

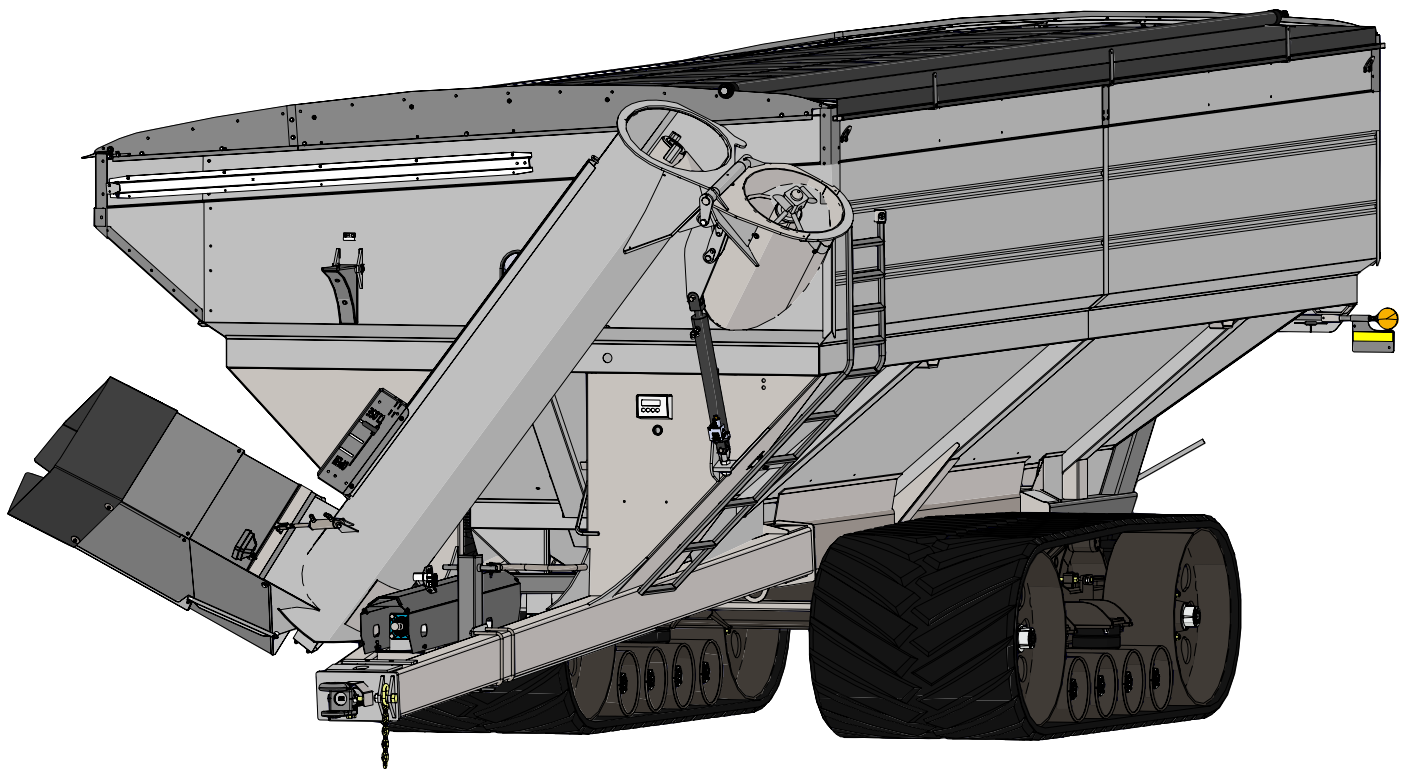


32 Series

GRAIN CART OPERATOR'S MANUAL

MODEL

2032X
series



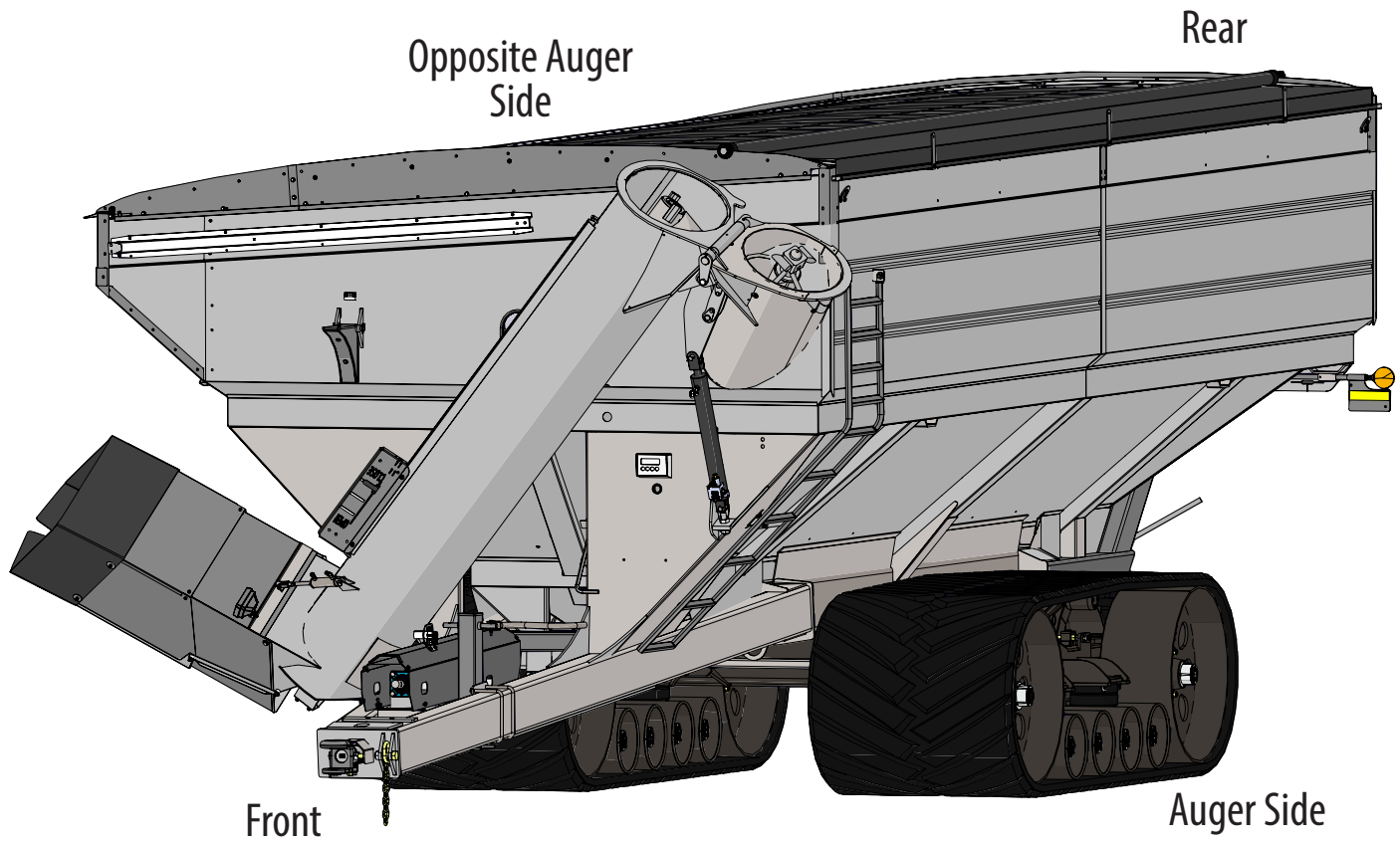
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J&M Manufacturing Co, Inc

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www.jm-inc.com

Stance



Dealer Pre-Delivery Instructions Grain Cart



WHEEL NUTS

Check ALL wheel nuts for correct torque setting. (3/4"-400 Ft-Lbs) Tighten as needed. Re-Check wheel nut torque settings during initial break in period (during 1st, 2nd, 3rd loads, etc.), then periodically afterwards (every 10 hours of use for first 40 hours). Keep checking wheel nut settings until wheel nuts do not loosen. If wheel nuts loosen and damage the surface of the wheel center, it will be impossible to keep them tight. Failure to keep the wheel nuts tight could cause considerable damage to the grain cart and surrounding area. To ensure that wheel nuts do not loosen, it may be helpful to mark the location of one side of the nut and wheel rim with paint. This will help when observing if any rotation of the nut occurs. It is the Dealer's responsibility to have wheel nuts torqued to specification before delivery. Damage caused by failure to keep the wheel nuts tight is not warrantable.



HITCH

Determine the hitch style of cart to be compatible with tractor. Tractor with hammer strap (clevis type) should be used with grain carts equipped with a single prong (spade) hitch. Tractors equipped with a single prong hitch (no hammer strap) should be used with grain carts equipped with a double prong (clevis) hitch.



Be sure the tractor pin is at least 1/4" smaller in diameter than the pin hole in the grain cart hitch to ensure enough free movement when traversing through uneven terrain.



POWER TAKE-OFF

Check for adequate clearance between telescoping PTO and tractor hitch. Suggested clearance is 7 inches.



Check telescoping PTO for adequate extension. With the tractor hitched to the cart on flat level ground, the PTO should have approximately 10 inches extended from the collapsed (shortest) length.



HYDRAULIC CYLINDERS AND HOSES

Run all functions of the hydraulic cylinders and inspect fittings and seals for leakage. (Use cardboard or wood to check for hydraulic leaks).



UPPER AND LOWER AUGERS

Raise the auger to the unload position. Run the auger from the PTO or optional hydraulic motor. If the top auger is misaligned with the bottom auger, you will hear a 'bang' as the upper auger realigns itself with the lower auger. This is normal as the top auger has dropped to engage the lower auger. Be sure that the top auger engages the lower auger. Check bearing at top of auger. Be sure to have approximately 1/8" to 3/16" of an inch gap under/between top auger bearing. If there is no gap under the bearing, or the gap is greater than 1/8" to 3/16", the bearing needs adjusted.

(Continued on Next Page)



Dealer Pre-Delivery Instructions Grain Cart



GEARBOX

Check the gearbox oil level. For the process of checking the oil in your gearboxes, refer to "Lubrication Service Schedule" in this manual. Add SAE 80W-90 lubricant as necessary.



LIGHTING & SAFETY FEATURES

Check the tractor lighting system for functions. Plug the grain cart wire harness into the tractor receptacle and check the cart lighting for correct functions.



Check that the safety chains are properly installed. Use bolt-torque chart listed in operator's manual for correct torque value.

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To The Dealer

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

The dealer must complete the Warranty Registration found on the Dealer Portal website located at dealer.jm-inc.com. and return it to J&M Mfg. Co., Inc. at the address indicated on the form. Warranty claims will be denied if the Warranty Registration has not been submitted.

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 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 maintenance. 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 warranty and may not meet standards required for safety and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

Model No: 2032 **Serial No:** _____ **Date of Purchase:** _____

Purchased From: _____

Provide this information to your dealer to obtain correct repair parts.



General Information

TO THE OWNER:

The purpose of this manual is to assist you in operating and maintaining your grain cart 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. Reviews 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 (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety. 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.

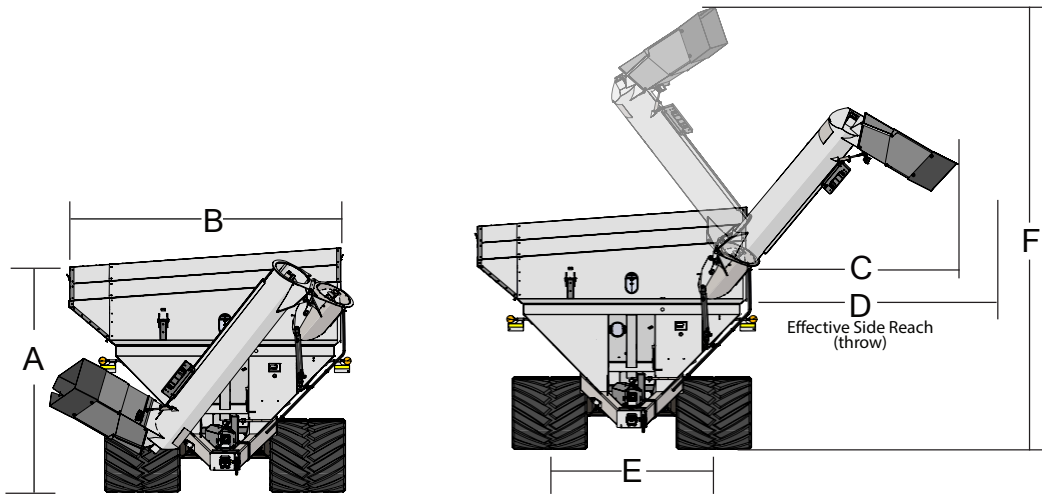
NOTE

Indicates helpful information.

Specifications

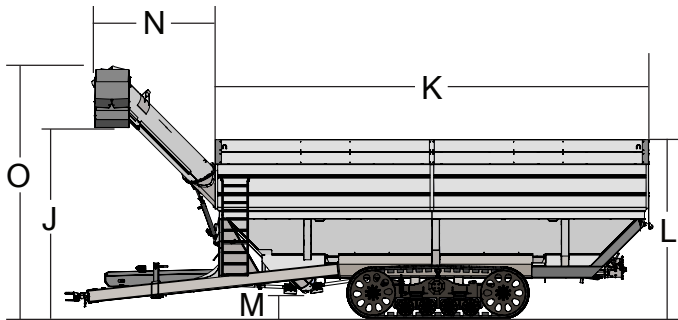
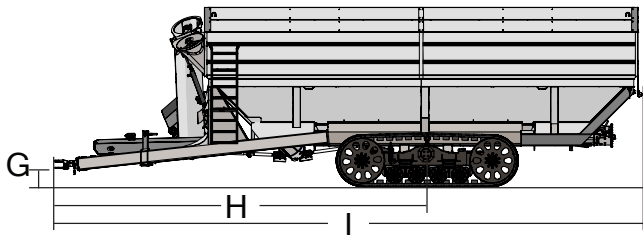
SPECIFICATIONS

MODEL 2032	
Capacity	2,050 Bushels
Auger, One Vertical	22"
Auger, One Horizontal	20"
Unload Rate	Up to 810+ Bushels/Minute
Pivot Shank	7" Diameter
Tongue Weight	
Empty	3,100 lbs.
Loaded	6,200 lbs.
Total Weight (approx.)	34,300 lbs.*
Compaction Rate	14.4 lbs/sq inch
Tracks (2)	46"x151"



MODEL 2032*	
A	10'-9"
B	13'-9"
C	11'-0"
D	13'-8"
E	8'-2"
F	22'-1"
G	1'-8"
H	25'-7"
I	40'-2"
J	13'-6"
K	30'-0"
L	11'-9"
M	2'-0"
N	8'-6"
O	17'-7"

* Measured with scales and roll tarp installed and a 20" hitch height



Bolt Torque Chart

Always tighten hardware to these values unless a different torque or tightening procedure is listed for specific application. Fasteners must always be replaced with the same grade as specified in the manual parts list. Always use the proper tool for tightening hardware. Make sure fastener threads are clean and you start thread engagement properly. **Use these values when tightening all bolts and nuts with the exception of wheel nuts.**

SAE Fasteners

Coarse Thread Series				
Diameter and Pitch (Inches)	Grade 5		Grade 8	
	Dry	Oiled	Dry	Oiled
1/4"-20	8 ft-lbs	6 ft-lbs	12 ft-lbs	9 ft-lbs
5/16"-18	17	13	25	18
3/8"-16	30	23	45	35
7/16"-14	50	35	70	55
1/2"-13	75	55	110	80
9/16"-12	110	80	150	110
5/8"-11	150	110	220	170
3/4"-10	260	200	380	280
7/8"-9	430	320	600	460
1"-8	640	480	900	680
Fine Thread Series				
Diameter and Pitch (Inches)	Clamp Load (Lbs.)	Tightening Torque	Clamp Load (Lbs.)	Tightening Torque
1/4"-28	10 ft-lbs	7 ft-lbs	14 ft-lbs	10 ft-lbs
5/16"-24	19	14	29	20
3/8"-24	35	25	50	40
7/16"-20	55	40	80	60
1/2"-20	90	65	120	90
9/16"-18	120	90	170	130
5/8"-18	180	130	240	180
3/4"-16	300	220	420	320
7/8"-14	470	360	660	500

Stud and Wheel Nut Torque Specifications

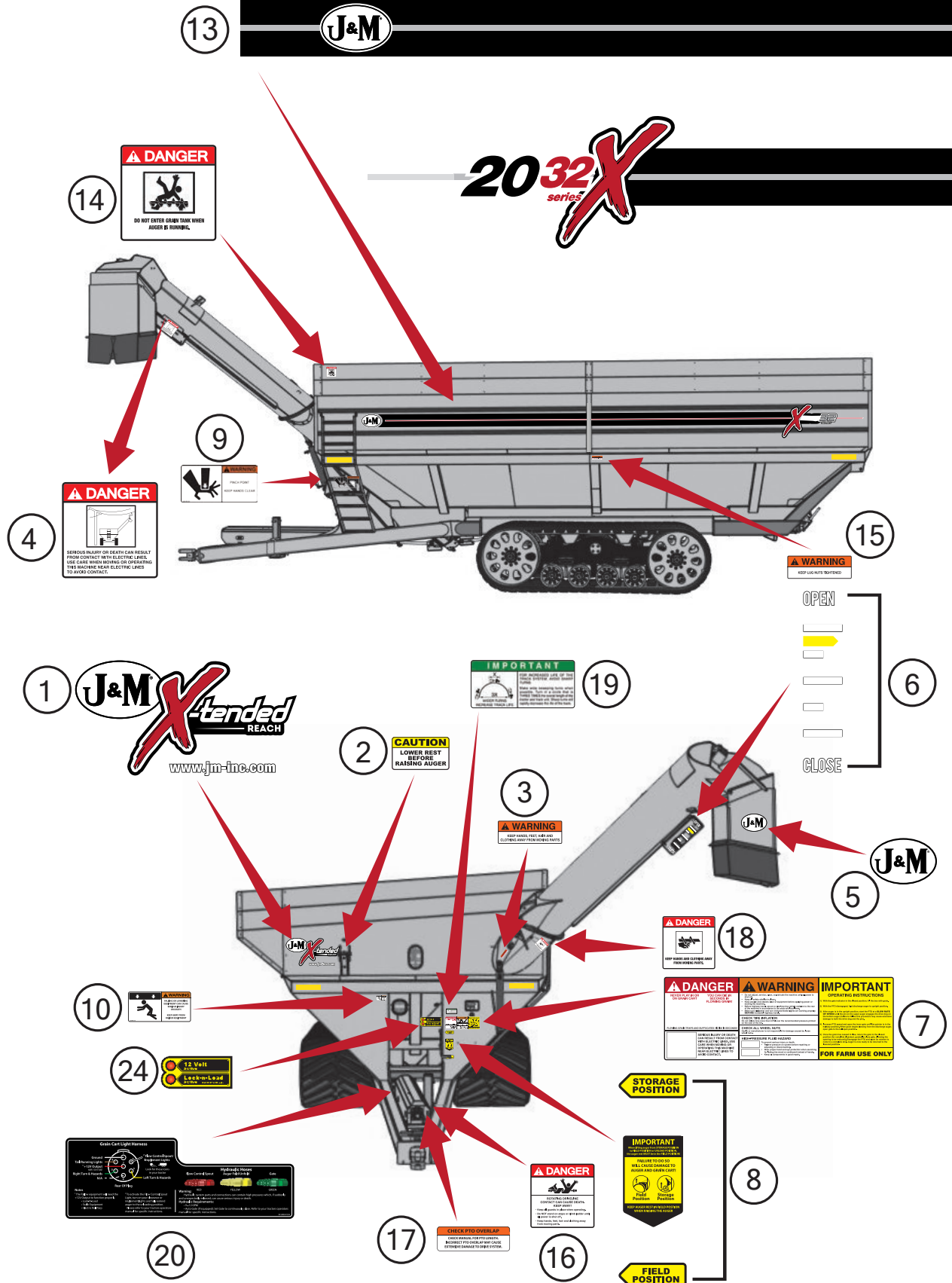
Always tighten hardware to these values unless a different torque or tightening procedure is listed for specific application. Fasteners must always be replaced with the same grade as specified in the manual parts list. Always use the proper tool for tightening hardware. Make sure fastener threads are clean and you start thread engagement properly. **Use these values when tightening all studs and wheel nuts.**

Stud	Tightening Torque
1/2"-20	80 ft-lbs
9/16"-18	170 ft-lbs
5/8"-18	350 ft-lbs
3/4"-16	400 ft-lbs
20mm	475 ft-lbs
22mm	640 ft-lbs

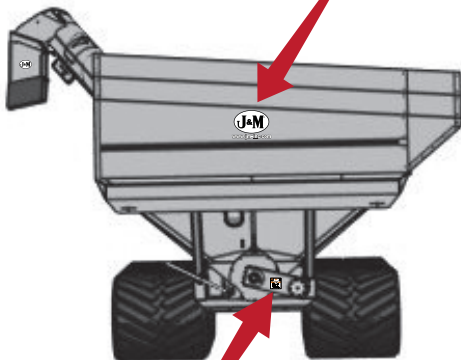
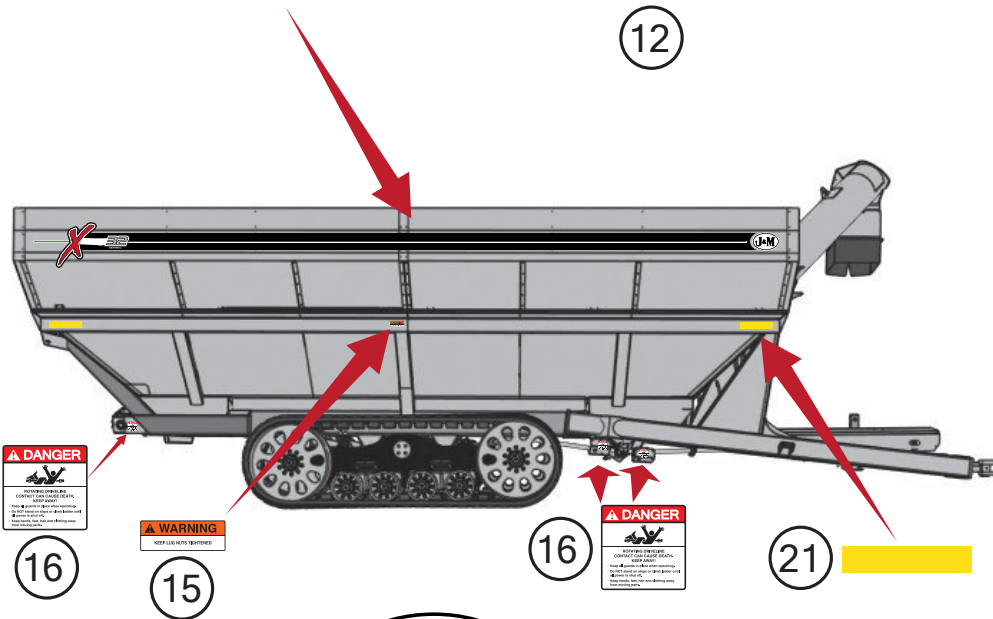
TIGHTENING WHEEL NUTS: Standard **3/4" wheel studs and nuts should be tightened to torque 400 ft-lbs.** During initial operation of the grain cart and then checked for proper torque after every 10 hours of use. Failure to do so may damage wheel nut seats. Once seats are damaged, it will become impossible to keep nuts tight.

Decals

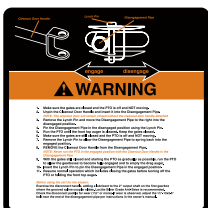
⚠ ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! ⚠
Replace Immediately If Damaged or Missing



Decals



23



Description	Part No.
1 X-Tended Reach Logo w/ Oval and Website Decal 25" x 13"	JM0048321
2 Caution Lower Rest Decal	JM0037662
3 Warning, Keep Hands Away Decal	JM0018039
4 Danger, Electric Lines Decal	JM0015099
5 J&M Oval Decal (Medium) 5-1/2"x8-1/2"	JM0010179
6 Open and Close Decal for 32 Series Indicator	JM0043138
7 Danger Warning Important Decal	JM0037665
8 Field Position/Storage Position Decal	JM0037661
9 Warning, Pinch Point Decal	JM0014994
10 Warning, Falling Or Lowering Decal	JM0014992
11 www.jm-inc.com Decal	JM0019239
12 1832 Opposite Auger Side Stripe Kit	JM0044295
13 1832 Auger Side Stripe Kit	JM0044294
14 Danger, Do Not Enter Grain Tank Decal	JM0018033
15 Warning, Keep Lug Nuts Tightened Decal 1-5/8" x 4"	JM0010150
16 Danger, Rotating Driveline Decal	JM0018036
17 Check PTO Overlap Decal	JM0025435
18 Danger, Keep Hands and Clothing Away Decal	JM0018035
19 Important, 3x Wide Turns Tracks Decal	JM0021247
20 Light Harness/Hydraulic Hoses Decal	JM0046492
21 Amber Reflective Decal (2" x 9") (RD-1A)	JM0009946
22 J&M Oval Decal (Large) 9-1/2" x 15"	JM0015151
23 Drag Auger Disengage Instructions Decal	JM0048320
24 Lock and Load Indicator Lights Decal	JM0044289



Safety Rules

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 tractor prior to hooking up or operating the grain cart.

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

Understand that your safety and the safety of other persons is 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.

