Grain Carts

Dual-Auger Models
830/1138/1242

Beginning With Serial Number D70190100

Part No. 2012223

Foreword

Your new GRAIN CART is designed and manufactured to give you years of dependable service. To keep it running efficiently, read the instructions in this operator's manual.

This manual covers operation, service, assembly, and parts for your GRAIN CART. Read and study manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

"Right-Hand" and "Left-Hand" side of the machine are determined by standing behind the implement and facing in the direction of forward travel.

This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

IMPORTANT

- *The information, specifications, and illustrations in the manual are on the basis of information available at the time it was written. Due to continuing improvements in the design and manufacture of Unverferth products, all specifications and information contained herein are subject to change without notice.*

Product Information

Please fill out and retain this portion for your records. All products manufactured by Unverferth Mfg. Co., Inc. are warranted to be free from material and workmanship defects for one full year from time of consumer delivery. Your local dealer will gladly assist you with any warranty questions.

The serial number plate is located as shown below.

Product _____

Serial Number _____

Date of Purchase _____

Dealer _____

City _____ State _____ Zip _____

Please supply this information when you have questions or when ordering repair or replacement parts. Your dealer needs this information to give you prompt, efficient service.

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Safety

General Hazard Information

No accident-prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

A large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the field, or in the industrial plant, can be safer than the person who is at the controls. If accidents are to be prevented--and they can be prevented--it will be done by the operators who accept the full measure of their responsibility.

It is true that the designer, the manufacturer, and the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that, “the best kind of a safety device is a careful operator.” We, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.

REMEMBER:

THINK SAFETY

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT!

SIGNAL WORDS

DANGER

INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.

WARNING

INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.

CAUTION

INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.

IMPORTANT

Is used for instruction on operating, adjusting, or servicing a machine.

Safety Decals

Part No. 98279

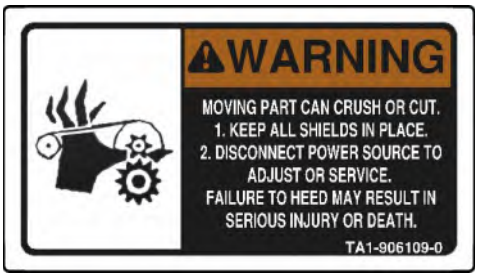
Part No. 9003478

Part No. 9003474

Part No. 95046

Part No. 9003476

Part No. 93552



Part No. TA1-906109-0

Part No. 98229

Part No. 93551

Part No. 97961

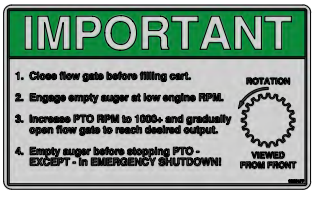
Part No. 95839

Part No. 94094

Part No. 97575

Amber Reflector - Part No. 9003127
Red Reflector - Part No. 9003126
Fluorescent Decal - Part No. 9003125

Part No. 94754



Part No. 9003477

Follow Safety Instructions

- Read and understand this operator's manual before operating.

- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- Always shut the tractor engine off and remove the key before servicing.

- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc. that may become entangled in moving parts.
- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle.
- Never attempt to operate the implement unless you are in the driver's seat.

- Never enter a cart containing grain. Flowing grain traps and suffocates victims in seconds.

Before Servicing or Operating

- Avoid working under implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.

- Ensure that all applicable safety decals are installed and legible.
- When working around the implement, be careful not to be cut by sharp edges.
- To prevent personal injury or death, always ensure that there are people who remain outside the cart to assist the person working inside, and that all safe workplace practices are followed. There is restricted mobility and limited exit paths when working inside the implement.
- Secure drawbar pin with safety lock and lock the tractor drawbar in a fixed position.
- Explosive separation of a tire and rim can cause serious injury or death. Only properly trained personnel should attempt to service a tire and wheel assembly.
- Add sufficient ballast to tractor to maintain steering and braking control at all times. Do not exceed tractor's lift capacity or ballast capacity.
- Do not stand between the towing vehicle and implement during hitching.
- Always make certain everyone and everything is clear of the machine before beginning operation.
- Verify that all safety shields are in place and properly secured.

During Operation

- Regulate speed to field conditions. Maintain complete control at all times.
- Never service or lubricate equipment when in operation.
- Keep away from overhead power lines. Electrical shock can cause serious injury or death.

- Use extreme care when operating close to ditches, fences or on hillsides.
- Do not leave equipment unattended with engine running.

Before Transporting

- Secure transport chains to towing vehicle before transporting. DO NOT transport without the chains.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine. Make sure that the SMV emblem and SIS decal are visible to approaching traffic.
- This implement may not be equipped with brakes. Ensure that the towing vehicle has adequate weight and braking capacity to tow this unit.

During Transport

- Comply with all laws governing highway safety when moving machinery.
- Use transport lights as required by all laws to adequately warn operators of other vehicles.
- Use good judgement when transporting equipment on highways. Regulate speed to road conditions and maintain complete control.
- Maximum transport speed of this implement should never exceed 20 mph as indicated on the machine. Maximum transport speed of any combination of implements must not exceed the lowest specified speed of the implements in combination. Do not exceed 10 mph during off-highway travel.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.
- Do not transport the grain cart on roads while loaded.
- It is probable that this implement is taller, wider and longer than the towing vehicle. Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

Driveline Safety

- Do not allow children near equipment that is running or engaged.

- Do not exceed 1000 rpm PTO speed.
- Disengage the PTO, stop the tractor engine, and remove key from ignition before making inspections, or performing maintenance and repairs.
- Inspect the driveline, quick disconnect, overload shear-bolt limiter or clutch, and shielding often. Repair immediately. Use replacement parts and attaching hardware equivalent to the original equipment. Only alterations described in this manual for overall length adjustment are allowed. Any other alteration is prohibited.
- Avoid excessively long hardware or exposed and protruding parts which can snag and cause entanglement.
- Lubricate the driveline as recommended in the MAINTENANCE section.
- Keep hoses, wiring, ropes, etc. from dangling too close to the driveline.
- Install driveline and shields according to recommended lengths and attaching methods with recommended hardware. The driveline shield should rotate independently a full rotation and telescope freely. The retaining chain must be secured to the implement safety shield.
- Adjust drawbar to height recommended in tractor set up section.
- Use caution when turning to avoid contact between tractor tires and driveline.
- Check the length of the telescoping members to insure the driveline will not bottom out or separate when turning and/or going over rough terrain.
- Proper extended and collapsed lengths of the telescoping PTO shaft must be verified before first operation with each and every tractor. If the extended length of the PTO shaft is insufficient, it may become uncoupled during operation and cause serious injury or death from contact with uncontrolled flailing of PTO shaft assembly components.

Pressurized Oil

- Relieve the hydraulic system of all pressure before adjusting or servicing. See hydraulic power unit manual for procedure to relieve pressure.
- High-pressure fluids can penetrate the skin and cause serious injury or death. Leaks of high-pressure fluids may not be visible. Use cardboard or wood to detect leaks in the hydraulic system. Seek medical treatment immediately if injured by high-pressure fluids.

- Hydraulic system must be purged of air before operating to prevent serious injury or death.
- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.
- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.
- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.
- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
  - End fittings damaged, displaced, or leaking.
  - Outer covering chafed/cut or wire reinforcing exposed.
  - Outer covering ballooning locally.
  - Evidence of kinking or crushing of the flexible part of a hose.

Preparing for Emergencies

- Keep a first aid kit and properly rated fire extinguisher nearby.

- Keep emergency numbers for fire, rescue, and poison control personnel near the phone.

Wearing Protective Equipment

- Wear clothing and personal protective equipment appropriate for the job.

- Wear steel-toed shoes when operating.

- Wear hearing protection when exposed to loud noises.

- Do not wear additional hearing impairing devices such as radio headphones, etc

SECTION II
Set Up

FOR SCALE INFORMATION, PLEASE REFER TO YOUR SCALE MANUAL.

Hitch Installation

1. **STANDARD HITCH**
   Insert hitch into frame weldment and secure using coupler (102586B) and 1”-8 x 6” capscrew (91299-195), 1” lockwasher (9404-041), and 1”-8 hex nut (9394-020). FIG. 2-1

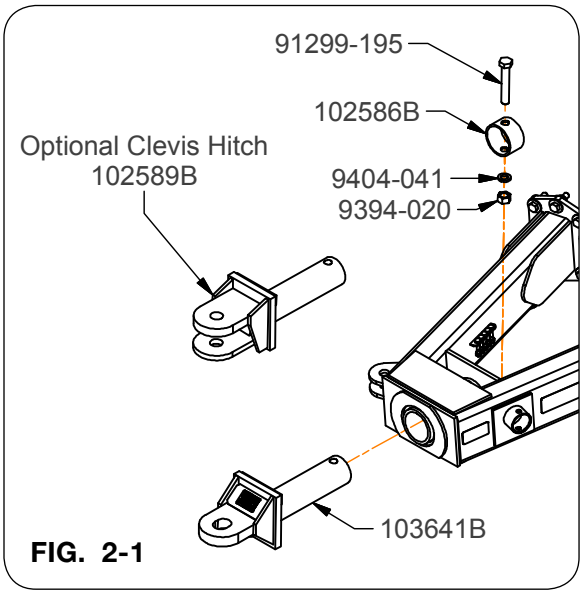


FIG. 2-1

SCALE HITCH
Insert hitch bar (9004903) and spacer (27391) into frame weldment and secure using 1”-8UNC x 7” capscrew (9390-197), 1” lockwasher (9404-041), and 1”-8UNC hex nut (9394-020). Attach the hitch (282875B) to the hitch bar (9004903) with 1” Dia. x 5 1/2” pin (282876) and two 1” retaining rings (91192). FIG. 2-2

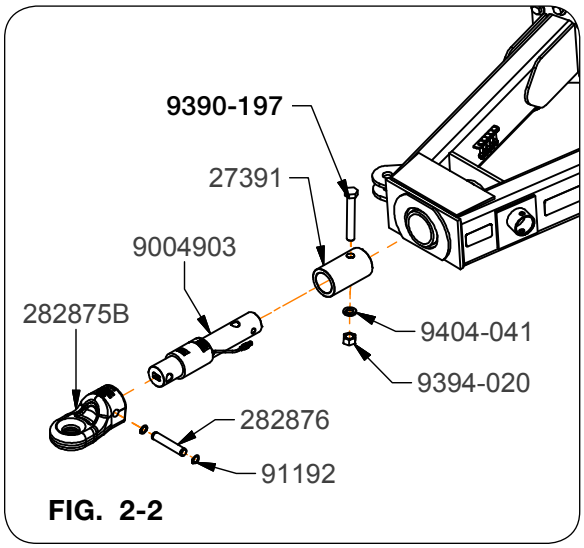
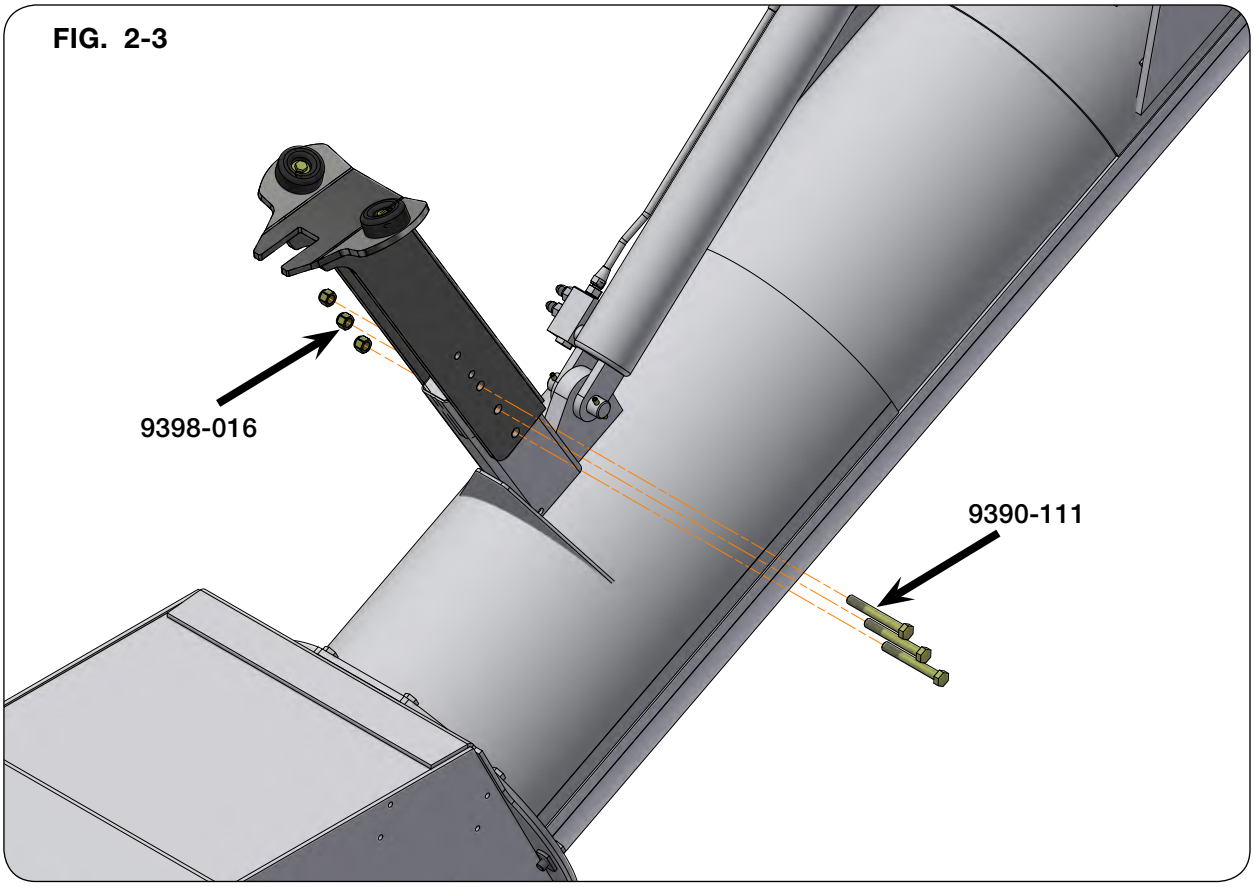


FIG. 2-2

Auger Rest Stand Set Up

1. Attach the auger rest stand weldment (2011827B) with rubber bumpers (97896 to the auger tube lower assembly with three 1/2”-13UNC x 4” capscrews (9390-111) and 1/2”-13UNC elastic lock nuts (9398-016). (FIG. 2-3)

FIG. 2-3



Wheel/Tire Set Up

Tire Pressure

Tire pressure must be verified before first use and adjusted as necessary. Refer to maintenance section of this manual for information on tire pressure.

Wheel Nuts

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

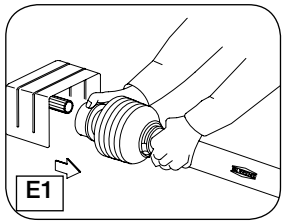
IMPORTANT

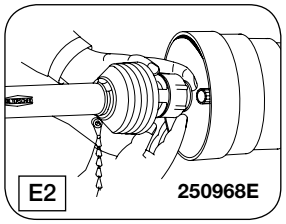
- *Installing wheels without the proper inset could result in hub or spindle failure. This will cause substantial damage to cart.*

Coupling PTO Drive Shaft

Clean and grease the PTO and implement input connection (IIC)

1. Pull locking collar and simultaneously push PTO drive shaft onto PTO shaft until the locking device engages.





IMPORTANT

- *Check to insure all the locks are securely engaged before starting work with the PTO drive shaft.*

SECTION III
Operation

FOR SCALE INFORMATION, PLEASE REFER TO YOUR SCALE MANUAL.

Electrical Hook-Up

Your Grain Cart has the option of being supplied with a 7-way SAE connector plug, which will adapt to the receptacle found on most tractors on the market today. If not available, an SAE J560 7-way outlet socket can be purchased from your Unverferth dealer (order #92824). An electrical Diagram can be found in the Service/ Maintenance section.

Wiring specifications may be different for older tractor models. Consult your tractor operator's manual or dealer for proper wiring and installation.


FIG. 3-1

Tractor Hook-Up

⚠ WARNING

- **CRUSHING CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT STAND BETWEEN THE TOWING VEHICLE AND IMPLEMENT WHEN HITCHING. ALWAYS ENGAGE THE PARKING BRAKE AND STOP THE ENGINE BEFORE INSERTING HITCH PINS OR SECURING LATCHES.**

Make sure sufficient counterweight is used on the tractor's front-end.

Move draw bar into position recommended in tractor owners manual.

Tractor Size	Hitch Pin Dia.
Category 4 (250-400 H.P.)	2"
Category 3 (110-250 H.P.)	1-1/2"

Select the proper hitch pin size for your tractor.

Use 1 1/2" diameter hitch pin with clevis grain cart hitch. Use 2" diameter pin with single tang grain cart hitch. Hitch pin must have a reasonable amount of free movement for oscillation.

With cart hitched to tractor, hook up P.T.O., following all safety precautions.

Hook-up 7-way plug connection to tractor if lights are installed.

Be sure hitch is positioned as shown. Gusset should be to top.

⚠ CAUTION

ALWAYS USE TRANSPORT CHAIN WHEN TRANSPORTING IMPLEMENT. FAILURE TO USE TRANSPORT CHAIN COULD CAUSE PERSONAL INJURY IF IMPLEMENT AND TRACTOR BECOME DISENGAGED.

Secure transport chain accessory (2005426) to tractor as shown in FIG. 3-2.


FIG. 3-2

Tractor Hook-Up (Continued)

Transport Chain Connection

⚠ CAUTION

- **ALWAYS USE THE TRANSPORT CHAIN WHEN TRANSPORTING IMPLEMENTS. FAILURE TO DO SO COULD CAUSE PERSONAL INJURY OR DAMAGE IF THE IMPLEMENTS BECOME DISENGAGED.**
- **REPLACE THE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED OR DAMAGED. DO NO WELD THE TRANSPORT CHAIN.**
- **THE STANDARD TRANSPORT CHAIN IS DESIGNED TO SUPPORT AN EMPTY GRAIN CART DURING ROAD TRAVEL.**

Tractor must be equipped with a transport chain support. Always use intermediate support when connecting cart directly to a tractor. DO NOT use the intermediate support as the chain attaching point. Illustration to the right shows how the transport chain must be installed between cart and tractor.

FIG. 3-3

Transport chain should have a minimum rating equal to the gross weight of cart and all attachments. Use only ASABE approved chains. Allow no more slack in chain than necessary to permit turning.

Jack

Use jack to support an *empty* grain cart, never a loaded grain cart...always have a loaded grain cart hooked to tractor. Remove jack from storage on left-hand side of the frame and install on mounting stud behind hitch.

IMPORTANT

- *Return jack to storage location after cart is hitched to tractor.*

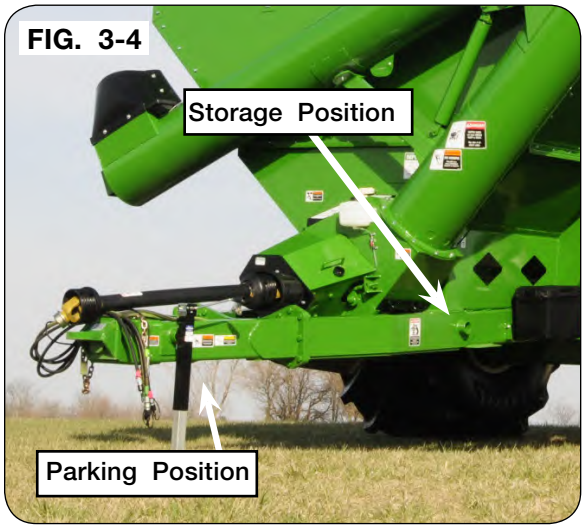


FIG. 3-4

Hydraulic Hook-Up

IMPORTANT

- *When coupling hydraulic hoses to ports on tractor, be sure that coupler ends are clean of dust, dirt and debris. Failure to do so could contaminate hydraulic system resulting in excessive wear and possible failure.*

Properly identify the hoses for the auger fold and the flow control operation.

It is advisable to use the hydraulic control lever closest to the operator (most commonly known as control lever No. 1) to activate the flow control.

Once everything has been hooked up, test for any possible needed adjustments:
- Are tires inflated to proper pressure?
- Do augers run smoothly?
- Does unloading auger fully extend?
- Does P.T.O. operate properly?
- Do flow control gates operate properly?
- Is indicator arm working properly?
- Are all lights working properly?

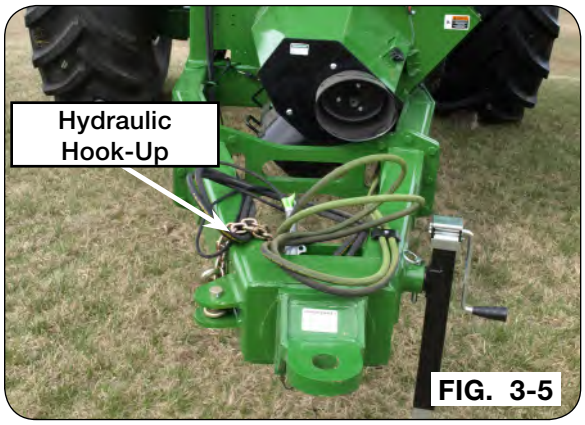


FIG. 3-5

If any of these are not adjusted properly, please read the Service/Maintenance section outlined in the manual or contact your nearest Unverferth dealer for further information.

With everything in good operating condition, be sure to close the flow control gates before use.

Operation in Field

⚠ DANGER

- **ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. THE GRAIN CART IS NOT INSULATED. KEEP AWAY FROM ALL ELECTRICAL LINES AND DEVICES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.**

1. Make sure the flow control door is in the closed position before loading into the cart.
2. Engage PTO at a low RPM; Then increase to 1000 RPM before opening flow control gate.
3. Use the flow control opening to slow the rate of the flow rather than the tractor's RPM.
4. Do not disengage the auger with the flow control open. Excessive start-up torque may result, putting stress on cart driveline and tractor.

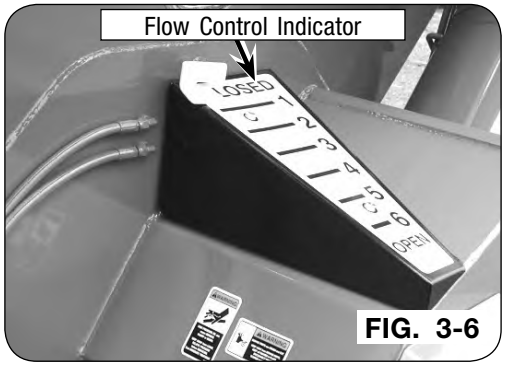


FIG. 3-6

5. Properly identify tractor remote for proper hook-up of the flow control and auger fold. A mix-up can damage the auger drive system.
6. Never enter a loaded grain cart. Flowing grain traps and suffocates victims in seconds.
7. It is strongly advised that the unloaded auger always be returned to the transport position when not in use.
8. The transmission components of the augers are designed with 50% cycle time. This means that for proper life of components, cart should be run for a maximum of five minutes at a time, and then left idle for five minutes.

Weather Guard Tarp Operation

Always use adequate caution when operating tarp.

If tarp is covered with snow, it is important to remove snow before operating.

End caps must be free from grain that may be piled on them. Grain should not be heaped higher than end caps.

Tarp should be fully opened when loading and unloading the cart.

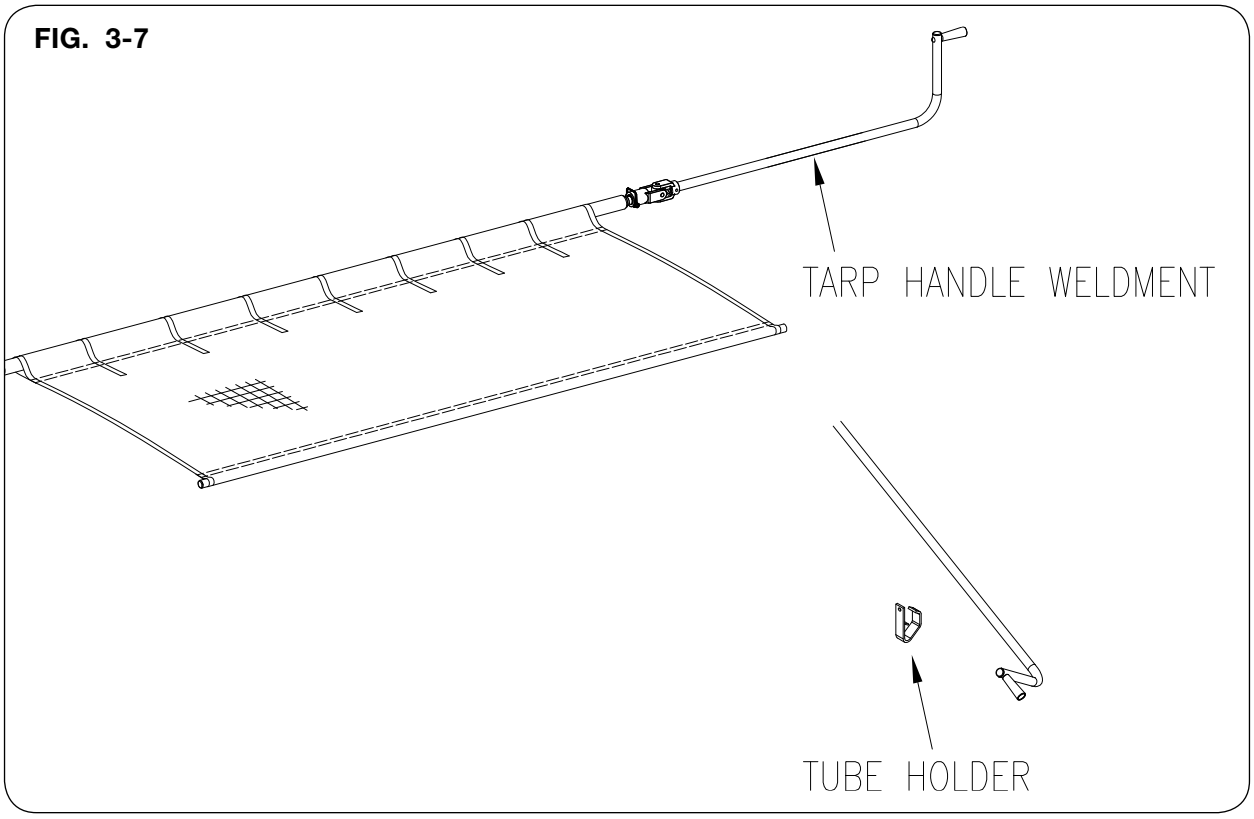
Tarp should be fully opened during field operation.

NOTE: U-joint may need to be re-indexed on the splined shaft of the roll tube to achieve an ideal tarp tension and that over time it may need to be readjusted.

Procedure

1. Using both hands, carefully remove the tarp handle weldment from the tube holder/handle bracket weldment.
2. Raise the tarp handle weldment high in the air and at the rear of the box.
3. Roll the tarp to the desired location - fully open or fully closed position.
4. Walk the tarp handle weldment out then back towards the middle to tighten the tarp and position it in the tube holder/handle bracket weldment.

FIG. 3-7



Operating Chain Oiler #23250

⚠ WARNING

- **MOVING OR ROTATING COMPONENTS CAN CAUSE SERIUS INJURY OR DEATH. ALWAYS DISCONNECT THE POWER SOURCE BEFORE SERVICING. ENSURE THE SERVICE COVERS, CHAIN/BELT COVERS AND CLEAN-OUT DOOR(S) ARE IN PLACE AND SECURELY FASTENED BEFORE OPERATING THE MACHINE.**

1. Park the empty cart on a firm, level surface. Block the tires on the machine to keep it from moving. Set the tractor's parking brake, shut off the engine, remove the ignition key and disconnect the PTO shaft and hydraulics from the tractor and cart.

2. Fill oil reservoir tank (9501778) with 30W oil.

IMPORTANT

- *Grain Carts that do not have a chain oiler must use SAE 80-90W oil.*

3. Turn the ball valve (9002794) nearest the oil reservoir tank (9501778) all the way on (FIG. 3-8).

4. Turn the ball valve (9002794) nearest the bracket (23111) only half-way on (FIG. 3-8).

5. Remove the 5/16"-18UNC x 1" capscrews (9390-030) and lock washers (9404-021) so the guard weldment (27395B) can be removed as shown in FIG. 3-9.

6. Examine the oil flow and adjust the ball valve nearest the bracket (23111) so an even amount of oil is being distributed between both brushes.

7. Turn the ball valve (9002794) nearest the oil reservoir tank (9501778) off when operations are completed (FIG. 3-9).

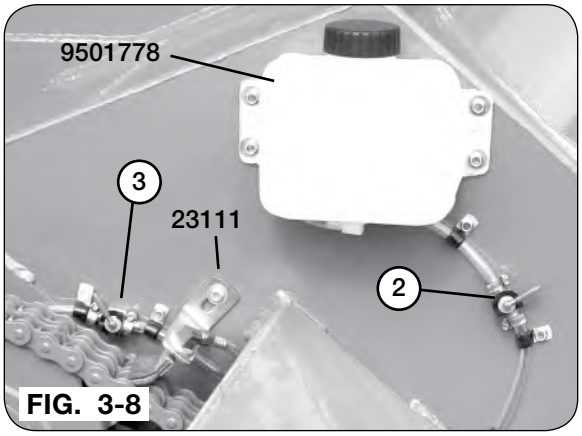


FIG. 3-8

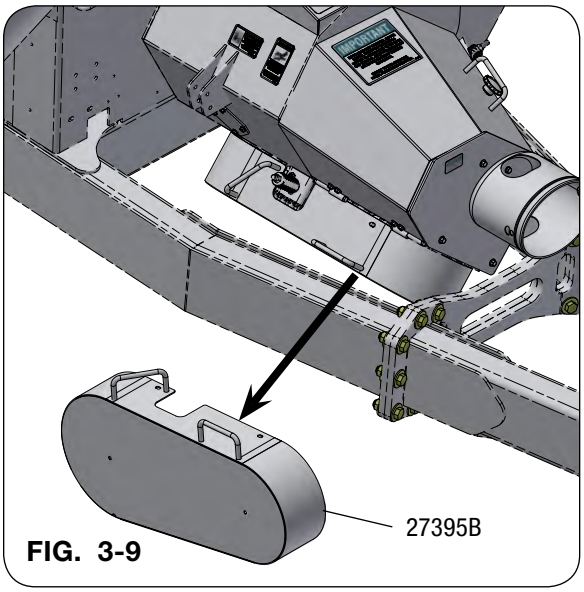


FIG. 3-9

Notes

SECTION IV
Maintenance

FOR SCALE INFORMATION, PLEASE REFER TO YOUR SCALE MANUAL.

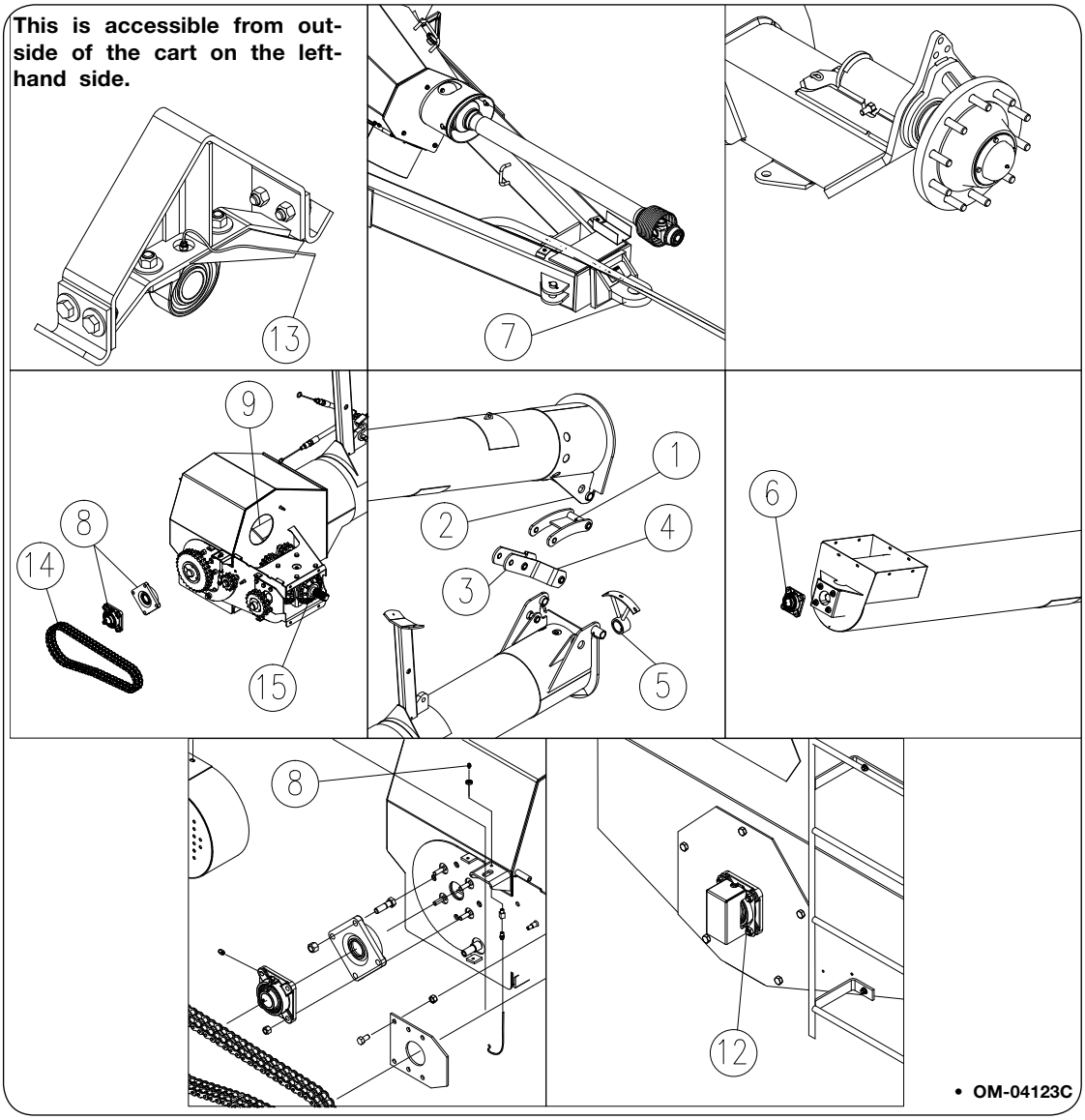
Lubrication

To keep your grain cart in top operating condition and to assure its proper performance and reliability for a long period of time, a periodic inspection and lubrication is a must.

ITEM	DESCRIPTION
1	Linkage Pivot
2	Hinge Tube
3	Linkage Pivot
4	Linkage Pivot
5	Vert. Auger Hanger Bearing (1 Shot Daily)
6	Vert. Auger Top End Bearing (1 Shot Daily)
7	Hitch Point (5 Shots/Seasonal)
8	Vertical Auger Lower Bearing (Inside/Outside - 1 Shot Daily)
9	Horiz. Auger Front Bearing (1 Shot Season)
10	Cart Pivot, Front (1 Shot Daily)

ITEM	DESCRIPTION
11	Cart Pivot, Rear (1 Shot Daily)
12	Horiz. Auger Rear Bearing (1 Shot Season)
13	Horiz. Auger Center Bearing (1 Shot Season)
14	Chain - with chain oiler (30W)
15	Gearbox (Check each week, replace once a year 2-2 1/2 PINTS 85W140 EP)
16	Hubs (2) (Repack every 2 years)
17	PTO Universal Joint (2) (Refer to PTO Section)
18	PTO Safety Shield (2) (Refer to PTO Section)

This is accessible from outside of the cart on the left-hand side.



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Seasonal Storage

Always open flow door and auger cleanout doors to remove any remaining grain and to allow moisture to dry.

Wash machine inside and out before storing to remove dirt and debris that can draw and collect moisture. When using pressure washers maintain an adequate distance so not to force water into bearings.

Lubricate machine at all points outlined.

Repaint all areas where paint has been removed to keep from rust developing. Rust will affect grain flow.

Coat exposed cylinder piston rods with rust preventative material if applicable.

Inspect machine for parts that may need to be replaced so they may be ordered in the off season.

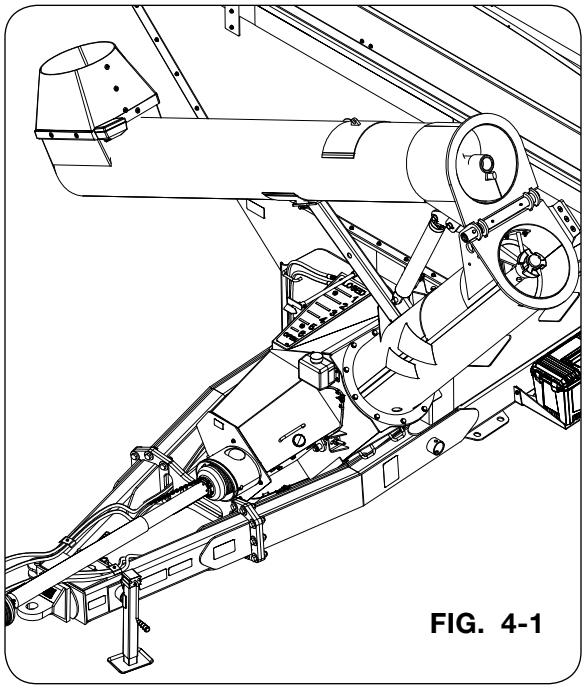


FIG. 4-1

U-Joints

The U-joint will give you many years of service if grease is applied to each joint and spline weekly.

For maximum gearbox life:
-- Check oil level every week
-- Replace oil every season, fill to fluid level or 1 liter (2 pints) 90 weight oil

Tires/Wheels

Check tire pressures and maintain at recommended values listed in the MAINTENANCE section of this manual.

The wheels which are required for proper longevity of hubs and spindles should have an inset of 1 1/2". Meaning that the center of the wheels are 1 1/2" to the middle of the cart.

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "SERVICE/MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

IMPORTANT

- *INSTALLING WHEELS WITHOUT THE PROPER INSET COULD RESULT IN HUB OR SPINDLE FAILURE. THIS WILL CAUSE SUBSTANTIAL DAMAGE TO CART.*

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Tire manufacturers' phone numbers and web sites are listed in the "SERVICE/MAINTENANCE" Section of this manual for your convenience.

Drive Train Inspection

To insure long life and dependable service from your grain cart, the drivetrain should be **inspected after the first 5 loads, at the beginning of each season and after every 25 loads or annually thereafter, whichever comes first.**

Remove inspection cover and proceed as follows:

- Make a general inspection of drivetrain looking for loose hardware.

- Inspect chain tension.

- Inspect for wear on the side of the sprockets which may indicate poor chain alignment.

- Inspect chain connectors making sure they are properly secured.

- Inspect the three setscrews in each sprocket bushing and tighten evenly to torque specifications.

- Inspect sprocket drive keys making sure they are properly located and tight.

- Inspect all grease hoses for damage and proper routing.

- Lubricate all grease fittings.

- Inspect bearings and seals in gearbox.

- Inspect PTO attaching hardware and safety shields.

