

# OWNERS MANUAL

## ***DARY POWER SWEEP***



## Introduction

- The purpose of this manual is to explain the operation and maintenance of the paddle sweep. It also contains a parts list for reference if replacement parts are needed.
- It is recommended that you read this manual in its entirety for the information available in order to provide the proper care and maintenance of the paddle sweep. The equipment is built to provide many years of dependable service when used properly. Reading this manual will also provide information on how to use the equipment correctly to prevent any accidents while using the system.
- If you have any further questions, comments, improvements, or suggestions regarding the contents of any of the manuals provided, please see the contact information below.
- This machine is covered by one or more United States patents. Refer to [www.siuoxsteel.com](http://www.siuoxsteel.com) for current patent information. Or scan this QR Code to go directly to the patent area on the website.



**ALL safety decals are no charge from the factory.  
Please replace all safety decals if damaged or missing.  
Your safety is important**

**WARNING!** Anyone who will be operating or working around the equipment should first read this manual to familiarize themselves with the machinery.

Sioux Steel Company  
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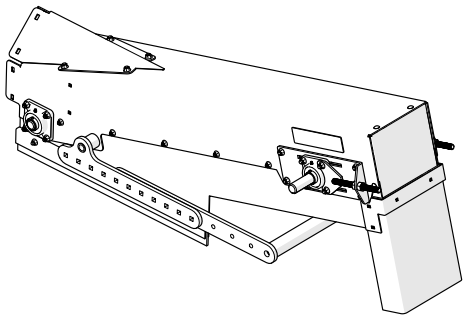
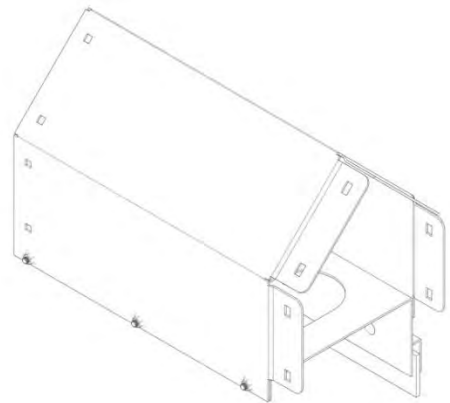
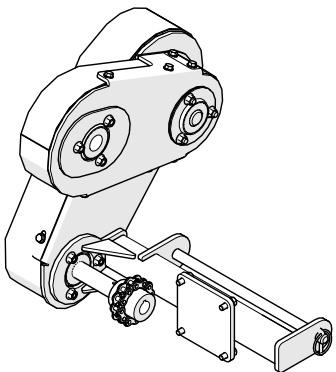
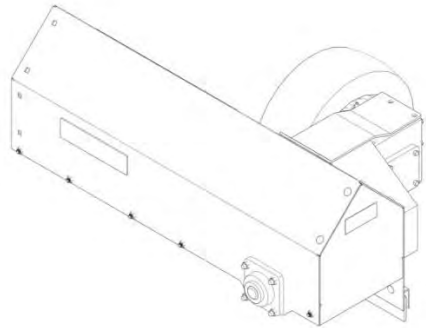
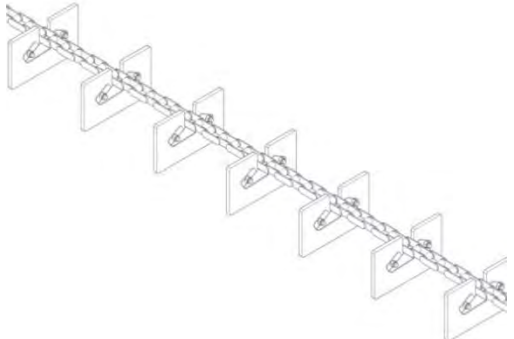
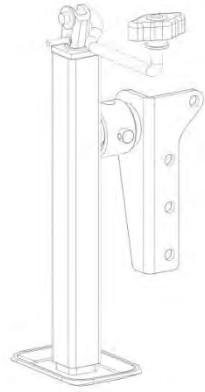
Phone: 1-800-557-4689

[www.daaybinsweep.com](http://www.daaybinsweep.com)

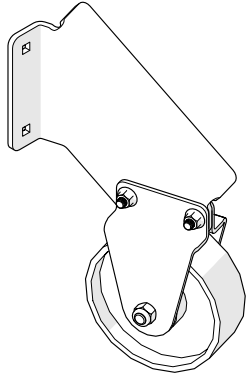
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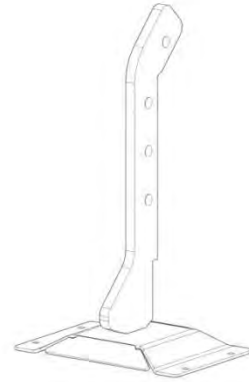
# 1 Sweep Terminology

<p>Head Section</p> 	<p>Intermediate Section</p> 
<p>Pivot Kit</p> 	<p>Drive End</p> 
<p>Paddle Chain</p> 	<p>Jack Stand</p> 

Caster Wheel



Zero Entry



## 2 Safety Information

- A careful operator is the best operator. Most accidents can be avoided by observing necessary precautions. To help prevent accidents, read the following precautions before operating this equipment. Equipment should be operated only by those who are responsible and instructed to do so. Carefully review the procedures given in this manual with all operators. It is important that all operators be familiar with and follows safety precautions. Improper use of the equipment can cause serious injury or death.
- Read the operator's manual before operating equipment.
- Only allow properly trained persons to operate the equipment.
- Keep hands and feet away from all pinch points.
- Keep bystanders away during operation. In an empty bin/silo, keep everyone rearward of the sweep during operation to validate installation or maintenance.
- Do not contact (i.e., push, stand, touch, etc.) any portion of the sweep during operation.
- Since the installation of this sweep takes place within a confined space. Confined space awareness should be followed. Lockout/tag out awareness should be followed.
- A licensed electrician is recommended to wire the unit in accordance with local federal codes.
- **DO NOT** clean, lubricate, or adjust the equipment while it is running. Disengage the machine prior to doing so.
- Install and ground slip collector ring and the entire unit in accordance with the National Electric Code (NEC) and local codes and/or ordinances.
- Always disconnect and lock out all power sources from the collector ring before attempting to perform any service function. Follow lockout/tag out procedures as outlined in OSHA section 1910.147 where appropriate.
- An explosion proof motor is required for use in a Class II, Group E, F, G dust environment.
- Refer to maintenance chart to check all fasteners and hardware to assure tightness.
- **CAUTION:** Too much oil will cause overheating and too little will result in gear failure. Check oil level regularly. More frequent oil changes are recommended when operating continuously, at high temperatures or under conditions of extreme dirt or dust. Check that the vent plug is clear.
- Contact the bin manufacturer for anchor design on grain bins 72 feet in diameter and larger for single pass sweep utilization. Failure to do so may cause damage to the grain bin.
- **REMEMBER: The manufacturer includes or provides all reasonable means for accident prevention except a safe and careful operator.**

## 2.1 Safety Alert Symbol

- The symbol shown below is used to call your attention to instructions concerning your personal safety. Watch for this symbol it points out important safety precautions. It means **ATTENTION! Be Alert! Your Personal Safety Is Involved!**



**DANGER:** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.



**WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.



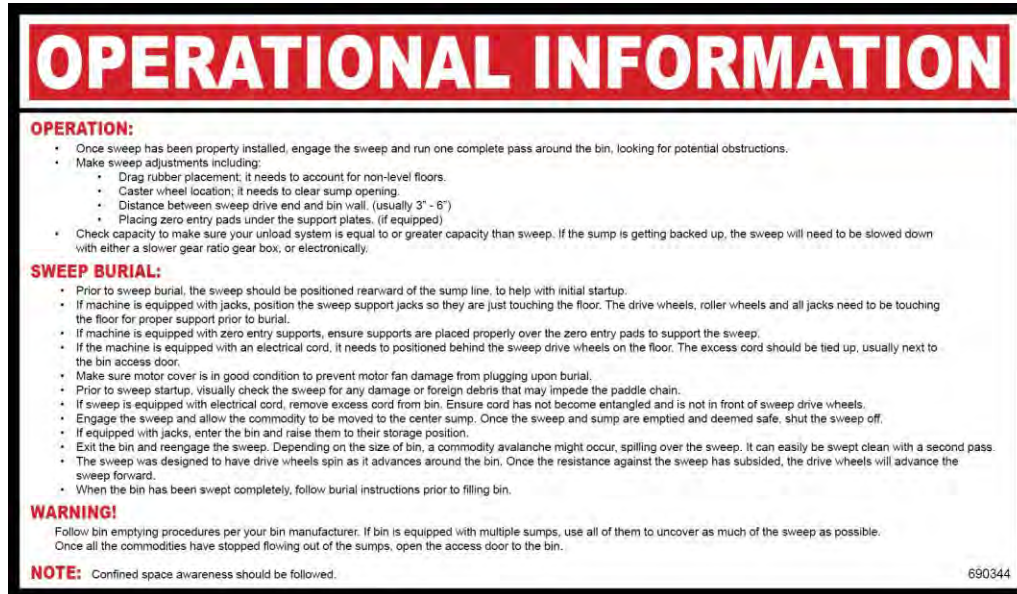
**CAUTION:** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. The color associated with Caution is YELLOW.

## 2.2 Safety & Logo Decals

- 686033 DANGER – Paddle chain may cause serious injury keep hands, feet and clothing away.



- 690344 – Operation Information



- 688462 DANGER - Electrical Hazard. Turn off power and lock out before servicing.



- 689771 WARNING – Rotating chain can crush and cut. Do NOT operate without guards in place.





## 3 Specifications

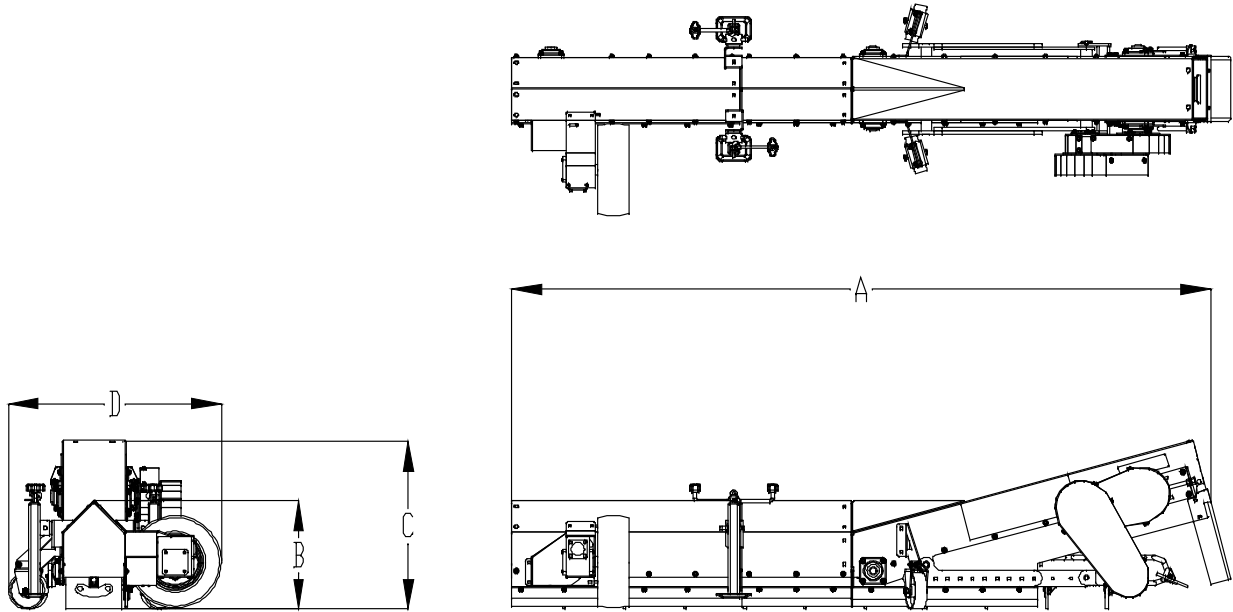
(Specifications are subject to change without notice and without liability)

### 3.1 Features

- **Farm Series**
  - **Theoretical Capacity:** Up to 5,000 BPH. **Note:** These values can fluctuate greatly depending on the varying conditions present, including but not limited to; moisture content, grain commodity type and flowability, amount of foreign matter present, and compaction rate. These all play a part in the performance of the paddle sweep. Paddle sweep capacity may also vary as the angle of the sloping grain varies. For optimal performance, dry flowable grain is recommended. The paddle sweep is not intended for use in high moisture grain storage applications or suitable for non-grain commodities including fertilizer, lime, etc. Also, grain that may have gone out of condition due to moisture or insect activity and has become hard or caked will result in diminished capacity.
  - Drive tire size: 5" x 8" -15" height segmented wheel
  - Drive wheel powered by a gearbox off the paddle chain.
  - Designed to be fully submersed in grain
  - Housing is made from 12 ga. Steel
  - Moves grain gently and evenly to sump
  - Adjustable chain mount
  - Flexible pivot joint allows sweep to move independently from gearbox to allow for variations in the bin floor
  - Adjustable stabilizer arms to accommodate variations in bin size and out of roundness
  - Rubber drag to clean the floor for less sweeping



### 3.3 Overall Dimensions & Weights



Sweep Unit for Bin Size	Length (Dim A)	Length (Dim B)	Height (Dim C)	Width (Dim D)	Unit Weight (lbs)
15'	8'	18"	37"	33"	501
18'	9'				536
21'	11'				572
24'	12'				605
27'	13'				640
30'	15'				675
33'	16'				709
36'	18'				771
42'	21'				840
48'	24'				909
54'	27'				1006
60'	30'				1075
66'	33'				1144

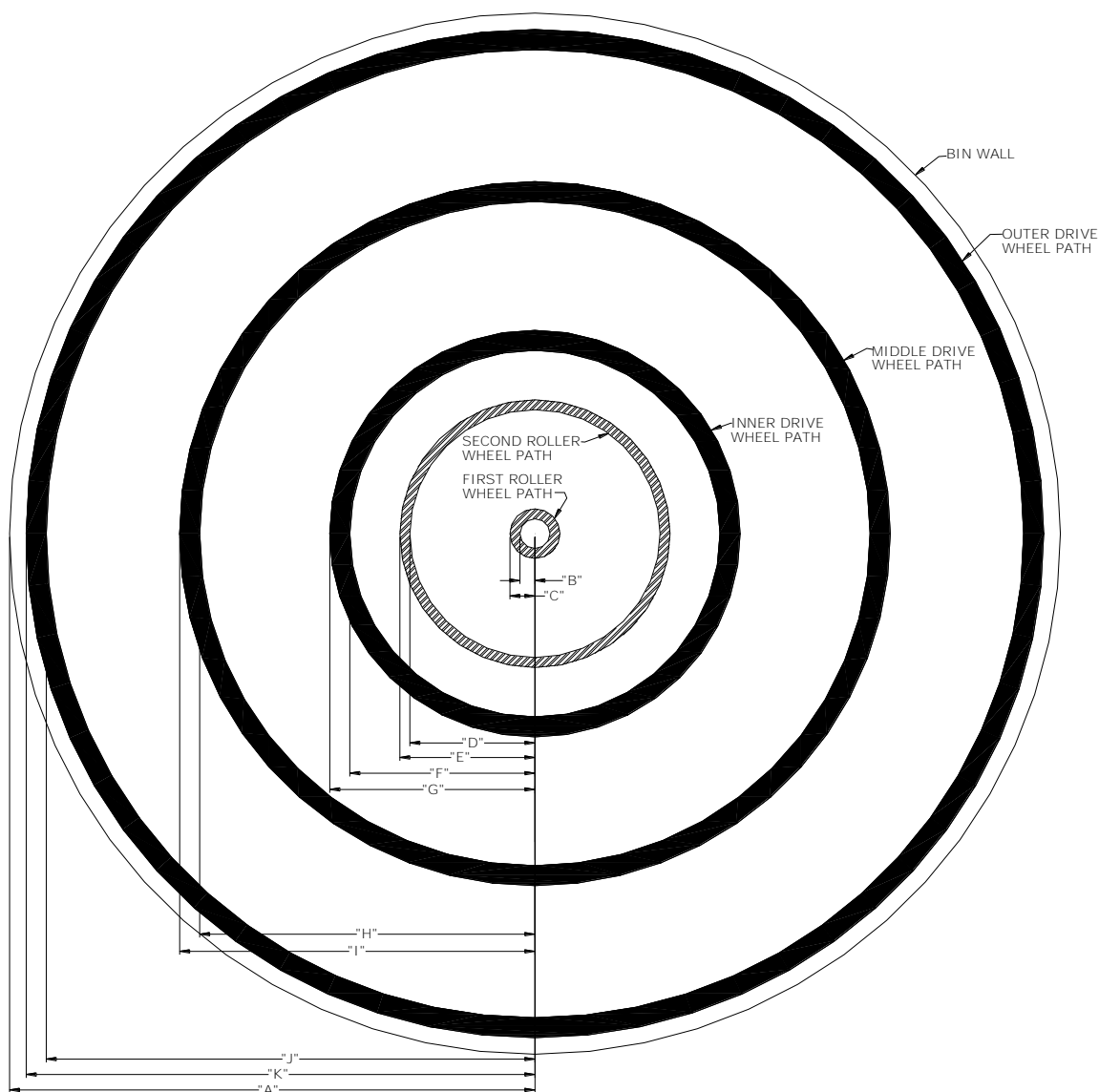
## 4 Setup

### 4.1 Prior to Installation

- Extra floor supports or structure will be required to support the sweep during burial if a full aeration floor is used. These supports or structure will need to be placed directly underneath the zero entry pads/jacks/caster wheels to support the sweep in the burial condition. **Failure to do so will result in damage to the paddle sweep, sweep accessories, and aeration floor.**
- When locating the sump locations in the bin foundation it is critical to consider where the wheel paths are going to be located. Below is a chart and illustration of these paths to match to your sweep model.
- If the sweep wheel path does interfere with a sump location the sump will need to be grated or covered to allow the wheel to cross without falling into the sump.

Power Farm - Wheel Paths						
Nominal Bin Dia.	Sweep Length	Actual Bin Radius	First Roller Wheels Path Between Dim's (Head Section)		Outer Drive Wheel Path Between Dim's	
			B	C	J	K
Paddle Sweeps with Standard Configuration						
15'	7' 6"	7' 5.5"	5' 4"	7' 0"	4' 9"	6' 8"
18'	8' 6"	8' 11.5"	5' 4"	7' 0"	6' 3"	8' 2"
21'	10' 6"	10' 5.5"	5' 4"	7' 0"	7' 9"	9' 8"
24'	11' 6"	11' 11"	5' 4"	7' 0"	9' 3"	11' 2"
27'	12' 6"	13' 5"	5' 4"	7' 0"	10' 9"	12' 8"
30'	14' 6"	14' 11"	5' 4"	7' 0"	12' 3"	14' 2"
33'	15' 6"	16' 5"	5' 4"	7' 0"	13' 9"	15' 8"
36'	17'-6"	12' 11"	5' 4"	7' 0"	15' 3"	17' 2"
42'	20'-6"	20' 10.5"	5' 4"	7' 0"	18' 3"	20' 2"
48'	23'-6"	23' 10.5"	5' 4"	7' 0"	21' 3"	23' 2"
54'	26'-6"	26' 10"	5' 4"	7' 0"	24' 3"	26' 2"
60'	29'-6"	29' 10"	5' 4"	7' 0"	27' 3"	29' 2"
66'	32'-6"	32'-10"	5' 4"	7' 0"	30' 3"	32' 2"

- Wheel Diagram



- Note: Wheel Diagram has additional information **NOT** relevant to setup of the interceptor sweep ("D" "E" "F" "G" "H" "I") (Inner Drive Wheel Path) (Middle Drive Wheel Path)
- For the sweep to properly operate and not acquire unnecessary damage the floor must be smooth with no obstructions more than 3/16".
- For the sweep to properly operate and not acquire unnecessary damage the floor gradient may not change more the 1/2" in height in a 5' span
- The center sump of the grain bin will need to be reviewed to determine which bin center pivot section is going to be installed and what modifications may need to be made. The bin center pivot options can be viewed later in this manual.
- Warning! Since the installation of this sweep takes place in a confined space; confined space awareness should be followed in addition to any regulations and safety precautions.

