Heartland
AG SYSTEMS
EQUIPMENT

MT24

SERIES

TENDERS

2025 AND NEWER

OPERATOR'S MANUAL
AND PARTS LIST
OM-MT24

HEARTLAND AG SYSTEMS
1180 STATE HWY 7 EAST
HUTCHINSON, MN. 55350
(320) 587-4030

ISSUE
OCTOBER 2026

Heartland AG SYSTEMS
Heartland Agriculture, LLC

WARRANTY REGISTRATION

Heartland AG SYSTEMS EQUIPMENT

TO THE DEALER:
Inspect the implement thoroughly after assembly to be certain it is functioning properly before delivering it to the customer. Check off each item as it is found satisfactory or after proper adjust is made.

PRE -DELIVERY CHECKLIST

_____1. All hardware properly tightened.

_____2. Lubrication of grease fittings.

_____3. All decals properly located and readable.

_____4. Other adjustments, "level operation", "drawbar height", etc.

_____5. Proper tongue weight after all options are mounted. Adjustments made if required.

_____6. Overall condition. Touch-up paint any scratches. Clean and polish

_____7. Operator's manual.

Seller Information

Date set-up_____

Signature _____

Dealer name _____

Address _____

City, state, zip _____

Phone _____

Review the operator's manual with the customer. Explain the following:

_____1. Safe operation and service

_____2. Correct machine installation and operation.

_____3. Correct and periodic lubrication and maintenance.

_____4. Daily and periodic inspection.

_____5. Troubleshooting.

_____6. Storing machine.

_____7. Heartland AG Systems parts and service

_____8. Have the customer write the machine model and serial number in the space provided in the manual introduction

_____9. Give the customer the operator's manual and encourage the customer to read the manual carefully.

Customer Information

Date delivered _____

Customer name _____

Customer address _____

Signature _____

Model number _____

Serial number _____

PLEASE FILL OUT THIS SHEET AND RETURN TO HEARTLAND AG SYSTEMS
1180 State Highway 7 East Hutchinson, MN 55350
www.heartlandag.com | Heartland Agriculture, LLC dba Heartland AG Systems

TABLE OF CONTENTS

	PG
TO THE OWNER	2
WARRANTY	W1 - 8
SAFETY INSTRUCTIONS	4 - 15
OPERATING INSTRUCTIONS	16 - 19
MAINTENANCE & SERVICE	20 - 23
PARTS	24
DIMENSIONAL SPECIFICATIONS	25 -26
MOUNTING EQUATION	27
LADDER MOUNTING	28
DECAL LAYOUT	29 -32
MT24 TENDER ILLUSTRATION	33 -38
UNLOAD AUGER ASSY	39-40
AUGER CONNECTION	41
MUD FLAP KIT	42
FENDER KITS	43-44
LIGHT KIT	45-46
TRUCK MOUNT KIT	47
SEMI MOUNT KIT	48

	PG
HYDRAULICS	
REAR MOUNTED PASSENGER	49 - 50
REAR MOUNTED DRIVER	51 - 52
WET KIT	53 - 54
DEUTZ REAR PASSENGER	55 - 56
DEUTZ REAR DRIVER	57 - 58
POWER PACK DRIVER FRONT	59 - 60
DEUTZ DRIVER FRONT	61 - 62
VALVES	63 - 64
ENGINE DRIVE PACKAGE	65 - 74
CATWALK	75 - 78
SHUR-LOK TARP	79 - 80
VIBRATOR	81 - 82
AUGER WARNING SYSTEM	83 - 85
ARCH DIVIDER	86
GREASE LINE KIT	87-88
OPT. POKE HOLE / FLUSH TUBE	89
WARRANTY CLAIM FORM	90

TO THE OWNER

Congratulations on your selection of the Heartland AG Systems Tender.

The Heartland AG Systems Tender has been designed to provide years of profitable and dependable service. To assure maximum performance of your Tender it is mandatory that you thoroughly study the operator's manual and follow its recommendations. Proper operation and maintenance are essential for safety and to maximize machine life.

It is the owner, manager, and/or operators' responsibility to:

- Operate and maintain this tender in a safe manner and in accordance with all applicable local, state and federal codes and/or laws; and in compliance with labeling instructions by the supplier of the chemicals being used.
- Make sure each and every operator has read this manual and thoroughly understands safe and correct operating procedure.
- Make sure unauthorized people neither operate the Tender nor are in the vicinity of the Tender while it is in operation.
- Make sure the Tender is maintained to preserve and/or improve the safety, accuracy, and reliability of the system. Read and follow the maintenance schedule in this manual. Furthermore, as additional technology becomes available, the owner is responsible for improving the safety, accuracy, and reliability of the Tender.
- Fulfill all warranty obligations so as not to void the warranties. The warranty information on the following pages outlines the warranty policy of Heartland AG Systems and its suppliers.

Heartland AG Systems, dba Heartland Agriculture, LLC reserves the right to make product improvements to the equipment at any time. Heartland AG Systems shall not be obligated to make such changes to the machines already in service.

Heartland
AG SYSTEMS
Heartland Agriculture, LLC

Heartland
AG SYSTEMS
EQUIPMENT

Warranty Policies and Terms

The Heartland Agriculture, LLC warranty is a limited warranty that is provided to the retail purchaser in return for consideration paid as part of the purchase price for a product. The selling dealer must review the warranty coverage with the retail purchaser and obtain a signature on the Operators Manual for warranty verification.

The warranty described here is for Heartland Agriculture, LLC doing business as Heartland AG Systems and its product line Heartland AG Systems Equipment sold and registered in the United States and Canada and normally operated in the United States and Canada.

Warranty Period

The warranty period for all coverage begins at the time that any person, dealer or agent first places the unit into service. At the latest, a unit is placed into service when purchased or delivered to a purchaser.

What's Covered

If a defect in material or workmanship is found in a unit and reported during the Warranty period, Heartland AG Systems will pay parts and labor costs to repair the defects if the services are performed by an authorized Heartland AG Systems dealer. If parts are needed during the repair, Heartland AG Systems will, at its option, use genuine Heartland AG Systems, or remanufactured parts.

Heartland AG Systems provides no warranty, express or implied, for a component or other item that is separately warranted to the purchaser by its manufacturer, such as tires. Check with your local dealer for these details.

Exclusive Remedy

The remedy of repairing a defect in material or workmanship at a Heartland AG Systems dealership under the terms of this warranty is the purchaser's exclusive remedy and is in lieu of any other remedy otherwise available.

No Modification or Extension of Warranty

The Heartland AG Systems Warranty is limited to the written terms in the warranty statement. Heartland AG Systems does not authorize any person, dealer, or agent to change or extend the terms of this warranty in any manner. Any assistance to the purchaser in the repair or operation of any Heartland AG Systems product outside the terms or limitations or exclusions of this warranty will not constitute a waiver of the terms, limitations or exclusions of this warranty, nor will such assistance extend or re-establish the warranty.

The warranty is void if the unit is used in an application for which it is not designed or the unit has been scrapped, salvaged, stolen, junked or totaled.

Heartland AG SYSTEMS
Heartland Agriculture, LLC

Heartland AG SYSTEMS EQUIPMENT

Limitations and Exclusions

The Heartland AG Systems warranty gives you specific legal rights and you may also have other rights, which vary from state to state. This section contains the entire Heartland AG Systems warranty. Heartland AG Systems makes no other representations or warranties, expressed or implied, and specifically excludes the implied warranties of merchantability and fitness for particular purpose. Heartland AG Systems will not be liable for incidental or consequential damages resulting from a breach of the written warranty or any implied warranty.

- These limitations and exclusions may not be allowed by some states or provinces and shall not apply to the extent such limitations or exclusions are not allowed by applicable state/provincial law.

Owner's Responsibility

The Heartland AG Systems Warranty remains in effect during the warranty period if the owner performs the required maintenance at the recommended intervals outlined in the product's operator's manual and the unit is operated within its rated capacity. Genuine Heartland AG Systems service parts or Heartland AG Systems approved service parts that meet Heartland AG Systems specifications must be used for maintenance and repairs.

What Is Not Covered

- Replacement of non-defective wear items expected to be replaced during the warranty period, including, but not limited to: lights, fuses, belts, drive sprockets and chains, hose, soil engaging tools, spray tips, fertilizer deflectors, spinner blades and accessories or items replaced due to customer demand.
- Normal maintenance parts and service, including, but not limited to lubrication, coolants, and filters.
- All travel costs associated with hauling or towing a customer's machine to and from a repair center related to any warranty repair unless specifically covered by a program or policy.
- Repairs arising from any unauthorized modification to the product.
- Repairs arising from service performed by agents not approved by Heartland AG Systems.
- Repairs arising from storage deterioration, failure to maintain the equipment, improper use of the equipment, collision or other accident, vandalism, or other casualty, or operation beyond the rated capacity or specifications.
- Repairs arising from abuse or neglect including, but not limited to operation without adequate lubricants or coolant, over-speeding, contaminated fluids, improper storage, starting, warm-up, or shutdown practices.
- Failure of the machine, its implements or attachments caused by improper field application or overloading.
- Premiums charged for over-time labor costs.
- Economic loss, including lost profits, crop loss, equipment rental or other expenses.
- Cost associated with cleaning of machine in preparation for service.
- Loss or damage during shipment.

- Cost of initial setup or installation of any optional equipment or attachments to a unit.
- Items used for repairs include, but are not limited to: solvents, cleaners, anti-seize lubricants, oil-dry, shop towels, shop supplies, special tools, etc.
- Included, but not limited to are checkups, adjustments, and shimming, tune-ups, spread pattern checks, etc.
- Unauthorized modification or field fixes.
- All costs of special tools or shop supplies incurred with repairs.
- Claims for stolen equipment or parts.
- Claims for replacing a complete assembly when the repair is less than the replacement.
- Claims involving the inspection or reconditioning of units.
- Shop comebacks: any duplicate, repeat, or comeback repair resulting from improper diagnosis, testing, or poor service work.
- Cost of removing or installing Non-Heartland AG Systems optional equipment or attachments.

Base Warranty Coverage

- Base Warranty is the factory warranty provided to the customer at no additional cost for a specific period covering the complete machine.

• Liquid Applicators, except tires	1 Year
• Spreaders and Tenders, except tires	1 Year
• Nh3 Wagons, except tires	1 Year
• Bumper Hitches	1 Year
• Disc Covers	1 Year
• Parts	90 Days
• Tandem Wagons (except tires and main frame)	1 year
o Tandem Wagon main frame	5 Years
• Nitromaster Toolbars shall carry the following pro-rated warranty:	
o Year one, all components except tires	100%
o Year two, center section and wings	80%
o Year three, center section and wings	50%
o Year four, center section and wings	25%
o Year five, center section and wings	10%

Tires

Tires installed on all Heartland AG Systems Equipment are warranted and serviced by their manufacturer's service outlets. Some manufacturers have separate service outlets for off road agricultural and construction equipment. Service is available by contacting the tire manufacturer's local representative.

Warranty Registration

All machinery items, which are invoiced by Heartland AG Systems on separate receivables, must be registered for warranty. The warranty period for all coverage begins at the time that any person, dealer, or agent first places the unit into service. New machine warranty coverage begins when the machine is registered. Registration is accomplished when a properly completed Warranty Registration is received and processed by Heartland AG Systems.

Operator's Manual/Warranty Receipt Verification

The Heartland AG Systems New Equipment Limited Warranty for Agricultural Equipment statement must be filled out and signed by the customer indicating receipt and an understanding of the operator's manual and the warranty statement,

- The original form must be mailed to the address on the form.
- Make one copy for the Dealer. This copy must be retained by your dealership the same as any other legal document.
- Make a second copy for the customer.

Heartland AG Systems Responsibility

If a defect in material or workmanship is found in a product during its warranty period, Heartland AG Systems will pay parts and labor costs to repair the defect when the service is performed by an authorized Heartland AG Systems dealer or agent. If parts are needed during the repair, Heartland AG Systems will, at its option, use genuine Heartland AG Systems new or remanufactured parts. These responsibilities include, but are not limited to:

- Costs for repairs that are the result of defects in material and workmanship
- Payment to dealers per policy in a timely manner
- Service information to dealers
- Identify product deficiencies and take corrective action by field campaigns
- Make determination of premature wear
- Provide unit that is free of defects in material & workmanship

Dealer Responsibility

Heartland AG Systems dealers are responsible for providing prompt, courteous, and willing service to all Heartland AG Systems equipment owners. These responsibilities include but are not limited to:

- Equipment set-up and pre-delivery
- Sell the right product for the intended application
- Inspect the unit and initiate recovery action on any shipping damage and or shortages
- Instruct customer on proper use, maintenance, and safety features of machine
- Advise and explain warranty coverage to customer
- Diagnose the problem, repair the unit, and submit claims in accordance with the terms and conditions of the warranty claim policies
- Take responsibility for saying "NO" to customers on non-warranty failures
- Apply failure analysis to questionable repairs
- Complete product update campaigns
- Have properly trained technicians and adequate tools for the job
- Retain proper documentation of failure repaired

Owners Responsibility

The Heartland AG Systems warranty remains in effect during the stated warranty period if the owner performs the required maintenance at the recommended times as outlined in the products operator's manual. Genuine Heartland AG Systems or Heartland AG Systems approved service parts must be used for maintenance. Additionally, the owner will pay for all transportation or travel expenses related to any warranty repair.
These responsibilities include, but are not limited to:

- Perform maintenance as indicated in the operator's manual
- Use the unit in the correct application (non-abusive)
- Notify dealer of failures and have the machine available for repair in a timely manner
- Training operators
- Travel cost, towing charges, and service calls
- Normal wear items
- Machine damage (accidental)
- Adjustments for application
- Machine inspection (daily walk-around)

Warranty Eligibility

The dealer is responsible to determine that any Heartland AG Systems equipment is covered by Heartland AG Systems warranty before performing a repair and that the repair is a warrantable failure. Any dealer who is in doubt of the equipment's warranty eligibility may call Heartland AG Systems for verification.

Warranty Repairs Made by the Customer

If a Heartland AG Systems dealer determines that the customer is capable, and the customer requests permission to perform select(warranty)repairs on his product, the Heartland AG Systems dealer is authorized to grant this customer request. The servicing dealer should provide the parts to the customer upon request, and to assure that customer is properly instructed on how to perform the repairs correctly.
The servicing dealer is responsible and accountable for claim accuracy and validity; specifically, in areas such as the parts replaced date, and assurances that the parts are installed as instructed by Heartland AG Systems. The comments section of the claim should clearly state that the customer installed the parts. The claim reimbursement will be for parts and applicable handling only. No labor is allowed! All replacement parts must be held for possible recall.

Parts Shortages on Whole-Goods

Dealers may submit a claim for parts shortages discovered during pre-delivery or during final assembly at the dealer's location. All claims for shortages must be submitted 5 days from the original ship date from the plant and before the warranty start date.

Warranty Reimbursement Policies

Heartland AG Systems provides for warranty reimbursement due to defects in material or workmanship only. Warranty does not include restoring any machine or portion thereof, which has accumulated hours of operation, to factory new condition. This includes customer owned and used equipment.

Except for only a few items not available through Heartland AG Systems, all Heartland AG Systems manufactured equipment warranty repairs must be performed using only Heartland AG Systems genuine new or remanufactured parts and accessories. Installation of non-Heartland AG Systems parts does not qualify for warranty reimbursement and can void the machine's warranty.

Parts

It is fully expected that all claims be filed using part numbers from the applicable Heartland AG Systems equipment parts book whenever such part number exists. Heartland AG Systems shall reimburse the dealer at the dealer net price (cost) in effect on the parts replaced date.

Labor

Heartland AG Systems shall reimburse the dealer at 80% of the dealer's posted retail shop labor rate. The retail shop labor rate shall be subject to verification by Heartland AG Systems from copies of actual dealer invoices to customers.

Outside Charges

Specialized repair such as that done by a machine shop will be accepted as part of a warranty claim at actual cost. Explain the parts used and the service work performed in the description section of the claim and retain a copy of the receipt. Retain a copy of the invoice with the shop work order to support the claim. Outside repairs that exceed the cost of the same repair, if performed by the dealer, will be reimbursed at a lower rate.

Freight

Heartland AG Systems will pay the freight charges when a warranty recalled part is to be returned to Heartland AG Systems.

Travel

Travel will only be reimbursed when authorized by a field campaign.

Repairing or Replacing Parts and Components

When performing a warranty repair, a complete part or component should not be replaced under warranty if the repair can be accomplished at a lower cost. If the total cost of the repair including the cost of parts, labor, and/or outside labor or materials is less than 75% of the cost of the parts, the part must be repaired.

Filters and Lubricants

Replacement of lubricants and filters do not qualify for warranty reimbursement unless damage caused by a defect in material or workmanship results in contamination or sudden loss of fluid. Lack of maintenance, operator misuse, or neglect will not qualify for warranty reimbursement.

Heartland AG SYSTEMS
Heartland Agriculture, LLC

Heartland AG SYSTEMS EQUIPMENT

Claim Form Guidelines

Claims Must Have

1. Product identification number (PIN) or serial number. All characters of the PIN must be used on the warranty claim.
   - Claims for parts warranty must use the word "PARTS" for the PIN. An invoice that shows date of sale or date of installation must be supplied for all parts claims.
2. Model Number
3. Date of failure – Claims must be submitted within 30 days or repair.
4. Date of repair
5. Warranty start date. Date the unit warranty starts or date the parts were sold for parts warranty.
6. Description of the problem. Describe all problems pertinent to the claim.

   Comments should be as precise as possible, attach a separate sheet if necessary, to describe the problem.
7. Description of the work performed. List each significant action of the repair.
8. Itemize labor. Provide a breakdown of labor for each significant repair action in the "Describe Work Performed" column.
9. Shop order numbers. The shop order number field is used for recording your shop work order number that is related to the claim. The shop order number field can also be used to record the parts invoice number when claiming a parts warranty.
10. Customer information. Customer information includes the customer name, city, state, county, and postal code. It must match the warranty registration.
11. Warranty claim total. The total of all reimbursement costs requested.
12. Dealer signature and date. All claims must be signed and dated by the distributor to be validated.

Safety Instructions

THIS MESSAGE ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY OR DEATH.

Safety Decals on this machine use the words **DANGER, WARNING,** or **CAUTION**, which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation which, if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- **WARNING:** Indicates a potentially hazardous situation which, if not avoided, will result in serious injury. The color associated with Warning is ORANGE.
- **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow instructions on machine operation and maintenance.

Safety Instructions

Chapter 1

The following chapter covers recommended safety instructions, along with other general recommendations and specific machine safety precautions that should read thoroughly before operating the machine.

Safety

Read and comply with the operator's manual and safety instructions before operating the machine.

Understand that your safety and the safety of other persons is measured by how you service and operate this machine. Know the positions and operations of all controls before you try to operate. **Make sure you check all controls in a safe area before starting your work.**

Read this manual completely and all other manuals provided with this vehicle, plus make sure you understand the controls. All equipment has a limit. Make sure you understand the speed, brakes, steering, stability, and load characteristics of this machine before you start to operate.

The safety information given in this manual does not replace safety codes, insurance needs, federal, state, and local laws. Make sure your machine has the correct equipment required by local laws and regulations.

> ⚠ WARNING: THIS SAFETY ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY OR DEATH.

⚠ Personal Safety ⚠

Throughout his manual and on the manual and on the machine's safety decals, you will find precautionary statements: **DANGER, WARNING,** or **CAUTION** followed by specific instructions or ISO two panel safety pictorial symbols. These precautions are intended for your personal safety.

Failure to follow the **DANGER, WARNING,** or **CAUTION** instructions may result in serious bodily injury or death.

- **DANGER**: Indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.

- **WARNING**: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.
- **CAUTION**: Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.
- ISO two panel pictorial symbol decals are defined as follows:
- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as  and  if used, are RED.

⚠ Safety Rules ⚠

- **DO NOT** operate or service this machine unless you have read and understood the Operator's Manual and have been properly trained in the machine's operation.
- Before staring the engine, be sure all operating controls are in neutral or park position. This will eliminate accidental movement of the machine or start-up of power-driven equipment.
- This machine requires an operator at all times. Never leave the machine running and unattended.
- **ALWAYS** be sure the work area is clear of persons before operating the machine. **NEVER** allow anyone in the work area during machine operation. **DO NOT** allow inexperienced persons to operate this machine.
- Sound horn of tow vehicle before operating the machine.
- **NO RIDERS** – A frequent cause of personal injury or death is persons falling off and being run over. Do not permit others to ride.
- For road travel, use flashing warning lamps unless prohibited by law and keep SMV visible.

- **ALWAYS** put the controls in neutral, shut the engine off, apply the parking brake and remove the key **BEFORE** exiting the tow vehicle.

- Extra weight and bad traction conditions, such as mud or ice, increase your stopping distance. Remember a loaded machine increases the distance needed to stop.

- **DO NOT** smoke while servicing the machine.

- **DO NOT** operate the machine while under the influence of alcohol or drugs.

- Hydraulic oil or diesel fuel are high pressured systems. Make sure all lines and fittings are tight and in good condition. These fluids, escaping under pressure, can have sufficient force to penetrate skin and cause serious injury. Failure can result in serious injury or death.

- Escaping hydraulic fluid under pressure can have sufficient force to penetrate skin, causing serious injury. **NEVER** check for leaks using any part of your body to feel for escaping fluid.

- Before servicing the machine, make sure the machine has cooled down. Hydraulic components can get hot enough to cause serious injury.

- After servicing the machine **ALWAYS** replace guards and shields. **NEVER** operate your machine with guards and shields removed.

- Be aware of all pinch points on the machine and keep clear

- Keep bolts tight at all times. Always replace worn or broken parts immediately after they are discovered. Do not use the vehicle if any parts are not functioning properly.

- Do not replace parts with other than genuine factory parts. Doing so could decrease the effectiveness of safety features or the accuracy of the machine.

- This machine is designed for the farming industry. Comply with your local and state laws governing weight, lighting, licensing, overhang, bumpers, maximum width, transportation of chemicals, and any other regulations that might apply.

⚠ Safety ⚠

- When disconnecting battery terminals, remove the Negative (-) cable first; then remove the Positive (+). When connecting cables, connect the Positive (+) first, then connect the Negative (-).

- Disconnect the battery (both terminals) before welding on any part of the machine. Failure to do so may cause damage to sensitive electrical components.

- **BATTERY ACID CAUSES SEVERE BURNS.** Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing. Antidote: **EXTERNAL** – flush with water. **INTERNAL** – drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately. **EYES** – flush with water for 15 minutes and get prompt medical attention. **BATTERIES PRODUCE EXPLOSIVE GASES**. Keep sparks, flames and cigarettes away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries. **KEEP OUT OF REACH OF CHILDREN.**

- When working around stage batteries, remember that all of the exposed metal parts are "live". Never lay a metal object across the terminals because a spark, short circuit, explosion or personal injury may result.

⚠ Electrical Line Safety ⚠

- Know the area before operating the machine. Be aware of power lines, electrical boxes, debris and rocks.

- Watch for adequate overhead clearance when operating the machine.

⚠ Machine Operation and Roll-Over Safety ⚠

- DO NOT ride or allow other persons to ride on machine. Riders can fall or can cause an accident

- DO NOT operate the machine while under the influence of alcohol or drugs.

- Be alert and always know the location of all workers in your area.

⚠ Noise Level Safety ⚠

- Exposure to high noise level may cause hearing loss. Wearing suitable hearing protective devices protects against loud noise.

⚠ Hazardous Chemicals ⚠

- If you are exposed to or come in contact with hazardous chemicals, you can be seriously injured. The fluids, lubricants, paints, adhesives, coolants, etc., used with your machine can be hazardous.

- Material Safety Data Sheets (MSDS) provide information about the chemical substances within a product, safe handling procedures, first aid measures and procedures to be taken when the product is accidentally spilled or released. MSDS are available from your chemical dealer. It is the operator's responsibility to be familiar with the safe handling of the chemical used.

- Before you service your machine, check the MSDS for each fluid, lubricant, etc., used in this machine. This information indicates what the risk are and how to service the machine safely. Follow this information when servicing the machine.

- Before you service this machine and before you dispose of the old fluids and lubricants, always remember the environment. **DO NOT** put oil or fluids into the ground or into containers that can leak.

- Check with your local environmental or recycling center or your dealer for correct disposal information.

- Personal Protective Equipment (PPE) is protective gear worn by pesticide handlers as specified in the use directions on a pesticide label.

⚠ Maintenance Safety ⚠

- Before you service the machine, place a Do Not Operate tag on the machine.

- Always keep safety and informational decals clean and visible. Replace decals that are damaged, lost, painted over or cannot be read.

- When assembling, operating or servicing the machine, wear protective clothing and personal safety devices that are necessary for the particular procedure. Some personal safety devices that may be necessary are protective shoes, face and/or eye protection, hard hat, heavy gloves, filter mask and hearing protection.

- **DO NOT** wear jewelry or loose-fitting clothing that may get caught in moving parts. Always wear close-fitting clothing. Keep hands, feet, clothing and hair away from moving parts.

- Never attempt to clear obstructions or objects from the machine while the engine is running.

- Always stop the engine and remove the key from the key switch when leaving the operator's seat or the machine.

- When servicing the machine, always have the machine on a firm level surface.

- If shield or guards are removed or opened for service, always replace them before operating the machine. Never operate the machine with missing or open shields or guards.

- Keep the area used for servicing the machine clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment. Be sure all electrical outlets and tools are properly grounded.

⚠ Tire Inflation ⚠

Consult your vehicles operator's manual for proper tire inflation.

First Aid Kit

It is recommended that you have a First Aid Kit on the job site and in your maintenance area.

Read Operator's Manual

Decals which display the "Read Operator's Manual" symbol are intended to direct the operator to the Operator's Manual for further information regarding safety, maintenance, adjustments and/or procedures for specific areas of the machine.

When a decal displays symbol shown, refer to the appropriate page of the Operator's Manual. Refer to the Table of Contents at the front of the manual for locating specific items about your machine.

Fire Extinguisher

It is recommended that you have a fir extinguisher on your machine. A fire extinguisher is available from your dealer and can be installed on your machine.

This dry chemical fire extinguisher is approved for Class A, B and C type fires. The operating temperature is -54° to 49°C (-65° to 120°F)

Hand Signals

It is recommended that all persons on the job site use hand signals for communications. Before you start, make sure all persons understand the signals that will be used.

Start Engine



Stop Engine



Come To Me

Move hands forward and rearward - palms in



Move Away from Me

Move hands forward and rearward - palms out



Go This Far



All Stop and Hold



Stop

Move one hand back and forth



Emergency Stop

Move both hands rapidly back and forth



Turn Machine Left

To stop movement, stop moving hand and make a fist



Turn Machine Right

To stop movement, stop moving hand and make a fist



Safety Decals

Check and replace any worn, torn, hard to read, or missing safety decals on your machine

Safety Decal Pictorials

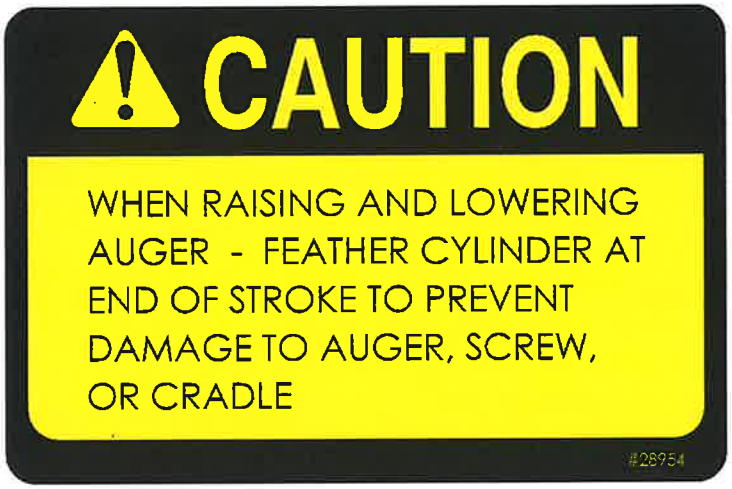














Your MT16/24 tender is designed to be mounted on a chassis for over-the-road transportation of granular fertilizer and chemicals. Comply with all local, state, and federal codes, laws, and/or regulations including, but not limited to:

-vehicle weight, height restrictions, and bumper, brake, and light requirements



Warning: Always wear proper personal protective equipment (PPE) when handling herbicides and other chemicals.

Caution: *Fertilizer* is very corrosive. Over time it will oxidize steel. This weakens steel parts and can cause possible safety hazards. Periodically check safety shields and structural members for corrosion. Replace or repair anything that could cause a potential safety hazard.

Operating Instructions

Operating Instructions

Chapter 2

This chapter starts with a pre-operation checklist. Then it explains certain parts of the machine and how they operate. It also presents detailed instructions for the first time operators.

Pre-Operation Checklist



CAUTION: Read the Safety and Operating instructions section of this manual before operating the MT16/24 Series Tender.

Inspect unit

- Be sure all shipping fasteners are removed
- Check tender thoroughly for screws, bolts, fittings, etc., which may have come loose during shipping.

Transporting

Before transporting the unit, make sure it is secured to the truck bed, trailer, etc. Be sure that the tarp and auger are properly secured in place. Make sure the auger is in the "DOWN" position before transporting.

Operating the Tender

Truck Hydraulic

The hydraulic pump should supply 22 gallons per minute (GPM). Auger speed on the hydraulic unit is approximately 375 revolutions per minute (RPM). Specify PTO pump based on truck transmission and desired engine RPM's.

Engine Hydraulic

Follow the engine manufacturer's recommendations in the maintenance manual. Check to see if the engine has proper oil level before starting.

Unit

Make sure the auger is in the down position before transporting the tender. See that the cleanout door is shut and properly secured before loading. Always have the auger running before opening the hopper gate. Always shut the gate and empty the auger before shutting the auger off.

Auger

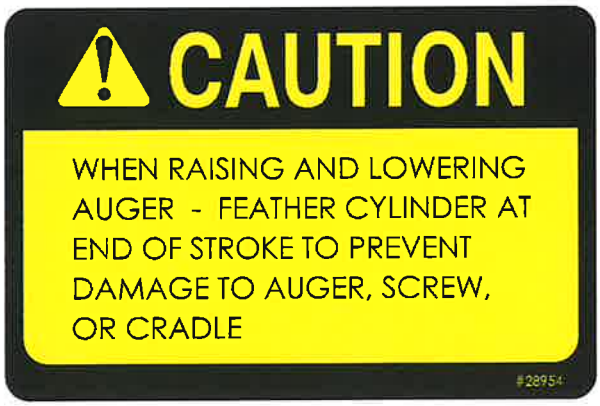
Units equipped with cable guide type of alignment

- Do not operate auger in the down position. Damage to the cable guide will result.
- Check set screws that hold cable guide in place. If they become loose the guide will slip down into the lower screw.



When raising and lowering the auger

- Feather the hydraulic cylinder at the end of the stroke to prevent damage to the auger, screw, and cradle.



Maintenance and Servicing

Maintenance and Servicing

Daily Machine Maintenance

Overnight Storage

Avoid overnight storage of material in machine if at all possible.

Build-up of Material

Hosing the machine out with water after each day's use will eliminate build-up if this is done before the material has hardened. The auger may be cleaned by unloading dry gravel or similar abrasive materials. Stainless units should be washed regularly, especially 409 stainless because fertilizers containing chlorides will pit and discolor the metal.



CAUTION: All residue that is washed off the tender must be disposed of in accordance with local, state, and federal EPA regulations.

Tarp

Loosen the tarp or open Flip top (or Roll tarp) so any excess moisture can escape

Weekly Machine Maintenance

Greasing

Grease all fittings every 75 hours of operation. Use only one (1) pump of a standard grease gun per application. **DO NOT USE AN AIR GUN.**



IMPORTANT: DO NOT over-grease. Over-greasing will break the seals on the bearings and allow fertilizer and dirt into the bearing; thereby, causing bearing failure.

Between Season Maintance

Hopper Body

Clean all the old fertilizer out of the unit and wash it down thoroughly. Touch up with a rust preventative paint where needed. Clean and lubricate guides for hopper gates.

Auger

Clean auger by running coarse gravel or some other abrasive material through auger until cleaned. Be sure the clean out door is left open.



CAUTION: All residue that is washed off the tender must be disposed of in accordance with local, state, and federal EPA regulations.

Unit

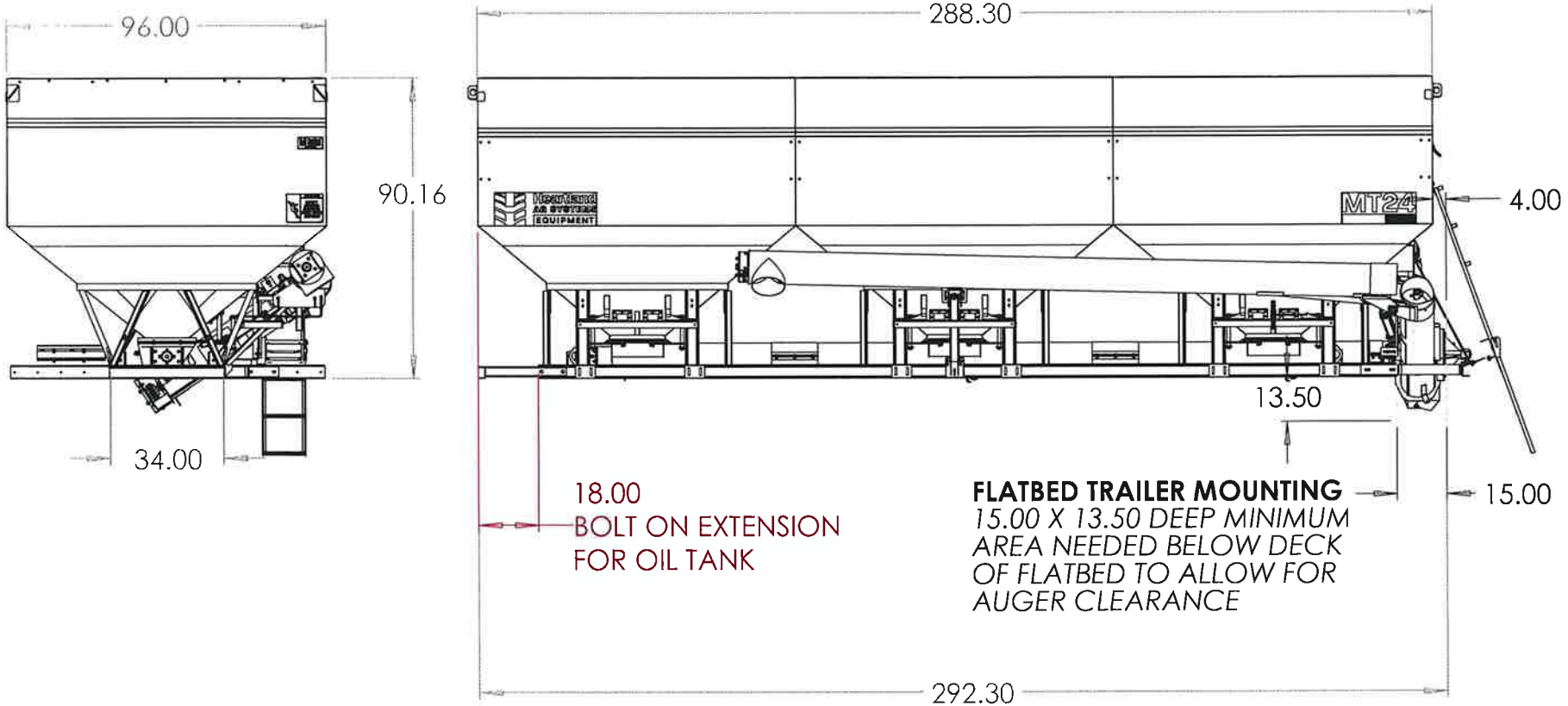
- Remove the tarp or open and secure Flip top (or Roll tarp) to prevent moisture from being trapped inside the hopper.
- If equipped with engine, remove the battery and store inside.
- If stored outside, cover the engine with a cover or tarp of some kind.

Care Of The Roller Chain

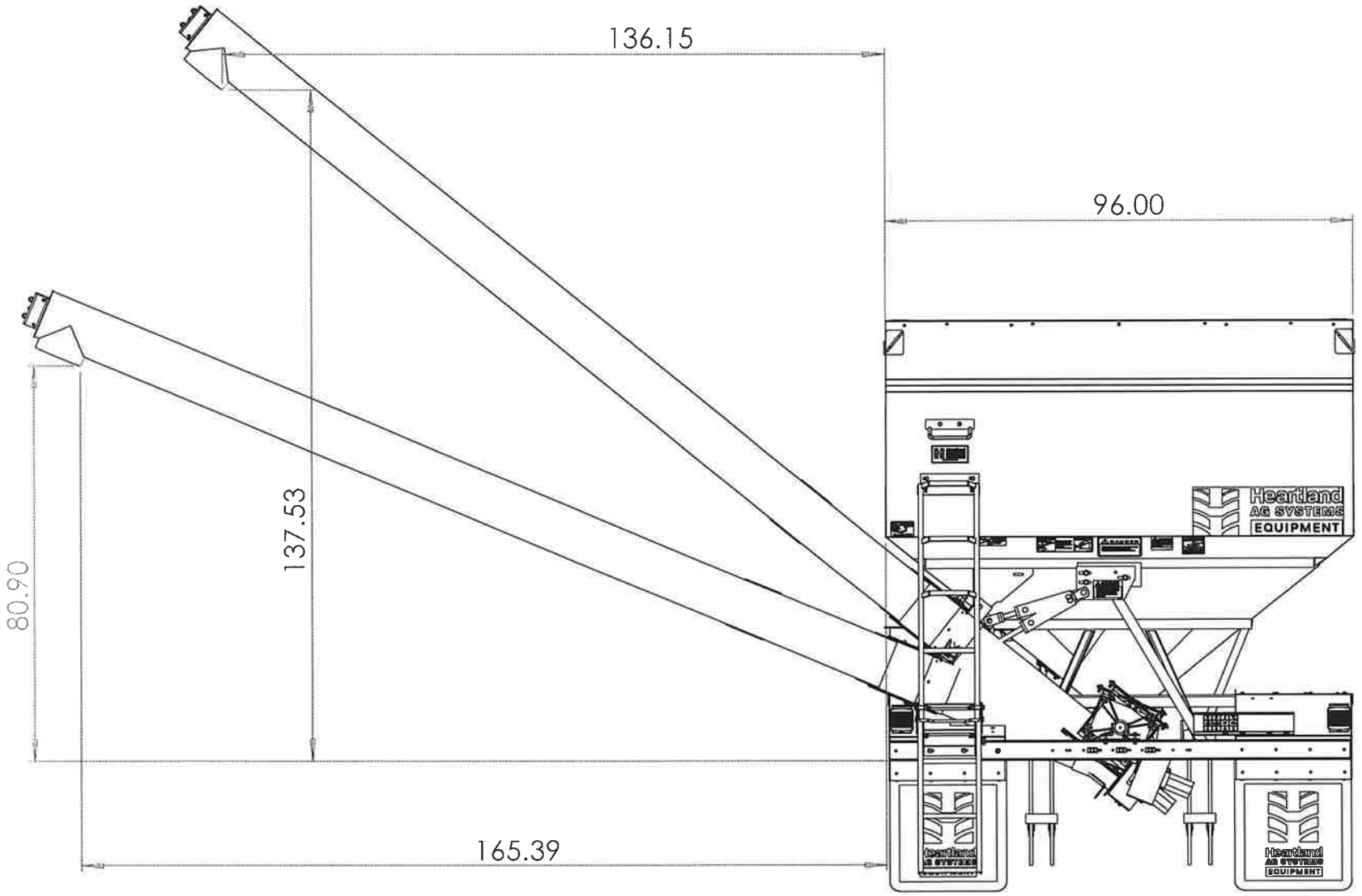
To prevent freezing of the roller chain due to rusting, remove and store submerged in fuel oil between seasons. Do not use regular oil for this purpose.

