

**Heartland**  
**AG SYSTEMS**  
**EQUIPMENT**

**MT16**  
**SERIES**  
**TENDERS**

**OPERATOR'S MANUAL  
AND PARTS LIST  
OM-MT16**

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

ISSUE  
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# WARRANTY REGISTRATION

## 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	_____



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11/9/20

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## 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 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.

## **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.

### **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.

## 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 Case Corporation instructions on machine operation and maintenance.

98007AG

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

## Safety

Read and comply with the operators 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 operation 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.

**Case Corporation** is continuing to work for your safety by making tenders with better protection and by giving these rules for safe operation.



**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 this 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 Operators Manual and have been properly trained in the machine's operation.
- Before starting 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 by 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, flame 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 the 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. Keep all other persons completely away from your machine. Injury or death can result if you do not follow these instructions

#### **Noise Level Safety**

- Exposure to high noise levels 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 risks 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 can not 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 operators 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 Operators Manual**

Decals which display the "Read Operators Manual" symbol are intended to direct the operator to the Operators 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 Operators Manual. Refer to the Detail Index at the end of this manual for locating specific items about your machine.

### **Fire Extinguisher**

It is recommended that you have a fire 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**



227L95

**Come To Me**

Move hands forward and rearward - palms in



**Move Away from Me**

Move hands forward and rearward - palms out



228L95

**Go This Far**



**All Stop and Hold**



229L95



### Stop

Move one hand back and forth



### Emergency Stop

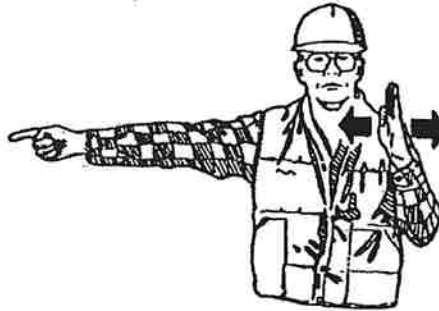
Move both hands rapidly back and forth



222L95

### 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

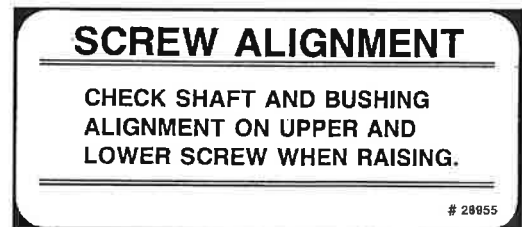
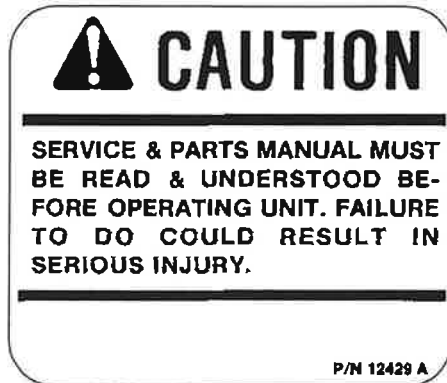


225L95

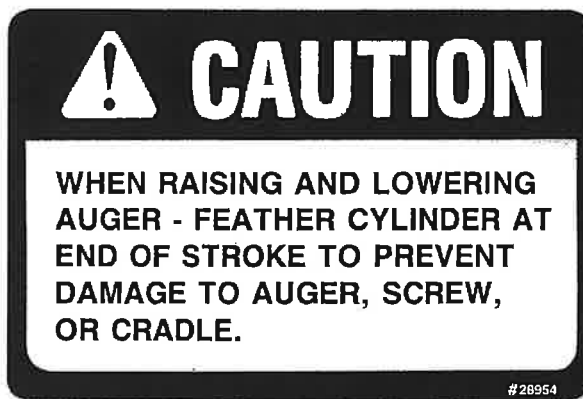
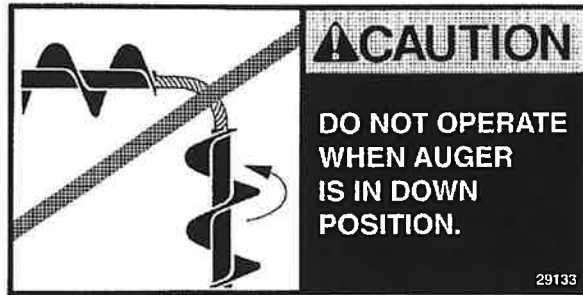
### Safety Decals

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

#### Safety Decal Pictorials



Safety Decal Pictorials - continued



Your MT16 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

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



### 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 the engine has proper oil level before starting.

*Operating Instructions*

## 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.

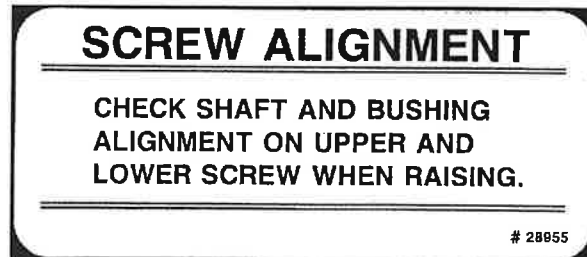
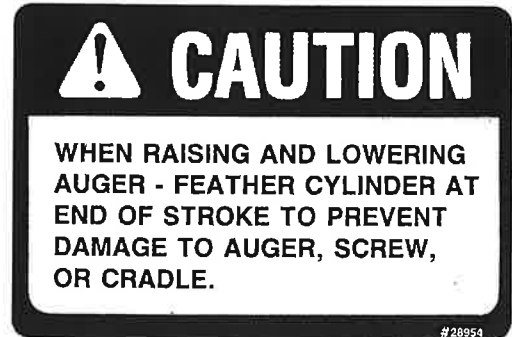


When raising and lowering auger

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

On augers equipped with shaft and bushing type alignment

- Check alignment on upper and lower screw when raising the auger.





# ***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 Maintenance**

### **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**

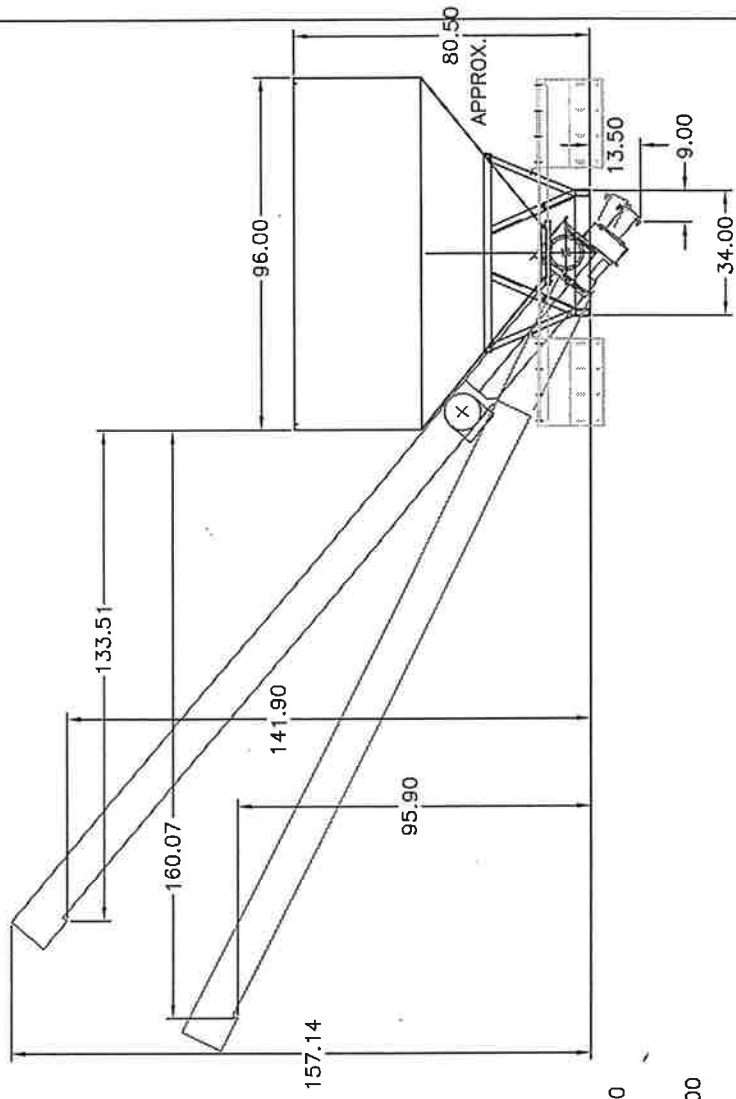
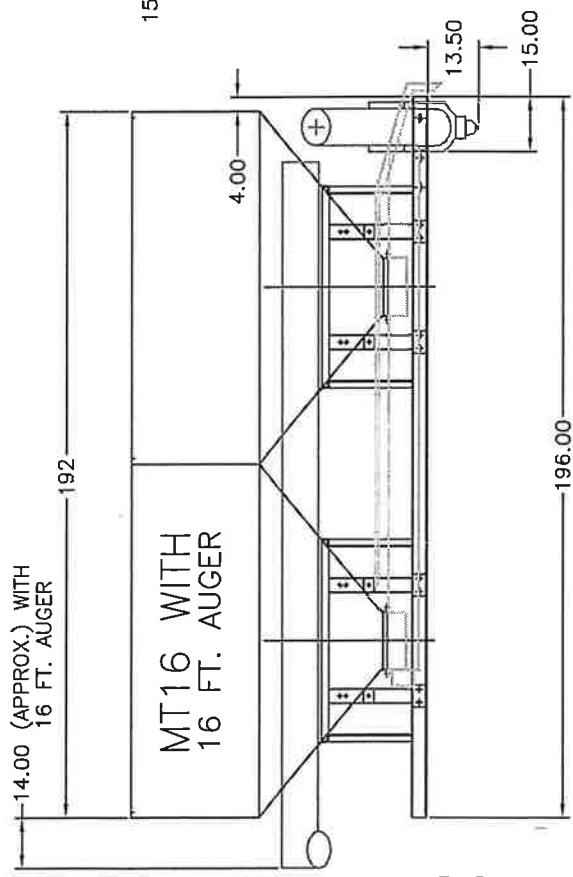
To prevent freezing of the roller chain due to rusting, remove and store submerged in fuel oil between seasons. Do not use regular oil for this purpose.



# Parts



WHEN MOUNTING THE TENDER  
ON THE TRUCK BED POSITION  
THE BOX SO THAT THERE IS  
21 TO 24 INCHES OF SPACE  
BETWEEN THE BOX AND THE CAB.

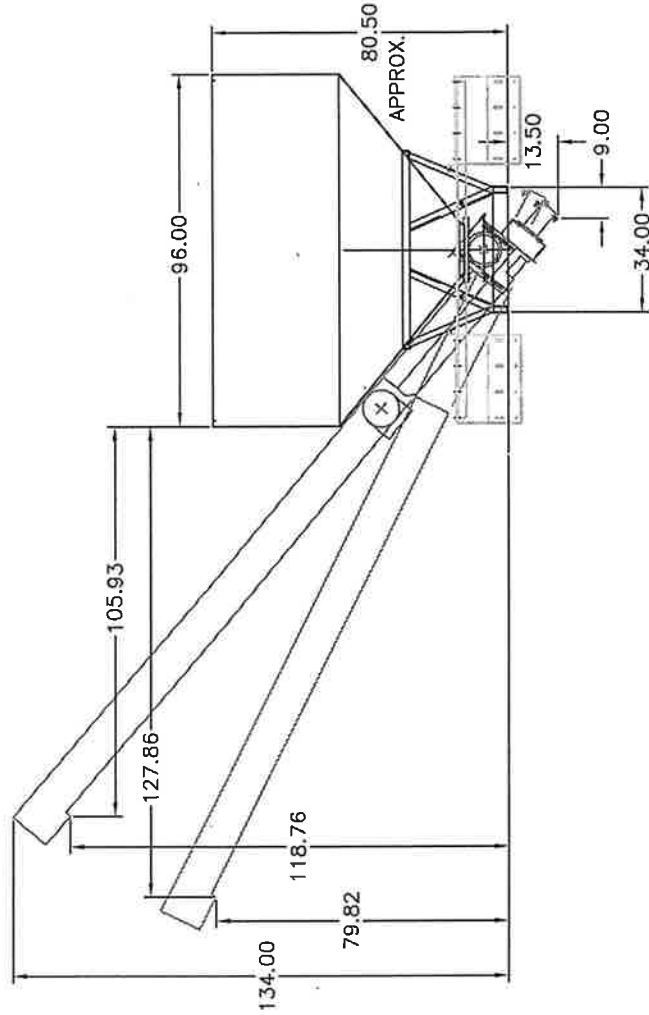
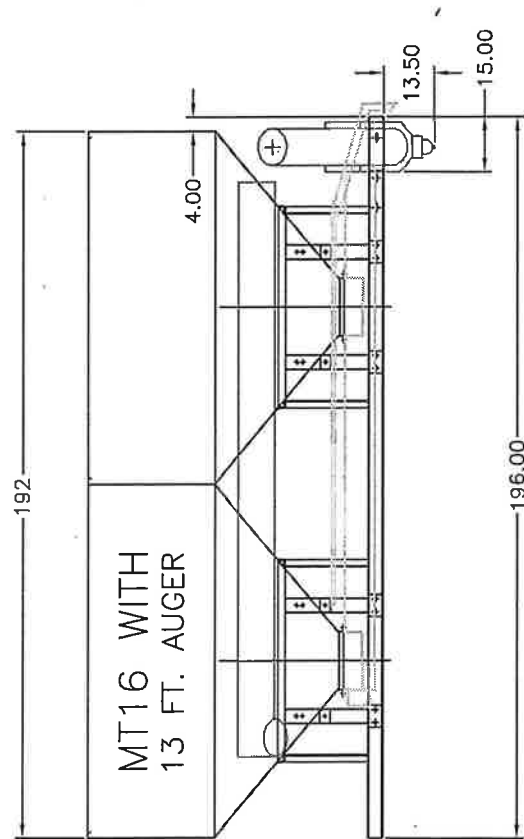


WITH 13 FT. UPPER AUGER  
SEE ILLUSTRATION 28875

AG SYSTEMS INC. HUTCHINSON MN. 55350

NAME		DIMENSIONAL SPECS. W/16 FT. AUGER	
FIRST USED	MT16	DATE	03/07/05
REV.		DATE	
		PART NUMBER	28875AG

WHEN MOUNTING THE TENDER  
ON THE TRUCK BED POSITION  
THE BOX SO THAT THERE IS  
5 INCHES OF SPACE  
BETWEEN THE BOX AND THE CAB.



WITH 16 FT. UPPER AUGER  
SEE ILLUSTRATION 28875AG

AG SYSTEMS INC. HUTCHINSON MN. 55350

NAME		DIMENSIONAL SPECS. W/13 FT. AUGER	
FIRST USED	MT16	DATE	03/07/05
REV.		DATE	
PART NUMBER		28875	

MT16 MOUNTED ON A TRUCK CHASSIS

MOUNTING ILLUSTRATION

306836AG  
REV 08/31/22

STRUCK CAP. MT16 TENDER,  
514 CU.FT. X 62# (MATL) - 31900#

FERT. WT. --- 31900#  
UNIT WT. --- 3500#

TOTAL WT. --- 35400#  
DOES NOT INCLUDE  
WT. OF TRUCK

FORMULA TO DETERMINE WT. PER AXLE.

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

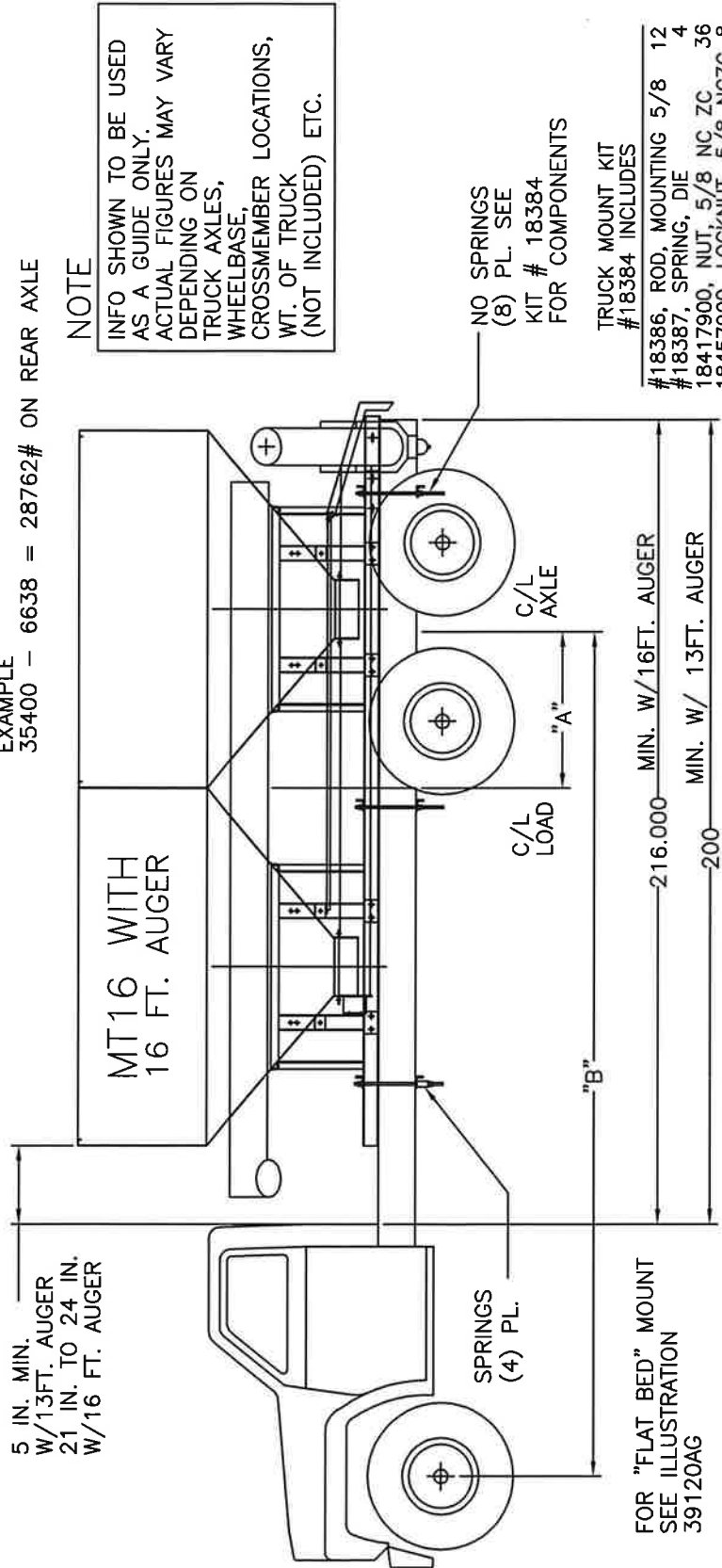
EXAMPLE  
35400 X 42 (DIM A) = 6638# ON FRONT AXLE  
224 (DIM B)

$$\text{LOAD WT. MINUS WT. ON FRONT AXLE} = \text{WT. ON REAR AXLE}$$

EXAMPLE  
35400 - 6638 = 28762# ON REAR AXLE

NOTE

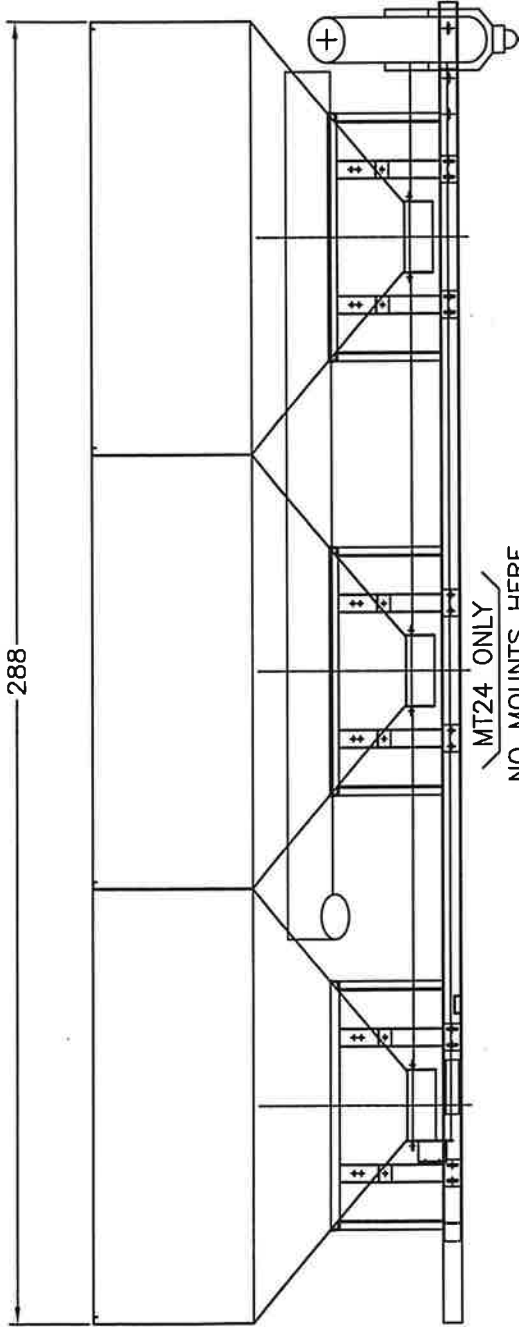
INFO SHOWN TO BE USED AS A GUIDE ONLY. ACTUAL FIGURES MAY VARY DEPENDING ON TRUCK AXLES, WHEELBASE, CROSSMEMBER LOCATIONS, WT. OF TRUCK (NOT INCLUDED) ETC.



FOR "FLAT BED" MOUNT  
SEE ILLUSTRATION  
39120AG

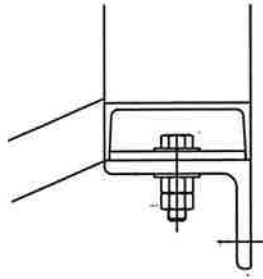
TRUCK MOUNT KIT  
#18384 INCLUDES  
#18386, ROD, MOUNTING 5/8 12  
#18387, SPRING, DIE 4  
18417900, NUT, 5/8 NC ZC 36  
18457900, LOCKNUT, 5/8 NCZC 8  
18851600, FLATW, SAE 5/8 ZC 4  
75739 BRACKET, ANGLE 12  
306836 DRWG-LOC ON TRUCK 1

288



MT24 ONLY  
NO MOUNTS HERE

FOR MT24 ONLY, MOUNT ANGLES AT FRONT & REAR HOPPERS ONLY. INSTALL BOLTS WITH WASHERS UNDER THE BOLT HEAD AND NUTS. INSTALL SNUG ONLY SO THAT THE UNIT CAN FLEX. (DOUBLE NUT THE BOLTS.) THE ANGLES MAY BE WELDED TO THE TRUCK FRAME OR BOLTED DOWN. THIS HARDWARE IS NOT SUPPLIED.

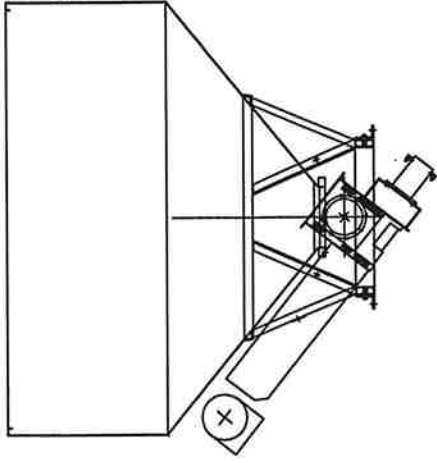


- MOUNTING KIT PN. 28978 CONTENTS
- 18092030 BOLT, 1/2-13NC. X 2 16
  - 18811400 FLAT WASHER 32
  - 18417400 HEX. NUT, 1/2-13NC 32
  - 28976 MOUNTING ANGLE 8
- FOR MT32 USE (2) COMPLETE KITS (16) ANGLES ETC.

