



MODEL T6034

UNIT SERIAL NUMBER _____

MANUAL NUMBER: 300121-G

EFFECTIVE 11/2015



Highway Equipment Company

Building the best since 1939.

1330 76TH AVE SW
CEDAR RAPIDS, IA 52404-7052
PHONE (319) 363-8281 | FAX (319) 286-3350
www.highwayequipment.com

Copyright 2006 Highway Equipment Company, Inc.

TABLE OF CONTENTS

Warranty 4

Preface 5

Safety 6

General Description 15

Dimensions and Capacities 16

Initial Start-Up 17

General Operating Procedures 18

Weights of Various Materials 19

Lubrication and Maintenance Instructions 20

 Hydraulic System 20

 Hydraulic Hose Maintenance 20

 Storage and Handling 21

 Conveyor Chain 21

 Conveyor Belt Maintenance 22

 Gear Case 23

 Lubrication of Bearings 23

 Clean Up..... 23

 Fasteners..... 23

Lubricant and Hydraulic Oil Specifications 24

Lubrication Chart 26

Troubleshooting..... 27

 Hydraulic Schematic 27

 Electrical Schematic..... 28

 Controls Interface 29

Torque Chart 30

Instructions for Ordering Parts 31



TABLE OF CONTENTS CONTINUED

Parts List 32

Mount 32

Hinge..... 33

Endgate..... 34

Internal Gate..... 36

#4 Belt-Over-Chain..... 37

Chain Shields 38

Drive 40

Idler 42

Conveyor Oiler 43

Remote Grease Zerk 44

Front Wiper 45

Scraper & Cover 46

Fenders 48

Tarp..... 50

Skins & Insulation 52

Hydraulics 54

Valve 56

Hydraulic Hoses 58

Hydraulic Tubes 59

User Interface Control 60

Emergency Stop Switch 62

Lights 64

Folding Ladder 66

Ladder 68

Mudflaps 69

Decals 70



Insert Current Hi-Way Warranty

SAFETY



PREFACE

PLEASE ! ALWAYS THINK SAFETY FIRST !!

The purpose of this manual is to familiarize the person (or persons) using this unit with the information necessary to properly install, operate, and maintain this system. The safety instructions indicated by the safety alert symbol in the following pages supersede the general safety rules. These instructions cannot replace the following: the fundamental knowledge that must be possessed by the installer or operator, the knowledge of a qualified person, or the clear thinking necessary to install and operate this equipment. Since the life of any machine depends largely upon the care it is given, we suggest that this manual be read thoroughly and referred to frequently. If for any reason you do not understand the instructions, please call your authorized dealer or our Product Sales and Support Department at (319) 363-8281 or 1-800-363-8006.

It has been our experience that by following these installation instructions, and by observing the operation of the spreader, you will have sufficient understanding of the machine enabling you to troubleshoot and correct all normal problems that you may encounter. Again, we urge you to call your authorized dealer or our Product Sales and Support Department if you find the unit is not operating properly, or if you are having trouble with repairs, installation, or removal of this unit.

We urge you to protect your investment by using genuine HECO parts and our authorized dealers for all work other than routine care and adjustments.

Highway Equipment Company reserves the right to make alterations or modifications to this equipment at any time. The manufacturer shall not be obligated to make such changes to machines already in the field.

This Safety Section should be read thoroughly and referred to frequently.

ACCIDENTS HURT !!!

ACCIDENTS COST !!!

ACCIDENTS CAN BE AVOIDED !!!



TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THAT OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

In this manual and on the safety signs placed on the unit, the words "DANGER," "WARNING," "CAUTION," and "NOTICE" are used to indicate the following:



Indicates an imminently hazardous situation that, if not avoided, WILL result in death or serious injury. This signal word is to be limited to the most extreme situations and typically for machine components that, for functional purposes, cannot be guarded.



Indicates a potentially hazardous situation that, if not avoided, COULD result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



Indicates a potentially hazardous situation that, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.



Is used for informational purposes in areas which may involve damage or deterioration to equipment but generally would not involve the potential for personal injury.

NOTE:

Provides additional information to simplify a procedure or clarify a process.

The need for safety cannot be stressed strongly enough in this manual. At Highway Equipment Company, we urge you to make safety your top priority when operating any equipment. We firmly advise that anyone allowed to operate this machine be thoroughly trained and tested, to prove they understand the fundamentals of safe operation.

The following guidelines are intended to cover general usage and to assist you in avoiding accidents. There will be times when you will run into situations that are not covered in this section. At those times the best standard to use is common sense. If, at any time, you have a question concerning these guidelines, please call your authorized dealer or our factory at (319) 363-8281 or 1-800-363-8006.

MAINTENANCE INSTRUCTIONS

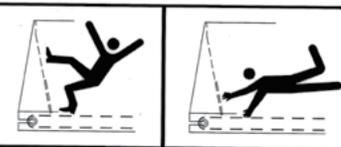
1. Keep safety decals and signs clean and legible at all times.
2. Replace safety decals and signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety decals or signs are available from your dealer's Parts Department or our Cedar Rapids factory.

INSTALLATION INSTRUCTIONS

1. Clean Surface
Wash the installation surface with a synthetic, free-rinsing detergent. Avoid washing the surface with a soap containing creams or lotion. Allow to dry.
2. Position Safety Decal
Decide on the exact position before application. Application marks may be made on the top or side edge of the substrate with a lead pencil, marking pen, or small pieces of masking tape. NOTE: Do not use chalk line, china marker, or grease pencil. Safety decals will not adhere to these.
3. Remove the Liner
A small bend at the corner or edge will cause the liner to separate from the decal. Pull the liner away in a continuous motion at a 180-degree angle. If the liner is scored, bend at score and remove.
4. Apply Safety Decal
 - a. Tack decal in place with thumb pressure in upper corners.
 - b. Using firm initial squeegee pressure, begin at the center of the decal and work outward in all directions with overlapping strokes. NOTE: Keep squeegee blade even—nicked edges will leave application bubbles.
 - c. Pull up tack points before squeegeeing over them to avoid wrinkles.
5. Remove Pre-mask
If safety decal has a pre-mask cover remove it at this time by pulling it away from the decal at a 180 degree angle. NOTE: It is important that the pre-mask covering is removed before the decal is exposed to sunlight to avoid the pre-mask from permanently adhering to the decal.
6. Remove Air Pockets
Inspect the decal in the flat areas for bubbles. To eliminate the bubbles, puncture the decal at one end of the bubble with a pin (never a razor blade) and press out entrapped air with thumb moving toward the puncture.
7. Re-Squeegee All Edges.

SAFETY DECALS

! DANGER



MOVING PART HAZARD
To prevent death or serious injury:

- Stay out of box while conveyor is moving.
- Disconnect and lockout power source before adjusting or servicing.
- Do not ride on spreader.

364-C

! WARNING



HIGH PRESSURE FLUID HAZARD
To prevent death or serious injury:

- Relieve pressure on system before repairing, adjusting, or disconnecting.
- Keep all lines, fittings and couplers tight and free of leaks.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Do not use hydraulic lines for hand holds or steps.
- Components may be hot.

39138-C

! WARNING



To prevent death or serious injury:

- Do not place objects on fenders.
- Keep off fenders. They are not intended to carry loads.

39200-D

! CAUTION



TO AVOID INJURY OR MACHINE DAMAGE:

- Do not operate or work on this machine without reading and understanding the operators manual.
- Keep hands, feet, hair and clothing away from moving parts.
- Do not allow riders on machine.
- Avoid unsafe operation or maintenance.
- Disengage power takeoff and shut off engine before removing guards, servicing or unclogging machine.
- Keep unauthorized people away from machine.
- Keep all guards in place when machine is in use.
- If manual is missing, contact dealer for replacement.

150034-C

! WARNING

MOVING PART HAZARD
To prevent death or serious injury:

- Close and secure guards before starting.
- Do not stand or climb on machine.
- Disconnect and lockout power source before adjusting or servicing.
- Keep hands, feet and hair away from moving parts.

55631-C

! DANGER



PINCH POINT HAZARD
To prevent death or serious injury:

- Keep all persons and objects clear while any part of this machine is in motion.
- Keep hands, feet, hair and clothing away from moving parts.

55241-B

NOTICE

- Conveyor chain life will be noticeably extended by periodic lubrication.
- Use a 75% diesel fuel and 25% number 10 oil mixture on the links and rollers.
- Failure to keep the chain links loose and free running can result in severe damage to the conveyor chain, drag shaft, gear case, body structure, and is cause for voiding the warranty.

21476-D

! CAUTION

HAZARDOUS MATERIALS
To avoid injury or machine damage:

- Materials to be spread can be dangerous.
- Improper selection, application, use or handling may be a hazard to persons, animals, crops or other property.
- Follow instructions and precautions given by the material manufacturer.

321-C

! WARNING

MOVING PART HAZARD
To prevent death or serious injury:

- Stay away from swinging endgate.
- Do not stand or climb on machine.
- Disconnect and lockout power source before adjusting or servicing.
- Keep hands, feet and hair away from moving parts.

366-C

1. Before attempting to operate this unit, read and be sure you understand the operation and maintenance manual. Locate all controls and determine the use of each. Know what you are doing!

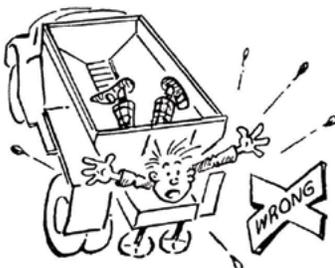


2. When leaving the unit unattended for any reason, be sure to:
 - a. Take power take-off out of gear.
 - b. Shut off conveyor and spinner drives.
 - c. Shut off vehicle engine and unit engine (if so equipped).
 - d. Place transmission of the vehicle in "neutral" or "park".
 - e. Set parking brake firmly.
 - f. Lock ignition and take keys with you.
 - g. Lock vehicle cab.
 - h. If on steep grade, block wheels.

These actions are recommended to avoid unauthorized use, runaway, vandalism, theft and unexpected operation during start-up.

3. Do not read, eat, talk on a mobile phone or take your attention away while operating the unit. Operating is a full-time job.

4. Stay out of the spreader. If it's necessary to enter the spreader, return to the shop, empty body, turn off all power, set vehicle brakes, lock engine starting switch and remove keys before entering. Tag all controls to prohibit operation. Tags should be placed, and later removed, only by person working in the body.



5. Guards and covers are provided to help avoid injury. Stop all machinery before removing them. Replace guards and covers before starting spreader operation.

6. Stay clear of any moving members, such as shafts, couplings and universal joints. Make adjustments in small steps, shutting down all motions for each adjustment.



7. Before starting unit, be sure everyone is clear and out of the way.
8. Do not climb on unit. Use the inspection ladder or a portable ladder to view the unit. Be careful in getting on and off the ladder, especially in wet, icy, snowy or muddy conditions. Clean mud, snow or ice from steps and footwear.



9. Do not allow anyone to ride on any part of unit for any reason.



10. Keep away from spinners while they are turning:
 - a. Serious injury can occur if spinners touch you.
 - b. Rocks, scrap metal or other material can be thrown off the spinner violently. Stay out of discharge area.
 - c. Make sure discharge area is clear before spreading.



11. Inspect spinner fins, spinner frame mounting and spinner fin nuts and screws every day. Look for missing fasteners, looseness, wear and cracks. Replace immediately if required. Use only new SAE grade 5 or grade 8 screws and new self-locking nuts.

12. Inspect all bolts, screws, fasteners, keys, chain drives, body mountings and other attachments periodically. Replace any missing or damaged parts with proper specification items. Tighten all bolts, nuts and screws to specified torques according to the torque chart in this manual.



13. Shut off engine before filling fuel and oil tanks. Do not allow overflow. Wipe up all spills. Do not smoke. Stay away from open flame. FIRE HAZARD!



14. Starting fluids and sprays are extremely flammable. Don't smoke. Stay away from flame or heat!



15. All vehicles should be equipped with a serviceable fire extinguisher of 5 BC rating or larger.



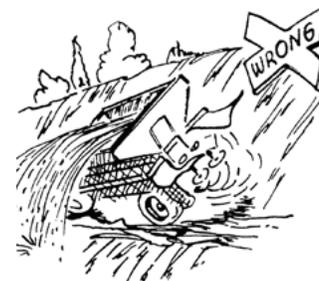
16. Hydraulic system and oil can get hot enough to cause burns. DO NOT work on system that is hot. Wait until oil has cooled. If an accident occurs, seek immediate medical assistance.

- 17. Wear eye protection while working around or on unit.
- 18. Read, understand and follow instructions and precautions given by the manufacturer or supplier of materials to be spread. Improper selection, application, use or handling may be hazardous to people, animals, plants, crops or other property.

CAUTION If spreader is used to transport chemicals, check with your chemical supplier regarding DOT (Department of Transportation) requirements.



19. Cover all loads that can spill or blow away. Do not spread dusty materials where dust may create pollution or a traffic visibility problem.



20. Turn slowly and be careful when traveling on rough surfaces and side slopes, especially with a loaded spreader. Load may shift causing unit to tip.

21. Read and understand the precautionary decals on the spreader. Replace any that become defaced, damaged, lost or painted over. Replacement decals can be ordered from your dealer's parts department or from Highway Equipment Company by calling (319) 363-8281 or 1-800-363-8006.

- Maintenance includes all lubrication, inspection, adjustments (other than operational control adjustments such as feedgate openings, conveyor speed, etc.) part replacement, repairs and such upkeep tasks as cleaning and painting.



- When performing any maintenance work, wear proper protective equipment—always wear eye protection—safety shoes can help save your toes—gloves will help protect your hands against cuts, bruises, abrasions and from minor burns—a hard hat is better than a sore head!

- Use proper tools for the job required. Use of improper tools (such as a screwdriver instead of a pry bar, a pair of pliers instead of a wrench, a wrench instead of a hammer) not only can damage the equipment being worked on, but can lead to serious injuries. **USE THE PROPER TOOLS.**



- Before attempting any maintenance work (including lubrication), shut off power completely. **DO NOT WORK ON RUNNING MACHINERY!**
- When guards and covers are removed for any maintenance, be sure that such guards are reinstalled before unit is put back into operation.
- Check all screws, bolts and nuts for proper torques before placing equipment back in service. Refer to torque chart in this manual.

- Some parts and assemblies are quite heavy. Before attempting to unfasten any heavy part or assembly, arrange to support it by means of a hoist, by blocking or by use of an adequate arrangement to prevent it from falling, tipping, swinging or moving in any manner which may damage it or injure someone. Always use lifting device that is properly rated to lift the equipment. Do not lift loaded spreader. **NEVER LIFT EQUIPMENT OVER PEOPLE.**



- If repairs require use of a torch or electric welder, be sure that all flammable and combustible materials are removed. Fuel or oil reservoirs must be emptied, steam cleaned and filled with water before attempting to cut or weld them. **DO NOT** weld or flame cut on any tank containing oil, gasoline or their fumes or other flammable material, or any container whose contents or previous contents are unknown.



- Keep a fully charged fire extinguisher readily available at all times. It should be a Type ABC or a Type BC unit.
- Cleaning solvents should be used with care. Petroleum based solvents are flammable and present a fire hazard. Don't use gasoline. All solvents must be used with adequate ventilation, as their vapors should not be inhaled.

11. When batteries are being charged or discharged, they generate hydrogen and oxygen gases. This combination of gases is highly explosive. DO NOT SMOKE around batteries—STAY AWAY FROM FLAME—don't check batteries by shorting terminals as the spark could cause an explosion. Connect and disconnect battery charger leads only when charger is "off". Be very careful with "jumper" cables.



12. Batteries contain strong sulfuric acid—handle with care. If acid gets on you, flush it off with large amounts of water. If it gets in your eyes, flush it out with plenty of water immediately and get medical help.

13. Hydraulic fluid under high pressure leaking from a pin hole are dangerous as they can penetrate the skin as though injected with a hypodermic needle. Such liquids have a poisonous effect and can cause serious wounds. To avoid hazard, relieve pressure before disconnecting hydraulic lines or performing work on system. Any fluid injected into the skin must be treated within a few hours as gangrene may result. Get medical assistance immediately if such a wound occurs. To check for such leaks, use a piece of cardboard or wood instead of your hand. Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to system. Wear protective gloves and safety glasses or goggles when working with hydraulic systems.



14. The fine spray from a small hydraulic oil leak can be highly explosive—DO NOT SMOKE—STAY AWAY FROM FLAME OR SPARKS.

1. The selection of the vehicle on which a spreader body is to be mounted has important safety aspects. To avoid overloading:
 - a. Do not mount spreader on a chassis which, when fully loaded with material to be spread, will exceed either the Gross Axle Weight Rating (GAWR) or the Gross Vehicle Weight Rating (GVWR) for the chassis.
 - b. Do install the spreader only on a vehicle with cab-to-axle dimension recommended for the spreader body length shown.



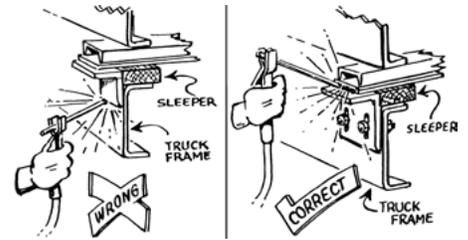
2. Follow mounting instructions in the Installation section of this manual. If mounting conditions require deviation from these instructions refer to factory.
3. When making the installation, be sure that the lighting meets Federal Motor Vehicle Safety Standard (FMVSS) No. 108, ASABE S279 and all applicable local and state regulations.
4. When selecting a PTO to drive hydraulic pump, do not use a higher percent speed drive than indicated in the Installation section of this manual. Too high a percent PTO will drive pump at excessive speed, which can ruin the pump, but more importantly, will overheat the hydraulic oil system and increase the possibility of fire.



5. W h e n truck frame must be shortened, cut off only the portion that extends behind rear shackle in accordance with the truck manufacturer's recommendations. If a torch is used to make

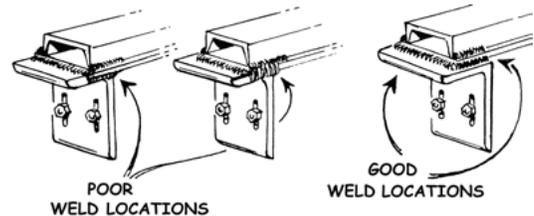
the cut, all necessary precautions should be taken to prevent fire. Cuts should not be made near fuel tanks and hydraulic oil reservoirs, fuel, brake, electric or hydraulic lines and such lines should be protected from flame, sparks or molten metal. Tires should be removed if there is any chance of their being struck by flame, sparks or molten metal. Have a fire extinguisher handy.

6. Do not weld on vehicle frame as such welding can lead to fatigue cracking



and must be avoided. When drilling holes in frame member, drill only through the vertical web portions do not put holes in top or bottom flanges. Refer to truck manufacturer's recommendations.

7. Be sure that welds between mounting bars and sill or between mounting angles and spreader cross sills are sound, full fillet welds. Center mounting angles so that good fillet welds can be made on three sides—and edge bead weld is not a satisfactory weld for this service. Use 309 rod/wire for carbon steel and 409 steel. On 304 stainless steel bodies use SAE grade 5 bolts—welding is recommended if type 308 welding rod is available.



8. Install controls so that they are located of convenient use. Position them so that they do not interfere with any vehicle control and that they do not interfere with driver or passenger or with access to or exit from the vehicle.
9. Check for vehicle visibility, especially toward the rear. Reposition or add mirrors so that adequate rearward visibility is maintained.
10. Add Caution, Warning, Danger and Instruction decals as required. Peel off any label masking which has not been removed.
11. Install all guards as required.
12. Check installation completely to be sure all fasteners are secure and that nothing has been left undone.

SAFETY

NOTES

This page intentionally left blank.

SAFETY



Refer to www.highwayequipment.com for installation instructions.

NOTE:

Once on the website:

- Click Customer Support.
- Select: Other HiWay Manuals and Instructions.
- Select: *T6034 Installation Instructions*.

The T6034 is designed to transport and convey asphalt. It is intended for truck chassis mounting.

