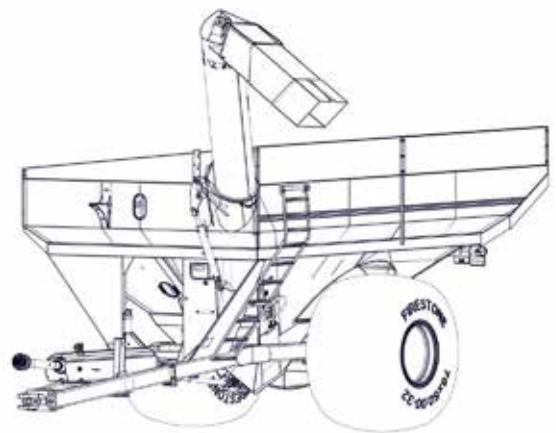


# OPERATORS MANUAL



1522  
1412  
1312  
1222  
1122  
1112  
1012  
812

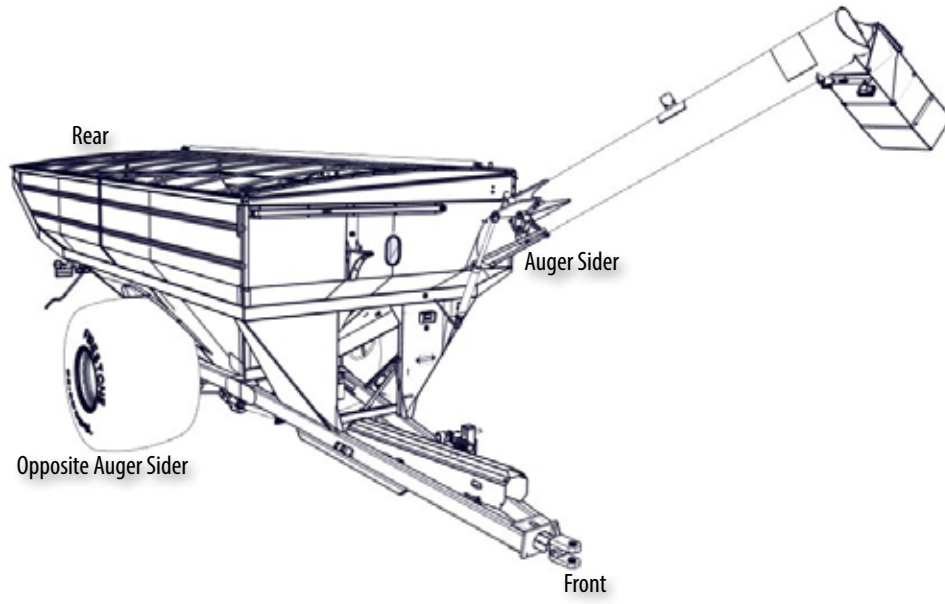
GRAIN CART



Rev. 1.5.2018

J. & M. Mfg. Co., Inc.  
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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. 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 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:** \_\_\_\_\_ **Serial No:** \_\_\_\_\_ **Date of Purchase:** \_\_\_\_\_

**Purchased From:** \_\_\_\_\_


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


### 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, will 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.

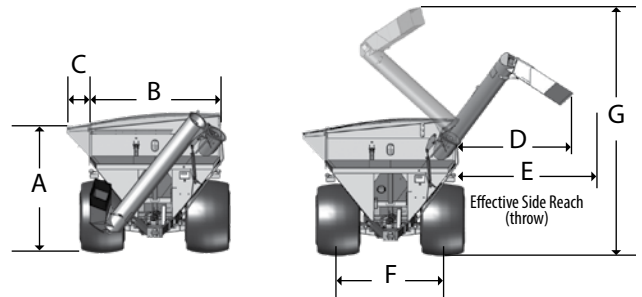
## Specifications

SPECIFICATIONS	<i>8'12</i>	<i>10'12</i>	<i>11'12</i>	<i>13'12</i>	<i>14'12</i>
					
<b>Single Wheel Option</b>					
<b>Capacity</b>	875 Bushels	1,025 Bushels	1,150 Bushels	1,325 Bushels	1,400 Bushels
<b>Auger, One Vertical</b>	18" Bullet	20" Bullet	20" Bullet	20" Bullet	20" Bullet
<b>Unload Time (minutes)</b>	1.8 minutes	1.8 minutes	1.9 minutes	2.2 minutes	2.3 minutes
<b>Wheels (2)</b>	21x32, 27x32, 30x32, or 25x36	30x32, 31x32, 32x36 or 44x32	30x32, 32x36 or 44x32	44x32	44x32
<b>Tires (2)</b>	24.5x32, 30.5x32, 800/60R32, 900/60R32 or 66x43.00	900/60R32, 35.5x32, 1050/50R32, or 1250/50R32	900/60R32, 1050/50R32, or 1250/50R32	1250/50R32	1250/50R32
<b>Hubs (2)</b>	10 Bolt	10 Bolt	10 Bolt or 20 Bolt	10 Bolt or 20 Bolt	10 Bolt or 20 Bolt
<b>Spindles (2)</b>	4 1/2" (Stress-Proof)	4 1/2" (Stress-Proof)	6" Diameter	6" Diameter	6" Diameter
<b>Tongue Weight</b>					
<b>Empty</b>	1,275 lbs.	2,900 lbs.	2,900 lbs.	2,400 lbs.	2,400 lbs.
<b>Loaded</b>	3,800 lbs.	4,200 lbs.	4,200 lbs.	4,800 lbs.	4,800 lbs.
<b>Total Weight (approx.)</b>	9,300 lbs.	12,900 lbs.	13,500 lbs.	16,100 lbs.	16,300 lbs.
<b>Walking Tandem Dual Wheels Option</b>					
<b>Capacity</b>		1,000 Bushels	1,125 Bushels	1,300 Bushels	1,375 Bushels
<b>Wheels (4)</b>		16x42, 18x38, 18x42	16x42, 18x38, 18x42	18x42 Heavy	18x42 Heavy
<b>Tires (4)</b>		480/80R42, 520/85R38 or 520/85R42	480/80R42, 520/85R38 or 520/85R42	520/85R42	520/85R42
<b>Spindles (4)</b>		4 1/2" Diameter	4 1/2" Diameter	4 1/2" Diameter	4 1/2" Diameter
<b>Total Weight (approx.)</b>		16,100 lbs.	16,500 lbs.	19,100 lbs.	19,300 lbs.
<b>Tracks Option</b>					
<b>Capacity</b>	875 Bushels	1,050 Bushels	1,175 Bushels	1,350 Bushels	1,425 Bushels
<b>Total Weight (approx.)</b>	17,300 lbs.	21,300 lbs.	21,700 lbs.	22,800 lbs.	23,000 lbs.
<b>Compaction Rate</b>		9.93 lbs/sq inch	10.67 lbs/sq inch	12.20 lbs/sq inch	12.75 lbs/sq inch
<b>Compaction Rate LT Series</b>	11.48 lbs/sq inch	13.91 lbs/sq inch	14.94 lbs/sq inch		



	<i>8'12</i>	<i>10'12</i>	<i>11'12</i>	<i>13'12</i>	<i>14'12</i>
<b>A</b>	11'-1"	10'-11"	11'-7"	11'-4"	11'-8"
<b>B</b>	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"
<b>C</b>	NA	NA	NA	NA	NA
<b>D</b>	11'-7"	10'-10"	10'-10"	10'-5"	10'-5"
<b>E</b>	14'-2"	13'-6"	13'-6"	13'-1"	13'-1"
<b>F</b>	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
<b>G</b>	22'-1"	22'-3"	22'-3"	20'-11"	20'-11"
<b>H</b>	1'-7"	1'-6"	1'-6"	1'-6"	1'-6"
<b>I</b>	15'-6"	20'-1"	20'-1"	21'-10"	21'-10"
<b>J</b>	22'-8"	30'-7"	30'-7"	34'-5"	34'-5"
<b>K</b>	13'-5"	13'-6"	13'-6"	13'-6"	13'-6"
<b>L</b>	16'-0"	22'-0"	22'-0"	25'-6"	25'-6"
<b>M</b>	11'-6"	12'-0"	12'-0"	12'-2"	12'-2"
<b>N</b>	1'-5"	1'-5"	1'-5"	1'-5"	1'-5"
<b>O</b>	10'-4"	11'-2"	11'-2"	11'-8"	11'-8"
<b>P</b>	16'-8"	18'-2"	18'-2"	18'-0"	18'-0"

## DIMENSIONS



## Specifications



### 22 SERIES

The low side of the grain cart features a bolt-on tank design that extends toward the combine auger for an additional two feet, giving both the combine and grain cart operators more room to navigate in the field without overlap.

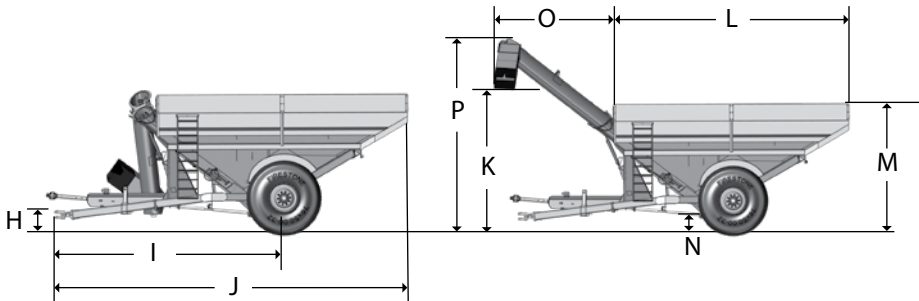
SPECIFICATIONS	1122	1222	1522
<b>Single Wheel Option</b>			
Capacity	1,130 Bushels	1,250 Bushels	1,475 Bushels
Auger, One Vertical	20" Bullet	20" Bullet	20" Bullet
Unload Time (minutes)	1.9 minutes	2.1 minutes	2.5 minutes
Wheels (2)	30x32, 32x36 or 44x32	44x32	44x32
Tires (2)	900/60R32, 1050/50R32, or 1250/50R32	1250/50R32	1250/50R32
Hubs (2)	10 Bolt or 20 Bolt	10 Bolt or 20 Bolt	10 Bolt or 20 Bolt
Spindles (2)	6" Diameter	6" Diameter	6" Diameter
<b>Tongue Weight</b>			
Empty	2,900 lbs.	2,900 lbs.	3,000 lbs.
Loaded	4,200 lbs.	4,200 lbs.	4,800 lbs.
<b>Total Weight (approx.)</b>	14,600 lbs.	14,800 lbs.	16,900 lbs.
<b>Walking Tandem Dual Wheels</b>			
Capacity	1,105 Bushels	1,225 Bushels	
Wheels (4)	16x42, 18x38, 18x42	18x42 Heavy	
Tires (4)	480/80R42, 520/85R38 or 520/85R42	520/85R42	
Spindles (4)	4 1/2" Diameter	4 1/2" Diameter	
<b>Total Weight (approx.)</b>	17,600 lbs.	17,800 lbs.	
<b>Tracks Option</b>			
Capacity	1,155 Bushels	1,275 Bushels	1,500 Bushels
<b>Total Weight (approx.)</b>	22,800 lbs.	23,200 lbs.	24,300 lbs.
Compaction Rate	10.67 lbs/sq inch	11.96 lbs/sq inch	13.69 lbs/sq inch
Compaction Rate LT Series	14.94 lbs/sq inch		



\* Bushel capacity measured with #2 corn at 15% moisture content (56 lb. test weight)

\*\* Time varies with RPM and moisture content of grain

## DIMENSIONS



	1122	1222	1522
A	10'-11"	11'-7"	11'-4"
B	11'-9"	11'-9"	11'-9"
C	2'-0"	2'-0"	2'-0"
D	10'-10"	10'-10"	10'-5"
E	13'-6"	13'-6"	13'-1"
F	10'-0"	10'-0"	10'-0"
G	22'-3"	22'-3"	20'-11"
H	1'-6"	1'-6"	1'-6"
I	20'-1"	20'-1"	21'-10"
J	30'-7"	30'-7"	34'-5"
K	13'-6"	13'-6"	13'-6"
L	22'	22'	25'-6"
M	12'	12'	12'-2"
N	1'-5"	1'-5"	1'-5"
O	11'-2"	11'-2"	11'-8"
P	18'-2"	18'-2"	18'-0"

## General Information

### BOLT TORQUE CHART

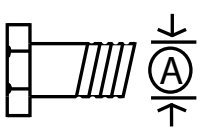
Always tighten hardware to these values unless a different torque or tightening procedure is listed for specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for Metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 & J1701M (JUL 96)



### SAE SERIES TORQUE CHART



SAE Grade 2  
(No Dashes)

SAE Bolt Head  
Identification

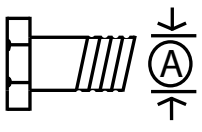


SAE Grade 5  
3 Radial Dashes



SAE Grade 8  
6 Radial Dashes

Ⓐ Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		LBS.-FT.	N-m	LBS.-FT.	N-m	LBS.-FT.	N-m
1/4	7/16"	6	8	10	13	14	18
5/16	1/2"	12	17	19	26	27	37
3/8	9/16"	23	31	35	47	49	67
7/16	5/8"	36	48	55	75	78	106
1/2	3/4"	55	75	85	115	120	163
9/16	13/16"	78	106	121	164	171	232
5/8	15/16"	110	149	170	230	240	325
3/4	1-1/8"	192	261	297	403	420	569
7/8	1-5/16"	306	416	474	642	669	907
1	1-1/2"	467	634	722	979	1020	1383

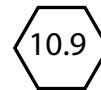


### METRIC SERIES TORQUE CHART



Metric  
Grade 8.8

Metric Bolt Head  
Identification



Metric  
Grade 10.9

Diameter & (Millimeters) Thread Pitch	Wrench Size	COARSE THREAD				FINE THREAD				Diameter & (Millimeters) Thread Pitch
		MARKING ON THREAD				MARKING ON THREAD				
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12.1.75	18 mm	68	50	94	70	75	55	103	76	12.1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0

### TIGHTENING WHEEL NUTS

Standard 3/4" wheel studs and nuts should be tightened to torque 500 Ft.-Lbs and standard 22mm studs should be tightened to torque 700 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 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.

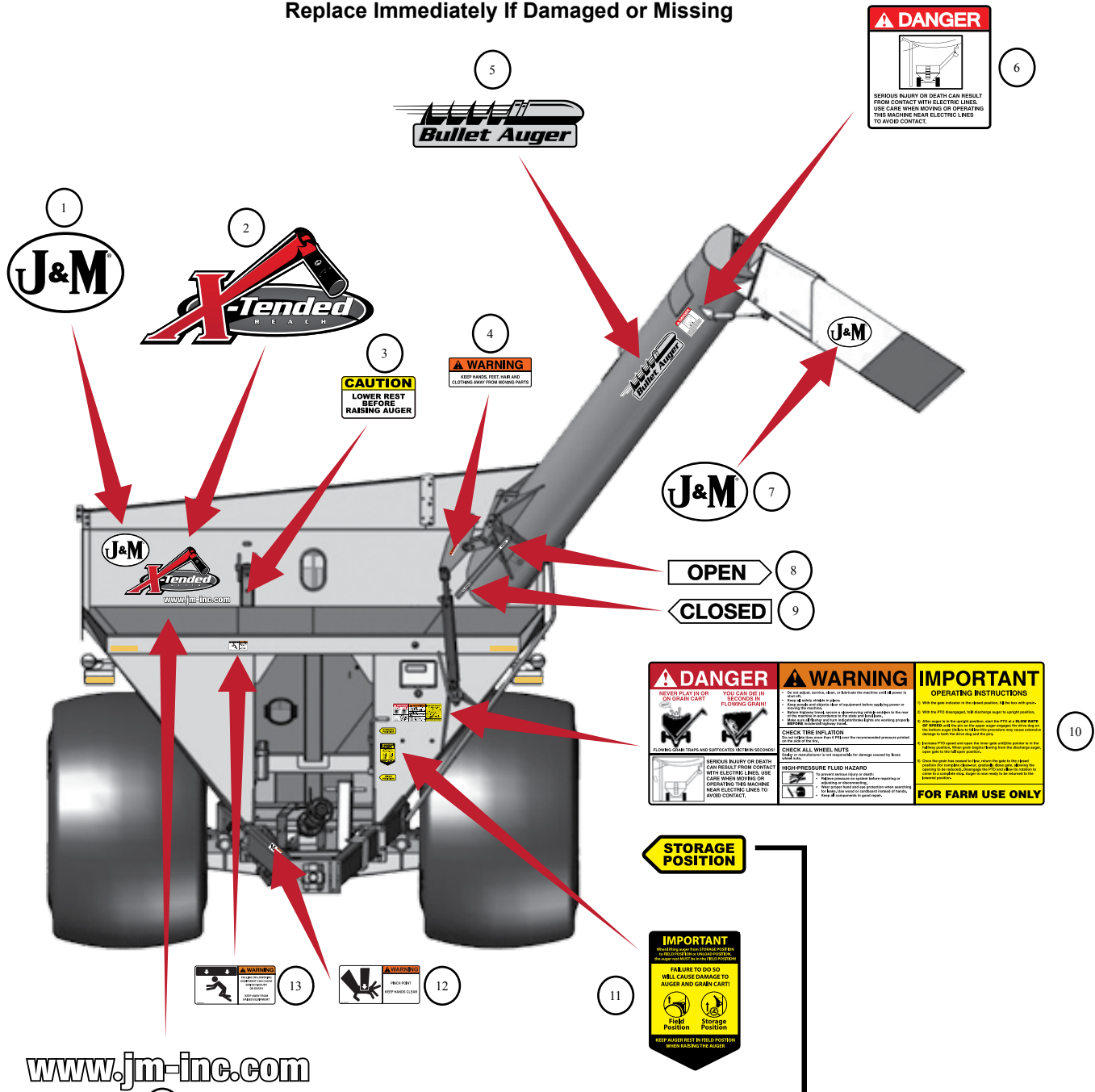
Never operate the auger system with anyone inside the grain tank. Hands, feet, hair and clothing can fit through the openings in and around the grate. Contact with the auger can cause severe injury or death. Make certain that all power is shut off before service work is performed.

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.

