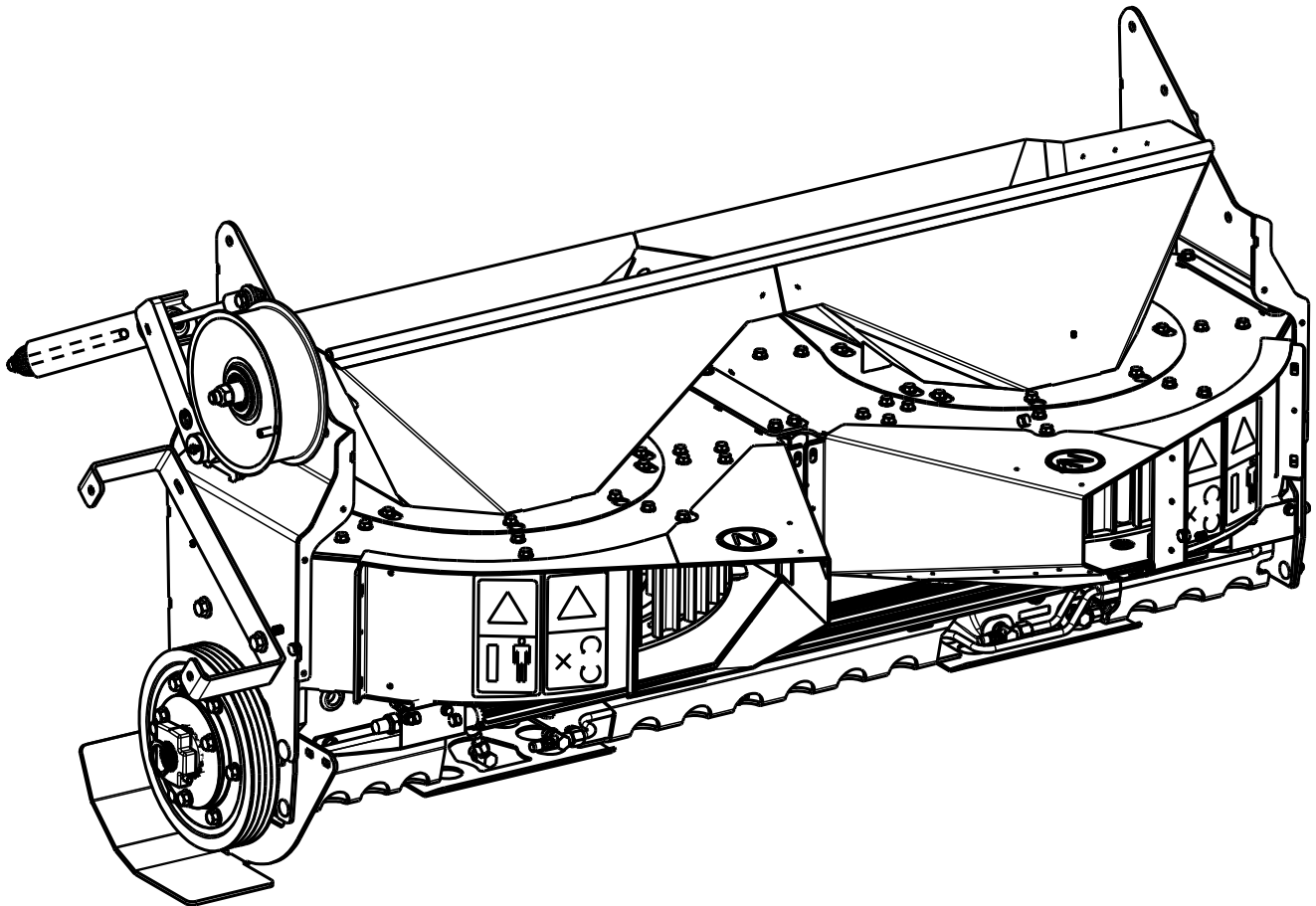


## SCU Wear Replacement Guide MY23

Serial Number #SC0300 - Present



# SCU Wear Replacement Guide

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# 1 SCOPE

This document identifies the eligibility criteria for the SCU warranty, exclusively applied to the parts of the Seed Control Unit (SCU) from Redekop.

## General Information on the components of the Seed Control Unit (SCU)

The Seed Control Unit system may consist of the following components:

### Redekop Seed Control Unit (A)

Damages the weed seeds to prevent them from germinating

### Straw Chopper (B)

Cuts the straw into small manageable pieces and creates air velocity to spread this straw evenly across the field

### Chaff Pan Extension and Chaff Door (C)

Directs chaff from combine sieves into SCU

### Drive Coupling (D)

Allows quick engagement or disengagement of SCU drive system

### Chaff Impact Mill (E)

Damages and devitalizes seeds

### Chaff Baffle (F)

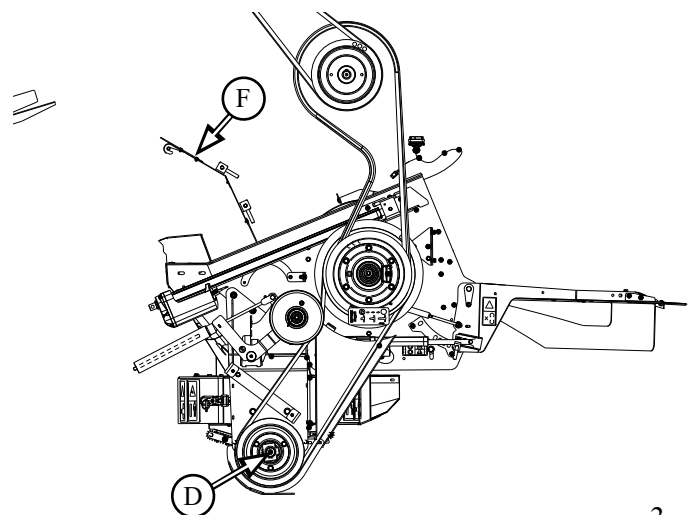
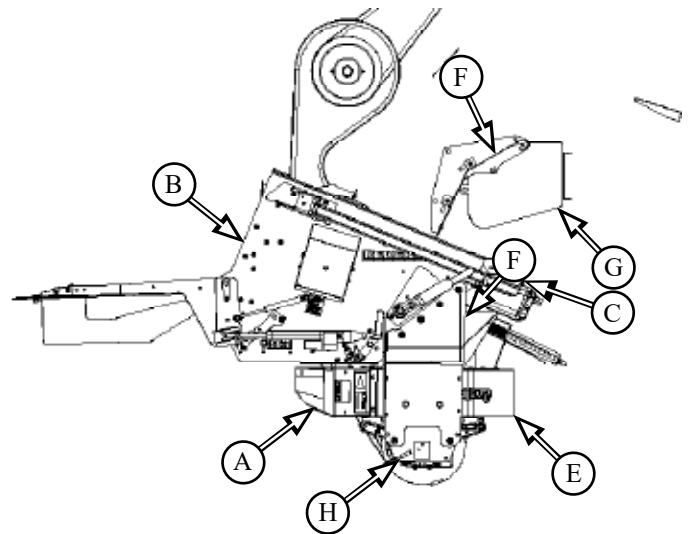
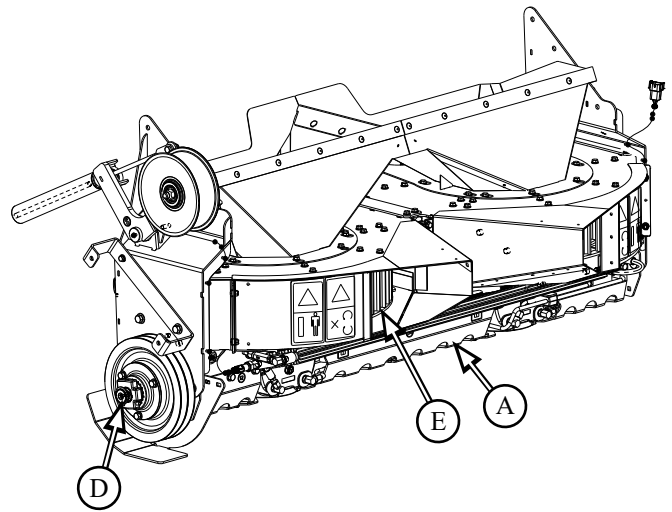
Redirects chaff into SCU

