OPERATOR'S MANUAL

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Rev.11.18.11

TO THE DEALER:

Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

The dealer must complete the Warranty Registration Card attached to the front inside cover of this manual and return to J. & M. Mfg. Co., Inc. at the address indicated on the card. **Warranty claims will be denied if the Warranty Registration Card has not been completed and returned.**

EXPRESS WARRANTY:

J. & M. Mfg. Co. Inc. warrants against defects in construction or materials for a period of ONE year. We reserve the right to inspect and decide whether material or construction was faulty or whether abuse or accident voids our guarantee.

Warranty service must be performed by a dealer or service center authorized by J. & M. Mfg. Co. Inc. to sell and/or service the type of product involved, which will use only new or remanufactured parts or components furnished by J. & M. Mfg. Co. Inc. Warranty service will be performed without charge to the purchaser for parts or labor based on the Warranty Labor Times schedule. Under no circumstance will allowable labor times extend beyond the maximum hours indicated in the Warranty Labor Times schedule for each warranty procedure. The purchaser will be responsible, however, for any service call and/or transportation of the product to and from the dealer or service center's place of business, for any premium charged for overtime labor requested by the purchaser, and for any service and/or maintenance not directly related to any defect covered under the warranty. Costs associated with equipment rental, product down time, or product disposal are not warrantable and will not be accepted under any circumstance.

Each warranty term begins on the date of product delivery to the purchaser. Under no circumstance will warranty be approved unless (i) the product warranty registration card (attached to the inside of the Operator's Manual) has been properly completed and submitted to the equipment manufacturer, and (ii) a warranty authorization number has been issued by the equipment manufacturer. This Warranty is effective only if the warranty registration card is returned within 30 days of purchase.

This warranty does not cover a component which fails, malfunctions or is damaged as a result of (i) improper modification or repair, (ii) accident, abuse or improper use, (iii) improper or insufficient maintenance, or (iv) normal wear or tear. This warranty does not cover products that are previously owned and extends solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. J. & M. Mfg. Co. Inc. makes no warranty, express or implied, with respect to tires or other parts or accessories not manufactured by J. & M. Mfg. Co. Inc. Warranties for these items, if any, are provided separately by their respective manufacturers.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

In no event shall J. & M. Mfg. Co. Inc. be liable for special, direct, incidental or consequential damages of any kind. The exclusive remedy under this Warranty shall be repair or replacement of the defective component at J. & M. Mfg. Co. Inc.'s option. This is the entire agreement between J. & M. Mfg. Co. Inc. and the Owner about warranty and no J. & M. Mfg. Co. Inc. employee or dealer is authorized to make any additional warranty on behalf of J. & M. Mfg. Co. Inc.

The manufacturer reserves the right to make product design and material changes at any time without notice. They shall not incur any obligation or liability to incorporate such changes and improvements in products previously sold to any customer, nor shall they be obligated or liable for the replacement of previously sold products with products or parts incorporating such changes.

SERVICE:

The equipment you have purchased has been carefully manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety signs on the equipment.

For service, your authorized J. & M. dealer has trained mechanics, genuine J. & M. service parts, and the necessary tools and equipment to handle all your needs.

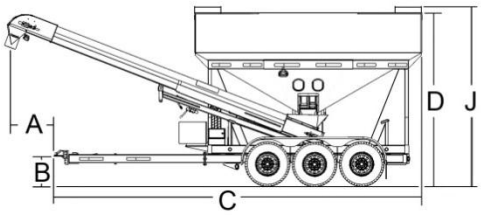
Use only genuine J. & M. service parts. Substitute parts may void the warranty and may not meet standard required for safe and satisfactory operating. Record the model number and serial number of your equipment in the spaces provided:

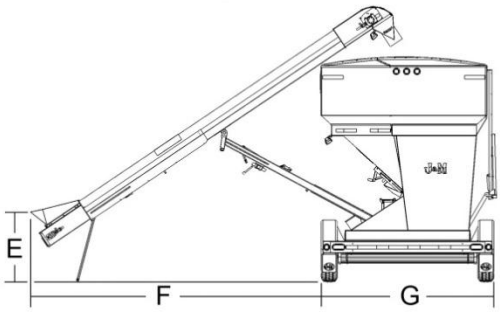
Serial #_____ Purchase Date: _____ Purchased From: _____

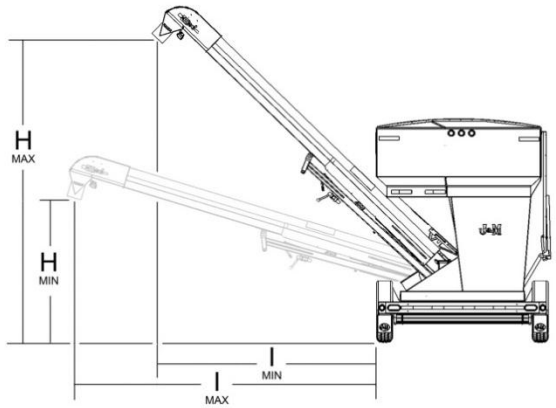
Please provide this information to your dealer to obtain the correct parts:

DIMENSIONS

	Model 375AU (with 8" poly cug auger)	Model 3758BC (with 8"tube conveyor)
A	2'-4 3/4"	1'-10 1/4"
B	1'-5 5/8" (min.)	1'-5 5/8" (min.)
	1'-9 5/8" (max.)	1'-9 5/8" (max.)
C	23'-1"	23'-1"
D	9'11- 1/2" (top of box)	9'11- 1/2" (top of box)
E	3'-3"	3'-3"
F	15'-10"	15'-10"
G	8'-6"	8'-6"
H	14'-8 1/4"(max)	12'-8" (max)
	6'-10" (min)	6'-8" (min)
I	14'-10 1/4" (max)	14'-7" (max)
	10'-10" (min)	10'-0" (min)
J	10'-7" (Overall Height)	10'-7" (Overall Height)







TO THE OWNER:

The purpose of this manual is to assist you in operating and maintaining your Speed Tender in a safe manner. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance and help maintain safe operating conditions. If this machine is used by an employee or is loaned or rented, make certain that the operator(s), prior to operating:

1. Is instructed in safe and proper use.
2. Review and understands the manual(s) pertaining to this machine.

Throughout this manual, the term **IMPORTANT** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING** and **DANGER** are used in conjunction with the Safety-Alert Symbol. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death.

⚠	This Safety-Alert symbol indicates a hazard and means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!
⚠ DANGER:	Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.
⚠ WARNING:	Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed.
⚠ CAUTION:	Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.
IMPORTANT:	Indicates that failure to observe can cause damage to equipment.
NOTE:	Indicates helpful information.

⚠ ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be erased by an operator's single careless act. In addition, hazard control and accident prevention are dependent upon the awareness, concern, judgment, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Make certain that the operator(s), prior to operating is instructed in safe and proper use and reviews and understands the manual(s) pertaining to this machine. Also make certain that the operator(s) reviews and understands the operator's manual of the tow vehicle prior to hooking up or operating of the Speed Tender.

Read this manual before you operate this machine. If you do not understand any part of this manual, or need more information, contact the manufacturer or your authorized dealer.

SAFETY

1. Understand that your safety and the safety of other persons are measured by how you service, and operate this machine. Know the positions and functions of all controls before you try to operate them. Make sure to check all controls in a safe area before starting your work.

2. The safety information given in this manual does not replace safety codes, federal, state or local laws. Make certain your machine has the proper equipment as designated by local laws and regulations.

3. A frequent cause of personal injury or death is from persons falling off equipment and being run over. Do not permit persons to ride on this machine.

4. Secure Speed Tender safety chain to towing vehicle before transporting. Do not transport without safety chains being attached to tow vehicle.

5. Make sure that the conveyor/auger is fastened securely to the boom arm, and the boom arm is resting on the boom arm support with lynch pin in place before transport.

6. Use good judgment when transporting Speed Tender on a highway. Maintain complete control at all times. Regulate speed to road conditions. Do not transport unit with rear compartment full and front compartment empty. The unit may not be properly balanced, offsetting the tongue weight of the Speed Tender.

7. When transporting on public roads, the conveyor must be in the forward position to meet with lighting and visibility marking requirements.

8. Do not travel faster than 10 M.P.H. during off highway travel. Drive slowly over rough ground, hillsides, and around curves to avoid tipping. Use extreme care when operating close to ditches, fences, or on hillsides.

9. Use care when moving or operating Speed Tender near electric lines as serious injury or death can result from contact.

10. Never adjust, service, clean, or lubricate Speed Tender until all power is shut off. Keep all safety shields in place.

11. Carbon monoxide can cause severe nausea, fainting or death. Do not operate engine in closed or confined work area.

12. Explosive fuel can cause fires and severe burns. Stop engine before filling fuel tank.

13. Hot parts can cause severe burns. Do not touch engine while operating or just after stopping.

14. Hydraulic oil leaking under pressure can penetrate skin and cause infection or other injury.

15. To prevent personal injury when working with hydraulic power unit:
    a. Relieve all pressure before disconnecting fluid lines.
    b. Before applying pressure, make sure all connections are tight and components are in good condition.
    c. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose.

16. Make sure that everyone is clear of equipment before applying power or moving the Speed Tender.

17. Before filling the Speed Tender, make certain that no one is inside the grain tanks. Never allow children or anyone in, near, or on the Speed Tender during transport or during loading and unloading of grain. Be aware that moving grain is dangerous and can cause entrapment, resulting in severe injury or death by suffocation.

18. Before unhooking the Speed Tender from the transport vehicle, be sure to properly block the wheels to prevent the Speed Tender from moving.

OPERATION 1

Section 1.1 PREPARING TOWING VEHICLE:

Before towing the Speed Tender, refer to towing vehicle's owner's manual for information concerning hitch capacities, hitch adjustments, and tire inflation.

Towing vehicle must be equipped with proper electric braking components.

NOTE: The Speed Tender is equipped with LED lights. The towing vehicle may require a flasher upgrade for lights to operate properly.

Do not exceed towing vehicles GVWR (Gross Vehicle Weight Rating) or GCWR (Gross Combination Wight Rating), or the maximum hitch load.

Section 1.2 PREPARING SPEED TENDER:

HYDRAULICS:
Check routing of all hydraulic hoses. Hoses should not be kinked, twisted or rubbing against sharp edges.

Check all hoses and fittings for hydraulic leaks. Tighten and /or repair or replace as required.

LUBRICATION:
Lubricate Speed Tender as outlined in Service section.

Refer to engine manual for proper fluid levels in engine.

TIRES/WHEELS:
Check tire pressures and maintain at recommended operating pressure. It is important to check wheel nut/bolts for proper torque as recommended. You can find proper tire pressure and wheel torque located in service manual section.

Section 1.3 CONNECTING SPEED TENDER TO TOWING VEHICLE:

<u>WARNING:</u> Do not stand between the Speed Tender and tow vehicle when hooking up.

<u>NOTE:</u> The Speed Tender comes standard with a 2 5/16" ball coupler and has an optional 3" lunette eye.

1. Back tow vehicle up to Speed Tender.
2. Align the vehicle's ball or lunette eye with the coupler or ring on the Speed Tender.
3. Lift tongue latch lever.
4. Lower jack to set Speed Tender coupler down on ball or lunette eye hook.
5. Latch coupler and insert pin. Check to make sure that coupler is securely latched.
6. Pivot jack to transport position and pin in place.
7. Attach 7-way plug to tow vehicle. Check the length of the Speed Tender 7-way to make sure that it is long enough to turn, but not too long to touch the ground.

<u>NOTE:</u> Check to make sure that lights are in proper operating condition and repair or replace if necessary.

8. Connect the brake breakaway cable to towing vehicle.
9. Attach safety chains to tow vehicle by crossing chains (See figure 1.1). Allow enough slack in chains necessary for turning.

<u>WARNING:</u> Check safety chains for broken, stretched or damaged link or end fittings. Replace chains if found to be damaged. Do not weld safety chains.

Figure 1.1

Section 1.4 TRANSPORTING:

NOTE: Make sure the jack is in the horizontal position before transporting.

NOTE: Check to make sure the boom arm is in the boom rest and the lynch pin is in place with the conveyor/auger ratchet strap securely fastened.

NOTE: Make sure that the collapsible hopper is in the up position.

When transporting the Speed Tender on public roads, it is recommended to have the boom in the forward facing position. The rearward facing position may not comply with state law for lighting and marking requirements.

⚠ **WARNING: Travel at a safe speed that allows you to maintain complete control of towing vehicle and Speed Tender at all times.**

Section 1.5 HYDRAULIC POWER UNIT OPERATION:

⚠ **WARNING: Explosive fuel can cause fires and severe burns. Stop engine before filling fuel tank.**

⚠ **WARNING: Carbon monoxide can cause severe nausea, fainting or death. Do not operate engine in an enclosed or confined area.**

⚠ **WARNING: Hot parts can cause severe burns. Do not touch engine while operating or just after stopping.**

⚠ **WARNING: Gas from battery can cause fires and severe acid burns. Make sure to charge battery in well-ventilated area.**

⚠ **WARNING: Make sure to relieve hydraulic pressure before working on hydraulic system.**

⚠ **WARNING: Purge hydraulic system of air before operation Speed Tender to prevent serious injury or death.**

⚠ **WARNING: Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.**

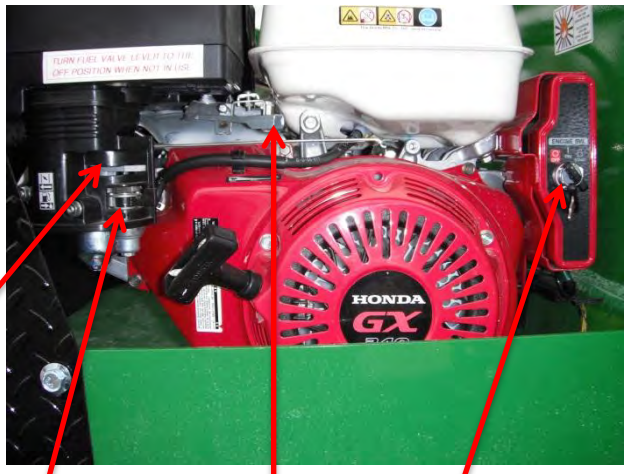
NOTE: When engine is not running, slide the fuel shutoff to the "OFF" position.

1. Check to make sure all fittings and hardware are in proper operating condition. Replace if worn or broken. Check engine fluid levels and sight gauge on reservoir for proper operating levels.
2. Slide the fuel shut-off lever to the "ON" position (See figure 1.2).
3. Slide Choke lever to the "ON" position (See figure 1.2).
4. Turn the key to the start position. Once engine starts, release key (See figure 1.2).
5. After starting, allow the engine to warm-up. Slide choke to the "OFF" position, and increase throttle speed (See figure 1.2).

NOTE: In extremely cold weather, it is best to allow engine and hydraulics to warm-up before increasing throttle speed.

NOTE: If hydraulic leak appears, turn off immediately and take appropriate action.

NOTE: See Engine manual for more details on upkeep and service.



Choke Fuel shut-off Throttle Key Figure1.2

Section 1.6 FIELD OPERATION:

⚠ **WARNING: The Speed Tender must be hooked to the towing vehicle during loading and unloading.**

1. Position the Speed Tender next to the planter/drill so the conveyor/auger will reach the planter box.
2. Remove lynch pin from boom arm pin (See figure 1.3).
3. Start the hydraulic power unit and increase throttle speed. (Allow hydraulic fluid to warm-up.)(See Figure 1.2).
4. Operate hydraulic lever to raise boom out of boom rest (See figure 1.3).

NOTE: The deluxe option is not equipped with a hydraulic lever. The yellow remote controls the up and down movement of the boom arm (See figure 1.6).

5. Move the boom lock handle to the unlock position. This will allow the boom to swing side to side (See figure 1.3).

⚠ **WARNING: If you are parked on an incline the boom arm may swing freely. (It is advised that you do not use the Speed Tender on uneven ground).**

6. When conveyor/auger is located in desired position slide the boom lock handle to the lock position.
7. Check to make sure the hopper is in the up position (See figure 1.4)

Figure 1.3

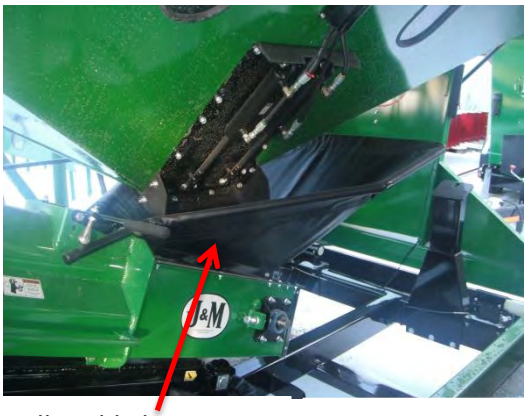


Figure 1.4

Figure 1.5

8. Open door on Speed Tender with manual hand wheel (See figure 1.7).

NOTE: The deluxe option handheld control operates the opening and closing of the doors (See figure 1.6).

WARNING: Empty-out the rear compartment first to help prevent the chance of flipping the Speed Tender.

9. Use the hand held controller to start the conveyor/auger.
10. Fill the planter/drill to desired level then repeat.

NOTE: Adjusting engine throttle will regulate conveyor/auger speed.

11. Close door on Speed Tender before the last planter seed box is full so you can completely empty-out collapsible hopper and conveyor/auger.
10. Move the boom lock handle to the unlock position (See figure 1.3).

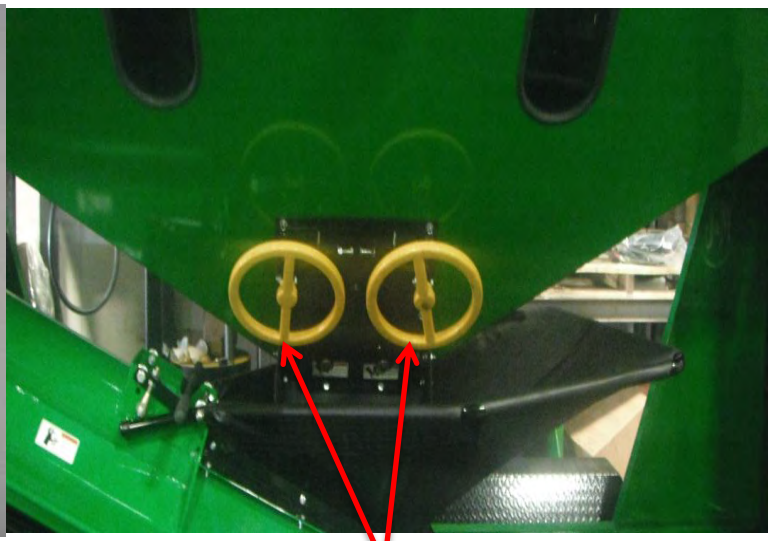
⚠ **CAUTION: If you are parked on an incline the boom arm may swing freely. (It is advised that you do not use the Speed Tender on uneven ground).**

11. Position boom above boom rest and lower to allow its full weight on the boom rest.
12. Replace lynch pin in boom pin.
13. Move the boom locking handle to lock position.
14. Make sure that the conveyor/auger hold down ratchet strap is tight enough that the conveyor auger will not move during transportation.
15. Make sure the collapsible hopper is in the up position for storage (See figure 1.4).

NOTE: This will help the water drain out of the hopper, if you are not using an optional hopper cover.

16. Slide the fuel shut off lever to the "OFF" position. This will allow the engine to shutoff by running out of gas.
17. Turn the key to the "OFF" position.

Key fob Deluxe hand control Figure 1.6



Manual hand wheel Figure 1.7

Section 1.7 FILLING SPEED TENDER FROM ANOTHER WAGON OR BULK CONTAINER:

WARNING: The Speed Tender must be hooked to the towing vehicle during loading and unloading.

1. Remove lynch pin from boom arm pin (See figure 1.3).
2. Start the hydraulic power unit and increase throttle speed. (Allow hydraulic fluid to warm up if it is cold outside). (See Figure1:3).

⚠ **NOTE: Make sure collapsible hopper is in the down position (See figure 1.5).**

3. Operate hydraulic lever to raise boom out of boom rest (See figure 1.3).

NOTE: The deluxe option is not equipped with a hydraulic lever. The yellow remote controls the up and down movement of the boom arm.

4. Move the boom lock handle to the unlock position. This will allow the boom to swing (See figure 1.3).

CAUTION: If you are parked on an incline, the boom arm may swing freely. (It is advised that you do not use Speed Tender on uneven ground)

5. Rotate the conveyor/auger to 45 deg. (See figure 1.8)

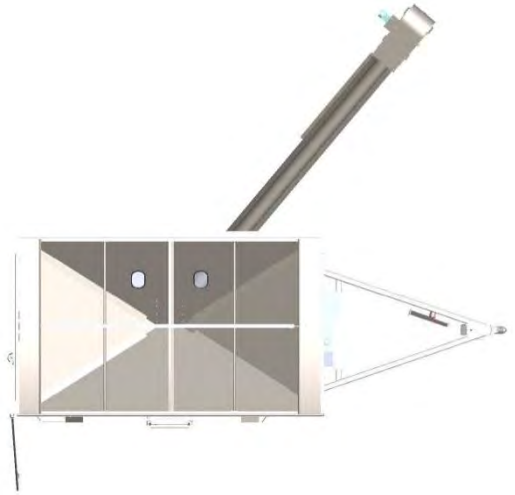


Figure 1.8

6. Lower the boom so you can remove the telescoping spout from the discharge end of the conveyor/auger.
7. Undo the conveyor/auger hold down ratchet strap (See figure 1.3).
8. Swing the collapsible hopper end out from under the Speed Tender shell.
9. Position the discharge end over the Speed Tender.

NOTE: The conveyor/auger is equipped with a stand (See figure 1.9). (It is recommended for use whenever possible to maximize conveyor performance and for easier access to discharge point on bulk seed containers).

Conveyor/auger stand

Figure 1.9

10. Lock collapsible hopper in the up position (See figure 1.4).
11. Position the wagon or bulk seed container over the collapsible hopper.

12. Use the handheld controller to start the conveyor/auger.
13. Fill the Speed Tender to desired level.

⚠ **WARNING: Fill the front compartment first to help prevent the chance of flipping.**

14. Run the conveyor/auger until the collapsible hopper is empty.
15. When finished loading seed into the Speed Tender, move the wagon or bulk seed container away from conveyor/auger.
16. Place collapsible hopper in the down position (See figure 1.5).
17. With the boom arm at a 45 deg. Swing the conveyor/auger back into the resting position on the boom arm (See figure 1.8)
18. Place the conveyor/auger hold down ratchet strap around the conveyor/augur and tighten the strap (See figure 1.3).
19. Move the boom locking handle to the unlock position (See figure 1.3).

⚠ **CAUTION: If you are parked on an incline, the boom arm may swing freely. (It is advised that you do not use the Speed Tender on uneven ground.)**

20. Position boom arm above the boom rest and lower to allow its full weight on the boom rest.
21. Replace lynch pin in boom arm pin.
22. Move the boom lock handle to the lock position.
23. Make sure that the conveyor/auger hold down ratchet strap is tight enough that the conveyor/auger will not move during transport**.**
24. Make sure the collapsible hopper is in the up position for storage (See figure 1.4).

NOTE: This will help the water drain out of the hopper, if you are not using an optional hopper cover.

25. Slide the fuel shut off lever to the “OFF” position. This will allow the engine to shutoff by running out of gas.
26. Turn the key to the “OFF” position.

Section 1.8 CLEANING OUT COLLAPSIBLE HOPPER AND CONVEYOR/AUGER:

⚠ **WARNING: The Speed Tender must be hooked to the towing vehicle during loading and unloading.**

1. Remove lynch pin from boom arm pin (See figure 1.3).
2. Start the hydraulic power unit and increase throttle speed. (Allow hydraulic fluid to warm up if it is cold outside). (See figure 1.3).

NOTE: Make sure collapsible hopper is in the down position (See figure 1.5).

3. Operate hydraulic lever to raise boom out of boom rest (See figure 1.3).

NOTE: The deluxe option is not equipped with a hydraulic lever. The yellow remote controls the up and down movement of the boom arm.

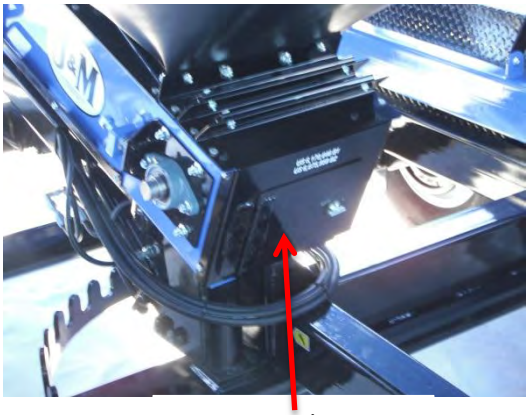
4. Move the boom lock handle to the unlock position. This will allow the boom to swing (See figure 1.3).

⚠ **CAUTION: If you are parked on an incline, the boom arm may swing freely. (It is advised that you do not use Speed Tender on uneven ground).**

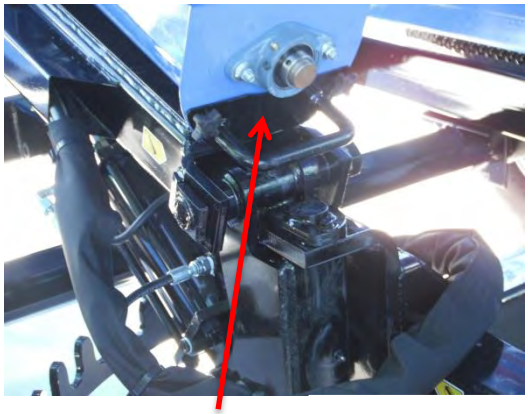
5. Rotate the conveyor/auger to 45 deg. (See figure 1.8)

6. Lower the boom so you can remove the telescoping spout from the discharge end of the conveyor/auger.
7. Undo the conveyor/auger hold down ratchet strap (See figure 1.3).
8. Swing the collapsible hopper end out from under the Speed Tender shell.
9. Move the boom lock handle to the lock position.
10. Place the collapsible hopper in the up position (See figure 1.4)
11. With the discharge end lower than the collapsible hopper end, place the discharge end into a 5 Gal. bucket (See figure 1.10). Using the hand held controller, start the conveyor/auger and run until completely empty.
12. Lower the collapsible hopper end back down to the ground. This will allow you to open the clean-out door. (See figure 1.11)

Figure 1.10



Conveyor clean-out door



Auger clean-out door

Figure 1.11

13. Place collapsible hopper in the down position (See figure 1.5).
14. Move the boom lock handle to the unlock position (See figure 1.3).

