

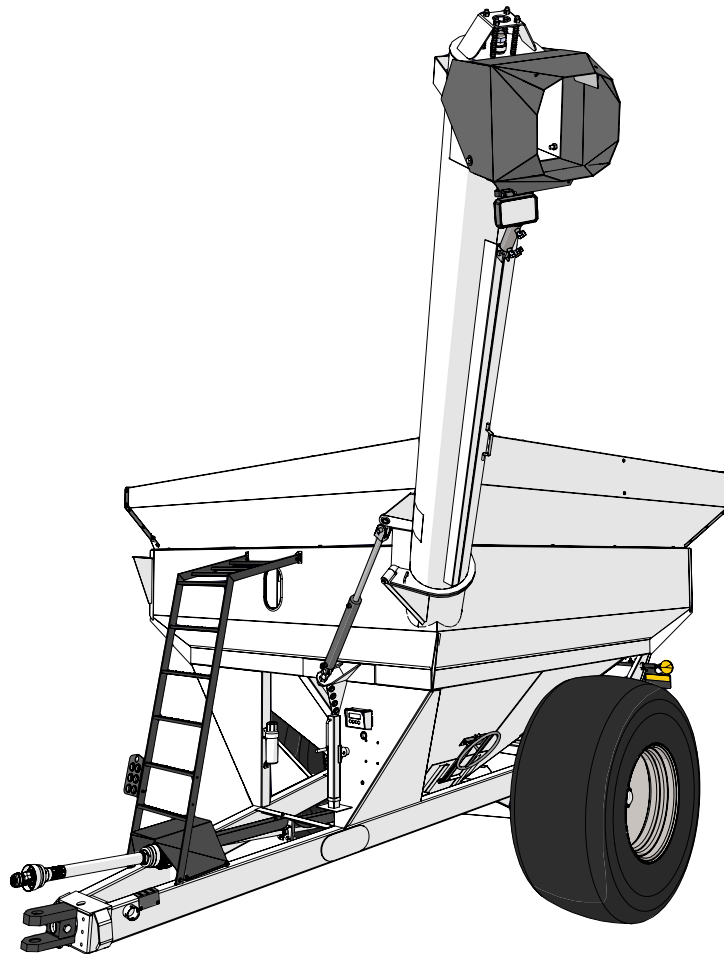


# Manual

## GRAIN CART OPERATOR'S MANUAL

MODEL

**620**



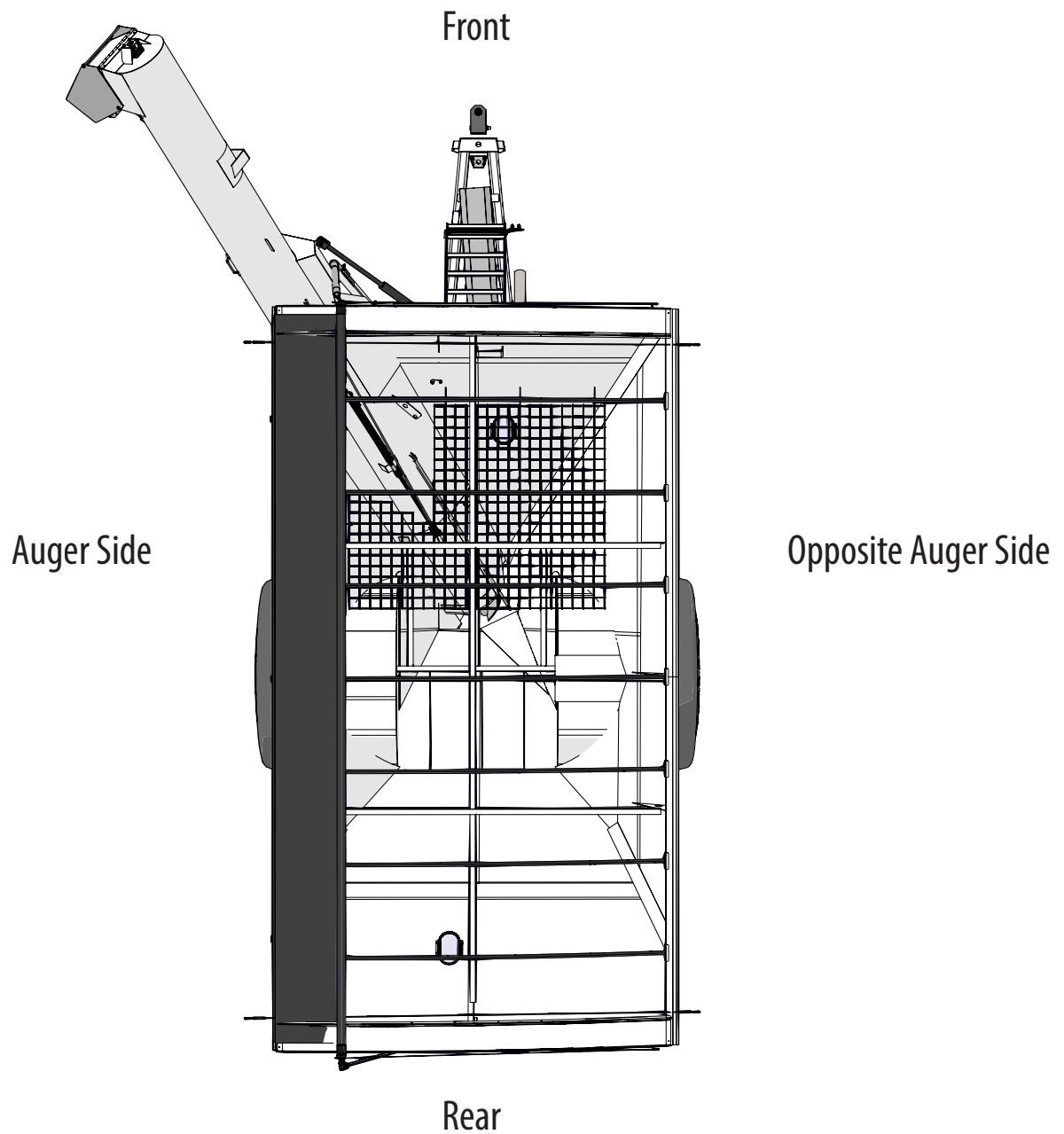
Rev. 2.21.2024

**J&M Manufacturing Co, Inc**

284 Railroad Street - P.O. Box 547 | Fort Recovery, OH 45846 | Ph: (419) 375-2376 | Fax: (419) 375-2708

[www.jm-inc.com](http://www.jm-inc.com)

# Stance



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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](http://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:** 620 Grain Cart    **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.

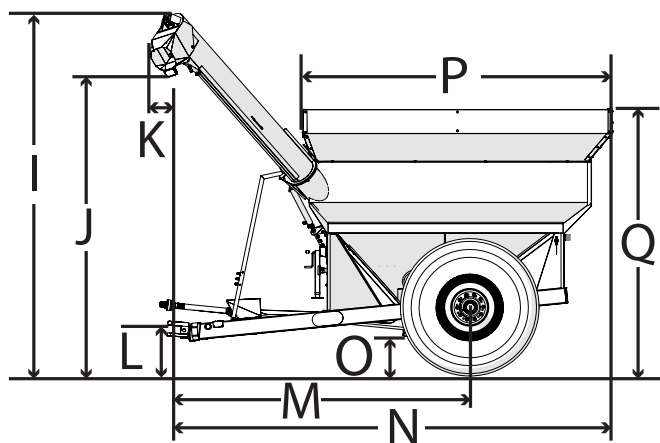
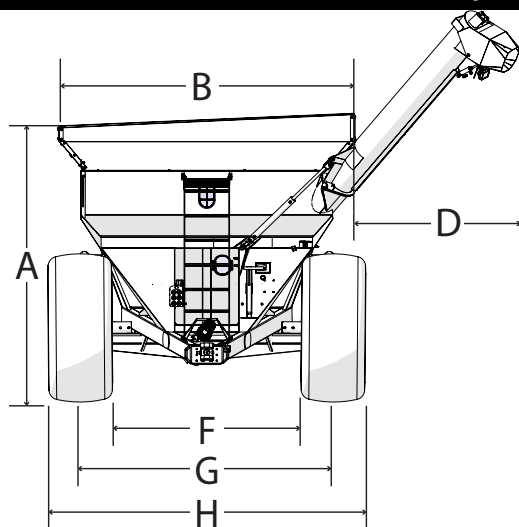
### **IMPORTANT**

Indicates that failure to observe can cause damage to equipment.

### **NOTE**

Indicates helpful information.

## Specifications and Dimensions



# 620

A	10' 11"
B	11' 9"
C	N/A
D	7' 6"
E	N/A
F	7' 4"
G	10' 0"
H	12' 8"
I	15' 6"
J	13' 1"
K	0' 10"
L	2' 1"
M	12' 9"
N	17' 11"
O	1' 6"
P	13' 2"
Q	11' 5"

### Specifications Single Wheel Option

<b>Capacity</b>	620 Bushels
<b>Auger, One Vertical</b>	14"
<b>Unload Time (minutes)</b>	3.7 Minutes
<b>Wheels (2)</b>	21x32 or 27x32
<b>Tires (2)</b>	24.5x32, 30.5x32, or IF800/60R32
<b>Hubs (2)</b>	10 Bolt
<b>Spindles (2)</b>	4-1/2" Diameter
<b>Tongue Weight</b>	
Empty	1,000 lbs.
Loaded	2,100 lbs.
<b>Total Weight (approx.)</b>	6,950 lbs.

### Required Tractor HP

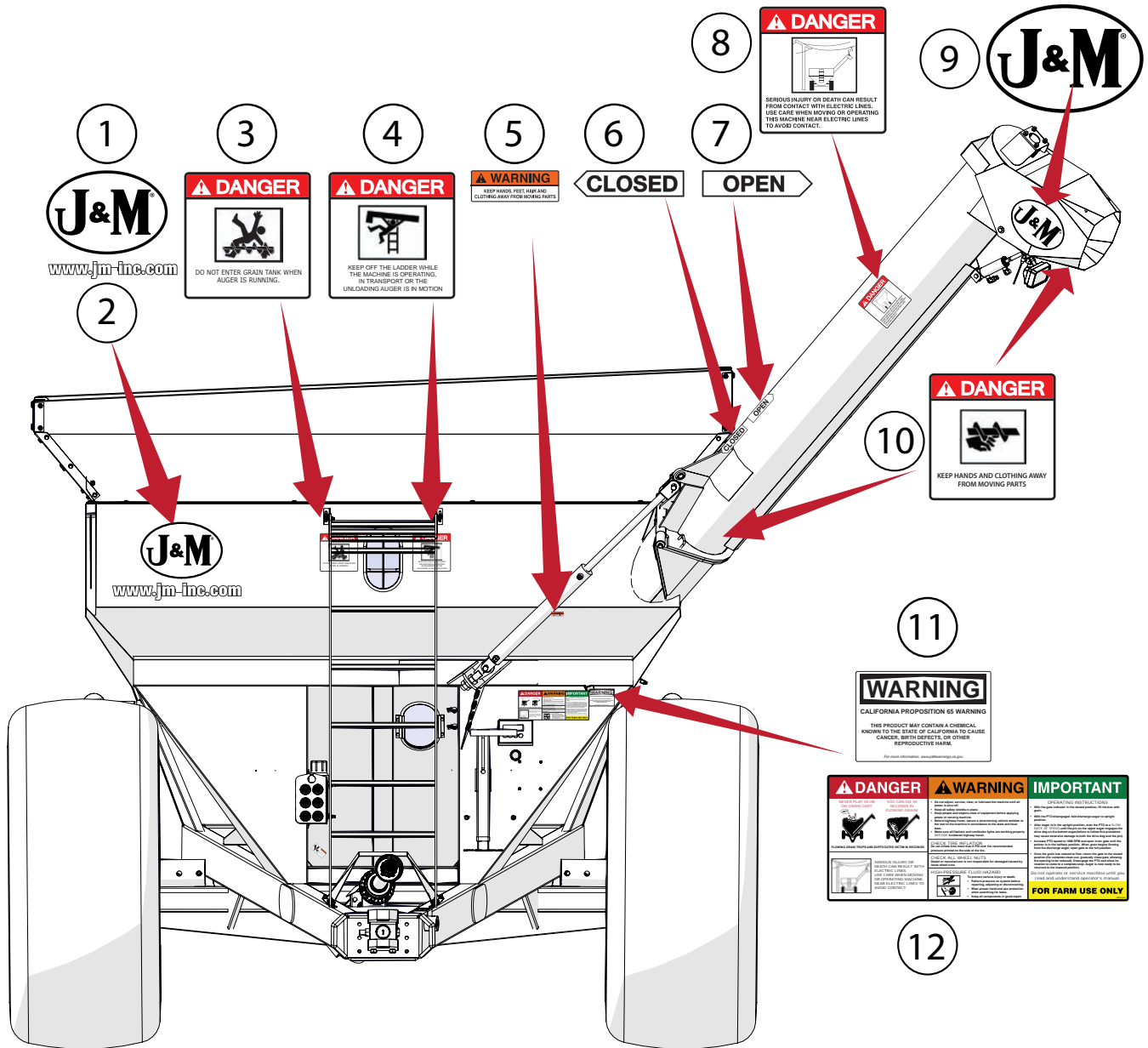
#### Driving Speed HP (Fully Loaded)

