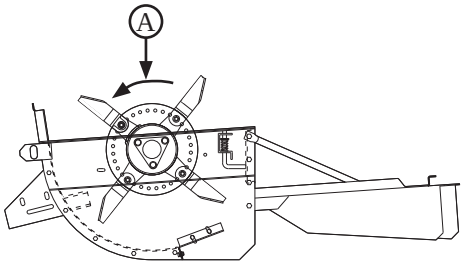
REDEKOP™
Straw and Chaff Management

CaseIH 5088 - 7088
Rotary MAV - 200
Complete Chopper Installation Guide

CS037-01 AUG 2011

ROTOR BLADE

IMPORTANT! The paddle blades, located on the balance rings inside the chopper, must be installed in the direction shown (A). The straight edge of the blade cuts the air while the paddle trails behind & pushes the air.



1. The blades for your chopper must be installed as outlined.
Note: If blades are installed other than as directed, damage to the chopper may result or performance may be significantly reduced.

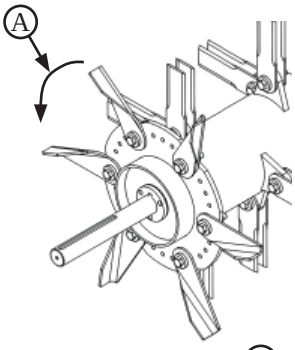
1) Always replace blades two pairs at a time, directly opposite each other through the center of the rotor. This should maintain rotor balance. **Never replace only one blade for wear or breakage.** You do not need to replace the corresponding two pairs on the other end of the rotor.

2) If a blade breaks and the chopper must be operated without a replacement then the damaged blade and the one directly opposite it must both be removed to maintain rotor balance.

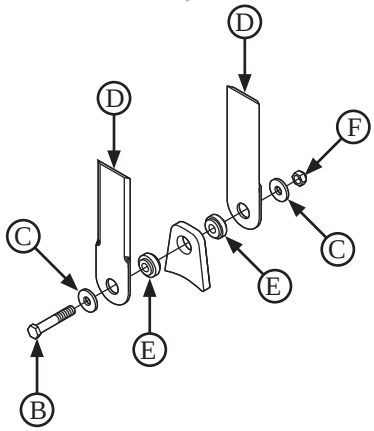
3) Use only METRIC class 10.9 bolts (B) and class 10.9 DIN980V steel lock nuts (F) on the chopper rotor.

4) Use a torque wrench to tighten all M12 nuts to the recommended 69 ft-lb.

5) Always check for adequate clearance between the installed blades and the stationary knives. A minimum of 1/4" is required. Check clearance of all blades, even those that are not replaced. Do not operate the straw chopper unless this clearance is maintained for all blades.



2. Assembly order for blade pairs (B to F).



A - Blade direction
B - Hex cap screw
C - Washer
D - Blade, straight
E - Bushing, straight blade
F - Lock nut

Metric Bolt Torque Table

Property Class	8.8	8.8	10.9	10.9
Nominal Size & Thread Pitch	(Nm)	(Ft-Lbs)	(Nm)	(Ft-Lbs)
M6 x 1.00	8	6	11	8
M8 x 1.25	19	14	27	20
M10 x 1.50	38	28	54	40
M12 x 1.75	66	49	94	69
M14 x 2.00	106	78	150	111
M16 x 2.00	164	121	233	172
M18 x 2.50	226	167	323	238
M20 x 2.50	319	235	457	337

* All values for dry, yellow zinc plated hardware.

CAUTION: Always use METRIC class 10.9 bolts and class 10.9 DIN980V steel lock nuts when installing blades. Allowable torque range for blade mount nuts is 69 ft-lb.

Torque values listed are for general use only, based on the strength of the bolt. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instruction for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