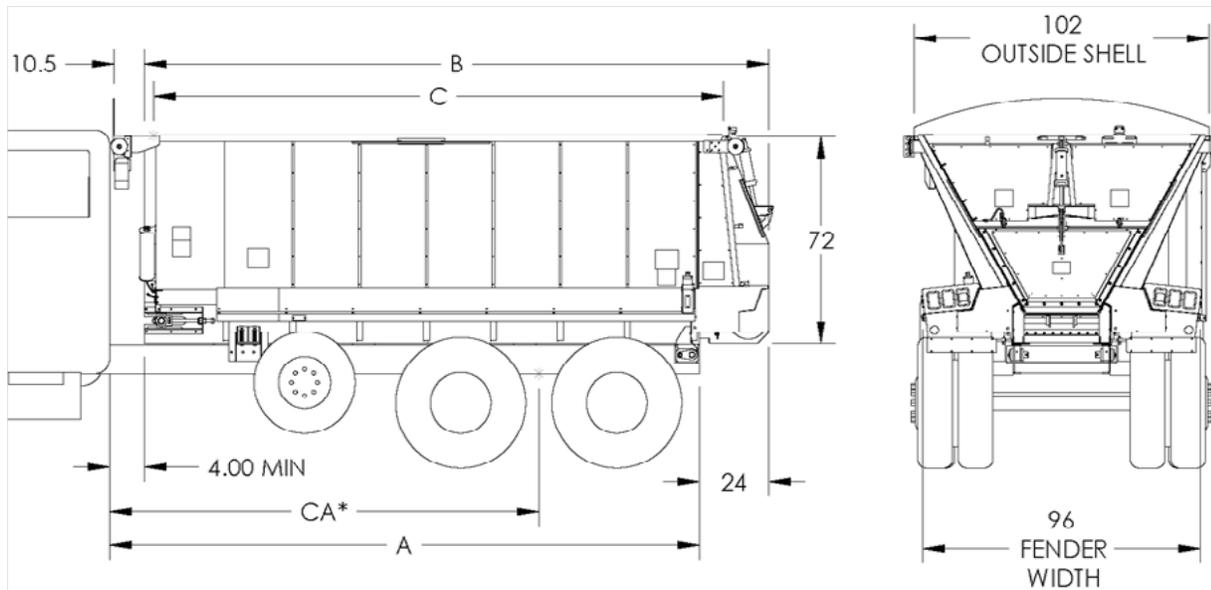
The endgate is hydraulically controlled from the cab. It has a discharge opening over eight square feet, providing an unobstructed flow of material.

Hydraulic 14.9 CID motors, mounted to heavy duty 6:1 gear cases on both sides of the shaft, drive the conveyor. The two inch idler and drive shafts can be replaced with minimal disassembly. Forged sprockets provide added durability.

The conveyor is an oil and heat resistant belt-over-chain. Parallel strands of pintle chain are joined by cross bars every other link.

Lower interior side walls and floor are manufactured with abrasion-resistant AR 235 steel. Insulation skins are made of 304 stainless steel. A double-ply layer of R-11 insulation keeps asphalt hot.

This product is intended for commercial use only.



	A	B	C		
BOTTOM LENGTH feet (m)	REAR OF CAB TO END OF FRAME inches (cm)	OVERALL LENGTH inches (cm)	HOPPER OPENING cubic yards (cu m)	STRUCK CAPACITY cubic yards (cu m)	APPROX. WEIGHT ** EMPTY pounds (kg)
14 (4.27)	168 (426.72)	180 (457.20)	160 (122.33)	12.46 (9.53)	4850 (2199.90)
15 (4.57)	180 (457.20)	192 (487.68)	172 (131.50)	13.41 (10.25)	5200 (2358.70)
16 (4.88)	192 (487.68)	204 (518.16)	184 (140.68)	14.37 (10.99)	5550 (2517.40)
17 (5.18)	204 (518.16)	216 (548.64)	196 (149.85)	15.32 (11.71)	5900 (2676.20)
18 (5.49)	216 (548.64)	228 (579.12)	208 (159.03)	16.27 (12.44)	6250 (2835)
19 (5.79)	228 (579.12)	240 (579.12)	220 (168.20)	17.22 (12.44)	6600 (2993.70)
20 (6.10)	240 (609.60)	252 (609.60)	232 (177.38)	18.17 (13.89)	6950 (3152.50)
21 (6.40)	252 (640.08)	264 (670.56)	244 (186.55)	19.12 (14.62)	7300 (3311.20)

***NOTICE!** The Cab to Axle/Tandem dimensions are only guidelines. Consult federal, state and local weight laws and chassis manufacturer's ratings to ensure neither government weight restrictions, nor GVWR and GAWRs are exceeded.

** Weight does not include optional features.

DIMENSIONS & CAPACITIES

Prior to testing the unit, check the position of the ON-OFF control in the cab. It should be in the OFF position. Do not load the hopper.

1. Inspect entire unit to make sure all fasteners are in place and properly tightened per "Torque Chart" in this manual and all parts, including guards, are in place. Check for damaged components, replace as necessary.
2. Make sure no other persons are in vicinity of T6034.
3. Make sure no loose parts or other material is in unit or on conveyor.
4. Check oil level, fill as necessary. Refer to "Lubricant Specification" section for proper oil.
5. Make sure the machine has been properly serviced and is in good operating condition to verify that all components and systems are functioning properly.



DANGER Stay clear of moving machinery.

6. Check all controls to make sure they are operating satisfactorily. Standard controls are as follows:
 - In-cab electric control switch – main control – open/close gate and start/stop conveyor.
 - In-cab rotary switch – control conveyor speed.
 - Override switch at rear of unit – override in-cab electric control.
7. Place cab conveyor control in ON position and rotate the conveyor speed control knob. Let the unit run until the air is expelled from the circuit and the conveyor is running smoothly.
8. Check all connections in the hydraulic system to make sure there are no leaks.
9. Check hydraulic oil reservoir and refill to "FULL" mark.
10. Make sure the rear gate is fully closed and locked.



DANGER

Do not check leaks with hands while system is operating as high pressure leaks can be dangerous! If skin is pierced with hydraulic fluid at high pressure seek immediate medical attention as fluid injected into the skin could cause gangrene if left untreated. Relieve pressure before disconnecting hydraulic lines or working with system. Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system. Wear protective gloves and safety glasses or goggles when working with hydraulic systems.



WARNING

DO NOT check for hydraulic leaks adjacent to moving parts while system is operating as there may be danger of entanglement!

Unit is now ready for operation.

**CAUTION**

If unit is used to transport chemicals, check with your chemical supplier regarding DOT (Department of Transportation) requirements.

1. Load unit and drive to location where material is to be dispensed.
2. Make sure shut-off valve on hydraulic reservoir is fully opened.

**CAUTION**

Stand clear of moving machinery. Make sure everyone is clear and out of the way before starting unit. Contact with moving parts could cause serious injury.

3. With conveyor control in OFF position, engage pump drive and allow oil to circulate until it is warm (this may be done while traveling to loading or starting point). The colder the weather, the more important this "warm-up."
4. Make sure both in-cab control boxes are turned off and the override switch at the rear of the unit is active (released).
5. Engage the chassis hydraulic system.
6. Toggle the conveyor speed control box power switch to the ON position.

**CAUTION**

Make sure area around gate is clear before opening.

7. Toggle the main control switch to the RUN position. The gate should automatically raise and the conveyor should start when the gate is fully open.
8. Rotate the conveyor speed control knob to select the required feed rate.
NOTE: The conveyor can be started and stopped as needed by toggling the main control switch between OFF and RUN. The switch at the rear of the unit can be used to stop the system at any time.
9. Toggle the main control to OFF when done.

**WARNING**

Ensure Safety Lockout is engaged before making any adjustments to the Endgate or optional Internal Gate.

10. Toggle the main switch to "CLOSE" and hold until the gate is locked into a closed position.

NOTICE!

CHANGE THE HYDRAULIC OIL FILTER AFTER THE FIRST WEEK (OR NOT MORE THAN 50 HOURS) OF OPERATION ON A UNIT.

Make sure conveyor speed control power switch is OFF before leaving the unit.

Proper cleaning and maintenance after use will keep your machine working efficiently and reliably. Refer to "Lubrication and Maintenance" section of this manual for instructions. Always repair worn or damage parts promptly.

TARP

See Tarp manufacturer's manual.

WEIGHTS OF VARIOUS MATERIALS

MATERIAL	APPROXIMATE WEIGHTS (Pounds)	
	Per Cu. Foot	Per Cu. Yard
Ashes	40	1080
Asphalt	111	3000
Cinders	30	810
Limestone, Crushed	100	2700
Salt	80	2160
Sand	100	2700
Urea	60	1620

WEIGHTS OF MATERIALS



HYDRAULIC SYSTEM

The use of proper oil in the hydraulic system is one of the most important factors for satisfactory operation. Utmost cleanliness in handling the oil cannot be stressed enough. Keep the hydraulic oil in original closed containers, clean top of container before opening and pouring, and handle in extremely clean measures and funnels.

Refer to the *Lubricant and Hydraulic Oil Specifications* section of the manual for selection of the proper hydraulic fluid for use in the hydraulic system.

Service Schedule

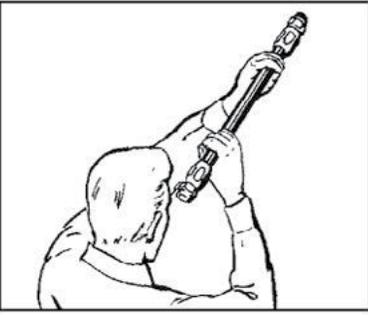
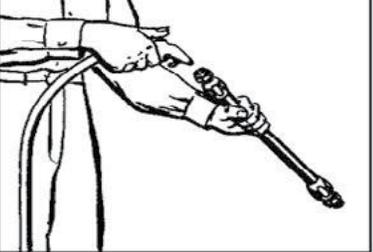
1. Check the hydraulic oil daily by means of dipstick. Add oil if required. Periodically inspect the hoses and fittings for leaks.

NOTICE! CHANGE THE HYDRAULIC OIL FILTER AFTER THE FIRST WEEK (OR NOT MORE THAN 50 HOURS) OF OPERATION ON A UNIT.

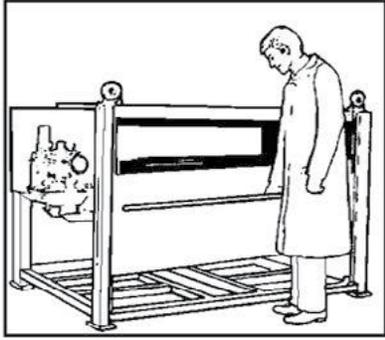
2. After first filter change, replace filter when indicator reaches Danger Zone.
3. The reservoir should be drained through drain plug (not through suction outlet), flushed, and refilled annually, or the oil should be changed if it shows any signs of breaking down under continued high-pressure operation. Discoloration of oil is one sign of breakdown.

HYDRAULIC HOSE MAINTENANCE

Hose assemblies in operation should be inspected frequently for leakage, kinking, abrasion, corrosion or any other signs of wear or damage. Worn or damaged hose assemblies should be replaced immediately.

	<p>Clean Clean assembly by blowing out with clean compressed air. Assemblies may be rinsed out with mineral spirits if the tube stock is compatible with oil, otherwise hot water at 150 degrees F maximum may be used.</p>
	<p>Inspect Examine hose assembly internally for cut or bulged tube, obstructions, and cleanliness. For segment style fittings, be sure that the hose butts up against the nipple shoulder; band and retaining ring are properly set and tight, and segments are properly spaced. Check for proper gap between nut and socket or hex and socket. Nuts should swivel freely. Check the layline of the hose to be sure the assembly is not twisted. Cap the ends of the hose with plastic covers to keep clean</p>

LUBRICATION & MAINTENANCE



Test

The hose assembly should be hydrostatically tested at twice the recommended working pressure of the hose. Test pressure should be held for not more than one minute and not less than 30 seconds. When test pressure is reached, visually inspect hose assembly for: 1. Any leaks or signs of weakness. 2. Any movement of the hose fitting in relation to the hose. Any of these defects are cause for rejection.



WARNING

To prevent serious personal injury, testing should be conducted in approved test stands with adequate guards to protect the operator.

STORAGE AND HANDLING

Hose should be stored in a dark, dry atmosphere away from electrical equipment, and the temperature should not exceed 90° F.

CONVEYOR CHAIN



DANGER

When conveyor is running, stay out of the body. Stay clear of all moving parts. Entanglement of clothes, any part of your body or anything you have in your hands can cause serious injury. Do not use a bar, rod or hammer on conveyor while it is moving--if it gets caught it could cause injury.

NOTICE!

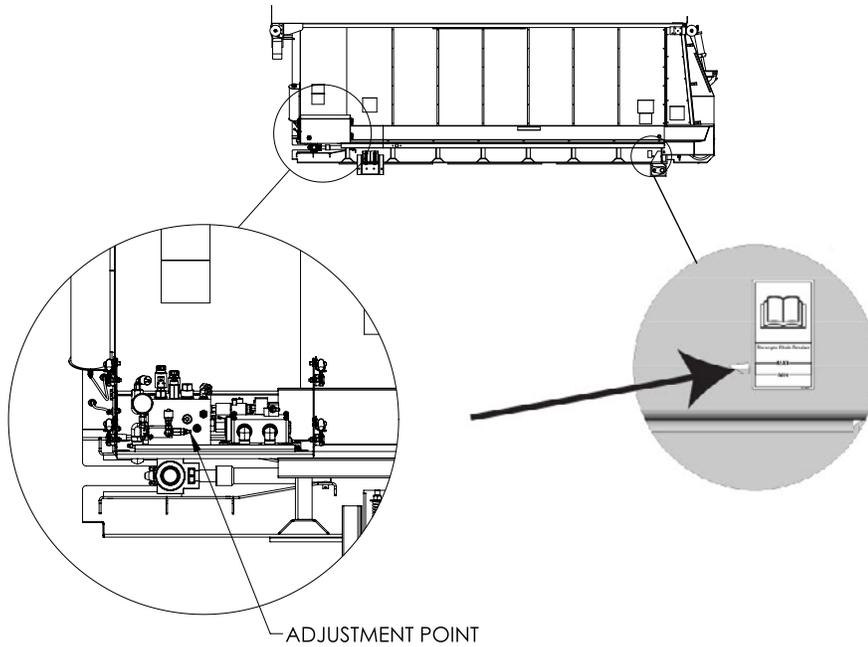
The conveyor will move away from the bottom panel if material accumulates under the conveyor or on the sprockets. The more material that accumulates, the closer the chain will come to the chain shields. If the conveyor should catch a chain shield, it could permanently damage the conveyor, the chain shields or the unit. Do not remove material build-up while conveyor is running!

Hose down the machine and remove any material build-up on the sprockets or under the chain. If material is allowed to build up, the chain may ride up and damage the chain or body.

Lubricate the conveyor chain at least once a week. Run conveyor slowly to lubricate chain. Use a mixture of 75% diesel oil and 25% SAE 10 oil in a pressurized hand spray gun. Spray oil mixture between links of chain through openings provided at rear end of sill or from front outside body when clearance is adequate. Do this at least once a week and after each unit washing. Allow to dry before lubricating.

Tension

Proper chain tension is also a factor in chain and sprocket life. Measuring from rear of unit, conveyor should touch at 36" to 40" mark, and top of chain should appear between MIN and MAX lines in sight window (Figure 2). If Manual adjustments need to be made, on valve block, loosen jam nut, back out to lower tension, or turn in to increase tension (Figure 2).



NOTE: ENCLOSURE COVER REMOVED IN THIS VIEW

Figure 2 - Adjusting Chain Tension

Conveyor chains that are too tight will tend to stretch. This will cause excess sprocket wear and eventually cause breakage. Excess slack presents the possibility of the chain catching on sub-frame parts. Bent or distorted chain bars will cause damage to the body as well. Straighten or replace bent or distorted chain bars immediately.

CONVEYOR BELT MAINTENANCE

Standard belt for the #4 chain is moderate oil resistant that is impervious to moisture, weathering, or normal action which can be used with chemical impregnated fertilizer or oil based additives.

- Inspect belt fastener occasionally for wear or "raveling" of belt grip area.
- Make sure belt connecting pin is positioned correctly as shown in Figure 3.

NOTICE!

Pin must not rotate. If pin ends are not bent down and tight against lacing, the ends may cut into the chain shield sealers or belt wipers.

BOTH PIN ENDS MUST BE BENT DOWN & TIGHT AGAINST ENDS OF LACING

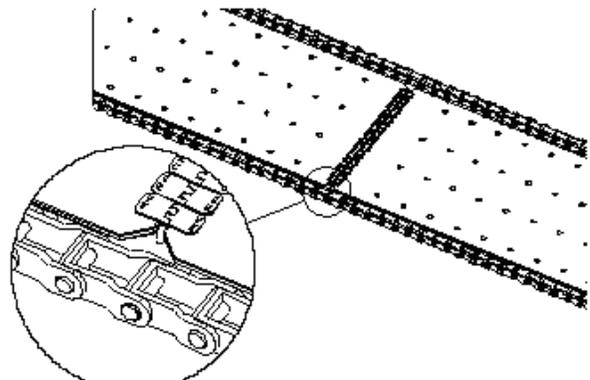


Figure 3 - Conveyor Belt Pin Installation

- Keep the belt free from build-up of asphalt or other material. Keep it clean.

LUBRICATION & MAINTENANCE CONTINUED

- Spray the belt often with oil to assure flexibility of the rubber and ease cleaning. Spray the underpart of the conveyor also, as dry heat is very harmful to the life of the belt.
- Keep asphalt temperature below 350° F and the belt running as much as possible when loaded. A hot sitting load is more damaging since it does not allow a cooling cycle for the belt.
- Allow belt to flex and warm up in cold weather before loading it with extremely hot product.
- Do not operate the belt in temperatures below -10° F. Operating in temperatures below -10° F. will cause the belt to crack prematurely.

A properly cared for belt, in normal use, will first experience cracking of the belt cover. This is normal for a belt of this type in an asphalt environment and does not indicate a failing belt. Eventually the belt cover will begin to harden and chunks of the cover begin falling off, exposing the steel. When this happens, replace the belt.

GEAR CASE

The oil in a new unit should be drained at the end of the first two weeks (or not more than 100 hours) of operation and the case should be thoroughly flushed with light oil. Refer to the Lubrication Specifications section for the proper grade oil. Refill 6:1 gear case with 2 quarts (1.89 liters) of recommended lubricant. After the initial change, the oil should be changed every 2,000 hours of operation or annually, whichever occurs first.

Check the level in the gear case weekly.

LUBRICATION OF BEARINGS

Grease in a bearing acts to prevent excessive wear of parts, protects ball races, and balls from corrosion and aids in preventing excessive heat within the bearing. It is very important the grease maintain its proper consistency during operation. It must not be fluid and it must not channel.

Make sure all fittings are thoroughly cleaned before grease is injected. Points to be lubricated by means of a grease gun have standard grease fittings.

Lubricate bearings by pumping grease slowly until it forms a slight bead around the seals. This bead indicates adequate lubrication and also provides additional protection against the entrance of dirt.

CLEAN UP

NOTICE! High pressure wash can inject water and/or fertilizer into control components, causing damage. Use caution when cleaning these areas.

Thoroughly wash unit every two to three days during the operating season to maintain minimal maintenance operation. Hose unit down under pressure to free all sticky and frozen material.

It is important the unit be thoroughly cleaned at the end of each operating season. All lubrication and maintenance instructions should be closely followed. Repaint worn spots to prevent formation of rust.

FASTENERS

Tighten all screw fasteners to recommended torques after the first week of operation and annually thereafter. If loose fasteners are found at any time, tighten to the recommended torques. Replace any lost or damaged fasteners or other parts immediately upon finding such damage or loss. Check body mounting bolts every week.



NOTICE!

The lubricant distributor and/or supplier is to be held responsible for the results obtained from their products. Procure lubricants from distributors and/or suppliers of unquestionable integrity, supplying known and tested products. Do not jeopardize your equipment with inferior lubricants. No specific brands of oil are recommended. Use only products qualified under the following oil viscosity specifications and classification recommended by reputable oil companies.

HYDRAULIC SYSTEM

The following are the recommended procedures for selecting the proper hydraulic fluid for use in the hydraulic system. Select a major brand industrial PREMIUM QUALITY (anti-wear type) hydraulic oil to provide viscosity between 100-200 SSU at operating temperature. Premium hydraulic oils with viscosity indexes of 95 or above will provide the following temperature ranges :

INDUSTRY IDENTIFICATION VISCOSITY GRADE	OPERATING TEMPERATURE	VISCOSITY
150 SSU	122° F (50° C) 84° F (28.9° C)	100 SSU 200 SSU
225 SSU	140° F (60° C) 107° F (41.7° C)	100 SSU 200 SSU
300 SSU	150° F (66.6° C) 116° F (46.1° C)	100 SSU 200 SSU
450 SSU	165° F (73.9° C) 130° F (54.5° C)	100 SSU 200 SSU
600 SSU	182° F (83.3° C) 145° F (62.8° C)	100 SSU 200 SSU

If, because of necessity or convenience, it is desirable to use an automotive engine oil, multi-viscosity oils of SC rating (formerly MS quality) which will provide between 100-200 SSU at operating temperature can be used. These will provide proper viscosity over a wide range. For example:

SAE VISCOSITY GRADE	OPERATING TEMPERATURE	VISCOSITY
10W-30	130° F (54.5° C)	100 SSU
	100° F (37.8° C)	200 SSU
10W-40	190° F (87.8° C)	100 SSU
	140° F (60° C)	200 SSU

LUBRICATION & MAINTENANCE



GEAR CASE LUBRICANT

Lubricate the gear cases with a synthetic or non-corrosive type gear oil conforming to MIL-L2105 B multi-purpose gear lubricating oil requirements according to the chart below:

Part	Refill Quantity	40° to 120° F (4.5° to 48.9° C)	Below 40° F (4.5° C)	Above 100° F (37.78° C)
6:1 Gear Case	2 pint (1.89 liters)	SAE 80 or 90W	SAE 80 or 90W	SAE 140W

PRESSURE GUN LUBRICANT

Use a ball and roller bearing lithium base lubricant with a minimum melting point of 300° F (148.9° C). This lubricant should have a viscosity that assures easy handling in the pressure gun at prevailing atmospheric temperatures. The lubricant must be waterproof. The grease should conform to NLGI No. 2 consistency.