**IMPORTANT**

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



AG SYSTEMS INC. HUTCHINSON MN. 55350

MOUNT TENDER, MT16 & MT24 AND MT32

NAME TRAILER MOUNTING ILLUSTRATION

FIRST USED	DATE
MT16, MT24 & MT32	03/07/05

REV.	DATE

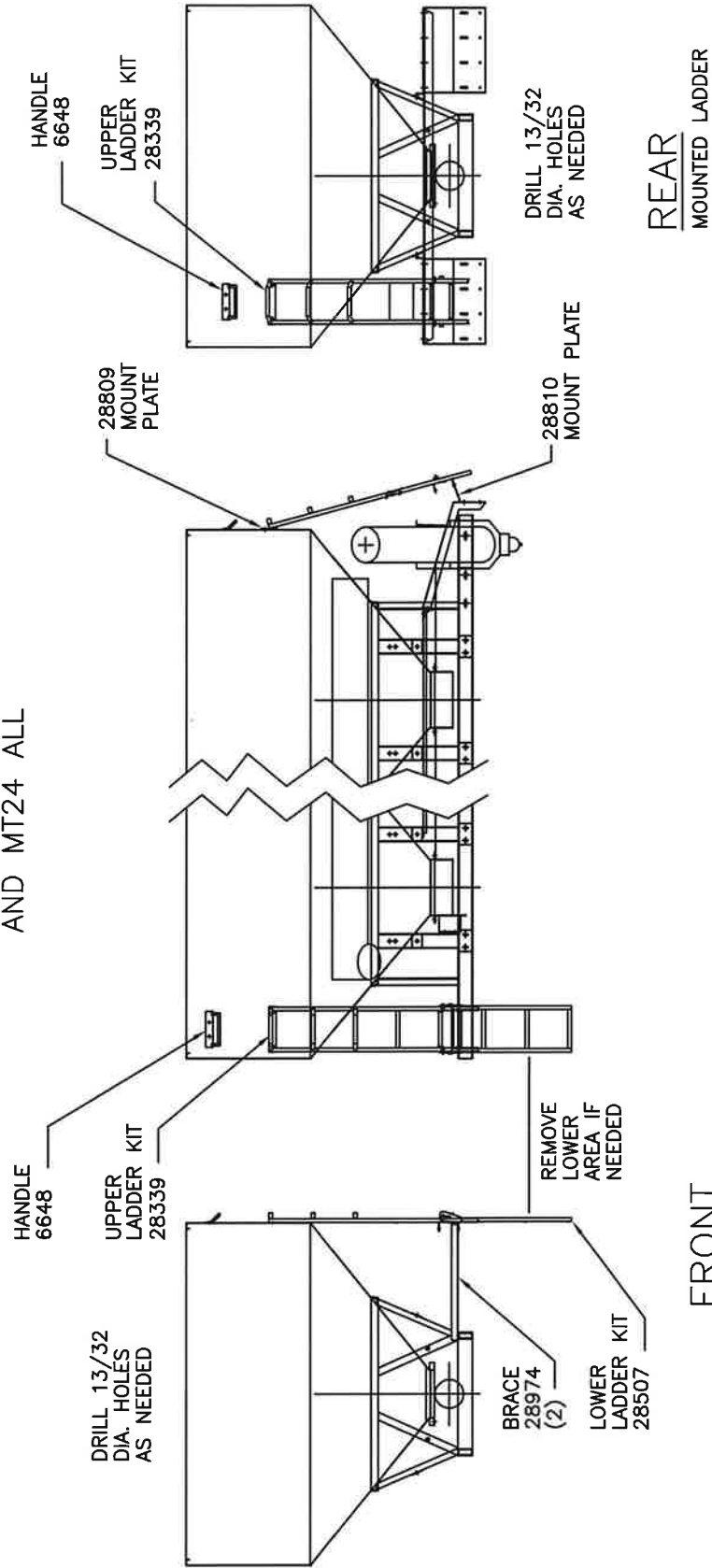
PART NUMBER	39120AG
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# LADDER MOUNTING

MT16 WITH  
13 FT. AUGER  
AND MT24 ALL

28975ILL

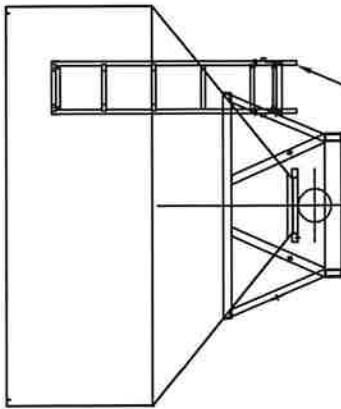


# LADDER MOUNTING

MT16 WITH  
16 FT. AUGER

28975AG

DRILL 13/32  
DIA. HOLES  
AS NEEDED

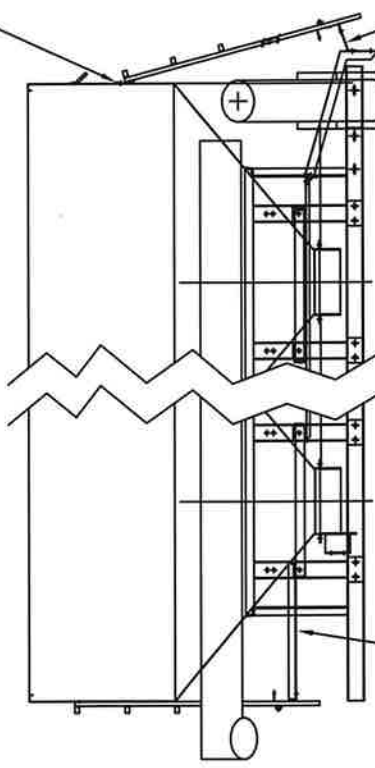


UPPER  
LADDER KIT  
28339

FRONT  
MOUNTED LADDER

DRILL 13/32  
DIA. HOLES  
AS NEEDED

28809  
MOUNT  
PLATE

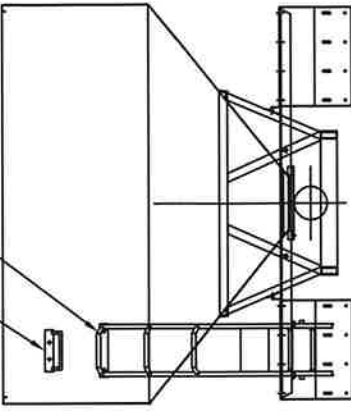


BRACE  
28974  
(2) REQ'D.  
BOLT TO "GATE ARM" SUPPORT  
DRILL 13/32  
DIA. HOLES  
AS NEEDED

28810  
MOUNT  
PLATE

HANDLE  
6648

UPPER  
LADDER KIT  
28339



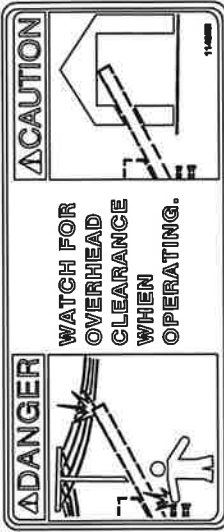
REAR  
MOUNTED LADDER

# DECAL LISTING

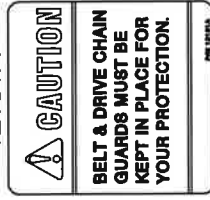
(DECALS NOT TO SCALE)

REF	PART #	QTY	DESCRIPTION
1	11495B	1	WATCH FOR OVERHEAD CLEARANCE
2	12181A	1	CAUTION, BELT & DRIVE CHAIN
3	12182B	1	DANGER STAY CLEAR
4	12429A	1	CAUTION READ SERVICE MANUAL
5	28223	1	DRAIN OIL FROM TANK
6	28864	1	DANGER KEEP AWAY FROM HINGE
7	28954	1	CAUTION RAISING/LOWERING
8	29133	1	CAUTION DO NOT OPERATE
9	699107L	2	HEARTLAND AG SYSTEMS (MEDIUM)
10	28882A	1	CONTROL DRIVE LEVERS
11	54133	3	HEARTLAND AG SYSTEMS (X-LARGE)
12	276534	1	HYDRAULIC OIL LOGO
13	87268088	1	DANGER DO NOT ENTER FERT. TANK
14	USA	1	MADE IN USA
15	71613	1	MT16 (DITCH SIDE)
16	71614	1	MT16 (DRIVER SIDE)
17	699125	2	SAFETY DECAL (INCLUDED W/ SAFETY BAR KIT)
18	71672	1	CAUTION DISCHARGE (INCLUDED W/ CATWALK)

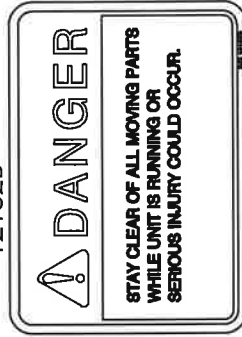
11495B



12181A



12182B



12429A



26

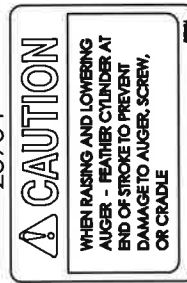
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28864



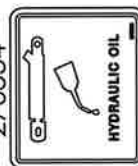
28954



71672



276534



29133



699107L



71614



87268088



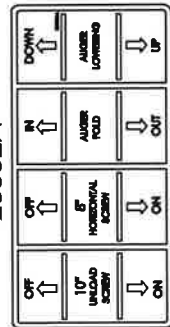
699125



54133



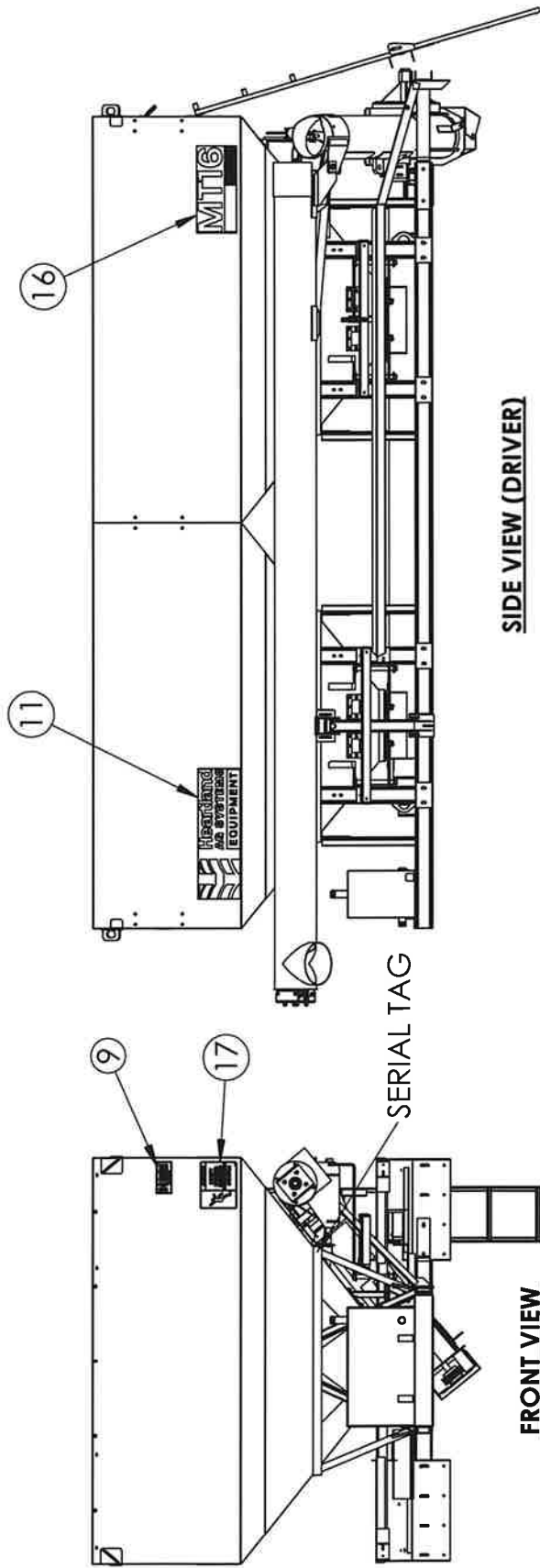
28882A



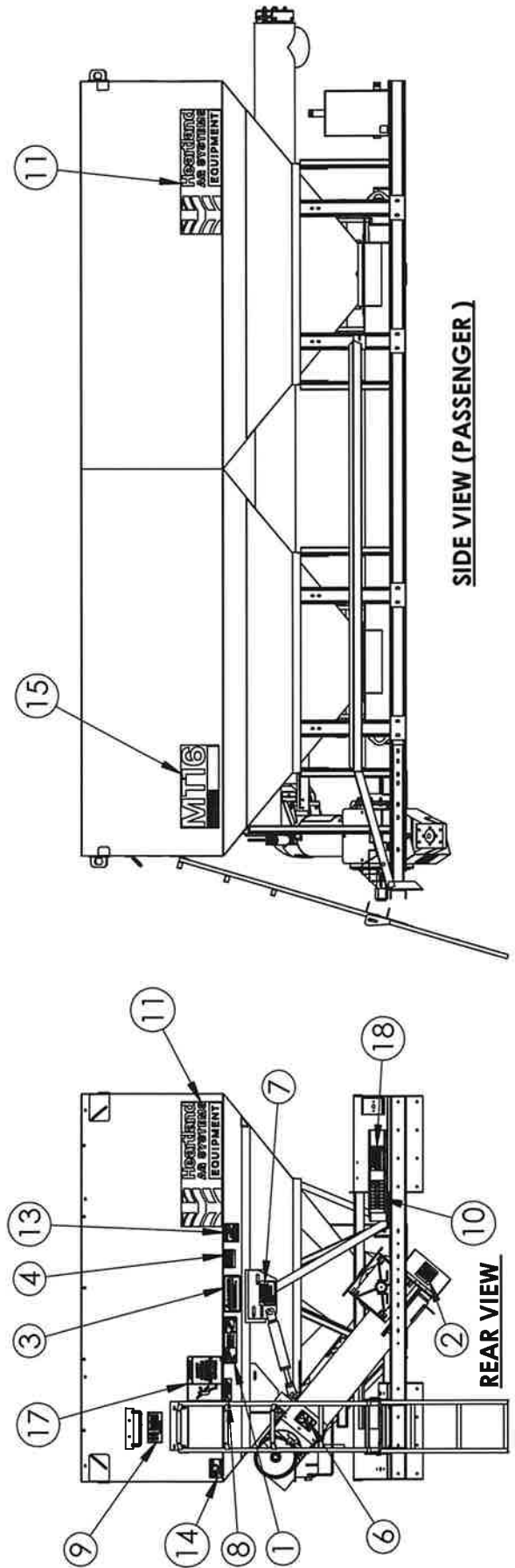
71613



# DECAL LAYOUT SHEET

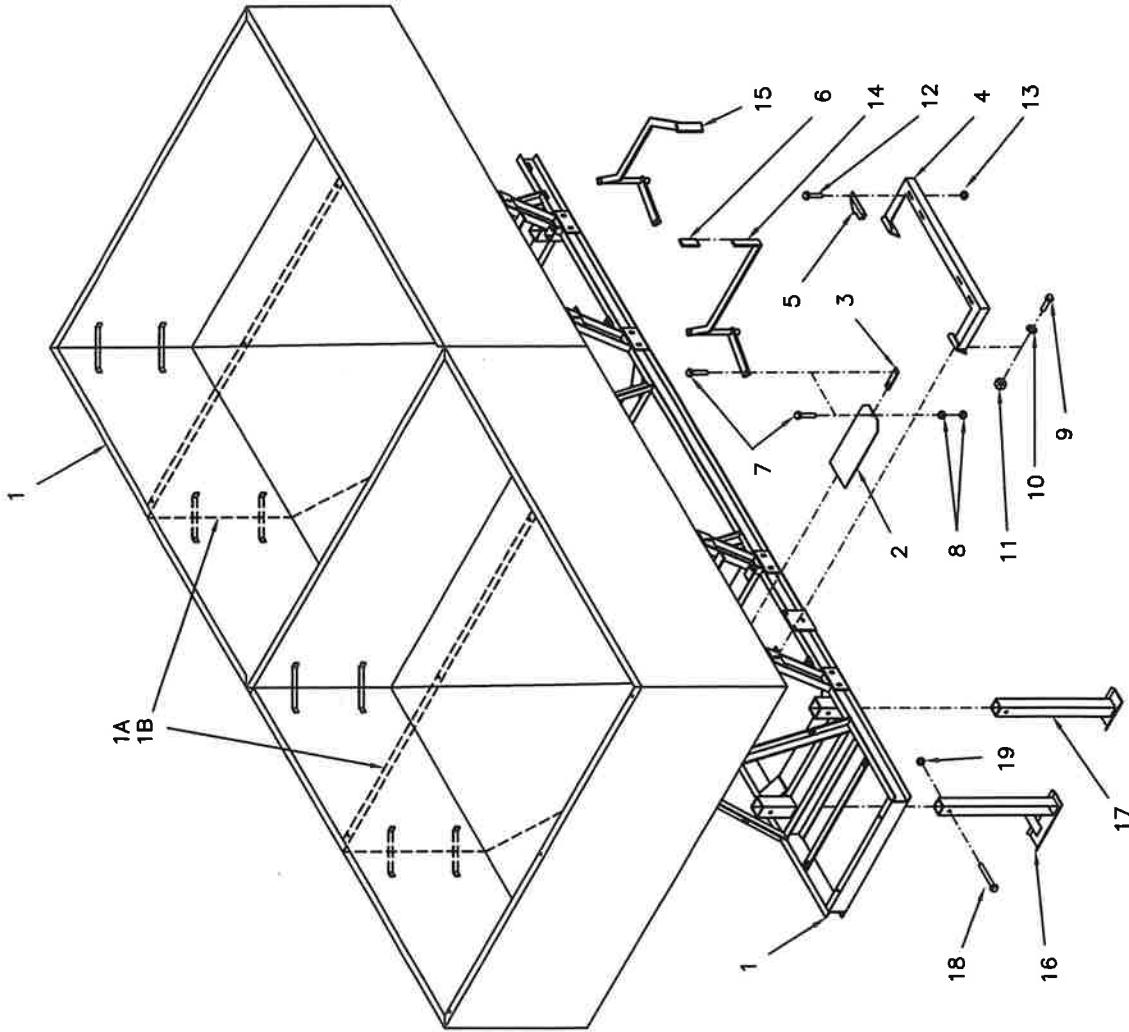


SIDE VIEW (DRIVER)



SIDE VIEW (PASSENGER)

**MT16 TENDER**  
**BODY AND FRAME**  
**ILLUSTRATION**  
**LEFT SIDE VIEW**



ITEM PART NO.	DESCRIPTION	COMP. STD	QTY
1	BODY/FRAME, 2	COMP. STD	1
1A	(409 S.S. BOX, SEE NOTE) BODY/FRAME, 4	COMP OPTIONAL	
1B	(409 S.S. BOX, SEE NOTE) BODY/FRAME, 4	COMP OPTIONAL	
1C	(304 S.S. BOX, SEE NOTE) BODY/FRAME, 5	COMP OPTIONAL	
28761	(304 S.S. BOX, SPLIT-REAR, SEE NOTE) BODY/FRAME, NON-LWRG AGR	OBS	
48300242	BODY/FRAME, MT16LSA	OBS	
18889A	GATE PLATE		4
28111A	LINKAGE		4
28612	GATE ARM MOUNT		2
28109	ARM STOP		4
54143A	VINYL HANDLE GRIP		5
18026826	BOLT, 3/8-16NC. X 1 1/2	SS 8	
18476800	HEX. NUT, 3/8-16NC	SS 16	
18026824	BOLT, 3/8-16NC. X 1 1/4	SS 4	
18991200	FLAT WASHER, 3/8	SS 4	
18476800	HEX. NUT, 3/8-16NC	SS 4	
18026422	BOLT, 5/16-18NC. X 1.00"	SS 8	
18987700	FLANGE NUT, 5/16-18NC	SS 8	
	HANDLE, (2) L.H. & (1) R.H.		
	HANDLE, REAR GATE (1)		
ITEMS 14 & 15 ARE WELDED IN PLACE AT ASSEMBLY.			
FOR REPAIR PARTS ORDER—			
28112	SHAFT, 1" DIA. X 10 1/2		
28113	COMMON ARM		
28114A	HANDLE, LEFT HAND		
28115A	HANDLE, RIGHT HAND		
303433	HANDLE, REAR (TEE TYPE)		
16	SAFETY STAND, AUGER SIDE		2
17	SAFETY STAND, HANDLE SIDE		2
18	BOLT, 1/2-13NC. X 4	ZC.	4
19	HEX. NUT, 1/2-13NC.	ZC.	4
ITEMS 16 TO 19 ARE USED FOR STORAGE AND TRANSPORT ONLY. MAY BE RETURNED FOR CREDIT.			

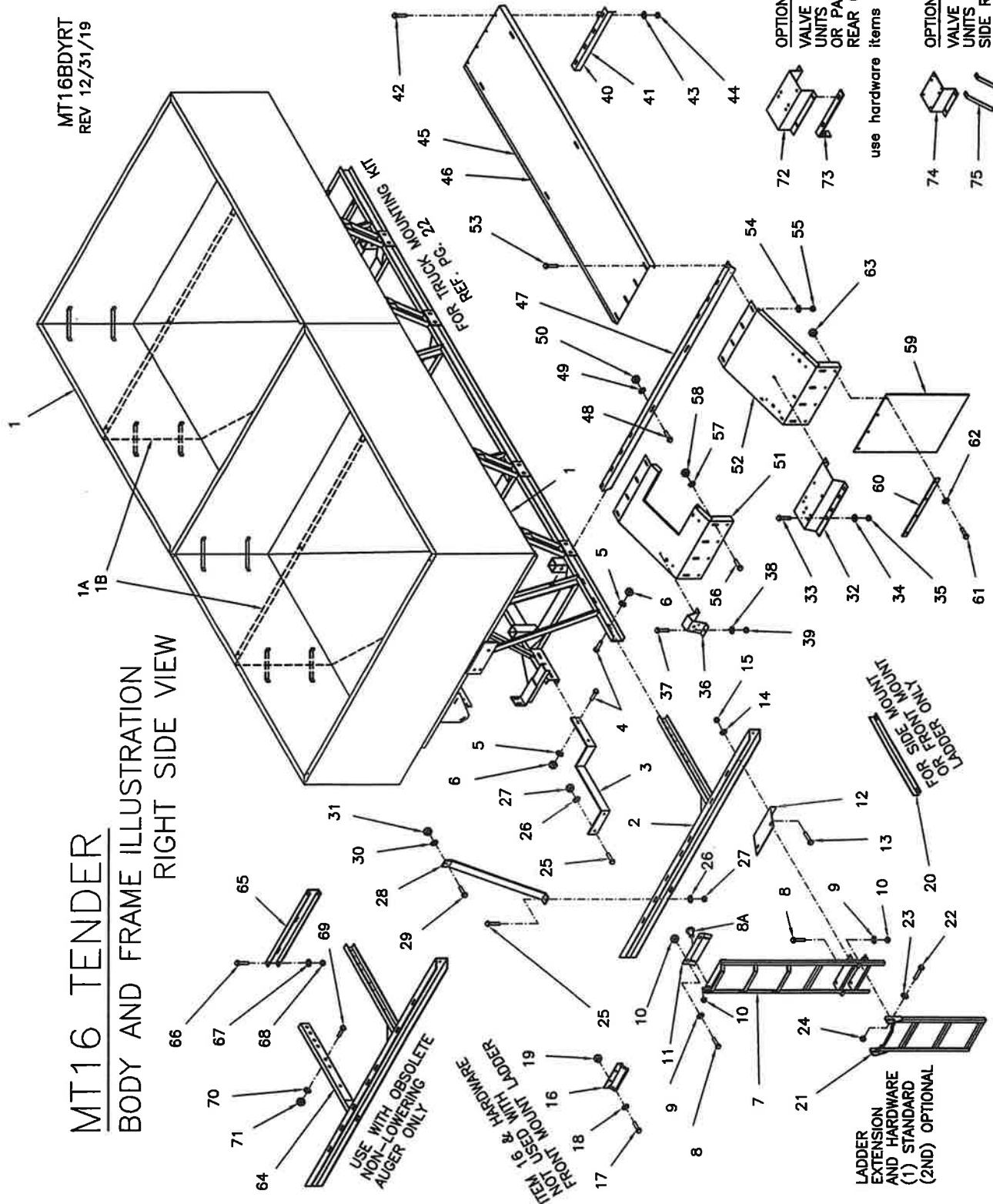
**NOTE:**  
PRIOR TO 2016 THE 409 SS BOXES WERE ALL WHITE / AFTER 2016 THE 409 BOXES HAVE A WHITE UPPER/BLACK LOWER PORTION  
IN 2016 THE SS BOX WAS INTRODUCED, IT HAS A NATURAL FINISH (UNPAINTED) UPPER/BLACK LOWER PORTION  
PLEASE MENTION YEAR OF TENDER, TO RECEIVE CORRECTLY PAINTED ACCESSORIES