- Repair or replace worn or damaged parts.

Drive Sprockets

The drivetrain components should be checked periodically for tightness. Loose sprockets or chains could result in excessive wear or damage to the drive train.

Use the following chart for reference during servicing.

Note: Torque specifications are shown in foot pounds.

Auger	Bushing	Torque	# of Teeth
Horizontal	102246	23	15
Vertical	102247	36	18
Both	102248	66	30

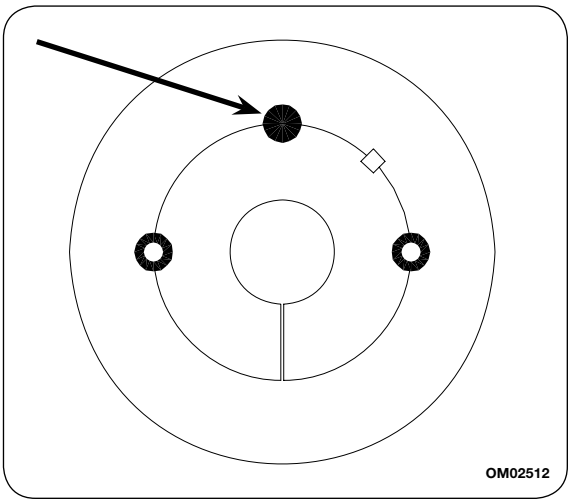
Drive Sprockets (Continued)

Hole Configuration of Drive Sprocket

REMOVAL

1. Remove all set or cap screws.

2. Insert set or cap screw in hole indicated by on diagram. Loosen bushing by tightening set or cap screw.



INSTALLATION

1. Clean shaft, bore of bushing, outside of bushing and hub bore of all oil, paint and dirt. File away burrs.

2. Insert bushing in hub. Match the hole pattern, not the threaded holes, (each hole will be threaded on one side only.)

3. Lightly oil setscrews and thread into those half-threaded holes indicated by on above diagram. **DO NOT** lubricate the bushing taper, bushing bore, hub taper or the shaft. Doing so could result in breakage of the product.

4. Alternately torque setscrews or capscrews to recommended torque setting, see chart.

5. To increase gripping force, hammer face of bushing using block, or sleeve. (Do not hit bushing directly with hammer.)

6. Re-torque screws after hammering.

7. Recheck screw torques after initial run-in, and periodically thereafter. Repeat steps 4, 5 and 6 if loose.

Indicator Arm

The Indicator Arm lets the operator know the position of the flow control gates, open or closed. This arm is connected to the flow control gate. If the indicator arm is not working properly see that the hardware is securely connecting the indicator arm to the gate. See flow control gates for further adjustments.

Flow Control Gates

The Flow Control Gates are designed to prevent grain from putting an excess load on the horizontal auger during initial start-up. If gates are not working properly check:

-- each pivot, on each end of gate, for wear or tightness.

-- the hydraulic cylinder, making sure hoses are attached properly, clevis pins are secure, and fluid level in hydraulic oil reservoir is at its recommended level.

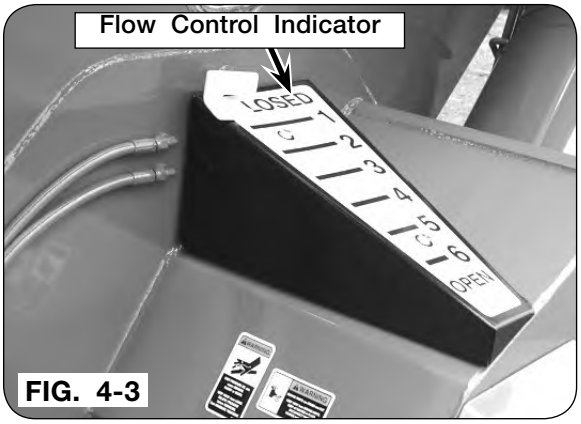


FIG. 4-3

-- for any debris that may have wedged between gates.

-- hardware connecting gates are secure.

Chain Tightener Bracket

Due to prolonged use, gear wear may be evident causing slack in chains. To correct this, follow these steps:

1. Adjust horizontal tightener to 2.75” in spring shown.
2. Adjust vertical auger tightener to 3” in spring shown.
3. Clear work area and test run drivetrain for 3 minutes at no greater than 1000 R.P.M.
4. Disengage P.T.O. and turn tractor off. Check slack in chain. If more adjustment is needed repeat steps 1-3.

IMPORTANT

- *Improper chain tensioning can cause premature wear on chains and sprockets. Too tight can cause heat and lubrication to dissipate, or too loose could cause chain slap and excess vibration. Both contribute to chain elongation and/or sprocket wear. It is recommended to check chain tension daily and always replace both sprockets and chain when installing new components.*

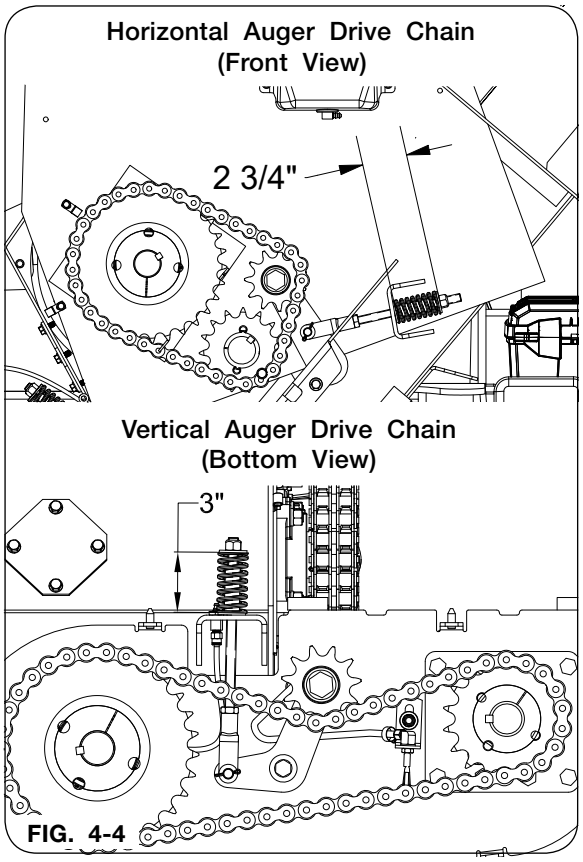


FIG. 4-4

PTO Shear Bolt Clutch

IMPORTANT

- *Use a genuine OEM replacement shear bolt to ensure that the shear function does not occur too soon causing inconvenience or too late resulting in damage to driveline and auger components, see "Driveline Components".*

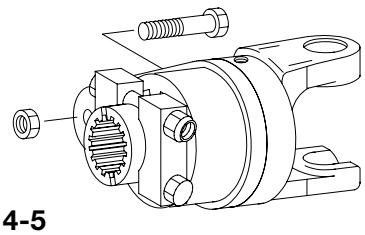
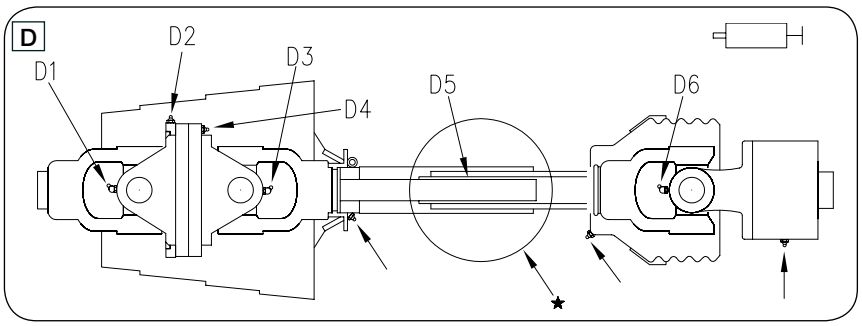


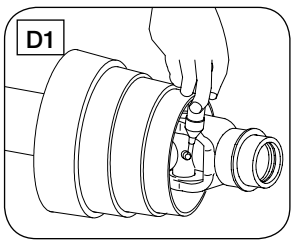
FIG. 4-5 266951

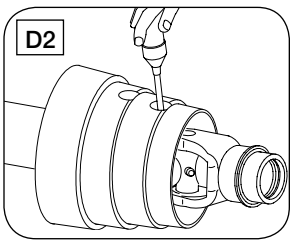
PTO Shaft & Clutch (Optional)

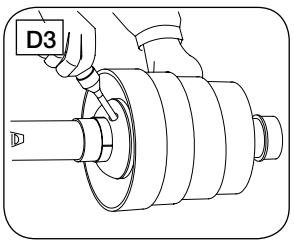
Lubrication (Figs. D1-D6)

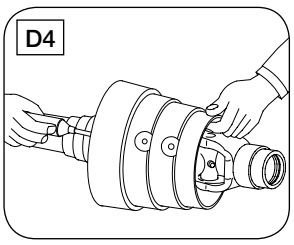
Lubricate with quality grease before starting work and every 8 operating hours. Clean and grease PTO drive shaft before each prolonged period of non-use. Molded nipples on the shield near each shield bearing are intended as grease fittings and should be lubricated every 8 hours of operation! Telescoping members must have lubrication to operate successfully regardless of whether a grease fitting is provided for that purpose! Telescoping members without fittings should be pulled apart and grease should be added manually. Check and grease the guard tubes in winter to prevent freezing.

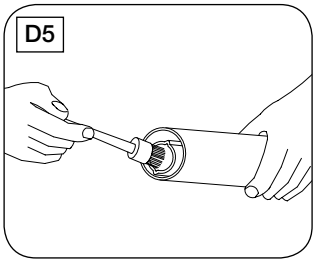


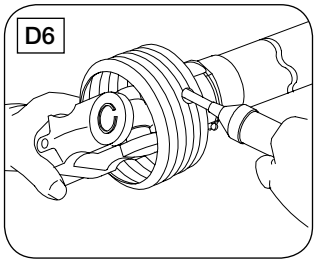












PTO Shaft & Clutch (Optional) (Continued)

Coupling The PTO Drive Shaft (Figs. E1-E2)

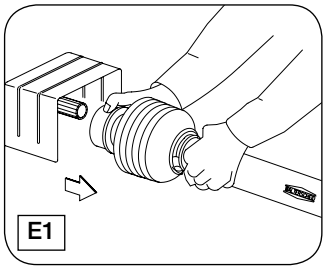
Clean and grease the PTO and implement input connection (IIC)

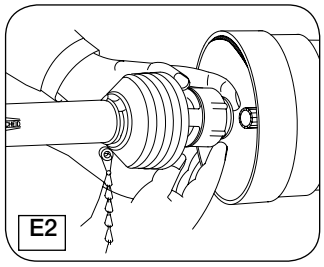
AS-Lock

1. Pull locking collar and simultaneously push PTO drive shaft onto PTO shaft until the locking device engages.

Push-Pull Lock

2. Pull locking collar and simultaneously push PTO drive shaft onto PTO shaft until the locking device engages.


E1


E2

⚠ WARNING

- **CHECK TO INSURE ALL THE LOCKS ARE SECURELY ENGAGED BEFORE STARTING WORK WITH THE PTO DRIVESHAFT.**

Length Adjustment (Figs. F1-F4)

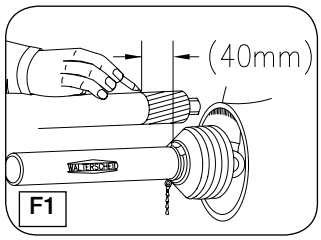
NOTE: Maximum operating length LB.

1. To adjust length, hold the half-shafts next to each other in the shortest working position and mark them.

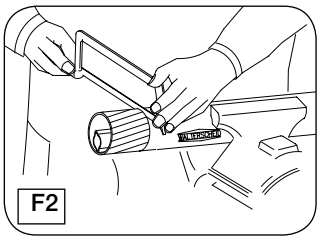
2. Shorten inner and outer guard tubes equally.

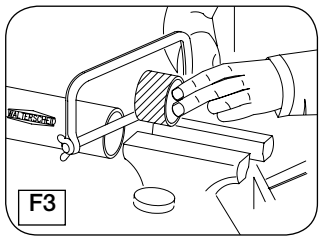
3. Shorten inner and outer sliding profiles by the same length as the guard tubes.

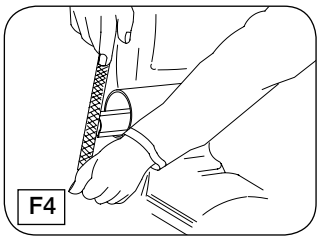
4. Round off all sharp edges and remove burrs. Grease sliding profiles.



F1


F2


F3


F4

⚠ WARNING

- **CHECK THE LENGTH OF THE TELESCOPING MEMBERS TO INSURE THE DRIVELINE WILL NOT BOTTOM OUT OR SEPARATE WHEN TURNING AND/OR GOING OVER ROUGH TERRAIN.**

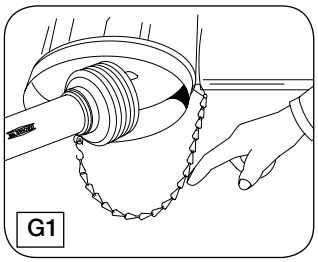
PTO Shaft & Clutch (Optional) (Continued)

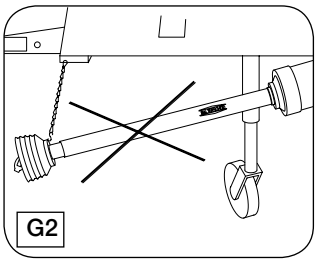
Chains (Figs. G1-G3)

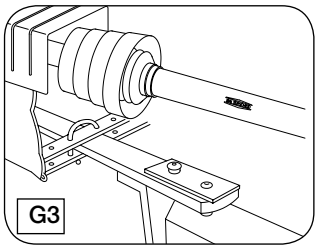
NOTE: The chain is intended to prevent the shield from rotating against non-moving parts and thereby preventing shield damage. A properly installed chain will increase the service life of the shield.

1. Chains must be fitted so as to allow sufficient articulation of the shaft in all working positions. Care must be taken to be sure that chain does not become entangled with drawbar hitch or other restrictions during operation or transport of machine.

2. The PTO drive shaft must not be suspended from the chain.



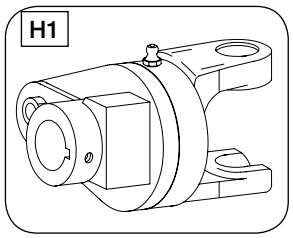


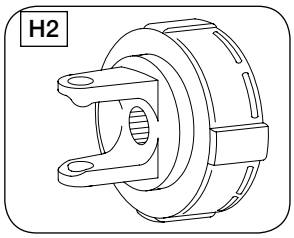


Shear Bolt & Friction Clutches (Figs. H1-H2)

1. **Shear bolt clutches:**
   When the torque is exceeded, power flow is interrupted due to the bolt shearing. The torque is re-established by replacing the broken shear bolt. Use only the bolt specified in the Operator's Manual for replacement. Remove locking screw.

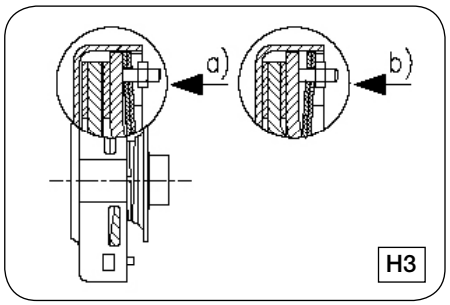
2. **Friction clutches:**
   When overload occurs, the torque is limited and transmitted constantly during the period of slipping. Short-duration torque peaks are limited.





Prior to first utilization and after long periods out of use, check working of disk clutch.

a. Tighten nuts until friction disks are released. Rotate clutch fully.
b. Turn nuts fully back. Now the clutch is ready for use.



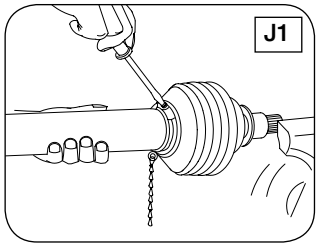
⚠ WARNING

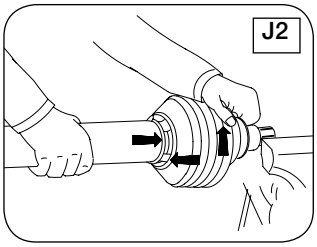
- **AVOID EXTENDED AND FREQUENT SLIPPAGE OR OVER-LOAD CLUTCHES.**

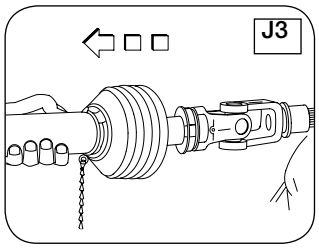
PTO Shaft & Clutch (Optional) (Continued)

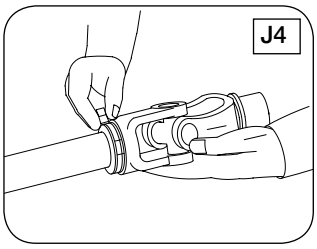
To Dismantle Guard Figs. (J1-J4)

1. Remove locking screw.
2. Align bearing tabs with cone pockets.
3. Remove half-guard.
4. Remove bearing ring.



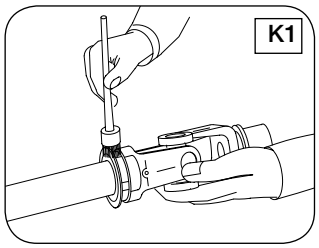


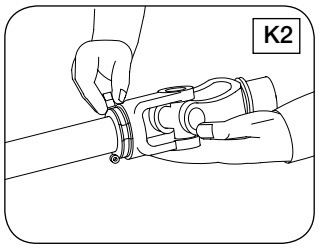


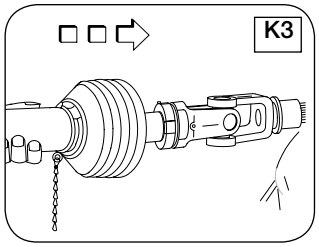


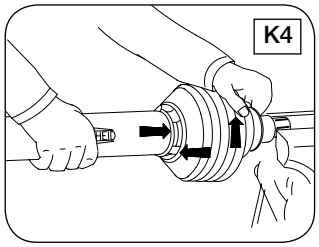
To Assemble Guards Figs. (K1-K5)

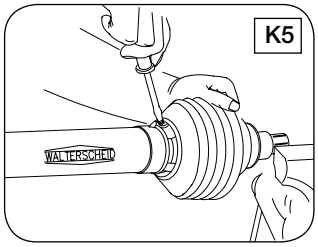
1. Grease yoke groove and inner profile tube.
2. Fit bearing ring in groove with recesses facing profile tube.
3. Slip on half-guard.
4. Turn cone until it engages correctly.
5. Install locking screw.











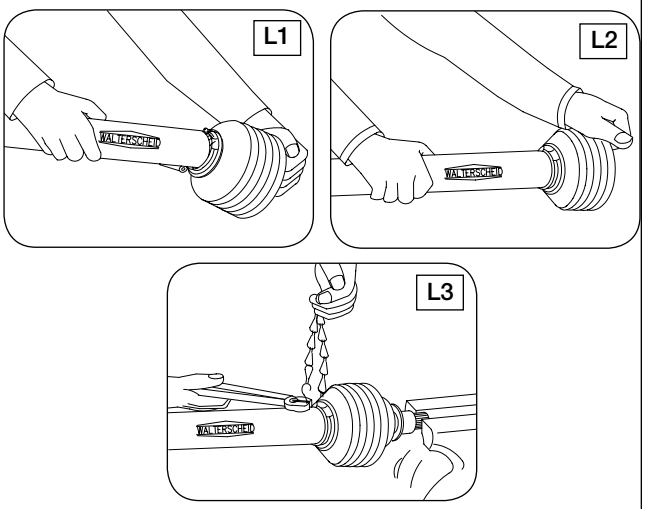
PTO Shaft & Clutch (Optional) (Continued)

To Assemble Cone Figs. (L1-L3)

1. Dismantle guard (Figs. J1 - J3). Remove old cone (e.g. cut open with knife). Take off chain. Place neck of new cone in hot water (approx 80° C /180° F) and pull onto bearing housing (FIG. L1).

2. Turn guard cone into assembly position (FIG. L2). Further assembly instructions for guard (Figs. K1 - K5).

3. Reconnect chain if required (FIG. L3).



Auger Maintenance

Horizontal Auger

Annually check all bolts, nuts, and set screws. Perform lubrication as specified.

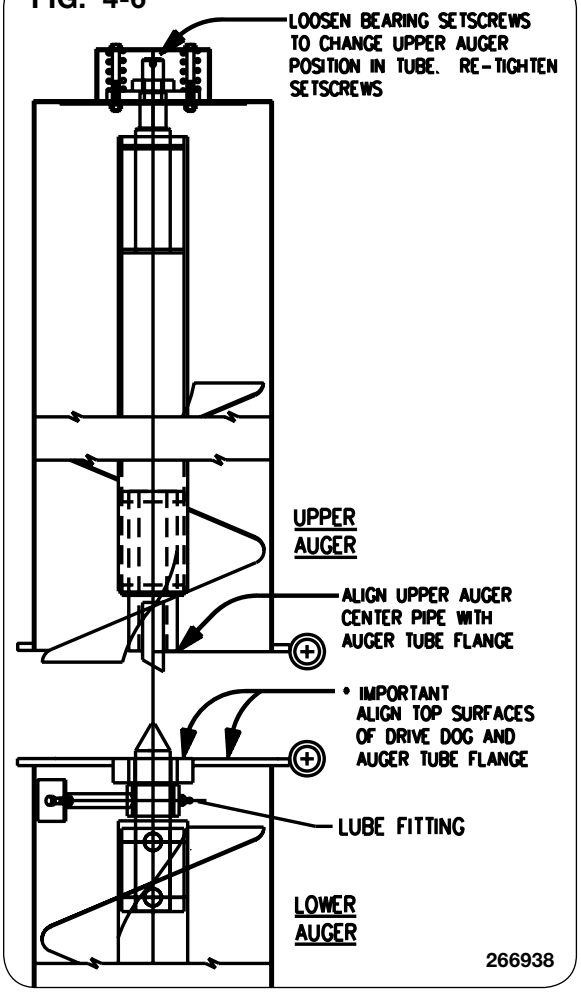
Vertical Auger

Annually check all bolts, nuts and set screws. Perform lubrication as specified.

NOTE: The lower auger position is indexed from the drive dog/tube flange hinge surface, as shown.

Annually check all bolts, nuts and set screws. Perform lubrication as specified.

FIG. 4-6

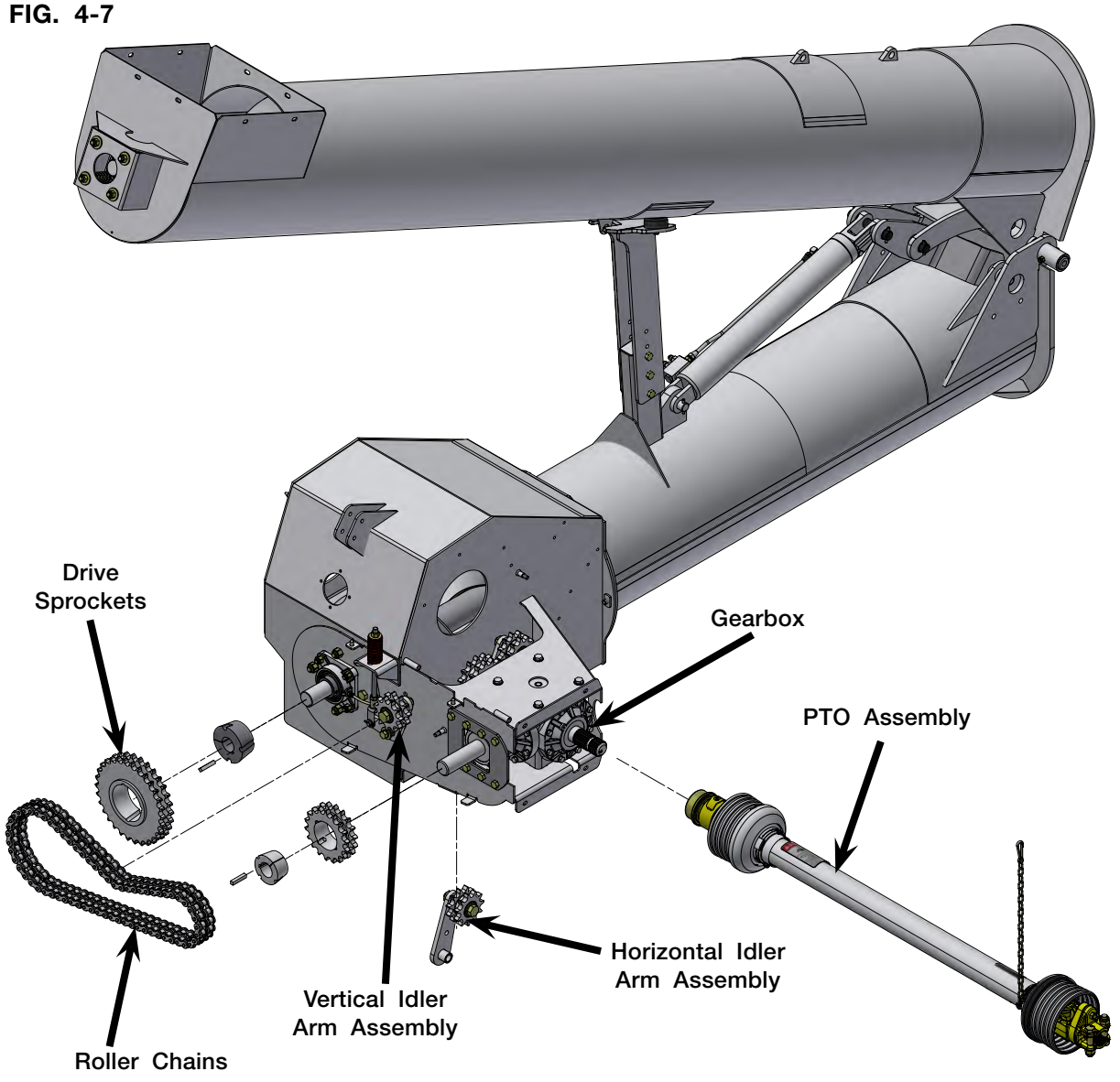


Auger Maintenance (Continued)

Auger Chain Drive

Annually check all bolts, nuts, and set screws. Perform lubrication as specified in Lubrication chart.

FIG. 4-7



Optional Electronic Scale Troubleshooting

If you experience problems in the operation of your system, read through these trouble-shooting steps and perform those which are appropriate. This information may help you to correct the following operational difficulties without further dealer assistance or returning the unit for repair.

Power-On Failure

If your indicator fails to power-on, check the following possible problem sources in the order given. Attempt to power-on after trying each of these four troubleshooting steps:

1. **Check input voltage.** Required voltage is 10-18 volts DC negative ground. The indicator will automatically turn off if voltage coming in drops below 10 volts or rises above 18 volts.

2. **Disconnect and Check the Power Cable Connector** at the vehicle or AC to DC converter, clean if necessary, and reconnect.

3. **Replace the fuse.** Sometimes, a bad fuse can be recognized by an obvious break in the wire filament. Such a break is not always observable, however, and getting a successful power-on after changing a fuse is often the only way of knowing that fuse was indeed defective. The fuse cap is located on the bottom panel of the indicator. Turn counterclockwise to remove cap and fuse.

Make sure the new fuse is the proper size and has a current rating of five amperes. Using a fuse with too high a current rating can cause costly damage to the Indicator and will void your warranty. The same is true for substituting wire, or a nail, or any other object in place of a fuse. *Place nothing in the fuse connector except a proper fuse.*

Try to power-on after changing the fuse; if unsuccessful, proceed to the next trouble-shooting step.

4. **Test the indicator and the cables** to isolate the source of the problem.

    a. Disconnect all cables on the bottom panel of the Indicator except for the power cable. Do disconnect the weigh bar cables, and, if present the printer/remote display cable.

    b. Now try powering-on. If this is not successful, your problem is in the Indicator and you should contact your dealer.

    c. If you are able to power-on with only the power cable connected, your problem is probably not in the Indicator; continue troubleshooting.

    d. With the power still on, plug in the cables, one at a time - Weigh bar cables first, then the printer/remote display cable - until plugging in one of the cables causes the Indicator to shut off. That cable is the bad one and needs to be repaired or replaced.

Optional Electronic Scale Troubleshooting (Continued)

Indicator Lock-Up

A locked up indicator is represented by an ***Err*** (error) display message.

Test the weigh bar cables to isolate the source of the lock up problem, as follows:

1. Disconnect all weigh bars.

2. Try to zero indicator by pressing **ZERO**.

If your indicator will not zero with the weigh bars disconnected, then the problem is in the Indicator; contact your dealer.

If you are able to zero your indicator with the weigh bars disconnected, then the problem is probably in the weigh bars; continue troubleshooting.

3. Reconnect all weigh bars. You will see ***Err*** displayed again.

4. If your weigh bar connectors have the four-pin configuration, disconnect one weigh bar and connect an adapter plug in its place.

If your weigh bar connectors have the five-pin configuration, disconnect one weigh bar. No adapter plug is necessary with five-pin weigh bar connectors.

5. Then try to zero the Indicator.

Repeat Steps 4 and 5 with each weigh bar cable, making sure each time that all cables are connected except the one you removed (for five-pin connector) or replaced with an adapter plug (for four-pin connector).

A defective weigh bar may be easily recognized with this method - for *when a defective bar is replaced with an adapter plug* (for four-pin connector), *or removed* (for five-pin connector)*, the Indicator will zero properly.*

Inaccurate Weight Readings

Visually Inspect The Scale System for apparent problems and improper installation as follows:

a. Check each cable, from source to indicator, for stress, cuts, breaks, or abrasions.

b. Unplug and reconnect each connector at the Indicator to verify that it is tight and making good contact.

c. Check between supporting structure and weighing structure for debris that might restrict Weigh Bar movement.

d. Make sure the supporting structure and weighing structure do not touch each other at any point except at the Weigh Bars.

Optional Electronic Scale Troubleshooting (Continued)

Compare Weight Readings for All Weigh Bars as follows:

Position a person or heavy object on the platform above each weigh bar, one bar at a time, and compare weight readings for the same person or same object. For each weighing, the weight itself will be off-center, favoring a single Weigh Bar, therefore, none of the readings will be accurate.

However, your readings obtained by weighing the same person or object above each Weigh Bar should be very similar *to each other*. A single weigh bar having a reading significantly different from the others is probably defective.

Service Repairs

If you find the indicator or one or more of the Weigh Bars to be defective, contact your implement dealer and who will send your scale component(s) back to the factory for repair, postage freight prepaid.

Include the following information:

1. Your name and address

2. Implement Mfr. and address

3. Date of purchase

4. **Very Important:** An informal note describing symptoms of the problem.

Scale Weighing Procedure

Turn scale on and let it warm-up at least 15 minutes.

Zero balance scale by pushing the “Gross/Net” button, and then the “Zero” button within 3 seconds. This should be done where cart is going to be unloaded (on level ground if possible).

Load cart and let scale total up weight. When cart is full drive up to truck and stop. After scale settles on a number, push the “Tare” button. Scale indicator will show zero.

Now start unloading cart. When truck is full or cart is empty, the negative amount shown on scale is actual product in truck.

Now push the “Net/Gross” button. This will put the scale back into the gross weighing mode again. If the cart has grain in it yet, it will tell you how much weight is left on the cart. You can now load the cart again and repeat the same unloading process. You should try to empty the cart a few times during the day so you can rebalance the scale.

Wheel, Hub and Spindle Disassembly and Assembly

⚠ WARNING

- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.**

- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 9,100 KG. (20,000 LBS.) SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

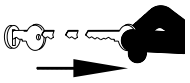
⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

IMPORTANT

- *Remove only one wheel and tire from a side at any given time in the following procedure.*

1. Hitch cart to tractor. Park the empty cart on a firm, level surface. Set the tractor's parking brake, shut off engine and remove key.



2. With cart empty, use a safe lifting device rated at 9,100 kg. (10 ton) to support the weight of your grain cart. Place the safe lifting device under the axle closest to the tire. For walking tandem unit, place safe lifting device under the outer end of the rear support tube.

3. Use a 1,375 kg. (1 1/2 ton) lifting device to support the wheel and tire during removal.

4. Refer to the "Inner Dual Wheel Access" portion in the Maintenance for steps to get access to the inside Wheel, Hub and Spindle. If only changing wheel and tire, skip to Step 8; otherwise continue with Step 4.

   Remove the hardware retaining the hubcap. Next, remove the hubcap, gasket, cotter pin, castle nut and spindle washer. Remove hub with bearings from old spindle using a 125 kg. (250 lb.) lifting device.

Wheel, Hub and Spindle Disassembly and Assembly (continued)

5. Inspect the spindle and replace if necessary. If spindle does not need to be replaced, skip to Step 6; otherwise continue with Step 5.

   Remove the bolt and lock nut that retains the spindle to the axle. Using a lifting device rated for 100 kg. (200 lbs), replace the old spindle with a new spindle. Coat axle contact length of spindle shaft (scale or non-scale) with anti-seize lubricant prior to installation. If installing scale spindle, install with 'top' decal facing upwards. Reuse bolt and lock nut to retain spindle to axle. Tighten as outlined in Maintenance Section.

6. Remove seal and inspect bearings, spindle washer, castle nut and cotter pin. Replace if necessary. Pack both bearings with approved grease and reinstall inner bearing. Install new seal in hub with garter spring facing the hub by tapping on flat plate that completely covers seal while driving it square to hub. Install until flush with back face of hub. Using a 125 kg. (250 lb) rated lifting device, install hub assembly onto spindle. Install outer bearing, spindle washer and castle nut.

7. Slowly tighten castle nut while spinning the hub until hub stops rotating. Do not use an impact! Turn castle nut counterclockwise until the hole in the spindle aligns with the next notch in castle nut. Hub should spin smoothly with little drag and no end play. If play exists, tighten to next notch of castle nut. If drag exists, then back castle nut to next notch of castle nut. Spin and check again. Install cotter pin. Clean face for hub cap gasket and install gasket, grease filled hub cap and retain hubcap with hardware removed. Tighten hubcap hardware in alternating pattern.

8. Attach the wheel(s) and tire(s) to the hub using the same rated lifting device for removal. Tighten wheel nuts to appropriate requirements and recheck as outlined in the Wheel and Tire section of this manual.

9. Raise cart, remove safe lifting device and lower tire to the ground.

Wheels and Tires

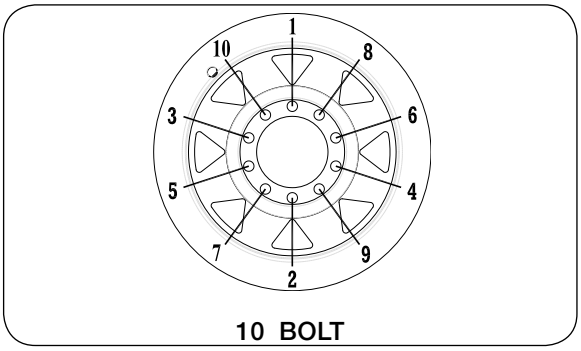
Wheel Nut Torque Requirements

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. TORQUE WHEEL NUTS/BOLTS TO VALUES IN TABLE. CHECK TORQUE BEFORE USE, AFTER ONE HOUR OF UNLOADED USE OR AFTER FIRST LOAD, AND EACH LOAD UNTIL WHEEL NUTS/BOLTS MAINTAIN TORQUE VALUE. CHECK TORQUE EVERY 10 HOURS OF USE THERE-AFTER. AFTER EACH WHEEL REMOVAL START TORQUE PROCESS FROM BEGINNING. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

Failure to check torque before first load may damage wheel nut/bolt seats. Once seats are damaged, it will become impossible to keep nuts/bolts tight. Tighten nuts/bolts to applicable torque value shown in table. Start all nuts/bolts by hand to prevent cross threading. Torque nuts/bolts in the recommended sequence as shown in Diagram 1.

WHEEL HARDWARE		
SIZE	FOOT-POUNDS	NEWTON METERS
M22x1.5	475	650



10 BOLT

DIAGRAM 1

Tire Pressure

The following is to be used as a general guide for tire inflation and figures can vary depending on specific brand of tire used. **It is important that tires are inspected after unit is loaded.** Start with minimum pressure indicated. The tire should stand up with no side-wall buckling or distress as tire rolls. Record the pressure needed to support the full load and maintain this pressure to achieve proper tire life. **Do not exceed maximum recommended tire pressure.** Each tire must be inflated to 35 PSI max to seat the beads, deflated to 5-10 PSI, then reinflated to the tire's max PSI when mounting.

TIRE SIZE	LOAD INDEX	PSI	BAR	KPA
1050/50 x 32 - Continental/ Mitas	178A8	41	2.8	280
900/70x32 Mitas	188 A8	53	3.7	370

Wheels and Tires (Continued)

Tire Warranty

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Following are phone numbers and Websites for your convenience:

Continental/Mitas — www.mitas-tyres.com/international/
Phone +420 267 111 550
Fax +420 271 750 214

Continental/Mitas — www.mitas-tyres.com/ru/
Phone +420 267 111 550
Fax +420 271 750 214

Alliance — www.atgtire.com
Phone 781-325-3801

Tarp Troubleshooting

PROBLEM	SOLUTION
TARP SAGS IN MIDDLE AREAS.	1. Bows may be bent or adjusted too low.
	2. Missing or loose ridge strap. Replace or retighten.
	3. U-joint may need to be adjusted on splined shaft to provide more tension.
HOLES OR TEARS IN TARP.	1. Consult your local dealer for repairs.
	2. Order tarp repair kit from dealer.
	3. When new tarp or parts are needed always replace with original parts.

Inspection & Maintenance

Periodic preventive maintenance should be practiced. Inspect tarp and hardware often for abrasions or loosened bolts that may need adjustment and/or repair.

If installed correctly, tarp should always operate as well as when first installed. If tarp does not pass this simple inspection, make all appropriate repairs or adjustments immediately before serious damage occurs.

Complete Torque Chart

Capscrews - Grade 5

NOTE:

- Grade 5 capscrews can be identified by three radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts to have the same number of threads exposed on each end.

SIZE	FOOT POUNDS	NEWTON METERS
1/4-20 1/4-28	8-10 9-11	11-13 12-15
5/16-18 5/16-24	15-17 17-19	20-23 23-26
3/8-16 3/8-24	25-28 28-31	34-38 38-42
7/16-14 7/16-20	40-45 45-50	54-61 61-68
1/2-13 1/2-20	62-68 68-75	84-92 92-102
9/16-12 9/16-18	90-98 100-110	122-133 134-148
5/8-11 5/8-18	120-135 124-137	162-183 168-186
3/4-10 3/4-16	200-220 210-230	270-300 285-310
7/8-9 7/8-14	330-350 360-380	425-475 460-515
1-8 1-14	500-525 540-560	675-710 730-760
1 1/8-7 1 1/8-12	600-635 665-700	815-860 920-950
1 1/4-7 1 1/4-12	850-895 940-990	1150-1215 1275-1340
1 3/8-6 1 3/8-12	1125-1175 1280-1335	1525-1590 1735-1810
1 1/2-6 1 1/2-12	1500-1560 1685-1755	2035-2115 2285-2380

IMPORTANT

- *Follow these torque recommendations except when specified in text.*

Hydraulic Fittings - Torque and Installation

Tightening O-Ring Fittings

1. Inspect components for damage or contamination. Do not connect any other type of fitting to an O-ring fitting.
2. For adjustable fittings, insure the jam nut and washer are fully backed up.
3. Lubricate the O-ring and threads on the fitting.
4. Turn the fitting into the port until it is finger tight.
5. For adjustable fittings, set in the desired position.
6. Using a wrench, torque the fitting to the value in the below table. For adjustable fittings the jam nut will be tightened.

