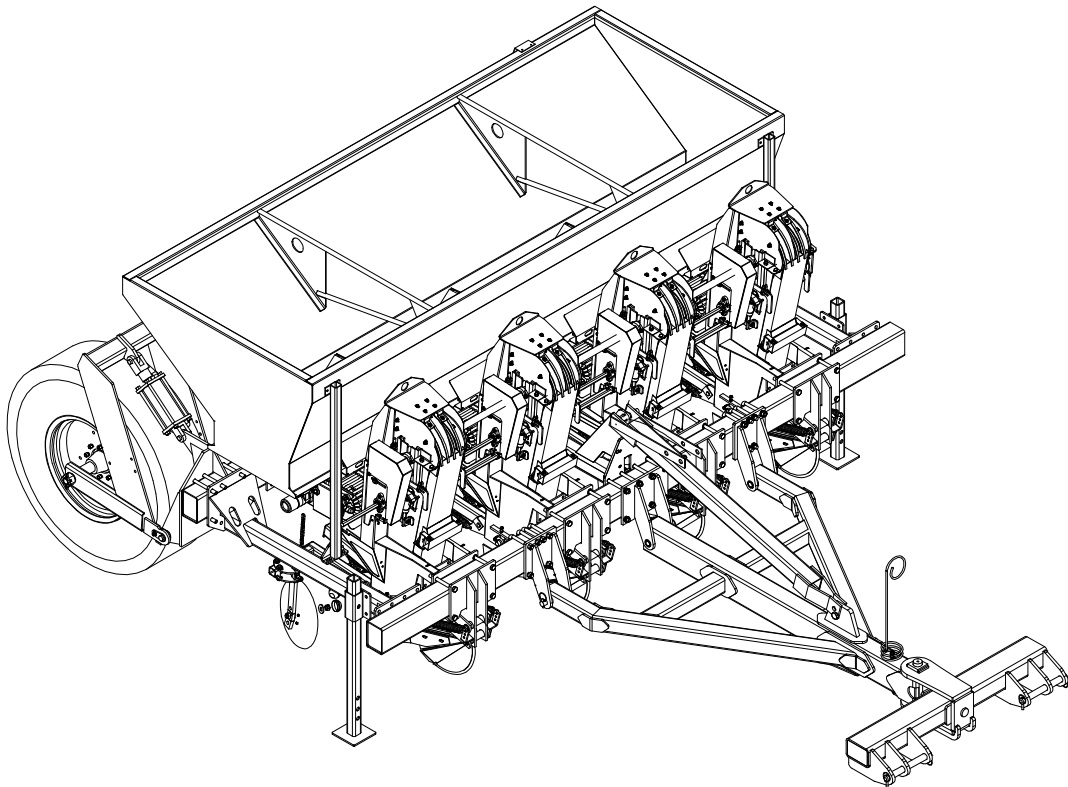
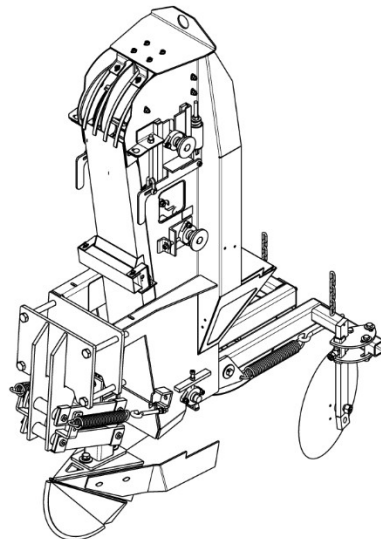


# Harriston

INDUSTRIES



## Cup Potato Planter Parts Book 2021





**NOTES:**

# Table of Contents

Row Unit Assembly .....	1
Row Unit Drive Package .....	3
Belt With Cups Assembly .....	5
Row Unit Switch Assembly .....	7
Closing Disc Assembly.....	11
Heavy Closing Disc Assembly .....	13
Shoe Sub Assembly .....	15
Shoe Assembly Complete .....	17
Gauge Wheel Sub-Assembly w/o Tire .....	19
Gauge Wheel Package .....	19
Gauge Wheel Tire Scraper .....	19
Feedbox Assembly.....	21
Frame Assembly .....	23
Tank Assembly .....	23
Planter Hitches.....	25
Steerable Hitch Package .....	27
Depth Control Hitch.....	29
Walking Beam Package.....	31
Rear Steer Package.....	33
Rear Steer Axle.....	35
4 Row Rear Steer Assembly .....	37
Lift Wheel Assembly.....	39
Front Stabilizer Assembly .....	41
Fork Hub Assembly.....	43
Large Wheel Hub.....	43
Hydraulic Caster Wheel .....	45
Disc Scraper Package .....	47
Packer Wheel Assembly .....	47
Dual Disc Package.....	47
Tire Scraper Package .....	47
4 Row Marker (Tractor Center Mark) .....	49
4 Row Marker (Tractor Tire Mark) .....	51
6 Row Marker .....	53
Bi-Fold Marker .....	55
1" Coil Shanks .....	57
Chisel Markers .....	57
Stabilizer Disc Assembly .....	59
Sunco Stabilizer .....	59
Packer Assembly for Rear Ripper .....	59
Rear Ripper .....	61
45° Ripper .....	61

Drop Tube Ripper .....	61
Raven 662 Electrical .....	63
Feed Chain Electrical System (Raven 662) .....	64
Seed Sensor (Raven 662).....	64
Harriston Drive Mounting Hardware.....	66
Harriston Drive Electrical.....	67
Ground Drive Electrical.....	69
Harriston Drive Hydraulics (without Fertilizer) .....	73
Harriston Drive Hydraulics (with Fertilizer) .....	75
Ground (Mechanical) Drive Hydraulics.....	77
Rear Steer Hydraulics .....	79
Rear Ground Drive Components .....	81
Rear Ground Drive Components (Pole Type) .....	83
Front Ground Drive Components .....	85
Front Seed Tank Platform with Removable Center Handrail .....	89
Rear Seed Tank Platform .....	91
Rear Lift Hydraulic System.....	93
Fertilizer Feedbox Assembly .....	95
Fertilizer Tank Weldment Assembly.....	97
Fertilizer Drive Assembly .....	99
Fertilizer Mounting Hardware.....	101
Fertilizer Tank Hydraulics .....	103
Fertilizer Mechanical Drive Package.....	105
Fertilizer Disc Openers.....	107
10" Single Fill Auger.....	109
10" Dual Fill Auger.....	109
Row Shutoff Clutches .....	111
Front Ground Drive Seed Spacing Table .....	113
Rear Ground Drive Seed Spacing Table (12.4 x 24" Tire) .....	115
Rear Ground Drive Seed Spacing Table (14.9 x 24" Tire) .....	116

**NOTES:**

## **PARTS**

This Manual contains a parts list for your machine.

## **WHEN ORDERING PARTS**

Always give your dealer the Model and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.

## **USING THE MANUAL**

Parts data consists of exploded view illustrations and associated parts list tables, which are read as follows:

- **REFERENCE NUMBER**

The Reference Number is the identifier number from the illustration. For example, Number 3 on an illustration points to a component which is item 3 on the accompanying table. The abbreviation NS means the item is not shown in the illustration.

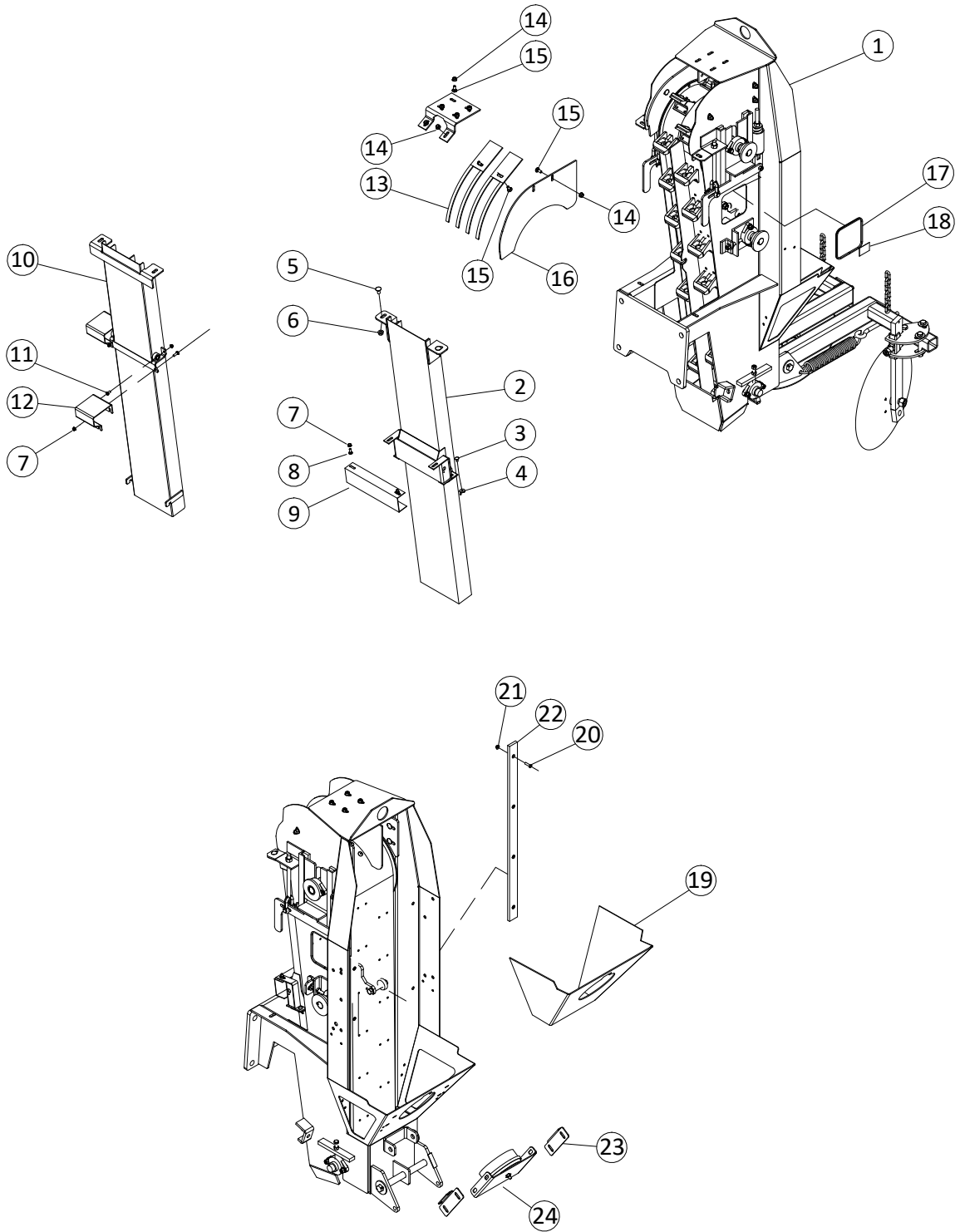
- **PART NUMBER**

The Part Number is the number by which the component may be identified and ordered from Harriston Industries and its network of dealers

- **DESCRIPTION**

This column contains the name and description of the part.

# Row Unit Assembly



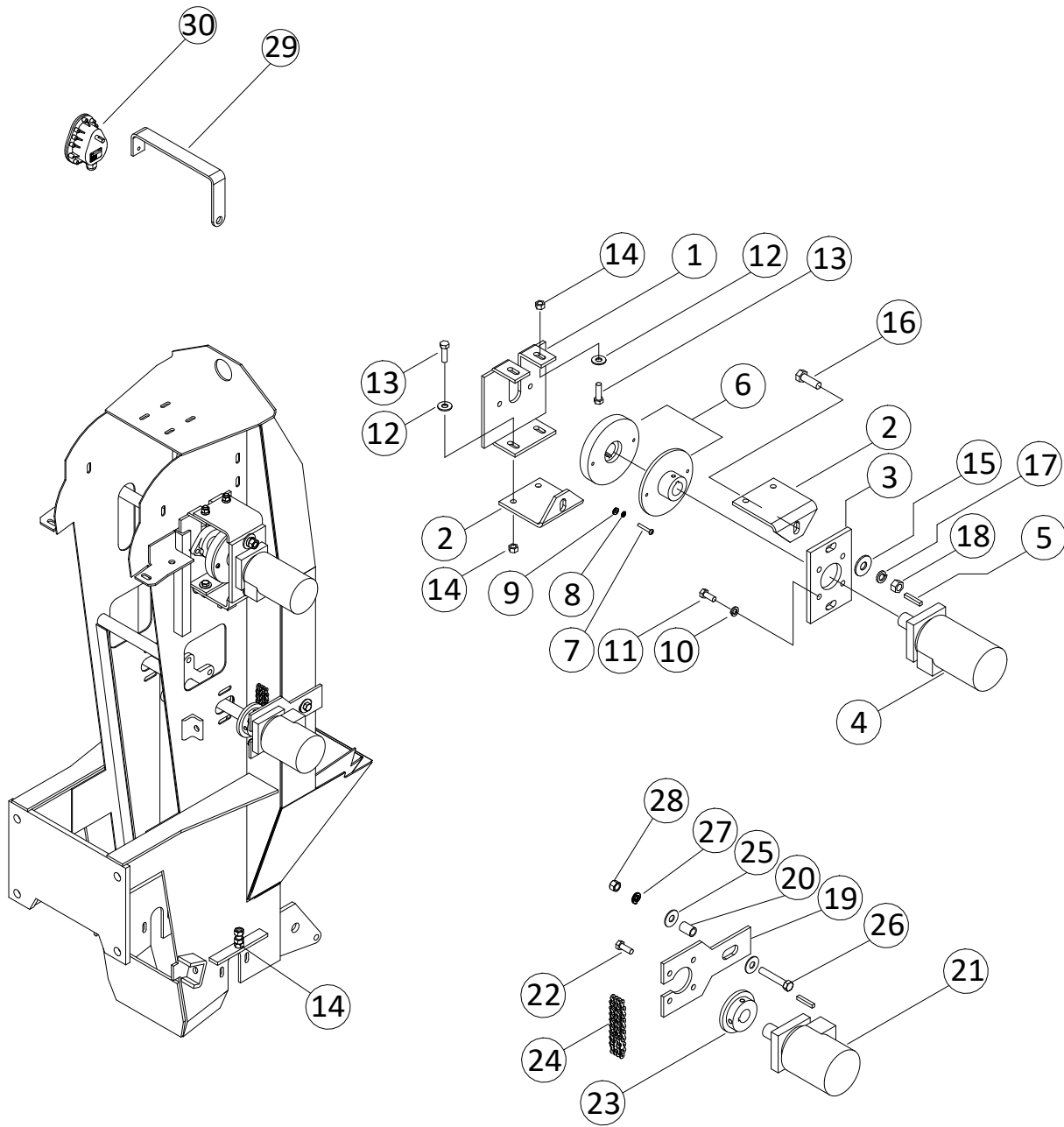


## #400130 - Cup Row Unit Assembly

Ref.	Part No.	Description
1	404395	Cup Frame Weldment
2	402700	Shield Weldment
3	20624	Carriage Bolt, 1/4" x 1/2"
4	20493	Wing Nut, 1/4"
5	20627	Bolt, 3/8" x 3/4"
6	20471	Flange Nut, 3/8"
7	20475	Flange Nut, 1/4"
8	20771	Bolt, 1/4" x 3/4"
9	402731	Harness Bracket
10	404421	Shield Weldment (Harriston Drive)
11	20000	Bolt, 1/4" x 1/2"
12	404426	Seed Sensor Cover (Harriston Drive)
13	402744	Top Finger Shield (Rolled)

Ref.	Part No.	Description
14	20479	Flange Nut, 5/16"
15	20761	Bolt, 5/16" x 3/4"
16	402798	Divider
17	400540	Plastic Edging
18	97402	Decal, 0-2" Scale
19	404352	Seed Bowl Plastic (Microswitch)
NS	404404	Seed Bowl Plastic (Harriston Drive)
20	20142	Countersunk Phillips Bolt, 1/4" x 1"
21	20475	1/4" Flange Nut
22	400541	Chain Guide Plastic
23	400236	Switch Mount Flat
24	403875	Assy, Cup Microswitch

# Row Unit Drive Package

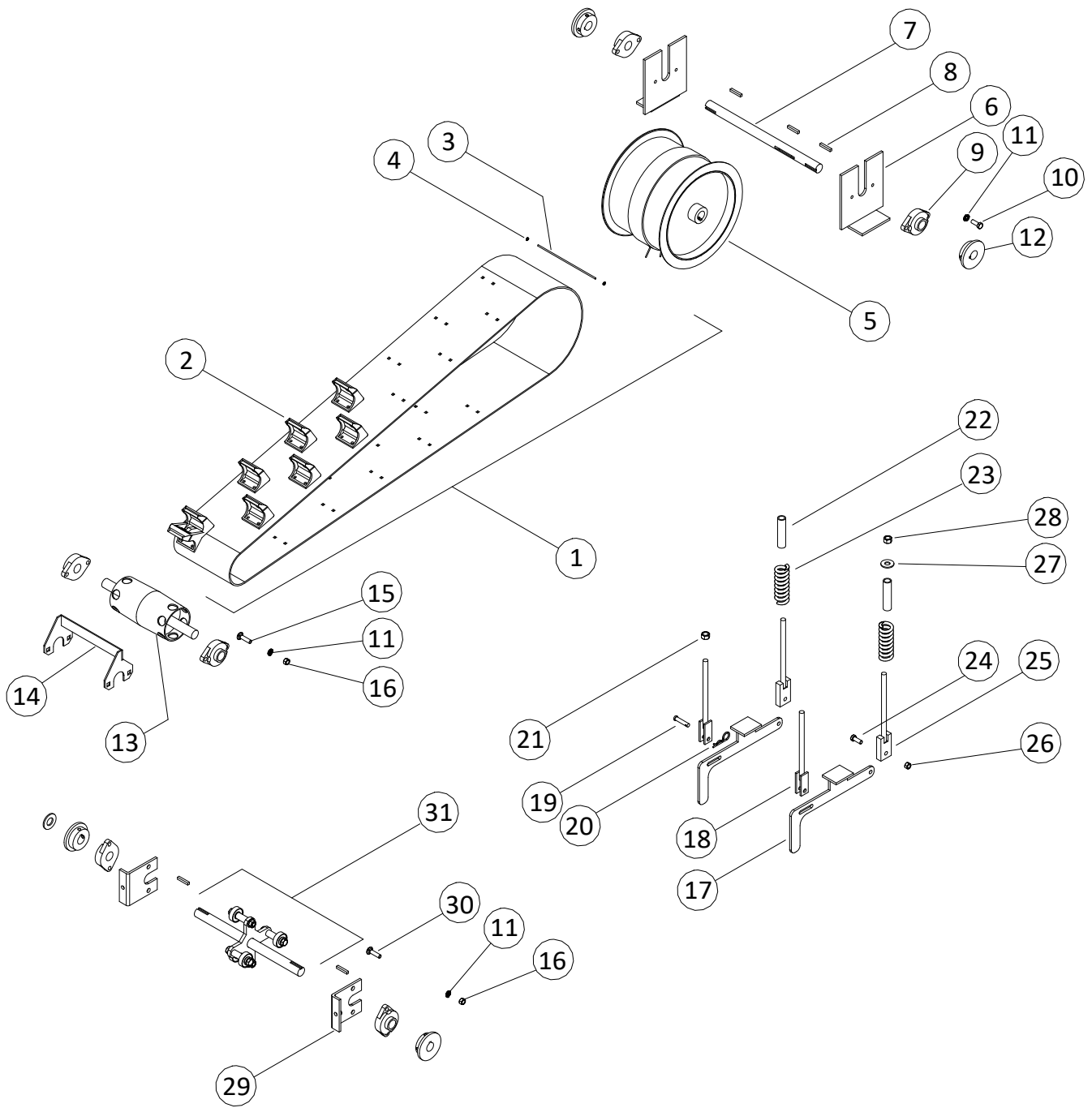


**Row Unit Drive Package**  
**#400530 - Row Unit Drive Package**  
**#400531 – Row Unit Drive Package (Harriston Drive)**

Ref.	Part No.	Description
1	400098	Upper Slide Plate
2	400097	Motor Mount Plate Adj.
3	400090	Motor Mount Plate
-	404339	Motor Mount Plate (Harriston Drive)
4	95344	Hydraulic Motor C/L 101-1015
-	97285	Hyd. Motor 101-3078-009 (Har. Drive)
5	351072	Key Stock, 1/4" x 1-1/2"
6	400346	Drive Hub Assembly w/ Shear Bolts
7	20165	Machine Screw, 3/16" X 1-1/4"
8	20545	Lock Washer, 3/16"
9	20419	Nut, 3/16"
10	20502	Lock Washer, 3/8"
11	20111	Bolt, 3/8" x 7/8"
12	20513	Washer, 3/8"
13	20120	Bolt, 3/8" X 1-1/4"
14	20702	Bolt, 1/2 x 4" Fully Threaded
15	20515	Washer, 1/2"

Ref.	Part No.	Description
16	20052	Bolt, 1/2" X 1-1/2"
17	20504	Lock Washer, 1/2"
18	20404	Nut, 1/2"
19	400545	Shaker Motor Mount
20	400543	Drive Mount Bushing
21	95374	Hydraulic Motor C/L 101-1010-009
22	20029	Bolt, 3/8" X 1"
23	96042	Finish Bore Sprocket, 4018 X 1
24	354555	Sprocket Coupler Chain w/ Conn. Link
25	20514	Washer, 7/16"
26	20115	Bolt, 7/16" X 2-1/2"
27	20503	Lock Washer, 7/16"
28	20403	Nut, 7/16"
29	400548	Shaft Sensor Mounting Bracket (Raven)
-	400597	Shaft Sensor Mount Bracket (Dickey John)
30	97104	Shaft Sensor Encoder (Raven)

# Belt With Cups Assembly

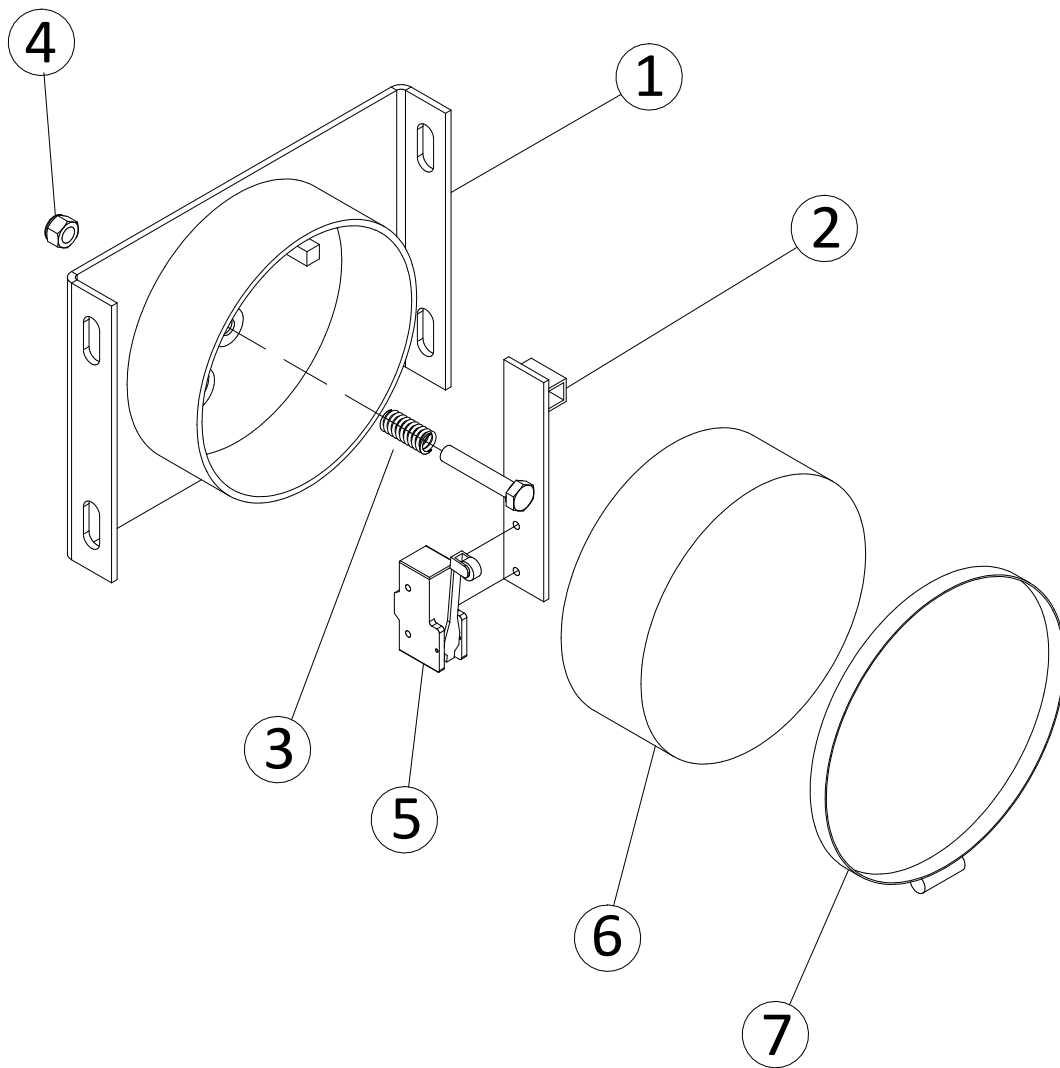


### #400100 - Belt With Cups Assembly

Ref.	Part No.	Description
1	400085	Belt w/Cups Assembly
-	400209	Belt, Cup Planter
2	97413	Cup, Orange
NS	020199	Slotted Machine Screw, 1/4" x 1/2"
NS	020475	Flange Nut, 1/4"
3	97415	Hinge Pin
4	97416	Flexco Retaining Washer
5	400920	Top Roller w/Belt
6	400096	Upper Slide Plate
7	400104	Drive Shaft
8	351072	Keystock, 1/4" x 1-1/2"
9	95248	SBLF 206-16 Assy, 1"
10	20029	Bolt, 3/8" X 1"
11	20502	Lock Washer, 3/8"
12	96042	Finish Bore Sprocket, 4018 x 1
13	400930	Lower Roller Weldment
14	400670	Lower Roller Scraper Weldment

Ref.	Part No.	Description
15	20632	Carriage Bolt, 3/8" X 1-1/4"
16	20402	Nut, 3/8"
17	400220	Belt Tensioner Weldment
18	97408	Turnbuckle End, 1/2" (Cast)
19	20873	Clevis Pin, 3/8" x 1-3/4"
20	20913	Bridge Pin, .120"
21	20404	Nut, 1/2"
22	400681	Spring Tension Tube Insert
23	21506	Spring, 4"
24	20120	Bolt, 3/8" X 1-1/4"
25	400660	Spring adj. Rod Weldment
26	20423	Center Lock Nut, 3/8"
27	20515	Washer, 1/2"
28	20425	Center Lock, 1/2"
29	401160	Shaker Adj. Weldment
30	20629	Carriage Bolt, 3/8" X 1-1/2"
31	400334	Shaker Weldment Package

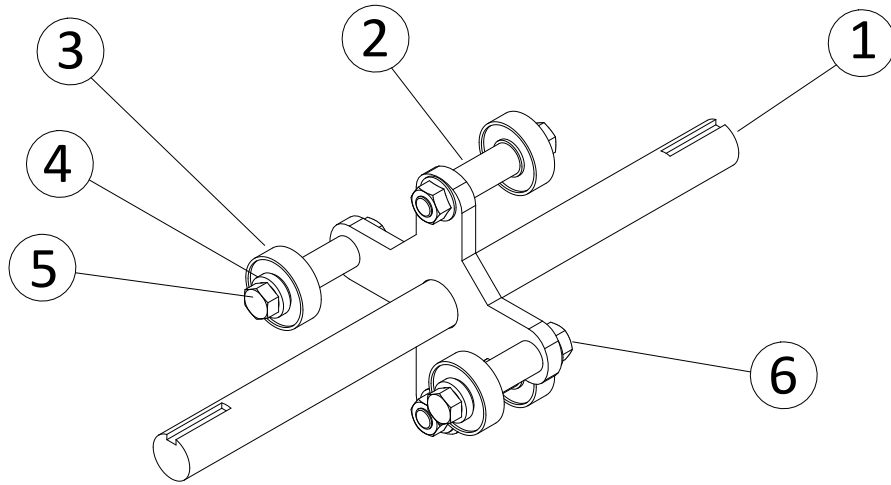
# Row Unit Switch Assembly



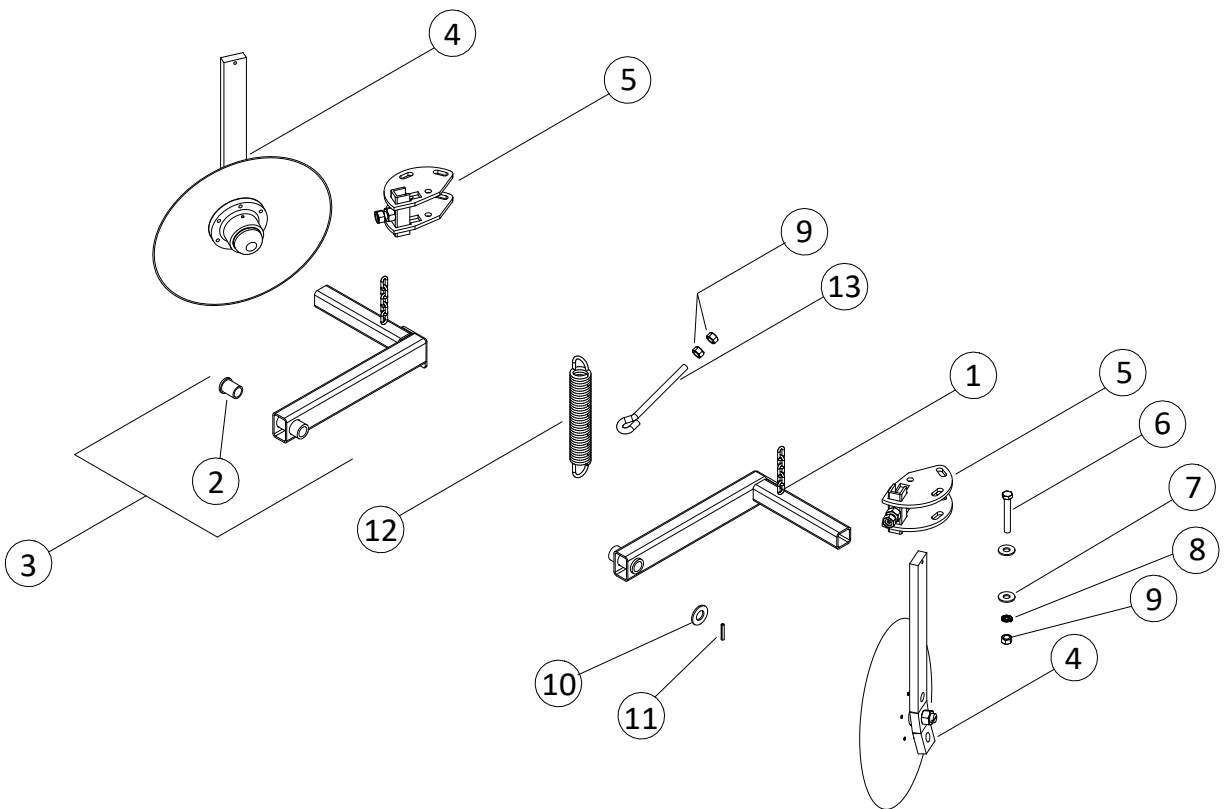
## #403875 Row Unit Switch Assembly

Ref.	Part No.	Description
1	403876	Weldment, Cup Microswitch
2	360243	Switch Mount Hanger
3	95451	Compression Spring, 1-1/2"
4	20484	Nylock Nut, 5/16"
5	95450	Roller Microswitch
6	96232	Rubber Cover, Switch 5-5/8"
7	96152	Hose Clamp, 6"
NS	400236	Switch Mount Bracket

### Shaker Weldment



### Row Unit Assembly Closing Discs





### #400334 - Shaker Weldment

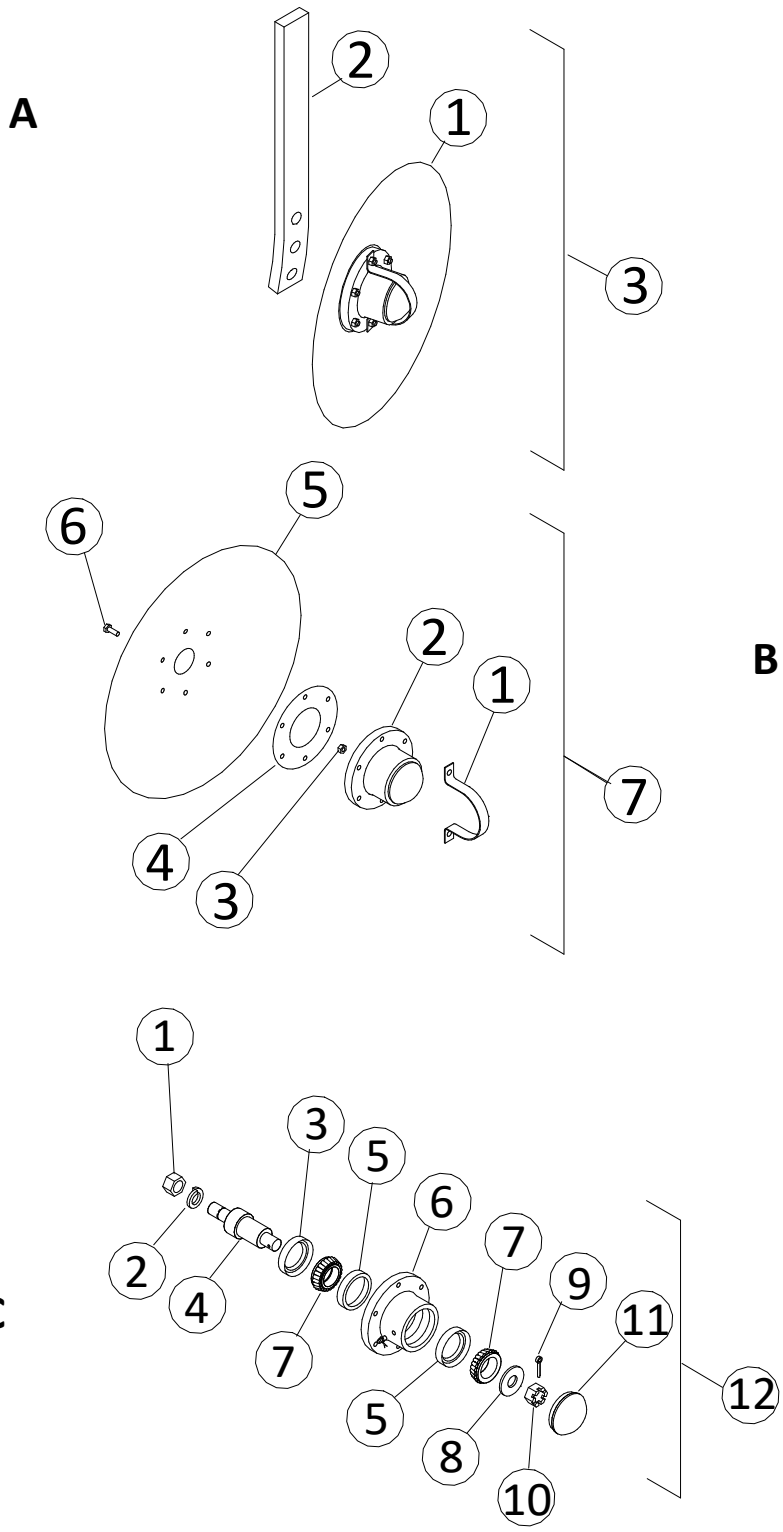
Ref.	Part No.	Description
1	400335	Shaker Weldment
2	400302	Shaker Cam Spacer
3	95105	O.D. Cam Bearing, 1-9/16"
4	350916	Trip Arm Spacer
5	20648	Bolt, 7/16" X 3"
6	20411	NF Flange Nut, 7/16"

### Row Unit Assembly Closing Discs

Ref.	Part No.	Description
1	402860	Disc Arm Assy (Left) 2006
2	90169	1-1/8" x 7/8" Igus
3	402880	Disc Arm Assy (Right) 2006
4	211840	Disc Assembly w/Shank
5	211930	Disc Clamp
6	20057	Bolt, 1/2" X 3-1/2"
7	20515	Flat Washer, 1/2"

Ref.	Part No.	Description
8	20504	Lock Washer, 1/2"
9	20404	Nut, 1/2"
10	20538	Washer, 7/8"
11	20964	Roll Pin, 1/4" X 1-1/4"
12	226600	Guide Disc Spring
13	300700	Eyebolt, 1/2" x 8"
ns	402845	Closing Disc Pin Weldment

# Closing Disc Assembly



### Closing Disc Assembly

Ref.	Part No.	Description
1	211845	Disc w/ Hub (Double Bearing)
2	211660	Hiller Shank Painted
3	211840	Disc Assembly with Shank (Double Bearing)

**A**

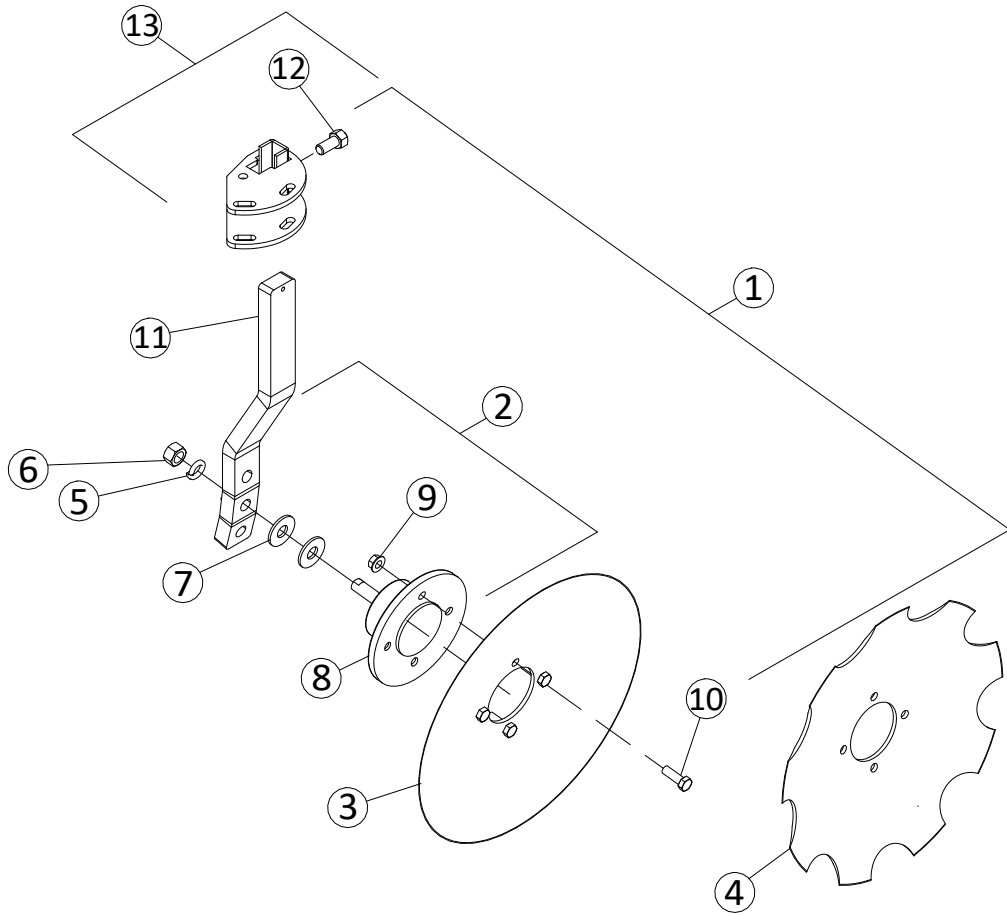
Ref.	Part No.	Description
1	211876	Double Bearing Dust Cap Strap
2	90210	Hiller Hub with Race
3	20421	Centerlock Nut, 1/4"
4	95045	Flange Gasket
5	90024	Disc, 16" Concave (Hillers)
6	20003	Bolt, 1/4" X 1-1/4"
7	211845	Disc with Hub (Double Bearing)

**B**

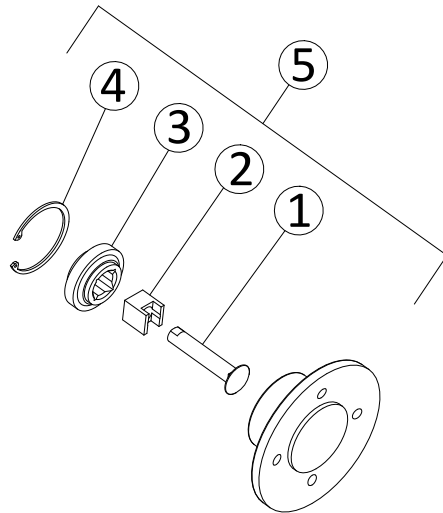
Ref.	Part No.	Description
1	20415	Nut, 3/4" NF
2	20507	Lock Washer, 3/4"
3	95115	Double Lip Seal
4	95020	Hiller Disc Spindle
5	95069	Bearing Cup LM 67010
6	90210	Hiller Hub with Race
7	95036	Tapered Bearing LM 67048 Cone
8	20517	Washer, 3/4"
9	20827	Cotter Pin , 5/32" X 1"
10	20490	Castle Nut, 3/4" NF
11	90015	Dust Cap (DC-13)
12	211870	Hiller Hub Assembly (Double Bearing)

