



Heartland
AG SYSTEMS

Heartland Agriculture, LLC

MT32
SERIES
TENDERS

OPERATOR'S MANUAL
AND PARTS LIST
OM-MT32

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.

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.

Seller Information	
Date set-up	_____
Signature	_____
Dealer name	_____
Address	_____
City, state, zip	_____
Phone	_____

Customer Information	
Date delivered	_____
Customer name	_____
Customer address	_____
Signature	_____
Model number	_____
Serial number	_____

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



Heartland Agriculture, LLC



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.

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(MT32 TENDER)

MT32CNTS
11-9-20

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Introduction



Introduction

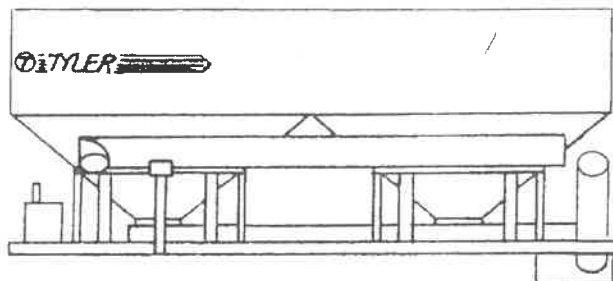
The following manual covers the proper and safe operation and recommended maintenance procedures of the MT16 Tender.

To the Owner

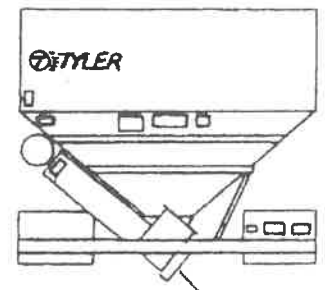
Read this manual before you operate your tender. Refer to the detailed index at the end of this manual for locating specific items about your tender. If you need more information, see your local service representative.

Your service representative can give you assistance with Case Corporation approved service parts. Your service representative has technicians with special training who know the best methods of repair and maintenance.

Tender Series MT16



Left Side View



Rear View

Manual Storage

Keep the operator's manual and the entire documentation packet with your spreader. The operator's manual must be available for use by all operators.

Product Identification and Serial Numbers

Write your machine Model Number and Product Identification Number (PIN)/Serial Number (SN) on the lines provided. If needed, give these numbers to your service representative when you need parts or information for your machine.

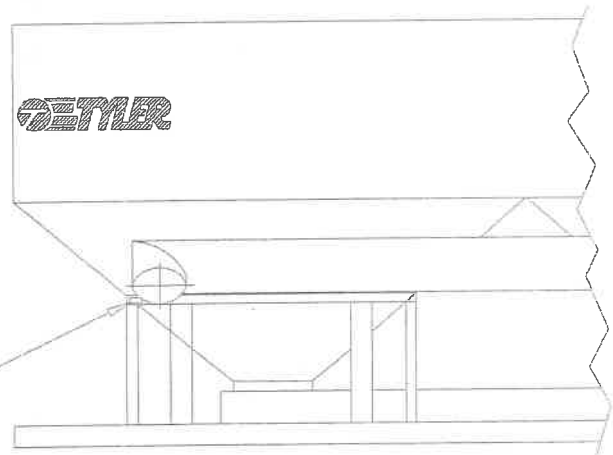
1. Tender Model Number _____
2. Product Identification Number (PIN) _____

Identification Number Location

Tender PIN/serial number- Located on the left side of the frame just to the rear of the jack assembly.

MT16
(FRONT END)

Serial Number
Plate



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.

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

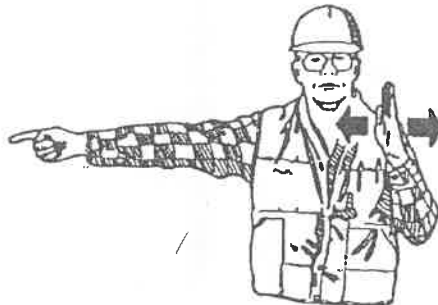
Move both hands rapidly back and forth



222L85

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

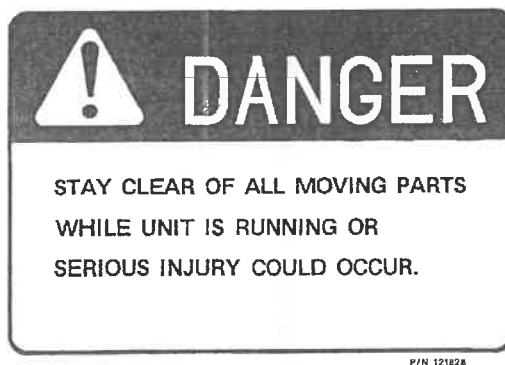
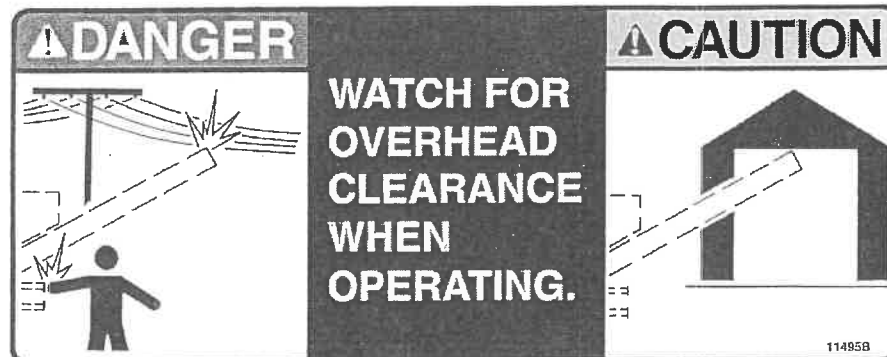
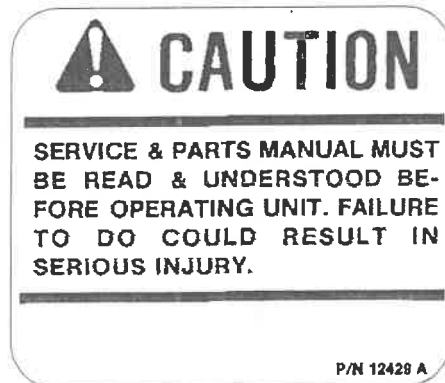


225L85

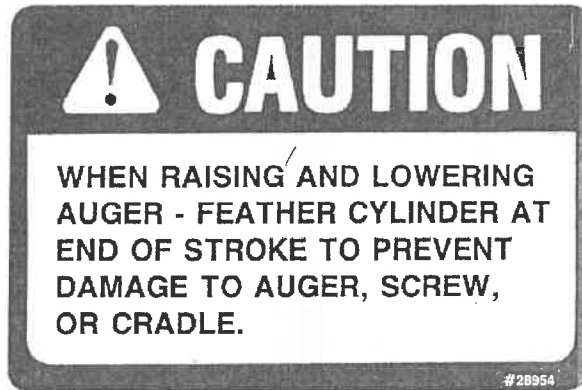
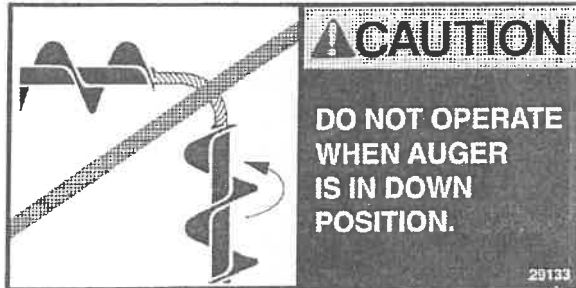
Safety Decals

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.

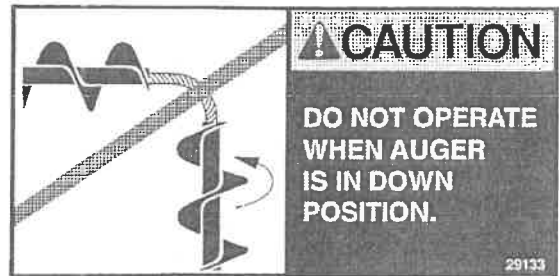
Unit

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.

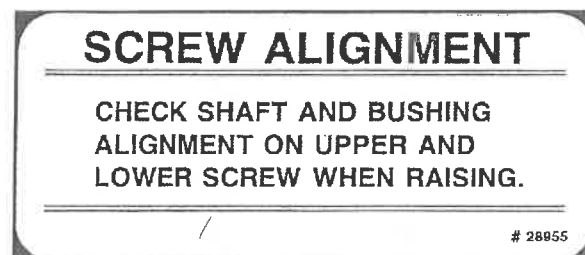
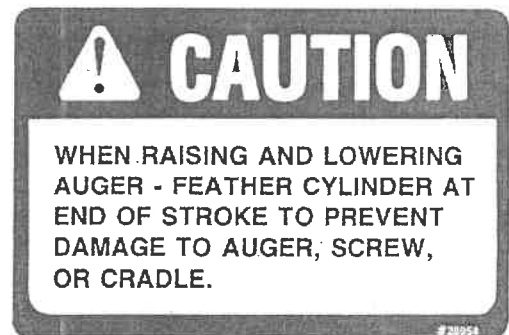


When raising and lowering auger

- 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

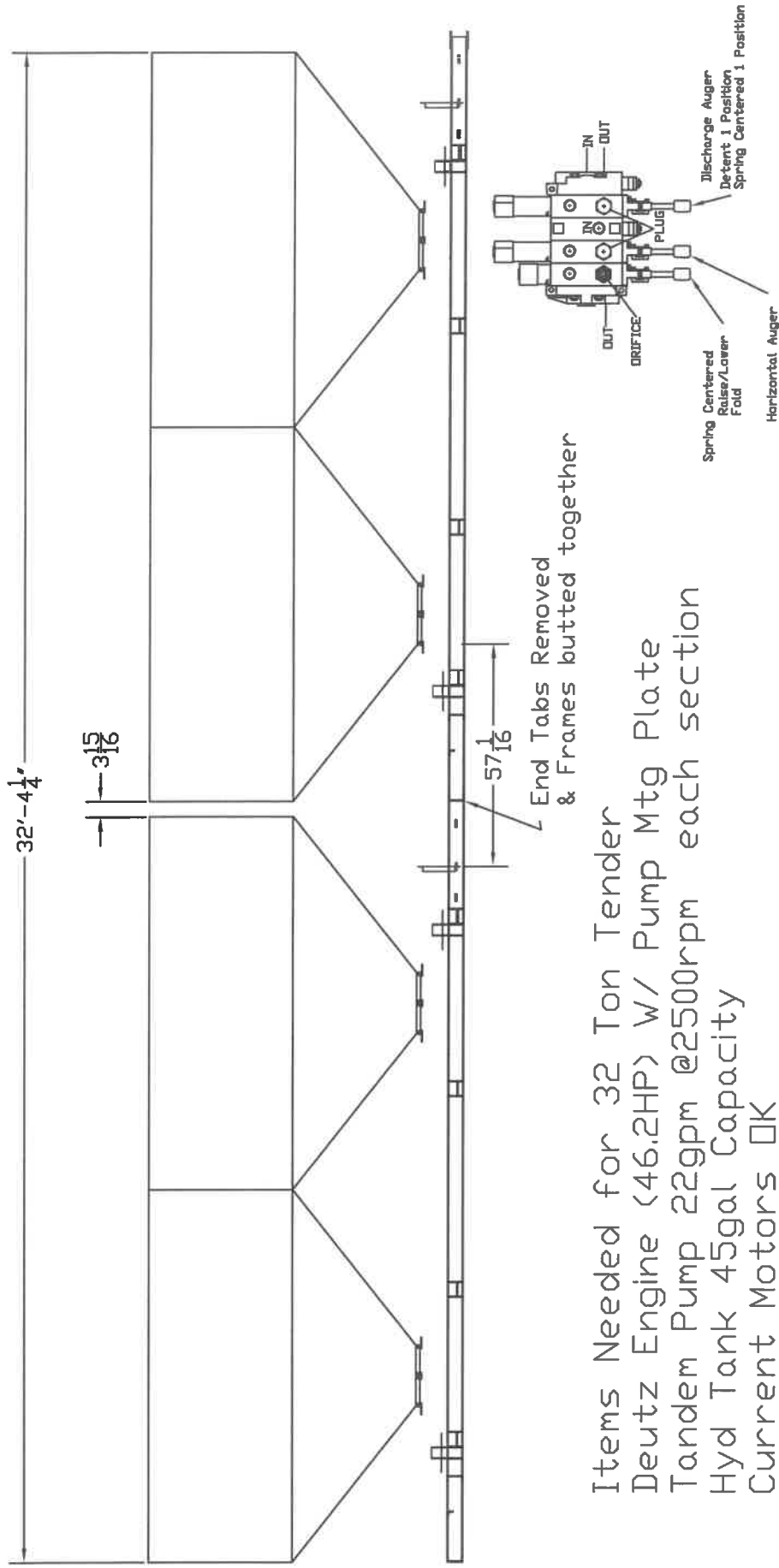
To prevent freezing of the roller chain due to rusting, remove and store submerged in fuel oil between seasons. Do not use regular oil for this purpose.

Lubrication Points

Lubrication Point	Page No.
Grease fittings on bearing (Ref. No. 8, 20, 24)	37
Lubricate with oil occasionally (Ref. No. 25, 26)	37

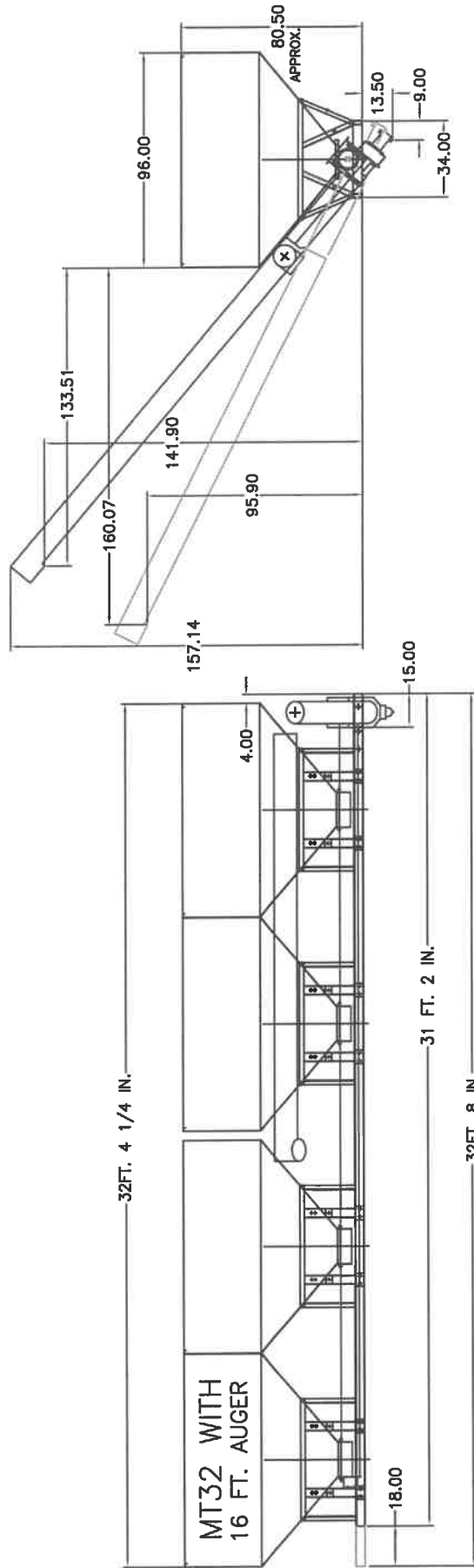


Note: Use Locktite catalog P/N 592-41 pipe sealant with Teflon (TCI P/N 54011) on all hydraulic pipe fittings.



- Items Needed for 32 Ton Tender
- Deutz Engine (46.2HP) w/ Pump Mtg Plate
- Tandem Pump 22gpm @2500rpm each section
- Hyd Tank 45gal Capacity
- Current Motors OK
- 3 Bank Valve w/ inlet for one section & Mid inlet for other two
- Relief set @ 2800psi

Sequence Valve (the use of a sequence valve allows one valve to do two functions and in proper order Fold & Raise/Lower)



MT32 DIMENSIONAL SPECS WITH 16FT AUGER

AG SYSTEMS INC. HUTCHINSON MN. 55350

NAME DIMENSIONAL SPECS. W/16 FT. AUGER	
FIRST USED	DATE
MT32	03/09/05
REV.	DATE
PART NUMBER MT32DIMSPCS	

MT32 TENDER BASIC HYDRAULIC SCHEMATIC KIT (MT32PLBG)

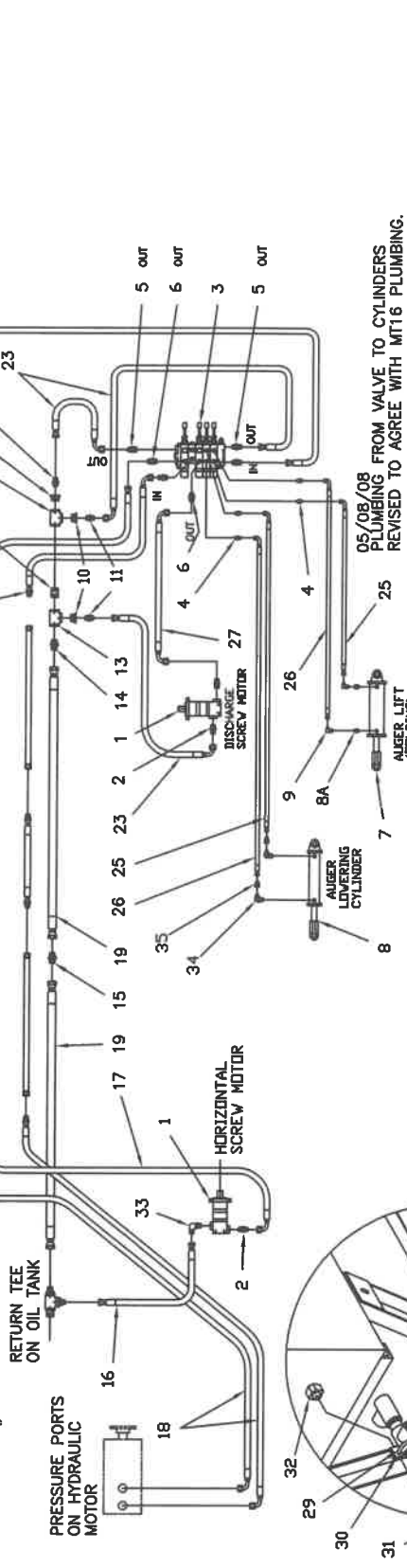
MT32PLBG08
REV 10/26/21

ALSO SEE "ENGINE DRIVE" (OR OTHER DRIVE SYSTEM)

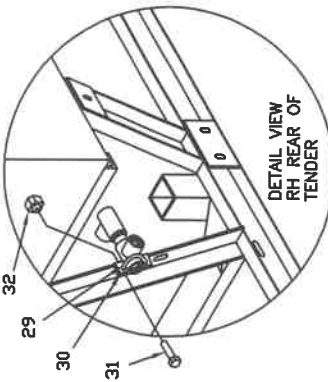
(WARNING ! FOR OPERATOR SAFETY, HYD CONTROLS MUST BE MOUNTED AT A MINIMUM OF 7 FT AWAY FROM AUGER FOLD)

ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	51930	HYDRAULIC MOTOR	2	16	632120	HYD HOSE, 3/4 X 120, #12JICFS EA. END	1
2	444001	ADAPTER, SAE/JIC	3	17	53601	HYD HOSE, 3/4 X 36, #12JICFS90° X #12JICM	1
3	V20-10048	HYDRAULIC CONTROL VALVE	1	18	632144	HYD HOSE, 3/4 X 144, #12JICFS90° X #12JICM	2
4	444008	ADAPTER, SAE/JIC 6400-B-10	4	19	632210	HYD HOSE, 1/4 X 210, #20JICFS EA. END	2
5	444001	ADAPTER, SAE/JIC	4	20	53552	HYDRAULIC TUBE, 3/4 X 138 #12JICFS EA. END	6
6	444007	ADAPTER, (6400-12-10)	2	21	632060	HYD HOSE, 3/4 X 60, #12JICM EA. END	3
7	07132	HYDRAULIC CYLINDER	1	22	53600	HYD HOSE, 3/4 X 36, #12JICFS90° X #12JICM	3
	87266905	REPAIR CLEVIS	23	632036	HYD HOSE, 3/4 X 42, #12JICFS90° X #12JICM	1	
	98081	REPAIR SEAL KIT	24	53942	HYD HOSE, 1/2 X 60, #8JICFS X #8JICFS 90°	2	
7A	39254	HYDRAULIC CYLINDER	25	53602	HYD HOSE, 1/2 X 72, #8JICFS X #8JICFS 90°	2	
8	92395	REPAIR CLEVIS	26	53528	HYD HOSE, 3/4 X 60, #12JIFXS90 EAEND	1	
	98180	REPAIR SEAL KIT	27	343085A1	PORT PLUG, #10JIC, O-RING	1	
8A	28187	ADAPTER, W/.062 ORIFICE	28	21243	MUFFLER CLAMP 2 INCH	1	
9	442020	BUSHING, 3/4 X 1 1/4	29	47005791	MOUNT ANGLE, FITS 2 INCH CLAMP	1	
10	73653	ADAPTER, PIPE X JIC	30	47005761	BOLT, HEX 3/8-16 NC X 1.00 LONG ZC	2	
11	2404-12-12	ADAPTER, PIPE X JIC	31	18056822	FLANGENUT, 3/8-16 NC	2	
12	72330	CLOSE NIPPLE, 1 1/4NPT	32	18496800	ELBOW CONNECTOR 90°	1	
13	72342	TEE, 1 1/4 NPT	33	445001	ELBOW 90° #8 MJIC X #8 FJIC	2	
14	2404-20-20	ADAPTER, PIPE X JIC	34	2501-08-08	ADAPTER #8 MJIC X #8 FJIC	2	
15	2403-20	ADAPTER, UNION-JIC	35	2406R-08-08-082	ADAPTER #8 MJIC X #8 FJIC	2	