Parts

MT24 DIMENSIONAL SPECIFICATIONS



DIMENSIONAL SPECIFICATIONS FOR AUGER



MOUNTING EQUATION *(INSTALLATION OF MOUNTING KIT 18384A)*

MT24 MOUNTED ON A TRUCK CHASSIS

STRUCK CAP. MT16 TENDER
900 CU. FT X 62# (MAT'L) - 55800#

FERT WT. --- 55800#
UNIT WT. --- 4725#

TOTAL WT.-- 60525#
*(**DOES NOT** INCLUDE WEIGHT OF TRUCK)*

FORMULAS TO DETERMINE WT. PER AXLE

$$\frac{\text{TOTAL LOAD X DIM "A"}}{\text{DIM "B" (WHEEL BASE)}} = \text{WT. ON FRONT AXLE}$$

EXAMPLE:

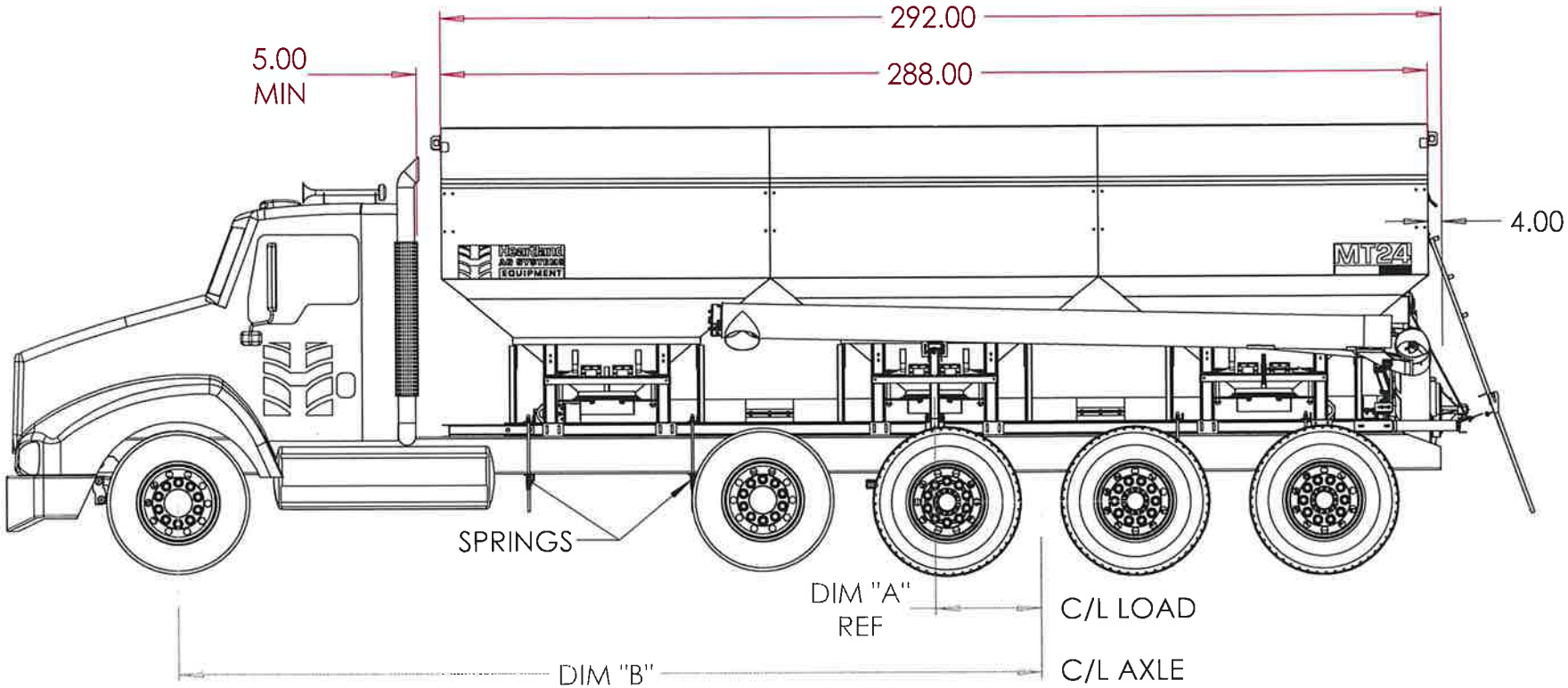
$$\frac{60525 \text{ X } 31 \text{ (DIM "A")}}{248 \text{ (DIM "B")}} = 7566\# \text{ ON FRONT AXLE}$$

LOAD WT. MINUS WT. ON FRONT AXLE = WT. ON REAR AXLE

EXAMPLE:

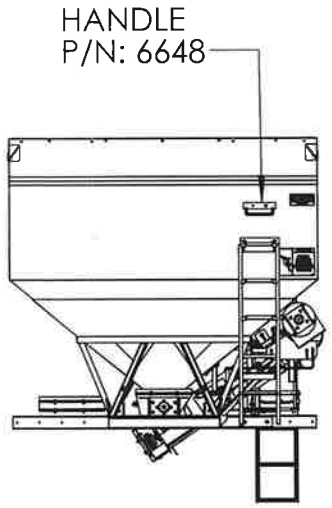
60525 - 7566 = 52959# ON REAR AXLE

NOTE:
INFO SHOWN TO BE USED AS A GUIDE ONLY. ACTUAL FIGURES MAY VARY DEPENDING ON TRUCK AXLES, WHEELBASES, CROSSMEMBER LOCATIONS, AND WEIGHT OF TRUCK (NOT INCLUDED) ETC.

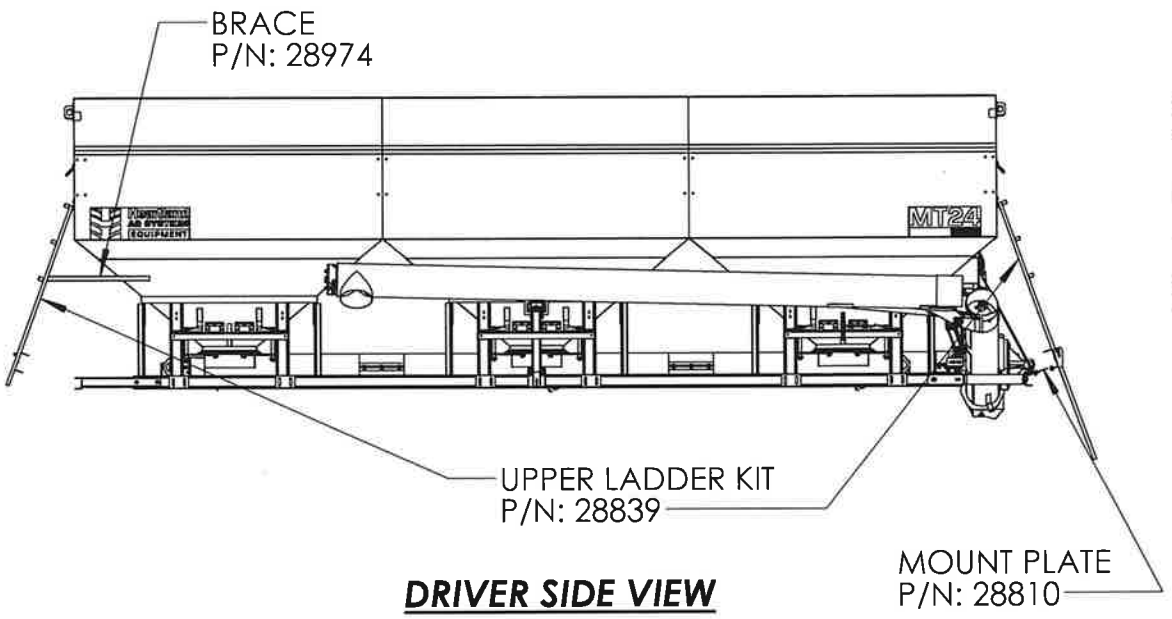


AXLE SPACING AND WHEELBASE WILL VARY BY TRUCK MANUFACTURER REF DIMENSIONS SHOWN ARE ONLY FOR EXAMPLE PURPOSES

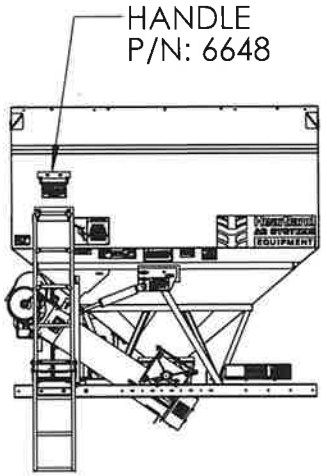
LADDER MOUNTING LOCATIONS



FRONT VIEW



DRIVER SIDE VIEW



REAR SIDE VIEW

DRILL ∅ 13/32 HOLES AS NEEDED FOR INSTALLATION

MT24 TENDER DECAL LISTING

ITEM NO.	PART NUMBER	QTY.	DESCRIPTION
1	11495B	1	WATCH FOR OVERHEAD DECAL
2	12181A	1	CAUTION, BELT & DRIVE CHAIN
3	12182B	1	DANGER STAY CLEAR DECAL
4	12429A	1	READ SERVICE MANUAL DECAL
5	28223	1	DECAL, DRAIN OIL
6	28864	1	DANGER KEEP AWAY FROM HINGE DECAL
7	28954	1	FEATHER CYLINDER DECAL
8	29133	1	DO NOT OPERATE DECAL
9	699107L	2	HEARTLAND AG SYSTEMS DECAL (MEDIUM)
10	28882A	1	DECAL-CONTROL VALVE
11	54133	3	HEARTLAND AG SYSTEMS DECAL (XLG)
12	276534	1	HYDRAULIC OIL DECAL
13	87268088	1	DO NOT ENTER TANK DECAL
14	USA	1	MADE IN USA DECAL
15	71615	1	MT24 DECAL (DITCH)
16	71616	1	MT24 DECAL (DRIVER)
17	699125	2	SAFETY HARNESS DECAL
18	71672	1	DO NOT OPERATE AUGER

TENDERDECALS CONTAIN ITEMS 1 THRU 14
ITEMS 5 & 12 ARE USED ON THE OIL TANK
ITEM 17 IS INCLUDED W/ SAFETY BAR KIT
ITEM 18 IS INCLUDED W/ CATWALK

11495B



12181A



12182B



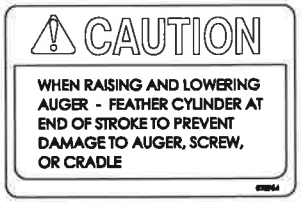
12429A



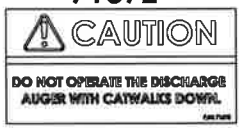
USA



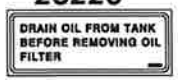
28954



71672



28223



28864



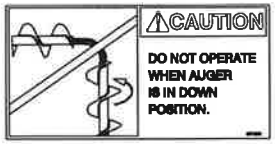
71616



71615



29133



699107L



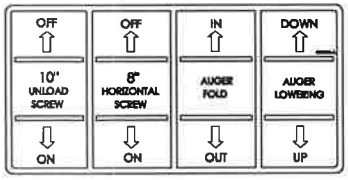
87268088



699125



28882A



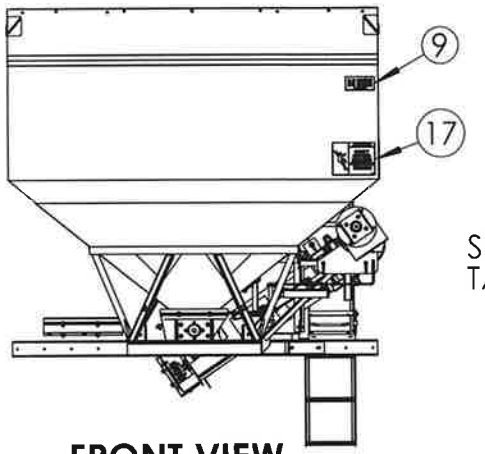
54133



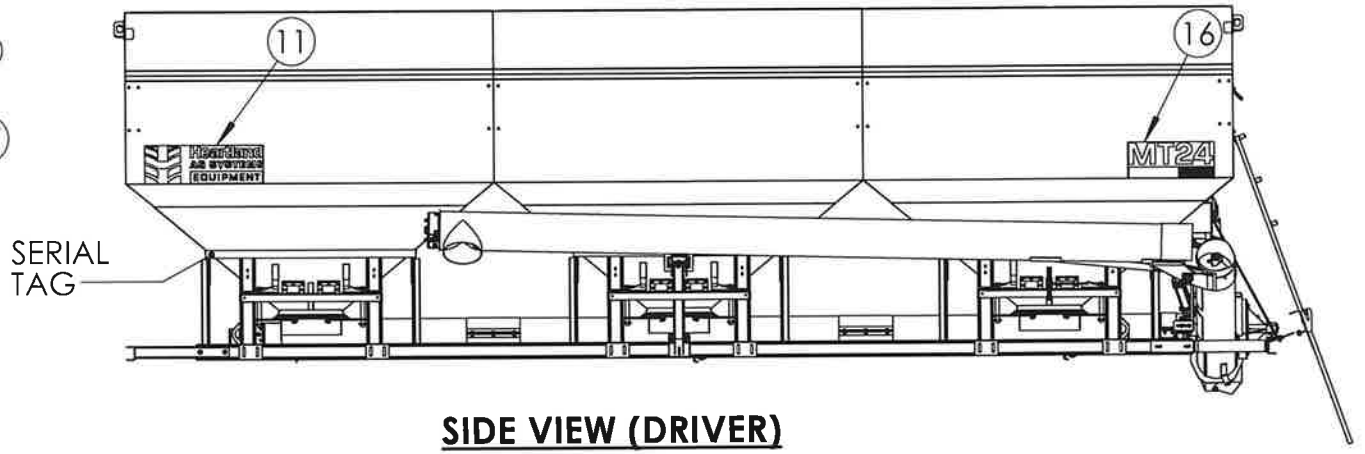
276534



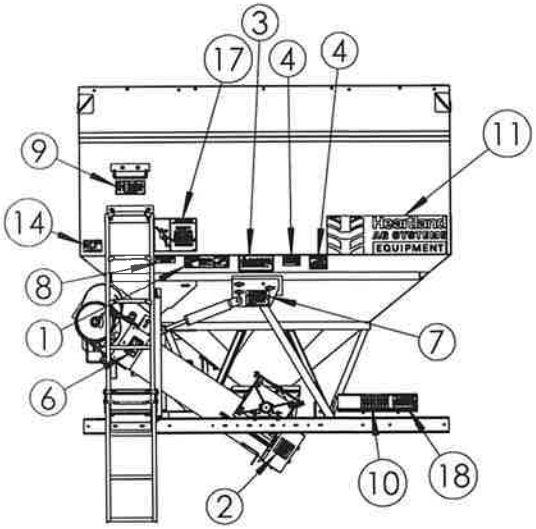
DECAL LAYOUT SHEET (REAR MOUNTED CONTROLS)



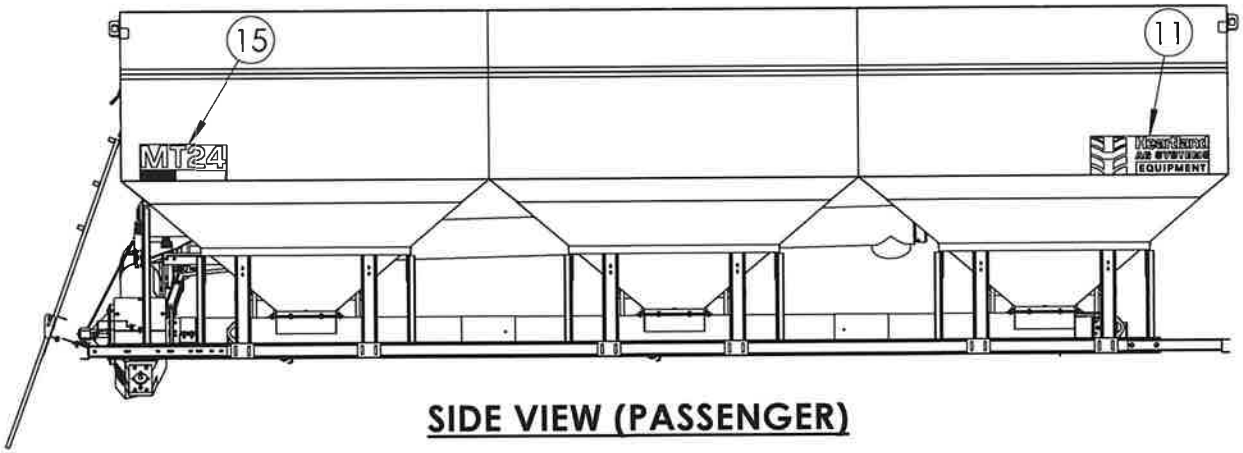
FRONT VIEW



SIDE VIEW (DRIVER)

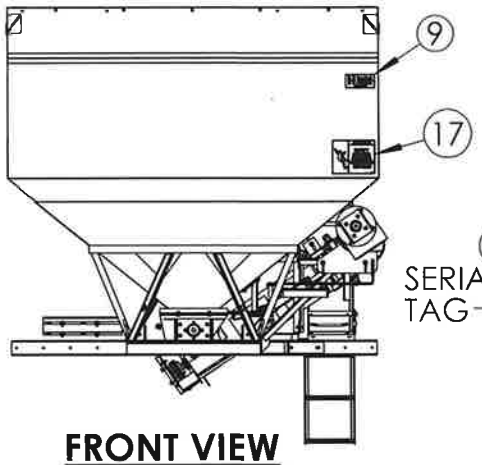


REAR VIEW

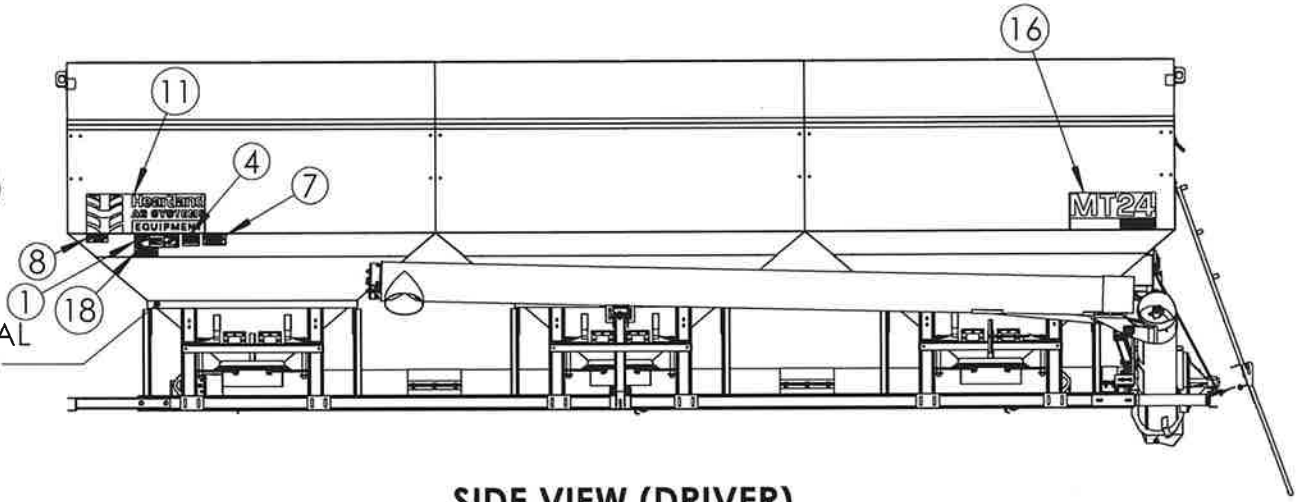


SIDE VIEW (PASSENGER)

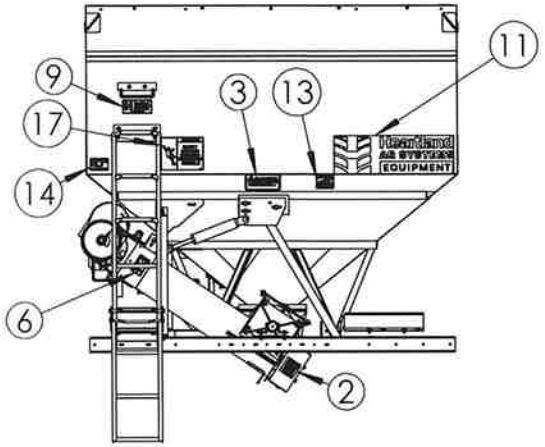
DECAL LAYOUT SHEET (FRONT MOUNTED CONTROLS)



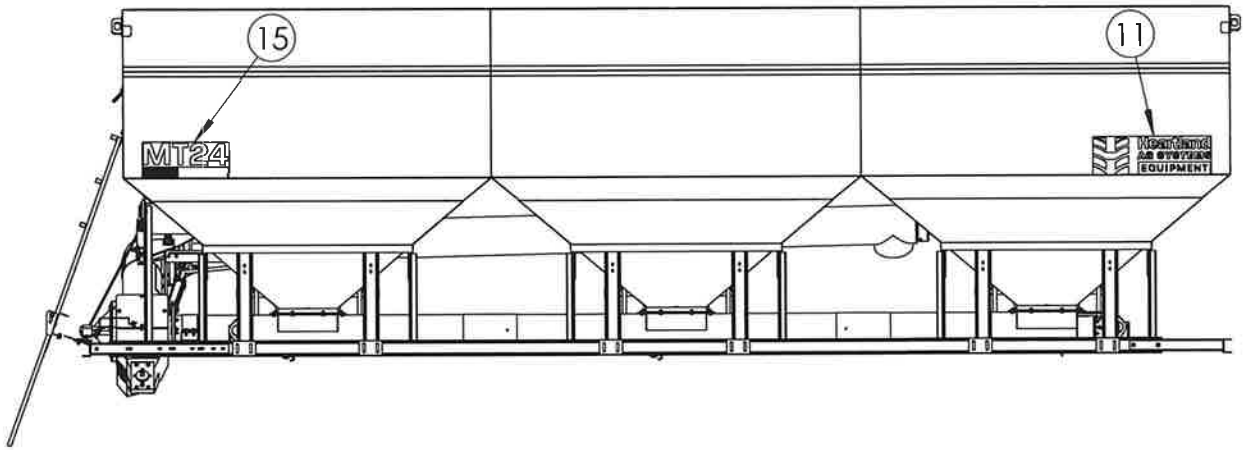
FRONT VIEW



SIDE VIEW (DRIVER)

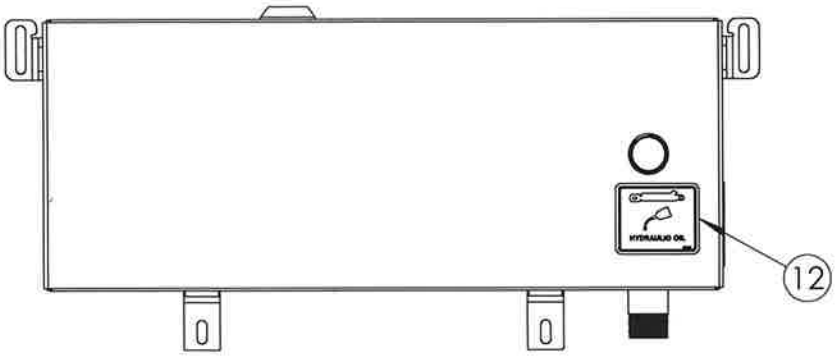


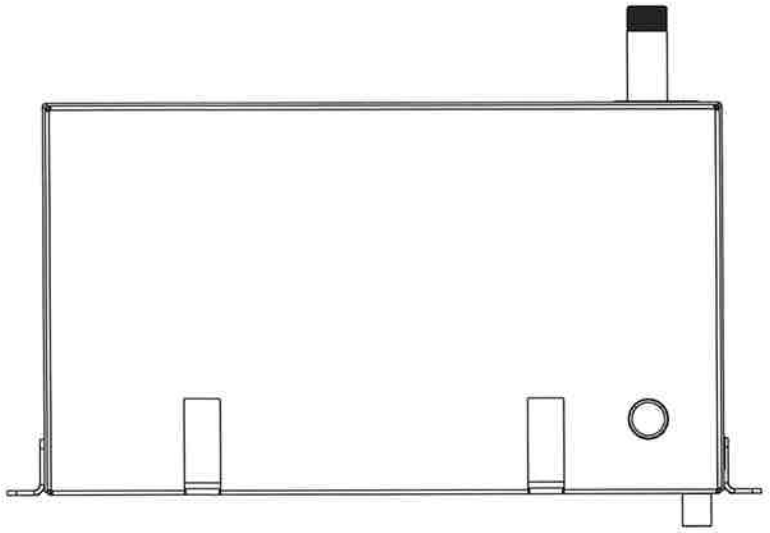
REAR VIEW

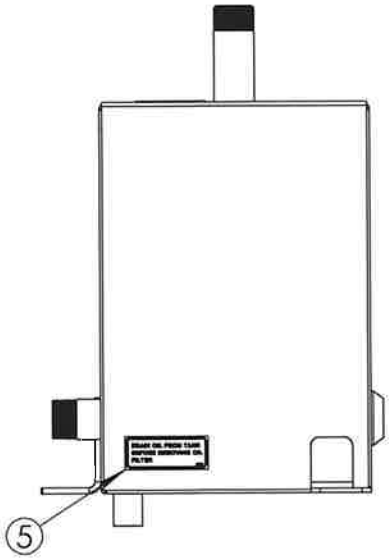


SIDE VIEW (PASSENGER)

DECAL LAYOUT SHEET
OIL TANK





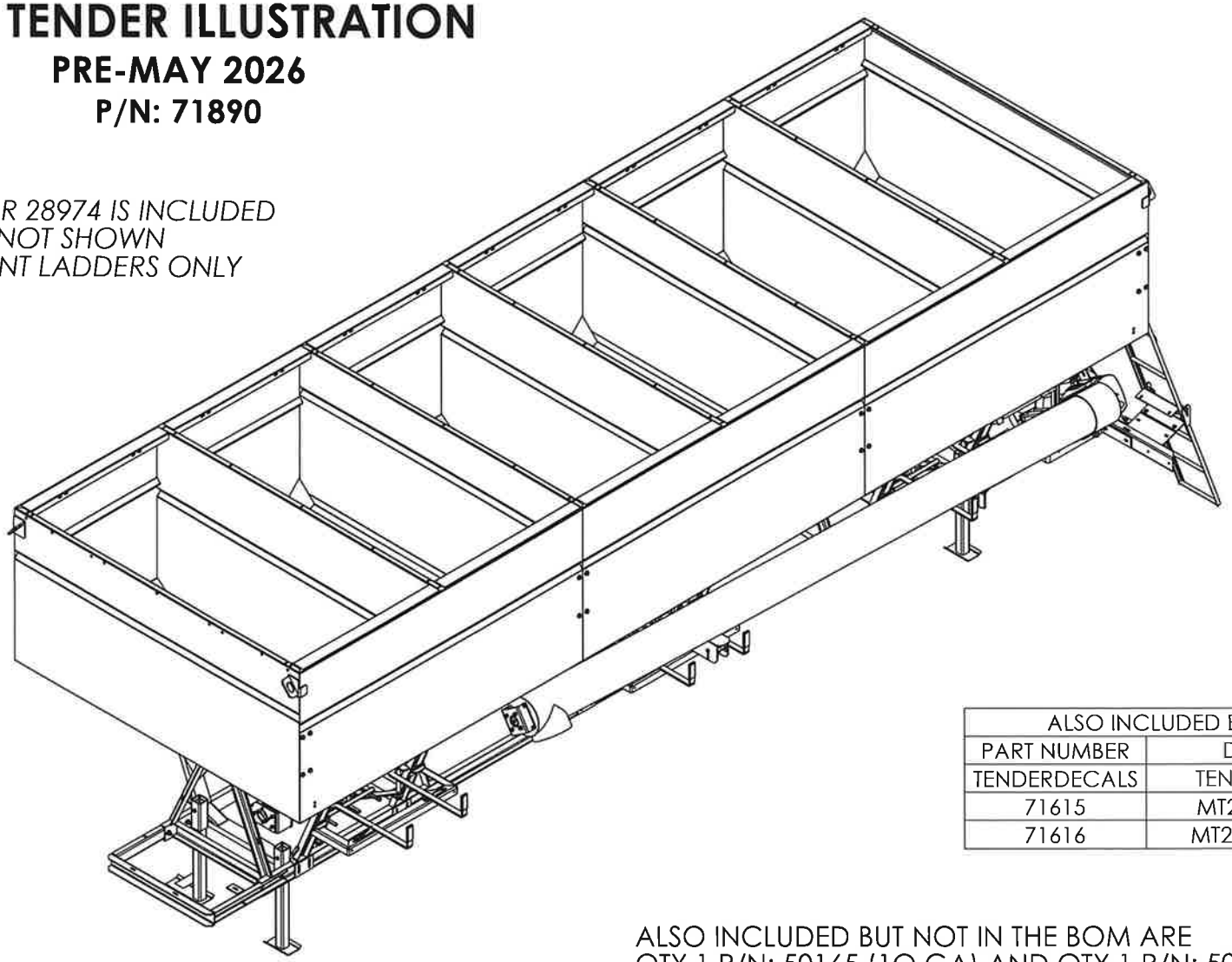


MT24 TENDER ILLUSTRATION

PRE-MAY 2026

P/N: 71890

PART NUMBER 28974 IS INCLUDED
BUT NOT SHOWN
SIDE MOUNT LADDERS ONLY



ALSO INCLUDED BUT NOT SHOWN		
PART NUMBER	DESCRIPTION	QTY
TENDERDECALS	TENDER DECAL KIT	1
71615	MT24 (DITCH SIDE)	1
71616	MT24 (DRIVER SIDE)	1

ALSO INCLUDED BUT NOT IN THE BOM ARE
QTY 1 P/N: 50165 (1O GA) AND QTY 1 P/N: 50169 (14 GA)
SHIPS LOOSE INCASE P/N: 29026 REQUIRES HEIGHT ADJUSTMENT
AFTER BREAK IN PERIOD. THE MACHINE SHIPS STANDARD FROM
FACTORY WITH QTY 1 P/N: 50165 (10 GA) WASHER INSTALLED

MT24 TENDER ILLUSTRATION

PRE-MAY 2026

P/N: 71890

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71887	MT24 EXT BODY & FRAME (6 COMP) (304)	1
2	28612	MOUNT WELD'T. GATE HANDLE	3
3	28109	GATE LEVER STOP	6
4	54143A	HANDLE COVER	7
5	18026824	BOLT HX SS 3/8 X 1 1/4	49
6	18991200	WASHER FLAT 3/8 SS	163
7	18476800	NUT 3/8 SS	11
8	18026422	BOLT CAP SS 5/16 X 1	12
9	18987700	NUT 5/16 SERR FLG SS	12
10	47005524	SHIPPING STAND, AUGER SIDE	2
11	47005525	SHIPPING STAND, HANDLE SIDE	2
12	18057446	BOLT, HEX HD 1/2-13 X 4 LG	4
13	18417400	NUT, HX 1/2 NC ZC	4
14	39061	REAR BUMPER/FENDER MOUNT WELDT	1
15	39051	BUMPER MOUNT	1
16	39048	SUPPORT WELD'T BOT. AUGER	1
17	39124A	TUBE, HORIZ. AUGER	1
18	39124B	TUBE, HORIZ. AUGER (PART B)	1
19	28948	AUGER TUBE, SPLICE	1
20	39020	CRADLE WLDMT	1
21	39024	STRAP	1
22	28951	SCREW-WLDMT-HORIZ (MT24)	1
23	47006519	KEY, SQUARE (1/4 X 1 1/2)	2
24	29921	PLATE, MOTOR MOUNT	2
25	28339	UPPER LADDER KIT	2
26	28507	EXTENSION LADDER KIT	1
27	71107	TUBE CONNECTOR	1
28	47003700	AUGER CONNECTION	1
29	308132	AUGER TUBE, LOWERING UNLOAD	1
30	29026	LOWER SCREW WELDMENT	1
31	29931	SHAFT, AUGER DRIVE	1
32	29927	MOTOR SHIELD	1
33	28828	CAP. BEARING	1
34	28704	COVER PLATE, HOPPER	1
35	39047	ANCHOR WLDMT-LWRNG AUGER	1
36	39025	PIVOT WLDMT-LWRING AUGER	1
37	39028	PIVOT MOUNT WELDMENT	1
38	39254	HYDRAULIC CYLINDER	1
39	39016	GUIDE WELDMENT	1
40	30708	2 HOLE FLANGE BEARING 1 1/4" SHAFT	1
41	31407	SPROCKET #50B24 1 1/4 BORE	1
42	50165	MACHINERY WASHER, 1 1/4 X 10 GA	1
43	10183	SPROCKET #50B24, 1" BORE	1
44	29941 W 53159	COUPLING CHAIN #50-2 X 23 LINKS W/ CONNECTOR	1

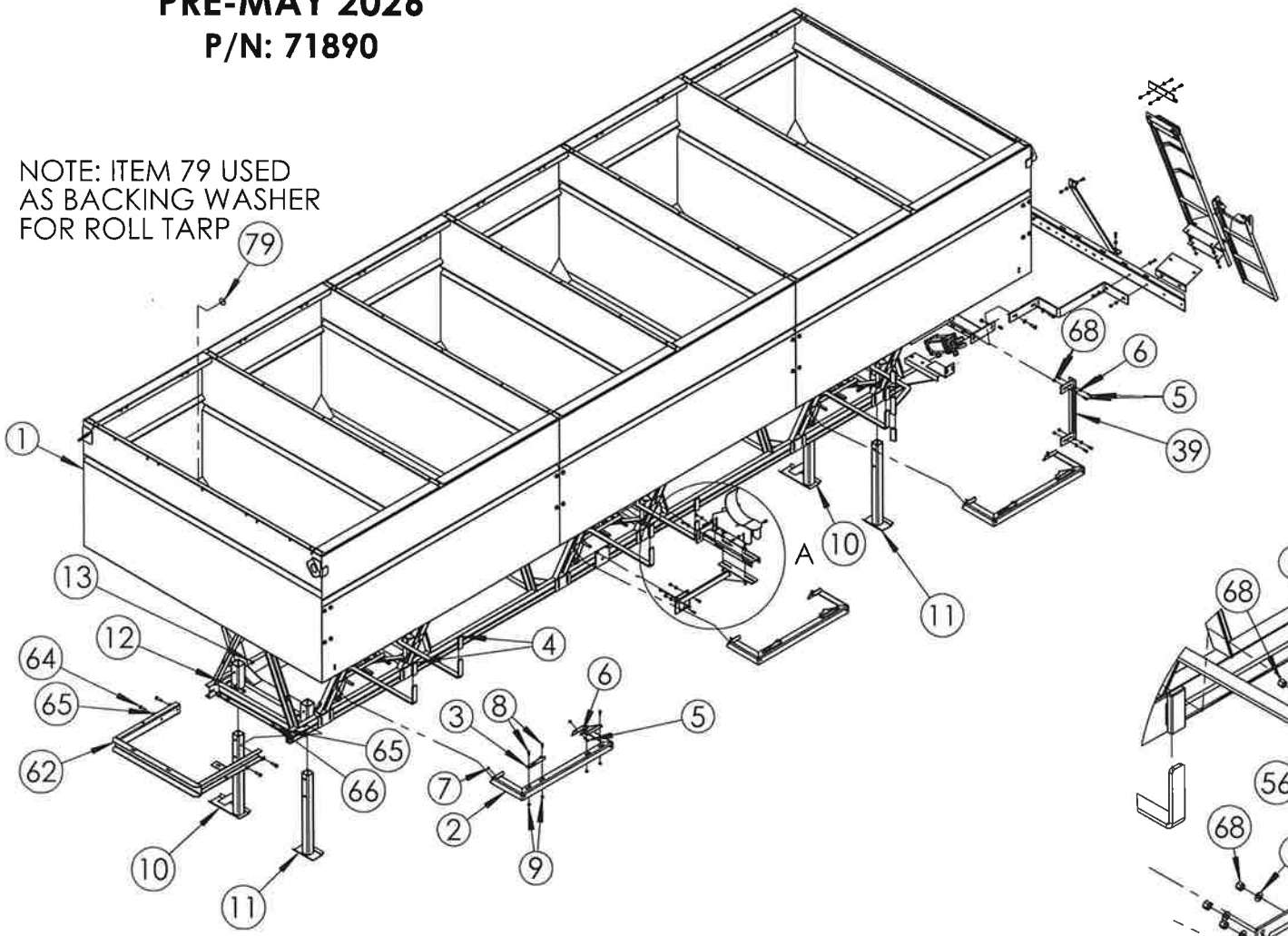
LOWER AUGER CONTAINS QTY 3 P/N: 28811 SLIDING DOORS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
45	10500	BEARING, 2 HOLE FOR 1" SHAFT	2
46	29151	UPPER UNLOAD AUGER ASSEMBLY	1
47	18901806	GREASE ZERK 90 DEG	2
48	307623	PIVOT TUBE	1
49	28807A	ROD- THD	1
50	18852200	WASHER, FLAT 1" SAE	8
51	18439000	HEX NUT 1-8 NC	2
52	18449005	JAM NUT 1-8NC	2
53	47003537	AUGER DRIVE SHAFT	1
54	06648	HANDLE, LADDER	2
55	28846A	CRADLE SUPPORT WELDMENT	1
56	28835A	CRADLE SUPPORT WELDMENT	1
57	29862	CRADLE WELDMENT	1
58	28810	LADDER MOUNT BRACKET	1
59	28922A	CONTROL VALVE BRACKET	1
60	39052	BUMPER BRACE	1
61	28974	SUPPORT, LADDER (SIDE MOUNTED)	1
62	38937	MOUNT WELDT - HYD TANK	1
63	47003228	BASE PLATE UNDER PIVOT MOUNT	1
64	18470175	BOLT SS CAP 1/2 X 1 3/4	15
65	18824800	WASHER FLAT 1/2 SS	23
66	18567400	NUT SS NYLOCK 1/2	17
67	18026822	BOLT, HEX HD 3/8 X 1 NC SS	49
68	18566400	NUT SS NYLOCK 3/8	103
69	18026826	BOLT CAP SS 3/8 X 1 1/2	13
70	10181	SPROCKET 50B18 W/ 1" BORE	2
71	17701 W 53159	COUPLING CHAIN, 350-2 X 17 LINKS W/ CONNECTOR	1
72	01078	STRETCH STRAP (BUNGEE)	2
73	01078	STRETCH STAP (BUNGEE)	1
74	18901805	GREASE ZERK, 1/4-28, STRAIGHT	1
75	18026830	BOLT, CAP, 3/8 X 2, SS	2
76	18901807	GREASE ZERK 45 DEG, 1/4-28	1
77	18022026	BOLT SS HX 1/2 X 1 1/2	2
78	07132	HYDRAULIC CYLINDER (3 1/2 X8)	1
79	71715	TAIL SHAFT WASHER	1