CAUTION: If you are parked on an incline, the boom arm may swing freely. (It is advised that you do not use Speed Tender on uneven ground).

15. With the boom arm at a 45 deg. Swing the conveyor/auger back into the resting position on the boom arm (See figure 1.8)
16. Swing the conveyor/auger back into the resting position on the boom arm.
17. Place the conveyor/auger hold down ratchet strap around the conveyor/auger and tighten the strap (See figure 1.3).
18. Position boom arm above boom rest, and lower to allow its full weight on the boom rest.
19. Replace lynch pin in boom pin.
20. Move the boom lock handle to the lock position.
21. Make sure that the conveyor/auger hold down ratchet strap is tight enough that the conveyor/auger will not move during transpiration**.**
22. Make sure the collapsible hopper is in the up position for storage (See figure 1.5).

NOTE: This will help the water drain out of the hopper.

23. Slide the fuel shut off lever to the "OFF" position. This will allow the engine to shutoff by running out of gas.
24. Turn the key to the "OFF" position.

Section 1.9 ADJUSTING TARP TENSION:

1. With the tarp fully unrolled as (See figure 1.12)
2. Remove the two bolts that hold the tarp u-joint in place.
3. Remove the u-joint from the spline shaft.
4. Rotate u-joint and handle three or four spline teeth.
5. Slide the u-joint and handle back onto the spline shaft
6. Replace and tighten the two bolts.

Figure 1.12

Section 1.10 BASIC SCALE OPERATION:

1. Turn the scale “ON” by pressing the on/off button. The display shows “Hello” then the current weight value is displayed.
2. Press G/N to access the gross mode. (Live scale weight is displayed in the G/N weighting mode.)
3. In the gross mode, press the ZERO/CLEAR key to zero the indicator when the Speed Tender is empty.
4. After initial amount is placed on the scale, press the TARE Key. (Weight is tarred off and goes into net mode, showing weight).
5. Load or unload material as needed (Shows + when loading and a – value when unloading).
6. When the display reaches the proper amount, stop loading or unloading.
7. Repeat steps 2 through 4 until complete.

   NOTE: For more information, refer to the scale manual.

SERVICE

Section 2.1 GREASE CONVEYOR/AUGER BEARINGS:

Grease the conveyor/auger bearings every 10 hours of operation and before storage. Use only two pumps of grease per bearing (See figure 2.1).

NOTE: Over lubrication of these bearings will result in premature failure.

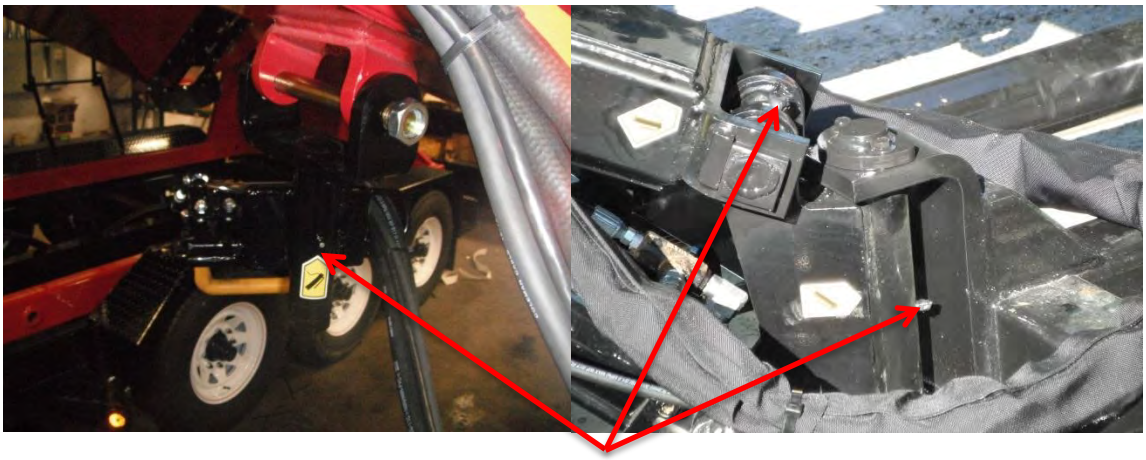
NOTE: The conveyor has four bearings that need grease (two at each end). The auger is equipped with two bearings (one at each end).

Conveyor bearing

Figure 2.1

Section 2.2 GREASE BOOM ARM:

Grease pivot points on boom arm every 50 hours and before storage (See figure 2.2).

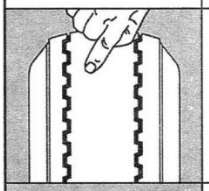
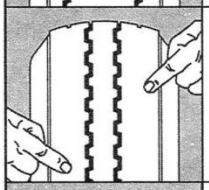
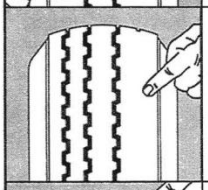
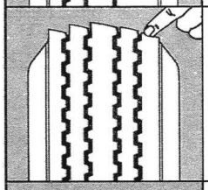
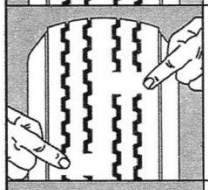
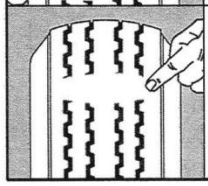


Boom arm grease point

Figure 2.2

Section 2.3 TIRE PRESSURE:

The following is to be used as a general guide for tire inflation. Figures can vary depending on specific brand of tire used. It is important that tires are inspected before and after unit is loaded. Start with the minimum pressure indicated. The tire should stand up with no side wall buckling or distress as tire rolls. Do not exceed maximum recommended tire pressure. 80 psi is the cold rating on the tire that is standard for the Speed Tender. J&M also recommend for longer tire life to rotate your tires front to back (not side to side) every 1,200 miles or 12 moths.

	Condition	Possible Cause	Remedy
	Even Center Wear	Over Inflation	Check & Adjust Pressure When Cold
	Inside & Outside Wear	Under Inflation	Check & Adjust Pressure When Cold
	Smooth, Side Wear - One Side	Loss of Camber or Overloading	Check & Unload As Necessary Have Alignment Checked
	"Feathering" Across The Face	Axle Not Square To Frame or Incorrect Toe In	Square Axles Have Alignment Checked
	Cupping	Loose Bearings or Wheel Balance	Check Bearing Adjustment and Wheel & Tire Balance
	Flat Spots	Wheel Lockup	Adjust Brakes

Section 2.4 LUG-NUTS:

Torque lug-nuts on new and removed wheels to 220 ft. lbs. after the first 10, 25, and 50 miles of driving Then recheck torque every 50 hours or every year depending on what comes first.

Section 2.5 WHEEL BEARINGS:

The wheel bearings need to be cleaned, inspected, and repacked if needed every 12 months or 12,000 miles. Use a number 2 wheel bearing grease to repack the bearings.

Bearing Inspection and Service:

1. Jack up Speed Tender.
2. Remove wheel lug-nuts.
3. Remove wheel from hub.
4. Remove grease cap.

NOTE: **Be careful not to dent or cut a hole in grease cap.**

5. Remove the cotter pin, nut, and washer.
6. Wiggle the hub to take the outer wheel bearing out.
7. Pull hub assembly straight off the axle. If you want to reuse the grease seal, (which is not recommended), be careful to support the weight of the hub, so that the end of the axle does not ruin the rubber part of the grease seal.
8. To remove the inner bearing, you must remove the grease seal.
9. Remove inner bearing.
10. Wash all grease and oil from the bearing cone using a suitable solvent. Dry the bearing with a clean, lint-free cloth and inspect each roller completely. If any pitting, scalding, or corrosion is present, then the bearing must be replaced. The bearing cups inside the hub must be inspected.

NOTE: Bearings must always be replaced in sets of a cone and a cup (See bearing cup replacement on following page.)

11. Repack inner bearing with new grease.
    A. Place a moderate amount of grease in the palm of one hand.
    B. Hold the inner bearing, large side down, in your other hand
    C. Using the edge of the bearing like an ice-cream scoop, work it in until you see fresh grease come out of the top side of the bearing.
    D. Rotate 1/8 of a turn and repeat until the whole bearing is full of fresh grease.
12. Place the inner bearing in the back of the wheel hub and add a liberal dose of grease.
13. Position the new wheel seal in its recess and lightly set it with a hammer.

NOTE: **Be careful to not deform the metal part of the seal.**

14. Slide the hub assembly onto the spindle and push it back into position.
15. Grease the outer bearings by hand. (See step 11)
16. Slide it and the spindle washer onto the spindle and into the hub recess.

17. Install and bottom out the spindle nut, then back it off 1/4 turn.
18. Reinstall the spindle nut and replace the cotter pin with a new one.

NOTE: If the castle nut does not line up with the hole in the spindle, then loosen the nut slightly until it does.

19. Pack the bearing cap with fresh grease and lightly drive it into the hub recess with the hammer.
20. Reinstall the wheel onto the hub and torque the wheel lug-nuts.

NOTE: See wheel nut/bolt torque requirements located in section 2.4.

Bearing cup replacement:

1. Place the hub on a flat work surface with the cup to be replaced on the bottom side.
2. Using a brass drift punch, carefully tap around the small diameter end of the cup to drive it out.
3. After cleaning the hub bore area, replace the cup by tapping it with the brass drift punch. Be sure the cup is seated all the way up against the retaining shoulder in the hub.

Section 2.6 HYDRAULIC POWER UNIT:

Daily (every 5 hours of use):

1. Check oil level.
2. Inspect for oil leaks and repair as necessary.
3. Check all hoses, fittings, bolts and hardware to make sure that they are secure and properly tightened.
4. Check motor oil level. See Engine operator's manual for details on oil levels, oil types, and service intervals.

Once per season (every 20-25 hours of use):

1. Change hydraulic oil filter element.

Every two to three years (every 75-80 hours of use):

1. Drain oil reservoir and refill with clean, good quality hydraulic AW 32 oil. (It is not recommended to refill with tractor hydraulic oil).

Replacing hydraulic parts:

1. Check parts section for proper part description and part # for replacement.

Purge air from system as follows:

1. Disconnect the rod end of all cylinders in a circuit and block up cylinders so the rod can completely extend and retract without contacting any other components.
2. Pressurize the system and maintain system at full pressure for at least 5 sec. after cylinder rods stop moving. Check that all cylinders have fully extended or retracted.
3. Check hydraulic reservoir and refill as needed.
4. Pressurize system again to reverse the motion of step 2. Maintain pressure on system for at least 5 sec. after cylinder rods stop moving. Check that cylinders have fully extended or retracted.
5. Check for hydraulic leaks using cardboard or wood. Tighten connections according to directions torque chart.
6. Repeat steps 2, 3, 4 and 5 (3 to 4 times).

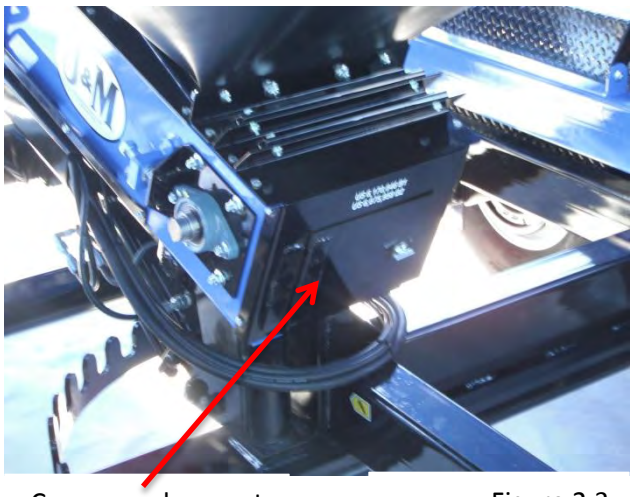
7. Depressurize hydraulic system and connect cylinder rod clevises to their mating lugs.

Section 2.7 CHECKING FOR CONVEYOR BELT TRACKING:

Conveyor belt must run in the center of the pulley on the discharge end and the collapsible hopper end. Failure to do so will lead to unnecessary wear and shortening of belt life. We recommend that you check your belt for proper tracking every 10 hours of use and before every season.

Checking the belt tracking at collapsible hopper end:

1. Open clean out-door located under collapsible hopper (See figure 2.3). This will allow you to see if the belt is centered on the pulley.
2. If the tracking is ok, close the clean out-door. If tracking is off go to (Section 2.8).



Conveyor clean-out door

Figure 2.3

Checking the belt tracking at discharge end:

1. Remove the 12 bolts located at the discharge end (See figure 2.4).
2. Remove the head pan. This will allow you to see if the belt is centered on the pulley.
3. If the belt tracking is good, reinstall the head pan. If tracking is off, go to Section 2.8.

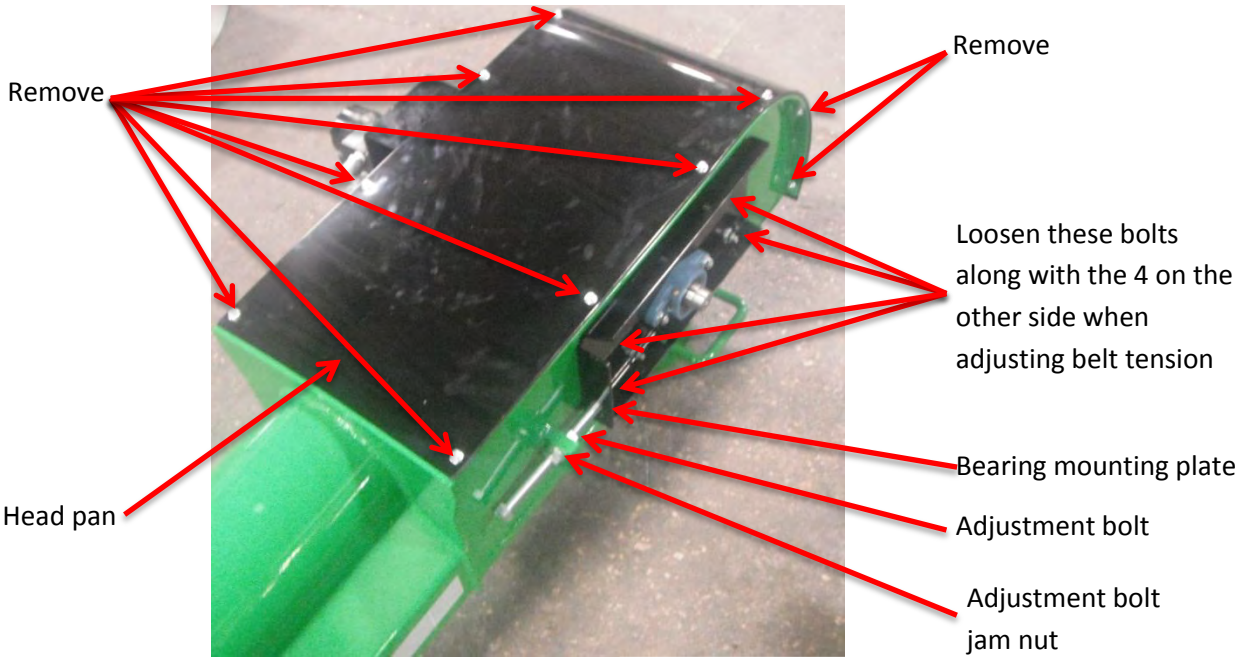


Figure 2.4

Section 2.8 ADJUSTING CONVEYOR BELT TRACKING:

1. Loosen (Do Not Remove) the 4 bolts on the two bearing mounting plates located at the collapsible hopper end of the conveyor (See figure 2.5).
2. Operate the conveyor at a slow speed.

CAUTION: Keep hand and clothing away from moving parts.

3. Loosen jam nut on adjustment bolt (See figure 2.4).
4. Tighten the adjustment bolt slowly until belt is running in the center of the pulley.

NOTE: Do not loosen the Adjustment bolt.

5. Tighten all bolts on bearing mounting plate, and adjustment bolts jam nuts.
6. Repeat at discharge end.
7. When belt is running in center of the pulley on both ends of conveyor allow the Speed Tender to run for 10 min, and recheck belt for proper tracking.

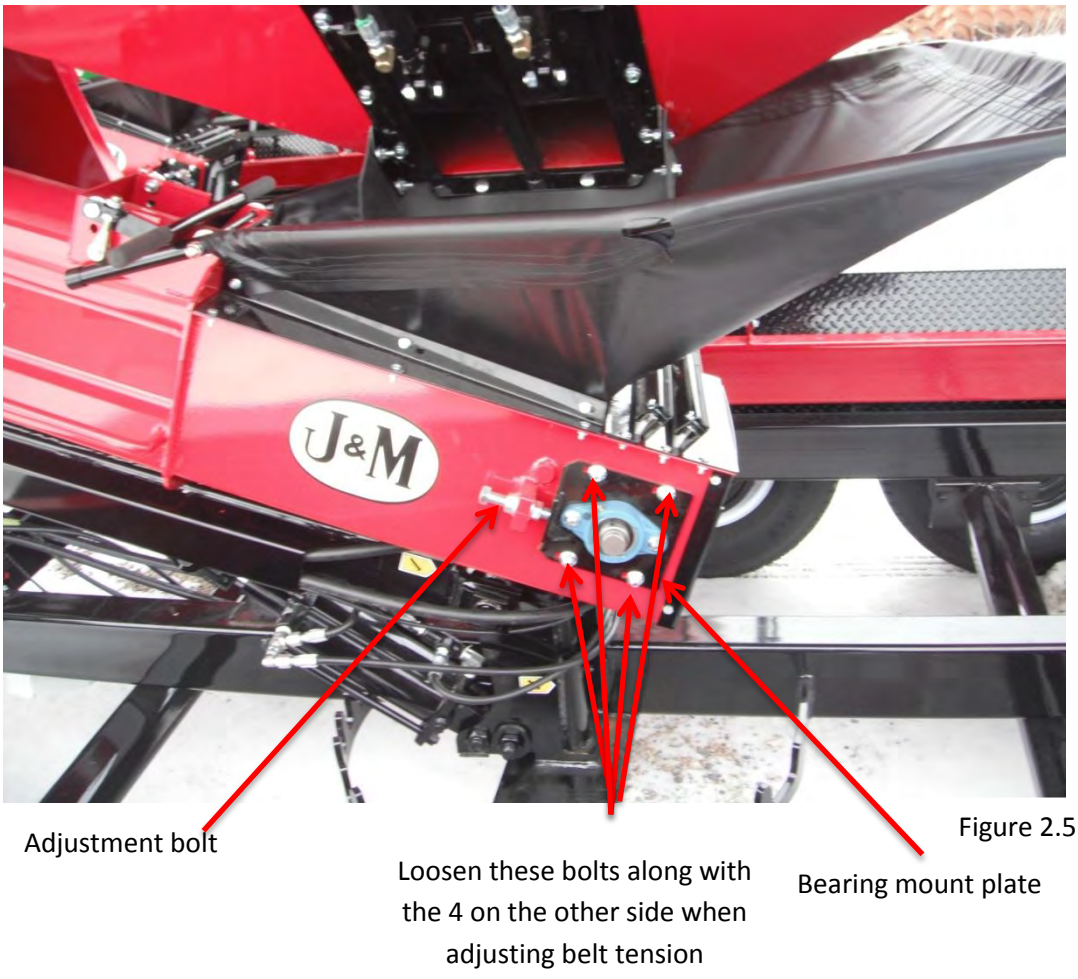


Figure 2.5

Section 2.9 BELT TENSIONING:

NOTE: You need to adjust your belt tension at least once a year.

1. Remove the head pan and head pan gasket (See figure 2.4).
2. Loosen (Do Not Remove) the 4 bolts on the two gearing mounting plates located at the discharge end of the conveyor (See figure 2.4).
3. Loosen jam nut on adjustment bolt at discharge end (See figure 2.4).
4. Torque threaded adjuster bolt to 23 ft. lb.
5. Operate the conveyor at a slow speed.

CAUTION: Keep hand and clothing away from moving parts.

6. If the belt is tracking properly go to step 7. If tracking is off, go to Section 2.8.
7. Open the clean out-door located under collapsible hopper (See figure 2.3). This will allow you to see if the belt is centered on the pulley.

8. If the tracking is ok, close the clean out-door and go to step 9. If tracking is off, go to Section 2.8.
9. Run the belt at medium speed for 10 min. and recheck the tracking at both the discharge and collapsible hopper end.
10. If tracking is off, go to Section 2.8.
11. If the belt is still tracking in the center of both pulleys, reinstall the head pan.

Section 2.10 ELECTRIC BRAKES:

The Speed Tender is equipped with electric brakes. They need to be inspected and serviced immediately if a loss of performance is experienced. You need to service your Speed Tender brakes at least once a year with normal use.

How to use your electric brakes properly:

Your Speed Tender brakes are designed to work in synchronization with your tow vehicle brakes. Never use your tow vehicle or Speed Tender brakes alone to stop the combined load.

Your Speed Tender and tow vehicle will seldom have the correct amperage flow to the brake magnets to give you comfortable, safe braking unless you make proper brake system adjustments. Changing trailer load and driving conditions, as well as uneven alternator and battery output, can mean unstable current flow to your brake magnets. It is therefore imperative that you maintain and adjust your brakes as set forth in this manual, use a properly modulated brake controller, and perform the synchronization procedure noted below.

In addition to the synchronization adjustment detailed below, electric brake controllers provide a modulation function that varies the current to the electric brakes with the pressure on the brake pedal or amount of deceleration of the tow vehicle. It is important that your brake controller provide approximately 2 volts to the braking system when the brake pedal is first depressed and gradually increases the voltage to 12 volts as brake pedal pressure is increased. If the controller “jumps” immediately to a high voltage output, even during a gradual stop, then the electric brakes will always be fully energized and will result in harsh brakes and potential wheel lockup.

To Synchronize:

To insure safe brake performance and synchronization, read the brake controller manufacturer’s instruction completely before attempting and synchronization procedure.

Make several hard stops from 20 M.P.H. on a dry paved road free of sand and gravel. If the Speed Tender brakes lock and slide, decrease the gain setting on the controller. If they do not slide, slightly increase the gain setting, Adjust the controller just to the point of impending brake lockup and wheel skid.

How to adjust electric brake:

1. Park the Speed Tender on firm and level ground.
2. Block the trailer tires on the opposite side securely so that no forward or rearward movement is possible.
3. Jack up the Speed Tender.
4. Secure the trailer on jack stands of adequate capacity front and rear.
5. At the back of the wheel, on the brake backing plate, there is a small rubber plug near the bottom of the backing plate. Pry out this plug to give access to the star wheel adjuster.
6. Insert the brake adjuster tool and maneuver it so that the tool engages with the teeth in the star wheel. The star wheel looks like a gear with exposed teeth on the perimeter.
7. Turn the adjuster until the brake locks up (you can no longer rotate the wheel by hand). This centers the brake shoes on the brake drum so that they are in the correct position.
8. Now back off the star wheel 8 to 10 clicks or as specified by the manufacturer. The wheel should spin freely with no apparent drag to slow it down. A slight scraping noise is normal as the wheel turns.
9. Repeat this procedure for all the wheels

Brakes should be adjusted:

1. After the first 200 miles of operating when the brake shoes and drums have “seated.”
2. At 3,000 mile intervals.
3. Or once a year.

Brake Cleaning and Inspection:

Your Speed Tender brakes must be inspected and serviced at yearly intervals, (or more often as use and performance requires). Magnets and shoes must be changed when they become worn or scored thereby preventing adequate vehicle braking. Clean the backing plate, magnet arm, magnet and brake shoes. Make certain that all the parts removed are replaced in the same brake and drum assembly. Inspect the magnet arm for any loose or worn parts. Check shoe return springs, hold down springs, and adjuster springs for stretch or deformation and replace if required.

Brake Shoe and Lining Inspection:

A simple visual inspection of your brake linings will tell if they are usable. Replacement is necessary if the lining is worn (to within 1/16” or less), contaminated with grease or oil, or abnormally scored or gouged, Hairline heat cracks are normal in bonded linings and should not be cause for concern. (See figure 2.6) When replacement is necessary, it is important to replace both shoes on each brake and both brakes of the same axle. This will help retain the “balance” of your brakes.

Figure 2.6

Replacing brake linings:

1. Remove the brake shoe retract spring.
2. Remove the shoe hold down assembly by holding the back of the pin with one hand and pushing against the spring and twisting with a hold down spring tool until the cup is released.
3. Remove both shoes together leaving the adjuster assembly and spring intact.
4. Clean the backing plate and lever arm.
5. Inspect magnet arm for any loose or worn parts.
6. Replace springs that are broken, bent or weak.
7. Apply a light film of lubricant to the anchor pin and shoe rest pads & backing plate areas that are in contact with the lever arm.
8. Attach the adjuster screw and spring to the new brakes shoes. The star wheel and adjuster must be positioned as before.
9. Install the new shoes on the backing plate and reinstall shoe retract spring.

After replacement of brake shoes and linings, the brake must be re-burnished to seat in the new components. This should be done by applying the brakes 20 to 30 times from an initial speed of 40 M.P.H., slowing the vehicle to 20 M.P.H. Allow ample time for brakes to cool between applications. This procedure allows the brake shoes to seat in to the drum surface.

Brake Lubrication:

Before reassembling, apply a light film of lubricate or similar grease, or anti-seize compound on the brake anchor pin, the actuating arm bushing and pin, and the areas of the backing plate that are in contact with the brake shoes and magnet lever arm. Apply a light film of grease on the actuating block mounted on the actuating arm.

