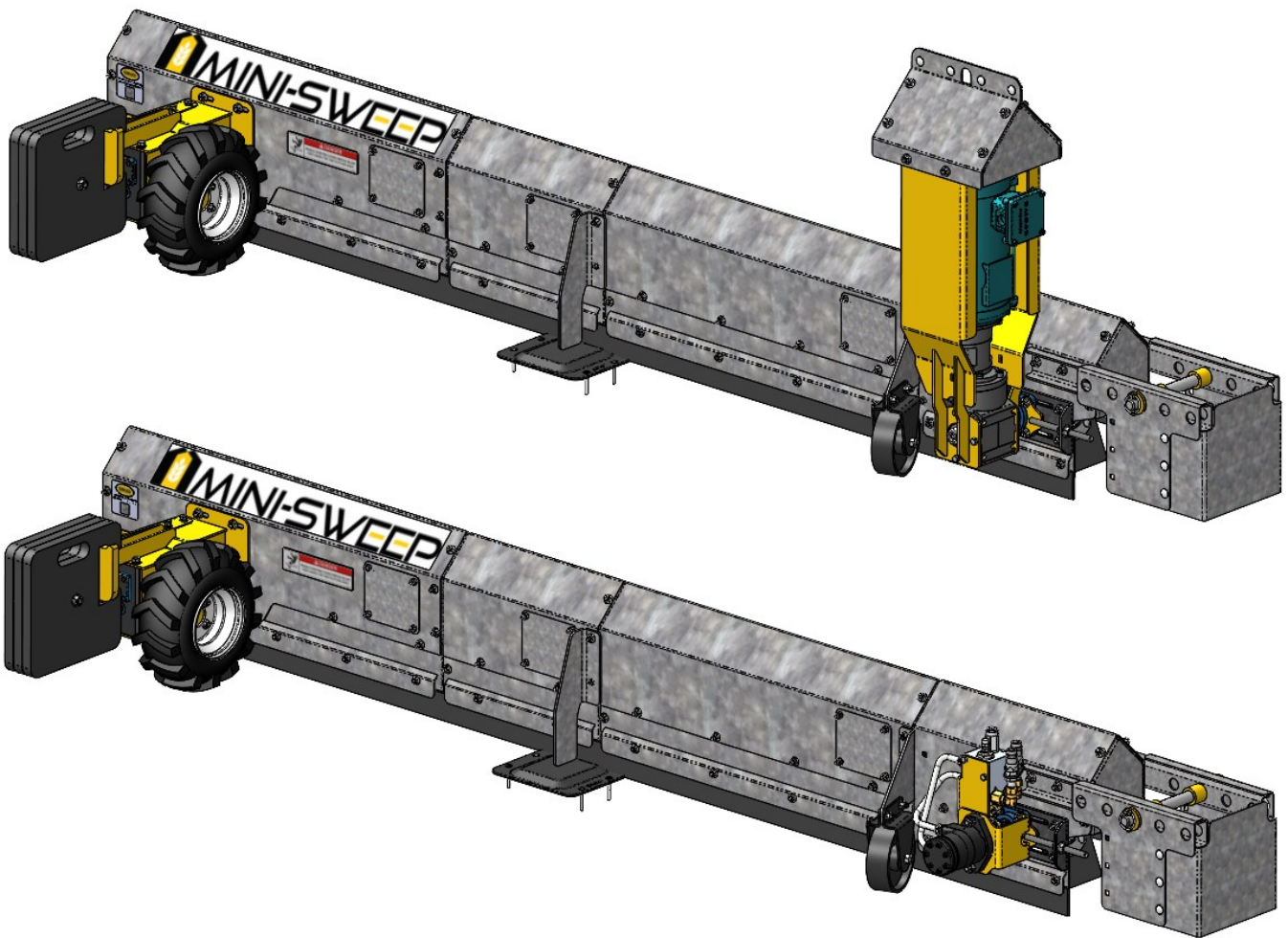


OWNERS MANUAL



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 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
196 1/2 East 6th Street
Sioux Falls, SD 57101-1265

Phone: 1-800-557-4689

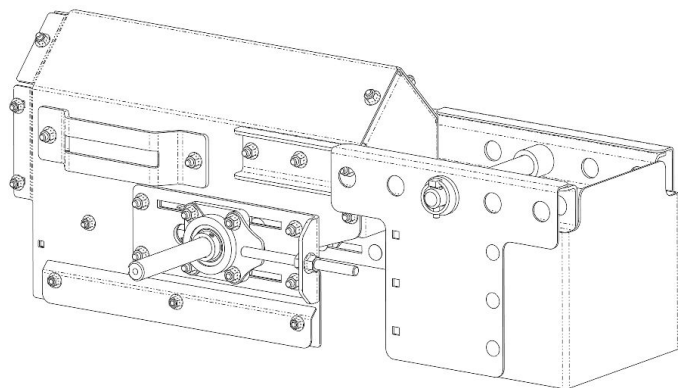
www.daaybinsweep.com

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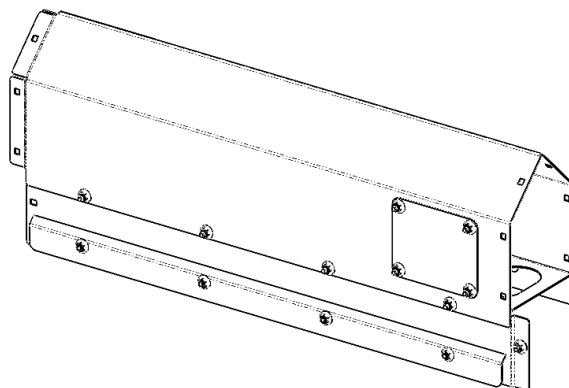
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Sweep Terminology

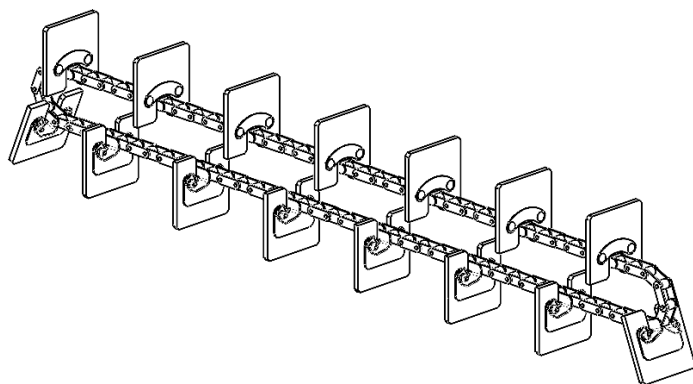
Head Section



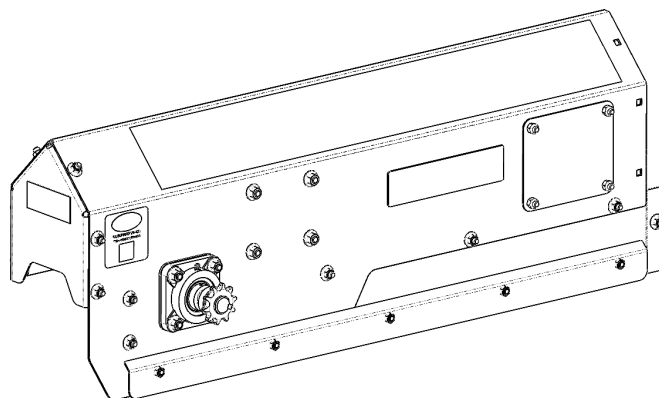
Intermediate Section



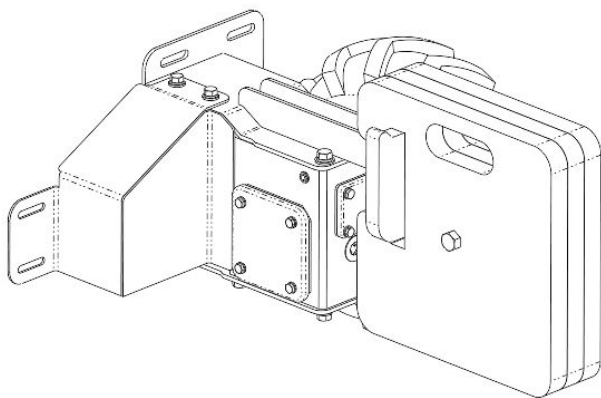
Paddle Chain



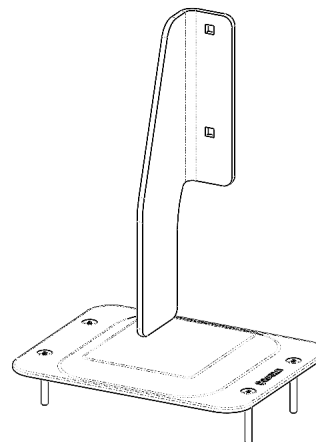
End Section



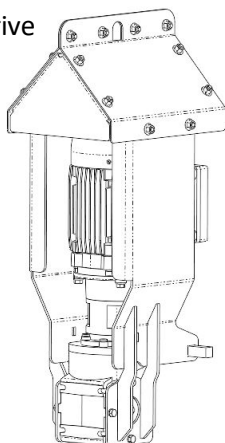
Tractor Drive



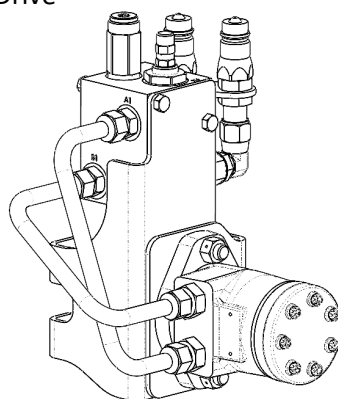
Zero Entry



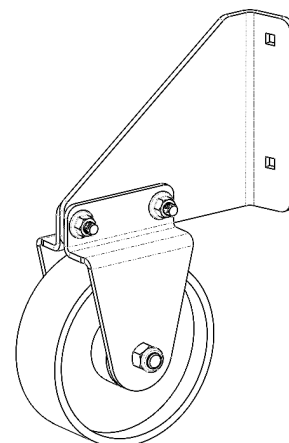
Electric Drive



Hyd Drive



Caster



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. Confine 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.
- Always disconnect and lock out all power sources 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.
- **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 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.**

Safety Alert Symbols

The symbols 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.

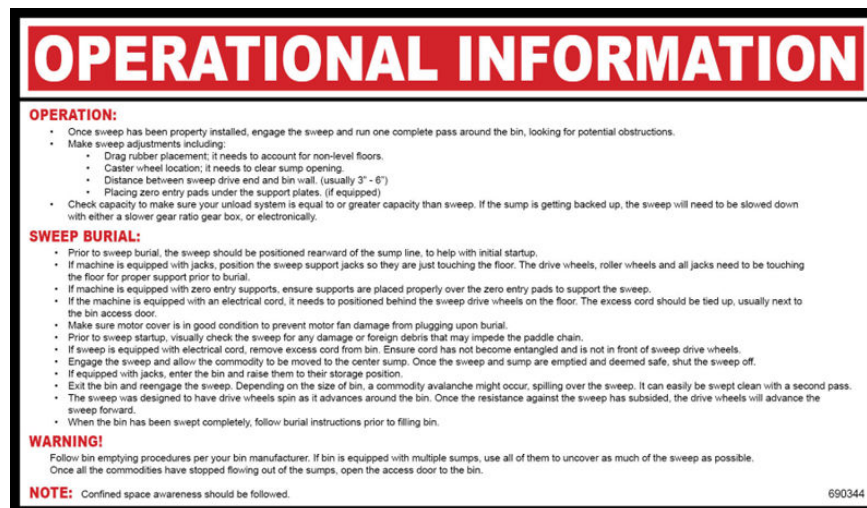


CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. The color associated with Caution is YELLOW.

686033—DANGER – Paddle chain may cause serious injury keep hands, feet and clothing



690344—Operation Information



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



Specifications

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

Features

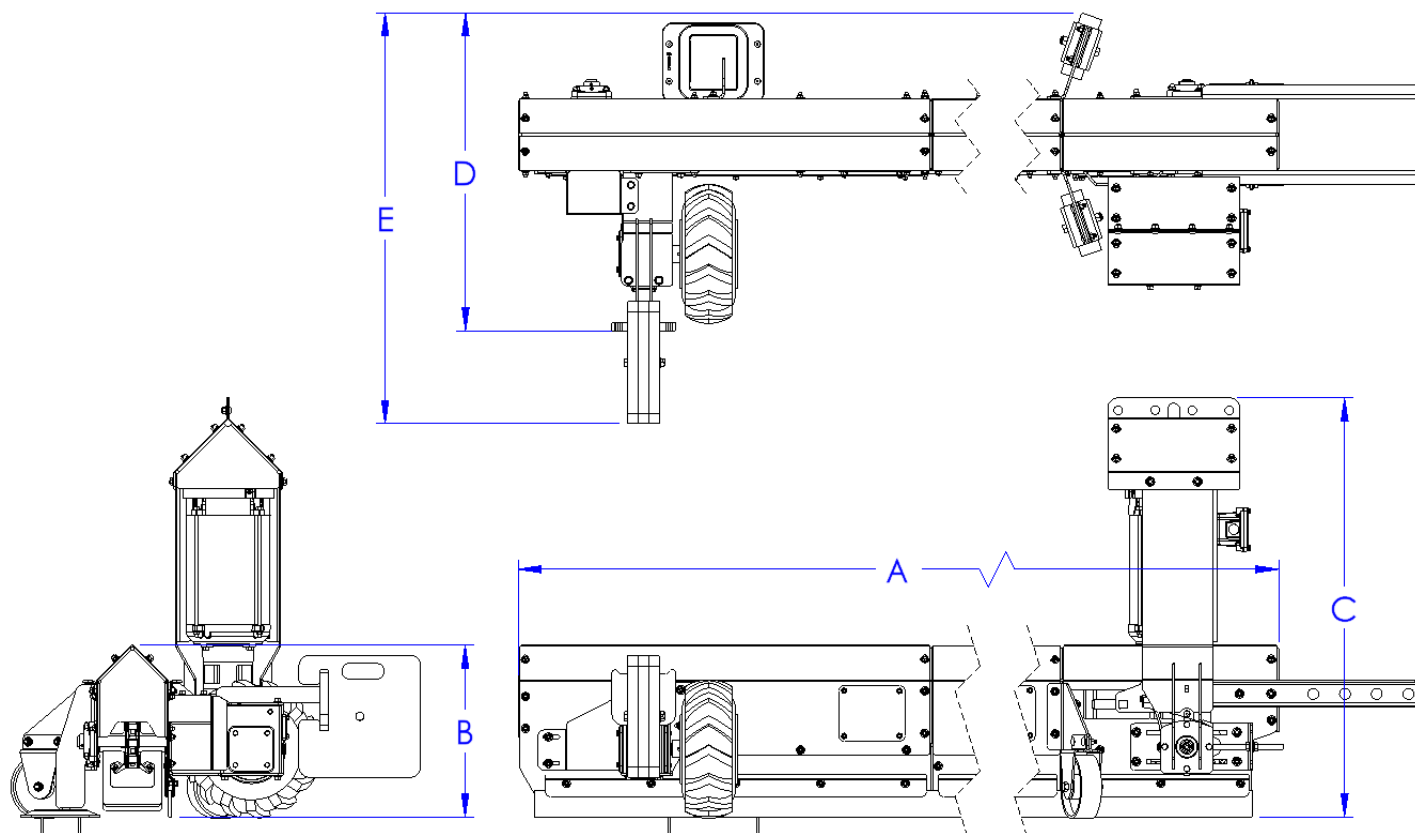
- Theoretical Capacity: Up to 2,200 BPH. Note: These values can fluctuate greatly depending on the varying conditions present, including but not limited to; moisture content, grain commodity type and flowability, amount of foreign matter present, and compaction rate. These all play a part in the performance 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: 13" x 5.0-6
- Drive wheel powered by a gearbox off the paddle chain.
- Designed to be fully submersed in grain
- Housing is made from 14 ga. Grade 55 Steel
- Moves grain gently and evenly to sump
- Adjustable chain mount
- Floating center pivot allows sweep to move independently to allow for variations in the bin floor
- Adjustable arms to accommodate variations in bin size and out of roundness
- Rubber drag to clean the floor for less sweeping

Burial Depth Chart

MAX. EAVE HEIGHT/BURIAL DEPTH CHART FOR FARM PADDLE SWEEPS																
			Bin Diameters													
Sweep Model	Bin/Silo Type	Support System	15'	18'	21'	24'	27'	30'	33'	36'	42'	48'	54'	60'	66'	
			Floor to Eave Height													
DPS 2K	Corrugated Bin	Zero Entry	38'											NA		
Daay Power Farm		Jacks	70'				40'						35'		30'	
		Zero Entry	70'												60'	
Interceptor		Jacks	70'				40'						35'		NA	
		Zero Entry	70'												60'	

*If eave height is over the listed height, please contact manufacturer

Overall Dimensions & Weights



Bin Size	Length (Dim A)		Height (Dim B)	Height (Dim C)	Width (Dim D)	Width (Dim E)	Weight (lbs) Electric	Weight (lbs) Hydraulic
15'	78"	6' 6"	16"	39.5" (Electric) 15.5" (Hydraulic)	32.5"	41"	508	355
18'	96"	8' 0"					531	377
21'	114"	9' 6"					558	405
24'	132"	11' 0"					584	431
27'	150"	12' 6"					609	455
30'	168"	14' 0"					635	481
33'	186"	15' 6"					659	505
36'	204"	17' 0"					685	532
42'	240"	20' 0"					735	582
48'	276"	23' 0"					787	632

Setup

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 & 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.**
- If the sweep wheel path intersects with a sump location, the sump will need to be grated or covered to allow the wheel to cross without falling into the sump.
- 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 than 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.

Assembly & Installation

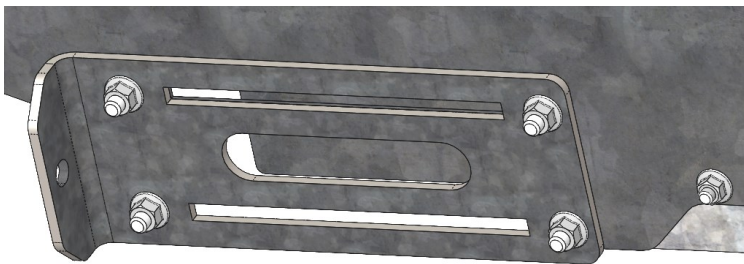
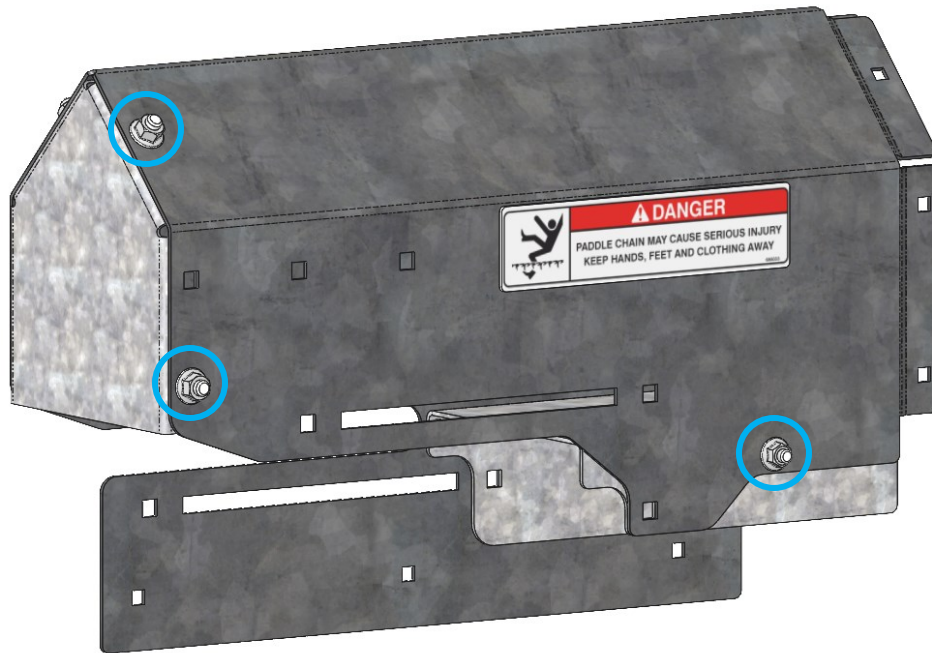
- It is recommended that the bin be empty and free of grain when the sweep is installed. If this can't be achieved, then a large enough area must be cleared that the sweep can be installed on a clean floor and free from entrapment danger.
- We recommend the use of steel track pathways on any portion of the aeration floor that the caster wheels contacts. Failure to do so may result in damage to the paddle sweep, sweep accessories, and/or aeration floor.
- It is recommended that at least two 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.
- Tools Needed:
 - ◇ Cordless Driver
 - ◇ Ratchet
 - ◇ 1/2" & 9/16" shallow sockets
 - ◇ 1/2" & 9/16" deep sockets
 - ◇ 1/2" wrench
 - ◇ 9/16" wrench
 - ◇ 3/4" wrench
 - ◇ Alignment punches
 - ◇ Center punch
 - ◇ Battery powered/Explosion proof light
 - ◇ Pliers/Needle Nose
 - ◇ 10' of wire or rope (for pulling paddle chain through)
 - ◇ Standard Allen wrench set
 - ◇ Gloves
 - ◇ Hammer
 - ◇ Snap ring pliers

Assembly—Head Section

1. Install the end cap (K714344) into the main body (K714341). Use (4) 3/8" x 3/4" carriage bolts and center lock flange (CLF) nuts, found in the K714457 bag, on each side.

ALWAYS INSTALL THE BOLTS POINTING OUTWARDS

2. Insert the divider (K714342) and fasten with (2) 5/16" x 3/4" carriage bolts and center lock flange (CLF) nuts.
3. Snug up, but do not tighten until later.

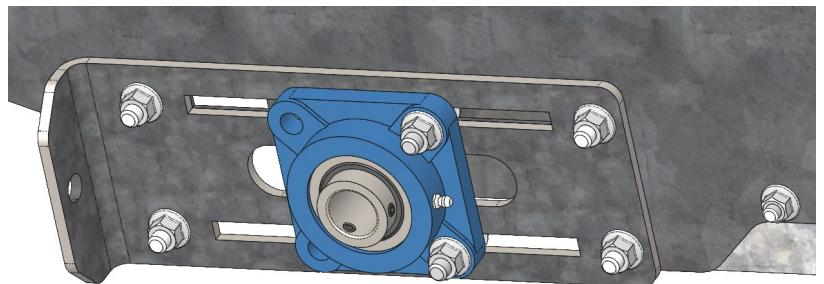


Assemble the chain tensioner on each side of the housing. Complete steps 4—8 on each side.

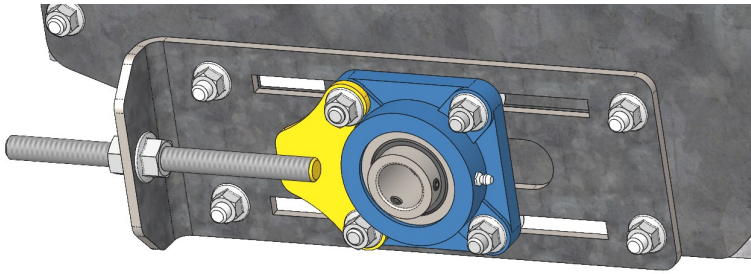
4. Attach the base (K713970) using (4) 3/8" x 1.00" carriage bolts and center lock nuts, found in the K714456 bag, in the corners.

Tighten these (4) bolts.

5. Connect a bearing (K686038) using (2) 3/8" x 1.50" carriage bolts and CLF nuts, as shown.



Assembly—Head Section

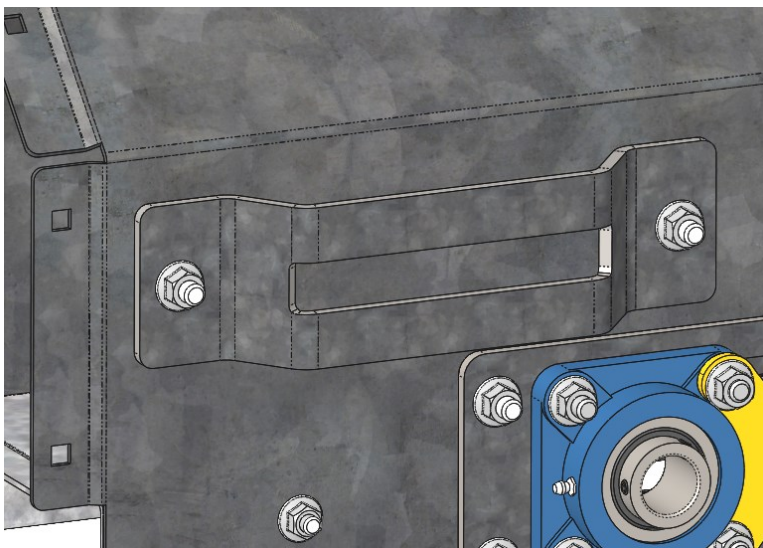
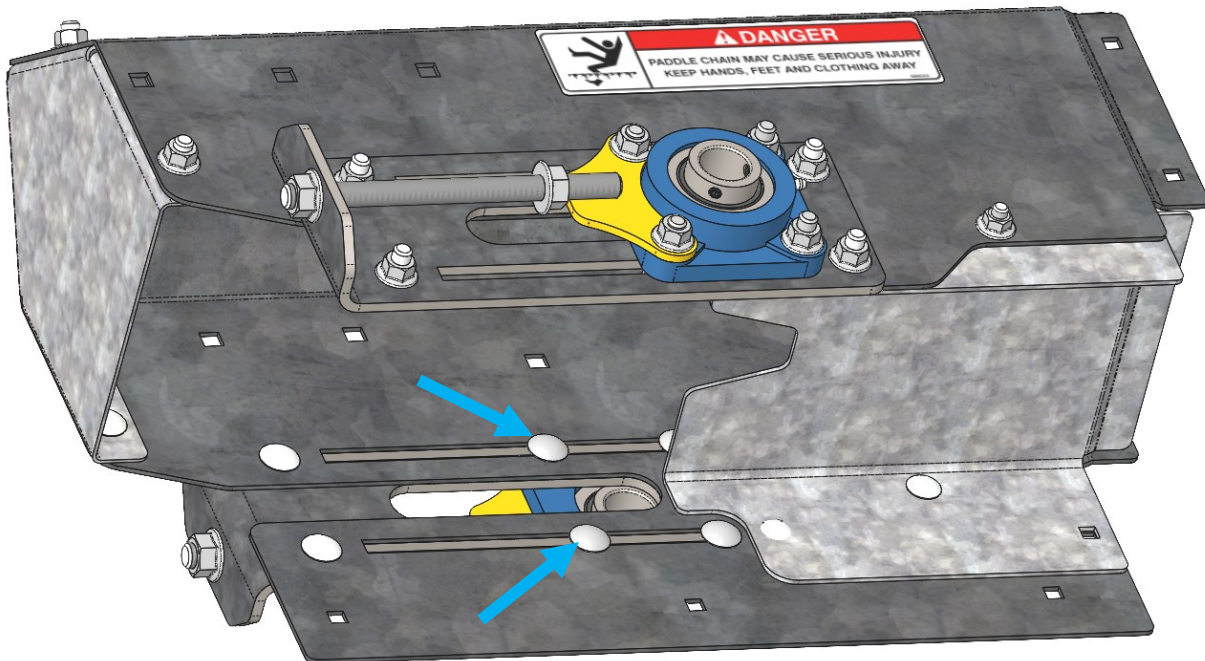


6. Screw a 1/2" flange nut (K683932) onto the carriage weldment (K713971).
7. Slide it into the base and attach it to the bearing with (2) 3/8" x 1.50" carriage bolts and CLF nuts, as shown.

The [Hyd Drive Assembly](#) will need (2) 1.75" carriage bolts on the back side (location indicated below).

8. Slide the bearing into the loose position and screw on the outer 1/2" nut.

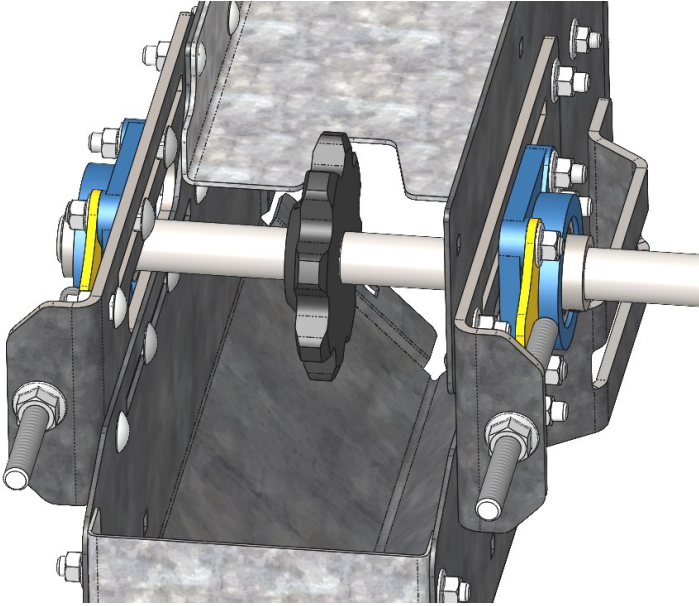
Leave the bearing bolts loose enough that it easily slides; this aids tensioning later.



For Electric Sweeps ONLY:

9. Mount the torque arm guide (K714394) to the side with (2) 3/8" x 1.00" carriage bolts and CLF nuts and tighten them.

Assembly—Head Section



10. Install the head shaft (K714382 or K714345), an 8 tooth sprocket (K714162) along with the 1/4" x 1.5" key (K686358).

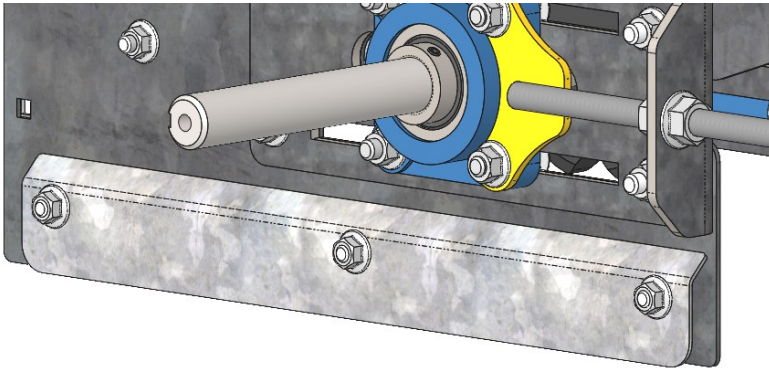
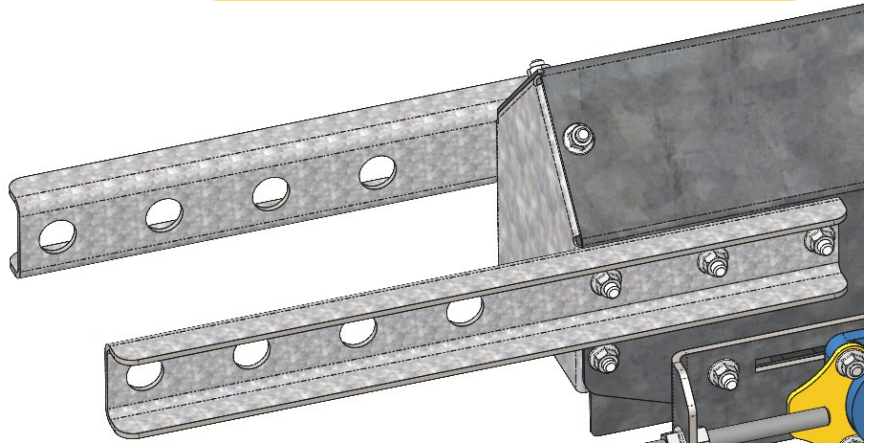
11. The shaft will need to shift later and the sprocket centered, so snug all the set screws, but don't tighten.

For Electric Drive—the shaft (K714346) should stick out 6" from the bearing's inner race.

For Hydraulic Drive—the shaft (K714345) should stick out 1-9/16" from the bearing's inner race.