**C**

## Heavy Closing Disc Assembly



## Heavy Closing Disc Hub Assembly



**Heavy Closing Disc**  
**#401127 – Heavy Closing Disc Assembly**  
**#401128 – Heavy Notched Closing Disc Assembly**

Ref.	Part No.	Description
1	401127	Heavy Closing Disc Package (Pair)
-	401128	Heavy Closing Disc Notched Package (Pair)
2	401126	Heavy Hub Assembly w/ 1" Shank
3	96410	18" Heavy Hiller Disc 4 Hole
4	96415	18" Heavy Hiller Disc Notched 4 Hole
5	20407	Nut, 3/4"
6	20507	Lock Washer, 3/4"

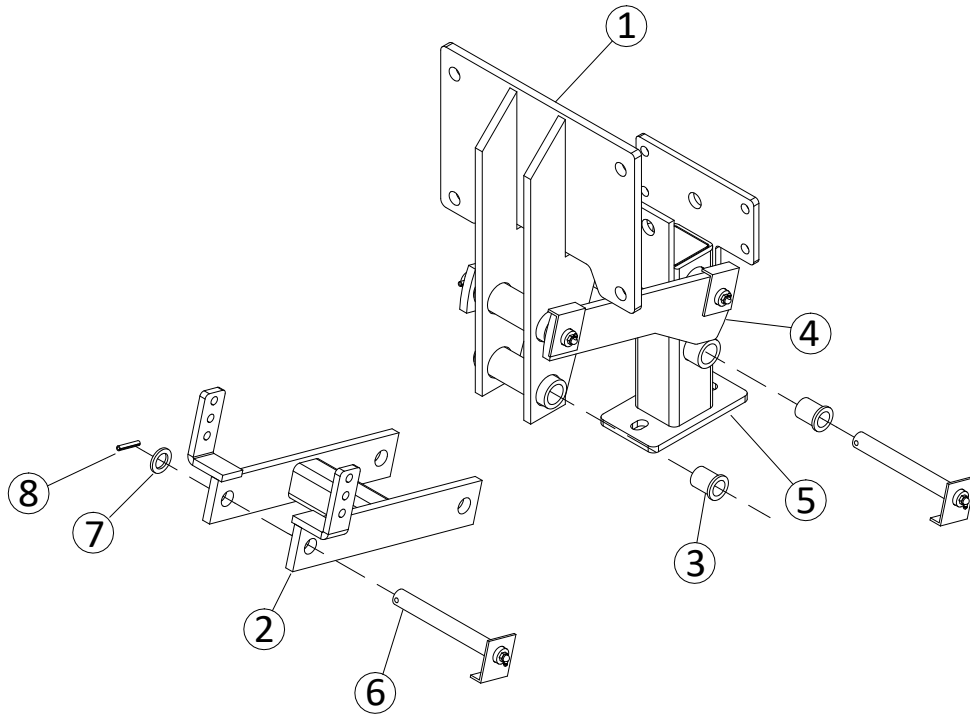
Ref.	Part No.	Description
7	20517	Washer, 3/4"
8	96411	Heavy Hub Assembly
9	20505	Flange Nut, 1/2"
10	20052	Bolt, 1/2" x 1-1/2"
11	401107	Hiller Shank - 1"
12	101602	Set Screw, 5/8" x 2"
13	401135	1" Hiller Shank Mount w/ Set Screw

**Heavy Closing Disc Hub**  
**#96411**

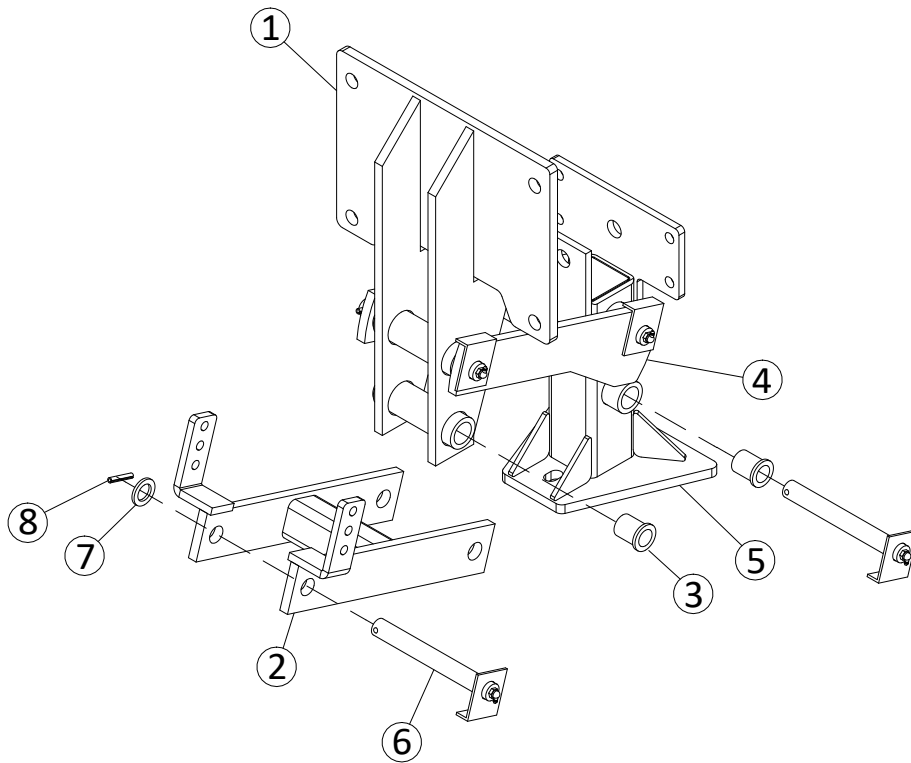
Ref.	Part No.	Description
1	401121	Carriage Bolt w/ Flats
-	96417	Carriage Bolt w/ Flats
2	401129	Carriage Bolt Square Bore Adapter

Ref.	Part No.	Description
3	96146	Heavy Hub Bearing
4	96418	Retaining Ring
5	96411	Heavy Closing Disc Hub (Complete)

### Shoe Sub Assembly



### Shoe Sub Assembly Heavy



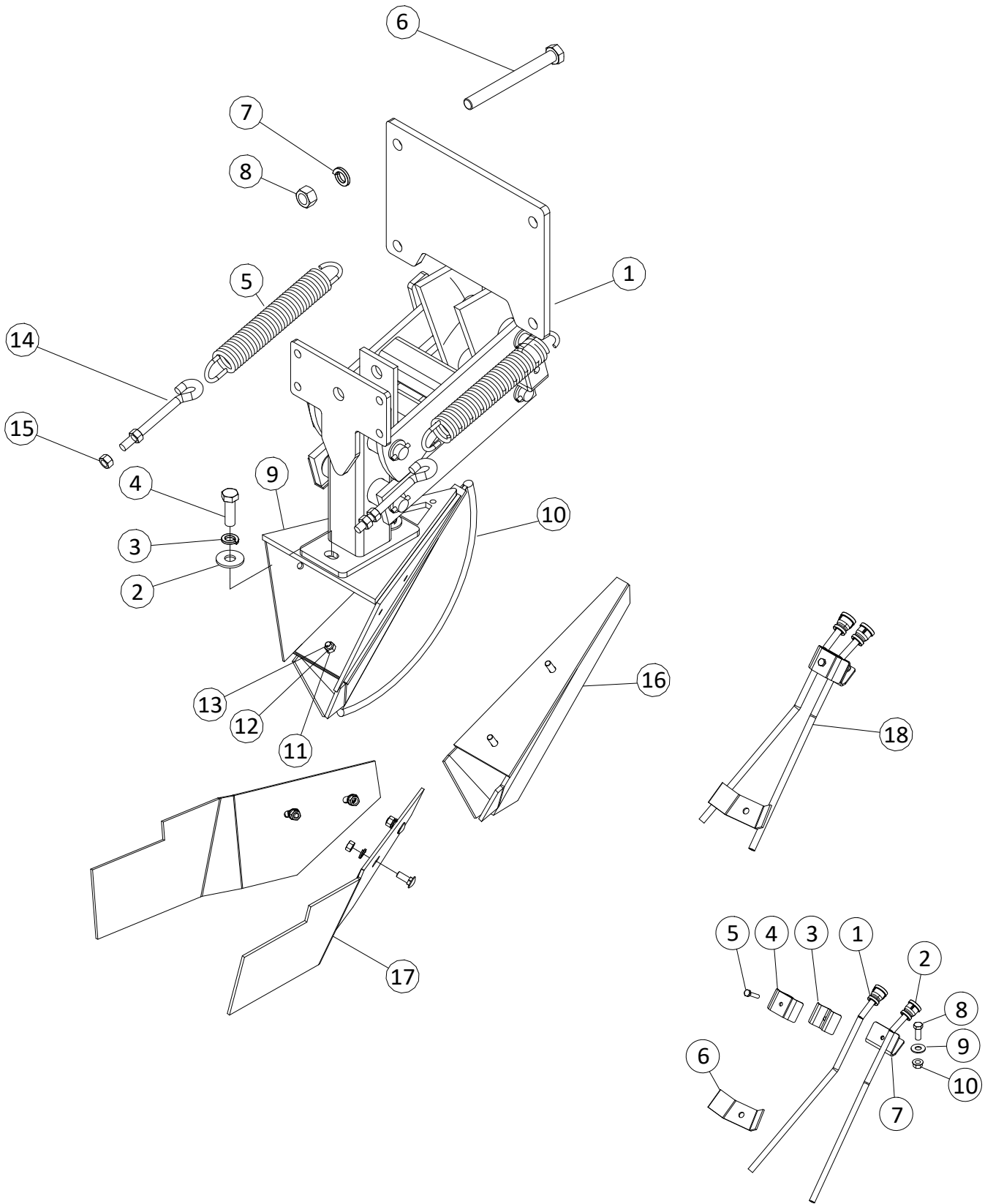
### #402650 - Shoe Sub Assembly

Ref.	Part No.	Description
1	400240	Linkage Toolbar Mount
2	400140	Lower Linkage Weldment
3	090169	Igus Bushing, 1-1/8" x 7/8"
4	400110	Upper Linkage Weldment
5	402660	Shoe Mount Weldment
6	400285	Linkage Pin (cup)
7	021335	Bushing, 7/8" Narrow 10 gauge
8	020965	Springlock Pin, 1/4" X 1-1/2"

### #404376 - Shoe Sub Assembly Heavy

Ref.	Part No.	Description
1	400240	Linkage Toolbar Mount
2	400140	Lower Linkage Weldment
3	090169	Igus Bushing, 1-1/8" x 7/8"
4	400110	Upper Linkage Weldment
5	404377	Shoe Mount Weldment Heavy
6	400285	Linkage Pin (Cup)
7	021335	Bushing, 7/8" Narrow 10 gauge
8	020965	Springlock Pin 1/4" X 1-1/2"

# Shoe Assembly Complete





**#402651 - Complete Shoe Assembly**  
**#402652 – Complete Shoe Assembly Heavy**  
**#402653 – Complete Shoe Assembly w/Liquid Fertilizer**

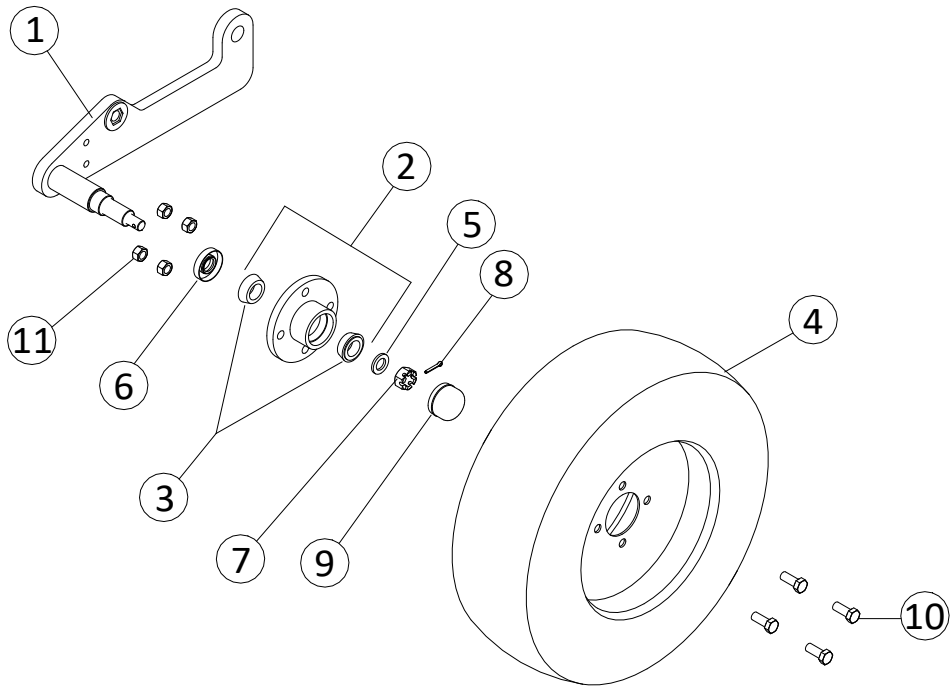
Ref.	Part No.	Description
1	402650	Shoe Sub-Assembly
-	404376	Shoe Sub Assembly Heavy
2	020536	Washer, 5/8"
3	020506	Lock Washer, 5/8"
4	020065	Bolt, 5/8" X 2"
5	226600	Guide Disc Spring
6	020091	Bolt, 3/4" X 7-1/2"
7	020507	Lock Washer, 3/4"
8	020407	Nut, 3/4"
9	400880	Top Shoe
NS	404370	Top Shoe Heavy
10	351900	Planter Ag Shoe Lower

Ref.	Part No.	Description
-	351920	Chromed Lower Shoe (Optional)
11	020513	Washer, 3/8"
12	020502	Lock Washer, 3/8"
13	020402	Nut, 3/8"
14	400146	Eyebolt, 1/2"
15	020404	Nut, 1/2"
16	357725	Lower Angled Shoe
17	400886	Shoe Extension Package (Optional)
-	400884	Shoe Extension Right
-	400885	Shoe Extension Left
18	400870	Liquid Fertilizer Package (Bolt-on)

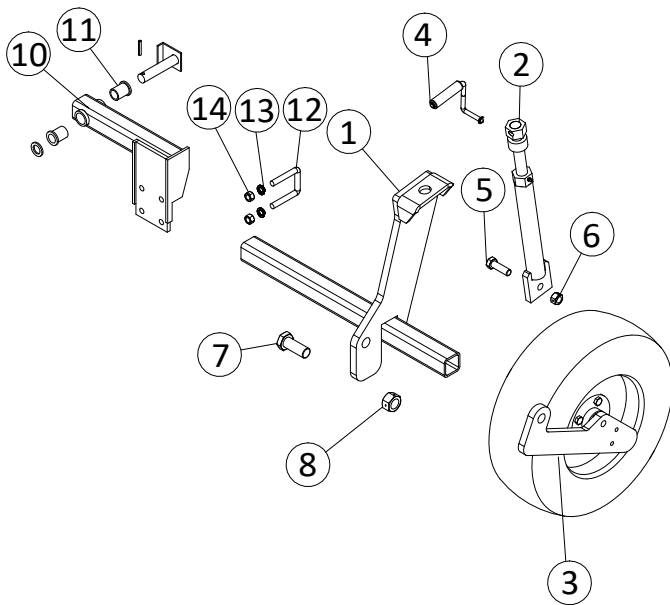
**#400870 Liquid Fertilizer Package (Bolt-on)**

Ref.	Part No.	Description
1	400873	Fertilizer Tube w/ Fitting LH
2	400874	Fertilizer Tube w/ Fitting RH
3	400899	Tube Strap Rubber
4	400896	Tube Mount Strap
5	20003	Bolt, 1/4" x 1-1/4"
6	400898	Lower Mount
7	400897	Upper Mount
8	20029	Bolt, 3/8" x 1"
9	20513	Washer, 3/8"
10	20471	Flange Nut, 3/8"

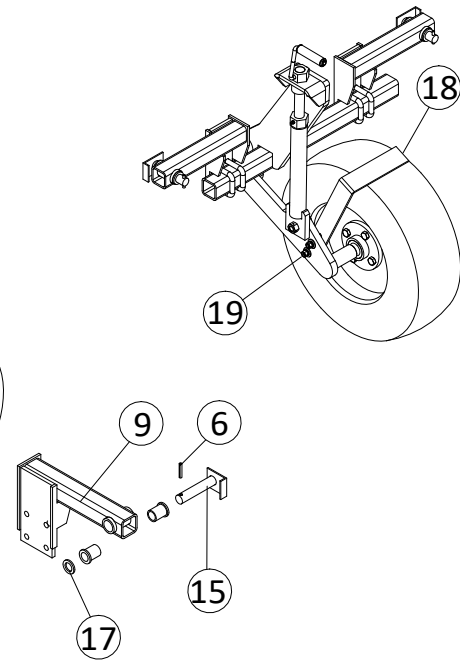
### Gauge Wheel Sub-Assembly w/o Tire



### Gauge Wheel Package



### Gauge Wheel Tire Scraper



### #402570 - Gauge Wheel Sub-Assembly w/o Tire

Ref.	Part No.	Description
1	402560	Gauge Wheel Arm Weldment
2	357625	Fertilizer Disc Hub w/ Cup
3	082166	Tapered Bearing LM 44643
4	97078	20.5 x 8 Wide Tire/Rim
5	021314	Machine Washer, 3/4"
6	096203	SE-11Seal

Ref.	Part No.	Description
7	020490	Slotted Nut, 3/4" NF
8	020827	Pin, 5/32" x 1" Cotter
9	096204	DC 12 Dust Cap
10	021400	Bolt, WB 10 Wheel Bolt
11	020405	Nut, 1/2" NF

### #402600 - Gauge Wheel Package 2006

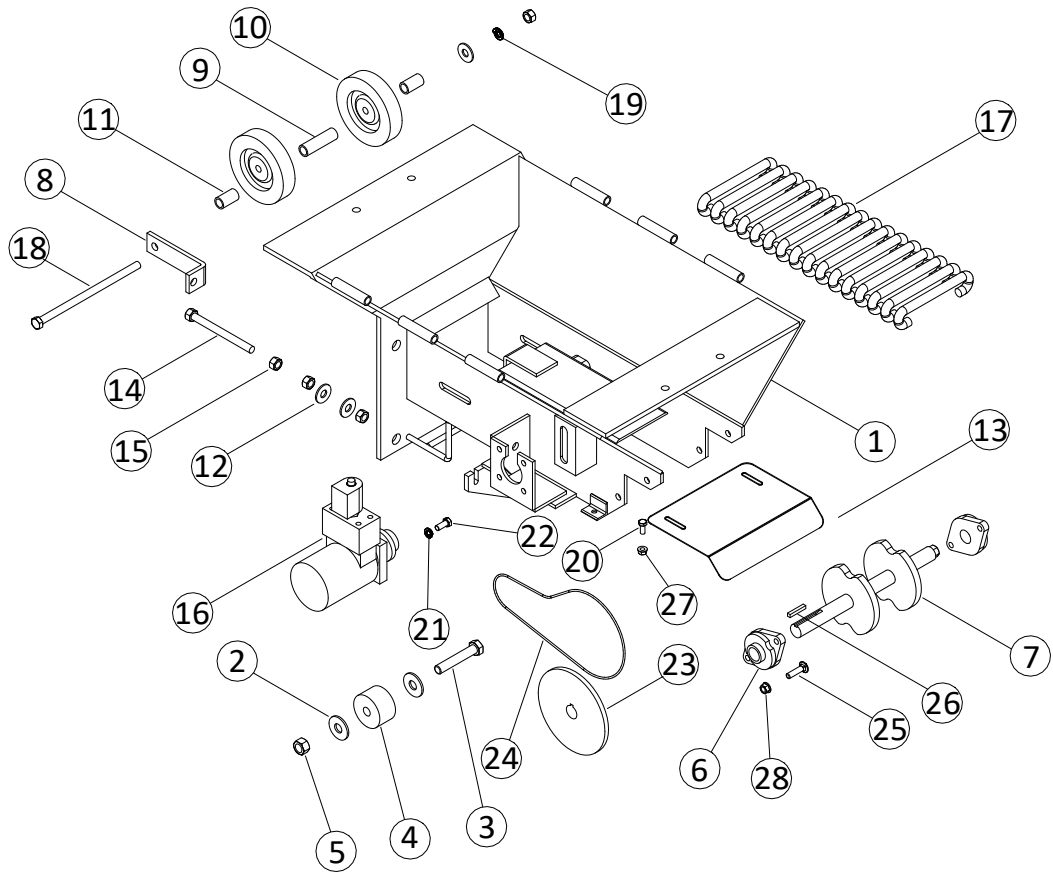
Ref.	Part No.	Description
1	402550	Gauge Wheel Cross Tube Weldment
2	402520	Gauge Wheel Adj. Screw Assembly
3	402570	Gauge Wheel Sub-Assembly w/o Tire
4	351240	Gauge Wheel Crank
5	020065	Bolt, 5/8" x 2"
6	020427	Centerlock Nut, 5/8"
7	020167	Bolt, 1" x 2-1/2"
8	020430	Centerlock Nut, 1"
9	402630	Gauge Wheel Pivot Weldment Left

Ref.	Part No.	Description
10	402640	Gauge Wheel Pivot Weldment Right
11	090169	Igus Bushing 1-1/8" x 7/8"
12	021000	U-bolt, 1/2" x 2" x 3"
13	020504	Lock Washer, 1/2"
14	020404	Nut, 1/2"
15	402670	Gauge Wheel Pin Weldment
16	020965	1/4" x 1-1/2" Spring Lock Pin
17	021335	Bushing, 7/8" Narrow 10 ga.

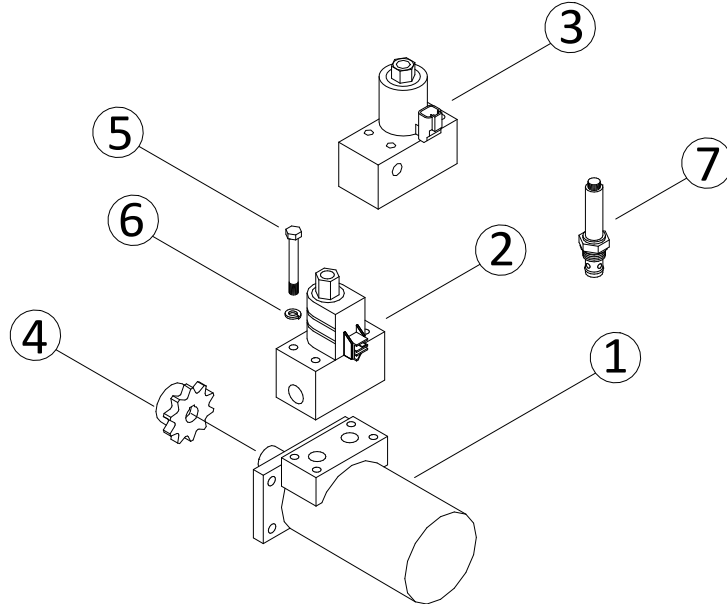
### #400785 - Gauge Wheel Tire Scraper Package

Ref.	Part No.	Description
18	400792	Gauge Wheel Tire Scraper Long
19	020629	Carriage Bolt, 3/8 x 1-1/2"
-	020513	Washer, 3/8 Flat
-	020502	Washer, 3/8 Regular Lock
-	020402	Nut, 3/8" Hex

### Feedbox Assembly



### Orbital Motor Valve Assembly



### #400820 - Feedbox Assembly

Ref.	Part No.	Description
1	400800	Feedbox Weldment Cup Planter
2	020536	Washer, 5/8" Flat
3	020068	Bolt, 5/8" X 3-1/2"
4	351515	2-1/2" OD UMHW Idler
5	020427	Center Lock Nut, 5/8"
6	096049	SBLF 205-16 Assembly 1"
7	351555	Drive Shaft Weldment (Feed Box)
8	351510	Feed Chain Adjustment Flat
9	351598	Feedbox Spacer Long
10	096105	5" Idler Roller 820R
11	351595	Feedbox Spacer
12	020515	Washer, 1/2"
13	404353	Feedbox Deflector
14	351512	Threaded Rod W/ Nut, 1/2" x 6"
15	020404	Nut, 1/2"

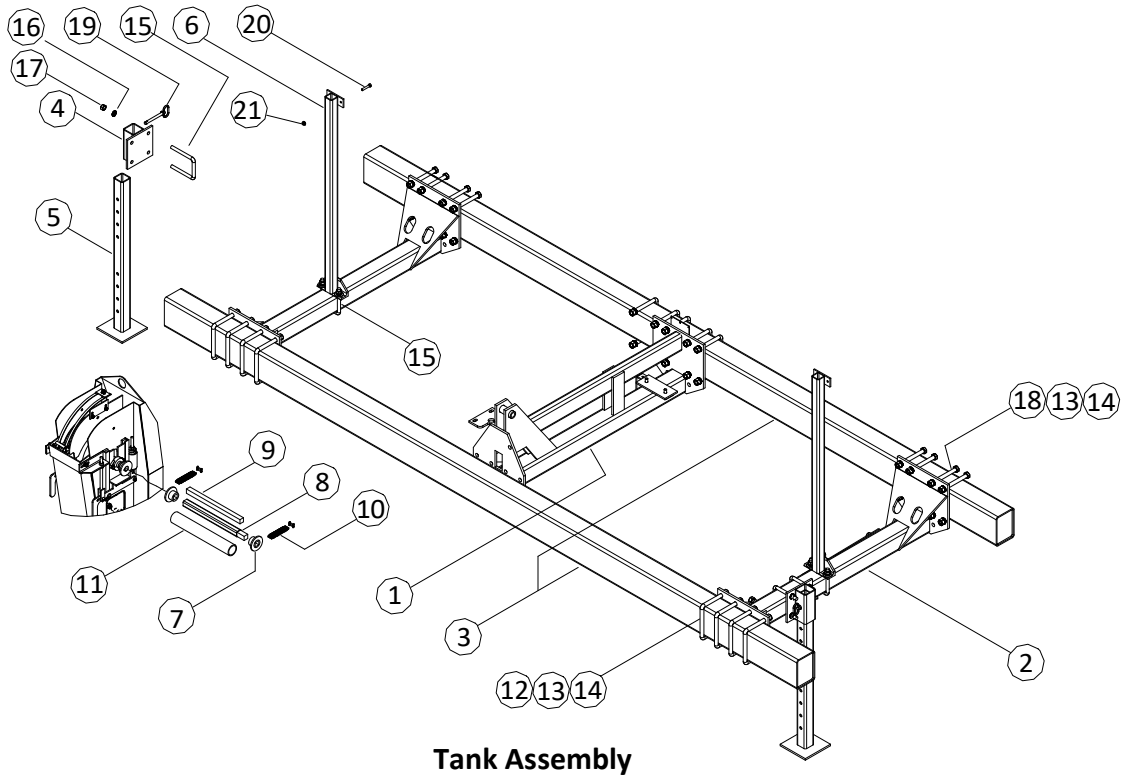
Ref.	Part No.	Description
16	351505	Orbital Motor Valve Assembly
17	096026	7" Feed Chain 125 Pitch 40 Links
18	020123	Bolt, 1/2" X 9"
19	020504	Lock Washer, 1/2"
20	020015	Bolt, 5/16" X 3/4"
21	020502	Lock Washer, 3/8"
22	020111	Bolt, 3/8" x 7/8"
23	096041	Bore Sprocket, 5030 x 1"
24	400821	Feedbox Chain
25	020629	Carriage Bolt, 3/8" X 1-1/2"
26	351072	Keystock 1/4" x 1-1/2"
27	020479	Flange Nut, 5/16"
28	020471	Flange Nut, 3/8"
NS	400434	Shield, Cup Feedbox

### #351505 - Orbital Motor Valve Assembly

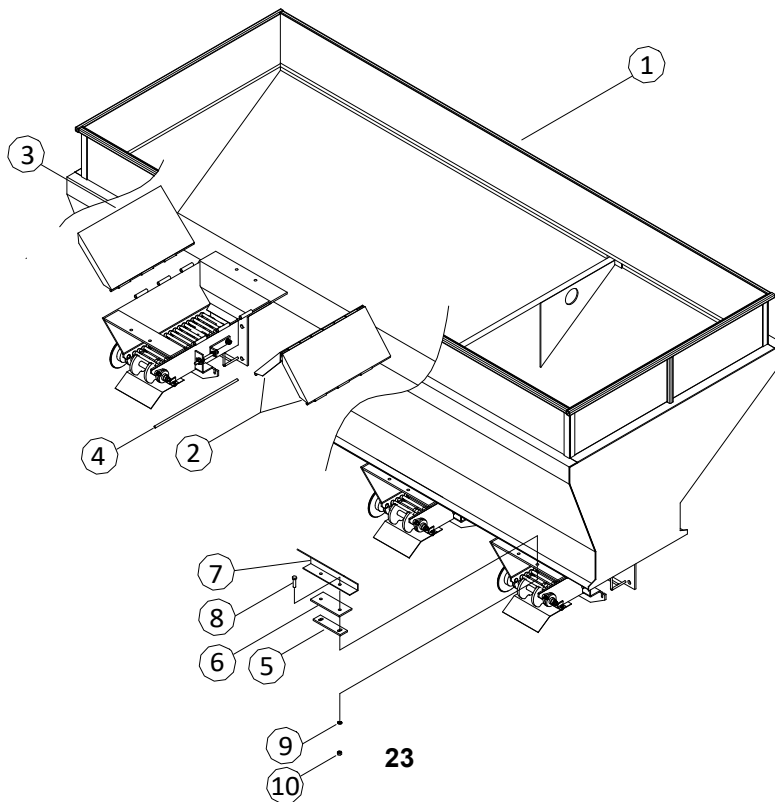
Ref.	Part No.	Description
-	095502	Motor w/ Valve & Solenoid w/ Diode
1	096003	Mag Motor
2	096149	Waterman Valve
3	096253	Solenoid w/diode (2009 & above)
4	096108	Finished Bore Sprocket, 5010 X 1"

Ref.	Part No.	Description
5	020019	Bolt, 5/16" X 2 1/2"
6	020501	Lock Washer, 5/16"
7	096194	Solenoid Valve Only
NS	096254	Solenoid only for 96253
NS	021211	Gearbox Woodruff Key

## Frame Assembly



## Tank Assembly



## Frame Assembly

Ref.	Part No.	Description
1	404310	Center Frame Cross Tube
-	400255	Center Frame Cross Tube (Oversea Planters)
2	404305	Cross Member
-	400190	Cross Member (Oversea Planters)
3	110040*	5" x 7" Tool Bar (Basic 4 Row Planter)
-	110041*	5" x 7" Tool Bar (Basic 6 Row Planter)
-	110060*	5" x 7" Tool Bar (Basic 8 Row Planter)
4	356510	Parking Stand Mount
5	356520	Parking Stand Upright
6	400440	Tank Upright Weldment
7	354550	Square Coupler Drive Weldment
8	354520	Unit Drive Tube Long
9	354525	Unit Drive Shaft Long

Ref.	Part No.	Description
10	354555	Sprocket Coupler Chain w/ Conn. Link
11	095077	2" ABS Pipe 20'
12	021018	U-Bolt, 3/4" x 7" x 6-1/2"
13	020507	Lock Washer, 3/4"
14	020407	Nut, 3/4"
15	021009	U-Bolt, 5/8" x 4" x 5-1/2"
16	020506	Lock Washer, 5/8"
17	020406	Nut, 5/8"
18	020091	Bolt, 3/4" x 7-1/2"
19	096068	Hitch Pin 1/2"
20	020029	Bolt, 3/8" x 1"
21	020471	Flange Nut, 3/8"

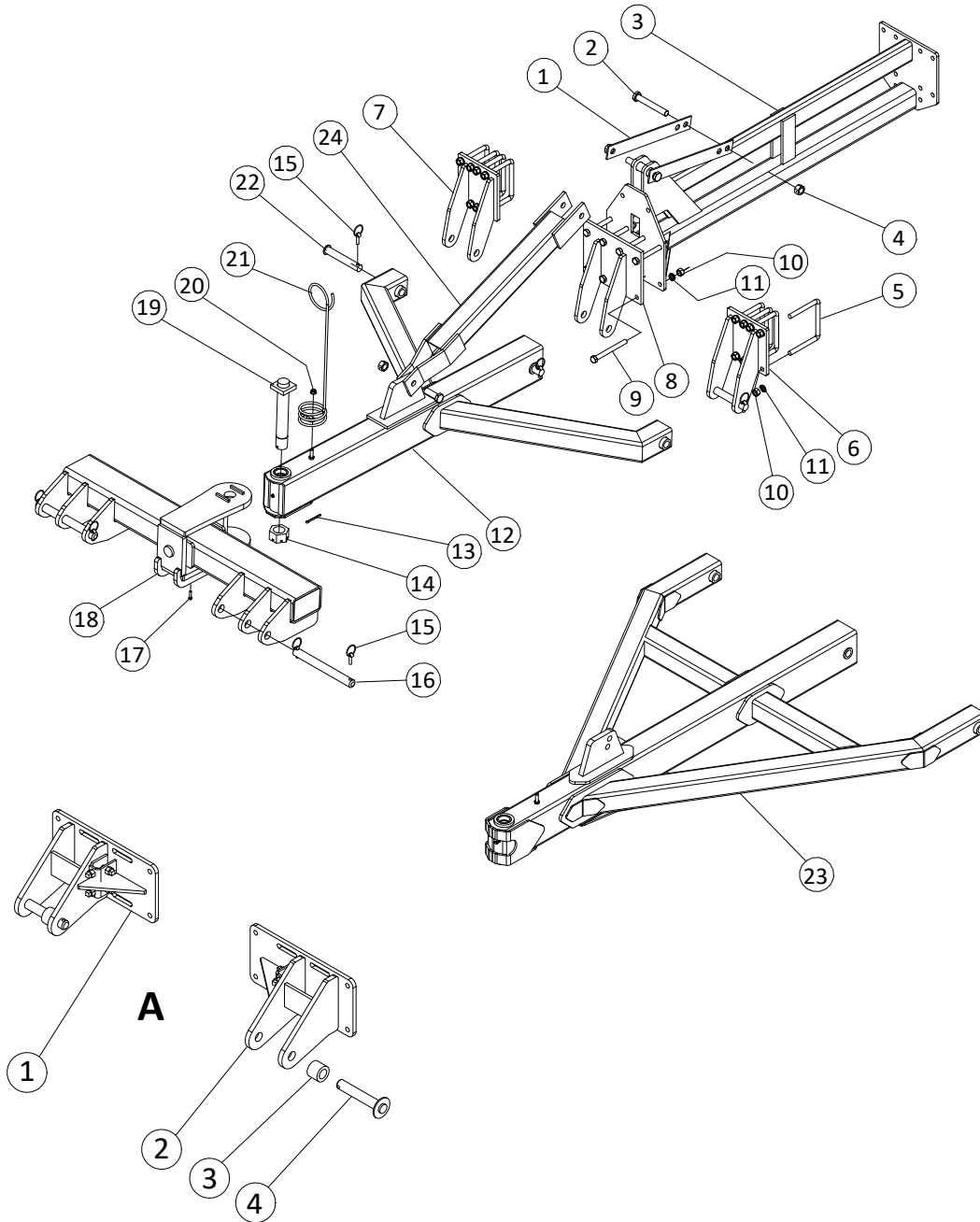
\*Specify length when ordering

## Tank Assembly

Ref.	Part No.	Description
1	400650	4 Row Seed Tank – 12" Extension
-	400350	6 Row Seed Tank – 12" Extension
-	400360	8 Row Seed Tank – 12" Extension
2	400380	Feed Plate Weldment 11"
3	400385	Feed Plate Weldment 13"
4	400379	Feed Plate Hinge Rod

Ref.	Part No.	Description
5	351435	Feed Box Mount Shim
6	351430	Feed Box Mount Strap
7	400547	Seed Deflector
8	020053	Bolt, 1/2" x 2"
9	020504	Lock Washer, 1/2"
10	020404	Nut, 1/2"

# Planter Hitches





**Pole Hitches**

**#354186 – 4 Row Pole Hitch**

**#354188 – 4 Row Long Pole**

**#354187 – 6 & 8 Row Hitch**

Ref.	Part No.	Description
1	353810	Flat, Planter Pole Lock-Up
2	20108	Bolt, 1" x 7"
3	404310	Crossmember, Cup
4	20430	Centerlock Nut, 1"
5	21018	U-Bolt, 3/4" x 7" x 6-1/2"
6	354030	Hitch Mount, Left
7	354035	Hitch Mount, Right
8	352070	Hitch Mount, Center
9	20091	Bolt, 3/4" x 7-1/2"
10	20407	Nut, 3/4"
11	20507	Lock Washer, 3/4"
12	400600	Hitch, 4 Row Planter Standard
NS	400628	Hitch, 4 Row Planter Long

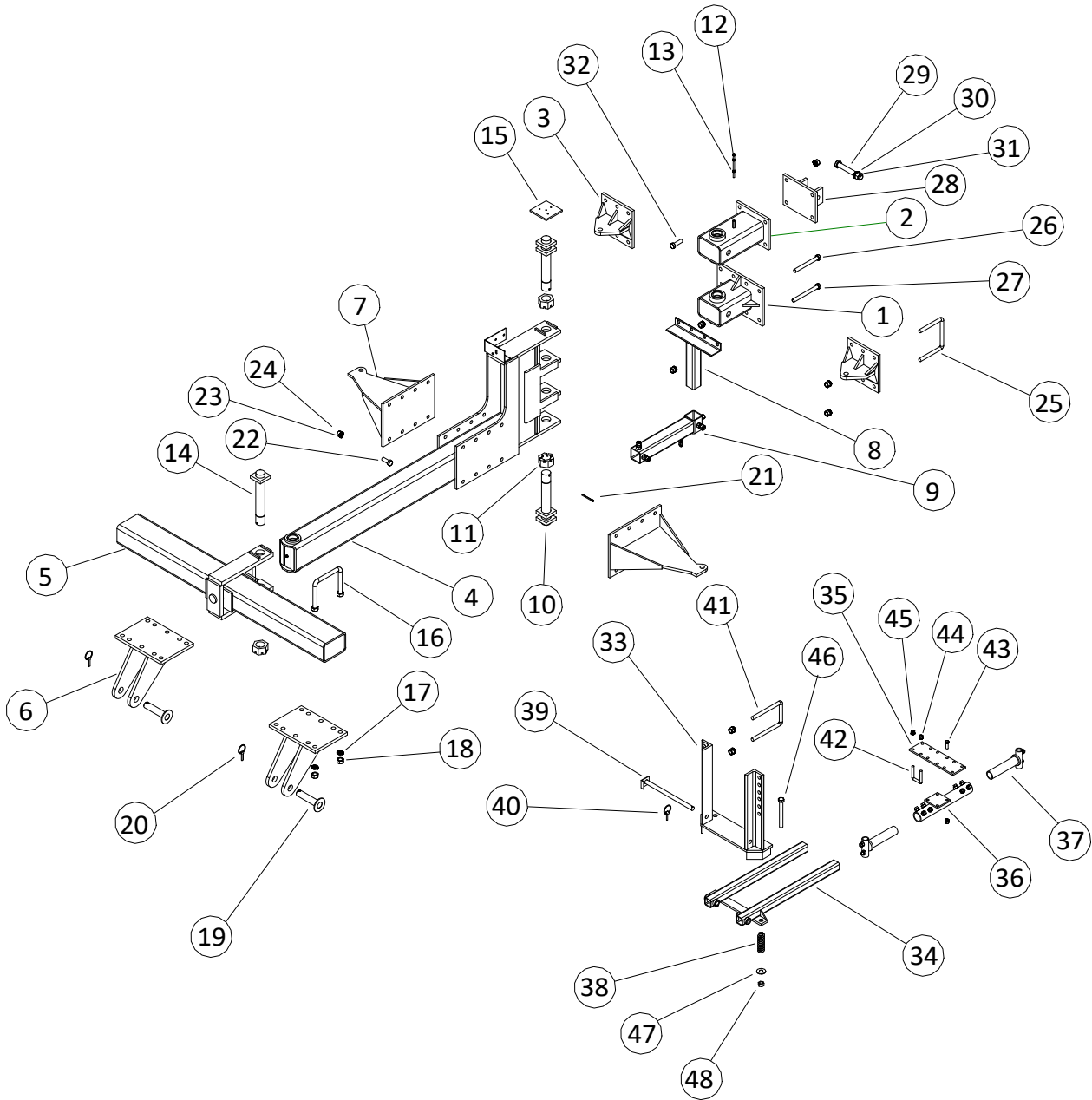
Ref.	Part No.	Description
13	20829	Cotter Pin, 1/4 x 3"
14	354142	Castle Nut, 2" NF
15	95032	Lynch Pin, 7/16"
16	42029-00	Pin, Headless
17	95059	Zerk, Long 1/8" NPT Elbow
18	402458	Swivel Bar, 2 Pt
19	354140	Pin, 2 Pt Vertical
20	20505	Flange Nut, 1/2"
21	355620	Hydraulic Hose Support
22	354085	Pin, 1-1/4" Hitch
23	400575	Hitch, 6-8 Row Planter
24	354210	Hitch Brace, Standard 4 Row
NS	352060	Hitch Brace, 6-8 Row

