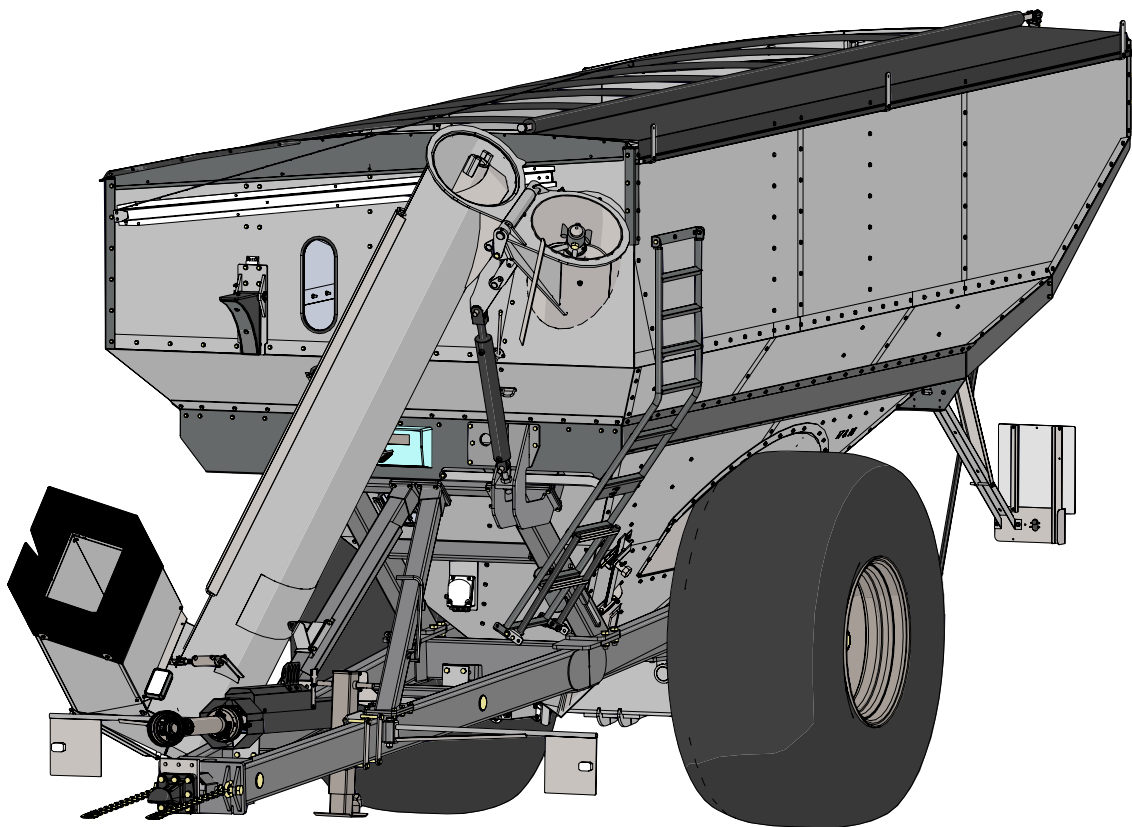




International

GRAIN CART OPERATOR'S MANUAL

MODEL **X24BI**
24t30m³ capacity



Rev. 4.4.2023

J&M Manufacturing Co, Inc

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www.jm-inc.com

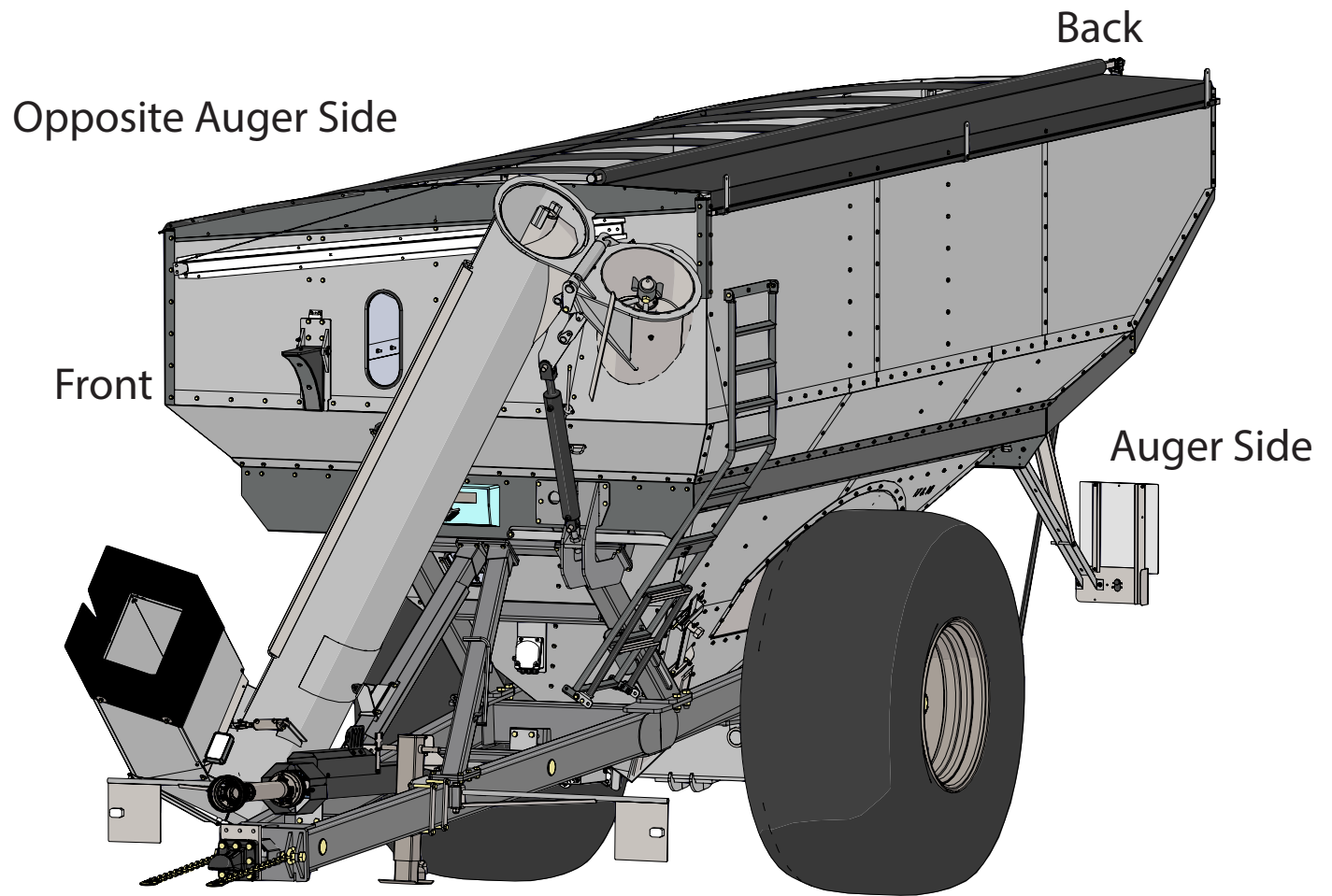


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To the Dealer

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

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

EXPRESS WARRANTY:

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

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

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

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

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

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

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

SERVICE:

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

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

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

Model No: X2431 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, 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.
Indicates helpful information.

Intended Use

This machine has been built in accordance with the latest technical standards and generally accepted safety regulations. The premeditated use for this machine is the assisting with handling grain during agricultural harvest. Any other use or use beyond the restriction of the premeditated use is considered unintended use. Unintended use can lead person(s) to be severely or fatally injured. Risk will be borne solely by the user if the machine is used outside this scope. Intended use also includes compliance with the operating instructions and adherence to the operating, maintenance, and repair instructions specified by J&M Mfg. Co., Inc.

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.

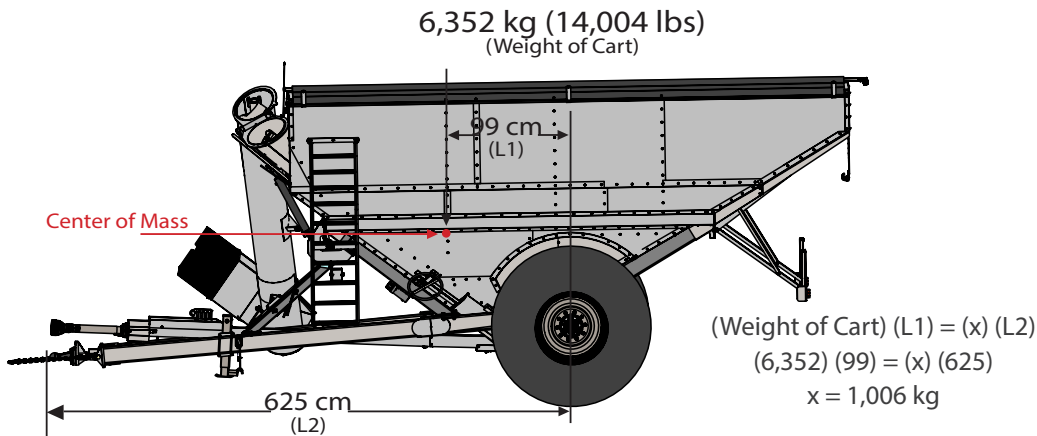
For service, your authorized J&M dealer has trained mechanics, genuine J&M service parts, and the necessary tools and equipment to handle all your needs.

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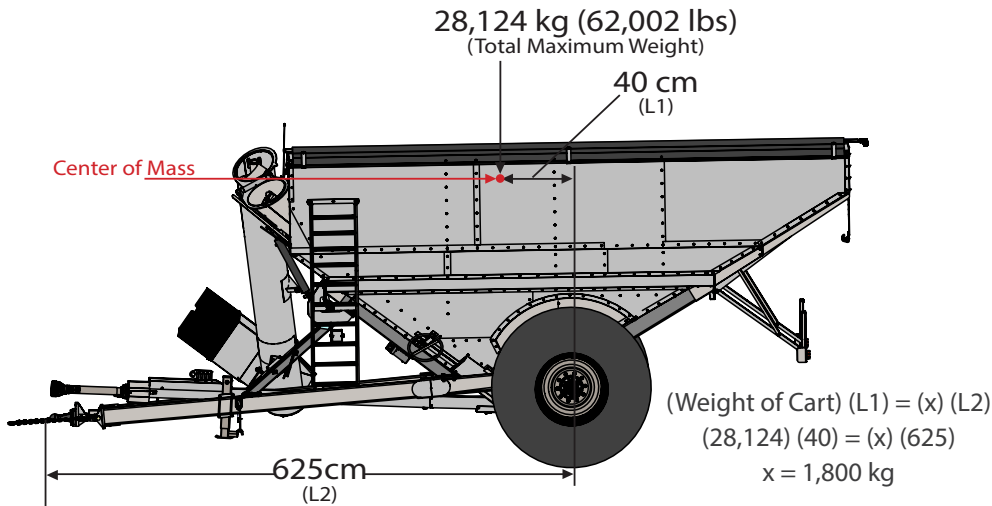
Specifications and Dimensions

Load Capacity Ratings



Weight Distribution (Empty)

Empty Tongue Weight = 1,006 kg (2,218 lbs)
Weight on Each Tire = 2,673 kg (5,893 lbs)



Weight Distribution (Full)

Full Tongue Weight = 1,800 kg (3,968 lbs)
Weight on Each Tire = 13,162 kg (29,017 lbs)

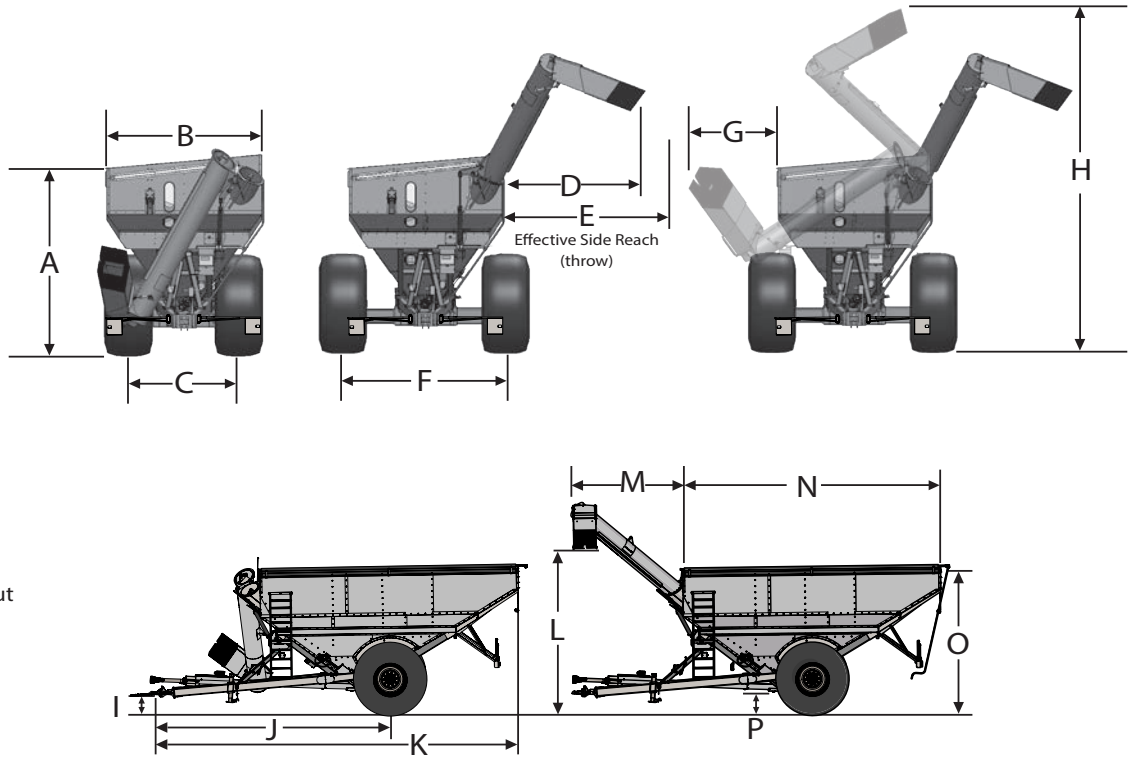


SPECIFICATIONS	Standard	Metric
Capacity	875 bu	24 t
Auger, One Vertical	18"	45,7 cm
Unload Time (minutes)	2.5 min	
Wheels	30x32	
Tires	900/60R32	
Spindles (2)	4 1/2" (no brakes) 5" (brakes)	11,4 cm (no brakes) 12,7 cm (brakes)
Tongue Weight		
Empty	2,218 lbs.	1,006 kg
Loaded	3,968 lbs.	1,800 kg
Total Weight (approx.)	14,004 lbs.	6,352 kg

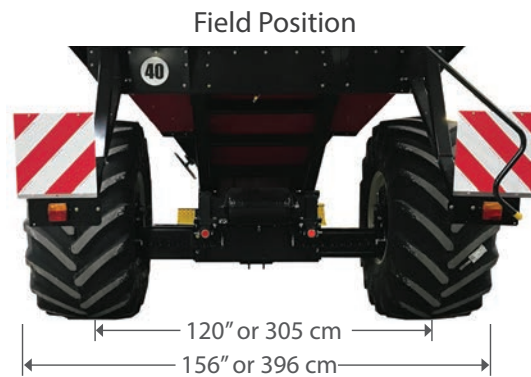
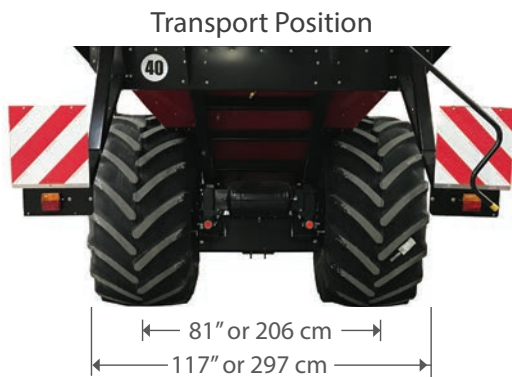
Specifications and Dimensions

	Standard	Metric
A	11'-2"	340 cm
B	9'-6"	290 cm
C	6'-9"	206 cm
D	8'-1"	246 cm
E	9'-10"	300 cm
F	10'-0"	305 cm
G	4'-1"	125 cm
H	21'-3"	648 cm
I	1'-11"	58 cm
J	20'-6"	625 cm
K	31'-4"	955 cm
L*	14'-8"	447 cm
M	9'-6"	288 cm
N	22'-0"	671 cm
O	12'-0"	366 cm
P	1'-6"	46 cm
Q	1'-4"	41 cm

*Measured at the center of the spout with all spout options installed.



Hydraulic Sliding Axle



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. Torque values in the charts below use a torque coefficient of 0.17.

SAE Fasteners

Coarse Thread Series						
	SAE J429 Grade 2		SAE J429 Grade 5		SAE J429 Grade 8	
<i>Diameter and Pitch (Inches)</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>
1/4"-20	1313	56 in-lbs	2029	86 in-lbs	2864	122 in-lbs
5/16"-18	2163	115	3342	178	4719	251
3/8"-16	3196	17 ft-lbs	4940	26 ft-lbs	6974	37 ft-lbs
7/16"-14	4385	27	6777	42	9568	59
1/2"-13	5853	41	9046	64	12771	90
5/8"-11	9323	83	14408	128	20340	180
3/4"-10	13797	147	21322	227	30101	320
7/8"-9	11428	142	29436	365	41556	515
1"-8	14992	212	38616	547	54517	772
Fine Thread Series						
<i>Diameter and Pitch (Inches)</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>
1/4"-28	1500	64 in-lbs	2319	99 in-lbs	3274	139 in-lbs
5/16"-24	1395	74	3702	197	5226	278
3/8"-24	3623	19 ft-lbs	5599	30 ft-lbs	7905	42 ft-lbs
7/16"-20	4897	30	7568	47	10684	66
1/2"-20	6598	47	10197	72	14396	102
5/8"	10558	93	16317	144	23036	204
3/4"	15385	163	23776	253	33566	357
7/8"	12609	156	32479	403	45853	568

Metric Fasteners

Coarse Thread Series				
	Class 8.8		Class 10.9	
<i>Diameter and Pitch (mm)</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>
M5-0.8	1387	4 in-lbs	1985	66 in-lbs
M6-1	1968	7	2816	113
M8-1.25	3580	192	5123	274
M10-1.5	5671	32 ft-lbs	8115	45 ft-lbs
M12-1.75	8240	55	11792	79
M16-2	15320	137	21924	196
M20-2.5	23938	267	34256	382
M22-2.5	29669	364	42457	521
M24-3	34471	461	49329	660
M30-3.5	54819	917	78448	1313
Fine Thread Series				
<i>Diameter and Pitch (mm)</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>	<i>Clamp Load (Lbs.)</i>	<i>Tightening Torque</i>
M8-1	3833	205 in-lbs	5486	293 in-lbs
M10-1.25	5985	33 ft-lbs	8565	48 ft-lbs
M12-1.25	9007	723	12889	86
M16-1.5	16331	146	23371	209
M20-1.5	27517	307	38065	425
M22-1.5	33688	413	46601	572
M24-2	38847	520	53738	719
M30-2	62823	1051	86905	1454

TIGHTENING WHEEL NUTS

Standard 20mm wheel studs and nuts should be tightened to torque 644 Nm (475 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.

1. 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.

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

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

4. A majority of farm accidents can happen from fatigue or carelessness. Safe operation of tractor and grain cart will help prevent accidents.

5. Always look around to make sure it is safe to start tow vehicle motor or move grain cart. A visual verification of a clear working area is important with higher noise levels and quiet cabs.

6. 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.

7. 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.

8. 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.

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

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

11. 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.

12. 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.

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

14. Make sure that the grain cart is fastened securely to the tractor by using a high strength hitch pin, clip and safety chains.

15. 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.

16. 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.

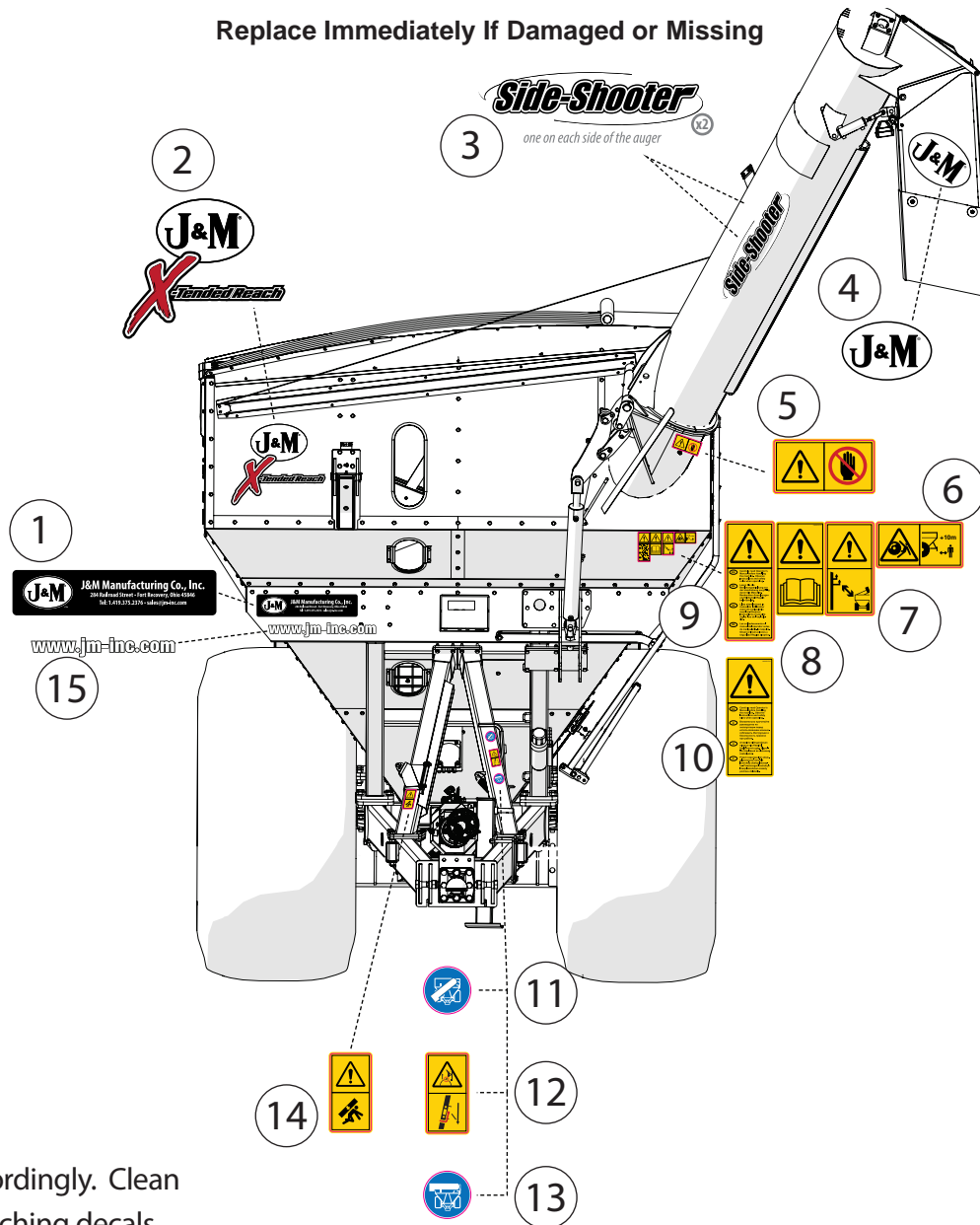
17. Never operate the auger system with anyone inside the grain tank. Hands, feet, hair and clothing can fit through the openings in and around the grate. Contact with the auger can cause severe injury or death. Make certain that all power is shut off before service work is performed.