12. Mount the pivot arms (K714366) to the sides with (6) 3/8" x 1.00" carriage bolts and CLF nuts.

13. Tighten all the hardware, except bearing bolts.

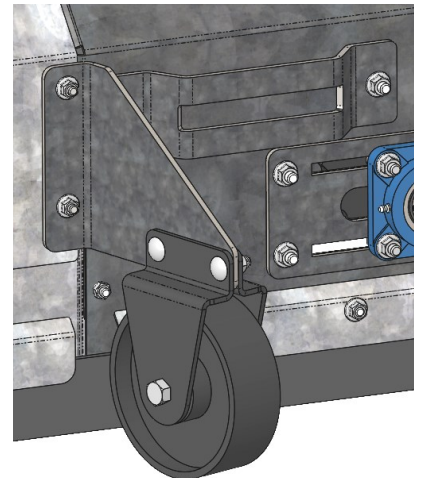
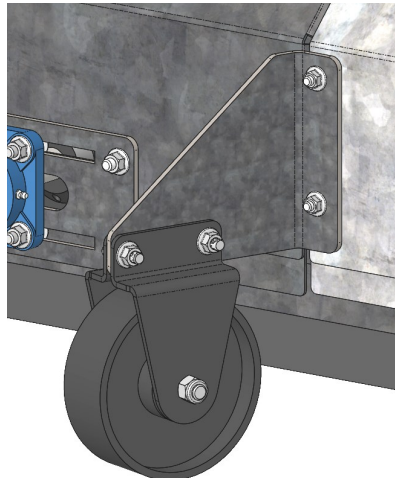


14. Along the bottom flange, insert (3) 5/16" x 1.00" carriage bolts and retain with push nuts. Use a 7/16" deep-well socket.

15. Slide the edge clamp (K714379) over the bolts and fasten with center lock flange (CLF) nuts. Only finger-tighten the nuts.

16. Assemble the front and rear casters (K714385 & K714386). See pages 67 & 68. Use a K714167 bag of hardware for each.

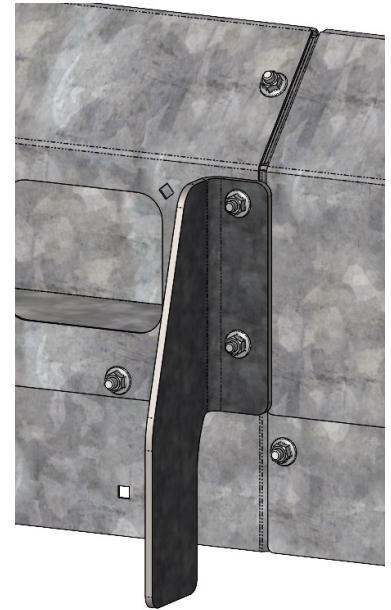
17. When connecting the next section, mount these assemblies to the outside with 5/16" x 1" carriage bolts and CLF nuts from the K714457 bag.



Assembly—Intermediate Section(s)

Intermediate Section Tips and Tricks:

- Use a 2x4 board to hold up the lower (rear) edge.
 - Use (3) 2x4 blocks to hold up the front edge.
 - Be aware of where Zero Entry Stands (K713984) go.
 - **DO NOT tighten any hardware on a section until EVERY bolt/nut is started.**
 - Pull the chain through as you go OR fish a rope through and then pull it all at once.
 - Have at least two punches handy. Use to hold & align holes.
 - Each section uses a K714169 bag to assemble the pieces and a K714168 bag to join the sections together.
 - Reference your full kit breakdown for layout (pages 35-51)
1. Set the housing divider (K713961 or K714325) on the blocks and connect to the preceding section with a 5/16" x 3/4" carriage bolt and center lock flange (CLF) nut.



2. Set the housing top (K713960 or K714326) on the divider, and join them with (8 or 4) 5/16" x 3/4" carriage bolts and CLF nuts (from K714169).
3. Splice the section joint with the 5/16" hardware in K714168. The 1.0" bolts are for attaching the zero entry stands (K713984).
4. Tighten all fasteners.

NOTE: All the carriage bolts on the housing MUST point out, or they will contact paddles during operation.



Assembly—Intermediate Section(s)



5. Around the large, rectangular side hole, insert (4) 5/16" x 3/4" carriage bolts and retain with push nuts; found in bag K714169.



6. Along the bottom flange, insert (4 or 2) 5/16" x 1.00" carriage bolts and retain with push nuts. Use the 7/16" deep-well socket again.
7. Slide the edge clamp (K714379 or K714327) over the bolts and fasten with CLF nuts. Only finger-tighten the nuts.
8. At the end of assembly, cover the access hole(s) with Access Cover (K714314) and affix with 5/16" nyloc nuts.

REPEAT THESE STEPS FOR EACH INTERMEDIATE SECTION

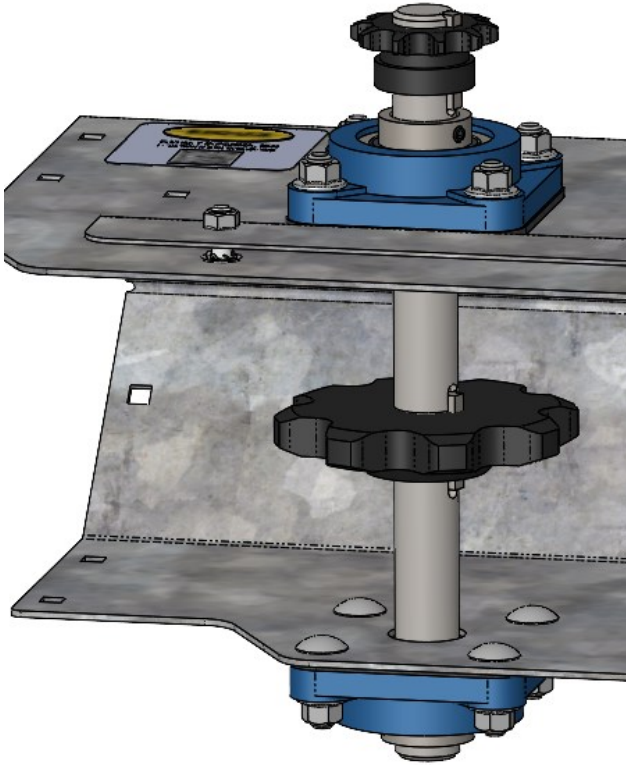
Assembly—End Section/Tractor Drive

1. Set the end divider (K713985) on blocks and connect to the last mid-section with a 5/16" x 3/4" carriage bolt and center lock flange (CLF) nut (from K714459).
2. Set the end housing top (K713986) on the divider, and join them with (6) 5/16" x 3/4" carriage bolts and CLF nuts (from K714459).
3. Splice the section joint with the 5/16" hardware in K714168. The 1.0" bolts are for attaching a zero entry stand (K713984) on the non-grain-facing side.
4. Tighten all hardware.
5. Around the large, rectangular side hole, insert (4) 5/16" x 3/4" carriage bolts and retain with push nuts; found in bag K714459.
6. Along the bottom flange, insert (5) 5/16" x 1.00" carriage bolts and retain with push nuts. Use the 7/16" deep-well socket again.
7. Slide the edge clamp (713988) over the bolts and fasten with CLF nuts. Only finger-tighten the nuts.

At the end of assembly, cover the access hole with Access Cover (K714314) and affix with 5/16" nyloc nuts.

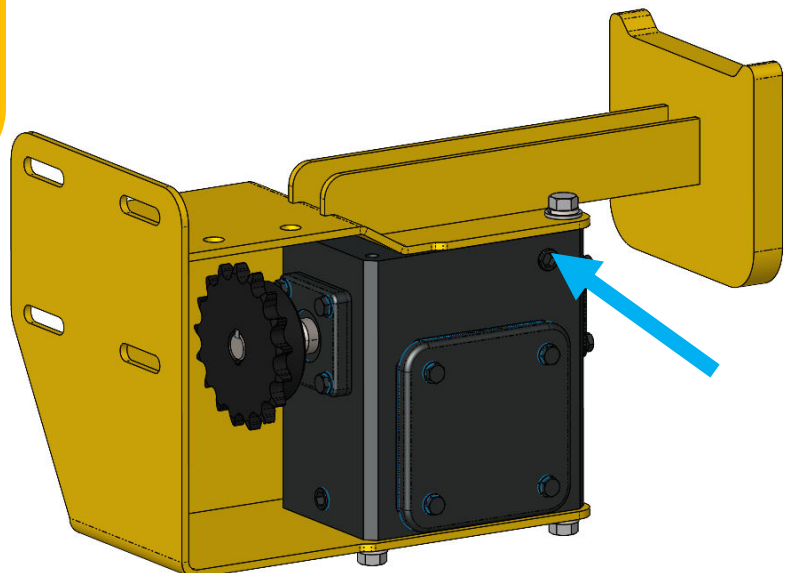
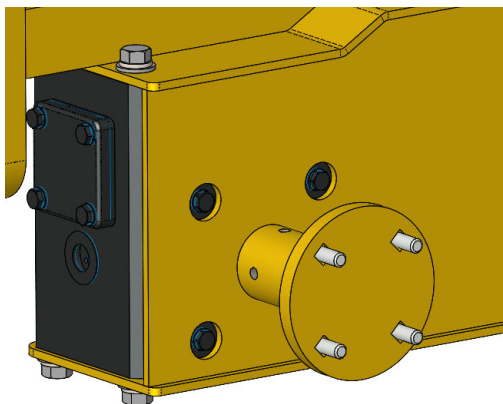


Assembly—End Section/Tractor Drive

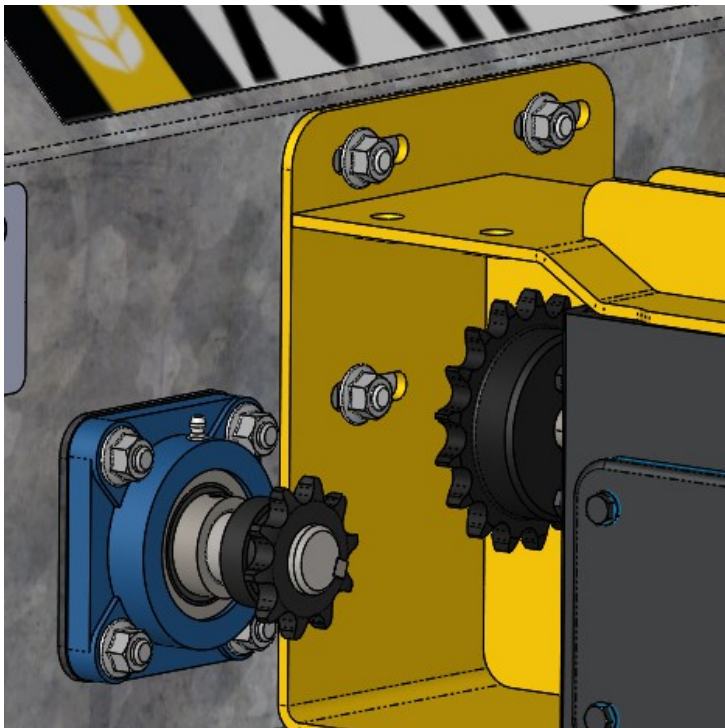


8. Mount a bearing and spacer (K686038 & K713990) on each side of the assembly with (4) 3/8" x 1.25" carriage bolts and center lock flange nuts. Tighten all hardware.
9. Install the tail shaft (K714312) with an 8 tooth sprocket (K714162) and a 1/4" key (K686358). Center the sprocket and tighten all the set screws.
10. Slide the 10 tooth, #50 chain sprocket (K686195) on the rear facing end of the tail shaft, along with a 1/4" key (K686358). Don't tighten the set screw yet.
11. Attach a zero entry stand (K713984) on the front side with (2) 5/16" x 3/4" carriage bolts and CLF nuts (from K714459).

12. Slide the 17 tooth, #50 chain sprocket (K714336) onto the 60:1 Gearbox (K714338) and set it flush with the end of the shaft, as shown.
13. Remove the plastic shaft covers from the gearbox and set it in the drive mount (K714349). Secure it with (6) 3/8" x 1.0" hex bolts, lock washers and flat washers; found in K714482. Tighten them down.
14. Install the included gearbox breather into the indicated port shown below.
15. Attach the wheel mount (K713943) to the gearbox's output shaft and tighten both set screws. Ensure it doesn't rub anywhere.



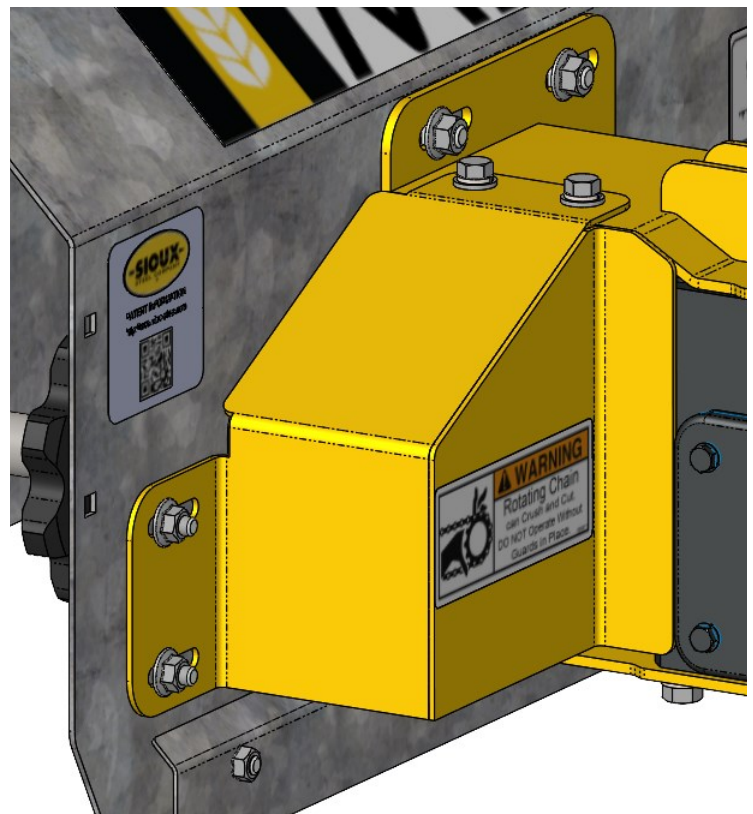
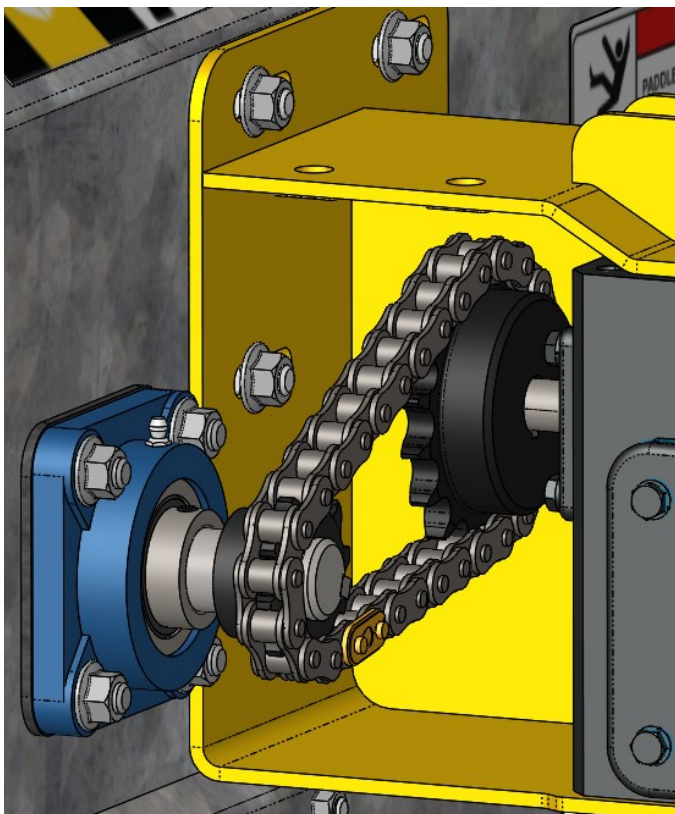
Assembly—End Section/Tractor Drive



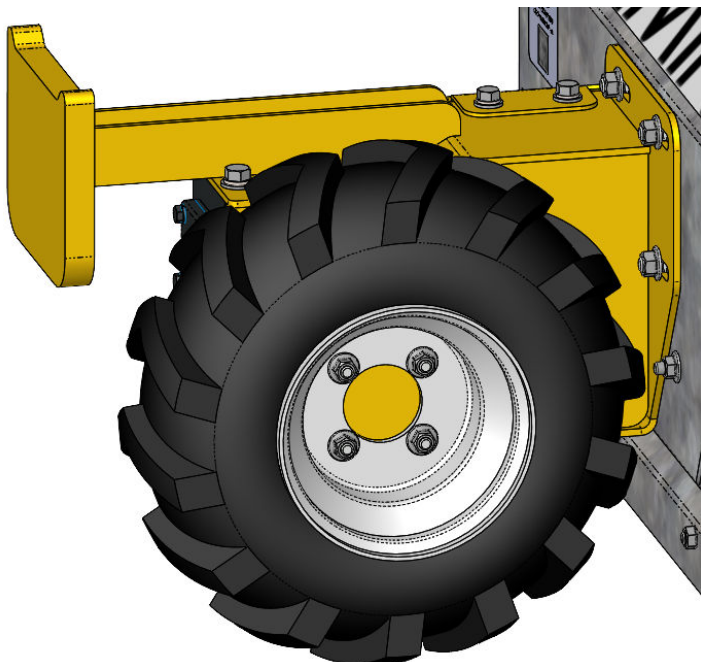
16. Hang the drive unit on the end section with (4) 3/8" x 3/4" carriage bolts and CLF nuts, from K714459. Slide it towards the tail shaft and only snug the nuts.
17. Using a straight-edge, align the 10 tooth sprocket to the 17 tooth and tighten the set screws.
18. Route the #50 chain (K695109) around the sprockets and link with the master (K686186).

Wait to route #50 chain until paddle chain is pulled though the sweep.

19. Remove the chain slack by sliding the drive assembly and then tightening the 3/8" nuts.
20. Protect the chain with the drive chain cover (K714360). Fasten it in place with (2) 5/16" x 3/4" hex bolts, lock washers and flat washers (from K714482) and (2) 5/16" x 3/4" carriage bolts and CLF nuts (from K714459).



Assembly—End Section/Tractor Drive



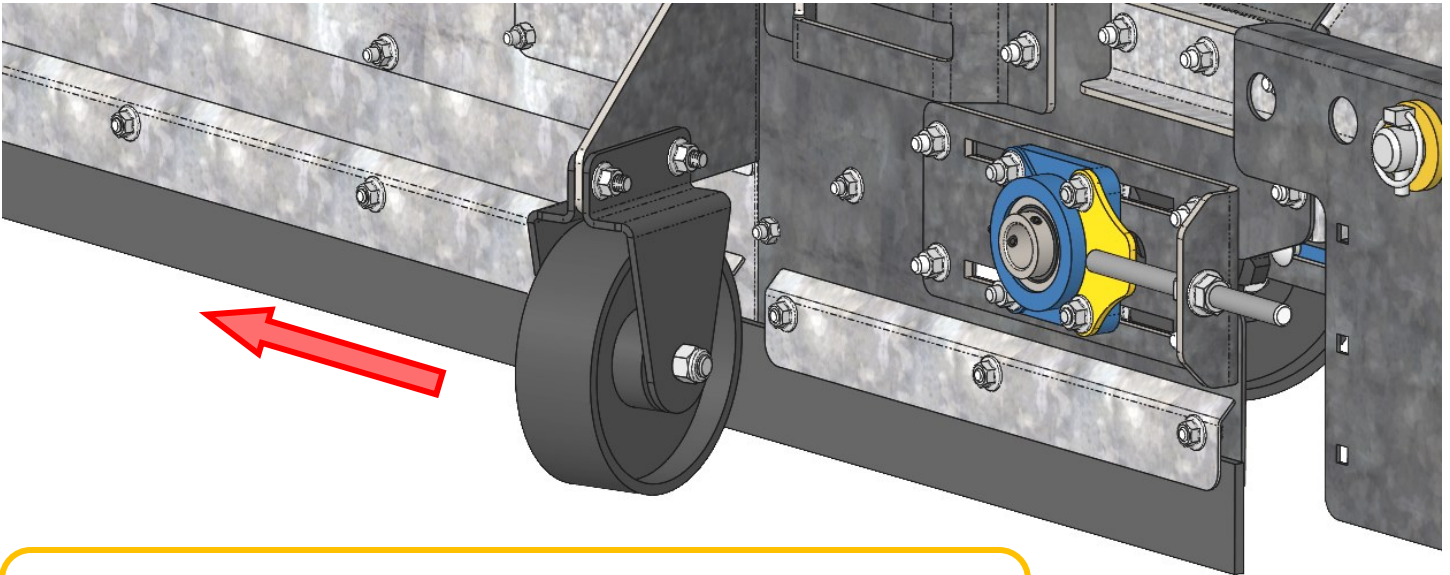
21. Mount the 13" wheel (K686025) with (4) 5/16" CLF nuts from K714482.

This step should be done after the paddle chain has been pulled through the sweep.

22. Install the end plate (K713987) with (6) 5/16" x 3/4" carriage bolts and CLF nuts.
23. Tighten all of the fasteners.

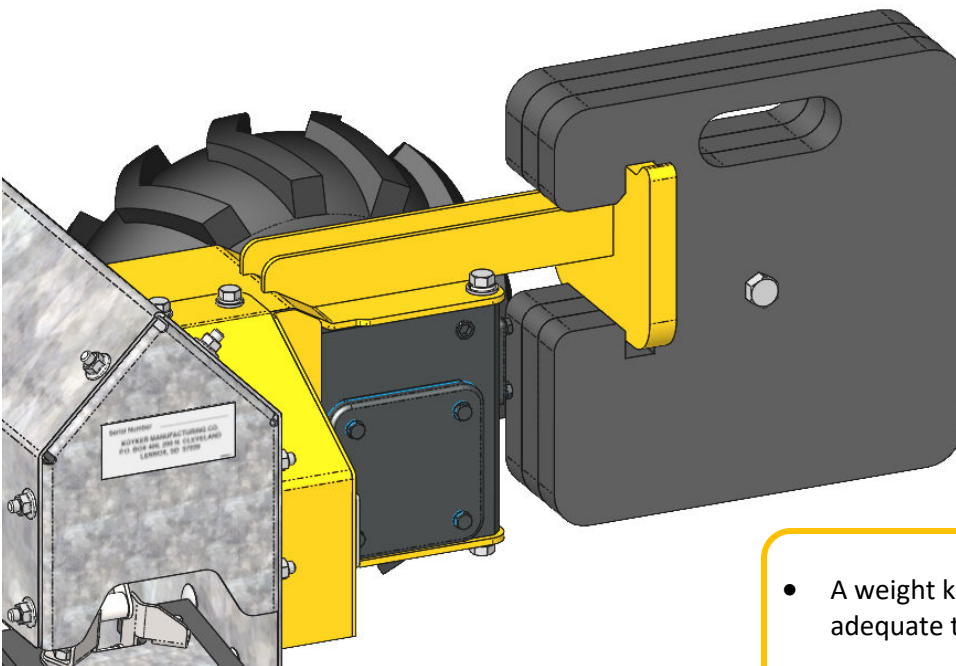


Assembly—Drag Rubber



- Starting at the head section, thread the drag rubber (K712305) between the edge clamps and the housings, all the way down the back of the sweep.
- Adjust the height such that it lightly contacts the floor along the entire length.
- Secure the rubber with the edge clamps by tightening all the 5/16" CLF nuts.

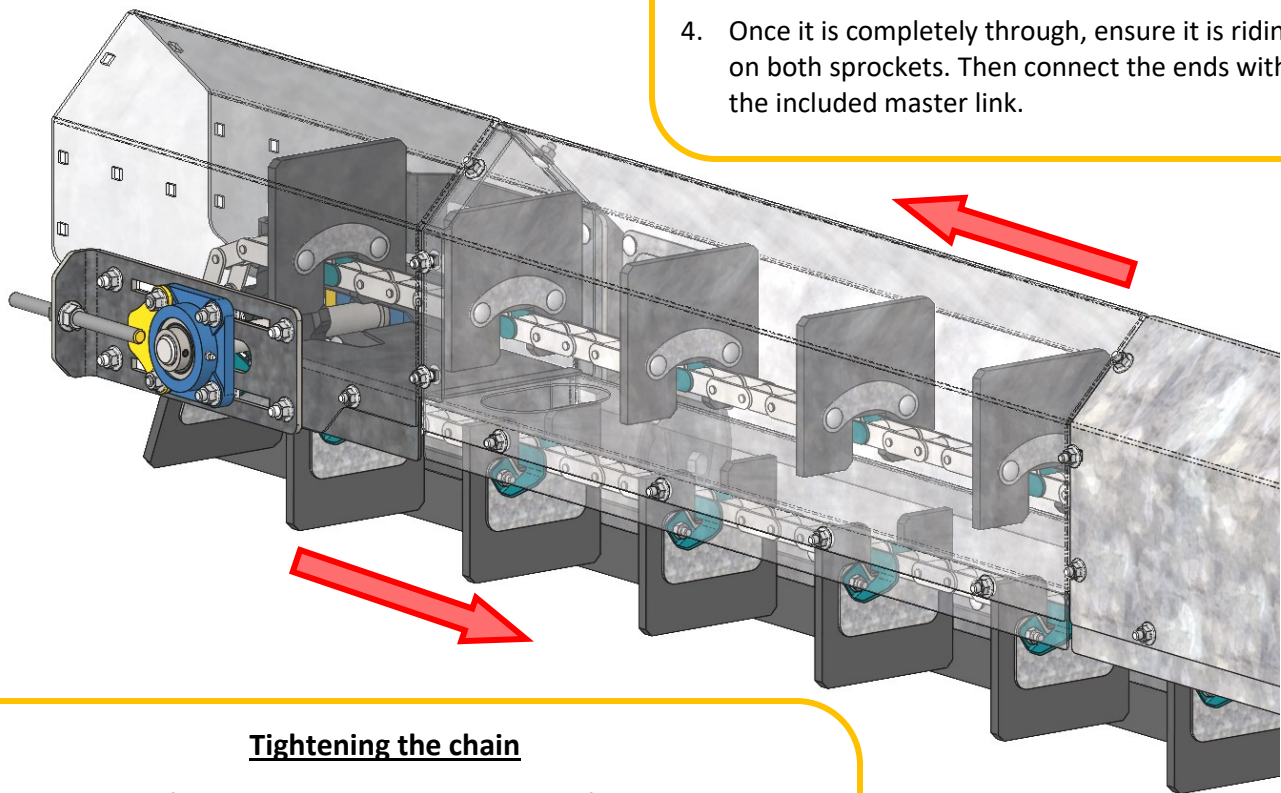
Assembly—Weights



- A weight kit (K714481) is included to provide adequate traction around the bin.
- Hang or remove weights as needed to put the best pressure on the pile.

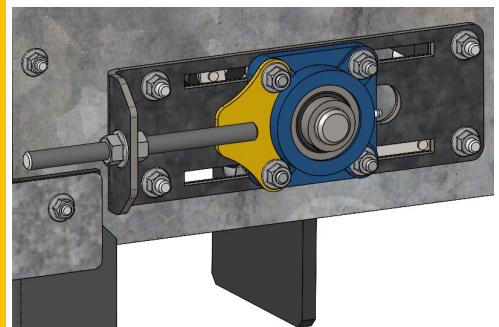
Assembly—Paddle Chain & Tensioning

1. Lay the paddle chain on the floor from the head section to the bin wall.
2. The chain should be oriented such that the chain tabs are facing the sweep and the paddles should face the far bin wall and be under the chain
3. With the tensioners completely loose, feed the chain under the head shaft/sprocket and pull it through the sweep, towards and around the tail shaft. Then back towards the head.
4. Once it is completely through, ensure it is riding on both sprockets. Then connect the ends with the included master link.



Tightening the chain

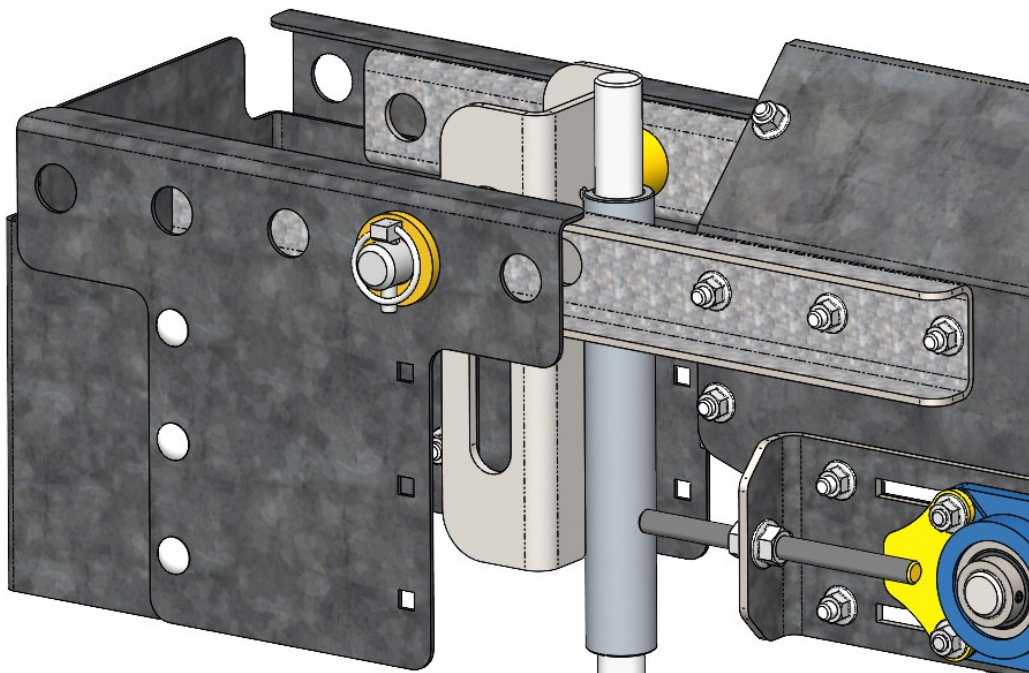
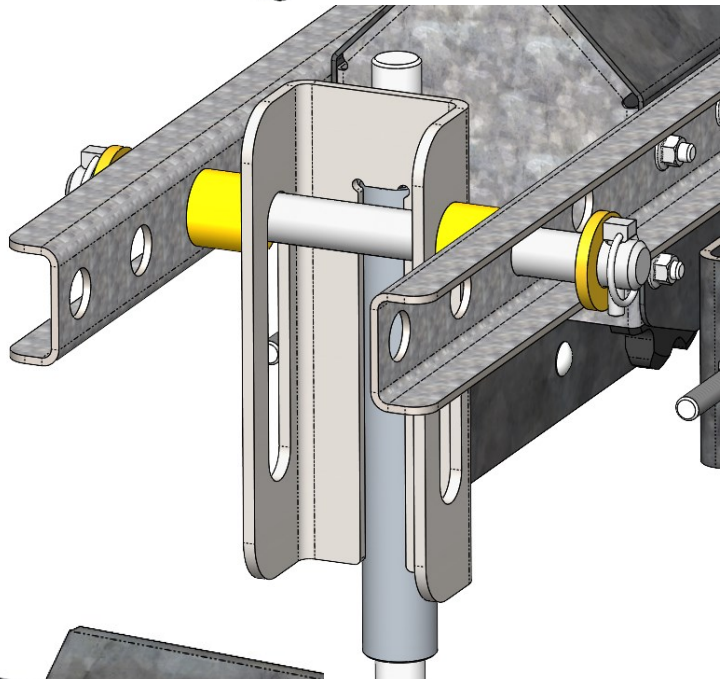
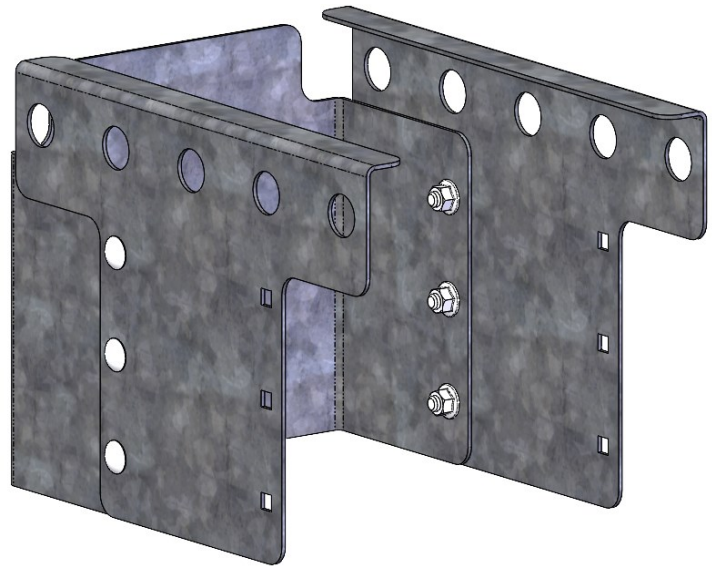
5. At the center of the sweep, check the tension by lifting up on the chain. It should deflect approximately 3/4".
 - If it deflects less, it is too tight.
 - If it deflects more, it is too loose.
 - The chain must not lift high enough to contact the sweep housing.
6. To adjust the chain tension, use 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.
7. Turn the adjuster bolt clockwise to increase chain tension or counter-clockwise to reduce chain tension. Ensure that both adjusters are equally adjusted to maintain proper sprocket and chain engagement.
8. Once the sweep is assembled and ready for operation, run the sweep for 5 minutes. Recheck the chain tension and adjust as needed to achieve the 3/4" of deflection.



