



*Standard Sawtooth
Dual-Cut*



SERIES 3.0

**OPERATING
&
INSTALLATION INSTRUCTIONS
PARTS LISTS**

FOR
JOHN DEERE
3940-3975 FORAGE HARVESTERS

HORNING MFG LLC
301 TWIN SPRINGS CT
NEW HOLLAND, PA 17557

2020

OPERATING INSTRUCTIONS

1. **Shut off all power to machine before servicing.**
2. Grease all bearings and zerks every 8 to 10 hours (Roll bearings 1/2 to 1 pump each).
3. Bearings should operate under 200° F. Spit Test: If it doesn't sizzle (212°), assume normal operation.
4. New belts should be checked every hour for the first 5 hours of operation, daily thereafter.
5. Check roll clearance daily.
6. Roll clearance should be 1/16" as a starting point.
7. Increase roll gap according to moisture.
8. It may be necessary to lightly tap adjustment blocks downward when decreasing roll gap.
9. Recommended cut length for corn silage is 3/4".
10. You will need to lower forage head in order to be able to open cutterhead lid.
11. Emergency stop (1/2" bolt with coupler nut between taper blocks) is factory set to keep rolls from hitting each other. See illustration **A**.
12. Large processor springs should be compressed to 4 7/8". (Rolls should not open under normal conditions.)
13. If knives, etc go through processor, measure springs. (Free length should be 5 1/4". Replace springs if less.)
14. Wash down unit at end of season and apply a coating of oil or grease to all unpainted surfaces, especially rolls.

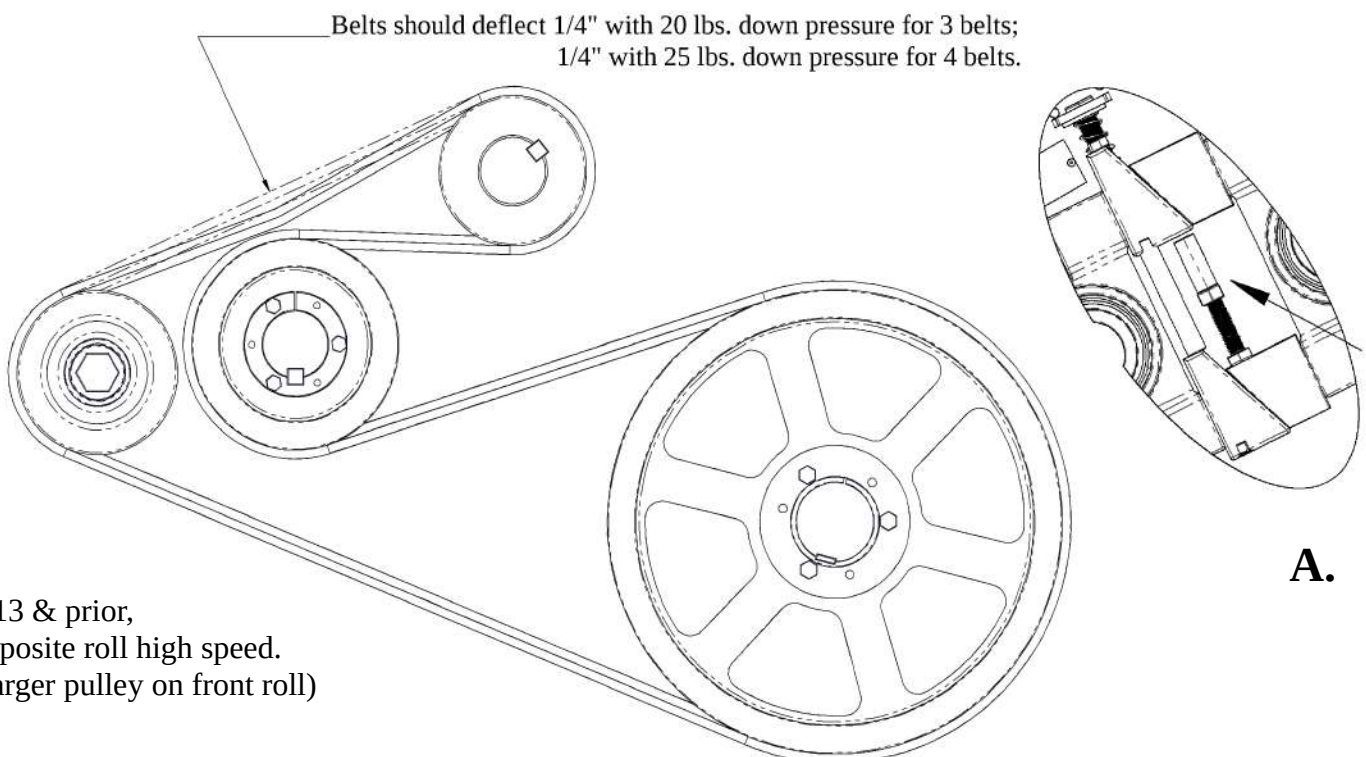
CHANGEOVER TO HAYLAGE

1. Raise forage head, release spring loaded pins, slide pan forward, and remove pan between auger and blower shaft. (You may have to rotate auger to clear pan handle and latches.)
2. Remove belts for haylage.
3. When putting pan back in for corn, pan slides underneath front pan.

