



**Heartland**  
**AG SYSTEMS**

Heartland Agriculture, LLC

## **VPA1000 TENDER**

### **OWNERS MANUAL SAFETY AND MAINTENANCE INSTRUCTIONS**

HEARTLAND AG SYSTEMS  
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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	_____



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## TO THE OWNER

Congratulations on your selection of the Heartland AG Systems Tender.

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

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

Operate and maintain this tender in a safe manner and in accordance with all applicable local, state, and federal codes and or laws; and in compliance with labeling instructions by the supplier of the chemicals being used.

Make sure each and every operator has read this manual and thoroughly understands safe and correct operating procedure.

Make sure unauthorized people neither operate the Tender nor are in the vicinity of the Tender while it is in operation.

Make sure the Tender is maintained to preserve and/or improve safety, accuracy, and reliability of the system. Read and follow the maintenance schedule in this manual. Furthermore, as additional technology becomes available, the owner is responsible for improving the safety, accuracy, and reliability of the Tender.

Fulfill all warranty obligations so as not to void the warranties. The warranty information on the following pages outlines the warranty policy of Heartland AG Systems and its suppliers.

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

## **Warranty Policies and Terms**

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

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

### **Warranty Period**

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

### **What's Covered**

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

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

### **Exclusive Remedy**

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

### **No Modification or Extension of Warranty**

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

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



### **Limitations and Exclusions**

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

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

### **Owner's Responsibility**

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

### **What Is Not Covered**

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

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

**Base Warranty Coverage**

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

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

### **Tires**

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

### **Warranty Registration**

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

### **Operator's Manual/Warranty Receipt Verification**

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

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

### **Heartland AG Systems Responsibility**

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

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

### **Dealer Responsibility**



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

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

### **Owners Responsibility**

The Heartland AG Systems warranty remains in effect during the stated warranty period if the owner performs the required maintenance at the recommended times as outlined in the products operator's manual. Genuine Heartland AG Systems or Heartland AG Systems approved service parts must be used for maintenance. Additionally, the owner will pay for all transportation or travel expenses related to any warranty repair.

These responsibilities include, but are not limited to:

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

### **Warranty Eligibility**

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

### **Warranty Repairs Made by the Customer**

If a Heartland AG Systems dealer determines that the customer is capable, and the customer requests permission to perform select(warranty)repairs on his product, the Heartland AG Systems dealer is authorized to grant this customer request. The servicing dealer should provide the parts to the customer upon request, and to assure that customer is properly instructed on how to perform the repairs correctly.

The servicing dealer is responsible and accountable for claim accuracy and validity; specifically, in areas such as the parts replaced date, and assurances that the parts are installed as instructed by Heartland AG Systems. The comments section of the claim should clearly state that the customer installed the parts. The claim reimbursement will be for parts and applicable handling only. No labor is allowed! All replacement parts must be held for possible recall.

### **Parts Shortages on Whole-Goods**

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

### **Warranty Reimbursement Policies**

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

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

### **Parts**

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

### **Labor**

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

### **Outside Charges**

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

### **Freight**



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

### **Travel**

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

### **Repairing or Replacing Parts and Components**

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

### **Filters and Lubricants**

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

## **Claim Form Guidelines**

### **Claims Must Have**

1. Product identification number (PIN) or serial number. All characters of the PIN must be used on the warranty claim.
  - Claims for parts warranty must use the word "PARTS" for the PIN. An invoice that shows date of sale or date of installation must be supplied for all parts claims.
2. Model Number
3. Date of failure – Claims must be submitted within 30 days or repair.
4. Date of repair
5. Warranty start date. Date the unit warranty starts or date the parts were sold for parts warranty.
6. Description of the problem. Describe all problems pertinent to the claim.  
Comments should be as precise as possible, attach a separate sheet if necessary, to describe the problem.
7. Description of the work performed. List each significant action of the repair.
8. Itemize labor. Provide a breakdown of labor for each significant repair action in the "Describe Work Performed" column.
9. Shop order numbers. The shop order number field is used for recording your shop work order number that is related to the claim. The shop order number field can also be used to record the parts invoice number when claiming a parts warranty.
10. Customer information. Customer information includes the customer name, city, state, county, and postal code. It must match the warranty registration.
11. Warranty claim total. The total of all reimbursement costs requested.
12. Dealer signature and date. All claims must be signed and dated by the distributor to be validated.





**SAFETY**  
**INSTRUCTIONS**





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

Safety Decals on this machine use the words **Danger, Warning or Caution**, which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation which, if not avoided, will result in death or serious injury. The color associated with Danger is **RED**.
- **WARNING:** Indicates a potentially hazardous situation on 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 Heartland Ag Systems instructions on machine operations and maintenance.

## Safety Instructions

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 operations of all controls before you try to operate. **Make sure you check all controls in a safe area before starting your work.**

**Read this manual completely** and all other manuals provided with this vehicle, plus make sure you understand the 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.

Heartland Ag Systems 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 **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 on 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**.
- 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  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 the accidental movement of the machine or startup 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 (Slow moving vehicle) 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 point on 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 the 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 parts of the machine. Failure to do so may cause damage to sensitive electrical components.
- BATTERY ACID CAUSE SEVERE BURNS. Batteries contain sulfuric acid. AVOID contact with skin, eyes or clothing. Antidote:
  - EXTERNAL – flush with water.
  - INTERNAL – drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately. EYES – flush with water for 15 minutes and get prompt medical attention.
- BATTERIES PRODUCE EXPLOSIVE GASES. Keep sparks, flames, and cigarettes away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.
- When working around stage batteries, remember that all 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 information decals clean and visible. Replace decals that are damaged, lost, painted over, or cannot be read.
- When assembling, operating, or servicing the machine, wear protective clothing and personal safety devices that are necessary for the particular procedure. Some personal safety devices that may be necessary are protective shoes, face and/or eye protection, hard hat, heavy gloves, filter mask and hearing protection.



- DO NOT wear jewelry or loose fitting clothing, which 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 obstruction 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 shields 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°C)

## Hand Signals

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

### Start Engine



### Stop Engine



### Come To Me

Move hands forward and rearward - palms in



### Move Away from Me

Move hands forward and rearward - palms out



### Go This Far



### All Stop and Hold



### Stop

Move one hand back and forth



### Emergency Stop

Move both hands rapidly back and forth



### Turn Machine Left

To stop movement, stop moving hand and make a fist



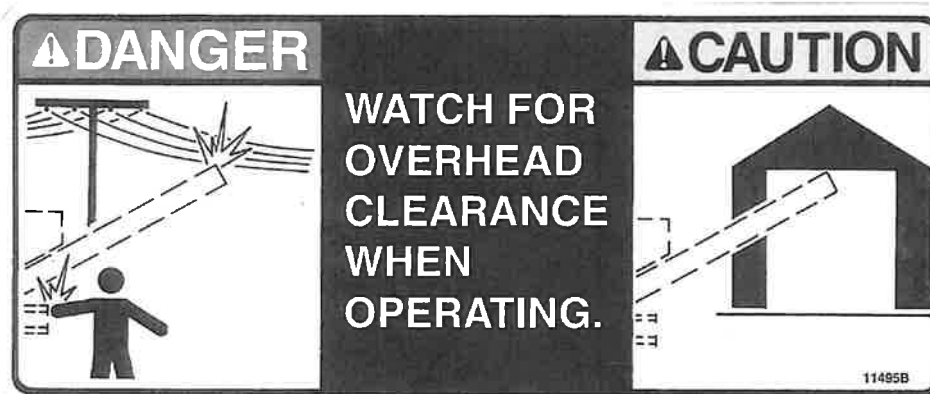
### Turn Machine Right

To stop movement, stop moving hand and make a fist



## Safety Decals

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



Your 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, 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.

## **VPA 1000 BUILT IN SAFETY FEATURES**

- The VPA has several safety features integrated into the hydraulic system.
- The cylinder is equipped with a dual counterbalance valve, which will hold the auger in place if hydraulic pressure is lost or the control lever is let go.
- There is a hydraulically activated limit switch, which will prevent rotation of the slew drive unless the discharge auger is unfolded into the discharge position.
- There are hydraulically activated limit switches located on the rotational stops to shut off flow to the slew drive motor on each side to prevent damage to the system.

# **OPERATING** **INSTRUCTIONS**

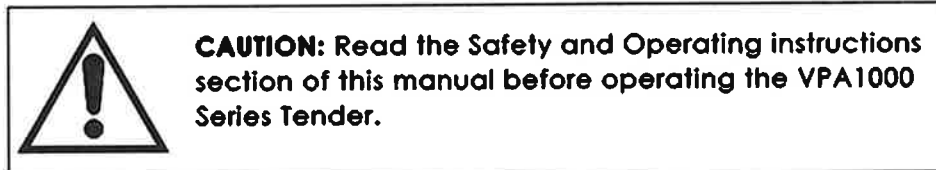




## Operating Instructions

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 "Home" position before transporting. (*Home position – means that the auger is resting in its cradle*)

### Operating the Tender

#### Hydraulic Drive-

The Hydraulic driven tender can be powered by any hydraulic power source, which can supply two sources of 25 GPM max. @ 2500 psi. When first installing, be sure the auger turns the proper direction, if backwards reverse the hoses.

- Truck Hydraulic
  - PTO ratio needed 130-135%
  - PTO driven twin gear pump SAE B-4 Mount 1"-15T shaft (*Note: Pump will need extra support*)
  - Check Flow of system, and document engine RPM's to achieve 25 GPM. **DO NOT EXCEED 25 GPM OR DAMAGE MAY OCCUR!**
- Engine Hydraulic

- Follow the manufacturer's recommendations in the maintenance manual.
- Check to see the engine has proper oil level before starting
- Make sure oil tank valves are open
- Ensure Diesel fuel tank is full
- Deutz 74 hp T4 engine
  - Turn key to **MAN** position
  - Press & Hold center button to start
  - Press & Hold left (rabbit) button to rev to operating speed of 2600 RPM
  - When done unloading Press & Hold the turtle button to return to idle speed
  - Press & Hold the center button to power off.
  - Turn key to **OFF** position

## Unit-

### Gates-

- CAUTION: Never load unit with gates open
- ALWAYS have the auger running before opening the hopper gate
- ALWAYS shut the gate and empty the auger before shutting the auger off.
- For some materials the gates are capable of allowing more opening than the auger may extract. Some materials may require feathering of the gate opening or slugging of the auger may occur. Operators must be aware and adjust gate accordingly.

### Dump Doors-

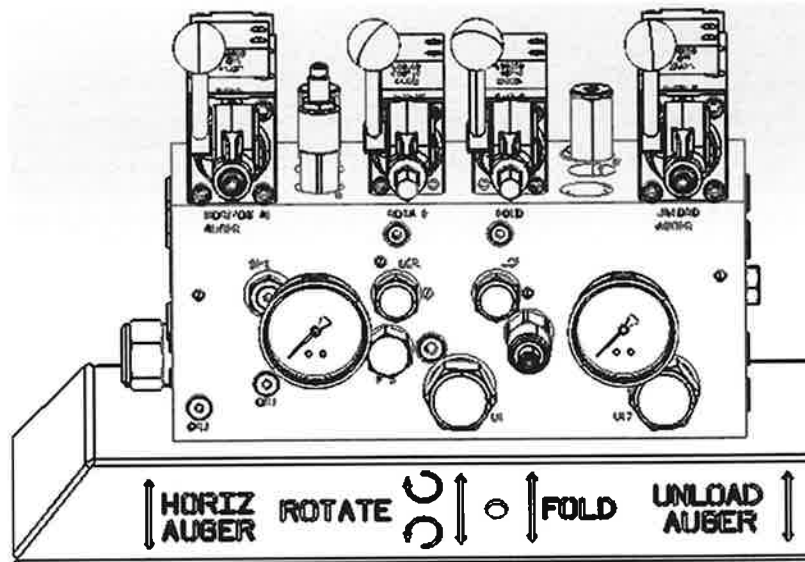
- Pit dump doors
  - Are located under each compartment
  - Enables pit unloading without operating any of the augers
- Rear Pit dump system
  - Refer to pages 36-7 & 52, for mounting
  - Requires ONLY the lower auger to be turning
  - Certain types of materials may require feathering of the gates, to control the flow of product, and prevent slugging the auger.
  - Not recommended to drive with pit dump installed

### Transport-

- **ALWAYS** make sure the auger is in the "Home" position before transporting the tender.

## Auger

- **ALWAYS** use CAUTION when lifting and rotating the augers, to make sure there are no obstructions in the way
- **ALWAYS** use CAUTION when approaching the built in rotational safety stops, to prevent damage to the machine.
- When raising and lowering the auger feather the hydraulic cylinder at the end of the stroke to prevent damage to auger, screw, or cradle.
- Unfold the auger out of “Home” position, ensure fully seated & seal is compressed
  - *(Home position mean that the auger is resting in the cradle.)*
- Rotate the auger to the correct position for unloading.
- Adjust the height of the auger for unloading
- Start the augers
  - Use Engine Throttle Control to set engine to run the Auger at the desired RPM (2600)
  - DO NOT run lower auger without discharge auger running, except for rear dumping
- Start the flow of material
  - Open the gate of the compartment to be unloaded halfway.
  - Adjust auger speed if necessary
  - Feather the gate open all the way
- Stopping Discharge
  - (After unloading the desired amount of material, or the compartment is empty.)*
  - Close compartment gate & runout all product from the augers
  - Turn off flow control valve
  - Return auger to “Home” position



- **HORIZ AUGER**
  - Pull to turn ON
  - Push to turn OFF
- **ROTATE**
  - Pull to Raise/Lower Auger / Rotation in CCW direction
  - Push to Raise/Lower Auger / Rotation in CW direction
  - ALWAYS rotate the auger to the stops before folding, or damage to the system could occur
- **FOLD**
  - Pull to unfold from Cradle
  - Push to fold into Cradle
- **UNLOAD AUGER**
  - Pull to turn auger ON
  - Push in to turn auger OFF

# **MAINTENANCE**

# **AND SERVICE**

## Maintenance and Servicing

### Daily Machine Maintenance

#### Overnight Storage

AVOID overnight storage of material in machine if 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 unit should be washed regularly. (Note: Use 2" flush access located on the front end of lower unload auger.)

**DO NOT** pressure wash slew drive or bearings, damage to seals may occur and drastically reduce life.



**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 Roll tarp, so any excess moisture can escape.

Check to ensure ratchet strap running between the endcaps is tight.

#### Fluids

Check diesel & engine oil levels

### In Season Maintenance

#### Greasing

Grease all bear fittings 1 shot every 75 hours, grease all Slew Drives 2 pumps every 75 hours, (see *Grease Bank Setup Sheet*). After each cleaning, and before/after extended storage, rotate augers & slew drive after greasing to distribute. Use only a standard grease gun, **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.

## **Physical**

- Check tire pressure
- Check lug nuts
- Check tender mounting bolts
- Check lights, brake hoses, and fittings
- Check brake lining and adjustment
- Visual inspection for any missing/loose hardware, oil leaks, worn items, or damage
- 

## **Between Season Maintenance**

### **Hopper Body**

Clean all the old fertilizer out of the unit and wash it down thoroughly. Clean, lubricate, and inspect guides for hopper gates.

### **Auger**

Clean auger by running water through auger until cleaned.



**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 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.

### **Wood Bearing / Hanger Bearing**

Visually check part number RHB203631 Wood Bearing for wear before/after each season. This is a wear item that will need to be replaced periodically. See page 42 for detailed drawing.

### **Oil Filter and Oil**

Change filter once a year

Change oil as required per oil manufacturer.