Assembly—Skirt & Center Pivot

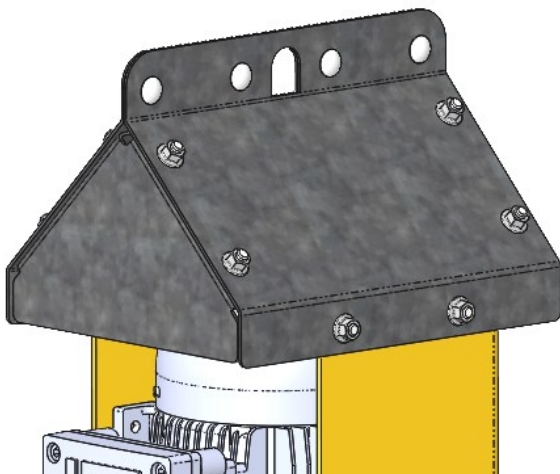
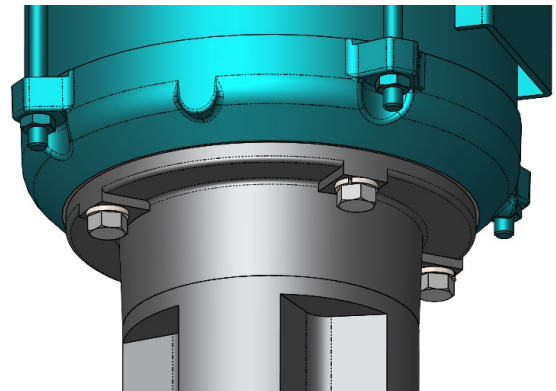
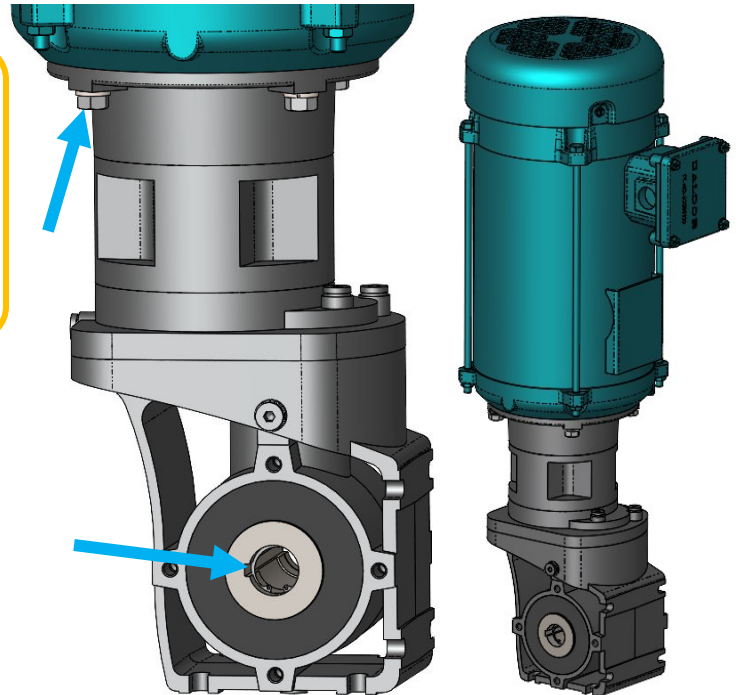
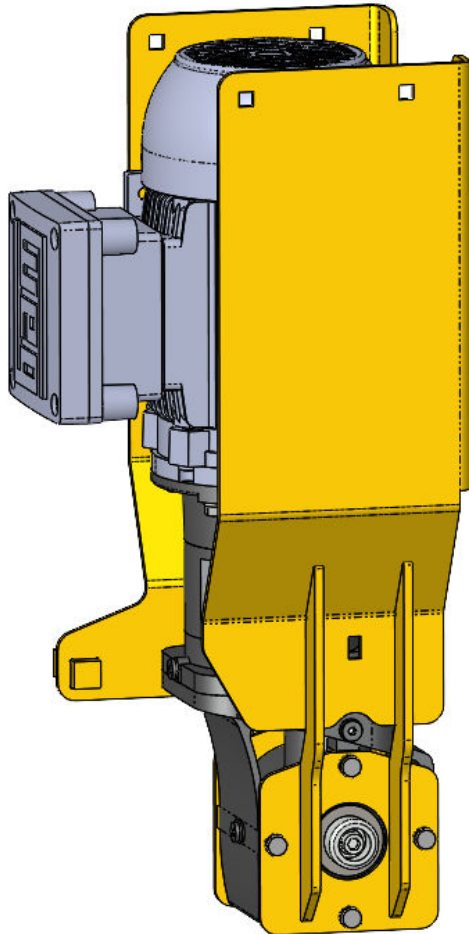
After pulling the paddle chain through the sweep:

1. Assemble the metal skirt (K714361), which is comprised of (2) side panels (K714363) and an end plate (K714362). Fasten with (6) 3/8" x 3/4" carriage bolts and CLF nuts (in bag K714485).
 2. Tighten them all.
 3. After installing the correct center pivot for your underbin, connect the sweep head assembly to the center pivot sleeve (K713148) with:
 - (1) pivot pin (K714368)
 - (2) spacers (K714369)
 - (2) thick 1" washers (K709755)
 - (2) 5/16" lynch pins (K709672)
19. Determine the correct hole by measuring the bin radius and using the dimensions on page 8.



Assembly—Electric Drive

1. Mesh the electric motor and gearbox together, with the included parts. (Refer to the gearbox coupler instructions.) Bind them with (4) 3/8" x 1.25" hex bolts and lock washers from the K714484 bag.
2. Check the gearbox's internal snap ring. Ensure it is on the side shown (figure to the right).

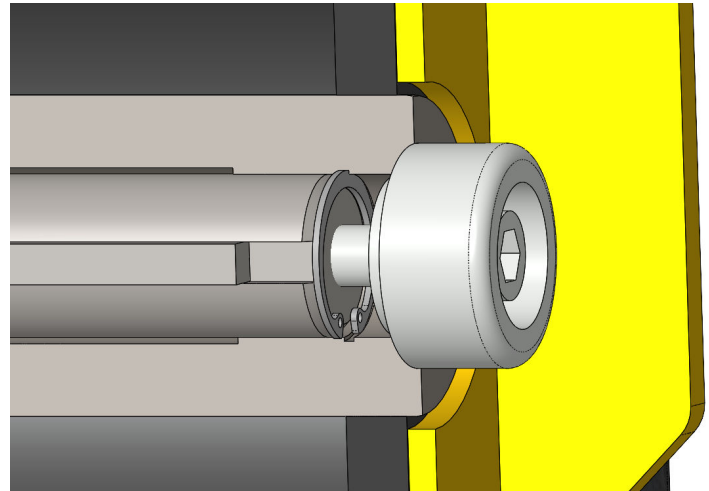
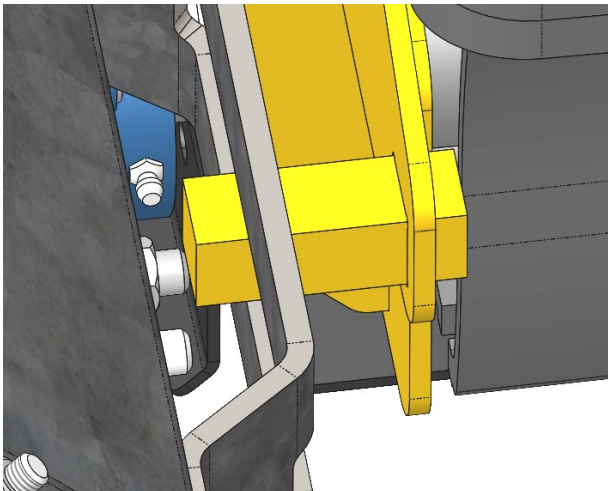
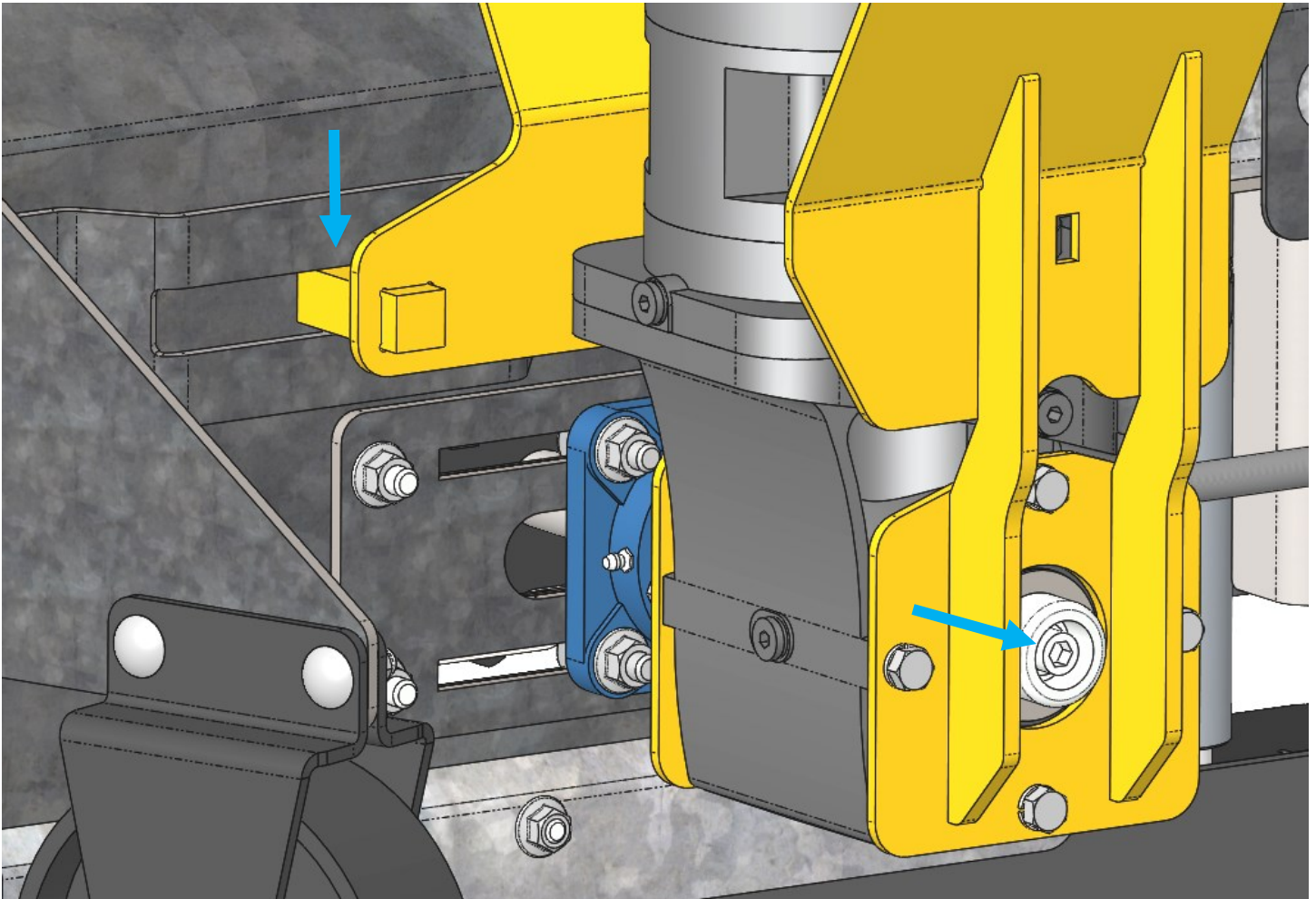


	Single Phase	3 Phase
Torque Arm	K714392	K714397
Support Arm	K714393	K714398
Motor	K714367	K689393

3. Mount the support arm and torque arm weldments to the gearbox with the (8) M8 x 25mm hex bolts and 5/16" lock washers.
4. Attach both motor covers (K714318) and sides (K714319) to the weldments with the (16) 3/8" x 3/4" carriage bolts and serrated flange nuts.

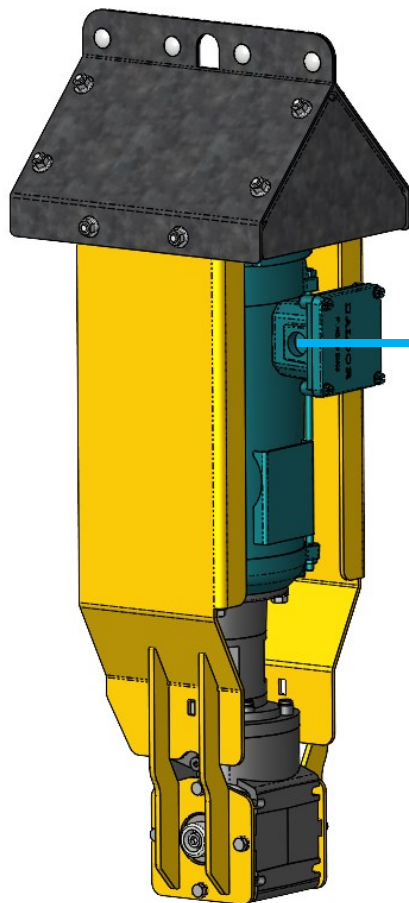
Assembly—Electric Drive

5. Slide the gearbox over the head shaft along with the 1/4" x 2" square key from the K714484 bag. The torque arm goes toward the sweep and the 3/4" square bar rides in the guide (K714394).
6. Install the "fixing kit" that comes with the gearbox. Set the cap against the gearbox and screw the bolt into the end of the head shaft, seating the shaft against the internal snap ring.



Assembly—Electric Drive

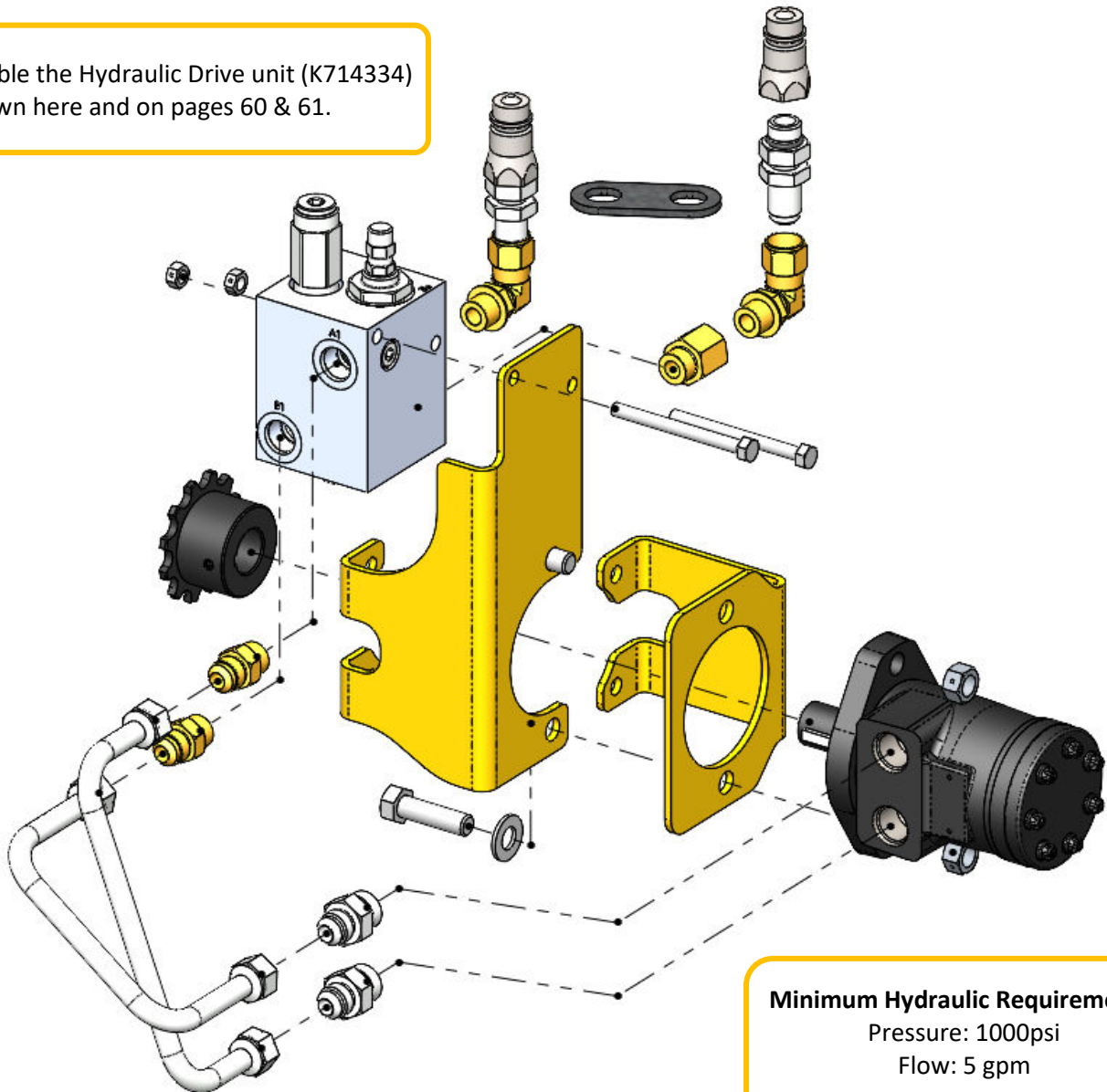
7. A motor starter box is available for purchase. These panels offer Start, Stop and Reset functionality and includes overload adjustment to protect the motor and other components of the sweep.
8. See panel's internal wiring diagram for incoming and outgoing wiring terminations. The start, stop, and reset controls are pre-wired in the panel.
9. The needed length of wire and electrical connectors are the responsibility of the installer/user.



**ALL ELECTRICAL WORK SHOULD BE COMPLETED:
BY A LICENSED ELECTRICIAN
TO ALL APPLICABLE CODES AND REGULATIONS**

Assembly—Hydraulic Drive

1. Assemble the Hydraulic Drive unit (K714334) as shown here and on pages 60 & 61.

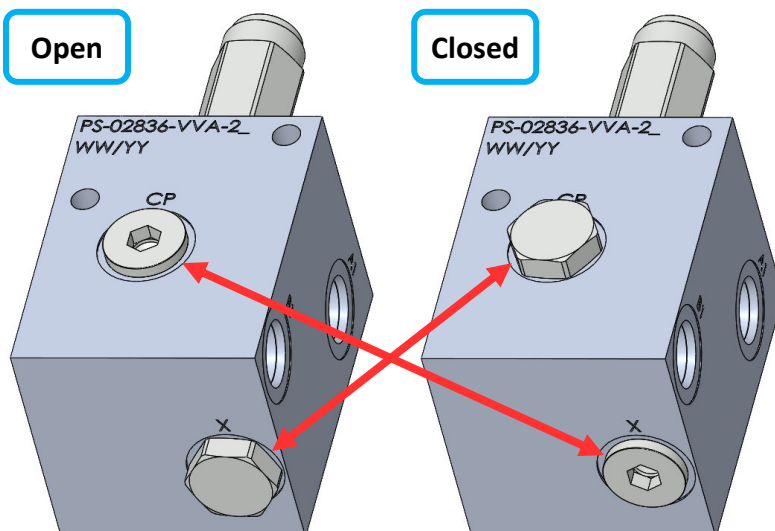


Minimum Hydraulic Requirements:

Pressure: 1000psi

Flow: 5 gpm

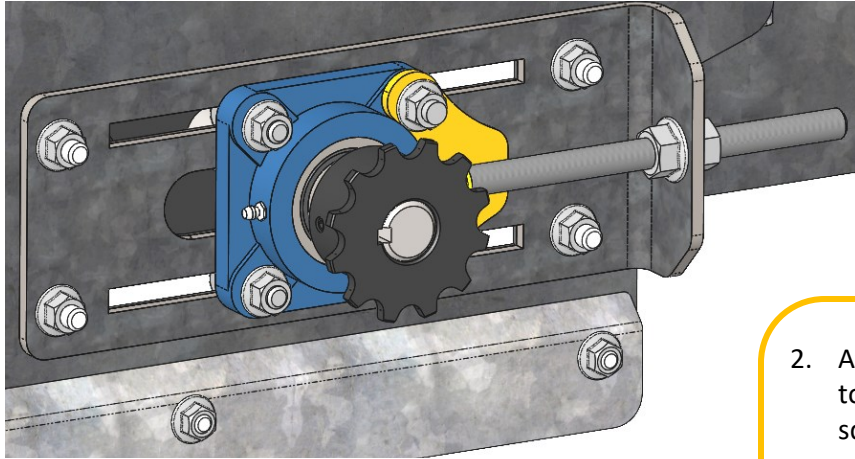
The block contains a pressure relief valve set to 2500 psi.



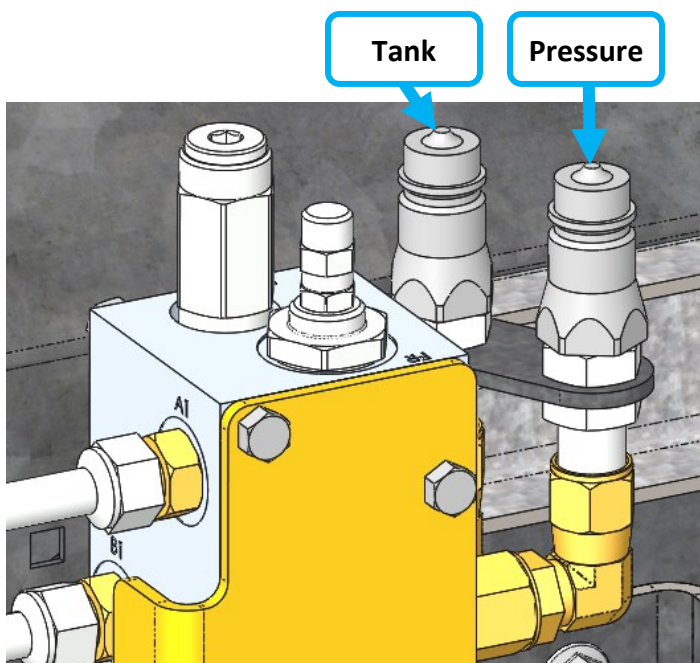
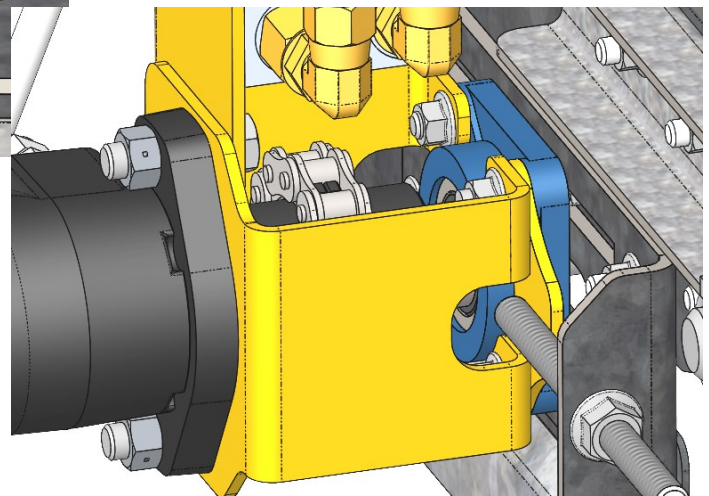
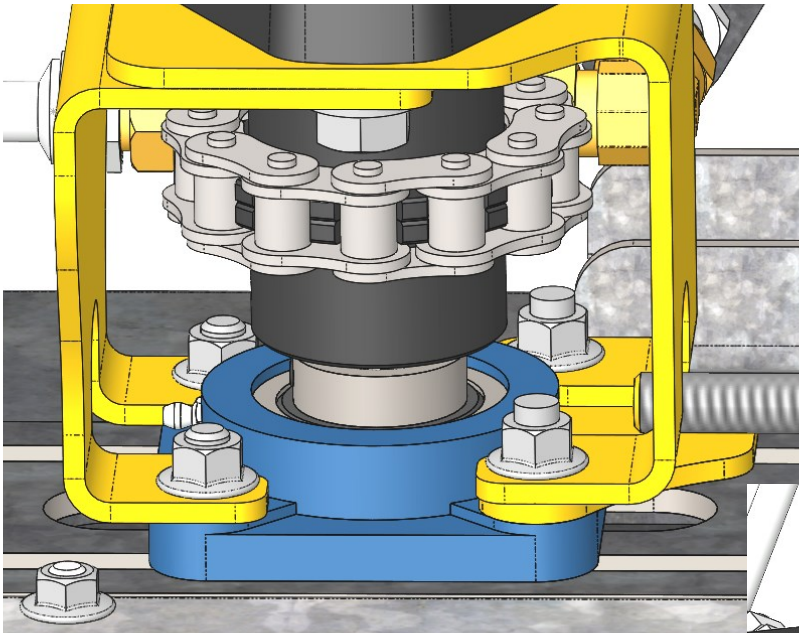
Open Center vs Closed Center

They hydraulic block is designed to accommodate both types of tractor hydraulic systems. (See the two figures to left.) If not set up as needed, switch the plugs between orifices CP and X.

Assembly—Hydraulic Drive



2. Attach the coupler sprocket (K689841) to the head shaft with the 1/4" x 1" square key.
3. With the paddle chain and tensioners loose, attach the hydraulic drive to the backside bearing and snug the hardware.
4. Connect the coupler sprockets with the coupler chain (K689835). Adjust/shift the head shaft if needed.
5. Tension the paddle chain and then tighten down the bearing/mount bolts.



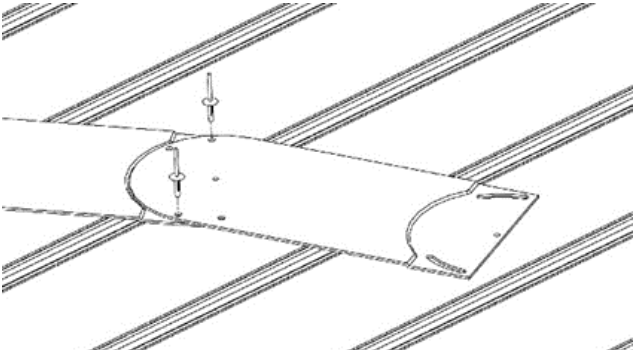
6. Female quick couplers and 45 degree fittings for the hose ends are provided. The needed length of hydraulic hose and crimped fittings are the responsibility of the installer/user.
7. When connecting hoses, switching the flow will make sweep run backwards. Doing so can cause damage to the sweep if ran too long.

Initial Operation

- Overview – During initial operation in an empty bin, personnel 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.
- 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 of the sweep does not contact any obstructions inside the bin such as stiffeners, doors, or ladders.
- Check both chains (paddle chain, tractor drive chain) after first two passes for excessive slack or tightness. Refer to page 20 for proper tightening.

Track Pathway Installation

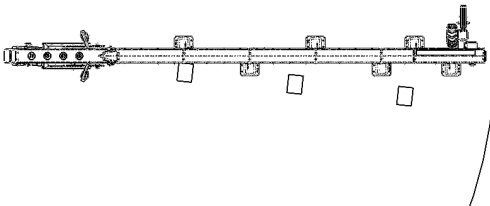
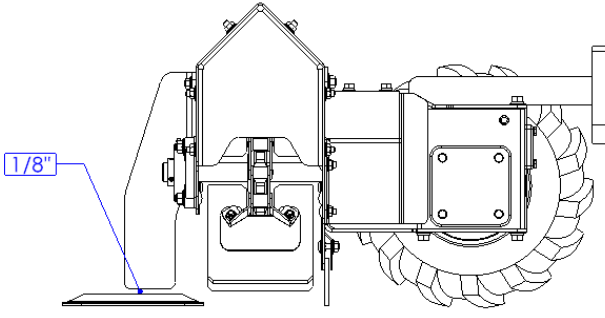
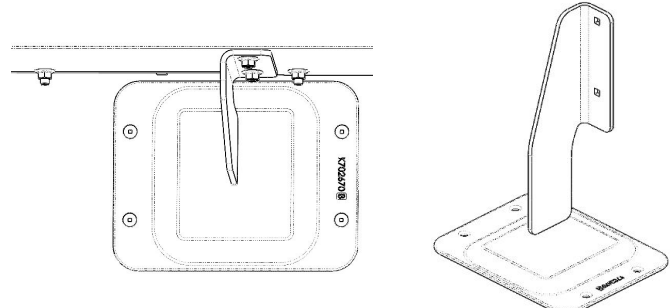
For full aeration floor, track pathways are available to protect them from damage from the caster wheels and drive wheel. The track pathways are critical to preventing floor damage when the sweep is operated under load.

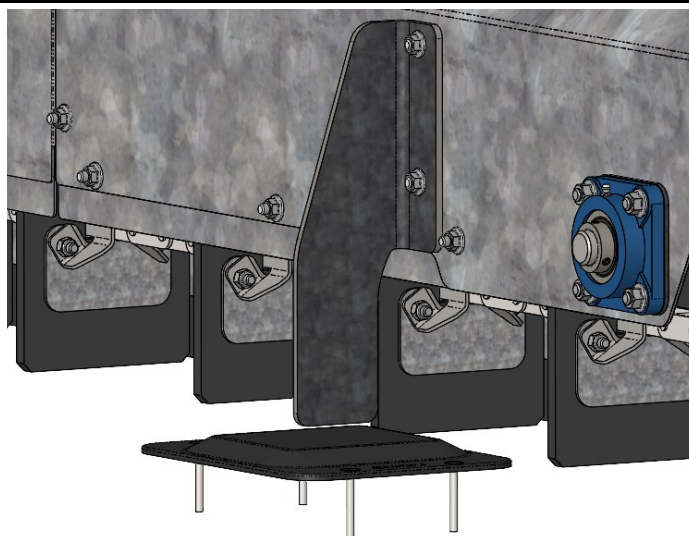
	To determine the location of the track pathways it is recommended that the sweep is operated to find the path. While the sweep is operating around an empty bin, follow the caster and mark the floor with paint or a marker.
	After the path is marked you can install the pathways in an overlapping fashion. Anchor the pathways down with the supplied rivets (two rivets per pad). The final pathway may have to be cut to fit properly.

Zero Entry Pad Installation & Burial

Once the second test pass is nearly complete, the sweep can be set for burial. It is critical that the stands repeatedly land on the pads. Improperly setting the sweep or pads can cause major damage to the sweep which can be very difficult and hazardous to repair when the bin is full of grain.

Extra floor supports or structure are **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 & 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 the second pass to check operation is almost complete, the sweep can be stopped in the burial location. The burial location should be such that the sumps are just in front of the sweep and that none of the zero entry stands are above a sump hole location. Once the sweep is set to this location. Place a zero-entry pad (K702670) under each stand.
	Using the shims that are provided, elevate the pad so that each one has a 1/8" gap to the stand. 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. Center each pad under the stand in the orientation shown and mark the location on the floor.
	While keeping track of each pad and shim location, move the shims to the rear of the sweep. Advance the sweep forward to gain access to all the pad locations that have been marked. Secure each pad and shim stack to the floor using the provided hardware (K697999).



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.
 - ◇ 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.
 - ◇ After 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.
 - ◇ 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.