BELT TENSION

ensioner spring should be compressed to 1/8" gap between spacer and washer. If your machine doesn't have a spacer, press down all belts at once. Belts should deflect 1/4" with 20 lbs. down pressure (3-belt model), and 1/4" with 25 lbs. down pressure (4-belt model). See illustration below.

For ease of belt installation adjust rolls completely together.



2013 & prior,
Opposite roll high speed.
(Larger pulley on front roll)

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTION
Hot Bearings	Side strain from improper installation	Loosen locking collars to release strain, then re-tighten
	Over greasing	Use only ½ to 1 pump of grease per bearing
Plugging in front of rolls	Feed pan not installed properly	Position properly
	Dried material on pan from previous season	Clean pan
	Knives too far from pan	Reset knives
	Roll teeth worn dull	Replace rolls
Processor rattles excessively when under load, from springs opening up	Springs too loose	Measure free length of springs. If less than 5 1/4", replace springs.
	Too long cob pieces	Reduce cut length to 3/4"
	Rolls set too close for volume of crop	Adjust roll gap
Belts twisting, breaking, or getting hot	Misaligned sheaves	Align sheaves
	Belts too tight	Properly adjust belt tension
	Pan bent or out of line	Replace pan
Plugging behind rolls	Auger not taking feed away	Run blower and auger high speed
Excessive over feed coming out of front of cutterhead	Chopping with corn head up too high	Rotate axles to raise harvester, then lower head at least 1/3 of the way.
	Chopping with a full set of knives	Remove half of the knives and cut at 3/4" cut length.

Contact your dealer about any additional problems.

Note: To check pan alignment, lay flexible ruler on inside of pan when installed.

Slide ruler up toward roll till it hits, then feel where ruler is hitting on roll.

Should be within a 1/4" of center of rolls. Always wear gloves.

PARTS LISTS

FIGURE 1 PARTS for 3940-55

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S2008	JD 3950 Top Back Hood	1
2	S2005	JD 3950 Top front shield	1
3	S2006	JD 3950 Bottom center Return lid	1
4	S2003	JD Left shield	1
5	S2002	JD Lower Right shield	1
6	S2001	JD Top Right shield	1
7	42377	Left shield spacer	2
8	FW38SAE	3/8" SAE Flat Washer	3
9	CS38x4G5	3/8"x4" NC Gr.5 Cap screw zinc plated	3
10	42399	JD Lower right threaded block	1
11	42400	JD Lower Right shield bracket	1
12	CB14x12	1/4"x1/2" NC Carriage bolt zinc coated	25
13	FN14	1/4" NC Serrated Flange Nut zinc	31
14	FB14x34G5	1/4"x3/4" NC Gr.5 Serrated Flange bolt zinc plated	5
15	FW14	1/4" Zinc Plated Flat Washer	4
16	FB14x34STD	1/4x3/4" Self Tapping & drilling Flange Bolt zinc	1
17	CB14x34	1/4"x3/4" NC Carriage bolt zinc coated	2
18	FB38x58G5	3/8"x5/8" NC Gr.5 Serrated Flange bolt zinc plated	2
19	FW38	3/8" Flat washer (zinc coated)	2
20	HC371	Rubber Hood catcher	4
21	D1004	Small gray roll adjustment Decal	2
22	D1040	Warning rotating parts (orange & white)	3
23	D1039	Warning sharp rolls (orange & white)	2
24	D1059	Horning Kp 3.0 series for JD (bright yellow)	1
25	D1065	Yellow Horning Krop Processor Logo	1
26	D1035	2x3 Red Reflective Decal	1
27	D1008	Horning Address label	1

FIGURE 1 PARTS for 3960-75

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S2009	JD 3970 Top Back Hood	1
2	S2004	JD 3970 Top front shield	1
3	S2007	JD 3970 Bottom center Return lid	1