SEE ENGINE MOUNT ILLUSTRATION FOR DEUTZ 46.2 HP POWERPACK ILLUSTRATION # MT24ENGM1



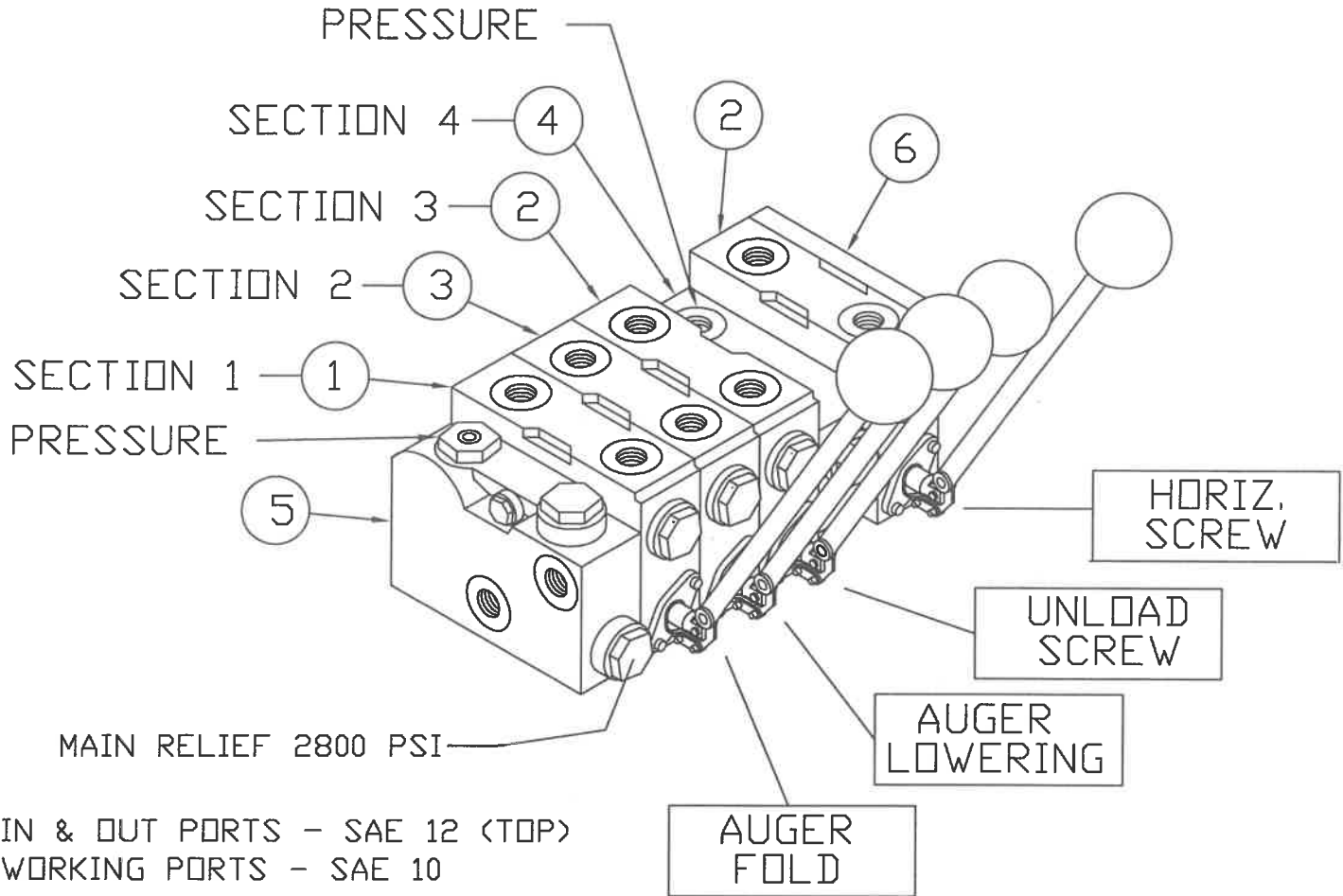
TEE MOUNTING INSTRUCTIONS (SEE RH REAR OF TENDER DETAIL) LOCATE AND CLAMP ANGLE (ITEM 30) IN POSITION AS SHOWN, ALLOWING ROOM FOR FENDER MOUNTING IF NEEDED, THEN MATCH DRILL TWO 7/16 DIA HOLES 3 1/4 INCHES APART AND BOLT ON ANGLE (ITEM 30) TO HOLD 1 1/4 NPT TEES (ITEM 13) IN PLACE USING MUFFLER CLAMP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



05/08/08 PLUMBING FROM VALVE TO CYLINDERS REVISED TO AGREE WITH MT16 PLUMBING.

WARNING ! MOUNT VALVE A MINIMUM OF 7 FT AWAY FROM THE AUGER FOLD !

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



VALVE ASS'Y V20-10048

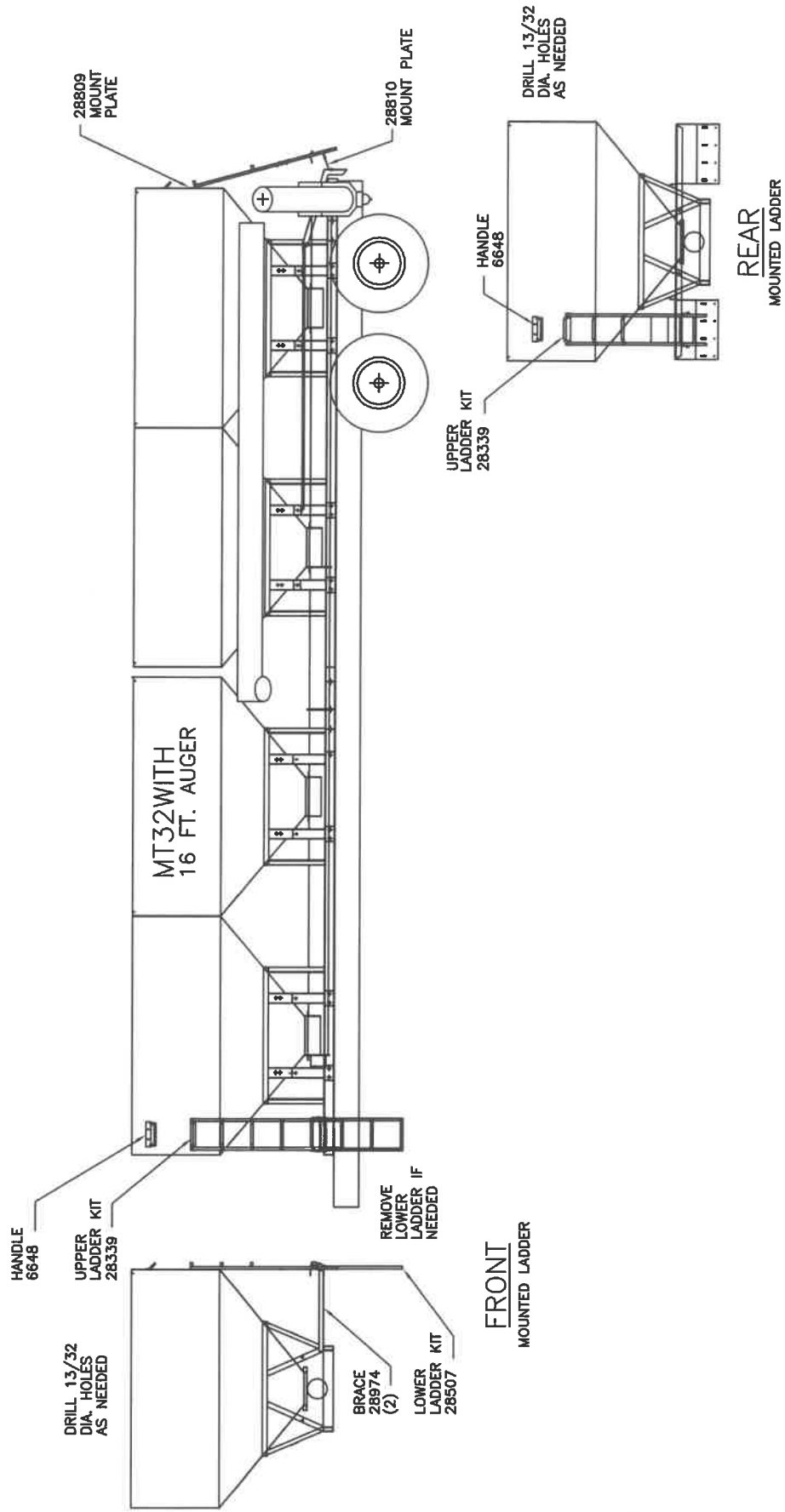
ITEM	QTY	PARTNUMBER	DESCRIPTION
1	1	20-10-04	3 POS. 4WAY SPRING CTR. (#10 DRB) SECTION 1
2	2	20-10-DF4	VALVE SECT.W DBL ACTING SPOOL 3 WAY DETENT
3	1	20-10-L04	3 POS 4-WAY LOCKOUT
4	1	20-12-SF	SPLIT FLOW INLET, #12 DRB WITHOUT R/V (SEC 4)
5	1	20-LC-12	LEFT COVER, TOP/SIDE PORTS, #12 DRB W/O R/V
6	1	20-RC-12-E-MY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

REPLACEMENT PARTS AND SEAL KITS

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

MT32LDRMTG
02/22/22

LADDER MOUNTING ILLUSTRATION
MT32 with 16 FT SIDE DISCHARGE AUGER

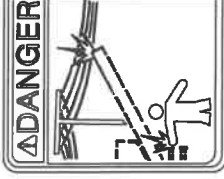


DECAL LISTING

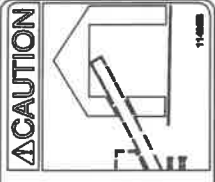
(DECALS NOT TO SCALE)

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	71617	1	MT32 (DITCH SIDE)
16	71618	1	MT32 (DRIVER SIDE)
17	699125	2	SAFETY DECAL (INCLUDED W/ SAFETY BAR KIT)
18	71672	1	CAUTION DISCHARGE (INCLUDED W/ CATWALK)

11495B



WATCH FOR
OVERHEAD
CLEARANCE
WHEN
OPERATING.



12181A



12182B



12429A



28223



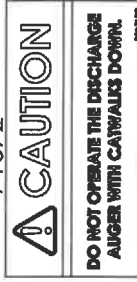
28864



28954



71672



29133



699107L



276534



699125



54133



71618



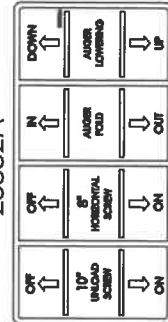
87268088



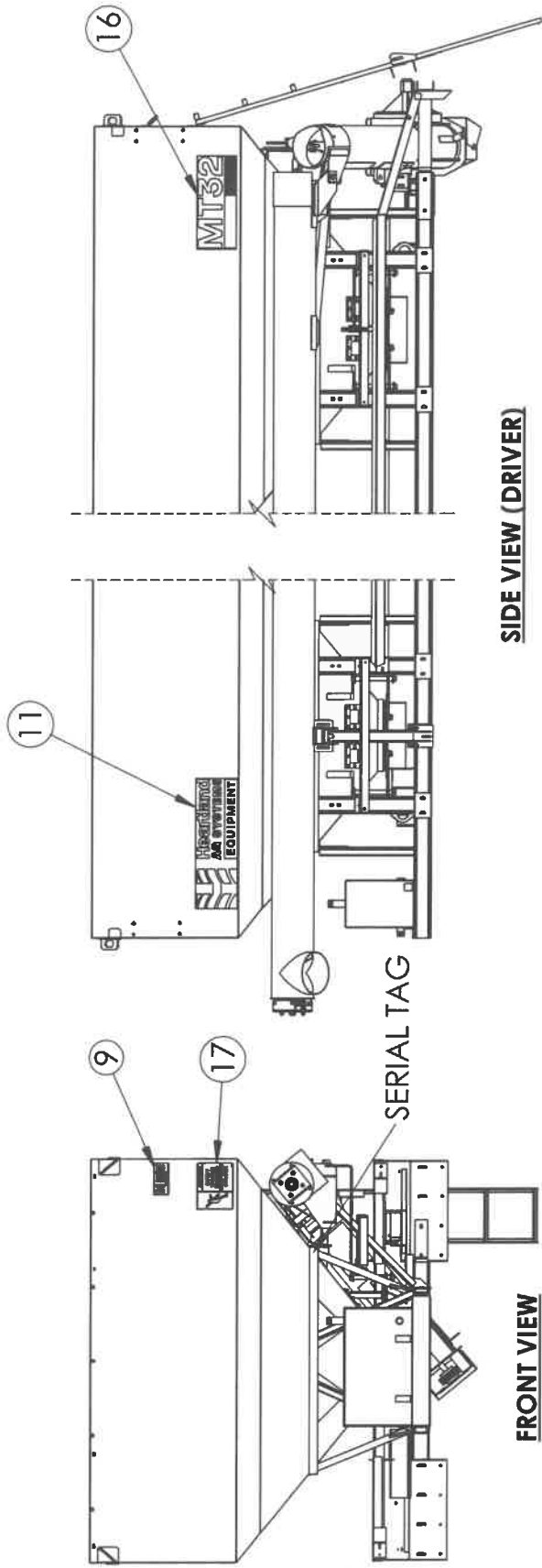
71617



28882A

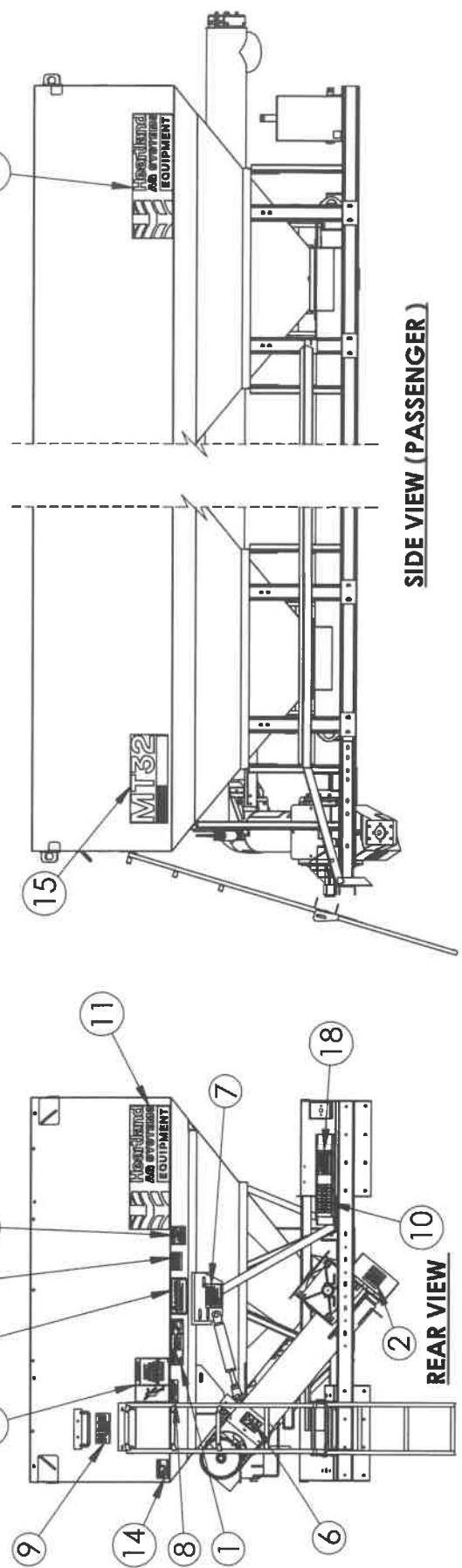


DECAL LAYOUT SHEET



SIDE VIEW (DRIVER)

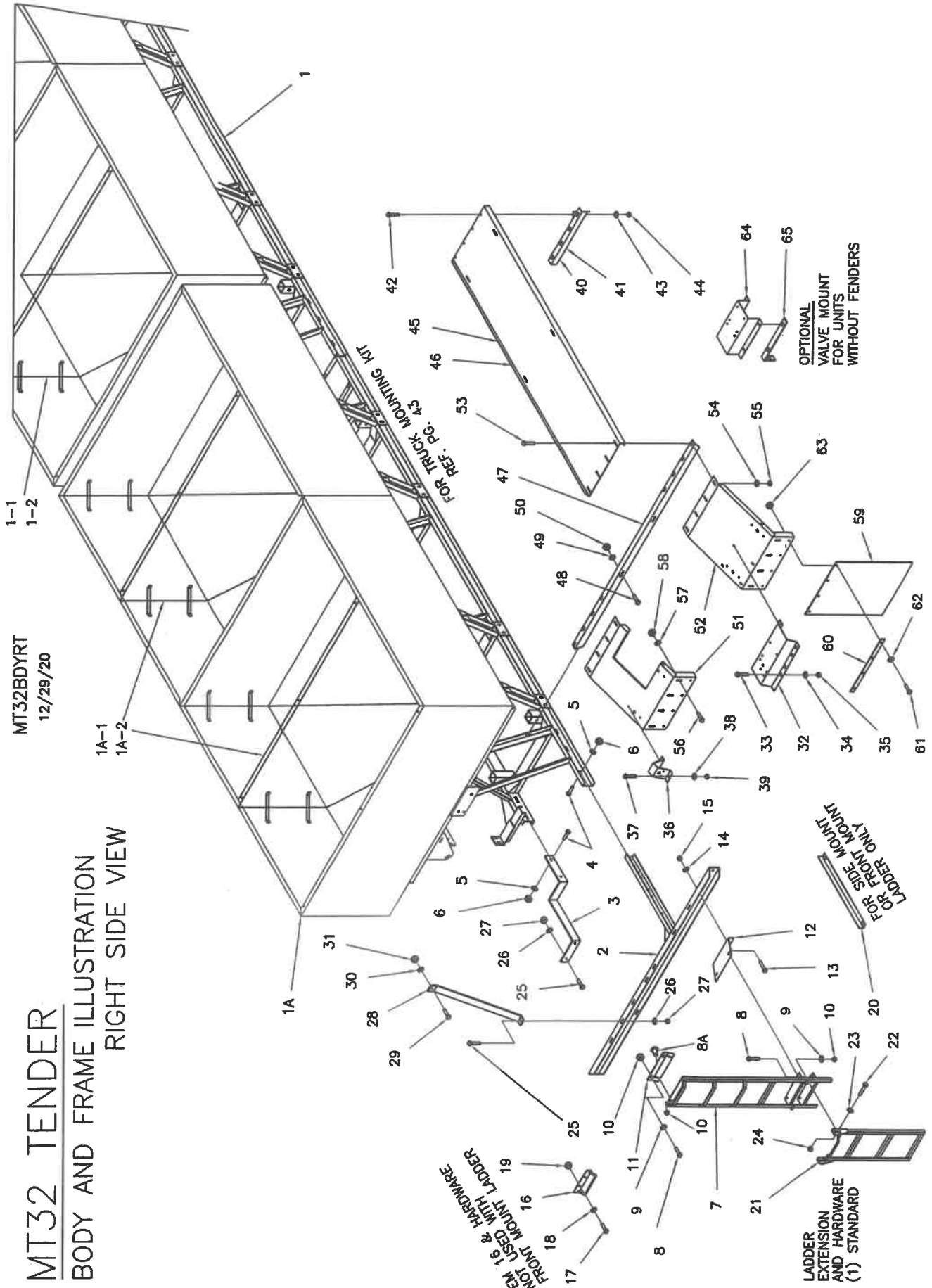
(AUGER NOT TO SCALE)



SIDE VIEW (PASSENGER)

