



*Standard Sawtooth
Dual-Cut*

SERIES 3.0

**OPERATING
&
INSTALLATION INSTRUCTIONS
PARTS LISTS**

FOR
NEW HOLLAND
790 & 782 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. Emergency stop (1/2" bolt with coupler nut between taper blocks) is factory set to keep rolls from hitting each other. See illustration **A**.
11. Large processor springs should be compressed to 4 7/8". (Rolls should not open under normal conditions.)
12. If knives, etc go through processor, measure springs. (Free length should be 5 1/4". Replace springs if less.)
13. Wash down unit at end of season and apply a coating of oil or grease to all unpainted surfaces, especially rolls.

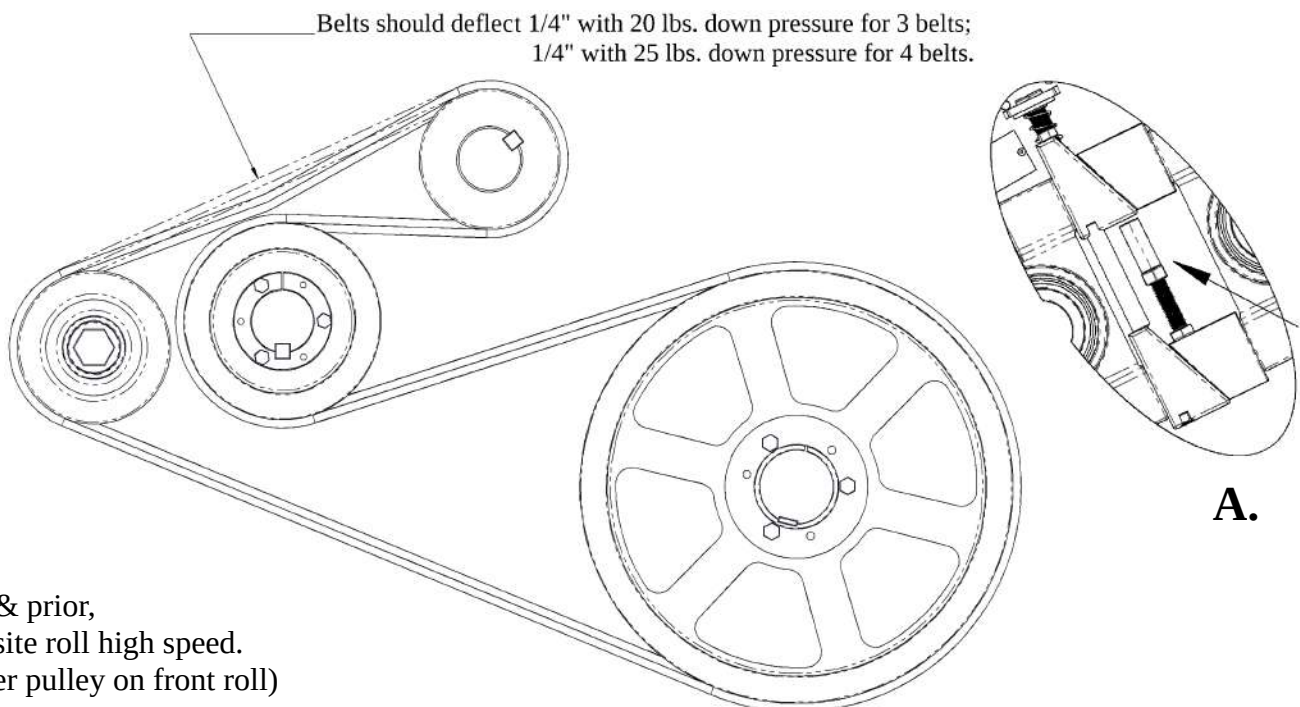
CHANGEOVER TO HAYLAGE

1. Release spring loaded pins, and remove pan between auger and processor. (You may have to rotate auger to clear pan handle and latches.)
2. Remove belts for haylage.
3. Note: When putting pan back in for corn, make sure bottom end of pan is on top of step.