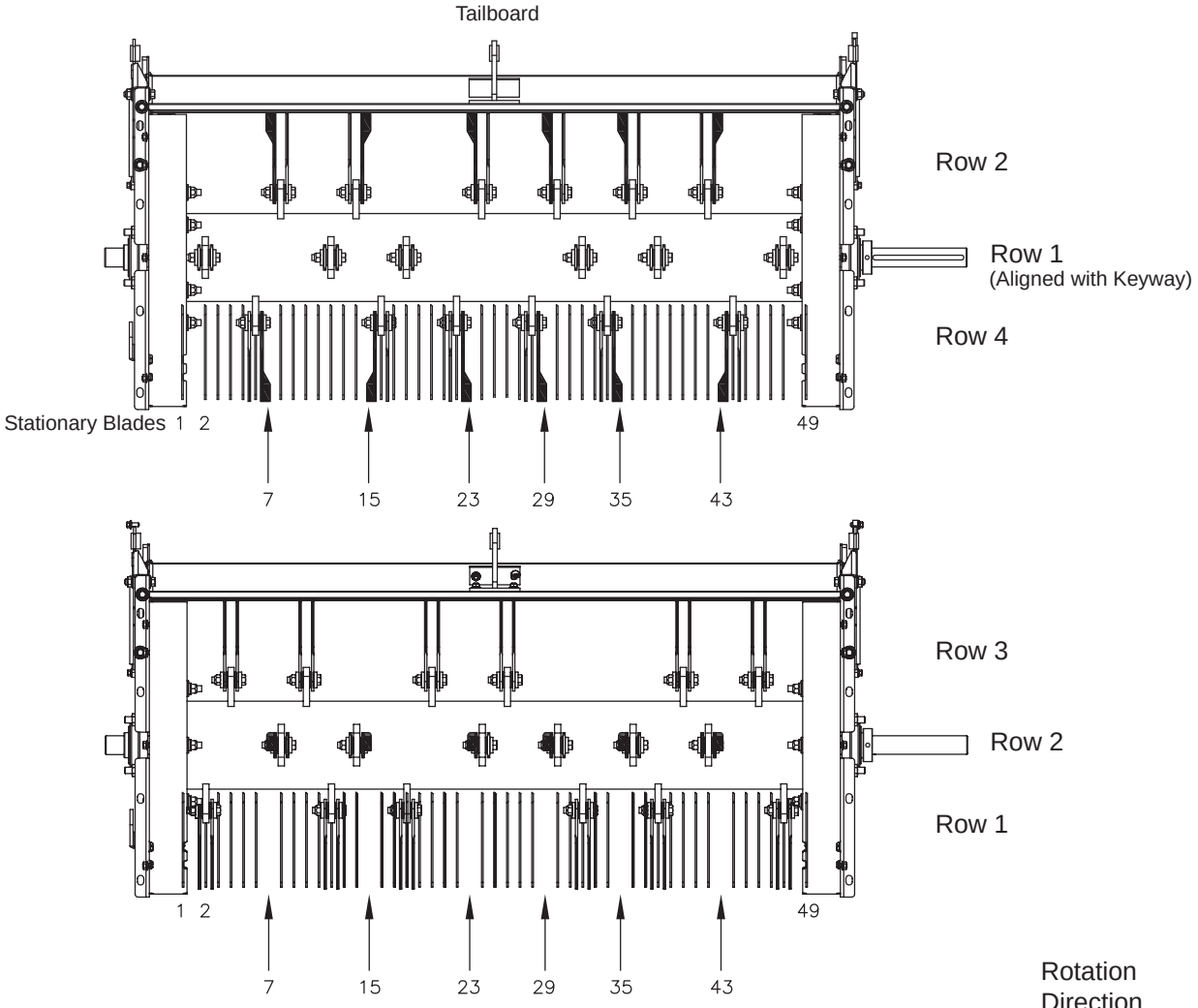
"Dry" means plain or zinc plated without any lubrication.

INSTALLATION

Narrow MAV Blade Replacement (55" wide chopper)

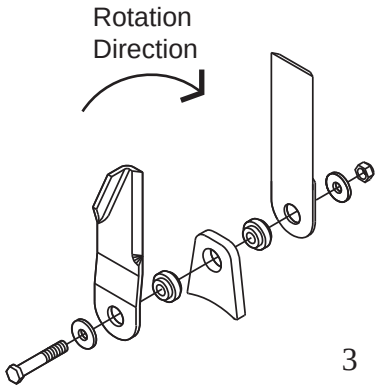
Replace some of the straight chopper blades on the rotor w/ paddle blades to create an increased airflow in the middle of the rotor.

1. Label the blade row on the rotor and mark the stationary blades that must be removed. Count from the non-drive side.
2. Mark and remove the straight blades off of the rotor and replace w/ HA505 left and right paddle blades (Carbide recommended). Make sure the paddle blades are installed with the paddle facing out from the mount bracket as well the blade must have the cutting edge moving in front as the paddle follows behind. **Pay close attention to the illustrations to ensure that the proper blades are removed and replaced.** The torque value for the M12 bolt & nut used to secure the blades to the rotor is 69 ft-lbs.
3. Remove stationary blades 7, 15, 23, 29, 35 & 43 out of the knife bar bank - counting from the non-drive side. 2006 model choppers have notches in the knife bar marking which blades must be removed.
4. Remove 6 straight blades off of the rotor in rows 2 & 4 and replace w/ HA505L and HA505R. **Do NOT** remove or replace blades from rows 1 & 3. Row 1 is in line with the keyway on the rotor shaft.