MT16BDYRT  
REV 12/31/19

# MT16 TENDER

## BODY AND FRAME ILLUSTRATION

### RIGHT SIDE VIEW



NOTE:  
ALL HARDWARE IS  
STAINLESS STEEL  
EXCEPT WHERE NOTED

# MT16 TENDER

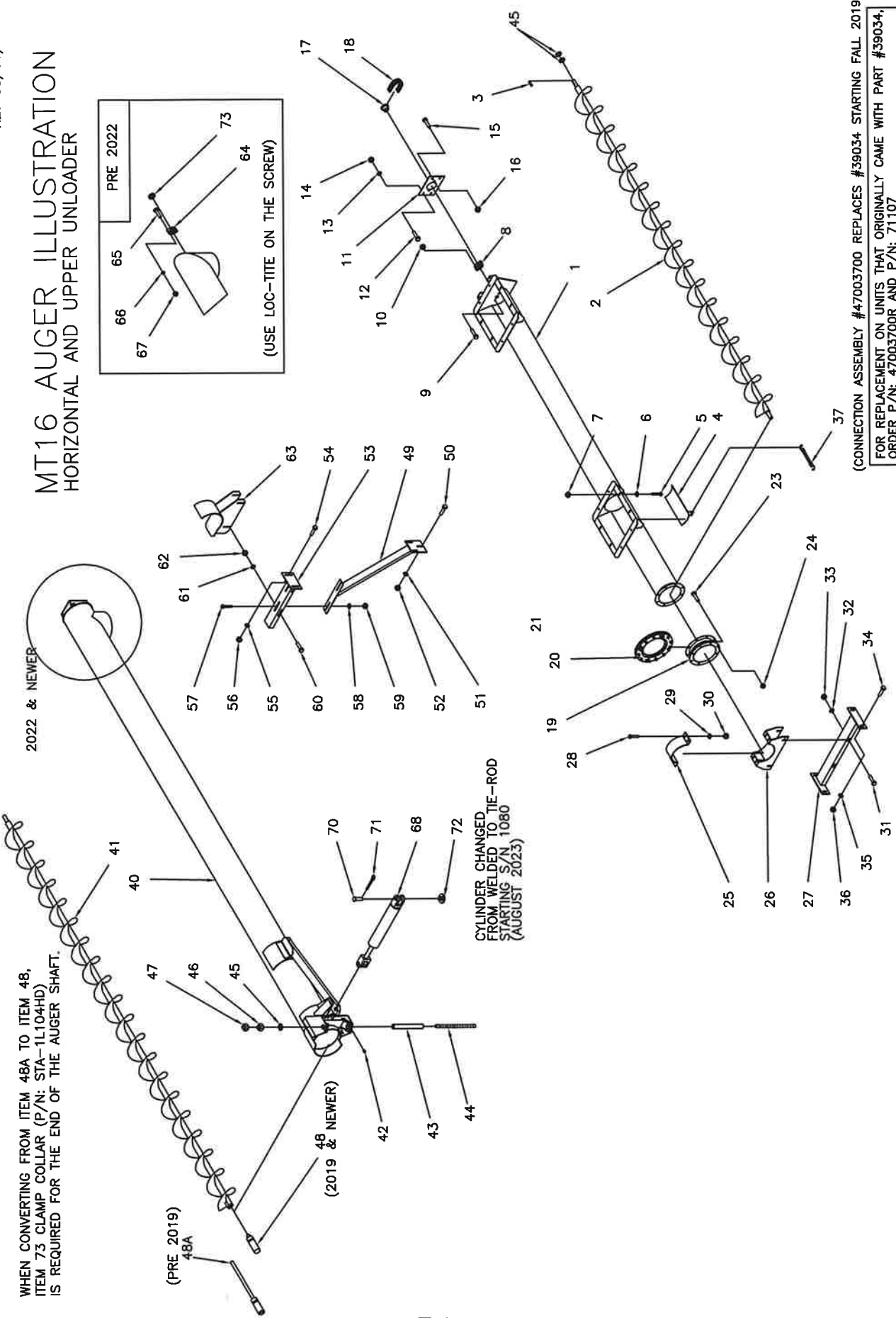
BODY AND FRAME ILLUSTRATION  
(RIGHT SIDE) PARTS LIST

MT16BDYLST  
RV 8/31/22

ITEM	PART NO.	DESCRIPTION	QTY.
1	39556	BODY/FRAME, LA (2 COMP'T STD)	1
1A	39556A	(409 S.S. BOX, SEE NOTE)	1
1B	39556AS	BODY/FRAME, LA (4 COMP. OPTION)	8
1C	39556AS-SR	BODY/FRAME, LA (5 COMP. OPTION)	16
		(304 S.S. BOX, SEE NOTE)	8
		(304 S.S. BOX, SPLIT REAR, SEE NOTE)	-
2	28761	BODY/FRAME, "NON-LWRG-AUGER"	1
3	39061	BUMPER, "LOWERING AUGER" (STD)	1
4	39051	BRACE	1
5	18470175	BOLT, 1/2-13NC. X 1 3/4	5
6	18824800	FLAT WASHER, 1/2	10
7	18567400	FLANGE NUT, 1/2-13NC.	5
	REF. "UPPER" LADDER KIT P.N. 28339		-
8	28124A	LADDER, UPPER	2
8A	18026822	BOLT, 3/8-16NC. X 1	4
9	18706621	SCREW, MACH. 3/8 X 3/4 TR SL	4
10	18991200	FLAT WASHER, 3/8	8
11	18566400	NYLOCK NUT, 3/8-16NC.	8
12	28809	MOUNT BRACKET, UPPER	2
13	18026824	BOLT, 3/8-16NC. X 1 1/4	2
14	18991200	FLAT WASHER, 3/8	4
15	18566400	NYLOCK NUT, 3/8-16NC.	4
16	06648	HANDLE (LADDER)	2
17	18026822	BOLT, 3/8-16NC. X 1	2
18	18991200	FLAT WASHER, 3/8	4
19	18566400	NYLOCK NUT, 3/8-16NC.	4
20	28974	BRACE, LADDER (SIDE OR FNT. MNT.)	1
	ITEM 20 USED FOR SIDE/FRONT MOUNT LADDER ONLY		
21	28507	EXTENSION LADDER KIT	1
	INCLUDES ITEMS 21 TO 24		
22	18027438	EXTENSION LADDER	2
23	18824800	BOLT, 1/2-13NC. X 3	2
24	18567400	FLAT WASHER, 1/2	2
25	18026824	NYLOCK NUT, 1/2-13NC.	2
26	18991200	BOLT, 3/8-16NC. X 1 1/4	3
27	18566400	FLAT WASHER, 3/8	6
28	39052	NYLOCK NUT, 3/8-16NC.	3
29	18026822	BRACE, BUMPER	1
30	18991200	BOLT, 3/8-16NC. X 1	1
31	18566400	FLAT WASHER, 3/8	2
32	28922A	NYLOCK NUT, 3/8-16NC.	1
33	18026822	VALVE BRACKET (STANDARD)	1
34	18991200	BOLT, 3/8-16NC. X 1	4
35	18566400	FLAT WASHER, 3/8	4
36	28818	NYLOCK NUT, 3/8-16NC.	4
37	18026422	LIGHT BRACKET, REAR	2
38	18991100	BOLT, 5/16-18NC. X 1	4
39	18457500	FLAT WASHER, 5/16	8
		NYLOCK NUT, 5/16-18NC. ZC	4
40	28163	LIGHT BRACKET, FRONT- L.H.	1
41	28164	LIGHT BRACKET, FRONT- R.H.	1
42	18026422	BOLT, 5/16-18NC. X 1	8
43	18991100	FLAT WASHER, 5/16	16
44	18457500	NYLOCK NUT, 5/16-18NC. ZC	8
	28815A	OPTIONAL FENDER KIT (INCLUDES ITEMS 36 THRU 58) (INCLUDES 28340 LIGHT KIT)	-
45	28815	FENDER, LEFT HAND	1
46	28816	FENDER, RIGHT HAND	1
47	28787	FENDER SUPPORT	3
48	18470175	BOLT, 1/2-13NC. X 1 3/4	6
49	18824800	FLAT WASHER, 1/2	12
50	18567400	NYLOCK NUT, 1/2-13NC.	6
51	39060	FENDER EXTENSION, L.H. (STD) FOR LOWERING AUGER ONLY	1
	(FOR NON-LWRG. AUGER USE (2) OF ITEM 52)		
52	28866	FENDER EXTENSION, R.H.	1
53	18026824	BOLT, 3/8-16NC. X 1 1/4	16
54	18991200	FLAT WASHER, 3/8	32
55	18566400	NYLOCK NUT, 3/8-16NC.	16
56	18026824	BOLT, 3/8-16NC. X 1 1/4	8
57	18991200	FLAT WASHER, 3/8	16
58	18566400	NYLOCK NUT, 3/8-16NC.	8
	OPTIONAL MUD FLAP KIT P.N. 33244 (INCLUDES ITEMS 59 THRU 63)		-
59	76714	SPLASH GUARD	2
60	47006302	MOUNTING STRAP	2
61	18056826	BOLT, 3/8-16NC. X 1 1/2	8
62	18811200	FLAT WASHER, 3/8	8
63	18459200	NYLOCK NUT, 3/8-16NC. ZC	16
	OPTIONAL BUMPER FOR NON- LOWERING AUGER ONLY		
64	02550	BUMPER WELDMENT (OBSOLETE)	1
65	28808	FRAME BRACE (OBSOLETE)	1
66	18026824	BOLT, 3/8-16NC. X 1 1/4	4
67	18991200	FLAT WASHER, 3/8	4
68	18987900	FLANGE NUT, 3/8-16NC.	4
69	18022026	BOLT, 1/2-13NC. X 1 1/2	6
70	18824800	FLAT WASHER, 1/2	12
71	18567400	NYLOCK NUT, 1/2-13NC.	6
	OPTIONAL FOR UNITS WITHOUT FENDERS AND PASSENGER SIDE REAR CONTROLS		
72	29928	VALVE MOUNT (Optional)	1
73	39144	SUPPORT, VALVE MOUNT (Optional)	2
	OPTIONAL FOR UNITS WITH DRIVERS SIDE REAR CONTROLS		
74	47005798	MOUNT, CONTROL VALVE (Optional)	1
75	47005786	BRACE, VALVE MOUNT (Optional)	2

NOTE:  
PRIOR TO 2016 THE 409 SS BOXES WERE ALL WHITE / AFTER 2016 THE 409 BOXES HAVE A WHITE UPPER/BLACK LOWER PORTION  
IN 2016 THE SS BOX WAS INTRODUCED, IT HAS A NATURAL FINISH (UNPAINTED) UPPER/BLACK LOWER PORTION  
PLEASE MENTION YEAR OF TENDER, TO RECEIVE CORRECTLY PAINTED ACCESSORIES

# MT16 AUGER ILLUSTRATION HORIZONTAL AND UPPER UNLOADER



2022 & NEWER

WHEN CONVERTING FROM ITEM 48A TO ITEM 48, ITEM 73 CLAMP COLLAR (P/N: STA-1L104HD) IS REQUIRED FOR THE END OF THE AUGER SHAFT.

(PRE 2019)  
48A

(2019 & NEWER)  
48

CYLINDER CHANGED FROM WELDED TO TIE-ROD STARTING S/N 1080 (AUGUST 2023)

(CONNECTION ASSEMBLY #47003700 REPLACES #39034 STARTING FALL 2019) FOR REPLACEMENT ON UNITS THAT ORIGINALLY CAME WITH PART #39034, ORDER P/N: 47003700R AND P/N: 71107



MT16 AUGER PARTS LIST  
HORIZONTAL AND UPPER UNLOAD AUGER

ITEM	PART NO.	DESCRIPTION	QTY
1	39039	HORIZONTAL AUGER	1
2	28829	HORIZONTAL AUGER TUBE	1
		HORIZ. AUGER SCREW WELDMENT	
		---	---
3	47006519	DRIVE KEY, 1/4 X 1/4 X 1 1/2	1
4	28811	CLEAN-OUT DOOR	2
5	18026822	BOLT, 3/8-16NC. X 1	12 S.S.
6	18991200	FLAT WASHER, 3/8	24 S.S.
7	18566400	NYLOCK NUT, 3/8-16NC.	12 S.S.
8	10500	FLANGE BRG. 1" BORE	1
9	18026826	BOLT, 3/8-16NC. X 1 1/2	2 S.S.
10	18566400	NYLOCK NUT, 3/8-16NC.	2 S.S.
11	29921	MOTOR MOUNT PLATE	1
12	18026824	BOLT, 3/8-16NC. X 1 1/4	4 S.S.
13	18991200	FLAT WASHER, 3/8	8 S.S.
14	18566400	NYLOCK NUT, 3/8-16NC.	4 S.S.
15	18470175	BOLT, 1/2-13NC. X 1 3/4	2 S.S.
16	18567400	NYLOCK NUT, 1/2-13NC.	2 S.S.
17	10181	SPROCKET, #50B18, 1" BORE	2
18	17701	COUPLING CHAIN, #50-2 X 17 LINKS	1
19	53159	CONNECTOR, #50-2	1
20	71107	TUBE ADAPTER	1
21	47003700	CONNECTION ASSEMBLY	1
22		---	---
23	18026822	BOLT, 3/8-16NC. X 1	8 S.S.
24	18566400	NYLOCK NUT, 3/8-16NC.	8 S.S.
25	39024	TUBE CLAMP	1
26	39020	TUBE CRADLE, (HORIZONTAL)	1
27	39048	CRADLE SUPPORT, (HORIZ. TUBE)	1
28	18026826	BOLT, 3/8-16NC. X 1 1/2	4 S.S.
29	18991200	FLAT WASHER, 3/8	8 S.S.
30	18566400	NYLOCK NUT, 3/8-16NC.	4 S.S.
31	18026824	BOLT, 3/8-16NC. X 1 1/4	4 S.S.
32	18991200	FLAT WASHER, 3/8	8 S.S.
33	18566400	NYLOCK NUT, 3/8-16NC.	4 S.S.
34	18470175	BOLT, 1/2-13NC. X 1 3/4	4 S.S.
35	18824800	FLAT WASHER, 1/2	8 S.S.
36	18567400	NYLOCK NUT, 1/2-13NC.	4 S.S.
37	01078	STRETCH STRAP (BUNGEE)	2

(\*\* - ITEMS 64, 65, 66, 67 & 73 ARE FOR PRE 2022 UNITS AND OLDER)  
(CONNECTION ASSEMBLY #47003700 REPLACES #39034 STARTING FALL 2019)  
FOR REPLACEMENT ON UNITS THAT ORIGINALLY CAME WITH PART #39034,  
ORDER P/N: 47003700R AND P/N: 71107

ITEM	PART NO.	DESCRIPTION	QTY
40*	28958	UPPER UNLOAD AUGER	1
		AUGER TUBE, 16 FT.	
	28804	AUGER TUBE, 13 FT. (DISCONTINUED)	N/A
	28957	AUGER TUBE, 17 FT. (DISCONTINUED)	N/A
41*	28960A	SCREW, 16 FT.	1
	29027	SCREW, 13 FT. (DISCONTINUED)	N/A
	28959	SCREW, 17 FT. (DISCONTINUED)	N/A
42	18901806	GREASE ZERK, 90 DEGREE	2
43	307623	PIVOT TUBE	1
44	28807A	THREADED ROD, 1-8NC. X 15 3/8	1
45	18852200	WASHER, FLAT 1" SAE ZC	4
46	18439000	HEX. NUT, 1-8NC.	2
47	18449005	JAM NUT, 1-8NC.	2
48	47003537	AUGER GUIDE SHAFT (2019 & NEWER)	1
48A	29028	SCREW GUIDE CABLE ASSY (PRE 2019)	1
		----- (ITEM 48A IS SHOWN FOR REFERENCE ONLY) -----	
49	28846A	CRADLE SUPPORT BRACE	1
50	18026824	BOLT, 3/8-16NC. X 1 1/4	3 S.S.
51	18991200	FLAT WASHER, 3/8	3 S.S.
52	18566400	NYLOCK NUT, 3/8-16NC.	3 S.S.
53	28835A	CRADLE SUPPORT	1
54	18026826	BOLT, 3/8-16NC. X 1 1/2	2 S.S.
55	18991200	FLAT WASHER, 3/8	4 S.S.
56	18566400	NYLOCK NUT, 3/8-16NC.	2 S.S.
57	18026824	BOLT, 3/8-16NC. X 1 1/4	2 S.S.
58	18991200	FLAT WASHER, 3/8	4 S.S.
59	18566400	NYLOCK NUT, 3/8-16NC.	2 S.S.
60	18026824	BOLT, 3/8-16NC. X 1 1/4	4 S.S.
61	18991200	FLAT WASHER, 3/8	8 S.S.
62	18566400	NYLOCK NUT, 3/8-16NC.	4 S.S.
63	29862	TUBE CRADLE	1
64**	52056	FLANGE BRG. 1 1/4 BORE	1
65**	18026824	BOLT, 3/8-16NC. X 1 1/4	2 S.S.
66**	18991200	FLAT WASHER, 3/8	4 S.S.
67**	18987900	FLANGE NUT, 3/8-16NC.	2 S.S.
68	07132	HYDRAULIC CYLINDER, (3 1/2 X 8)	1
69		---	
70	86632567	CYLINDER PIN,	2
71	18560826	COTTER PIN, 3/16 X 1 1/2	2
72	18852200	FLAT WASHER, 1" SAE	2
73**	STA-1L104HD	CLAMP COLLAR, 1 1/4"	1

(\* ITEMS 40 & 41 ARE INCLUDED IN THE UPPER UNLOAD AUGER ASSEMBLY)  
(UPPER UNLOAD AUGER ASSEMBLY P/N: 29151 BREAKDOWN ON NEXT 2 PAGES)

ITEM 68 SWITCHED FROM A WELDED CYLINDER TO A TIE ROD (AUGUST 2023)  
STARTING S/N: 1080. MAY NEED TO MODIFY, OR REPLACE GUIDE WELDMENT P/N:39016  
FOR ADDITIONAL CLEARANCE ON PREVIOUS MODEL YEARS WHEN REPLACING CYLINDER

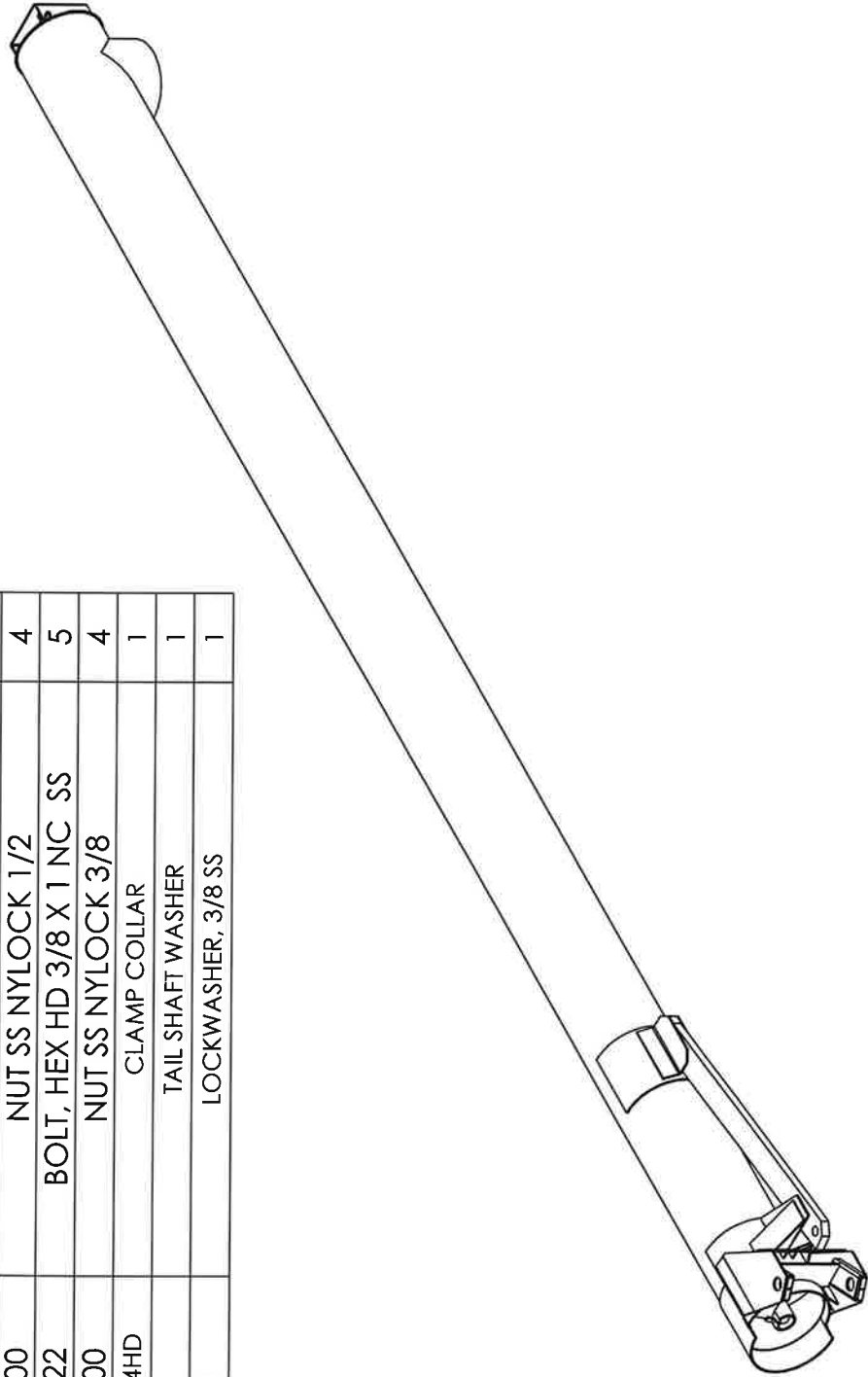
# 16' UNLOAD AUGER TUBE ASSEMBLY

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



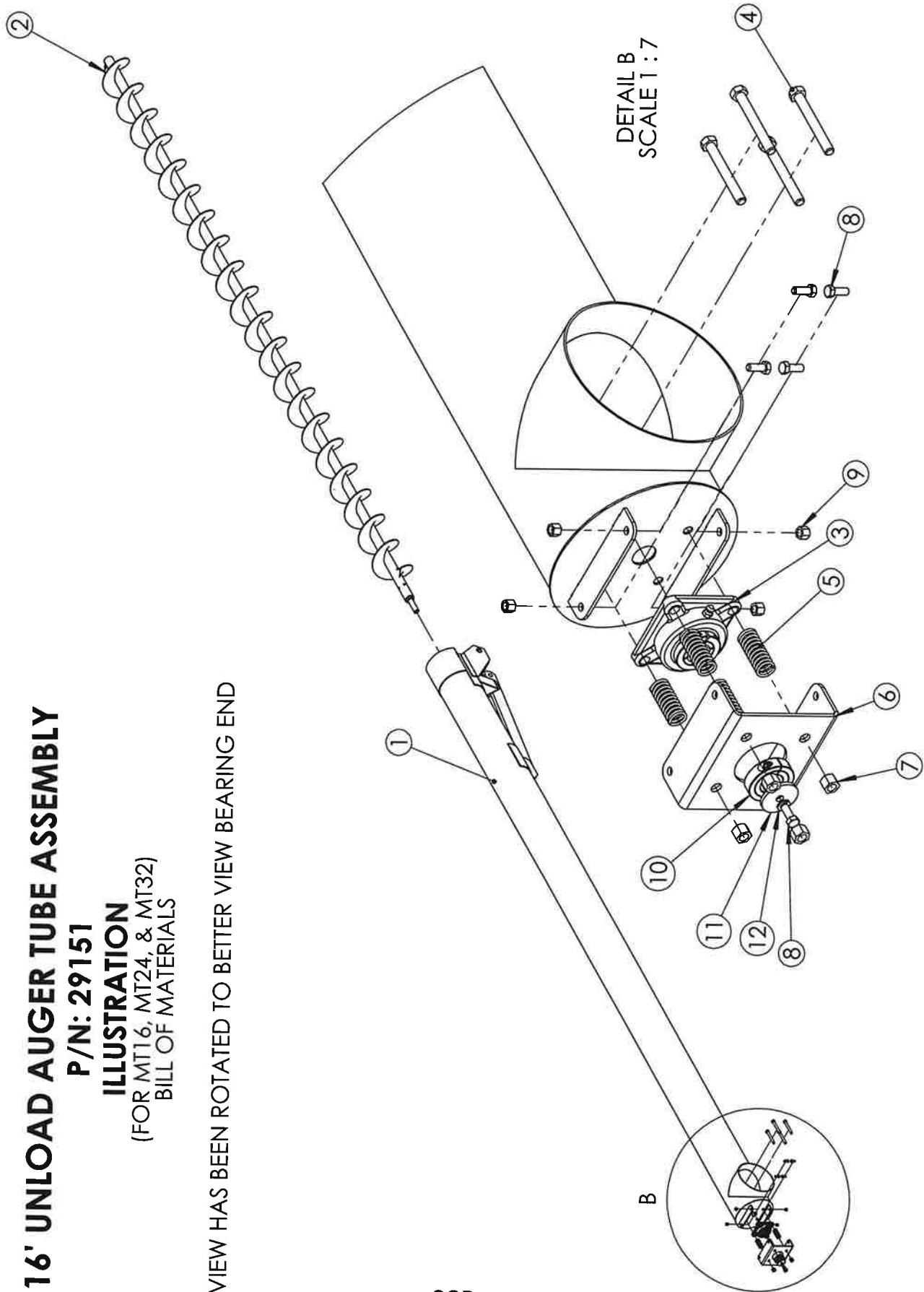
# 16' UNLOAD AUGER TUBE ASSEMBLY

P/N: 29151

## ILLUSTRATION

(FOR MT16, MT24, & MT32)  
BILL OF MATERIALS

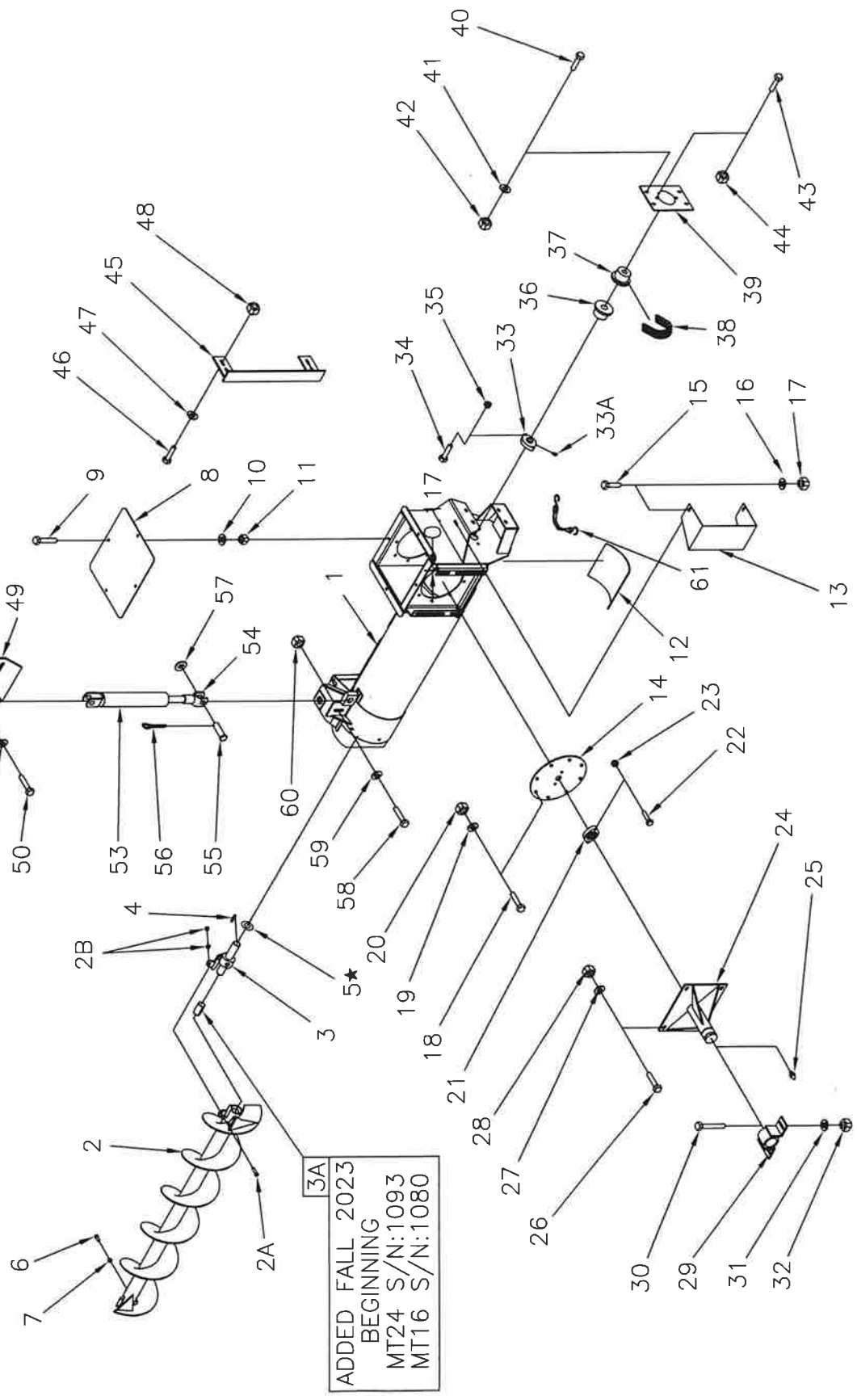
VIEW HAS BEEN ROTATED TO BETTER VIEW BEARING END