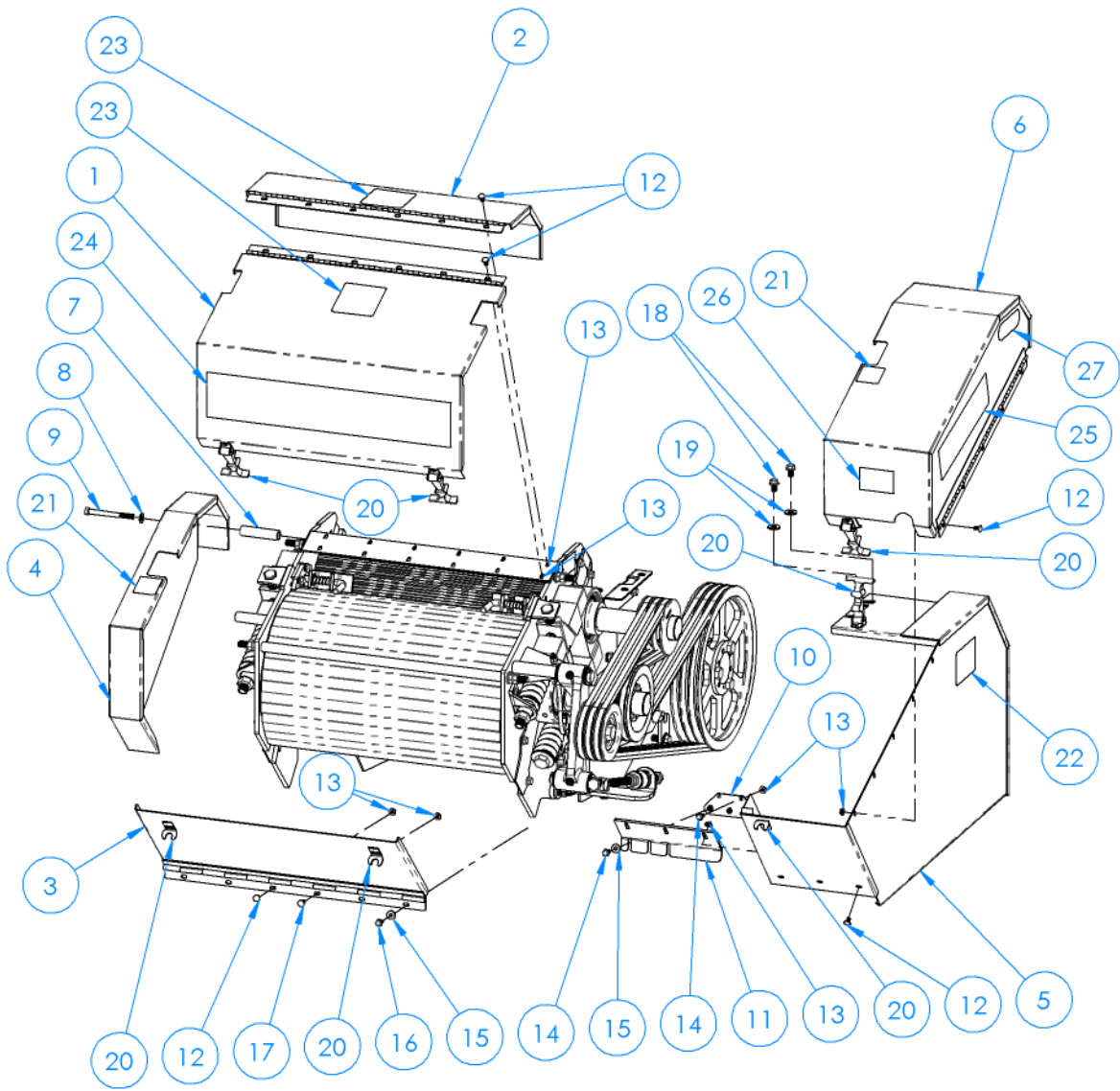


FIGURE 1 Shields

FIGURE 2 PARTS for 3940-55 3-belt

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	P1363BJD	13.6 3B custom drilled center to fit JD3950 KP	1
2	P443BSB**	4.4 3-B Pulley w/ 2" straight bore with 1/2" keyway	1
3	P623BK**	6.2 3 Groove SD Sheave w/2" bushing and keyway	1
4	42372	JD 3-groove Drive Adapter	1
5	CS58x512G5	5/8"x5 1/2" NC GR.5 Cap screw zinc plated	3
6	BB118K-3	BB118K Belts set of 3	1
7	42354	JD 3950 Large pan	1
8	42360	JD 3950 Return hood	1
9	42391	3950 Spacer pipe w/ shield mount	1
10	42366	3950 Spacer pipe	1
11	42367	3950 redi-rod for spacer pipe 26"	2
12	FN12	1/2" NC Serrated Flange Nut zinc	4
13	N12	1/2" NC Nut (zinc coated)	4
14	42325	5/8"x16" NC Ready Rod W/ Nut Welded	1
15	N58	5/8" NC Nut (zinc coated)	3
16	FW58	5/8" Flat washer (zinc coated)	1
17	42321	3 Groove belt tension spacer 1.75" L	1
18	SP542	#542 zinc/yellow Die spring Idler tightener	1
19	42376**	3940-75 belt tightener bracket	1
20	LN58S	5/8" Stover (steel) Locknut (zinc coated)	1
21	CB38x1	3/8"x1" NC Carriage bolt zinc coated	2
22	FN38	3/8" NC Serrated Flange Nut zinc	2
23	42349**	JD 3940-75 left end frame	1
24	R39503.0**	Horning JD 3950 3.0 Roll Several styles available	2
25	42348**	JD 3940-75 right end frame	1
26	KEY12x12x2	1/2x1/2x2" Key	2
27	SS38x12	3/8"-16 x 1/2" set screw	4
28	42425**	3.0 3-Groove Idler Arm	1
29	CP316x112	3/16"x1 1/2" Plated cotter pin	1
30	MW1	1" Machinery washer 14Ga.	A/R