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

Decals

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

Replace Immediately If Damaged or Missing

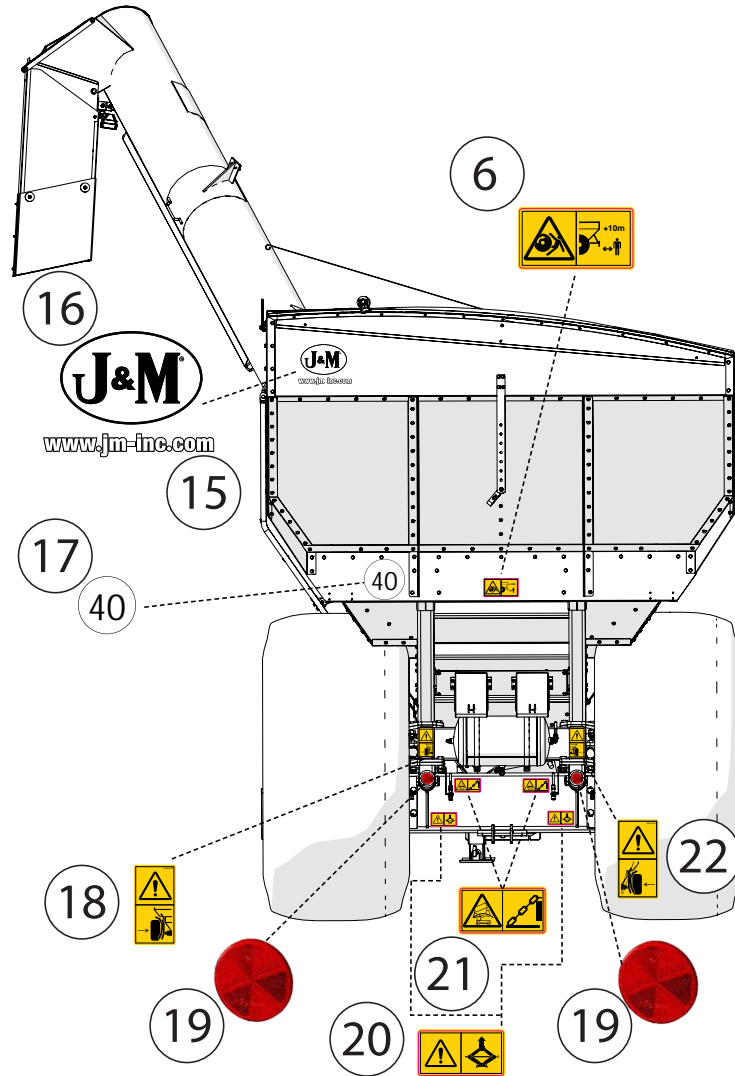


- Place decals accordingly. Clean surface before attaching decals.

	Description	Part No.
1	J&M Manufacturing 284 Railroad St Decal	JM0039482
2	J&M Oval and X-Tended Reach Decal for International Carts	JM0054696
3	Side Shooter Decal	JM0025929
4	J&M Oval Decal (Small) 3-5/8" x 5-1/4"	JM0015150
5	CE Keep Hands Away	JM0050762
6	CE Away 10M	JM0050743
7	CE Power Lines	JM0050742
8	CE Read Owners Manual	JM0050733
9	CE Read Owners EN DE FR ES	JM0050737
10	CE Read Owners EN R H P	JM0050740
11	CE Auger Transport Position	JM0050750
12	CE Auger Rest Damage	JM0050749
13	CE Auger Field Position	JM0050751
14	CE Auger Force	JM0050748
15	www.jm-inc.com Decal	JM0019239

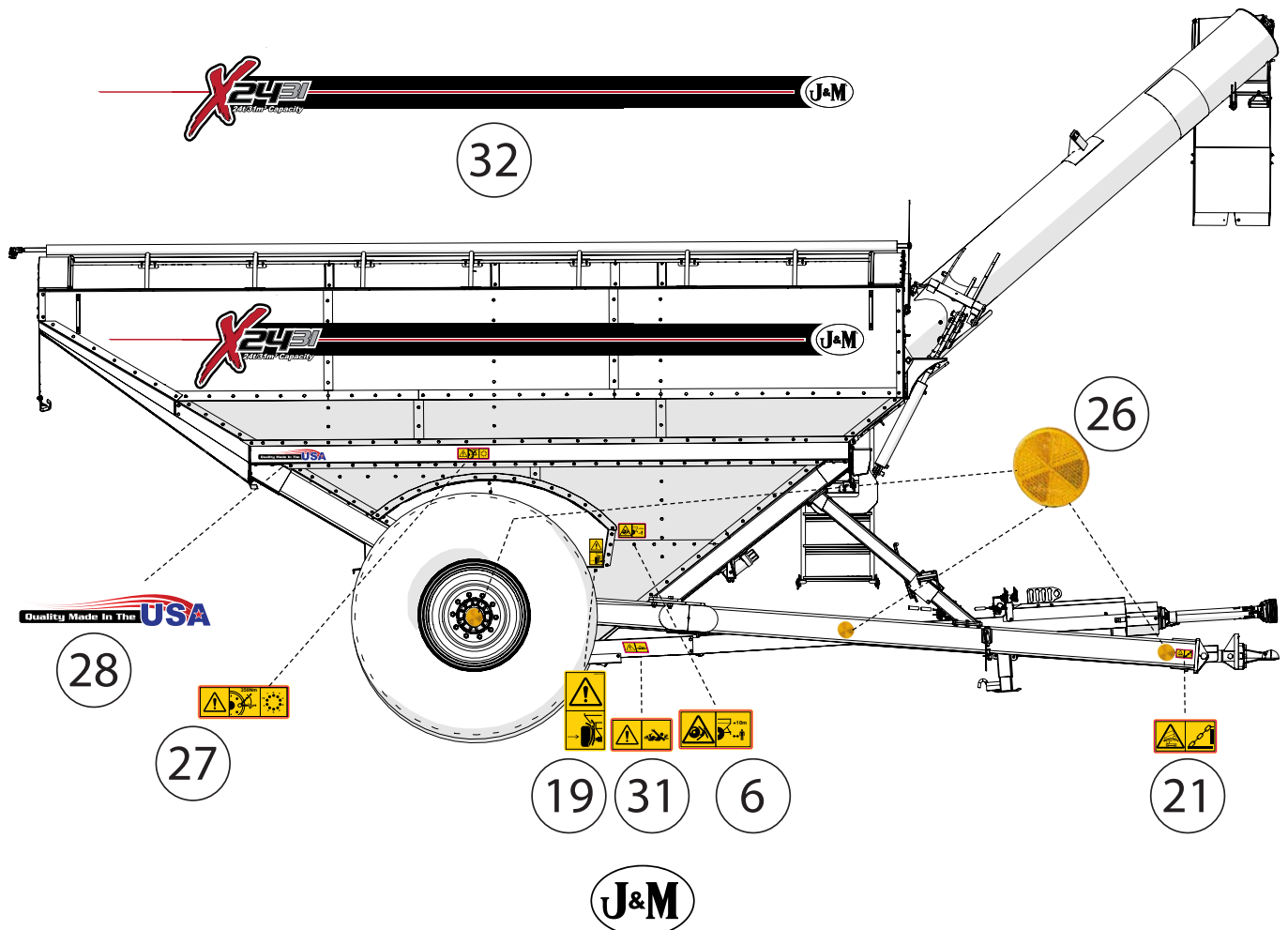
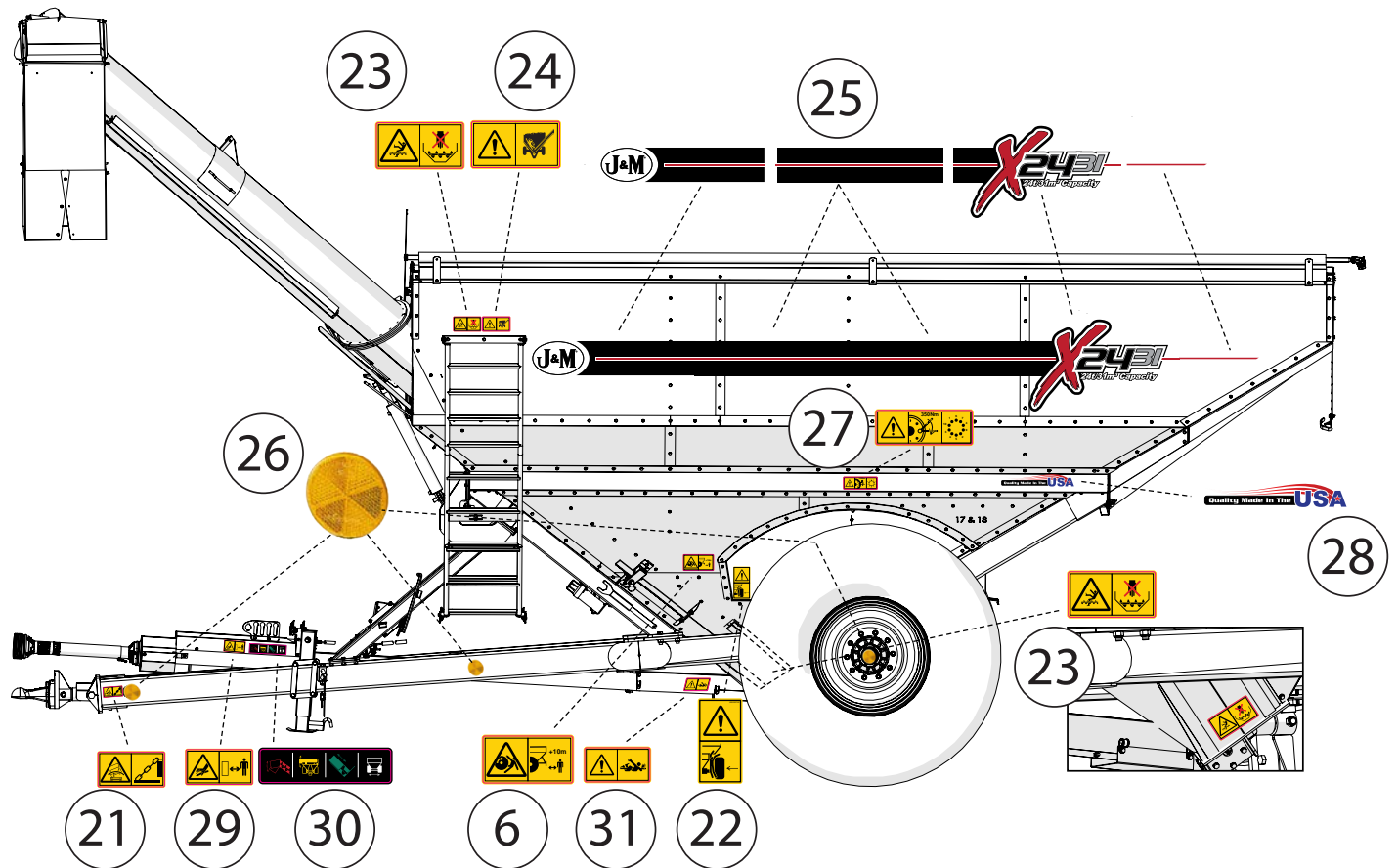


Decals

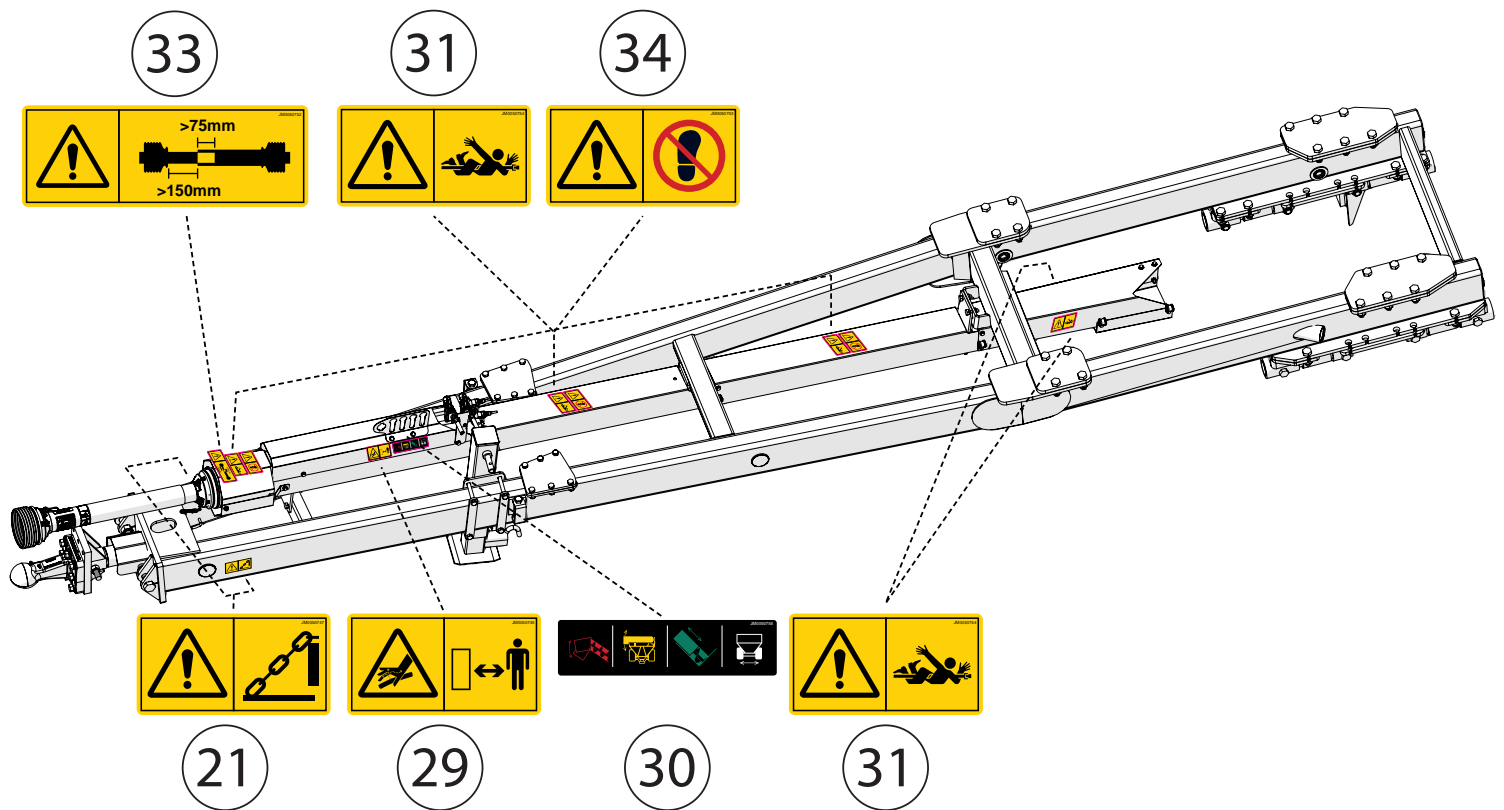


Description	Part No.
16 J&M Oval Decal (Large) 9-1/2" x 15"	JM0015151
17 40 km/h Decal	JM0048319
18 CE Tire Pinch Point Left	JM0050759
19 CE Reflector RED 60mm (15-5411-017)	JM0048314
20 CE Jack Point	JM0050746
21 CE Chain Point	JM0050747
22 CE Tire Pinch Point Right	JM0050760
23 CE Spinning Auger	JM0050756
24 CE Flowing Grain	JM0050741
25 X2431 Side Stripe AS	JM0043855
26 CE Reflector YELLOW 60mm (15-5412-017)	JM0048315
27 CE Torque Lug Nut	JM0050744
28 Quality Made In The USA Decal	JM0019241
29 CE Hydraulic Keep Away	JM0050745
30 CE Hydraulic Assignment	JM0050755
31 CE Drive Shaft	JM0050754
32 X2431 Side Stripe OAS	JM0043854
33 CE PTO Length	JM0050752
34 CE No Step	JM0050753

Decals



Decals



Decals



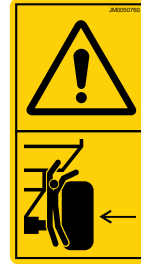
Carefully Read
Operator's Manual
(EN,DE,FR,ES)



Carefully Read
Operator's Manual
(EN,R,H,P)



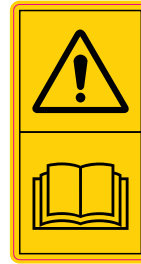
Tire Pinch Point Left



Tire Pinch Point Right



Keep Safe Distance, Danger of
Whole Body Entanglement



Read Operator's Manual



When Moving Auger Tube
from Storage Position to Field
Position, Ensure Auger Rest is
in Field Position. Damage to
the Tube Can Occur if Auger
Rest is in Storage Position
During the Process.



Keep Hands Away



Amber Reflector

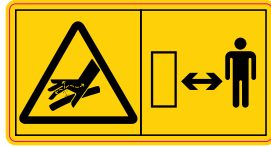


Red Reflector

Decals



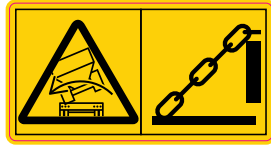
Crushing Hazard, Maintain More Than 10m Away During Operation



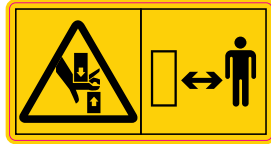
High Pressure Hydraulic Fluid During Operation, Maintain Safe Distance Away



Maintain Appropriate Distance from Power Lines



Keep Load from Rolling, Chain Equipment Here



Pinch Point, Keep Safe Distance



Crushing of Whole Body Above Angle



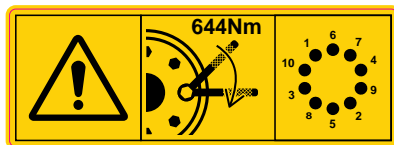
Auger Entanglement. Never Reach or Climb into Grain Tank While Engine is Running



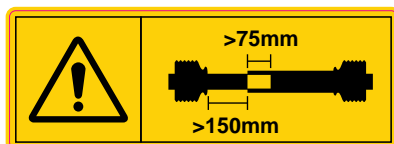
Jack Equipment During Repair at This Location



Do Not Step in this Location



Torque Lug Nuts 644 Nm, 10 Bolts



Check PTO Gap Length, 75mm Overlap, 150mm Exposed

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 25,4 cm and 55,88 cm. Different PTO lengths may need to be purchased to accommodate your terrain. A 10,16 cm shorter or a 25,4 cm 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	kPa	PSI
30.5x32 Lug Tires-18 ply (Alliance) (for 27x32-10 Hole Wheels) (124" c/c)	248	36
900/60R32 Lug Tires (Firestone) (176LI) (for 30x32-10 Hole Wheels) (136" c/c)	283	41
800/60R32 Diamond Tires (181 LI) (Firestone)	317	46
800/65R32 Lug Tires (181 LI) (Alliance)	434	63

Operating Instructions

⚠ CAUTION

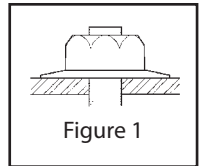
- Do NOT operate the grain cart before reading and understanding the Operator's Manual and ALL danger, warning and caution signs.
- Never exceed 1,000 rpm on the PTO and driveline system.
- Never fold or extend the auger until the PTO has come to a complete stop.
- Never fill the grain cart unless the 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.
- Never use the PTO or their guards as a step.

The maximum height of the auger when unfolding is 648 cm. Always check the height of overhead power lines or bridges when the auger is unfolded or during the folding or unfolding process.

VERY IMPORTANT: Under no circumstance is it recommended to tow a loaded grain cart in excess of 13 km/h.

WHEEL NUTS: Are the wheel nuts properly fastened? **Torque to 644 Nm for 20mm 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 40,6cm (16") of the left and right extremities of the grain cart.

HYDRAULIC HOSES AND FITTINGS: Use tractor manufacturer recommended hydraulic fluid for grain cart hydraulic operation. Maximum hydraulic pressure is 206.8 bar (3,000 psi) and maximum hydraulic temperature is 93.3°C (200°F).

⚠ WARNING: 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: The X2431 Grain Cart requires a 200 hp tractor or larger and tractor must be compliant to applicable Machinery Directive.

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: Do not travel more than 40 km/h (25 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.

IMPORTANT: During normal field operation, adjustable axle needs to be fully extended for greatest stability. During normal road transport, the adjustable axle needs to be fully retracted for narrow travel.

Operating Instructions

MAXIMIZING STABILITY

Follow the ensuing procedures to achieve maximum stability with your grain cart:

Operating in field

- a. Fully extend the axles
- b. Ensure brakes are properly connected to tractor

Operating on road

- a. Empty the contents of the grain cart
- b. Fully retract the axles
- c. Move auger to transport position
- d. Ensure brakes are properly connected to tractor

Grain Cart is stationary and unhooked from the tractor

- a. Empty the contents of the grain cart
- b. Fully retract the axles
- c. Ensure that parking brake is applied
- d. Move auger to storage position
- e. Lower the jack
- f. Apply the wheel chocks
 - If parked on a slope, place each chock on the downhill faces of the two tires.
 - When parked on level ground, the chocks should be placed on both sides of the auger side wheel to prevent any rocking motion that might send the grain cart in one direction or another.

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

1) Connect grain cart hitch to tractor drawbar using a good quality hitch pin. Attach the safety chain to the tractor and around the A-frame of the cart. 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 Chains User Instruction

- a. Secure the safety chains by looping them around each side of the grain cart and connecting to the towing machine's attaching bar.
 - b. Do not allow any more slack than necessary for articulation (maximum 28 cm, 11")
 - 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. Replace the safety chains if one or more links or end fittings are broken, stretched, damaged, or deformed.
- 2) Attach the power take-off shaft to the tractor. The PTO must have at least 25,4 cm (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.
- 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. 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. The remaining two hydraulic lines operate the adjustable axle. Connect these lines to a fourth service outlet on the tractor. Make sure the air is bled from the hydraulic cylinders and hoses.

⚠ CAUTION: Before operating hydraulic components, verify a clear working area. If the ladder is in the out position, the operator must check inside the tank to ensure nobody is inside before operation.

6) 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.

Operating Instructions

- 7) 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.
- 8) To lower the auger from field position to storage position, while the auger is extended, push the Flip Up Auger - Throw Handle from "Field Position" to "Storage Position". After the handle has been moved, completely fold the auger into storage position.
- 9) The maximum continuous noise is 88 dB (A).
- 10) Any removable guards have to be put back after cleaning or maintenance.
- 11) Machine is to be operated and maintained only by trained personnel.
- 12) Follow lock out/tag out procedure implemented in the end user's facility.
- 13) Machine must not be used in residential area.