# Safety Rules

⚠ **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!** ⚠

Replace Immediately If Damaged or Missing



#	Description	Part #
1	J&M Oval Decal, Large	JM0015151
2	X-tended Reach	JM0037663
3	Caution Lower Rest	JM0037662
4	Warning, Keep Hands Away	JM0018039
5	Bullet Auger	JM0037664
6	Danger, Electric Lines	JM0015099
7	J&M Oval Decal, Medium	JM0010179
8	Open	JM0025433
9	Closed	JM0025434
10	Danger Warning Important	JM0037665
11	Field Position/Storage Position	JM0037661

# Safety Rules



6



18



19



22

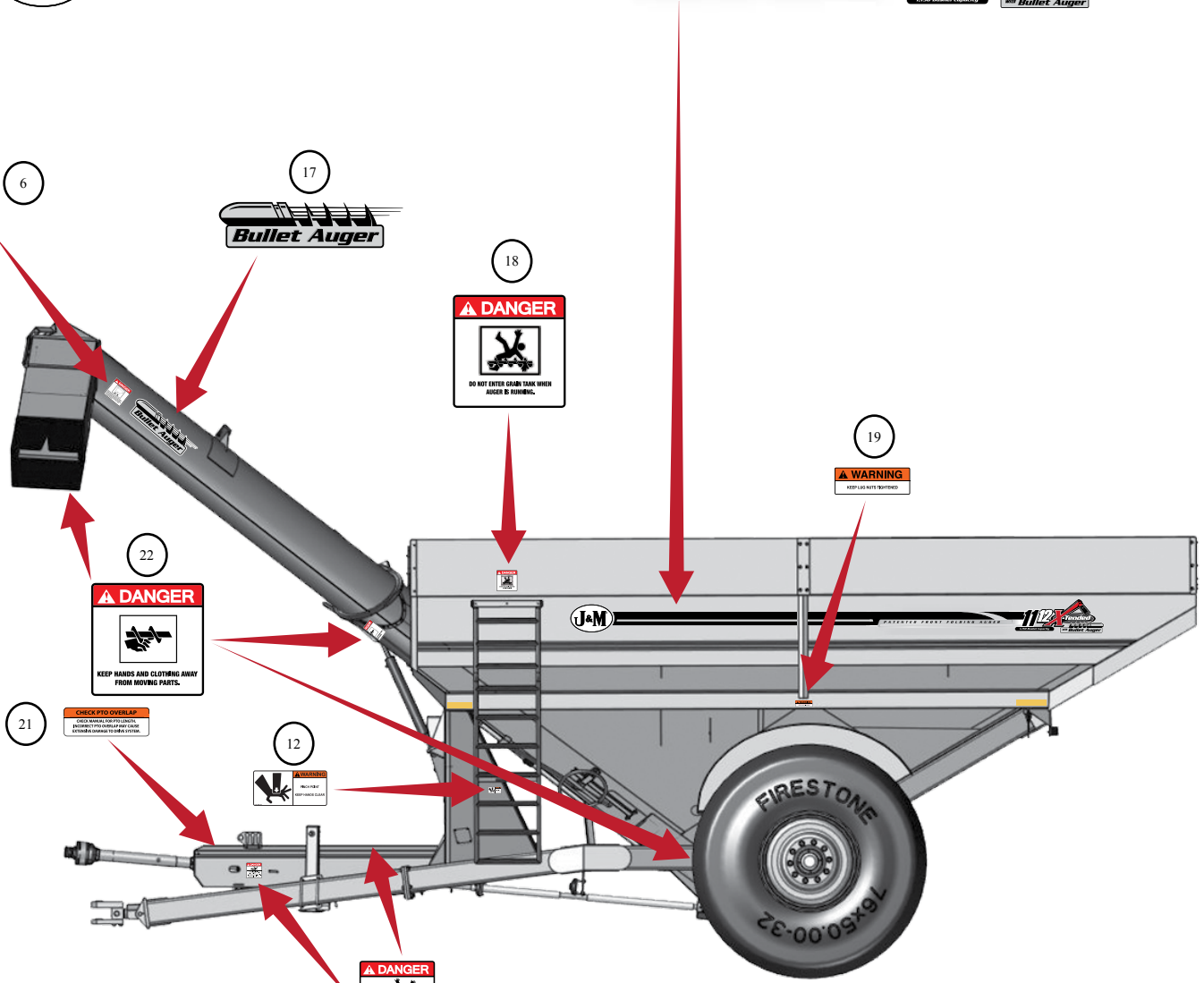
21



12



20



#	Description	Part #
12	Warning, Pinch Point	JM0014994
13	Warning, Falling/Lowering	JM0014992
14	www.jm-inc.com	JM0019239
15	OAS Stripe Kit	Specify
16	AS Stripe Kit	Specify
17	Bullet Auger	JM0037664
18	Danger, Do Not Enter Tank	JM0018033
19	Warning, Lug Nuts	JM0010150
20	Danger, Rotating Driveline	JM0018036
21	Check PTO Overlap	JM0025435
22	Danger, Keep Hands Away	JM0018035

**⚠ 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 EP-80-90 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 BEARINGS:** Are all bearings on the drive line properly greased? Are all set screws in the bearings and U-joints tight? Has the power-take-off 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?

**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 should stand up with no side wall buckling or distress as the tire rolls. Do Not Exceed The Tire Pressure Indicated Below:**

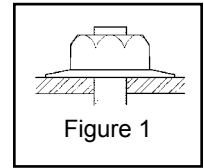
Tire Size	psi
24.5 x 32-R3-2-16	24
30.5 x 32-R1-2	34
30.5 x 32-R1-2-18	36
800/60R32-R3-2	46
900/60R32-R1-2-185	57
66 x 43.00-R1-2	35
900/60R32-R1-2	41
900/60R32-R1-2A	66
35.5 x 32-R3-2	26
1050/50R32-R1-2	56
1250/50R32-R1-2-188	46
480/80R42-4	29
520/85R38-4	29
520/85R42-4	44
900/60R32-R1-2-193	66

## 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 700 Lbs.-Ft. for standard 22mm wheel studs and nuts. Torque to 500 Lbs.-Ft. for 3/4" wheel studs and nuts. Torque to 350 Lbs.-Ft. for 5/8" 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.**

Preparing the Grain Cart for Use: Model 812 requires a 150+ HP Tractor. Models 1012, 1112, and 1122 requires a 225+ HP Tractor. Models 1222, and 1312 requires a 250+ HP Tractor. Models 1412 and 1522 require a 300+ 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.

**Road Travel (grain cart empty):** Do not travel more than 32 km/hr (20 mph) 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

- Secure the safety chain by looping it around the each side of the grain cart as shown and connecting to the towing machine's attaching bar.
- 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 removed 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.

Continues on next page.

## Operating Instructions (Continued)

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.

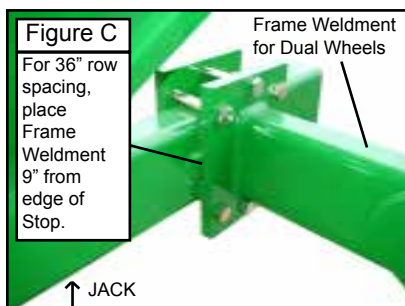
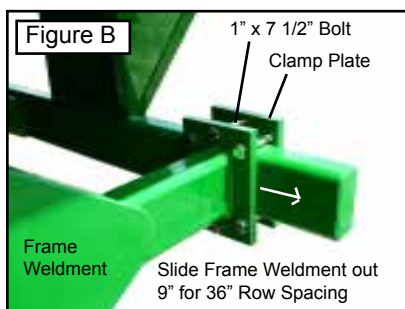
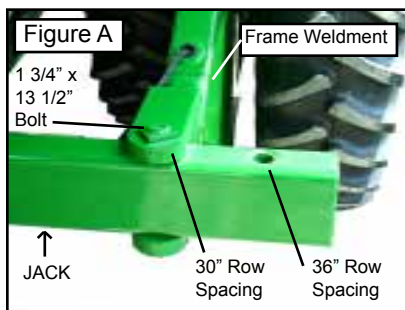
6) Run the auger system EMPTY before loading grain into the tank for actual use. Make certain that the slip clutch is operating and that the upper and lower augers are properly engaged.

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 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.

## Adjusting Row Spacing For Walking Tandem Duals



1) Securely position jacks under the frame of the grain cart as shown in Figures A and C.

2) Loosen the rear of the Frame Weldment by removing the 1" x 7 1/2" Gr 8 Bolts and Clamp Plate.

3) Remove the 1 3/4" x 13 1/2" Bolt and Jam Nut from the front of the Frame Weldment.

4) Slide the Frame Weldment out to the bolt location for 36" row spacings as shown in Figure A and secure using the 1 3/4" x 13 1/2" bolt and jam nut. If the grain cart is equipped with an electronic scale system, be sure not to damage the electronic cord when moving the Frame Weldment.

5) Swing the Frame Weldment outward. Switch the tire location by removing both tires and remounting each tire to the hub on the opposite side of the weldment. The tire originally on the outside of the weldment will now be located on the inside of the weldment and vice versa. (The valve stems for 36" row spacing should be facing toward the Frame Weldment, or toward each other.) Be sure to keep the tire tread positioned in the same direction as before.

6) After the wheels have been tightened to the hubs, swing the Frame Weldment until the new clamping location is 9" from the original 30" row spacing stop.

7) Tighten the rear of the Frame Weldment to the grain cart frame using the six 1" x 7 1/2" Gr 8 Bolts, Hex Nuts and Clamp Plate.

8) Torque all bolts to specifications and Repeat on Other Side.



## 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**

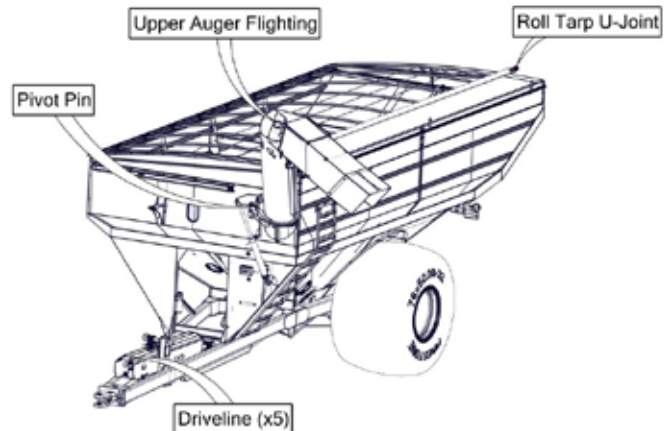
**PTO & DRIVELINE:** The grease fittings on the PTO should be serviced after every 8 hours of use. Service the grease fittings on each of the drive bearings and also the universal joint after every 8 hours of use.

**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.

**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)(18" & 20" auger gearbox) or **96 ounces** (22" auger gearbox) of gearbox lubricant. **DO NOT OVERFILL.** Use EP 80-90 gearbox lubricant or equivalent. To clarify which gearbox you have, measure the diameter of the output shaft. The output shaft connects the gearbox to the flighting. The 18" & 20" gearboxes will have a 1-3/4" output shaft along with a 1-3/4" input shaft. The 22" gearbox will have a 2" output shaft along with a 1-3/4" input shaft.

Gearbox Lubricant			
Model	Ounces	Input Shaft	Output Shaft
812	24	1-3/4"	1-3/4"
1012	96	1-3/4"	2"
1112	96	1-3/4"	2"
1122	96	1-3/4"	2"
1222	96	1-3/4"	2"
1312	96	1-3/4"	2"
1412	96	1-3/4"	2"
1522	96	1-3/4"	2"



Pivot Pin	Once Annually	Upper Auger Flighting	Every 8hrs of use.
Roll Tarp U-Joint	Once Annually	Driveline	Every 8hrs of use.

## 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 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 SERVICEMEN ONLY.**

Trouble...	Possible Cause...	Possible Remedy...
Auger will not return to down position or move from stow position.	<p>Dirt In Restrictor (see pg. 17)</p> <p>Faulty Check Valve</p> <p>Upper flighting and lower flighting are locked together (see pg. 16)</p>	<p>Remove restrictor fittings from outside hydraulic cylinder and clean out dirt</p> <p>Replace Check Valve</p> <p>Bearing on top of upper auger flighting need 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 UPPER AUGER FLIGHTING)</p>
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 (See pg.17)	<p>Loosen the two bolts and re-adjust the position of the hanger bushing assembly. Re-tighten bolts.</p> <p>Remove the lower flighting assembly and place a shim between the spline coupler and the gearbox.</p>
Excessive Vibration	<p>Auger flighting or shaft is bent</p> <p>Drive shaft is bent</p>	<p>Straighten or replace auger flighting</p> <p>Replace or straighten drive shaft</p>
Grain flow stoppage	<p>Bolt sheared in drive dog</p> <p>Folding auger before complete stop</p> <p>PTO key sheared</p>	<p>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.)</p> <p>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.</p> <p>Replace key and tighten set screw.</p>
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 Filed position tighten cable to the handle.



## Adjusting the Lower Flighting

### WARNING

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

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 3/8" 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. See instructions on pg. 36 for flighting removal. 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 2 3/8" 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.

## Adjusting the Upper Flighting

### WARNING

#### **MAKE SURE ALL POWER IS SHUT OFF BEFORE ADJUSTING THE FLIGHTING ASSEMBLY**

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 dirt is in the restrictor or if a faulty check valve on the hydraulic cylinder used to raise and lower the upper auger assembly may be causing the problem. If dirt is in the restrictor, see "Removing Dirt From Restrictors On Hydraulic Cylinders" below.

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.

## 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 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 it's life.

Follow the procedure below when your grain cart is placed in storage for periods up to six months.

1. Cover electronic monitor (if equipped) with plastic before washing the grain cart. Wash or clean and completely lubricate the grain cart. See the lubrication service section in this manual.
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 EP 80-90 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. If the grain cart is equipped with an electronic weigh system, fully charge the battery to prevent freezing. Disconnect the negative (-) ground cable at the battery to prevent possible discharge.
7. Clean the tires before storage. Inflate the tires at regular intervals.
8. Open the clean-out door at the base of the grain tank.

## Removing From Storage

- Check the gearbox to make sure it has the appropriate amount of oil.
- If equipped with an electronic scale system, check the battery and make sure that it is fully charged. Reconnect the negative (-) cable.
- Inflate the tires to the correct operating pressure.
- Close the clean out door at the base of the grain tank.
- 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.**

### WHEEL RIMS FOR GRAIN CARTS

Description	Part. No.
Wheel Rim, 10 hole, 16x42 (11.13 pilot) (13.19 bolt circle)	JM0020015
Wheel Rim, 10 hole, 18x38 (11.13 pilot) (13.19 bolt circle)	JM0020014
Wheel Rim, 10 hole, 18x42 (11.13 pilot) (13.19 bolt circle)	JM0020016
Wheel Rim, 10 hole, 21x32 (11.13 pilot) (13.19 bolt circle)	JM0020025
Wheel Rim, 10 hole, 25x36 (11.13 pilot) (13.19 bolt circle)	JM0020048
Wheel Rim, 10 hole, 27x32 (11.13 pilot) (13.19 bolt circle)	JM0020027
Wheel Rim, 10 hole, 31x32 (3 piece) (11.13 pilot) (13.19 bolt circle) (for 35.5x32 R-3 Tires)	JM0020037
Rubber O-Ring Seal for 31x32-10 Wheel Rim (52-49469-00)	JM0020030
Wheel Rim, 10 hole, 32x36 (11.13 pilot) (13.19 bolt circle)	JM0020051
Wheel Rim, 10 hole, 30x32 (11.13 pilot) (13.19 bolt circle)	JM0020005
Wheel Rim, 10 hole, 32x36 (3 piece) (11.13 pilot) (13.19 bolt circle)	JM0020052
Wheel Rim, 10 hole, 44x32 (11.13 pilot) (13.19 bolt circle)	JM0020054

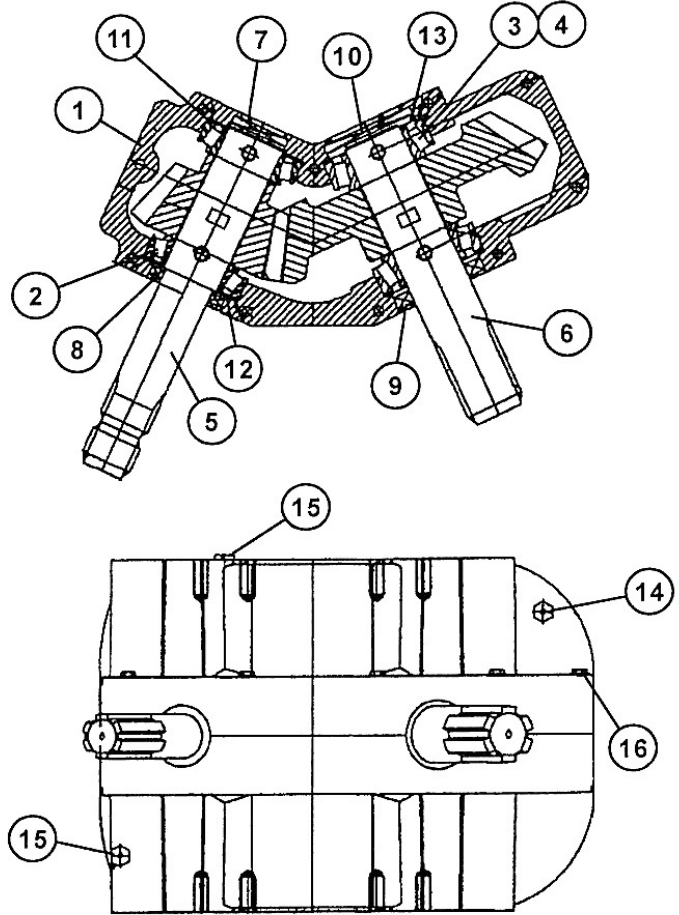
### TIRES FOR GRAIN CARTS

Description	Part. No.
480/80R42 Lug Tire, 12 ply (for 16x42-10 wheel)	JM0020038
520/85R38 Lug Tire, 154 LI (for 18x38-10-8.7 and 18x38-10 wheels)	JM0020418
520/85R42 Lug Tire, 162 LI (for 18x42-10 wheel)	JM0020040
30.5x32-R1-2-18 Lug Tire, 18 ply	ALLIANCE
30.5x32 Lug Tire, 12 ply (for 27x32-10 wheel)	JM0017665
35.5x32 Diamond Tire, 20 ply (for 31x32-10 3-piece wheel)	JM0021557
66x43.00 Lug Tire, 16 ply (for 25x36-10 wheel)	JM0021535
800/60R32-R3-2 Diamond, 181LI (for 27x32-10 wheel)	JM0021551
900/60R32 Lug Tire, 176 LI (for 27x32-10HD heavy duty or 31x32-1P-10 one piece wheel)	JM0017662
900/60R32-R1-2 Lug Tire, 176 LI (for 30x32-10 wheel)	ALLIANCE
1050/50R32 Lug Tire, 185 LI ( for 32x36 1Piece wheel)	ALLIANCE
1250/50R32 Lug Tire, 188 LI (for 44x32 wheel)	JM0021014
24.5x32 Diamond Tire, 16 ply (for 21x32-10HD heavy duty wheel)	JM0021549

**130 Degree Gearbox Assembly for 20" Diameter Turbo Augers (WEASLER)  
For Models 1012, 1112, 1312, 1412, 1122, 1222 & 1522 Grain Carts**

#	Description	Part. No.
1	Housing Set (70-001114)	JM0025053
2	Bearing, 32210 (71-20017)	JM0025054
3	Bearing Cone, 3780 (71-20044)	JM0025055
4	Bearing Cup, 3720 (71-20033)	JM0025056
5	1-3/4" Input Shaft & Gear Assembly (74-60123)	JM0025057
6	2" Output Shaft & Gear Assembly (74-60125)	JM0025058
7	End Cap Seal, 2" x .276" (71-40016)	JM0025060
8	Seal, 1.75" x 2.717 x .513 (71-40052)	JM0025061
9	Seal, 2 x 3.196 x .433 (71-40080)	JM0025062
10	End Cap Seal, 3.19 x .315 (71-40079)	JM0025063
11	Spacer (71-50160)	JM0025064
12	Spacer (71-50161)	JM0025065
13	Spacer (71-50172)	JM0025066
14	1/2" Bushing 1/8" Relief Plug (72-20011)	JM0025067
15	1/2" Pipe Plug (72-20007)	JM0025068
16	Cap Screw 3/8"-16 UNC x 2.52" (72-0002)	JM0025069
17	130 Degree Gearbox Complete (130-22W)	JM0018677

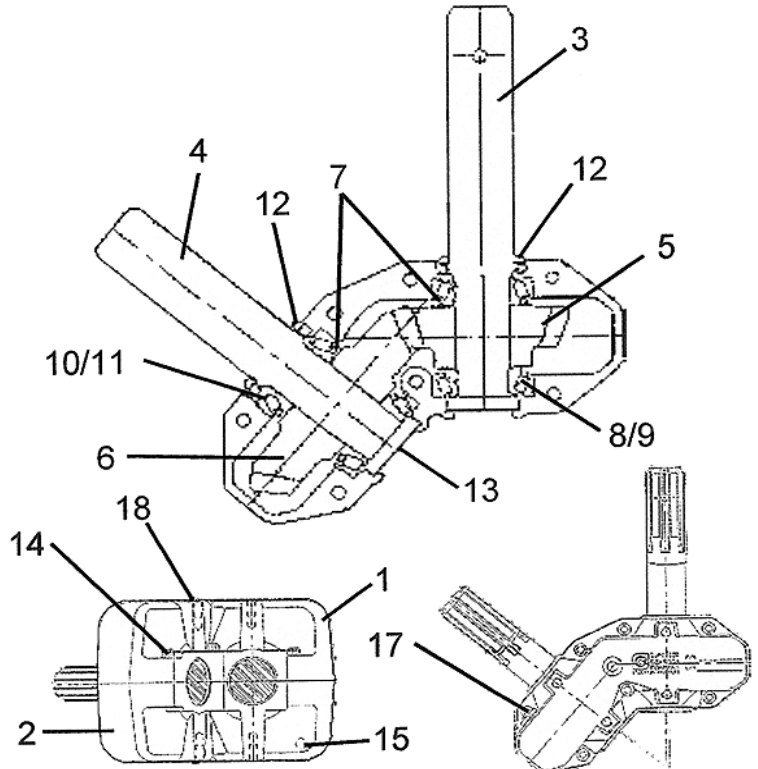
Takes 3 Quart (96 Ounces) of EP 80-90 Gearbox Lubricant.