MT32 TENDER

BODY AND FRAME ILLUSTRATION RIGHT SIDE VIEW



MT32TENDER

BODY AND FRAME ILLUSTRATION
(RIGHT SIDE) PARTS LIST

NOTE:
ALL HARDWARE IS
STAINLESS STEEL
EXCEPT WHERE NOTED

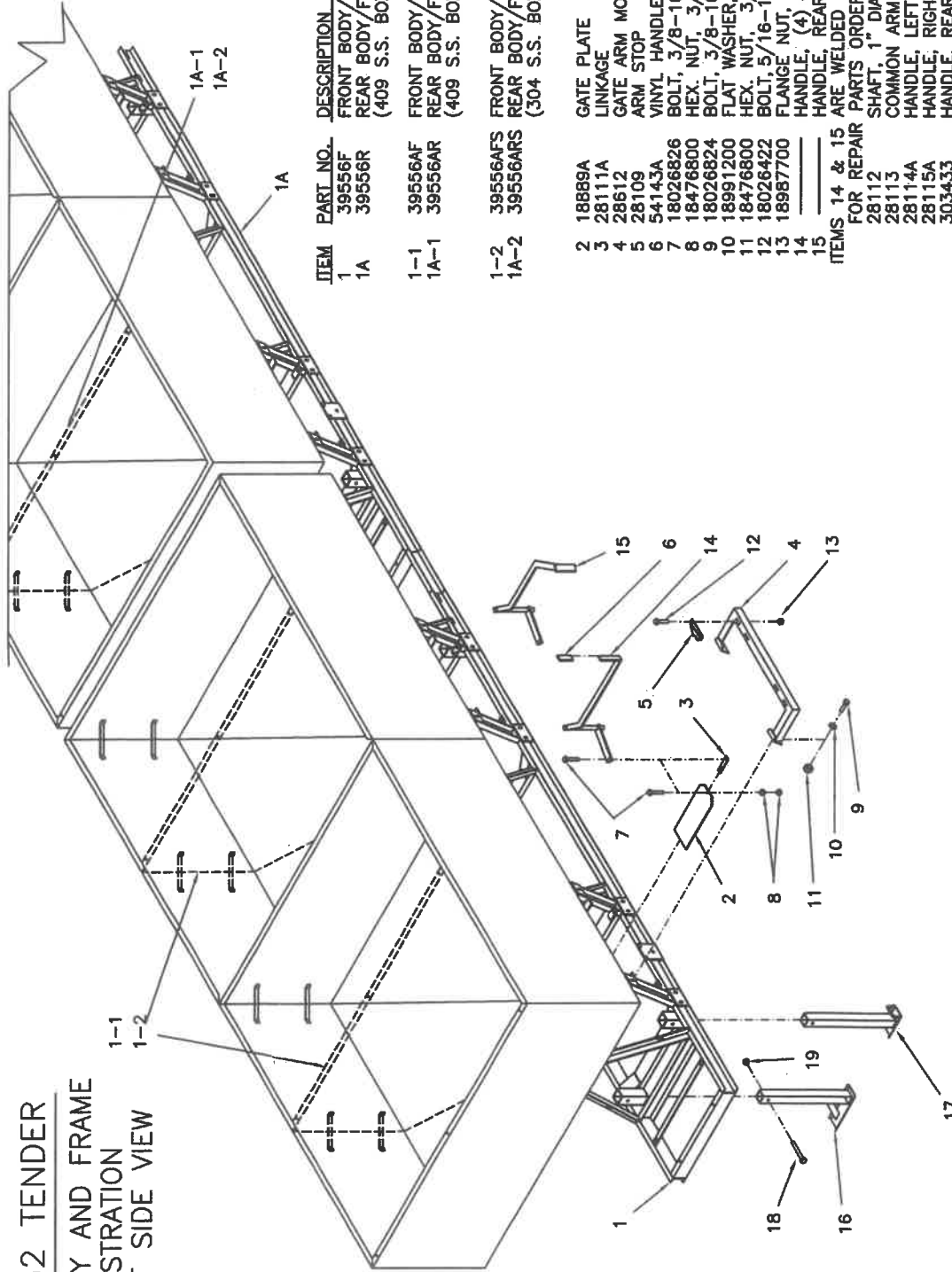
ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	39556F	FRONT BODY & FRAME, (2 COMPT STD)	1	29	18026822	BOLT, 3/8-16NC. X 1	1
1A	39556R	REAR BODY & FRAME, (2 COMPT STD) (409 S.S. BOX, SEE NOTE)	1	30	18991200	FLAT WASHER, 3/8	2
1-1	39556AF	FRONT BODY & FRAME, (4 COMPT OPTION)		31	18566400	NYLOCK NUT, 3/8-16NC.	1
1A-1	39556AR	REAR BODY & FRAME, (4 COMPT OPTION) (409 S.S. BOX, SEE NOTE)		32	28922A	VALVE BRACKET (STANDARD)	1
1-2	39556AFS	FRONT BODY & FRAME, (4 COMPT OPTION)		33	18026822	BOLT, 3/8-16NC. X 1	4
1A-2	39556ARS	REAR BODY & FRAME, (4 COMPT OPTION) (304 S.S. BOX, SEE NOTE)		34	18991200	FLAT WASHER, 3/8	8
2	39061	BUMPER, "LOWERING AUGER" (STD)	1	35	18566400	NYLOCK NUT, 3/8-16NC.	4
3	39051	BRACE	1	36	28818	LIGHT BRACKET, REAR	2
4	18470175	BOLT, 1/2-13NC. X 1 3/4	5	37	18026422	BOLT, 5/16-18NC. X 1	4
5	18824800	FLAT WASHER, 1/2	10	38	18991100	FLAT WASHER, 5/16	8
6	18567400	NYLOCK NUT, 1/2-13NC.	5	39	18457500	NYLOCK NUT, 5/16-18NC ZC	4
7	28124A	LADDER, UPPER	-	40	28163	LIGHT BRACKET, FRONT- L.H.	1
8	18026822	BOLT, 3/8-16NC. X 1	2	41	28164	LIGHT BRACKET, FRONT- R.H.	1
8A	18706621	SCREW, MACH 3/8 X 3/4 TR SL	4	42	18026422	BOLT, 5/16-18NC. X 1	8
9	18991200	FLAT WASHER, 3/8	8	43	18991100	FLAT WASHER, 5/16	16
10	18566400	NYLOCK NUT, 3/8-16NC.	2	44	18457500	NYLOCK NUT, 5/16-18NC ZC	8
11	28809	MOUNT BRACKET, UPPER	2		28815A	OPTIONAL FENDER KIT (INCLUDES ITEMS 45 THRU 58)	-
12	28810	MOUNTING BRACKET, LOWER	2	45	28815	FENDER, LEFT HAND	1
13	18026824	BOLT, 3/8-16NC. X 1 1/4	2	46	28816	FENDER, RIGHT HAND	1
14	18991200	FLAT WASHER, 3/8	4	47	28787	FENDER SUPPORT	3
15	18566400	NYLOCK NUT, 3/8-16NC.	2	48	18470175	BOLT, 1/2-13NC. X 1 3/4	6
16	06648	HANDLE (LADDER)	2	49	18824800	FLAT WASHER, 1/2	12
17	18026822	BOLT, 3/8-16NC. X 1	2	50	18567400	NYLOCK NUT, 1/2-13NC.	6
18	18991200	FLAT WASHER, 3/8	8	51	39060	FENDER EXTENSION, L.H. (STD)	1
19	18566400	NYLOCK NUT, 3/8-16NC.	4	52	28866	FENDER EXTENSION, R.H.	1
20	28974	BRACE, LADDER (SIDE OR FNT. MNT.)	1	53	18026824	BOLT, 3/8-16NC. X 1 1/4	16
		ITEM 20 USED FOR SIDE/Front MOUNT ONLY		54	18991200	FLAT WASHER, 3/8	32
21	28507	EXTENSION LADDER KIT (INCLUDES ITEMS 21 TO 24)		55	18566400	NYLOCK NUT, 3/8-16NC.	16
22	28125	EXTENSION LADDER (OPTIONAL)	1	56	18026824	BOLT, 3/8-16NC. X 1 1/4	8
23	18824800	BOLT, 1/2-13NC. X 3	2	57	18991200	FLAT WASHER, 3/8	16
24	18567400	FLAT WASHER, 1/2	2	58	18566400	NYLOCK NUT, 3/8-16NC.	8
25	18026824	NYLOCK NUT, 1/2-13NC.	3		REF. MUD FLAP KIT P.N. 33244 (INCLUDES ITEMS 59 THRU 63)		-
26	18991200	BOLT, 3/8-16NC. X 1 1/4	6	59	76714	SPLASH GUARD	2
27	18566400	NYLOCK NUT, 3/8-16NC.	3	60	47006302	MOUNTING STRAP	2
28	39052	BRACE, BUMPER	1	61	18056826	BOLT, 3/8-16NC. X 1 1/2	ZC 8
				62	18811200	FLAT WASHER, 3/8	ZC 16
				63	18459200	NYLOCK NUT, 3/8-16NC.	ZC 8
				64		OPTIONAL FOR UNITS WITHOUT FENDERS VALVE MOUNT (Optional)	1
				65	39144	SUPPORT, 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

33

MT32BDYLFT
12/5/19

MT32 TENDER
BODY AND FRAME
ILLUSTRATION
LEFT SIDE VIEW



ITEM	PART NO.	DESCRIPTION	QTY
1	39556F	FRONT BODY/FRAME 2 COMPT STD	1
1A	39556R	REAR BODY/FRAME 2 COMPT STD (409 S.S. BOX SEE NOTE)	1
1-1	39556AF	FRONT BODY/FRAME 4 COMPT STD	
1A-1	39556AR	REAR BODY/FRAME 4 COMPT STD (409 S.S. BOX SEE NOTE)	
1-2	39556AFS	FRONT BODY/FRAME 4 COMPT STD	
1A-2	39556ARS	REAR BODY/FRAME 4 COMPT STD (304 S.S. BOX SEE NOTE)	

2	18889A	GATE PLATE	8
3	28111A	LINKAGE	8
4	28612	GATE ARM MOUNT	4
5	28109	ARM STOP	4
6	54143A	VINYL HANDLE GRIP	8
7	18026826	BOLT, 3/8-16NC. X 1 1/2	16
8	18476800	HEX. NUT, 3/8-16NC	32
9	18026824	BOLT, 3/8-16NC. X 1 1/4	8
10	18991200	FLAT WASHER, 3/8	8
11	18476800	HEX. NUT, 3/8-16NC	8
12	18026422	BOLT, 5/16-18NC. X 1.00"	16
13	18987700	FLANGE NUT, 5/16-18NC	16
14		HANDLE, (4) .L.H. & (3) R.H.	
15		HANDLE, REAR GATE (1)	

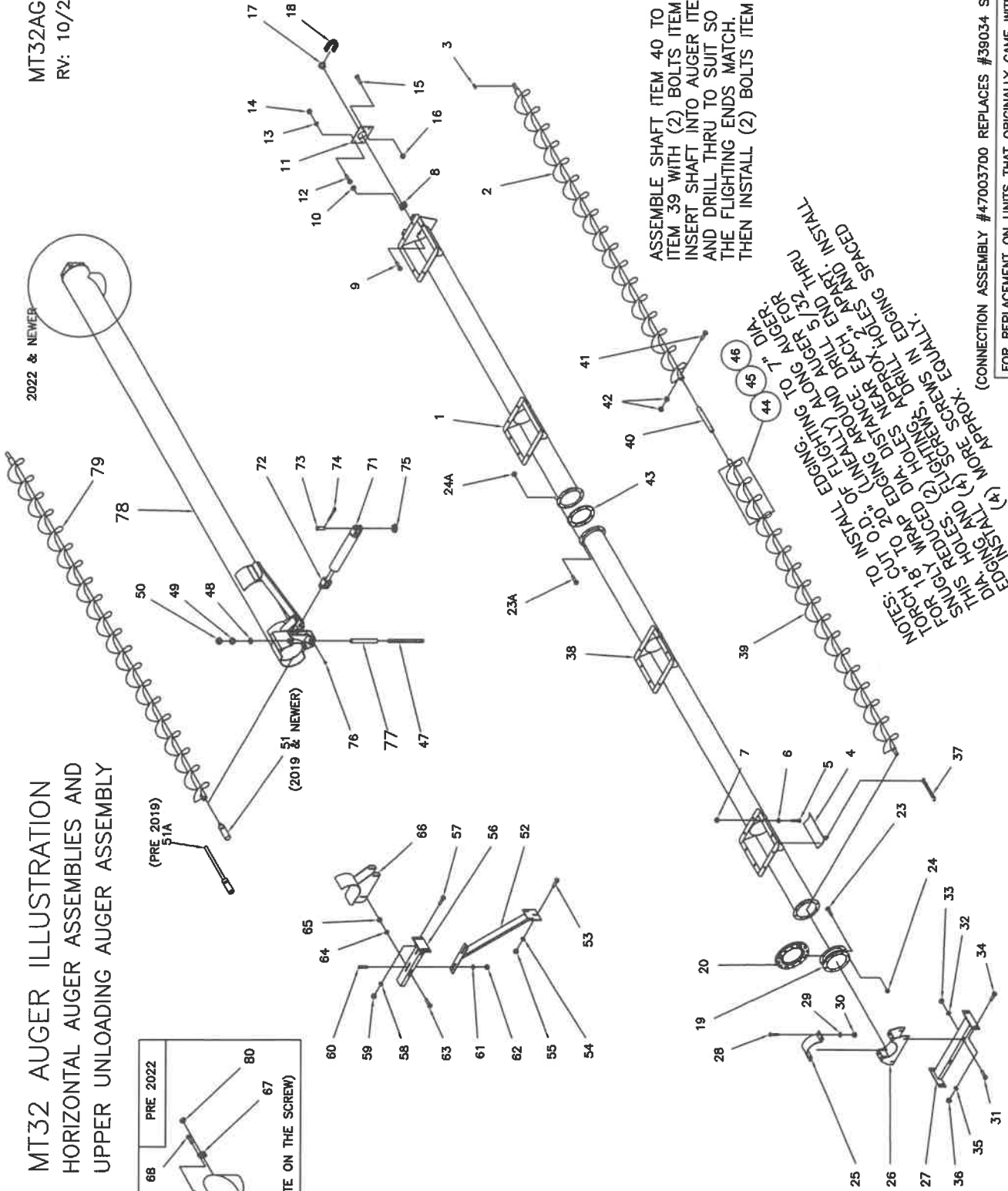
ITEMS 14 & 15 ARE WELDED IN PLACE AT ASSEMBLY.
FOR REPAIR PARTS ORDER—
28112 SHAFT, 1" DIA. X 10 1/2
28113 COMMON ARM
28114A HANDLE, LEFT HAND
28115A HANDLE, RIGHT HAND
303433 HANDLE, REAR (TEE TYPE)
16 47005524 SAFETY STAND, AUGER SIDE
17 47005525 SAFETY STAND, HANDLE SIDE
18 18057446 BOLT, 1/2-13NC. X 4 ZC.
19 18417400 HEX. NUT, 1/2-13NC. ZC.
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

MT32AGR1NG
RV: 10/28/21

MT32 AUGER ILLUSTRATION
HORIZONTAL AUGER ASSEMBLIES AND
UPPER UNLOADING AUGER ASSEMBLY

2022 & NEWER



ASSEMBLE SHAFT ITEM 40 TO AUGER
ITEM 39 WITH (2) BOLTS ITEM 40.
INSERT SHAFT INTO AUGER ITEM 2
AND DRILL THRU TO SUIT SO THAT
THE FLIGHTING ENDS MATCH.
THEN INSTALL (2) BOLTS ITEM 41.

NOTES: TO INSTALL EDGING TO DIA.
FOR 18" TO 20" OF FLIGHTING TO
SLUG WRAP EDGING AROUND AUGER FOR
DIA HOLES. (2) HOLES NEAR EACH
END THRU THIS REDUCED DIA. DISTANCE
APPROX. 2" (LINEALLY) ALONG AUGER.
EDGING AND (4) SCREWS. DRILL HOLES
APPROX. 1/2" DIA. AND INSTALL
(4) MORE SCREWS IN EDGING SPACED
APPROX. EQUALLY.

(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

MT32 AUGER PARTS LIST

MT32AGRLST
REV 10/28/21

HORIZONTAL AUGERS AND UPPER UNLOAD AUGER

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	39039	HORIZONTAL AUGER	1	47	28807A	UPPER UNLOAD AUGER	1
2	48300307	AUGER TUBE WELDMENT (FRONT AUGER)	1	48	18852200	THREADED ROD, 1-8NC. X 15 3/8	1
3	47006519	FRONT AUGER SCREW	1	49	18439000	WASHER, FLAT 1" SAE ZC	2
4	28811	DRIVE KEY, 1/4 X 1/4 X 1 1/2	1	50	18449005	HEX. NUT, 1-8NC.	2
5	18026822	CLEAN-OUT DOOR	4	51	47003537	JAM NUT, 1-8NC.	2
6	18991200	BOLT, 3/8-16NC. X 1	16	51A	29028	AUGER GUIDE SHAFT (2019 & NEWER)	1
7	18566400	FLAT WASHER, 3/8	32	52	28846A	SCREW GUIDE CABLE ASSY (PRE 2019)	1
8	10500	NYLOCK NUT, 3/8-16NC.	16	53	18026824	IS SHOWN FOR REFERENCE ONLY	1
9	18026826	FLANGE BRG. 1" BORE	1	54	18991200	CRADLE SUPPORT BRACE	1
10	18566400	BOLT, 3/8-16NC. X 1 1/2	2	55	18566400	BOLT, 3/8-16NC. X 1 1/4	3
11	29921	NYLOCK NUT, 3/8-16NC.	2	56	28835A	FLAT WASHER, 3/8	6
12	18026824	MOTOR MOUNT PLATE	1	57	18026826	NYLOCK NUT, 3/8-16NC.	3
13	18991200	BOLT, 3/8-16NC. X 1 1/4	4	58	18991200	CRADLE SUPPORT	1
14	18566400	FLAT WASHER, 3/8	8	59	18566400	BOLT, 3/8-16NC. X 1 1/2	2
15	18470175	NYLOCK NUT, 3/8-16NC.	4	60	18026824	FLAT WASHER, 3/8	2
16	18567400	BOLT, 1/2-13NC. X 1 3/4	2	61	18991200	NYLOCK NUT, 3/8-16NC.	4
17	10181	NYLOCK NUT, 1/2-13NC.	2	62	18566400	FLAT WASHER, 3/8	2
18	17701	SPROCKET, #50B18, 1" BORE	2	63	18026824	NYLOCK NUT, 3/8-16NC.	4
19	53159	COUPLING CHAIN, #50-2 X 17 LINKS	1	64	18991200	BOLT, 3/8-16NC. X 1 1/4	4
20	47003700	CONNECTOR, #50-2	1	65	18566400	FLAT WASHER,	8
21	---	TUBE ADAPTER	1	66	29862	NYLOCK NUT, 3/8-16NC.	4
22	---	CONNECTOR ASSEMBLY	1	67**	52056	TUBE CRADLE	1
23	18026822	BOLT, 3/8-16NC. X 1	4	68**	18026824	FLANGE BRG. 1 1/4 BORE	1
24	18566400	NYLOCK NUT, 3/8-16NC.	8	69**	18991200	BOLT, 3/8-16NC. X 1 1/4	2
25	39024	TUBE CLAMP	8	70**	18987900	FLAT WASHER, 3/8	4
26	39020	TUBE CRADLE, (HORIZONTAL)	1	71	07132	FLANGE NUT, 3/8-16NC.	2
27	39048	CRADLE SUPPORT, (HORIZ. TUBE)	1	72	87266905	HYDRAULIC CYLINDER, (3 1/2 X 8)	1
28	18991200	BOLT, 3/8-16NC. X 1 1/2	4	73	98081	REPAIR CLEVIS ONLY	REPAIR PARTS ONLY
29	18566400	FLAT WASHER, 3/8	8	74	86632567	CYLINDER REPAIR KIT (NOT SHOWN)	2
30	18026824	NYLOCK NUT, 3/8-16NC.	4	75	18560826	CYLINDER PIN,	2
31	18566400	BOLT, 3/8-16NC. X 1 1/4	4	76	18562200	COITER PIN, 3/16 X 1 1/2	2
32	18991200	FLAT WASHER, 3/8	8	77	18901806	FLAT WASHER, 1" SAE	2
33	18566400	NYLOCK NUT, 3/8-16NC.	4	78*	307623	GREASE ZERK, 90 DEGREE	2
34	18470175	BOLT, 1/2-13NC. X 1 3/4	4	79*	28958	PIVOT TUBE	1
35	18991400	FLAT WASHER, 1/2	8		28957	AUGER TUBE, 16 FT	1
36	18567400	NYLOCK NUT, 1/2-13NC.	4		28960A	AUGER TUBE, 17 FT (DISCONTINUED)	N/A
37	01078	STRETCH STRAP (BUNGEE)	4		28959	AUGER SCREW, 16 FT	1
38	48300300	REAR HORIZONTAL AUGER TUBE WELD'T	1		80**	AUGER SCREW, 17 FT (DISCONTINUED)	N/A
39	48300303	REAR HORIZONTAL AUGER TUBE WELD'T	1			CLAMP COLLAR, 1 1/4"	1
40	48300306	CONNECTOR SHAFT, HORIZ AUGER	1				
41	18027436	BOLT, HEX 1/2-13 X 2 1/2 LONG SS	4				
42	18567400	NYLOCK NUT, 1/2-13 SS	4				
43	48300302	RUBBER CUSHION	4				
44	300250	UHMW EDGING, 60 INCHES	1				
45	18704218	SCREW, #8-32 X 3/4 RD. HD. S.S.	8				
46	18474201	LOCKNUT, #8-32 NYLOCK S.S.	8				

(* - ITEMS 78 & 79 ARE INCLUDED IN THE UPPER UNLOAD AUGER ASSEMBLY)
(UPPER UNLOAD AUGER ASSEMBLY P/N: 29151 BREAKDOWN ON NEXT 2 PAGES)

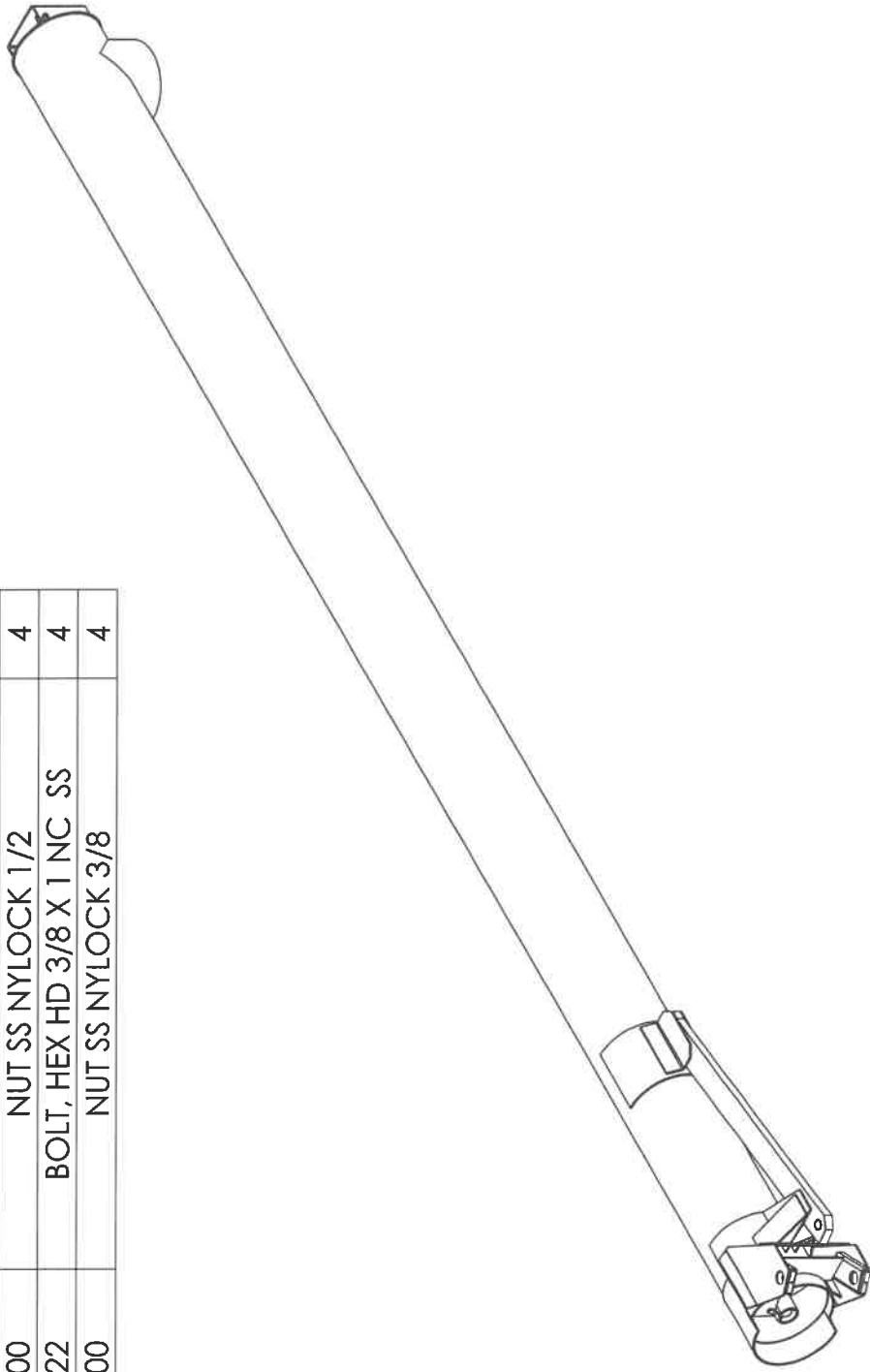
(** - ITEMS 67, 68, 69, 70 & 80 ARE FOR PRE 2022 UNITS AND OLDER)
(CONNECTOR ASSEMBLY #47003700 REPLACES #39034 STARTING FALL 2019)