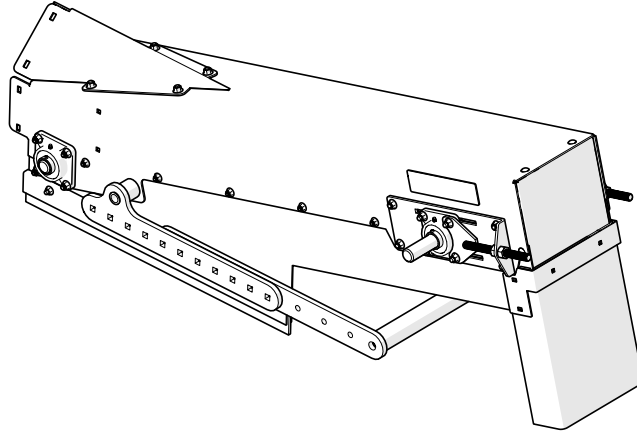
## 4.2 Installation

- It is recommended that the bin be empty and free of grain when the sweep is installed. If this can't be achieved, then a large enough area must be cleared that the sweep can be installed on a clean floor and free from entrapment danger.
- We recommend the use of steel track pathways on any portion of aeration floor that the steel wheels on any of the sweeps and the drive wheel on the farm sweeps contact. **Failure to do so will result in damage to the paddle sweep, sweep accessories, and aeration floor.**
- It is recommended that at least three people install a sweep as the parts can be large and difficult to handle.
- A tripod kit is available to assist in lifting components and moving them across the bin floor. The tripod can be collapsed to fit through any size door.
- Since the power for the Daay Power Sweep is thru the gearbox, lock out tag out procedures should be followed.
- Tools Needed
  - Cordless Driver
  - Ratchet
  - 1/2" & 9/16" shallow socket
  - 1/2" & 9/16" deep socket
  - (1) 5/8" wrench
  - (1) 3/4" wrench
  - (1) 15/16" wrench (for tightening paddle chain)
  - (2) Alignment punches
  - (1) Center punch
  - Battery powered/Explosion proof light
  - Pliers/Needle Nose
  - 10' of wire (for pulling paddle chain through)
  - Standard Allen wrench set
  - Gloves
  - Hammer
  - Loctite (blue)

### 4.3 Head Section Assembly

- Overview – The installation of the head section will determine the final location of the sweep. So, planning the pin location is critical to avoid having to move the entire sweep.

Head Section –



1. Reference the following parts of this manual. See Table of Contents for specific page numbers.

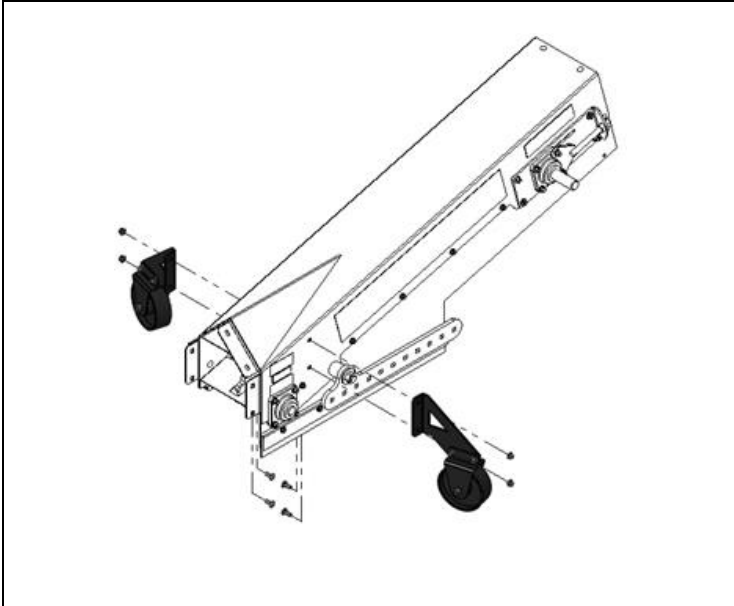
Pivot End Assembly Diagram for an overall detailed view.

Pivot End Assembly Parts List for the proper fasteners.

2. Locate the appropriate hardware to assemble the Pivot end from the hardware bag that came with the sweep.

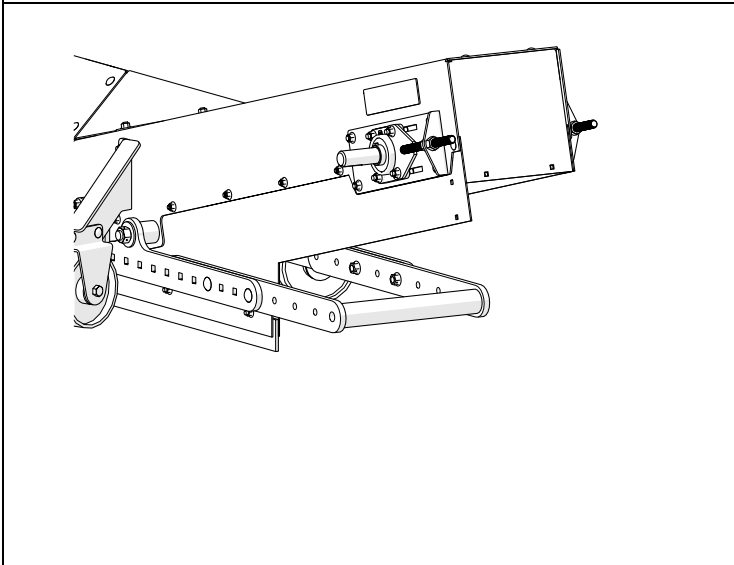
3. Install the Pivot Stabilizer Bushing (K688936) and the Stabilizer Lock Arm (K688914) on both sides of the Pivot End Assembly (K704800). Tighten the nuts using an 1 1/8" wrench, refer to the torque spec sheet on page (33)

Make sure the lock arms rotate with minimal resistance. If the arms are difficult to rotate, disassemble the arm and check the hole on the arm for potential burs or paint build up. Use a round file or abrasive cloth to remove bur or build up. Reassemble and re-check the resistance. Repeat the process if necessary.



4. Install the pivot front caster wheel assembly (K704838) and pivot rear caster wheel assembly (K689824) to the pivot end assembly.

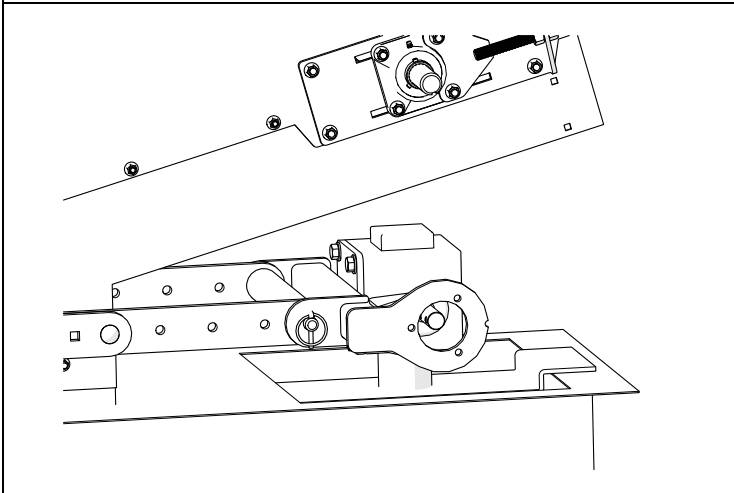
- Ensure that the carriage bolts are all facing outward to avoid damage to the paddle as it travels through the head section housing.



5. Install the stabilizer weldment (K688970) to the stabilizer lock arms with (4) 1/2" x 1.50" long carriage bolts and (4) center lock flange nuts.

- The proper holes to use is not important currently. The length will be adjusted when the Daay Power Sweep is completely assembled.
- Hand tighten nuts only.

6. Ensure all fasteners are tightened properly and parts that need to move freely can.



7. Mount the pivot bracket onto the stabilizer bar using the included pivot pin and (2) lynch pins.

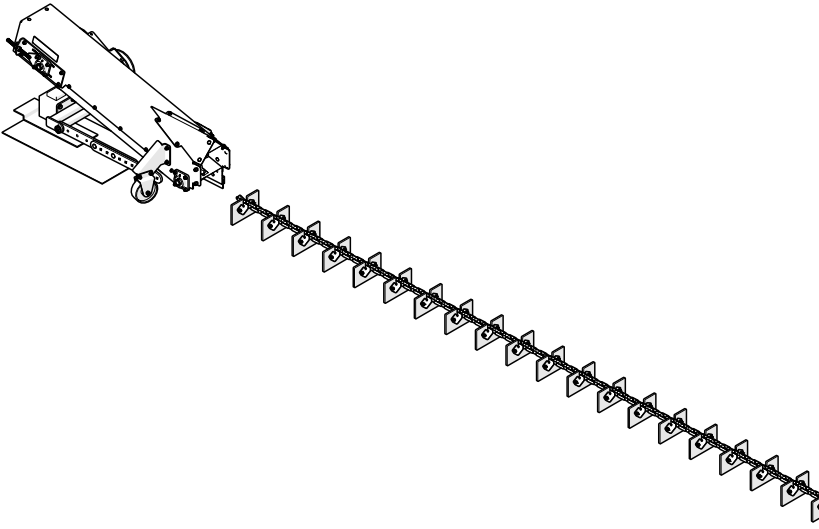
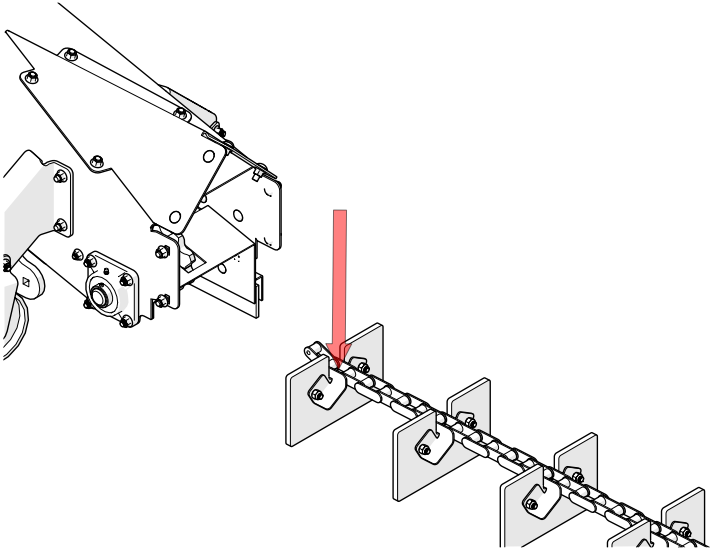
Then use the provided hardware to mount the pivot bracket onto the gearbox in your grain bin.

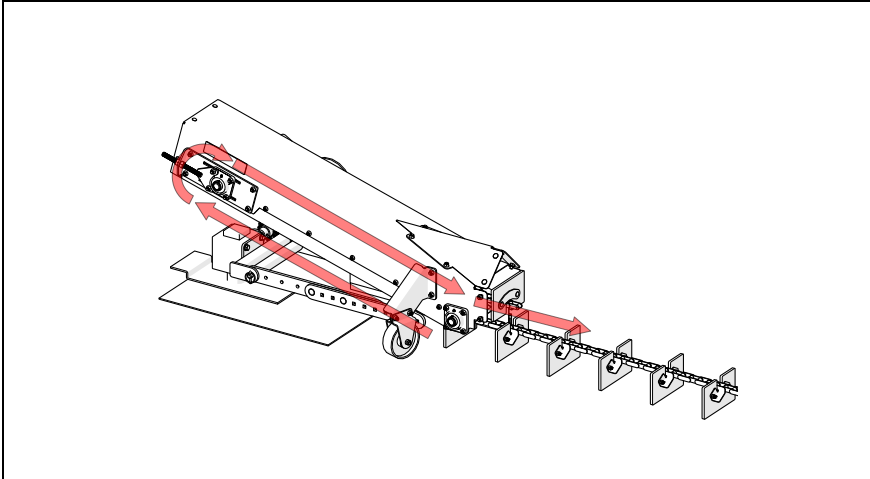
Note: The rest of the pivot kit varies greatly between gearbox brands, refer to the manual included in your pivot kit to get power from the gearbox to the head section shaft.



#### 4.4 Intermediate Sections and Paddle Chain Installation

- Overview – Locate the parts diagram for your sweep model in the back of this manual to determine the order of intermediate section and their locations. Setting the sections on the ground in the order of installation can aid in the assembly process. Note: do not install the zero entry pads until noted to do so in this manual.

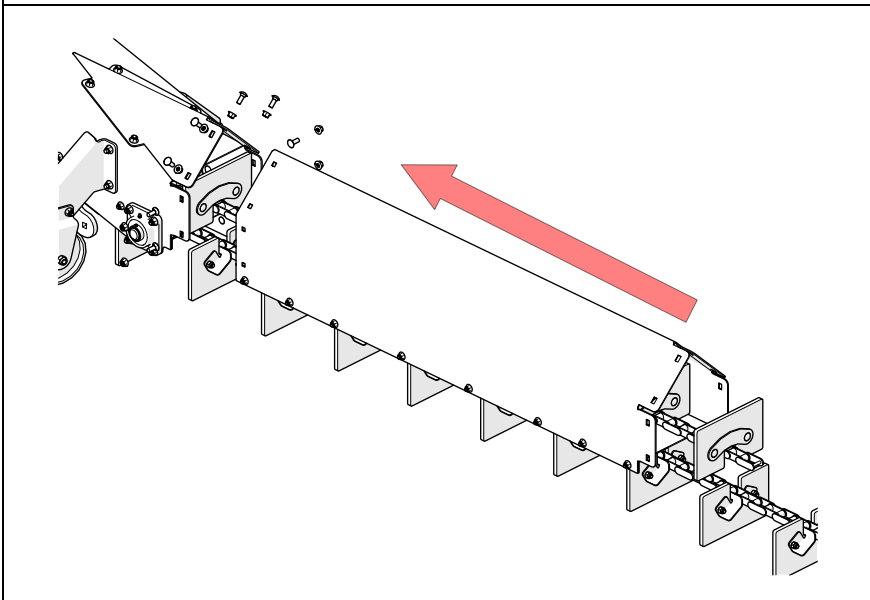
	<p>1. Lay the paddle chain on the floor from the head section out to the bin wall.</p>
	<p>2. The chain should be orientated such that the chain tabs are on the bin wall side of the rubber paddles.</p>



3. Feed the chain through the bottom of the head section.

Then over the sprocket and out the top.

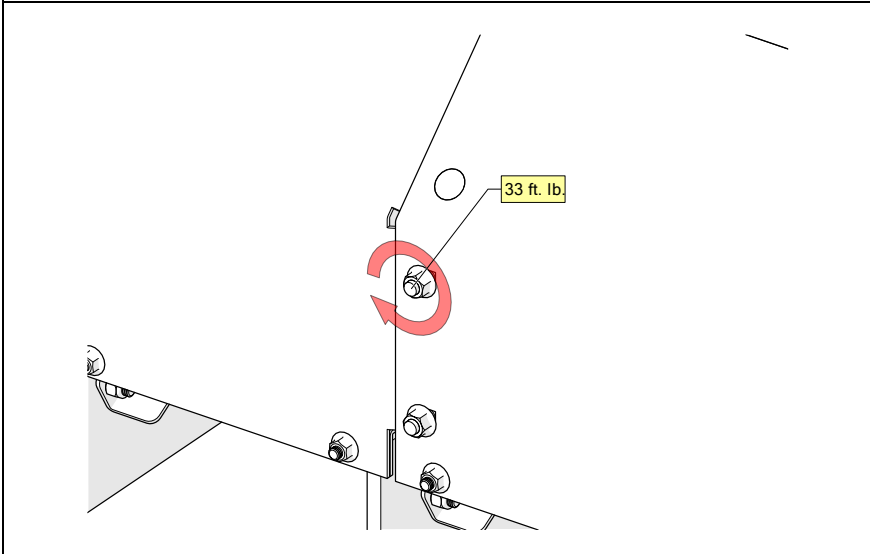
NOTE: It is recommended that after starting chain over the top to attach a wire/rope to the chain to pull through the intermediate sections.



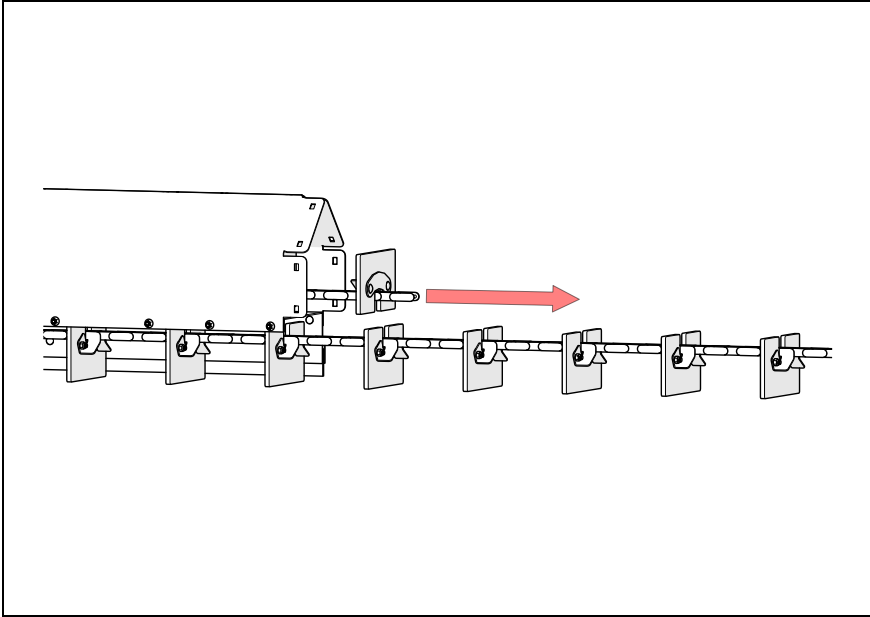
4. Begin installing the intermediate sections as shown in the parts list and diagrams section of the manual according to your **sweep model**.

NOTE: Bolts shown facing inward on the peak of the section. These bolts can be installed facing outward or inward, whatever is easier.

NOTE: The side bolts on the housing **MUST** face out, or they will contact paddles during operation.



5. All sweep section bolts (3/8" Grade 5) should be torqued to 33 lb. ft. without the use of an impact wrench.



6. Continue pulling the chain through the top portion of each section as you assemble them.

Installing the jacks or zero entry stands as each section is installed will assist with supporting the sweep.

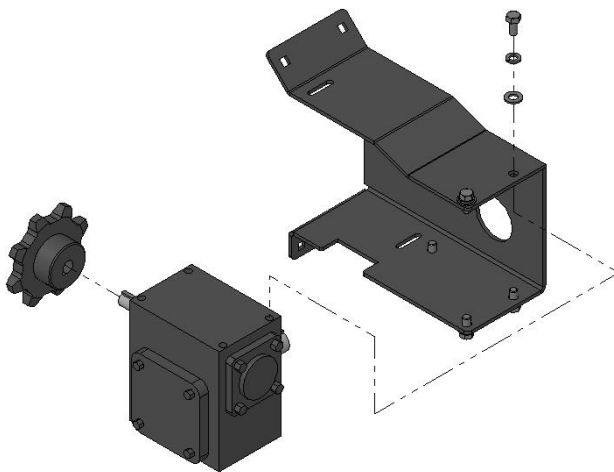
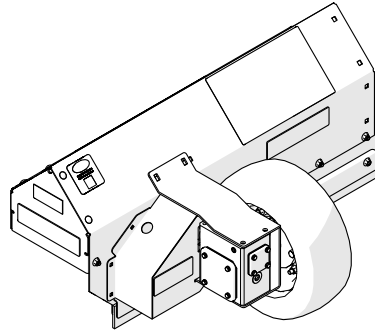
Tip: Be sure that the paddles do not get pinched between the flanges when bolting them together.

Once you have assembled all the intermediate sections move to the drive section assembly.

## 4.5 End Drive Section Assembly and Installation

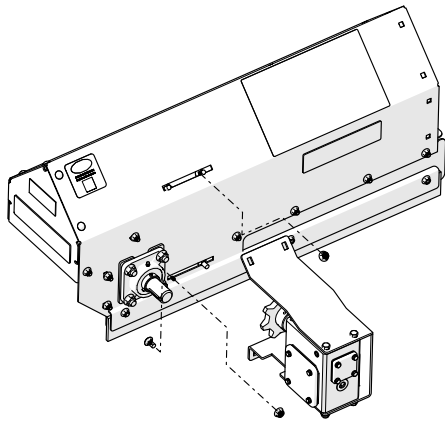
- Overview - The end drive will be delivered disassembled. Assembly should occur in the bin to ensure it fits into the bin's entry door / manway.

Drive End



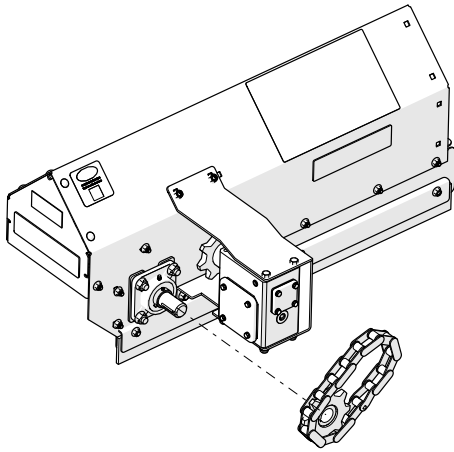
Reference the following parts of this manual. See table of contents for specific page numbers.