## Physical

- Check axles/suspension components per decal on side of trailer
- Bleed brake air tank to prevent rust
- Check/Clean interior tank strainer on bottom of oil reservoir

## Fluid Levels and Instructions

- Premix Anti-Freeze (*see engine owner's manual*)
- Motor Oil (*see engine owner's manual*)
- Hydraulic Oil (P/N: 4050) – 56 gallons

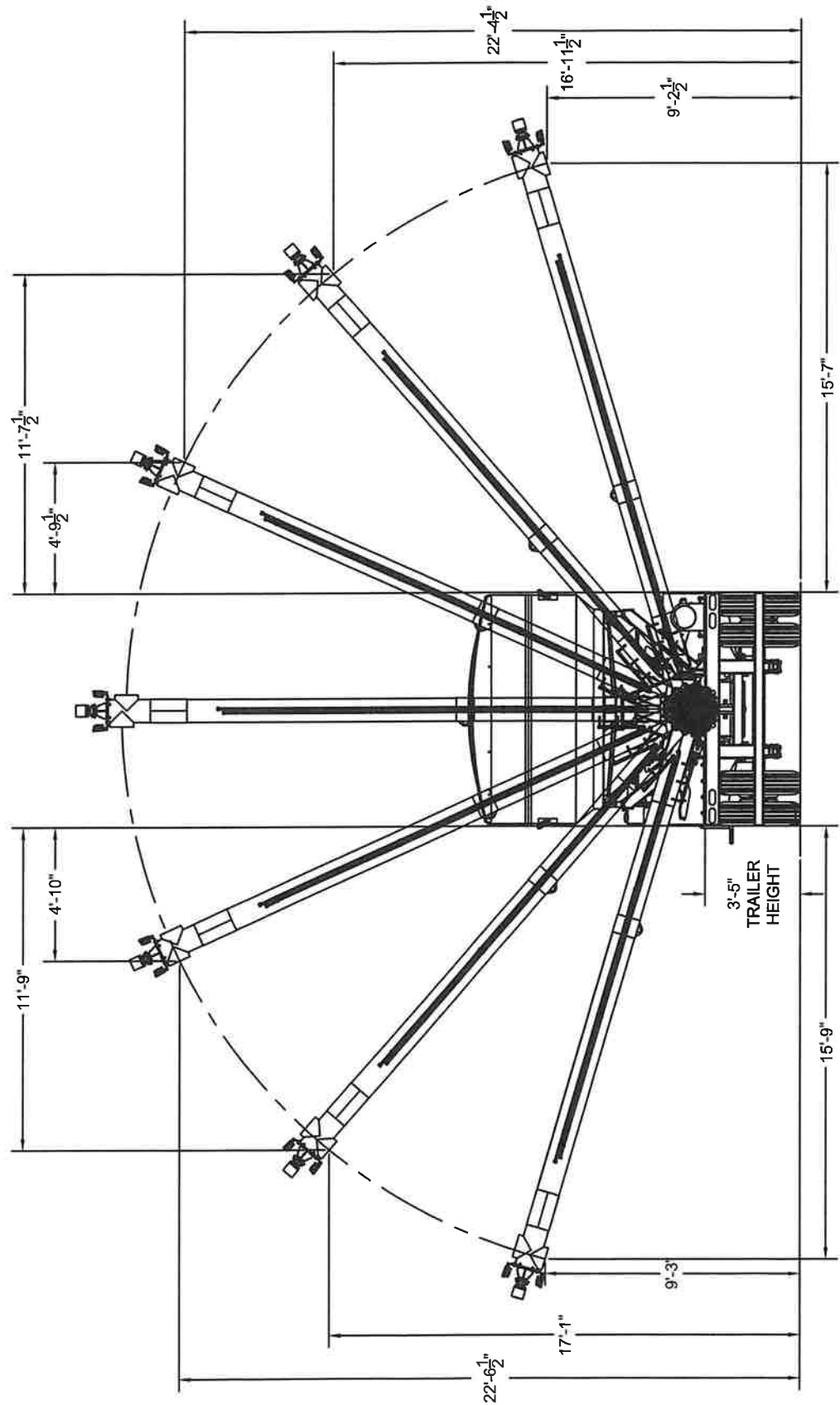
## **\*\*IMPORTANT\*\***

- Check all fluid levels BEFORE and AFTER each season
- Check all bolts are tight & visually inspect for damage-replace if necessary
- Follow manufacturer's maintenance schedule for engine

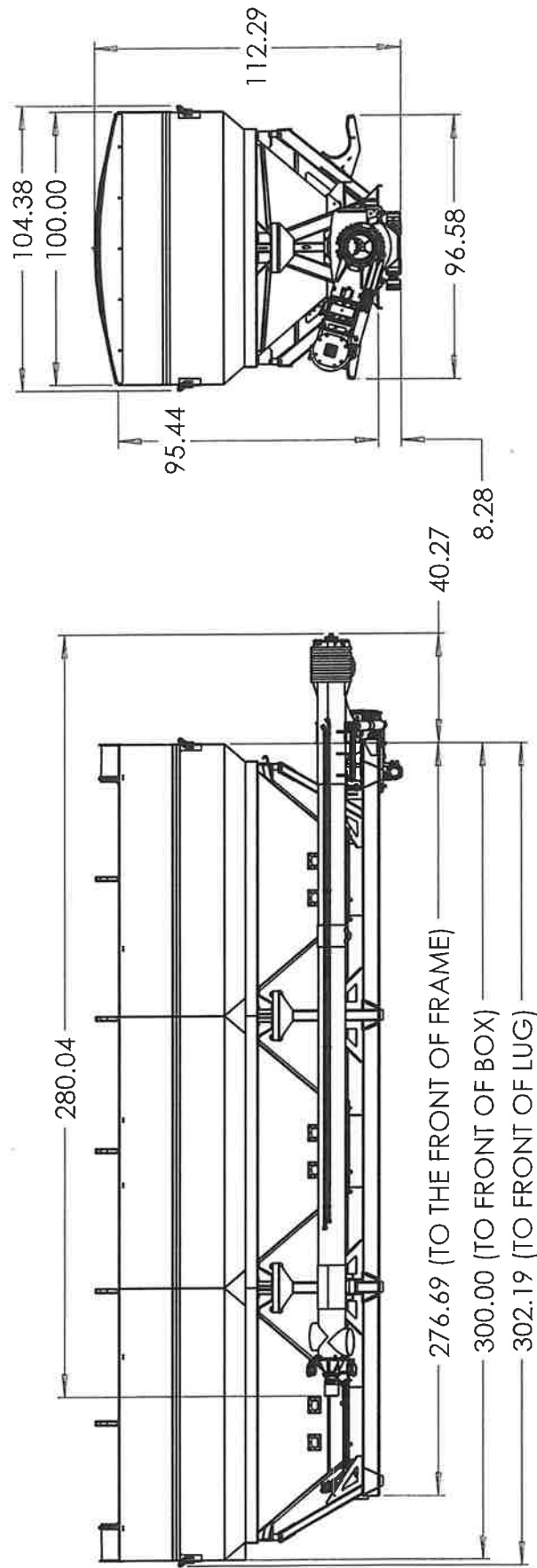


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# VPA1000 UNLOAD LAYOUT



### VPA1000 LAYOUT DIMENSIONS



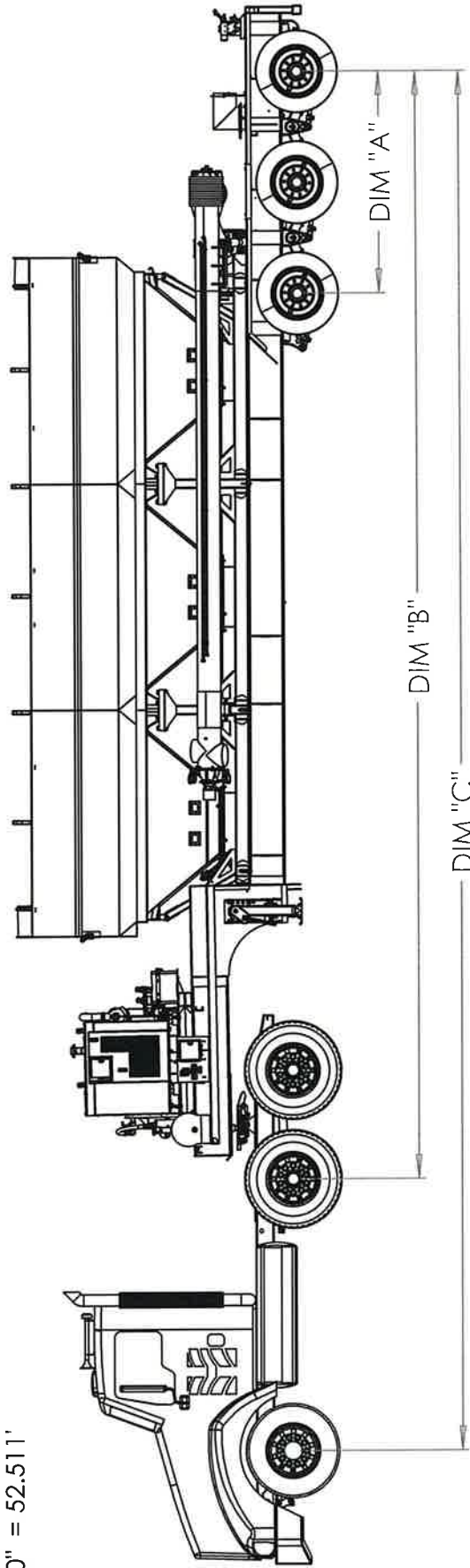
# VPA1000 REAR AXLE SPACING EQUATION

EXAMPLE

A = 98" = 8.167'

B = 494" = 41.178'

C = 630" = 52.511'

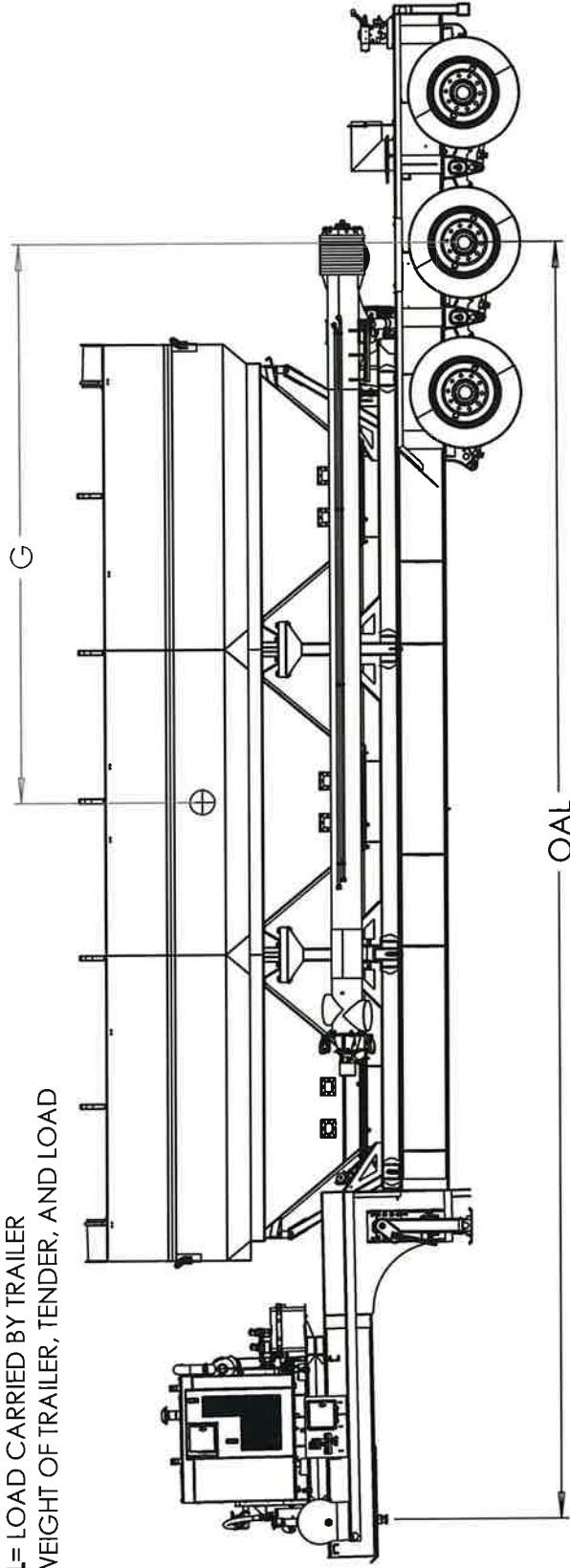


	REAR AXLES	REAR AND CENTER AXLES	ALL AXLES
DIM "A" = SPAN OF REAR TIRE (IN FEET)	$W(((N \times A) / (N-1)) + 12 \times N + 36)$	$W(((N \times B) / (N-1)) + 12 \times N + 36)$	$W(((N \times C) / (N-1)) + 12 \times N + 36)$
DIM "B" = SPAN FROM REAR TIRE OF TRAILER TO FRONT TIRE ON CENTRAL AXLE (IN FEET)	$500(((3 \times 8.167) / (3-1)) + 12 \times 3 + 36)$	$500(((5 \times 41.178) / (5-1)) + 12 \times 5 + 36)$	$500(((6 \times 52.511) / (6-1)) + 12 \times 6 + 36)$
DIM "C" = SPAN FROM REAR TIRE TO FRONT TIRE (IN FEET)	$500((24.501/2) + 36 + 36)$	$500((205.89/4) + 60 + 36)$	$500((315.066/5) + 72 + 36)$
N = NUMBER OF AXLES IN GROUP	$500(12.251 + 72)$	$500(51.473 + 96)$	$500(63.013 + 108)$
W = LOAD PER AXLE (REF. 500 LBS)	$500 \times 84.251$	$500 \times 147.473$	$500 \times 171.013$
W = $(((N \times A, B, \text{ OR } C) / (N-1)) + 12 \times N + 36)$	<b>42125 LBS.</b>	<b>73736 LBS.</b>	<b>85506 LBS.</b>

VPA 1000 TARE WEIGHT = 22,720 LBS (INCLUDES VPA 1000 ON A 42' TRIPLE AXLE TRAILER WITH DEUTZ POWER UNIT WITH ALL FLUIDS)

# VPA1000 TRAILER WEIGHT DISTRIBUTION EQUATION

**G** = DIMENSION FROM CENTERLINE OF REAR AXLE TO CENTER OF GRAVITY OF LOAD  
**OAL**=DIMENSION FROM CENTERLINE OF WHEEL TO CENTERLINE OF REAR AXLE  
**TL**= LOAD CARRIED BY TRUCK  
**TRAIL L** = LOAD CARRIED BY TRAILER  
**WT** = WEIGHT OF TRAILER, TENDER, AND LOAD



<b>EXAMPLE:</b> <b>G</b> = 183" <b>OAL</b> = 417" <b>WT</b> = 80,000 LBS	<b>TL = (WT X G)/OAL</b>	<b>TL = (80000 X 183)/417</b>	<b>TL = 14640000/417</b>	<b>TL = 35,107 LBS</b>
	<b>TRAIL L = WT - TL</b>	<b>TRAIL L = 80000 - 35107</b>	<b>TRAIL L = 44893 LBS.</b>	

VPA 1000 TARE WEIGHT = 22,720 LBS (INCLUDES VPA 1000 ON A 42' TRIPLE AXLE TRAILER WITH DEUTZ POWER UNIT WITH ALL FLUIDS)

# VPA1000 PART LISTING

(PART NUMBER: 70800)

ITEM	PART NUMBER	DESCRIPTION	QTY.
36	71204	HYDRAULIC TUBE ASM, 1.25" DIAM X 211.125 LONG	1
37	71197	HYDRAULIC TUBE ASM, 1.25" DIAM X 144.25" LONG	1
38	2403-20-20	UNION #20 MJIC X #20 MJIC	1
39	71645	WELDED CYLINDER WITH DUAL CBV, 3 X 14	1
40	310	3' OF 10" FLEX HOSE WITH SS CLAMP	2
41	18474300	BOLT, HEX 1/4 X 3 NC SS	6
42	F14347A1	BRAKE VALVE, DUAL CB SHUTTLE MANIFOLD	1
43	47076665	SHIELD	3
44	18881001	WASHER FLAT 1/4 SS	6
45	18025718	BOLT CAP SS 1/4 X 3/4	6
46	71231	SLIDING DOOR SUB ASM	3
47	76440	HOPPER SPACER	6
48	70765	VPA LOWER TUBE ASSY (SLEW DRIVE)	1
49	18026826	BOLT CAP SS 3/8 X 1 1/2	12
50	18991200	WASHER FLAT 3/8 SS	54
51	18026824	BOLT HX SS 3/8 X 1 1/4	15
52	vpa1000decals	VPA1000 DECALS	1
53	F14488A1	CAM VALVE ASSY, NORMALLY CLOSED	1
54	18881201	WASHER LOCK 3/8 SS	6
55	71440	HINGE CENTERING BUSHING	4
56	18092030	BOLT, HX CAP, G8NCZC, 1/2-13 X 2 LG	4
57	18457651	NUT, HEX, CENTERLOCK, 1/2-13 G8NCZC	4
58	71656	AXLE SHIELD KIT	1
63	48300930	TRAILER MOUNT HARDWARE KIT	1
62	70834	REAR DUMP TUBE W/ CARRIER	1
67	71288	GREASE LINE KIT	1
59	71191	FENDER GUARD OPTION	1
68	71286	AUGER FLOOD LIGHT KIT	1
69	71407	AUGER CRADLE WARNING KIT	1
70	71939	HOPPER GATE SHIM	3
72	71984	BOX SHIM	6

## AVAILABLE OPTIONS ITEMS 60, 61 & 64

ITEM	PART NUMBER	DESCRIPTION	QTY.
60	48300385	DEUTZ ENGINE SKID	1
61	71045	REMOVABLE SIDE LADDER KIT	1
64	3001459	42' TRIPLE AXLE TRAILER, B-B	1