FOR REPLACEMENT ON UNITS THAT ORIGINALLY CAME WITH PART #39034,
ORDER P/N: 47003700R AND P/N: 71107

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	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	4
9	18566400	NUT SS NYLOCK 3/8	4



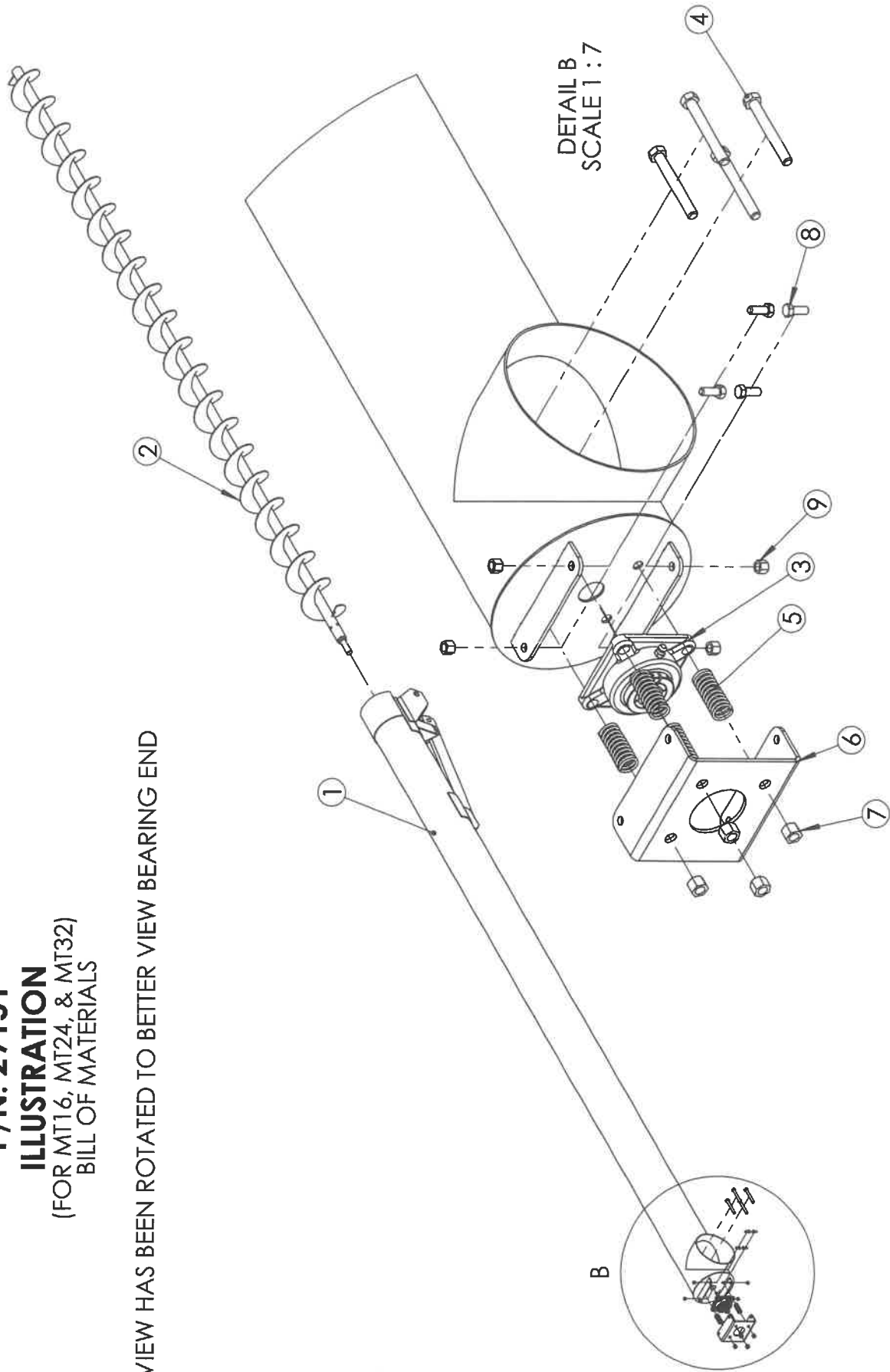
16' UNLOAD AUGER TUBE ASSEMBLY

P/N: 29151

ILLUSTRATION

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

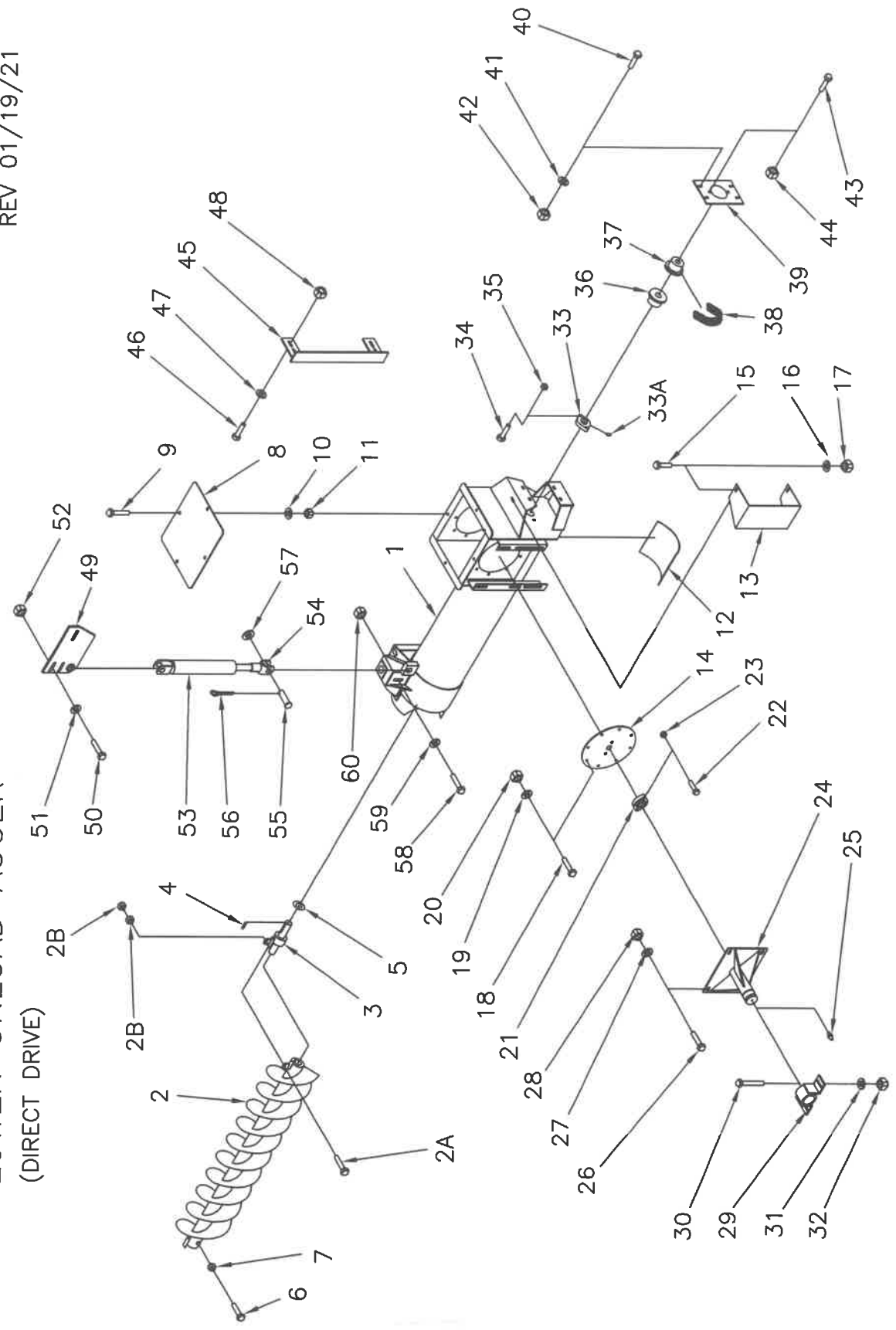
VIEW HAS BEEN ROTATED TO BETTER VIEW BEARING END



MT16 MT24 AND AUGER ILLUSTRATION

MT16AGRLU
03-24-10
REV 01/19/21

MT32 LOWER UNLOAD AUGER (DIRECT DRIVE)



MT16, MT24 & MT32
AUGER PARTS LIST

MT16AGRLLULST
03-24-10
REV 9/24/21

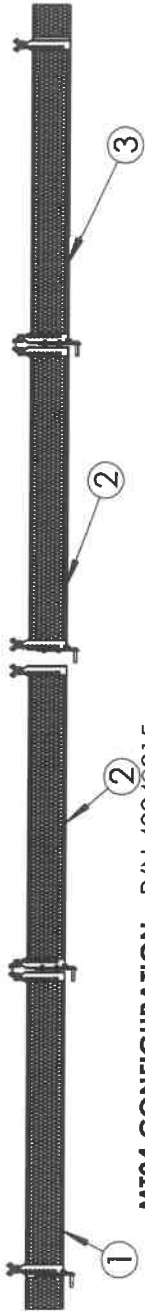
LOWER UNLOAD AUGER

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
4	47006519	DRIVE KEY, 1/4 SQ. X 1 1/2	1	37	10183	SPROCKET, #50B24, 1" BORE	1
5	50165	MACHINERY WASHER, 1 1/4 X 10 GA.	1	38	29941	COUPLING CHAIN, #50-2 X 23 LINKS	1
6	18026822	BOLT, 3/8-16NC. X 1	1	39	53159	CONNECTOR, #50-2	1
7	18476800	HEX. NUT, 3/8-16NC.	2	39	29921	MOTOR MOUNT PLATE	1
8	28704	COVER PLATE	1	40	18026824	BOLT, 3/8-16NC. X 1 1/4	4
9	18026824	BOLT, 3/8-16NC. X 1 1/4	4	41	18991200	FLAT WASHER, 3/8	8
10	18991200	FLAT WASHER, 3/8	8	42	18566400	NYLOCK NUT, 3/8-16NC.	4
11	18566400	NYLOCK NUT, 3/8-16NC.	4	43	18022026	BOLT, 1/2-13NC. X 1 1/2	2
12	28918	CLEAN-OUT DOOR	1	44	18567400	NYLOCK NUT, 1/2-13NC.	2
13	29927	SHIELD, HYDRAULIC MOTOR	1	45	39016	AUGER GUIDE	1
14	28828	END CAP	1	46	18026824	BOLT, 3/8-16NC. X 1 1/4	4
15	18026824	BOLT, 3/8-16NC. X 1 1/4	2	47	18991200	FLAT WASHER, 3/8	4
16	18991200	FLAT WASHER, 3/8	4	48	18566400	NYLOCK NUT, 3/8-16NC.	4
17	18566400	NYLOCK NUT, 3/8-16NC.	2	49	39047	CYLINDER ANCHOR	1
18	18026822	BOLT, 3/8-16NC. X 1	8	50	18470175	BOLT, 1/2-13NC. X 1 3/4	3
19	18991200	FLAT WASHER, 3/8	8	51	18824800	FLAT WASHER, 1/2	3
20	18566400	NYLOCK NUT, 3/8-16NC.	8	52	18567400	NYLOCK NUT, 1/2-13NC.	3
21	10500	FLANGE BRG. 1" BORE	1	53	39254	HYDRAULIC CYLINDER,	1
22	18026826	BOLT, 3/8-16NC. X 1 1/2	2	54	92395	REPAIR CLEVIS ONLY	1
23	18566400	NYLOCK NUT, 3/8-16NC.	2	54	98180	CYLINDER REPAIR KIT (NOT SHOWN)	2
24	39025	AUGER PIVOT WELDMENT	1	55	86632567	CYLINDER PIN,	2
25	18901805	GREASE ZERK, STRAIGHT	1	56	18560826	COTTER PIN, 3/16 X 1 1/2	2
26	18026824	BOLT, 3/8-16NC. X 1 1/4	4	57	18852200	FLAT WASHER, 1" SAE	2
27	18991200	FLAT WASHER, 3/8	8	ITEMS	58, 59, AND	60 INSTALLED FOR SHIPPING ONLY	1
28	18566400	NYLOCK NUT, 3/8-16NC.	4	58	18470175	BOLT, 1/2-13NC. X 1 3/4	2
29	39028	PIVOT MOUNT	1	59	18824800	FLAT WASHER, 1/2	2
30	18026830	BOLT, 3/8-16NC. X 2	2	60	18567400	NYLOCK NUT, 1/2-13NC.	1
31	18991200	FLAT WASHER, 3/8	4				
32	18566400	NYLOCK NUT, 3/8-16NC.	2				

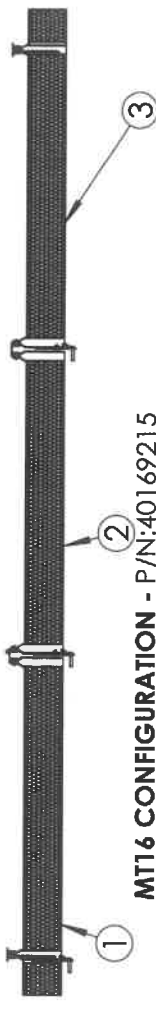
ITEMS 54-56 ARE REPAIR PARTS ONLY

CATWALK ILLUSTRATION

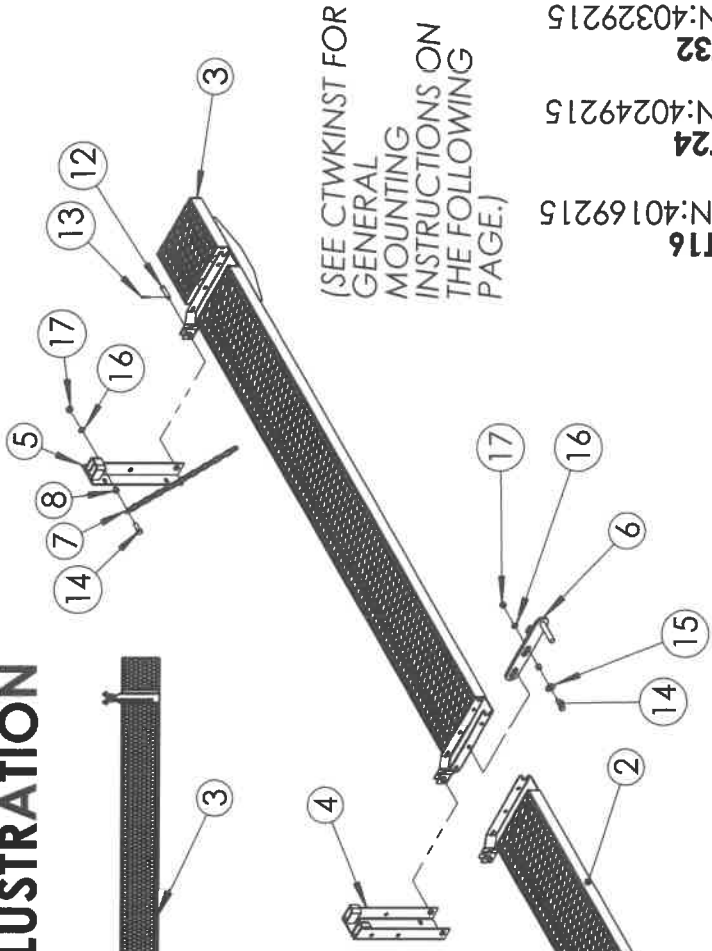
MT32 CONFIGURATION - P/N:40329215



MT24 CONFIGURATION - P/N:40249215



MT16 CONFIGURATION - P/N:40169215



MT16 P/N:40169215
 MT24 P/N:40249215
 MT32 P/N:40329215

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	COITER PIN, 5/32 X 1	4	6	8
14	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	11	17	22
15	18811400	WASHER, FLAT 1/2 ZC USS	8	14	16
16	18891400	WASHER, 1/2 LOCK ZC	11	17	22
17	18417400	NUT, HX 1/2 NC ZC	11	17	22

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

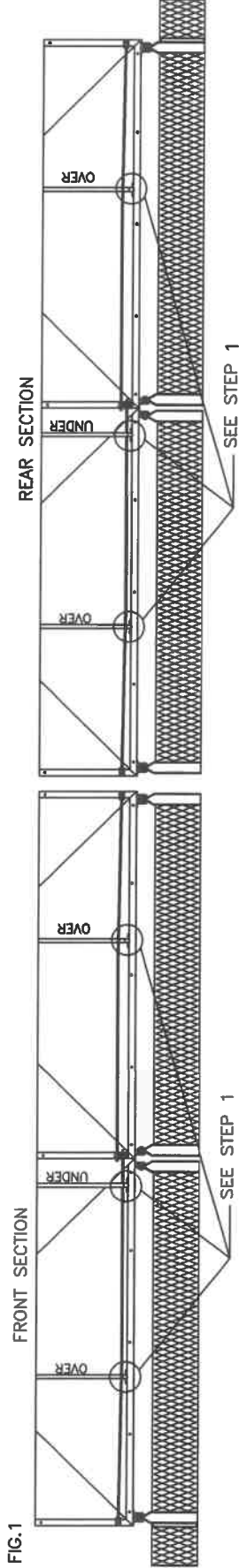
FRONT OF TENDER

ALSO INCLUDED, BUT NOT SHOWN (SEE CATWALK SAFETY HARNESS PAGE)
 CATWALK BOLT ON SAFETY BAR KIT (BASED ON TENDER)
 - MT16 P/N: 47997968
 - MT24 P/N: 47997967
 - MT32 P/N: 47997969

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
- 5: 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 (MT32)



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

START WITH EITHER THE FRONT SECTION OR THE REAR SECTION

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.
 5. 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.

REPEAT STEPS 1-6 ON THE REMAINING SECTION

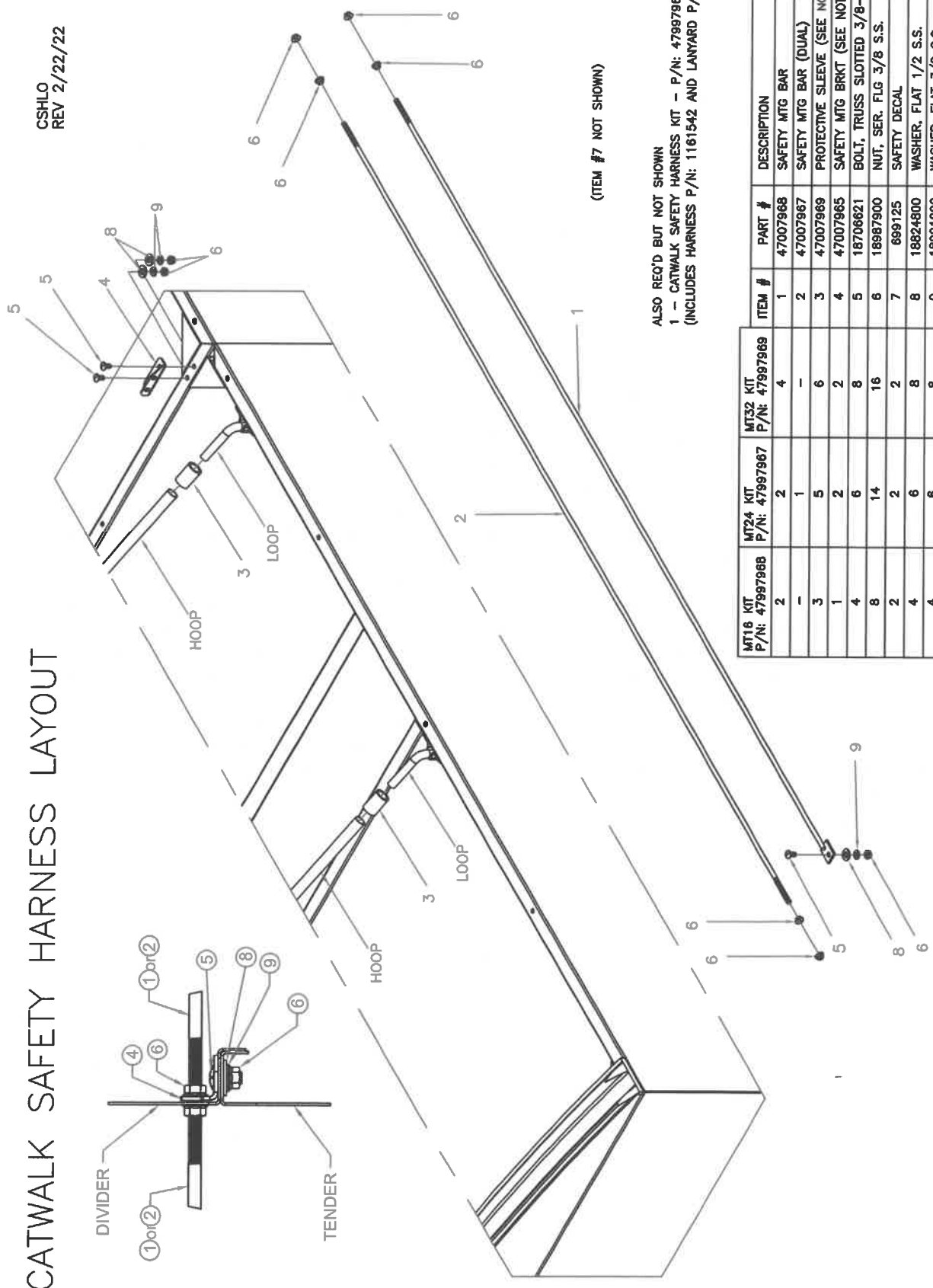
CATWALK BOLT ON SAFETY BAR KIT MT32 - P/N: 47997969			
CATWALK SAFETY HARNESS KIT - P/N: 47997965			
SAFETY MTG BAR P/N: 47007968 QTY - 4	PROTECTIVE SLEEVE P/N: 47007969 QTY - 6	SAFETY MTG BRKT P/N: 47007965 QTY - 3	SAFETY DECAL P/N: 699125 QTY - 2

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

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

CATWALK SAFETY HARNESS LAYOUT

CSHLO
REV 2/22/22



(ITEM #7 NOT SHOWN)

