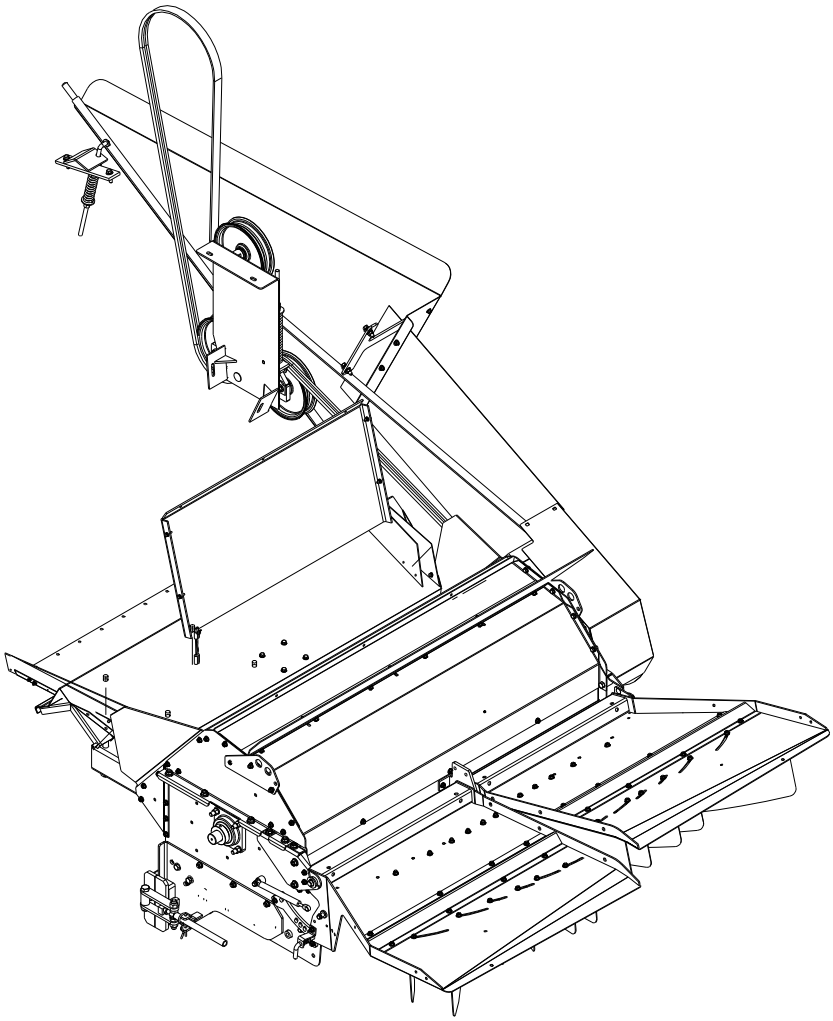
REDEKOP™
Crop Residue Management

CaseIH
Rotary MAV - 200
CASE IH 1688-2588 MAV
Complete Chopper Installation Guide



CS001-01_V10_OCT_2015

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.

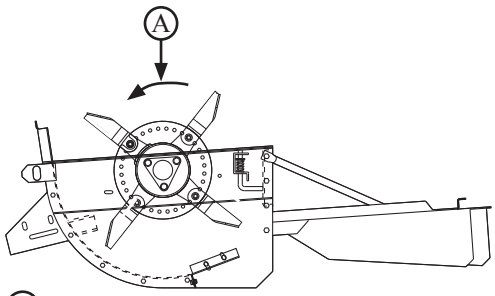
1) Always replace blades two pairs at a time, directly opposite each other through the center of the rotor. This should maintain rotor balance. **Never replace only one blade for wear or breakage.** You do not need to replace the corresponding two pairs on the other end of the rotor.

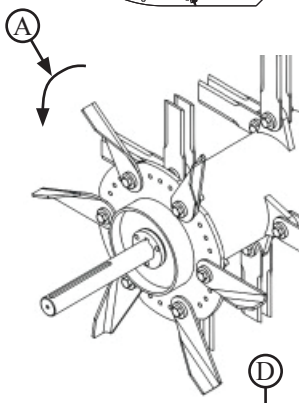
2) If a blade breaks and the chopper must be operated without a replacement then the damaged blade and the one directly opposite it must both be removed to maintain rotor balance.

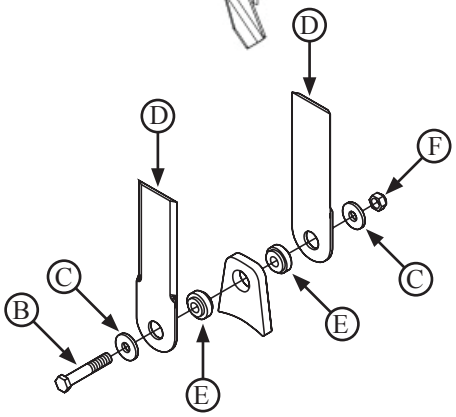
3) Use only METRIC class 10.9 bolts (B) and class 10.9 DIN980V steel lock nuts (F) on the chopper rotor.

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.







A - Blade rotation direction
B - M12 x 50 Hex bolt
C - HA555 Washer
D - HA650 Blade, straight
E - HA553 Bushing, straight blade
F - M12 Lock nut

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

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.

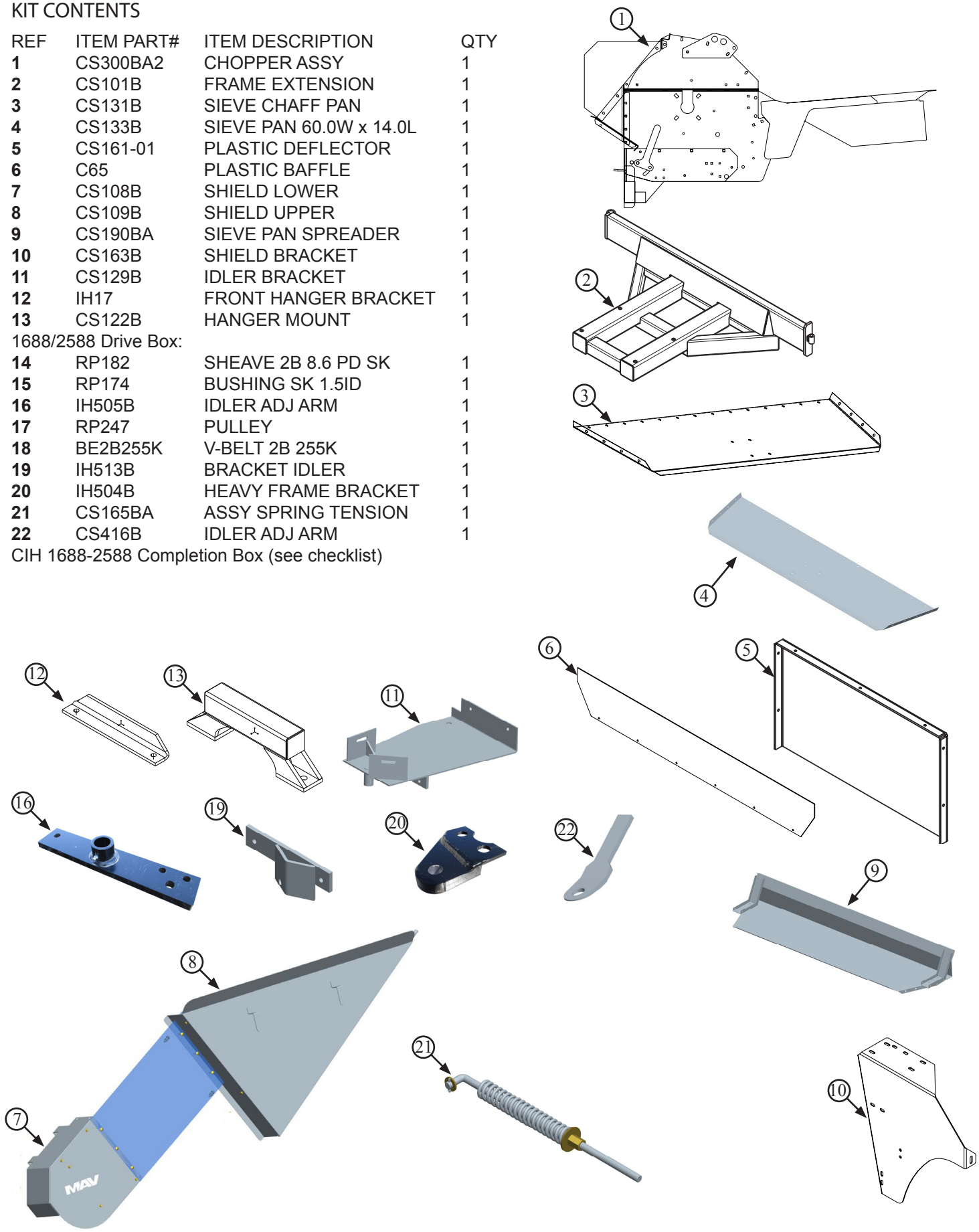
Torque values listed are for general use only, based on the strength of the bolt. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instruction for the specific application. 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.