### Vent Covers (G)

Forces all chaff flow into SCU  
Prevents seed losses prior to SCU

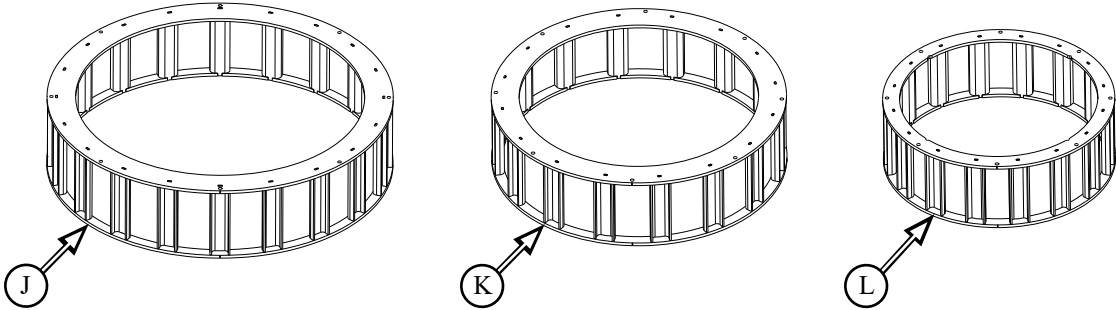
### Hydraulic Circulation Pump (H)

Circulates gearbox oil through cooling system

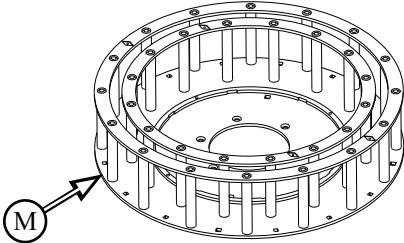


**Stator Rings**

Outer (J), Middle (K), Inner (L)



**Rotor (M)**



## 2 Parts Replacement Criteria

To prevent damage and/or loss of performance, parts must be replaced when one of the following criteria is reached:

1. Parts must be rotated side to side when
  - hard surfacing has been worn off first side of rotor or stator bars
2. Parts must be replaced when:
  - Rotor / Stator bar hard surfacing has been worn off
  - Housing shields have been penetrated
  - Outlet panel worn through



**Failure to check and replace rotors and stators after hard surfacing has worn off may result in catastrophic failure due to loss of structural integrity!**

### 3 Limited Warranty on SCU

This section is intended as a guide in the decision making process for claims regarding the SCU. It is important to remember that some claims will need further analysis before a decision is made. This decision will be taken by Redekop, which reserves the right to reject any request at its discretion.

**Redekop Manufacturing 2014**, hereinafter referred to as “Manufacturer”, warrants each new Redekop Seed Control Unit (SCU) sold by the Manufacturer to be free from defects in material and workmanship, under normal use and service, for a period of one (1) year after the date of delivery to the original retail purchaser. The Manufacturer will, at its option, replace or repair, at the Manufacturer’s factory, or at a point designated by the Manufacturer, any part or parts which shall appear to the satisfaction of the Manufacturer upon inspection at such point, to have been defective in material or workmanship. This Warranty does not obligate the Manufacturer to bear any transportation charges in connection with the replacement of defective parts.

This Warranty shall not apply to any alteration which shall have been installed or operated in a manner not recommended by the Manufacturer; nor to any repaired, altered, neglected or used part in any way which, in the Manufacturer’s opinion, adversely affects its performance; nor to any modification in which parts not manufactured or approved by the Manufacturer have been used; nor to any accessories installed on the SCU where the accessory manufacturer has its warranty; nor to normal maintenance or replacement of normal service items.

Manufacturer reserves the right to modify, alter, and improve any SCU or parts without incurring any obligation to replace any SCU or parts previously sold with such modified, altered or improved SCU or part.

THIS WARRANTY, AND THE MANUFACTURER’S OBLIGATION HEREUNDER, IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, OR OF FITNESS FOR A PARTICULAR PURPOSE, and all other obligations or liabilities, including special or consequential damages or contingent liabilities arising out of the failure of any SCU or part to operate properly. No person is authorized to give any other warranty or to assume any additional obligation on the Manufacturer’s behalf unless made in writing and signed by an officer of the Manufacturer.

This Warranty is effective only for the original purchaser.

#### Warrantable Conditions

Seed Control Unit (SCU) parts are guaranteed against manufacturing defects and/or materials used in the product and are covered during the period mentioned in the warranty policy. SCU wear is directly related to soil type and the amount of soil on plant material processed by the combine. Crops laying on the ground dramatically increases the soil brought through the combine and SCU and accelerated wear will occur.



Warranty will be voided if SCU is not operated as instructed in the operators manual!

# 4 Terminology

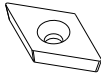
In order to use this document and understand what is being explained, several technical terms must be clarified and system components explained. Common wearable parts of the SCU are listed below. Part numbers for these parts and kits will be found in the parts pages.

## Description

Screw Taper Head Torx M4x14L



Scraper SCU Rotor Top



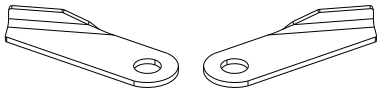
Bushing Blade SCU Outer



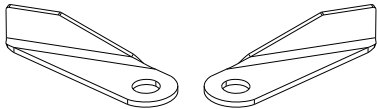
Bushing Blade SCU Inner



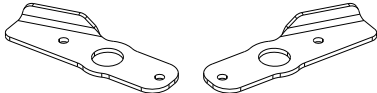
Top Fan Blade .75 wide, Carbide Coated



Bottom Fan Blade 1.5 wide, Carbide Coated



Rotor Bottom Blade, Carbide Coated



VBelt Kevlar Chopper to SCU drive belt  
or Jackshaft to Chopper - slow speed drive belt

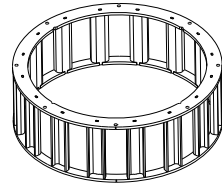


## Description

Stator Ring Inner - 16 U Bar



\*\* Recommend swapping to opposite mill every year \*\*

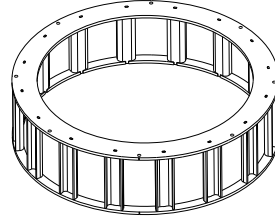


445mm Dia.

Stator Ring Middle - 16 U Bar



\*\* Recommend swapping to opposite mill every year \*\*

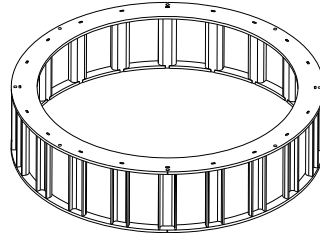


550mm Dia.

Stator Ring Outer - 20 U Bar



\*\* Recommend swapping to opposite mill every year \*\*

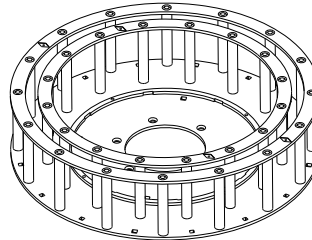


660mm Dia.