WARNING Shut off all power and allow all moving parts to come to rest before performing any maintenance operation.

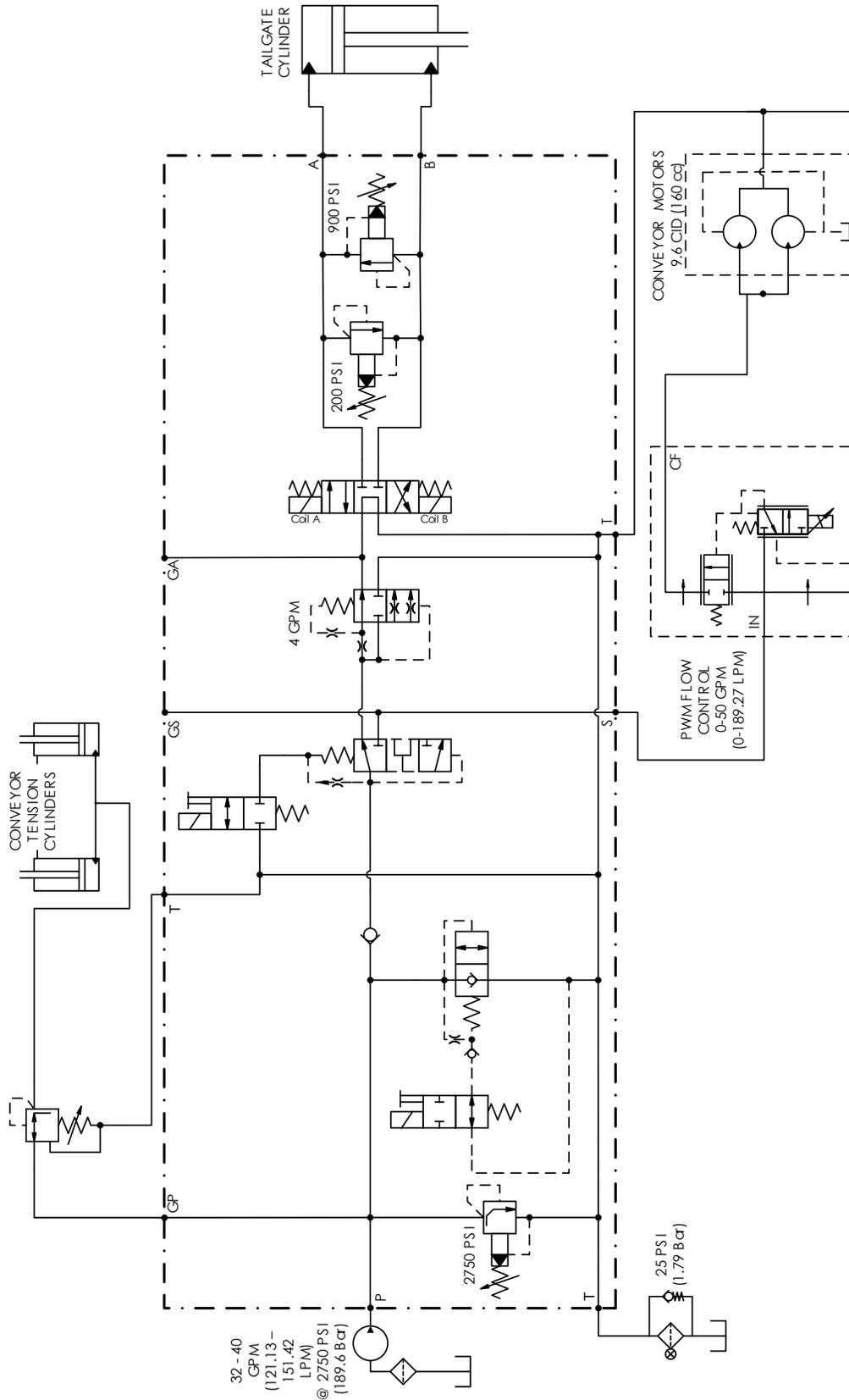
LOCATION	PLACES	METHOD	FREQUENCY
Hydraulic System			
Reservoir	1	Check Daily; Change Annually	
Filter	1	Check Daily; Change when indicator is red	
Conveyor			
Drive Shaft Bearings	2	Grease Gun	Weekly
Idler Shaft Sprockets	2	Grease Gun	Daily
Take-up Screws	2	Hand Grease	Monthly
Chain	2 Strands	Spray Oil	Weekly
Chain Oiler (If so equipped)	1	Oil	Daily
Gear Case	1	Gear Box	Check Monthly
Feedgate			
Jack Assembly - Gears	1	Hand Grease	Annually
Tube	1	Grease Gun	Monthly
Mount			
Hinge	2	Grease Gun	Monthly

NOTE: Unusual conditions, such as excessive dust, temperature extremes or excessive moisture may require more frequent lubrication of specific parts.

* - See "Lubricant and Hydraulic Oil Specifications" for types of lubricants and oil to be used.

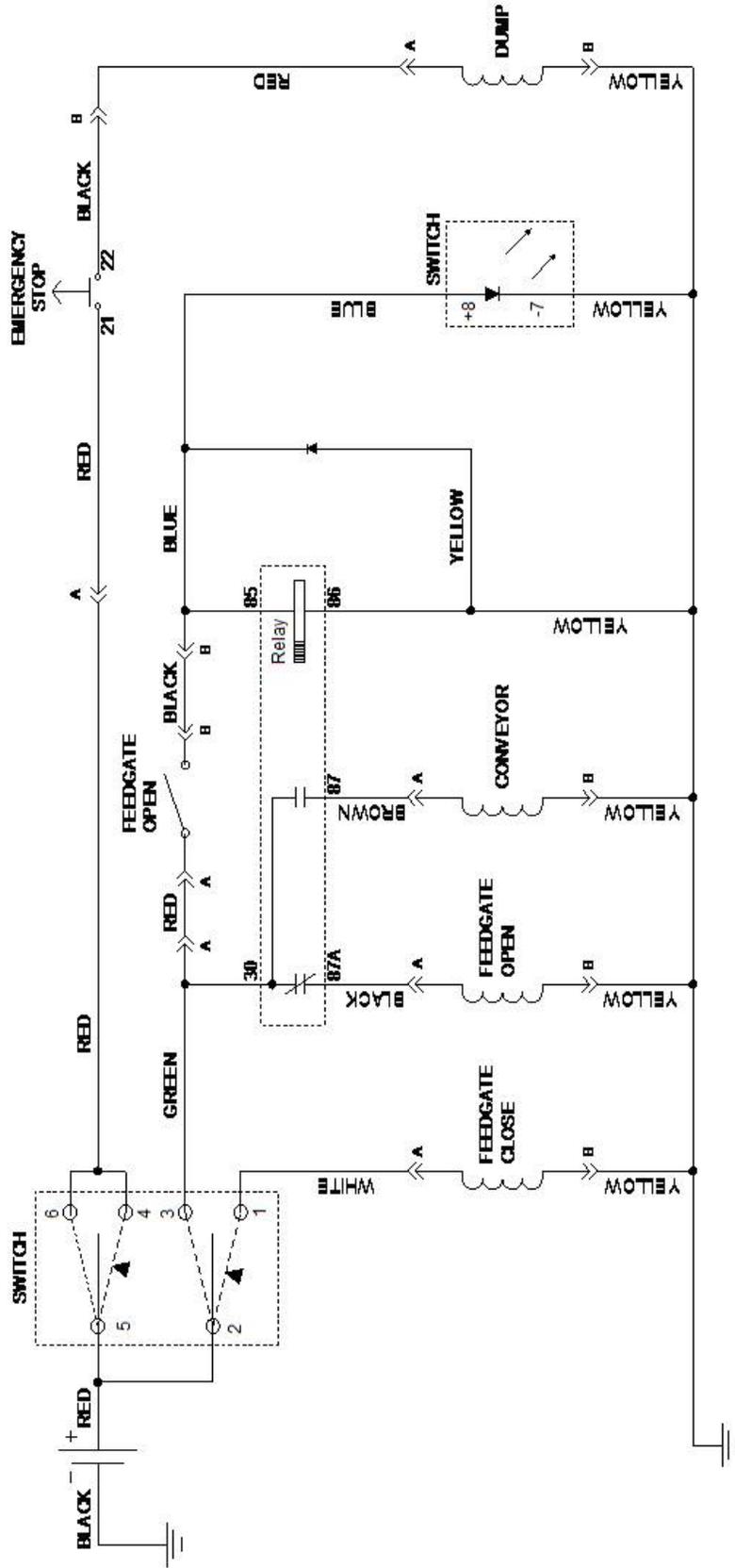
LUBRICATION CHART

HYDRAULIC SCHEMATIC



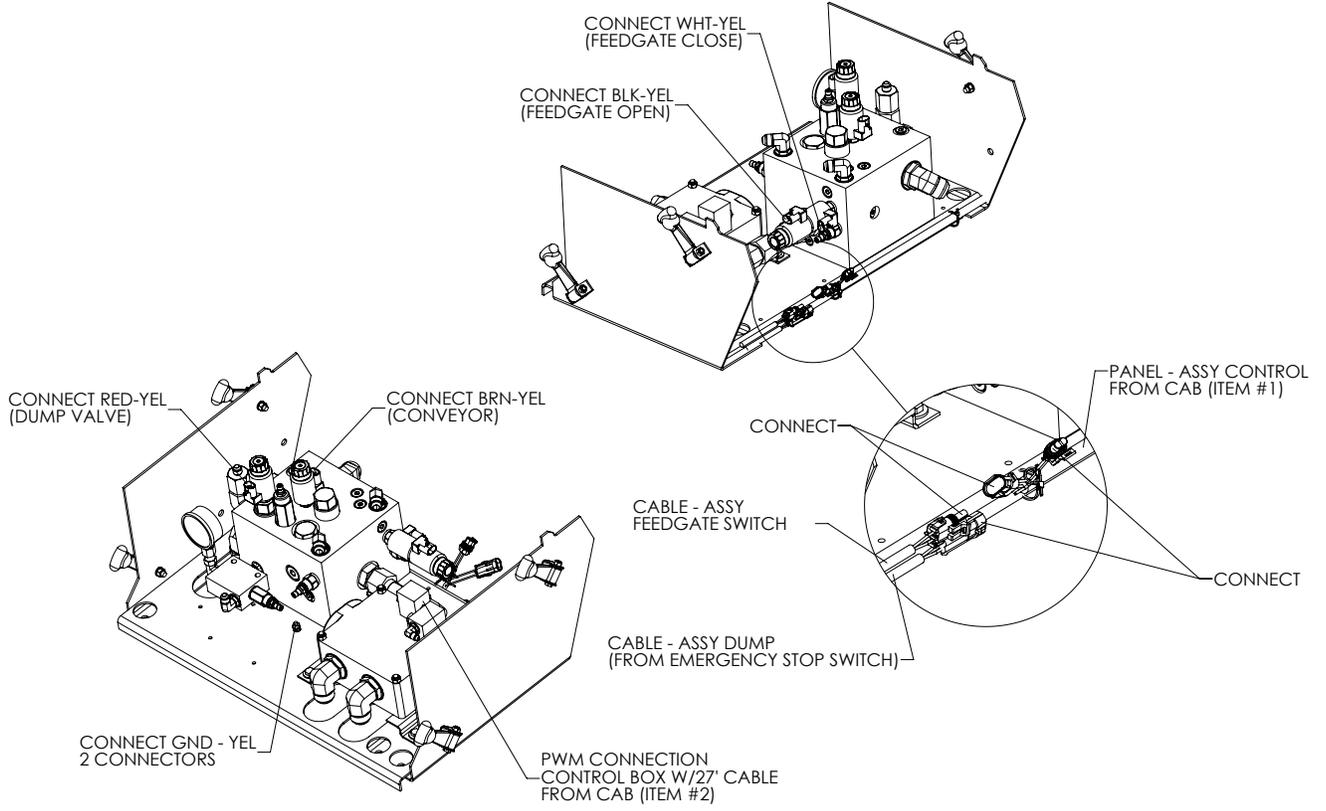
TROUBLESHOOTING

ELECTRICAL SCHEMATIC



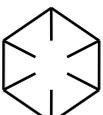
TRUBLESHOOTING

CONTROLS INTERFACE



TROUBLESHOOTING

CAP SCREW GRADE IDENTIFICATION - MARKINGS ON HEAD

- SAE GRADE 2  NO MARKINGS
- SAE GRADE 5  THREE MARKS - 120 DEGREES APART
- SAE GRADE 8  SIX MARKS - 60 DEGREES APART

USE GRADE 2 TORQUES FOR STAINLESS STEEL FASTENERS AND CARRIAGE BOLTS.

CAP SCREW SIZE	TORQUE - FOOT-POUNDS					
	GRADE 2		GRADE 5		GRADE 8	
	DRY	LUBE	DRY	LUBE	DRY	LUBE
1/4"	5	4	8	6	12	9
5/16"	11	8	17	13	25	18
3/8"	20	15	30	23	45	35
7/16"	30	24	50	35	70	55
1/2"	50	35	75	55	110	80
9/16"	65	50	110	80	150	110
5/8"	90	70	150	110	220	170
3/4"	100	120	260	200	380	280
7/8"	140	110	400	300	600	460
1"	220	160	580	440	900	650

TORQUES CHART





Order from the **AUTHORIZED DEALER** in your area.

1. Always give the pertinent model and serial number.
2. Give part name, part number and the quantity required.
3. Give the correct address to where the parts are to be shipped, and the carrier if there is a preference.

Unless claims for shortages or errors are made immediately upon receipt of goods they will not be considered. Any part returns should be directed through the dealer from which they were purchased.

When broken goods are received, a full description of the damage should be made by the carrier agent on the freight bill. If this description is insisted upon, full damage can always be collected from the transportation company.

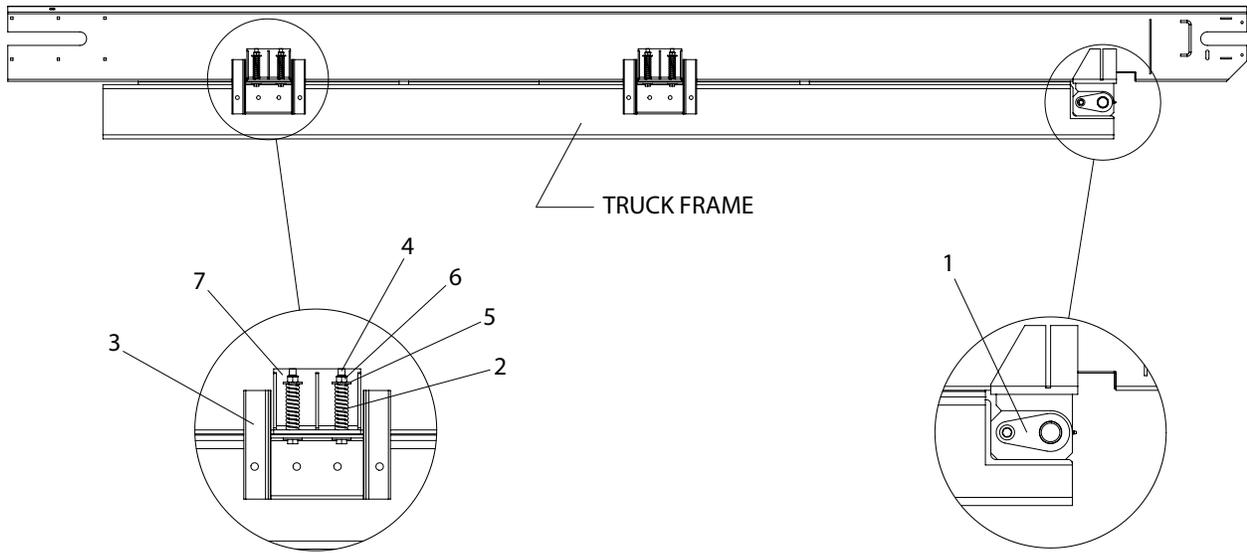
No responsibility is assumed for delay or damage to merchandise while in transit. Our responsibility ceases upon delivery of shipment to the transportation company from whom a receipt is received showing that shipment was in good condition when delivered to them, therefore, claims (if any) should be filed with the transportation company and not with Highway Equipment Company.

If your claims are not being handled (by the transportation company) to your satisfaction, please call the Parts Manager at Highway Equipment Company (319-363-8281) for assistance.

In the parts list the following symbols and abbreviations stand for:

- * - Not Shown
- AR – As Required
- CS – Carbon Steel
- SS – Stainless Steel

The parts listed under the different steel types (CS, 409 SS and 304 SS) are for that type of unit and do not necessarily mean the part is made of that type of steel.

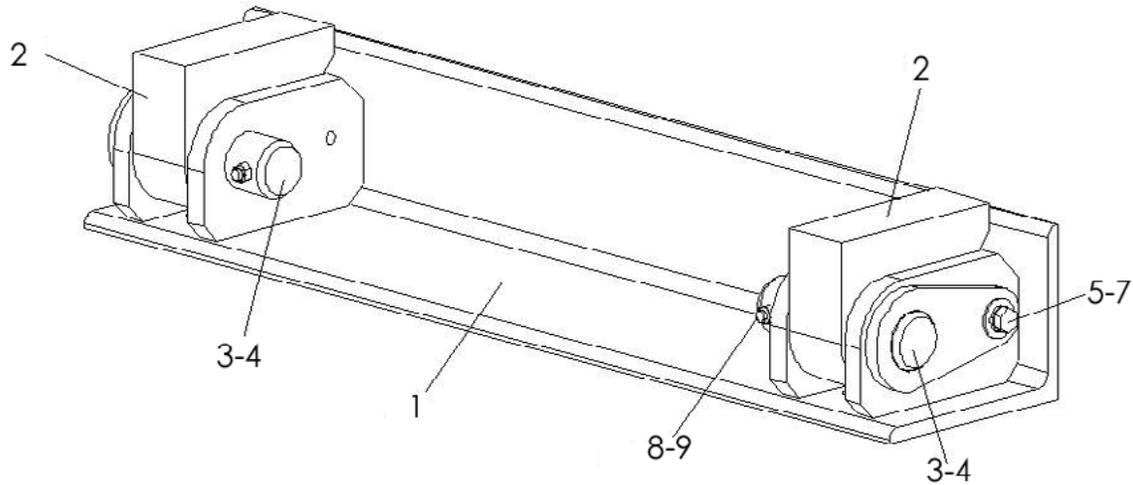


ITEM	PART NO.	DESCRIPTION	QTY	
			14'-17' Units	18'-21' Units
1	300398	Hinge – Assy Relubeable	1	1
2	81000	Spring – Compression	4	8
3	301624	Angle – Wldmt Mount	2	4
4	20195	Cap Screw – 5/8-11 x 6-1/2	4	8
5	20697	Washer – Flat 5/8	8	16
6	20682	Nut – Lock 5/8-11	4	8
7	300275	Mount – Wldmt Spring	2	4