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.

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.

Travel speeds should be such that complete control and machine stability is maintained at all times. Where possible, avoid operating near ditches, embankments and holes. Reduce speed when turning, crossing slopes and rough, slick or muddy surfaces.

Collision of high speed road traffic and slow moving machines can cause personal injury or death. On roads, use flasher lights according to local laws. Keep slow-moving-vehicle emblem visible. Pull over to let faster traffic pass.

Hydraulic oil leaking under pressure can penetrate skin and cause infection or other injury. To prevent personal injury,

- Relieve all pressure, before disconnecting fluid lines,
- Before applying pressure, make sure all connections are tight and components are in good condition,
- Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose.
- If injured by leaking fluid, see your doctor immediately.

When transporting the grain cart, always keep the auger in the stow position.

Use care when moving or operating the grain cart near electric lines as serious injury or death can result from contact.

Never adjust, service, clean, or lubricate the grain cart until all power is shut off. Keep all safety shields in place. Keep hands, feet, hair and clothing away from moving parts while the grain cart is in operation.

The service ladder is for service work only. If you must climb into the grain tank, be certain that all power is shut off and then use extreme caution when climbing into the grain cart.

Make sure that everyone is clear of equipment before applying power or moving the machine.

Make sure that the grain cart is fastened securely to the tractor by using a high strength hitch pin, clip and safety chains. Make sure that the grain cart hitch properly matches the hitch type of the tractor. Use a single prong (spade) grain cart hitch with a double prong (clevis) tractor hitch. Use a double prong (clevis) grain cart hitch with a single prong (spade) tractor hitch.

Before filling the grain cart, make certain that no one is inside the grain tank. Never allow children or anyone in, near, or on the grain cart 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.

Never operate the auger system with anyone inside the grain tank. Hands, feet, hair and clothing can fit through the openings in and around the grate. Contact with the auger can cause severe injury or death. Make certain that all power is shut off before service work is performed.

Before unhooking the grain cart from the tractor, be sure the jack stand is properly mounted and in place and the wheels are properly blocked to prevent the cart from moving.

Initial Operation and Maintenance

WARNING

BE CERTAIN THAT ALL POWER IS SHUT OFF BEFORE SERVICING THE GRAIN CART.

Before the grain cart is put into service:

- Have the safety instructions been read and clearly understood by the operator(s) of this machine?
- Have the gearboxes been properly filled with SAE 80W-90 gearbox lubricant?
- Have all nuts, bolts, bearings and braces been properly fastened?
- Has the PTO been checked for proper overlap?

CHECK PTO OVERLAP LENGTH. Overlap length may vary depending on the tractor model and hitch setting. Try to obtain the greatest possible overlap without bottoming out in the extreme operating conditions. Too much overlap may cause the PTO to bottom out and damage the driveline. Not enough overlap may cause the PTO front and back halves to separate. From the fully compressed (shortest) length the PTO should be telescoped (extended) between 10" and 22". Different PTO lengths may need to be purchased to accommodate your terrain. A 4" shorter or a 10" longer PTO can be ordered through your dealer from J&M Manufacturing.

GREASE BEARINGS: Are all bearings on the drive line properly greased? Are all set screws and bolts in the bearings and U-joints tight? Has the power-take-off shaft been properly greased at all points including the cross bearings? Have the universal joints at the gearbox been greased? Have all grease points at the auger hinge area, including the hanger bushing assembly been greased? Has the horizontal auger hanger been greased?

Routine Maintenance

WARNING: BE CERTAIN ALL POWER IS SHUT OFF WHEN SERVICING THE GRAIN CART

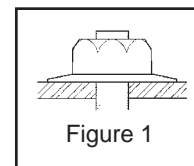
- Check the grain cart periodically for cracks in welds and for other structural damage. Have cracked welds fixed immediately. Failure to do so could result in extensive damage to the grain cart and greatly reduce the life of the cart.
- Exercise horizontal and vertical clean out doors. Lubricate hinge points if necessary.
- Check all hydraulic hoses for wear and replace as necessary.
- Make sure that all guards and shields are in place before operating the grain cart.

Operating Instructions

VERY IMPORTANT: Under no circumstance is it recommended to tow a loaded grain cart in excess of 8 mph.

WHEEL NUTS: Are the wheel nuts properly fastened? **Torque to 400 Ft.-Lbs. for 3/4" wheel studs and nuts. Wheel studs and nuts should be checked after each load during initial operation of the cart and then after every 10 hours of use. Failure to do so may damage wheel studs and nuts.** To ensure that wheel nuts do not loosen, it may be helpful to mark the location of one side of the nut and wheel rim with paint. This will help when observing if any rotation of the nut occurs. Once the seats are damaged, it will become impossible to keep the lug nuts tight.

The drawing shows the proper way to mount the wheels using Budd-type nuts. The track wheels supplied with your grain cart have straight holes and the Budd nuts will be mounted according to Figure 1. Track wheels that are improperly installed on the grain cart, resulting in product failure, will nullify warranty and shift the burden of liability to the owner/operator. **We recommend you inspect your wheel nuts to make sure they are properly installed. Also, check the wheel nuts on a regular basis to ensure they are tight.**



LIGHTING AND SAFETY DECALS: Are the rear, amber extremity lights properly positioned? Extend the lights within 16" (40,6cm) of the left and right extremities of the grain cart. Is an SMV Emblem attached to the rear of the grain cart?

Are the lights working properly? Are all lights and reflective decals clean, visible and properly placed?

Continues on next page.

Operating Instructions

BE CERTAIN THAT ALL POWER IS SHUT OFF WHEN HOOKING UP TO TRACTOR OR CONNECTING HYDRAULIC LINES TO TRACTOR.

PREPARING THE GRAIN CART FOR USE: Model 2032 grain carts require 400+HP 4WD Tractor.

⚠ IMPORTANT: Do NOT pull a loaded grain cart on highway. For incidental highway travel, observe the section below.

Tow Loads Safely

Stopping distance increases with speed and weight of towed loads, and on slopes. Towed loads with or without brakes that are too heavy for the tractor or are towed too fast can cause loss of control. Consider the total weight of the equipment and its load.

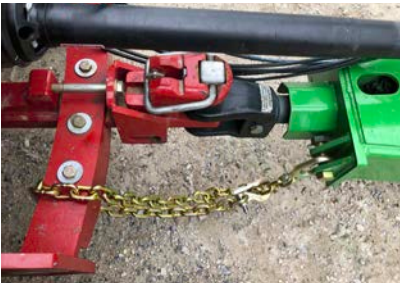
Observe these recommended maximum road speeds, or local speed limits which may be lower.

Road Travel (grain cart empty): Do not travel more than 20 mph (32 km/hr) and do not tow loads more than 1.5 times the pulling unit's weight.

Ensure the load does not exceed the recommended weight ratio. Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.

⚠ IMPORTANT:

1) Connect grain cart hitch to tractor drawbar using a good quality hitch pin. Attach the safety chain to the tractor and through one chain loop provided on either side of the grain cart frame as shown. Make sure the grain cart hitch properly matches the hitch of the tractor. Use a single prong (spade) grain cart hitch with a tractor double prong (clevis) hitch. Use a double prong (clevis) grain cart hitch with a single prong (spade) tractor hitch.



Safety Chain User Instruction

- Secure the safety chain by running the 1-1/4"-7 x 4" Gr8 Z Hex Bolt through the holes on the tabs on the front of the grain cart and the large end link on the safety chain. Secure the bolt with the 1-1/4"-7 Gr5 Z Nylon Locking Hex Jam Nut. Connect the chain around the towing machine's attaching bar (pictured to the left).
- Do not allow any more slack than necessary for articulation.
- Do not use any intermediate support as the attaching point.
- Store the safety chain by securing it around the main axle A-frame of the grain cart.
- Replace the safety chain if one or more links or end fittings are broken, stretched or otherwise damaged or deformed.

2) Attach the power-take-off shaft to the tractor. The PTO must have at least 10" of engagement. Check tractor drawbar for clearance and length and adjust if necessary. **Make sure the PTO does not bottom out when making sharp turns as it may bend the drive shaft.**

3) Make sure the jack stand is repositioned from the lower support position before the cart is moved. **Never use the jack to support a loaded grain cart.**

4) Be sure that no debris or foreign objects are in the grain cart.

5) Attach the hydraulic lines to the tractor. Two hydraulic lines (green band) operate the inside gate mechanism. Connect these lines to one service outlet on the tractor. Two hydraulic lines (yellow band) operate the folding mechanism of the auger. Connect these lines to a second service outlet on the tractor. The remaining two hydraulic lines (red band) operate the hydraulic flow control spout located at the end of the upper auger. Connect these lines to a third service outlet on the tractor. Make sure the air is bled from the hydraulic cylinders and hoses.

6) Run the auger system EMPTY before loading grain into the tank for actual use. Make certain that the upper, lower, and horizontal augers are properly engaged.

7) Connect the lighting 7-prong connector end on the main wiring harness to the tractor electrical outlet. Make sure that all flasher and turn indicator lights are working properly before incidental highway travel.

⚠ CAUTION

- Do NOT operate the grain cart before reading and understanding the Operator's Manual and ALL danger, warning and caution signs.
- Be sure that a Slow-Moving-Vehicle emblem is attached to the rear of the grain cart.
- Never exceed 1,000 rpm on the PTO and driveline system.
- Never fold or extend the auger until the PTO has come to a complete stop.
- Never fill the grain cart unless the gate indicator is in the closed position.
- Never allow foreign object (shovels, etc.) to be placed inside the grain cart.
- Never engage the lugs and drive dogs on the augers when the system is moving at a high rate of speed.
- Never perform maintenance work or service the grain cart with the tractor running.

Troubleshooting

WARNING

MAKE SURE THAT ALL POWER IS SHUT OFF BEFORE SERVICING THE GRAIN CART. MAINTENANCE AND REPAIR SERVICE WORK TO BE PERFORMED BY QUALIFIED SERVICEMEN ONLY.

Trouble	Possible Cause	Possible Remedy
Auger will not return to down position or move from stow position	Faulty check valve	Replace check valve.
	Faulty lock and load solenoid	Disconnect power to lock and load. If the auger is able to move, the lock and load solenoid needs to be replaced.
	Upper flighting and lower flighting are locked together	Bearing on top of upper auger flighting needs adjusting. When the auger is in the engaged position, there must be 1/8" (0,32cm) gap between bottom of top bearing and top of upper tube housing (See "Adjusting the Lower and Upper Flighting" on page 18).
	Feed gate open	Close the feed gate.
	Lock and Load not operating correctly	Make sure the limit switch on the feed gate indicator assembly is functioning properly.
Hanger bushing assembly at the top of the lower auger flighting is hot	Top of the hanger bushing assembly is rubbing against the drive dog	Loosen the two bolts and re-adjust the position of the hanger bushing assembly. Re-tighten bolts.
		Remove the lower flighting assembly and place a shim between the spline coupler and the gearbox.
Excessive vibration	Auger flighting or shaft is bent	Straighten or replace auger flighting.
	Drive shaft is bent	Replace or straighten drive shaft.
Grain flow stoppage	Bolt sheared in drive dog	Replace bolt in drive dog. Engage upper and lower flighting at a slow rate of speed. (Drive dogs and lugs are being engaged too fast).
	Folding auger before complete stop	Upper and lower flightings are disengaging before auger comes to a complete stop. Replace bolt in the drive dog. Never engage or disengage the upper and lower flightings until the augers come to a complete stop.
	PTO key sheared	Replace key and tighten set screw.
	Rear auger disconnect disengaged	Engage rear auger disconnect.
Auger tube is breaking away from the grain cart at the hinge area or the ram in the hydraulic folding cylinder is bent	Upper auger is extended in the upright position while traveling in the field	Repair or place folding cylinder if necessary. Remember to lower auger to the field position after unloading.
Flip-up auger rest not flipping over center	Cable has loosened	With auger in field position, tighten cable to the handle.
Feed gate indicator not moving	Debris lodged in feed gate	Make sure indicator slider moves freely and feed gate is clear of debris.
Clutch disconnecting	Auto-clutch torque exceeded	Operate rear auger disconnect.

Removing Dirt From The Restrictors On The Hydraulic Cylinder

WARNING

MAKE SURE THAT ALL POWER IS SHUT OFF AND THE UPPER AUGER TUBE IS IN THE DOWN POSITION BEFORE REMOVING THE RESTRICTORS

Remove restrictors from the 90 degree street elbow on the tip spout hydraulic cylinder. Remove dirt from the fitting to allow hydraulic oil to flow through the restrictor. Reattach the restrictor to the street elbow. Use Teflon sealant tape or equivalent on the threads of the restrictor before re-attaching.

If the restrictor continues to plug with dirt, replace the restrictor or filter the hydraulic oil in your system.

Lubrication Service Schedule

⚠ WARNING: BE CERTAIN THAT ALL POWER IS SHUT OFF BEFORE SERVICING THE GRAIN CART

90 DEGREE REAR GEARBOXES: Gearbox lubricant has been added to the gearboxes during final assembly. Recheck the lubricant level before initial operation of the grain cart, then periodically according to use. For the gearbox on the left while looking at the rear of the cart, the fluid level should be between the bottom and halfway point of the 2" output shaft that bisects the gearbox. The recommended fluid level range is pictured in Figure 1 and Figure 2 below. The minimum level is pictured in green and the maximum level is pictured in red. An pressure relief plug is located in the center of the top of the gearbox mount plate. To check the fluid level, remove the vented inspection plug and view the fluid level from above. When filled to the maximum level (shown in red), the gearbox should have 80 ounces of SAE 80W-90 lubricant. Change the oil annually before use.

For the gearbox on the right while looking from the rear of the cart, the fluid level should rest at the inspection plug, pictured in red in Figure 3 below. When filled to the proper level, the gearbox should have 80 ounces of SAE 80W-90 lubricant. Change the oil annually before use.

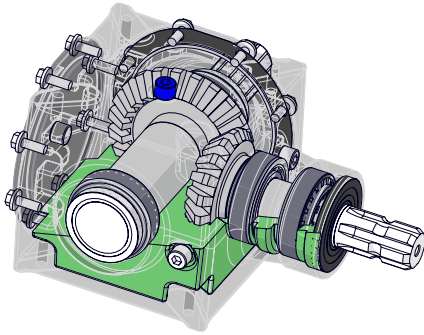


Figure 1

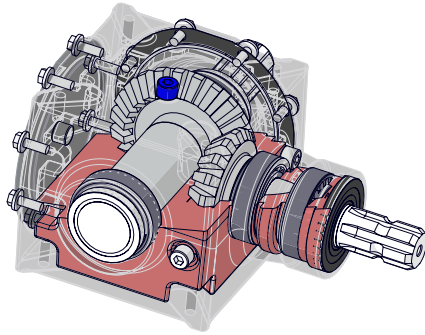


Figure 2

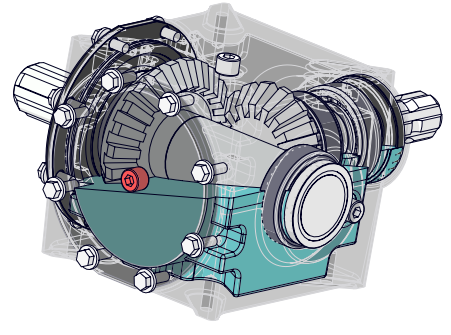


Figure 3

3-WAY FRONT GEARBOX: Gearbox lubricant has been added to the gearbox during final assembly. Recheck the lubricant level before initial operation of the grain cart, then periodically according to use. The fluid level should rest at the inspection plug, pictured in blue in Figure 4 below. When filled to the proper level, the gearbox should have 96 ounces of SAE 80W-90 lubricant. Change the oil annually before use.

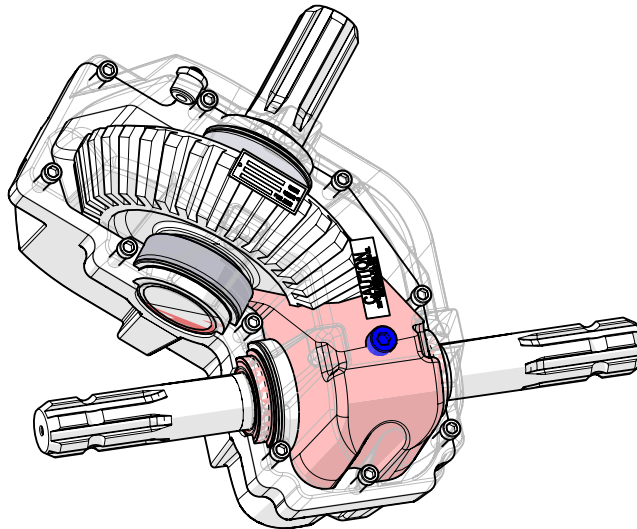


Figure 4

REAR DISCONNECT GROOVED SPLINE COUPLER: Exercise the disconnect handle, adding a lubricant to the 2" output shaft on the first gearbox where the grooved spline coupler slides. Loctite Silver Grade Anti-Seize is recommended. Perform this maintenance annually.

Lubrication Service Schedule

IMPORTANT: Your grain cart has grease fittings at all critical points. The following grease fittings should be serviced before the grain cart is put into operation:

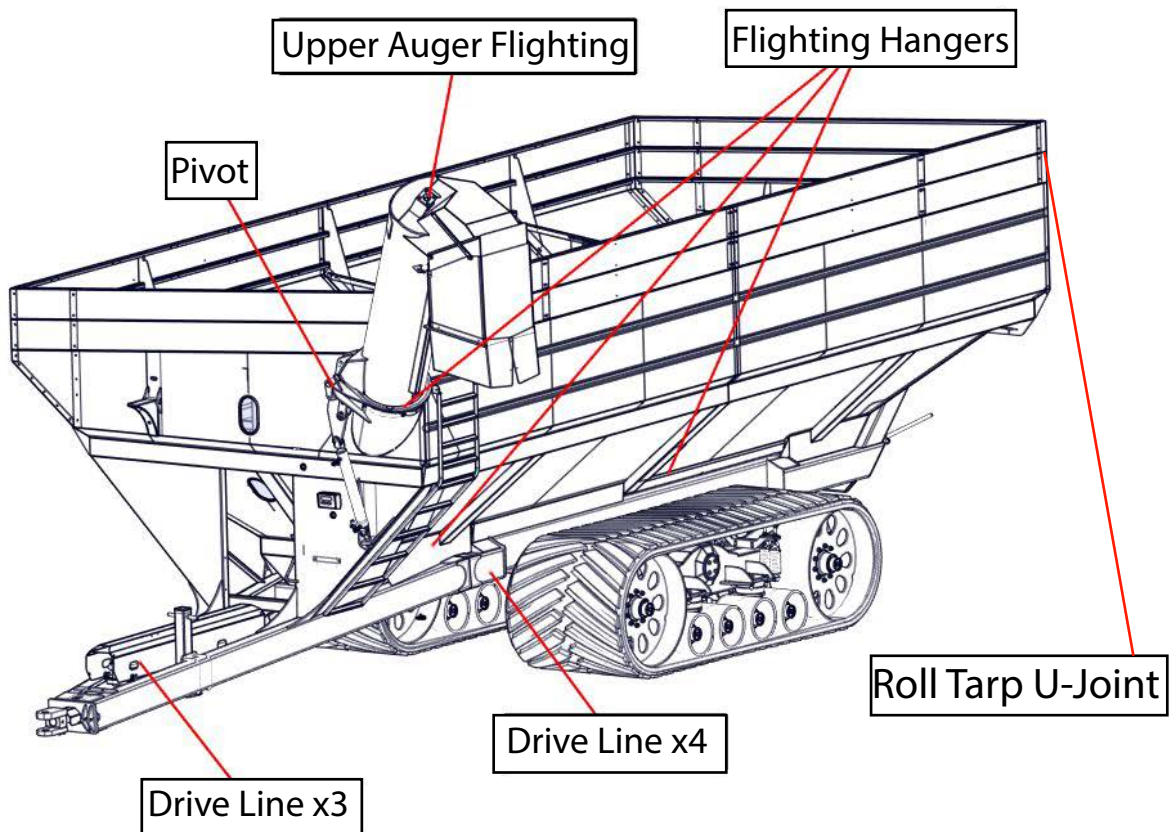
PTO & DRIVELINE: The grease fittings on the PTO should be serviced after every 8 hours of use. Service the grease fittings on each of the drive bearings and also the universal joints after every 8 hours of use.

AUGER ASSEMBLY: One grease fitting is located on the pivot pin of the folding auger. This fitting should be serviced after every 8 hours of use. Service the grease fitting on the hanger bushing assembly (top end of the lower auger assembly) as well as the horizontal auger hangers after every 8 hours of use or as needed.

SPRING LOADED UPPER AUGER BEARING: Service the grease fitting on the upper auger bearing (1 pump) (located at the top end of the upper auger assembly) after every 8 hours of use. Lubricate the springs and retaining bolts on the bearing before prolonged storage of the grain cart.

ROLL TARP U-JOINT: Service the grease fitting on the U-Joint of the roll tarp crank handle once annually.

Grease Fittings	
Pivot Pin	Once Annually
Roll Tarp U-Joint	Once Annually
Upper Auger Flighting	Every 8 hours of use
Driveline	Every 8 hours of use
Horizontal and Vertical Flighting Hangers	Every 8 hours of use



Adjusting the Lower and Upper Flighting

WARNING

MAKE SURE THAT ALL POWER IS SHUT OFF BEFORE ADJUSTING THE FLIGHTING ASSEMBLY.

LOWER FLIGHTING - If the drive-dog and hanger assembly are becoming excessively hot during unloading, the lower flighting and/or hanger may need adjusting. The hanger bushing assembly has elongated holes where it attaches to the outer tube assembly. Loosen the two 1/2" bolts on the hanger bushing assembly. Adjust the hanger either up or down and vertically center it between the flighting and drive dog. Re-tighten the bolts. Make certain that the flighting center and drive-dogs do not rub the hanger bushing assembly, causing them to become hot.

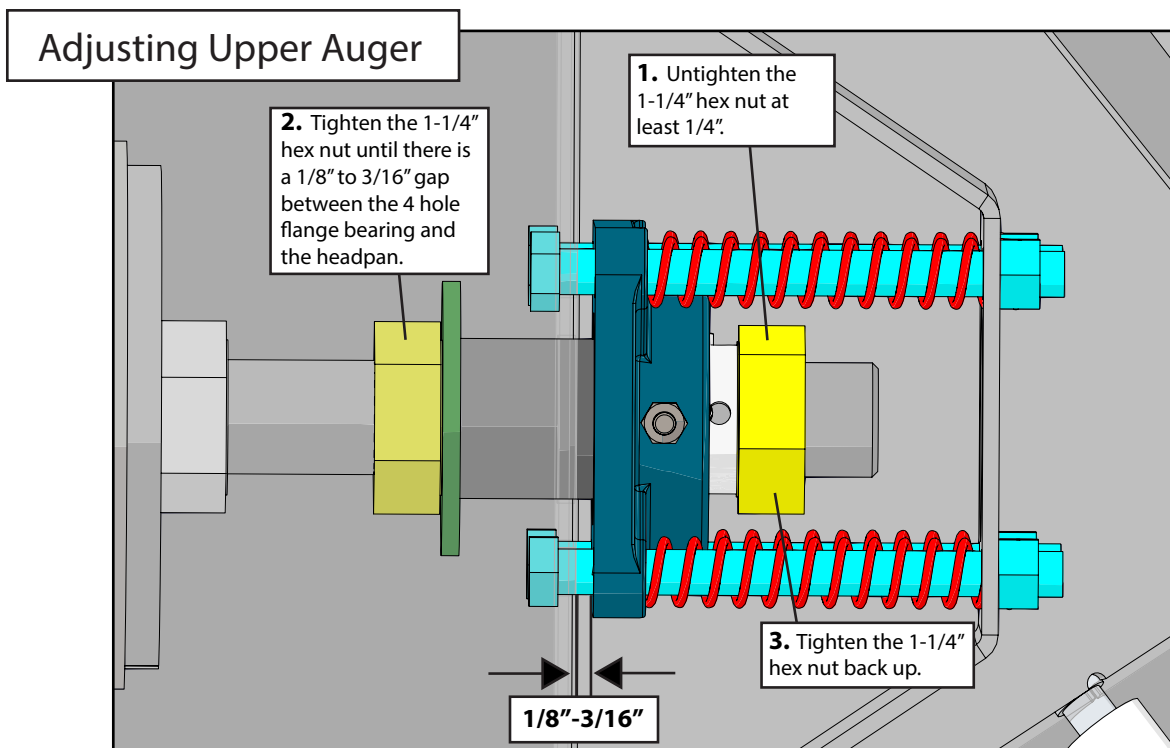
If the hanger can no longer be adjusted by moving it up or down on the elongated holes, both the hanger bushing assembly and the lower flighting will have to be removed. After removing them from the tube assembly, place a shim [between 1/8" (0,32cm) to 3/16" (0,48cm) thick] where the gearbox and the spline coupler (welded to the lower flighting). Replace the lower flighting and reattach the hanger to the tube assembly. Readjust the hanger assembly. NOTE: The bottom of the lower flighting is not attached to the gearbox with any bolts or set screws but may be 'frozen' fast. Be careful when removing the lower flighting from the gearbox. For easier removal of the lower flighting, keep the gearbox at the bottom intact, remove the two 1/2" bolts from the hanger bushing assembly and pull the lower flighting off of the gearbox.