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 or smashed From foreign material	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

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 LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S2101	NH 790 Top Right shield	1
2	S2102	NH 790 Top Center shield	1
3	S2103	NH 790 Left shield	1
4	S2104	NH 790 Bottom Right shield	1
5	S2120	NH 790 Lower back lid	1
6	RF1605	38MM/1.5" Dia. tall rubber foot	1
7	42379	Rubber foot spacer	1
8	42377	Left shield spacer	2
9	CS38x4G5	3/8"x4" NC Gr.5 Cap screw zinc plated	3
10	FW38SAE	3/8" SAE Flat Washer	3
11	CB14x12	1/4"x1/2" NC Carriage bolt zinc coated	15
12	FN14	1/4" NC Serrated Flange Nut zinc	16
13	FB38x12	3/8"x1/2" Gr5 serrated flange bolt zinc plated	3
14	CS14x112G5	1/4x 1 1/2" Gr.5 NC Zinc Plated Cap screw	1
15	HC371	Rubber Hood catcher	3
16	D1039	Warning sharp rolls (orange & white)	1
17	D1060	Horning Kp 3.0 series for NH (yellow)New Style	1
18	D1004	Small gray roll adjustment Decal	1
19	D1040	Warning rotating parts (orange & white)	2
20	D1065	Yellow Horning Krop Processor Logo	1
21	D1035	2x3 Red Reflective Decal	1
22	D1043	790 decal (black & white)	1
23	D1008	Horning Address label	1