5 mph	10 mph	15 mph
62	127	239



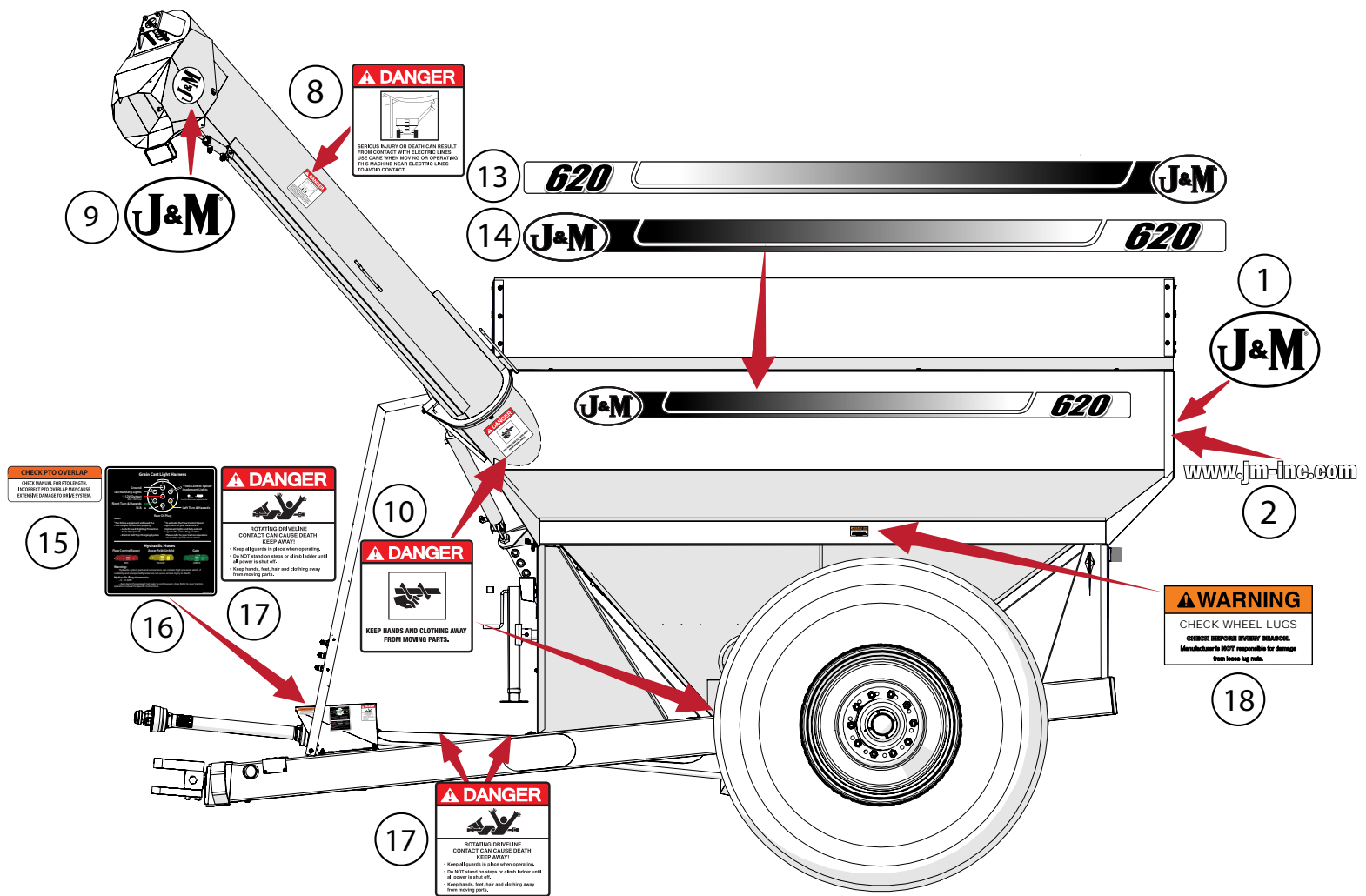
# Decals

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



Description	Part No.
1 J&M Oval Decal (Large) 9-1/2" x 15"	JM0015151
2 www.jm-inc.com Decal	JM0019239
3 Danger, Do Not Enter Grain Tank Decal	JM0018033
4 Danger, Keep Off Ladder Decal	JM0018034
5 Warning, Keep Hands Away Decal	JM0018039
6 Closed Decal	JM0025434
7 Open Decal	JM0025433
8 Danger, Electric Lines Decal	JM0015099
9 J&M Oval Decal (Medium) 5-1/2" x 8-1/2"	JM0010179
10 Danger, Keep Hands and Clothing Away Decal	JM0018035
11 California Proposition 65 Warning Decal	JM0077568
12 Danger Warning Important Decal	JM0037665

# Decals



Description	Part No.
13 620 Opposite Auger Side Stripe Kit	JM0025939
14 620 Auger Side Stripe Kit	JM0025938
15 Check PTO Overlap Decal	JM0025435
16 Grain Cart Light Harness Decal (Standard Fold Carts)	JM0041058
17 Danger, Rotating Driveline Decal	JM0018036
18 Warning, Check Wheel Lugs Decal	JM0077567

# 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	31	23	44	33
7/16"-14	49	37	70	52
1/2"-13	75	57	106	80
9/16"-12	109	82	154	115
5/8"-11	150	113	212	159
3/4"-10	267	200	376	282
7/8"-9	429	322	606	455
1"-8	644	483	909	681
Fine Thread Series				
Diameter and Pitch (Inches)	Grade 5		Grade 8	
	Dry	Oiled	Dry	Oiled
1/4"-28	10 ft-lbs	7 ft-lbs	14 ft-lbs	10 ft-lbs
5/16"-24	19	15	27	20
3/8"-24	35	26	49	37
7/16"-20	55	41	78	58
1/2"-20	85	64	120	90
9/16"-18	121	91	171	128
5/8"-18	170	127	240	180
3/4"-16	297	223	420	315
7/8"-14	474	355	669	502

## 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	120 ft-lbs
9/16"-18	170 ft-lbs
5/8"-18	300 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.



# 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 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 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 J&M Mfg. Co., Inc. 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 the grain cart is fastened securely to the tractor using a high strength hitch pin, clip and safety chains. Make sure 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. 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.

Before filling the grain cart, make certain 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. Ensure 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.

Replace the safety chains immediately if you have an event where they are used near their max strength.

# 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?
- Has the gearbox 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?

**IMPORTANT:** Has the slip clutch on the PTO been serviced? If the slip clutch is left unchecked, damages to the power-take-off and drive shaft may result. Before using the grain cart, loosen the bolts around the slip clutch. Make sure the friction plates turn free of each other and are not corroded together. Re-tighten the tension bolts. Run the auger system EMPTY and check for proper engagement of the slip clutch.

**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 POINTS:** Are all bearings on the driveline properly greased? Are all set screws in the bearings and U-joints tight? Has the PTO shaft been properly greased at all points including the cross bearings? Has the universal joint at the gearbox been greased? Have all grease points at the auger hinge area, including the hanger bushing assembly been greased? If applicable, has the swivel ball hitch been greased?

**TIRE PRESSURE:** Are the tires properly inflated? The following is to be used as a **general guide** for tire inflation for cyclic use. Figures can vary depending on specific brand of tire used. It is important that tires are inspected before and after the unit is loaded. The tire pressures below are recommended by the manufacturer. **On select tires the listed pressure is lower than the max tire pressure to reduce compaction. If desired, the pressure MAY BE increased UP TO the max tire pressure for traveling long distance while empty on the road.**

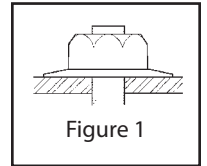
Tire	psi
24.5x32 Lug Tires-12 ply (Firestone) (for 21x32-10 Hole Wheels)	32
24.5x32 Diamond Tires-12 ply (Firestone) (for 21x32-10 Hole Wheels)	32
30.5x32 Lug Tires-14 Ply (Firestone) (for 27x32-10 Hole Wheels) (124" c/c)	34
30.5x32 Lug Tires-18 ply (Alliance) (for 27x32-10 Hole Wheels) (124" c/c)	30
IF800/60R32 Diamond Tires (Firestone) (181B) (for 27x32-10 Hole Wheels)	24

# 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.** 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 wheels supplied with your grain cart have straight holes and the Budd nuts will be mounted according to Figure 1. 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?

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

Tractor requirements for proper towing: Model 620 grain carts require a minimum of 130 HP 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:

- **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.
- **Grain cart loaded:** Do not travel more than 8 mph (12 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.

**⚠ WARNING:** For greater stability on uneven or steep terrain, position non-scale wheel spindles at the furthest out setting.

## ⚠ 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

- a) Secure the safety chain by looping it around each side of the grain cart as shown and connecting to the towing machine's attaching bar.
  - b) Do not allow any more slack than necessary for articulation.
  - c) Do not use any intermediate support as the attaching point.
  - d) Store the safety chain by securing it around the main axle A-frame of the grain cart.
  - e) 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.

# Operating Instructions

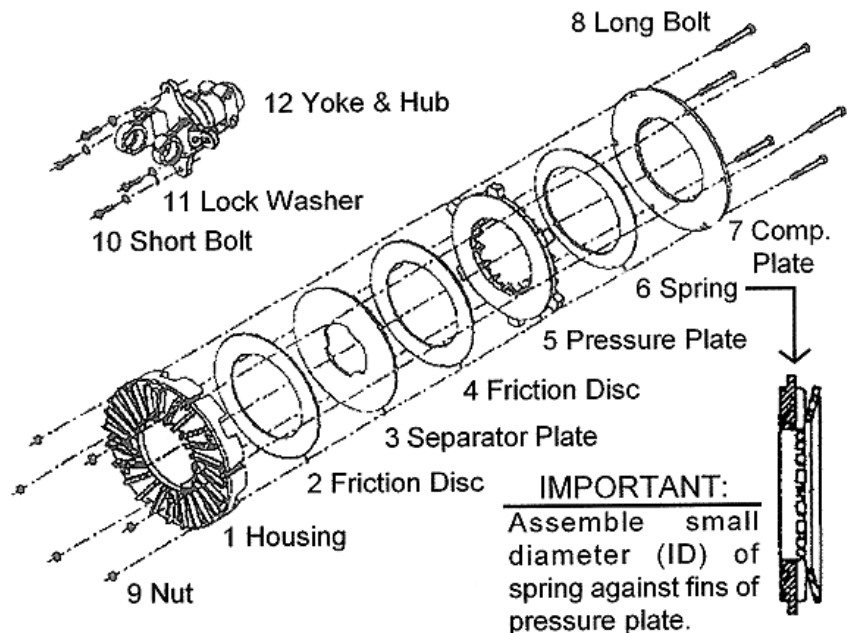
5. Attach the hydraulic lines to the tractor. Two hydraulic lines (green band) operate the inside gate mechanism. Connect these lines to one service outlet on the tractor. Two hydraulic lines (yellow band) operate the folding mechanism of the auger. Connect these lines to a second service outlet on the 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 and lower 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 this 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 objects (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.
- Replace the safety chains immediately if you have an event where they are used near their max strength.

## Adjusting the Slip Clutch

1. Make sure the tractor is off and the PTO is disengaged.
2. Disconnect the driveline from the tractor.
3. Locate the six (6) long bolts (item 8 in diagram) on the O.D. of the clutch pack. Loosen the bolts until they rotate freely, finger tighten each bolt, and then tighten each bolt one half turn.
4. Attach the implement to the tractor with a hitch pin and the drive line to the tractor PTO shaft.
5. Start the tractor. Engage the PTO and run a few seconds, or until the friction clutch visibly smokes.
6. Disengage the tractor PTO and shut the tractor off.
7. Disconnect the driveline from the tractor.
8. Tighten the six (6) long bolts (item 8 in diagram) on the O.D. of the clutch pack until the compression plate (item 7 in diagram) is in contact with the housing (item 1 in diagram), then keep tightening each bolt to 30 ft.-lbs.
9. Locate the four (4) short bolts (item 10 in diagram) that attach the yoke & hub (item 12 in diagram) to the clutch pack and check that each bolt is tightened to 30 ft.-lbs.



# Lubrication Service Schedule

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

## ⚠ WARNING

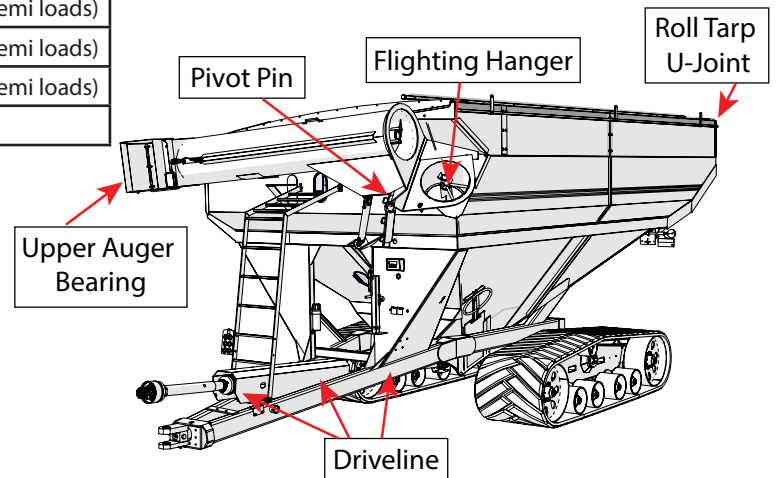
**BE CERTAIN THAT ALL POWER IS SHUT OFF BEFORE SERVICING THE GRAIN CART**

**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 joint after every 8 hours of use.

**AUGER FOLDING MECHANISM:** 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) after every 8 hours of use or as needed.

**SPRING LOADED UPPER AUGER BEARING:** Service the grease fitting on the upper auger bearing (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.

Grease Fittings	
Pivot Pin	Once Annually
Roll Tarp U-Joint	Once Annually
Upper Auger Flighting	Every 8 hours of PTO run time (roughly 150 semi loads)
Driveline	Every 8 hours of PTO run time (roughly 150 semi loads)
Vertical Flighting Hangers	Every 8 hours of PTO run time (roughly 150 semi loads)
Swivel Ball Hitch	Weekly



**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. An inspection 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 drain plug at the bottom of the gearbox. Drain the lubricant. Return the drain plug and refill the gearbox with **24 ounces** (0,71 liters) of gearbox lubricant. **DO NOT OVERFILL.** Use SAE 80W-90 gearbox lubricant or equivalent. Change the oil annually before use.

Gearbox Lubricant			
Model	Ounces	Input Shaft	Output Shaft
620	24	1-3/4"	1-3/4"

# Routine Maintenance

## WARNING

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

- Repack the bearings in the hub assembly once a year or as needed. Use a good quality LS EP2 severe duty, high shock load, lithium-based grease. Also check the seal for wear and replace if necessary.
- 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.
- Lubricate the slides on the clean-out door.
- Check all hydraulic hoses for wear and replace as necessary.
- Make sure all tires are properly inflated. See "Initial Operation and Maintenance" on page 10 in the Owner's Manual for recommended instructions for tire pressure. It is important that tires are inspected before and after unit loaded.
- Check PTO for wear of plates in the slip clutch. Replace if needed.
- Make sure that all guards and shields are in place before operating the grain cart.

# 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 SERVICE PERSONNEL 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 15)
	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 flighting are disengaging before auger comes to a complete stop. Replace bolt in the drive dog. Never engage or disengage the upper and lower flighting until the augers come to a complete stop.
	PTO key sheared	Replace key and tighten set screw
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.



# 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.

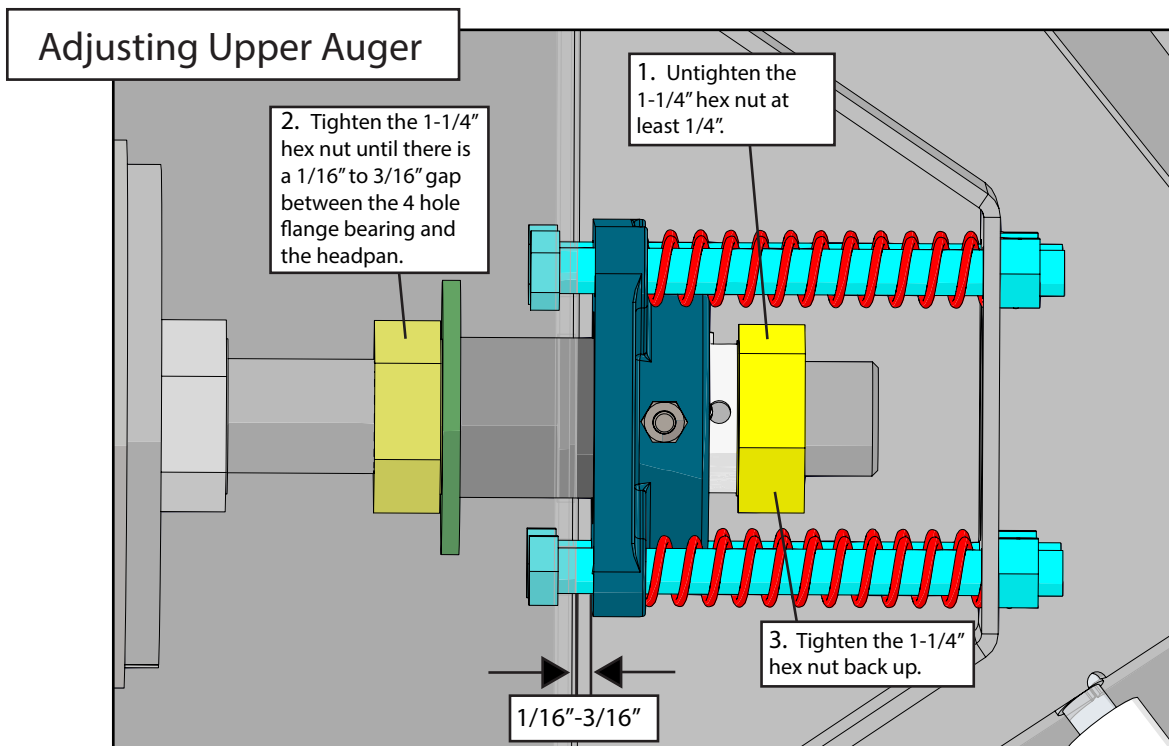
If the hanger can no longer be adjusted by moving it up or down on the elongated holes, both the hanger bushing assembly and the lower flighting will have to be removed. After removing them from the tube assembly, place a shim [between 1/8" (0,32cm) to 3/16" (0,48cm) thick] next to the gearbox and the 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. We want this bearing to float so there must be an 1/16"-3/16" (0,15cm-0,47cm) 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 1/16"-3/16" (0,15cm-0,47cm) 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 1/16"-3/16" (0,15cm-0,47cm) 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 do 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.



