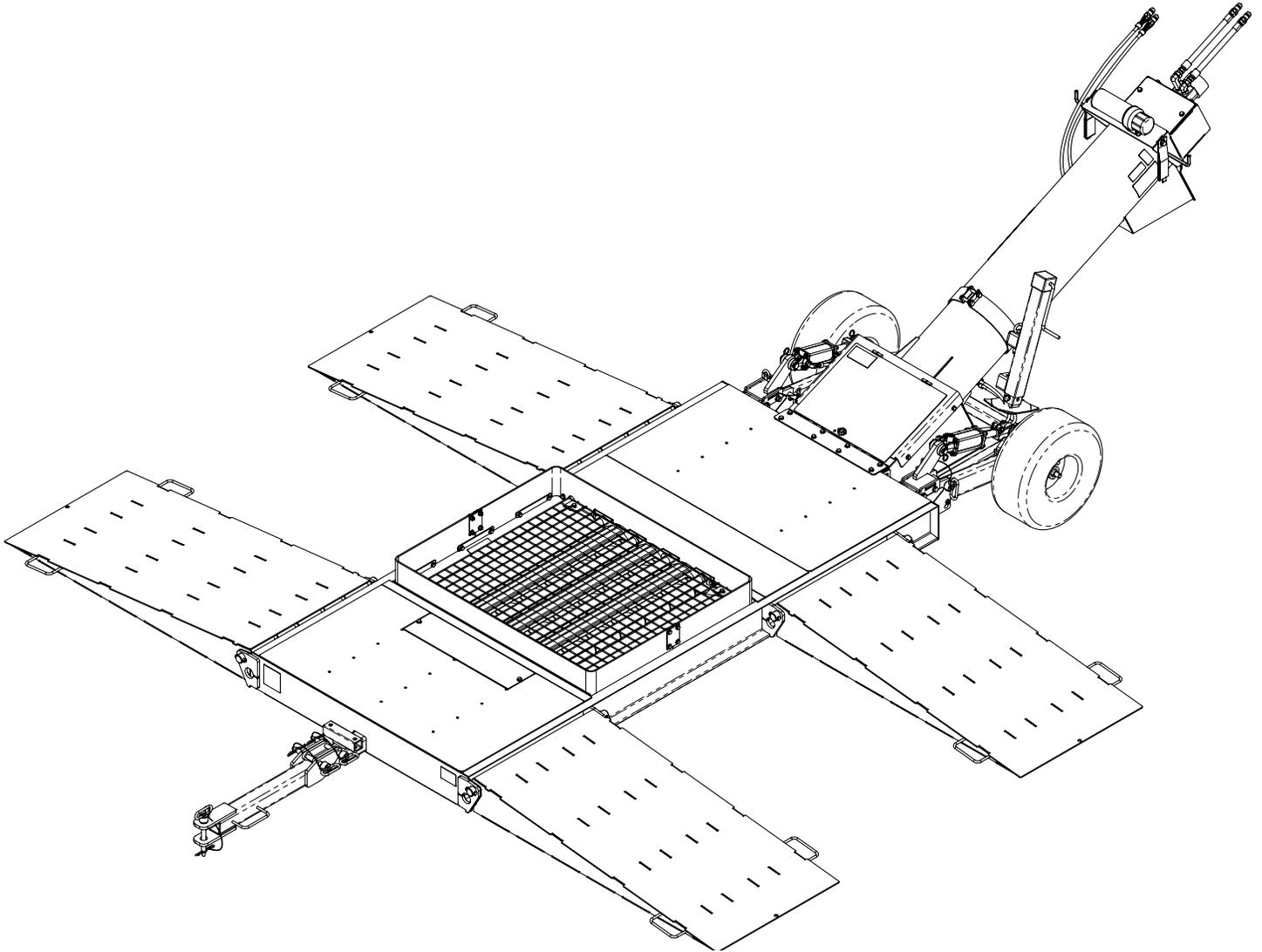


# **BURCHLAND**

## **GSX 100 / 130**

### **DRIVE OVER GRAIN HOPPER**



## **OPERATORS MANUAL**



***BURCHLAND***

***GSX*** *DRIVE OVER HOPPERS*

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The Safety Alert symbol to the left identifies important safety messages on the product and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety messages.

### Signal Words

Note the use of the signal words DANGER, WARNING, CAUTION, and NOTICE with the safety messages. The appropriate signal word for each message has been selected using the definitions below as a guideline.

The Safety Alert symbol means ATTENTION, BE ALERT!, YOUR SAFETY IS INVOLVED.

#### DANGER



Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.

#### WARNING



Indicates a hazardous situation that, if not avoided, could result in serious injury or death.

#### CAUTION



Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

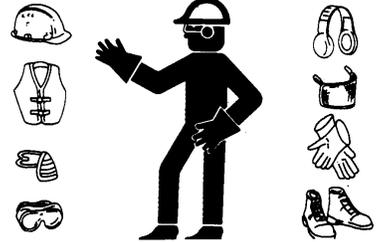
#### NOTICE

Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

## General Safety Instructions



- Have a first-aid kit available for use and know how to use it.
- Have a fire extinguisher available, stored in a highly visible location, and know how to use it.
- Wear appropriate protective gear. This list may include but is not limited to:
  - hard hat
  - protective shoes with slip resistant soles
  - protective glasses or goggles
  - heavy gloves
  - wet weather gear
  - hearing protection
  - respirator or filter mask
- Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting, repairing, or unplugging the equipment.
- Do not attempt any unauthorized modifications to your Burchland product as this could affect function or safety, and could affect the life of the equipment.
- Inspect and clean the working area before operating.
- Keep hands, feet, clothing, and hair away from moving parts.
- Ensure bystanders are clear of the area before operating.



## Start-Up Safety

- Do not let inexperienced operators or children run this equipment.
- Place all tractor and machine controls in neutral before starting.
- Operate only with ROPS and seatbelt equipped tractors.
- Do not operate inside a building unless there is adequate ventilation.
- Ensure all shields are in place and in good condition before operating.
- Stay clear of PTO shaft on auger and machine when engaging PTO.
- Keep clear of the auger when raising for transport or lowering for operation.
- Inspect the machine carefully each day by walking around it before starting operation.



## Operation Safety

- Do not permit riders.
- Do not wear loose fitting clothing during operation.
- Do not allow anyone other than the operator close to the auger hopper when in operation.
- Never stand near the hopper while raising or lowering.
- Have another person nearby who can shut down the equipment in case of accident.
- Do not operate with any of the safety guards removed.
- Keep body, hair, and clothing away from moving parts. Stay away from intake during operation.

## Transport Safety

- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Always travel at a safe speed. Consult local authorities for further details. Use cautions when turning corners or meeting traffic.
- Use extreme care and minimum ground speed when operating or transporting on hillsides, over rough ground, or near ditches or fences.
- Make sure the SMV (slow moving vehicle) emblem and all the lights and reflectors that are required by local authorities are in place, are clean, and can be seen by all traffic.
- Do not allow riders on the equipment or towing vehicle during transport.
- Stay away from overhead obstructions and power lines when operating and transporting. Electrocutation can occur without direct contact.
- Ensure that tires are inflated to the manufacturer's recommended pressure.

## Storage Safety

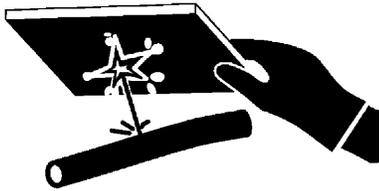
- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored machine.
- Block the wheels of the hopper so that it will not move and tear the jack from it's mount.

## Service and Maintenance Safety

- Stop engine, set brake, remove ignition key, and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
- Support the equipment with blocks or safety stands before working beneath it.
- Follow good shop practices including:
  - keep service area clean and dry
  - be sure electrical outlets and tools are properly grounded
  - use adequate light for the job.
- Use only tools, jacks, and hoists of sufficient capacity for the job.
- Replace and secure all shields removed during servicing before operating.
- Use heavy leather gloves to handle sharp objects.
- Check hydraulics regularly for leaks. Use cardboard to look for leaks, and use hand and eye protection.
- Relieve pressure on hydraulic system before repairing or adjusting.
- Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion, which may result in serious injury or death.

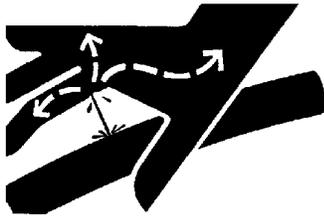
## Hydraulic Safety

- Always place all hydraulic controls in neutral and relieve system pressure before disconnecting or working on hydraulic system.
- Keep all components in the hydraulic system tightly secured and in good condition and clean.
- Replace any worn, cut, abraded, flattened, or crimped hoses.
- Do not attempt any makeshift repairs to the hydraulic fittings or hoses with tape, clamps, or concrete. The hydraulic system operates under extremely high pressure; such repairs will fail suddenly and create a hazardous and unsafe condition.



### Avoid High-Pressure Fluids

This machine uses a high-pressure hydraulic system. Escaping fluid under pressure can penetrate the skin causing serious injury. Never search for leaks with your hands. Protect hands. Use a piece of cardboard to find location of escaping fluid. Stop engine and relieve pressure before disconnecting lines or working on hydraulic system.



**If hydraulic fluid penetrates your skin, see a doctor immediately. Injected fluid must be removed surgically within hours or gangrene may result.** Contact a knowledgeable medical source or call 911.

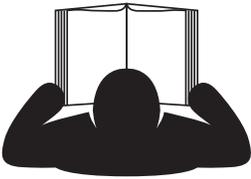
## Safety Decals

- Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible. See decal location figures below.
- Replaced parts must display the same decal(s) as the original part.
- Safety decals are available from your dealer or by calling the factory at 641-498-2063.

## Decal Installation

- To install safety signs, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place.
- Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.

**Safety Decals**

	<b>! WARNING</b>
	<p><b>To Prevent Serious Injury or Death</b></p> <ul style="list-style-type: none"> <li>• Avoid unsafe operation or maintenance.</li> <li>• Do not operate or work on this machine without reading and understanding the operator's manual.</li> <li>• If manual is lost, contact your nearest dealer for a new manual.</li> </ul> <p style="text-align: right;">1</p>

Part # 11187  
1 Required

<b>! WARNING</b>	
	
<p><b>HIGH-PRESSURE FLUID HAZARD</b></p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> <li>• Relieve pressure on system before repairing or adjusting or disconnecting.</li> <li>• Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.</li> <li>• Keep all components in good repair.</li> </ul> <p style="text-align: right;">700</p>	

Part # 11190  
1 Required

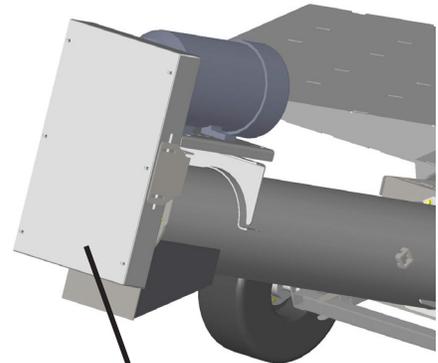
<b>! WARNING</b>	
	
<p><b>MOVING PART HAZARD</b></p> <p>To prevent serious injury or death from moving parts:</p> <ul style="list-style-type: none"> <li>• Close and secure guards and shields before starting.</li> <li>• Keep hands, feet, hair and clothing away from moving parts.</li> <li>• Disconnect and lockout power source before adjusting or servicing.</li> <li>• Do not stand or climb on machine when operating.</li> </ul> <p style="text-align: right;">404</p>	

Part # 12081  
2 Required  
3 on electric drive models

 <p style="text-align: center;">CHR930011</p>	<b>! WARNING</b>
	<p><b>Exposed screw and moving parts can cause severe injury</b></p> <p><b>LOCK OUT POWER before removing cover or servicing</b></p> <p style="text-align: right;"><a href="http://www.cemanet.org">http://www.cemanet.org</a></p>

Part #12740  
4 Required

**Electric Drive Decal Placement**



<b>! WARNING</b>	
	
<p><b>MOVING PART HAZARD</b></p> <p>To prevent serious injury or death from moving parts:</p> <ul style="list-style-type: none"> <li>• Close and secure guards and shields before starting.</li> <li>• Keep hands, feet, hair and clothing away from moving parts.</li> <li>• Disconnect and lockout power source before adjusting or servicing.</li> <li>• Do not stand or climb on machine when operating.</li> </ul> <p style="text-align: right;">404</p>	

## Safety Decal Placement

One of decal # 12740 on inside and outside of cover. Also, place here on optional side chute cover.



Two of decal # 12740 required in the hopper. One on each side.



Place decal # 12081 on the bottom side of the roller chain access door.



## EQUIPMENT MATCHING

### Hydraulic System Requirements

In order to operate the hydraulic drive motor, the tractor hydraulic system must be capable of 15 gpm (56.8 L/min) at 1200 psi (8273 kPa) for the GSX-100 (10") hopper, and 15 gpm (56.8 L/min) at 1800 psi (12,411 kPa) for the GSX-130 (13") hopper. Use caution routing the hoses from the drive over hopper to the tractor. Ensure that they are not a tripping hazard and that they can't become tangled in the auger or PTO drive.

### Electric System Requirements

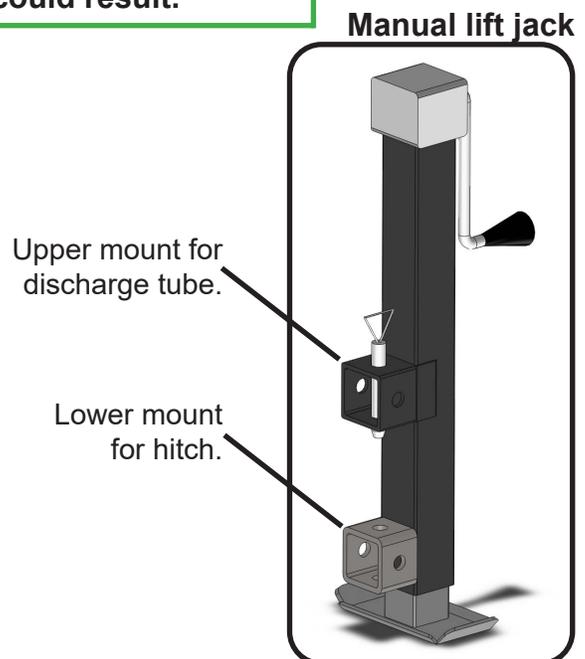
A minimum 10 hp (7.35 Kw) electric motor (1725-1750 rpm) is required to power the GSX-100 (10") hopper, and a minimum 15 hp (11.03 Kw) electric motor (1725-1750 rpm) is required to power the GSX-130 (13") hopper. Ensure the power source has adequate amperage at the proper voltage. Have a licensed electrician provide power and install weatherproof control switches in a safe and convenient location for the operator. All power cords should be protected and secured during operation. When purchasing an electric drive hopper, the customer is responsible for supplying the electric motor, all wiring and controls.

### Preparing the machine for operation from transport mode. (Manual lift models)

#### NOTICE

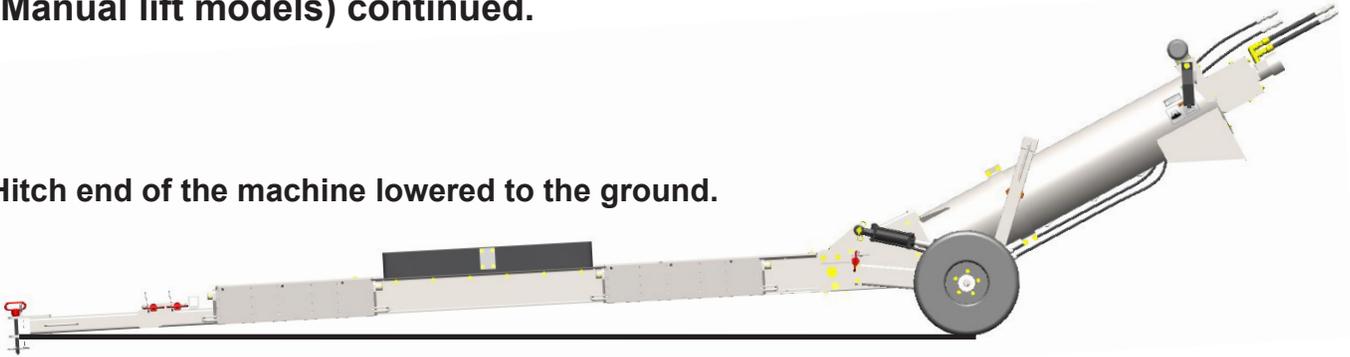
**Locate the machine on reasonably flat and firm ground, free from obstructions. Placement on uneven or soft ground may cause excessive loads on the machine or clearance issues. Corresponding damage to the machine or transport vehicle could result.**

1. Use the towing vehicle to back the drive over hopper into place. The discharge spout of the hopper should be over the intake grate of the auger you plan to use. Make sure there is a straight line path for the grain truck to drive over the ramps of the hopper.
2. The supplied jack comes with an upper and lower mounting tube. The lower mount is used when placing the jack on the hitch end of the machine. The upper mount is used when placing the jack on the discharge end of the machine.
3. Unhook the towing vehicle and use the supplied jack to lower the hitch end of the machine to the ground. Once lowered to the ground, the hitch can be removed if necessary.