- Drive end assembly diagram for an overall detailed view.
- Drive end assembly parts list for the proper fasteners.
  1. Assemble the sprocket (K688933) and 3/16" key (included with the gearbox) to the gearbox (K689837).
- Do not tighten the setscrew yet. The sprocket may have to be adjusted in or out to align with the drive section shaft sprocket.
- 2. Secure the gearbox in the drive gearbox bracket weldment (K688924) using the appropriate fasteners.



3. Attach the drive gearbox bracket weldment to the drive section making sure the bolts and nuts are orientated so that the threads and nuts are oriented out of the sweep.

· Tighten the nuts only hand tight. The bracket will need to slide back and forth to ensure the drive chain is at the proper tensions.



4. Install sprocket (K688929) and 1/4" key (K686358) onto the drive section shaft.

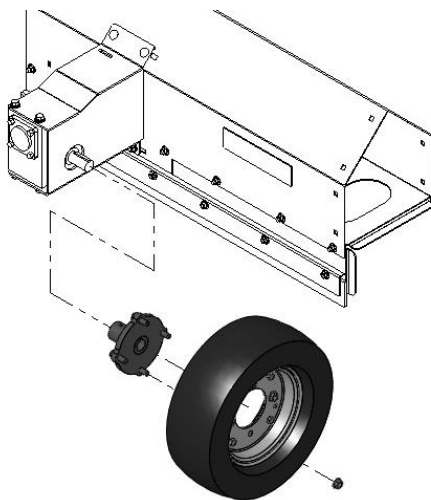
5. **Align** the gearbox sprocket and drive section shaft sprocket with each other.

6. Tighten both sprockets using a 5/32" hex key.

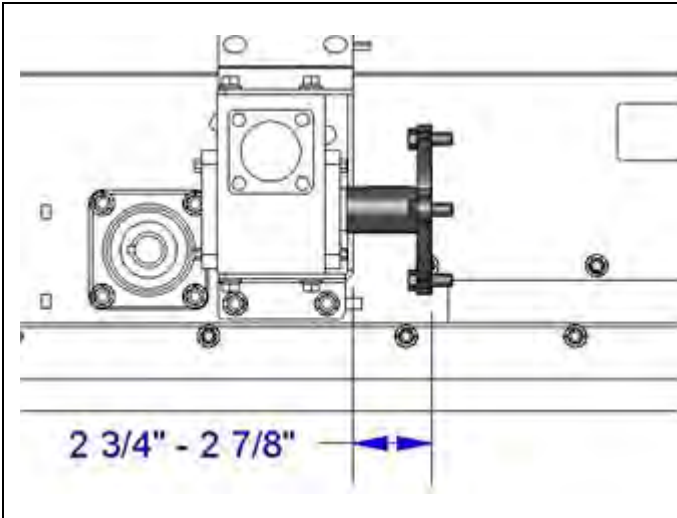
7. Install the 15-link chain (K688422) onto the sprockets.

8. Slide the drive gearbox bracket weldment to tighten the chain. The chain's slack side (top side of loop) should have 1/8" – 3/16" of movement.

9. Once the chain is adjusted to the correct tension, tighten the drive gearbox bracket weldment in place to the drive section using a 9/16" wrench or socket.

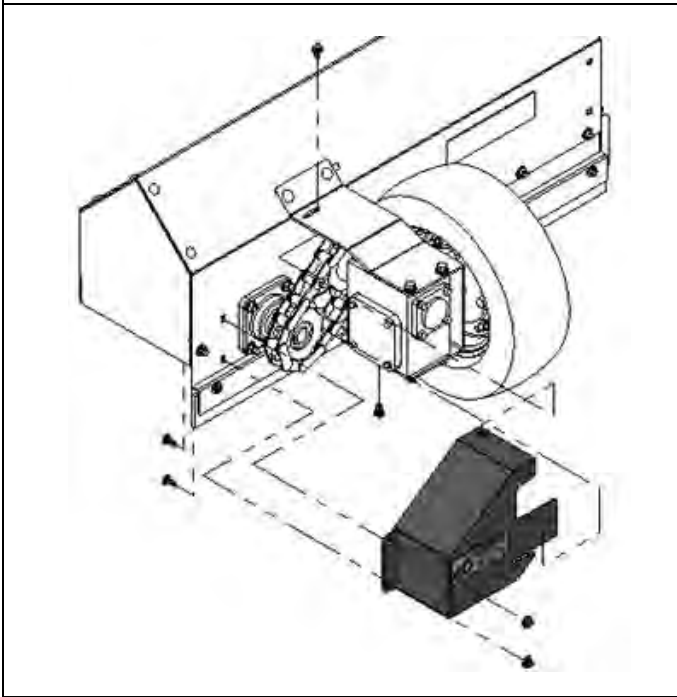


10. Install the wheel hub weldment (K689804) onto the gearbox.



Set the distance between the outside of the wheel hub weldment plate and the drive gearbox bracket weldment between 2.75" and 2.875".

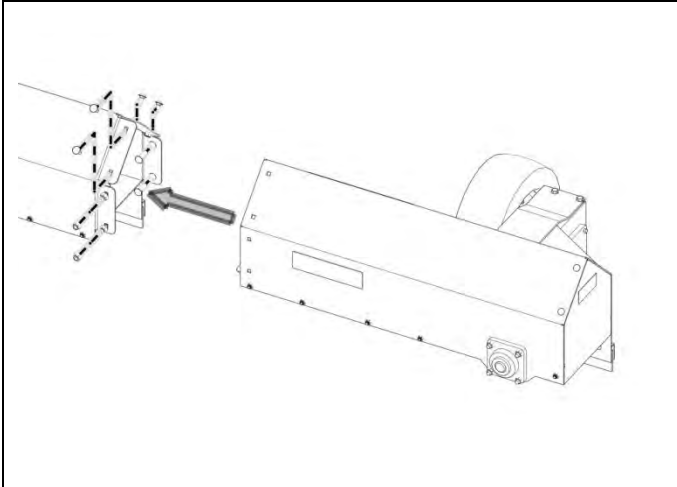
- 11. Install the wheel (K689095) onto the wheel hub weldment.
- 12. Make sure the chain and sprockets are aligned & all bolts and set screws are properly tightened.



13. Install the drive chain guard weldment (K688930) using a 9/16" socket or wrench.

14. Remove the plug from the upper/outer most port of the gearbox and install the vent plug in its place.

- The vent hole must be pointed upward.
- Failure to properly install the vent plug can lead to pressurization of the gearbox housing as operating temperature rises, resulting in leakage at the shaft seals and subsequent failure of the gearbox.



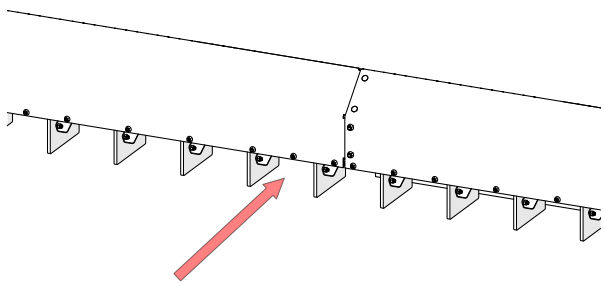
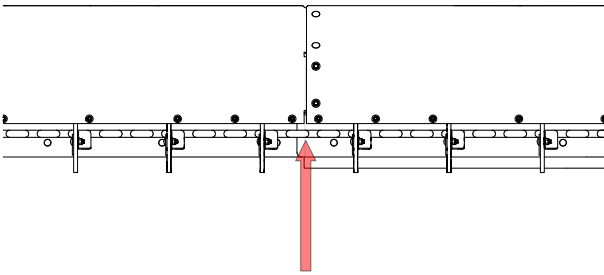
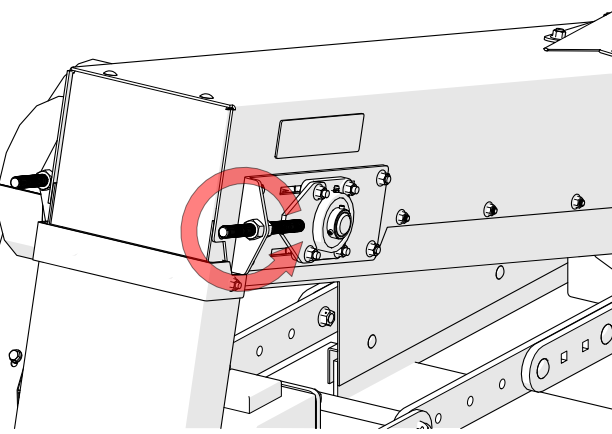
Once the end drive section is assembled it can be bolted on using a 9/16" socket or wrench.

15. Continue to feed the paddle chain through the top of the section and around the sprocket.

16. Connect the paddle chain using the supplied connecting link and cotter pins.

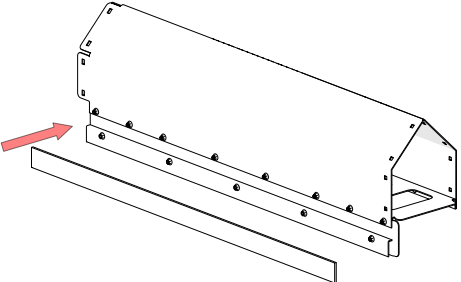
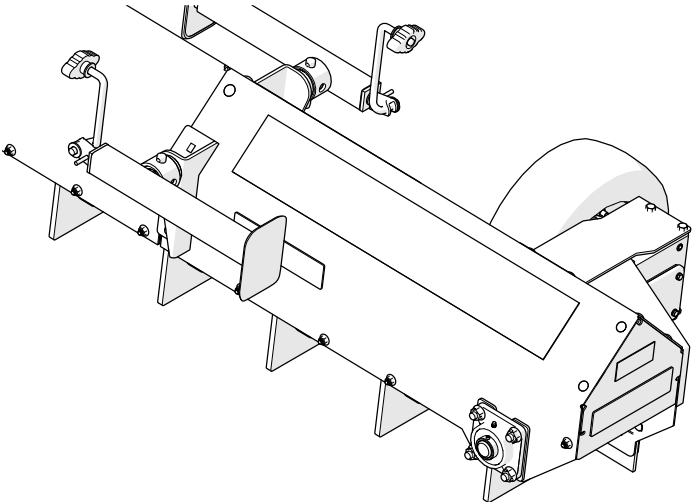
## 4.6 Paddle Chain Tensioning

- Overview – The paddle chain will need to be tensioned twice before installation is complete. The initial tensioning will be prior to operation and tension must be checked again after operation. This will ensure proper tension upon startup under load.

	<p>1. Access the chain via the front opening area where material enters.</p>
	<p>2. At the center of the sweep (i.e., 15 ft. from sump on 30 ft. sweep) check for tension by pushing up on chain.</p> <p>The chain should deflect approximately <math>\frac{3}{4}</math>" , or half of the thickness of the chain.</p> <p>Less deflection indicates that the chain is too tight; more deflection indicates that the chain is too loose.</p> <p>The chain must not lift high enough to contact the sweep housing.</p>
	<p>3. To adjust the chain tension, use the two take-up assemblies at the head of the bin sweep. Loosen the locking nuts on the adjuster bolt as well as the (4) bearing bolts to allow for movement of the bearings. Turn the adjuster bolt clockwise to increase chain tension or counterclockwise to reduce chain tension.</p> <p>4. Ensure that both adjusters are equally adjusted to maintain proper sprocket and chain engagement. Once the sweep is assembled and ready for operation, run the sweep for 5 minutes.</p> <p>5. Check the chain tension again and adjust as needed to achieve <math>\frac{3}{4}</math>" of deflection.</p>

#### 4.7 Final Check

- Overview – The final check is to complete installation and ensure the sweep is ready for operation. Checking these items is critical before an initial operation.

	<p>1. Install the drag rubber on the back side of the sweep such that it lightly contacts the ground.</p>
	<p>2. If equipped with jacks, ensure that they are off the ground and rotated out of the way.</p>


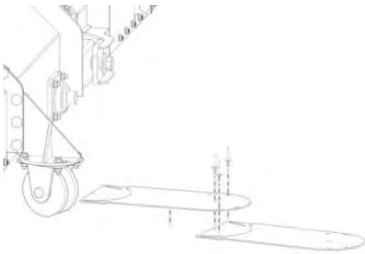


## 4.8 Initial Operation

- Overview – During initial operation in an empty bin, personal will have to be inside of the bin. It is critical that persons stay on the back side of the sweep and do not sit on, walk, stand, or touch the sweep as it is operating.
- READ FIRST - If track paths are being utilized, please refer to the track path section before operating the sweep.
- READ FIRST - If zero entry stand and pads are being utilized, please refer to the zero-entry pad section before operating the sweep.
- The sweep will need to be operated for two complete rotations before being set for burial.
- It is highly recommended that these first two passes be completed in an empty bin.
- If an empty bin is not possible, the grain pile needs to be consistent across the floor and engagement side of the sweep. An uneven grain pile can cause significant damage to the sweep.
- While operating, check for high or low spots in the floor that may cause obstructions and adjust the casters and drag rubber as necessary.
- Also check that the end drive section of the sweep does not contact any obstructions inside the bin such as stiffeners, doors, or ladders.
- Check all (3) chains (paddle chain, tractor drive chain, pivot kit chain) after first two passes for excessive slack or tightness.

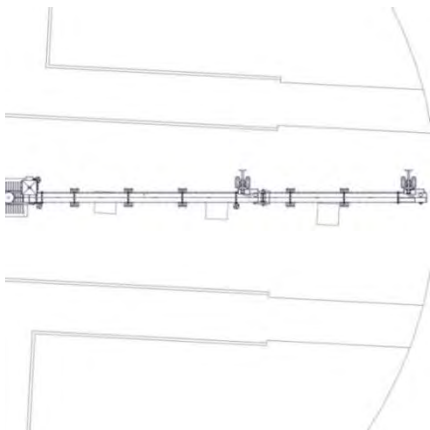
#### 4.9 Track Pathway Installation

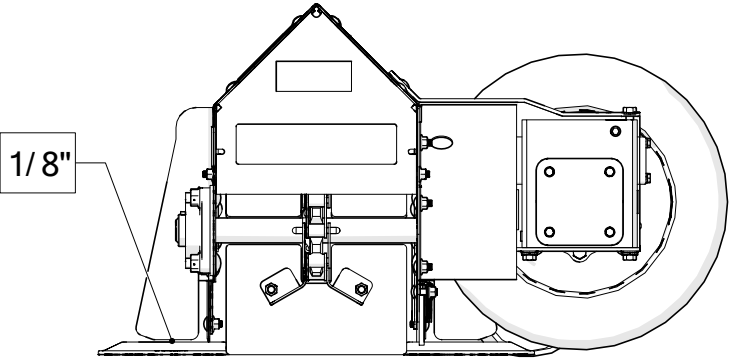
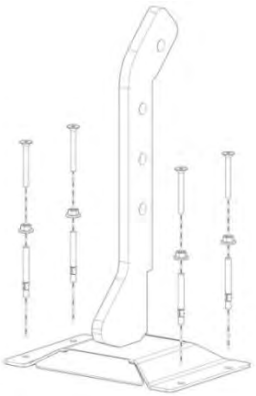
- Overview –If your floor is a full aeration floor or has aeration tunnels, track pathways are available to protect them from damage from the caster wheels and drive wheel. The track pathways are critical to preventing floor damage when the sweep is operated under load.

	<p>To determine the location of the track pathways it is recommended that the sweep is operated to find the path.</p> <ol style="list-style-type: none"> <li>1. While the sweep is operating around an empty bin, follow the caster and mark the floor with paint or a marker.</li> </ol>
	<ol style="list-style-type: none"> <li>2. After the path is marked you can install the pathways in an overlapping fashion.</li> <li>3. Anchor the pathways down with the supplied rivets.</li> </ol> <p>The final pathway may have to be cut to fit properly.</p>

#### 4.10 Zero Entry Pad Installation

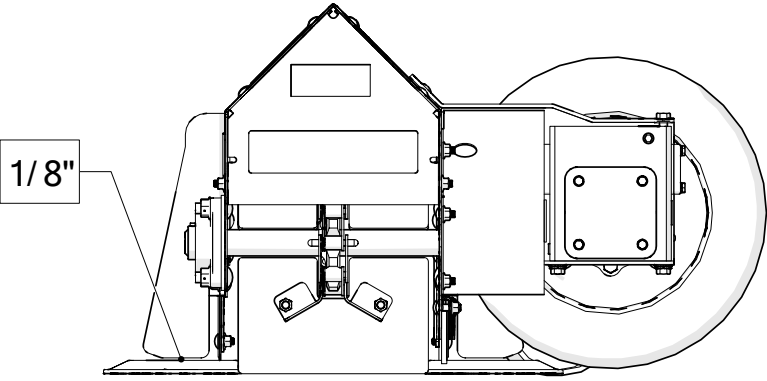
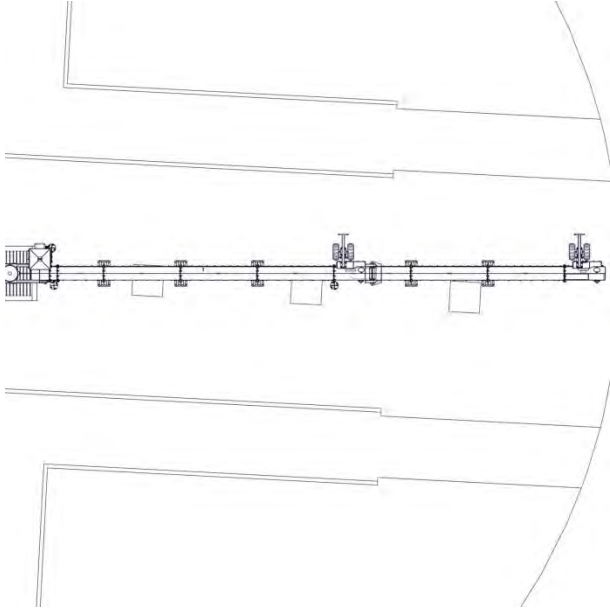
- Overview - Zero Entry pad installation should not occur until after the sweep has made at least one pass around the bin as the locations can change slightly. It is critical that the stands repeatedly land on the pads as not doing so can cause major damage to the sweep when buried.

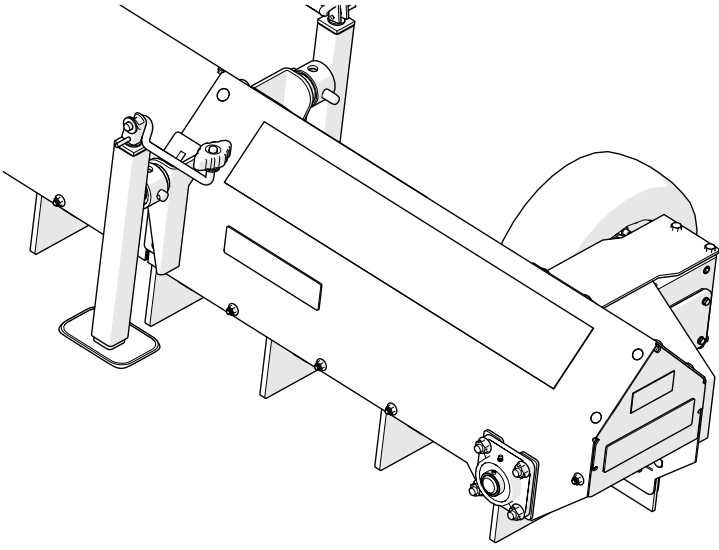
	<ol style="list-style-type: none"> <li>1. After the first pass to check operation is completed the sweep can be stopped in the burial location.</li> </ol> <p>The burial location should be such that the sump locations are just in front of the sweep and that none of the zero entry stands are above a sump hole location.</p> <ol style="list-style-type: none"> <li>2. Once the sweep is set to this location. Place a zero-entry pad under each stand.</li> </ol>
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 <p>A technical line drawing of a zero-entry stand. The stand has a triangular top section and a rectangular base. A callout box on the left side contains the text "1/8\"", with a line pointing to the gap between the stand's base and the floor.</p>	<p>3. Using the shims that are provided, elevate the pad so that each one has a 1/8" gap to the stand.</p> <p>If there is not enough room for the pad without a shim, then the zero-entry stand will need to be cut or ground to provide the 1/8" gap.</p> <p>4. Center each pad under the stand in the orientation shown and mark the location on the floor.</p>
 <p>A technical line drawing showing the hardware used to secure the pads and shims. It includes a vertical post, a horizontal bar, and several screws. The hardware is shown being inserted into the base of the stand.</p>	<p>5. While keeping track of each pad and shim location, move the shims to the rear of the sweep.</p> <p>6. Advance the sweep forward to gain access to all the pad locations that have been marked.</p> <p>7. Secure each pad and shim stack to the floor using the provided hardware.</p>

#### 4.11 Setting the sweep for Burial

- Overview – Once the second pass is nearly complete the sweep can be set for burial. Improperly setting the sweep for burial can cause extensive damage to the sweep which can be very difficult and hazardous to repair when the bin is full of grain.