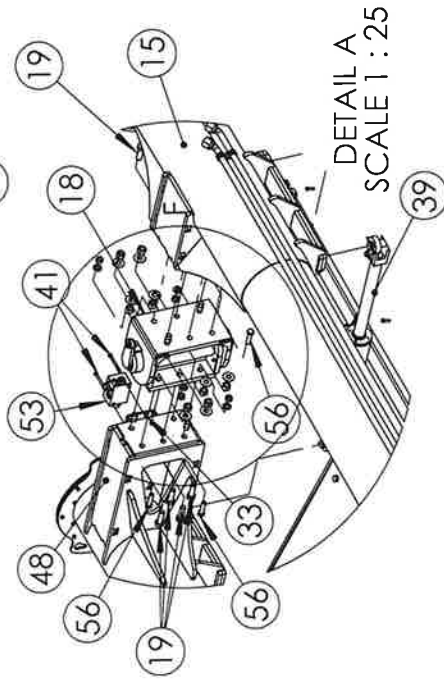
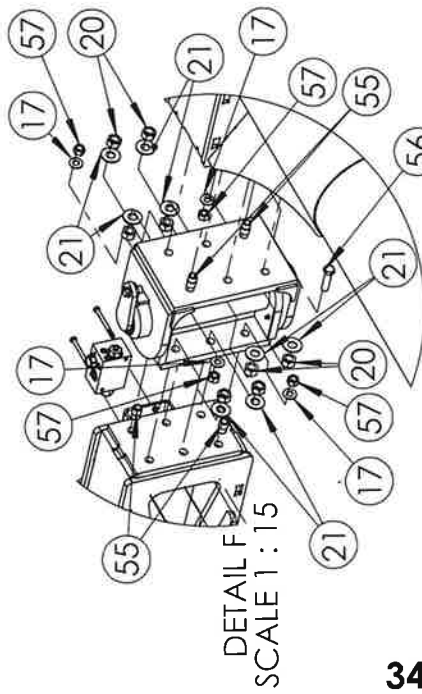
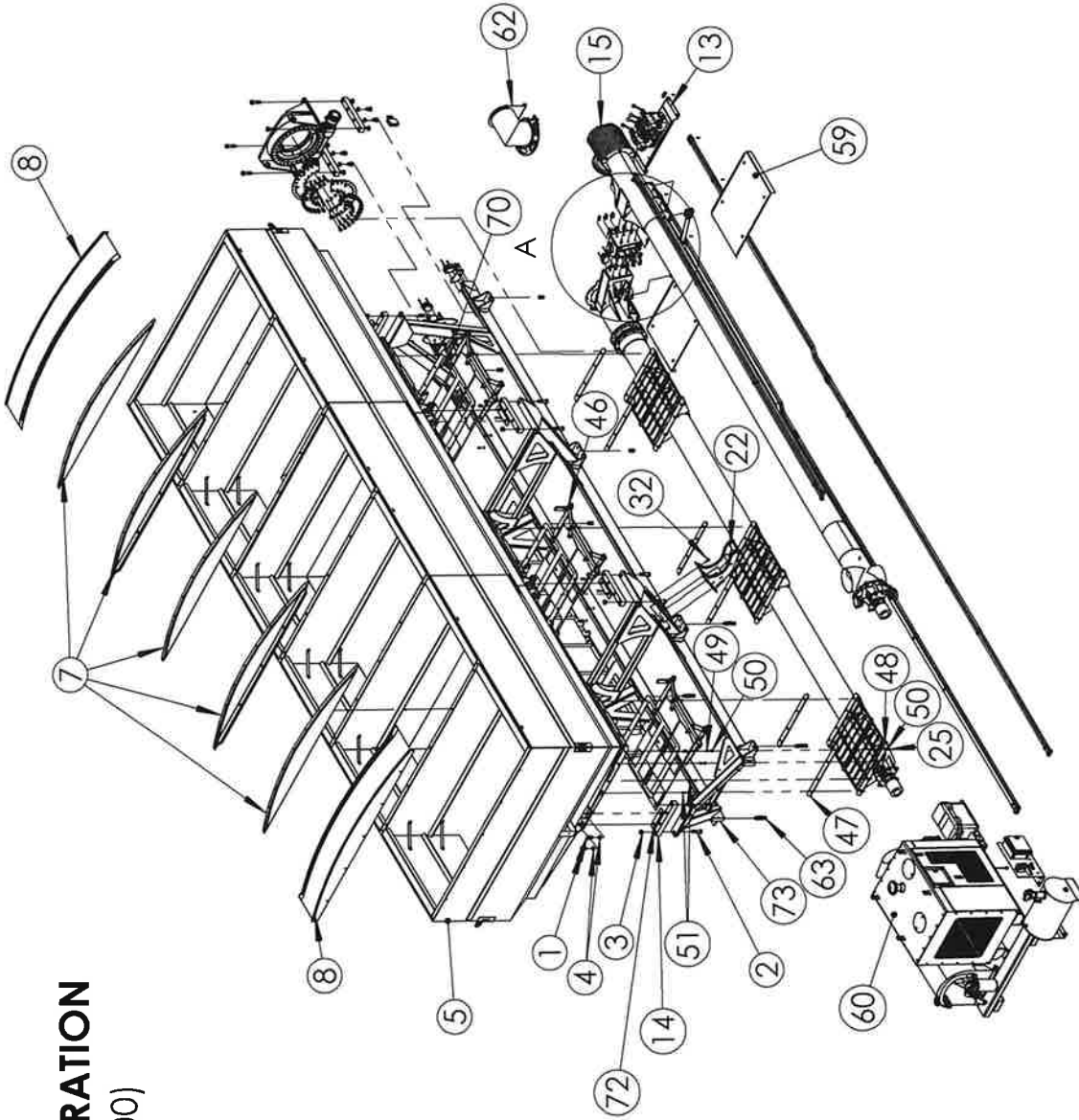
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	18059303M	BOLT HX CAP 24(3.0) X 70 (MAGNI 565)	16
2	18058501M	BOLT HX CAP G5NCZC 7/8 X 4 (MAGNI)	16
3	18458000M	NUT CTR LOCK 7/8 NC ZC (MAGNI 565)	16
4	18892100M	WASHER LOCK M24 ZC (MAGNI 565)	16
5	71353	VPA HOPPER WELDMNT - 30 TON	1
73	70731	VPA FRAME	1
7	47996758	ARCH DIVIDER COMPLETE KIT MT900	1
8	SRT-AGS 4002855	ROLL TARP	1
9	70802	SLEW DRIVE RING	2
10	18059851	BOLT, HEX, M16 X 2 MM X 35MM LONG, CLASS 10.9 ZC	32
11	18567400	NUT SS NYLOCK 1/2	32
12	18470175	BOLT SS CAP 1/2 X 1 3/4	24
13	70829	HYDRAULIC CONTROL PANEL MOUNT	1
14	76483	WEIGH KIT SUB	8
15	71162	VPA DISCHARGE AUGER ASSEMBLY, 20.5 FT	1
16	71183	TUBE SUPPORT PLATE	1
17	18824800	WASHER FLAT 1/2 SS	20
18	71184	HINGE ASSEMBLY, VPA UNLOAD	1
19	18057930	BOLT HX 5/8 X 2 GR 8 NC ZC	8
20	18458451	NUT, TOP LOCK, 5/8-11	8
21	18981600	WASHER FLAT 5/8 SS	8
22	71188	AUGER CRADLE, VPA	2
23	F14487A1	CAM VALVE ASSY, NORMALLY OPEN	2
24	71397	CAM VALVE MOUNT	2
25	18566400	NUT SS NYLOCK 3/8	27
26	18026822	BOLT, HEX HD 3/8 X 1 NC SS	6
27	76966	HYDRAULIC TUBE ASM, 3/4 DIAM X 216.5 LONG	3
28	53592	HYDRAULIC TUBE ASM, 3/4 DIAM X 138 LONG	3
29	51676	HEX UNION, 2403-12-12	3
30	41770	HYDRAULIC HOSE CLAMP 3/4	24
31	71195	SLEW DRIVE SUB ASM	1
32	18022026	BOLT SS HX 1/2 X 1 1/2	8
33	18569200	NUT 1/4 NYLOCK SS	28
34	18025720	BOLT CAP SS 1/4 X 1	16
35	41772	1 1/4" CLAMP VINYL COVERED	8

\*INCLUDED BUT NOT SHOWN:

P/N 71285 HYDRAULIC HOSE AND FITTING KIT QTY 1

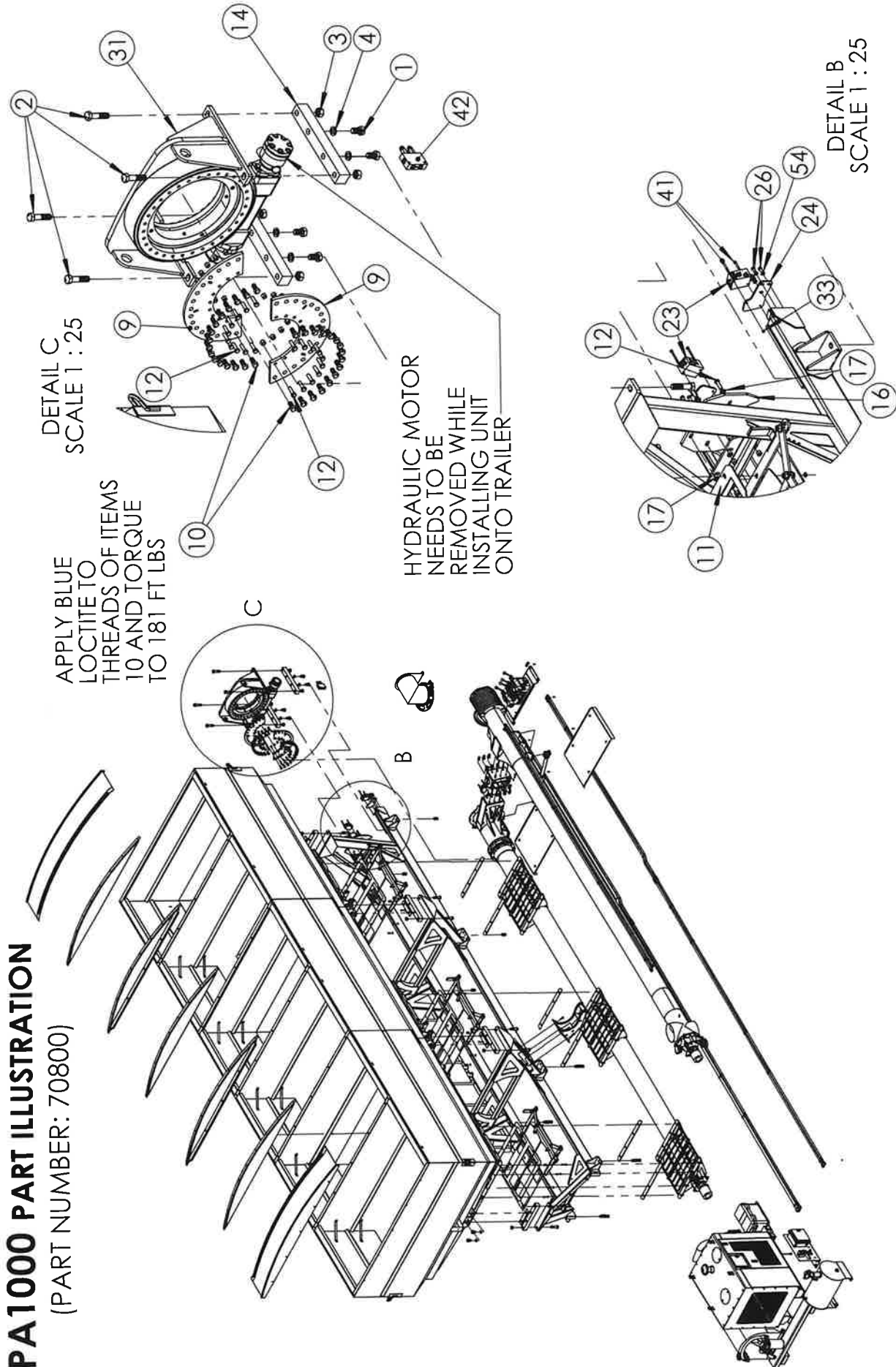
# VPA 1000 PART ILLUSTRATION

(PART NUMBER: 70800)



# VPA1000 PART ILLUSTRATION

(PART NUMBER: 70800)



DETAIL C  
SCALE 1 : 25

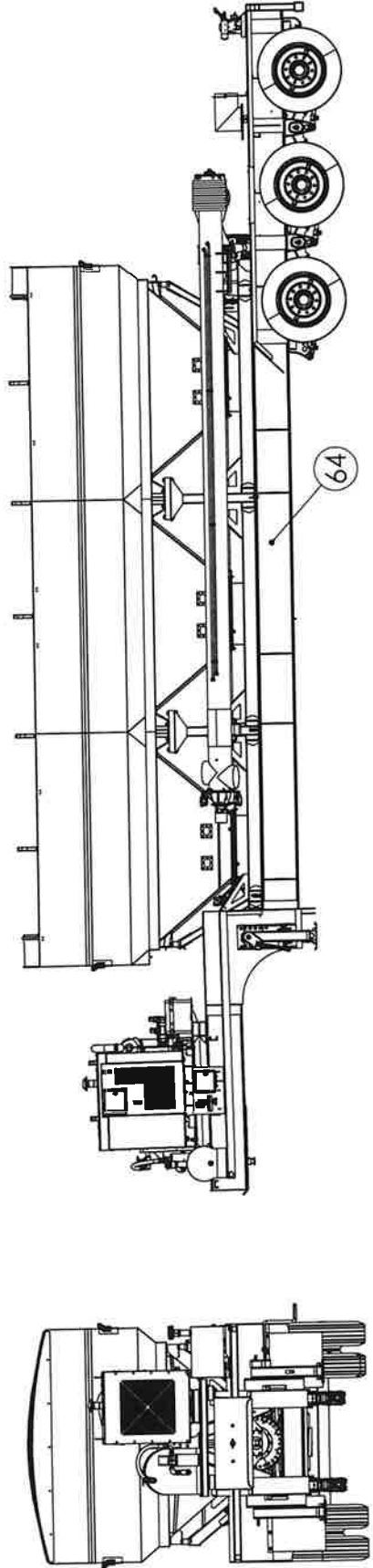
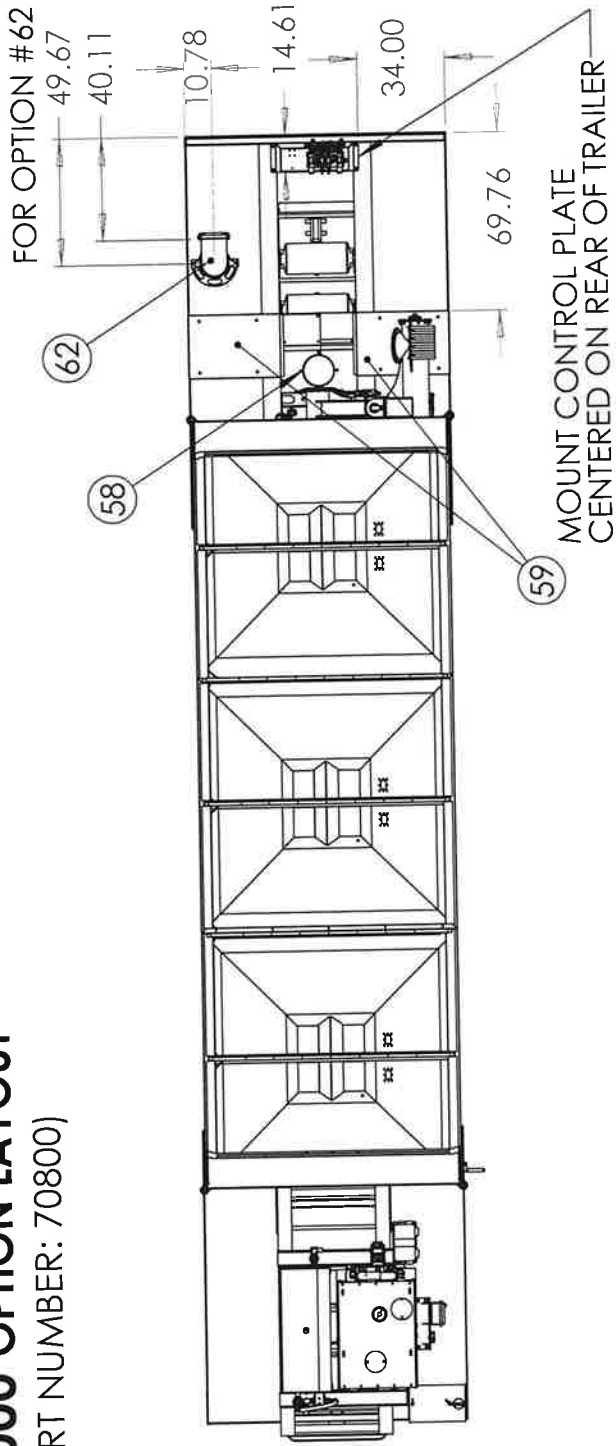
APPLY BLUE  
LOCTITE TO  
THREADS OF ITEMS  
10 AND TORQUE  
TO 181 FT LBS