AR - As Required

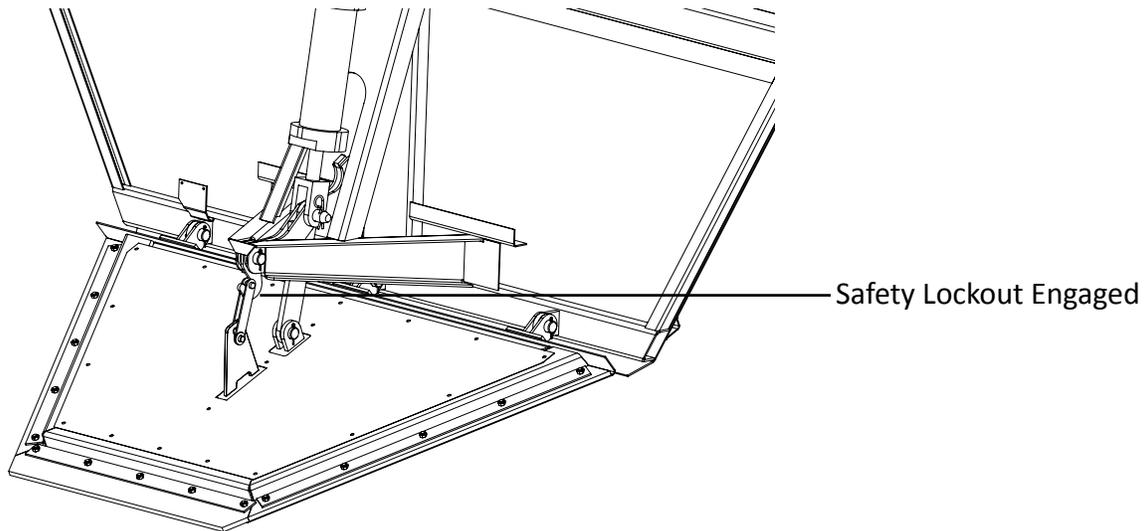
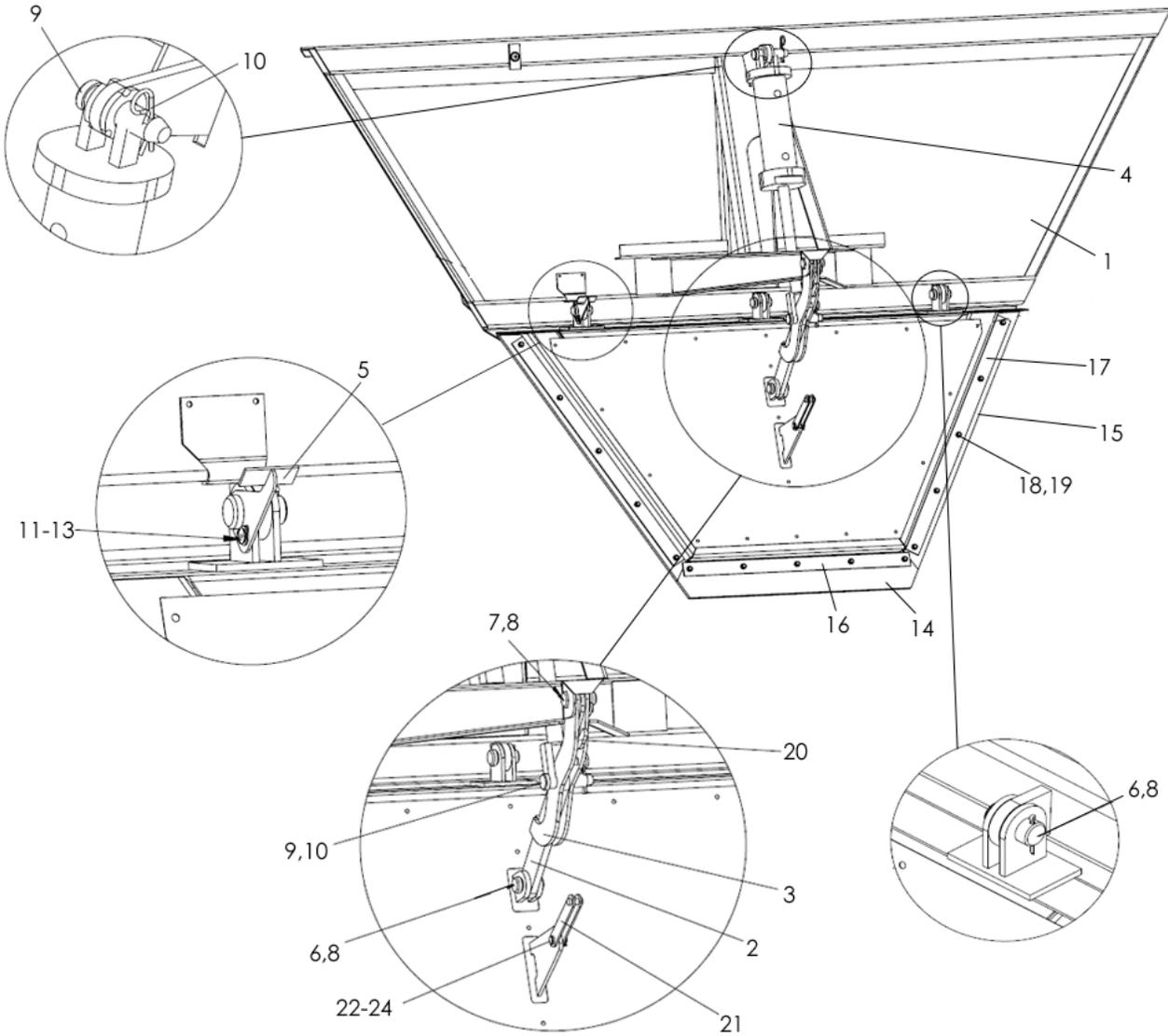
PARTS LIST

HINGE



<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
	300398	Hinge – Assy 6” Greaseable	
1	88608	Hinge – Wldmt Angle	1
2	300399	Block – Hinge, Greaseable	2
3	88605	Bearing – Sleeve, Greaseless Hinge	2
4	88612	Pin – Wldmt Hinge	2
5	20695	Cap Screw – 1/2 x 1-1/2	2
6	20714	Washer – Flat 1/2	2
7	20129	Washer – Lock 1/2	2
8	20073	Cap Screw – 3/8 x 2-1/2	2
9	20678	Nut – Lock 3/8	2
10	* 6072	Zerk – Grease, Greaseable Hinge	2

* - Not Shown



PARTS LIST



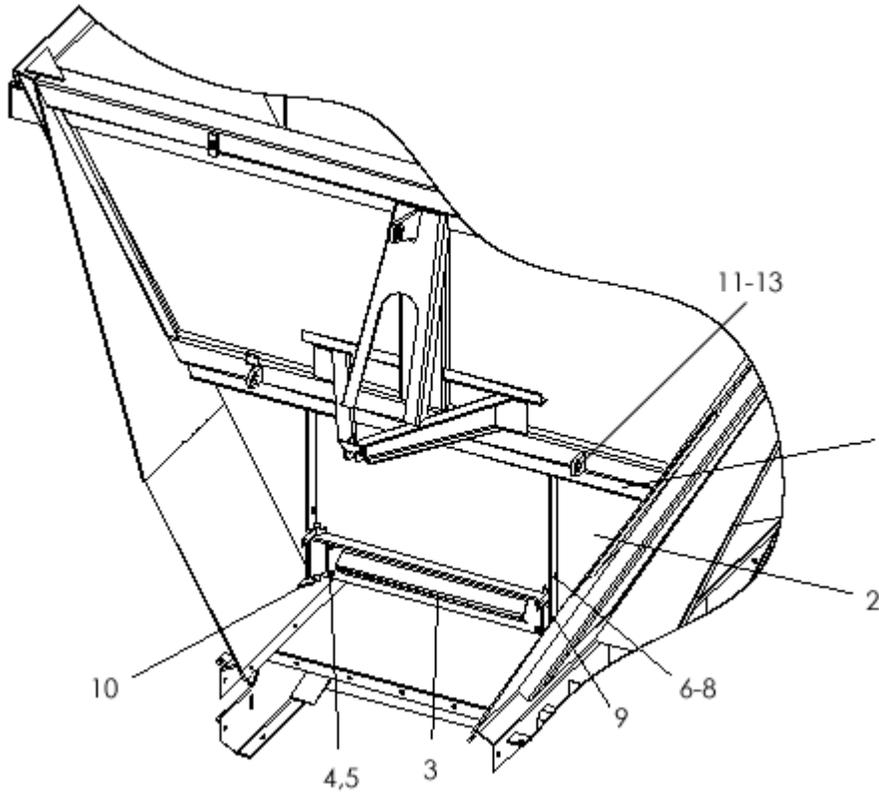
Please Give Part No., Description & Unit Serial No.

ENDGATE CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	300206	Endgate – Wldmt Lower	1
2	300001	Link – Drive Lower Endgate	1
3	300059	Linkage – Wldmt Rear	1
4	300099	Cylinder – Hydraulic	1
5	307134	Sensor – Wldmt Mount	1
6	300110	Pin – Clevis 1 x 1-1/2	4
7	300111	Pin – Clevis 1 x 1-3/4	1
8	20818	Pin – Cotter 1/8 x 1-1/4	5
9	36719	Pin – Clevis 1 x 3-3/4	2
10	40576	Pin – Hair	2
11	56258	Screw – Truss Head 1/4-20 x 1/2	1
12	36423	Washer – Flat 1/4	1
13	36418	Washer – Lock 1/4	1
14	306702	Seal – Bottom Endgate	1
15	306703	Seal – Side Endgate	2
16	306700	Retainer – Seal Bottom	1
17	306701	Retainer – Seal Side	2
18	20036	Cap Screw – 5/16-18 x 1	15
19	20677	Nut – Lock 5/16	15
20	309044	Hook - Lockout	1
21	309048	Link - Wldmt Lockout	1
22	21026	Pin - Clevis 1/2 x 1	1
23	20261	Washer - Flat 1/2	1
24	20817	Pin - Cotter 1/8 x 1	1

INTERNAL GATE

Shown with Endgate removed



WARNING

Ensure Safety Lockout is engaged before making any adjustments to the Endgate or optional Internal Gate.

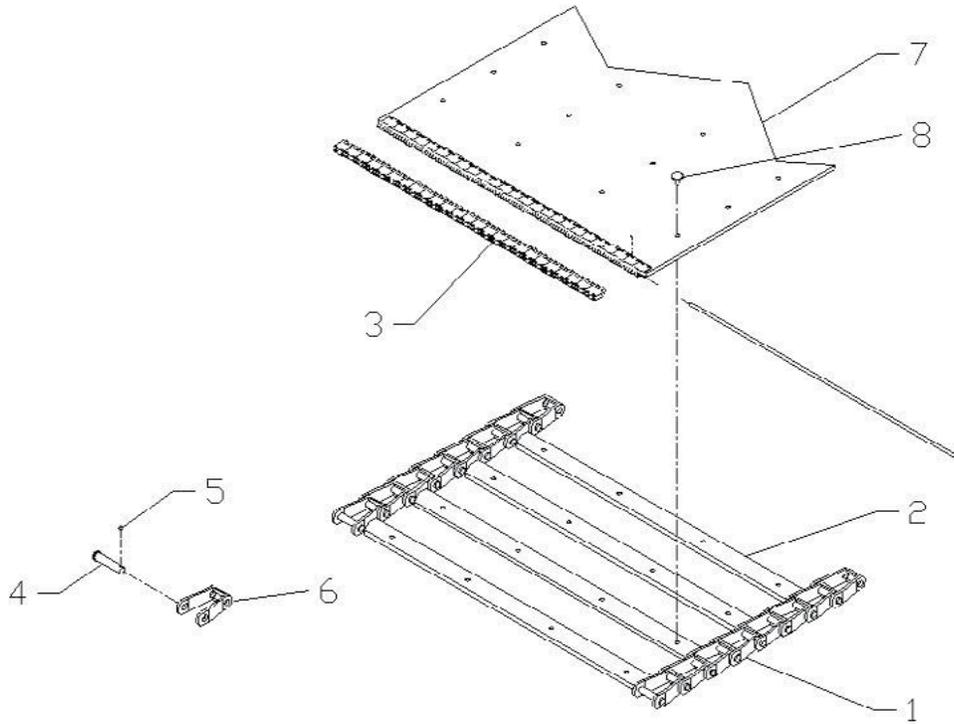
<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	306328	Gate – Wldmt Upper	1
2	306329	Gate – Wldmt Lower	1
3	306339	Insert – Wldmt Gate	1
4	20065	Cap Screw – 3/8-16 x 3/4	4
5	20678	Nut – Lock 3/8-16NC	4
6	20003	Cap Screw – 1/4-20 x 3/4	2
7	20642	Nut – Hex 1/4-20NC	2
8	20676	Nut – Lock 1/4-20NC	2
9	306336	Pin – Wldmt	2
10	306341	Stop – Gate Internal	2
11	306342	Pin – Clevis 5/8 x 1-1/4	2
12	20697	Washer – Flat 5/8	2
13	20817	Pin – Cotter 1/8 x 1	2

PARTS LIST



Please Give Part No., Description & Unit Serial No.

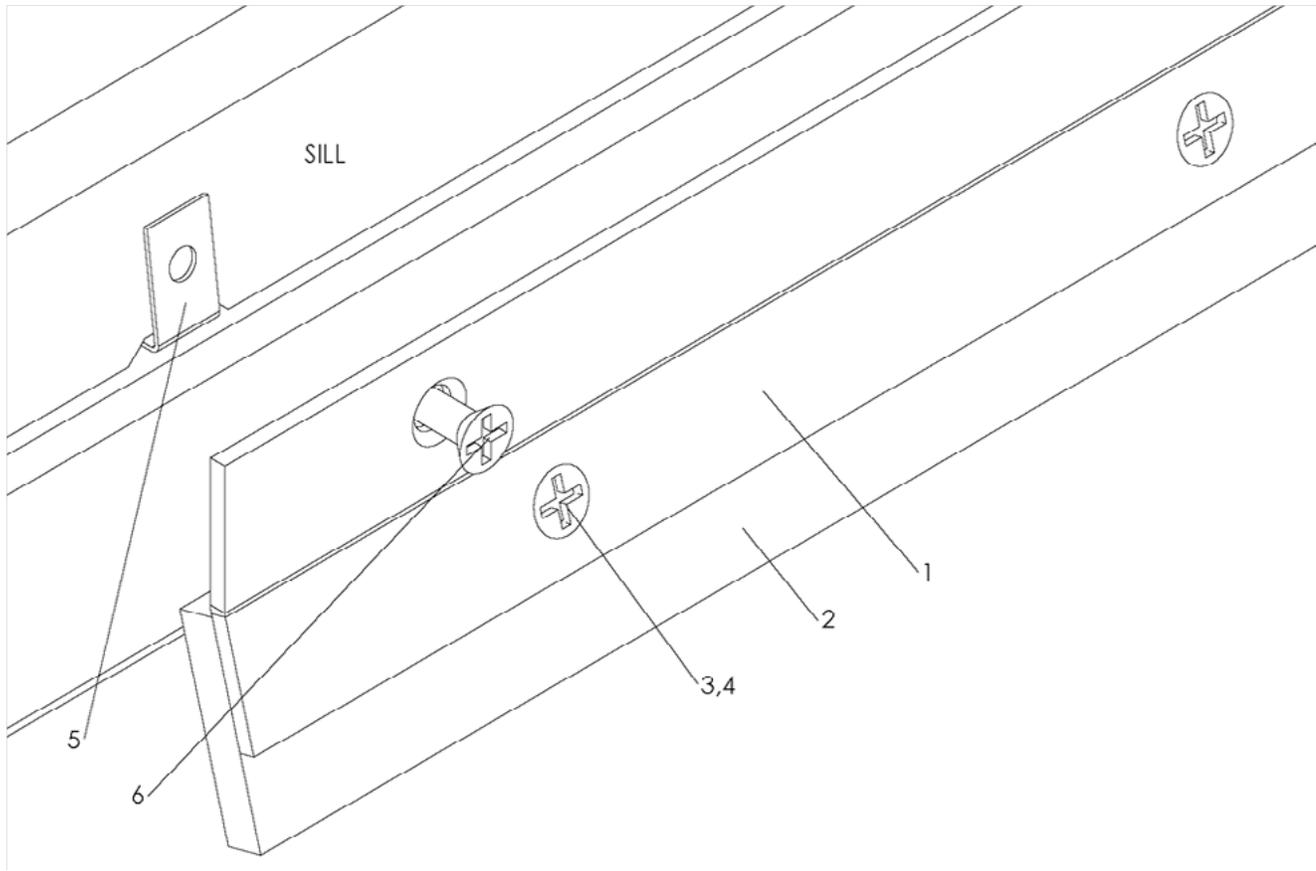
#4 CONVEYOR BELT-OVER-CHAIN



NOTE: Chain PN effective with Serial Number 388144

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	312198-AA	#4 Belt-Over-Chain – 14' Unit	
	312198-AB	#4 Belt-Over-Chain – 15' Unit	
	312198-AC	#4 Belt-Over-Chain – 16' Unit	
	312198-AD	#4 Belt-Over-Chain – 17' Unit	
	312198-AE	#4 Belt-Over-Chain – 18' Unit	
	312198-AF	#4 Belt-Over-Chain – 19' Unit	
	312198-AG	#4 Belt-Over-Chain – 20' Unit	
	312198-AH	#4 Belt-Over-Chain – 21' Unit	
2	308532	Crossbar	AR
3	73319	Kit – Splicer	1
	56405	Pin – Connecting	1
4	36697	Pin – Pintle Chain	AR
5	20817	Pin – Cotter	AR
6	36699	Link – Pintle Chain	AR
7	56281	Belt – Conveyor, Specify Length	AR Ft
8	308533	Screw	AR

AR - As Required

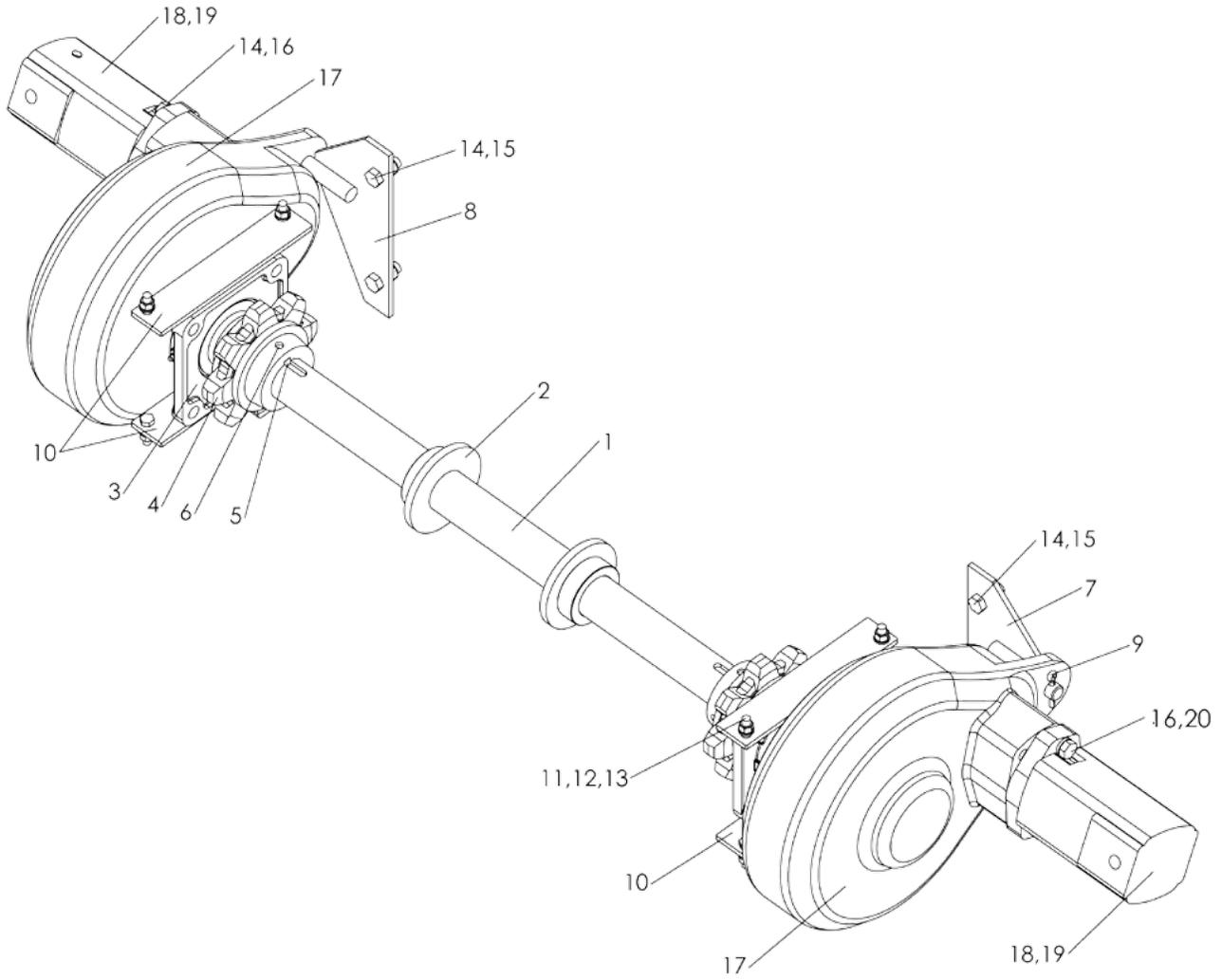


CHAIN SHIELDS CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1		Shield – Wldmt Chain	
	300253-AA	14'	2
	300253-AB	15'	2
	300253-AC	16'	2
	300253-AD	17'	2
	300253-AE	18'	2
	300253-AF	19'	2
	300253-AG	20'	2
	300253-AH	21'	2
2		Belt – Sealer	
	300127-AA	14'	2
	300127-AB	15'	2
	300127-AC	16'	2
	300127-AD	17'	2
	300127-AE	18'	2
	300127-AF	19'	2
	300127-AG	20'	2
	300127-AH	21'	2
3	20617	Screw – Flat Head 1/4-20 x 1/2	AR
4	88931	Nut – Tee 1/4 x 1/4	AR
5	300252	U-Nut – 1/4-20	AR
6	20621	Screw – Flat Head 1/4-20 x 1	AR