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
Visually Inspect Electrical Components	X	X	X
Visually Inspect Hydraulic Components	X	X	X
Check Paddle Chain Tension		X	X
Grease Fittings		X	X
Adjust Drag Rubber			X
Clean off excess debris		X	X
Change oil in gearboxes			X

- Grease fitting locations
 - ◇ Head Section (Take-up Bearings)
 - ◇ End Section Bearings

- Periodically check all bolts for looseness and re-torque if necessary.
 - ◇ Section fasteners
 - ◇ Sprocket set screws
 - ◇ Wheel hubs

- Paddle conveyor chain
- Tractor drive chain
- Check drag rubber for damage or adjustment
- Gearbox Oil

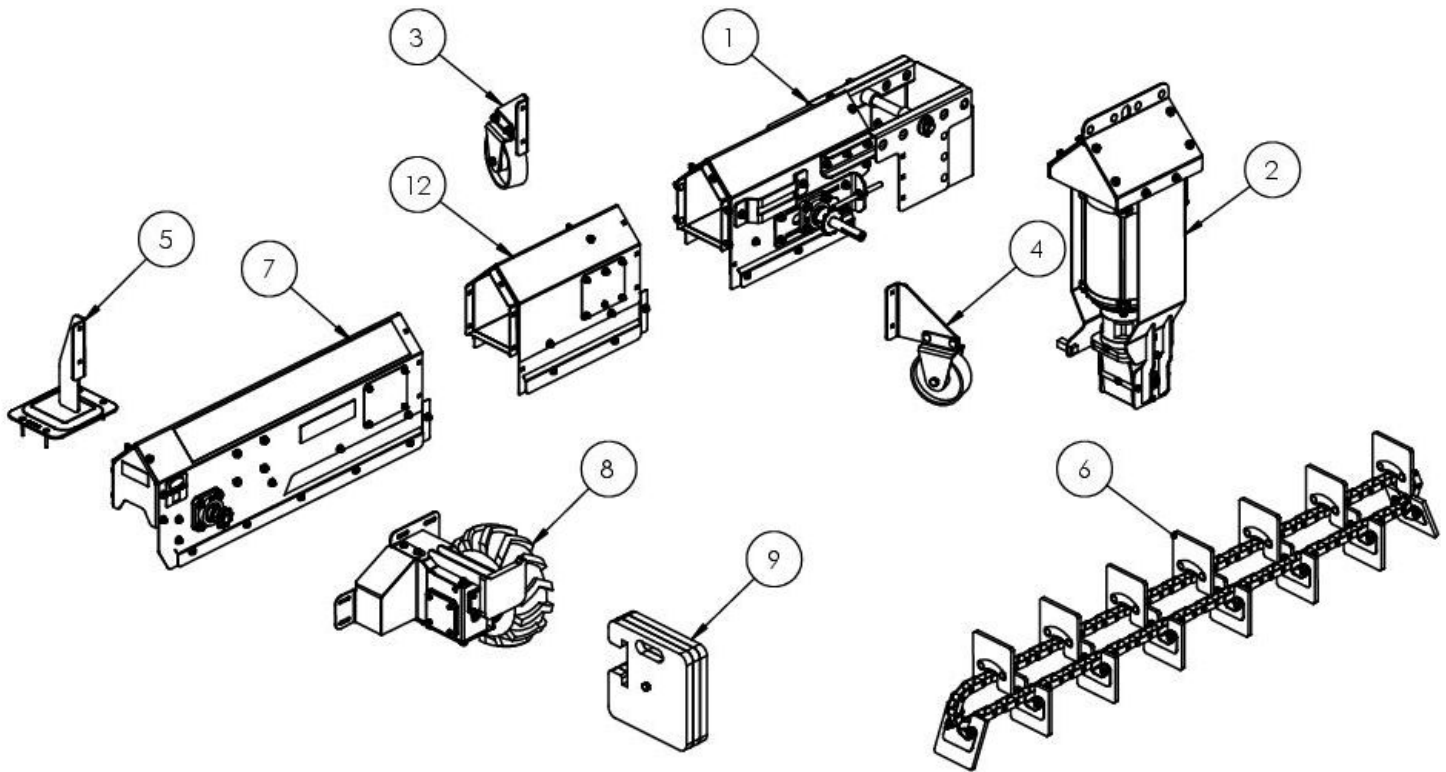
If low, use Mobile SHC 634 oil or equivalent (19.4 oz) in the drive gearbox. Synthetic lubricant should be changed every 6,000 hours of operation or every two years; whichever comes first. Refer to the installation section for level and vent plug location.

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.

Trouble Shooting

1. Motor starter trips or needs to be reset	Overloading the take-away system Need to slow down the paddle sweep
2. Electric motor has high amp draw	Overloading the take-away system Need to slow down the paddle sweep
3. Electric motor is hot	Drawing too many amps (If equipped with VFD, ensure VFD is not running below 30hertz.)
4. Overheating gearbox	Overloading the take-away system – Need to slow down the paddle sweep or check that vent plug is installed and open
5. Farm sweep is over running the sump	Reduce the flow rate on the hydraulic block—Contact Sioux Steel
6. 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 sections in lengths of 1.5' or 3'. 6" and 12" extension kits are also available
7. Damage to head section, head shaft or motor torque arm	Sump may be too large for standard head section.
8. Damage to head section	Check chain tension. Are take-up bearings tightened evenly?
9. Breaking tail or head shafts	Chain tension is too tight. See chain tensioning section.
10. Paddle chain will not turn	Missing sprocket, missing keyway, motor/gearbox is not engaged on head shaft.
11. Tractor drive is not turning	Missing sprocket/keyway that drives the drive gearbox. Roller chain is loose or disconnected.
12. Sweep acts like it wants to "climb" the pile.	Center pivot is mounted too high.
13. Sweep leaves indentations or "tracks" on aeration panels or floor	Bin/Silo needs track pathways installed to the floor or areas with indentations.
14. After burial sweep has pushed through an aeration floor.	Additional floor supports are needed under load points of sweep during burial.
15. Caster wheel is cutting or marking the floor.	Ensure the front and rear casters are in the appropriate position on the sweep. Install track pathways.
16. Front caster wheel falls into sump opening.	Move caster wheel to a different flange mount either inward or outward.
17. Gearbox is low on oil	See maintenance section for proper level and oil.
18. Sweep presses into pile to hard/Grain spills over sweep.	Reduce weight on drive wheel.
19. Sweep isn't running "full"/lacks traction on floor.	Add weight to drive wheel.

Parts Lists & Diagrams

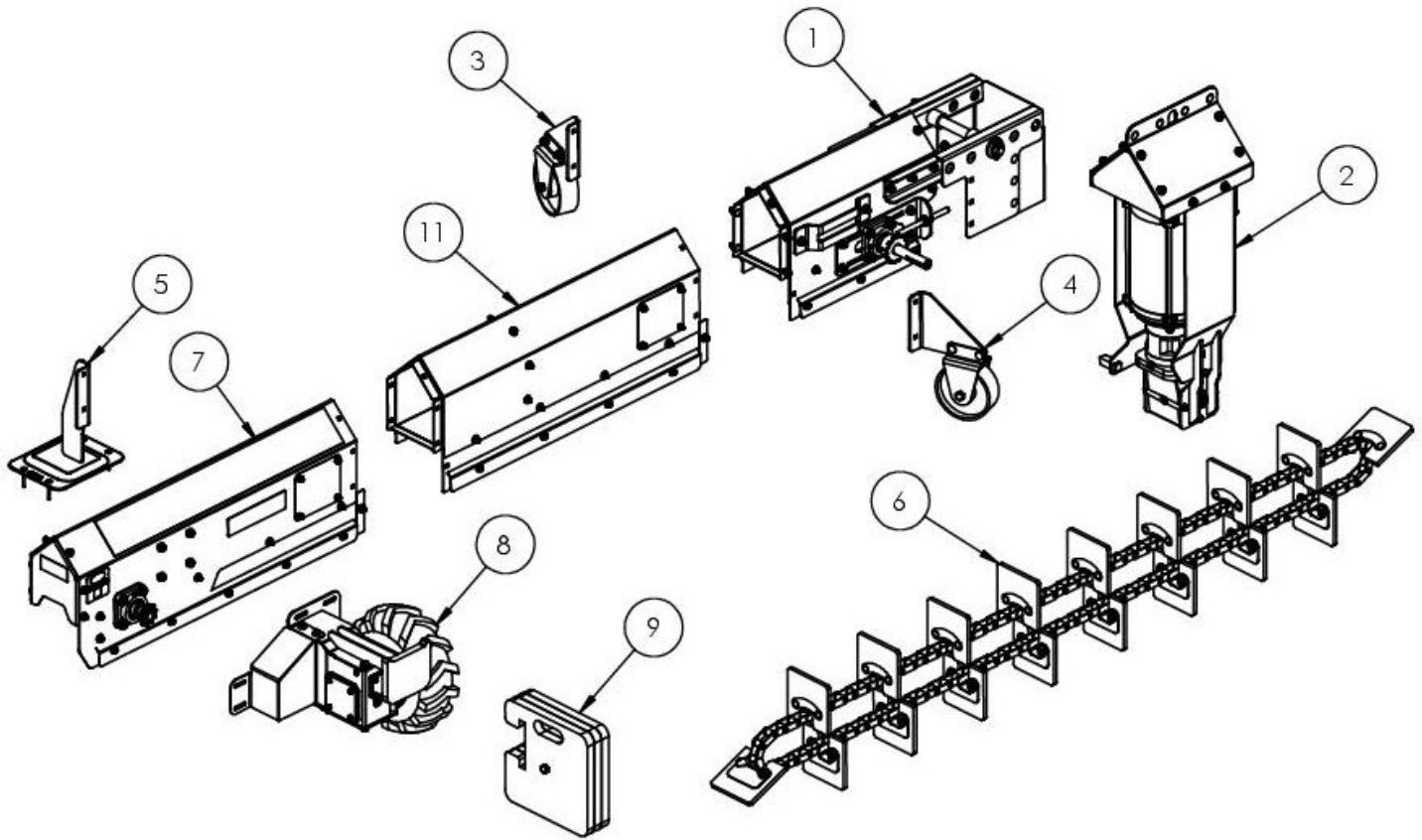


PARTS LIST

6' 6" SWEEP FOR 15' BIN (K714400)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECTRIC DRIVE—SINGLE PHASE	1
	K714333	ELECTRIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	1
6	K714430	CHAIN ASSEMBLY, 2K - 15 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	1
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	0
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

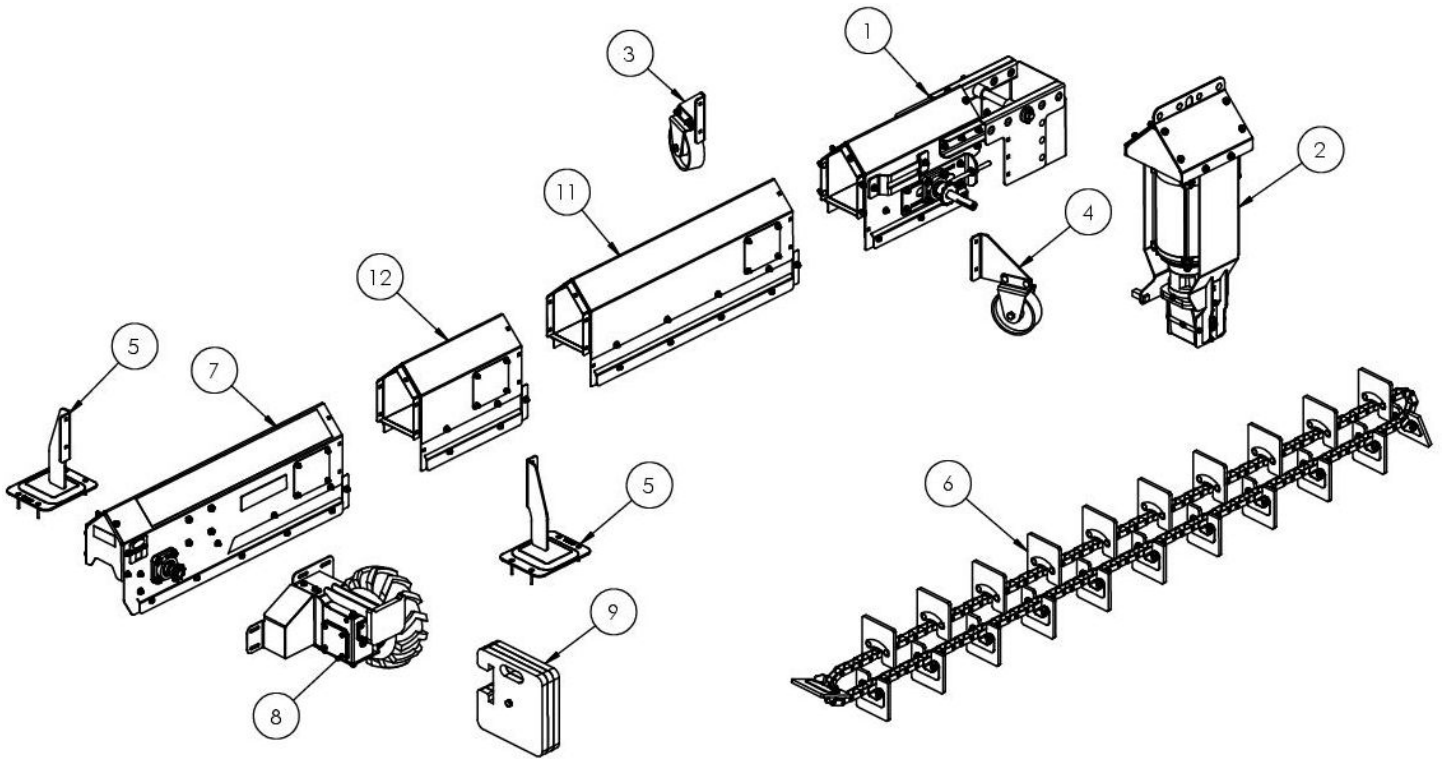


PARTS LIST

8' 0" SWEEP FOR 18' BIN (K714401)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECRTIC DRIVE—SINGLE PHASE	1
	K714333	ELECRTIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	1
6	K714431	CHAIN ASSEMBLY, 2K - 18 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	1
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	1
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

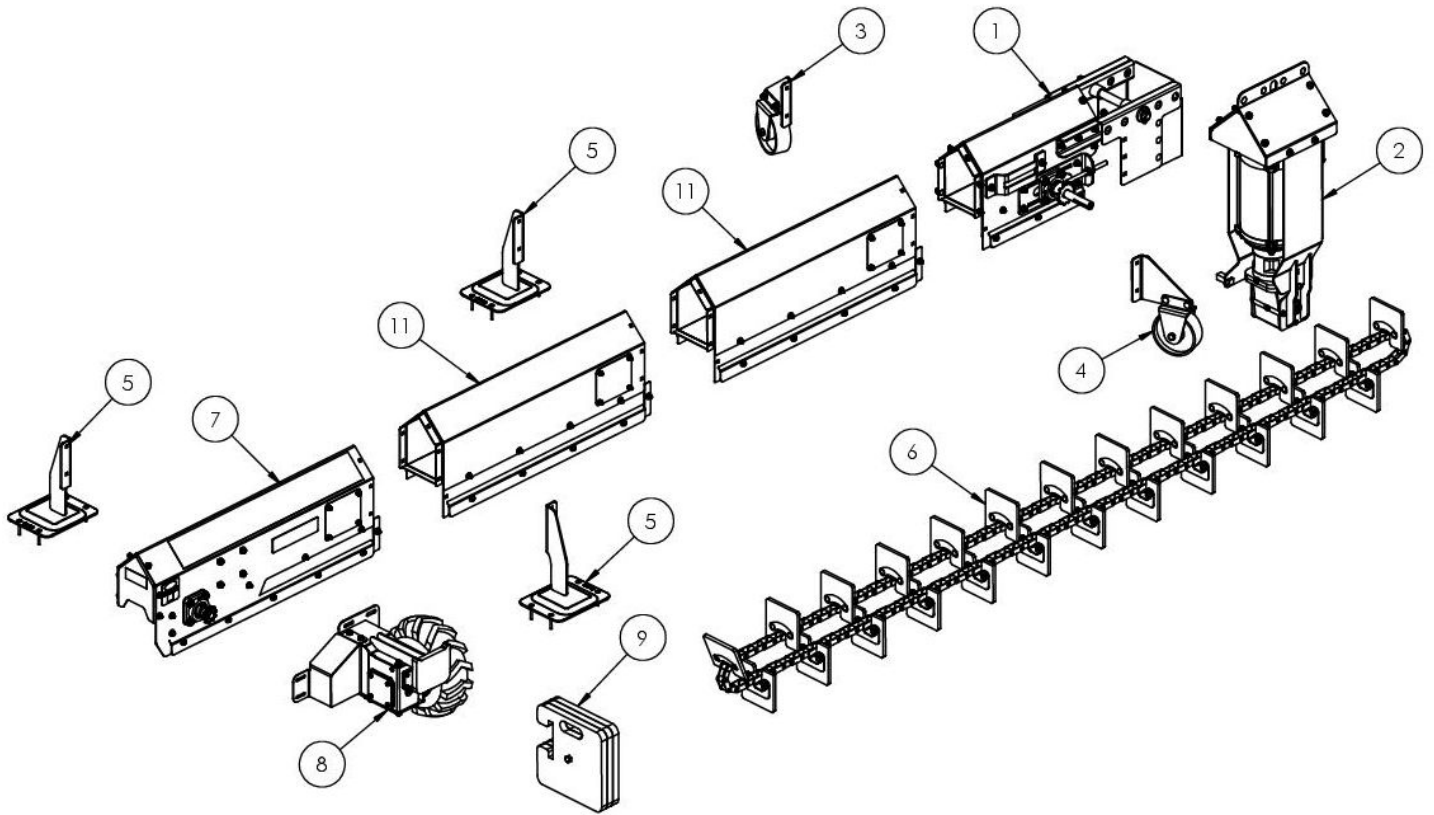


PARTS LIST

9' 6" SWEEP FOR 21' BIN (K714402)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECTRIC DRIVE—SINGLE PHASE	1
	K714333	ELECTRIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	2
6	K714432	CHAIN ASSEMBLY, 2K - 21 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	2
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	1
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

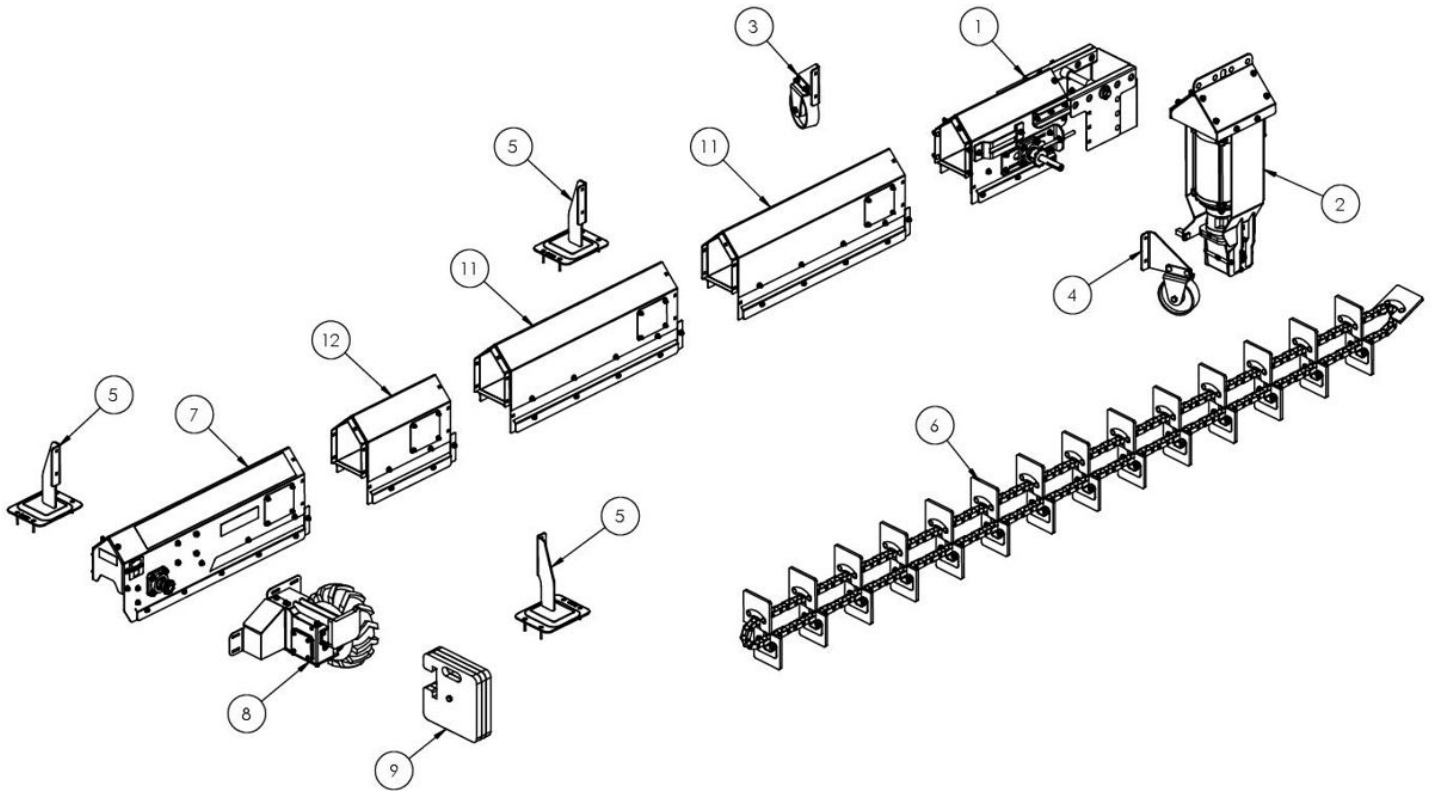


PARTS LIST

11' 0" SWEEP FOR 24' BIN (K714403)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECRTIC DRIVE—SINGLE PHASE	1
	K714333	ELECRTIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	3
6	K714433	CHAIN ASSEMBLY, 2K - 24 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	2
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	2
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

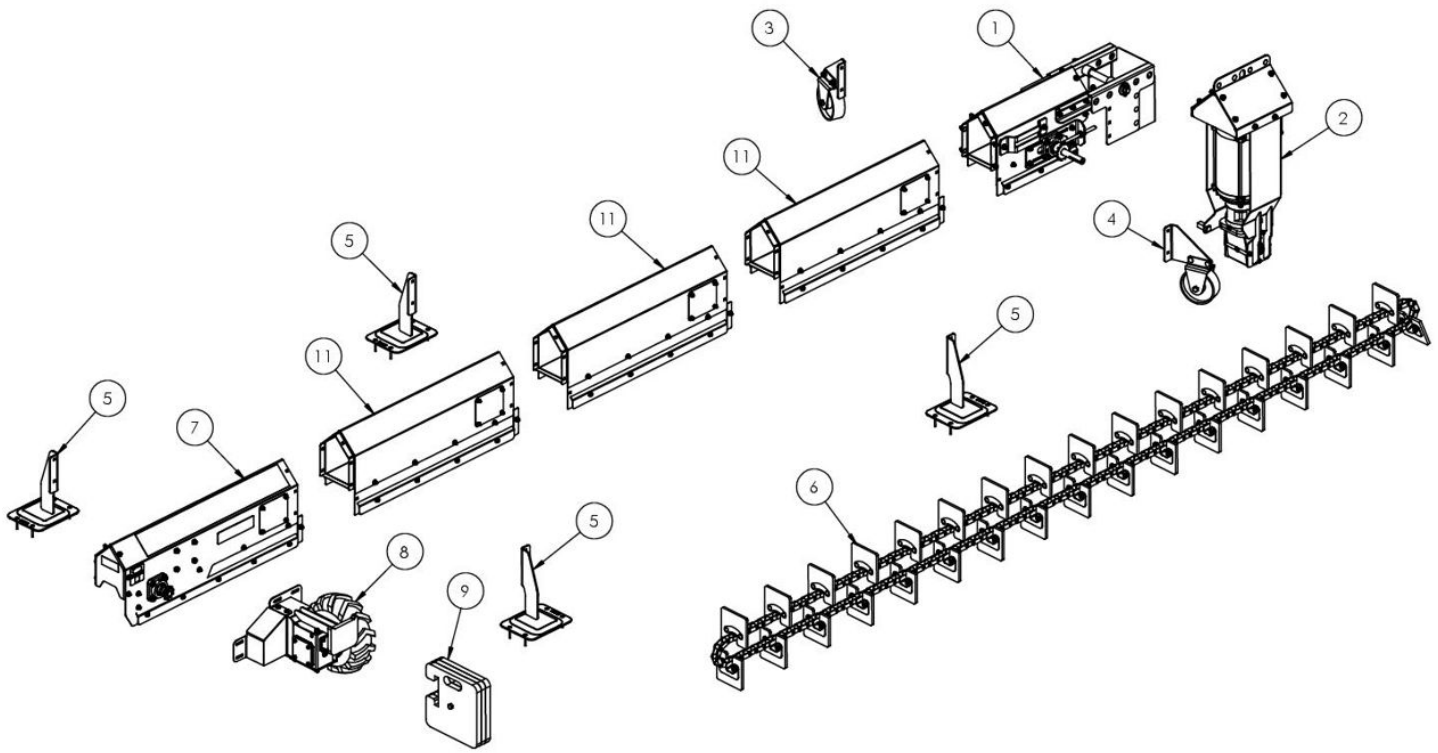


PARTS LIST

12' 6" SWEEP FOR 27' BIN (K714404)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECTRIC DRIVE—SINGLE PHASE	1
	K714333	ELECTRIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	3
6	K714434	CHAIN ASSEMBLY, 2K - 27 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	3
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	2
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

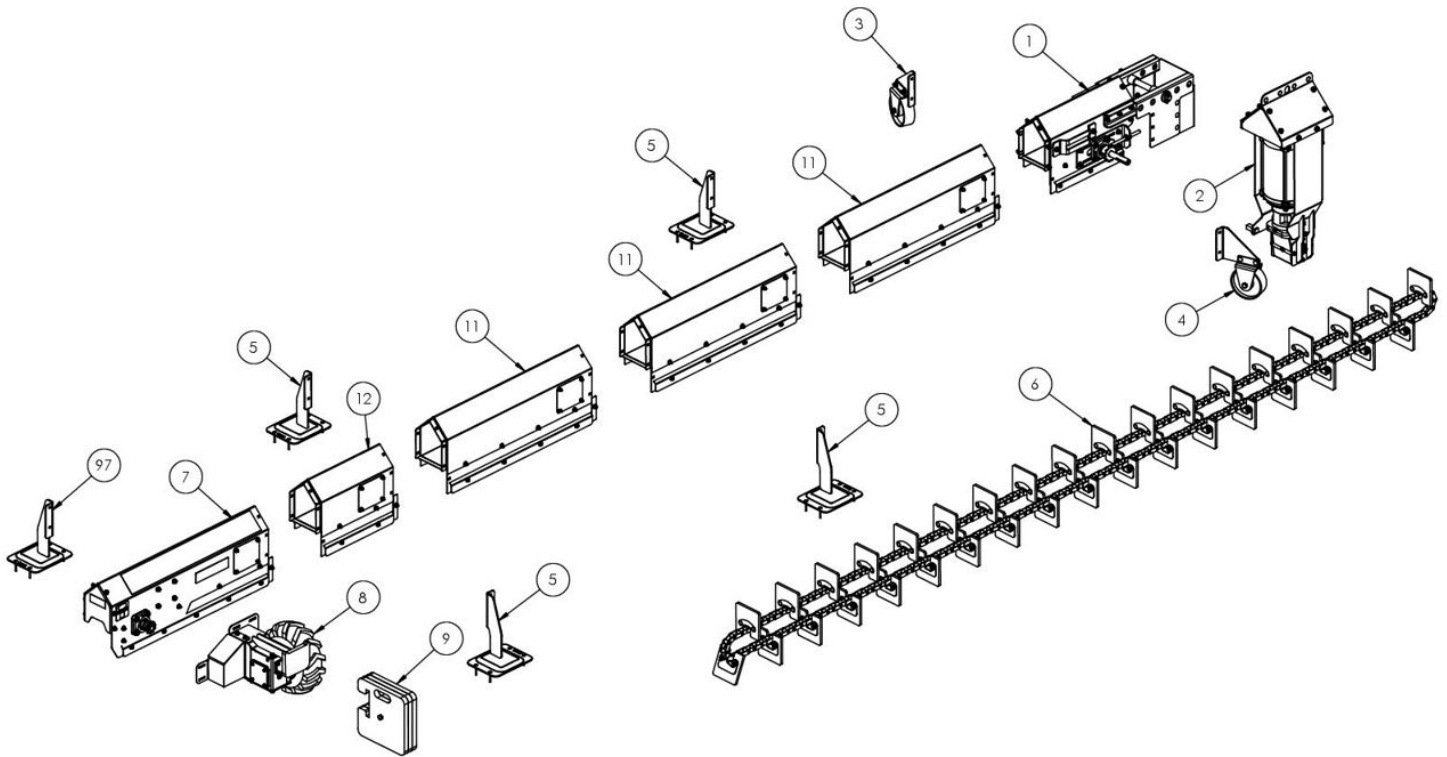


PARTS LIST

14' 0" SWEEP FOR 30' BIN (K714405)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECTRIC DRIVE—SINGLE PHASE	1
	K714333	ELECTRIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	4
6	K714435	CHAIN ASSEMBLY, 2K - 30 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	3
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	3
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

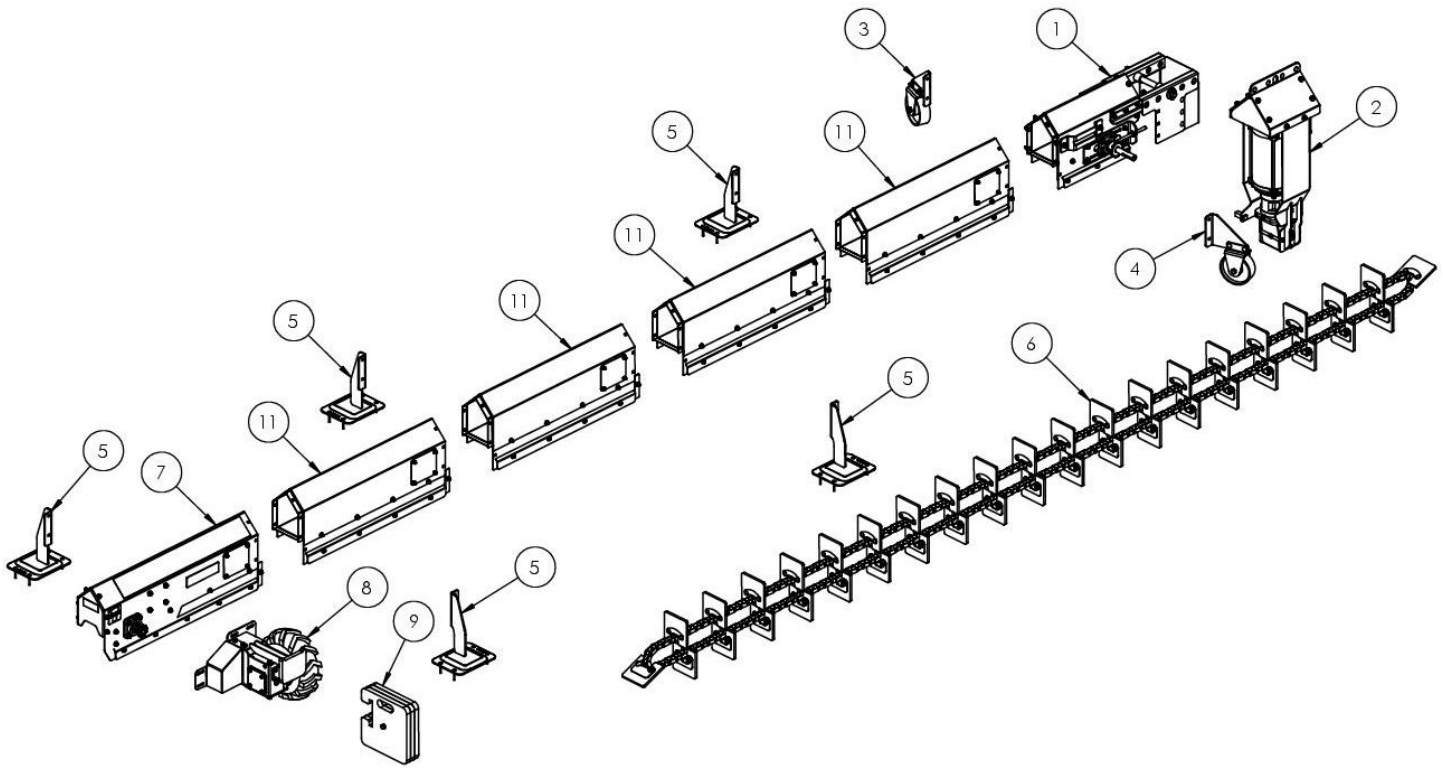


PARTS LIST

15' 6" SWEEP FOR 33' BIN (K714406)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECTRIC DRIVE—SINGLE PHASE	1
	K714333	ELECTRIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	5
6	K714436	CHAIN ASSEMBLY, 2K - 33 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	4
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	3
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