**Semi Mount Hitch**

Ref.	Part No.	Description
1	354175	Hitch, Mount Right
2	354170	Hitch, Mount Left
3	354176	Bushing, Semi-Mount Spacer
4	354180	Pin, Semi-Mount

**A**

# Steerable Hitch Package

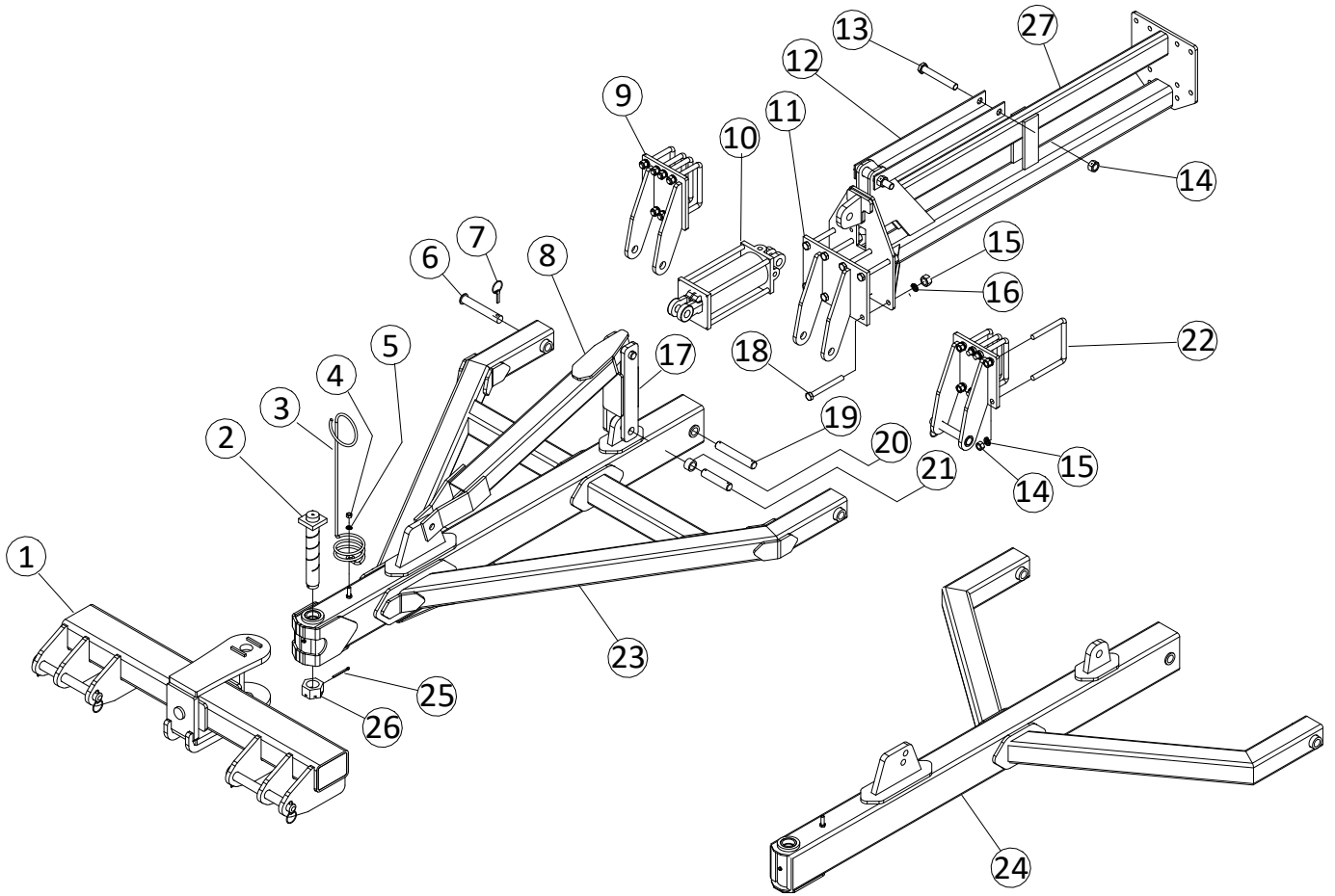


**Steerable Hitch Package  
#403200**

Ref.	Part No.	Description
1	403095	Lower Hitch Mount Weldment
2	403085	Upper Hitch Mount Weldment
3	403065	Toolbar Cylinder Weldment
4	403120	Hitch Weldment
5	403130	2 Point Pole Swivel Bar
6	364860	12 Row Marker 2 Point Weldment
7	403125	Hitch Ear Weldment
8	403135	Frame Drop Tube Weldment
9	403140	Side Tube Weldment
10	403145	Vertical 2 Point Pin Weldment
11	354142	Slotted Nut, 2" NF
12	403128	Threaded Rod, 5/16" x 6"
13	20401	Nut, 5/16"
14	354140	Vertical 2 Point Pin Weldment
15	403060	Indicator Weldment
16	21030	U-Bolt, 7/8" x 7" x 7"
17	20508	Lock Washer, 7/8"
18	20408	Nut, 7/8"
19	228400	Category 3 Bottom 3 Point Pin
20	95032	Lynch Pin, 7/16"
21	20829	Cotter Pin, 1/4" X 3"
22	20082	Bolt, 3/4" X 2"
23	20507	Lock Washer, 3/4"
24	20407	Nut, 3/4"

Ref.	Part No.	Description
25	21018	U-bolt, 3/4 x 7 x 6-1/2"
26	20090	Bolt, 3/4" X 7"
27	20091	Bolt, 3/4" X 7-1/2"
28	403150	Cross Member Mount Weldment
29	20194	Bolt, 1" X 7"
30	20509	Lock Washer, 1"
31	20409	Hex Nut, 1"
32	20083	Bolt, 3/4" X 2-1/2" NC
33	403180	Toolbar Mount Weldment
34	403170	Disc Mount Weldment
35	403163	Mount Plate Long
36	403160	Outer Tube Weldment
37	403155	Slide Tube Weldment
38	21509	Spring, LHL-1500D-6 LEE
39	403190	Pivot Pin Weldment
40	95364	Lynch Pin, 1/4"
41	21016	U-bolt, 3/4" x 5" x 8-1/2"
42	21000	U-bolt, 1/2" x 2" x 3"
43	20052	Bolt, 1/2" X 1-1/2"
44	20504	Lock Washer, 1/2"
45	20404	Nut, 1/2"
46	20190	Bolt, 3/4" X 7"
47	20517	Washer, 3/4"
48	20428	Centerlock Nut, 3/4"

# Depth Control Hitch

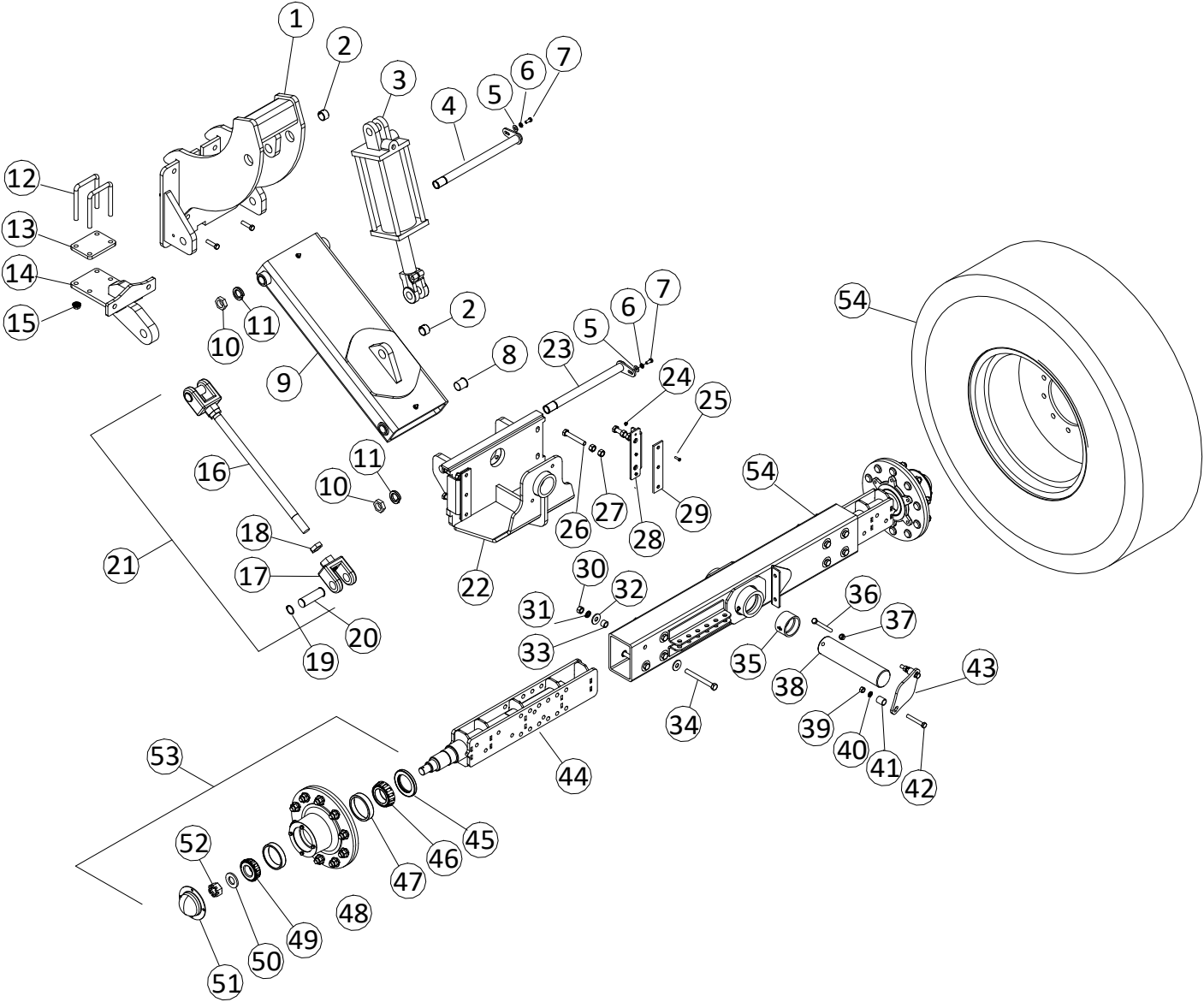


**Depth Control Hitch**  
**#354182 – 4 Row Depth Control Pole Hitch**  
**#354198 – 6&8 Row Depth Control Pole Hitch**

Ref.	Part No.	Description
1	402458	Swivel Bar, 2pt.
2	354140	Pin, 2 Pt. Vertical
3	355620	Hydraulic Hose Support
4	20404	Nut, 1/2"
5	20504	Lock Washer, 1/2"
6	354085	Hitch Pin, 1-1/4"
7	95032	Lynch Pin, 7/16"
8	433395	Hydraulic Hitch Brace
9	354035	Hitch Mount Right
10	96125	Hydraulic Cylinder, 5 x 8"
11	352070	Hitch Mount, Center
12	433219	Flat, Planter Pole Lockup
13	20108	Bolt, 1" x 7"
14	20430	Centerlock Nut, 1"

Ref.	Part No.	Description
15	20407	Nut, 3/4"
16	20507	Lock Washer, 3/4"
17	433385	Hydraulic Hitch Link
18	20090	Bolt, 3/4 x 7"
19	433316	Pin, Main Pivot
20	433218	Bushing, Hydraulic Hitch Link
21	433313	Pin, Hydraulic Hitch Link
22	21018	U-Bolt, 3/4" x 7" x 6-1/2"
23	433215	Hyd. Hitch Weldment, 6-8 Row
24	433315	Hyd. Hitch Weldment, 4 Row
25	20829	Cotter Pin, 1/4" x 3"
26	354142	Castle Nut, 2" NF
27	404310	Center Crossmember, Depth Control

# Walking Beam Package

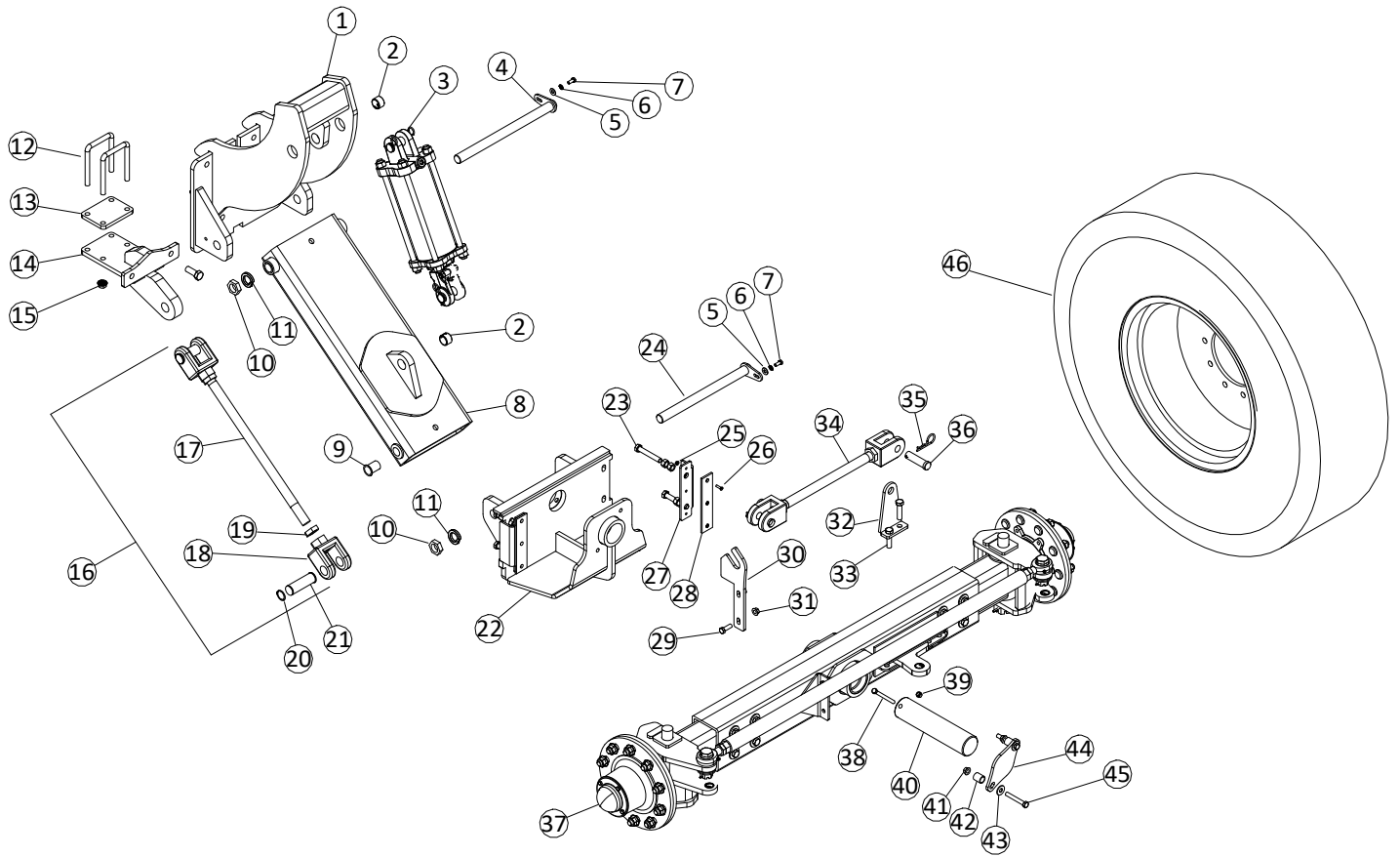


**Walking Beam Package  
#380995**

Ref.	Part No.	Description
1	381007	Rear Steer Toolbar Mount
2	94761	Split Tension Bushing, 1-1/4"
3	95384	Hydraulic Cylinder, 5" x 10"
4	381009	Swing Arm Pin, Upper
5	20513	Washer, 3/8"
6	20502	Lock Washer, 3/8"
7	20111	Bolt, 3/8" x 7/8"
8	95389	Igus Bushing, Swing Arm
9	380961	Swing Arm Weldment
10	20461	Jam Nut, 1-1/4" NF
11	20522	Lock Washer, 1-1/4"
12	21009	U-Bolt, 5/8" x 4" x 5-1/2"
13	380796	Crossmember Mount Plate
14	381003	Radius Arm Bracket, Heavy
15	20476	Flange Nut, 5/8"
16	381022	Radius Arm Rod
17	20461	Jam Nut, 1-1/4" NF
18	94660	Clevis End, 1-3/8"
19	94661	Clevis Pin, 1-3/8" W/ Ret. Rings
20	90124	Retaining Ring, 1-3/8"
21	381021	Radius Arm Assembly, Heavy
22	381015	Rear Steer Axle Carrier Weldment
23	381016	Swing Arm Pin, Lower
24	20475	Flange Nut, 1/4"
25	20142	Countersink Bolt, 1/4" x 1" Phillips
26	20705	Bolt, 5/8 x 4" Fully Threaded
27	20406	Nut, 5/8"
28	380972	Beam Stabilizer

Ref.	Part No.	Description
29	380971	Stabilizer Pad
30	20406	Nut, 5/8"
31	20506	Lock Washer, 5/8"
32	20536	Washer, 5/8"
33	380391	Bushing, Adjustable Axle
34	20073	Bolt, 5/8" x 6"
35	352615	Machined Grooved Bearing
36	20060	Bolt, 1/2" x 5"
37	20404	Nut, 1/2"
38	381012	Walking Beam Pin, Heavy
39	20404	Nut, 1/2"
40	20504	Lock Washer, 1/2"
41	380997	Spacer, Walking Beam Pin
42	20057	Bolt, 1/2" x 3-1/2"
43	380896	Pin Retainer Plate
44	380580	Non-Steer Axle Weldment
45	95373	Seal, 10 Bolt Hub
46	95511	Bearing, 10 Bolt Hub Inner
47	95509	Race, 10 Bolt Hub Inner
48	95508	Race, 10 Bolt Hub Outer
49	95510	Bearing, 10 Bolt Hub Outer
50	95522	Washer, 1-5/16"
51	95523	Castle Nut, 1-5/16"
52	95524	Dust Cover, 10 Bolt Hub
53	95385	Hub, 10 Bolt
54	380705	Tire/Rim, 13x24 Grader
-	359389	Rim, 10 Bolt, 24"
-	96255	Grader Tire

# Rear Steer Package



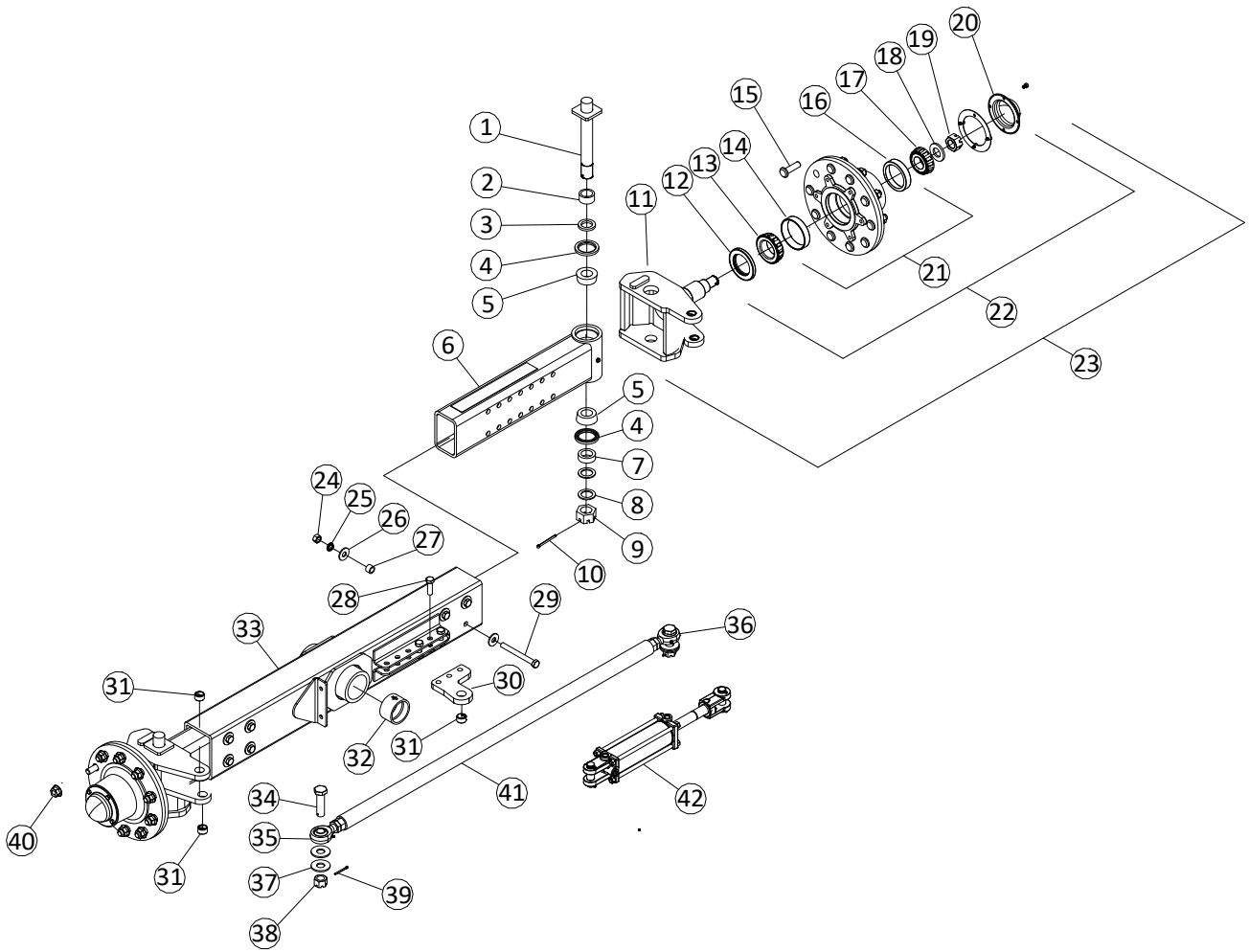


**#380950 – Rear Steer Package**  
**#380952 – Rear Steer (One Side / No Cylinders)**

Ref.	Part No.	Description
1	381007	Toolbar Mount Weldment, Rear Steer
2	94761	Split Tension Bushing, 1-1/4"
3	95384	Hydraulic Cylinder, 5" x 10"
4	381009	Swing Arm Pin, Upper
5	20513	Washer, 3/8"
6	20502	Lock Washer, 3/8"
7	20111	Bolt, 3/8" x 7/8"
8	380961	Swing Arm Weldment
9	95389	Igus Bushing, Swing Arm
10	20461	Jam Nut, 1-1/4" NF
11	20522	Lock Washer, 1-1/4"
12	21009	U-Bolt, 5/8"
13	380796	Crossmember Mount Plate
14	381003	Radius Arm Bracket, Heavy
15	20476	Flange Nut, 5/8"
16	381021	Radius Arm Assembly, Heavy
17	381022	Radius Arm Rod
18	94660	Clevis End, 1-3/8"
19	20461	Jam Nut, 1-1/4" NF
20	90124	Retaining Ring, 1-3/8"
21	94661	Clevis Pin, 1-3/8" (W/ Ret. Rings)
22	381015	Weldment, Rear Steer Carrier
23	20705	Bolt, 5/8" x 4" Fully Threaded
24	381016	Swing Arm Pin, Lower

Ref.	Part No.	Description
25	20475	Flange Nut, 1/4"
26	20142	Countersink Bolt, 1/4" x 1" Phillips
27	380972	Beam Stabilizer Weldment
28	380971	Stabilizer Pad
29	20052	Bolt, 1/2" x 1-1/2"
30	380979	Lock Bar Bracket
31	20505	Flange Nut, 1/2"
32	380975	Lock Bar Holder
33	20066	Bolt, 5/8" x 2-1/2"
34	380980	Lock Bar Assembly
35	20915	Bridge Pin #6, 3/16"
36	20893	Clevis Pin, 1" x 3-1/2"
37	401600	Steering Beam Assembly With Inserts
38	20026	Bolt, 7/16" x 5"
39	20403	Nut, 7/16"
40	381012	Walking Beam Pin Heavy
41	20505	Flange Nut, 1/2"
42	380997	Walking Beam Spacer Pin
43	20515	Washer, 1/2" Flat
44	380896	Pin Retainer Plate
45	20057	Bolt, 1/2" x 3-1/2"
46	380705	Tire/Rim, 13" x 24" Grader
-	359389	Rim, 10 Bolt, 24"
-	96255	Grader Tire

# Rear Steer Axle



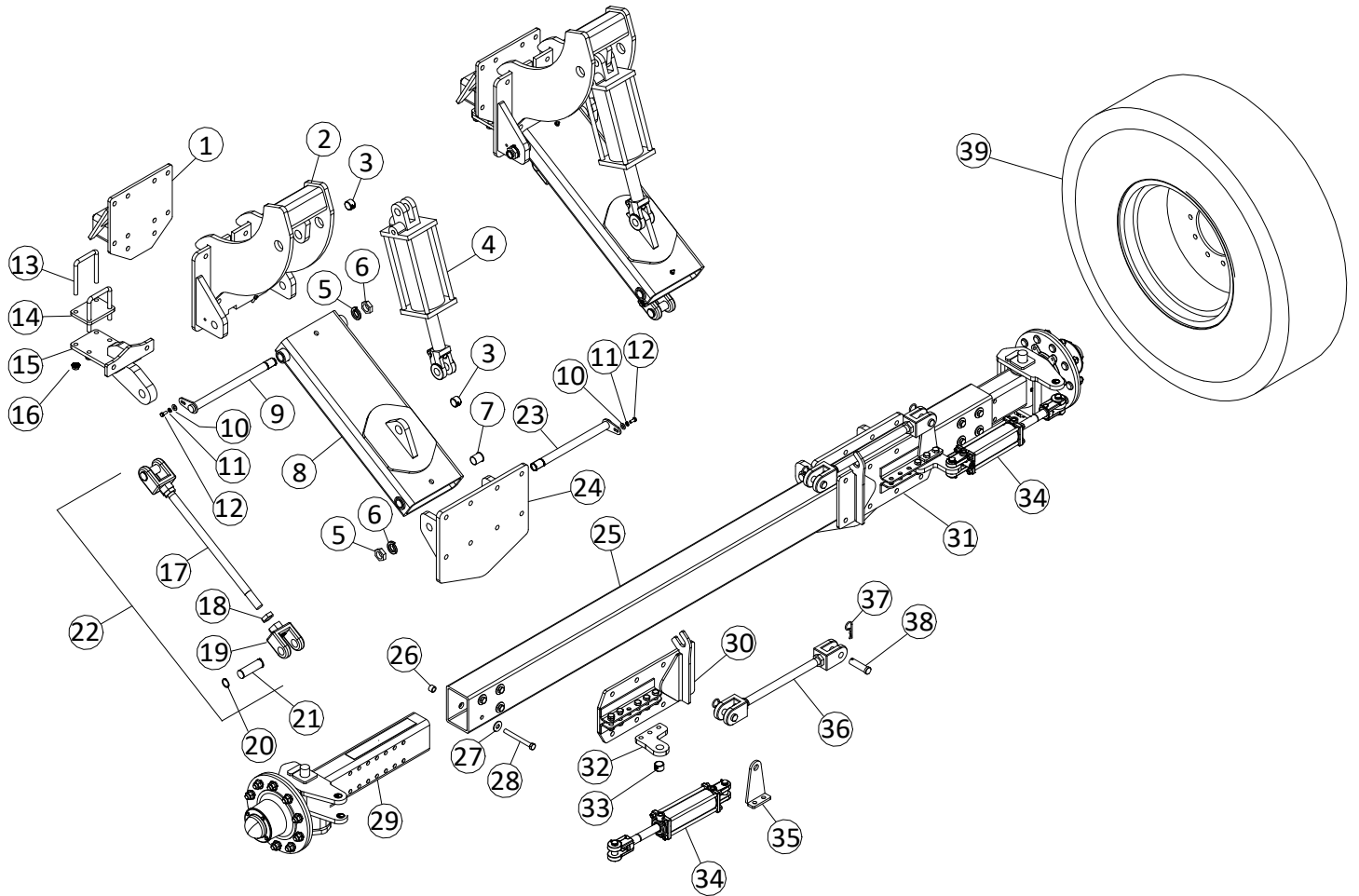
**Rear Steer Axle  
#401600**

Ref.	Part No.	Description
1	380825	Kingpin Weldment
2	401546	Upper Knuckle Bushing
3	380878	Upper Knuckle Bushing
4	95388	Kingpin Bearing Seal
5	95386	Kingpin Bearing
6	380870	Adjustable Slide Tube
7	380894	Lower Knuckle Bushing
8	21352	Bushing, 1-1/2" Narrow 10 Ga.
9	352535	Slotted Spindle Nut 1-1/2" NF
10	20829	Cotter Pin, 1/4" x 3"
11	401554	Weldment, Right Knuckle W/ Insert
-	401553	Weldment, Left Knuckle W/ Insert
12	95373	Seal, 10 Bolt Hub
13	95511	Bearing, 10 Bolt Hub Inner
14	95509	Race, 10 Bolt Hub Inner
15	95377	Wheel Stud, 10 Bolt Hub
16	95508	Race, 10 Bolt Hub Outer
17	95510	Bearing, 10 Bolt Hub Outer
18	95522	Washer, 1-5/16"
19	95523	Castle Nut, 1-5/16"
20	95524	Dust Cap, 10 Bolt Hub
21	95521	10 Bolt Hub W/ Races
22	95385	10 Bolt Hub Assembly

Ref.	Part No.	Description
23	404412	10 Bolt Hub/Spindle/Knuckle RH
-	404413	10 Bolt Hub/Spindle/Knuckle LH
24	20406	Nut, 5/8"
25	20506	Lock Washer, 5/8"
26	20536	Washer, 5/8"
27	380391	Bushing, Adjustable Axle
28	20065	Bolt, 5/8" x 2"
29	20073	Bolt, 5/8" x 6"
30	401593	Steering Cylinder Ear W/ Insert
31	94760	Split Tension Bushing, Insert
32	352615	Pivot Bearing
33	380740	Pivot Tube Weldment
34	401558	Bolt, 1" x 3-1/2" Drilled
35	98005	Tie Rod End LH
36	98004	Tie Rod End RH
37	20519	Washer, 1"
38	20174	Castle Nut, 1"
39	20832	Cotter Pin, 3/16" x 2"
40	-	Lug Nut, 10 Bolt Hub
41	380840*	Tie Rod, 6-8R Rear Steer
42	95447	Hyd. Cylinder, 3x8" Single Rephasing
NS	95448	Hyd. Cylinder, 3-1/4x8" Single Rephasing

\*Specify length when ordering

## 4 Row Rear Steer Assembly



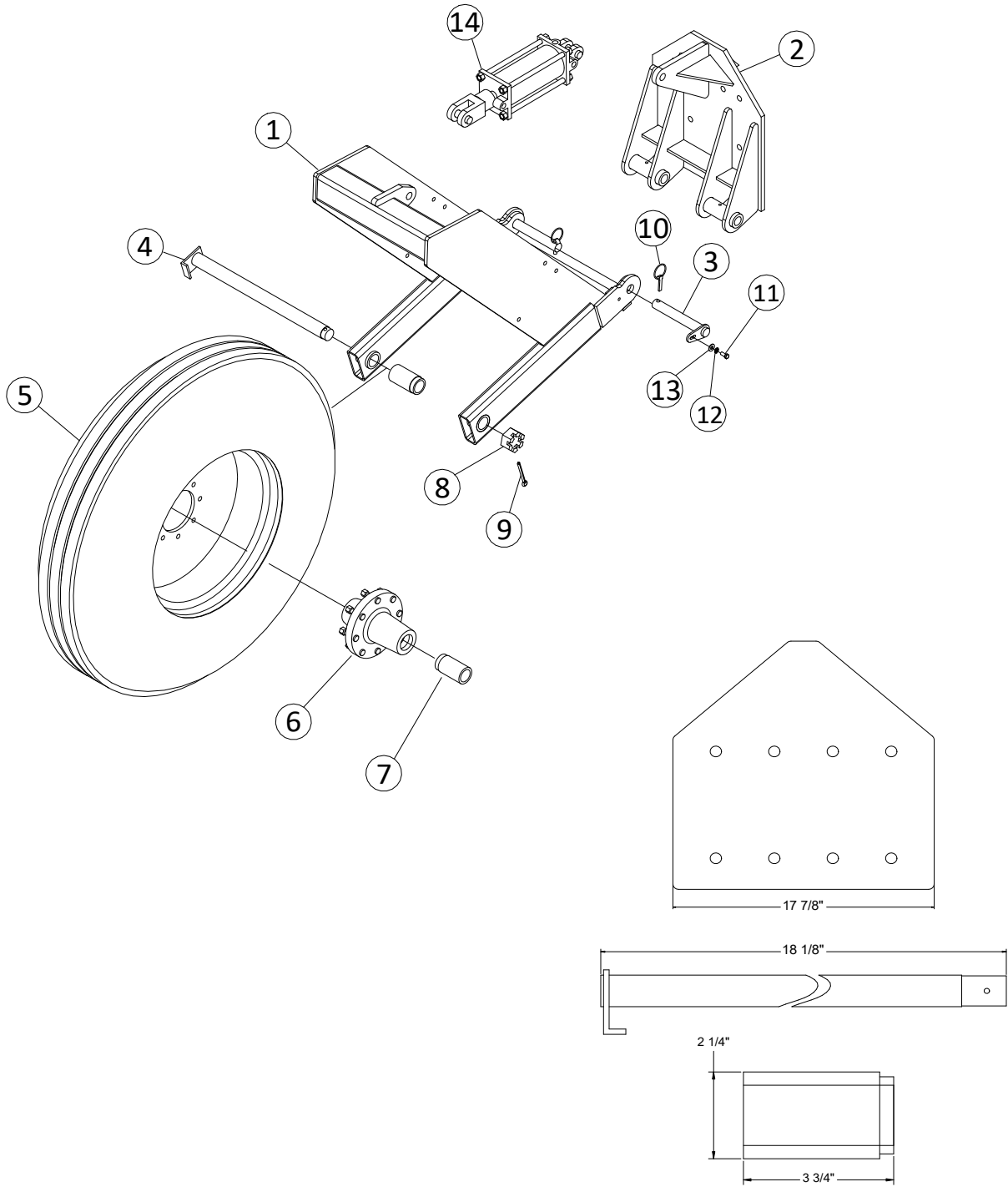
**4 Row Rear Steer Assembly  
#405151**

Ref.	Part No.	Description
1	367333	Rear Steer Front Mount Weldment
2	381007	Weldment, Rear Steer Narrow
3	94761	Split Tension Bushing, 1-1/4"
4	95384	Hydraulic Cylinder, 5" x 10"
5	20522	Washer, 1-1/4" Lock
6	20461	Jam Nut, 1-1/4" NF
7	95389	Igus Bushing, Swingarm
8	380961	Swing Arm Weldment
9	381009	Swing Arm Pin, Upper
10	20513	Washer, 3/8"
11	20502	Lock Washer, 3/8"
12	20111	Bolt, 3/8" x 7/8"
13	21009	U-bolt, 5/8" x 4" x 5-1/2"
14	380796	Crossmember Mount Plate
15	381003	Radius Arm Bracket Heavy
16	20476	Flange Nut, 5/8"
17	381022	Radius Arm Rod
18	20461	Jam Nut, 1-1/4" NF
19	94660	Clevis End, 1-3/8"
20	94661	Clevis Pin, 1-3/8" (W/ Ret. Rings)
21	90124	Retaining Ring, 1-3/8"

Ref.	Part No.	Description
22	381021	Radius Arm Assembly, Heavy
23	381016	Swing Arm Pin, Lower
24	405211	4R Rear Steer Axle Carrier Weldment
25	405152*	4R Rear Steer Axle Tube
26	380391	Bushing, Adjustable Axle
27	20536	Washer, 5/8"
28	20073	Bolt, 5/8" x 6"
29	401549	Axle Assembly, Left Knuckle
-	401548	Axle Assembly, Right Knuckle
30	405155	Rear Steer Cylinder Mount Left
31	405162	Rear Steer Cylinder Mount Right
32	401593	Steering Cylinder Ear W/ Insert
33	94760	Split Tension Bushing, 1"
34	95380	Hyd Cylinder , 3x8" Dual Rephasing
35	380975	Lock Bar Holder
36	380980	Lock Bar Assembly
37	20915	Bridge Pin #6, 3/16"
38	20893	Clevis Pin, 1" x 3-1/2"
39	380705	Tire/Rim, 13x24 Grader
-	359389	Rim, 10 Bolt, 24"
-	96255	Grader Tire

\*Specify length when ordering

# Lift Wheel Assembly

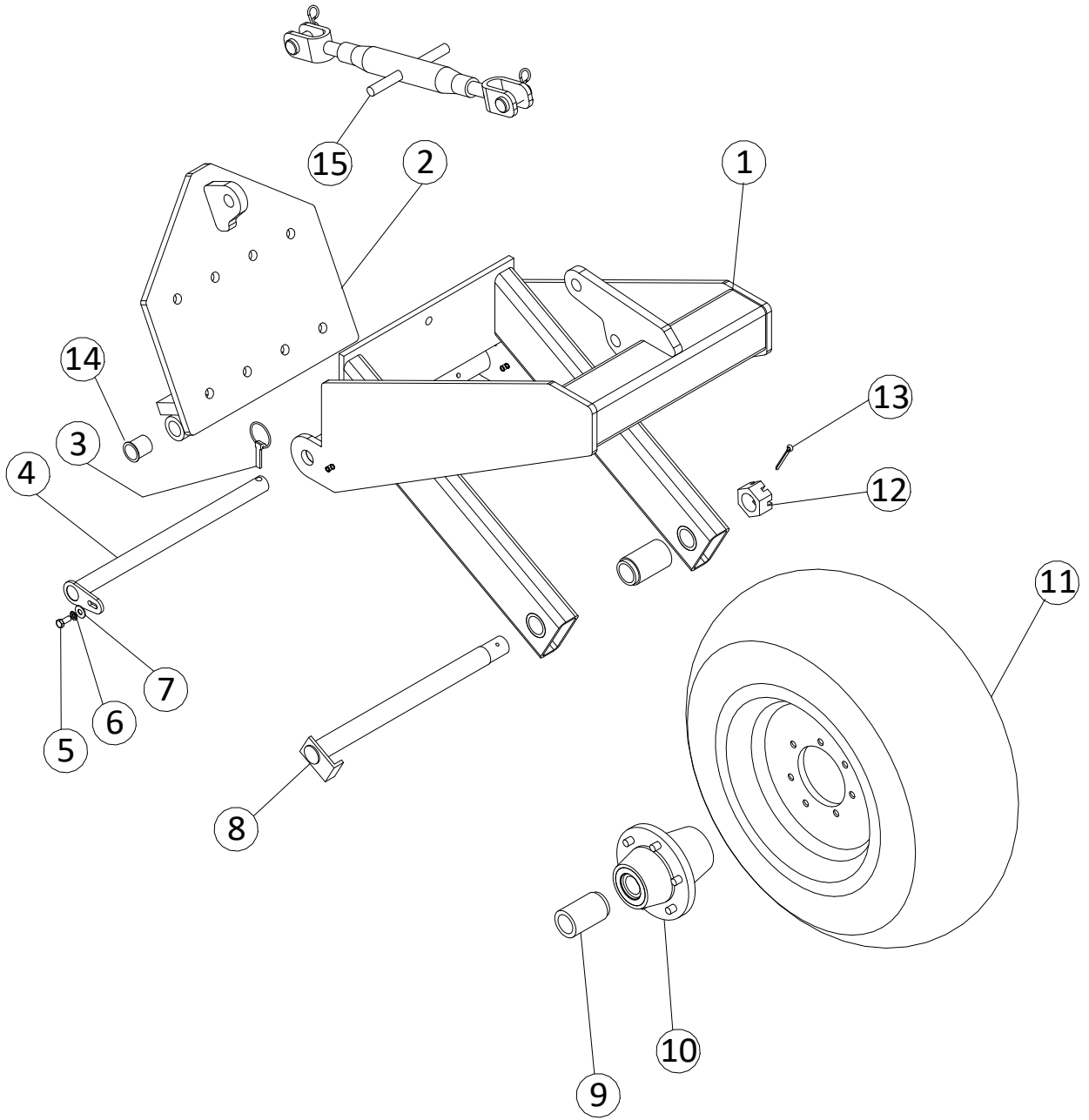


**Lift Wheel Assembly  
#352921 / 352920**

Ref.	Part No.	Description
1	352770	Large Rear Wheel Lift Weldment
2	352800	Lift Wheel Large Plate Weldment
3	365367	Pivot Pin Large Wheel
4	352775	1 3/4" Spindle Weldment
5	96162	11.25" X 24" Tire / Rim
-	96166	11.25" x 24" Rim Only
NS	352870	11.25" x 24" Tire/Rim with 1/2" Center
-	352875	11.25" x 24" Rim with 1/2" Center
-	96165	11.25" x 24" Tire & Tube (352870)
NS	352881	12" x 24" Tire / Rim with 1/2" Center
-	382860	12" x 24" Rim with 1/2" Center
-	96255	12" x 24" Grader Tire (352881)