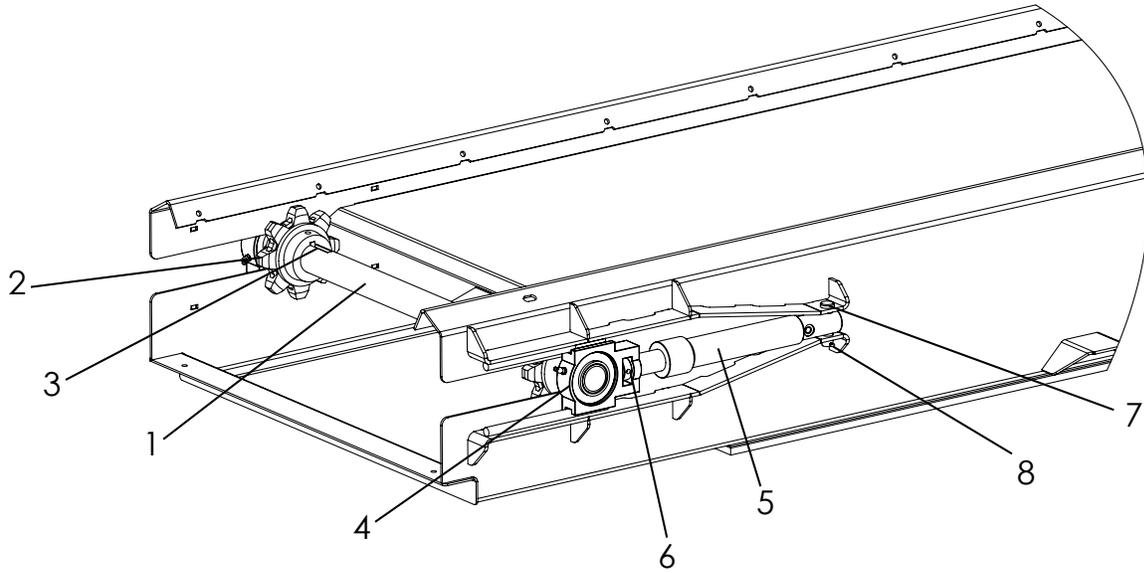
AR - As Required



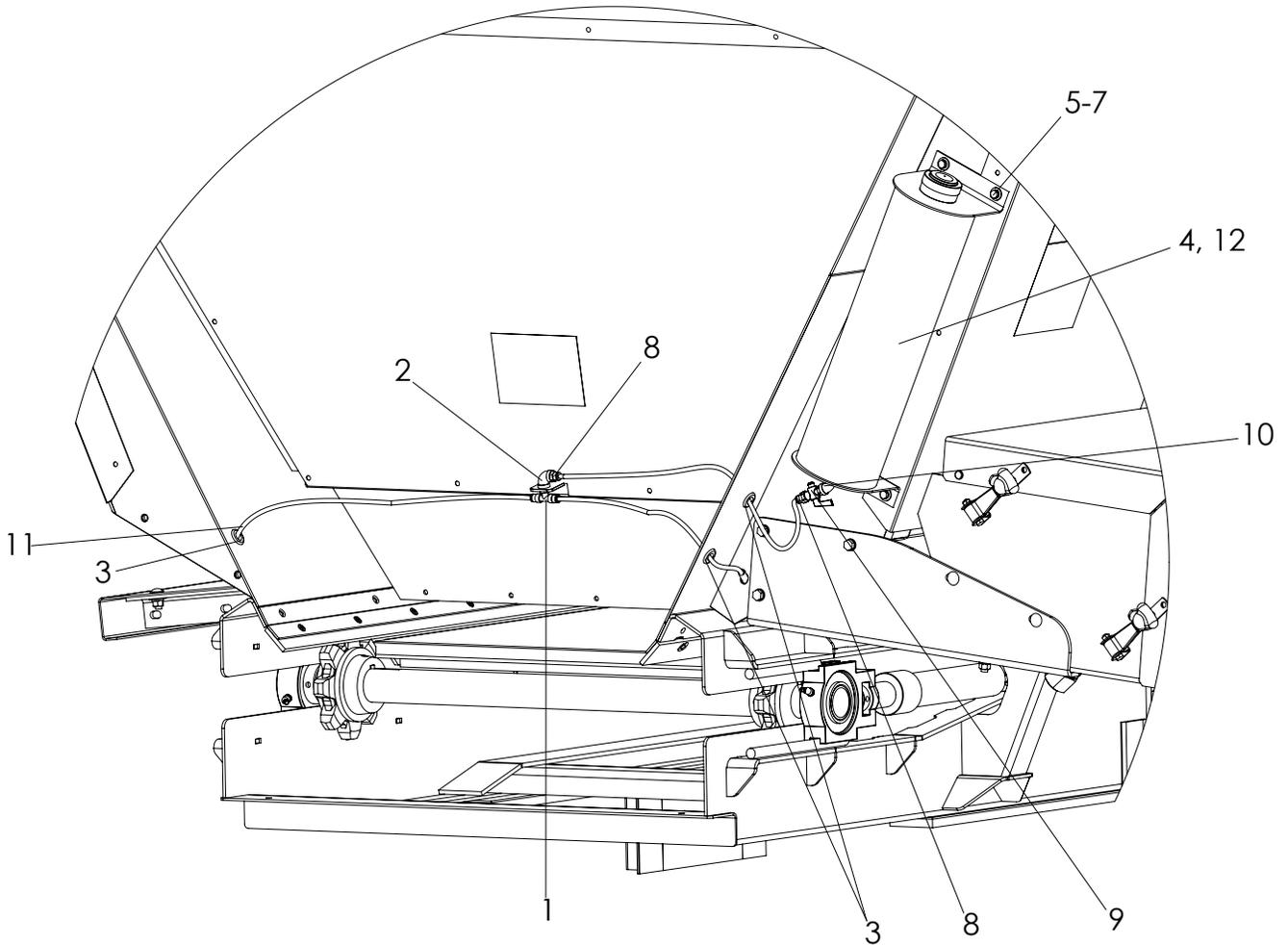


DRIVE CONTINUED

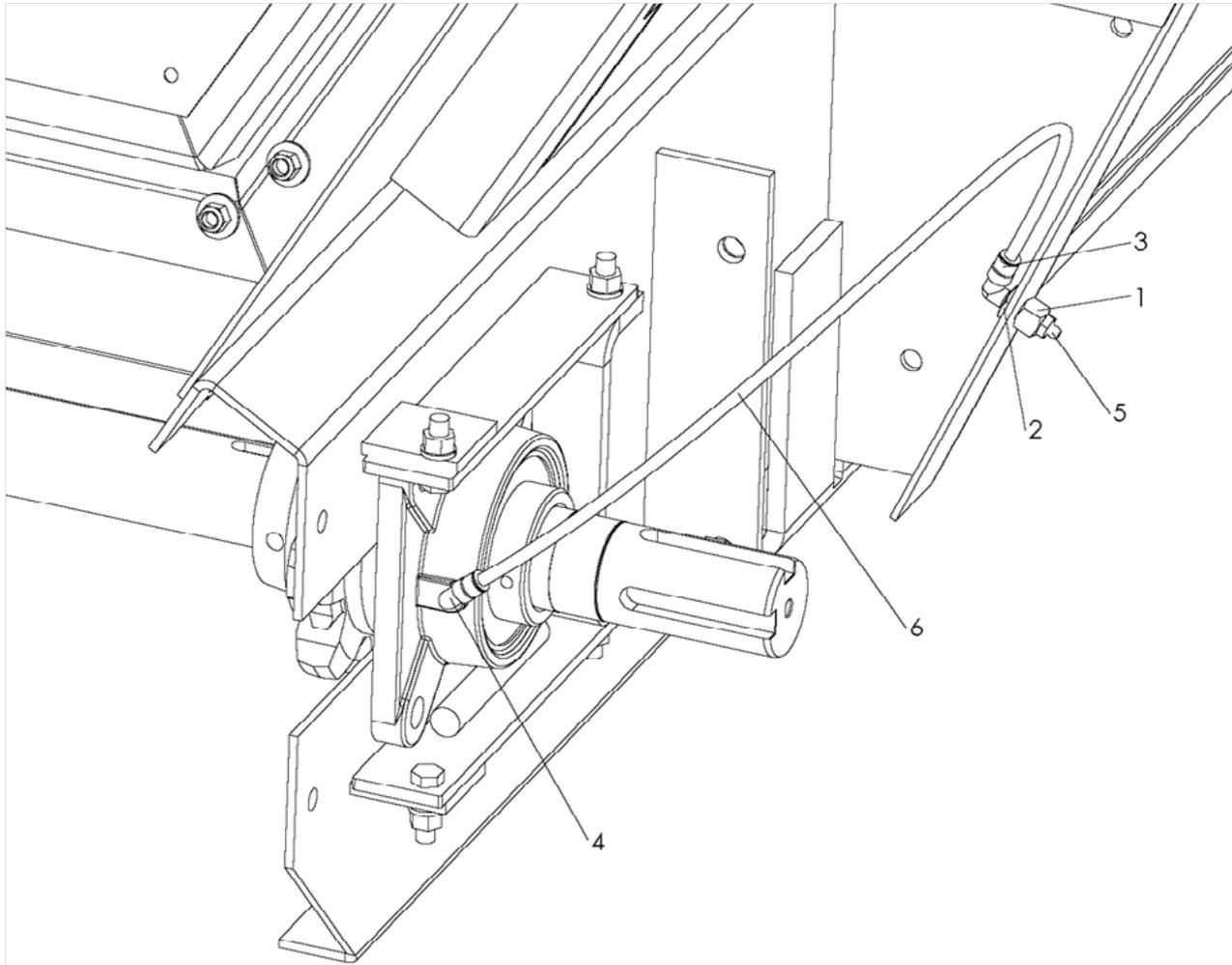
<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
	300247-AA	Gear Case - Assy RH w/ Motor, Includes 14, 16-20	
	300247-AB	Gear Case - Assy LH w/ Motor, Includes 14, 16-20	
1	86207-X1	Shaft – Drive	1
2	300126	Collar – Wldmt	2
3	6465	Bearing	2
4	88276	Sprocket	2
5	6131	Key – Square	2
6	20748	Screw – Set	2
7	82550-X1	Bracket – Torque Arm LH	1
8	82549-X1	Bracket – Torque Arm RH	1
9	20833	Pin – Cotter 1/4 x 1-1/2	2
10	82882	Guide – Bearing	4
11	20068	Cap Screw – 3/8 x 1-1/4	8
12	20712	Washer – Lock 3/8	8
13	20644	Nut – Hex 3/8	8
14	20128	Cap Screw 1/2 x 1-1/4	4
15	20680	Nut – Lock 1/2	4
16	30227	Washer – Lock Socket 1/2	4
17	86206	Gear Case – 6:1 HD Assy	2
18	87592	Motor - Hydraulic 14.9 CID (14'-17' Units)	2
	309460	Motor - Hydraulic 18.7 CID (18'-21' Units)	2
19	74524	Gasket	2
20	89701	Cap Screw - Socket 1/2 x 1-1/2 GR8	4



<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	86018-X1	Shaft – Idler	1
2	88276	Sprocket	2
3	6131	Key – Square	2
4	22511-X1	Bearing	2
5	311359	Cylinder - Ram 1-1/2 x 8"	2
6	2696	Collar - Set 1"	2
7	89630	Pin - Clevis 3/4 x 2-3/4"	2
8	20822	Pin - Cotter	2



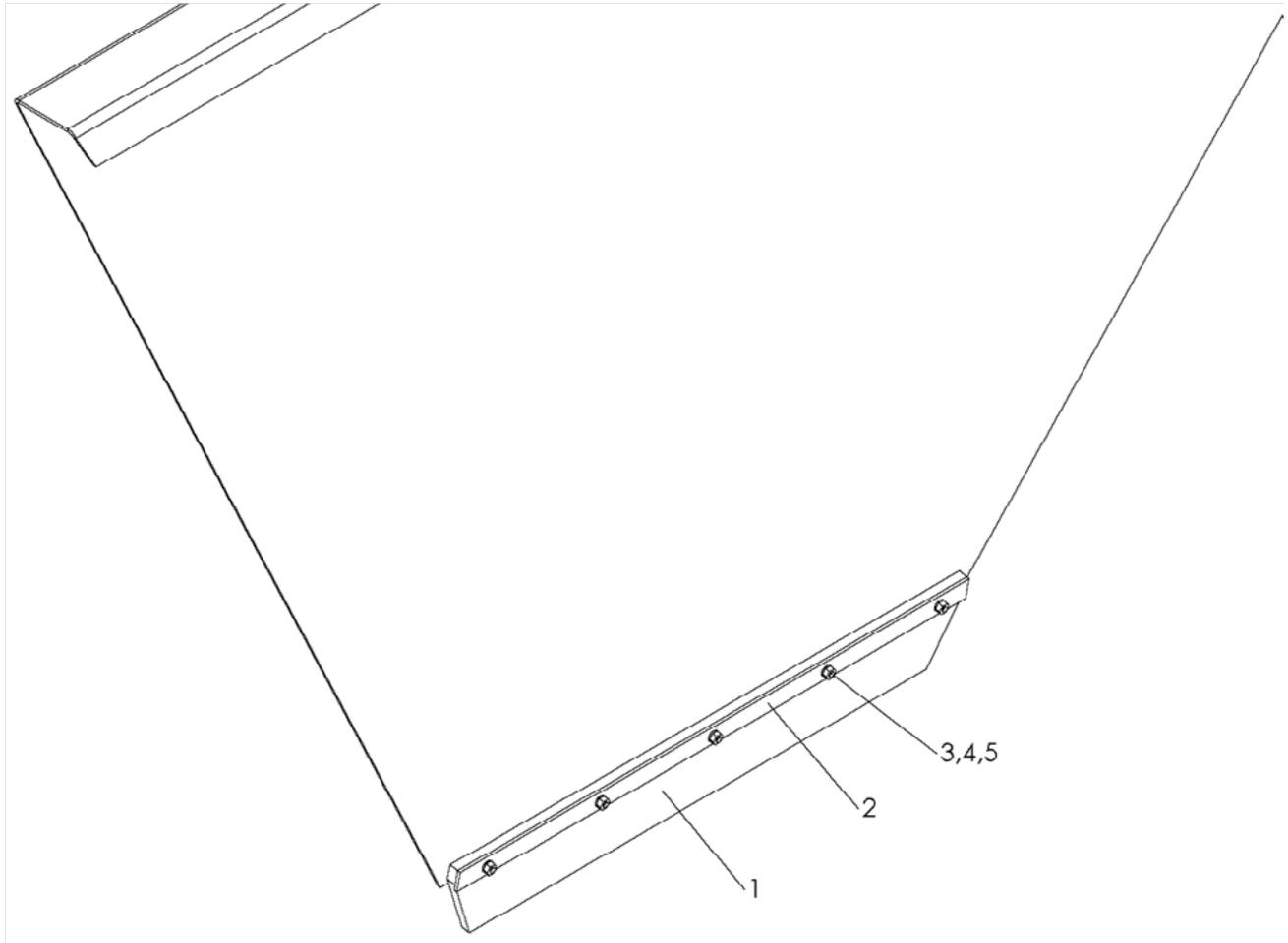
ITEM	PART NO.	DESCRIPTION	QTY
1	97801	Tee – Male Branch Swivel	1
2	6006	Elbow – 90° Elbow 1-1/4 NPT	1
3	21985	Grommet – Rubber	3
4	300244	Tank – Wldmt Oiler	1
5	20003	Cap Screw – 1/4-20 x 3/4	4
6	20691	Washer – Flat 1/4	4
7	20710	Washer – Lock 1/4	4
8	97806	Connector – Male	2
9	82917	Valve – Shut-off	1
10	21990	Elbow – Street 45° 1/8 NPT	1
11	82920	Tubing – 1/4 OD Flexible Nylon	7 ft
12	21476	Decal – Conveyor Chain Life	1



<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	301332	Connector – Bulkhead	2
2	301333	Nut – Lock Connector	2
3	301335	Fitting – 90° Male 1/4-28	2
4	301336	Fitting – 90° Male Swivel 1/8 NPT	2
5	6069	Zerk – Grease	2
6	301338	Tube – 1/4 OD Black Nylon	4 ft

PARTS LIST

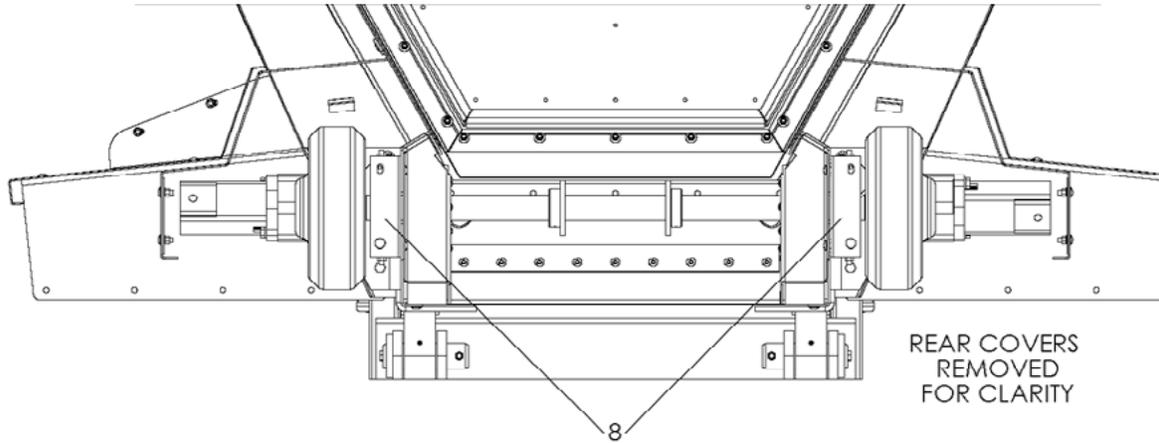
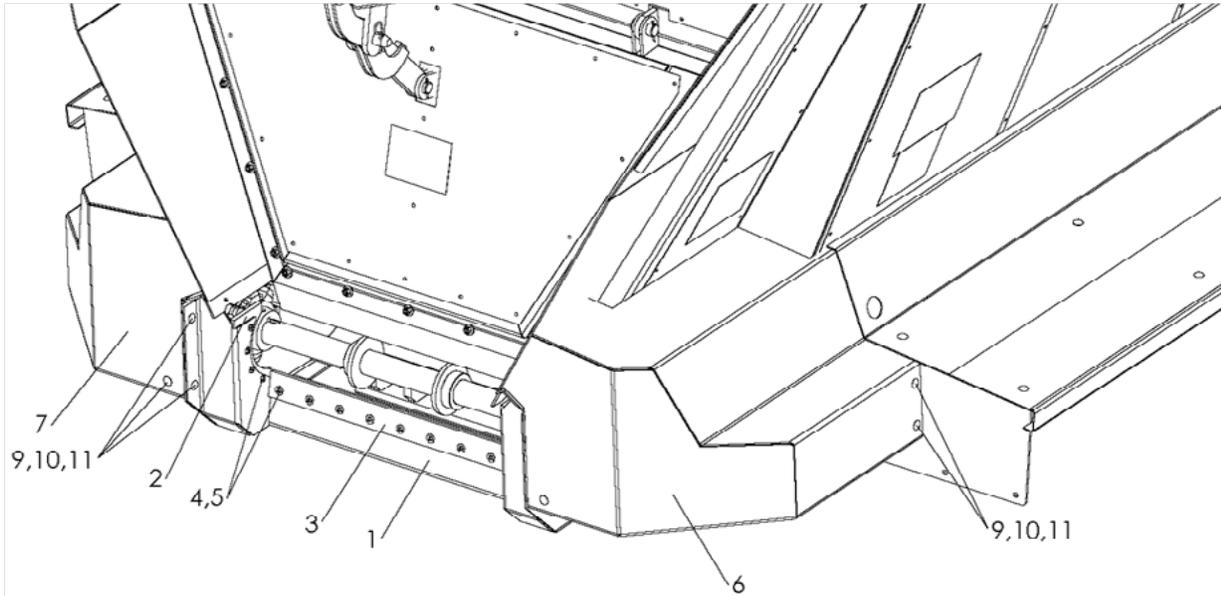
FRONT WIPER



<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	300105	Wiper - Front	1
2	300050	Retainer - Front Wiper	1
3	20005	Cap Screw - 1/4-20 x 1	5
4	20710	Washer - Lock 1/4	5
5	20642	Nut - Hex 1/4	5

Please Give Part No., Description
& Unit Serial No.