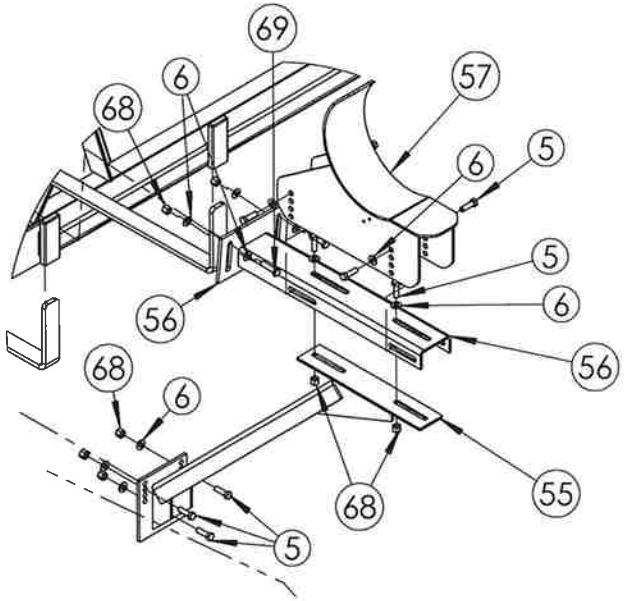
MT24 TENDER ILLUSTRATION

PRE-MAY 2026

P/N: 71890



NOTE:
ITEMS 10 THRU 13 ARE USED FOR STORAGE AND TRANSPORT ONLY

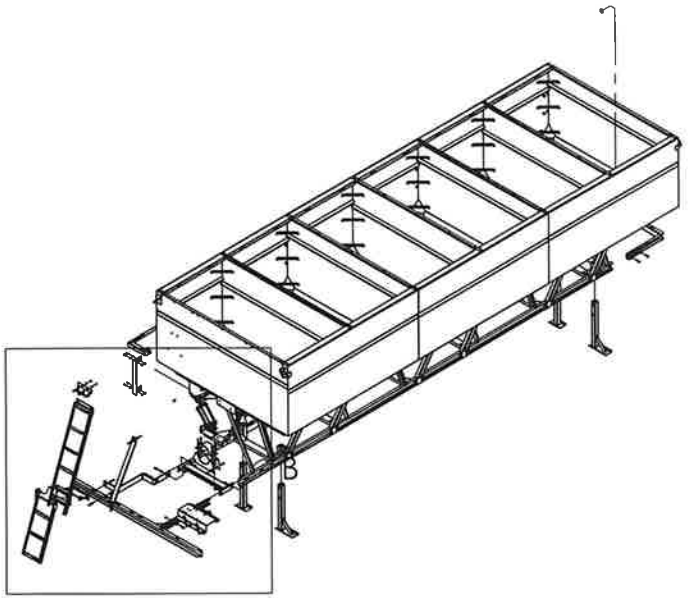


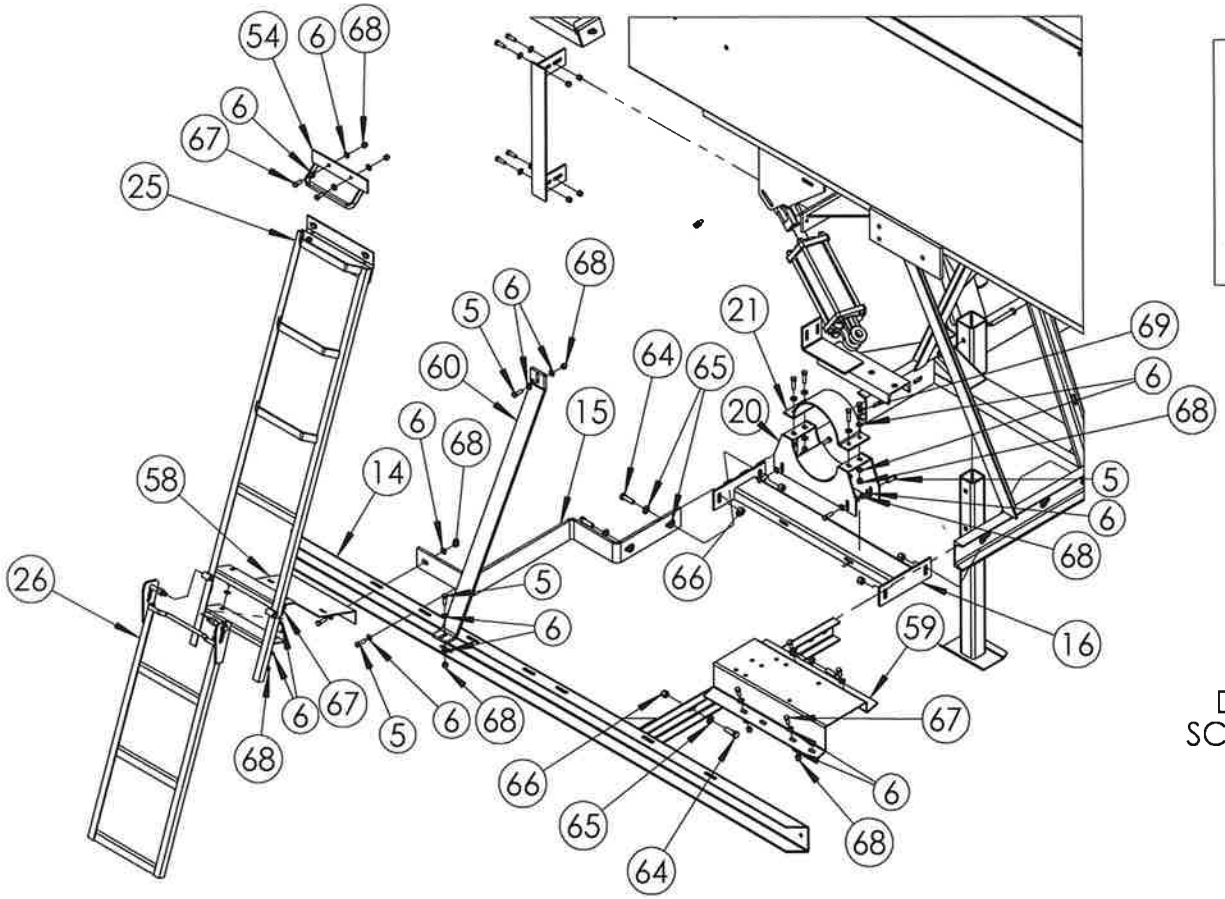
DETAIL A
SCALE 1 : 15

MT24 TENDER ILLUSTRATION

PRE-MAY 2026

P/N: 71890



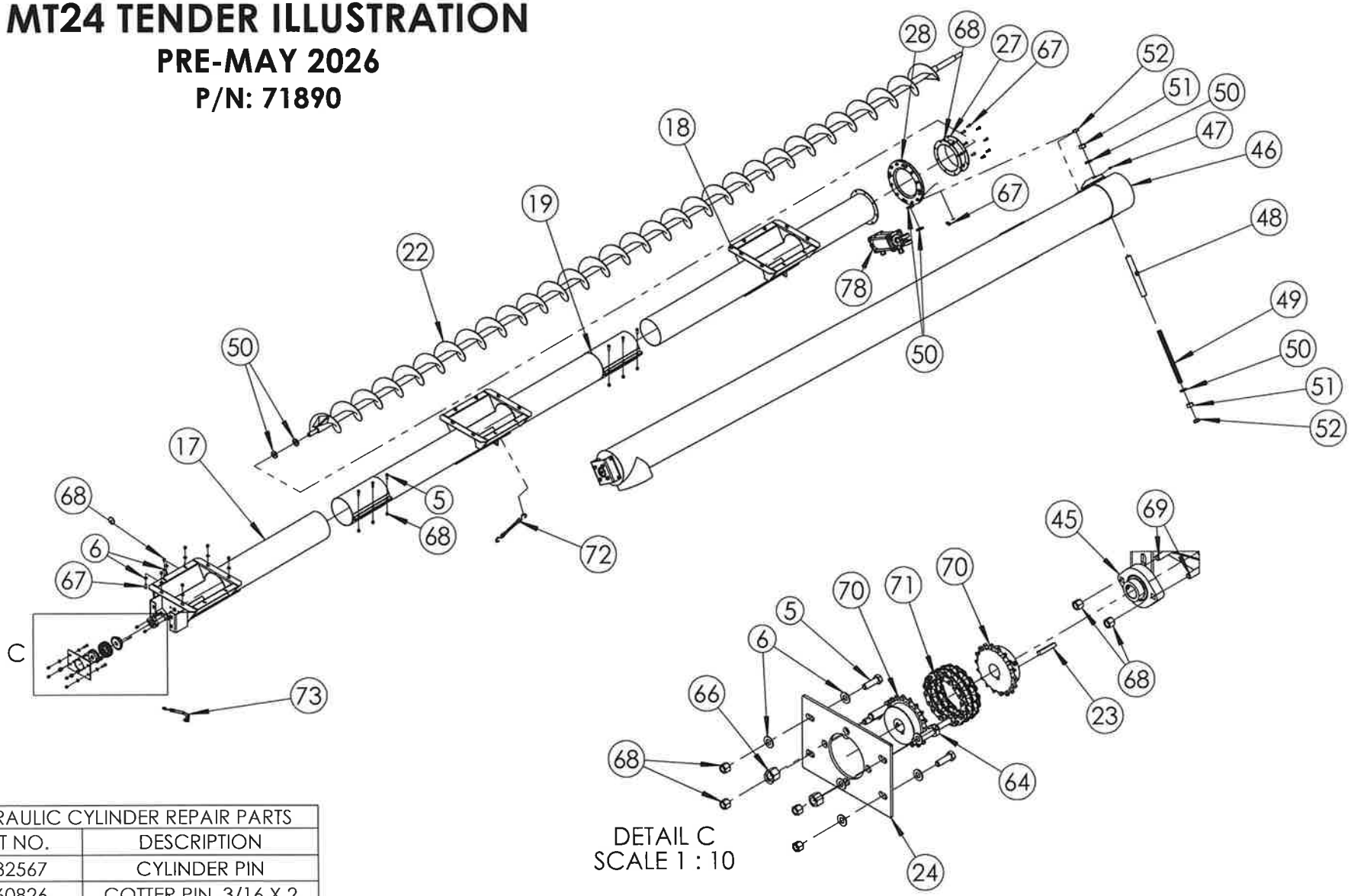


DETAIL B
SCALE 1 : 25

MT24 TENDER ILLUSTRATION

PRE-MAY 2026

P/N: 71890



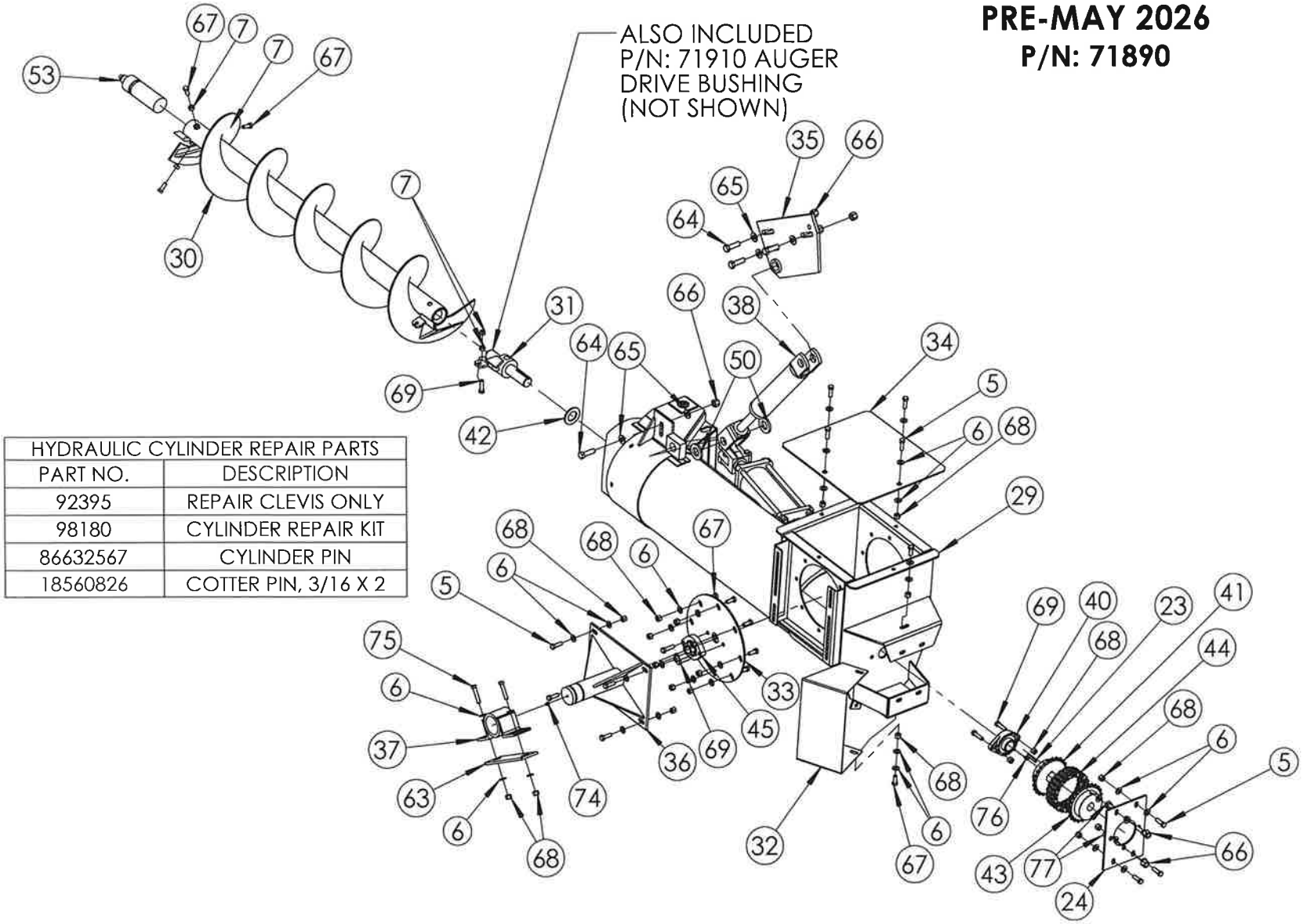
DETAIL C
SCALE 1 : 10

HYDRAULIC CYLINDER REPAIR PARTS	
PART NO.	DESCRIPTION
86632567	CYLINDER PIN
18560826	COTTER PIN, 3/16 X 2

MT24 TENDER ILLUSTRATION

PRE-MAY 2026

P/N: 71890

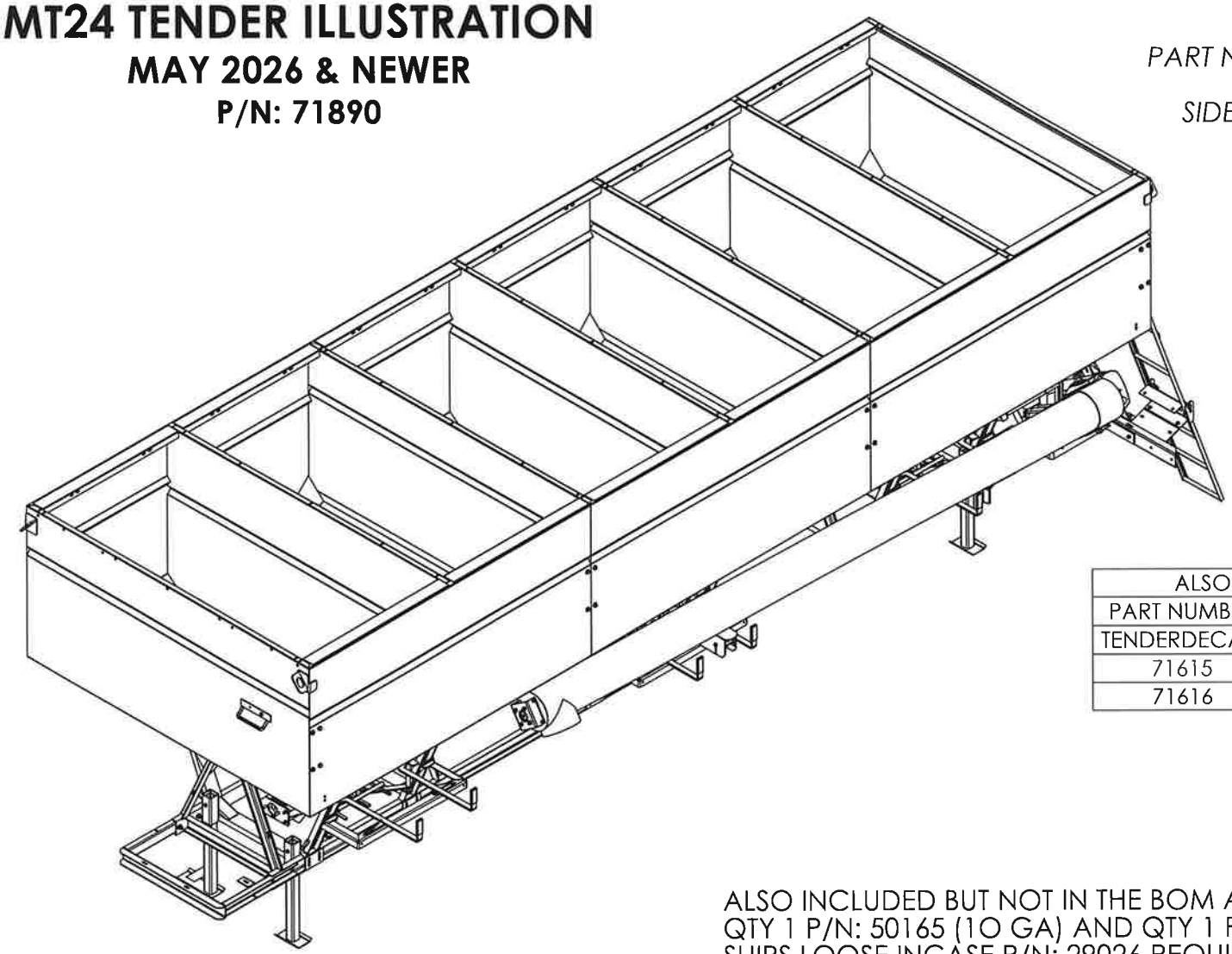


HYDRAULIC CYLINDER REPAIR PARTS	
PART NO.	DESCRIPTION
92395	REPAIR CLEVIS ONLY
98180	CYLINDER REPAIR KIT
86632567	CYLINDER PIN
18560826	COTTER PIN, 3/16 X 2

MT24 TENDER ILLUSTRATION

MAY 2026 & NEWER

P/N: 71890



PART NUMBER 28974 IS INCLUDED
BUT NOT SHOWN
SIDE MOUNT LADDERS ONLY

ALSO INCLUDED BUT NOT SHOWN		
PART NUMBER	DESCRIPTION	QTY
TENDERDECALS	TENDER DECAL KIT	1
71615	MT24 (DITCH SIDE)	1
71616	MT24 (DRIVER SIDE)	1

ALSO INCLUDED BUT NOT IN THE BOM ARE
QTY 1 P/N: 50165 (1O GA) AND QTY 1 P/N: 50169 (14 GA)
SHIPS LOOSE INCASE P/N: 29026 REQUIRES HEIGHT ADJUSTMENT
AFTER BREAK IN PERIOD. THE MACHINE SHIPS STANDARD FROM
FACTORY WITH QTY 1 P/N: 50165 (10 GA) WASHER INSTALLED

MT24 TENDER ILLUSTRATION

MAY 2026 & NEWER

P/N: 71890

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71887	MT24 EXT BODY & FRAME (6 COMP) (304)	1
2	28612	MOUNT WELD'T. GATE HANDLE	3
3	28109	GATE LEVER STOP	6
4	54143A	HANDLE COVER	7
5	18026824	BOLT HX SS 3/8 X 1 1/4	43
6	18991200	WASHER FLAT 3/8 SS	181
7	18476800	NUT 3/8 SS	11
8	18026422	BOLT CAP SS 5/16 X 1	12
9	18987700	NUT 5/16 SERR FLG SS	12
10	47005524	SHIPPING STAND, AUGER SIDE	2
11	47005525	SHIPPING STAND, HANDLE SIDE	2
12	18057446	BOLT, HEX HD 1/2-13 X 4 LG	4
13	18417400	NUT, HX 1/2 NC ZC	4
14	39061	REAR BUMPER/FENDER MOUNT WELDT	1
15	39051	BUMPER MOUNT	1
16	39048	SUPPORT WELD'T BOT. AUGER	1
17	72476	LOWER AUGER WELDT	1
18	39020	CRADLE WLDMT	1
19	39024	STRAP	1
20	28951	SCREW-WLDMT-HORIZ (MT24)	1
21	47006519	KEY, SQUARE (1/4 X 1 1/2)	2
22	76444	PLATE MOTOR	1
23	28339	UPPER LADDER KIT	2
24	28507	EXTENSION LADDER KIT	1
25	72489	TUBE CONNECTOR	1
26	72605	AUGER CONNECTION	1
27	308132	AUGER TUBE, LOWERING UNLOAD	1
28	29026	LOWER SCREW WELDMENT	1
29	29931	SHAFT, AUGER DRIVE	1
30	29927	MOTOR SHIELD	1
31	28828	CAP. BEARING	1
32	28704	COVER PLATE, HOPPER	1
33	39047	ANCHOR WLDMT-LWRNG AUGER	1
34	39025	PIVOT WLDMT-LWRING AUGER	1
35	39028	PIVOT MOUNT WELDMENT	1
36	39254	HYDRAULIC CYLINDER	1
37	39016	GUIDE WELDMENT	1
38	30708	2 HOLE FLANGE BEARING 1 1/4" SHAFT	1
39	31407	SPROCKET #50B24 1 1/4 BORE	1
40	50165	MACHINERY WASHER, 1 1/4 X 10 GA	1
41	10183	SPROCKET #50B24, 1" BORE	1
42	29941 W 53159	COUPLING CHAIN #50-2 X 23 LINKS W/ CONNECTOR	1
43	10500	BEARING, 2 HOLE FOR 1" SHAFT	2
44	29151	UPPER UNLOAD AUGER ASSEMBLY	1

LOWER AUGER CONTAINS QTY 3 P/N: 72486 SLIDING DOOR

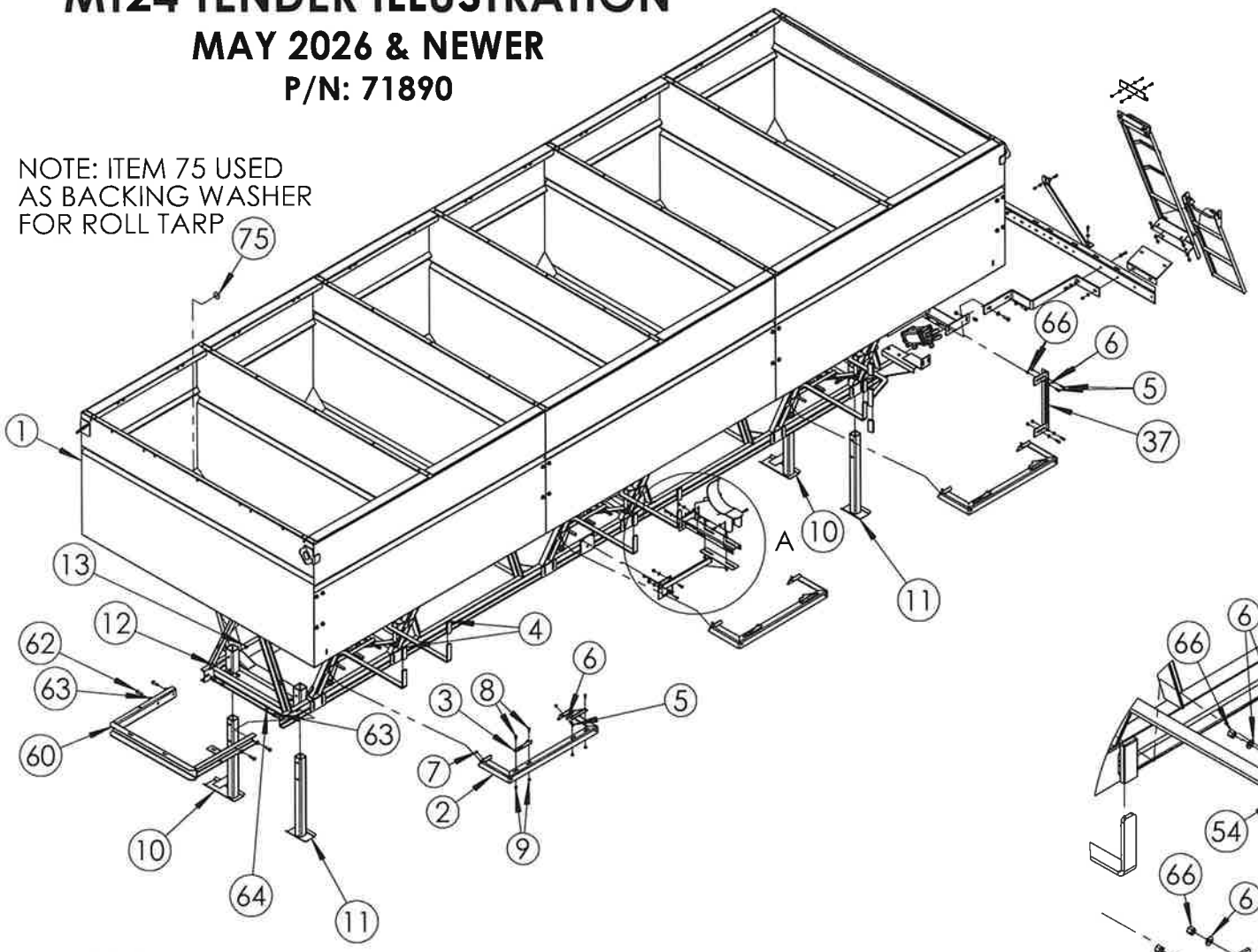
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
45	18901806	GREASE ZERK 90 DEG	2
46	307623	PIVOT TUBE	1
47	28807A	ROD- THD	1
48	18852200	WASHER, FLAT 1" SAE	8
49	18439000	HEX NUT 1-8 NC	2
50	18449005	JAM NUT 1-8NC	2
51	47003537	AUGER DRIVE SHAFT	1
52	06648	HANDLE, LADDER	2
53	28846A	CRADLE SUPPORT WELDMENT	1
54	28835A	CRADLE SUPPORT WELDMENT	1
55	29862	CRADLE WELDMENT	1
56	28810	LADDER MOUNT BRACKET	1
57	28922A	CONTROL VALVE BRACKET	1
58	39052	BUMPER BRACE	1
59	28974	SUPPORT, LADDER (SIDE MOUNTED)	1
60	38937	MOUNT WELDT - HYD TANK	1
61	47003228	BASE PLATE UNDER PIVOT MOUNT	1
62	18470175	BOLT SS CAP 1/2 X 1 3/4	15
63	18824800	WASHER FLAT 1/2 SS	23
64	18567400	NUT SS NYLOCK 1/2	17
65	18026822	BOLT, HEX HD 3/8 X 1 NC SS	61
66	18566400	NUT SS NYLOCK 3/8	109
67	18026826	BOLT CAP SS 3/8 X 1 1/2	13
68	10181	SPROCKET 50B18 W/ 1" BORE	2
69	17701 W 53159	COUPLING CHAIN, 350-2 X 17 LINKS W/ CONNECTOR	1
70	18901805	GREASE ZERK, 1/4-28, STRAIGHT	1
71	18026830	BOLT, CAP, 3/8 X 2, SS	2
72	18901807	GREASE ZERK 45 DEG, 1/4-28	1
73	18022026	BOLT SS HX 1/2 X 1 1/2	2
74	07132	HYDRAULIC CYLINDER (3 1/2 X8)	1
75	71715	TAIL SHAFT WASHER	1
76	29921	PLATE, MOTOR MOUNT	1

MT24 TENDER ILLUSTRATION

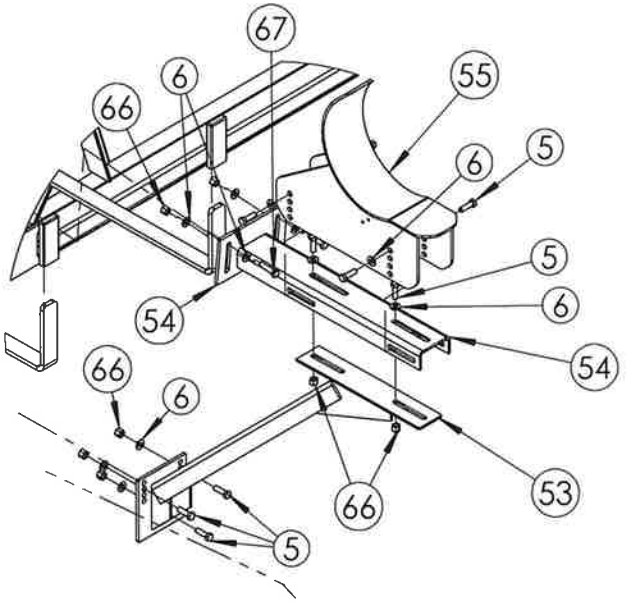
MAY 2026 & NEWER

P/N: 71890

NOTE: ITEM 75 USED
AS BACKING WASHER
FOR ROLL TARP



NOTE:
ITEMS 10 THRU 13 ARE USED FOR STORAGE AND TRANSPORT ONLY

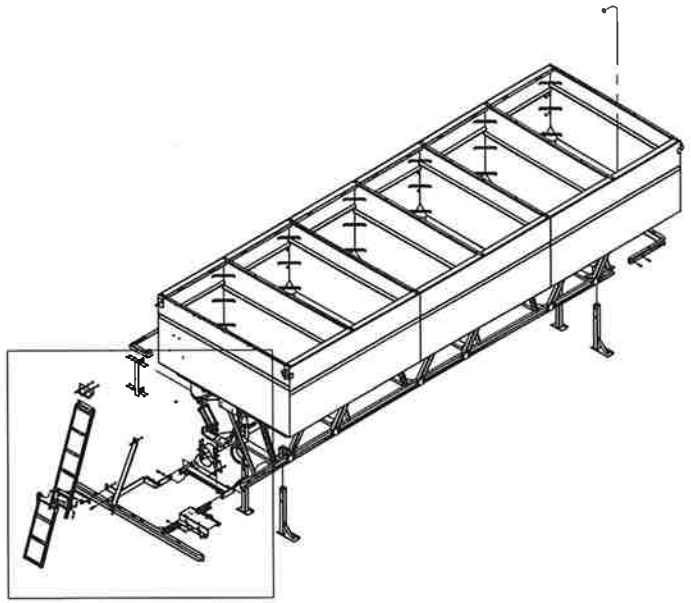


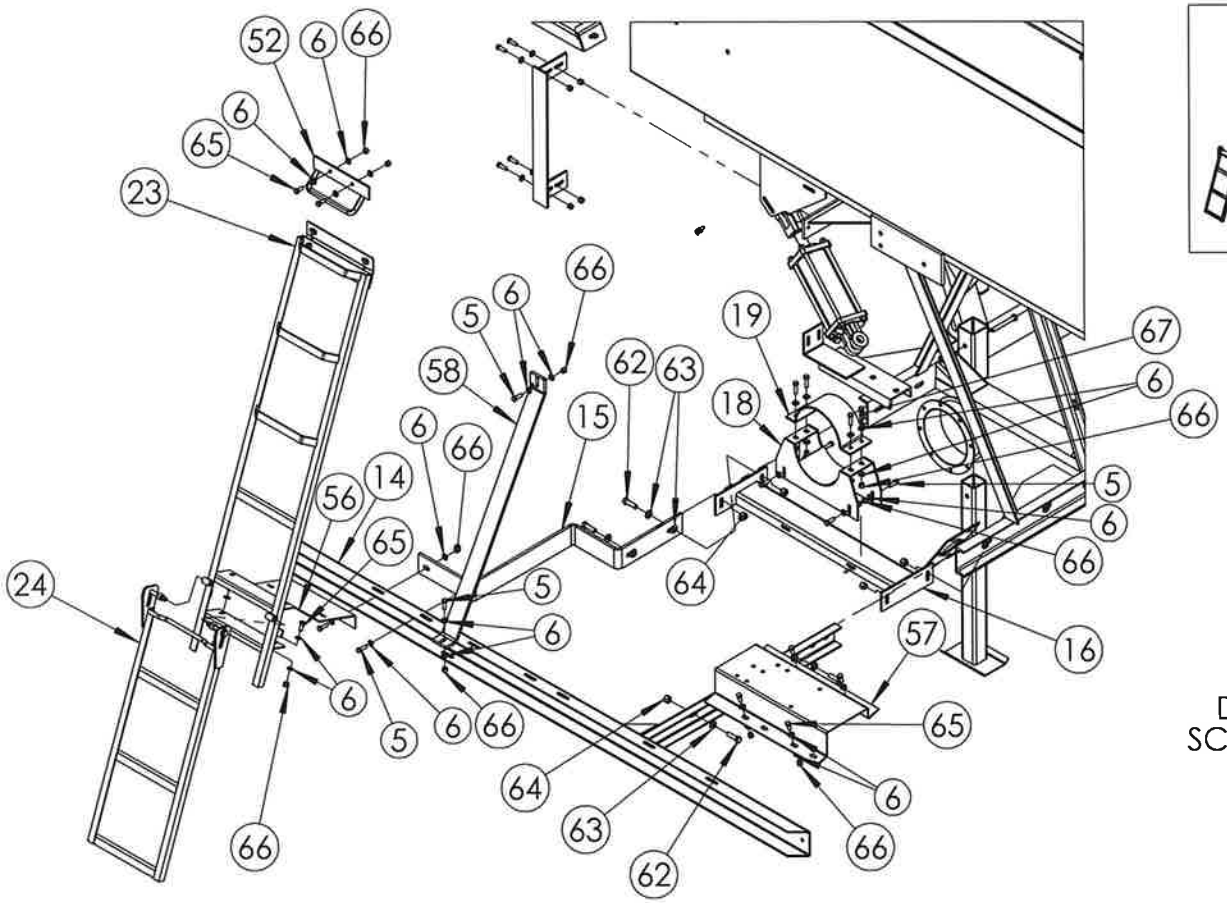
DETAIL A
SCALE 1 : 15

MT24 TENDER ILLUSTRATION

MAY 2026 & NEWER

P/N: 71890



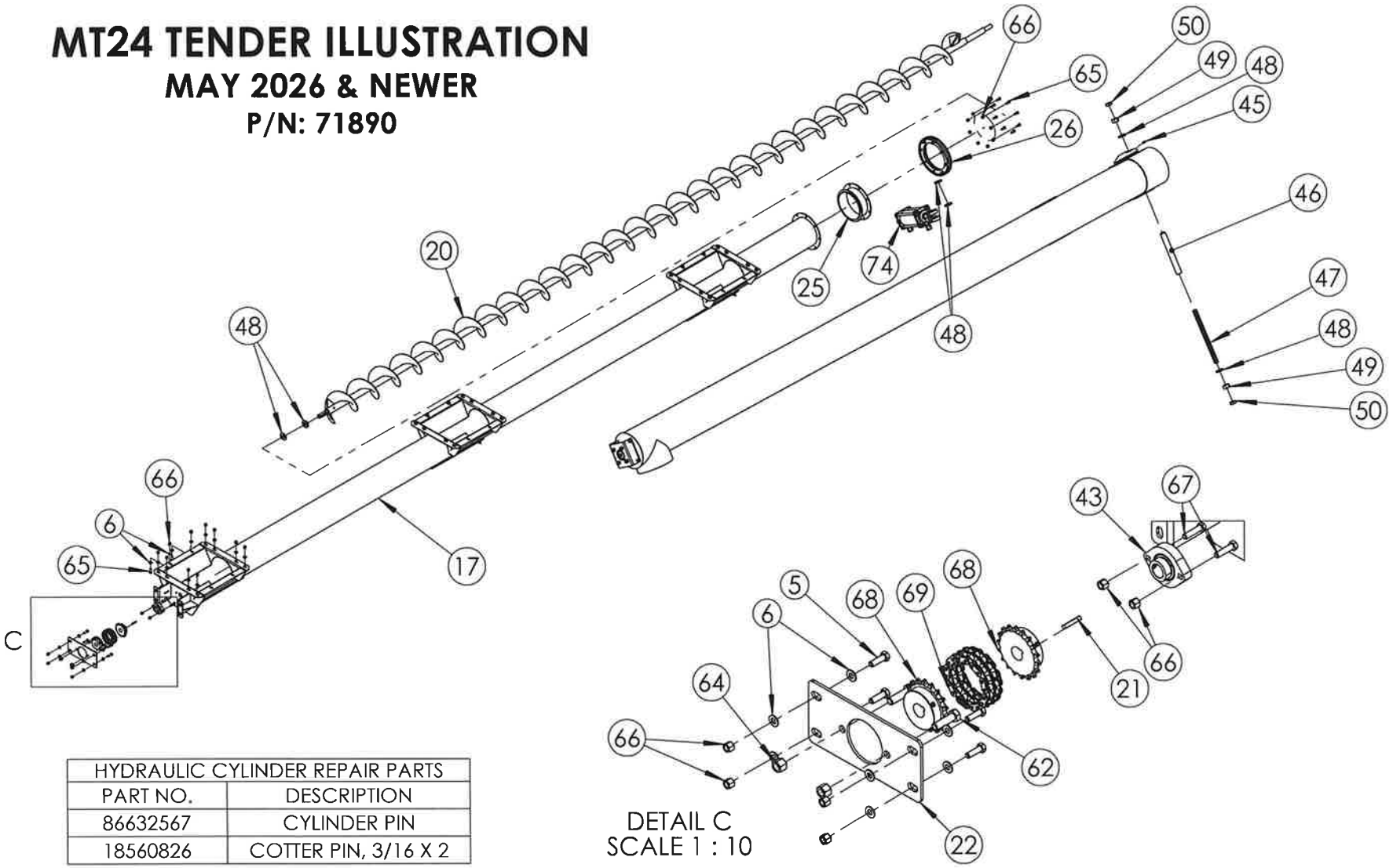


DETAIL B
SCALE 1 : 25

MT24 TENDER ILLUSTRATION

MAY 2026 & NEWER

P/N: 71890



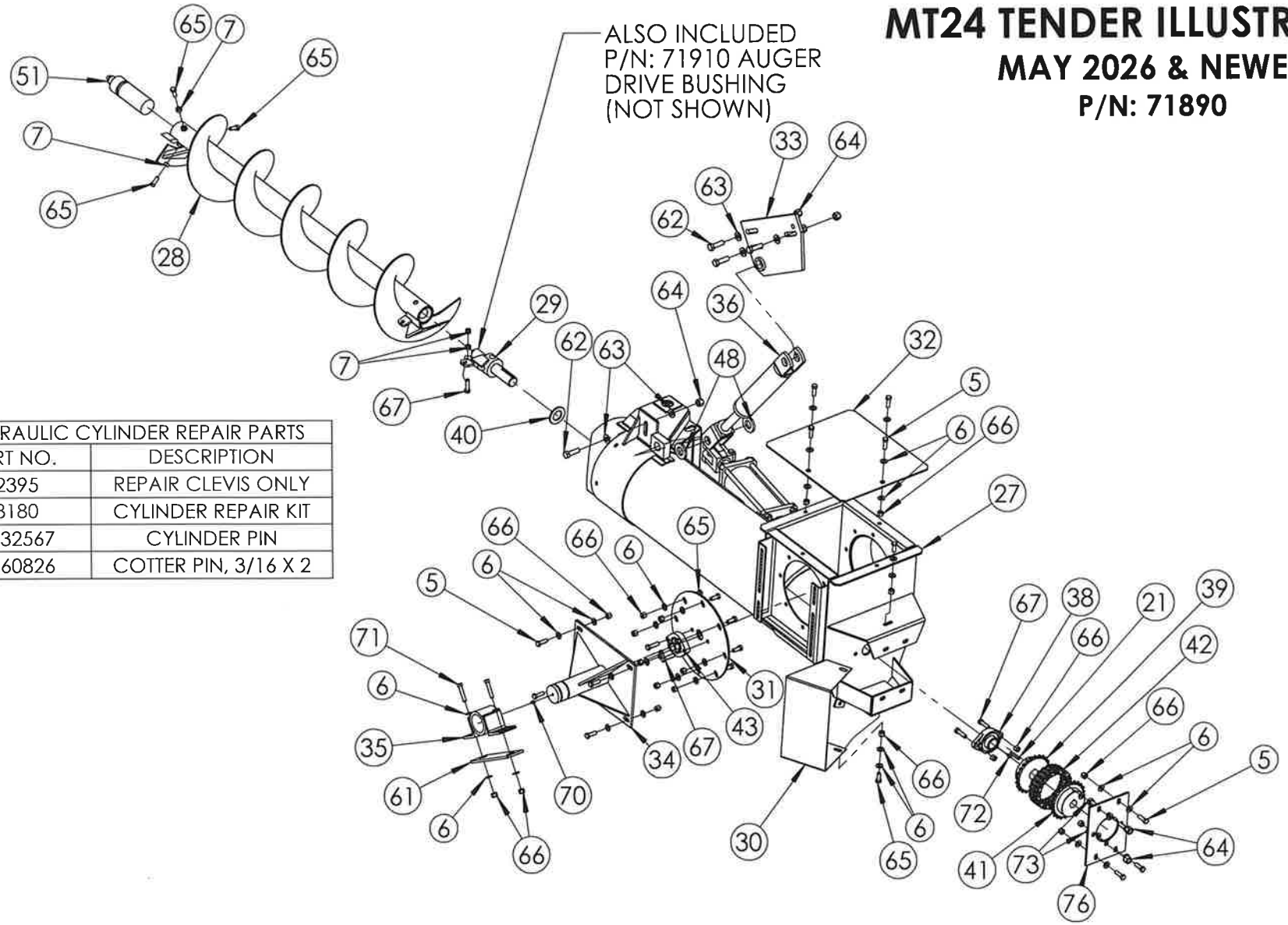
DETAIL C
SCALE 1 : 10

HYDRAULIC CYLINDER REPAIR PARTS	
PART NO.	DESCRIPTION
86632567	CYLINDER PIN
18560826	COTTER PIN, 3/16 X 2

MT24 TENDER ILLUSTRATION

MAY 2026 & NEWER

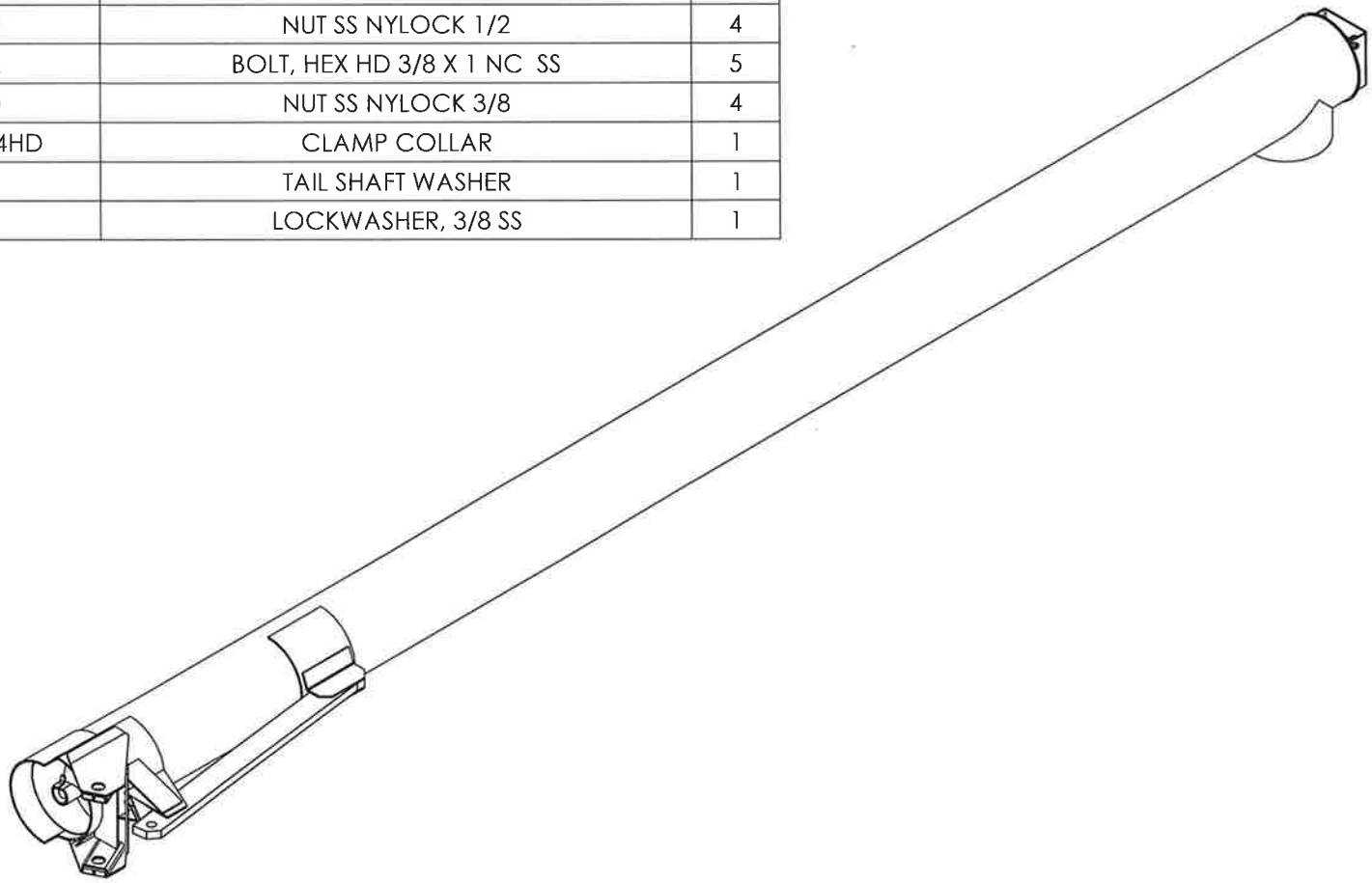
P/N: 71890



HYDRAULIC CYLINDER REPAIR PARTS	
PART NO.	DESCRIPTION
92395	REPAIR CLEVIS ONLY
98180	CYLINDER REPAIR KIT
86632567	CYLINDER PIN
18560826	COTTER PIN, 3/16 X 2