HYDRAULIC MOTOR  
NEEDS TO BE  
REMOVED WHILE  
INSTALLING UNIT  
ONTO TRAILER

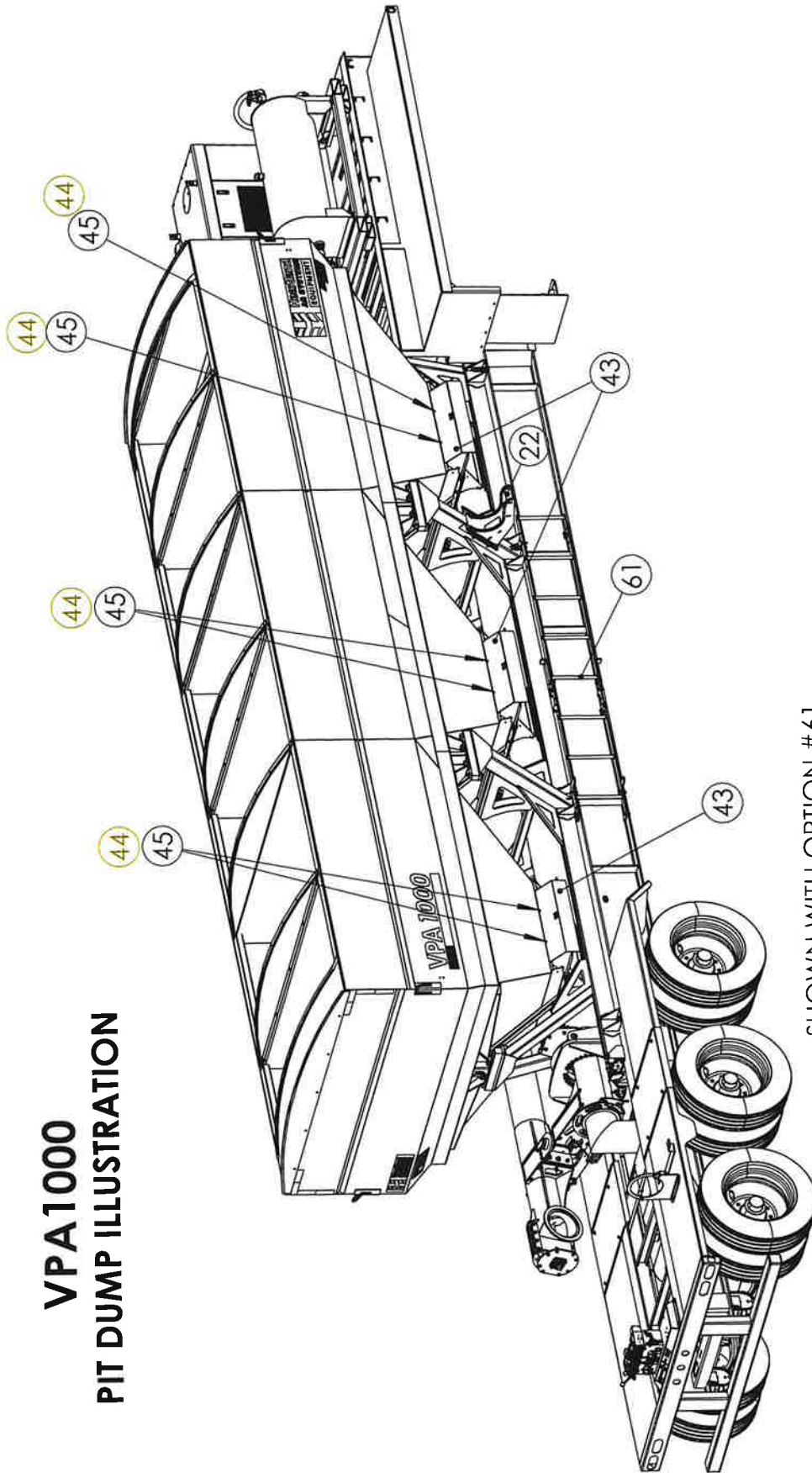
DETAIL B  
SCALE 1 : 25



**VPA1000 OPTION LAYOUT**  
(PART NUMBER: 70800)

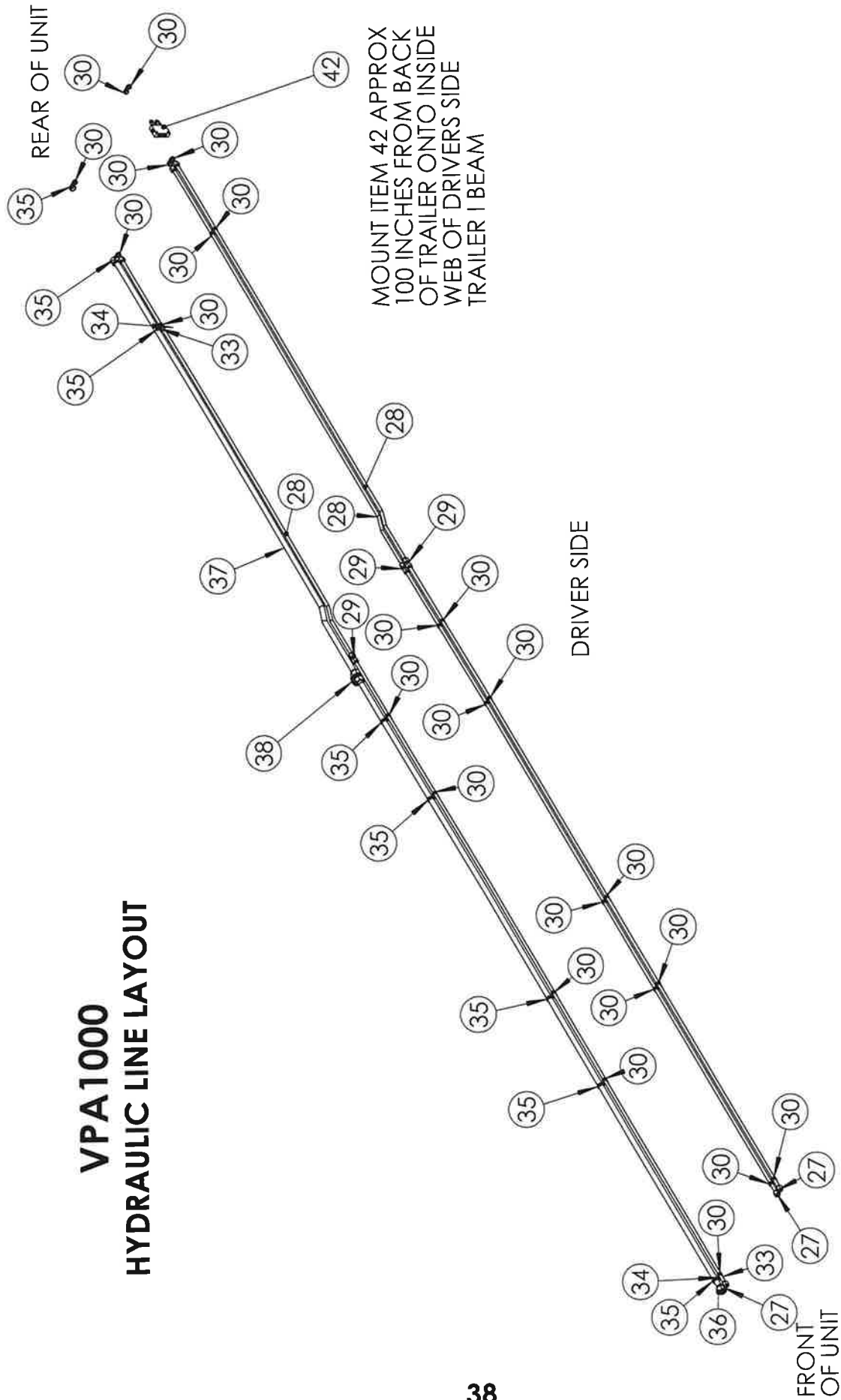


# VPA 1000 PIT DUMP ILLUSTRATION



SHOWN WITH OPTION #61  
(REAR PIT DUMP) IN USE

# VPA1000 HYDRAULIC LINE LAYOUT



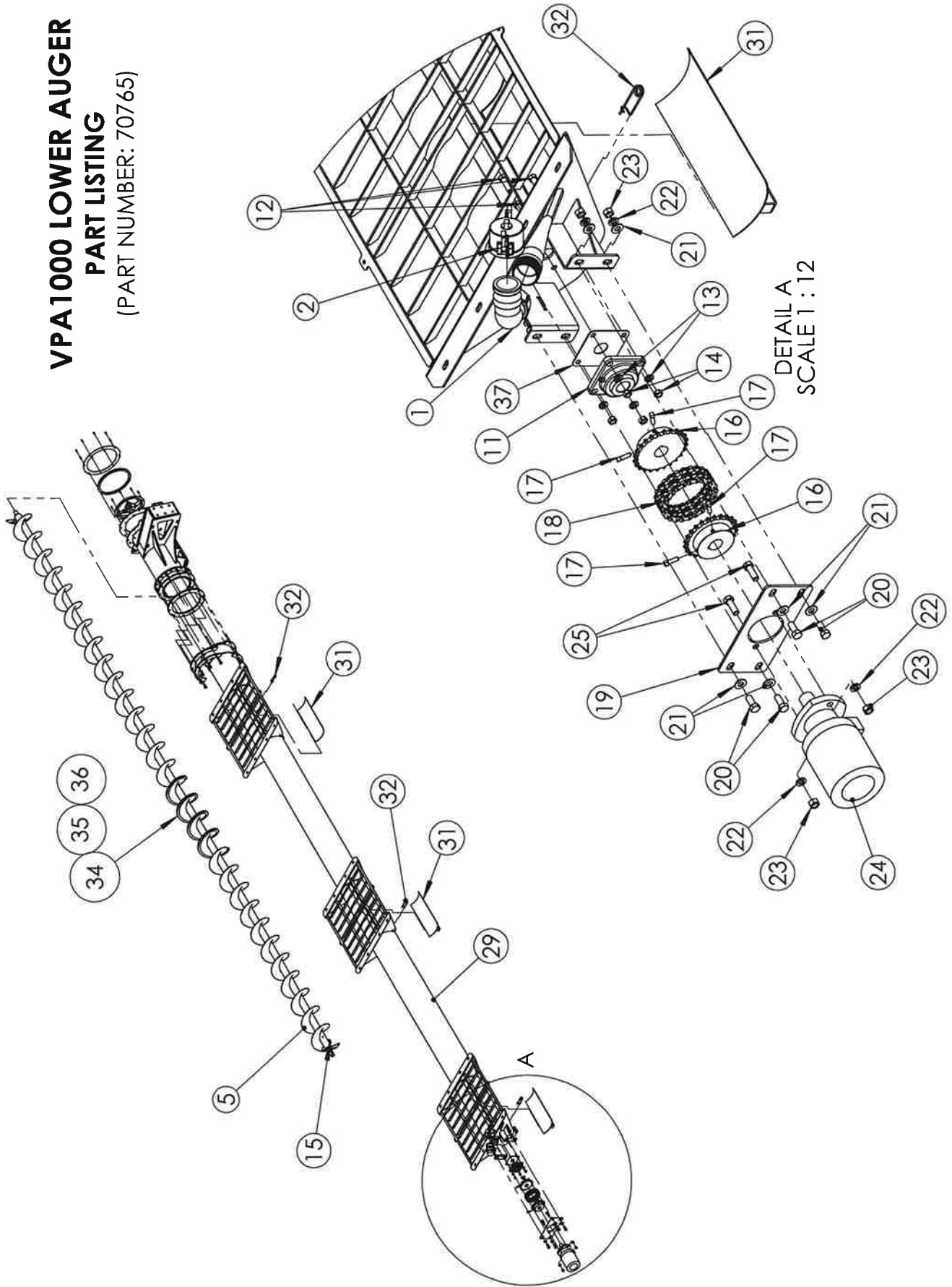
**VPA1000 LOWER AUGER  
PART LISTING**  
(PART NUMBER: 70765)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	200208	2" COUPLER 90 DEG ELBOW	1
2	200172	2" FEMALE COUPLER CAP	1
3	70769	SEAL MOUNT RING	1
4	12335A61	SEAL	1
5	47076074	AUGER FLIGHTING WELDMENT	1
6	70770	3/8 HALF RING	2
7	70771	RECESSED RING	2
8	70772	PLASTIC RING	1
9	70773	HANGER BEARING ASSY	1
10	70780	REAR TUBE WELDMENT (SLEW DRIVE)	1
11	10649	4-BOLT FLANGE BEARING, 1.25" SHAFT	1
12	18997650	BOLT HX SS 7/16 X 1 1/2	4
13	18991300	WASHER LOCK 7/16 SS	4
14	18997100	NUT HX SS 7/16 NC	4
15	37265	KEY	1
16	48300151	24 TOOTH SPROCKET #50 CHAIN 1 1/4" BORE 5/16 KEY	2
17	18767449	SCREW SET 5/16 X 1 SQHD NCSC	4
18	29941	CHAIN COUPLER	1
19	76444	PLATE MOTOR	1
20	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
21	18824800	WASHER, FLAT 1/2 SS	8
22	18991400	WASHER LOCK 1/2 SS	6
23	18997400	NUT 1/2 SS	6
24	1040020	MOTOR HYDRAULIC (LOWER AUGER)	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
25	18022026	BOLT SS HX 1/2 X 1 1/2	2
26	18569200	NUT 1/4 NYLOCK SS	16
27	18025718	BOLT CAP SS 1/4 X 3/4	16
28	18027436	BOLT SS CAP 1/2 X 2 1/2	10
29	71219	LOWER AUGER WELDMENT	1
30	18567400	NUT SS NYLOCK 1/2	10
31	47076663	SLIDING DOOR	3
32	18000099	5/16 X 1 3/4 DBL WIRE RND	3
33	71717	HANGER BEARING SPACER PLATE	1
34	76771	UHMW EDGING	1
35	18474201	NUT HX NYLOCK #8/32 SS	8
36	18704218	SCREW MACH RD PH SS 8-32 X 3/4	8
37	71790	BEARING GUARD, 1.25" SHAFT	1

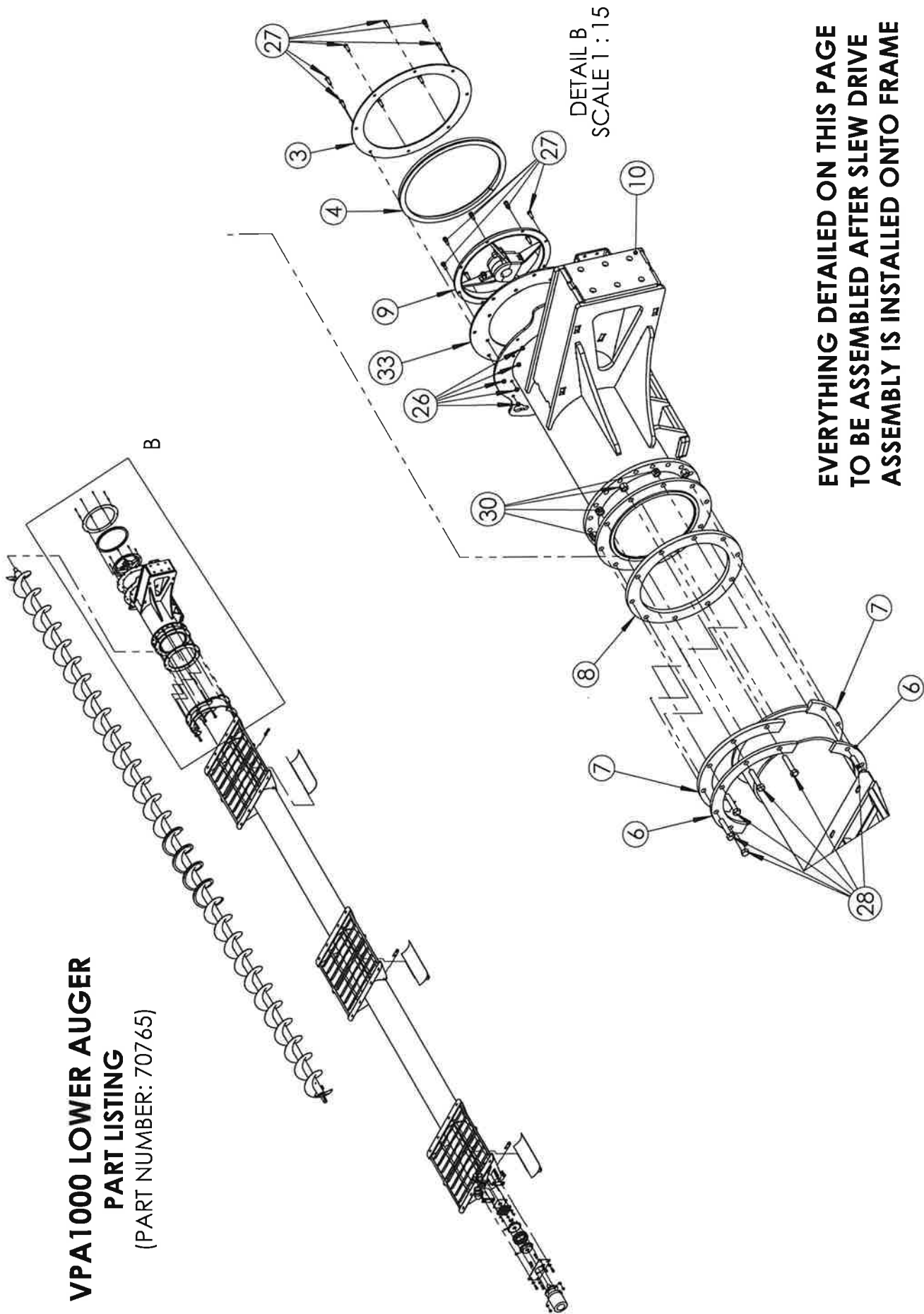
**PER TEMPORARY DEVIATION 2023-01  
ITEM 24, P/N: 1040020 IS SUBSTITUTED WITH 71892  
EFFECTIVE SEPTEMBER 2023**