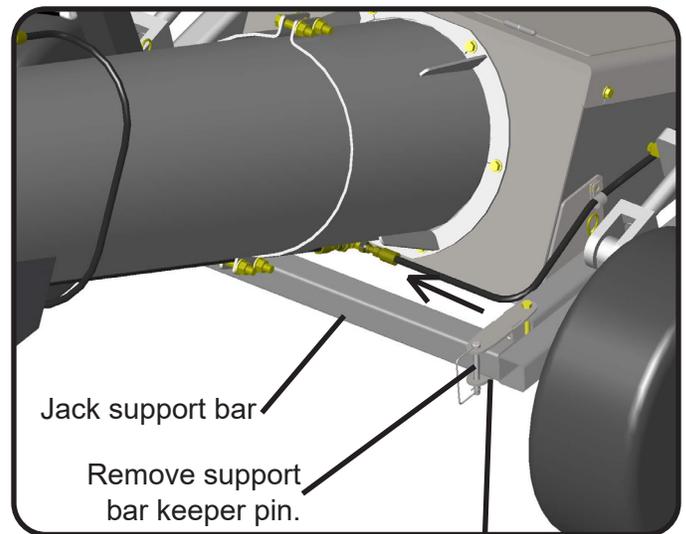


**Preparing the machine for operation from transport mode.  
(Manual lift models) continued.**

Hitch end of the machine lowered to the ground.



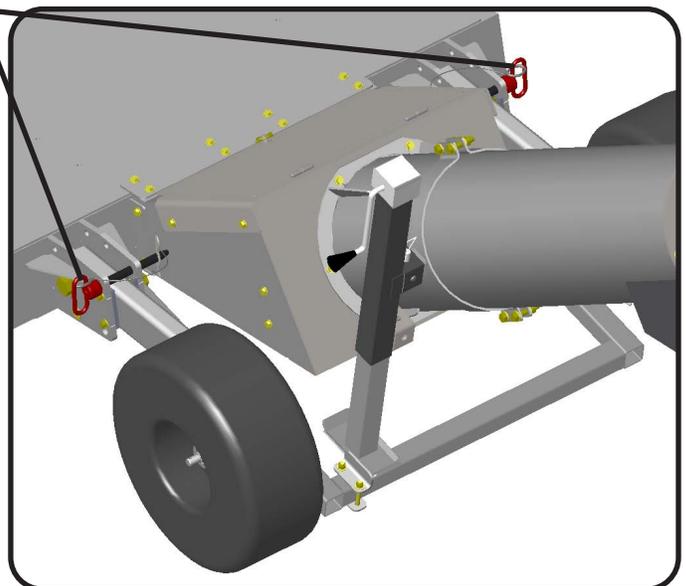
4. Remove the jack from the hitch end of the hopper and take it to the discharge end of the machine.
5. Lower the jack support bar to the ground by removing the support bar keeper pin. Rotate the lock bracket to the side and the jack support bar can be dropped to the ground.



Rotate lock bracket to the side to lower the jack support bar.

Remove transport lock pins once weight is removed.

6. Mount the jack on the square jack mount lug on the side of the discharge auger tube. Lower the jack down until it is pushing on the jack support bar. Keep cranking the jack to remove weight from the transport lock pins.
7. Once there is no weight on the transport lock pins, pull one pin on each side of the hopper. Now use the jack to lower the hopper to the ground. The transport wheels will pivot up as the hopper frame is lowered. Once the hopper frame is on the ground, the jack can remain on the discharge auger during operation.



**Preparing the machine for operation from transport mode.  
(Manual lift models) continued.**

8. Un-hook the ramp lock chains and manually lower the ramps to the ground by holding on to the ramp handle and pulling the top of the ramp away from the hopper.



**CAUTION – KEEP YOURSELF AND ANY BYSTANDERS AWAY FROM THE RAMPS AS THEY ARE BEING LOWERED TO THE GROUND.**

**Preparing the machine for operation from transport mode.  
(Hydraulic lift models)**

See steps 1-3 above under “Preparing the machine for operation from transport mode (Manual lift models)”. Steps 1-3 are also used on the hydraulic lift models to lower the hitch end of the hopper to the ground.

**NOTICE**

**Foreign material can severely damage hydraulic components. Clean any dirt or debris from the hose ends and hydraulic system couplers with a clean rag or paper towel before connecting.**

**WARNING**

**Always turn off the tractor engine before connecting any hoses to the tractor hydraulic valve couplers.**

**WARNING**

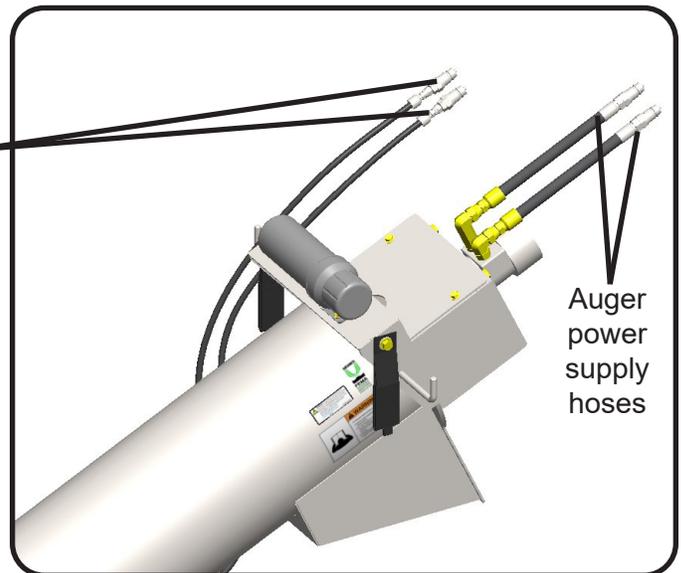
**Damaged hydraulic hoses can fail suddenly causing unexpected machine movement that can result in serious injury or death.**

- Route hydraulic hoses to prevent pinching, rubbing, or binding.
- Keep the hoses away from moving parts.
- Secure the hoses to the machine to prevent dragging while transporting.
- Cover or protect the hoses from damage during operation.
- Repair or replace damaged hoses.

**Preparing the machine for operation from transport mode.  
(Hydraulic lift models) continued.**

4. Hook up the hydraulic lift cylinders' power supply hoses to a hydraulic valve on a tractor. Make sure the tractor is not running when the hoses are hooked up.

Lift cylinders' power supply hoses



Auger power supply hoses

Remove transport lock pins once weight is removed.

7. With the tractor running, engage the hydraulic control valve to lift the drive over hopper slightly and remove the weight from the transport lock pins.

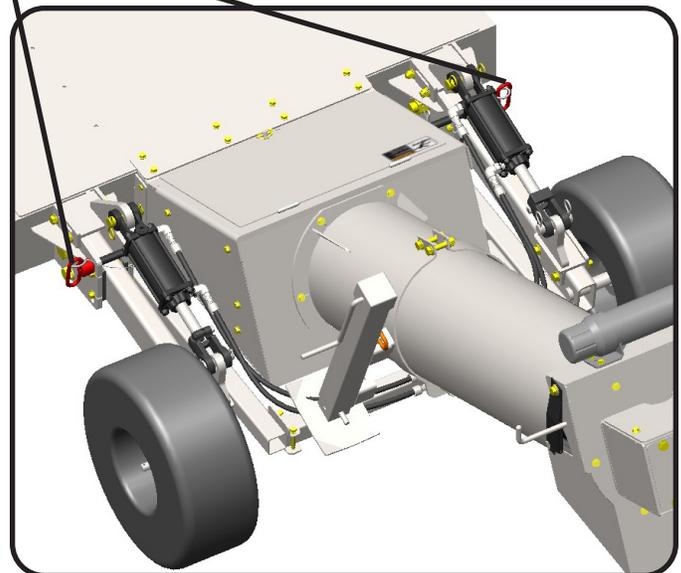
8. Remove the transport lock pins and set them aside.

9. Use the tractor's hydraulic control valve to lower the discharge end of the drive over hopper to the ground.

10. Shut off the tractor engine and disconnect the lift cylinders' power supply hoses.

11. Connect the auger power supply hoses.

12. Un-hook the ramp lock chains and manually lower the ramps to the ground by holding on to the ramp handle and pulling the top of the ramp away from the hopper.

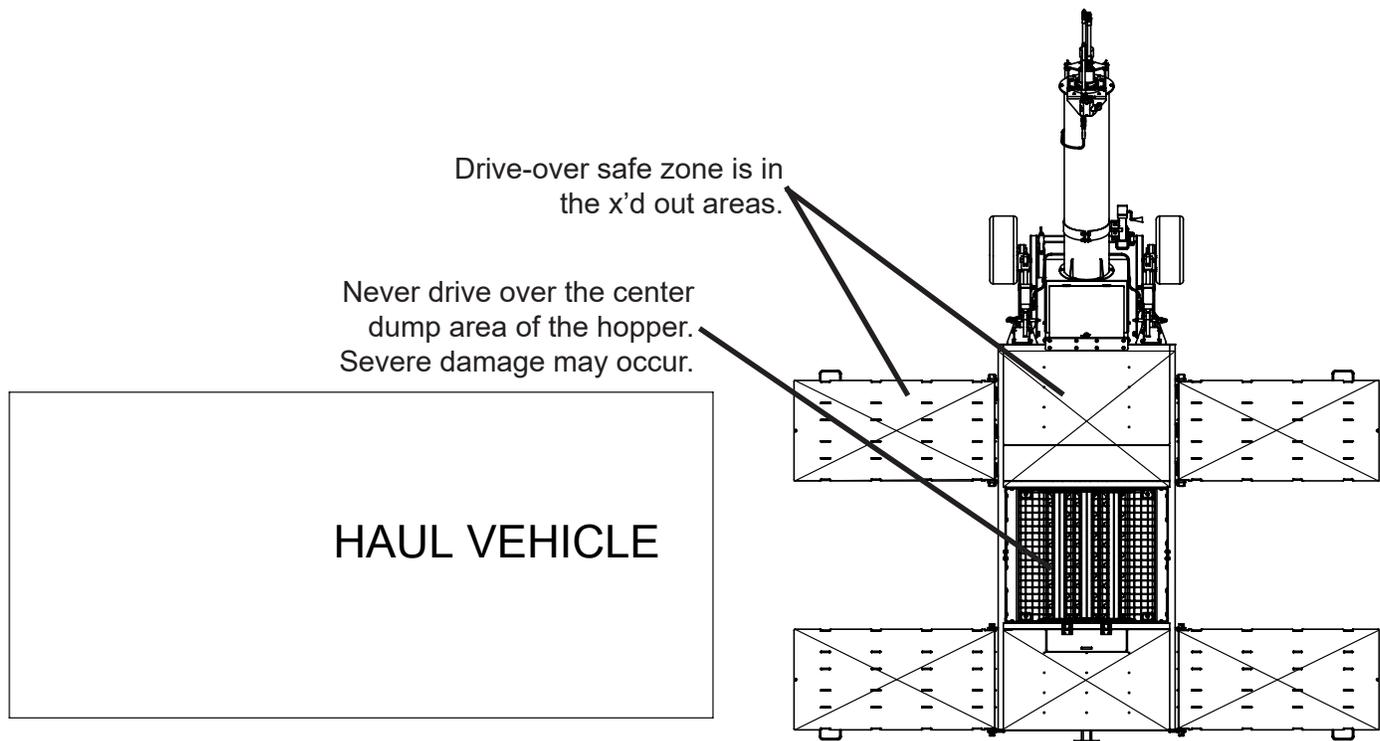


**CAUTION – KEEP YOURSELF AND ANY BYSTANDERS AWAY FROM THE RAMPS AS THEY ARE BEING LOWERED TO THE GROUND.**

**OPERATION - UNLOADING****NOTICE**

**Align the tires of the haul vehicle with the ramps of the drive over hopper. Driving outside the ramp area may cause severe damage to the drive over hopper.**

1. Set up the machine per instructions in the section above (Preparing machine for operation from transport mode).
2. Position the haul vehicle for unloading. Ensure the tires are aligned with the safe drive-over zone. See the figure below for the safe drive-over zone.



3. Drive the haul vehicle over the hopper.
4. Align the vehicle's grain discharge with the intake area of the drive over hopper.
5. Start the hopper according to the instructions listed below under "Starting".
6. Begin unloading grain into the hopper.

**OPERATION - STARTING****Hydraulic Models**

1. Place all tractor and hydraulic controls in neutral.
2. Start the tractor and run the engine at idle speed.
3. Place the tractor hydraulic control in a detent or continuously on position.  
**Important - Make sure the augers are turning the correct direction to move grain from the hopper intake area to the discharge spout. When standing near the discharge end of the machine and looking at the intake hopper, the augers should be turning clockwise.**
4. Increase engine speed and adjust hydraulic flowrate on the tractor to achieve the desired augering speed.

**Electric Models**

1. Place the control switch (customer supplied) in the on position.

**OPERATION - SHUTDOWN****Hydraulic Models**

1. Run the machine until the center hopper and discharge tube are empty.
2. Adjust the tractor engine speed to idle.
3. Place tractor hydraulic controls in neutral.
4. Shut off the tractor engine.

**Electric Models**

1. Run the machine until the center hopper and discharge tube are empty.
2. Turn the motor control switch (customer supplied) off.

**Preparing the machine for transport from operation mode.****WARNING**

**Before continuing, please reread the safety information relevant to this section at the beginning of this manual. Failure to follow the safety instructions can result in serious injury, death, or property damage.**

**NOTICE**

**Empty the auger before transporting. Transporting a full auger will place excessive loads on the discharge tube assembly, frame, axle assembly, hitch, and towing unit.**

**Preparing the machine for transport from operation mode. - Continued****Transport Safety**

To reduce the risk of injury or death to people using this equipment, follow basic safety precautions when transporting.

1. Make sure that all lights and reflectors required by the local highway and transport authorities are in place, are functioning, and can be seen clearly by all overtaking and oncoming traffic.
2. Be sure the unit is hitched securely to the towing vehicle.
3. Use hazard-warning flashers when transporting with a tractor unless prohibited.
4. Keep to the right and yield the right-of-way to allow faster traffic to pass.
5. Take special care and precautions when transporting during times of limited visibility such as rain, snow, fog, dusk, or at night. It is recommended that you wait for a more appropriate time to move.
6. DO NOT transport faster than 20 mph unless GVWR is more than 7000 lb. Never exceed 40 mph.

**Preparing the machine for transport from operation mode. - Continued**

1. Check the wheel nut torque prior to transporting the unit. See the maintenance section for recommended torque values.
2. Check that the tires are inflated to the manufacturer's recommended pressure prior to transporting the unit.
3. Fold up the ramps and use the supplied chains and hooks to lock the ramps together in an upright position.



**CAUTION – KEEP YOURSELF AND ANY BYSTANDERS AWAY FROM THE RAMPS AS THEY ARE BEING RAISED AND LOCKED.**

4. Raise the discharge end of the hopper. See the “Preparing machine for operation from transport mode” earlier in this manual.
5. Raise the hitch end of the hopper until the height of the hitch matches the connecting hitch on the tow vehicle. See the “Preparing machine for operation from transport mode” earlier in this manual.

**Preparing the machine for transport from operation mode. - Continued**

6. Disconnect the hopper from the hydraulic source or disconnect the electric supply cord on electric drive models.

**NOTICE**

**Secure hydraulic hoses or electric power cord on electric drive models to the machine to prevent damage from dragging while transporting.**

7. Secure hydraulic lines or any power cords to the machine before transporting.  
8. Connect the tow vehicle to the drive over hopper and use a retainer to lock the hitch pin in place.

**CAUTION**

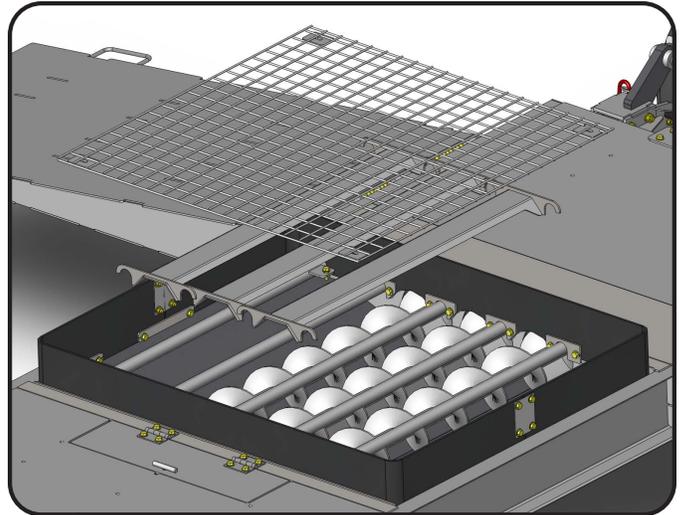
**Always use transport chains when transporting implements.  
Failure to use chains could cause personal injury or damage if implements become disengaged.**

9. Install transport safety chains (**customer supplied**) between the tongue of the drive over hopper and the frame of the tow vehicle. Transport chains should have a minimum rating equal to the gross weight of implement and all attachments. Allow no more slack in chains than necessary to permit turning. Replace transport chains if any link or end fitting is broken, stretched, or damaged. **DO NOT WELD TRANSPORT CHAINS.**

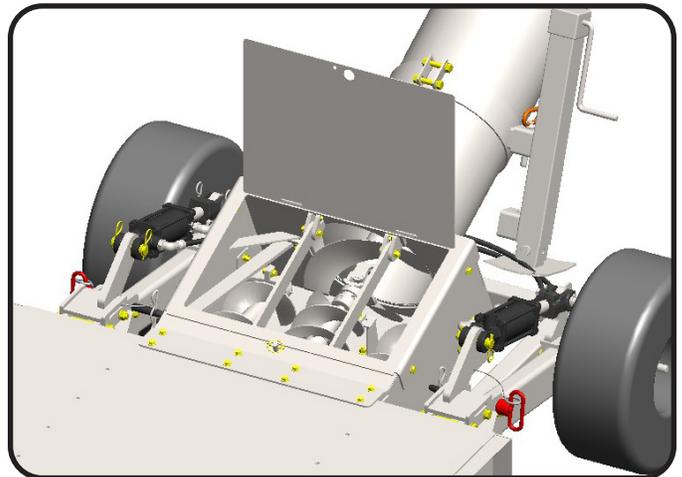
10. Crank the jack up fully and stow the jack on a square jack mount lug on the hitch or on the discharge tube.