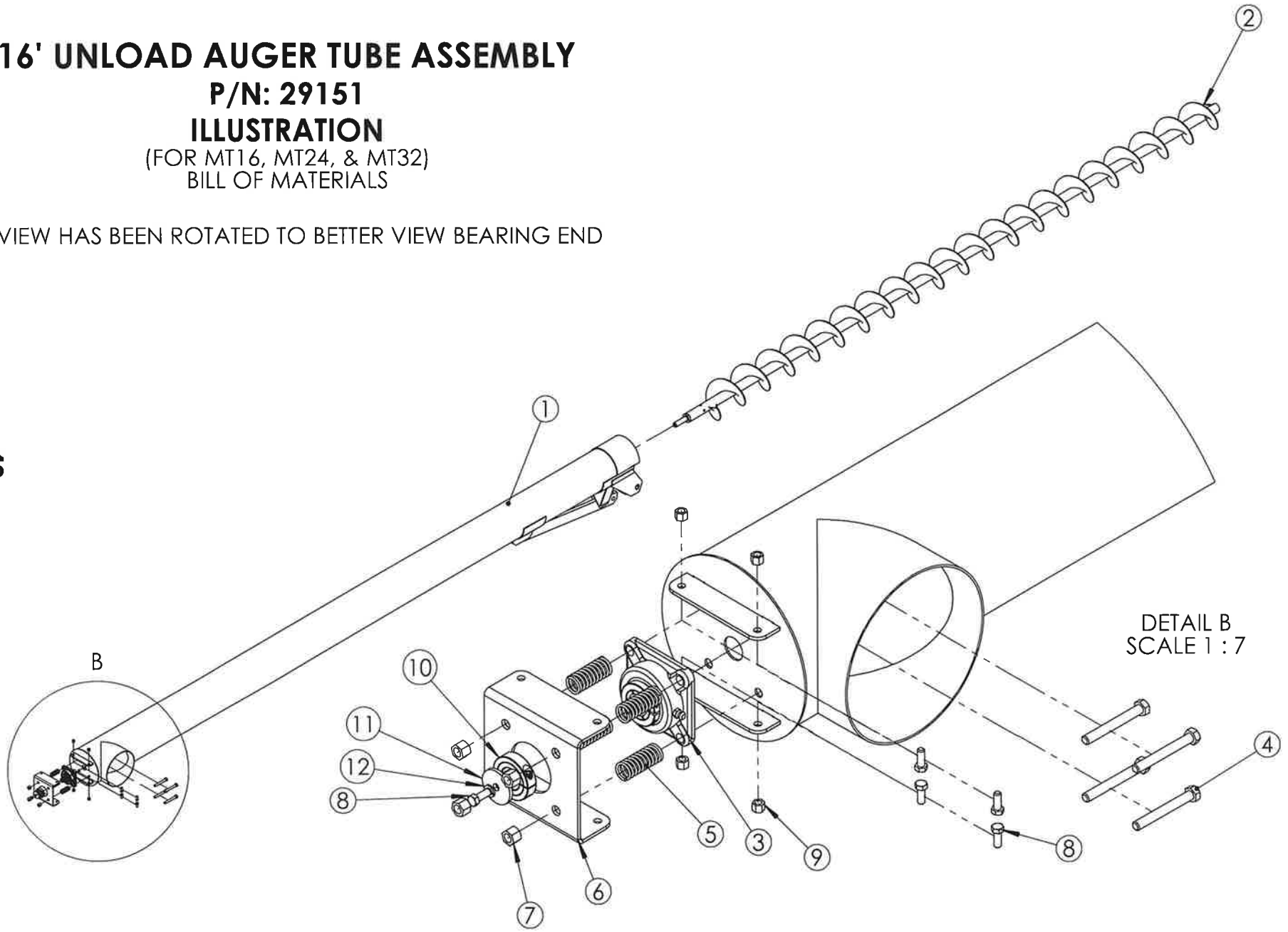
16' UNLOAD AUGER TUBE ASSEMBLY
P/N: 29151
PART LISTING
(FOR MT16, MT24, & MT32)
BILL OF MATERIALS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	28958	16' AUGER WELDMENT	1
2	28960A	SCREW WELDMENT, RH	1
3	71251	FOUR BOLT FLANGE MOUNT BEARING	1
4	18997446	BOLT 1/2NC X 4 LG SS	4
5	71252	COMPRESSION SPRING (SS)	4
6	71250	BEARING COVER	1
7	18567400	NUT SS NYLOCK 1/2	4
8	18026822	BOLT, HEX HD 3/8 X 1 NC SS	5
9	18566400	NUT SS NYLOCK 3/8	4
10	STA-1L104HD	CLAMP COLLAR	1
11	71715	TAIL SHAFT WASHER	1
12	18881201	LOCKWASHER, 3/8 SS	1



16' UNLOAD AUGER TUBE ASSEMBLY
P/N: 29151
ILLUSTRATION
(FOR MT16, MT24, & MT32)
BILL OF MATERIALS

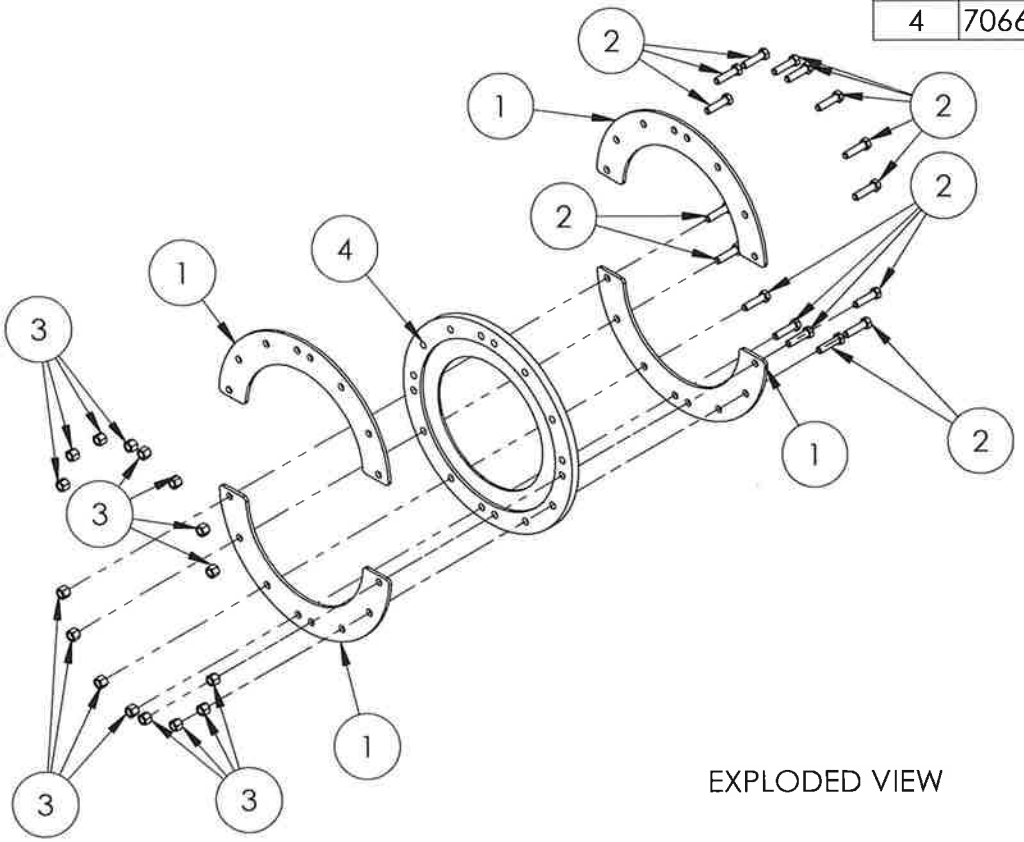
VIEW HAS BEEN ROTATED TO BETTER VIEW BEARING END



AUGER CONNECTION

P/N: 47003700

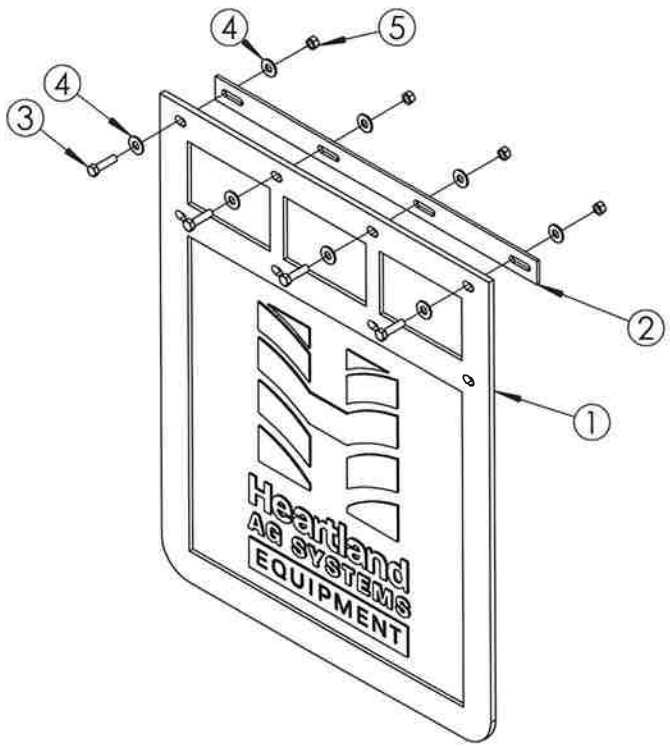
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3701	BEARING CLAMP PLATE	4
2	18026826	BOLT CAP SS 3/8 X 1 1/2	16
3	18566400	NUT SS NYLOCK 3/8	16
4	70665	BEARING SLIDE PLATE	1



EXPLODED VIEW



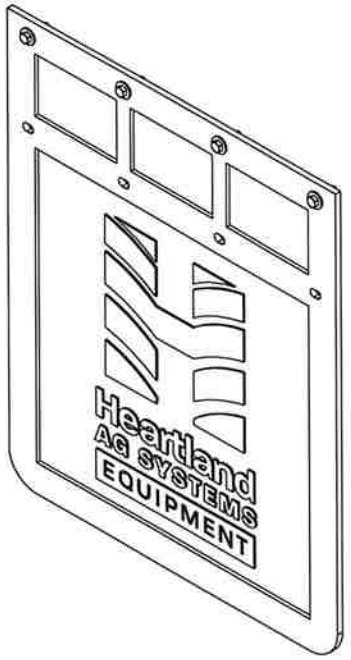
STANDARD VIEW



MUD FLAP KIT

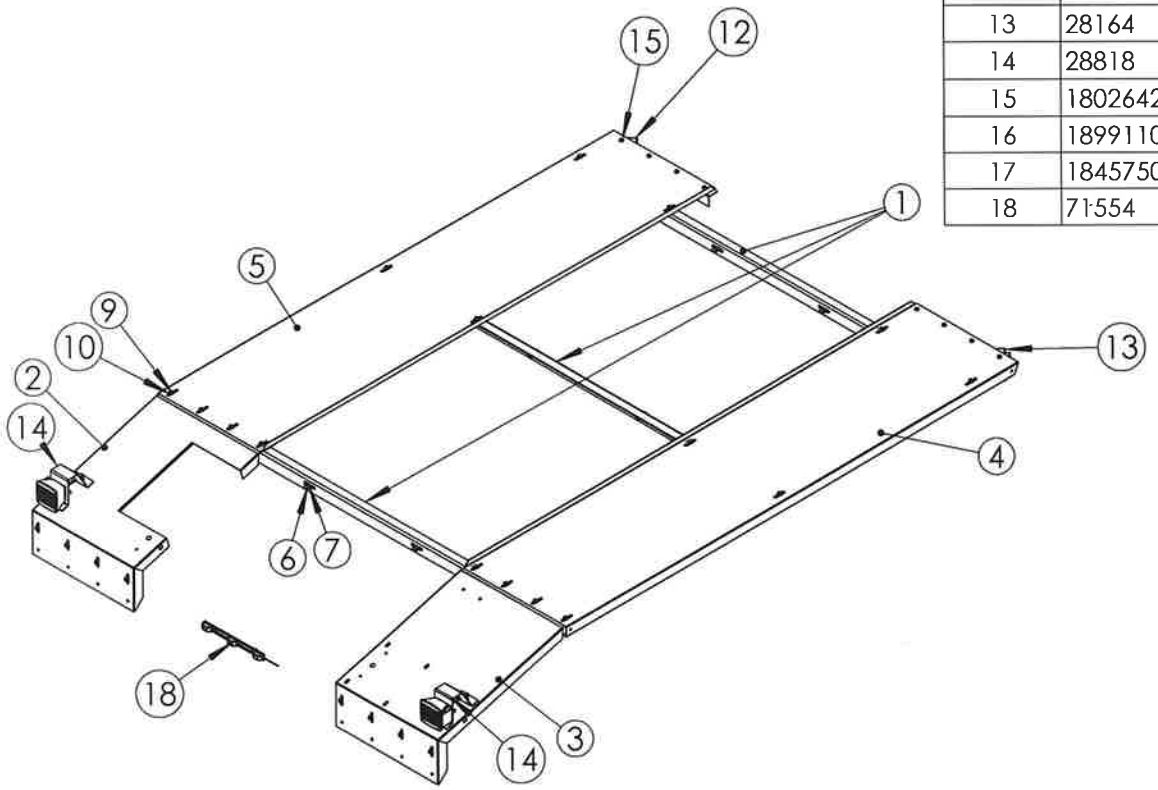
P/N: 33244

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	76714	MUD FLAP (SET OF 2)	1
2	47006302	MOUNTING STRAP	2
3	18056826	BOLT HX CAP G5 NC ZC 3/8 X 1 1/2 LG	8
4	18811200	WASHER FLAT USS ZC 3/8	16
5	18459200	NUT 3/8 NYLOCK	8



FENDER KIT (TRAILER MOUNT)

P/N: 28815A

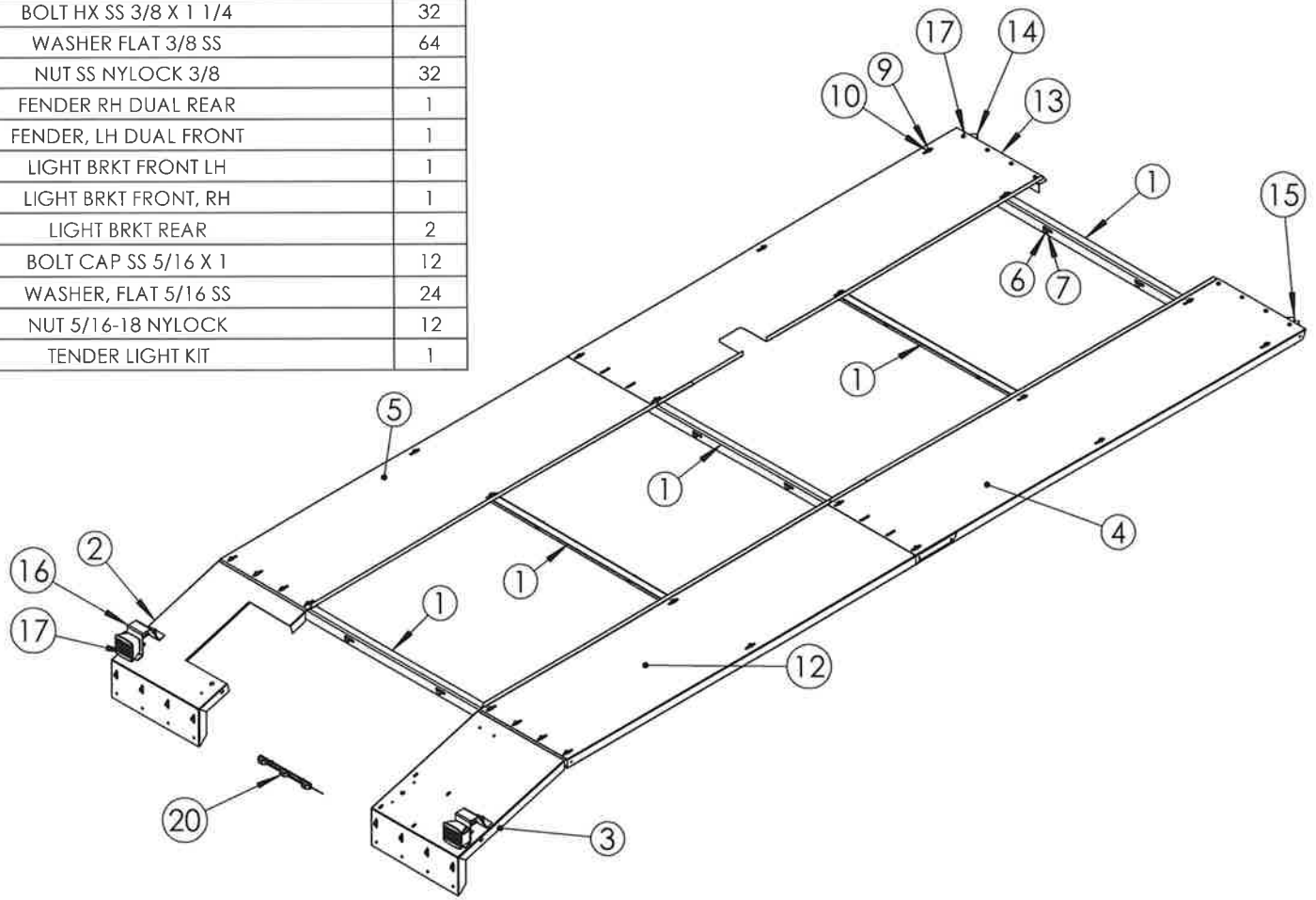


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	28787	ANGLE, FENDER SUPPORT	3
2	39060	FENDER WELDMENT - LH	1
3	28866	FENDER WELDMENT - RH	1
4	28816	FENDER RH	1
5	28815	FENDER, LH	1
6	18470175	BOLT SS CAP 1/2 X 1 3/4	6
7	18824800	WASHER FLAT 1/2 SS	12
8	18567400	NUT SS NYLOCK 1/2	6
9	18026824	BOLT HX SS 3/8 X 1 1/4	24
10	18991200	WASHER FLAT 3/8 SS	48
11	18566400	NUT SS NYLOCK 3/8	24
12	28163	LIGHT BRKT FRONT LH	1
13	28164	LIGHT BRKT FRONT, RH	1
14	28818	LIGHT BRKT REAR	2
15	18026422	BOLT CAP SS 5/16 X 1	12
16	18991100	WASHER, FLAT 5/16 SS	24
17	18457500	NUT 5/16-18 NYLOCK	12
18	71554	TENDER LIGHT KIT	1

FENDER KIT (TRUCK MOUNT)

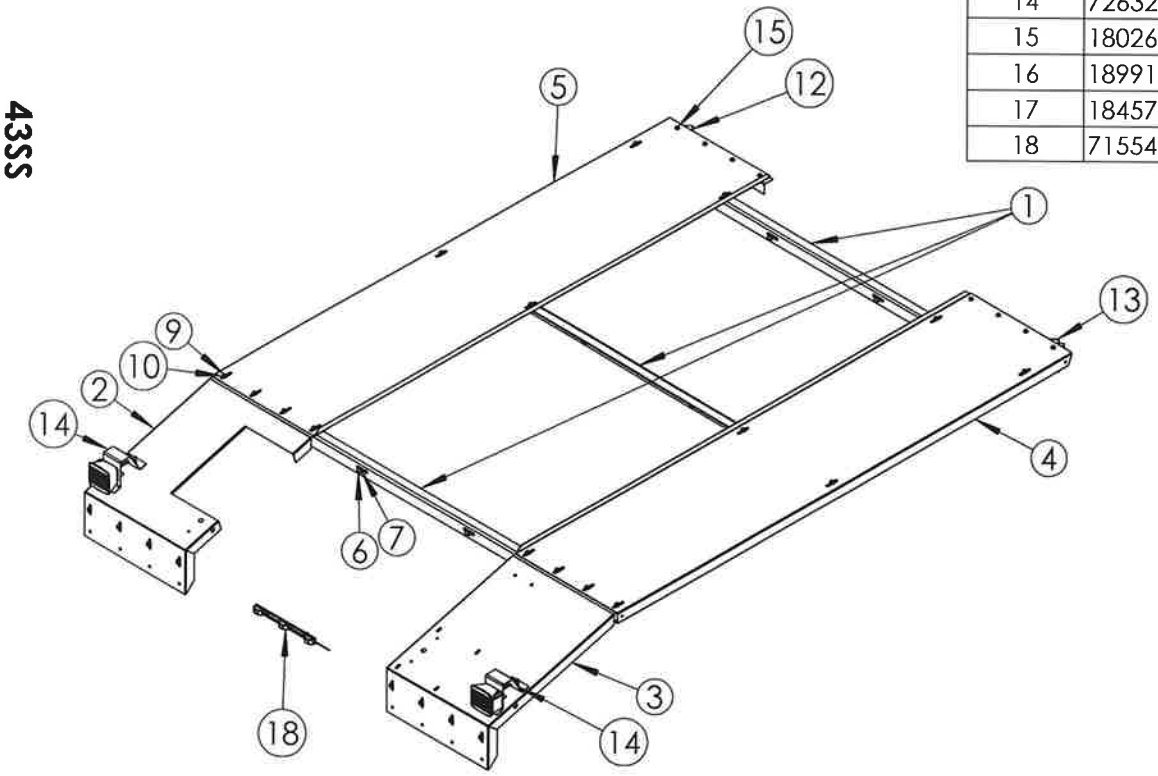
P/N: 28815T

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	28787	ANGLE, FENDER SUPPORT	5
2	39060	FENDER WELDMENT - LH	1
3	28866	FENDER WELDMENT - RH	1
4	28816	FENDER RH	1
5	71726	FENDER, LH DUAL REAR	1
6	18470175	BOLT SS CAP 1/2 X 1 3/4	10
7	18824800	WASHER FLAT 1/2 SS	20
8	18567400	NUT SS NYLOCK 1/2	10
9	18026824	BOLT HX SS 3/8 X 1 1/4	32
10	18991200	WASHER FLAT 3/8 SS	64
11	18566400	NUT SS NYLOCK 3/8	32
12	71723	FENDER RH DUAL REAR	1
13	71724	FENDER, LH DUAL FRONT	1
14	28163	LIGHT BRKT FRONT LH	1
15	28164	LIGHT BRKT FRONT, RH	1
16	28818	LIGHT BRKT REAR	2
17	18026422	BOLT CAP SS 5/16 X 1	12
18	18991100	WASHER, FLAT 5/16 SS	24
19	18457500	NUT 5/16-18 NYLOCK	12
20	71554	TENDER LIGHT KIT	1



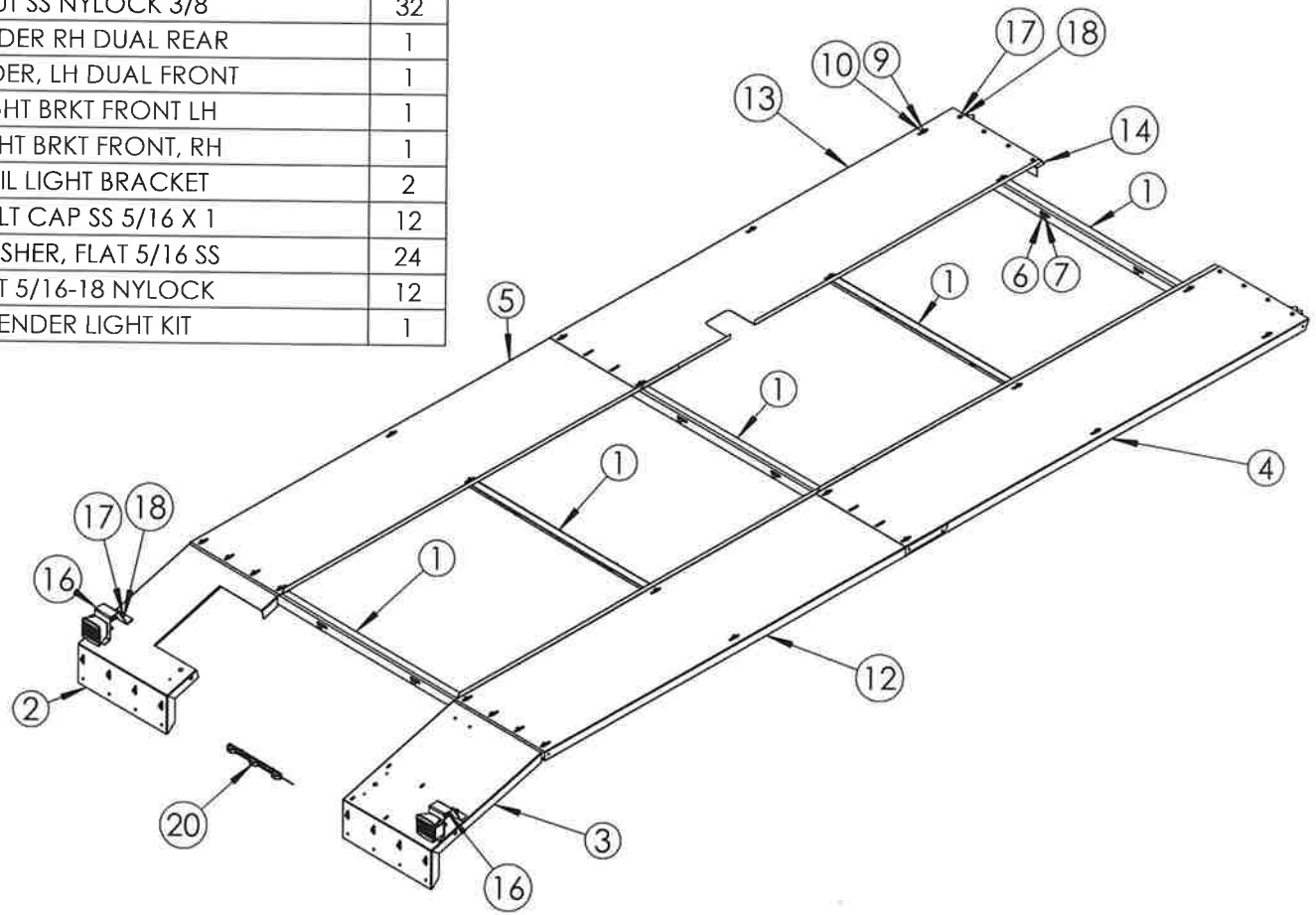
STAINLESS STEEL
FENDER KIT (TRAILER MOUNT)
PART #: 72635

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	28787	ANGLE, FENDER SUPPORT	3
2	72626	FENDER WELDMENT - LH	1
3	72627	FENDER WELDMENT - RH	1
4	72622	FENDER RH	1
5	72621	FENDER, LH	1
6	18470175	BOLT SS CAP 1/2 X 1 3/4	6
7	18824800	WASHER FLAT 1/2 SS	12
8	18567400	NUT SS NYLOCK 1/2	6
9	18026824	BOLT HX SS 3/8 X 1 1/4	24
10	18991200	WASHER FLAT 3/8 SS	48
11	18566400	NUT SS NYLOCK 3/8	24
12	72616	LIGHT BRKT FRONT LH	1
13	72617	LIGHT BRKT FRONT, RH	1
14	72632	TAIL LIGHT BRACKET	2
15	18026422	BOLT CAP SS 5/16 X 1	12
16	18991100	WASHER, FLAT 5/16 SS	24
17	18457500	NUT 5/16-18 NYLOCK	12
18	71554	TENDER LIGHT KIT	1



STAINLESS STEEL
FENDER KIT (TRUCK MOUNT)
PART #: 72640

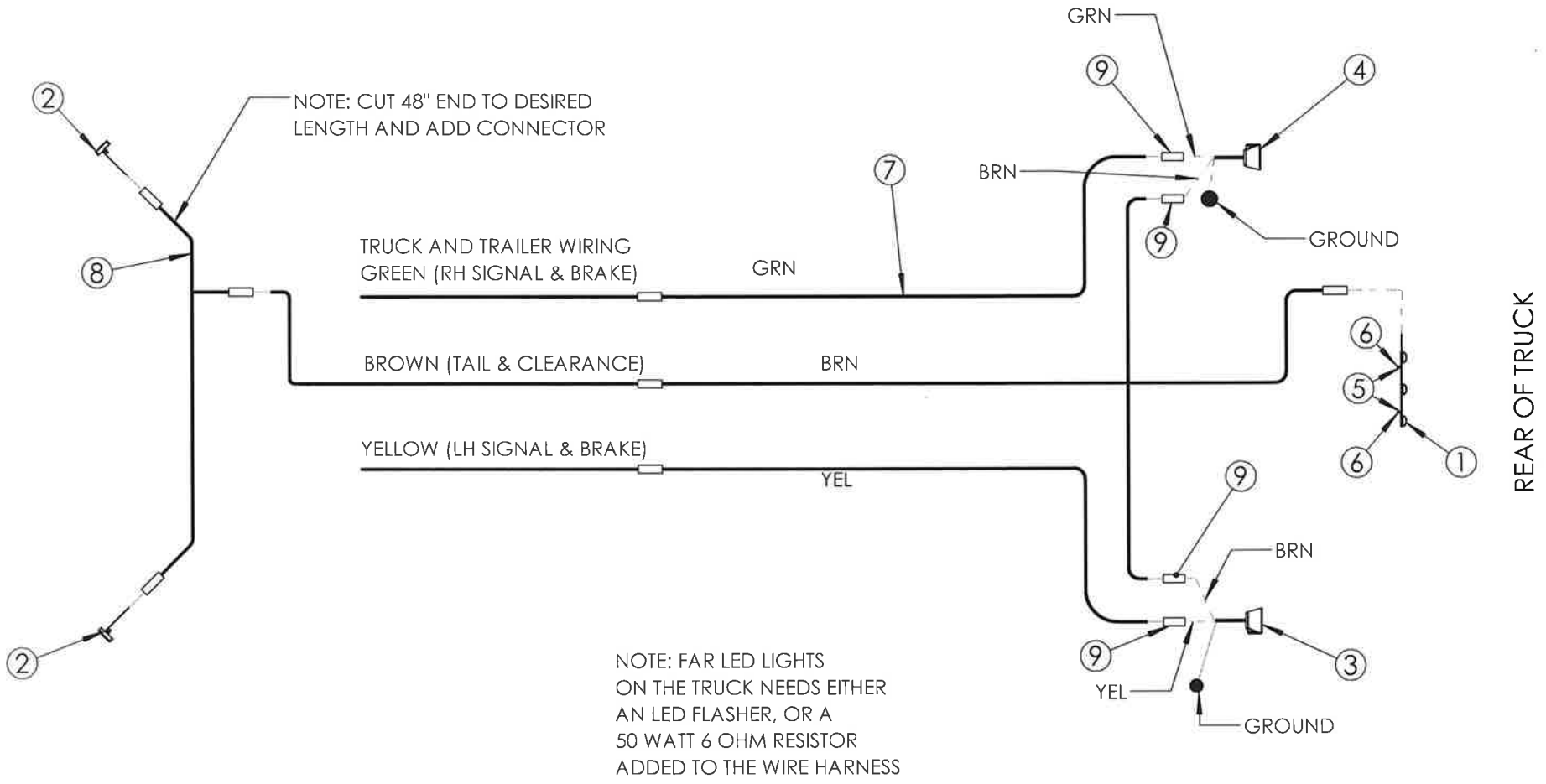
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	28787	ANGLE, FENDER SUPPORT	5
2	72626	FENDER WELDMENT - LH	1
3	72627	FENDER WELDMENT - RH	1
4	72622	FENDER RH	1
5	72628	FENDER, LH DUAL REAR	1
6	18470175	BOLT SS CAP 1/2 X 1 3/4	10
7	18824800	WASHER FLAT 1/2 SS	20
8	18567400	NUT SS NYLOCK 1/2	10
9	18026824	BOLT HX SS 3/8 X 1 1/4	32
10	18991200	WASHER FLAT 3/8 SS	64
11	18566400	NUT SS NYLOCK 3/8	32
12	72629	FENDER RH DUAL REAR	1
13	72631	FENDER, LH DUAL FRONT	1
14	72616	LIGHT BRKT FRONT LH	1
15	72617	LIGHT BRKT FRONT, RH	1
16	72632	TAIL LIGHT BRACKET	2
17	18026422	BOLT CAP SS 5/16 X 1	12
18	18991100	WASHER, FLAT 5/16 SS	24
19	18457500	NUT 5/16-18 NYLOCK	12
20	71554	TENDER LIGHT KIT	1



LIGHT KIT

P/N: 71554

USE HARDWARE INCLUDED W/ ITEMS 3 & 4 TO ATTACH TAIL LIGHTS



NOTE: FAR LED LIGHTS ON THE TRUCK NEEDS EITHER AN LED FLASHER, OR A 50 WATT 6 OHM RESISTOR ADDED TO THE WIRE HARNESS

LIGHT KIT
P/N: 71554

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	M191-3RL	REAR LIGHTBAR	1
2	18104	CLEARANCE LIGHT AMBER	2
3	01829	TAIL LIGHT LH	1
4	01836	TAIL LIGHT RH	1
5	18569200	NUT 1/4 NYLOCK SS	2
6	18025718	BOLT CAP SS 1/4 X 3/4	2
7	57175	WIRE HARNESS W/ LOOM	1
8	57177	WIRE HARNESS W/ LOOM	1
9	70886	BUTT CONNECTOR	4

ALSO INCLUDED (BUT NOT SHOWN)

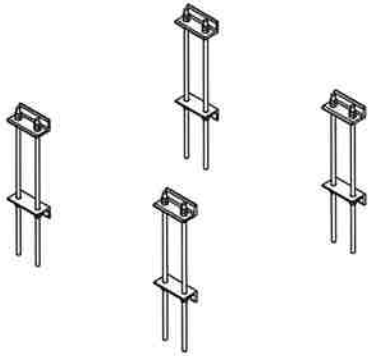
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
10	41859	CLAMP, VINYL COVERED	10
11	18026422	BOLT, HEX HD 5/16 X 1 SS	10
12	18987700	NUT, FLG 5/16 SS	10
13	18704216	SCREW, RD HD #10-24 X 1 ZC	10
14	18415812	NUT, HEX#10-24 SS	10
15	18881001	FLAT WASHER, 1/4 SS	10
16	18475700	NUT, 1/4 SS	4
17	57182	CLIP, LARGE FRAME	6

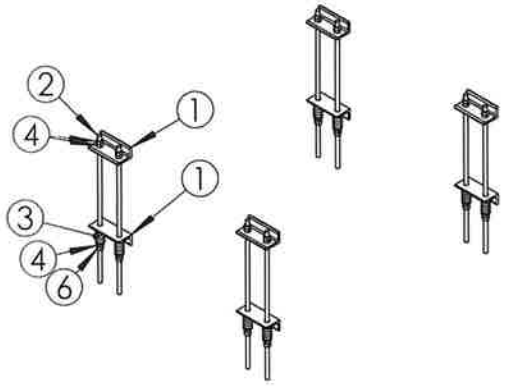
ITEMS 10-17 ARE NOT SHOWN. BUT ARE USED TO SECURE WIRING AND PLUMBING COMPONENTS

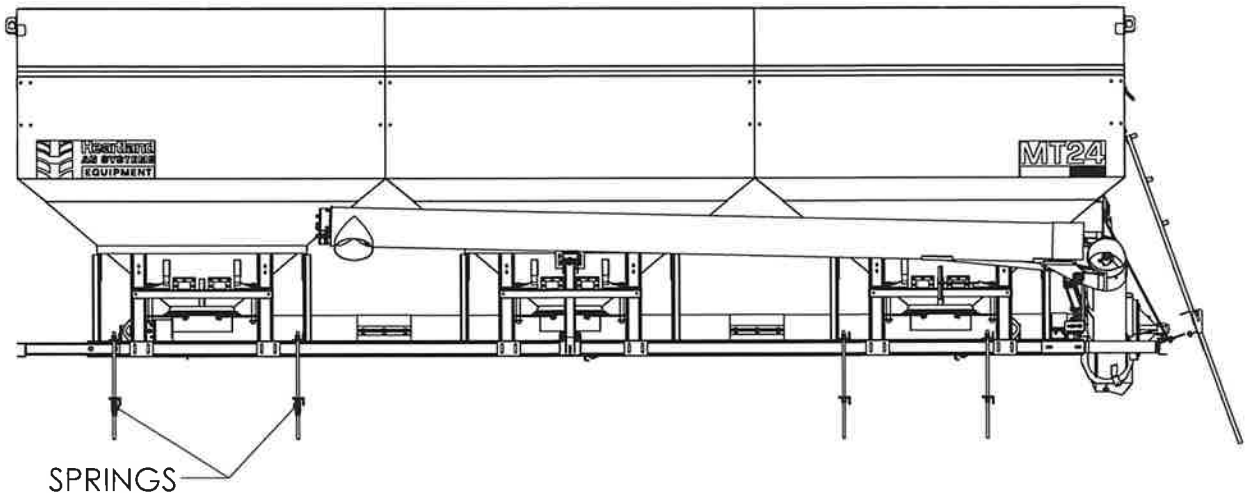
TRUCK MOUNT KIT

P/N: 18384A

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	75739	HOLD DOWN ANGLE	16
2	18386	HOLD DOWN ROD	16
3	18387	DIE SPRING	8
4	18417900	NUT, 5/8 NC	48
5	18851600	WASHER, FLAT 5/8 SAE	8
6	18457900	NUT, LOCK 5/8 NC	16

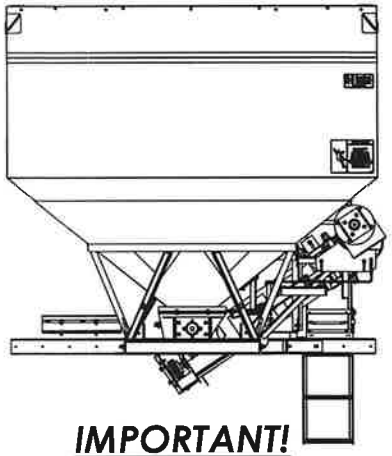


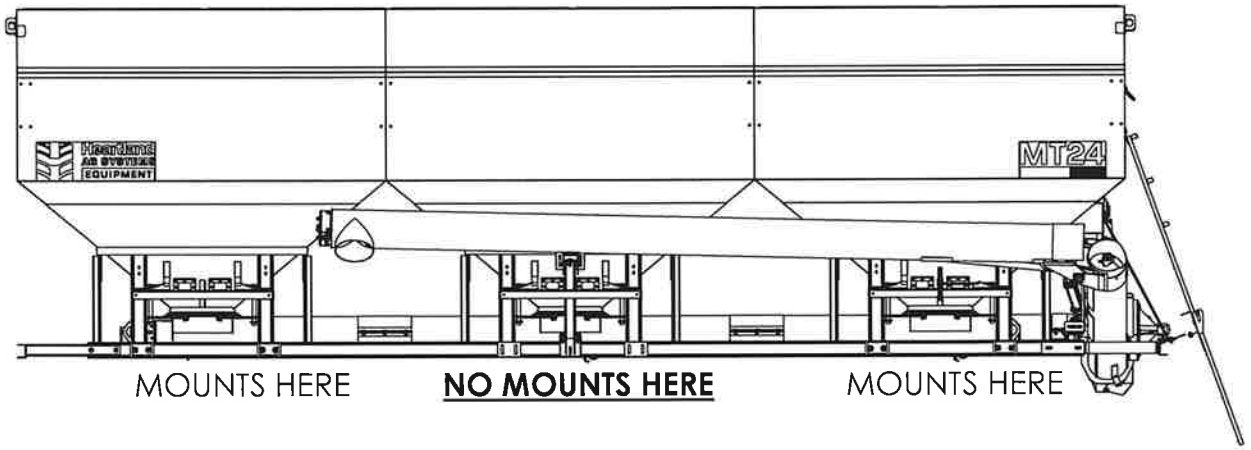




SEMI MOUNT ILLUSTRATION

P/N: 28978

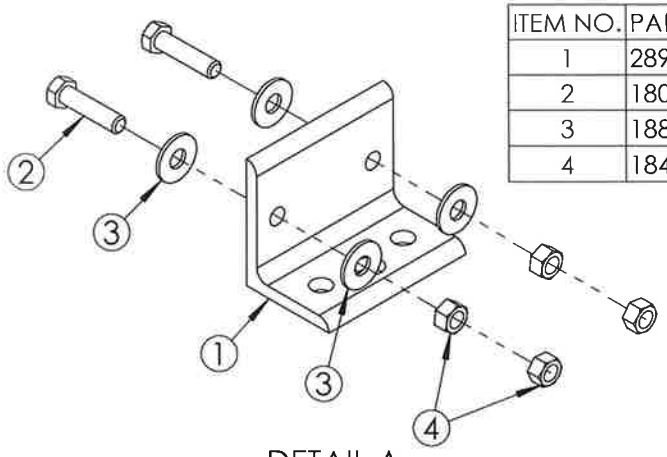




IMPORTANT!

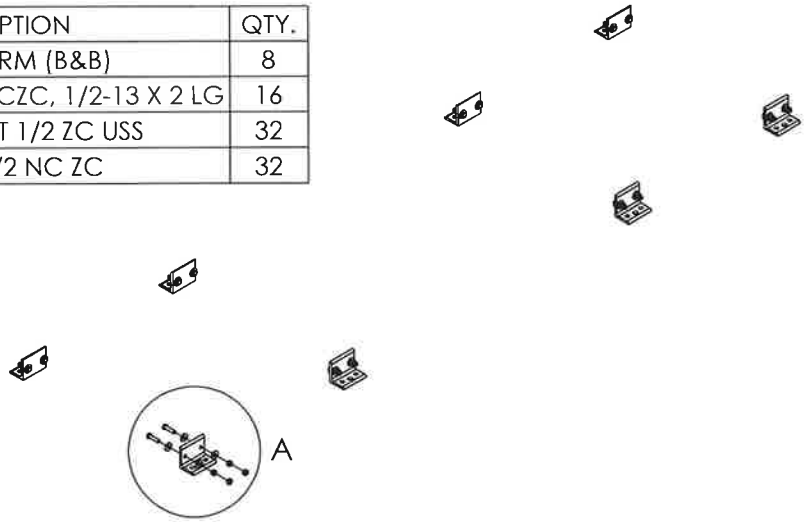
THE MOUNTING HARDWARE AS SHOWN IS INTENDED FOR FLAT BOTTOM TRAILERS ONLY. ANYTHING ELSE WILL REQUIRE SOME OTHER METHOD AS DEVISED BY USER.