KIT CONTENTS

REF	ITEM PART#	ITEM DESCRIPTION	QTY
1	CS300BA2	CHOPPER ASSY	1
2	CS101B	FRAME EXTENSION	1
3	CS131B	SIEVE CHAFF PAN	1
4	CS133B	SIEVE PAN 60.0W x 14.0L	1
5	CS161-01	PLASTIC DEFLECTOR	1
6	C65	PLASTIC BAFFLE	1
7	CS108B	SHIELD LOWER	1
8	CS109B	SHIELD UPPER	1
9	CS190BA	SIEVE PAN SPREADER	1
10	CS163B	SHIELD BRACKET	1
11	CS129B	IDLER BRACKET	1
12	IH17	FRONT HANGER BRACKET	1
13	CS122B	HANGER MOUNT	1
1688/2588 Drive Box:			
14	RP182	SHEAVE 2B 8.6 PD SK	1
15	RP174	BUSHING SK 1.5ID	1
16	IH505B	IDLER ADJ ARM	1
17	RP247	PULLEY	1
18	BE2B255K	V-BELT 2B 255K	1
19	IH513B	BRACKET IDLER	1
20	IH504B	HEAVY FRAME BRACKET	1
21	CS165BA	ASSY SPRING TENSION	1
22	CS416B	IDLER ADJ ARM	1

CIH 1688-2588 Completion Box (see checklist)



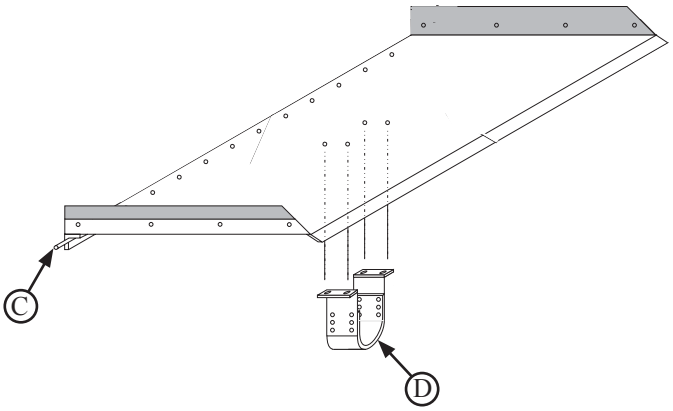
1. PRE-INSTALLATION

1.1 Remove Spreaders (A) from the combine.

2.1 Remove factory sieve pan (B), hinge bar sections (C) and rubber bumper strip (D).

3.1 Remove stationary cutting blades from internal chopper to allow it to spin free like a beater.

> Note: For 2388 models (2004 and newer) - the stationary blades do not have to be removed just adjusted out of the cutting area.

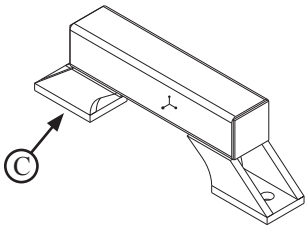


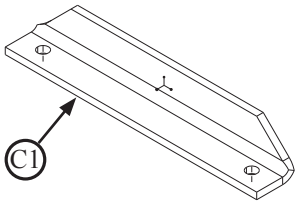
4. Remove chopper drive shields (E) and (E1).

2. CHOPPER PLACEMENT AND LATCH

2.1 Position chopper mount frame (A) underneath combine frame (B).

2.2 Place upper frame mounts (C) and (C1) on the combine frame (B) and insert bolts upwards through the frame and upper mounts. Secure in place with:
4 pcs. - Bolt 3/4" x 16"
4 pcs. - Washer, Lock 3/4"
4 pcs. - Nut Gr8 3/4"





Note: Ensure that the chopper frame is positioned so that the rearward edge of the combine tie-rod (D) will not be obstructed by the angled section of the chopper frame extension (E).

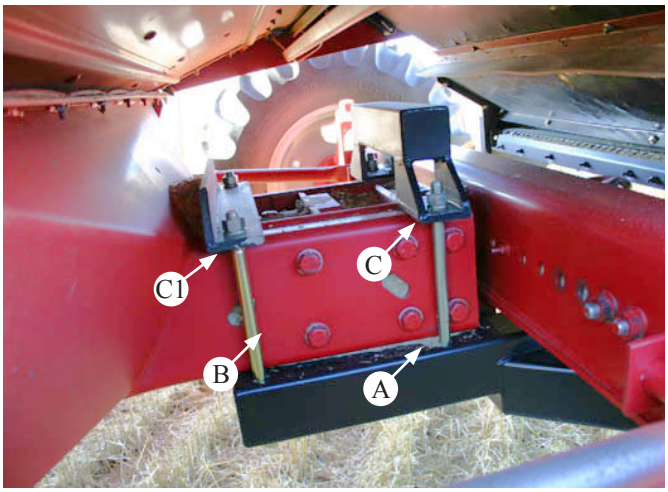
2.3 Place a 2nd pallet (F) under the MAV bundle and turn 90 degrees. Remove tailboard shipping brackets and rest tailboard against the loader to ensure it does not strike the combine during mounting. Raise chopper to the combine using a fork lift or front end loader (G) from the back. Align the pin sleeves (H) of the hinge bar and chopper frame and insert the hinge pin (J) from the top down through the hinge.

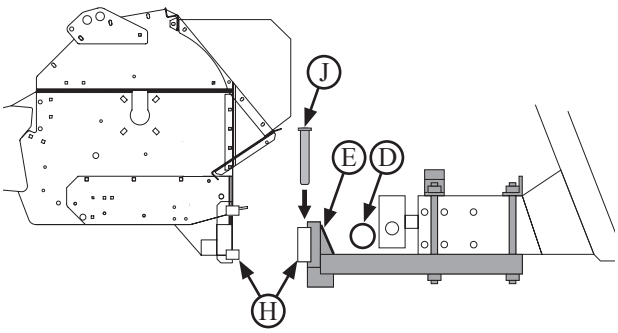
2.4 Grease hinge after installation and periodically afterwards to avoid corrosion of the pin.

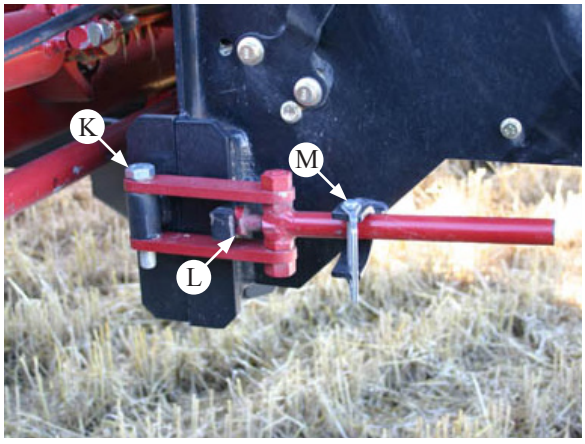
2.5 Bolt chopper latch onto frame (K). Tighten until snug but allow to be moveable. (See Appendix 1 for Hardware definitions):
1 pc. - Bolt M16 x 80
1 pc. - Nut, Lock M16