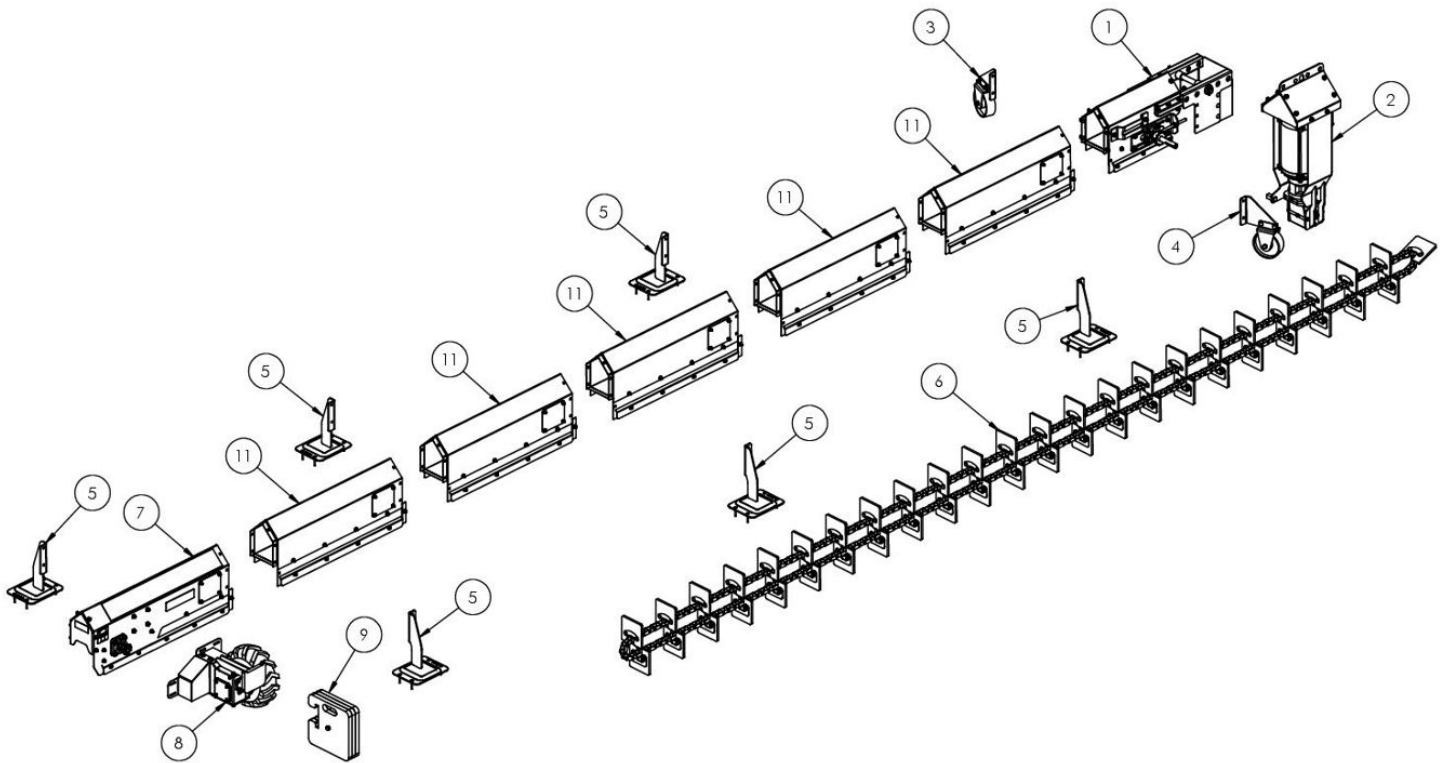


PARTS LIST

17' 0" SWEEP FOR 36' BIN (K714407)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECTRIC DRIVE—SINGLE PHASE	1
	K714333	ELECTRIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	5
6	K714437	CHAIN ASSEMBLY, 2K - 36 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	4
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	4
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

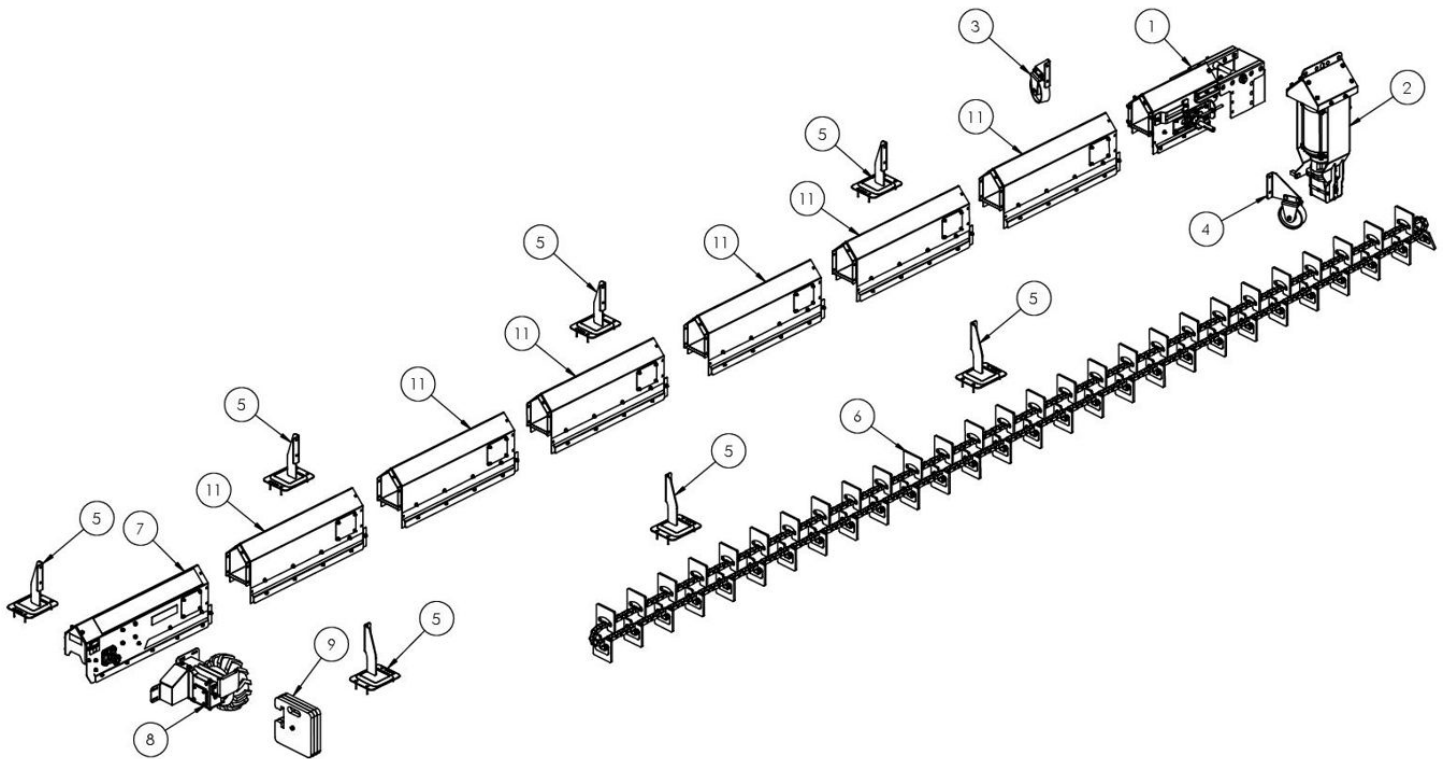


PARTS LIST

20' 0" SWEEP FOR 42' BIN (K714408)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECTRIC DRIVE—SINGLE PHASE	1
	K714333	ELECTRIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	6
6	K714438	CHAIN ASSEMBLY, 2K - 42 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	5
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	5
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

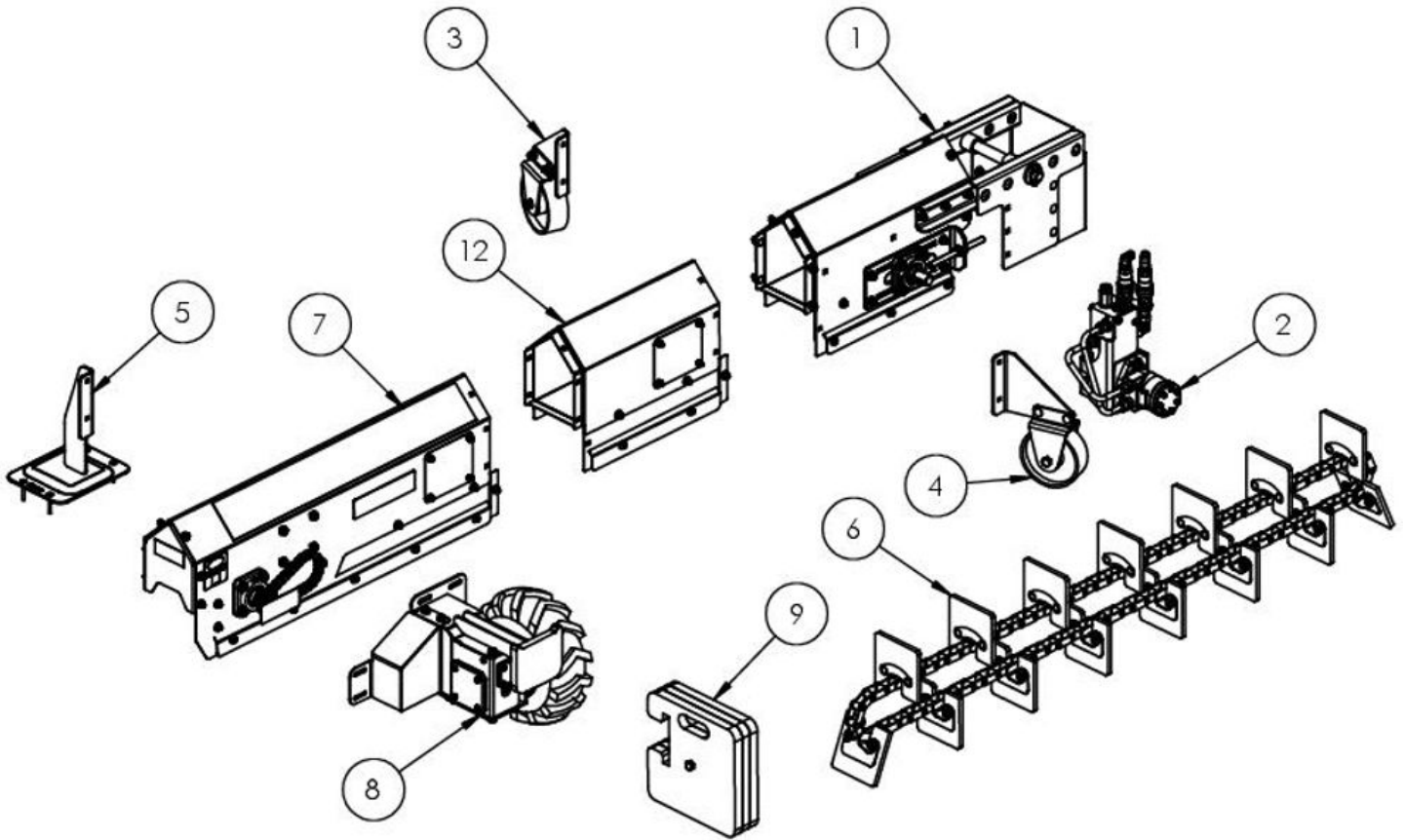


PARTS LIST

23' 0" SWEEP FOR 48' BIN (K714409)

ITEM	PART #	DESCRIPTION	QTY
1	K714340	HEAD SECTION, ELECTRIC 2K	1
2	K714320	ELECRTIC DRIVE—SINGLE PHASE	1
	K714333	ELECRTIC DRIVE—THREE PHASE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	7
6	K714439	CHAIN ASSEMBLY, 2K - 48 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	6
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	6
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

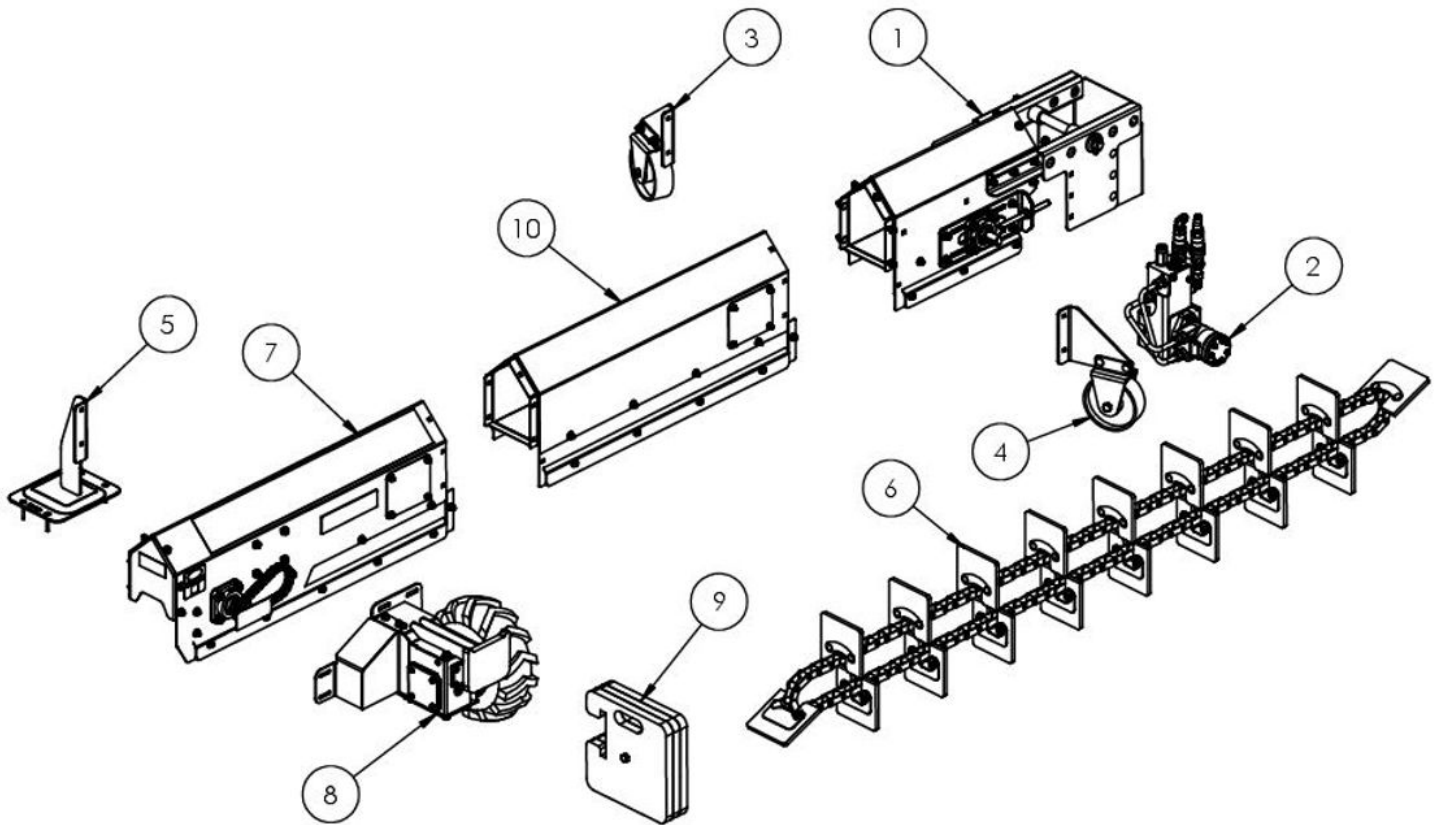


PARTS LIST

6' 6" SWEEP FOR 15' BIN (K714420)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	1
6	K714430	CHAIN ASSEMBLY, 2K - 15 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	1
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	0
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

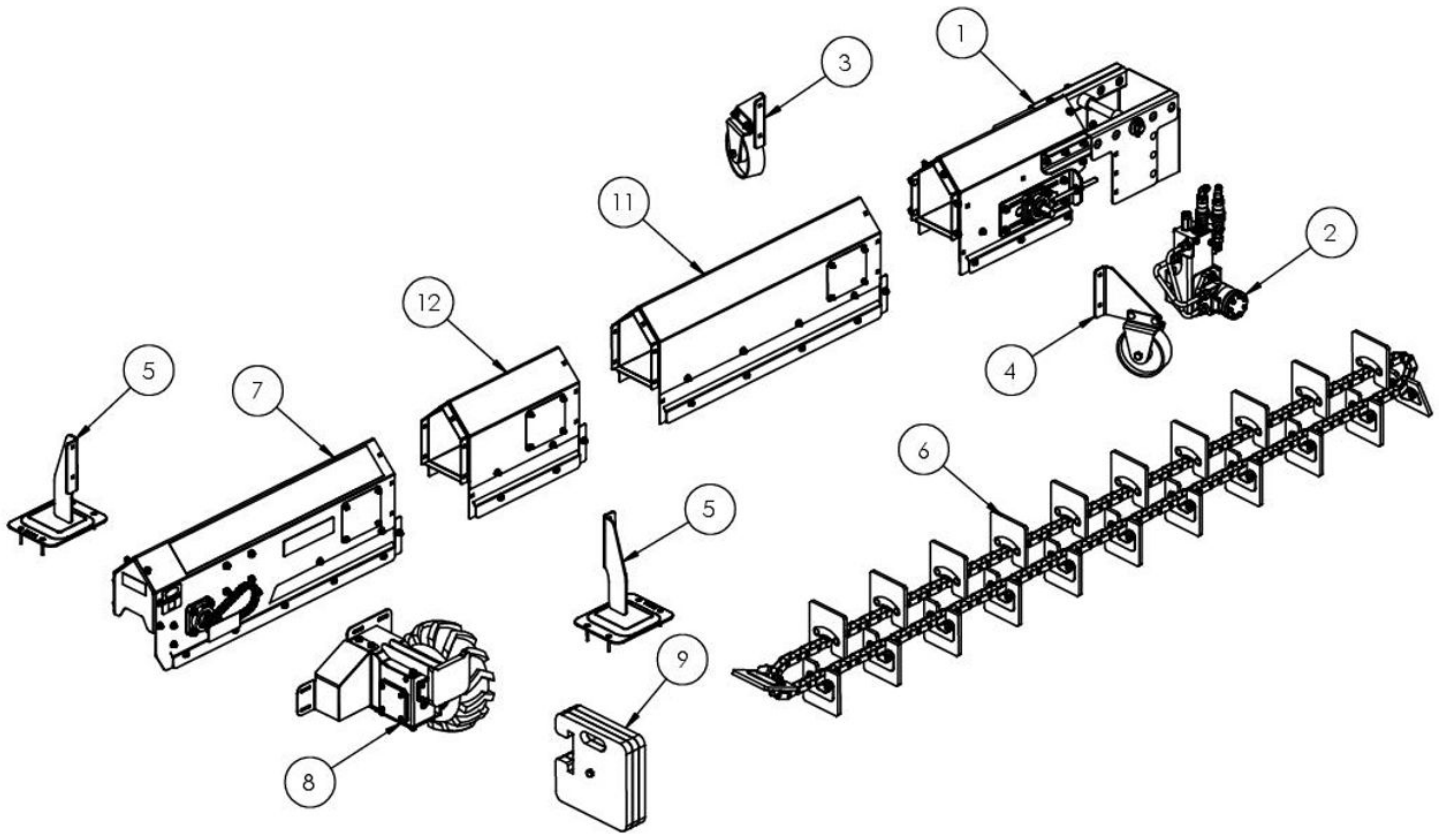


PARTS LIST

8' 0" SWEEP FOR 18' BIN (K714421)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	1
6	K714431	CHAIN ASSEMBLY, 2K - 18 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	1
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	1
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

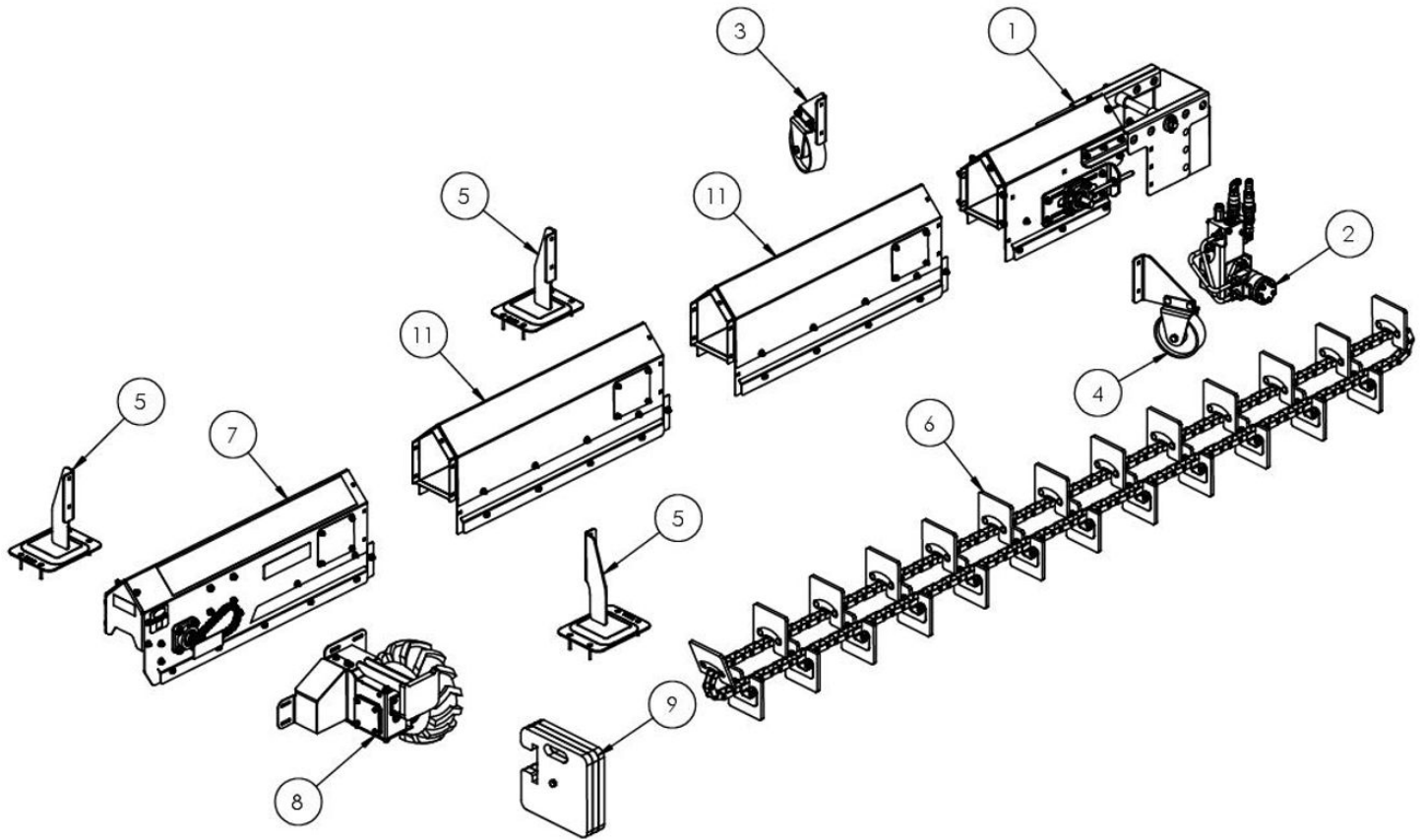


PARTS LIST

9' 6" SWEEP FOR 21' BIN (K714422)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	2
6	K714432	CHAIN ASSEMBLY, 2K - 21 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	2
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	1
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

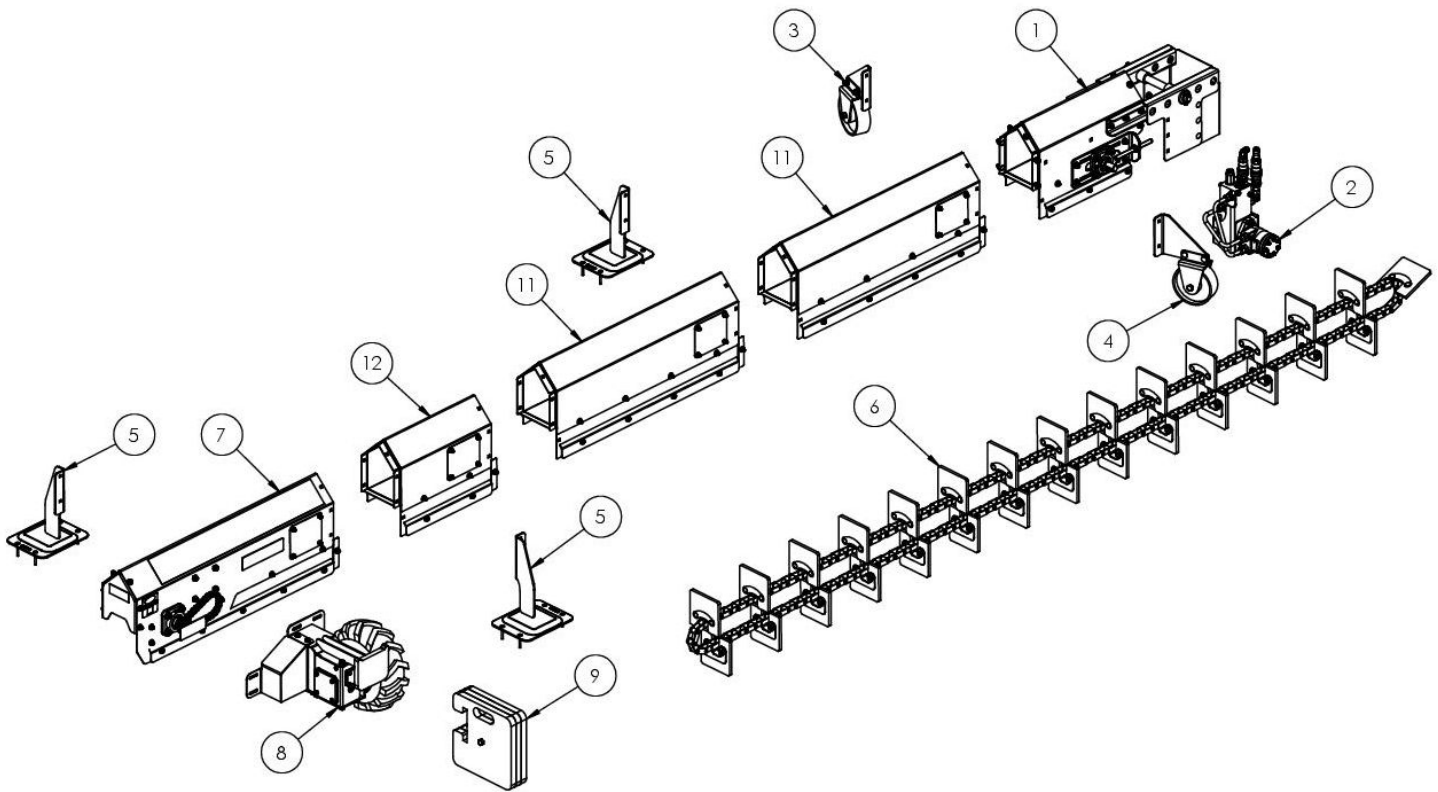


PARTS LIST

11' 0" SWEEP FOR 24' BIN (K714423)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	3
6	K714433	CHAIN ASSEMBLY, 2K - 24 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	2
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	2
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

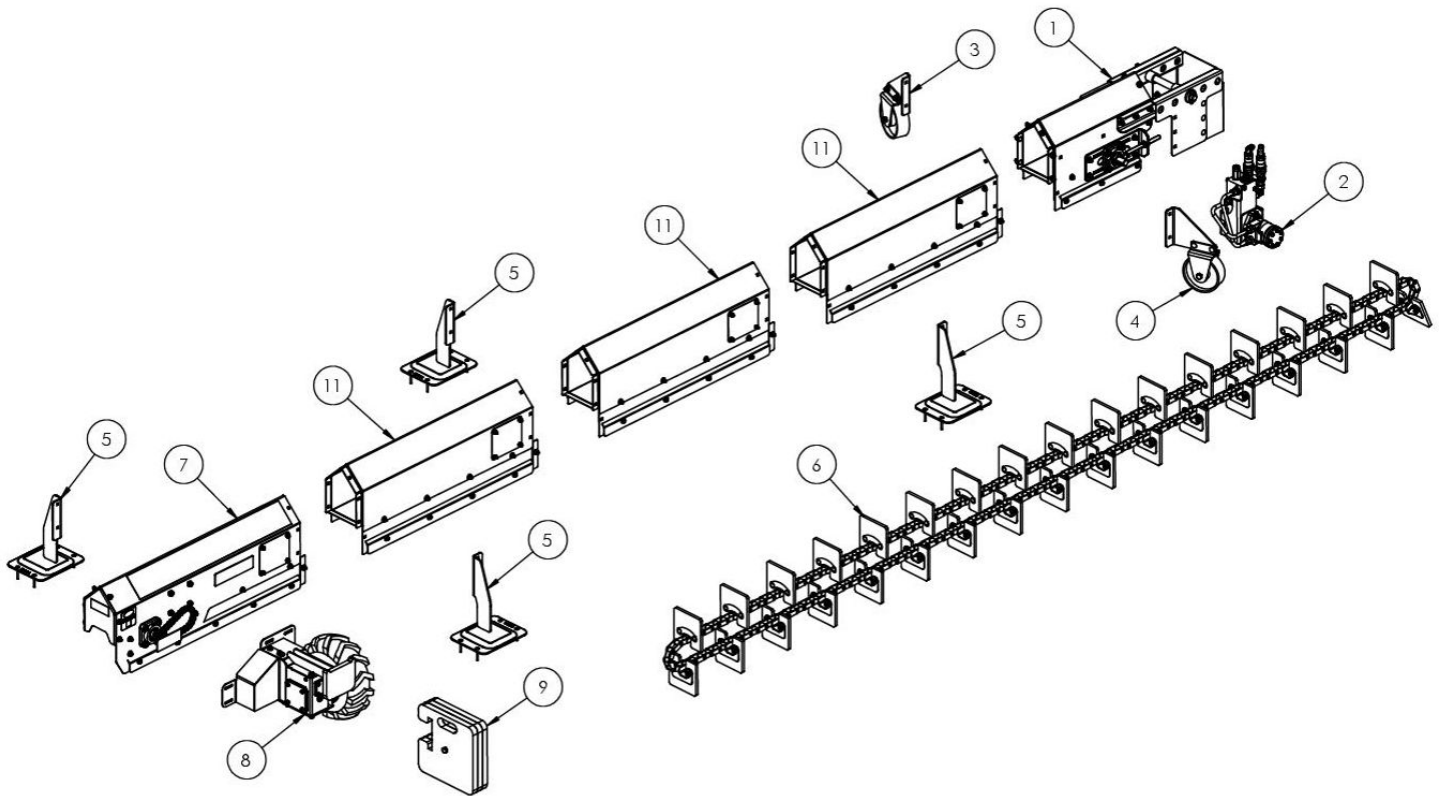


PARTS LIST

12' 6" SWEEP FOR 27' BIN (K714424)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	3
6	K714434	CHAIN ASSEMBLY, 2K - 27 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	3
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	2
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

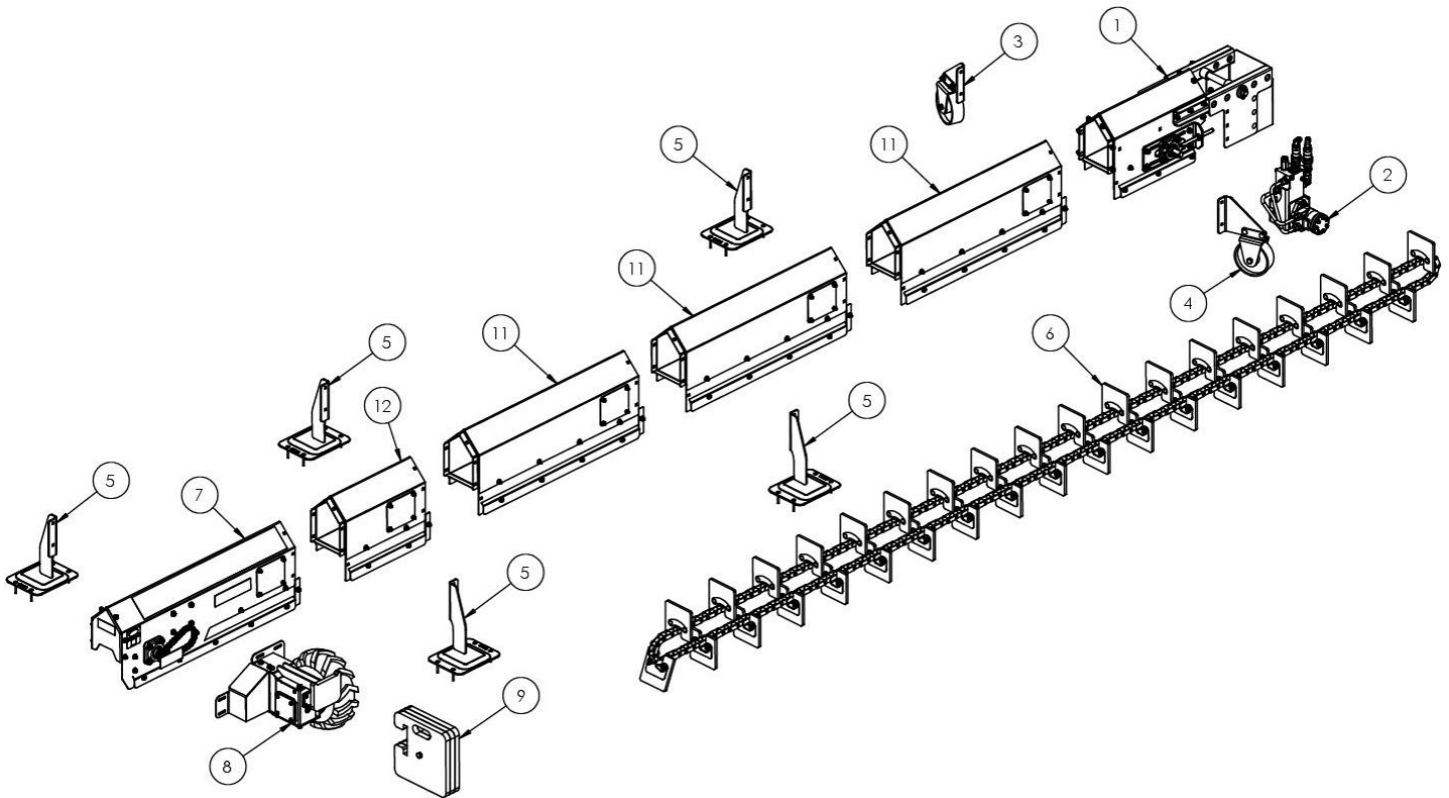


PARTS LIST

14' 0" SWEEP FOR 30' BIN (K714425)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	4
6	K714435	CHAIN ASSEMBLY, 2K - 30 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	3
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	3
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