Routine Maintenance

⚠ WARNING: WHEN SERVICING THE GRAIN CART BE CERTAIN ALL POWER IS SHUT OFF AND THE TRACTOR KEY REMOVED TO PREVENT OPERATION OF TRACTOR AND 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. Have all loose bolts torqued to correct torque value listed in the "Bolt Torque Chart" on page 8.
- Run all functions of the hydraulic cylinders and inspect hoses, fittings, and seals for leakage. Replace any damaged hoses, fittings, or seals. For replacement parts, see "Hydraulic Hoses and Cylinders" on page 34.
- Lubricate the slides on the clean-out door.
- Make sure all tires are properly inflated. See "Initial Operation and Maintenance" on page 16 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.

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.

To view the lubricating grease Safety Data Sheet, go to: http://jm-inc.com/sds_10565_1_lc_ep_1.pdf

⚠ WARNING: WHEN SERVICING THE GRAIN CART BE CERTAIN ALL POWER IS SHUT OFF AND THE TRACTOR KEY REMOVED TO PREVENT OPERATION OF TRACTOR AND CART

PTO & DRIVE LINE: 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 the universal joint after every 8 hours of use.

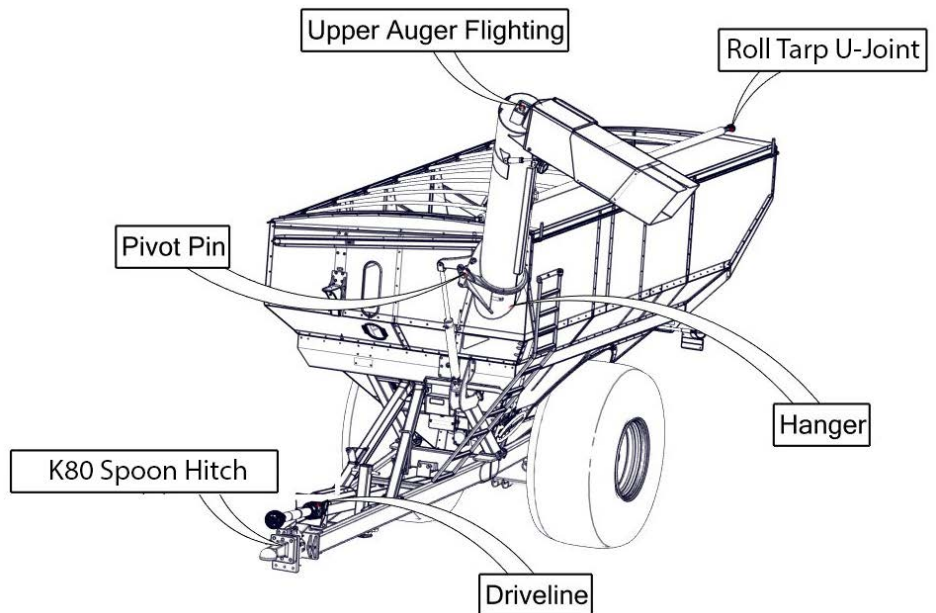
AUGER FOLDING MECHANISM: One grease fitting is located on the pivot pin of the folding auger. This fitting should be serviced after every 8 hours of use. Service the grease fitting on the hanger bushing assembly (top end of the lower auger assembly) after every 8 hours of use or as needed.

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 0,71 liters (24 ounces) of gear box lubricant for 51 cm (20") auger. The gearbox is properly filled when half full of lubricant. DO NOT OVERFILL. Use SAE 80W-90 gearbox lubricant or equivalent.

To view the gearbox lubricant Safety Data Sheet, go to: http://jm-inc.com/hd_80w90_es_gear_oil.pdf

Pivot Pin	Once Annually
Roll Tarp U-Joint	Once Annually
Upper Auger Flighting	Every 8 hrs of use
Drive line	Every 8 hrs of use
Brake Bearing	Every 8 hrs of use



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	Dirt in restrictor Faulty check valve Upper flighting and lower flighting are locked together	Remove restrictor fittings from outside hydraulic cylinder and clean out dirt Replace check valve 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 Lower and Upper Flighting" on page 22)
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 Drive shaft is bent	Straighten or replace auger flighting Replace or straighten drive shaft
Grain flow stoppage	Bolt sheared in drive dog Folding auger before complete stop PTO key sheared	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.) 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. 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.
Flip-up auger rest not flipping over center	Cable has loosened	With auger in "Field" position tighten cable to the handle.
Axle will not adjust in/out	Axle stop blocks too tight to axle	Adjust gap in axle stop blocks

Adjusting the Lower and Upper 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 (2) M12-1.75 x 35 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 0,32cm (1/8") to 0,48cm (3/16") 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) M12-1.75 x 35 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.

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 a 0,32cm (1/8") 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 a 0,32cm (1/8") space, the upper flighting will need to be adjusted. To adjust the upper flighting, loosen the 1-1/4" hex jam nuts both above and below the four-hole flange bearing. Move the 1-1/4" hex jam nuts up or down the threaded shaft on the top of the auger flighting shaft until the bearing moves to approximately 0,32cm (1/8") above the base of the upper tube housing. When the four-hole flange bearing is properly located, tighten both 1-1/4" hex jam 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 0,32cm (1/8") 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 its 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 "Lubrication Service Schedule" on page 20.
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 door at the base of the grain tank.
8. Loosen the Slip Clutch Tension Bolts.

Removing from Storage

- Check the gearbox to make sure it has the appropriate amount of oil.
- 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: WHEN SERVICING THE GRAIN CART BE CERTAIN ALL POWER IS SHUT OFF AND THE TRACTOR KEY REMOVED TO PREVENT OPERATION OF TRACTOR AND CART

Wheel Rims and Tires

Wheel Rims

27x32-10 Hole Wheel Rims

30x32-10 Hole Wheel Rims

Tires

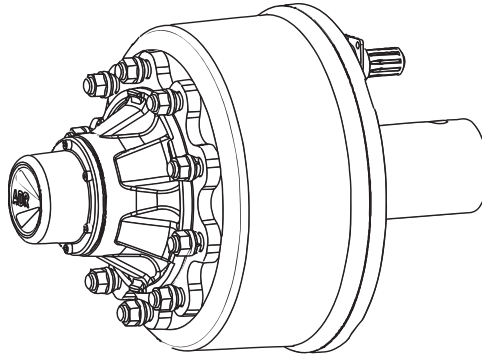
30.5x32 Lug Tires - 18 ply (Alliance)

800/60R32 Diamond Tires (181 LI) (Firestone)
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800/65R32 Lug Tires (181 LI) (Alliance)

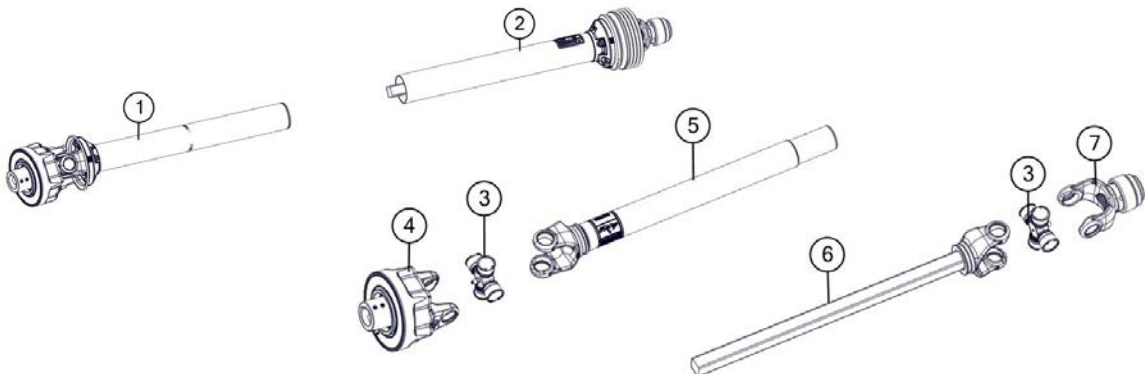
900/60R32 Lug Tires (176 LI) (Alliance)

Hub and Spindle Assembly



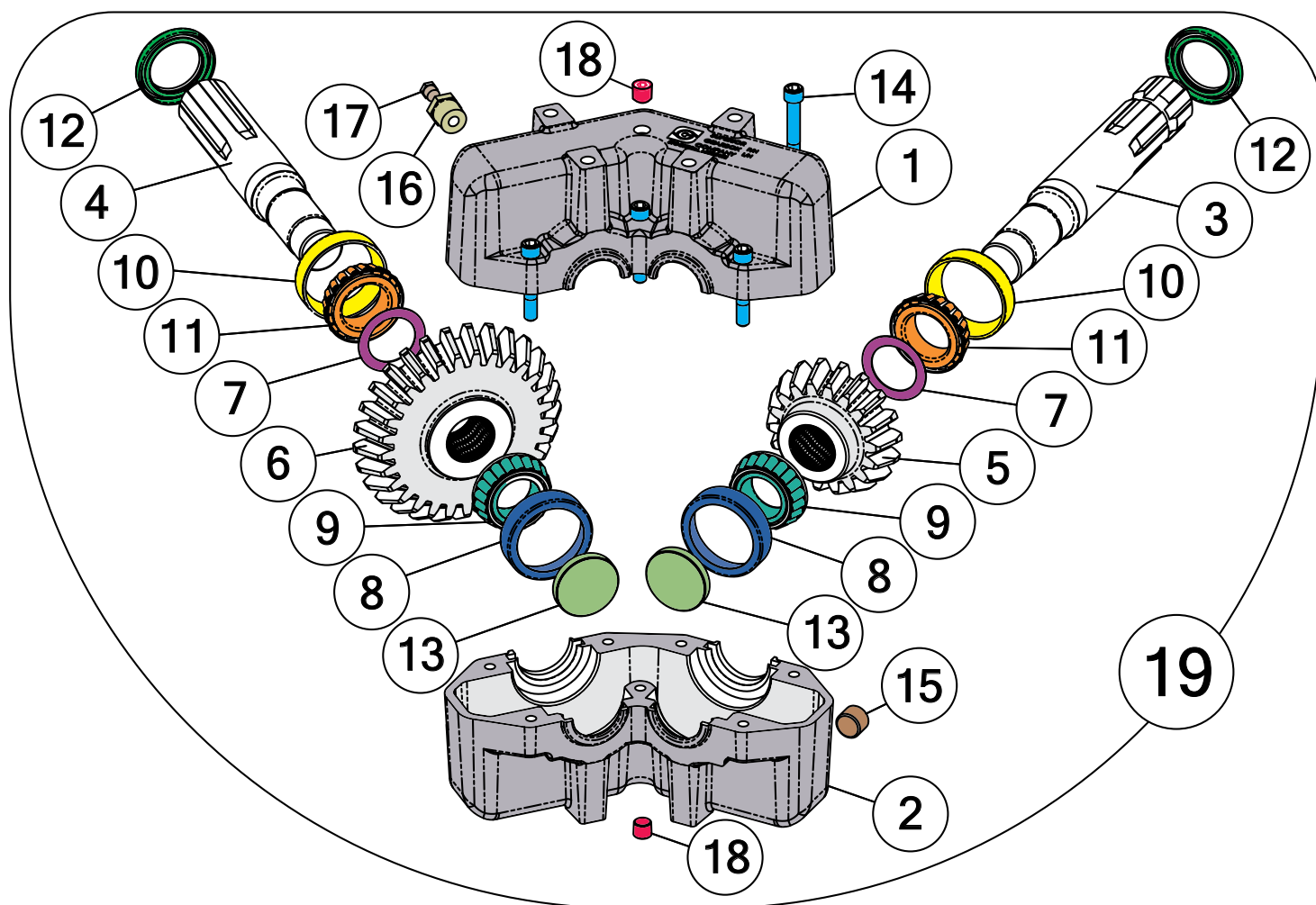
	Description	Part No.
1	ADR Brake Hub Axle Assembly-Left (1925, 2431)	JM0050150
2	ADR Brake Hub Axle Assembly-Right (1925, 2431)	JM0050149

Power Take-Off (PTO) Assembly



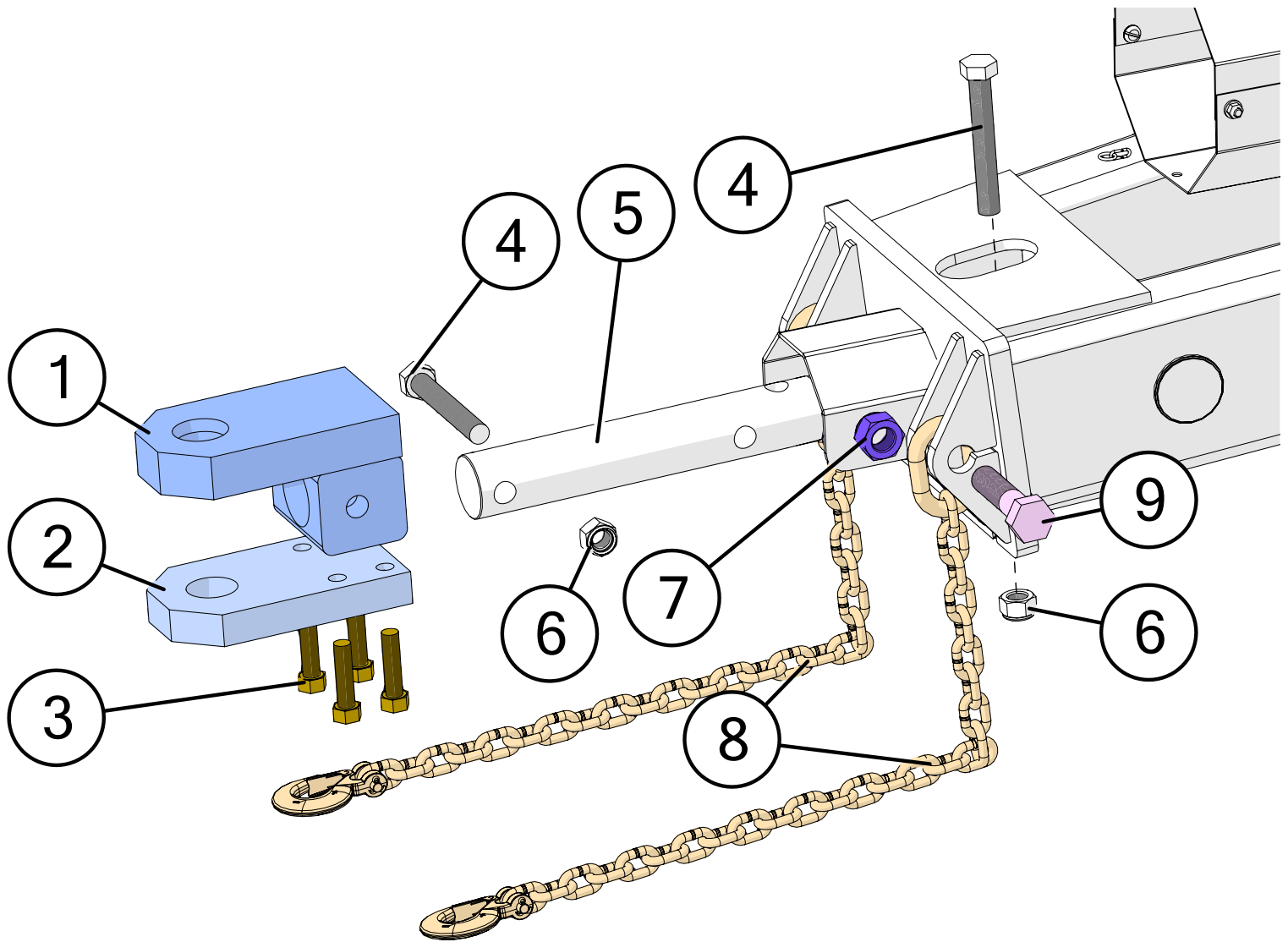
	Description	Part No.
1	Back Half Weasler PTO (1-3/4") with CE Guard (Auto Clutch)	JM0048367
2	Front Half Weasler PTO (1-3/4") with CE Guard (Auto Clutch)	JM0048362
2	Front Half Weasler PTO (1-3/8") with CE Guard (Auto Clutch)	JM0048374
3	55E Cross Kit (Auto Clutch PTO)	JM0018449
4	Auto Clutch for Weasler	JM0018500
5	Yoke, Tube & Sleeve (Weasler Auto Clutch) (55E)	JM0018519
6	Yoke & Shaft Assembly (Weasler Auto Clutch) (55E)	JM0018520
7	Spring Lock Yoke (1-3/4" PTO) (Weasler)	JM0018506
7	Spring Lock Yoke (1-3/8" PTO) (Weasler)	JM0024353
8	Weasler Auto Clutch Front CE Guard	JM0045258
8	Weasler Auto Clutch Back CE Guard	JM0045257
9	Complete 1-3/4" Weasler PTO with CE Guard (Auto Clutch)	JM0048368
9	Complete 1-3/8" Weasler PTO with CE Guard (Auto Clutch)	JM0048388

130 Degree Gearbox Assembly



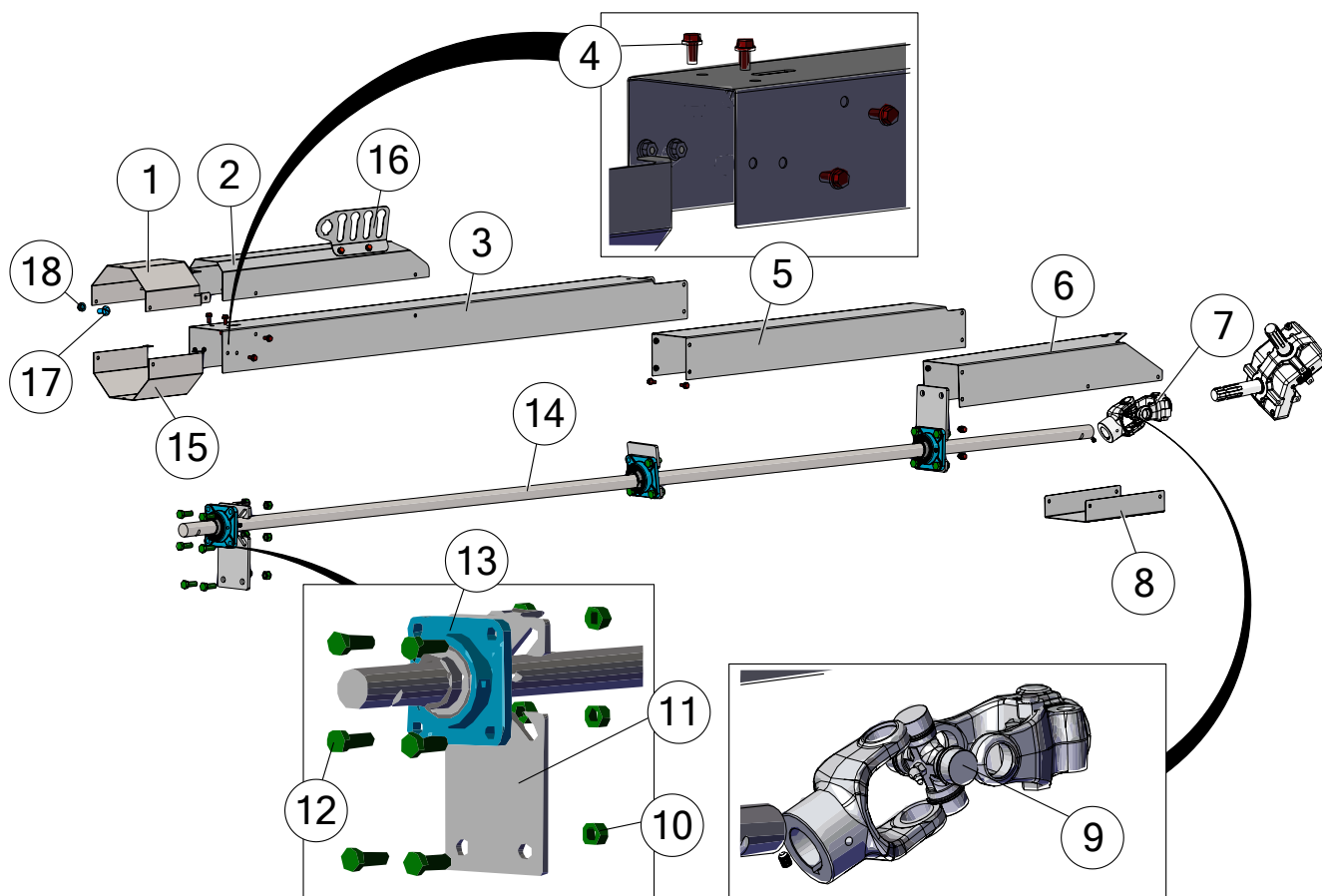
	Description	Part No.
1	Casting, Upper Half for Superior Gearbox (18-20") (A0150)	JM0025088
2	Casting, Lower Half for Superior Gearbox (18-20") (A0149)	JM0025089
3	1-3/4" Input Shaft for Superior Gearbox (18-20") (A0142)	JM0025090
4	1-3/4" Output Shaft for Superior Gearbox (18-20") (A0143)	JM0025091
5	18 Tooth Gear for Superior Gearbox (18-20") (H61S18)	JM0025092
6	29 Tooth Gear for Superior Gearbox (18-20") (H61S29)	JM0025093
7	Shim, Arbor for Superior Gearbox (18-20") (H00101-01)	JM0025094
8	Bearing Cup for Superior Gearbox (14-20") (414276)	JM0025077
9	Bearing Cone for Superior Gearbox (14-20") (514137)	JM0025078
10	Bearing Cup for Superior Gearbox (18-20") (413620)	JM0025095
11	Bearing Cone for Superior Gearbox (18-20") (413687)	JM0025096
12	Seal for Superior Gearbox (18-20") (617285)	JM0025097
13	End Cap for Superior Gearbox (14-20") (400301)	JM0025076
14	2-1/4" Bolt for Superior Gearbox (438225)	JM0025085
15	Solid Plug for Superior Gearbox (14-20") (400300)	JM0025080
16	Bushing (1/2" x 1/4" reducer) for Superior Gearbox (4003VB)	JM0025073
17	Vented Plug for Superior Gearbox (2003PR)	JM0025081
18	Plain Plug for Superior Gearbox (200300)	JM0025075
19	130 Degree Gearbox Complete (Superior) (18-20") (H130-9)	JM0017840