Rotor SCU



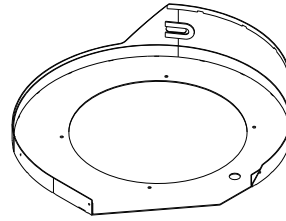
\*\* Recommend swapping to opposite mill every year \*\*



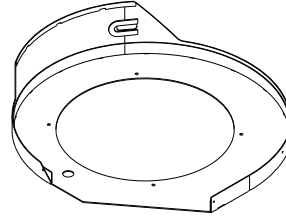


## Description

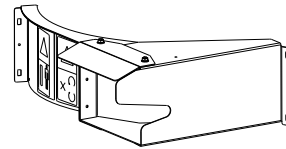
Housing Btm SCU Rt



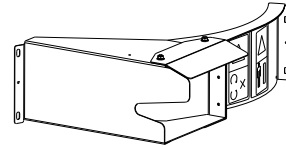
Housing Btm SCU Lt



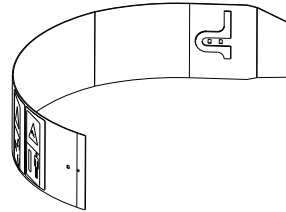
Outlet SCU Assy Lt



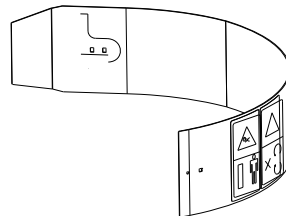
Outlet SCU Assy Rt



Cover Front Cleanout SCU Assy Lt



Cover Front Cleanout SCU Assy Rt

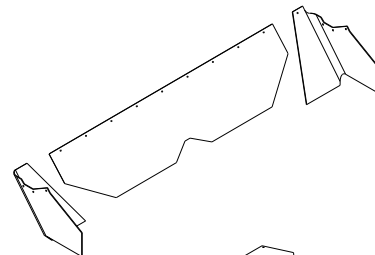


Bearing Assembly

\*\* Inspect yearly \*\*  
\*\* Replace every 2 years \*\*

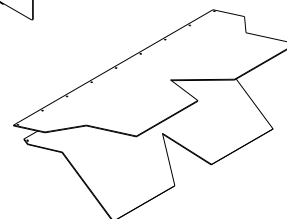


Belting Lower Sieve Extension



or

Belting Upper Sieve Extension



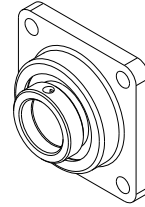
**Part #      Description**

Common wearable parts on the **MAV Chopper** are listed below:

Bearing Assy 50mm id



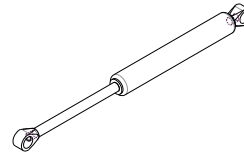
(no greasing required)  
\*\* Replace every 2 years \*\*



Gas Shock Assy HD



\*\* Replace every year \*\*



VBelt Kevlar

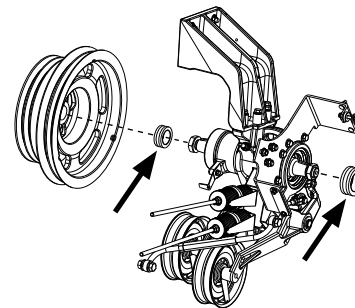


OEM parts for periodic replacement:

John Deere S Series OEM Jackshaft Bearings



\*\* Replace every 2 years \*\*



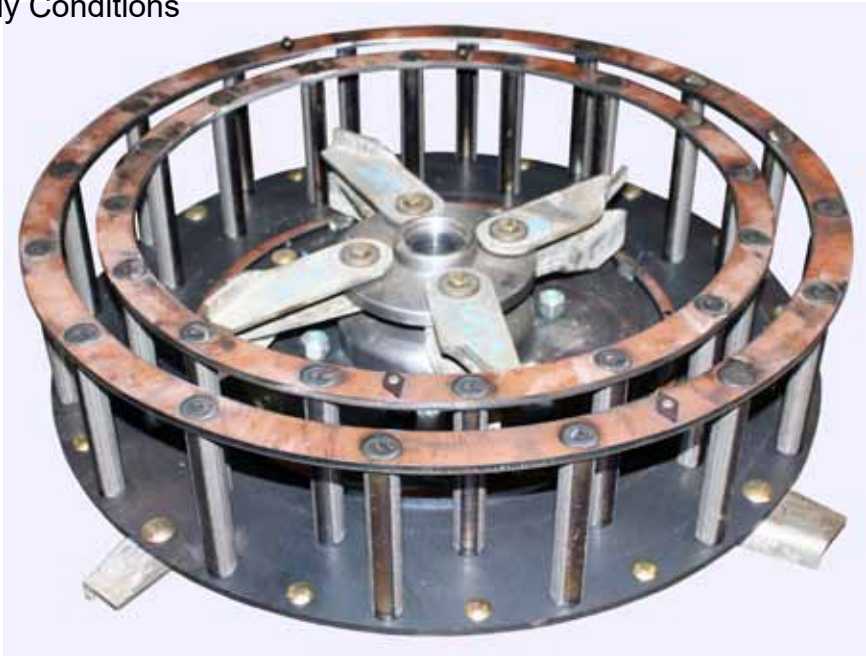
## 5 Warrantable Conditions

In order to use this document and understand what is being explained, several technical terms must be clarified and system components explained. The following section will show the different parts of the SCU. The most visible portion of the SCU is called the outside visible surface.

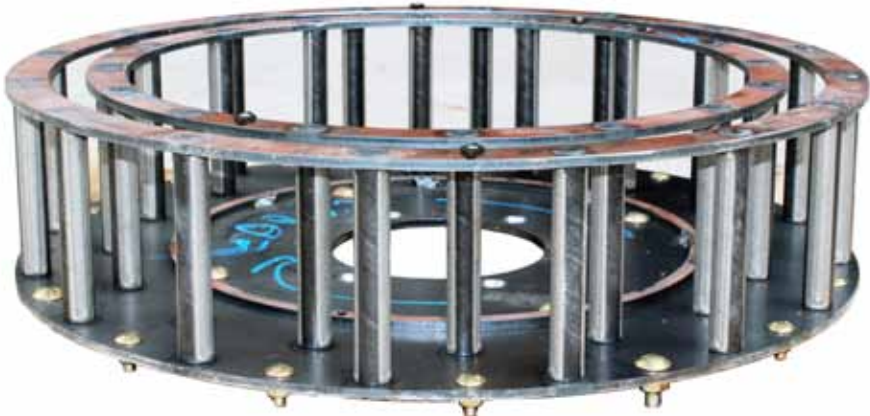
<b>Seed Control Unit (SCU)</b>		
<b>Conditions</b>		<b>Warrantability</b>
<b>6. Rotor &amp; Stator Component Conditions</b>		
A	Breakage due to foreign object	NOT WARRANTABLE
B	Failure due to wear - not replaced soon enough	NOT WARRANTABLE
C	Nicks on blades/bars (foreign object)	NOT WARRANTABLE
D	Uneven wear	NOT WARRANTABLE
E	Excessive wear	NOT WARRANTABLE
F	Fan blade wear	NOT WARRANTABLE
G	Scraper blade wear	NOT WARRANTABLE
<b>7. Drive Component Conditions</b>		
A	V Belt breakage or burn due to slippage/improper tension	NOT WARRANTABLE
B	V Belt surface cracks	NOT WARRANTABLE
C	Gear Box failure	NOT WARRANTABLE
D	Drive line between gearboxes - twisted	NOT WARRANTABLE
E	Input drive shaft wear	NOT WARRANTABLE
F	Oil pump - no longer circulates	NOT WARRANTABLE
<b>8. Outside Visible Surface Conditions</b>		
A	Cosmetic damage	NOT WARRANTABLE
B	Faded appearance	NOT WARRANTABLE
C	Punctures due to foreign objects	NOT WARRANTABLE
D	Paint flakes off due to improper application	WARRANTABLE
E	Discharge outlets wear	NOT WARRANTABLE
<b>9. Electronics</b>		
A	Harness wires break/tear	NOT WARRANTABLE
B	Harness wires separate from connectors	WARRANTABLE
C	Harness connectors break	WARRANTABLE
<b>10. Frame and Rotor Housing</b>		
A	Cracked/bent frame due to field damage	NOT WARRANTABLE
B	End/middle plate wear	NOT WARRANTABLE