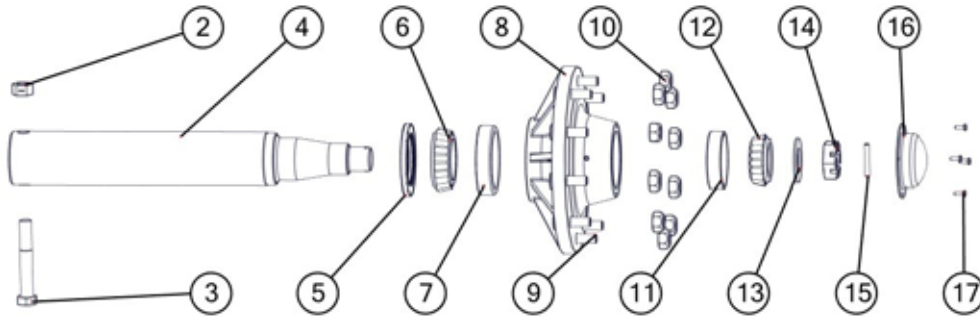
**130 Degree Gearbox Assembly for 18" Diameter Augers (SUPERIOR)  
For Model 812 Grain Carts (TURBO AUGER)**

#	Description	Part. No.
1	Casting, Upper Half (A0150)	JM0025088
2	Casting, Lower Half (A0149)	JM0025089
3	1-3/4" Input Shaft (A0142)	JM0025090
4	1-3/4" Output Shaft (A0143)	JM0025091
5	18 Tooth Gear (H61S18)	JM0025092
6	29 Tooth Gear (H61S29)	JM0025093
7	Shim, Arbor (H00101-01)	JM0025094
8	Bearing, Cup (414276)	JM0025077
9	Bearing, Cone (514137)	JM0025078
10	Bearing, Cup (413620)	JM0025095
11	Bearing, Cone (413687)	JM0025096
12	Seal (617285)	JM0025097
13	End Cap (400301)	JM0025076
14	Bolt (438225)	JM0025085
15	Plug (400300)	JM0025080
16	Bushing (4003VB)	JM0025073
17	Plug, Vent (2003PR)	JM0025081
18	Plug (200300)	JM0025075
19	130 Degree Gearbox Complete (H130-9)	JM0017840

Takes 3/4 Quart (24 Ounces) of EP 80-90 Gearbox Lubricant.



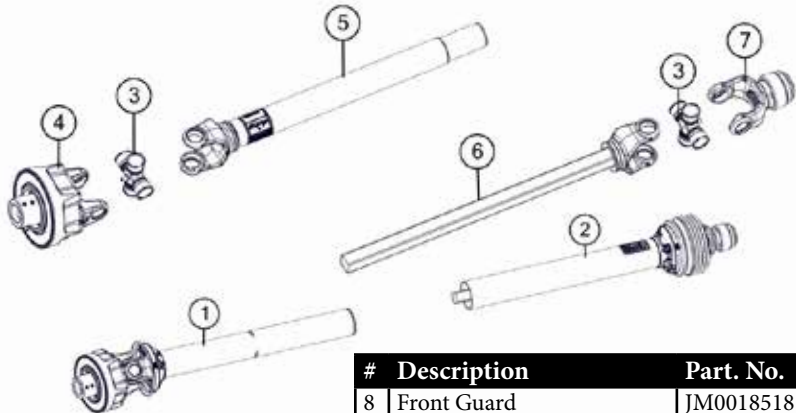
**HUB & SPINDLE ASSEMBLY 250-10**  
 For Models 1112, 1312, 1412, 1122, 1222 & 1522 Single  
 Grain Carts with 6" Diameter Spindles



#	Description	Part. No.
1	Hub and Spindle Assembly Complete with 3/4"-16 Studs and Nuts (HSA-1075-34)	JM0025709
1	Hub and Spindle Assembly Complete with 22MM Studs and Nuts (HSA-1075-22)	JM0019927
2	1"-8 Gr5 Z Centerlock Hex Nut (HLN-1)	JM0002149
3	1"-8 x 8" Gr5 Z Hex Bolt (165450)	JM0001487
4	6" Spindle - 29-3/4" Long (628)	JM0019102
5	Seal 55179 (Type C) for G250-10,G300-10B, Spring-assisted (CR55179)	JM0019179
6	Large Bearing (71455)	JM0019112
7	Large Race (71750)	JM0019198
8	Hub with studs & nuts (13.19 bolt circle) (11.13 pilot)(H25000)	JM0019300
8	Hub with large and small races 3/4"-16 Studs & Nuts (1050 & 1075 Carts prior to 2006) (H25000-34)	JM0019927
9	Stud 22MM 1.5 x 9MM 3.55L 1.005 Knurl (22-MMS)	JM0019178
9	3/4"-16 Wheel Stud (for 1050 and 1075 carts prior to 2006)(750-35)	JM0025710
10	22 MM Lug Nut (22-MMNW)	JM0019192
10	3/4"-16 Wheel Nut (for 1050 and 1075 carts prior to 2006)(913571)	JM0018958
11	Small Race (653)	JM0019195
12	Small Bearing (663)	JM0019177
13	Large Spindle Washer (913632)(EM-25M)	JM0019106
14	Large Castle Nut (SF-2512)	JM0019108
15	3/8" X 3-1/2" Z Roll Pin (3754)	JM0020001
16	6" Diameter Spindle Dust Cap (D-25000)	JM0019109
17	1/4"-20 X 1" Gr5 Z Hex Bolt (141G5B)	JM0002095

**Power Take-Off (PTO) Shaft Assembly**  
 1-3/4" Weasler - Black in Color  
 Used on all Extended Reach Grain Carts

#	Description	Part. No.
1	Back Half PTO	JM0018513
1	Back Half PTO (XL)	JM0030331
2	1-3/4" Front Half PTO	JM0018514
2	1-3/4" Front Half PTO (XL)	JM0030330
2	1-3/8" Front Half PTO	JM0024367
2	1-3/8" Front Half PTO (XL)	JM0030640
3	55ECross Kit	JM0018449
4	Auto Clutch	JM0018500
5	Yoke, Tube & Sleeve	JM0018519
5	Yoke, Tube & Sleeve (XL)	JM0031647
6	Yoke & Shaft Assembly	JM0018520
6	Yoke & Shaft Assembly (XL)	JM0031648
7	1-3/4" Spring Lock Yoke	JM0018506
7	1-3/8" Spring Lock Yoke	JM0024353



#	Description	Part. No.
8	Front Guard	JM0018518
8	Front Guard (XL)	JM0030642
8	Back Guard	JM0018517
8	Back Guard (XL)	JM0030645
9	1-3/4" PTO Complete	JM0018443
9	1-3/4" PTO Complete (XL)	JM0030332
9	1-3/8" PTO Complete	JM0024333
9	1-3/8" PTO Complete (XL)	JM0030641

**HUB & SPINDLE ASSEMBLY W-891**  
**1012 Grain Cart with 4-1/2" Diameter Stress-Proof Spindle**

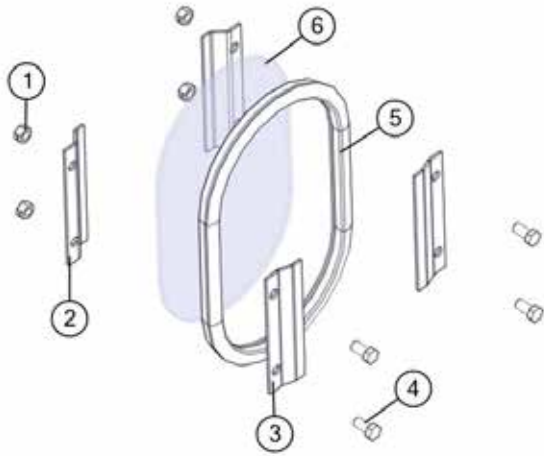
#	Description	Part. No.
1	Hub and Spindle Assembly Complete (1000-20)(Non-Scale)(HSA-1000)	JM0019942
2	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
3	1" x 7" Gr5 Z Hex Bolt (165400)	JM0016689
4	4-1/2" x 20-1/4" Spindle (1144 Stress-Proof)(281900S)	JM0019937
5	Seal (6" OD) 1-906979 (CR-43771)	JM0018955
6	Large Bearing (910346)	JM0018849
7	Large Race (HM212049) (910344)	JM0018848
8	891 Hub with large and small races, 22MM studs & nuts(W-891)	JM0021227
9	22MM x 90MM Wheel Stud (22-MMS)	JM0019178
10	22 MM Lug Nut (22-MMNW)	JM0019192
11	Small Race (HM212011)	JM0018854
12	Small Bearing (910347)	JM0018852
13	Spindle Washer (913635)	JM0015900
14	Large Castle Nut (912973)	JM0015899
15	Cotter Pin (905945)	JM0018956
16	Dust Cap (909921)	JM0018954
17	1/4"-20 X 1" Gr5 Z Hex Bolt (141G5B)	JM0002095

**HUB & SPINDLE ASSEMBLY W-881**  
For Model 812 and all Walker Equipped Grain Carts with 4-1/2" Diameter Spindles

#	Description	Part. No.
1	Hub and Spindle Assembly Complete 20-1/4" (3/4" Studs) (HSA-650D) (Walking Tandem Duals)(FAA)	JM0019940
1	Hub and Spindle Assembly Complete 30-1/2" (3/4" Studs) (Standard Axle)	JM0022057
1	Hub and Spindle Assembly Complete 30-1/2" (22MM Studs) (Standard Axle)	JM0034488
1	Hub and Spindle Assembly Complete 27-1/2" (3/4" Studs)(30.5 Tire & Smaller) (Fully Adjustable Axle)	JM0034483
1	Hub and Spindle Assembly Complete 27-1/2" (22MM Studs)(900 Tire & Larger) (Fully Adjustable Axle)	JM0034354
2	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
3	1" x 7" Gr5 Z Hex Bolt (165400)	JM0016689
4	4-1/2" Spindle x 30-1/2" (281900)	JM0018794
4	4-1/2" x 27-1/2" Spindle (For 5-Point Scale)	JM0007132
4	4-1/2" x 20-1/4" Spindle (1144 Stress-Proof)	JM0019937
5	Seal (6" OD - 3-3/4" ID) for hub w/ scales (since March 2000)(750-35)	JM0021456
5	Seal (6" OD) 1-906979 (CR-43771)	JM0018955
6	Large Bearing (910346)	JM0018849
7	Large Race (HM212049)	JM0018848
8	Hub with large and small races, 3/4" studs & nuts (13.19 bolt circle) (11.13 pilot)(W-881)	JM0020510
8	Hub with large and small races, 22MM studs & nuts (13.19 bolt circle) (11.13 pilot)(W-881)	JM0034356
9	3/4"-16 Wheel Stud (913564)	JM0018957
9	22mm Wheel Stud	JM0019178
10	3/4"-16 Wheel Nut (913571)	JM0018958
10	22mm Wheel Nut	JM0019192
11	Small Race (HM212011)	JM0018854
12	Small Bearing (910347)	JM0018852
13	Spindle Washer (913635)	JM0015900
14	Large Castle Nut (912973)	JM0015899
15	Cotter Pin (905945)	JM0018956
16	Dust Cap (909921)	JM0018954
17	1/4"-20 X 1" Gr5 Z Hex Bolt (141G5B)	JM0002095



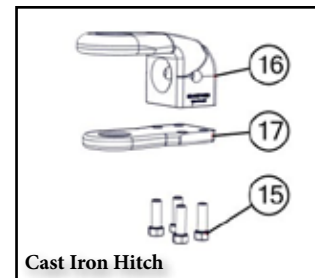
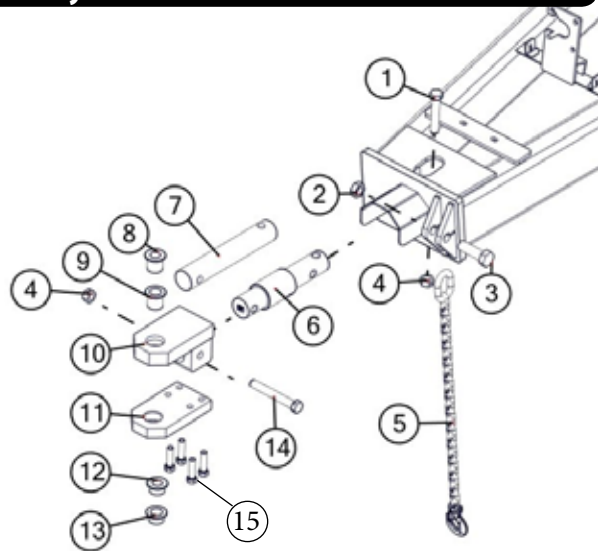
## Inspection Windows



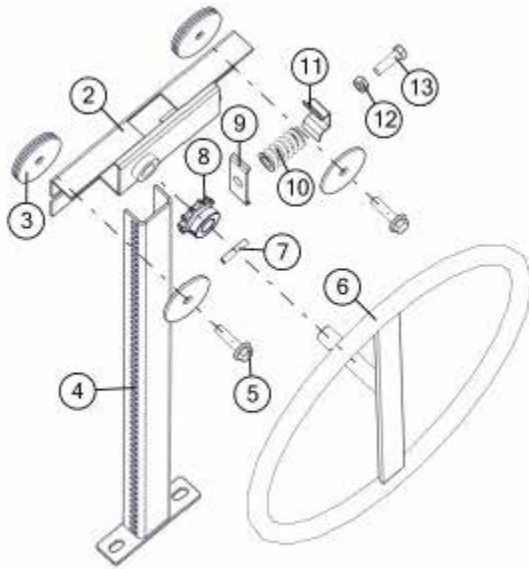
#	Description	Part. No.
1	3/8"-16 Gr5 Z Centerlock Hex Nut (161900)	JM0001512
2	Inside Window Brace (WB-4)	JM0000253
3	Outside Window Brace (WB-4B)	JM0000256
4	3/8-16 x 3/4" Gr5 Z Hex Bolt (161000)	JM0001663
5	Oval Window Grommet (112500)	JM0002454
6	Oval Window (IW-71212)	JM0002455
7	Inspection Window Kit (IWK-1)	JM0025752

## Hitch Assembly

#	Description	Part. No.
1	1"-8 x 5-1/2" Gr5 Z Hex Bolt	JM0002110
2	1-1/4"-7 Gr5 Z Nylon Locking Hex Jam Nut	JM0027201
3	1-1/4"-7 x 4" Gr8 Z Hex Bolt	JM0026073
4	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
5	40k Lb Safety Chain	JM0029261
6	Digi-Star - 2-7/8" Weigh Bar	JM0000355
7	2-7/8" Long Non Scale Hitch Bar	JM0025227
8	1-1/4" Pin adapter for GC Spade Hitch	JM0019032
9	1-1/2" Pin adapter for GC Clevis Hitch Tang	JM0014203
10	Hitch Weldment	JM0017978
11	Draw Bar	JM0017976
12	1-1/4" Pin adapter for GC Clevis Hitch Tang	JM0019031
13	1-1/2" Pin adapter for GC Clevis Hitch Tang	JM0014206
14	1"-8 x 7-1/2" Gr8 YZ Hex Bolt	JM0017944
15	3/4"-16 x 3" Fine Thread Hex Bolt	JM0002107
16	Cast Iron Clevis	JM0020529
17	Cast Iron Spade	JM0020527

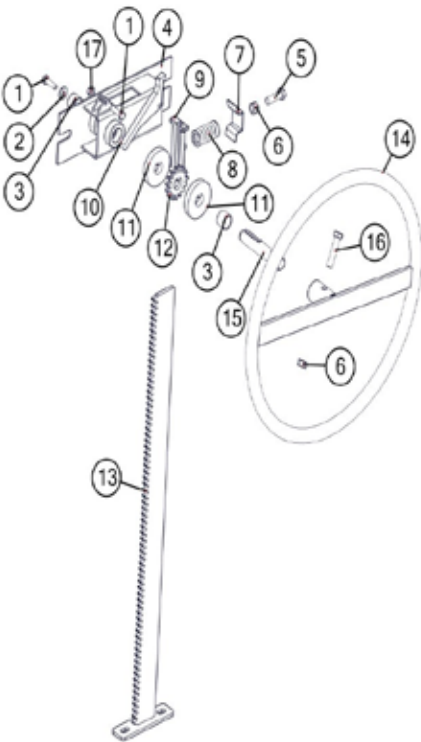


### Door Wheel Assembly (2015 & Older)



#	Description	Part. No.
1	Complete Door Wheel Assembly (20-1/4")(CWA250)	JM0018884
1	Complete Door Wheel Assembly (28")(CWA750)	JM0018879
2	Welded Guide Assembly (WGA-1034)	JM0018864
3	2-1/2" USS Flat Washer (12-W-212)	JM0018982
4	Track Assembly (20-1/4")(TA-2014)	JM0018861
4	Track Assembly (28")(TA-28)	JM0018860
5	3/8-16 x 1-1/2" Gr5 Z SF Hex Bolt (161200)	JM0001633
6	Wheel Pin & Strap Assembly (WPS-250)	JM0018871
7	1-3/8" Roll Pin (138RP)	JM0009896
8	11 Tooth Sprocket (11T40)	JM0018872
9	Galvanized Clip (GL-250)	JM0002850
10	Spring (DS-250)	JM0001688
11	Metal Clip (MC-250)	JM0002851
12	3/8"-16 Gr5 Z Hex Nut (161850)	JM0001707
13	3/8"-16 x 1-1/4" Gr5 Z Hex Bolt (161160)	JM0016675