After adjusting the lower flighting, move the upper auger to the unload position and check the upper flighting for readjustment.

UPPER FLIGHTING - If the upper and lower augers do not properly separate during the unfolding sequence, the upper flighting may need adjusting. Before making adjustment to the upper flighting, check to see if the lugs and drive dogs on the auger assemblies are locking together. If they are not locked together, check to see if a faulty check valve on the hydraulic cylinder used to raise and lower the upper auger assembly may be causing the problem.

Fold the upper tube assembly into the upright position. Position the upper flighting in the engaged position with the lower flighting. Locate the four-hole flange bearing on the top of the upper auger tube housing. With the upper flighting in the engaged position, check the spacing between the upper bearing and the upper tube housing. There must be an 1/8" (0,32cm) space between the base of the four-hole flange bearing and the upper tube housing. If there is NOT a space between the bearing and the upper tube housing, or if there is more than 1/8" (0,32cm) space, the upper flighting will need to be adjusted. To adjust the upper flighting, loosen the 1 1/4" hex nuts both above and below the four-hole flange bearing. Move the 1-1/4" hex nuts up or down the threaded shaft on the top of the auger flighting shaft until the bearing moves to approximately 1/8" (0,32cm) above the base of the upper tube housing. When the four-hole flange bearing is properly located, tighten both 1-1/4" hex nuts together to secure the bearing position.

If the upper and lower flighting still does not separate properly during the folding sequence, a small bevel may need to be removed from the inside of the lugs where they engage the drive dogs on the auger assemblies. Grind approximately 1/8" (0,32cm) from the corner of the lugs where they touch against the drive dogs.



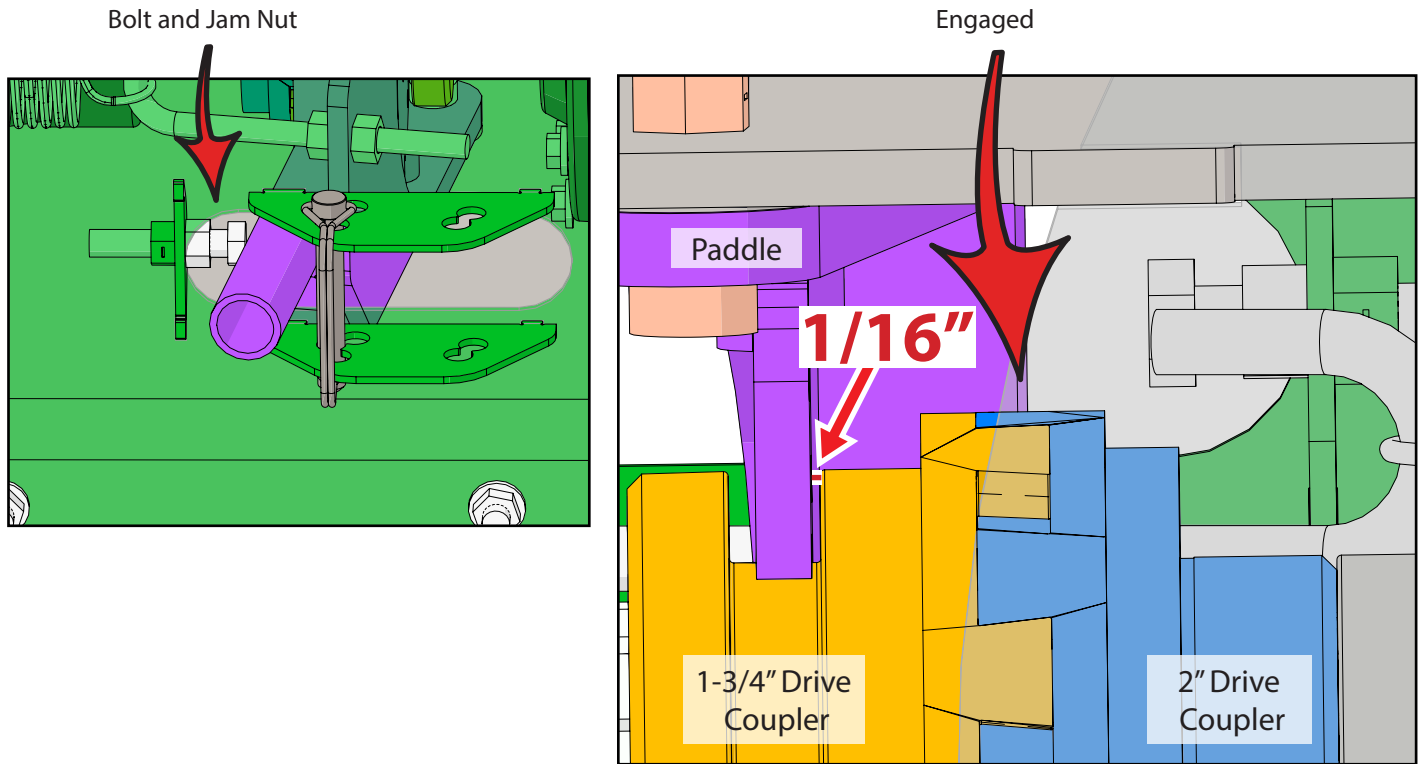
Rear Disconnect Annual Maintenance

Before using the cart for the season:

1. Exercise the disconnect handle, adding a lubricant to the 2" output shaft on the first gearbox where the grooved spline coupler slides. Loctite Silver Grade Anti-Seize is recommended.
2. Check the face of the disconnect paddle for excessive wear ($1/32"$ or more). In the event of excessive wear ($1/32"$ or more), contact the J&M Service Department.

Disengage Paddle, and Back Plate Settings

The back plate has a tab welded on the inside with a nut. A bolt and jam nut are screwed into it. The proper bolt setting maintains the gap shown in the bottom right picture. The paddle is shown in purple here, and when the drivedogs are engaged there should be a $1/16"$ gap between the paddle and the drivedog. Having the gap will ensure that there is no unnecessary wear on parts.



Storage

IMPORTANT: When the grain cart is not going to be used for a period of time, store the cart in a dry, protected place. Leaving your grain cart outside, open to the weather will shorten its life.

Procedure for Storage Preparation

1. Cover electronic monitor (if equipped) with plastic before washing the grain cart. Wash or clean and completely lubricate the grain cart. See "Lubrication Service Schedule" on page 16.
2. Remove all grain from inside the grain tank, auger tube assemblies, and at the clean-out door.
3. Check the gearbox oil and replace with new SAE 80W-90 gearbox lubricant or equivalent if necessary.
4. Touch up areas where paint may have worn away. Use a good quality primer paint, especially before re-applying graphite paint to the interior slopes of the grain tank.
5. Retract all hydraulic cylinders to prevent the piston rods from rusting.
6. Clean the tires before storage. Inflate the tires at regular intervals.
7. Open the clean-out doors at the base of the grain tank.

Removing from Storage

1. Check the gearboxes to make sure they have the appropriate amount of oil.
2. Inflate the tires to the correct operating pressure.
3. Close the clean out doors at the base of the grain tank.
4. Make sure all safety shields are in the proper position.

Repair Parts List and Diagrams

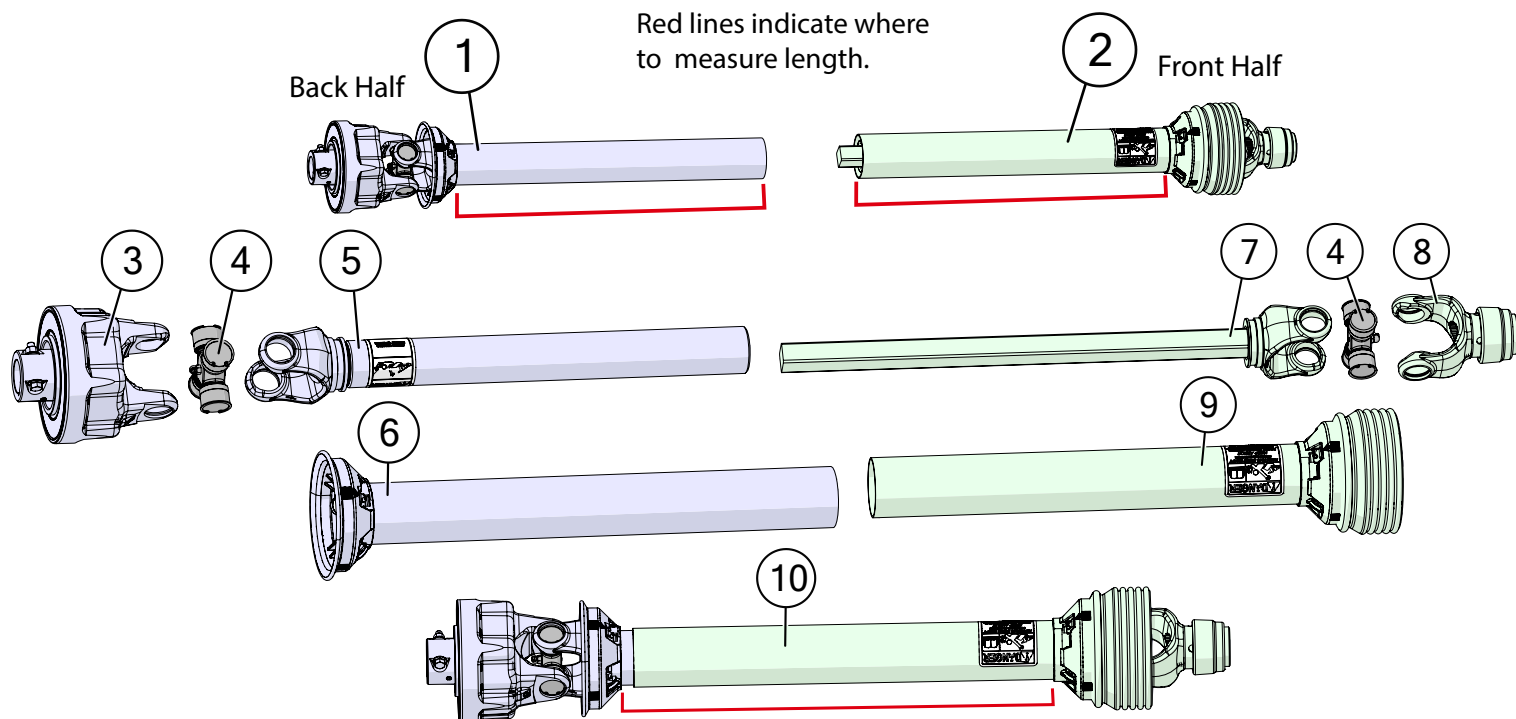
When performing maintenance work, wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing and head. Follow the Operator's Manual instructions to ensure safe and proper maintenance and repair.

Your local, authorized dealer can supply genuine replacement parts. Substitute parts may not meet original equipment specifications and may be dangerous.

WARNING

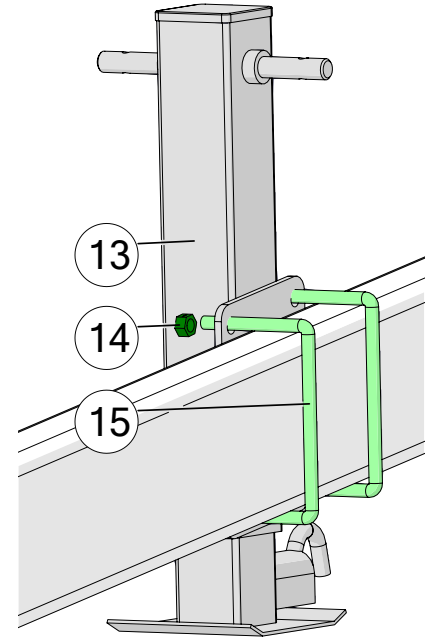
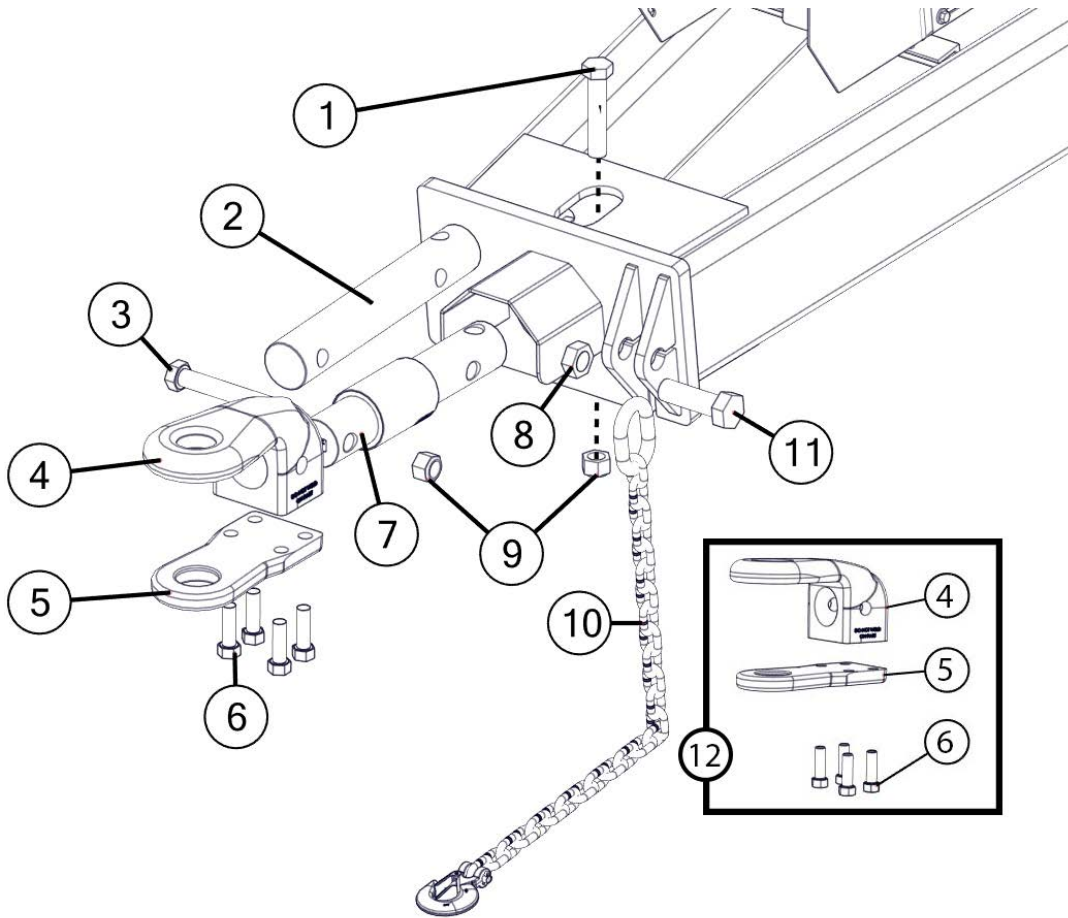
MAKE SURE ALL POWER IS SHUT OFF BEFORE PERFORMING ANY MAINTENANCE OR REPAIR WORK.

Power Take-Off (PTO) Shaft Assembly



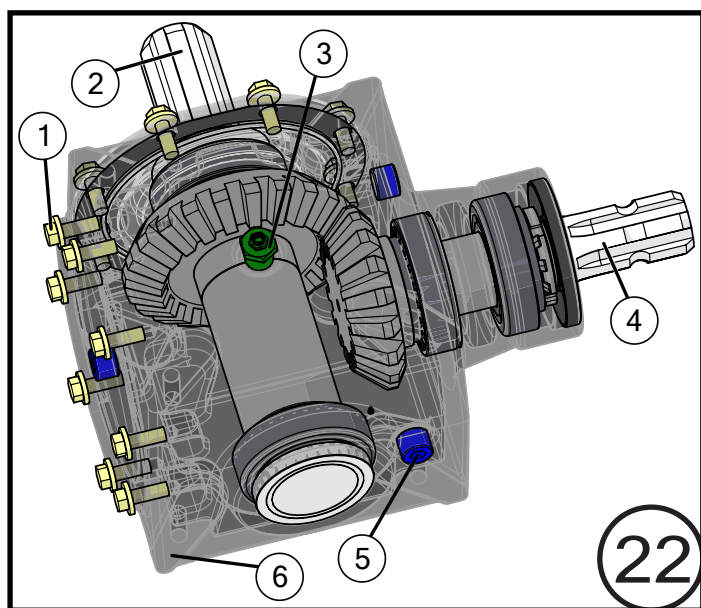
	Description	Part No.
1	Back Half Weasler PTO (1-3/4") (Auto Clutch) 25-3/4"	JM0018513
1	Back Half Weasler PTO (1-3/4") (Auto Clutch) (XL) 31-3/4"	JM0030331
2	Front Half Weasler PTO (1-3/4") (Auto Clutch) 25"	JM0018514
2	Front Half Weasler PTO (1-3/4") (Auto Clutch) (XL) 30-1/4"	JM0030330
2	Front Half Weasler PTO (1-3/8") (Auto Clutch) 25"	JM0024367
2	Front Half Weasler PTO (1-3/8") (Auto Clutch) (XL) 30-1/4"	JM0030640
3	Auto Clutch for Weasler	JM0018500
4	55E Cross Kit (Auto Clutch PTO)	JM0018449
5	Yoke, Tube & Sleeve (Weasler Auto Clutch) (55E)	JM0018519
5	Yoke, Tube & Sleeve (XL) Weasler	JM0031647
6	Weasler Auto Clutch Back Guard (25-3/4")	JM0018517
6	Weasler XL Auto Clutch Back Guard (31-3/4")	JM0030645
7	Yoke & Shaft Assembly (Weasler Auto Clutch) (55E)	JM0018520
7	Yoke & Shaft Assembly (XL) Weasler	JM0031648
8	Spring Lock Yoke (1-3/4" PTO) (Weasler)	JM0018506
8	Spring Lock Yoke (1-3/8" PTO) (Weasler)	JM0024353
9	Weasler Auto Clutch Front Guard (25")	JM0018518
9	Weasler XL Auto Clutch Front Guard (30-1/4")	JM0030642
10	Complete 1-3/4" Weasler PTO (Auto Clutch) 25-3/4"	JM0018443
10	Complete 1-3/4" Weasler PTO (Auto Clutch) (XL) 31-3/4"	JM0030332
10	Complete 1-3/8" Weasler PTO (Auto Clutch) 25-3/4"	JM0024333
10	Complete 1-3/8" Weasler PTO (Auto Clutch) (XL) 31-3/4"	JM0030641

Hitch Assembly

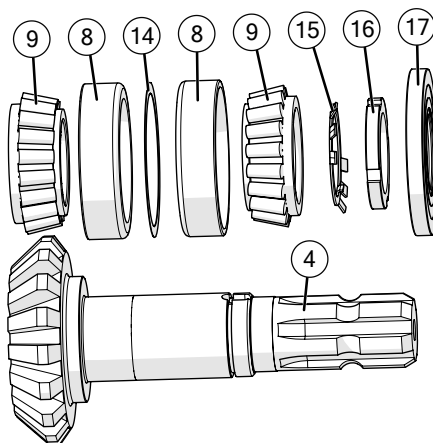
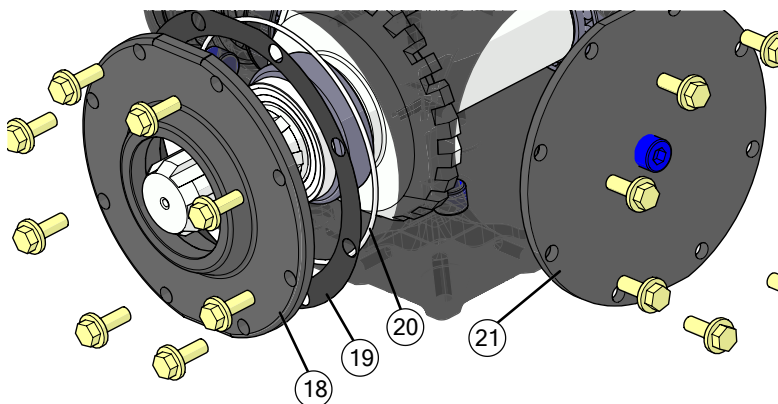
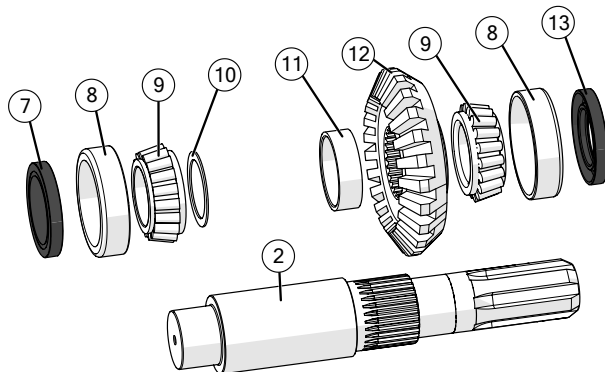


Description	Part No.
1 1"-8 x 5-1/2" Gr5 Z Hex Bolt	JM0002110
2 2-7/8" x 16-3/4" Non-Scale Hitch Bar	JM0025227
3 1"-8 x 7" Gr8 YZ Hex Bolt	JM0042653
4 Cast Iron Spade 2-1/4" Pin Hole	JM0020529
5 Cast Iron Clevis (Bolt-On) 2-1/4" Pin Hole	JM0020527
6 3/4"-16 x 2-1/2" Gr8 YZ Fine Thread Hex Bolt	JM0015323
7 2-7/8" Digi-Star Weigh Bar, 1" Pin Hole (278WB-T1)	JM0000355
8 1-1/4"-7 Gr5 Z Nylon Locking Hex Jam Nut	JM0027201
9 1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
10 40k Lb Safety Chain	JM0029261
11 1-1/4"-7 x 4" Gr8 Z Hex Bolt	JM0026073
12 Cast Iron Clevis Hitch Assembly	JM0020537
13 Jack with 10" tall Frame Tube Mount Plate	JM0040578
14 5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
15 Square U-Bolt 10-3/32" Inside Width x 6-15/32" Length, 0.625-11TH - Round Corner	JM0040576

90 Degree Gear Box

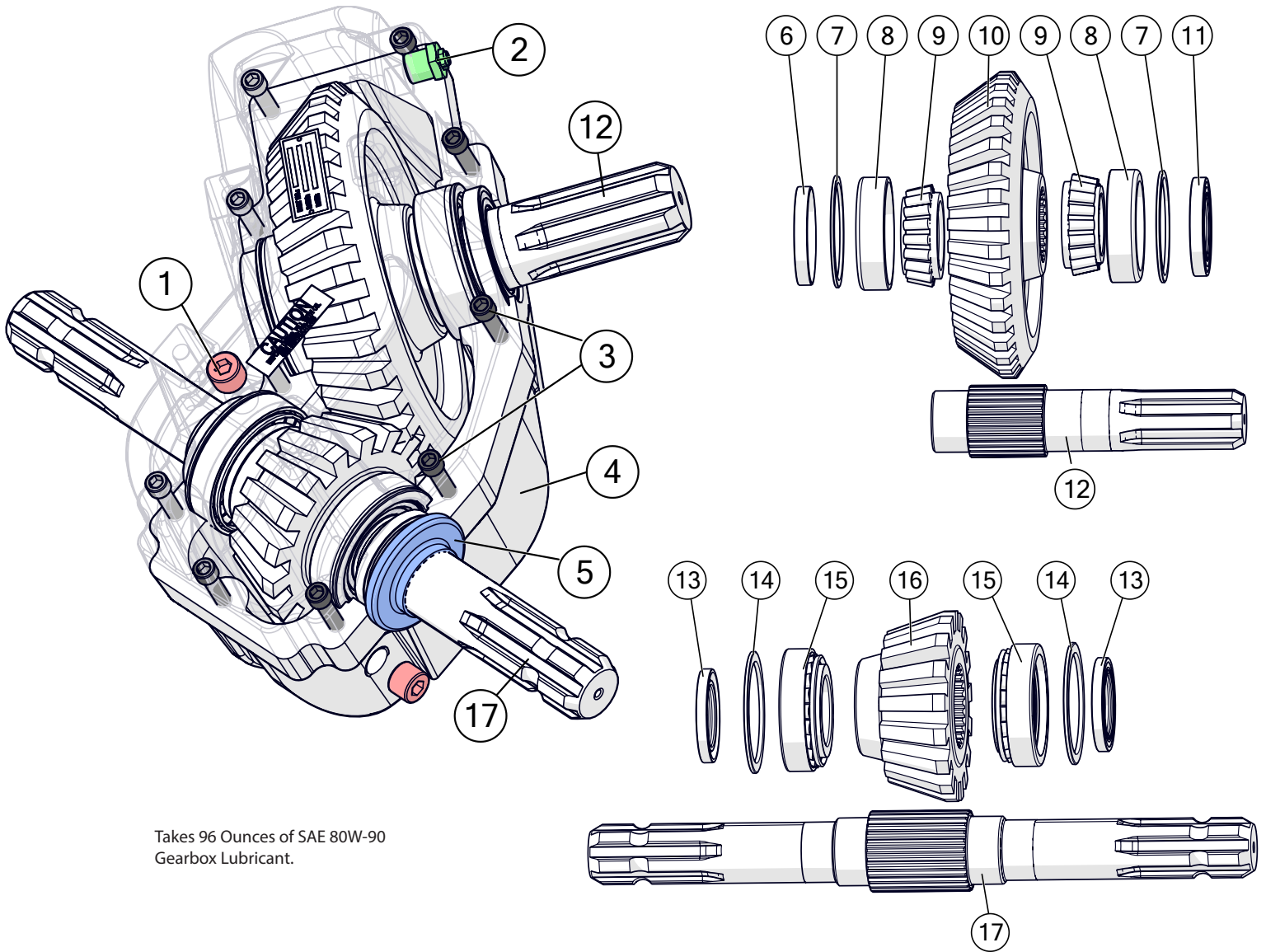


Takes 80 Ounces of SAE 80W-90 Gearbox Lubricant.