2.6 The over center bolt (L) can be turned in or out to adjust the holding tension.

2.7 Install hairpin (M) in U bracket to prevent latch from opening.



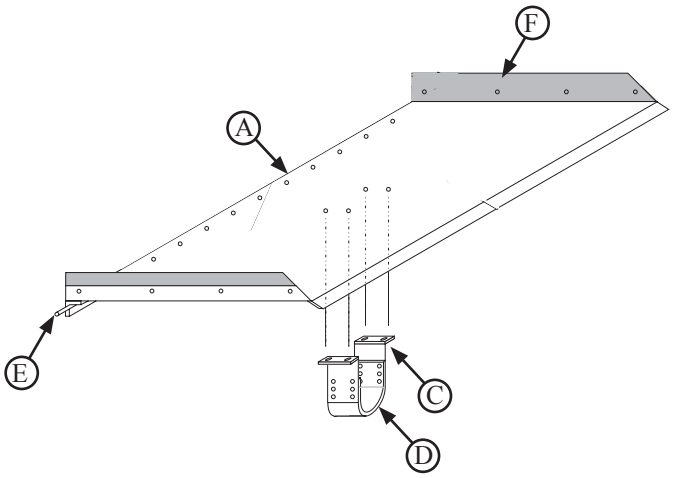




3. SIEVE PAN INSTALLATION

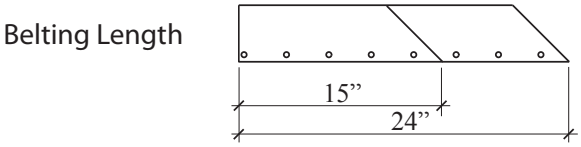
Use **Type 1 Sieve Extension Pan** (A) *for combines without factory spreaders.*
Use **Type 2 Sieve Extension Pan** (B) *for combines with factory spreaders.*

(Use sieve ext / internal brkt hardware bag)

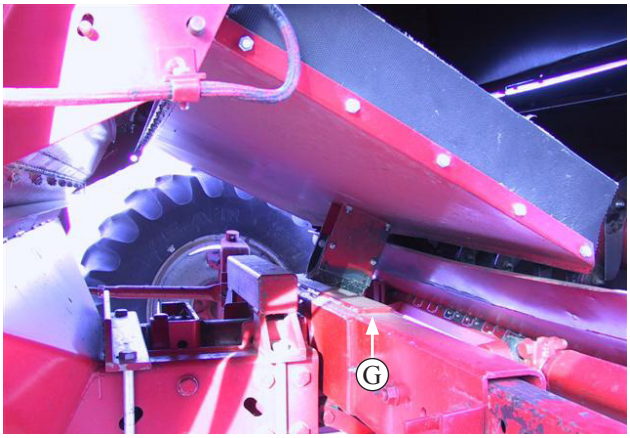


Type 1 Sieve Extension Pan (A)
3.1 Install taller mount brackets (C) to extg rubber strip (D) and extg hinge bar (E) to the replacement sieve extension pan (A).

3.2 Cut belting to suit and mount to sieve extension flanges (F). Drill out 3/8" holes.
8 - Bolt, Flg M6 x 16 (narrow pan)
8 - Nut, Flg M6
10 - Bolt, Flg M6 x 16 (wide pan)
10 - Nut, Flg M6

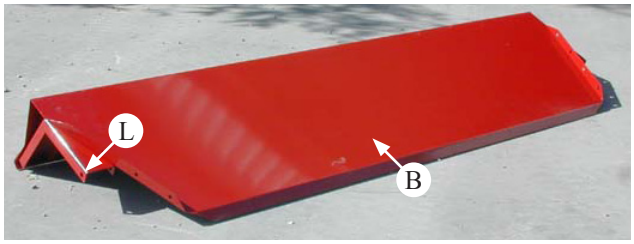


3.3 Install sieve extension pan onto combine using existing hardware on hinge bar (E). Rest rubber bumper on top of combine frame (G).



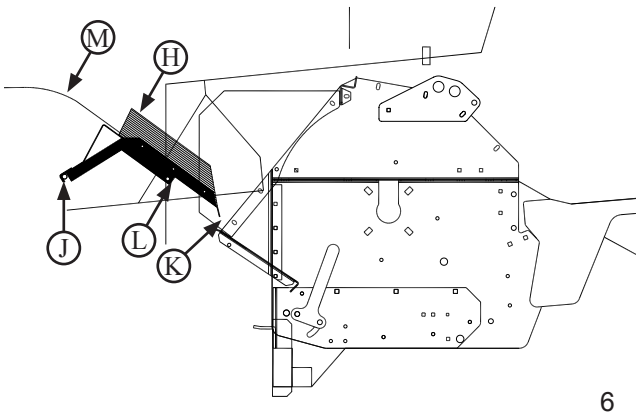
Type 2 Sieve Extension Pan (B)
This pan is supplied for CaseIH 2166, 2366, 2188 and 2388 combines equipped with the factory CaseIH deluxe pan that places the chaff onto the rear spinners.

3.1 Cut belting to suit and mount to sieve extension flanges (H). Drill out 3/8" holes.
8 - Bolt, Flg M6 x 16
8 - Nut, Flg M6



3.2 Rest wide end of sieve extension pan over the pivot pins (J) located on the combine side walls below the sieve.

3.3 Hold pan in final position leaving a 1" space between the sieve pan and the chopper inlet floor (K). Mark where sieve extension spring pins (L) strike the inside walls of the combine. Drill 13/32" holes on each side and engage pins to lock in place.

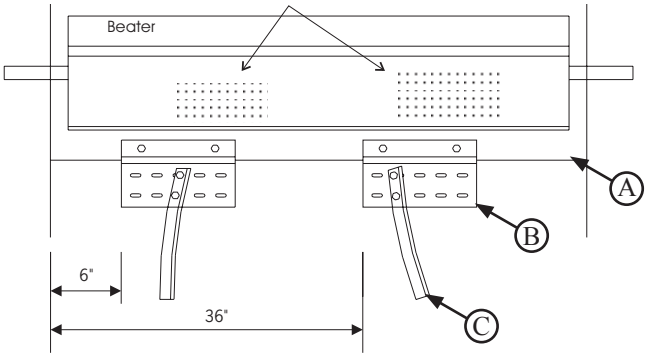


3.4 Rest the combine sieve extension belting (M) on top of the new pan. Belting must be able to move with the sieves. **Do not attach belting to sieve extension pan.**

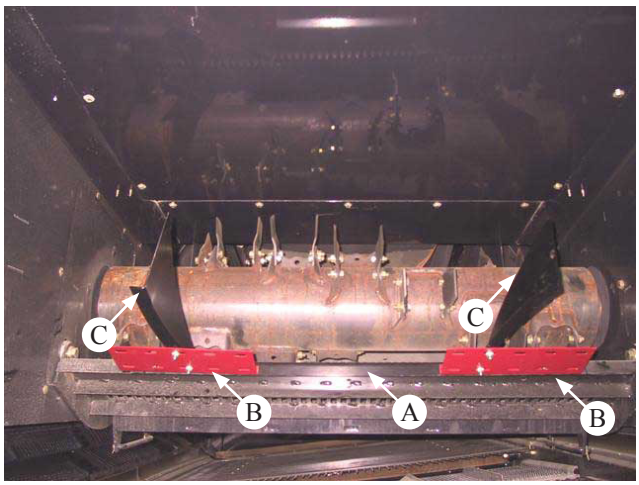
4. INTERNAL BRACKETS

4.1 Drill 4 - 13/32” holes in combine beater pan (A) to hold fin mounting plates (B). Fasten plates to bottom side of the pan. (See top illustration for placement from combine sidewall.) Fasten deflector fins (C) to mounting plates and adjust as necessary. Residue must be evenly distributed across the width of the chopper. Mount with:

4 pcs. - Bolt, Flg M10 x 20 (Plate)
4 pcs. - Nut, Flg M10
4 pcs. - Bolt, Flg M8 x 20 (Fin)
4 pcs. - Nut, Flg M8