NOTE: Never use a power tool to install a fitting.

Dash Size	Thread Size	Straight Stud Torque (Ft-Lbs)	Adjust-able Stud Torque (Ft-Lbs)
-5	1/2-20	14-19	10-14
-6	9/16-18	18-24	12-16
-8	3/4-16	27-43	20-30
-10	7/8-14	36-48	30-36
-12	1-1/16-12	65-75	44-54
-14	1-3/16-12	75-99	53-70
-16	1-5/16-12	85-123	59-80
-20	1-5/8”-12	115-161	75-100
-24	1-7/8”-12	125-170	105-125

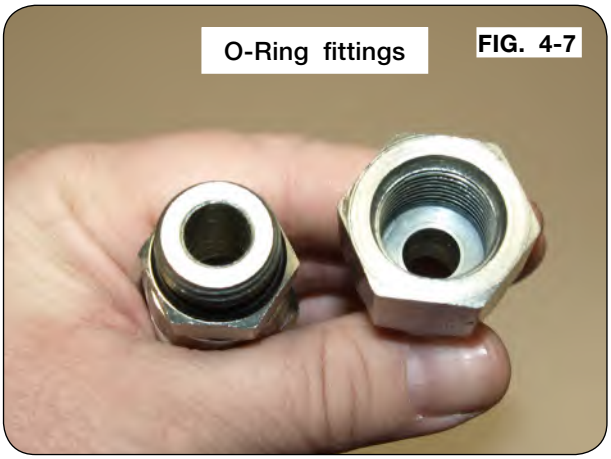


FIG. 4-7

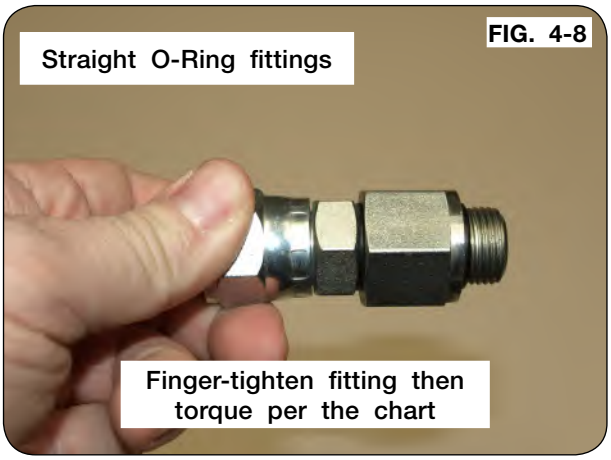


FIG. 4-8

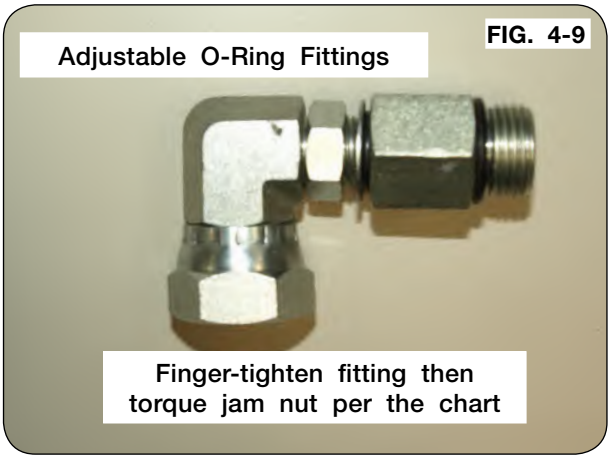


FIG. 4-9

Hydraulic Fittings - Torque and Installation (continued)

Tightening JIC Fittings

1. Inspect all components for damage or contamination. Do not connect any other type of fitting to a JIC fitting.
2. Lubricate the threads.
3. Turn the fitting into the port until it bottoms out.
4. Use one wrench on the fixed hex on the hose to prevent twisting and a second on the swivel. Tighten the fitting another 60 degrees (or one flat)

NOTE: Never use a power tool to install a fitting.

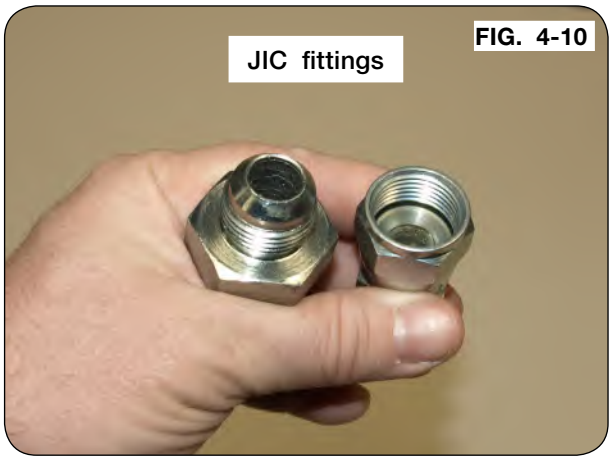


FIG. 4-10

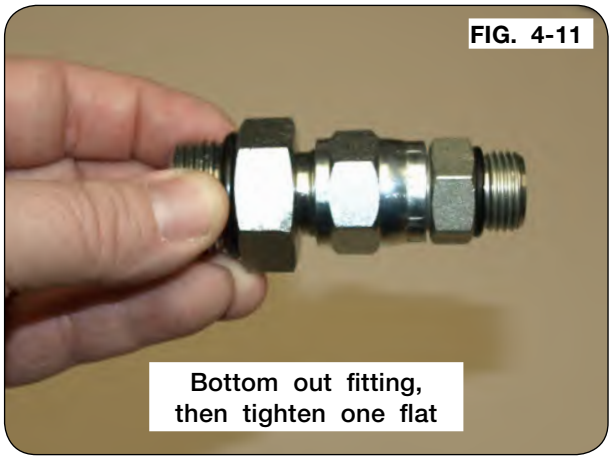
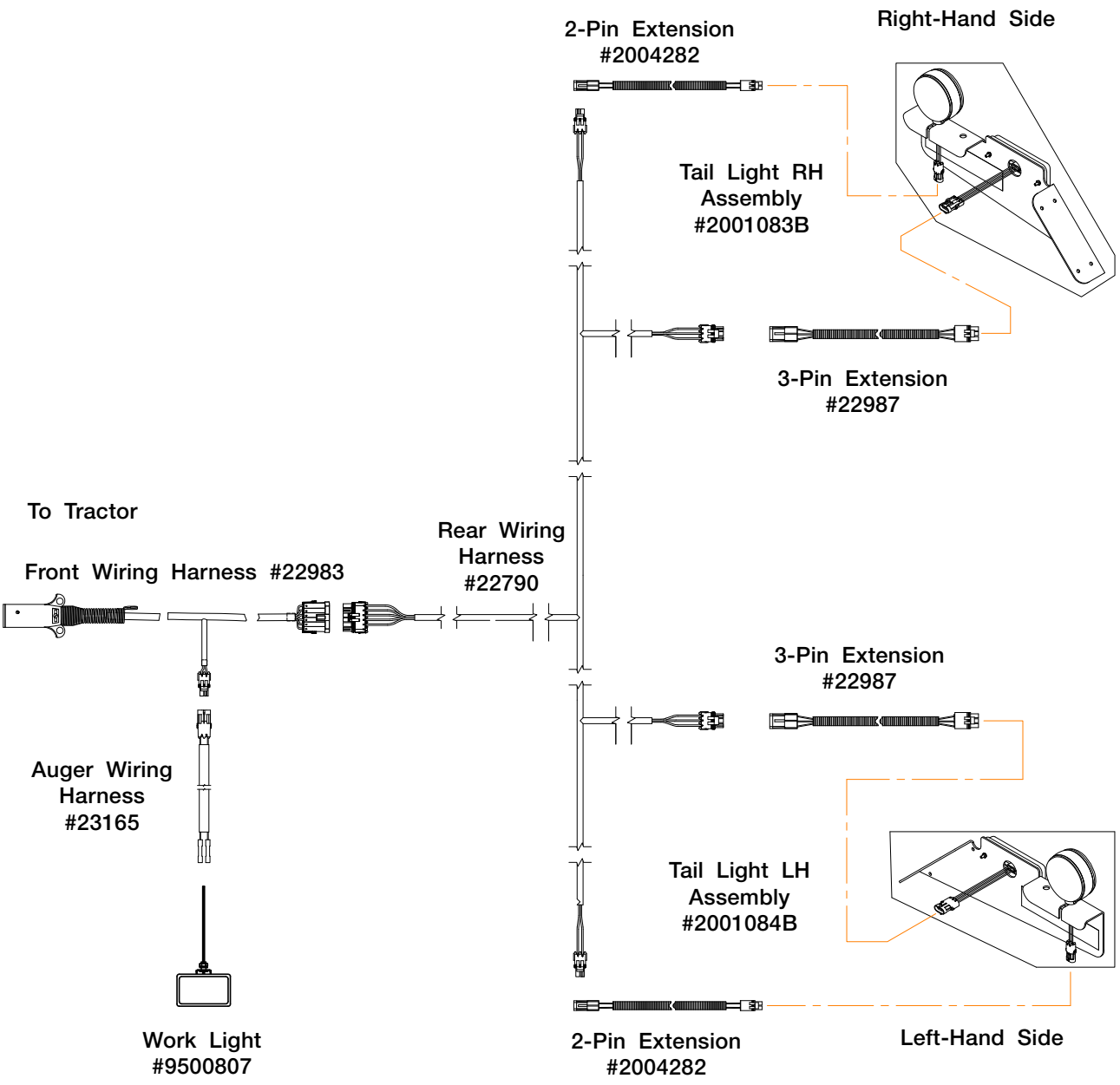
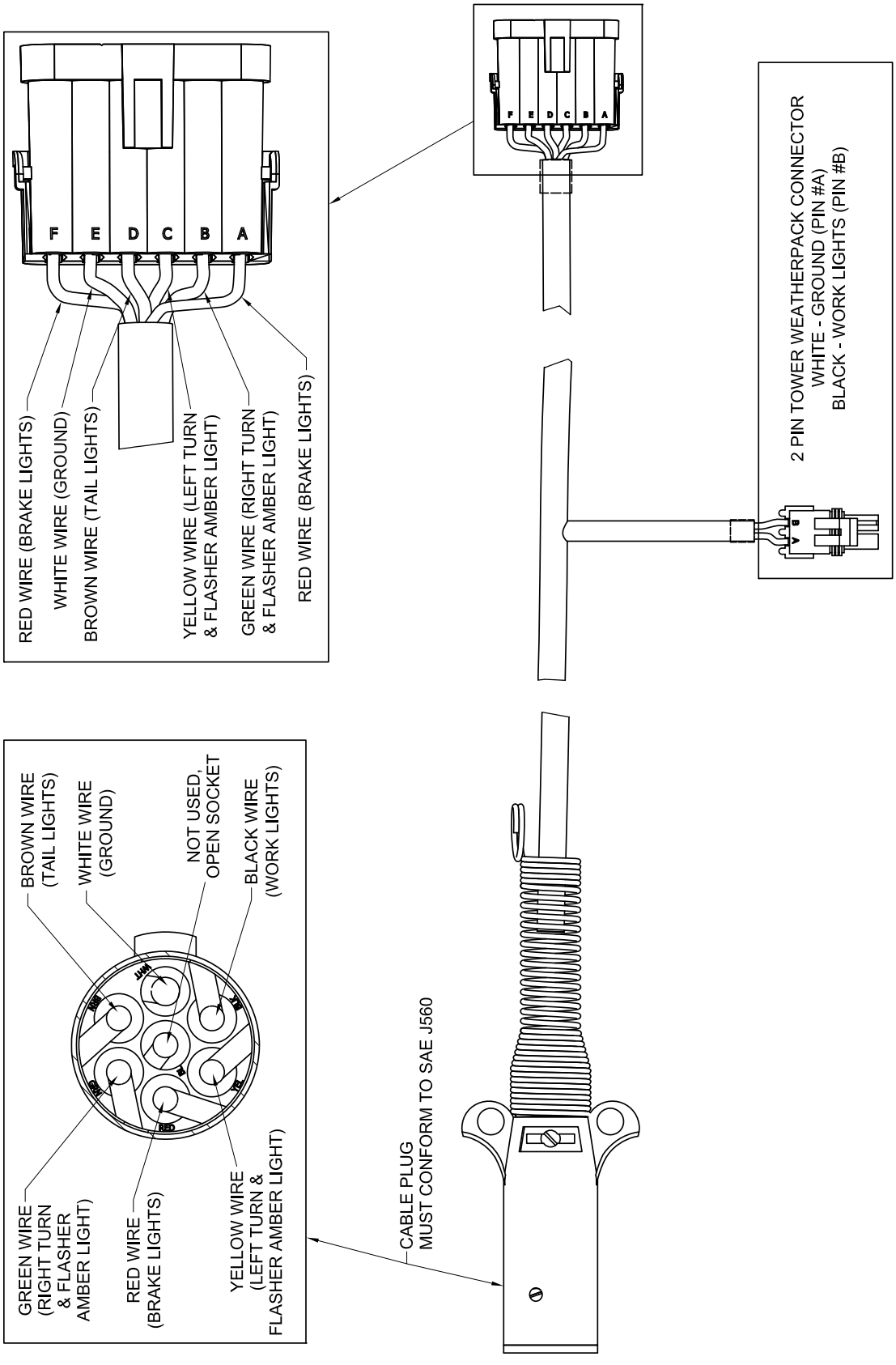


FIG. 4-11

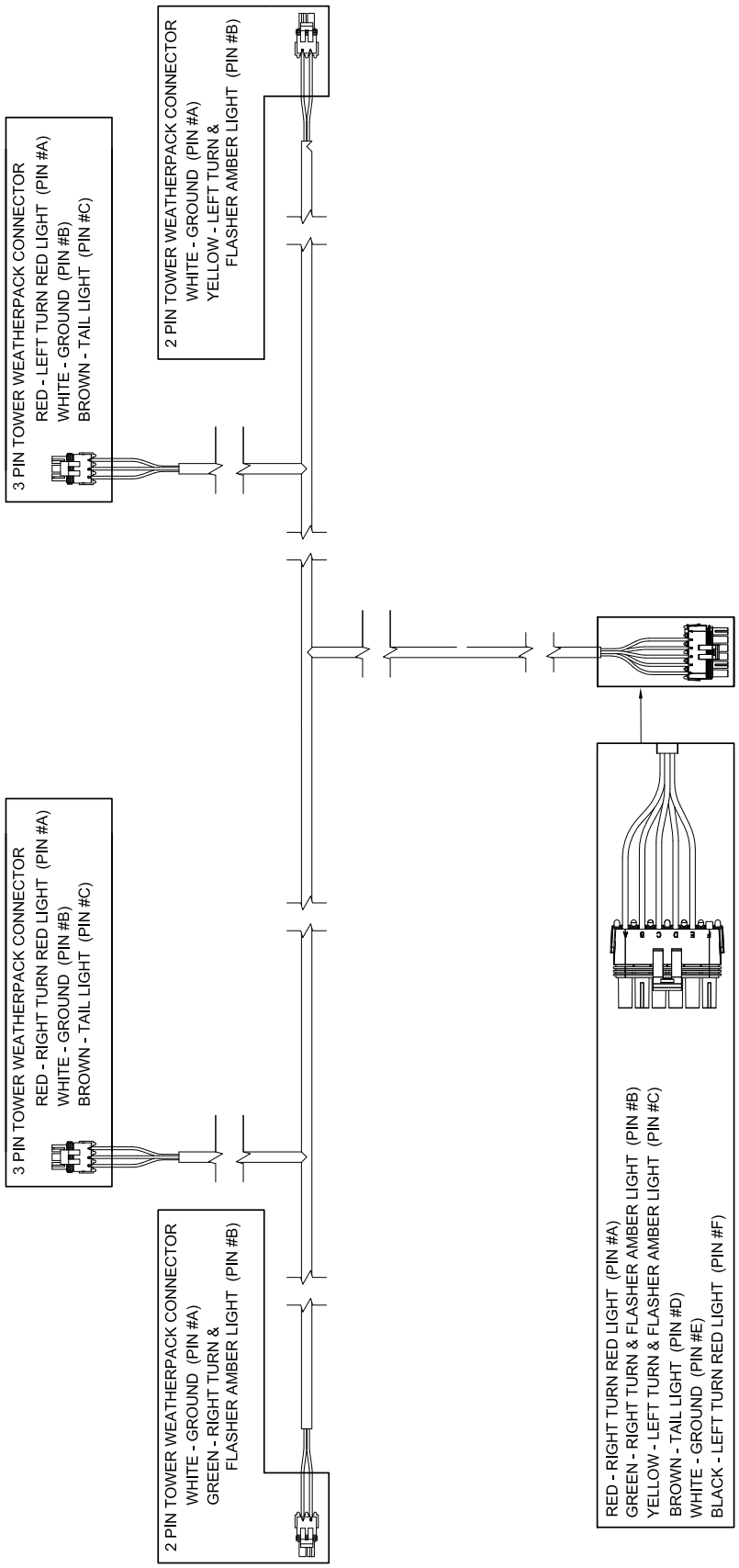
Electrical System Diagram — Overall



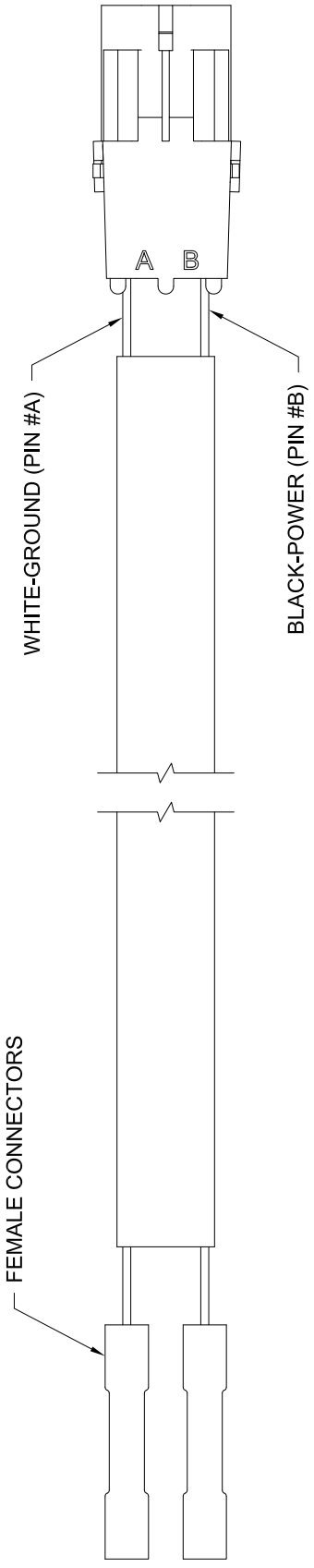
Electrical Diagram — Front Wiring Harness #22983



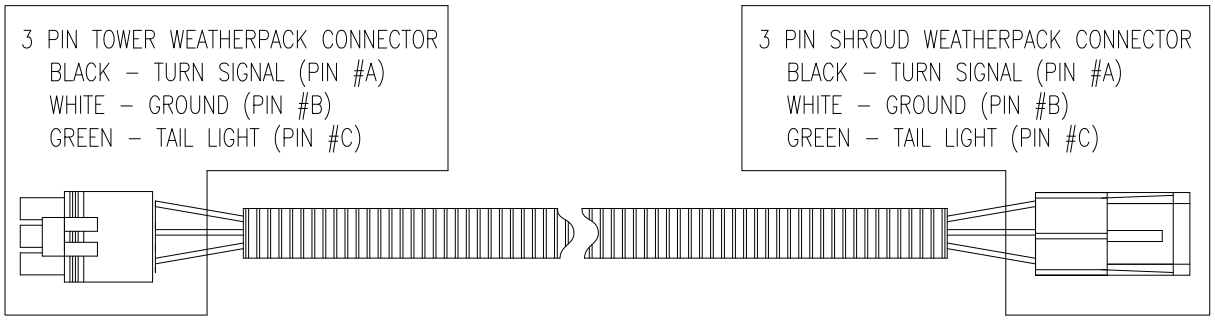
Electrical Diagram — Rear Wiring Harness #22790



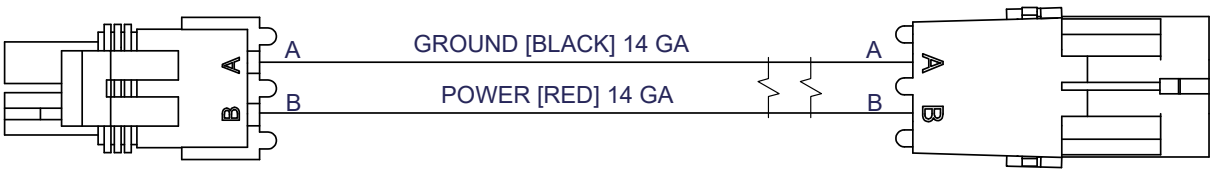
Electrical Diagram — Auger Light Wiring Harness #23165



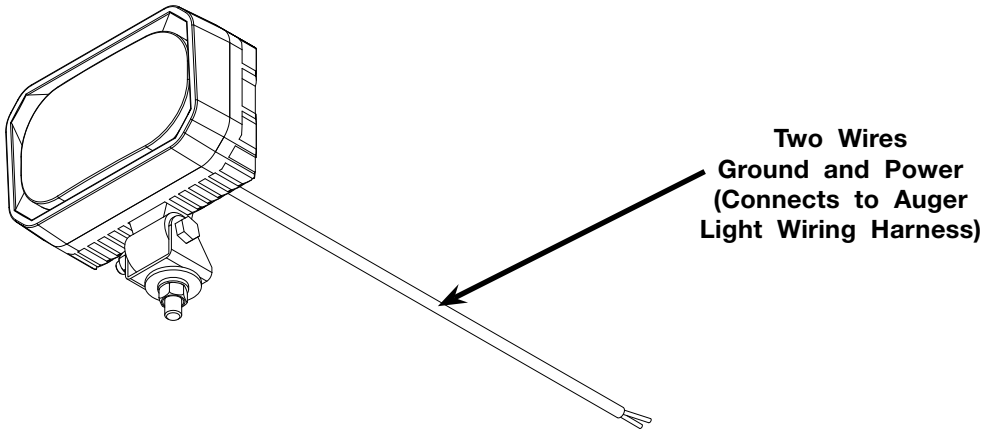
Electrical Diagram — 3 Pin Wiring Harness #22987



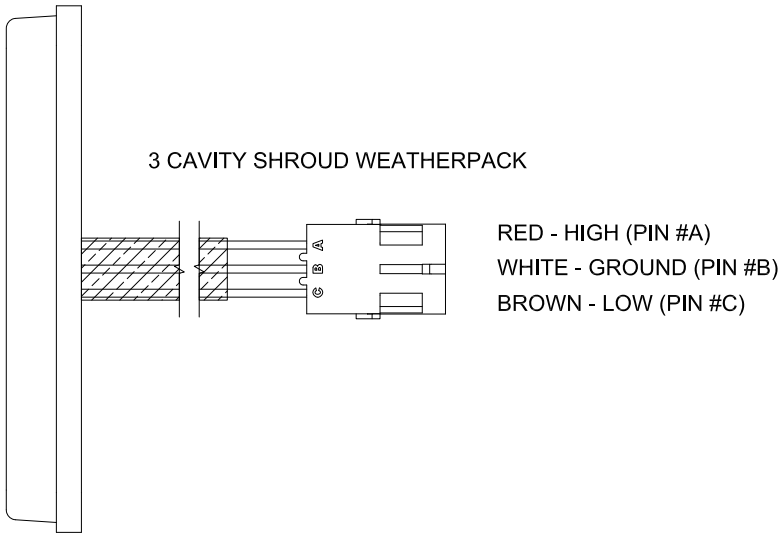
Electrical Diagram — Wiring Harness Extension #2004282



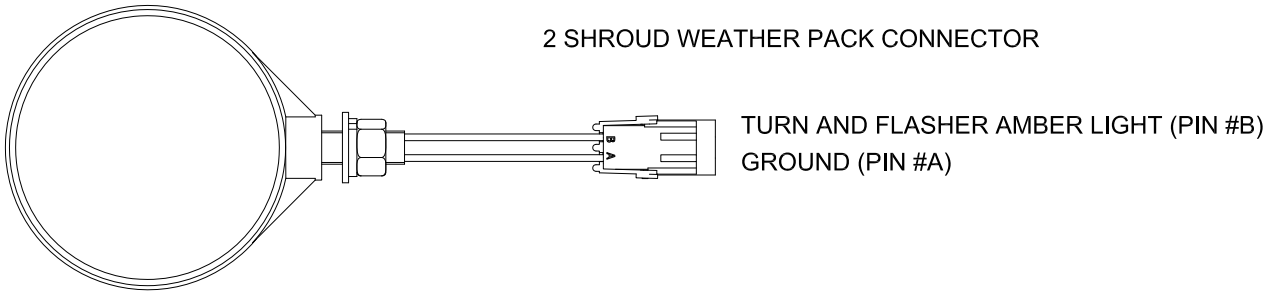
Electrical Diagram — Work Light #9500807



Electrical Diagram — Red Tail/Turn Light #9006282

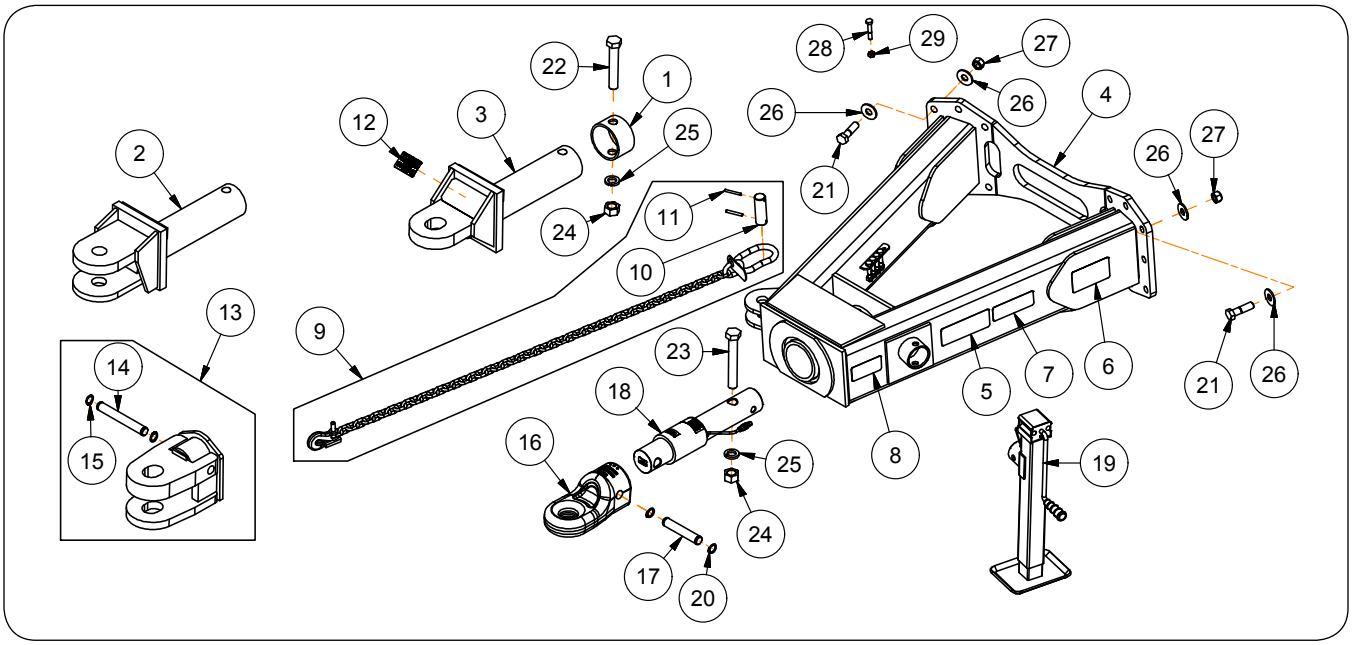


Electrical Diagram — Amber Lamp Double Face #9005142



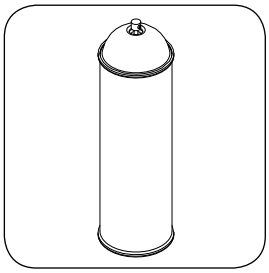
SECTION V
Parts

Hitch Components



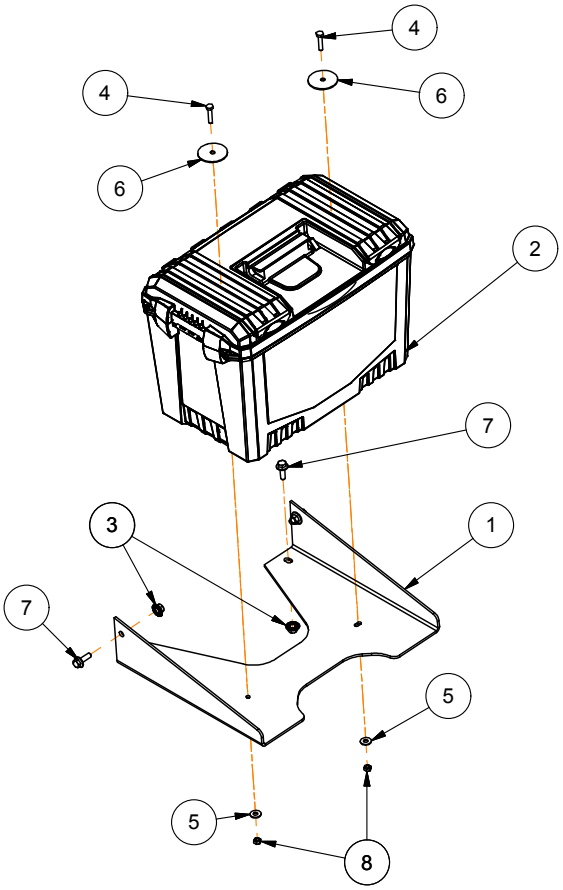
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	102586B	Hitch Coupler =Black=	1	
2	102589B	Optional Non-Scale Unit Clevis Hitch Weldment =Black=	1	
3	103641B	Non-Scale Unit Spade Hitch Weldment =Black=	1	
4	2004980G	Service A-Frame Weldment with Decals =Green=	1	Includes Items 5 through 8
4	2004980R	Service A-Frame Weldment with Decals =Red=	1	
5	94094	Decal, WARNING (Tongue May Raise or Drop Rapidly)	1	
6	95046	Decal, DANGER (Entanglement in Rotating Driveline)	1	
7	97575	Decal, CAUTION (Transport Chains)	1	
8	97961	Decal, WARNING (Read and Understand Operator's Manual)	1	
9	2005426	Optional Transport Chain Kit - 7,300 kg. (16,000 Lbs.) Max.	1	Includes Items 10 & 11
10	108047	Pin 1 1/4" Dia. x 3 3/4"	1	
11	91144-166	Spiral Pin 1/4" Dia. x 2"	2	
12	23382	Decal, IMPORTANT (Ladder)	1	
13	281690	Optional Scale Single Tang Hitch with Hammer Strap Kit	1	Includes Items 14 & 15
14	281691	Pin 1" Dia. x 7 3/8"	1	
15	91192	Retaining Ring 1"	2	
16	282875B	Scale Hitch =Black=	1	
17	282876	Pin 1" Dia. x 5 1/2"	1	
18	9004903	Load Cell - Scale 2.875" Dia. w/16 Ft. Cable	1	
19	901235	Jack Side Wind 2,300 kg. (5000 Lbs.)	1	
20	91192	Retaining Ring 1"	2	
21	91299-148	Capscrew 3/4-10UNC x 2 3/4" Gr.8	14	
22	91299-195	Capscrew 1"-8UNC x 6" Gr.8	1	
23	9390-197	Capscrew 1"-8UNC x 7" Gr.5	1	
24	9394-020	Hex Nut 1"-8UNC	2	
25	9404-041	Lock Washer 1"	2	
26	9405-106	Flat Washer 3/4" USS	28	
27	9802	Locknut/Top, 3/4"-10UNC	14	
28	9003646	Shear Bolt 10mm x 60 mm	5	
29	9003645	Locknut 10mm	5	

Touch-Up Paint



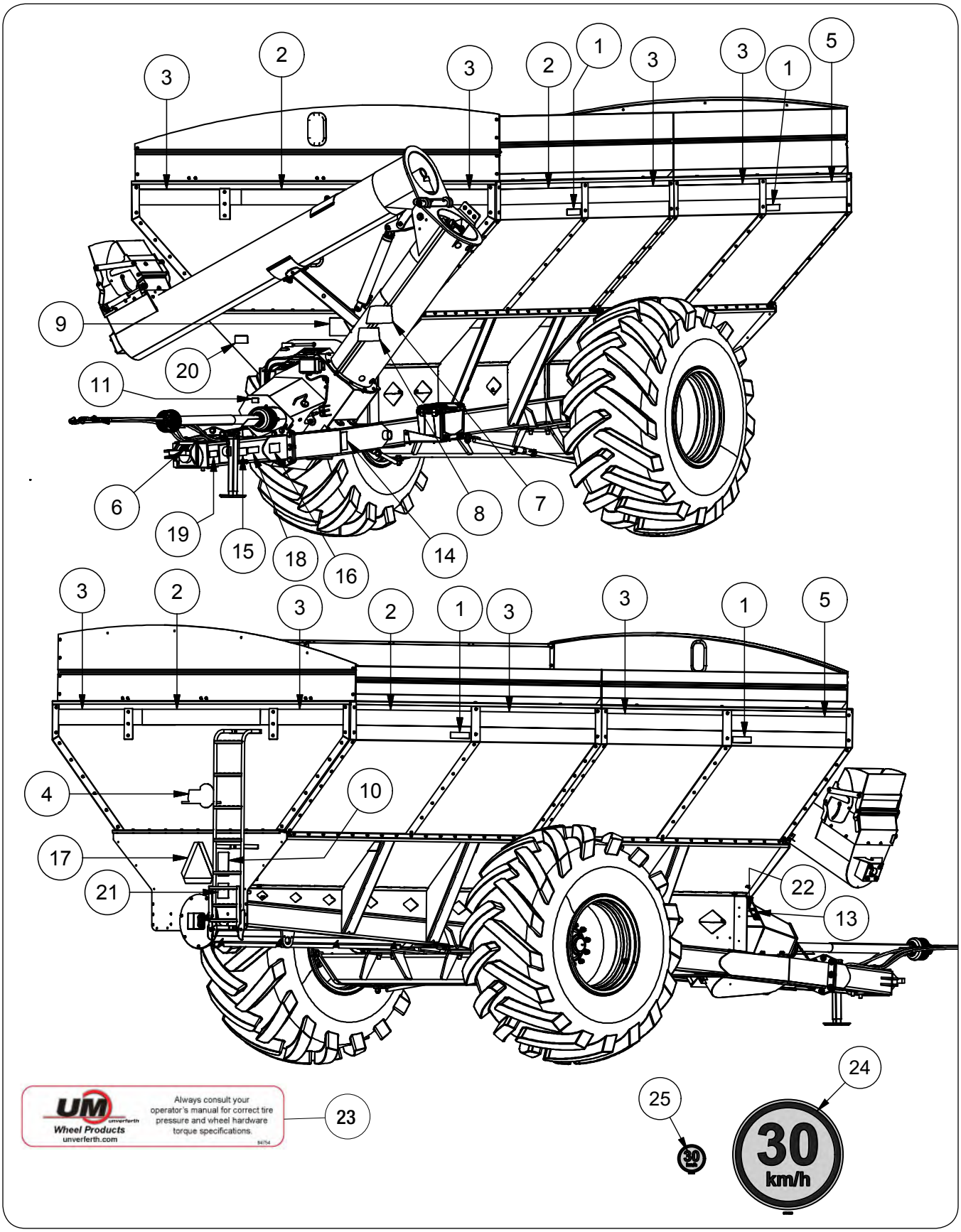
SPRAY PAINT COLOR	TOUCH-UP PAINT
Red	97301
Green	97015
Off-White	97016
Black	97013

Toolbox



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2005025B	Toolbox Mounting Plate	1	
2	9005850	Toolbox / Storage Box	1	
3	91263	Large Flange Nut, 3/8”-16UNC	4	
4	9390-006	Capscrew, 1/4”-20UNC x 1 1/4” Gr.5	2	
5	9405-064	Flat Washer, 1/4” USS	2	
6	94763	Fender Washer, 2” OD	2	
7	91262	Flange Screw, 3/8”-16UNC x 1” Gr.5	4	
8	9936	Locknut/Top, 1/4”-20UNC	2	

Decals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3
1
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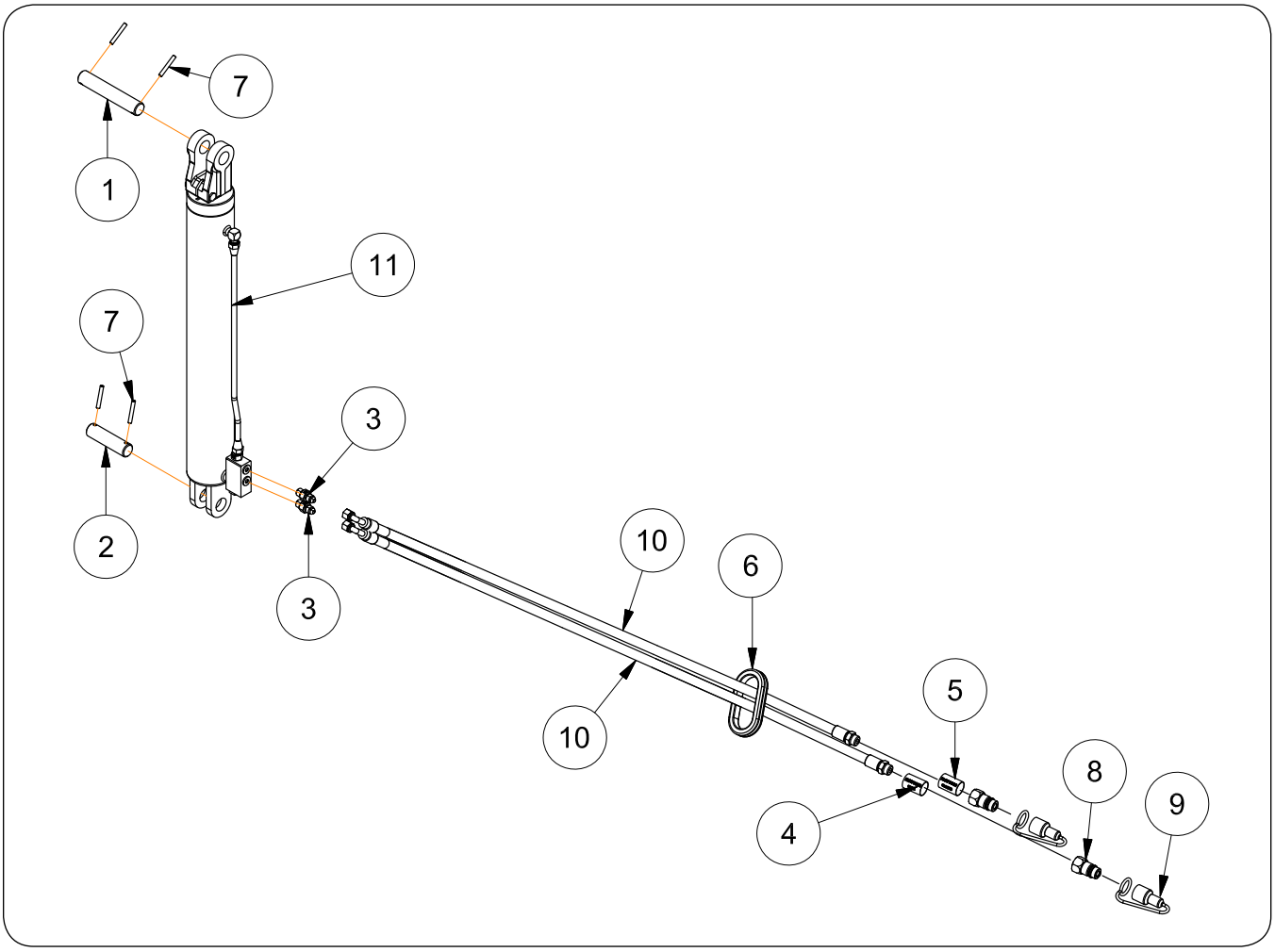
4
10
17
21
22
13
UM unverferth
Wheel Products
unverferth.com
Always consult your operator's manual for correct tire pressure and wheel hardware torque specifications.
23
24
25
30
km/h