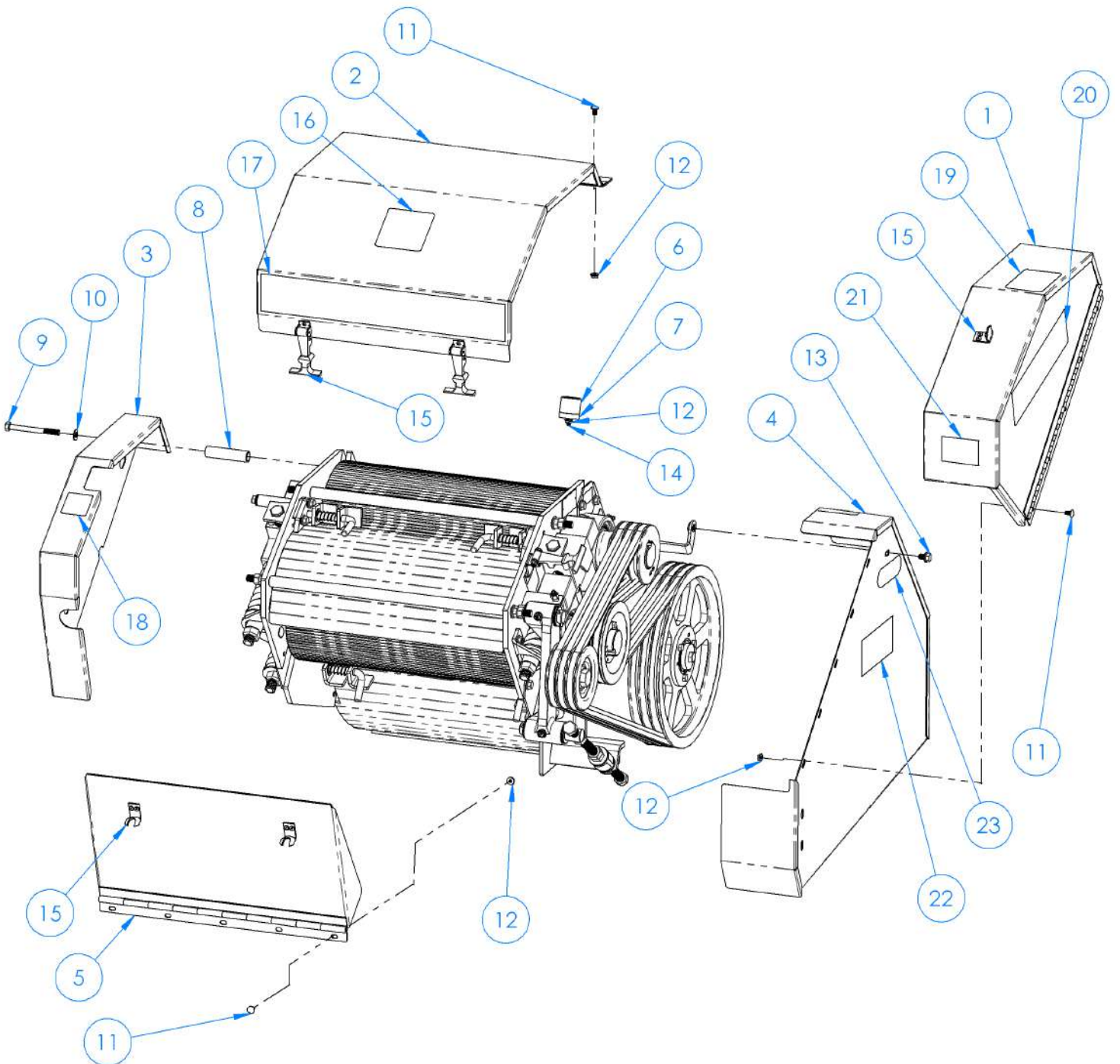


FIGURE 1 Shields

FIGURE 2 PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	P1363B	13.6" 3-B SK sheave	1
2	P423BSB**	4.2 3B groove 2" Straight bore	1
3	P603BK**	6.0 3-B SD Sheave w/2" bushing and keyway	1
4	BB108K-3	BB108K Belts set of 3	1
5	42371	NH 790 drive adapter	1
6	42413	Heavy drive adapter washer	1
7	CS12x312G8	1/2"x 3 1/2" Grade 8 Cap Screw Z/Y	1
8	42353	NH 790 Pan	1
9	42359	NH 790 Return hood	1
10	42364	790 Spacer pipe 1/2" sch. 40 Blackpipe 19 1/4" Long	2
11	42365	790 redi-rod for spacer pipe 1/2" NC B7 rod 26"	2
12	FN12	1/2" NC Serrated Flange Nut zinc	4
13	N12	1/2" NC Nut (zinc coated)	4
14	42347**	NH 790 left frame assembly	1
15	R7903.0**	Homing 790 Roll 3.0 Several styles available	2
16	42346**	NH 790 right end frame	1
17	42327	5/8"x 13 1/2" NC Ready Rod W/ Nut Welded	1
18	N58	5/8" NC Nut (zinc coated)	7
19	FW58	5/8" Flat washer (zinc coated)	1
20	SP542	#542 zinc/yellow Die spring Idler tightener	1
21	42321	3 Groove belt tension spacer 1.75" L	1
22	42375	790 belt tightener bracket	1
23	FW12SAE	1/2" SAE Zinc Plated Flat Washer	1
24	CS12x1G5	1/2x1 Gade 5 zinc Capscrew	1
25	LN58S	5/8"Stover (steel) Locknut (zinc coated)	1
26	SS38x12	3/8"-16 x 1/2" set screw	4
27	KEY12x12x2	1/2x1/2x2" Key	2
28	KEY316x58x2	3/16"x5/8"x2" Key	1
29	CS516x2G8	5/16"x 2" NC Gr.8 full thread Cap Screw Z/Y	3
30	BUSK238	SK 2 3/8" Bushing	1
31	42425**	3.0 3-Groove Idler Arm	1
32	CP316x112	3/16"x1 1/2" Plated cotter pin	1
33	MW1	1" Machinery washer 14Ga.	A/R