 <p>A technical diagram showing a side view of a sweep mechanism. A callout box on the left points to a gap between a component and a surface, labeled "1/8\"". The diagram shows various mechanical parts, including a central shaft, bearings, and a large circular component on the right.</p>	<ol style="list-style-type: none"><li>1. If using zero entry stands, advance the sweep until the stands are centered above the zero entry pads.</li><li>2. Verify that there is 1/8" clearance between the stand and the pad at each location.</li></ol> <p>Failing to do so may result in major damage to the sweep.</p>
 <p>A technical diagram showing a side view of a sweep mechanism. The diagram illustrates the sweep's position relative to a structure with sump holes. A central shaft with several jacks is shown. The jacks are positioned such that they are not directly above any of the sump holes.</p>	<ol style="list-style-type: none"><li>3. If using jacks, advance the sweep until it is located such that the sump locations are just in front of the sweep and that none of the jacks are above a sump hole location.</li></ol>

	<p>4. Rotate the jacks down.</p> <p>5. Adjust the jacks downward so that the pad is making light contact with the floor.</p> <p>The jack pad should be touching the floor but should not be bearing so much weight that the pad does not have free play when pushed on.</p>
	<p>6. If the sweep is equipped with an electrical cord to the motor the cord should be placed on the floor behind the sweep and tractor drive wheels.</p> <p>Secure any excess cord so that it can be reached after the bin has been emptied.</p>

## 5 Operation

- **Before Startup**
  - The paddle sweeps are not intended to be run if the grain bin has not been filled and drained down. The grain pile must be across the entire front of the sweep.
  - Failure to have a constant grain pile across the front of the sweep will result in the sweep bending or breaking at the sections as it tries to wrap around the pile of grain.
  - Prior to starting the sweep, the bin must be gravity drained as much as possible.
  - All sumps must be opened, and grain flow must stop prior to starting the sweep.
- **First Pass**
  - After the bin has been gravity drained the sweep should be visible in the grain pile if a man way is able to be opened.
  - If the sweep is equipped with jacks the sweep will need to be ran long enough to remove the sweep from the grain pile before entry is made to move the jacks to the operating position.
  - Once the sweep is started it will begin moving grain to the center sump. The sweep may not appear to advance until enough grain from the pile in front of the sweep is moved.
  - While the sweep is running the tractor wheels will be slipping on the floor as the sweep drives into the grain pile. This is normal and is designed to provide constant pressure on the grain pile to ensure the paddles are full.
  - Avalanches will occur in the grain and flow over the top of the sweep leaving grain behind the sweep. This is normal on the first pass and why a second pass is recommended to empty the bin.
  - During operation the user must ensure that grain is not backing up in the sump and being carried back through the top of the sweep. If the takeaway system does not have enough capacity, the sweep will incur damage from grain backing up.
- **Second pass**
  - Because the sweep must remain a set distance from the wall of the bin, a small amount of grain will remain on the outer wall. If desired, this grain can be moved away from the wall before the second pass begins.
  - Just before the first pass is completed the sweep can be stopped and grain moved away from the outer wall. Be sure to follow all lock out and bin entry procedures when entering the bin.
  - Again, moving this away from the wall is optional and does require entry into the bin.
  - The sweep can now be operated for a second pass.
  - As with the first pass, the tractor drive wheels will slip on the ground as the sweep pushes into the pile.
- **Additional Sweeping**
  - Depending on the level of grain removal desired, additional passes can be run.
- **Burial**
  - Refer to the earlier section for the procedure of setting the sweep for burial.

## 6 Preventative Maintenance

- Service Schedule

Service Description	After Initial Use	After 4 Operations or Every Year	After 12 Operations or Every 3 Years
Check oil level in gearboxes	X	X	X
Check Hardware	X	X	X
Check Paddle Chain Tension		X	X
Grease Fittings		X	X
Adjust Drag Rubber			X
Clean off excess debris			X
Change oil in Gearboxes			X

- Grease fitting locations
  - Head section
    - Take-up bearings
    - Driving pivot section
  - Front bearing holder (paddle chain shaft)
  - Rear bearing holder (paddle chain shaft)
  - Rear bearing holder (shaft to gearbox)
    - End drive
  - Front bearing holder (paddle chain shaft)
  - Rear bearing holder (paddle chain shaft)
  - Rear bearing holder (shaft to gearbox)
    - Caster wheels
  - Front and Rear
- Periodically check all bolts for looseness and re-torque if necessary. (Torque ratings located on next page)
  - Section fasteners
  - Split sprockets and set screws
  - Wheel hubs
  - Split Sprockets (8 tooth – torque (2) ¼”-20 socket head screws to 30ft/lbs)
  - SAE Recommended Torque Settings

Size	Grade 5				Grade 8			
	Lubricated		Dry		Lubricated		Dry	
	N*m	Lb-ft	N*m	Lb-ft	N*m	Lb-ft	N*m	Lb-ft
1/4"	9.5	7	12	9	13.5	10	17	12.5
5/16"	20	15	25	18	28	21	35	26
3/8"	35	26	44	33	50	36	63	46
7/16"	55	41	70	52	80	58	100	75
1/2"	85	63	110	80	120	90	150	115
9/16"	125	90	155	115	175	130	225	160
5/8"	170	125	215	160	215	160	300	225
3/4"	300	225	375	280	425	310	550	400

- Paddle conveyor chain
- Tractor drive chain
- Pivot kit chain
- Check drag rubber for damage or adjustment.

- Gearbox Oil Level

If low use specified oil listed below or equivalent for proper gearbox. Synthetic lubricant should be changed every 6,000 hours of operation or every two years, whichever comes first. Refer to the installation section for level and vent plug location.

Make	Gearbox #	Oil Capacity	Recommended gear lube
Grove	GR826	48.0	Mobile Glygoyle 460 (Part # 688413)
Grove	GR830	72.0	
Grove	GR832	92.0	
Grove	GR842	128.0	
Hub City	214	24.0	
Worldwide	WWE206	19.4	Mobile SHC 634
Worldwide	WWE237	24.1	
Worldwide	WWE262	41.1	

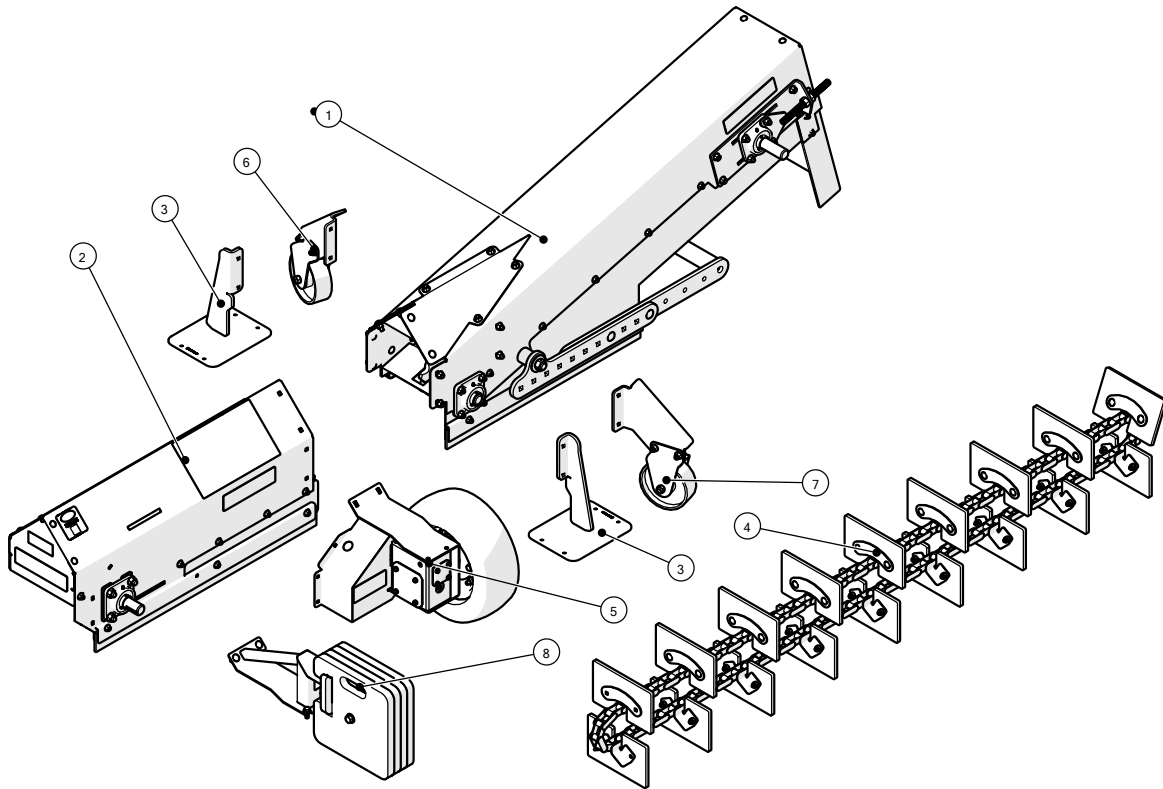
- **CAUTION:** Too much oil will cause overheating and too little will result in gear failure. More frequent oil changes are recommended when operating continuously, at high temperatures or under conditions of extreme dirt or dust. Check that vent plug is clear.



## 7 Trouble Shooting

Problem	Solution
1. Overheating gearbox	Overloading take away system – Need to slow down the paddle sweep or check that vent plug is installed and open
2. Farm sweep is over running the sump	A different sprocket combination is needed to slow the sweep down.
3. Sweep is too long or short or contacts bin/silo wall.	Adjust the sweep at the head section. The sweep is a modular unit consisting of intermediate sections in lengths of 6", 1', 3' or 5'. 6" and 1' extension kits are also available
4. Damage to head section	Are take-up bearings tightened evenly
5. Breaking tail or head shafts	Chain tension is too tight. See chain tensioning section.
6. Paddle chain will not turn	Missing sprocket, missing keyway, gearbox is not engaged on head shaft.
7. Tractor drive is not turning	Missing sprocket that cogs with paddle chain. Roller chain is loose or disconnected.
8. Sweep acts like it wants to "climb" the pile.	Center pivot is mounted too high.
9. Sweep leave indentations or "tracks" on aeration panels or floor	Bin/Silo needs track pathways installed to the floor or areas with indentations.
10. After burial sweep has pushed through an aeration floor.	Additional floor supports are needed under load points of sweep during burial.
11. Jack failed	Jack is to be set, so that it just touches the floor. Do not jack sweep up into air, as the caster and tractor drive wheels need to be touching the floor.
12. Steel caster wheel is cutting or marking the floor.	Ensure the front and rear casters are in the appropriate position on the sweep. Also ensure the adjustment of the wheel is turned to the radius of its path.
13. Front caster wheel falls into sump opening.	Move caster wheel to a different flange mount either inward or outward.
14. Gearbox is low on oil	See maintenance section for proper level and oil.
15. Conveyor/paddle chain do not clog correctly over sprocket on driving pivot sections	Loosen paddle chain tension.

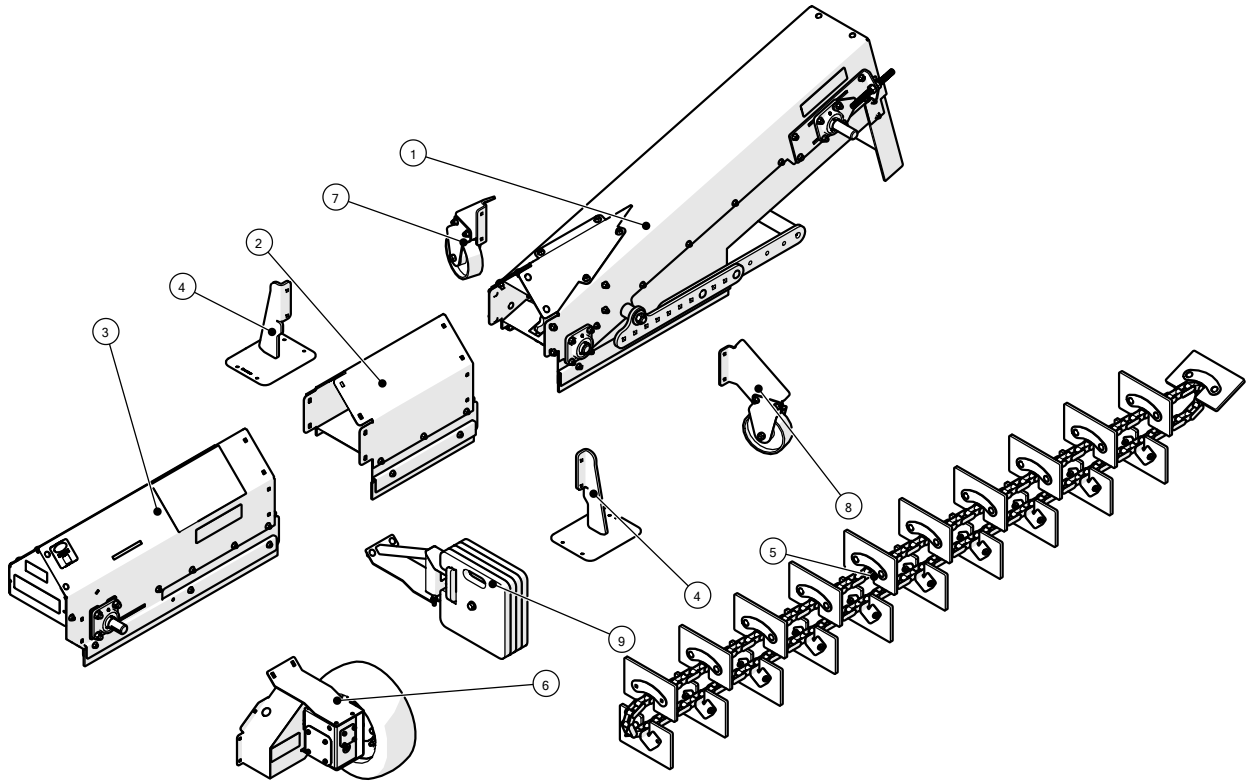
## 8 Parts Diagrams



### PARTS DIAGRAM & LIST

#### 7' DAAY POWER SWEEP FOR A 15' BIN (K704867)

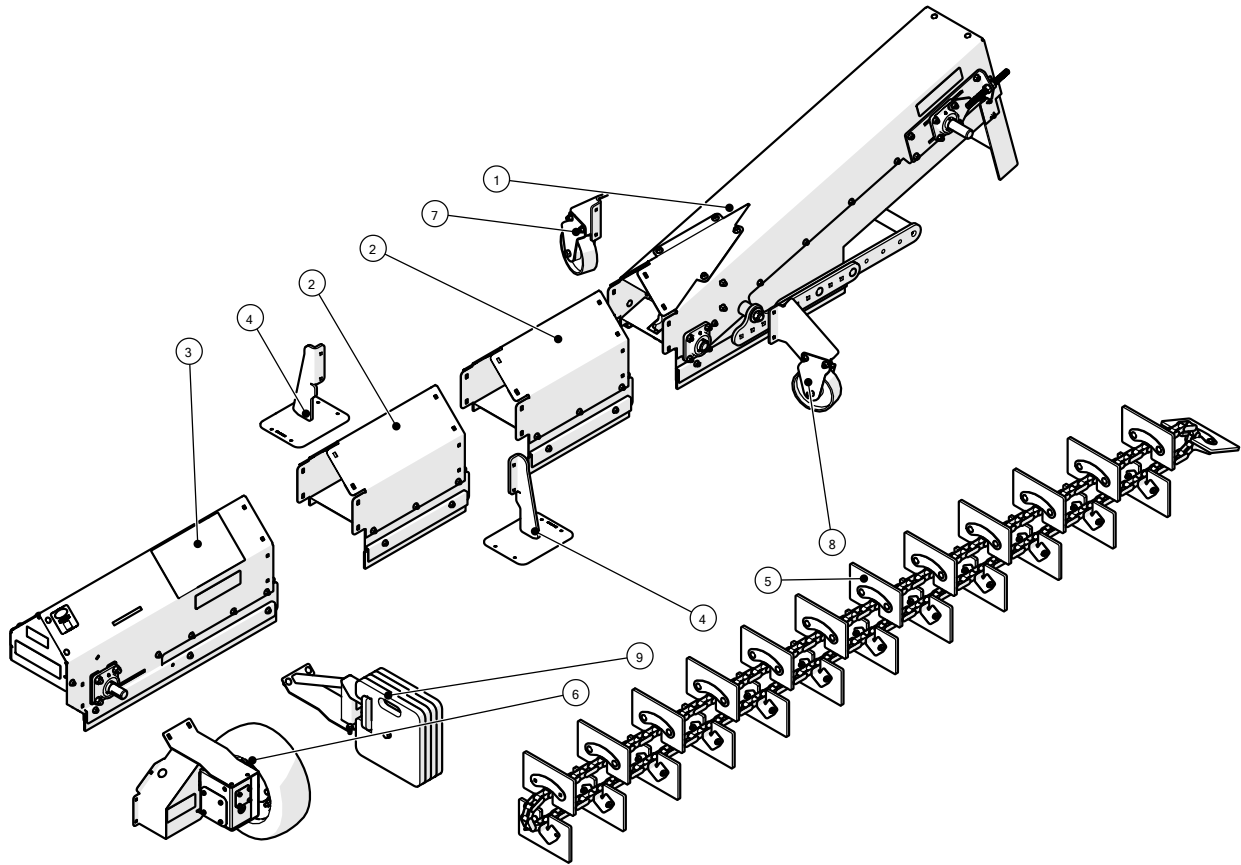
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K711453	DRIVE END ASSEMBLY	1
3	K695153	ZERO ENTRY KIT – FARM SWEEP	2
4	K693103	108 LINK PADDLE CHAIN ASSEMBLY	1
5	K704806	TRACTOR DRIVE	1
6	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
7	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1
8	K709983	WEIGHT KIT- FARM PADDLE SWEEP	1



### PARTS DIAGRAM & LIST

#### 8' 6" DAAY POWER SWEEP FOR A 18' BIN (K704868)

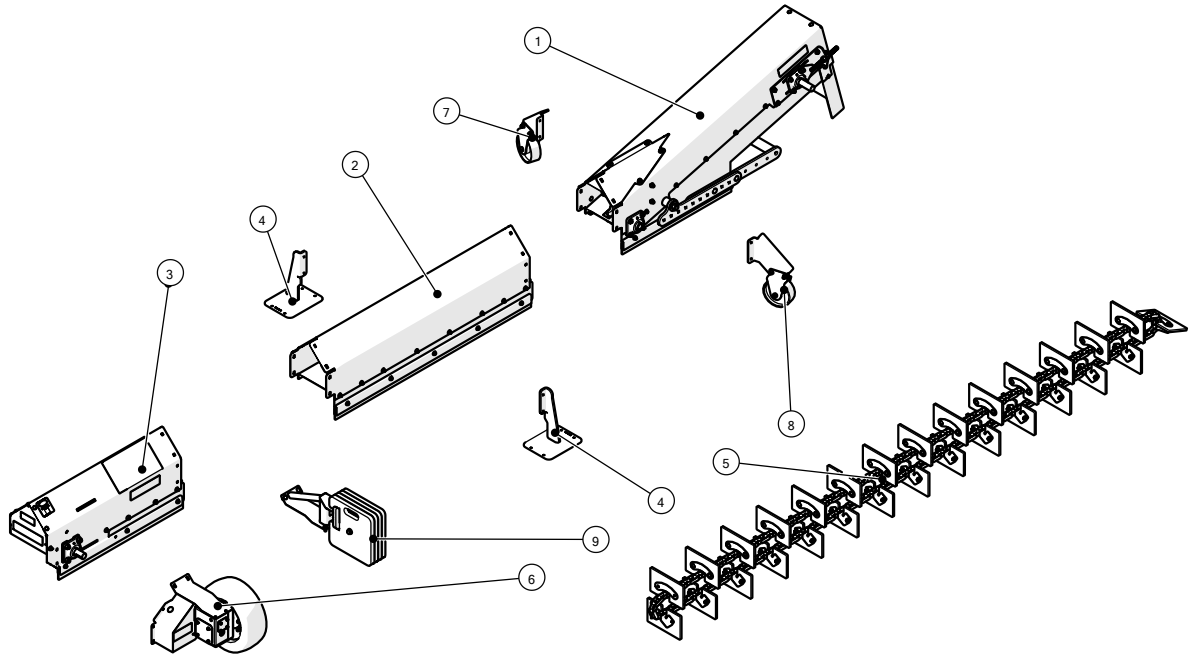
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	1' 6" SECTION ASSEMBLY	1
3	K711453	DRIVE END ASSEMBLY	1
4	K695153	ZERO ENTRY KIT – FARM SWEEP	2
5	K693105	131 LINK PADDLE CHAIN ASSEMBLY	1
6	K704806	TRACTOR DRIVE	1
7	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
8	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1
9	K709983	WEIGHT KIT- FARM PADDLE SWEEP	1