** 2013 & prior, see page 14

FIGURE 2 PARTS for 3960-75

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
7	42355	JD 3970 Large pan	1
8	42361	JD 3970 Return Hood	1
9	42392	3970 Spacer pipe w/ shield mount	1
10	42368	3970 Spacer pipe	1
11	42369	3970 redi-rod for spacer pipe 30"	2
24	R39703.0**	Horning JD 3970 3.0 Roll Several styles available	2

FIGURE 2 PARTS for FIBER-TECH Model

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	P404BSB**	4.0 4B groove 2" Straight bore	1
3	P664BK**	6.6 4B SD pulley w/2" bushing and keyway	1

** 2013 & prior, see page 14

FIGURE 2 PARTS for 4-belt Model

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	P1364BJD	13.6 4B custom drilled center to fit JD3970 KP	1
2	P444BSB**	4.4 4-B Pulley w/ 2" straight bore with 1/2" keyway	1
3	P624BK**	6.2 4 Groove SD Sheave w/2" bushing and keyway	1
4	42373	JD 4-groove Drive Adapter	1
5	CS58x6G5	5/8"x6" NC GR.5 Cap screw zinc plated	3
6	BB118K-4	BB118K Belts set of 4	1
17	42320	4 Groove belt tension spacer 1.438" L	1
28	42306**	3.0 4-Groove Idler Arm	1
31	KEY12x12x3	1/2x1/2x3" Key	1