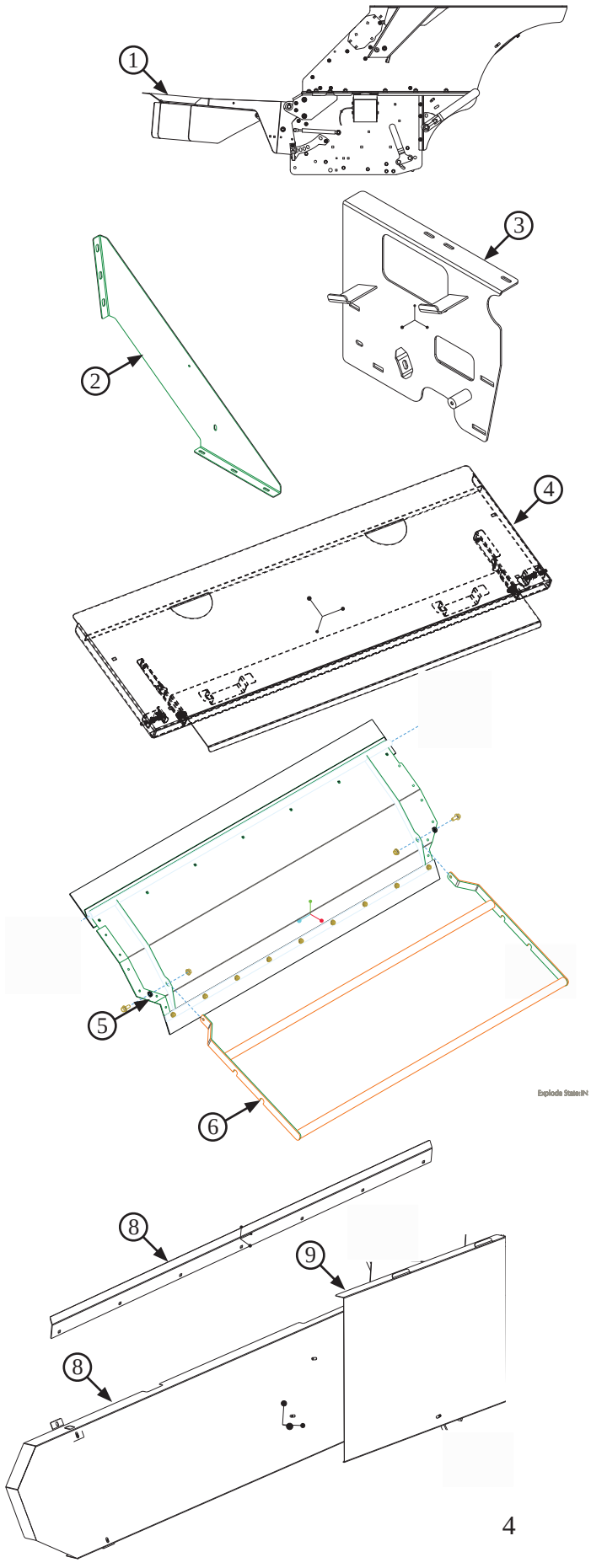
Note:
Check all fasteners to ensure they have been properly tightened. Rotate chopper rotor manually to ensure clearance of all blades. When starting chopper, be sure all people are clear of the rear of the combine.

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



KIT CONTENTS

REF	ITEM NAME	ITEM DESCRIPTION	QTY
1	CASE	7088 CHOPPER ASSY	1
2	SIDE BRKT	7088 SIDE BRACKET	2
3	DRIVE PLATE	CASE DR PLATE	1
4	PAN	CHAFF PAN ASSY	1
5	DOOR	STRAW DOOR ASSY	1
6	HANDLE	STRAW DOOR HANDLE	1
7	DEFLECTOR	STRAW DOOR DEFLECTOR	1
8	SHIELD	SHIELD UPPER CASE	1
9	SHIELD	SHIELD LOWER CASE	1
10	BOX COMPLETION		
		6L SHIELD MOUNT	2
		8L SHIELD MOUNT	2
		MOUNT INTERNAL FIN	2
		FIN INTERNAL DEFLECTOR	2
		STRAW DOOR MOUNT	2
		SHIELD MOUNT BRKT	1
		UPPER DRIVE SHIELD MNT	1
		GAS SHOCKS	2
		HARDWARE BAG	1
		INSTALL MANUALS	2
11	BOX DRIVE		
		ASSY 7088 DRIVE ARM	1
		IDLER PULLEY	2
		TENSION ROD	1
		DRIVE MOUNT BRACKET	1
		DRIVE MOUNT BRACKET	1
		DRIVE HARDWARE BAG	1
		13.6 Drive Pulley 2B	1
		BUSHING SK 50MM	1
		BELT 2B235 KEVLAR	1



PRE-INSTALLATION

1. Remove both factory drive shields (A).

2. Remove factory straw spreaders (B).

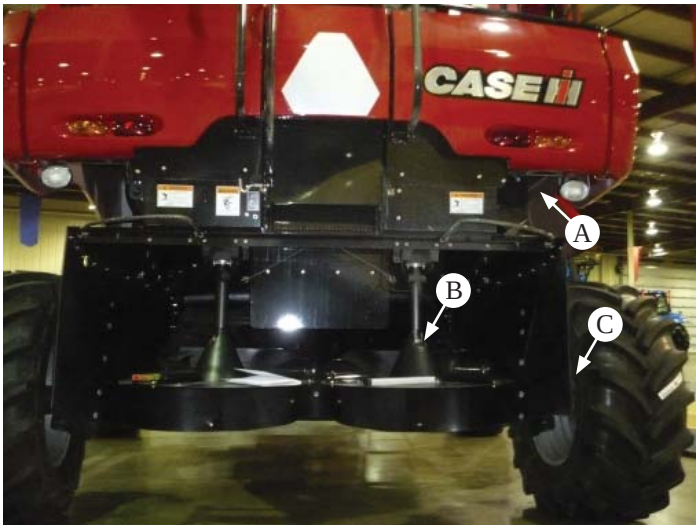
3. Remove spreader belting (C)

