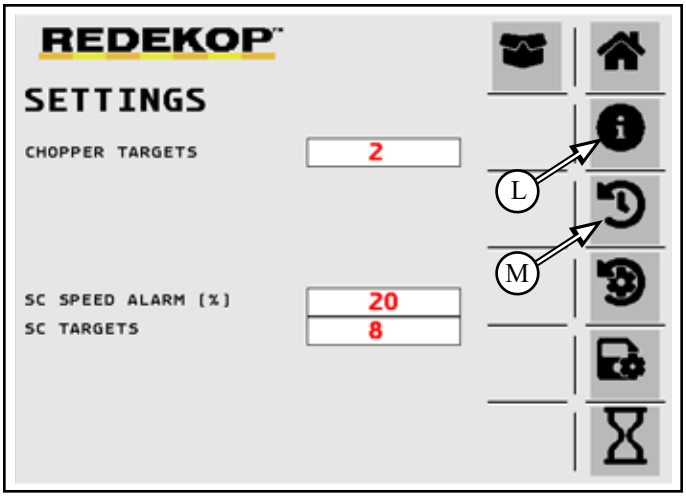
SC SPEED ALARM (**B**) - the alarm setpoint % below the maximum recorded speed measured during system startup - default is 20% (if the speed drops by 20% the alarm will go off)

SC TARGETS (**C**) - targets recorded per revolution of the SCU shaft (default is 8 for JD S7-Series)



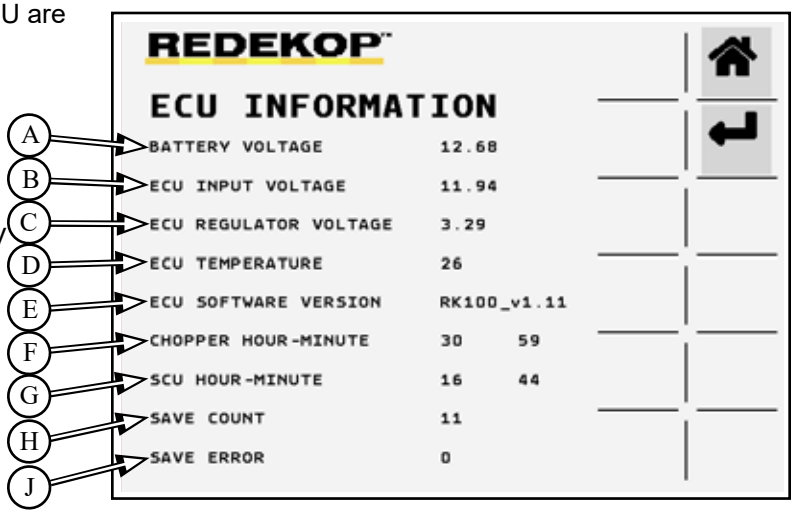
10.6 ECU Diagnostics Screen

From the Settings Screen, select <ECU Information > button (**L**)



10.6.1 ECU Diagnostic Screen

The following operation values for the Redekop ECU are displayed:



Operating Ranges:

(**A**) Battery Voltage - above 10V

(**B**) ECU Input Voltage (from ISO Bus) - above 9.5V

(**C**) ECU Regulator Voltage - above 2.8V

(**D**) ECU Temperature - range of -40 to +105C

(**E**) ECU Software Version

(**F**) Chopper Runtime (hours - minutes)

(**G**) SCU Runtime (hours - minutes)

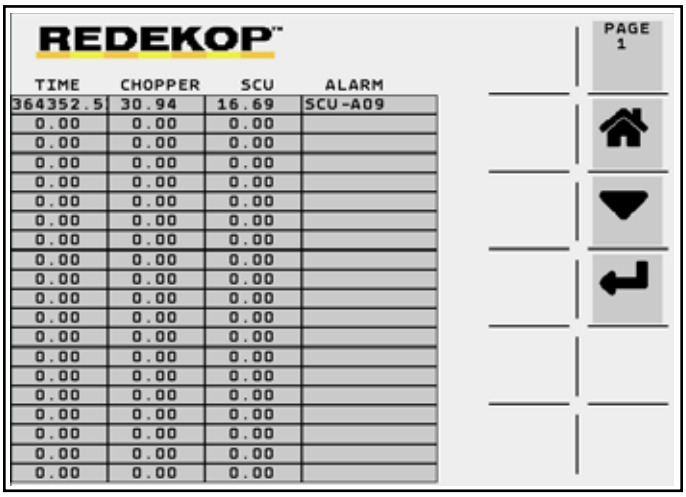
(**H**) Save Count - diagnostic value - above 0

(**J**) Save Error - diagnostic value - should be 0

10.6.2 Alarm History Screen

From the Settings Screen, select <Alarm History > button (**M**)