Description	Part No.
1 3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
2 Shaft Cross (09-70312)	JM0046081
3 1/2" NPT Bushing 1/8" NPT Relief Plug (72-20011)	JM0025067
4 Gear Shaft - 17 Teeth (71-06194)	JM0046075
5 1/2"-14 NPT Pipe Plug for Weasler Gearbox (72-20007)	JM0025068
6 Housing - 6490 Machining (70-06144)	JM0046076
7 End Cap Seal (3-3/16" x 7/16") for Weasler Gearbox (71-40079)	JM0025063
8 Bearing Cup (3720)	JM0027905
9 Bearing Cone (3780)	JM0027906
10 Spacer (51 x 65 x 1.4) (11-40615)	JM0046104
11 Spacer (60 x 68 x 20) (11-40615)	JM0046083
12 Gear - 23 Teeth (71-06119)	JM0046080
13 Seal (2 x 3.196 x 0.4333) for Weasler gearbox (71-40080)	JM0025062
14 Spacer (80 x 92.9 x .02) (11-40566)	JM0046085
15 Retaining Shim (51 x 61 x 1.2) (11-40564)	JM0046086
16 Locknut - M50 x 1-1/2 (11-30027)	JM0046087
17 Seal (45 x 100 x 10) (28-11013)	JM0046084
18 End Cap - 64990 Machined (70-16093)	JM0046078
19 Gasket Kit - 6000 Series (19-16611)	JM0046077
20 O-Ring (160 x 3.1) (28-1007)	JM0046089
21 Top Cover (90 Deg. Gearbox) (7-7/8" OD)	JM0046079
22 90 Degree Weasler Gearbox (1.35-1)(2" Output)(6490-0819)	JM0044943

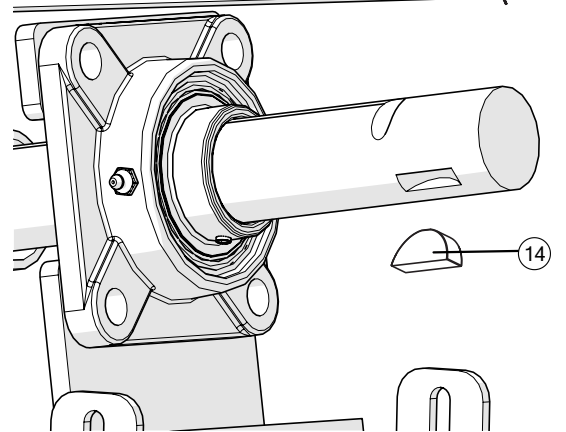
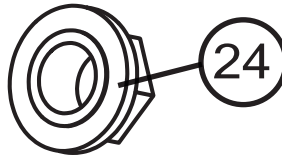
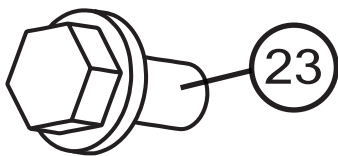
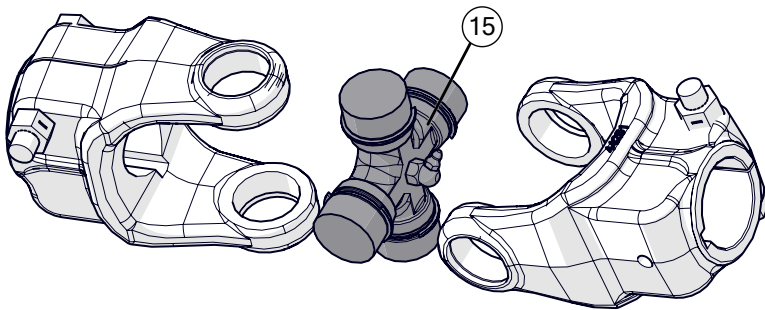
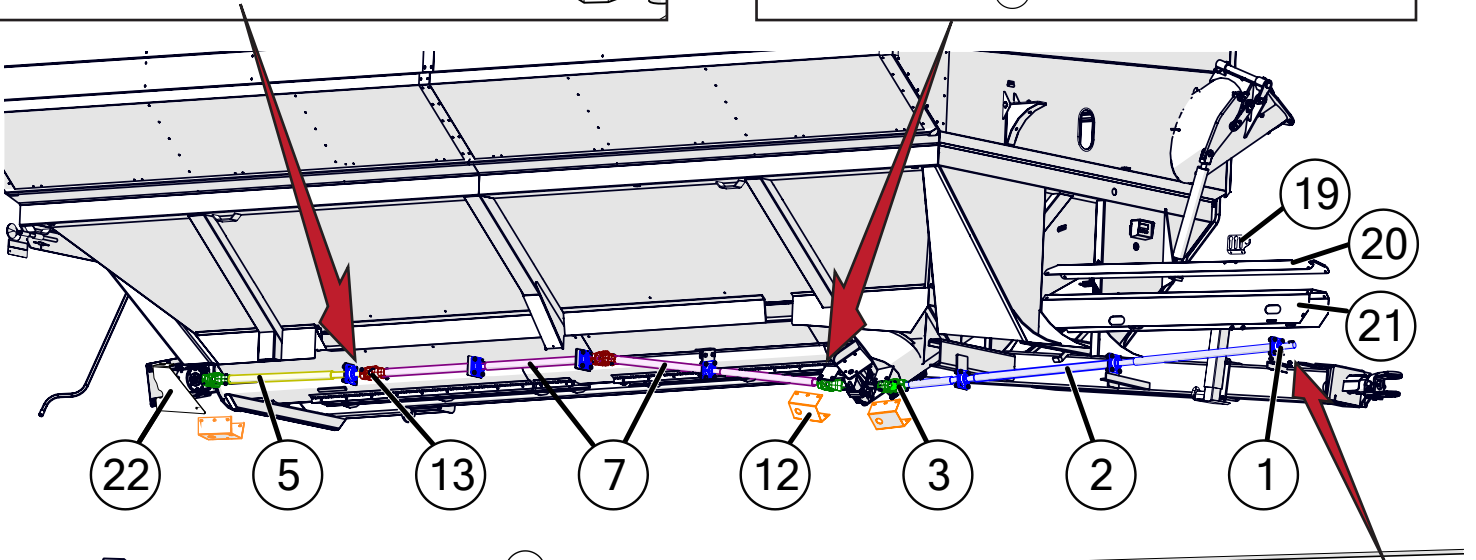
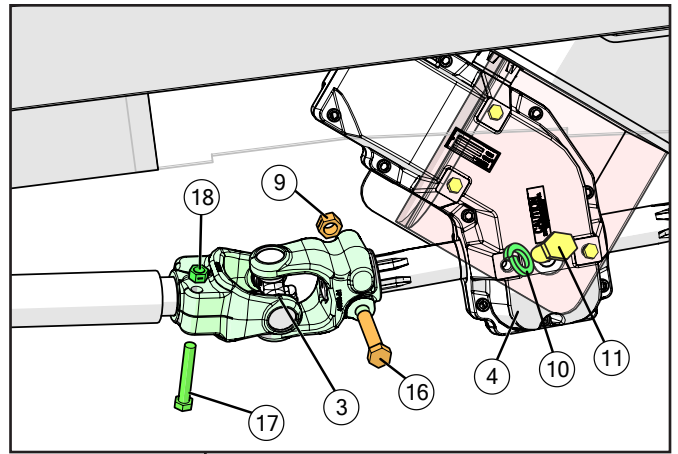
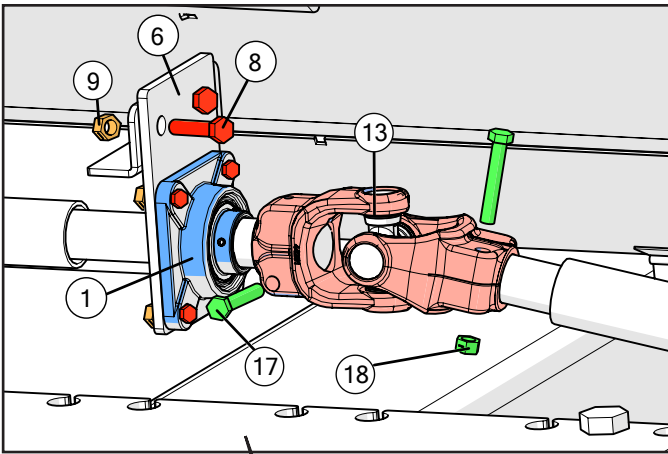
3 Directional Gear Box



Takes 96 Ounces of SAE 80W-90 Gearbox Lubricant.

	Description	Part No.
1	1/2"-14 NPT Pipe Plug for Weasler Gearbox (72-20007)	JM0025068
2	1/2" NPT Bushing 1/8" NPT Relief Plug (72-20011)	JM0025067
3	3/8"-16 UNC x 2-1/2" Gr5 Cap Screw for Weasler Gearbox (72-0002)	JM0025069
4	Housing Set (Top and Bottom) for Weasler Gearbox (70-76010)	JM0046058
5	Gearbox Exterior Dust Seal 1-3/4" ID	JM0049020
6	End Cap Seal (3-3/16" x 5/16") for Weasler Gearbox (71-40079)	JM0025063
7	Spacer Kit (19-16630)	JM0046073
8	Bearing Cup (3720)	JM0027905
9	Cone Bearing (3780)	JM0027906
10	Gear - 34 Teeth (71-06135)	JM0046061
11	Seal (2 x 3.196 x 0.4333) for Weasler gearbox (71-40080)	JM0025062
12	Single End Shaft (09-70194)	JM0046062
13	Seal (1-3/4" x 2-23/32" x 33/64") for Weasler gearbox (71-40052)	JM0025061
14	Spacer Kit (19-16631)	JM0046074
15	Bearing and Race Set (32210) for Weasler Gearbox (71-20017)	JM0025054
16	Gear - 17 Teeth (71-06134)	JM0046059
17	Double End Shaft (09-70244)	JM0046060
18	3 Directional Gearbox for Drag Carts (6050-0760)	JM0045977

Driveline



NOTE: Bolt and nut are used on U-joint and driveline shields.

NOTE: Cart uses 2 half moon keys on each driveline.

Driveline

Description		Part No.
1	1-3/4" 4 Bolt Flange Bearing, 5/8" Bolt Hole (UCF-20928)	JM0018774
2	Drive Shaft, 1-3/4" x 144" (DS-134144)	JM0021242
3	44R U-Joint - (252288) 1-3/4" Spline x 1-3/4" Round Clamp - Weasler	JM0041389
4	3-Way Gearbox (1-3/4" Input Shaft, 2" and 1-3/4" Output Shafts) (6050)	JM0045977
5	Drive Shaft, 51-1/2" x 1-3/4"	JM0037108
6	Drive Shaft Support Plate 5" x 8-2/5"	JM0000227
7	Drive Shaft, 1-3/4" x 84"	JM0040633
8	5/8"-11 x 1-3/4" Gr5 Z Hex Bolt	JM0016681
9	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
10	1/2" Gr2 Z Lock Washer	JM0019021
11	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
12	U-Joint Shield	JM0012698
13	44R U-Joint - 1-3/4" Round Clamp x 1-3/4" Round Clamp Weasler	JM0041390
14	3/8" x 1-1/2" Half Moon Key	JM0018772
15	Cross Kit (U-Joint) (44R) (CK-44R)	JM0017958
16	5/8"-11 x 3" Gr5 Z Hex Bolt	JM0002105
17	1/2"-13 x 3" Gr5 Z Hex Bolt	JM0016678
18	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
19	3 Keyed LF Hydraulic Hose Holder	JM0021437
20	97" Hydraulic Hose Shield (1312, 1412, 1522, 32 series)	JM0020941
21	32 Series PTO Shield	JM0038119
22	90 Deg Gearbox U-Joint Shield	JM0042637
23	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
24	3/8"-16 Gr5 Z SF Hex Nut	JM0002152

PVC Covers

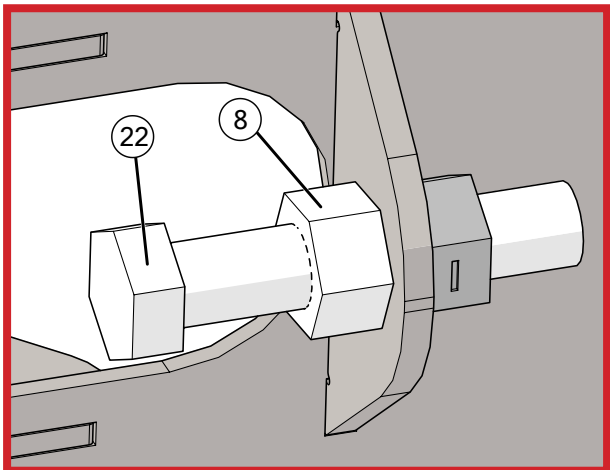
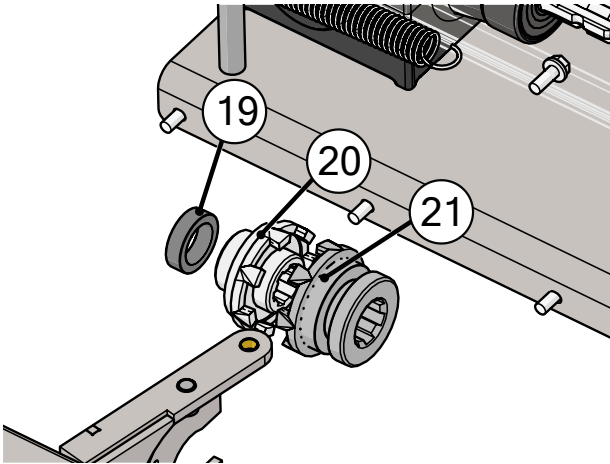
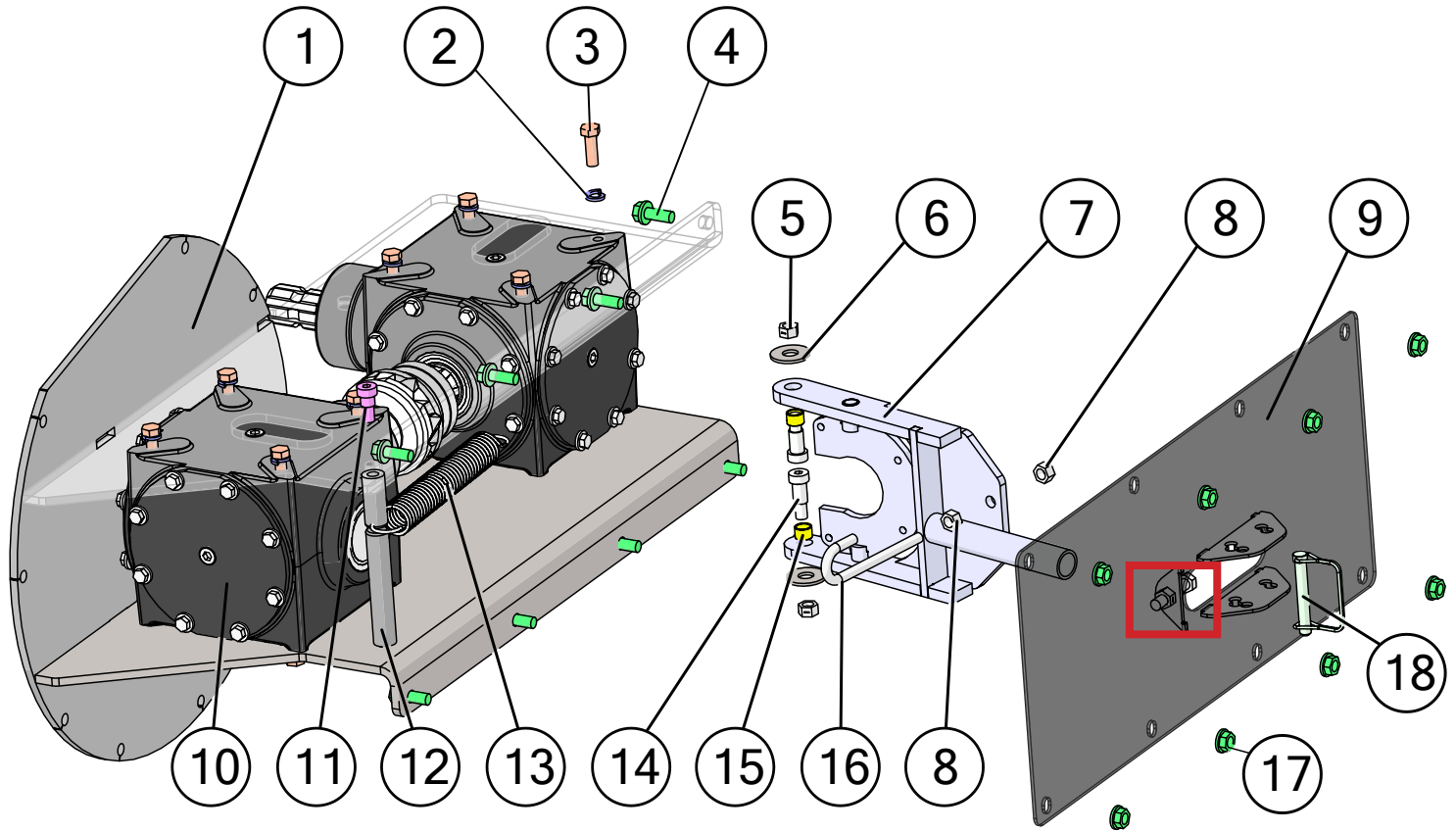
Description Part No.

50" x 2" PVC	JM0046560
15" x 2" PVC	JM0046562
36" x 2" PVC	JM0039456

*PVC Covers

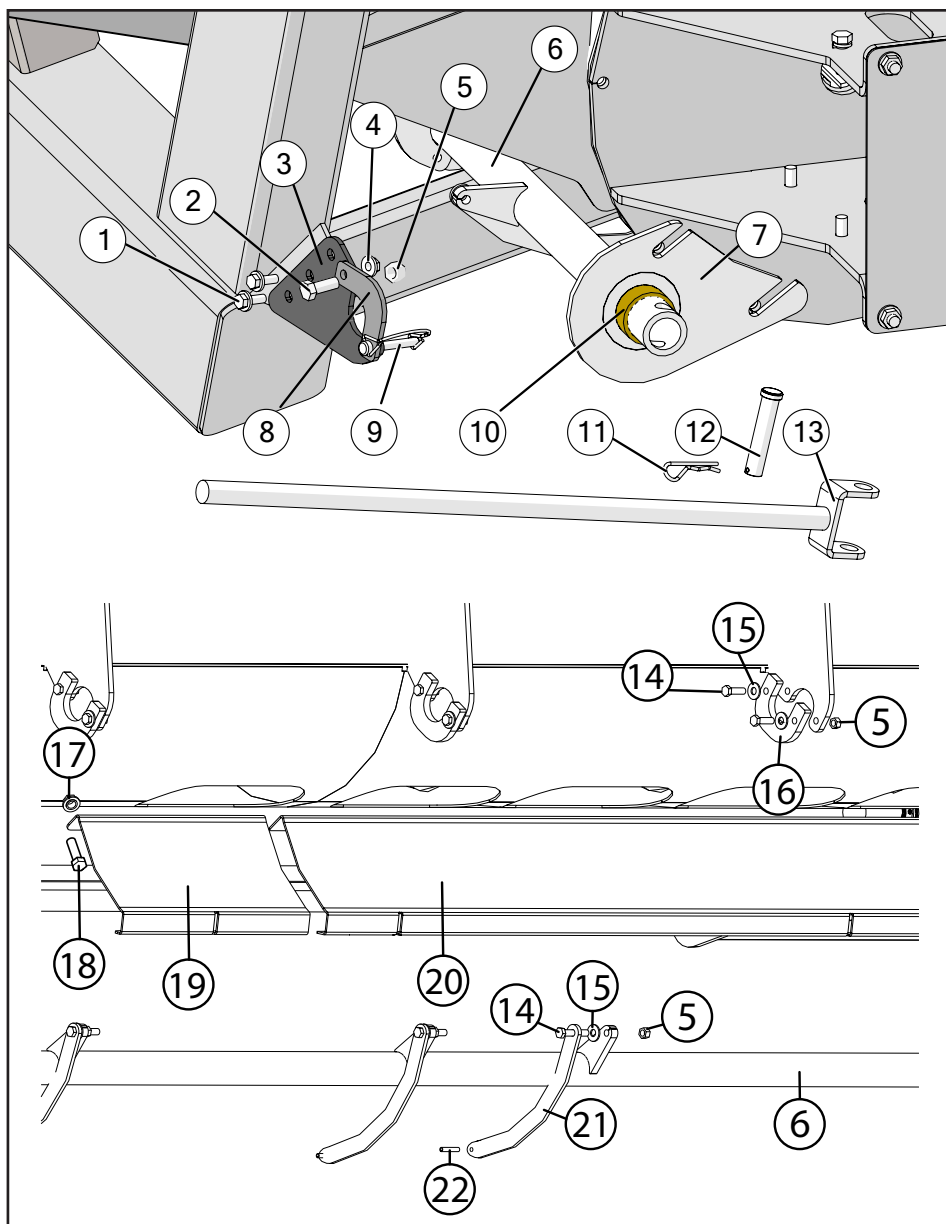
From front to back:
(2) 50" (1) 15" (5) 36"

Drag Auger Disengage

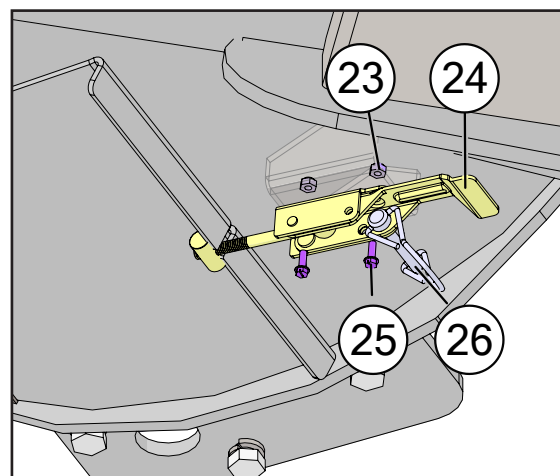


	Description	Part No.
1	Rear Gearbox Mount Weldment	JM0046340
2	1/2" Gr2 Z Lock Washer	JM0019021
3	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
4	1/2"-13 x 1-1/4" Gr5 Z SF Hex Bolt	JM0010002
5	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
6	5/8" USS Flat Washer	JM0003073
7	Gearbox Disconnect - Swivel Paddle	JM0046232
8	1/2"-13 Gr5 Z Hex Nut	JM0002124
9	Rear Disconnect - Back Plate (29" x 12-15/16")	JM0046341
10	90 Degree Gearbox (1.35-1)(2" Output)(6490-0819)	JM0044943
11	5/8" x 1/2" Shoulder Bolt	JM0046218
12	Spring Holder (1" OD x 7-15/16")	JM0046216
13	Extension Spring 8-1/2" x 1-1/2" OD x .162" Wire	JM0046308
14	5/8" x 1" Shoulder Bolt	JM0045388
15	Bronze Bushing 5/8" ID x 3/4" OD x 1/2" (BB-58)	JM0003189
16	1/2"-13 x 6" Gr5 Z J-Bolt	JM0002168
17	1/2"-13 Gr5 Z SF Hex Nut	JM0002153
18	1/2" x 3-1/2" Lynch Pin	JM0046223
19	Gearbox Disconnect - 1-3/4" ID Drive Coupler - Shaft Spacer	JM0047913
20	Gearbox Disconnect - 1-3/4" Drive Coupler Weldment	JM0046175
21	Gearbox Disconnect - 2" Drive Coupler Weldment	JM0046777
22	1/2"-13 x 2-1/2" Gr5 Z Hex Bolt	JM0001648