### Door Wheel Assembly (2016 & Newer)



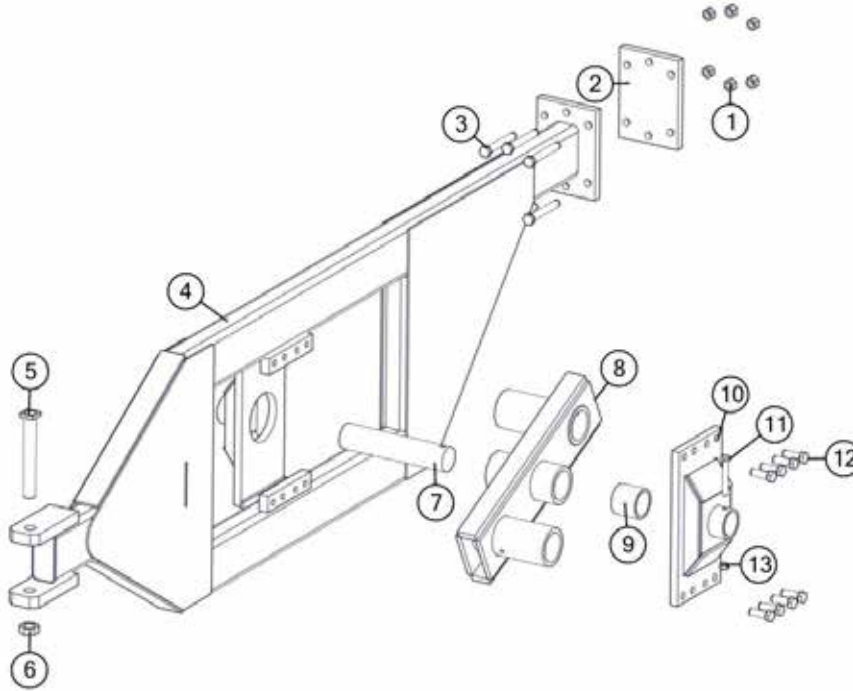
#	Description	Part. No.
1	1/4"-20 x 1" Gr5 Z Hex Bolt (141G5B)	JM0002095
2	1/4" USS Flat Washer (14-W)	JM0003090
3	.754 ID x .874 OD x .625 LG Bronze Bushing (BB-34)	JM0009455
4	Nylon Guided Rack Housing Weldment	JM0030635
5	3/8"-16 x 1-1/4" Gr5 Z Hex Bolt (161160)	JM0016675
6	3/8"-16 Gr5 Z Hex Nut	JM0001707
7	Rack Track Guide (Scrubber Plate) (MC-250)	JM0002851
8	Small Compression Spring (DS-250)	JM0001688
9	Nylon Track Guide	JM0029354
10	Flip Lock	JM0029459
11	Keyway Washer	JM0029454
12	15 Tooth Sprocket - 3/4" Bore w/ Key	JM0029455
13	Nylon Guided Rack Track 20-1/4" Weldment	JM0030651
13	Nylon Guided Rack Track 27-1/2" Weldment	JM0030634
14	Rack Wheel Weldment	JM0028898
15	Stub Shaft - 3/4" x 4-1/8" with Threaded End	JM0029440
16	Complete Nylon Door Wheel Assembly (20-1/4")	JM0030652
16	Complete Nylon Door Wheel Assembly (27-1/2")	JM0029460



## Walking Tandem Dual Wheel Assembly

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

\*Add color to Part Number

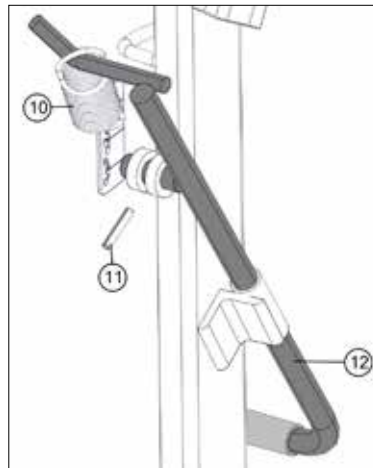
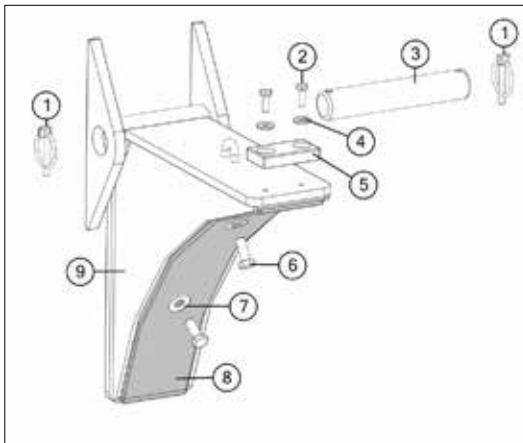


#	Description	Part. No.
1	1" -14 Gr8 YZ Hex Nut (1HNG8)	JM0019926
2	1-1/4" x 8" x 14" Clamp Plate (114814CP)	JM0010145
3	1" -14 x 7-1/2" Gr8 YZ Hex Bolt (1712G8HB)	JM0019925
4	Frame Weldment (Left)(FW-1L)	JM0019922*
4	Frame Weldment (Right)(FW-1R)	JM0010082*
5	1-3/4" x 13-1/2" Bolt (1341312HB)	JM0019981
6	1-3/4"-12 Z Gr5 Hex Jam Nut (134JN)	JM0009752
7	3-3/4" Dia. Pivot Pin (334PP)	JM0019928
8	Pivot Beam Weldment (left)(PBW-1L)	JM0010170*
8	Pivot Beam Weldment (right)(PBW-1R)	JM0010170*
9	3 3/4"ID x 4 1/2"OD Bronze Bushing (BB-334)	JM0010570
10	Pivot Center Weldment (PCW-1)	JM0010076*
11	3/4" x 5 1/2" Grade 5 Bolt (34512G5HB)	JM0015522
12	1" -14 x 3" Grade 8 Bolt (13G8B)	JM0019924
13	3/4" Lock Nut (34-LN)	JM0002147

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

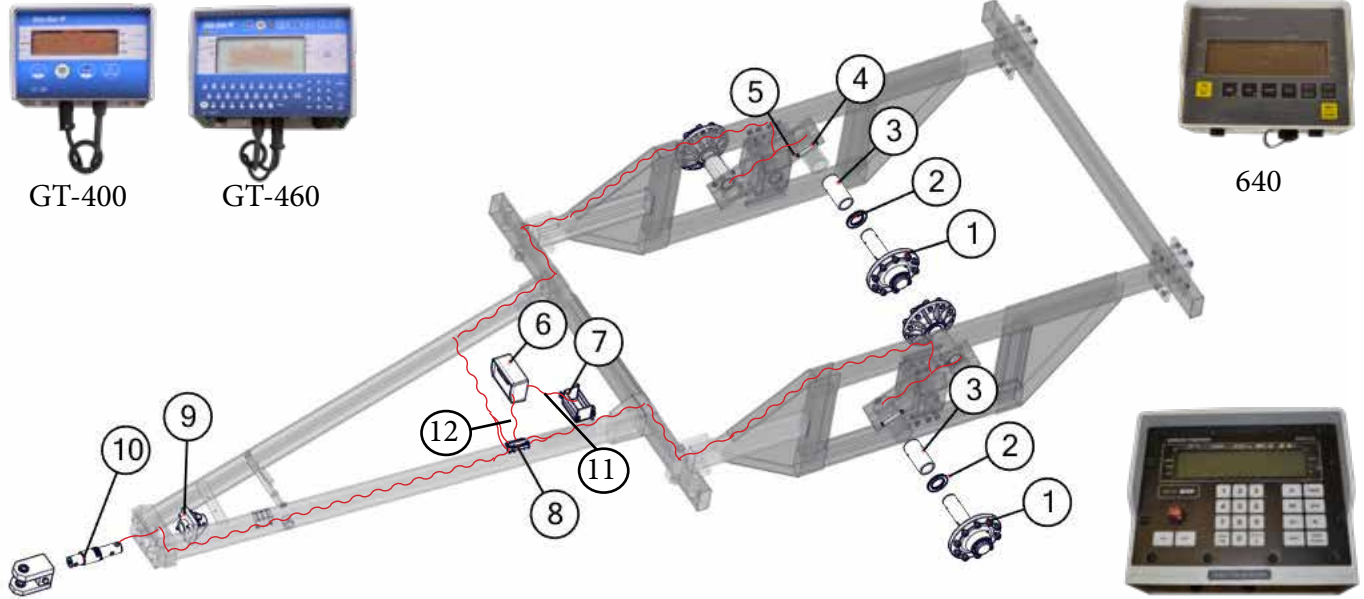
When requesting an item with color, end the part number with -R, -B, -G, or -Y. (e.g. JM0000000-R)

## Auger Rest Assembly



#	Description	Part. No
1	1/4" Dia. Snap Ring	JM0001870
2	1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507
3	Flip Up Auger Rest Pin	JM0028218
4	1/4" USS Flat Washer	JM0003090
5	Auger Rest Pad	JM0020802
6	3/8"-16 x 1" Gr5 Z Hex Bolt	JM0001592
7	3/8" USS Flat Washer	JM0003061
8	Auger Rest Guide Plate	JM0024456
9	Transport Auger Rest	JM0020538
10	Throw Handle Spring	JM0024976
11	1-3/8" Roll Pin	JM0009896
12	Auger Rest Throw Handle	JM0021843
13	Auger Rest Cable (Not Shown)	JM0037202

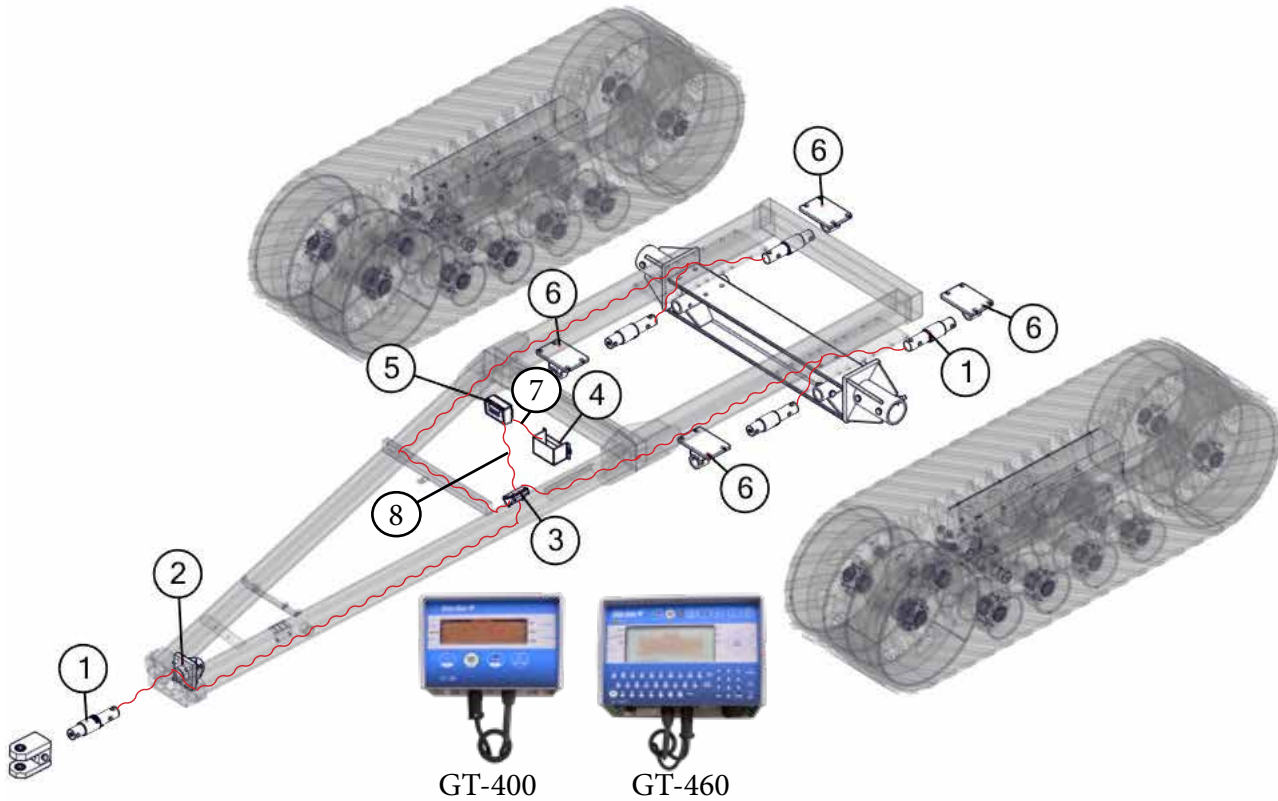
**WEIGH SCALE SYSTEMS**  
**Digi-Star & Weigh Tronix Scale System**  
**For 1112, 1312, & 1412 with Walking-Tandem Duals**



For Models 1110 Grain Carts Digi-Star Scale System		
#	Description	Part. No.
1	3-3/4" Weigh Spindle, Digi Star (375WS)	JM0021451
2	Seal for Hub (37605SA)	JM0021456
3	4-1/2" OD Adapter Pipe Tubing (ATP-375-GS)	JM0021453
4	5/8"-11 x 6-1/2" Gr5 Zinc Hex Bolt	JM0019979
5	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
6	GT400 Indicator with Serial Port EZ-150, EZ-2000, EZ-400 (GT400)	JM0019040
6	GT 460 Indicator "Upgrade" includes serial port, downloader USB port and alpha-numeric key pad (GT-460)	JM0015453
7	Battery Box with Strap (BB-2)	JM0000365
8	5 Point Junction Box (JB-5)	JM0019038
9	Weigh Bar Receiver Weldment Scales 2-7/8" (WBW-278)	JM0000019
10	Digi-Star - 2-7/8" Weigh Bar, 1000-20 through 1501-22, 5 Point Scale System (278WB-T)	JM0000355
11	Power Cord to Battery, Digi Star (PC-1)	JM0025812
12	30' Standard Cable for J-Box to Indicator (141837)	JM0025820
13	Indicator Mounting Bracket, GT460 (MBI-1)	JM0019648
14	Indicator Mounting Bracket, GT400 (MBI-1S)	JM0000361
15	10' Long Extension Cord to Mount Indicator in Cab (ECI-1)	JM0025815
16	20' Long Extension Cord to Mount Indicator in Cab (ECI-2)	JM0025816
17	Optional "Y" Cable to Connect both Printer and Downloader (403037)	JM0025817
18	Flashdrive memory stick-programmed (114991)	JM0025819

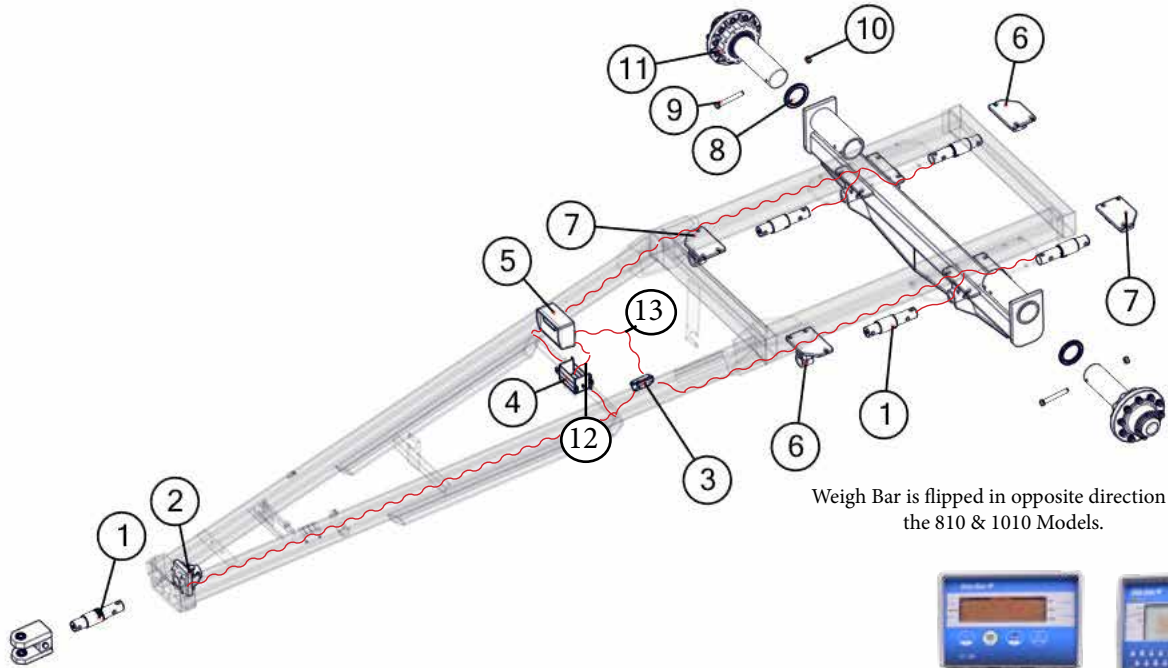
For Models 1310 and 1410 Grain Carts Weigh-Tronix Scale Systems		
#	Description	Part. No.
1	4-1/2" Weigh Spindle, Weigh-Tronix (450WTS)	JM0019970
2	Seal for Hub (37605SA)	JM0021456
4	5/8"-11 x 6-1/2" Gr5 Zinc Hex Bolt	JM0019979
5	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
6	640 Indicator w/serial port (640)	JM0019650
6	915 Indicator (upgrade) w/serial port & alpha-numeric key pad (915)	JM0025823
7	Battery Box with Strap (BB-2)	JM0000365
8	4 point Junction Box, replaces all older 3 pt junction boxes (JB-5-WT)	JM0019960
9	Weigh Bar Receiver Weldment Scales 2-7/8" (WBW-278)	JM0000019
10	2-7/8" Weigh Bar, Weigh-Tronix (278WB)	JM0019969
11	Power Cord to Battery, Weigh Tronix (PC-2)	JM0025824
12	Power Cord to Battery, 2 pin, Weigh Tronix (PC-2-2)	JM0025825
13	Standard Cable for J-box to Indicator (50613-0020)	JM0025826
14	Indicator Mounting Bracket, 640 & 915 (MBI-2)	JM0019967
15	Extension Cord to Mount Indicator In Cab (ECI-1WT)	JM0025827

**WEIGH SCALE SYSTEMS**  
**Digi-Star 5-Point Scale System**  
**For Grain Carts equipped with *STORM TRACKER* track systems**



<b>WEIGH SCALE SYSTEMS</b>		
<b>Weigh Scale Scale System for Grain Carts Equipped with <i>STORM TRACKER</i> Track Systems and 5-Point Scales Systems</b>		
#	Description	Part. No.
1	2-7/8" Weigh Bar, 1" Pin Hole (278WB-T1)	JM0000355
1	2-7/8" Weigh bar, 5/8" Pin Hole (278WB-T)	JM0025856
2	Weigh Bar Receiver Weldment Scales 2-7/8" (WBW-278)	JM0000019
3	5 Point Junction Box (JB-5)	JM0019038
4	Battery Box with Strap (BB-2)	JM0000365
5	GT400 Indicator with Serial Port EZ-150, EZ-2000, EZ-400 (GT400)	JM0019040
5	GT 460 Indicator "Upgrade" includes serial port, downloader USB port and alpha-numeric key pad (GT-460)	JM0015453
6	2-7/8" Weigh Bar Weldment for Track Beam (WBW-278T)	JM0018207
7	Power Cord to Battery, Digi Star (PC-1)	JM0025812
8	30' Standard Cable for J-Box to Indicator (141837)	JM0025820
9	10' Long Extension Cord to Mount Indicator in Cab (ECI-1)	JM0025815
10	20' Long Extension Cord to Mount Indicator in Cab (ECI-2)	JM0025816
11	Optional "Y" Cable to Connect both Printer and Downloader (403037)	JM0025817
12	Flashdrive memory stick-programmed (114991)	JM0025819

**WEIGH SCALE SYSTEMS**  
**Digi-Star 5-Point Scale System**  
**For Single Wheel Applications with Bolt-on Axles**



Weigh Bar is flipped in opposite direction for the 810 & 1010 Models.