# MT16 MT24 AND AUGER ILLUSTRATION

MT16AGRLU  
 03-24-10  
 REV 03/04/24

MT32  
 LOWER UNLOAD AUGER  
 (DIRECT DRIVE)



MT16, MT24 & MT32

MT16AGRLLULST  
03-24-10  
REV 03/04/24

AUGER PARTS LIST

LOWER UNLOAD AUGER

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	308132	AUGER TUBE,	1	33	30708	FLANGE BRG. 1 1/4 BORE	1
2	29026	SCREW,	1	33A	18901807	GREASE ZERK 45', 1/4-28	1
2A	18026826	BOLT, 3/8-16 X 1 1/2 SS	1	34	18026826	BOLT, 3/8-16NC. X 1 1/2	2
2B	18476800	NUT, HEX 3/8-16 SS	2	35	18566400	NYLOCK NUT, 3/8-16NC.	2
3	29931	DRIVE PIN WELDMENT	1	36	31407	SPROCKET, #50B24, 1 1/4 BORE	1
3A	71910	AUGER DRIVE BUSHING	1	37	10183	SPROCKET, #50B24, 1" BORE	1
4	47006519	DRIVE KEY, 1/4 SQ. X 1 1/2	1	38	29941	COUPLING CHAIN, #50-2 X 23 LINKS	1
5★	50165	MACHINERY WASHER, 1 1/4 X 10 GA.	1	39	53159	CONNECTOR, #50-2	1
6	18026822	BOLT, 3/8-16NC. X 1	2	40	29921	MOTOR MOUNT PLATE	4
7	18476800	HEX. NUT, 3/8-16NC.	2	41	18026824	BOLT, 3/8-16NC. X 1 1/4	4
8	28704	COVER PLATE	1	42	18991200	FLAT WASHER, 3/8	8
9	18026824	BOLT, 3/8-16NC. X 1 1/4	4	43	18566400	NYLOCK NUT, 3/8-16NC.	4
10	18991200	FLAT WASHER, 3/8	8	44	18022026	BOLT, 1/2-13NC. X 1 1/2	2
11	18566400	NYLOCK NUT, 3/8-16NC.	4	45	18567400	NYLOCK NUT, 1/2-13NC.	2
12	28918	CLEAN-OUT DOOR	1	46	39016	AUGER GUIDE	1
13	29927	SHIELD, HYDRAULIC MOTOR	1	47	18026824	BOLT, 3/8-16NC. X 1 1/4	4
14	28828	END CAP	1	48	18991200	FLAT WASHER, 3/8	4
15	18026824	BOLT, 3/8-16NC. X 1 1/4	2	49	18566400	NYLOCK NUT, 3/8-16NC.	4
16	18991200	FLAT WASHER, 3/8	4	50	39047	CYLINDER ANCHOR	1
17	18566400	NYLOCK NUT, 3/8-16NC.	2	51	18470175	BOLT, 1/2-13NC. X 1 3/4	3
18	18026822	BOLT, 3/8-16NC. X 1	8	52	18824800	FLAT WASHER, 1/2	3
19	18991200	FLAT WASHER, 3/8	8	53	18567400	NYLOCK NUT, 1/2-13NC.	3
20	18566400	NYLOCK NUT, 3/8-16NC.	8	54	39254	HYDRAULIC CYLINDER,	1
21	10500	FLANGE BRG. 1" BORE	1	54	92395	REPAIR CLEVIS ONLY	(NOT SHOWN)
22	18026826	BOLT, 3/8-16NC. X 1 1/2	2	55	98180	CYLINDER REPAIR KIT	2
23	18566400	NYLOCK NUT, 3/8-16NC.	2	56	86632567	CYLINDER PIN,	2
24	39025	AUGER PIVOT WELDMENT	1	57	18560826	COTTER PIN, 3/16 X 1 1/2	2
25	18901805	GREASE ZERK, STRAIGHT	4	58	18852200	FLAT WASHER, 1" SAE	2
26	18026824	BOLT, 3/8-16NC. X 1 1/4	4	59	58, 59, AND 60	INSTALLED FOR SHIPPING ONLY	S.S.
27	18991200	FLAT WASHER, 3/8	8	60	18470175	BOLT, 1/2-13NC. X 1 3/4	1
28	18566400	NYLOCK NUT, 3/8-16NC.	4	61	18824800	FLAT WASHER, 1/2	2
29	39028	PIVOT MOUNT	1	62	18567400	NYLOCK NUT, 1/2-13NC.	1
30	18026830	BOLT, 3/8-16NC. X 2	2	63	01078	BUNGEE CORD	1
31	18991200	FLAT WASHER, 3/8	4				
32	18566400	NYLOCK NUT, 3/8-16NC.	2				

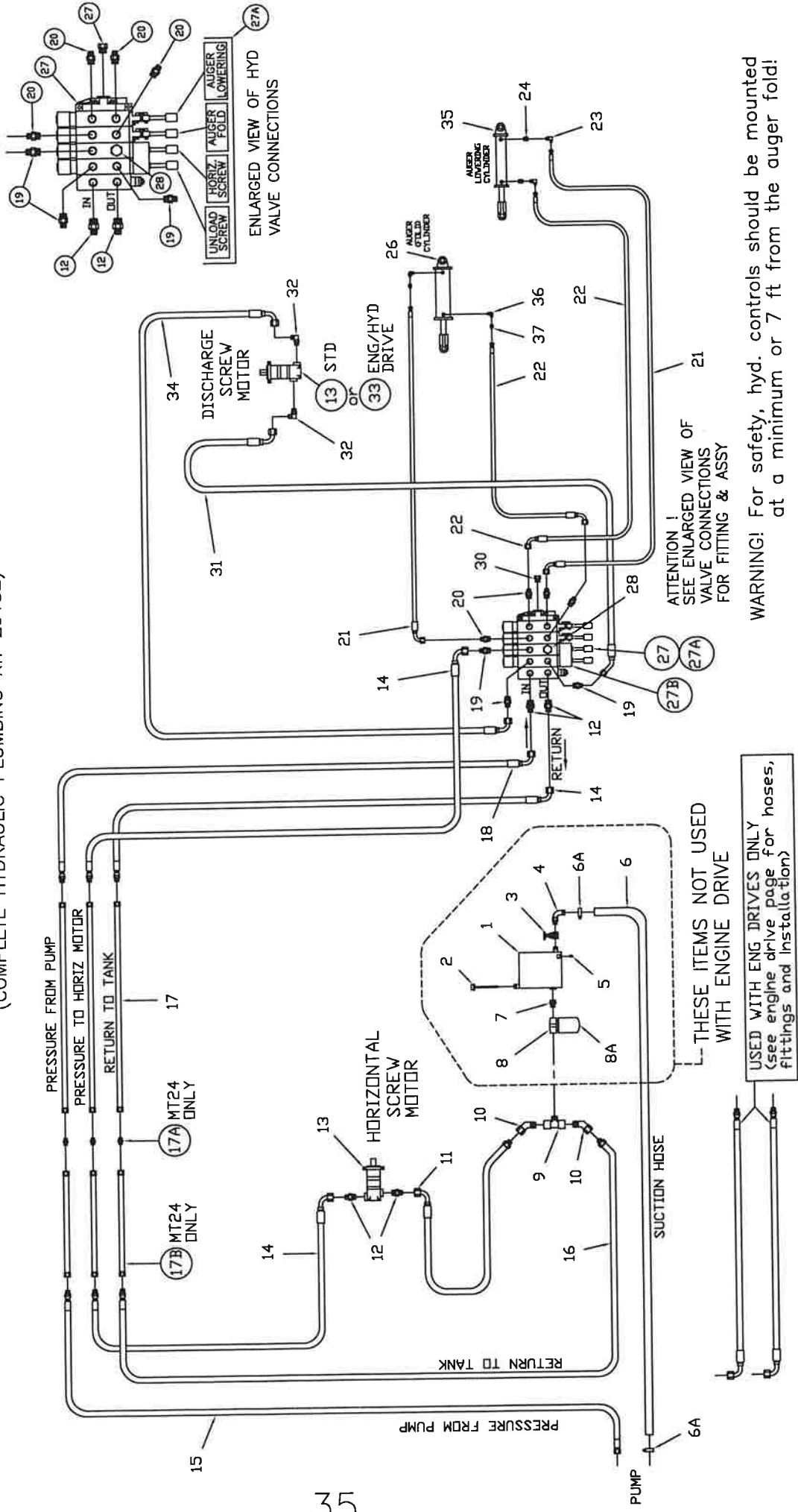
ITEMS 54-56 ARE REPAIR PARTS ONLY

ITEM 3A - P/N: 71910 ADDED FALL 2023 (STARTING MT24 S/N: 1093 AND MT16 S/N: 1080)  
CAN BE RETROFITTED ON PREVIOUS MODEL YEARS TO REDUCE AUGER RUNOUT

★ STARTING FALL 2023 QTY 1 - P/N: 50165 (10 GA) & QTY 1 - P/N: 50169 (14 GA) SHIPS LOOSE WITH MANUAL, 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.

29152  
10/26/21

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



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

!-THESE ITEMS NOT USED  
WITH ENGINE DRIVE  
USED WITH ENG DRIVES ONLY  
(see engine drive page for hoses,  
fittings and installation)

WARNING! For safety, hyd. controls should be mounted  
at a minimum of 7 ft from the auger fold!

PARTS LIST COMPLETE P.N. 29152  
FOR REAR MOUNTED CONTROL VALVE

WARNING! FOR SAFETY, HYD CONTROLS MUST BE MOUNTED  
A MINIMUM OF 7FT FROM THE AUGER FOLD !

ITEM	PART NO.	DESCRIPTION	QTY
		DELETE ITEMS 1 TO 8 WHEN USING "ENGINE DRIVE PACKAGE"	
1	38711	TANK, HYDRAULIC 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 I.D. X 80 (CUT LENGTH)	1
6A	not included	HOSE CLAMP, 1 1/2 inch	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	51062	ELBOW, 45° 3/4 NPT(M) X 3/4 NPT(F)	2
11	53558	HOSE ASSY, 3/4" x 24" #12JICF X 3/4M PIPE	1
12	444001	ADAPTER, (6400-12)	4
13	51930	HYDRAULIC MOTOR, (104-1041-006)	2 (OR)
		W/30 HP.ENGINE DRIVE USE (1) OF ITEM 13 & (1) OF ITEM 33	
14	53601	HOSE ASSY, 3/4" x 36" #12JICM X #12JICFS 90°	3
15	53599	HOSE ASSY, 3/4" x 114" #12JICM X 3/4M PIPE	1
16	53598	HOSE ASSY., 3/4" x 34" #12JICM X 3/4M PIPE	1
17	53592	TUBE ASSY. HARDLINE 3/4 O.D. X 138 #12JICFS EA.END	3
		FOR THE MT24 MODEL ONLY, ADD ITEMS 17A AND 17B	
17A	51676	HEX. UNION, (2403-12-12)	3
17B	53606	TUBE ASSY. HARDLINE 3/4 O.D. X 96" #12JICFS EA.END	3
		FOR MT16 & MT24 CONTINUE AS SHOWN	
18	53600	HOSE ASSY., 3/4 x 36" #12JICFS X #12JICM	1
19	444007	ADAPTER, (6400-12-10)	3
20	444008	ADAPTER, (6400-8-10)	4
21	53602	HOSE ASSY., 1/2" x 60" #8JICFS X #8JICFS 90°	2
22	53528	HOSE ASSY., 1/2" x 72" #8JICFS X #8JICFS 90°	2
23	442020	ADAPTER, (2501-8-6)	2
24	28187	RESTRICTOR, (.062R) (5405-6-6R)	2
25	OMITTED	---	-
26	07132	SEE PG. 31&32 HYDRAULIC CYLINDER(LIFT CYL.)	
27	29091	SEE PG. 37 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	306338	PLUG, (6408-12)	1
31	343085A1	HOSE ASSY. 3/4" x 58" #12JICFS 90° EA. END	1
32	445001	ADAPTER, 90° (6801-12)	2
33	39165	HYD. MOTOR, (ENG. DRIVE UNITS ONLY) ref. item 13	1
		W/30 HP. ENGINE DRIVE USE (1) OF ITEM 13 & (1) OF ITEM 33	
34	53949	HOSE ASSY., 3/4 x 42", #12JICFS X #12JICFS 90°	1
35	39254	SEE PG. 33&34 HYDRAULIC CYL. (LWRG. AUGER) SEE PG. 33&34 REPAIR CLEVIS SEE PG. 33&34 CYL. REPAIR KIT	
36	2501-08-08	ELBOW 90° #8 MJIC X #8 MNPT	2
37	2406R-08-08-.062	ADAPTER, #8 MJIC X #8 FJIC	2

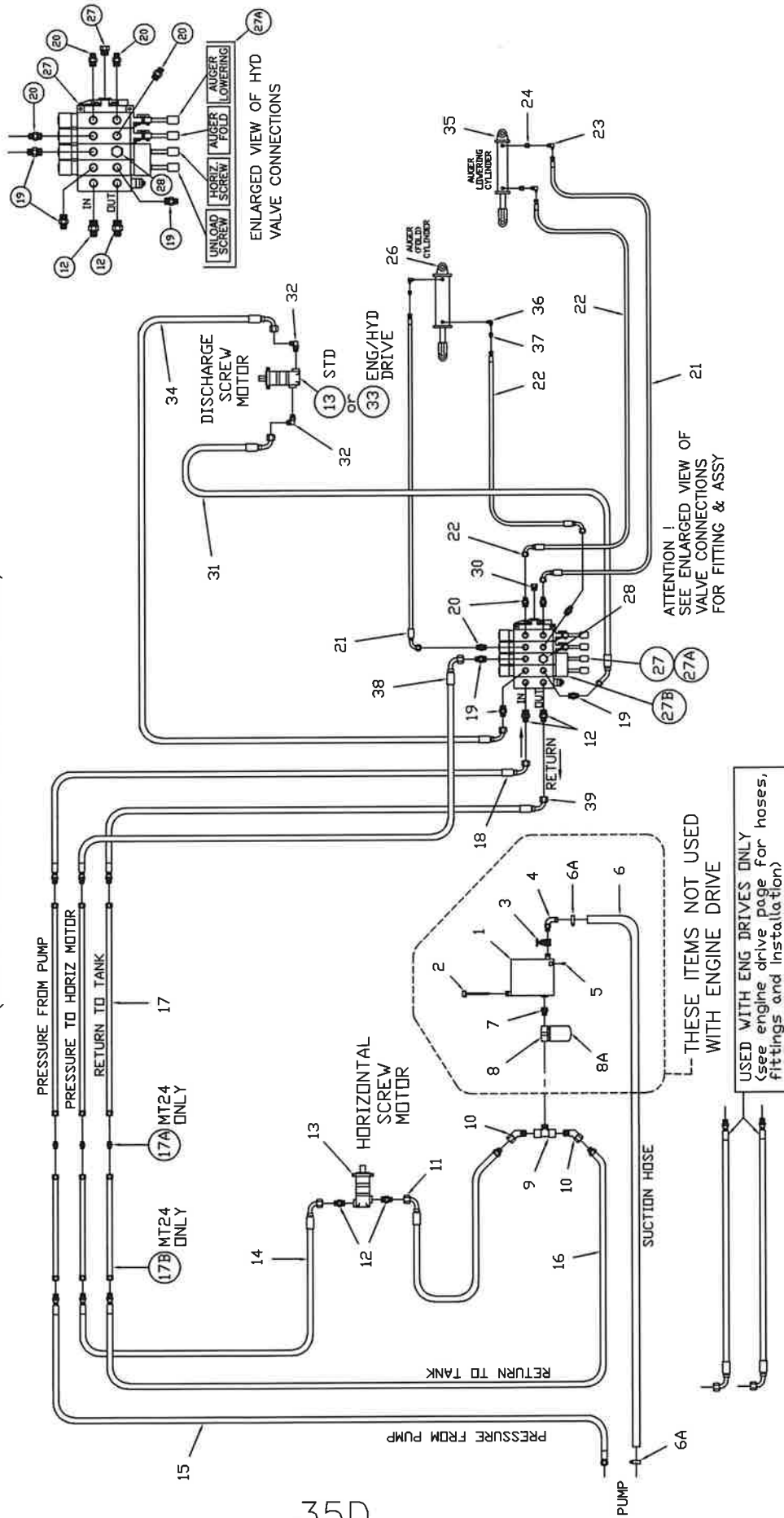
QTY. REQ'D. IS QTY. SHOWN ABOVE

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

\*\*\* 28973A HYDRAULIC FITTING KIT INCLUDES ITEMS 7,9,10,12,  
19,20,23,24,28,30,32,36 AND 37

29153  
03/12/24

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



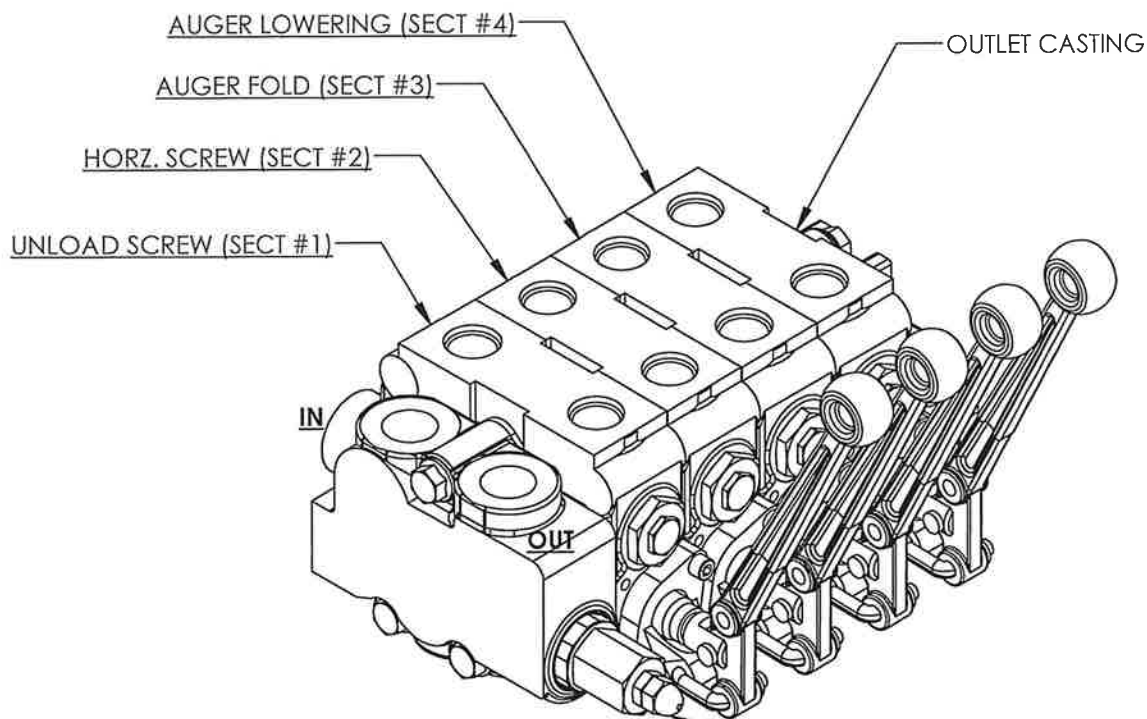


PARTS LIST COMPLETE P.N. 29153  
FOR REAR MOUNTED CONTROL VALVE DRIVER SIDE

ITEM	PART NO.	DESCRIPTION	QTY
		DELETE ITEMS 1 TO 8 WHEN USING "ENGINE DRIVE PACKAGE"	
1	38711	TANK, HYDRAULIC 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 I.D. X 80 (CUT LENGTH)	1
6A	not included	HOSE CLAMP, 1 1/2 inch	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	51062	ELBOW, 45° 3/4 NPT(M) X 3/4 NPT(F)	2
11	53558	HOSE ASSY, 3/4" x 24" #12JICF X 3/4M PIPE	1
12	444001	ADAPTER, (6400-12)	4
13	51930	HYDRAULIC MOTOR, (104-1041-006)	2 (OR)
		W/30 HP.ENGINE DRIVE USE (1) OF ITEM 13 & (1) OF ITEM 33	
14	53601	HOSE ASSY, 3/4" x 36" #12JICM X #12JICFS 90°	1
15	53599	HOSE ASSY, 3/4" x 114" #12JICM X 3/4M PIPE	1
16	53598	HOSE ASSY., 3/4" x 34" #12JICM X 3/4M PIPE	1
17	53592	TUBE ASSY. HARDLINE 3/4 O.D. X 138 #12JICFS EA.END	3
		FOR THE MT24 MODEL ONLY, ADD ITEMS 17A AND 17B	
17A	51676	HEX. UNION, (2403-12-12)	3
17B	53606	TUBE ASSY. HARDLINE 3/4 O.D. X 96" #12JICFS EA.END	3
		FOR MT16 & MT24 CONTINUE AS SHOWN	
18	72072	HOSE ASSY., 3/4 x 62" #12JICFS X #12JICM	1
19	444007	ADAPTER, (6400-12-10)	3
20	444008	ADAPTER, (6400-8-10)	4
21	53602	HOSE ASSY., 1/2" x 60" #8JICFS X #8JICFS 90°	2
22	53528	HOSE ASSY., 1/2" x 72" #8JICFS X #8JICFS 90°	2
23	442020	ADAPTER, (2501-8-6)	2
24	28187	RESTRICTOR, (.062R) (5405-6-6R)	2
25	OMITTED	----	-
26	07132	SEE PG. 31&32 HYDRAULIC CYLINDER(LIFT CYL.)	
27	29091	SEE PG. 37 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	306338	PLUG, (6408-12)	1
31	343085A1	HOSE ASSY. 3/4" x 58" #12JICFS 90° EA. END	1
32	445001	ADAPTER, 90° (6801-12)	2
33	39165	HYD. MOTOR, (ENG. DRIVE UNITS ONLY) ref. item 13	1
		W/30 HP. ENGINE DRIVE USE (1) OF ITEM 13 & (1) OF ITEM 33	
34	72010	HOSE ASSY., 3/4 x 56", #12JICFS X #12JICM	1
35	39254	SEE PG. 33&34 HYDRAULIC CYL. (LWRG. AUGER) SEE PG. 33&34 REPAIR CLEVIS SEE PG. 33&34 CYL. REPAIR KIT	
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	HYD. HOSE 3/4" X 56" #12 JICM X #12 JICFS 90°	1
39	72012	HYD. HOSE 3/4" X 62" #12 JICFS 45° X #12 JICM	1
		QTY. REQ'D. IS QTY. SHOWN ABOVE	
***	72008	HYDRAULIC HOSE KIT INCLUDES ITEMS 11, 14, 15, 16, 18, 21, 22, 31, 34, 38 & 39	
***	28973A	HYDRAULIC FITTING KIT INCLUDES ITEMS 7, 9, 10, 12, 19, 20, 23, 24, 28, 30, 32, 36 & 37	