ON TRAILERS WITH HIGH BEDS, SPECIAL CARE SHOULD BE TAKEN BECAUSE OF THE HIGH CENTER OF GRAVITY. ADDITIONAL TIE DOWNS SHOULD BE USED, SUCH AS CHAIN BINDERS AND SLOWER SPEEDS ON THE ROAD SHOULD BE MAINTAINED.



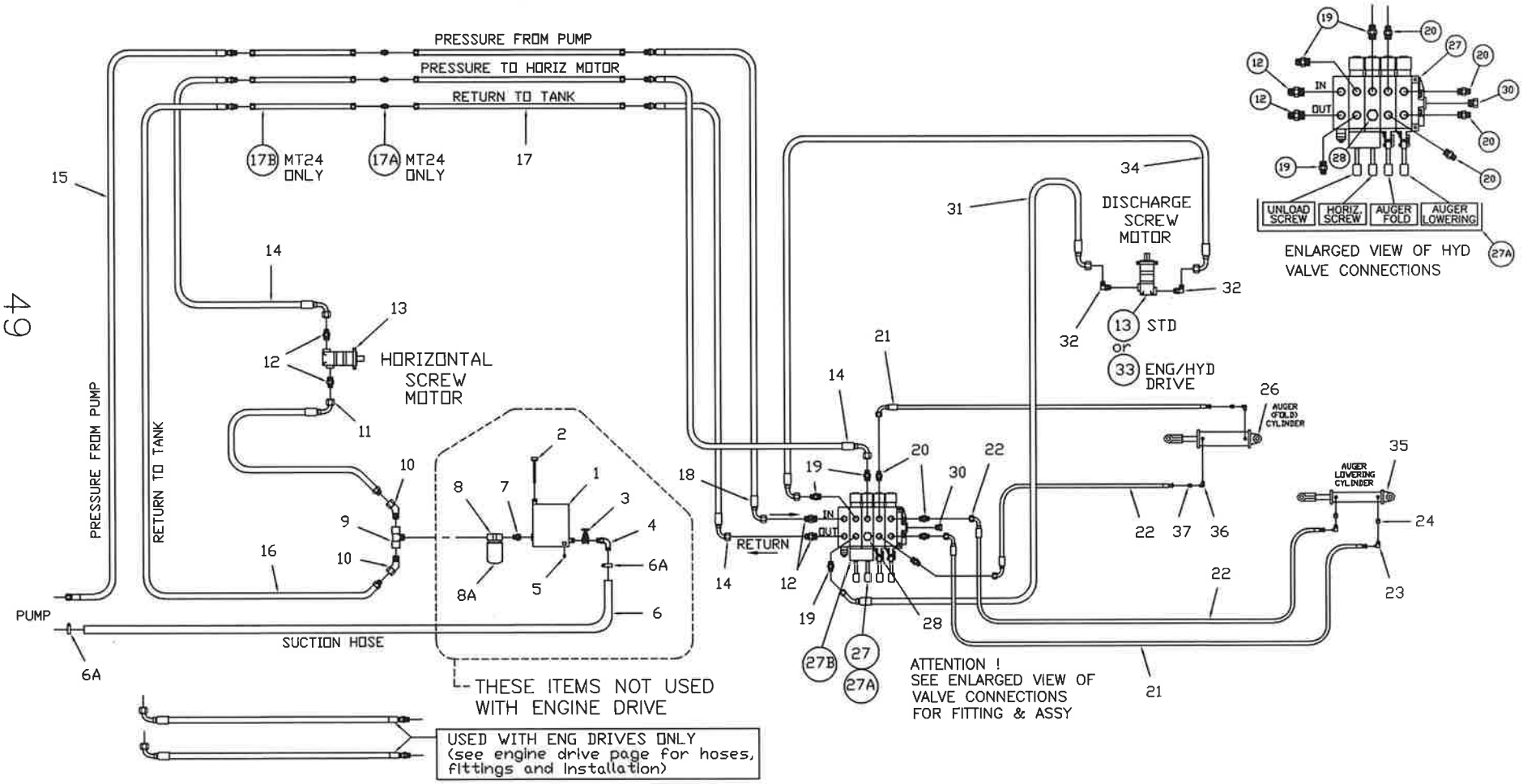
DETAIL A
SCALE 1 : 5

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	28976	MOUNT - FRM (B&B)	8
2	18092030	BOLT, HX CAP, G8NCZC, 1/2-13 X 2 LG	16
3	18811400	WASHER, FLAT 1/2 ZC USS	32
4	18417400	NUT, HX 1/2 NC ZC	32



MT16/MT24 TENDER
BASIC HYDRAULIC SYSTEM FOR
MT16/MT24 WITH REAR MOUNTED CONTROLS
(COMPLETE HYDRAULIC PLUMBING KIT 29152)

29152
11/22/24



HYDRAULIC PLUMBING PART LIST

REAR MOUNTED PASSENGER SIDE CONTROLS

MT16 P/N: 29152 / MT24 P/N: 29152-24

ITEM	PART NO.	DESCRIPTION	QTY
DELETE ITEMS 1 TO 8 WHEN USING "ENGINE DRIVE PKG"			
1	38711	TANK, HYDRAUILIC OIL (20 GAL.)	1
2	02153	DIPSTICK	1
3	02006	GATE VALVE, 1 1/4 NPT	1
4	72368	HOSE BARB, 90° 1 1/4P X 1 1/4H	1
5	72175	OIL TANK PLUG 1/2" NPT	1
6	NOT INCLUDED	HOSE, 1 1/4 ID X 80 (CUT LENGTH)	1
6A	NOT INCLUDED	HOSE CLAMP, 1 1/2"	2
7	51933	HEX. PIPE NIPPLE (5404-16-12)	1
8	01170	FILTER, COMPLETE	1
8A	11128	FILTER ELEMENT ONLY	
9	51682	TEE, 3/4 NPT(M) X 3/4 NPT(F)(2 PL)	1
10	1503-12-12	ELBOW, 45° 3/4 NPT(M) X 3/4 NPT(F)	2
11	53558	HOSE ASSY, 3/4" X 24" #12 JICF X 3/4M PIPE	1
12	6400-12-12	ADAPTER (444001)	4
13	51930	HYDRAULIC MOTOR (104-1041-006) (SEE NOTE 1)	*
14	53601	HOSE ASSY, 3/4" X 36" #12JICM X #12 JICFS 90°	3
15	53599	HOSE ASSY, 3/4" X 114" #12 JICM X 3/4 M PIPE	1
16	53598	HOSE ASSY, 3/4" X 34" #12 JICM X 3/4 M PIPE	1
17	53592	TUBE ASSY HARDLINE 3/4 OD X 138" #12 JICFS EA. END	3
FOR THE MT24 MODEL ONLY ADD ITEMS 17A AND 17B			
17A	2403-12-12	HEX UNION #12 JICM X #12 JICM	3
17B	53606	TUBE ASSY HARDLINE 3/4 OD X 96" #12 JICFS EA. END	3
MT16 & MT24 CONTINUE BELOW			
18	53600	HOSE ASSY, 3/4 X 36" #12 JICFS X #12 JICM	1
19	6400-12-10	ADAPTER #10 M O-RING - #12 JICM	3
20	444008	ADAPTER #8 JICM X #10 M O-RING (6400-08-10)	4
21	53602	HOSE ASSY, 1/2 X 60" #8 JICFS X #8 JICFS 90°	2
22	53528	HOSE ASSY, 1/2 X 72" #8 JICFS X #8 JICFS 90°	2
23	2501-08-06	ADAPTER 90° #8 JICM X #6 M PIPE	2
24	28187	RESTRICTOR (5405-06-06 R.062)	2
25	--	OMITTED	-
26	07132	HYDRAULIC CYLINDER (LIFT CYLINDER)	1
27	29091	CONTROL VALVE (4 BANK)	1
27A	28882A	DECAL, CONTROL VALVE	1
27B	28904	STOP BRACKET (VALVE LEVERS)	1
28	21243	PLUG (6408-10)	1
29	--	OMITTED	-
30	6408-12	PLUG #12 M O-RING	1
31	343085A1	HOSE ASSY, 3/4" X 58" #12 JICFS X 90°	1
32	445001	ADAPTER 90° (6801-12)	2
33	39165	HYD. MOTOR (SEE NOTE)	*
34	53949	HOSE ASSY, 3/4 X 42" #12 JICFS X #12 JICFS 90°	1
35	39254	HYDRAULIC CYLINDER (LWRG. AUGER)	1
36	2501-08-08	ELBOW 90° #8 MJIC X #8 MNPT	2
37	2406R-08-08-.062	ADAPTER #8 MJIC X #8 FJIC	2

28973 - HYDRAULIC HOSE KIT *INCLUDES ITEMS 11, 14, 15, 16, 18, 21, 22, 31 & 34*

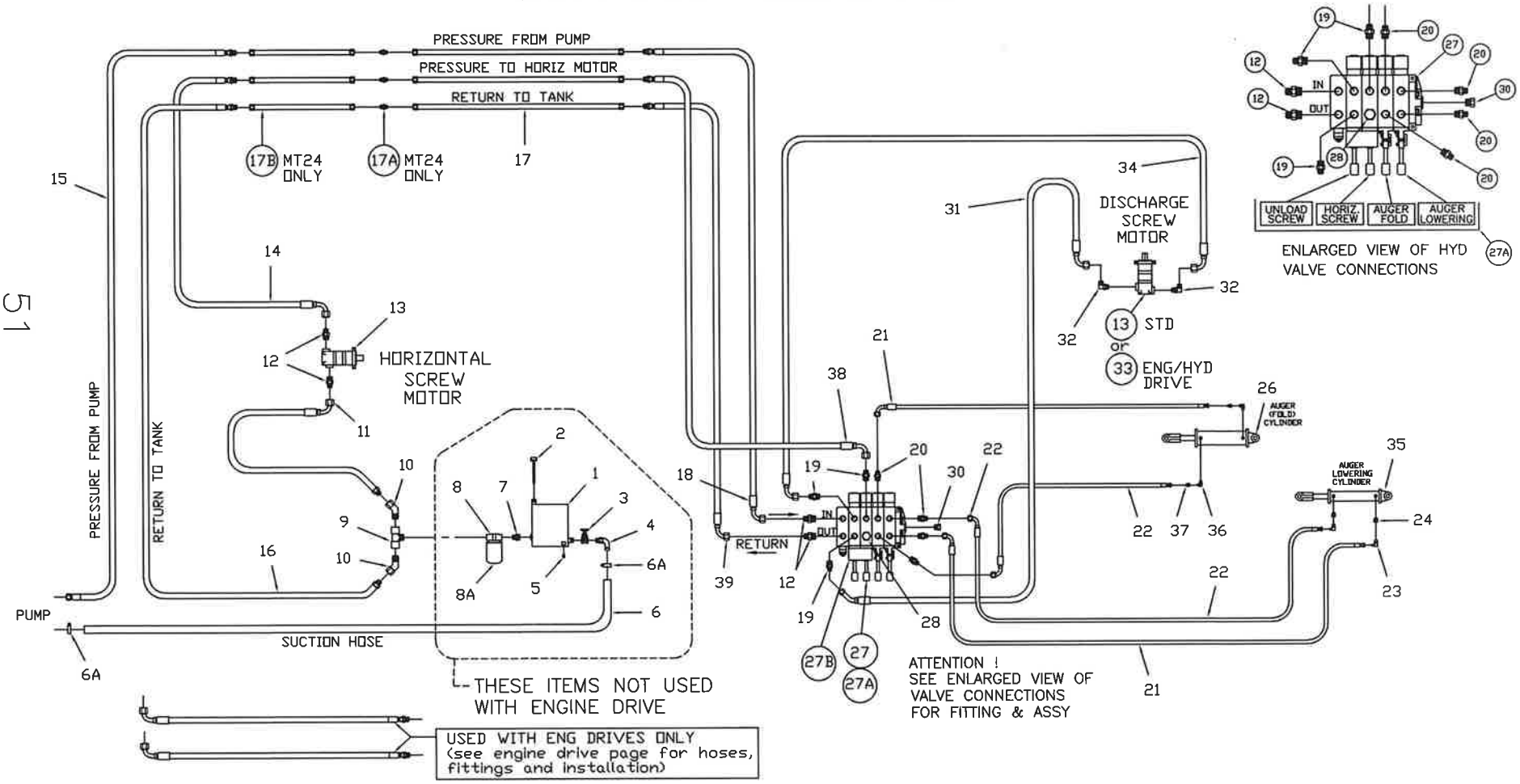
28973A - HYDRAULIC FITTING KIT *CONTAINS ITEMS 7, 9, 10, 12, 19, 20, 23, 24, 28, 30, 32, 36 & 37*

NOTE 1:

FOR UNITS WITH AN ENGINE DRIVE USE (1) ITEM 13 AND (1) ITEM 33
FOR UNITS WITHOUT ENGINE DRIVE USE (2) ITEM 13

MT16/MT24 TENDER
BASIC HYDRAULIC SYSTEM FOR
MT16/MT24 WITH REAR MOUNTED CONTROLS (DRIVER SIDE)
(COMPLETE HYDRAULIC PLUMBING KIT 29153)

29153
11/22/24



HYDRAULIC PLUMBING PART LIST

REAR MOUNTED DRIVER SIDE CONTROLS

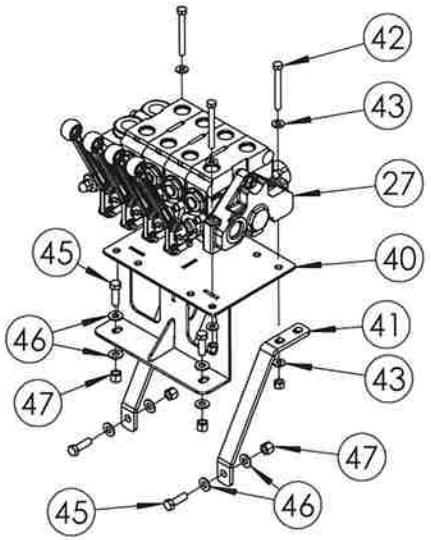
MT16 P/N: 29153 / MT24 P/N: 29153-24

ITEM	PART NO.	DESCRIPTION	QTY
	DELETE ITEMS 1 TO 8 WHEN USING "ENGINE DRIVE PKG"		
1	38711	TANK, HYDRAUILIC OIL (20 GAL.)	1
2	02153	DIPSTICK	1
3	02006	GATE VALVE, 1 1/4 NPT	1
4	72368	HOSE BARB, 90° 1 1/4P X 1 1/4H	1
5	72175	OIL TANK PLUG 1/2" NPT	1
6	NOT INCLUDED	HOSE, 1 1/4 ID X 80 (CUT LENGTH)	1
6A	NOT INCLUDED	HOSE CLAMP, 1 1/2"	2
7	51933	HEX. PIPE NIPPLE (5404-16-12)	1
8	01170	FILTER, COMPLETE	1
8A	11128	FILTER ELEMENT ONLY	
9	51682	TEE, 3/4 NPT(M) X 3/4 NPT(F)(2 PL)	1
10	1503-12-12	ELBOW, 45° 3/4 NPT(M) X 3/4 NPT(F)	2
11	53558	HOSE ASSY, 3/4" X 24" #12 JICF X 3/4M PIPE	1
12	6400-12-12	ADAPTER (444001)	4
13	51930	HYDRAULIC MOTOR (104-1041-006) (SEE NOTE 1)	*
14	53601	HOSE ASSY, 3/4" X 36" #12JICM X #12 JICFS 90°	1
15	53599	HOSE ASSY, 3/4" X 114" #12 JICM X 3/4 M PIPE	1
16	53598	HOSE ASSY, 3/4" X 34" #12 JICM X 3/4 M PIPE	1
17	53592	TUBE ASSY HARDLINE 3/4 OD X 138" #12 JICFS EA. END	3
	FOR THE MT24 MODEL ONLY ADD ITEMS 17A AND 17B		
17A	2403-12-12	HEX UNION #12 JICM X #12 JICM	3
17B	53606	TUBE ASSY HARDLINE 3/4 OD X 96" #12 JICFS EA. END	3
	MT16 & MT24 CONTINUE BELOW		
18	72072	HOSE ASSY, 3/4 X 62" #12 JICFS X #12 JICM	1
19	6400-12-10	ADAPTER #10 M O-RING - #12 JICM	3
20	444008	ADAPTER #8 JICM X #10 M O-RING (6400-08-10)	4
21	53602	HOSE ASSY, 1/2 X 60" #8 JICFS X #8 JICFS 90°	2
22	53528	HOSE ASSY, 1/2 X 72" #8 JICFS X #8 JICFS 90°	2
23	2501-08-06	ADAPTER 90° #8 JICM X #6 M PIPE	2
24	28187	RESTRICTOR (5405-06-06 R.062)	2
25	--	OMITTED	-
26	07132	HYDRAULIC CYLINDER (LIFT CYLINDER)	1
27	29091	CONTROL VALVE (4 BANK)	1
27A	28882A	DECAL, CONTROL VALVE	1
27B	28904	STOP BRACKET (VALVE LEVERS)	1
28	21243	PLUG (6408-10)	1
29	--	OMITTED	-
30	6408-12	PLUG #12 M O-RING	1
31	343085A1	HOSE ASSY, 3/4" X 58" #12 JICFS X 90°	1
32	445001	ADAPTER 90° (6801-12)	2

ITEM	PART NO.	DESCRIPTION	QTY
33	39165	HYD. MOTOR (SEE NOTE)	*
34	72073	HOSE ASSY, 3/4 X 56" #12 JICFS X #12 JICM	1
35	39254	HYDRAULIC CYLINDER (LWRG. AUGER)	1
36	2501-08-08	ELBOW 90° #8 MJIC X #8 MNPT	2
37	2406R-08-08-.062	ADAPTER #8 MJIC X #8 FJIC	2
38	72009	HOSE ASSY, 3/4 X 56" #12 MJIC X #12 JICFS 90°	1
39	72074	HOSE ASSY, 3/4 X 62" #12 JICFS 45° X #12 MJIC	1
40	47005798	CONTROL VALVE MOUNT WELDMENT (DSR)	1
41	47005786	VALVE BRACKET BRACE	2
42	18056458	BOLT HX CAP G5 NC ZC 5/16-18 X 3	3
43	18991100	WASHER, FLAT 5/16 SS	6
44	18457500	NUT, 5/16-18 NYLOCK	3
45	18026824	BOLT HX SS 3/8 X 1 1/4	4
46	18991200	WASHER, FLAT 3/8 SS	8
47	18566400	NUT SS NYLOCK 3/8	4

NOTE 1:

FOR UNITS WITH AN ENGINE DRIVE USE (1) ITEM 13 AND (1) ITEM 33
FOR UNITS WITHOUT ENGINE DRIVE USE (2) ITEM 13



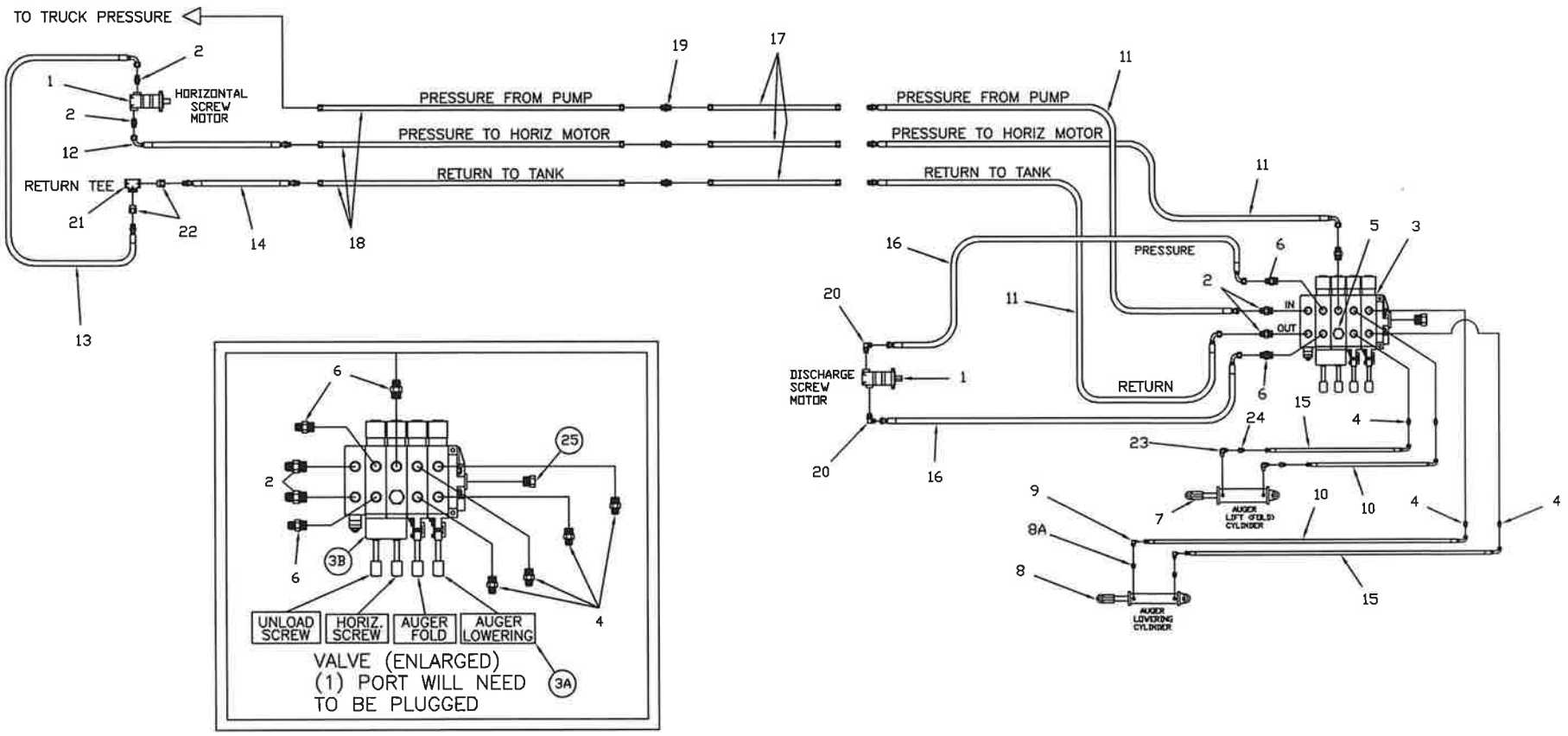
72008 - HYDRAULIC HOSE KIT
INCLUDES ITEMS 11, 14, 15, 16, 18, 21, 22, 31, 34, 38 & 39
28973A - HYDRAULIC FITTING KIT
CONTAINS ITEMS 7, 9, 10, 12, 19, 20, 23, 24, 28, 30, 32, 36 & 37

CONTROL VALVE MOUNT ASSEMBLY DETAIL

MT24 TENDER
HYDRAULIC SYSTEM FOR

MT24TMWKPLBG1

TRUCK MOUNTED (WET KIT) WITH HYD CONTROLS MOUNTED ON DRIVER SIDE REAR
("WET KIT" IS WHEN HYD PUMP AND TANK ARE ALREADY ON THE TRUCK SUPPLIED BY CUSTOMER)
(COMPLETE HYDRAULIC PLUMBING KIT MT24TMWKIT)

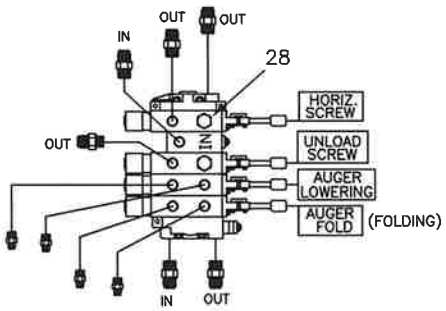


MT24 TRUCK MOUNTED WET KIT PARTS LIST
DRIVER SIDE REAR MOUNT CONTROLS
P/N: MT24TMWKIT

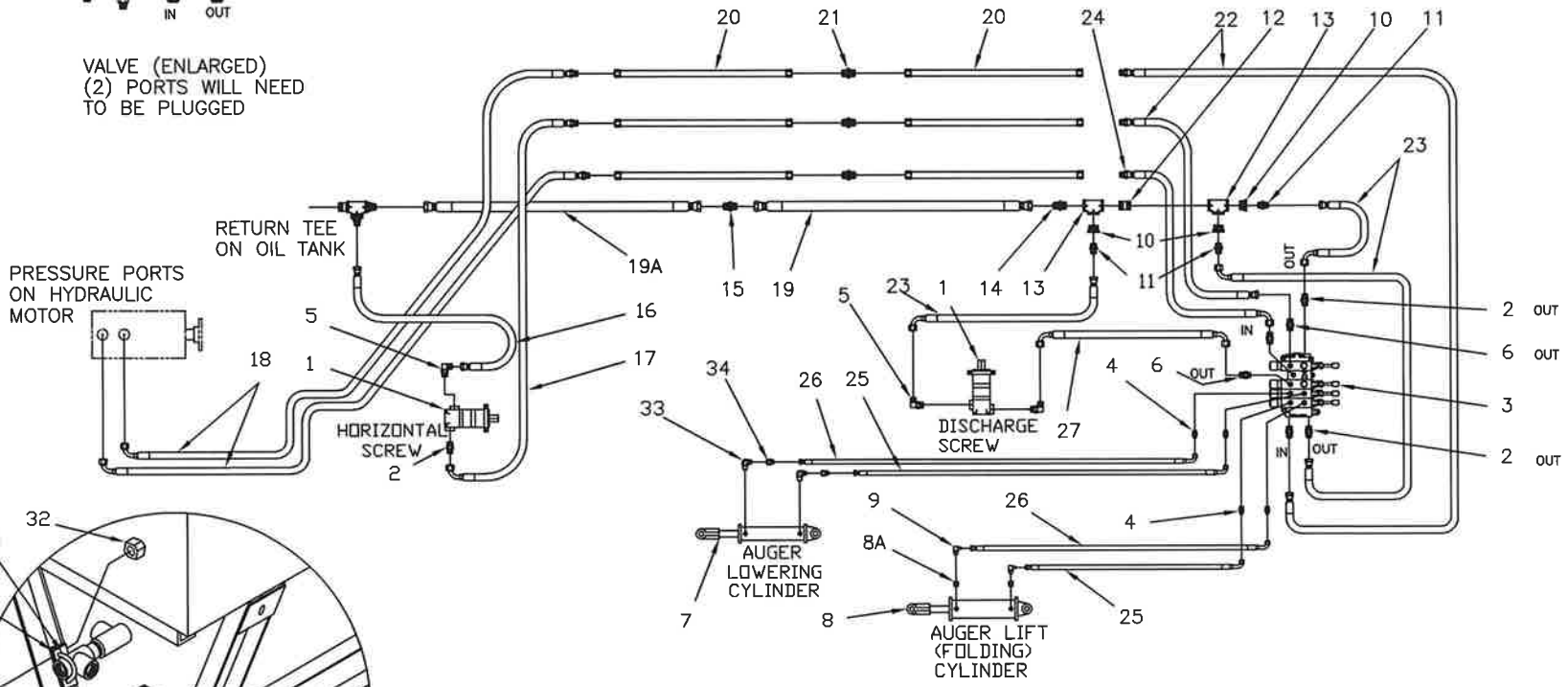
ITEM	PART NO.	DESCRIPTION	QTY
1	51930	HYDRAULIC MOTOR	2
2	6400-12-12	FITTING (444001)	4
3	29091	HYDRAULIC CONTROL VALVE	1
3A	28882A	DECAL LEVERS	1
3B	28904	STOP BRACKET, VALVE LEVERS	1
4	444008	ADAPTER (6400-08-10)	4
5	21243	PLUG (6408-10)	1
6	6400-12-10	ADAPTER 7/8 M O-RING X #12 JICM	3
7	07132	HYDRAULIC CYLINDER	1
7A	OMITTED	--	-
8	39254	HYDRAULIC CYLINDER	1
8A	28187	RESTRICTOR (5405-06-06-.062)	2
9	2501-08-06	ADAPTER 90°	2
10	607132	HYD. HOSE, 1/2 X 132" #8 JICFS X #8 JICFS 90°	2
11	632144	HYD. HOSE, 3/4 X 144" #12 JICFS 90°X #12 JICM	3
12	53601	HYD. HOSE, 3/4 X 36" #12 JICFS 90° X #12 JICM	1
13	53558	HYD. HOSE, 3/4 X 24" #12 JICM X 3/4 MNPT	1
14	53598	HYD. HOSE, 3/4 X 34" #12 JICM X 3/4 MNPT	1
15	607144	HYD. HOSE, 1/2 X 144" #8 JICFS X #8 JICFS 90°	2
16	53138	HYD. HOSE, 3/4 X 138" #12 JICFS 90°X #12 JICFS	2
17	53592	HYD. TUBE, 3/4 X 138" #12 JICFS EA. END	3
18	53606	HYD. TUBE, 3/4 X 96" #12 JICFS EA END	3
19	2403-12-12	UNION #12 JICM X #12 JICM	3
20	445001	ELBOW 90° (6801-12-12)	2
21	72292	TEE 1" NPT	1
22	72299	BUSHING 1" NPT X 3/4 NPT"	2
23	2501-08-08	ELBOW 90° #8 JICM X #8 MNPT	2
24	2406R-08-08-.062	ADAPTER #8 JICM X #8 JICF	2
25	6408-12	PLUG #12 M O-RING	1

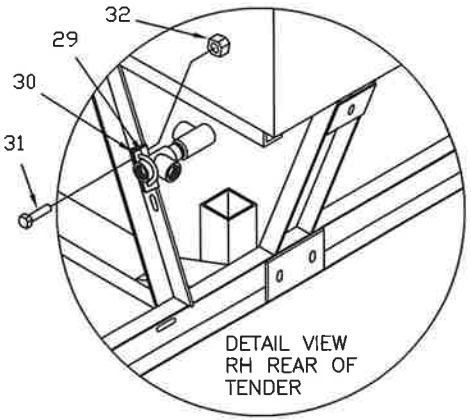
MT24WET - HOSE KIT CONTAINS ITEMS 10 THRU 16

MT24 TENDER
STD. HYDRAULIC SYSTEM
FOR DEUTZ 74.2 HP ENGINE DRIVE
(ENGINE DRIVE IN FRONT WITH CONTROL VALVE PASS. SIDE REAR)
(COMPLETE HYDRAULIC PLUMBING KIT MT24DED)



VALVE (ENLARGED)
(2) PORTS WILL NEED
TO BE PLUGGED



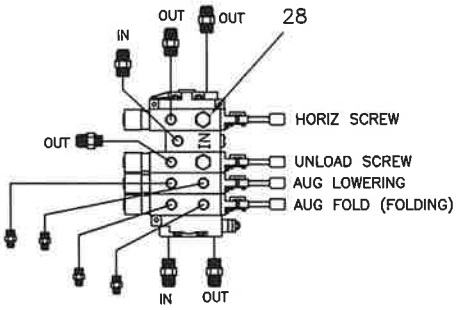


TEE MOUNTING INSTRUCTIONS (SEE RH REAR OF TENDER DETAIL)
LOCATE AND CLAMP ANGLE (ITEM 30) IN POSITION AS SHOWN, ALLOWING ROOM FOR FENDER MOUNTING IF NEEDED, THEN MATCH DRILL TWO 7/16 DIA HOLES 3 1/4 INCHES APART AND BOLT ON ANGLE (ITEM 30) TO HOLD 1 1/4 NPT TEES (ITEM 13) IN PLACE USING MUFFLER CLAMP ASSEMBLY (ITEM 29). POSITION TEES AS SHOWN, THEN TIGHTEN CLAMP DOWN. THEN CONNECT ALL PLUMBING TO TEES PER DIAGRAM ABOVE.

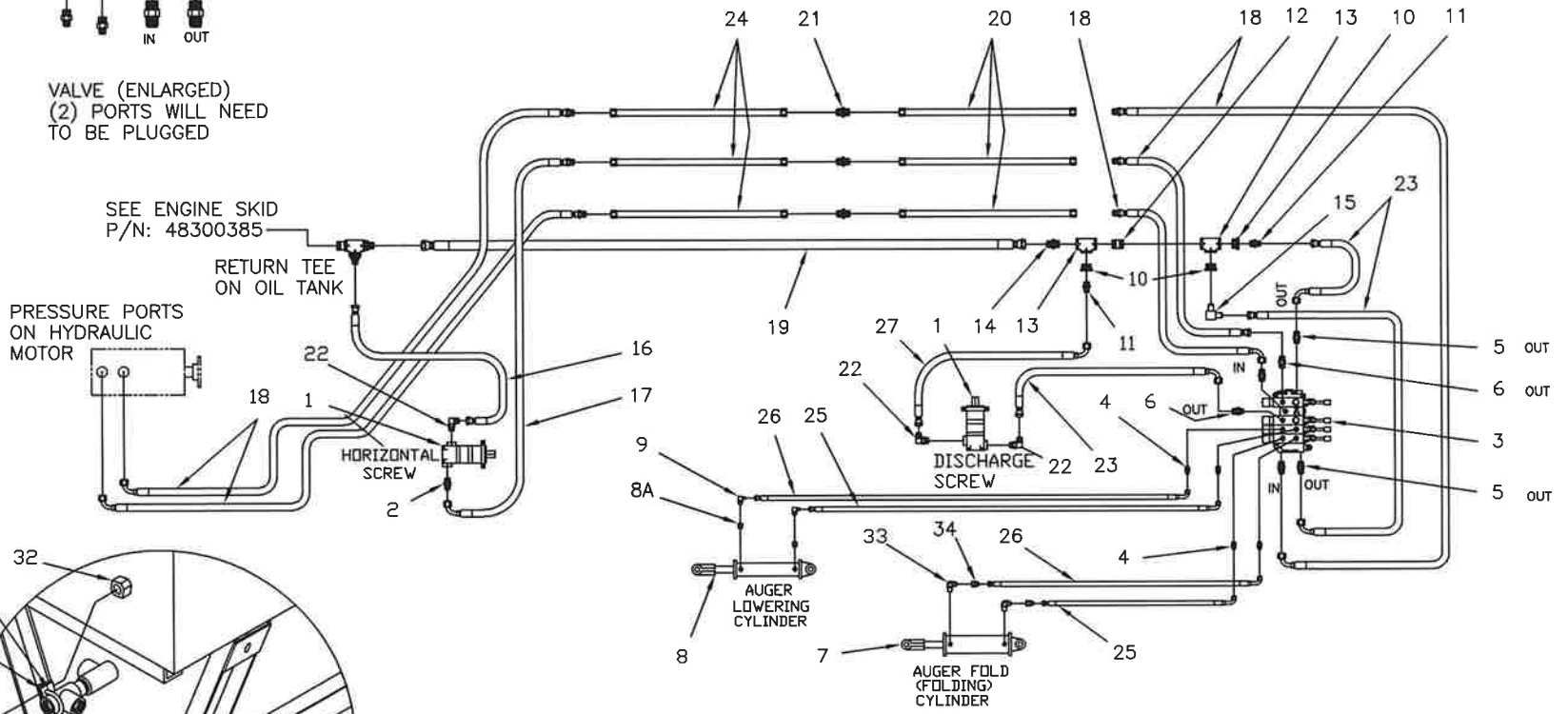
MT24 HYDRAULIC PARTS LIST
FOR DEUTZ ENGINE DRIVE
REAR MOUNTED PASSENGER SIDE CONTROLS
(ENGINE DRIVE IN FRONT)
P/N: MT24DED

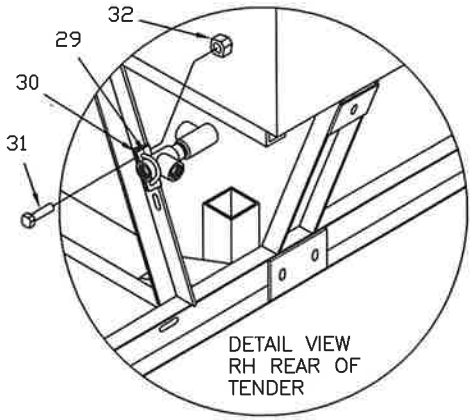
ITEM	PART NO.	DESCRIPTION	QTY
1	51930	HYDRAULIC MOTOR	2
2	6400-12-12	FITTING (444001)	5
3	V20-10048	HYDRAULIC CONTROL VALVE	1
4	444008	8MJ-10MB (6400-08-10)	4
5	445001	ELBOW CONNECTOR 90° (6801-12-12)	3
6	6400-12-10	ADAPTER 7/8 M O-RING X #12 JIC	2
7	07132	HYDRAULIC CYLINDER	1
7A	--	--	-
8	39254	HYDRAULIC CYLINDER	1
8A	28187	ADAPTER (5405-06-06 R.062)	2
9	2501-08-06	ADAPTOR ELBOW 90°	2
10	73653	BUSHING 3/4 X 1 1/4	3
11	2404-1212	ADAPTER PIPE X JIC	3
12	72330	CLOSE NIPPLE 1 1/4 NPT	1
13	72342	TEE 1 1/4 NPT	2
14	2404-20-20	ADAPTER, PIPE X JIC	1
15	2403-20	ADAPTER UNION X JIC	1
16	632120	HYD. HOSE 3/4 X 120" #12 JICFS EA. END	1
17	53601	HYD. HOSE 3/4 X 36" #12 JICFS 90° X #12 JICM	1
18	632144	HYD. HOSE 3/4 X 144" #12 JICFS 90° X #12 JICM	2
19	632210	HYD. HOSE 1 1/4 X 210" #20 JICFS EA. END	1
19A	632122	HYD. HOSE 1 1/4 X 120" #20 JICFS EA. END	1
20	53592	HYD. TUBE 3/4 X 138" #12 JICFS EA END	6
21	2403-12-12	UNION #12 MJIC	3
22	53600	HYD. HOSE 3/4 X 36" #12 JICFS X #12JICM	2
23	632036	HYD. HOSE 3/4 X 36" #12 JICFS 90° X #12 JICFS	3
24	53942	HYD. HOSE 3/4 X 42" #12 JICFS 90°X #12 JICM	1
25	53602	HYD. HOSE 1/2 X 60" #8 JICFS X #8 JICFS 90°	2
26	53528	HYD. HOSE 1/2 X 72" #8 JICFS X #8 JICFS 90°	2
27	343085A1	HYD. HOSE 3/4 X 58" #12 JICFS 90° BOTH ENDS	1
28	21243	PLUG #10 O-RING	2
29	47005791	MUFFLER CLAMP 2"	1
30	47005761	MOUNT ANGLE FOR 2" CLAMP	1
31	18056822	BOLT HEX 3/8-16 X 1" LG NC ZC	2
32	18496800	FLANGE NUT 3/8-16 NC	2
33	2501-08-08	ELBOW 90°, #8 MJIC X #8 MNPT	2
34	2406R-08-08-.062	ADAPTER, #8 JICM X #8 JICF	2

MT24 TENDER
HYDRAULIC SYSTEM FOR
DEUTZ 74.2 HP ENGINE DRIVE FRONT MOUNTED W DRIVER SIDE REAR CONTROLS
(COMPLETE HYDRAULIC PLUMBING KIT MT24DED2)



VALVE (ENLARGED)
(2) PORTS WILL NEED
TO BE PLUGGED





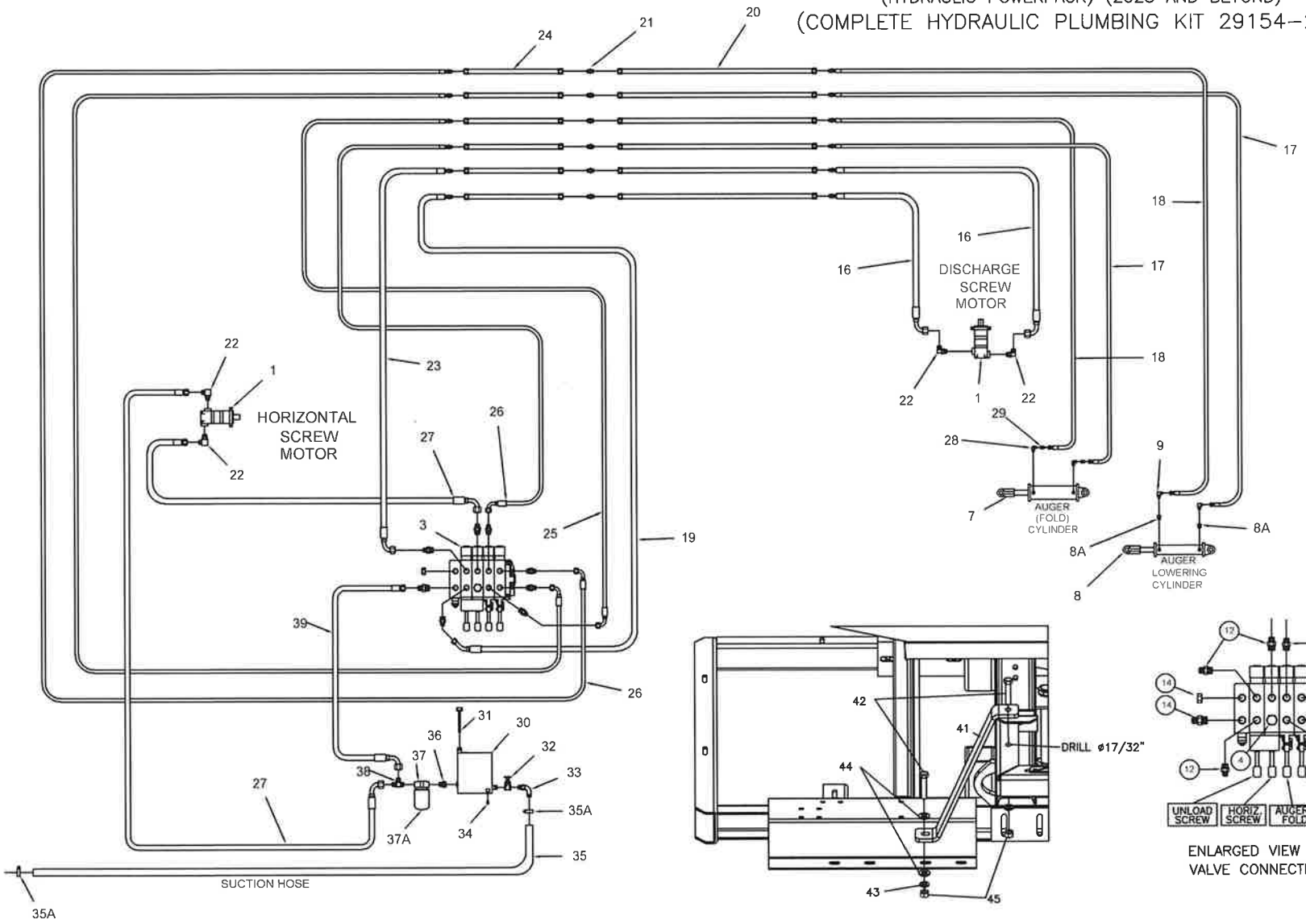
TEE MOUNTING INSTRUCTIONS (SEE RH REAR OF TENDER DETAIL)
LOCATE AND CLAMP ANGLE (ITEM 30) IN POSITION AS SHOWN, ALLOWING ROOM FOR FENDER MOUNTING IF NEEDED, THEN MATCH DRILL TWO 7/16 DIA HOLES 3 1/4 INCHES APART AND BOLT ON ANGLE (ITEM 30) TO HOLD 1 1/4 NPT TEES (ITEM 13) IN PLACE USING MUFFLER CLAMP ASSEMBLY (ITEM 29). POSITION TEES AS SHOWN, THEN TIGHTEN CLAMP DOWN. THEN CONNECT ALL PLUMBING TO TEES PER DIAGRAM ABOVE.