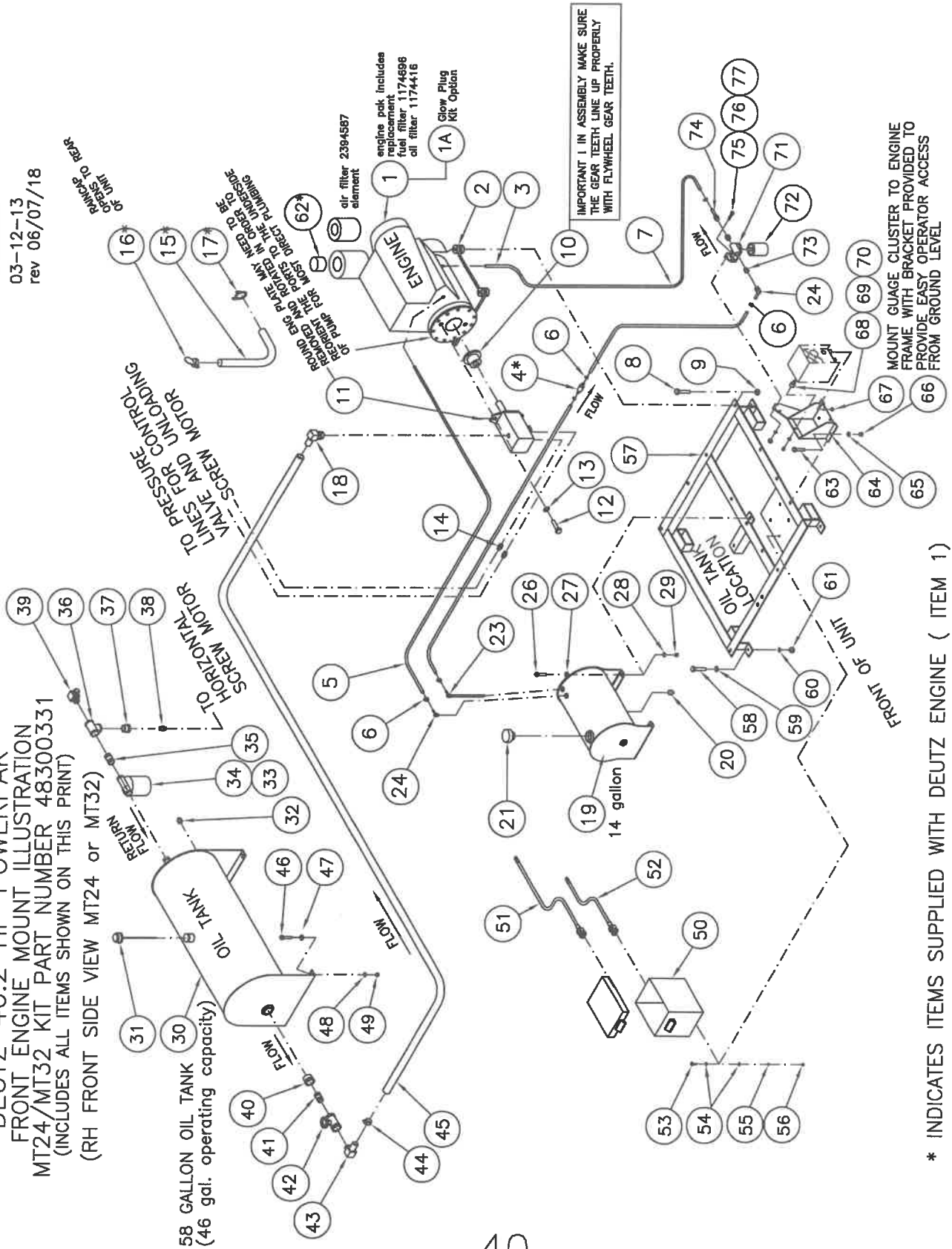
ALSO REQ'D BUT NOT SHOWN
1 - CATWALK SAFETY HARNESS KIT - P/N: 47997985
(INCLUDES HARNESS P/N: 1161542 AND LANYARD P/N: 3100412)

MT16 KIT P/N: 47997988	MT24 KIT P/N: 47997967	MT32 KIT P/N: 47997969	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	18706621	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)

MT24ENGMT
03-12-13
rev 06/07/18

DEUTZ 46.2 HP POWERPAK
FRONT ENGINE MOUNT ILLUSTRATION
MT24/MT32 KIT PART NUMBER 48300331
(INCLUDES ALL ITEMS SHOWN ON THIS PRINT)
(RH FRONT SIDE VIEW MT24 or MT32)



DEUTZ 46.2 HP POWERPACK

MT24ENGM1LST
03-12-13
rev 11/30/20

PARTS LIST

FRONT ENGINE MOUNT FOR MT24 OR MT32
(MT24/MT32 KIT PART NUMBER 48300331)

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	D2011L03i	ENGINE, DEUTZ DIESEL 46.2 HP	1	37	73653	BUSHING, 1 1/4 X 3/4 NPT	1
1A	D2011B	OPTIONAL GLOW PLUG KIT	1	38	2404-12-12	ADAPTER, 3/4P X #12JIC	1
2*	SNUBBERS AND WASHERS (WITH ENGINE PKG.)			39	2501-20-20	90° ELBOW, 1 1/4P X #20JIC	1
				40	72471	BUSHING, 2 X 1 1/2 NPT	1
				41	72390	CLOSE NIPPLE, 1 1/2 NPT	1
				42	51497	GATE VALVE, 1 1/2 NPT	1
3	H175 (BULK)	FUEL SUCTION LINE 12"	1	43	4501-24-24	HOSE BARB ADAPTER, 1.5P X 1.5 HOSE	1
4*	001CT30-186-01KP10	IN LINE FUEL FILTER	1	44	200258	HOSE CLAMP, 1 9/16" - 2 1/2"	2
5	FUEL RETURN LINE, (WITH ENGINE PKG. (32"))			45	12003501	SUCTION HOSE, 1 1/2 X 54"	1
6	200244	HOSE CLAMP, 7/16" - 1.00"	6	46	18057426	BOLT, 1/2-13 X 1 1/2 ZC	4
7	H175 (BULK)	FUEL LINE, HOSE- X 36"	1	47	18811400	FLATWASHER, 1/2 ZC	4
8	18057446	BOLT, 1/2-13NC. X 4	ZC	48	18891400	LOCKWASHER, 1/2 ZC	4
9	18457650	NUT, CTR. LOCK, 1/2-13NC. ZC	8	49	18417400	NUT, 1/2-13 NC ZC	4
10	1713610	COUPLING, PUMP	1	50	01353	BATTERY BOX WITH LID (PLASTIC)	1
11	MT32PUMP	HYDRAULIC PUMP, DUAL PRESSURE PORTS	1	51	148505	BATTERY CABLE, POS. X 48"	1
		# P315B193BEAB1766NAB171)		52	01351	BATTERY CABLE, NEG. X 38"	1
12	18056822	BOLT, 3/8-16NC. X 1	ZC	53	18706421	BOLT, 5/16-18 X 3/4 SS	4
13	18891200	LOCKWASHER, 3/8	ZC	54	18991100	FLATWASHER, 5/16 SS	8
14	6400-12	ADAPTER, #12 O-RING X #12JIC	2	55	18991110	LOCKWASHER, 5/16 SS	4
15*	5310	EXHAUST PIPE (DEUTZ)	1	56	18987700	NUT, 5/16-18 SS	4
16*	RC16905	RAIN CAP, 2" TUBE (DEUTZ)	1	57	48300317	POWER PACK FRAME WELDT	1
17*	50963	MUFFLER CLAMP, 2 1/4 DIA.	1	58	18057424	BOLT, 1/2-13 X 1 1/4 GR5	4
18	4601-24	ADAPTER, O-RING X 1 1/2 HOSE	1	59	18851400	FLATWASHER, 1/2 USS ZC	4
19	48300314	FUEL TANK, STEEL (14 gal capacity)	1	60	18891400	LOCKWASHER, 1/2 ZC	4
20	72220	DRAIN PLUG, 3/4 NPT.	1	61	18417400	NUT, 1/2-13 NC ZC	4
21	60001	FILL CAP, PRE-VENT, 2" NPT	1	62*	H001379	PRECLEANER, (DEUTZ)	1
22	OMITTED			63	18057424	BOLT, 1/2-13 X 1 1/4 GR5	2
23	48300323	SUCTION TUBE WELDMENT	1	64	47005720	GAUGE CLUSTER BRACKET	1
24	4501-4-4	HOSE BARB 90° 1/4 NPT X 1/4	2	65	18891400	LOCKWASHER, 1/2 ZC	2
25	OMITTED			66	18417400	NUT, 1/2-13 NC ZC	2
26	18057426	BOLT, 1/2-13NC. X 1 1/4	ZC	67	18495700	FLANGENUT, 1/4-20 ZC	4
27	18811400	FLATWASHER, 1/2	ZC	68	N100395	RUBBER ISOLATOR MOUNT	3
28	18891400	LOCKWASHER, 1/2	ZC	69	18055716	BOLT, 1/4-20 UNC X 1/2 LG ZC	1
29	18417400	NUT, HEX. 1/2-13	ZC	70	18891000	LOCKWASHER, 1/4 ZC	1
30	48300310	58 GALLON OIL TANK (46 gallons operating capacity)	1	71	4309	SEPARATOR CONVERSION BASE	1
31	48300330	DIPSTICK	1	72	3123	FILTER ELEMENT (NAPA 3123)	1
32	72220	DRAIN PLUG, 3/4NPT	1	73	200810	REDUCER, 1/2NPT-1/4 NPT	2
33	20239	OIL FILTER HEAD, 1 1/4 NPT	1	74	4244-4-4	HOSEBARB, 1/4 NPT X 1/4 HOSE	2
34	SE25	OIL FILTER ELEMENT ONLY	1	75	18056422	BOLT, HEX, 5/16-18 X 1 ZP	3
35	72330	CLOSE NIPPLE, 1 1/4 NPT	1	76	18891110	LOCKWASHER, 5/16 ZP	3
36	72342	PIPE TEE, 1 1/4 NPT	1	77	18457600	NUT, 5/16-18 ZP	3

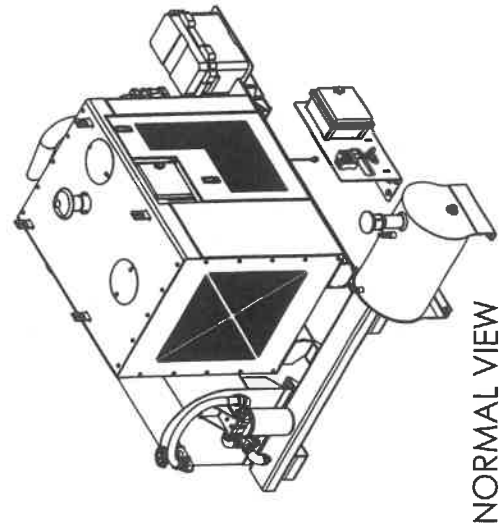
* INDICATES PARTS SUPPLIED WITH THE DEUTZ ENGINE

(ALSO INCLUDED BUT NOT SHOWN 48309999 DIESEL EMISSION TAG)

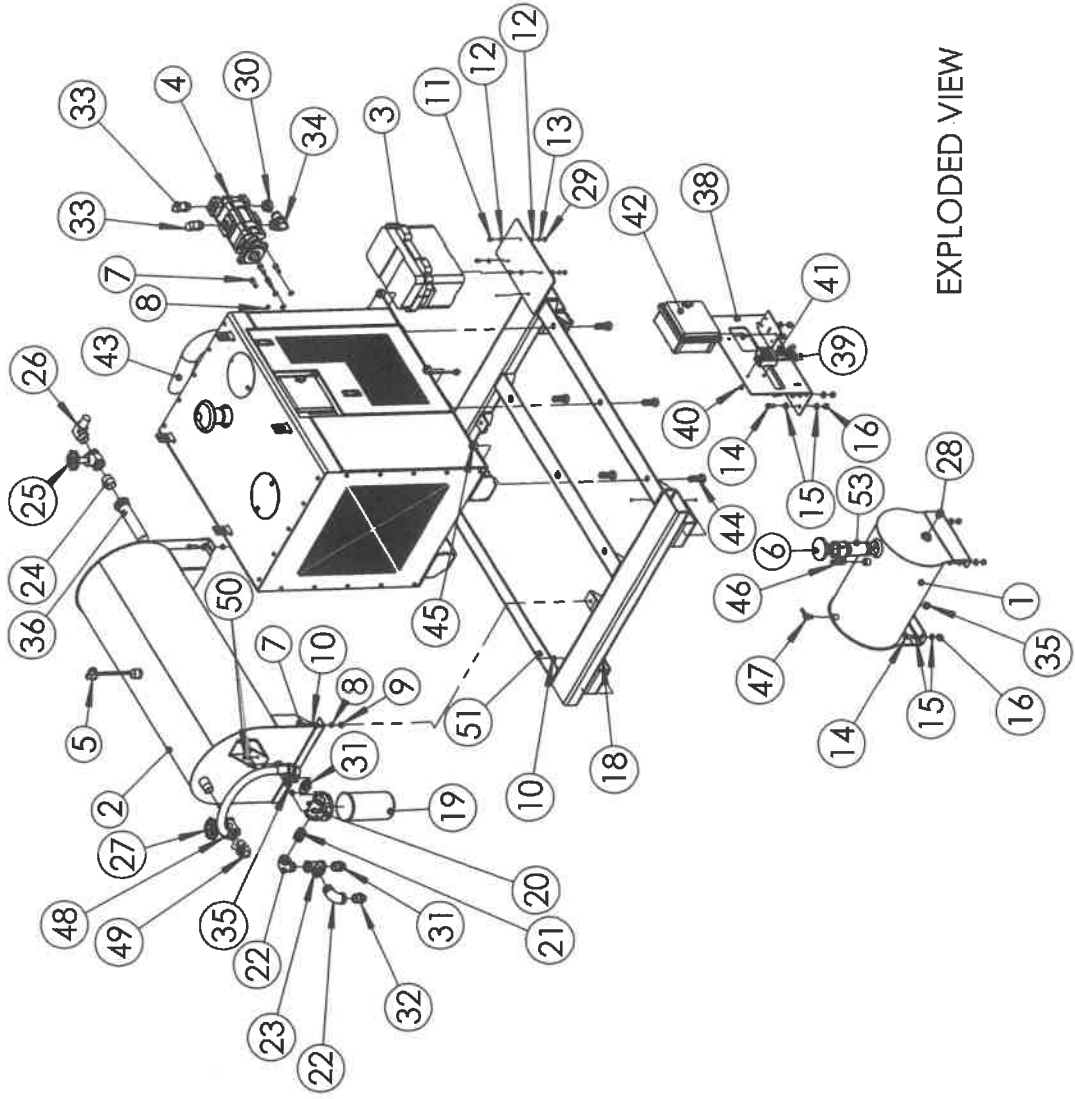
DEUTZ 74.2 HP ENGINE SKID

ILLUSTRATION
 PART #:48300385
 2021 AND BEYOND

BILL OF MATERIAL - SHEETS 41A & 42A
 ENGINE SKID DETAIL - SHEET 43A
 CONTROL PANEL DETAIL - SHEET 44A
 FUEL TANK DETAIL - SHEET 45A
 OIL TANK DETAIL -SHEET 46A



NORMAL VIEW



EXPLODED VIEW

DEUTZ 74.2 HP ENGINE SKID

BILL OF MATERIAL - PART #:48300385

BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71082	FUEL TANK 14 GALLON, T4	1
2	48300310	58 GALLON OIL TANK	1
3	01353	BATTERY BOX W/ LID	1
4	MT900TAPUMP	HYDRAULIC PUMP	1
5	48300330	DIP STICK	1
6	60001	FUEL TANK CAP	1
7	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	8
8	18891400	WASHER, 1/2 LOCK ZC	8
9	18417400	NUT, HX 1/2 NC ZC	4
10	18811400	WASHER, FLAT 1/2 ZC	8
11	18706421	BOLT, HX CAP 5/16-18 X 3/4 LG SS	3
12	18991100	WASHER, FLAT 5/16 SS	6
13	18991110	WASHER, LOCK 5/16 SS	3
14	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	8
15	18824800	WASHER FLAT 1/2 SS	16
16	18567400	NUT SS NYLOCK 1/2	8
17	18457650	NUT CTR LOCK 1/2 ZP ZC	4
18	SE25	OIL FILTER ELEMENT 10 MIL	1
19	20239	OIL FILTER HEAD 1 1/4 NPT	1
20	72330	CLOSE NIPPLE 1 1/4" NPT	1
21	72355	1 1/4 STREET ELBOW	2
22	72342	PIPE TEE 1 1/4 NPT	1
23	72390	CLOSE NIPPLE 1 1/2	1
24	51497	GATE VALVE 1 1/2 NPT	1
25	4501-24-24	1 1/2 HOSE ADAPTER	1
26	02006	1 1/4" GATE VALVE	1
27	1091809	FLUID LEVEL SIGHT GLASS	1

BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
28	18987700	NUT 5/16 SERR FLG	3
29	6408-20	#20 O-RING PLUG	1
30	2404-16-20	ADAPTER 1 1/4 NPT M X #16 JIC M	2
31	2404-12-20	ADAPTER 1 1/4 MNPT X #12 MJIC	1
32	6801-12-16	ELBOW 90 DEG #12 MJIC X #16 MORB	2
33	4601-24-20	HOSEBARB 90	1
34	72220	DRAIN PLUG 3/4 NPT	2
35	1044762	2" X 1 1/2" EXTERNALLY MOUNTED STRAINER W/ BYPASS	1
36	71021	ENGINE SKID, DEUTZ T4	1
37	71024	CONTROL BOX WELDT	1
38	AGRICOVER CONTROL	AGRICOVER CONTROL	1
39	18566400	NUT SS NYLOCK 3/8	2
40	18176450	BOLT, CARRIAGE, 3/8-16 X 1	2
41	303264	CONTROL BOX	1
42	47995366	DEUTZ ENGINE	1
43	18058313	BOLT GR8 7/8-9 X 2 1/2 LG ZC YELLOW	6
44	18458454	NUT NYLOCK GR 8 7/8-9 ZC YELLOW	6
45	71088	ADAPTER ELBOW, 1/2 HOSE, 1/2 NPT MALE	1
46	71089	ADAPTER ELBOW, 3/8 HOSE, 3/8 NPT MALE	1
47	71103	19" HOSE WITH FITTINGS	1
48	2024-20-16	20 NPTM-16 JIC elbow	1
49	18026422	BOLT CAP SS 5/16 X 1	2
50	71627	DIE SPRING, 1 X 1.5, BLUE	2
51	18057438	BOLT, 1/2-13 X 3 GR5 ZP	2
52	18057428	BOLT HX CAP 1/2-13 X 1 3/4 ZC	2
53	71631	FILLER PIPE WITH BAFFLE	1

NOTES:

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

ITEMS ALSO INCLUDED BUT NOT SHOWN

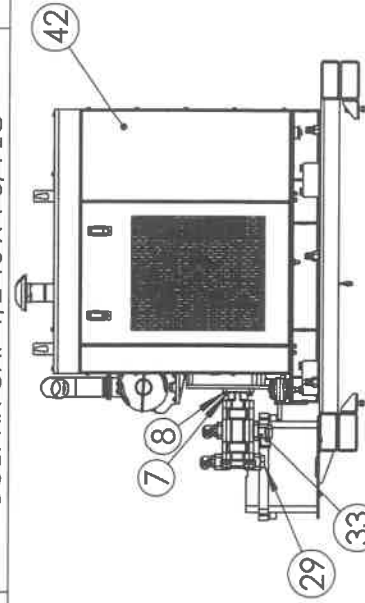
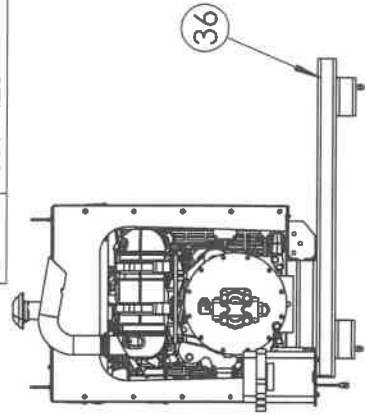
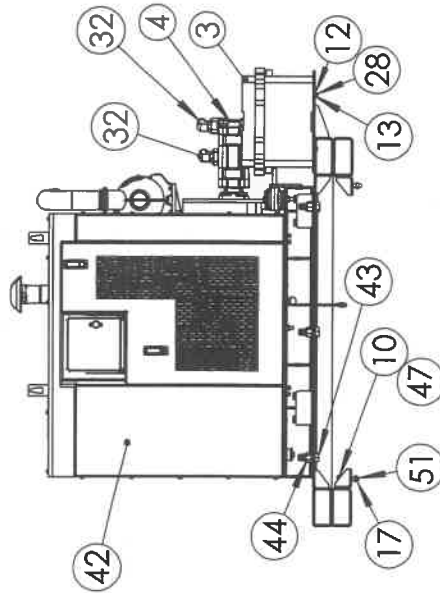
PART NUMBER	DESCRIPTION	QTY
FBA12684100	FUEL LINE CLIPS	8
FBA12683100	HOSE LINE CLAMPS	2
12003501	SUCTION HOSE	1
71092	2 GA BATTERY CABLE 48" RED	1
71093	2 GA BATTERY CABLE 38" BLACK	1
31-7237	GROUP 27 BATTERY	1
4050	HYDRAULIC OIL	56
1124063	BASE HOSE KIT	1
1120446	BASE FITTING KIT	1
612424	HYD HOSE 3/4 X 424	1
612404	HYD HOSE 3/4 X 404	1
612287	HYD HOSE 3/4 X 287	1
612142	HYD HOSE 3/4 X 142	1
616402	HYD HOSE 1 X 402	1
H178	1/2 FUEL LINE	6'
H177	3/8 FUEL LINE	7'
43082316	SUCTION HOSE CLAMPS	2

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

DEUTZ 74.2 HP ENGINE SKID ENGINE SKID DETAIL

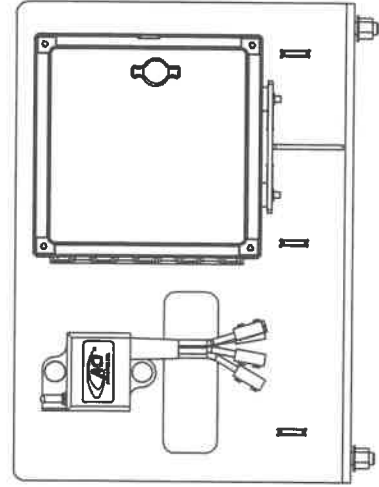
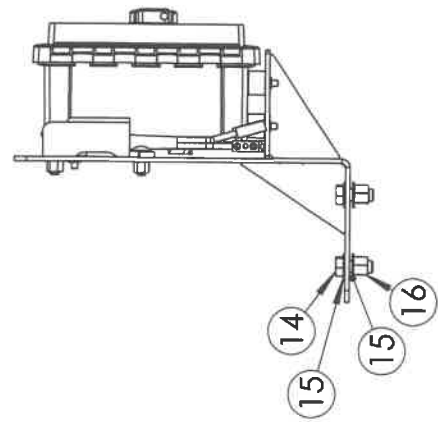
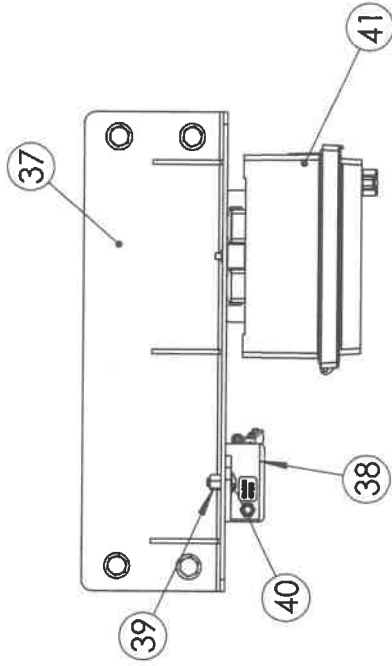
ASSEMBLY NOTE:
71627 DIE SPRINGS LOCATED ON FRONT MOUNTS
TIGHTEN TO COMPRESSED LENGTH OF 1.125"