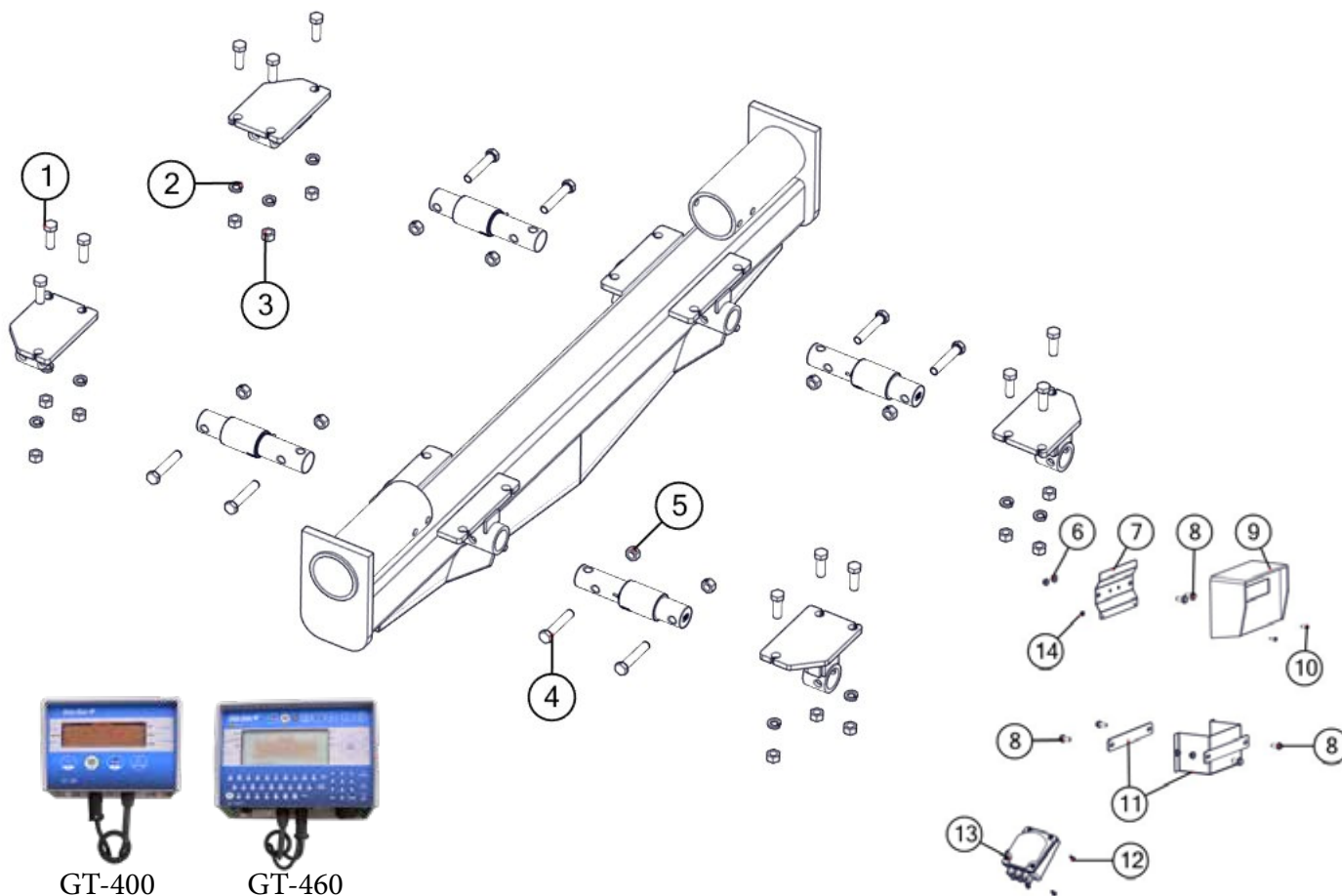
GT-400



GT-460

#	Description	Part. No.
1	2-7/8" Weigh Bar, 1" Pin Hole (278WB-T1)	JM0000355
2	Weigh Bar Receiver Weldment Scales 2-7/8" (WBW-278)	JM0000019
3	5 Point Junction Box (JB-5)	JM0019038
4	Battery Box with Strap (BB-2)	JM0000365
5	GT400 Indicator with Serial Port EZ-150, EZ-2000, EZ-400 (GT400)	JM0019040
5	GT 460 Indicator "Upgrade" includes serial port, downloader USB port and alpha-numeric key pad (GT-460)	JM0015453
6	2-7/8" Weigh Bar Weldment, Rear Right, Front Left, Digi-Star,	JM0018226
6	2-7/8" Weigh Bar Weldment, Rear Right, Front Left, Digi-Star, 810, 1010	JM0018985
7	2-7/8" Weigh Bar Weldment, Rear Left, Front Right, Digi-Star	JM0018228
7	2-7/8" Weigh Bar Weldment, Rear Left, Front Right, Digi-Star, 810, 1010	JM0000354
8	Seal for Hub (37605SA)	JM0021456
9	1"-8 x 8" Gr5 Z Hex Bolt	JM0001487
10	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
11	Hub Assembly	-----
12	Power Cord to Battery, Digi Star (PC-1)	JM0025812
13	30' Standard Cable for J-Box to Indicator (141837)	JM0025820
14	10' Long Extension Cord to Mount Indicator in Cab (ECI-1)	JM0025815
15	20' Long Extension Cord to Mount Indicator in Cab (ECI-2)	JM0025816
16	Optional "Y" Cable to Connect both Printer and Downloader (403037)	JM0025817
17	Flashdrive memory stick-programmed (114991)	JM0025819

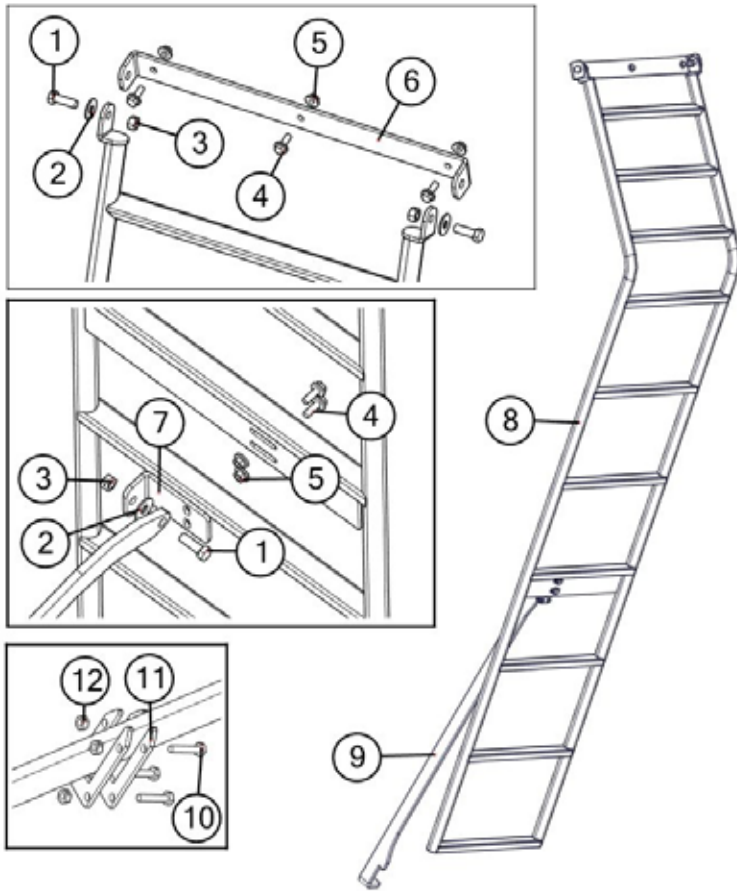
**WEIGH SCALE SYSTEMS**  
**Digi-Star 5-Point Scale System Hardware**  
**Hardware for Single Wheel and Track System Bolt-on Axles**



#	Description	Part. No.
1	1"-8 x 3" Gr5 Z Hex Bolt	JM0016686
2	1" Zinc Finish Lock Washer	JM0019203
3	1"-8 Gr5 Z Hex Nut	JM0002127
4	1"-8 x 5-1/2" Gr5 Z Hex Bolt	JM0002110
5	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
6	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
7	Indicator Mounting Bracket, GT460 (MBI-1)	JM0019648
7	Indicator Mounting Bracket, GT400 (MBI-1S)	JM0000361
8	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
9	GT400 Indicator with Serial Port EZ-150, EZ-2000, EZ-400 (GT400)	JM0019040
9	GT 460 Indicator "Upgrade" includes serial port, downloader USB port and alpha-numeric key pad (GT-460)	JM0015453
10	1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507
11	Battery Box with Strap (BB-2)	JM0000365
12	1/4" x 3/4" Self Tapping Screw	JM0001570
13	5 Point Junction Box (JB-5)	JM0019038
14	1/4"-20 Gr5 Z SF Hex Nut	JM0001630

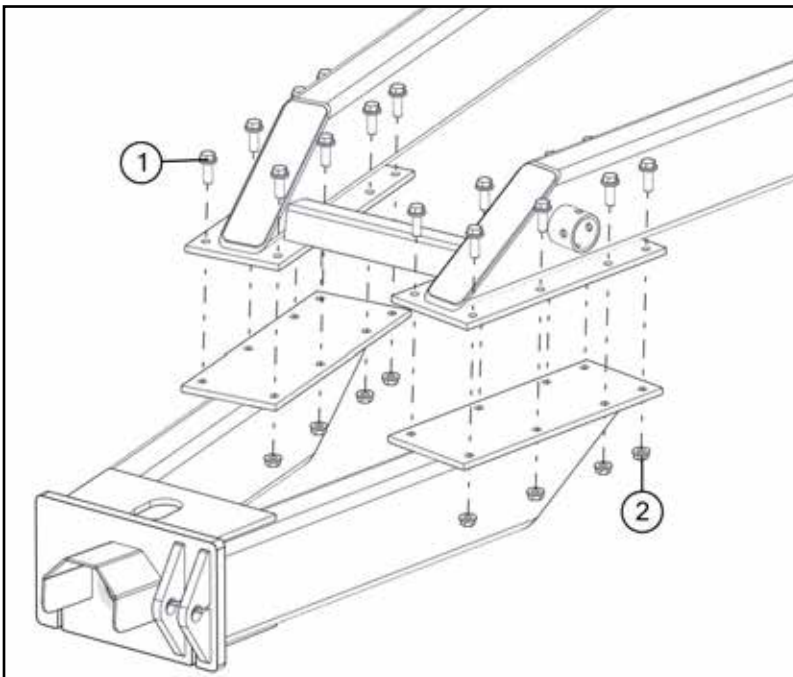


## Ladder Assembly



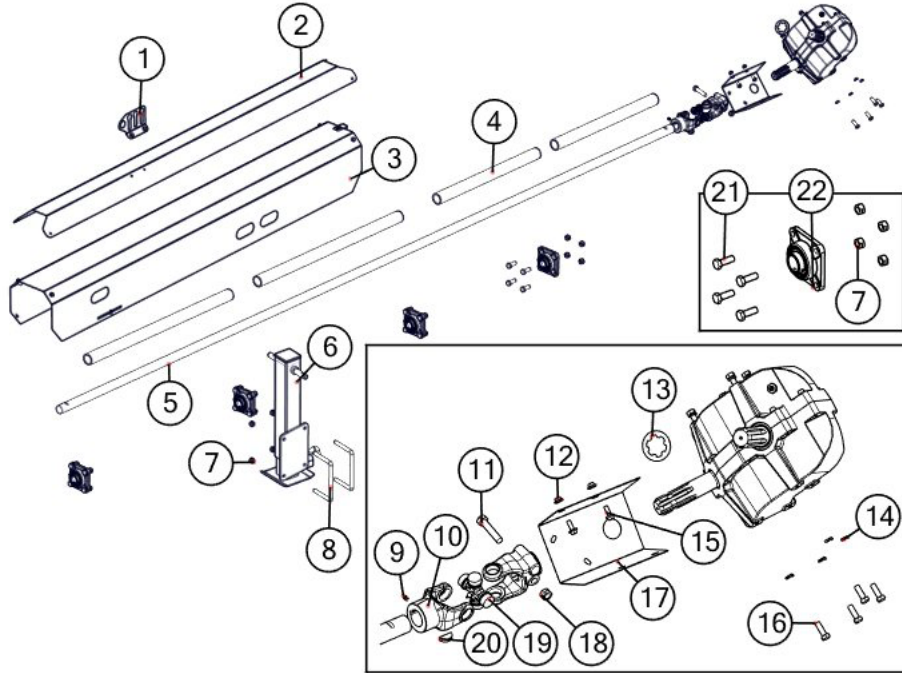
#	Description	Part. No.
1	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
2	1/2" USS Flat Washer	JM0003082
3	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
4	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
5	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
6	Side Swing Ladder Mount Bracket	JM0012865
7	Swing Out Ladder Adjustable Tab	JM0020977
8	Ladder Weldment	JM0012858
9	Ladder Support Leg	JM0012926
10	1/4"-20 x 1-1/4" Gr5 Z Hex Bolt	JM0016673
11	Ladder Guide	JM0021947
12	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505

## Bolt-On Frame (812)



#	Description	Part. No.
1	5/8"-11 x 1-3/4" Gr5 Z SF Hex Bolt	JM0027674
2	5/8"-11 Gr5 Z SF Hex Nut	JM0001522

## Driveline Assembly

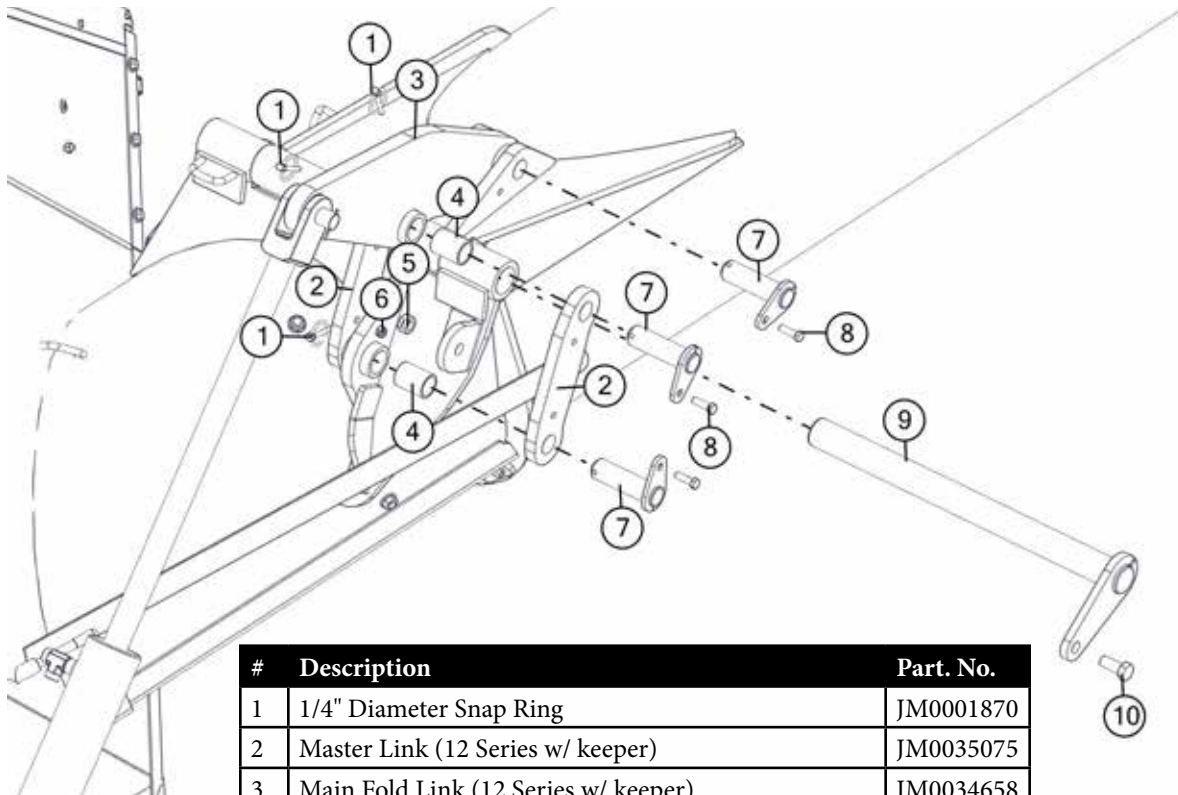


#	Description	Part. No.
1	Hydraulic Hose Holder (3 Slots)	JM0021437
2	Hydraulic Hose Shield (812)	JM0025770
2	Hydraulic Hose Shield (1012, 1112, 1122, 1222)	JM0022344
2	Hydraulic Hose Shield (1312,1412, 1522)	JM0020941
3	PTO Shield (812)	JM0025769
3	PTO Shield (1012, 1112)	JM0026079
3	PTO Shield (1312,1412)	JM0020935
4	PVC (Cut to length)	JM0027151
5	130" Driveline (812)	JM0036413
5	164-1/2" Driveline (1012, 1112, 1122, 1222)	JM0026002
5	190" Driveline (1312, 1412, 1522)	JM0026235
6	Grain Cart Jack (812)	JM0001480
6	Heavy Duty Grain Cart Jack (1012,1112,1312,1412,1522)	JM0020936
7	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
8	Square U-Bolt	JM0024199
9	3/8"-16 x 1/2" Set Screw	JM0019044
10	44 Series U-Joint	JM0017957
11	5/8"-11 x 3" Gr5 Z Hex Bolt	JM0002105
12	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
13	18" & 20" Gearbox Washer	JM0000083
13	22" Gearbox Washer	JM0020638
14	1/2" Zinc Finish Lock Washer	JM0019021
15	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
16	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
17	Knuckle Guard	JM0012698
18	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
19	Cross Kit 44R, CK-44R	JM0017958
20	3/8" x 1-1/2" Half Moon Key	JM0018772
21	5/8"-11 x 1-3/4" Gr5 Z Hex Bolt	JM0016681
22	1-3/4" 4 Bolt Flange Bearing	JM0018774

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

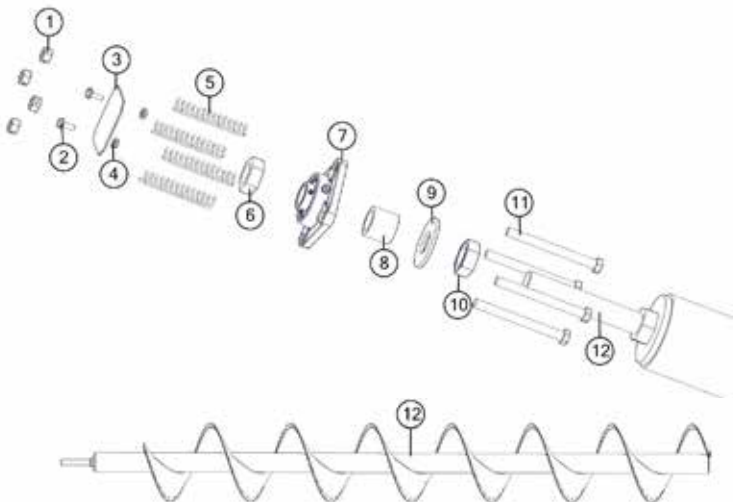
When requesting an item with color, end the part number with -R, -B, -G, or -Y. (e.g. JM0000000-R)

## Top Auger Linkage



#	Description	Part. No.
1	1/4" Diameter Snap Ring	JM0001870
2	Master Link (12 Series w/ keeper)	JM0035075
3	Main Fold Link (12 Series w/ keeper)	JM0034658
4	1-1/4"ID x 1-1/2"ID x 2" Long Sleeve	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 (12 Series)	JM0035930
8	3/8"-16 x 1-1/4" Gr5 Z Hex Bolt	JM0016675
9	18" Hinge Pin (19" Long)(12 Series 18" Augers)	JM0022086
9	22" Hinge Pin (23" Long)(12 Series 20" Augers)	JM0024966
10	5/8"-11 x 1-1/2" Gr5 Z Hex Bolt	JM0002103