Decals

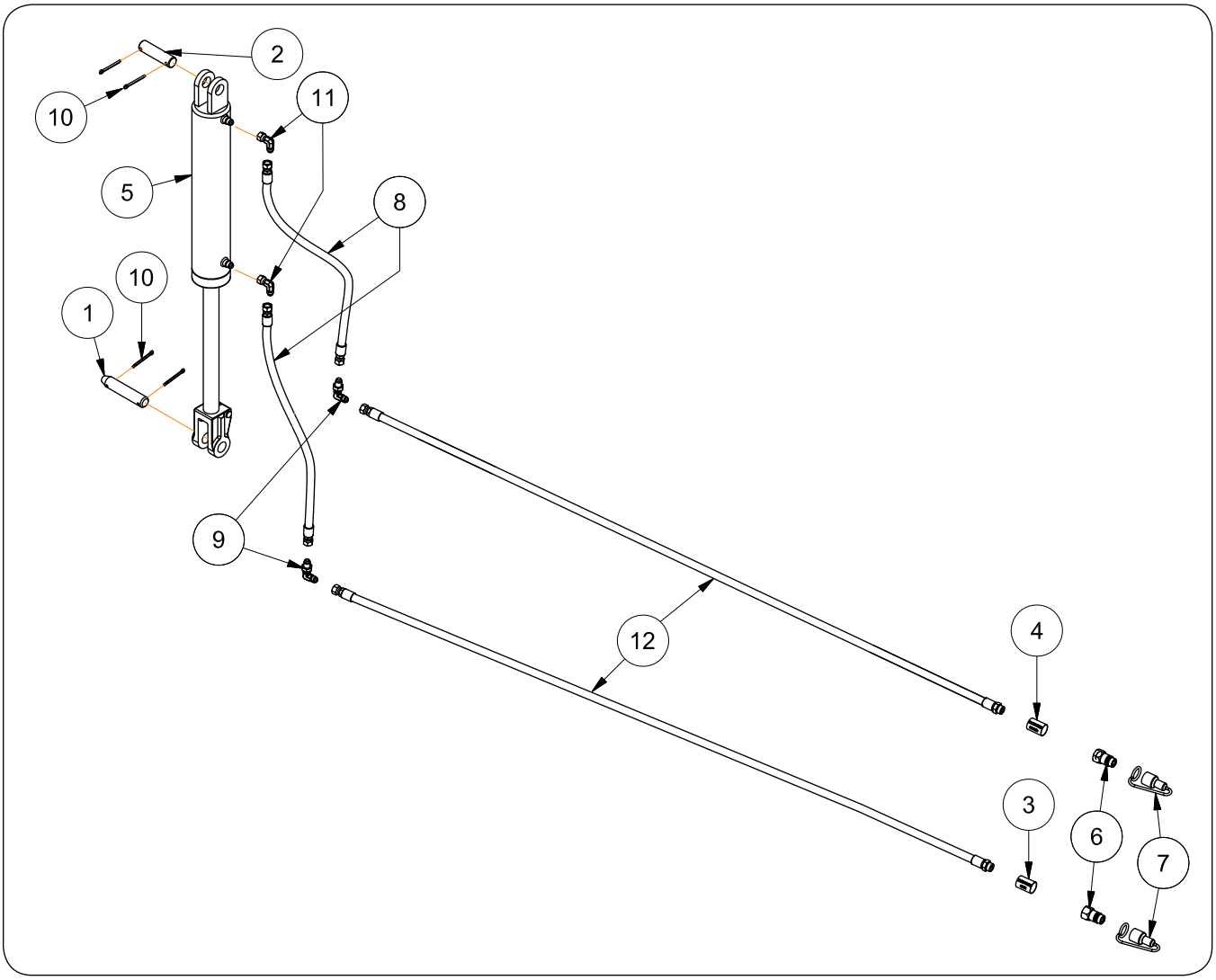
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9003127	Reflector 2 x 9 =AMBER=	2	
2	9501639	Decal, UM Logo	2	
3	9501640	Decal, UM Stripe (5 1/4 x 56 1/2)	2	
4	901833	Decal, UM Circle	1	
5	9503589	Decal, 830	2	
	9502331	Decal, 1138		
	9503590	Decal, 1242		
6	23382	Decal, IMPORTANT (Ladder)	1	
7	9003474	Decal, DANGER (Electrocution)	1	
8	9003476	Decal, WARNING (No Riders)	1	
9	9003477	Decal, IMPORTANT (Operation)	1	
10	9003478	Decal, DANGER (Never Play - Just For Kids)	1	
11	9003574	Decal, IMPORTANT (Shearbolt)	1	
12	91605	Decal, FEMA	1	
13	93551	Decal, WARNING (High-Pressure Fluids)	1	
14	93552	Decal, DANGER (Entanglement)	1	
15	94094	Decal, WARNING (Tongue May Raise/Drop Rapidly)	1	
16	95046	Decal, DANGER (Entanglement)	1	
17	97530	Decal, SMV	1	
18	97575	Decal, CAUTION (Transport Chains)	1	
19	97961	Decal, WARNING (Read and Understand Operator's Manual)	1	
20	98229	Decal, WARNING (Falling or Lowering Equipment)	1	
21	98279	Decal, DANGER (Rotating Auger)	1	
22	TA1-906109-0	Decal, WARNING (Moving Parts)	1	
23	94754	Wheel Product	2	
24	9008720	SIS Decal, Rear 30 KPH	1	
25	9008721	SIS Decal, Front 30 KPH	1	

Auger Lift Hydraulic Components



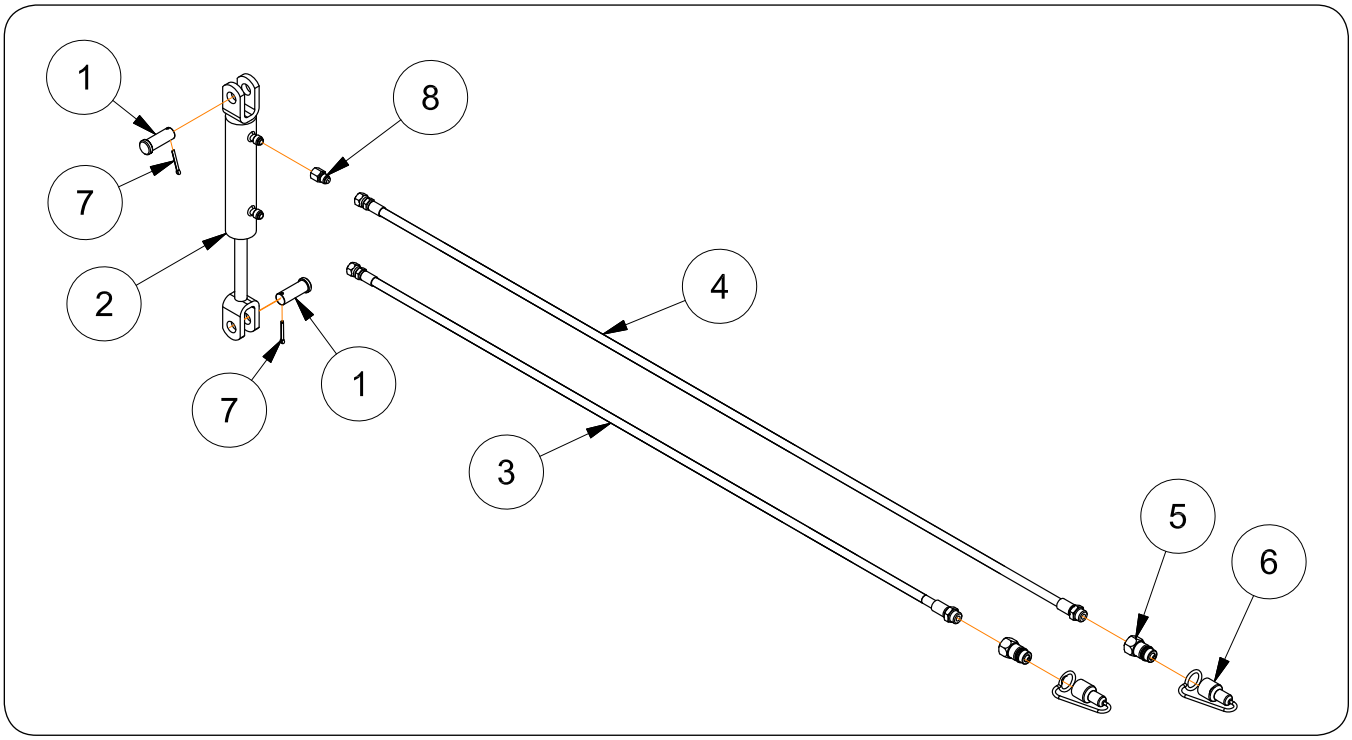
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	23067	Pin 1" Dia. x 5 3/4"	1	
2	85632	Pin 1" Dia. x 3 3/4"	1	
3	900034	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male w/Restrictor	2	
4	9003997	Sleeve - Hose Marker GREEN (Auger Raise)	1	
5	9003998	Sleeve - Hose Marker GREEN (Auger Lower)	1	
6	9006780	Grommet	1	
7	91144-164	Spiral Pin 1/4" Dia. x 1 3/4"	4	
8	91383	Male Tip Coupling	2	
9	91511	Dust Cap	2	
10	98230	Hose 3/8" Dia. x 210"	2	
11	99509	Cylinder Assembly 3 x 20 w/Check Valve	1	

Flow Door Hydraulic Components



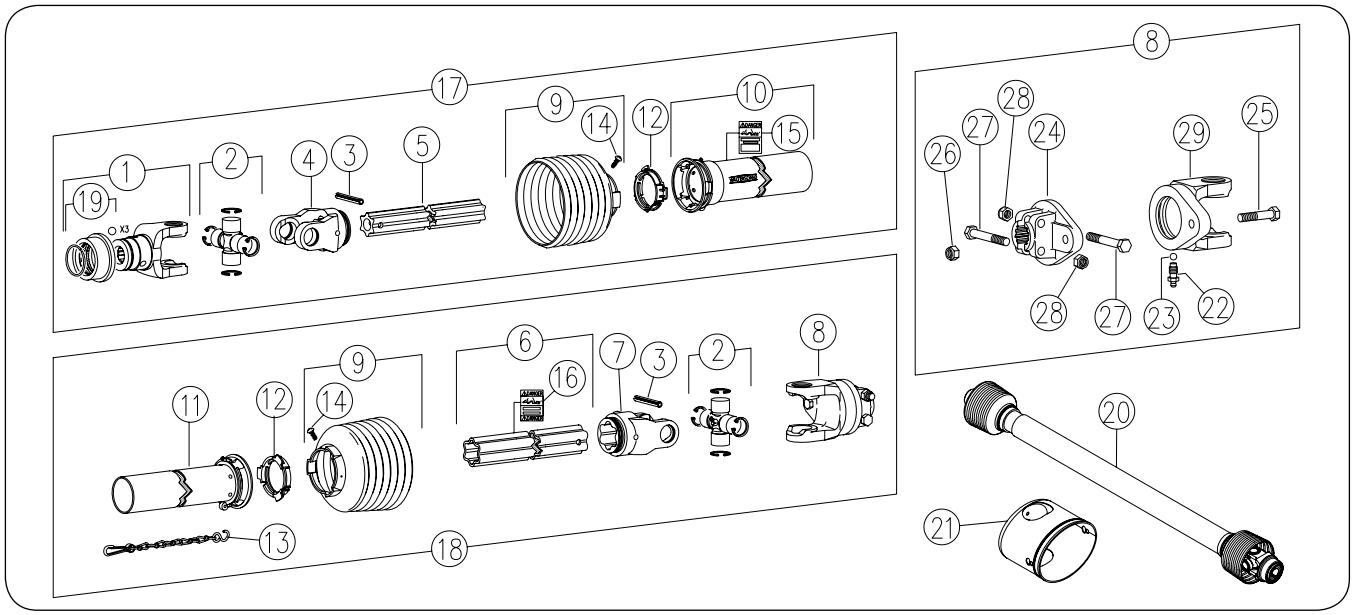
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	24607	Pin 1" Dia. x 5 1/8"	1	
2	85632	Pin 1" Dia. x 3 3/4"	1	
3	9003995	Sleeve - Hose Marker RED (Flow Door Open)	1	
4	9003996	Sleeve - Hose Marker RED (Flow Door Close)	1	
5	901047	Cylinder 3 x 14	1	
6	91383	Male Tip Coupling	2	
7	91511	Dust Cap	2	
8	91530	Hose 3/8" Dia. x 26"	2	
9	92761	Bulkhead Union Elbow 90° 9/16-18 JIC Male x 9/16-18 JIC Male	2	
10	9391-046	Cotter Pin 3/16" Dia. x 2"	4	
11	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	2	
12	99954	Hose 3/8" Dia. x 168"	2	

Spout Hydraulic Components



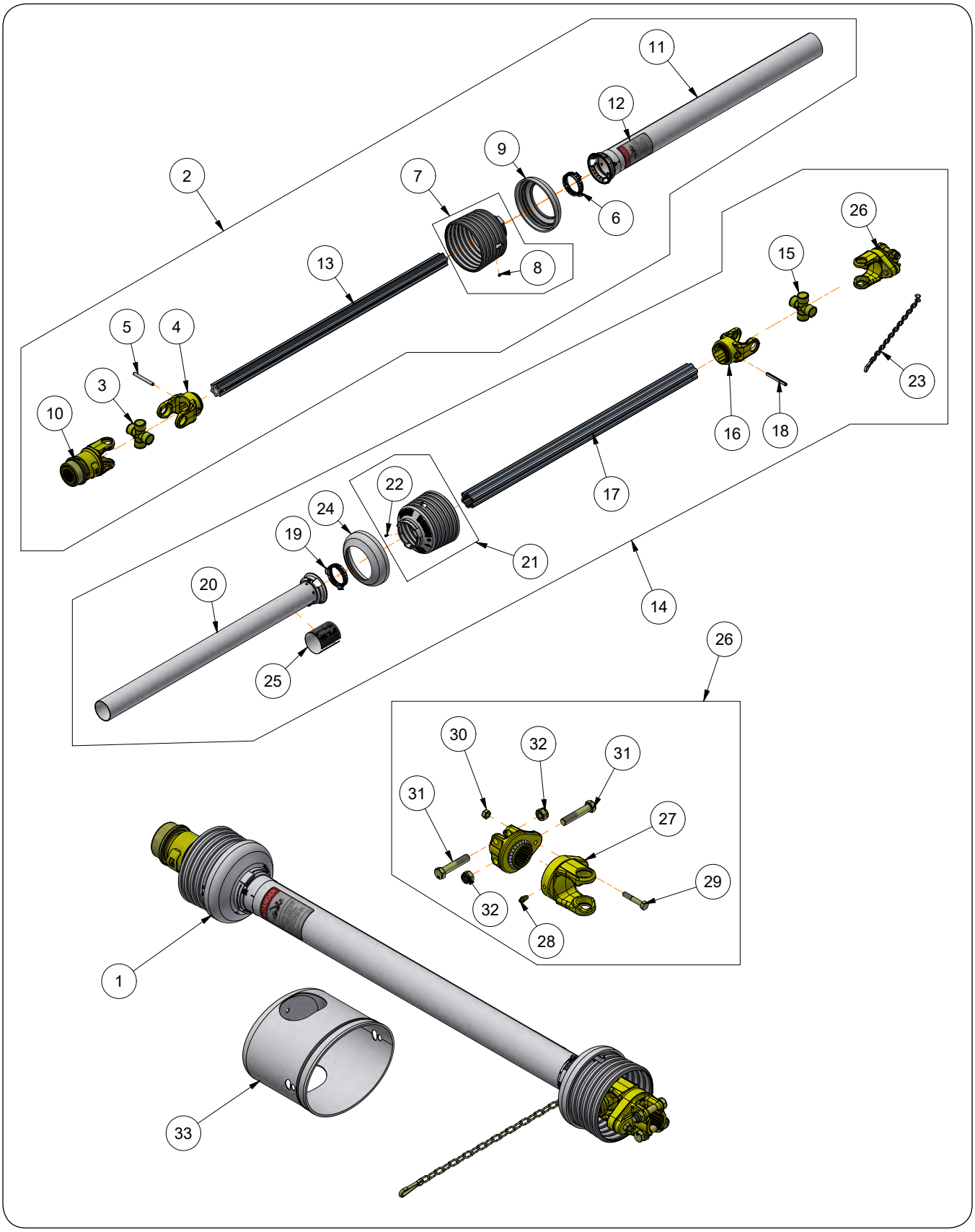
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9002032	Clevis Pin 3/4" Dia. x 2"	2	
2	9003789	Cylinder 1 1/2 x 4 (3000 PSI)	1	
3	9004637	Hose 1/4" Dia. x 430"	1	
4	9004638	Hose 1/4" Dia. x 440"	1	
5	91383	Male Tip Coupling	2	
6	91511	Dust Cap	2	
7	9391-034	Cotter Pin 5/32" Dia. x 1 1/4"	2	
8	95193	Adapter 9/16-18 JIC Female x 9/16-18 JIC Male w/Restrictor	1	

Driveline Components with Shear Bolts



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9002608	Yoke 1 3/4-20	1	Standard
	9002684	Yoke 1 3/8-21	1	Optional
2	92529	Cross & Bearing Kit	2	
3	9002609	Spring Pin 10 x 80	2	
4	9002610	Inboard Yoke	1	
5	900134	Inner Profile	1	
6	900135	Outer Profile	1	
7	9002613	Inboard Yoke	1	
8	900136	Shearbolt Clutch	1	
9	9002615	Shield Cone	1	
10	900137	Outer Shield Tube	1	
11	900138	Inner Shield Tube	1	
12	92373	Bearing Ring	2	
13	92374	Safety Chain	1	
14	92372	Screw	2	
15	92377	Decal - Shield	1	
16	92378	Decal - Steel	1	
17	900030	Front-Half 1 3/4-20	1	Standard
	900073	Front-Half 1 3/8-21		Optional
18	900031	Rear-Half 1 3/4-20	1	
19	93856	Quick Disconnect 1 3/4-20	1	
	9002669	Quick Disconnect 1 3/8-21		
20	900027	PTO Drive Shaft Assembly 1 3/4-20	1	Standard
	900072	PTO Drive Shaft Assembly 1 3/8-21		Optional
21	9002499	PTO Shield	1	
22	95256	Zerk	1	
23	95257	Ball	1	
24	900426	Hub	1	
25	9003646	Shearbolt M10x60-Gr8.8	2	DO NOT SUBSTITUTE
26	9003645	Locknut M10	2	
27	9003714	Bolt M16x80-Gr8.8	2	
28	9003785	Locknut M16	2	
29	900425	Yoke	1	

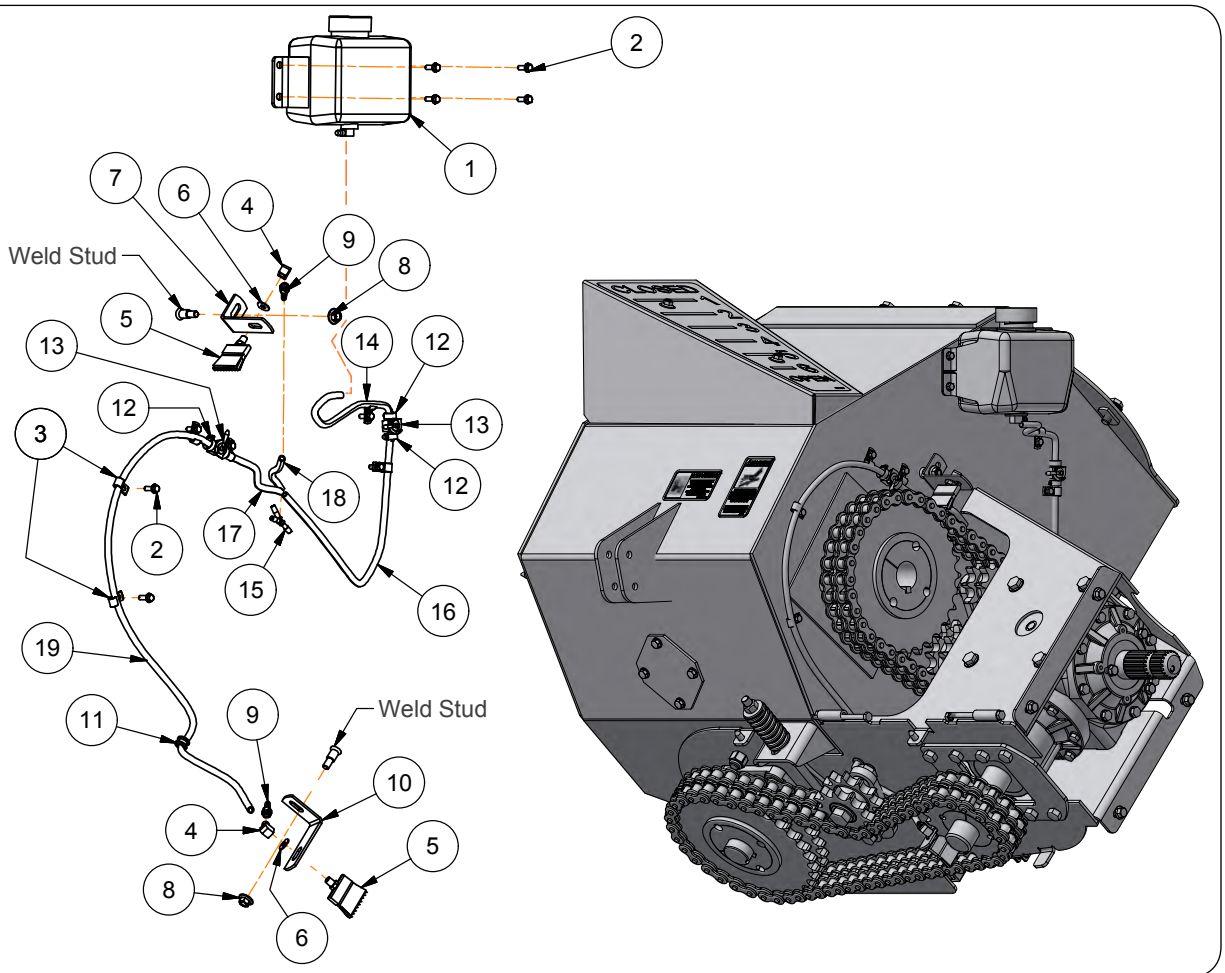
Driveline Components with Over-Running Clutch Shear Bolts



Driveline Components with Over-Running Clutch Shear Bolts

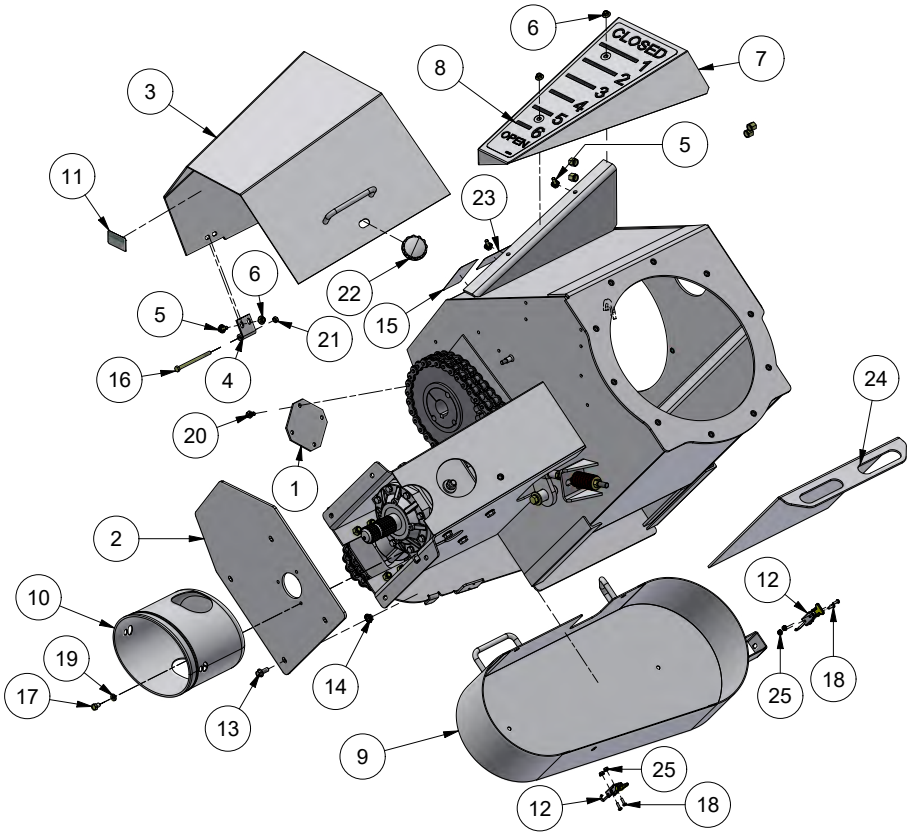
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9504668	PTO Assembly/Over-Running Clutch/Shear-Bolt)		Includes Items 2 & 14
2	9504661	PTO Drive Shaft Assembly/Front Half	1	Includes Items 3 through 13
3	92529	Cross & Bearing Kit	2	
4	9002610	Inboard Yoke	1	
5	9002609	Spring Pin 10 x 80	2	
6	92373	Bearing Ring	2	
7	9002615	Shield Cone	1	
8	92372	Screw	2	
9	9002513	Reinforcing Collar	1	
10	9005234	Driveline Clutch/Over-Running		
11	900137	Outer Shield Tube	1	
12	92377	Decal - Shield	1	
13	900134	Inner Profile	1	
14	900031	Rear-Half 1 3/4-20	1	
15	92529	Cross & Bearing Kit	2	
16	9002613	Inboard Yoke	1	
17	900135	Outer Profile	1	
18	9002609	Spring Pin 10 x 80	2	
19	92373	Bearing Ring	2	
20	900138	Inner Shield Tube	1	
21	9002615	Shield Cone	1	
22	92372	Screw	2	
23	92374	Safety Chain	1	
24	9002513	Reinforcing Collar	1	
25	92378	Decal - Steel	1	
26	900136	Shearbolt Clutch	1	
27	900425	Yoke	1	
28	95256	Zerk	1	
29	9003646	Shearbolt M10x60-Gr8.8	2	DO NOT SUBSTITUTE
30	9003645	Locknut M10	2	
31	9003714	Bolt M16x80-Gr8.8	2	
32	9500390	Locknut M16	2	
33	9002499	PTO Shield	1	

Chain Oiler Components



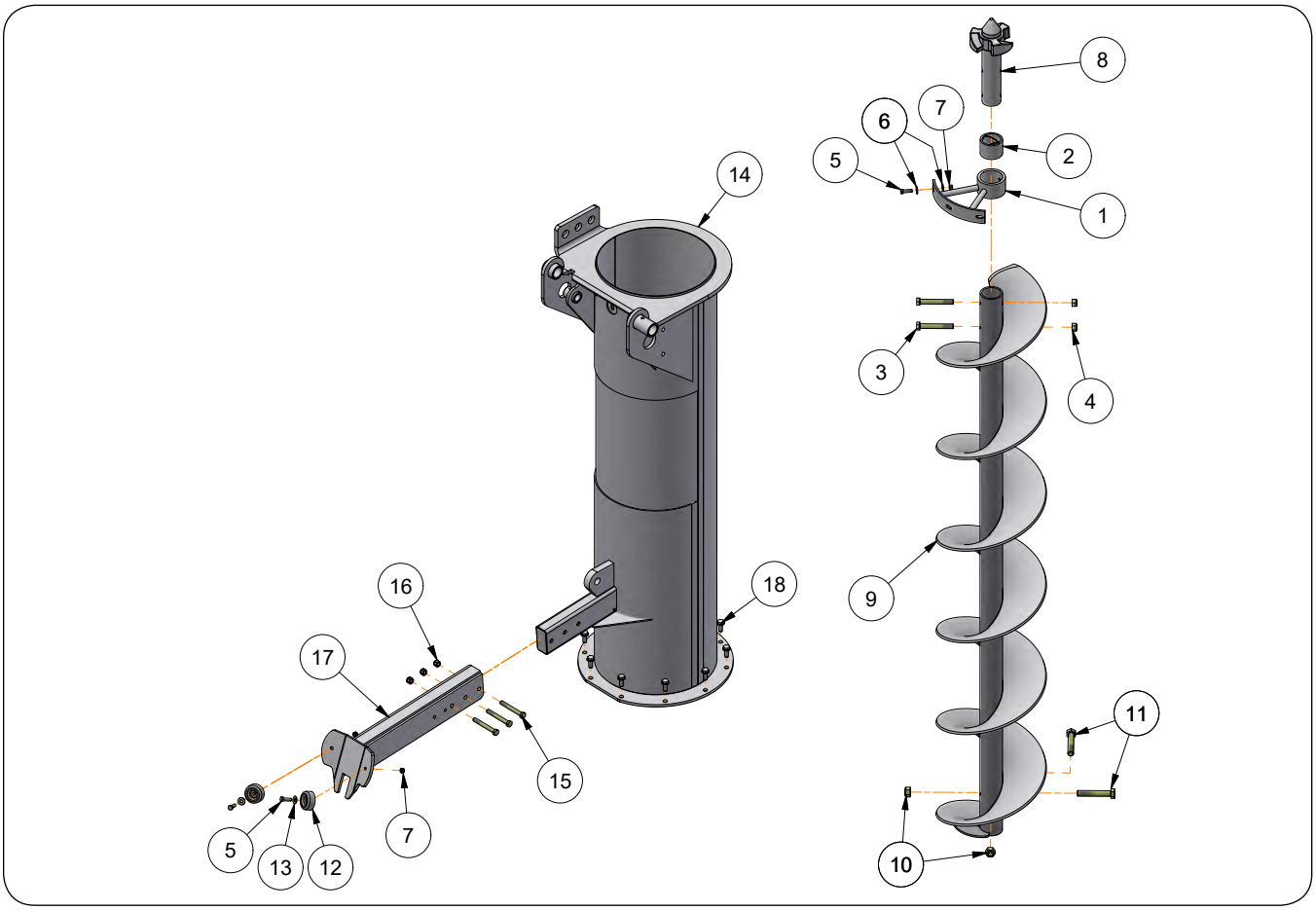
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9501778	Oil Reservoir Tank - 2 Quart with Cap	1	
2	97420	Flange Screw, 1/4"-20UNC x 3/4" Gr.5	10	
3	97063	Hose Clip for 3/8" OD Tubing	6	
4	98134	90° Elbow Brass 1/8-27 NPTF Male x 1/8-27 NPTF Female	2	
5	96863	Brush 2" Lube Felt	2	
6	9405-064	Flat Washer 1/4" USS	2	
7	23111	Bracket 1 1/4" x 5 7/16"	1	
8	91263	Large Flange Nut 3/8"-16UNC	2	
9	96869	Hose Barb Brass 1/4" ID x 1/8-27 NPTF Female	2	
10	23112	Bracket 1 1/4" x 6"	1	
11	98136	Grommet 1/2" Dia. Groove	1	
12	9000389	Clamp 1/4" to 5/8" (Size 4)	4	
13	9002794	Ball Valve 1/4" Heavy Duty	2	
14	23161	Clear Plastic Tube 3/8" OD x 10"	1	
15	98610	Fitting "Y"	1	
16	105538	Clear Plastic Tube 3/8" OD x 18"	1	
17	2001227	Clear Plastic Tube 3/8" OD x 6 1/2"	1	
18	2001226	Clear Plastic Tube 3/8" OD x 3 1/2"	1	
19	23287	Clear Plastic Tube 3/8" OD x 32"	1	

Auger Housing Components



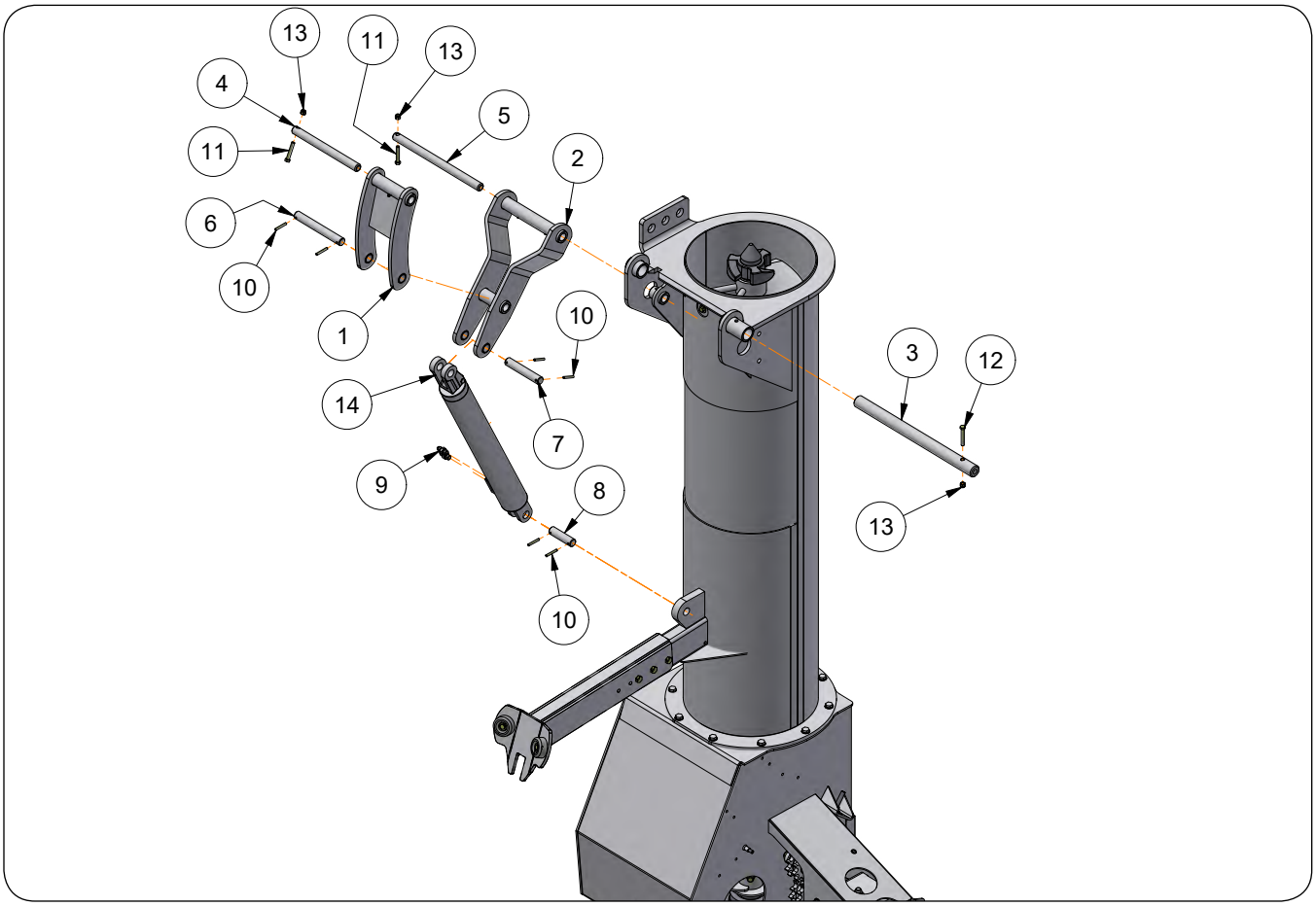
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2001446B	Cover Plate =Black=	1	
2	23106B	Plate 13 3/8" x 19" =Black=	1	
3	23380G	Shield Weldment =Green=	1	
	23380R	Shield Weldment =Red=		
4	23378B	Hinge Weldment =Black=	2	
5	91256	Flange Screw, 5/16"-18UNC x 3/4" Gr.5	4	
6	91257	Large Flange Hex Nut, 5/16"-18UNC Gr.5	4	
7	24640B	Cover Assembly =Black=	1	
8	24641	Decal, Gate Position	1	
9	27395B	Guard Weldment w/Handles =Black=	1	
10	9002499	PTO Shield	1	
11	9003574	Decal, IMPORTANT (Shearbolt Usage)	1	
12	902455	Adjustable Draw Latch	2	
13	91262	Flange Screw, 3/8"-16UNC x 1" Gr.5	6	
14	91263	Large Flange Nut, 3/8"-16UNC	9	
15	93551	Decal, WARNING (High Pressure Fluids)	1	
16	9390-043	Capscrew, 5/16"-18UNC x 4 1/2" Gr.5	2	
17	9390-051	Capscrew, 3/8"-16UNC x 1/2" Gr.5	3	
18	903172-135	Pan Head, Phillips Machine Screw #10-24UNC x 5/8"	4	
19	9404-021	Lock Washer, 3/8"	3	
20	9500724	Self-Threading Screw, 5/16"-18UNC x 3/4"	4	
21	9807	Locknut/Top, 5/16"-18UNC	2	
22	98356	Knob	1	
23	TA1-906109-0	Decal, WARNING (Moving Part Can Crush/Cut)	1	
24	2004555B	Door Weldment =Black=	1	
25	902331	Flange Hex Nut, #10-24UNC	4	