Troubleshooting:

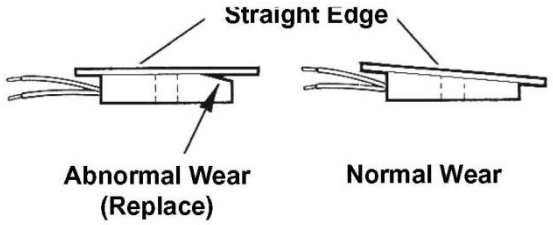
Most electric brake malfunctions that cannot be corrected by either brake adjustments or synchronization adjustments can generally be traced to electrical system failure. Mechanical causes are ordinarily obvious, bent or broken parts, worn out linings or magnets, seized lever arms or shoes, scored drums, loose parts, etc. Voltmeter and ammeter are essential tools for proper troubleshooting of electric brakes.

How to Measure Voltage:

System voltage is measured at the magnets. Connect the voltmeter to the two magnet lead wires at any brake. This may be accomplished by using a pin probe inserted through the insulation of the wires dropping down from the chassis or by cutting the wires. The engine of the towing vehicle should be running when checking the voltage (so that, a low battery will not affect the readings).

Brake Magnet Inspection:

Your electric brakes are equipped with high quality electromagnets that are designed to provide the proper input force and friction characteristics. Your magnets should be inspected and replaced if worn unevenly or abnormally (See figure 2.8). Even if wear is normal as indicated by your straightedge, the magnets should be replaced if any part of the magnet coil has become visible through the friction material facing of magnet. It is also recommended that the drum armature surface be re-faced when replacing magnets. Magnets should also be replaced in pairs - both sides of an axle.



Voltage in the system should begin at 0 volts. As the controller bar is slowly actuated, the voltage should gradually increases to about 12 volts. This is referred to as modulation. No modulation means that when the controller begins to apply voltage to brakes it applies an immediate high voltage, which causes the brakes to apply instantaneous maximum power.

The threshold voltage of a controller is the voltage applied to the brakes when the controller first turns on. The lower the threshold voltage, the smoother the brakes will operate. Threshold voltage in excess of 2 volts (quite often found in heavy duty controllers) can cause grabbing, resulting harsh brakes.

How to Measure Amperage:

System amperage is the amperage being drawn by all brakes on the trailer. The engine of the towing vehicle should be running when checking amperage.

One place to measure system amperage is at the blue wire of the controller which is the output to the brakes. The blue wire must be disconnected and the ammeter put in series into the line. System amperage draw should be as noted in the following table. Make sure your ammeter has sufficient capacity and note polarity to prevent damaging your amp meter.

Brake Size	Amps/Magnet	Two Brakes	Four Breaks	Six Brakes	Magnet Ohms
7 x 1 1/4	2.5	5.0	10.0	15.0	3.9
10 x 1 1/2	3.0	6.0	12.0	18.0	3.2
10 x 2 1/4	3.0	6.0	12.0	18.0	3.2
12 x 2	3.0	6.0	12.0	18.0	3.2
12 1/4 x 2 1/2	3.0	6.0	12.0	18.0	3.2

Replacing brake magnet

1. Orient the magnet over the lever arm post such that the magnet leads are in the correct position for routing
2. Push magnet over and lever arm post compressing the magnet spring between the magnet and the lever arm
3. Insert the magnet clip in the slot of the magnet. Be sure to orient the magnet clip so it will “snap” into place.
4. Press down on the magnet and install the magnet clip.
5. Be sure that the magnet moves up and down freely on the lever arm post.
6. Route the wiring in the same manner noted on removal. Be sure that wires cannot bind, pinch or rub. Manually actuate lever arm to insure there is no interference.
7. Install strain relief bushing, allowing enough slack in the wiring to allow the lever arm to move without straining the wires. Be sure the wire cannot come in contact with the armature.
8. Connect the magnet leads to the trailer wiring harness reinstall hub and drum.

Brake Drum Inspection:

There are two areas of the brake drum that are subject to wear and require inspection. These two areas are the drum surface where the brake shoes make contract during stopping and the armature surface where the magnet contacts (only in electric brakes).

The drum surface should be inspected for excessive wear or heavy scoring. If worn more than .020” oversized, or the drum has worn out of round by more than .015”, then the drum surface should be turned. If scoring or other wear is greater than .090” on the diameter, the drum must be replaced. When turning the drum surface, the maximum re-bore diameter is 12” brake drum - 12.090”

The machined inner surface of the brake drum that contacts the brake magnet is called the armature surface. If the armature surface is scored or worn unevenly, it should be refaced to a 120 micro inch finish by removing not more than .030” of material. To insure proper contact between the armature face and the magnet face, the magnets should be replaced whenever the armature surface is refaced and the armature surface should be refaced whenever the magnets are replaced.

Section 2.11 Wireless Remote:

Battery replacement:

During standard operation of the wireless unit, when you depress a button on the key fob transmitter the LED indicator on key fob will illuminate. Should the LED not illuminate, this is an indicator that battery voltage has dropped below 2.0 volts, and it is time to replace the battery. It is suggested that you change the battery in the key fob transmitter at least once annually, prior to each operational season. The key fob battery can be changed by simply removing the small screw on the back of the

unit, and splitting the transmitter case. Once the case is open, slide the battery out of the battery holder, and replace. It is important to be delicate during battery replacement so no damage to the unit occurs; especially with regard to the solder points where the metal battery holder connects to the transmitter board. The key fob battery is a coin cell battery #CR2032.

REPROGRAMING THE KEY FOB AND RECEIVER:

To complete the learn procedure, simply do the following. Power up the unit. When you do so, the LED on the receiver unit will flash "RED" four times. This indicates that the unit has received power. There is magnetically controlled switching circuitry embedded in the receiver unit. Place a fairly powerful magnet on the back of the receiver (See figure 2.7) for a brief moment (3 seconds), and then remove it. The LED will go to a constant RED stare. Now immediately press any button on the transmitter you are attempting to learn in. The LED will go to a GREEN/YELLOW color. This confirms that the receiver has picked up a signal from the transmitter, and subsequently learned that signal. Communication has been established, and it is now be ready to function properly.

Troubleshooting:

Should the above procedure not complete successfully, wait until the LED light goes out, and repeat the procedure. If for any reason you experience a second failure of the learn procedure, do the following. Place the magnet on the learn area and the LED will go to a constant RED stare. Leave the magnet in place on the receiver until the LED light goes out. (Approximately 10 seconds) This action completely clears the receiver's memory. Once you have cleared the memory, proceed with the standard learn procedure detailed above for the key fob transmitters.

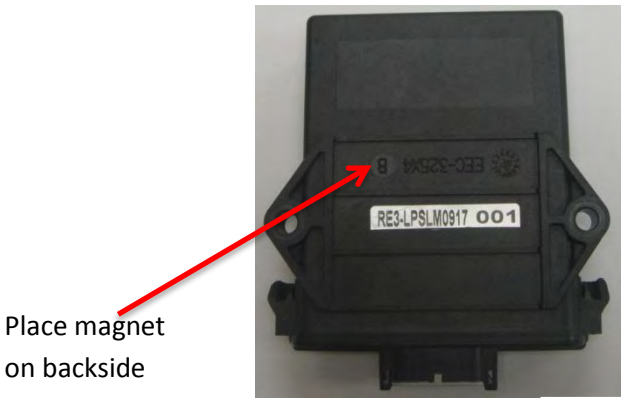


Figure 2.7

Section 2.12 DAILY SERVICE (5-10 HOURS OF USE):

NOTE: J&M recommends the following service to be performed daily (every 5-10 hours of use)

1. Grease the conveyor/auger bearings every 10 hours. Use only two pumps of grease per bearing

NOTE: Over lubrication of these bearings will result in premature failure.

NOTE: The conveyor has 4 bearing that need greased (2 at each end). The auger is equipped with 2 bearings (one at each end) (See section 2.1).

2. Check your belt for proper tracking every 10 hours of use and before every season. For steps to properly track your belt (See section 2.7).

NOTE: When checking the belt for tracking or when operating an auger you should empty out the clean-out door (See figure 2.3).

3. Check hydraulic oil level.
4. Inspect for oil leaks and repair as appropriate.
5. Check all hoses, fittings, bolts, and hardware to make sure that they are secure and properly tightened.
6. Check engine oil level. See Engine operator's manual for details on oil levels, oil types and service intervals.
7. Check Speed Tender lights before towing.
8. Check the Speed Tender periodically for cracks in welds and for other structural damage. Have cracked welds fixed immediately.

NOTE: Failure to have cracked welds fixed immediately could result in extensive damage to the Speed Tender and greatly reduce its life.

9. Make sure tires are properly inflated (See section 2.3).
10. Make sure wheel lug nuts are properly torqued (See section 2.4).
11. Make sure that the conveyor/auger hopper guard is in place. Do not remove.

Section 2.13 END OF THE YEAR SERVICE:

IMPORTANT: When the Speed Tender is not going to be used for a length of time, J & M recommends that you store the Speed Tender in a dry, protected place. Leaving your Speed Tender outside, and open to the weather, will shorten its life.

1. Grease the conveyor/auger bearings. Use only two pumps of grease per bearing.

NOTE: Over lubrication of these bearings will result in premature failure.

NOTE: The conveyor has four bearing that need greased (two at each end). The auger is equipped with two bearings (one at each end) (See section 2.1).

2. Grease pivot points on boom arm before storage.
3. The wheel bearings need to be cleaned, inspected, repacked, and adjusted. Use a number 2 wheel bearing grease to repack the bearings.
4. You need to inspect and service your brakes (magnets and shoes). They must be changed when they become worn or scored, thereby preventing adequate vehicle braking. Clean the backing plate, magnet arm, magnet, and brake shoes. Make certain that all the parts removed are replaced in the same brake and drum assembly. Inspect the magnet arm for any loose or worn parts. Check shoe return springs, hold down springs, and adjuster springs for stretch or deformation, replace as needed.
5. Torque lug-nuts (See section 2.5).
6. Make sure that the tires are properly inflated.
7. Remove all grain from inside the grain tanks.
8. Clean out the conveyor/auger at the end of every season (See section 1.8).

9. Tension and track the conveyor belt. (See section 2.7).
10. Check the Speed Tender periodically for cracks in welds and for other structural damage. Have cracked welds fixed immediately.

NOTE: Failure to have cracked welds fixed immediately could result in extensive damage to The Speed Tender and greatly reduce its life.

11. Check hydraulic hoses for wear and replace if needed.
12. Make sure that the conveyor/auger hopper guard is in place.
13. Remove battery from the Speed Tender and place in a cool dry place.

NOTE: Attaching a trickle charger to the battery will help insure a long life for your battery.

14. Change hydraulic oil filter element, and top off hydraulic tank.
15. Check motor oil level. See Engine operator's manual for details on oil levels, oil types, and service intervals.
16. Retract all hydraulic cylinders to prevent the piston rods from rusting.

Section 2.14 REMOVING FROM STORAGE:

17. Touch-up spots where paint has been worn away (use good quality primer paint - especially before applying graphite paint to the inside of the grain tank).

1. Grease the conveyor/auger bearings. Use only two pumps of grease per bearing

NOTE: Over lubrication of these bearings will result in premature failure.

NOTE: The conveyor has four bearings that need greased (two at each end). The auger is equipped with two bearings (one at each end) (See section 2.1).

2. Grease pivot points on boom arm.
3. Torque lug-nuts (See section 2.5).
4. Make sure that the tires are properly inflated.
5. Check your belt for proper tracking every 10 hours of use and before every season. For steps to properly track your belt (See section 2.6).
6. Check oil level.
7. Inspect for hydraulic oil leaks and repair as appropriate.
8. Check all hoses, fittings, bolts, and hardware to make sure that they are secure and properly tightened.
9. Check engine oil level. See Engine operator's manual for details on oil levels, oil types, and service intervals.
10. Check Speed Tender lights before each time you tow.
11. Make sure that the conveyor/auger hopper guard is in place.
12. Reattach battery and check to make sure that it is fully charged.

Section 2.15 TROUBLE SHOOTING:

COMPLAINT:

Hard to handle:

1. Unit sways during travel.
    a. Check tire pressure.
    b. Check tow vehicle for loosen hitch parts.
    c. Check tow vehicle's hitch height.
    d. Reduce towing speed.
    e. Check wheel lug-nuts.
    f. Check wheel bearings for adjustment (See section 2.5).

Tires show excessive wear:

1. Tires show excessive wear .
    a. Check tire pressure.
    b. Rotate tires. (See section 2.3)
    c. Check wheel bearings for adjustment. (See section 2.5).

Noisy wheels:

1. Wheel makes grinding or squeaking noise.
    a. Service wheel bearings. (See section 2.5).
2. Noisy when brakes are being applying.
    a. Properly adjust brake.
    b. Replace any weak or broken springs in breaks.
    c. Replace the brake linings if excessively worn or contaminated
    d. Check wheel bearings for adjustment (See section 2.5).

Brake not working:

1. No Brakes.
    a. Properly adjust brake
    b. Check for short in electric circuit
    c. Replace any brake magnets that are worn or defective
2. Weak brakes
    a. Properly adjust brake
    b. Replace any excessively worn or contaminated linings.
    c. Check for short in electric circuit
    d. Replace bent backing plate
3. Dragging brakes
    a. Properly adjust brake
    b. Replace any weak or broken springs in brakes
    c. Clean and lubricate the brake assemblies

COMPLAINT:

4. Locking brakes
    a. Replace any weak or broken springs in breaks
    b. Replace any excessively worn or contaminated linings
5. Grabbing breaks
    a. Replace any excessively worn or contaminated linings
6. Surging brakes
    a. Trailer is not adequately grounded

Belt is not moving

1. Hydraulic pump is not producing sufficient pressure or volume to belt motor.
    a. Check for pinched or leaking hydraulic line
    b. Allow hydraulic oil to warm up
    c. Increase engine R.P.M.
    d. Charge battery or plug in to tow vehicle
    e. Hydraulic fluid level low
    f. Hydraulic filter clogged
    g. Check for proper oil viscosity
    h. Check hydraulic output pressure.
2. Make sure the battery is fully charged.
3. Make sure conveyor is not clogged

Belt has insufficient output speed or R.P.M.

1. Hydraulic pump is not producing sufficient pressure or volume to belt motor.
    a. Check for pinched or leaking hydraulic lines.
    b. Allow hydraulic oil to warm up
    c. Increase engine R.P.M.
    d. Hydraulic fluid level low
    e. Hydraulic filter clogged
    f. Check for proper oil viscosity
    g. Check if hydraulic pump is worn out
2. Engine R.P.M. slow
3. Repair or replace worn out pump.
4. Belt is slipping
    a. Adjust belt tension and tracking (See section 2.8).
    b. Check telescoping spout and conveyor for a clog.
    c. Remove material from clean out door.
5. Air in hydraulic system.
    a. Bleed air out of hydraulic stem and fill reservoir (See section 2.6).
    b. Look for leaking or cracked fittings.
6. Leak in motor, valve body or bypass valves.
    a. Replace or repair motor, valve body, or bypass valves.
    b. Check for proper oil viscosity.

COMPLAINT:

Excessive wear to belt edge

1. Tracking is off.
    a. Adjust belt tension and tracking (See section 2.8).
2. Rubber skirting is worn or out of place.
    a. Replace rubber skirting.
    b. Adjust rubber skirting.

Boom arm will not move up or down:

1. Engine R.P.M. slow.
    a. Increase engine R.P.M.
2. Hydraulic pump is not producing sufficient pressure or volume to hydraulic cylinder.
    a. Check for pinched or leaking hydraulic lines.
    b. Allow hydraulic oil to warm up.
    c. Increase engine R.P.M.
    d. Hydraulic fluid level low.
    e. Hydraulic filter clogged.
    f. Check for proper oil viscosity.
    g. Check to see if hydraulic pump is worn out
3. Make sure battery is fully charged.
4. Check wiring on delux option

Hydraulic unit squeals

1. Oil level to low. Check sight glass on Hydraulic unit reservoir and fill.
2. Oil is cold, run engine at reduced speed for 5-10 minutes.
3. Oil tank filler cap/breather plugged.
    a. Clean filler cap/breather replace.
4. Suction hose bent, collapsed or restricted.
    a. Clear obstruction.
5. Oil filter element plugged/dirty.
    a. Replace with new oil filter element.

Hydraulic unit has poor performance at high R.P.M.:

1. Pressure relief in control valve sticking or contaminated with dirt.
    a. Remove, clean, replace.
2. Oil level low. Check sight glass on Hydraulic unit reservoir and fill.
3. Oil filter plugged/dirty.
    a. Replace with new oil filter element.
4. Check to make sure the battery is fully charged.

Wireless Remote will not work:

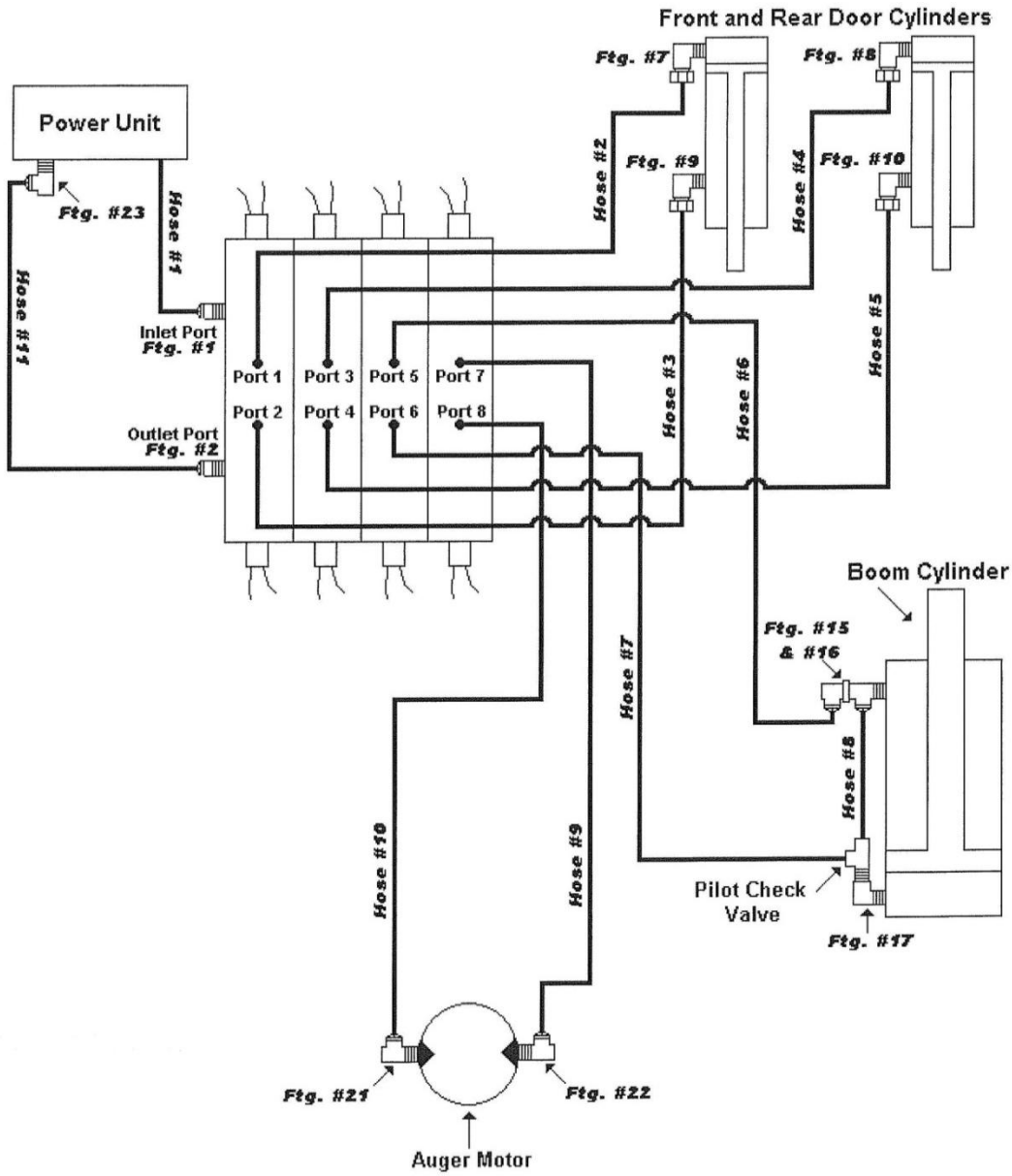
1. Change the battery in the key fob.
2. Reprogram your receiver (See section 2.11).

Section 2.16 BOLT TORQUE SPECIFICATIONS:

Bolt Torque Specifications							
Bolt Size (in.)	**Coarse Threads/ inch**	**Standard Dry Torque in Foot-Pounds**					
		SAE Grade 0-1-2 74,000 psi Low Carbon Steel	SAE Grade 3 100,000 psi Med. Carbon Steel	SAE Grade 5 120,000 psi Med. Carbon Heat T. Steel	SAE Grade 6 133,000 psi Med. Carbon Temp. Steel	SAE Grade 7 133,000 psi Med. Carbon Alloy Steel	SAE Grade 8 150,000 psi Med. Carbon Alloy Steel
1/4	20	6	9	10	12.5	13	14
5/16	18	12	17	19	24	25	29
3/8	16	20	30	33	43	44	47
7/16	14	32	47	54	69	71	78
1/2	13	47	69	78	106	110	119
9/16	12	69	103	114	150	154	169
5/8	11	96	145	154	209	215	230
3/4	10	155	234	257	350	360	380
7/8	9	206	372	382	550	570	600
1	8	310	551	587	825	840	700
1-1/8	7	480	872	794	1304	1325	1430
1-1/4	7	375	1211	1105	1815	1825	1975
1-3/8	6	900	1624	1500	2434	2500	2650
1-1/2	6	1100	1943	1775	2913	3000	3200
1-5/8	5.5	1470	2660	2425	3985	4000	4400
1-3/4	5	1900	3463	3150	5189	5300	5650
1-7/8	5	2360	4695	4200	6980	7000	7600
2	4.5	2750	5427	4550	7491	7500	8200

HYDRAULIC 3

Section 3.1 DELUXE SEED TENDER AUGER:



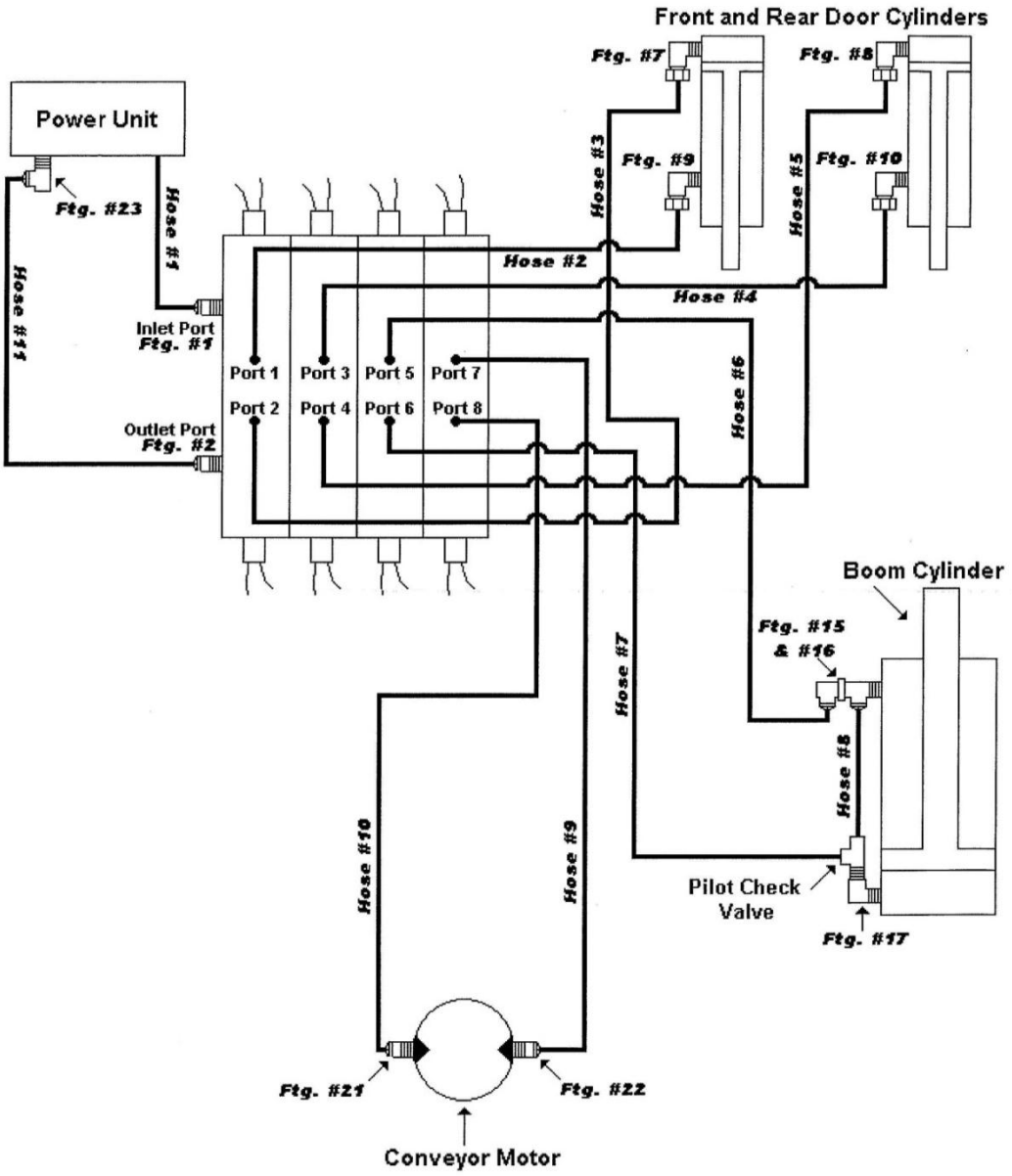
DELUXE SEED TENDER AUGER			
ITEM#	**Part #**	**DESCRIPTION**	**QTY.**
Hose #1	106901	8M3K-8G-6MPX-8G-8FJX-46"(hose 46")	1
Fitting #1 & 2	106886	6400-08-10-0 (adaptor)	2
Hose #2,3,4,&5	106872	4M3K-4G-4MP-4G-6FJX-192" (hose 192")	4
Fitting #3,4,5,&6	106883	6400-06-08-0 (adaptor)	4
Fitting #7,&8	106832	1501-04-04 (elbow)	2
Fitting #9,10	106889	1501-04-04R.032 (restictor)	2
Hose #6	106914	4M3K-4G-6MP-4G-6FJX-93" (hose 93")	1
Fitting #11&12	106899	6900-08-06-0 (adaptor)	2
Fitting #13&14	106833	1501-06-06R.062 (restictor)	2
Fitting #15	106870	2605-06-08-06 (tee)	1
Fitting #16	106888	6500-06-06 (elbow)	1
Hose #7	106880	4M3K-4G-6MP-4G-6MPX-87" (hose 87")	1
Fitting #17	106880	5502-08-06 (elbow)	1
Hose #8	106871	4M3K-4G-4MP-4G-6FJX-12" (hose 12")	1
Hose #9&10	106903	8M3K-8G-8FJX-8G-4F-8FJX-326" (hose 338")	2
Fitting #18	106885	6400-08-08-0 (adaptor)	1
Fitting #19	106884	6400-08-08 (elbow)	1
Fitting #20	106896	6801-08-08-NW0 (elbow)	1
Fitting #21&22	106836	2501-08-08 (adaptor)	2
Hose #11	106910	8M3K-8G-8FJX-8G-8FJX-40" (hose 40")	1
Fitting #23	106867	2501-08-12 (adaptor)	1
Protector sleeve	ST375DPS (See Figure 3.1)	house cover	107"
Deluxe valve body	ST375DVB(See Figure 3.2)	valve body	1