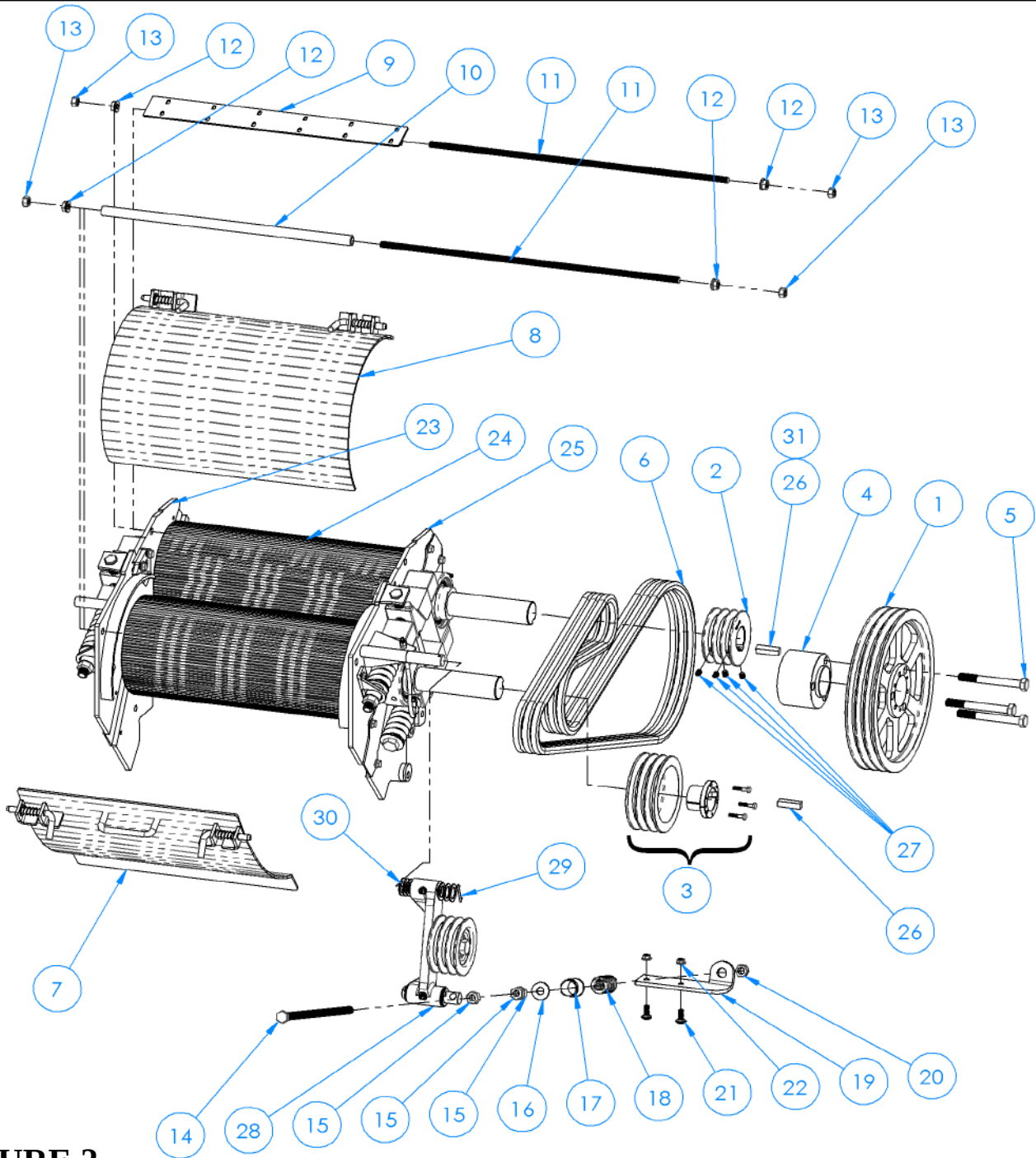
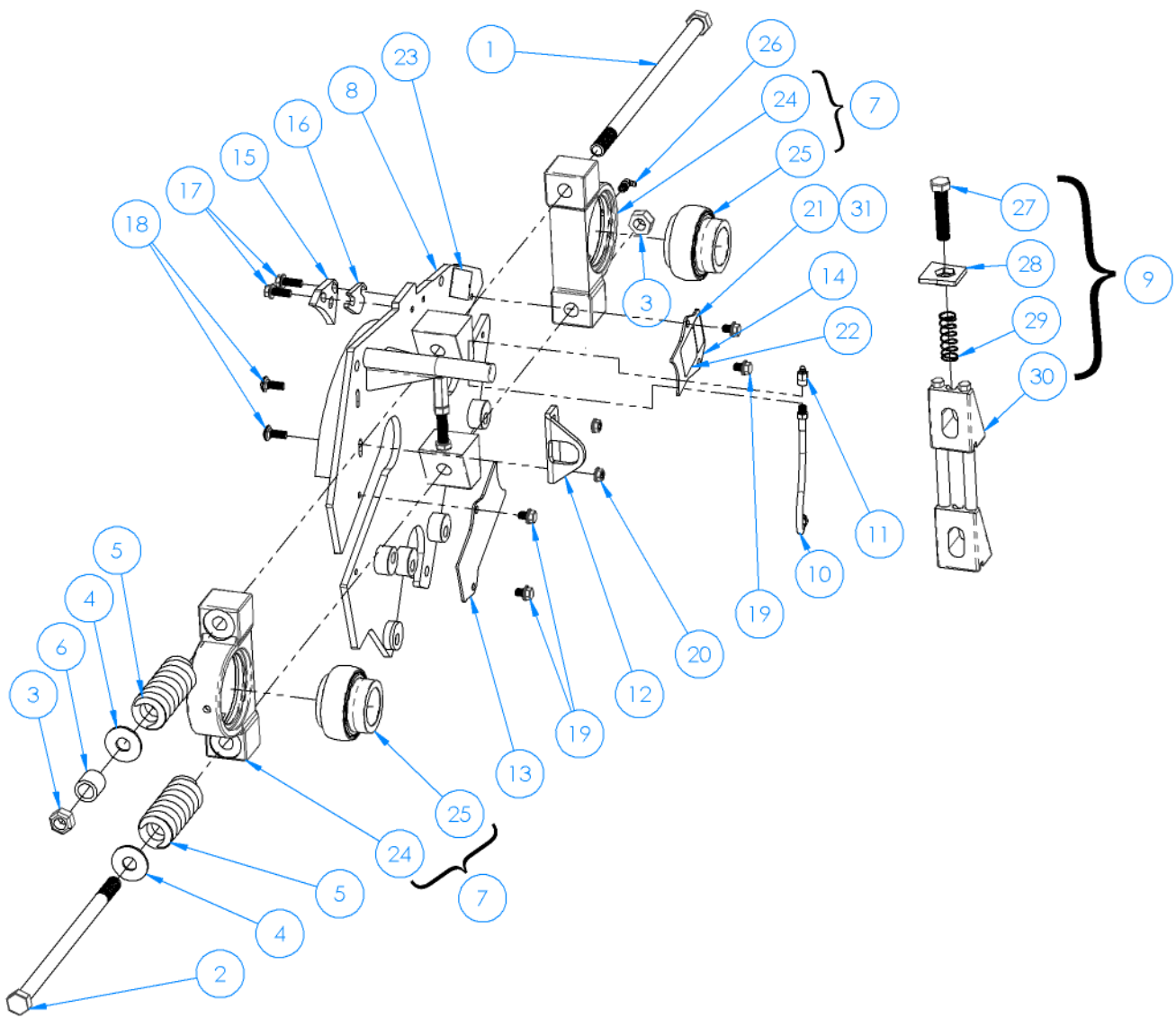