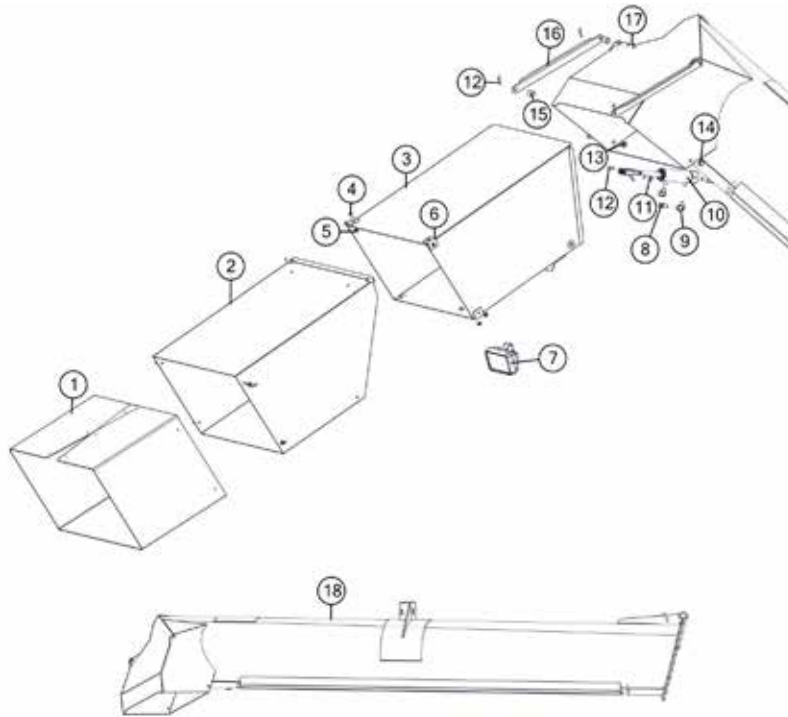
## Upper Flighting



#	Description	Part. No.
1	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
2	1/4"-20 x 3/4" Gr5 Z SF Hex Bolt	JM0001642
3	Head Pan Hole Cover	JM0036019
4	1/4"-20 Gr5 Z SF Hex Nut	JM0001630
5	Top Bearing Springs, 4-1/2"	JM0018559
6	1-1/4"-12 PN Gr5 Hex Jam Nut	JM0001606
7	1-1/4" Flange Bearing (Top Flighting)	JM0018560
8	Top Auger Collar (1.28 ID x 1.25 long)	JM0021646
9	1-3/8" Grommet Washer	JM0015731
10	1-1/4"-12 PN Gr5 Hex Jam Nut	JM0001606
11	1/2"-13 x 5-1/2" HHMB Grade 5 Zinc	JM0001498
12	18" Upper Flighting (812)	JM0036981
12	20" Upper Flighting (All 20" 12- Series)	JM0035058



## Top Auger Assembly

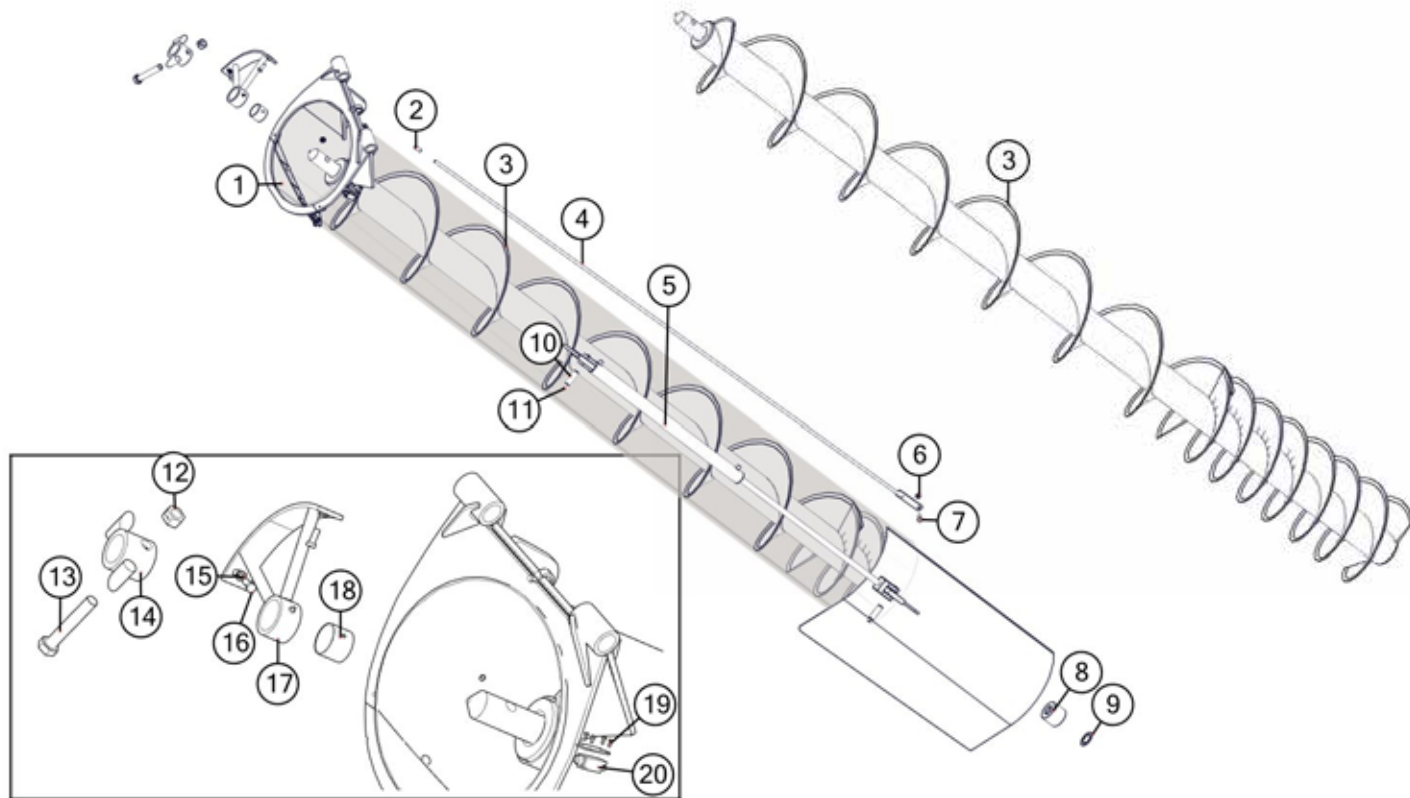


#	Description	Part. No.
1	4 Sided Telescoping Spout Rubber Extension 20"	JM0034417
2	Outer Tip Spout (12 Series)	JM0034365
3	Inner Tip Spout (12 Series)	JM0034291
4	5/16"-18 x 5/8" Flat Head Bolt (Black)	JM0024448
5	5/16"-18 Gr5 Z SF Hex Nut	JM0014049
6	Rubber Inside Spout Guide	JM0035132
7	Field Light (LED, Grain Cart)	JM0000881
8	1/4" male NPTswivel with .032 orifice	JM0020113
9	1/4" male NPT x 1/4" female NPT rigid; 90 degree elbow	JM0020115
10	1-3/4" x 4" Hydraulic Cylinder	JM0018564
11	1/2" x 1-3/4" Pin	JM0018264
12	Hair Pin for 1/4" Shaft	JM0031701
13	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511
14	1/2"-13 x 1-1/2" Gr5 Z Hex Bolt	JM0002100
15	1" OD 9/16" ID x 3/4" L Nylon Spacer	JM0001962
16	Telescoping Spout Main Linkage	JM0034363
17	1/2" x 1-1/2" Clevis Pin	JM0012363
18	18" Upper Auger Tube Weldment	JM0036583*
18	20" Upper Auger Tube Weldment	JM0035994*

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

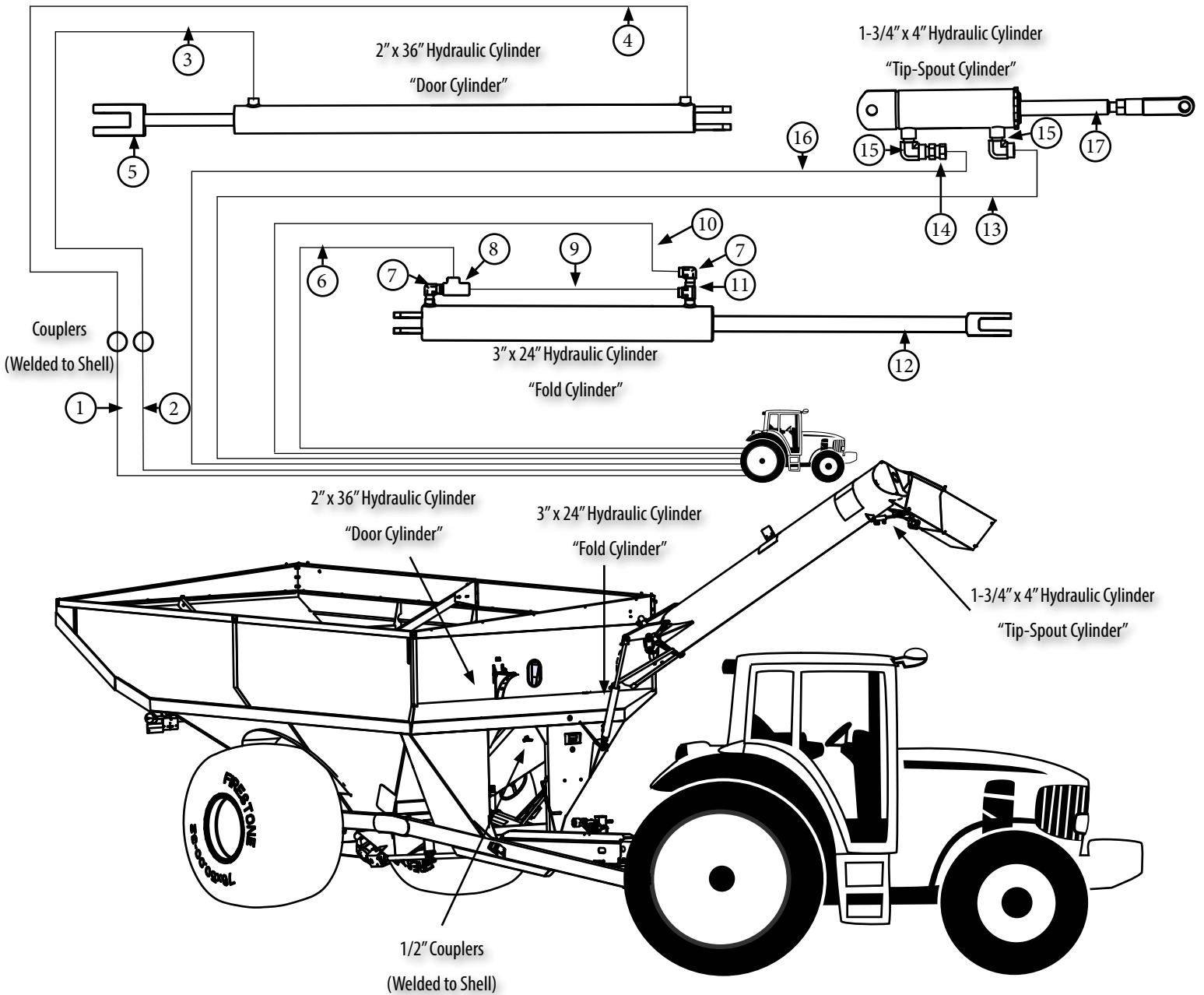
When requesting an item with color, end the part number with -R, -B, -G, or -Y. (e.g. JM0000000-R)

## Lower Auger Assembly



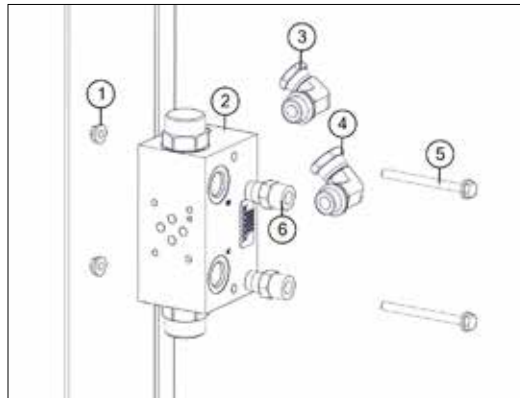
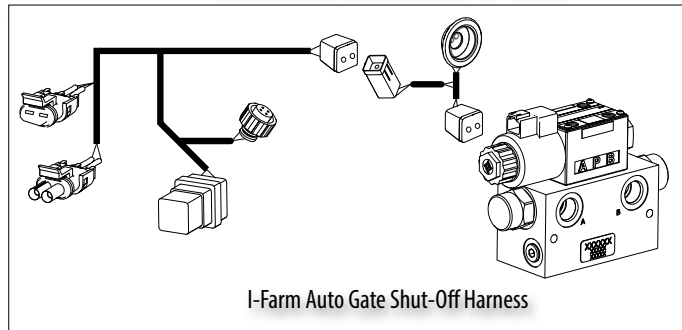
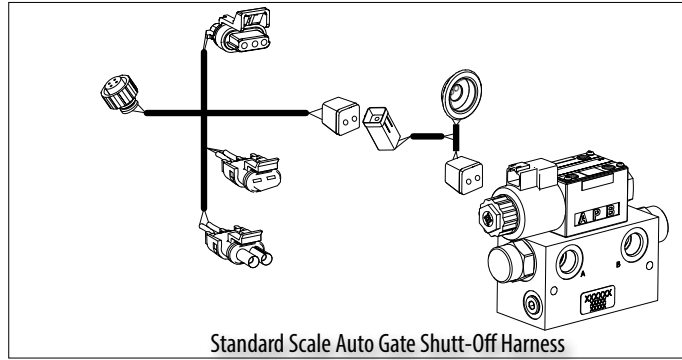
#	Description	Part. No.	#	Description	Part. No.
1	Lower Auger Liner (812)	JM0037361	9	1-3/4" Gearbox Washer (18")	JM0000083
1	Lower Auger Liner (1012,1112, 1122, 1222)	JM0037362	9	2" Gearbox Washer (20" & 22")	JM0020638
1	Lower Auger Liner (1312,1412, 1522)	JM0037287	10	1" x 3" Clevis Pin	JM0003065
2	Yellow Cap	JM0016842	11	Cotter Pin (for 1" x 3" Clevis Pin)	JM0003064
3	18" Lower Flighting (812)	JM0036783	12	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
3	20" Lower Flighting (1012, 1112, 1122, 1222)	JM0035010	13	1"-8 x 6" Gr5 Z Hex Bolt	JM0002111
3	20" Lower Flighting (1312,1412, 1522)	JM0035452	14	18" & 20" Drive Dog	JM0000093
4	Indicator Rod Weldment (812)	JM0021282	15	1/2" Zinc Finish Lock Washer	JM0019021
4	Indicator Rod Weldment (1012, 1112, 1122, 1222)	JM0027918	16	1/2" x 1-1/4" Gr5 Hex Bolt	JM0001513
4	Indicator Rod Weldment (1312,1412, 1522)	JM0021282	17	18" Auger Hanger	JM0000090
5	2" x 36" Hydraulic Cylinder	JM0018523	17	20" Auger Hanger	JM0019655
6	1/2"-13 Gr5 Z Centerlock Hex Nut	JM0001511	18	2-1/2" ID Bronze Bushing	JM0016841
7	1/2"-13 x 1-1/4" Gr5 Z Hex Bolt	JM0001513	19	M5-0.8 x 12 Gr8.8 Z Hex Bolt	JM0036046
8	1-3/4" Spline Shaft 2-1/2" OD x 3"	JM0016883	20	Limit Switch (for Field Light)	JM0036040
8	2" Spline Shaft - 3-3/4" OD x 3"	JM0009701			

## 12 Series Hydraulic Hoses & Cylinders



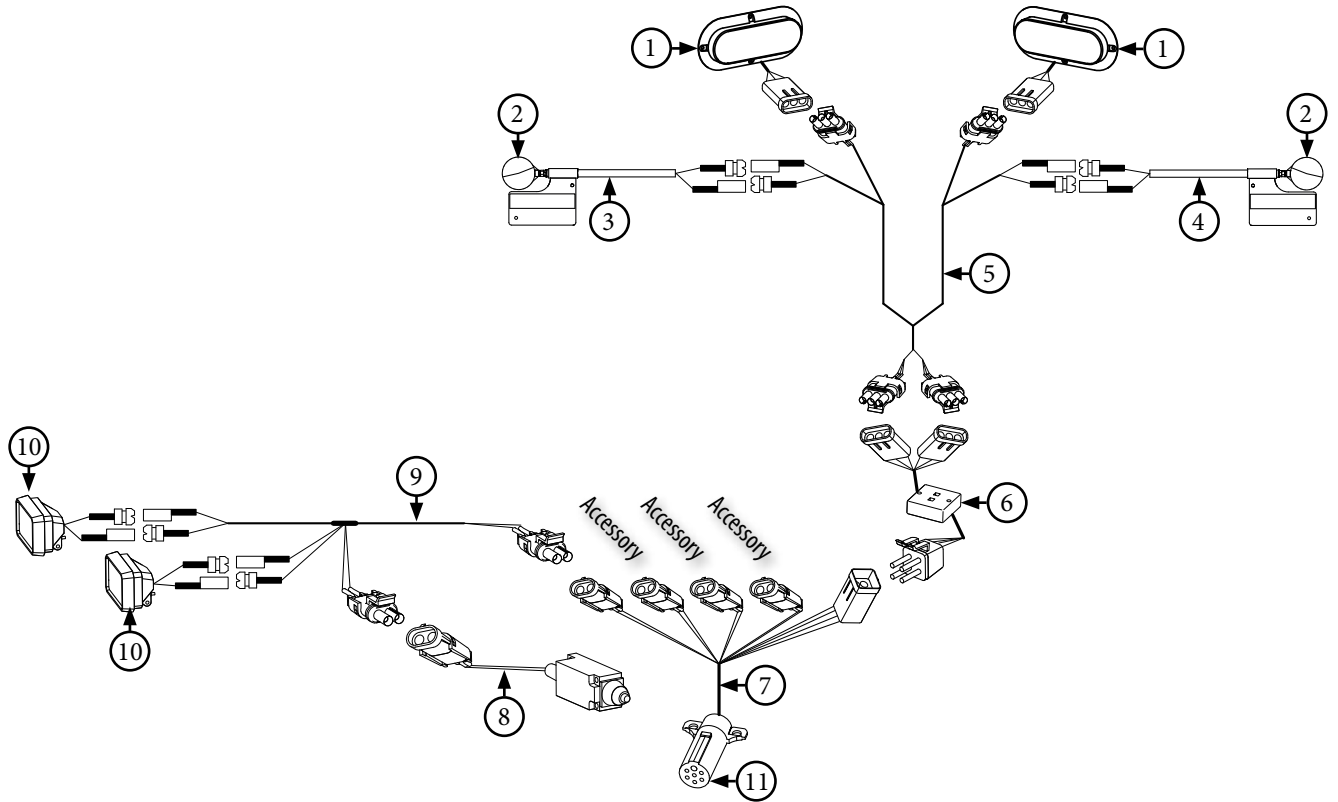
#	Description	Part. No.	#	Description	Part. No.
1	Hydraulic Hose 1/4" x 212" (812)	JM0030611	9	Lift Cylinder Hydraulic Hose 1/4" x 21"	JM0024896
1	Hydraulic Hose 1/4" x 240" (1012, 1112, 1312, 1412)	JM0024985	10	Hydraulic Hose 1/4" x 346" (812)	JM0027896
2	Hydraulic Hose 1/4" x 212" (812)	JM0030611	10	Hydraulic Hose 1/4" x 308" (1012, 1112, 1312, 1412)	JM0024984
2	Hydraulic Hose 1/2" x 240" (1012, 1112, 1312, 1412)	JM0024985	11	3/8" male NPT x 3/8" female NPT x 3/8" female NPT; Street T	JM0018266
3	Hydraulic Hose 1/4" x 61" (812)	JM0024905	12	3" x 24" Welded Cushion Cylinder	JM0019644
3	Hydraulic Hose 1/4" x 43" (1012, 1112, 1312, 1412)	JM0024904	13	Hydraulic Hose 1/4" x 456" (812)	JM0030610
4	Hydraulic Hose 1/4" x 29" (812)	JM0030609	13	Hydraulic Hose 1/4" x 474" (1012, 1112, 1312, 1412)	JM0024982
4	Hydraulic Hose 1/2" x 43" (1012, 1112, 1312, 1412)	JM0024906	14	1/4" male NPT swivel with .032 orifice	JM0020113
5	2" x 36" Welded Cylinder	JM0018523	15	1/4" male NPT X 1/4" female NPT rigid; 90 degree elbow	JM0020115
6	Hydraulic Hose 1/4" x 324" (812)	JM0030600	16	Hydraulic Hose 1/4" x 456" (812)	JM0030610
6	Hydraulic Hose 1/4" x 290" (1012, 1112, 1312, 1412)	JM0024983	16	Hydraulic Hose 1/4" x 482" (1012, 1112, 1312, 1412)	JM0024982
7	3/8" female NPT x 1/2" male NPT; 90 degree elbow	JM0010292	17	1-3/4" x 4" Hydraulic Cylinder	JM0018564
8	PC-37 Check Valve	JM0018233			