** 2013 & prior, see page 12

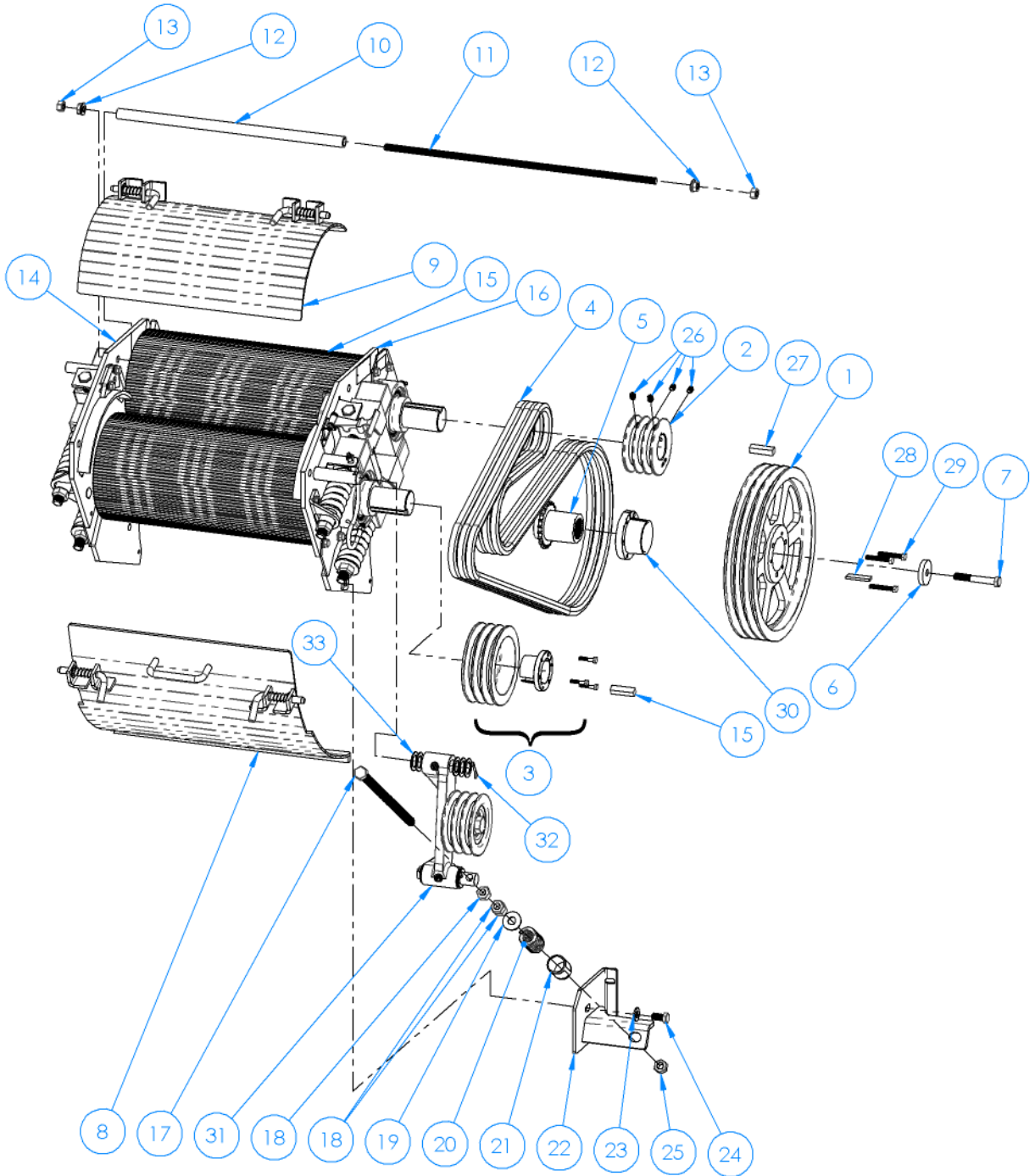


FIGURE 2 Processor Assembly

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	SP55	Heavy 5.5" KP spring Zinc Yellow	2
4	FW34G8	3/4" Flat washer Gr.8 (Y/Z coated)	2
5	42303	Back End Bolt Support Bushing	1
6	LN34S	3/4" Stover (steel) Locknut (zinc coated)	2
7	42382	Back end bolt support	1
8	42388**	NH 892 & 790 Rear slot cover	1
9	42387**	NH 892 & 790 Front slot cover	1
10	42381**	Return hood catcher plate	1
11	42380**	Catcher plate spacer	1
12	GH12	12" Grease hose 1/8"NPT Male both ends	1
13	GF1009	1/8" NPT straight female grease zerk	1
14	HC371	Rubber Hood catcher	1
15	MS10-24x112	10-24 x 1 1/2" Pan Head Machinery Screw	1
16	LN10-24N	#10-24 Nylon Lock nut	1
17	D1064	Custom serial # plate (Aluminum)	1
18	D1018	Belt Routing decal	1
19	D1047	Belt part # BB108k-3 decal	1
20	FB38x1G5	3/8"x1" NC Gr.5 Serrated Flange bolt zinc plated	2
21	CB38x1	3/8"x1" NC Carriage bolt zinc coated	2
22	FN38	3/8" NC Serrated Flange Nut zinc	2
23	FB38x12	3/8"x1/2" Gr5 serrated flange bolt zinc plated	4
24	42424	Taper Block Adj. Assembly (w/ Bolt, Spring,& Catcher)	1
25	BR2112PBHD	HD 211's 2" Eccentric Lock Wide race HD Pillow Block Bearing	2
26	42346**	NH 790 right end frame	1
27	M4538	211's Heavy Duty Pillowblock bearing casting	2
28	BR2112	SKF 211's 2" Eccentric Lock Wide race Bearing insert	2
29	GF1010	1/8" NPT 90 Degree Male grease Zerk	1
30	62055	Taper Block Assembly	1
31	SP250	Lock plate Spring	1
32	42423	Adjustment Lockplate	1
33	TB58x3NFG8	5/8"x3"NF Gr.8 Tapping bolt	1