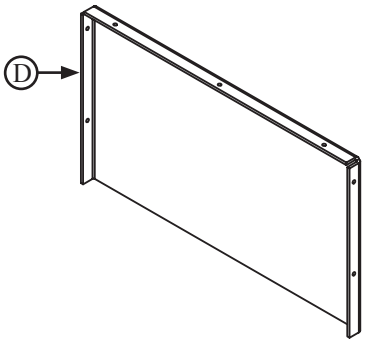


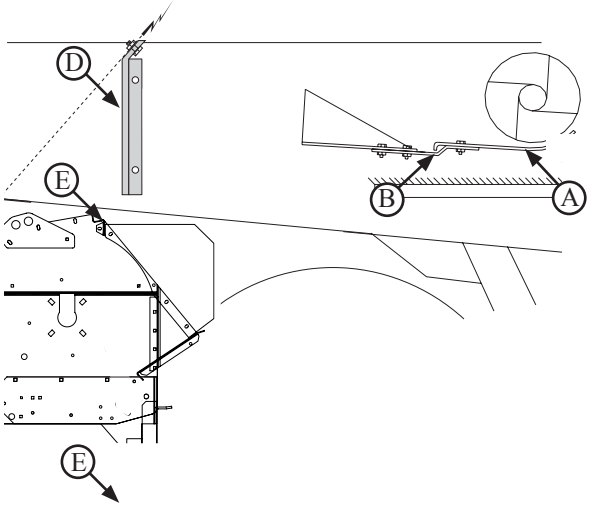
Plan View



4.2 Fasten plastic deflector (D) to inside walls of combine. Use self tapping screws along top and bolts on sides. Place just in front of chopper upper wall (E) so residue is directed into the chopper. Mout with:

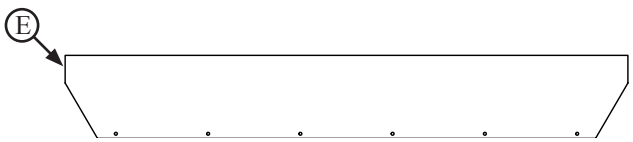
1 pc. - Baffle, Plastic 18” x 31” (60 series)
1 pc. - Baffle, Plastic 18” x 38” (80 series)
4 pcs. - Screw, Self Tap 1/4” x 1.0”
4 pcs. - Bolt, Flg M6 x 20
4 pcs. - Nut, Flg M6





4.3. Attach plastic deflector (E) to upper rear wall of chopper with:

1 pc. - Deflector, Plastic 9” x 46” (60 series)
1 pc. - Deflector, Plastic 9” x 61” (80 series)
5 pc. - Bolt, Flg M6 x 16 (60 series)
5 pc. - Nut, Flg M6
6 pc. - Bolt, Flg M6 x 16 (80 series)
6 pc. - Nut, Flg M6



5. DRIVE SYSTEM INSTALLATION
(Use CS327S Completion hardware bag)

Drive System located on a right Side View of Combine

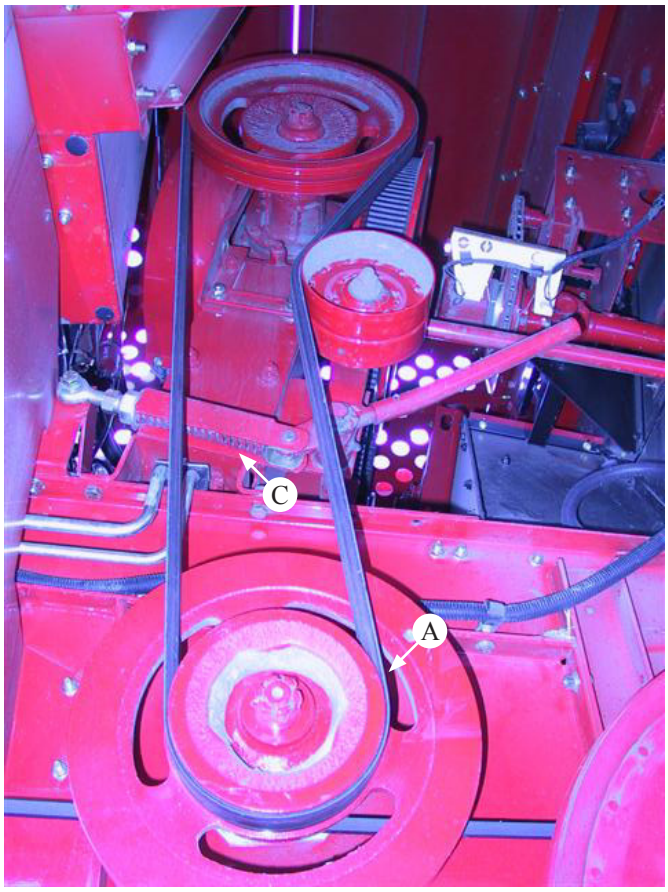
5.1 Transfer internal chopper drive belt (A) to the slow speed position.

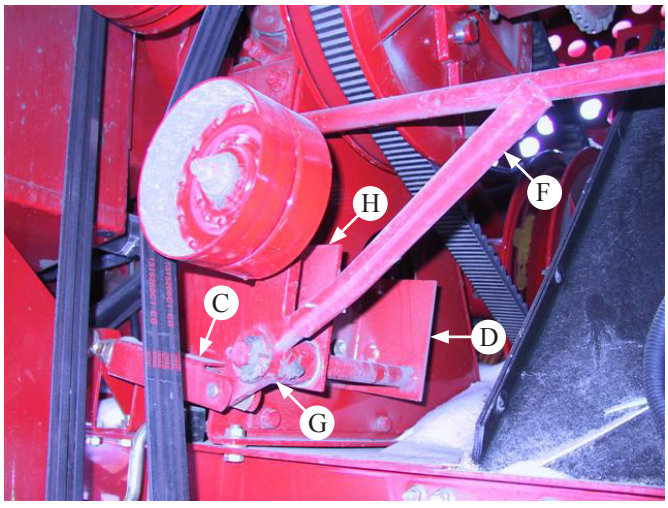
5.2 Move two speed drive lever to position (B) by drilling a new hole in the bracket as close to the forward edge as possible (see next page).

5.3 Remove existing belt tightener spring assembly (C).

5.4 Shift up and refasten idler bracket (D) to the vertical frame pedestal. Align bottom holes on brkt with previously drilled top holes on pedestal. Drill two holes in pedestal (E) to secure upper portion of idler brkt. Reinstall extg hardware and secure in place.

5.5 Remove handle (F) and remove pin from end of tightener shaft (G), pull idler arm bracket (H) out slightly and rotate down to position shown at (J). Replace pin previously removed.





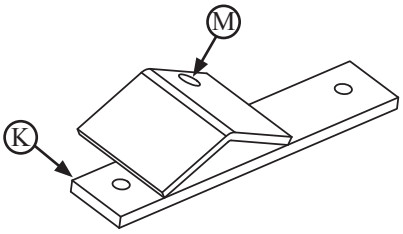
Refer to photos and illustrations on this page and next page for this portion of drive assembly.

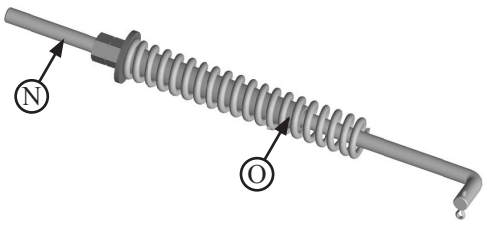
5.6 Install tightener bracket (K) to combine frame. Use existing hole 5-5/8" from drive pedestal (L). The other hole must be drilled out. Align hole in flange (M) with idler arm lever (H). Assemble hardware and secure in place with:

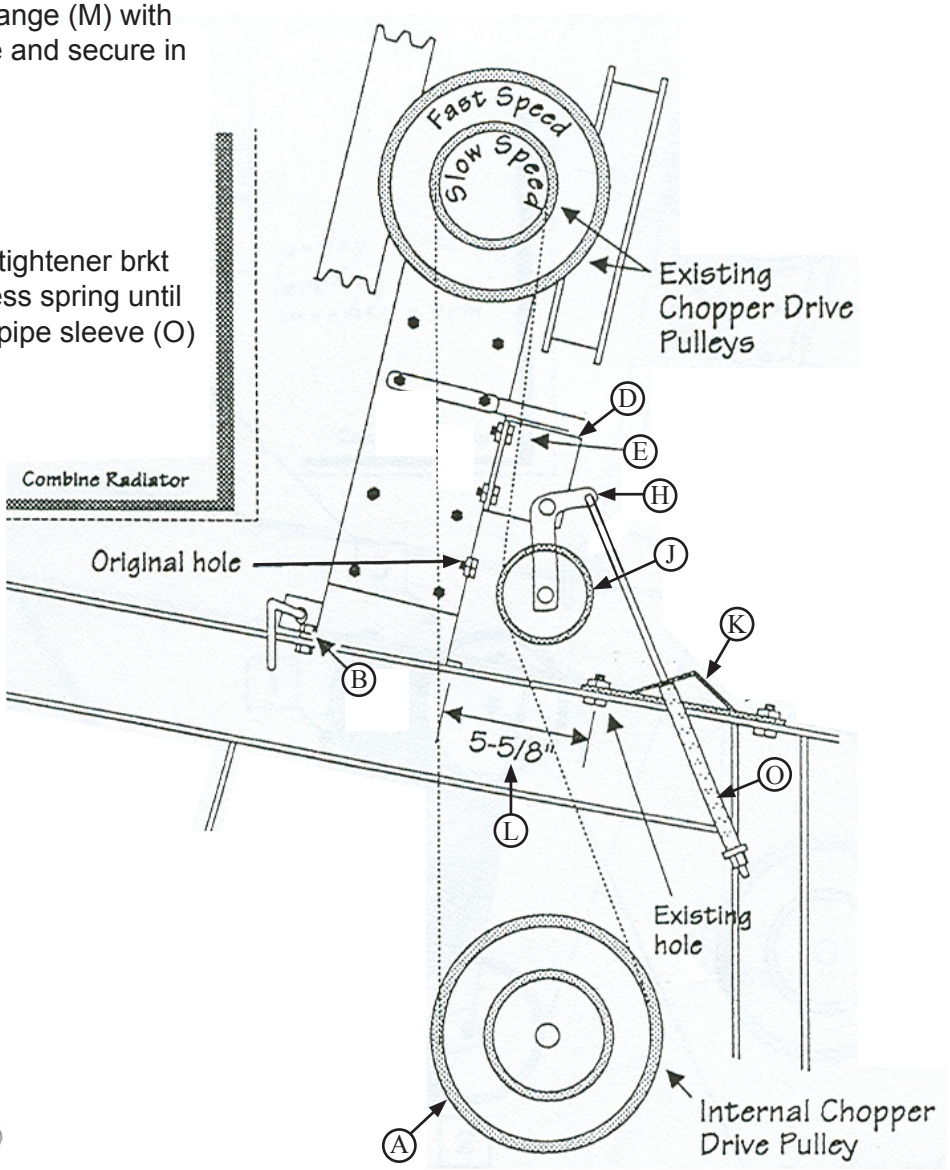
2 pcs. - Bolt, Flg M10 x 35
2 pcs. - Nut, Flg M10

5.7 Assemble spring assembly (N) thru tightener brkt hole (H) and into idler arm (H). Compress spring until end of spring lines up with end of inner pipe sleeve (O) with:

1 pc. - Pin, Cotter
2 pcs. - Washer, Flt M12
2 pcs. - Nut M12







5.8 Attach idler bracket plate (A) to combine frame. Drill out 1/2” holes and fasten in place with:
4 pcs. - Bolt, Flg M12 x 35
4 pcs. - Nut, Flg M12

5.9 **For CaseIH 2388 - 2004 and newer only** - Install tightener bracket extesion (B) to tightener brkt (C) with:
2 pcs. - Bolt M12 x 25
2 pcs. - Nut Lk M12

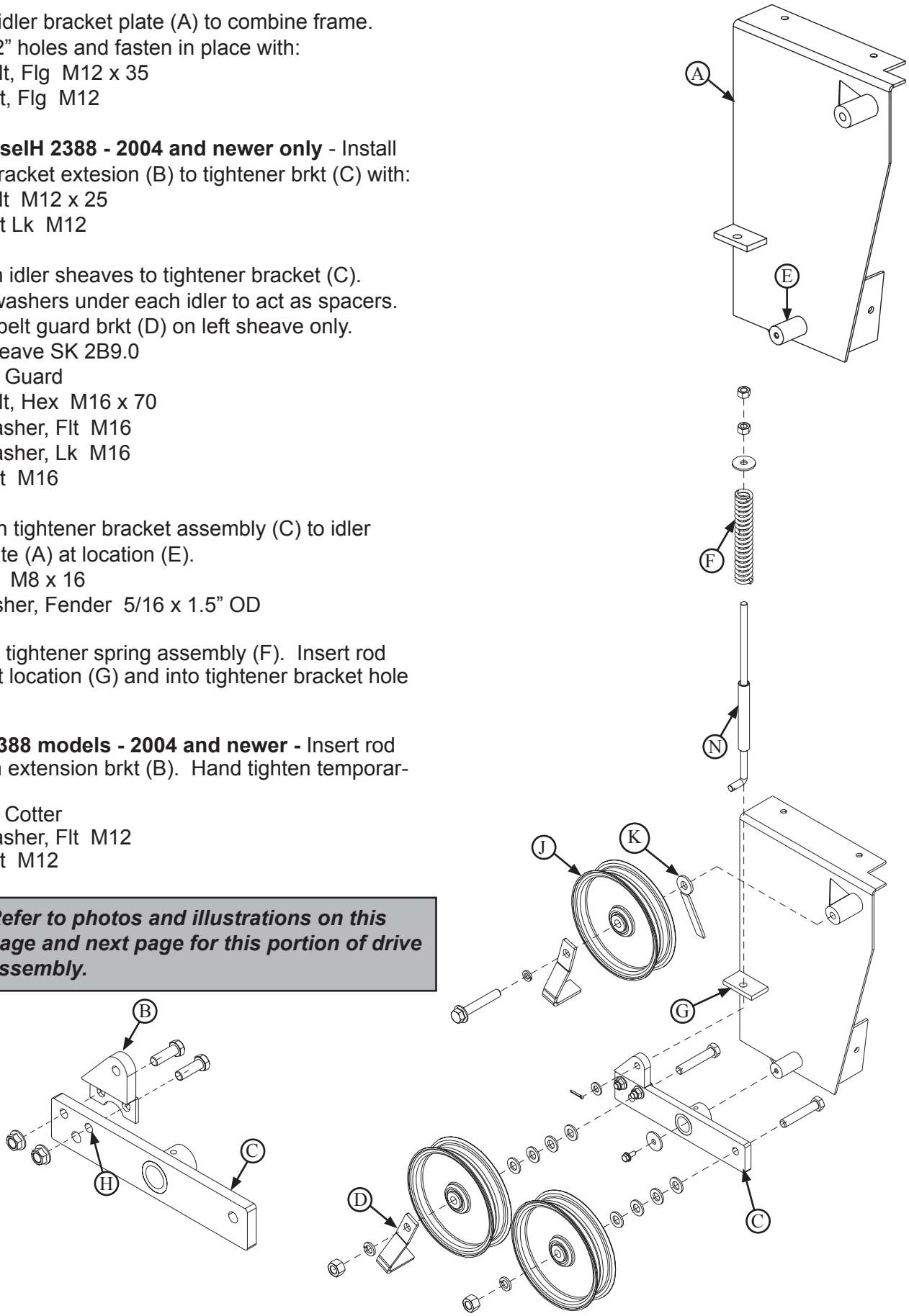
5.10 Attach idler sheaves to tightener bracket (C). Place flat washers under each idler to act as spacers. Assemble belt guard brkt (D) on left sheave only.
2 pcs. - Sheave SK 2B9.0
1 pc. - Belt Guard
2 pcs. - Bolt, Hex M16 x 70
8 pcs. - Washer, Flt M16
2 pcs. - Washer, Lk M16
2 pcs. - Nut M16

5.11 Fasten tightener bracket assembly (C) to idler bracket plate (A) at location (E).
1 pc. - Bolt M8 x 16
1 pc. - Washer, Fender 5/16 x 1.5” OD

5.12 Install tightener spring assembly (F). Insert rod thru hole at location (G) and into tightener bracket hole (H).

5.13 **For 2388 models - 2004 and newer -** Insert rod thru hole in extension brkt (B). Hand tighten temporarily.
1 pc. - Pin, Cotter
2 pcs. - Washer, Flt M12
2 pcs. - Nut M12

Refer to photos and illustrations on this page and next page for this portion of drive assembly.