### PARTS DIAGRAM & LIST

#### 10' DAAY POWER SWEEP FOR A 21' BIN (K704869)

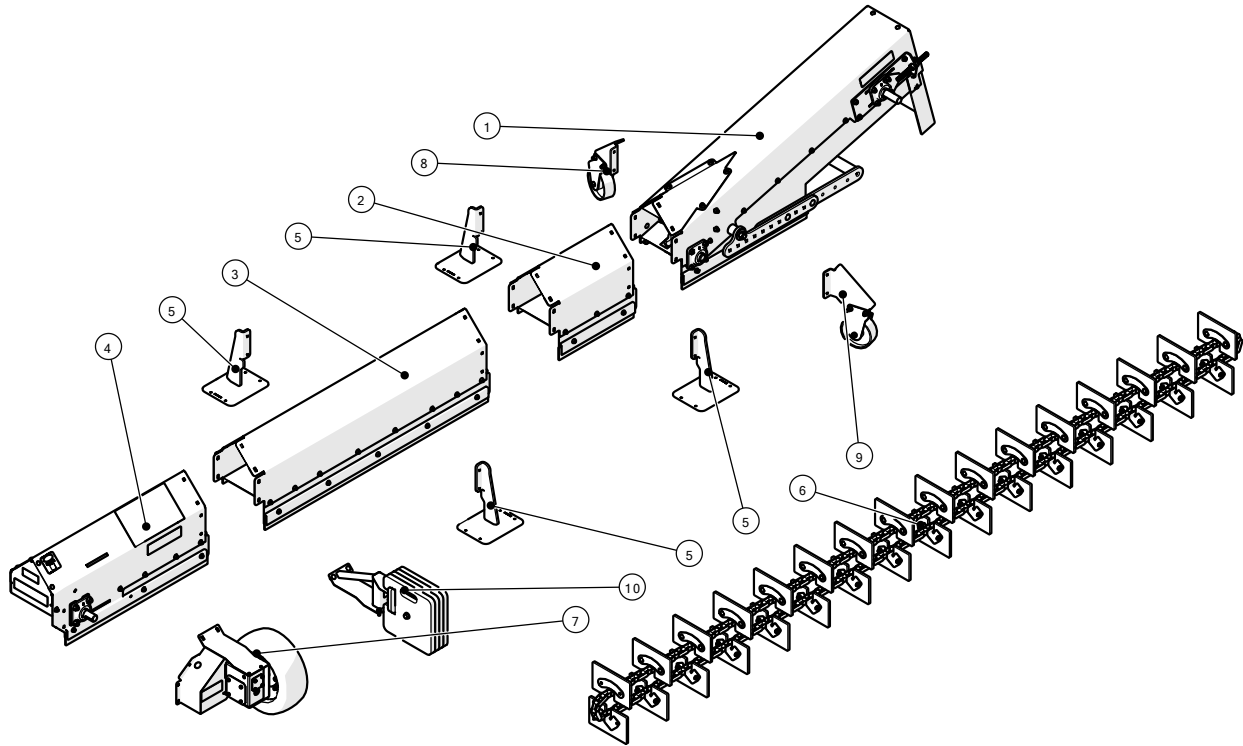
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	1' 6" SECTION ASSEMBLY	2
3	K711453	DRIVE END ASSEMBLY	1
4	K695153	ZERO ENTRY KIT – FARM SWEEP	2
5	K693107	153 LINK PADDLE CHAIN ASSEMBLY	1
6	K704806	TRACTOR DRIVE	1
7	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
8	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1
9	K709983	WEIGHT KIT- FARM PADDLE SWEEP	1



**PARTS DIAGRAM & LIST**

**11' 6" DAAY POWER SWEEP FOR A 24' BIN (K704870)**

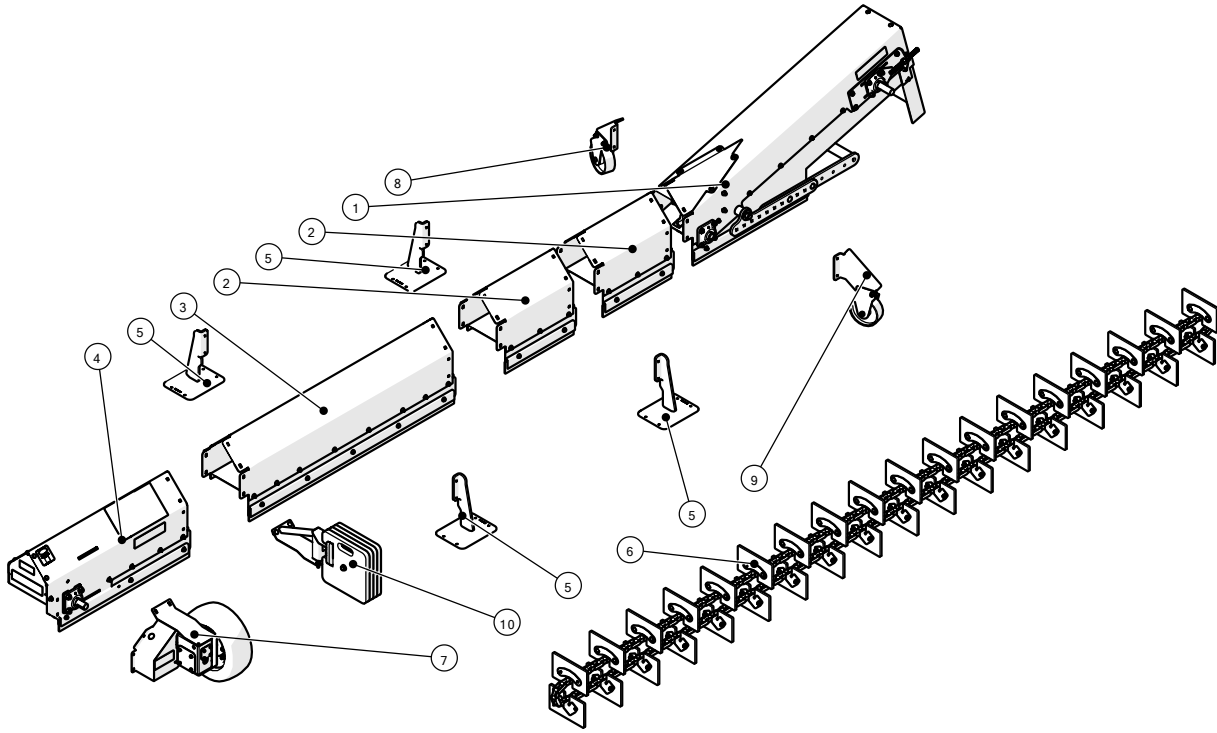
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704803	4' 6" SECTION ASSEMBLY	1
3	K711453	DRIVE END ASSEMBLY	1
4	K695153	ZERO ENTRY KIT – FARM SWEEP	2
5	K693109	176 LINK PADDLE CHAIN ASSEMBLY	1
6	K704806	TRACTOR DRIVE	1
7	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
8	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1
9	K709983	WEIGHT KIT- FARM PADDLE SWEEP	1



### PARTS DIAGRAM & LIST

#### 13' DAAY POWER SWEEP FOR A 27' BIN (K704871)

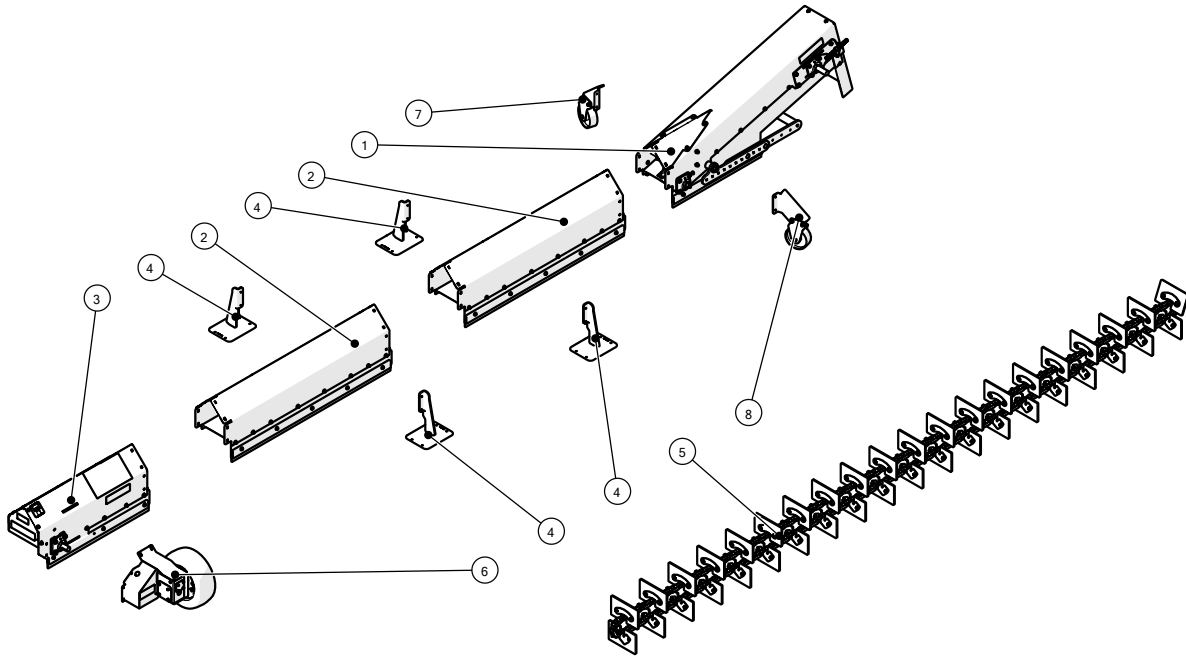
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	1' 6" SECTION ASSEMBLY	1
3	K704803	4' 6" SECTION ASSEMBLY	1
4	K711453	DRIVE END ASSEMBLY	1
5	K695153	ZERO ENTRY KIT – FARM SWEEP	4
6	K693111	198 LINK PADDLE CHAIN ASSEMBLY	1
7	K704806	TRACTOR DRIVE	1
8	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
9	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1
10	K709983	WEIGHT KIT- FARM PADDLE SWEEP	1



**PARTS DIAGRAM & LIST**

**14' 6" DAAY POWER SWEEP FOR A 30' BIN (K704872)**

ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	1' 6" SECTION ASSEMBLY	2
3	K704803	4' 6" SECTION ASSEMBLY	1
4	K711453	DRIVE END ASSEMBLY	1
5	K695153	ZERO ENTRY KIT – FARM SWEEP	4
6	K693113	221 LINK PADDLE CHAIN ASSEMBLY	1
7	K704806	TRACTOR DRIVE	1
8	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
9	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1
10	K709983	WEIGHT KIT- FARM PADDLE SWEEP	1

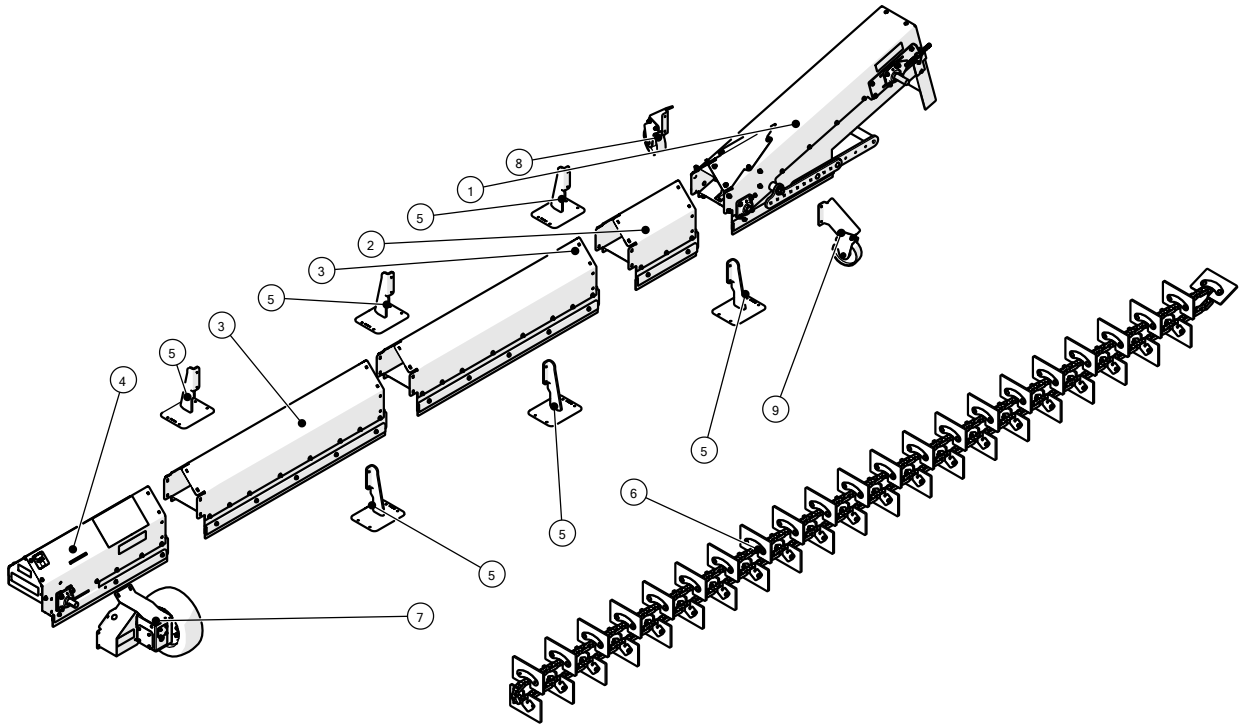


### PARTS DIAGRAM & LIST

#### 16' DAAY POWER SWEEP FOR A 33' BIN (K704873)

ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704803	4' 6" SECTION ASSEMBLY	2
3	K711453	DRIVE END ASSEMBLY	1
4	K695153	ZERO ENTRY KIT – FARM SWEEP	4
5	K693115	238 LINK PADDLE CHAIN ASSEMBLY	1
6	K704806	TRACTOR DRIVE	1
7	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
8	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1

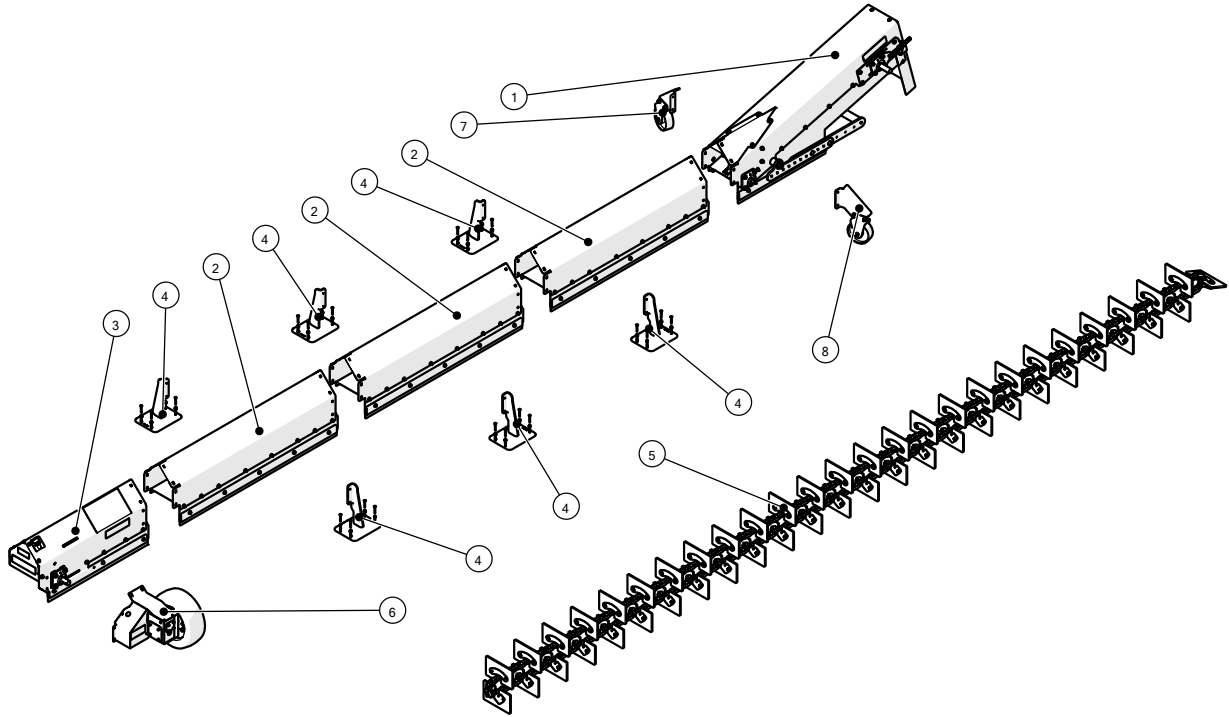




### PARTS DIAGRAM & LIST

#### 17' 6" DAAY POWER SWEEP FOR A 36' BIN (K704874)

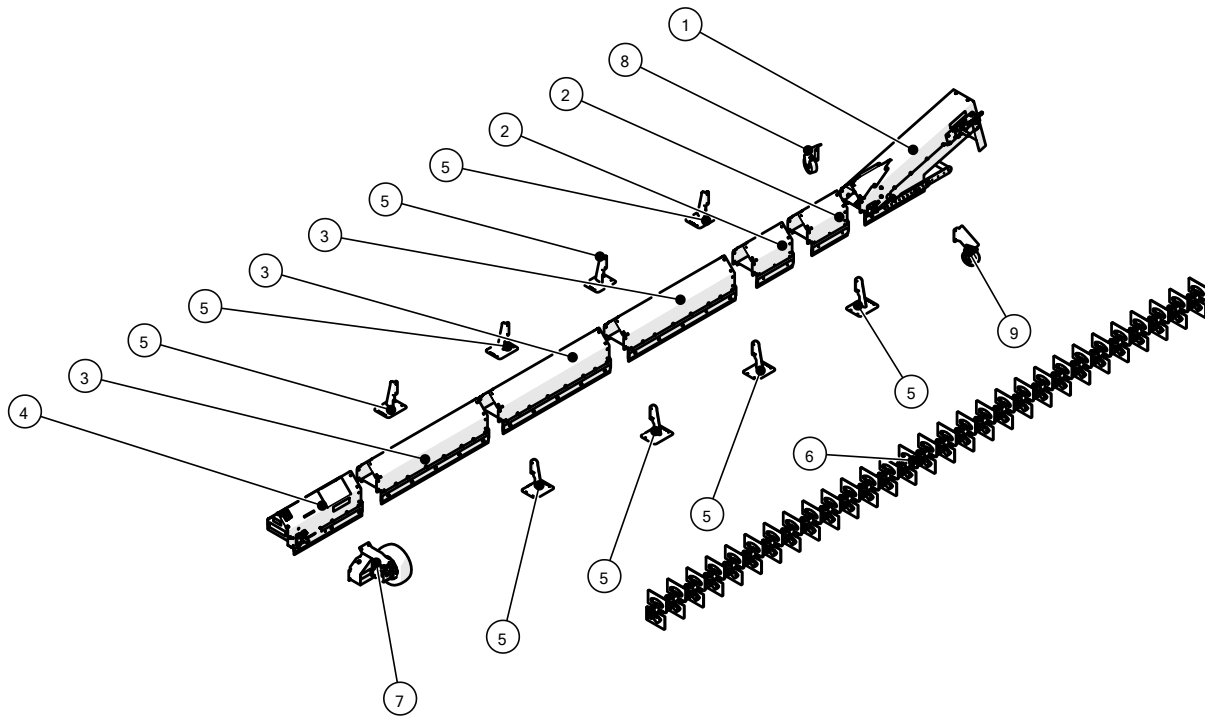
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	1' 6" SECTION ASSEMBLY	1
3	K704803	4' 6" SECTION ASSEMBLY	2
4	K711453	DRIVE END ASSEMBLY	1
5	K695153	ZERO ENTRY KIT – FARM SWEEP	6
6	K693117	266 LINK PADDLE CHAIN ASSEMBLY	1
7	K704806	TRACTOR DRIVE	1
8	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
9	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1