Protector sleeve

Figure 3.1

Figure 3.2

Section 3.2 DELUXE SEED TENDER BELT:

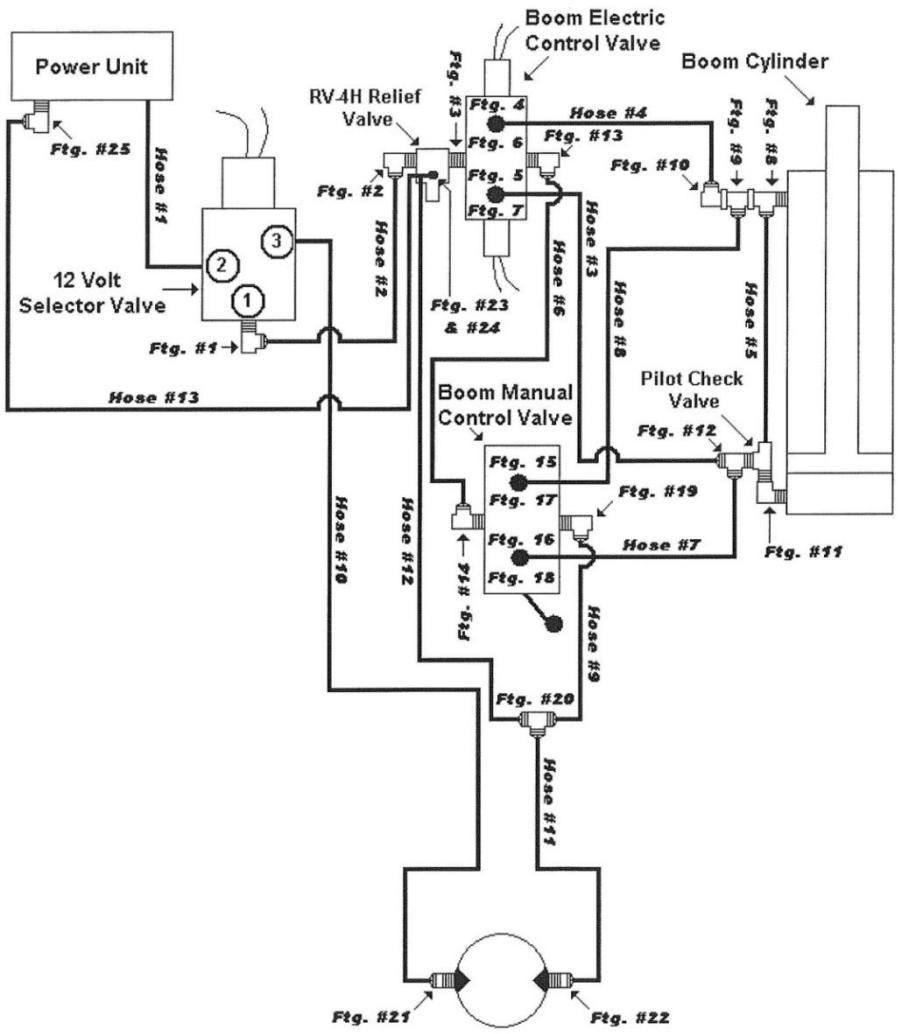


DELUXE SEED TENDER BELT			
ITEM#	**Part #**	**DESCRIPTION**	**QTY.**
Hose #1	106901	8M3K-8G-6MPX-8G-8FJX-46"(hose 46")	1
Fitting #1 & 2	106886	6400-08-10-0 (adaptor)	2
Hose #2,3,4,&5	106872	4M3K-4G-4MP-4G-6FJX-192" (hose 192")	4
Fitting #3,4,5,&6	106883	6400-06-08-0 (adaptor)	4
Fitting #7,&8	106832	1501-04-04 (elbow)	2
Fitting #9,10	106889	1501-04-04R.032 (restictor)	2
Hose #6	106914	4M3K-4G-6MP-4G-6FJX-93" (hose 93")	1
Fitting #11&12	106899	6900-08-06-0 (adaptor)	2
Fitting #13&14	106833	1501-06-06R.062 (restictor)	2
Fitting #15	106870	2605-06-08-06 (tee)	1
Fitting #16	106888	6500-06-06 (elbow)	1
Hose #7	106880	4M3K-4G-6MP-4G-6MPX-87" (hose 87")	1
Fitting #17	106880	5502-08-06 (elbow)	1
Hose #8	106871	4M3K-4G-4MP-4G-6FJX-12" (hose 12")	1
Hose #9&10	106903	8M3K-8G-8FJX-8G-4F-8FJX-326" (hose 338")	2
Fitting #18	106885	6400-08-08-0 (adaptor)	1
Fitting #19	106884	6400-08-08 (elbow)	1
Fitting #20	106896	6801-08-08-NW0 (elbow)	1
Fitting #21&22	106836	2501-08-08 (adaptor)	2
Hose #11	106910	8M3K-8G-8FJX-8G-8FJX-40" (hose 40")	1
Fitting #23	106867	2501-08-12 (adaptor)	1
Protector sleeve	ST375DPS (See Figure 3.3)	house cover	107"
Deluxe valve body	ST375DVB(See figure 3.4)	valve body	1

Figure 3.3

Figure 3.4

Section 3.3 WIRELESS OPTION:



WIRELESS OPTION			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
Hose #1	106902	8M3K-8G-6MPX-8G-8MB-71" (hose 71")	1
Hose #2	106875	4M3K-4G-6FJX-4G-6FJX-36" (hose 36")	1
Fitting #1	106894	6801-06-08-NW0 (elbow)	1
Fitting #2	106835	2501-06-08 (elbow)	1
Fitting #3	106887	6401-08-08-08-O (adaptor)	1
Hose #3	106876	4M3K-4G-6MP-4G-6FJX-50" (hose 50")	1
Hose #4	106877	4M3K-4G-6MP-4G-6FJX-52"" (hose 52")	1
Fitting #4&5	106914	6901-08-06NWO (elbow)	2
Fitting #6,7,17&18	106831	1404-06-06R.062 (restrictor adaptor)	4
Fitting #8	106870	2605-06-08-06 (tee)	1
Fitting #9	106891	6602-06-06-06 (tee)	1
Fitting #10	106888	6500-06-06 (elbow)	1
Fitting #11	106880	5502-08-06 (elbow)	1
Fitting #12	106869	2605-06-06-06 (tee)	1
Hose #5	106871	4M3K-4G-4MP-4G-6FJX-12" (hose 12")	1
Fitting #13	106894	6801-06-08-NW0 (elbow)	1
Hose #6	106873	4M3K-4G-6FJX-4G-6FJX-109" (hose 109")	1
Fitting #14	106895	681-06-12-NW0 (elbow)	1
Fitting #15 & 16	106900	6901-10-06NW0 (elbow)	2
Hose #7&8	106878	4M3K-4G-6MP-4G-6FJX-92" (hose 92")	2
Fitting #19	106893	680-08-12-NW0 (elbow)	1
Hose #9	106906	8M3K-8G-8FJX-8G-8FJX-15" (hose 15")	1
Fitting #20	106868	2603-08-08-08 (tee)	1
Hose #10	106912	8M3K-8G-8MBX-8G-8FJX-285" (hose 285")	1
Fitting #21&22	106834	2404-08-08 (adaptor)	2
Hose #11	106907	8M3K-8G-8FJX-8G-8FJX-164" (hose 164")	1
Fitting #23	106836	2501-08-08 (elbow)	1
Fitting #24	106892	6602-08-08-08 (tee)	1
Hose #12	106905	8M3K-8G-8FJX-8G-8FJX-109" (hose 109")	1
Hose #13	106911	8M3K-8G-8FJX-8G-8FJX-92" (hose 92")	1
Fitting #25	106867	2501-08-12 (elbow)	1
Protector sleeve	ST375DPS (See Figure 3.5)	hose cover	107"
Ele. Control valve	ST375ECV(See Figure 3.6)	Cont valve	1
12V selector valve	ST37512VSV (See Figure 3.7)	12V selector valve	1

Protector sleeve Figure 3.5

Figure 3.6

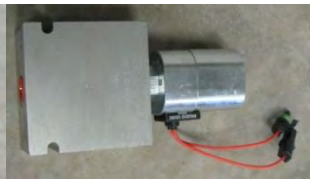
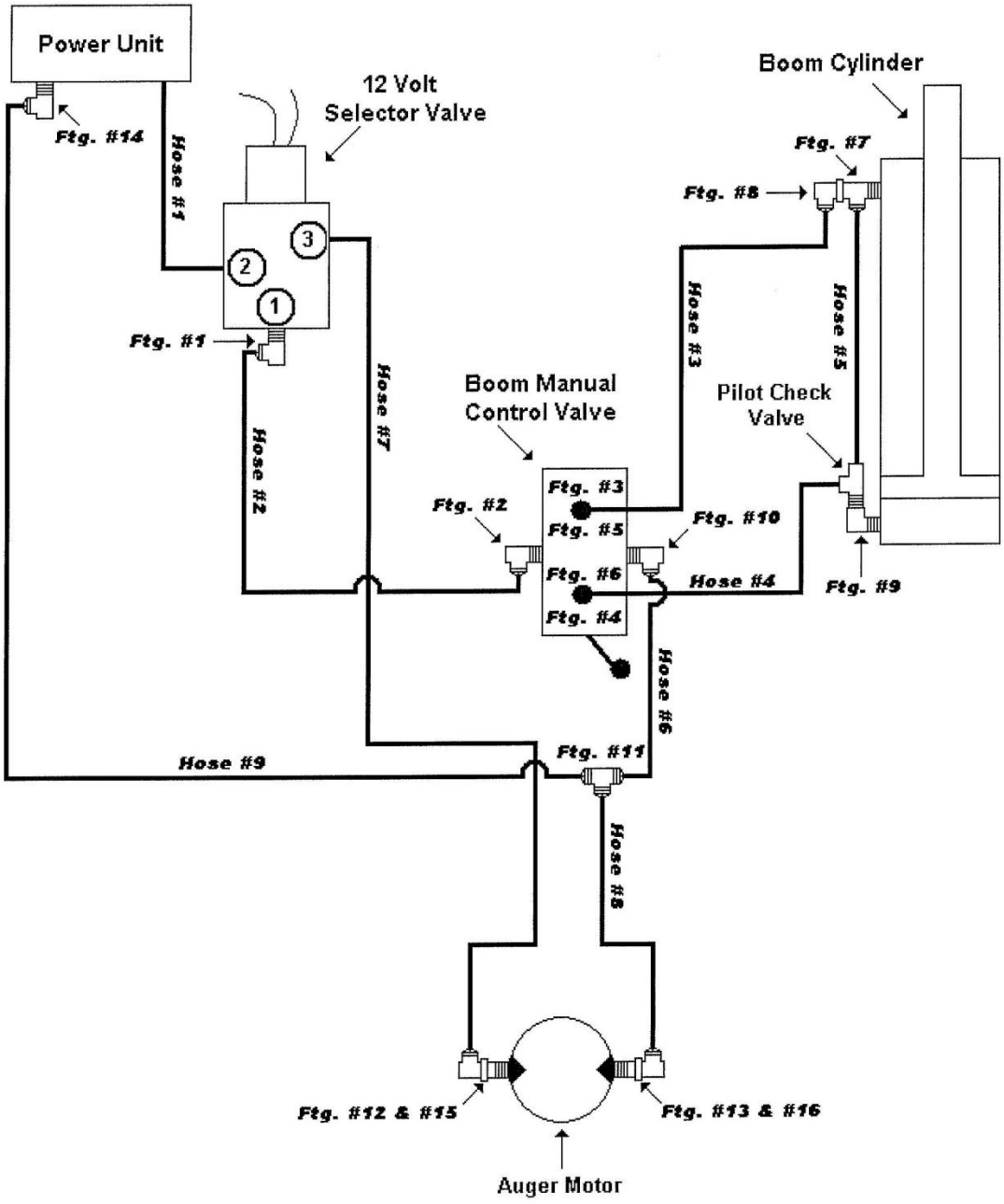


Figure 3.7

Section 3.4 SEED TENDER STANDARD AUGER:



SEED TENDER AUGER			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
Hose #1	106902	8M3K-8G-6MPX-8G-8MB-71" (hose 71")	1
Hose #2	106874	4M3K-4G-6FJX-4G-6FJX-130" (hose 130")	1
Fitting #1	106894	6801-06-08-NW0 (elbow)	1
Fitting #2	106898	6801-06-12-NW0 (elbow)	1
Hose #3	106878	4M3K-4G-6MP-4G-6FJX-92" (hose 92")	1
Fitting #3&4	106900	6901-10-06-NW0 (elbow)	2
Fitting 5&6	106831	1404-06-06-R.062 (restrictor adaptor)	2
Fitting #7	106870	2605-06-08-06 (tee)	1
Fitting #8	106888	6500-06-06 (elbow)	1
Hose #4	106878	4M3K-4G-6MP-4G-6MPX-92" (hose 92")	1
Fitting #9	106880	5502-08-06 (elbow)	1
Hose #5	106871	4M3K-4G-4MP-4G-6FJX-12" (hose 12")	1
Hose #6	106906	8M3K-8G-8FJX-8G-8FJX-15" (hose 15")	1
Fitting #10	106897	6801-08-12-NW0 (elbow)	1
Fitting #11	106868	2603-08-08-08 (tee)	1
Hose #7	106913	8M3K-8G-8MBX-8G-8FJX-297" (hose 297")	1
Hose #8	106908	8M3K-8G-8FJX-8G-8FJX-176"(hose 176")	1
Fitting #12&13	106834	2404-08-08 (adaptor)	2
Fitting #15&16	106890	6500-08-08 (swivel)	2
Hose #9	106909	8M3K-8G-8FJX-8G-8FJX-188" (hose 188")	1
Fitting #14	106867	2501-08-12 (adaptor)	1
12V selector valve	ST37512VSV (See Figure 3.8)	12V selector valve	1

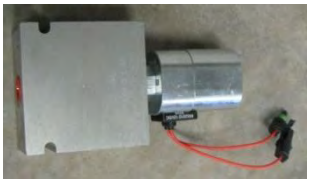
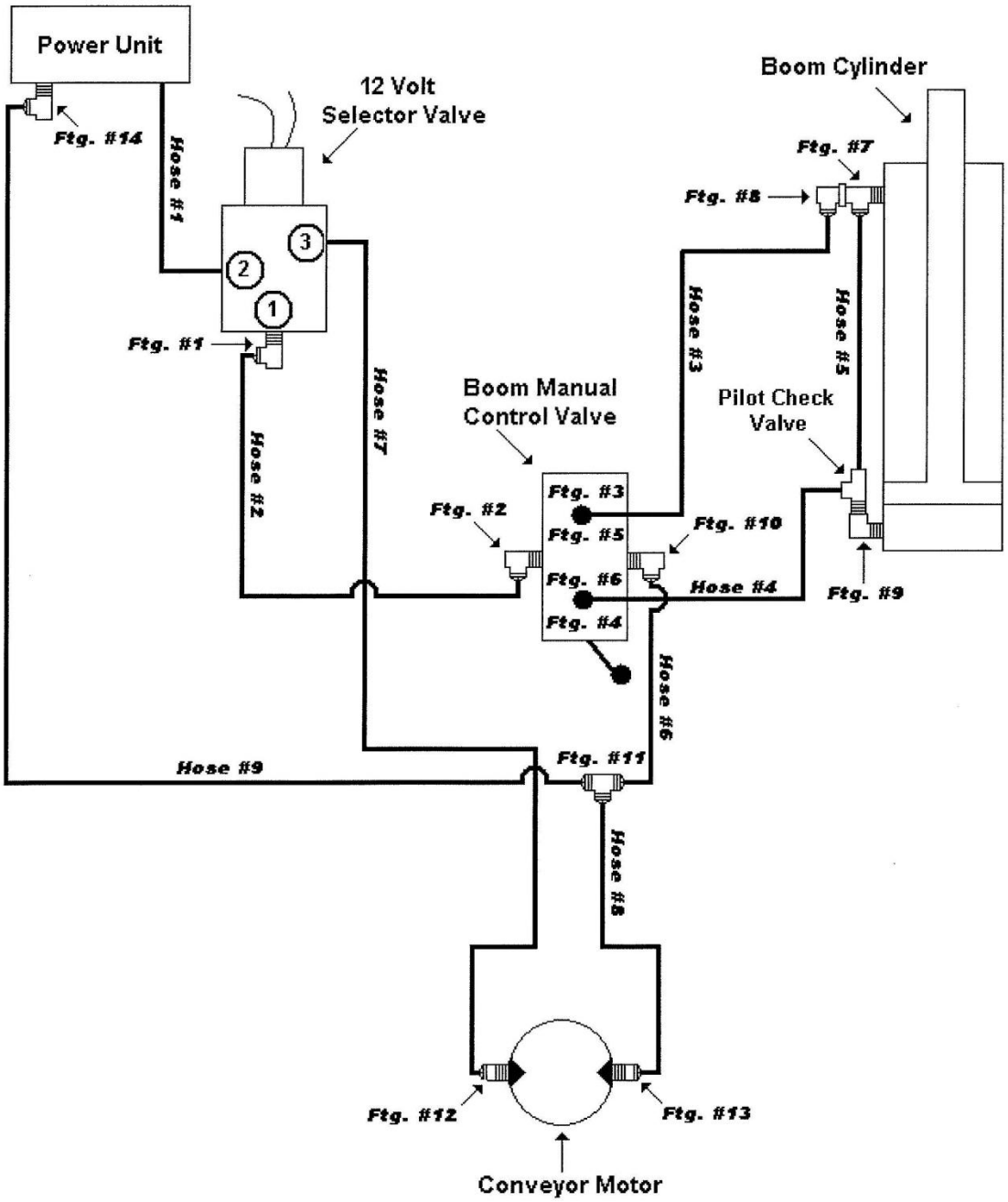


Figure 3.8

Section 3.5 SEED TENDER STANDARD BELT



SEED TENDER BELT			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
Hose #1	106902	8M3K-8G-6MPX-8G-8MB-71" (hose 71")	1
Hose #2	106874	4M3K-4G-6FJX-4G-6FJX-130" (hose 130")	1
Fitting #1	106894	6801-06-08-NW0 (elbow)	1
Fitting #2	106898	6801-06-12-NW0 (elbow)	1
Hose #3	106878	4M3K-4G-6MP-4G-6FJX-92" (hose 92")	1
Fitting #3&4	106900	6901-10-06-NW0 (elbow)	2
Fitting 5&6	106831	1404-06-06-R.062 (restrictor adaptor)	2
Fitting #7	106870	2605-06-08-06 (tee)	1
Fitting #8	106888	6500-06-06 (elbow)	1
Hose #4	106878	4M3K-4G-6MP-4G-6MPX-92" (hose 92")	1
Fitting #9	106880	5502-08-06 (elbow)	1
Hose #5	106871	4M3K-4G-4MP-4G-6FJX-12" (hose 12")	1
Hose #6	106906	8M3K-8G-8FJX-8G-8FJX-15" (hose 15")	1
Fitting #10	106897	6801-08-12-NW0 (elbow)	1
Fitting #11	106868	2603-08-08-08 (tee)	1
Hose #7	106912	8M3K-8G-8MBX-8G-8FJX-285" (hose 285")	1
Hose #8	106907	8M3K-8G-8FJX-8G-8FJX-164" (hose 164")	1
Fitting #12&13	106834	2404-08-08 (adaptor)	2
Fitting #15&16	106890	6500-08-08 (swivel)	2
Hose #9	106909	8M3K-8G-8FJX-8G-8FJX-188" (hose 188")	1
Fitting #14	106867	2501-08-12 (adaptor)	1
12V selector valve	ST37512VSV (See figure3.9)	12V selector valve	1

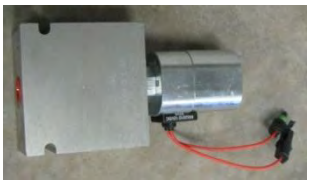
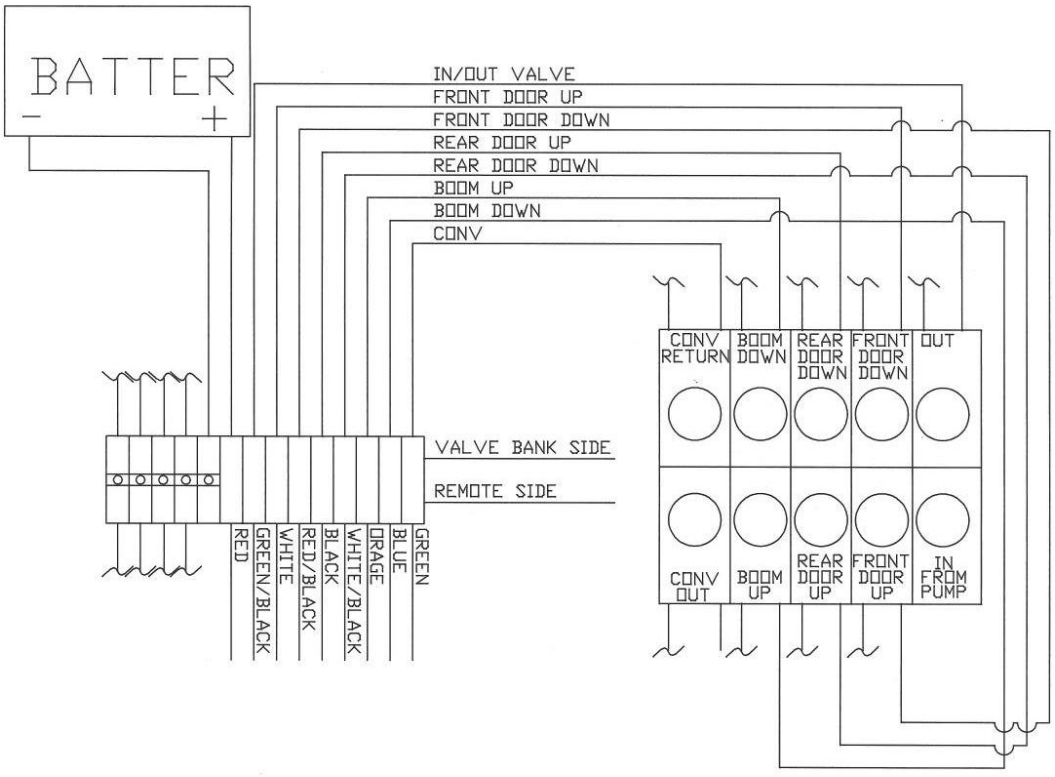