4. Remove spreader drive (D) and tensioner spring assembly.

5. Remove Bearing plate on shaft (E) and remove the rest of the spreader drive. (F) Some tilting & sliding of the drive on the hex shaft is required to remove the drive.

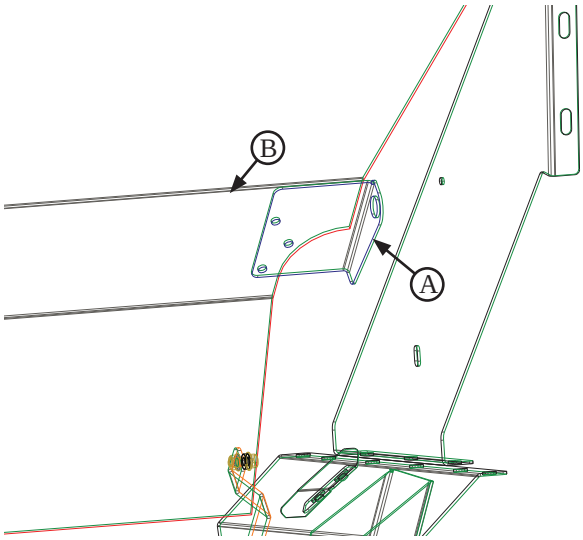
6. Remove internal baffles that direct the straw to the center of the of the combine (G)

7. Remove factory sieve extension pan.

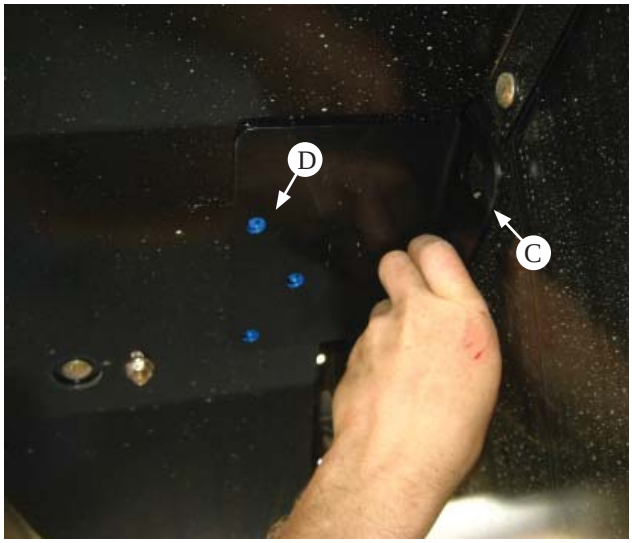


Straw Door Install

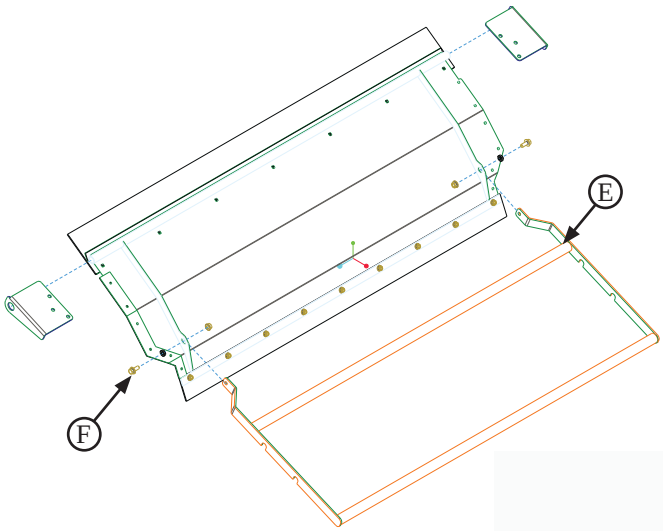
1. Place straw door mounting brackets (A) along the upper bend (B) on the roof inside the combine. Space the flange with the hole 3/16 away from the sidewall. (C) Mark and drill 3 holes with a 3/8 drill bit (D).



2. Using 3X Bolts M8X20 Bolt one side in place. With a second person place the straw door tube in the hole of the first mounting bracket. Lift the door up and attach the second mounting bracket with 3X M8X20 bolts.