Hitch Assembly



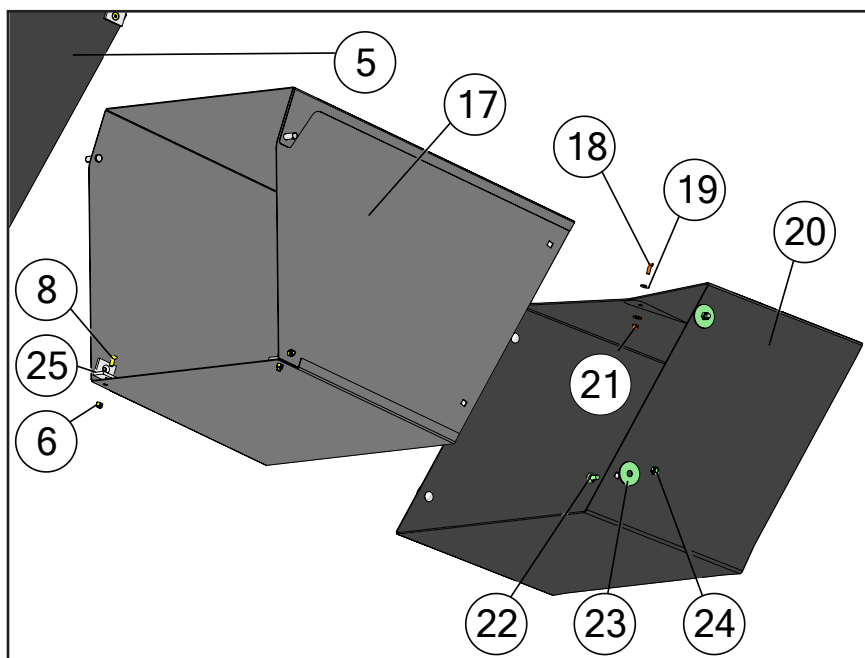
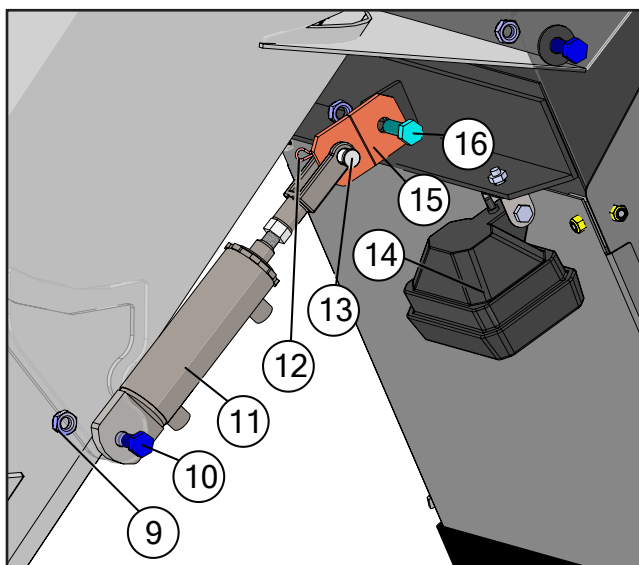
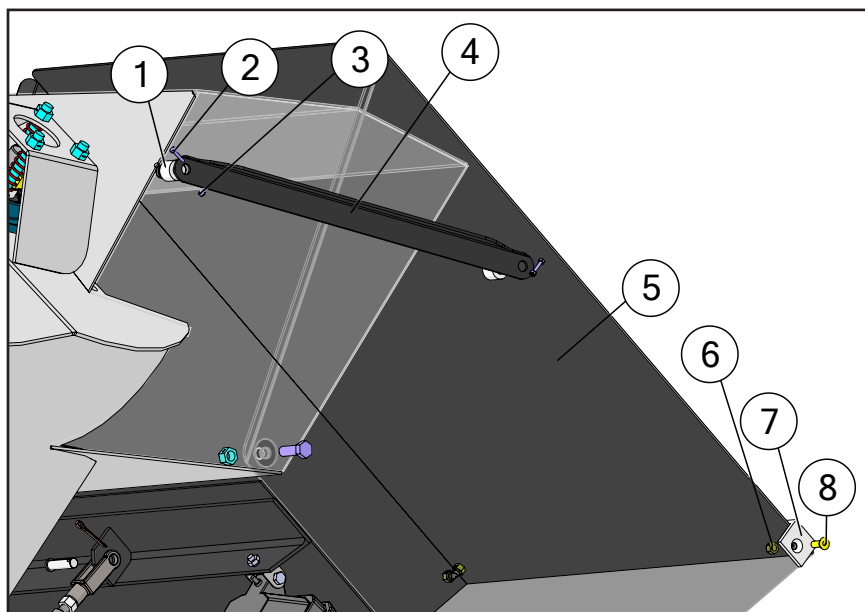
	Description	Part No.
1	Bolt On Spade Hitch with 2-1/4" Hourglass Pin Hole	JM0017978
2	Tang with 4 Bolts (2-1/4" Hourglass Pin Hole)	JM0017976
3	3/4"-16 x 3" Gr8 YZ Fine Thread Hex Bolt	JM0002107
4	M24-3.0 x 165 Gr8.8 YZ Hex Bolt	JM0002117
5	2-7/8" x 16-3/4" Non-Scale Hitch Bar	JM0048289
6	M24-3.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002165
7	M30-3.5 Gr8.8 YZ Nylon Locking Hex Nut	JM0002166
8	30k Lb Safety Chain	JM0031890
9	M30-3.5 x 120 Gr8.8 YZ Hex Bolt	JM0002119

Driveline



	Description	Part No.
1	Upper PTO Shield (1925, 2431)	JM0045804
2	Shield Hydraulic for Hose Conduit with Weld Nuts 949mm	JM0049111
3	Front Driveline Shield with Weld Nuts 2146mm	JM0049113
4	M10-1.5 x 25 Gr8.8 YZ SF Hex Bolt	JM0002093
5	Middle Driveline Shield with Weld Nuts 1289mm	JM0049116
6	Rear Driveline Shield with Weld Nuts 920mm	JM0049117
7	44 Series U-Joint (252288) - Weasler 44063-A1	JM0017957
8	X1925 U-Joint Bottom Shield (14-1/16")	JM0036716
9	Cross Kit (U-Joint) (44R) (CK-44R)	JM0017958
10	M16-2.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002164
11	Drive Shaft Support Plate (10-7/8")	JM0019550
12	M16-2.0 x 45 Gr8.8 YZ Hex Bolt	JM0002116
13	1-3/4" 4 Bolt Flange Bearing, 5/8" Bolt Hole (UCF-20928)	JM0018774
14	164-1/2" x 1-3/4" Drive Shaft (1012, 1112, 1122, 1222, 2431)	JM0026002
15	Lower PTO Shield (1925, 2431)	JM0045805
16	4-Keyed Hydraulic Hose Holder (CE)	JM0048515
17	M10-1.5 x 20 Gr2 Z Round Head Slotted Screw	JM0048300
18	M10-1.5 Gr8.8 YZ SF Hex Nut	JM0002154

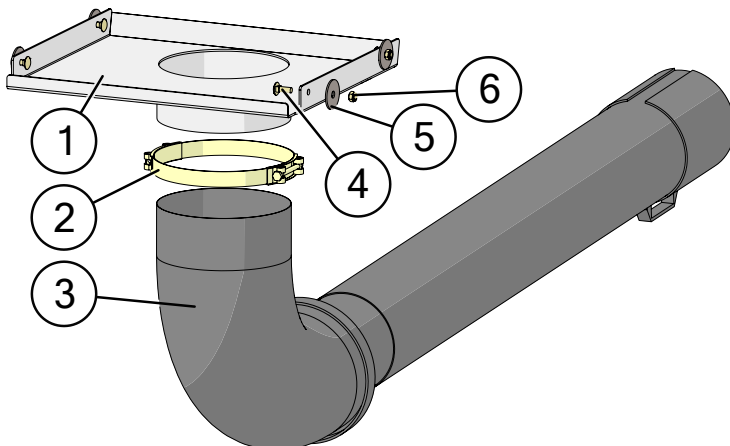
Spout Assembly



Spout Assembly

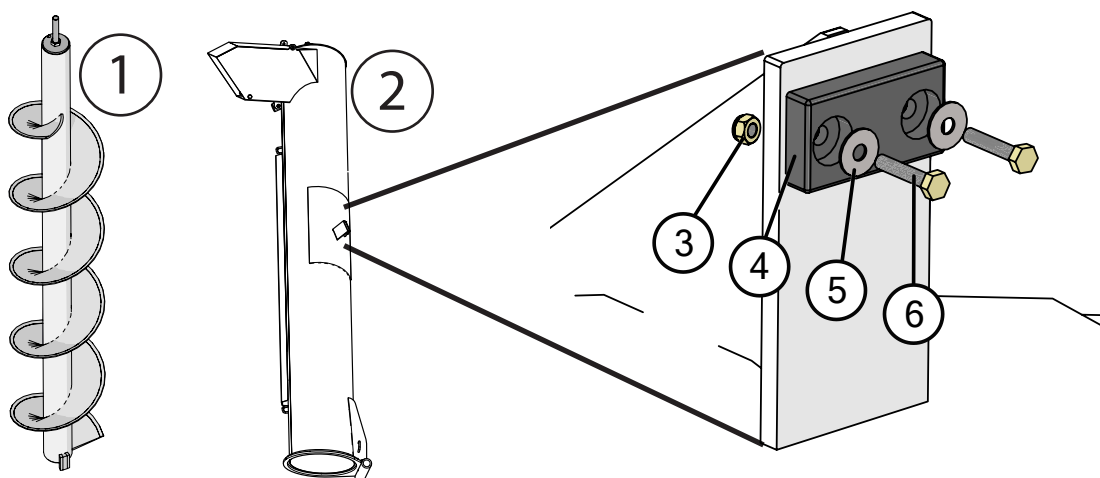
	Description	Part No.
1	1" OD 33/64" ID x 3/4" L Black UV Nylon Spacer	JM0001962
2	M3-0.5 x 20 Gr8.8 Z Hex Bolt	JM0050141
3	M3-0.5 Gr8.8 YZ Nylon Locking Hex Nut	JM0050142
4	Telescoping Spout Main Linkage Rod	JM0034363
5	Inner Tip Spout (12 & 22-Series)	JM0034291
6	M8-1.25 Gr8.8 YZ Nylon Locking Hex Nut	JM0048804
7	Spout Guide (Nylon)	JM0035132
8	M8-1.25 x 16 Flat Head Socket Cap Screw - Black Oxide	JM0049079
9	M12-1.75 Gr 8.8 YZ Nylon Locking Nut	JM0002163
10	M12-1.75 x 50 Gr8.8 YZ Hex Bolt	JM0001490
11	1-3/4" x 4" Hydraulic Cylinder (1/2" Clevis and Tab ends) (HC-FCS)	JM0018564
12	5/32"x 1-1/2" Cotter Pin	JM0014348
13	1/2" x 1-3/4" Clevis Pin, Usable Length 1-1/2"	JM0018264
14	LED Field Light	JM0001881
15	Tip Spout Cylinder Tab	JM0041970
16	M12-1.75 x 35 Gr8.8 YZ Hex Bolt	JM0020955
17	Outer Tip Spout (12 & 22-Series)	JM0034365
18	M6-1.0 x 20 Gr8.8 YZ Hex Bolt	JM0002120
19	M6 Flat Washer	JM0019447
20	4-Sided Telescoping Spout Rubber Extension (20")(12 & 22-Series)	JM0034417
21	M6-1.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002167
22	M10-1-1/2 x 30 Gr8.8 YZ Carriage Bolt	JM0037071
23	1/2" ID x 2-1/4" OD Flat Washer - 1/8" Thick	JM0019081
24	M10-1.5 Gr8.8 YZ Nylon Locking Hex Nut	JM0002162
25	UHMW - 0.25 Angle Iron - Spout Guide	JM0034308

Seed Discharge Attachment Option



	Description	Part No.
1	20" Spout to Seed Discharge Weldment	JM0043703
2	10" Diameter Hose Clamp (500ST)	JM0010502
3	10.0 dia x 12' Long 2 Stage Tele Spout with Handle	JM0030265
4	M10-1.5 x 30 Gr8.8 YZ Carriage Bolt	JM0037071
5	1/2" ID x 2-1/4" OD Flat Washer - 1/8" Thick	JM0019081
6	M10-1.5 Gr8.8 YZ Nylon Locking Hex Nut	JM0002162

Upper Auger Assembly

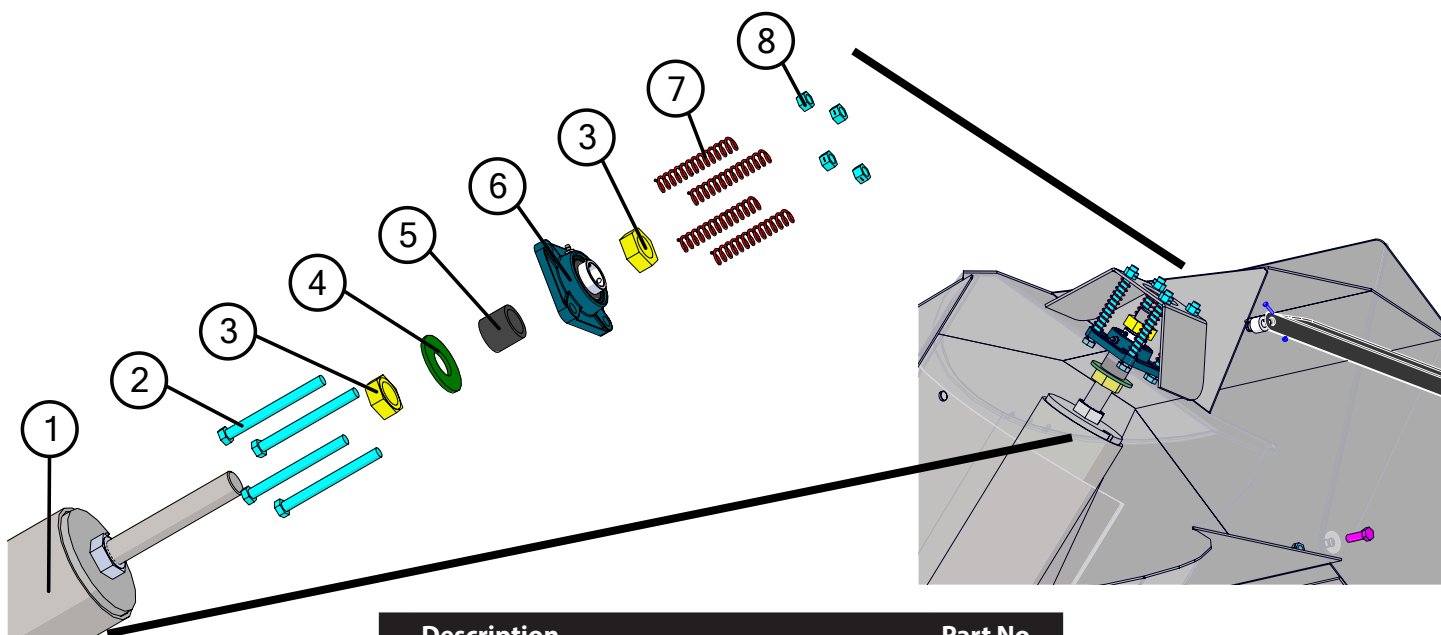


*-R = Red
*-G = Green

	Description	Part No.
1	18" x 132-1/2" Upper Flighting	JM0032692
2	Top Tube Weldment (1925, 2431)	JM0041299
3	M6-1.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002167
4	2-3/4" x 1-1/2" Rest Pad	JM0020802
5	M6 Flat Washer	JM0019447
6	M6-1.0 x 30 Gr8.8 YZ Hex Bolt	JM0031474

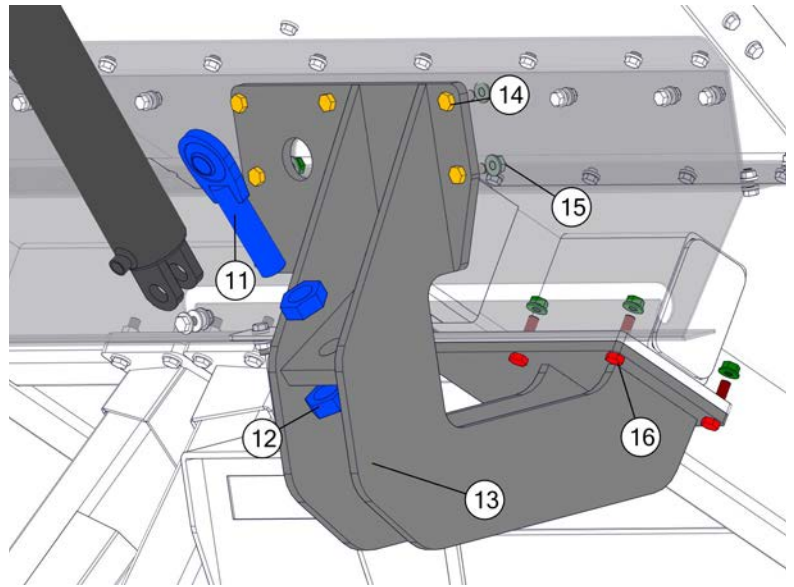
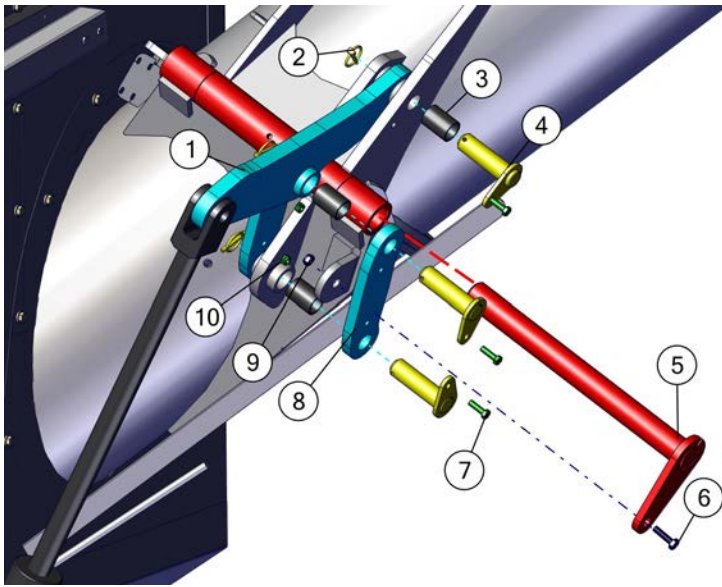
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Upper Auger Bearing Assembly



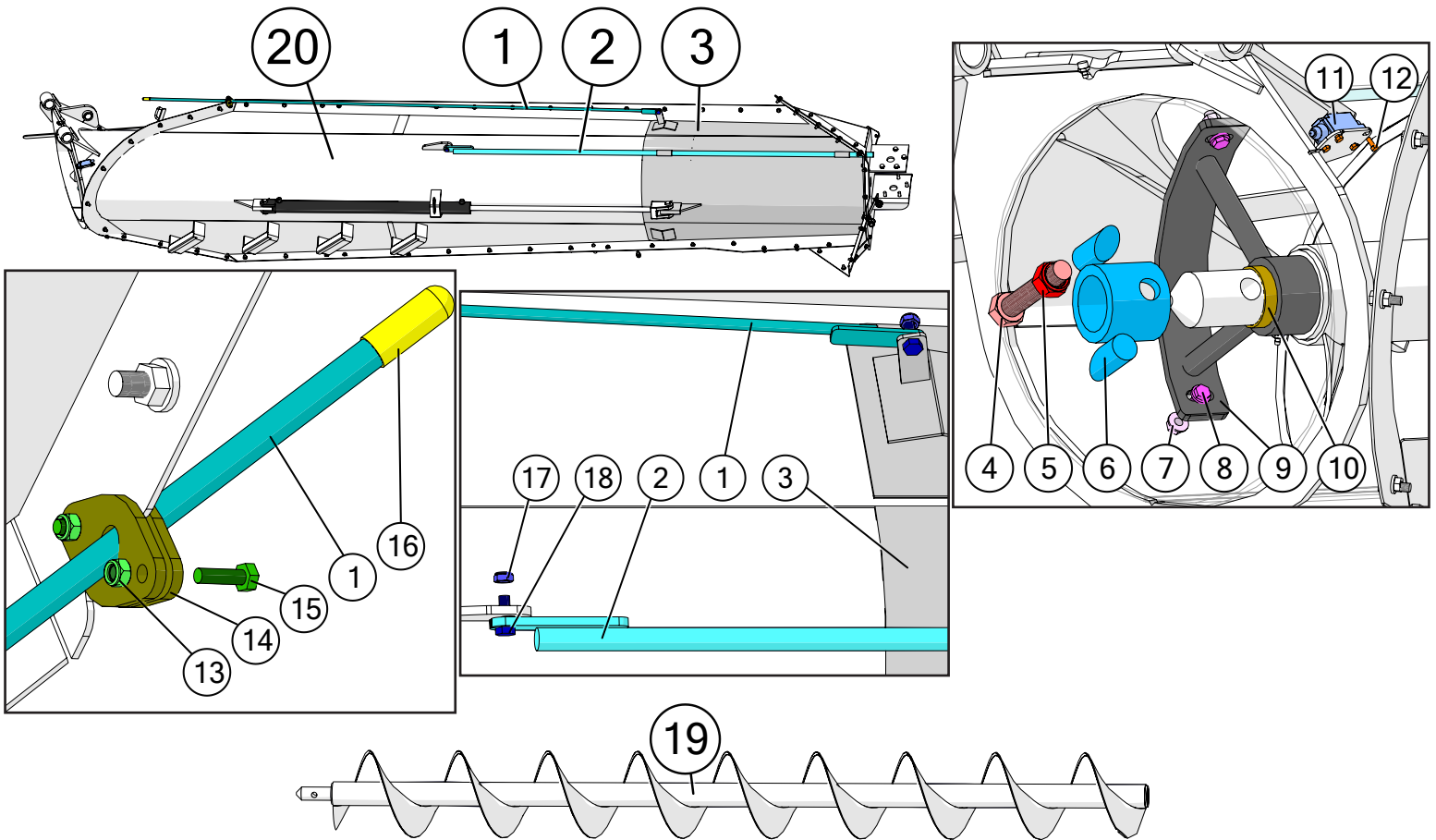
	Description	Part No.
1	18" x 132-1/2" Upper Flighting	JM0032692
2	M12-1.75 x 140 Gr8.8 YZ Hex Bolt	JM0031572
3	1-1/4"-12 PN Gr5 Hex Jam Nut	JM0001606
4	1-3/8", ID 3" OD Flat Washer	JM0015731
5	1-1/2" Long Spacer (1.28" ID, 1-3/4" OD, .235" Thick)	JM0016792
6	1-1/4" Flange Bearing, 4 hole (GRAF-206)	JM0018560
7	4-1/2" Compression Spring (CMSUAA-4)	JM0018559
8	M12-1.75 Gr 8.8 YZ Nylon Locking Nut	JM0002163

Upper Auger Linkage



	Description	Part No.
1	Main Linkage Weldment (1925, 2431)	JM0035725
2	1/4" Diameter Snap Ring	JM0001870
3	1-1/4" ID x 1-1/2" OD x 2" Long Sleeve Composite Bushing	JM0021957
4	1-1/4" Pin Keeper	JM0035930
5	18" Auger Hinge Pin w/ Keeper Weldment (19" Long)	JM0022086
6	M16-2.0 x 45 Gr8.8 YZ Hex Bolt	JM0002116
7	M8-1.25 x 35 Gr8.8 YZ Hex Bolt	JM0048806
8	Master Link w/ Keeper (11-1/8" x 3" x 3/4")	JM0035075
9	M16-2.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002164
10	M8-1.25 Gr8.8 YZ Nylon Locking Hex Nut	JM0048804
11	HD Adjustable Pac Man Weldment	JM0021417
12	1-1/4"-12 Z Gr5 Hex Jam Nut	JM0002158
13	Fold Cylinder Mount Weldment with HD Adjustable Pac Man Weldment (1925, 2431)	JM0039660
14	M12-1.75 x 35 Gr8.8 YZ Hex Bolt	JM0020955
15	M12-1.75 Gr8.8 YZ SF Hex Nut	JM0002155
16	M12-1.75 x 50 Gr8.8 YZ Hex Bolt	JM0001490