FIGURE 2
Processor

FIGURE 3 PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	CS34x15	3/4"x15" NC Gr.8 Cap screw Z/Y	1
2	CS34x14	3/4"x14" NC Gr.8 Cap screw Z/Y	1
3	LN34S	3/4" Stover (steel) Locknut (zinc coated)	2
4	FW34G8	3/4" Flat washer Gr.8 (Y/Z coated)	2
5	SP55	Heavy 5.5" KP spring Zinc Yellow	2
6	42303	Back End Bolt Support Bushing	1
7	BR2112PBHD	HD 211's 2" Eccentric Lock Wide race HD Pillow Block Bearing	2
8	42348	JD 3940-75 right end frame	1
9	42424	Taper Block Assembly	1
10	GH12	12" Grease hose 1/8"NPT Male both ends	1
11	GF1009	1/8" NPT straight female grease zerk	1
12	42382	Back end bolt support	1
13	42389**	JD Rear slot cover	1
14	42390**	JD Front slot cover	1
15	42381**	Return hood catcher plate	1
16	42380**	Catcher plate spacer	1
17	FB38x1G5	3/8"x1" NC Gr.5 Serrated Flange bolt zinc plated	2
18	CB38x1	3/8"x1" NC Carriage bolt zinc coated	2
19	FB38x12	3/8"x1/2" Gr5 serrated flange bolt zinc plated	4
20	FN38	3/8" NC Serrated Flange Nut zinc	2
21	D1046	Belt part # BB118k-4 decal	1
22	D1018	Belt Routing decal	1
23	D1064	Custom serial # plate (Aluminum)	1
24	M4538	211's Heavy Duty Pillowblock bearing casting	2
25	BR2112	SKF 211's 2" Eccentric Lock Wide race Bearing insert	2
26	GF1010	1/8" NPT 90 Degree Male grease Zerk	1
27	TB58x3NFG8	5/8"x3"NF Gr.8 Tapping bolt (chamfered end)	1
28	42423	Adjustment Lockplate	1
29	SP250	Lock plate Spring	1
30	62055	Taper Block Assembly	1
31	D1048	Belt part # BB118k-3 decal	1

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Note: All parts on left end frame are also in this view.

FIGURE 3 Right End Frame

FIGURE 4 PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	42312	JD Left Frame Brace	1
2	42428	JD L. mount plate	1
3	42311	JD Right Side Panel	1
4	42310	JD Left Side Panel	1
5	42395	JD Front Pan pin	2
6	42393	JD 3950 Front Pan	1
7	42394	JD 3970 Front Pan	1
8	42322	JD 3960-3975 Cutterhead box	1
9	42412	JD 3940-3955 Cutterhead box	1
10	42402	JD Light bracket	1
11	42398	Jd axle extension	1
12	42401	JD R. shield holder	1
13	42403	JD R. shield mount	1
14	42396	JD Auger Lid Hinge	1
15	42397	JD R. frame nut	2
16	M4522	JD Pan latch ring	2