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
3	01353	BATTERY BOX W/ LID	1
4	MT900TAPUMP	HYDRAULIC PUMP	1
7	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	4
8	18891400	WASHER, 1/2 LOCK ZC	4
10	18811400	WASHER, FLAT 1/2 ZC	4
11	18706421	BOLT, HX CAP 5/16-18 X 3/4 LG SS	3
12	18991100	WASHER, FLAT 5/16 SS	6
13	18991110	WASHER, LOCK 5/16 SS	3
17	18457650	NUT CTR LOCK 1/2 ZP ZC	4
28	18987700	NUT 5/16 SERR FLG	3
29	6408-20	#20 O-RING PLUG	1
32	6801-12-16	ELBOW 90 DEG #12 MJIC X #16 MORB	2
33	4601-24-20	HOSEBARB 90	1
36	71021	ENGINE SKID, DEUTZ T4	1
42	47995366	DEUTZ ENGINE	1
43	18058313	BOLT GR8 7/8-9 X 2 1/2 LG ZC YELLOW	6
44	18458454	NUT NYLOCK GR 8 7/8-9 ZC YELLOW	6
50	71627	DIE SPRING, 1 X 1.5, BLUE	2
51	18057438	BOLT, 1/2-13 X 3 GR5 ZP	2
52	18057428	BOLT HX CAP 1/2-13 X 1 3/4 ZC	2



DEUTZ 74.2 HP ENGINE SKID CONTROL PANEL DETAIL

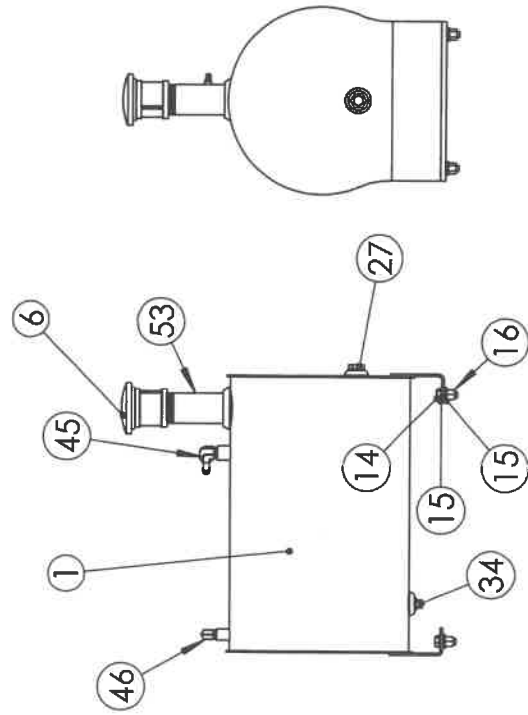
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
14	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
15	18824800	WASHER FLAT 1/2 SS	8
16	18567400	NUT SS NYLOCK 1/2	4
37	71024	CONTROL BOX WELDT	1
38	AGRICOVER CONTROL	AGRICOVER CONTROL	1
39	18566400	NUT SS NYLOCK 3/8	2
40	18176450	BOLT, CARRIAGE, 3/8-16 X 1	2
41	303264	CONTROL BOX	1



DEUTZ 74.2 HP ENGINE SKID FUEL TANK DETAIL

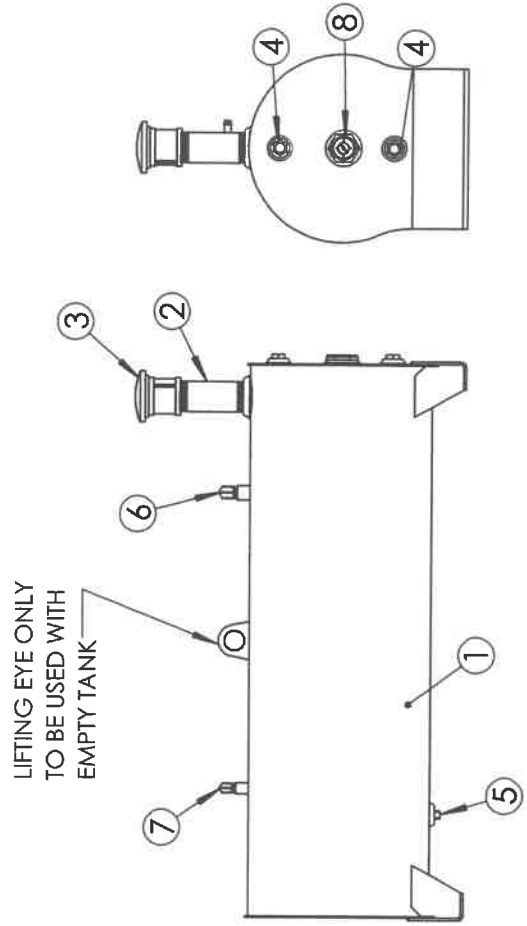
14 GALLON (STANDARD)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71082	FUEL TANK 14 GALLON, T4	1
6	60001	FUEL TANK CAP	1
14	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
15	18824800	WASHER FLAT 1/2 SS	8
16	18567400	NUT SS NYLOCK 1/2	4
27	1091809	FLUID LEVEL SIGHT GLASS	1
34	72220	DRAIN PLUG 3/4 NPT	1
45	71088	ADAPTER ELBOW, 1/2 HOSE, 1/2 NPT MALE	1
46	71089	ADAPTER ELBOW, 3/8 HOSE, 3/8 NPT MALE	1
53	71631	FILLER PIPE WITH BAFFLE	1



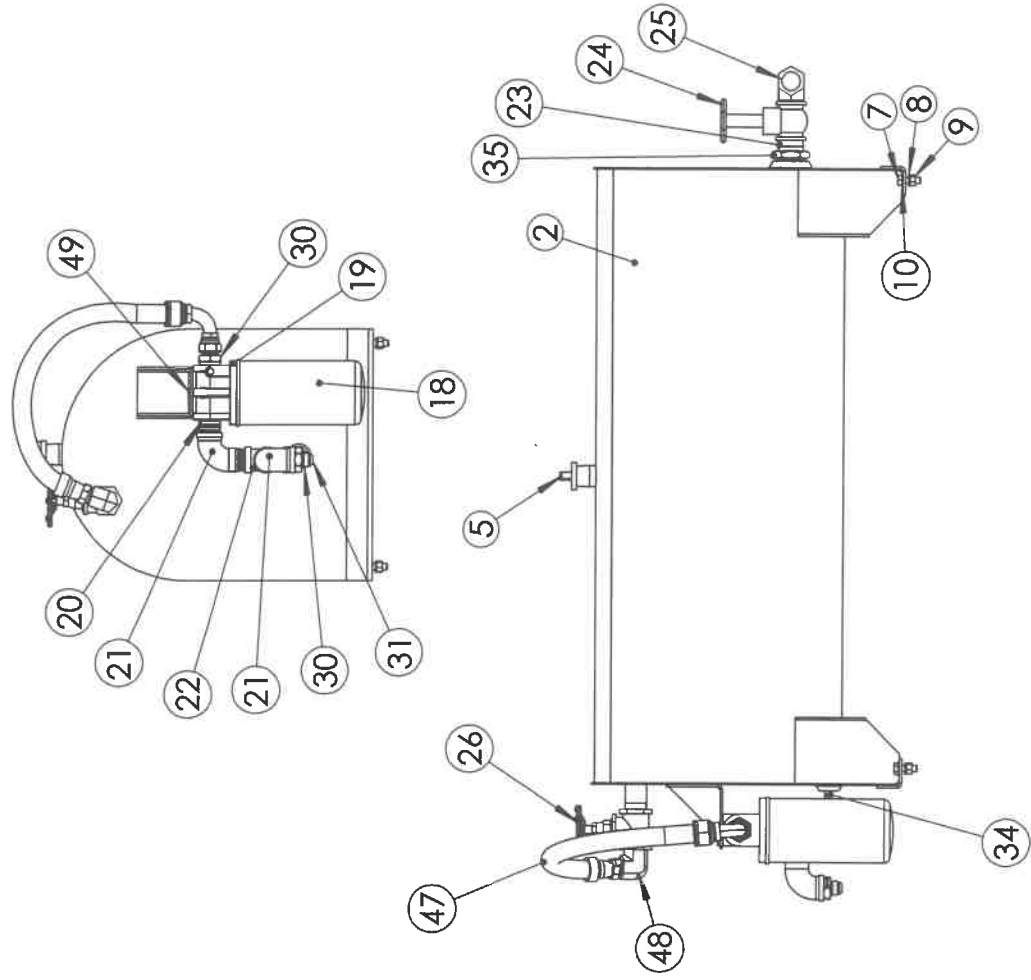
28 GALLON (OPTIONAL) PART NUMBER: 71638

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71633	FUEL TANK 28 GALLON, T4	1
2	71631	FILLER PIPE WITH BAFFLE	1
3	60001	FUEL TANK CAP	1
4	1091809	FLUID LEVEL SIGHT GLASS	2
5	72220	DRAIN PLUG 3/4 NPT	1
6	71088	ADAPTER ELBOW, 1/2 HOSE, 1/2 NPT MALE	1
7	71089	ADAPTER ELBOW, 3/8 HOSE, 3/8 NPT MALE	1
8	71639	FUEL LEVEL GAUGE	1



NOTE: APPLY THREAD SEALANT TO ALL THREADED FITTINGS

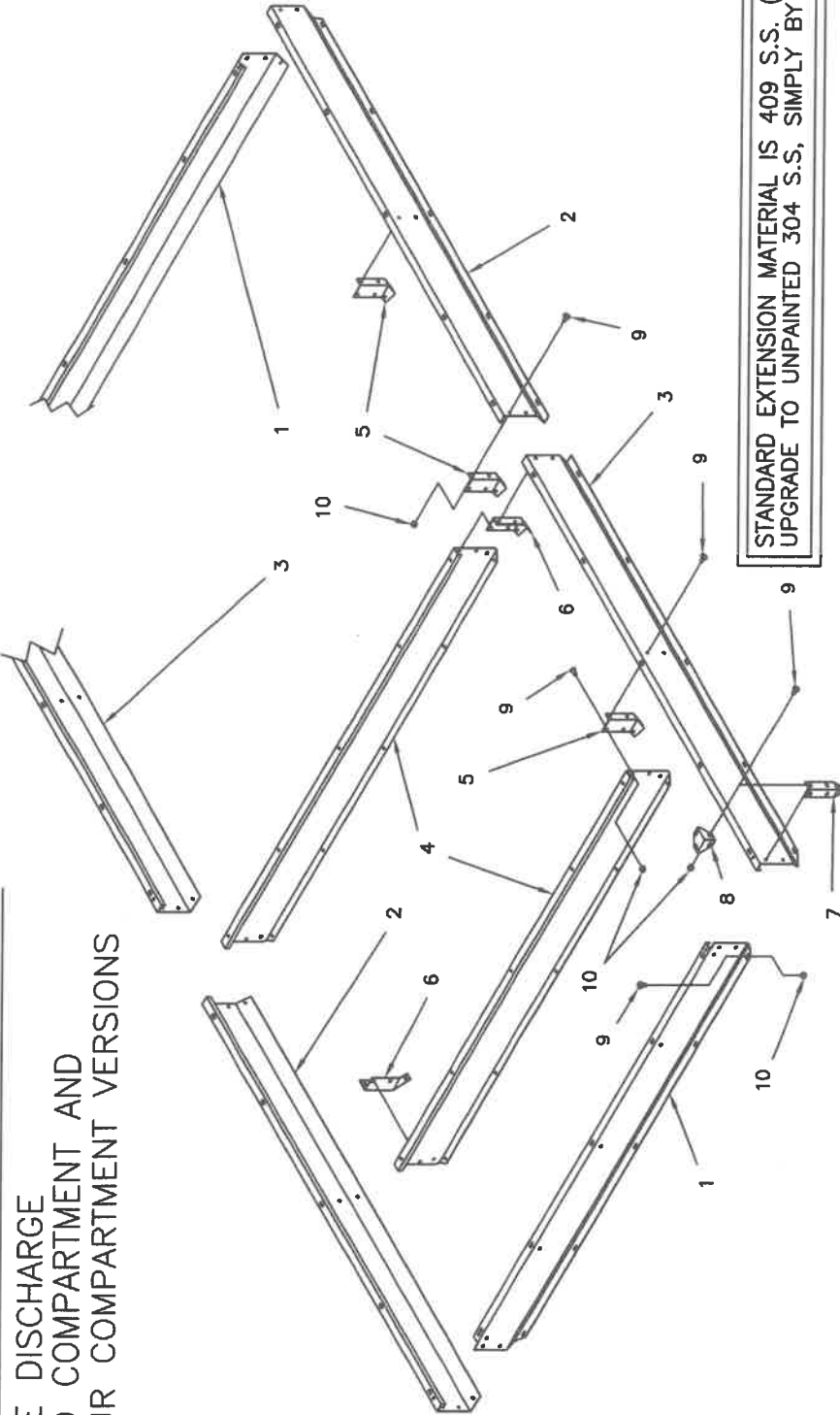
DEUTZ 74.2 HP ENGINE SKID OIL TANK DETAIL



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
2	48300310	58 GALLON OIL TANK	1
5	48300330	DIP STICK	1
7	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	4
8	18891400	WASHER, 1/2 LOCK ZC	4
9	18417400	NUT, HX 1/2 NC ZC	4
10	18811400	WASHER, FLAT 1/2 ZC	4
18	SE25	OIL FILTER ELEMENT 10 MIL	1
19	20239	OIL FILTER HEAD 1 1/4 NPT	1
20	72330	CLOSE NIPPLE 1 1/4" NPT	1
21	72355	1 1/4 STREET ELBOW	2
22	72342	PIPE TEE 1 1/4 NPT	1
23	72390	CLOSE NIPPLE 1 1/2	1
24	51497	GATE VALVE 1 1/2 NPT	1
25	4501-24-24	1 1/2 HOSE ADAPTER	1
26	02006	1 1/4" GATE VALVE	1
30	2404-16-20	ADAPTER 1 1/4 NPT M X #16 JIC M	2
31	2404-12-20	ADAPTER 1 1/4 MNPT X #12 MJIC	1
34	72220	DRAIN PLUG 3/4 NPT	1
35	1044762	2" X 1 1/2" EXTERNALLY MOUNTED STRAINER W/ BYPASS	1
47	71103	19" HOSE WITH FITTINGS	1
48	2024-20-16	20 NPTM-16 JIC ELBOW	1
49	18026422	BOLT CAP SS 5/16 X 1	2

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

TDRXISO
 08/19/16



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

TWO COMPARTMENT EXTENSIONS

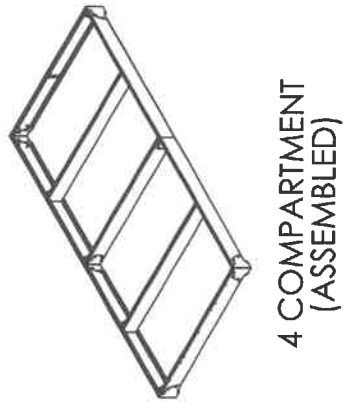
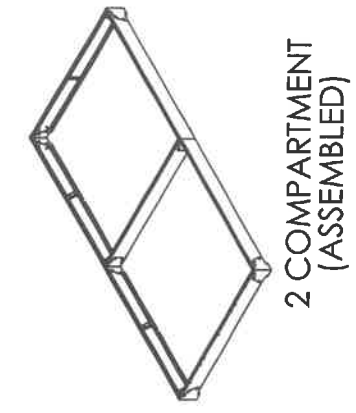
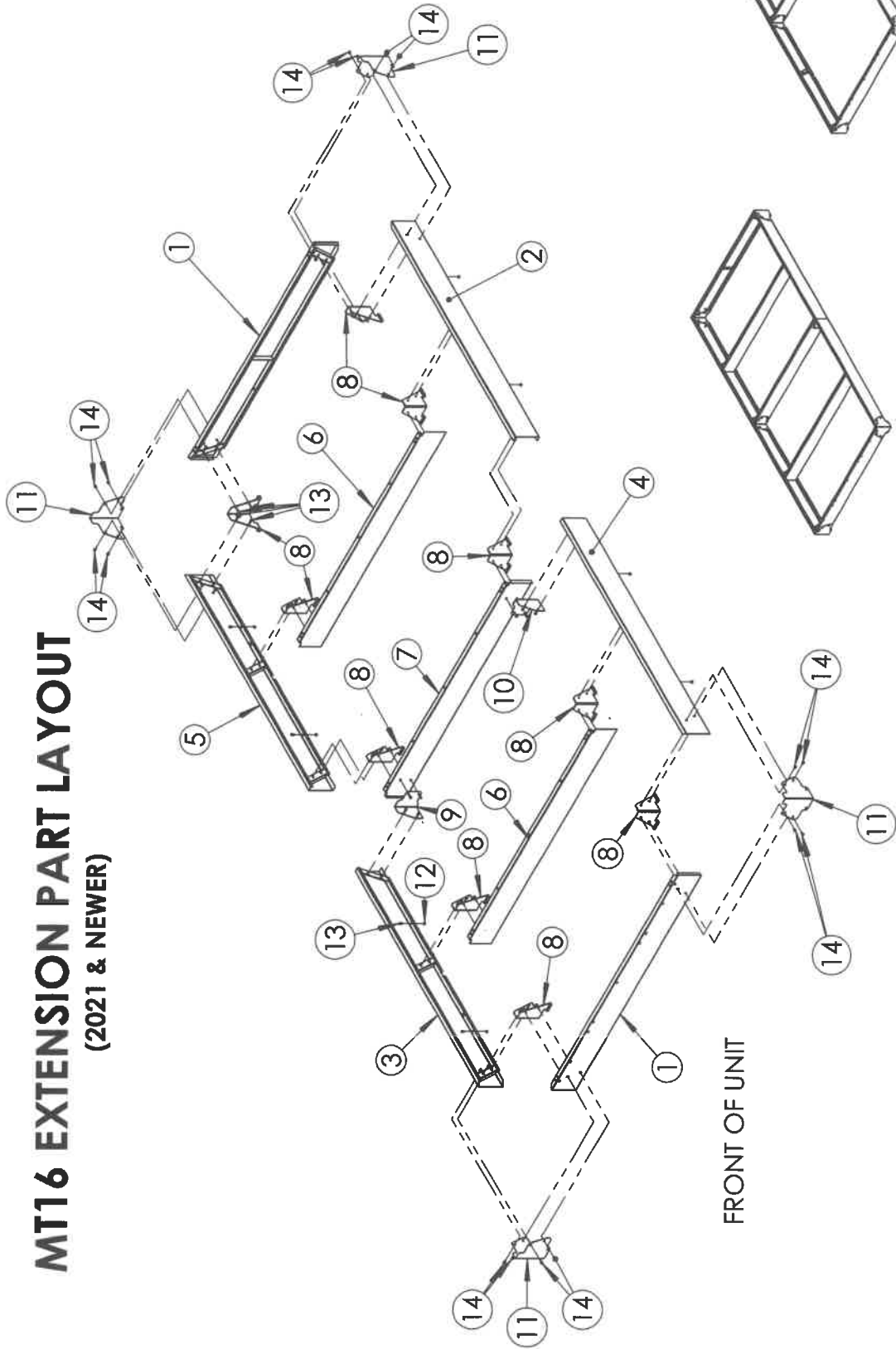
ITEM	409 S.S. PART NO.	304 S.S. PART NO.	DESCRIPTION	QTY
1	479889127	479889127S	EXTENSION PKG. COMPLETE (2 COMP.)	2
2	47019078	47019078S	END PANEL, L.H.	2
3	47009128	47009128S	SIDE PANEL, R.H.	2
4	47009079	47009079S	CROSS PANEL, (2 COMPARTMENT)	1
5	47019080	47019080S	JOINT ANGLE, L.H.	2
6	47029080	47029080S	JOINT ANGLE, R.H.	2
7	47019081	47019081S	CORNER ANGLE	4
8	47019130	47019130S	CORNER CAP WITH OUT TOP COVER WITH FLIP-TOP	2
9	18706621	18706621	BOLT, TRUSS HD. 3/8-16NC. X 3/4	S.S. 85
10	18496800	18496800	FLANGE NUT, 3/8-16NC.	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, L.H.	2
3	47009128	47009128S	SIDE PANEL, R.H.	2
4	47019128	47019128S	SIDE PANEL, L.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
9	18706621	18706621	BOLT, TRUSS HD. 3/8-16NC. X 3/4	S.S. 119
10	18496800	18496800	FLANGE NUT, 3/8-16NC.	Z.P. 119

MT16 EXTENSION PART LAYOUT

(2021 & NEWER)