Lower Auger Assembly

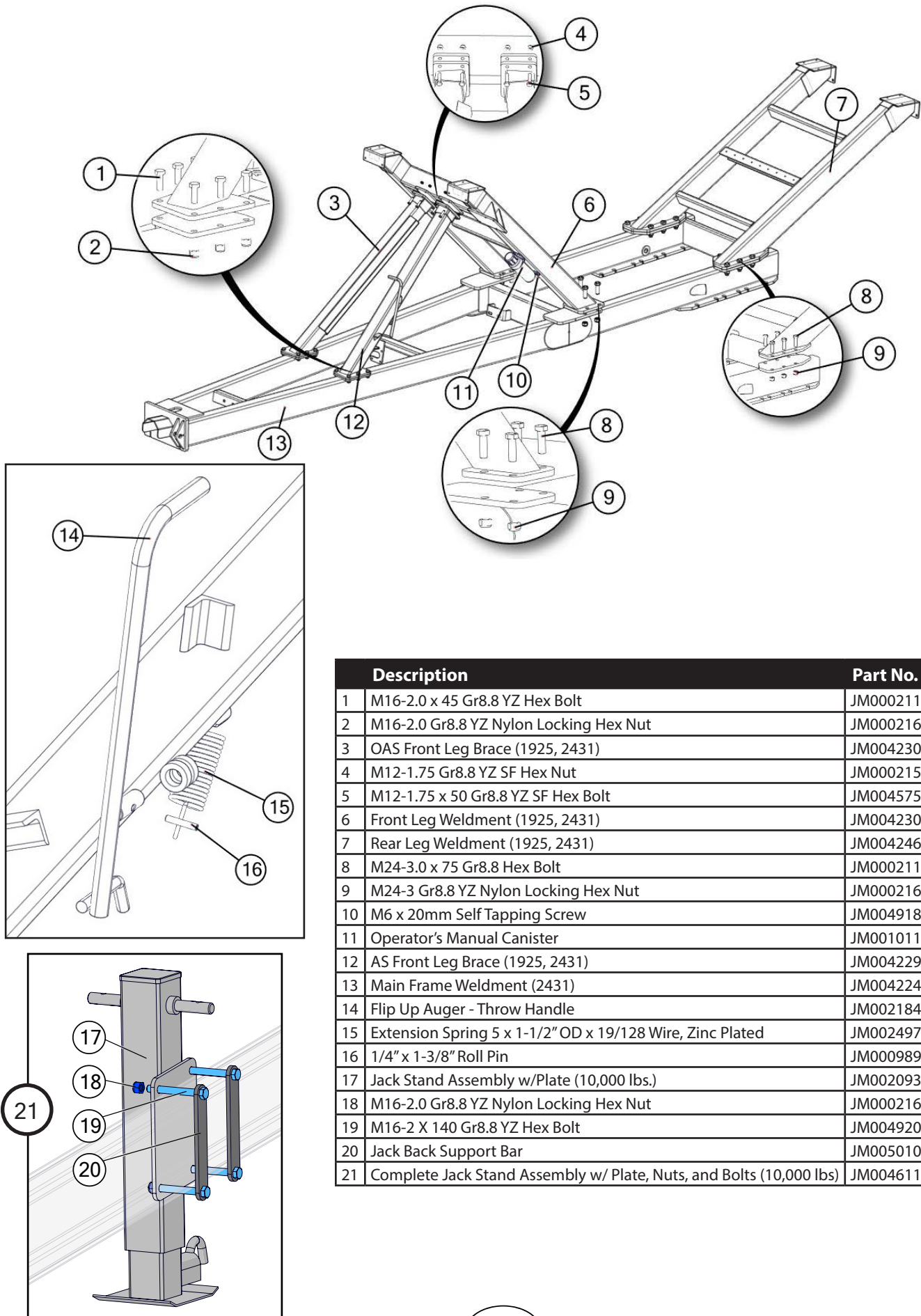


Description	Part No.
1 1/2" Gate Indicator Rod (103-7/8" Rod Length)	JM0016893
2 85" Feed Gate Indicator Rod (24T, 31T, 1925, 2431)	JM0016646
3 Dog House Weldment (1925, 2431)	JM0040416
4 M24-3.0 x 125 Gr8.8 YZ Hex Bolt	JM0031228
5 M24-3.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002165
6 Drive Dog Weldment, 2-1/2" ID (18" & 20") (DDW-21218)	JM0000093
7 M12-1.75 Gr8.8 YZ SF Hex Nut	JM0002155
8 M12-1.75 x 35 Gr8.8 YZ SF Hex Bolt	JM0029895
9 Hanger Bushing Assembly (18") (includes bronze bushing) (HBA-18)	JM0000090
10 2-1/2" ID Bronze Bushing (BB-212)	JM0016841
11 Limit Switch for Field Light (ME-8111)	JM0036040
12 M5-0.8 x 12 Gr8.8 Z Hex Bolt	JM0036046
13 M6-1.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002167
14 UHMW Indicator Guide	JM0024987
15 M6-1.0 x 20 Gr8.8 YZ Hex Bolt	JM0002120
16 S-Cap Yellow - 1/2" ID x 1-1/4" x 0.065" (REC-1)	JM0016842
17 M12-1.75 Gr8.8 YZ Nylon Locking Hex Nut	JM0002163
18 M12-1.75 x 35 Gr8.8 YZ Hex Bolt	JM0020955
19 16-1/2" x 17" x 4-1/2" x 154-3/8" RH 6" 5/16" Lower Flighting (1925, 2431)	JM0039748
20 Straight Auger Bottom Tube Assembly (1925, 2431)	JM0039547

*-R = Red
*-G = Green

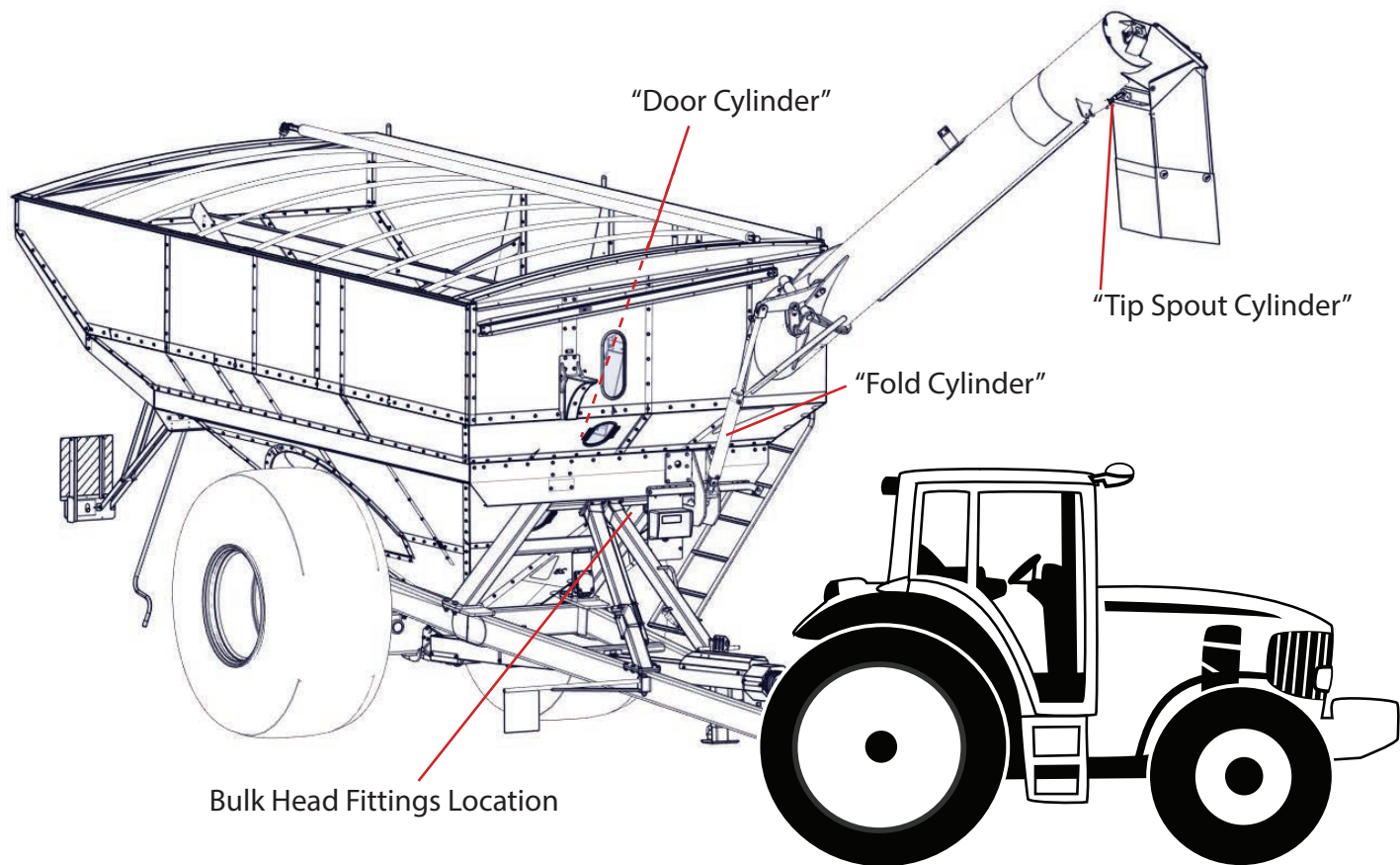
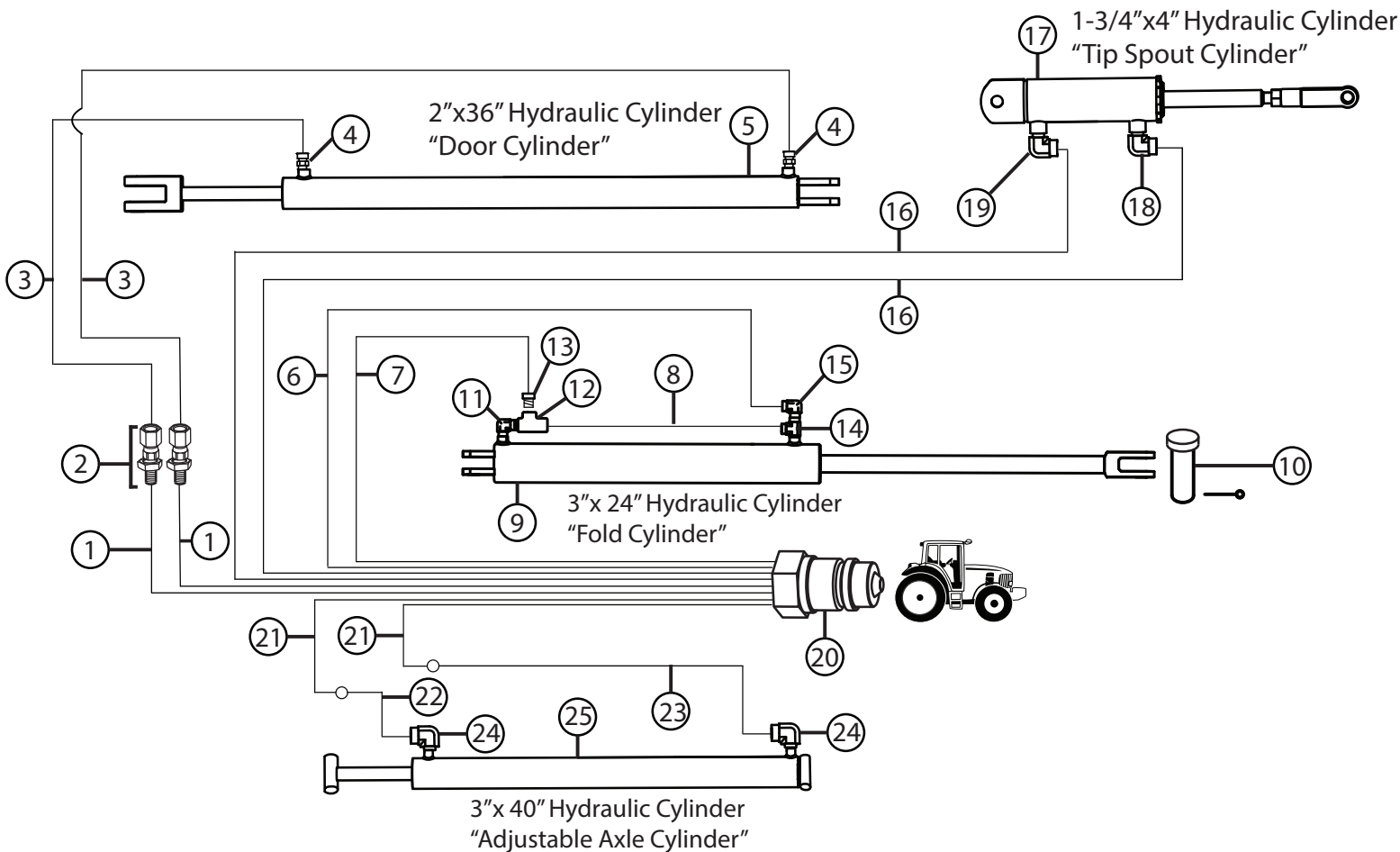
When requesting an item with color, end the part number with -R or -G. (e.g. JM0000000-R)

Frame



	Description	Part No.
1	M16-2.0 x 45 Gr8.8 YZ Hex Bolt	JM0002116
2	M16-2.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002164
3	OAS Front Leg Brace (1925, 2431)	JM0042300
4	M12-1.75 Gr8.8 YZ SF Hex Nut	JM0002155
5	M12-1.75 x 50 Gr8.8 YZ SF Hex Bolt	JM0045759
6	Front Leg Weldment (1925, 2431)	JM0042309
7	Rear Leg Weldment (1925, 2431)	JM0042465
8	M24-3.0 x 75 Gr8.8 Hex Bolt	JM0002118
9	M24-3 Gr8.8 YZ Nylon Locking Hex Nut	JM0002165
10	M6 x 20mm Self Tapping Screw	JM0049187
11	Operator's Manual Canister	JM0010115
12	AS Front Leg Brace (1925, 2431)	JM0042297
13	Main Frame Weldment (2431)	JM0042244
14	Flip Up Auger - Throw Handle	JM0021843
15	Extension Spring 5 x 1-1/2" OD x 19/128 Wire, Zinc Plated	JM0024976
16	1/4" x 1-3/8" Roll Pin	JM0009896
17	Jack Stand Assembly w/Plate (10,000 lbs.)	JM0020936
18	M16-2.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002164
19	M16-2 X 140 Gr8.8 YZ Hex Bolt	JM0049201
20	Jack Back Support Bar	JM0050103
21	Complete Jack Stand Assembly w/ Plate, Nuts, and Bolts (10,000 lbs)	JM0046116

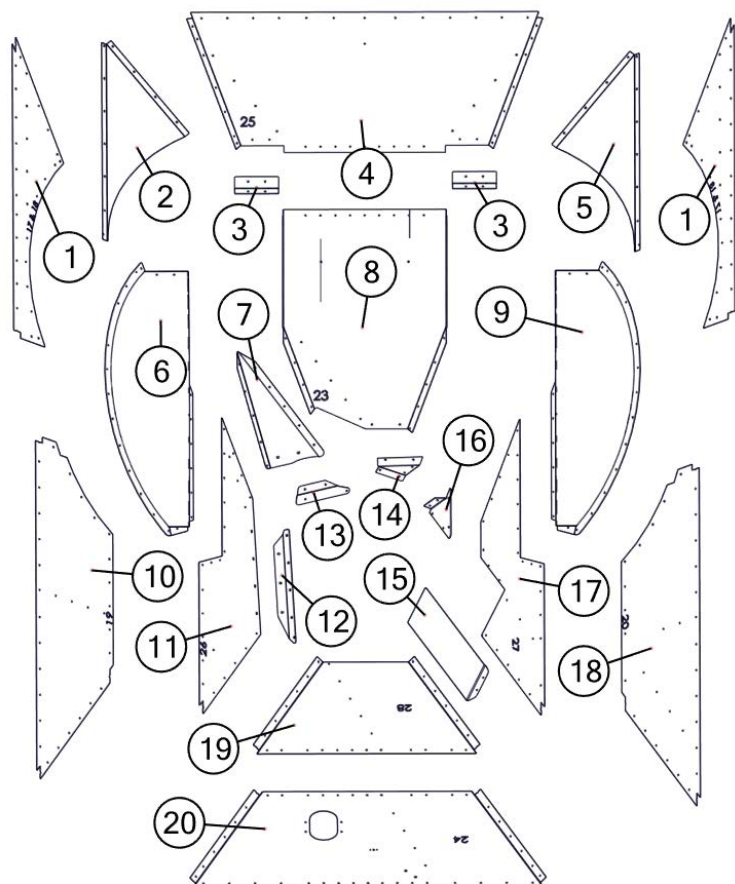
Hydraulic Hoses and Cylinders



Hydraulic Hoses and Cylinders

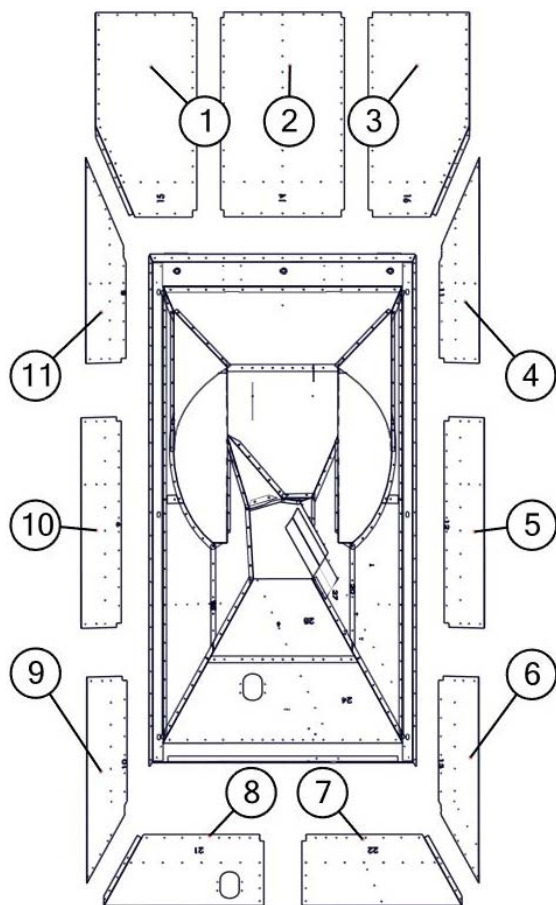
	Description	Part No.
1	1/4" x 222" Hydraulic Hose 222inch4IA3K-4G-8MP-4G-6FJX	JM0050601
2	3/8" Female NPT x 3/8" Compression Bulk Head Fitting	JM0048582
3	1/4" x 43" Hydraulic Hose 43inch4IA3K-4G-6MP-4G-6FJX	JM0050603
4	3/8" Male JIC x 3/8" Male NPT Straight Adapter	JM0050598
5	2" x 36" Hydraulic Cylinder (JD236)	JM0018523
5	Seal Kit for 2" x 36" Hydraulic Cylinder (JD472)	JM0026629
6	1/4" x 258" Hydraulic Hose 258inch4IA3k-4G-8MP-4G-6MP	JM0050604
7	1/4" x 288" Hydraulic Hose 288inch4IA3K-4G-8MP-4G-6MP	JM0050605
8	1/4" x 21" Hydraulic Hose 21inch4IA3K-4G-4MP-4G-6MPX	JM0050606
9	3" x 24" x 1-1/2" Welded Cylinder (JD324)	JM0019644
9	Seal Kit 3" x 24" Cylinder (JD324-1) (JD480)	JM0037895
10	1-3/16" x 3-5/8" Clevis Pin (X-Tended Reach)	JM0047300
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	3/8" Female NPT x 3/8" Female NPT x 3/8" Female NPT; Street T	JM0018266
15	3/8" Male NPT x 3/8" Female JIC; 90 Degree Elbow with .062 Orifice	JM0050607
16	1/4" x 438" Hydraulic Hose 438inch4IA3K-4G-8MP-4G-4MP	JM0050629
17	1-3/4" x 4" Hydraulic Cylinder (1/2" Clevis and Tab ends) (HC-FCS)	JM0018564
17	Seal Kit for 1-3/4" x 4" Cylinder (SKHC-FCS) (JD459)	JM0024892
18	1/4" Male NPT x 1/4" Female NPT-Swivel; 90 Degree Elbow	JM0010301
19	1/4" Male NPT x 1/4" Female NPT-Swivel; 90 Degree Elbow with 0.032 Orifice	JM0050628
20	1/2" Female NPT Pioneer (PQC-1)	JM0018254
21	1/4" x 292" Hydraulic Hose 292inch4IA3K-4G-8MP-4G-6MJ	JM0050608
22	1/4" x 27" Hydraulic Hose 27inch4IA3K-4G-6FJX-4G-6FJX	JM0050609
23	1/4" x 75" Hydraulic Hose 75inch4IA3K-4G-6FJX-4G-6FJX	JM0050610
24	3/8" Male JIC x 1/2" Male NPT; 90 Degree Elbow	JM0050612
25	3" x 40" Hydraulic Cylinder	JM0031363
25	Seal Kit for 3" x 40" Cylinder	JM0048490