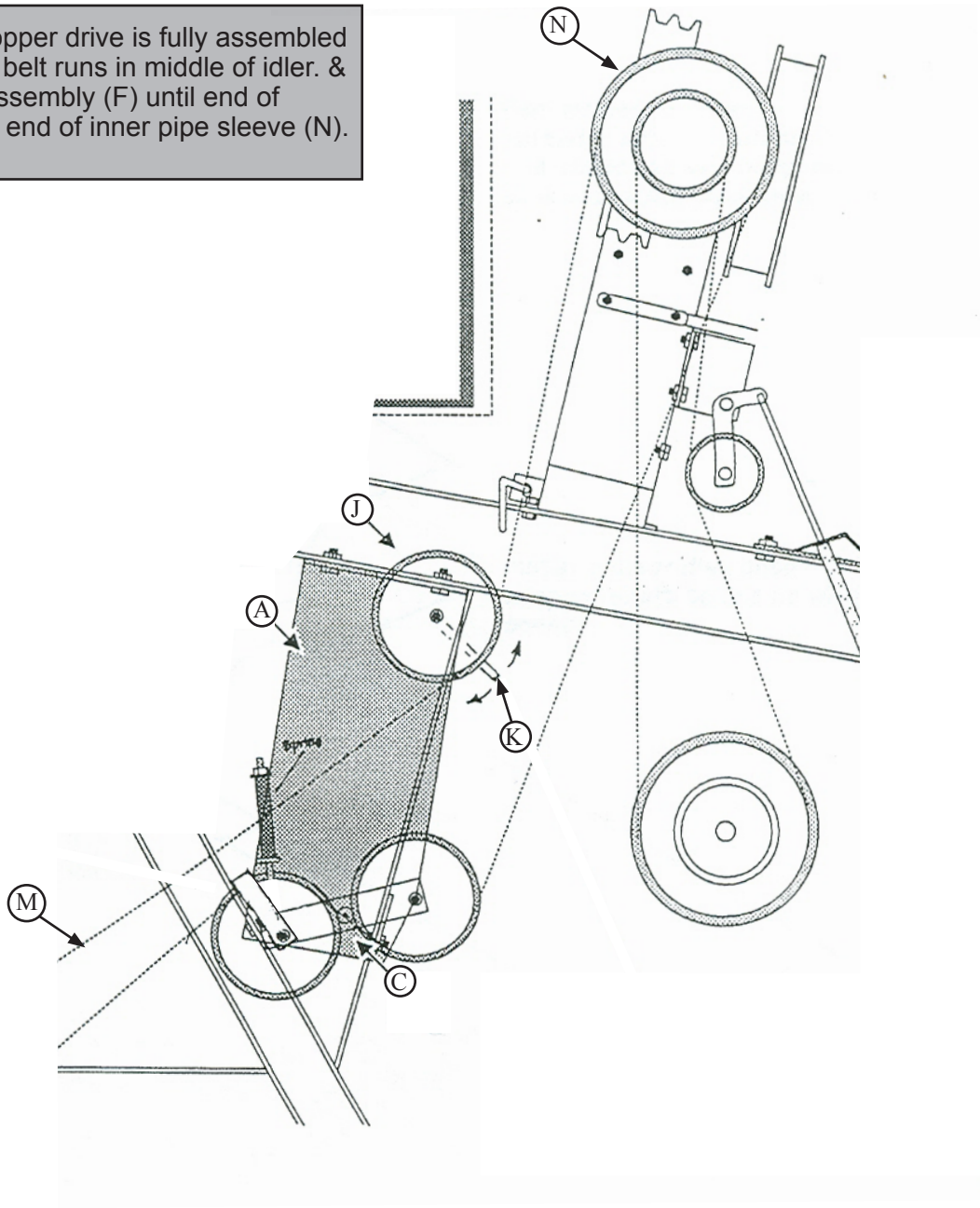
5.14 Fasten idler sheave (J) to idler bracket plate (A). Mount washer arm weldment in position (K) with:

1 pc. - Sheave SK 2B9.0
1 pc. - Belt Guard
1 pc. - Bolt, Hex 5/8 x 2
1 pc. - Nut, Lk 5/8

5.15 **For 2388 models - 2004 and newer -** Replace shield bracket (L) with redekop shield bracket.

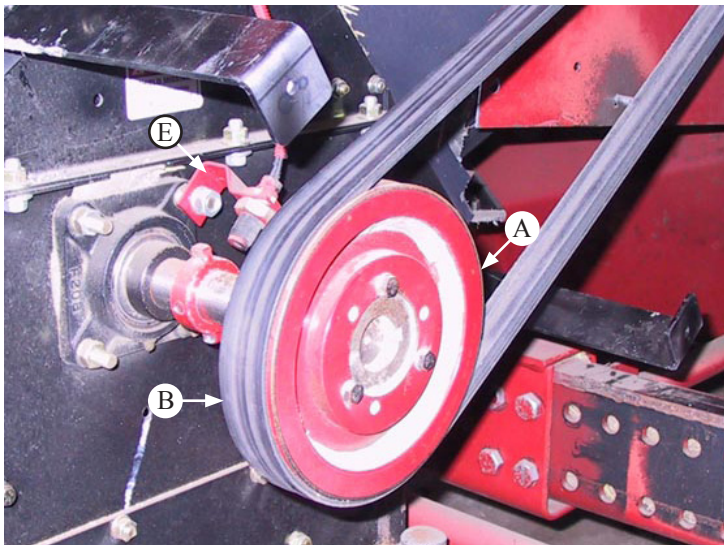
5.16 Route drive belt (M) from high speed drive on combine (N) thru idlers as shown.
1 - 2B240 Belt (60 series)
1 - 2B255 Belt (80 series)

After remaining chopper drive is fully assembled adjust arm (K) until belt runs in middle of idler. & Compress spring assembly (F) until end of spring lines up with end of inner pipe sleeve (N).



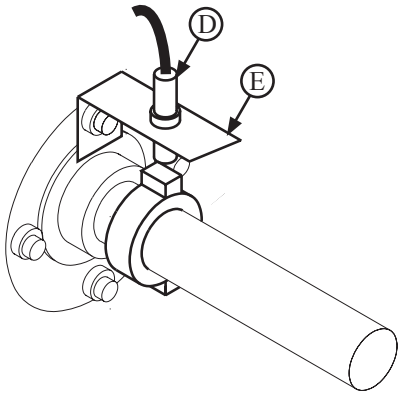
5.17 Install sheave (A) and bushing on rotor shaft. (See Appendix 2 for pulley install instructions) Check alignment with previously mounted sheaves.
1 - Sheave SK 2B8.6
1 - Bushing SK 1-1/2
1 - Keystock 3/8” x 2”

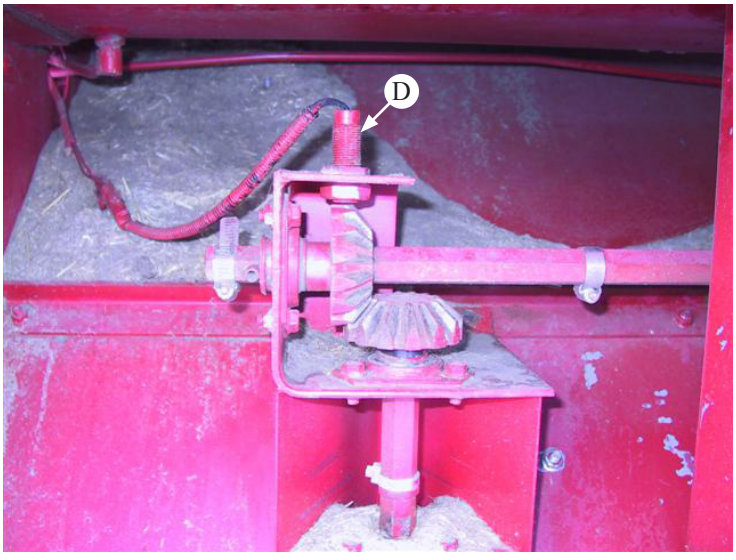
9. Install belt (B) on rotor sheave and adjust belt alignment and tension.
1 - Belt 2B240 (60 series)
1 - Belt 2B255 (80 series)



6. SPEED SENSOR

6.1 Remove left rear panel on the combine (C) and remove existing spreader sensor (D) from the spreader drive. Attach sensor to supplied bracket (E) on straw chopper rotor shaft. Plug in 7 ft wire extension, provided with your Redekop kit, and route directly to newly mounted sensor. Secure with wire clips where needed.