Ref.	Part No.	Description
NS	96163	14.9" x 24" Tire / Rim Diamond Tread
-	352860	14.9" x 24" Rim with 1/2" Center
-	96060	14.9" x 24" Tire Diamond Tread (352865)
6	352761	Large Wheel Hub - 8 Bolt
7	352784	Spindle Spacer (Large Wheel)
8	20463	Slotted Nut, 1 3/4" NF
9	20831	Cotter Pin, 3/8" X 3"
10	95032	Lynch Pin, 7/16"
11	20111	Bolt, 3/8" X 7/8"
12	20502	Lock Washer, 3/8"
13	20513	Washer, 3/8"
14	95142	Hydraulic Cylinder, 4" x 8" 3000 psi w/ Stop

# Front Stabilizer Assembly



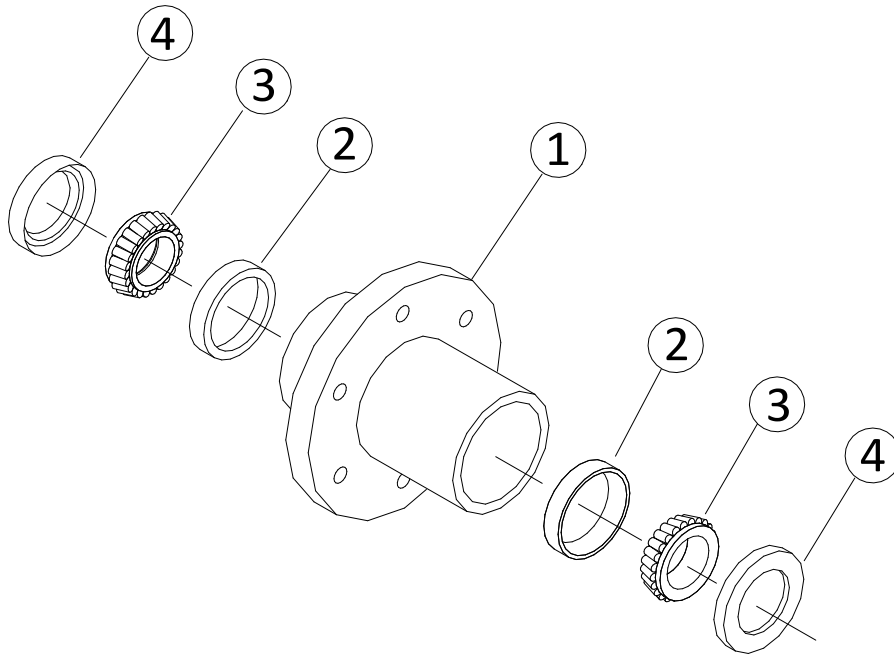


**Front Stabilizer Wheel  
#352780**

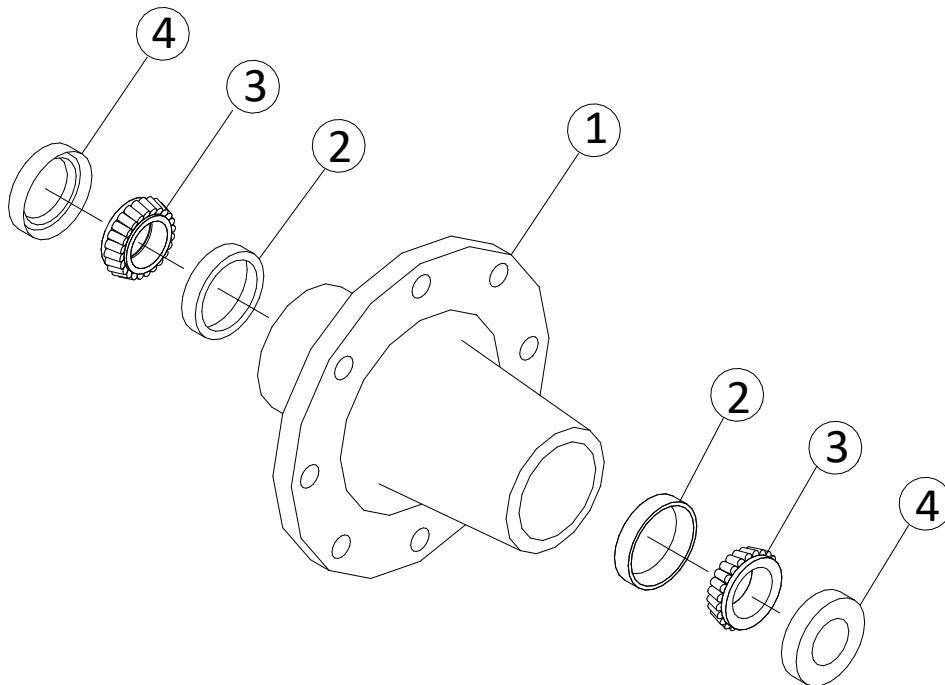
Ref.	Part No.	Description
1	352515	Lift Wheel Frame Weldment
2	352650	Lift Wheel Toolbar Mount
3	95032	Lynch Pin, 7/16"
4	352556	Pin, Stabilizer Pivot
5	20111	Bolt, 3/8" x 7/8"
6	20502	Lock Washer, 3/8"
7	20513	Washer, 3/8"
8	352530	Spindle, Stabilizer Wheel

Ref.	Part No.	Description
9	352540	Spacer, Spindle
10	352561	Hub, Stabilizer Wheel with Bolts
11	96271	Tire / Rim 12.5 x 16 , 8 Bolt
12	352535	Slotted Spindle Nut, 1-1/2" NF
13	20830	Cotter Pin 1/4" x 2-1/2"
14	95389	Swingarm Igus Bushing
15	21202	Turnbuckle, Depth Adjustment

### Fork Hub Assembly



### Large Wheel Hub



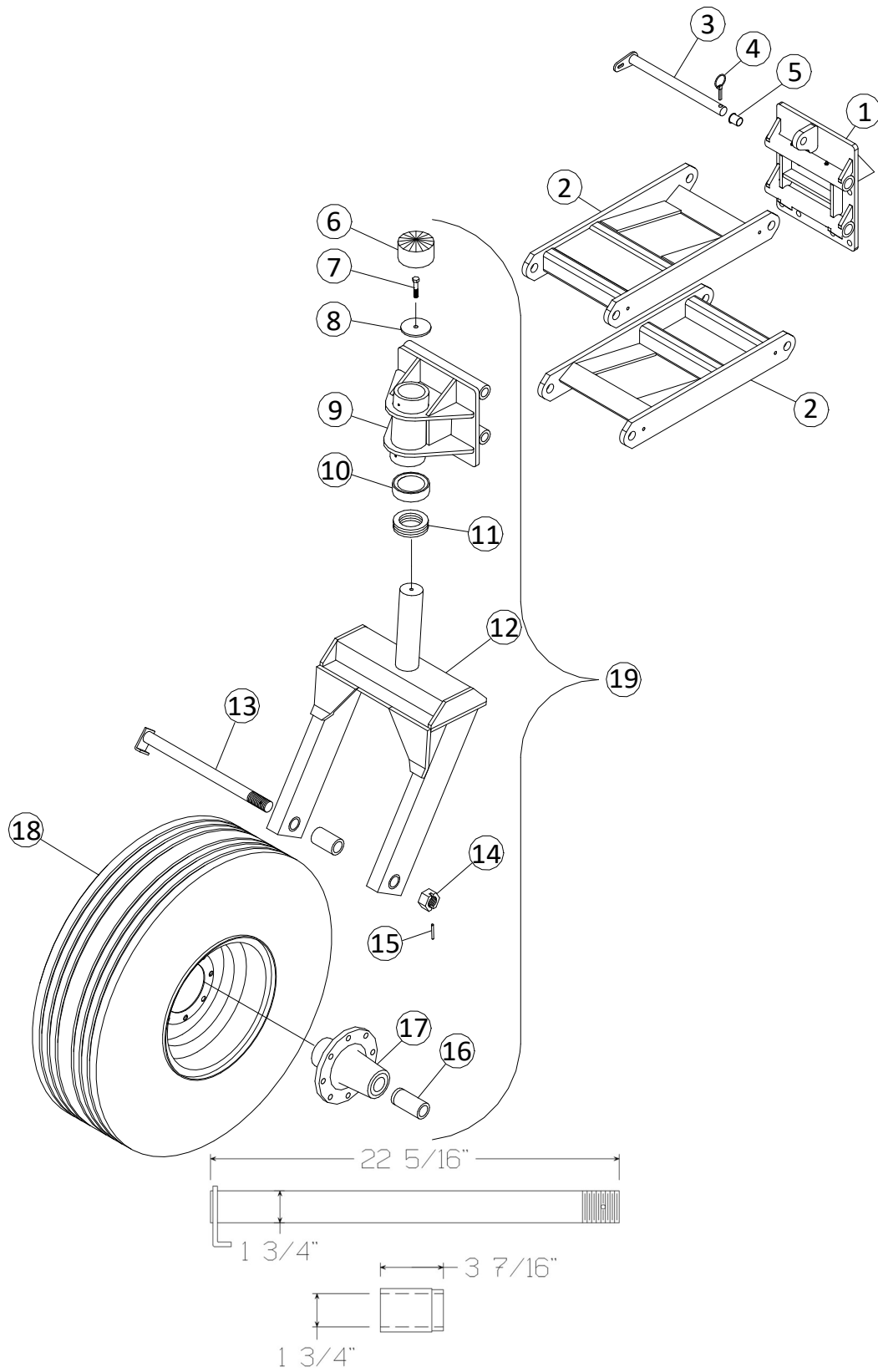
**Fork Hub Assembly with Wheel Bolts  
#352561**

<b>Ref.</b>	<b>Part No.</b>	<b>Description</b>
<b>1</b>	<b>096031</b>	<b>Hub with Cup (Planter) HA-628</b>
<b>2</b>	<b>082136</b>	<b>Bearing Cup 2720</b>
<b>3</b>	<b>082137</b>	<b>Bearing Cone 2788</b>
<b>4</b>	<b>096092</b>	<b>Seal SE-29 Planter Yoke Hub</b>

**Large Wheel Hub Painted with Nuts  
#352761**

<b>Ref.</b>	<b>Part No.</b>	<b>Description</b>
<b>1</b>	<b>96181</b>	<b>7500# Hub HDA-820</b>
<b>2</b>	<b>82154</b>	<b>Bearing Cup 25520</b>
<b>3</b>	<b>96183</b>	<b>Tapered Roller Bearing 25580</b>
<b>4</b>	<b>96184</b>	<b>Oil Seal SE26</b>
<b>-</b>	<b>96185</b>	<b>Nut WB18</b>

# Hydraulic Caster Wheel

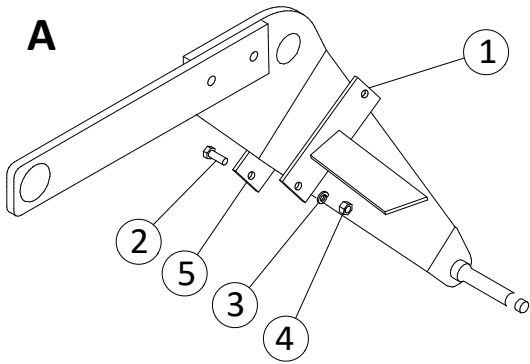


## Hydraulic Caster Wheel

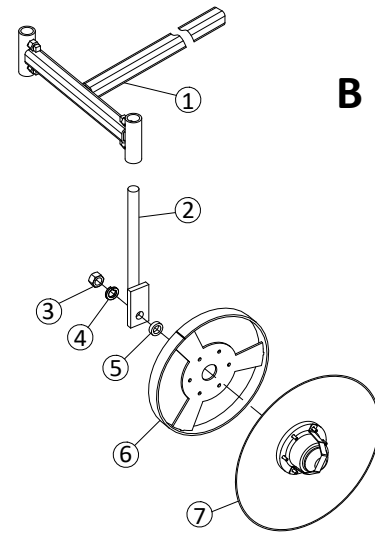
Ref.	Part No.	Description
1	365371	Front Toolbar Mount, Hydraulic Caster
2	365380	Linkage, Caster Wheel
3	365355	Pin, Hydraulic Caster Wheel
4	95032	Lynch Pin 7/16"
5	95389	Bushing, Swingarm
6	95085	4 1/2" Cap (Caster Wheel)
7	20118	Bolt, 1/2" X 1 1/4" NC
8	352578	Retainer Cap
9	365372	Weldment – Hydraulic Caster Rear Mt.
NS	365040	Brass Bushing with Grease Groove
10	366050	Truss Bearing Cover 4 1/2" OD

Ref.	Part No.	Description
11	96121	Truss Bearing, 4 1/2" OD X 3" ID
12	365390	Weldment – Caster Wheel Frame
13	352395	Spindle Weldment, 1-3/4"
14	20463	Castle Nut, 1-3/4" NF
15	20831	Cotter Pin, 3/8" X 3"
16	365397	Caster Spacer
17	352761	Large Wheel Hub Painted – 8 Bolt
18	96196	14L x 16.1 Tire/Rim 8 Bolt
-	96271	12.5 x 16 Tire/Rim 8 Bolt
19	365303	Caster Wheel Assembly

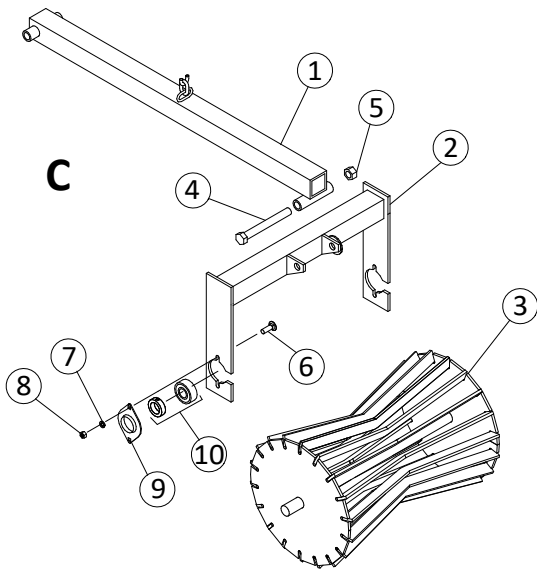
### Tire Scraper Package



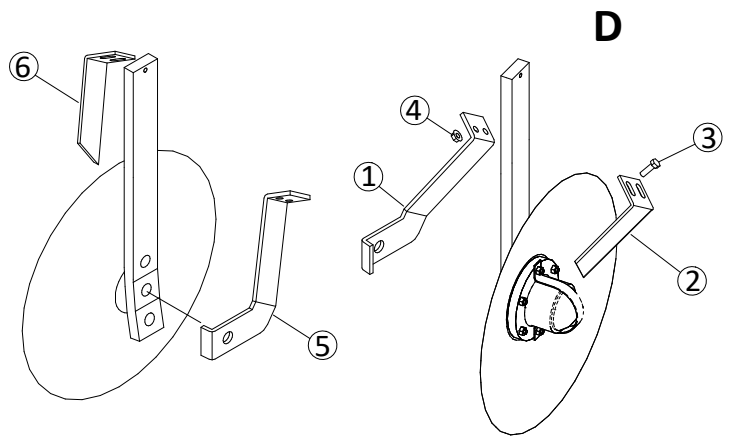
### Dual Disc Package



### Packer Wheel Assembly



### Disc Scraper Package



**#351365 – Tire Scraper Package**

Ref.	Part No.	Description
1	351370	Tire Scraper Weldment Left
-	351375	Tire Scraper Weldment Right
2	20119	Bolt, 3/8" X 1-3/4"

Ref.	Part No.	Description
3	20502	Lock Washer, 3/8"
4	20402	Nut, 3/8"
5	351373	Tire Scraper Mount Plate

**A**

**#368200 – Dual Disc Package (one behind one)**

Ref.	Part No.	Description
1	368260	Double Disc Marker Weldment
2	356440	Marker Disc Mount
3	20415	Nut, 3/4" NF
4	20507	Lock Washer, 3/4"

Ref.	Part No.	Description
5	211663	Disc Spacer Bushing
6	211850	Marker Depth Guide Wheel
7	211845*	Disc W/ Hub

\*Refer to page 20 for Disc w/ Hub parts breakdown

**B**

**#3510 – Packer Wheel Assembly**

**#357100 – Packer Wheel Assembly - (without Mount Arm)**

Ref.	Part No.	Description
1	357200	Packer Mount Arm
2	357120	Packer Wheel Frame
3	357110	Packer Wheel Weldment
4	20072	Bolt, 5/8" X 5 1/2"
5	20427	Nut, 5/8" Center Lock

Ref.	Part No.	Description
6	20757	Bolt, 5/16 X 1" Carriage
7	20504	Washer, 5/16" Lock
8	20401	Nut, 5/16"
9	96096	1" Bearing Flange
10	95043	1" Self Align Bearing Sealed

**C**

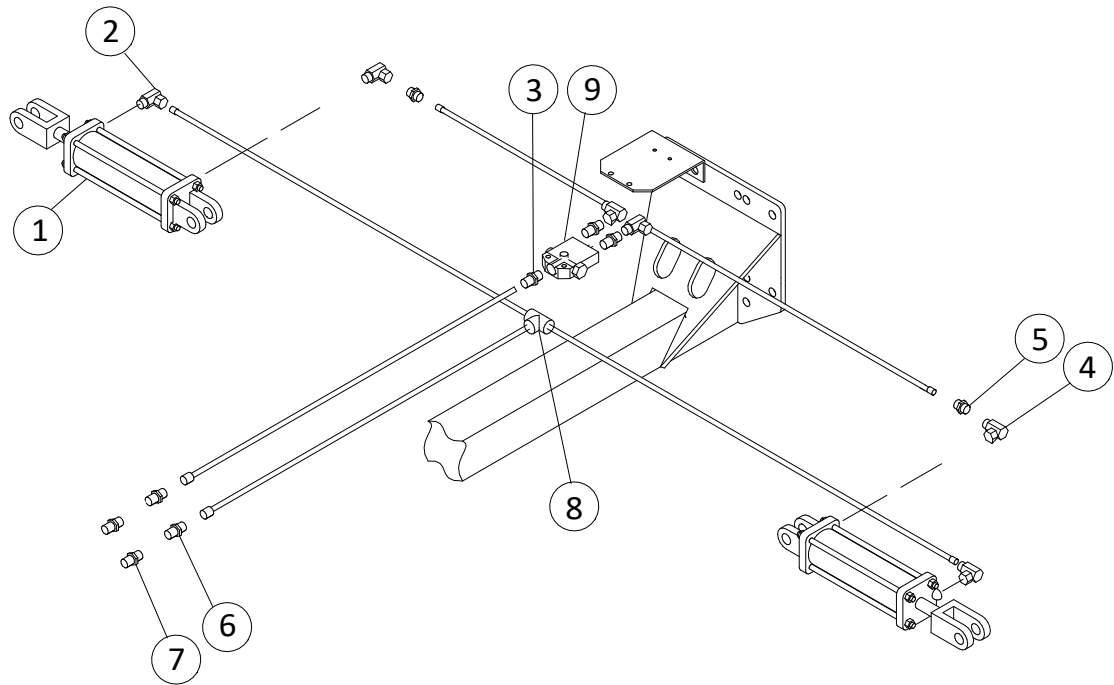
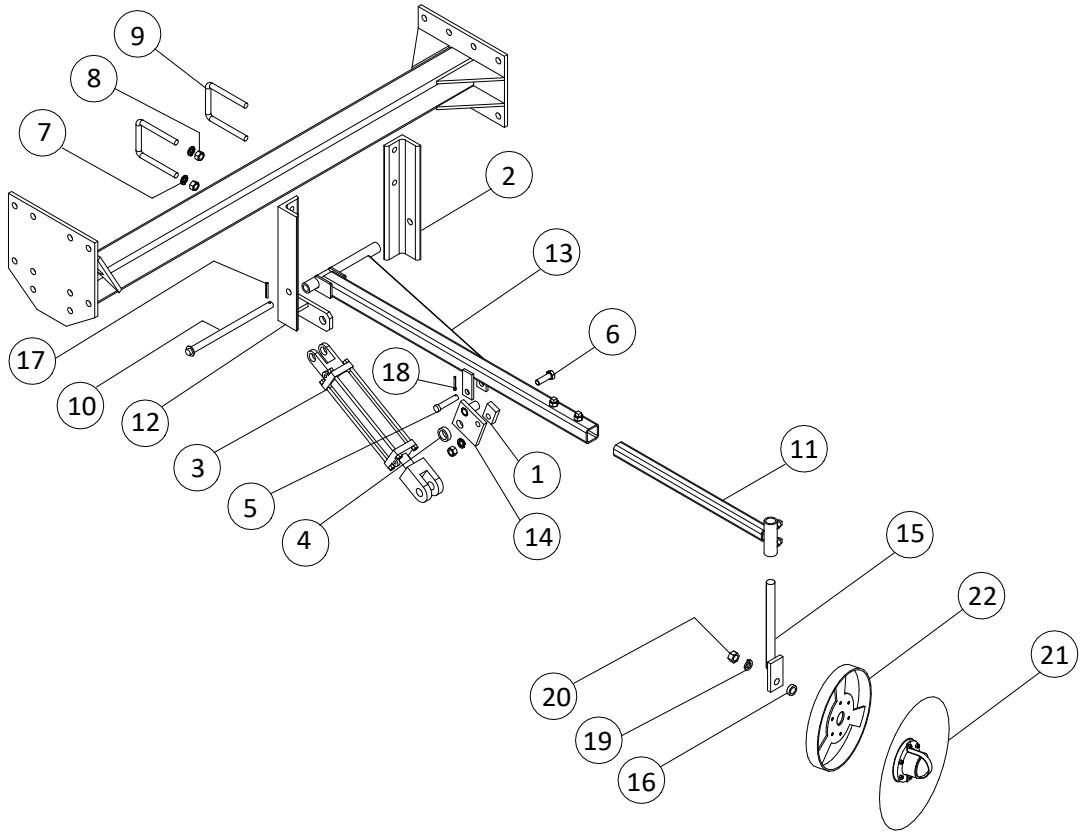
**211940 – Disc Scraper Pair – (Discs shown for illustration purposes)**

Ref.	Part No.	Description
1	211941	Scraper Mount Right
2	211943	Scraper Right
3	20757	Carriage Bolt, 5/16" X 1"

Ref.	Part No.	Description
4	20479	Flange Nut, 5/16"
5	211942	Scraper Mount Left
6	211944	Scraper Left

**D**

### 4 Row Marker (Tractor Center Mark)





**4 Row Marker Package (Tractor Center Mark)  
#3562**

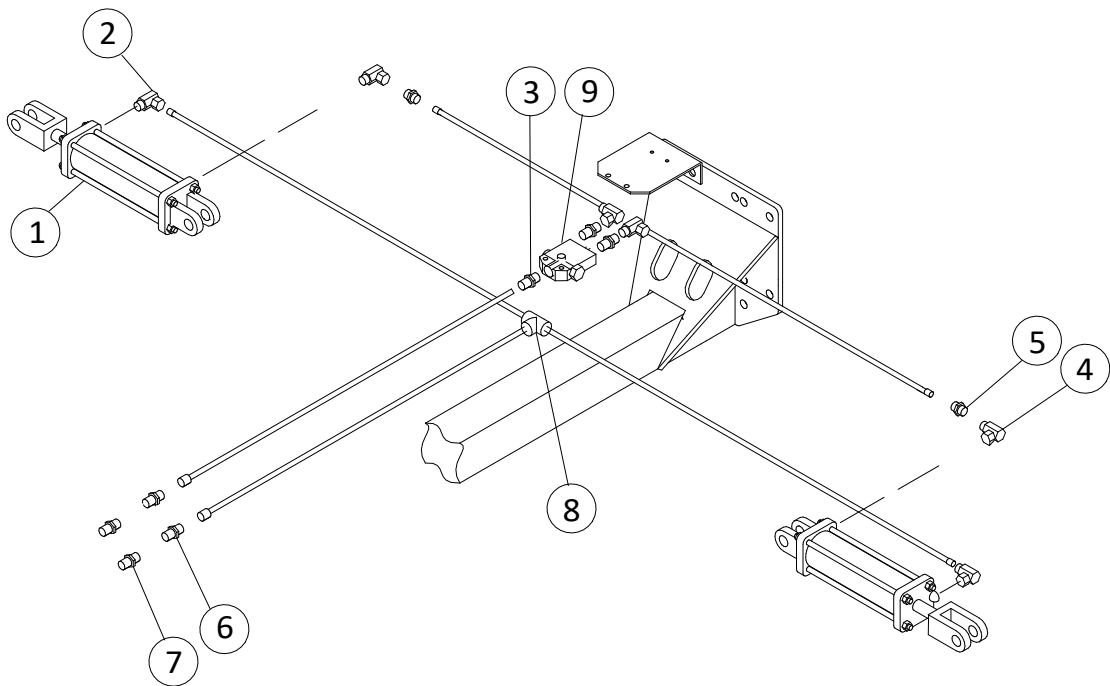
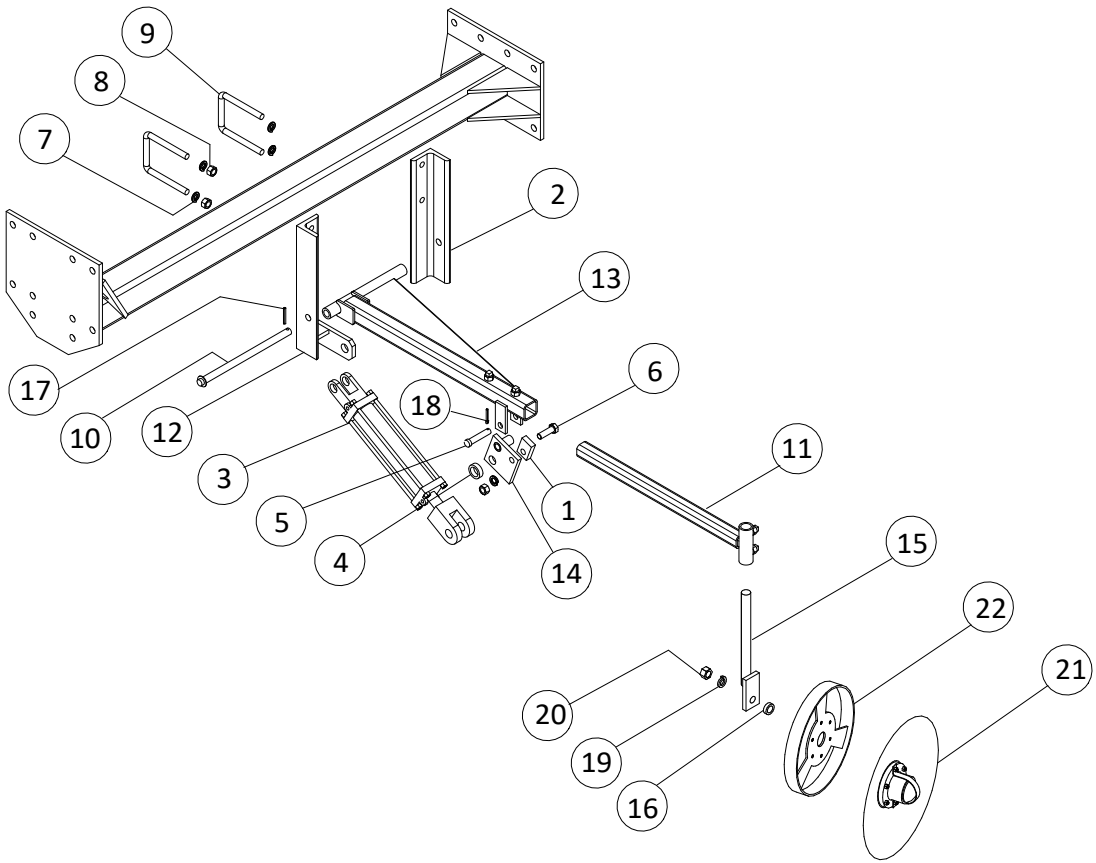
Ref.	Part No.	Description
1	356928	Stop Flat
2	356953	Right Angle
-	356952	Left Angle
3	95171	Cylinder, 2" x 8"
4	356929	Cylinder Spacer Bushing
5	20896	Clevis Pin, 5/8" x 3"
6	20065	Bolt, 5/8 x 2"
7	20506	Lock Washer, 5/8"
8	20406	Nut, 5/8"
9	21009	U-Bolt, 5/8" X 4" X 5 1/2"
10	356930	4 Row Pivot Pin Weldment
11	356420	Marker Extension Arm (Long)
12	356950	Right Angle w/cylinder mount

Ref.	Part No.	Description
-	356955	Left Angle w/cylinder mount
13	356965	4 Row Marker Arm Right (Center)
-	356960	4 Row Marker Arm Left (Center)
14	356940	Cylinder Pivot Weldment Right
-	356925	Cylinder Pivot Weldment Left
15	356440	Marker Disc Mount
16	211663	3/8" Bushing Spacer (Marker)
17	20967	Roll Pin, 1/4" x 2"
18	20826	Cotter Pin, 3/16" x 1-1/2"
19	20507	Lock Washer, 3/4"
20	20407	Nut, 3/4"
21	211845	Disc with Hub (Double Bearing)
22	211850	Marker Depth Guide Wheel

Ref.	Part No.	Description
1	95171	Hydraulic Cylinder, 2" x 8" 3/4"
2	95169	3/4 ORB x 9/16 JIC Elbow
3	95167	3/4 -16 ORB x 9/16 JIC Adapter
4	95169	3/4 ORB x 9/16 JIC Elbow
5	95168	Hose End, -6 Straight Female
6	83006	Hose End, -4 to -8 Straight Female

Ref.	Part No.	Description
7	96289	Male Tip 3/4" Pioneer End
8	95160	9/16 JIC Tee
9	96048	Sequence Valve
NS	96704	Grip, Red Hydraulic Hose Pressure
NS	96705	Grip, Red Hydraulic Hose Return
NS	83029	Restrictor, 06 MJ 08 MB .062

### 4 Row Marker (Tractor Tire Mark)



**4 Row Marker Package (Tractor Tire Mark)  
#3561**

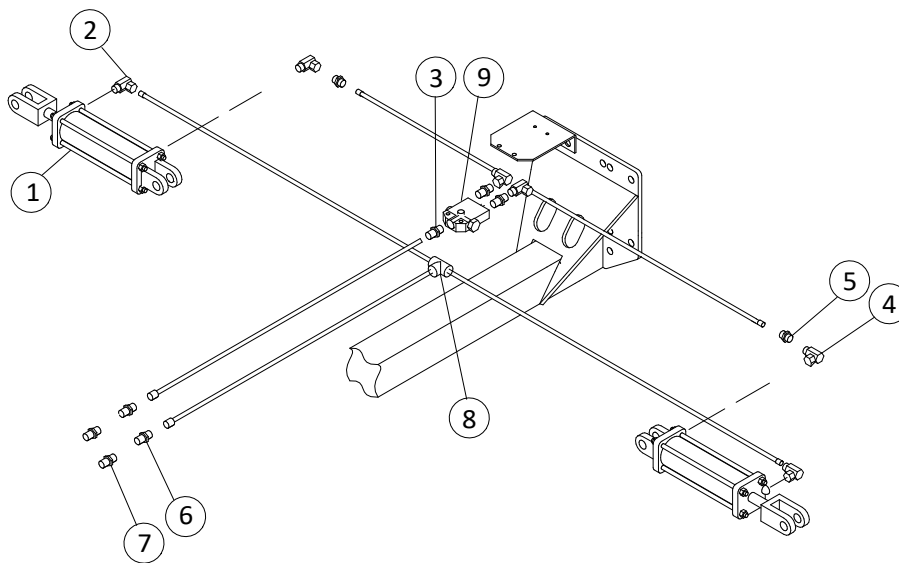
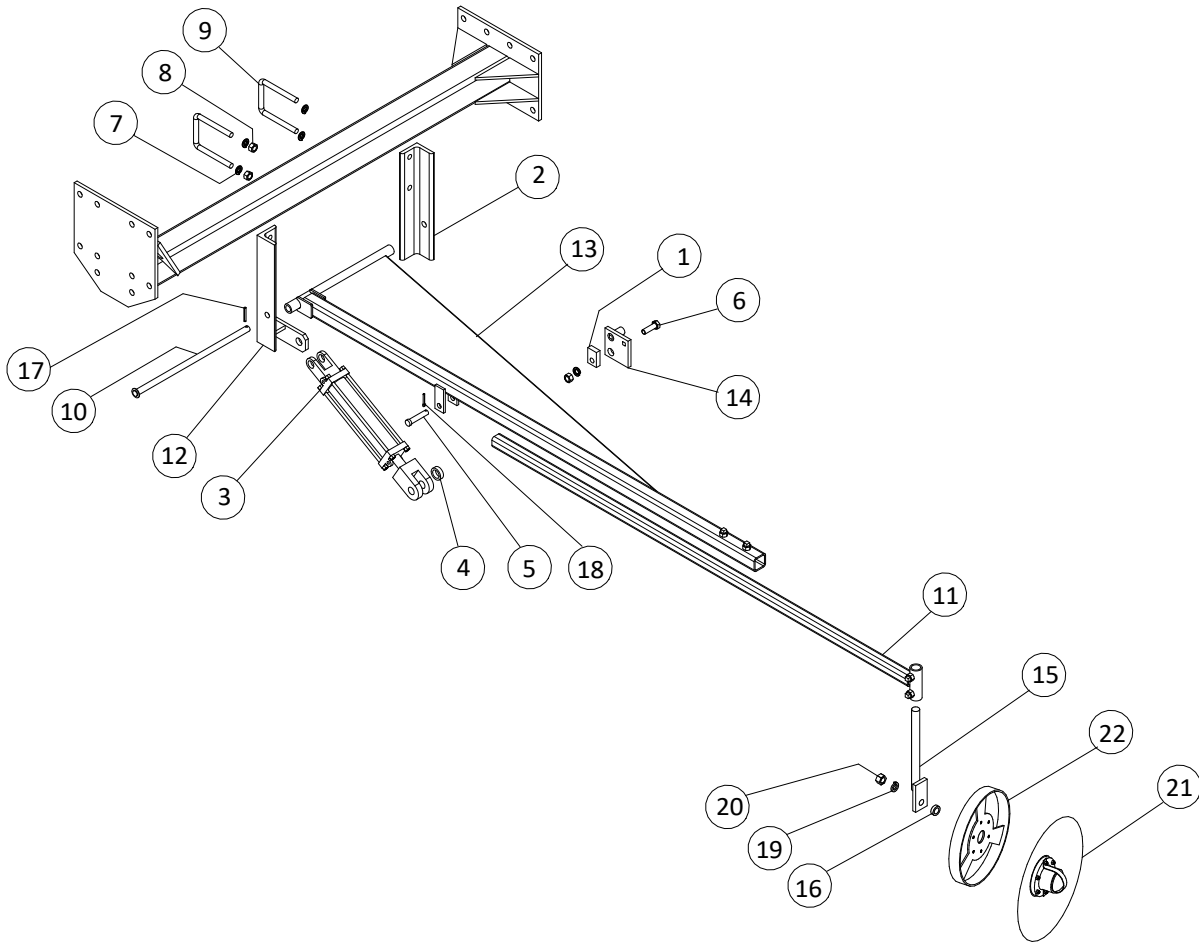
Ref.	Part No.	Description
1	356928	Stop Flat
2	356953	Right Angle
-	356952	Left Angle
3	95171	Hydraulic Cylinder, 2" x 8"
4	356929	Cylinder Spacer Bushing
5	20896	Clevis Pin, 5/8" x 3"
6	20065	Bolt, 5/8" x 2"
7	20506	Lock Washer, 5/8
8	20406	Nut, 5/8"
9	21009	U-Bolt, 5/8" X 4" X 5 1/2"
10	356930	4 Row Pivot Pin Weldment
11	366750	Marker Extension Arm 24" Long
12	356950	Right Angle w/ Cylinder Mount

Ref.	Part No.	Description
-	356955	Left Angle w/ Cylinder Mount
13	356935	4 Row Marker Arm Right (Tire Tracks)
-	356920	4 Row Marker Arm Left (Tire Tracks)
14	356940	Cylinder Pivot Weldment Right
-	356925	Cylinder Pivot Weldment Left
15	356440	Marker Disc Mount
16	211663	3/8" Bushing Spacer (Marker)
17	20967	Roll Pin, 1/4" x 2"
18	20826	Cotter Pin, 3/16" x 1-1/2"
19	20507	Lock Washer, 3/4"
20	20407	Nut, 3/4"
21	211845	Disc with Hub (Double Bearing)
22	211850	Marker Depth Guide Wheel

Ref.	Part No.	Description
1	95171	Hydraulic Cylinder, 2" x 8" 3/4"
2	95169	3/4 ORB x 9/16 JIC Elbow
3	95167	3/4 -16 ORB x 9/16 JIC Adapter
4	95169	3/4 ORB x 9/16 JIC Elbow
5	95168	Hose End, -6 Straight Female
6	83006	Hose End, -4 to -8 Straight Female

Ref.	Part No.	Description
7	96289	Male Tip 3/4" Pioneer End
8	95160	9/16 JIC Tee
9	96048	Sequence Valve
NS	96704	Grip, Red Hydraulic Hose Pressure
NS	96705	Grip, Red Hydraulic Hose Return
NS	83029	Restrictor, 06 MJ 08 MB .062

# 6 Row Marker



**6 Row Marker Package  
#3571**

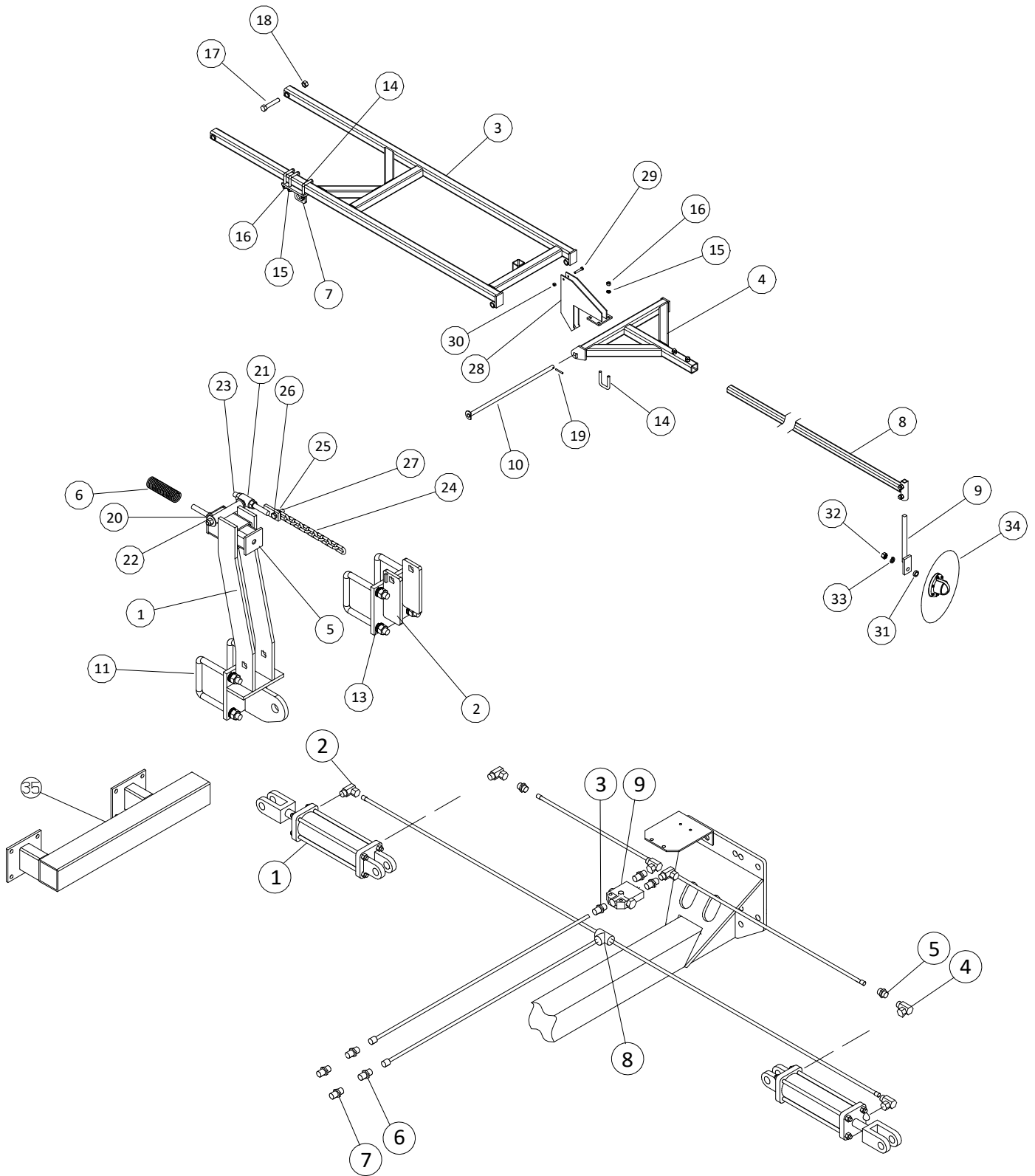
Ref.	Part No.	Description
1	356928	Stop Flat
2	356953	Right Angle Paint Only
-	356952	Left Angle Paint Only
3	95171	Hydraulic Cylinder, 2" x 8"
4	356929	Cylinder Spacer Bushing
5	20896	Clevis Pin, 5/8" x 3"
6	20065	Bolt, 5/8" x 2"
7	20506	Lock Washer, 5/8"
8	20406	Nut, 5/8"
9	21009	U-Bolt, 5/8" X 4" X 5 1/2"
10	356430	Marker Pivot Pin
11	356420	Marker Extension Arm (Long)
12	356950	Right Angle w/cylinder mount