# 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 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.

## Storage Preparation

**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 13.
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 instructions in this Operator's Manual to ensure safe and proper maintenance and repair.

Your local, authorized dealer can supply genuine replacement parts. Substitute parts that are not genuine 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.**

## Wheel Rims and Tires

### Wheel Rims for Single Wheel Carts

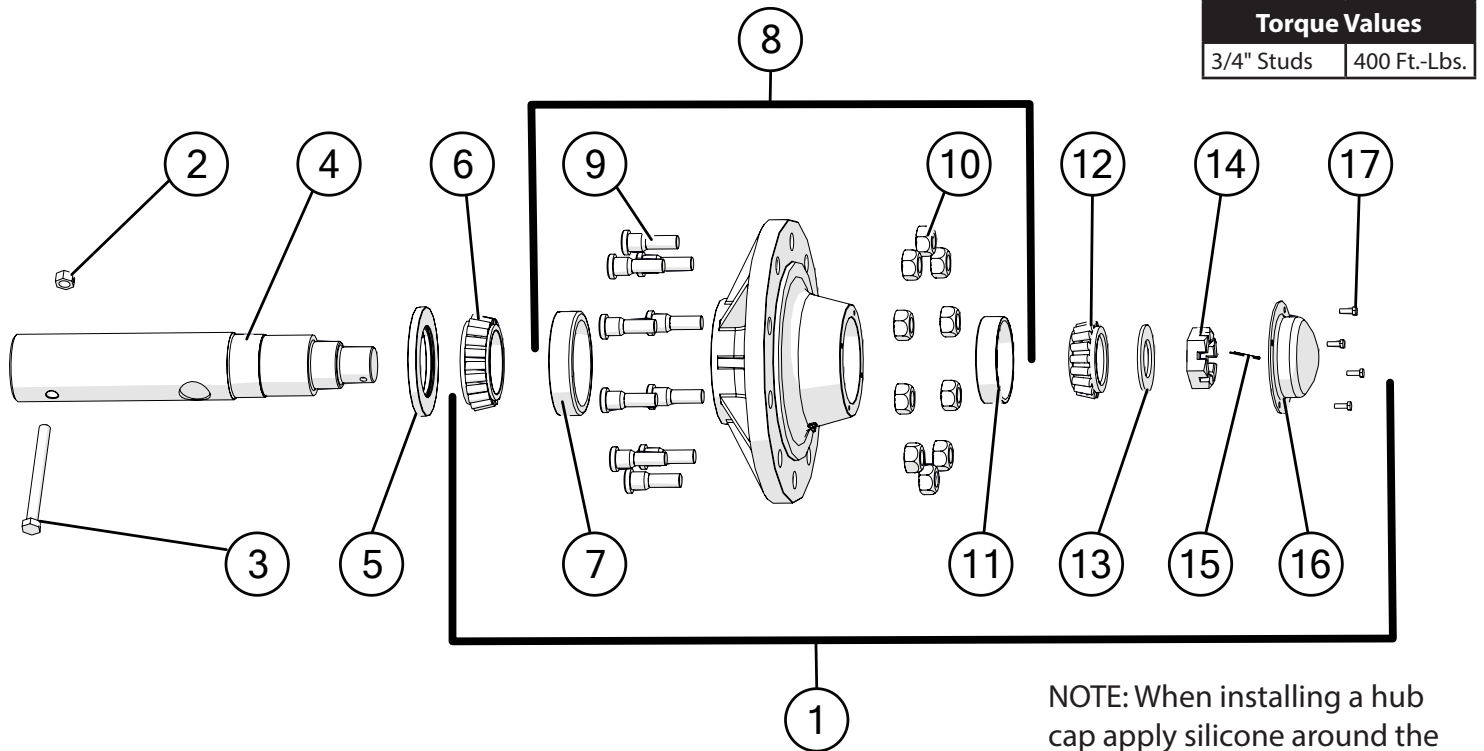
21x32-10 Hole Wheel Rims
27x32-10 Hole Wheel Rims

### Tires for Single Wheel Carts

24.5x32 Lug Tires-12 ply (Firestone) (for 21x32-10 Hole Wheels)
24.5x32 Diamond Tires-12 ply (Firestone) (for 21x32-10 Hole Wheels)
30.5x32 Lug Tires-14 Ply (Firestone) (for 27x32-10 Hole Wheels) (124" c/c)
30.5x32 Lug Tires-18 ply (Alliance) (for 27x32-10 Hole Wheels) (124" c/c)
IF800/60R32 Diamond Tires (Firestone) (181B) (for 27x32-10 Hole Wheels)



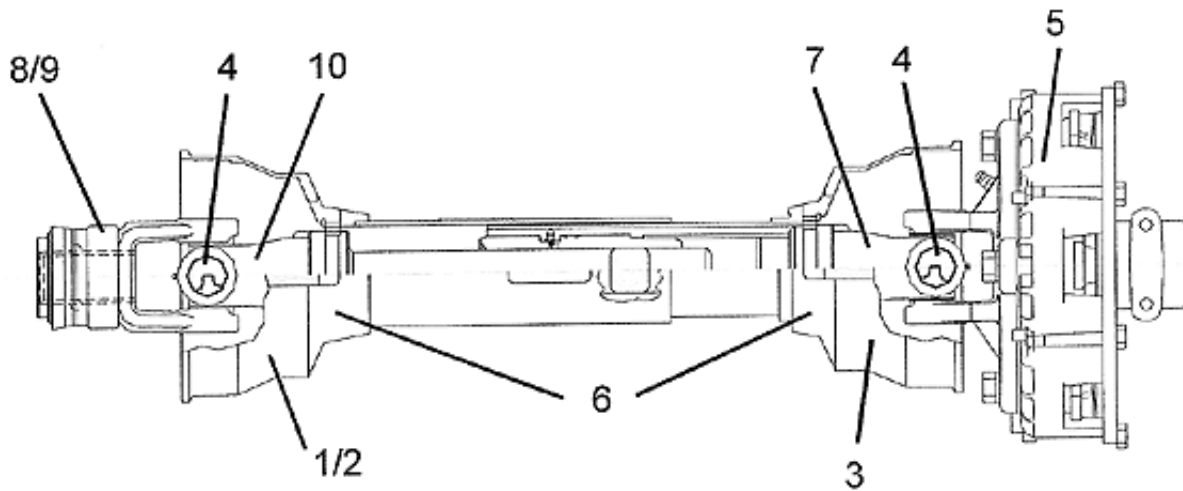
# Non-Scale Hub & Spindle Assembly



NOTE: When installing a hub cap apply silicone around the rim for a better seal.

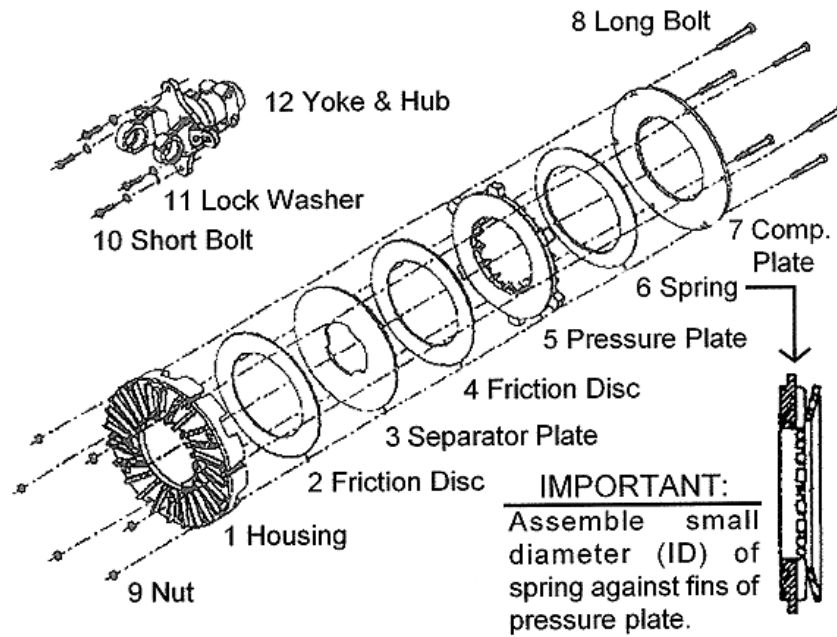
Description	Part No.
1 W-881 Hub Assembly Complete with 3/4" Studs and Nuts (Less Seal and Spindle)	JM0050402
2 1"-8 Gr2 Z Centerlock Hex Nut	JM0002149
3 1"-8 x 7" Gr5 Z Hex Bolt	JM0016689
4 Spindle, 4-1/2" x 30-1/2" - Standard Axle (525-875, 5000)	JM0018794
5 Seal (4-1/4" ID, 6" OD) for Hub (CR-43771)	JM0018955
6 Large Bearing (HM218248)	JM0018849
7 Large Race (HM218210)	JM0018848
8 W-881 Hub with Large and Small Races, 3/4" Studs & Nuts (11.13 Pilot)	JM0020510
9 3/4"-16 x 1-3/4" Wheel Stud	JM0018957
10 Wheel Nut 3/4"-16	JM0018958
11 Tapered Bearing Cup (HM212011)	JM0018854
12 Tapered Bearing Cone (HM212049)	JM0018852
13 2-1/8" ID, 3-3/4" OD Flat Washer (3/16")	JM0015900
14 2"-12 Gr2 Castle Hex Nut	JM0015899
15 3/8" x 2-3/4" Z Roll Pin (905945)	JM0018956
16 Dust Cap 6-1/4" OD (for W-881 & W-891 Hub) (909921)	JM0018954
17 1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095

## Power Take-Off (PTO) Shaft Assembly - Weasler



	Description	Part No.
1	Front Half Weasler PTO (1-3/8") (Slip Clutch) (91-1400-F-138)	JM0026025
2	Front Half Weasler PTO (1-3/4") (Slip Clutch) (91-1400-F-134)	JM0026026
3	Back Half Weasler PTO with Slip Clutch, Self Adjusting (97-18615B)	JM0026027
4	14R Cross Kit Weasler (PTO or U-Joint) (03-10134)	JM0024310
5	Friction Disc, Weasler PTO (2 Required) (11-10143) (1997 and Earlier)	JM0026029
5	Friction Disc, Weasler PTO (2 Required) (11-11167) (1997 and Later)	JM0026031
6	Complete Shield with Retainer (Weasler, Slip Clutch) (1628ICS)	JM0026032
6	Front Half Shield with Retainer (Weasler, Slip Clutch) (1628ICS-F)	JM0026033
6	Back Half Shield with Retainer (Weasler, Slip Clutch) (1628ICS-B)	JM0026034
7	Yoke & Tube Assembly (PTO) (Weasler) (30") (98-15972)	JM0026035
8	Spring-Lok Yoke (Weasler, Slip Clutch) 1-3/8" (14122-1012)	JM0026036
9	Spring-Lok Yoke (Weasler, Slip Clutch) 1-3/4" (14011-1960)	JM0026037
10	Yoke & Shaft Assembly (PTO) (Weasler) (99-16281)	JM0026038
11	Weasler PTO 1-3/8" Complete (Slip Clutch) (91-1400-138)	JM0026039
11	Weasler PTO 1-3/4" Complete (Slip Clutch) (91-1400-134)	JM0026045

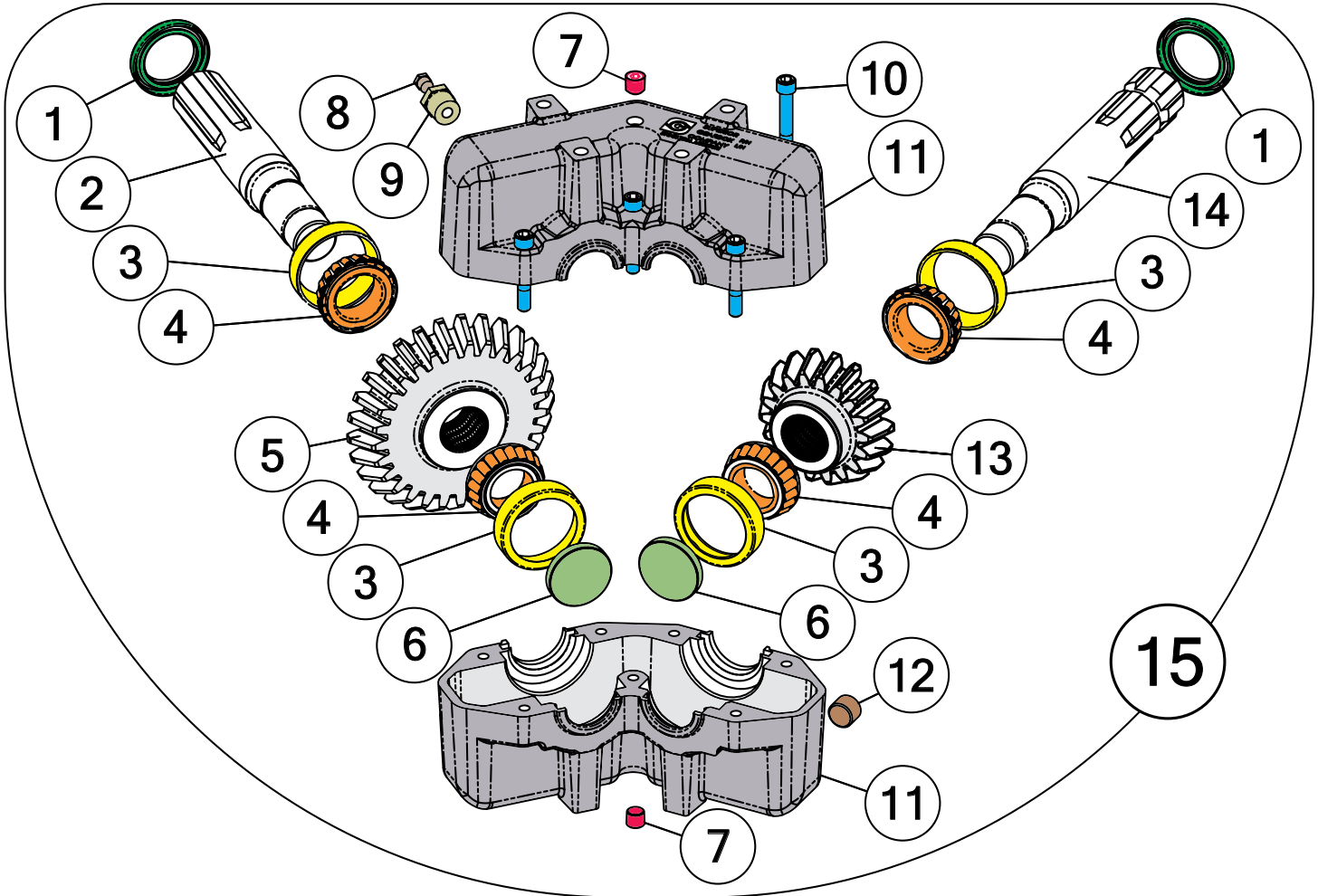
# Self Adjusting Slip Clutch



Description		Part No.
1	Housing for Weasler PTO Slip Clutch (11-01HS)	JM0026046
2	Friction Disc, Weasler PTO (2 Required) (11-11167) (1997 and Later)	JM0026031
3	Separator Plate (Weasler PTO Slip Clutch) (11-02SP)	JM0026047
4	Friction Disc, Weasler PTO (2 Required) (11-11167) (1997 and Later)	JM0026031
5	Pressure Plate (Weasler PTO Slip Clutch) (11-05PP)	JM0026048
6	Bell Spring Washer (Weasler PTO Slip Clutch) (11-06SP)	JM0026049
7	Compression Plate (Weasler PTO Slip Clutch) (11-07CP)	JM0026050
8	Long Bolt (Weasler PTO Slip Clutch) (11-08LB)	JM0026051
9	Nut (Weasler PTO Slip Clutch) (11-09NT)	JM0026052
10	Short Bolt (Weasler PTO Slip Clutch) (11-10SB)	JM0026053
11	Lock Washer (Weasler PTO Slip Clutch) (11-11LW)	JM0026054
12	Yoke & Hub Assembly (Weasler PTO Slip Clutch) (11-12YH)	JM0026055
13	Slip Clutch Complete (Weasler PTO Slip Clutch) (Includes Yoke & Hub) (11-13SC)	JM0026056