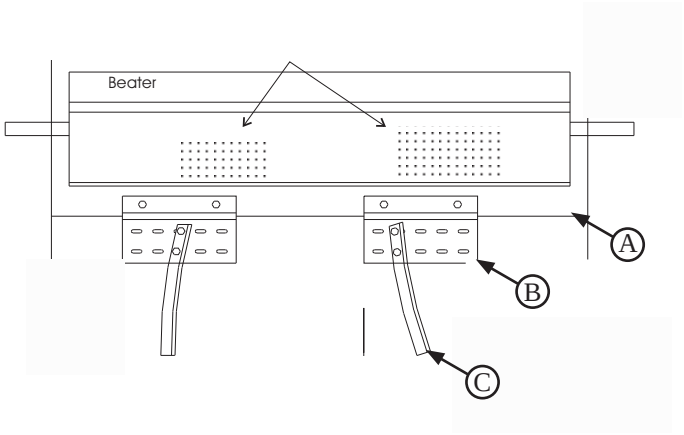


3. Install Adjustment arm (E) to Straw Door using Flg 10X25 Bolt with 3/4in OD Bushing.(F)



Internal Deflectors

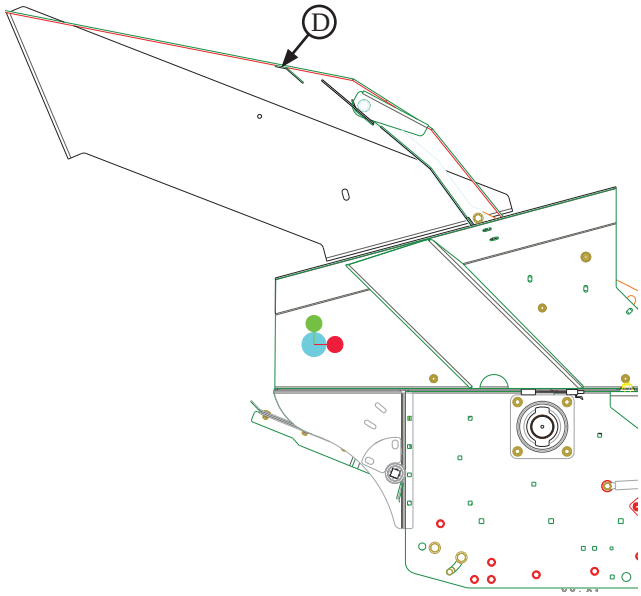
1. Use 2 holes in factory chopper pan (A) and drill 2 - 13/32” holes to hold fin mounting plates (B) in place. Fasten plates to the side of the pan. Fasten deflector fins (C) to mounting plates and adjust as necessary. Residue must be evenly distributed across the width of the chopper.

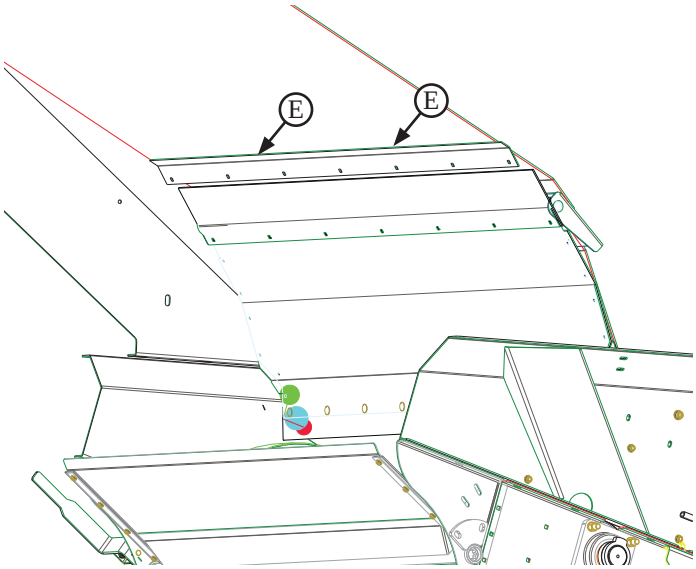


4 - Bolt, Flg M10 x 25 (Plate)
4 - Nut, Flg M10
4 - Bolt, RH M8 x 20 (Fin)
4 - Nut, Flg M8

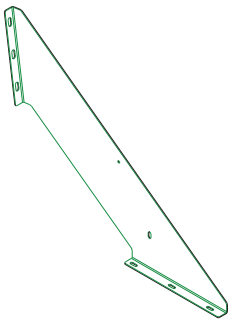
NOTE: Adjust these deflector fins to help get a uniform feeding into the straw chopper providing a better spread.

2. Install deflecter (D) on the roof of the combine just head of the straw door. Drill two holes in deflector to match up with the holes from the factory deflector pannels (E) that were removed.