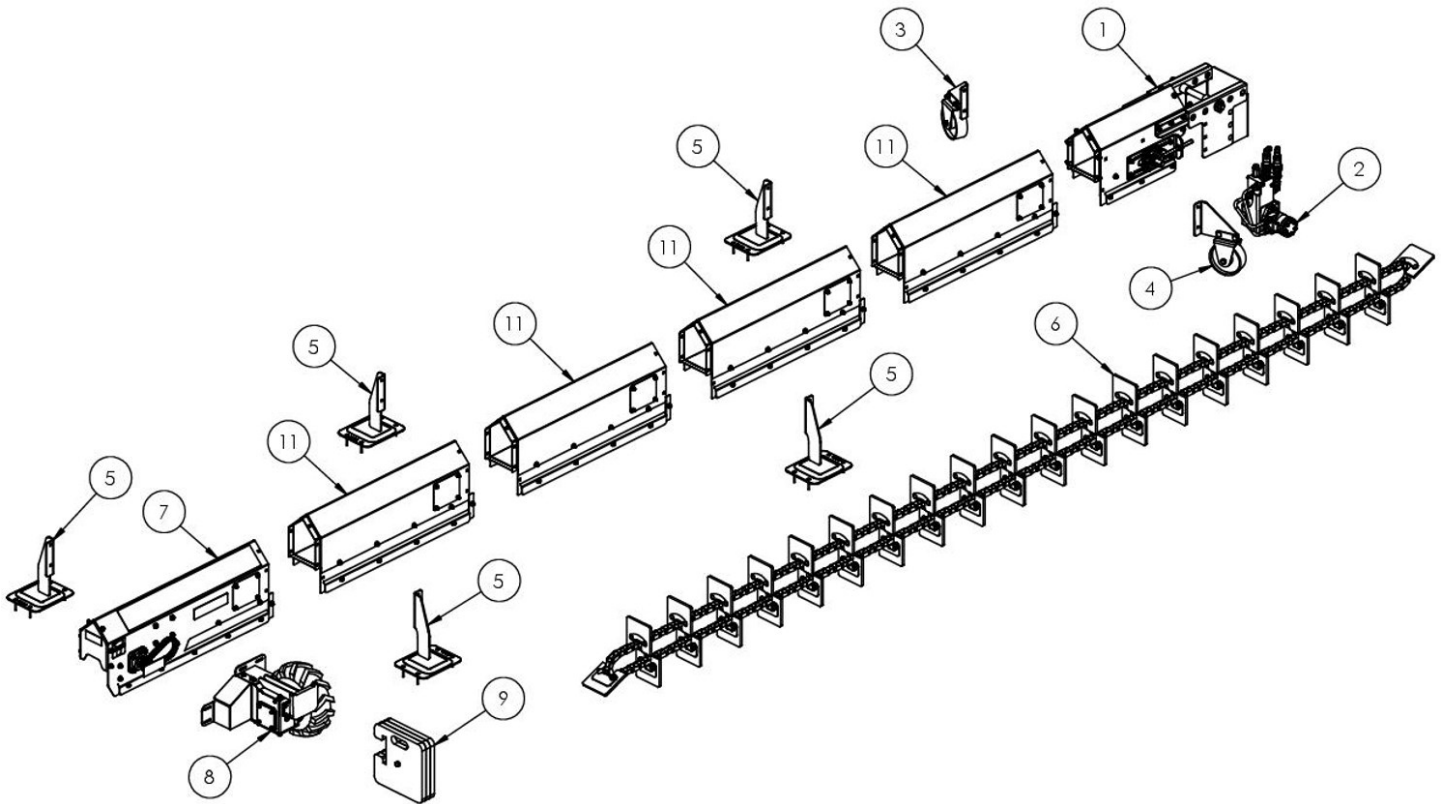


PARTS LIST

15' 6" SWEEP FOR 33' BIN (K714426)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	5
6	K714436	CHAIN ASSEMBLY, 2K - 33 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	4
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	3
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	1

Parts Lists & Diagrams

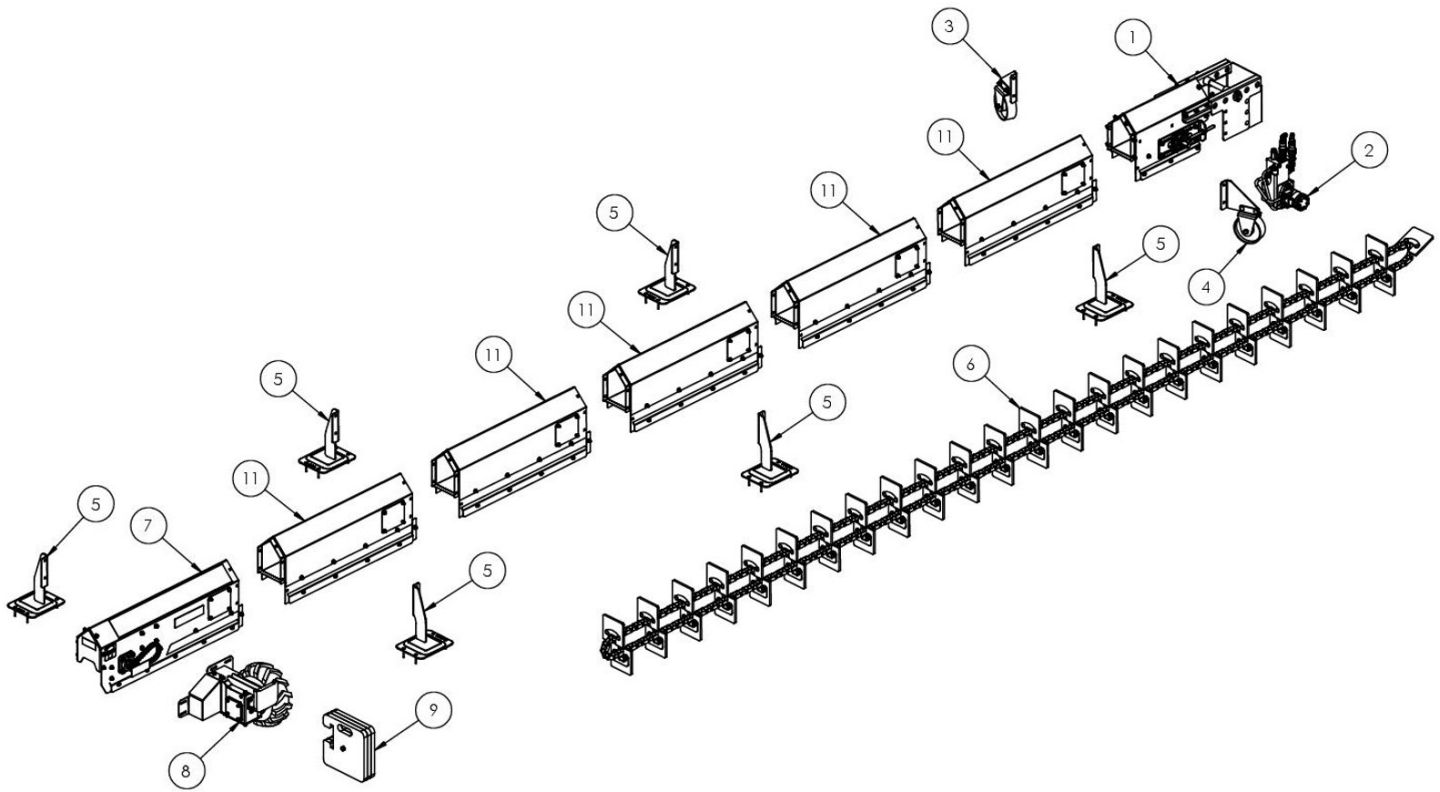


PARTS LIST

17' 0" SWEEP FOR 36' BIN (K714427)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	5
6	K714437	CHAIN ASSEMBLY, 2K - 36 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	4
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	4
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

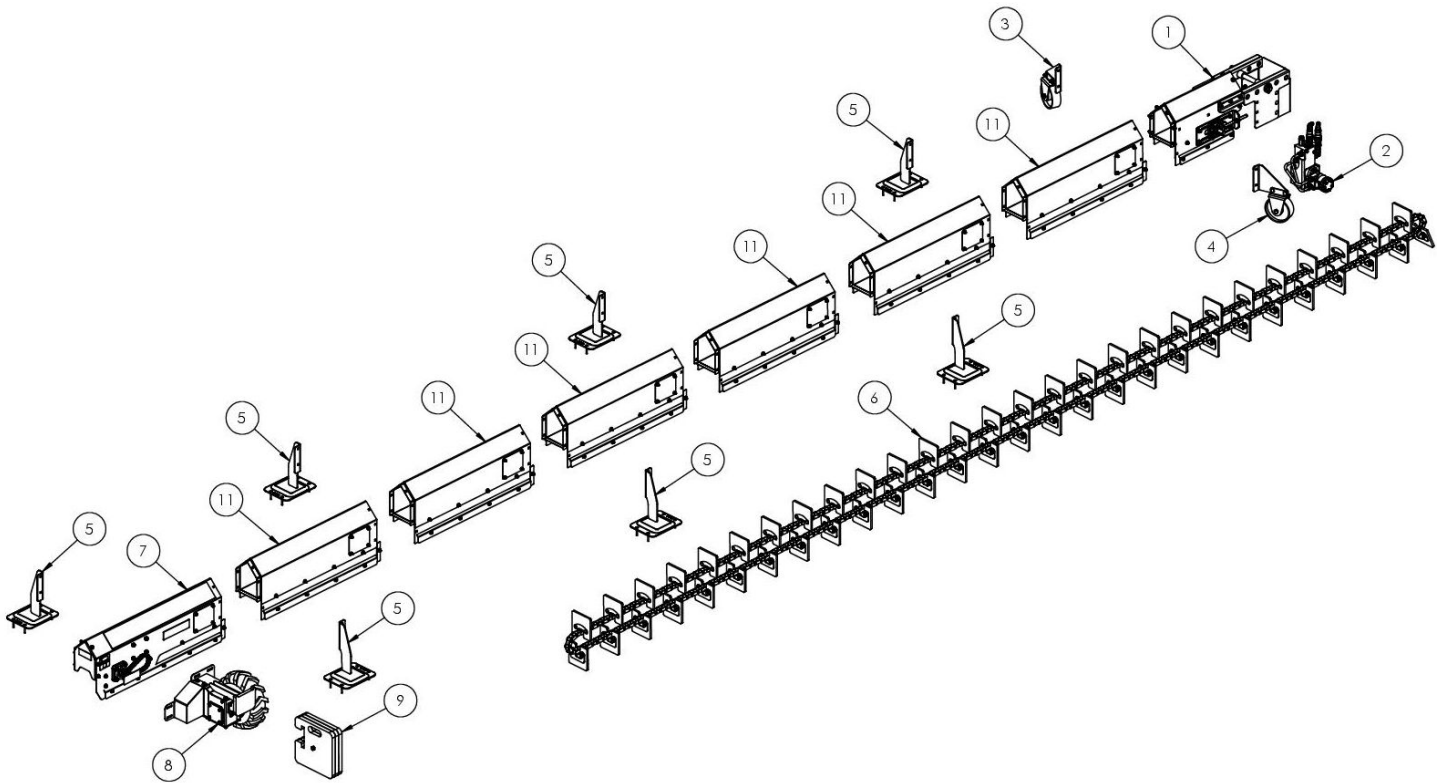


PARTS LIST

20' 0" SWEEP FOR 42' BIN (K714428)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	6
6	K714438	CHAIN ASSEMBLY, 2K - 42 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	5
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	5
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams



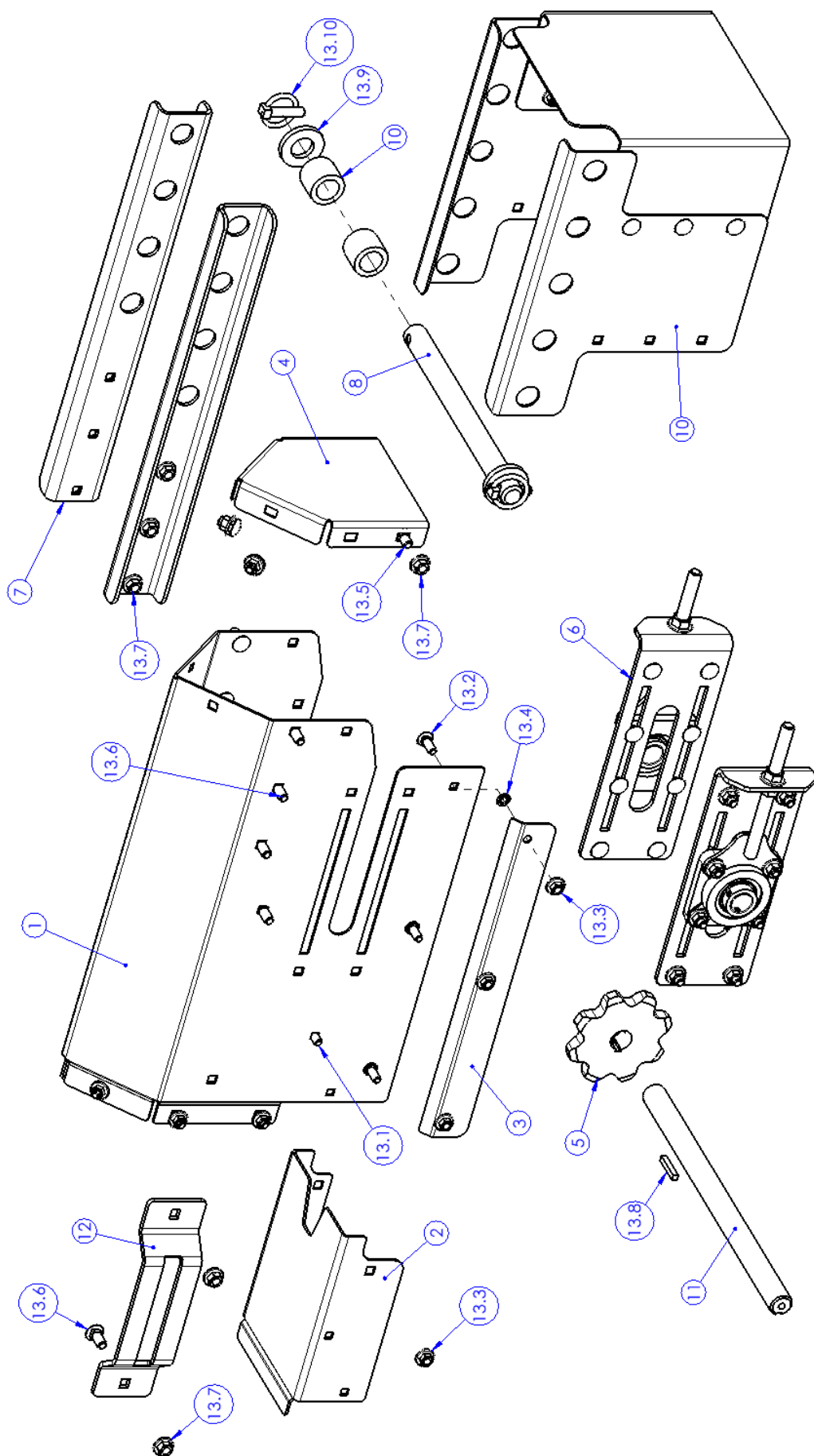
PARTS LIST

23' 0" SWEEP FOR 48' BIN (K714429)

ITEM	PART #	DESCRIPTION	QTY
1	K714339	HEAD SECTION, HYDRAULIC 2K	1
2	K714334	HYDRAULIC DRIVE	1
3	K714385	CASTER ASSEMBLY, FRONT	1
4	K714386	CASTER ASSEMBLY, REAR	1
5	K714313	ZERO ENTRY KIT, 2K	7
6	K714439	CHAIN ASSEMBLY, 2K - 48 FT INCLINE	1
7	K713955	END SECTION ASSEMBLY	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K714481	WEIGHT KIT, 99 LBS	1
10	K714168	HARDWARE BAG—SECTION JOINT	6
11	K713960	INTERMEDIATE SECTION, 2K—3 FT	6
12	K714324	INTERMEDIATE SECTION, 2K—1.5 FT	0

Parts Lists & Diagrams

HEAD SECTION ASSEMBLY, ELECTRIC 2K (K714340)

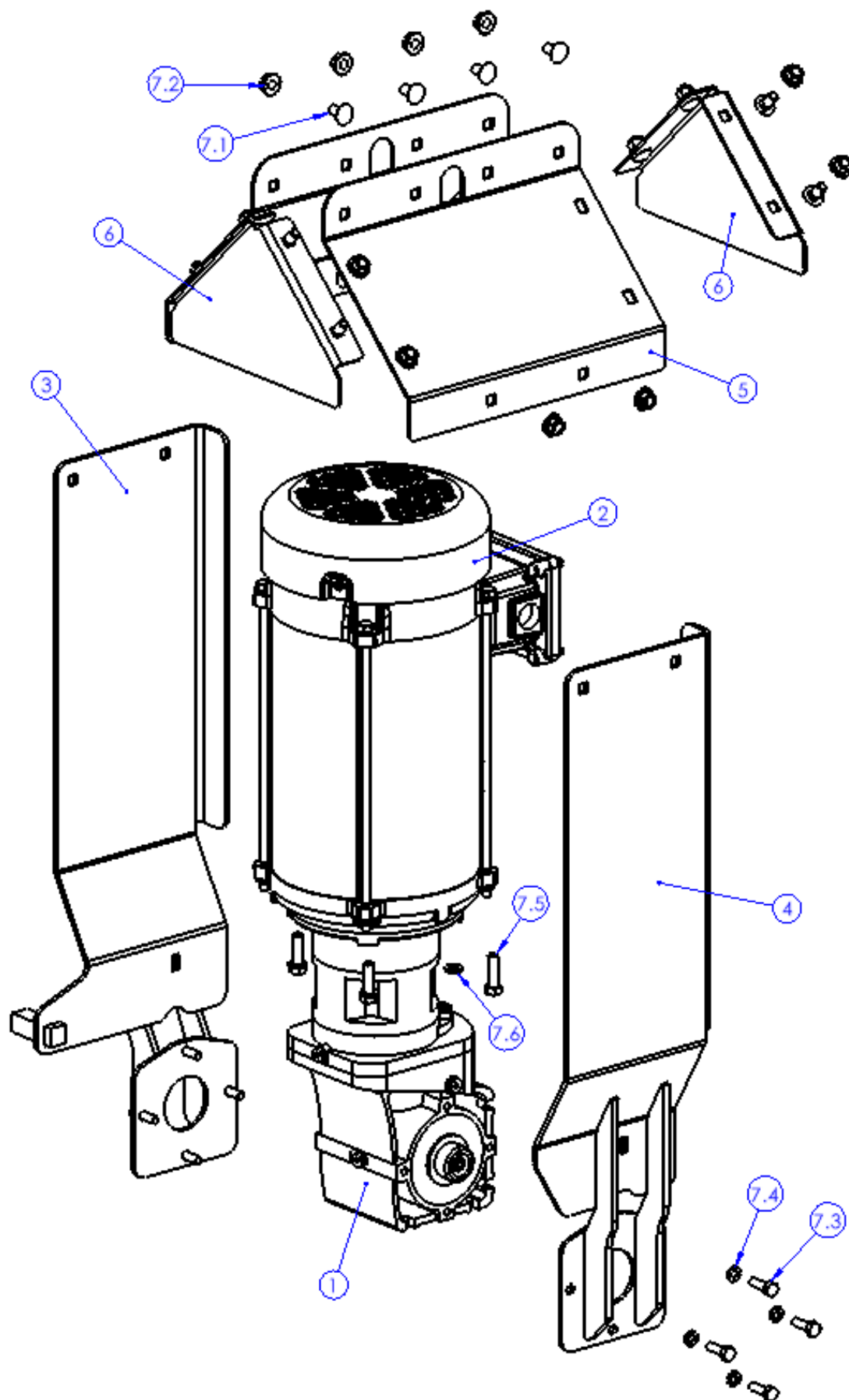


Parts Lists & Diagrams

PARTS LIST

HEAD SECTION ASSEMBLY, ELECTRIC 2K (K714340)			
ITEM	PART #	DESCRIPTION	QTY
1	K714341	HOUSING DIVIDER, HEAD SECTION	1
2	K714342	HOUSING MAIN, HEAD SECTION	1
3	K714343	EDGE CLAMP, HEAD SECTION	1
4	K714344	END PLATE, HEAD SECTION	1
5	K714162	CA550 8 TOOTH SPROCKET, SOLID, 1" BORE	1
6	K713957	CHAIN TENSIONER ASSEMBLY	2
7	K714366	PIVOT ARM PLATE	2
8	K714368	PIVOT PIN ROUND	1
9	K714361	METAL SKIRT ASSEMBLY	1
10	K714369	SPACER	2
11	K714346	SHAFT, ELECTRIC HEAD	1
12	K714394	TORQUE ARM GUIDE	1
13	K714457	HARDWARE BAG—HEAD SECTION, DIRECT 2K	1
13.1	K713969	5/16" x 3/4" CARRIAGE BOLT (SHORT NECK)	4
13.2	K640018	5/16" x 1.00" CARRIAGE BOLT	7
13.3	K701467	5/16" NUT, CENTER LOCK FLANGE	11
13.4	K711378	PUSH NUT, 5/16"	3
13.5	K683942	3/8" x 3/4" CARRIAGE BOLT	4
13.6	K640030	3/8" x 1.00" CARRIAGE BOLT	8
13.7	K701182	3/8" NUT, CENTER LOCK FLANGE	12
13.8	K686358	1/4" x 1.5" SQ KEY	1
13.9	K709755	1" WASHER, OVERSIZED	2
13.10	K709672	5/16" x 1.25" LYNCH PIN	2

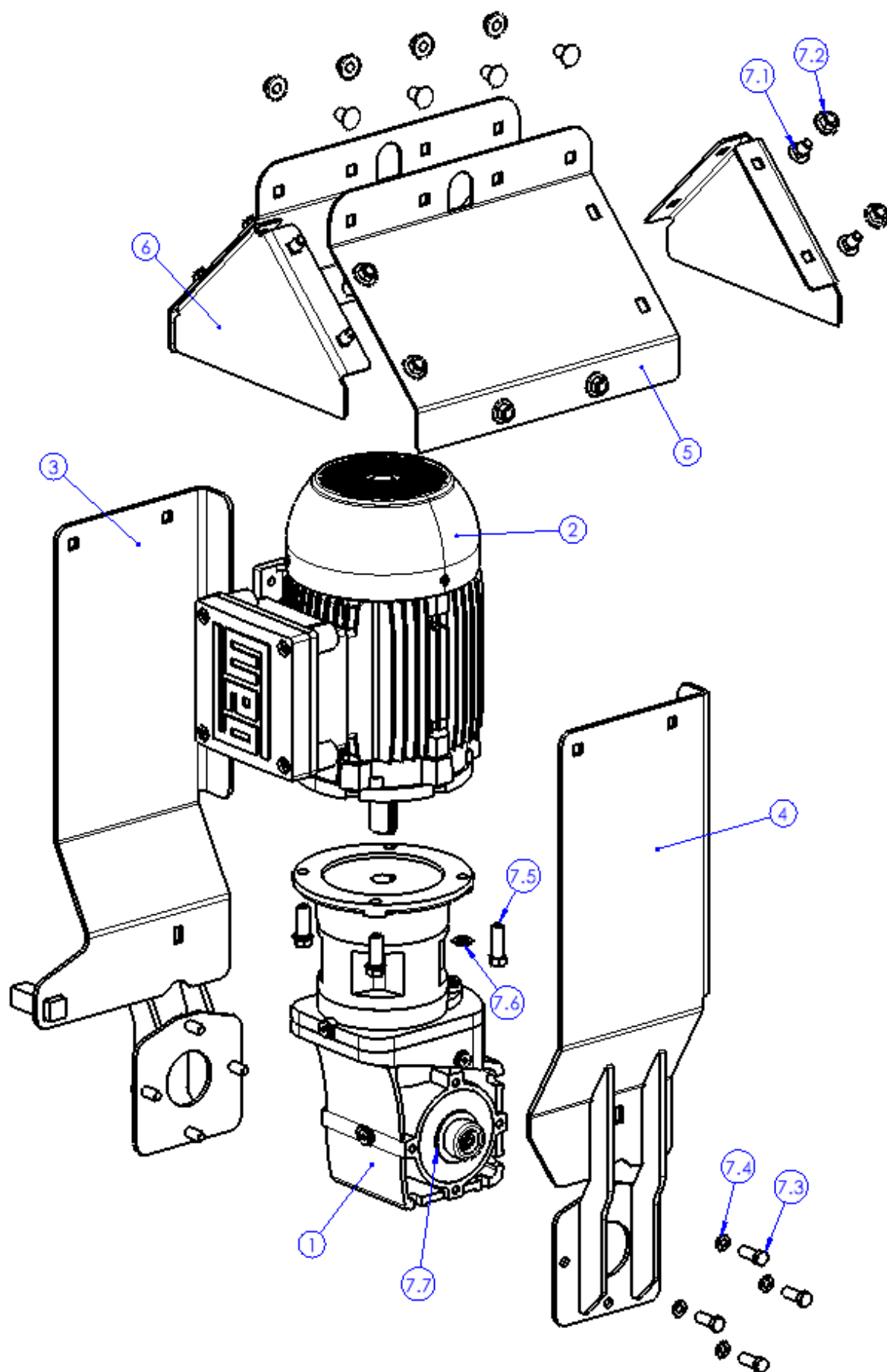
ELECTRIC DRIVE KIT, SINGLE PHASE (K714320)



PARTS LIST

ELECTRIC DRIVE KIT, SINGLE PHASE (K714320)			
ITEM	PART #	DESCRIPTION	QTY
1	K714335	GEARBOX, 7.83:1, HELICAL BEVEL, 140TC	1
2	K714367	MOTOR, 2.0HP, 1PH, 230/460V, EXPLOSION PROOF	1
3	K714392	WELDMENT, TORQUE ARM, SINGLE PHASE	1
4	K714393	WELDMENT, SUPPORT ARM, SINGLE PHASE	1
5	K714318	PANEL, E-MOTOR COVER	2
6	K714319	PANEL, E-MOTOR COVER SIDE	2
7	K714484	HARDWARE BAG—ELECTRIC DRIVE	1
7.1	K683942	3/8" X 3/4" CARRIAGE BOLT	16
7.2	K682413	3/8" NUT, SERRATED FLANGE	16
7.3	K676296	M8 X 25mm GR 8.8 HEX BOLT	8
7.4	K640151	5/16" LOCK WASHER	8
7.5	K640032	3/8" x 1.25" GR 5 HEX BOLT	4
7.6	K640153	3/8" LOCK WASHER	4
7.7	K686027	SQUARE KEY, 1/4" X 2.0"	1

ELECTRIC DRIVE KIT, 3-PHASE (K714333)

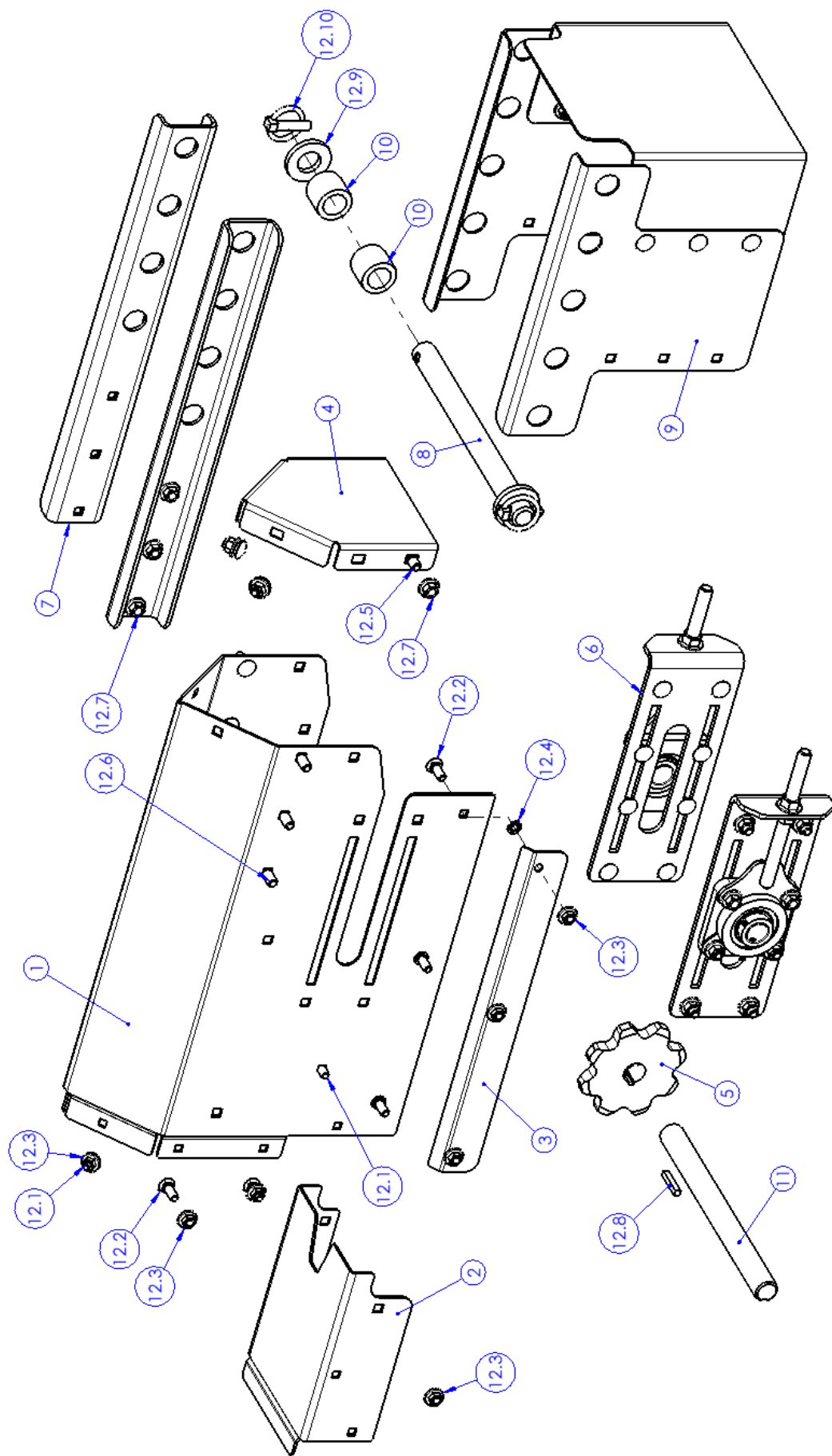


PARTS LIST

ELECTRIC DRIVE KIT, 3-PHASE (K714333)