**VPA1000 LOWER AUGER**  
**PART LISTING**  
(PART NUMBER: 70765)



DETAIL A  
SCALE 1 : 12

**VPA1000 LOWER AUGER**  
**PART LISTING**  
(PART NUMBER: 70765)

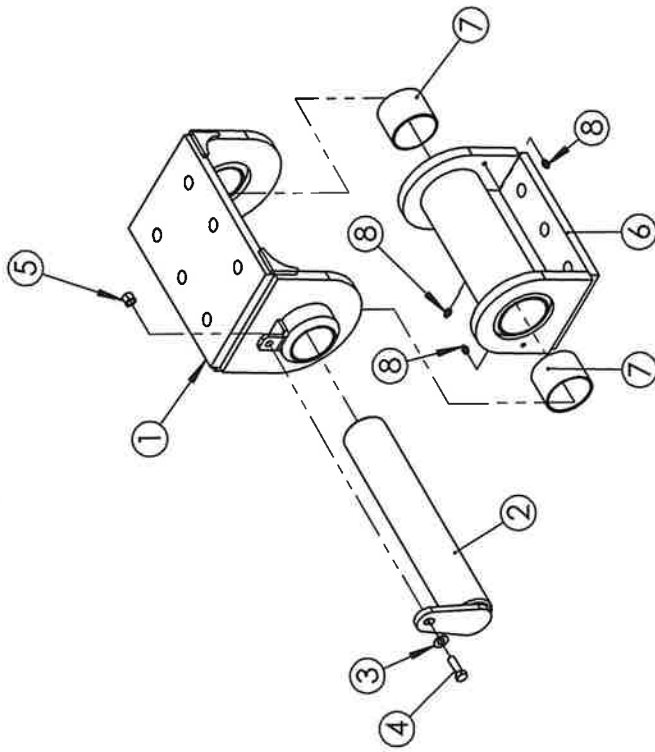


DETAIL B  
SCALE 1:15

**EVERYTHING DETAILED ON THIS PAGE  
TO BE ASSEMBLED AFTER SLEW DRIVE  
ASSEMBLY IS INSTALLED ONTO FRAME**

## VPA1000 HINGE ASSEMBLY

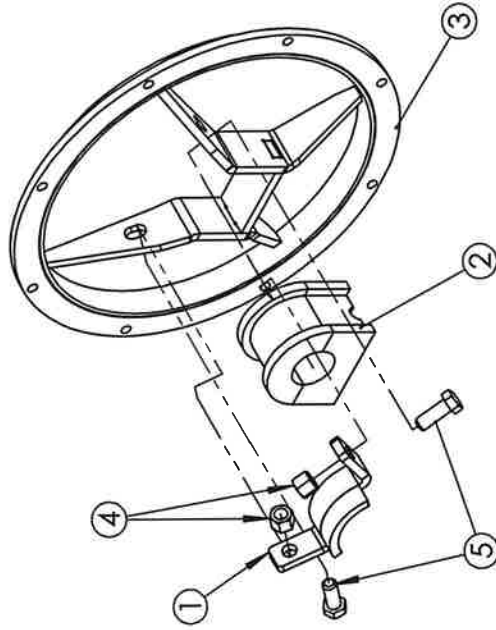
(PART NUMBER: 71184)



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70844	HINGE BUSHING WELDT, UNLOAD	1
2	70826	HINGE PIN WELDMENT	1
3	18991200	WASHER FLAT 3/8 SS	1
4	18026824	BOLT HX SS 3/8 X 1 1/4	1
5	18566400	NUT SS NYLOCK 3/8	1
6	70838	HINGE WELDT	1
7	QSI-4043-32	IGUS IGLIDE Q SLEVE BEARING, 2.5"	2
8	18901805	GREASE ZERK, 1/4-28, STRAIGHT	3

## VPA1000 HANGER BEARING ASSEMBLY

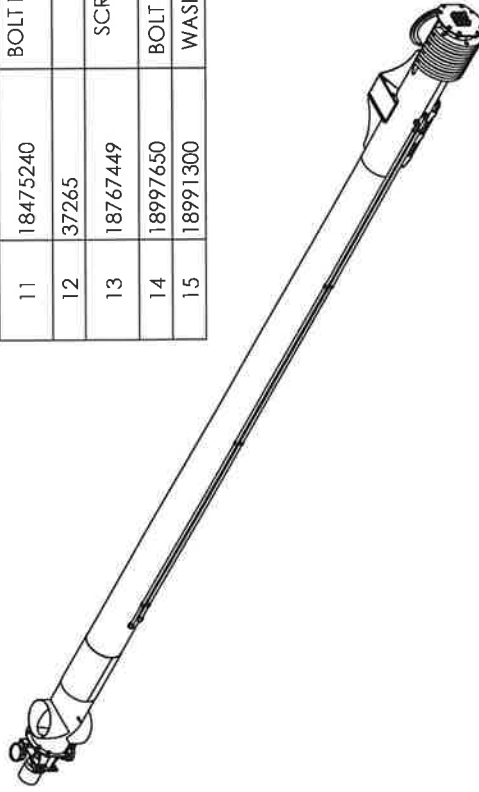
(PART NUMBER: 70773)



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71402	RETAINER STRAP WELDT	1
2	RHB203631	WOOD BEARING	1
3	70774	HANGER BEARING WELDMENT	1
4	18566400	NUT SS NYLOCK 3/8	2
5	18026822	BOLT, HEX HD 3/8 X 1 NC SS	2

**VPA1000 UNLOAD AUGER**  
**PART LISTING**  
(PART NUMBER: 71162)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71404	VPA DISCHARGE AUGER ASM	1
2	76340	PLATE UNL AUGER END	2
3	10649	4-BOLT FLANGE BEARING, 1.25" SHAFT	2
4	47076456	MOTOR MOUNT WLDMT	2
5	70757	PLATE MOTOR	1
6	48300151	24 TOOTH SPROCKET #50 CHAIN 1 1/4" BORE 5/16 KEY	2
7	1040045	MOTOR HYDRAULIC	1
8	18022026	BOLT SS HX 1/2 X 1 1/2	26
9	18991400	WASHER LOCK 1/2 SS	30
10	18997400	NUT 1/2 SS	22
11	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
12	37265	KEY	1
13	18767449	SCREW SET 5/16 X 1 SQHD NCSC	4
14	18997650	BOLT HX SS 7/16 X 1 1/2	8
15	18991300	WASHER LOCK 7/16 SS	8



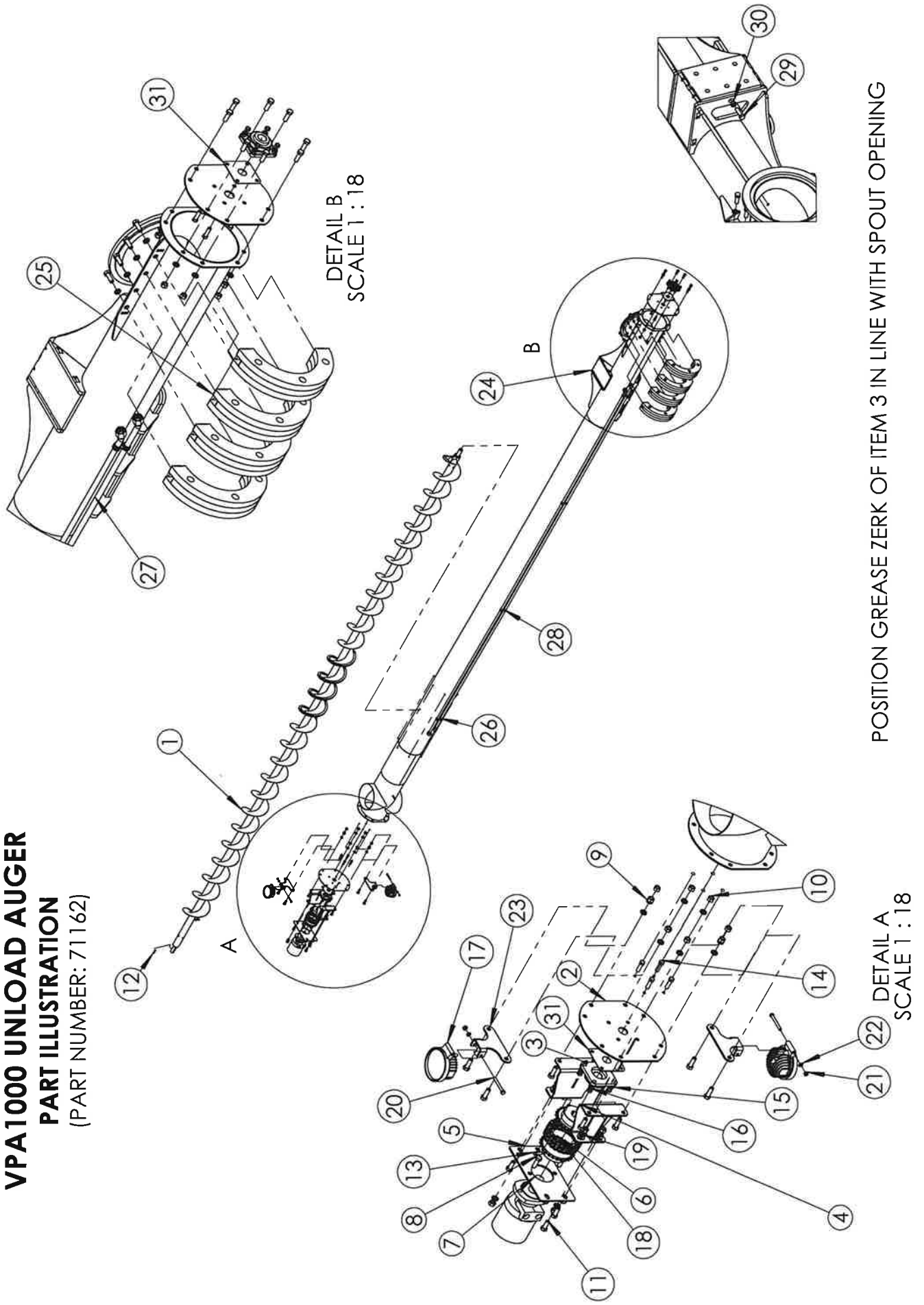
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
16	18997100	NUT HX SS 7/16 NC	8
17	QFA199	LED LIGHT	2
18	29941	CHAIN COUPLER	1
19	18824800	WASHER, FLAT 1/2 SS	8
20	18996426	BOLT CAP SS 5/16 X 2 3/4	2
21	18476350	NUT HX 5/16 SS	2
22	18891110	WASHER, LOCK 5/16 ZC	2
23	70758	LIGHT BRACKET	2
24	71173	DISCHARGE AUGER BASE, VPA	1
25	71179	WEIGHT WELDT	4
26	41770	HYDRAULIC HOSE CLAMP 3/4	8
27	51643	HYDRAULIC TUBE, 3/4 OD X .065 WALL X 184 LONG	2
28	18569200	NUT 1/4 NYLOCK SS	8
29	18470175	BOLT SS CAP 1/2 X 1 3/4	1
30	91847A520	NUT, HEX, JAM, 1/2-13, SS	1
31	71790	BEARING GUARD, 1.25" SHAFT	2

\*ITEM 17 IS INCLUDED WITH LIGHT KIT AND SHOWN FOR ASSEMBLY PURPOSES ONLY

**PER TEMPORARY DEVIATION 2023-01**  
**ITEM 7 P/N 1040045 IS SUBSTITUTED WITH P/N: 71894**  
**EFFECTIVE AUGUST 2023**



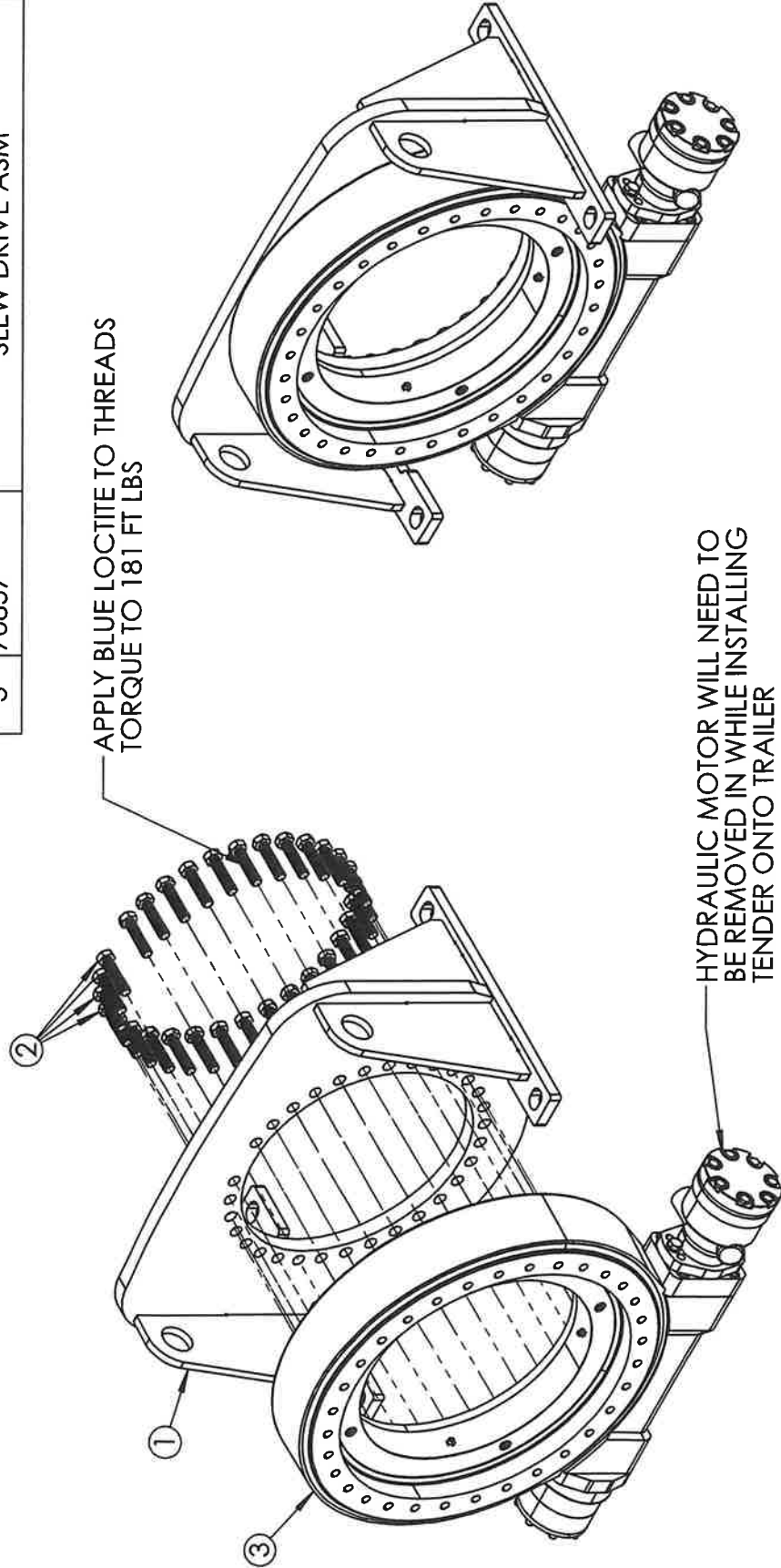
**VPA1000 UNLOAD AUGER**  
**PART ILLUSTRATION**  
(PART NUMBER: 71162)