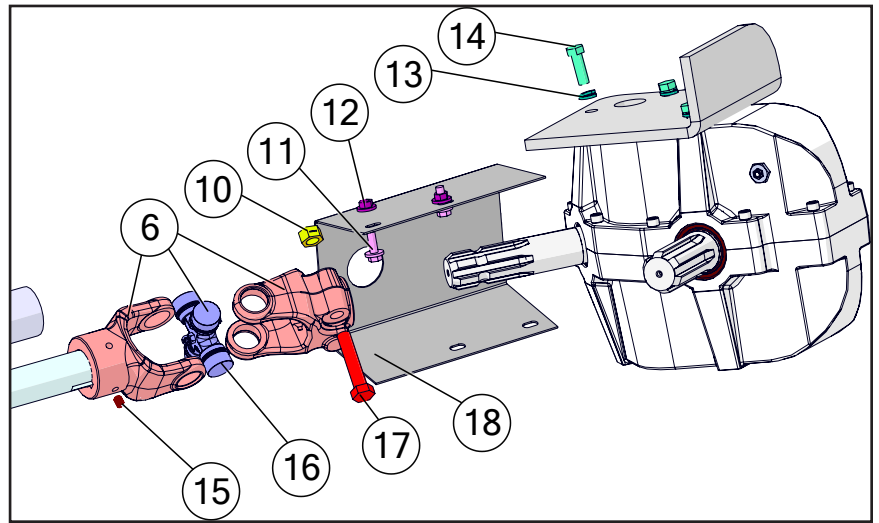
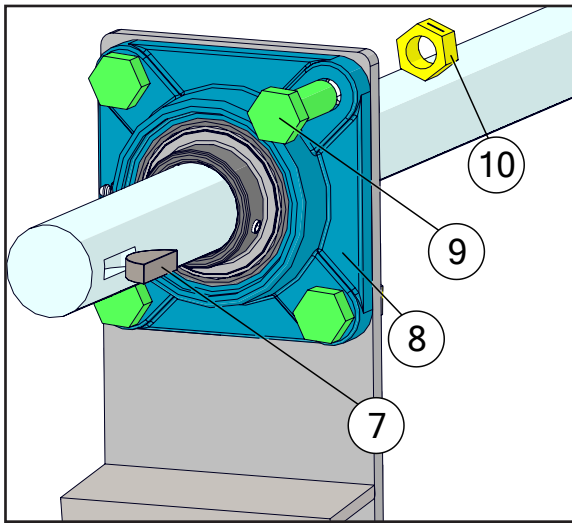
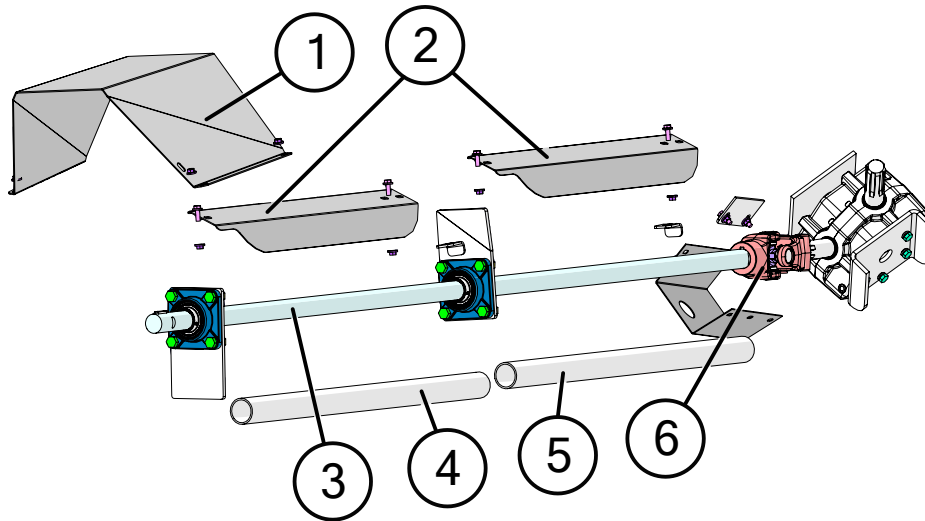
# 130 Degree Gearbox Assembly - Superior

Takes 24 ounces of SAE 80W-90  
Gearbox Lubricant.



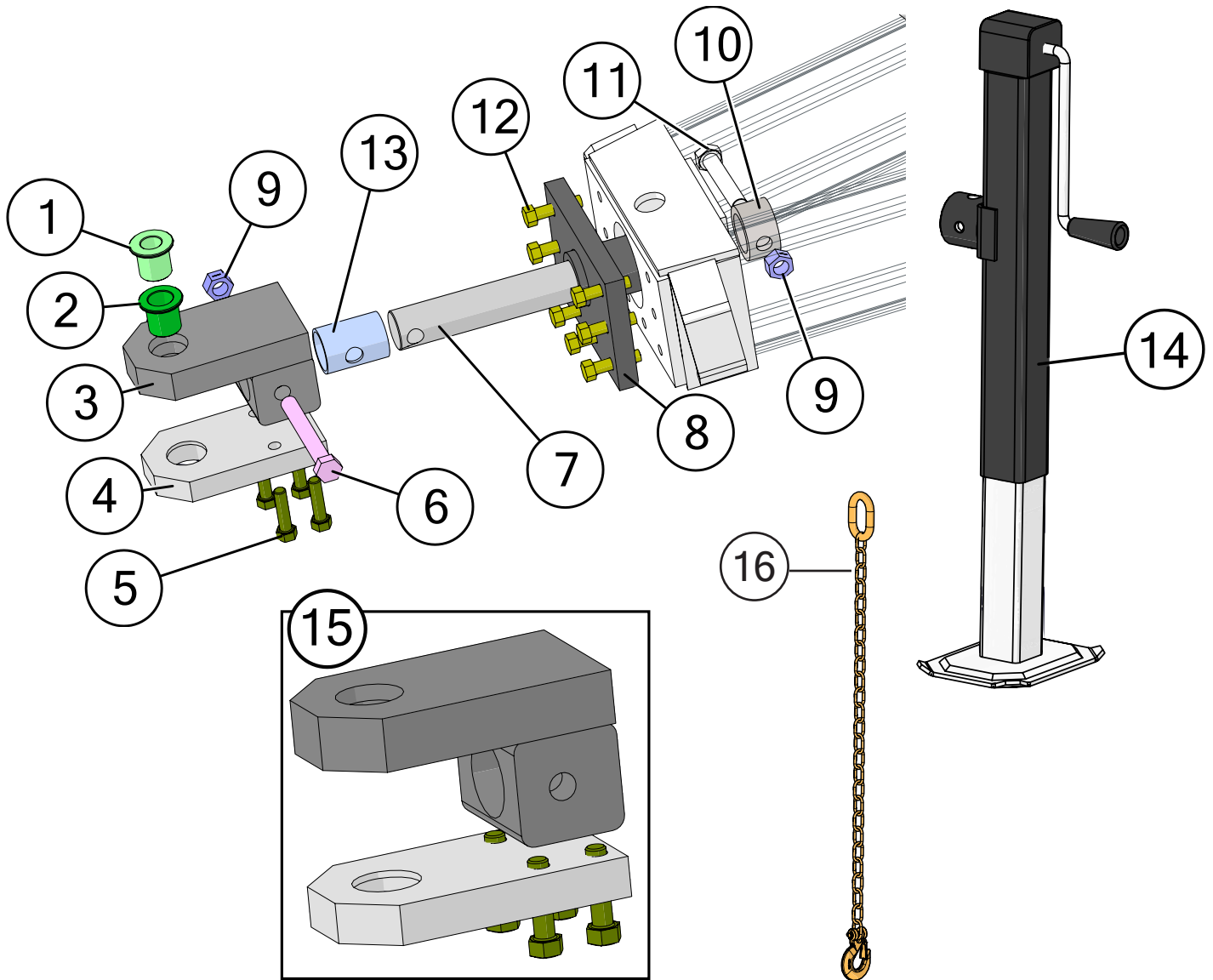
	Description	Part No.
1	Superior Gearbox Seal 1-3/8" (CR13569) (513569)	JM0025086
2	Output Shaft for Superior Gearbox, 8-3/8" Long (14-16") (H00111-02)	JM0025079
3	Bearing Cup for Superior Gearbox (14-20") (414276)	JM0025077
4	Bearing Cone for Superior Gearbox (14-20") (514137)	JM0025078
5	29 Tooth Gear for Superior Gearbox (14-16") (H51529)	JM0025083
6	End Cap for Superior Gearbox (14-20") (400301)	JM0025076
7	Plain Plug for Superior Gearbox (200300)	JM0025075
8	Vented Plug for Superior Gearbox (2003PR)	JM0025081
9	Bushing (1/2" x 1/4" reducer) for Superior Gearbox (4003VB)	JM0025073
10	2-1/4" Bolt for Superior Gearbox (438225)	JM0025085
11	Superior Gearbox Casting Mod Complete, 2 Pieces (H00001-1)	JM0025074
12	Solid Plug for Superior Gearbox (14-20") (400300)	JM0025080
13	18 Tooth Gear for Superior Gearbox (14-16") (H51518)	JM0025071
14	Input Shaft for Superior Gearbox, 7-7/8" Long (14-16") (H00111-01)	JM0025082
15	130 Degree Gearbox Complete (Superior) (14-16") (H51AES)	JM0018766

# Driveline Assembly



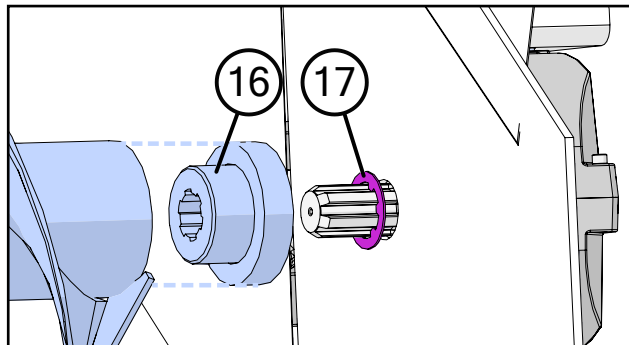
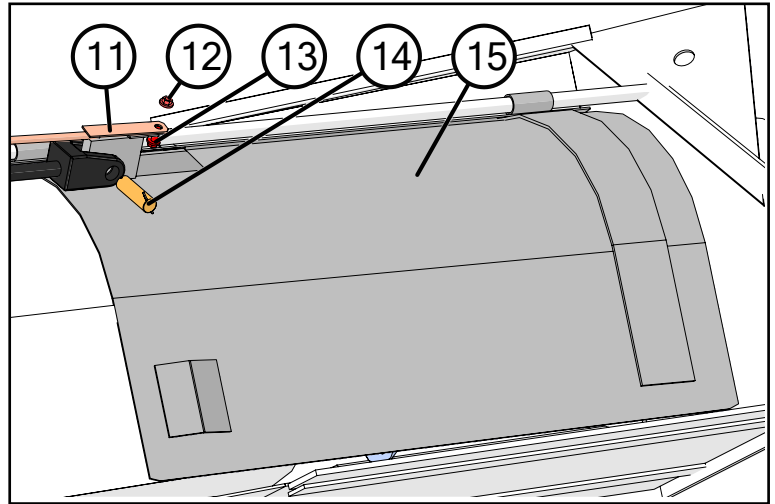
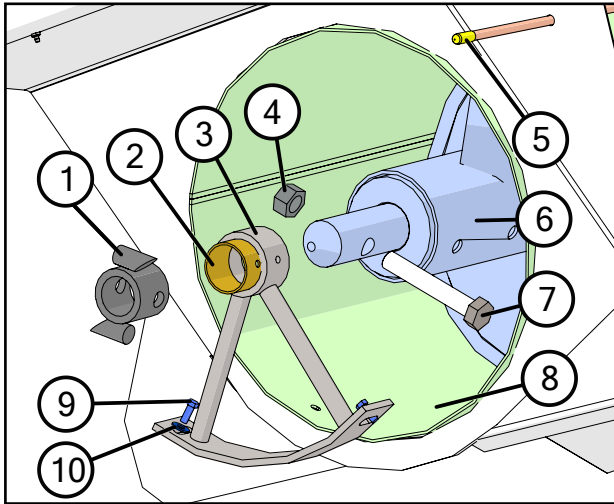
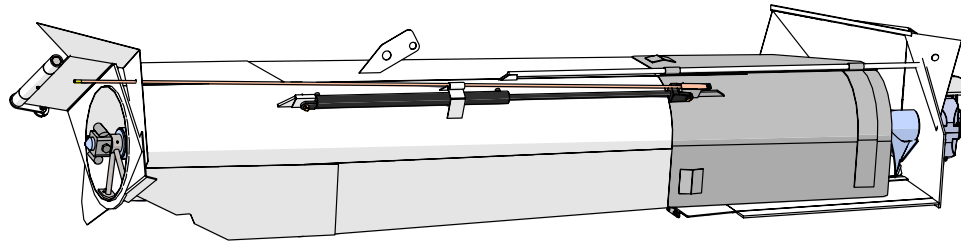
Description	Part No.
1 Guard for PTO-Drive Shaft (Step Shield) (GPDS-114)	JM0013388
2 Driveline Shield (34") (GDS-114-F)	JM0012692
3 Drive Shaft 88" x 1-1/4" (DS-114-F)	JM0024460
4 1-1/2" x 33" PVC	JM0039465
5 1-1/2" x 37" PVC	JM0039464
6 14R U-Joint Assembly (525, 620) (M-6635-A)	JM0024318
7 5/16" x 1-1/4" Half Moon Key (516114)	JM0024326
8 1-1/4" Flange Bearing, 4 Hole (GRAF-206)	JM0018560
9 5/8"-11 x 1-3/4" Gr5 Z Hex Bolt	JM0016681
10 5/8"-11 Gr2 Z Centerlock Hex Nut	JM0002146
11 3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
12 3/8"-16 Gr5 Z SF Hex Nut	JM0002152
13 1/2" Gr2 Z Lock Washer	JM0019021
14 1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
15 3/8"-16 x 1/2" Hex Head Set Screw	JM0019044
16 14R Cross Kit Weasler (PTO or U-Joint) (03-10134)	JM0024310
17 5/8"-11 x 3" Gr5 Z Hex Bolt	JM0002105
18 U-Joint Shield	JM0012698