Clean Out Doors



Horizontal Auger Cleanout

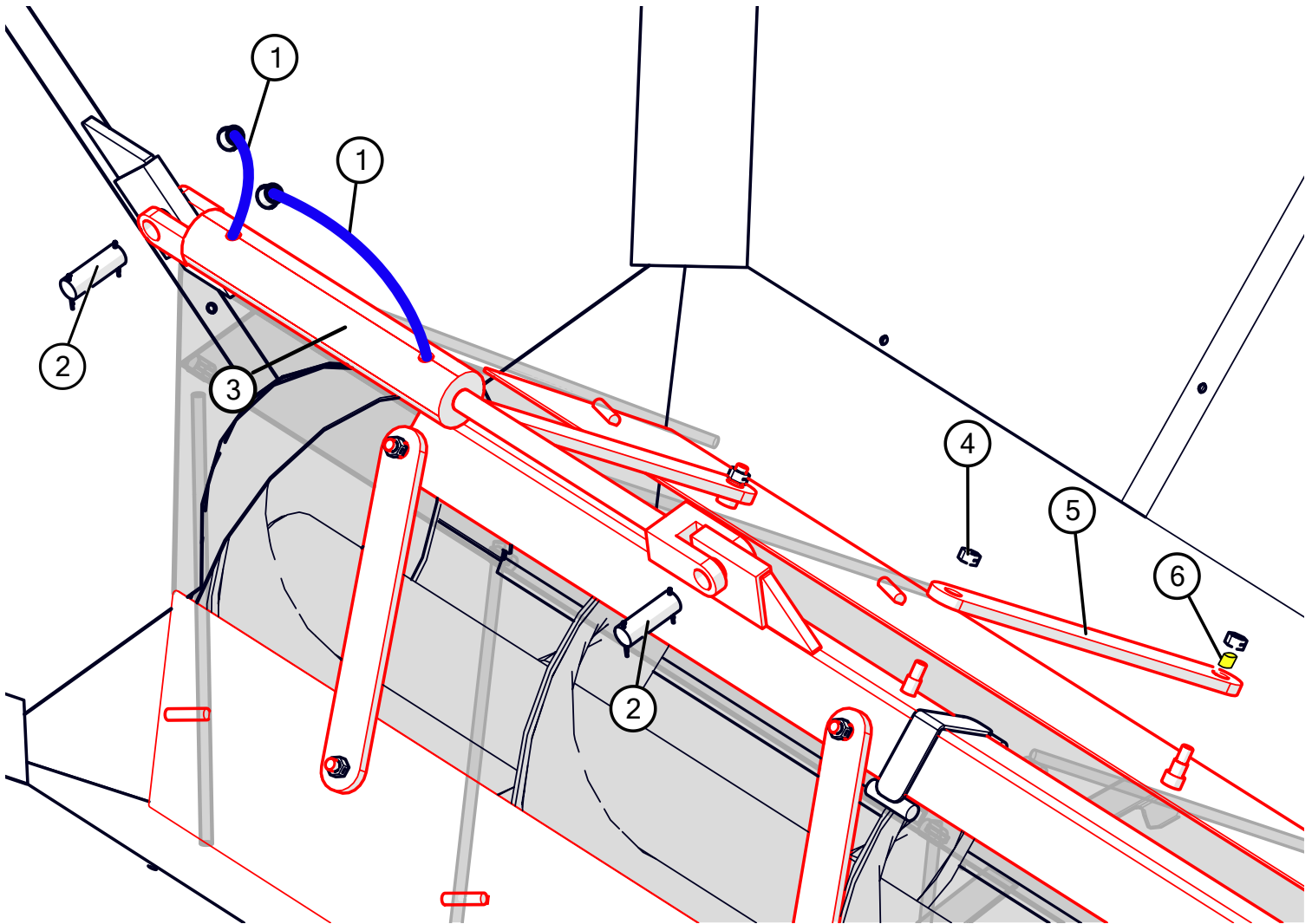


Vertical Auger Cleanout

Description	Part No.
1 3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
2 3/8"-16 x 1" Gr5 Z Hex Bolt	JM0001592
3 Clean Out Handle - Nylon Mount Plate	JM0042708
4 3/8"-16 Gr5 Z SF Hex Nut	JM0002152
5 3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
6 Torsion Tube Weldment (240")	JM0042632
7 Clean Out Gate Pipe Guide Weldment	JM0045561
8 Drag Auger Clean Out Door Handle Latch	JM0047593
9 3/8" x 2-1/2 Z Round Wire Lynch Pin	JM0014929
10 2" ID x 2-3/8" OD x 1" LG Bronze Bushing (EB-2)	JM0027653
11 3/16" x 2-1/2" Hair Clip Pin (316HP)	JM0001657
12 3/4" x 3-1/2" (3-1/4" Usable Length) Z Clevis Pin	JM0042973
13 32 Series Clean Out Gate Handle (32-1/4")	JM0043146

Description	Part No.
14 3/8"-16 x 2" Gr5 Z Hex Bolt	JM0001510
15 3/8" ID, 1" OD Z Flat Washer	JM0003061
16 2" Pipe Guide (1/2" x 3" x 3-7/8")	JM0041232
17 1/4"-20 Gr5 Z Hex Nut	JM0002122
18 1/4"-20 x 1/2" Gr5 Z Hex Bolt	JM0001481
19 Rear Clean Out Gates (15-1/8" x 10-3/16")	JM0038850
20 Front Long Clean Out Gates 85" (1832, 2032, 2332)	JM0042441
21 Feed Gate Master Link (11-7/8" x 3")	JM0041122
22 1/4" x 1-3/8" Roll Pin	JM0009896
23 #8-32 Z Nylon Locking Hex Nut	JM0012334
24 Vertical Clean Out Door Latch (32 Series)	JM0049152
25 #8-32 x 1/2" Slotted Hex Washer Head Machine Screw	JM0012333
26 1/4" x 1-3/4" Lynch Pin	JM0001478

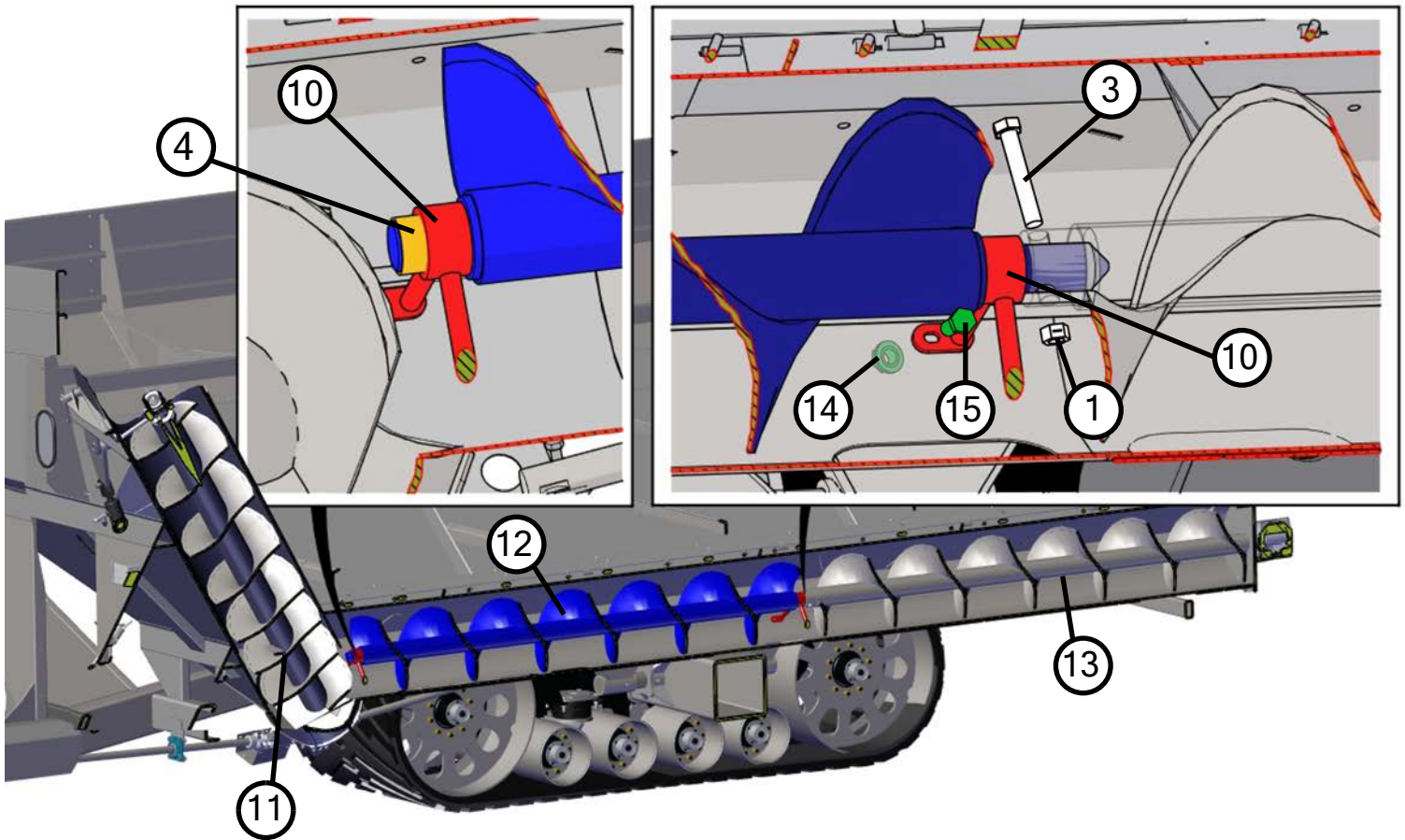
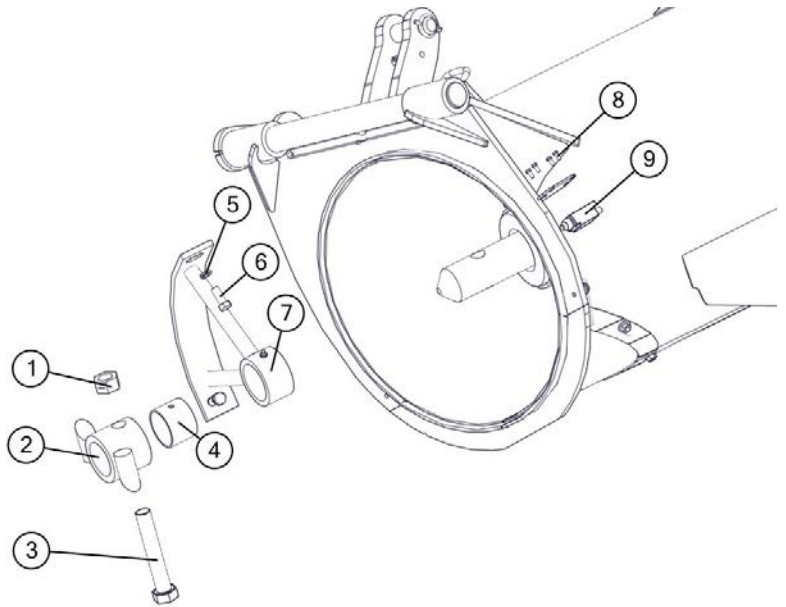
Feed Gate



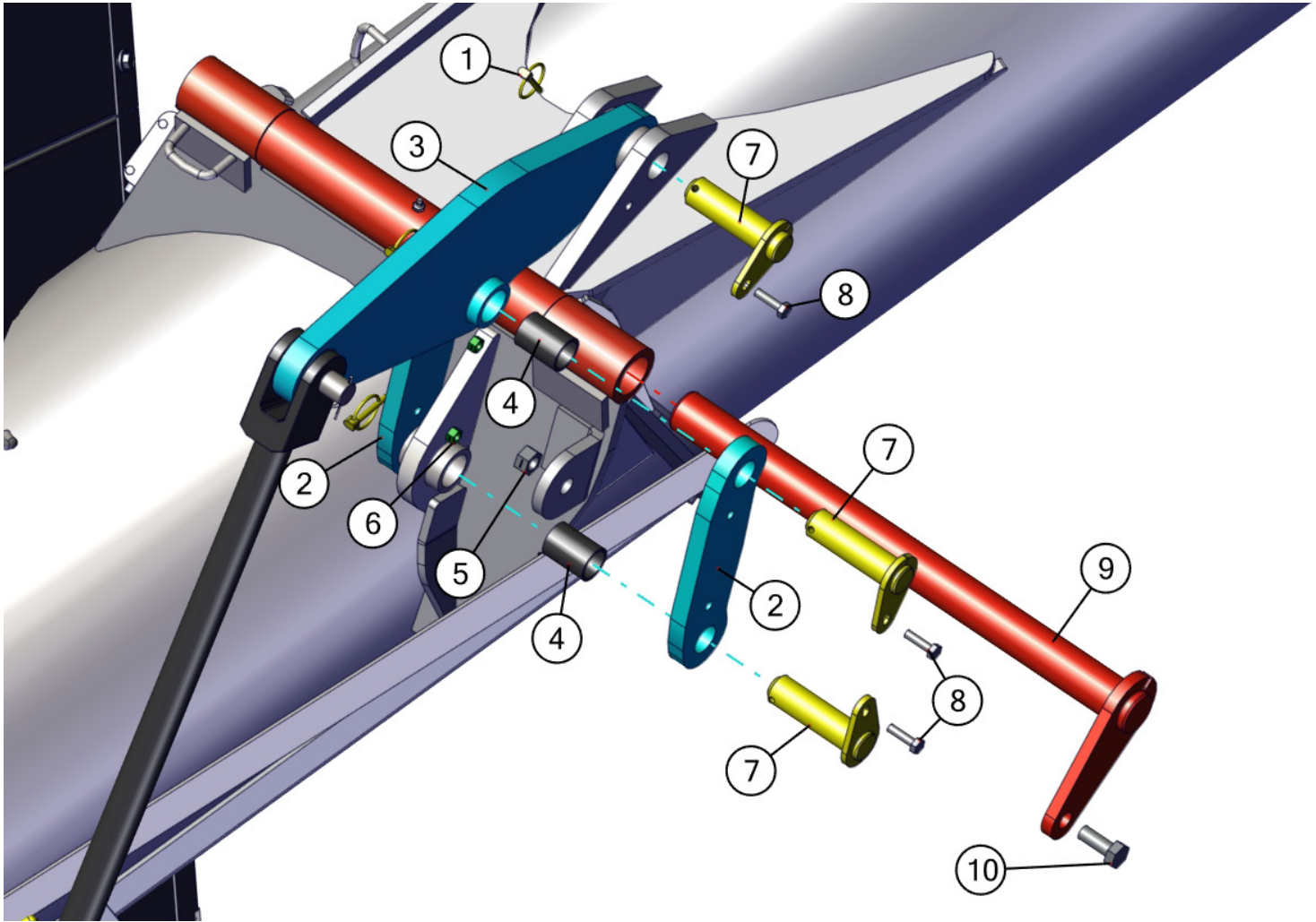
	Description	Part No.
1	1/4" x 19" Hydraulic Hose 19inch4M3k-4G-6MPX-4G-6MP	JM0048197
2	1" x 3" Clevis Pin with Cotter Pins	JM0019407
3	2" x 12" Hydraulic Cylinder with 1-1/8" Shaft	JM0025341
4	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
5	Drag Gate Linkage with Bushings	JM0044178
6	Bronze Bushing 5/8" ID x 3/4" OD x 1/2"	JM0003189

Lower Auger Assembly

Description	Part No.
1 1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
2 Drive Dog Weldment, 2-1/2" ID	JM0002919
3 1"-8 x 6" Gr8 Z Hex Bolt	JM0046609
4 2-1/2" ID Bronze Bushing (BB-212)	JM0016841
5 1/2" Gr2 Z Lock Washer	JM0019021
6 1/2"-13 x 1-1/4" Gr5 Z Hex Bolt	JM0001513
7 Hanger Bushing Assembly (22") (HBA-22)	JM0019656
8 M5-0.8 x 12 Gr8.8 Z Hex Bolt	JM0036046
9 Limit Switch for Field Light (ME-8111)	JM0036040
10 20" Horizontal Auger Hanger Bracket	JM0038732
11 Bottom Vertical Auger (145-3/16" Lg) (32 Series)	JM0036809
12 Front Horizontal Auger (128-5/8" Lg)	JM0042920
13 Rear Horizontal Auger (120-1/2" Lg)	JM0042922
14 1/2"-13 Gr5 Z SF Hex Nut	JM0002153
15 1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100

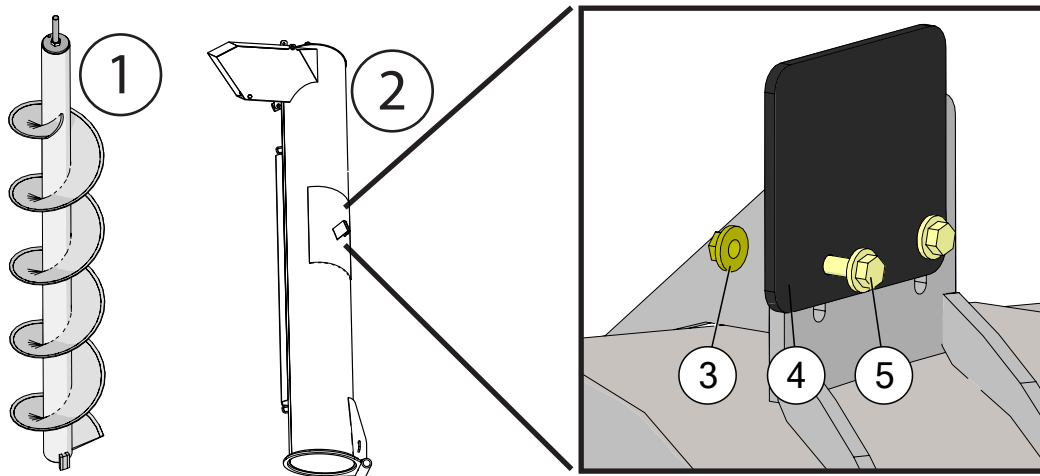


Upper Auger Linkage



	Description	Part No.
1	1/4" Diameter Snap Ring	JM0001870
2	Master Link w/ Keeper (11-1/8" x 3" x 3/4")	JM0035075
3	Main Fold Link (22-1/2" x 7-7/16" x 1")	JM0034658
4	1-1/4" ID x 1-1/2" OD x 2" Long Sleeve Composite Bushing	JM0021957
5	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
6	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
7	1-1/4" Pin Keeper (4-5/8" Lg)	JM0035930
8	3/8"-16 x 1-1/4" Gr5 Z Hex Bolt	JM0016675
9	22" Hinge Pin w/ Keeper Weldment (23" Lg) (12,22 & 32 Series)	JM0024966
10	5/8"-11 x 1-1/2" Gr5 Z Hex Bolt	JM0002103

Upper Auger Assembly

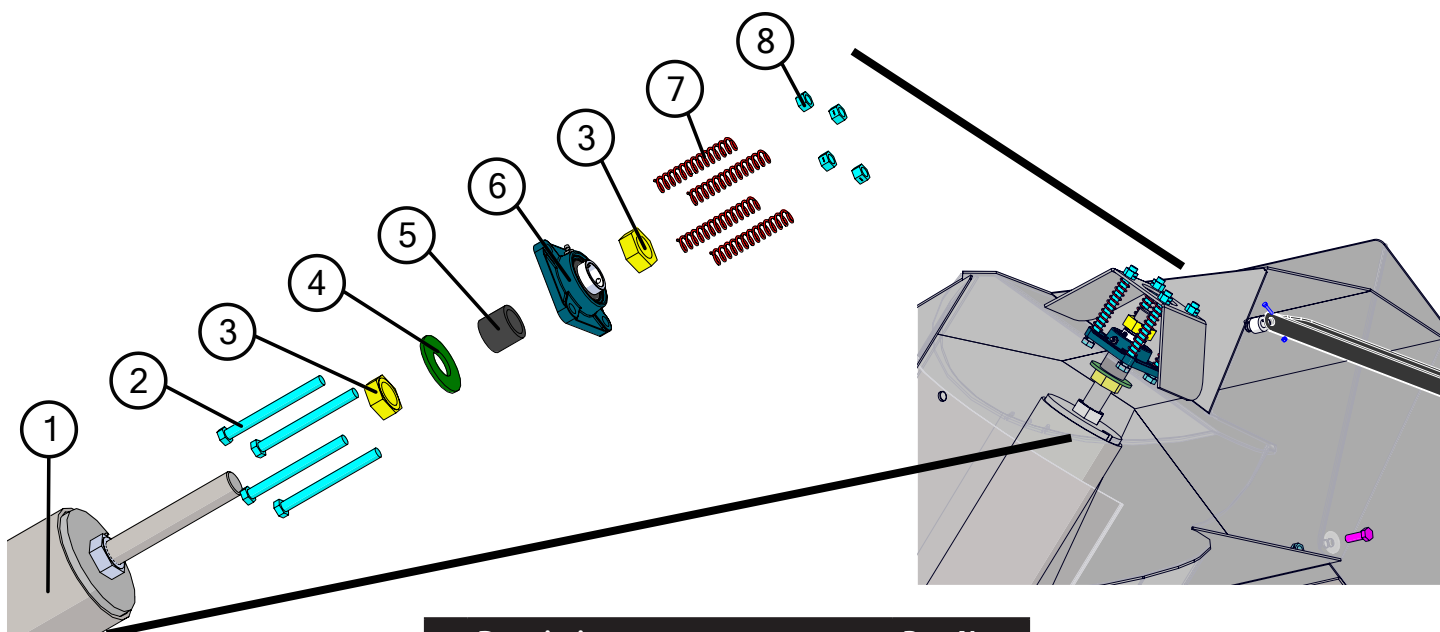


*-R = Red
 *-B = Blue
 *-G = Green
 *-Y = Yellow
 *-BLK = Black

	Description	Part No.
1	22" Upper Flighting (127" Lg)	JM0038528
2	22" 32 Series Top Tube Weldment	JM0037727*
3	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
4	Upper Auger Rest Plate	JM0034981
5	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092

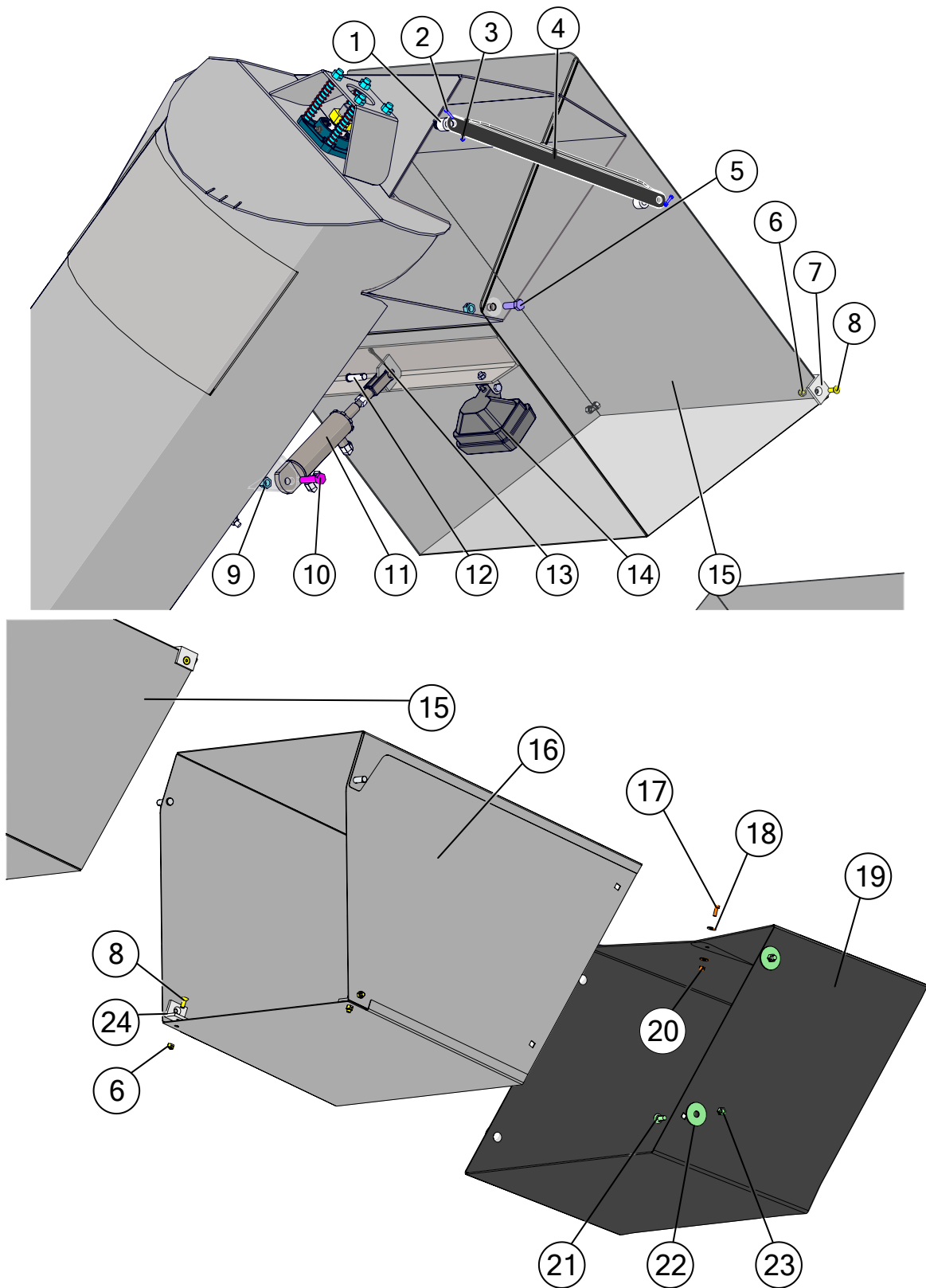
When requesting an item with color, end the part number with -R, -B, -G, -Y, or -BLK. (e.g. JM0000000-R)

Upper Auger Bearing Assembly



	Description	Part No.
1	22" Upper Flighting (127" Lg)	JM0038528
2	1/2"-13 x 5-1/2" Gr5 Z Hex Bolt	JM0001498
3	1-1/4"-12 PN Gr5 Hex Jam Nut	JM0001606
4	1-3/8", ID 3" OD Flat Washer	JM0015731
5	Top Auger Collar (1-3/4" OD x 1-1/2" Lg)	JM0021646
6	1-1/4" Flange Bearing, 4 hole (GRAF-206)	JM0018560
7	4-1/2" Compression Spring (CMSUAA-4)	JM0018559
8	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511