# SLEW DRIVE ASSEMBLY

(PART NUMBER: 71195)

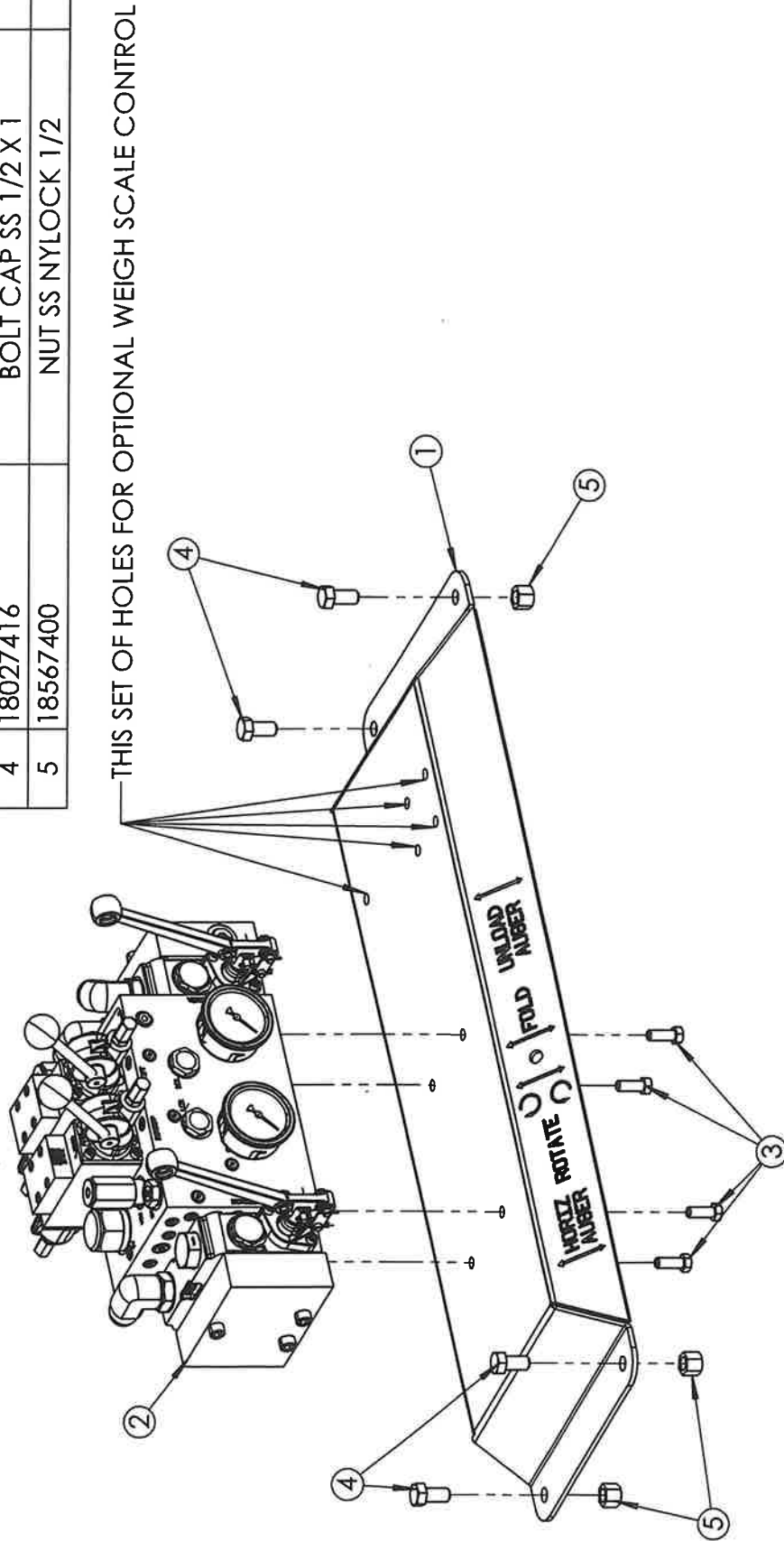
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70797	SLEW DRIVE MOUNT WELDMENT	1
2	18059850	BOLT, HEX M16 X 2MM X 70 MM LG, CLASS 10.9, ZC	31
3	70857	SLEW DRIVE ASM	1



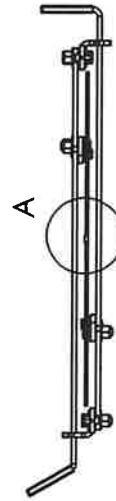
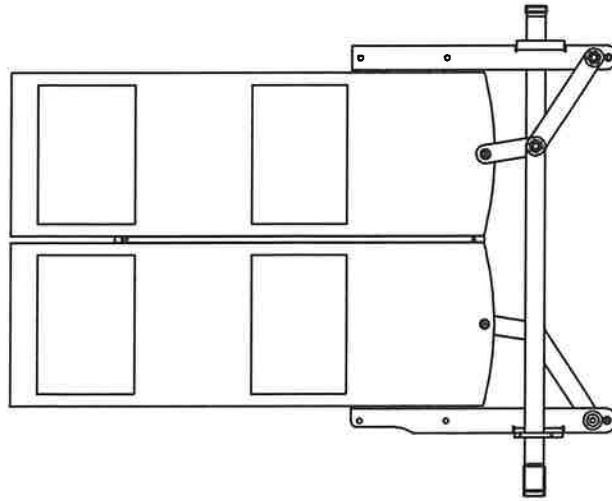
# VPA1000 HYDRAULIC CONTROL VALVE

(PART NUMBER: 70829)

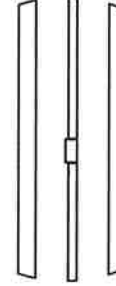
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70830	VALVE MOUNT	1
2	HYDRAULIC VALVE		1
3	18026822	BOLT, HEX HD 3/8 X 1 NC SS	4
4	18027416	BOLT CAP SS 1/2 X 1	4
5	18567400	NUT SS NYLOCK 1/2	4



**SLIDING DOOR  
PART LISTING**  
(PART NUMBER: 71231)

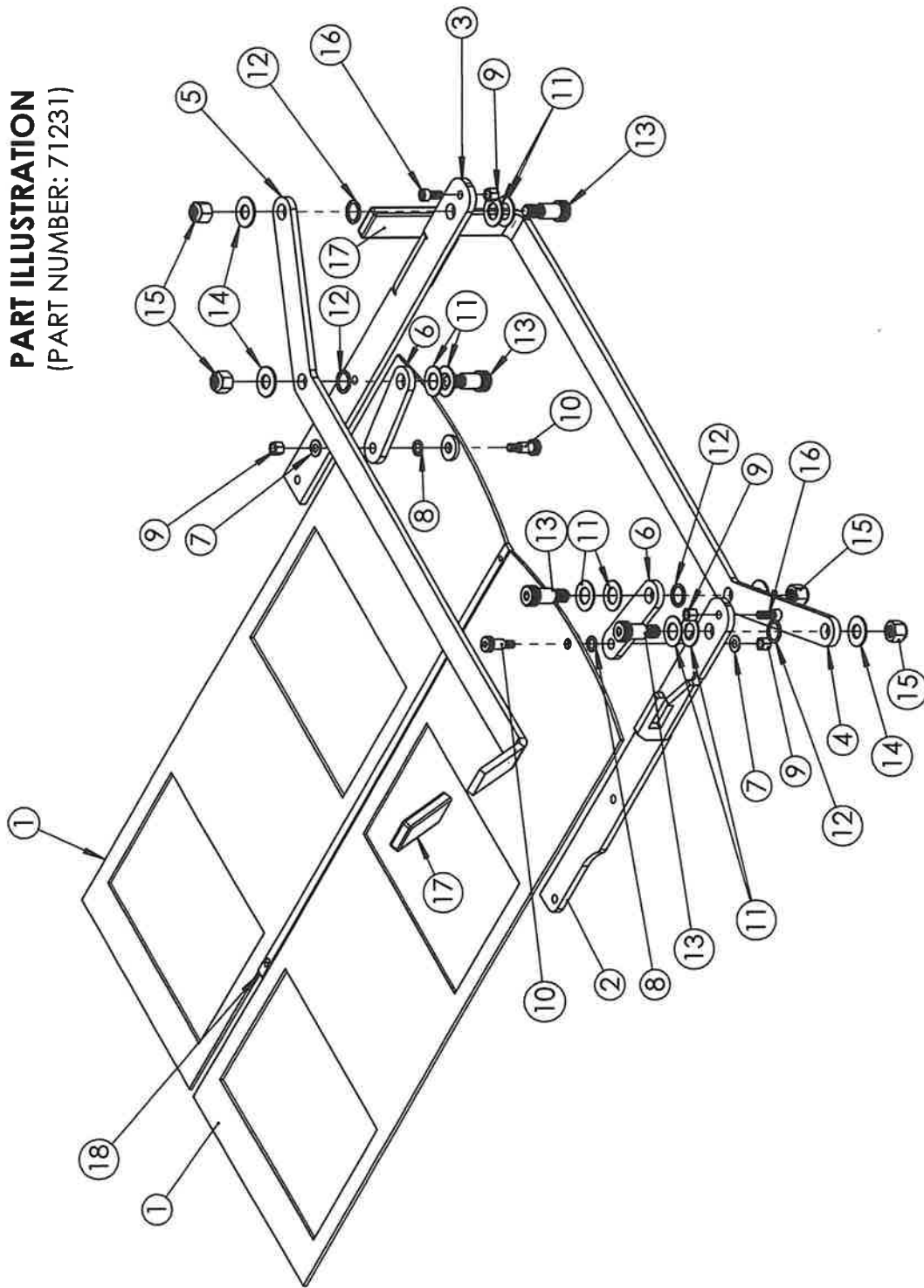


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	47076536	DOOR WELDMENT	2
2	76762	LINKAGE SUPPORT LH	1
3	76763	LINKAGE SUPPORT RH	1
4	76760	HANDLE RH	1
5	76764	HANDLE LH	1
6	76761	LINKAGE	2
7	18991200	WASHER FLAT 3/8 SS	2
8	18984800	WASHER NYLON 1/2	2
9	18566400	NUT SS NYLOCK 3/8	4
10	18059302	SHOULDER BOLT 1/2 X 3/4 SS	2
11	18971800	WASHER FLAT 3/4 SS	8
12	18861800	WASHER NYLON 3/4	4
13	18051619	SHOULDER BOLT 3/4 X 1	4
14	18981600	WASHER FLAT 5/8 SS	4
15	18487600	NUT, LOCK 5/8-11 SS	4
16	18776822	SHCS 3/8-16 X 1 LG SS	2
17	54143A	HANDLE COVER	2
18	3670	DOOR GUIDE	1

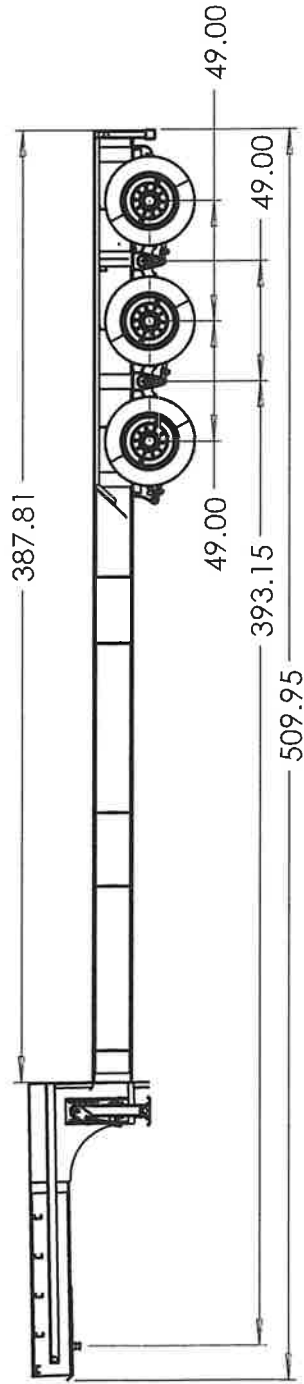


DETAIL A  
SCALE 1 : 4

**SLIDING DOOR**  
**PART ILLUSTRATION**  
(PART NUMBER: 71231)



# VPA1000 TRAILER OPTIONS

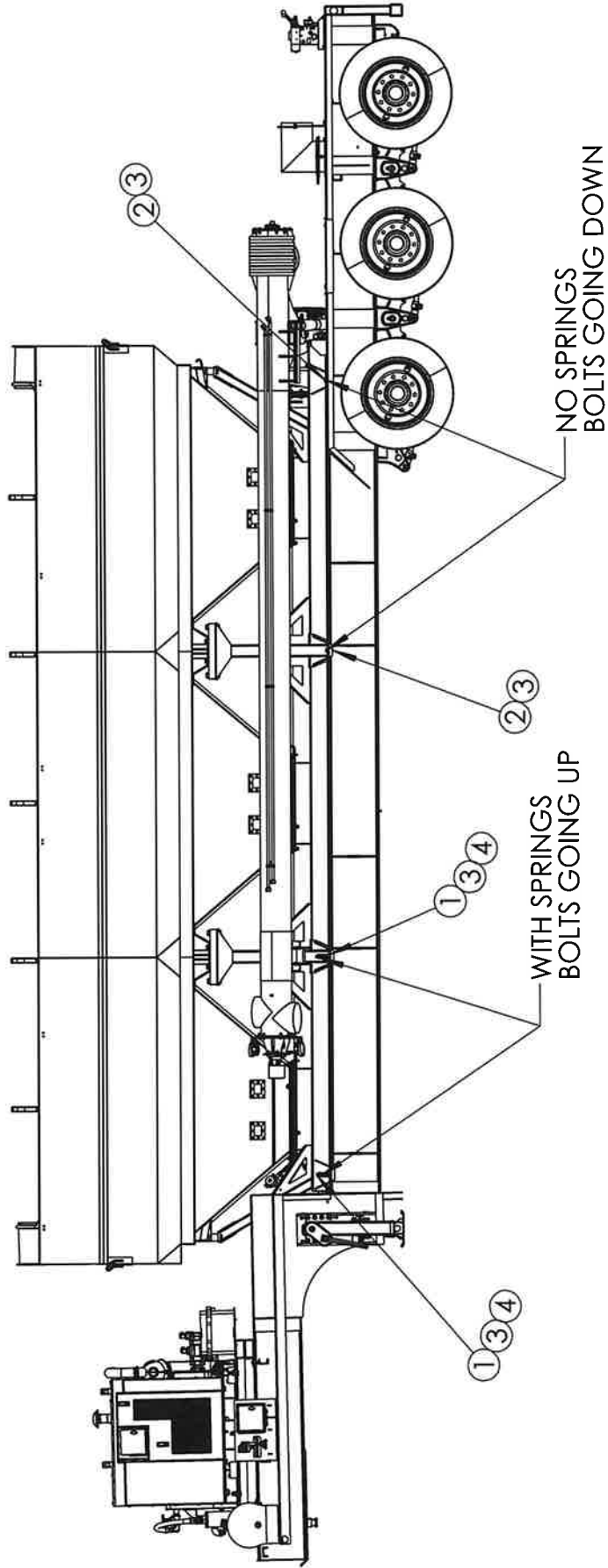


PART NUMBER: 3001459  
(MT24-42TA TRI)  
42' TRIPLE AXLE TRAILER

# TRAILER MOUNTING HARDWARE

(PART NUMBER: 48300930)