# 6 Rotor and Stator Component Conditions

New Rotor Assembly Conditions



New Rotor Assembly



New Rotor and Bar



New stator and bars

## 6A Breakage due to Foreign Object

### Not Warrantable Condition

#### Condition:

- The rotor and/or stator bars crack, bend or break

#### Possible Sources of Damage:

- This is a result of a foreign object going through the system

#### Recommended Actions:

- Replace the rotor or stator with a new unit
- After removal of rotor and stators, check driveline by manually rotating drive and feeling rotation for rough spots - replace bearings as required

#### Visual Aid:



Major Failure



Major Failure



## 6B Failure due to wear - not replaced soon enough

### Not Warrantable Condition

#### Condition:

- The rotor and/or stator bars crack, bend or break

#### Possible Sources of Damage:

- The bars have excessive wear and have lost structural integrity. They may have broken as a result of a minor foreign object going through the system.

#### Recommended Actions:

- Replace the rotor or stator with a new unit

#### Visual Aid:



Major Failure



Minor Wear

## 6C Nicks on Blades/Bars (Foreign Object)

### Not Warrantable Condition

#### Condition:

- Blades/bars have nicks

#### Possible Sources of Damage:

- This is a result of a foreign object going through the system

#### Recommended Actions:

- Inspect on a regular basis, if the nick becomes larger and penetrates into the bar far enough to affect structural integrity, replace accordingly.

#### Visual Aid:



Major Nicks



Minor Nicks



Minor Nicks

## 6D Uneven Wear

### Not Warrantable Condition

#### Condition:

- Wear on mill components is uneven between left and right mills

#### Possible Sources of Damage:

- Product is fed into SCU unevenly - heavier feed on left or right side
- Sand or soil is being sucked into one side of combine by shoe fan

#### Recommended Actions:

- Adjust return feed to evenly distribute tailings to the shoe
- Adjust combine concaves to more evenly distribute material on the shoe
- Ensure combines shoe fan inlet screens have been covered if near the tires. Parts were included in the John Deere kit - reorder if missing

#### Visual Aid:



Inlet Screen Covers



Inlet Screen Covers



## 6E Excessive Wear

### Not Warrantable Condition

#### Condition:

- Components have excessive wear

#### Possible Sources of Damage:

- Product processed through SCU in a longer time frame without being inspected

#### Recommended Actions:

- Replace as soon as hard surfacing has worn through



Failure to replace will void all warranty!  
Loss of structural integrity of rotors and or stator bars will result in catastrophic failure

#### Visual Aid:



Minor Wear



Major Wear



Minor Wear



Major Wear

## 6F Fan Blade Wear

### Not Warrantable Condition

#### Condition:

- Fan blades have excessive wear on corners and tips of blades

#### Possible Sources of Damage:

- Product processed through SCU in a longer time frame without being inspected

#### Recommended Actions:

- Replace fan blades
- If the wear is minor, replace at end of season in preparation for the next season
- Failure to replace fan blades with major wear will result in reduced performance and plugging as suction into the Seed Control Unit and velocity exiting the unit is dramatically reduced

#### Visual Aid:



Major Wear



Minor Wear

## 6G Scraper Blade Wear

### Not Warrantable Condition

#### Condition:

- Scraper blades have excessive wear on corners

#### Possible Sources of Damage:

- Product processed through SCU in a longer time frame without being inspected

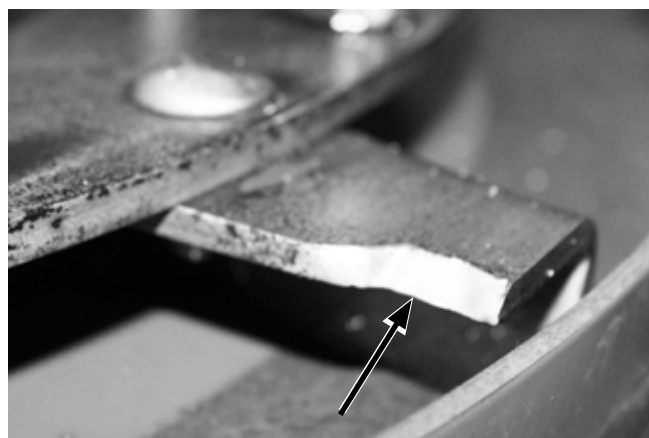
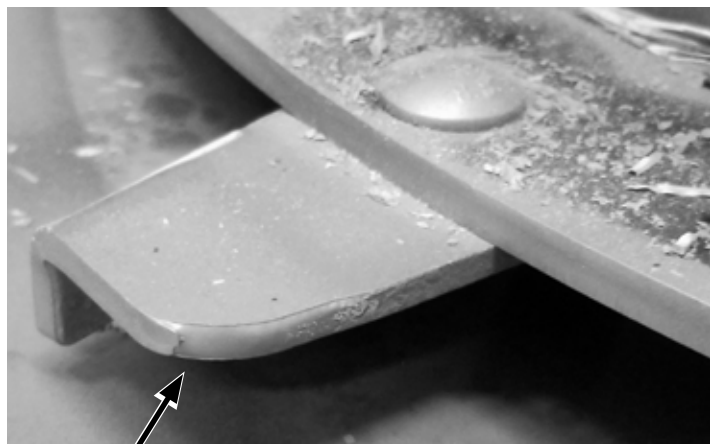
#### Recommended Actions:

- Replace scraper blades
- If the wear is minor, replace at end of season in preparation for the next season