MT24 HYDRAULIC PARTS LIST
FOR DEUTZ ENGINE DRIVE
REAR MOUNTED DRIVER SIDE CONTROLS
(ENGINE DRIVE IN FRONT)
P/N: MT24DED2

ITEM	PART NO.	DESCRIPTION	QTY
1	51930	HYDRAULIC MOTOR	2
2	6400-12-12	FITTING (444001)	1
3	V20-10048	HYDRAULIC CONTROL VALVE	1
4	444008	8MJ-10MB (6400-08-10)	4
5	6400-12-12	FITTING (444001)	4
6	6400-12-10	ADAPTER 7/8 M O-RING X #12 JIC	2
7	07132	HYDRAULIC CYLINDER	1
7A	--	--	-
8	39254	HYDRAULIC CYLINDER	1
8A	28187	ADAPTER (5405-06-06 R.062)	2
9	2501-08-06	ADAPTOR ELBOW 90°	2
10	73653	BUSHING 3/4 X 1 1/4	3
11	2404-12-12	ADAPTER PIPE X JIC	3
12	72330	CLOSE NIPPLE 1 1/4 NPT	1
13	72342	TEE 1 1/4 NPT	2
14	2404-20-20	ADAPTER, PIPE X JIC	1
15	2403-20	ADAPTER UNION X JIC	1
16	632120	HYD. HOSE 3/4 X 120" #12 JICFS EA. END	1
17	53601	HYD. HOSE 3/4 X 36" #12 JICFS 90° X #12 JICM	1
18	632144	HYD. HOSE 3/4 X 144" #12 JICFS 90° X #12 JICM	5
19	632332	HYD. HOSE 1 1/4 X 332" #20 JICFS EA. END	1
20	53592	HYD. TUBE 3/4 X 138" #12 JICFS EA END	3
21	2403-12-12	UNION #12 MJIC	3
22	445001	ELBOW CONNECTOR 90° (6801-12-12)	3
23	53138	HYD. HOSE 3/4 X 138" #12 JICFS 90° X #12JICFS	3
24	53606	HYD. TUBE 3/4 X 96" #12 JICFS EA END	3
25	607132	HYD. HOSE 1/2 X 132" #8 JICFS X #8 JICFS 90°	2
26	607144	HYD. HOSE 1/2 X 144" #8 JICFS X #8 JICFS 90°	2
27	343085A1	HYD. HOSE 3/4 X 60" #12 JICFS 90° BOTH ENDS	1
28	21243	PLUG #10 O-RING	2
29	47005791	MUFFLER CLAMP 2"	1
30	47005761	MOUNT ANGLE FOR 2" CLAMP	1
31	18056822	BOLT HEX 3/8-16 X 1" LG NC ZC	2
32	18496800	FLANGE NUT 3/8-16 NC	2
33	2501-08-08	ELBOW 90°, #8 MJIC X #8 MNPT	2
34	2406R-08-08-.062	ADAPTER, #8 JICM X #8 JICF	2

MT24FRTMTWTANK-1
11/26/24

MT24 TENDER
HYDRAULIC SYSTEM FOR
MT24 WITH FRONT MOUNTED DRIVERS SIDE CONTROLS
(HYDRAULIC POWERPACK) (2023 AND BEYOND)
(COMPLETE HYDRAULIC PLUMBING KIT 29154-24)



MT24 HYDRAULIC PARTS LIST
FRONT MOUNTED DRIVER SIDE CONTROLS
(HYDRAULIC POWER PACK)
P/N: 29154-24

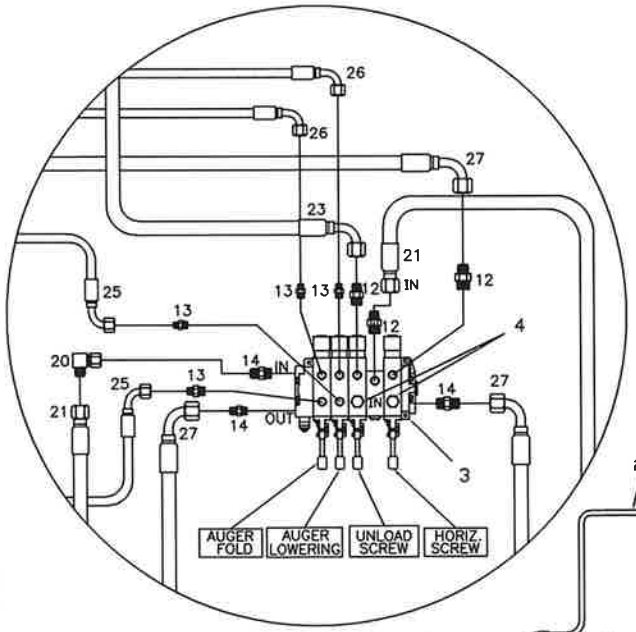
ITEM	PART NO.	DESCRIPTION	QTY
1	51930	HYDRAULIC MOTOR	2
2	--	--	-
3	29091	HYDRAULIC CONTROL VALVE	1
3A	28882A	DECAL, CONTROL VALVE	1
3B	--	--	-
4	21243	PLUG #10 O-RING	1
7	07132	HYDRAULIC CYLINDER	1
7A	--	--	-
8	39254	HYDRAULIC CYLINDER	1
8A	28187	ADAPTER (5405-06-06 R.062)	2
9	2501-08-06	ADAPTOR ELBOW 90°	2
10	--	--	-
11	--	--	-
12	6400-12-10	ADAPTER 7/8 M O-RING X #12 JIC	3
13	444008	8MJ-10MB (6400-08-10)	4
14	6400-12-12	FITTING (444001)	2
15	--	--	-
16	53942	HYD. HOSE 3/4 X 42" #12 JICM X #12 JICFS 90°	2
17	607060	HYD. HOSE 1/2 X 60" #12 JICM X #8 JICFS	2
18	607064	HYD. HOSE 1/2 X 64" #12 JICM X #8 JICFS	2
19	632063	HYD. HOSE 3/4 X 63" #12 JICM X #12 JICFS 45°	1
20	53592	HYD. TUBE 3/4 X 138" #12 JICFS EA END	6
21	2403-12-12	UNION #12 MJIC	6
22	445001	ELBOW CONNECTOR 90° (6801-12-12)	4
23	610060	HYD. HOSE 3/4 X 60" #12 JICFS 90° X #12 JICM	1
24	53606	HYD. TUBE 3/4 X 96" #12 JICFS BOTH ENDS	6
25	610072	HYD. HOSE 1/2 X 72" #12 JICM X #8 JICFS 90°	2
26	610068	HYD. HOSE 1/2 X 68" #12 JICFS X #8 JICFS 90°	2
27	53949	HYD. HOSE 3/4 X 42" #12 JICFS X #12 JICFS 90°	2
28	2501-08-08	ELBOW 90°, #8 MJIC X #8 MNPT	2
29	2406R-08-08-.062	ADAPTER, #8 JICM X #8 JICF	2
30	38711	TANK, HYDRAULIC OIL (20 GAL)	1
31	02153	DIPSTICK	1
32	02006	GATE VALVE, 1 1/4 NPT	1
33	72368	HOSE BARB 90° 1 1/4 P X 1 1/4 H	1
34	72175	OIL TANK PLUG 1/2 NPT	1
35	NOT INCLUDED	HOSE, 1 1/4 ID	1
35A	NOT INCLUDED	HOSE CLAMP, 1 1/2	2
36	51933	HEX. PIPE NIPPLE (5404-16-12)	1
37	01170	FILTER COMPLETE	1
37A	11128	FILTER ELEMENT ONLY	
38	2605-12-12	RUN TEE	1
39	632036	HYD. HOSE 3/4 X 36 #12 JICFS X #12 JICFS 90°	1
40	304-C-12	CAP	1
41	70666	STIFF STRUT	1
42	18057426	BOLT HX CAP G5 NC ZC 1/2 X 1 1/2	2
43	18417400	NUT HX 1/2 NC ZC	2
44	18851400	WASHER FLAT 1/2 SAE ZC	2
45	18891400	WASHER LOCK 1/2 ZC	2

47990060 - HOSE KIT - CONTAINS ITEMS 16 THRU 19, ITEMS 23 AND ITEMS 25 THRU 27

MT24 TENDER
HYDRAULIC SYSTEM FOR

MT24 WITH FRONT MOUNTED DRIVERS SIDE CONTROLS
(USING A DEUTZ ENGINE DRIVE PACKAGE MOUNTED IN FRONT OF BOX)
P/N: 40248003

MT24FRTMTDTZ–1
RV 12/02/24



ENLARGED VIEW OF HYD VALVE CONNECTIONS

ATTENTION !
SEE ENLARGED VIEW OF VALVE CONNECTIONS FOR FITTING & ASSY

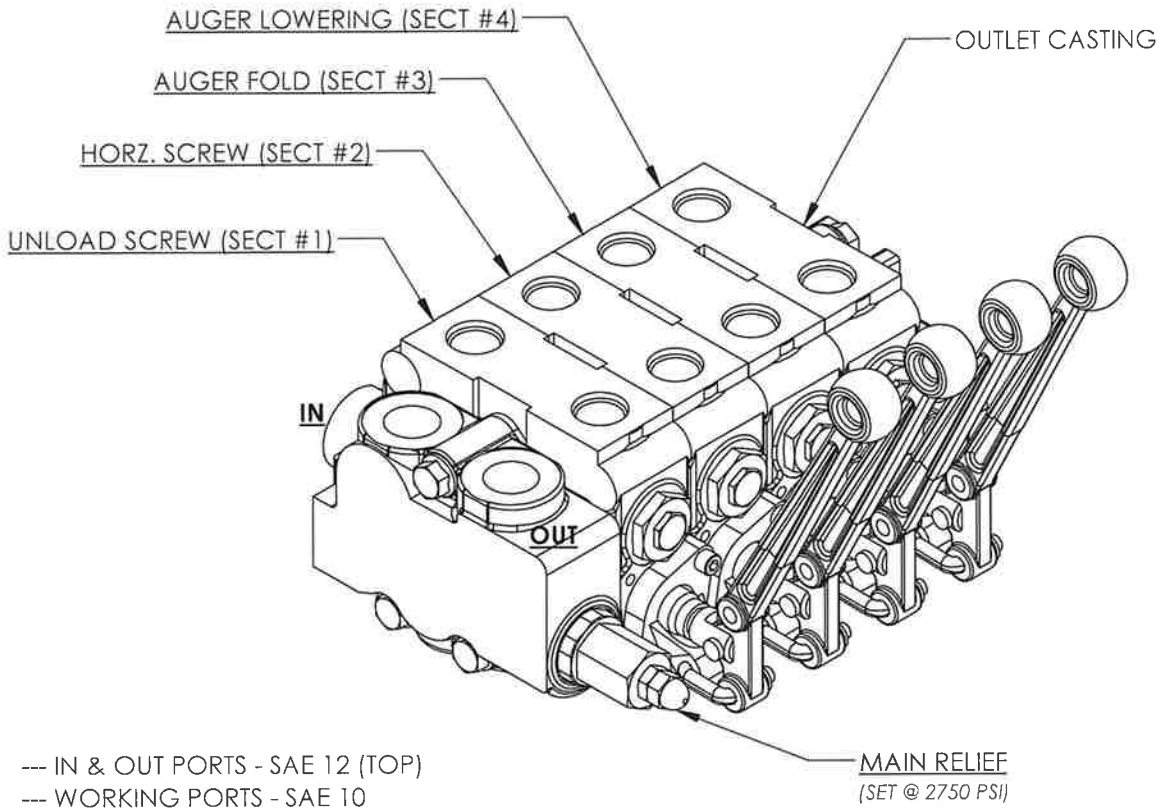
MT24 HYDRAULIC PARTS LIST
FOR DEUTZ ENGINE DRIVE
FRONT MOUNTED DRIVER SIDE CONTROLS
(ENGINE DRIVE IN FRONT)
P/N: 40248003

ITEM	PART NO.	DESCRIPTION	QTY
1	51930	HYDRAULIC MOTOR	2
2	53606	HYD. TUBE 3/4 X 96" #12 JICFS EA. END	6
3	V20-10048	HYDRAULIC CONTROL VALVE	1
	28882A	DECAL, CONTROL VALVE	1
4	21243	PLUG #10 O-RING (6408-10)	2
5	2403-12-12	UNION #12 MJIC	6
6	53592	HYD. TUBE 3/4 X 138" #12 JICFS EA END	6
7	07132	HYDRAULIC CYLINDER	1
7A	--	--	-
8	39254	HYDRAULIC CYLINDER	1
8A	28187	ADAPTER (5405-06-06 R.062)	2
9	2501-08-06	ADAPTOR ELBOW 90°	2
10	72330	CLOSE NIPPLE 1 1/4 NPT	1
11	--	--	-
12	6400-12-10	ADAPTER 7/8 M O-RING X #12 JIC	3
13	444008	8MJ-10MB (6400-08-10)	4
14	6400-12-12	FITTING (444001)	3
15	72342	TEE 1 1/4 NPT	2
16	53942	HYD. HOSE 3/4 X 42" #12 JICFS 90°X #12 JICM	2
17	607060	HYD. HOSE 1/2 X 60" #12 JICM X # 8 JICFS	2
18	607064	HYD. HOSE 1/2 X 64" #12 JICM X # 8 JICFS	2
19	52293	HYD. HOSE 3/4 X 96" #12 JICM X #12 JICFS 90°	1
20	6500-12-12	ELBOW JIC SWIVEL 90° #12 JICM X #12 JICFS	1
21	53138	HYD. HOSE 3/4 X 138" #12 JICFS X #12 JICFS 90°	2
22	445001	ELBOW CONNECTOR 90° (6801-12-12)	4
23	610060	HYD. HOSE 3/4 X 60" #12 JICFS 90° X #12 JICM	1
24	2404-12-20	ADAPTER #12 JICM X 1 1/4 M PIPE	3
25	610072	HYD. HOSE 1/2 X 72" #12 JICM X #12 JICFS 90°	2
26	610068	HYD. HOSE 1/2 X 68" #12 JICFS X #8 JICFS 90°	2
27	53949	HYD. HOSE 3/4 X 42" #12 JICFS X #12 JICFS 90°	4
28	2404-20-20	ADAPTER, #20 JICM X 1 1/4 M PIPE	1
29	632122	HYD. HOSE 1 1/4 X 120" #20 JICFS EA. END	1
30	2501-08-08	ELBOW 90°, #8 MJIC X #8 MNPT	2
31	2406R-08-08-.062	ADAPTER, #8 JICM X #8 JICF	2
32	70666	STIFFENER STRUT	1
33	18057426	BOLT HX CAP GR 5 1/2 X 1 1/2 NC ZC	2
34	18891400	WASHER 1/2 LOCK ZC	2
35	18851400	WASHER 1/2 SAE ZC	2
36	18417400	NUT HX 1/2 NC ZC	2

47990070 - HYD. HOSE KIT - *CONTAINS ITEMS 16 THRU 19, 21, 23, 25 THRU 27 &29*

VALVE - (4-BANK)

COMPLETE P/N: 29091

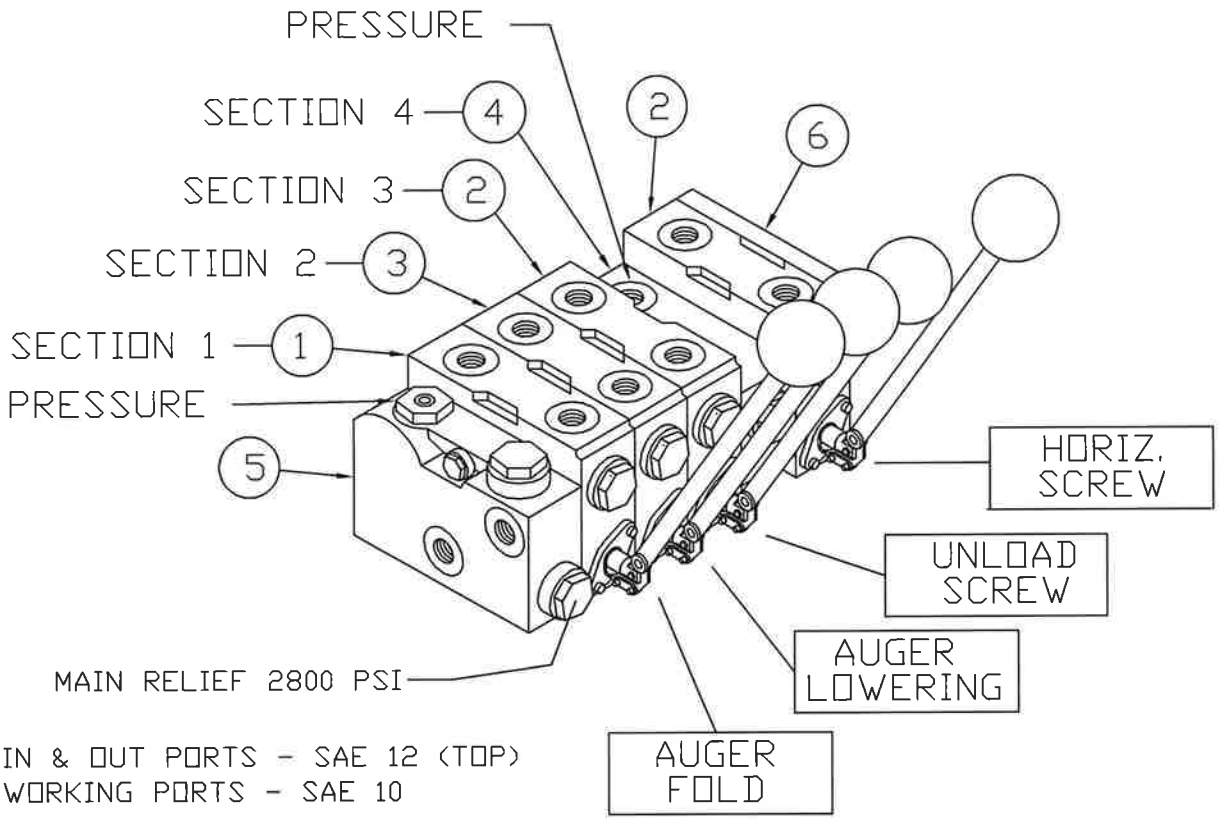


--- IN & OUT PORTS - SAE 12 (TOP)
--- WORKING PORTS - SAE 10

--- SECT #1 -- 4-WAY 3-POSITION DETENT (SERIES)
--- SECT #2 -- 4-WAY 3-POSITION DETENT (SERIES)
--- SECT #3 -- 4-WAY (TANDEM) -(WORK PORT)
--- SECT #4 -- 4-WAY (TANDEM) -(WORK PORT)
- W/ LOCKOUT FEATURE

REF.	PART NO.	QTY	DESCRIPTION
	98344	1	SEAL KIT (1-SPOOL & SECTION)
	98345	1	SEAL KIT (1-SPOOL)
	98346	1	SEAL KIT (1-SECTION)
	98347	1	SEAL KIT (RELIEF VALVE)
	98348	1	RELIEF VALVE COMPLETE -- 2750 PSI
	98349	1	HANDLE KIT - W/ BRACKETS W/ LINK & PIN
	98350	1	HANDLE ONLY
	98351	1	BRACKET ONLY
	98352	1	LINK KIT - W/ PINS
	98561	1	VALVE SECTION COMPLETE - SECT #3 & #4
	98898	1	CLEVIS ASSY (SPOOL) - SECT #1 & #2
	306743		SPRING - RELIEF (2750 PSI)
	06782047		OUTLET CASTING

V20VALVE
08/15/16



VALVE ASS'Y V20-10048

ITEM	QTY	PARTNUMBER	DESCRIPTION
1	1	20-10-04	3 POS. 4WAY SPRING CTR. (#10 ORB) SECTION 1
2	2	20-10-DF4	VALVE SECT.W DBL ACTING SPOOL 3 WAY DETENT
3	1	20-10-L04	3 POS 4-WAY LOCKOUT
4	1	20-12-SF	SPLIT FLOW INLET, #12 ORB WITHOUT R/V (SEC 4)
5	1	20-LC-12	LEFT COVER, TOP/SIDE PORTS, #12 ORB W/O R/V
6	1	20-RC-12-E-MY	RIGHT COVER, OUTLET, PB OPTION, #12 ORB

REPLACEMENT PARTS AND SEAL KITS

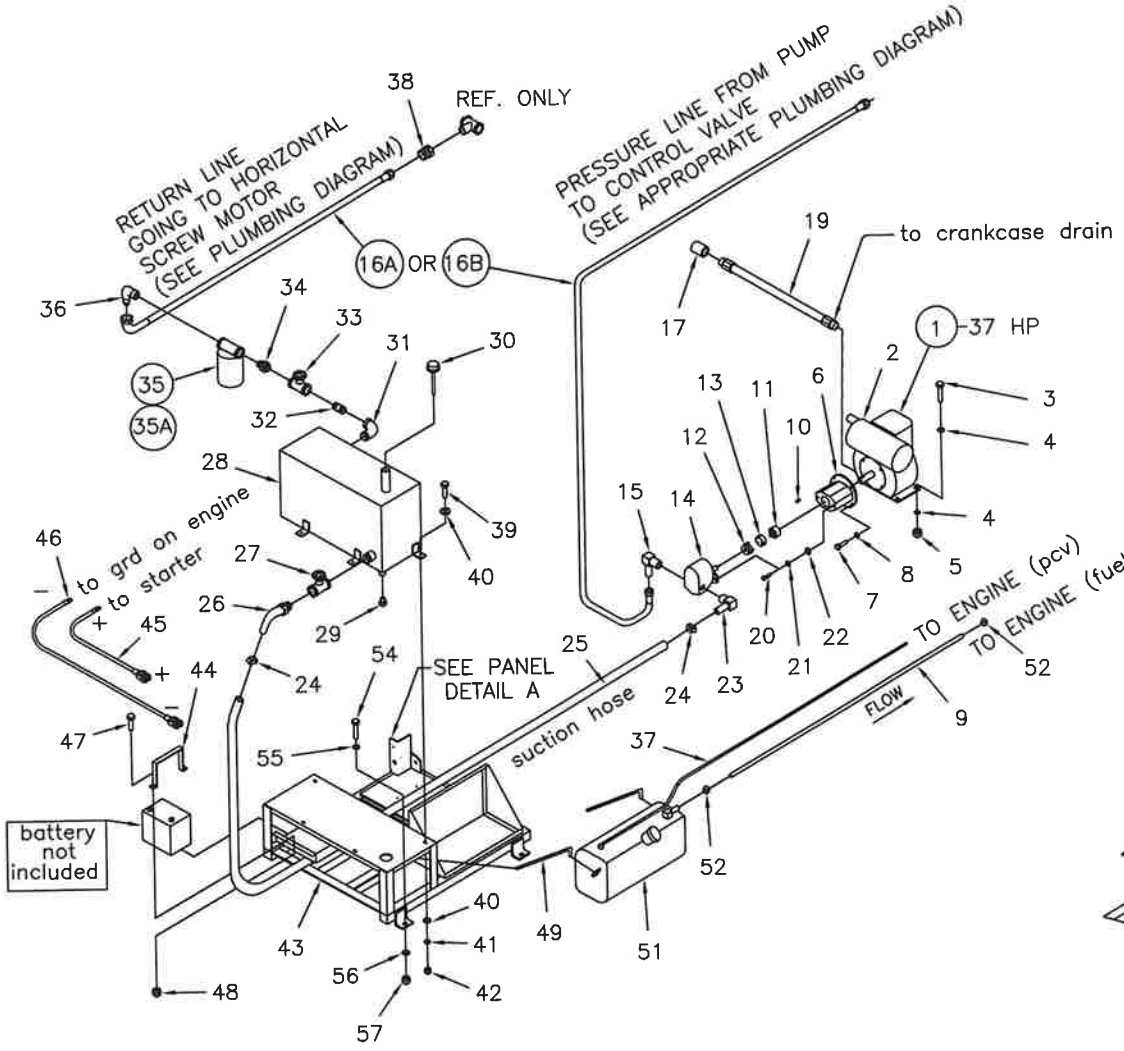
7	2	WH-30	MAIN RELIEF VALVE, PRE SET @ 3000 PSI (USED IN LEFT COVER AND SPLIT FLOW INLET)
8	4	K-20-VH-B	COMPLETE HANDLE KIT (INCLUDES LINKS & PINS)
9	5	K-6027	COMPLETE SECTION SEAL KIT

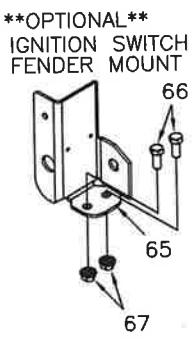
ENGINE DRIVE PACKAGE #33577

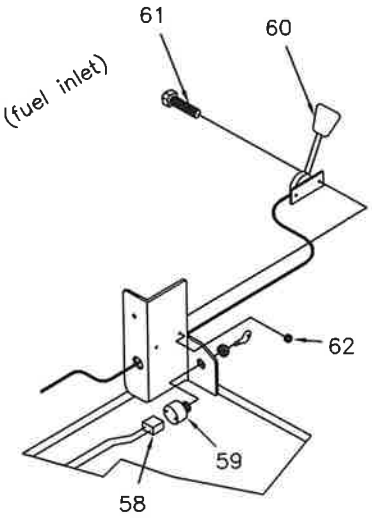
MT1624ENGPKG
12/19/24

MT16 AND MT24 TENDER
WITH 38 HP KOHLER ENGINE

REFERENCE ILLUSTRATION # 29152
BASIC "HYDRAULIC PLUMBING ILLUSTRATION"
FOR REAR MOUNT CONTROL VALVE







DETAIL A

MT16 AND MT24
ENGINE DRIVE PACKAGE COMPLETE

MT1624ENGPKGLST
12/19/24

FOR REAR VALVE MOUNT
38 HP ENGINE PKG # 33577

ITEM	PART NO.	DESCRIPTION		QTY
1	ECH980-3001	ENGINE, KOHLER, 38 HP.		1
1A	62-376-02	ENG MT CONTROLS (INCLUDED W ENGINE)		
2	6278614	MUFFLER STARTER SIDE 38 HP		1
3	18051628	BOLT, 3/8-16 X 1 3/4 GR 5	ZC	4
4	18811200	FLATWASHER, 3/8	ZC	8
5	18457800	NUT, CENTERLOCK, 3/8-16	ZC	4
6	52295	ADAPTER, ENGINE TO PUMP		1
7	18054123	BOLT, 7/16-18 X 1 1/4	ZC	4
8	18891300	LOCKWASHER, 7/16	ZC	4
9	H175	FUEL LINE, HOSE 1/4 I.D. X 36"		1
10	2-1711	DRIVE KEY, 3/8 SQ. X 2		1
11	52245	COUPLER HALF, 1.43 BORE, W/ 3/8 KEY		1
12	52294MOD	COUPLER HALF,MOD .625 BORE, 5/32 KWY		1
13	53536	SPIDER COUPLER, HYTREL RBBR.		1
14	52243	HYD. PUMP, 2-BOLT, W/KEY		1
15	6801-12-10	ELBOW 90° #12 MJIC X #10 MORB		1
16A OR 16B	632144	HOSE ASSY.(REAR CONTROL VALVE UNITS ONLY)		2
	53138	HOSE ASSY.(FRONT CONTROL VALVE UNITS ONLY)		2
17	304-C-6	HOSE CAP, JIC #6		1
18	--	--		-
19	609020	HOSE, CRANKCASE DRAIN 3/8" X 20"		1
20	18056822	BOLT, 3/8 X 1 GR5	ZC	2
21	18891200	LOCKWASHER, 3/8	ZC	2
22	18811200	FLATWASHER,	ZC	2
23	4601-20-12	ADAPTER, ELBOW 90° HOSE TO O-RING		1
24	200256	HOSE CLAMP, FOR 1 1/4 HOSE		2
25	12003490	HOSE, 1 1/4 I.D. X 30 INCHES LONG		1
26	72368	HOSEBARB, 90° 1 1/4 NPT X 1 1/4 HS		1
27	02006	GATE VALVE, 1 1/4 NPT.		1
28	38711	HYDRAULIC OIL TANK (STEEL)		1
29	72175	OIL TANK PLUG 1/2" NPT		1
30	02153	CAP/DIPSTICK		1
31	72306	STREET ELBOW, 90° 1" NPT		1
		ALSO INCLUDED BUT NOT SHOWN		
	6217628	JUMPER WIRE HARNESS 38 HP		1

ITEM	PART NO.	DESCRIPTION	QTY
32	72280	CLOSE NIPPLE, 1" NPT	1
33	21372	GATE VALVE, 1" NPT	1
34	51933	HEX. PIPE NIPPLE, (5404-16-12)	1
35	01170	FILTER, COMPLETE WITH ELEMENT	1
35A	11128	FILTER ELEMENT ONLY	
36	2501-12-12	ELBOW 90°, 3/4 M PIPE X #12JIC	1
37	H176	FUEL LINE HOSE, 3/16 ID X 20" LONG	1
38	6506-12-12	ADAPTER, 3/4FM PIPE X #12JICFS	1
39	18056824	BOLT,HEX HD 3/8-16NC X 1 1/4 ZC	4
40	18811200	FLATWASHER, 3/8 ZC	8
41	18891200	LOCKWASHER, 3/8 ZC	4
42	18436800	NUT, HEX 3/8-16NC ZC	4
43	47015917	ENGINE SKID WELDMENT	1
44	47005963	BATTERY RETAINER STRAP	1
45	148505	BATTERY CABLE, (POS) RED 20 INCH	1
46	01351	BATTERY CABLE, (NEG) BLK. 38 INCH	1
47	18056830	BOLT, 3/8-16 NC X 2 LONG ZC	2
48	18496800	FLANGENUT, 3/8-16 NC ZC	2
49	730-2382	HOLD DOWN J-BOLT (NAPA 730-2382)	2
50	--	--	-
51	FL071021AE	GASOLINE TANK (POLYETHYLENE) 8 GAL	1
	replacement	FILLER CAP, SEE LOCAL HARDWARE STORE	
52	200244	HOSE CLAMP, (3/8 - 1/2")	2
53	--	--	-
54	18057434	BOLT, HEX 1/2-13NC x 1 1/2 GR5	4
55	18811400	FLATWASHER, 1/2" ZC	4
56	18891400	LOCKWASHER, 1/2" ZC	4
57	18417400	HEX NUT, 1/2-13NC ZC	4
58	2517602	WIRING HARNESS FOR 38HP ENGINE	1
59	2509932-M	IGNITION SWITCH 38 HP	1
60	ST290110	THROTTLE CONTROL ASSY FOR 37HP	1
61	18025715	BOLT, HEX HEAD #10-24 X 3/4 SS	2
62	18987800	FLANGENUT, #10-24 SS	2
63	-	-	-
64	-	-	-
	47070533	OPTIONAL FENDER MOUNT KIT (contains items 65-67)	
65	70533	IGNITION SWITCH FENDER MT BRKT	1
66	18057424	BOLT, HEX HD 1/2-13 X 1 1/4 ZP	2
67	18497400	FLANGENUT, 1/2-13 ZP	2

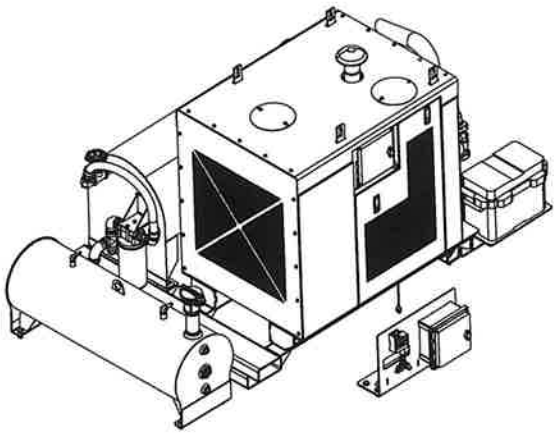
DEUTZ 74.2 HP ENGINE SKID

ILLUSTRATION

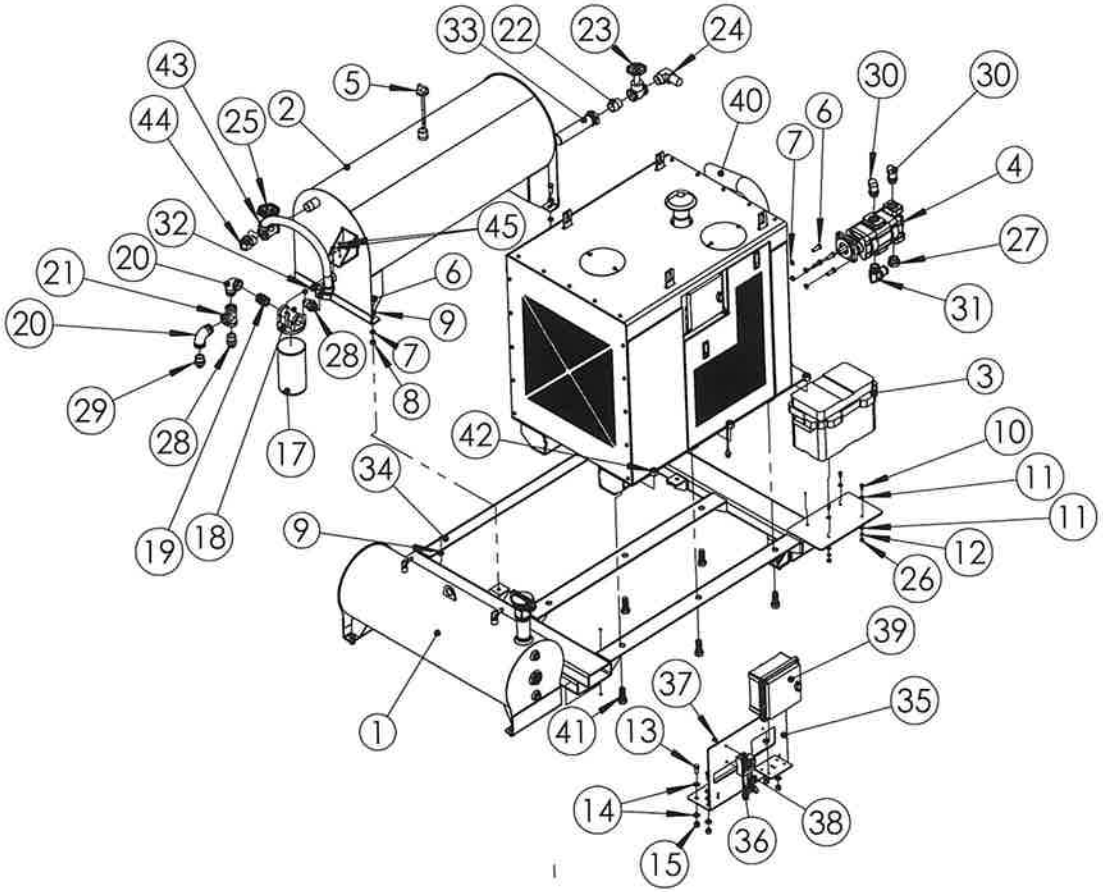
PART #: 48300385

2021 AND BEYOND

BILL OF MATERIAL - PAGES 68-69
ENGINE SKID DETAIL - PAGE 70
CONTROL PANEL DETAIL - PAGE 71
FUEL TANK DETAIL - PAGE 72
OIL TANK DETAIL - PAGE 73



NORMAL VIEW



EXPLODED VIEW

DEUTZ 74.2 HP ENGINE SKID

BILL OF MATERIAL - PART #: 48300385

BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	48300310	58 GALLON OIL TANK	1
2	71638	28 GALLON FUEL TANK, T4	1
3	01353	BATTERY BOX W/ LID	1
4	MT900TAPUMP	HYDRAULIC PUMP	1
5	48300330	DIP STICK	1
6	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	8
7	18891400	WASHER, 1/2 LOCK ZC	8
8	18417400	NUT, HX 1/2 NC ZC	4
9	18811400	WASHER, FLAT 1/2 ZC	8
10	18706421	BOLT, HX CAP 5/16-18 X 3/4 LG SS	3
11	18991100	WASHER, FLAT 5/16 SS	6
12	18991110	WASHER, LOCK 5/16 SS	3
13	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
14	18824800	WASHER FLAT 1/2 SS	8
15	18567400	NUT SS NYLOCK 1/2	4
16	18457650	NUT CTR LOCK 1/2 ZP ZC	4
17	SE25	OIL FILTER ELEMENT 10 MIL	1
18	20239	OIL FILTER HEAD 1 1/4 NPT	1
* 19	72330	CLOSE NIPPLE 1 1/4" NPT	1
* 20	72355	1 1/4 STREET ELBOW	2
* 21	72342	PIPE TEE 1 1/4 NPT	1
22	72390	CLOSE NIPPLE 1 1/2	1
23	51497	GATE VALVE 1 1/2 NPT	1
24	4501-24-24	1 1/2 HOSE ADAPTER	1
25	02006	1 1/4" GATE VALVE	1
26	18987700	NUT 5/16 SERR FLG	3
27	6408-20	#20 O-RING PLUG	1

BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
* 28	2404-16-20	ADAPTER 1 1/4 NPT M X #16 JIC M	2
* 29	2404-12-20	ADAPTER 1 1/4 MNPT X #12 MJIC	1
30	6801-12-16	ELBOW 90 DEG #12 MJIC X #16 MORB	2
31	4601-24-20	BEADED HOSE TO ORING ELBOW 90	1
32	72220	DRAIN PLUG 3/4 NPT	1
33	1044762	2" X 1 1/2" EXTERNALLY MOUNTED STRAINER W/ BYPASS	1
34	71021	ENGINE SKID, DEUTZ T4	1
35	71024	CONTROL BOX WELDT	1
36	AGRICOVER CONTROL	AGRICOVER CONTROL (INCLUDED WITH TARP)	1
37	18566400	NUT SS NYLOCK 3/8	2
38	18176450	BOLT, CARRIAGE, 3/8-16 X 1	2
39	303264	CONTROL BOX	1
40	47995366	DEUTZ ENGINE	1
41	18058313	BOLT GR8 7/8-9 X 2 1/2 LG ZC YELLOW	6
42	18458454	NUT NYLOCK GR 8 7/8-9 ZC YELLOW	6
43	71103	19" HOSE WITH FITTINGS	1
44	2024-20-16	20 NPTM-16 JIC elbow	1
45	18026422	BOLT CAP SS 5/16 X 1	2
46	71627	DIE SPRING, 1 X 1.5, BLUE	2
47	18057438	BOLT, 1/2-13 X 3 GR5 ZP	2
48	18057428	BOLT HX CAP 1/2-13 X 1 3/4 ZC	2

NOTES:

1. THE AGRICOVER CONTROL IS INCLUDED WITH THE ROLL TARP KIT
2. THE 303264 CONTROL BOX IS INCLUDED WITH ENGINE

NOTES FOR VPA UNITS ONLY:

1. *ITEMS 19, 21, & 28 ARE NOT USED*
2. *ITEM 20 IS ONLY QTY 1*
3. *ITEM 29 IS P/N: 2404-20-20*

ITEMS ALSO INCLUDED BUT NOT SHOWN

PART NUMBER	DESCRIPTION	QTY
FBA12684100	FUEL LINE CLIPS	8
FBA12683100	HOSE LINE CLAMPS	2
12003501	SUCTION HOSE	1
71092	2 GA BATTERY CABLE 48" RED	1
71093	2 GA BATTERY CABLE 38" BLACK	1
31-7237	GROUP 27 BATTERY	1
4050	HYDRAULIC OIL	56
H178	1/2 FUEL LINE	6'
H177	3/8 FUEL LINE	7'
43082316	SUCTION HOSE CLAMPS	2
71778	LANYARD	1

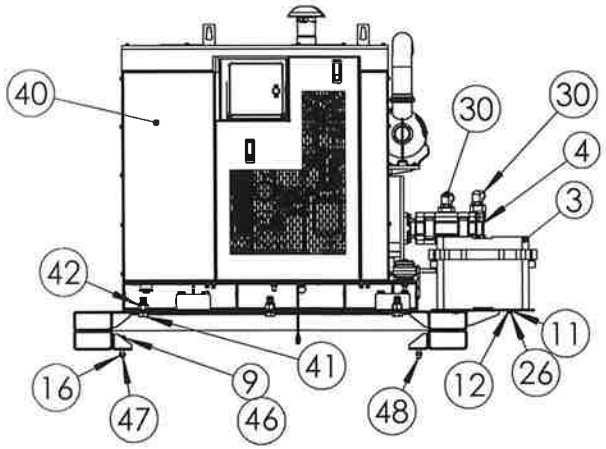
OIL DRAIN KIT AND 8' HARNESS EXTENSION ARE INCLUDED WITH POWER UNIT.