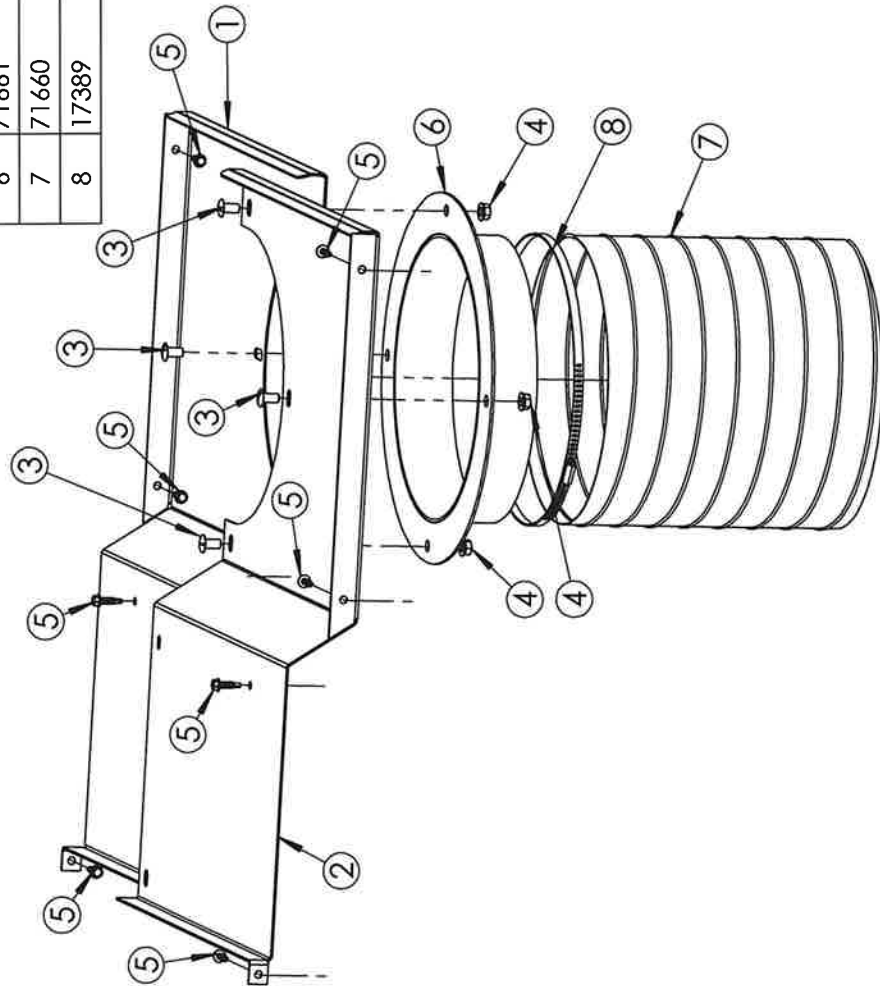
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	18058452M	BOLT HX 3/4 X 5 G8 NC ZC (MAGNI)	4
2	18098500M	BOLT, HX 3/4 X 1-3/4 NC (MAGNI)	4
3	18458400M	NUT LOCK 3/4 NC ZC (MAGNI)	8
4	18387	DIE SPRING	4



# AXLE SHIELD KIT

P/N: 71656

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71653	AXLE SHIELD, DRIVER SIDE	1
2	71654	AXLE SHIELD, DITCH SIDE	1
3	18706621	SCREW, SLOTTED TRUSS HEAD 3/8 X 3/4 SS	5
4	18987900	NUT SER FLG SS 3/8	5
5	70879	1/4" X 1" SELF TAPPING SCREW, SS, DRILL TIP	9
6	71661	FLEX TUBE MOUNT	1
7	71660	FLEX TUBE EXTENSION	1
8	17389	CLAMP	1



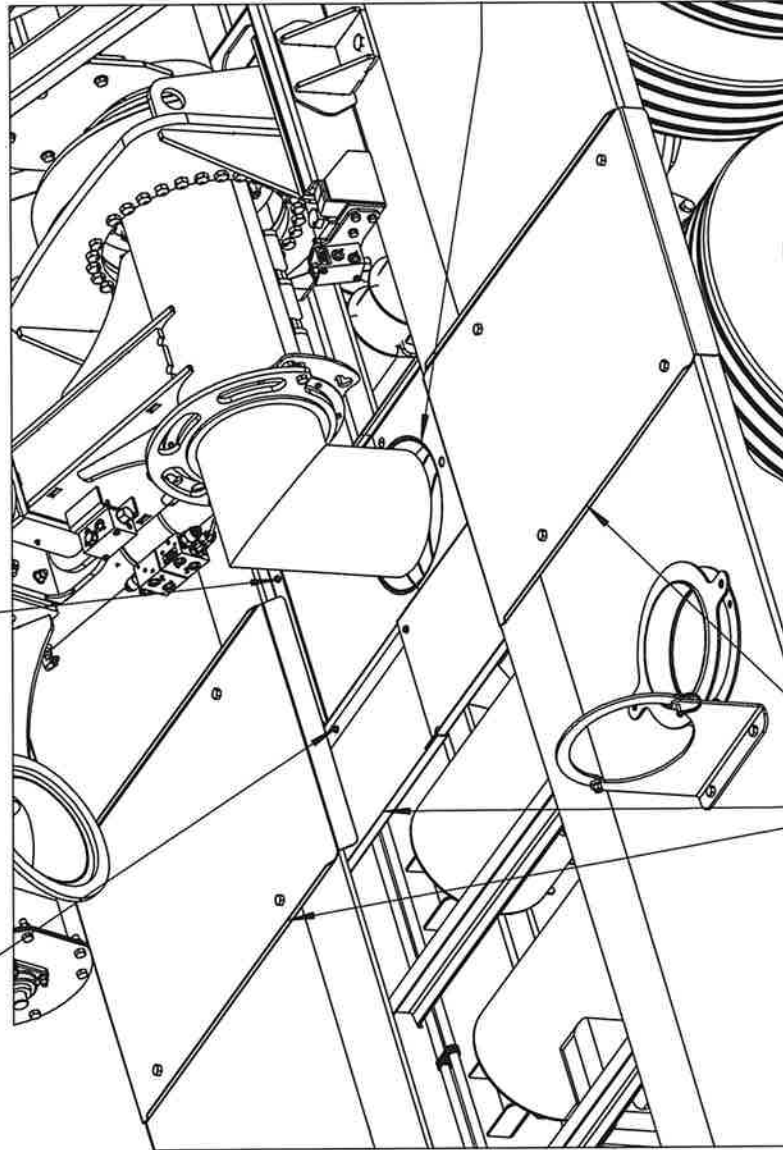


# AXLE SHIELD KIT

P/N: 71656

INSTALL SELF TAPPING SCREWS INTO TOP OF CROSS CHANNEL (DRILL 7/32 PILOT)

INSTALL SELF TAPPING SCREWS INTO SIDE OF TRAILER BEAMS - 3 EACH SIDE (DRILL 7/32 PILOT HOLE)



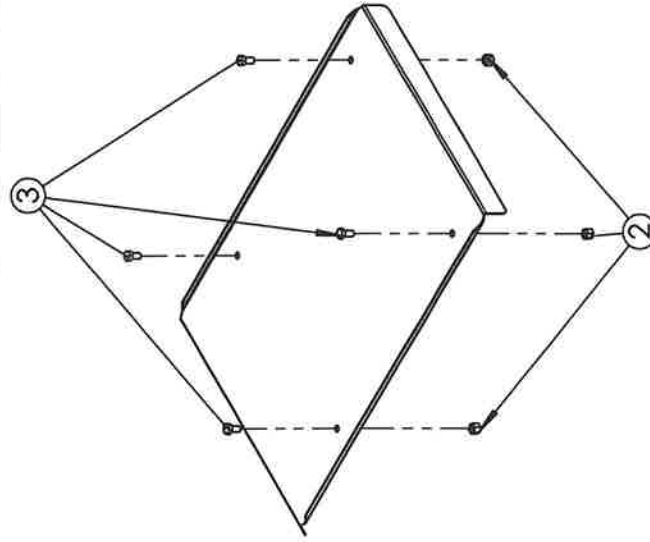
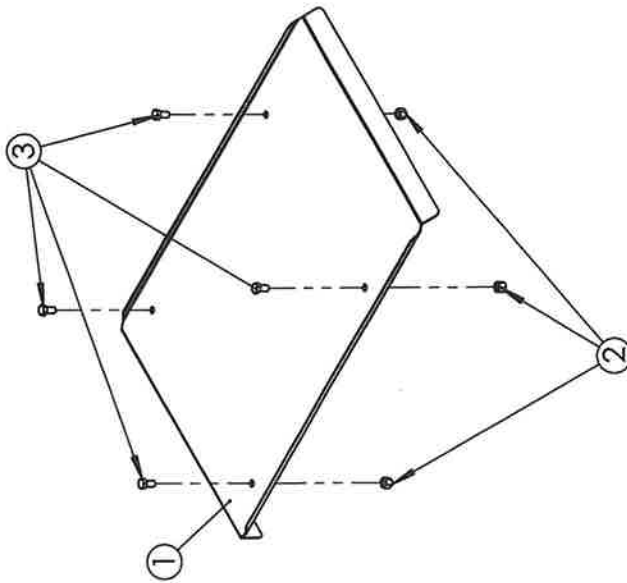
ENSURE OPENING IN SHIELD IS APPROXIMATELY CENTERED WITH PIT DUMP TUBE

FORMED FLANGE OF SHIELD SHOULD BE APPROXIMATELY IN LINE WITH FLANGE OF FENDER GAURDS

# VPA1000 OPTIONAL FENDER GUARD

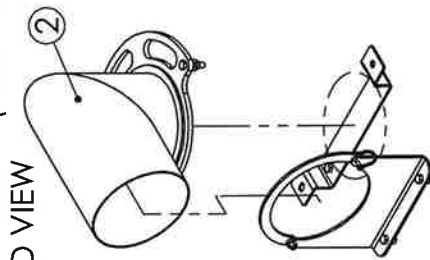
(PART NUMBER: 71191)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71192	FENDER GUARD	2
2	18567400	NUT SS NYLOCK 1/2	8
3	18027416	BOLT CAP SS 1/2 X 1	8

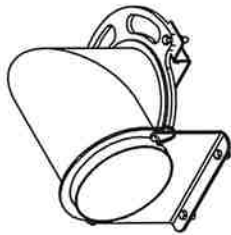


# VPA1000 OPTIONAL REAR DUMP TUBE (42 FT' TRAILER)

(PART NUMBER: 70834)

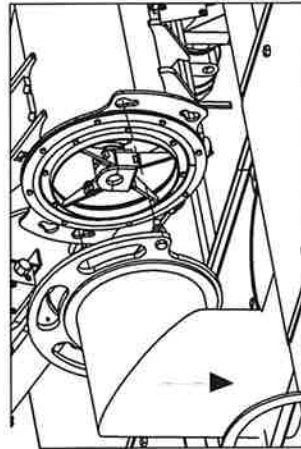


EXPLODED VIEW



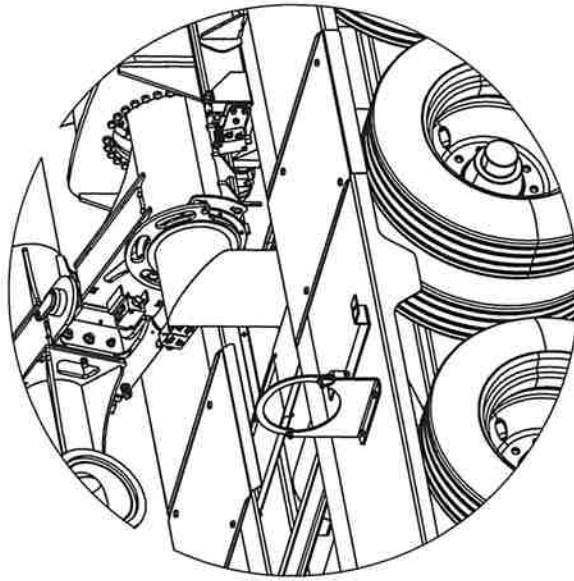
ASSEMBLED VIEW

## ASSEMBLY INSTRUCTIONS



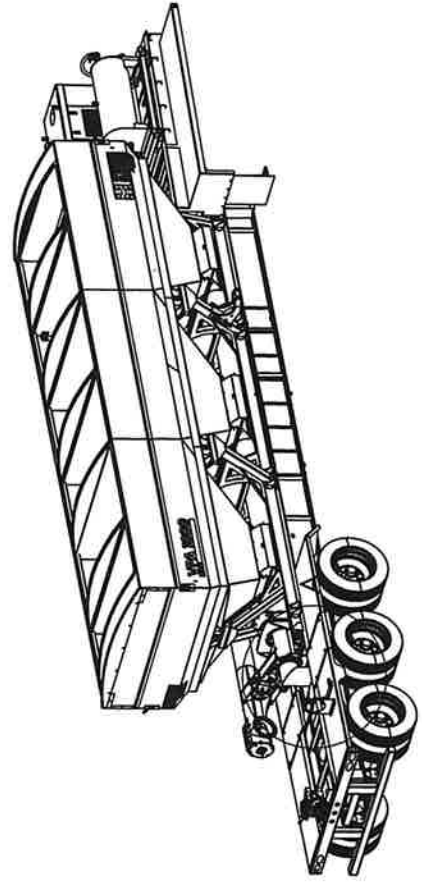
1. REMOVE PIT DUMP TUBE 70809 FROM CLAMP ASSEMBLY 70803
2. REATTACH FLANGE NUTS TO 70809
3. INSERT PIT DUMP 70809 INTO THE ENLARGED HOLES OF THE LOWER AUGER (AS SHOWN)
4. PULL DOWN
5. SECURE NUTS
6. REMOVE 70809 FROM LOWER TUBE WHEN FINISHED, AND SECURE ON CLAMP ASSEMBLY 70803

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70803	PIT DUMP TUBE CLAMP ASSY	1
2	70809	PIT DUMP TUBE ASSY	1



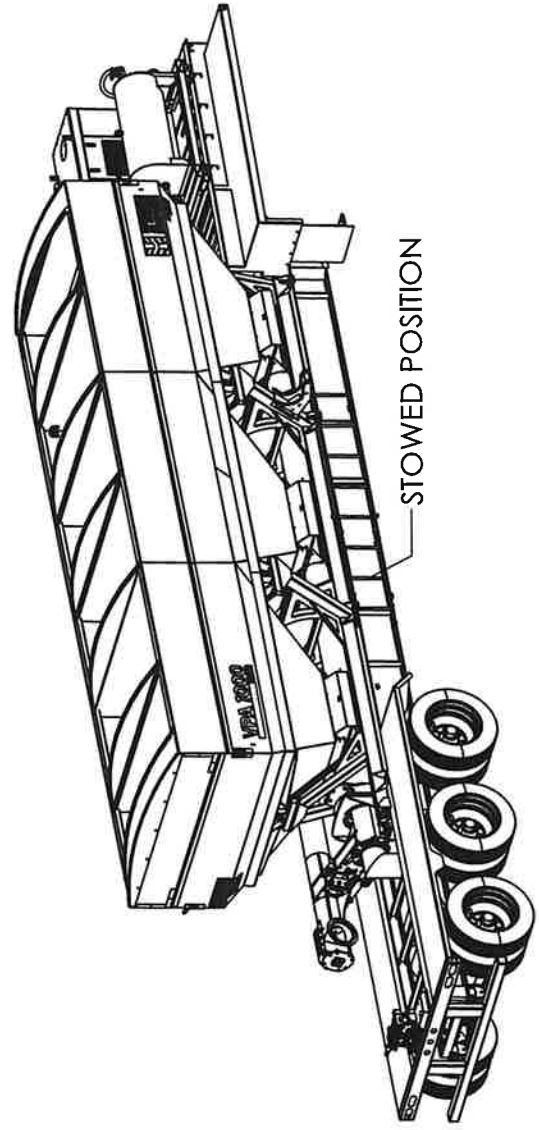
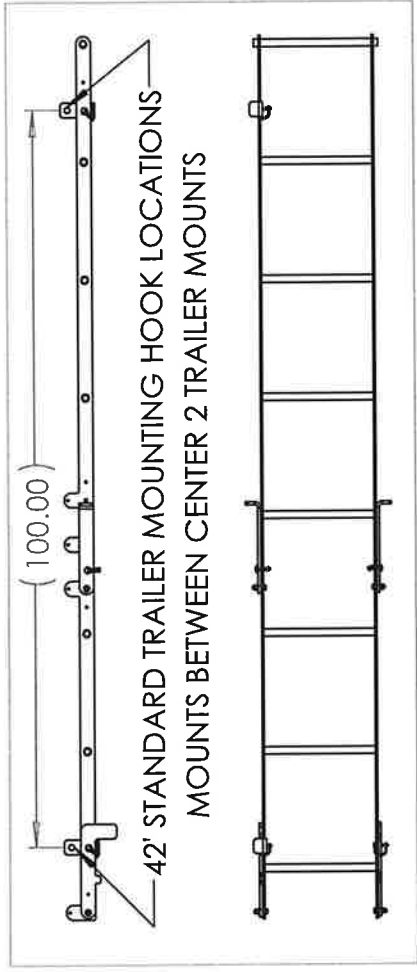
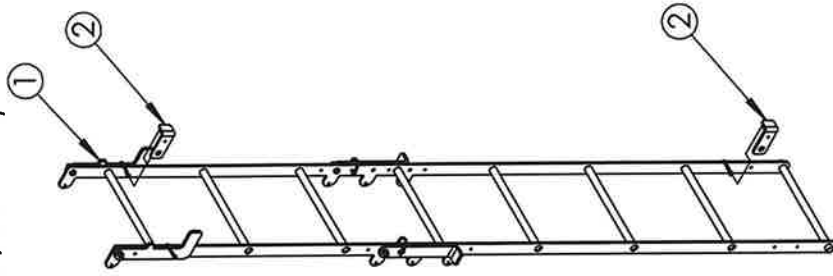
IN USE VIEW