#### Visual Aid:



Major Wear



Minor Wear

## 7 Drive Component Conditions

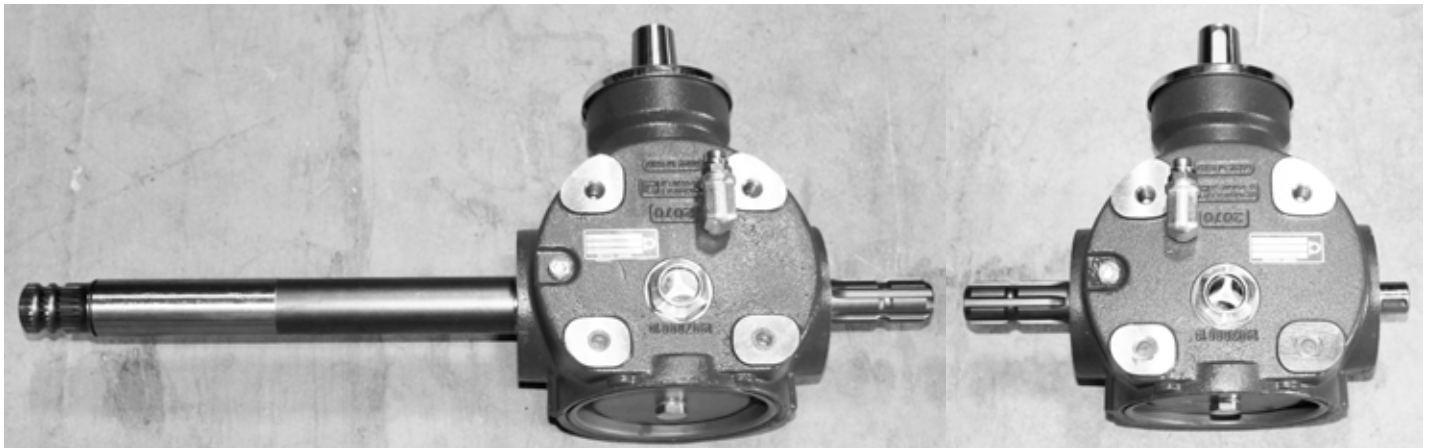
New Condition



New C Profile V Belt



New M Profile V Belt



New Drive Side Gearbox

New Non Drive Side Gearbox



New Driveline between gearboxes



New Hydraulic Circulation Pump

## 7A V Belt Breakage or Burn due to Slippage/Improper Tension

### Not Warrantable Condition

#### Condition:

- V Belt has broken or burnt

#### Possible Sources of Damage:

- Belt not aligned properly
- Belt tension is not set correctly
- Belt stretched, dropping tension and caused slippage

#### Recommended Actions:

- Replace broken belt
- Set belt tension to indicator setting, check tension regularly for first 2 days
- Check belt tension daily thereafter

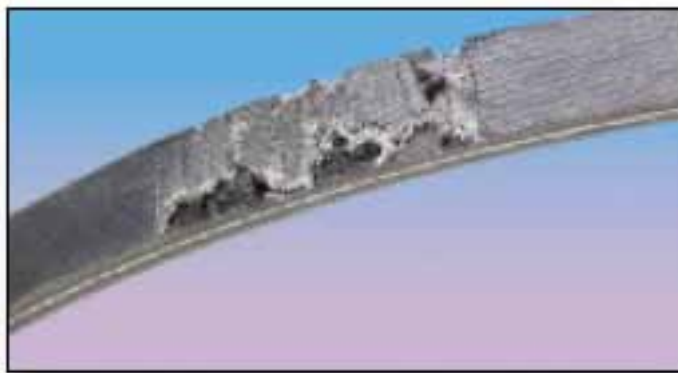
#### Visual Aid:



Rapid Sidewall Wear

#### Causes:

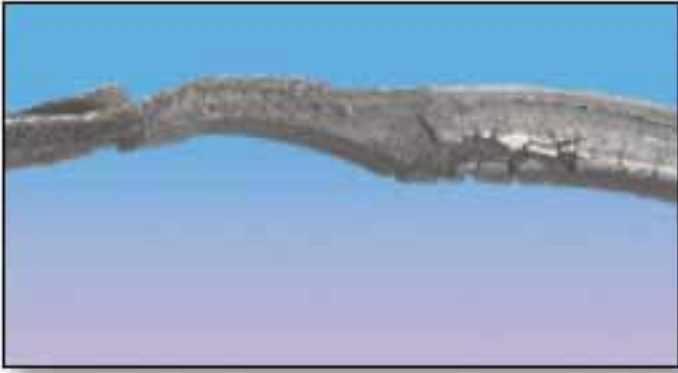
- Worn or damaged sheaves
- Sheaves misaligned
- Insufficient tension
- Improper storage
- Excessive heat
- Use of belt dressing
- Abrasive environment



Worn Cover on Back

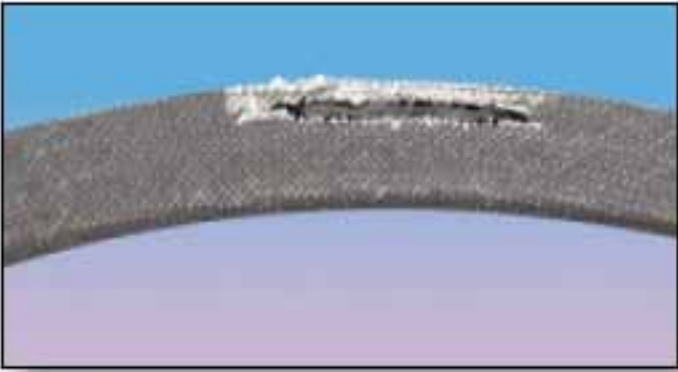
#### Causes:

- Belts pried on
- Worn Idler - has worn backside of idler beyond useful life - replace idler



- Causes:
- Worn or damaged sheaves
  - Insufficient tension

Belt Slips, Squeals (Spin Burn)



- Causes:
- Belt pried on
  - Foreign objects in sheave grooves

Belt Cover Split

## 7B V Belt Surface Cracks

### Not Warrantable Condition

#### Condition:

- V Belt surface has cracks

#### Possible Sources of Damage:

- Belt tension is/was not set correctly - belt has slipped and overheated
- Belt is old and dried out

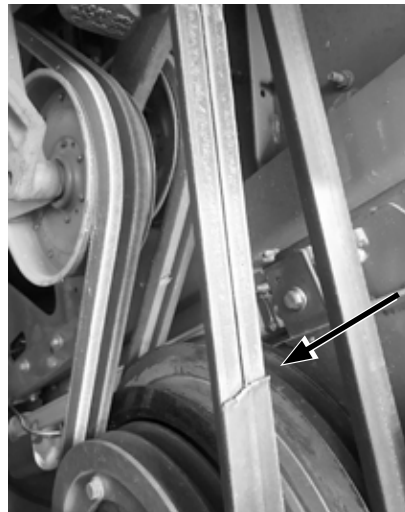
#### Recommended Actions:

- Replace belt with a new belt
- Set belt tension to indicator setting

#### Visual Aid:



Major Wear



Major Wear

## 7C Gear Box Failure

### Not Warrantable Condition

#### Condition:

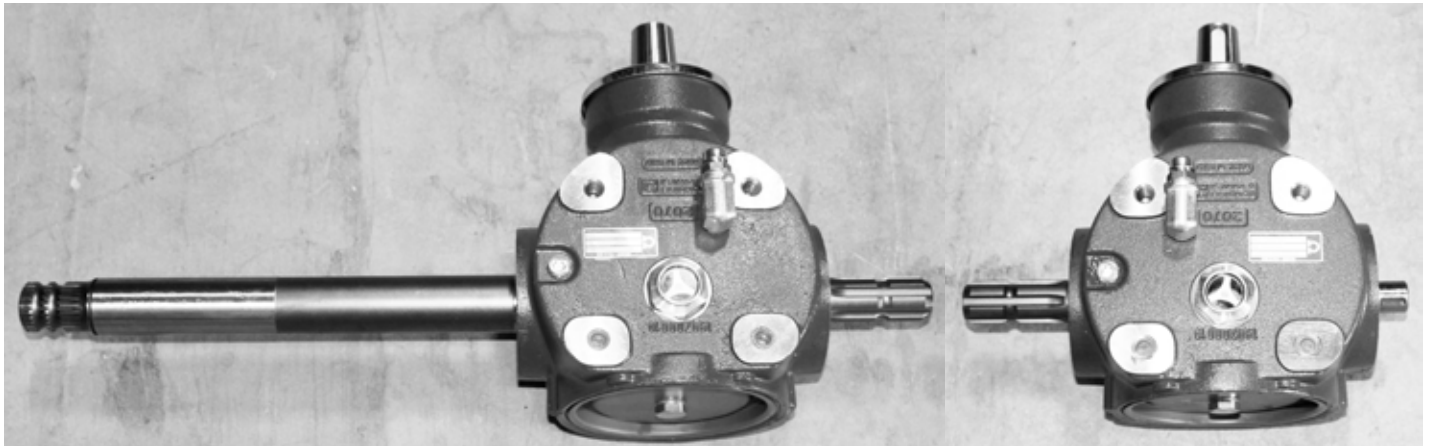
- Gearbox has failed/seized operation

#### Possible Sources of Damage:

- Loss of oil
- Failure of oil pump
- Failure of oil lines
- Oil not changed after breakin period (100 hours)
- Catastrophic failure of mills