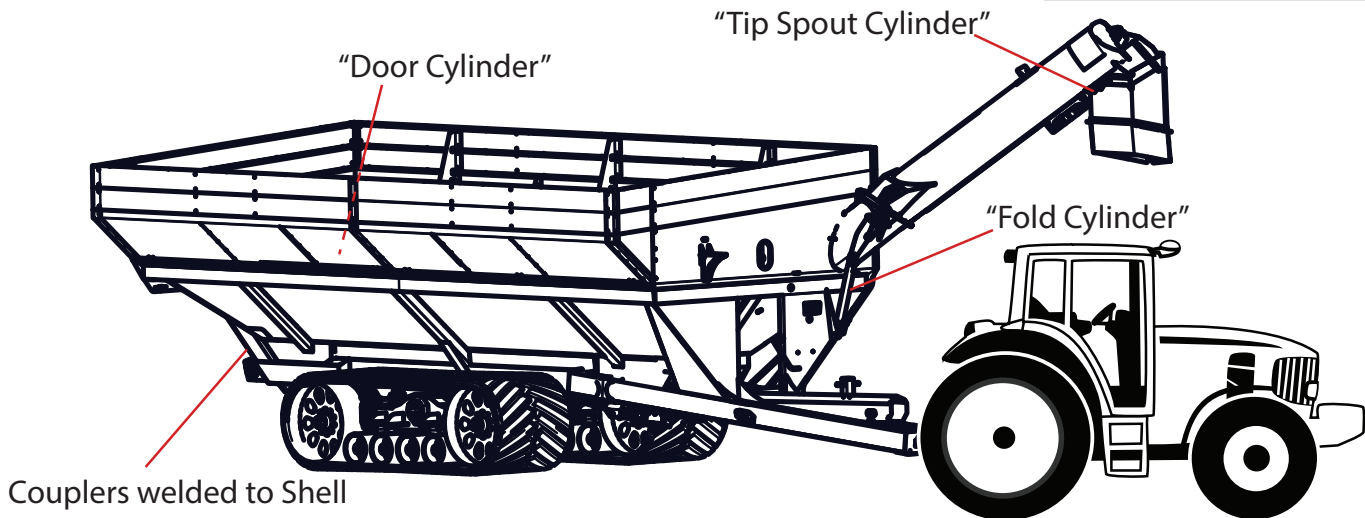
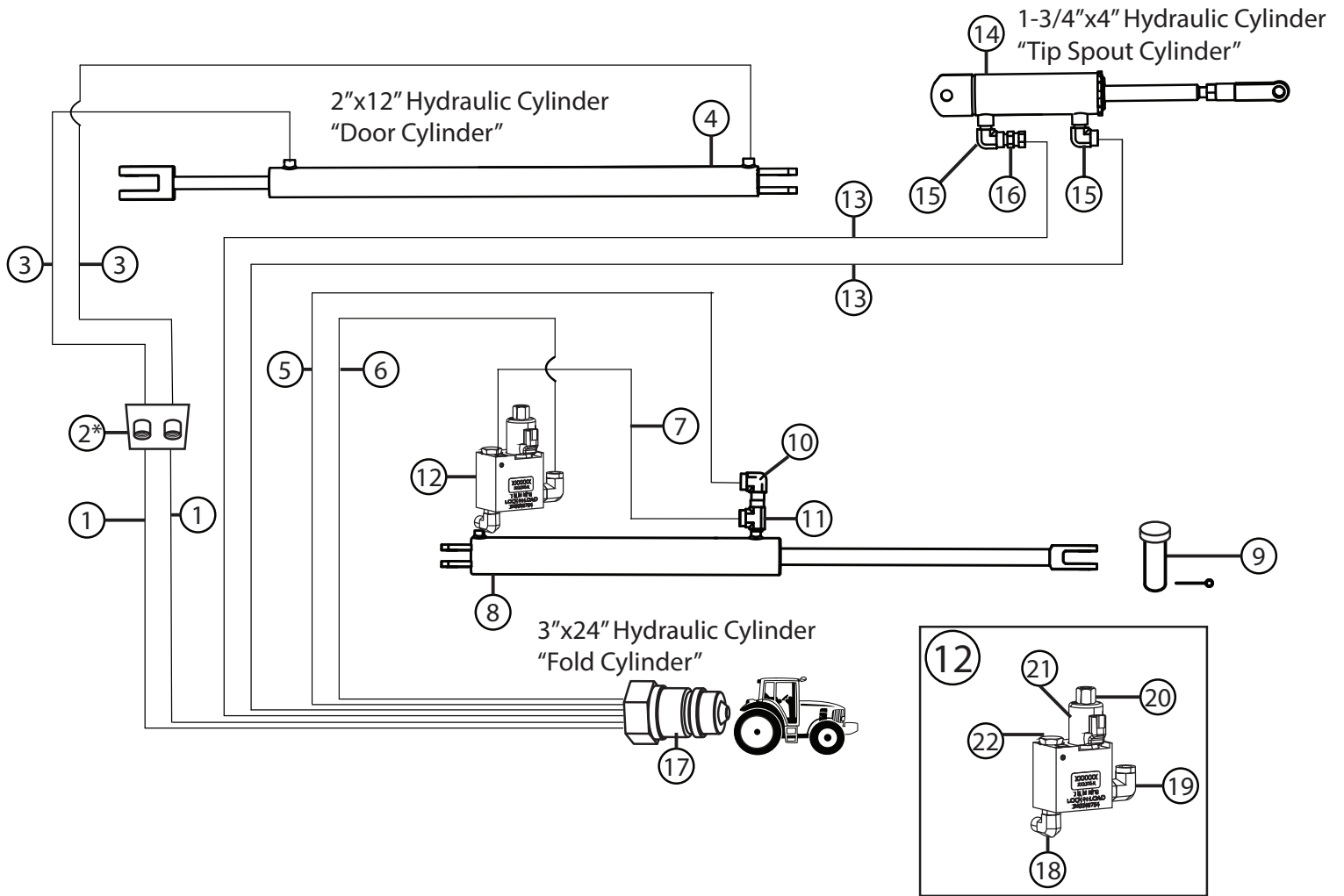
Spout Assembly



Spout Assembly

	Description	Part No.
1	1" OD 33/64" ID x 3/4" L Black UV Nylon Spacer	JM0001962
2	M4-0.7 x 20 Gr8.8 Z Hex Bolt	JM0049074
3	M4-0.7 Gr8.8 YZ Nylon Locking Hex Nut	JM0049075
4	Telescoping Spout Main Linkage Rod	JM0034363
5	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
6	5/16" - 18 Gr5 Z Nylon Locking Hex Nut	JM0049059
7	Spout Guide (Nylon)	JM0035132
8	5/16"-18 x 5/8" Flat Head Bolt Z	JM0024963
9	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
10	1/2"-13 x 2" Gr5 Z Hex Bolt	JM0001593
11	1-3/4" x 4" Hydraulic Cylinder (1/2" Clevis and Tab ends) (HC-FCS)	JM0018564
12	1/2" x 1-3/4" Clevis Pin, Usable Length 1-1/2"	JM0018264
13	5/32" x 1-1/2" Cotter Pin	JM0014348
14	LED Field Light	JM0001881
15	22" Inner Telescoping Spout	JM0038218
16	22" Outer Telescoping Spout	JM0038227
17	1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507
18	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
19	4-Sided Telescoping Spout Rubber Extension	JM0037795
20	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
21	3/8"-16 x 1" Gr5 Z Carriage Bolt	JM0001632
22	1/2" ID x 2-1/4" OD Flat Washer - 1/8" Thick	JM0019081
23	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
24	UHMW - 0.25 Angle Iron - Spout Guide	JM0034308
25	32 Series Tip Spout Assembly	JM0047941

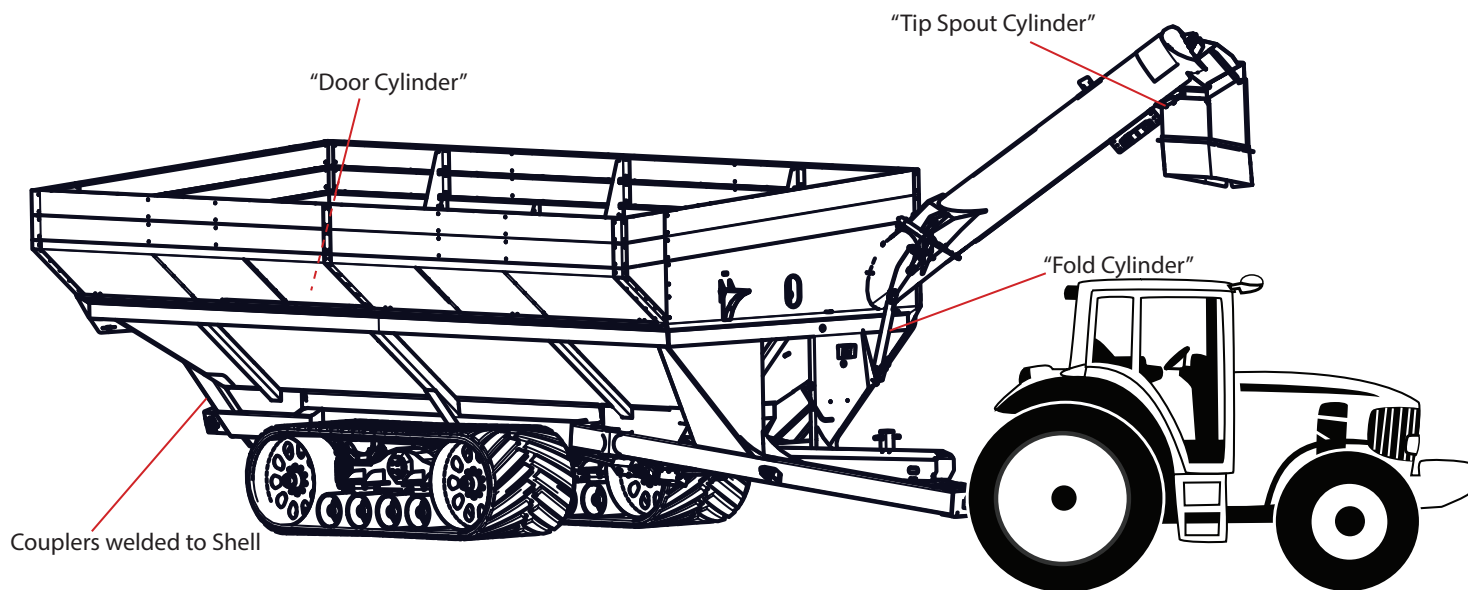
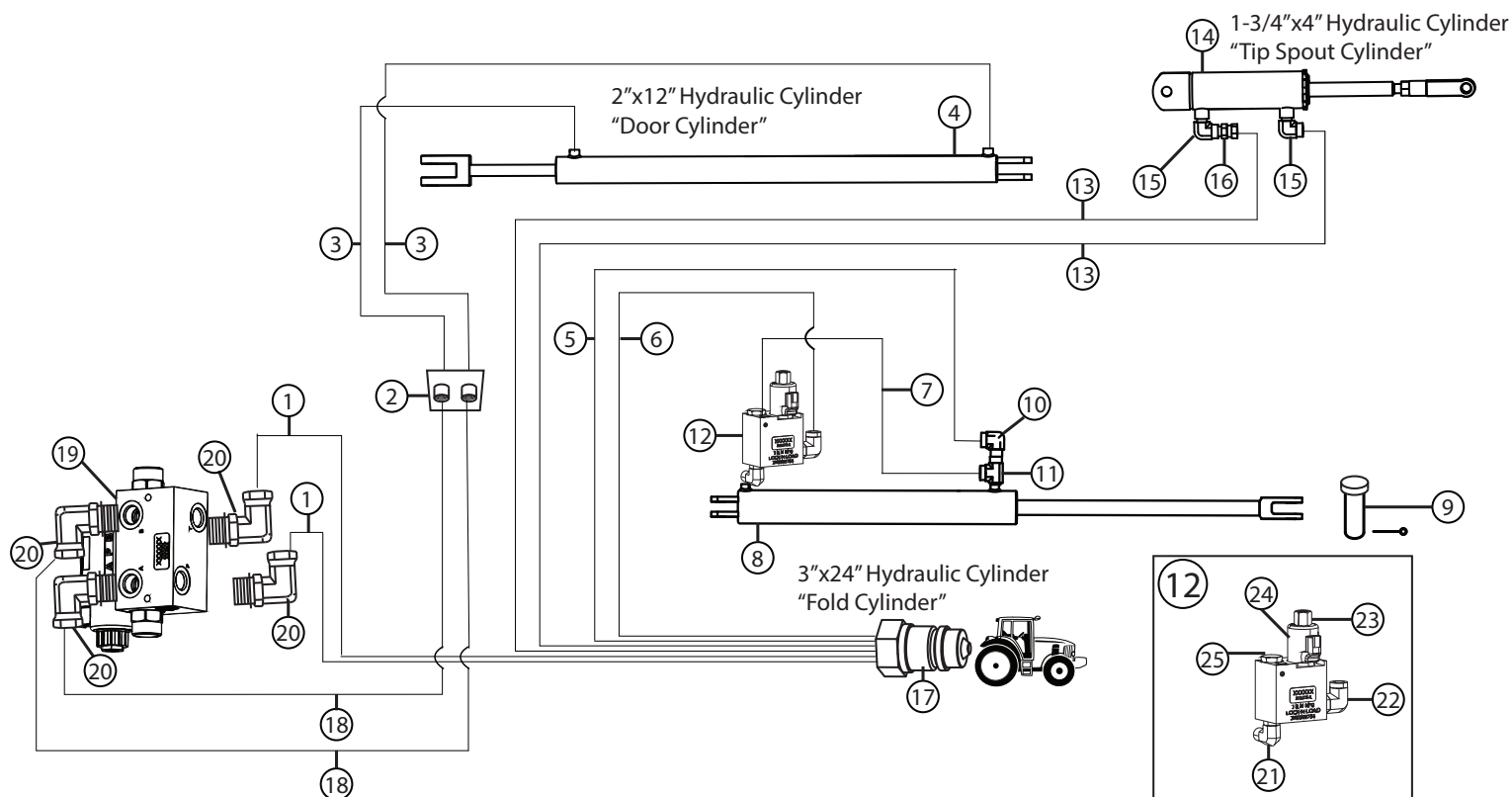
Hydraulic Hoses & Cylinders



Hydraulic Hoses & Cylinders

	Description	Part No.
1	1/4" x 550" Hydraulic Hose 550inch4M3k-4G-8MP-4G-6MPX	JM0048195
2	3/8" Standard Coupling	JM0019562
3	1/4" x 19" Hydraulic Hose 19inch4M3k-4G-6MPX-4G-6MP	JM0048197
4	2" x 12" Hydraulic Cylinder with 1-1/8" Shaft	JM0025341
4	Seal Kit for 2" Red Lion Hydraulic Cylinder (RK20TR-112)	JM0026606
5	1/4" x 304" Hydraulic Hose 304inch4M3k-4G-8MP-4G-6MPX	JM0046245
6	1/4" x 286" Hydraulic Hose 286inch4M3k-4G-8MP-4G-6MP	JM0047274
7	1/4" x 21" Hydraulic Hose 21inch4M3k-4G-4MP-4G-6MPX	JM0024896
8	3" x 24" x 1-1/2" Welded Cylinder (JD324)	JM0019644
8	Seal Kit 3" x 24" Cylinder (JD324-1) (JD480)	JM0037895
9	1-3/16" x 3-5/8" Clevis Pin (X-Tended Reach)	JM0047300
10	3/8" Male NPT x 3/8" Female NPT; 90 Degree Elbow	JM0030059
11	3/8" Male NPT x 3/8" Female NPT x 3/8" Female NPT; Street T	JM0018266
12	Lock and Load Assembly	JM0048754
13	1/4" x 478" Hydraulic Hose 478inch4M3k-4G-8MP-4G-4MP	JM0046246
14	1-3/4" x 4" Hydraulic Cylinder (1/2" Clevis and Tab ends) (HC-FCS)	JM0018564
15	1/4" Male NPT x 1/4" Female NPT, 90 Degree Elbow	JM0020115
16	1/4" Male NPT Swivel with .032 Orifice (restrictor)	JM0020113
17	1/2" Female NPT Pioneer (PQC-1)	JM0018254
18	3/8" Male ORB x 3/8" Male NPT; 90 Degree Elbow	JM0047350
19	1/2" Male ORB x 3/8" Female NPT; 90 Degree Elbow	JM0047348
20	Solenoid Valve for Lock and Load (Black)	JM0026256
21	Solenoid Coil for Lock and Load (Black)	JM0026255
22	Check Valve for Lock and Load (Black)	JM0026250

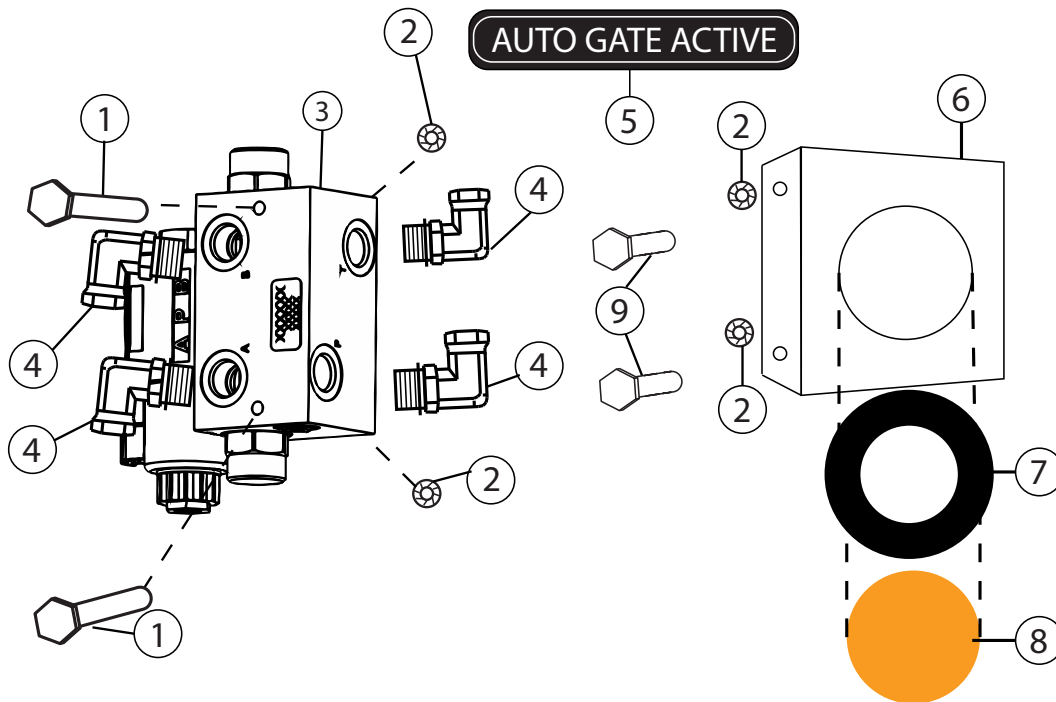
Auto-Gate Shut-Off Hydraulics



Auto-Gate Shut-Off Hydraulics

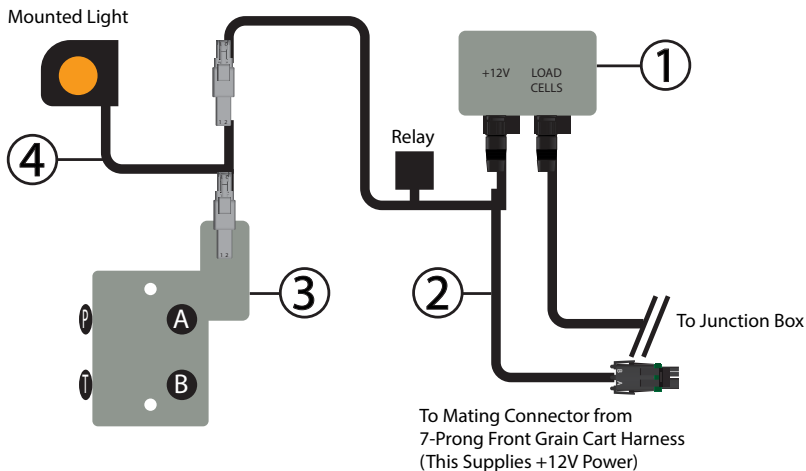
	Description	Part No.
1	1/4" x 210" Hydraulic Hose 210inch4M3k-4G-8MP-4G-6MPX	JM0048583
2	3/8" Standard Coupling	JM0019562
3	1/4" x 19" Hydraulic Hose 19inch4M3k-4G-6MPX-4G-6MP	JM0048197
4	2" x 12" Hydraulic Cylinder with 1-1/8" Shaft	JM0025341
4	Seal Kit for 2" Red Lion Hydraulic Cylinder (RK20TR-112)	JM0026606
5	1/4" x 304" Hydraulic Hose 304inch4M3k-4G-8MP-4G-6MPX	JM0046245
6	1/4" x 286" Hydraulic Hose 286inch4M3k-4G-8MP-4G-6MP	JM0047274
7	1/4" x 21" Hydraulic Hose 21inch4M3k-4G-4MP-4G-6MPX	JM0024896
8	3" x 24" x 1-1/2" Welded Cylinder (JD324)	JM0019644
8	Seal Kit 3" x 24" Cylinder (JD324-1) (JD480)	JM0037895
9	1-3/16" x 3-5/8" Clevis Pin (X-Tended Reach)	JM0047300
10	3/8" Male NPT x 3/8" Female NPT; 90 Degree Elbow	JM0030059
11	3/8" Male NPT x 3/8" Female NPT x 3/8" Female NPT; Street T	JM0018266
12	Lock N Load Assembly	JM0048754
13	1/4" x 478" Hydraulic Hose 478inch4M3k-4G-8MP-4G-4MP	JM0046246
14	1-3/4" x 4" Hydraulic Cylinder (1/2" Clevis and Tab ends) (HC-FCS)	JM0018564
14	Seal Kit for 1-3/4" x 4" Cylinder (SKHC-FCS) (JD459)	JM0024892
15	1/4" Male NPT x 1/4" Female NPT; 90 Degree Elbow	JM0020115
16	1/4" Male NPT-Swivel with .032 Orifice (restrictor)	JM0020113
17	1/2" Female NPT Pioneer (PQC-1)	JM0018254
18	1/4" x 306" Hydraulic Hose 306inch4M3k-4G-6MPX-4G-6MP	JM0048585
19	Auto-Gate Hydraulic Valve	JM0026247
20	1/2" Male ORB x 3/8" Female NPT Swivel; 90 Degree Elbow	JM0027285
21	3/8" Male ORB x 3/8" Male NPT; 90 Degree Elbow	JM0047350
22	1/2" Male ORB x 3/8" Female NPT; 90 Degree Elbow	JM0047348
23	Solenoid Valve for Lock and Load (Black)	JM0026256
24	Solenoid Coil for Lock and Load (Black)	JM0026255
25	Check Valve for Lock and Load (Black)	JM0026250

Auto-Gate Shut-Off Assembly



	Description	Part No.
1	1/4"-20 x 3-1/2" Gr5 Z Hex Bolt	JM0046621
2	1/4"-20 Gr5 Z SF Hex Nut	JM0001630
3	Auto-Gate Hydraulic Valve	JM0026247
4	1/2" Male ORB x 3/8" Female NPT Swivel; 90 Degree Elbow	JM0027285
5	Auto Gate Active Decal	JM0046612
6	3-1/2" Round LED Mount	JM0034956
7	3-1/2" Round LED Grommet	JM0001902
8	3-1/2" Amber Round LED Light	JM0001895
9	1/4"-20 x 3/4" Gr5 Z SF Hex Bolt	JM0001642