Lower Vertical Auger Tube & Flighting Components



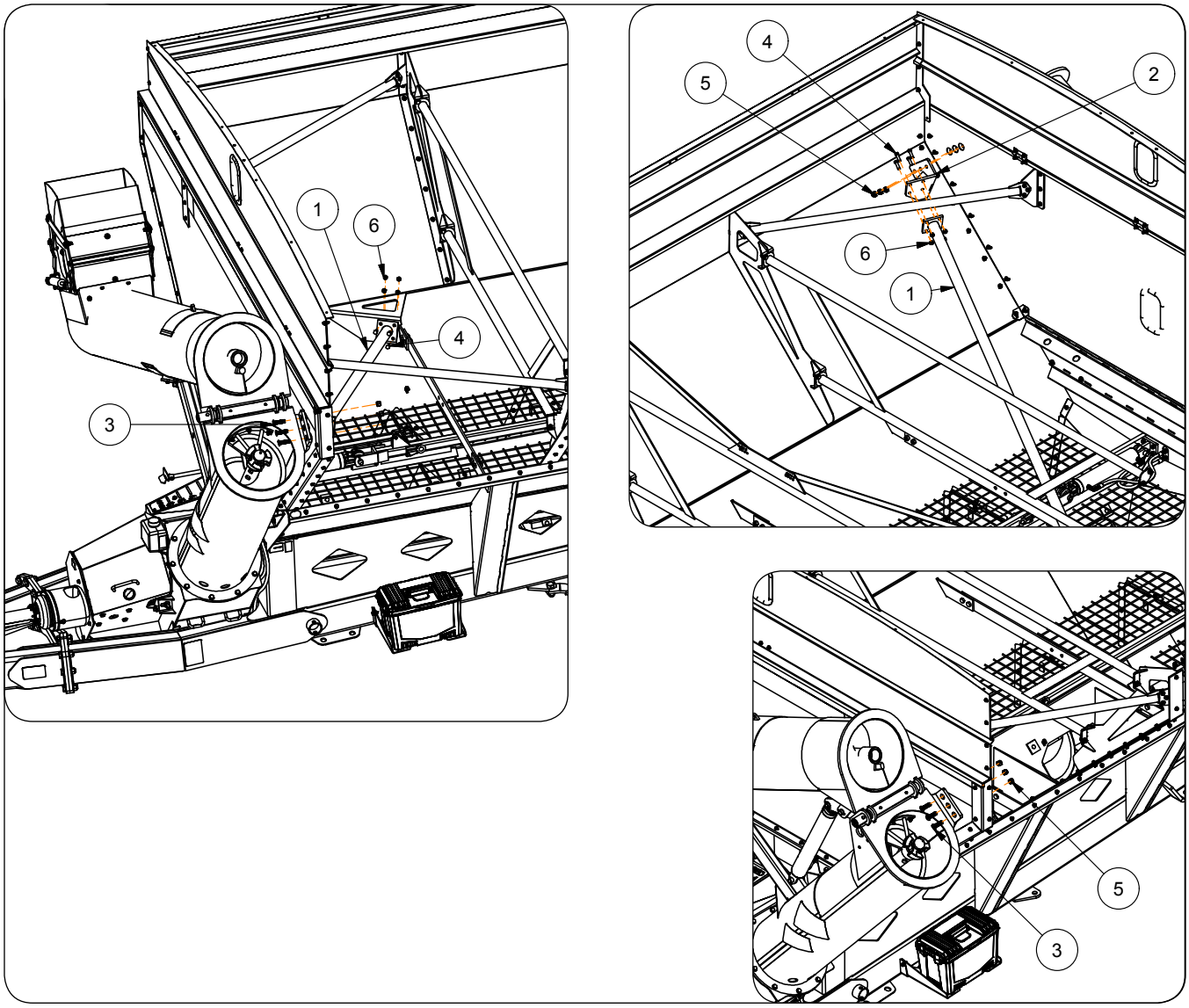
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	23081B	Bearing Weldment with Bronze Bearing =Black=	1	
2	9001198	Bronze Bearing	1	
3	9390-133	Capscrew, 5/8"-11UNC x 4 1/2" Gr.5	2	
4	9801	Locknut, 5/8'-11UNC	2	
5	9390-056	Capscrew, 3/8"-16UNC x 1 1/4" Gr.5	5	
6	9405-076	Flat Washer, 3/8" USS	6	
7	9928	Locknut, 3/8"-16UNC	5	
8	28977	Drive Dog	1	
9	2004511B	Lower Auger Weldment =Black=	1	
10	9802	Locknut, 3/4"-10UNC	2	
11	9390-154	Capscrew, 3/4"-10UNC x 4 1/2" Gr.5	2	
12	97896	Rubber Bumper	2	
13	9405-076	Flat Washer, 3/8" USS	2	
14	2011824G	Auger Tube Weldment with Decals =Green=	1	
	2011824R	Auger Tube Weldment with Decals =Red=		
	9003476	Decal, WARNING "No Riders"	1	NOT SHOWN
	9003474	Decal, DANGER "Shock"	1	NOT SHOWN
15	9390-111	Capscrew, 1/2-13UNC x 4" G5	3	
16	9398-016	Elastic Lock Nut, 1/2"-13UNC	3	
17	2011827B	Rest Stand Weldment	1	
18	91266	Flange Screw, 1/2"-13UNC x 1 1/4"	10	

Vertical Auger Tube Linkage & Hydraulic Components



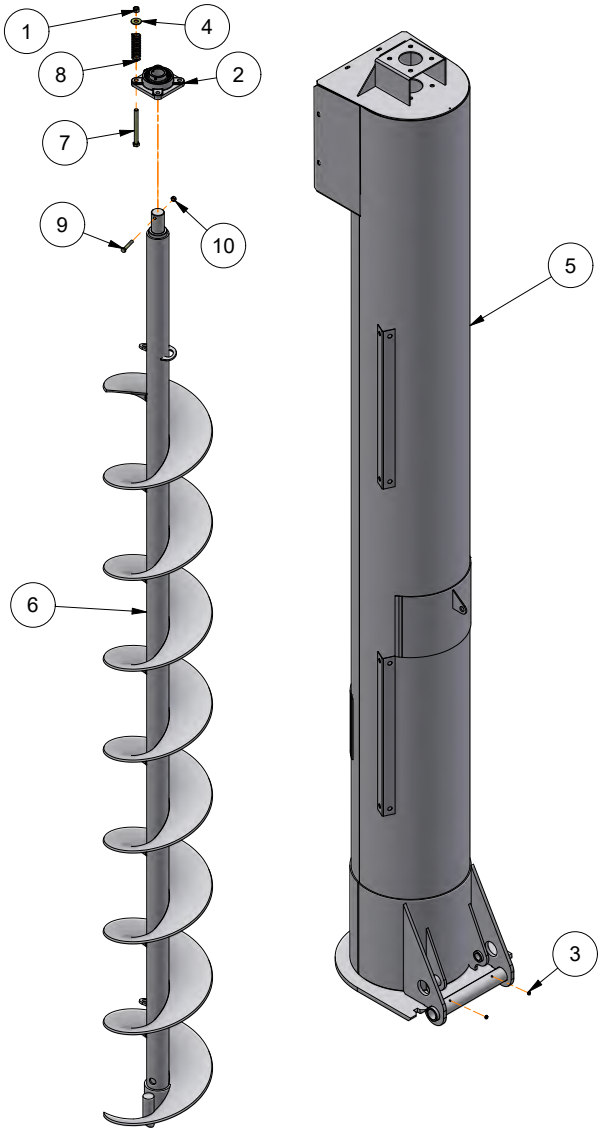
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	23047B	Link Weldment =Black= w/Grease Zerk	1	
	91160	Grease Zerk	1	
2	23049B	Link Weldment =Black= w/Grease Zerk	1	
	91160	Grease Zerk	1	
3	23063	Pin 1 1/2" Dia. x 20 9/16"	1	
4	23064	Pin 1" Dia. x 11 1/4"	1	
5	23065	Pin 1" Dia. x 15 1/16"	1	
6	23066	Pin 1" Dia. x 7 15/16"	1	
7	23067	Pin 1" Dia. x 5 3/4"	1	
8	85632	Pin 1" Dia. x 3 3/4"	1	
9	900034	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male w/Restrictor	2	
10	91144-164	Spiral Pin 1/4" Dia. x 1 3/4"	6	
11	9390-060	Capscrew 3/8-16UNC x 2 1/4" Gr.5	2	
12	9390-061	Capscrew 3/8-16UNC x 2 1/2" Gr.5	1	
13	9398-012	Elastic Locknut 3/8-16UNC	3	
14	99509	Cylinder Assembly 3 x 20 w/Check Valve	1	
	98660	Seal Kit 3 x 20	-	
	98435	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male w/Restrictor	1	
	99515	Ball Check Valve 3/4"-16UNF	1	

Vertical Auger Tube Bracing Components



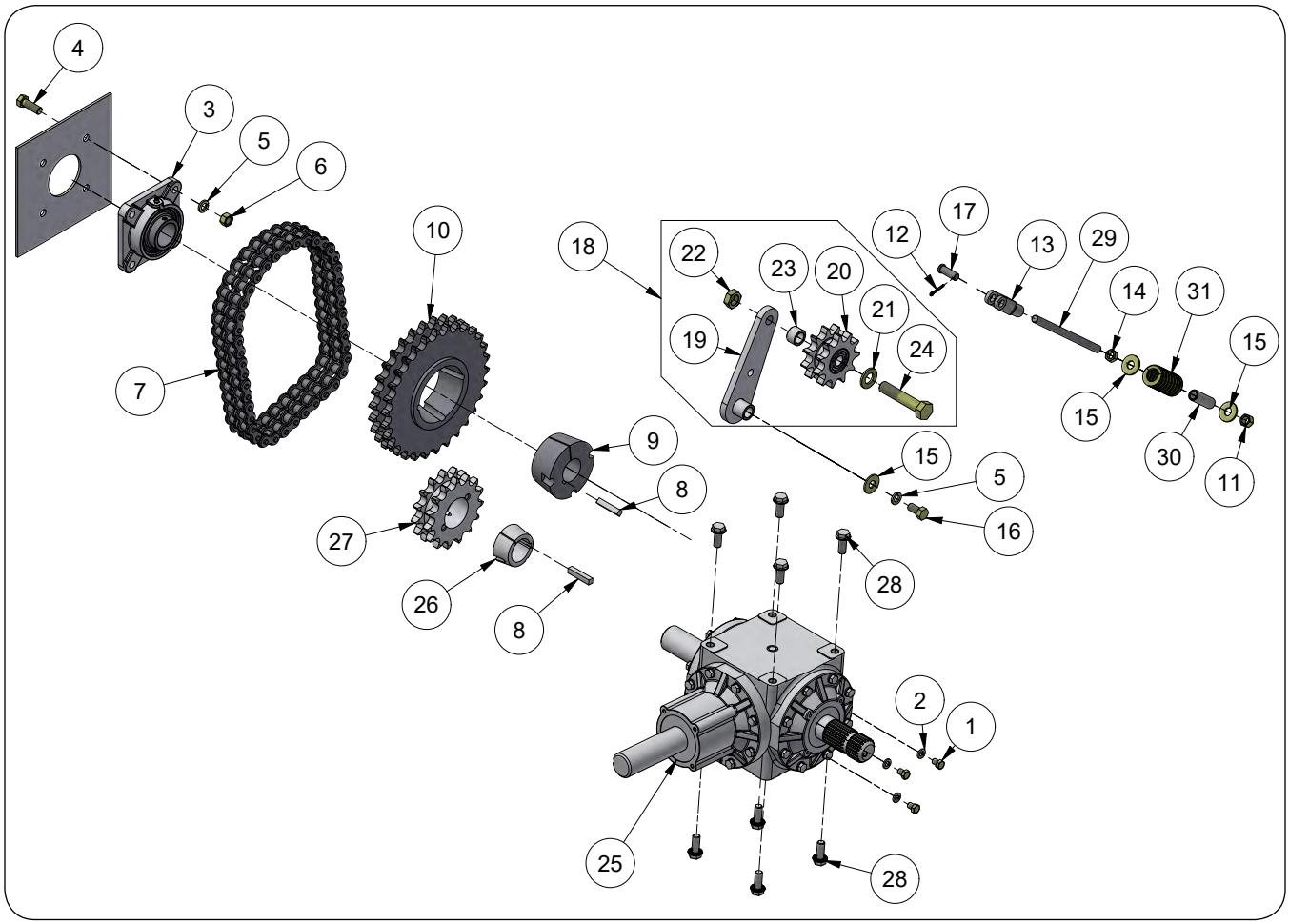
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2004696B	Tie Rod Weldment =Black=	1	
2	2004711B	Auger Brace Weldment =Black=	1	
3	902703-056	Flat Head Socket, 5/8”-11UNC x 2 1/2”	3	
4	9390-102	Capscrew, 1/2”-13UNC x 1 3/4” Gr.5	8	
5	9398-019	Elastic Locknut, 5/8”-11UNC	3	
6	9800	Locknut/Top, 1/2”-13UNC	8	

Upper Vertical Auger Tube & Flighting Components



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9800	Locknut, 1/2”-13UNC	4	
2	97382	Flange Bearing Assembly 4 Bolt 1 3/4” Bore w/Seal & Setscrews	1	
3	91160	Grease Zerk	2	
4	9405-088	Flat Washer, 1/2” USS	4	
5	2011809G	Auger Tube Weldment =Green=	1	
	2011809R	Auger Tube Weldment =Red=		
6	2011813B	Flight Weldment RH, 14.75” Dia. x 149 1/8”	1	
7	9390-114	Capscrew, 1/2”-13UNC x 5 1/2” G5	4	
8	9001812	Compression Spring	4	
9	9390-060	Capscrew, 3/8”-16UNC x 2 1/4” G5	1	
10	9928	Locknut, 3/8”-16UNC	1	

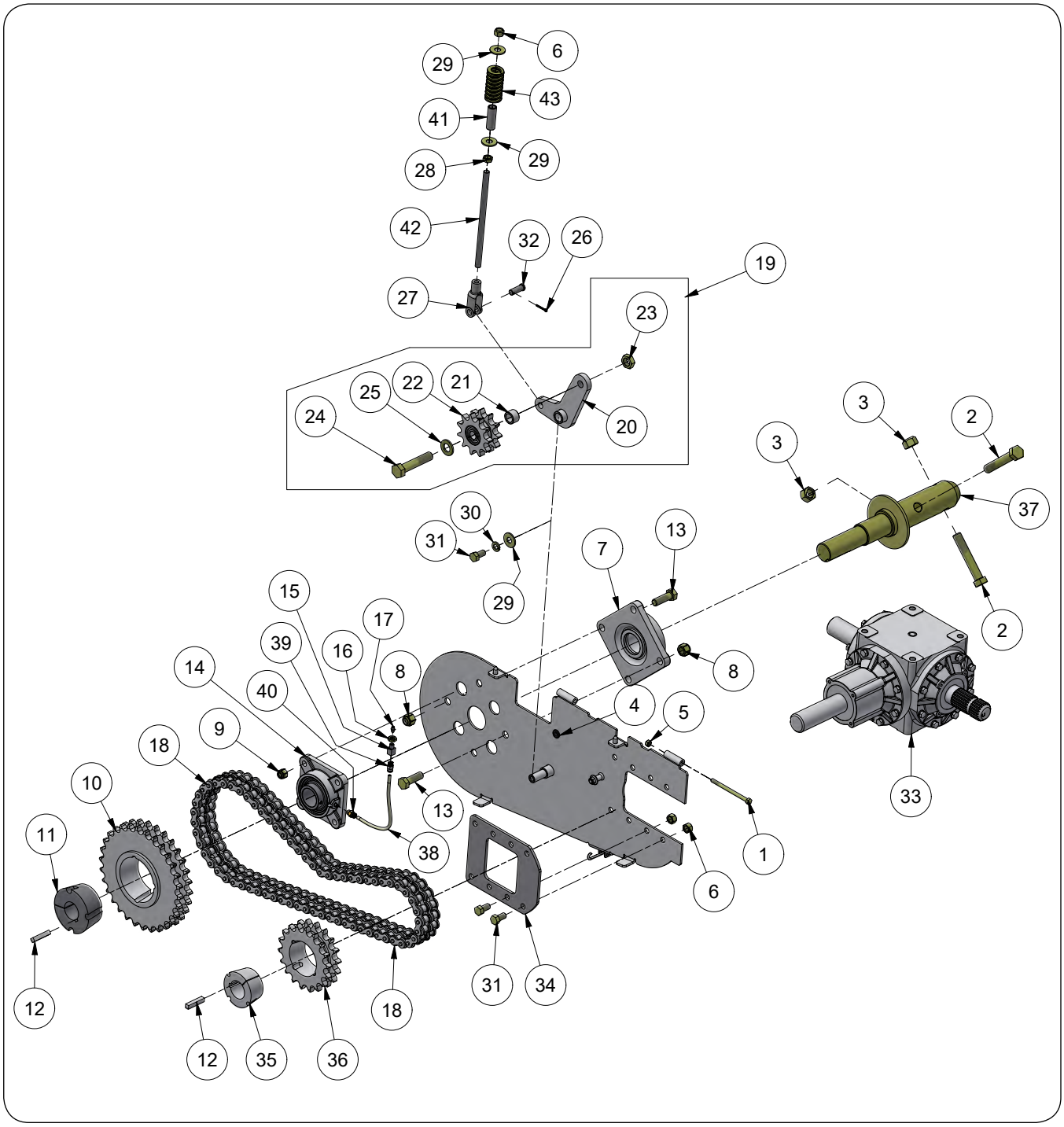
Chain Drive - Horizontal Components



Chain Drive - Horizontal Components

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9390-051	Capscrew, 3/8"-16UNC x 1/2" G5	3	
2	9404-021	Lock Washer, 3/8"	3	
3	97382	Flange Bearing Assembly, 4 Bolt 1 3/4" Bore	1	
4	9390-101	Capscrew, 1/2"-13UNC x 1 1/2" G5	4	
5	9404-025	Lock Washer, 1/2"	4	
6	9394-010	Hex Nut, 1/2"-13UNC	4	
7	98124	Roller Chain/Double, #80-2 43 Links	1	
	9000157	Connecting Link	-	
8	100775	Key, 3/8" x 3/8" x 2"	2	
9	102248	Taper Lock Bushing, 1 3/4" ID x 4 1/4" OD w/Set Screws	1	
10	102245	Sprocket Taper (DH80-30T)	1	
11	9800	Locknut/Top, 1/2"-13UNC	1	
12	9391-023	Cotter Pin, 1/8" Dia. x 1"	1	
13	93383	Clevis Yoke End	1	
14	9395-010	Hex Jam Nut, 1/2"-13UNC	1	
15	9405-088	Flat Washer, 1/2" USS	1	
16	9390-099	Capscrew, 1/2"-13UNC x 1" G5	1	
17	104559	Clevis Pin, 1/2" Dia. x 1.36"	1	
18	23090B	Idler Arm Assembly =Black=	1	
19	23089B	Arm Weldment =Black=	1	
20	9002486	Sprocket, 11 Tooth #80 Double Chain	1	
21	91050	Flat Washer, 1.469" OD x .812" ID Hardened	1	
22	9395-016	Hex Jam Nut, 3/4"-10UNC G5	1	
23	23096	Tube, 1 1/8" OD x .781" ID x 3/4"	1	
24	9390-152	Capscrew, 3/4"-10UNC x 3 3/4" G5	1	
25	98120	Gearbox LR-500-3C	1	
26	102246	Taper Lock Bushing, 1 3/4" ID x 2 3/4" OD w/Set Screws	1	
27	102243	Sprocket Taper (DH80-15T)	1	
28	91266	Flange Screw, 1/2"-13UNC x 1 1/4" G5	8	
29	2012407	Threaded Rod	1	
30	2012589Y	Spring Guide Tube	1	
31	9504960B	Compression Spring, 1.5" Dia. x 3.5"	1	

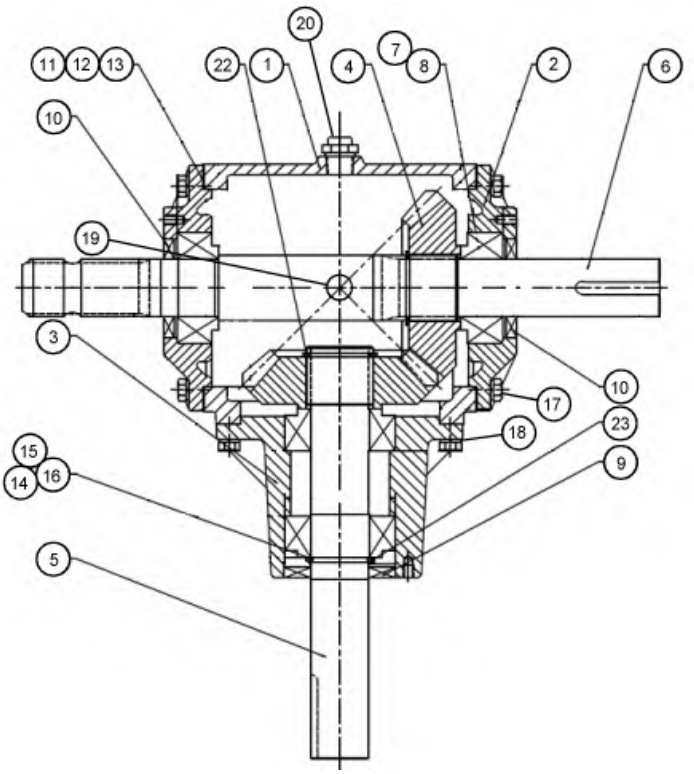
Chain Drive - Vertical Components



Chain Drive - Vertical Components

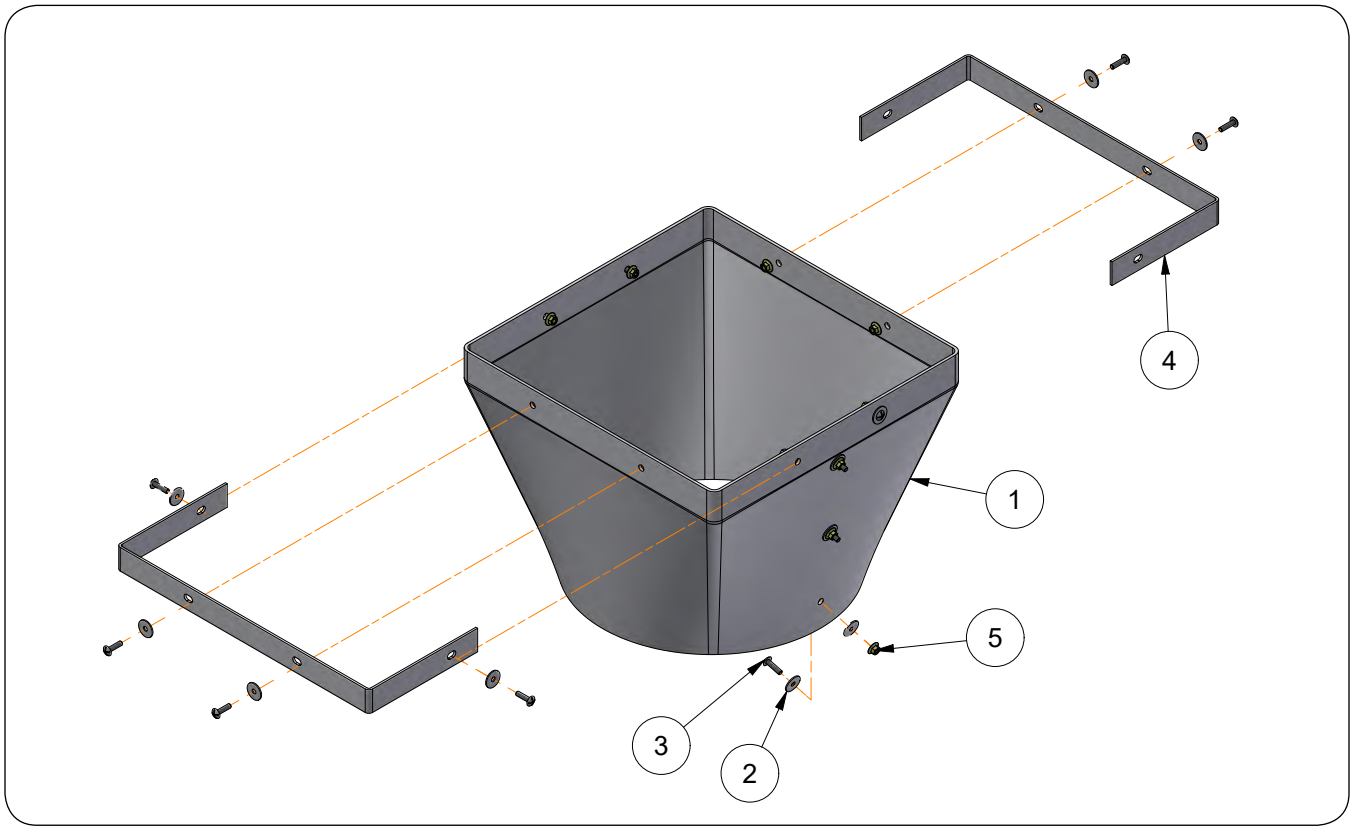
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9390-043	Capscrew, 5/16"-18UNC x 4 1/2" G5	2	
2	9390-154	Capscrew, 3/4"-10UNC x 4 1/2" G5	2	
3	9802	Locknut/Top, 3/4"-10UNC	2	
4	98136	Grommet, 1/2" Dia. Groove, 3/8" ID	1	
5	9807	Locknut/Top, 5/16"-18UNC	2	
6	9800	Locknut/Top, 1/2"-13UNC	7	
7	98116	Flange Bearing Assembly, 4 Bolt 2" Bore	1	
8	9398-019	Elastic Locknut, 5/8"-11UNC	4	
9	9398-016	Elastic Locknut, 1/2"-13UNC	4	
10	102245	Sprocket Taper (DH80-30T)	1	
11	102248	Taper Lock Bushing, 1 3/4" ID x 4 1/4" OD w/Set Screws	1	
12	100775	Key, 3/8" x 3/8" x 2"	2	
13	9390-124	Capscrew, 5/8"-11UNC x 2" G5	4	
14	97382	Flange Bearing Assembly, 4 Bolt 1 3/4" Bore	1	
15	98221	Bulkhead Connector	1	
16	98223	Thin Hex Nut, 1/8" NPSM	1	
17	91160	Grease Zerk	1	
18	900492	Roller Chain/Double, #80-2 66 Links	1	
19	24651	Idler Arm Assembly	1	
20	24650B	Arm Weldment =Black=	1	
21	23096	Tube 1 1/8" OD x .781" ID x 3/4"	1	
22	9002486	Sprocket 11 Tooth #80 Double Chain	1	
23	9395-016	Hex Jam Nut, 3/4"-10UNC G5	1	
24	9390-152	Capscrew, 3/4"-10UNC x 3 3/4" G5	1	
25	91050	Flat Washer, 1.469" OD x .812" ID Hardened	1	
26	9391-023	Cotter Pin, 1/8" Dia. x 1"	1	
27	93383	Clevis Yoke End	1	
28	9395-010	Hex Jam Nut, 1/2"-13UNC	1	
29	9405-088	Flat Washer, 1/2" USS	2	
30	9404-025	Lock Washer, 1/2"	1	
31	9390-099	Capscrew, 1/2"-13UNC x 1" G5	7	
32	104559	Clevis Pin, 1/2" Dia. x 1.36"	1	
33	98120	Gearbox LR-500-3C	1	
34	23191	Plate, 7" x 9"	1	
35	102247	Taper Lock Bushing, 1 3/4" ID x 3 3/8" OD w/Set Screws	1	
36	102244	Sprocket Taper (DH80-18T)	1	
37	2004510	Drive Weldment Lower Auger	1	
38	2011860	Grease Line/Tube, 1/4" OD x 9"	1	
39	9504567	Connector/Tube	1	
40	9005073	Tube Connector Lube Fitting	1	
41	2012589Y	Spring Guide Tube	1	
42	2012406	Threaded Rod, 1/2"-13UNC x 10" (Full Threaded)	1	
43	9504960B	Compression Spring, 1.5" Dia. x 3.5"	1	

Gearbox



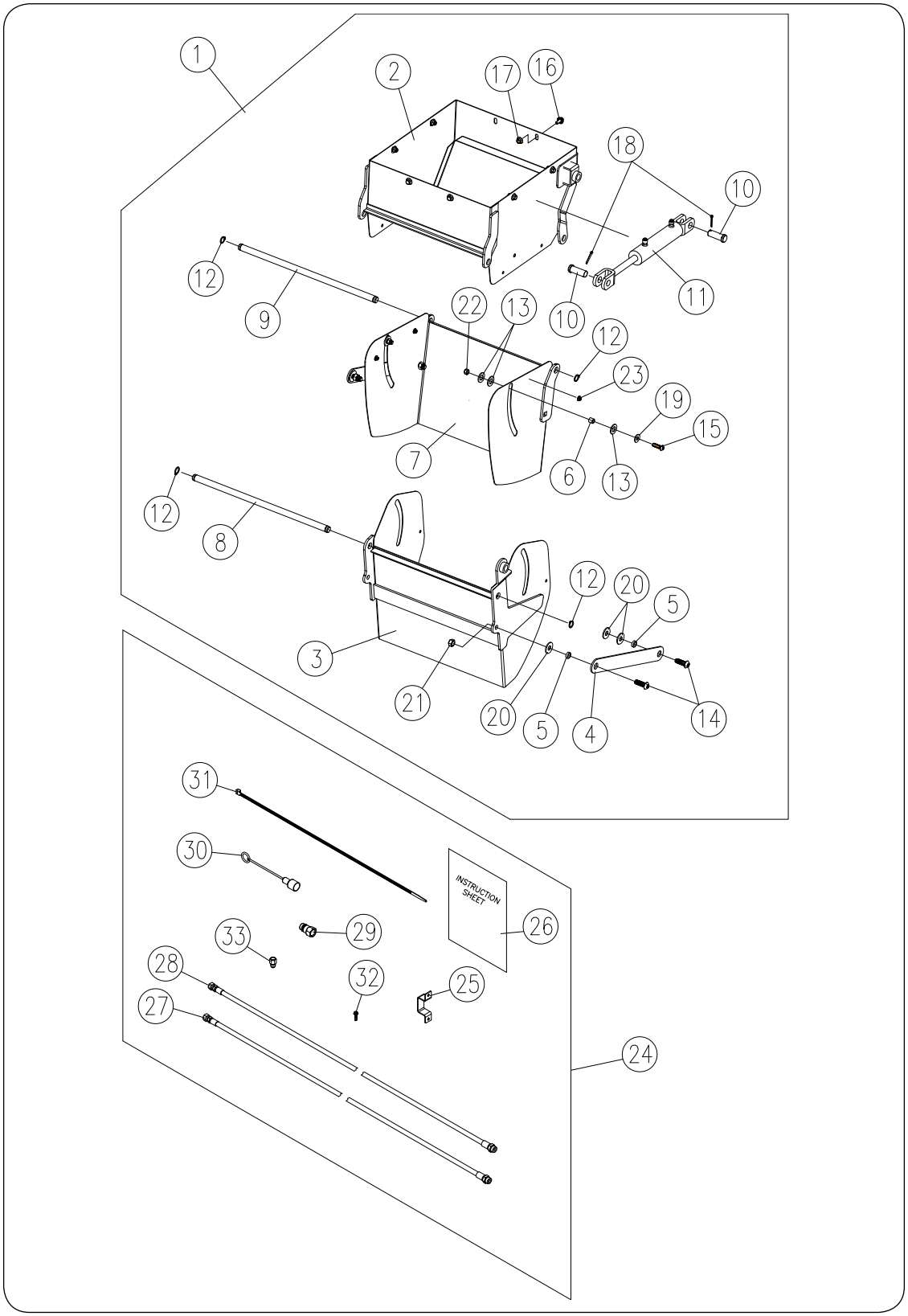
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	900220	Housing	1	
2	900221	Cap, Thru	2	
3	900222	Cap, Cantilvrd	1	
4	900223	Gear, 22T	2	
5	900224	Shaft w/Keyway	1	
6	900225	Shaft w/Spline	1	
7	900226	Bearing Cup	4	
8	900227	Bearing Cone	4	
9	900228	Seal 3N2413C	1	
10	900229	Seal 3N2410C	2	
11	900230	Gasket, 0.1mm	3	
12	900231	Gasket, 0.2mm	3	
13	900232	Gasket, 0.5mm	3	
14	900233	Shim, Input 0.1mm	1	
15	900234	Shim, Input 0.2mm	1	
16	900235	Shim, Input 0.3mm	1	
17	9390-056	Capscrew 3/8-16 x 1 1/4”	24	
18	9404-021	Lockwasher 3/8-16	24	
19	900236	Plug	1	
20	900237	Press Relief Plug	2	
22	900238	Retaining Ring	1	
23	9504847	Retaining Ring	2	
24	9504845	Shim Plate, 55 mm OD x 45 mm ID x .5 mm	1	NOT SHOWN

Downspout



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9001438	Rubber Hood	1	
2	9405-066	Flat Washer, 1/4”	14	
3	903174-537	Truss Head, Phillips Screw, 1/4”-20UNC x 1”	11	
4	106906	Spout Strap	2	
5	97189	Large Flange Nut, 1/4”-20UNC	11	

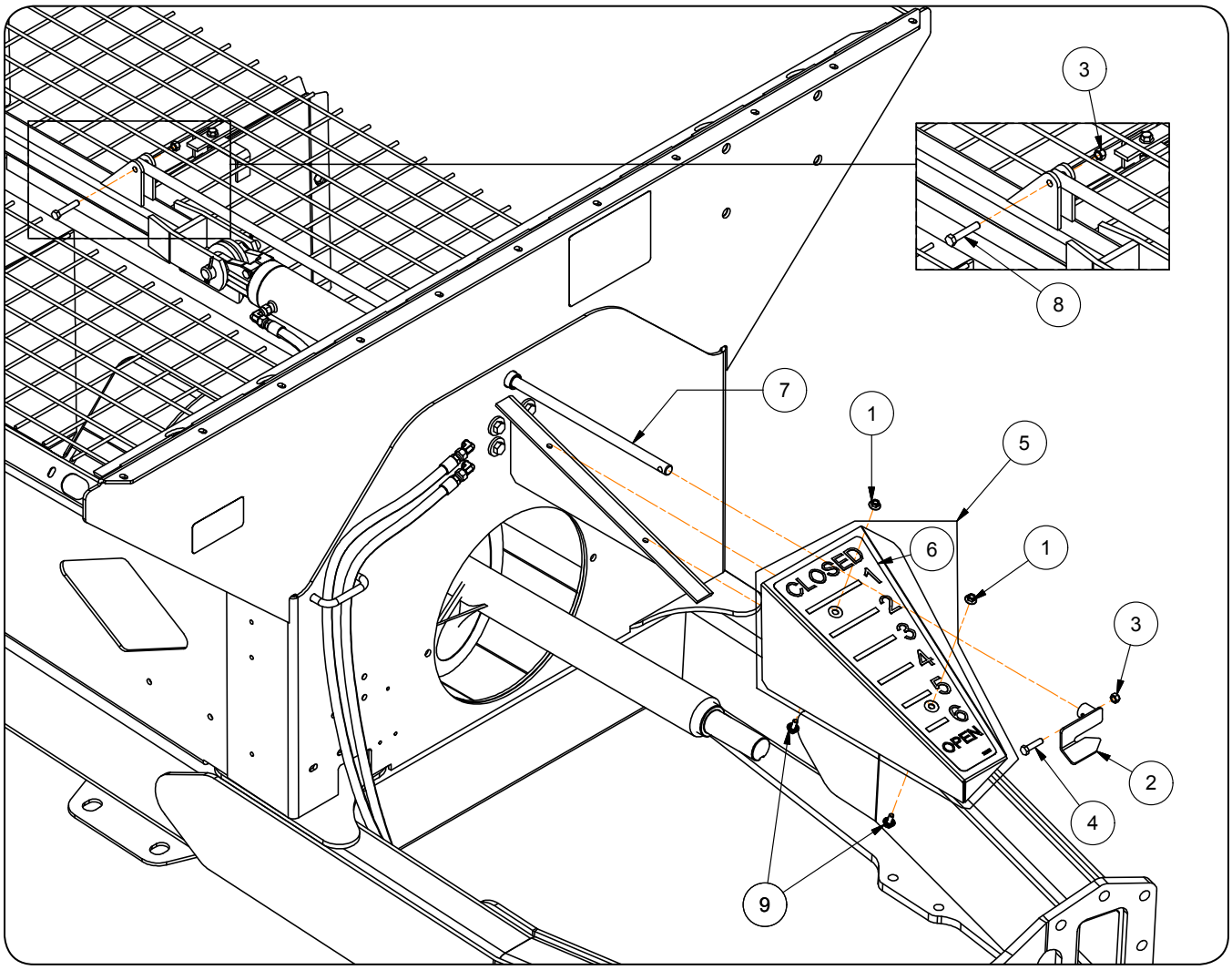
Optional Hydraulic Adjustable Spout



Optional Hydraulic Adjustable Spout

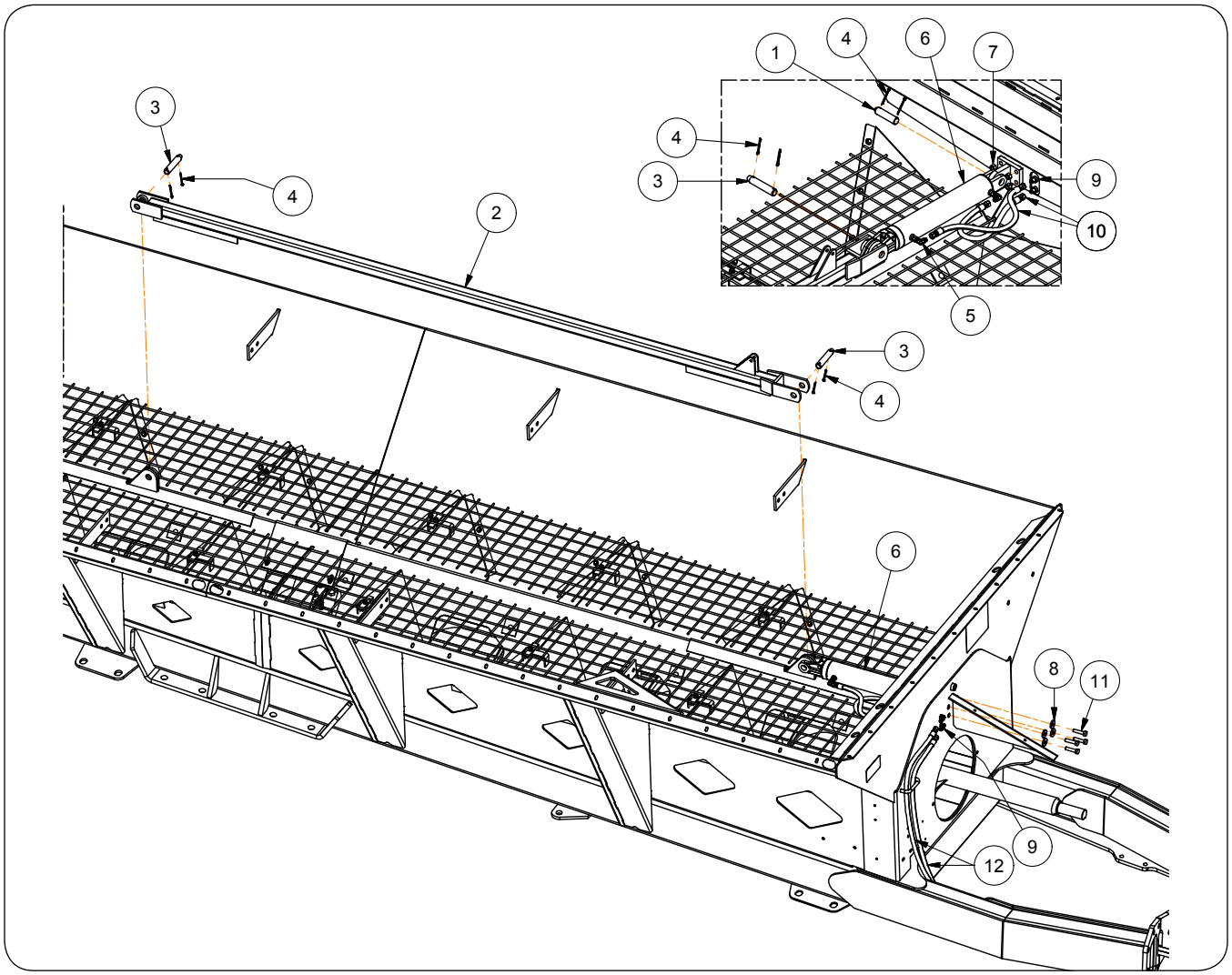
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
	24391	Adjustable Hydraulic Spout	-	
1	24390B	Adjustable Spout Assembly =Black=	1	
2	24385B	Shroud Weldment =Black=	1	
3	24387B	Spout Weldment =Black=	1	
4	281368	Arm Link Plate	2	
5	281369	Bushing, 3/4" Dia.	4	
6	281372	Bushing, 9/16" Dia.	2	
7	281377B	Upper Deflector Weldment =Black=	1	
8	281389	Pivot Shaft, 3/4" Dia. x 19 21/32"	1	
9	281390	Pivot Shaft, 3/4" Dia. x 19 15/16"	1	
10	9002032	Clevis Pin	2	
11	9003789	Hydraulic Cylinder, 3000 PSI	1	
12	9003810	Snap Ring	4	
13	9004494	Nylon Washer	6	
14	902337	Socket Capscrew, 1/2"-13UNC x 1 1/2"	4	
15	902338	Socket Capscrew, 3/8"-16UNC x 1 1/4"	2	
16	91256	Large Flange Screw, 5/16"-18UNC x 3/4"	8	Grade 5
17	91257	Large Flange Hex Nut, 5/16"-18UNC	8	Grade 5
18	9391-034	Cotter Pin	2	
19	9405-076	Flat Washer, 3/8"	2	
20	9405-088	Flat Washer, 1/2"	6	
21	94981	Locknut, 1/2"-13UNC	4	
22	9928	Locknut, 3/8"-16UNC	2	Grade 5
23	9004457	Plug, Plastic	6	
24	24392	Adjustable Hydraulic Spout Parts Box	1	
25	24389B	Bracket	1	
26	25348	Instruction Sheet	1	
27	9004637	Hose, 1/4 x 430 9/16-18 JIC FM Swivel x 3/4-16 OR M	1	
28	9004638	Hose, 1/4 x 440 9/16-18 JIC FM Swivel x 3/4-16 OR M	1	
29	91383	Male Tip Coupling	2	
30	91511	Dust Cap	2	
31	94038	Cable Tie, 32" Lg.	8	
32	9512	Self Drilling Screw, 1/4-14 x 1"	2	
33	95193	Adapter, 9/16-18 JIC FM x 9/16-18 JIC M	1	