# VALVE - (4-BANK)

COMPLETE P/N: 29091



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

MAIN RELIEF  
 (SET @ 2750 PSI)

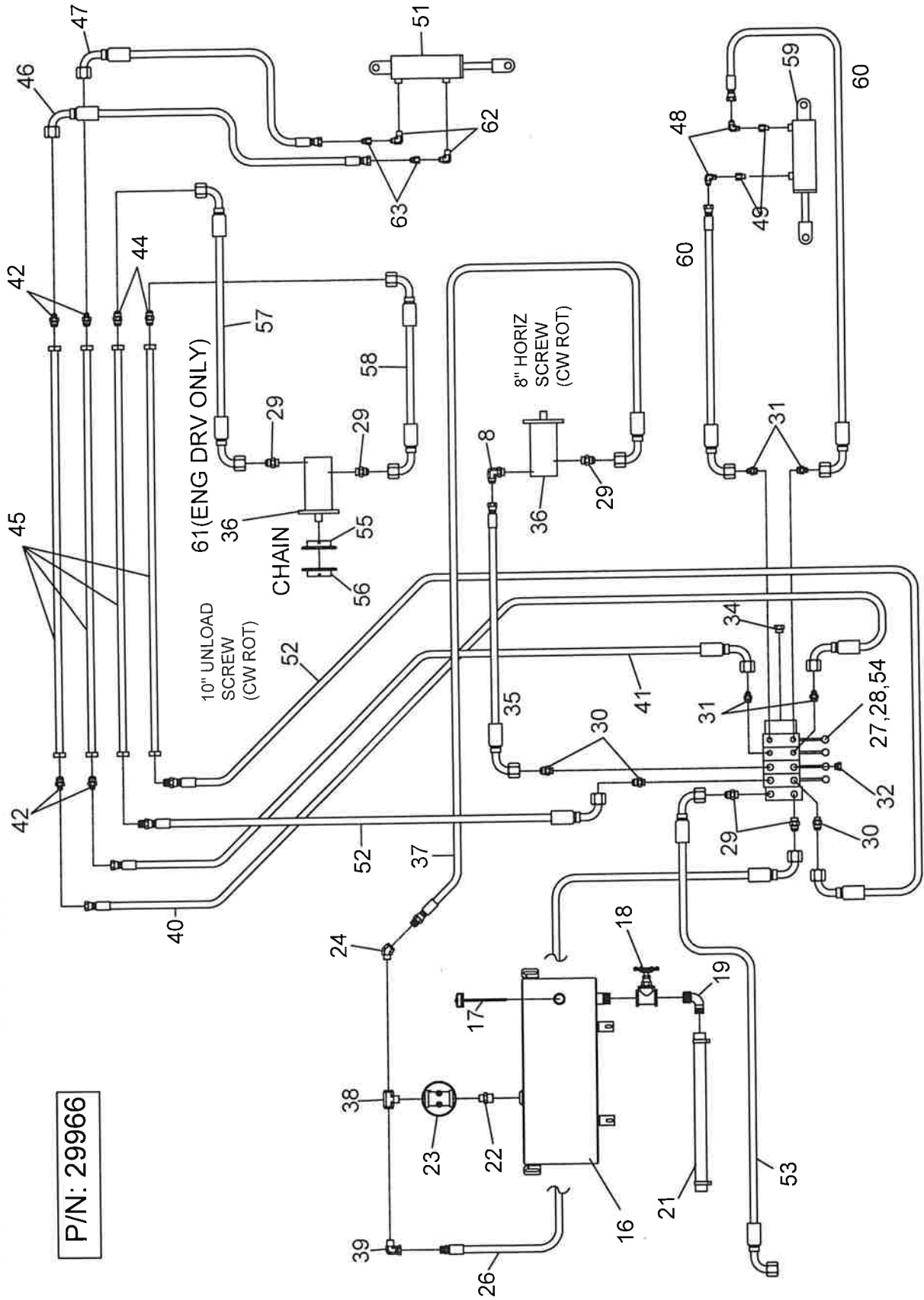
- SECT #1 -- 4-WAY 3-POSITION DETENT (SERIES)
- SECT #2 -- 4-WAY 3-POSITION DETENT (SERIES)
- SECT #3 -- 4-WAY (TANDEM) -.053" RESRICTOR (WORK PORT)
- SECT #4 -- 4-WAY (TANDEM) -.053" RESRICTOR (WORK PORT)  
 - W/ LOCKOUT FEATURE

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



# HYDRAULIC PLUMBING PKG. W/ FRONT MOUNT CONTROL VALVE (COMPLETE SYSTEM)

P/N: 29966



# MT16 HYDRAULIC PLUMBING PARTS LIST

MT29966LST

WITH FRONT MOUNT CONTROL VALVE

03/03/23

COMPLETE P.N. 29966

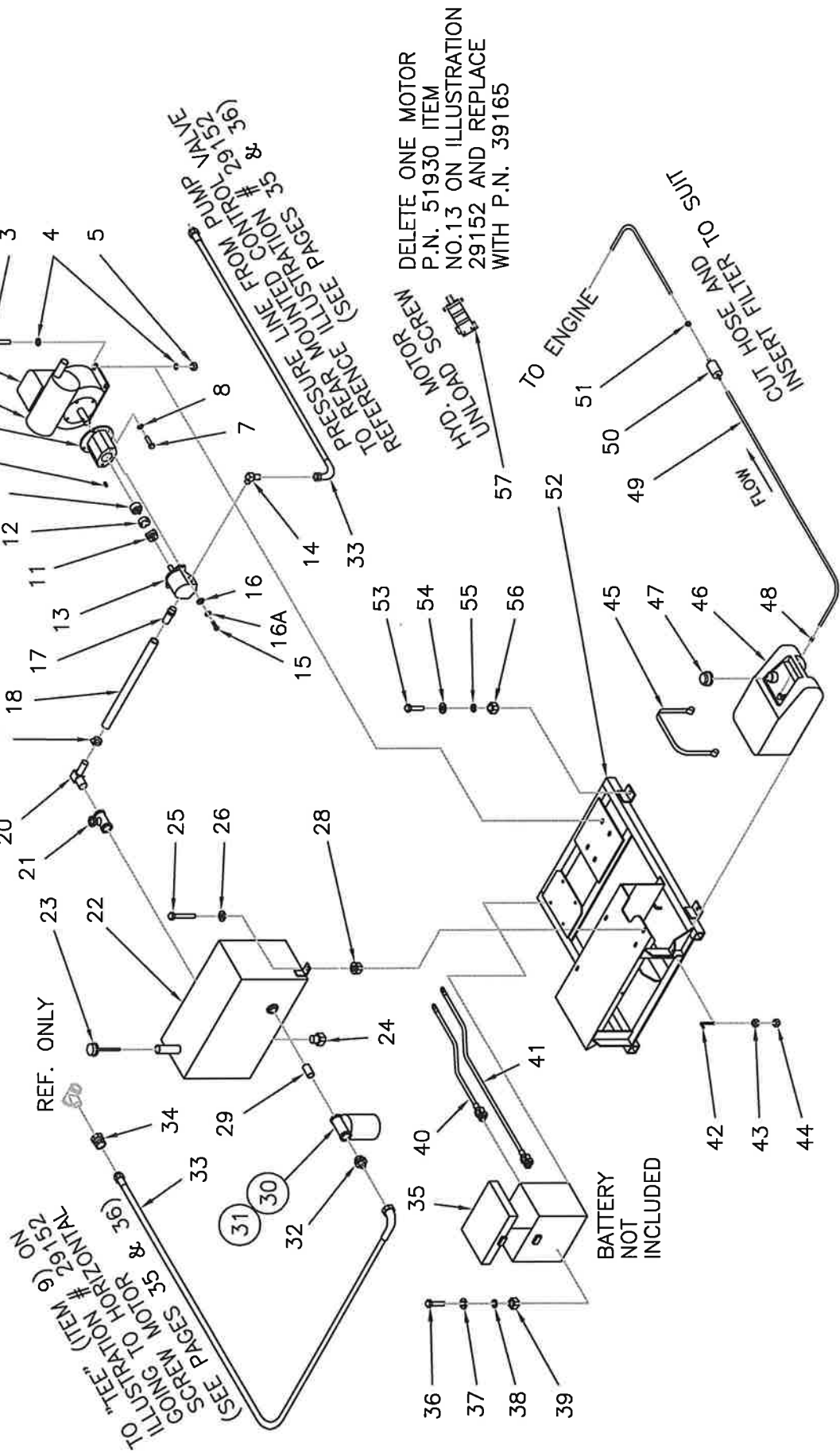
ITEM	PART NO.	DESCRIPTION	QTY
8	445001	ADAPTER, 90° (6801-12)	1
16	38711	TANK, HYDRAULIC OIL (20 GAL.)	1
17	02153	DIPSTICK	1
18	02006	GATE VALVE, 1 1/4 NPT.	1
19	72368	HOSE BARB, 90° 1 1/4 NPT X 1 1/4 HOSE	1
20	----	----	
21	51157(BULK)	HOSE, 1 1/4 I.D. X 24 (CUT LENGTH)	1
	75990	HOSE CLAMP,	2
22	51933	HEX. PIPE NIPPLE, (5404-16-12)	1
23	01170	FILTER, COMPLETE	1
	11128	FILTER ELEMENT ONLY	
24	51062	ELBOW, 45° 3/4 NPT(M) X 3/4 NPT(F)	1
25	----	----	
26	53774	HOSE ASSY., 3/4 x 78"	1
27	SEE PG. 37	CONTROL VALVE (4 BANK)	1
	28882A	DECAL, CONTROL VALVE	1
	28904	STOP BRACKET, (VALVE LEVERS)	1
29	444001	ADAPTER, (6400-12)	5
30	444007	ADAPTER, (6400-12-10)	3
31	444008	ADAPTER, (6400-8-10)	4
32	21243	PLUG, (6408-10)	1
33	----	----	
34	306338	PLUG, (6408-12)	1
35	53563	HOSE ASSY., 3/4 x 54"	1
36	51930	HYDRAULIC MOTOR, (104-1041-006)	2
		WITH ENG DRIVE UNIT USE (1) AND ITEM 61	
37	53558	HOSE ASSY., 3/4 x 24"	1
38	51682	TEE, 3/4 NPT(M) X 3/4 NPT(F)(2 PL)	1
39	51057	ADAPTER, 90° (1501-12-12)	1
40	53528	HOSE ASSY., 1/2 x 70"	1
41	53602	HOSE ASSY., 1/2 x 60"	1
42	53727	UNION, (2403-12-8)	4
43	----	----	
44	51676	UNION, (2403-12-12)	2
45	53592	TUBE ASSY., 3/4 O.D. X 138,	4
46	53728	HOSE ASSY., 1/2 x 56", 3/4(F) EA. END	1
47	53046	HOSE ASSY., 1/2 x 48", 3/4(F) EA. END	1
48	442020	ADAPTER, 90° (2501-8-6)	2
49	28187	RESTRICTOR, (5405-6-6 R.062)	2
50	----	----	
51	SEE PG. 31/32	HYDRAULIC CYLINDER (UNLOAD AUGER)	1
52	53597	HOSE ASSY., 3/4 x 76"	2
53	53556	HOSE ASSY., 3/4 x 58"	1
54	29928	VALVE MOUNT	1
55	10183	SPROCKET, 50B24-1" BORE	1
56	31407	SPROCKET, 50B24-1 1/4 BORE	1
57	53949	HOSE ASSY., 3/4 x 42"	1
58	343085A1	HOSE ASSY., 3/4 x 58"	1
59	39249	REF. DWG. RE. LWRG. AUGER ASSEMBLY	
	SEE PG. 33/34	HYDRAULIC CYLINDER (LWRG. AUGER)	
	SEE PG. 33/34	REPAIR CLEVIS	
	SEE PG. 33/34	CYL. REPAIR KIT	
60	53602	HOSE ASSY., 1/2 x 60"	2
61	39165	HYD. MOTOR, (ENG. DRIVE UNITS ONLY)	1
62	2501-08-08	ELBOW 90°, #8 MJIC X #8 MNPT	2
63	2406R-08-08-.062	ADAPTER, #8 MJIC X #8 FJIC	2

# ENGINE DRIVE PACKAGE # 33570

MT16E&TMNT  
REV.  
04-21-15

MT16 AND MT24 TENDER  
WITH 30 HP KOHLER ENGINE

REFERENCE ILLUSTRATION # 29152 (ON PAGES 35 & 36)  
BASIC "HYDRAULIC PLUMBING ILLUSTRATION"  
ADD TO BASIC SYSTEM FOR REAR  
MOUNTED CONTROL VALVE



MT16 AND  
MT24

ENGINE DRIVE PACKAGE COMPLETE

MT16E&TMNTLST  
REV 04-21-15

FOR REAR VALVE MOUNT  
30 HP ENGINE PKG # 33570

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	CH750-0003	ENGINE, KOHLER, 30 HP.	1	31	11128	FILTER ELEMENT ONLY	
2	24-78611	MUFFLER PACKAGE	1	32	2404-12-12	ADAPTER, 3/4 M PIPE X #12JIC	1
3	18051628	BOLT, 3/8-16 X 1 3/4 GR 5	ZC 4	33	632144	HOSE ASSY., 3/4 X 144"	2
4	18811200	FLATWASHER, 3/8	ZC 8				
5	18457800	NUT, CENTERLOCK, 3/8-16	ZC 4	34	6506-12-12	ADAPTER, 3/4FM PIPE X #12JICFS	1
6	52295	ADAPTER, ENGINE TO PUMP	1	35	01353	BATTERY BOX, POLYETHYLENE	1
7	18054123	BOLT, 7/16-18 X 1 1/4	ZC 4	36	18706421	BOLT, 5/16-18NC. X 3/4	4
8	18891300	LOCKWASHER, 7/16	ZC 4	37	18991110	LOCK WASHER, 5/16	4
9	2-1711	DRIVE KEY, 3/8 SQ. X 2	1	38	18991100	FLAT WASHER, 5/16	4
10	52245	COUPLER HALF, 1.43 BORE, W/ 3/8 KEY	1	39	18987700	FLANGE NUT, 5/16-18NC.	4
11	52294MOD	COUPLER HALF, MOD .625 BORE, 5/32 KWY	1	40	148505	BATTERY CABLE, (POS) RED 48 INCH	1
12	53536	SPIDER COUPLER, HYTREL RBBR.	1	41	01351	BATTERY CABLE, (NEG) BLK. 38 INCH	1
13	52243	HYD. PUMP, 2-BOLT, W/KEY	1	42	47009519	J-BOLT, 5/16-18NC x 3 1/2	1
14	445001	ADAPTER, 90° (6801-12)	1	43	18496400	FLANGE NUT, 5/16	1
15	18056820	BOLT, 3/8-16 X 1	ZC 2	44	18406400	HEX. NUT, 5/16-18NC.	1
16	18811200	FLATWASHER, 3/8	ZC 2	45	1105172	HOLD-DOWN STRAP	1
16A	18891200	LOCKWASHER, 3/8	ZC 2	46	2575535	GASOLINE TANK (POLYETHYLENE)	1
17	4604-20-16	ADAPTER,	1	47	FILLER CAP, SEE LOCAL HARDWARE STORE		
18	12003490	HOSE, 1 1/4 I.D. X 15 1/2	1	48	53433	HOSE BARB, (4244-4-4)	1
19	200256	HOSE CLAMP, FOR 1 1/4 HOSE	2	49	H175	FUEL LINE, HOSE 1/4 I.D. X 36"	1
20	72368	ELBOW/HOSEBARB, X 90 DEG., 1 1/4	1	50	53431	FUEL FILTER, IN-LINE	1
21	02006	GATE VALVE, 1 1/4 NPT.	1	51	200244	HOSE CLAMP, (7/16 - 1")	4
22	38711	HYDRAULIC OIL TANK (STEEL)	1	52	28991	FRAME, ENGINE & TANK MOUNT	1
23	02153	CAP/DIPSTICK	1	53	18057434	BOLT, 1/2-13NC. X 1 1/2	4
24	72175	OIL TANK PLUG 1/2" NPT	1	54	18811400	FLAT WASHER, 1/2	4
25	18056824	BOLT, 3/8-16NC. X 1 1/4	ZC 4	55	18891400	LOCK WASHER, 1/2	4
26	18811200	FLAT WASHER, 3/8	ZC 4	56	18417400	HEX. NUT, 1/2-13NC.	4
27	OMITTED			57	39165	HYDRAULIC MOTOR	1
28	18496800	FLANGENUT, 3/8-18NC.	ZC 4				
29	51933	HEX. PIPE NIPPLE, (5404-16-12)	1				
30	01170	FILTER COMPLETE	1				

41A



MT16E&TRTRO  
04-21-15

MT16 AND ENGINE DRIVE RETROFIT PACKAGE  
MT24

FOR REAR VALVE MOUNT

KOHLER 30 HP ENGINE-PKG. #33570RET

WARNING! FOR SAFETY, HYD CONTROLS MUST BE MOUNTED A  
MINIMUM OF 7 FT FROM THE AUGER FOLD!

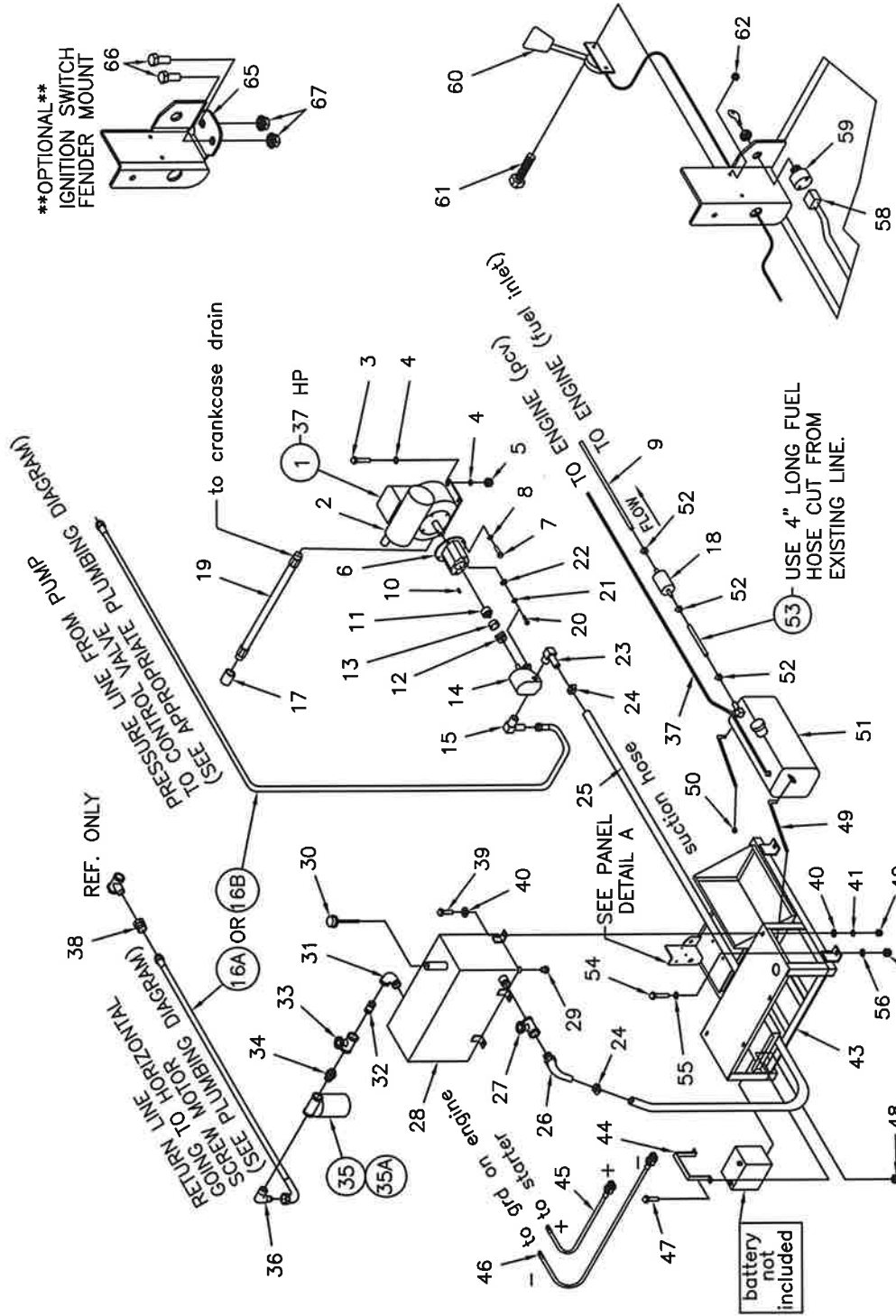
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	CH750-0003	ENGINE, KOHLER, 30 HP.	1	30	01170	FILTER COMPLETE	1
2	24-78611	MUFFLER PACKAGE	1	31	11128	FILTER ELEMENT ONLY	1
3	18051628	BOLT, 3/8-16 X 1 3/4 GR5	ZC 4	32	2404-16-12	ADAPTER, 3/4 M PIPE X #12JIC	1
4	18811200	FLATWASHER, 3/8	ZC 8	33	632144	HOSE ASSY., 3/4 X 144"	2
5	18457800	NUT, CENTERLOCK, 3/8-16	ZC 4				
6	52295	ADAPTER, ENGINE TO PUMP		34	6506-12-12	ADAPTER, 3/4FM PIPE X #12JICFS	1
7	18054123	BOLT, 7/16-18 X 1 1/4	ZC 2	35	01353	BATTERY BOX, POLYETHYLENE	1
8	18811300	FLATWASHER, 7/16	ZC 2	36	18706421	BOLT, 5/16-18NC. X 3/4	4
9	2-1711	DRIVE KEY, 3/8 SQ. X 2	1	37	18991110	LOCK WASHER, 5/16	4
10	52245	COUPLER HALF, 1.43 BORE, 3/8 KEY	1	38	18991100	FLAT WASHER, 5/16	4
11	52294MOD	COUPLER HALF, MOD. .625 BORE, 5/32 KEY	1	39	18987700	FLANGE NUT, 5/16-18NC.	4
12	53536	SPIDER COUPLER, HYTREL RBBR.	1	40	148505	BATTERY CABLE, (POS) RED 48 INCH	1
13	52243	HYD. PUMP, 2-BOLT, W/KEY	1	41	01351	BATTERY CABLE, (NEG) BLK. 38 INCH	1
14	445001	ADAPTER, 90° (6801-12)	1	42	47009519	J-BOLT, 5/16-18NC.	1
15	18056820	BOLT, 3/8-16 X 1	ZC 2	43	18496400	FLANGE NUT, 5/16	1
16	18811200	FLATWASHER, 3/8	ZC 2	44	18406400	HEX. NUT, 5/16-18NC.	1
16A	18891200	LOCKWASHER, 3/8	ZC 2	45	1105172	HOLD-DOWN STRAP	1
17		ADAPTER,		46	2575535	GASOLINE TANK (POLYETHYLENE)	1
18		HOSE, 1 1/4 I.D. X 15 1/2"	1	47	FILLER CAP, SEE LOCAL HARDWARE STORE		
19		HOSE CLAMP, FOR 1 1/4 HOSE	2	48	53433	HOSE BARB, (4244-4-4)	1
20		ELBOW/HOSEBARB, X 90 DEG., 1 1/4	1	49	H175	FUEL LINE, HOSE, 1/4 I.D. X 36"	1
21		GATE VALVE, 1 1/4 NPT.	1	50	53431	FUEL FILTER, IN-LINE	1
22		HYDRAULIC OIL TANK (STEEL)	1	51	200244	HOSE CLAMP, (7/16 - 1")	4
23		CAP/DIPSTICK	1	52	28991	FRAME, ENGINE & TANK MOUNT	1
24		OIL TANK PLUG 1/2" NPT	1	53	18057434	BOLT, 1/2-13NC. X 1 1/2	4
25	18056824	BOLT, 3/8-16NC. X 1 1/4	ZC 4	54	18811400	FLAT WASHER, 1/2	4
26	18811200	FLAT WASHER, 3/8	ZC 4	55	18891400	LOCK WASHER, 1/2	4
27	OMITTED			56	18417400	HEX. NUT, 1/2-13NC.	4
28	18436800	HEX. NUT, 3/8-18NC.	ZC 4	57	39165	HYDRAULIC MOTOR	1
29	51933	HEX. PIPE NIPPLE, (5404-16-12)	1				
					51682	TEE, 3/4 PIPE, (2)F X (1)M	
						REF. ONLY, PART OF BASIC HYDRAULIC SYSTEM	