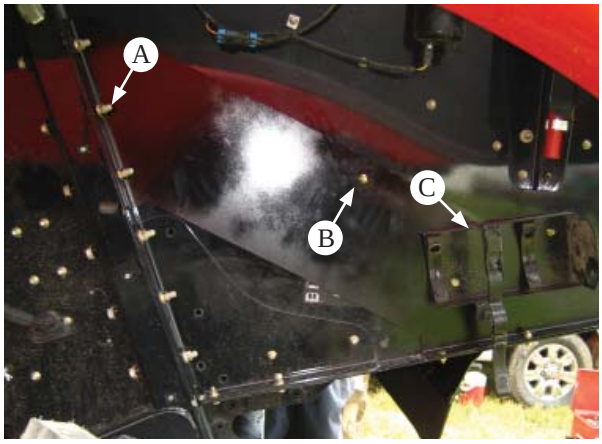




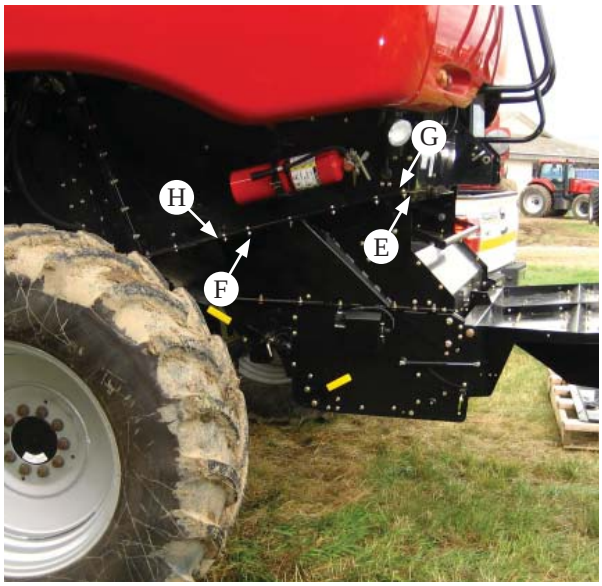
Chopper Install



1. Install strawchopper side supports. Remove nuts from the 3 combine bolts on side member (A). Bolt side support into place. Drill 3/8 hole through combine wall at (B) and bolt side support to combine wall using RH M8X20 Bolt. Reinstall Fire extinguisher mount bracket (C) Repeat on the other side of the combine.



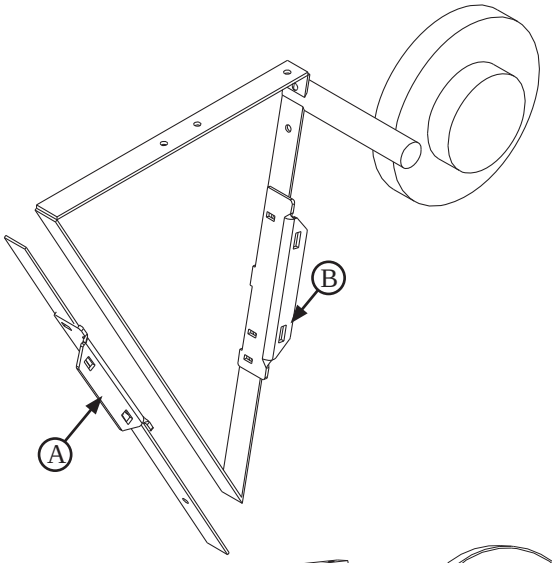
2. Using a forklift, lift the chopper up into place. Align the rear flanges (E) and bolt chopper in place using 8X M10X25 Hex bolts (F). Once chopper is in place using the chopper flange,drill remaining 2X missing holes (G) &(H)on each side and add extra bolts. Final result will be 6 bolts per side.



Drive Install

1. Bolt on drive plate brackets (A) & (B) onto combine side-wall frame using existing holes. Use factory bolts for bracket (A) and use 3X M10X25 bolts for bracket (B).

Note: Drive plate brackets must be parallel to the combine to ensure drive belt runs true.

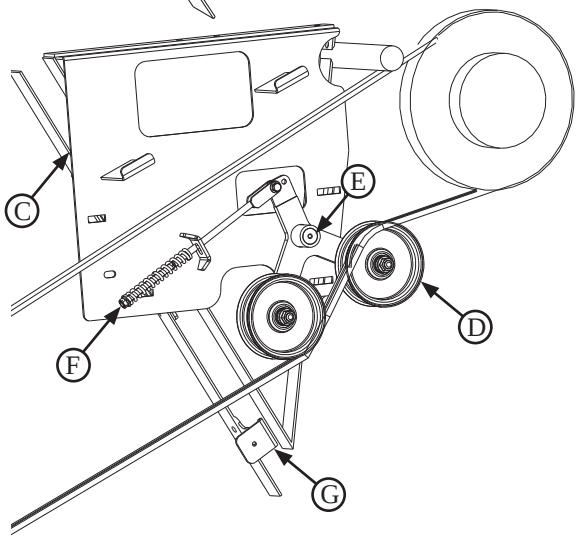


2. Install drive plate (C) under the top flange. Use 3X M10X25 bolts along the top of the bracket

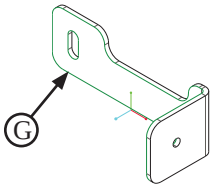
3. Attach bracket to drive mount brackets installed in step 1 with 4X RH M12X25 Bolts.