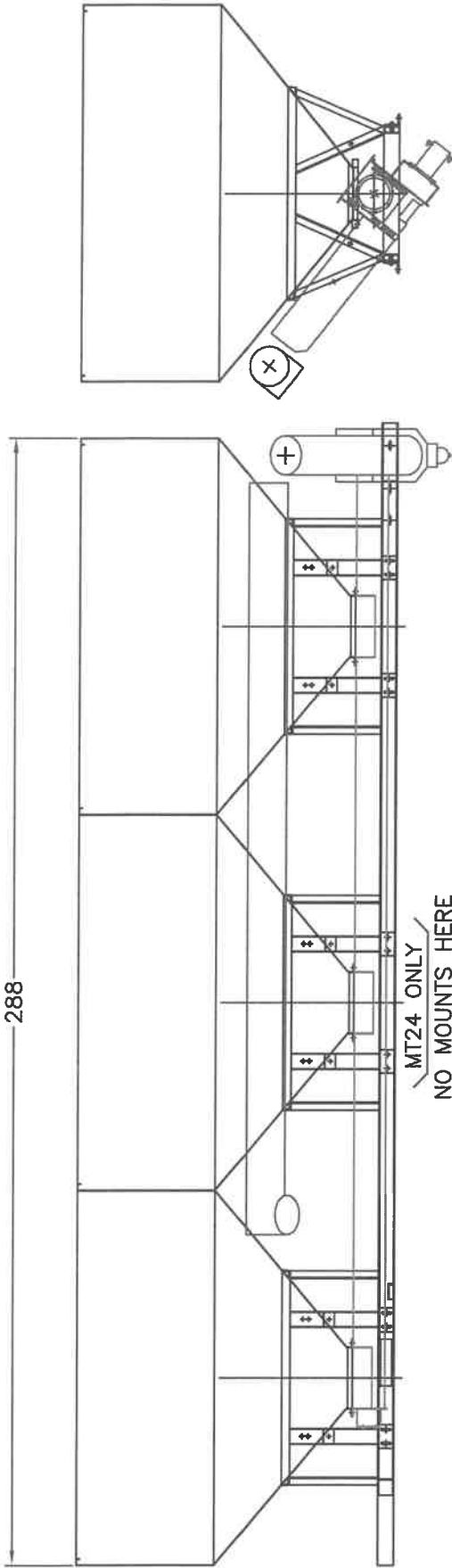


MT16 EXTENSION PARTS LIST

(2021 AND NEWER)

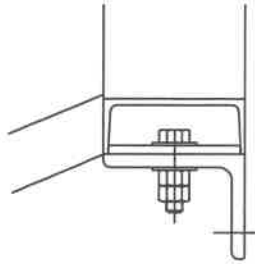
ITEM #	DESCRIPTION	MATERIAL	PART #	2 COMPARTMENT		4 COMPARTMENT	
				P/N: 71282 (409 MATERIAL)	P/N: 71117 (304 MATERIAL)	P/N: 71281 (409 MATERIAL)	P/N: 71116 (304 MATERIAL)
				QTY	QTY	QTY	QTY
1	EXT. PANEL (END)	304	71056	-	2	-	2
		409	71253	2	-	2	-
2	EXT. PANEL (DRIVER REAR)	304	71061	-	1	-	1
		409	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

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 MT16, MT24 & MT32 DATE 03/07/05

REV. DATE PART NUMBER 39120AG

28340 LIGHT KIT

WIRING DIAGRAM

MT8, MT10, MT16, MT24, MT32

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

AMBER CLEARANCE LIGHT

NOTE: CUT 48" END TO DESIRED LENGTH AND ADD CONNECTOR

10 11
REF ONLY

1

TRUCK AND TRAILER WIRING
--- GRN (RH SIGNAL & BRAKE)

12
MT16 ONLY

--- BROWN (TAIL & CLEARANCE)

--- YEL (LH SIGNAL & BRAKE)

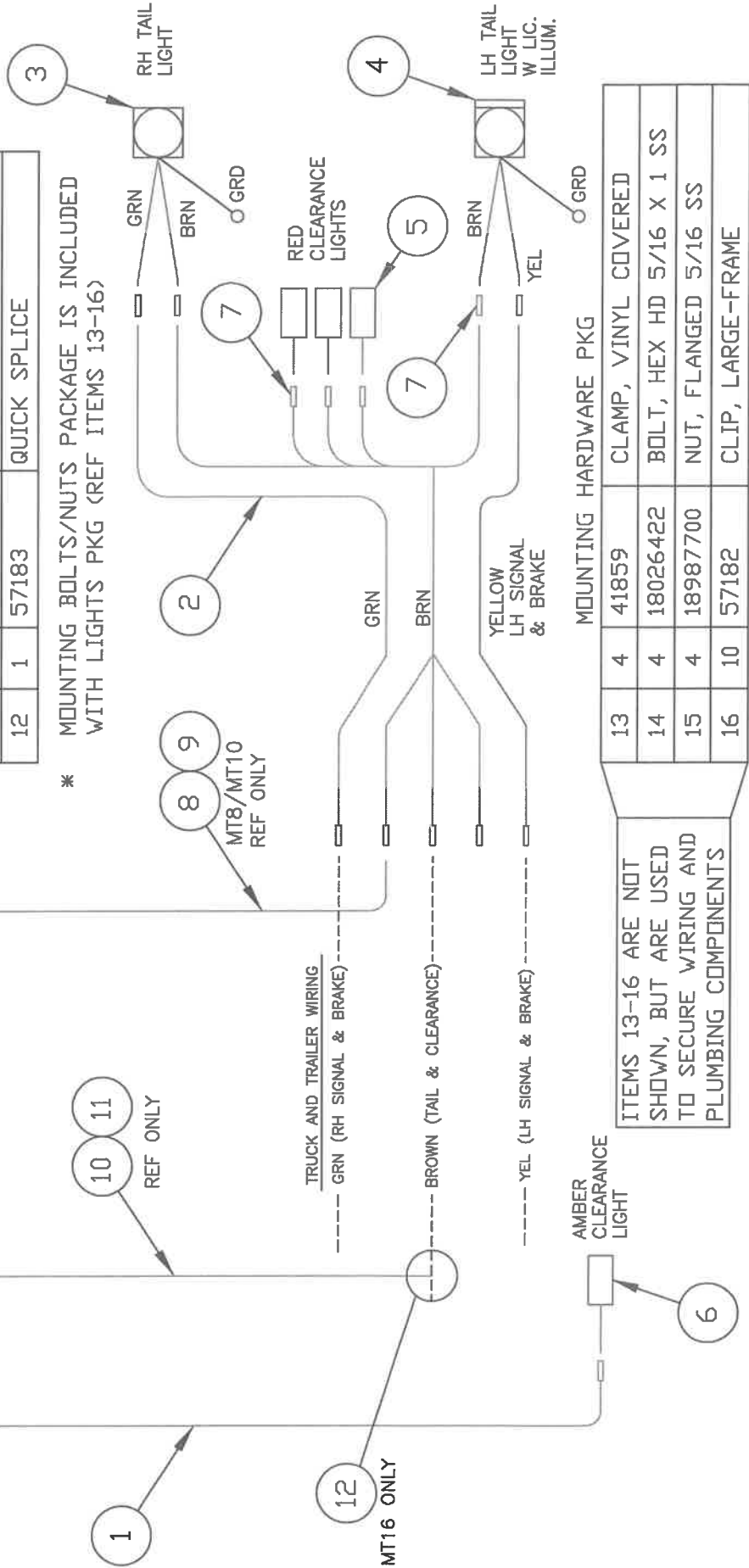
AMBER CLEARANCE LIGHT

6

ITEM	QTY	PARTNUMBER	DESCRIPTION
1	1	57177	WIRE HARNESS W LOOM
2	1	57175	WIRE HARNESS W LOOM
3	1	01836	TAIL-LIGHT RH W/D LIC.
4	1	01829	TAIL-LIGHT W LIC ILL..
5	3	18103	CLEARANCE LIGHT, RED
6	2	18104	CLEARANCE LIGHT, AMBER
7	4	42448	BUTT CONNECTER
8	1	57180 REF	WIRE, 14GA BROWN
9	1	57181 REF	LOOM
10	1	57151 REF	WIRE, 14GA BROWN
11	1	57140 REF	LOOM
12	1	57183	QUICK SPLICE

* *

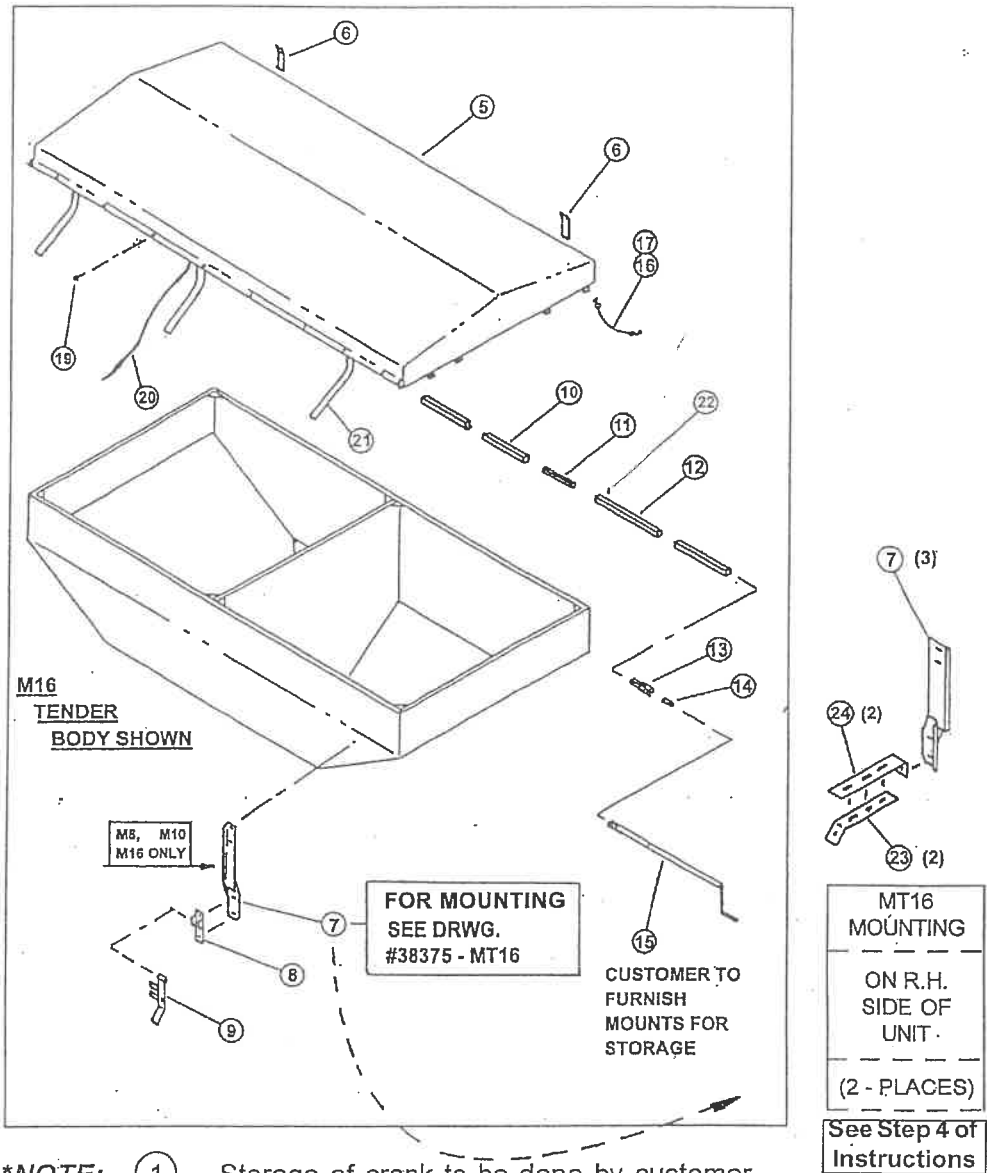
* MOUNTING BOLTS/NUTS PACKAGE IS INCLUDED WITH LIGHTS PKG (REF ITEMS 13-16)



ITEMS 13-16 ARE NOT SHOWN, BUT ARE USED TO SECURE WIRING AND PLUMBING COMPONENTS

Roll Tarp
Complete Part #33538

Parts



- *NOTE:** (1) Storage of crank to be done by customer.
 (2) Storage of pull rope - item (20) - for tarp to be done by customer.

Installation instructions start on page 54

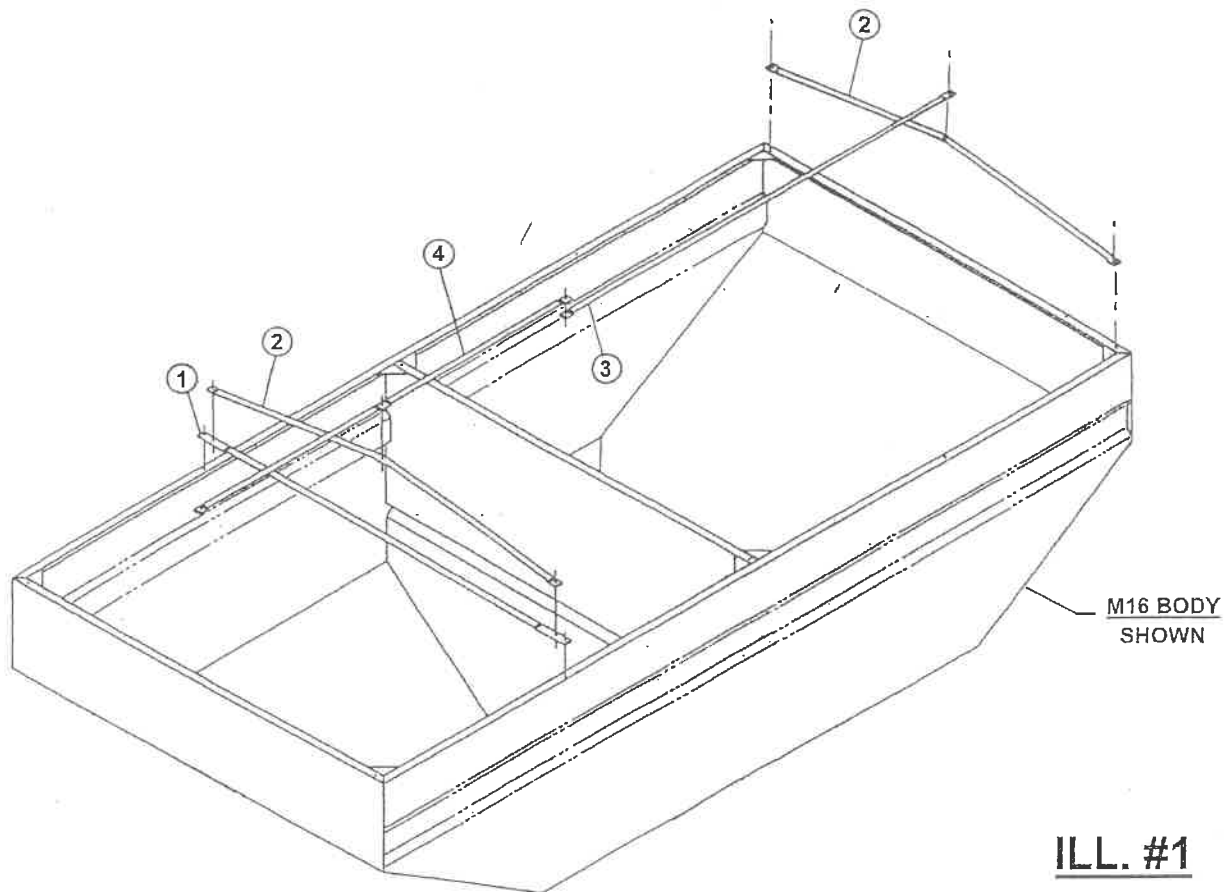
Roll Tarp - Installation Instructions

Package #33538

Step 1 TARP SUPPORTS

- (Refer to Illustration #1)
- On MT16 units attach cross hoop-item (1) (2-req'd) to holes provided on body sides. Use 3/8" x 1" SS truss bolts. Attach cross hoops - item (2) (5-req'd) to holes provided in the bulkheads and on cross hoops - item (1). Use 3/8" x 1" SS truss bolts. Attach center supports - item (3) & item (4) to crosshoops - item (2) using 3/8" x 1" SS truss bolts (tighten all bolts securely).

See page 50 for parts list.



46

□ Indicates an "or" situation
» Indicates parts of an "assembly"
+ Indicates associated part

§ Indicates service parts for above ref. number
~Indicates same general part but opposite side

Roll Tarp - Installation Instructions

Package #33538

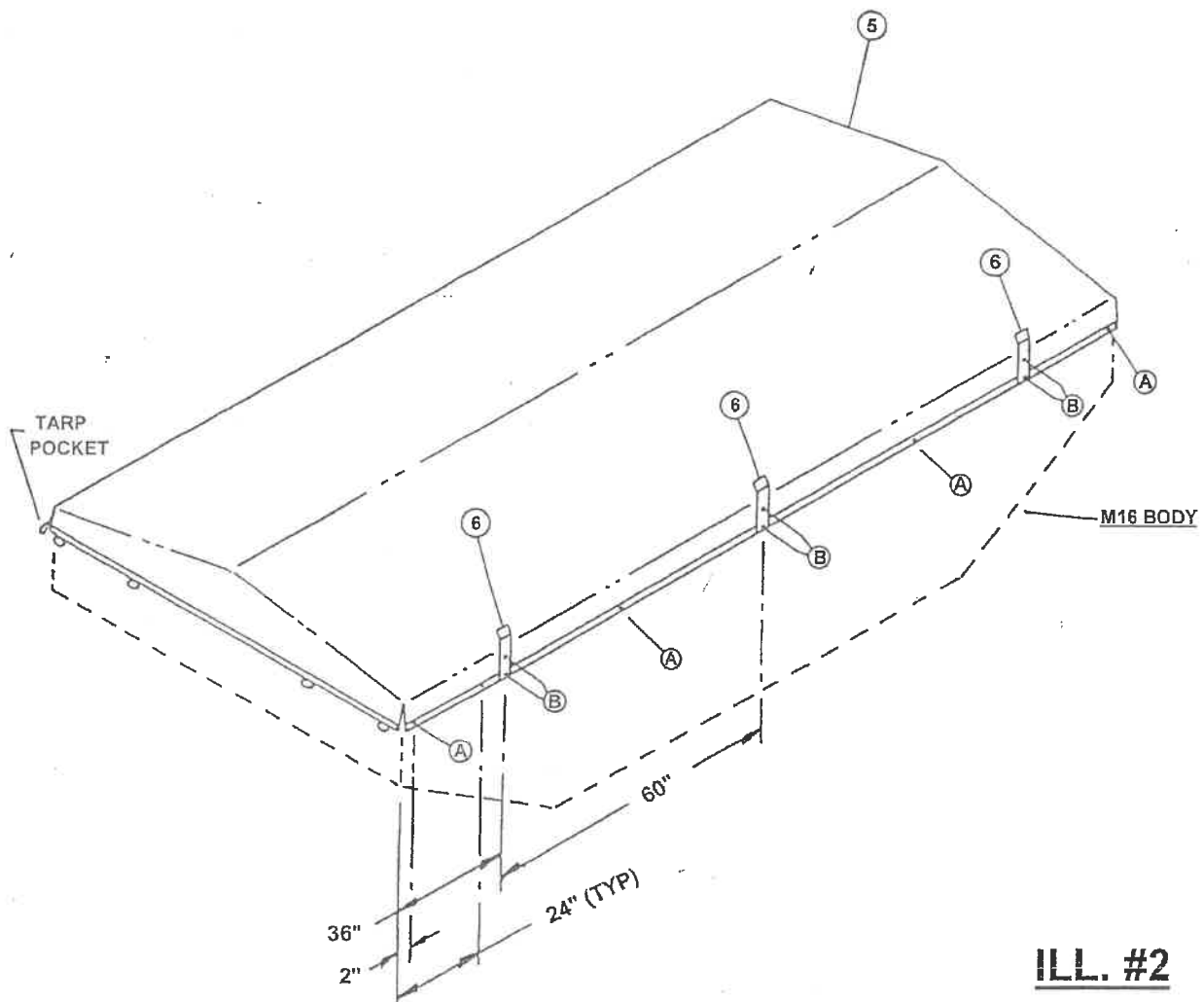
Step 2 PLACEMENT OF TARP

- (Refer to Illustration #2)
- Position tarp over body. Tarp pocket should be on L.H. side of unit. Tarp should hang evenly over the edge of body. Locate and drill holes (11/32" dia.) into tarp and body side at points A. (See Suggested Location Above) Use 5/16" x 1" S.S. bolts w/washers & whiz nuts.

Step 3 TARP STOP

- (Refer to Illustration #2)

Position stop - item (6) (As Shown Above). Use as guide and drill holes. The top hole should be 3" down on body side (11/32" dia) into side of body at points B. Attach tarp stop - item (6) (3 req'd) to body side using 5/16" x 1" S.S. bolts w/washers & whiz nuts.

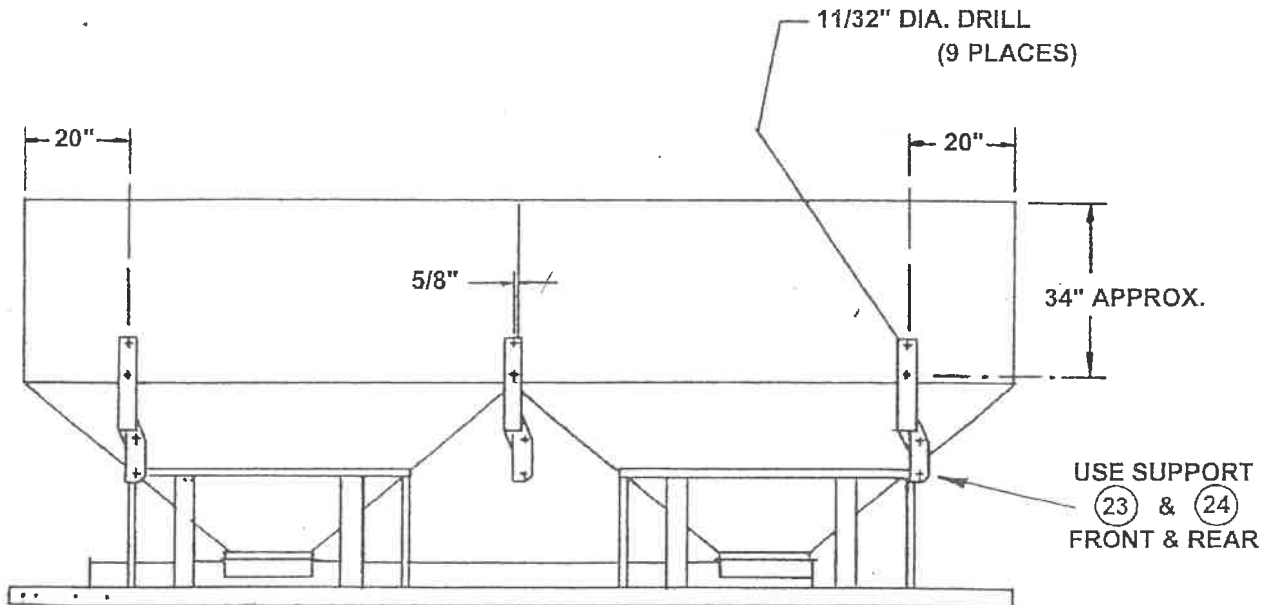
**ILL. #2**

Roll Tarp - Installation Instructions

Package #33538

Step 4 MOUNTING LATCH SUPPORTS

- (Refer to Illustration #3 - Drwg. 38375)
- Position supports - item (7) as shown. Drill holes ($1\frac{1}{32}$ " dia.) into body sides. Attach supports using $\frac{5}{16}$ " x 1" S.S. bolts w/washers & whiz nuts.