### PARTS DIAGRAM & LIST

#### 20' 6" DAAY POWER SWEEP FOR A 42' BIN (K704875)

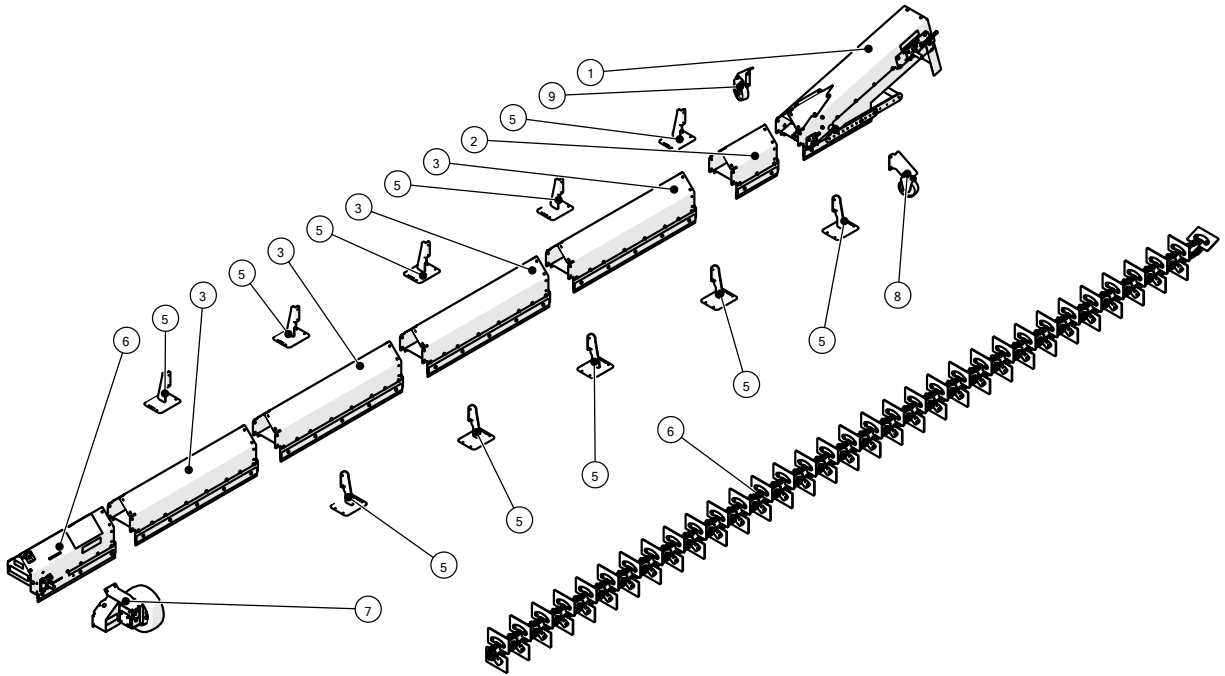
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704803	4' 6" SECTION ASSEMBLY	3
3	K711453	DRIVE END ASSEMBLY	1
4	K695153	ZERO ENTRY KIT – FARM SWEEP	6
5	K693119	308 LINK PADDLE CHAIN ASSEMBLY	1
6	K704806	TRACTOR DRIVE	1
7	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
8	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1



**PARTS DIAGRAM & LIST**

**23' 6" DAAY POWER SWEEP FOR A 48' BIN (K704876)**

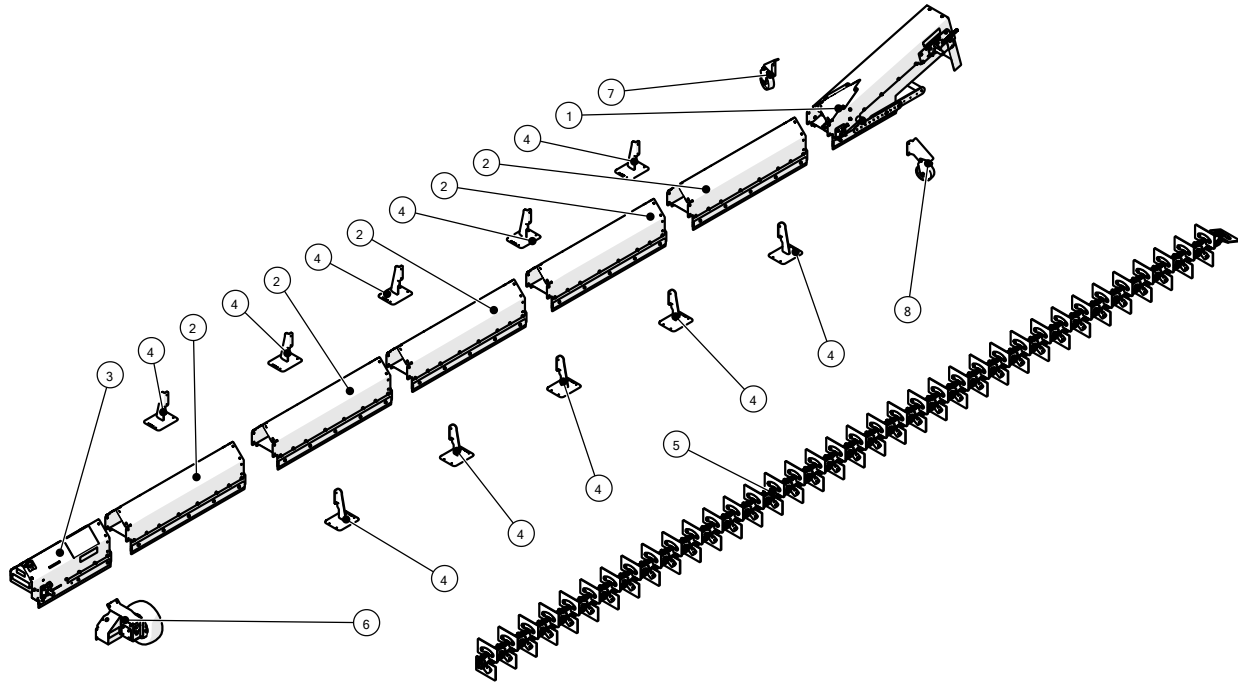
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	1' 6" SECTION ASSEMBLY	2
3	K704803	4' 6" SECTION ASSEMBLY	3
4	K711453	DRIVE END ASSEMBLY	1
5	K695153	ZERO ENTRY KIT – FARM SWEEP	8
6	K693131	356 LINK PADDLE CHAIN ASSEMBLY	1
7	K704806	TRACTOR DRIVE	1
8	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
9	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1



### PARTS DIAGRAM & LIST

#### 26' 6" DAAY POWER SWEEP FOR A 54' BIN (K704877)

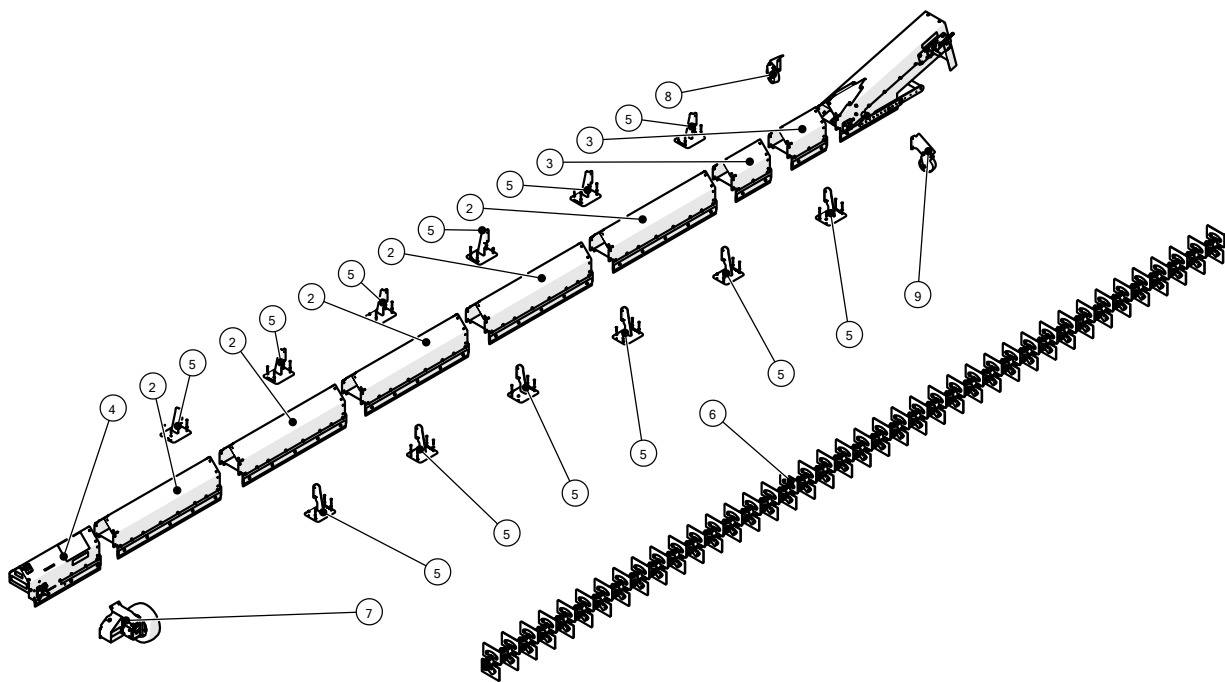
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	1' 6" SECTION ASSEMBLY	1
3	K704803	4' 6" SECTION ASSEMBLY	4
4	K711453	DRIVE END ASSEMBLY	1
5	K695153	ZERO ENTRY KIT – FARM SWEEP	10
6	K693123	401 LINK PADDLE CHAIN ASSEMBLY	1
7	K704806	TRACTOR DRIVE	1
8	K689823	PIVOT REAR CASTER WHEEL ASSEMBLY	1
9	K689824	PIVOT FRONT CASTER WHEEL ASSEMBLY	1



**PARTS DIAGRAM & LIST**

**29' 6" DAAY POWER SWEEP FOR A 60' BIN (K704878)**

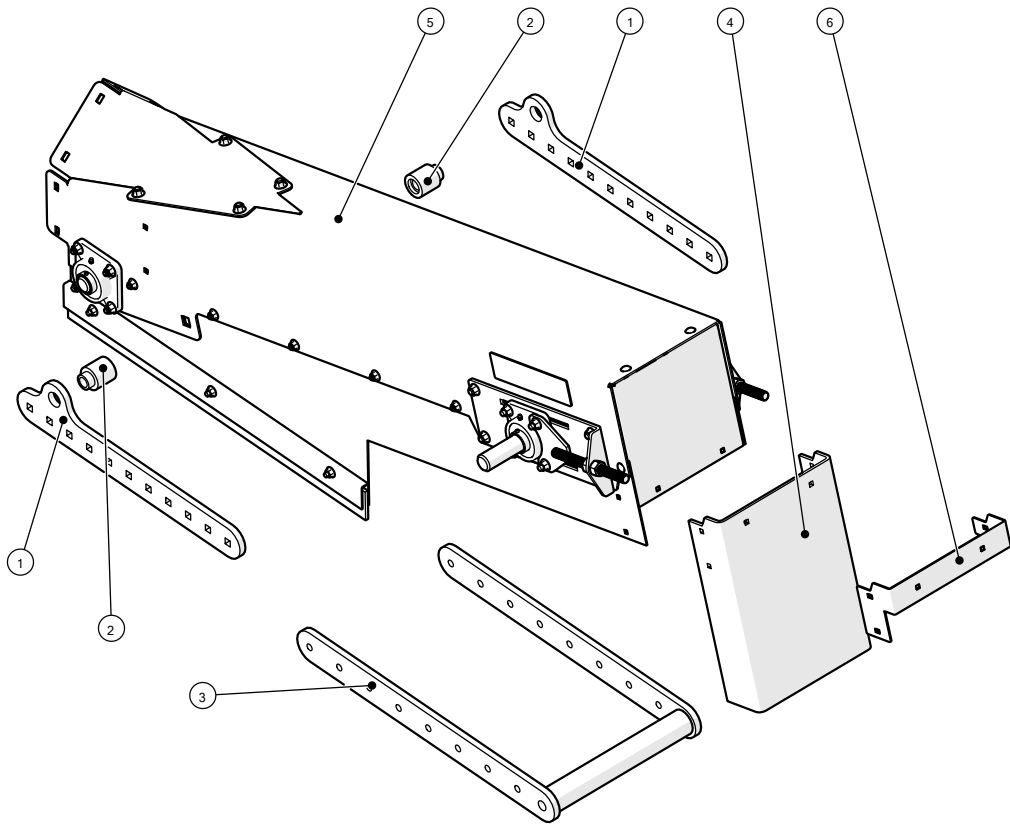
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704801	4' 6" SECTION ASSEMBLY	5
3	K711453	DRIVE END ASSEMBLY	1
4	K695153	ZERO ENTRY KIT – FARM SWEEP	10
5	K693125	446 LINK PADDLE CHAIN ASSEMBLY	1
6	K704806	TRACTOR DRIVE	1
7	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
8	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1



### PARTS DIAGRAM & LIST

#### 32' 6" DAAY POWER SWEEP FOR A 66' BIN (K704879)

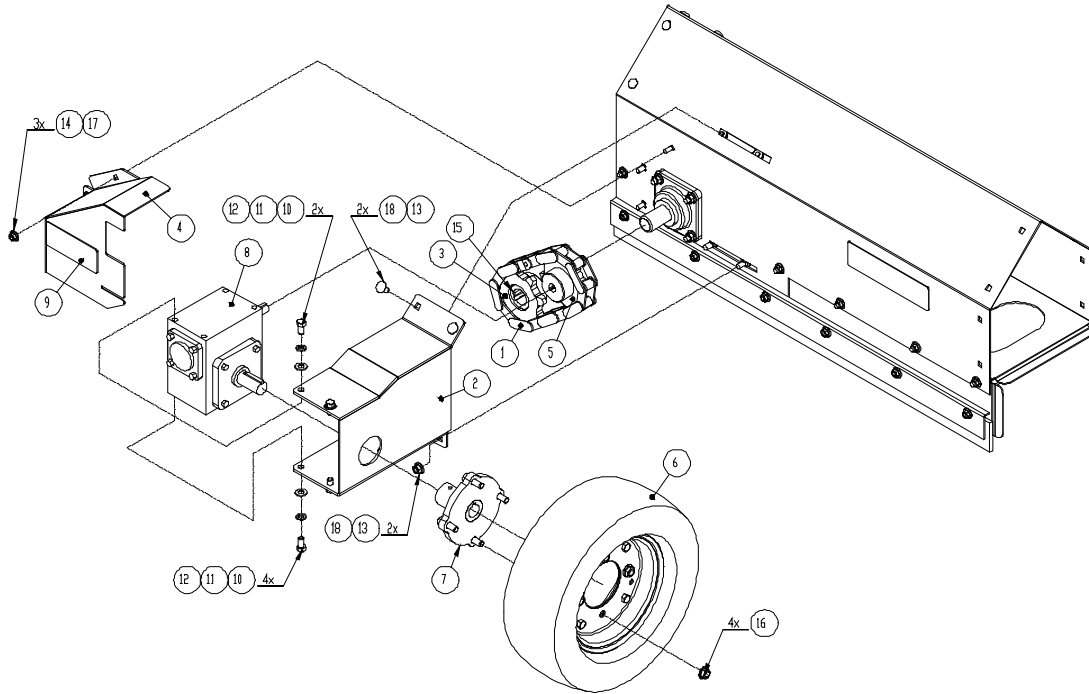
ITEM	PART #	DESCRIPTION	QTY
1	K704800	PIVOT END KIT	1
2	K704803	4' 6" SECTION ASSEMBLY	5
3	K704801	1' 6" SECTION ASSEMBLY	2
4	K711453	DRIVE END ASSEMBLY	1
5	K695153	ZERO ENTRY KIT – FARM SWEEP	12
6	K693127	491 LINK PADDLE CHAIN ASSEMBLY	1
7	K704806	TRACTOR DRIVE	1
8	K689823	PIVOT FRONT CASTER WHEEL ASSEMBLY	1
9	K689824	PIVOT REAR CASTER WHEEL ASSEMBLY	1



## PARTS DIAGRAM & LIST

### PIVOT END ASSEMBLY (K704800)

ITEM	PART #	DESCRIPTION	QTY
1	K688914	STABALIZER LOCK ARM	2
2	K688936	PIVOT STABALIZER BUSHING	2
3	K688970	STABALIZER WELDMENT	1
4	K689838	PIVOT END RUBBER	1
5	K704805	PIVOT END	1
6	K704838	PIVOT END RUBBER PLATE	1

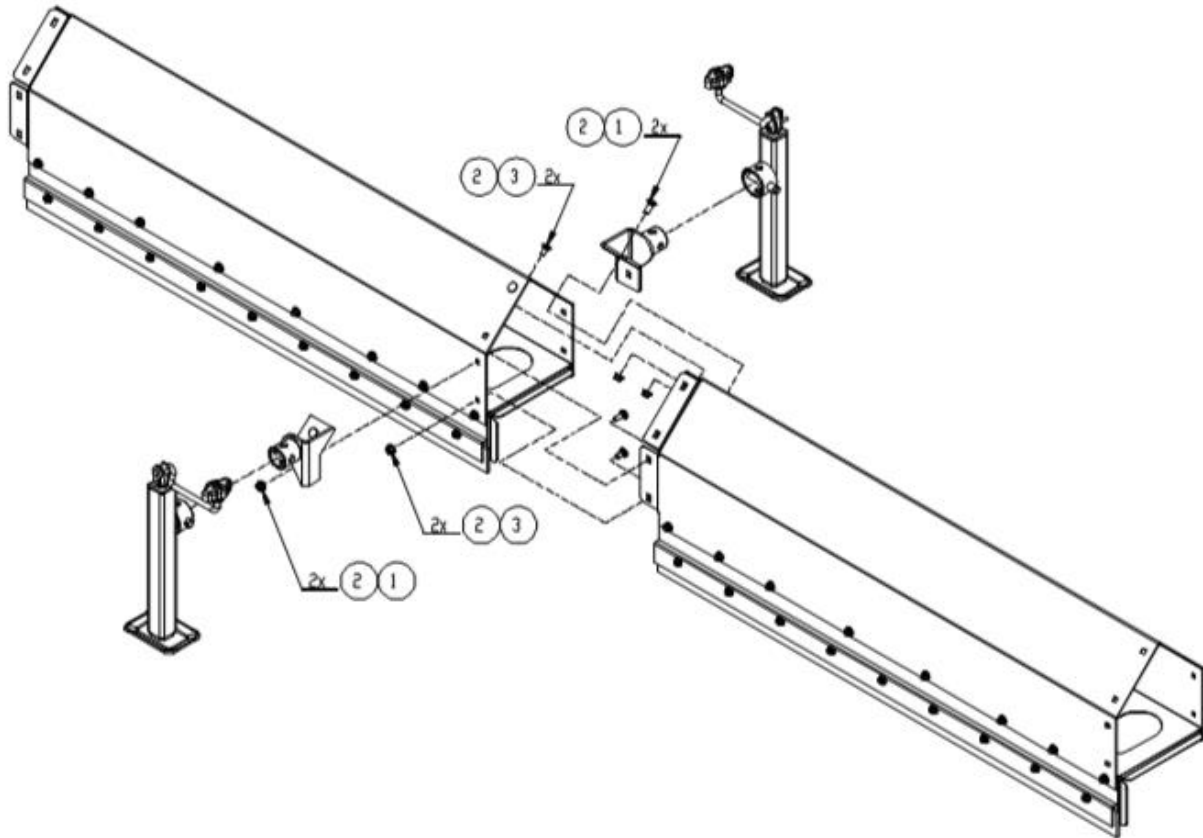


## PARTS DIAGRAM & LIST

### DRIVE END ASSEMBLY DIAGRAM (K704800)

ITEM	PART #	DESCRIPTION	QTY
1	K688422	15 LINK CA500 CHAIN	1
2	K688924	DRIVE GEARBOX BRACKET WELDMENT	1
3	K688929	550 8 TOOTH WELDED SPROCKET	1
4	K688930	DRIVE CHAIN GUARD WELDMENT	1
5	K688933	550 8 TOOTH WELDED SPROCKET	1
6	K689095	15" SEGMENTED WHEEL	1
7	K689204	WHEEL HUB WELDMENT - 1"	1
8	K689837	206 REDUCTION GEAR	1
9	K689871	DECAL - DANGER	
<b>TRACTOR DRIVE HARDWARE KIT (K701898) LINES 10 - 18</b>			
10	K640025	SCREW- .375-16 X .75 GR 5 HHC	6
11	K640155	WASHER- 7/16" SPRING LOCK	6
12	K640154	WASHER- 3/8" FLAT	6
13	K701182	NUT- .375 X 16 FLANGE CENTER LOCK	4
14	K701467	NUT- .3125 X 18 FLANGE CENTER LOCK	3
15	K686358	.250 X .250 X 1.500 KEY	1
16	K682857	NUT- .438 X 14 FLANGE LOCKNUT	4
17	K683943	SCREW- .3125 - 18 X 0.75 CARRIAGE	3
18	K683942	SCREW- .375 - 16 X 0.75 GR 5 CAR	4