4. Install idler pulley arm & pulleys(D). Mount each pulley with a M16X90 Bolt with a 1/2 inch spacer between the pulley and arm. Use large M8 fender washer and M8X20 Flange bolt to hold the idler pivot assembly to drive plate.(E)

5. Install spring tension rod (F)and spring to idler arm. Use a M10X35 bolt to attach the tension rod to the idler arm. Next place spring on tension rod. Use 2X M12 Hex nuts to hold spring in place.



6. Install Upper drive shield bracket (G) onto the combine.

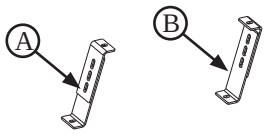


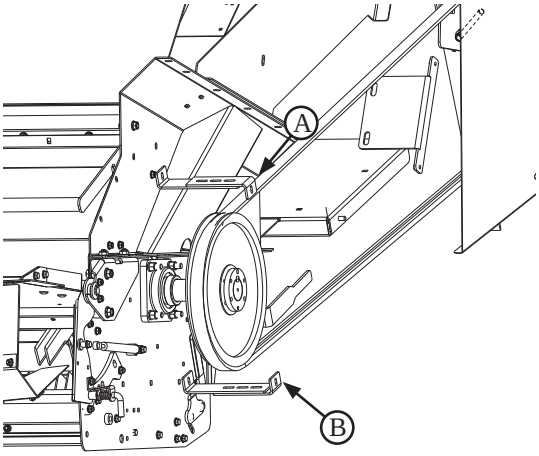
7.Align drive pulley (H) on chopper shaft to combine drive. (See Appendix: 2) Install Drive belt and tension with Idler rod spring.

Note: Be sure proper alignment of drive belt. An out of line belt will wear prematurely.

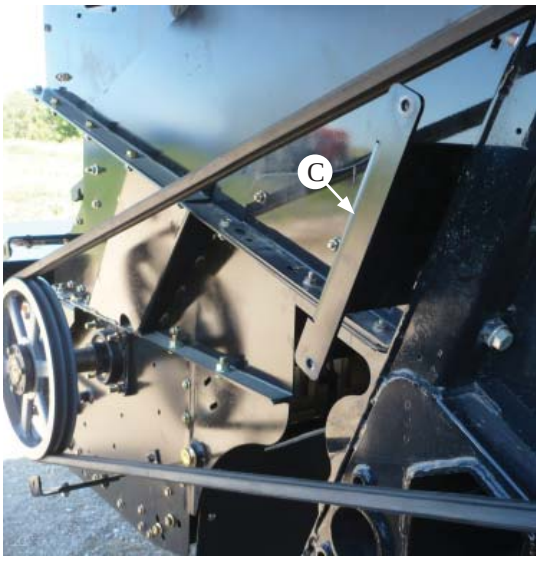
Drive Shield Install

1. Bolt together one long and one short shield mount bracket to make 2 assemblies as show in (A) & (B) use 2X M8X20 RH bolts in each. Mount drive shield brackets on Redekop chopper side panel at points (A) & (B). Use M8X25 RH Bolts to bolt the brackets on the combine.





2. Install bracket (C) onto sidewall of combine to hold the upper part of the shield. Use factory bolts to attach bracket.

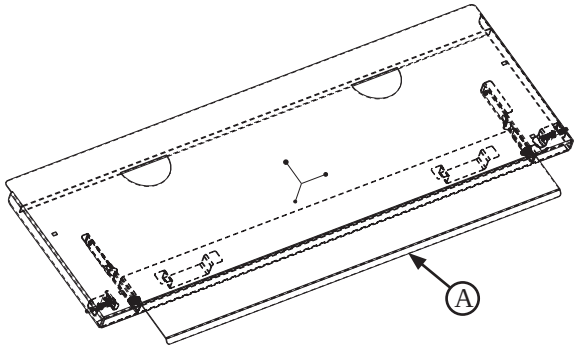


3. Set the upper shield (D) onto the two mounts one the drive plate and attach the bottom to the bracket added under the drive with a M8X20 Bolt

4. Install lower shield (E) on brackets installed in step 1 & 2. Use 4X M8X20 Bolts to attach shields.

Install Completion

1. Set Sieve pan in the same place as the factory sieve extension. Secure pin in the same holes as the factory. Flip factory belting back over sieve pan.



Sieve Pan extension (A) can be pushed in while dropping straw and should be pulled out for normal chopping operation.

2. Remove facory speed sensor from factory spreaders and install on non drive side of the chopper (C). Use extension cable provided to lengthen the wire.