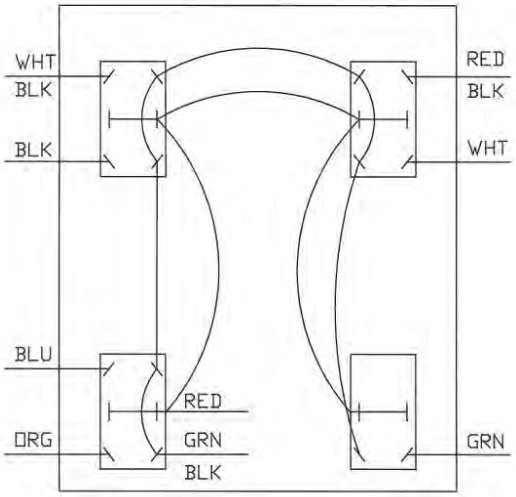
Figure 3.9

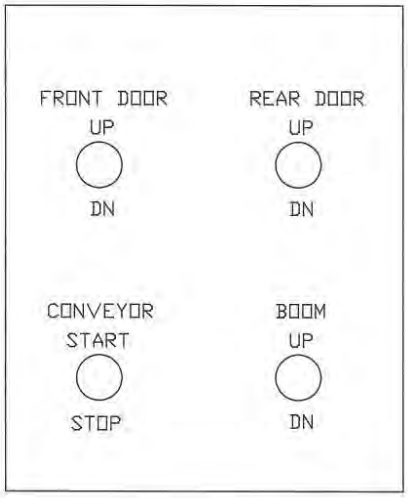
WIRING

Section 4.1 DELUXE WIRING



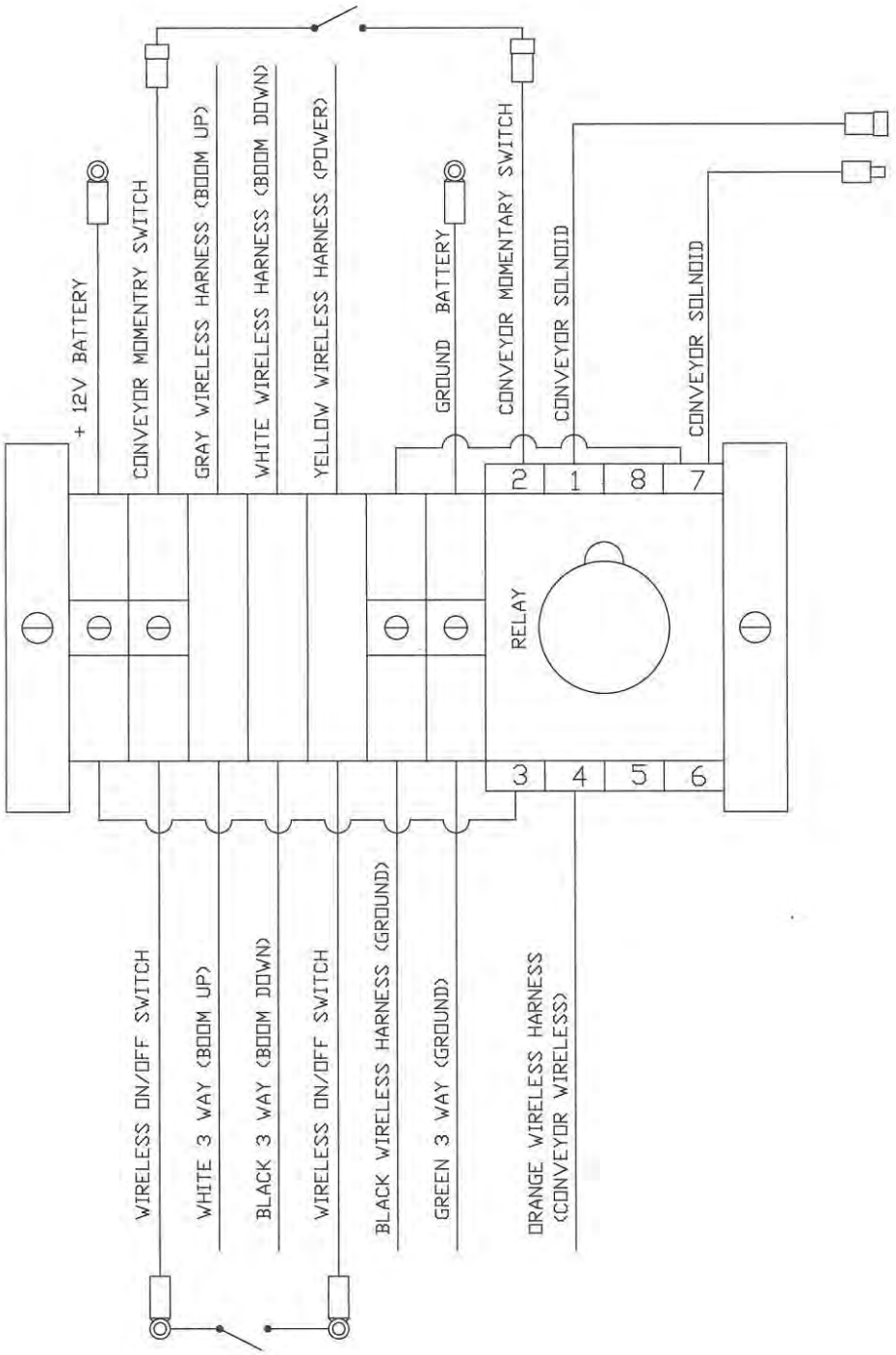
Section 4.2 DELUXE YELLOW REMOTE



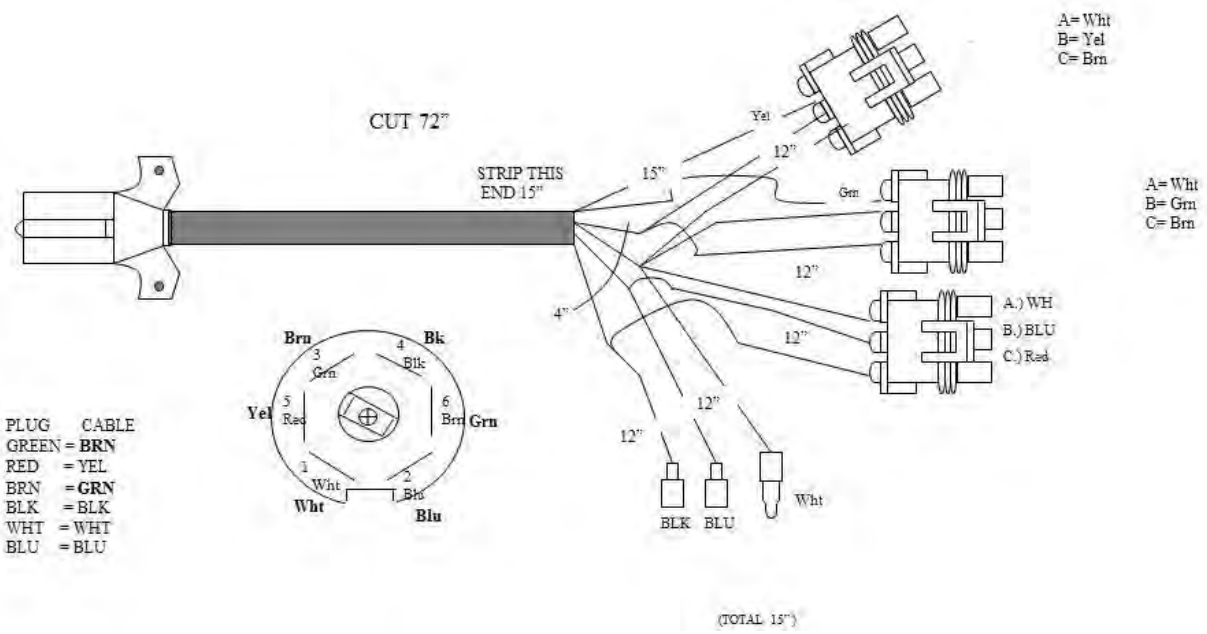


COLOR CODE WIRE		
RED	MAIN	POWER
GRN/BLACK		VALVES
ORG	BOOM	UP
BLU	BOOM	DN
BLK	REAR DOOR	UP
WHT/BLK	REAR DOOR	DN
WHT/BLK	FRONT DOOR	UP
RED/BLK	FRONT DOOR	DN
GRN	CONVEYR	START

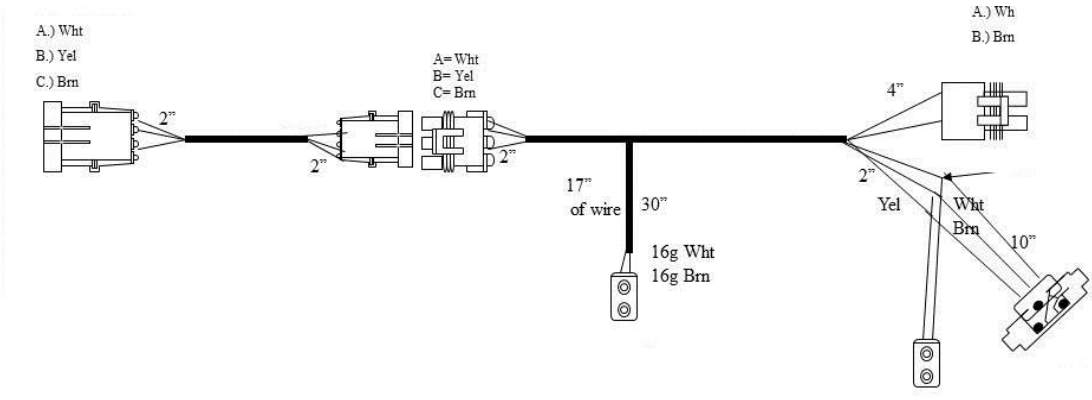
Section 4.3 WIRELESS OPTION



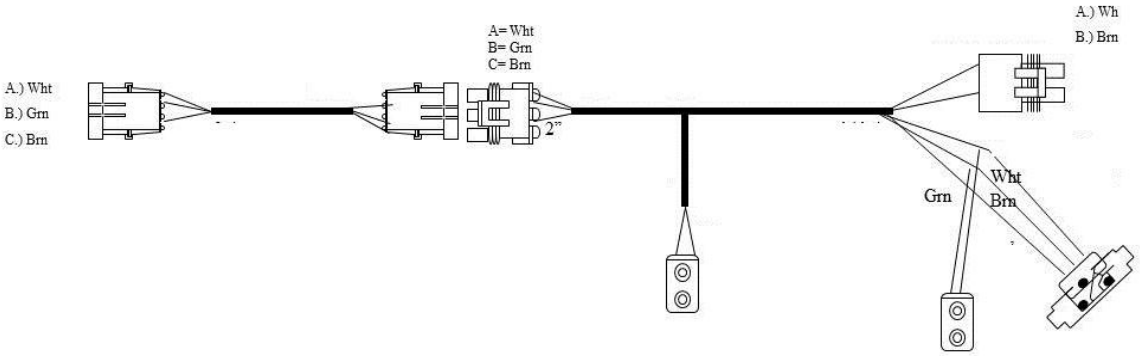
Section 4.4 7-WAY FRONT (Ser. #2001-3375) PART # ST375 7WAY



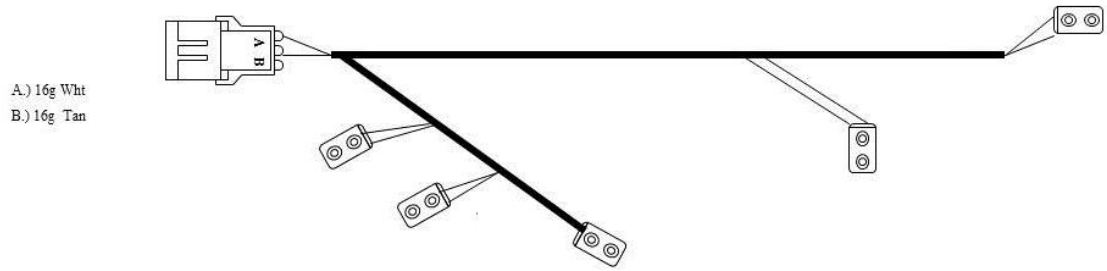
Section 4:5 LEFT SIDE (Ser. #2001-3375) PART # ST375LS



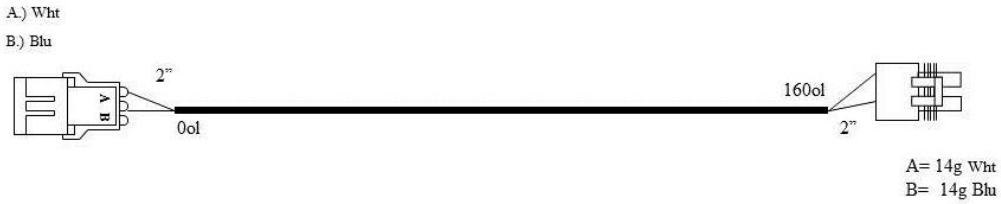
Section 4.6 RIGHT SIDE (Ser. #2001-3375) PART # ST375RS



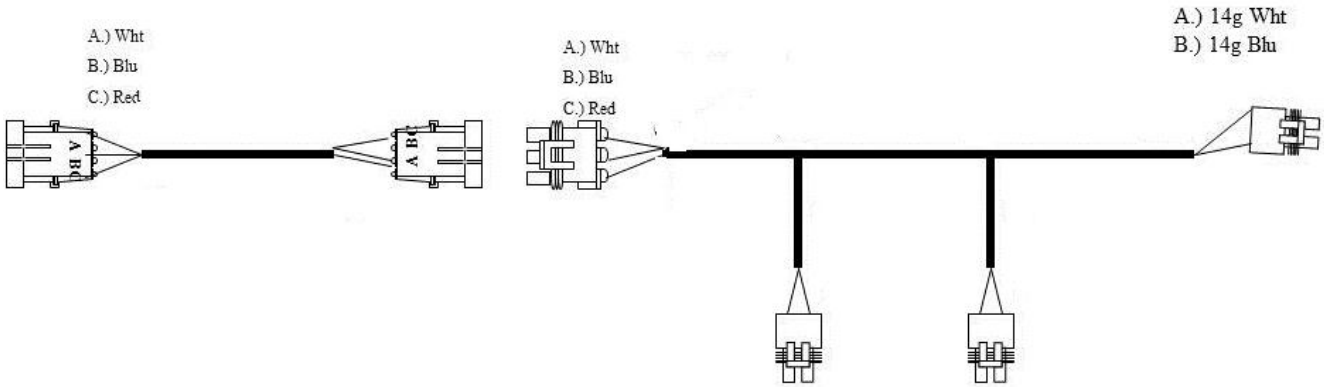
Section 4.7 UPPER SHELL (Ser. #2001-3375) (Ser. #2001-3375) PART # ST375US



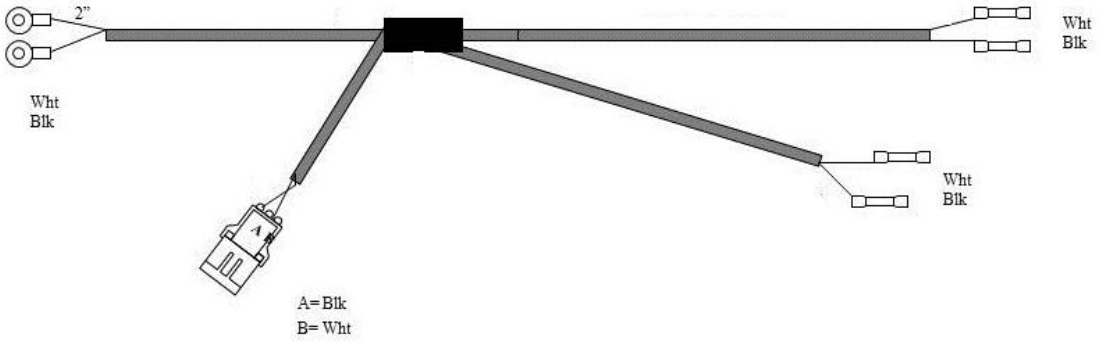
Section 4.8 REAR JUMPER PART # ST375RJ



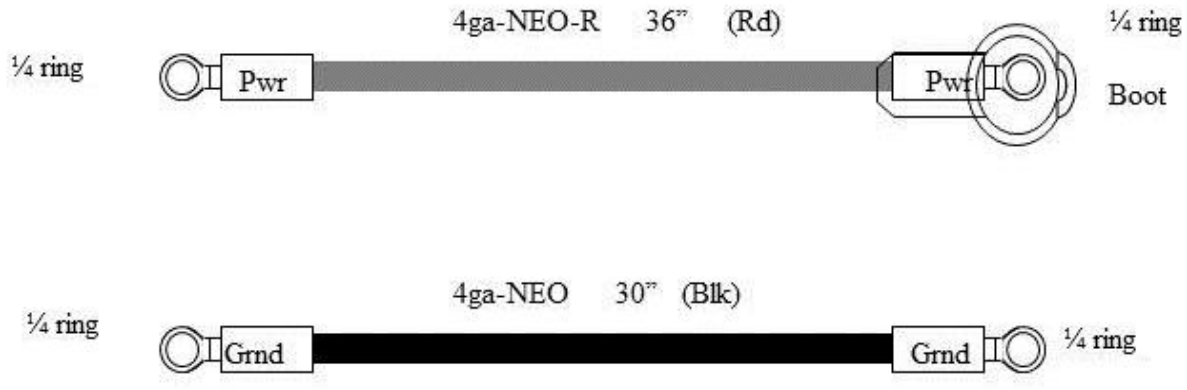
Section 4.9 BRAKES (Ser. #2001-3375) PART # ST375B



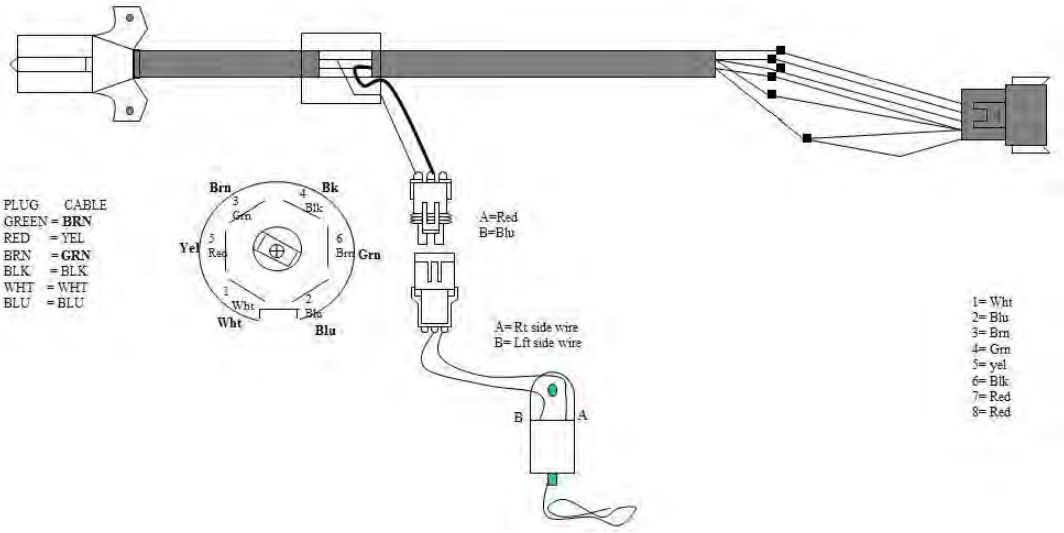
Section 4.10 FIELD LIGHTS (Ser. #2001-3375) PART # ST375FL



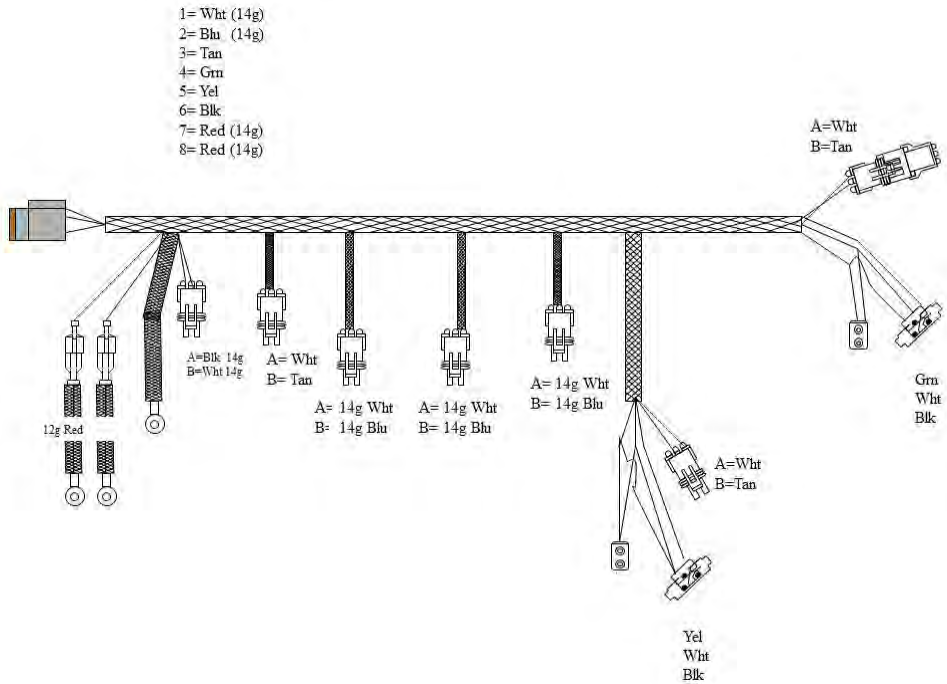
Section 4.11 BATTERY CABLE PART # ST375BC



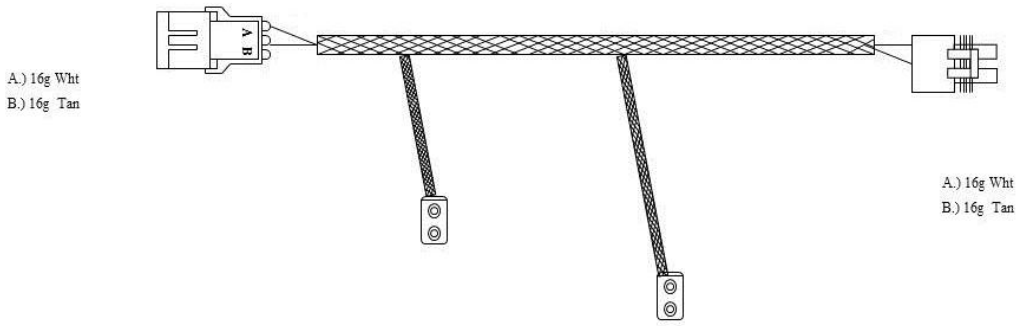
Section 4.12 7-WAY (Ser. #3376-) PART # ST375 7WAY



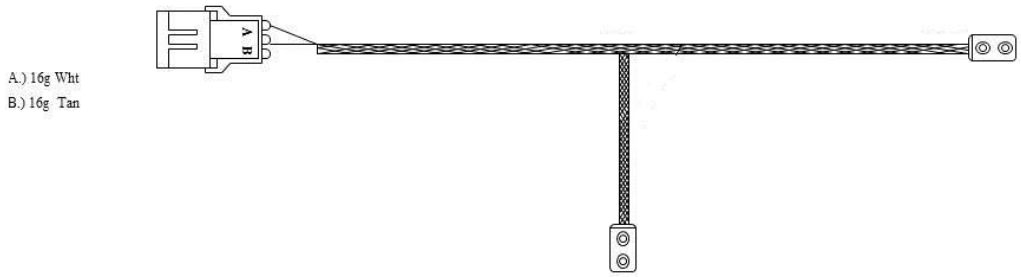
Section 4.13 MAIN HARNESS (Ser. #3376-) PART # ST375MH



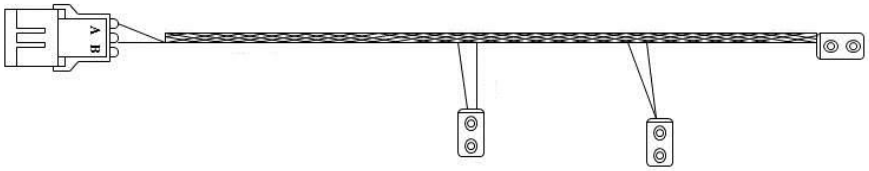
Section 4.14 FRONT BOTTOM HARNESS (Ser. #3376-) PART # ST375FBH



Section 4.15 FRONT TOP (Ser. #3376-) PART # ST375FT

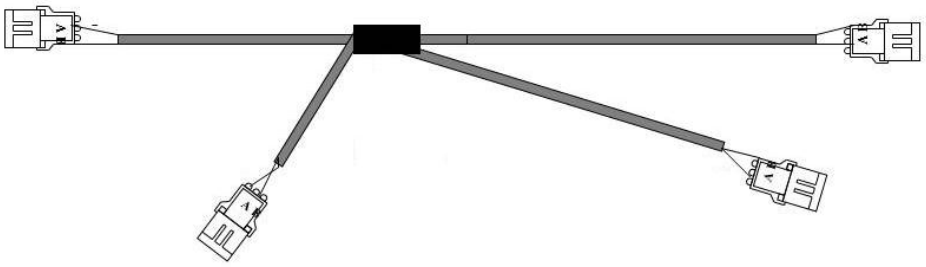


Section 4.16 REAR TOP (Ser. #3376-) PART # ST375RT



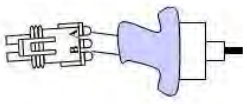
A.) 16g Wht
B.) 16g Tan

Section 4.17 FIELD LIGHTS (Ser. #3376-) PART # ST375FL



A= Blk
B= Wht

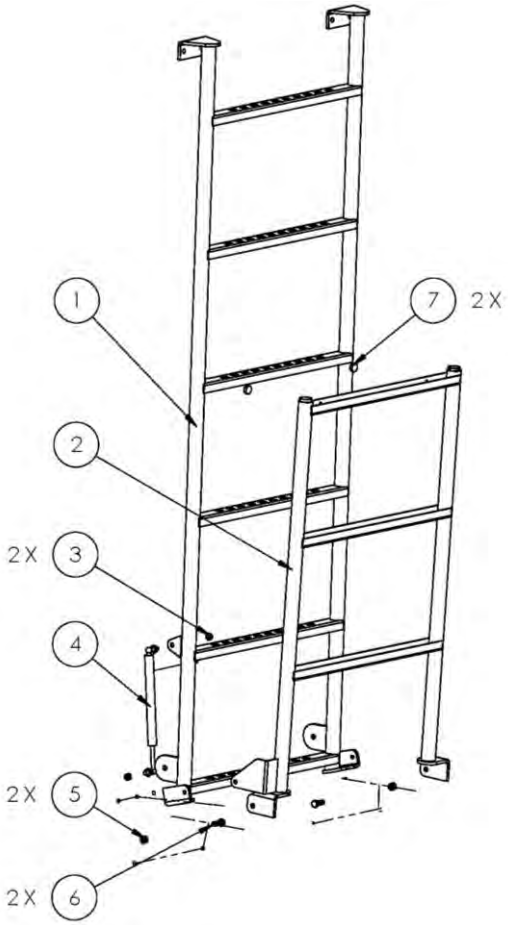
Section 4.18 FIELD LIGHTS SWITCH (Ser. #3376-) PART # ST375FLS