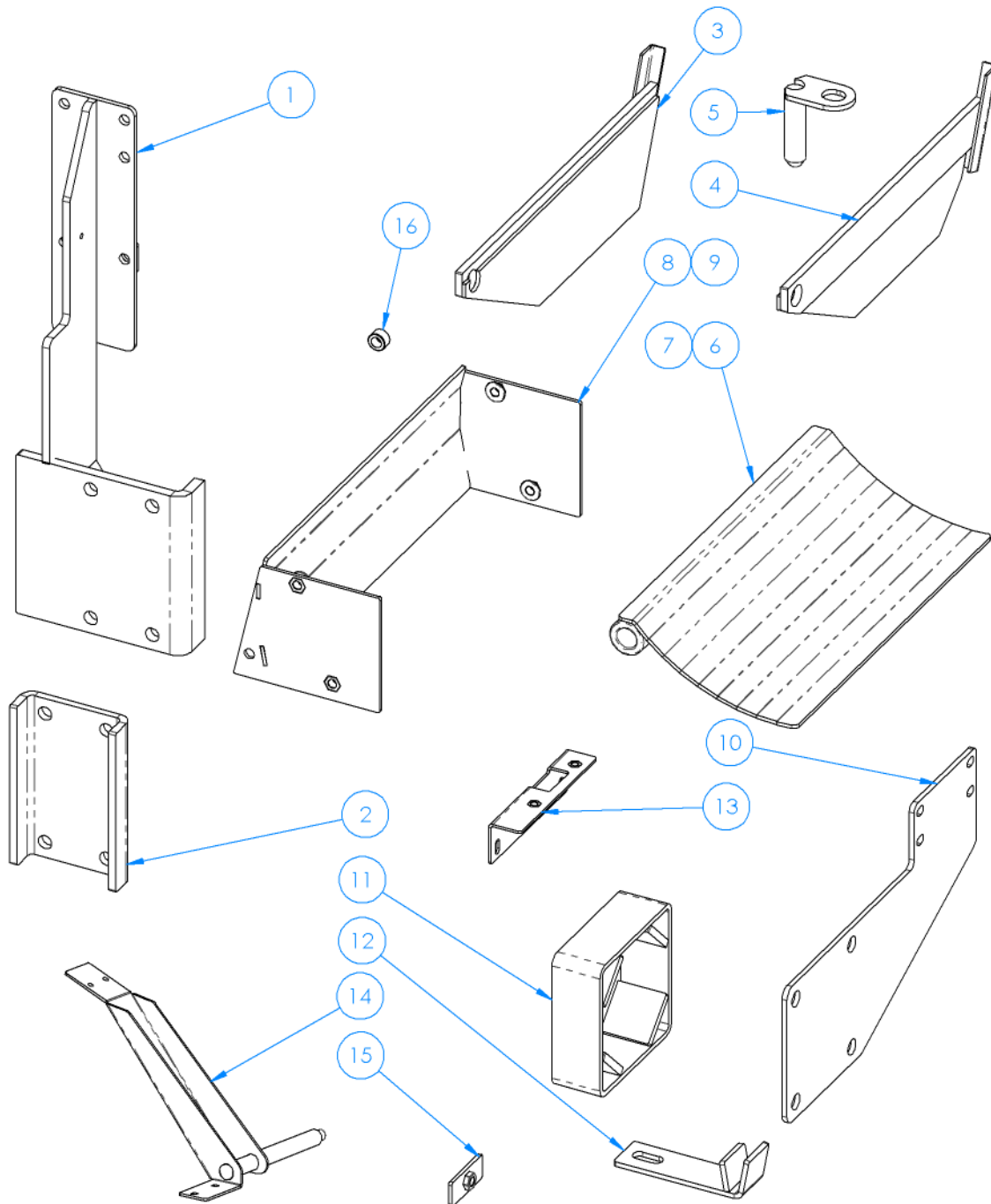


FIGURE 4 Other Parts

FIGURE 5 PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	M4622**	Cast Iron idler arm	1
2	62117	Idler Pin	1
3	CP316x112	3/16"x1 1/2" Plated cotter pin	2
4	MW1	1" Machinery washer 14Ga.	4
5	GF1012	1/8" NPT 45 deg. male zerk	1
6	GF1011	1/8" NPT Straight male grease zerk	1
7	P463BIP	4.6" 3-Groove Idler Pulley w/ Bearings	1
8	BR6304	6304 Idler bearing	2
9	M4693	4.6" 3-Groove Idler Pulley	1
10	M4517	SD Idler spacer	1
11	CS20x80MM10.9	20x80mm 10.9 zinc 2.5pitch bolt	1

FIGURE 6 PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	M4622**	Cast Iron idler arm	1
2	62117	Idler Pin	1
3	CP316x112	3/16"x1 1/2" Plated cotter pin	2
4	MW1	1" Machinery washer 14Ga.	4
5	GF1012	1/8" NPT 45 deg. male zerk	1
6	GF1011	1/8" NPT Straight male grease zerk	1
7	P464BIP	4.6" 4-Groove Idler Pulley w/ Bearings	1
8	BR6304	6304 Idler bearing	2
9	M4694	4.6" 4-Groove Idler Pulley	1
10	M4517	SD Idler spacer	1
11	CS20x80MM10.9	20x80mm 10.9 zinc 2.5pitch bolt	1