Lower Level Panels



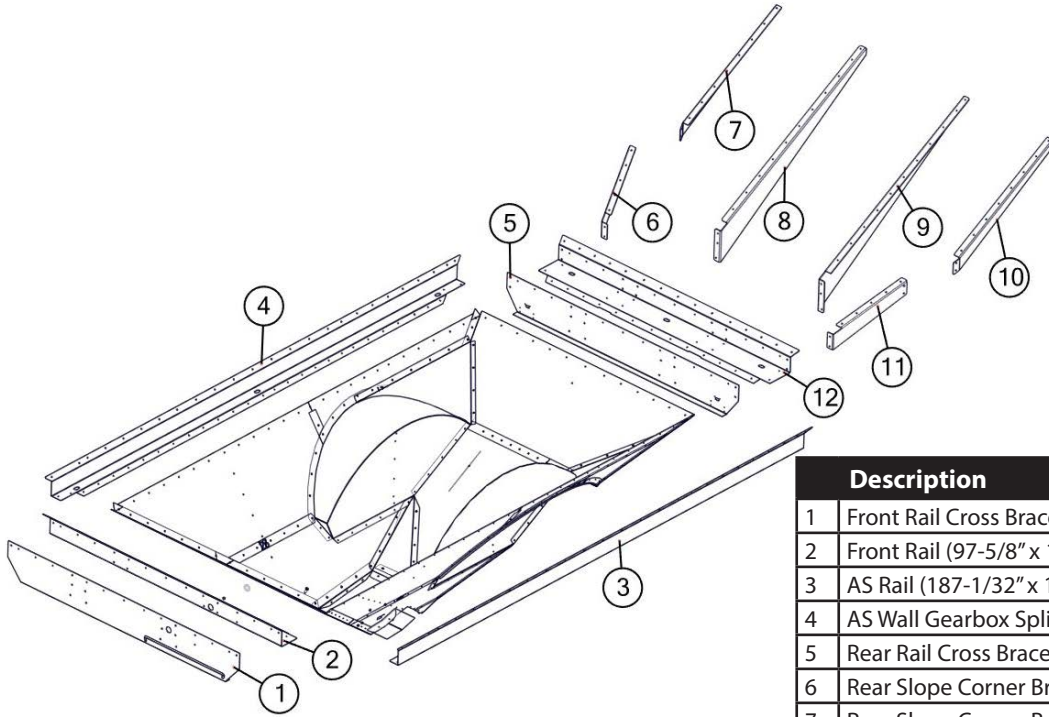
	Description	Part No.
1	Side Lower Middle Panel (#17 & 18) (1925, 2431)	JM0049417
2	Wheel Well Shedder Panel - OAS (1925, 2431)	JM0049444
3	Wheel Well Corners (11" x 3")	JM0002891
4	Rear Lower Middle Panel (#25) (1925, 2431)	JM0029804
5	Wheel Well Shedder Panel - AS (1925, 2431)	JM0049443
6	OAS Wheel Well (1925, 2431)	JM0049410
7	Inside Shedder Panel (1925, 2431)	JM0029602
8	Rear Bottom Panel (#23) (1925, 2431)	JM0029803
9	AS Wheel Well (1925, 2431)	JM0049400
10	OAS Lower Mid Front Panel (#19) (1925, 2431)	JM0049430
11	OAS Bottom Panel (#26) (1925, 2431)	JM0049435
12	OAS Wall to Gearbox Splice Plate (1925, 2431)	JM0029611
13	Straight Auger Shedder to Gearbox Splice Plate (1925, 2431)	JM0039360
14	Straight Auger Rear Wall Gearbox Splice Plate (1925, 2431)	JM0039365
15	Clean Out Door (1925, 2431)	JM0000082
16	AS Wall Gearbox Splice Plate (1925, 2431)	JM0029603
17	AS Bottom Panel (#27) (1925, 2431)	JM0049439
18	AS Lower Mid Front Panel (#20) (1925, 2431)	JM0049440
19	Front Lower Panel (#28) (1925, 2431)	JM0029790
20	Front Lower Middle Panel (#24) (1925, 2431)	JM0029789

Mid-Level Panels



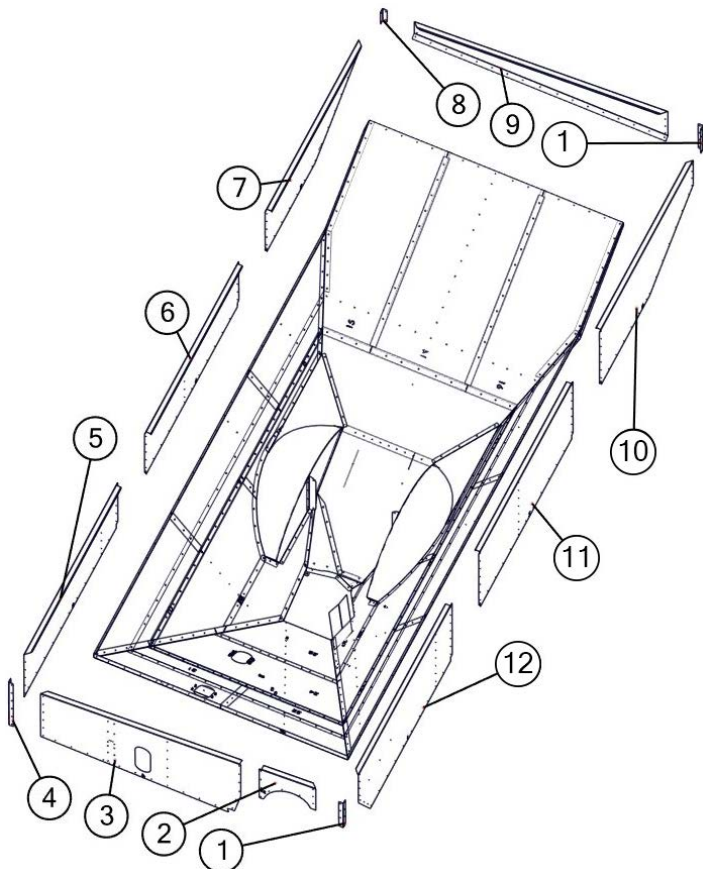
	Description	Part No.
1	Rear Top OAS Panel (#15) (2431)	JM0029858
2	Rear Top Center Panel (#14) (2431)	JM0029814
3	Rear Top AS Panel (#16) (2431)	JM0029812
4	AS Upper Middle Rear Panel (#11) (1925, 2431)	JM0029793
5	AS Upper Middle Mid Panel (#12) (1925, 2431)	JM0029792
6	AS Upper Middle Front Panel (#13) (1925, 2431)	JM0029791
7	Front AS Upper Middle Panel (#22) (1925, 2431)	JM0029787
8	Front OAS Upper Middle Panel (#21) (1925, 2431)	JM0029856
9	OAS Upper Middle Front Panel (#10) (1925, 2431)	JM0029874
10	OAS Upper Middle Mid Panel (#9) (1925, 2431)	JM0029872
11	OAS Upper Middle Rear Panel (#8) (1925, 2431)	JM0029870

Rails



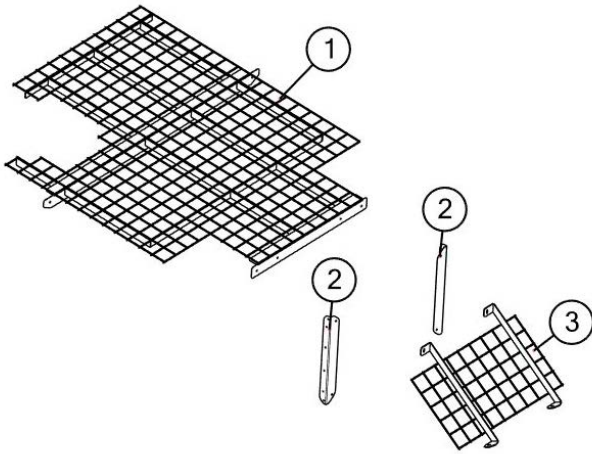
	Description	Part No.
1	Front Rail Cross Brace (95-1/8" x 14-1/4") (1925, 2431)	JM0029965
2	Front Rail (97-5/8" x 17-27/32") (1925, 2431)	JM0029148
3	AS Rail (187-1/32" x 13") (1925, 2431)	JM0029150
4	AS Wall Gearbox Splice Plate (1925, 2431)	JM0029968
5	Rear Rail Cross Brace (95-1/8" x 14") (1925, 2431)	JM0029482
6	Rear Slope Corner Brace - OAS Bottom Half (1925, 2431)	JM0029996
7	Rear Slope Corner Brace - OAS (2431)	JM0029998
8	Rear Batman Wings - Mid OAS (2431)	JM0029994
9	Rear Batman Wings - Mid AS (2431)	JM0029675
10	Rear Slope Corner Brace - AS (2431)	JM0029718
11	Rear Slope Corner Brace - AS Bottom Half (1925, 2431)	JM0029720
12	Wide Rear Rail (97-5/32" x 19-29/32") (1925, 2431)	JM0029241

Top Panels

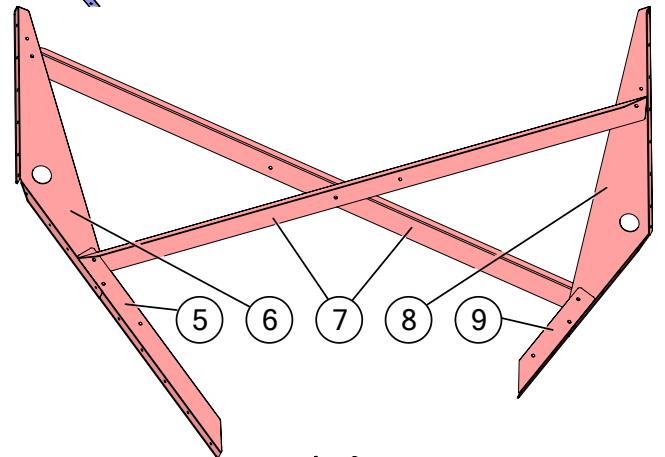
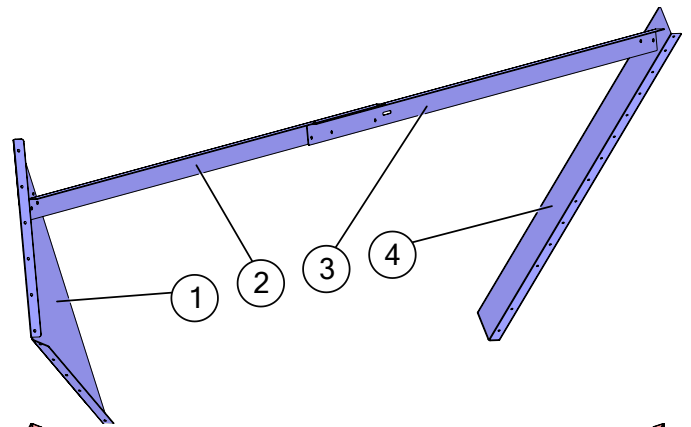
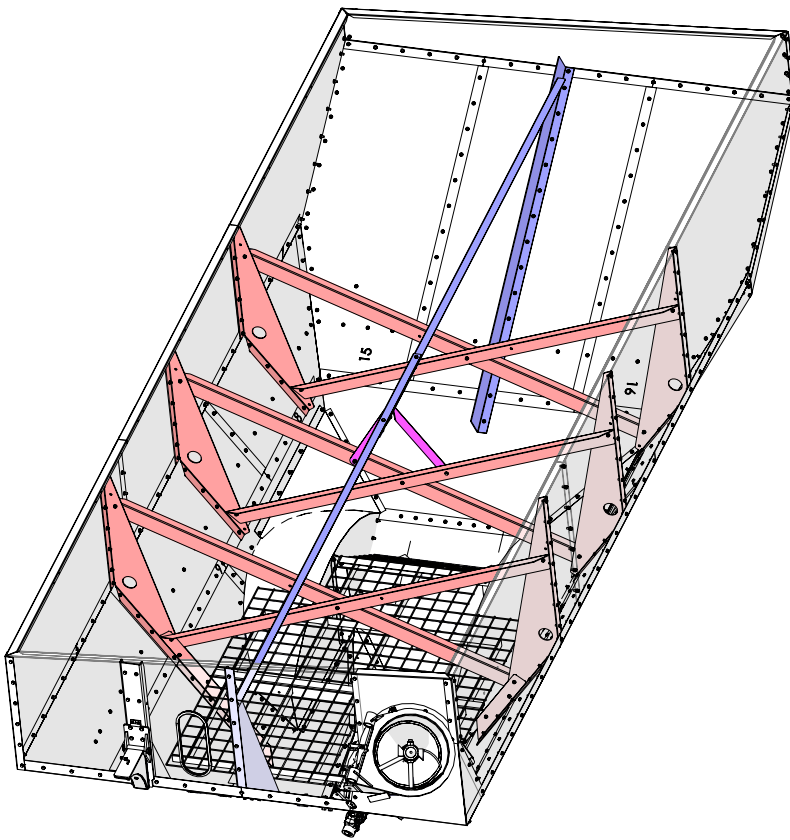


	Description	Part No.
1	Corner (19-9/32" x 2")	JM0029920
2	Auger Front Corner Panel (#29) (1925, 2431)	JM0029617
3	Front Top Panel (#4) (1925, 2431)	JM0029766
4	Corner (34" x 2")	JM0029899
5	OAS Top Front Panel (#5) (1925, 2431)	JM0029884
6	OAS Top Middle Panel (#6) (1925, 2431)	JM0029882
7	OAS Top Rear Panel (#7) (2431)	JM0029880
8	Corner (9-3/8" x 2")	JM0029919
9	Rear Top Panel (113-13/16" x 24-15/32") (2431)	JM0029805
10	AS Top Rear Panel (#3) (2431)	JM0029802
11	AS Top Middle Panel (#2) (1925, 2431)	JM0029801
12	AS Top Front Panel (#1) (1925, 2431)	JM0029799

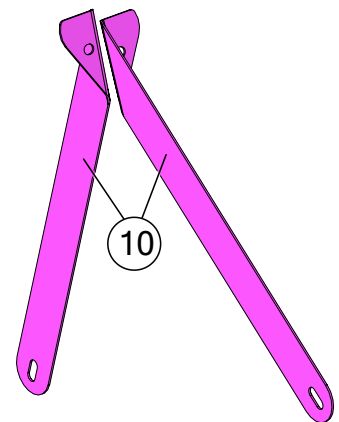
Tank Screen



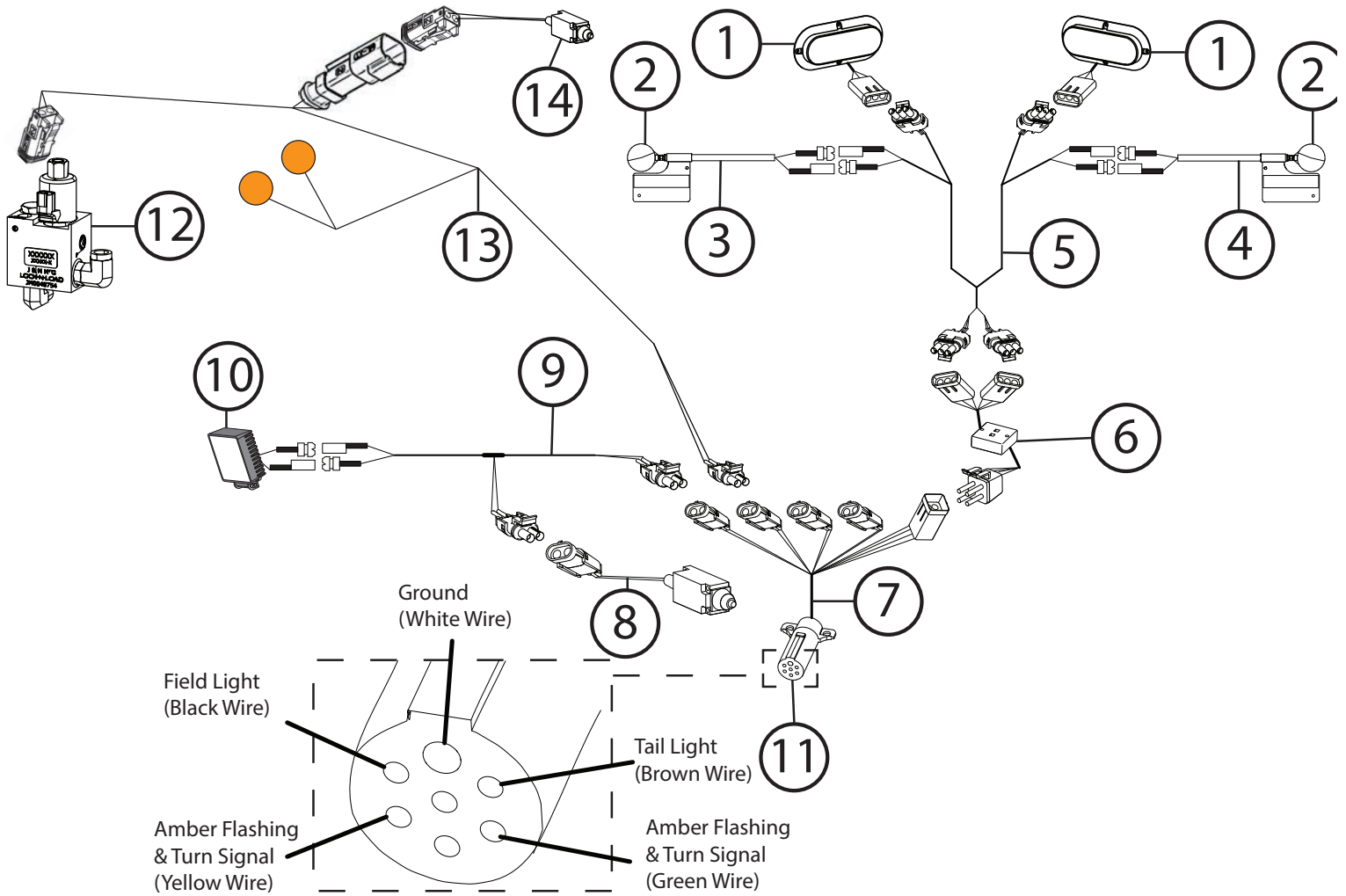
Description	Part No.
1 Main Screen Weldment (1925, 2431)	JM0029703
2 Fender Well Brace (1925, 2431)	JM0029696
3 Rear Tank Screen (1925, 2431)	JM0029699



Description	Part No.
1 Front Tri Gusset (1925, 2431)	JM0029627
2 Front-To-Rear Brace (Male) (31T, 1925, 2431) 141"	JM0002682
3 Front-to-Rear Brace (Female) (31T, 2431) 140-1/2"	JM0002685
4 Rear Slope Brace (2431)	JM0029626
5 OAS Wall Slope Brace (1925, 2431)	JM0029695
6 OAS Tri Gusset (1925, 2431)	JM0029624
7 X-Bracing (1925, 2431)	JM0029706
8 AS Tri Gusset (1925, 2431)	JM0029623
9 AS Wall Slope Brace (1925, 2431)	JM0029694
10 Extra Brace Support (1925, 2431)	JM0048569

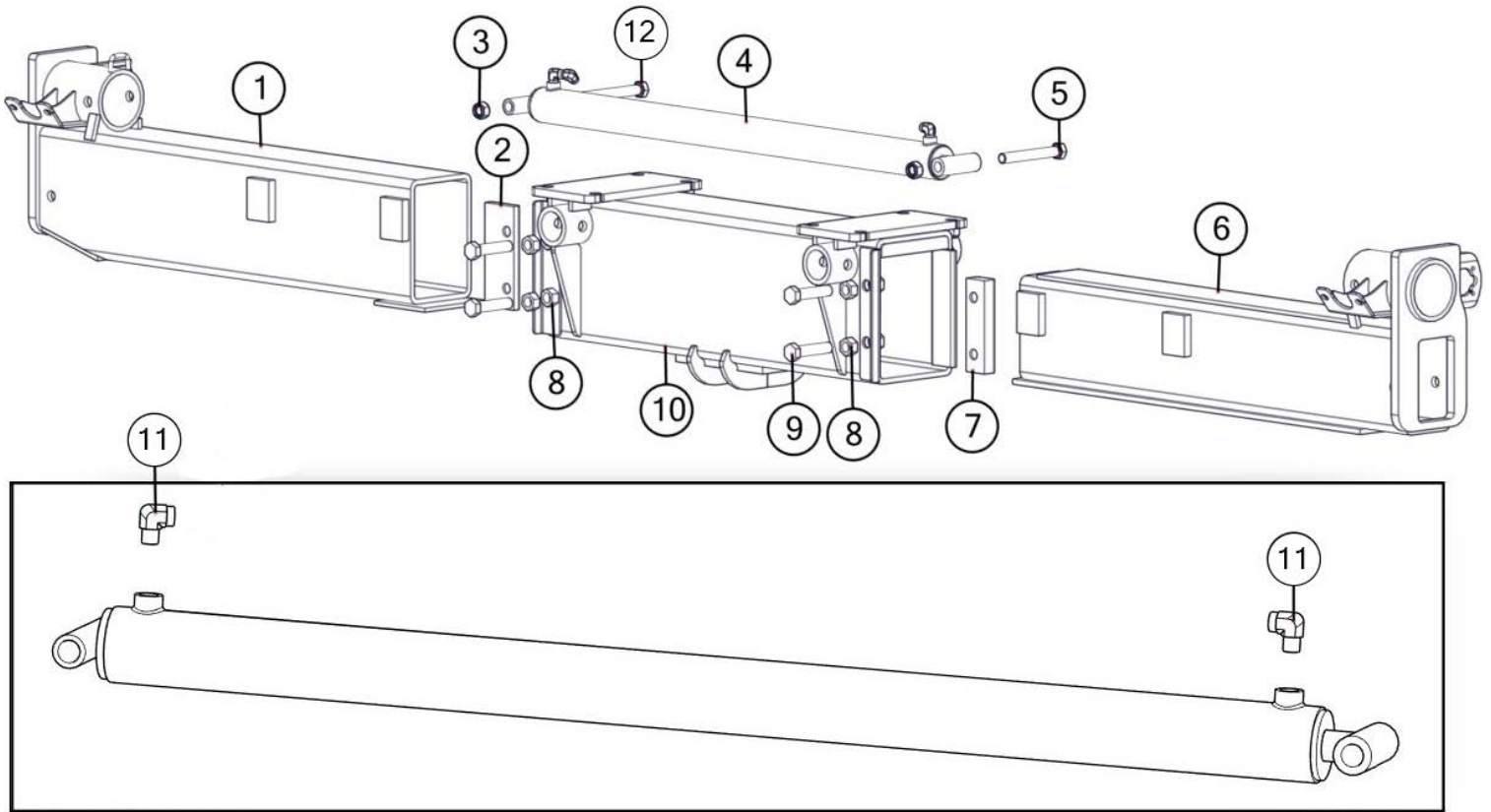


Lights and Wiring



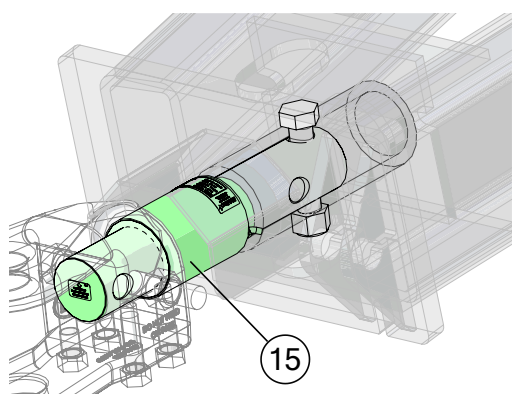
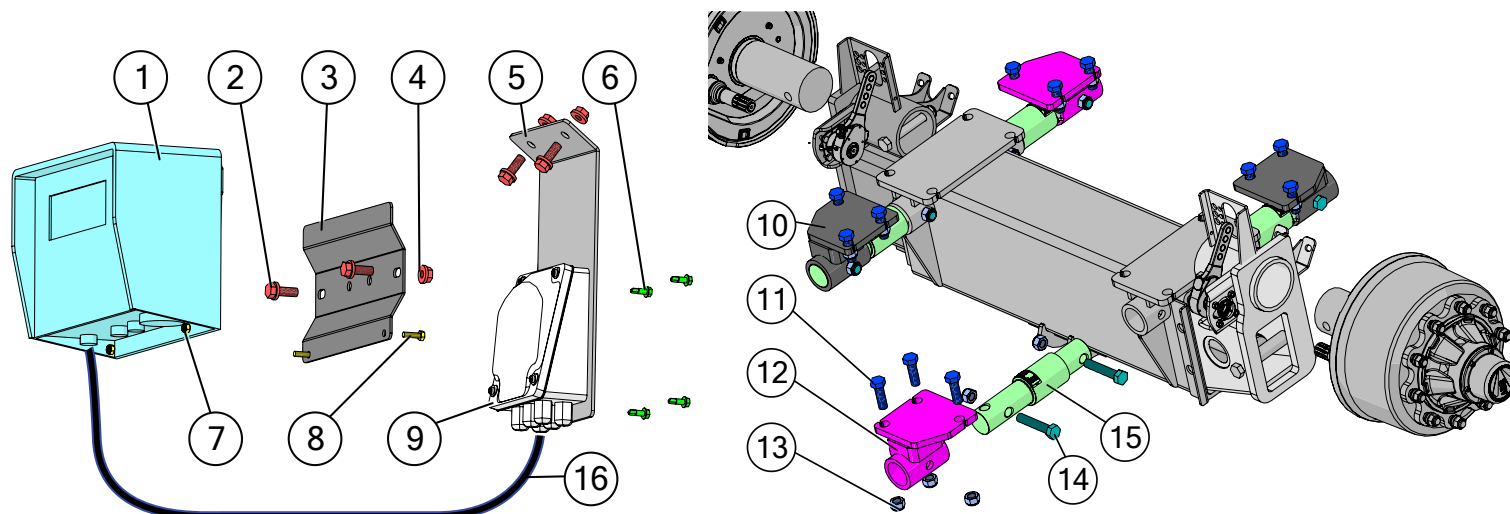
Description	Part No.
1 Red Oval LED Tail Light	JM0034389
2 LED Amber Light (Circular)	JM0018819
3 Extendable Amber Light Assembly (Left Side)	JM0018817
4 Extendable Amber Light Assembly (Right Side)	JM0018826
5 Wiring Harness, Rear Half of Grain Cart	JM0020437
6 Light Enhancer and Adapter Kit (3 Wires)	JM0010566
7 Main Harness with 7-prong Connector End for Grain Cart	JM0020439
8 Limit Switch for Field Light (ME-8111)	JM0036040
9 Field Light Wire (Limit Switch)	JM0048128
10 LED Field Light with Bullet Connector	JM0050949
11 7-Prong Connector	JM0010528
12 Lock and Load Assembly	JM0048754
13 Grain Cart Lock and Load Harness	JM0044755
14 Limit Switch for Lock and Load - 72" Long Cable	JM0046717