Indicator Compoents



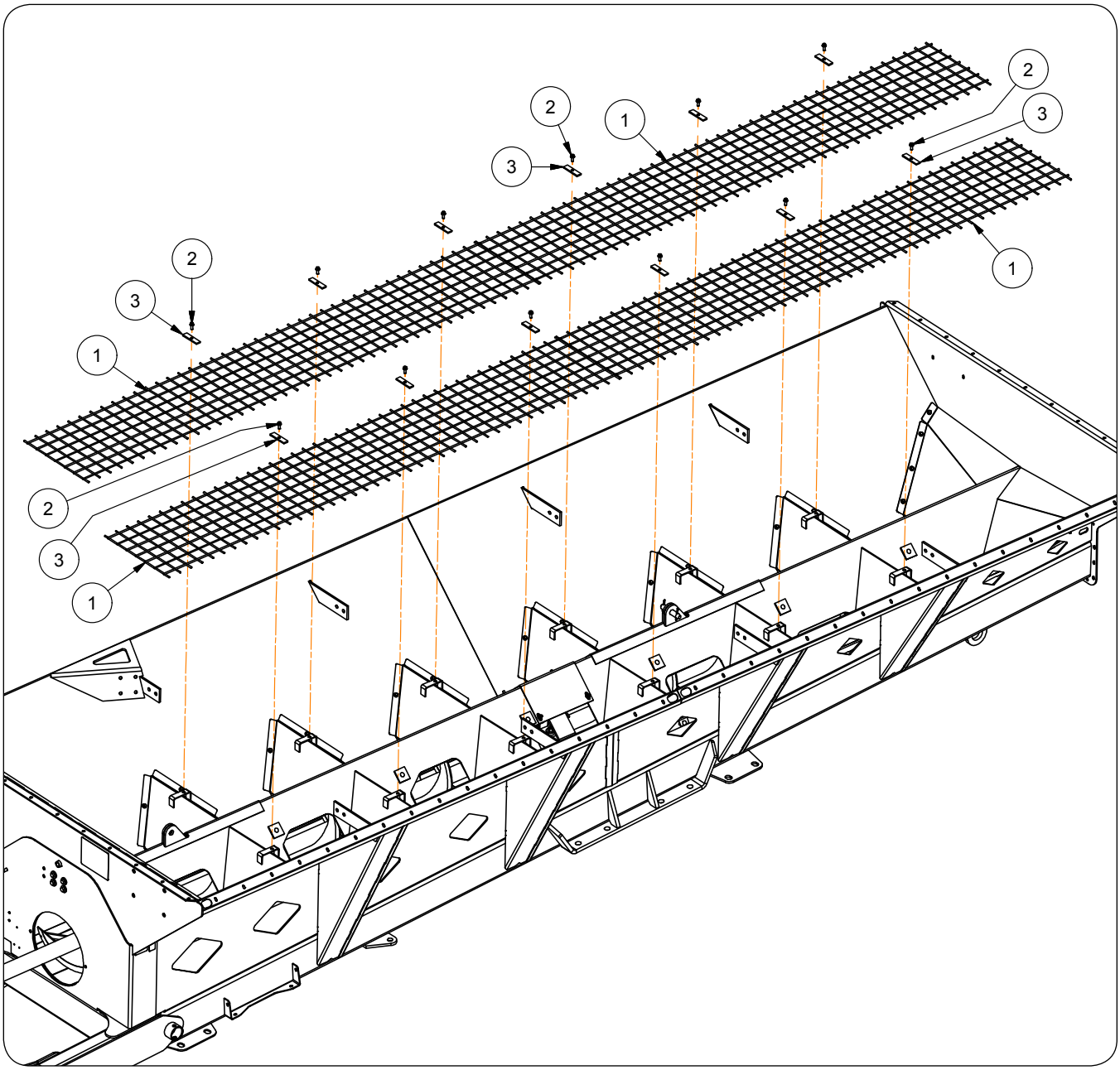
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	91257	Large Flange Hex Nut, 5/16”-18UNC	2	
2	24644B	Indicator Weldment =Black=	1	
3	9928	Locknut, 3/8”-16UNC	2	
4	9390-057	Capscrew, 3/8”-16UNC x 1 1/2” Gr.5	1	
5	24640B	Cover Assembly =Black= w/Gate Position Decal	1	
6	24641	Gate Position Decal	1	
7	24637B	Gate Rod/Bar =Black=	1	
8	9390-059	Capscrew, 3/8”-16UNC x 2” Gr.5	1	
9	91256	Flange Screw, 5/16”-18UNC x 3/4” Gr.5	2	

Gate Linkage Components



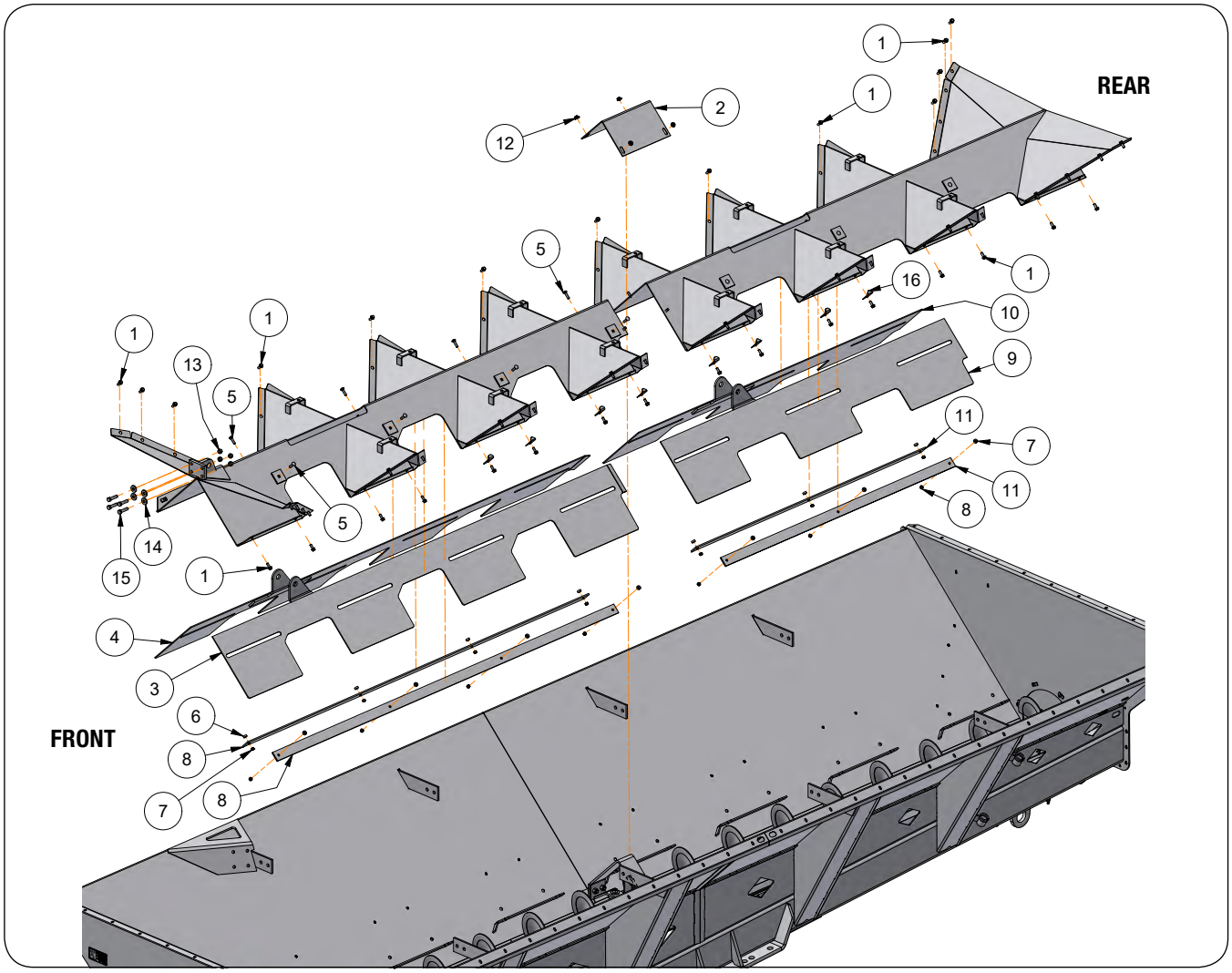
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	91262	Flange Screw, 3/8”-16UNC x 1” Gr.5	1	
2	24489B	Gate Linkage Weldment =Black=	1	
3	24607	Pin, 1” Dia. x 5 1/8”	2	
4	9391-046	Cotter Pin, 3/16” Dia. x 2”	6	
5	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	2	
6	901047	Hydraulic Cylinder 3 x 14	1	
	98660	Seal Kit	-	
7	9800	Locknut/Top, 1/2”-13UNC	4	
8	9002718	Flat Washer, 1/2”	4	
9	92761	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male Bulkhead	2	
10	91530	Hydraulic Hose 3/8” Dia. x 26” (3000 PSI)	2	
11	9390-103	Capscrew, 1/2”-13UNC x 2” Gr.5	4	
12	99954	Hydraulic Hose 3/8” Dia. x 168” (3000 PSI)	2	

Screen Components



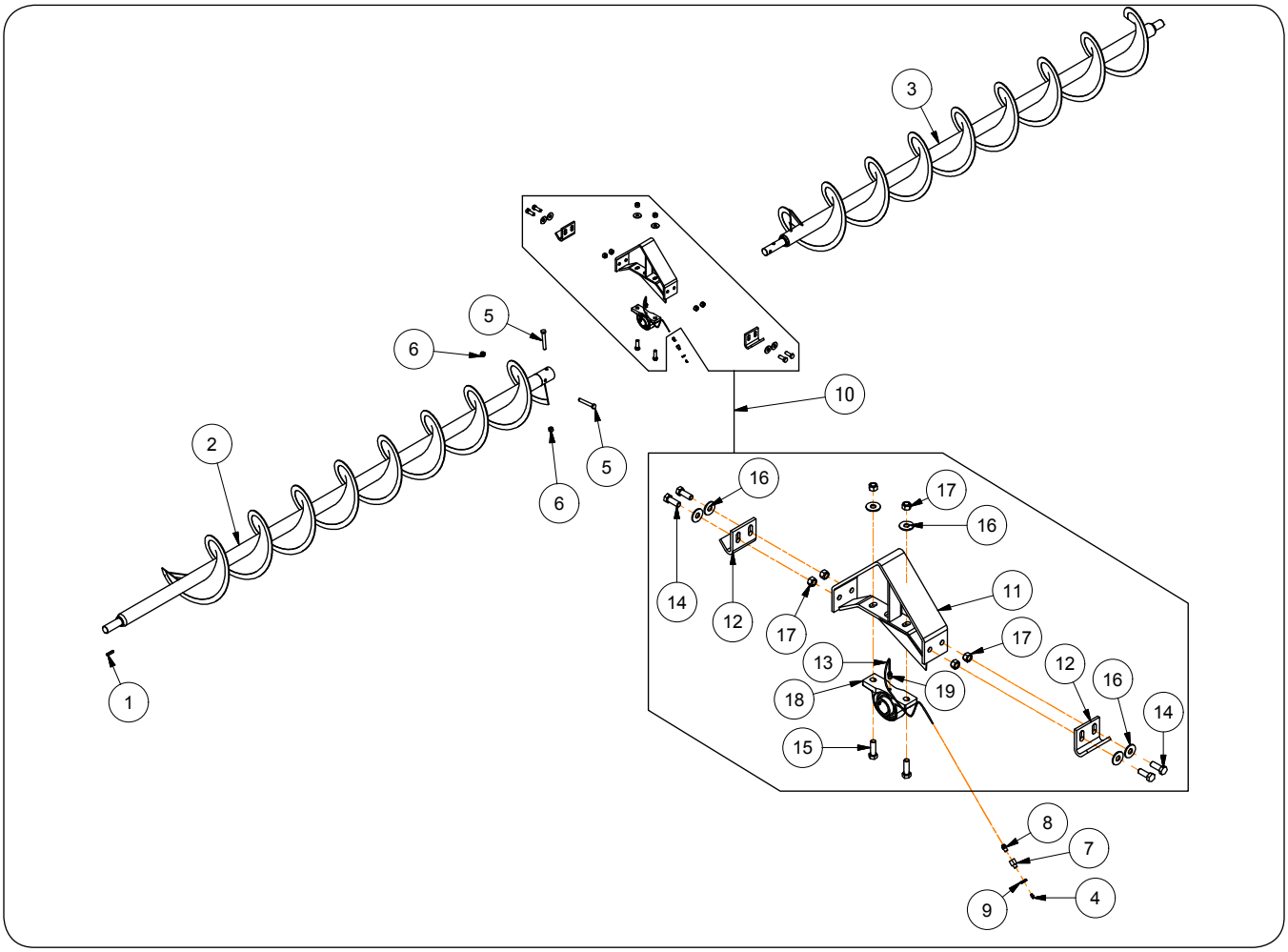
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	24586B	Screen/Grate Weldment =Black=	4	
2	91262	Flange Screw, 3/8”-16UNC x 1” Gr.5	12	
3	23653B	Strap =Black=	12	

Baffle and Tent Components



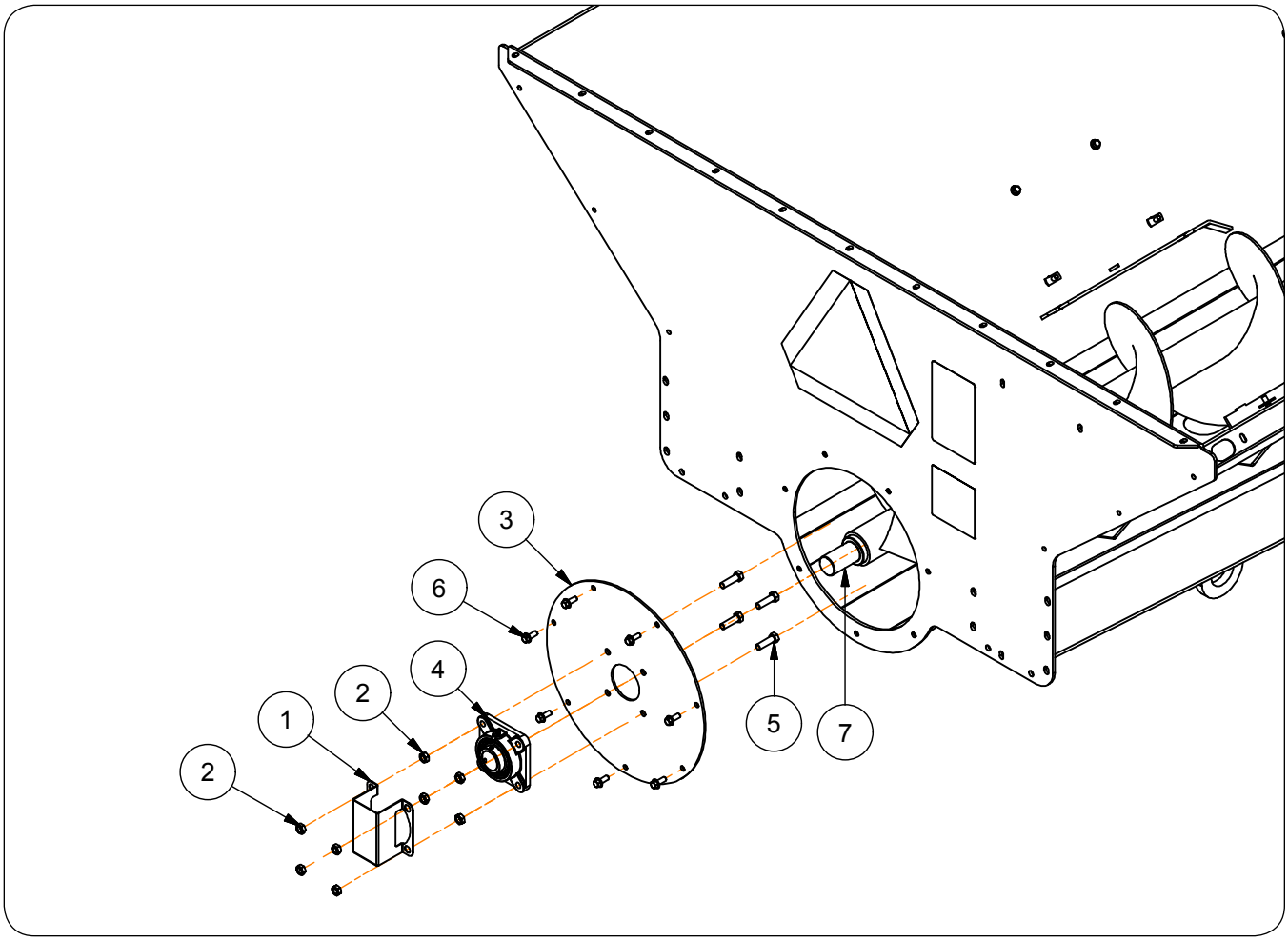
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	91262	Flange Screw, 3/8”-16UNC x 1”	91	
2	24474B	Cover =Black=	1	
3	24480B	Gate Weldment Left-Hand =Black=	1	
4	24605B	Gate Weldment Right-Hand =Black=	1	
5	9388-053	Carriage Bolt, 3/8”-16UNC x 1 1/2” G5	8	
6	271045	Door Tube, Bushing	8	
7	9928	Locknut/Top, 3/8”-16UNC	8	
8	24486B	Strap Front =Black=	2	
9	24482B	Gate Weldment Left-Hand =Black=	1	
10	24606B	Gate Weldment Right-Hand =Black=	1	
11	24485B	Strap Rear =Black=	2	
12	91263	Large Flange Nut 3/8”-16UNC	4	
13	9800	Lock Nut/Top, 1/2”-13UNC	4	
14	9002718	Flat Washer, 1/2”	4	
15	9390-103	Capscrew, 1/2”-13UNC x 2” G5	4	
16	2011908	Shim Plate	8	

Horizontal Auger Components



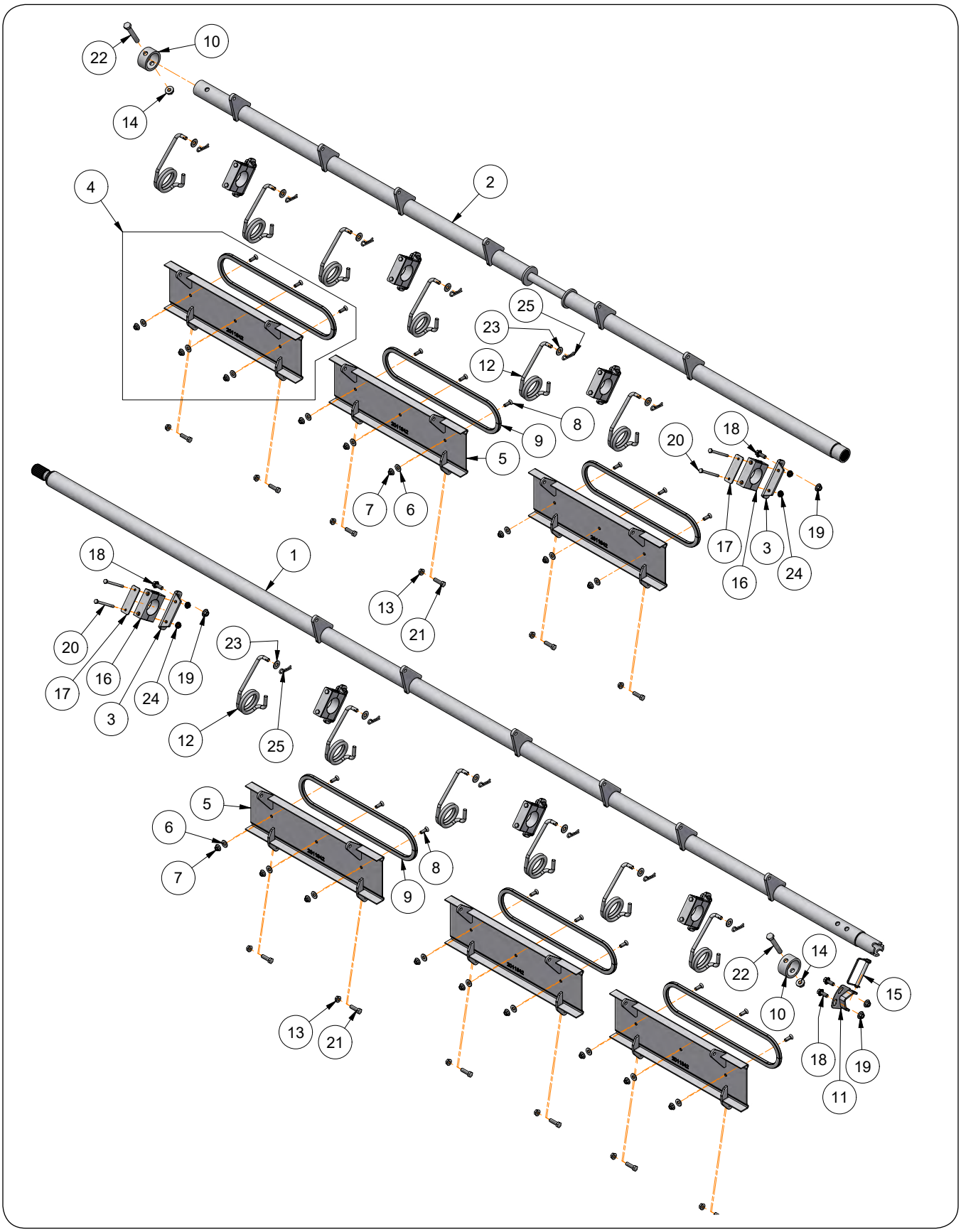
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	100775	Key, 3/8" x 3/8" x 2"	1	
2	23559B	Flight Weldment LH 14" Dia. x 144 1/4"	1	
3	23560B	Flight Weldment LH 14" Dia. x 128 5/8"	1	
4	91160	Grease Zerk	1	
5	91299-133	Capscrew, 5/8"-11UNC x 4 1/2" Gr.8	2	
6	9801	Locknut/Top, 5/8"-11UNC	2	
7	98221	Bulkhead Connector	1	
8	98222	Connector Tube 1/8" OD	1	
9	98223	Thin Hex Nut 1/8" NPSM	1	
10	23580	Bearing Holder Assembly	1	
11	23579B	Bearing Holder Weldment	1	
12	23581	V-Bracket	2	
13	24068	Tube 1/8" OD	1	
14	9390-123	Capscrew, 5/8"-11UNC x 1 3/4" Gr.5	4	
15	9390-124	Capscrew, 5/8"-11UNC x 2" Gr.5	2	
16	9405-100	Flat Washer 5/8" USS	6	
17	9801	Locknut/Top, 5/8"-11UNC	6	
18	98146	Pillow Bearing Assembly 2-Bolt	1	
19	98222	Connector Tube, 1/8" OD	1	

Horizontal Auger Rear Exterior Components



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	23638B	Cover =Black=	1	
2	9395-010	Hex Jam Nut, 1/2”-13UNC	8	
3	-	Back Plate	1	
4	97382	Flange Bearing Assembly 4-Bolt	1	
5	9390-102	Capscrew, 1/2”-13UNC x 1 3/4” Gr.5	4	
6	91262	Flange Screw, 3/8”-16UNC x 1” Gr.5	7	
7	23560B	Horizontal Flighting Weldment =Black=	1	

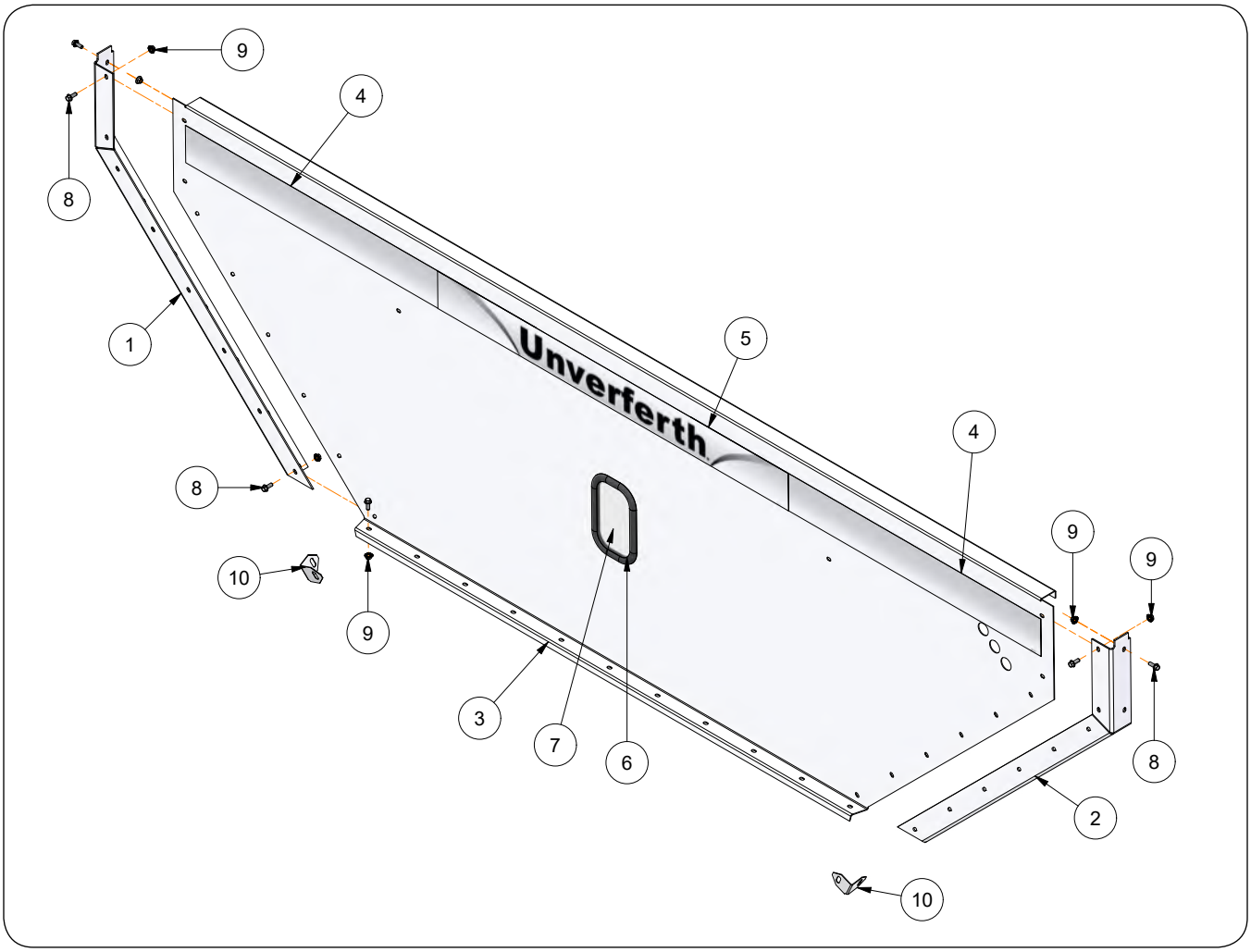
Cleanout Door Components



Cleanout Door Components

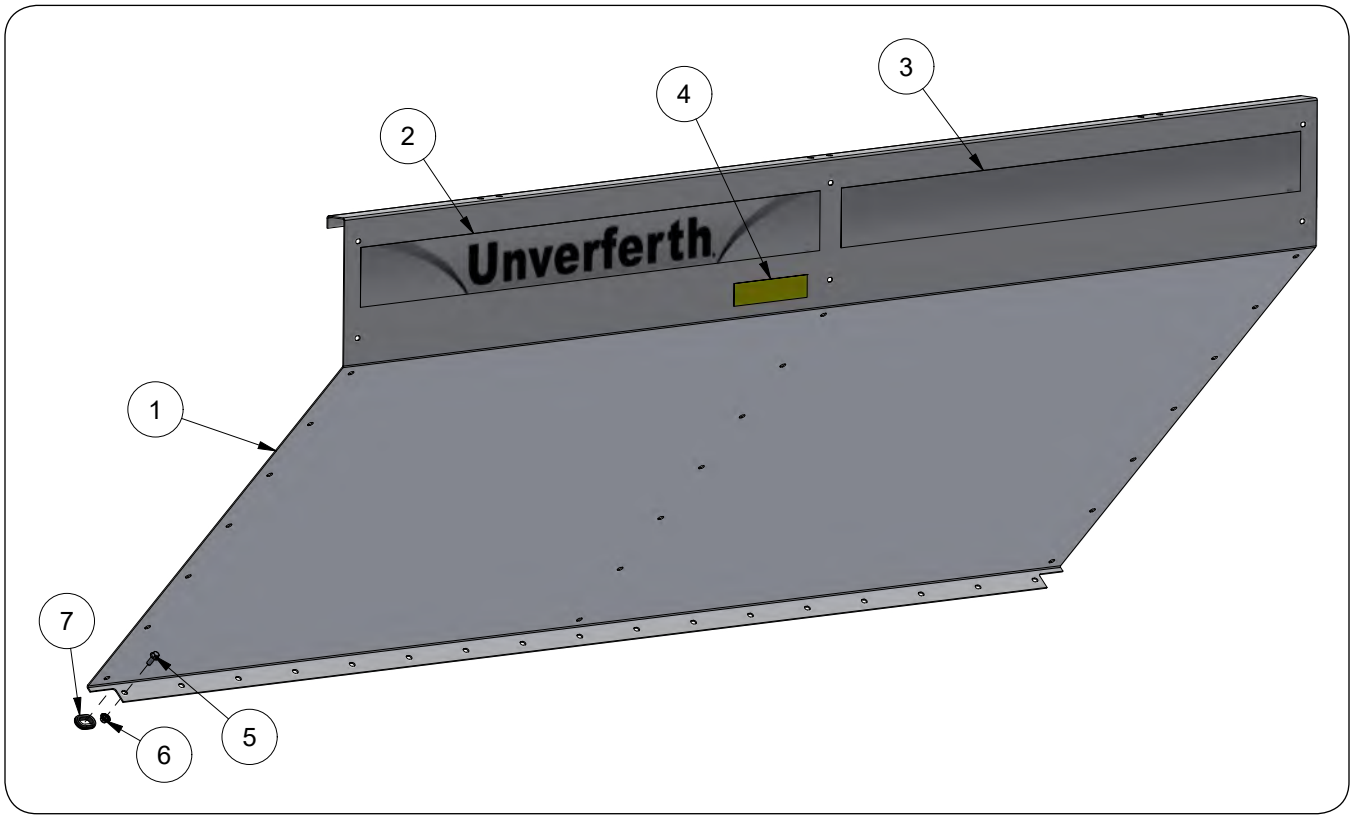
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2011846B	Rear Link Arm Weldment =Black=	1	
2	2011852B	Front Link Arm Weldment =Black=	1	
3	2011853B	Cleanout Door Linkage Plate =Black=	8	
4	2011966B	Cleanout Door Assembly =Black=	6	Includes Items 5-9
5	2011845B	Cleanout Door Weldment =Black=	6	
6	9405-070	Flat Washer, 5/16" USS	18	
7	91257	Large Flange Hex Nut, 5/16"-18UNC	18	
8	903171-660	Flat Countersunk Head, 5/16"-18UNC x 1"	18	
9	9007108	Gasket	6	
10	271566B	Stop Bushing, 2 1/2" OD x 2" ID x 1 1/4"	2	
11	273753B	Door Latch Weldment =Black=	1	
12	286417	Cleanout Door Linkage Spring-Torsion	12	
13	9003396	Lock Nut/Top, 3/8"-16UNC	12	
14	9003397	Lock Nut/Top, 1/2"-13UNC	2	
15	9005305	Lynch Pin, 3/8" Dia. x 3"	1	
16	9006351	Hose Clamp, Single	8	
17	9006352	Plate, 1 3/16" x 3 3/8"	8	
18	91262	Flange Screw, 3/8"-16UNC x 1"	22	
19	91263	Large Flange Nut, 3/8"-16UNC	24	
20	9390-015	Capscrew, 1/4"-20UNC x 3 1/2" G5	16	
21	9390-056	Capscrew, 3/8"-16UNC x 1 1/4" G5	14	
22	9390-108	Capscrew, 1/2"-13UNC x 3 1/4" G5	2	
23	9405-076	Flat Washer 3/8" USS	14	
24	97189	Large Flange Hex Nut, 1/4"-20UNC	16	
25	TA8B95	Hairpin Cotter, 1/8" Dia. x 1 15/16"	12	

Front Upper Panel Components



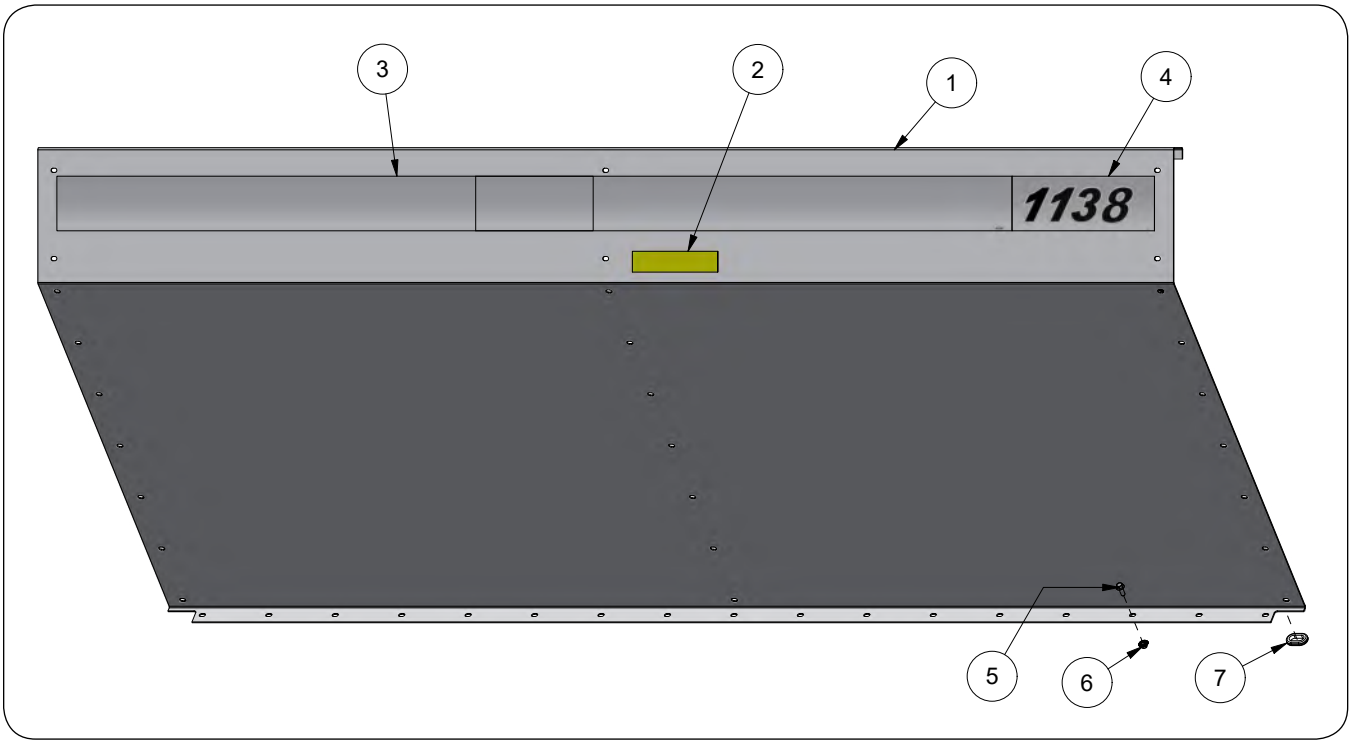
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2004552G	Panel Corner Angle Brace =Green=	1	Front, Right-Hand Side & Rear, Left-Hand Side
	2004552R	Panel Corner Angle Brace =Red=		
2	2004553G	Panel Corner Angle Brace =Green=	1	Front, Left-Hand Side & Rear, Right-Hand Side
	2004553R	Panel Corner Angle Brace =Red=		
3	2004993G	Front Upper Panel =Green=	1	Includes items 4 through 7
	2004993R	Front Upper Panel =Red=		
4	9501640	Decal, Stripe (5 1/4" x 56 1/2")	2	
5	9501639	Decal, UNVERFERTH (5 1/4" x 56 1/2")	1	
6	102693	Weatherstrip	1	
7	102608	Window Glass	1	
8	91262	Flange Screw, 3/8"-16UNC x 1"	45	
9	91263	Large Flange Nut, 3/8"-16UNC	45	
10	2004858B	Bracket	2	