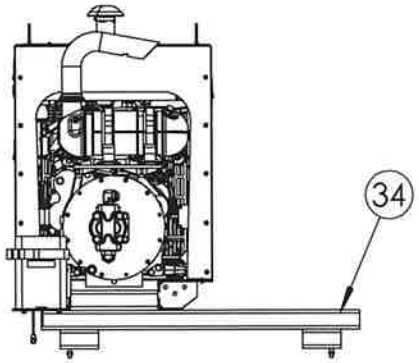
DEUTZ 74.2 HP ENGINE SKID

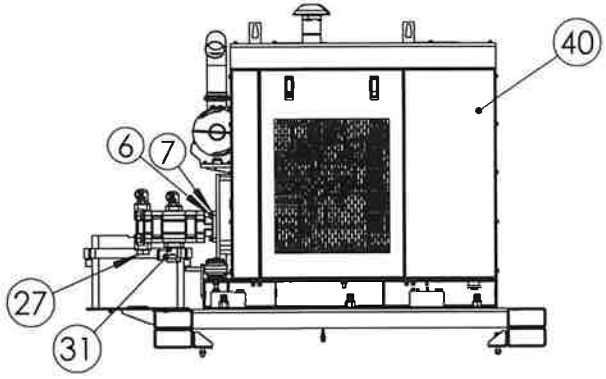
ENGINE SKID DETAIL

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
3	01353	BATTERY BOX W/ LID	1
4	MT900TAPUMP	HYDRAULIC PUMP	1
6	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	4
7	18891400	WASHER, 1/2 LOCK ZC	4
9	18811400	WASHER, FLAT 1/2 ZC	4
10	18706421	BOLT, HX CAP 5/16-18 X 3/4 LG SS	3
11	18991100	WASHER, FLAT 5/16 SS	6
12	18991110	WASHER, LOCK 5/16 SS	3
16	18457650	NUT CTR LOCK 1/2 ZP ZC	4
26	18987700	NUT 5/16 SERR FLG	3
27	6408-20	#20 O-RING PLUG	1
30	6801-12-16	ELBOW 90 DEG #12 MJIC X #16 MORB	2
31	4601-24-20	BEADED HOSE TO ORING ELBOW 90	1
34	71021	ENGINE SKID, DEUTZ T4	1
40	47995366	DEUTZ ENGINE	1
41	18058313	BOLT GR8 7/8-9 X 2 1/2 LG ZC YELLOW	6
42	18458454	NUT NYLOCK GR 8 7/8-9 ZC YELLOW	6
46	71627	DIE SPRING, 1 X 1.5, BLUE	2
47	18057438	BOLT, 1/2-13 X 3 GR5 ZP	2
48	18057428	BOLT HX CAP 1/2-13 X 1 3/4 ZC	2

ASSEMBLY NOTE:
71627 DIE SPRINGS LOCATED ON FRONT MOUNTS
TIGHTEN TO COMPRESSED LENGTH OF 1.125"



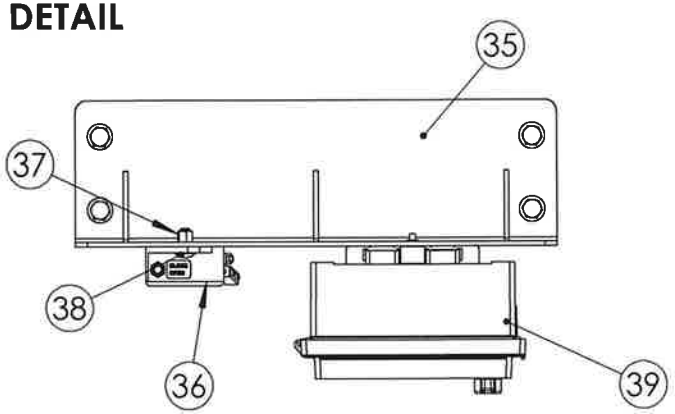


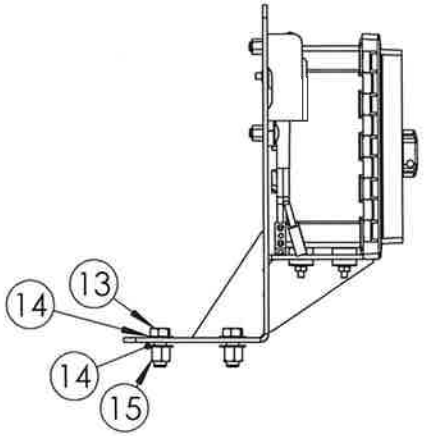


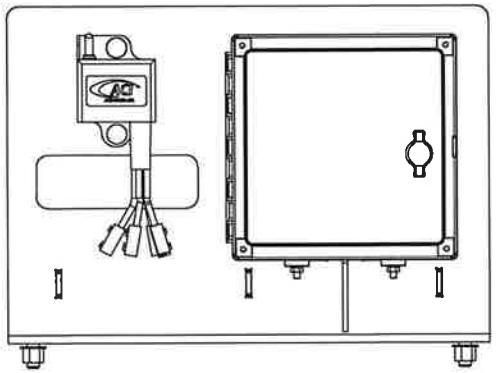
DEUTZ 74.2 HP ENGINE SKID

CONTROL PANEL DETAIL

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
13	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
14	18824800	WASHER FLAT 1/2 SS	8
15	18567400	NUT SS NYLOCK 1/2	4
35	71024	CONTROL BOX WELDT	1
36	AGRICOVER CONTROL	AGRICOVER CONTROL (INCLUDED WITH TARP)	1
37	18566400	NUT SS NYLOCK 3/8	2
38	18176450	BOLT, CARRIAGE, 3/8-16 X 1	2
39	303264	CONTROL BOX	1







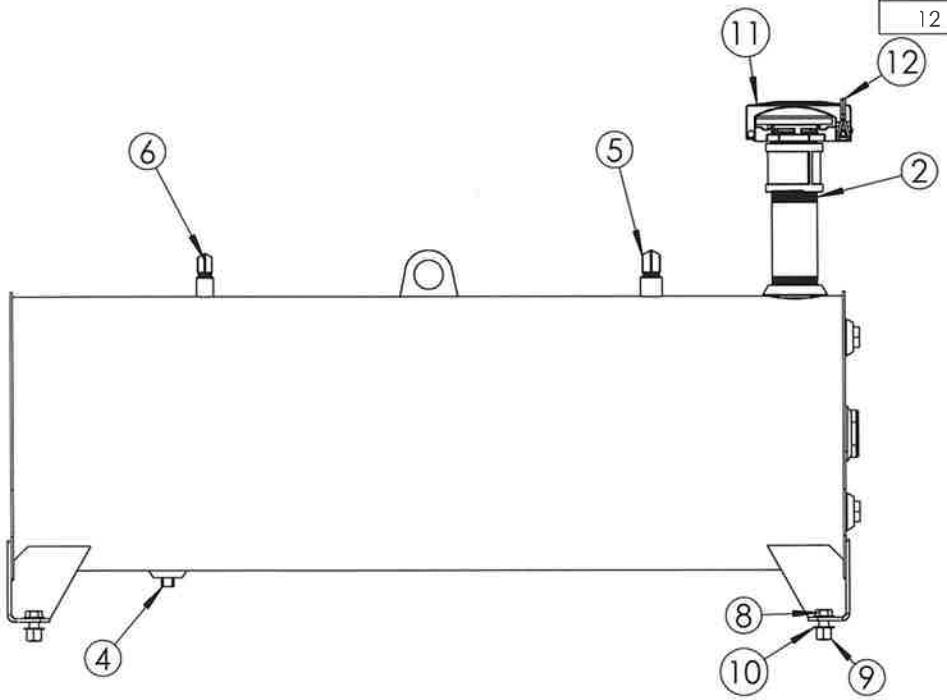
DEUTZ 74.2 HP ENGINE SKID

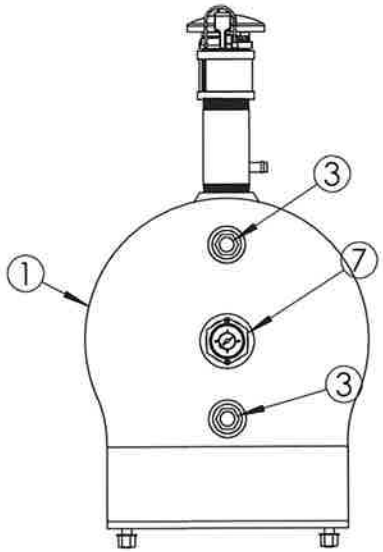
FUEL TANK DETAIL

28 GALLON
PART NUMBER: 71638
(FALL 2023 AND BEYOND)

(MT900TA S/N 1120 AND BEYOND)
(VPA1000 S/N 1016 AND BEYOND)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71633	FUEL TANK 28 GALLON, T4	1
2	71631	FILLER PIPE WITH BAFFLE	1
3	1091809	FLUID LEVEL SIGHT GLASS	2
4	72220	DRAIN PLUG 3/4 NPT	1
5	71088	ADAPTER ELBOW, 1/2 HOSE, 1/2 NPT MALE	1
6	71089	ADAPTER ELBOW, 3/8 HOSE, 3/8 NPT MALE	1
7	71639	FUEL LEVEL GAUGE	1
8	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
9	18567400	NUT SS NYLOCK 1/2	4
10	18824800	WASHER FLAT 1/2 SS	8
11	60002	CAP PREVENT CASTING AND FILL CAP	1
12	71761	WIRE LOCK CLEVIS PIN W/ LOOP 3/8 DIA 2 LG	1



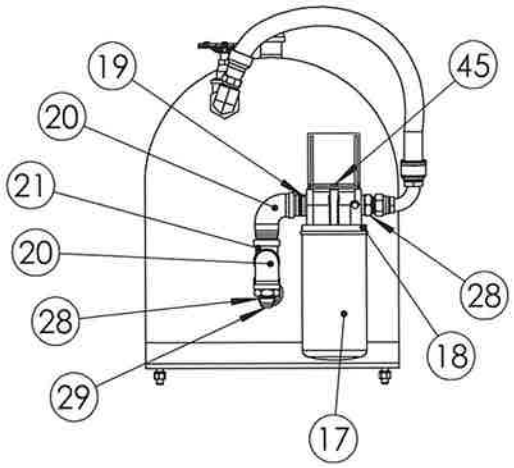


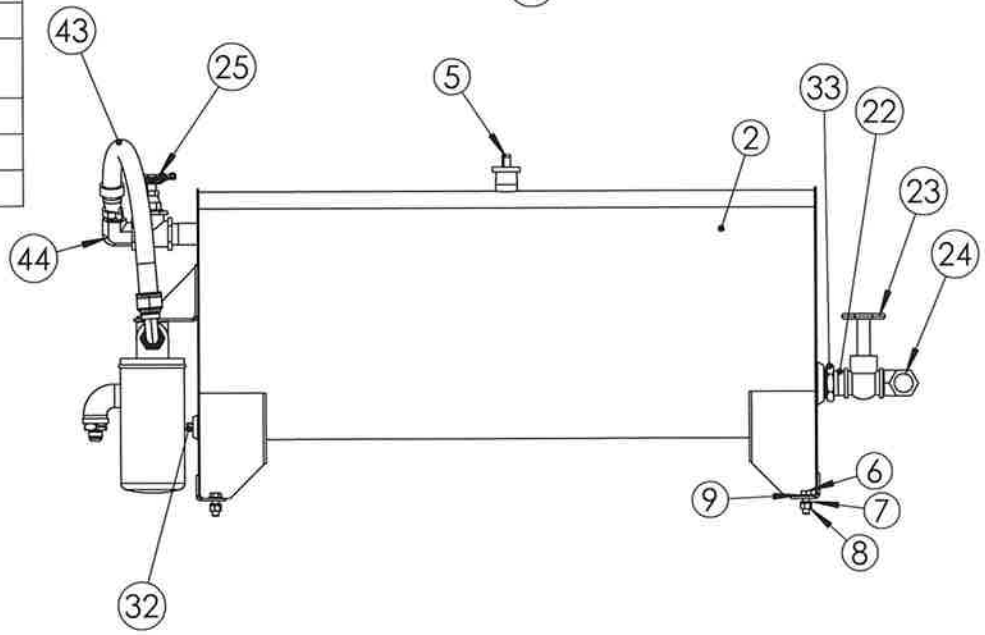
NOTE: APPLY THREAD SEALANT TO ALL THREADED FITTINGS

DEUTZ 74.2 HP ENGINE SKID

OIL TANK DETAIL

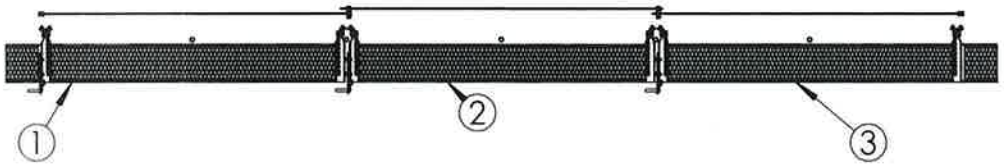
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	48300310	58 GALLON OIL TANK	1
5	48300330	DIP STICK	1
6	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	4
7	18891400	WASHER, 1/2 LOCK ZC	4
8	18417400	NUT, HX 1/2 NC ZC	4
9	18811400	WASHER, FLAT 1/2 ZC	4
17	SE25	OIL FILTER ELEMENT 10 MIL	1
18	20239	OIL FILTER HEAD 1 1/4 NPT	1
19	72330	CLOSE NIPPLE 1 1/4" NPT	1
20	72355	1 1/4 STREET ELBOW	2
21	72342	PIPE TEE 1 1/4 NPT	1
22	72390	CLOSE NIPPLE 1 1/2	1
23	51497	GATE VALVE 1 1/2 NPT	1
24	4501-24-24	1 1/2 HOSE ADAPTER	1
25	02006	1 1/4" GATE VALVE	1
28	2404-16-20	ADAPTER 1 1/4 NPT M X #16 JIC M	2
29	2404-12-20	ADAPTER 1 1/4 MNPT X #12 MJIC	1
32	72220	DRAIN PLUG 3/4 NPT	1
33	1044762	2" X 1 1/2" EXTERNALLY MOUNTED STRAINER W/ BYPASS	1
43	71103	19" HOSE WITH FITTINGS	1
44	2024-20-16	20 NPTM-16 JIC ELBOW	1
45	18026422	BOLT CAP SS 5/16 X 1	2



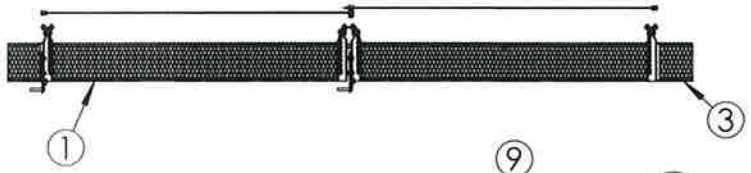


CATWALK ILLUSTRATION

MT24 CONFIGURATION - P/N:40249215



MT16 CONFIGURATION - P/N:40169215



(SEE CTWKINST FOR GENERAL MOUNTING INSTRUCTIONS ON THE FOLLOWING PAGE.)

INCLUDED, BUT NOT SHOWN
1 - P/N: **71672** CAUTION DISCHARGE AUGER STICKER

ITEM NO.	PART NUMBER	DESCRIPTION	**MT16** P/N:40169215 QTY.	**MT24** P/N:40249215 QTY.
1	47019278	CATWALK EXTENDED	1	1
2	47019215	CATWALK	-	1
3	70933	CATWALK EXTENDED (SPECIAL)	1	1
4	47019209	CATWALK MOUNT	1	2
5	47019213	END MTG BRACKET	2	2
6	47019212	TRANSPORT LOCK	2	3
7	47019211	SUPPORT CHAIN	4	6
8	47019202	SPACER BUSHING	12	18
9	47019217	BACKING WASHER	12	16
10	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	12	16
11	18997400	HEX NUT, 1/2-13NC S.S.	12	16
12	18541430	CLEVIS PIN, 1/2 X 2	4	6
13	18560722	COTTER PIN, 5/32 X 1	4	6
14	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	12	18
15	18811400	WASHER, FLAT 1/2 ZC USS	16	22
16	18891400	WASHER, 1/2 LOCK ZC	12	18
17	18417400	NUT, HX 1/2 NC ZC	12	18

ALSO INCLUDED, BUT NOT SHOWN (SEE CATWALK SAFETY HARNESS PAGE)
CATWALK BOLT ON SAFETY BAR KIT (BASED ON TENDER)

CTWKINST
rev 02/22/22

CATWALK MOUNTING INSTRUCTIONS FOR

16 TON AND 24 TON TENDER BOX

1: Mount the catwalk on the left hand (driver side) of the tender box.

2: Position (1) end mounting bracket (item 5) so that the edge of the bracket is flush with the front edge of the box and so that the top set of holes are 10 inches (19" with extensions) from the top flange of the box. Using the bracket as a template, mark all 4 holes.

3: Repeat step 2 at the back edge of the box. Front and rear mounted brackets must be level with each other.

4: For the center bracket (item 4) To the center of the next bracket should be approximately 93 13/32 to 94 inches apart. Measure 94 inches from the center of the bracket nearest the edge of the box and mark this position. Measure 10 inches down from the top

of the box (19" with extensions) and mark the center for the hole. Use the center bracket as a template and mark all 4 holes. Each mounting bracket (items 4 & 5) requires a 2 1/2 x 11 inch hole pattern.)

5: Mark hole pattern centers at 2 1/2 inches on ends and 90 29/32 apart. Inside hole centers should be 90 29/32 apart) Drill 17/32 diameter holes. Twelve for a 16 ton tender, sixteen for a 24 ton tender.

6: Mount each end bracket (item 5) with (4) bolts (item 10) and (4) nuts (item 11). When mounting the center brackets (item 4) position (4) flat washers (item 15) between the bracket and the outside of the box. Use (4) backing washers (item 9) on the inside of the box and mount with the bolts (item 10) and nuts (item 11). Install the above hardware finger–tight at this time.

7: Position the catwalk (item 1) to the front bracket and the center bracket on the box and mount with (2) clevis pins (item 12) and (2) cotter pins (item 13).

8: Position the catwalk (item 2 OR 3) to the center and rear bracket and mount with the clevis pins (item 12) and cotter pins (item 13). For a 24 ton tender mount three catwalks per steps 7 and 8.

9: You may securely fasten the brackets at this time.

10: Assemble a transport lock (item 6) to the first channel of each catwalk section. If the access ladder is on the front of the box this would be the front channel. If the ladder is on the back this would be the rear channel. The transport lock should be located on the outside of the leg of the channel and the handle should be pointing towards the ladder. Position the bushing (item 8) in the slots in the transport lock and position the hardware so that the head of the bolt (item 14) and the flat washer (item 15) are next to the transport lock and the lock washer (item 16) and the nut (item 17) are next to the channel on the catwalk. Securely tighten the hardware.

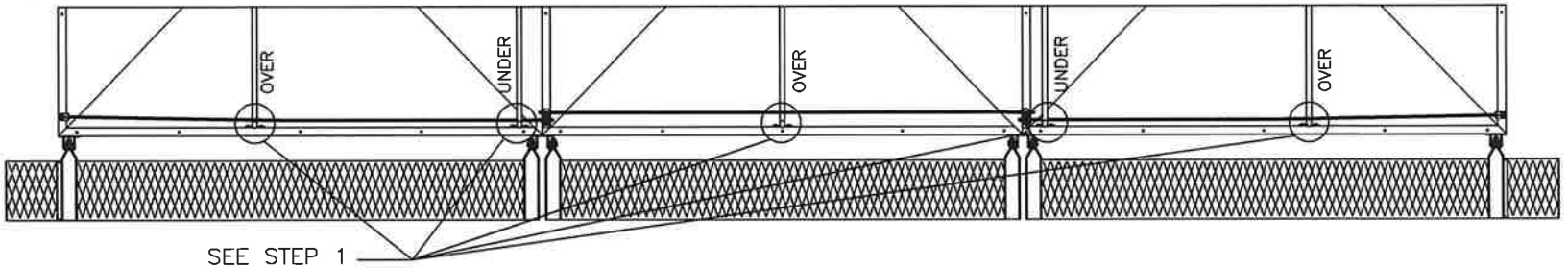
11: Assemble the support chains (item 7) to the catwalk and the brackets with the spacers (item 8) and bolts (item 14) and lockwashers (item 16) and nuts (item 17). Test fold and unfold the catwalks to insure proper function.

12: CAUTION !!!. Make sure the catwalk is locked up into the transport position before moving the discharge auger. MOVING THE DISCHARGE AUGER WITH THE CATWALKS DOWN MAY CAUSE AUGER TO INTERFERE WITH CATWALKS.

MT24CPBOSS
RV 03/03/23

CATWALK PLATFORM BOLT ON SAFETY INSTRUCTIONS (MT24)

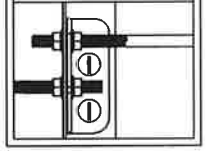
FIG.1



FOR UNITS EQUIPPED WITH HEARTLAND AG SYSTEMS ARCH DIVIDERS, STEP 1 IS NOT REQUIRED

1. APPLY PROTECTIVE SLEEVES, (P/N: 47007969) TO THE BASE OF COVER SUPPORT HOOPS, AS SHOWN IN FIG. 1.
2. MOUNT ONE OF THE SAFETY MTG BRKT (P/N: 47007965) TO A CENTER RIB SECTION AS SHOWN USING ONE PREDRILLED HOLE, AND DRILL THE REMAINING HOLE. SECURE WITH SUPPLIED NUTS, WASHERS AND BOLTS.
3. THREAD ONE OF THE SUPPLIED FLANGE NUTS ONTO SAFETY MTG BAR, (P/N: 47007968), AND PLACE IT INTO THE SAFETY MTG BRKT, PARTIALLY SECURE WITH OTHER FLANGE NUT AS SHOWN IN DIAGRAM 1–1.
4. THREAD THE SAFETY MTG BAR, THROUGH THE SUPPORT HOOPS AS SHOWN IN FIG. 1, MOUNT THE PLATE UNTO THE THE TENDER BOX USING THE EXISTING HOLE, AND SUPPLIED BOLT AND NUT. ON UNITS WITH ARCH DIVIDERS, THE MTG BAR WILL PASS THRU PRECUT HOLES IN THE DIVIDER
5. THREAD ONE FLANGE NUT ONTO EACH END OF SAFETY MTG BAR DUAL (P/N:47007967), PLACE ONE END INTO THE MOUNTED SAFETY MTG BRACKET, PARTIALLY SECURE WITH ANOTHER FLANGE NUT.
6. THREAD THE DUAL BAR OVER THE COVER SUPPORT HOOP, PLACE REMAINING SAFETY MTG BRACKET ONTO THE DUAL BAR AND MOUNT TO TENDER USING ONE PREDRILLED HOLE AND DRILL THE REMAINING HOLE. SECURE WITH SUPPPLIED NUTS AND BOLTS PARTIALLY SECURE REMAINING END OF THE DUAL BAR WITH ANOTHER FLANGE NUT. ON UNITS WITH ARCH DIVIDERS, THE MTG BAR WILL PASS THRU PRECUT HOLES IN THE DIVIDER
7. REPEAT STEPS 3–4 WITH REMAINING SIDE
8. FINISH BY TIGHTENING THE FLANGE NUTS SECURING THE MTG BARS TO THE MTG BRKTS SO THAT THE LANYARD FROM THE SAFETY HARNESS KIT,(P/N:47997965) WILL PASS OVER THE HOOPS. ON UNITS WITH THE ARCH DIVIDERS YOU WILL HAVE TO MOVE THE SAFETY STRAP BETWEEN SECTIONS.

DIAGRAM 1–1



CATWALK SAFETY HARNESS KIT – P/N: 47997965 (NOT INCLUDED/PURCHASED SEPARATELY)

SAFETY MTG BAR DUAL
P/N: 47007967
QTY – 1

SAFETY MTG BAR
P/N: 47007968
QTY – 2

PROTECTIVE SLEEVE
P/N: 47007969
QTY – 5



SAFETY MTG BRKT
P/N: 47007965
QTY – 2

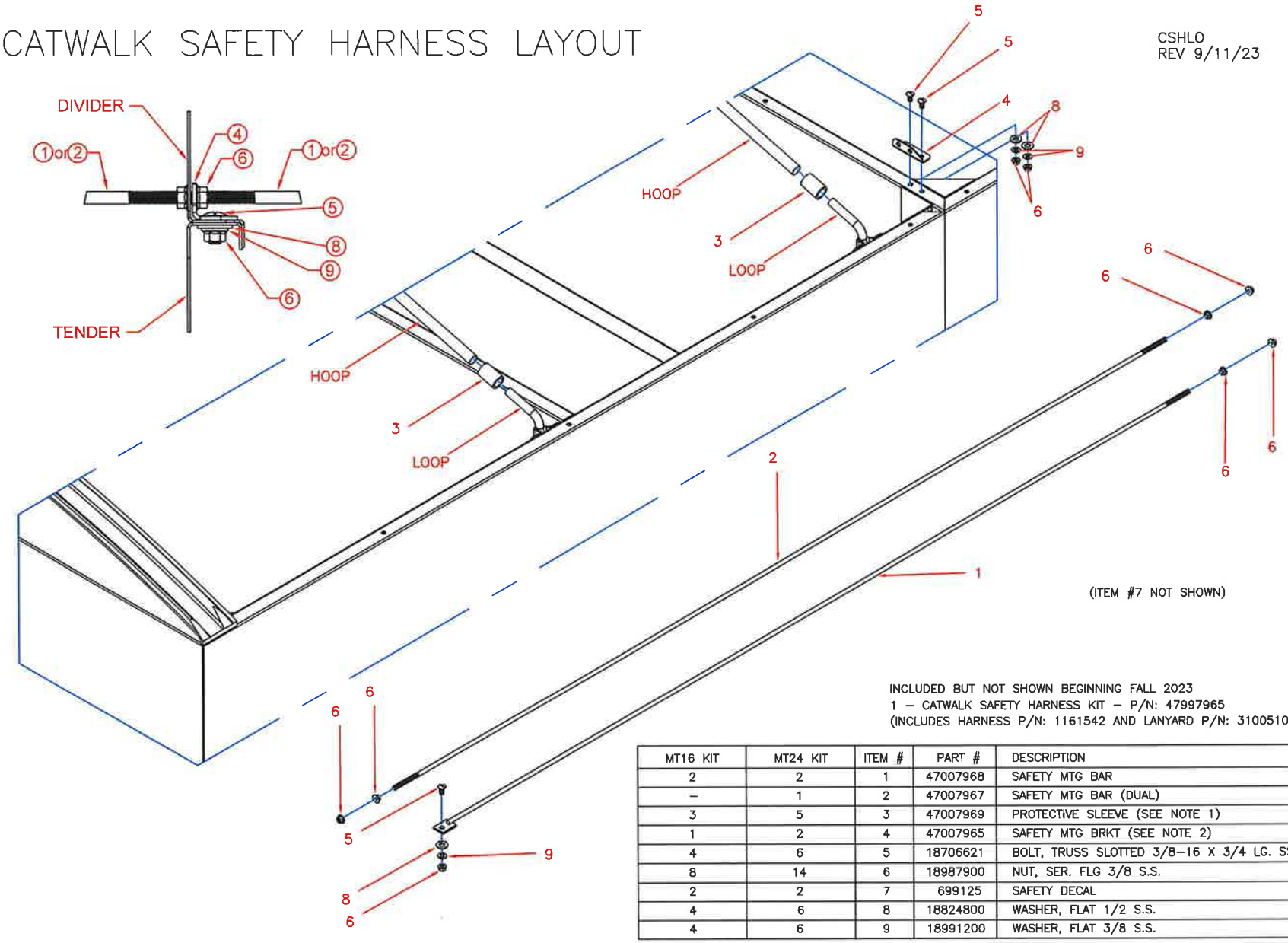
SAFETY DECAL
P/N: 699125
QTY – 2

FOR UNITS USING THE 7" HIGH HEARTLAND AG SYSTEMS ARCH DIVIDER USES SAFETY BRACKET P/N: 47003694 INSTEAD OF SAFETY MOUNTING BRACKET P/N: 47007965 (7" HIGH ARCH DIVIDER ONLY)

IMPORTANT – WHEN USING HOOPS, THE HOOP MUST BE LOCATED NEAR THE SAFETY BRACKET TO PREVENT DAMAGE TO THE TARP.

CATWALK SAFETY HARNESS LAYOUT

CSHLO
REV 9/11/23



(ITEM #7 NOT SHOWN)

INCLUDED BUT NOT SHOWN BEGINNING FALL 2023
1 – CATWALK SAFETY HARNESS KIT – P/N: 47997965
(INCLUDES HARNESS P/N: 1161542 AND LANYARD P/N: 3100510)

MT16 KIT	MT24 KIT	ITEM #	PART #	DESCRIPTION
2	2	1	47007968	SAFETY MTG BAR
–	1	2	47007967	SAFETY MTG BAR (DUAL)
3	5	3	47007969	PROTECTIVE SLEEVE (SEE NOTE 1)
1	2	4	47007965	SAFETY MTG BRKT (SEE NOTE 2)
4	6	5	18706621	BOLT, TRUSS SLOTTED 3/8–16 X 3/4 LG. SS
8	14	6	18987900	NUT, SER. FLG 3/8 S.S.
2	2	7	699125	SAFETY DECAL
4	6	8	18824800	WASHER, FLAT 1/2 S.S.
4	6	9	18991200	WASHER, FLAT 3/8 S.S.

NOTES:
1.) ON UNITS WITH THE HEARTLAND AG SYSTEMS ARCH DIVIDERS ITEM 3 (PROTECTIVE SLEEVE), IS NOT USED.
2.) FOR UNITS USING THE 7" HIGH HEARTLAND AG SYSTEMS ARCH DIVIDER USES SAFETY BRACKET P/N: 47003694 INSTEAD OF SAFETY MOUNTING BRACKET P/N: 47007965 (7" HIGH ARCH DIVIDER ONLY)

Installation Questions?

Call the Shur-Co Customer Service Help Line!

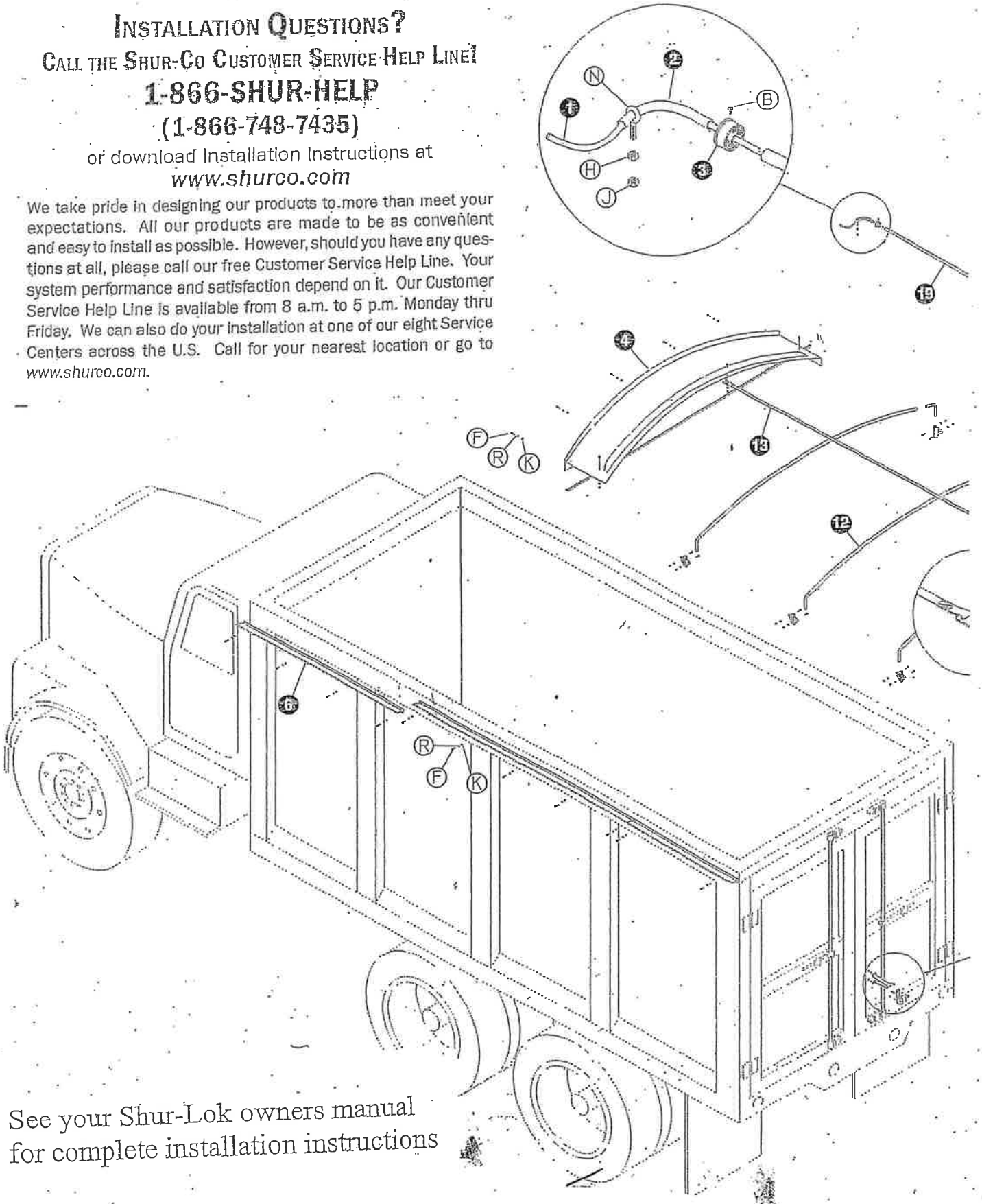
1-866-SHUR-HELP

(1-866-748-7435)

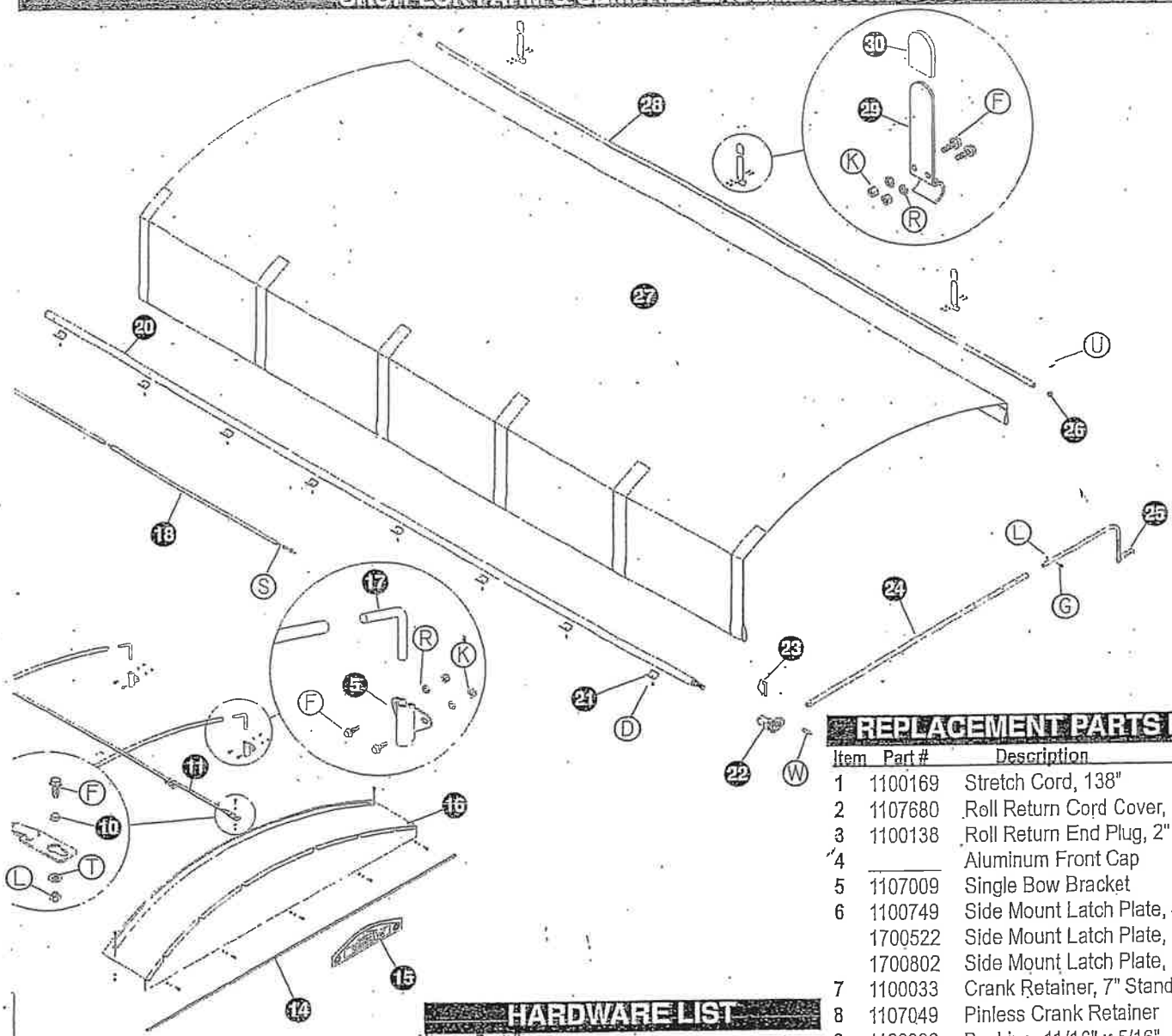
or download Installation Instructions at

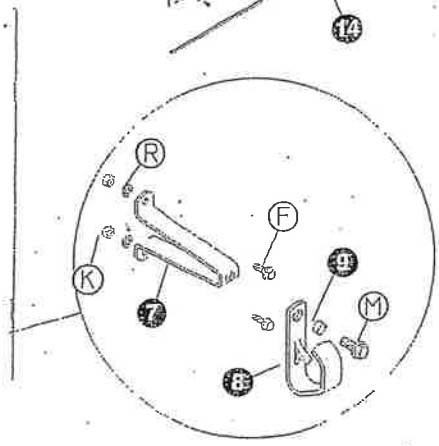
www.shurco.com

We take pride in designing our products to more than meet your expectations. All our products are made to be as convenient and easy to install as possible. However, should you have any questions at all, please call our free Customer Service Help Line. Your system performance and satisfaction depend on it. Our Customer Service Help Line is available from 8 a.m. to 5 p.m. Monday thru Friday. We can also do your installation at one of our eight Service Centers across the U.S. Call for your nearest location or go to *www.shurco.com*.



See your Shur-Lok owners manual for complete installation instructions





HARDWARE LIST

Item	Part #	
A	1701423	Set Screw, #10 x 3/16"
B	1700084	Self-Tapping Screw, #8 x 3/8"
C	1700736	Self-Tapping Screw, 1/4" x 1/2"
D	1700398	Self-Drilling Screw, 1/4" x 3/4"
E	1701059	Self-Tapping Screw, 5/16" x 1"
F	1700400	Self-Tapping Screw, 3/8" x 1"
G	1700369	Cap Screw, 3/8" x 1 3/4"
H	1700411	Hex Nut, 5/16"
J	1700419	Nylon Lock Nut, 5/16"
K	1700407	Hex Nut, 3/8"
L	1700418	Centerlock Nut, 3/8"
M	1702996	Cap Screw, 1/2" x 1 1/4"
N	1700717	Eyebolt, 5/16"
P	1700433	Lock Washer, 5/16"
R	1700434	Lock Washer, 3/8"
S	1703373	Flat Washer, 1/2"
T	1701176	Flat Washer, 3/8"
U	1700474	Drive Rivet, 1/4" x 3/4"
V	1701118	Spring Pin, 1/4" x 1 3/16"
W	1700443	Spring Pin, 3/8" x 2"

(see Hardware Identification on page 1).