Adjustable Axle



	Description	Part No.
1	AS Axle Insert (1925, 2431)	JM0030596
2	AS Adjustable Axle Clamp Plate (1925, 2431)	JM0030313
3	M24-3 Gr8.8 YZ Nylon Locking Hex Nut	JM0002165
4	3" x 40" Hydraulic Cylinder	JM0031363
5	M24-3.0 x 180 Gr8.8 YZ Hex Bolt	JM0031353
6	OAS Axle Insert (1925, 2431)	JM0030300
7	OAS Adjustable Axle Clamp Plate (1925, 2431)	JM0030288
8	M24-2.0 Gr8.8 YZ Hex Nut	JM0049492
9	M24-2.0 x 100 Gr10.9 YZ Hex Bolt	JM0049493
10	Main Axle Weldment (1925, 2431)	JM0030623
11	3/8" Female NPT x 1/2" Male NPT; 90 Degree Elbow	JM0010292
12	M24-3.0 x 240 Gr8.8 YZ Hex Bolt	JM0048508

Weigh Scale System Hardware



*Insert short end of scale bars into axle with labels facing up.



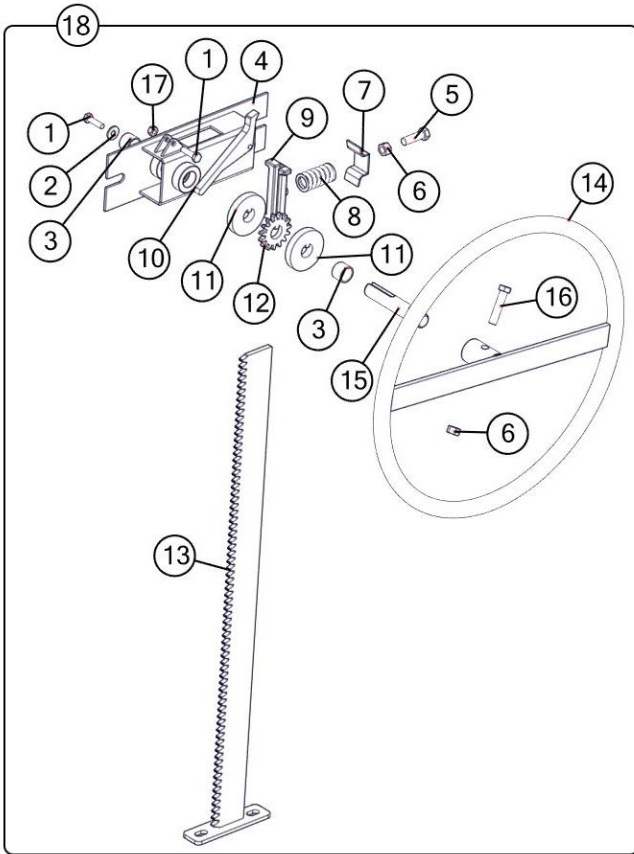
GT 400



GT 560

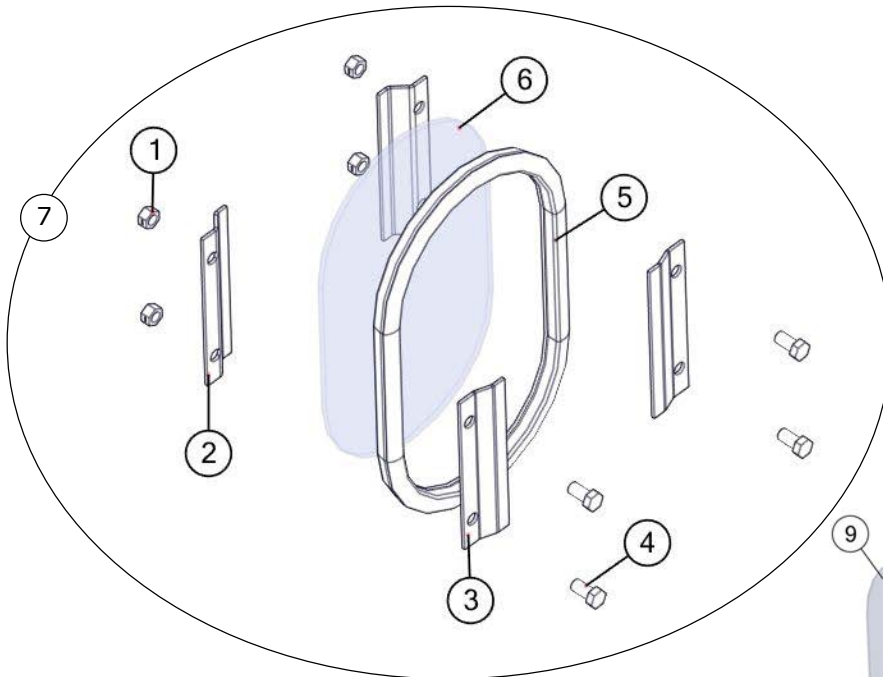
Description	Part No.
1 GT 400 Digi-Star Scale Display Monitor	JM0019040
1 GT 560 Digi-Star Scale Display Monitor	JM0044177
2 M10-1.5 x 25 Gr8.8 YZ SF Hex Bolt	JM0002093
3 GT 400 Scale Monitor Display Bracket	JM0000361
3 GT 560 Scale Monitor Display Bracket	JM0046976
4 M10-1.5 Gr8.8 YZ SF Hex Nut	JM0002154
5 Bolt Together Junction Box Mount	JM0000366
6 1/4" x 3/4" Self Tapping Screw	JM0001570
7 M6-1.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002167
8 M6-1.0 x 20 Gr8.8 YZ Hex Bolt	JM0002120
9 Digi-Star 6-Point Junction Box (JB-5)	JM0019038
10 External 5 Pt Scale Mount - Narrow Pad (Rear Left, Front Right) (1925, 2431)	JM0029540
11 M24-3.0 x 75 Gr8.8 Hex Bolt	JM0002118
12 External 5 Pt Scale Mount - Narrow Pad (Rear Right, Front Left) (1925, 2431)	JM0030032
13 M24-3.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002165
14 M24-3.0 x 125 Gr8.8 YZ Hex Bolt	JM0031228
15 2-7/8" Digi-Star Weigh Bar, 1" Pin Hole (278WB-T1)	JM0000355
16 8' Cable from J-Box to Indicator (Digi-Star)	JM0047238
16 20' Extension Cord to Mount Indicator in Cab (ECI-2)	JM0025816
17 Flash Drive Memory Stick for Digi-Star GT 560 (114991)	JM0025819

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	.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	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	JM0029354
10	Flip Lock For Door Rack	JM0029459
11	Keyway Washer for Door Rack	JM0029454
12	15 Tooth Sprocket - 3/4" Bore w/ Key	JM0029455
13	Rack Track Weldment for Door (27-1/2")	JM0030634
14	Rack Wheel Weldment	JM0028897
15	Stub Shaft 3/4" x 4 1/8" w/ Threaded End	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 (27-1/2") (2016 & Newer)	JM0029460

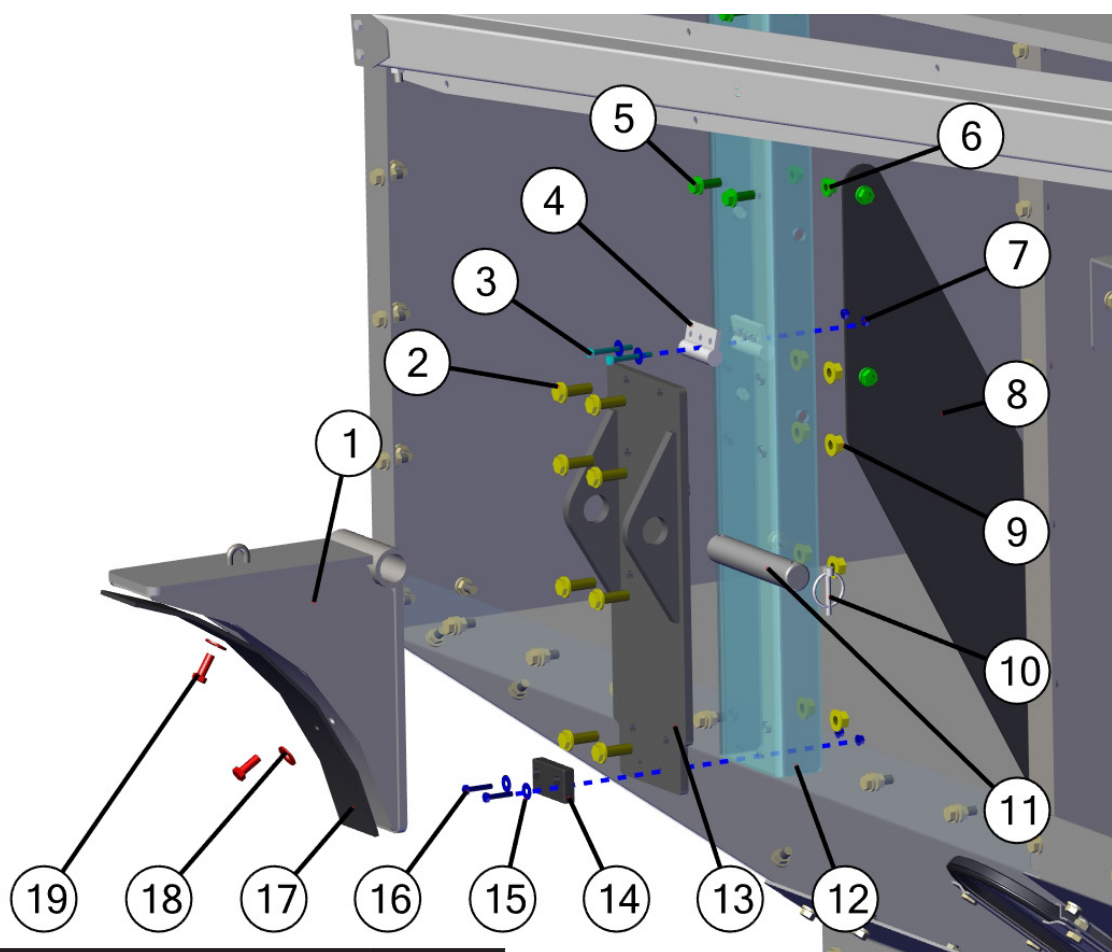
Inspection Windows



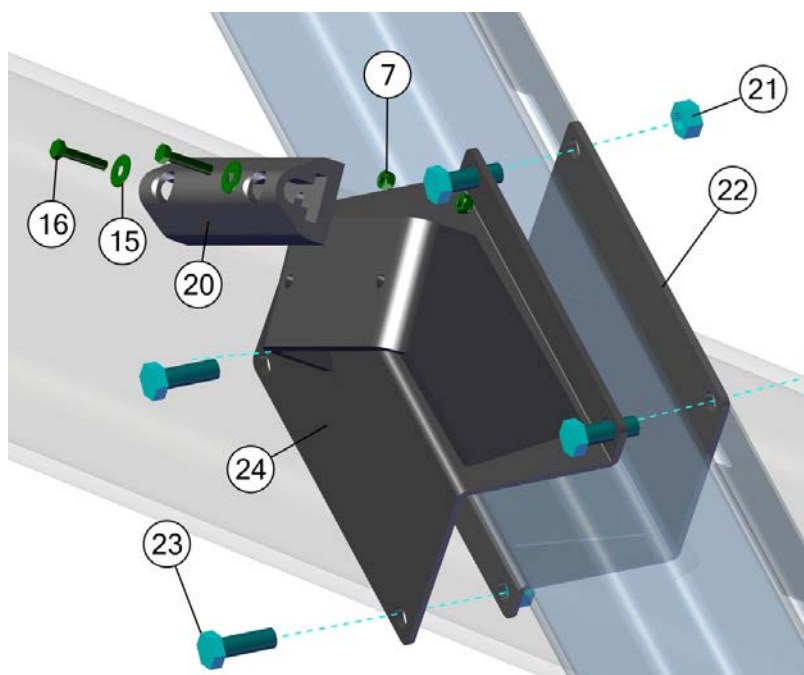
	Description	Part No.
1	M10-1.5 Gr8.8 YZ Nylon Locking Hex Nut	JM0002162
2	Inside Window Clip - Deep	JM0000253
3	Outside Window Clip - Shallow	JM0000256
4	M10-1.5 X 25 Gr8.8 YZ Hex Bolt	JM0031355
5	Window Seal 3/4"S" Strip	JM0000254
6	Standard Inspection Window	JM0000255
7	Inspection Window Kit	JM0025752
8	Oval Window Grommet (Long Oval Window)	JM0033504
9	Long Oval Window	JM0033502



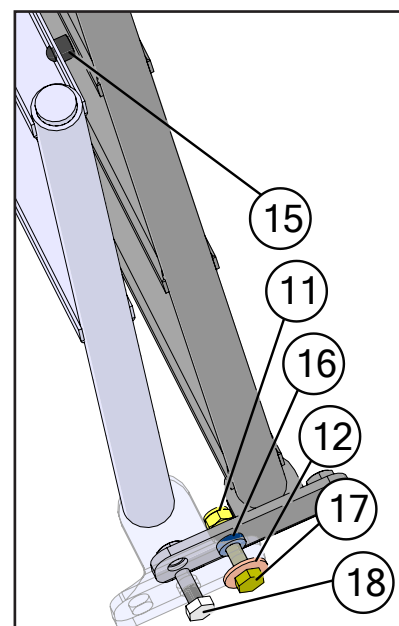
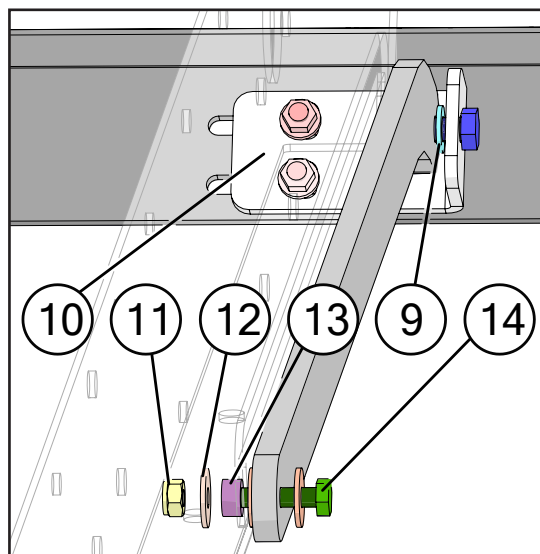
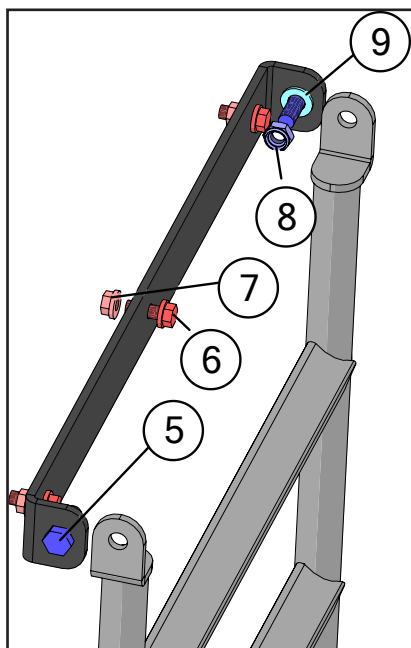
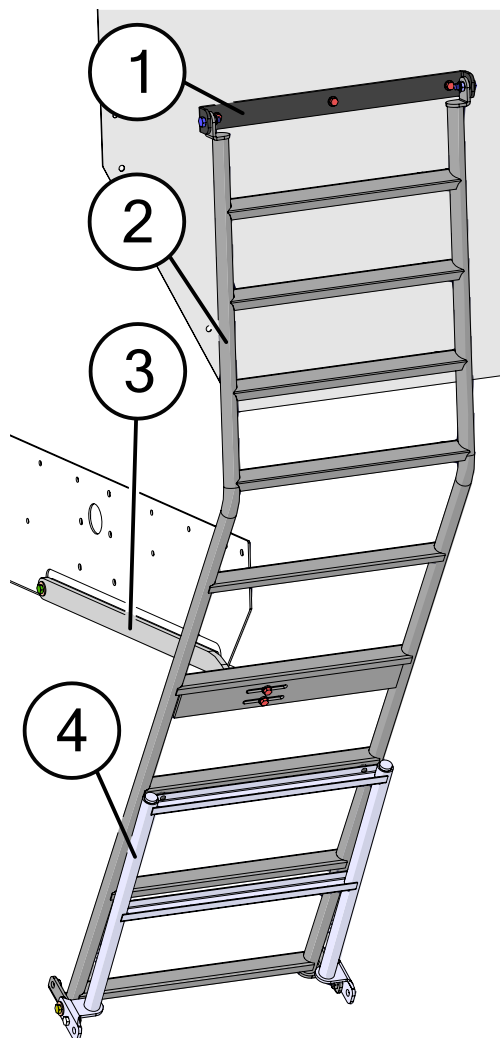
Auger Rest Assembly



Description	Part No.
1 Flip Up Auger Rest - Long Fold	JM0020538
2 M12-1.75 x 35 Gr8.8 YZ SF Hex Bolt	JM0029895
3 M6-1.0 x 50 Gr8.8 YZ Hex Bolt	JM0048615
4 Cable Guide for X-tended Reach Auger Rest	JM0046922
5 M10-1.5 x 25 Gr8.8 YZ SF Hex Bolt	JM0002093
6 M10 x 1.5 Gr8.8 YZ SF Hex Nut	JM0002154
7 M6-1.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002167
8 Flip Auger Rest Brace (52-9/32" x 7-1/32")	JM0029719
9 M12-1.75 Gr8.8 YZ SF Hex Nut	JM0002155
10 1/4" Diameter Snap Ring	JM0001870
11 Flip Up Auger Rest Pin (6-7/8" x 1-1/4")	JM0028218
12 Slide Plate - Flip Auger Rest	JM0029715
13 Auger Rest Mount Bolt Plate (18" x 6-1/4")	JM0030549
14 2-3/4" x 1-1/2" Rest Pad	JM0020802
15 M6 Flat Washer	JM0019447
16 M6-1.0 x 30 Gr8.8 YZ Hex Bolt	JM0031474
17 3" x 17-1/2" Auger Rest Guide Plate UHMW	JM0024456
18 3/8" ID, 1" OD Z Flat Washer	JM0003061
19 3/8"-16 x 1" Gr5 Z Hex Bolt	JM0001592
20 6" x 2" Storage Position Auger Rest Triangle Pad	JM0037644
21 M12-1.75 Gr8.8 YZ Hex Nut	JM0002128
22 Auger Rest Bracket for Storage Position	JM0043372
23 M12-1.75 x 35 Gr8.8 YZ Hex Bolt	JM0020955
24 Auger Rest Weldment for Storage Position	JM0048317
25 1/8" Auger Rest Cable	JM0037202