A= 16g Blk
B= 16g Wht

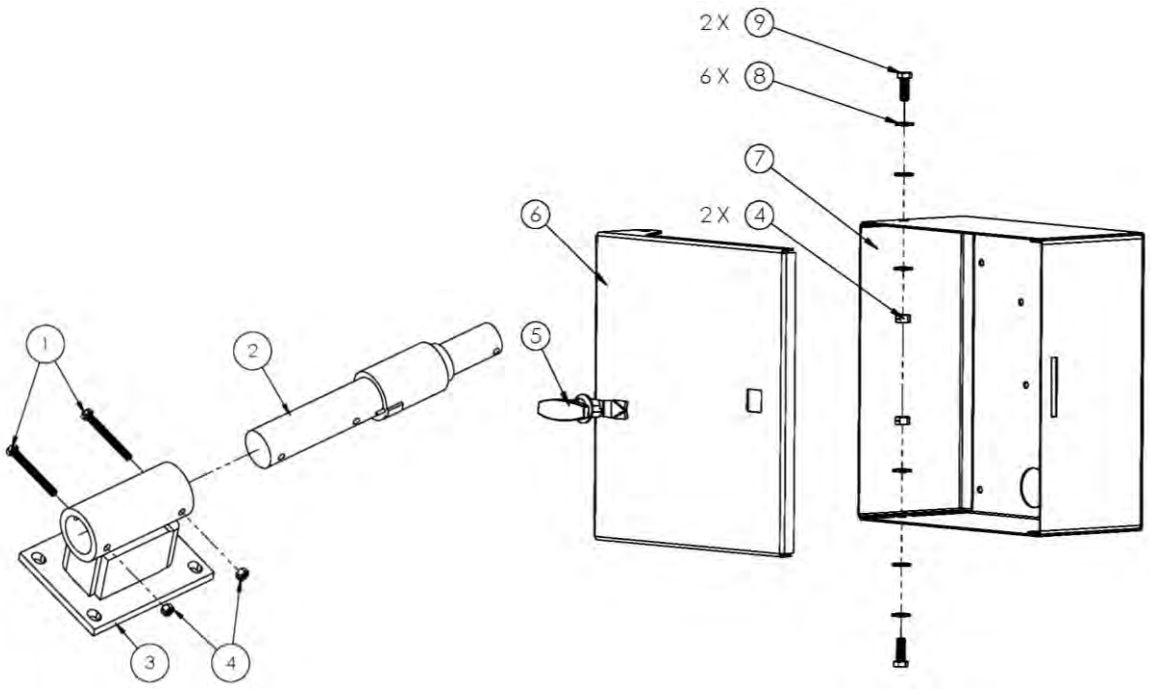
PARTS

Section 5.1 LADDER



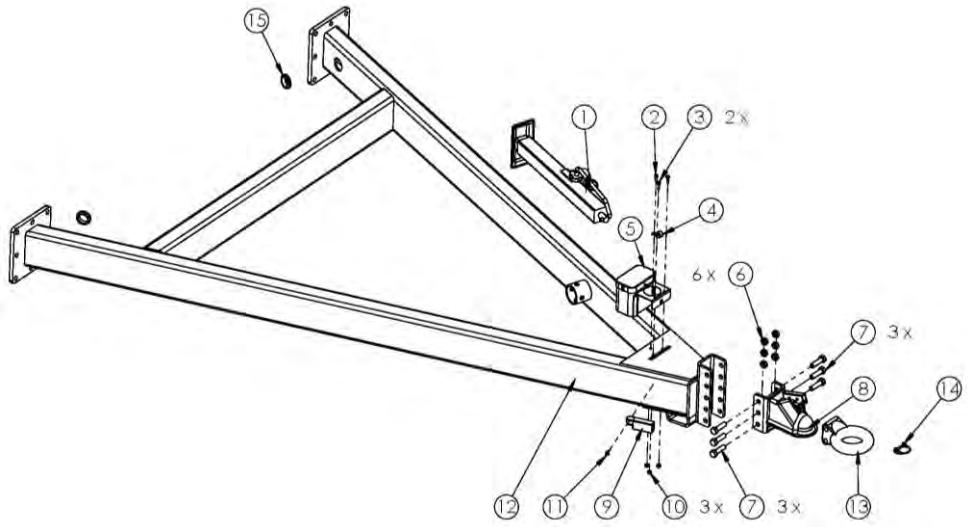
LADDER			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	ST375TLW	top ladder weldment	1
2	ST375BLW	bottom ladder weldment	1
3	160033	5/16-18 centerlock hex nut	2
4	120RGS	15.24extended x 9.76retracted gas spring (120lbs)	1
5	161900	3/8-16 centerlock hex nut, zinc plated, gr2	2
6	160020	3/8-16 x 1.0 hex bolt, zinc plated, gr2	2
7	ST375LB	BUMPERS	2

Section 5.2 SCALE MOUNT



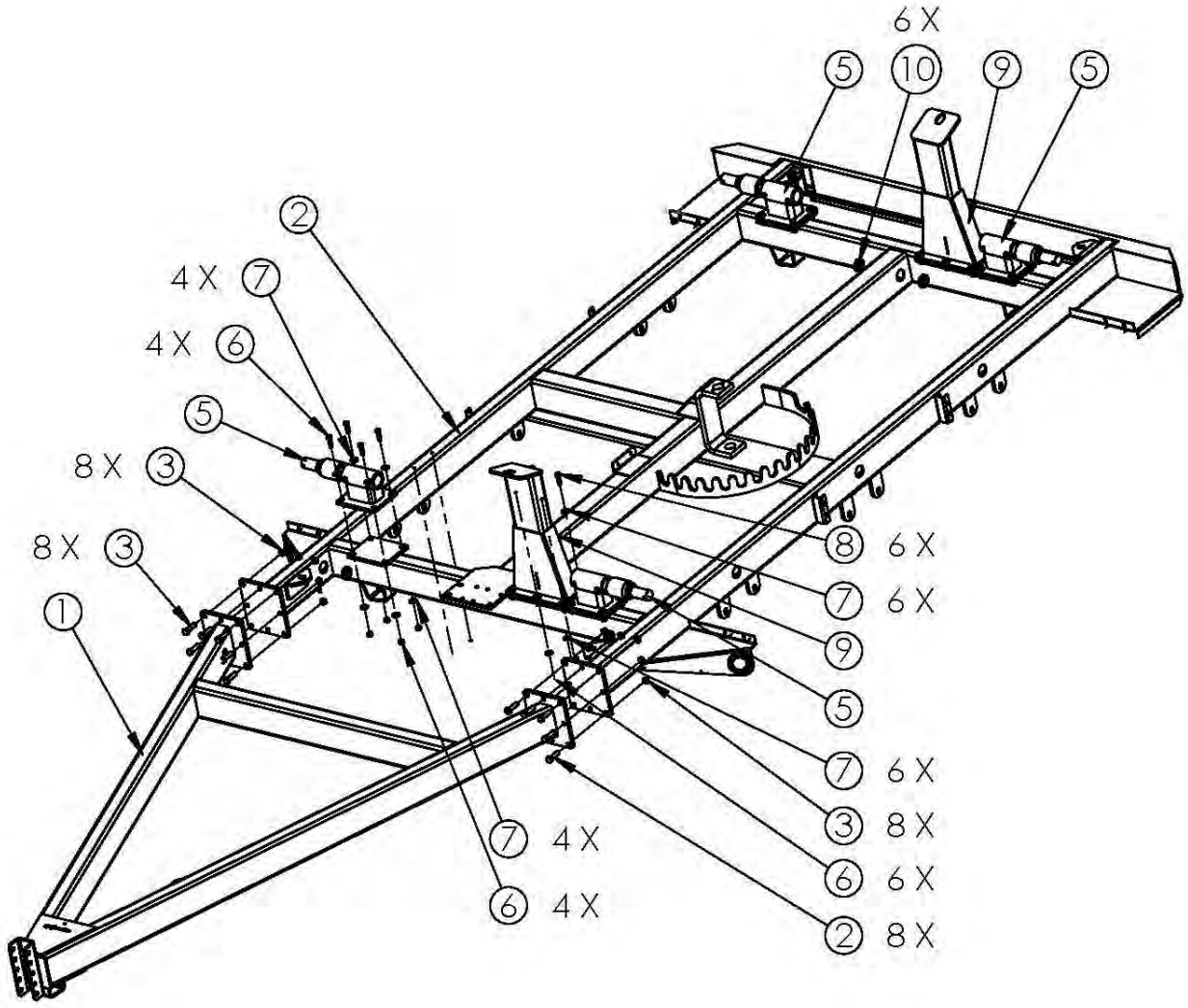
SCALE MOUNT			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	160032	3/8"-16x3 1/2" hex head cap screws, zinc plated,gr2	2
2	WB218	2 1/8" dia weight bar	1
3	SMST4W	scale mount	1
4	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	4
5	ST375SBH	t-handle nonlocking, chrome finish	1
6	ST375SBD	scale box door	1
7	ST375SB	scale box	1
8	162100	3/8" zinc plated washer	6
9	160020	3/8"-16 x 1" hex head cap screws, zinc plated, gr2	2
10	640XLI	640 xl indicator (not shown)	1
11	640ZLIPC	640xl indicator power cord (not shown)	1
12	640P	printer (option) (not shown)	1

Section 5.3 A-FRAME



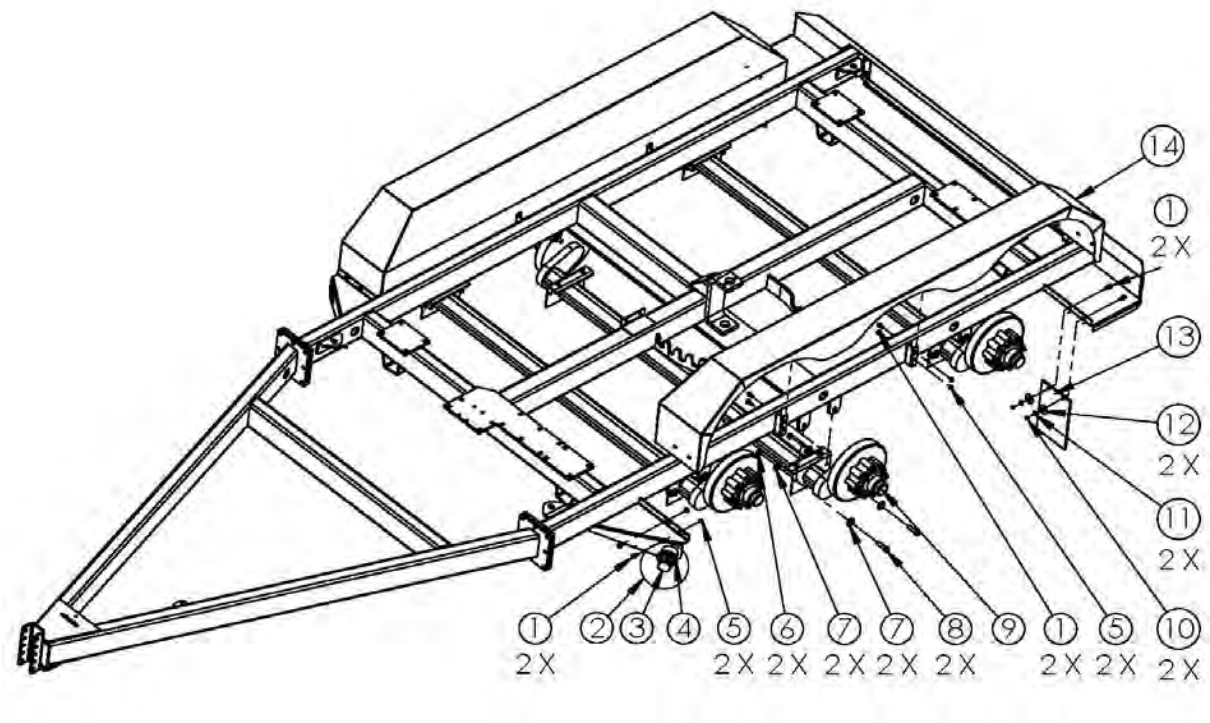
A-FRAME			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	JST5000LB	5000 Series, 5000lb Max lift capacity Jack	1
2	HHCS1420034ZG2	1/4"-20x3/4" hex head cap screws, zinc plated,gr2	1
3	HHCS14201ZG2	1/4"-20x1" hex head cap screws, zinc plated,gr2	2
4	34ICZV	3/4" ID x 9/32" Dia hole insulated closed clamp zinc/vinyl	1
5	HSBB1	electric breakaway kit battery box	1
6	163900	5/8"-11 centerlock hex nut, zinc plated,gr2	6
7	HHCS58112ZG8	5/8"-11x2 hex head cap screw, zinc plated,gr8	6
8	BHST375	2-5/16" Ball coupler 21,000lb	1
9	HSB1	Bargman Breakaway Switch 12VDC	1
10	160580	1/4"-20 serrated flange hex nut, zinc plated, gr5	3
11	SDHWS1414075Z2	1/4"-14 x 0 3/4" Drill point #3 Self drilling hex washer head screw, zinc plated, gr2	1
12	AFST375W	Chassis A Frame Weldment	1
13	PH212	3" Lunette Eye	1
14	134GR	1 3/4 grommet	2
15	14134LP	1/4" x 1 3/4" round wire lynch pin	1
16	SCST375	Safety Chain (not shown)	2

Section 5.4 A-FRAME & CHASSIS



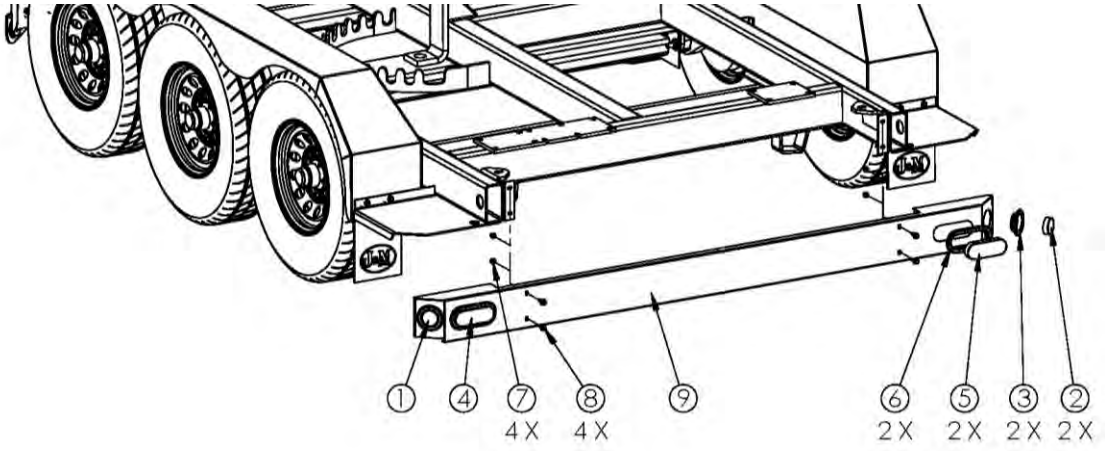
A-FRAME & CHASSIS			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	AFST375W	Chassis A Frame Weldment	1
2	CFST375W	Chassis Frame Weldment	1
3	160038	5/8"-11x2" hex head cap screw,zinc plated,gr8	16
4	163900	5/8"-11 centerlock hex nut,zinc plated,gr2	16
5	SMST375W	Scale Mount Weldment	4
6	163300	1/2"-13, centrlock, hex nut, zinc plated, gr2	28
7	163550	1/2" flat washer, zinc plated	56
8	162605	1/2"-13 x 1 3/4" hex head cap screw, zinc plated,gr5	28
9	BSST375W	Boom Support Weldment	2
10	134GR	1 3/4" grommet	2

Section 5.5 WHEEL WELL



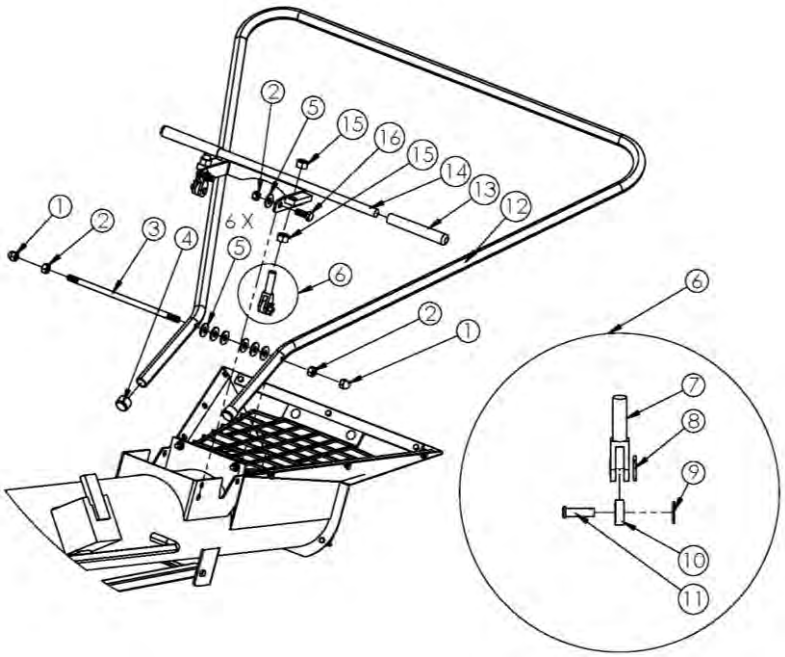
WHEEL WELL			
ITEM#	PART#	DESCRIPTION	QTY.
1	160020	3/8"-16 x 1" serated flange hex head cap screw, zinc plated, gr2	4
2	ARLA1	amber (yellow) round light assembly	2
3	ARLR1	amber (yellow) round light/reflector	2
4	RLG1	round light groment	2
5	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	12
6	163900	5/8"-11 centerlock hex nut,zinc plated,gr2	12
7	160034	5/8 flat washer, zinc plated	24
8	160037	5/8"-11 x2 1/4" hex head cap screws, zinc plated,gr2	12
9	ST375A	7,000lb Axle	3
10	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	4
11	162100	3/8" flat washer,zinc plated	4
12	160014	3/4" flat washer,zinc plated	4
13	BMF375	blend mud flap	2
14	WWST375W	weel wheel diamond plate weldment	2

Section 5.6 BUMPER

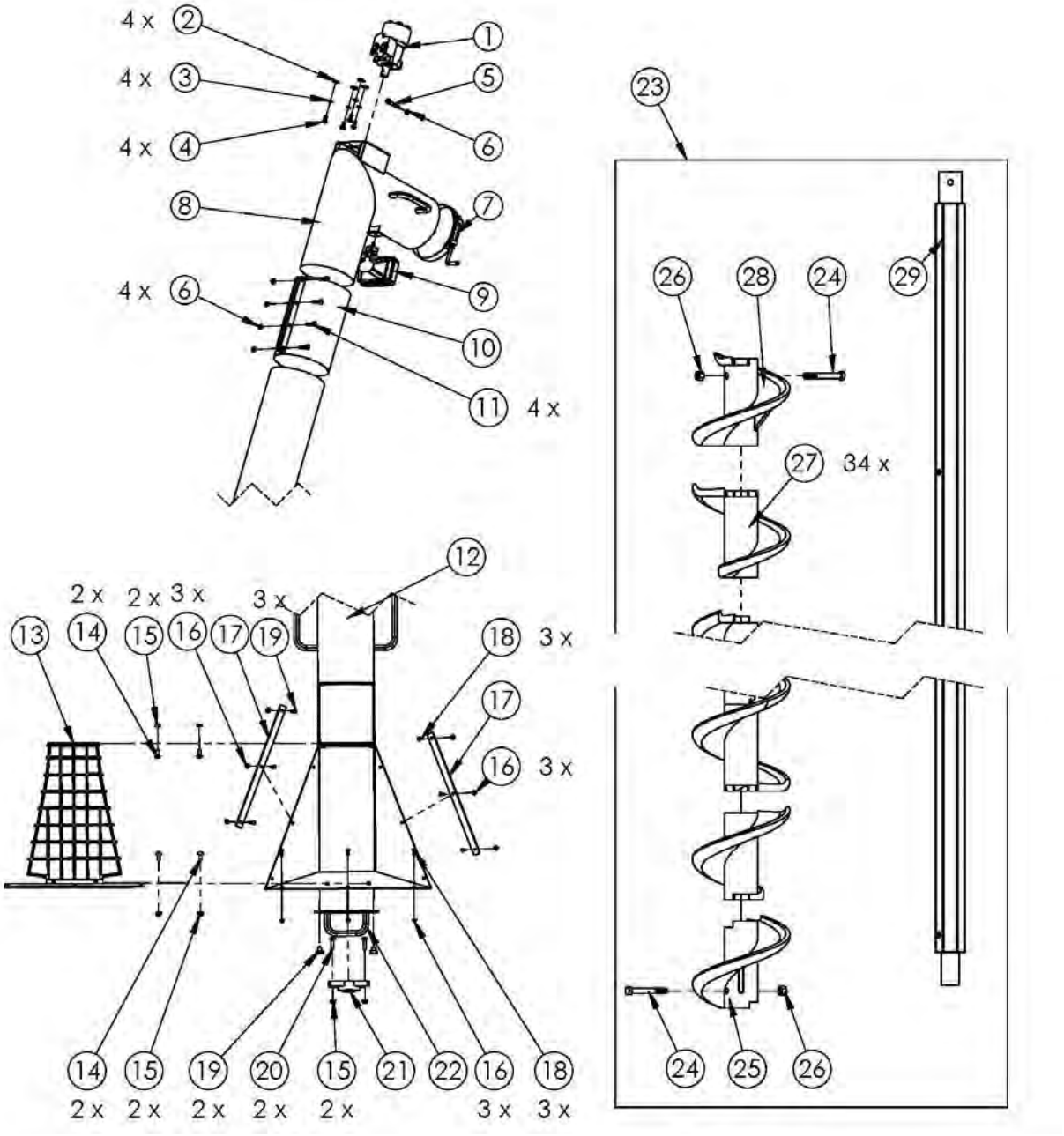


BUMPER			
ITEM#	PART#	DESCRIPTION	QTY.
1	**RRLA1**	red round light assembly	2
2	**RRLR1**	red round light/reflector	**2**
3	RLGI	round light groment	2
4	BLSTOA1	brake light, stop turn tail oval assembly	2
5	BLSTOL1	brake light, stop turn tail oval led	2
6	OVLG1	oval brake light groment	2
7	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	4
8	160020	3/8"-16 x 1" hex head cap screw, zinc plated, gr2	4
9	BST375W	bumper carbon diamon plate	1

Section 5.7 AUGER (1)



AUGER (1)			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	160041	1/2"-13 acorn nut, zinc, gr2	2
2	163200	1/2"-13 finished hex nut, zinc plated, gr2	4
3	ST375HR	0.5 DIA X 12.0 hopper	1
4	BCHST375	black push on round cap	2
5	163550	1/2" flat washer, zinc plated	8
6	CAST375	clevis assembled	2
7	CST375	5/8"-18 th clevis	1
8	CP1834Z	1/8 x 3/4 cotter pin, zinc plated	1
9	162100	3/8 zinc plated SAE flat washer	1
10	RB375	roller bearing	1
11	P38114Z	3/8" x 1 1/4 pin, zinc plated	1
12	AHPST375	auger hopper pipe	1
13	6BSR	6" long black slide on round grip	2
14	HLST375W	hopper lock weldment	1
15	160039	5/8"-18, centerlock, hex nut, zinc plated, gr2	4
16	160005	1/2"-13 x 1 1/4" hex head cap screw, zinc plated, gr2	2
17	ST375CHA	vinyl hopper (not shown)	1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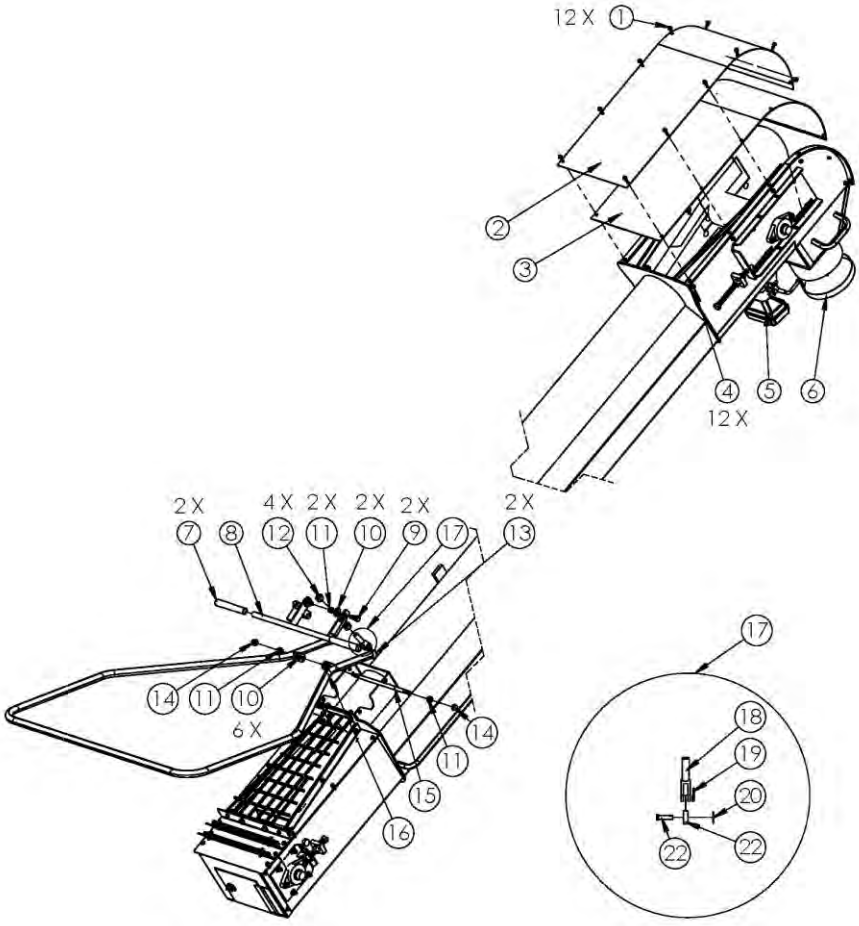
34 x