## Auto-Gate Shut-Off Assembly



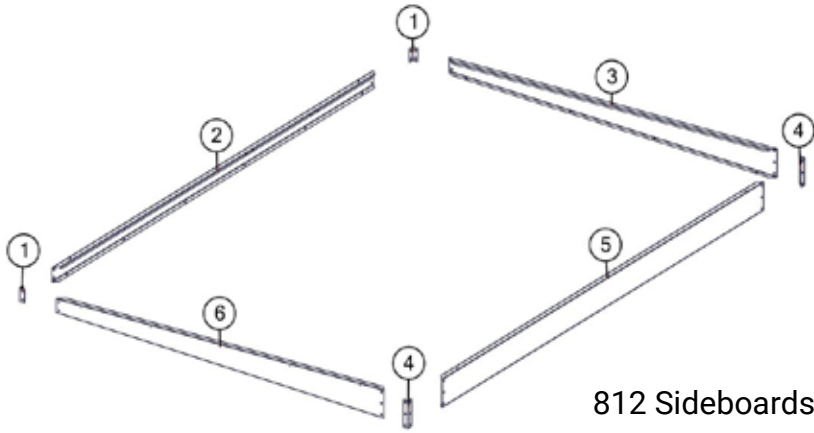
#	Description	Part. No.
1	1/4" Centerlock Hex Nut	JM0001630
2	Auto Gate Valve	JM0026247
3	90 deg. Male Fitting 3/8"-1/2" (6901-08-06-NWO)	JM0027285
4	90 deg. Male Fitting 1/2" - 1/2" (6901-08-08-NWO)	JM0027286
5	1/4" x 3" Hex Bolt	JM0026812
6	Straight Male Fitting (6900-08-06-0)	JM0030064
7	Auto Gate Harness for Digi-Star Scale System	JM0026813
8	Auto Gate Harness for I-Farm	JM0037374
9	1/4" x 43" Hydraulic Hose (Not Shown)	JM0024904
10	1/2" x 43" Hydraulic Hose (Not Shown)	JM0024906

## Light Kit Assembly



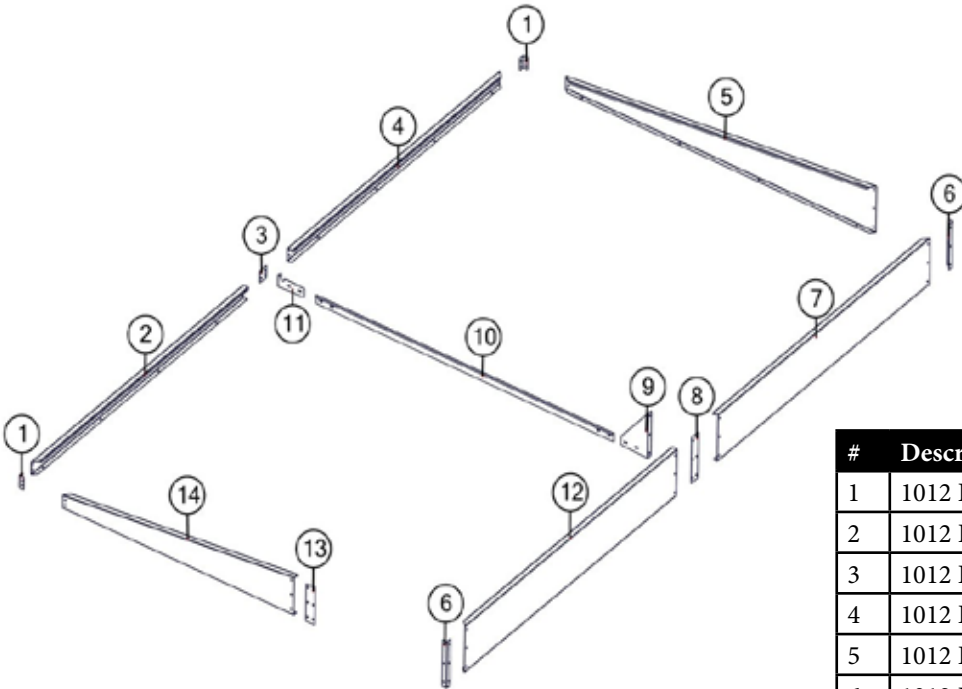
#	Description	Part. No.
1	Red Light (LED)	JM0034389
2	Amber Light Only	JM0018819
3	Extendable Amber Light Assembly (Left Side)	JM0018817
4	Extendable Amber Light Assembly (Right Side)	JM0018826
5	Wiring Harness for Rear Lights (Each)	JM0020437
6	Light Enhancer	JM0010566
7	Main Wiring Harness with 7-Prong Connector End	JM0020439
8	Limit Switch (for field light)	JM0036040
9	Field Light Wire	JM0020438
10	Field Light (LED, Grain Cart)(Bullet Lead Ends)	JM0000881
11	7-Prong Connector End Only	JM0010528

## Sideboards for 812 & 1012 Models



812 Sideboards

#	Description	Part. No
1	812 Low Sideboard Corner	JM0013113
2	812 Low Sideboard	JM0014019
3	812 Endboard Back	JM0014021
4	812 High Sideboard Corner	JM0013112
5	812 High Sideboard	JM0014020
6	812 Endboard Front	JM0014022
7	812 Sideboard Set Complete	JM0027980



1012 Sideboards

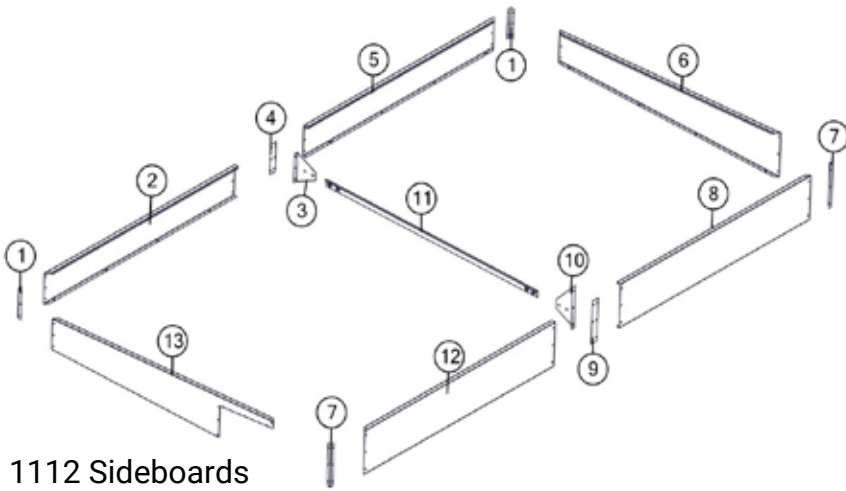
#	Description	Part. No
1	1012 Low Sideboard Corner	JM0013701
2	1012 Front Low Sideboard	JM0013675
3	1012 Low Sideboard Splice	JM0013702
4	1012 Back Low Sideboard	JM0013674
5	1012 Back Endboard	JM0013678
6	1012 High Sideboard Corner	JM0013699
7	1012 Back Half High Sideboard	JM0013671
8	1012 High Sideboard Splice	JM0013700
9	1012 High Sideboard Brace	JM0013731
10	Sideboard Brace	JM0020624
11	1012 Low Sideboard Brace	JM0013732
12	1012 Front Half High Sideboard	JM0026160
13	1012 GS Front Endboard Splice	JM0013703
14	1012 Front Endboard	JM0013676
15	1012 Sideboard Set Complete	JM0041386

- \*-R = Red
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  - \*-G = Green
  - \*-Y = Yellow

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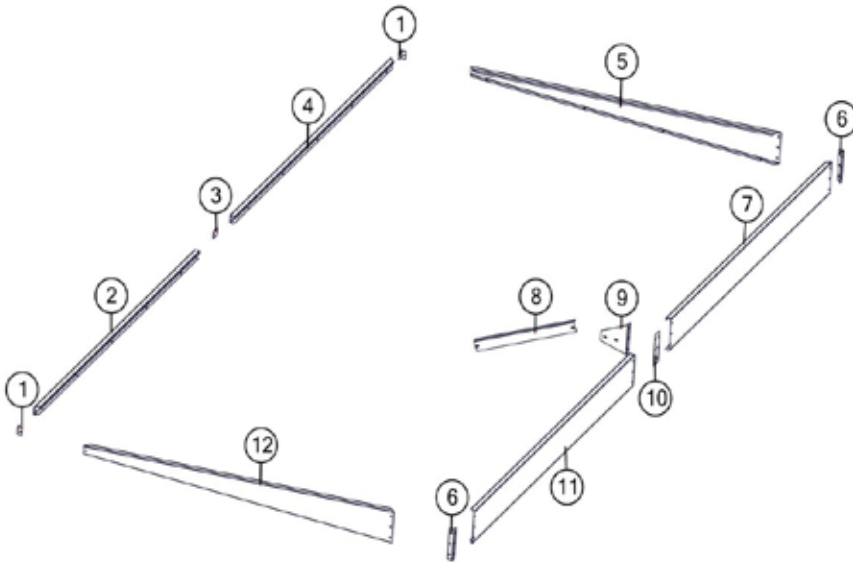


## Sideboards For 1112, 1312, & 1412 Models



1112 Sideboards

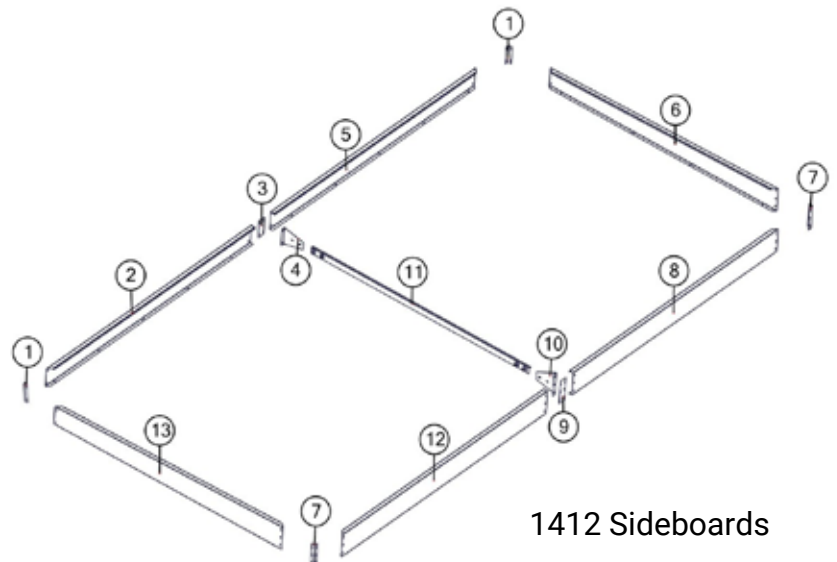
#	Description	Part. No
1	1112 Low Sideboard Corner	JM0015092
2	1112 Low Sideboard (front)	JM0015086
3	1112 Low Sideboard Brace	JM0015083
4	1112 Low Sideboard Splice	JM0015093
5	1112 Low Sideboard (Back)	JM0015087
6	1112 Back Endboard	JM0015089
7	1112 High Sideboard Corner	JM0015090
8	1112 Back Half High Sideboard	JM0015085
9	1112 High Sideboard Splice	JM0015091
10	1112 High Sideboard Brace	JM0015095
11	Sideboard Brace	JM0020624
12	1112 Front Half High Sideboard	JM0026953
13	1112 Front Endboard	JM0037388
14	1112 Sideboard Set Complete	JM0041387



1312 Sideboards

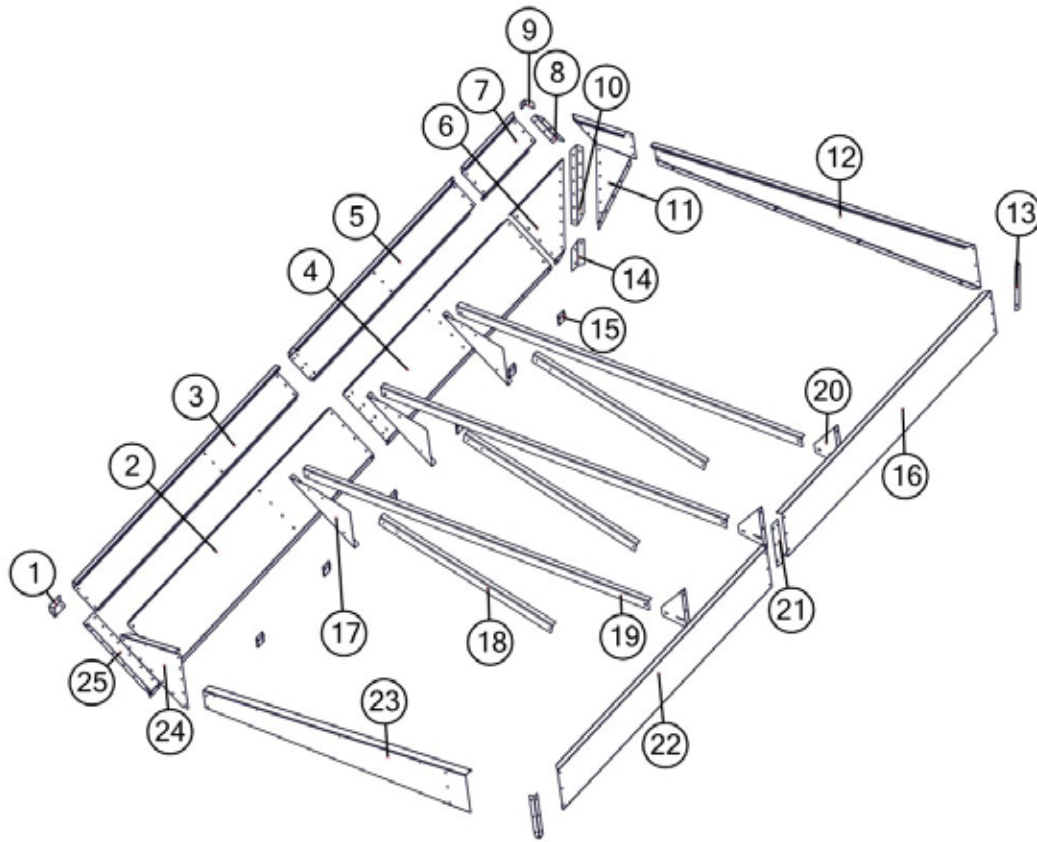
#	Description	Part. No
1	1312 Low Sideboard Corner	JM0009703
2	1312 Front Half Low Sideboard	JM0017351
3	1312 Low Sideboard Splice	JM0009704
4	1312 Back Half Low Sideboard	JM0017350
5	1312 Back Endboard	JM0009596
6	1312 High Sideboard Corner	JM0009700
7	1312 Back Half High Sideboard	JM0017484
8	1312 48" Inside Brace	JM0029921
9	1312 High Sideboard Brace	JM0021202
10	1312 High Sideboard Splice	JM0009702
11	1312 Font Half High Sideboard	JM0020342
12	1312 Front End Board	JM0020347
13	1312 Sideboard Set Complete	JM0041388

#	Description	Part. No
1	1412 Low Sideboard Corner	JM0020613
2	1412 Front Half Low Sideboard	JM0020609
3	1412 Low Sideboard Splice	JM0020614
4	1412 Low Sideboard Brace	JM0020611
5	1412 Back Half Low Sideboard	JM0020606
6	1412 Back Endboard	JM0020605
7	1412 High Sideboard Corner	JM0009700
8	1412 Back Half High Sideboard	JM0017484
9	1412 High Sideboard Splice	JM0009702
10	1412 High Sideboard Brace	JM0021202
11	1412 Sideboard Brace	JM0020624
12	1412 Font Half High Sideboard	JM0020342
13	1412 Front Endboard	JM0027697
14	1412 Sideboard Set Complete	JM0041391



1412 Sideboards

## Sideboards for 1122 Leaner



#	Description	Part. No
1	1122 Front Top Corner	JM0007363
2	1122 12222Front Bottom Sideboard	JM0007303
3	1122 Front Top Sideboard	JM0007304
4	1122 1222 Back Bottom Sideboard	JM0007307
5	1122 Back Top Sideboard	JM0007326
6	1122 1222 Back Side Bottom Triangle	JM0007305
7	1122 Back Corner Top Side Triangle	JM0007334
8	1122 1222 Back Tapered Corner	JM0007370
9	1122 Back Top Corner	JM0007367
10	1122 1222 Back Slope Corner	JM0007368
11	1122 Back Endboard Tr	JM0007362
12	1122 Back Endboard	JM0007341
13	1122 1222 Sideboard Corner	JM0010989

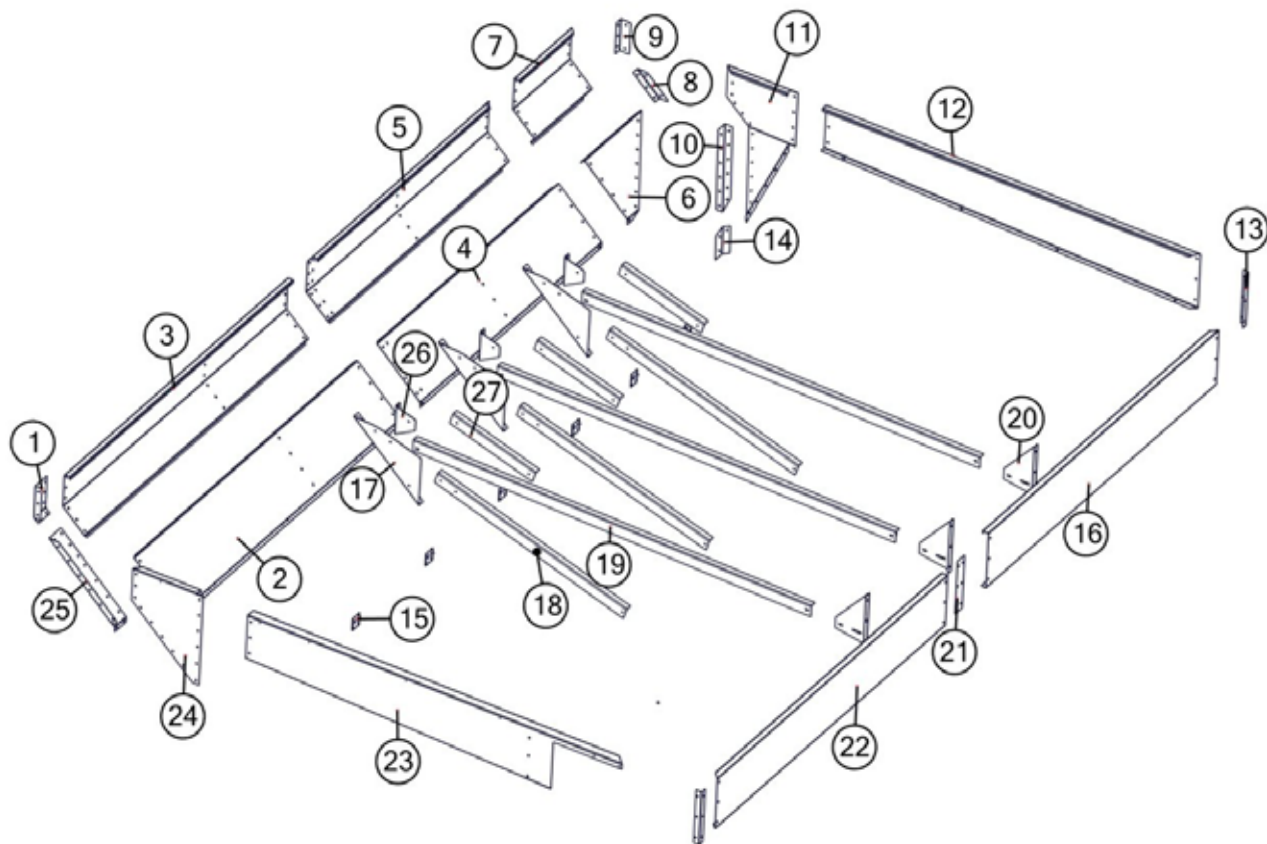
#	Description	Part. No
14	1122 1222 Back Corner Inside Sheddar	JM0007371
15	48in Piano Hinge	JM0025638
16	1122 1222 Back Half High Sideboard	JM0011031
17	1122 1222 Sideboard Brace	JM0007396
18	1122 1222 1522 Inside Brace	JM0007266
19	1122 1222 1522 Center Cross Brace	JM0007265
20	1122 1222 High Sideboard Brace	JM0010920
21	1122 1222 High Sideboard Splice	JM0010965
22	1122 1222 Front Half High Sideboard	JM0024289
23	1122 Front Endboard Slip Cover	JM0007337
24	1122 Front Endboard Triangle	JM0007338
25	1122 Front Triangle Slope Corner	JM0007366