Ref.	Part No.	Description
-	356955	Left Angle w/cylinder mount
13	356970	6 Row Marker Arm Right
-	356975	6 Row Marker Arm Left
14	356940	Cylinder Pivot Weldment Right
-	356925	Cylinder Pivot Weldment Left
15	356440	Marker Disc Mount
16	211663	3/8" Bushing Spacer (Marker)
17	20967	Roll Pin, 1/4" x 2"
18	20826	Cotter Pin, 3/16" x 1-1/2"
19	20507	Lock Washer, 3/4"
20	20407	Nut, 3/4"
21	211845	Disc with Hub (Double Bearing)
22	211850	Marker Depth Guide Wheel

Ref.	Part No.	Description
1	95171	Hydraulic Cylinder, 2" x 8" 3/4"
2	95169	3/4 ORB x 9/16 JIC Elbow
3	95167	3/4 -16 ORB x 9/16 JIC Adapter
4	95169	3/4 ORB x 9/16 JIC Elbow
5	95168	Hose End, -6 Straight Female
6	83006	Hose End, -4 to -8 Straight Female

Ref.	Part No.	Description
7	96289	Male Tip 3/4" Pioneer End
8	95160	9/16" JIC Tee
9	96048	Sequence Valve
NS	96704	Grip, Red Hydraulic Hose Pressure
NS	96705	Grip, Red Hydraulic Hose Return
NS	83029	Restrictor, 06 MJ 08 MB .062

# Bi-Fold Marker



**Bi-Fold Marker Package**  
**#3572 – 6 Row Bi-Fold Marker Package**  
**#3591 - 8-Row Bi-Fold Marker Package**

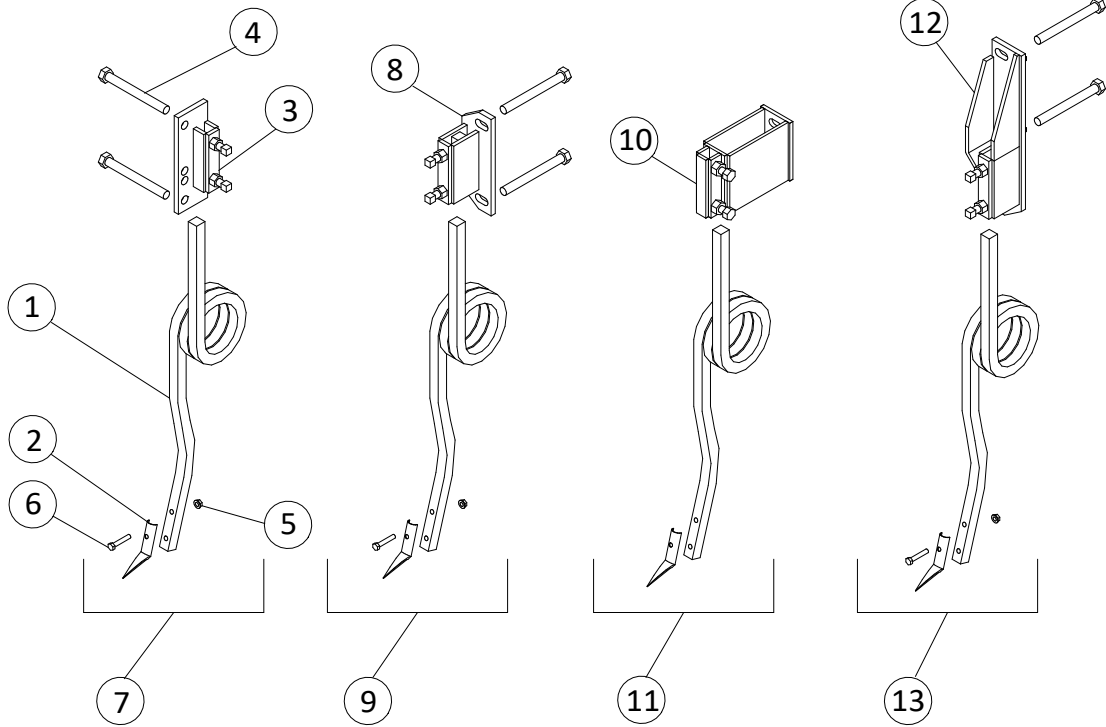
Ref.	Part No.	Description
1	380240	8 Row Upright Weldment Long
2	380270	8 Row Upright Weldment Short
3	380180	8 Row Inner Frame Weldment
4	380280	Bi-Fold Outer Frame Weldment
5	380255	Inner Slide Tube Weldment
6	94016	C-892 Spring - Bi-Fold Marker
7	356160	8R Marker Cylinder Mount
8	356420	Marker Extension Arm (Long)
9	356440	Marker Disc Mount
10	368115	Bi-Fold Pivot Pin Weldment
11	21009	U-Bolt, 5/8" X 4" X 5 1/2"
12	20506	Lock Washer, 5/8"
13	20406	Nut, 5/8"
14	21000	1/2" X 2" X 3" U-Bolt
15	20504	Lock Washer, 1/2"
16	20404	Nut, 1/2"
17	20086	Bolt, 3/4 X 4"
18	20428	Center Lock Nut, 3/4"

Ref.	Part No.	Description
19	20967	1/4" X 2" Spring Lock Pin Plain
20	20514	Flat Washer, 7/16"
21	380250	Marker Pivot Weldment
22	20424	Centerlock Nut, 7/16"
23	380265	Chain Adjustment Weldment
24	368105	Bi-Fold Marker Chain
25	20513	Washer, 3/8"
26	20120	Bolt, 3/8" x 1-1/4"
27	20402	Nut, 3/8"
28	380260	8 Row Cam Weldment '04
29	20031	Bolt, 3/8 x 2"
30	20423	Centerlock Nut, 3/8"
31	211663	Bushing Spacer, 3/8"
32	20407	Nut, 3/4"
33	20507	Lock Washer, 3/4"
34	211845	Disc with Hub (Double Bearing)
35	356980	Marker Offset Weldment
19	20967	Spring Lock Pin Plain, 1/4 X 2"

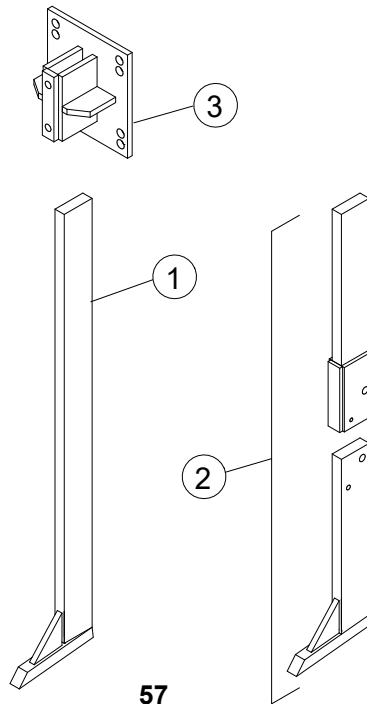
Ref.	Part No.	Description
1	95171	2" x 8" 3/4" ORB Port Cylinder
2	95169	3/4 ORB x 9/16 JIC Elbow
3	95167	3/4 -16 ORB x 9/16 JIC Adapter
4	95166	ORB Elbow Restrictor
5	95165	3/8 Pipe Thread Adapter 37°

Ref.	Part No.	Description
6	95170	9/16 JIC x 1/2 MPT Adapter
7	95012	Male Tip 1/2" Pioneer End
8	95160	9/16 JIC Tee
9	96048	Sequence Valve
6	95170	9/16 JIC x 1/2 MPT Adapter

### 1" Coil Shanks



### Chisel Markers





## 1" Coil Shanks

Ref.	Part No.	Description
1	96153	1" Coil Shank
2	90108	Alloy Point with Rubber
3	223410	1" Coil Shank Clamp
4	20090	Bolt, 3/4" X 7"
5	20471	Flange Nut, 3/8"
6	20031	Bolt, 3/8" X 2"
7	223400	Coil Shank Assembly

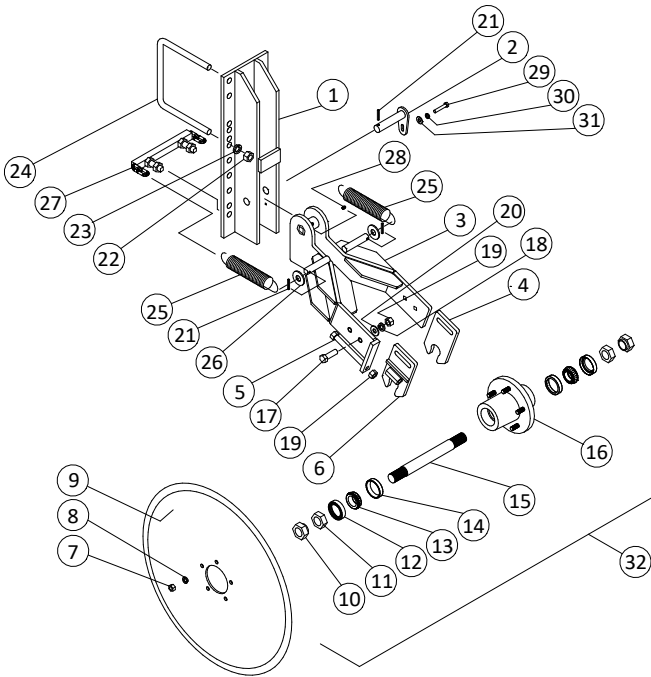
Ref.	Part No.	Description
8	223420	Coil Shank Clamp Long
9	223480	1" Coil Shank Long Clamp Assembly
10	357960	1" Coil Shank Clamp
11	357935	Coil Shank Assy for Fertilizer
12	223430	Center Coil Shank Mount Weldment*
13	223485	1" Coil Shank Center Assembly*

\*For Rear Toolbar

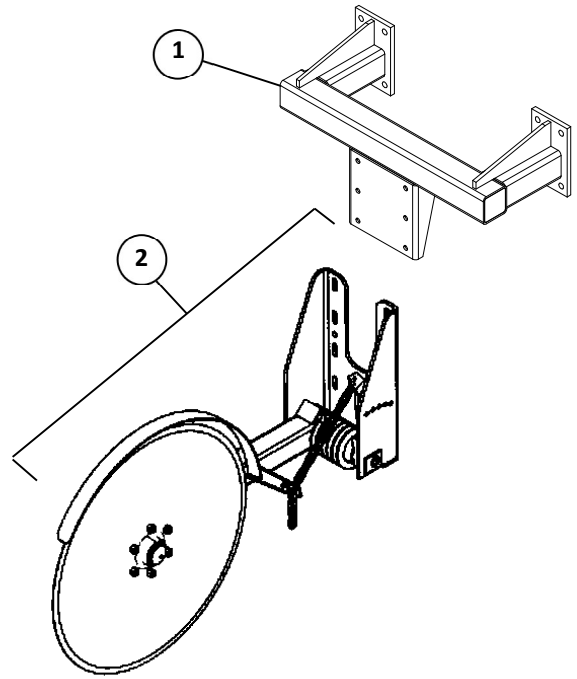
## Chisel Markers

Ref.	Part No.	Description
1	222100	Chisel Marker Shank
2	222120	Chisel Marker Trip Shank
3	222200	Chisel Marker Clamp Mount

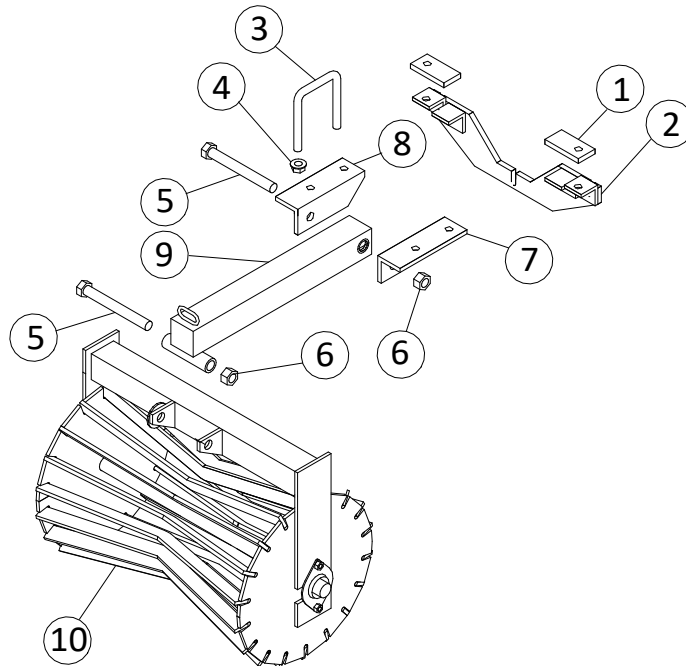
**Stabilizer Disc Assembly  
#229490**



**Sunco Stabilizer  
#355865**



**Packer Assembly for Rear Ripper  
#358900**



**Stabilizer Disc Assembly Spring Loaded  
#229490**

Ref.	Part No.	Description
1	229555	Cushion Disc Mount
2	229505	Stabilizer Pivot Pin
3	229550	Cushion Disc Frame Weldment
4	229535	Disc Hub Mount
5	229508	Adjuster Rod
6	229530	Disc Hub Mount W/Nut
7	20405	Nut, 1/2" NF
8	20504	Lock Washer, 1/2"
9	90030	27" Flat Coulter Blade
10	127660	Shoulder Nut, 1 1/4"
11	20461	Jam Nut, 1 1/4" NF
12	95086	SE 13 Oil Seal Cr
13	95094	Cone Bearing
14	95093	Bearing Cup
15	90004	Spindle Double Yoke 1 3/8" X 11"
16	90003	Double Yoke Hub W/Cup

Ref.	Part No.	Description
17	90065	Bolt, 5/8" X 2"
18	20506	Lock Washer, 5/8"
19	20406	Nut, 5/8"
20	20536	Washer, 5/8"
21	20965	Roll Pin, 1/4" X 1 1/2"
22	20407	Nut, 3/4"
23	20507	Lock Washer, 3/4"
24	21018	U-Bolt, 3/4" X 7" X 6 1/2"
25	21508	Spring, Disc Opener
26	21335	Washer, 10 Gauge 7/8"
27	229540	Spring Mount
28	95035	Grease Zerk, 1/8" NPT
29	20029	Bolt, 3/8" X 1"
30	80004	Lock Washer, 3/8"
31	20513	Washer, 3/8"
32	127600	Hub w/ Spindle Assembly

**Sunco Stabilizer Disc Assembly  
#355865**

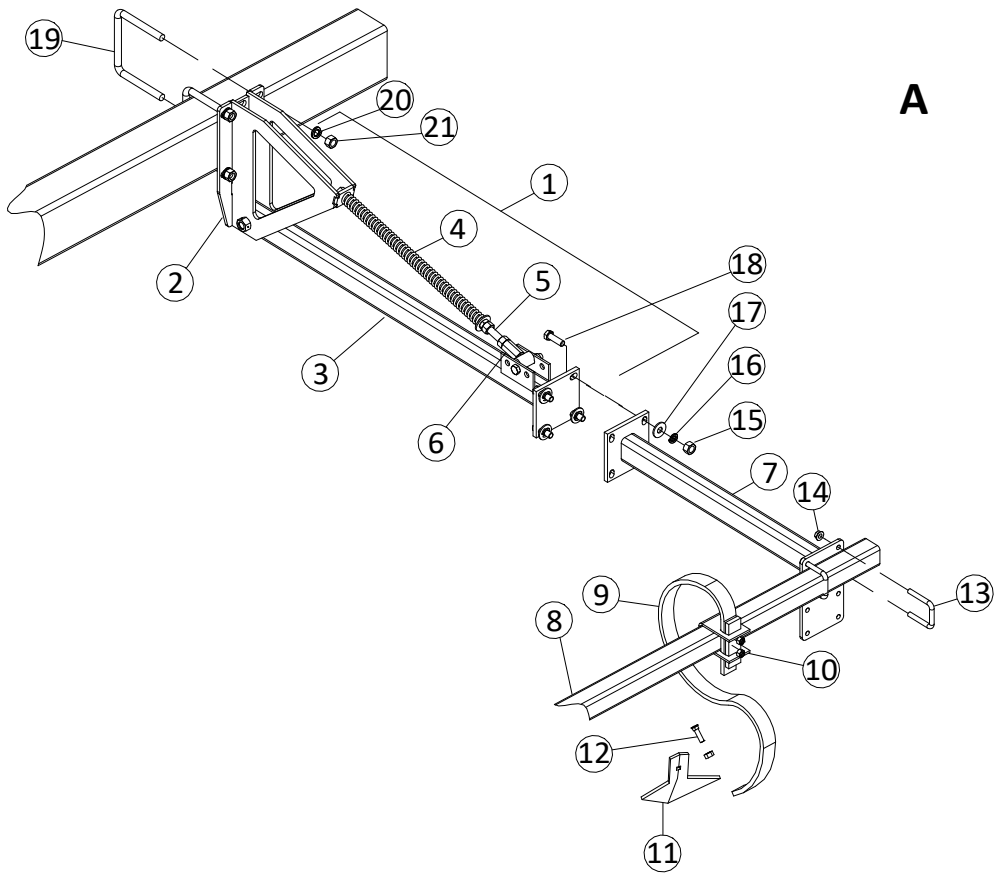
Ref.	Part No.	Description
1	355860	Mount, Sunco Stabilizer
2	96248	Sunco Stabilizer

**Packer Assembly For Rear Ripper  
#358900**

Ref.	Part No.	Description
1	358905	S-Tine Packer Mount Tab
2	358910	S-Tine Packer Chain Mount
3	21002	U-Bolt, 1/2" X 3" X 4"
4	20505	Flange Nut, 1/2"
5	20072	Bolt, 5/8" X 5 1/2"
6	20427	Lock Nut, 5/8"

Ref.	Part No.	Description
7	358920	Mount Angle Right
8	358925	Mount Angle Right
9	358910	S-Tine Packer Chain Mount
10	358930	Packer Mount Arm
-	357100	Packer Wheel/Frame Assembly Only

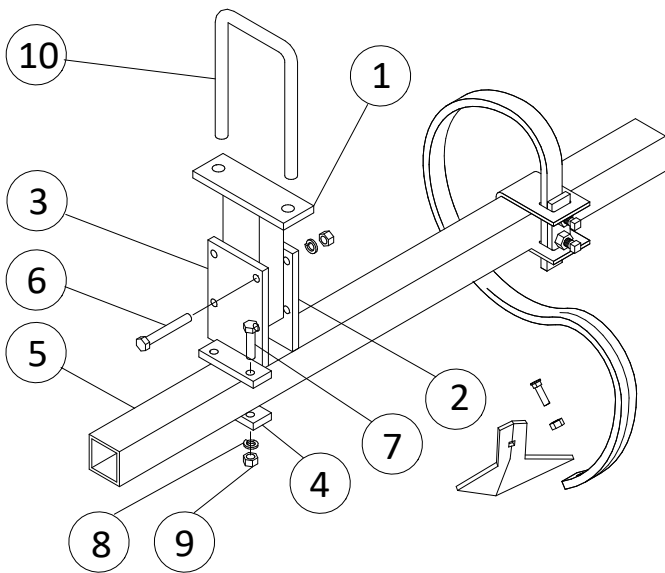
### Rear Ripper



**A**

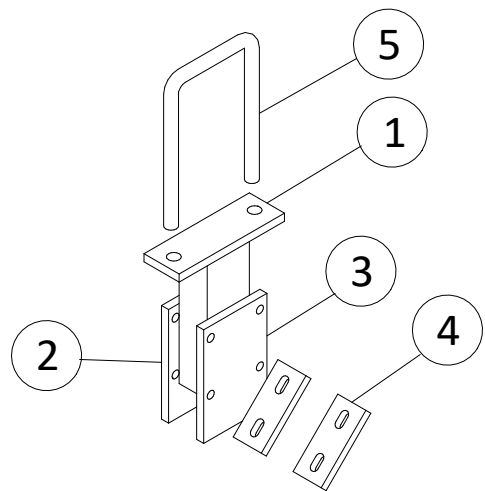
### Drop Tube Ripper

**B**



### 45° Ripper

**C**



### Ripper Assemblies

Ref.	Part No.	Description
1	355430	Ripper Arm Sub Assembly - 48" long
2	355735	Ripper Angle Weldment
3	355390	Ripper Arm Weldment 48" long
4	501051	Compression Spring
5	501050	Linkage Adjustment Bolt
6	355447	Coupler Weldment
7	355415	30" Ripper Extension
-	355410	19" Ripper Extension
-	355400	11" Ripper Extension
8	355426*	Rear Ripper Cross Tube 24 ft.
9	212115	Vertical S-Tine
10	201035	Vertical Clamp

Ref.	Part No.	Description
11	212500	7" Shovels
12	213800	S-Tine Shovel Bolt Gr. 8
13	21038	U-Bolt, 1/2" x 2 1/2" x 3 1/4"
14	20505	Flange Nut, 1/2"
15	20406	Nut, 5/8"
16	20506	Lock Washer, 5/8"
17	20536	Washer, 5/8"
18	20065	Bolt, 5/8" x 2"
19	21018	U-Bolt, 3/4" x 7" x 6 1/2"
20	20507	Lock Washer, 3/4"
21	20407	Nut, 3/4"

\*Specify length when ordering

**A**

### Drop tube Ripper

Ref.	Part No.	Description
1	355475	Drop Tube Weldment
2	355478	Drop Tube Backing Plate
-	355559	Lower Bar Mount Dual (Optional)
3	355470	Lower Bar Mount
4	355479	Backing Plate (2 1/2" Tube)

Ref.	Part No.	Description
5	355426*	Rear Ripper Cross Tube 24 ft.
6	20057	Bolt, 1/2" x 3 1/2"
7	20059	Bolt, 1/2" x 4 1/2"
8	20504	Washer, 1/2" Lock
9	20404	Nut, 1/2"

\*Specify length when ordering

**B**

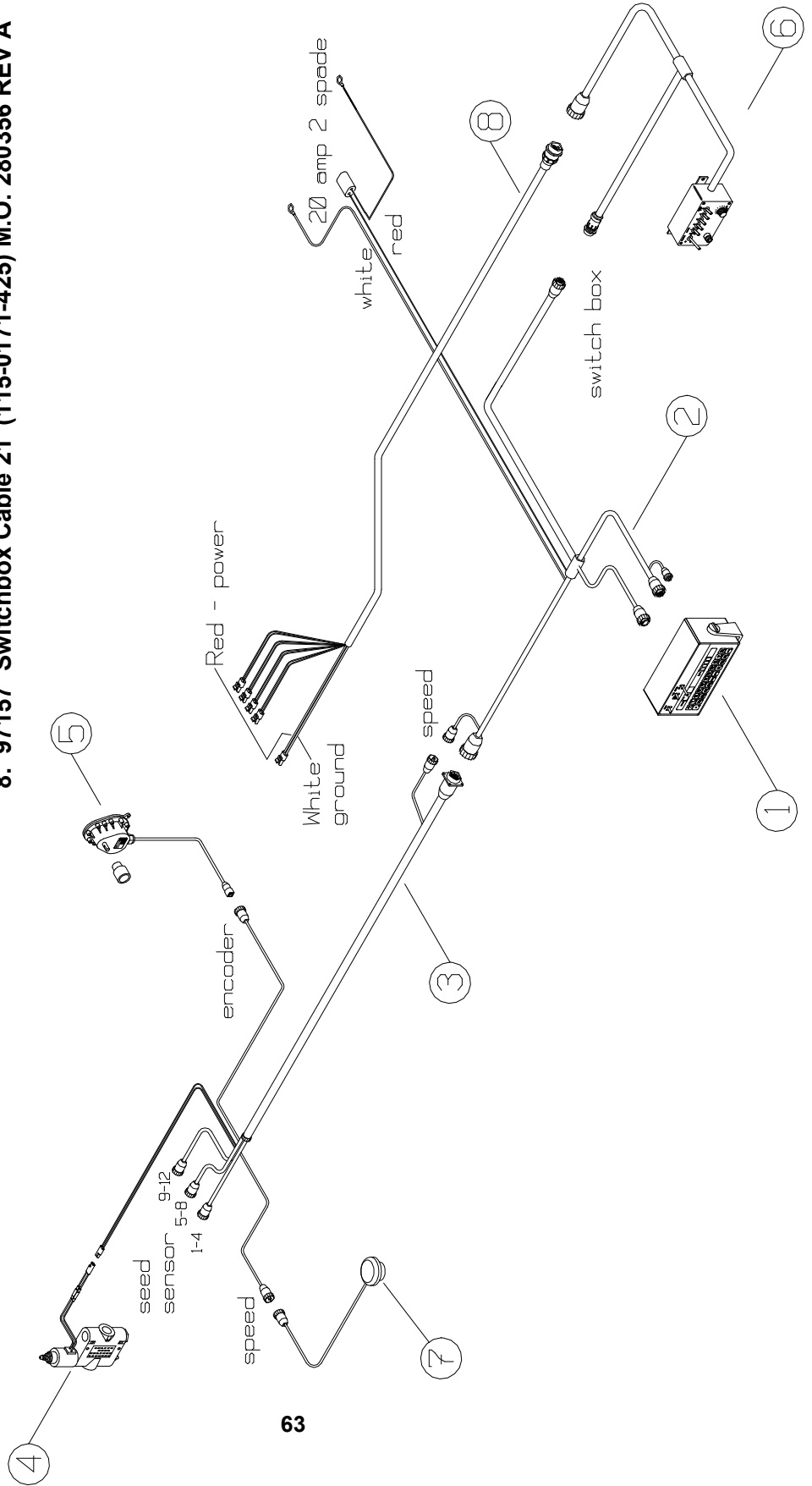
### 45° Ripper

Ref.	Part No.	Description
1	355475	Drop Tube Weldment
2	355478	Drop Tube Backing Plate
3	355490	Lower Bar Mount Weldment 45°
4	355495	Backing Plate 45°

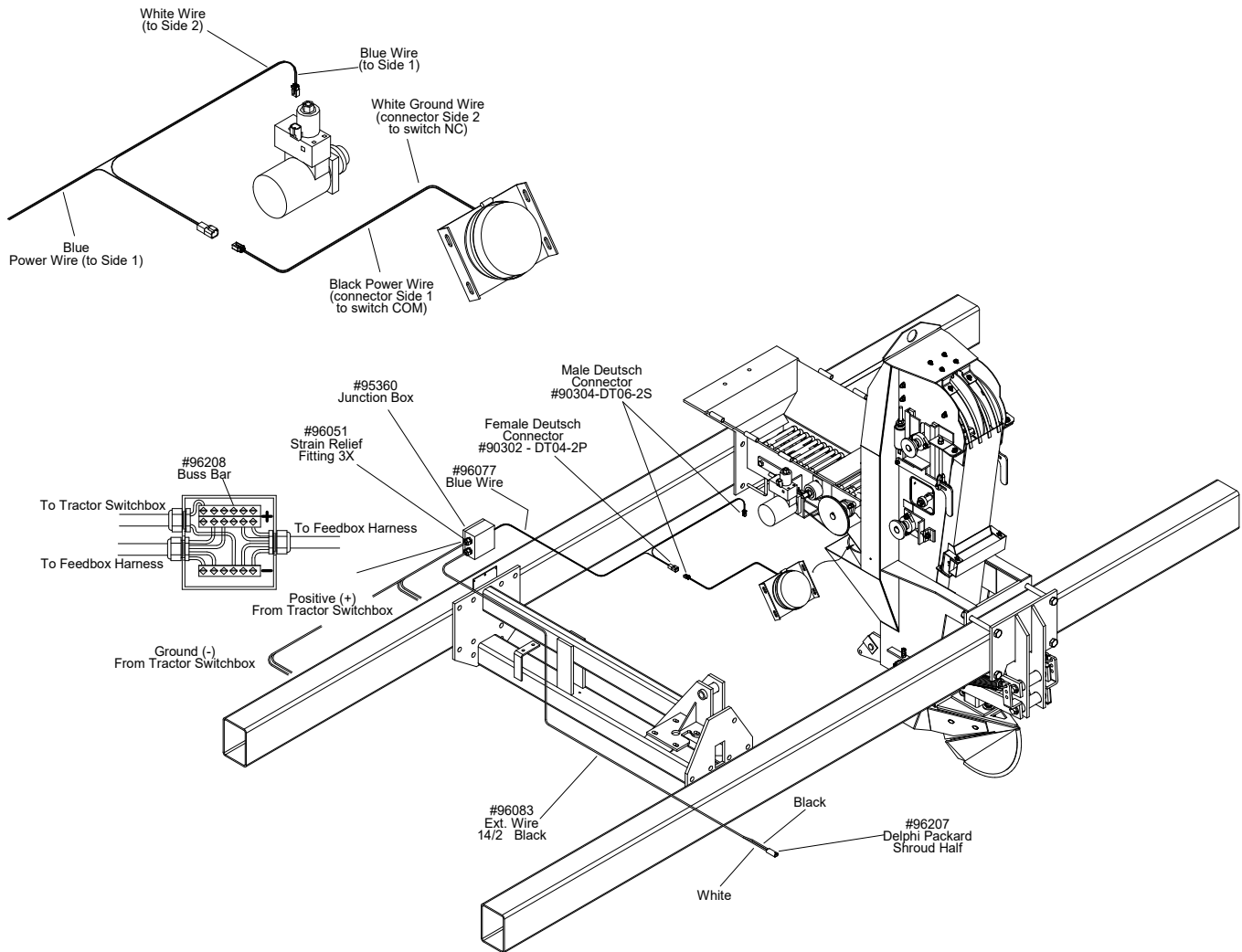
**C**

# Raven 662 Electrical

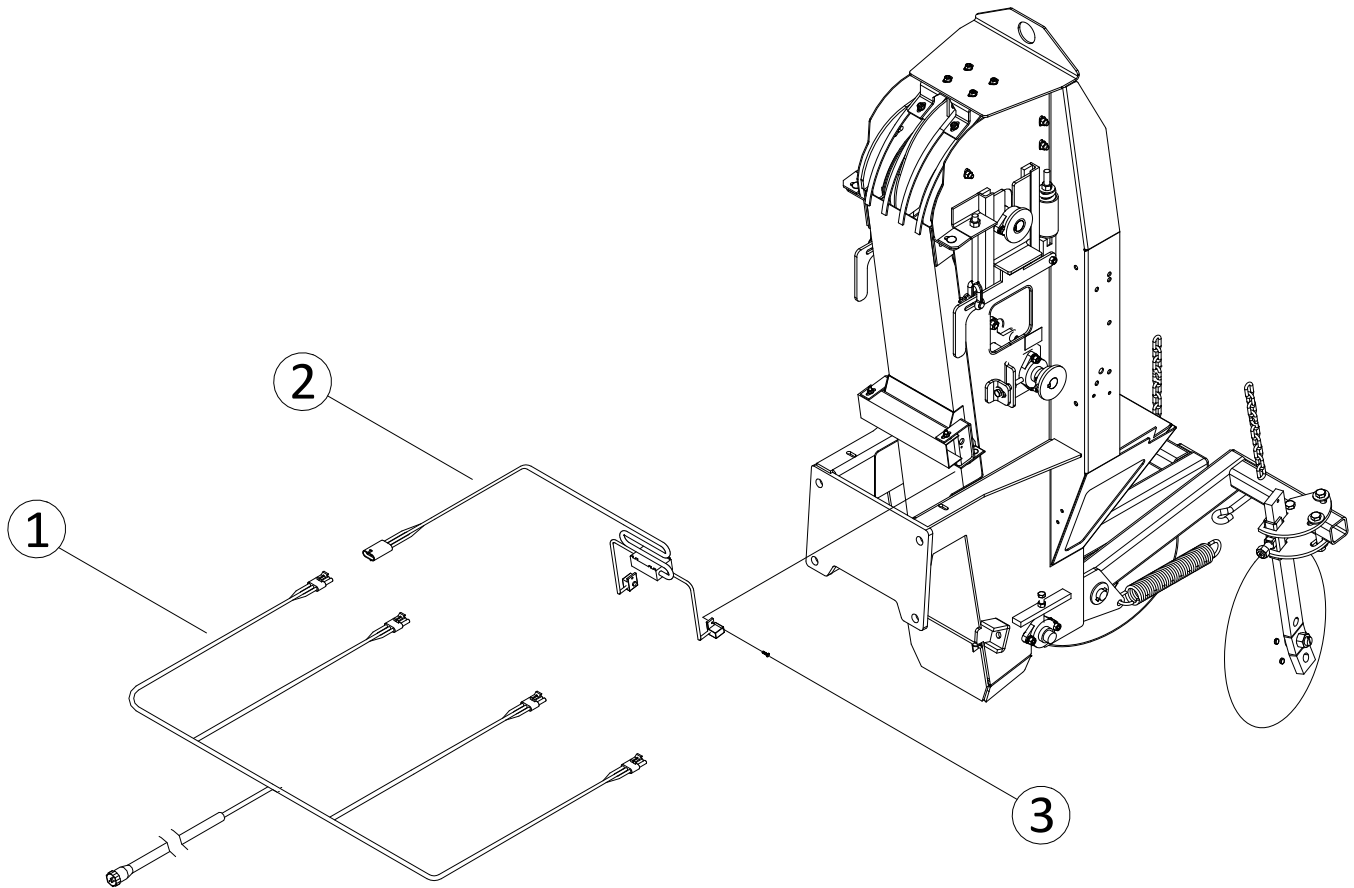
1. 97100 SCS 662 Console (063-0171-804)
2. 97101 Console Cable 10' (115-0171-107) M.O. 156188 REV A
3. 97102 Product Cable 6' (115-0171-108) M.O. 156189 REV A
  4. 97114 Hyd Valve Pulse Width 5gpm (063-0171-841)
  5. 97104 Encoder 180 cpr 25 ft cable (063-0171-443)
  6. 97156 5 Switch Box w/o Cable (063-0172-432)
7. 97127 Raven Radar
8. 97157 Switchbox Cable 21' (115-0171-425) M.O. 280356 REV A



## Feed Chain Electrical System (Raven 662)



## Seed Sensor (Raven 662)

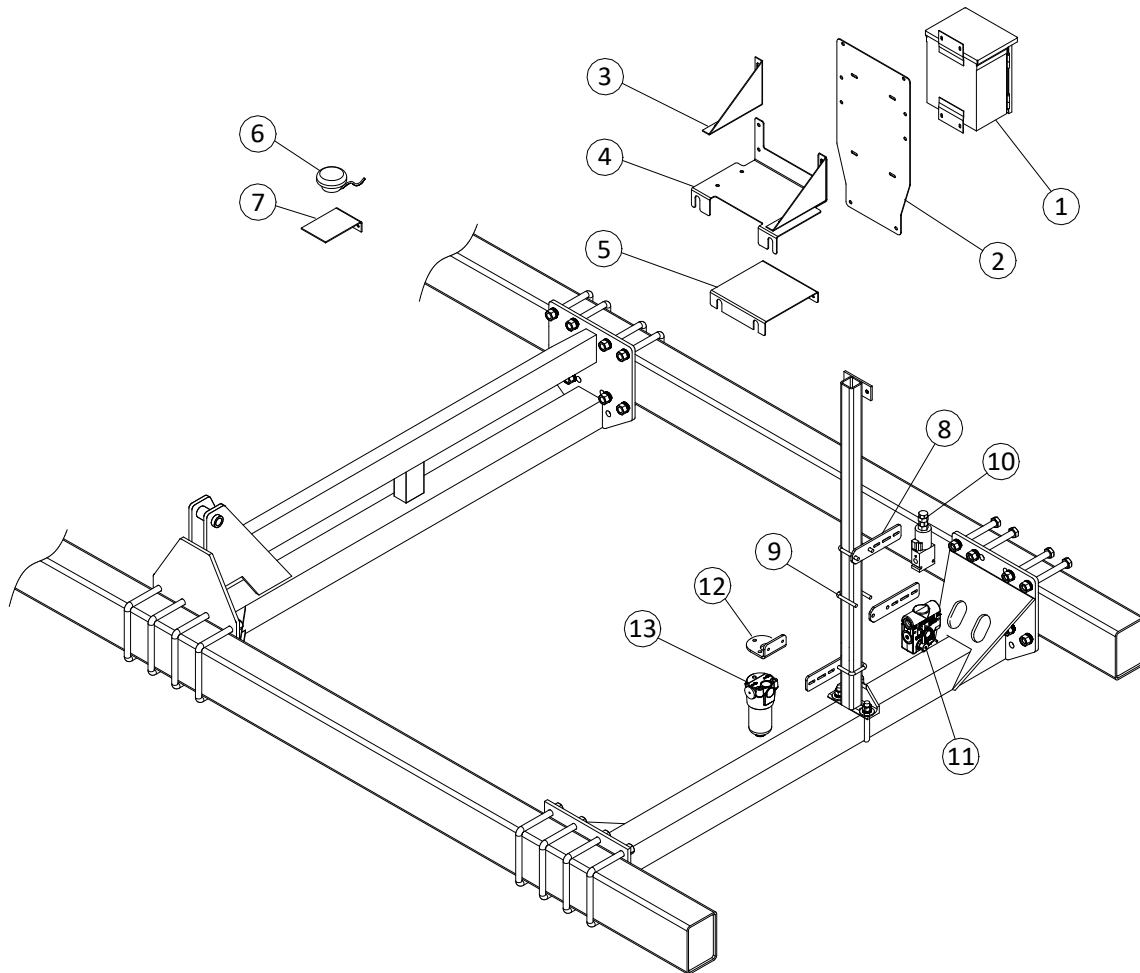


**#400050 4 Row Package**  
**#400051 6 Row Package**  
**#400052 8 Row Package**

Ref.	Part No.	Description
1	097094	Raven Seed Drop Cable (4 Row)
-	097142	Raven Seed Drop Cable (6 Row)
-	097141	Raven Seed Drop Cable (8 Row)
NS	097098	12' Cable Extension
2	097052	Sensor Package Eyes
3	020270	8 X ½" Self-Tapped Screw



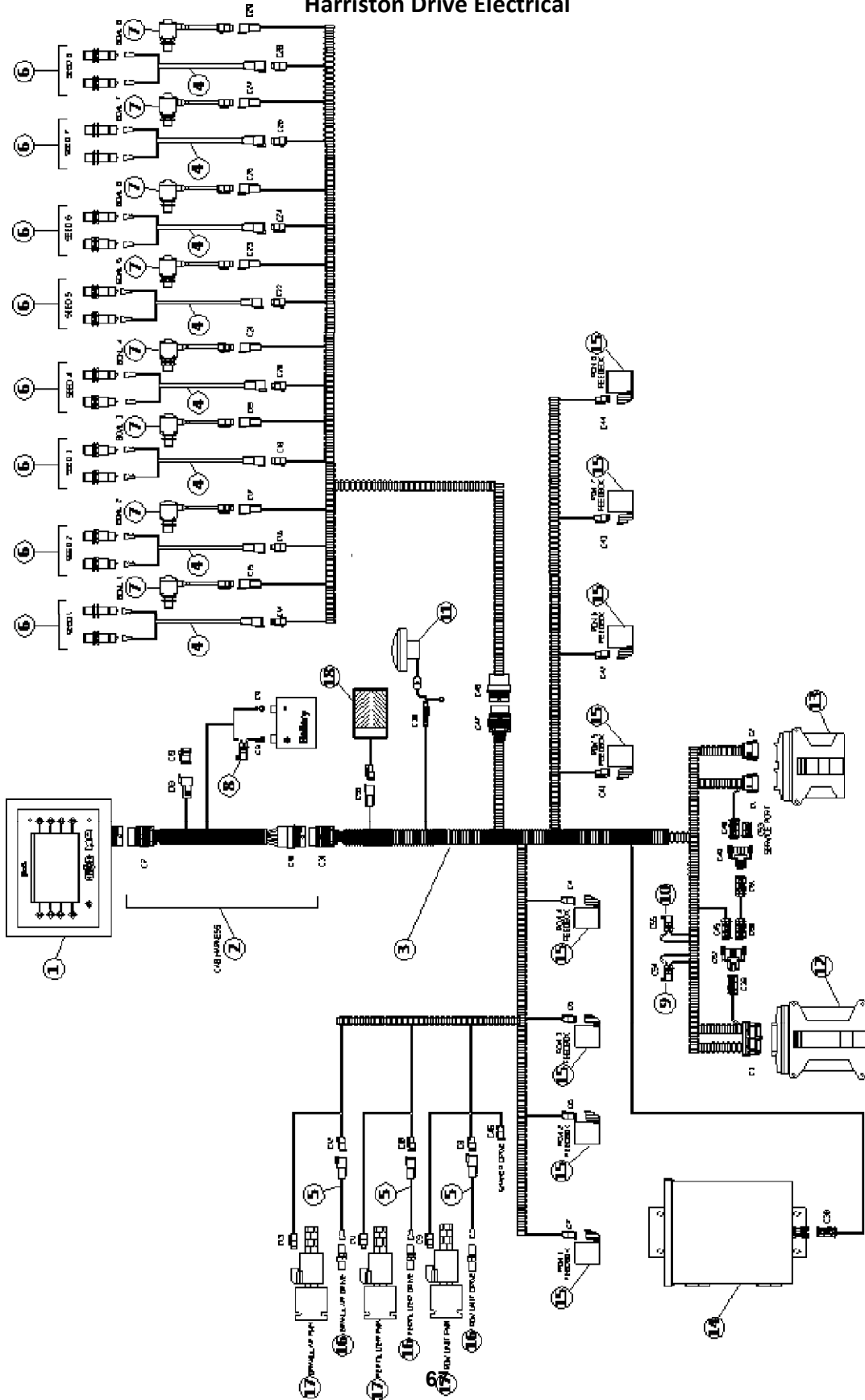
## Harriston Drive Mounting Hardware



Ref.	Part No.	Description
1	390210	Electrical Box, 12V to 24V Inverter
2	404388	Panel, Control System
3	404389	Gusset, Control System
4	404394	Mount, Control System Top
5	404387	Mount, Control System Bottom
6	97127	GPS Velocity Sensor
7	403782	Mount, GPS Velocity Sensor