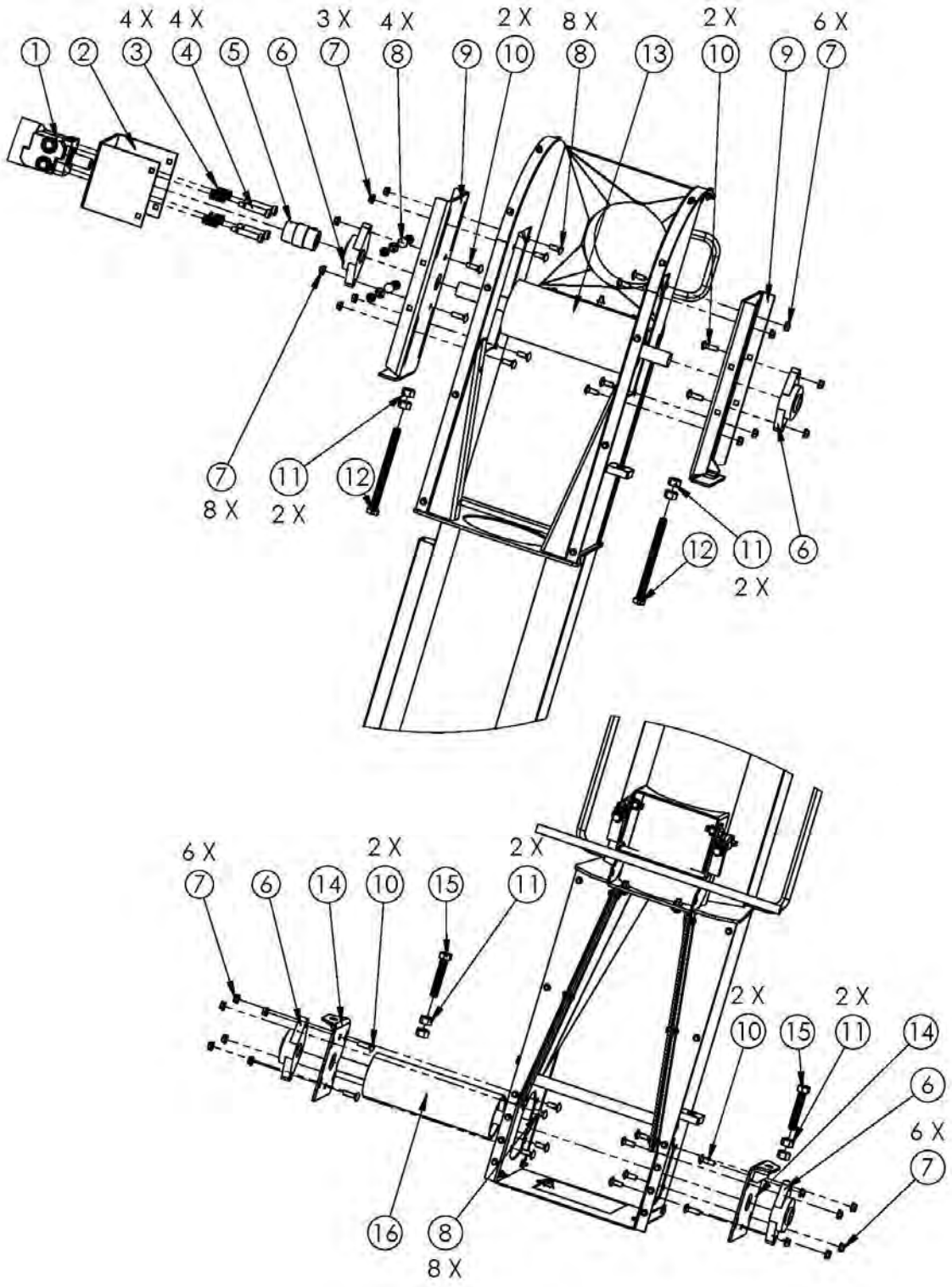
AUGER (2)			
ITEM#	PART#	DESCRIPTION	QTY.
1	HMST375A	hydraulic motor with pinhole in shaft (not keyway)	1
2	162100	3/8" flat washer,zinc plated	4
3	160018	3/8" zinc plated lock washer	4
4	160021	3/8"-16 x 0 3/4" serrated flange hex head cap screw, zinc plated, gr5	5
5	160026	3/8"-16 X 2 1/4" hex head cap screw, zinc plated gr2	1
6	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	4
7	8C2SS	8"dia 2 stage spoutclamp	1
8	ATTST375W	auger-top tube weldment(discharge end)	1
9	FLDLT-1	field light	1
10	ATSST375W	auger-splice weldment	1
11	160023	3/8"-16 x 1 1/2" round head square neck, zinc plated, gr2	4
12	ALTST375W	auger-lower tube weldment	1
13	ASSST375W	auger safety shield	1
14	160030	3/8"-16 X 1" round head square neck, zinc plated, gr2	4
15	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	9
16	160580	1/4"-20 serrated flange hex nut, zinc plated, gr5	9
17	AHHST375	auger hopper hold down	2
18	160012	1/4"-20 X 3/4" hex flange bolt, zinc plated, gr5	9
19	1420NTK	1/4"-20th four arm nylon threaded knob	2
20	160023	3/8"-16 x 1 1/2" round head square neck, zinc plated, gr2	2
21	114BST375	1-1/4" dia two bolt bearing	1
22	ACDST375W	auger cleanout door	1
23	AAST375	auger assembly	1
24	160027	3/8"-16 x 3" hex head cap screw,zinc plated gr5	2
25	7DAIEST375	7" dia HDPE polycup (Idler end cap)	1
26	160019	3/8"-16 nylon hex locknut, zinc plated gr2	2
27	7DASFST375	7" dia HDPE polycup (Standard flighting)	34
28	7DADEST375	7" dia HDPE polycup (Drive end cap)	1
29	GHTAST375	1.830 X 226.63 galvanized hex tube	1
30	8TS-11	8" seed tender telescoping spout (not shown)	1
31	ST375SSR	spout snap ring (not shown)	1

Section 5.9 CONVEYOR (1)



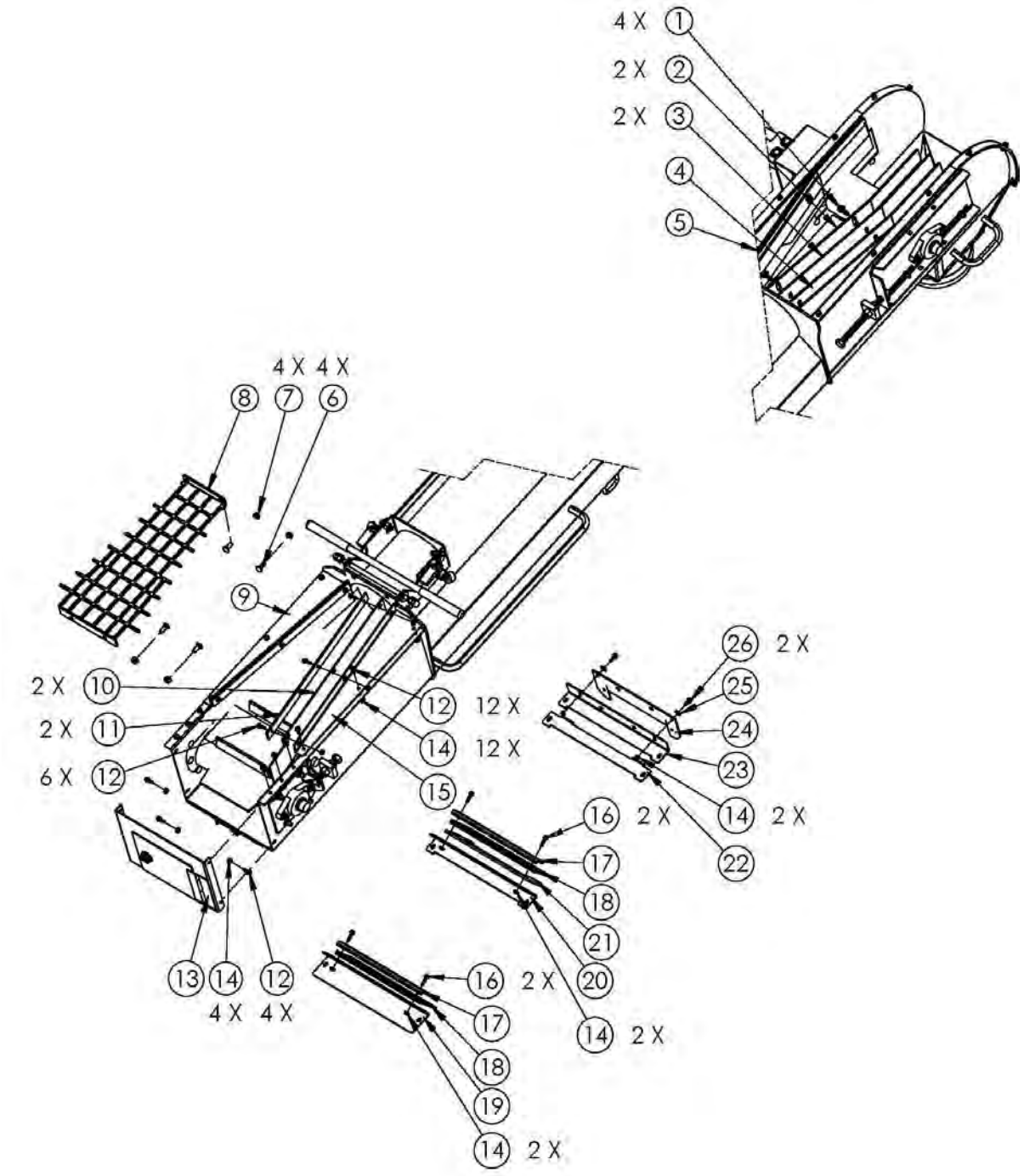
CONVEYOR (1)			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	160012	1/4"-20 X 3/4" hex flange bolt, zinc plated, gr5	12
2	ST375HP	head pan	1
3	ST375HPG	head pan gasket	1
4	160009	1/4"-20 serrated flange hex nut, zinc plated, gr2	12
5	FLDLT-1	field light	1
6	8C2SS	8"dia 2 stage spoutclamp	1
7	6BSR	6" long black slide on round grip	2
8	HLST375W	hopper lock weldment	1
9	160005	1/2"-13 x 1 1/4" hex head cap screw, zinc plated, gr2	2
10	163550	1/2" flat washer, zinc plated	8
11	163200	1/2"-13 finished hex nut, zinc plated, gr2	4
12	160039	5/8"-18, centerlock, hex nut, zinc plated, gr2	4
13	BCHST375	black push on round cap	2
14	160041	1/2"-13 acorn nut, zinc, gr2	2
15	ST375HR	0.5 DIA X 12.0 hopper	1
16	BHPST375	belt hopper pipe	1
17	CAST375	clevis assembled	2
18	CST375	5/8"-18 th clevis	1
19	CP1834Z	1/8 x 3/4 cotter pin, zinc plated	1
20	162100	3/8 zinc plated SAE flat washer	1
21	RB375	roller bearing with two metal non-contact shields	1
22	P38114Z	3/8" x 1 1/4 pin, zinc plated	1
23	8TS-11	8"seed tender telescoping spout (not shown)	1

Section 5.10 CONVEYOR (2)

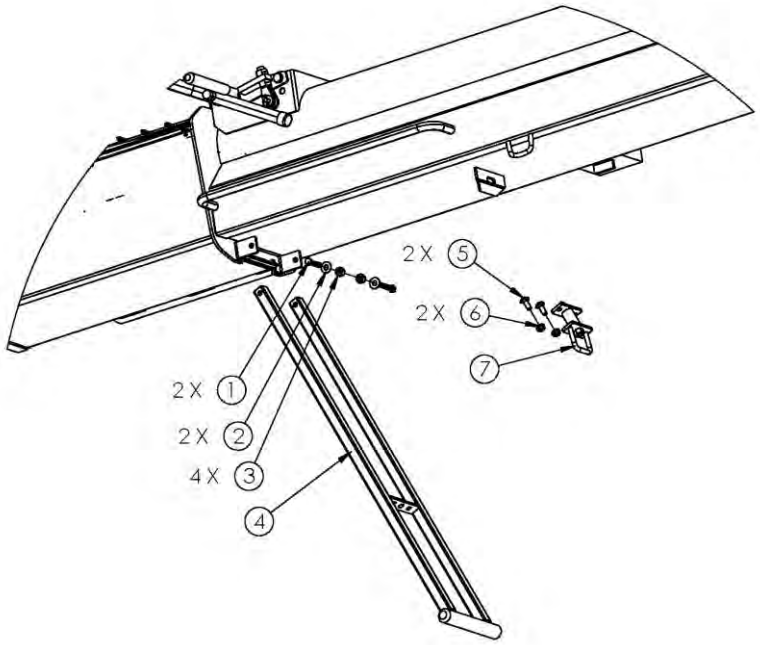


CONVEYOR (2)			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	HMST375B	hydraulic motor with keyed shaft	1
2	DMST375W	drive motor mount	1
3	S34FL112	3/4" spindle od, .080 wire dia, 1 1/2 " free lg	4
4	160003	1/2"-13 x 1 1/2 lg, 3/8 socket head cap screw with nylon patch, alloy steel,gr2	4
5	ST375BDC	drive coupling	1
6	114BST375	1-1/4" dia two bolt bearing	4
7	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	29
8	160025	3/8"-16 X 1" round head square neck, zinc plated, gr2	20
9	ST375DBTW	drive side tension bracket weldment	2
10	ST375BTW	tension bracket weldment	2
11	160024	3/8"-16 X 1 1/4" round head square neck, zinc plated, gr2	8
12	160035	5/8"-11 hex nut, zinc plated, gr2	8
13	160040	5/8-11 x 7 1/2",hex head cap screw, zinc plated, gr2	2
14	ST375BDS	belt conveyor drive shaft	1
15	ST375ITBW	idler tension bracket weldment	2
16	160036	5/8"-11 x 3 1/2", hex head cap screw, zinc plated, gr2	2
17	ST375BIS	belt conveyor idler shaft	1
18	160010	1/4"-20 x 1" hex head cap screws, zinc plated,gr2	2
19	2349p	plate 2 3/4 X 9	1
20	3NB	3" Nylon Brush	1

Section 5.11 CONVEYOR (3)

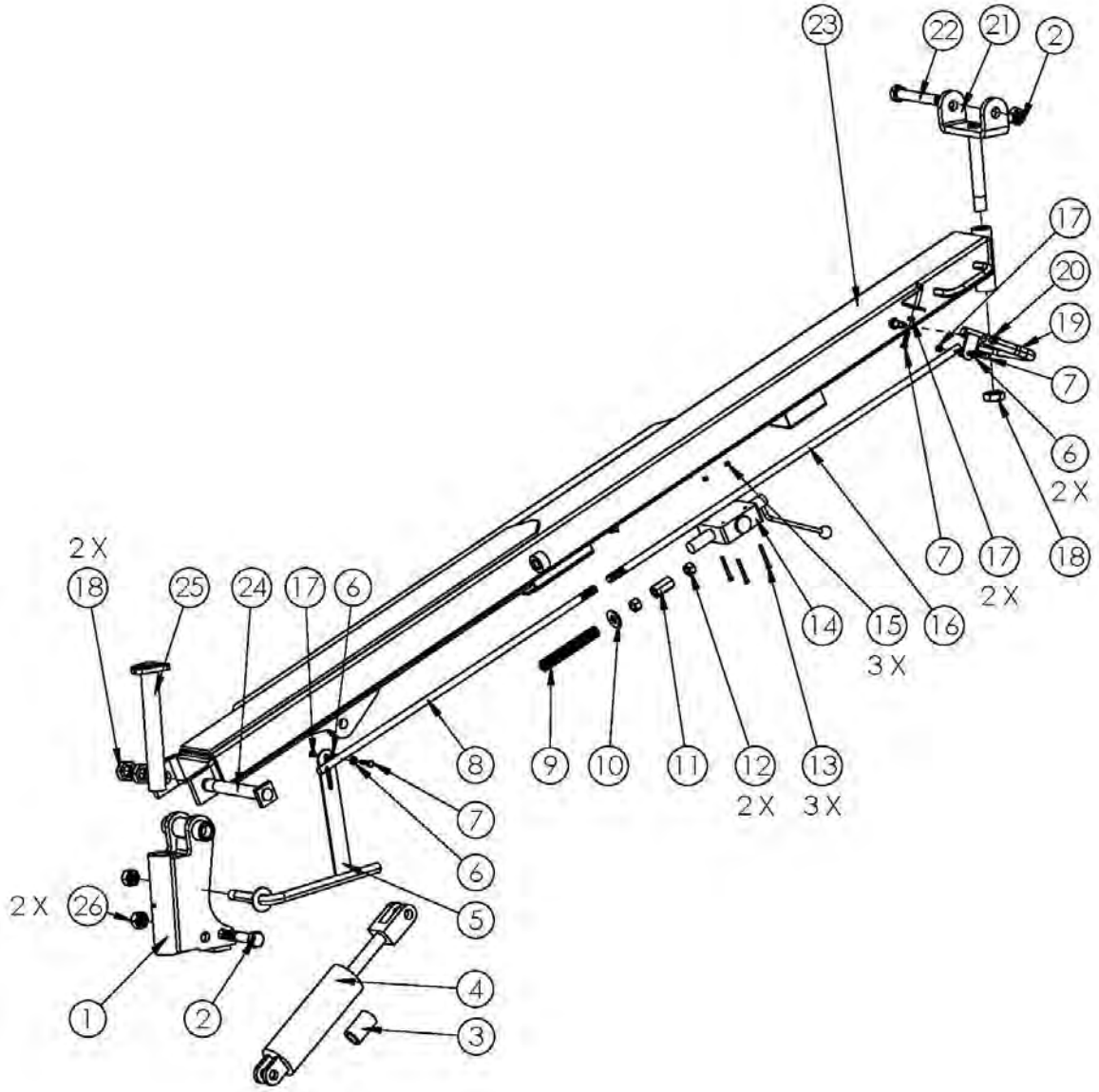


CONVEYOR (3)			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	161750	3/8-16 x 1 serrated flange hex head cap screw, zinc plated, gr5	4
2	1142434P	plate 1 1/4 X 24 3/4	2
3	625R	rubber 6 X 25	2
4	62514PR	plate 6 X 25 1/4 (right)	1
5	62514PL	plate 6 X 25 1/4 (left)	1
6	160030	3/8"-16x1" hex head cap screw,zinc plated,gr2	4
7	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	4
8	BSSST375	belt safety shield	1
9	5316211316PL	plate 5 3/16 X 21 13/16 (left)	1
10	5241516SM	skirt material 5 x 24 15/16	2
11	1142158p	plate 1 1/4 X 21 5/8	2
12	160012	1/4"-20 X 3/4" hex flange bolt, zinc plated, gr5	22
13	ST375CDW	conveyor door clean out weldment	1
14	160580	1/4"-20 serrated flange hex nut, zinc plated, gr5	22
15	5316211316PR	plate 5 3/16 X 21 13/16 (right)	1
16	160010	1/4"-20 x 1" hex head cap screws, zinc plated,gr2	4
17	2341234P	plate 2 3/4 X 12 3/4	2
18	5NB	5" nylon brush 12 3/4	2
19	5181518P	plate 5 1/8 X 15 1/8	1
20	41518P	plate 4 X 15 1/8	1
21	418234P	rubber 4 1/8 X 2 3/4	1
22	4181518P	plate 4 1/8 X15 1/8	1
23	3341518P	plate 3 3/4 X15 1/8	1
24	411161212R	rubber 4 11/16 X 12 1/2	1
25	160014	3/4" flat washer, zinc plated	1
26	160012	1/4"-20 X 3/4" hex flange bolt, zinc plated, gr5	2



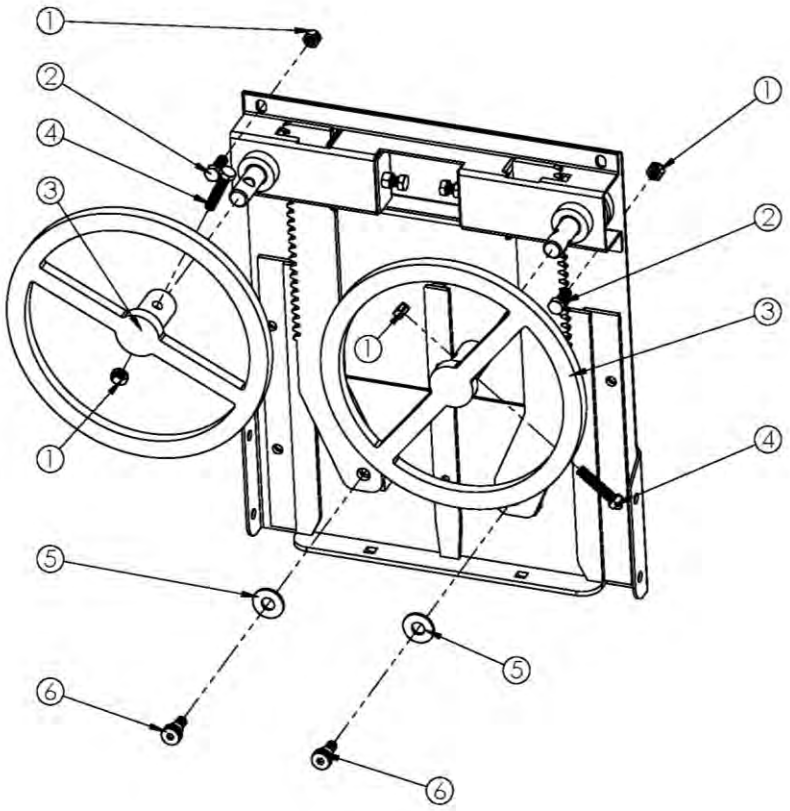
CONVEYOR/AUGER			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	160042	3/8"-16 X 1 3/4" hex head cap screw, zinc plated, gr2	2
2	160018	3/8" zinc plated lock washer	2
3	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	2
4	ST375LW	conveyor/auger leg weldment	1
5	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	2
6	160030	3/8"-16x1" hex head cap screw,zic plated,gr2	2
7	ST375SLL	spring locking latch	1

Section 5.13 BOOM ARM



BOOM ARM			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	VABPW	vertical axis boom pivot weldment	1
2	160002	1"-8 x 5 hex head cap screw, zinc plated, gr8	2
3	114ID178ODS	1 1/4" 0ID X 1 7/8" OD X 2 3/4" spacer	1
4	48HC	4" bore x 8" stroke hydraulic cylinder	1
5	TWPW	timing wheel pin weldment	1
6	162100	3/8" zinc plated washer	2
7	160022	3/8"-16 X 1 1/2" hex head cap screw, zinc plated, gr2	3
8	343834R	3/4"DIA X 38 3/4"	1
9	118712SP	7 1/2" free lg comp spring, closed and ground ends	1
10	160015	3/4" sae flat washer, zinc plated	1
11	160016	3/4" -16 x 2 1/4" coupler	1
12	160017	3/4" x 16 hex nut, zinc plated, gr2	2
13	160011	1/4"-20 x 2 1/2" hex head cap screw, zinc plated, gr2	4
14	4WDCV	4-WAY DIRECTION SL CONTROL VALVE "AO"	1
15	160600	1/4"-20 centerlock hex nut, zinc plated, gr2	4
16	344914R	3/4" DIA X 49 1/4"	3
17	161850	3/8"-16 hex nut, zinc plated, gr2	2
18	160041	1 1/4"-12 hex nut, zinc plated, gr2	3
19	ST375LH	locking handle	1
20	163300	1/2"-13, centrlock, hex nut, zinc plated, gr2	1
21	UBPW	upper boom pivot weldment	1
22	160000	1" 8 x 9" hex head cap screw, zinc plated, gr8	1
23	BAW	boom arm wedment	1
24	HAPW	horizontal axis pin weldment	1
25	VAPW	vertical axis pin weldment	1
26	160001	1"-8 centerlock 2 way jam nut, zinc plated, gr2	2

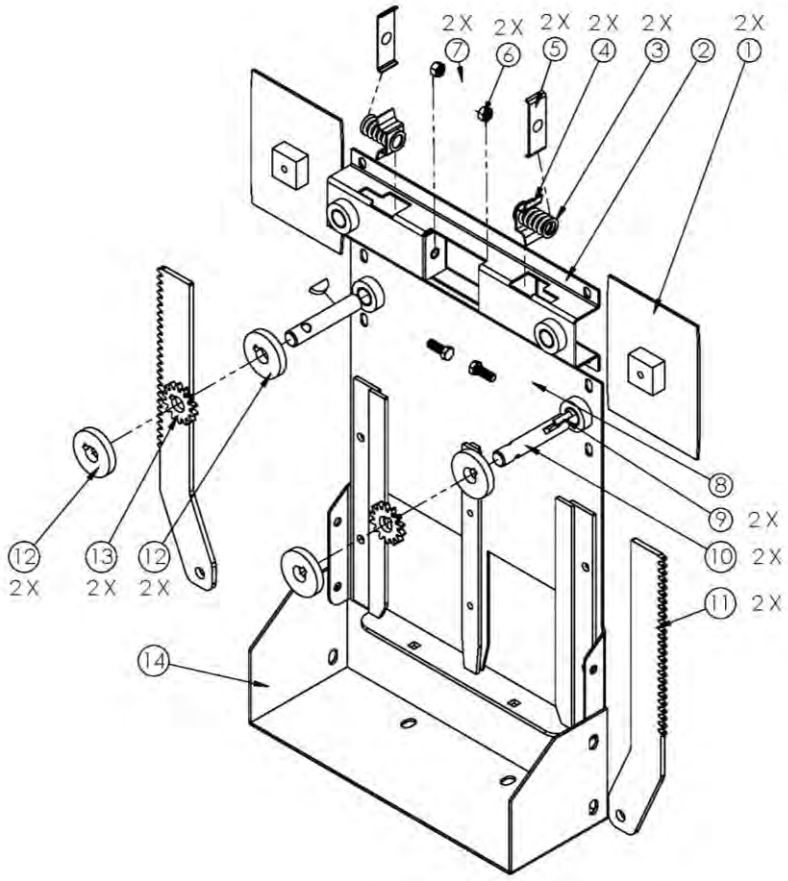
Section 5.14 MANUAL DOOR (1)



MANUAL DOOR (1)

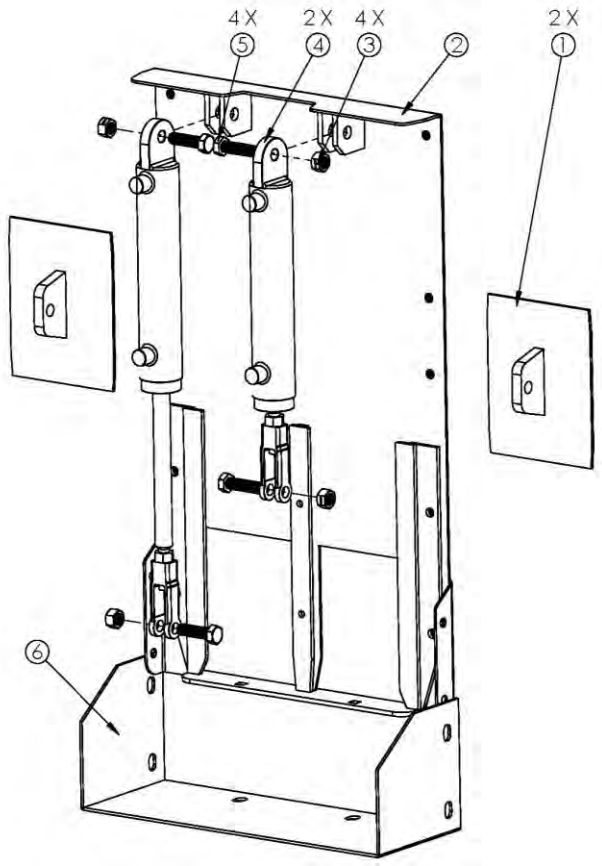
ITEM#	PART#	DESCRIPTION	QTY.
1	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	4
2	160020	3/8"-16 x 1" hex head cap screw, zinc plated, gr2	2
3	MDO2	manual door opener	2
4	160029	3/8"-16x1 3/4" hex head cap screw,zic plated,gr2	2
5	163550	1/2" flat washer, zinc plated	2
6	160021	3/8"-16 x 0 3/4" serrated flange hex head cap screw, zinc plated, gr5	2