# Hitch and Jack Assembly



Description		Part No.
1	1-1/4" Pin Adapter for Hitch (1 Adapter)	JM0019032
2	1-1/2" Pin Adapter for Hitch (1 Adapter)	JM0014203
3	Bolt On Spade Hitch with 2-1/4" Hourglass Pin Hole	JM0017978
4	Tang with 4 Bolts (2-1/4" Hourglass Pin Hole)	JM0017976
5	3/4"-16 x 3" Gr8 YZ Fine Thread Hex Bolt	JM0002107
6	1"-8 x 7-1/2" Gr8 YZ Hex Bolt	JM0017944
7	2-1/2" x 13-1/4" Pin and Collar (212PC)	JM0018259
8	2-1/2" Hitch Spool Plate (HSPS-1)	JM0018195
9	1"-8 Gr2 Z Centerlock Hex Nut	JM0002149
10	2-1/2" Hitch Spindle Collar	JM0018219
11	1"-8 x 4-1/2" Gr5 Z Hex Bolt	JM0016687
12	3/4"-16 x 3" Gr8 Z Hex Bolt	JM0018542
13	Hitch Block Reducer (Sleeve) (2-7/8" to 2-1/2")	JM0018258
14	5,000 lb Max Lift Capacity Jack (TWL-178T)	JM0001480
15	Clevis Bolt-On Hitch Assembly (2-1/4" Hourglass Pin Hole)	JM0018191
16	20k Lb Safety Chain (69")	JM0078226

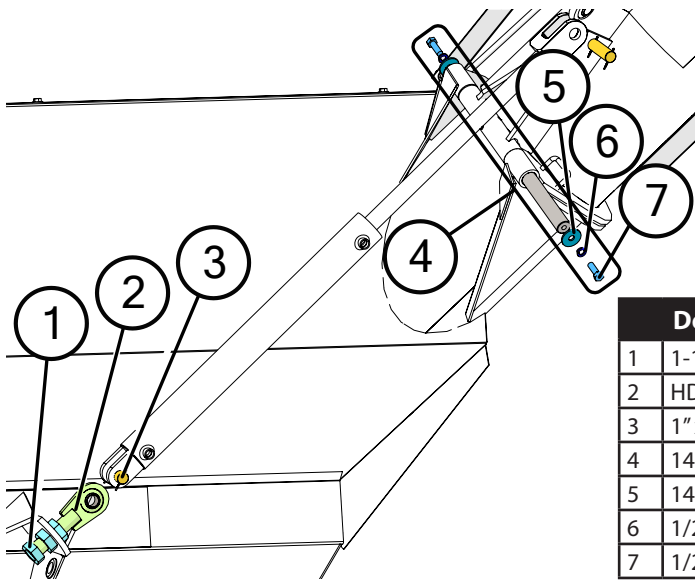
# Lower Auger Assembly



Description	Part No.
1 Drive Dog Weldment, 1-3/4" ID (16") (DDW-214)	JM0024412
2 1-3/4" ID Bronze Bushing (2" OD x 1" Length) (EB-134)	JM0002244
3 Hanger Bushing Assembly (14") (HBA-500-F)	JM0024421
4 5/8"-11 Gr2 Z Nylon Locking Hex Nut	JM0008428
5 S-Cap Yellow - 1/2" ID x 1-1/4" x 0.065" (REC-1)	JM0016842
6 14" Bottom Auger Flighting Weldment LF-14-F5R 119-5/8" (Right Hand)	JM0024474
7 5/8"-11 x 4-1/2" Gr8 YZ Hex Bolt	JM0075570
8 Lower Auger Liner for 14" Diameter Auger Cart (LAL-14)	JM0026478
9 3/8"-16 x 1" Gr8 YZ Hex Bolt	JM0001485
10 3/8" USS Flat Washer	JM0003061
11 Gate Indicator (1/2" Rod with Arrow) (525,620) (GI-12)	JM0026486
12 3/8"-16 Gr5 Z SF Hex Nut	JM0002152
13 3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
14 1" x 3" Clevis Pin with Cotter Pins	JM0019407
15 Auger Gate Cover for 14" Diameter Auger (AGC-500-F)	JM0017602
16 Spline Coupler 2-7/16" x 2-3/8" OD x 1-3/8" ID (14" & 16" Flighting)	JM0057888
17 Gearbox Washer 14" and 16" Augers	JM0031879

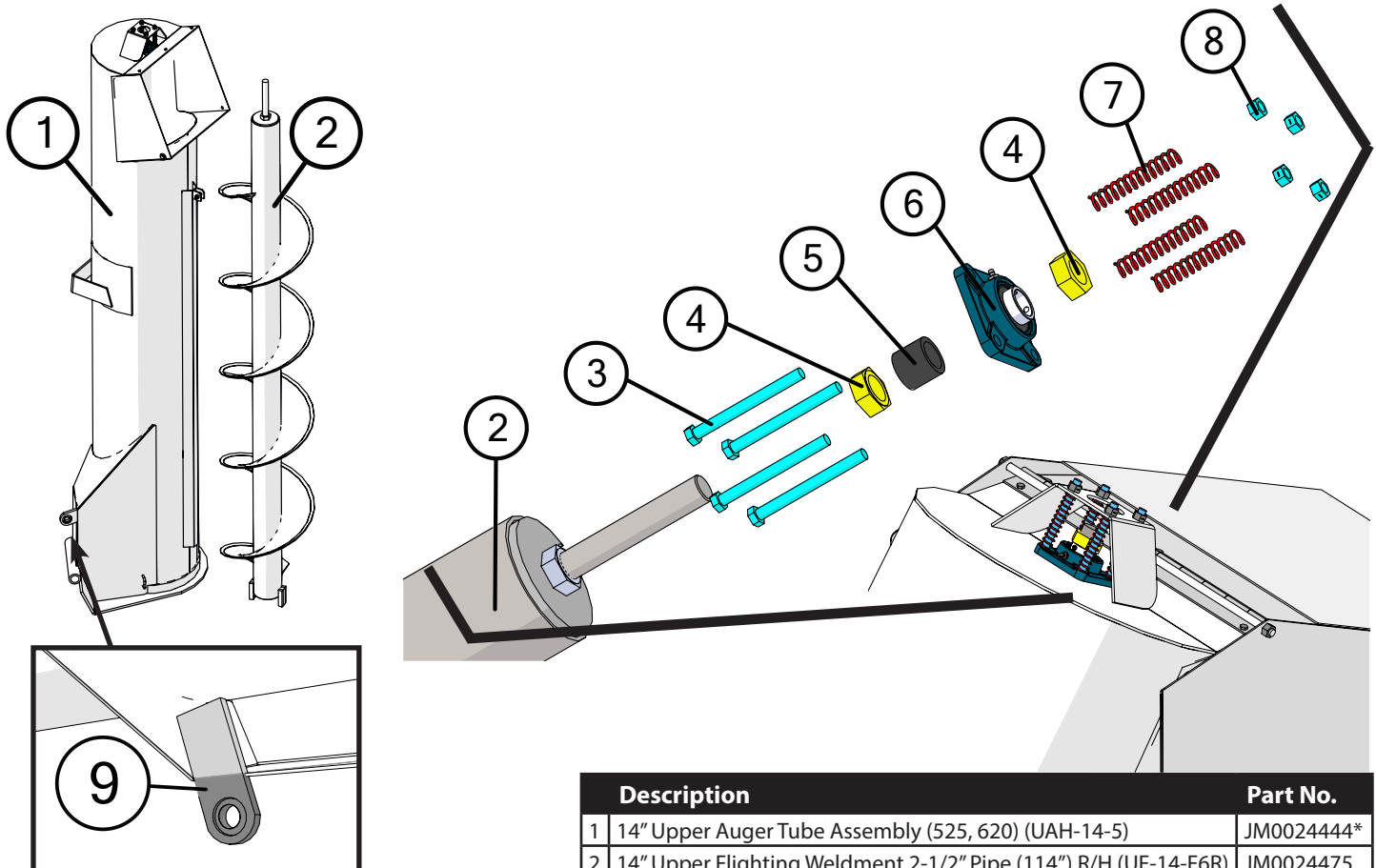


## Top Auger Linkage



	Description	Part No.
1	1-1/4"-12 PN Gr2 Hex Jam Nut	JM0001606
2	HD Adjustable Pac Man Weldment	JM0021417
3	1" x 3" Clevis Pin with Cotter Pins	JM0019407
4	14" Top Auger Hinge Pin Assembly (1-1/4" x 14-3/4") (114-PIH)	JM0026501
5	14" Auger Hinge Pin Washer (1.75" OD, .525" ID)	JM0024885
6	1/2" Gr2 Z Lock Washer	JM0019021
7	1/2"-13 x 1-1/4" Gr5 Z Hex Bolt	JM0001513

## Top Auger Assembly



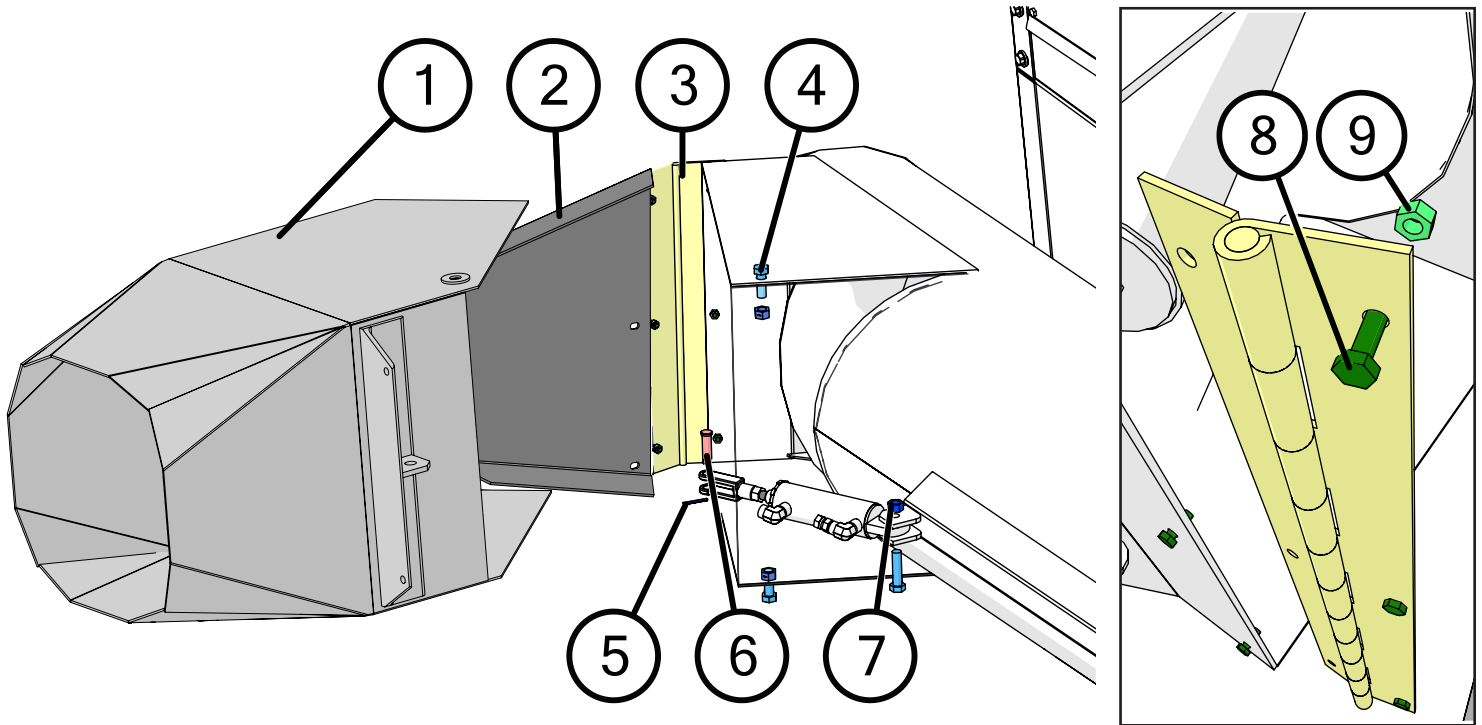
	Description	Part No.
1	14" Upper Auger Tube Assembly (525, 620) (UAH-14-5)	JM0024444*
2	14" Upper Flighting Weldment 2-1/2" Pipe (114") R/H (UF-14-F6R)	JM0024475
3	1/2"-13 x 5-1/2" Gr5 Z Hex Bolt	JM0001498
4	1-1/4"-12 PN Gr2 Hex Jam Nut	JM0001606
5	Top Auger Collar 1-1/2" Long (1-3/4" OD)	JM0016920
6	1-1/4" Flange Bearing, 4 Hole (GRAF-206)	JM0018560
7	4-1/2" Compression Spring (CMSUAA-4)	JM0018559
8	1/2"-13 Gr2 Z Centerlock Hex Nut	JM0001511
9	Top Tube Ball Joint Weldment	JM0078232