**Cleanout**

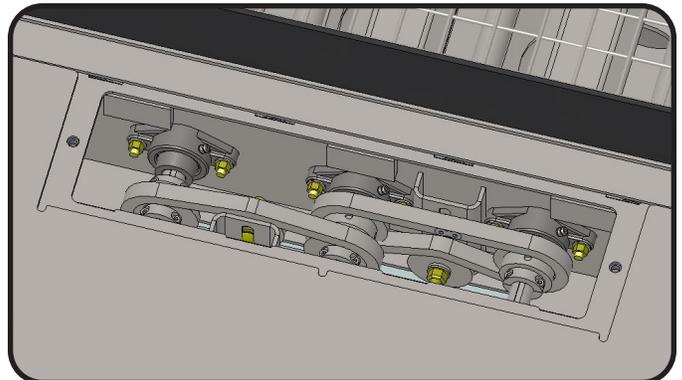
1. Remove any excess grain from on top and around the hopper.
2. Run the unit to clean out the majority of the grain.
3. Disable and lock out all power sources, hydraulic or electric.
4. Remove the center hopper grate and auger covers as shown on the right.
5. Use compressed air or a shop vac to remove any excess grain from the center dump area.



6. Open the junction box cover as shown on the right. Use a shop vac to remove any grain from inside the junction box.



7. Open the roller chain drive access door as shown on the right. Remove any accumulated grain or material.
8. Replace all covers and close all doors that were opened for cleanout.



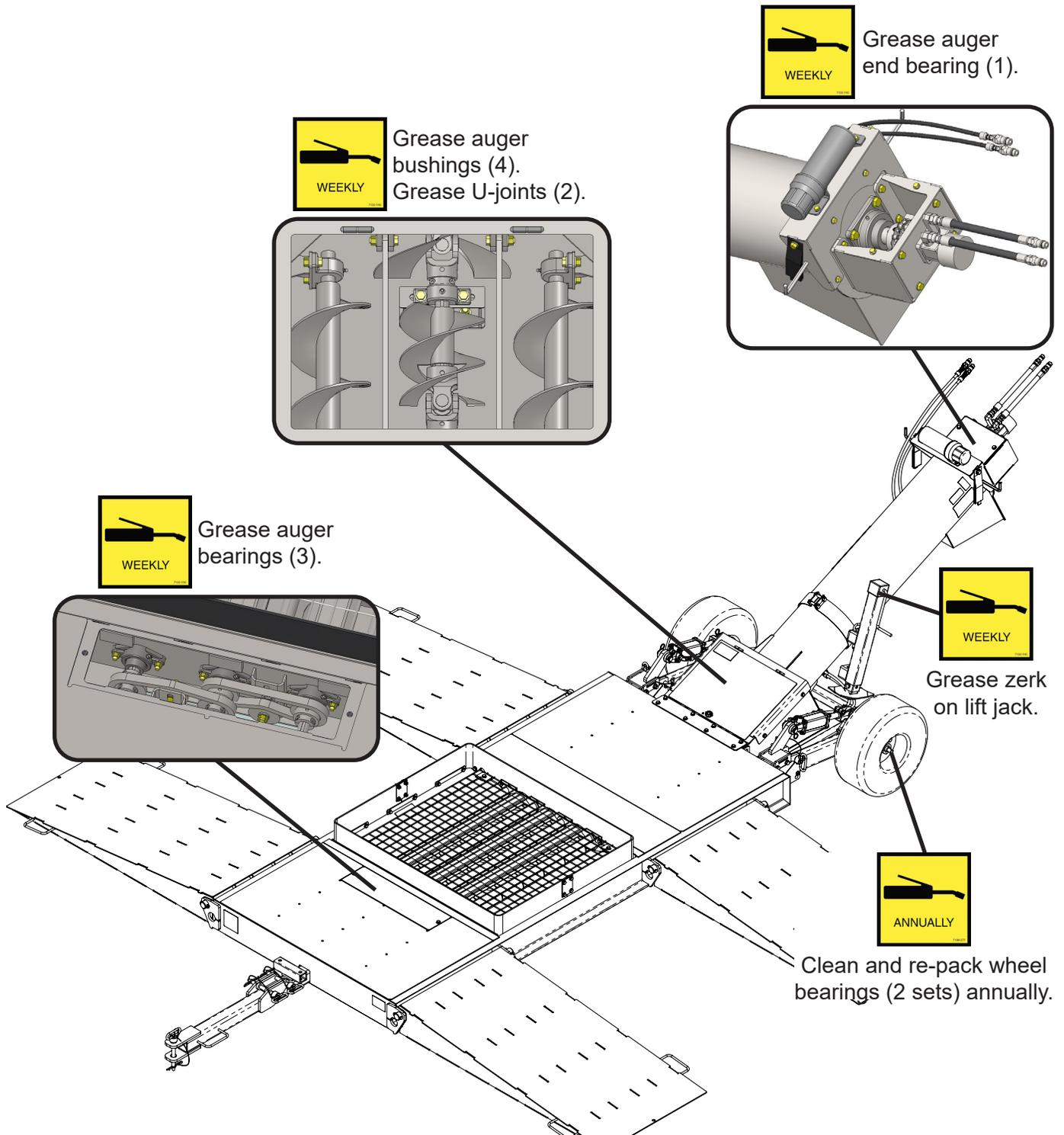
**Storage****WARNING**

**Before continuing, please reread the safety information relevant to this section at the beginning of this manual. Failure to follow the safety instructions can result in serious injury, death, or property damage.**

1. Store the machine on a level surface, free of debris, and in an area away from human activity. Store in a dry place, or use a tightly secured tarp to protect the equipment from the weather.
2. Ensure that the unit is in transport position.
3. Remove all residual material and clean the machine thoroughly.
4. Inspect the unit at stress points for cracks.
5. Repair or replace any worn or damaged components to prevent any unnecessary downtime at the start of the next season.
6. Touch up paint nicks and scratches to prevent rusting.
7. Check hydraulic fittings, hoses, lines, couplers, and valves. Tighten any loose fittings. Replace any hose that is badly cut, nicked, abraded, or is separating from the crimped end of the fitting. Secure the hoses or any power cords to the machine.
8. Inspect and tighten all fasteners; replace fasteners if required.
9. Store the machine with the hitch end slightly lowered to allow any water to drain through drain holes in the hopper.

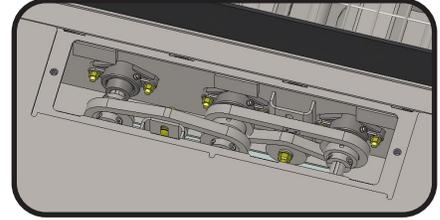
## Lubrication

Clean grease fittings with a rag. All fittings must be free from dirt and paint to insure entry of lubricant inside bearing. Lubricate with an SAE multi-purpose grease. Connect a grease gun to each fitting and pump grease into the fittings until grease begins to appear around bearing seals. Do not over grease the bearings. Bearing seal damage may occur.



**Servicing the drive chains.**

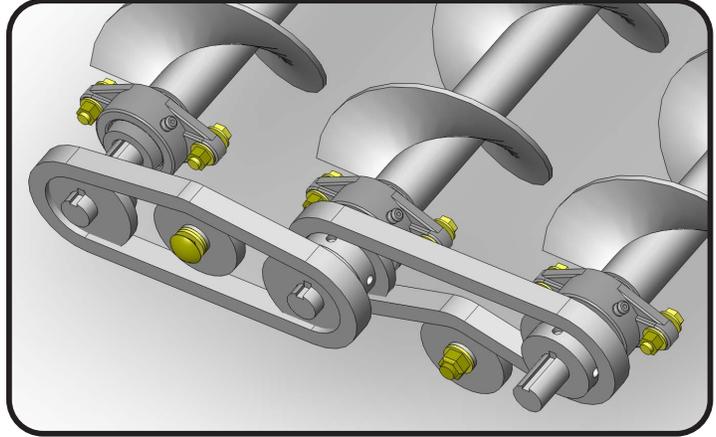
Drive chains are located under the access door on the top of the drive over hopper platform.



1. Check the chain slack by moving the midpoint of the longest chain span. It should move approximately 3/8" (10 mm). Do not over-tighten the chain as that may cause damage to the augers or idler sprockets.

2. Adjust the chain slack by loosening the idler sprockets. Reposition idler sprockets until chain slack is adequate. If idler sprockets run out of travel, remove a link from the chain.

3. Oil the chain with a roller chain lubricant.

**Wheel bearings.**

The wheel bearings should be cleaned, repacked and adjusted every 12 months. Use a number 2 wheel bearing grease to repack the bearings and adjust the bearing to a free-rolling fit with no end play.

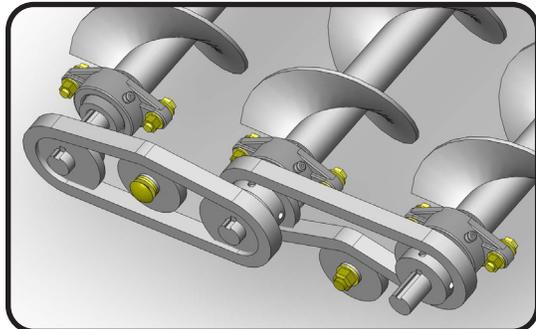
**Wheel nut torque.**

**Tighten wheel nuts to 90 ft. lbs.** Check wheel nut torque each time the wheel bearings are serviced and before transporting the hopper on the road.

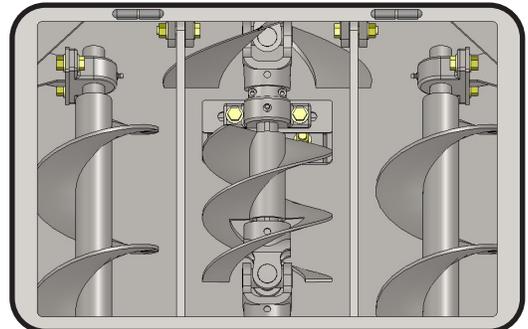
**U-joint and sprocket set screws**

**IMPORTANT** - Tighten setscrews on roller chain sprockets and also on u-joints in the junction box each season before operating for the first time. Also, check setscrews after one week of operation each season.

2 setscrews on each of 4 sprockets for a total of 8. See the auger drive page of the parts book for an exploded view.



4 setscrews on each of 2 u-joints for a total of 8. See the junction box page of the parts book for an exploded view.



## Mounting bolts and hardware.

### WARNING



Parts separation can result in death, serious injury, and damage to property and equipment. Check all hardware is tight before operating hopper the first time. Check all hardware again after first 50 hours of operation and beginning of each season. Check wheel nuts before road travel.

### NOTICE

Over-tightening hardware can reduce its shock load capacity and cause equipment failure.

Hardware used on Burchland Drive Over Hoppers are Grade 8 (high strength) unless otherwise noted. Grade 8 cap screws are marked with six radial lines on the head. Hardware must be replaced with equal size, strength, and thread type.

### TORQUE VALUES CHART - PLATED HARDWARE

Diameter	Grade 2 (No marks) 				Grade 5 (3 marks) 				Grade 8 (6 marks) 			
	Coarse		Fine		Coarse		Fine		Coarse		Fine	
	ft-lb	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb	N-m
1/4"	50 in-lb	5	56 in-lb	6	76 in-lb	8	87 in-lb	9	9	12	10	13
5/16"	8	10	9	12	13	17	14	19	18	24	20	27
3/8"	15	20	17	23	23	31	26	35	33	44	37	50
7/16"	25	33	27	36	37	50	41	55	52	70	58	78
1/2"	35	47	40	54	57	77	64	86	80	108	90	122
9/16"	50	67	60	81	80	108	90	122	115	156	130	176
5/8"	70	95	80	108	110	149	125	169	160	217	180	244
3/4"	130	176	145	196	200	271	220	298	280	379	315	427
7/8"	125	169	140	189	320	433	350	474	450	610	500	678
1"	190	257	205	278	480	650	530	718	675	915	750	1016
1 1/8"	265	359	300	406	600	813	670	908	960	1301	1075	1457
1 1/4"	375	508	415	562	840	1138	930	1261	1360	1844	1500	2033
1 3/8"	490	664	560	759	1100	1491	1250	1694	1780	2413	2030	2752
1 1/2"	650	881	730	989	1450	1966	1650	2237	2307	3127	2670	3620

**NOTE:** Torque unplated hardware and bolts with lock nuts approximately 1/3 higher than above values. Torque bolts lubricated before installation to 70% of value shown in chart.

## Warranty

### LIMITED WARRANTY FOR NEW BURCHLAND MFG. EQUIPMENT

The manufacturer warrants to the original retail purchaser that this product is free from defects in material and workmanship and agrees to repair or replace, at manufacturer's discretion, any defective product free of charge within 2 years from the date of purchase.

This warranty is not transferable and does not cover damage resulting from defects other than in material or workmanship, or damage caused by unreasonable use, including the failure to provide reasonable and necessary maintenance. Also, the warranty obligations do not apply to conditions resulting from misuse, alteration or accident. In addition, this warranty does not cover replacement of parts that may wear and need to be replaced with reasonable use within the warranty period or which may require replacement in connection with normal maintenance. This Warranty terminates once the Product has been altered or repaired by others without Burchland's express written consent.

### SAVE YOUR SALES SLIP

Proof of purchase in the form of your dated sales receipt, cash register slip, etc. showing the serial number and the model of your product will be required before our dealers can perform warranty service on the product. You must at your own expense, arrange to deliver or ship the product for warranty repairs and arrange for pickup or return of the product after repairs have been made.

**THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY OR OTHERWISE, SHALL BE EXCLUDED AND HEREBY DISCLAIMED. THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF PROFITS LOSS OF PRODUCTION OR ANY DELAY ARISING IN CONNECTION WITH THE INABILITY TO USE THE PRODUCTS.**

### HOW TO OBTAIN WARRANTY SERVICE

Warranty service can be obtained from a Burchland dealer authorized to make warranty repairs. If you need warranty service, check first with the dealer from whom you purchased the product. The manufacturer will not make any reimbursements for warranty service, except to Burchland dealers authorized to make warranty repairs. You must present your sales receipt when making any claim for warranty service.

**This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If you have any questions regarding your warranty rights and responsibilities, you should contact your Burchland dealer or Burchland Mfg. Inc. at 641-498-2063.**

**Product Warranty Registration Card**

Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Owner's Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Name of Dealer: \_\_\_\_\_

Customer Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Please fill out and return this card with a copy of your sales receipt to:

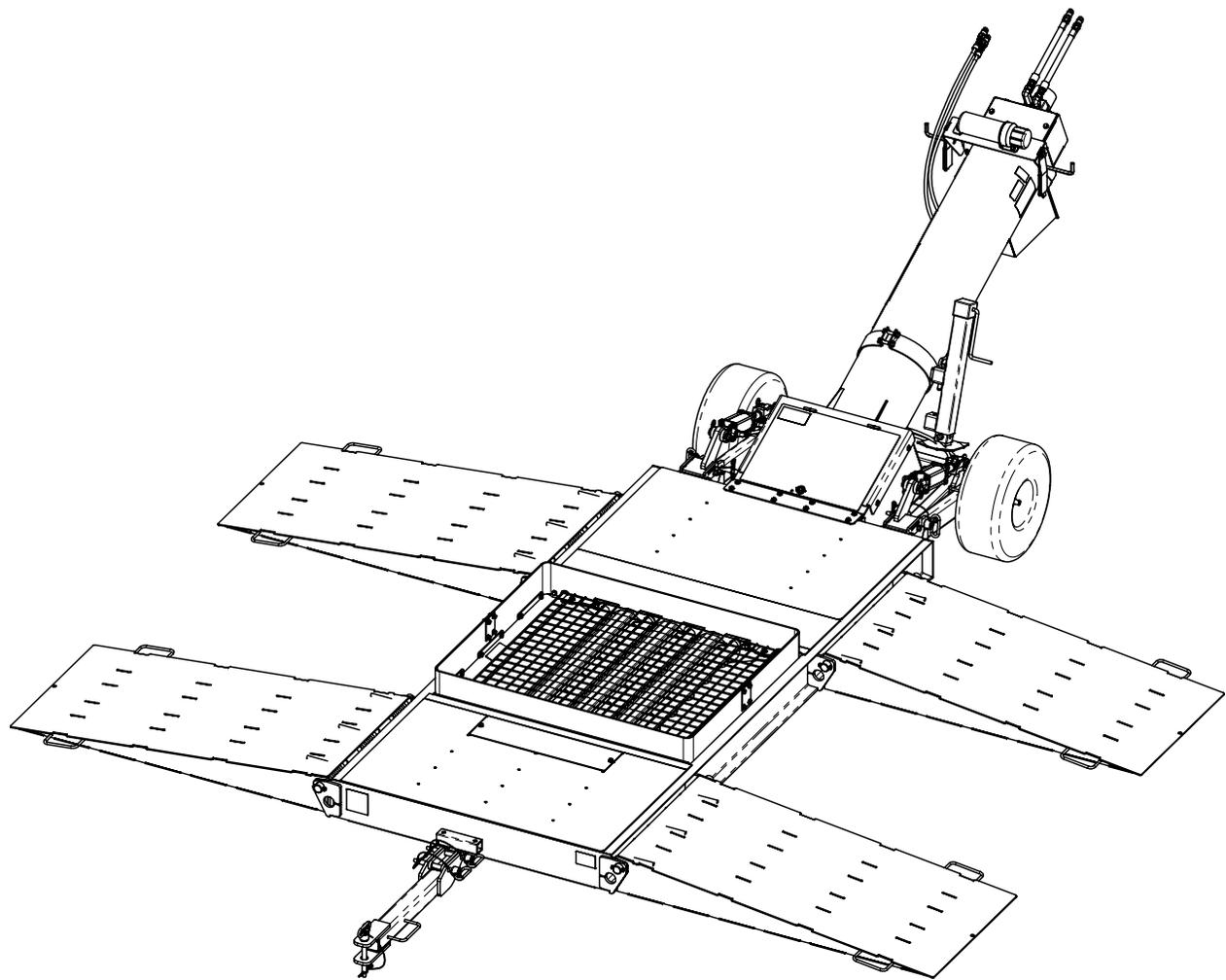
Burchland Mfg. Inc.  
3311 Yates Ave.  
Gilman, IA 50106