REAR

R. H. SIDE OF MT16

FRONT

DRWG. 38375

48

□ Indicates an "or" situation
» Indicates parts of an "assembly"
+ Indicates associated part

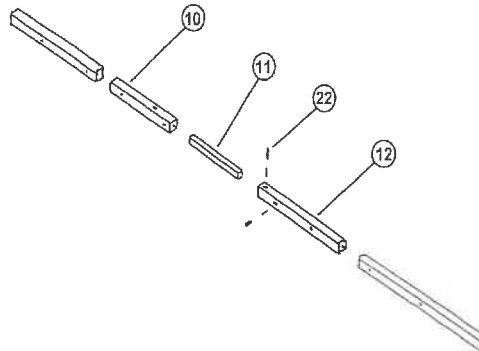
§ Indicates service parts for above ref. number
~ Indicates same general part but opposite side

Roll Tarp - Installation Instructions

Package #33538

Step 5 HOLDDOWN TUBE (TARP)

- (Refer to Illustration #4)
- Fasten tubes - item (10) (96" long) & item (12) 102" long together by inserting bar - item 11 (5/8" Sq. X 12") into tubes on end with nuts welded on (insert bar into tube 6") tighten securely using 5/16" x 1/2" set screw. - Item (22).



ILL. #4

Appendix

Step 6 HOLDDOWN TUBE ASS'Y INTO TARP

- (Refer to Illustration #5)
- Insert holddown tube (from step #5) into pocket side (R.H. side) of tarp. When inserting tube into pocket the holddown webbing - item (21) (3 req'd) should be positioned into opening of tarp pocket and the tube should be pushed through the loop of the webbing. Continue this procedure until tube is to the end of tarp. Note: The shorter tube of tube ass'y (from step #5) should be inserted into tarp pocket first.

Step 7 FASTENING TUBE ASS'Y TO TARP

- With the tube ass'y (from step #5) positioned into tarp pocket feel through tarp to locate 1/4" dia. holes (10). Use a sharp object (nail) to puncture tarp where the 1/4" holes are located on tube. Insert drive rivets - item (19) (10 req'd) and drive in with hammer. This keeps holddown tube from

Roll Tarp - Installation Instructions

Package #33538

Step 8 LATCH ASS'Y MOUNTING

- (Refer to Illustration #6)
- Attach latch mount - item (8) (3 req'd) to latch support (see page 56) - item (7) using 5/16" X 1" S.S. bolts w/washers & whiz nuts. Attach latch - item 9 (3 req'd) to latch mount - item (8) using 5/16" x 2 1/2" S.S. bolts w/center lock nut.

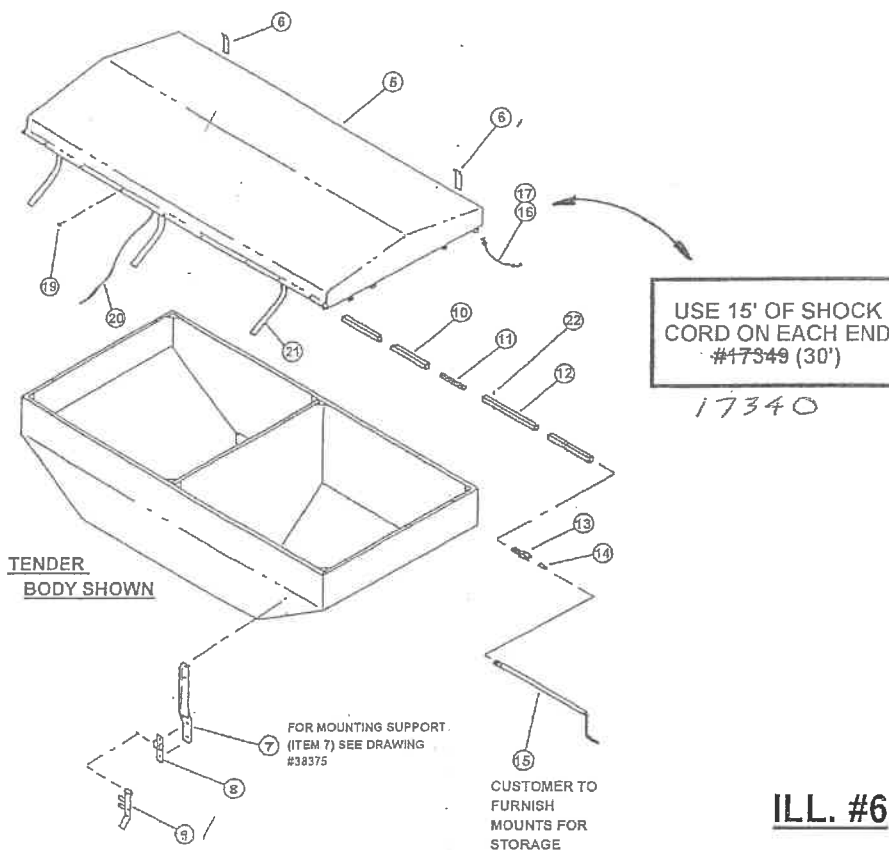
Step 9 CRANK ASS'Y

- (Refer to Illustration #6)
- Attach U-joint bar - item (14) to U-joint mount - item (13) & crank - item (15) by using 1/4" X 1/2" S.S. bolts (2 req'd) w/center lock nuts.

NOTE: Customer to furnish mounts for storage of crank.

Step 10 PULL ROPE & END TIE DOWNS

- (Refer to Illustration #6)
- Attach pull rope - item (20) to center "D" ring on L.H. side of tarp. Note: Customer to secure other end of pull rope to unit. Attach tarp straps w/ hooks - item (16) & (17) to "D" rings on front & rear of tarp - squeeze hooks together at "D" ring so straps will remain attached to tarp.



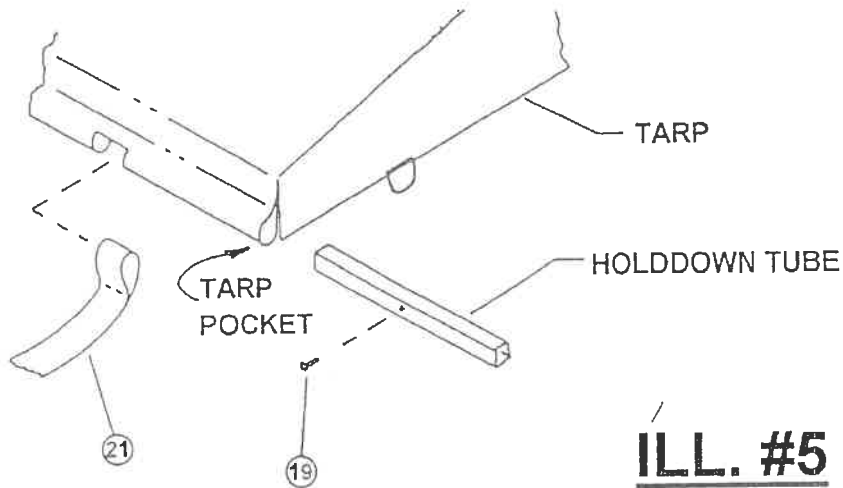
ILL. #6

50

⊠ Indicates an "or" situation
 » Indicates parts of an "assembly"
 + Indicates associated part

§ Indicates service parts for above ref. number
 ~Indicates same general part but opposite side

rotating in tarp pocket.



The longer tube should protrude out beyond tarp pocket so crank can be inserted for rolling tarp.

On MT16 with extender - cranking of tarp must be done from the front of unit.

Roll Tarp - Installation Instructions

Package #33538

Step 11 TARP TIE DOWN

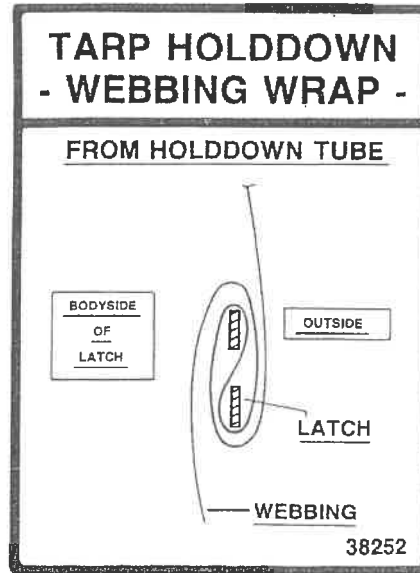
- Secure L.H. side of tarp to unit by wrapping tarp webbing around latch ass'y (see step #8). See decal #38252 (shown above). Hold latch in place with hair pin clip #71007 (provided). Secure front & rear of tarp with tarp straps - item (16) (provided).

Step 12 TARP OPERATION

- Unfasten side webbing & front and rear straps. Unfasten side pull rope - item (20) Insert crank ass'y (from step 9) into holddown tubes (from step 5) and turn crank to the right.

IMPORTANT

**DO NOT TRAVEL
WITH TARP IN OPEN
POSITION - UNLESS
IT IS SECURED**



NOTE: 1. When tarp is in closed position make sure latching mechanism is properly secured.

2. We do not recommend tarp to be in open position when in transport unless tarp is secured.

INSTALLATION QUESTIONS?

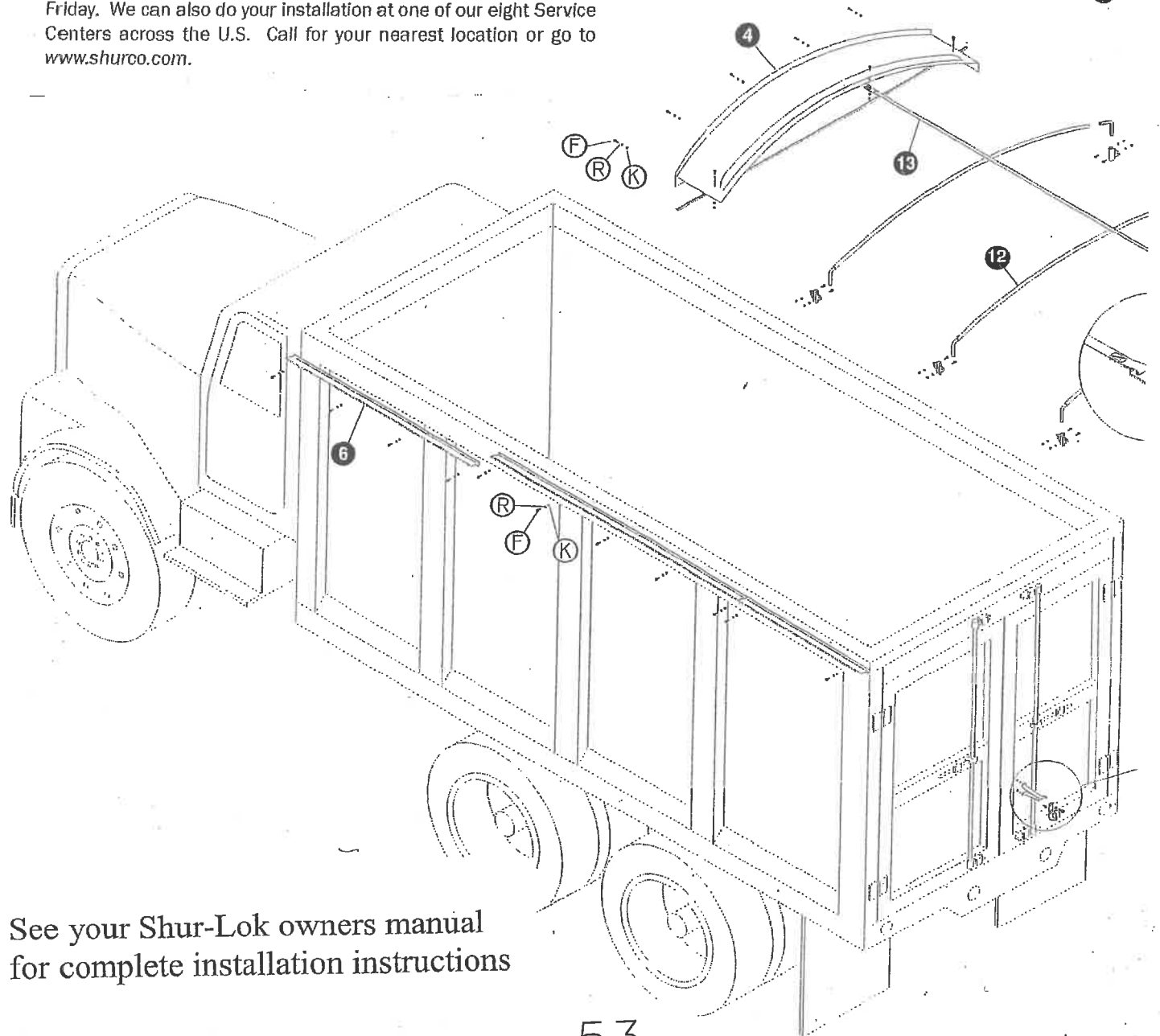
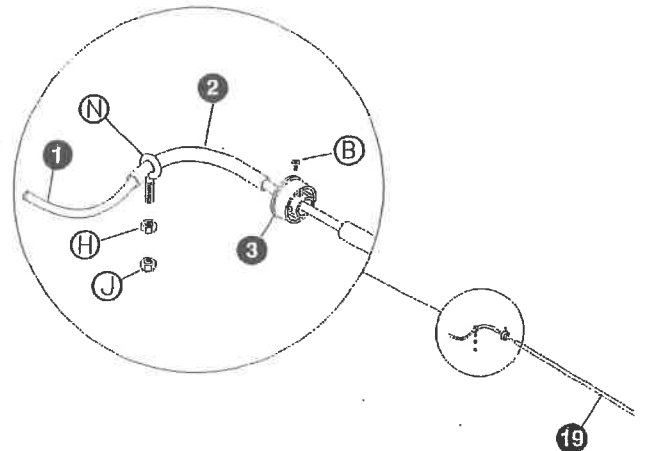
CALL THE SHUR-LOK CUSTOMER SERVICE HELP LINE!

1-866-SHUR-HELP

(1-866-748-7435)

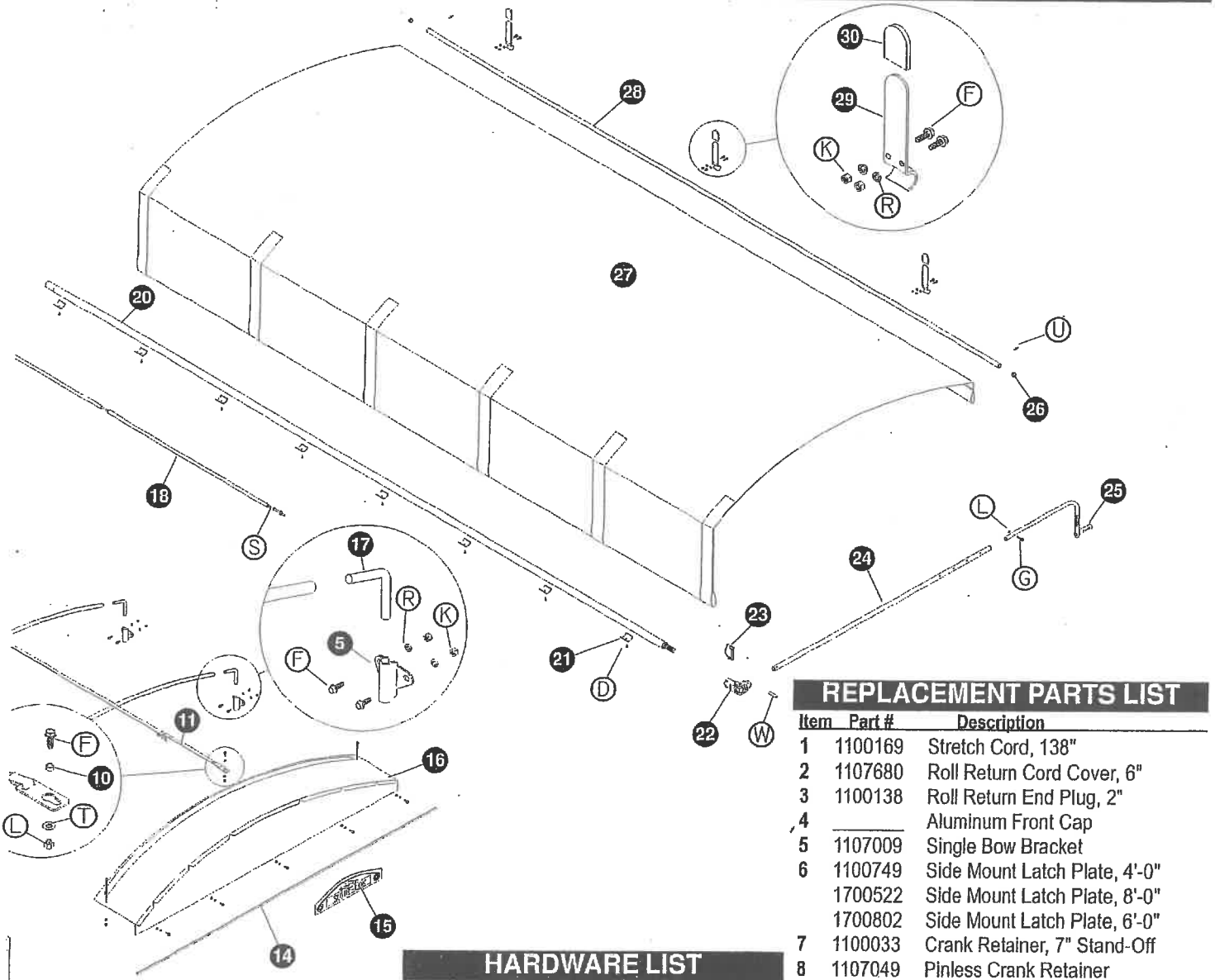
or download Installation Instructions at
www.shurco.com

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



See your Shur-Lok owners manual
for complete installation instructions

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

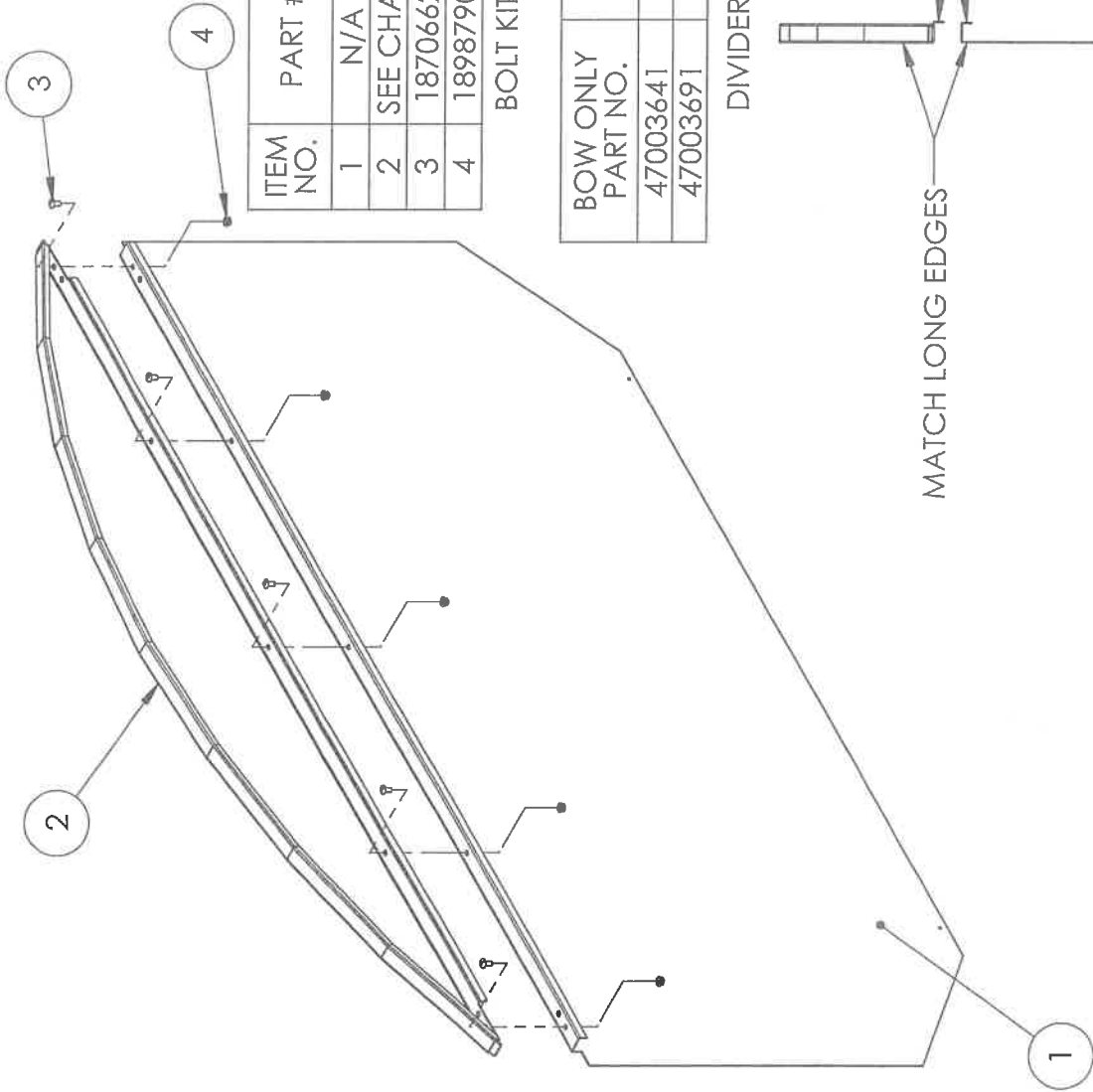
Item	Part #	Description
A	1701423	Set Screw, #10 x 3/16"
B	1700084	Self-Tapping Screw, #8 x 3/8"
C	1700736	Self-Tapping Screw, 1/4" x 1/2"
D	1700398	Self-Drilling Screw, 1/4" x 3/4"
E	1701059	Self-Tapping Screw, 5/16" x 1"
F	1700400	Self-Tapping Screw, 3/8" x 1"
G	1700369	Cap Screw, 3/8" x 1 3/4"
H	1700411	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).



ARCH DIVIDER LAYOUT & PARTS LISTING

(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

WARRANTY CLAIM FORM

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