# ENGINE DRIVE PACKAGE #33577

MT1624ENGPKG  
12-1-20

MT16 AND MT24 TENDER  
WITH 38 HP KOHLER ENGINE

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



DETAIL A

└ MOUNTING HARDWARE, items 54 thru 57

# MT16 AND MT24 ENGINE DRIVE PACKAGE COMPLETE

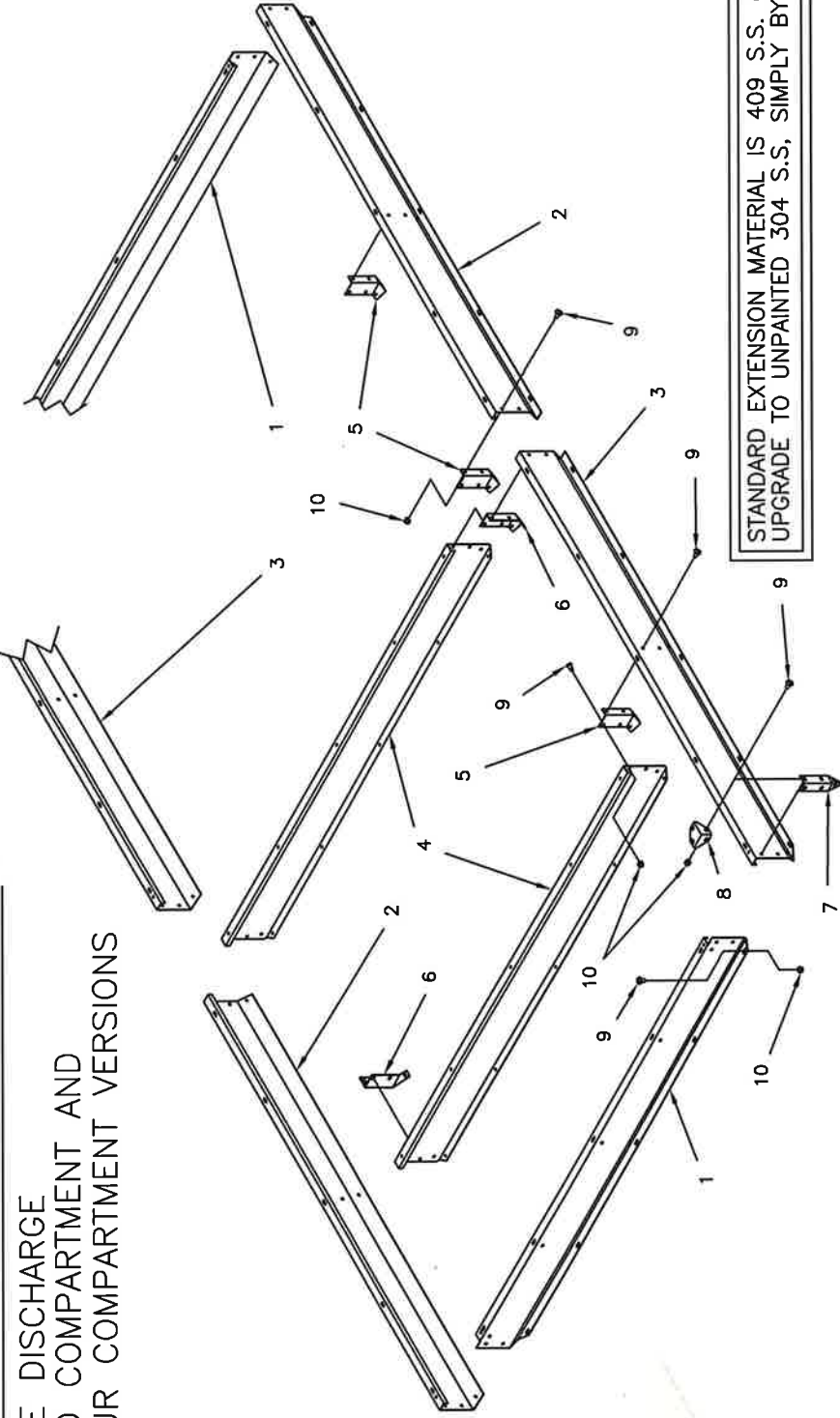
MT1624ENGPGLST  
12-1-20

FOR REAR VALVE MOUNT  
38 HP ENGINE PKG # 33577

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	ECH980-3001	ENGINE, KOHLER, 38 HP.	1	32	72280	CLOSE NIPPLE, 1" NPT	1
1A	62-376-02	ENG MT CONTROLS (INCLUDED W ENGINE)		33	21372	GATE VALVE, 1" NPT	1
2	6278614	MUFFLER STARTER SIDE 38 HP	1	34	51933	HEX PIPE NIPPLE, (5404-16-12)	1
3	18051628	BOLT, 3/8-16 X 1 3/4 GR 5	ZC 4	35	01170	FILTER, COMPLETE WITH ELEMENT	1
4	18811200	FLATWASHER, 3/8	ZC 8	35A	11128	FILTER ELEMENT ONLY	1
5	18457800	NUT, CENTERLOCK, 3/8-16	ZC 4	36	2501-12-12	ELBOW 90°, 3/4 M PIPE X #12JIC	1
6	52295	ADAPTER, ENGINE TO PUMP	ZC 4	37	H176	FUEL LINE HOSE, 3/16 ID X 20" LONG	1
7	18054123	BOLT, 7/16-18 X 1 1/4	1	38	6506-12-12	ADAPTER, 3/4FM PIPE X #12JICFS	1
8	18891300	LOCKWASHER, 7/16	ZC 4	39	18056824	BOLT, HEX HD 3/8-16NC X 1 1/4 ZC	4
9	H175	FUEL LINE, HOSE 1/4 I.D. X 36"	ZC 4	40	18811200	FLATWASHER, 3/8	8
10	2-1711	DRIVE KEY, 3/8 SQ. X 2	1	41	18891200	LOCKWASHER, 3/8	4
11	52245	COUPLER HALF, 1.43 BORE, W/ 3/8 KEY	1	42	18436800	NUT, HEX 3/8-16NC ZC	4
12	52294MOD	COUPLER HALF, MOD .625 BORE, 5/32 KEY	1	43	47015917	ENGINE SKID WELDMENT	1
13	53536	SPIDER COUPLER, HYTREL RBBR.	1	44	47005963	BATTERY RETAINER STRAP	1
14	52243	HYD. PUMP, 2-BOLT, W/KEY	1	45	148505	BATTERY CABLE, (POS) RED 20 INCH	1
15	445001	ADAPTER, 90° (6801-12)	1	46	01351	BATTERY CABLE, (NEG) BLK. 38 INCH	1
16A	632144	HOSE ASSY.(REAR CONTROL VALVE UNITS ONLY)	2	47	18056830	BOLT, 3/8-16 NC X 2 LONG ZC	2
OR				48	18496800	FLANGENUT, 3/8-16 NC ZC	2
16B	53138	HOSE ASSY.(FRONT CONTROL VALVE UNITS ONLY)	2	49	730-2382	HOLD DOWN J-BOLT (NAPA 730-2382)	2
17	304-C-6	HOSE CAP, JIC #6	1	50	18457650	LOCKNUT 1/2-13 NYLOCK ZC	2
18	53431	FUEL FILTER, IN-LINE	1	51	FL071021AE	GASOLINE TANK (POLYETHYLENE) 8 GAL	1
19	609020	HOSE, CRANKCASE DRAIN 3/8" X 20"	1		replacement	FILLER CAP, SEE LOCAL HARDWARE STORE	1
20	18056822	BOLT, 3/8 X 1 GR5	ZC 2	52	200244	HOSE CLAMP, (7/16 - 1")	4
21	18891200	LOCKWASHER, 3/8	ZC 2	53	H175	FUEL LINE HOSE, 1/4 ID X 4" LONG	1
22	18811200	FLATWASHER,	ZC 2	54	18057434	BOLT, HEX 1/2-13NC x 1 1/2 GR5	4
23	4601-20-16	ADAPTER, ELBOW 90° HOSE TO O-RING	ZC 2	55	18811400	FLATWASHER, 1/2" ZC	4
24	200256	HOSE CLAMP, FOR 1 1/4 HOSE	1	56	18891400	LOCKWASHER, 1/2" ZC	4
25	12003490	HOSE, 1 1/4 I.D. X 30 INCHES LONG	1	57	18417400	HEX NUT, 1/2-13NC ZC	4
26	72368	HOSEBARB, 90° 1 1/4 NPT X 1 1/4 HS	1	58	2517602	WIRING HARNESS FOR 38HP ENGINE	1
27	02006	GATE VALVE, 1 1/4 NPT	1	59	2509932-M	IGNITION SWITCH 38 HP	1
28	38711	HYDRAULIC OIL TANK (STEEL)	1	60	ST290110	THROTTLE CONTROL ASSY FOR 37HP	1
29	72175	OIL TANK PLUG 1/2" NPT	1	61	18025715	BOLT, HEX HEAD #10-24 X 3/4 SS	2
30	02153	CAP/DIPSTICK	1	62	18987800	FLANGENUT, #10-24 SS	2
31	72306	STREET ELBOW, 90° 1" NPT	1	63	-	-	-
				64	-	-	-
					47070533	OPTIONAL FENDER MOUNT KIT (contains items 65-67)	1
				65	70533	IGNITION SWITCH FENDER MT BRKT	2
				66	18057424	BOLT, HEX HD 1/2-13 X 1 1/4 ZP	2
				67	18497400	FLANGENUT, 1/2-13 ZP	2

ALSO INCLUDED BUT NOT SHOWN  
6217628 JUMPER WIRE HARNESS 38 HP

TENDER BOX EXTENSIONS (16 TON) UP TO 2021  
SIDE DISCHARGE  
TWO COMPARTMENT AND  
FOUR COMPARTMENT VERSIONS



STANDARD EXTENSION MATERIAL IS 409 S.S. (PAINTED WHITE)  
UPGRADE TO UNPAINTED 304 S.S. SIMPLY BY ADDING AN "S"

TWO COMPARTMENT EXTENSIONS

ITEM	409 S.S. PART NO.	304 S.S. PART NO.	DESCRIPTION	QTY
1	47989127	47989127S	EXTENSION PKG. COMPLETE (2 COMP.)	2
2	47019078	47019078S	END PANEL	2
3	47009128	47009128S	SIDE PANEL, L.H.	2
4	47019128	47019128S	SIDE PANEL, R.H.	2
5	47009079	47009079S	CROSS PANEL, (2 COMPARTMENT)	1
6	47019080	47019080S	JOINT ANGLE, L.H.	2
7	47029080	47029080S	JOINT ANGLE, R.H.	2
8	47019081	47019081S	CORNER ANGLE	4
9	47019130	47019130S	CORNER CAP WITH OUT TOP COVER WITH FLIP-TOP	4
10	18706621	18706621	BOLT, TRUSS HD. 3/8-16NC. X 3/4	2
	18496800	18496800	FLANGE NUT, 3/8-16NC.	85
				0
				S.S. 85
				Z.P. 85

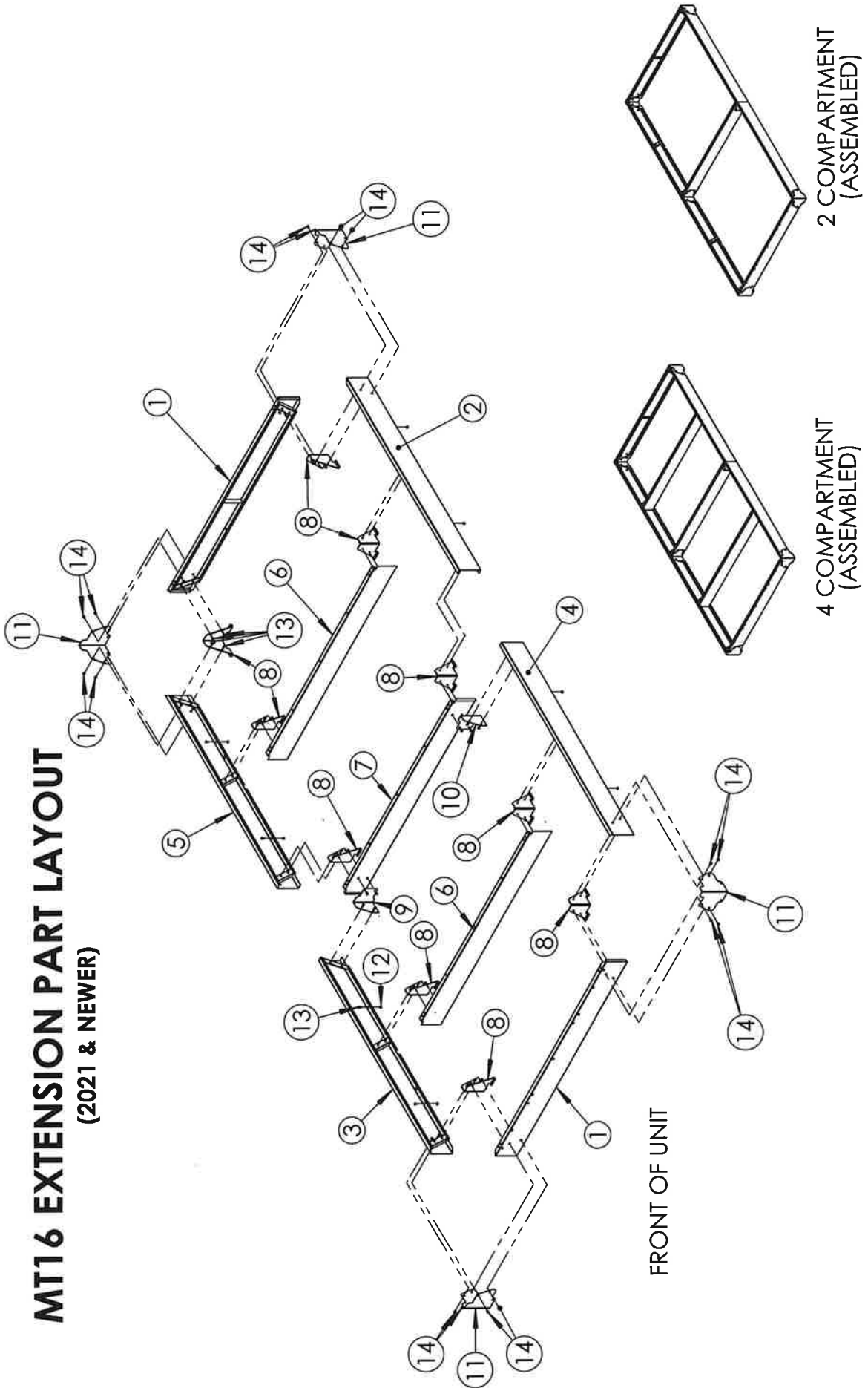
FOUR COMPARTMENT EXTENSIONS

ITEM	409 S.S. PART NO.	304 S.S. PART NO.	DESCRIPTION	QTY
1	47999128	47999128S	EXTENSION PKG. COMPLETE (4 COMP.)	2
2	47019078	47019078S	END PANEL	2
3	47009128	47009128S	SIDE PANEL, L.H.	2
4	47019128	47019128S	SIDE PANEL, R.H.	2
5	47009079	47009079S	CROSS PANEL, 4 COMPARTMENT	3
6	47019080	47019080S	JOINT ANGLE, L.H.	4
7	47029080	47029080S	JOINT ANGLE, R.H.	4
8	47019081	47019081S	CORNER ANGLE	4
9	47019130	47019130S	CORNER CAP WITH OUT TOP COVER WITH FLIP-TOP	4
10	18706621	18706621	BOLT, TRUSS HD. 3/8-16NC. X 3/4	2
	18496800	18496800	FLANGE NUT, 3/8-16NC.	119
				0
				S.S. 119
				Z.P. 119



# MT16 EXTENSION PART LAYOUT

(2021 & NEWER)



# MT16 EXTENSION PARTS LIST

(2021 AND NEWER)

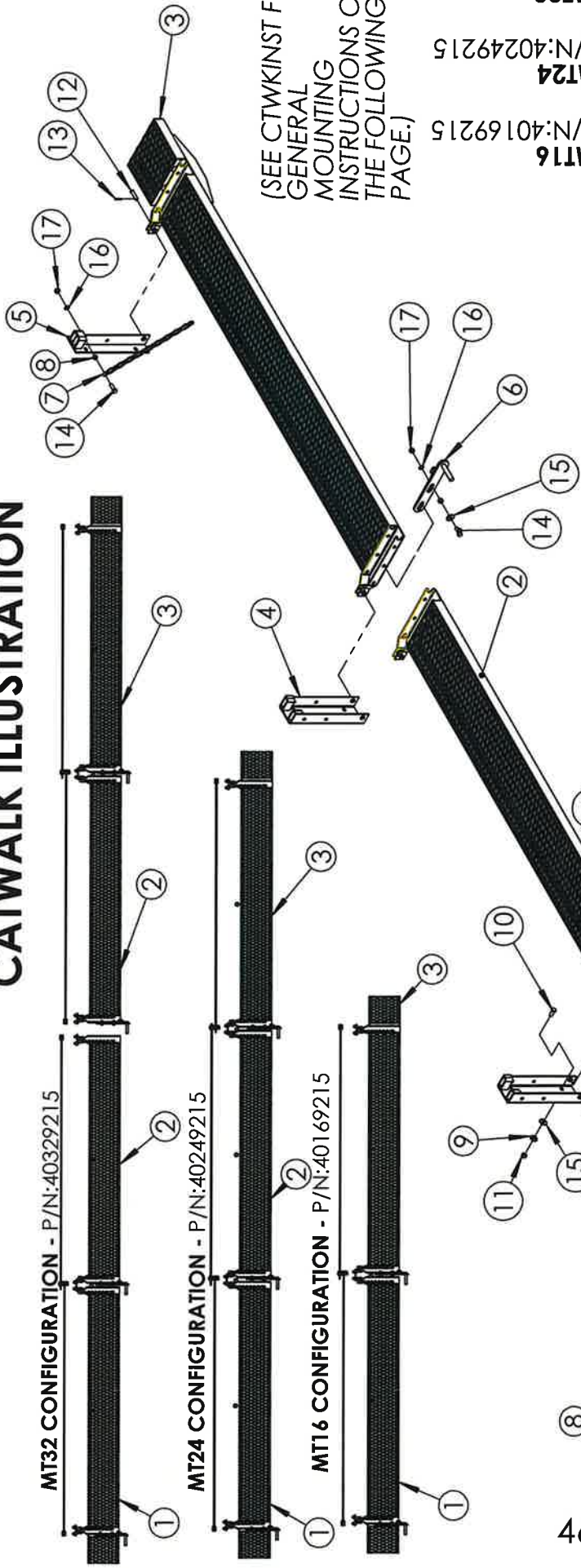
ITEM #	DESCRIPTION	MATERIAL	PART #	2 COMPARTMENT		4 COMPARTMENT	
				P/N: 71282	P/N: 71117	P/N: 71281	P/N: 71116
				(409 MATERIAL)	(304 MATERIAL)	(409 MATERIAL)	(304 MATERIAL)
				QTY	QTY	QTY	QTY
1	EXT. PANEL (END)	304	71056	-	2	-	2
		409	71253	2	-	2	-
2	EXT. PANEL (DRIVER REAR)	304	71061	-	1	-	1
		409	71258	1	-	1	-
3	EXT. PANEL (PASSENGER FRONT)	304	71063	-	1	-	1
		409	71260	1	-	1	-
4	EXT. PANEL (DRIVER FRONT)	304	71065	-	1	-	1
		409	71262	1	-	1	-
5	EXT. PANEL (PASSENGER REAR)	304	71067	-	1	-	1
		409	71264	1	-	1	-
6	EXT. PANEL (DIVIDER SECTION)	304	71071	-	-	-	2
		409	71268	-	-	2	-
7	EXT. PANEL (MIDDLE SECTION)	304	71073	-	1	-	1
		409	71270	1	-	1	-
8	CORNER LOCK	304	71077	-	6	-	10
		409	71274	6	-	10	-
9	JOINT LOCK #1	304	71078	-	1	-	1
		409	71275	1	-	1	-
10	JOINT LOCK #2	304	71079	-	1	-	1
		409	71276	1	-	1	-
11	EXTERIOR CORNER	304	71104	-	4	-	4
		409	71278	4	-	4	-
12	NUT SER FLG 3/8	SS	18987900	56	56	72	72
13	BOLT . HX CAP 3/8-16 X 3/4 LG	SS	18026820	40	40	56	56
14	SCREW SLOTTED TRUSS HEAD 3/8 X 3/4 LG	SS	18706621	16	16	16	16

# CATWALK ILLUSTRATION

MT32 CONFIGURATION - P/N:40329215

MT24 CONFIGURATION - P/N:40249215

MT16 CONFIGURATION - P/N:40169215



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	QTY.	QTY.
1	47019278	CATWALK EXTENDED	1	1	1
2	47019215	CATWALK	-	1	2
3	70933	CATWALK EXTENDED (SPECIAL)	1	1	1
4	47019209	CATWALK MOUNT	1	2	2
5	47019213	END MTG BRACKET	2	2	4
6	47019212	TRANSPORT LOCK	2	3	4
7	47019211	SUPPORT CHAIN	4	6	8
8	47019202	SPACER BUSHING	12	18	24
9	47019217	BACKING WASHER	12	16	24
10	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	12	16	24
11	18997400	HEX NUT, 1/2-13NC S.S.	12	16	24
12	18541430	CLEVIS PIN, 1/2 X 2	4	6	8
13	18560722	COTTER PIN, 5/32 X 1	4	6	8
14	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	12	18	24
15	18811400	WASHER, FLAT 1/2 ZC USS	8	14	16
16	18891400	WASHER, 1/2 LOCK ZC	12	18	24
17	18417400	NUT, HX 1/2 NC ZC	12	18	24

46

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

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

FRONT OF TENDER

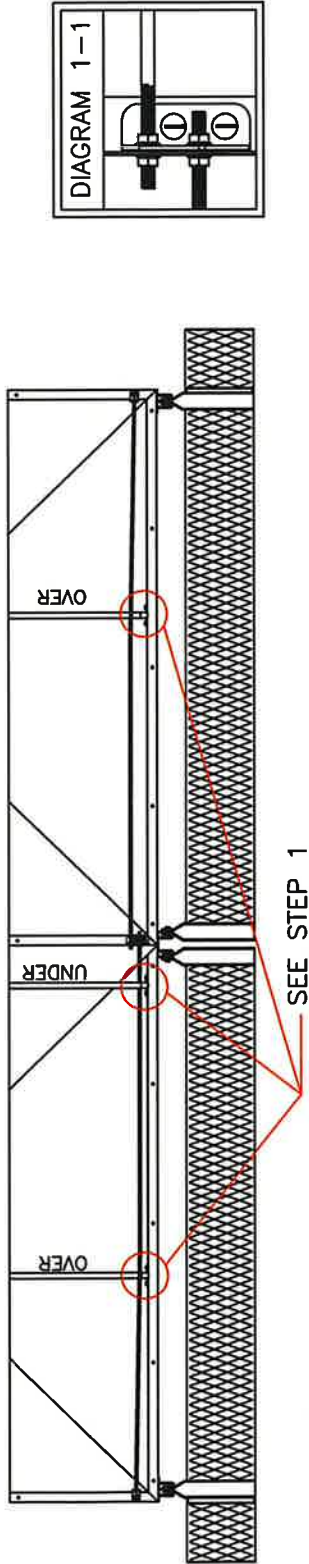


# CATWALK MOUNTING INSTRUCTIONS FOR 16 TON AND 24 TON TENDER BOX

- 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.

# CATWALK PLATFORM BOLT ON SAFETY INSTRUCTIONS (MT16)

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 THE SAFETY MTG BRKT (P/N: 47007965) TO THE CENTER RIB 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 TENDER BOX USING THE EXISTING HOLE, AND SUPPLIED BOLT AND NUT.  
ON UNITS W/ ARCH DIVIDERS BARS WILL PASS THRU PRECUT HOLES IN THE DIVIDER.
5. REPEAT STEPS 3-4 ON THE OTHER SIDE
6. FINISH BY TIGHTENING THE FLANGE NUTS SECURING THE MTG BARS TO THE MTG BRKT 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.