# **BURCHLAND**

## **GSX 100 / 130**

### **DRIVE OVER GRAIN HOPPER**



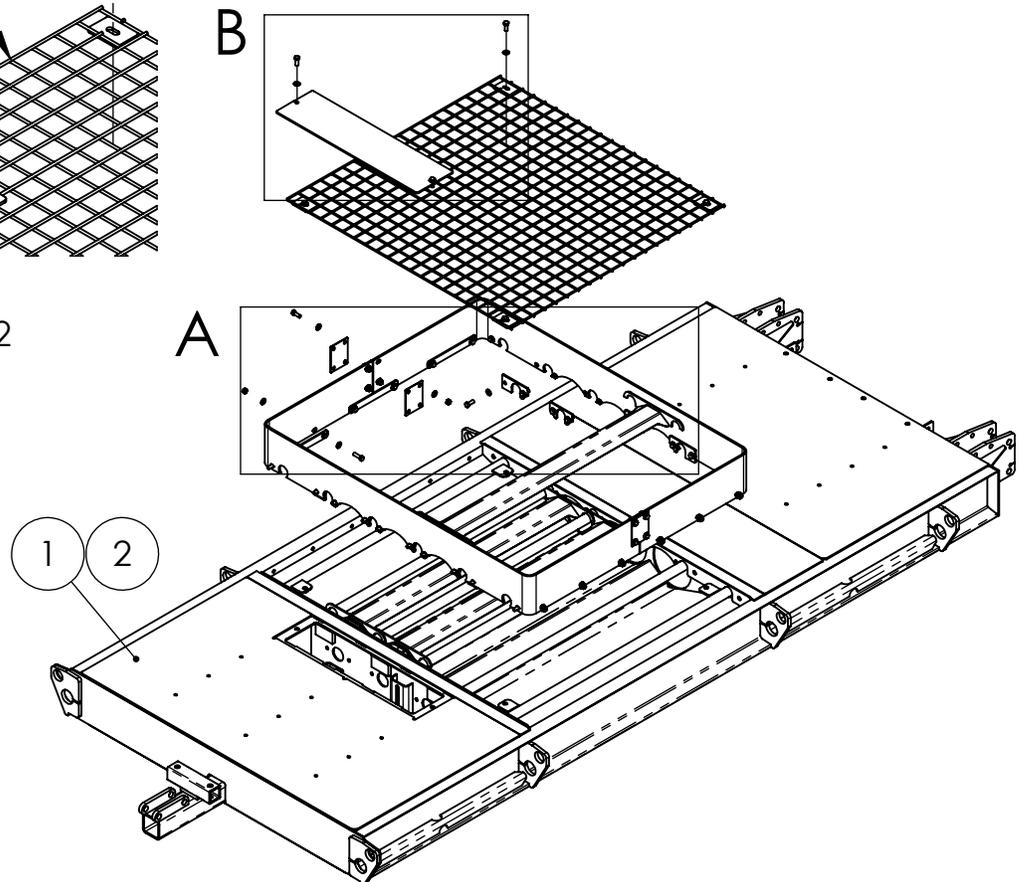
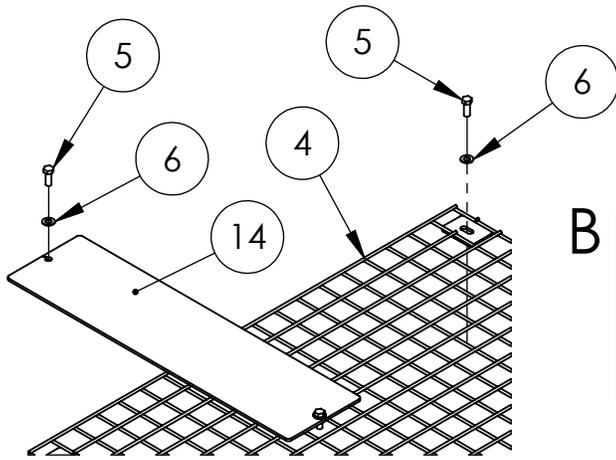
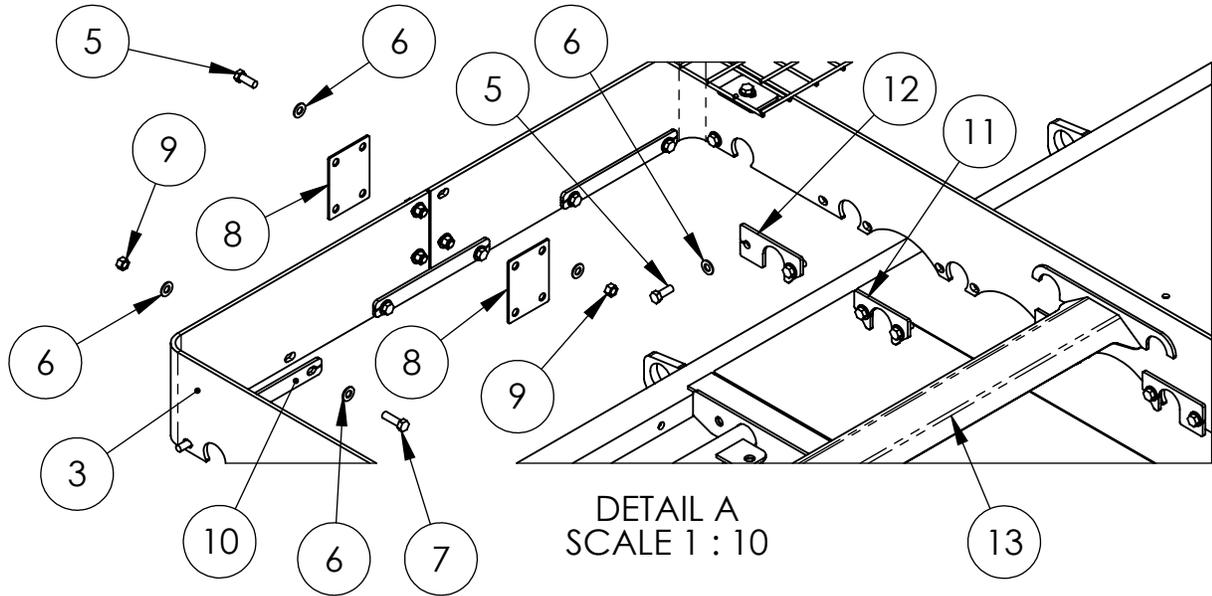
## **PARTS BOOK**



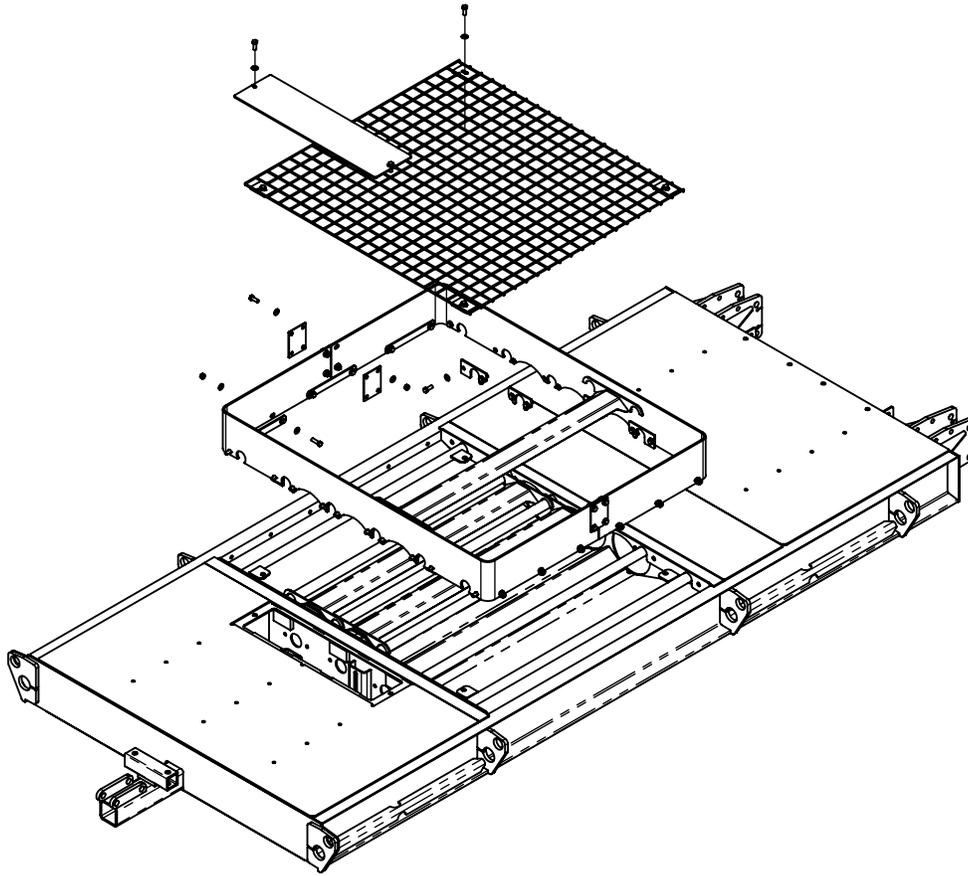
**BURCHLAND**

**GSX** *DRIVE OVER HOPPERS*

# Frame and Guard Assembly - 12863, 12372

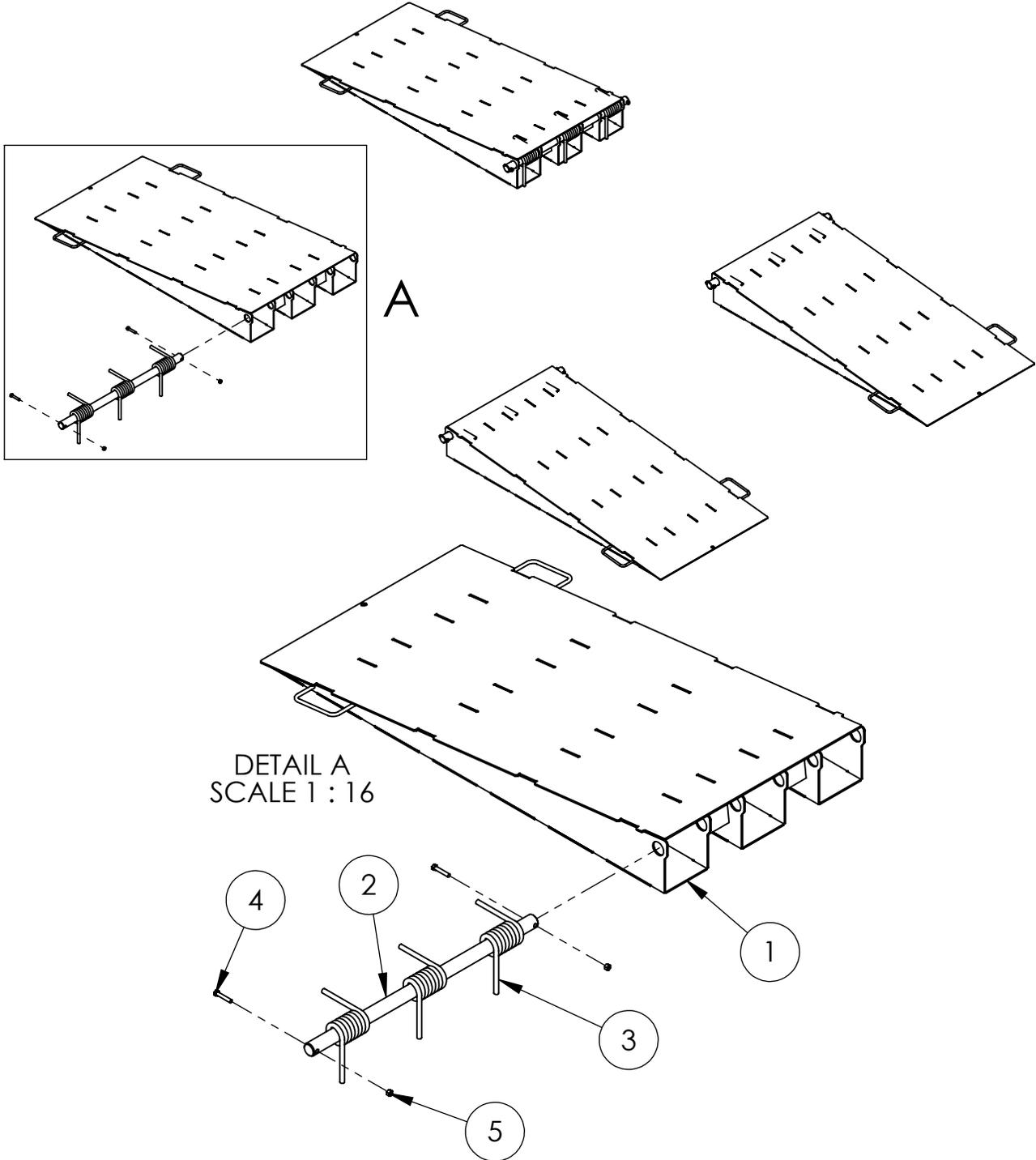


## Frame and Guard Assembly - 12863, 12372 (continued)



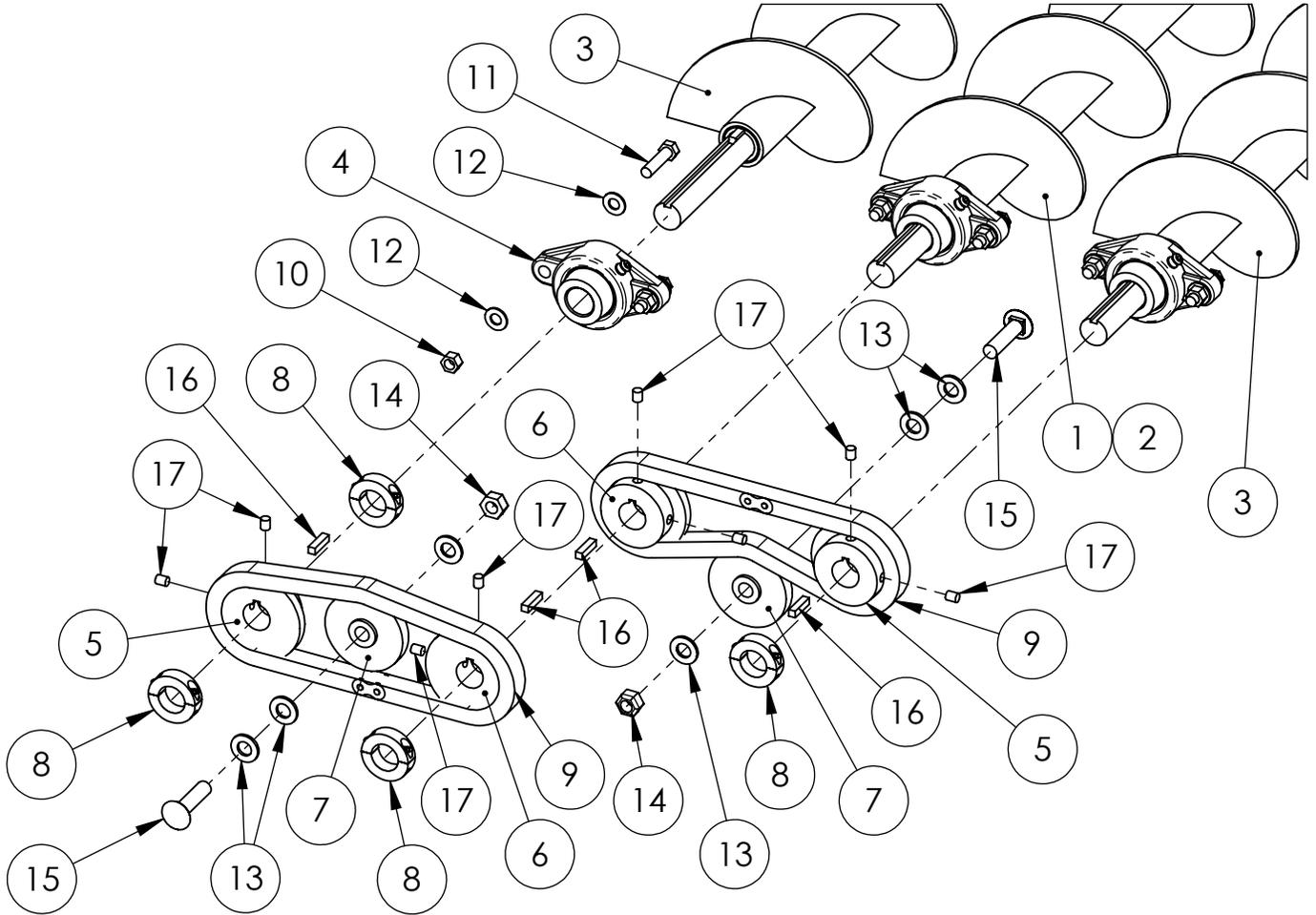
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	
1	12553	HOPPER FRAME, GSX 130	1	* GSX 130
2	12647	HOPPER FRAME, GSX 100	1	* GSX 100
3	12315	RUBBER SKIRT, GSX	2	
4	12248	HOPPER COVER, WIRE MESH	1	
5	10112	BOLT, 3/8-16 X 1 GR8 ZY	34	
6	10110	WASHER, 3/8 SAE GR8 ZY	66	
7	10113	BOLT, 3/8-16 X 1.25 GR8 ZY	12	
8	12250	PLATE, RUBBER BELTING	4	
9	10947	NUT, 3/8-16 SLTL GR8 ZY	20	
10	12881	PLATE, RUBBER SKIRT MOUNT	6	
11	12882	PLATE, RUBBER SKIRT WASHER	4	
12	12883	PLATE, RUBBER SKIRT WASHER	4	
13	13002	AUGER COVER	3	
14	17175	PLATE, TREAD DOOR	1	