Upper Left-Front & Right-Rear Side Panel Components



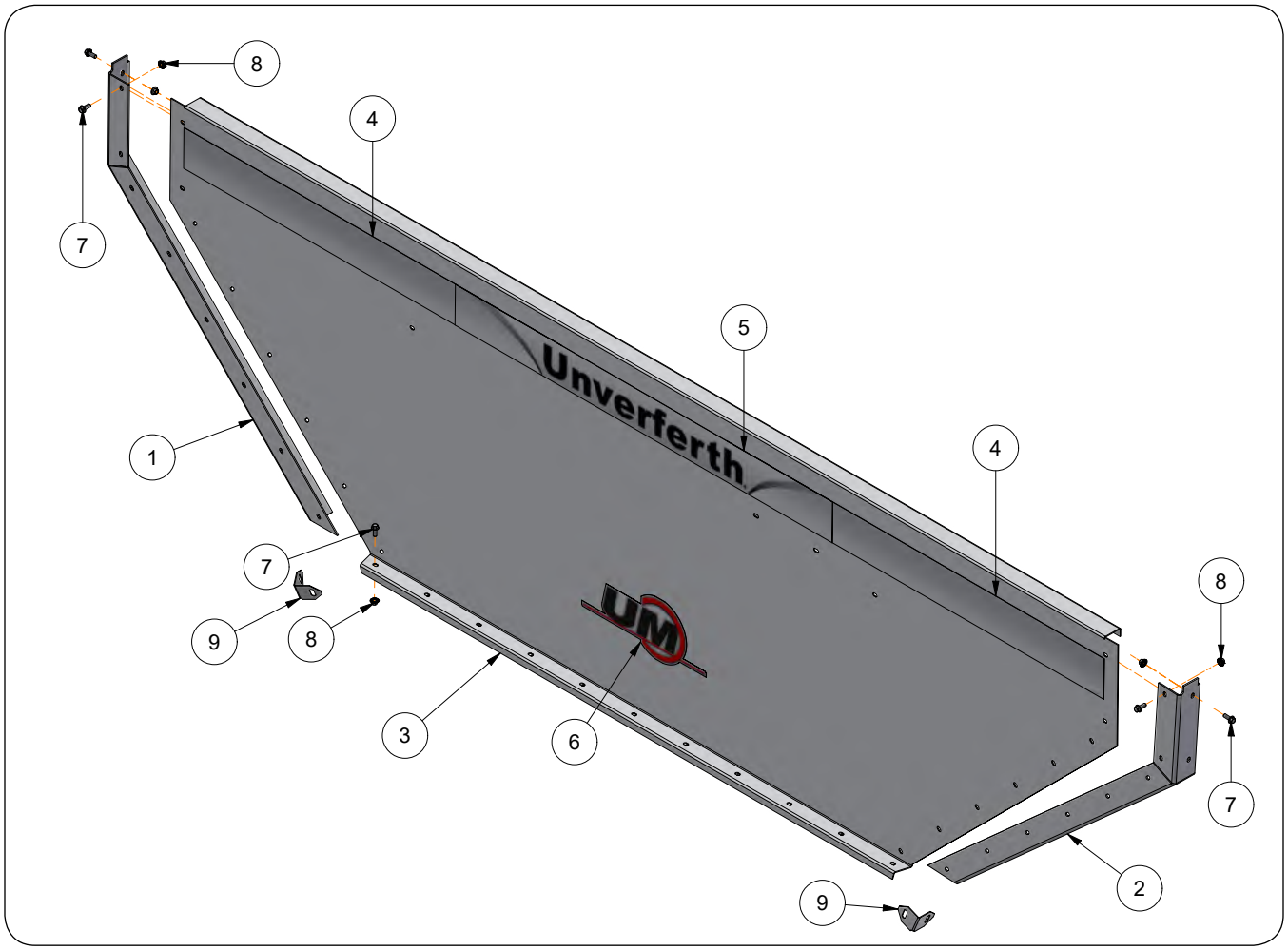
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2004991G	Left-Front & Right-Rear Upper Side Panel =Green=	1	Includes Items 2 through 4
	2004991R	Left-Front & Right-Rear Upper Side Panel =Red=		
2	9501639	Decal, UNVERFERTH (5 1/4" x 56 1/2")	1	
3	9501640	Decal, Stripe (5 1/4" x 56 1/2")	2	
4	9003127	Reflector, 2" x 9" =AMBER=	1	
5	91262	Flange Screw, 3/8"-16UNC x 1"	45	
6	91263	Large Flange Nut, 3/8"-16UNC	45	
7	901675	Grommet, 1 3/8" Dia. Groove, 1 3/4" OD	1	For Right-Rear Upper Side Panel

Upper Right-Front & Left-Rear Side Panel Components



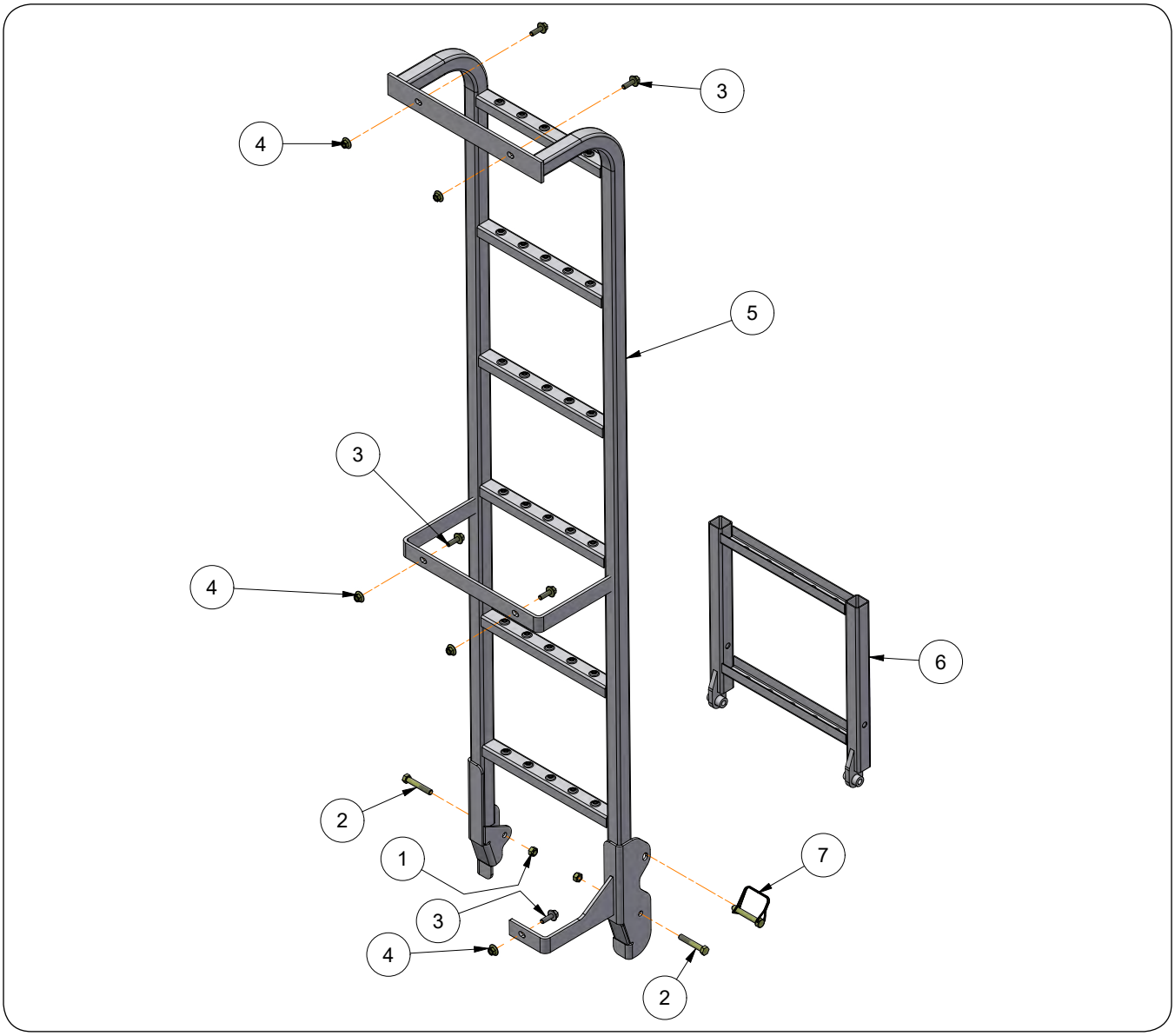
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2010466G	830, Right-Front & Left-Rear Upper Side Panel =Green=	1	Includes Items 2 through 4
	2010466R	830, Right-Front & Left-Rear Upper Side Panel =Red=		
	2005526G	1138, Right-Front & Left-Rear Upper Side Panel =Green=		
	2005526R	1138, Right-Front & Left-Rear Upper Side Panel =Red=		
	2010465G	1242, Right-Front & Left-Rear Upper Side Panel =Green=		
	2010465R	1242, Right-Front & Left-Rear Upper Side Panel =Red=		
2	9003127	Reflector 2" x 9" =AMBER=	1	
3	9501640	Decal, Stripe (5 1/4" x 56 1/2")	2	
4	9503589	Decal, 830	1	
	9502331	Decal, 1138		Shown
	9503590	Decal, 1242		
5	91262	Flange Screw, 3/8"-16UNC x 1"	45	
6	91263	Large Flange Nut, 3/8"-16UNC	45	
7	901675	Grommet, 1 3/8" Dia. Groove, 1 3/4" OD	1	For Left-Rear Upper Side Panel

Rear Upper Panel Components



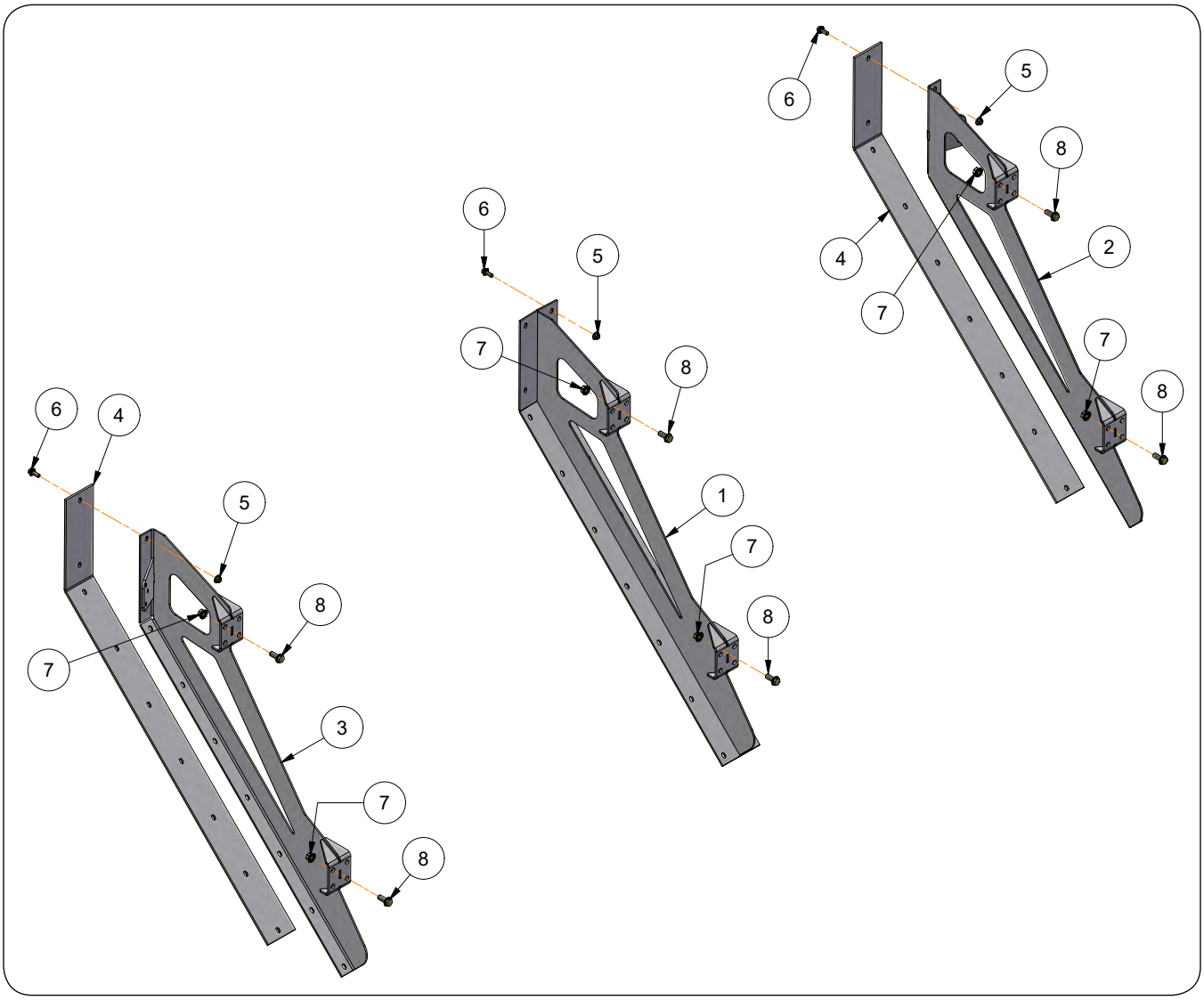
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2004552G	Panel Corner Angle Brace =Green=	1	Front, Right-Hand Side & Rear, Left-Hand Side
	2004552R	Panel Corner Angle Brace =Red=		
2	2004553G	Panel Corner Angle Brace =Green=	1	Front, Left-Hand Side & Rear, Right-Hand Side
	2004553R	Panel Corner Angle Brace =Red=		
3	2004992G	Rear Upper Panel =Green=	1	Includes Items 4 through 6
	2004992R	Rear Upper Panel =Red=		
4	9501640	Decal, Stripe (5 1/4" x 56 1/2")	2	
5	9501639	Decal, UNVERFERTH (5 1/4" x 56 1/2")	1	
6	901833	Decal, UM Logo	1	
7	91262	Flange Screw, 3/8"-16UNC x 1"	45	
8	91263	Large Flange Nut, 3/8"-16UNC	45	
9	2004858B	Bracket	2	

Ladder Components



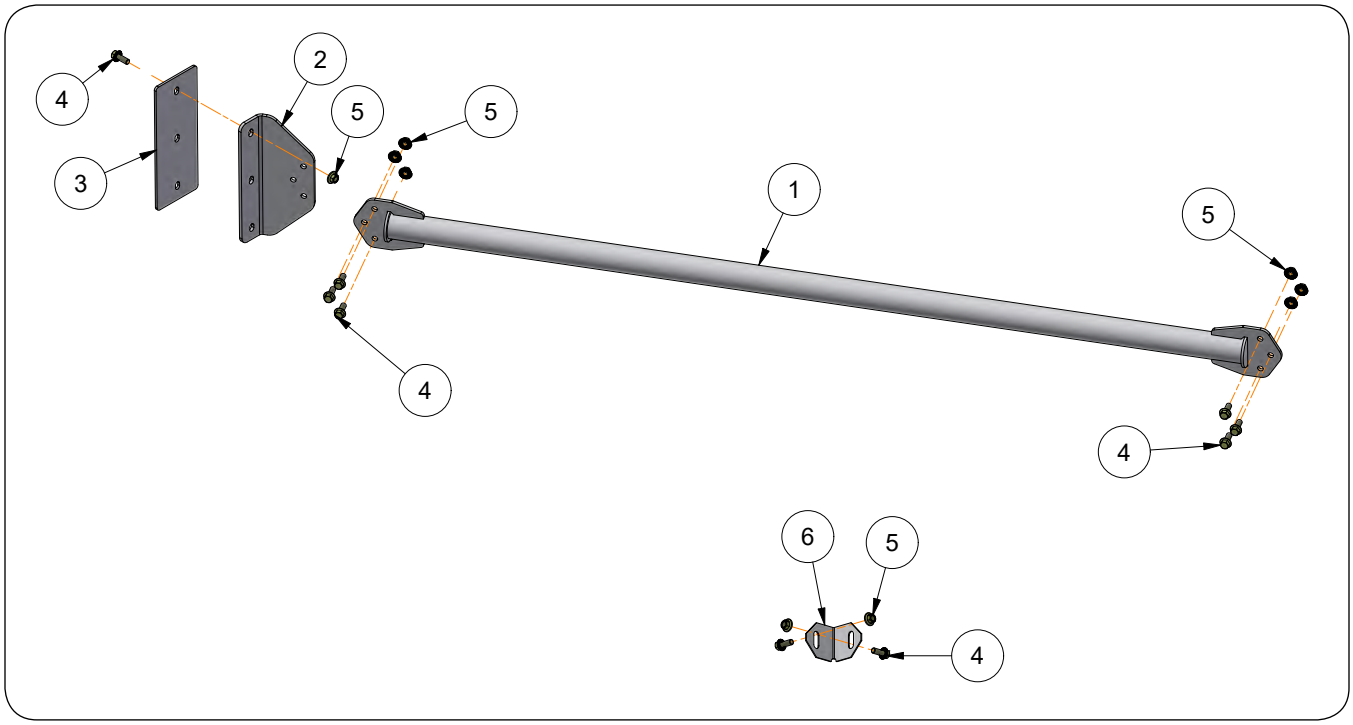
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
	24873B	Ladder Assembly	1	Includes Items 1 through 7
1	9928	Locknut, 3/8”-16UNC	2	
2	9390-060	Capscrew, 3/8”-16UNC x 2 1/4” Gr.5	2	
3	97604	Flange Screw, 5/16”-18UNC x 1” Gr.5	5	
4	91257	Large Flange Nut, 5/16”-18UNC	5	
5	25458B	Ladder Weldment	1	
6	25457B	Ladder Step Weldment	1	
7	9000938	Lynch Pin	1	

Upper Side Panel Support Components



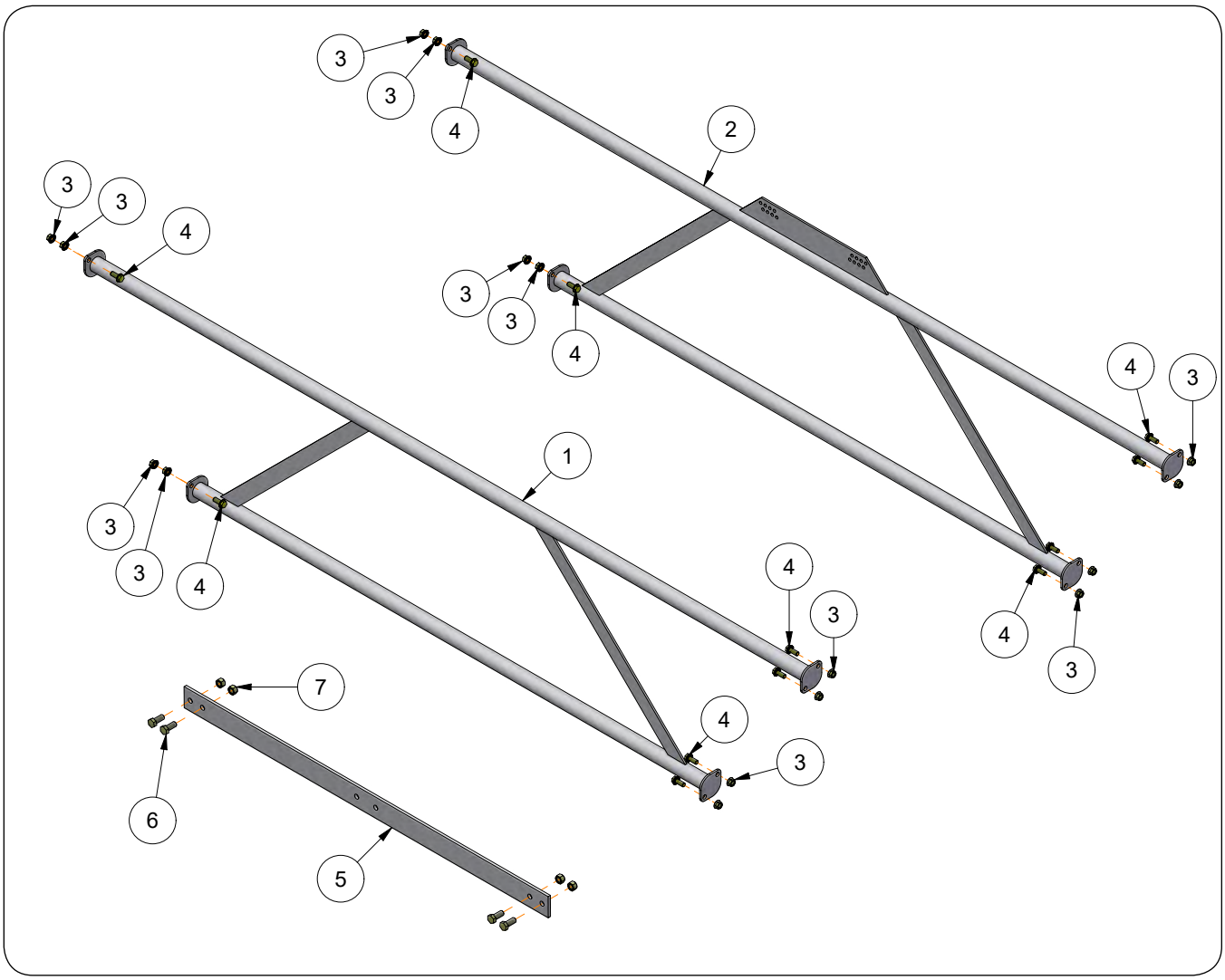
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2004995G	Center Panel Support Bracket =Green=	2	
	2004995R	Center Panel Support Bracket =Red=		
2	2005001B	Panel Support Bracket =Black= For Front, Left-Hand Side & Rear, Right-Hand Side of Cart	2	
3	2005003B	Panel Support Bracket =Black= For Front, Right-Hand Side & Rear, Left-Hand Side of Cart	2	
4	2005010G	Upper Tank Strap =Green=	4	
	2005010R	Upper Tank Strap =Red=		
5	91263	Large Flange Nut, 3/8”-16UNC	72	
6	91262	Flange Screw, 3/8”-16UNC x 1”	72	
7	91267	Flange Nut, 1/2”-13UNC	24	
8	91266	Flange Screw, 1/2”-13UNC x 1 1/4”	24	

Front & Rear Upper Panel Corner Tie Rod Components



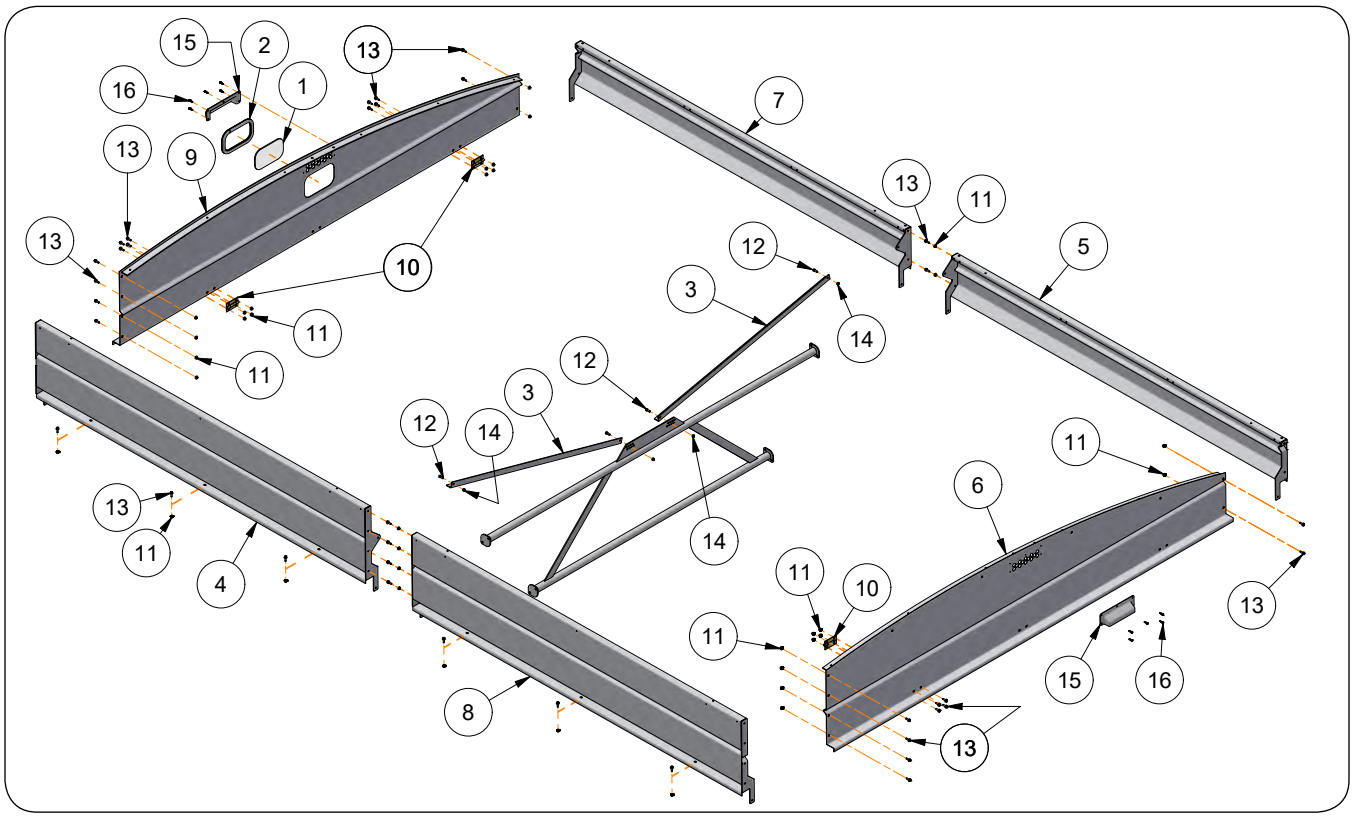
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2005005B	Corner Tie Rod =Black=	4	
2	2005007B	Corner Tie Rod Bracket =Black=	4	
3	2005011G	Strap =Green=	4	
	2005011R	Strap =Red=		
4	91262	Flange Screw, 3/8”-16UNC x 1”	44	
5	91263	Large Flange Nut, 3/8”-16UNC	44	
6	2004858B	Bracket	4	

Tank Cross Braces & Lower Cross Braces



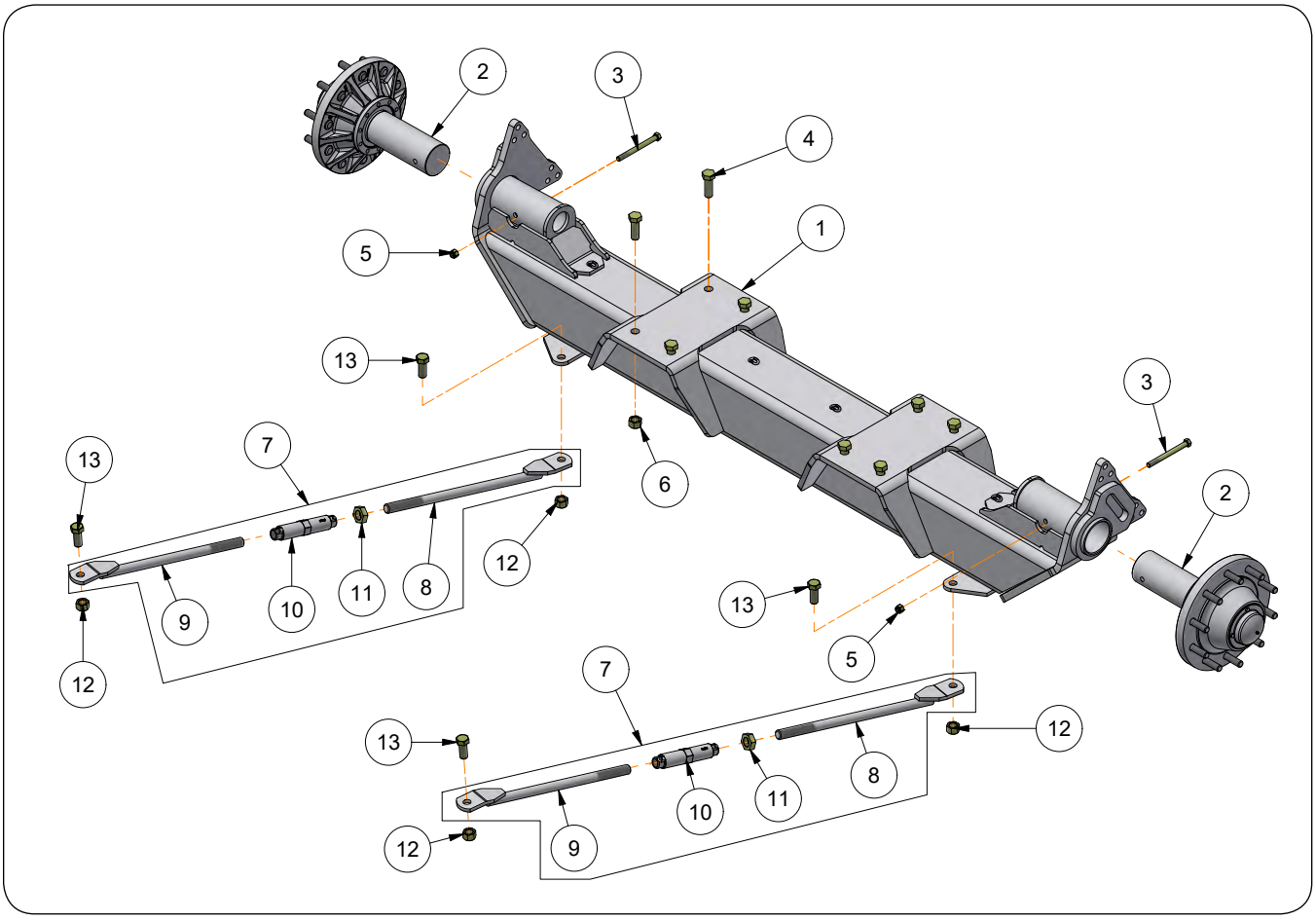
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2004551B	End Cross Brace Weldment =Black=	2	
2	2004547B	Center Cross Brace Weldment =Black=	1	
3	91267	Flange Nut, 1/2”-13UNC	24	
4	91266	Flange Screw, 1/2”-13UNC x 1 1/4”	24	
5	2004476B	Lower Cross Brace	4	
6	9390-122	Capscrew, 5/8”-11UNC x 1 1/2” Gr.5	16	
7	9801	Locknut, 5/8”-11UNC	16	

Sideboard Components



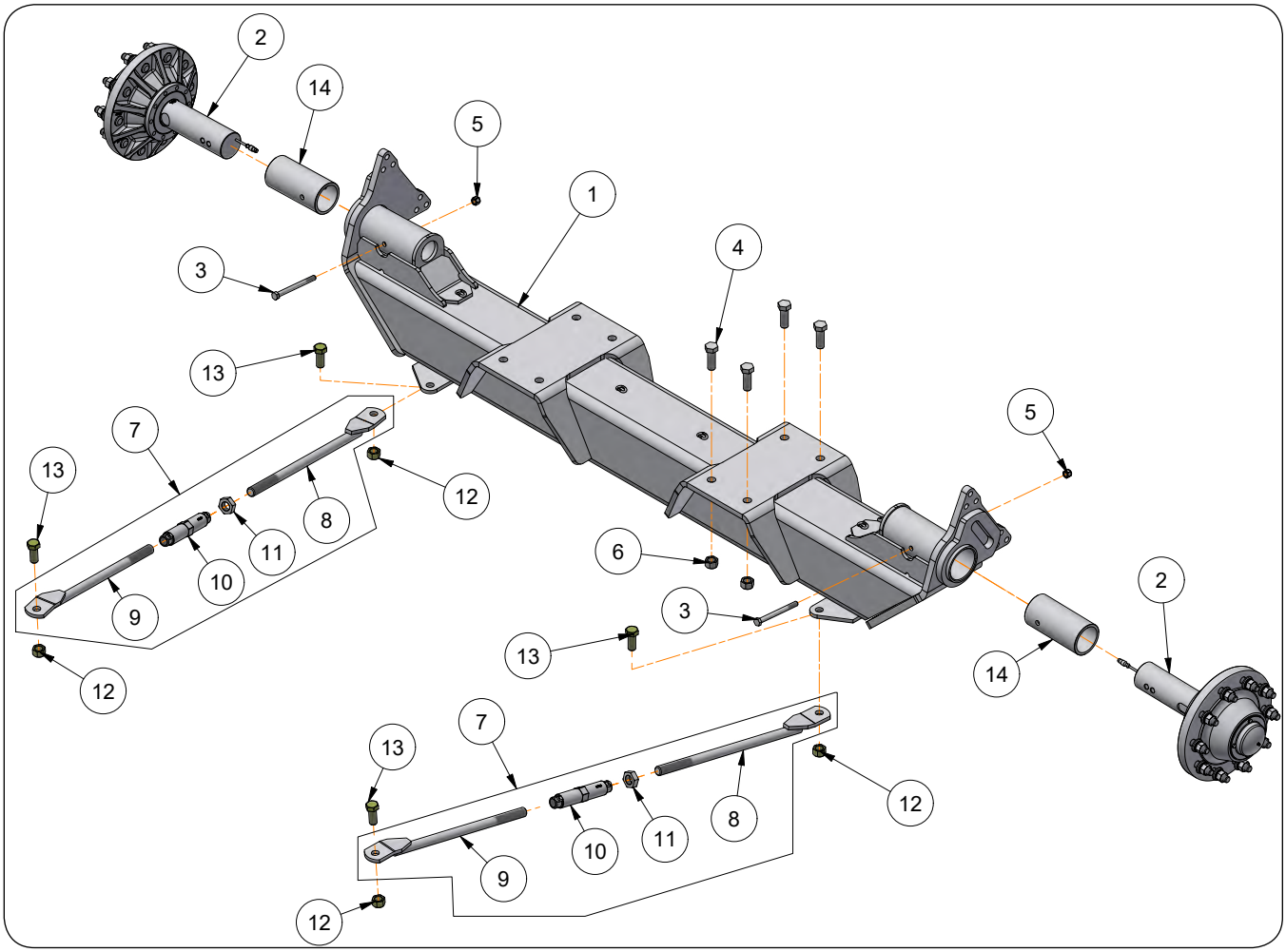
ITEM	PART NUMBER	DESCRIPTION	QTY BY MODEL		NOTES
			1138	1242	
1	102608	Window Glass	1	1	
2	102693	Weatherstrip	1	1	
3	25039B	Angle 62 1/2" Long	2	-	Shown
	2010435B	Angle 64 1/2" Long	-	2	
4	25311B	Front Left-Hand Sideboard 22" x 117 5/8"	1	-	Shown
	2010440B	Front Left-Hand Sideboard 30" x 117 5/8"	-	1	
5	25312B	Rear Right-Hand Sideboard 12" x 117 5/8"	1	-	Shown
	2010434B	Rear Right-Hand Sideboard 19 15/16" x 117 5/8"	-	1	
6	25318B	Rear Sideboard, 25 3/4" Ref. x 142 1/4"	1	-	Shown
	2010443B	Rear Sideboard, 32 3/4" Ref. x 142 1/4"	-	1	
7	25321B	Front Right-Hand Sideboard 12" x 117 5/8"	1	-	Shown
	2010432B	Front Right-Hand Sideboard 19" x 117 5/8"	-	1	
8	25324B	Rear Left-Hand Sideboard 22" x 117 5/8"	1	-	Shown
	2010441B	Rear Left-Hand Sideboard 30" x 117 5/8"	-	1	
9	25326B	Front Sideboard, 25 3/4" Ref. x 142 1/4"	1	-	Shown
	2010445B	Front Sideboard, 32 3/4" Ref. x 142 1/4"	-	1	
10	9004626	Hinge	6	6	
11	91257	Large Flange Hex Nut 5/16"-18UNC Gr.5	62	62	
12	9390-055	Capscrew 3/8"-16UNC x 1" Gr.5	4	4	
13	97604	Flange Screw 5/16"-18UNC x 1" Gr.5	62	62	
14	9928	Locknut 3/8"-16UNC	4	4	
15	9009504	End Cap Vent Cover	2	2	
16	9512	Screw/Self Drilling 1/4-14 x 1" Hex Washer Head	10	10	