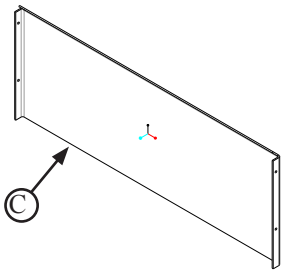
7. CORN DRIVE OPTION

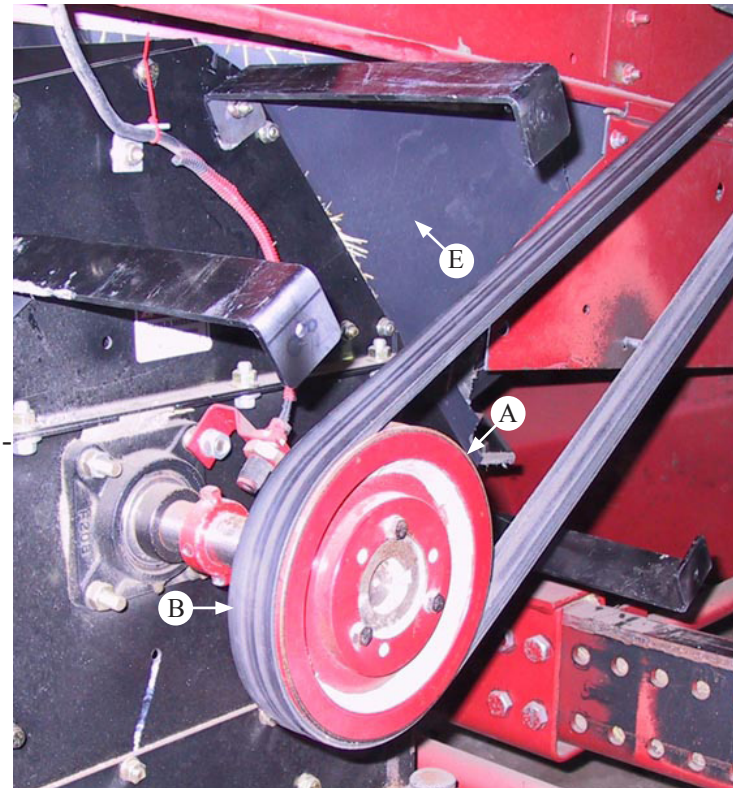
7.1 Install upper drive components as described in Section 5 - Drive Installation.

7.2 Install sheave (A) and bushing on rotor shaft. Check alignment with previously mounted sheaves.
1 pc. - Sheave SK 2B16.0
1 pc. - Bushing SK 1-1/2
1 pc. - Keystock 3/8" x 2"

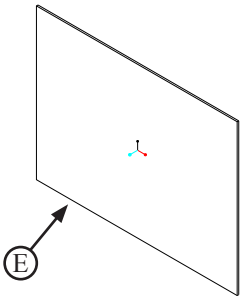
7.3 Install belt (B) on rotor sheave and adjust belt alignment and tension.
1 pc. - Belt 2B270 (60/80 series)

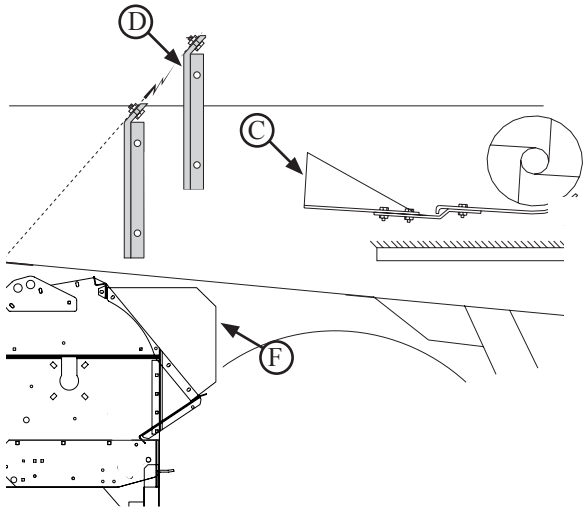
7.4 Install baffle (C) 6.5" in front of existing baffle (D).
1 pc. - Baffle 20" x 38" (60 series)
1 pc. - Baffle 20" x 48" (80 series)
10 pcs. - Screw, Self Tap 1/4" x 1.0"





7.5 Install belting (E) on right side of chopper. Drill holes where necessary. Drive belt must be protected from corn residue. Use components:
1 pc. - Belting 24" x 18"
10 pcs. - Bolt, Flg M6 x 20
10 pcs. - Nut, Flg M6

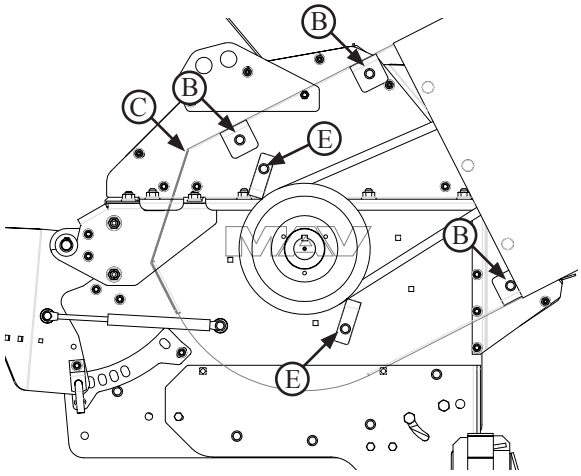




7.6 Remove plastic deflector (F) fr
per to allow for sufficient airflow. Replace when corn harvesting is done.

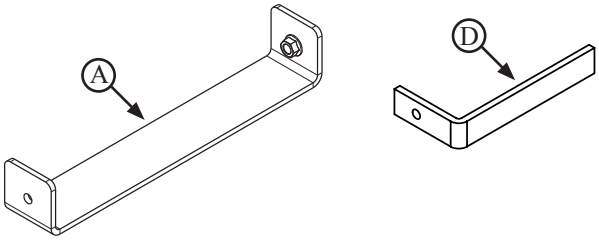
8. SHIELD INSTALLATION

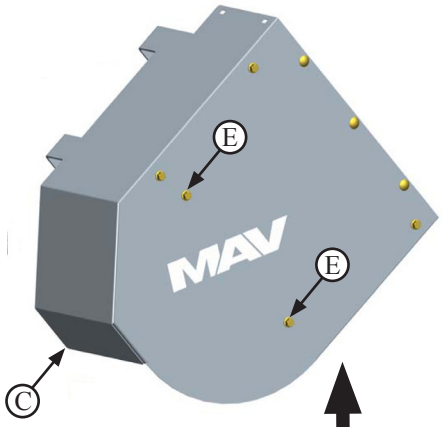
(Use CS307S shield hardware bag)



8.1 Bolt mounting bracket (A) to chopper sidewall in locations (B). Place end w/o welded nut against chopper sidewall. Insert carraige bolts from inside chopper housing out and secure brackets in place. Assemble lower drive shield (C) and rotate mount brackets to fit flat against shield wall with:

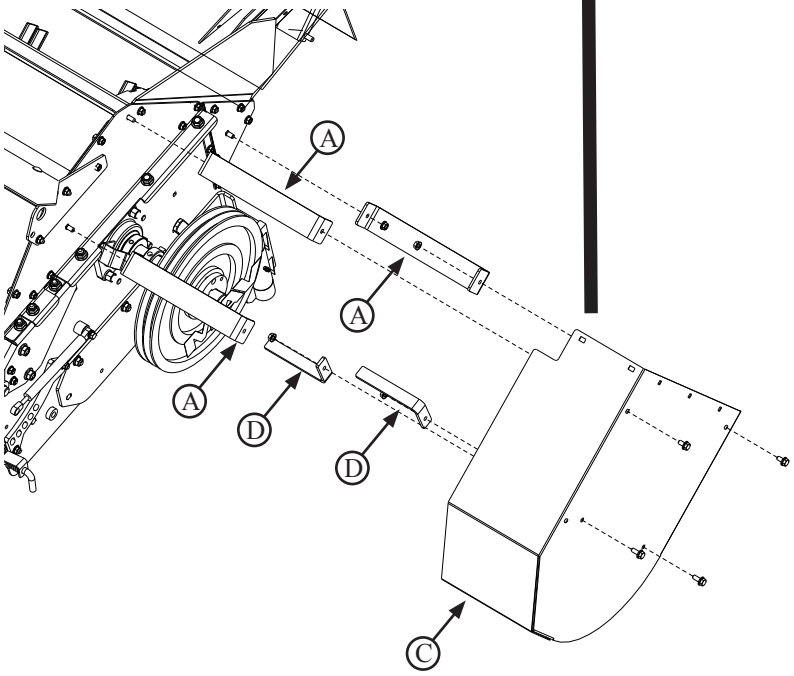
3 pcs. - Bolt, Flg M8 x 20
3 pcs. - Bolt, Crg M8 x 20
3 pcs. - Nut, Flg M8