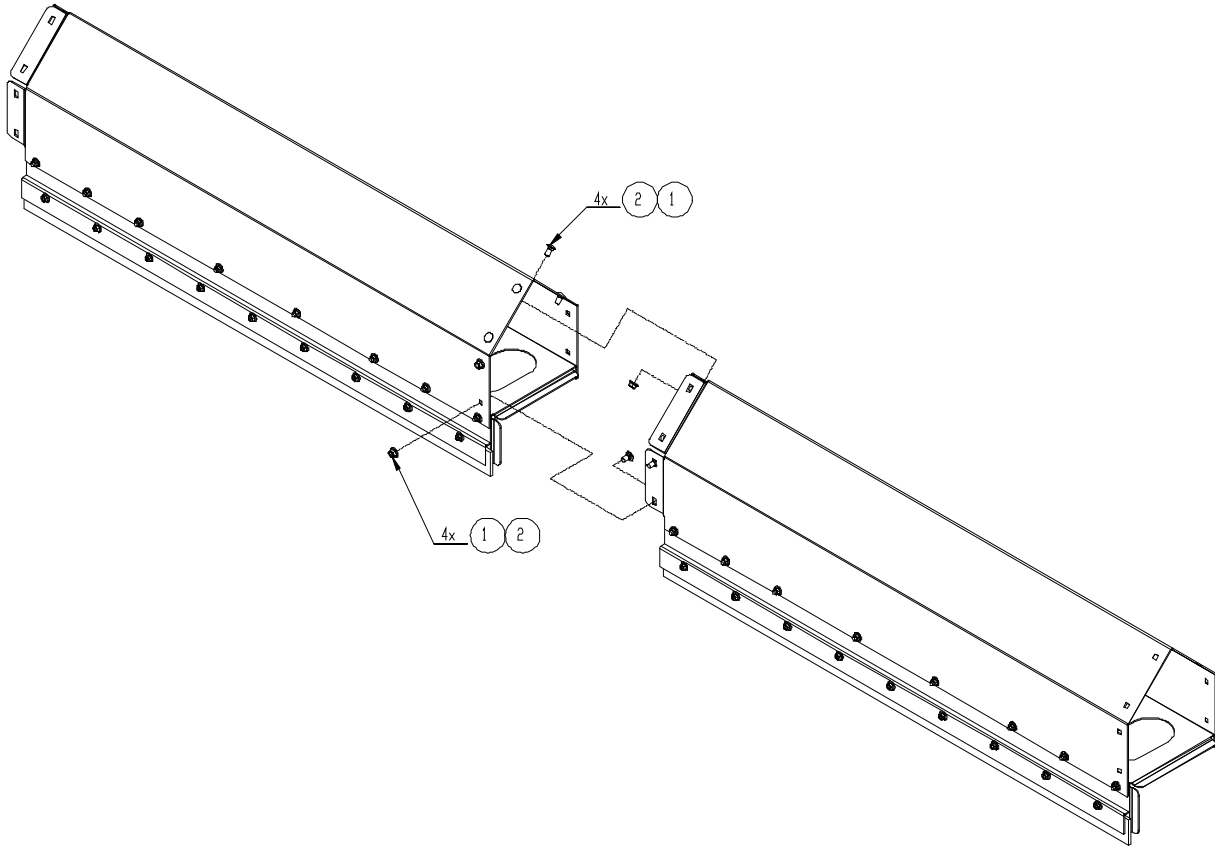




### PARTS DIAGRAM & LIST

#### SECTION JOINT WITH JACKS ASSEMBLY PARTS LIST & DIAGRAM

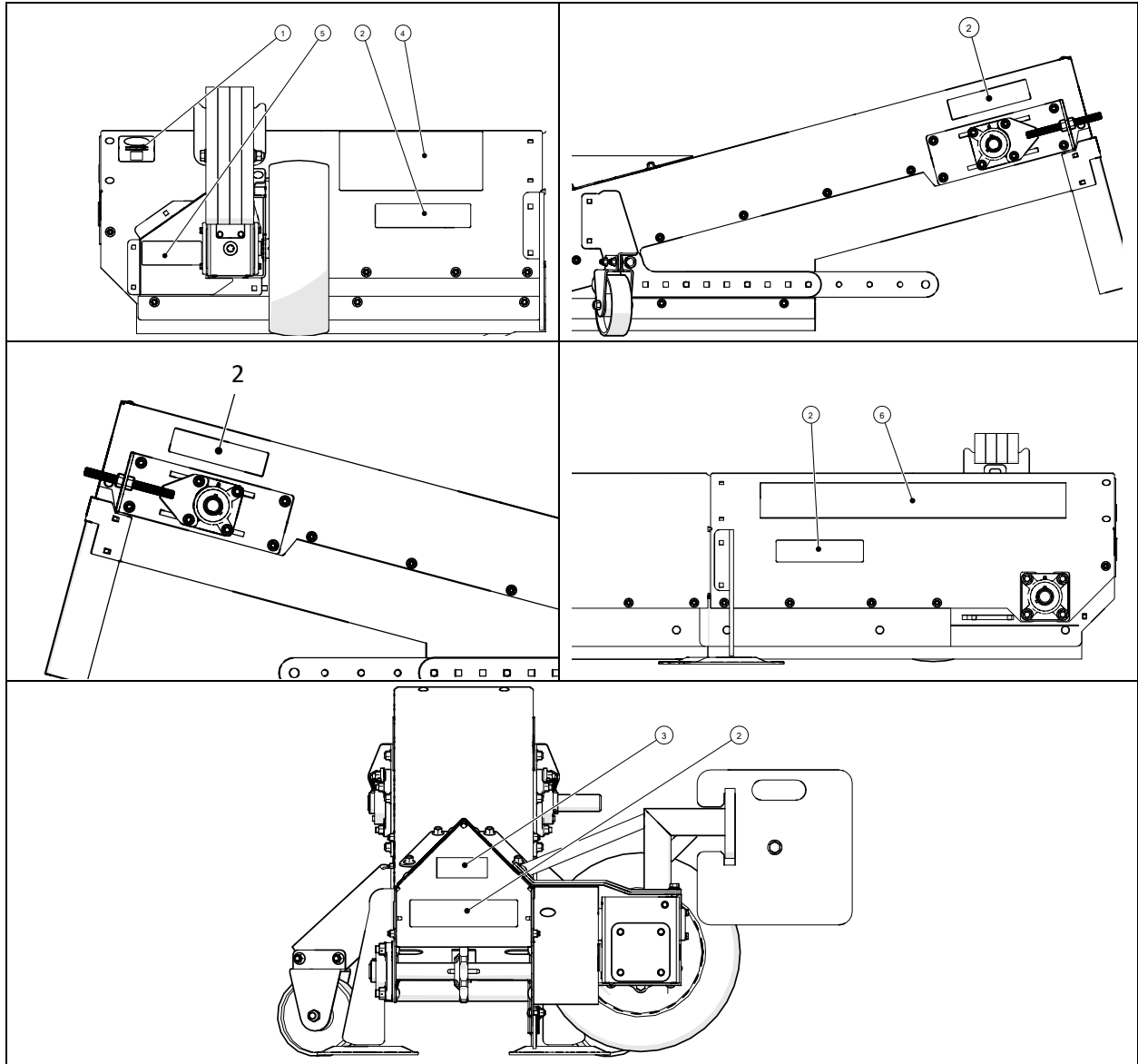
ITEM	PART #	DESCRIPTION	QTY
1	K640030	SCREW - .375 X 1.00 GR 5 CAR	4
2	K682413	NUT - .375 X 16 FLANGE	8
3	K683942	SCREW- .375 - 16 X 0.75 GR 5 CAR	4



### PARTS DIAGRAM & LIST

#### SECTION JOINT WITHOUT JACKS ASSEMBLY PARTS LIST & DIAGRAM

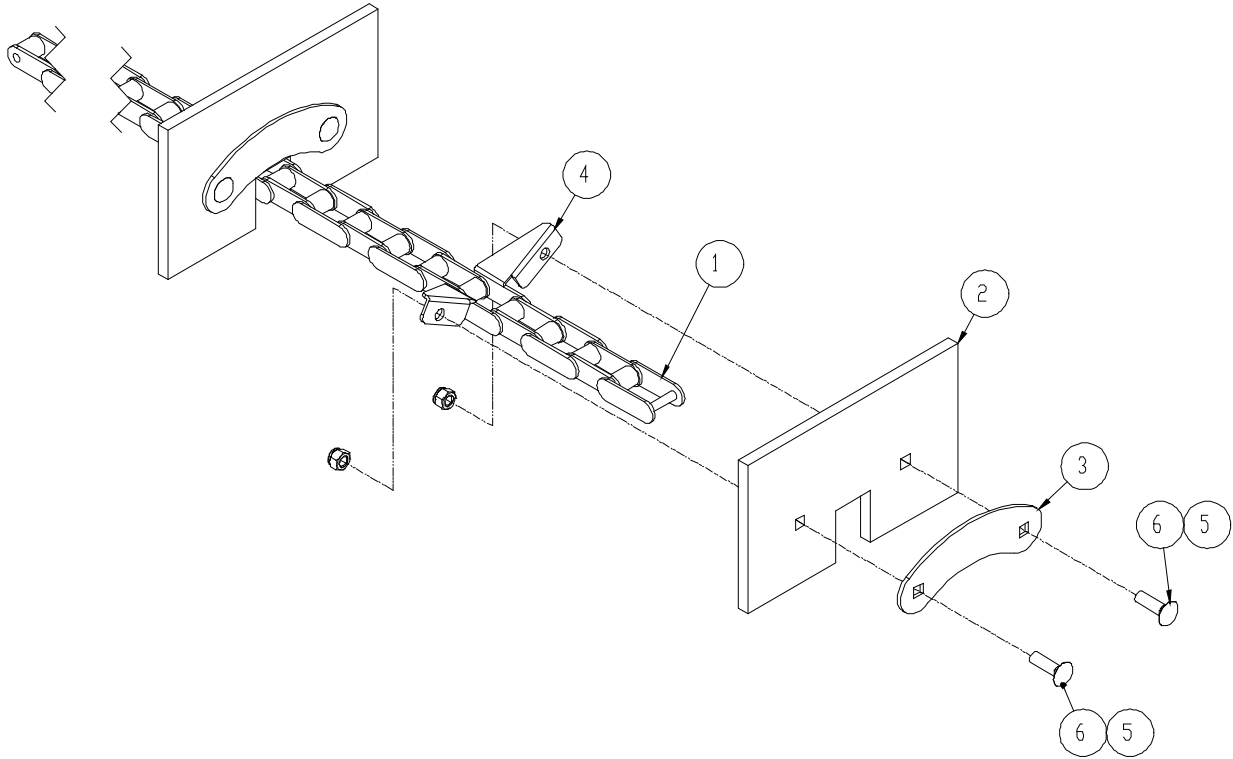
ITEM	PART #	DESCRIPTION	QTY
1	K682413	NUT - .375 X 16 FLANGE	8
2	K683942	SCREW - .375 X 0.75 GR 5 CAR	8



## PARTS DIAGRAM & LIST

### DAAY POWER SWEEP DECAL PARTS LIST & DIAGRAM

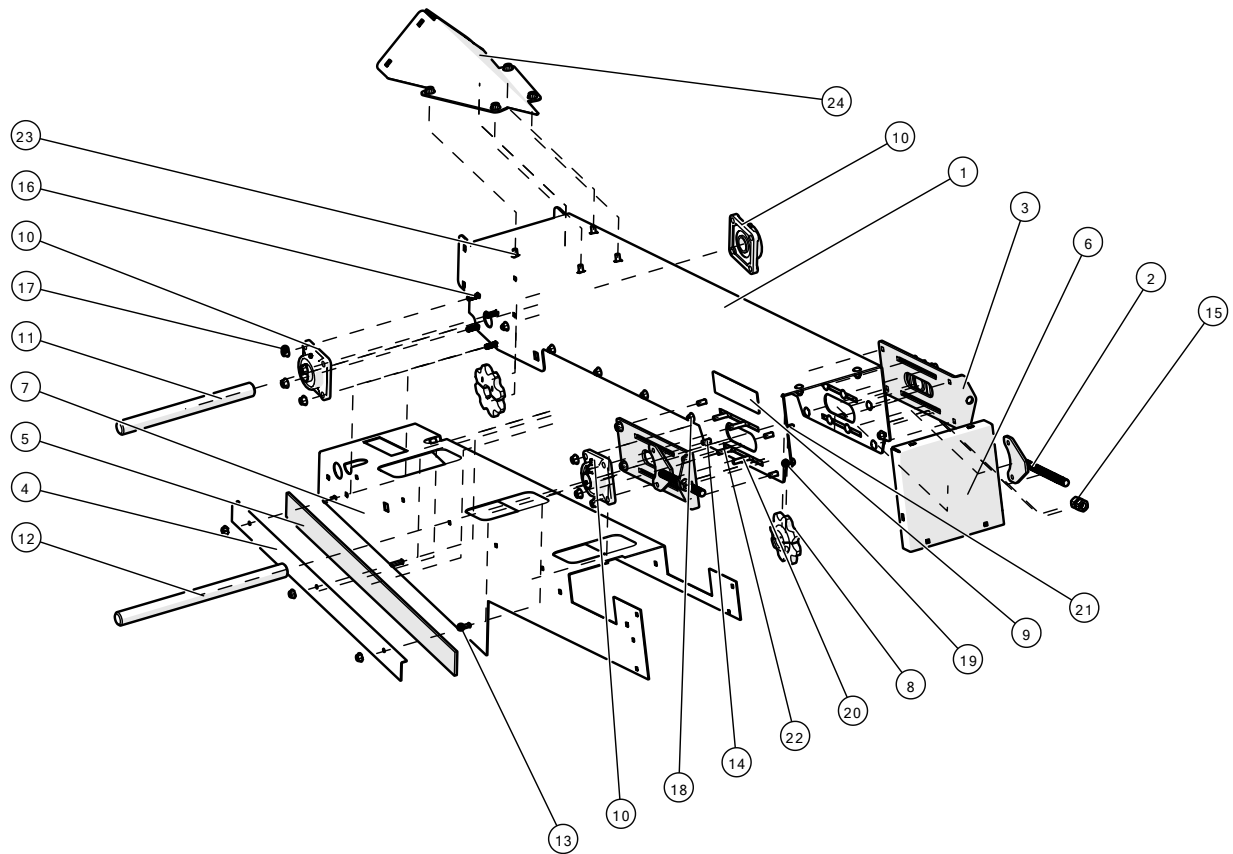
ITEM	PART #	DESCRIPTION	QTY
1	K704991	DECAL – VIRTUAL PATENT	1
2	K686033	DECAL – DANGER “GATHERING CHAIN UNLOADER”	5
3	K666941	DECAL – SERIAL NUMBER	1
4	K690344	DECAL – OPERATION	1
5	K689871	DECAL – WARNING – CHAIN	1
6	K689872	DECAL – LOGO – DAAY POWER SWEEP – FPS	1



**PARTS DIAGRAM & LIST**

**PADDLE CHAIN PARTS LIST & DIAGRAM**

ITEM	PART #	DESCRIPTION	QTY
1	K686010	MALE CONNECTOR LINK	NA
2	K686081	RUBBER PADDLE	NA
3	K686111	PADDLE BACKING PLATE	NA
4	K688591	BULK CA550 CHAIN W/ F17 ATTACHMENT EVERY 6 <sup>TH</sup> LINK	NA
5	K654121	3/8" NYLON LOCKNUT	NA
6	K680140	3/8" X 1" CARRIAGE BOLT	NA



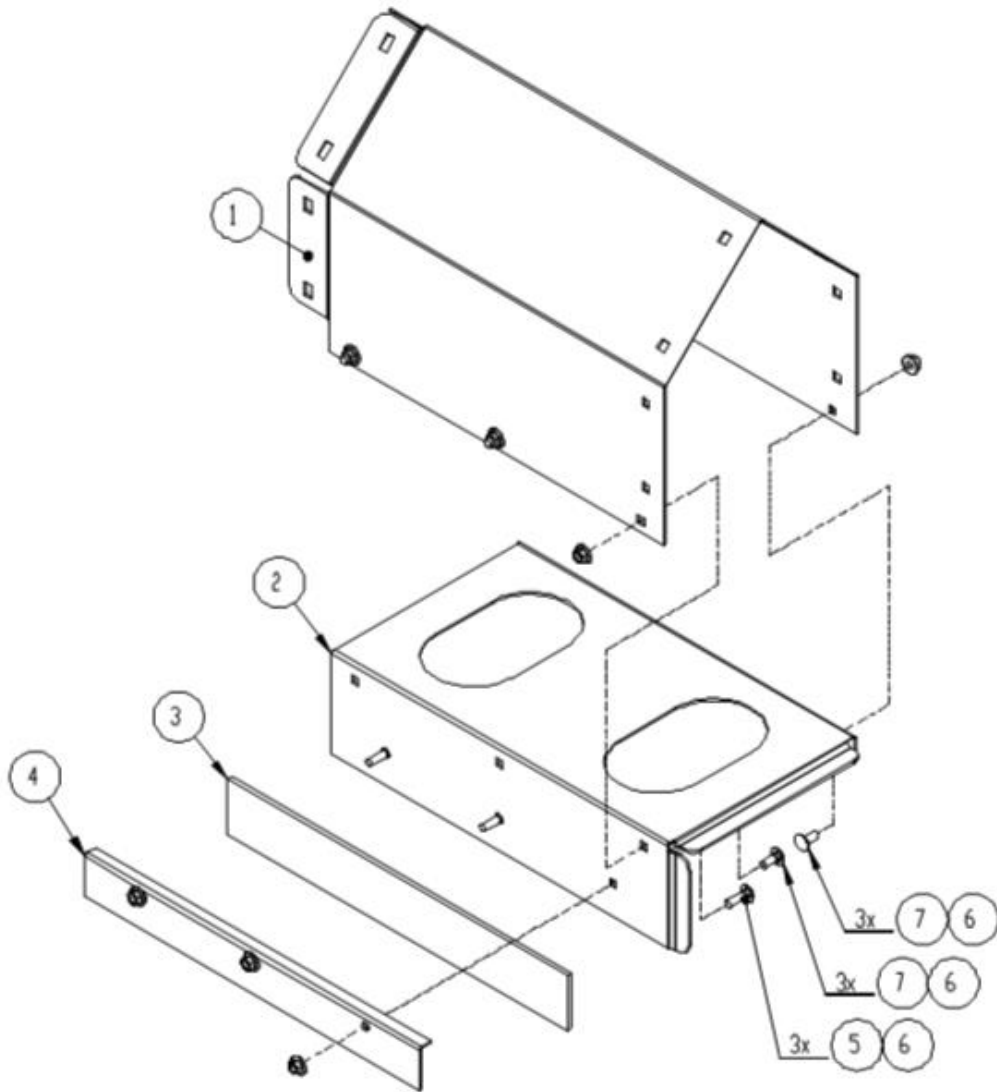
## PARTS DIAGRAM & LIST

### PIVOT END SUB ASSEMBLY DIAGRAM (K704805)

ITEM	PART #	DESCRIPTION	QTY
1	K704833	PLATE – FS PIVOT END COVER	1
2	K688922	WELDMENT – FPS PADDLE CHAIN TIGHTNER	2
3	K788942	PLATE – FPS BEARING SLIDE	2
4	K704836	PLATE – PIVOT END DRAG	1
5	K688954	RUBBER – GS DRAG – 2.50 X 30.6	1
6	K704837	PLATE – FS PIVOT END CAP	1
7	K704835	PLATE – FS PIVOT END DIVIDER	1
8	K686008	SPROCKET – 550 8 TOOTH 1.25 BORE	2
9	K686033	DECAL – DANGER – GATHERING CHAIN UNLOADER	2
10	K686603	BEARING – 1 ¼" SQUARE FLANGE UCF 206 – 20	4
11	K688921	SHAFT – FPS PIVOT END MIDDLE	1
12	K688985	SHAFT – FPS PIVOT END	1
13	K686183	SCREW - .3125 – 18 X 1.25 CARRIAGE	3
14	K640030	SCREW - .375 – 16 X 1.00 GR 5	8
15	K640142	NUT - .625 – 11 GR 5 HEX	4
16	K680140	SCREW - .375 – 16 X 1.25 GR5 CAR	8