Ref.	Part No.	Description
8	422302	Mount, Hydraulic Valve
9	21024	U-bolt, 3/8" x 2"x 3"
10	97233	PWM Valve, 0-4 GPM
11	97418	Flow Control Valve, 0-4 GPM
12	422304	Mount, Hydraulic Oil Filter
13	95460	Hydraulic Oil Filter
NS	400084	Wire Harness, Motor Speed Pickup

# Harriston Drive Electrical



## Harriston Drive Electrical

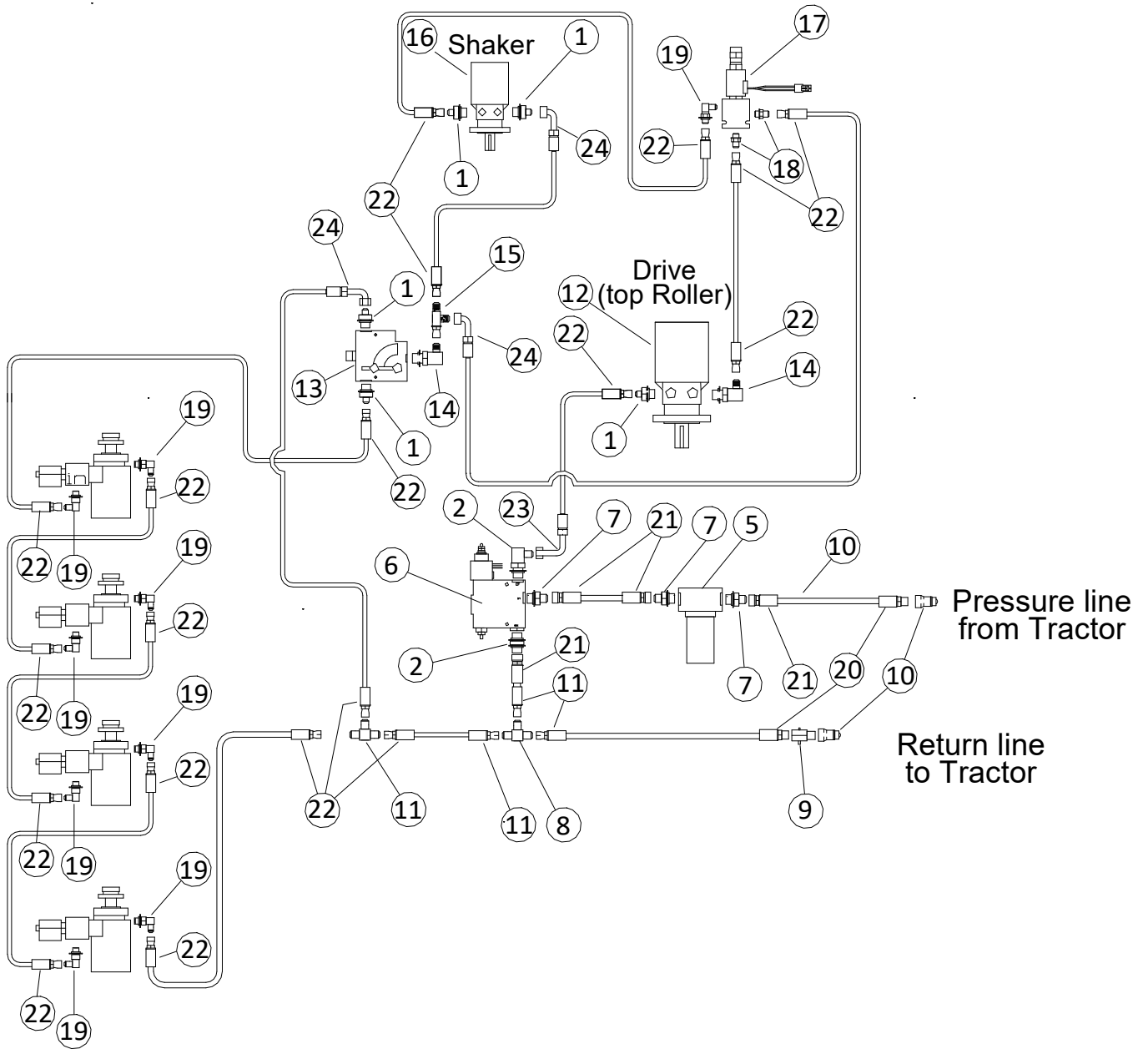
Ref.	Part No.	Description
1	97288	Display, Harriston Drive DP600
2	97294	Harness, Harriston Drive Cab
3	97284	Harness, Harriston Drive Main 4 Row
-	97290	Harness, Harriston Drive Main 6 Row
-	97291	Harness, Harriston Drive Main 8 Row
-	97310	Harness, Harriston Drive Main 10 Row
NS	97299	Harness, Harriston Drive Extension 10'
4	95445	Harness, Seed Skip Sensor
5	400084	Cable, Motor Speed Sensor
6	96322	Ultrasonic Sensor, Transmitter
-	96323	Ultrasonic Sensor, Receiver
7	400082	Sensor, Bowl Level
8	95360	Fuse, 80 A
9	97318	Fuse, 25 A

Ref.	Part No.	Description
10	97319	Fuse, 5 A
11	97127	Velocity Sensor, GPS
NS	97110	Ground Radar, Raven (Optional)
12	97293	Controller, 50 Pin
13	97292	Controller, 24 Pin
14	390210	Inverter Box, Assembly (Includes Inverter)
NS	95453	Inverter 12V to 24V, 5A
15	96254	Coil, Feedbox Motor
16	95485	Encoder, Motor Speed
17	97233	PWM Valve, 4 GPM
-	97234	PWM Valve, 8 GPM
18	95505	Foot Switch, Optional
NS	97400	Clutch Harness (With Row Shutoff Option)
NS	97399	Clutch Controller (With Row Shutoff Option)



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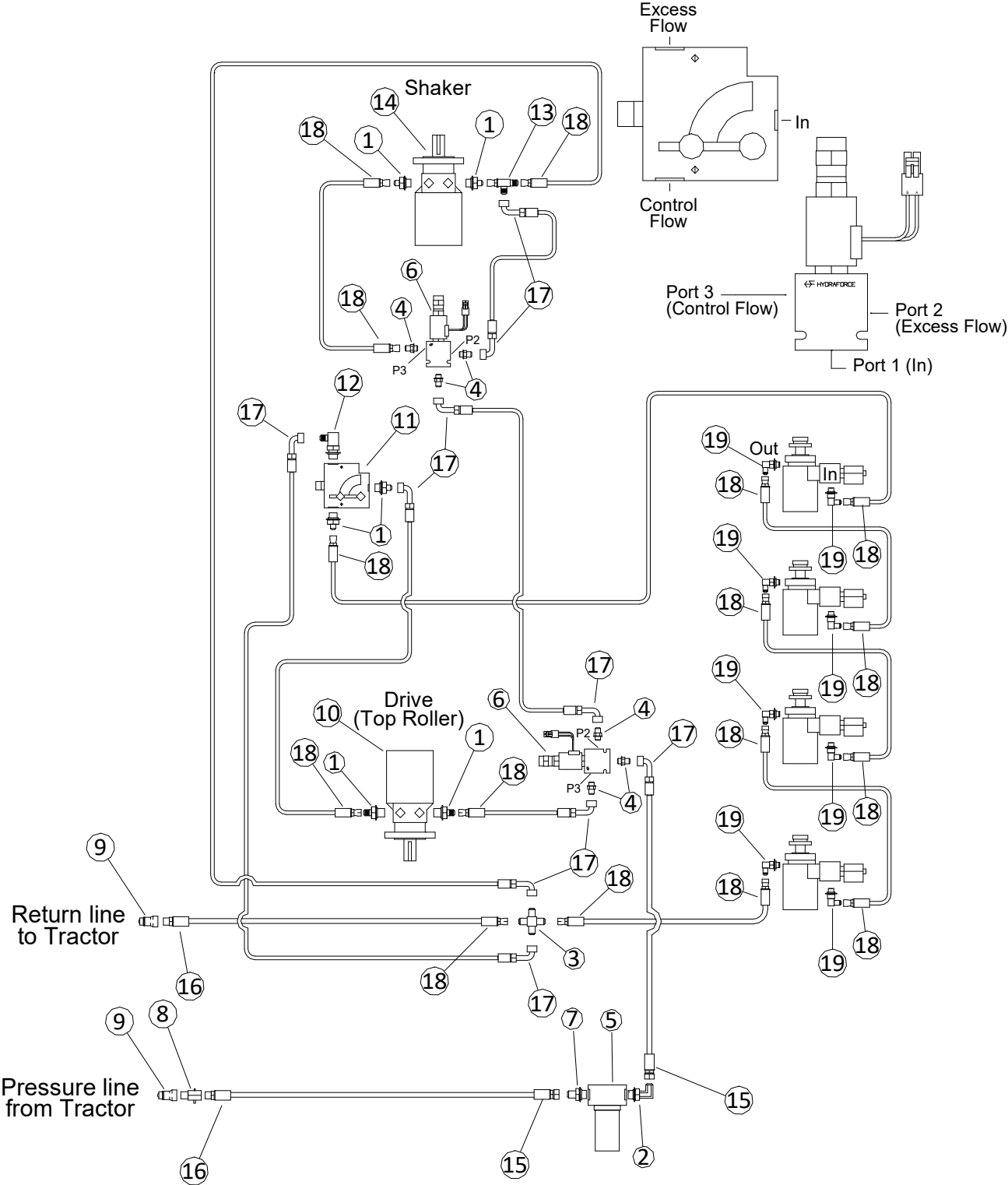
# Raven 662 Hydraulics



## #400001 - Raven 662 Hydraulics

Ref.	Part No.	Description
1	95185	#10 (7/8") ORB x #6 (9/16") JIC adapter
2	95177	#12 (1-1/6") ORB x #8 (3/4") JIC Elbow
3	96213	Adjustable ORB Union - #12 (1-16")
4	96219	Valve, Ball 1/4 Turn 3000 #12 (1-16")
5	95460	Filter, Oil (MP Filtri)
-	95461	Filter, Replacement (MP Filtri)
6	97115	Hydraulic Valve Pulse Width 10 GPM
7	96214	Connector, #8 (3/4") JIC to O-Ring #12 (1-1/16")
8	13476-00	Connector, #8 8MFJIC SW/8MJIC
9	95501	Check Valve ORB
10	96289	Pioneer 3/4" ORB 8010-15
11	95160	37° #6 (9/16") JIC Tee 2603-6-6-6
12	95344	Hydraulic Motor C/L 101-1015
13	97418	Flow Control FC-51- #10-(0-3) Brand
14	95279	#6 (9/16") x #10 (7/8") ORB Elbow
15	13451-00	Adaptor – #6 (9/16") FJIC Swivel - #6MJIC – #6MJIC Tee
16	95374	Hydraulic Motor C/1 101-1010-009
17	97233	4 GPM Hydraulic Valve
18	95158	37° JIC to ORB – 848FSO-06X06
19	95176	90° Elbow #6 (9/16) JIC x #6 (9/16) ORB
20	83070	3/8" Solid Male x #8 (3/4") ORB
21	96230	Hose End, #8 (3/4") Female Swivel 3/8 Hose
22	96072	#6 (9/16") JIC Swivel Female
23	95154	3/8 Hose #8 (3/4) JIC Female Swivel 90
24	95153	Hose End, HV06-06FJ90T-90 Swivel
NS	422302	Mount, Valve
NS	422304	Mount, Oil Filter

### Harriston Drive Hydraulics (without Fertilizer)



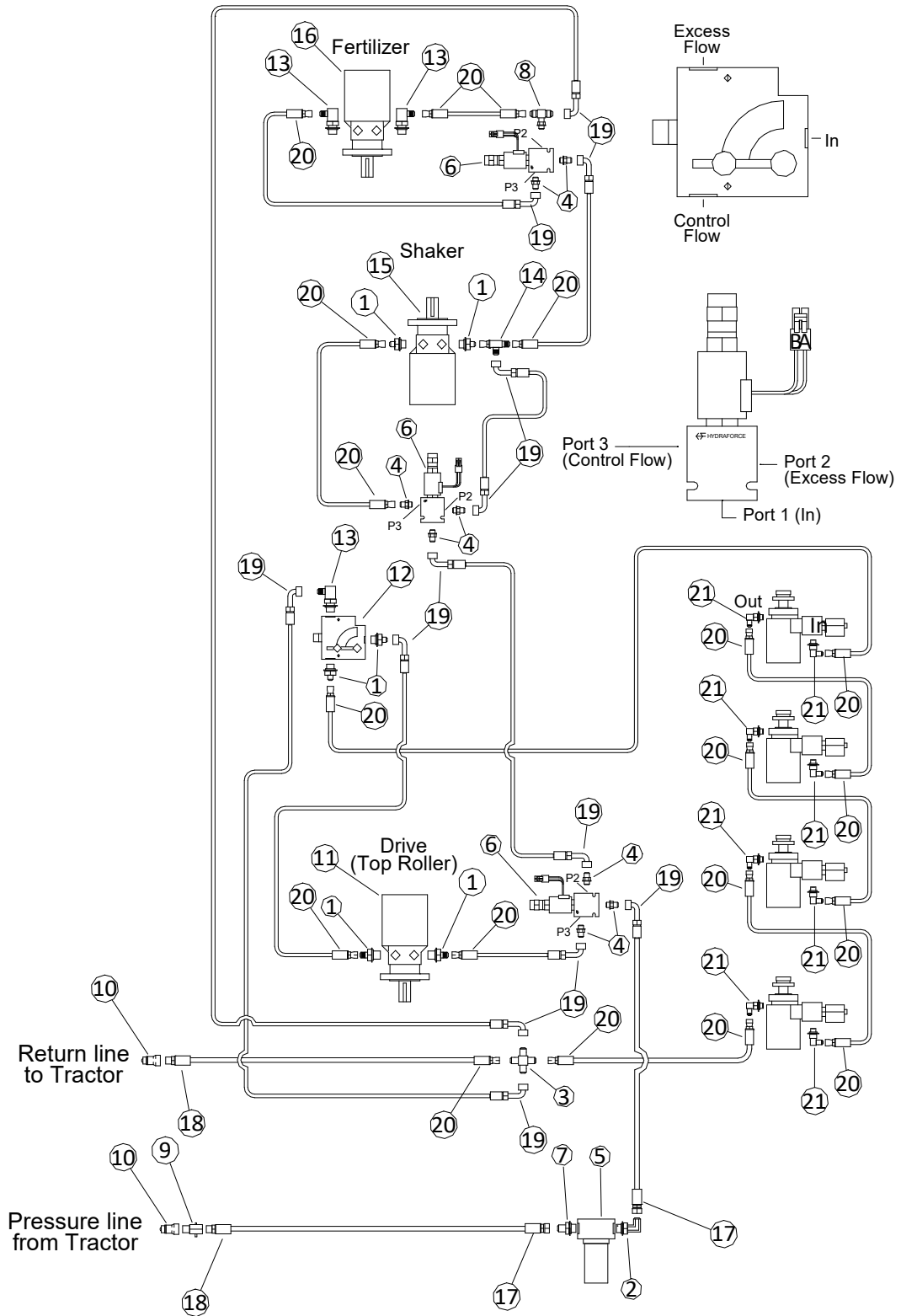


### Harriston Drive Hydraulics (without Fertilizer)

Ref.	Part No.	Description
1	95185	#10 (7/8") ORB x #6 (9/16") JIC Adapter
2	95177	1-1/16 Orb x #8 (3/4") JIC Elbow
3	95313	4 Way X-Adpt. JIC Male #6 2650-6
4	12647	Adaptor, #6 O-Ring / #6 MJIC
5	95460	Filter Oil (MP Filtri)
-	95461	Filter, Replacement (MP Filtri)
6	97233	4 GPM Hydraulic Valve
7	96214	Connector, JIC #8 to O Ring #12
8	95501	Flow Check Valve
9	95012	Universal Male Tip 1/2" Pioneer End
10	95344	Motor, Hydraulic, C/L 101-1010-009

Ref.	Part No.	Description
11	97418	Flow Control Valve
12	95279	#6 (9/16") x #10 (7/8") ORB Elbow
13	13451-00	Adaptor -6FJ Swivel -6MJ -6MJ Tee
14	95374	Hydraulic Motor C/L 101-1010-009
15	83017	Hose End, 0806 FJX
16	95006	3/8" Hose End - 1/2" MPT Solid
17	95153	Hose End, HV06-06FJ90T-90 Swivel
18	96072	#6 (9/16") JIC Swivel Female
19	95176	90° Elbow #6 (9/16") JIC x #6 (9/16") ORB
NS	422302	Mount, Valve
NS	422304	Mount, Oil Filter

### Harriston Drive Hydraulics (with Fertilizer)

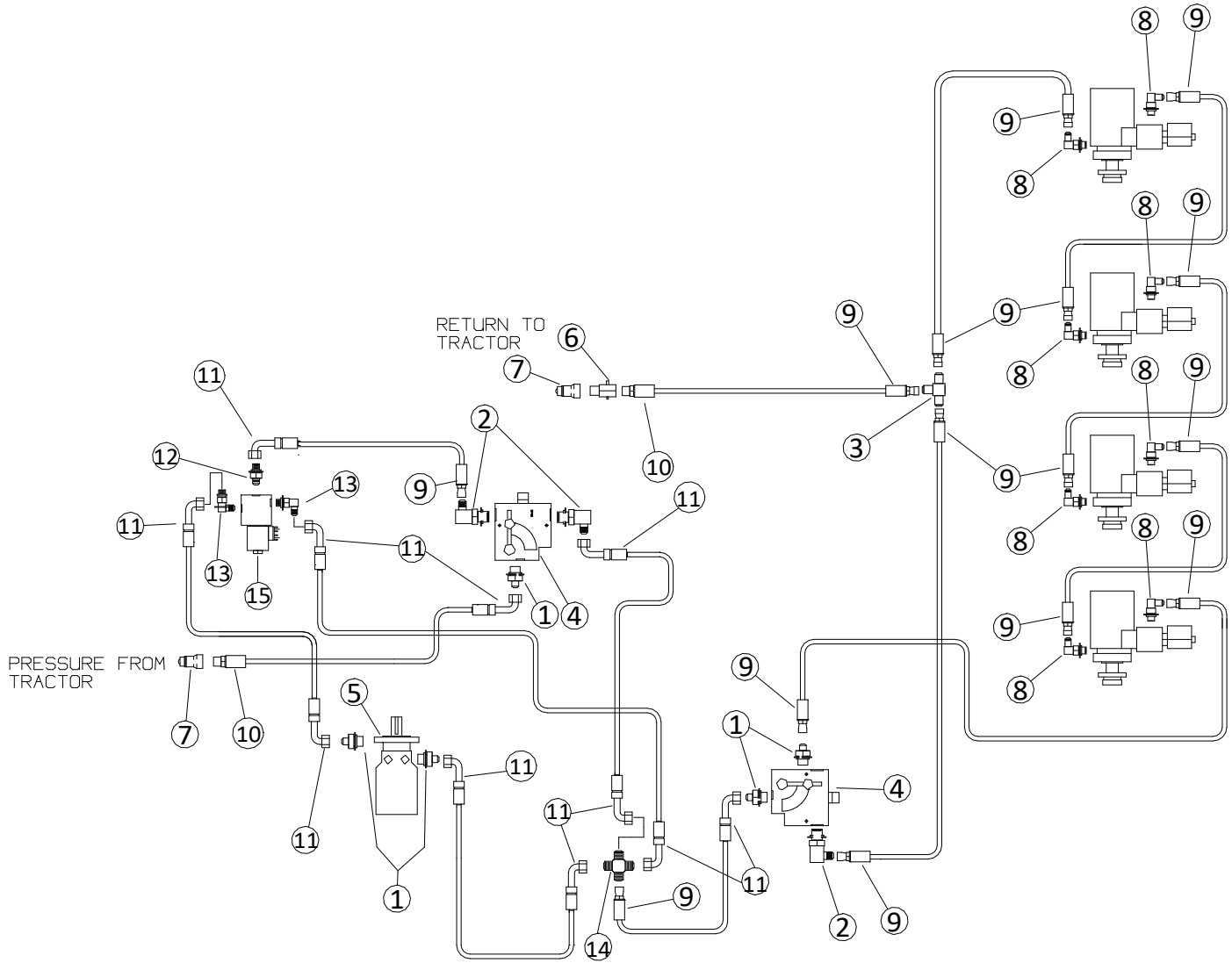


### Harriston Drive Hydraulics (with fertilizer)

Ref.	Part No.	Description
1	95185	#10 (7/8") ORB x #6 (9/16") JIC Adapt
2	95177	1-1/16 Orb x #8 (3/4") JIC Elbow
3	95313	4 Way X-Adpt. JIC Male #6 2650-6
4	12647	Adaptor, #6 O-Ring / #6 MJIC
5	95460	Filter Oil (MP Filtri)
-	95461	Filter, Replacement (MP Filtri)
6	97233	4 GPM Hydraulic Valve
7	96214	Connector, JIC #8 to O Ring #12
8	83210	Hydraulic Adaptor 845FSO-06X06
9	95501	Flow Check Valve
10	95012	Universal Male Tip 1/2" Pioneer End
11	95344	Motor, Hydraulic, C/L 101-1015-009

Ref.	Part No.	Description
12	97418	Flow Control Valve
13	95279	#6 (9/16") x #10 (7/8") ORB Elbow
14	13451-00	Adaptor -6FJ Swivel -6MJ -6MJ Tee
15	95374	Hydraulic Motor C/L 101-1010-009
16	90103	Hydraulic Motor MG06
17	96230	Hose End, #8 Female Swivel 3/8 Hose
18	95006	3/8" Hose End - 1/2" MPT Solid
19	95153	Hose End, HV06-06FJ90T-90 Swivel
20	96072	#6 (9/16") JIC Swivel Female
21	95176	90° Elbow #6 (9/16") JIC x #6 (9/16") ORB
NS	422302	Mount, Valve
NS	422304	Mount, Oil Filter

# Ground (Mechanical) Drive Hydraulics



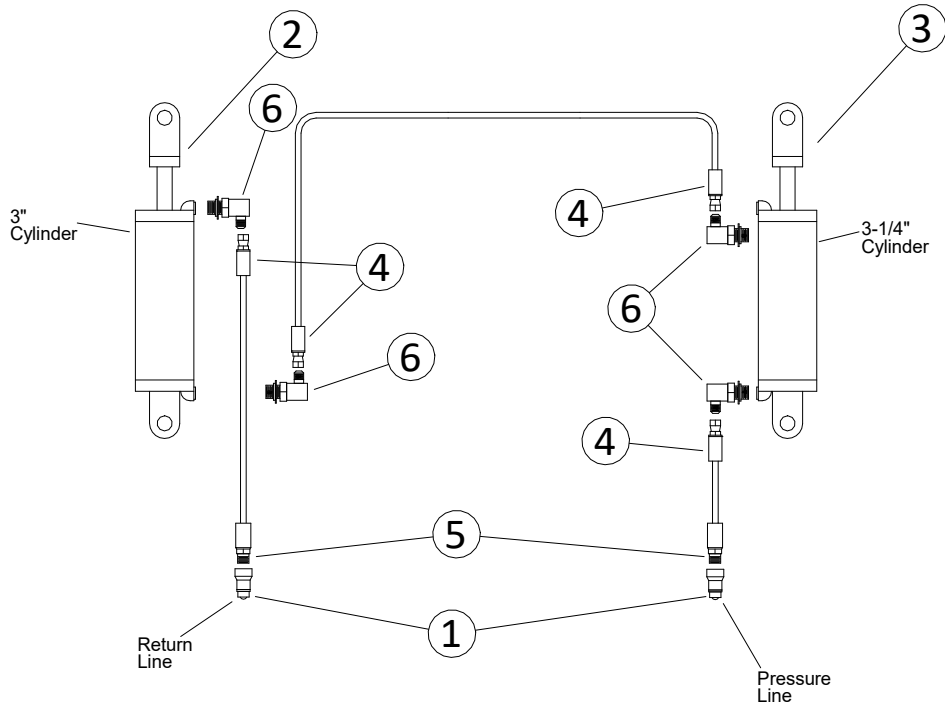
## Ground (Mechanical) Drive Hydraulics

Ref.	Part No.	Description
1	095185	#10 (7/8") ORB x #6 (9/16") JIC Adapter
2	095279	#6 (9/16") x #10 (7/8") ORB Elbow
3	095160	37° JIC #6 (9/16") Tee 2603-6-6-6
4	95223	Flow Control Valve
5	095374	Hydraulic Motor C/L 101-1010-009
6	095501	Flow Check Valve
7	095012	Universal Male Tip 1/2" Pioneer End
8	095176	90° Elbow #6 (9/16") JIC x #6 (9/16") ORB

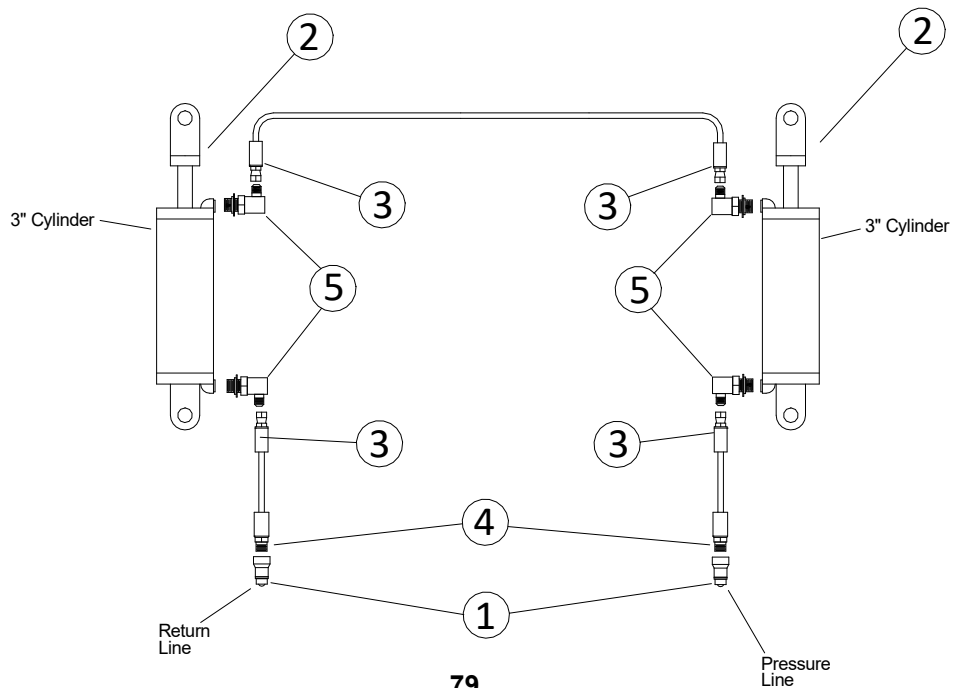
Ref.	Part No.	Description
9	096072	#6 (9/16") JIC Swivel Female
10	095157	3/8 Hose End 1/2 NPTF Male Swivel
11	095153	Hose End, HV06-06FJ90T-90 Swivel
12	095158	37° JIC to ORB
13	095176	#6 (9/16") JIC x #6 (9/16") ORB
14	095312	4-way cross JIC #8
15	096212	3-way valve w/ electric solenoid

**Rear Steer Hydraulics**  
 (Not Plumbed at Factory Due to Individual GPS System Requirements)

**6 & 8 Row Rear Steer Hydraulics**



**4 Row Rear Steer Hydraulics**



**Rear Steer Hydraulics**  
**(Not Plumbed at Factory Due to Individual GPS System Requirements)**

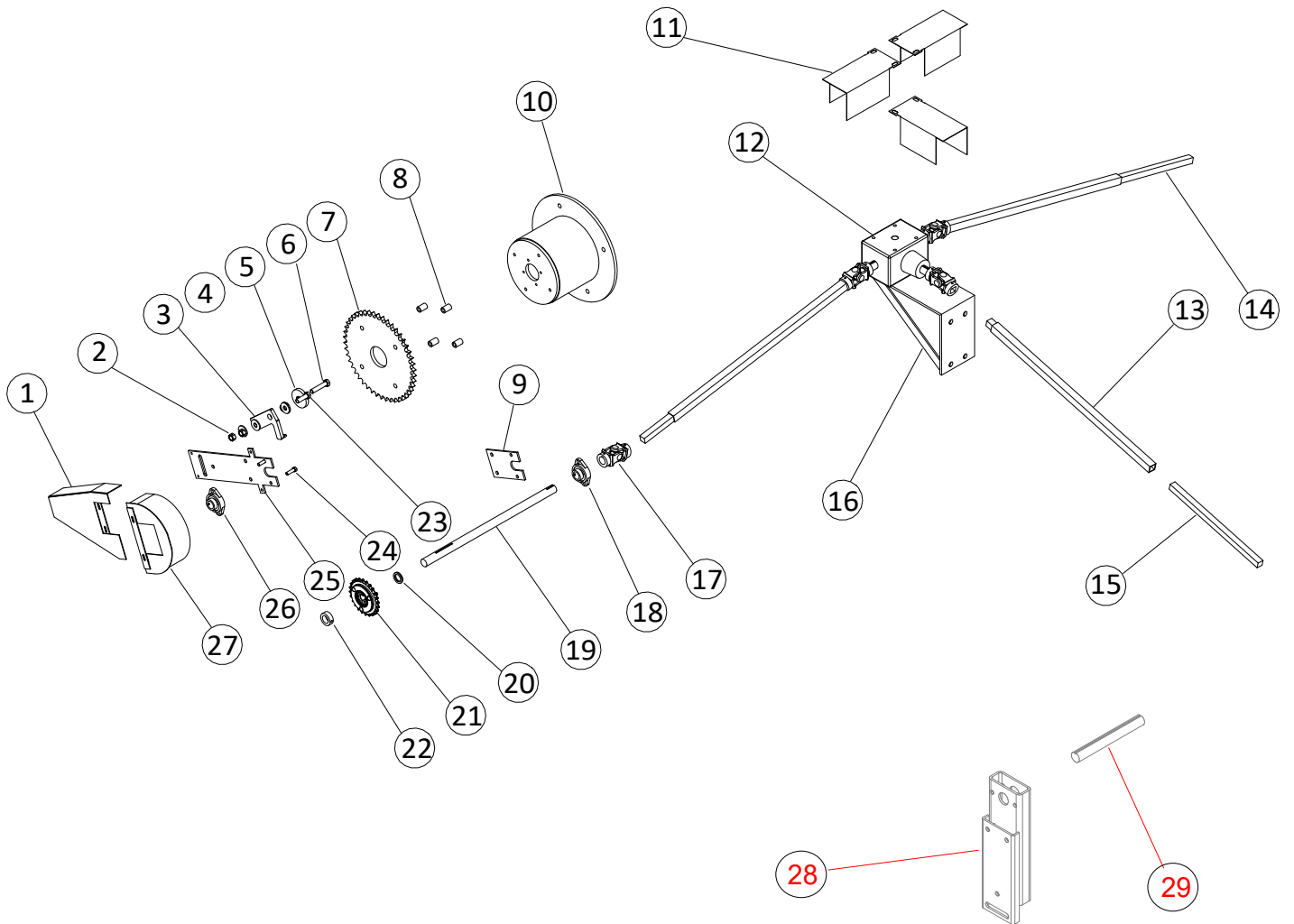
**6 & 8 Row Rear Steer Hydraulics**

<b>Ref.</b>	<b>Part No.</b>	<b>Description</b>
<b>1</b>	<b>96289</b>	<b>Universal Male Tip ½" Pioneer End</b>
<b>2</b>	<b>95447</b>	<b>Hydraulic Cylinder, 3x8 Single Rephasing</b>
<b>3</b>	<b>95448</b>	<b>Hydraulic Cylinder, 3-1/4x8 Single Rephasing</b>
<b>4</b>	<b>95275</b>	<b>Hose End, -10 to -8 Straight Female</b>
<b>5</b>	<b>95277</b>	<b>Hose End, -8 to -8 Straight Female</b>
<b>6</b>	<b>96288</b>	<b>½" Orb x 5/8 JIC Elbow</b>

**4 Row Rear Steer Hydraulics**

<b>Ref.</b>	<b>Part No.</b>	<b>Description</b>
<b>1</b>	<b>96289</b>	<b>Universal Male Tip ½" Pioneer End</b>
<b>2</b>	<b>95380</b>	<b>Hydraulic Cylinder, 3x8 Dual Rephasing</b>
<b>3</b>	<b>95275</b>	<b>Hose End, -10 to -8 Straight Female</b>
<b>4</b>	<b>95277</b>	<b>Hose End, -8 to -8 Straight Female</b>
<b>5</b>	<b>96288</b>	<b>½" Orb x 5/8 JIC Elbow</b>

## Rear Ground Drive Components



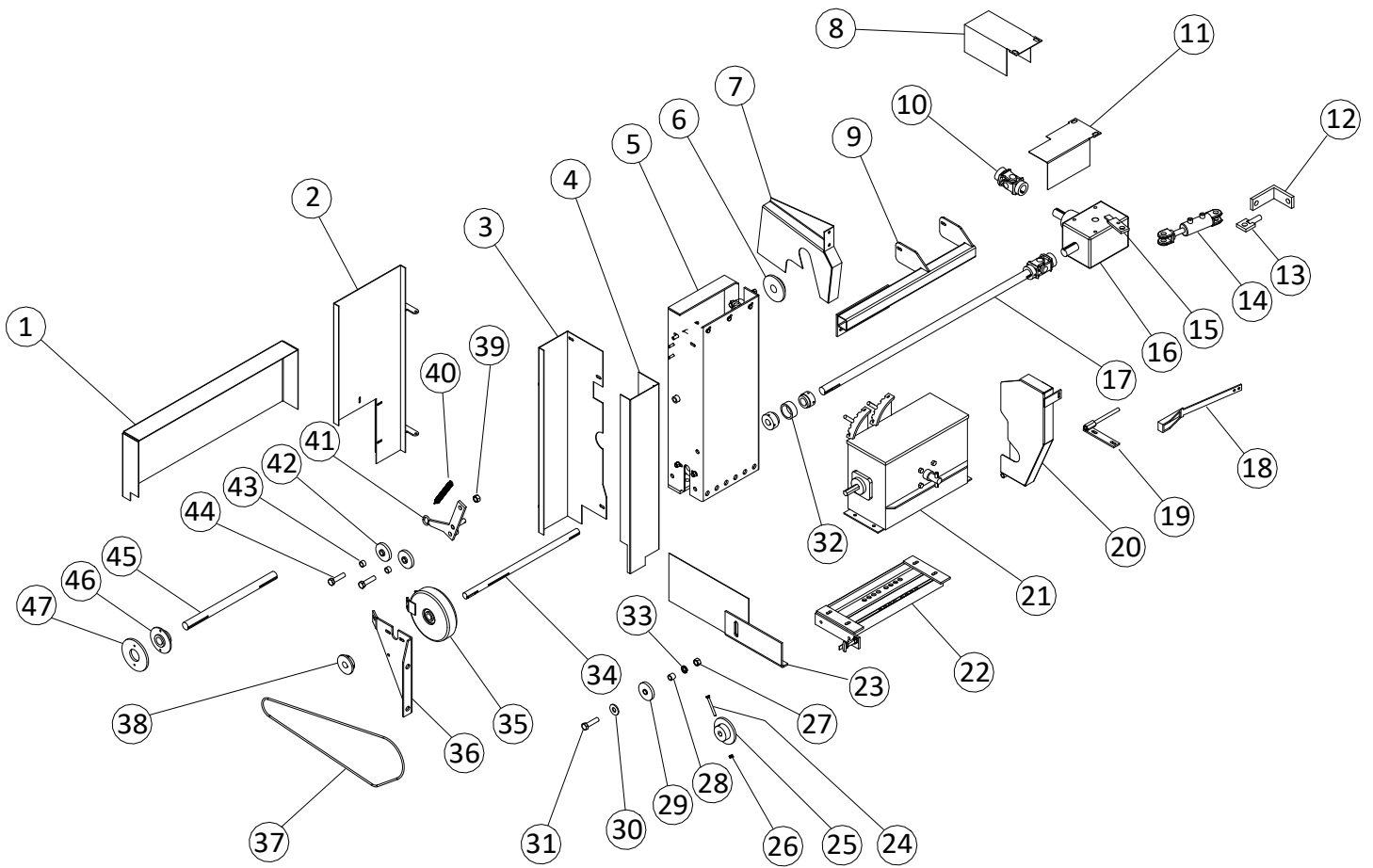


**Rear Ground Drive Components (Pole Type)**  
**#401305 4 Row / #401304 6 Row / #401306 8 Row**

Ref.	Part No.	Description
1	401450	Chain Guard Weldment (Right)
-	401455	Chain Guard Weldment (Left)
2	20427	Centerlock Nut, 5/8"
3	359005	Chain Tensioner (Right)
-	359006	Chain Tensioner (Left)
4	359004	Spacer, Chain Idler
5	96023	Idler Sprocket, 6011 x 5/8"
6	20067	Bolt, 5/8" x 3"
7	97409	Sprocket, 6048
8	358948	Spacer, 1-1/2"
9	401399	Wheel Yoke Bearing Mount Short
10	401500	Hub Weldment
11	403715	Shield - Gearbox
12	97425	Gearbox - R400 3-Way Shaft -9DXF
13	401360	Outer Shaft- Rear
14	401356	Inner Shaft- Rear

Ref.	Part No.	Description
15	401419	Inner Shaft- Center
16	401325	Gearbox Mount- Rear
17	401355	U-Joint Assembly
18	94091	Bearing, 1-1/4"
19	358947	Shaft - Wheel Yoke Cross
20	21331	Bushing - 1-1/4" Narrow 10 Ga
21	401510	Clutch Assy w/ Harriston 6024 Weld-a-sprocket
22	90057	Set Collar- 1-1/4"
23	20065	Bolt, 5/8" x 2"
24	20041	Bolt, 7/16" x 1-1/2"
25	401311	Wheel Yoke Bearing Mount Long
26	94091	Bearing, 1-1/4"
27	401460	Shield- Rear Wheel Upper Chain
28	401345	Wheel Yoke Bearing Mount Weldment (6 & 8 Row)
29	401337	Rear Jackshaft (6 & 8 Row)