#### Recommended Actions:

- Remove belt and manually turn drive
- Feel for rough/damaged spots on gear teeth or bearings
- Replace bearings/gearbox as necessary



New Drive Side Gearbox

New Non Drive Side Gearbox



## 7D Driveline Between Gear Boxes - Twisted/Broken

### Not Warrantable Condition

#### Condition:

- Driveline is twisted or broken

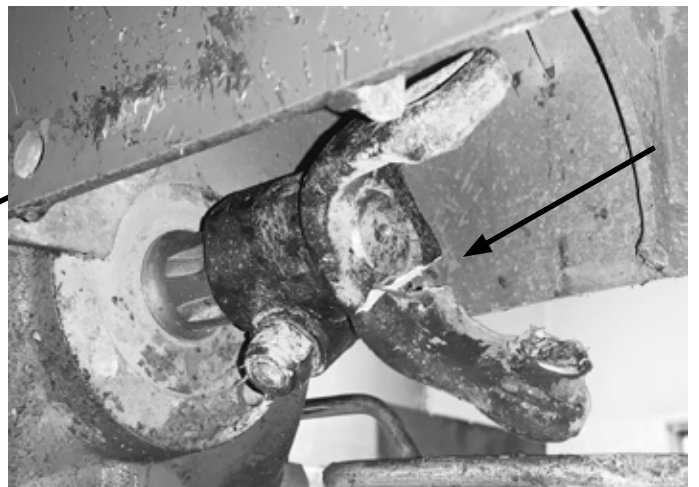
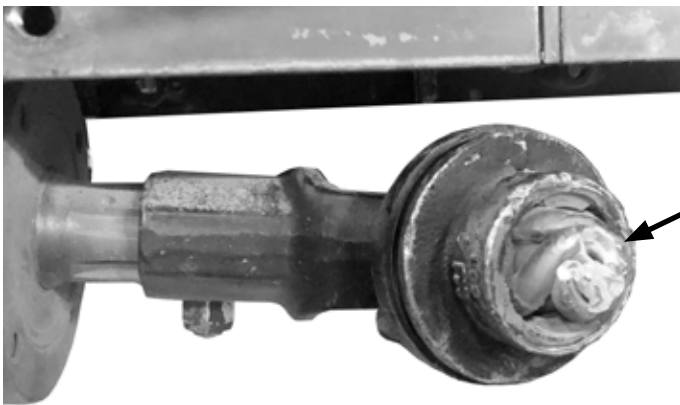
#### Possible Sources of Damage:

- Foreign object/catastrophic damage to one mill lead to sudden stoppage

#### Recommended Actions:

- Remove damaged parts to mill
- Remove damaged driveline
- Rotate driveline and gearboxes manually
- Check for rough spots on bearing and gear teeth
- Replace parts as required

#### Visual Aid:



## 7E Oil Pump - No Longer Circulates Oil

### Not Warrantable Condition

#### Condition:

- Oil pump no longer circulates oil

#### Possible Sources of Damage:

- Leak in system causing oil cavitation and destroys pump
- Oil temperature overheated and ruined seals
- Pump runs dry and overheats
- Pump oil strainers are plugged causing oil cavitation
- Oil was not changed initially after breakdown - 50 Hours, suction strainers not cleaned

#### Recommended Actions:

- Replace/repair pump
- Replace leaking oil lines
- Determine problem of overheating
  - Clean coolers
  - Clean oil strainers/pump inlet

#### Visual Aid:



Filings in Oil Strainer

## 8 Outside Visible Surface Conditions

New Condition



## 8A Cosmetic Damage

### Not Warrantable Condition

#### Condition:

- Surfaces scratched / finish altered

#### Possible Sources of Damage:

- Surface scratched from adjacent parts
- Surface altered from wet residue

#### Recommended Actions:

- Space out adjacent parts from SCU
- Tighten adjacent parts
- Clean unit daily

#### Visual Aid:



Wear

## 8B Faded Appearance

### Not Warrantable Condition

#### Condition:

- Painted surfaces have faded
- Decal has faded

#### Possible Sources of Damage:

- Long exposure to the sun

#### Recommended Actions:

- Store unit under cover in the off season
- Replace Safety Decals

#### Visual Aid:



Faded Decal

## 8C Punctures due to Foreign Objects

### Not Warrantable Condition

#### Condition:

- Holes in surfaces

#### Possible Sources of Damage:

- Foreign objects have been processed through the system

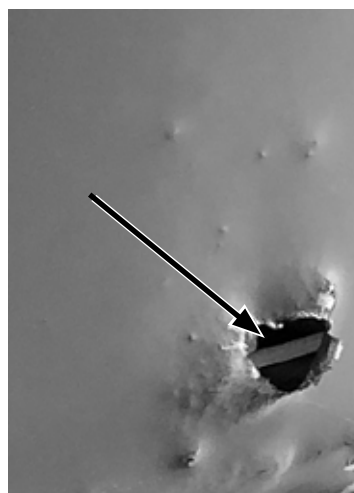
#### Recommended Actions:

- Adjust the height of the ground pressure on header so as not to pick up foreign objects from the ground
- Avoid use in fields with many rocks. Decide if crop on ground is worth processing through the SCU, know that rocks will create damage. Ensure ground has been rolled after seeding
- Replace panels as required

#### Visual Aid:



Major Failure



Major Failure



Minor Wear

## 8D Paint Flakes off due to improper application

### Warrantable Condition

#### Condition:

- Painted surfaces are flaking

#### Possible Sources of Damage:

- Manufacturing defect
- Corrosion due to wet residue left on machine during off season

#### Recommended Actions:

- Contact customer service with pictures. Parts may be required for further analysis

#### Visual Aid:



Major Failure

## 8E Discharge Outlets Wear

### Not Warrantable Condition

#### Condition:

- Paint on the inside of the discharge outlets has worn off

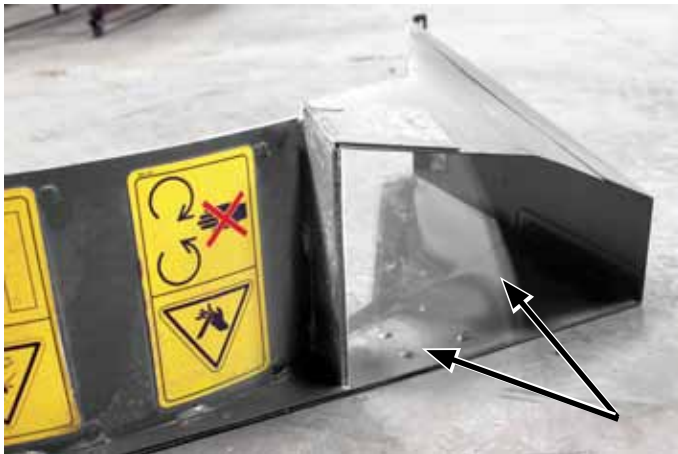
#### Possible Sources of Damage:

- Product processed through the SCU is discharged through this opening at a high speed and will wear the paint off