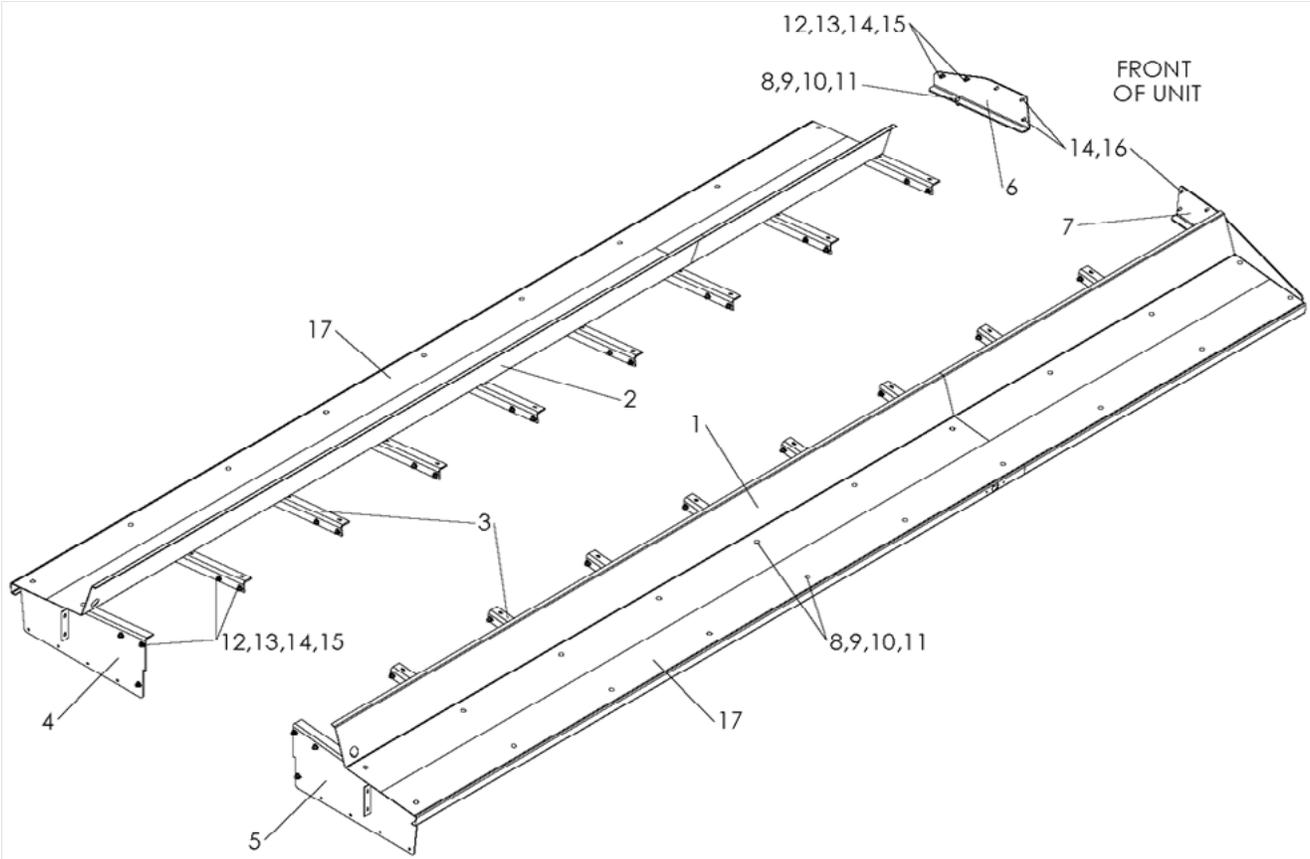




Please Give Part No., Description
& Unit Serial No.

SCRAPER & COVER CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
	312109	Wiper – Assy Rear, Includes 1-5	
1	312110	Wiper – Wldmt Rear	1
2	312113	Wiper – Scraper Side	2
3	312114	Wiper – Scraper Bottom	1
4	20624	Screw – Truss Head 1/4-20 x 1/2	17
5	88931	Nut – Tee 1/4 x 1/4	17
6	300224-AA	Cover – Wldmt Rear RH	1
7	300224-AB	Cover – Wldmt Rear LH	1
8	300091	Bracket – Rear Cover	2
9	20318	Bolt – Carriage 3/8 x 1	12
10	20712	Washer – Lock 3/8	12
11	20644	Nut – Hex 3/8	12



PARTS LIST

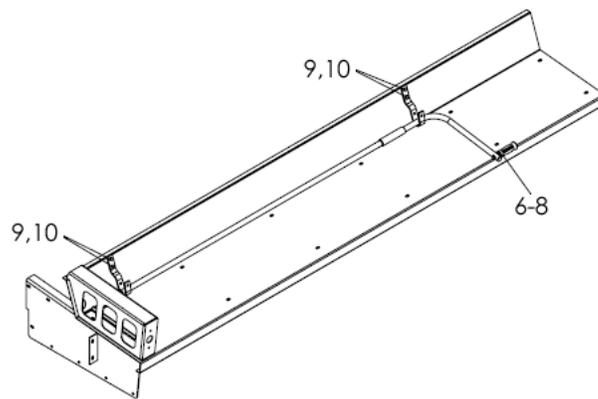
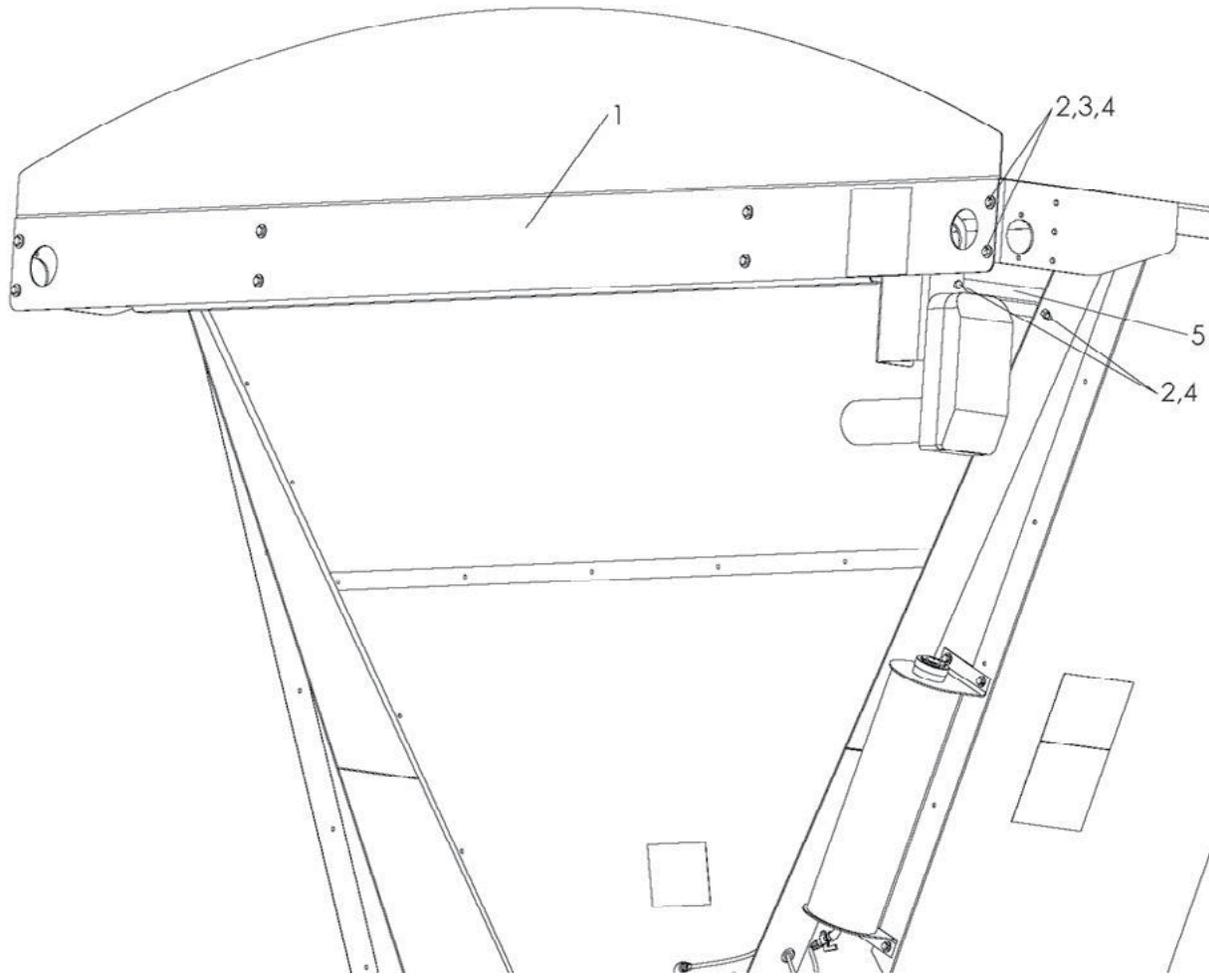


FENDERS CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1		Fender – Panel RH	
	306182	14-16' Units – 120" 2-Axle	1
	301618-AA	17-18' Units – 165-1/2" 3-Axle	1
	301618-AC	19' Units – 210-3/8" 4-Axle	1
	301618-AE	20' Units – 222-3/8" 4-Axle	1
	301618-AG	21' Units – 234-3/8" 4-Axle	1
2		Fender – Panel LH	
	306183	14-16' Units – 120" 2-Axle	1
	301618-AB	17-18' Units – 165-1/2" 3-Axle	1
	301618-AD	19' Units – 189-1/2" 4-Axle	1
	301618-AF	20' Units – 201-1/2" 4-Axle	1
	301618-AH	21' Units – 213-1/2" 4-Axle	1
3	300075	Angle – Fender	AR
4	300226-AA	Bracket – Wldmt Mudflap LH	1
5	300226-AB	Bracket – Wldmt Mudflap RH	1
6	301642	Bracket – Hydraulic Mount Front LH	1
7	301643	Bracket – Fender Front RH, 19-21' Only	1
8	36408	Bolt – Carriage 3/8 x 1 SS	AR
9	36425	Washer – Flat 3/8 SS	AR
10	36420	Washer – Lock 3/8 SS	AR
11	36414	Nut – Hex 3/8 SS	AR
12	20318	Bolt – Carriage 3/8 x 1	AR
13	20693	Washer – Flat 3/8	AR
14	20712	Washer – Lock 3/8	AR
15	20644	Nut – Hex 3/8	AR
16	20067	Cap Screw – 3/8 x 1	AR
17	21699	Decal – Non-Skid Fabric, Specify Length	AR ft

AR - As Required





PARTS LIST

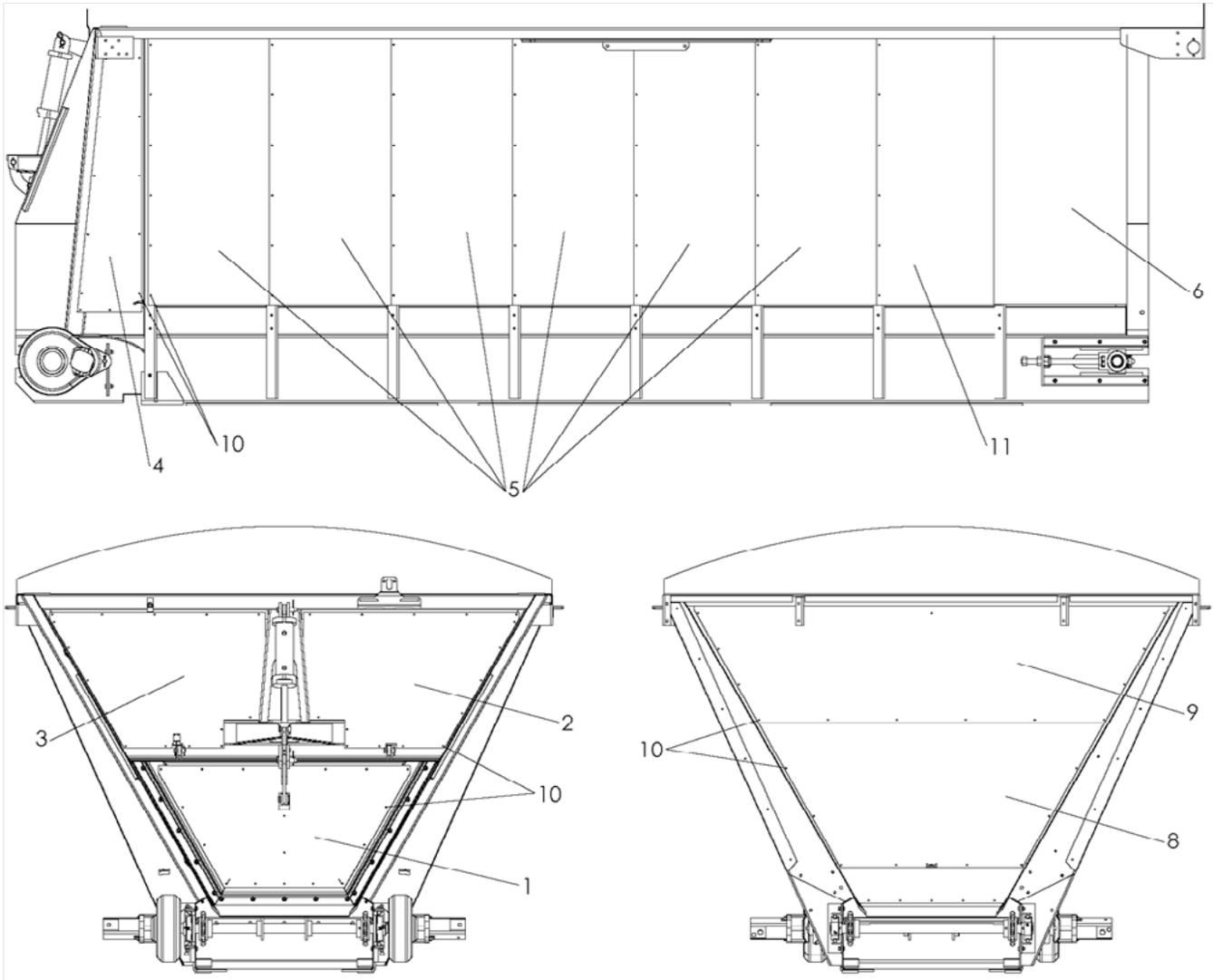


TARP CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	300283	Cover Tarp Landing	1
2	34580	Bolt - 5/16 x 1 SS	AR
3	36424	Washer - Flat 5/16 SS	16
4	42221	Nut - lock 5/16 SS	AR
5	300282	Bracket - Torque Arm	1
6	0395-191	Clamp - Insulated Closed	1
7	36393	Cap Screw - 1/4 x 3/4 SS	1
8	42034	Nut - Lock 1/4 SS	1
9	36293	Cap Screw - 3/8 x 3/4 SS	4
10	72054	Nut - Lock 3/8 SS	4
11		Mount - Kit Electric Tarp	
	*301612-AA	14'	1
	*301612-AB	15-17'	1
	*301612-AC	18-20'	1
	*301612-AD	21'	1
12		Tarp	
	*301611-AA	14'	1
	*301611-AB	15-17'	1
	*301612-AC	18-19'	1
	*301611-AD	20-21'	1

* - Not Shown



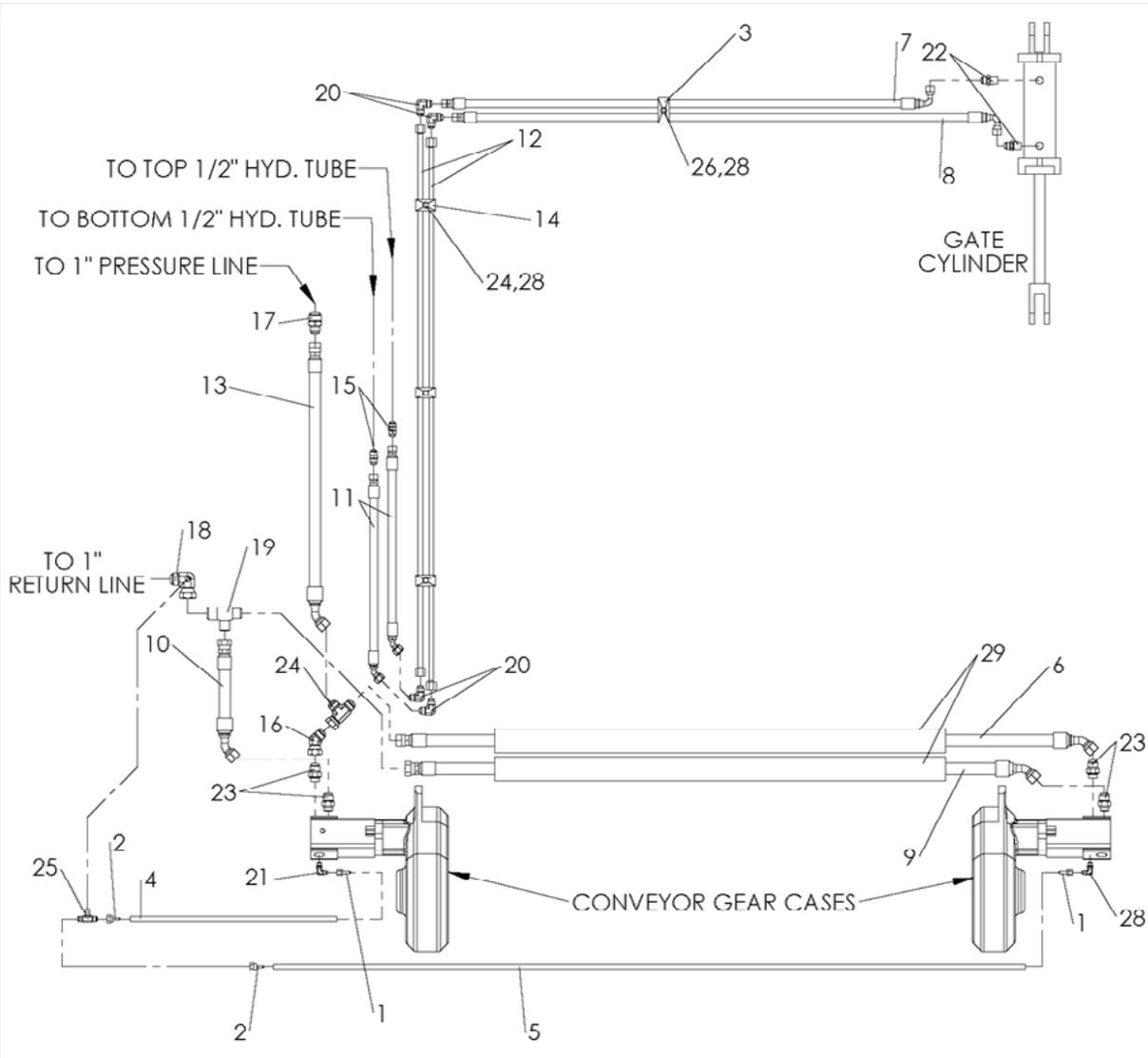


SKINS & INSULATION CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	300215	Skin – Lower Endgate	1
2	300217-AA	Skin – Upper Endgate RH	1
3	300217-AB	Skin – Upper Endgate LH	1
4	300234-AA	Skin – Rear Side RH	1
	300234-AB	Skin – Rear Side LH	1
5	300265-AA	Skin – Side 24”	AR
6	300266	Skin – Side Front	2
7	300267	Insulation – R-11 23” Wide	AR
8	300268	Skin – Lower Front	1
9	300269	Skin – Upper Front	1
10	300034	Rivet – Pop Blind 1/4 SS	AR
11	301615-AA	Skin – Side 12”, 14’ & 16’ Units Only	2
	300265-AA	Skin – Side 24”, 15’ & 17’ Units Only	2
	301615-AB	Skin – Side 14”, 18’ & 20’ Units Only	2
	300265-AB	Skin – Side 26”, 19’ & 21’ Units Only	2

AR - As Required



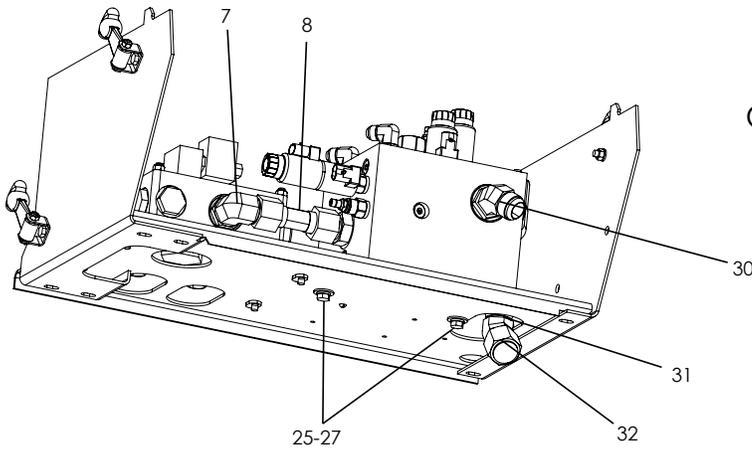
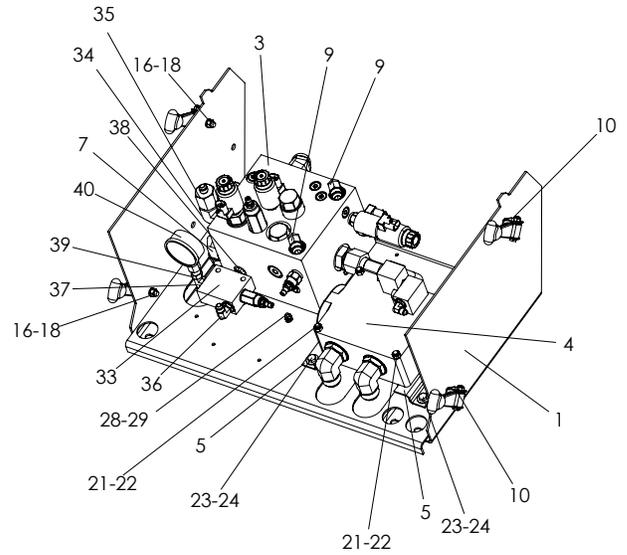
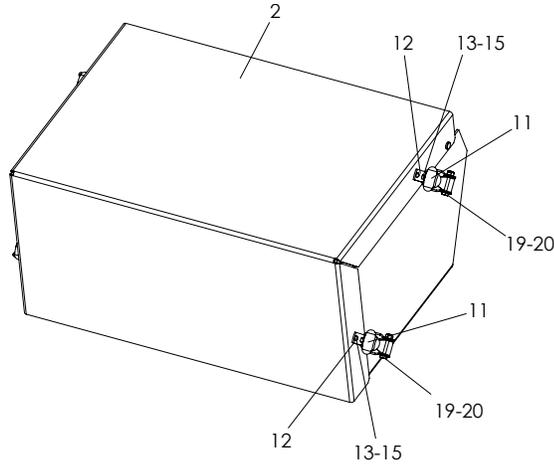