PARTS LIST CONTINUES ON NEXT PAGE

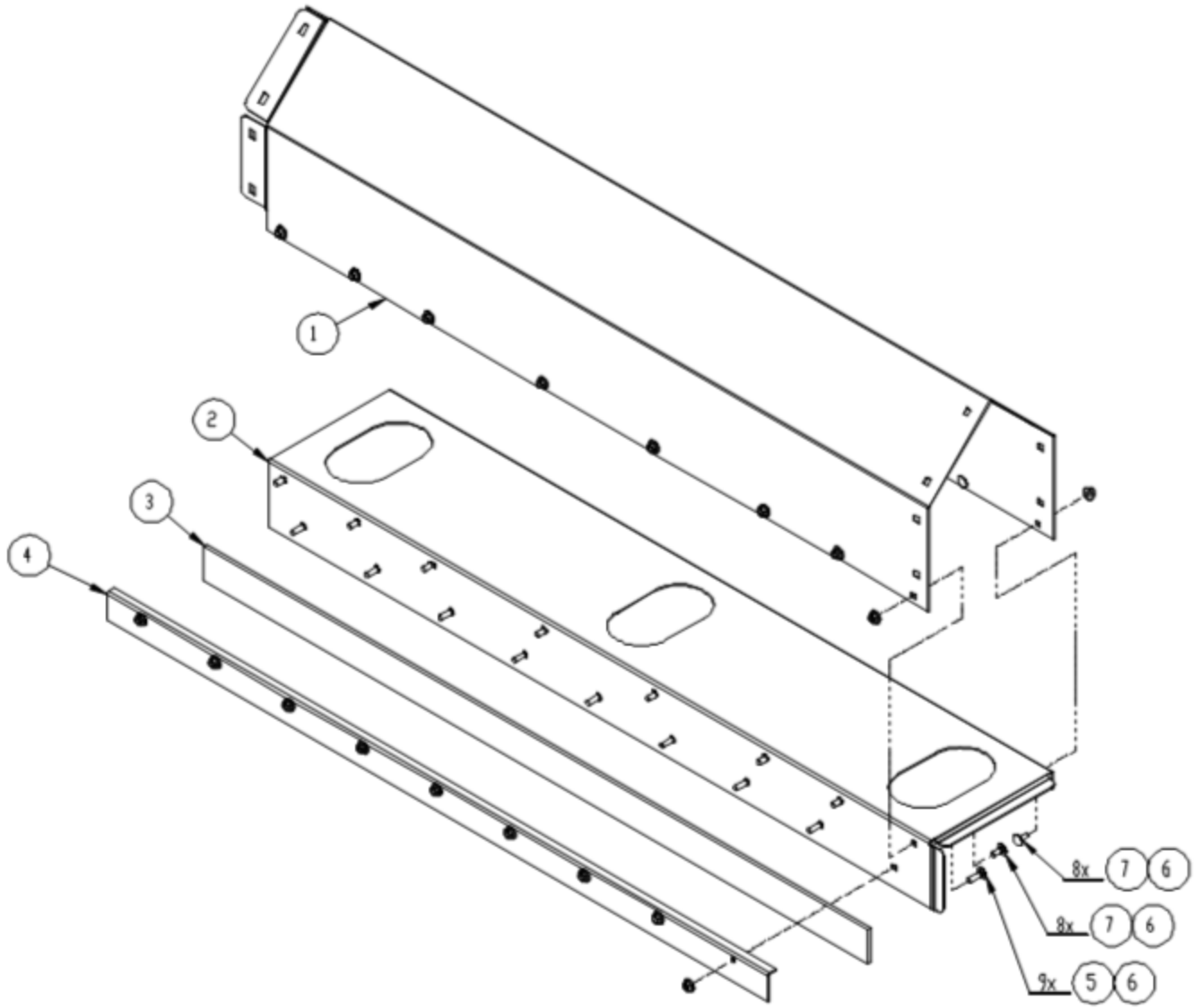
17	K701182	NUT - .375 – 16 FLANGE CENTERLOCK GR 2	28
18	K701467	NUT - .3125 – 18 FLANGE CENTERLOCK GR 2	17
19	K683943	SCREW - .3125 – 18 X .75 GR 5 CAR	14
20	K686527	SCREW - .375 – 16 X 1.75 GR 5 CAR	4
21	K688944	KEY - .3125 X .3125 X 1.25	2
22	K700705	SCREW - .375 – 16 X 1.5 GR 5 CAR	4
23	K683942	SCREW - .375 – 16 X .75 GR 5 CAR	4
24	K704834	PLATE – FS PIVOT END PEAK	1



### PARTS DIAGRAM & LIST

#### 1' 6" SECTION PARTS LIST & DIAGRAM (K704801)

ITEM	PART #	DESCRIPTION	QTY
1	K704820	1' 6" SINGLE COVER	1
2	K704823	1' 6" DIVIDER PLATE	1
3	K688947	RUBBER DRAG – 1' 6" SECTION	1
4	K704826	DRAG COVER PLATE – 1' 6"	1
5	K640018	SCREW - .3125 X 1.00 GR 5 CAR	3
6	K682524	NUT - .3125 X 18 FLANGE	9
7	K683943	SCREW - .3125 – 18 X .75 CAR	6

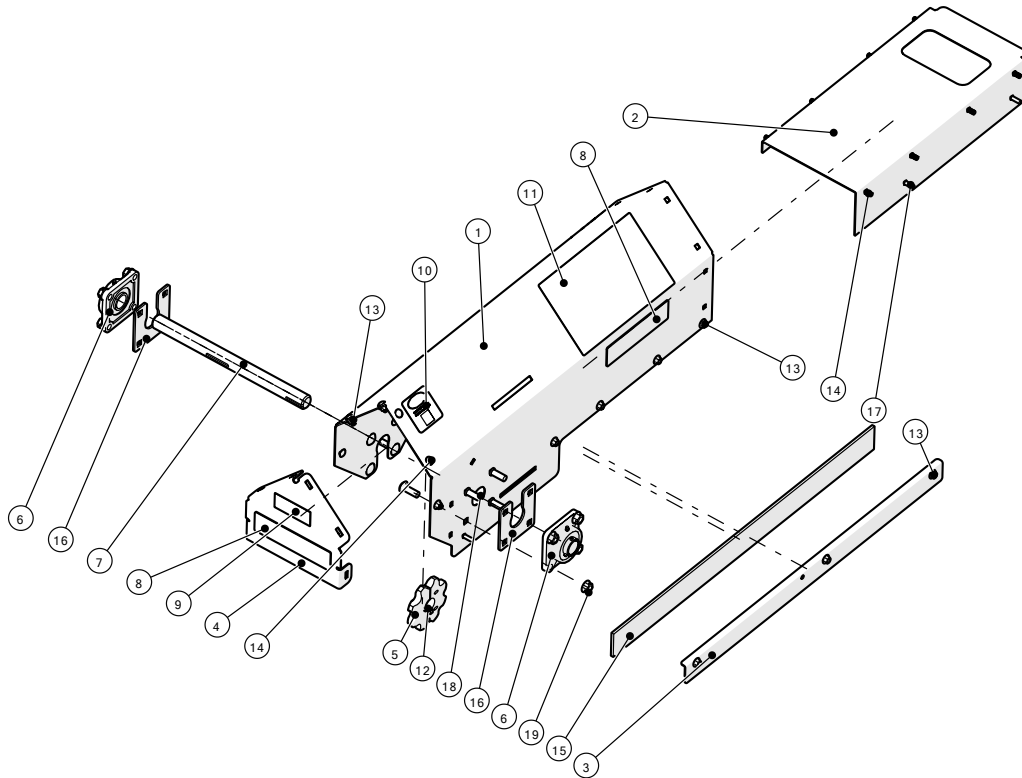


**PARTS DIAGRAM & LIST**

**4' 6" SECTION PARTS LIST & DIAGRAM (K704803)**

ITEM	PART #	DESCRIPTION	QTY
1	K704822	4' 6" SINGLE COVER	1
2	K704825	4' 6" SINGLE DIVIDER PLATE	1
3	K688948	RUBBER DRAG – 4' 6" SECTION	1
4	K704828	DRAG COVER PLATE – 4' 6" SECTION	1
5	K640018	SCREW - .3125 X 1.00 GR 5 CAR	9
6	K682524	NUT - .3125 X 18 FLANGE	25
7	K683943	SCREW - .3125 – 18 X .75 CAR	16

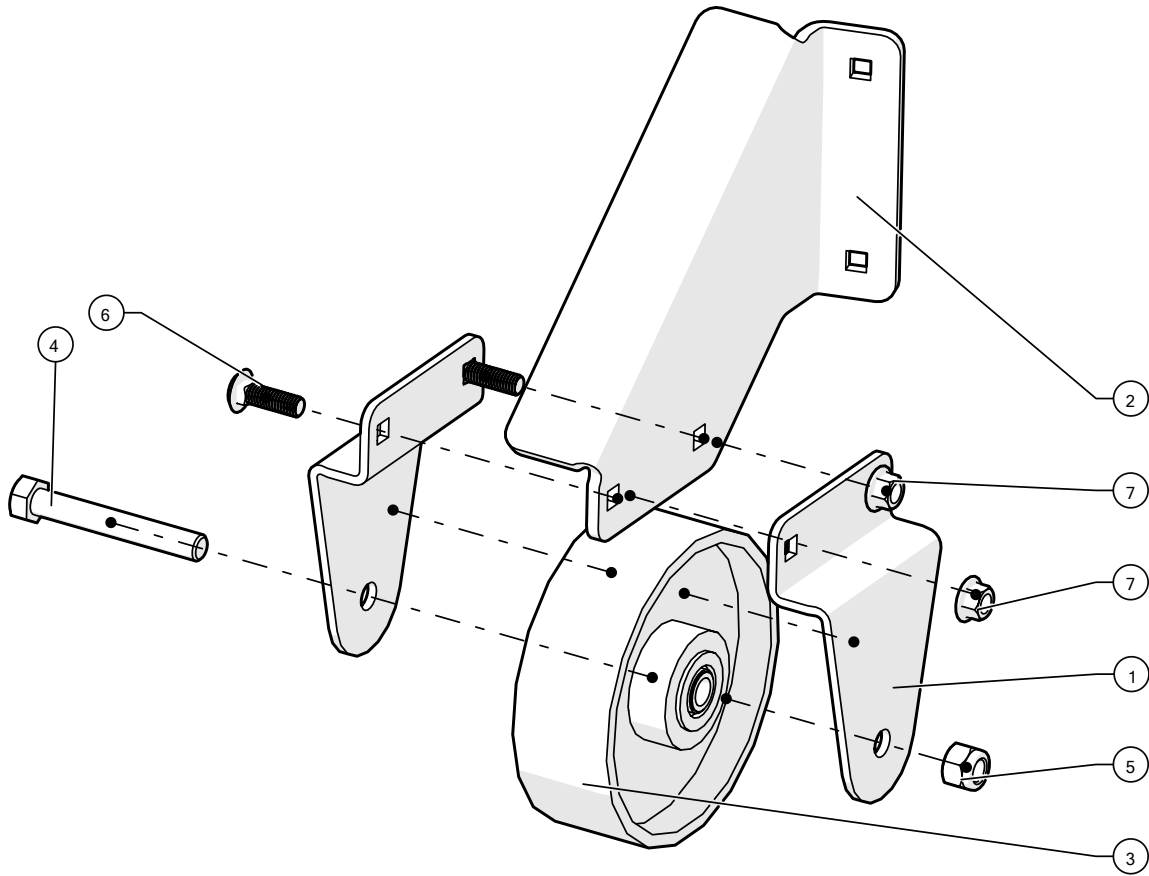




## PARTS DIAGRAM & LIST

### DRIVE END SUB ASSEMBLY (K711453)

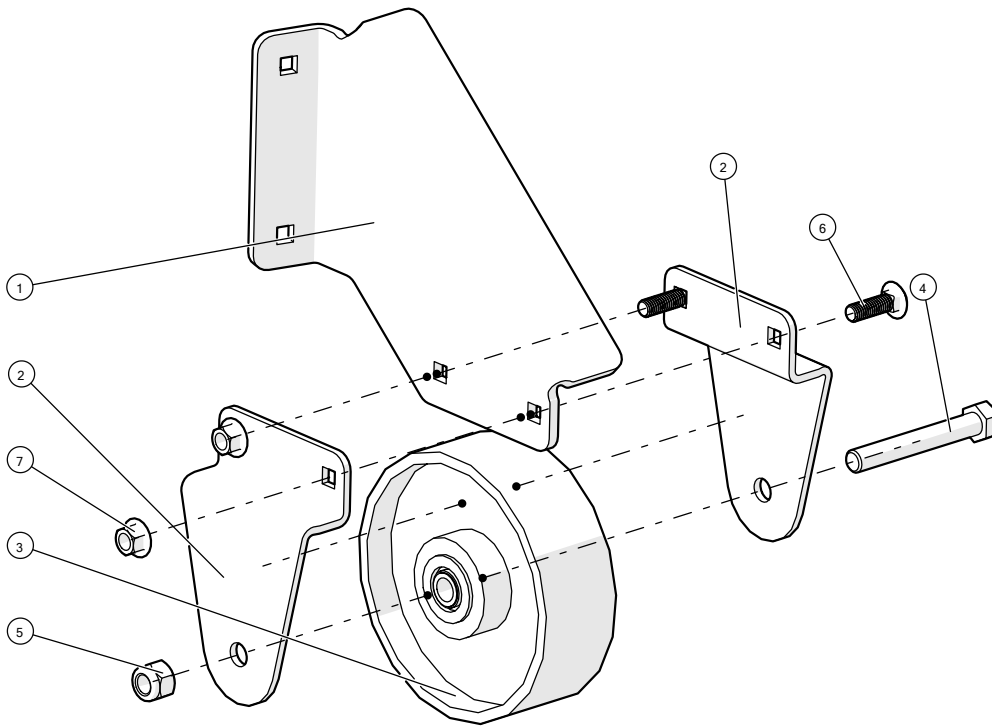
ITEM	PART #	DESCRIPTION	QTY
1	K704829	DRIVE END COVER	1
2	K704830	DRIVE END DIVIDER PLATE	1
3	K704831	DRAG COVER PLATE – DRIVE SECTION	1
4	K704832	DRIVE END COVER PLATE	1
5	K686008	550 8 TOOTH SPROCKET	1
6	K686603	1 ¼" FLANGE BEARING	2
7	K688963	1 ¼" DRIVE SHAFT	1
8	K686033	DECAL – DANGER	2
9	K666941	DECAL – SERIAL NUMBER	1
10	K704991	PATENT DECAL	1
11	K690344	OPERATIONS DECAL	1
12	K688944	5/16 X 1.25 KEY	1
13	K701467	NUT - .3125 - 18 FLANGE CENTERLOCK GR 2	17
14	K683943	SCREW - .313 – 18 X .75 GR 5 CAR	14
15	K711458	RUBBER – GS DRAG- 2.50 X 34.3	1
16	K711459	PLATE – GS BERAING SPACER	1
17	K651467	SCREW - .500 – 13 X 1.50 GR 5 CAR	8
18	K699010	NUT - .500 – 13 FLANGE CENTERLOCK GR 2	8



### PARTS DIAGRAM & LIST

#### FRONT CASTER WHEEL ASSEMBLY PARTS LIST & DIAGRAM (K689823)

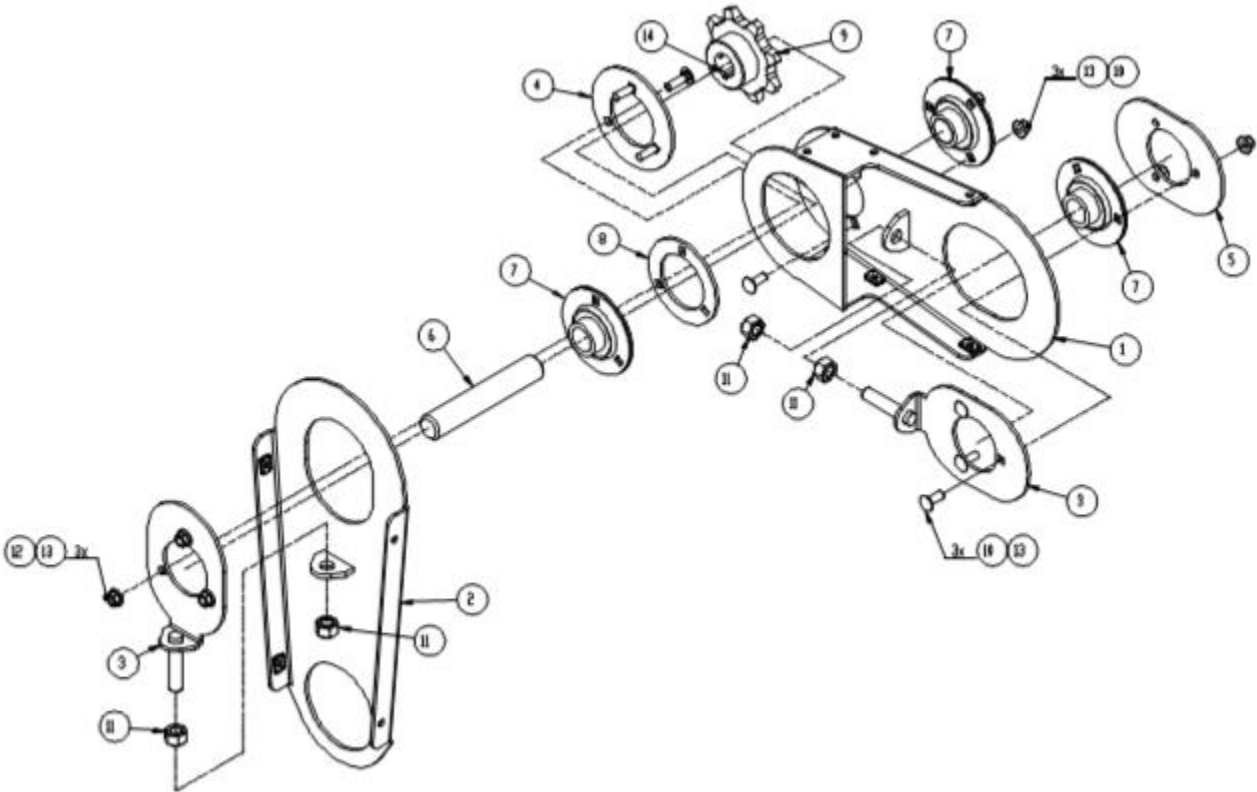
ITEM	PART #	DESCRIPTION	QTY
1	K688969	CASTER PLATE	2
2	K688971	FRONT CASTER PLATE – PIVOT SECTION	1
3	K688997	GLASS FILLED NYLON WHEEL	1
4	K640067	SCREW - .50 -13 X 3.50 GR 5 HHC	1
5	K660638	NUT - .500 – 13 GR 2 LOCK NYLON INSERT	1
6	K680140	SCREW - .375 – 16 X 1.25 CARRIAGE	2
7	K682413	NUT - .375 X 16 FLANGE	2



### PARTS DIAGRAM & LIST

#### REAR CASTER WHEEL ASSEMBLY PARTS LIST & DIAGRAM (K689824)

ITEM	PART #	DESCRIPTION	QTY
1	K688968	BACK CASTER PLATE – PIVOT SECTION	1
2	K688969	CASTER PLATE	2
3	K688997	GLASS FILLED NYLON WHEEL	1
4	K640067	SCREW - .50 -13 X 3.50 GR 5 HHC	1
5	K660638	NUT - .500 – 13 GR 2 LOCK NYLON INSERT	1
6	K680140	SCREW - .375 – 16 X 1.25 CARRIAGE	2
7	K682413	NUT - .375 X 16 FLANGE	2



**PARTS DIAGRAM & LIST**

**PIVOT JOINT (K689851, K689852 & K689833) DIAGRAM**

ITEM	PART #	DESCRIPTION	QTY
1	K688889	UPPER PIVOT ARM WELDMENT	1
2	K689800	LOWER PIVOT ARM WELDMENT	1
3	K689802	PIVOT CHAIN TIGHTNER	2
4	K689805	PIVOT JOINT ROUND COVER PLATE	1
5	K689806	PIVOT JOINT OBLONG COVER PLATE	1
6	K689808	SHAFT – PIVOT JOINT	1
7	K689810	1 ¼" BEARING W/ 3 BOLT FLANGETTES	3
8	K689831	PIVOT CENTER RING	1
9*	K689842	550 7 TOOTH WELD SPROCKET (K689852 PIVOT JOINT)	1
	K688929	550 8 TOOTH WELD SPROCKET (K689833 PIVOT JOINT)	1
10	K640030	SCREW - .375 – 16 X 1.00 GR 5 CAR	6
11	K640142	NUT - .625 – 11 X GR 5 HEX	4
12	K680140	SCREW - .375 – 16 X 1.25 CAR	3
13	K682413	NUT - .375 X 16 FLANGE	9
14	K686358	.250 X .250 X 1.500 KEY	1