# Rear Ground Drive Components (Pole Type)

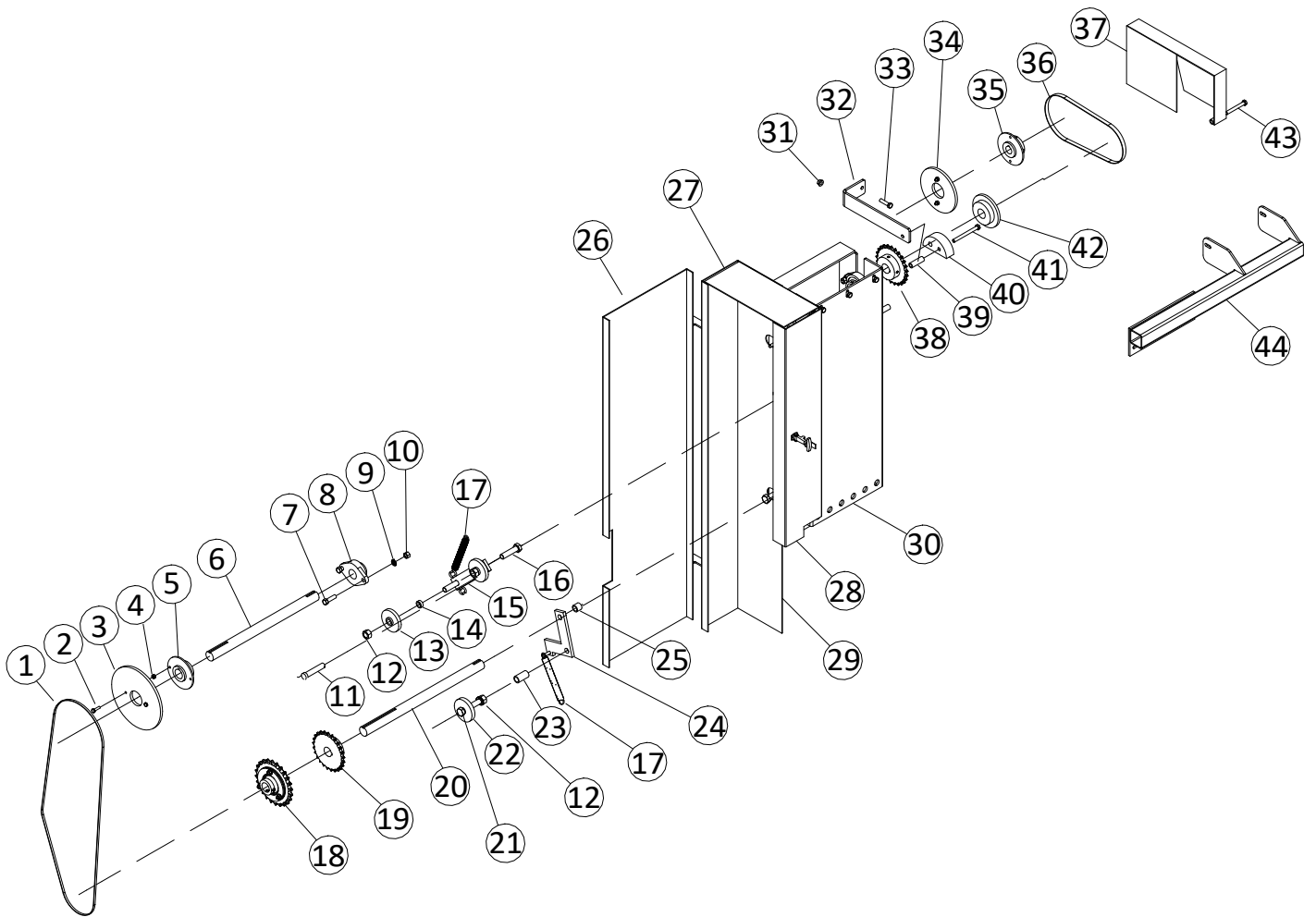


**Rear Ground Drive Components Cont.**  
**#401305 4 Row / #401304 6 Row / #401306 8 Row**

Ref.	Part No.	Description
1	403725	Shield- Gearbox Chain
2	403720	Shield Tower Door (Left)
3	403715	Shield- Right Rear
4	403700	Shield- Left Front
5	403640	Jackshaft Weldment (Right)
6	81163	Sprocket – 5020 x 1-1/4"
7	403730	Shield – Upper Chain
8	401449	Shield - Gearbox
9	403770	Tower Brace (Right)
10	401355	U-Joint Assembly
11	401448	Shield - Gearbox
12	403682	Cylinder Mount
13	403685	Adjusting Flat Weldment
14	95366	Hydraulic Cylinder – 1-1/8" Stroke
15	403680	Gearbox Engagement Arm
16	97426	R400 2-Way (Shifter) – 9DXE
17	403679	Shaft Front
18	97085	Gearbox Lever
19	403750	Fertilizer Shield Mount
20	403755	Fertilizer Drive Shield
21	97085	Gearbox, Great Plains
22	402240	Gearbox Mount Weldment
23	403745	Fertilizer Idler Mount Shield
24	20020	Bolt, 5/16" x 3"

Ref.	Part No.	Description
25	401390	Sprocket – 5020 w/ Hex Bore
26	20422	Centerlock Nut, 5/16"
27	20406	Nut, 5/8"
28	402305	Idler Spacer – 3/4" Long
29	81219	Idler Sprocket, 5013 x 5/8"
30	20536	Washer, 5/8Flat
31	20066	Bolt, 5/8" x 2-1/2"
32	800385	Coupler Weldment
33	20506	Lock Washer, 5/8"
34	403677	Shaft, Clutch
35	95370	Clutch- Electric Ground Drive
36	403661	Bearing Mount
37	402204	Fertilizer Drive Chain Long
38	96042	Sprocket- 4018 x 1" Finished Bore
39	20406	Nut, 5/8"
40	96007	Spring
41	403655	Idler Weldment
42	96022	Idler Sprocket
43	359002	Bushing- Tensioner
44	20066	Bolt, 5/8" x 2-1/2"
45	403676	Top Shaft
46	353905	Hub w/ Washer
47	401398	Sprocket- 5025 Drilled

## Front Ground Drive Components

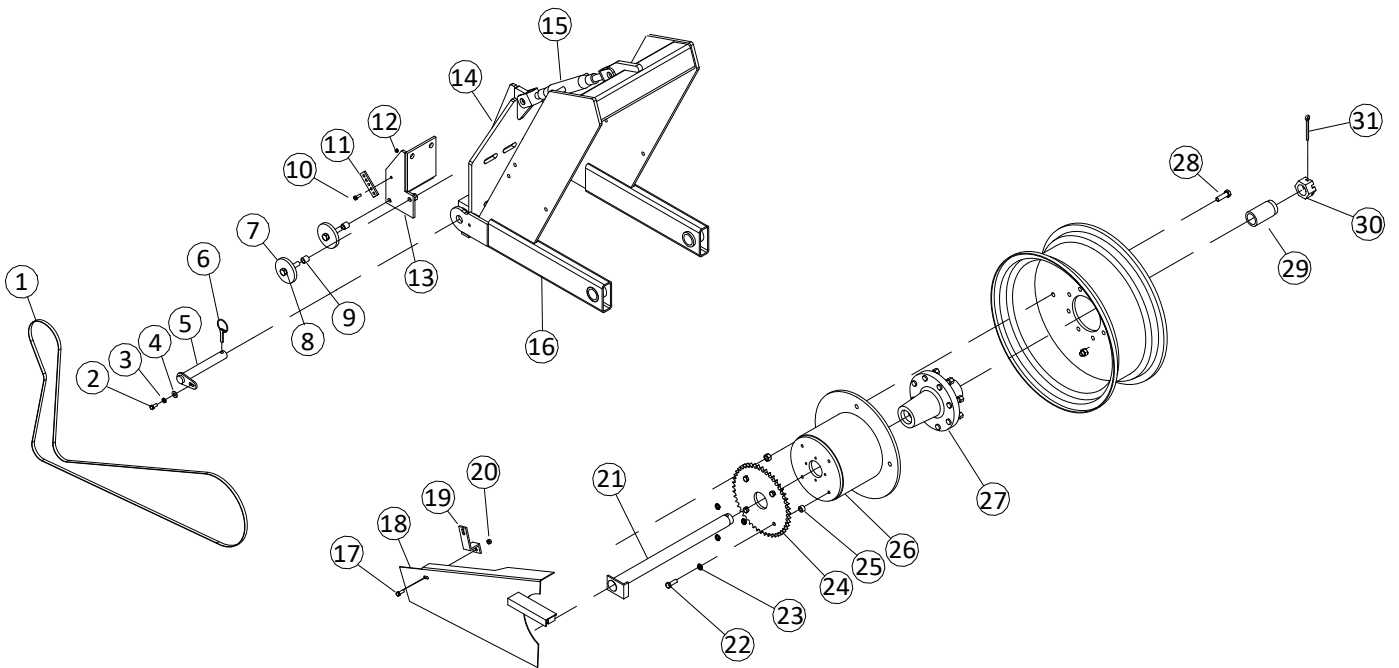


**Front Ground Drive Components**  
**#401900 – 4 Row Front Ground Drive**  
**#401916 – 6 Row Front Ground Drive**  
**#401918 – 8 Row Front Ground Drive**

Ref.	Part No.	Description
1	403429	Intermediate Chain
2	20002	Bolt, 1/4" x 1"
3	401930	Sprocket, 5040 Drilled
4	20400	Nut, 1/4"
5	353905	Hub w/ Washer
6	403413	Top Shaft
7	20041	Bolt, 7/16" x 1-1/2"
8	94091	Flange Bearing, 1-1/4"
9	20503	Lock Washer, 7/16"
10	20403	Nut, 7/16"
11	20896	Clevis Pin, 5/8" x 3"
12	20406	Nut, 5/8"
13	96022	Idler Sprocket, 5015 x 5/8"
14	403433	Idler Spacer 5/16"
15	403415	Upper Idler Weldment
16	20066	Bolt, 5/8" x 2-1/2"
17	96007	Idler Spring
18	401510	Clutch Assembly w/ 6024 Sprocket
19	81231	Sprocket, 5025 x 1-1/4"
20	403419	Bottom Shaft
21	20068	Bolt, 5/8" x 3-1/2"
22	96023	Idler Sprocket, 6011 x 5/8"
23	403438	Idler Spacer, 1-3/16"
24	403590	Lower Idler Weldment, RH
-	403585	Lower Idler Weldment, LH
25	403444	Idler Spacer

Ref.	Part No.	Description
26	403550	Outer Shield Weldment, RH
-	403445	Outer Shield Weldment, LH
27	403449	Top Shield
28	403530	Front Inner Shield, RH
-	403441	Front Inner Shield, LH
29	403540	Rear Inner Shield Weldment, RH
-	403440	Rear Inner Shield Weldment, LH
30	403510	Jackshaft Housing Weldment, RH
-	403410	Jackshaft Housing Weldment, LH
31	20471	Flange Nut, 3/8"
32	81231	Sprocket, 5025 x 1-1/4"
33	20030	Bolt, 3/8" x 1"
34	401936	Sprocket, 5028 Drilled
35	401410	Hub W/ Washer 1" Bore
36	403430	Top Chain
37	403560	Top Shield, RH
-	403450	Top Shield, LH
38	81231	Sprocket, 5025 x 1/1/4"
39	403542	Top Spacer
40	365257	Plastic Tightener
41	20034	Bolt, 3/8" x 4"
42	81163	Sprocket, 5020 x 1-1/4"
43	20033	Bolt, 3/8" x 3"
44	403770	Tower Brace Weldment, RH
-	403760	Tower Brace Weldment, LH

## Front Ground Drive Components (Cont.)



**Front Ground Drive Components (Cont.)**

**#401900 – 4 Row Front Ground Drive**

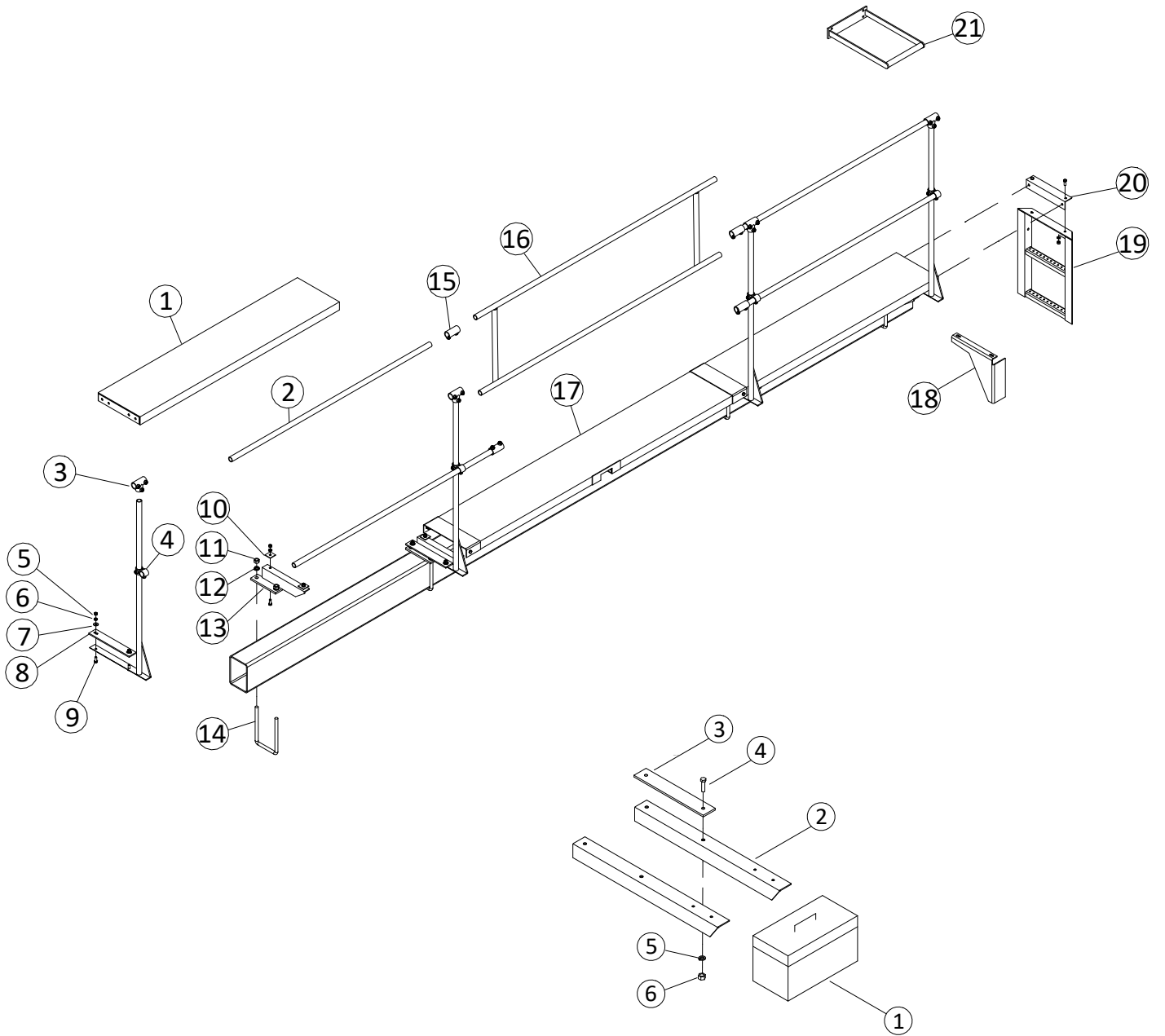
**#401916 – 6 Row Front Ground Drive**

**#401918 – 8 Row Front Ground Drive**

Ref.	Part No.	Description
1	403428	Wheel Chain
2	20111	Bolt, 3/8 x 7/8"
3	20502	Lock Washer, 3/8"
4	20513	Flat Washer, 3/8"
5	365367	18" Lower Step Weldment
6	95032	Lynch Pin, , 7/16"
7	96024	Idler Sprocket, 6015 5/8"
8	20067	Bolt, 5/8 x 3"
9	403437	Idler Spacer, 7/8"
10	20016	Bolt, 5/16 x 1"
11	403426	Spring Mount
12	20400	Nut, 1/4"
13	403520	Lower Idler Weldment, RH
-	403420	Lower Idler Weldment, LH
14	401975	Lift Plate Center Holes
15	21202	Turnbuckle w/ Yoke
16	352770	Rear Wheel Lift Weldment, Large

Ref.	Part No.	Description
17	20029	Bolt, 3/8 x 1"
18	403580	Wheel Shield, RH
-	403575	Wheel Shield, LH
19	403574	Shield Mount Flat
20	20402	Nut, 5/8"
21	352775	Spindle Weldment, 1-3/4"
22	20052	Bolt, 1/2 x 1-1/2
23	20504	Lock Washer, 1/2"
24	401504	6048 Sprocket w/ Holes
25	350660	Cam Mount Spacer, 1/2"
26	401500	Hub Weldment
27	352761	Large Wheel Hub
28	20065	Bolt, 5/8 x 2"
29	352784	Spindle Spacer, Large Wheel
30	20463	Slotted Nut, 1-3/4 NF
31	20831	Cotter Pin, 3/8 x 3"

# Front Seed Tank Platform with Removable Center Handrail (For Folding Hitch)





**Front Seed Tank Platform with Removable Center Handrail  
(For Folding Hitch)**

**#401185 Platform Package 4 Row**

**#401200 Platform Package 6 Row**

**#401215 Platform Package 8 Row**

Ref.	Part No.	Description
1	355740*	Morten Channel w/ Endcap (4R)
-	355741*	Morten Channel w/ Endcap (6R)
-	355742*	Morten Channel w/ Endcap (8R)
2	355705*	Handrail Pipe
3	96407	Handrail Connector, Tee
4	96408	Handrail Connector, Offset Cross
5	20402	Nut, 3/8"
6	20502	Lock Washer, 3/8"
7	20513	Washer, 3/8 Flat
8	353325	Platform Strap
9	20029	Bolt, 3/8" x 1
10	353040	Platform Mount Tab

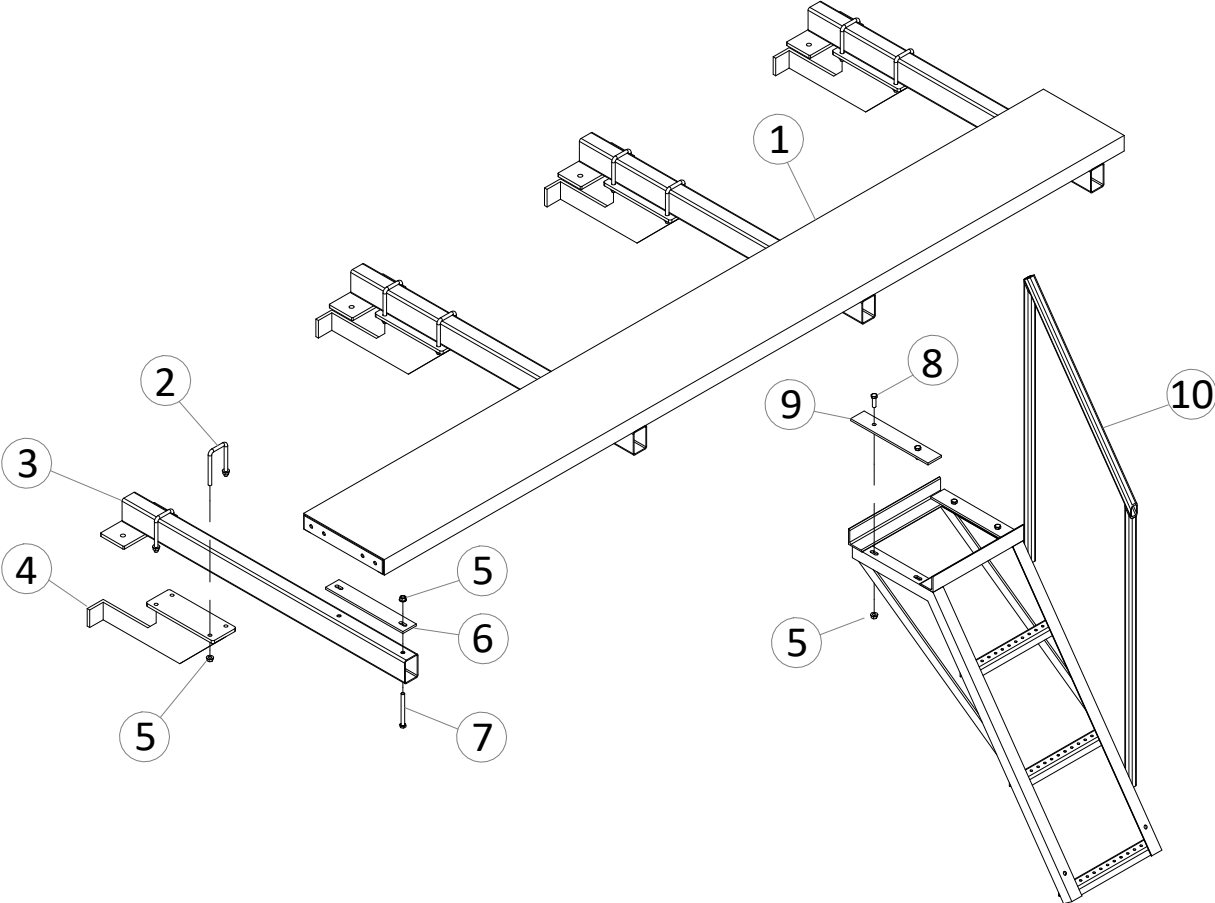
Ref.	Part No.	Description
11	20406	Nut, 5/8"
12	20506	Lock Washer, 5/8"
13	400430	Platform Mount, Cup
14	21012	U-Bolt 5/8" x 5" x 8-1/2"
15	96406	Handrail Connector, Straight
16	401205	Center Handrail Weldment
17	401220	Center Mort. Channel Weldment
18	401235	Ladder Support
19	400445	Side Ladder Weldment
20	368765	Platform Angle
21	401230	Handle Weldment

\*Specify length when ordering

**Tool Box Mounting Hardware**

Ref.	Part No.	Description
1	400080	Toolbox Package for Cup Planter
2	350051	Tool Box Mount
3	353325	Platform Strap
4	020029	Bolt, 3/8" X 1" NC GR 5
5	020502	Washer, 3/8" Lock
6	020402	3/8" NC Nut

Rear Seed Tank Platform

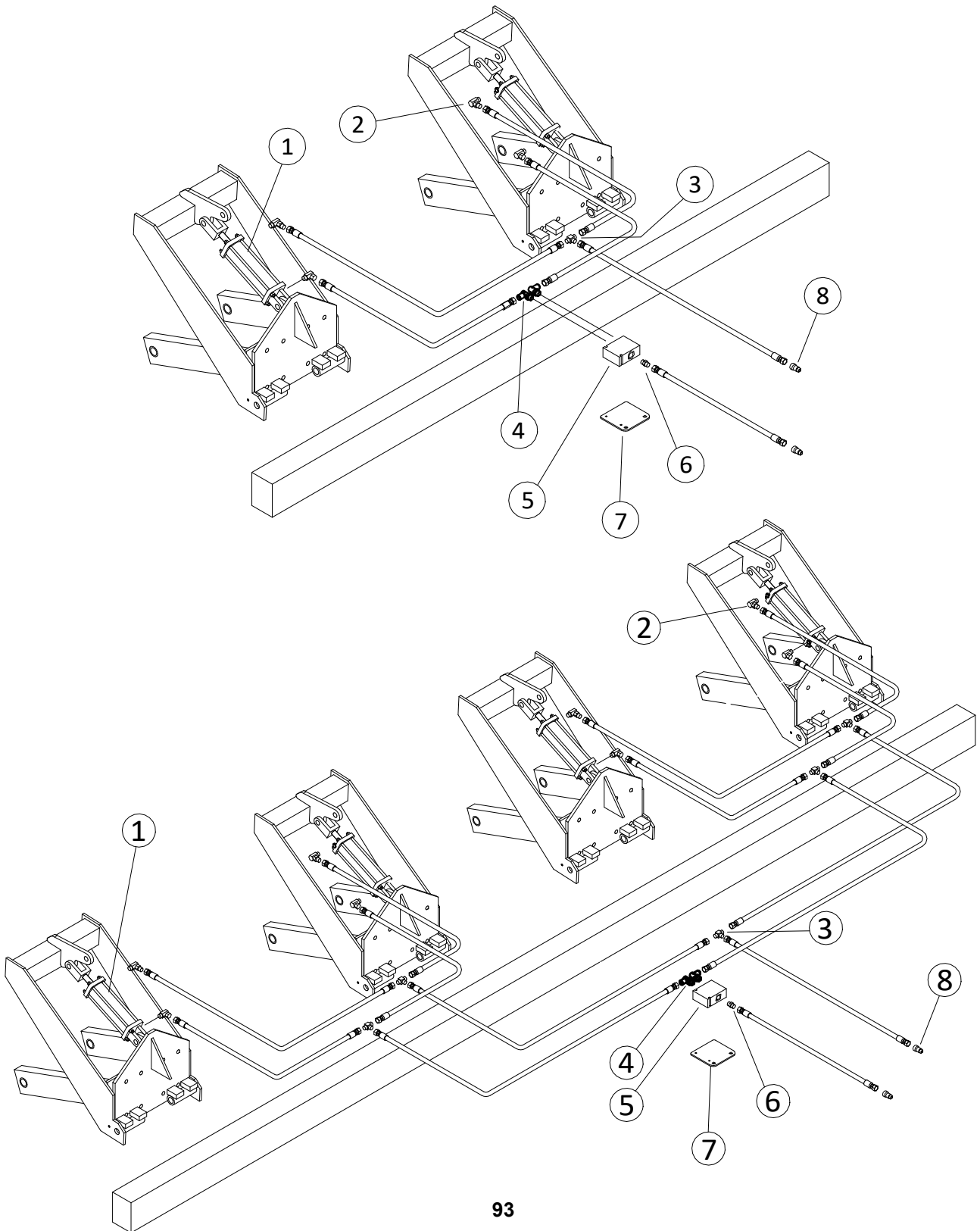


## Rear Seed Tank Platform

Ref.	Part No.	Description
1	355743*	Morten Channel w/ Endcaps 4r
-	355744*	Morten Channel w/ Endcaps 6&8R
2	21025	U-Bolt, 3/8 x 2 x 4"
3	400523	Rear Platform Mount
4	400524	Platform Gusset
5	20471	Flange Nut, 3/8"
6	353325	Platform Strap
7	20034	Bolt, 3/8 x 4"
8	20120	Bolt, 3/8 x 1-1/4"
9	356810	Ladder Hold-Down Strap
10	356850	Ladder Weldment

\*Specify length when ordering

# Rear Lift Hydraulic System



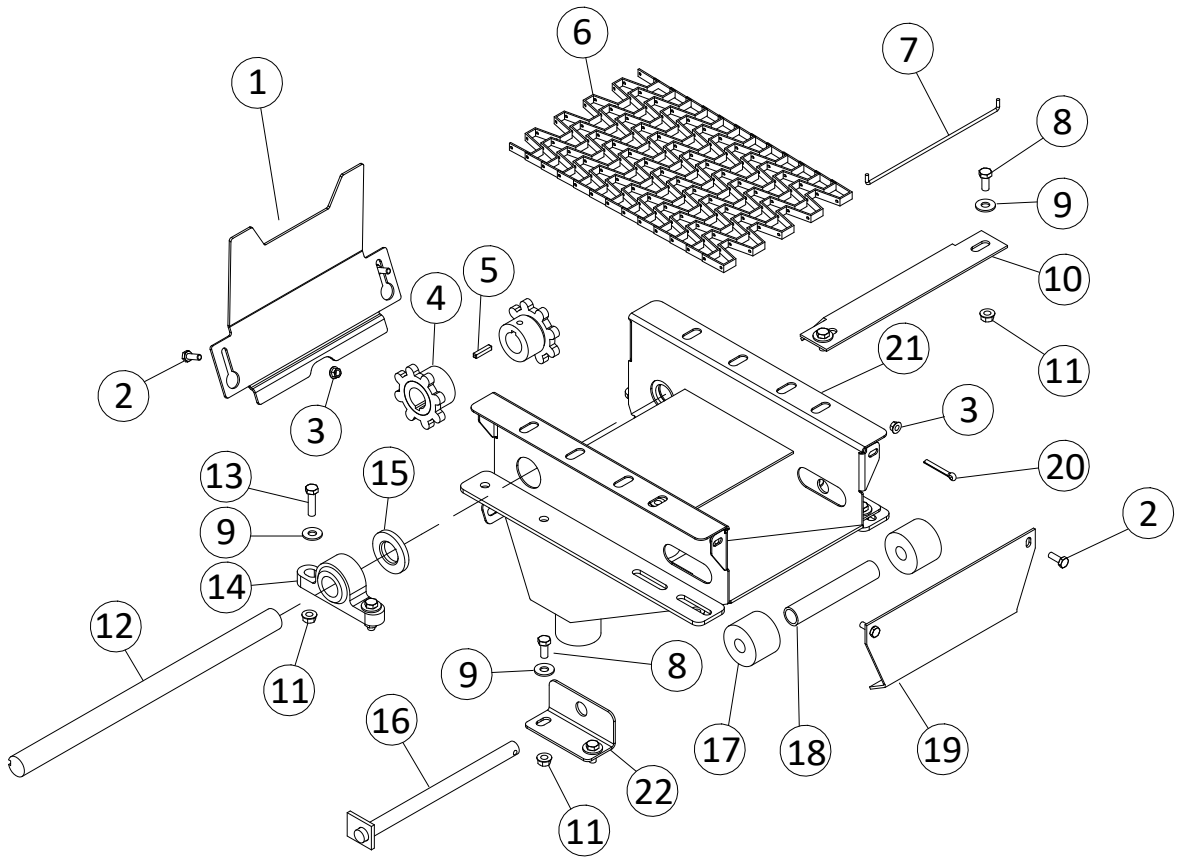
### Rear Lift Hydraulic System-4-5 Row

Ref.	Part No.	Description
1	95142	Hydraulic Cylinder, 4"x8" w/ Stop 3000 psi
2	96288	5/8" Male JIC x 1/2 Male O-Ring Boss Elbow
3	95276	Tee, 5/8" Male JIC x 5/8" Male JIC x 5/8" Male JIC
4	95273	5/8" JIC Male x #10 O-Ring Boss Elbow
5	96287	Flow Divider, Hydraulic
6	95314	5/8" JIC Male x #12 O-Ring Boss Male
7	404358	Mount, Flow Divider
NS	96702	Grip, Yellow Hydraulic Hose Pressure
NS	96703	Grip, Yellow Hydraulic Hose Return

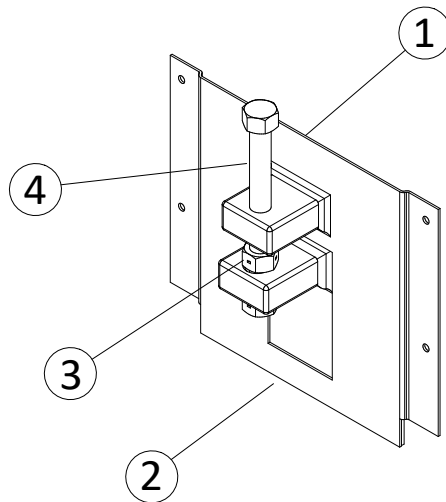
### Rear Lift Hydraulic System-6-8 Row

Ref.	Part No.	Description
1	95142	Hydraulic Cylinder, 4"x8" w/ Stop 3000 psi
2	96288	5/8" Male JIC x 1/2 Male O-Ring Boss Elbow
3	95276	Tee, 5/8" Male JIC x 5/8" Male JIC x 5/8" Male JIC
4	95273	5/8" JIC Male x #10 O-Ring Boss Elbow
5	96287	Flow Divider, Hydraulic
6	95314	5/8" JIC Male x #12 O-Ring Boss Male
7	404358	Mount, Flow Divider
NS	96702	Grip, Yellow Hydraulic Hose Pressure
NS	96703	Grip, Yellow Hydraulic Hose Return

## Fertilizer Feedbox Assembly



## Fertilizer Adjustment Door Assembly



**Fertilizer Feedbox Assembly  
#402475**

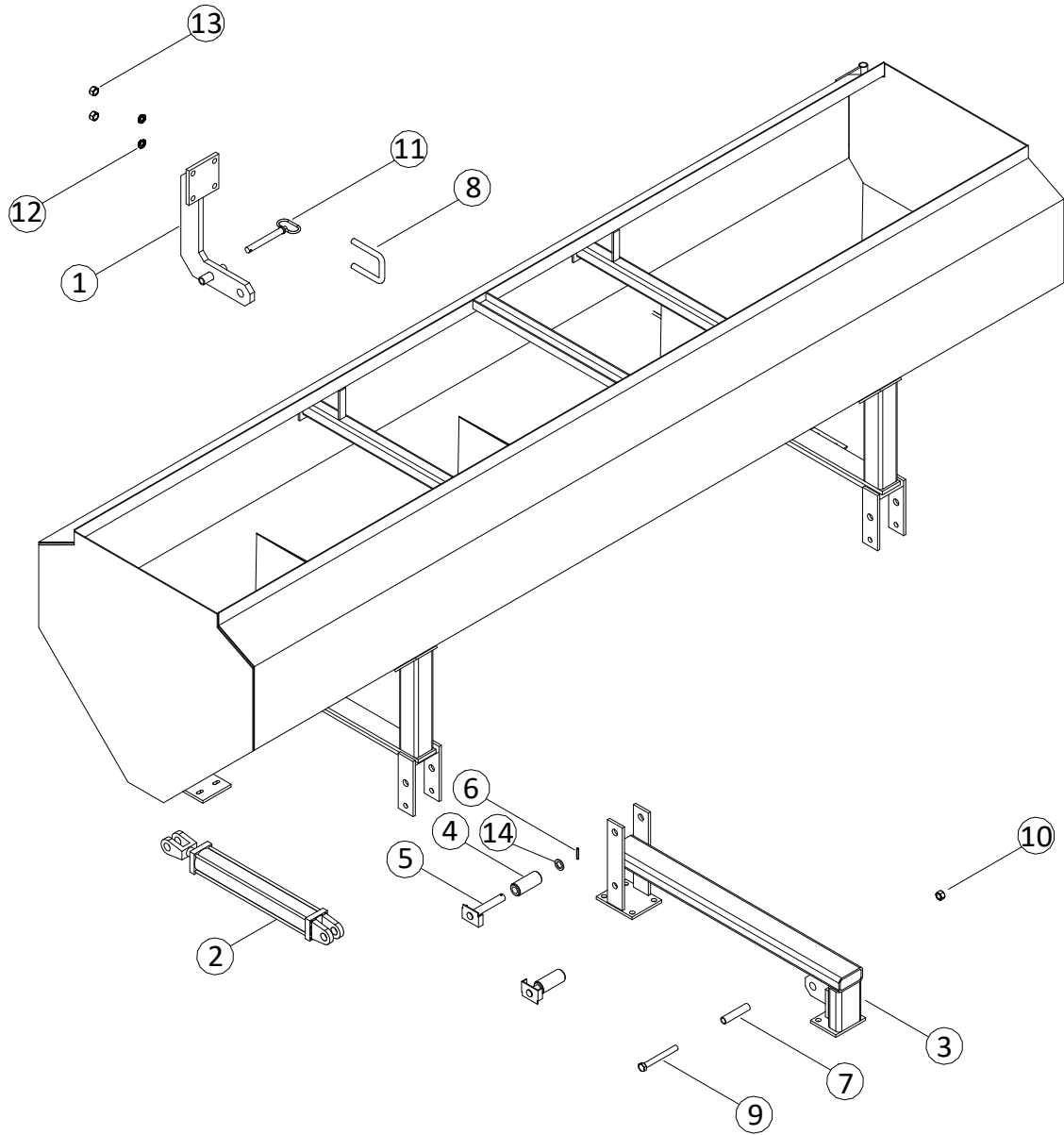
Ref.	Part No.	Description
1	402192	Removable Feedbox Cover
2	20001	Bolt, 1/4" x 3/4"
3	20475	Flange Nut, 1/4"
4	402470	Drive Sprocket, 1" Hub
5	402111	Key, 3/16" x 1"
6	402128	Fertilizer Feedbox Chain
7	97079	Lacing Rod
8	20015	Bolt, 5/16" x 3/4"
9	20512	Washer, 5/16"
10	402162	Rear Deflector
11	20479	Flange Nut, 5/16"

Ref.	Part No.	Description
12	402464	Front Shaft, 1"
13	20027	Bolt, 5/16" x 1-1/4"
14	97625	Igus Bearing, Fertilizer Feedbox 1"
15	402467	2" Roller Washer, UHMW
16	368895	Rear Roller Pin
17	402123	2" Roller, UHMW
18	368898	Rear Spacer Pipe
19	402161	Removable Rear Plate
20	20826	Cotter Pin, 3/16" x 1/2"
21	402465	Feedbox Weldment (1" Bearings)
22	402463	Rear Roller Mount (1")

**Fertilizer Adjustment Door Assembly  
#422315**

Ref.	Part No.	Description
1	422305	Fertilizer Door Cover Assembly
2	422310	Fertilizer Door Slide Assembly
3	20427	Centerlock Nut, 5/8"
4	20704	Bolt, 5/8" x 6-1/2" Fully Threaded

# Fertilizer Tank Weldment Assembly

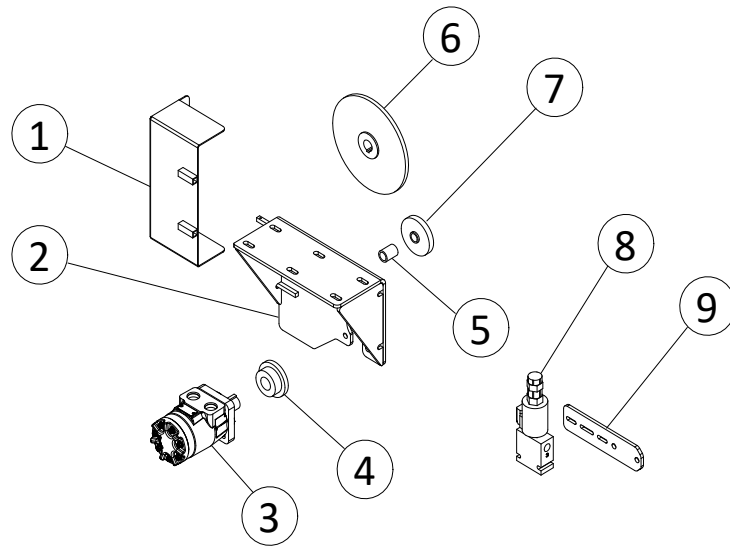
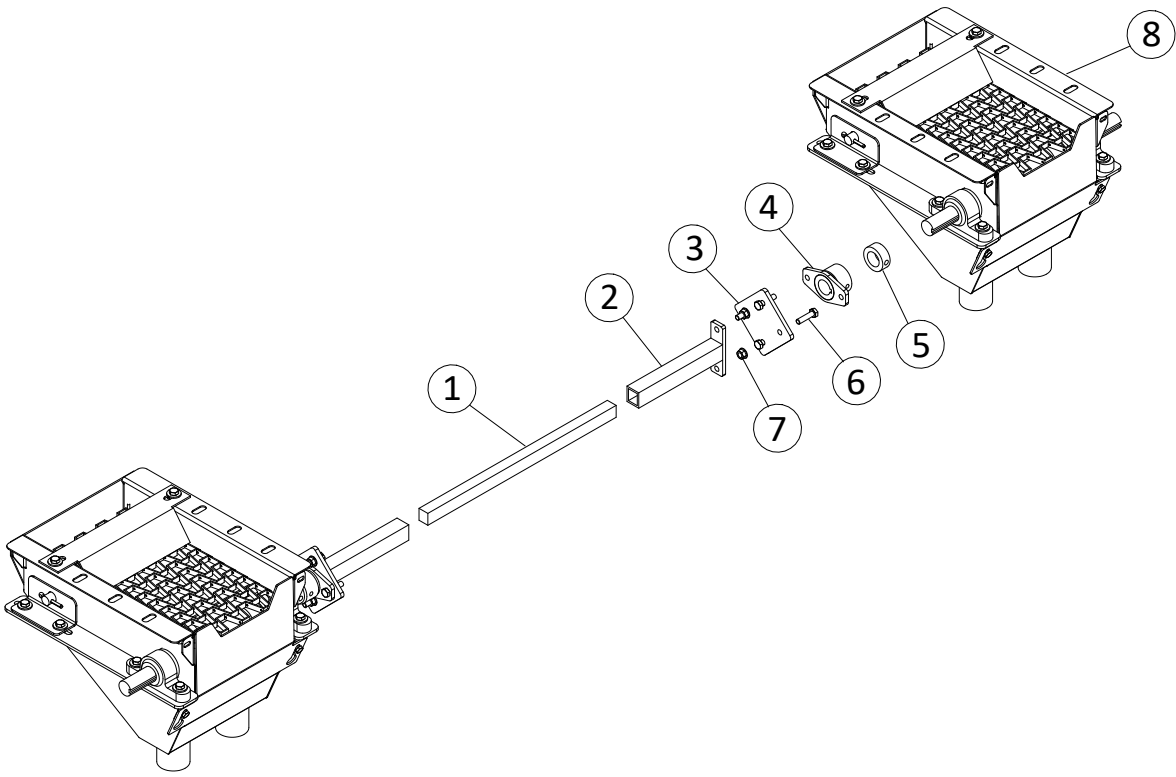




## Fertilizer Tank Weldment Assembly

Ref.	Part No.	Description
1	400960	Rear Fertilizer Cylinder Mount Weldment
2	097427	2 X 16 26 1/4 X 42 1/4 Cylinder
3	400980	Lower Fertilizer - Roller Frame Weldment
4	400985	Roller Assembly
5	400965	Roller Pin Weldment
6	020965	1/4 X 1-1/2 Springlock Pin Plated
7	400977	Spacer Bushing
8	021007	5/8" x 3" x 4-1/2" U-Bolt
9	020072	Bolt, 5/8" X 5-1/2" NC GR 5
10	020427	Nut, 5/8" Center Lock
11	097407	5/8" x 6 1/4" Hitch Pin
12	020506	Washer, 5/8" Regular Lock ZP
13	020406	Nut, 5/8" NC
14	021335	7/8" Narrow 10 Gauge Bushing

# Fertilizer Drive Assembly



### Fertilizer Drive Shaft

Ref.	Part No.	Description
1	402477	Fertilizer Drive Shaft, Male
2	402480	Fertilizer Drive Shaft, Female
3	402471	Drive Coupler, Plastic
4	402469	Fertilizer Coupler