PARTS LIST

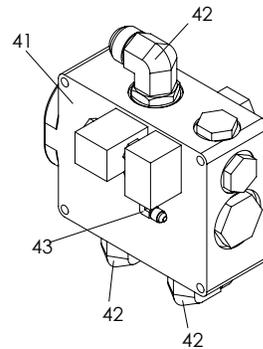


HYDRAULICS CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	26543	Fitting – Socketless	2
2	56271	Fitting – Socketless 9/16 JIC x 1/4 Hose	2
3	75036	Clamp – Tubing Twin 3/4"	1
4	26544-22	Hose – 1/4" Low Pressure	1
5	26544-80	Hose – 1/4" Low Pressure	1
6	80447-X1	Hose – Assy 3/4" x 74	1
7	300146	Hose – Assy 1/2 x 42-1/2	1
8	300147	Hose – Assy 1/2 x 51-1/2	1
9	56386	Hose – Return 3/4 x 66-7/8	1
10	86857	Hose – Assy 3/4 x 12.3	1
11	300145	Hose – Assy 1/2 x 22	2
12	300148	Tube – Assy 1/2 x 120	2
13	56434	Hose – Assy 3/4 x 30	1
14	300031	Clamp – Tubing Twin 1/2	3
15	56351	Fitting – 8-8 070101	2
16	29782	Fitting – 12-12 070321	1
17	29837	Fitting – 16-12 070101	1
18	76579	Adapter – Elbow 90° Tapped	1
19	34710	Adapter – Tee	1
20	98919	Fitting – 8-8 070201	4
21	29795	Fitting – 4-4 070220	2
22	29767	Fitting – 8-8 070102	2
23	29753	Fitting – 12-10 070120	4
24	29781	Tee – Swivel Nut	1
25	29823	Fitting – 6-6-4 070425	1
26	20039	Cap Screw – 5/16 x 1-3/4	1
27	20037	Cap Screw – 5/16 x 1-1/4	3
28	20711	Washer – Lock 5/16	4
29	96906	Sleeve – Abrasive	8 ft



COVER REMOVED FOR CLARITY



PARTS LIST

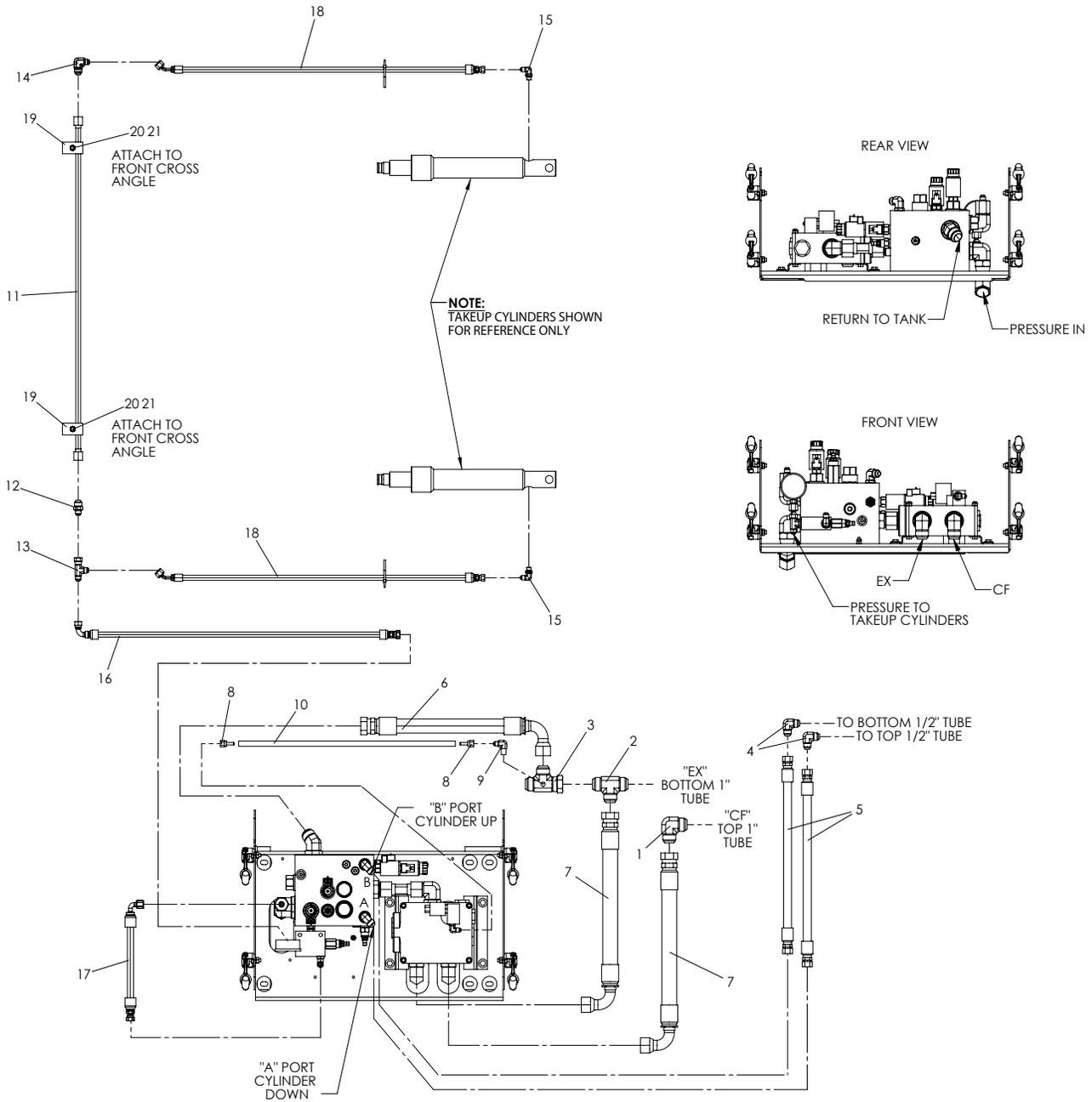
<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	304569	Support – Wldmt Valve	1
2	304573	Cover – Wldmt Valve	1
3	304638	Valve – Manifold Assy	1
4	312249	Valve – Assy 1" PWM Includes 41-43	1
5	304572	Channel – Valve Mount	2
6	29803	Fitting – 16-16 070120	1
7	29840	Fitting – 16-16 070220	4



Please Give Part No., Description
& Unit Serial No.

VALVE CONTINUED

8	304576	Tube – Assy 1 O.D. x 2-15/16	1
9	34822	Fitting – 8-8 070220	2
10	73344	Bracket – Anchor	4
11	73343	Hook – Rubber	4
12	57086	Bracket – Hood	4
13	44452	Screw – Round Head #10-24 x 1/2	8
14	44451	Washer – Lock #10	8
15	47295	Nut – Hex #10-24	8
16	56858	Cap Screw – 5/16-16 x 3/4	4
17	20711	Washer – Lock 5/16	4
18	20643	Nut – Hex 5/16-18	4
19	42448	Cap Screw – 1/4-20 x 1-1/2	4
20	42034	Nut – Lock 1/4-20	4
21	20046	Cap Screw – 5/16-18 x 3-1/2	4
22	20677	Nut – Lock 5/16-18	4
23	20034	Cap Screw – 5/16-18 x 3/4	4
24	20692	Washer – Flat 5/16	4
25	20064	Cap Screw – 3/8-16 x 3/4	4
26	20712	Washer – Lock 3/8	4
27	20693	Washer – Flat 3/8	4
28	20572	Screw – #10-24	1
29	304571	Nut – Keps #10-24	2
30	34726	Fitting – 16-16 070320	1
31	29806	Fitting – 16-16 070321	1
32	29802	Fitting – 16 070112	1
33	312200	Valve - Pressure Reducing/Relieving	1
34	29829	Fitting - 12-16 070220	1
35	56407	Fitting - 12-6 070123	1
36	29774	Fitting - 6-6 070220	1
37	311482	Fitting - 6-6-6 070429	1
38	312201	Fitting - 6-6 SAE-ORB Swivel Union	1
39	312206	Fitting - 6-4 Swivel Nut Female Connector	1
40	312248	Gauge - Hyd 1500 PSI w/ built in snubber	1
41	38576-X4	Valve - Hydraulic 1" PWM	1
42	29840	Fitting - 16-16 070220	3
43	29795	Fitting - 4-4 070220	1

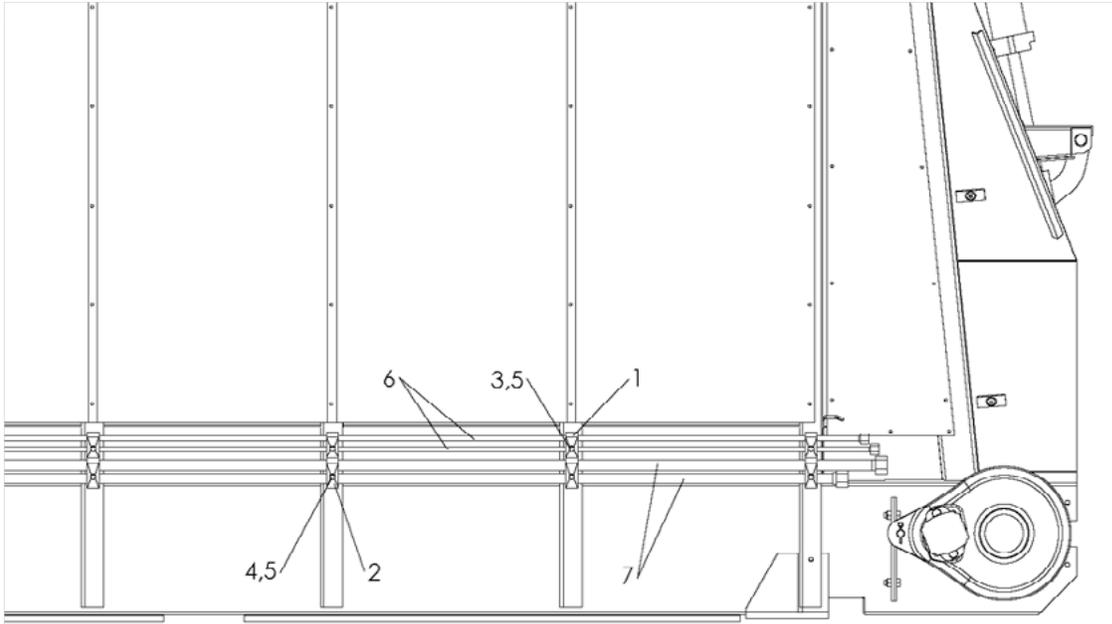


PARTS LIST



HYDRAULIC HOSES CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	29783	Fitting – 16-16 070201	1
2	34711	Fitting – 16-16-16 070401	1
3	34850	Fitting – 16-16-16 070432 Tapped	1
4	98919	Fitting – 8-8 070201	2
5	301649	Hose – Assy 1/2 x 19-1/2"	2
6	56444	Hose – Assy Return 1 x 18-1/2"	1
7	56110	Hose – Assy 1 x 19"	2
8	26543	End – Hose Fitting	2
9	34732	Fitting – 4-4 070202	1
10	26544-22	Hose – 1/4" Low Pressure	1
11	312210	Tube - Assy 1/2 OD x 3/64 x 33"	1
12	312203	Fitting - 8-6 070101	1
13	98724	Fitting - 6-6-6 070432	1
14	312202	Fitting - 8-6 070201	1
15	29795	Fitting - 4-4 070220	2
16	312207	Hose - Assy 1/4 x 32-2/3 100R1	1
17	312208	Hose - Assy 3/8 x 11-1/2 100R1	1
18	312209	Hose - Assy 1/4 x 33 100R1	2
19	300031	Clamp - Rubing Twin 1/2"	2
20	20040	Capscrew - 5/16-18NC x 2	2
21	20677	Nut - Lock 5/16-18NC	2



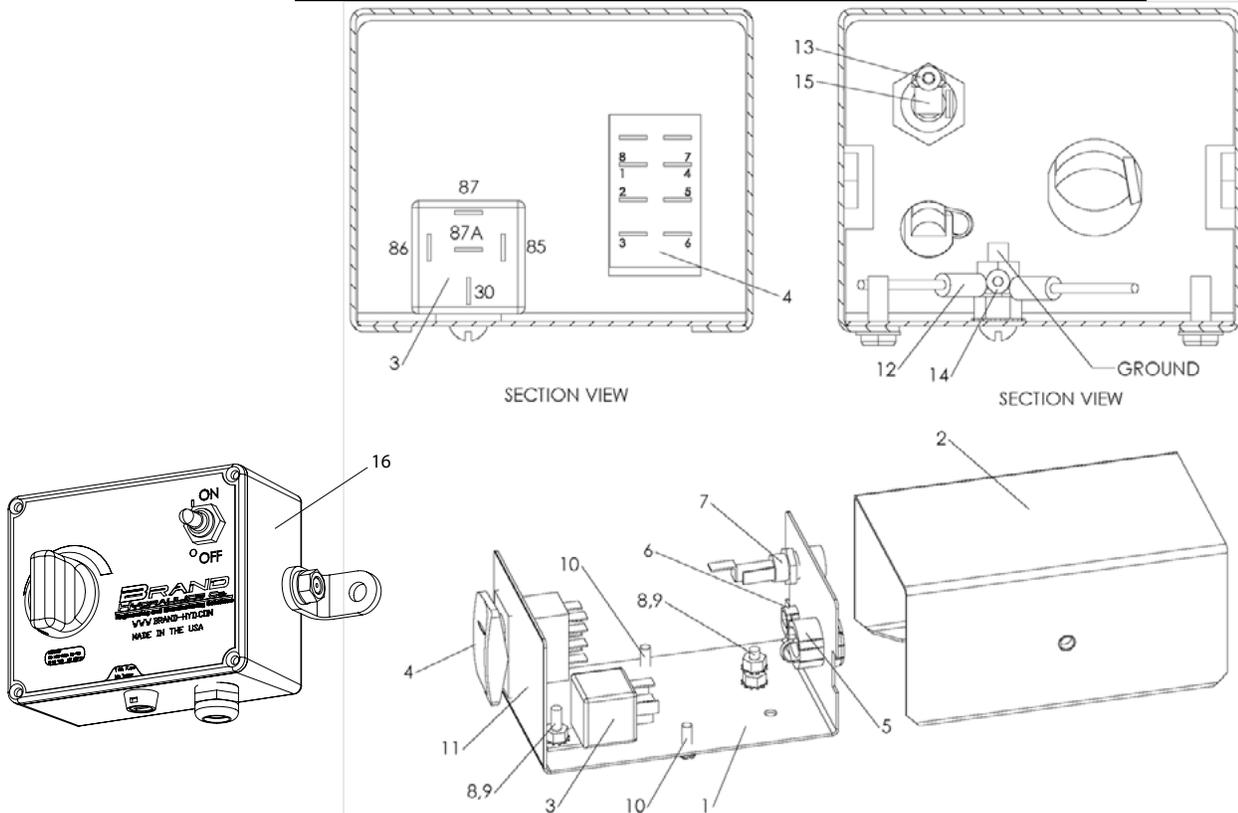
ITEM	PART NO.	DESCRIPTION	QTY
1	300031	Clamp – 1/2" Tube	AR
2	300033	Clamp – 1" Tube	AR
3	20040	Cap Screw – 5/16 x 2	AR
4	20041	Cap Screw – 5/16 x 2-1/4	AR
5	20677	Nut – lock 5/16	AR
6	300149-AA	Tube – Assy 1/2 O.D. x 138	2
	300149-AB	Tube – Assy 1/2 O.D. x 150	2
	300149-AC	Tube – Assy 1/2 O.D. x 162	2
	300149-AD	Tube – Assy 1/2 O.D. x 174	2
	300149-AE	Tube – Assy 1/2 O.D. x 186	2
	300149-AF	Tube – Assy 1/2 O.D. x 198	2
	300149-AG	Tube – Assy 1/2 O.D. x 210	2
	300149-AH	Tube – Assy 1/2 O.D. x 222	2
7	301648-AA	Tube – Assy 1 O.D. x 138	2
	301648-AB	Tube – Assy 1 O.D. x 150	2
	301648-AC	Tube – Assy 1 O.D. x 162	2
	301648-AD	Tube – Assy 1 O.D. x 174	2
	301648-AE	Tube – Assy 1 O.D. x 186	2
	301648-AF	Tube – Assy 1 O.D. x 198	2
	301648-AG	Tube – Assy 1 O.D. x 210	2
	301648-AH	Tube – Assy 1 O.D. x 222	2

AR - As Required



Please Give Part No., Description
& Unit Serial No.

USER INTERFACE CONTROL



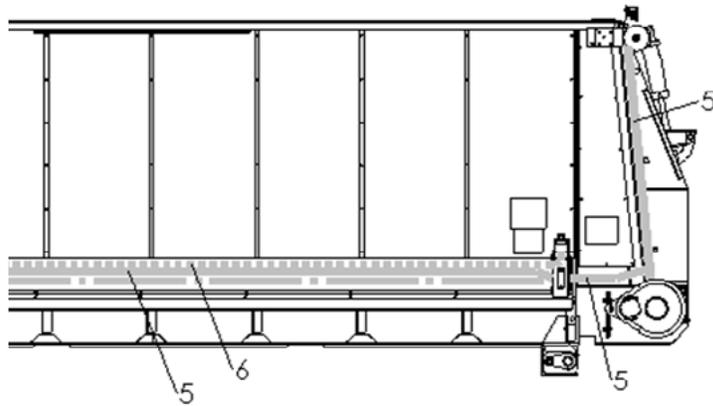
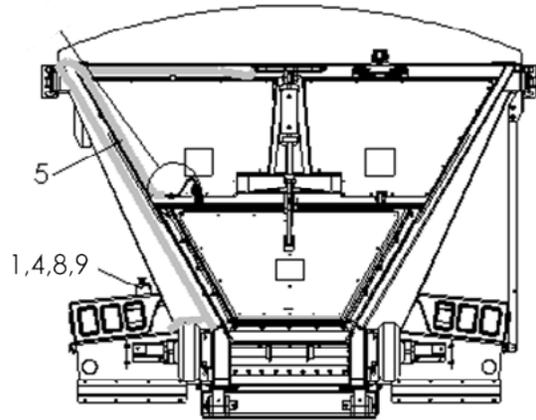
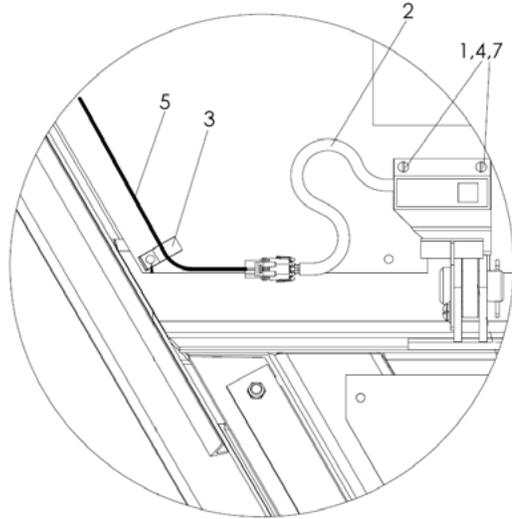
Wire Color Codes
 Positive (+) - Red
 Ground (-) - Black

ITEM	PART NO.	DESCRIPTION	QTY
	304578	Panel – Assy Control, Includes 1-15	
1	300274	Panel – Front	1
2	304580	Cover – Wldmt Control Panel	1
3	300163	Relay – 12 V	1
4	300162	Switch – Rocker Double Pole	1
5	99490	Bushing – .56 Strain Relief	1
6	99491	Bushing – .27 Strain Relief	1
7	99492	Fuse – Holder	1
8	20572	Screw – #10-24 x 3/4	2
9	304571	Nut – Keps #10-24	3
10	87340	Screw – #10-24 x 1/2 Self Tapping	2
11	304579	Decal – Control Panel	1
12	304581	Cable – Assy Control Panel	1
13	304582	Wire – Assy Control Panel	1
14	304583	Cable – Assy Battery	1
15	99676	Fuse – 10 Amp Fast-Acting	1
16	88260	Control – Box with 25' Cable	1

Please Give Part No., Description
 & Unit Serial No.