# Ramp Assembly - 12371



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	15618	HOPPER RAMP, 5FT	4
2	12247	BAR, RAMP HINGE	4
3	12246	RAMP SPRING (B, 90 DEG)	12
4	11126	BOLT, 3/8-16 X 2.0 GR8 ZY	8
5	10947	NUT, 3/8-16 SLTL GR8 ZY	8

## Auger Drive Assembly - 12590, 12649

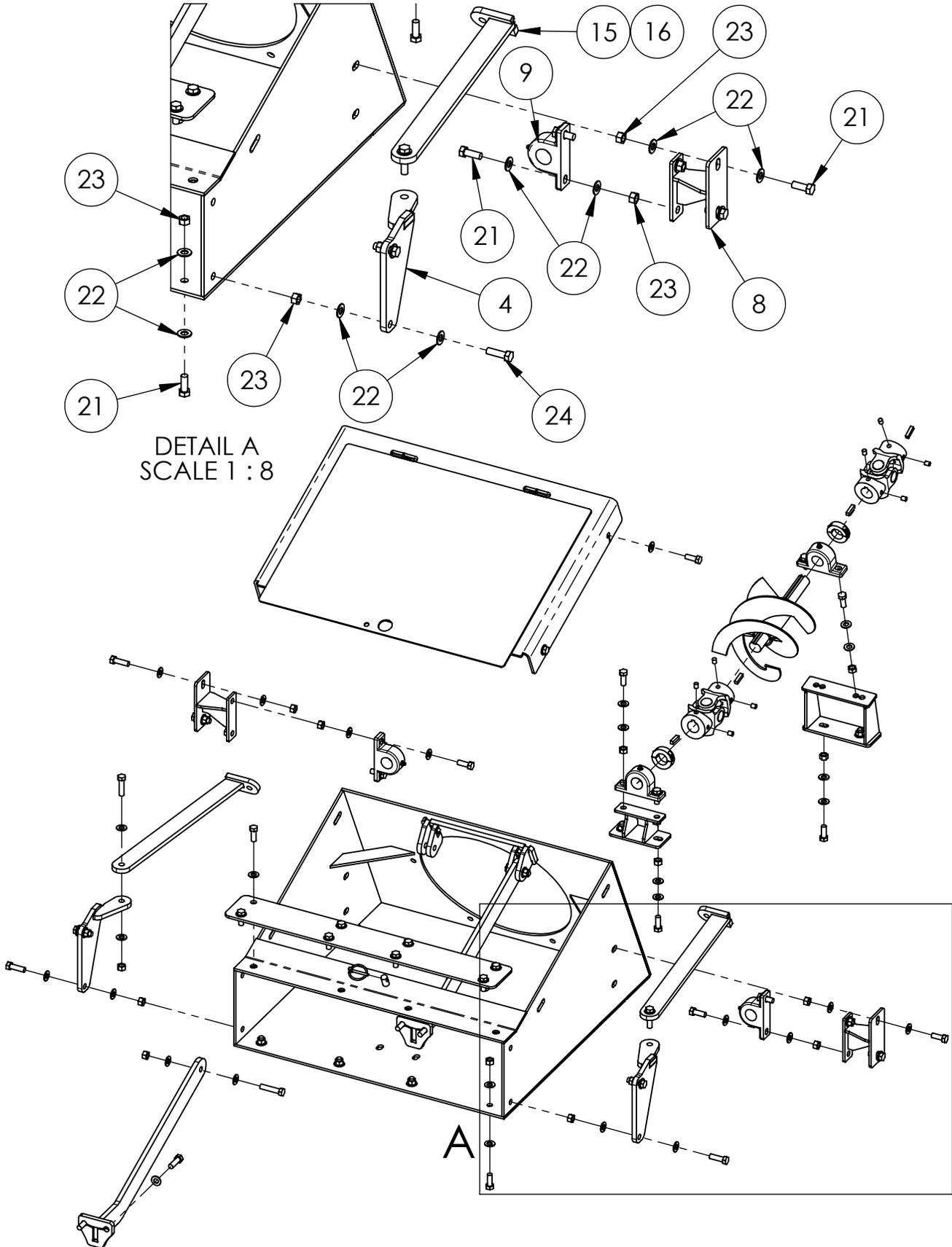


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12587	AUGER, 6" OD X 87.25	1
2	12650	DRIVESHAFT, GSX 100	1
3	12584	AUGER, 6" OD X 101"	2
4	12269	BEARING, 1.0 2-BOLT FLANGE	3
5	13294	SPROCKET, #50, 13T, 1.0 BORE	2
6	12267	SPROCKET, #50, 15T, 1.0 BORE	2
7	12026	IDLER SPROCKET, 5013	2
8	13287	COLLAR, 1.0 ID, 2 PIECE SPLIT	4
9	12379	ROLLER CHAIN, #50 X 39 LINK	2
10	10947	NUT, 3/8-16 SLTL GR8 ZY	6
11	12257	BOLT, 3/8-16 X 1.5 GR8 ZY	6
12	10110	WASHER, 3/8 SAE GR8 ZY	12
13	10062	WASHER, 1/2 SAE GR8 ZY	6
14	10396	NUT, 1/2-13, SLTL GR8 ZY	2
15	12908	BOLT, 1/2-13 X 1.75 CARRIAGE	2
16	12279	KEYSTOCK, 1/4 X 1/4 X 1.0	4
17	12393	SETSCREW, 5/16-18 X 3/8	8
18	12330	CONNECTING LINK, #50	2

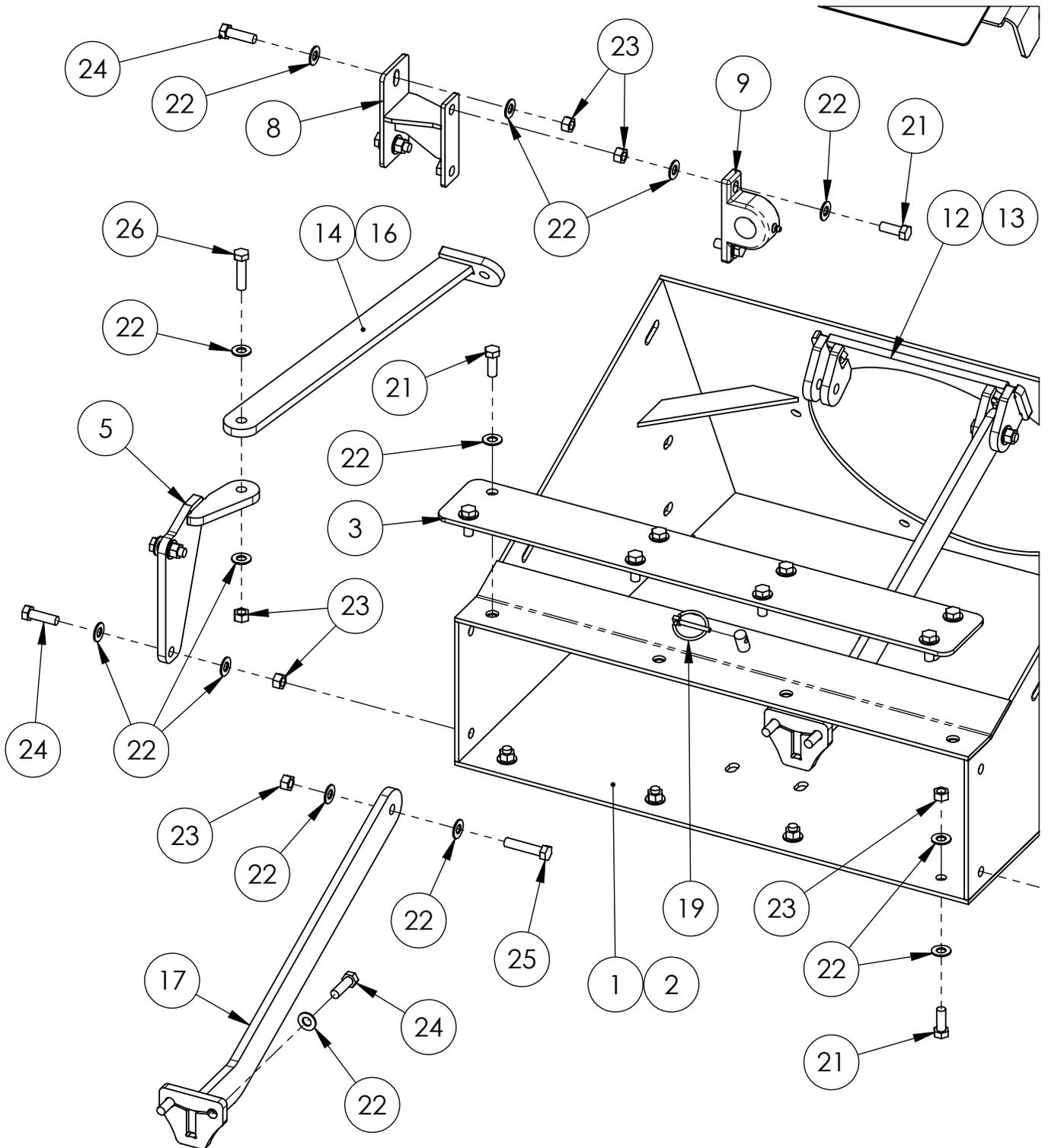
\* GSX 130

\* GSX 100

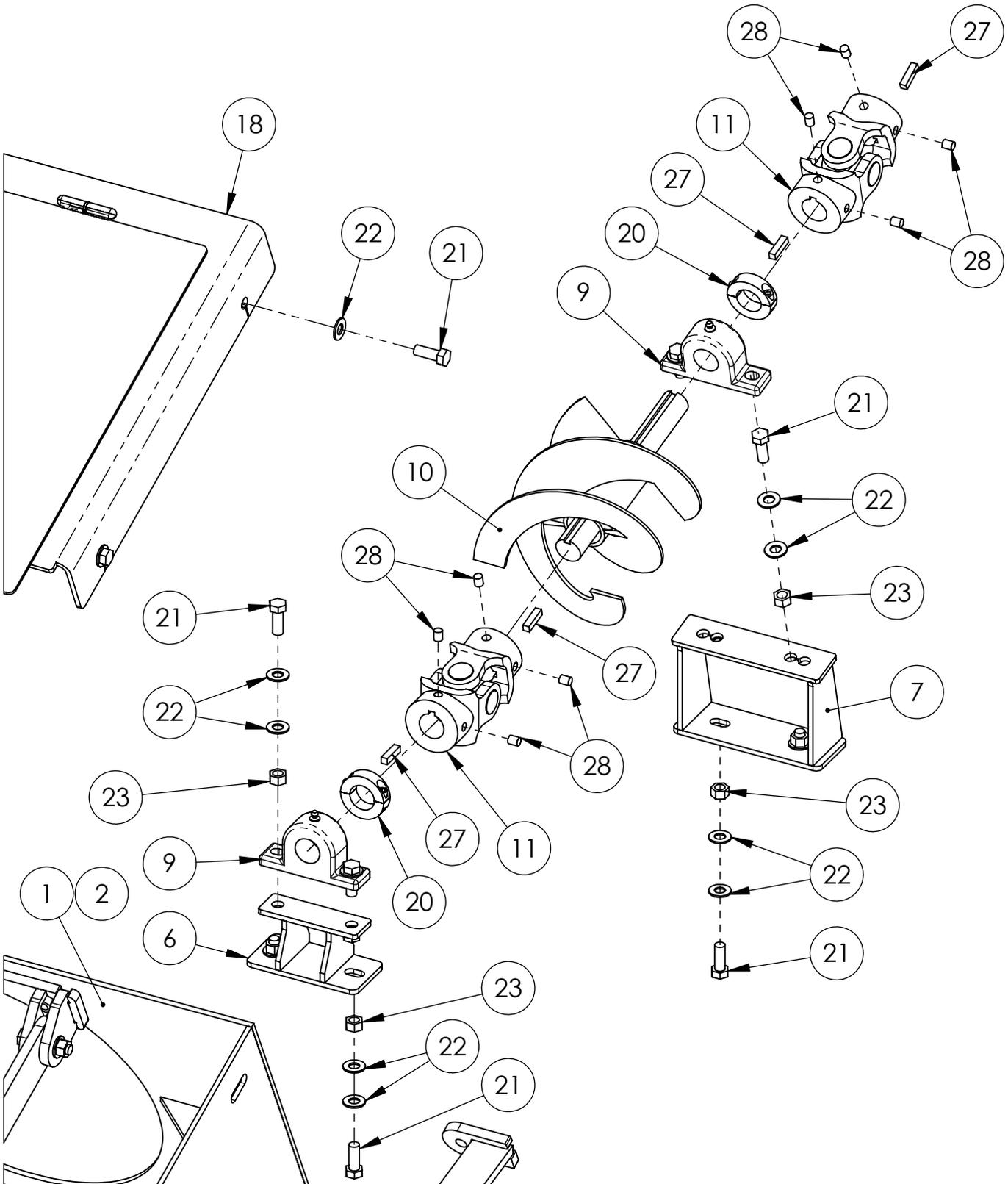
# Junction Box Assembly - 12860, 12271



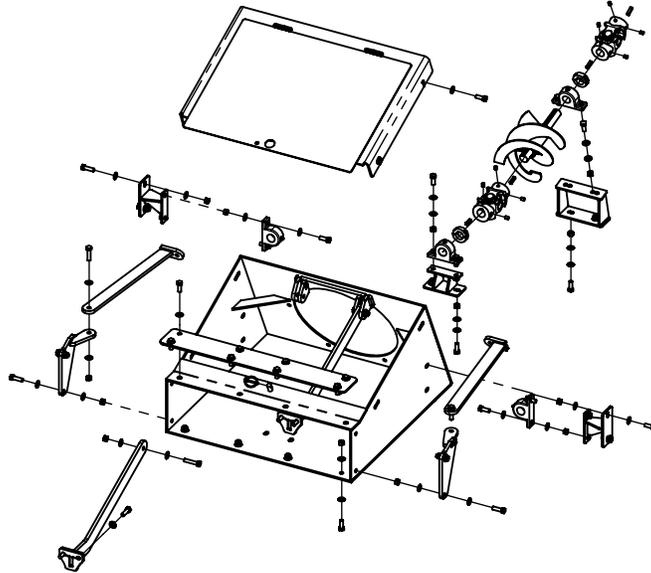
# Junction Box Assembly - 12860, 12271 (continued)