ITEM	PART #	DESCRIPTION	QTY
1	K714335	GEARBOX, 7.83:1, HELICAL BEVEL, 140TC	1
2	K689393	MOTOR, 2.0HP, 3PH, 230/460V, EXPLOSION PROOF	1
3	K714397	WELDMENT, TORQUE ARM, 3-PHASE	1
4	K714398	WELDMENT, SUPPORT ARM, 3-PHASE	1
5	K714318	PANEL, E-MOTOR COVER	2
6	K714319	PANEL, E-MOTOR COVER SIDE	2
7	K714484	HARDWARE BAG—ELECTRIC DRIVE	1
7.1	K683942	3/8" X 3/4" CARRIAGE BOLT	16
7.2	K682413	3/8" NUT, SERRATED FLANGE	16
7.3	K676296	M8 X 25mm GR 8.8 HEX BOLT	8
7.4	K640151	5/16" LOCK WASHER	8
7.5	K640032	3/8" x 1.25" GR 5 HEX BOLT	4
7.6	K640153	3/8" LOCK WASHER	4
7.7	K686027	SQUARE KEY, 1/4" X 2.0"	1

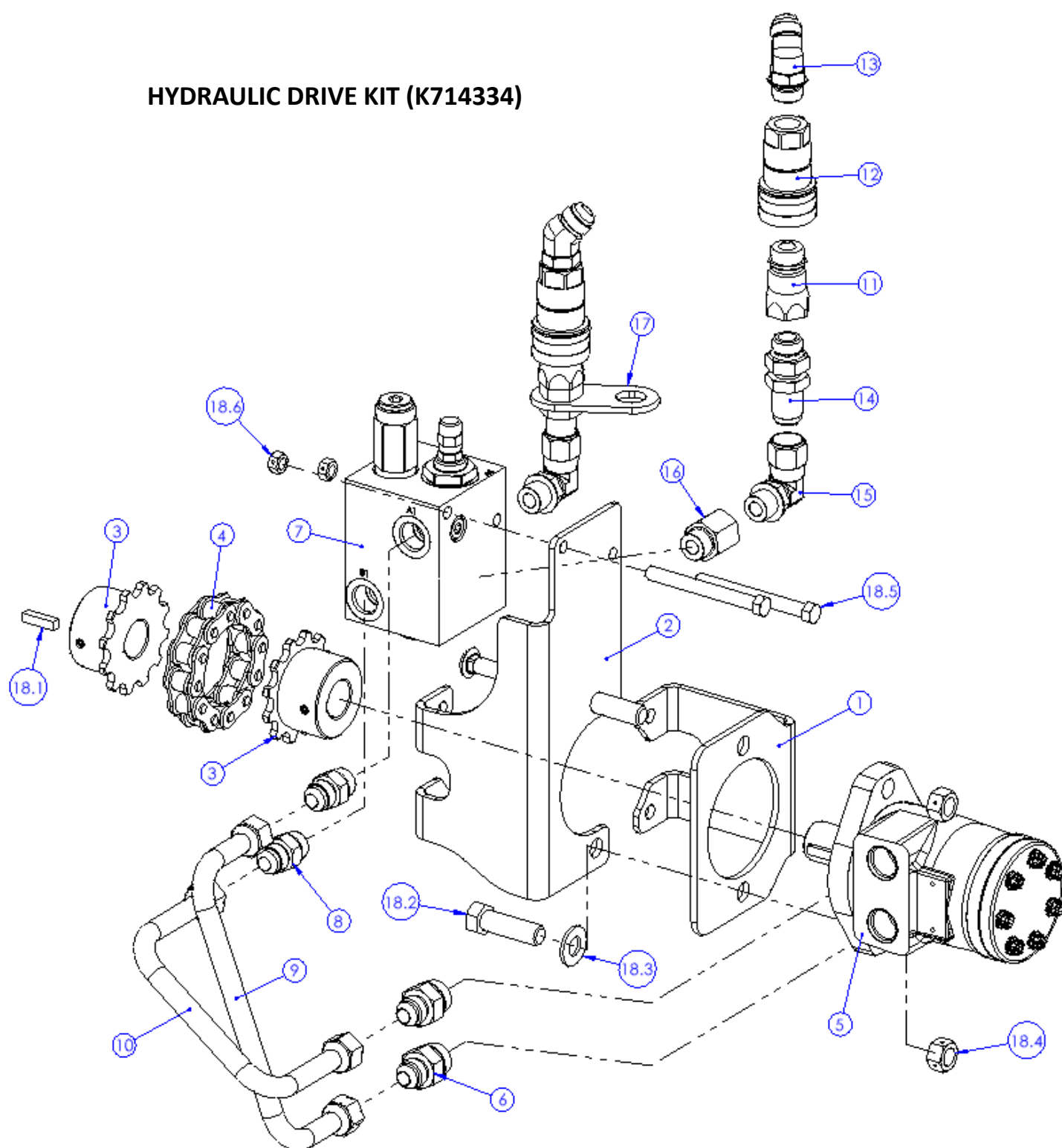
HEAD SECTION ASSEMBLY, HYDRAULIC 2K (K714339)



PARTS LIST

HEAD SECTION ASSEMBLY, HYRACULIC 2K (K714339)			
ITEM	PART #	DESCRIPTION	QTY
1	K714341	HOUSING DIVIDER, HEAD SECTION	1
2	K714342	HOUSING MAIN, HEAD SECTION	1
3	K714343	EDGE CLAMP, HEAD SECTION	1
4	K714344	END PLATE, HEAD SECTION	1
5	K714162	CA550 8 TOOTH SPROCKET, SOLID, 1" BORE	1
6	K713957	CHAIN TENSIONER ASSEMBLY	2
7	K714366	PIVOT ARM PLATE	2
8	K714368	PIVOT PIN ROUND	1
9	K714361	METAL SKIRT ASSEMBLY	1
10	K714369	SPACER	2
11	K714345	SHAFT, HYDRAULIC HEAD	1
12	K714457	HARDWARE BAG—HEAD SECTION, DIRECT 2K	1
12.1	K713969	5/16" x 3/4" CARRIAGE BOLT (SHORT NECK)	4
12.2	K640018	5/16" x 1.00" CARRIAGE BOLT	7
12.3	K701467	5/16" NUT, CENTER LOCK FLANGE	11
12.4	K711378	PUSH NUT, 5/16"	3
12.5	K683942	3/8" x 3/4" CARRIAGE BOLT	4
12.6	K640030	3/8" x 1.00" CARRIAGE BOLT	8
12.7	K701182	3/8" NUT, CENTER LOCK FLANGE	12
12.8	K686358	1/4" x 1.5" SQ KEY	1
12.9	K709755	1" WASHER, OVERSIZED	2
12.10	K709672	5/16" x 1.25" LYNCH PIN	2

HYDRAULIC DRIVE KIT (K714334)

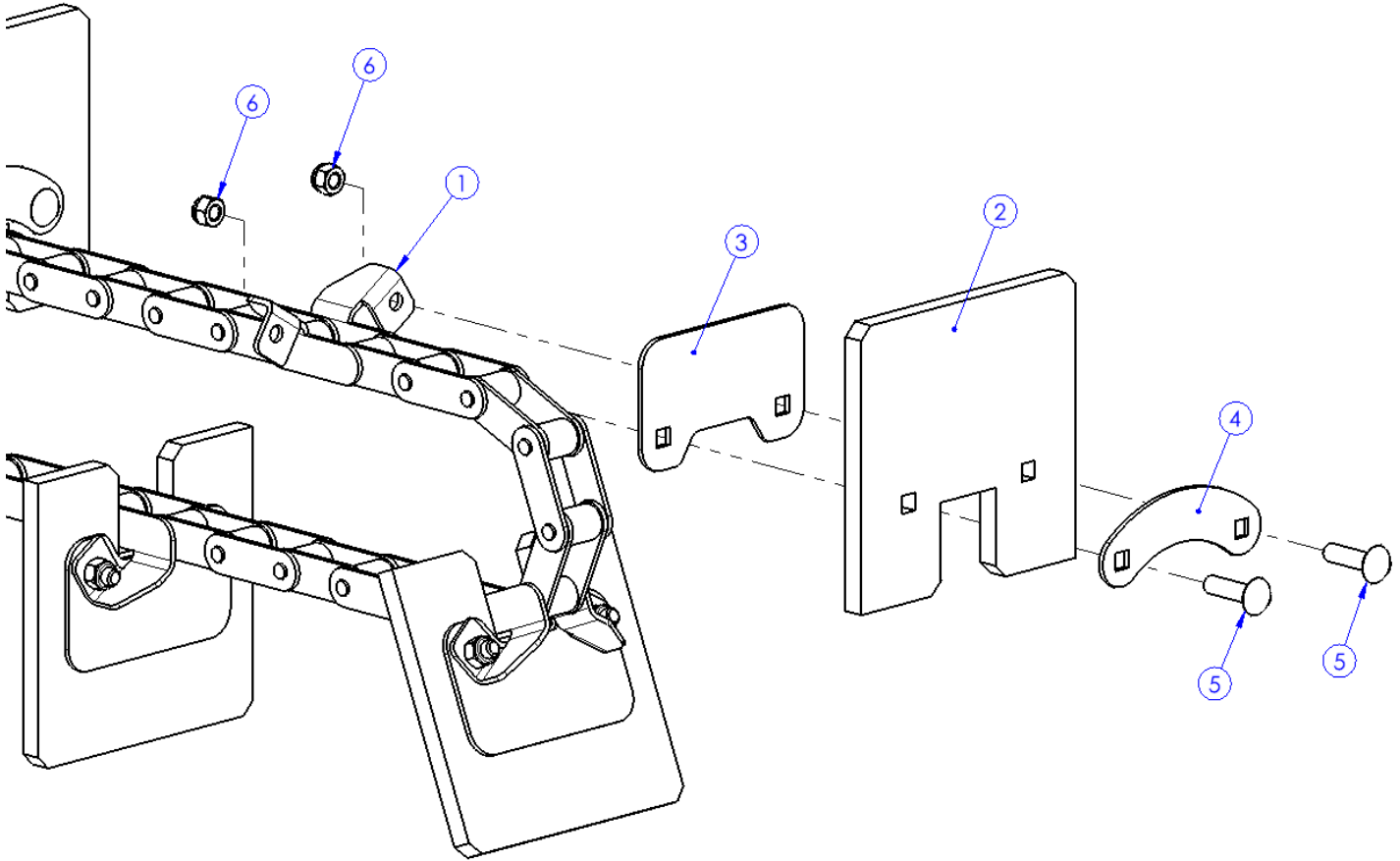


PARTS LIST

HYDRAULIC DRIVE KIT (K714334)

ITEM	PART #	DESCRIPTION	QTY
1	K714370	MOUNT, HYD MOTOR	1
2	K714374	MOUNT, HYD MOTOR & BLOCK	1
3	K689841	COUPLER SPROCKET, 12 TOOTH, 1.00"	2
4	K689835	COUPLER CHAIN, 12 LINK	1
5	K713996	HYD MOTOR, 101-1034-009	1
6	K659838	HYD FITTING, 6400-8-10	2
7	K713998	FLOW CONTROL BLOCK W/ PRESSURE COMP	1
8	K675515	FITTING, HYD 8MJX—8ORM	2
9	K714316	HYD LINE, BLOCK TO MOTOR, PRESSURE	1
10	K714317	HYD LINE, BLOCK TO MOTOR, RETURN	1
11	K673778	QUICK COUPLER, 1/2" FEMALE	2
12	K673779	QUICK COUPLER, #8 ORF MALE	2
13	K641429	FITTING, HYD 45 ELBOW 8MJX—8ORM	2
14	K673781	FITTING, HYD BULKHEAD	2
15	K674566	FITTING, HYD 90 ELBOW 8FJX—8ORM	2
16	K750174	FITTING, ADAPTER 8ORM—8ORF	1
17	K714483	PLATE, HYD FITTING SUPPORT	1
18	K714486	HARDWARE BAG—HYD DRIVE	1
18.1	S161288	SQUARE KEY—1/4" X 1.00"	1
18.2	K640060	1/2" x 1.75" GR 5 HEX BOLT	2
18.3	K653098	1/2" FLAT WASHER	2
18.4	K640138	1/2" NUT, CENTER LOCK	2
18.5	K669618	5/16" x 3.5" GR 5 HEX BOLT	2
18.6	K640128	5/16" NUT, CENTER LOCK	2
18.7	K686527	3/8" x 1.75" CARRIAGE BOLT	2

Parts Lists & Diagrams

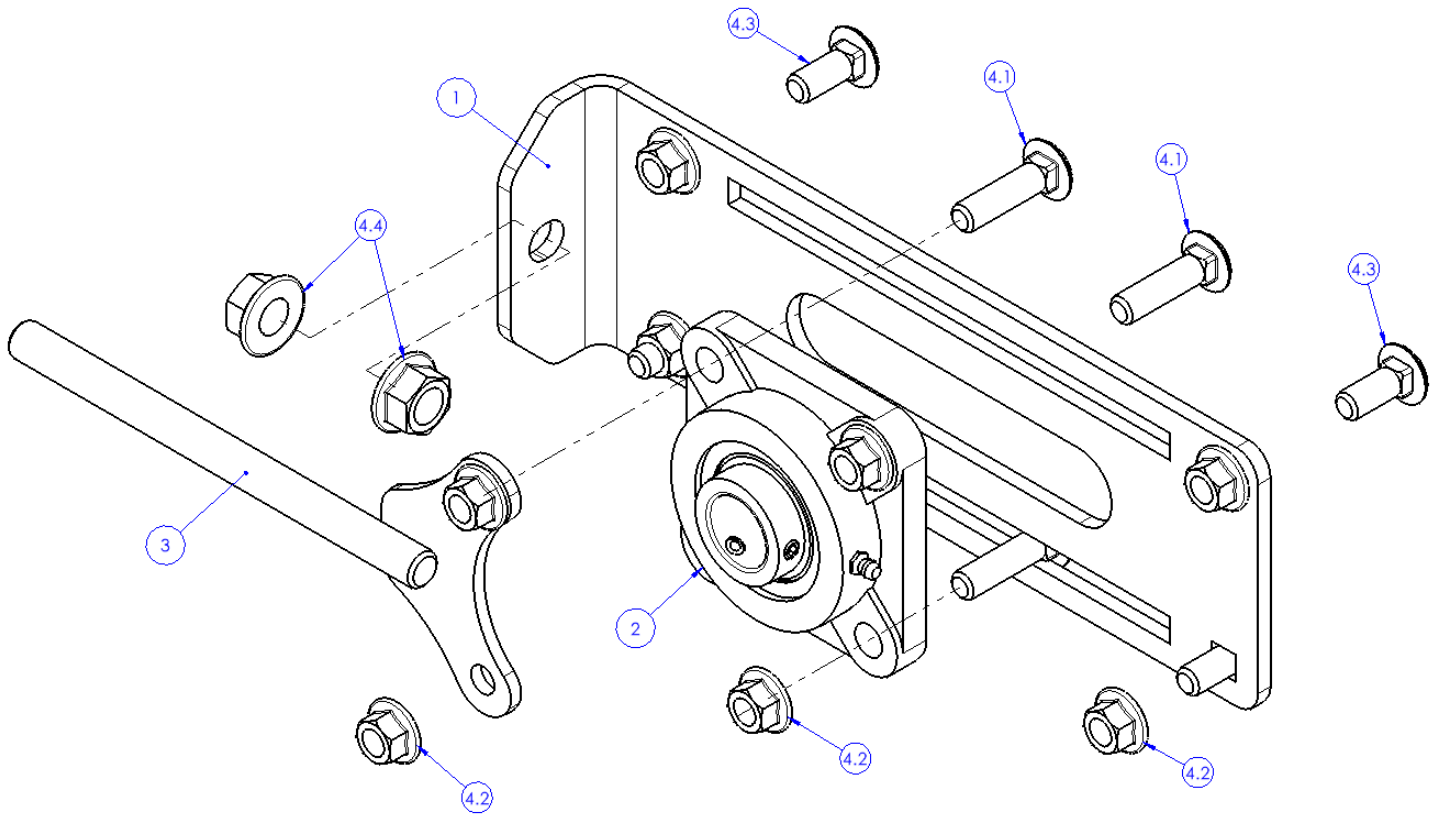


PARTS LIST

PADDLE CHAIN, 2K

ITEM	PART #	DESCRIPTION	QTY
1	K714480	BULK CA550 CHAIN W/ F14 ATT. EVERY 6TH LINK	NA
2	K714383	PADDLE—RUBBER 5.6" x 5.5, F14 ATT	1 PER
3	K713973	PLATE—PADDLE BACK, F14	1 PER
4	K713974	PLATE—PADDLE FRONT, F14	1 PER
5	K686183	5/16" x 1.25" CARRIAGE BOLT	2 PER
6	K654141	5/16" NUT, NYLOC	2 PER

Parts Lists & Diagrams

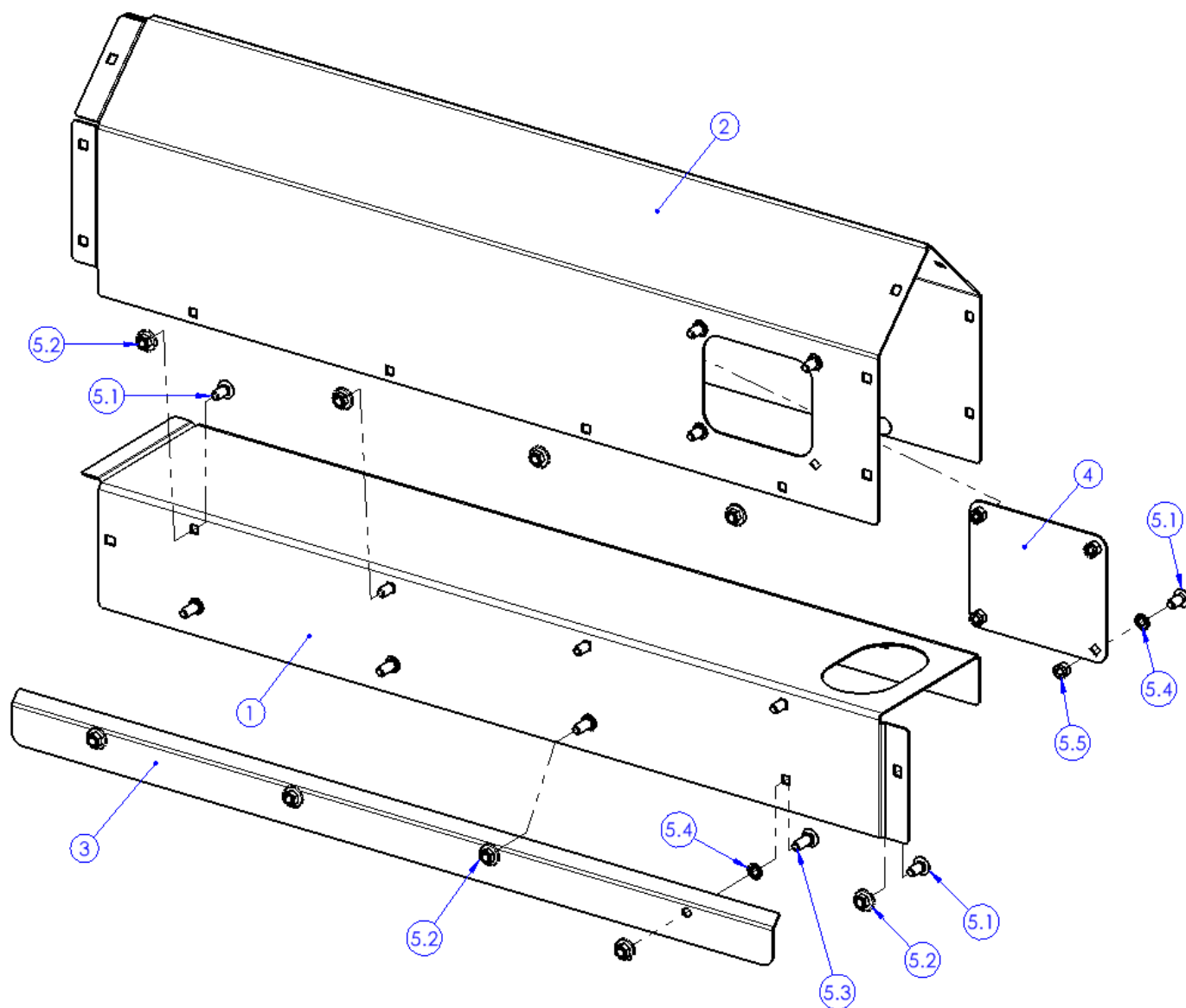


PARTS LIST

CHAIN TENSIONER ASSEMBLY, 2K (K713957)

ITEM	PART #	DESCRIPTION	QTY
1	K713970	TENSIONER BASE, 2K	1
2	K686038	BEARING, 1" SQUARE FLANGE	1
3	K713971	TENSIONER CARRIAGE	1
4	K714456	HARDWARE BAG—BEARING TENSIONER	1
4.1	K700705	3/8" x 1.50" GR 5 CARRIAGE BOLT	4
4.2	K701182	3/8" NUT, CENTER LOCK FLANGE	8
4.3	K640030	3/8" x 1.00" GR 5 CARRIAGE BOLT	4
4.4	K683932	1/2" NUT, FLANGE	2

Parts Lists & Diagrams

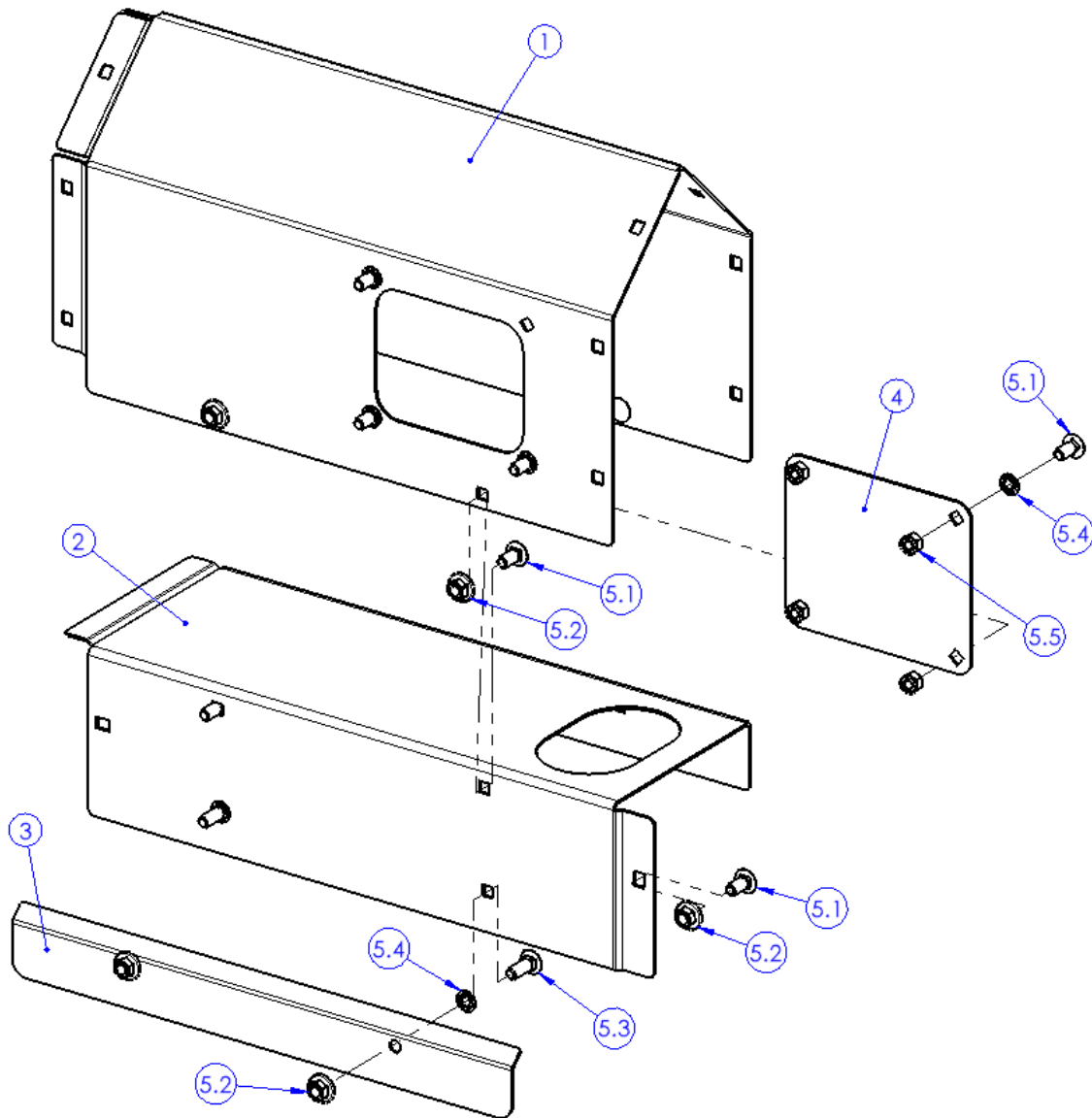


PARTS LIST

INTERMEDIATE SECTION—3FT (K713960)

ITEM	PART #	DESCRIPTION	QTY
1	K713961	HOUSING DIVIDER, 3FT SECTION	1
2	K713962	HOUSING MAIN, 3FT SECTION	1
3	K713963	EDGE CLAMP, 3FT SECTION	1
4	K714314	ACCESS COVER	1
5	K714169	HARDWARE BAG—INTERMEDIATE SECTION	1
5.1	K713969	5/16" x 3/4" CARRIAGE BOLT (SHORT NECK)	13
5.2	K701467	5/16" NUT, CENTER LOCK FLANGE	13
5.3	K640018	5/16" x 1.00" CARRIAGE BOLT	4
5.4	K711378	PUSH NUT, 5/16"	8
5.5	K654141	5/16" NUT, NYLOC	4

Parts Lists & Diagrams

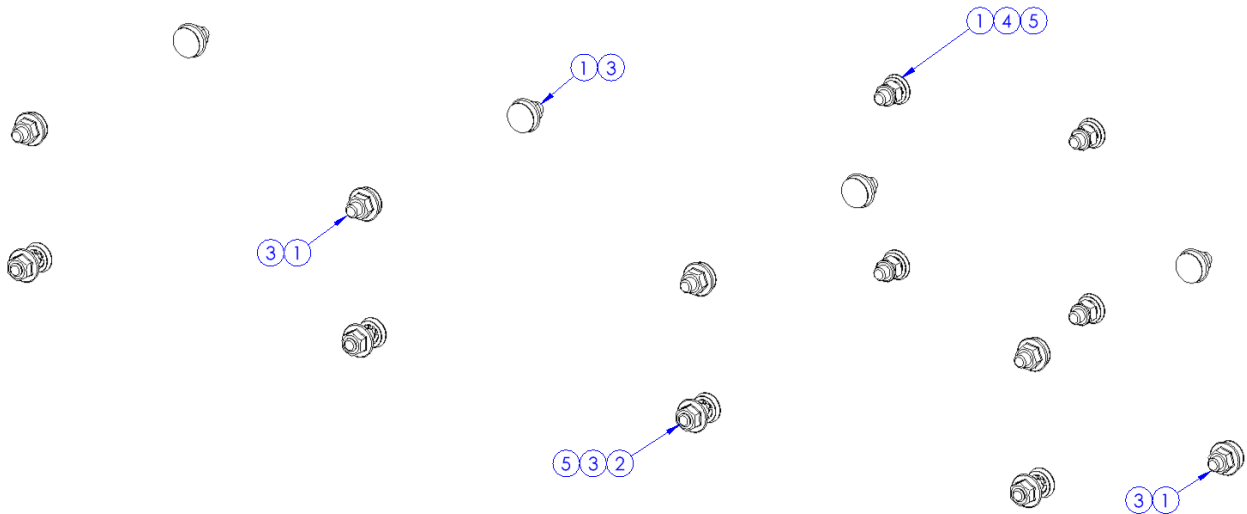


PARTS LIST

INTERMEDIATE SECTION—1.5FT (K714324)

ITEM	PART #	DESCRIPTION	QTY
1	K713961	HOUSING DIVIDER, 3FT SECTION	1
2	K713962	HOUSING MAIN, 3FT SECTION	1
3	K713963	EDGE CLAMP, 3FT SECTION	1
4	K714314	ACCESS COVER	1
5	K714169	HARDWARE BAG—INTERMEDIATE SECTION	1
5.1	K713969	5/16" x 3/4" CARRIAGE BOLT (SHORT NECK)	13
5.2	K701467	5/16" NUT, CENTER LOCK FLANGE	13
5.3	K640018	5/16" x 1.00" CARRIAGE BOLT	4
5.4	K711378	PUSH NUT, 5/16"	8
5.5	K654141	5/16" NUT, NYLOC	4

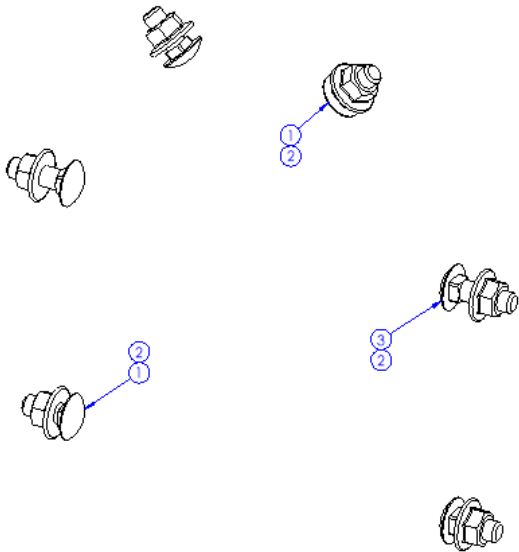
Parts Lists & Diagrams



PARTS LIST

HARDWARE BAG, INTERMEDIATE ASSEMBLY (K714169)

ITEM	PART #	DESCRIPTION	QTY
1	K713969	5/16" x 3/4" CARRIAGE BOLT (SHORT NECK)	13
2	K701467	5/16" NUT, CENTER LOCK FLANGE	13
3	K640018	5/16" x 1.00" CARRIAGE BOLT	4
4	K711378	PUSH NUT, 5/16"	8
5	K654141	5/16" NUT, NYLOC	4

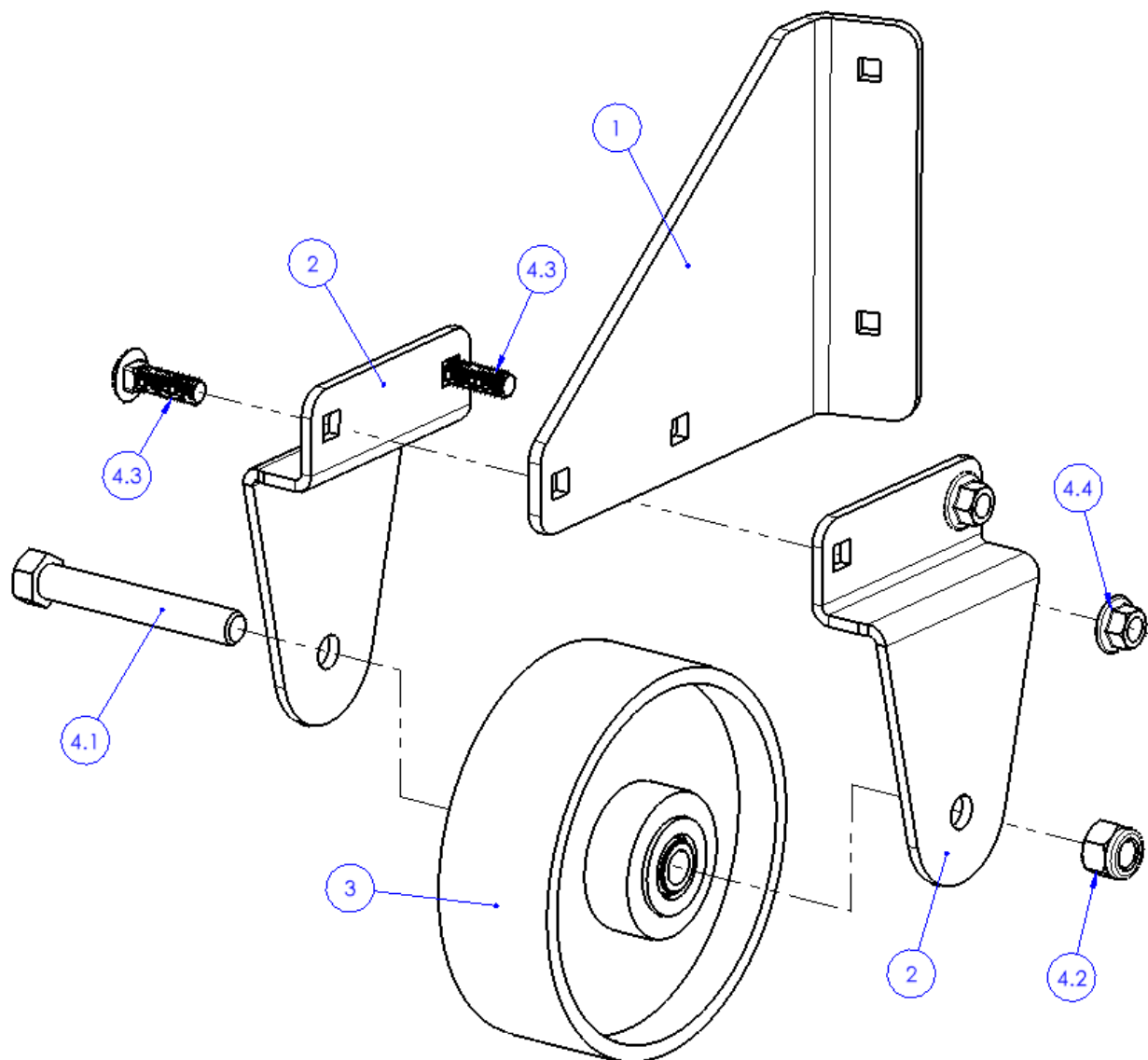


PARTS LIST

HARDWARE BAG, SECTION JOINT (K714168)