Records Chopper time, SCU time and alarm triggered at that time



10.7 Alarm Displays

ATTENTION!
Low battery or alternator voltage can cause system errors

ALARM TEXT	ALARM SYMBOL	ACTION / INFORMATION
Low Battery Power Check Fuse (Battery Voltage Low)		Check fuse on Redekop wiring harness - replace if required
Low ECU Voltage Check ECU (ECU Voltage Low)		Check the harnessing and connectors for damage or clean connectors (make sure Combine is running and alternator is good)
Low Regulator Voltage Check ECU! (Regulator Voltage Low)		Internal failure to ECU - send for repair
Internal Baffle Out of Position (may indicate Plugging condition)		Check position of internal baffle - see section 2.21 & 2.2.2
Disengage SCU! Chopper is Disengaged (SCU Spinning)		Check sensor clearance (range =)
Current Overload (Actuator Overload)		Check chopper slide, if binding fix problem
Chopper On, Tailboard Down (Actuator Ladder Position)		If equipped with ladder sensor / ladder, check position
ECU Temperature above 115C (ECU Temperature High)		Internal failure to ECU - send for repair
Pressure Below Threshold (Oil Pressure Low)		Check cooling circuit for leaks, add oil to middle of sight gage
Temperature Above Threshold (Oil Temperature High)		Check oil level, check suction strainers, check cooler elements
SCU Unit RPM Low (SCU Low RPM)		Check sensor & belt, belt tension
Temperature # Sensor Disconnected (Oil Temperature Disconnected)		Check sensor

10.8 Creating a Redekop Run Page for S7 Series Combine

On home screen, select <Menu>

Select <Applications>

Select <Layout Manager>

Select <All Run Pages>

Select <Add New>

Select <Run Page Name>

Type in <REDEKOP>
or other eg: SCU etc
Select <OK>

Select <Add to Module>

Select <Applications>

Select <ISOBUS VT>

Scroll down until Agtron Enterprise
Inc Sensor System appears

Important: Agtron Enterprise
Inc Sensor appears only if the
relevant control unit is detected

Select <Add>

14 - select <Save>

Select <Active Set>

Select <Active Run Pages>

Select <Add Run Page>

Select <Redekop>

Select <Checkmark>

To finalize the Run Page creation, select <Save>.
The Redekop run page is now available in the active run pages list that can be recalled

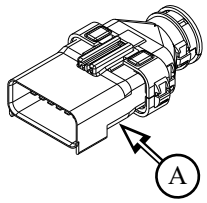
Screen showing total run pages in system

10.9 Changing Monitor to Chopper Service Mode

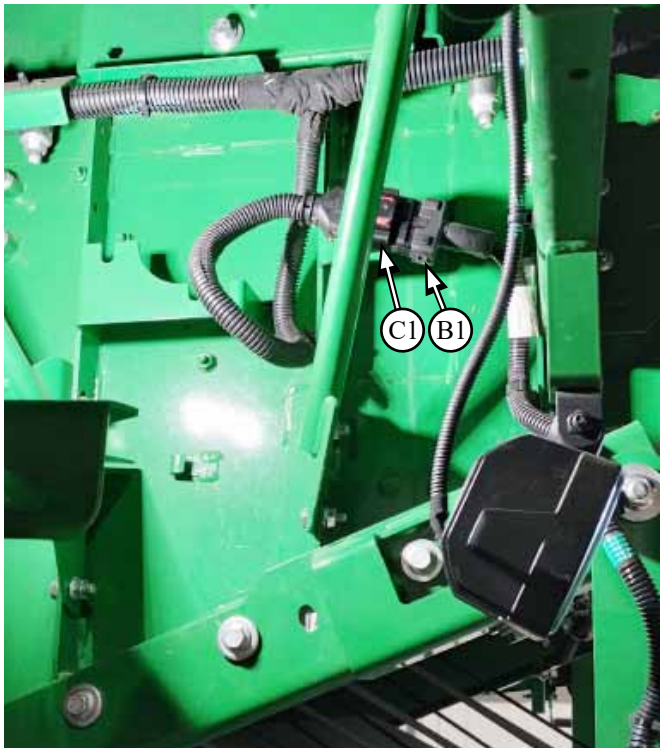
To allow actuators to move for chopper installation

Parts List:

RP1737 Harness Loop S7 Active Tailboard (**A**) Qty 1



10.9.1 Disconnect tailboard spreader controller harness connector (**B1**) from main harness connector (**C1**)



10.9.2 Connect harness loop connector (**A**) into main harness connector (**C1**)
- to be removed when spreaders are reinstalled
- this will bridge the CAN BUS connection when spreaders are removed and alow the movement of the chopper actuators