# Junction Box Assembly - 12860, 12271 (continued)

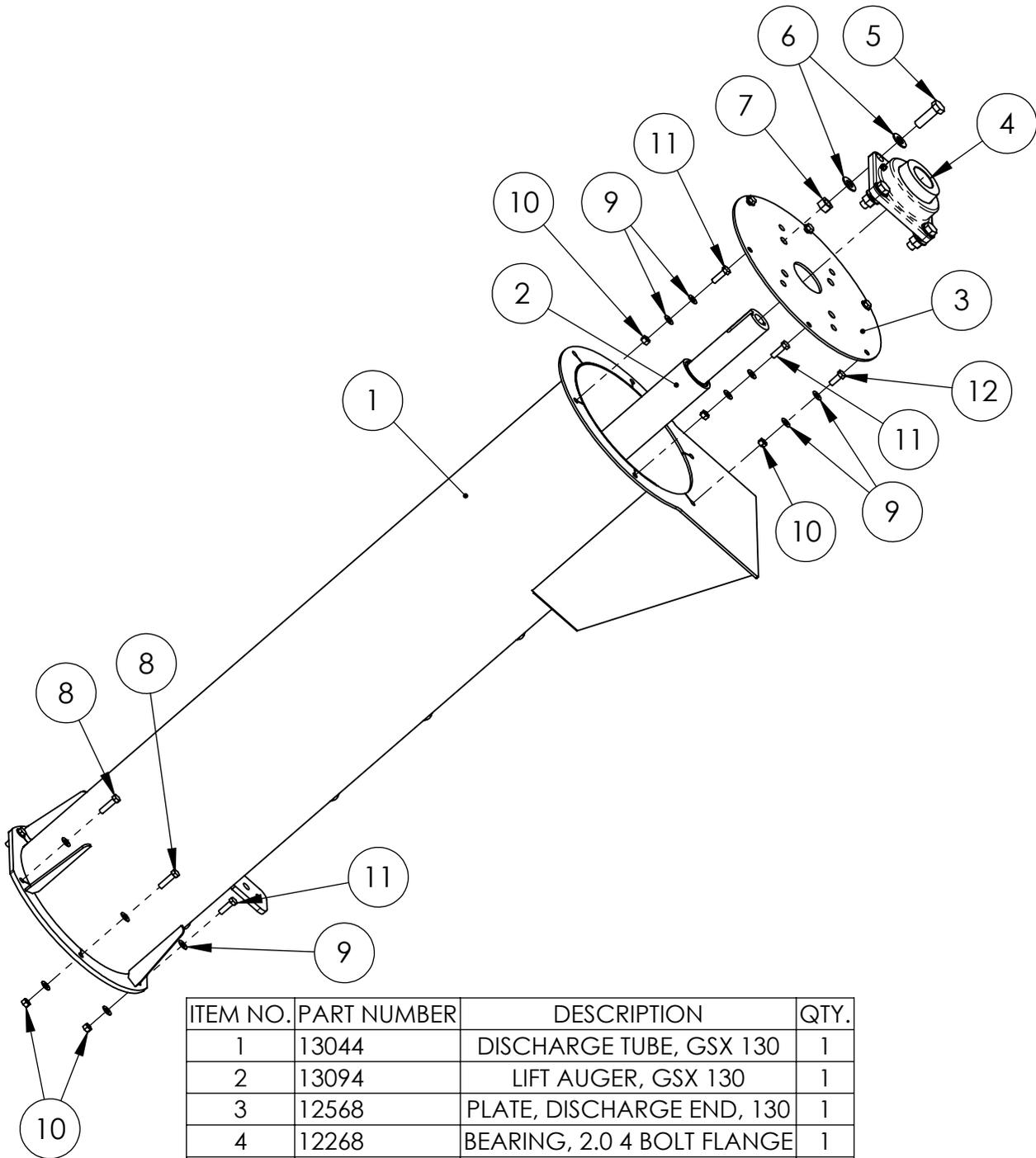


## Junction Box Assembly - 12860, 12271 (continued)



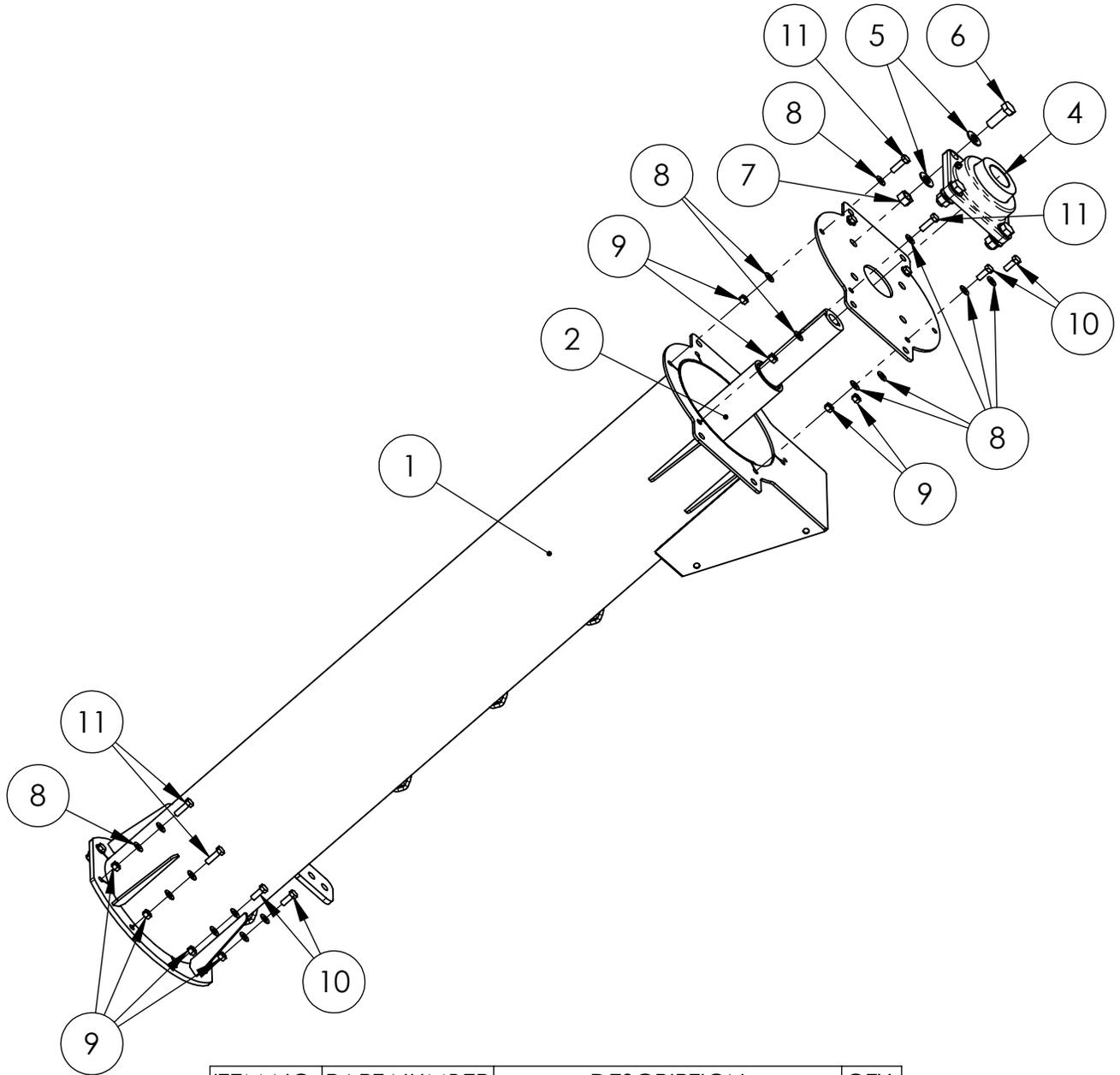
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	
1	12286	JUNCTION BOX, 13"	1	* GSX 130
2	12042	JUNCTION BOX, 10"	1	* GSX 100
3	12239	PLATE, BOX SUPPORT	1	
4	13293	BRACKET, LEFT SUPPORT	1	
5	13273	BRACKET, RIGHT SUPPORT	1	
6	12643	AUGER MOUNT, BOTTOM	1	
7	12646	BEARING MOUNT BRACKET	1	
8	12638	AUGER MOUNT, SIDE	2	
9	12655	BEARING, 1.0 BRONZE, ZERK 0	4	
10	11937	AUGER, 6" U-JOINT	1	
11	12266	U-JOINT ASSY, 1.0 X 1.0	2	
12	13258	AUGER SUPPORT BRKT, 130	1	* GSX 130
13	13270	AUGER SUPPORT BRKT, 100	1	* GSX 100
14	13297	BRACKET, RIGHT SUPPORT, 130	1	* GSX 130
15	13298	BRACKET, LEFT SUPPORT, 130	1	* GSX 130
16	13267	BRACKET, L/R SUPPORT, 100	2	* GSX 100
17	13267	AUGER SUPPORT BRACKET	2	
18	12674	JUNCTION BOX COVER	1	
19	10124	LYNCHPIN, 3/16	1	
20	13287	COLLAR, 1.0 ID, 2 PIECE SPLIT	2	
21	10112	BOLT, 3/8-16 X 1 GR8 ZY	30	
22	10110	WASHER, 3/8 SAE GR8 ZY	76	
23	10947	NUT, 3/8-16 SLTL GR8 ZY	32	
24	10113	BOLT, 3/8-16 X 1.25 GR8 ZY	10	
25	10135	BOLT, 3/8-16 X 1.75 GR8 ZY	2	
26	12257	BOLT, 3/8-16 X 1.5 GR8 ZY	2	
27	12279	KEYSTOCK, 1/4 X 1/4 X 1.0	4	
28	12393	SETSCREW, 5/16-18 X 3/8	8	

# Discharge Auger Assembly - GSX 130 - 13093



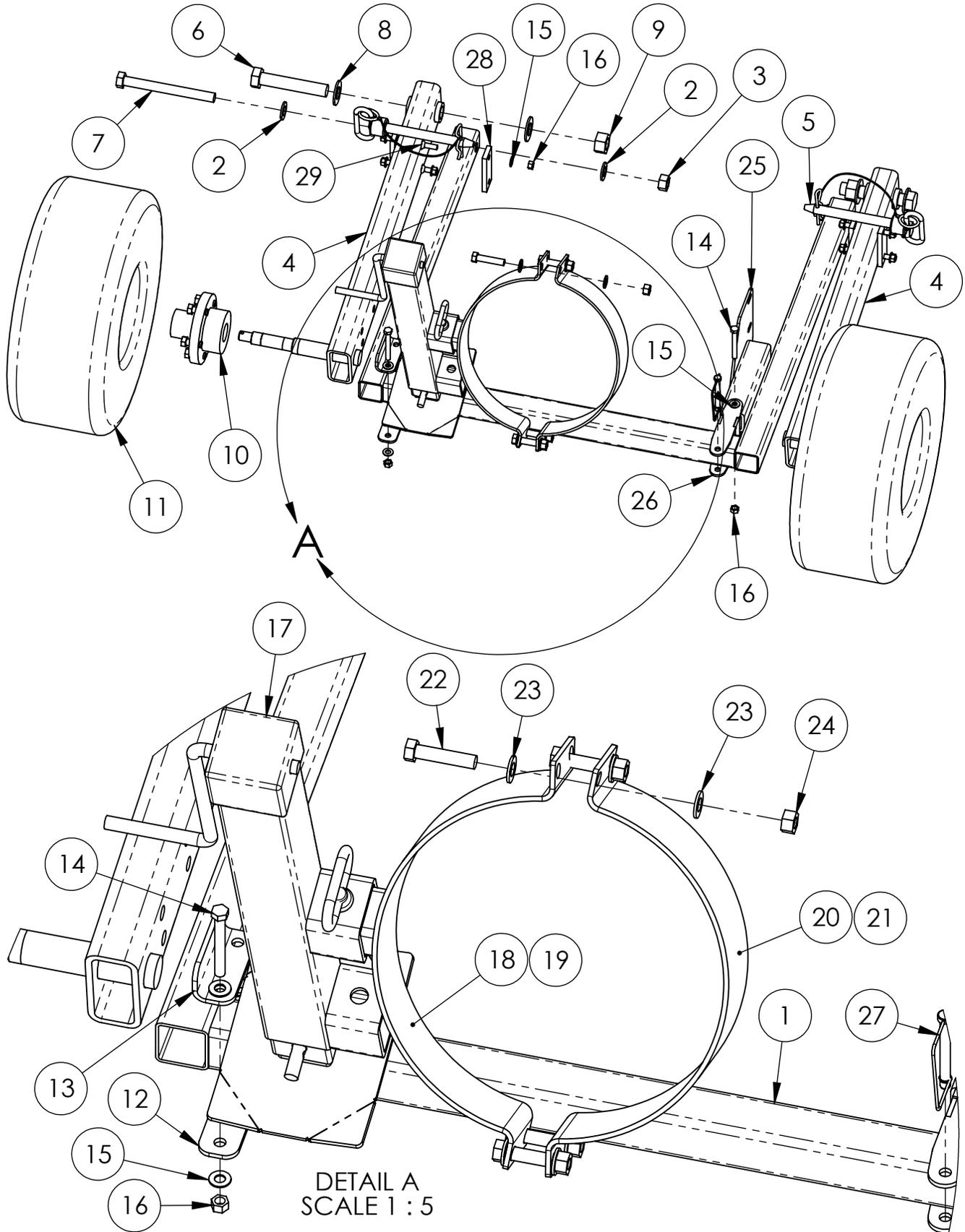
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	13044	DISCHARGE TUBE, GSX 130	1
2	13094	LIFT AUGER, GSX 130	1
3	12568	PLATE, DISCHARGE END, 130	1
4	12268	BEARING, 2.0 4 BOLT FLANGE	1
5	10886	BOLT, 5/8-11 X 2.0 GR8 ZY	4
6	10104	WASHER, 5/8 GR8 ZY	8
7	11122	NUT, 5/8-11 SLTL GR8 ZY	4
8	12257	BOLT, 3/8-16 X 1.5 GR8 ZY	4
9	10110	WASHER, 3/8 SAE GR8 ZY	22
10	10947	NUT, 3/8-16 SLTL GR8 ZY	10
11	10113	BOLT, 3/8-16 X 1.25 GR8 ZY	6
12	10112	BOLT, 3/8-16 X 1 GR8 ZY	2

## Discharge Auger Assembly - GSX 100 - 12654

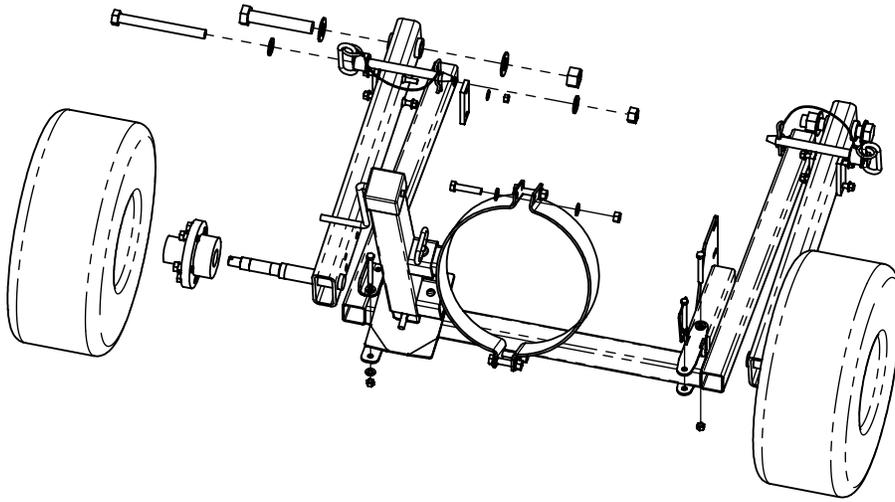


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12652	DISCHARGE TUBE, GSX 100	1
2	12034	LIFT AUGER, 9"	1
3	12653	PLATE, DISCHARGE END, 100	1
4	12268	BEARING, 2.0 4 BOLT FLANGE	1
5	10104	WASHER, 5/8 GR8 ZY	8
6	12258	BOLT, 5/8-11 X 1.75 GR8 ZY	4
7	11122	NUT, 5/8-11 SLTL GR8 ZY	4
8	10110	WASHER, 3/8 SAE GR8 ZY	28
9	10947	NUT, 3/8-16 SLTL GR8 ZY	14
10	10112	BOLT, 3/8-16 X 1 GR8 ZY	7
11	10113	BOLT, 3/8-16 X 1.25 GR8 ZY	7

# Transport Assembly - 12864, 12391



## Transport Assembly - 12864, 12391 (continued)

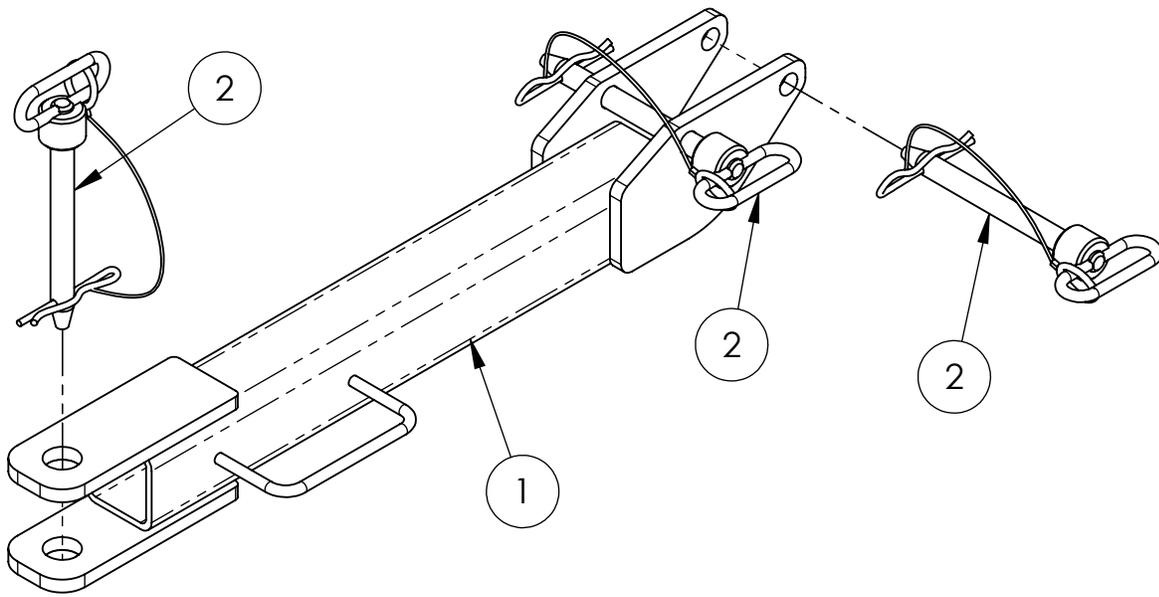


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12254	JACK STABILIZER BAR	1
2	10107	WASHER, 3/4 GR8 ZY	4
3	10106	NUT - 3/4-10 GR8 TL ZY	2
4	12390	GSX WHEEL MOUNT	2
5	12078	HITCHPIN & LANYARD .75 X 6.5	2
6	13017	BOLT, 1-8 X 5.5 GR8 ZY	2
7	12664	BOLT, 3/4-10 X 7.5 GR8 ZY	2
8	10679	WASHER, 1" SAE GR8 ZY	4
9	10678	NUT, 1-8 TL GR8 ZY	2
10	12301	WHEEL HUB ASSY, 5-BOLT	2
11	12302	WHEEL & TIRE COMBO 5-BOLT	2
12	12370	PLATE, BOLT MOUNT	1
13	12369	PLATE, JACK STOP	1
14	12389	BOLT, 3/8-16 X 3 GR8 ZY	3
15	10110	WASHER, 3/8 SAE GR8 ZY	14
16	10947	NUT, 3/8-16 SLTL GR8 ZY	11
17	14456	JACK, 8K SIDE WIND MOUNT	1
18	13095	JACK MOUNT, GSX 130, 12.75	1
19	12253	JACK MOUNT, GSX 100, 10.0	1
20	17157	AUGER BAND, GSX-130	1
21	17156	AUGER BAND, GSX-100	1
22	10397	BOLT, 1/2-13 X 2.25 GR8 ZY	4
23	10062	WASHER, 1/2 SAE GR8 ZY	8
24	10395	NUT, 1/2-13 GR8 HEX ZY	4
25	12576	BRACKET, LOCK PIVOT	1
26	12573	LOCK BRACKET	1
27	10122	PTO PIN, 3/8 X 3	1
28	12975	BAR, WHEEL TUBE SHIM	4
29	13006	CAP SCREW, 3/8-16 X 1.25 CTRSK	8