** 2013 & prior, see page 14

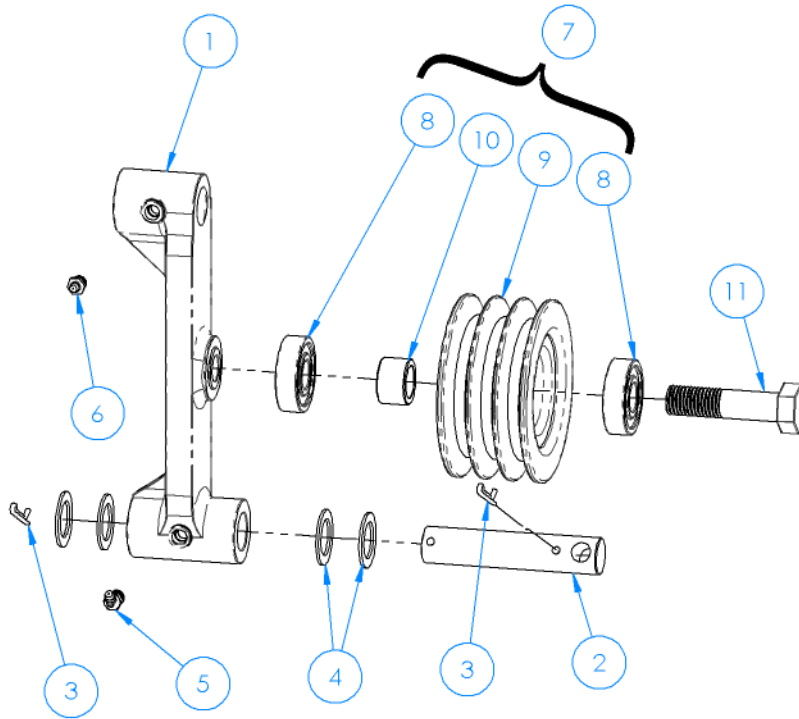


FIGURE 5 42425 Idler Arm

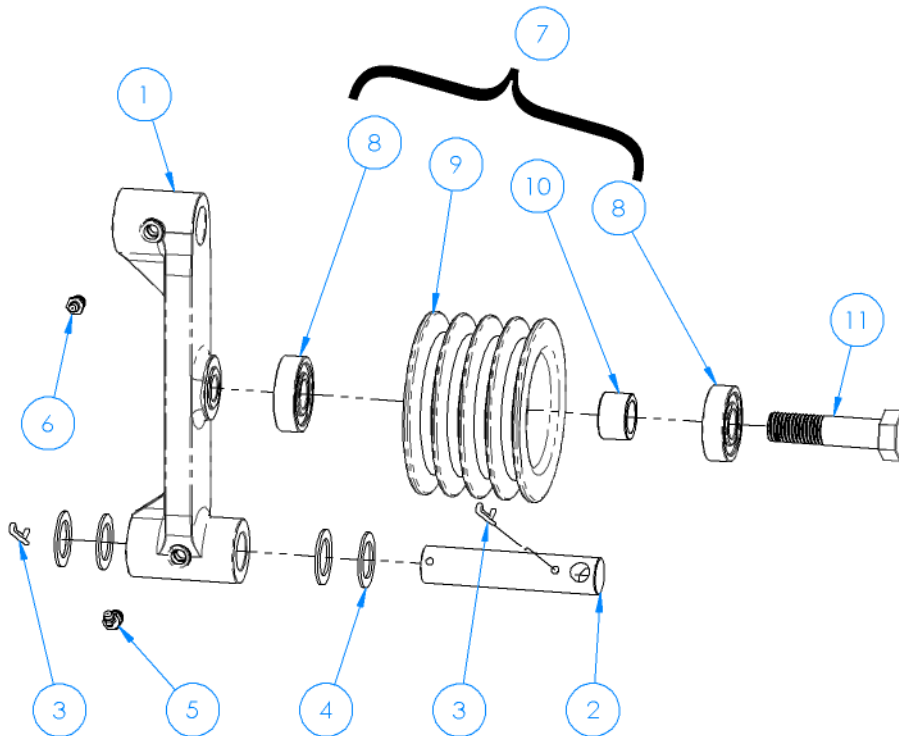


FIGURE 6 42306 Idler Arm

**2013 & PRIOR PARTS LIST

PAGE/ ITEM NO.	CURRENT PART NO.	PART NO.	DESCRIPTION	QTY.
6 / 1	P443BSB	P643BK**	6.4" 3-B SD sheave w/2" bushing and keyway	1
6 / 2	P623BK	P503BK**	5.0" 3-B SD sheave w/2" bushing and keyway	1
6 / 3	42376	N/A	Not used on 2013 & prior	0
6 / 4	R39503.0	R3950HT4**	Horning 3950 Roll (2013 & prior)	2
6 / 5	42348	Call	Non-stock. Must custom order	1
6 / 6	42349	Call	Non-stock. Must custom order	1
6 / 7	42325	N/A	Available as single part. See line 18	1
6 / 8	R39703.0	R3970HT4**	Horning 3970 Roll (2013 & prior)	2
6 / 9	P404BSB	N/A	Not used on 2013 & prior	0
6 / 10	P664B	N/A	Not used on 2013 & prior	0
7 / 11	P444BSB	P644BK**	6.4" 4-B SD sheave w/2" bushing and keyway	1
7 / 12	P624BK	P504BK**	5.0" 4-B SD sheave w/2" bushing and keyway	1
7 / 13	42306	N/A	Available as single part. See line 18	1
8 / 14	42381	HM1240**	Horseshoe catcher	2
8 / 15	42380	N/A	Not used on 2013 & prior	0
8 / 16	42389	N/A	Not used on 2013 & prior	0
8 / 17	42390	N/A	Not used on 2013 & prior	0
12 / 18	M4622	42435**	Kp idler arm 2013 & prior	1