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

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

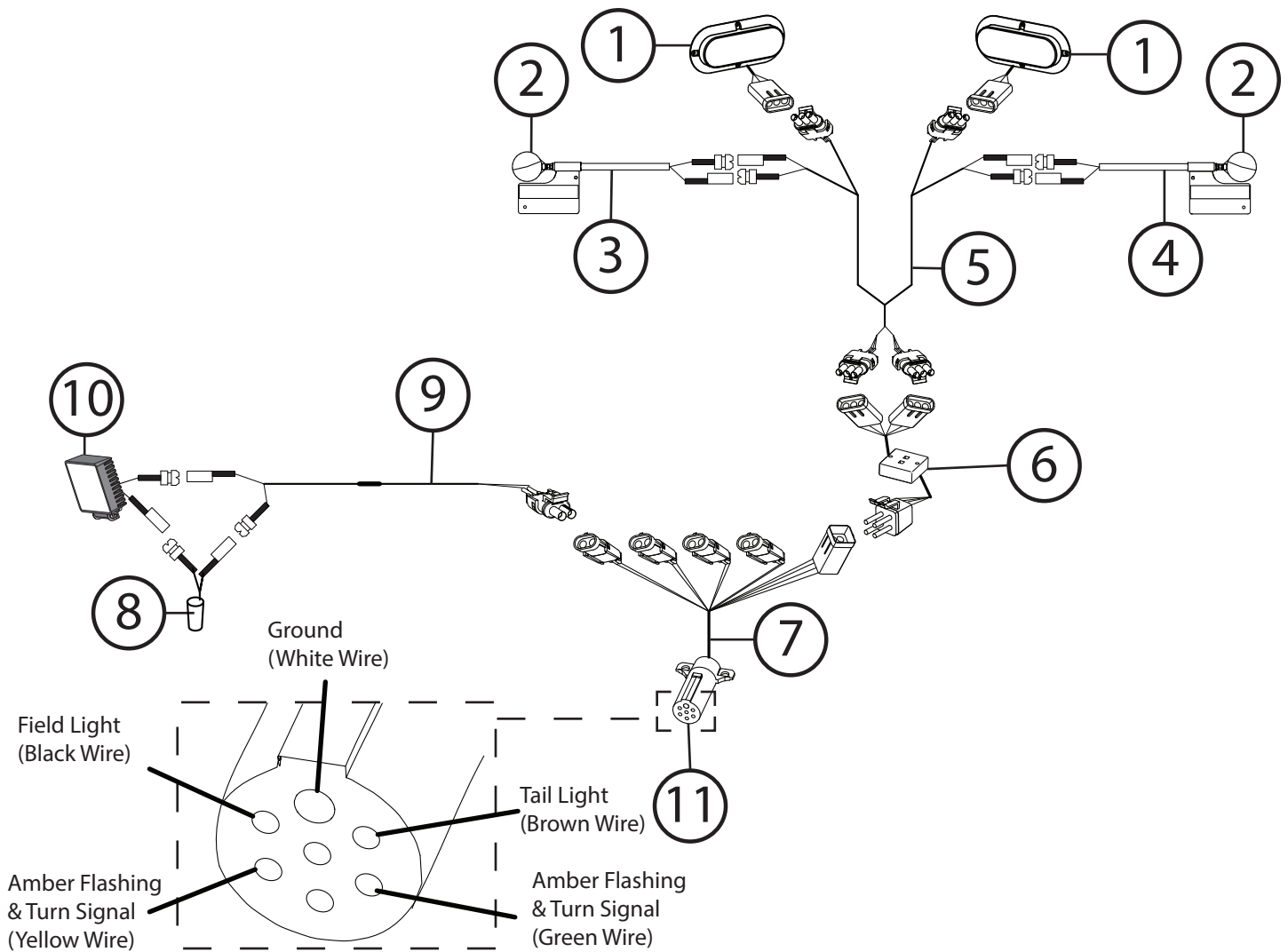


# Flow Control Spout



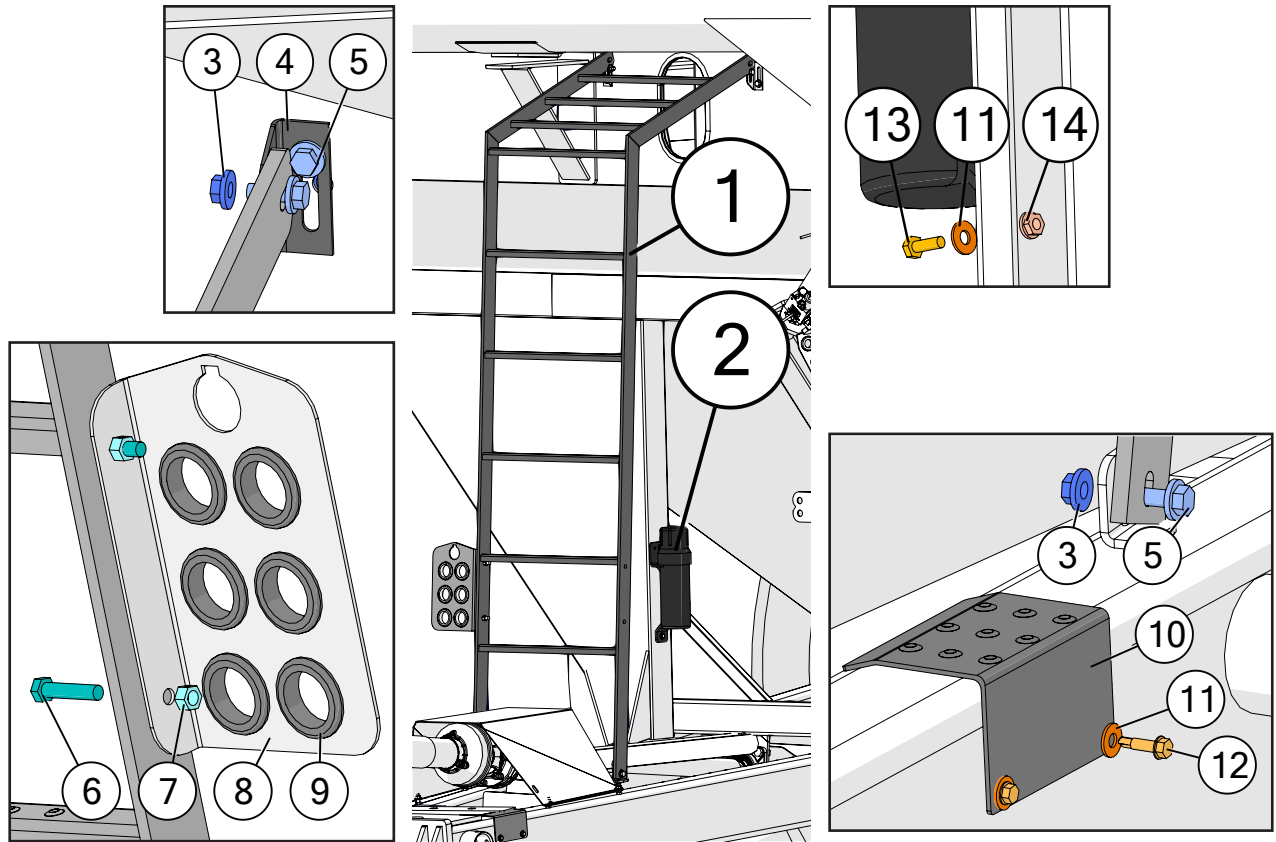
	Description	Part No.
1	14" Flow Control Spout Housing (FSH-14)	JM0024441
2	14" Baffle Plate (BP-14)	JM0012702
3	14" Hinge Plate (HP-14)	JM0024445
4	1/2"-13 x 2" Gr5 Z Hex Bolt	JM0001593
5	5/32" x 1-1/2" Cotter Pin	JM0014348
6	1/2" x 1-3/4" Clevis Pin, Usable Length 1-1/2"	JM0018264
7	1/2"-13 Gr2 Z Centerlock Hex Nut	JM0001511
8	1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507
9	1/4"-20 Gr2 Z Centerlock Hex Nut	JM0001505

# Lights and Wiring



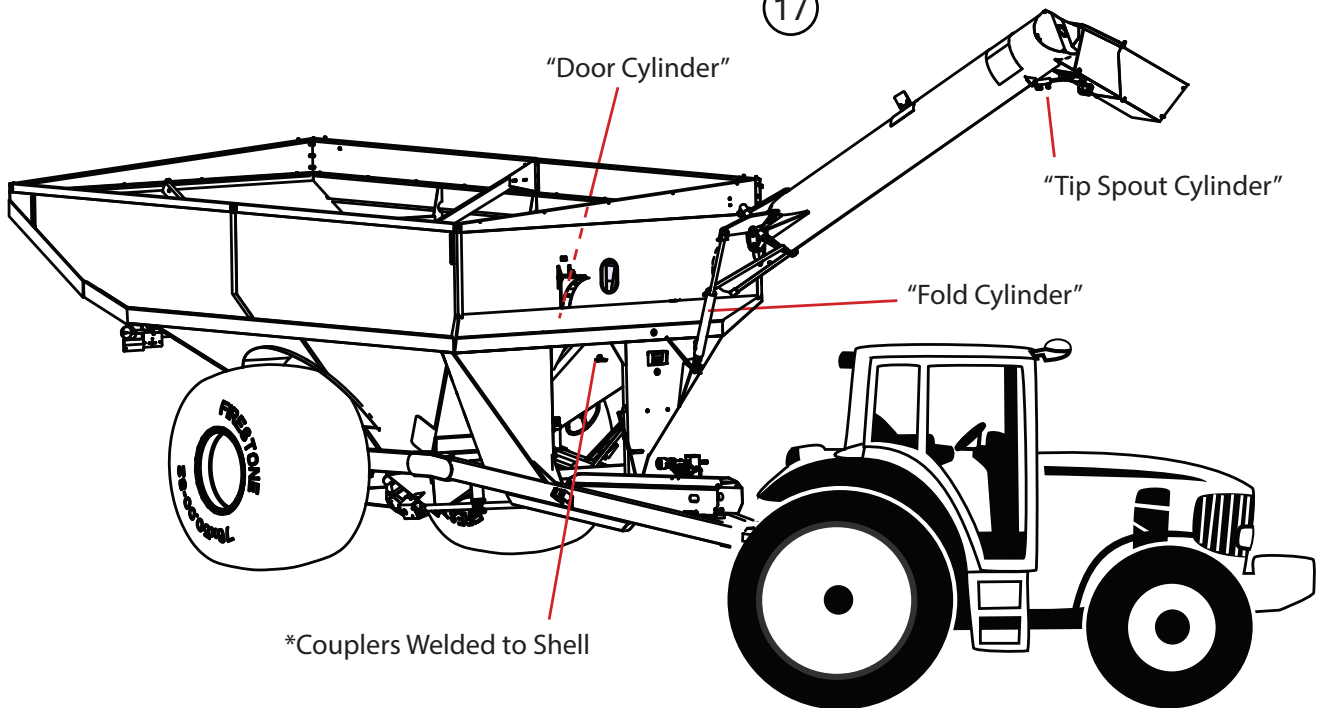
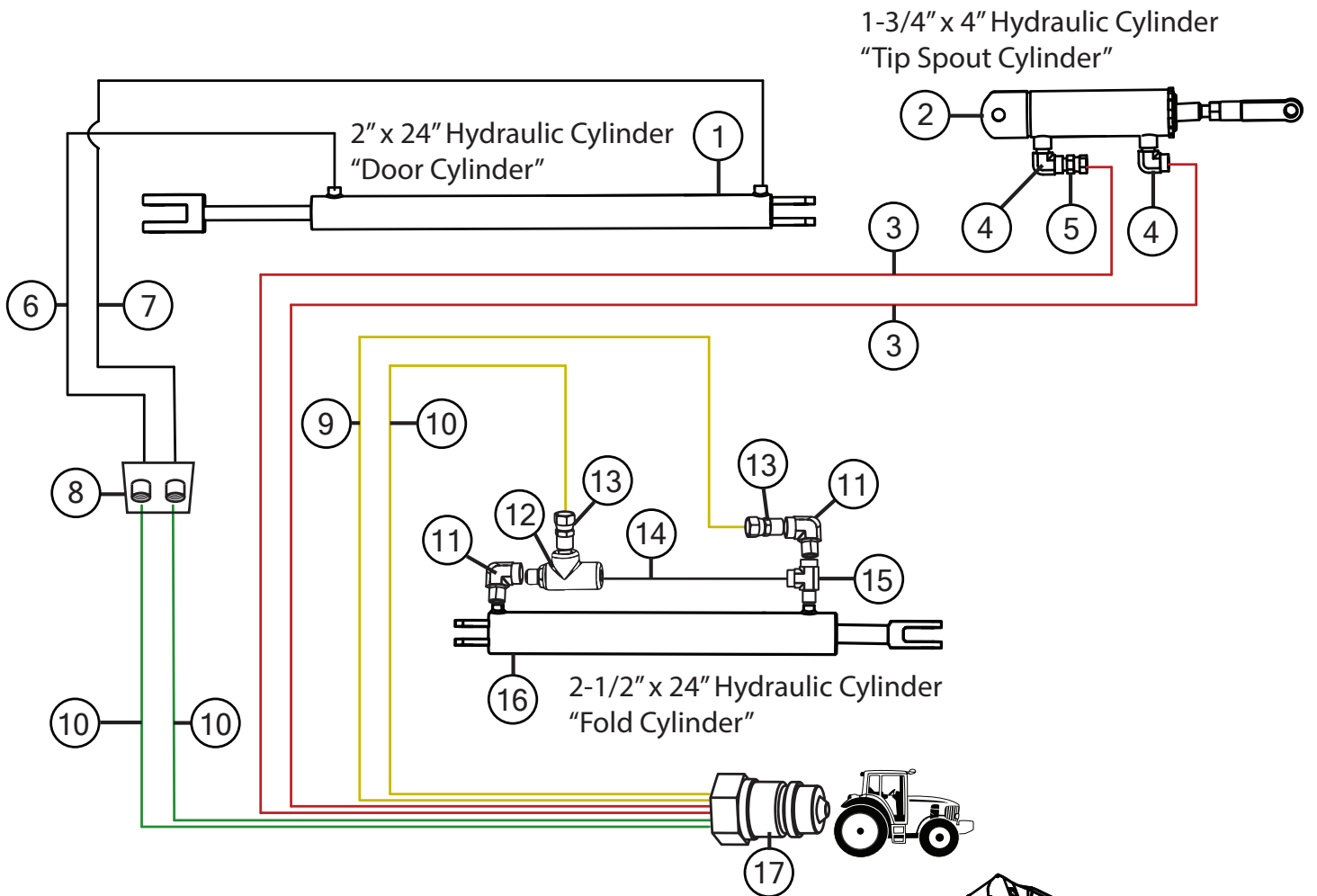
	Description	Part No.
1	Red Oval LED Tail Light	JM0034389
2	LED Amber Light (Circular)	JM0018819
3	Extendable Amber Light Assembly (Left Side)	JM0018817
4	Extendable Amber Light Assembly (Right Side)	JM0018826
5	Wiring Harness, Rear Half of Grain Cart	JM0020437
6	Light Enhancer and Adapter Kit (3 Wires)	JM0010566
7	Main Harness with 7-Prong Connector End for Grain Cart	JM0020439
8	Mercury Switch (MS-1)	JM0017896
9	Field Light Wire Harness (Mercury)	JM0020438
10	LED Field Light with Bullet Connector	JM0050949
11	7-Prong Connector	JM0010528

# Ladder Assembly



	Description	Part No.
1	Ladder with 3 Rung Platform (525-875)	JM0000262
2	Operator's Manual Canister	JM0010115
3	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
4	Universal Ladder Bracket	JM0016922
5	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
6	3/8"-16 x 1-3/4" Gr5 Z Hex Bolt	JM0002097
7	3/8"-16 Gr2 Z Centerlock Hex Nut	JM0001512
8	Hose Holder Bracket for Standard Grain Cart (HHB-1C)	JM0012711
9	Rubber Grommet (1-1/2" ID, 2-1/8" OD, 3/16" Gap)	JM0016924
10	Small Step on Grain Cart Frame	JM0028444
11	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
12	1/4" x 1" Self Tapping Screw	JM0001716
13	1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507
14	1/4"-20 Gr5 Z SF Hex Nut	JM0001630