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

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



## Sideboards for 1222 Leaner



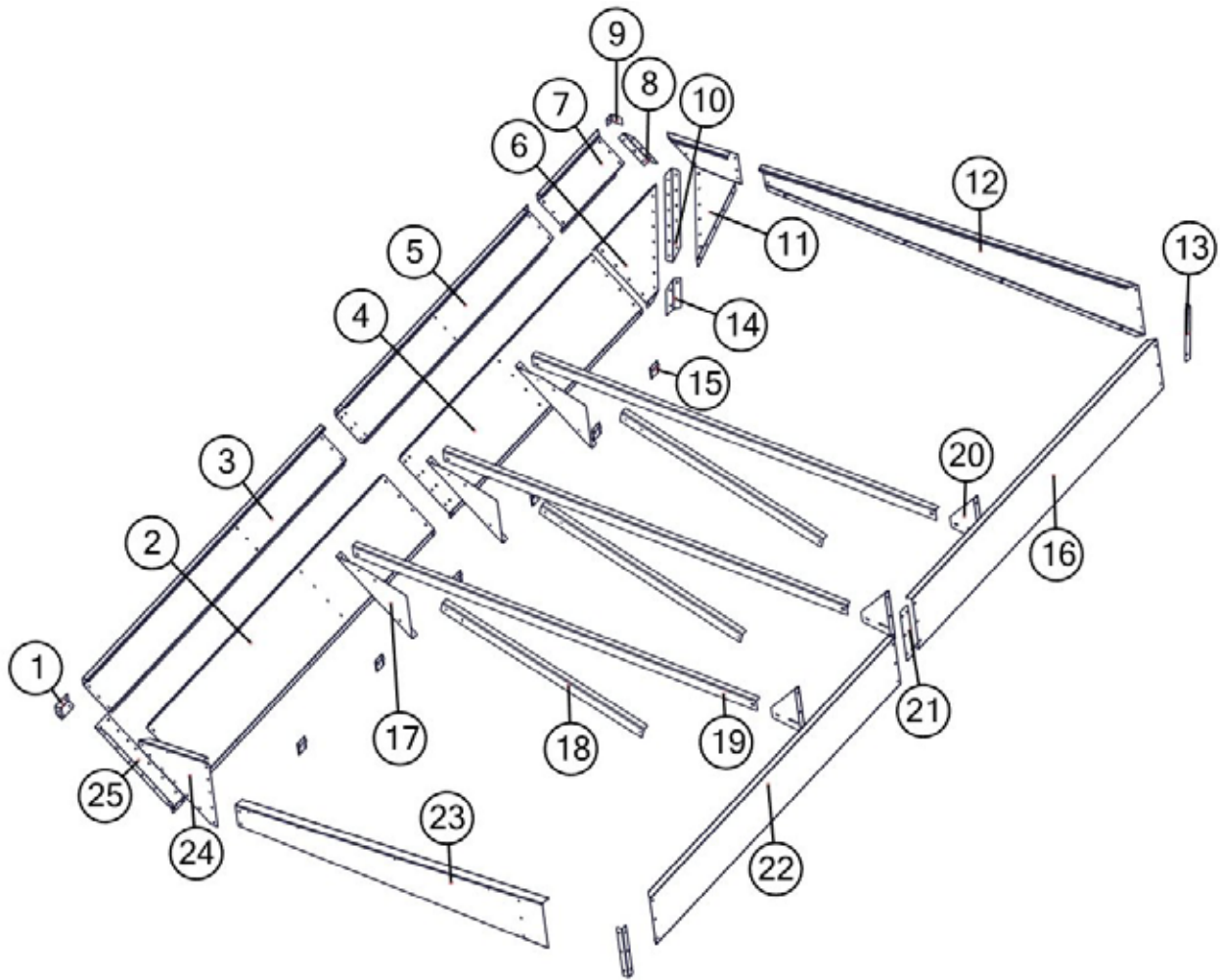
#	Description	Part. No
1	1222 Front Top Corner	JM0007414
2	1122 1222 Front Bottom Sideboard	JM0007303
3	1222 Front Top Sideboard	JM0007400
4	1122 1222 Back Bottom Sideboard	JM0007307
5	1222 Back Top Sideboard	JM0007401
6	1122 1222 Back Side Bottom Triangle	JM0007305
7	1222 Back Corner Top Side Triangle	JM0007402
8	1122 1222 Back Tapered Corner	JM0007370
9	1222 Leaner Back Top Corner	JM0025307
10	1122 1222 Back Slope Corner	JM0007368
11	1222 Back Endboard Triangle	JM0007412
12	1222 Back Endboard	JM0007410
13	1122 1222 Sideboard Corner	JM0010989
14	1122 1222 Back Corner Inside Sheddar	JM0007371

#	Description	Part. No
15	48in Piano Hinge	JM0025638
16	1122 1222 Back Half High Sideboard	JM0011031
17	1122 1222 Sideboard Brace	JM0007396
18	1122 1222 1522 Inside Brace	JM0007266
19	1122 1222 1522 Center Cross Brace	JM0007265
20	1122 1222 High Sideboard Brace	JM0010920
21	1122 1222 High Sideboard Splice	JM0010965
22	1122 1222 Front Half High Sideboard	JM0024289
23	1222 Front Endboard	JM0007404
24	1222 Front Endboard Triangle	JM0007405
25	1222 Front Triangle Slope Corner	JM0007366
26	1222 High Sideboard Brace	JM0007420
27	1222 High to Low Crossbrace	JM0007419

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

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

## Sideboards for 1522 Leaner



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

When requesting an item with color, end the part number with -R, -B, -G, or -Y. (e.g. JM000000-R)

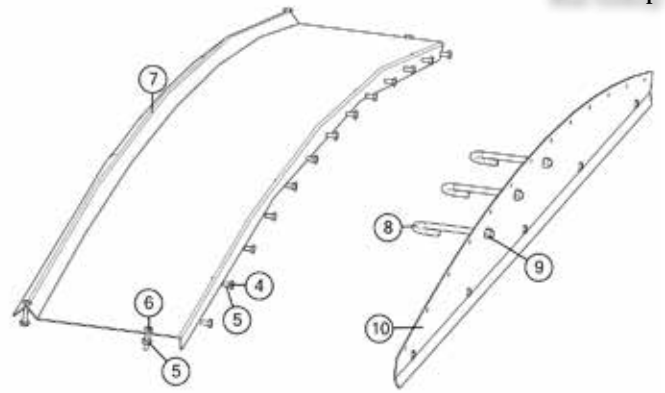
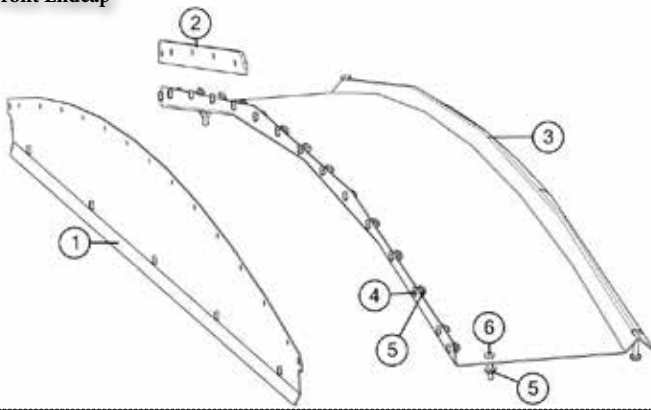
## Sideboards for 1522 Leaner

#	Description	Part. No
1	1522 Front Top Corner	JM0007249
2	1522 Front Bottom Sideboard	JM0007235
3	1522 Front Top Sideboard	JM0007238
4	1522 Back Bottom Sideboard	JM0007239
5	1522 Back Top Sideboard	JM0007240
6	1522 Back Side Bottom Triangle	JM0007233
7	1522 Back Corner Top Side Triangle	JM0007241
8	1522 Back Tapered Corner	JM0007253
9	1522 Back Top Corner	JM0007252
10	1522 Back Slope Corner	JM0007251
11	1522 Back Endboard Triangle	JM0007248
12	1522 Back Endboard	JM0007244
13	1522 High Sideboard Corner	JM0009700
14	1522 Back Corner Inside Shedder	JM0007254
15	48in Piano Hinge	JM0025638
16	1522 Back Half High Sideboard	JM0017484
17	1522 Sideboard Brace	JM0007268
18	1122 1222 1522 Inside Brace	JM0007266
19	1122 1222 1522 Center Cross Brace	JM0007265
20	1522 High Sideboard Brace (High Side)	JM0007267
21	1522 High Sideboard Splice	JM0009702
22	1522 Front Half High Sideboard	JM0020342
23	1522 Front Endboard	JM0027746
24	1522 Front Endboard Triangle	JM0007243
25	1522 Front Triangle Slope Corner	JM0007250

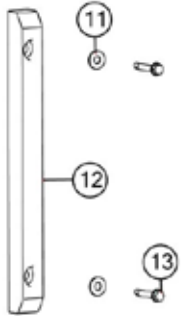
# Roll Tarp Assembly

Front Endcap

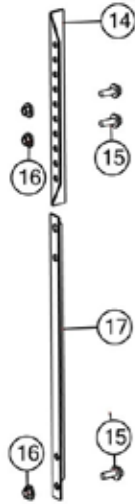
Rear Endcap



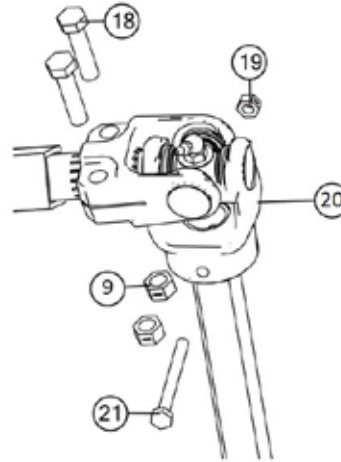
Tarp Stand-Off



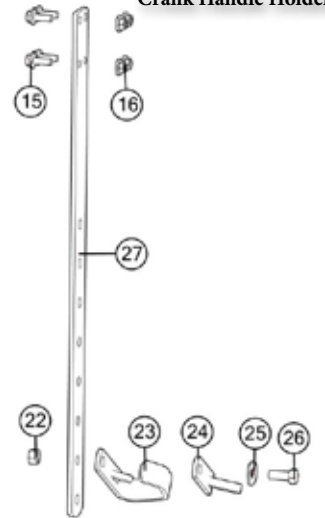
Prop-Up Bars



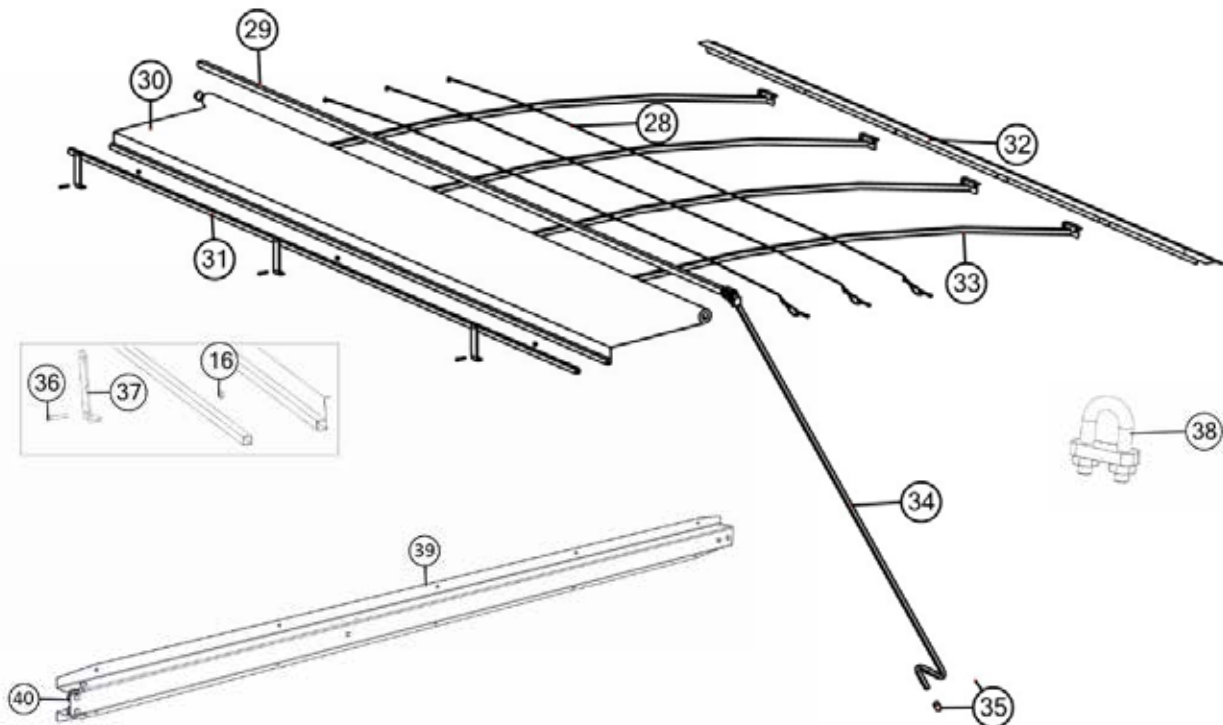
Crank Handle U-Joint



Crank Handle Holder



Tarp Assembly



## Roll Tarp Assembly

#	Description	Part. No.
1	Front End Cap Plate (812, 1012, 1112, 1312, 1412)	JM0000194
1	Front Long End Cap Plate (1122, 1222, 1522)	JM0007263
1	Front Short End Cap Plate (1122, 1222, 1522)	JM0007261
2	Tarp Nylon Riser	JM0000196
3	Front Arched End Cap (812, 1012, 1112, 1312, 1412)	JM0000195
3	Front Long Arched End Cap (1122, 1222, 1522)	JM0007259
3	Front Short Arched End Cap (1122, 1222, 1522)	JM0007256
4	1/4"-20 x 1/2" Gr5 Z Hex Bolt	JM0001481
5	1/4"-20 Gr5 Z SF Hex Nut	JM0001630
6	1/4"-20 x 1-1/4" Gr5 Z Hex Bolt	JM0016673
7	Rear Arched End Cap (812, 1012, 1112, 1312, 1412)	JM0000172
7	Rear Long Arched End Cap (1122, 1222, 1522)	JM0007257
7	Rear Short Arched End Cap (1122, 1222, 1522)	JM0007255
8	3/8"-16 Gr5 Z J-Bolt (384JB)	JM0001519
9	3/8"-16 Gr5 Z Centerlock Hex Nut (38G5LN)	JM0001512
10	Rear End Cap Plate (812, 1012, 1112, 1312, 1412)	JM0000169
10	Rear Long End Cap Plate (1122, 1222, 1522)	JM0007262
10	Rear Short End Cap Plate (1122, 1222, 1522)	JM0007260
11	1/4" Flat Washer (14-W)	JM0003090
12	Tarp Standoff (TSST375)	JM0001889
13	1/4" x 1-1/2" Self Tapping Screw (STS-1L)	JM0001571
14	Upper Adjustable Bow Support 13"	JM0021404
15	3/8"-16 x 1" Gr5 Z SF Hex Bolt (381-FB)	JM0002092
16	3/8"-16 Gr5 Z SF Hex Nut (38-FN)	JM0002152
17	Lower Adjustable Bow Support 19" (ABS-2)	JM0000179
18	3/8"-16 x 1-1/2" Gr5 Z Hex Bolt (160022)	JM0001659
19	1/4"-20 Gr5 Z Centerlock Hex Nut (HLN-114)	JM0001505
20	U-Joint (SUJ-1)	JM0001517
21	1/4"-20 x 2-1/2" Gr5 Z Hex Bolt (14212-HB)	JM0001506
22	1/2"-13 Gr5 Z Centerlock Hex Nut (12-13LN)	JM0001511
23	Roll Tarp - Handle Hanger PP (CH-1)	JM0002967
24	Roll Tarp - Handle Hanger Rubber Flap	JM0002551

#	Description	Part. No.
25	1/2" USS Flat Washer (12FW)	JM0003082
26	1/2"-13 x 1-1/4" Gr5 Z Hex Bolt (12114 HB-5)	JM0001513
27	Crank Holder (ABCH-1EL)	JM0000164
28	3/16" Cable (812)	JM0022194
28	3/16" Cable (1012, 1122)	JM0021408
28	3/16" Cable (1312, 1412, 1522)	JM0015701
29	1 1/4" Square Roll Tube (812)	JM0022191
29	1 1/4" Square Roll Tube (1012, 1112, 1122, 1222)	JM0021334
29	1 1/4" Square Roll Tube (1312, 1412,1522)	JM0018968
30	Tarp with Rivets (812)	JM0018184
30	Tarp with Rivets (1012, 1112)	JM0021336
30	Tarp with Rivets (1312, 1412)	JM0018966
30	Tarp with Rivets (1122,1222)	JM0021378
30	Tarp with Rivets (1522)	JM0021379
31	1" Square Tie-Down Tube (812)	JM0000188
31	1" Square Tie-Down Tube (1012, 1112, 1122,1222)	JM0021331
31	1" Square Tie-Down Tube (1312, 1412,1522)	JM0018962
32	Tightening Lip x 192" (812)	JM0000155
32	Tightening Lip (1012, 1112) Front	JM0013654
32	Tightening Lip (1012, 1112) Rear	JM0013653
32	Tightening Lip (1312, 1522) Front	JM0017842
32	Tightening Lip (1312, 1522) Rear	JM0017843
32	Tightening Lip (1122, 1222) Front	JM0021397
32	Tightening Lip (1122, 1222) Rear	JM0021396
33	Arched Tarp Bows (812-1412)	JM0000157
33	Arched Tarp Bows (1122,1222,1522)	JM0021405
34	Crank with Splined U-Joint (812)	JM0000185
34	Crank with Splined U-Joint (1012 - 1522)	JM0019888
35	Yellow Cap (112950)	JM0018963
36	3/8"-16 x 2" Gr5 Z Hex Bolt (382-HB)	JM0001510
37	Tarp Stop Bracket (TSB-1)	JM0000187
38	Cable Clamp-Small	JM0001514
39	Spring Return Assembly	JM0012965
40	Spring Return Cable	JM0012981