\* GSX 130  
 \* GSX 100  
 \* GSX 130  
 \* GSX 100

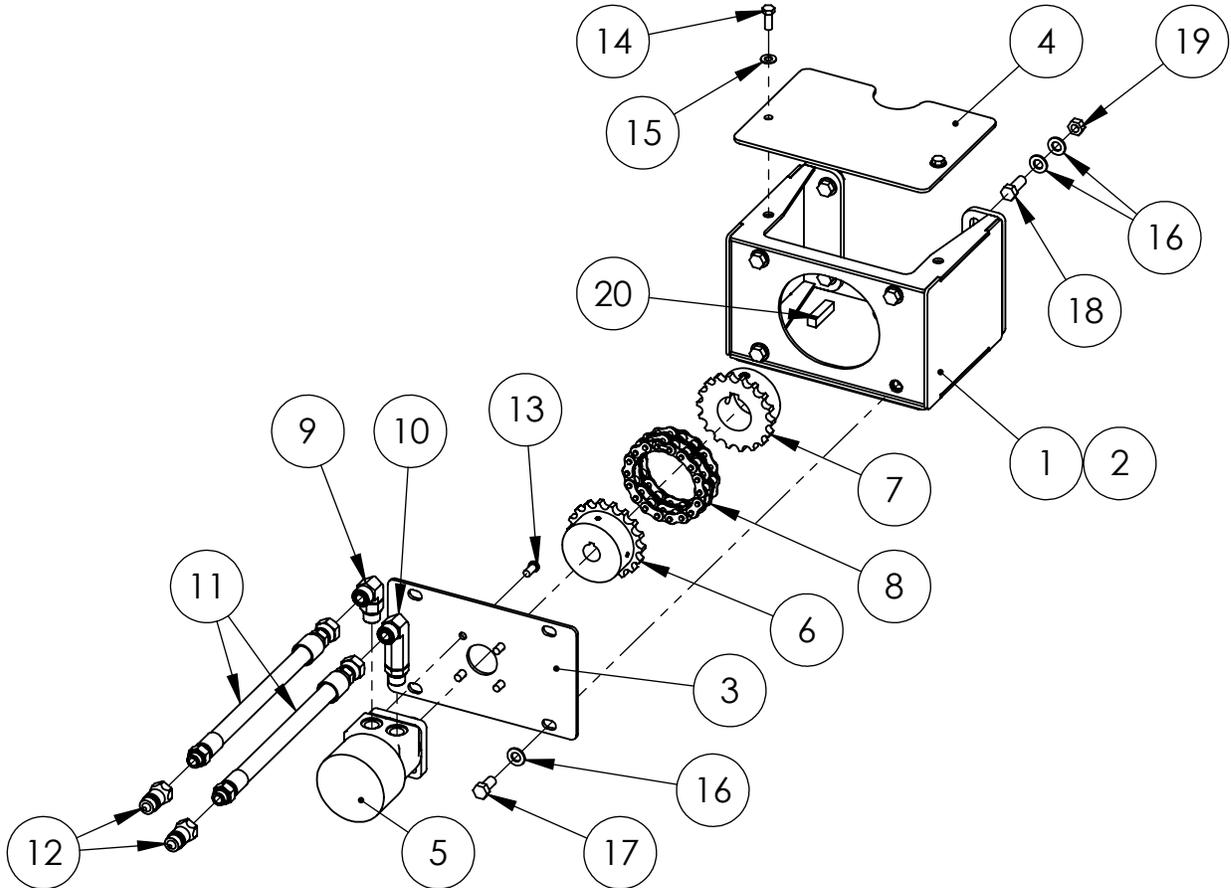
## Hitch Assembly - 12274

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	11906	HOPPER TONGUE	1
2	12078	HITCHPIN & LANYARD .75 X 6.5	3

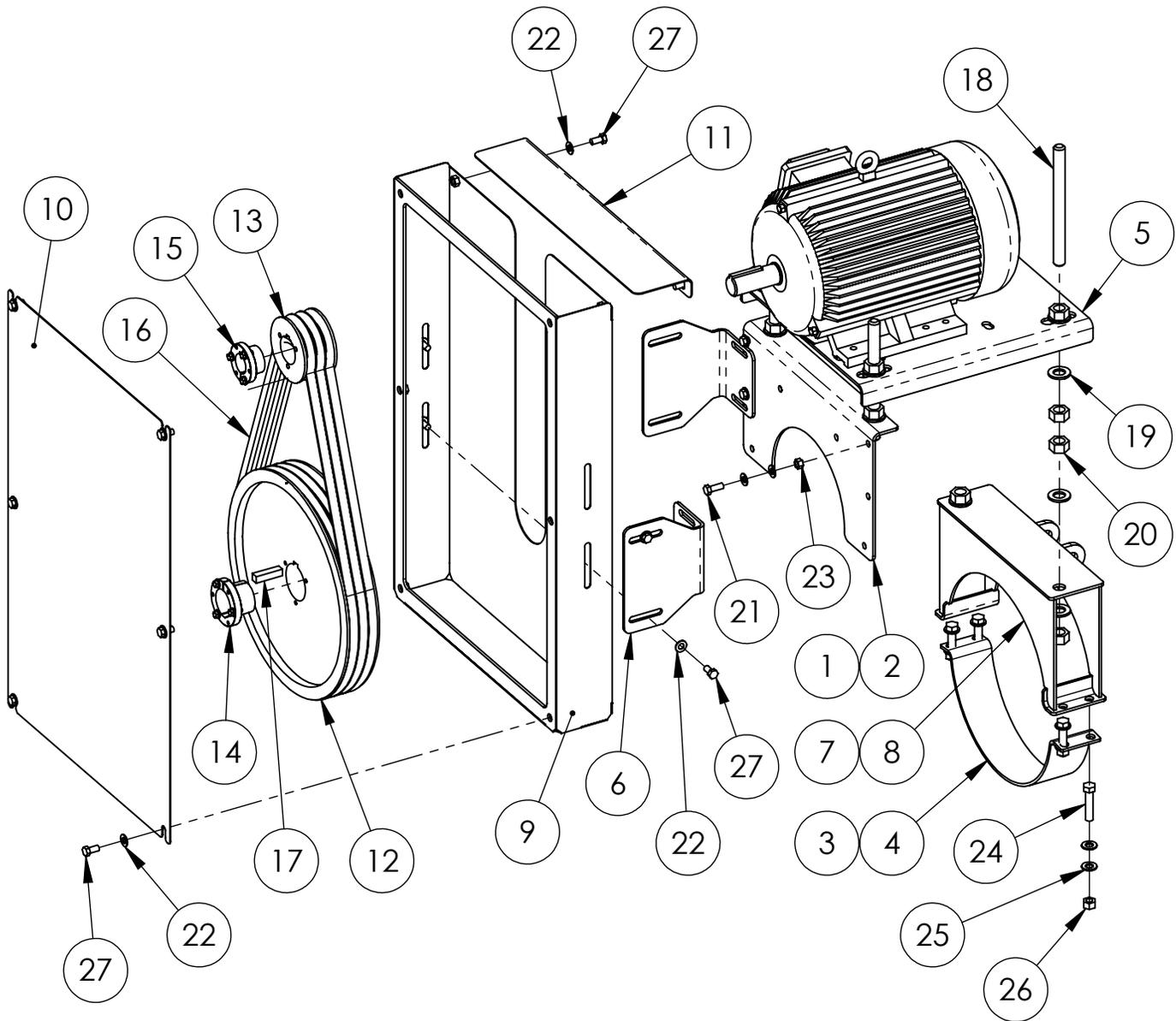
## Hydraulic Drive Assembly - 17905, 17935



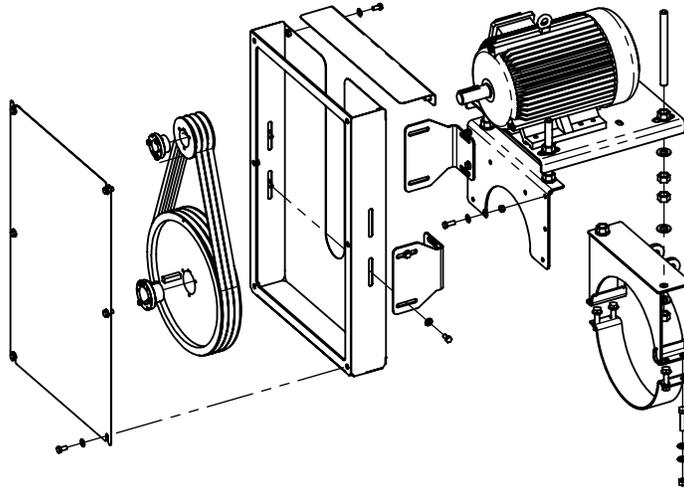
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	17899	MOTOR MOUNT, GSX-130	1
2	17934	MOTOR MOUNT, GSX-100	1
3	17906	PLATE, MOTOR MOUNT	1
4	17907	PLATE, SHAFT COVER	2
5	12265	HYD MOTOR, 8.8 CID	1
6	17717	SPROCKET, MOTOR SHAFT	1
7	14077	SPROCKET, LIFT COUPLER	1
8	14078	CHAIN, MOTOR COUPLER	1
9	13019	FITTING, 10M ORFS X 10M ORB 90	1
10	13052	FITTING, 10M ORFS X 10M ORB 90L	1
11	13018	HOSE, 5/8" X 240", 10F ST - 8M ST	2
12	10540	AG QUICK COUPLER, 8F ORB	2
13	17760	BOLT, 3/8-16 X 0.75" SH LP	4
14	10112	BOLT, 3/8-16 X 1 GR8 ZY	4
15	10110	WASHER, 3/8 SAE GR8 ZY	4
16	10062	WASHER, 1/2 SAE GR8 ZY	12
17	17079	BOLT, 1/2-13 X 1.0 GR8 ZY	4
18	10433	BOLT, 1/2-13 X 1.25 GR8 ZY	4
19	10396	NUT, 1/2-13, SLTL GR8 ZY	4
20	13325	KEYSTOCK, 1/2 X 1/2 X 2.0	1

\* GSX 130  
\* GSX 100

# Electric Drive Assembly (optional) - 16911, 16910



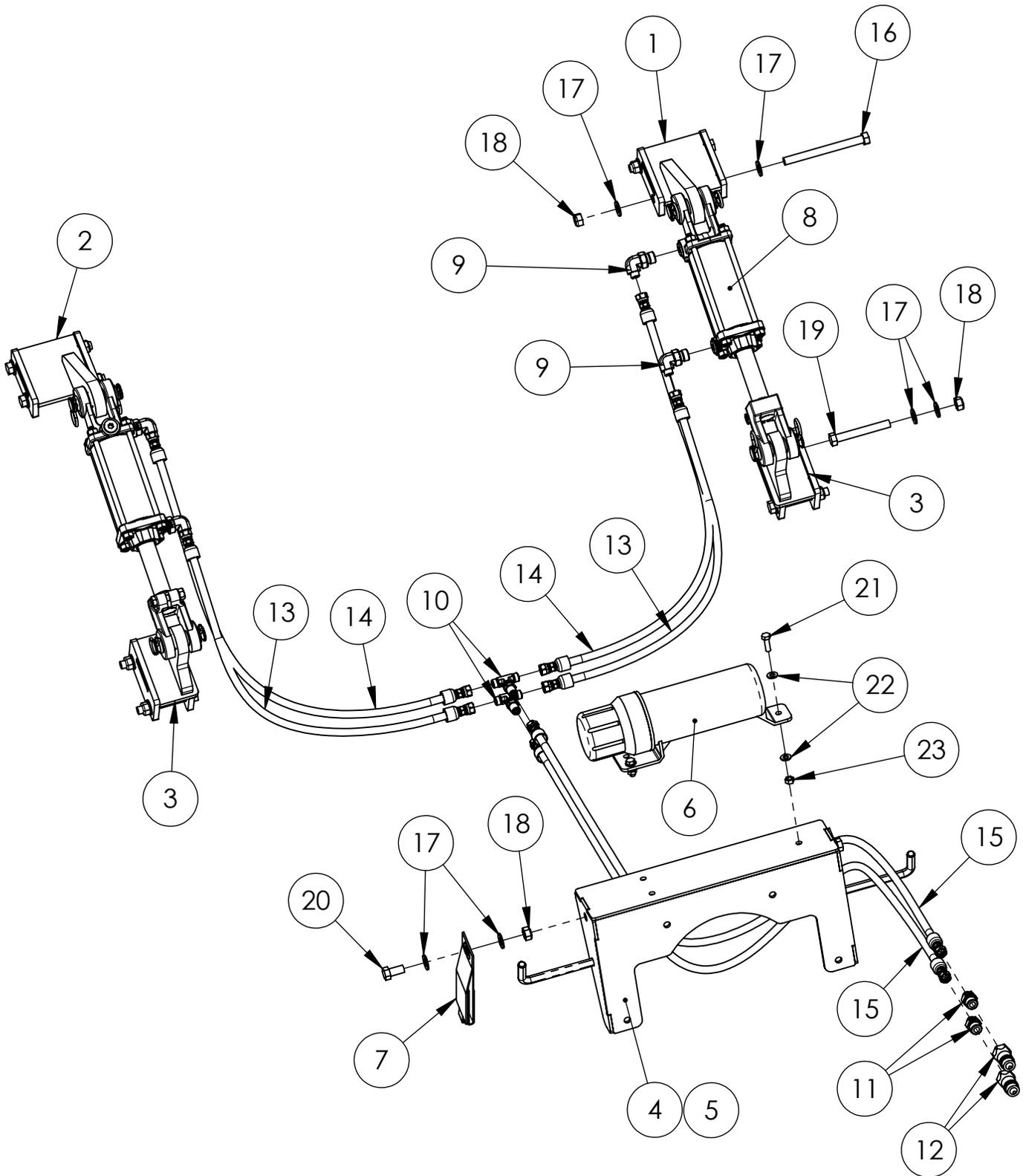
## Electric Drive Assembly (optional) - 16911, 16910 (continued)



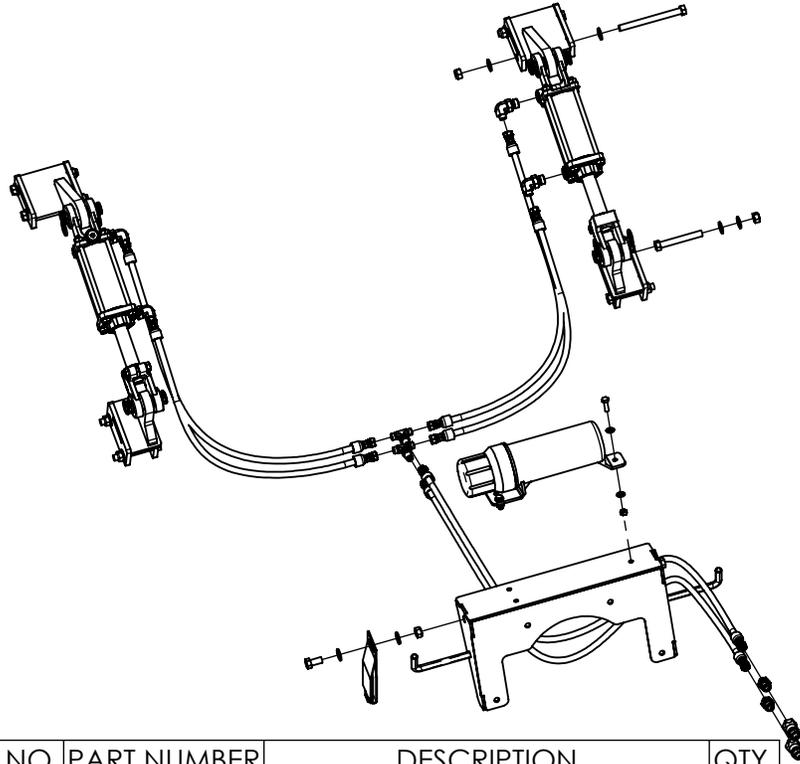
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	
1	12742	PLATE, 10" MOTOR MOUNT	1	* GSX 100
2	12744	PLATE, 13" MOTOR MOUNT	1	* GSX 130
3	17156	AUGER BAND, GSX-100	1	* GSX 100
4	17157	AUGER BAND, GSX-130	1	* GSX 130
5	12367	ELECTRIC MOTOR MOUNT	1	
6	12747	PLATE, BELT GUARD MOUNT	2	
7	13676	MOTOR MOUNT, GSX-100 ELEC	1	* GSX 100
8	13597	MOTOR MOUNT, GSX-130 ELEC	1	* GSX 130
9	16360	BELT COVER BASE	1	
10	16361	PLATE, COVER FRONT	1	
11	16362	PLATE, COVER TOP	1	
12	12397	SHEAVE, 15.4 PD, AB 3 GROOVE QD	1	**
13	12515	SHEAVE, 4.2 PD, AB 3 GROOVE QD	1	**
14	12517	QD BUSHING, SK 2.00 SHAFT	1	**
15	12399	QD BUSHING, SH 1.375 SHAFT	1	**
16	13636	V-BELT, BX66	3	**
17	13325	KEYSTOCK, 1/2 X 1/2 X 2.0	1	
18	12911	ALL THREAD, 3/4-10 X 9.0	4	
19	10107	WASHER, 3/4 GR8 ZY	16	
20	10632	NUT, 3/4-10 GR8 ZY	16	
21	10112	BOLT, 3/8-16 X 1 GR8 ZY	4	
22	10110	WASHER, 3/8 SAE GR8 ZY	20	
23	10947	NUT, 3/8-16 SLTL GR8 ZY	4	
24	10397	BOLT, 1/2-13 X 2.25 GR8 ZY	4	
25	10062	WASHER, 1/2 SAE GR8 ZY	8	
26	10395	NUT, 1/2-13 GR8 HEX ZY	4	
27	10114	BOLT, 3/8-16 X .75 GR8 ZY	12	

\*\* NOTE: SHEAVE SIZES CAN VARY DEPENDING ON DESIRED AUGER RPM. QD BUSHING SIZES CAN VARY DEPENDING ON MOTOR SHAFT DIAMETER. PLEASE CALL THE FACTORY BEFORE ORDERING SHEAVES, BUSHINGS OR BELTS. THE ELECTRIC MOTOR IS PROVIDED BY THE CUSTOMER.