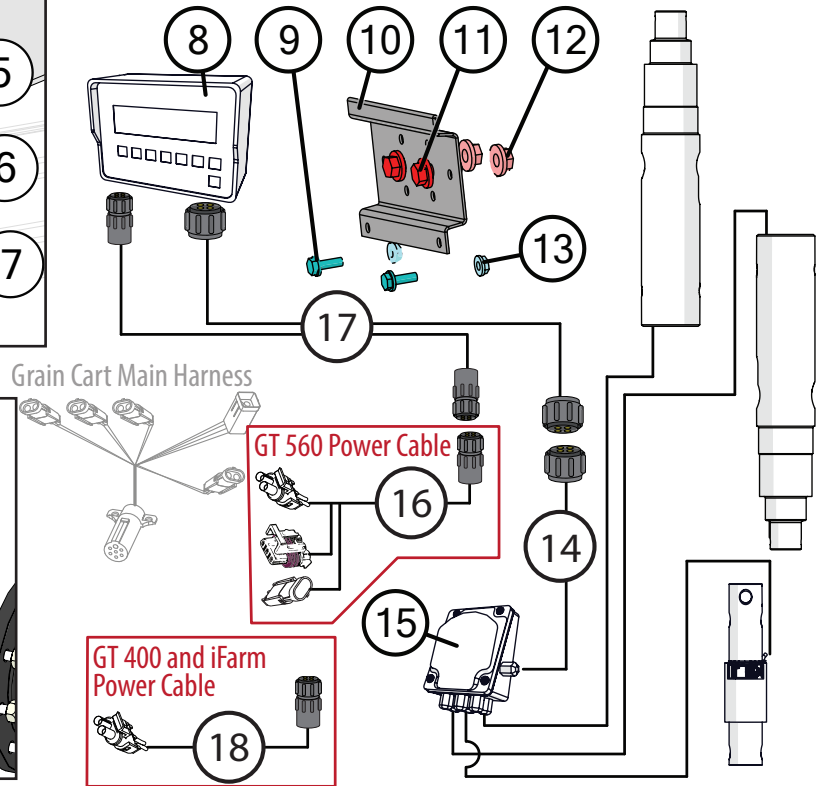
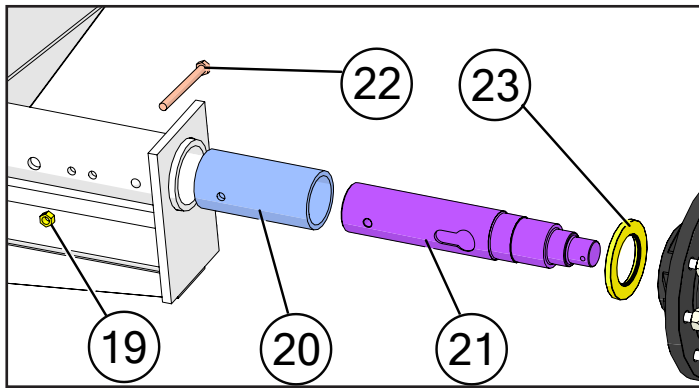
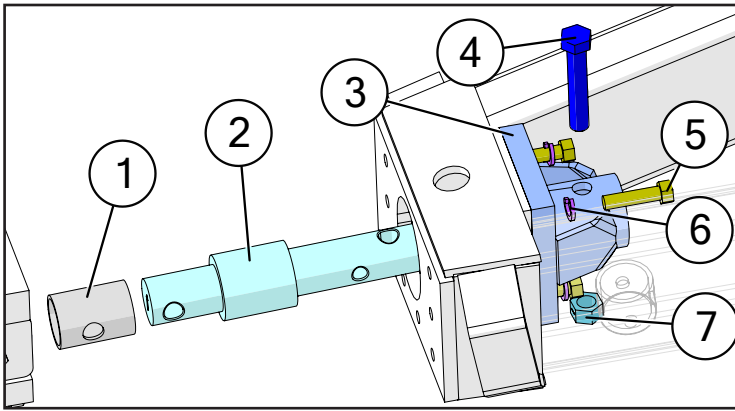
# Hydraulic Hoses & Cylinders



# Hydraulic Hoses & Cylinders

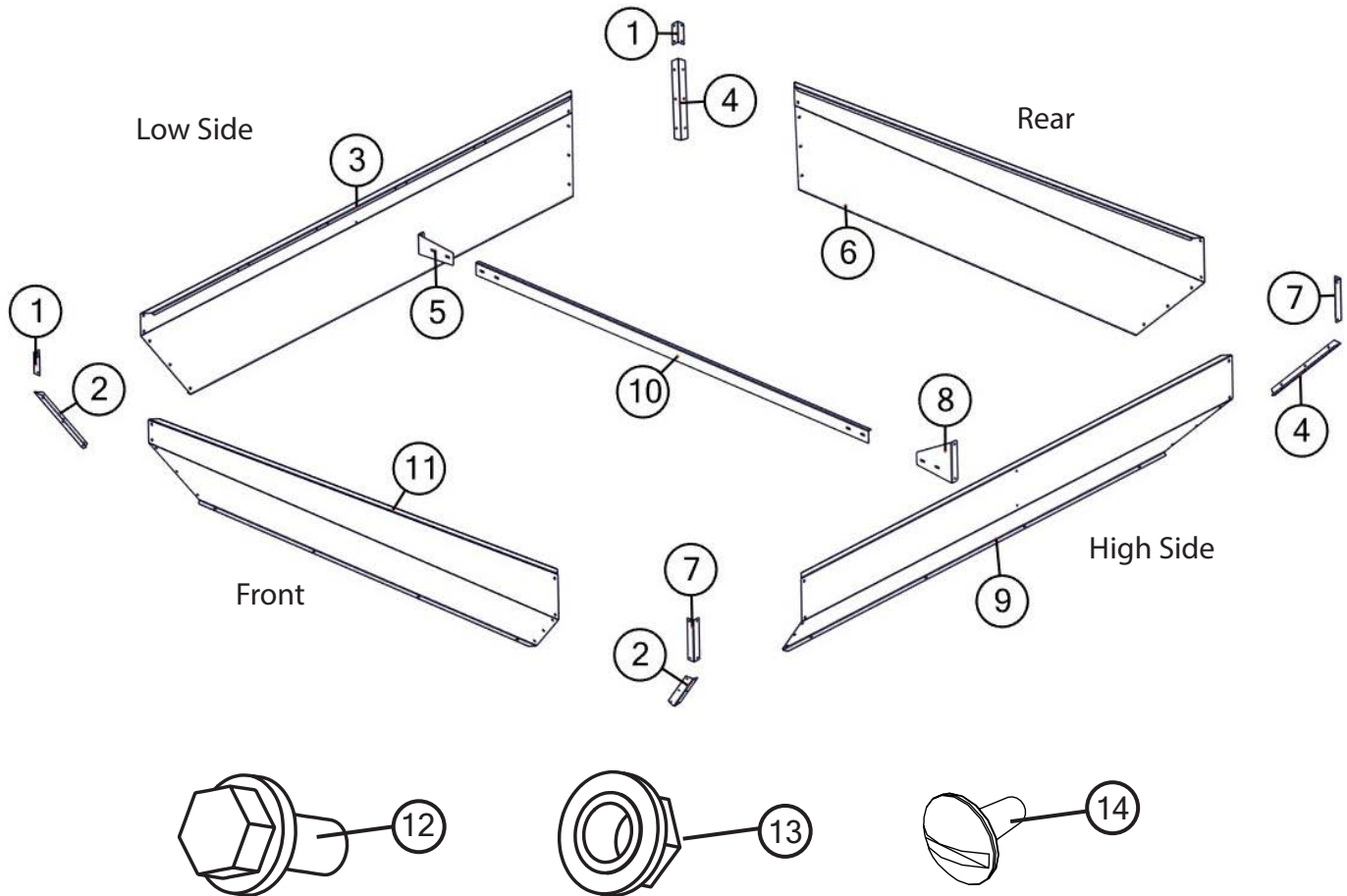
	Description	Part No.
1	2" x 24" Hydraulic Cylinder (JD20024)	JM0018210
1	Seal Kit for 2" x 24" Hydraulic Cylinder (JD244)	JM0024894
2	1-3/4" x 4" Hydraulic Cylinder (1/2" Clevis and Tab Ends) (HC-FCS)	JM0018564
2	Seal Kit for 1-3/4" x 4" Cylinder (SKHC-FCS) (JD459)	JM0024892
3	1/4" x 336" Hydraulic Hose 336 inch 4M3k-4G-8MP-4G-4MP	JM0053208
4	1/4" Male NPT x 1/4" Female NPT; 90 Degree Elbow	JM0020115
5	1/4" Male NPT-Swivel with .032 Orifice (Restrictor)	JM0020113
6	1/4" x 43" Hydraulic Hose 43 inch 4M3k-4G-6MPX-4G-6MP	JM0024904
7	1/4" x 29" Hydraulic Hose 29 inch 4M3k-4G-6MPX-4G-6MP	JM0030609
8	3/8" Standard Coupling	JM0019562
9	1/4" x 176" Hydraulic Hose 176inch4M3k-4G-8MP-4G-6MP	JM0048443
10	1/4" x 160" Hydraulic Hose 160inch4M3k-4G-8MP-4G-6MP	JM0047092
11	3/8" Male NPT x 3/8" Female NPT; 90 Degree Elbow	JM0030059
12	PC-37 Check Valve	JM0018233
13	3/8" Male NPT x 3/8" Female NPT Swivel with .062 Orifice (Restrictor)	JM0018362
14	1/4" x 21" Hydraulic Hose 21 inch 4M3k-4G-4MP-4G-6MPX	JM0024896
15	3/8" Male NPT x 3/8" Female NPT x 3/8" Female NPT; Street T	JM0018266
16	2-1/2" x 24" Welded Hydraulic Cylinder (JD21224)	JM0021280
16	Seal Kit for 2-1/2" x 24" Hydraulic Cylinder (JD469)	JM0024891
17	1/2" Female NPT x Male Pioneer - High Flow, Cone Style	JM0018254

# 3-Point Scale System



	Description	Part No.
1	Hitch Block Reducer (Sleeve) (2-7/8" to 2-1/2")	JM0018258
2	2-1/2" Hitch Weigh Bar (Digi-Star) (3/4" & 1" Holes) (250WB)	JM0024207
3	2-1/2" Hitch Weigh Bar Weldment Receiver (WBW-1)	JM0024208
4	1"-8 x 5-1/2" Gr5 Z Hex Bolt	JM0002110
5	3/4"-16 x 3" Gr8 Z Hex Bolt	JM0018542
6	3/4" Z Lock Washer	JM0018544
7	1"-8 Gr2 Z Centerlock Hex Nut	JM0002149
8	GT 400 Digi-Star Scale Display Monitor	JM0019040
8	GT 560 Digi-Star Scale Display Monitor	JM0044177
9	1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507
10	GT 400 Scale Monitor Display Bracket	JM0000361
10	GT 560 Scale Monitor Display Bracket	JM0046976
11	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
12	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
13	1/4"-20 Gr5 Z SF Hex Nut	JM0001630
14	8' Cable from J-Box to Indicator (Digi-Star)	JM0047238
15	Digi-Star 4-Point Junction Box (JB-1)	JM0019649
16	Power Cable for GT560 Indicator (PC-GT560)	JM0078634
17	30' Extension Cable Kit (Load Cell and Power) (ECI-3)	JM0041218
18	iFarm and GT400 Standard Power Cable 18" (74132)	JM0041060
19	5/8"-11 Gr2 Z Centerlock Hex Nut	JM0002146
20	3-3/4" ID x 4-1/2" OD x 9-3/8" Adapter Pipe Tubing (ATP-375-GS)	JM0021453
21	3-3/4" Digi-Star Weigh Spindle (375WS)	JM0021451
22	5/8"-11 x 7" Socket Head Cap Screw	JM0050413
23	Seal (3-3/4" ID, 6" OD) for Hub with Scales (37605SA)	JM0021456

# Sideboards



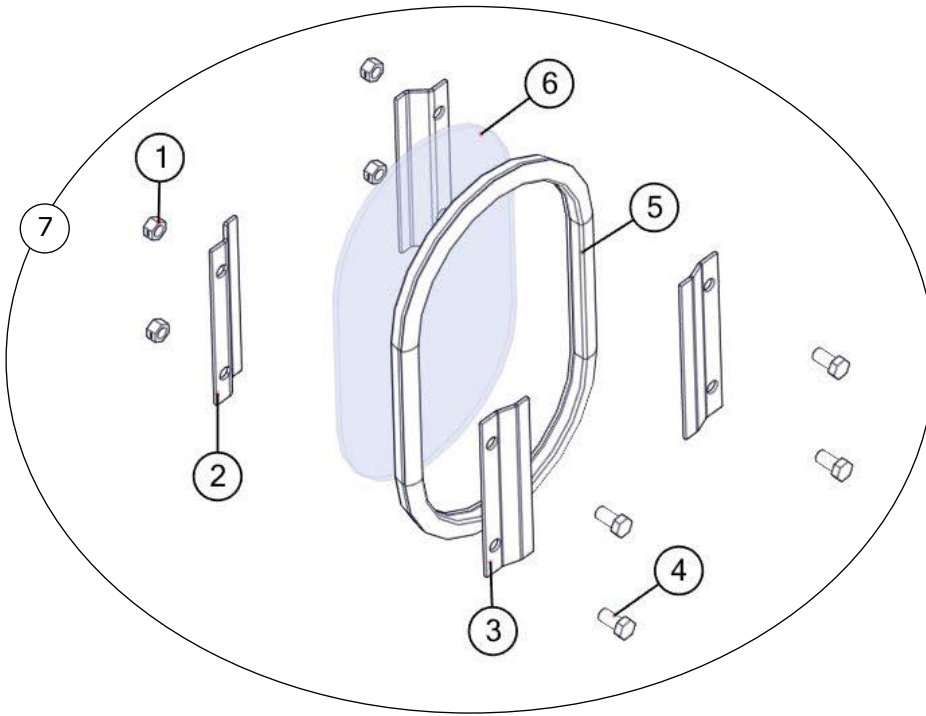
	Description	Part No.
1	Low Sideboard Corner 5-7/8" (620) (TTE-620LC)	JM0012703
2	Low Sloped Sideboard Corner 18-7/8" (620) (TTE-620LSC)	JM0012705
3	Low Sideboard (620) (TTE-620LS)	JM0012688*
4	High Sloped Corner (620) (TTE-620HSC)	JM0012706
5	Low Sideboard Brace End (620)	JM0012740
6	Back Endboard (620) (TTE-620TR)	JM0012691*
7	High Sideboard Corner (620) (TTE-620TR)	JM0012704
8	High Sideboard Brace End (620)	JM0012738
9	High Sideboard (620) (TTE-620HS)	JM0012689*
10	Sideboard Brace 135" (1012, 1112, 1412, 620, 1000-1151, 1401)	JM0020624
11	Front Endboard (620) (TTE-620TF)	JM0012690*
12	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
13	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
14	3/8"-16 x 1" Gr5 Z Pan Head Bolt	JM0002892
15	Sideboard Complete Set (620) with Hardware (TTE-620)	JM0028048

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

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

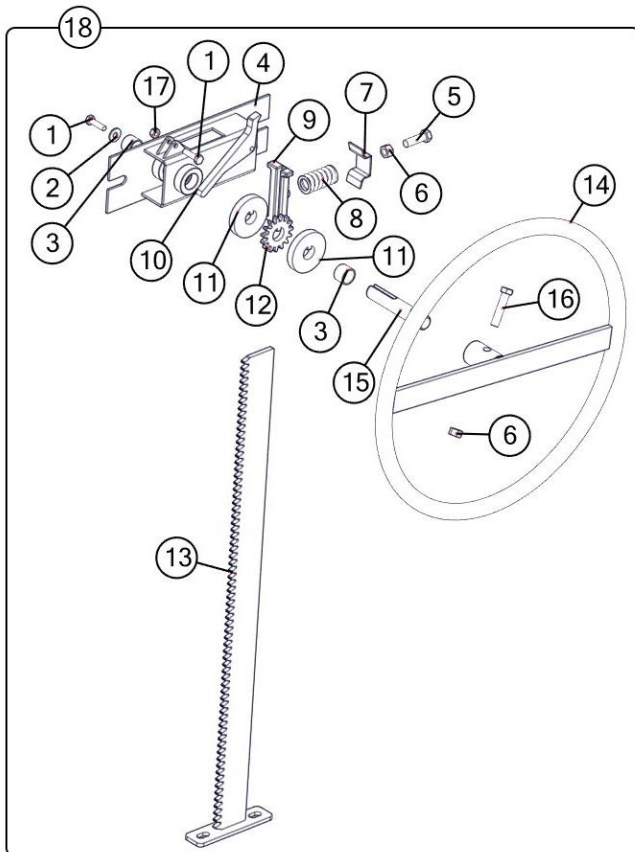


## Inspection Windows



	Description	Part No.
1	3/8"-16 Gr2 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