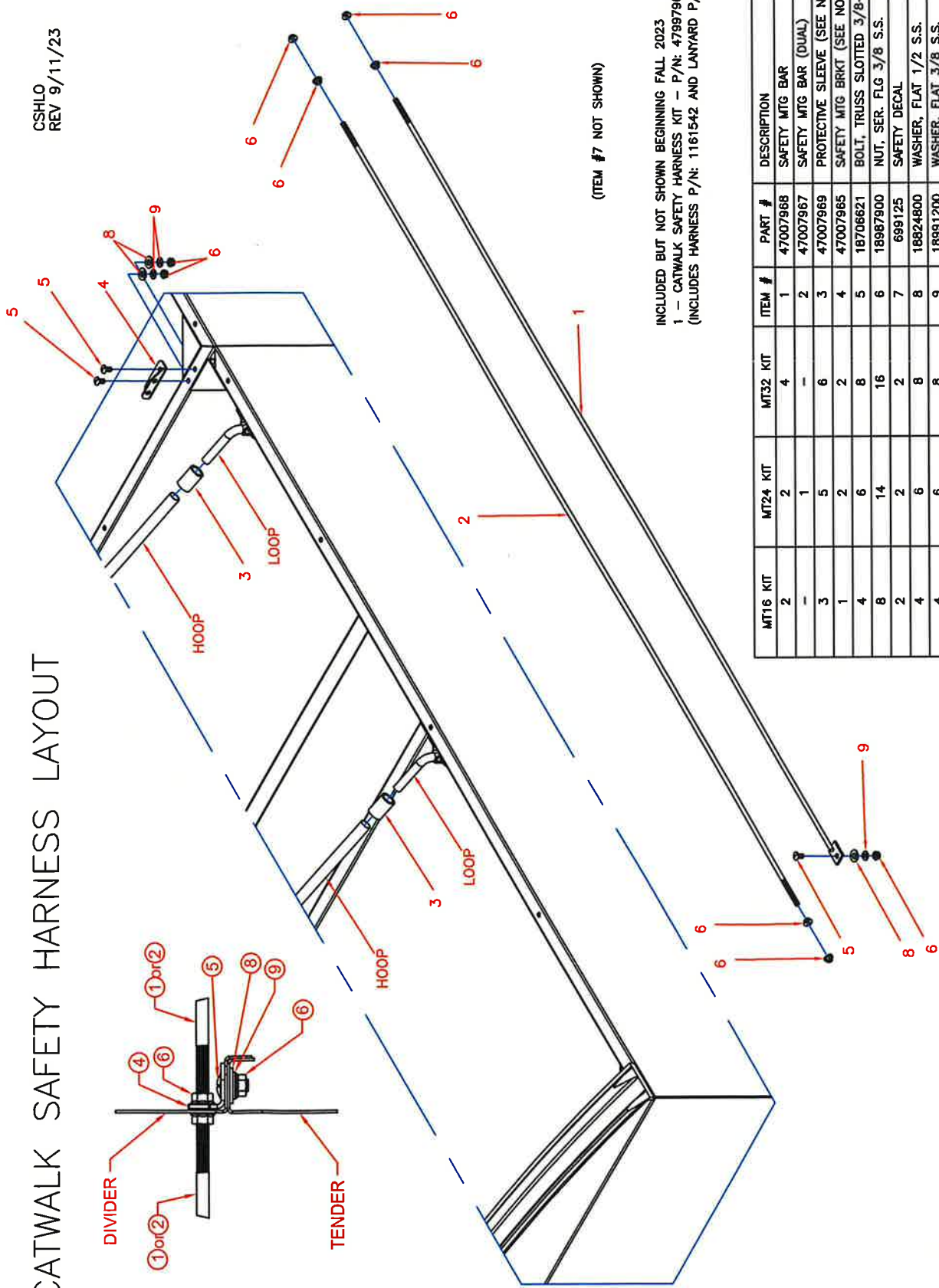
<p>SAFETY HARNESS KIT - P/N: 47997965 (NOT INCLUDED/PURCHASED SEPARATELY)</p>	<p>SAFETY DECAL P/N: 699125 QTY - 2</p>
<p>SAFETY MTG BAR P/N: 47007968 QTY - 2</p>	<p>PROTECTIVE SLEEVE P/N: 47007969 QTY - 3</p>
<p>SAFETY MTG BRKT P/N: 47007965 QTY - 1</p>	<p>SAFETY MTG BRKT P/N: 47007965 QTY - 1</p>

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



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	MT32 KIT	ITEM #	PART #	DESCRIPTION
2	2	4	1	47007968	SAFETY MTG BAR
-	1	-	2	47007967	SAFETY MTG BAR (DUAL)
3	5	6	3	47007969	PROTECTIVE SLEEVE (SEE NOTE 1)
1	2	2	4	47007965	SAFETY MTG BRKT (SEE NOTE 2)
4	6	8	5	18706821	BOLT, TRUSS SLOTTED 3/8-16 X 3/4 LG. SS
8	14	16	6	18987900	NUT, SER. FLG 3/8 S.S.
2	2	2	7	699125	SAFETY DECAL
4	6	8	8	18824800	WASHER, FLAT 1/2 S.S.
4	6	8	9	18991200	WASHER, FLAT 3/8 S.S.

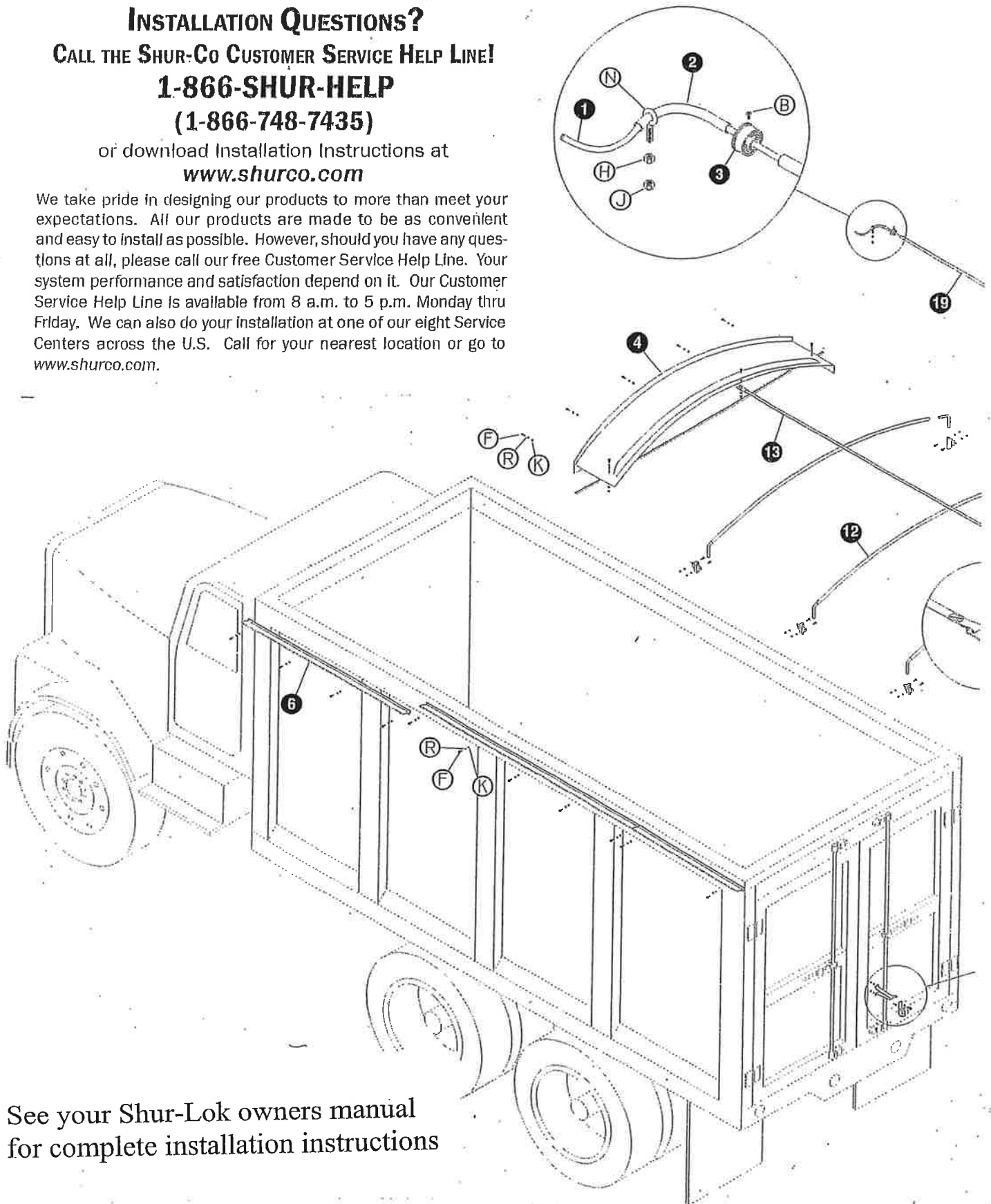
NOTES:  
 1.) ON UNITS WITH THE HEARTLAND AG SYSTEMS ARCH DIVIDERS ITEM 3 (PROTECTIVE SLEEVE), IS NOT USED.  
 2.) FOR UNITS USING THE 7" HIGH HEARTLAND AG SYSTEMS ARCH DIVIDER USES SAFETY BRACKET P/N: 47003694  
 INSTEAD OF SAFETY MOUNTING BRACKET P/N: 47007965 ( 7" HIGH ARCH DIVIDER ONLY)



**INSTALLATION QUESTIONS?**  
**CALL THE SHUR-CO CUSTOMER SERVICE HELP LINE!**  
**1-866-SHUR-HELP**  
**(1-866-748-7435)**

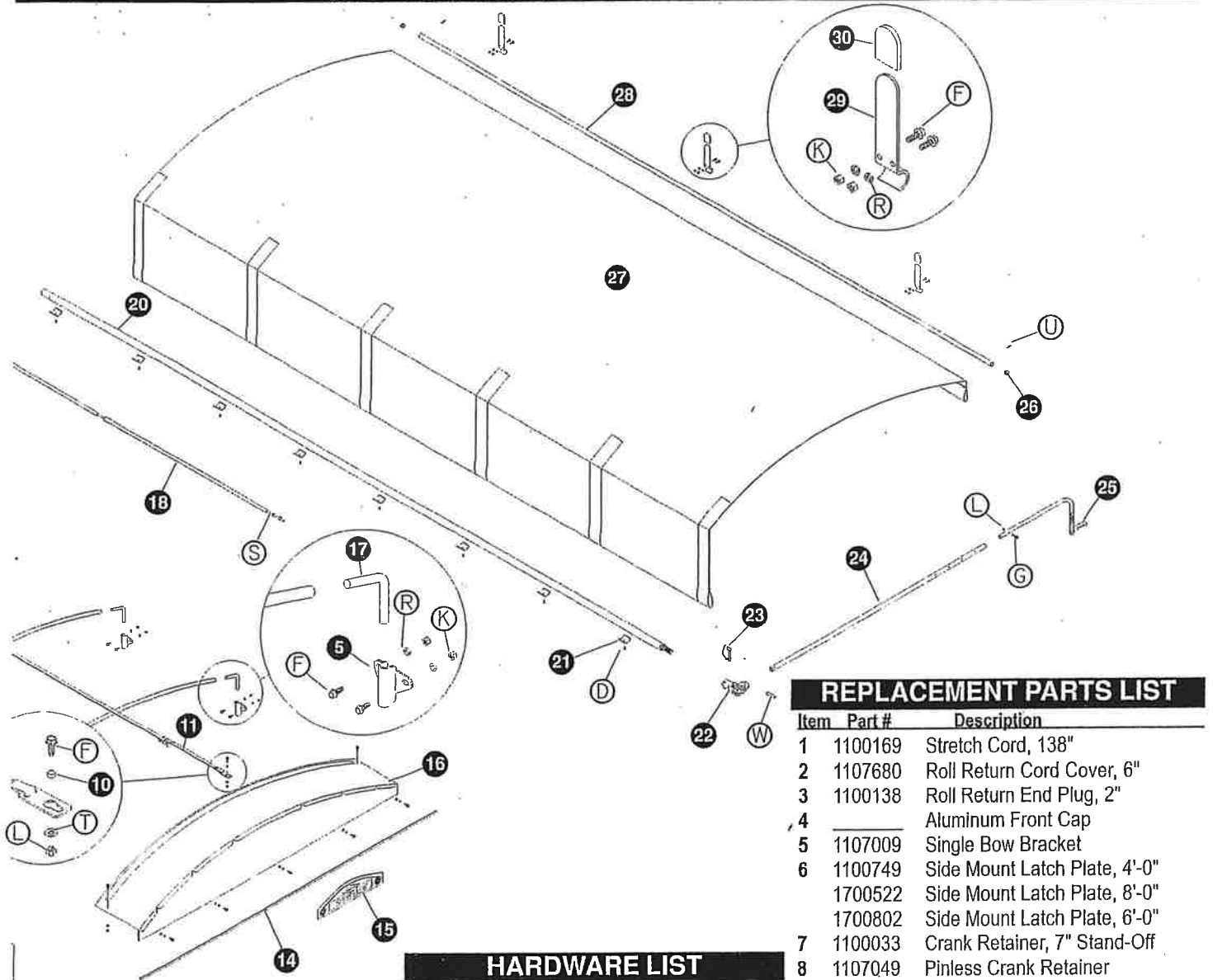
or download Installation Instructions at  
[www.shurco.com](http://www.shurco.com)

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](http://www.shurco.com).



See your Shur-Lok owners manual  
for complete installation instructions

# SHUR-LOK FARM & SEMI REPLACEMENT PARTS



## 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 20'
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

## HARDWARE LIST

Item	Part #	Description
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).



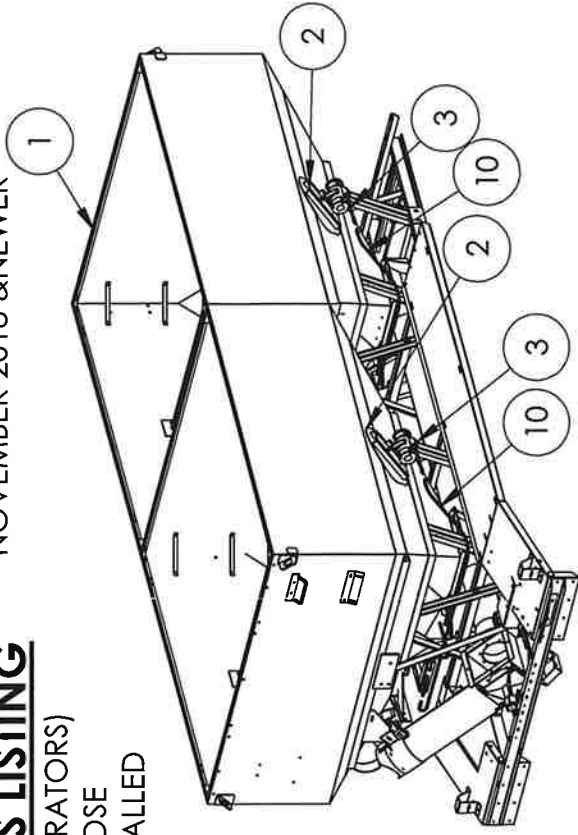
# MT16 VIBRATOR PARTS LISTING

(MARTIN ENGINEERING VIBRATORS)

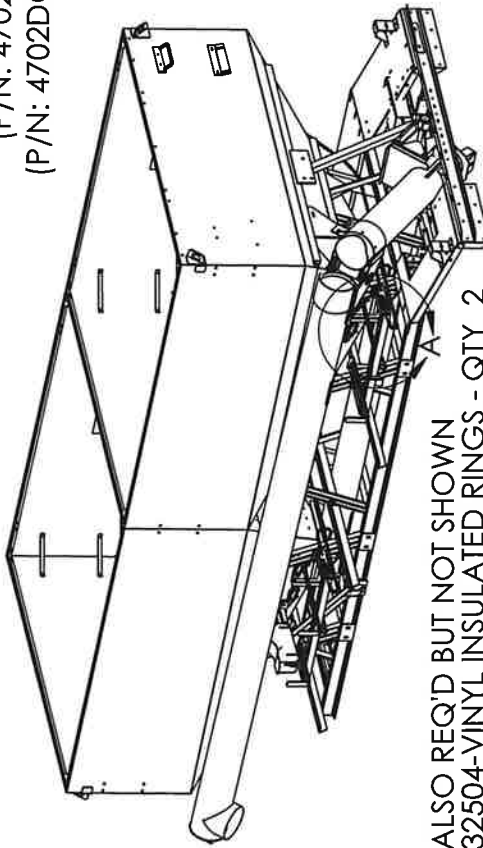
(P/N: 4702DC700) LOOSE

(P/N: 4702DC700A) INSTALLED

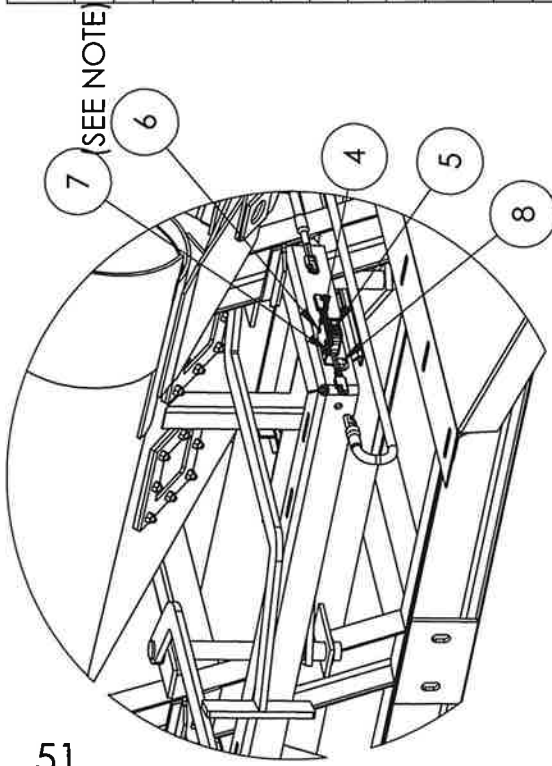
NOVEMBER 2018 & NEWER



(735320 - QTY 36 1/2' (1 -14' / 1 -22 1/2"))



ALSO REQ'D BUT NOT SHOWN  
 32504-VINYL INSULATED RINGS - QTY 2  
 38262 - STEP DOWN BUTT CONNECTORS - QTY 2



DETAIL A  
 SCALE 1 : 10

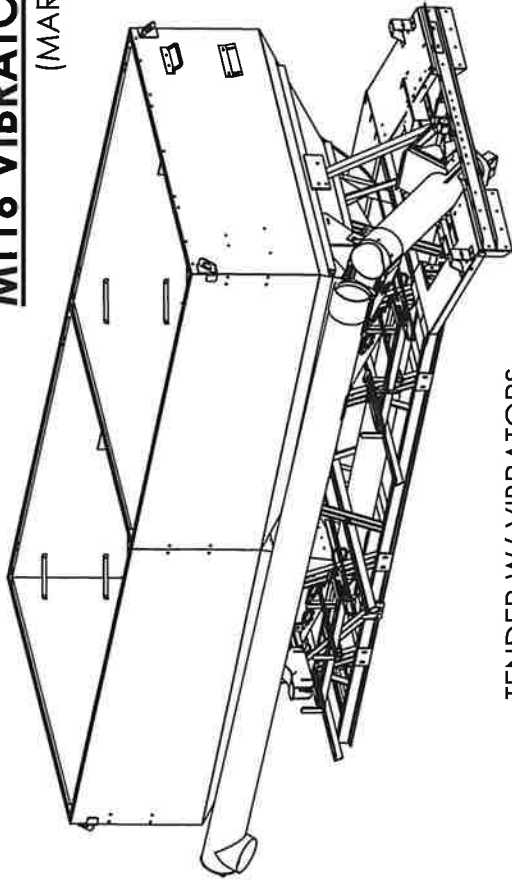
(ITEM 1 SHOWN FOR REFERENCE ONLY)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	mt16 w rear fenders 1	MT16 TENDER BODY/FRAME	1
2	47007997	VIBRATOR MOUNT	2
3	MDCV12-700-MM-96-06	VIBRATOR	2
4	76737	VIBRATOR SWITCH PLATE	2
5	CG-100451	SWITCH (INCLUDED WITH VIBRATOR)	2
6	18704218	SCREW MACH RD PH SS 8-32 X 3/4 LG	8
7	18474201	NUT HX NYLOCK #8-32 SS	8
8	18026422	BOLT CAP SS 5/16 X 1	4
9	18476351	NUT HX SS 5/16 SELF LOCK	4
10	195569-86	CORD EXTENSION 86" (INCLUDED W/ VIBRATOR)	2
11	735320	TRAILER WIRE 12GA/2	2
12	18097540	BOLT, HEX CAP 1/2-13 X 4 1/2 LG GRADE 8 ZC	4
13	18457400	NUT, NYLOCK 1/2-13 GRADE 8 ZC	4
14	18851400	WASHER FLAT 1/2 SAE ZC	4

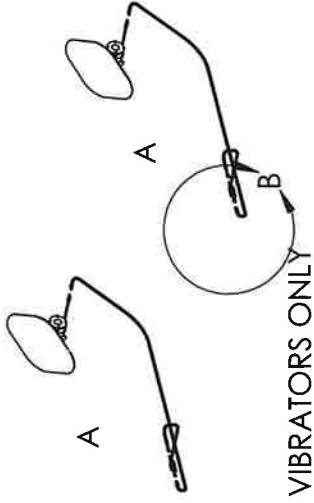
# MT16 VIBRATOR INSTALLATION INSTRUCTIONS

(MARTIN ENGINEERING VIBRATORS)

NOVEMBER 2018 & NEWER



TENDER W/ VIBRATORS



VIBRATORS ONLY

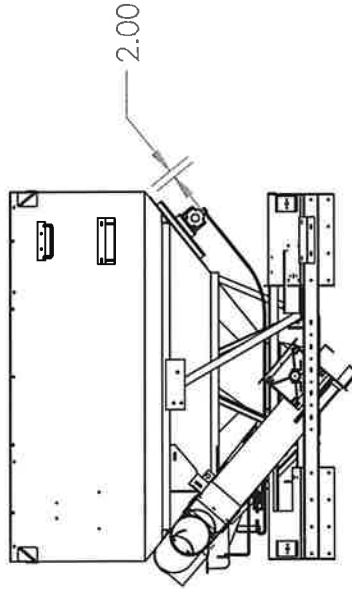
## REPLACEMENT PARTS:

CG-100454 - FUSE 20 AMP

TO BATTERY



DETAIL B  
SCALE 1 : 10



REAR VIEW OF TENDER  
(CENTER PAD ON BOX)

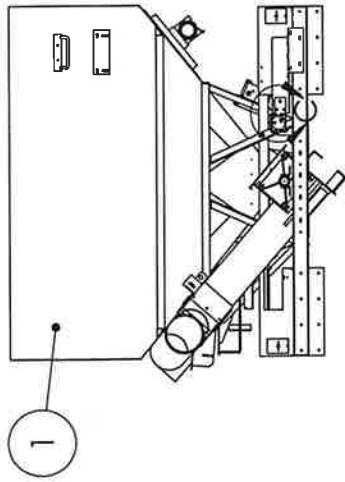
1. CABLES MARKED "A" ARE PRE ASSEMBLED TO THE VIBRATOR
2. ATTACH P/N: 38262 (STEP DOWN BUTT CONNECTOR) TO THE CONNECTOR
3. INSERT CUT TO LENGTH WIRE (P/N: 735320) INTO THE OPEN END OF THE BUTT CONNECTOR AND SEAL
4. REPEAT FOR ALL VIBRATORS
5. SEND P/N: 32504 (VINYL INSULATED RINGS) LOOSE



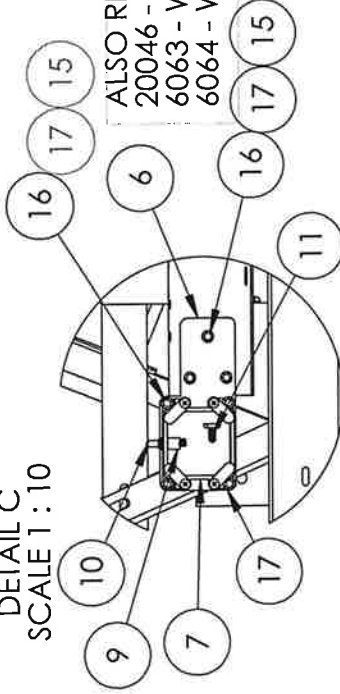
# MT16 VIBRATOR PARTS LIST

(VIBCO VIBRATORS MODELS PRE NOVEMBER 2018)  
(AVAILABLE FOR 4 COMPARTMENT UNITS ONLY)