** 2013 & prior, see page 12

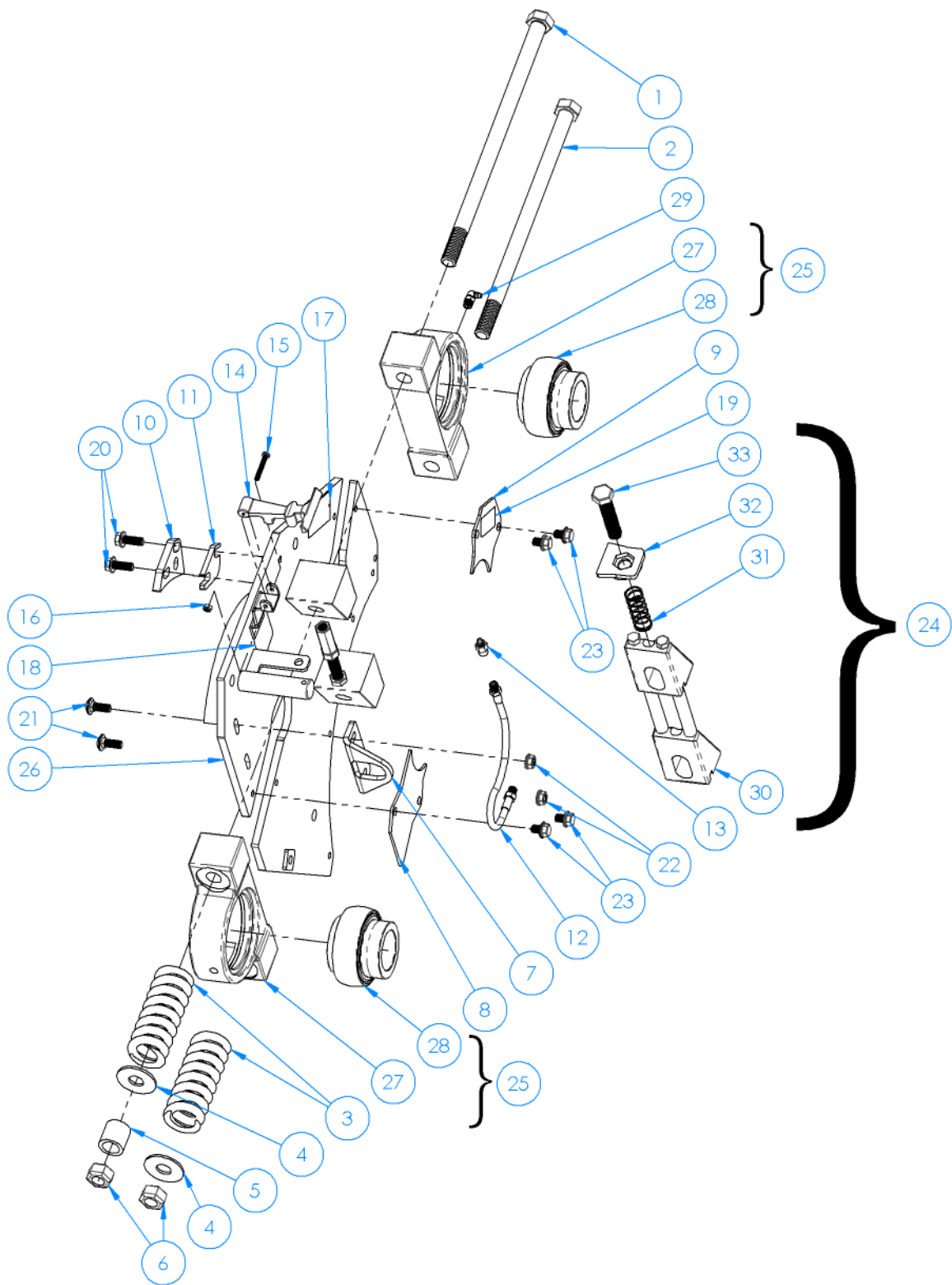


FIGURE 3 Right End Frame

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

FIGURE 4 PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	42417	790 Bot. R. Shield bracket	1
2	42416	790 Top R. shield Bracket	1
3	42415	790 wheel spacer	1
4	42414	790 wheel spacer sheild holder	1

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/ Bearing	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

** 2013 & prior, see page 12

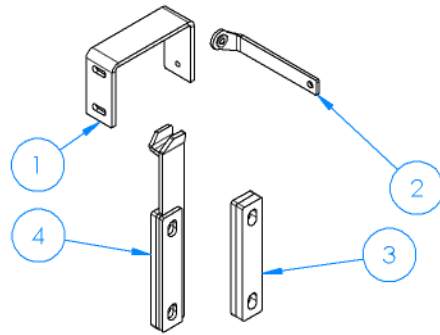


FIGURE 4 Other Parts

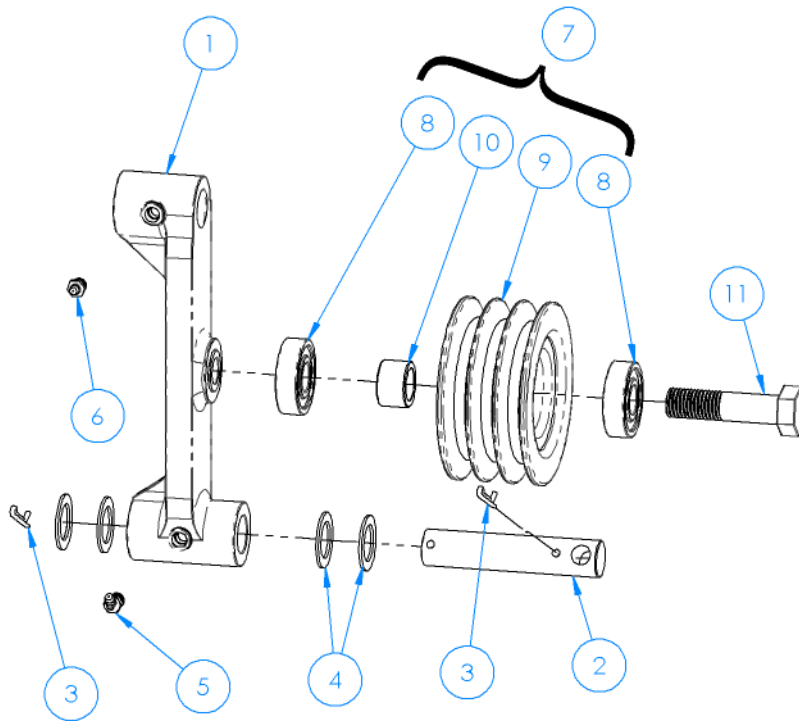


FIGURE 5 42425 Idler Arm

**2013 & PRIOR PARTS LIST

PAGE/ ITEM NO.	CURRENT PART NO.	PART NO.	DESCRIPTION	QTY.
6 / 1	P423BSB	P643BK**	6.4" 3-B SD sheave w/2" bushing and keyway	1
6 / 2	P603BK	P503BK**	5.0" 3-B SD sheave w/2" bushing and keyway	1
6 / 3	R7903.0	R790HT4**	Horning 790 Roll (2013 & prior)	2
6 / 4	42425	N/A	Available as single part. See line 10	1
8 / 5	42346	Call	Non-stock. Must custom order	1
8 / 6	42381	HM1240**	Horseshoe catcher	2
8 / 7	42380	N/A	Not used on 2013 & prior	0
8 / 8	42388	N/A	Not used on 2013 & prior	0
8 / 9	42387	N/A	Not used on 2013 & prior	0
10 / 10	M4622	42435**	Kp idler arm 2013 & prior	1