Axle Assembly — Non-Scale Unit Components



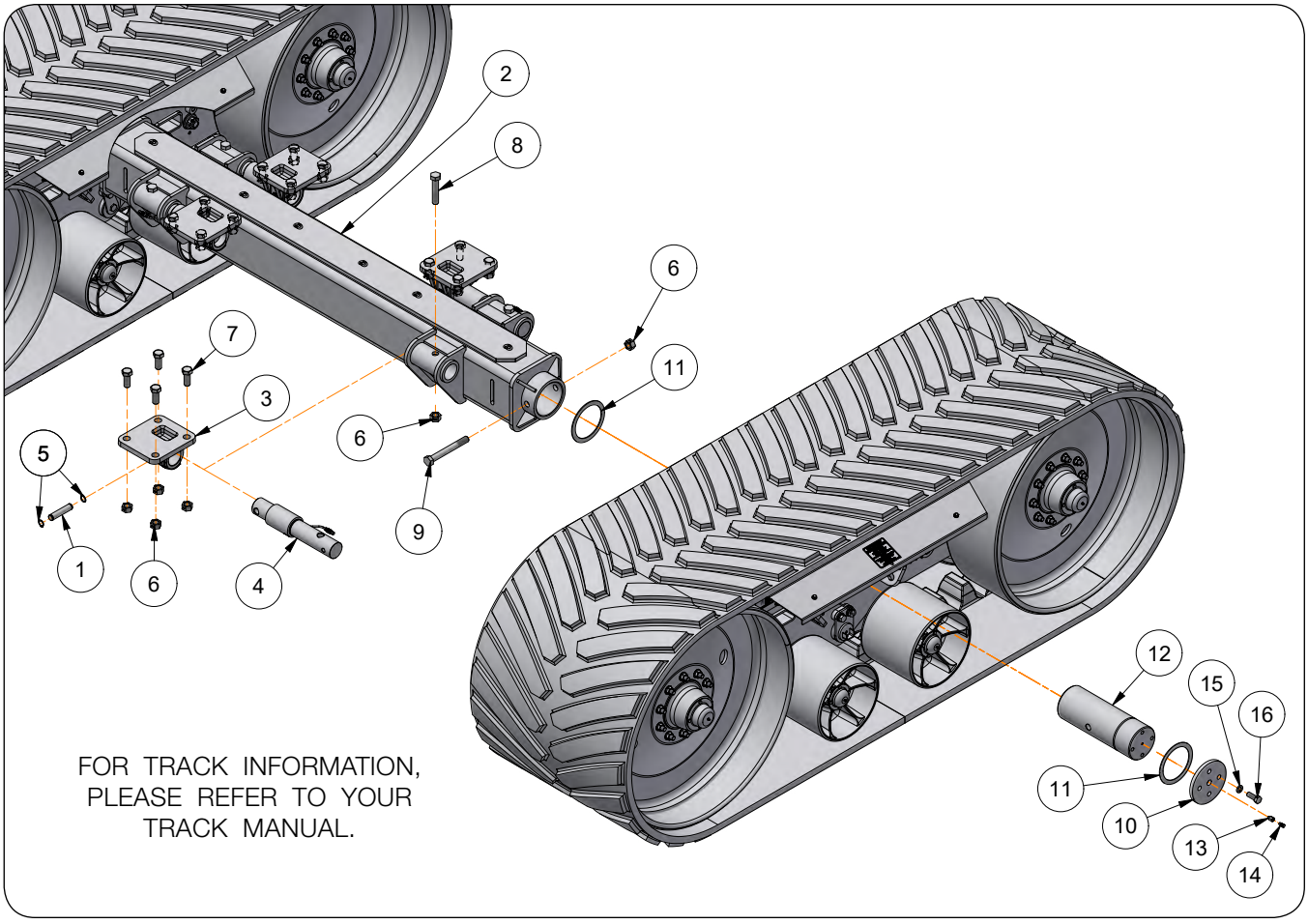
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2005532B	Axle Weldment =Black=	1	
2	286170G	Spindle & Hub Assembly =Green=	2	
	286170R	Spindle & Hub Assembly =Red=		
3	9390-138	Capscrew, 5/8"-11UNC x 7" Gr.5	2	
4	9390-187	Capscrew, 1"-8UNC x 3" Gr.5	8	
5	9398-019	Elastic Locknut, 5/8"-11UNC	2	
6	9663	Locknut, 1"-8UNC	8	
7	266662B	Axle Brace Assembly	2	Includes Items 8 - 11
8	266660B	Axle Brace Weldment (Rear - Axle)	2	
9	266661B	Axle Brace Weldment (Front - Undercarriage)	2	
10	62324	Turnbuckle/Adjustment Tube	2	
11	9395-041	Heavy Jex Jam Nut, 1 1/4"-7UNC	2	
12	9663	Locknut, 1"-8UNC	4	
13	9390-185	Capscrew, 1"-8UNC x 2 1/2" Gr.5	4	

Axle Assembly — Wheels With Scale Components



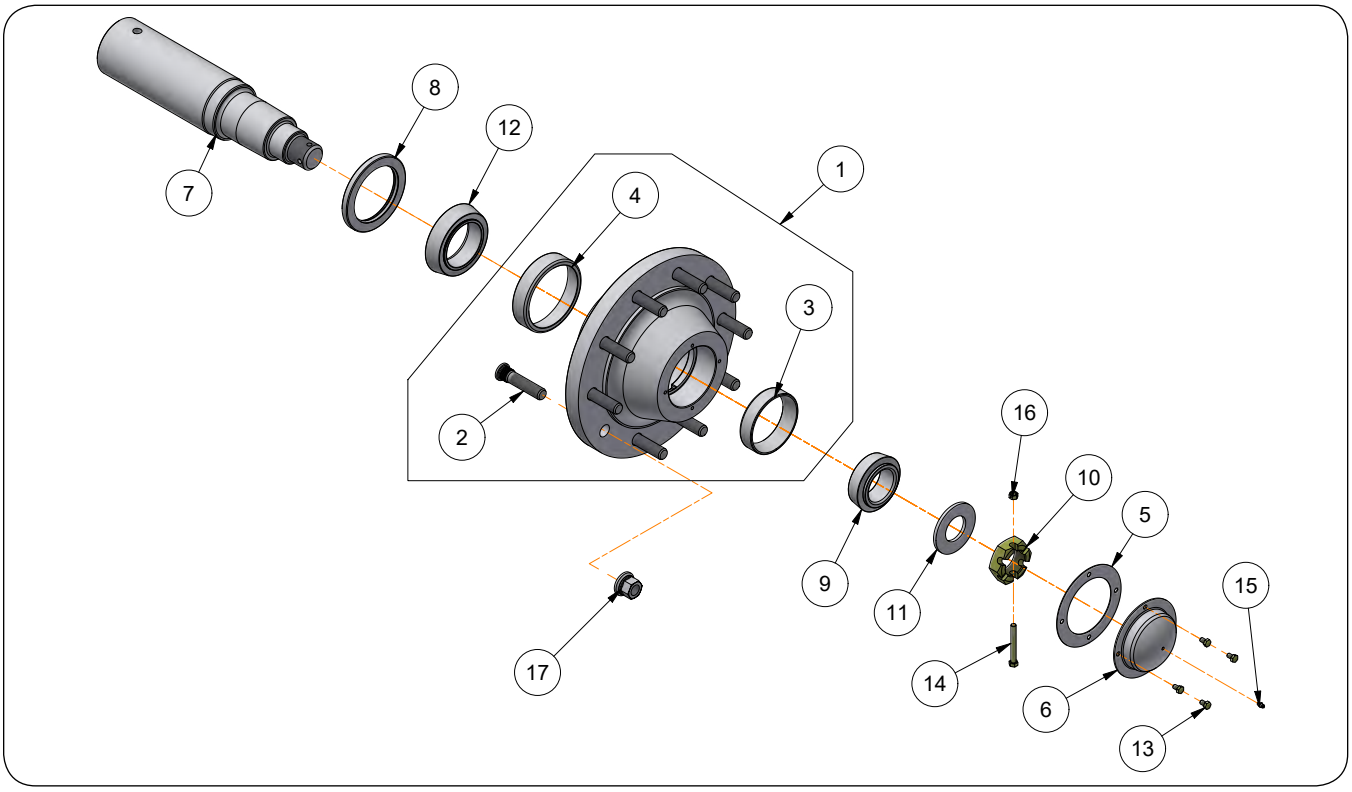
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2005532B	Axle Weldment =Black=	1	
2	267277G	Spindle & Hub Assembly — Scale Unit =Green=	2	
	267277R	Spindle & Hub Assembly — Scale Unit =Red=		
3	9390-138	Capscrew, 5/8"-11UNC x 7" Gr.5	2	
4	9390-187	Capscrew, 1"-8UNC x 3" Gr.5	8	
5	9398-019	Elastic Locknut, 5/8"-11UNC	2	
6	9663	Locknut, 1"-8UNC	8	
7	266662B	Axle Brace Assembly	2	Includes Items 8-11
8	266660B	Axle Brace Weldment (Rear - Axle)	2	
9	266661B	Axle Brace Weldment (Front - Undercarriage)	2	
10	62324	Turnbuckle/Adjustment Tube	2	
11	9395-041	Heavy Hex Jam Nut, 1 1/4"-7UNC	2	
12	9663	Locknut, 1"-8UNC	4	
13	9390-185	Capscrew, 1"-8UNC x 2 1/2" Gr.5	4	
14	23248	Tube, 4 1/2" OD x 3.75" ID x 3 1/4"	2	

Track Axle Components



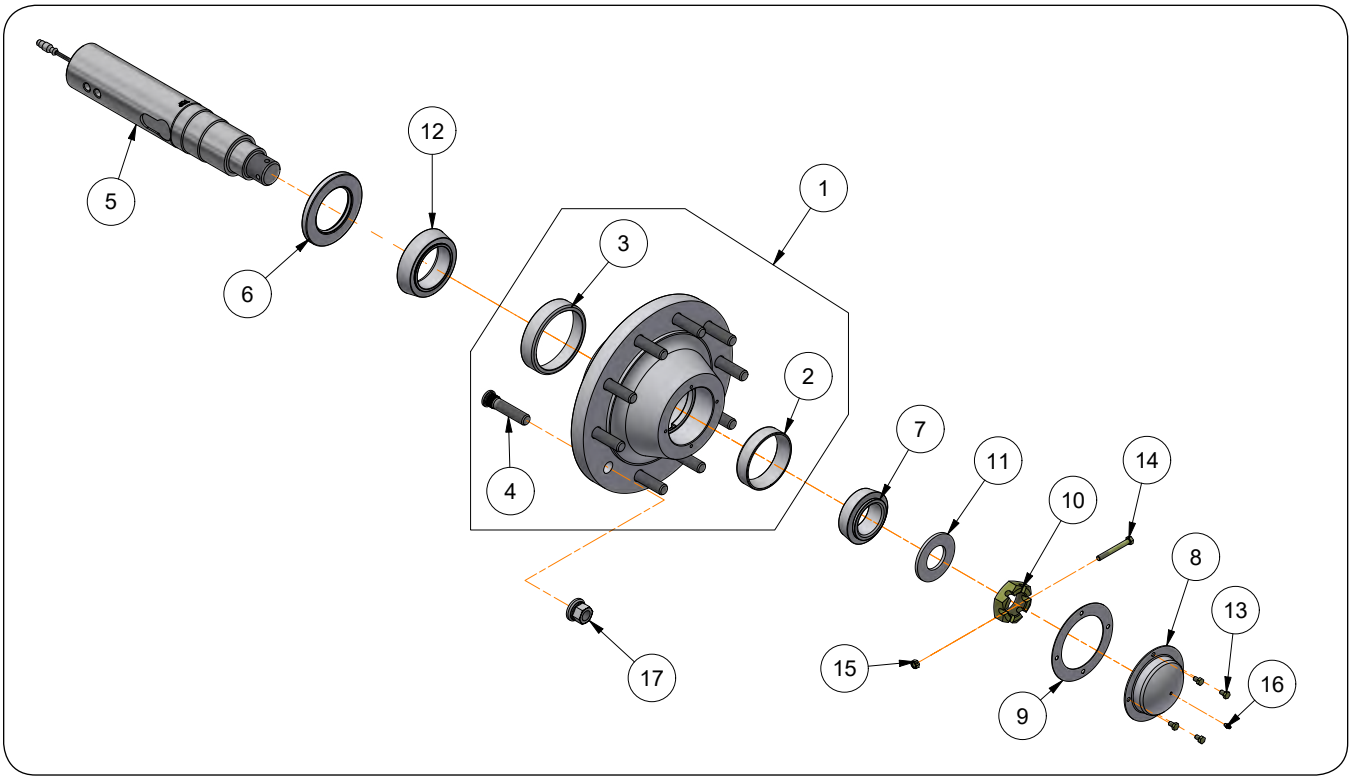
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	250843	Pin, 1" Dia. x 4 9/16"	4	
2	28985B	Axle Weldment =Black=	1	
3	268836B	Axle Mount Weldment =Black=	4	
4	9004903	Hitch Bar, 2.875" Dia.	4	
5	91192	Retaining Ring 1"	8	
6	92199	Locknut, 1"-8UNC	6	
7	9390-185	Capscrew, 1"-8UNC x 2 1/2" G8	12	
8	9390-193	Capscrew, 1"-8UNC x 5" G5	4	
9	9390-462	Capscrew, 1"-8UNC x 8 1/2" G5	2	
10	268121B	Cover Plate =Black=	2	
11	268619	Washer, 7 1/2" OD	4	
12	268640	Track Pivot Shaft 6" Dia. x 16 5/8"	2	
	267124	Track Pivot Shaft 6" Dia. x 18 3/8"	2	
13	9006816	Adapter	2	
14	9006785	90° Adapter	2	
15	9404-033	Lock Washer, 3/4"	8	
16	9390-145	Capscrew, 3/4"-10UNC x 2" G5	8	

Spindle & Hub Assembly — Non-Scale Unit



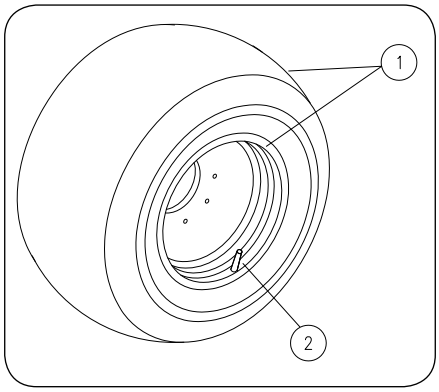
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
	286170G	Spindle & Hub Assembly =Green=	2	Includes Items 1 through 16
	286170R	Spindle & Hub Assembly =Red=		
1	283739G	Hub with Bearing Cups and Studs =Green=	1	Includes Items 2 through 4
1	283739R	Hub with Bearing Cups and Studs =Red=		
2	9007001	Stud Bolt, M22 x 1.5 x 4	10	
3	92462	Outer Bearing Cup (HM212011)	1	
4	92476	Inner Bearing Cup (HM218210)	1	
5	284230	Gasket 6 1/2" Dia.	1	
6	286171G	Hub Cap "Bolt On Type" =Green=	1	
6	286171R	Hub Cap "Bolt On Type" =Red=		
7	286172	Spindle, 4 1/2" Dia. x 19 7/8"	1	
8	92455	Seal	1	
9	92464	Outer Bearing Cone (HM212049)	1	
10	92470	Castle Nut, 2"-12 UNF	1	
11	92472	Spindle Washer, Hardened	1	
12	92545	Inner Bearing Cone (HM218248)	1	
13	9390-026	Capscrew, 5/16"-18UNC x 1/2" G5	4	
14	9390-064	Capscrew, 3/8"-16UNC x 3 1/4" G5	1	
15	91160	Grease Zerk	1	
16	902875	Lock Nut/Center, 3/8"-16UNC	1	
17	97319	Cap Nut, M22 x 1.5	10	

Spindle & Hub Assembly — Scale Unit



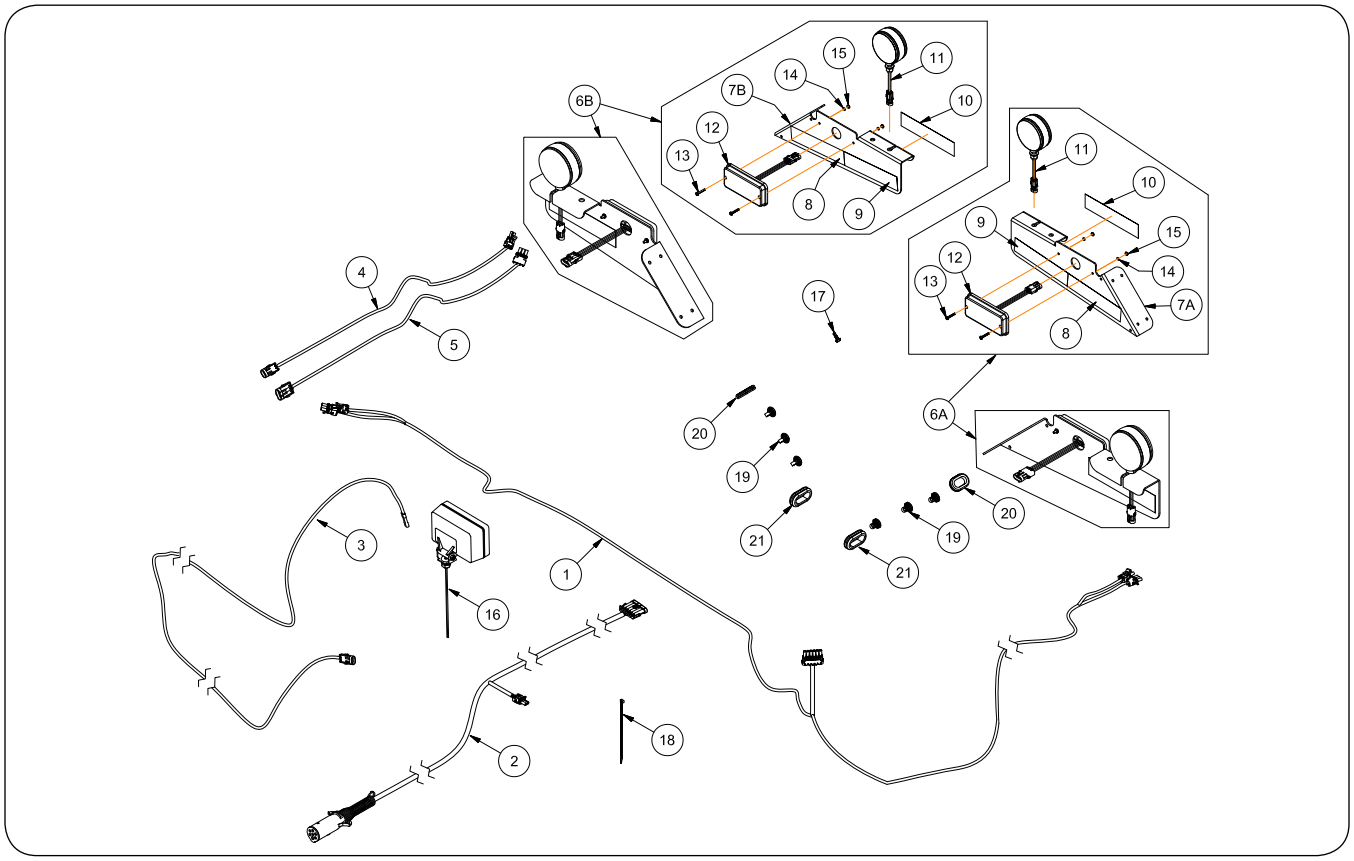
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
	267277G	Spindle & Hub Assembly — Scale Unit =Green=	2	Includes items 1 through 17
	267277R	Spindle & Hub Assembly — Scale Unit =Red=		
1	283739G	Hub with Bearing Cups and Studs =Green=	1	Includes items 2 through 4
1	283739R	Hub with Bearing Cups and Studs =Red=		
2	92462	Outer Bearing Cup #HM212011	1	
3	92476	Inner Bearing Cup #HM218210	1	
4	9007001	Stud Bolt M22 x 1.5 x 4	10	
5	9006347	Scale Spindle 3 3/4" Dia. x 20 1/4" w/30 Ft. Cable	1	
6	92565	Seal	1	
7	92464	Outer Bearing Cone	1	
8	286171G	Hub Cap "Bolt On Type" =Green=	1	
8	286171R	Hub Cap "Bolt On Type" =Red=		
9	284230	Gasket, 6 1/2" Dia.	1	
10	92470	Castle Nut, 2"-12 UNF	1	
11	92472	Spindle Washer, Hardened	1	
12	92545	Inner Bearing Cone	1	
13	9390-026	Capscrew, 5/16"-18UNC x 1/2" G5	4	
14	9390-064	Capscrew, 3/8"-16UNC x 3 1/4" G5	1	
15	902875	Lock Nut/Center, 3/8"-16UNC	1	
16	91160	Grease Zerk	1	
17	97319	Cap Nut M22 x 1.5	10	

Wheels & Tires



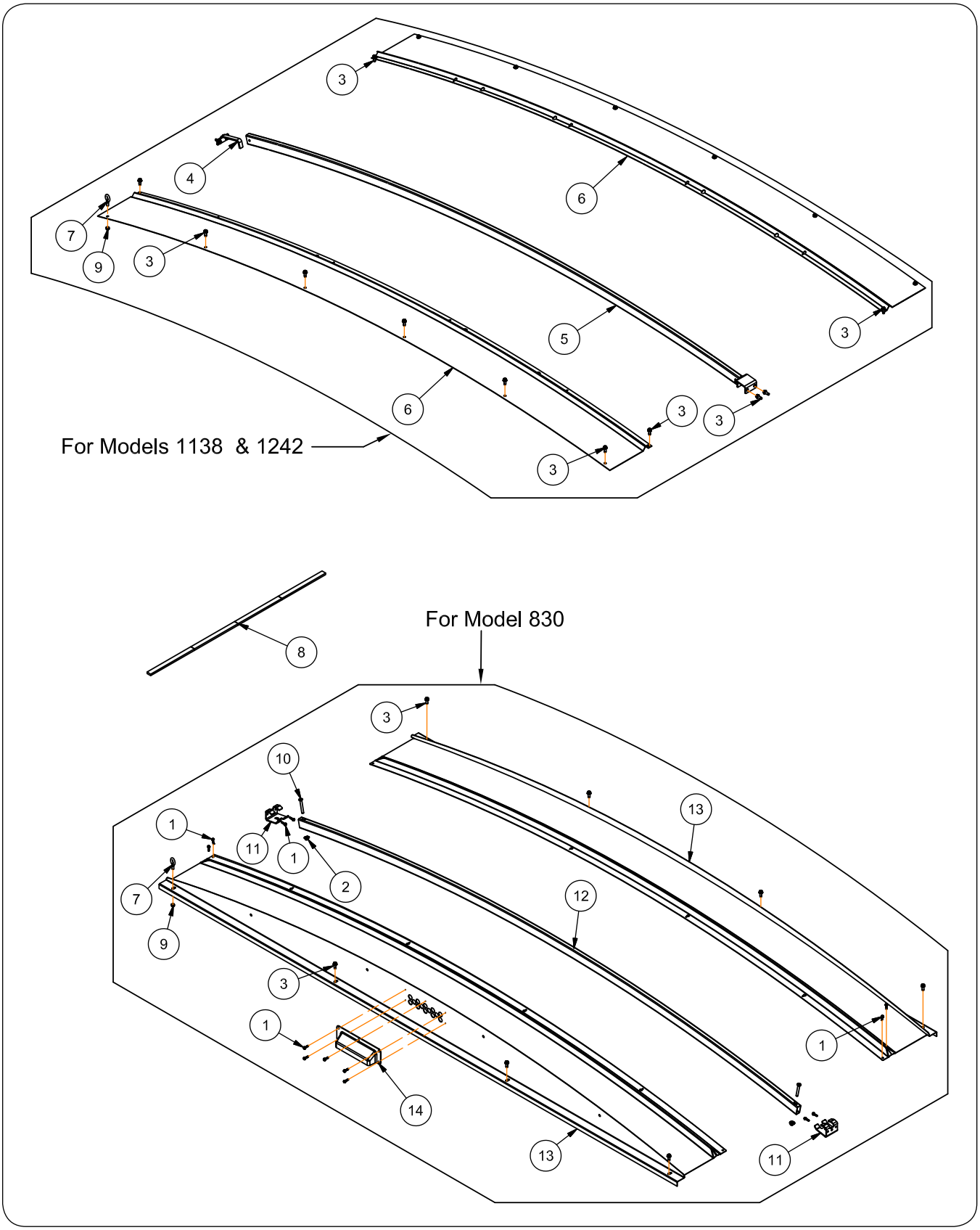
ITEM	PART NUMBER			DESCRIPTION
	Model 830	Model 1138	Model 1242	
	111729SM	-	-	Wheel & Tire Assembly 27 x 32 / TLIF800/65R32
	17273SM	-	-	Wheel Only 27 x 32
1	-	18904	18904	Wheel & Tire Assembly 30x32 / 900/70R32 R-1W
	-	17939WO	17939WO	Wheel Only 30 x 32
1	-	17923	17923	Wheel & Tire Assembly 36x32 / 1050/50R32
	-	17922WO	17922WO	Wheel Only 36 x 32
2	93300	93300	93300	Valve Stem
	95365	95365	95365	Plug

Optional Lights (Bundle #2005425B)



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	22790	Wiring Harness, 132" 3-T	1	
2	22983	Wiring Harness, 396" T	1	
3	23165	Wiring Harness, 264"	1	
4	2004282	Wiring Harness, 36" (2 Pin Connector)	1	
5	22987	Wiring Harness, 36" (3 Pin Connector)	1	
6A	2001084B	Bracket Assembly (Left-Hand)	1	Includes Items 7A, 8-15
6B	2001083B	Bracket Assembly (Right-Hand)	1	Includes Items 7B, 8-15
7A	2001081B	Bracket (Left-Hand)	1	
7B	2001082B	Bracket (Right-Hand)	1	
8	9003125	Fluorescent Strip	1	
9	9003126	Reflector, Red	1	
10	9003127	Reflector, Amber	1	
11	9005142	Light, Amber	1	
12	9006282	Light, Red	1	
13	903172-350	Pan Head, Phillips Machine Screw, #10-32UNF x 1 1/4"	2	
14	9404-013	Lock Washer, #10	2	
15	9830-016	Hex Nut, #10-32UNF	2	
16	9500807	Flood Lamp - Work Light	1	
17	9473	Self-Tapping Screw, 1/4"-20 x 3/4"	4	
18	9000106	Cable Tie, 6"	A/R	
19	903027	Cable Tie Button Head, 30"	6	
20	98830	Grommet, 1 1/2" Dia. Groove 1 7/8" OD	2	
21	97421	Grommet, 1 3/4" Dia. Groove 2 1/8" OD	2	

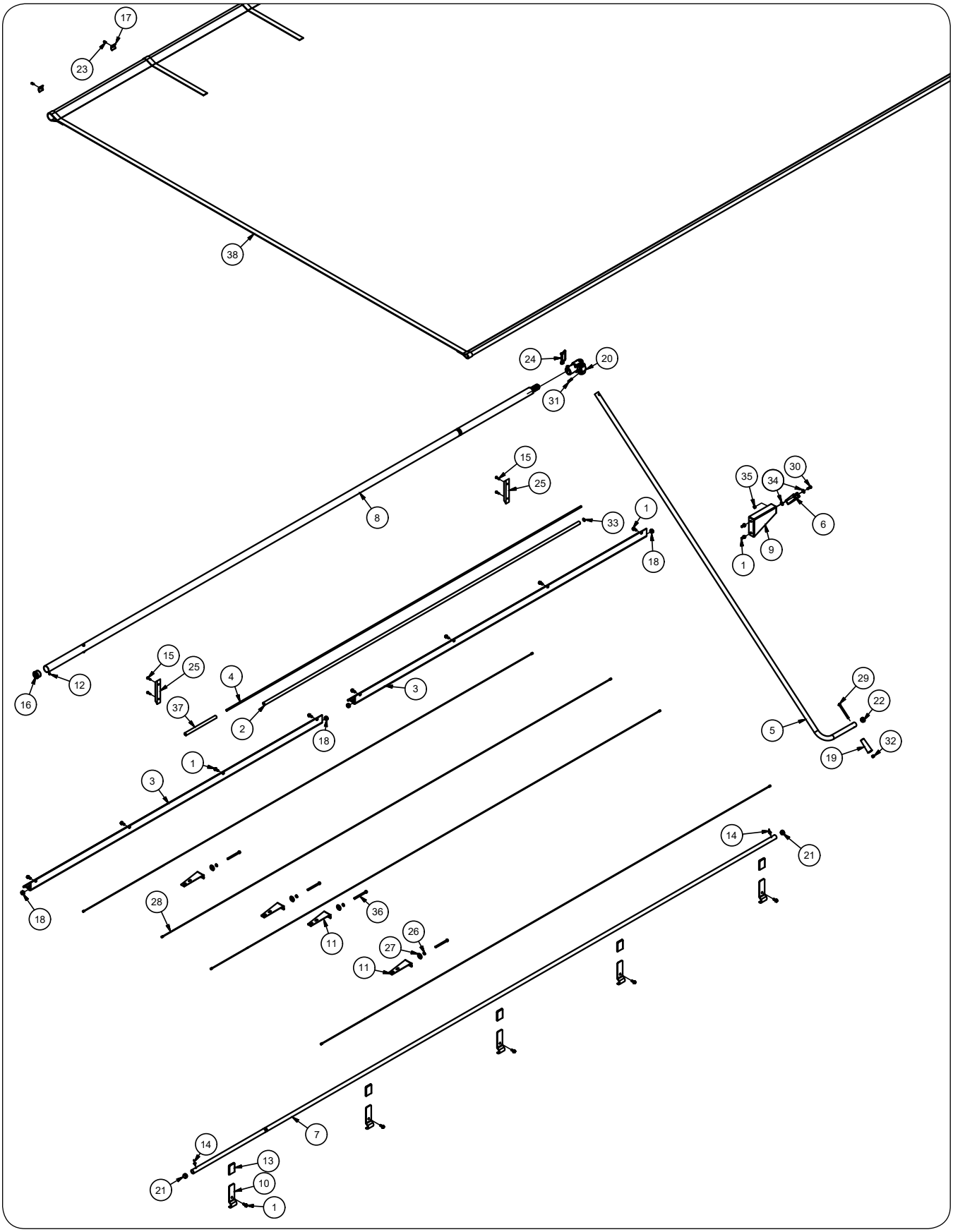
Weather Guard End Cap and Tarp Bow Components



Weather Guard End Cap and Tarp Bow Components

ITEM	PART NO.	DESCRIPTION	QTY		NOTES
			Models 1138 & 1242	Model 830	
1	9512	Screw/Self Drilling 1/4-14 x 1" Hex Washer Head	-	38	
2	91263	Hex Nut/Large Flange, 3/8"-16UNC	-	10	
3	96972	Screw/Self Drilling 3/8"-16UNC x 1"	38	7	
4	25124B	Tarp Bow Strap	5	-	
5	25125B	Tarp Bow Weldment, 142"	5	-	
6	25161B	End Cap Weldment	2	-	
7	9004548	Eye Bolt 3/8"-16UNC x 1 3/4"	1	1	
8	902974	Foam Tape EPDM	AR	AR	Specify in Feet
9	9928	Locknut 3/8"-16UNC	1	1	
10	902703-046	Flat Head, 3/8"-16UNC x 3" Hex Socket Capscrew	-	10	
11	2011162B	Tarp Bow Bracket =Black=	-	10	
12	2011161B	Tarp Bow =Black=	-	5	
13	2012013B	End Cap Weldment =Black=	-	2	
14	9009504	End Cap Vent Cover	-	2	

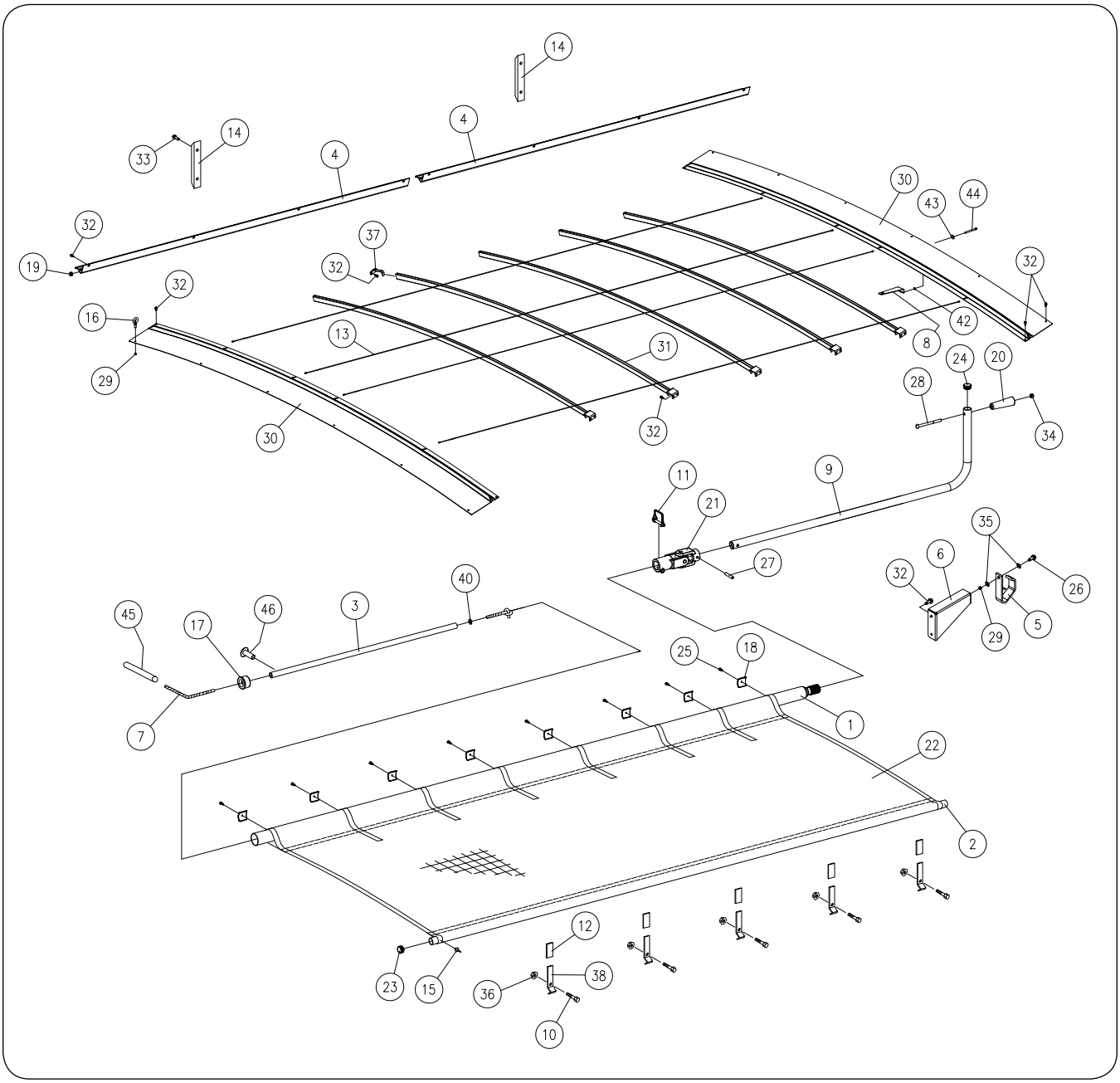
Weather Guard Less End Caps & Tarp Bows Components
Model 830



Weather Guard Less End Caps & Tarp Bows Components Model 830

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2011333B	Tarp Kit with End Caps and Vent Covers	-	
1	96972	Screw/Self Drilling, 3/8"-16UNC x 1"	17	
2	221668	PVC Pipe - 180"	1	
3	2012310	Plate - Latch 115" With Slots	2	
4	221722	Bungee, 3/8" Dia. x 204"	1	
5	221749	Tarp Handle Weldment	1	
6	221770B	Bracket/Offset	1	
7	25949	Fixed Tube Weldment, 230"	1	
8	25954	Roll Tube Weldment, 240"	1	
9	25955B	Tarp Crank Holder Weldment	1	
10	266689B	Tarp Short Stop Plate	5	
11	281712B	Bracket & U-Nut Assembly	4	
12	9001396	Screw/Self Drill, #10-16 x 1/2"	1	
13	9003078	Cap - Plastic (2" x 3")	5	
14	9005197	Screw/Self Drill, #10-16 x 3/4" Pan Head	2	
15	9004355	Screw/Self Drilling, 1/4"-20UNC x 1" Hex Washer Head	4	
16	9004947	Plug 2"	1	
17	9004949	U-Clamp	7	
18	9004968	Plug 1"	N/A	
19	9004969	Handle	1	
20	9004977	U-Joint w/ 1 3/8"-21 Spline	1	
21	9005088	Plug 1 1/8"	2	
22	9005089	Plug 1 1/4"	1	
23	9005197	Screw/Self Drilling, #10-16 x 3/4" Pan Head	7	
24	9005305	Lynch Pin, 3/8" x 3"	1	
25	9005307	Deflector	2	
26	9005688	Lock Washer, 3/8" (External Tooth)	4	
27	9005696	Fender Washer, 3/8"	4	
28	902613	Cable Assembly, 216"	4	
29	903172-450	Pan Head, 3/8"-16UNC x 4 1/2" Phillips Machine Screw	1	
30	9390-055	Capscrew, 3/8"-16UNC x 1" G5	1	
31	9392-180	Roll Pin, 3/8" Dia. x 2"	1	
32	9398-012	Elastic Stop Nut, 3/8"-16	1	Grade 5
33	9405-074	Flat Washer, 3/8"	1	
34	9405-076	Flat Washer, 3/8"	2	
35	9928	Locknut, 3/8"-16UNC	1	
36	TA0-907131-0	Capscrew, 3/8"-16UNC x 4 1/2" (Full Threaded)	4	Grade 5
37	TA806225	Hose, 1/2" Dia. EPDM	AR	Specify in Feet
38	9005052	Tarp, 166" x 228"	1	
	9005581	Tarp Repair Kit (Not Shown)	-	

Weather Guard Less End Caps & Tarp Bows Components
Models 1138 & 1242



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
	221659	Tarp Kit with Arched End Caps	-	
1	25954	Roll Tube Weldment, 240”	1	
2	25949	Fixed Tube Weldment, 230”	1	
3	221668	Pipe - 180”	1	
4	2012310	Plate - Latch 115” With Slots	2	
5	221770B	Bracket/Offset	1	
6	25955B	Tarp Crank Holder Weldment	1	
7	221722	Bungee 3/8” Dia. x 204”	1	

Weather Guard Less End Caps & Tarp Bows Components Models 1138 & 1242

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
8	281712B	Bracket & U-Nut Assembly	4	
9	221749	Tarp Handle Weldment	1	
10	91262	Large Flange Screw, 3/8”-16UNC x 1”	5	
11	9005305	Lynch Pin 3/8” x 3”	1	
12	9003078	Cap - Plastic (2 x 3)	3	
13	902613	Cable Assembly 216”	4	
14	9005307	Deflector	2	
15	9005197	Screw/Self Drill, #10-16 x 3/4” Pan Head	2	
16	9004548	Eye Bolt, 3/8”-16UNC x 1 3/4”	1	
17	9004947	Plug 2”	1	
18	9004949	U-Clamp	8	
19	9004968	Plug 1”	N/A	
20	9004969	Handle	1	
21	9004977	U-Joint w/ 1 3/8-21 Spline	1	
22	9005052	Tarp 166” x 228”	1	
	9005581	Tarp Repair Kit	-	
23	9005088	Plug 1 1/8”	2	
24	9005089	Plug 1 1/4”	1	
25	9005197	Screw/Self Drilling #10-16 x 3/4 Pan Head	8	
26	9390-055	Capscrew, 3/8”-16UNC x 1”	1	Grade 5
27	9392-180	Roll Pin, 3/8” Dia. x 2”	1	
28	903172-450	Round Head 3/8”-16UNC x 4 1/2” Phillips Machine Screw	1	
29	9928	Locknut/Top, 3/8”-16UNC	2	
30	25161B	End Cap Weldment	2	
31	25125B	Tarp Bow Weldment, 142”	5	
32	96972	Screw/Self Drilling, 3/8”-16UNC x 1”	61	
33	9004355	Screw/Self Drilling, 1/4”-20UNC x 1” Hex Washer Head	4	
34	9398-012	Elastic Stop Nut, 3/8”-16UNC	1	Grade 5
35	9405-076	Flat Washer, 3/8”	2	
36	91263	Large Flange Hex, 3/8”-16UNC	5	
37	25124B	Tarp Bow Strap	5	
38	266689B	Tarp Bracket w/Holes	5	
40	9405-074	Flat Washer, 3/8”	1	
42	9005688	Lock Washer 3/8” (External Tooth)	4	
43	9005696	Fender Washer 3/8”	4	
44	TA0-907131-0	Capscrew, 3/8”-16UNC x 4 1/2” (Full Threaded)	4	Grade 5
45	TA806225	Hose 1/2” EPDM	1	
46	9001396	Pan Head Screw, #10-16 x 1/2”	1	

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