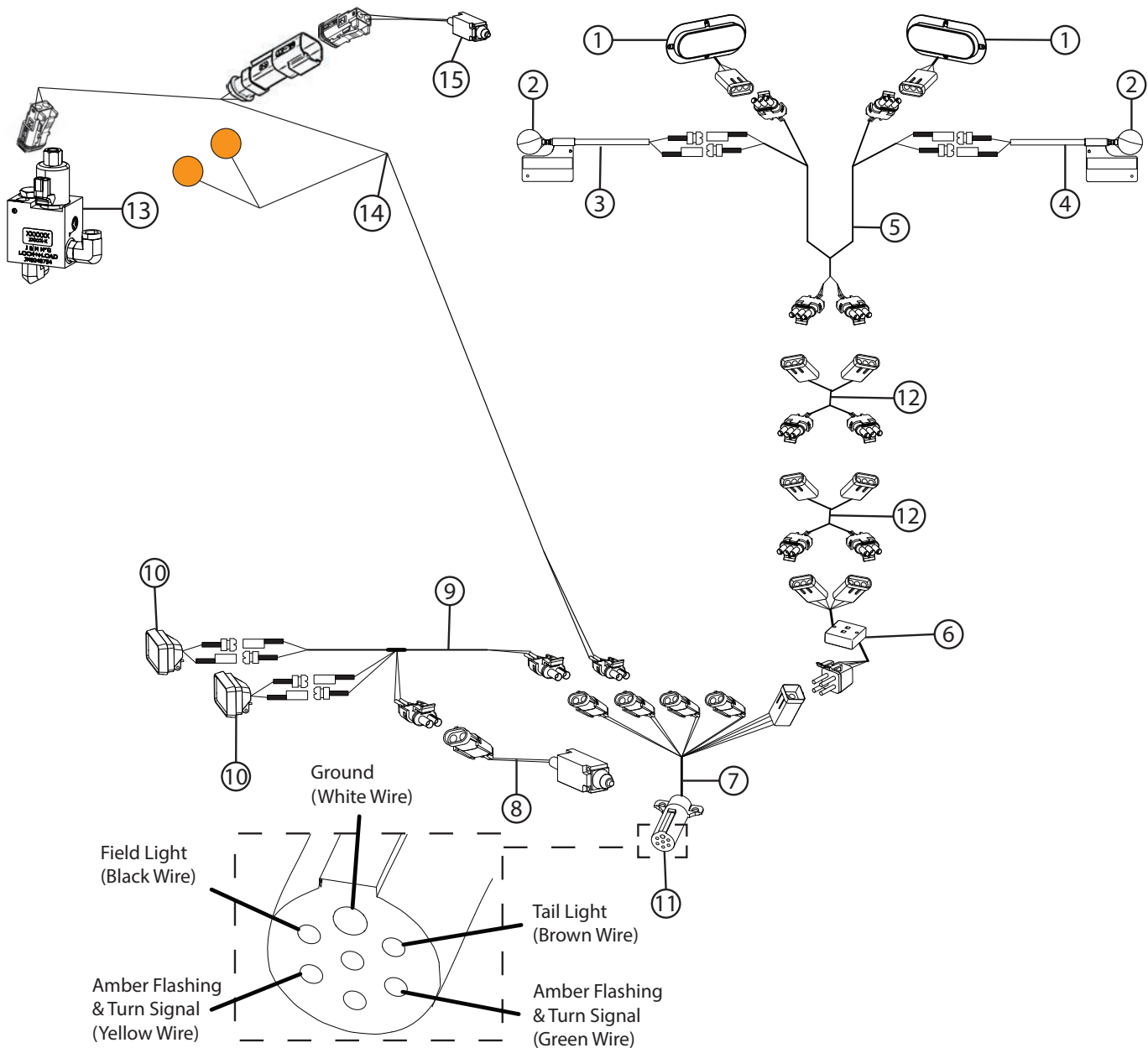
Auto-Gate Shut-Off Wiring Schematic



	Description	Part No.
1	GT 560 Digi-Star Scale Display Monitor	JM0044177
2	Auto-Gate Harness (Standard GT-560)	JM0026813
2	J&M Relay Harness (1 per IFM-GS-1P(auto-gate))	JM0037374
3	Auto-Gate Hydraulic Valve	JM0026247
4	Auto Gate Light Harness (LED light "Y" Cable)	JM0046624

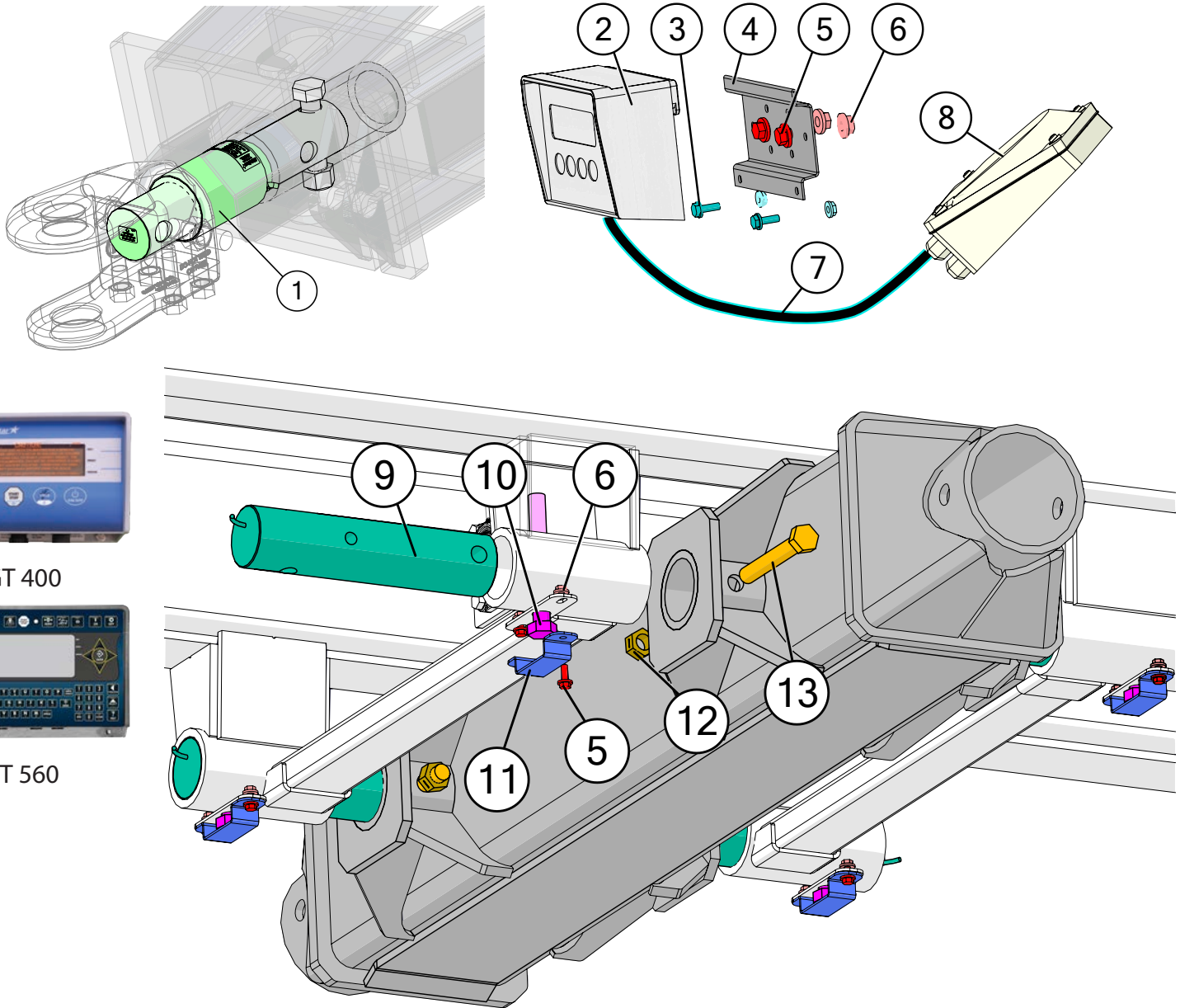
Note: Mount the hydraulic valve after all the hoses are attached but not tightened. This will ensure the hoses will reach.

Lights and Wiring



	Description	Part No.
1	Red Oval LED Tail Light	JM0034389
2	LED Amber Light (Circular)	JM0018819
3	Extendable Amber Light Assembly (Left Side)	JM0018817
4	Extendable Amber Light Assembly (Right Side)	JM0018826
5	Wiring Harness, Rear Half of Grain Cart	JM0020437
6	Light Enhancer and Adapter Kit (3 wires)	JM0010566
7	Main Harness with 7-Prong Connector End for Grain Cart	JM0020439
8	Limit Switch for Field Light (ME-8111)	JM0036040
9	Field Light Wire Harness	JM0020438
10	LED Field Light	JM0001881
11	7-Prong Connector	JM0010528
12	85" Extension Cord for Lights	JM0043127
13	Lock and Load Assembly	JM0048754
14	Grain Cart Lock and Load Harness	JM0044755
15	Limit Switch for Lock and Load - 72" Long Cable	JM0046717

5-Point Scale System



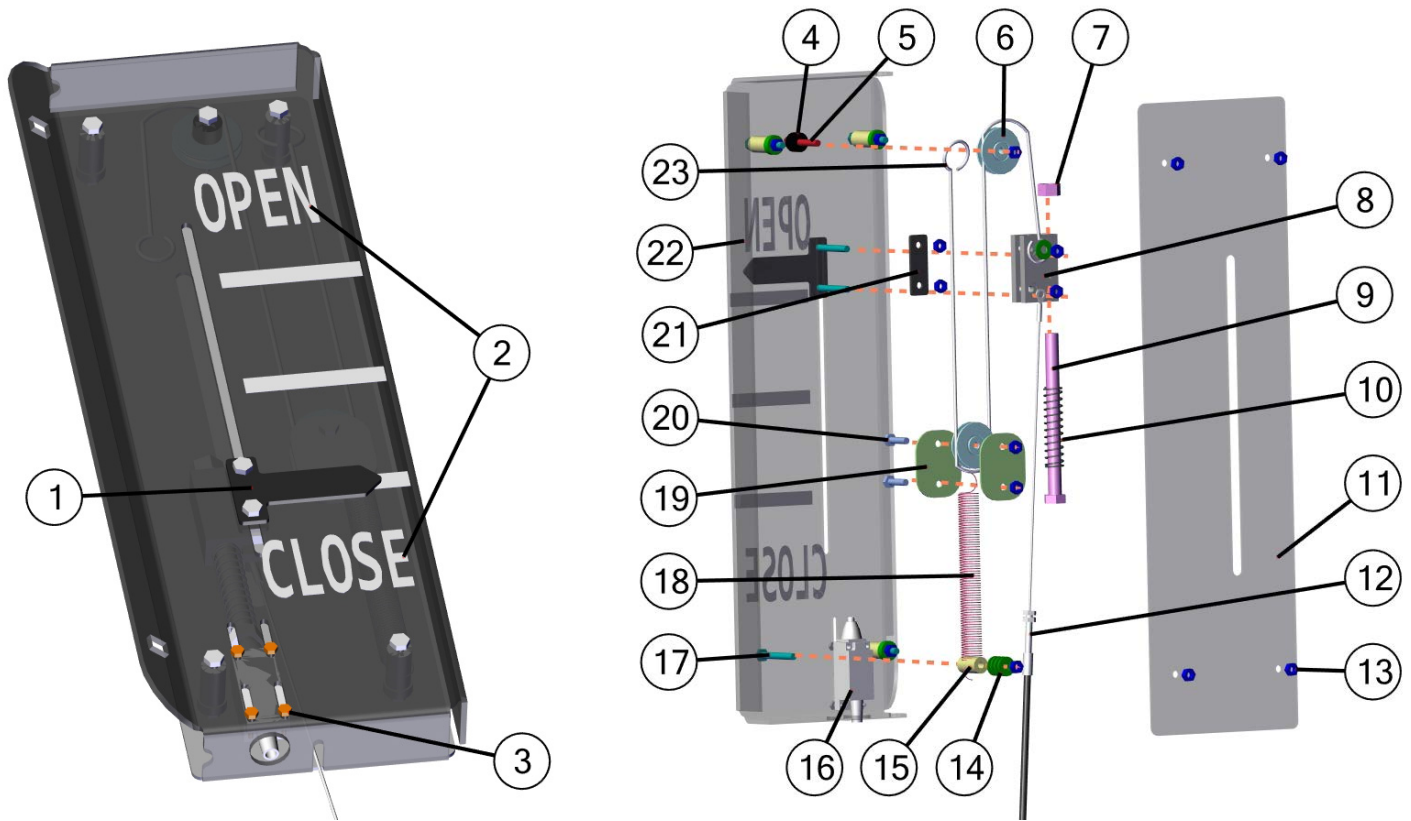
GT 400



GT 560

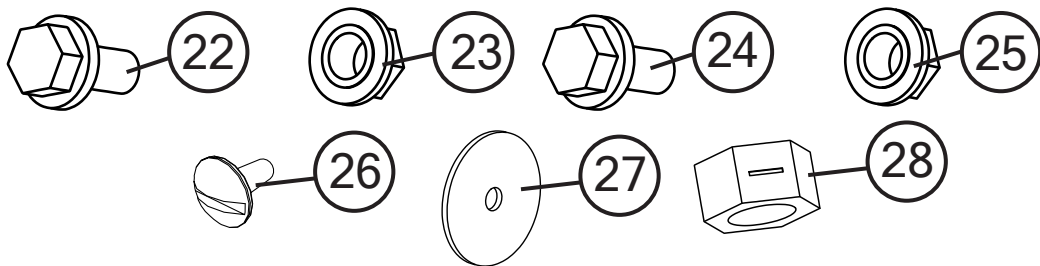
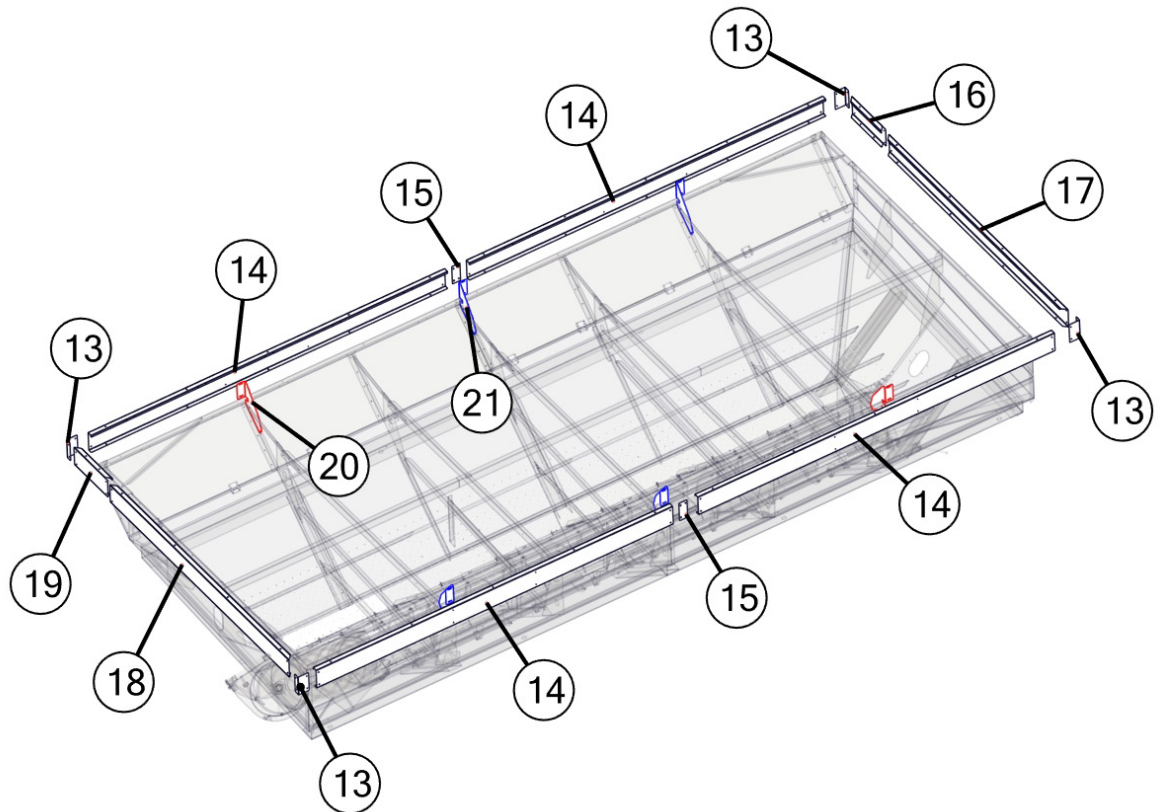
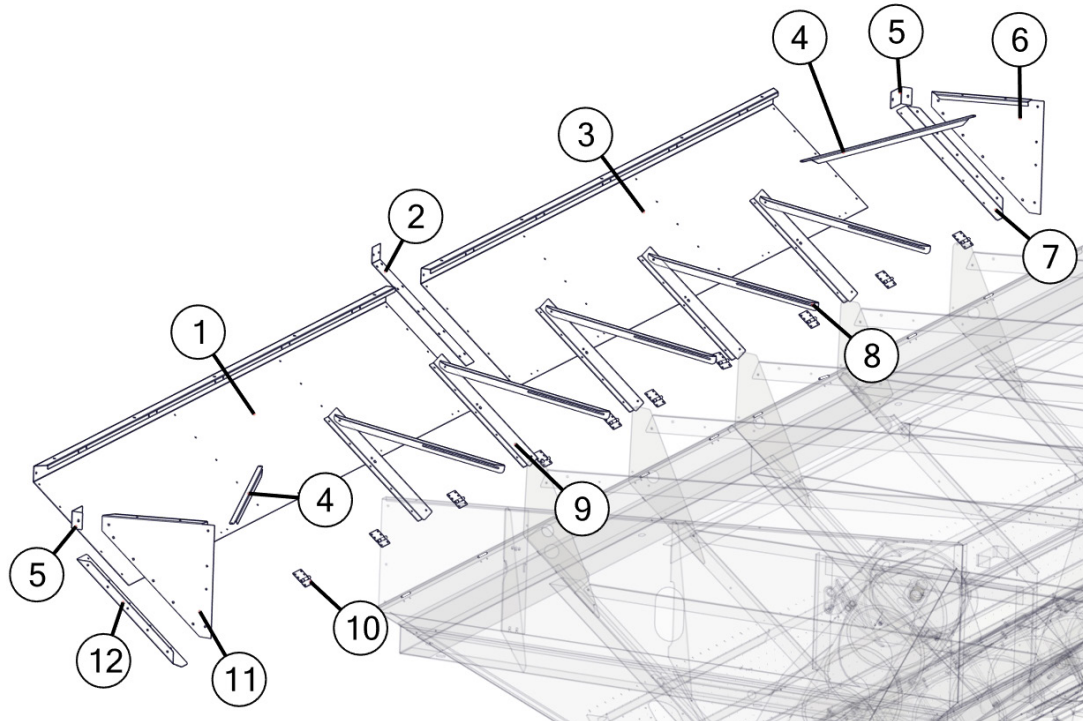
Description	Part No.
1 2-7/8" Digi-Star Weigh Bar, 1" Pin Hole (278WB-T1)	JM0000355
2 GT 400 Digi-Star Scale Display Monitor	JM0019040
2 GT 560 Digi-Star Scale Display Monitor	JM0044177
3 1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507
4 GT 560 Scale Monitor Display Bracket	JM0046976
4 GT 400 Scale Monitor Display Bracket	JM0000361
5 3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
6 3/8"-16 Gr5 Z SF Hex Nut	JM0002152
7 8' Cable from J-Box to Indicator (Digi-Star)	JM0047238
8 Digi-Star 6-Point Junction Box (JB-5)	JM0019038
9 3-3/4" Weigh Bar, Digi-Star	JM0048559
10 1"-8 x 8" Gr8 YZ Hex Bolt	JM0042652
11 Scale Bolt Retainer Bracket	JM0042616
12 1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
13 1"-8 x 7" Gr8 YZ Hex Bolt	JM0042653
14 20' Extension Cord to Mount Indicator in Cab (ECI-2)	JM0025816
15 Flash Drive Memory Stick for Digi-Star GT 560 (114991)	JM0025819

Gate Indicator Display Assembly



	Description	Part No.
1	Indicator Slide - T Shaped	JM0041671
2	Open and Close Decal for 32 Series Indicator	JM0043138
3	#6-32 x 3/4" Hex Bolt	JM0048557
4	9/32" ID, 3/4 OD x 7/16" Plastic Spacer for 32 Series Indicator Box	JM0048556
5	1/4"-20 x 2" Gr5 Z Hex Bolt	JM0048072
6	1-5/8" Idler Pulley (Long Spring Return)	JM0012970
7	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
8	Drag Cart Lock and Load Switch Trigger	JM0046358
9	1/2"-13 x 6" Gr5 Z Hex Bolt	JM0016679
10	0.72OD, 3" Free Length, 0.059 Wire Compression Spring	JM0045011
11	Indicator Plate on Conduit - Lock and Load Switch	JM0046367
12	20'2" Indicator Rod Cable with Nuts and Washers Included	JM0048555
13	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
14	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
15	1/4" ID, 5/8" OD x 1-1/8" Long Nylon Bolt Spacer	JM0046481
16	Limit Switch for Lock and Load - 72" Long Cable	JM0046717
17	1/4"-20 x 2" Gr5 Z Hex Bolt	JM0001591
18	8" Spring for 32 Series Indicator Gate	JM0048357
19	Indicator Mechanism - Pulley Rack Plate	JM0041667
20	1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095
21	Indicator Slide - Backing Plate	JM0042207
22	Indicator Plate Bolted to Conduit	JM0046375
23	26" Indicator Gate Cable	JM0048275
24	32 Series - Indicator Display Assembly	JM0046362

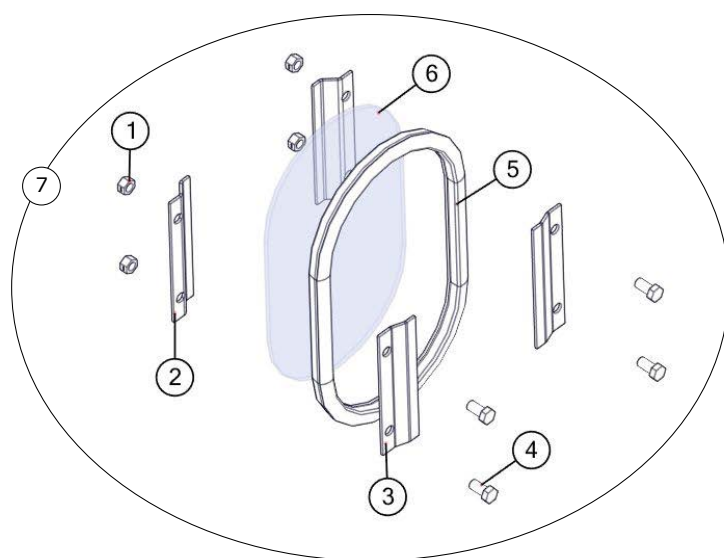
Sideboards



Sideboards

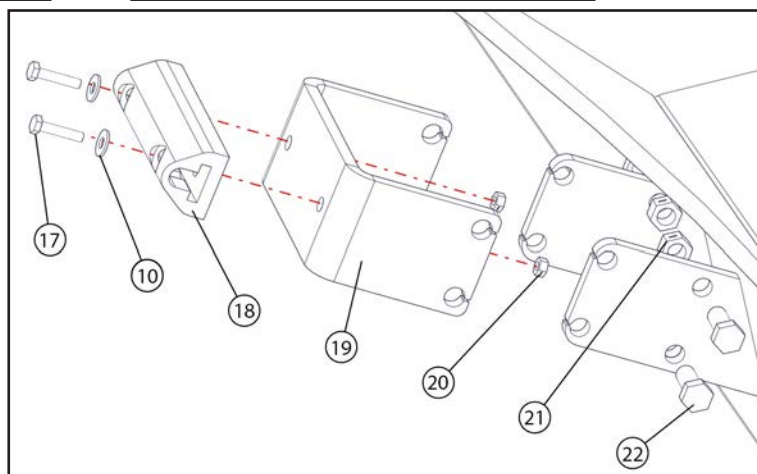
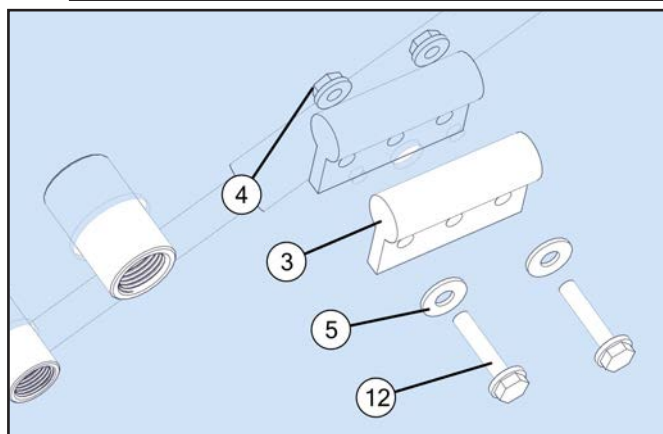
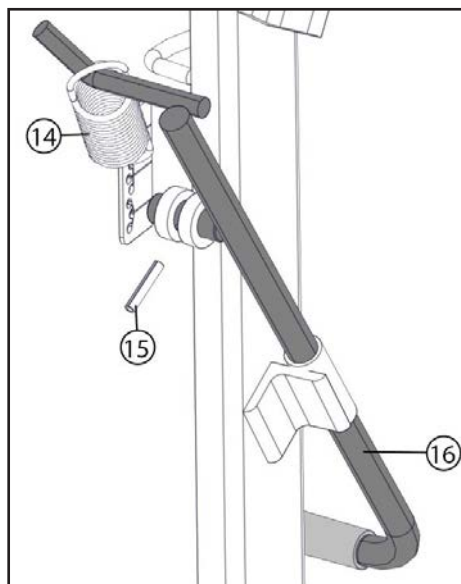
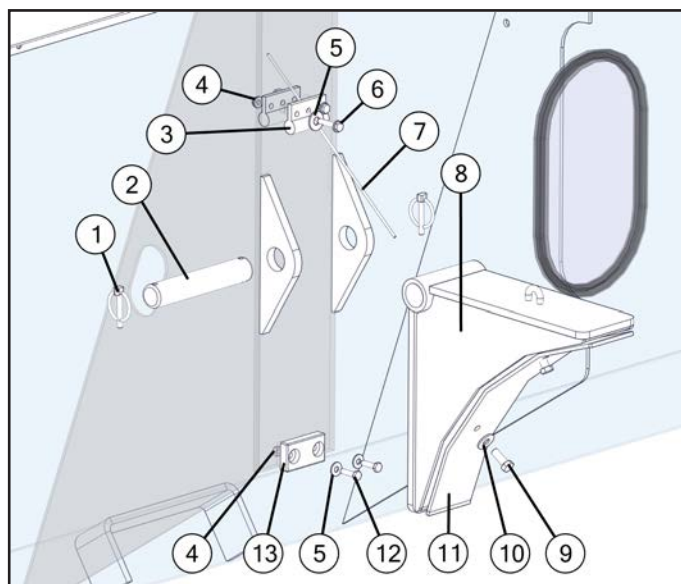
	Description	Part No.
1	Front Leaner Board - 32 Series (177")	JM0042640
2	Low Sideboard Small Splice Plate (34-3/8")	JM0042603
3	Back Leaner Board - 32 Series (177")	JM0042375
4	Corner Sideboard Bracing - 32 Series Leaner	JM0043221
5	Small Corner - 32 Series Leaner (7-5/8" x 3-13/16")	JM0042550
6	Back Triangle Board - 32 Series Leaner	JM0042540
7	Back Leaner Corner Brace - 32 Series (33")	JM0042545
8	Main Brace - 32 Series Leaner (41-15/16")	JM0042526
9	Wall Angle Brace - 32 Series Leaner (31-1/4")	JM0042508
10	4" Leaner Hinge	JM0025638
11	Front Triangle Board -32 Series Leaner	JM0042601
12	Front Leaner Corner - 32 Series (33")	JM0042605
13	2032 Corner (10-3/16" x 7-5/8")	JM0042551
14	2032, 2332 Sideboards (177" x 14-3/4")	JM0042419
15	Low Sideboard Splice 10" x 4" (1412, 1401, 1132, 1432, 1832, 2032, 2332)	JM0020614
16	Rear Corner Endboard (27-1/2" x 14-3/4")	JM0042552
17	Rear End Board 14-3/4" x 142-1/8" (1432, 2032, 2332)	JM0038548
18	Front End Board (142-1/8" x 14-3/4")	JM0038601
19	Front End Board 142-1/8" x 14-3/4" (1432, 2032, 2332)	JM0042604
20	2032 Sideboard Bracing Left (2 per)	JM0044408
21	2032 Sideboard Bracing Right (4 per)	JM0043449
22	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
23	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
24	5/16"-18 x 5/8" Gr5 Z SF Hex Bolt	JM0049017
25	5/16"-18 Gr5 Z SF Hex Nut	JM0014049
26	3/8"-16 x 1" Gr5 Z Pan Head Bolt	JM0002892
27	3/8" ID, 1" OD Z Flat Washer	JM0003061
28	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512