Section 5.15 MANUAL DOOR (2)



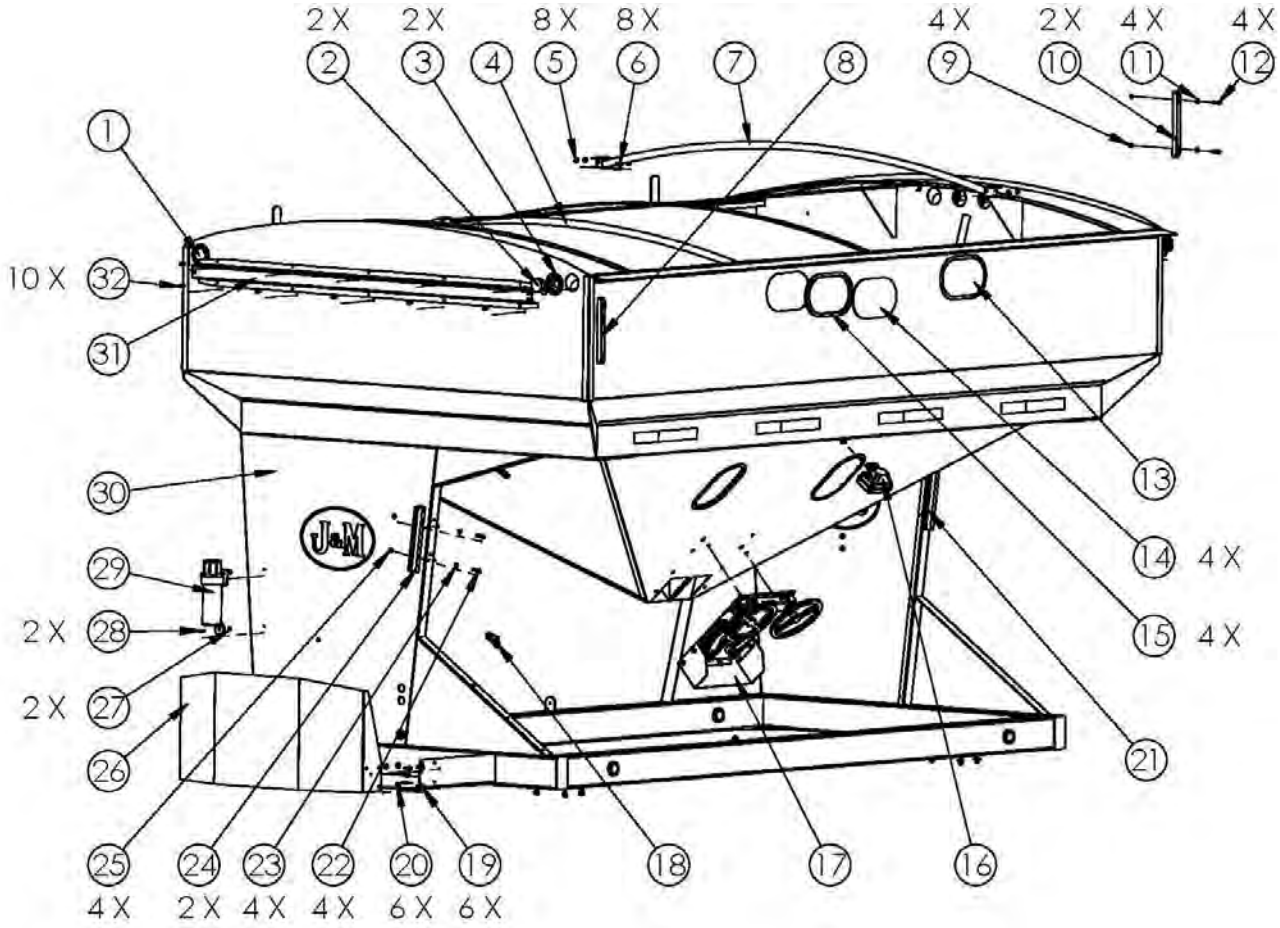
MANUAL DOOR (2)			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	MDPW375ST	manual door plate weldment	2
2	GPW375ST	guide pan weldment	1
3	MDS375ST	manual door spring	2
4	SHB375ST	spring holder bracket	2
5	SP375ST	scrubber plate	2
6	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	2
7	161850	3/8"-16 hex nut, zinc plated, gr2	2
8	MDRMP375ST	manual door rear mounting plate	1
9	808WKZ	#808 woodruff key, zinc plated	2
10	34418RP	3/4" dia x 4 1/8" roll pin	2
11	MDR375ST	manual door rack	2
12	38214KFW	3/8 key washer	4
13	14TSS	14 tooth sprocket	4
14	ST375DR	door rubber	1

Section5.16 HYDRAULIC DOOR



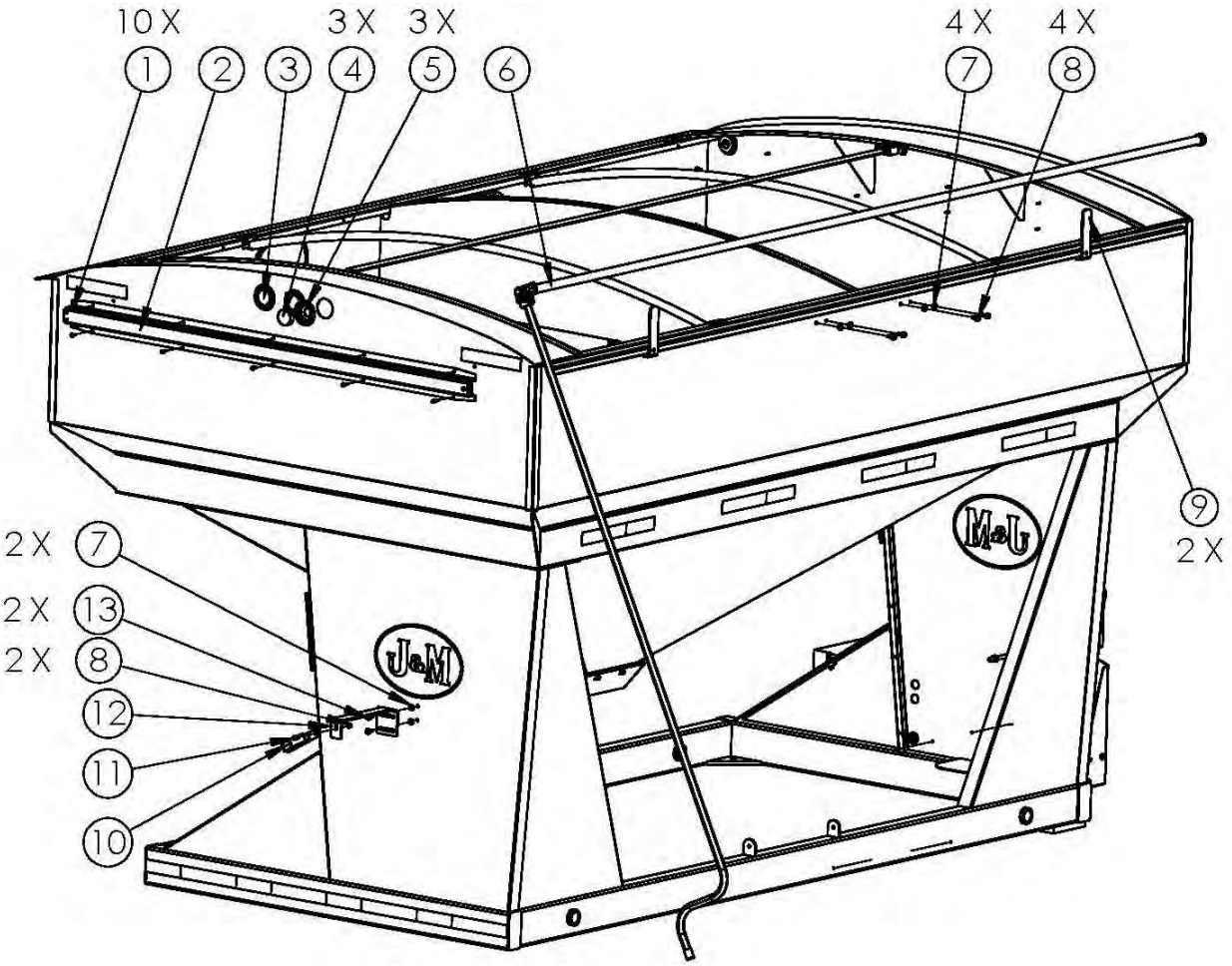
HYDRAULIC DOOR			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	HDP375STW	hydraulic door plate weldment	2
2	HDST375W	hydraulic door weldment	1
3	163300	1/2"-13, centrlock, hex nut, zinc plated, gr2	4
4	157HC	1.5" Bore x 7.0" stroke hydraulic cylinder	2
5	160005	1/2"-13 x 1 1/4" hex head cap screw, zinc plated, gr2	4
6	ST375DR	door rubber	1

Section 5.17 SHELL (1)



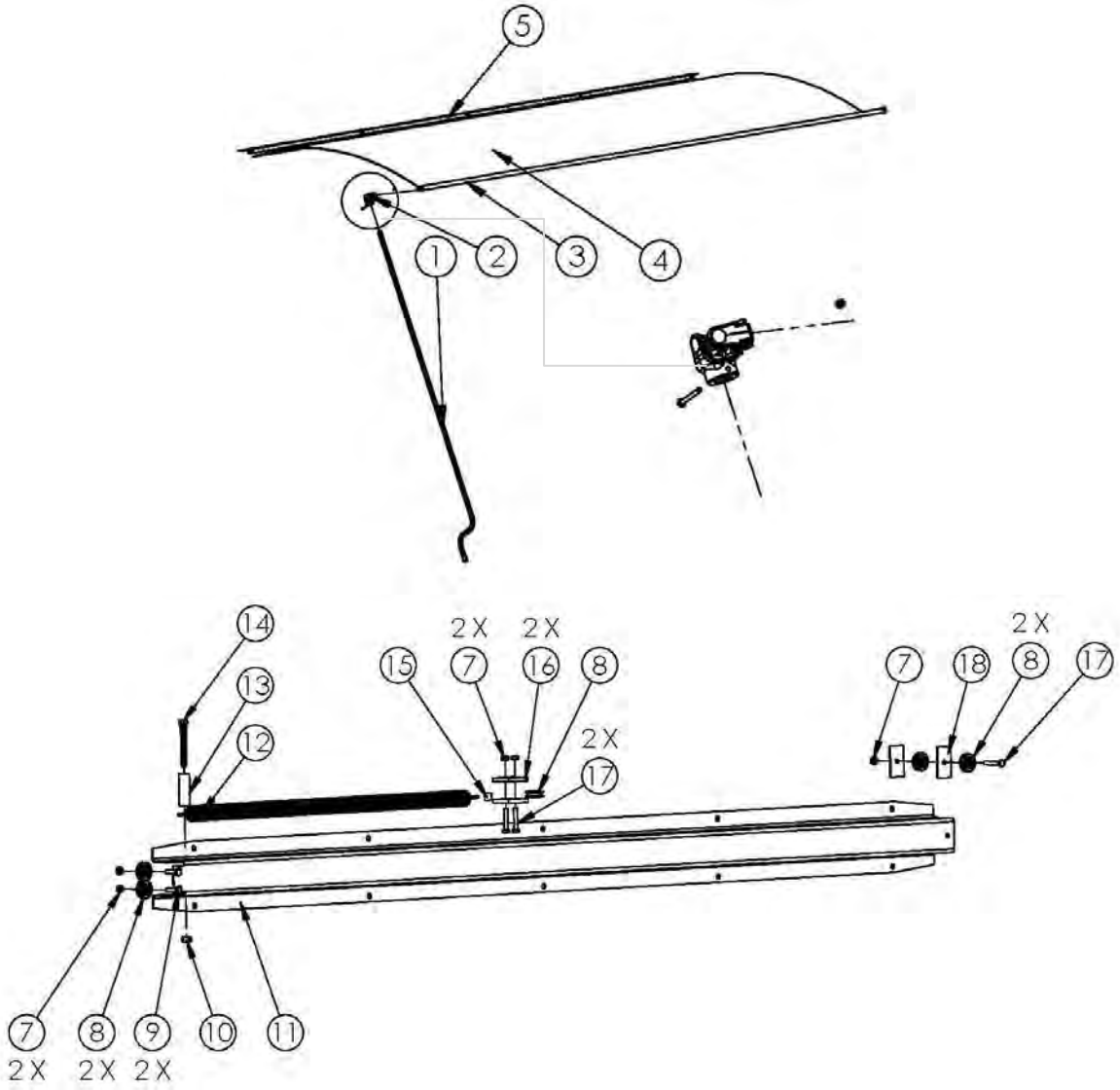
SHELL (1)			
ITEM#	PART#	DESCRIPTION	QTY.
1	ARLA1	amber (yellow) round light assembly	2
2	ARLR1	amber (yellow) round light/reflector	2
3	RLG1	round light grommet	2
4	TBAST375	tarp bow assembly	2
5	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	8
6	160028	3/8"-16 x0 3/4" hex head cap screw, zinc plated gr2	8
7	TBWST375	tarp bow weldment	2
8	TSAST375	tarp standoff assembly	2
9	161850	3/8"-16 hex nut, zinc plated, gr2	4
10	TSST375	tarp standoff	2
11	162100	3/8" flat washer, zinc plated	4
12	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	4
13	OWAST375	oval window assembly	4
14	OWST375	oval window	4
15	OWGST375	oval window grommet	4
16	FLDLT-1	field light	1
17	MDAST375	manual door assembly	1
18	LTSST375	field light toggle switch	1
19	161750	3/8"-16 x 1 serrated flange hex head cap screw, zinc plated, gr5	6
20	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	6
21	BASAST375	boom arm standoff assembly	2
22	160022	3/8"-16 X 1 1/2" hex head cap screw, zinc plated, gr2	4
23	162100	3/8" flat washer, zinc plated	4
24	BASST375	boom arm standoff	2
25	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	4
26	ECST375	engine cover	1
27	160580	1/4"-20 serrated flange hex nut, zinc plated, gr5	2
28	160013	1/4"-20 x 3/4" hex head cap screws, zinc plated,gr2	2
29	MHST375	manual holder	1
30	SST375W	shell weldment	1
31	TS375ST	tarp spring	1
32	160007	1/4"-14 x 1" drill point #3 self drilling hex washer head screw, zinc plated, gr2	10

Section 5.18 SHELL (2)



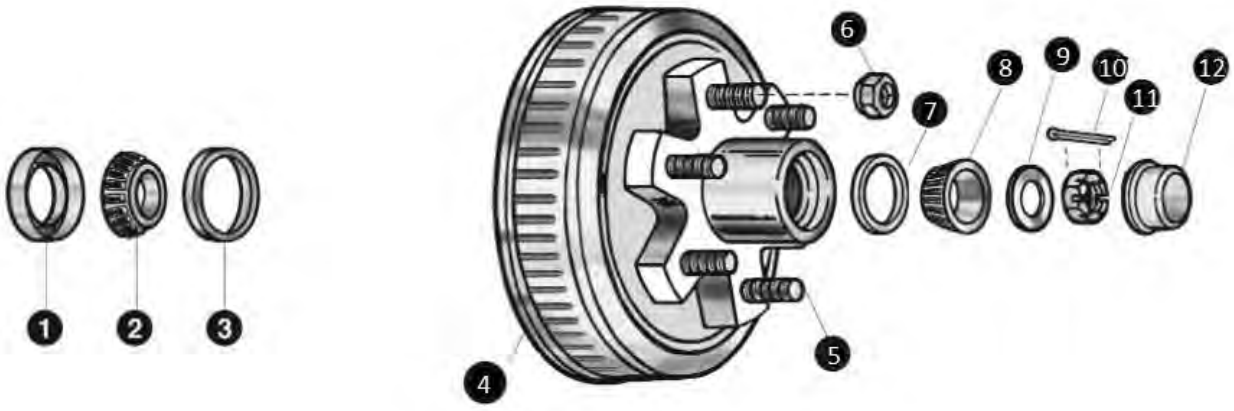
SHELL (2)			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	160007	1/4"-14 x 1" drill point #3 self drilling hex washer head screw, zinc plated, gr2	10
2	ST375TSW	tarp spring return asm	1
3	RRLA1	red round light assembly	3
4	RRLR1	red round light/reflector	3
5	RLGI	round light groment	3
6	TAST375	tarp assembly	1
7	161800	3/8"-16 serrated flange hex nut, zinc plated,gr5	10
8	161750	3/8-16 x 1 serrated flange hex head cap screw, zinc plated, gr5	10
9	ST375TS	tarp stop	2
10	THHST375W	tarp handle holder weldment	2
11	160020	3/8"-16 x 1" hex head cap screw, zinc plated, gr2	1
12	THHSST375W	tarp handle holder standoff weldment	1
13	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	1

Section 5.19 TARP



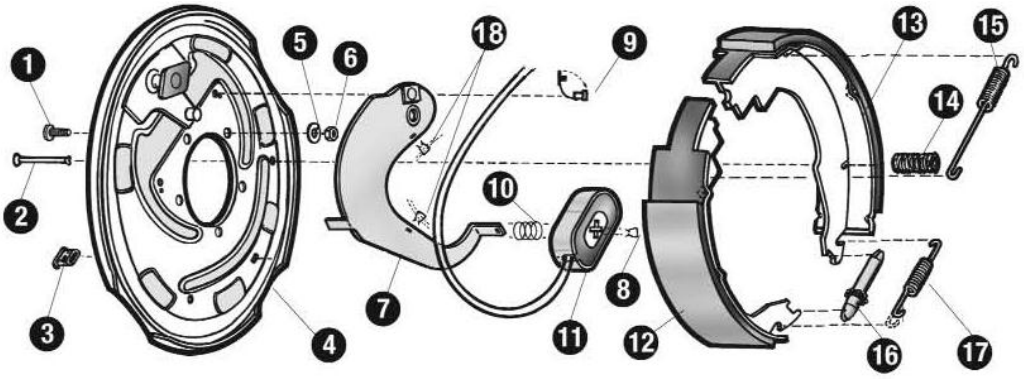
TARP ASM			
ITEM#	PART#	DESCRIPTION	QTY.
1	ST375CH	crank handle	1
2	ST375UJ	u-joint	1
3	ST375TT	tarp tube	1
4	ST375T	tarp	1
5	ST375TRP	tarp roll pipe	1
6	ST375TSW	tarp spring return	1
7	160600	1/4-20 centerlock hex nut, zinc plated, gr2	5
8	114IP	XPICPS4088 1-1/4" idler pulley	5
9	160010	1/4"-20 x 1" hex head cap screws,zinc plated,gr2	2
10	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	1
11	ST375SRA	spring return aluminum housing	1
12	ST375TS	tarp spring	1
13	75225NT	0.75dia x 2.250 nylon md	1
14	160027	3/8-16 x 3.0 hex bolt, zinc plated, gr2	1
15	255NT	0.25 ID x 0.5 OD x 0.5lg nylon 6/6	0
16	25152B	0.25 x 1.5 x 2.0 uhmw block	2
17	160010	1/4-20 x 1.5 hex bolt, zinc plated, gr2	3
18	ST375SRA	0.080 x 1.375 x 2.188 aluminum spacer	2

Section 5.20 BRAKE/DRUM (1)



BRAKE /DRUM (1)			
ITEM#	**Part #**	**DESCRIPTION**	**QTY.**
1	ST375GS218	grease seal double lip 2 1/8" shaft	1
2	ST375INC	inner bearing cone 25580	1
3	ST375INBC	inner bearing cup 25520	1
4	865916H	8 on 6.5 bolt circle (for 14125a) 9/16"	1
5	9161825ST	stud 9/16"-18 x 2.50 long knurl	1
6	9161860CLN	lug-nut, 9/16"-18 60 Cone	8
7	ST375OC	outer bearing cup (14276 for 8 0n 6.5" bc	8
8	ST375OBC	outer bearing cone (14125A) for 8 on 6.5" bc	1
9	12SO	spindle washer 1" x 2" OD	1
10	ST375CP	cotter pin	1
11	114SN	spindle nut 1"-14	1
12	ST375GC	grease cap for 14125a bearing	1

Section 5.20 BRAKE/DRUM (2)



BRAKE /DRUM (2)			
ITEM#	**AL-KO Part #**	**DESCRIPTION**	1
1	3824BMS	brake mounting stud 3/8"-24	1
2	ST375SHP	shoe hold down pin	1
3	ST375PAS	plug adjuster slot	1
4	ST375BP	backing plate assembly	1
5	ST375BPA	braking plate assembly	1
6	38BLW	brake lock washer 3/8"	1
7	3824BMN	brake mounting nut 3/8"-24	1
7	ST375RLA	RH lever assembly	1
8	ST375LLA	LH lever assembly (shown)	1
9	ST375WM	clip. Wire & magnet	1
10	ST375SRW	strain relief, wire	1
11	ST375MS	magnet spring	1
12	ST375MA	magnet assembly (white wire)	1
13	ST375PSL	primary shoe & lining	1
14	ST375SHDS	shoe hod down spring	1
15	ST375SRS	shoe retract spring	1
16	ST375ASA	adjuster screw assembly	1
16	ST375ASS-1	adjuster screw socket	1
17	ST375ASS-2	adjuster screw spring	1
18	ST375CWR	clip, wire retainer	1
19	ST375RAC	RH brake assembly complete	1
20	ST375LAC	LH brake assembly complete	1

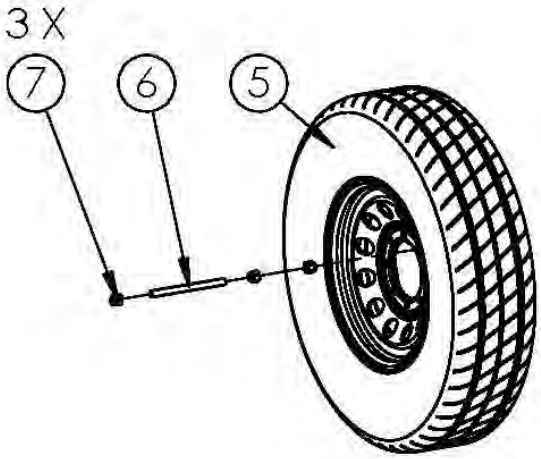
1


Wireless Control System
WARRANTY

2


FRONT DOOR
REAR DOOR
CONVEYOR START
STOP
BOOM UP
DN

3 4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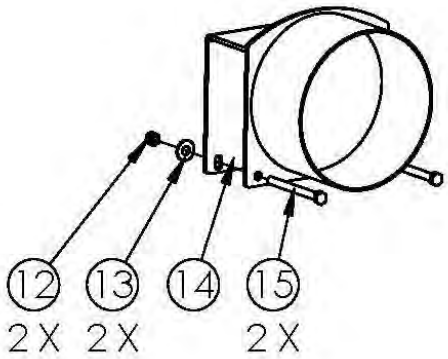
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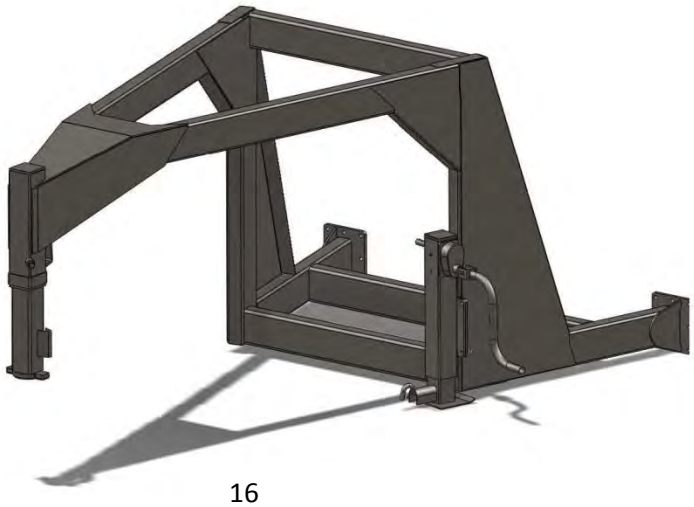

16


Double height printing
LARGE Print
WEIGH-TRONIX
WEIGH-TRONIX
WP-233

17

18

OPTIONS			
ITEM#	**PART#**	**DESCRIPTION**	**QTY.**
1	ST375KFH	key fob holder	1
2	ST375KFR	key fob receiver	1
3	ST375KF	key fob	1
4	ST375DHC	deluxe hand control	1
5	ST375ST	spair tire	1
6	9161875R	9/16-18 X 7.5 ATR, zinc plated	1
7	9161860CLN	lug-nut, 9/16"-18 60 Cone	3
8	ST375SK	telescoping spout sock	1
9	ST375CHC-A	colapsible hopper cover auger	1
10	ST375CHC-B	colapsible hopper cover belt (6 self taping screws)	1
11	ST375CHHD	collapsible hopper holder down plate (2required)	2
12	161900	3/8"-16 centerlock hex nut, zinc plated, gr2	2
13	160018	3/8" zinc plated lock washer	2
14	ST375SH	spot holder	1
15	160043	3/8"-16x4" hex head cap screw,zic plated,gr2	2
16	ST375GN	gooseneck	1

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Date:	Service Performed:	
Mileage:		

	Service Center:	Work Order#:
Date:	Service Performed:	
Mileage:		

	Service Center:	Work Order#:
Date:	Service Performed:	
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