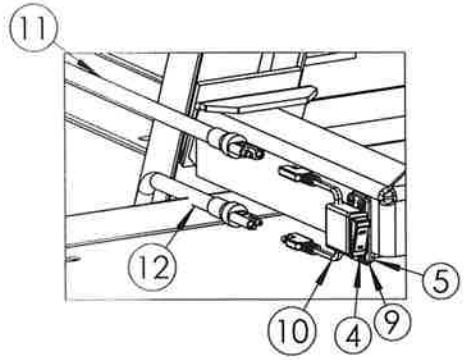
REPLACEMENT PARTS LIST

Item	Part #	Description
1	1100169	Stretch Cord, 138"
2	1107680	Roll Return Cord Cover, 6"
3	1100138	Roll Return End Plug, 2"
4	_____	Aluminum Front Cap
5	1107009	Single Bow Bracket
6	1100749	Side Mount Latch Plate, 4'-0"
	1700522	Side Mount Latch Plate, 8'-0"
	1700802	Side Mount Latch Plate, 6'-0"
7	1100033	Crank Retainer, 7" Stand-Off
8	1107049	Pinless Crank Retainer
9	1100306	Bushing, 11/16" x 5/16"
10	1101683	Bushing, 1/2" x 1/4"
11	1101678	Ratchet w/Ridge Strap & Anchor
12	1100760	Bow, Low Rise, Standard
13	1101680	Ridge Strap & Anchor Assy, 1" x 25'-0"
14	1100165	Trim Seal, 110"
15	1100182	Shur-Lok Decal
16	_____	Aluminum Back Cap
17	1100695	Bow Shank, 3/4" x 108°
18	1108568	Roll Return Pipe, 1/2 Sch 40 x 5', Belled
19	1100168	Roll Return Pipe, 1/2 Sch 40 x 5'
20	1107058	Roll Tube W/ Splined Shaft, 2" x
21	1701354	Plastic U-Clamp
22	1701243	Splined U-Joint
23	1700526	Wire Lock Pin, 3/8" x 2 1/2"
24	1100028	Crank Extension w/Insert, 80"
25	1100171	Crank Arm, Standard
26	1700523	End Plug, 1 1/8" OD
27	_____	Shur-Lok Tarp
28	1700049	Swaged Tubing, 1 1/8" x 20'-03"
29	1100049	Tarp Stop, Standard
30	1700729	Protective Cap

MT24 VIBRATOR INSTALLATION INSTRUCTIONS

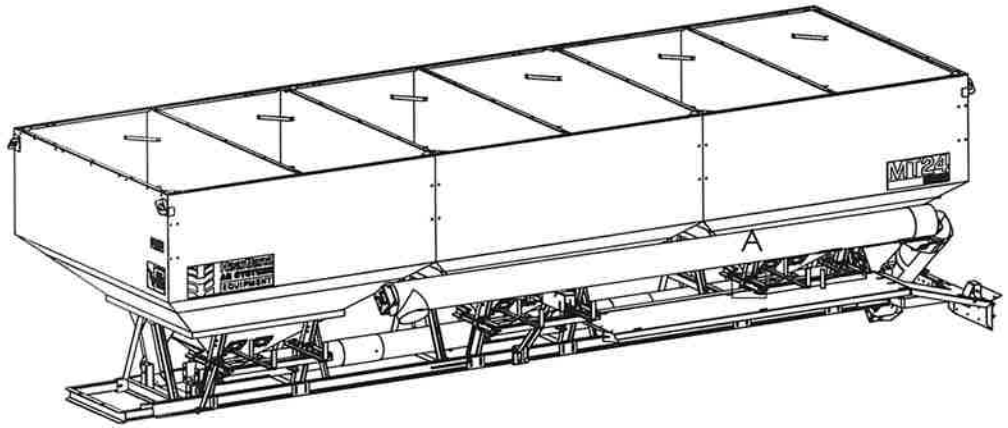
(MARTIN ENGINEERING VIBRATORS [NOV. 2018 AND NEWER])

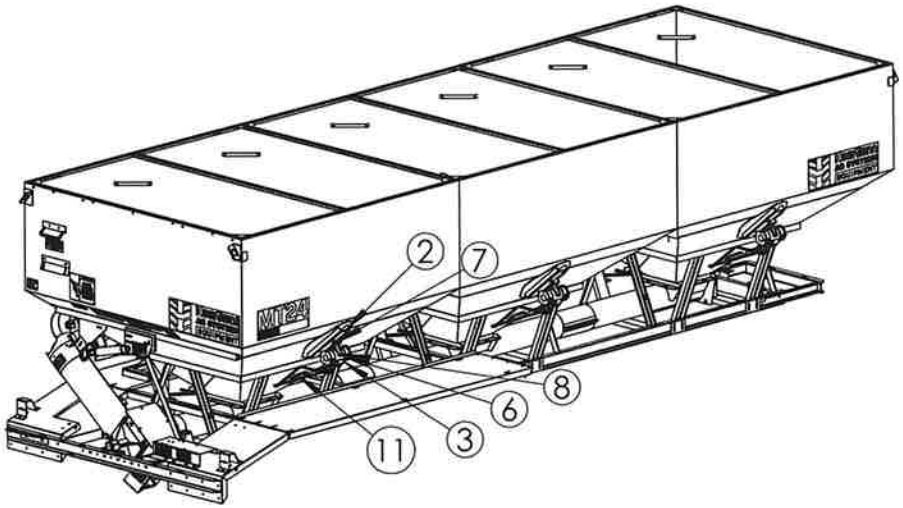
P/N: 4703DC700 (LOOSE)
P/N: 4703DC700A (INSTALLED)



DETAIL A
SCALE 1 : 6

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MT24 WITH FENDERS	MT24 W/ FENDERS ASSEMBLY	1
2	47007997	VIBRATOR MOUNT	3
3	MDCV12-700-MM-96-06	VIBRATOR	3
4	18704218	SCREW MACH RD PH SS 8-32 X 3/4 LG	12
5	18474201	NUT HX NYLOCK #8-32 SS	12
6	18097540	BOLT, HEX CAP 1/2-13 X 4 1/2 LG GRADE 8 ZC	6
7	18457400	NUT, NYLOCK 1/2-13 GRADE 8 ZC	6
8	18851400	WASHER FLAT 1/2 SAE ZC	6
9	72383	VIBRATOR SWITCH BACK PLATE	3
10	CG-100451	SWITCH (INCLUDED WITH VIBRATOR)	3
11	195569-86	CORD EXTENSION 86" (INC. W/ VIBRATOR)	3
12	735320	TRAILER WIRE 12GA/2	NOTE
	ALSO REQUIRED BUT NOT SHOWN		
	32504	VINYL INSULATED RING	3
	38262	STEP DOWN BUTT CONNECTORS	3
	ITEM 1 IS SHOWN FOR REFERENCE ONLY		



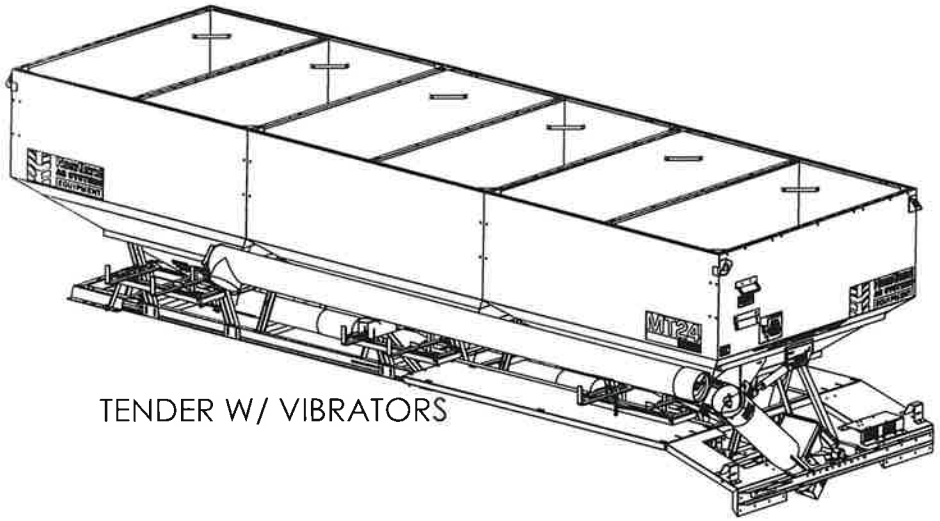


735230 - QTY 67 1/2' [1-14' / 1-22 1/2' / 1-31']

MT24 VIBRATOR INSTALLATION INSTRUCTIONS

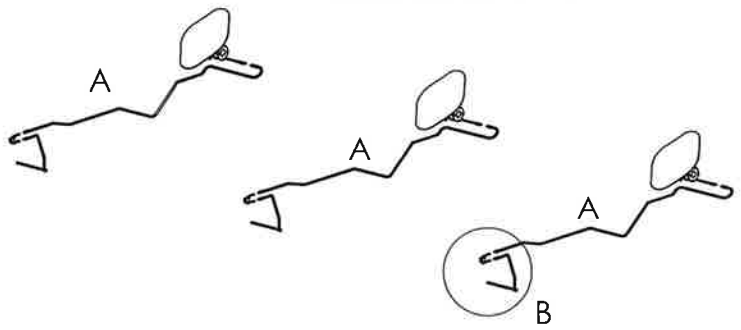
(MARTIN ENGINEERING VIBRATORS [NOV. 2018 AND NEWER])

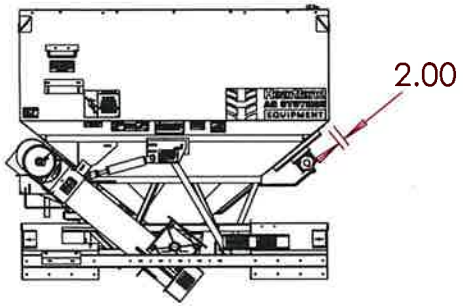
REPLACEMENT PARTS
CG-100454 - FUSE 20 AMP



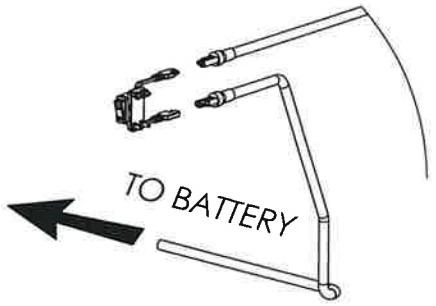
TENDER W/ VIBRATORS

VIBRATORS ONLY





REAR VIEW OF TENDER
(CENTER PAD ON BOX)

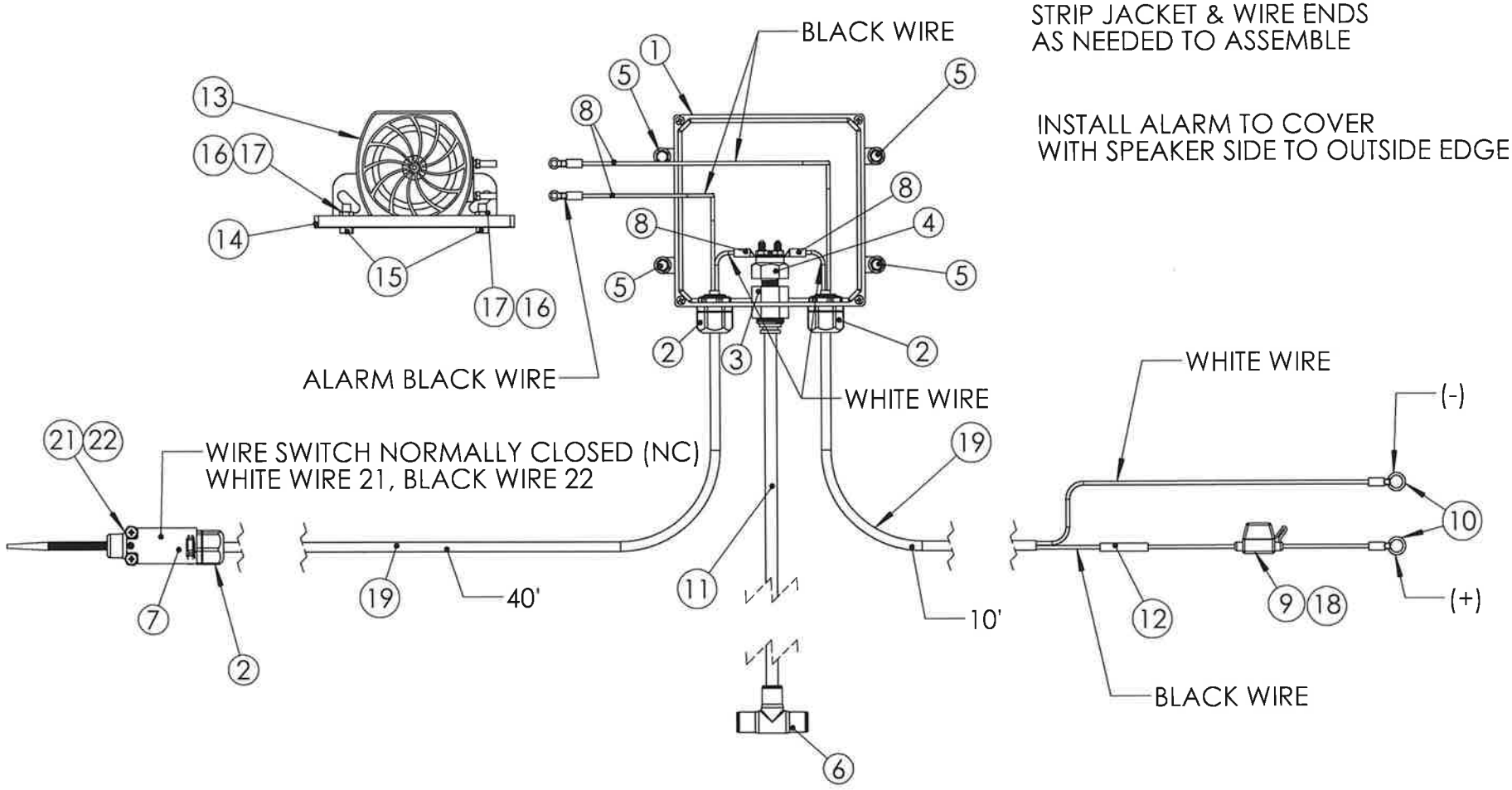


DETAIL B
SCALE 1 : 10

1. CABLES MARKED "A" ARE PREASSEMBLED TO THE VIBRATOR
2. ATTACH P/N: 38262 (STEP DOWN BUTT CONNECTOR) TO CONNECTOR
3. INSERT CUT TO LENGTH WIRE (P/N:735320) INTO THE OPEN END OF THE BUTT CONNECTOR AND SEAL
4. REPEAT FOR ALL VIBRATORS
5. SEND P/N: 32504 (VINYL INSULATED RINGS) LOOSE

AUGER WARNING SYSTEM

PART #: 70660

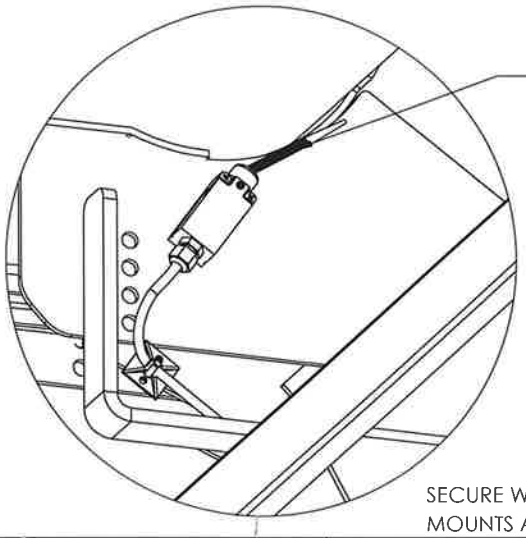


AUGER WARNING SYSTEM

PART #: 70660

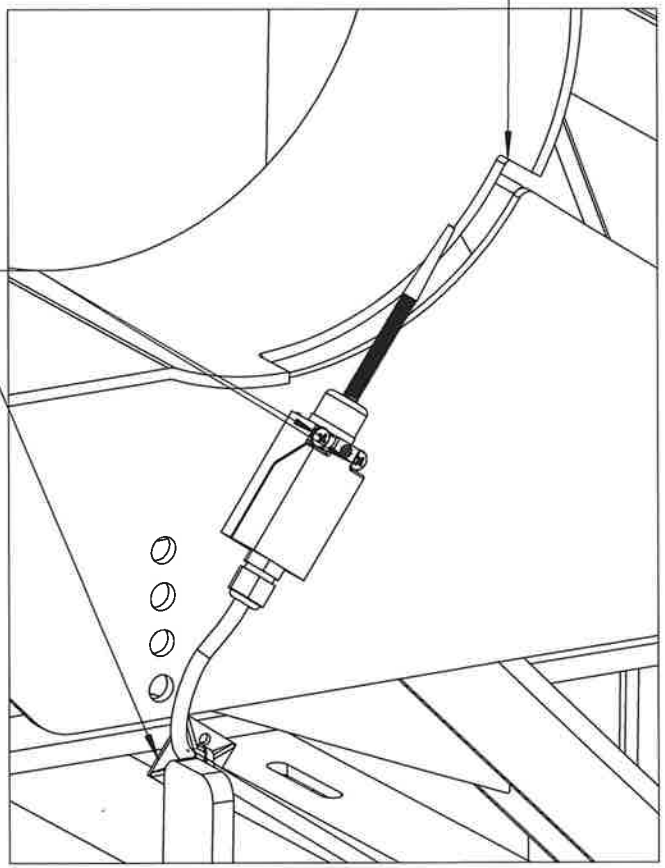
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70875	ALARM BOX	1
2	70878	CORDGRIP	3
3	70877	FEMALE BULKHEAD CONNECTOR WITH NUT	1
4	70876	STOP LIGHT SWITCH	1
5	70879	1/4" X 1" SELF TAPPING SCREW, SS, DRILL TIP	4
6	70880	UNION TEE, 3/8	1
7	70881	LIMIT SWITCH	1
8	70656	RING TERMINAL, HEAT SHRINK, 16-14 GA AND #10 SCREW SIZE	4
9	70882	IN LINE FUSE HOLDER	1
10	70883	RING TERMINAL, HEAT SHRINK, 16-14 GA AND 3/8" SCREW SIZE	2
11	70884	AIR BRAKE TUBING	8'
12	70886	SPLICE CONNECTOR, 16-14 GA, HEAT SHRINK	1
13	70887	ALARM	1
14	70875-2	ALARM BOX COVER (INCLUDED W/ ALARM BOX)	1
15	18055718	BOLT HX 1/4 X 3/4	2
16	18881001	WASHER FLAT 1/4 SS	2
17	18569200	NUT 1/4 NYLOCK SS	2
18	70888	FUSE, 7.5A	1
19	70885	PORTABLE CORD	50'
20	70658	ADHEASIVE BACKED CABLE TIE HOLDER, OUTDOOR	12
21	71043	NUT, NYLOCK, 10-24, SS	2
22	71044	SCREW, PAN HEAD, 10-24 X 2", SS	2
23	70659	CABLE TIE, 7-1/2" LONG, OUTDOOR	12

MT16, MT24, AND MT32 MOUNTING LOCATIONS



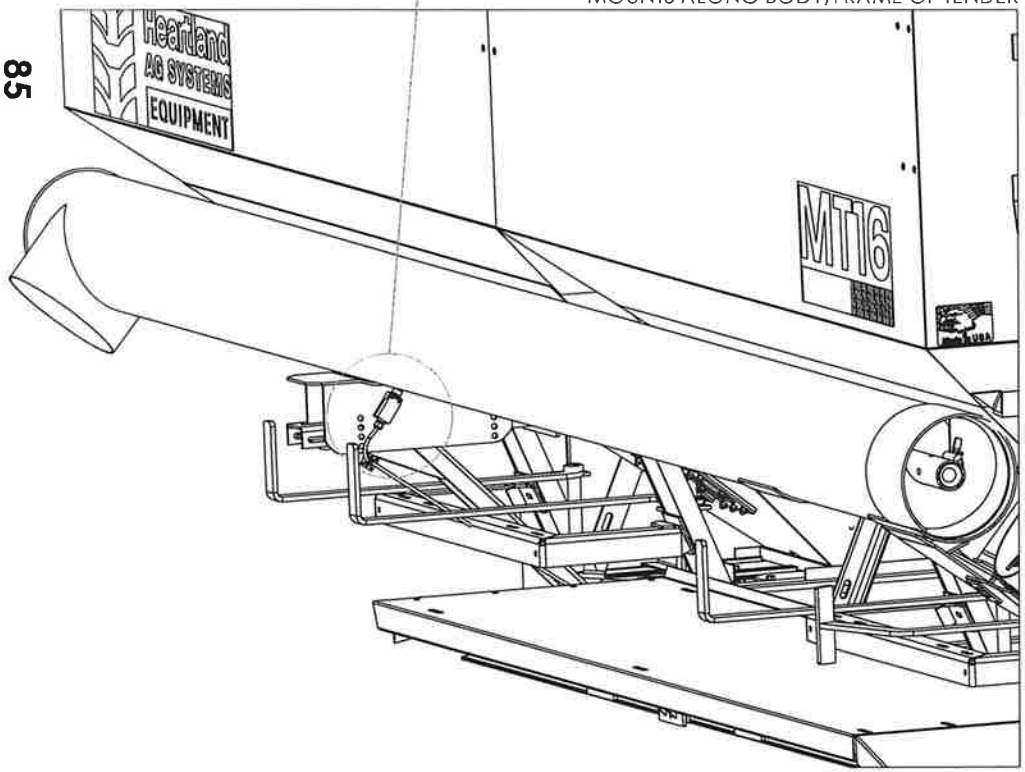
LOCATE SWITCH AS SHOWN ON AUGER CRADLE SO THAT THE TOGGLE ARM IS TRIGGERED WHEN AUGER IS SEATED IN CRADLE. AN AUDIBLE CLICK CAN BE HEARD WHEN THE SWITCH IS TRIGGERED.

NOTCH OUT AREA OF AUGER CRADLE SO TOGGLE CAN MOVE FREELY. NOTCH DIMENSION APPROXIMATELY 6" X 1".



MATCH DRILL HOLES FOR SWITCH AND ATTACH USING ITEMS 21-22.

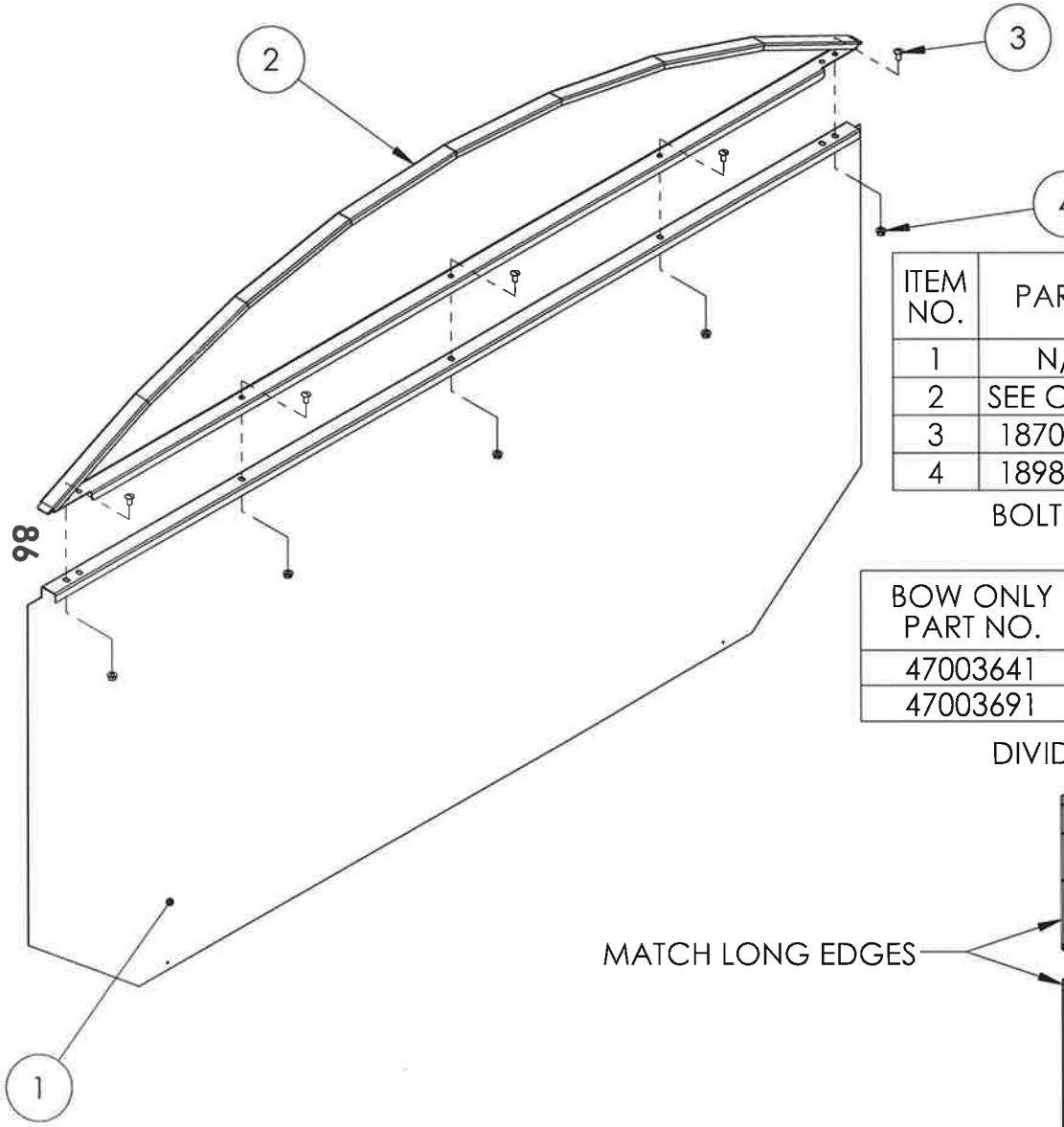
SECURE WIRE USING CABLE TIES AND CABLE TIE MOUNTS ALONG BODY/FRAME OF TENDER



ARCH DIVIDER LAYOUT & PARTS LISTING

(MT16 - MT24 - MT32)

ARCH DIVIDER
06/04/19

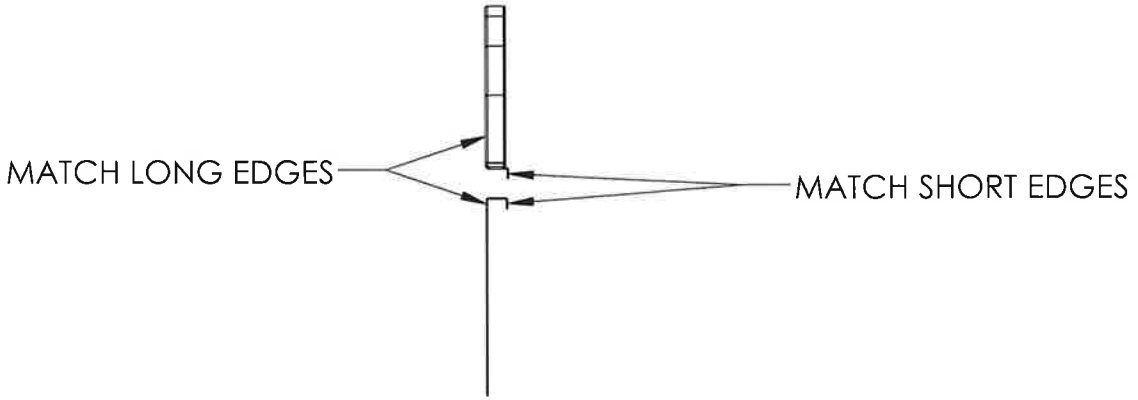


ITEM NO.	PART #	DESCRIPTION	QTY
1	N/A	DIVIDER PANEL(ON TENDER)	N/A
2	SEE CHART	BOW DIVIDER	1
3	18706621	SCREW, SLOTTED TRUSS HEAD 3/8 X 3/4 S.S.	5
4	18987900	NUT, SER. FLG. S.S. 3/8	5

BOLT KIT P/N: 47883641 CONTAINS ITEMS 3 AND 4

BOW ONLY PART NO.	BOW W/ HARDWARE PART NO.	FITS UNIT
47003641	47993641	MT 16/24/32 (12" HIGH ARCH)
47003691	47993691	MT 16/24/32 (7" HIGH ARCH)

DIVIDERS ARE ORDERED INDIVIDUALLY



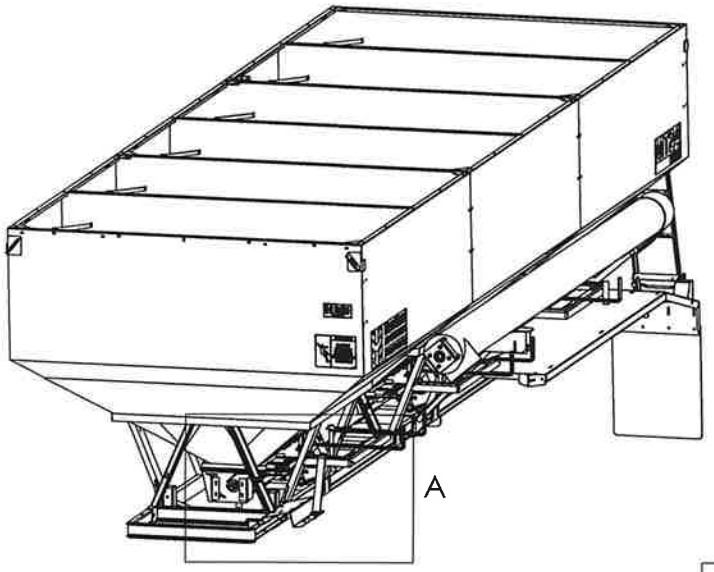
MT16/24 GREASE LINE PACKAGE

P/N: 72679

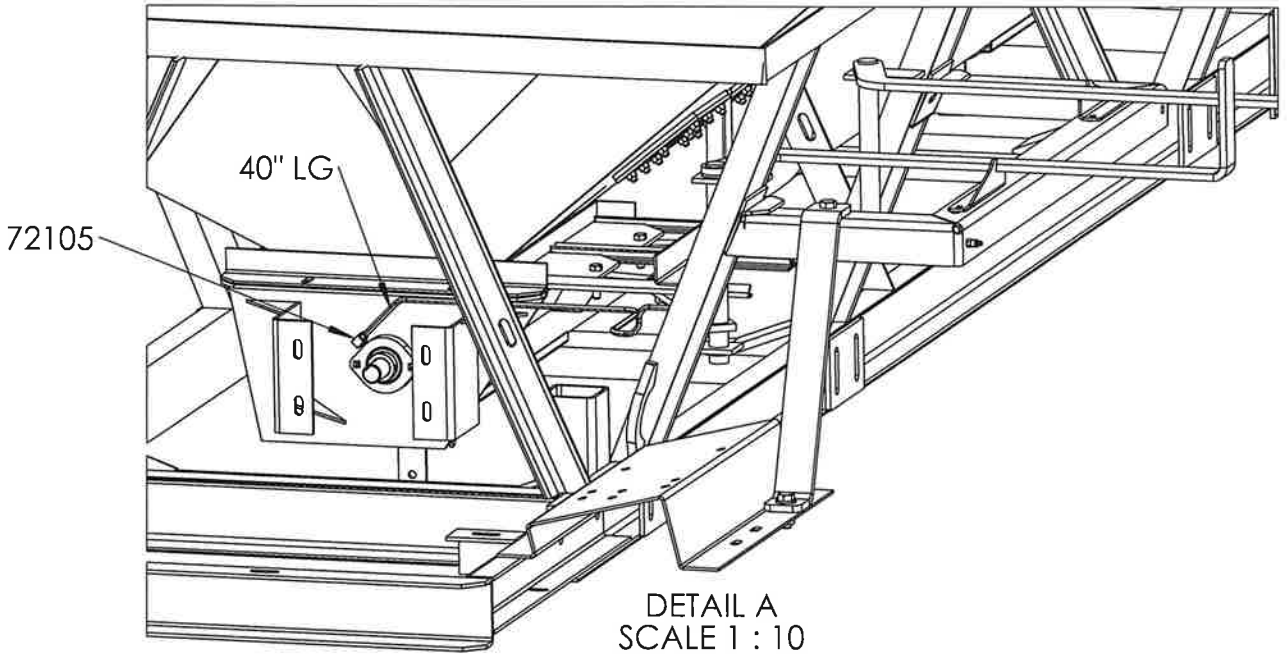
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	72678	GREASE LINE BRACKET	1
2	1270525	HOSE KIT, GREASE, MT16/24 PREFILLED	1

1270525 CONTAINS THE FOLLOWING:

DESCRIPTION	QTY
GREASE LINE, PREFILLED 40" LG	1
GREASE LINE, PREFILLED 48" LG	2
P/N: 72105 GREASE FITTING ADAPTER 90°	3



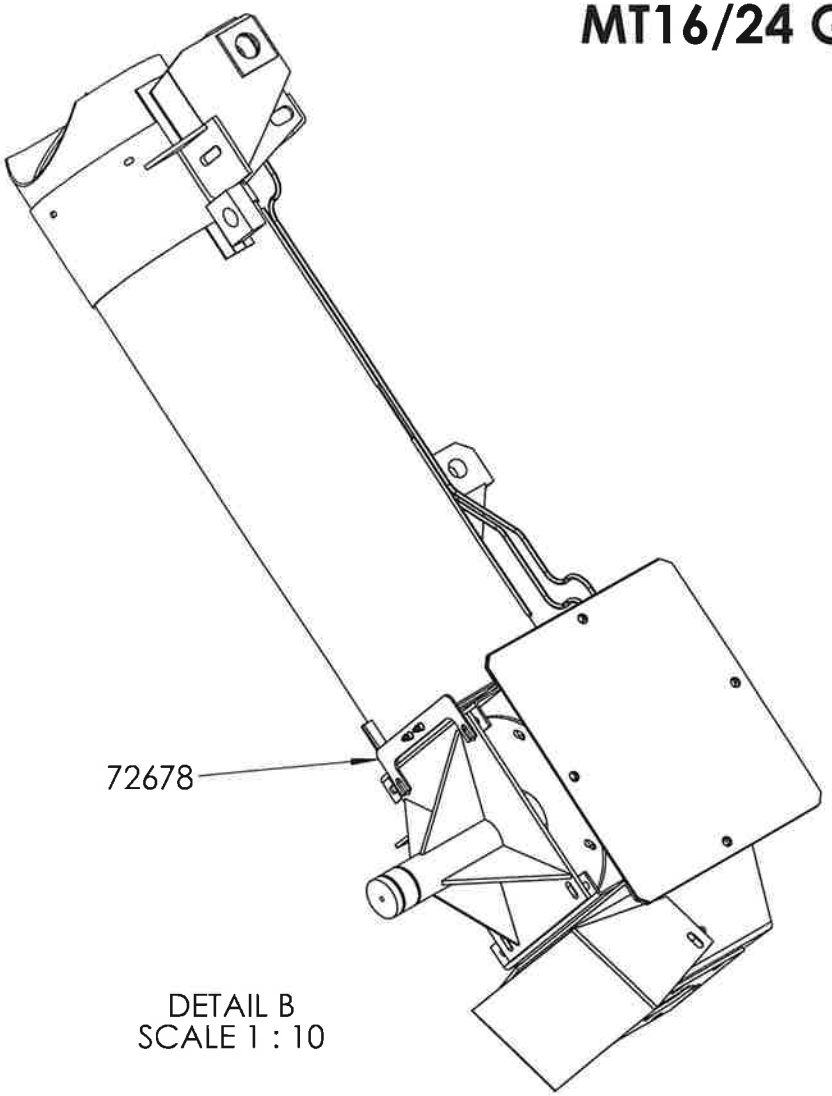
(MT24 SHOWN)



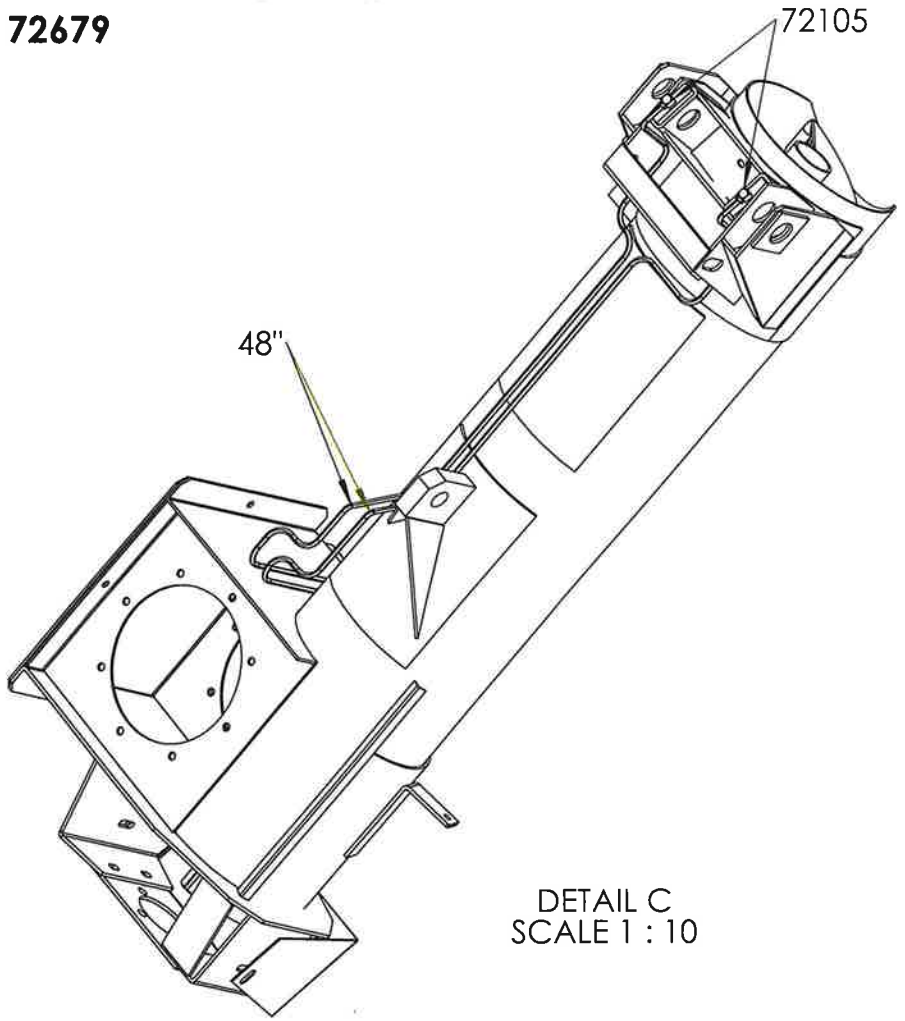
DETAIL A
SCALE 1 : 10

MT16/24 GREASE LINE PACKAGE

P/N: 72679



DETAIL B
SCALE 1 : 10

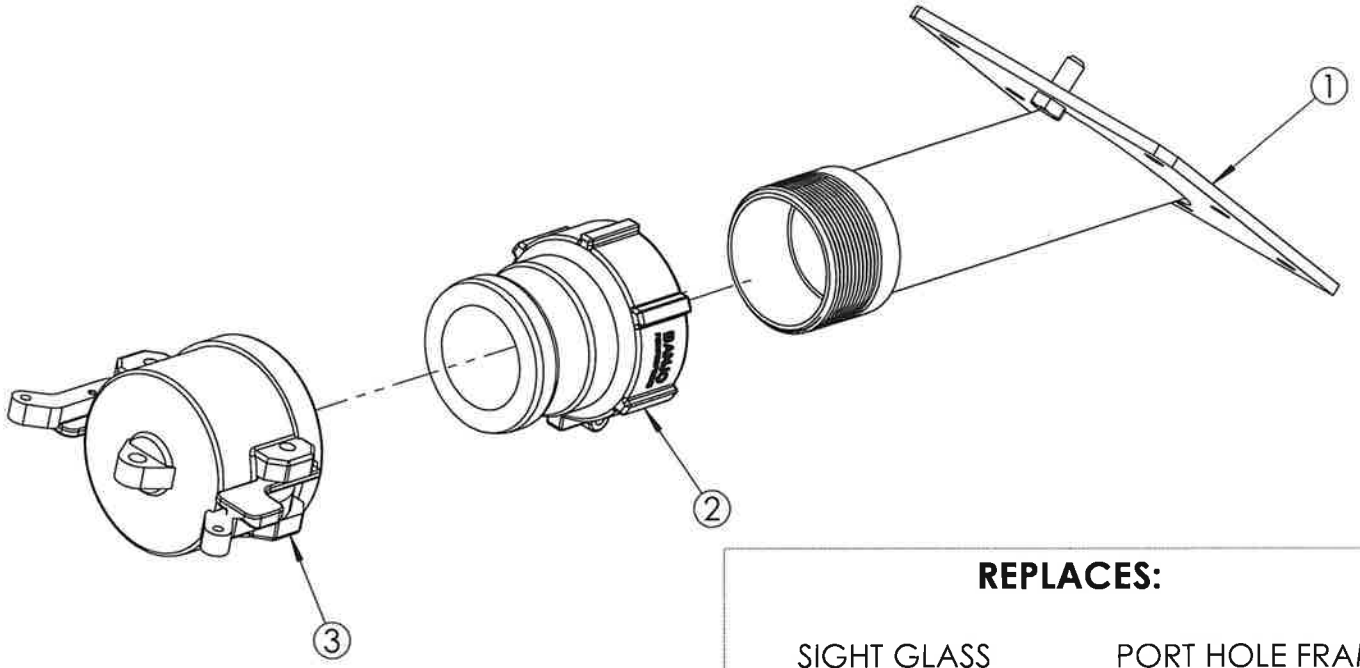


DETAIL C
SCALE 1 : 10

HARDWARE NOT SHOWN

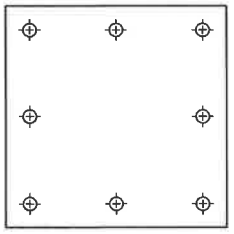
OPTIONAL BOLT ON POKE HOLE & FLUSH TUBE
P/N: 71850

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71849	POKE HOLE/FLUSH TUBE WELDT	1
2	200A	BANJO 2" CAM LEVER COUPLING, MALE ADAPTER FEMALE THREADS	1
3	200172	2" FEMALE COUPLER CAP	1

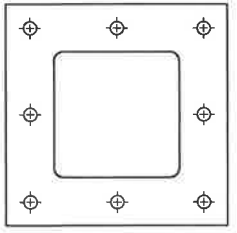


REPLACES:

SIGHT GLASS
P/N: 76608



PORT HOLE FRAME
P/N: 76609



ORDER 1 PER WINDOW TO BE REPLACED

SECURE USING THE HARDWARE REMOVED FROM WINDOWS

(18026422 - BOLT CAP SS 5/16 X 1 - QTY 7 (8 WILL BE REMOVED))
(18476351 - NUT HX SS 5/16 SELF LOCK QTY 8)

Heartland AG SYSTEMS
Heartland Agriculture, LLC

WARRANTY CLAIM FORM

Heartland AG SYSTEMS EQUIPMENT

Dist. Acct. No.	Shop Order No.		Part Number	Qty	Description	Distributor Total	Approved Total
Customer Name							
City	State						
Country	Postal Code						
Model No.	P.I.N.						
Warranty Start Date	Failure Date	Date of Repair					
Describe Problem(s)							
			Outside Expenses		Invoice No		
Describe Work Performed	Itemize Labor						
			Total Parts Cost Including Outside Expenses:				
			Labor	HRS	X Hourly Rate		
						Warranty Claim Total:	
			Distributer Signature				
			Authorized Signature		Status	Date	

December 5, 2024

Warranty claims must be submitted within 30 days of repair | Remit to address: 1180 Hwy 7 W Hutchinson MN 55350

Heartland Agriculture LLC, dba Heartland AG Systems