EMERGENCY STOP SWITCH

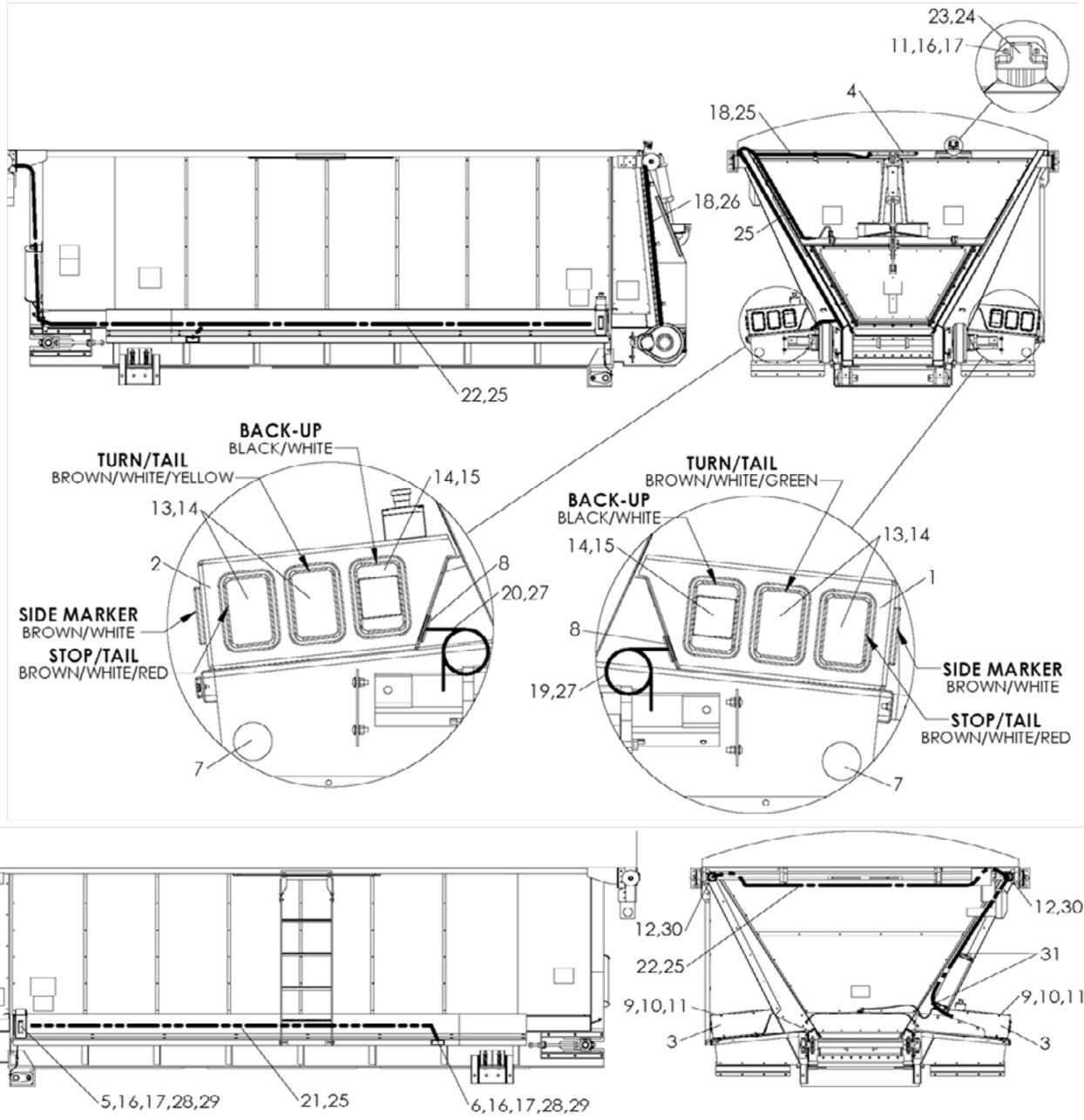


PARTS LIST



EMERGENCY STOP SWITCH CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	56355	Nut – Lock #10-24 SS	2
2	307132	Switch – Assy Proximity.	1
	307133	Sensor - Proximity	1
	303730-AB	Connector – Female Sealed Tower	1
	303730-EC	Seal – Cable	2
	303730-CB	Terminal – Female Sealed (Sleeve)	2
	58728	Conduit – Flexible 3/8 (ft)	.5
3	26562	P-Clamp – Tubing 1/2"	3
4	45168	Nut – Lock #8-32	4
5	304630-AA	Cable – Assy Feedgate Switch 14'-16'	1
	304630-AB	Cable – Assy Feedgate Switch 17'-18'	1
	304630-AC	Cable – Assy Feedgate Switch 19'-21'	1
6	304631-AA	Cable – Assy Dump 14'-16'	1
	304631-AB	Cable – Assy Dump 17'-18'	1
	304631-AC	Cable – Assy Dump 19'-21'	1
7	44452	Screw – Truss Head #10-24 x 1-1/2	2
8	47254	Screw – Machine #8-32 x 3/4	4
9	306169	Switch - Assy Enclosure	1



ITEM	PART NO.	DESCRIPTION	QTY
1	301641-AA	Module – Wldmt RH	1
2	301641-AB	Module – Wldmt LH	1
3	301639	Backplate – Light Module	2
4	6114	Model 15 SS ID Bar Red Incandescent	1
	304714	Model 15 SS ID Bar Red LED	1
5	304701-AA	Lens/Housing – Model 18 Red Incandescent	2
	304700-AA	Light – Model 18 Red LED	2

PARTS LIST

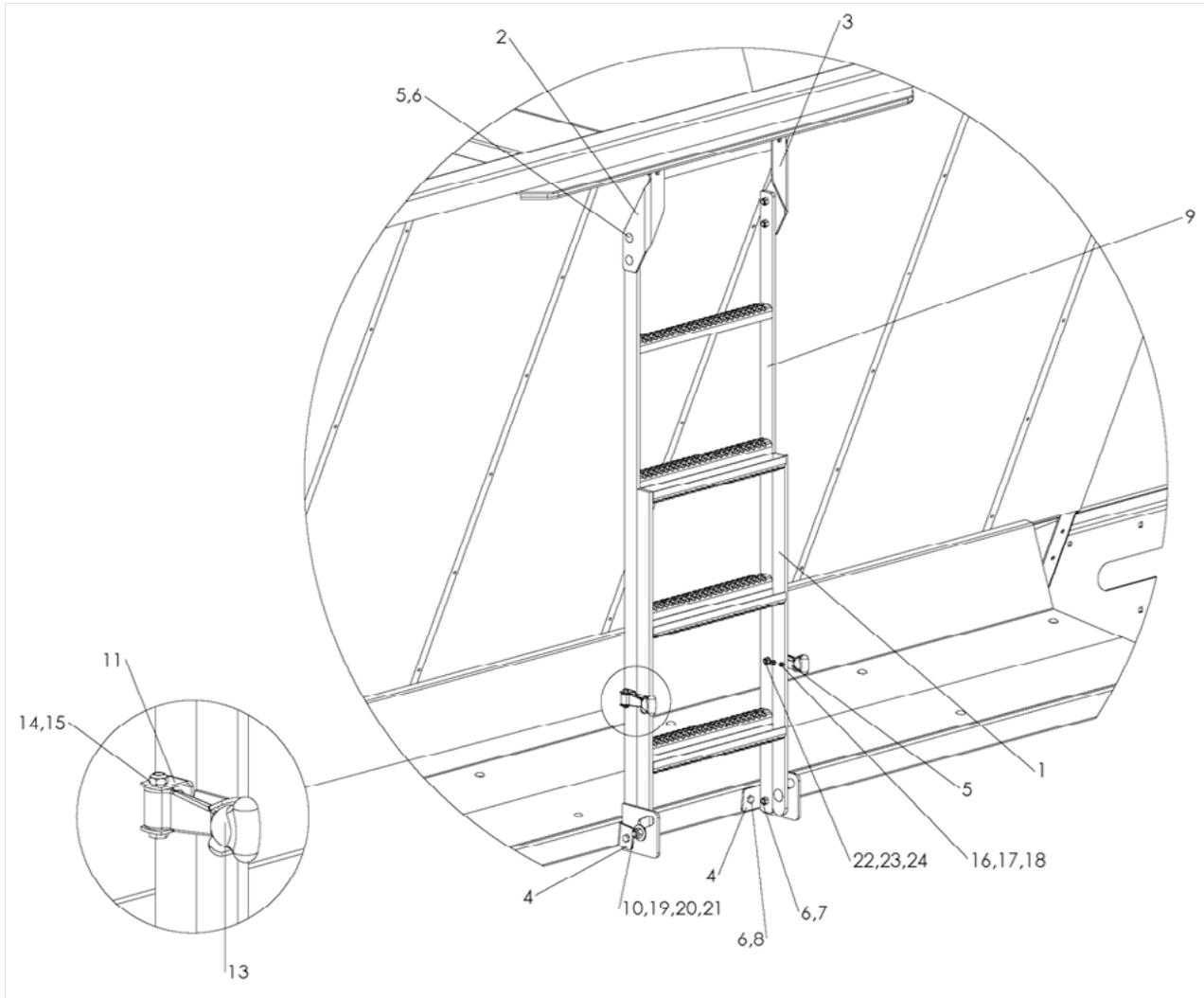


LIGHTS CONTINUED

6	304701-AB	Lens/Housing – Model 18 Yellow Incand.	AR
	304700-AB	Light – Model 18 Red LED	AR
7	89979	Reflector – Red	2
8	34129	Grommet – Rubber	2
9	36393	Cap Screw – 1/4-20 x 3/4	8
10	36418	Washer – Lock 1/4	8
11	36423	Washer – Flat 1/4	10
12	89992	Grommet – 2-1/2"	2
13	300150	Light – Super 45 Red Incandescent	4
	304702	Light – Super 45 Red LED	4
14	304704	Grommet – Super 45	6
15	300151	Light – Super 45 B/U Clear	2
16	44483	Screw - #10-24 x 3/4	AR
17	56355	Nut – Lock #10-32	AR
18	304705	Harness – ID Bar	1
19	304706	Harness – S/T/T & Side Marker RH	1
20	304707	Harness – S/T/T & Side Marker LH	1
21	304708	Harness – Intermediate Side Marker	1
22	304709	Harness – Front 14'-16'	1
	304710	Harness – Front 17'-18'	1
	304711	Harness – Front 19'-21'	1
23	9011-0-0012	Bracket – Model 15 LIC Gray Conduit – Flexible 1/2"	1
24	9011-0-0011	Lamp – Tag Maker Conduit – Flexible 5/8"	1
25	46168	Conduit – Flexible 1/23/4"	AR
26	73926	Conduit – Flexible 5/8" Gasket – Mounting Model 18	AR
27	56356	Conduit – Flexible 3/4" Pigtail – with Weatherpack	9.5 ft
28	304712	Gasket – Mounting Model 18 Bracket – Model 15, Incandescent only	AR
29	304713	Pigtail – with Weatherpack Lamp – Tag Marker, Incandescent only	AR
30	9011-0-7016	Lamp – Yellow 2-1/2 Round Incandescent	2
	9011-0-7047	Lamp – Yellow 2-1/2 Round LED	2
31	26562	P-Clamp – Tubing 1/2"	3

AR - As Required

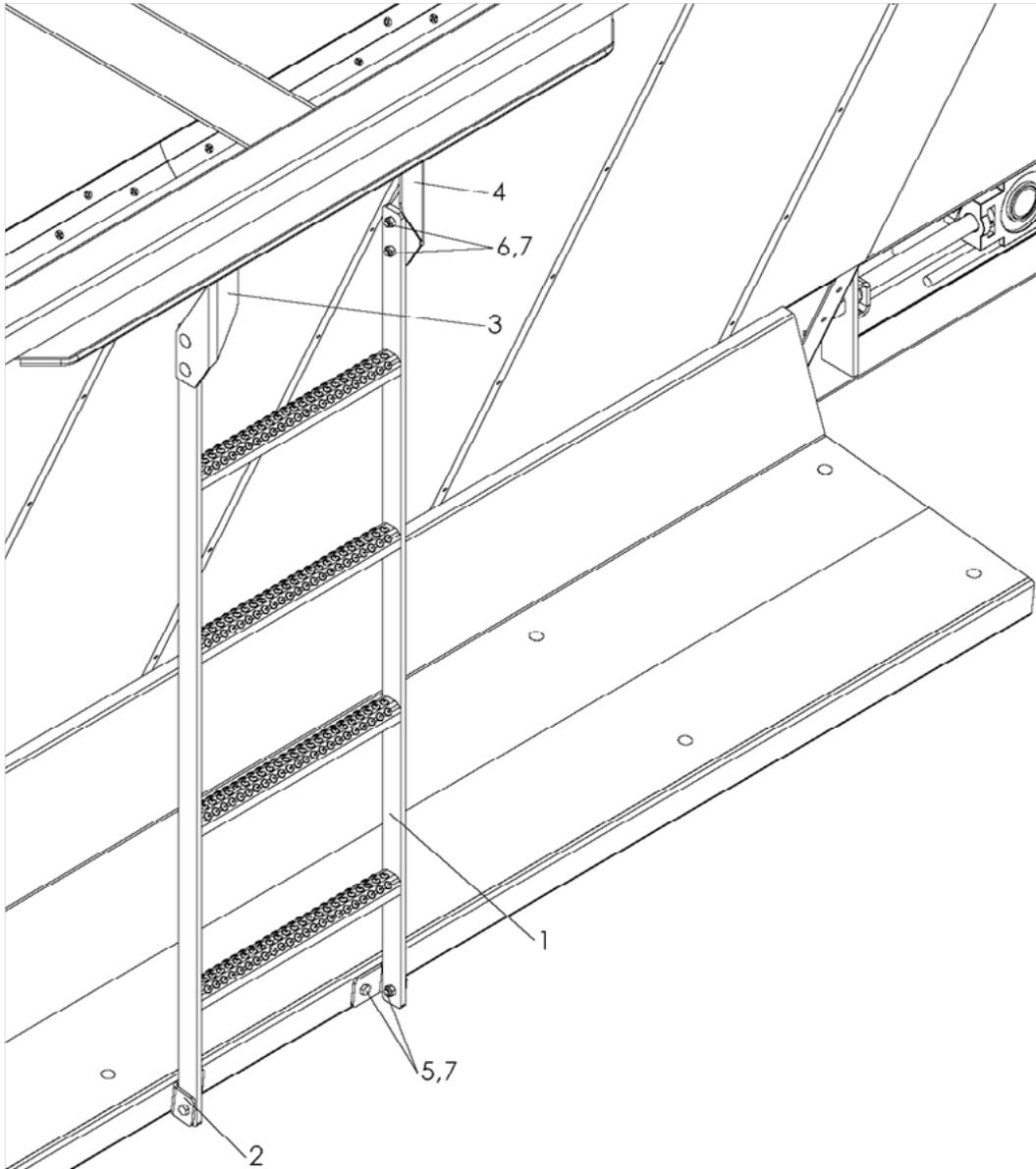




Please Give Part No., Description & Unit Serial No.

FOLDING LADDER CONTINUED

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
	306047	Ladder – Assy, Includes 1,9-24	
1	300456	Ladder – Wldmt Lower 304	1
2	301603-AA	Bracket – Ladder Mount LH	1
3	301603-AB	Bracket – Ladder Mount RH	1
4	301602	Angle – Mount Ladder 304	2
5	20318	Bolt – Carriage 3/8 x 1	4
6	72054	Nut – Lock 3/8 SS	8
7	36399	Cap Screw – 3/8 x 1-1/4 SS	2
8	36398	Cap Screw – 3/8-16 x 1 SS	2
9	306046	Ladder – Wldmt Upper 304	1
10	88638	Tube – 3/4 x 11GA x 3/8 SS	2
11	73344	Bracket – Anchor	2
12	150043	Bracket – Hood	2
13	73343	Hook – Rubber	2
14	42448	Cap Screw – 1/4-20 x 1-1/2	2
15	42034	Nut – Lock #10 SS	2
16	44483	Screw - #10-24 x 3/4 SS	4
17	44451	Washer – Lock #10 SS	4
18	47295	Nut – Hex #10 SS	4
19	36411	Bolt – Carriage 1/2-13 x 1-1/2 SS	2
20	36426	Washer – Flat 1/2 SS	2
21	39016	Nut – Lock 1/2-13NC SS	2
22	300458	Cap Screw – 5/16-18 x 7/8 SS	2
23	36419	Washer – Lock 5/16 SS	2
24	36413	Nut – Hex 5/16-18NC SS	2



<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	301601	Ladder – Wldmt Upper	1
2	301602	Angle – Mount Ladder	2
3	301603-AA	Bracket – Ladder Mount LH	1
4	301603-AB	Bracket – Ladder Mount RH	1
5	36398	Cap Screw – 3/8-16 x 1 SS	4
6	20318	Bolt – Carriage 3/8 x 1	4
7	72054	Nut – Lock 3/8 SS	8

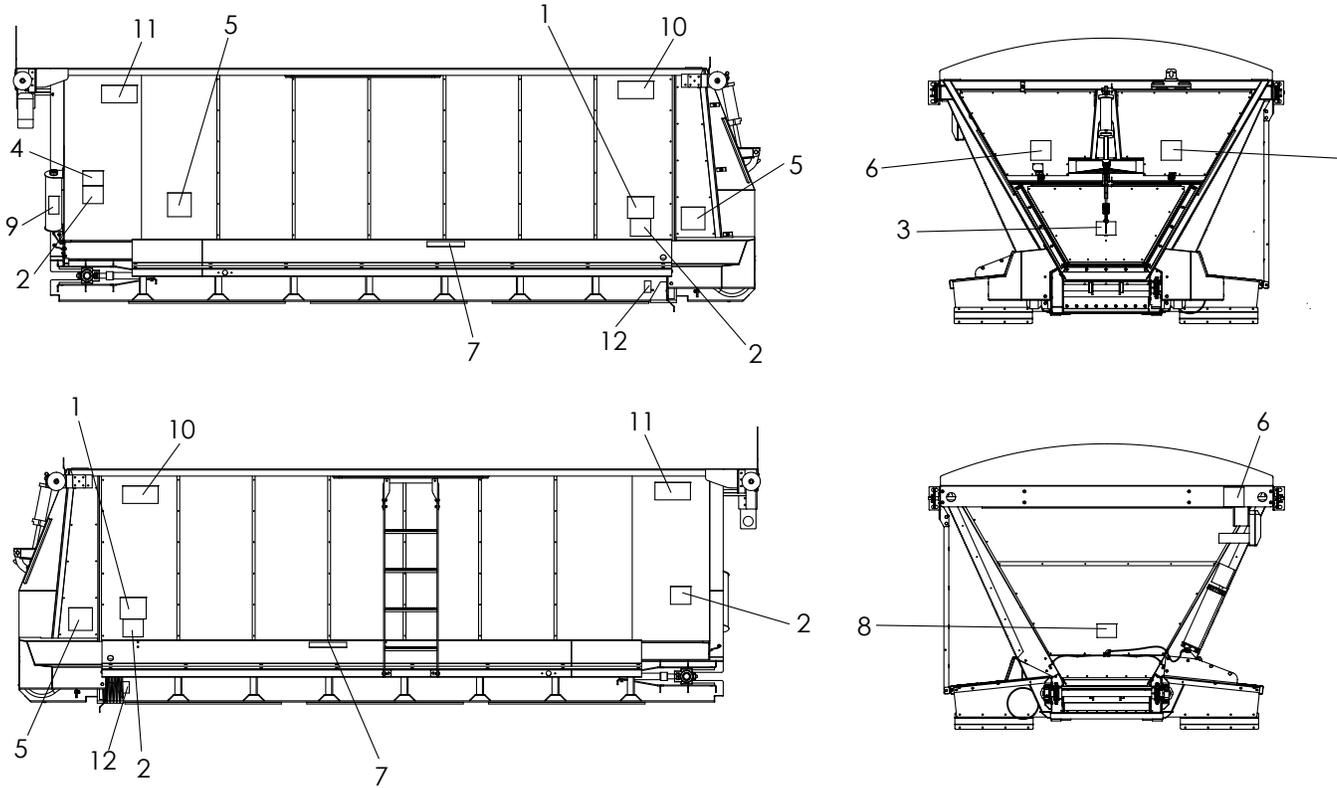
PARTS LIST

MUDFLAPS

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	*300288	Bracket - Mudflap	2
2	*20067	Cap Screw - 3/8 x 1	8
3	*20693	Washer - Flat 3/8	8
4	*20712	Washer - Lock 3/8	8
5	*20644	Nut - 3/8	8

* - Not Shown





ITEM	PART NO.	DESCRIPTION	QTY
1	150034	Decal – Caution Read Manual	2
2	364	Decal – Danger Stay Out of Box	4
3	366	Decal – Warning Swinging Endgate	1
4	321	Decal – Caution Hazardous Material	1
5	39138	Decal – Warning High Pressure Fluid	3
6	55241	Decal – Danger Pinch Point	3
7	39200	Decal – Warning Fender Capacity	2
8	55631	Decal – Warning Guard for Protection	1
9	21476	Decal – Conveyor Chain Life	1
10	304640	Decal – T6034	2
11	39870	Decal – Hi-Way Black Large	2
12	311828	Decal - Chain Tension	2

PARTS LIST