Inspection Windows



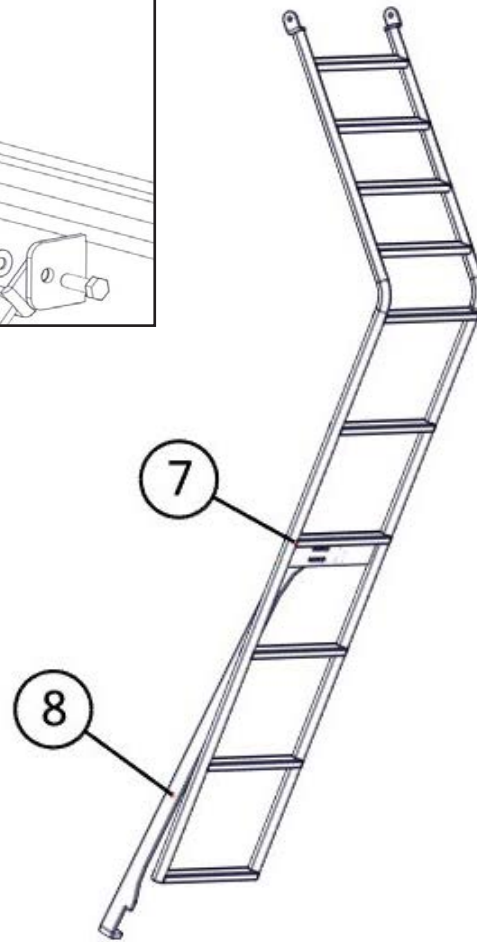
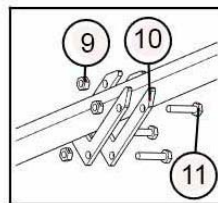
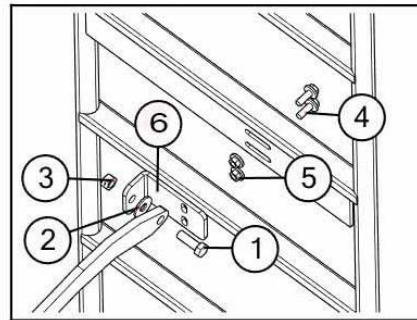
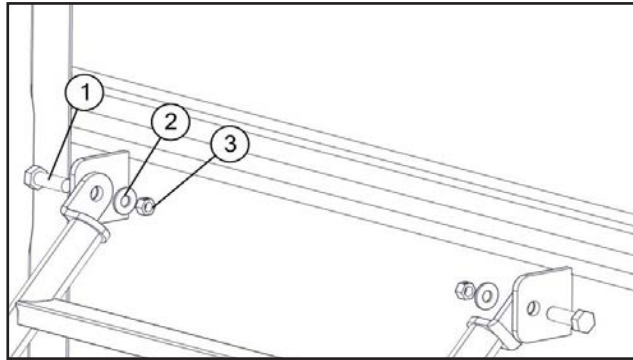
Description	Part No.
1 3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
2 Inside Window Clip - Deep	JM0000253
3 Outside Window Clip - Shallow	JM0000256
4 3/8"-16 x 3/4" Gr5 Z Hex Bolt	JM0001663
5 Window Seal 3/4" S' Strip	JM0000254
6 Standard Inspection Window	JM0000255
7 Inspection Window Kit	JM0025752

Auger Rest Assembly



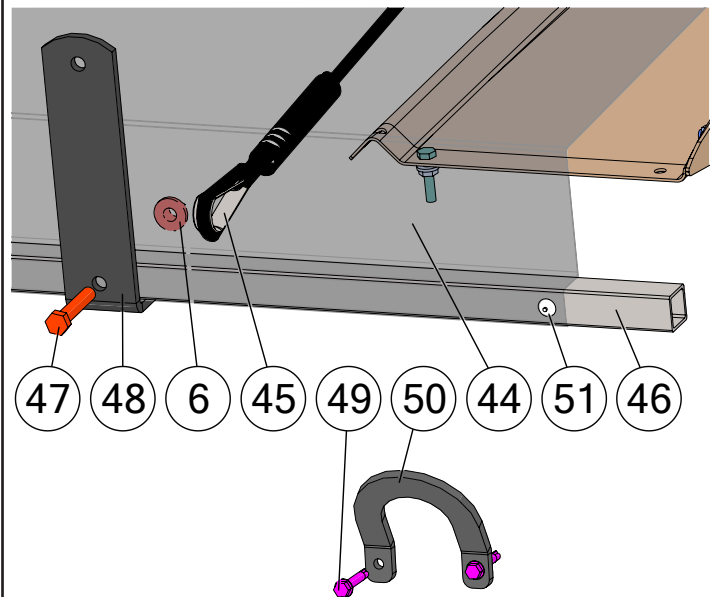
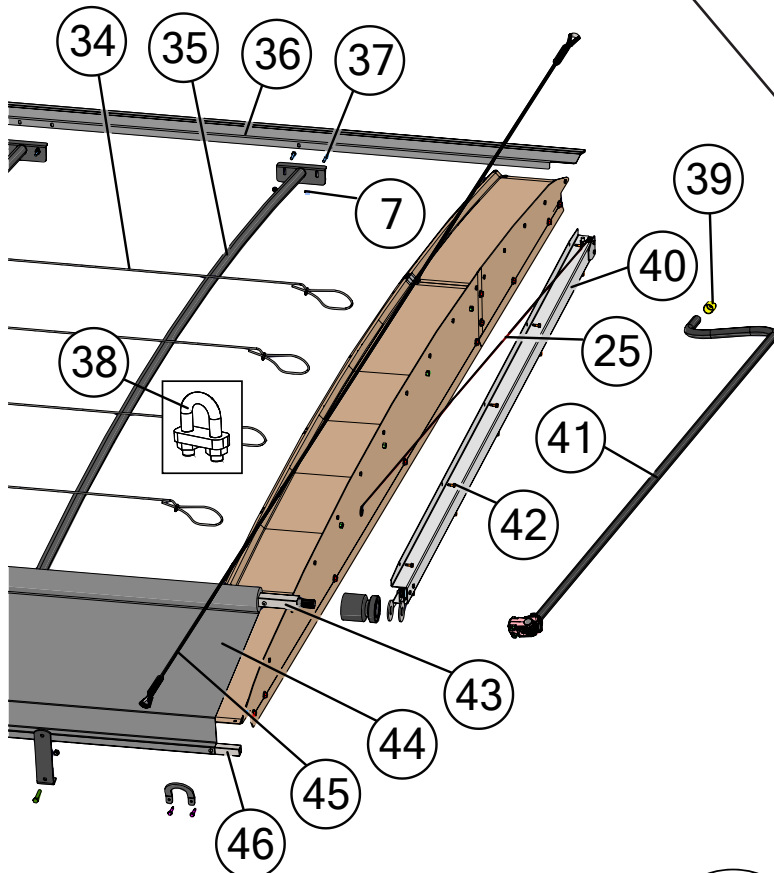
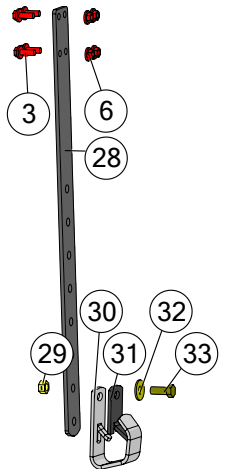
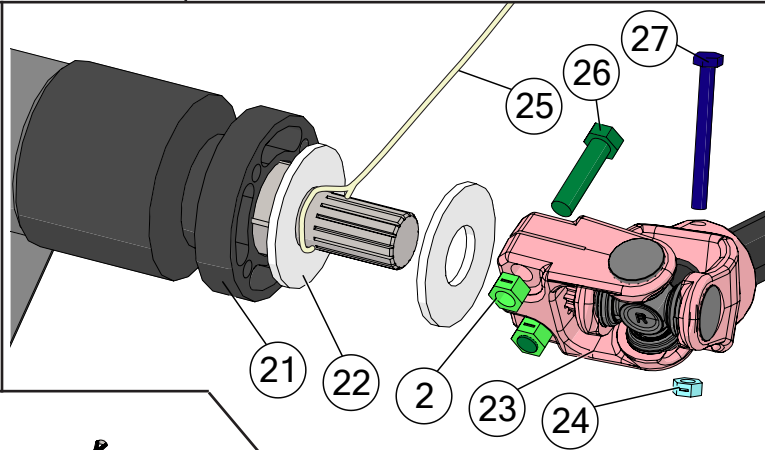
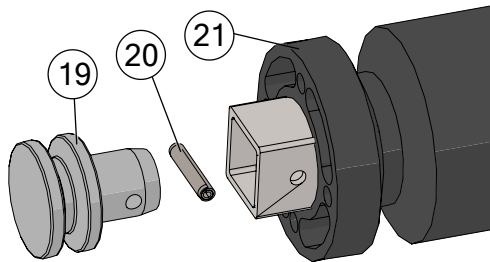
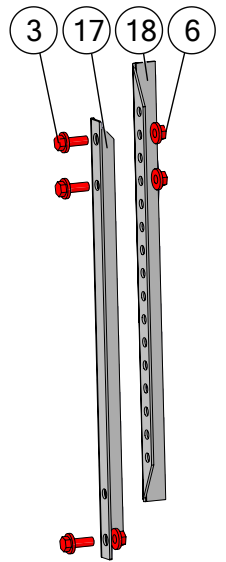
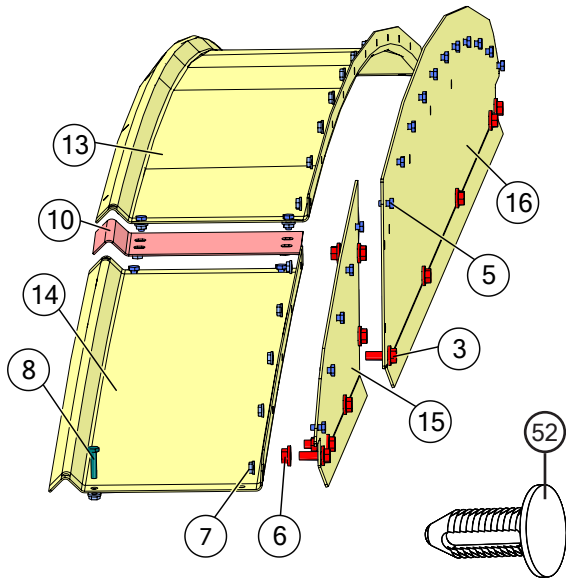
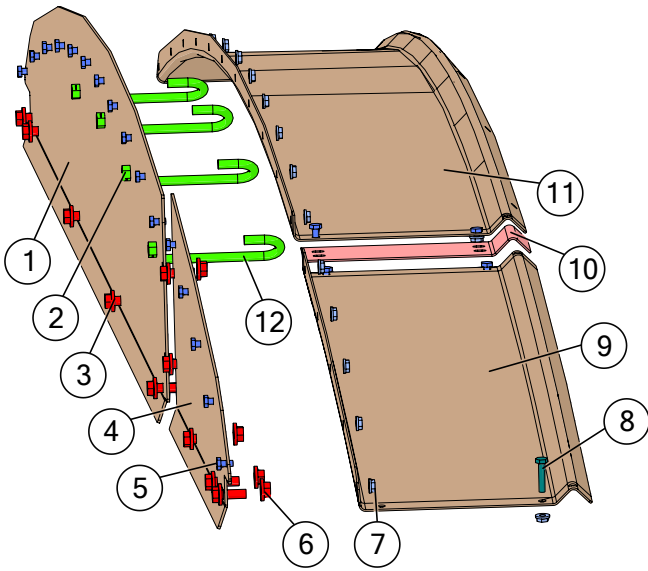
	Description	Part No.
1	1/4" Diameter Snap Ring	JM0001870
2	Flip Up Auger Rest Pin (6-7/8" x 1-1/4")	JM0028218
3	Cable Guide for X-tended Reach Auger Rest	JM0046922
4	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
5	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
6	1/4"-20 x 2" Gr5 Z Hex Bolt	JM0001591
7	1/8" Auger Rest Cable	JM0037202
8	Flip Up Auger Rest - Long Fold	JM0020538
9	3/8"-16 x 1" Gr5 Z Hex Bolt	JM0001592
10	3/8" ID, 1" OD Z Flat Washer	JM0003061
11	3" x 17-1/2" Auger Rest Guide Plate UHMW	JM0024456
12	1/4"-20 x 1-1/2" Gr5 Z Hex Bolt	JM0002447
13	Auger Rest Pad	JM0020802
14	Extension Spring 5-3/8" OAL x 1-1/2" OD x .148" Wire, Zinc Plated	JM0024976
15	1/4" x 1-3/8" Roll Pin	JM0009896
16	Flip Up Auger - Throw Handle	JM0021843
17	3/8"-13 x 1-1/4" Gr5 Z Hex Bolt	JM0016675
18	6" x 2" Storage Position Auger Rest Triangle Pad	JM0037644
19	Storage Position Auger Rest	JM0020787
20	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
21	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
22	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100

Ladder Assembly



	Description	Part No.
1	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
2	1/2" ID 1-3/8" OD Z Flat Washer	JM0003082
3	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
4	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
5	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
6	Swing Out Ladder Adjustable Tab	JM0020977
7	32 Series Ladder	JM0038740
8	Ladder Support Leg	JM0012926
9	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
10	Ladder Guide - 3/16" Thick	JM0021947
11	1/4"-20 x 1-1/4" Gr5 Z Hex Bolt	JM0016673

Roll Tarp Assembly

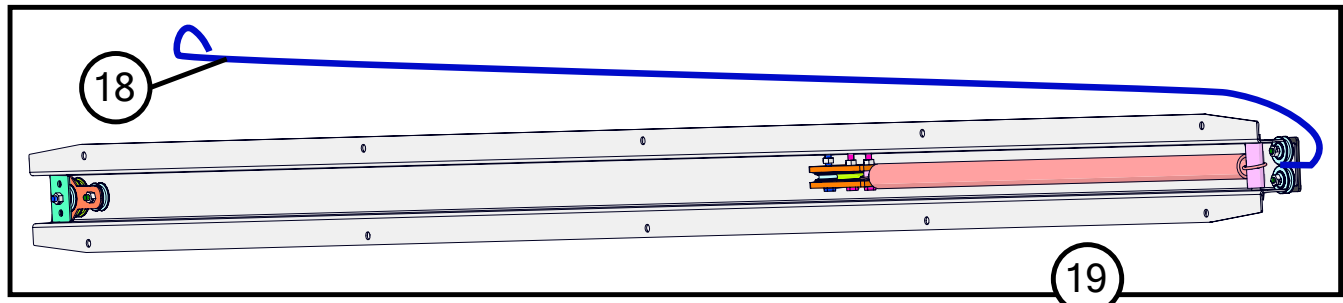
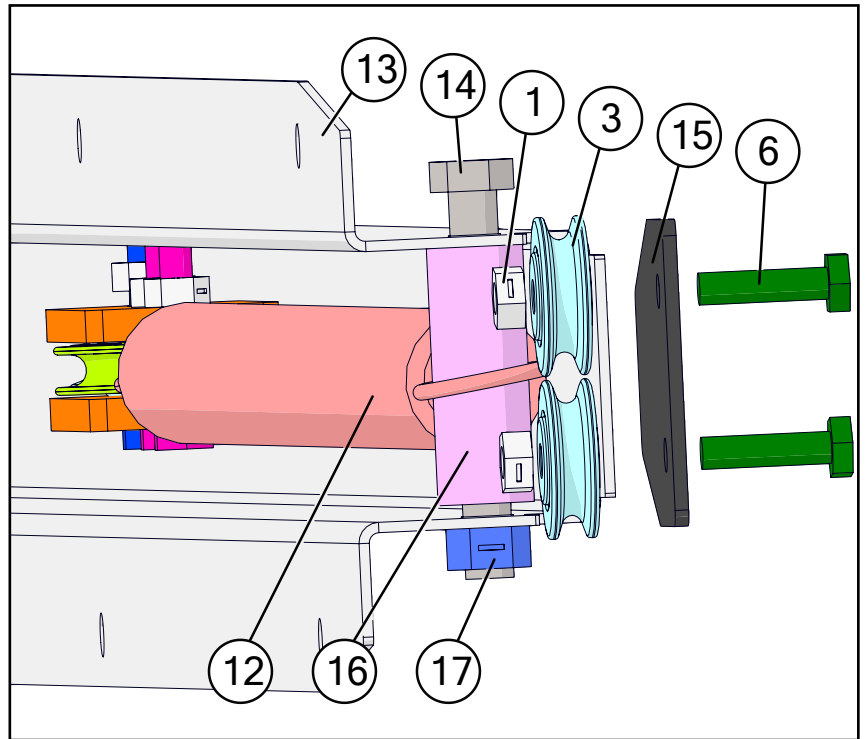
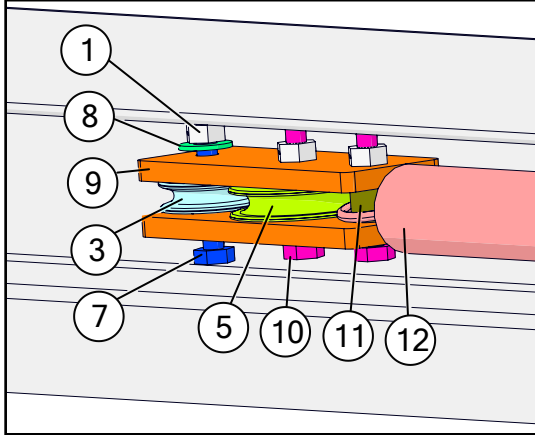
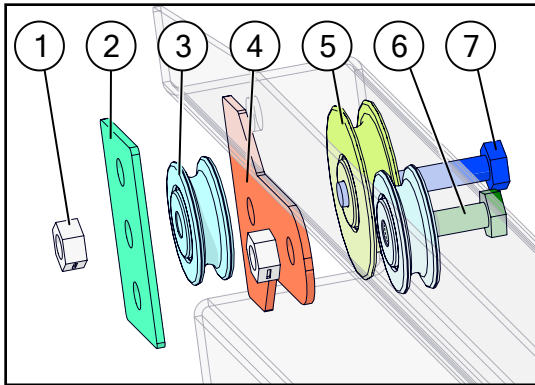


Roll Tarp Assembly

	Description	Part No.
1	Rear End Cap Plate for Glide Right - Leaner Large 121-5/8"	JM0045319
2	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
3	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
4	Rear End Cap Plate for Glide Right - Leaner Small 45-5/8"	JM0045323
5	1/4"-20 x 1/2" Gr5 Z Hex Bolt	JM0001481
6	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
7	1/4"-20 Gr5 Z SF Hex Nut	JM0001630
8	1/4"-20 x 1-1/4" Gr5 Z Hex Bolt	JM0016673
9	Rear Arched Top Endcap for Glide Right - Leaner Small 45"	JM0045291
10	Endcap Splice for Leaner	JM0007264
11	Rear Arched Top Endcap for Glide Right - Leaner Large 121"	JM0045289
12	3/8"-16 Gr5 Z J-Bolt (384JB)	JM0001519
13	Front Arched Top Endcap for Glide Right - Leaner Large 121"	JM0050120
14	Front Arched Top Endcap for Glide Right - Leaner Small 45"	JM0050121
15	Front End Cap Plate for Glide Right - Leaner Small 45-5/8"	JM0045322
16	Front End Cap Plate for Glide Right - Leaner Large 121-5/8"	JM0045320
17	Endcap Prop - Lower 19" (ABS-2)	JM0000179
17	Endcap Prop - Lower 27" (ABS-2L)	JM0021403
18	End Cap Prop - Upper 19"	JM0021404
19	Spool End for Roll Tube	JM0002449
20	1/4" x 1-1/4" HD Spiro Roll Pin	JM0046782
21	Roll Tarp Guide Roller	JM0038446
22	1" USS Flat Washer	JM0003063
23	Universal Joint - Roll Tarp (SUJ-1)	JM0001517
24	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
25	Spring Return Cable (Grain Carts)	JM0012981
26	3/8"-16 x 1-1/2" Gr5 Z Hex Bolt	JM0001659
27	1/4"-20 x 2-1/2" Gr5 Z Hex Bolt	JM0001506
28	1/4" x 2" x 29" Bar for Crank Holder (1000 Bushel Carts and Higher (ABCH-1EL))	JM0000164
29	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
30	Crank Holder (zinc plated)(CH-1)	JM0002967
31	Roll Tarp - Handle Hanger Rubber Flap	JM0002551
32	1/2" ID, 1-3/8" OD Z Flat Washer	JM0003082
33	1/2"-13 x 1-1/4" Gr5 Z Hex Bolt	JM0001513
34	3/16" Cable x 359" (1832, 2032, 2332)	JM0048576
35	160" Arched Tarp Bows (Leaner)	JM0021405
36	Tightening Lip 179-7/8" Front 1832, 2032, 2332	JM0042760
36	Tightening Lip 179-7/8" Rear 1832, 2032, 2332	JM0042848
37	1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095
38	1/8" Cable Clamp	JM0001514
39	S-Cap Yellow - 1.062 ID x 1-1/2" x 1/16	JM0018963
40	Spring Return Assembly Complete (Grain Cart)	JM0002911
41	12' Crank w/ Splined U-Joint (CUJ-1LN)	JM0019888
42	1/4" x 3/4" Self Tapping Screw	JM0001570
43	1-1/4" x 364" Roll Tube for Glide Right (1832, 2032, 2332)	JM0048613
44	29'8" x 15'6" Tarp w/ 15 Rivets (1832, 2032, 2332)	JM0048562
45	Tarp Rope Assembly 16'8" Glide Right Leaner	JM0048670
46	1" x 360" Square Tie-Down Tube (1832, 2032, 2332)	JM0048617
47	3/8"-16 x 2" Gr5 Z Hex Bolt	JM0001510
48	Tarp Stop Bracket (TSB-1)	JM0000187
49	1/4" x 1-1/2" Self Tapping Screw	JM0001571
50	Tarp Rope Bracket	JM0047700
51	1/4" Tarp Rivet	JM0001518
52	3/8" Ribbed Push in Rivet	JM0037396



Spring Return Assembly



	Description	Part No.
1	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
2	Aluminum Spacer for Spring Return (1-3/8" x 2-3/16") Rectangular	JM0002445
3	1-1/4" Idler Pulley (1/4" ID)	JM0002439
4	Large Spring Return Pulley Spacer (2 Holes)	JM0018897
5	1-5/8" Idler Pulley (Long Spring Return)	JM0012970
6	1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095
7	1/4"-20 x 1-1/2" Gr5 Z Hex Bolt	JM0002447
8	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
9	Rectangular Plastic Spacer for Spring Return	JM0012973
10	1/4"-20 x 1-1/4" Gr5 Z Hex Bolt	JM0016673
11	2" Black Plastic Spacer (1/4" ID x 1/2" OD)	JM0002442
12	Spring Return Spring	JM0000207
13	Grain Cart Spring Return Housing	JM0012974
14	3/8"-16 x 3" Gr5 Z Hex Bolt	JM0001666
15	Spring Return Stiffening Plate	JM0034548
16	3/4" x 2" Plastic Spacer	JM0002444
17	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
18	Spring Return Cable (Grain Carts)	JM0012981
19	Spring Return Assembly (Grain Cart)	JM0002911