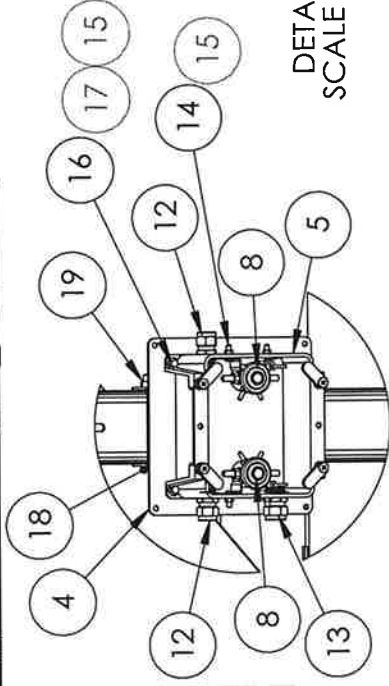
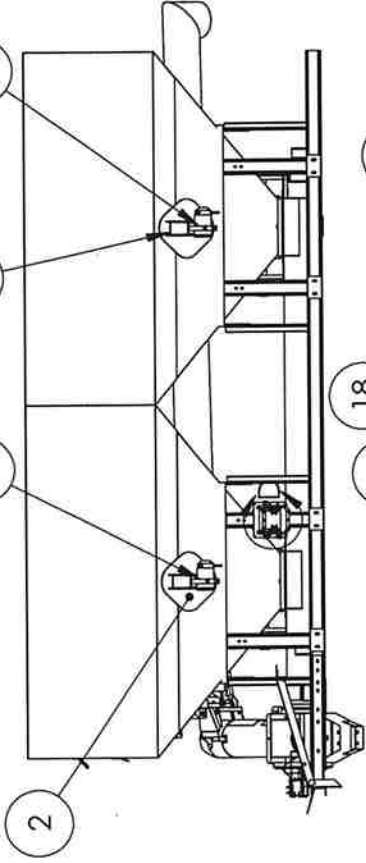
P/N: 4702DC700



DETAIL C  
SCALE 1 : 10



ALSO REQUIRED, BUT NOT SHOWN:  
20046 - WIRE 6 GA 2 STRAND - 20'  
6063 - WIRE 14 GA 3 STRAND - 10'  
6064 - WIRE 14 GA 2 STRAND - 10'



DETAIL D  
SCALE 1 : 10

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	mt16 w rear fenders 1	MT16 TENDER BODY/FRAME	1
2	47007997	VIBRATOR MOUNTING PAD	2
3	DC-700	VIBRATOR	2
4	47003464	MOUNTING PLATE	1
5	18000047	SCEPTER JBX 6X6X4 (COVER NOT SHOWN)	1
6	47003461	REAR MOUNTING PLATE	1
7	18000042	SCEPTER JBX 4X4X4 (COVER NOT SHOWN)	1
8	77002	4-PORT SOLENOID	2
9	18000049	SELECTRA SWITCH SS206A-BG	2

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
10	18000046	SELECTRA SWITCH SSAN105	2
11	N/A	WIRE CAP (SHOP SUPPLIES)	1
12	18000041	1/2 CGB CG5050	2
13	18000048	CORD GRIP CG5050S	1
14	18000050	BOLT AH SS 1/4 X 3/4	4
15	18569200	NUT 1/4 NYLOCK SS	15
16	18025718	BOLT CAP SS 1/4 X 3/4	11
17	18881001	WASHER FLAT 1/4 SS	11
18	18056854	BOLT HX CAP G5 NC ZC 3/8 X 5	2
19	18566400	NUT SS NYLOCK 3/8	2

# MT16 VIBRATOR CONNECTION DIAGRAM

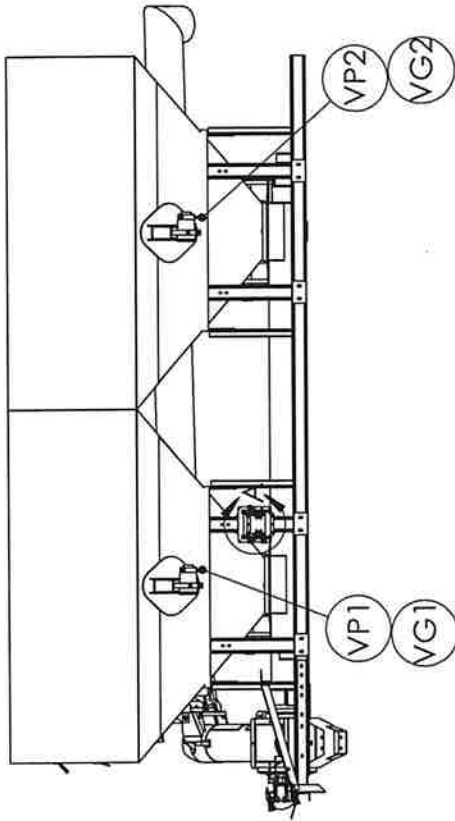
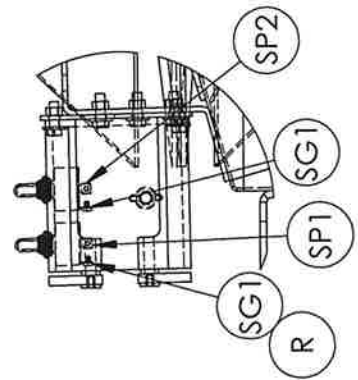
P/N: 4702DC700

LETTER	DESCRIPTION
G	GROUND WIRE
P	POWER (JUMP) WIRE
R	RETURN LINE
MG	MAIN GROUND
MP	MAIN POWER
SG	SWITCH GROUND
SP	SWITCH POWER
VG	VIBRATOR GROUND
VP	VIBRATOR POWER

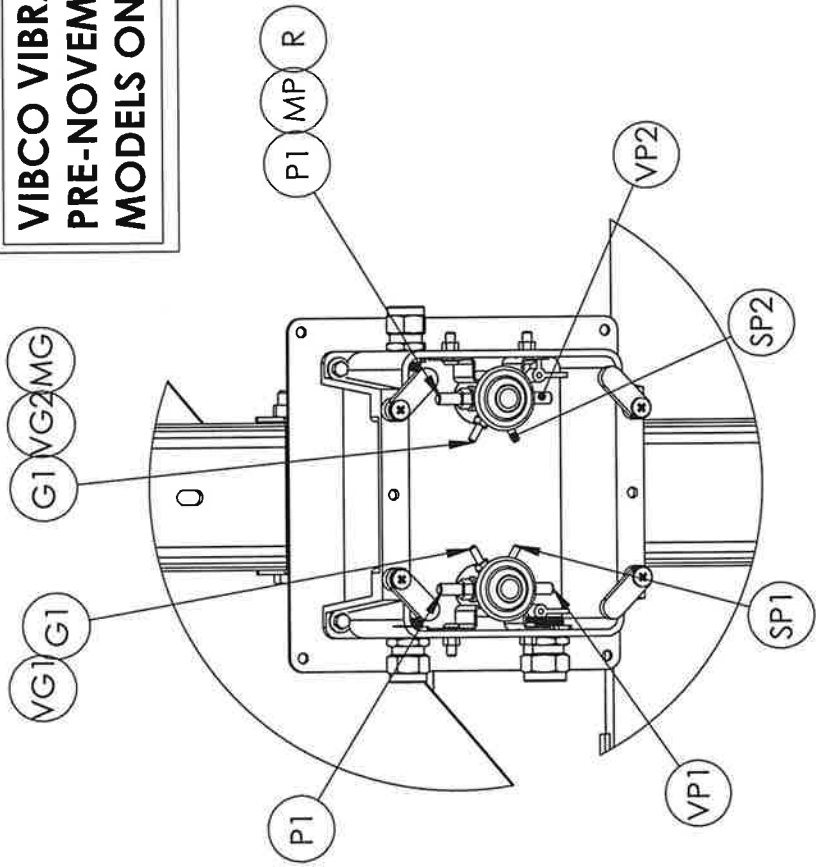
**NOTES:**

1. GROUND WIRES = BLACK
2. POWER WIRES = WHITE
3. SP1 = BLACK
4. SP2 = GREEN

DETAIL B  
SCALE 1 : 5



**VIBCO VIBRATORS  
PRE-NOVEMBER 2018  
MODELS ONLY**

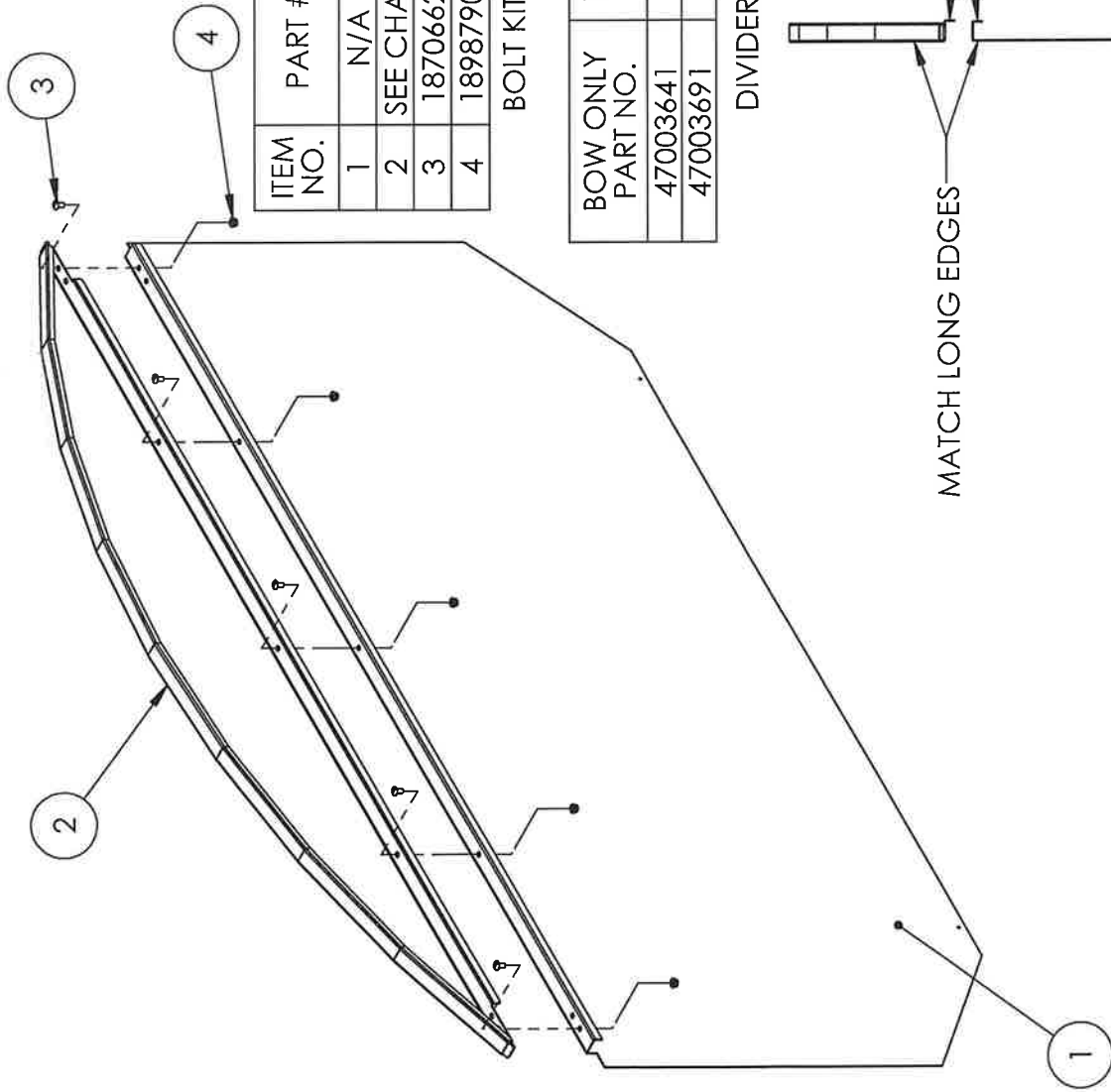


DETAIL A  
SCALE 1 : 5

# ARCH DIVIDER LAYOUT & PARTS LISTING

ARCH DIVIDER  
06/04/19

(MT16 - MT24 - MT32)



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

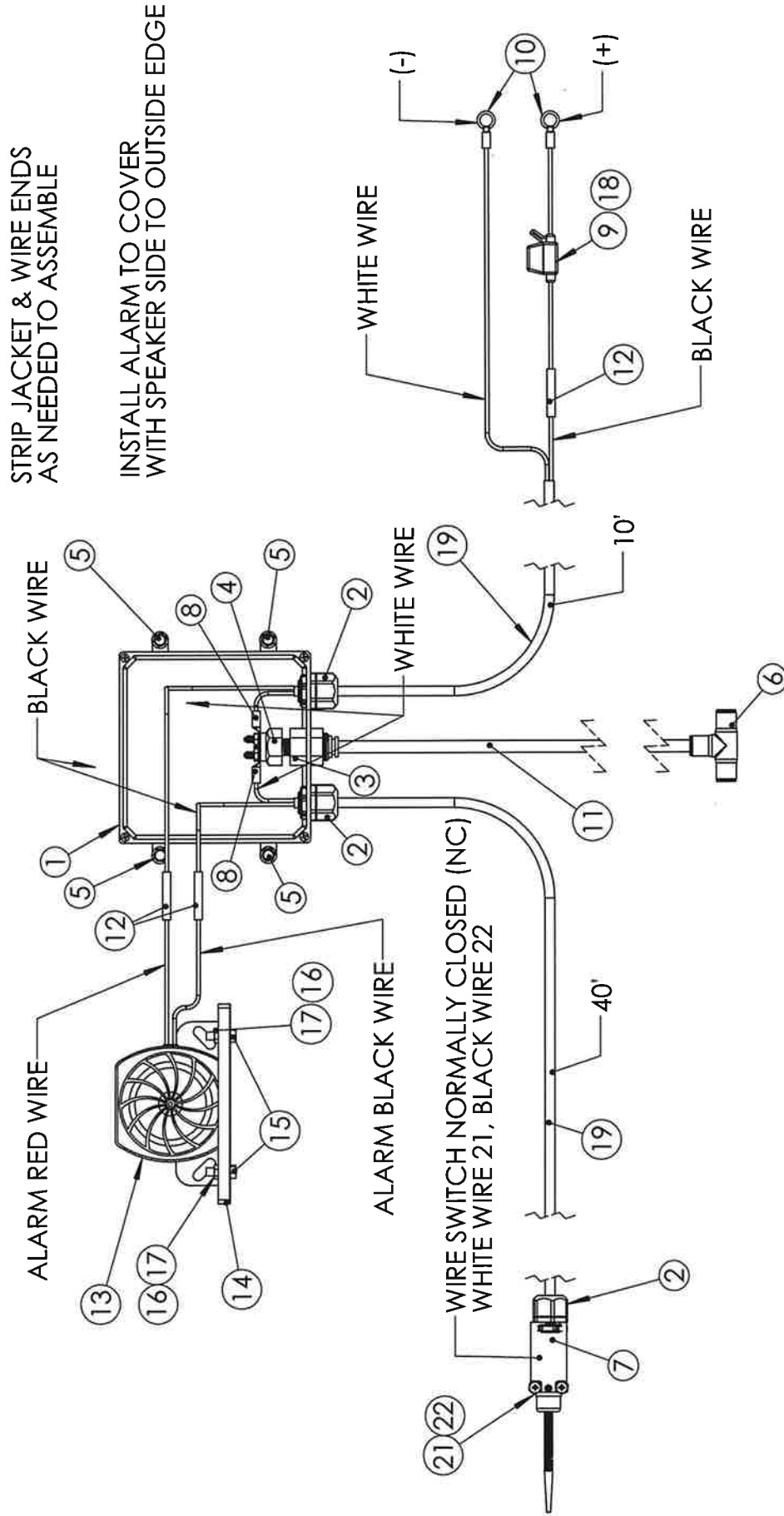
BOLT KIT P/N: 47883641 CONTAINS ITEMS 3 AND 4

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

# AUGER WARNING SYSTEM

PART #: 70660

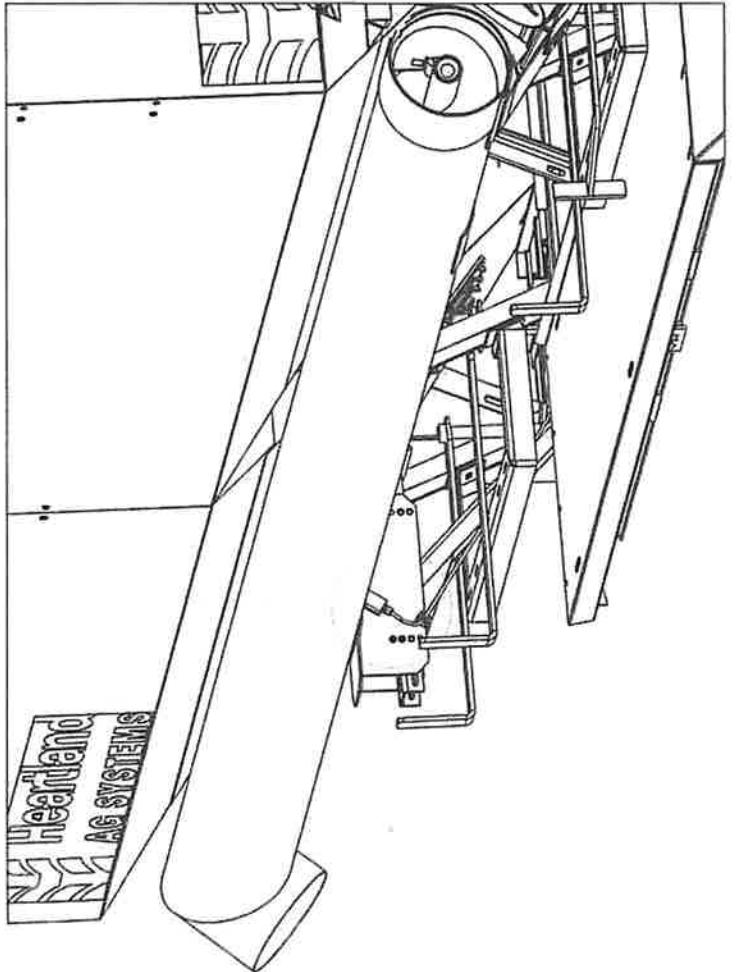
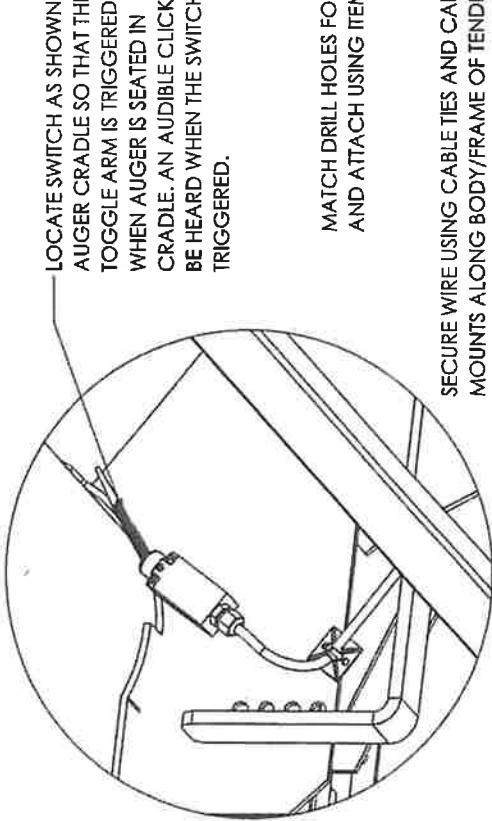
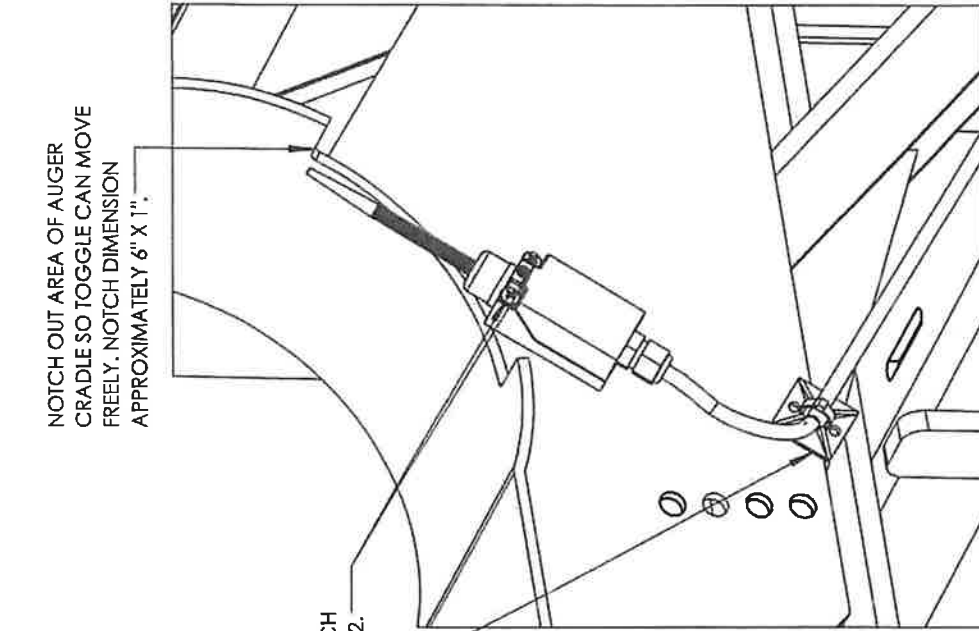


# AUGER WARNING SYSTEM

PART #: 70660

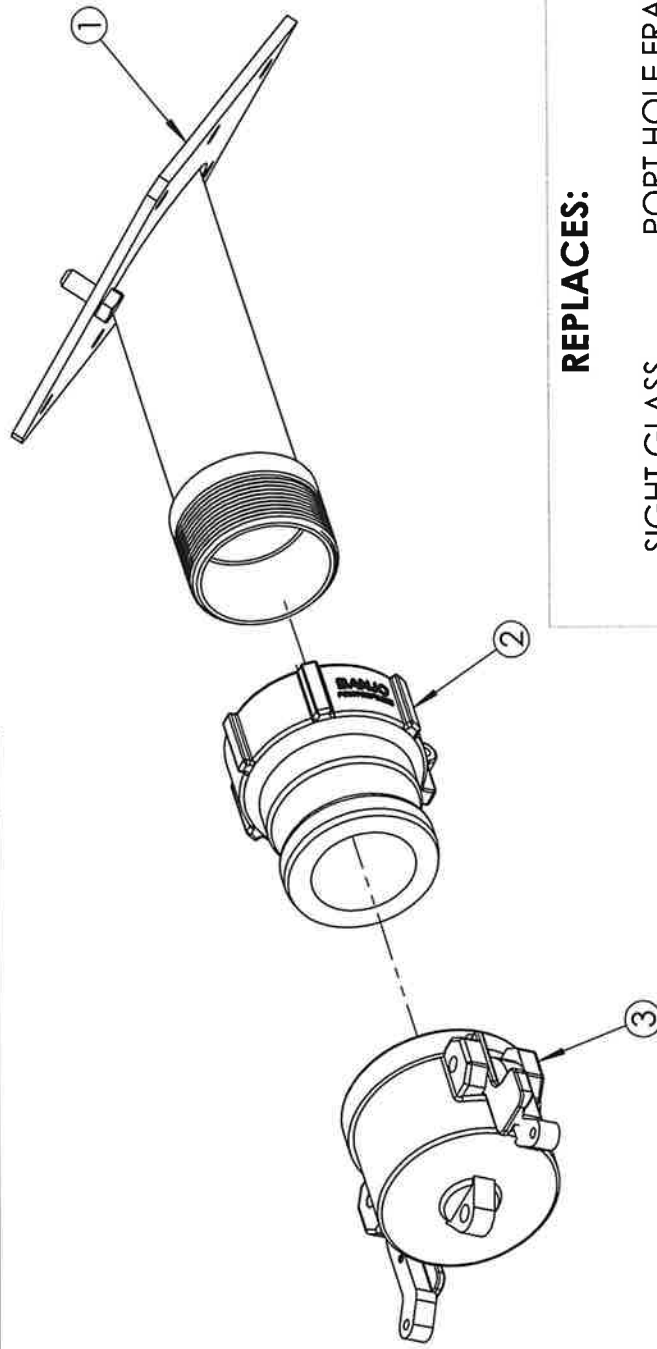
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70875	ALARM BOX	1
2	70878	CORDGRIP	3
3	70877	FEMALE BULKHEAD CONNECTOR WITH NUT	1
4	70876	STOP LIGHT SWITCH	1
5	70879	1/4" X 1" SELF TAPPING SCREW, SS, DRILL TIP	4
6	70880	UNION TEE, 3/8	1
7	70881	LIMIT SWITCH	1
8	70656	RING TERMINAL, HEAT SHRINK, 16-14 GA AND #10 SCREW SIZE	2
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	3
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 1-3/4", SS	2
23	70659	CABLE TIE, 7-1/2" LONG, OUTDOOR	12

# MT16, MT24, AND MT32 MOUNTING LOCATIONS



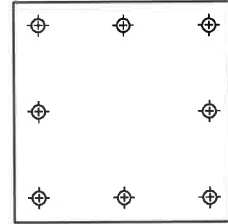
# OPTIONAL BOLT ON POKE HOLE & FLUSH TUBE P/N: 71850

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

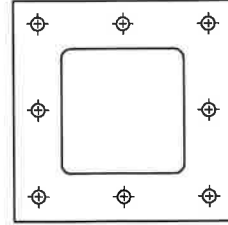


### REPLACES:

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)