# Hydraulic Lift Assembly - 17766, 17940, 17925



## Hydraulic Lift Assembly - 17766, 17940, 17925 (continued)



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12763	CYL MOUNT BRACKET, RIGHT	1
2	12428	CYL MOUNT BRACKET, LEFT	1
3	12431	CYLINDER MOUNT BRACKET	2
4	17755	HOSE HOOK BRKT, GSX-130	1
5	17941	HOSE HOOK BRKT, GSX-100	1
6	17291	OPERATORS MANUAL CANISTER	1
7	17924	STRAP, HD 17" VELCRO	2
8	12764	HYD CYL, 2.5 x 4 x 1.125	2
9	12765	FITTING, 4M ORFS X 8M ORB 90	4
10	17082	FITTING, 4ORFS BKHD BCH TEE	2
11	15407	FITTING, 4M ORFS X 8M ORB ST	2
12	10540	AG QUICK COUPLER, 8F ORB	2
13	13346	HOSE, 1/4" X 28", 4F ORFS ST	2
14	17761	HOSE, 1/4" X 36", 4F ORFS ST	2
15	17764	HOSE, 1/4" X 300", 4F ORFS ST	2
16	12524	BOLT, 1/2-13 X 5.5 GR8 ZY	4
17	10062	WASHER, 1/2 SAE GR8 ZY	20
18	10396	NUT, 1/2-13, SLTL GR8 ZY	10
19	11617	BOLT, 1/2-13 X 3.75 GR8 ZY	4
20	17079	BOLT, 1/2-13 X 1.0 GR8 ZY	2
21	17379	BOLT, 5/16-18 X 1.0" GR8 ZY	3
22	14697	WASHER, 5/16 GR8 ZY	6
23	14698	NUT, 5/16-18 GR8 ZY	3

\* GSX 130

\* GSX 100

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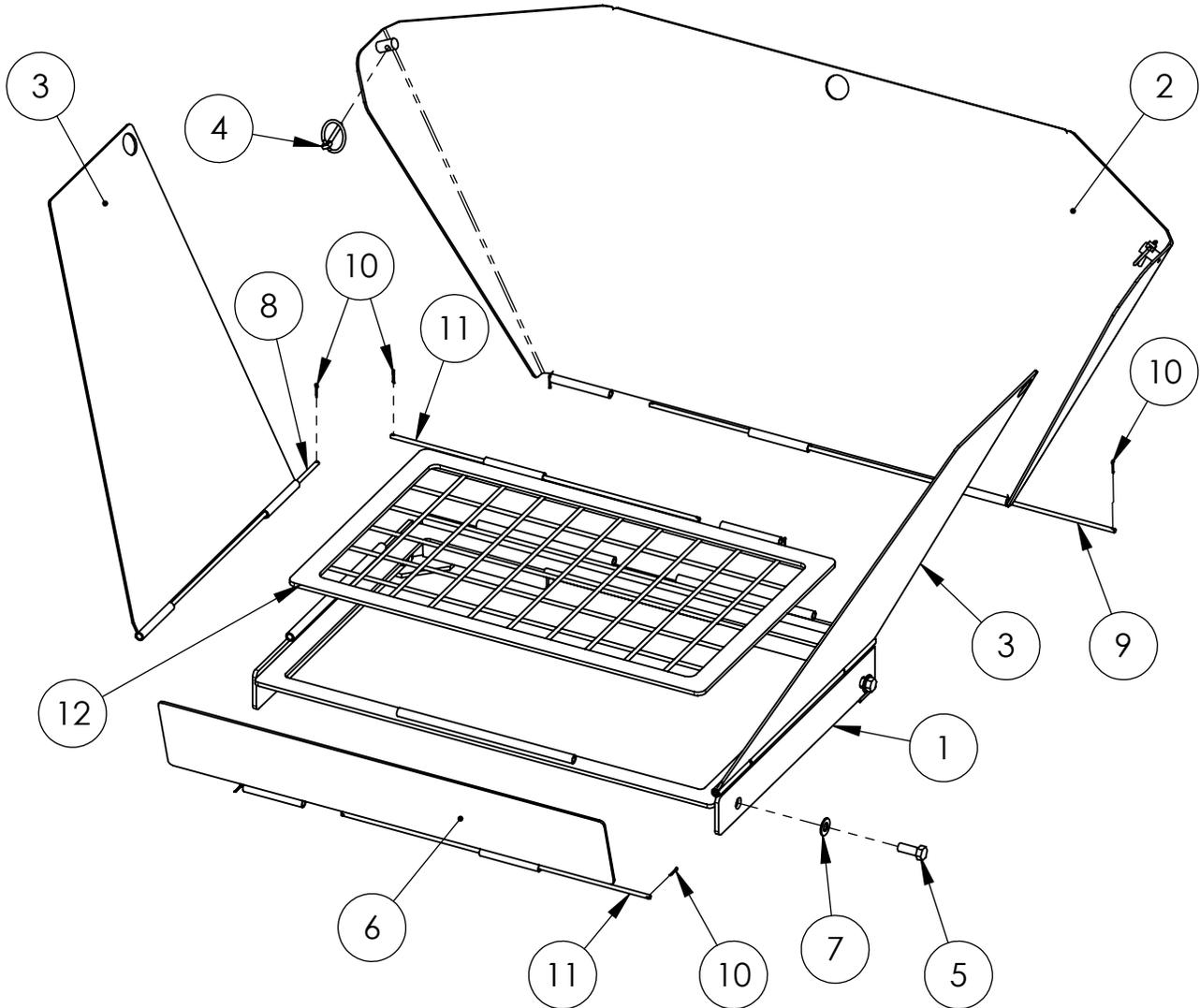
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\*\* NOTE: ITEMS ARE NOT INCLUDED ON MACHINES WITH ELECTRIC DRIVE ASSEMBLIES

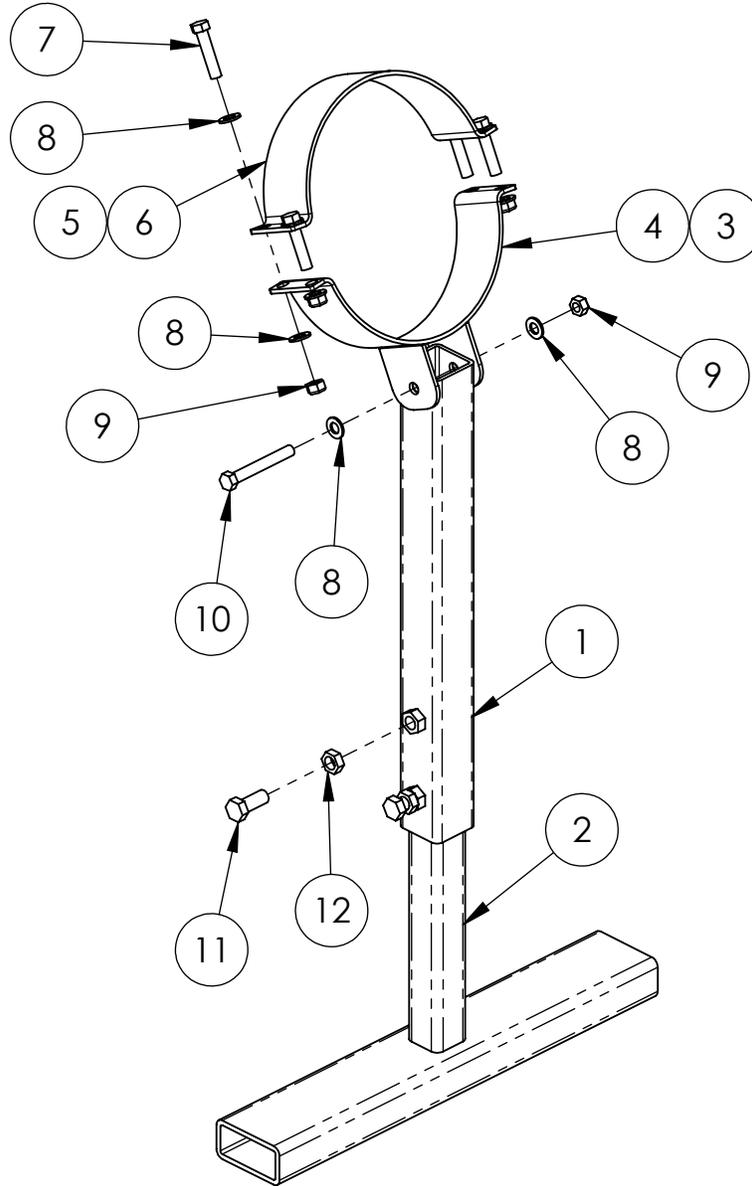
## Side Chute Assembly (optional) - 12861



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12058	SIDE HOPPER FRAME	1
2	12054	SIDE HOPPER BACK	1
3	12050	SIDE HOPPER PLATE	2
4	10124	LYNCHPIN, 3/16	2
5	10112	BOLT, 3/8-16 X 1 GR8 ZY	4
6	12374	SIDE CHUTE, FRONT	1
7	10110	WASHER, 3/8 SAE GR8 ZY	4
8	12376	PIN, SIDE HINGE	2
9	12377	PIN, TOP HINGE	1
10	12375	COTTER PIN, 1/16 X 1/2	8
11	12378	PIN, BOTTOM HINGE	2
12	12565	SIDE HOPPER GRATE	1

\* NOTE: SIDE CHUTE ASSEMBLY IS OPTIONAL,  
STANDARD UNITS HAVE JUNCTION BOX COVER, PART # 12674.

## Auger Stand Assembly, Small (optional) - 15941, 17345



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	13747	LEG, AUGER SUPPORT	1
2	13750	AUGER LEG BASE	1
3	13058	LEG MOUNT, 12.75 AUGER	1
4	17348	LEG MOUNT, 10 AUGER	1
5	17157	AUGER BAND, GSX-130	1
6	17156	AUGER BAND, GSX-100	1
7	10397	BOLT, 1/2-13 X 2.25 GR8 ZY	4
8	10062	WASHER, 1/2 SAE GR8 ZY	10
9	10396	NUT, 1/2-13, SLTL GR8 ZY	5
10	11617	BOLT, 1/2-13 X 3.75 GR8 ZY	1
11	11984	BOLT, 5/8 - 11 X 1.0 GR8 ZY	2
12	10608	NUT, 5/8-18 JAM, GR8 ZY	2

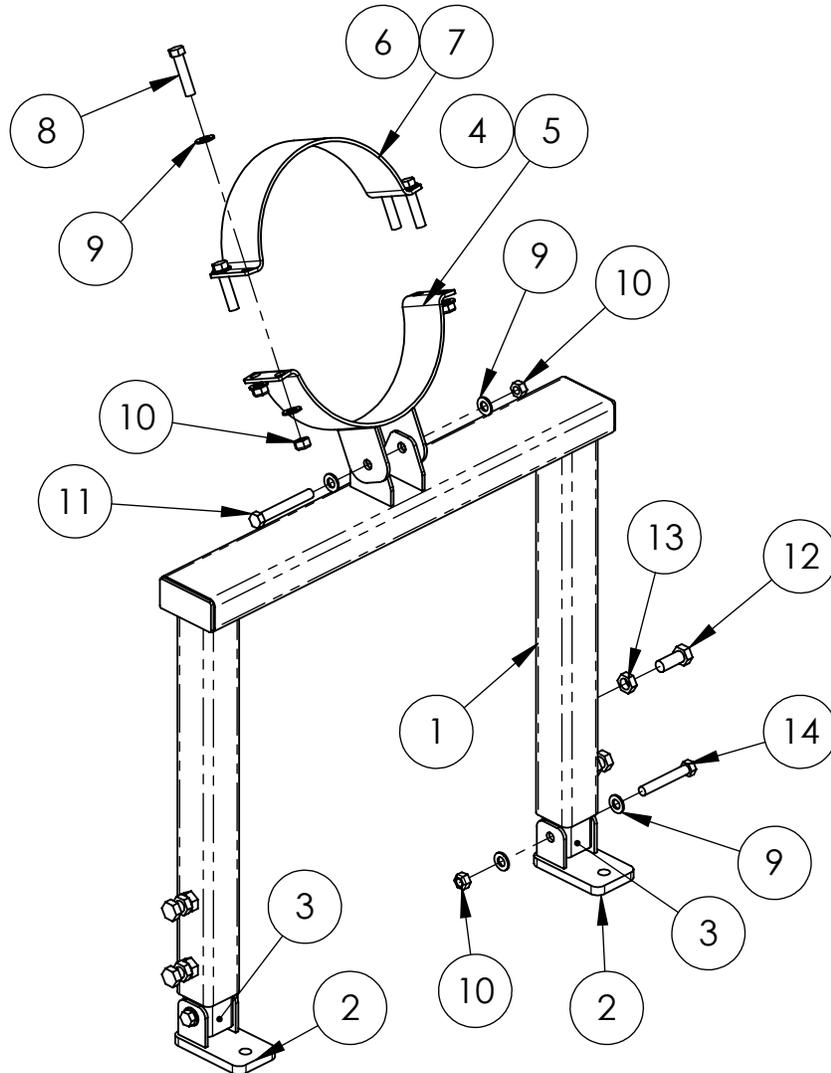
\* GSX 130

\* GSX 100

\* GSX 130

\* GSX 100

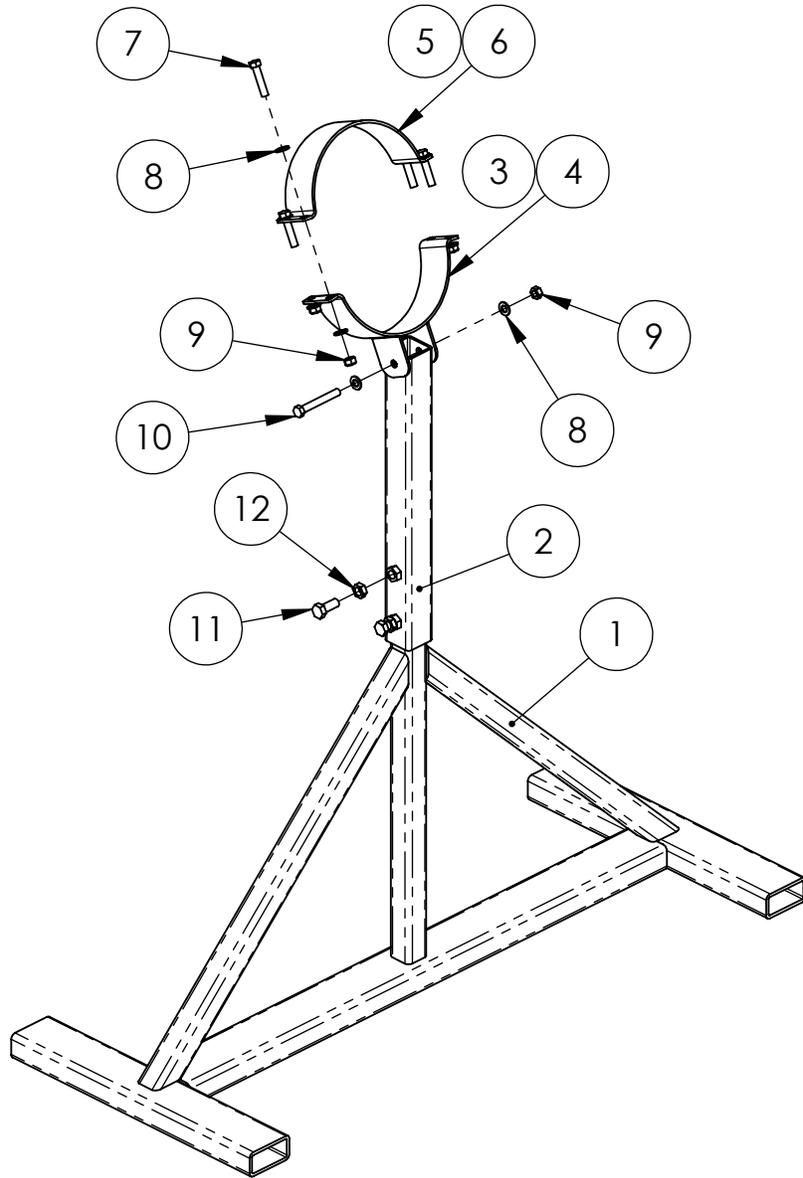
# Auger Stand Assembly, Two Legs (optional) - 16117, 17346



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	16098	AUGER STAND LEG SPLIT	1
2	16099	AUGER STAND FOOT	2
3	16115	TUBE, STAND EXTENSION	2
4	13058	LEG MOUNT, 12.75 AUGER	1
5	17348	LEG MOUNT, 10 AUGER	1
6	17157	AUGER BAND, GSX-130	1
7	17156	AUGER BAND, GSX-100	1
8	10397	BOLT, 1/2-13 X 2.25 GR8 ZY	4
9	10062	WASHER, 1/2 SAE GR8 ZY	14
10	10396	NUT, 1/2-13, SLTL GR8 ZY	7
11	11617	BOLT, 1/2-13 X 3.75 GR8 ZY	1
12	11984	BOLT, 5/8 - 11 X 1.0 GR8 ZY	4
13	10608	NUT, 5/8-18 JAM, GR8 ZY	4
14	14651	BOLT, 1/2-13 X 3.25 GR8 ZY	2

\* GSX 130  
 \* GSX 100  
 \* GSX 130  
 \* GSX 100

## Auger Stand Assembly, Large (optional) - 17349, 17347



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	14304	AUGER SUPPORT STAND	1
2	13747	LEG, AUGER SUPPORT	1
3	13058	LEG MOUNT, 12.75 AUGER	1
4	17348	LEG MOUNT, 10 AUGER	1
5	17157	AUGER BAND, GSX-130	1
6	17156	AUGER BAND, GSX-100	1
7	10397	BOLT, 1/2-13 X 2.25 GR8 ZY	4
8	10062	WASHER, 1/2 SAE GR8 ZY	10
9	10396	NUT, 1/2-13, SLTL GR8 ZY	5
10	11617	BOLT, 1/2-13 X 3.75 GR8 ZY	1
11	11984	BOLT, 5/8 - 11 X 1.0 GR8 ZY	2
12	10608	NUT, 5/8-18 JAM, GR8 ZY	2

\* GSX 130  
 \* GSX 100  
 \* GSX 130  
 \* GSX 100