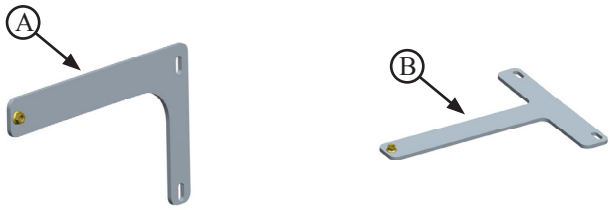
8.2 Mount belt guard bracket (D) in locations (E) on lower shield. Position slightly above belt to ensure belt stays on the sheave when the chopper is opened and closed. **Make sure belt guard brackets DO NOT touch belt when chopper is running. Use components:**

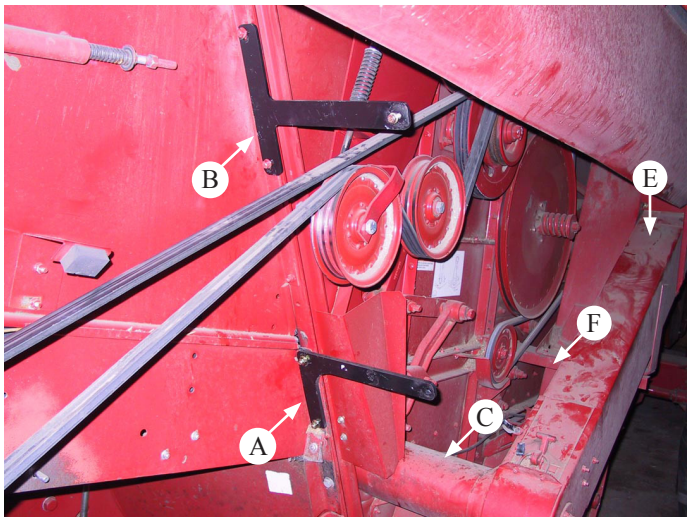
2 pcs. - Guard Bracket (D)
2 pcs. - Bolt M8 x 20
2 pcs. - Nut M8



8.3 Assemble upper shield mount bracket (A) and (B) onto combine frame using existing holes. Remove any existing hardware. Place lower slot of bracket (A) 24” and lower slot of bracket (B) 47.75” from bottom of combine frame (C) with:

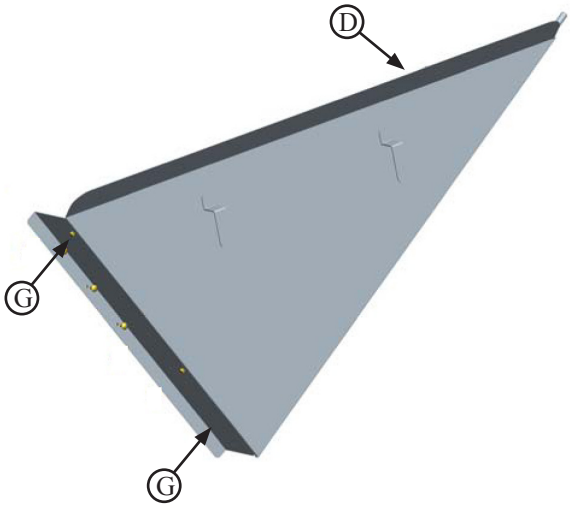
4 pcs. - Bolt M10 x 25
4 pcs. - Nut M10

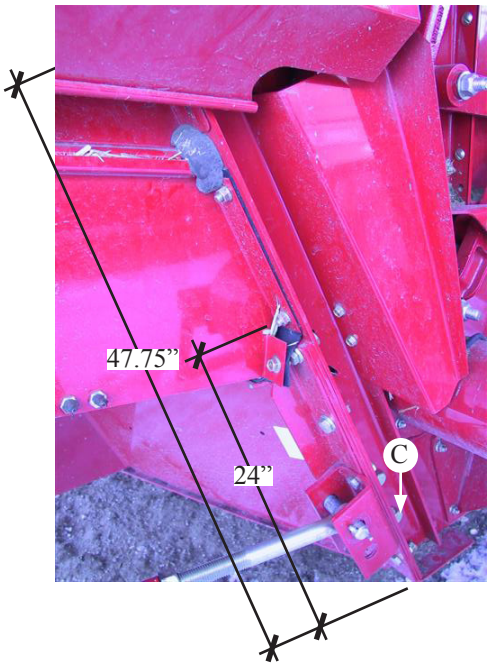




8.4 Insert pipe end of shield (D) into slot on combine (E) and set bottom in the factory clamp (F). Bolt lower shield to mount brackets at locations (G) with:

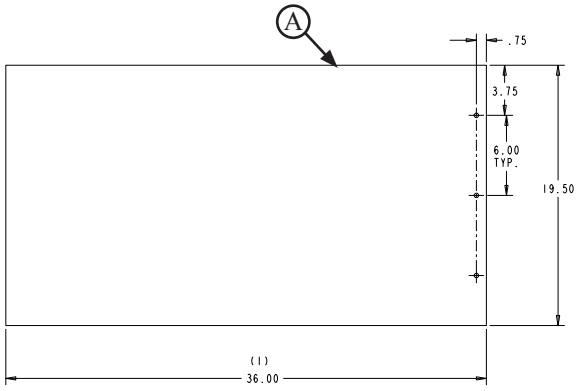
2 pcs. - Bolt M8 x 25

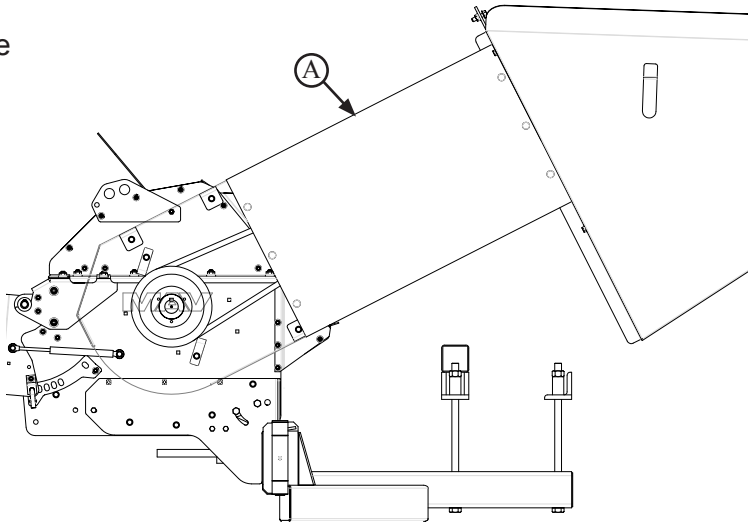




8.5 Attach belting (A) to upper and lower shields. Be sure chopper is in the closed position when marking belting for new holes. Use end w/ holes as a template for drilling holes in opposite end. Cut to length if necessary with:

6 pcs. - Bolt, Crg M8 x 16
6 pcs. - Nut M8





Note:
Check all fasteners to ensure they have been properly tightened. 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.

Appendix: 1 - 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

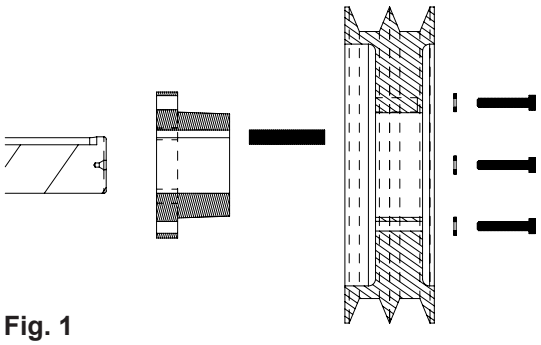


Fig. 1

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