10.9.3 Configure console in cab

10.9.4 Changing Monitor to Chopper Service Mode

10.9.4.1 Select Menu (**A**)

10.9.4.2 Select System (**B**)

10.9.4.3 Select Diagnostics Center (**C**)

10.9.4.4 Select Controllers (**D**)

10.9.4.5 Scroll down (**D1**)

10.9.4.6 Select HAD Controller (**E**)

10.9.4.7 Stay on Readings Tab (**F**)

10.9.4.8 Select Search (**F1**)

10.9.4.9 Type in SERVICE (**F2**)

10.9.4.10 Select OK (**F3**)

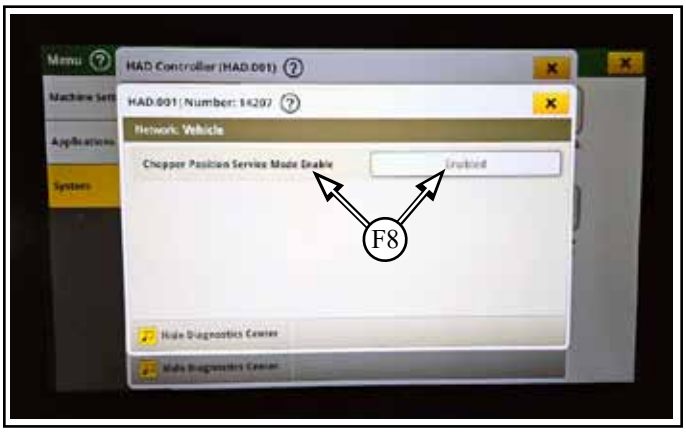
10.9.4.11 Select Chopper Position Service Mode Enable (**F4**)

10.9.4.12 Select Disabled (**F5**)

10.9.4.13 Select Enabled (**F6**)

10.9.4.14 Select OK (**F7**)

10.9.4.15 Screen displaying Chopper Service Mode - Enabled (**F8**)



10.9.4.16 Leave combine key in ON position in order to operate actuators

10.9.4.17 Once chopper is reinstalled, complete steps in reverse order to disable Service Mode

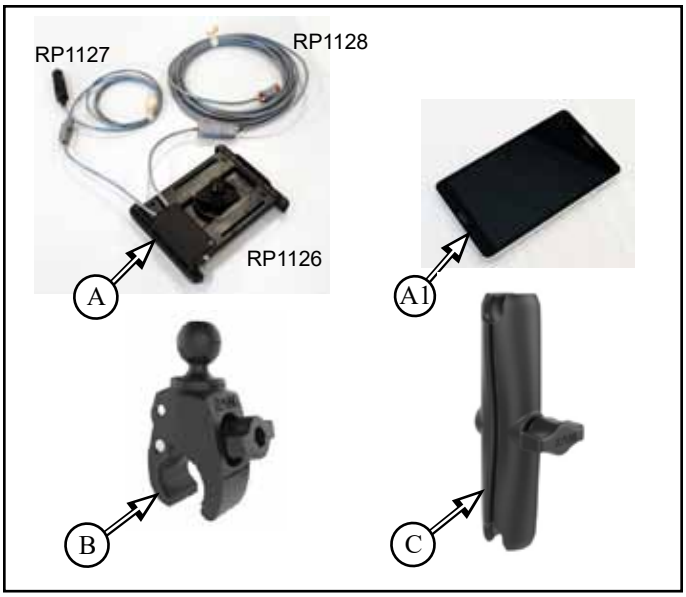
11 Tablet Installation

Required if Tablet option is purchased in place of OEM ISOBUS Display to view SCU and Chopper operation

11.1 Tablet Mount Assembly

Parts List:

RP1126A	Mount, Harness Assy (**A**)	Qty 1
RP1065	Tablet 8 in (**A1**)	Qty 1
RP1234	RAM Mount Small Clamp w/ Ball (**B**)	Qty 1
RP1229	RAM Mount Double Socket (**C**)	Qty 1



11.1.1 Assemble the double socket bracket (**C**) to clamp bracket ball (**B**)

11.1.2 Assemble the double socket bracket (**C**) to the tablet ball (**A**), tighten with knob (**C1**)

Prior to installation in combine - check for a software update for Redekop Controller application. See operator's manual section 4.4

11.1.3 Mount tablet, cradle assembly onto inside of combine at desired location and locking into place. Adjust angle of tablet for best viewing and lock into place.

See operator's manual for operation of tablet

11.2 John Deere Combine Software Configuration

Configure Software in Display

If combine has a chopper with powercast tailboard
- change line #118 (to remove powercast tailboard)
    - 2nd last digit to 0

If combine is without a chopper, has a spreader
- change line # 112 (to activate chopper)
    - 4th last digit to 1

CAUTION

Check all fasteners to ensure they have been properly tightened

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)

CAUTION

Wear Hearing Protection during operation

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.

Notes:

REDEKOP MANUFACTURING

1.866.REDEKOP (1.866.733.3567)

Saskatoon, Saskatchewan Canada S7K 3J7
info@redekopmfg.com
www.redekopmfg.com

For additional and the most up to date Manuals:

REDEKOP™

REDEKOP™