#### Recommended Actions:

- Touchup with spray paint if desired

#### Visual Aid:



Minor Wear

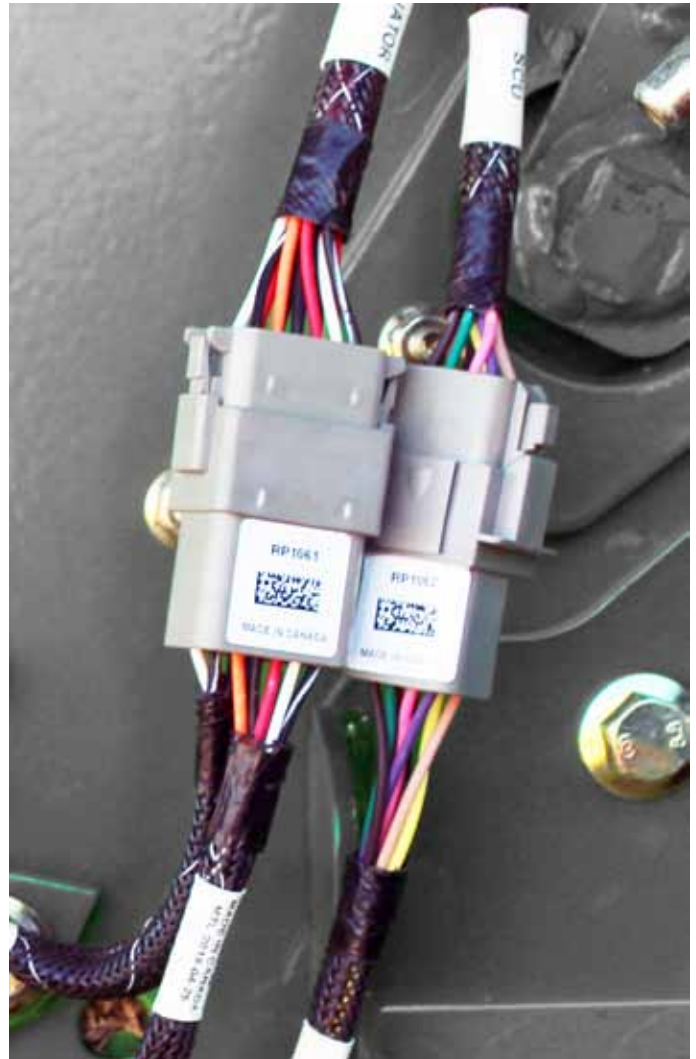


## 9 Electronics

New Condition



Wire Harness



Harness Connectors

## 9A Harness Wires Break/Tear

### Not Warrantable Condition

#### Condition:

- Wire harness breaks or tears

#### Possible Sources of Damage:

- Harness is too tight where movement is required

#### Recommended Actions:

- Loosen off the harness and reroute if required to provide extra length to allow for movement
- Move chopper and SCU through the entire range of motion before tightening wires

## **9B Harness Wires Separate from Connector**

### **Warrantable Condition**

#### **Condition:**

- Wires have separated from the connectors

#### **Possible Sources of Damage:**

- Pulled apart if harness is too tight as per 9A
- Manufacturing defect

#### **Recommended Actions:**

- Contact customer service with pictures. Harness may be required for further analysis

## 9C Harness Connectors Break

### Warrantable Condition

#### Condition:

- Harness connectors break

#### Possible Sources of Damage:

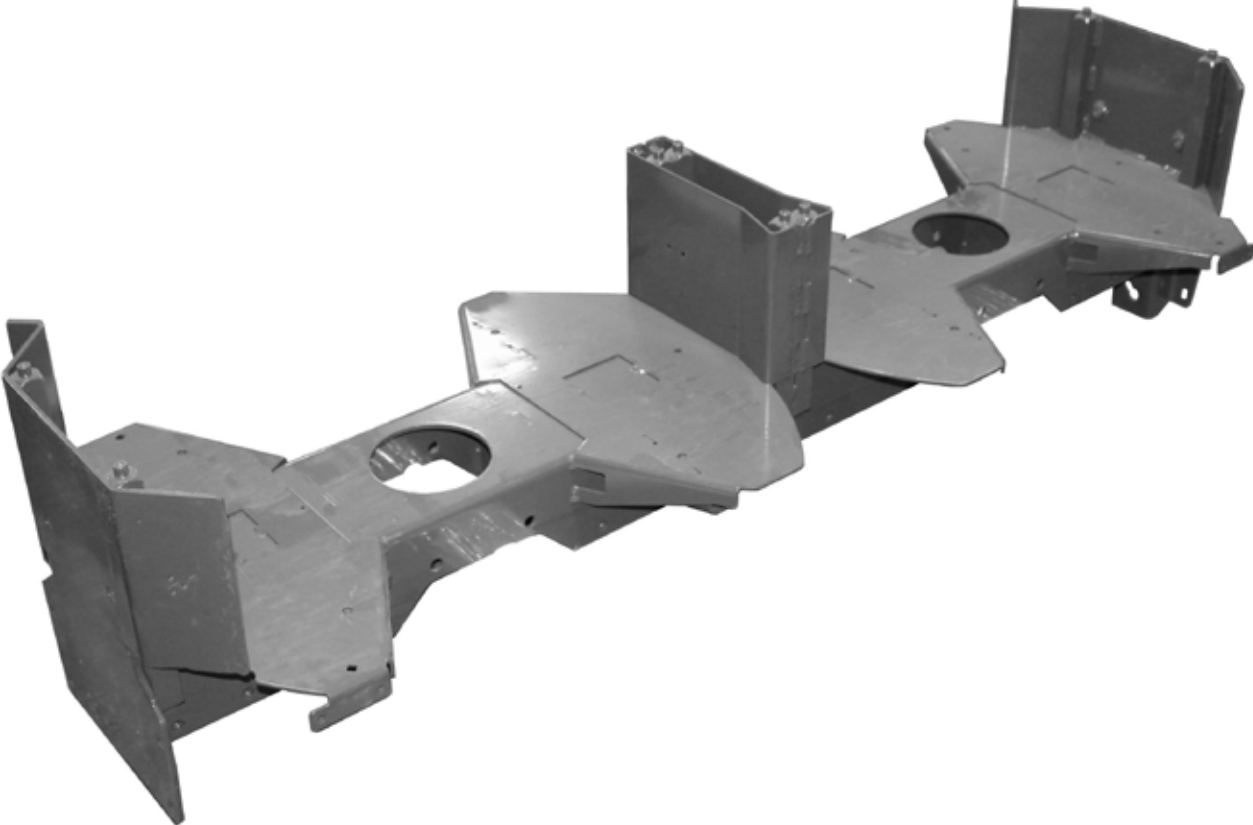
- Crushed by moving Chopper/SCU
- Manufacturing defect

#### Recommended Actions:

- Loosen off the harness and reroute if required to provide extra length to allow for movement
- Move chopper and SCU through the entire range of motion before tightening wires
- Contact customer service with pictures. Harness may be required for further analysis

**10 Frame Conditions**

New Condition



## 10A Cracked / Bent Frame Due to Field Damage

### Not Warrantable Condition

#### Condition:

- Frame has cracked or bent

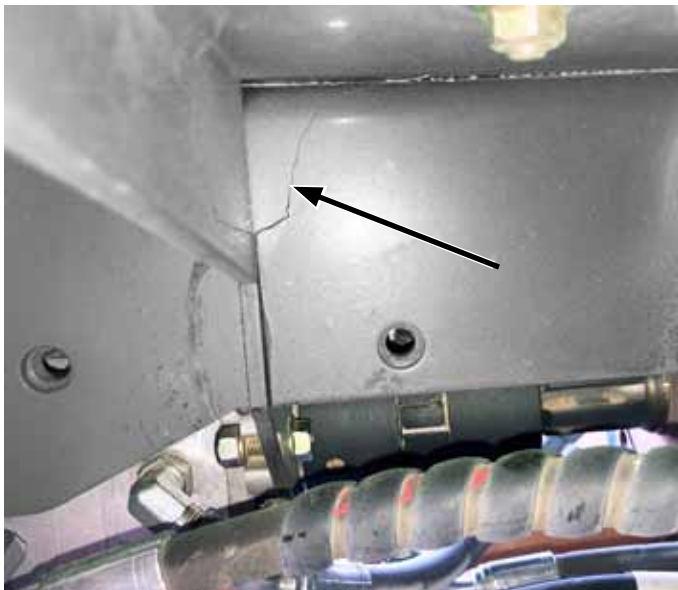
#### Possible Sources of Damage:

- Hit foreign object - did not raise SCU for transport
- Driving speed is excessive for terrain
- Driving through gulleys, ditches and holes

#### Recommended Actions:

- Always move SCU to rear/highest position for transport
- Drive slowly on rough terrain
- Avoid gulleys, ditches and holes

#### Visual Aid:



## 10B Frame End/Middle Plate Wear

### Not Warrantable Condition

#### Condition:

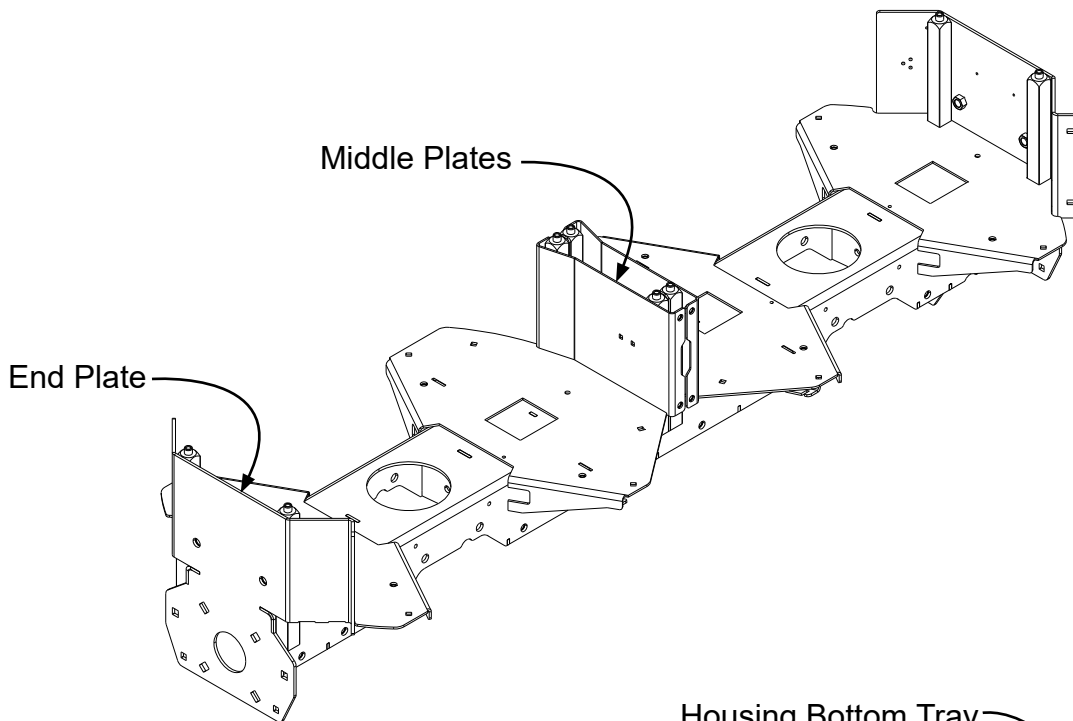
- End plate or middle plate of frame is worn

#### Possible Sources of Damage:

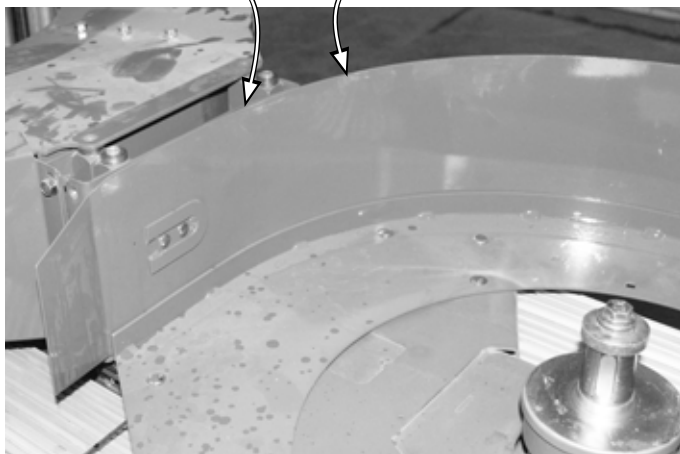
- Clean out covers or housing bottom trays have worn through and were not replaced in time

#### Recommended Actions:

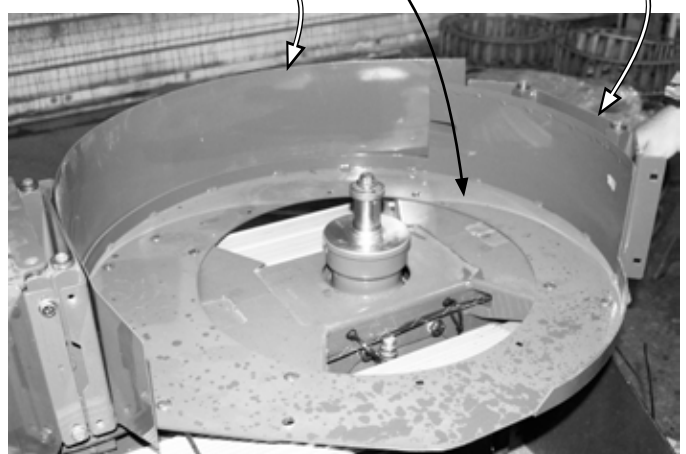
- Repair is possible, spot weld only / ensure any welding does not warp frame
- Replace frame if required



Middle Plates      Clean out Cover



Housing Bottom Tray  
Clean out Cover      End Plate



## 11 Other

### 11A Sieve Extension Rubber Belting Wear

#### Not Warrantable Condition

##### Condition:

- Holes in sieve extension bottom rubber belting

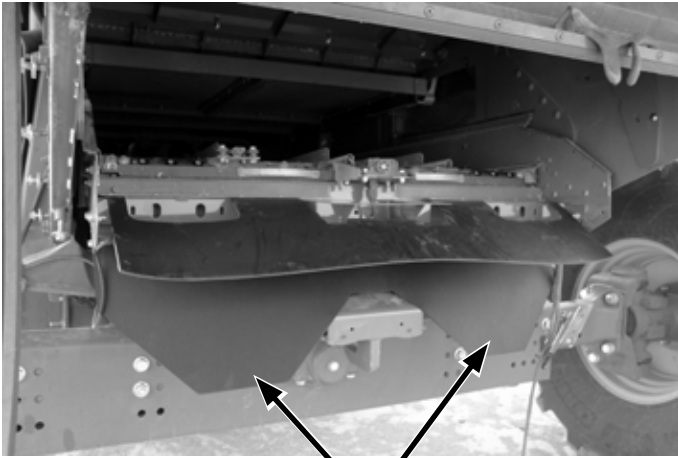
##### Possible Sources of Damage:

- This is a result of continued movement of the sieve extension wearing the bottom rubber belting on the SCU hopper

##### Recommended Actions:

- Inspect on a regular basis, if holes appear on the bottom or sides of sieve extension bottom rubber belting, replace accordingly

##### Visual Aid:



New Condition



Minor Wear



Major Wear