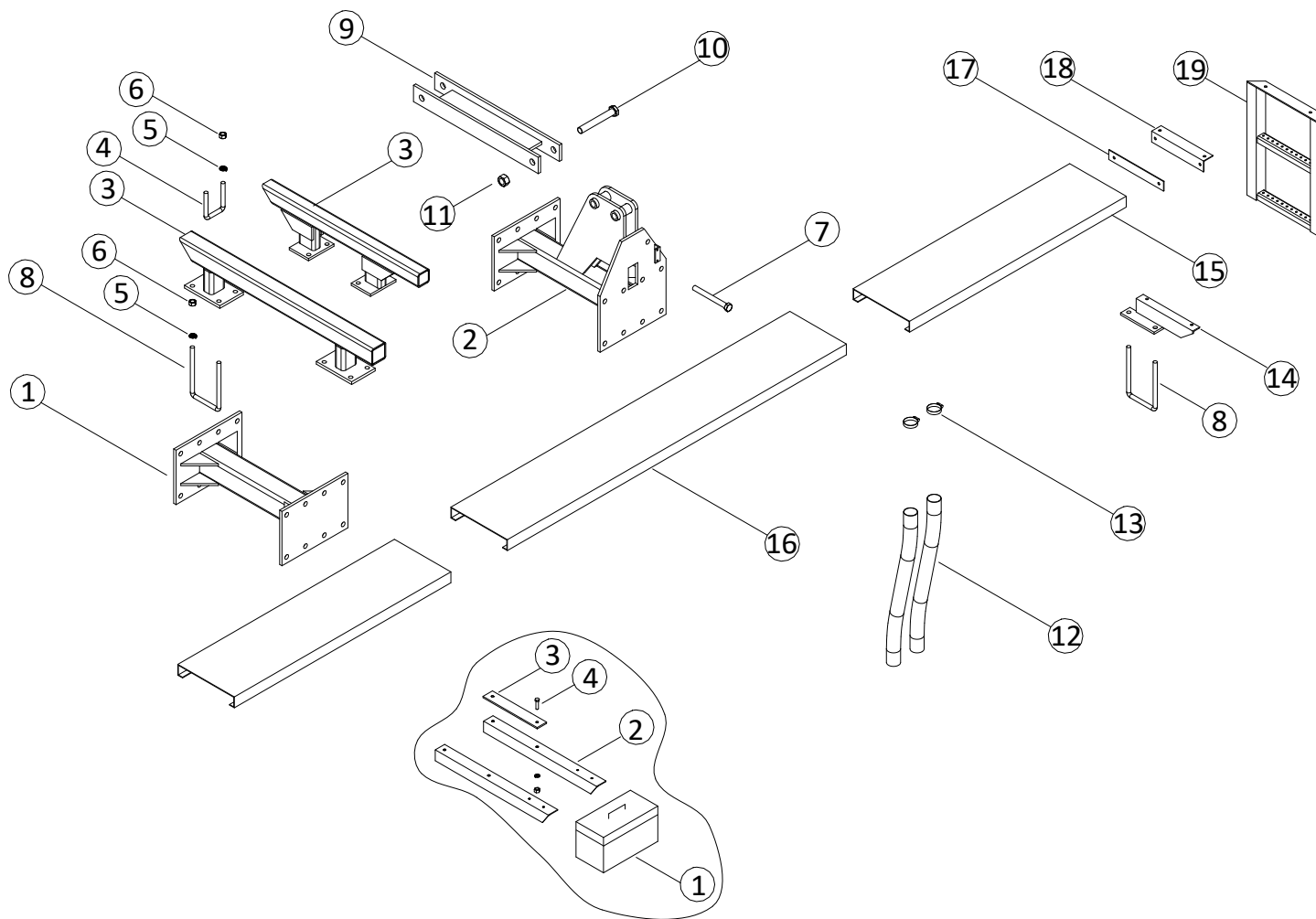
Ref.	Part No.	Description
5	82806	Set Collar, 1"
6	20027	Bolt, 5/16" x 1-1/4"
7	20479	Nut, 5/16"
8	402475	Fertilizer Feedbox Assembly w/ Door

### Hydraulic Fertilizer Drive #400081

Ref.	Part No.	Description
1	402275	Shield, Hydraulic Drive
2	368825	Bracket, Hydraulic Drive
3	97286	Motor, Fertilizer Drive w/ Encoder
NS	95485	Encoder, Speed Pickup
4	81148	Sprocket, 5012 x 1"
5	403435	Spacer, Idler

Ref.	Part No.	Description
6	402474	Sprocket, 5036 1" Hub
7	81219	Idler Sprocket, 5013
8	97233	PWM Valve, 4 GPM
9	422302	Mount, Hydraulic Valve
NS	402271	Chain, Fertilizer Drive
NS	400084	Wire Harness, Motor Speed Pickup

# Fertilizer Mounting Hardware



### Fertilizer Mounting Hardware

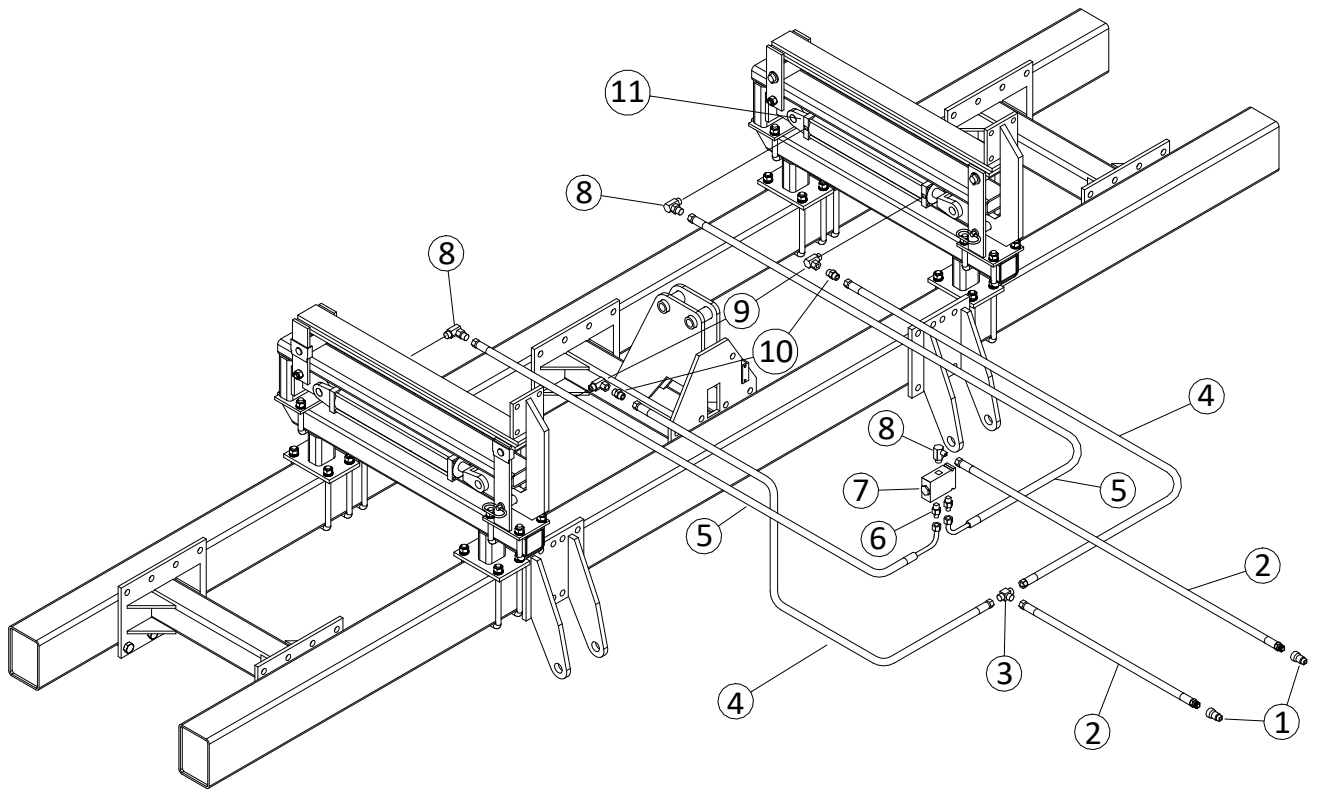
Ref.	Part No.	Description
1	401075	X-Member Extension
2	401080	Center X-Member Extension
3	400940	Tank Mount
-	401810	Tank Mount (6 Row)
4	021007	5/8" X 3" X 4-1/2" U-Bolt
5	020506	Washer, 5/8" Lock
6	020406	Nut, 5/8" NC
7	020091	Bolt, 3/4" X 7-1/2" NC GR 5
8	021012	5/8" X 5" X 8-1/2" U-Bolt
9	401180	Center Cross Member Linkage

Ref.	Part No.	Description
10	020108	Bolt, 1" x 7" NC GR 5
11	020430	Nut, 1" NC Center Lock
12	401111	Fertilizer Flex Hose (Cup)
13	040467	1-9/16" to 2-1/2" Clamp 6832
14	400430	Front Platform Mount Weldment
15	010900	Mort. Channel 12 X 2 X 13 Ga. 10'
16	010905	Mort. Channel 12 X 2 X 13 Ga. 12'
17	368766	Platform Flat
18	368765	Platform Angle
19	400445	Planter Side Ladder

### Toolbox Mounting Hardware

Ref.	Part No.	Description
1	400080	Toolbox Package for Cup Planter
2	350051	Tool Box Mount
3	353325	Platform Strap
4	020029	Bolt, 3/8" X 1" NC GR 5
-	020402	3/8" NC Nut
-	020502	Washer, 3/8" Lock

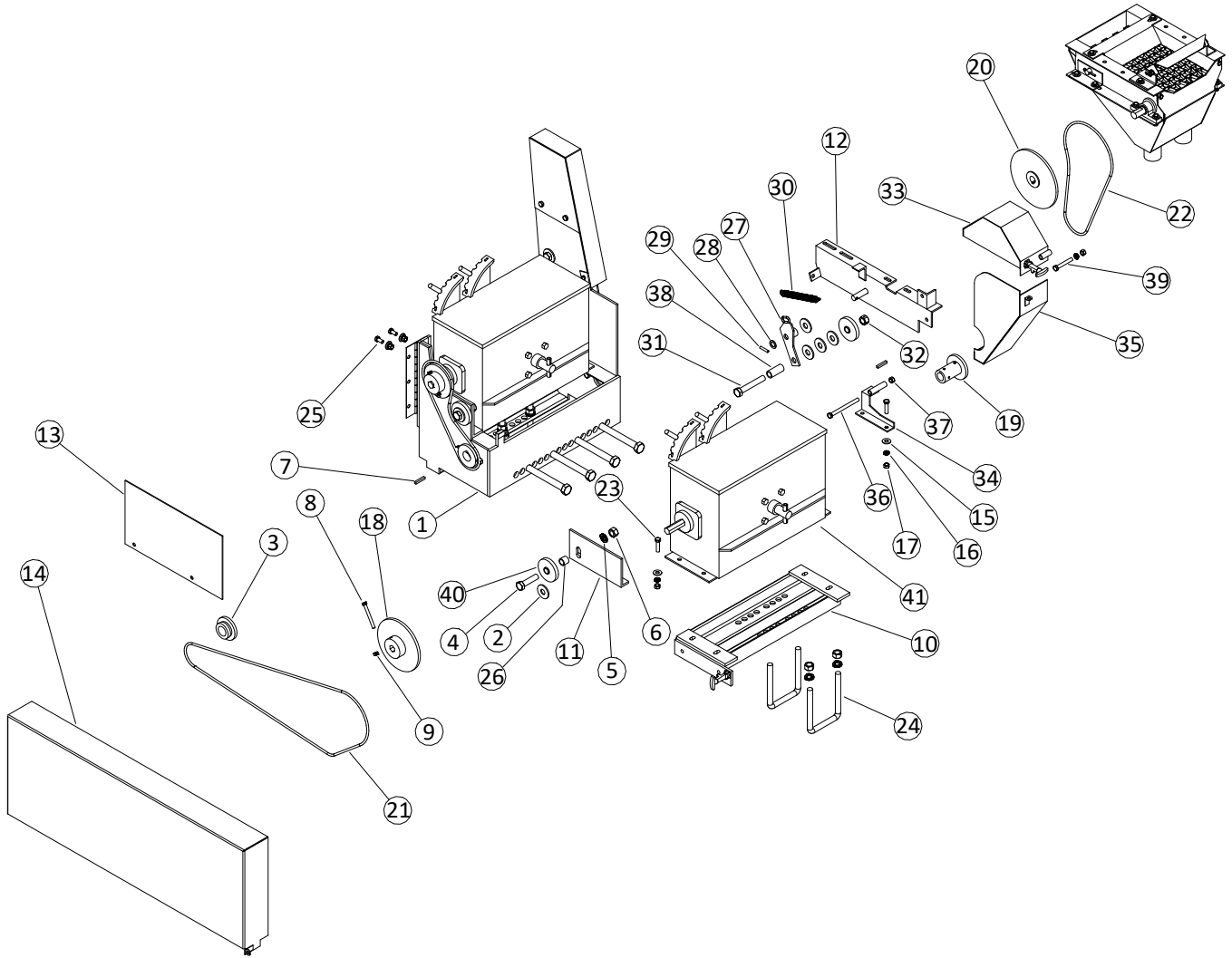
# Fertilizer Tank Hydraulics



## Fertilizer Tank Hydraulics

Ref.	Part No.	Description
1	095012	Universal Male Hydraulic Tip 1/2" Pipe Thread Pioneer
2	-	3/8" Hydraulic Hose / 95006 hose end, 96072 Hose end
3	095160	37° JIC #6 (9/16") Tee 6-6-6
4	-	1/4" Hydraulic hose / 95168 hose ends
5	-	1/4" Hydraulic hose / 95168 hose end, 95317 hose end
6	012647	Adaptor #6 O-ring #6 Male JIC
7	097419	Flow Divider FD10-45-80-N-22
8	095169	#8 (3/4" ORB x #6 (9/16") JIC Elbow
9	095166	ORB Elbow Restrictor
10	095165	Pipe Thread Adaptor
11	097427	2" x 16" 26-1/4" x 42-1/4" Cylinder

# Fertilizer Mechanical Drive Package



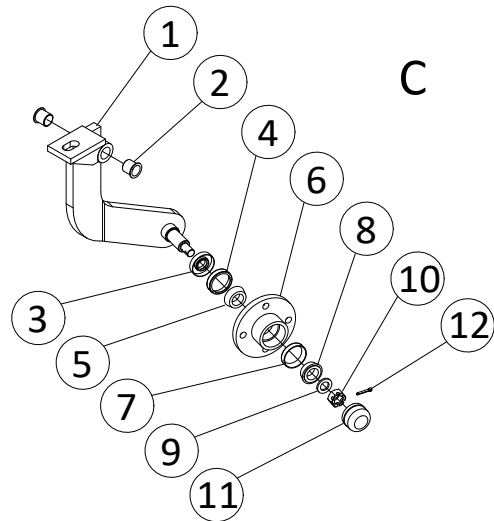
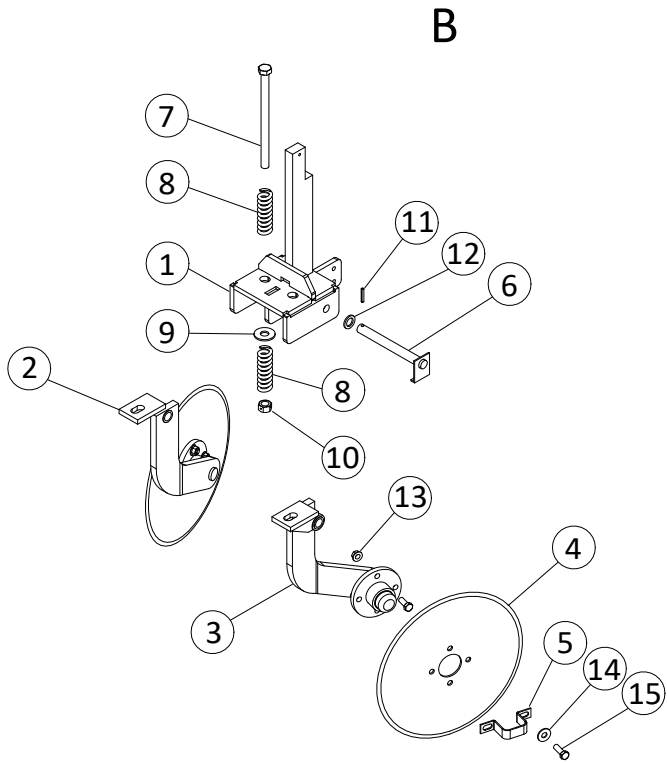
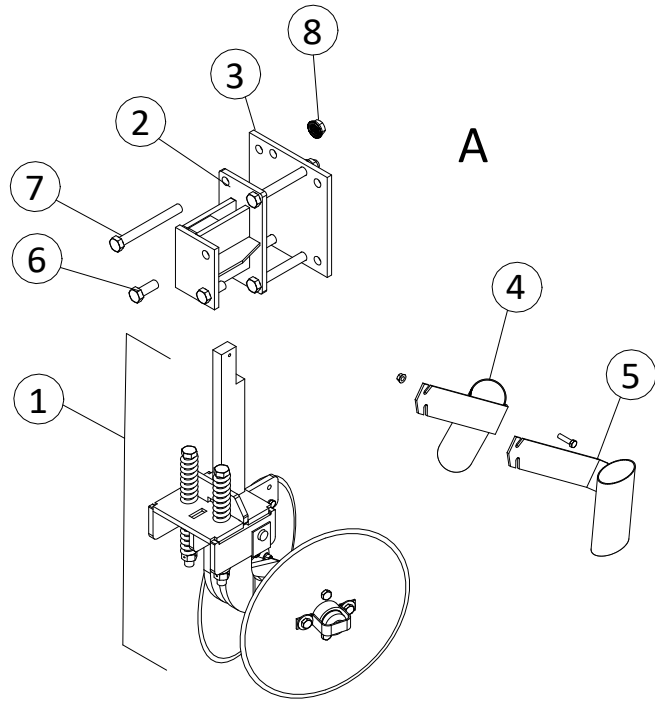


**Fertilizer Mounting Hardware  
#402200 Mechanical Drive Fertilizer Package**

Ref.	Part No.	Description
1	402350	Gearbox Mount Weldment
2	20536	Washer, 5/8" Flat
3	81151	5013 x 1" Sprocket
4	20066	Bolt, 5/8" X 2-1/2"
5	20506	Washer, 5/8" Regular Lock
6	20406	Nut, 5/8" Hex
7	351072	1/4" Keystock 1-1/2" Long
8	20020	Bolt, 5/16" X 3"
9	20422	Nut, 5/16" Centerlock
10	402240	Gearbox Mount Weldment
11	401435	Mechanical Drive Idler Mount
12	402290	Feedbox Chain Tension Mount
13	402202	Chain Kick Guard
14	402220	Chain Guard Long (Fert. Drive)
15	20513	Washer, 3/8" Flat
16	20502	Washer, 3/8" Regular Lock
17	20402	Nut, 3/8" Hex
18	401380	Hex Drive Hub W/Sprocket
19	401405	Fertilizer Drive Hub Weldment
20	402474	5036 Sprocket Weldment
21	402204	Fertilizer Drive Chain (Long)

Ref.	Part No.	Description
22	402206	Fertilizer Drive Chain (Short)
23	20030	Bolt, 3/8" X 1-1/2"
24	21009	5/8 X 4 X 5-1/2" U-Bolt
25	20028	Bolt, 3/8" X 3/4"
26	402305	Idler Spacer 3/4" Long
27	402295	Idler Pivot Weldment
28	21319	5/8" Narrow Gauge Bushing
29	20964	1/4 X 1-1/4" Roll Pin
30	96007	Extension Spring
31	20069	Bolt, 5/8" X 4"
32	20427	Nut, 5/8" NC Centerlock
33	402380	Upper Fertilizer Chain Guard
34	402370	Lower Shield Mount
35	402395	Lower Shield Weldment
36	20036	Bolt, 3/8" X 4-1/2"
37	20423	Nut, 3/8" Centerlock
38	402207	Handle Spacer
39	20134	Bolt, 3/8" X 2-1/2"
40	81219	5013E Idler Sprocket 5/8" ID
41	97085	Great Plains Gearbox

# Fertilizer Disc Openers



**#357804 – 4 Row Disc Opener Package**

**#357806 – 6 Row Disc Opener Package**

Ref.	Part No.	Description
1	357805	Fertilizer Disc Opener Assembly
2	357825	Slide Receiver Weldment
3	357845	Plate, Row Unit Mount
4	357955	Holder, Fertilizer Tube Right

Ref.	Part No.	Description
5	357950	Holder, Fertilizer Tube Left
6	20082	Bolt, 3/4" x 2"
7	20090	Bolt, 3/4" x 7"
8	20477	Nut, 3/4"

A

**#357805 – Fertilizer Disc Opener Package**

Ref.	Part No.	Description
1	357810	Disc Arm Mount Weldment
2	357900	Disc Arm Assembly Right
3	357905	Disc Arm Assembly Left
4	90017	16" Flat Disc Fertilizer
5	357615	Dust Cap Strap
6	357835	Pivot Pin Weldment
7	20157	Bolt, 3/4" x 11"
8	21509	Spring, Disc Opener

Ref.	Part No.	Description
9	20517	Washer, 3/4" Flat
10	20428	Washer, 3/4" Lock
11	20965	Roll Pin, 1/4" x 1-1/2"
12	21335	Washer, 7/8"x10 Ga
13	20505	Nut, 1/2" Flange
14	20515	Washer, 1/2" Flat
15	20052	Bolt, 1/2" x 1-1/2"

B

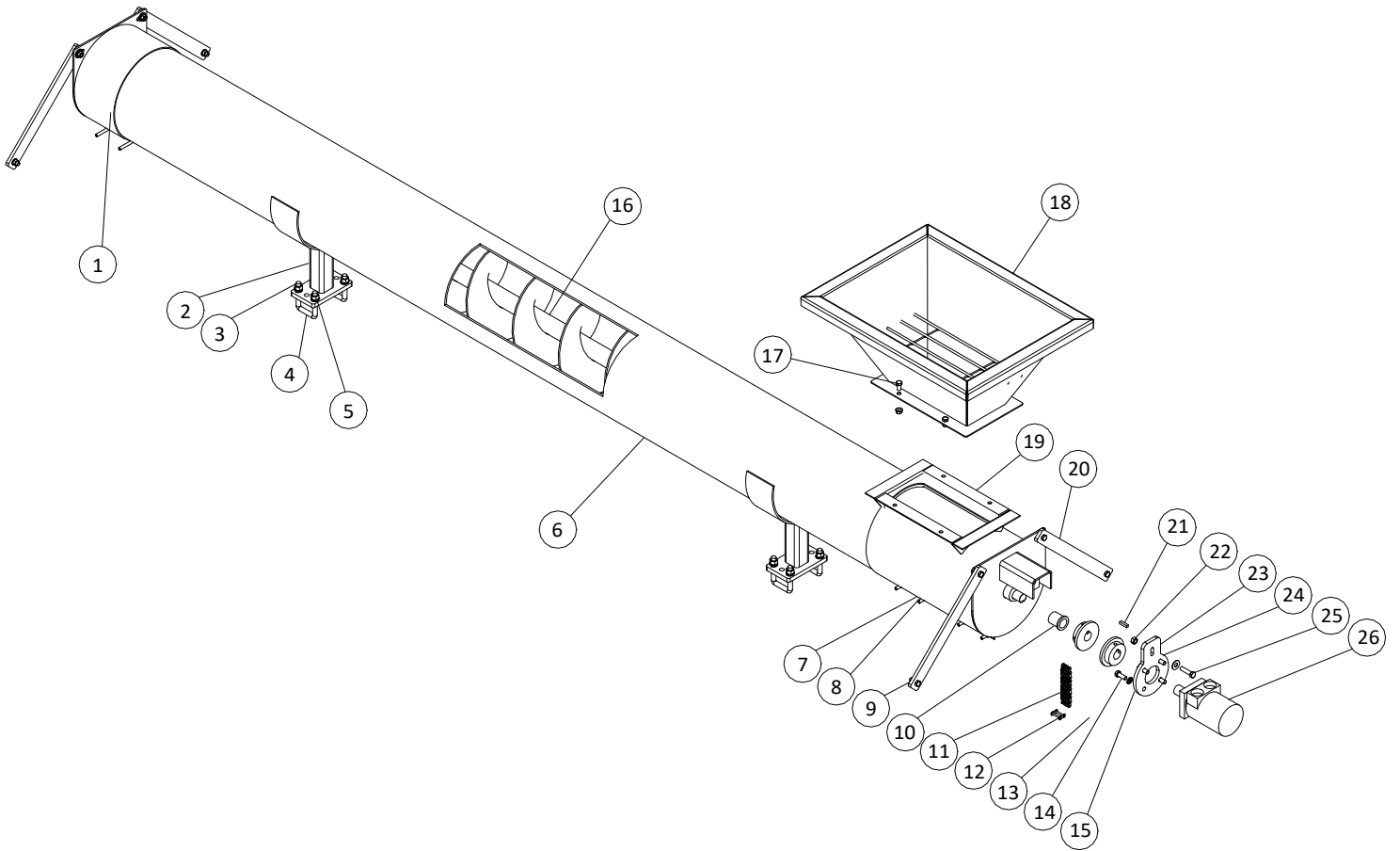
**#357900 – Disc Arm Assembly Right**  
**#357905 – Disc Arm Assembly Left (Shown)**

Ref.	Part No.	Description
1	357890	Disc Arm Weldment Right
-	357895	Disc Arm Weldment Left
2	90167	1" x 7/8" Plastic Insert
3	96203	Oil Seal 471750 (1-1/4" Shaft)
4	82166	Bearing L44643
5	82165	Bearing Cup LM44610
6	357625	Fertilizer Disc Hub w/Race

Ref.	Part No.	Description
7	82165	Bearing Cup LM44610
8	82166	Bearing L44643
9	21314	3/4" Narrow 10 Ga. Bushing
10	20490	3/4" NF Plain Hex Slotted
11	96204	Dust Cap DC-11 (1.980")
12	20827	Cotter Pin, 5/32" x 1"

C

**10" Single Fill Auger  
#369100  
10" Dual Fill Auger  
#369101**



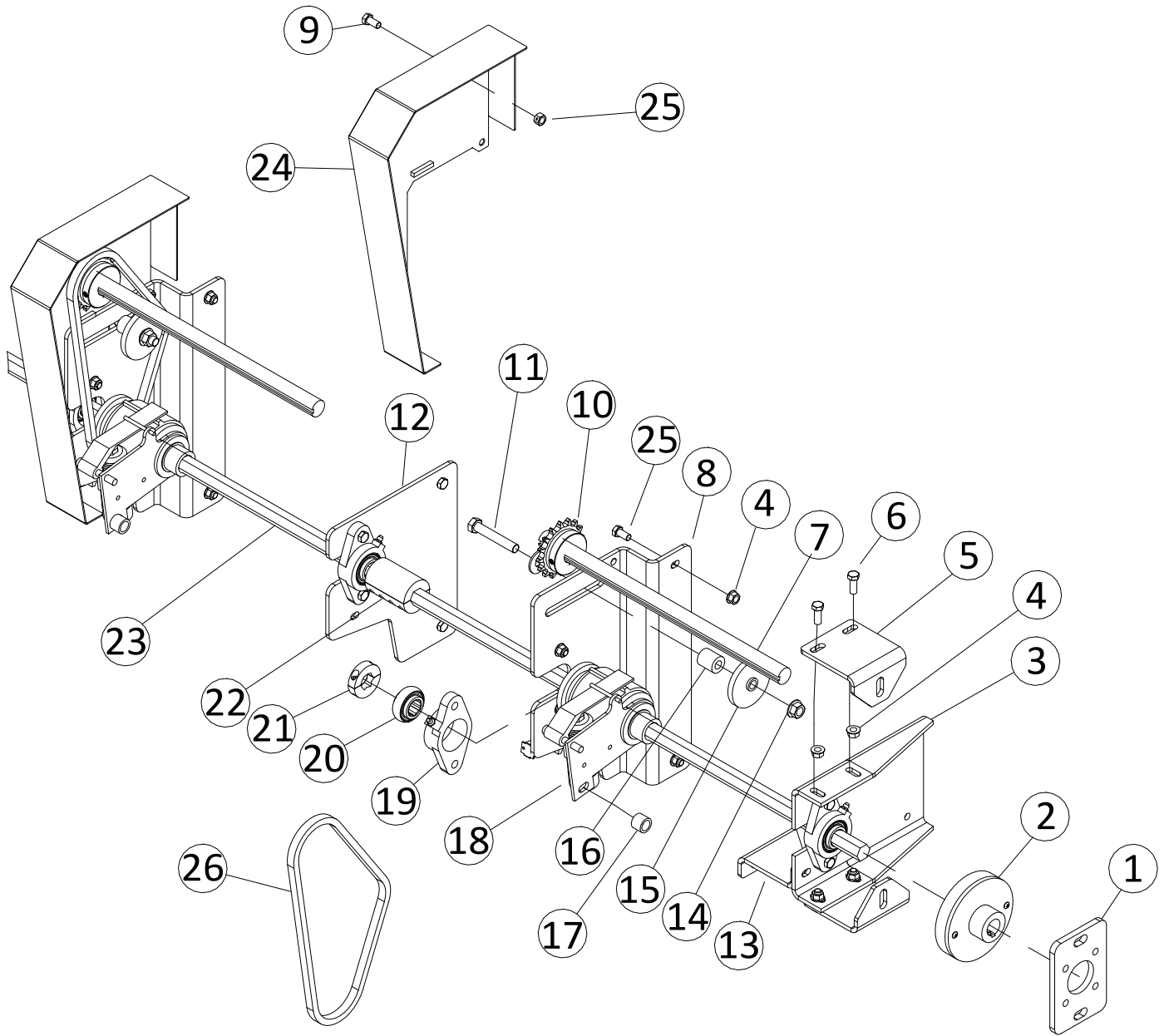
**10" Single Fill Auger****#369100****10" Dual Fill Auger****#369101**

Ref.	Part No.	Description
1	369130	Tube Endcap Weldment
NS	369128	Endcap Weldment, Dual Fill
2	369160	10" Auger Stand
3	20404	Nut, 1/2"
4	21000	U-Bolt, 1/2" x 2" x 3"
5	20504	Lock Washer, 1/2"
6	369150	Tube- 10" Auger
7	20024	Bolt, 5/16" x 4"
8	20479	Flange Nut, 5/16"
9	20471	Flange Nut, 3/8"
10	90160	Igus Bushing, 1-1/4" OD x 1" ID
11	354555	Sprocket Coupler Chain
12	96064	Connector Link, #40 Double
13	96042	Sprocket, 4018 x1 Fin. Bore

Ref.	Part No.	Description
14	20029	Bolt, 3/8" x 1"
15	20502	Lock Washer, 3/8"
16	369140*	Shaft Weldment- 10" Auger Flighted
17	20028	Bolt, 3/8" x 3/4"
18	368969	10" Auger Hopper
19	369120	Motor Endcap- 10" Auger
20	368943	Mounting Strap
21	351069	Key, 1/4" x 1"
22	20423	Centerlock Nut, 3/8"
23	368965	Motor Mount
24	20513	Washer, 3/8"
25	20030	Bolt, 3/8" x 1-1/2"
26	90103	Motor, Hydraulic

\*Specify length when ordering

# Row Shutoff Clutches



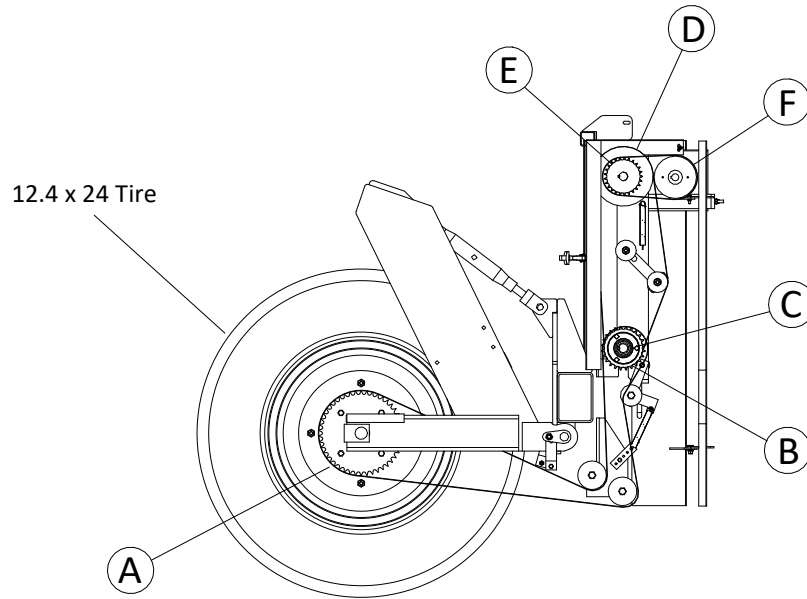
**Row Shutoff Clutches**  
**#404004 – 4 Row Clutch Kit**  
**#404006 – 6 Row Clutch Kit**  
**#404008 – 8 Row Clutch Kit**

Ref.	Part No.	Description
1	400090	Motor Mount Plate
2	354373	Shear Hub with Hex Assembly
3	20471	Flange Nut, 3/8"
4	404438	Motor Mount Adjust Plate
5	400097	Motor Mount Plate Adj.
6	20029	Bolt, 3/8 x 1"
7	81227	5013 x 1/2" Idler Sprocket
8	404436	Clutch Mount Plate
9	20028	Bolt,. 3/8 x 3/4"
10	81154	Sprocket, 5016 x 1"
11	20056	Bolt, 1/2 x 3"
12	404437	Bearing Mount Plate
13	404447	Motor Mount Brace Plate

Ref.	Part No.	Description
14	20505	Flange Nut, 1/2"
15	81227	Idler Sprocket, 5013 x 1/2"
16	404444	Tube, Idler Spacer
17	404446	Tube, Clutch Spacer
18	97339	Clutch w/ 5016 Sprocket
19	82201	Bearing Housing, 2 Bolt Flange
20	97342	Bearing, 7/8" Hex
21	97341	Shaft Collar, 7/8" Hex
22	97297	Split Hex Coupler, 7/8"
23	354377*	Hex Shaft, Cup Clutch
24	404440	Shield Weldment
25	20423	Centerlock Nut, 3/8"
26	404443	Cup Clutch Chain

\*Specify length when ordering

### Front Ground Drive Seed Spacing Table



Sprocket A Wheel	Sprocket B Lower Jackshaft Input (Clutch)	Sprocket C Lower Jackshaft Output	Sprocket D Upper Jackshaft Input (Changeable)	Sprocket E Upper Jackshaft Output	Sprocket F Drive (Changeable)	Seed Spacing (in)
6048	6024	5025	25	25	28	7.8
6048	6024	5025	26	25	28	8.1
6048	6024	5025	28	25	28	8.7
6048	6024	5025	30	25	28	9.3
6048	6024	5025	32	25	28	9.9
6048	6024	5025	34	25	28	10.5
6048	6024	5025	36	25	28	11.2
6048	6024	5025	38	25	28	11.8
6048	6024	5025	40	25	28	12.4
6048	6024	5025	42	25	28	13.0
6048	6024	5025	44	25	28	13.6
6048	6024	5025	46	25	28	14.3

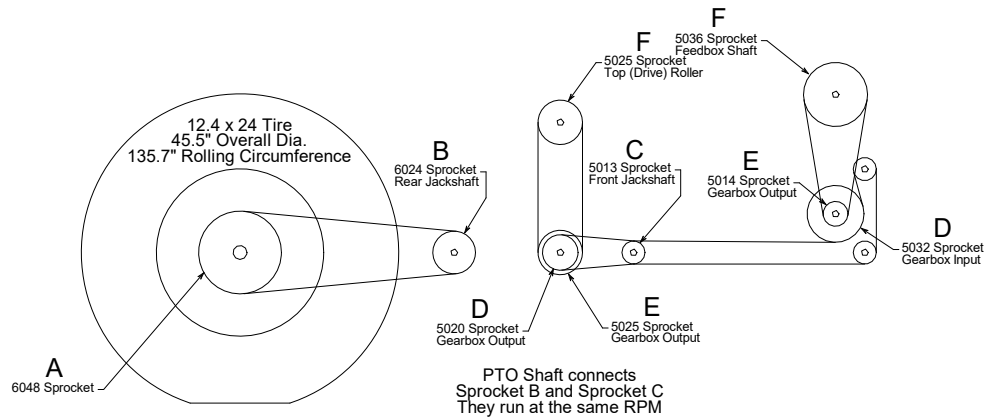


Sprocket A Wheel	Sprocket B Lower Jackshaft Input (Clutch)	Sprocket C Lower Jackshaft Output	Sprocket D Upper Jackshaft Input (Changeable)	Sprocket E Upper Jackshaft Output	Sprocket F Drive (Changeable)	Seed Spacing (in)
6048	6024	5025	25	25	25	6.9
6048	6024	5025	26	25	25	7.2
6048	6024	5025	28	25	25	7.8
6048	6024	5025	30	25	25	8.3
6048	6024	5025	32	25	25	8.9
6048	6024	5025	34	25	25	9.4
6048	6024	5025	36	25	25	10.0
6048	6024	5025	38	25	25	10.5
6048	6024	5025	40	25	25	11.1
6048	6024	5025	42	25	25	11.6
6048	6024	5025	44	25	25	12.2
6048	6024	5025	46	25	25	12.7

Sprocket A Wheel	Sprocket B Lower Jackshaft Input (Clutch)	Sprocket C Lower Jackshaft Output	Sprocket D Upper Jackshaft Input (Changeable)	Sprocket E Upper Jackshaft Output	Sprocket F Drive (Changeable)	Seed Spacing (in)
6048	6024	5025	25	25	36	10.0
6048	6024	5025	26	25	36	10.4
6048	6024	5025	28	25	36	11.2
6048	6024	5025	30	25	36	12.0
6048	6024	5025	32	25	36	12.8
6048	6024	5025	34	25	36	13.6
6048	6024	5025	36	25	36	14.4
6048	6024	5025	38	25	36	15.2
6048	6024	5025	40	25	36	16.0
6048	6024	5025	42	25	36	16.7
6048	6024	5025	44	25	36	17.5
6048	6024	5025	46	25	36	18.3

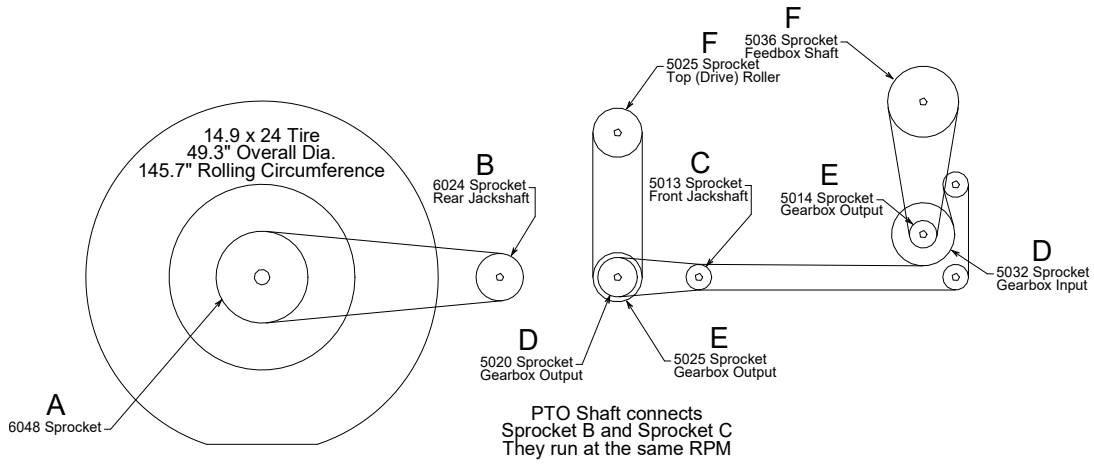
Sprocket A Wheel	Sprocket B Lower Jackshaft Input (Clutch)	Sprocket C Lower Jackshaft Output	Sprocket D Upper Jackshaft Input (Changeable)	Sprocket E Upper Jackshaft Output	Sprocket F Drive (Changeable)	Seed Spacing (in)
6048	6024	5025	25	32	25	5.4
6048	6024	5025	26	32	25	5.6
6048	6024	5025	28	32	25	6.1
6048	6024	5025	30	32	25	6.5
6048	6024	5025	32	32	25	6.9
6048	6024	5025	34	32	25	7.4
6048	6024	5025	36	32	25	7.8
6048	6024	5025	38	32	25	8.2
6048	6024	5025	40	32	25	8.7
6048	6024	5025	42	32	25	9.1
6048	6024	5025	44	32	25	9.5
6048	6024	5025	46	32	25	10.0

## Rear Ground Drive Seed Spacing Table (12.4 x 24" Tire)



Gearbox Setting	Seed Spacing
E-5	21.30
E-4	18.68
D-5	17.04
E-3	15.97
D-4	15.00
C-5	14.20
E-2	13.31
D-3	12.78
C-4	12.38
B-5	12.17
A-5	10.65
A-4	9.34
B-3	9.13
C-2	8.87
D-1	8.52
A-3	7.99
B-2	7.61
C-1	7.10
A-2	6.66
B-1	6.09
A-1	5.32

## Rear Ground Drive Seed Spacing Table (14.9 x 24" Tire)



Gearbox Setting	Seed Spacing
E-5	22.87
E-4	20.07
D-5	18.30
E-3	17.15
D-4	16.11
C-5	15.25
E-2	14.30
D-3	13.73
C-4	13.30
B-5	13.07
A-5	11.44
A-4	10.03
B-3	9.80
C-2	9.53
D-1	9.15
A-3	8.58
B-2	8.17
C-1	7.62
A-2	7.15
B-1	6.54
A-1	5.72







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