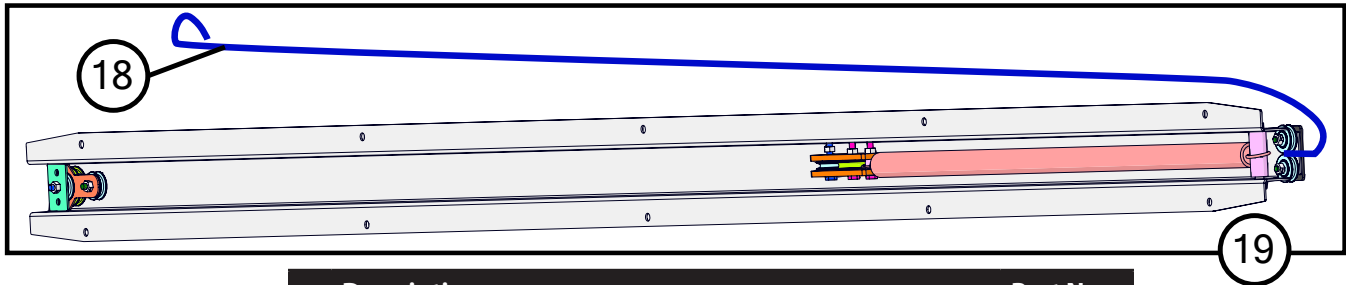
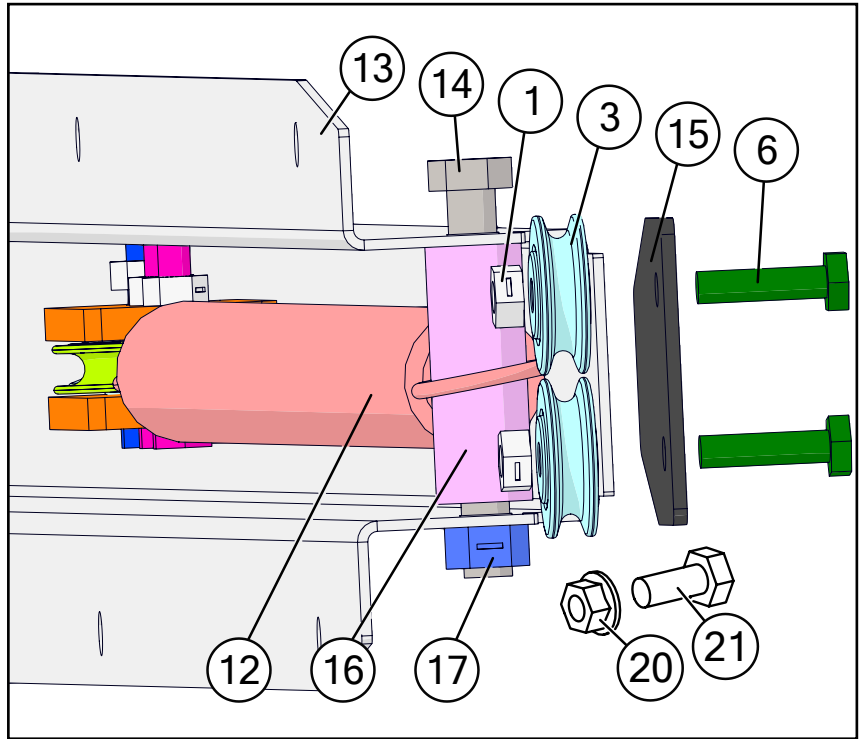
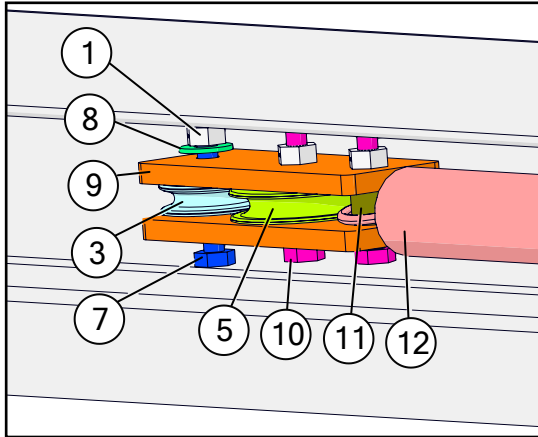
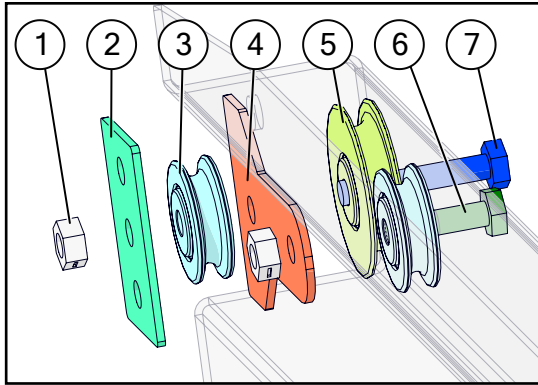


Ladder Assembly



	Description	Part No.
1	1925, 2431 Side Swing Ladder Mount Bracket	JM0030493
2	Top Side Ladder (1925, 2431)	JM0049081
3	1925, 2431 Ladder Support Leg	JM0030492
4	2 Rung Lower Ladder Assembly (1925, 2431)	JM0049097
5	M12-1.75 x 35 Gr8.8 YZ Hex Bolt	JM0020955
6	M10-1.5 x 25 Gr8.8 YZ SF Hex Bolt	JM0002093
7	M10-1.5 Gr8.8 YZ SF Hex Nut	JM0002154
8	M12-1.75 Gr8.8 YZ Nylon Locking Hex Nut	JM0002163
9	M12 Flat Washer	JM0048779
10	Swing Out Ladder Adjustable Tab	JM0020977
11	M10-1.5 Gr8.8 YZ Nylon Locking Hex Nut	JM0002162
12	M10 Flat Oversized Washers (30mm OD)	JM0049104
13	3-4" OD, 13/32" ID x 3/8" Black Nylon Spacer	JM0021981
14	M10-1.5 X 40 Gr8.8 YZ Hex Bolt	JM0002115
15	Rubber Bumper	JM0002920
16	3-4" OD, 13/32" ID x 3/16" Black Nylon Spacer	JM0049098
17	M10-1.5 x 35 Gr8.8 YZ Hex Bolt	JM0043597
18	M10-1.5 X 25 Gr8.8 YZ Hex Bolt	JM0031355

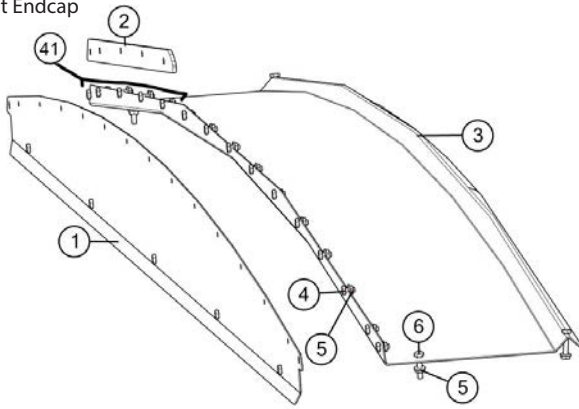
Spring Return Assembly



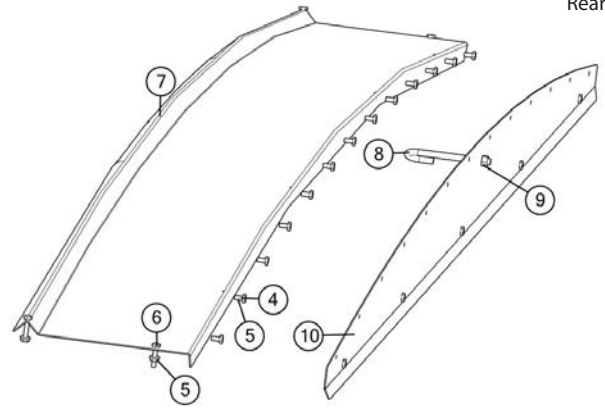
	Description	Part No.
1	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
2	Aluminum Spacer for Spring Return (1-3/8" x 2-3/16") Rectangular	JM0002445
3	1-1/4" Idler Pulley (1/4" ID)	JM0002439
4	Large Spring Return Pulley Spacer (2 Holes)	JM0018897
5	1-5/8" Idler Pulley (Long Spring Return)	JM0012970
6	1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095
7	1/4"-20 x 1-1/2" Gr5 Z Hex Bolt	JM0002447
8	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
9	Rectangular Plastic Spacer for Spring Return	JM0012973
10	1/4"-20 x 1-1/4" Gr5 Z Hex Bolt	JM0016673
11	2" Black Plastic Spacer (1/4" ID x 1/2" OD)	JM0002442
12	Spring Return Spring	JM0000207
13	Grain Cart Spring Return Housing	JM0012974
14	3/8"-16 x 3" Gr5 Z Hex Bolt	JM0001666
15	Spring Return Stiffening Plate	JM0034548
16	3/4" x 2" Plastic Spacer	JM0002444
17	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
18	Spring Return Cable (Grain Carts)	JM0012981
19	Spring Return Assembly (Grain Cart)	JM0002911
20	M6-1.0 YZ SF Hex Nut	JM0002156
21	M6-1 x 14 Gr8.8 YZ Hex Bolt	JM0031837

Roll Tarp Assembly

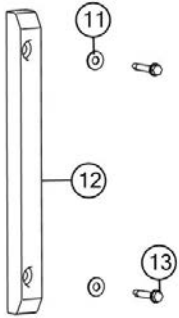
Front Endcap



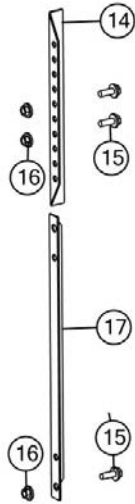
Rear Endcap



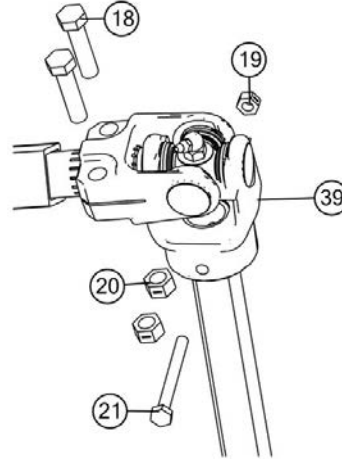
Tarp Stand-Off



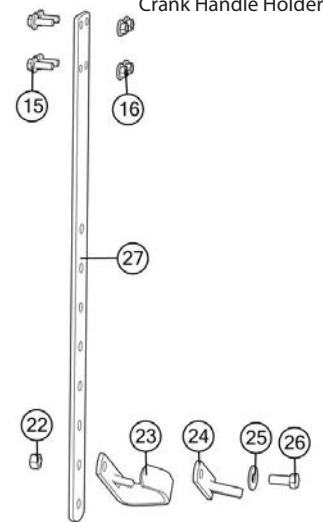
Prop-Up Bars



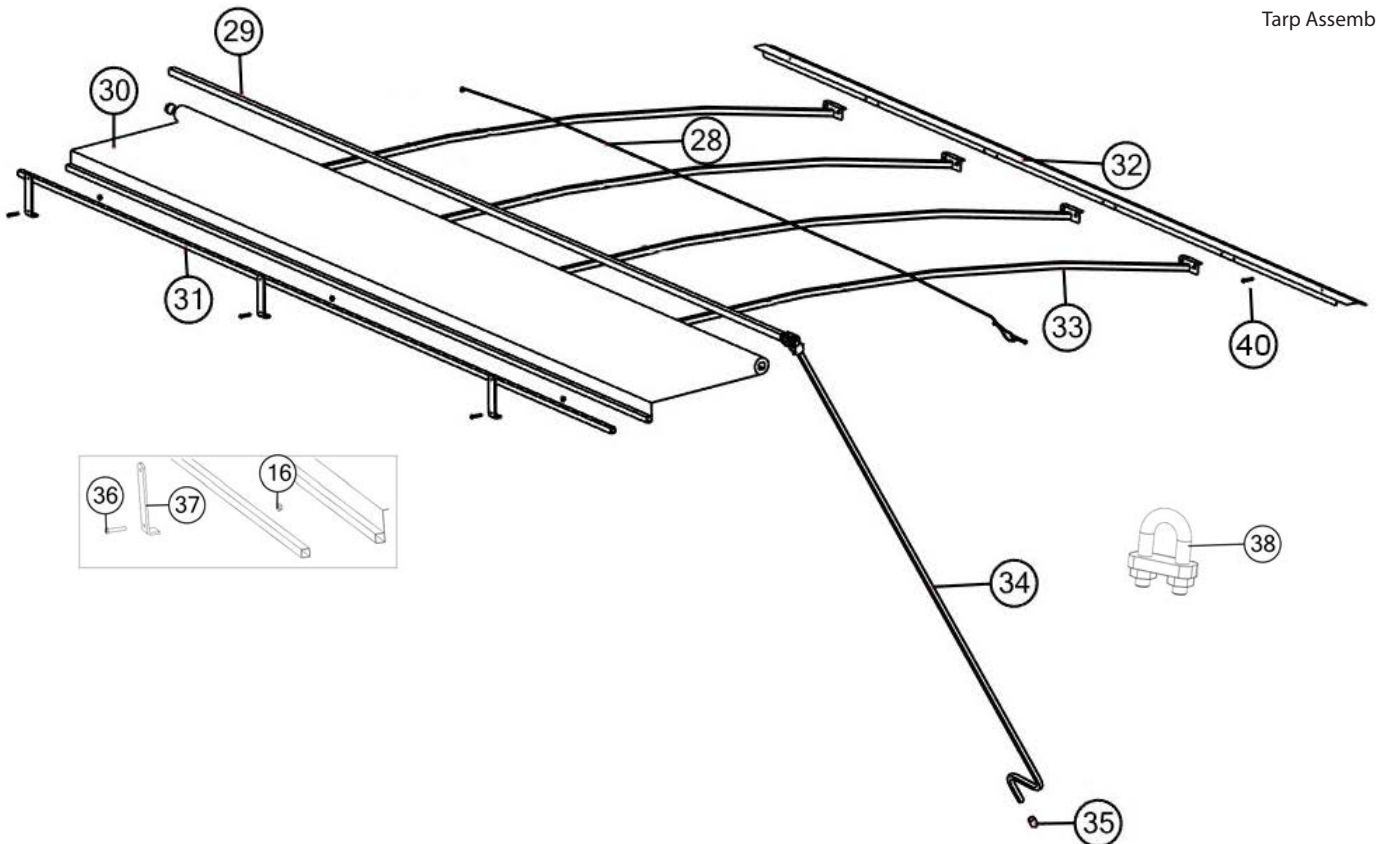
Crank Handle U-Joint



Crank Handle Holder



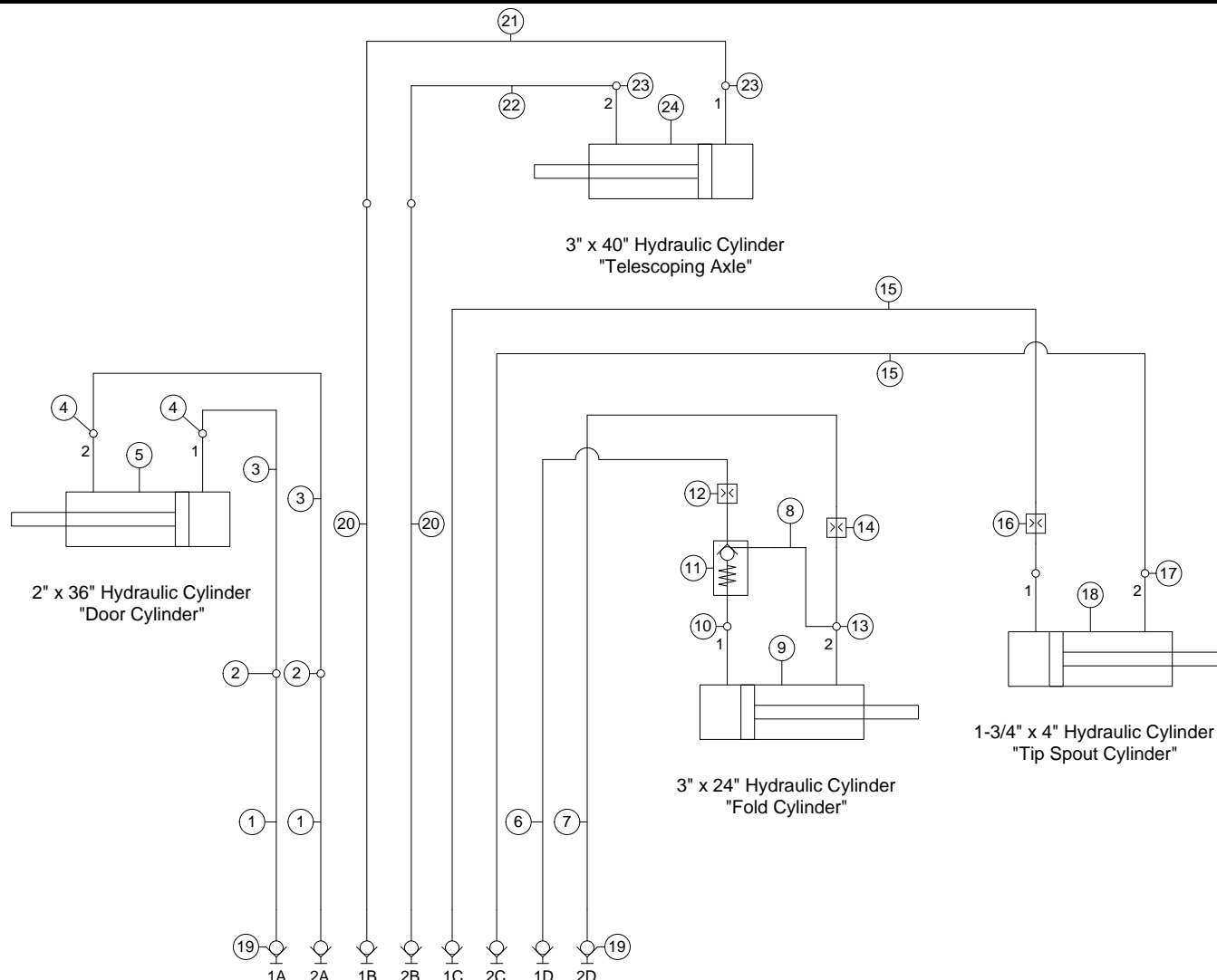
Tarp Assembly



Roll Tarp Assembly

	Description	Part No.
1	End Cap - Front Plate (113-1/2") (680, 760, 1925, 2431)	JM0001573
2	Tarp Nylon Riser	JM0000196
3	End Cap - Front Arch (113-1/2") (680, 760, 1925, 2431)	JM0001572
4	M6-1.0 x 14 Gr8.8 YZ Hex Bolt	JM0031837
5	M6-1.0 Gr8.8 YZ SF Hex Nut	JM0002156
6	M6-1.0 x 16 Gr8.8 YZ Hex Bolt	JM0031839
7	End Cap - Rear Arch (114") (680, 760, 1925, 2431)	JM0001574
8	3/8"-16 Gr5 Z J-Bolt	JM0001519
9	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
10	End Cap - Rear Plate (110") (680, 760, 1925, 2431)	JM0001575
11	M6 Flat Washer	JM0019447
12	Tarp Standoff	JM0001889
13	1/4" x 1-1/2" Self Tapping Screw	JM0001571
14	End Cap Prop - Upper 19"	JM0021404
15	M10 x 25 Gr8.8 YZ Hex Bolt	JM0031355
16	M10-1.5 Gr8.8 YZ Nylon Locking Hex Nut	JM0002162
17	Endcap Prop - Lower 19" (ABS-2)	JM0000179
17	Endcap Prop - Lower 27" (ABS-2L)	JM0021403
18	3/8"-16 x 1-1/2" Gr5 Z Hex Bolt	JM0001659
19	M6-1.0 Gr8.8 YZ Nylon Locking Hex Nut	JM0002167
20	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
21	M6-1.0 x 65 Gr8.8 YZ Hex Bolt	JM0002121
22	M12-1.75 Gr8.8 YZ Nylon Locking Hex Nut	JM0002163
23	Crank Holder (zinc plated)(CH-1)	JM0002967
24	Roll Tarp - Handle Hanger Rubber Flap	JM0002551
25	M12 Flat Washer	JM0048779
26	M12-1.75 x 35 Gr8.8 YZ Hex Bolt	JM0020955
27	1/4" x 2" x 29" Bar for Crank Holder (ABCH-1EL)	JM0000164
28	3/16" Cable x 270" (1000-1151, 1012, 1112, 1222, 2431, GC31t-1) (316C-1050)	JM0021408
29	1-1/4" x 270" Roll Tube for Roll Tarp (1000-1151, 1012-1222, 2431)(1050RT)	JM0021334
30	21'8" x 13'6" Tarp w/ 10 Rivets (1050T)	JM0021335
31	1" x 264" Square Tie-Down Tube (1000-1151, 1012, 1112, 1122, 1222, 2431)(1050TT)	JM0021331
32	Tightening Lip Rear (2431)	JM0031107
32	Tightening Lip Front (2431)	JM0031102
33	655/755 Box Bow Weldment (110-1/2")	JM0034349
34	12' Crank w/ Splined U-Joint (CUJ-1LN)	JM0019888
35	S-Cap Yellow - 1.062 ID x 1-1/2" x 1/16	JM0018963
36	M10-1.5 x 50 Gr8.8 YZ Hex Bolt	JM0001486
37	Tarp Stop Bracket (TSB-1)	JM0000187
38	1/8" Cable Clamp	JM0001514
39	Universal Joint - Roll Tarp (SUJ-1)	JM0001517
40	M6-1.0 x 16 Gr8.8 YZ SF Hex Bolt	JM0037087
41	M6-1.0 x 20 Gr8.8 YZ Hex Bolt	JM0002120

Hydraulic Schematic with ISO Symbols



Description	Part No.
1 1/4" x 222" Hydraulic Hose 222inch4IA3K-4G-8MP-4G-6FJX	JM0050601
2 3/8" Female NPT x 3/8" Compression Bulk Head Fitting	JM0048582
3 1/4" x 43" Hydraulic Hose 43inch4IA3K-4G-6MP-4G-6FJX	JM0050603
4 3/8" Male JIC x 3/8" Male NPT Straight Adapter	JM0050598
5 2" x 36" Hydraulic Cylinder (JD236)	JM0018523
5 Seal Kit for 2" x 36" Hydraulic Cylinder (JD472)	JM0026544
6 1/4" x 258" Hydraulic Hose 258inch4IA3k-4G-8MP-4G-6MP	JM0050604
7 1/4" x 288" Hydraulic Hose 288inch4IA3K-4G-8MP-4G-6MP	JM0050605
8 1/4" x 21" Hydraulic Hose 21inch4IA3K-4G-4MP-4G-6MPX	JM0050606
9 3" x 24" x 1-1/2" Welded Cylinder (JD324)	JM0019644
9 Seal Kit 3" x 24" Cylinder (JD324-1) (JD480)	JM0037895
10 3/8" Male NPT x 3/8" Female NPT; 90 Degree Elbow	JM0030059
11 PC-37 Check Valve	JM0018233
12 3/8" Male NPT x 3/8" Female NPT-Swivel with .062 Orifice (restrictor)	JM0018362
13 3/8" Female NPT x 3/8" Female NPT x 3/8" Female NPT; Street T	JM0018266

Description	Part No.
14 3/8" Male NPT x 3/8" Female JIC; 90 Degree Elbow with .062 Orifice	JM0050607
15 1/4" x 438" Hydraulic Hose 438inch4IA3K-4G-8MP-4G-4MP	JM0050629
16 1/4" Male NPT x 1/4" Female NPT-Swivel; 90 Degree Elbow with 0.032 Orifice	JM0050628
17 1/4" Male NPT x 1/4" Female NPT-Swivel; 90 Degree Elbow	JM0010301
18 1-3/4" x 4" Hydraulic Cylinder (1/2" Clevis and Tab ends) (HC-FCS)	JM0018564
18 Seal Kit for 1-3/4" x 4" Cylinder (SKHC-FCS) (JD459)	JM0024892
19 1/2" Female NPT Pioneer (PQC-1)	JM0018254
20 1/4" x 292" Hydraulic Hose 292inch4IA3K-4G-8MP-4G-6MJ	JM0050608
21 1/4" x 27" Hydraulic Hose 27inch4IA3K-4G-6FJX-4G-6FJX	JM0050609
22 1/4" x 75" Hydraulic Hose 75inch4IA3K-4G-6FJX-4G-6FJX	JM0050610
23 3/8" Male JIC x 1/2" Male NPT; 90 Degree Elbow	JM0050612
24 3" x 40" Hydraulic Cylinder	JM0031363
24 Seal Kit for 3" x 40" Cylinder	JM0048490