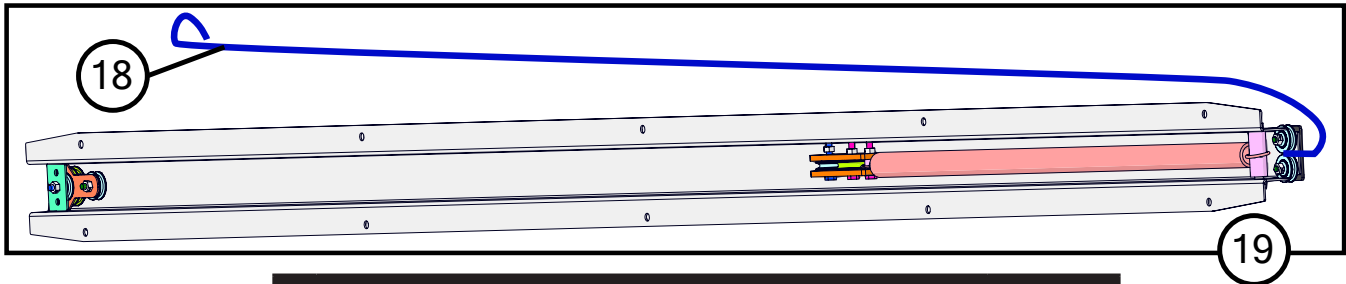
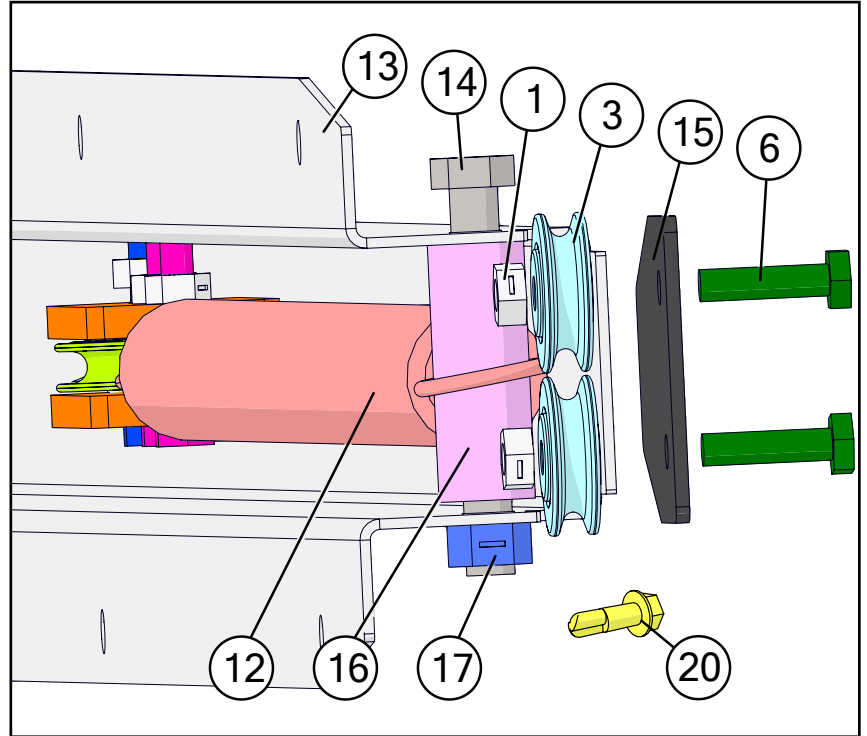
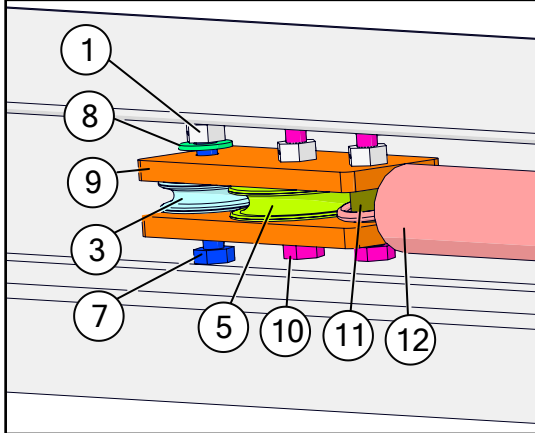
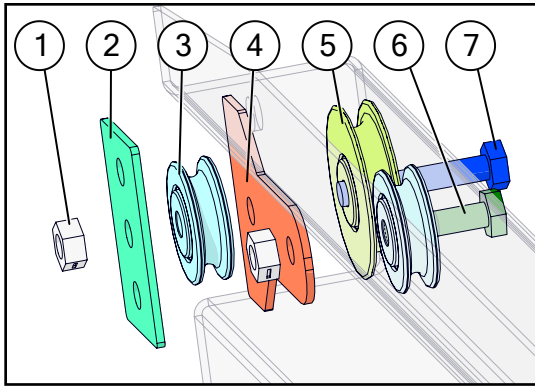
## Door Wheel Assembly



	Description	Part No.
1	1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095
2	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
3	3/4" ID x 7/8" OD x 5/8" LG Bronze Bushing (BB-34)	JM0009455
4	Nylon Guided Rack Housing Weldment (2015 & Newer)	JM0030635
5	3/8"-16 x 1-1/4" Gr5 Z Hex Bolt	JM0016675
6	3/8"-16 Gr5 Z Hex Nut	JM0001707
7	Scrubber Spring Plate (ST Manual Door) (Door Wheel)	JM0002851
8	Compression Spring (1" x 1-3/4") for Door Assembly & Tongue Latch	JM0001688
9	Nylon Track Guide For Door Wheel (2015 & Newer)	JM0029354
10	Flip Lock For Door Rack (2015 & Newer)	JM0029459
11	Keyway Washer for Door Rack (2015 & Newer)	JM0029454
12	15 Tooth Sprocket - 3/4" Bore w/ Key (2015 & Newer)	JM0029455
13	Rack Track Weldment for Door (20-1/4") 2015 & Newer	JM0030651
14	Rack Wheel Weldment (2015 & Newer)	JM0028897
15	Stub Shaft 3/4" x 4-1/8" w/ Threaded End (2015 & Newer)	JM0029440
16	3/8"-16 x 1-3/4" Gr5 Z Hex Bolt	JM0002097
17	1/4"-20 Gr2 Z Centerlock Hex Nut	JM0001505
18	Complete Door Wheel Assembly (20-1/4") 2015 & Newer	JM0030652

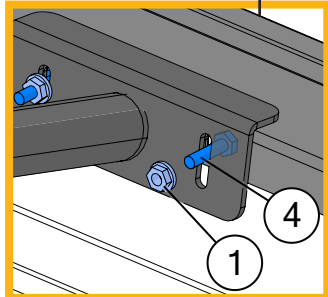
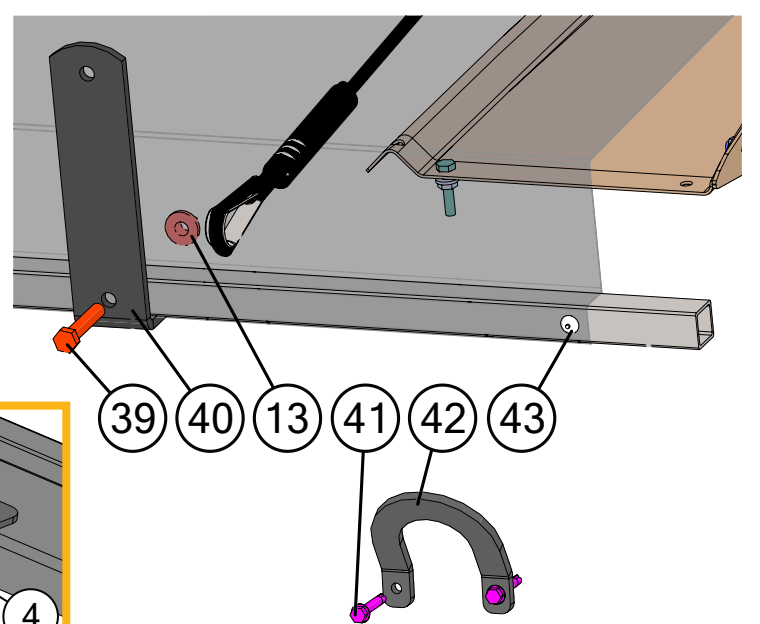
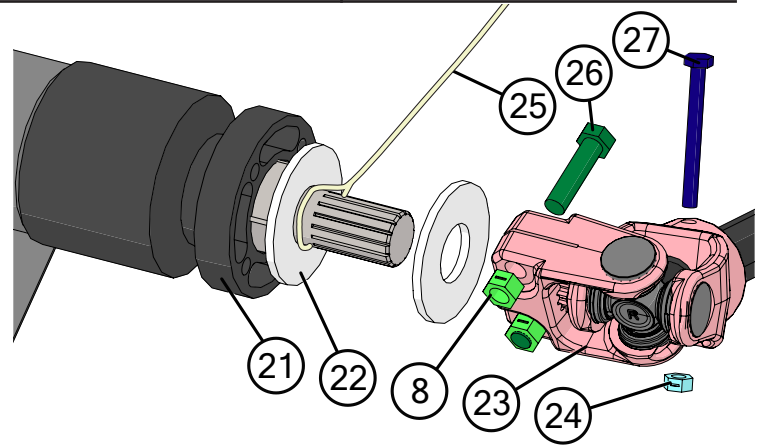
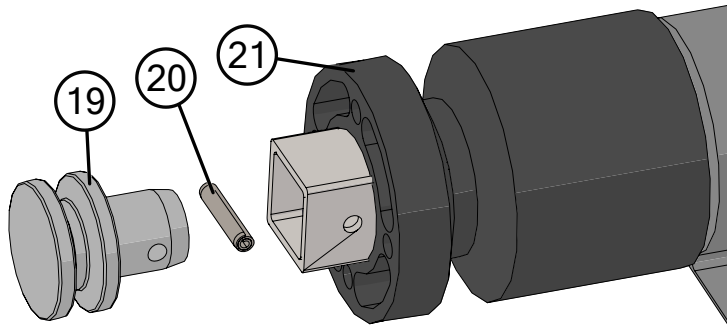
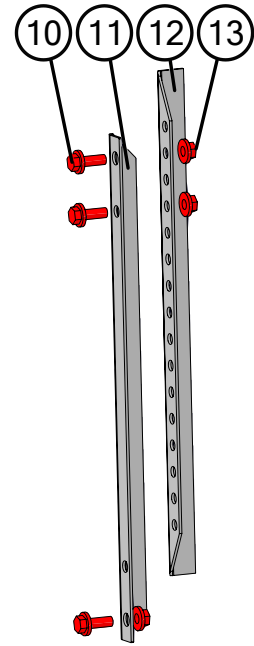
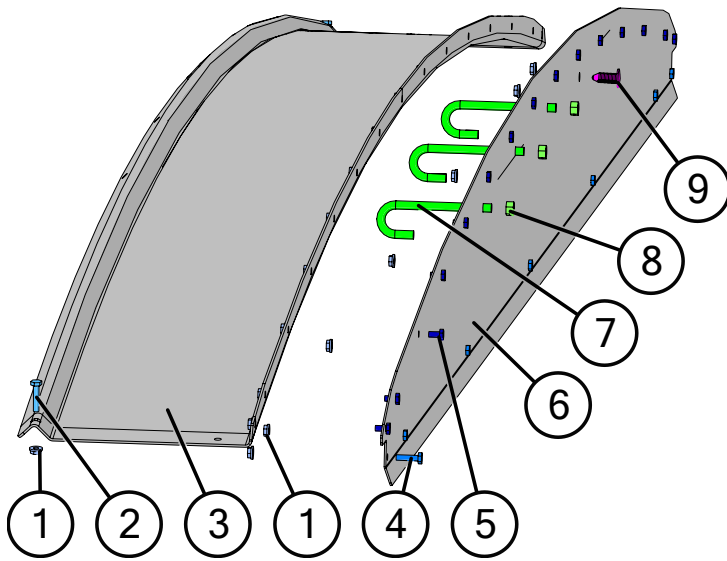


# Spring Return Assembly



	Description	Part No.
1	1/4"-20 Gr2 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	Spring Return Housing for Grain Cart Roll Tarp	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 Gr2 Z Centerlock Hex Nut	JM0001512
18	Spring Return Cable (Grain Carts)	JM0012981
19	Spring Return Assembly Complete (Grain Cart)	JM0002911
20	1/4" x 3/4" Self Tapping Screw	JM0001570

# Roll Tarp Assembly



# Roll Tarp Assembly

	Description	Part No.
1	1/4"-20 Gr5 Z SF Hex Nut	JM0001630
2	1/4"-20 x 1-1/4" Gr5 Z Hex Bolt	JM0016673
3	Arched Top Endcap for Glide Right - Grain Cart 141-1/2"	JM0044731
4	1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095
5	1/4"-20 x 1/2" Gr5 Z Hex Bolt	JM0001481
6	End Cap Plate for Glide Right - Grain Cart 140-7/8"	JM0045315
7	3/8"-16 x 2-3/8" Thread Length x 5" Overall Length Gr5 Z J-Bolt	JM0001519
8	3/8"-16 Gr2 Z Centerlock Hex Nut	JM0001512
9	3/8" Ribbed Push in Rivet	JM0037396
10	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
11	Endcap Prop - Lower 19" (ABS-2)	JM0000179
11	Endcap Prop - Lower 27" (ABS-2L)	JM0021403
12	End Cap Prop - Upper 19"	JM0021404
13	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
14	1/4" x 2" x 23" Bar for Crank Holder (875 Bushel Carts and Lower)	JM0029818
15	3/8" USS Flat Washer	JM0003061
16	3/8"-16 x 1-1/4" Gr5 Z Carriage Bolt	JM0001639
17	Roll Tarp Handle Top Hook (3-3/4" x 1-1/4")	JM0080035
18	Crank Handle Hook	JM0081371
19	Spool End for Roll Tube (2" Long x 1-3/4" O.D.)	JM0002449
20	1/4" x 1-1/4" HD Spiro Roll Pin	JM0046782
21	Roll Tarp Guide Roller (4-1/8" Long x 3-1/4" O.D.)	JM0038446
22	1" USS Flat Washer	JM0003063
23	Universal Joint - Roll Tarp (SUJ-1)	JM0001517
24	1/4"-20 Gr2 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	3/16" Cable x 158" (620) (316C-156)	JM0024884
29	3/16" Cable Clamp (316CC)	JM0025406
30	137" Arched Tarp Bows (Regular) (137ATB)	JM0000157
31	Tightening Lip x 158" (620) (TL-158)	JM0012671
32	Tarp Rope Assembly 14' 8" Glide Right Standard Cart	JM0048662
33	S-Cap Yellow - 1.062" ID x 1-1/2" x 1/16"	JM0018963
34	12' Crank Grain Cart (CUJ-1LN)	JM0019888
35	Spring Return Assembly Complete (Grain Cart)	JM0002911
36	1-1/4" x 161" Roll Tube for Glide Right (620)	JM0048399
37	12' 8" x 13' 6" Tarp w/ Rivets (620)	JM0048411
38	1" x 158" Square Tie-Down Tube (620) (158TT)	JM0021366
39	3/8"-16 x 2" Gr5 Z Hex Bolt	JM0001510
40	Tarp Stop Bracket (TSB-1)	JM0000187
41	1/4" x 1-1/2" Self Tapping Screw	JM0001571
42	Tarp Rope Bracket	JM0047700
43	1/4" Tarp Rivet	JM0001518