ITEM	PART #	DESCRIPTION	QTY
1	K713969	5/16" x 3/4" CARRIAGE BOLT (SHORT NECK)	4
2	K701467	5/16" NUT, CENTER LOCK FLANGE	6
3	K640018	5/16" x 1.00" CARRIAGE BOLT	2

Parts Lists & Diagrams

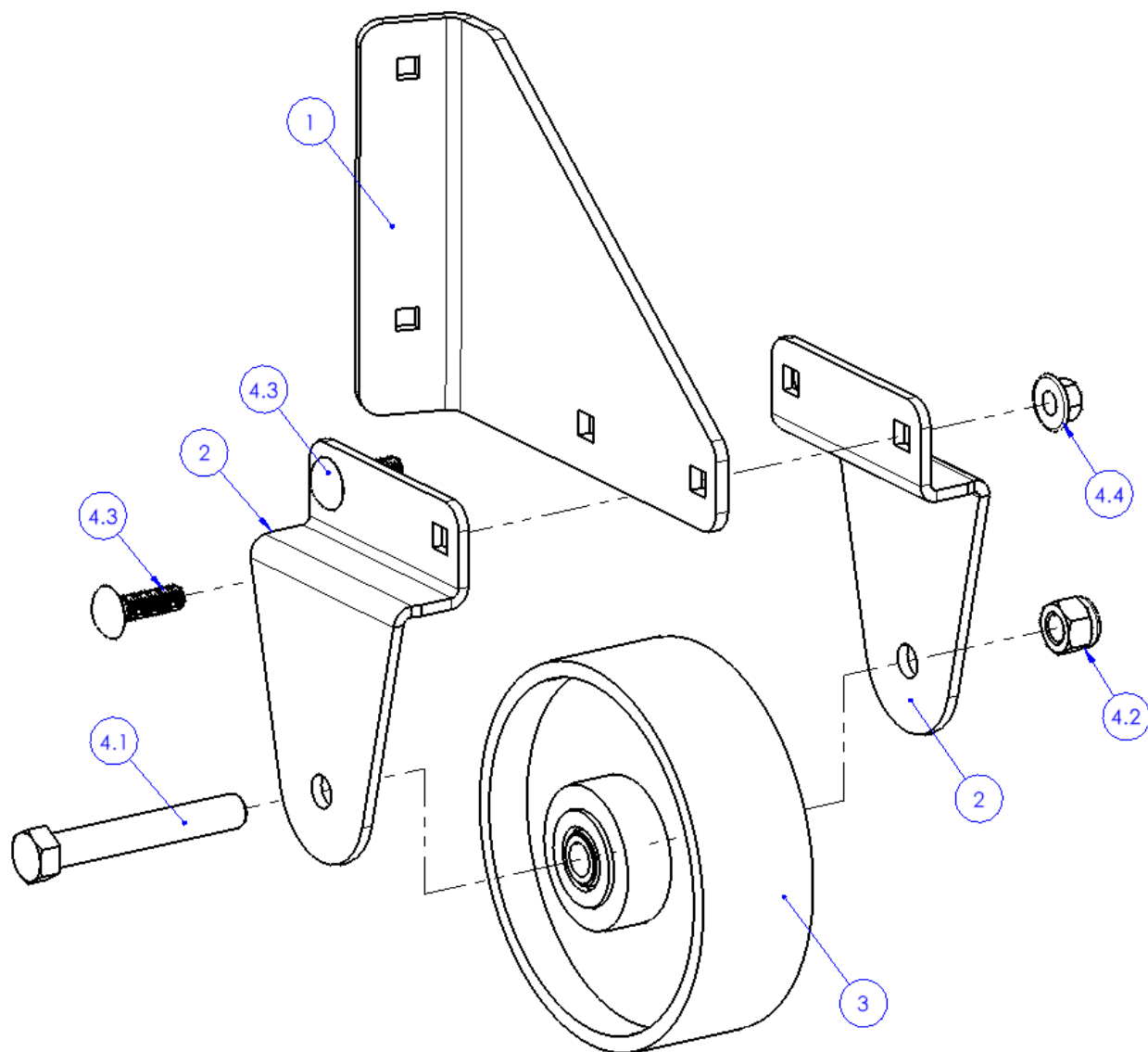


PARTS LIST

CASTER ASSEMBLY, FRONT (K714385)

ITEM	PART #	DESCRIPTION	QTY
1	K714364	CASTER PLATE, FRONT	1
2	K688969	CASTER WHEEL PLATE	2
3	K688997	CASTER WHEEL, 6" x 2"	1
4	K714167	HARDWARE BAG, CASTER WHEEL	1
4.1	K640067	1/2" x 3.5" GR 5 HEX BOLT	1
4.2	K660638	1/2" NUT, NYLOC	1
4.3	K680140	3/8" x 1.25" CARRIAGE BOLT	2
4.4	K701182	3/8" NUT, CENTER LOCK FLANGE	2

Parts Lists & Diagrams

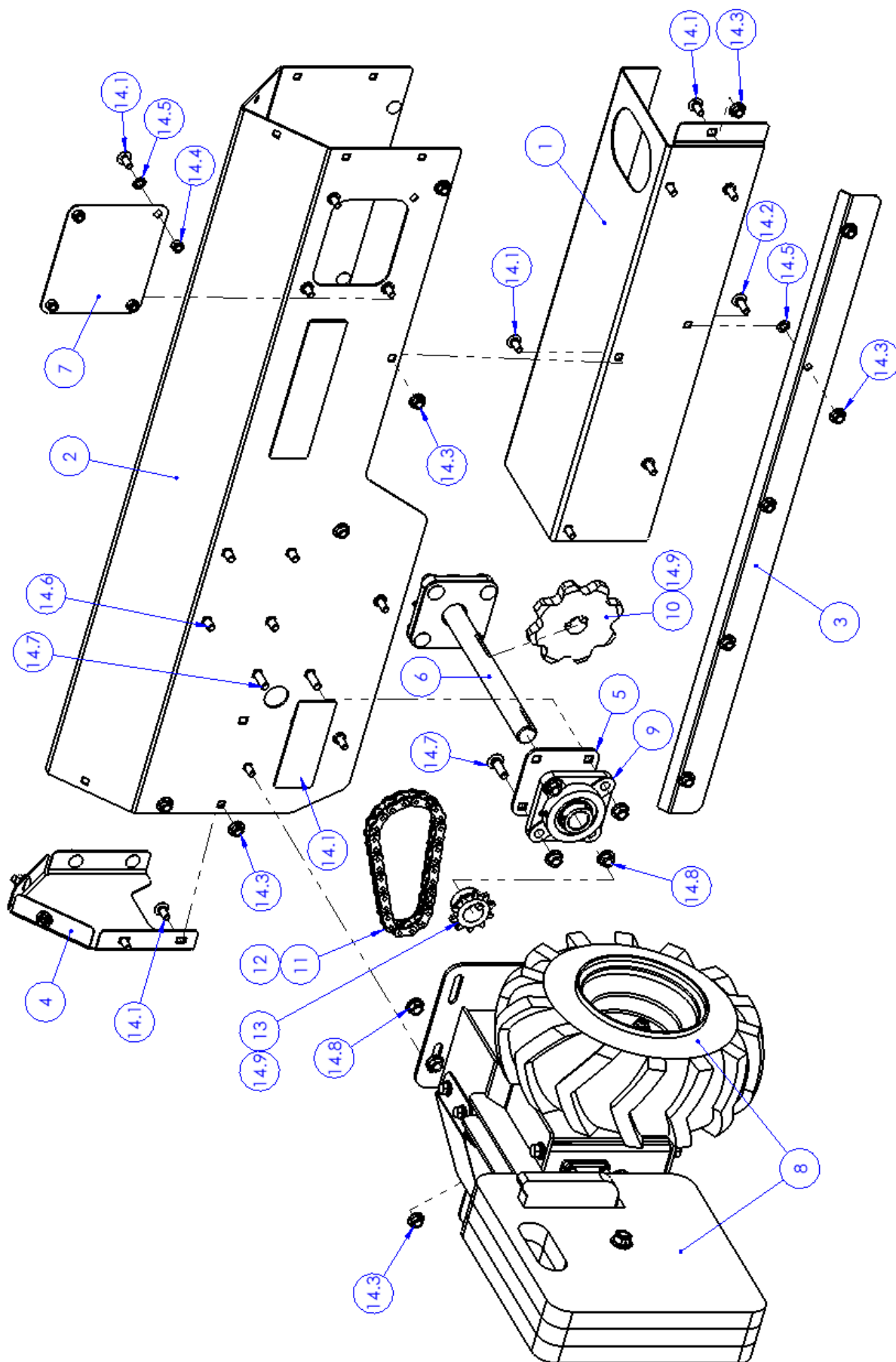


PARTS LIST

CASTER ASSEMBLY, REAR (K714386)

ITEM	PART #	DESCRIPTION	QTY
1	K714365	CASTER PLATE, REAR	1
2	K688969	CASTER WHEEL PLATE	2
3	K688997	CASTER WHEEL, 6" x 2"	1
4	K714167	HARDWARE BAG, CASTER WHEEL	1
4.1	K640067	1/2" x 3.5" GR 5 HEX BOLT	1
4.2	K660638	1/2" NUT, NYLOC	1
4.3	K680140	3/8" x 1.25" CARRIAGE BOLT	2
4.4	K701182	3/8" NUT, CENTER LOCK FLANGE	2

END SECTION ASSEMBLY, 2K (K713955)

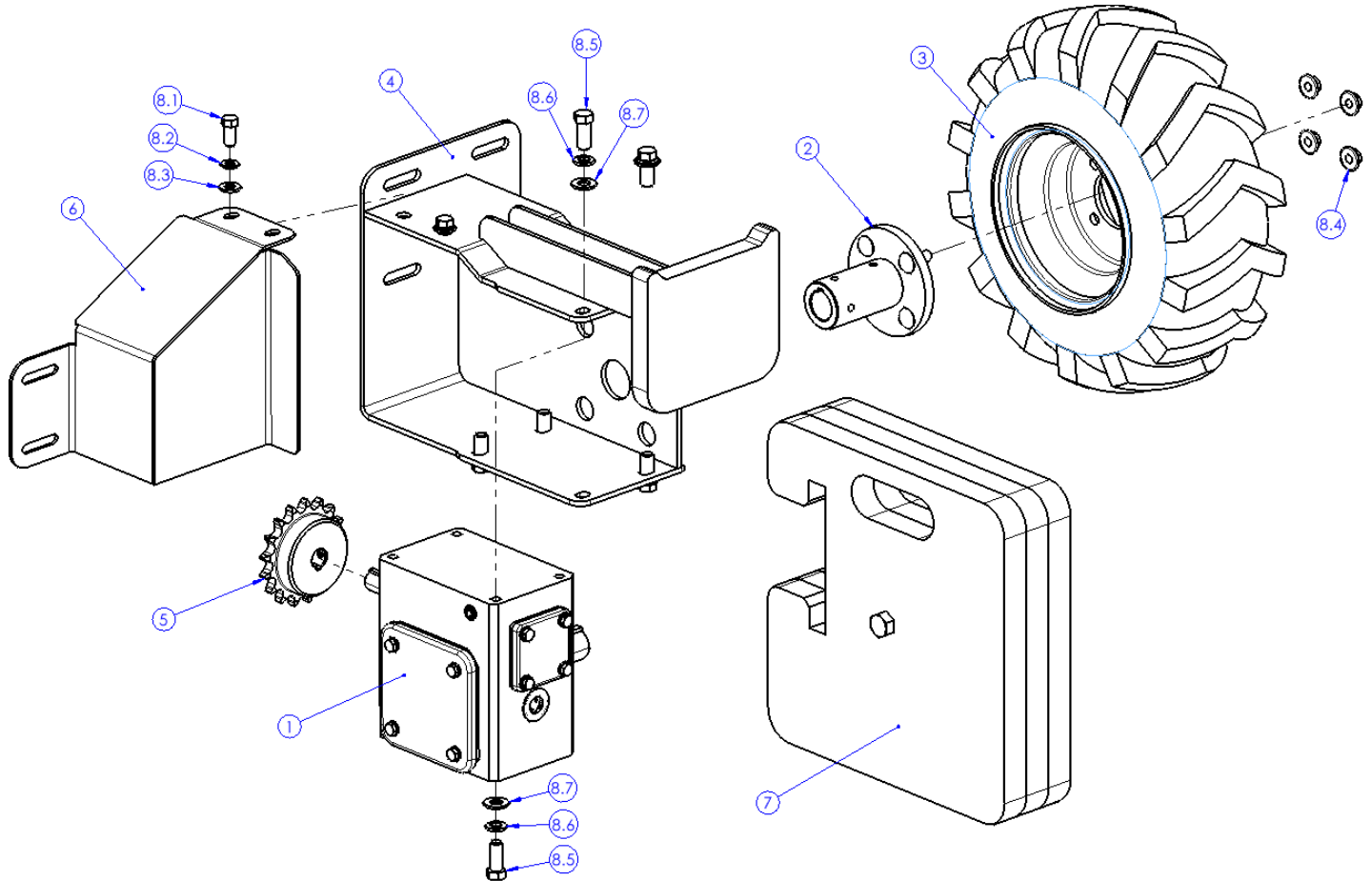


Parts Lists & Diagrams

PARTS LIST

END SECTION ASSEMBLY, 2K (K713955)			
ITEM	PART #	DESCRIPTION	QTY
1	K713985	HOUSING DIVIDER, END SECTION	1
2	K713986	HOUSING MAIN, END SECTION	1
3	K713988	EDGE CLAMP, END SECTION	1
4	K713987	END CAP, END SECTION	1
5	K713990	BEARING SPACER	2
6	K714312	SHAFT, END	1
7	K714314	ACCESS COVER	1
8	K714348	DRIVE ASSEMBLY, 2K	1
9	K686038	BEARING, 1" SQUARE FLANGE	2
10	K714162	CA550 8 TOOTH SPROCKET, SOLID, 1" BORE	1
11	K695109	CHAIN, #50 x 29 LINKS	1
12	K686186	CONNECTOR LINK, #50	1
13	K686195	SPROCKET, #50 x 10 TOOTH, 1" BORE	1
14	K714459	HARDWARE BAG – END SECTION, 2K	1
14.1	K713969	5/16" x 3/4" CARRIAGE BOLT (SHORT NECK)	21
14.2	K640018	5/16" x 1.00" CARRIAGE BOLT	5
14.3	K701467	5/16" NUT, CENTER LOCK FLANGE	22
14.4	K654141	5/16" NUT, NYLOC	4
14.5	K711378	PUSH NUT, 5/16"	9
14.6	K683942	3/8" x 3/4" CARRIAGE BOLT	4
14.7	K680140	3/8" x 1.25" CARRIAGE BOLT	8
14.8	K701182	3/8" NUT, CENTER LOCK FLANGE	12
14.9	K686358	1/4" x 1.5" SQ KEY	2

Parts Lists & Diagrams

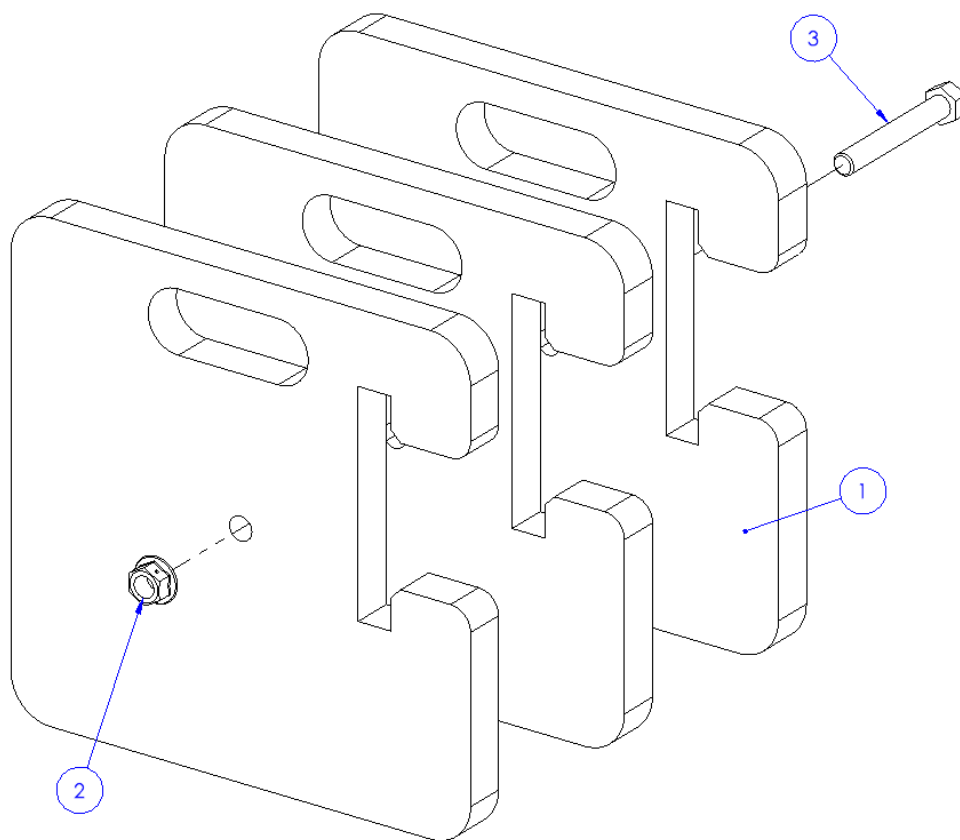


PARTS LIST

TRACTOR DRIVE ASSEMBLY, 2K (K714348)

ITEM	PART #	DESCRIPTION	QTY
1	K714349	MOUNT, DRIVE GEARBOX	1
2	K714360	COVER, DRIVE CHAIN	1
3	K714338	GEARBOX - 60:1, SINGLE LH OUTPUT (206 SERIES)	1
4	K713943	HUB, DRIVE WHEEL	1
5	K686025	TIRE & RIM ASSEMBLY, 13x5.00-6	1
6	K714336	SPROCKET, #50B17	1
7	K714481	WEIGHT KIT, 99 LBS	1
8	K714482	HARDWARE BAG—DRIVE SECTION	1
8.1	K640014	5/16" x 3/4" GR 5 HEX BOLT	2
8.2	K640151	5/16" LOCK WASHER	2
8.3	K640152	5/16" FLAT WASHER	2
8.4	K701467	5/16" NUT, CENTER LOCK FLANGE	4
8.5	K640028	3/8" x 1.00 GR 5 HEX BOLT	6
8.6	K640153	3/8" LOCK WASHER	6
8.7	K640154	3/8" FLAT WASHER	6

Parts Lists & Diagrams

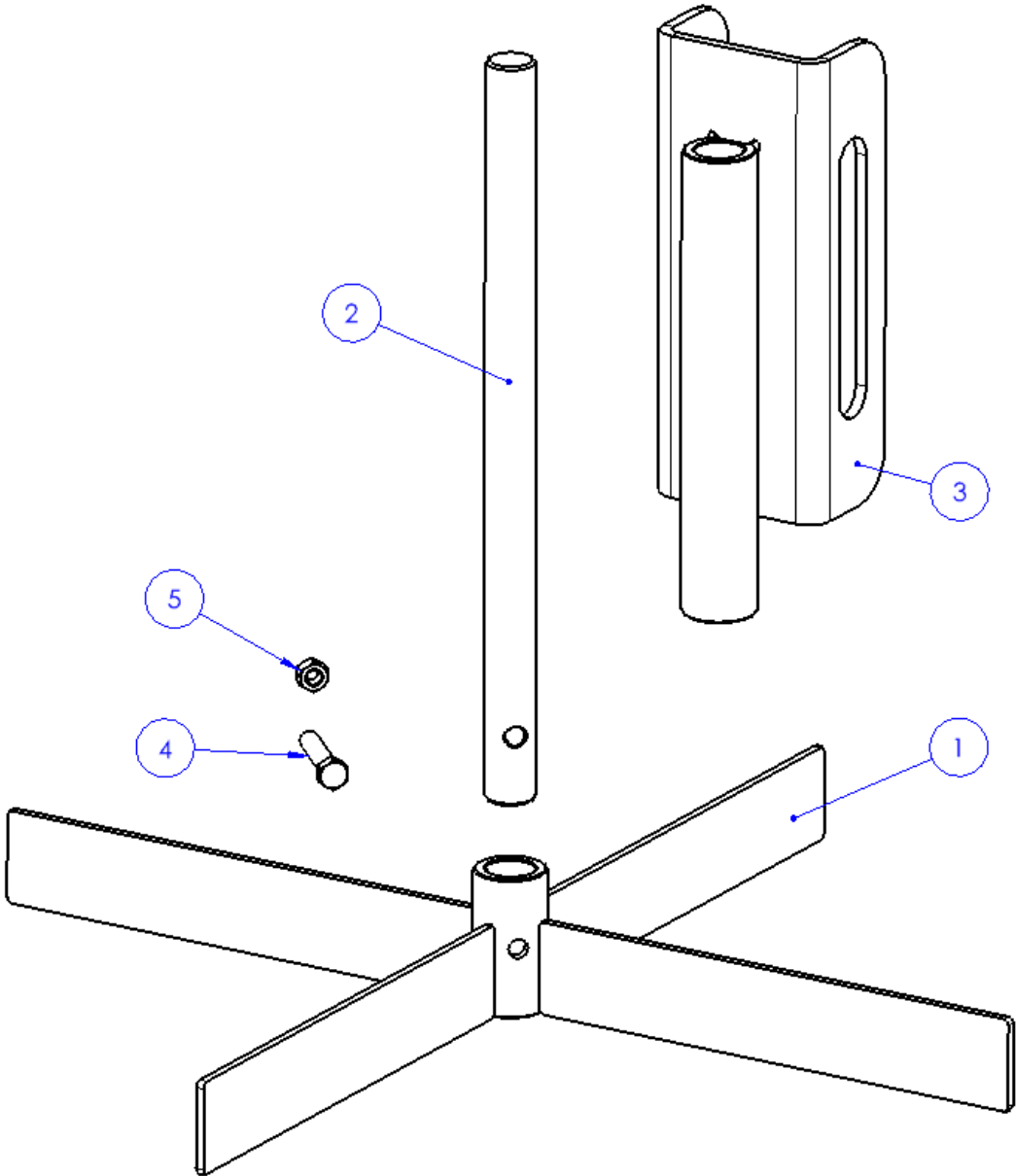


PARTS LIST

WEIGHT KIT, 99LBS (K714481)

ITEM	PART #	DESCRIPTION	QTY
1	K686267	WEIGHT PLATE (33 LBS)	3
2	K699010	1/2" NUT, CENTER LOCK FLANGE	1
3	K640067	1/2" x 3.5" GR 5 HEX BOLT	1

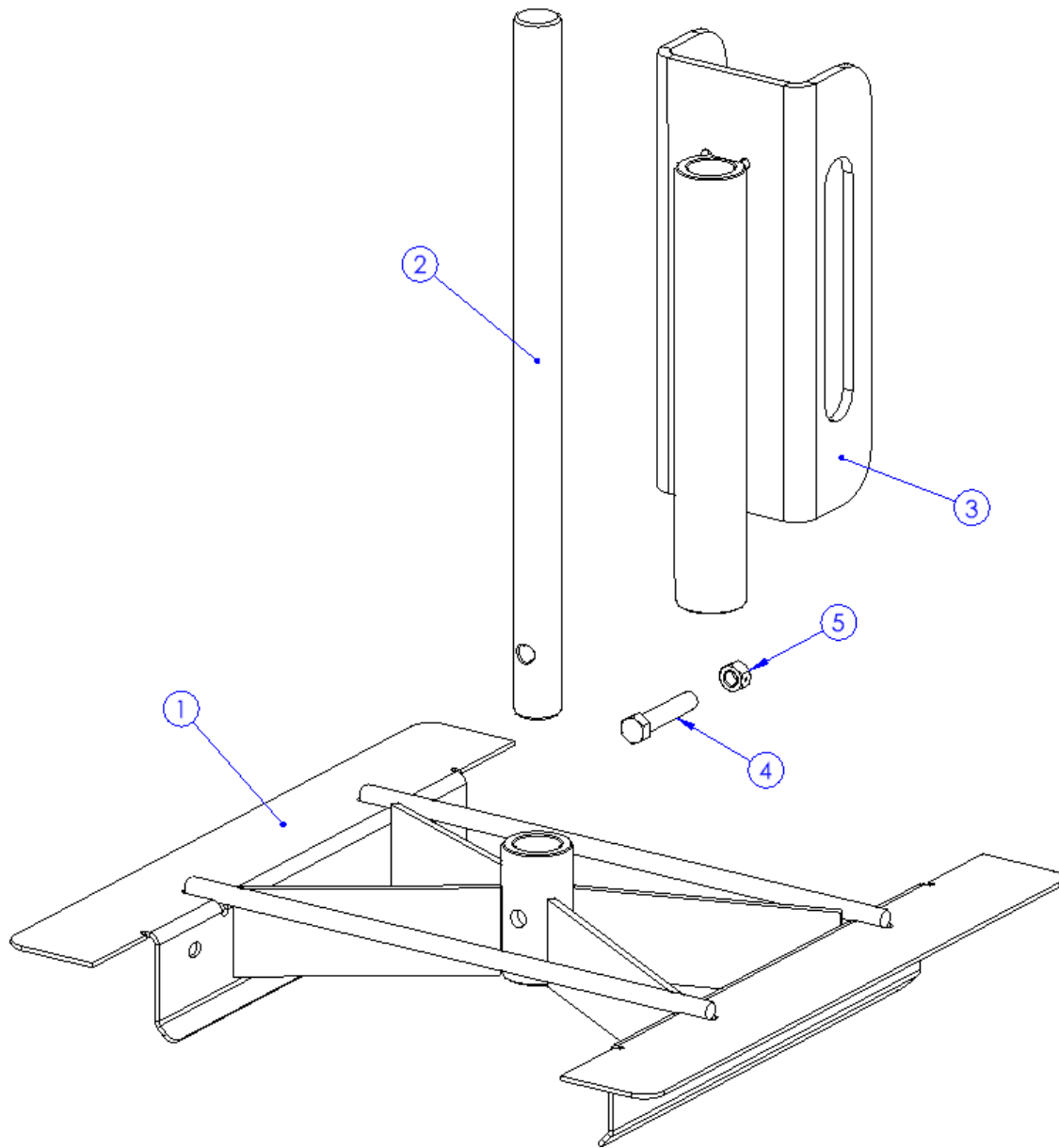
Parts Lists & Diagrams



PARTS LIST

SUMP & CENTER PIVOT KIT, UNIVERSAL (K713125)			
ITEM	PART #	DESCRIPTION	QTY
1	K713124	PIVOT BASE—UNIVERSAL (24" x 24" MAX)	1
2	K713127	PIVOT SHAFT	1
3	K713148	WLDT, PIVOT SLEEVE	1
4	K668270	3/8" x 2.0" GR 5 HEX BOLT	1
5	K700560	3/8" NUT, CENTER LOCK	1

Parts Lists & Diagrams

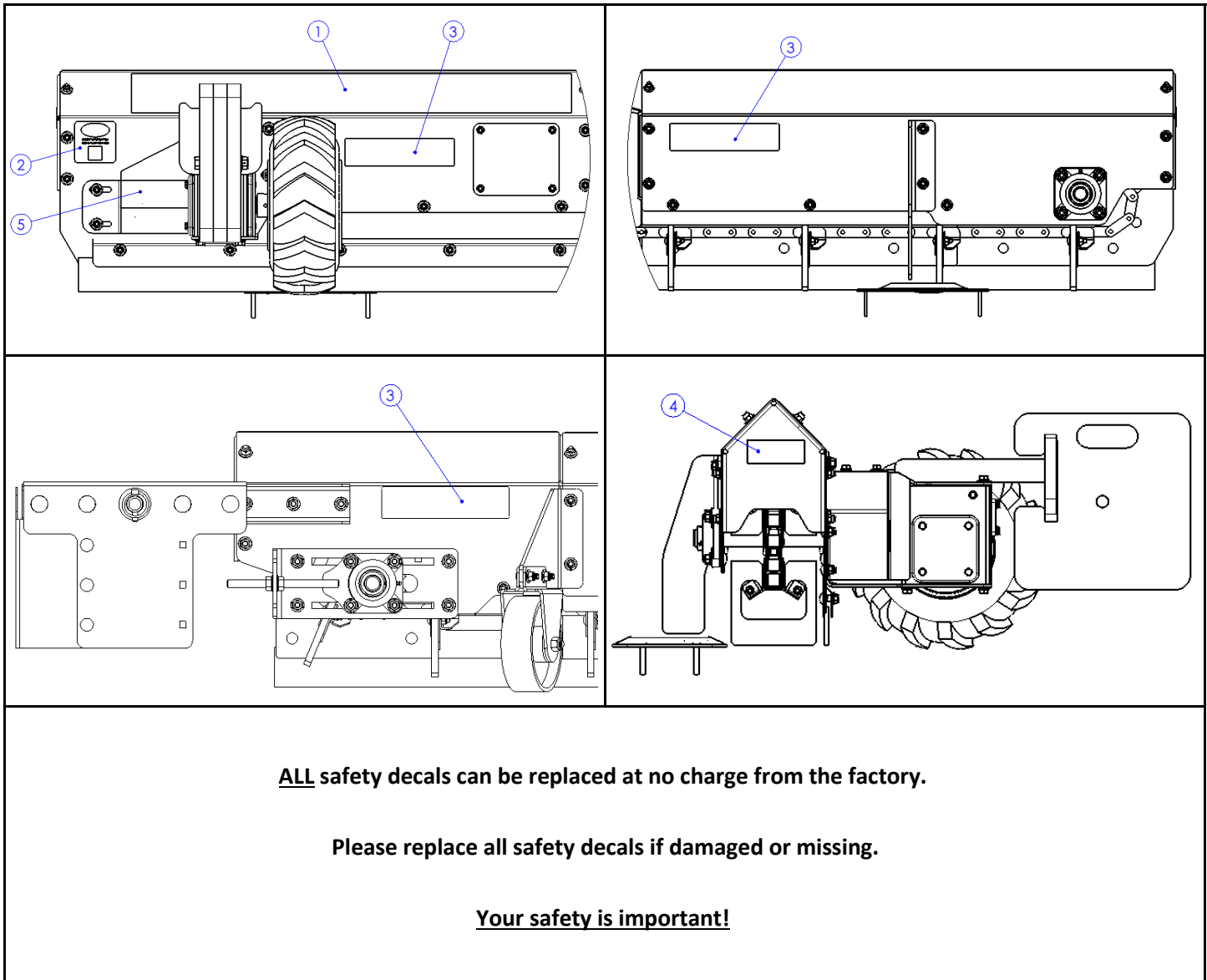


PARTS LIST

SUMP & CENTER PIVOT KIT, SUDENGA (K714451)

ITEM	PART #	DESCRIPTION	QTY
1	K714450	SUMP GRATE—SUDENGA 12 x 12	1
2	K713127	PIVOT SHAFT	1
3	K713148	WLDT, PIVOT SLEEVE	1
4	K668270	3/8" x 2.0" GR 5 HEX BOLT	1
5	K700560	3/8" NUT, CENTER LOCK	1

Parts Lists & Diagrams



PARTS LIST

MINI SWEEP DECALS

ITEM	PART #	DESCRIPTION	QTY
1	K713999	DECAL—LOGO, MINI SWEEP	1
2	K704991	DECAL – VIRTUAL MANUAL & PATENT	1
3	K686033	DECAL – DANGER “GATHERING CHAIN UNLOADER”	3
4	K666941	DECAL – SERIAL NUMBER	1
5	K689871	DECAL – WARNING – CHAIN	1