Appendix: I - Hardware Classification

B##	**Bolt - Imperial**	
	HEX	Bolt Hex Head
	FLG	Bolt Hex Flange Head
	RH	Bolt Round Head, Carriage
	CS	Bolt Countersunk
N##	**Nut - Imperial**	
	JAM	Nut, Jam
	LOCK	Nut, Lock
P##	**Pin - Imperial**	
	ROLL	Pin, Roll
	COT	Pin, Cotter
	HITCH	Pin, Hitch Clip
	LYNCH	Pin, Lynch
	CLEVIS	Pin, Clevis
	SPIROL	Pin, Spirol
W##	**Washer - Imperial**	
	FLAT	Flat
	LOCK	Helical Lock
	FEN	Fender Washer

B##M	**Bolt - Metric**	
	HEX	Bolt Hex Head
	FLG	Bolt Hex Flange Head
	RH	Bolt Round Head Carriage
	CS	Bolt Countersunk
N##M	**Nut - Metric**	
	JAM	Nut, Jam
	LOCK	Nut, Lock
P##M	**Pin - Metric**	
	ROLL	Pin, Roll
	COT	Pin, Cotter
	HITCH	Pin, Hitch Clip
	LYNCH	Pin, Lynch
	CLEVIS	Pin, Clevis
	SPIROL	Pin, Spirol
W##M	**Washer - Metric**	
	FLAT	Flat
	LOCK	Helical Lock
	FEN	Fender Washer

Description: BOLT HEX .5 X 1 GR5 UNC

Type = Hex
Diameter = 0.5 inch
Imperial Spec = GR5 UNC
Length = 1 inch

Hardware Diameter	Wrench Size
1/4in Hardware	7/16in
5/16 Hardware	1/2in
3/8 Hardware	9/16in
1/2 Hardware	3/4in
5/8 Hardware	15/16in

Description: BOLT HEX M8 X 40 C8.8

Type = Hex
Diameter = 8mm
Metric Spec = C8.8
Length = 40mm

Hardware Diameter	Wrench Size
M6 Hardware	10mm
M8 Hardware	13mm
M10 Hardware	15mm or 16mm
M12 Hardware	18mm or 19mm
M16 Hardware	24mm

Appendix: 2 - Taper Hub Installation

IMPORTANT: DO NOT USE LUBRICANTS IN THIS INSTALLATION

To Install Bushing:

1. Remove all paint, oil grease, etc. from tapered surface of bushing and bore of mating part.

2. See **Standard** mounting assembly - Figure 1.

NOTE: If bushing does not slide freely on shaft, wedge a screwdriver blade into the saw cut and the flange OD to open the bore of the bushing. Caution: Excessive wedging will split the bushing.

3. **Standard Mount** – Slide bushing on shaft, flange first. If using the setscrew, snug it against the key. **Excessive Torque will cause mating part to be eccentric.** Position mating part in place on bushing aligning drilled holes in mating part with tapped holes in bushing flange. Using lock washers, install capscrews thru the mating hub and into the bushing flange. (**Note:** S bushings can only be Standard Mounted. Be sure the three tapped holes in the mating hub **do not** align near the bushing saw cut. If they do, rotate the bushing 60 degrees.).

4. **Use A Torque Wrench.** Tighten all capcrews evenly and progressively in rotation to the torque value listed in the table. **Excessive wrench torque, closing the gap between the bushing flange and mating hub, or the use of lubricants will break the mating hub.**

To Remove Bushing:

1. Loosen and remove all capscrews.

2. For **Standard Mount**, thread capscrews into tapped holes in mating part to jack against bushing flange. Tighten bolts evenly and progressively in rotation to separate the two components.

3. Loosen setscrew to slide bushing from shaft.

Standard Mounting

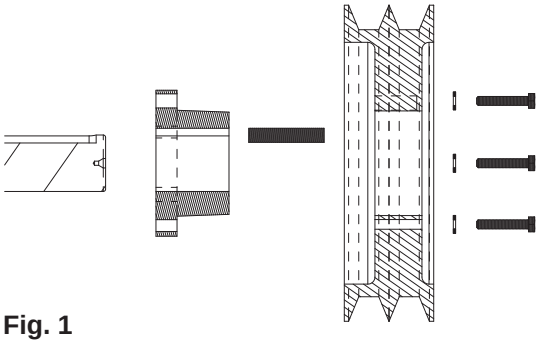


Fig. 1

Screw Tightening Information

Tapered Bushing	Size & Thread of Capscrew	Ft.-Lbs. To Apply With Torque Wrench
SK	5/16 - 18	15
SF	3/8 - 16	30

WARRANTY

Redekop Manufacturing Co., hereinafter referred to as "Manufacturer", warrants each new Redekop Upgrade 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 rotor which shall have been installed or operated in a manner not recommended by the Manufacturer; nor to any rotor which shall have been repaired, altered, neglected or used in any way which, in the Manufacturer's opinion, adversely affects its performance; nor to any rotor in which parts not manufactured or approved by the Manufacturer have been used; nor to any accessories installed on the rotor 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 rotor or parts without incurring any obligation to replace any rotor or parts previously sold with such modified, altered or improved rotor 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 rotor 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.

Redekop Manufacturing Co.
Saskatoon, SK Canada