**IT IS NOT RECOMMENDED TO TRANSPORT WITH REAR DUMP TUBE INSTALLED!**



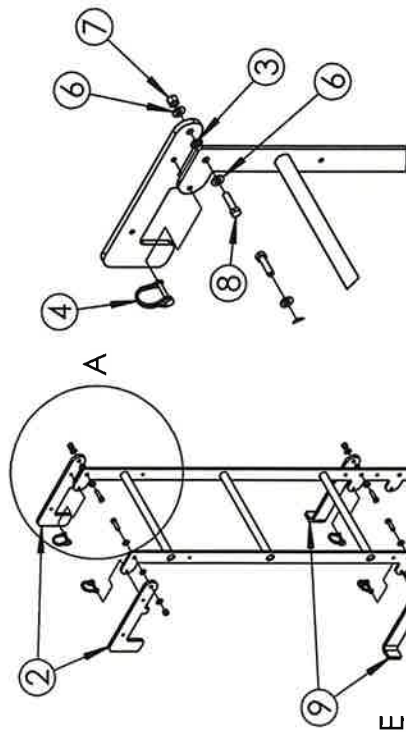
# VPA1000 REMOVEABLE LADDER W/ TRAILER STORAGE BRACKETS (P/N: 71045)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71046	REMOVABLE SIDE LADDER ASM	1
2	71052	REMOVABLE LADDER MOUNT	2



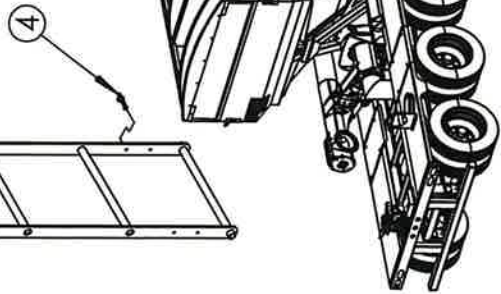
# REMOVEABLE LADDER KIT

(P/N: 71046)



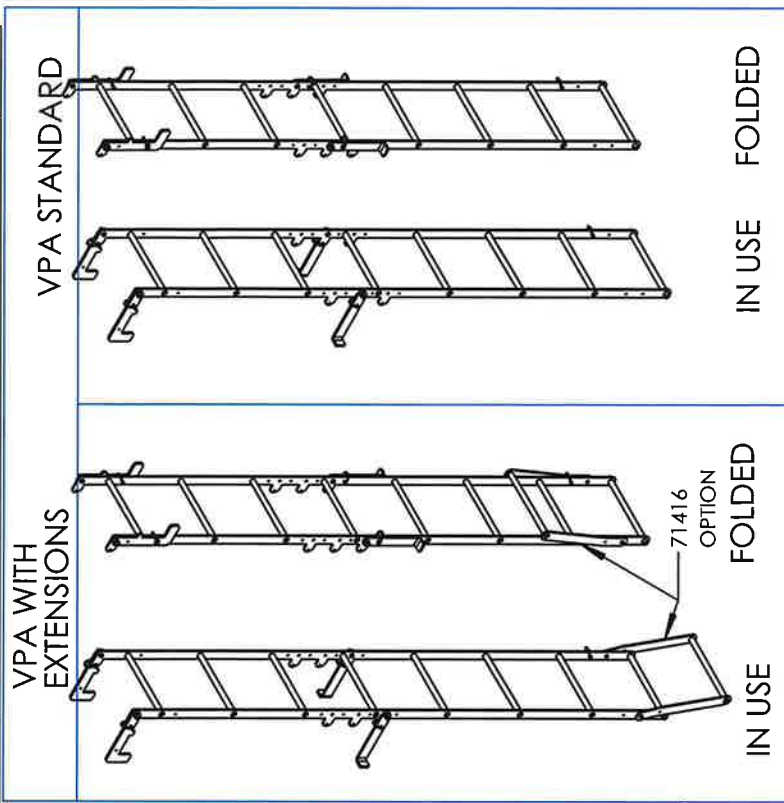
ASSEMBLE TO LUG  
BASED ON  
HOPPER  
SIZE

DETAIL A  
SCALE 1 : 12



IN USE  
(MOVEABLE)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71047	REMOVEABLE LADDER WELDT	1
2	71051	REMOVEABLE LADDER TOP HOOK	2
3	18984800	WASHER NYLON 1/2	4
4	98480A009	SS LOCKING PIN 1/4" DIA W/ RETAINER	5
9	71419	REMOVEABLE LADDER SUPPORT	2
6	18991200	WASHER FLAT 3/8 SS	8
7	18566400	NUT SS NYLOCK 3/8	4
8	18026826	BOLT CAP SS 3/8 X 1 1/2	4

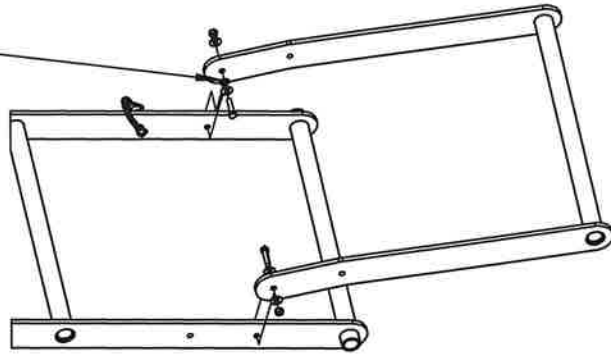


# VPA1000 LADDER EXTENSION

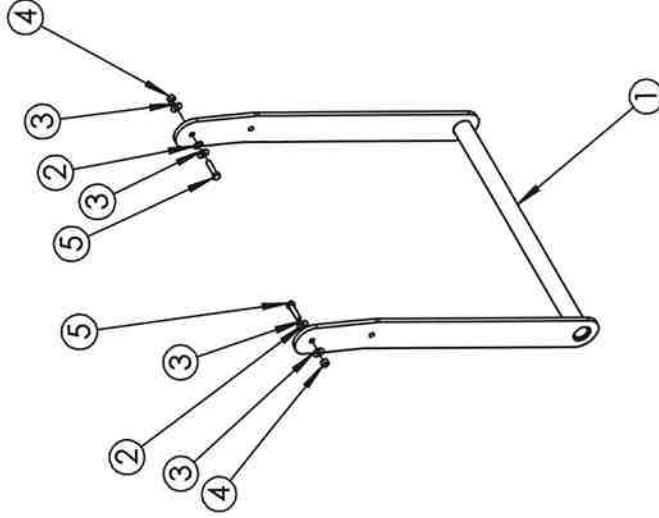
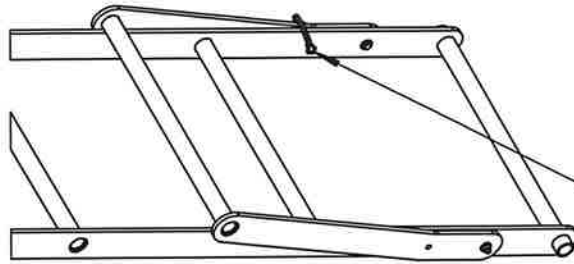
(PART NUMBER: 71416)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71413	REMOVABLE LADDER EXTENSION WELDT	1
2	95606A431	WASHER, FLAT, 1/4", NYLON	2
3	18881001	WASHER FLAT 1/4 SS	4
4	18569200	NUT 1/4 NYLOCK SS	2
5	18025720	BOLT CAP SS 1/4 X 1	2

NYLON WASHER INSTALLS BETWEEN LADDER SIDE AND SIDE OF EXTENSION

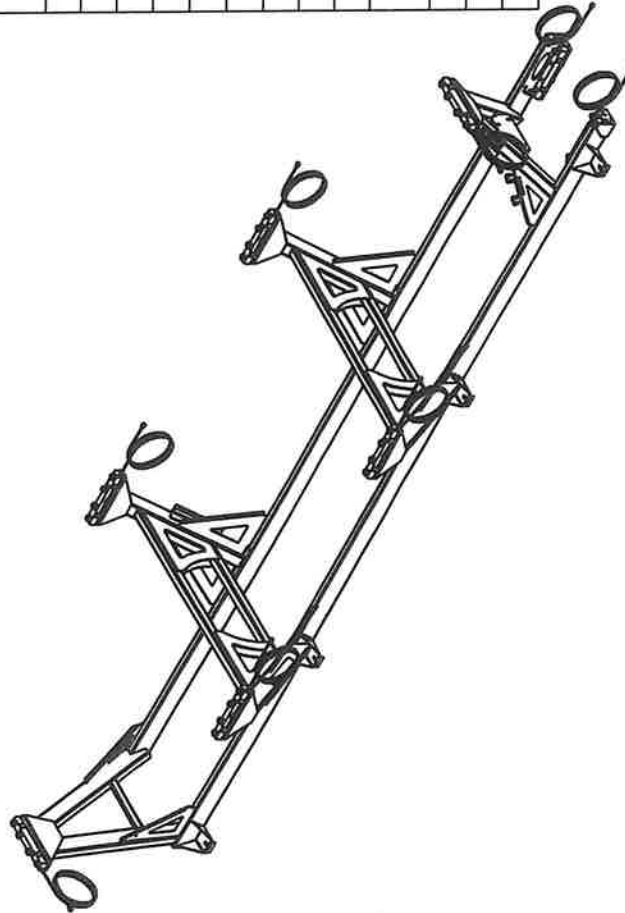


EXTENSION FOLDS UP AND PINS FOR TRANSPORT



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INTENTIONALLY

**VPA1000 SCALE PACKAGE**  
**PART LISTING**  
(PART NUMBER: 71287)



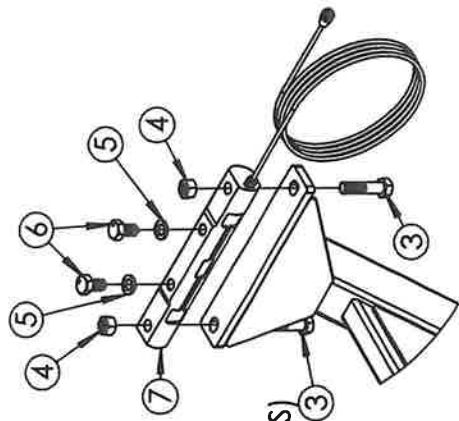
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70731	VPA FRAME	1
2	70829	HYDRAULIC CONTROL PANEL MOUNT	1
3	18058501M	BOLT HX CAP G5NCZC 7/8 X 4 (MAGNI)	16
4	18458000M	NUT CTR LOCK 7/8 NC ZC (MAGNI 565)	16
5	18892100M	WASHER LOCK M24 ZC (MAGNI 565)	16
6	18059303M	BOLT HX CAP 24(3.0) X 70 (MAGNI 565)	16
7	AWT27-500205	WEIGH BAR, DOUBLE END FLAT W/ 30 FT CABLE 5 PIN AWT CONN.	8
8	50040-0023	8 BAR J-BOX W/ 5 PIN AWT CONNECTORS	1
9	47009766	BRACKET, LOAD CELL CABLES	1
10	18025718	BOLT CAP SS 1/4 X 3/4	4
11	18991000	WASHER LOCK 1/4 SS	2
12	18971400	NUT SER FLG SS 1/4	6
13	47076730	SCALE STAND	1
14	76597	SCALE HEAD PLATE	1
15	640MS5P-640M	INDICATOR 5 PIN AWT CONNECTOR	1
16	19266-0058	18FT POWER CORD AWT W/ TINNED LEADS	1
17	28755-0032	25FT INTERFACE CABLE WITH 5 PIN CONNECTORS EACH END	1
18	18706423	SCREW, SLOTTED TRUSS HEAD 1/4 X 3/4 SS	4
19	18026422	BOLT CAP SS 5/16 X 1	5
20	18457500	NUT 5/16-18 NYLOCK	5

**ITEMS 1-6 ARE NOT INCLUDED IN THE KIT AND ARE SHOWN FOR REFERENCE ONLY**

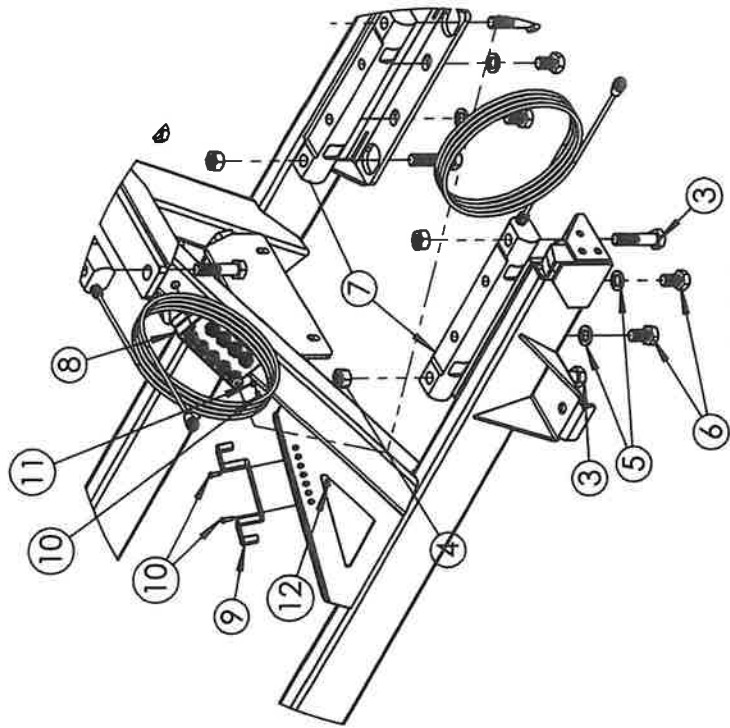




**VPA1000 SCALE PACKAGE**  
**PART ILLUSTRATION**  
(PART NUMBER: 71287)

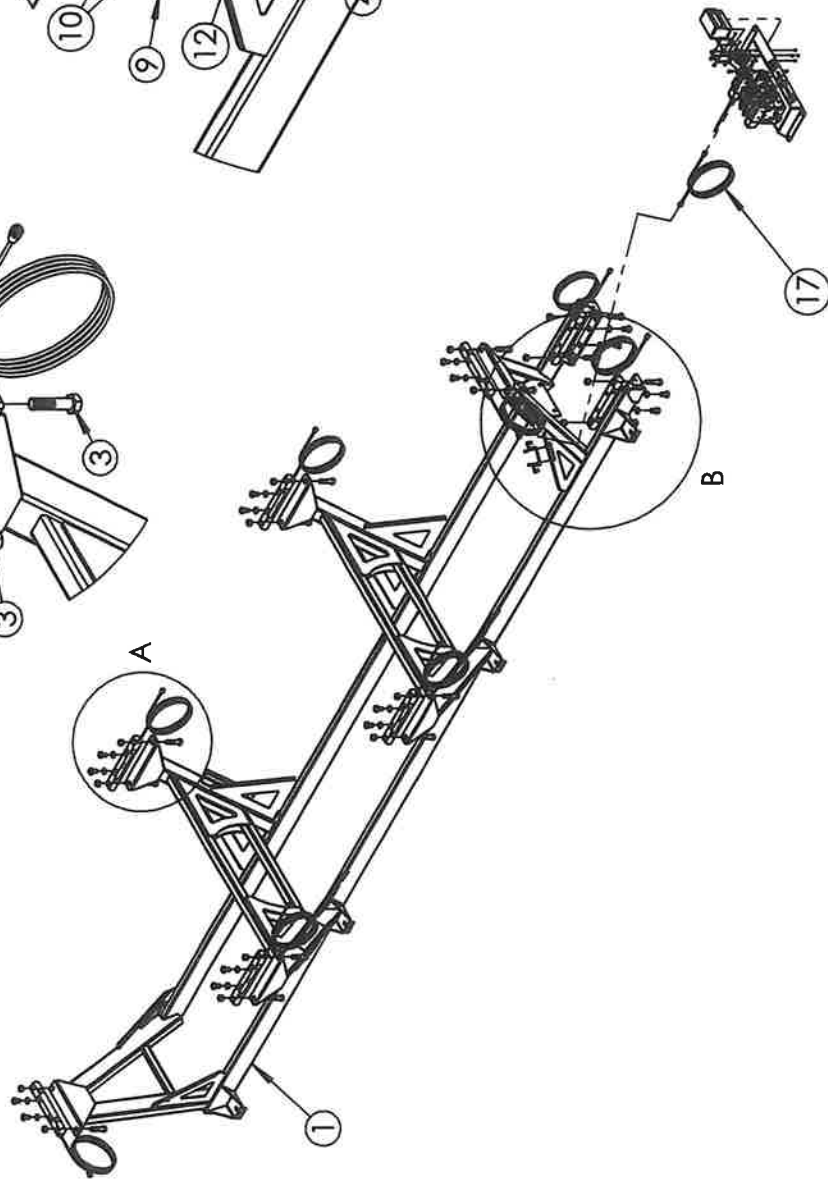


DETAIL A  
SCALE 1 : 15  
(TYPICAL 6 PLACES)

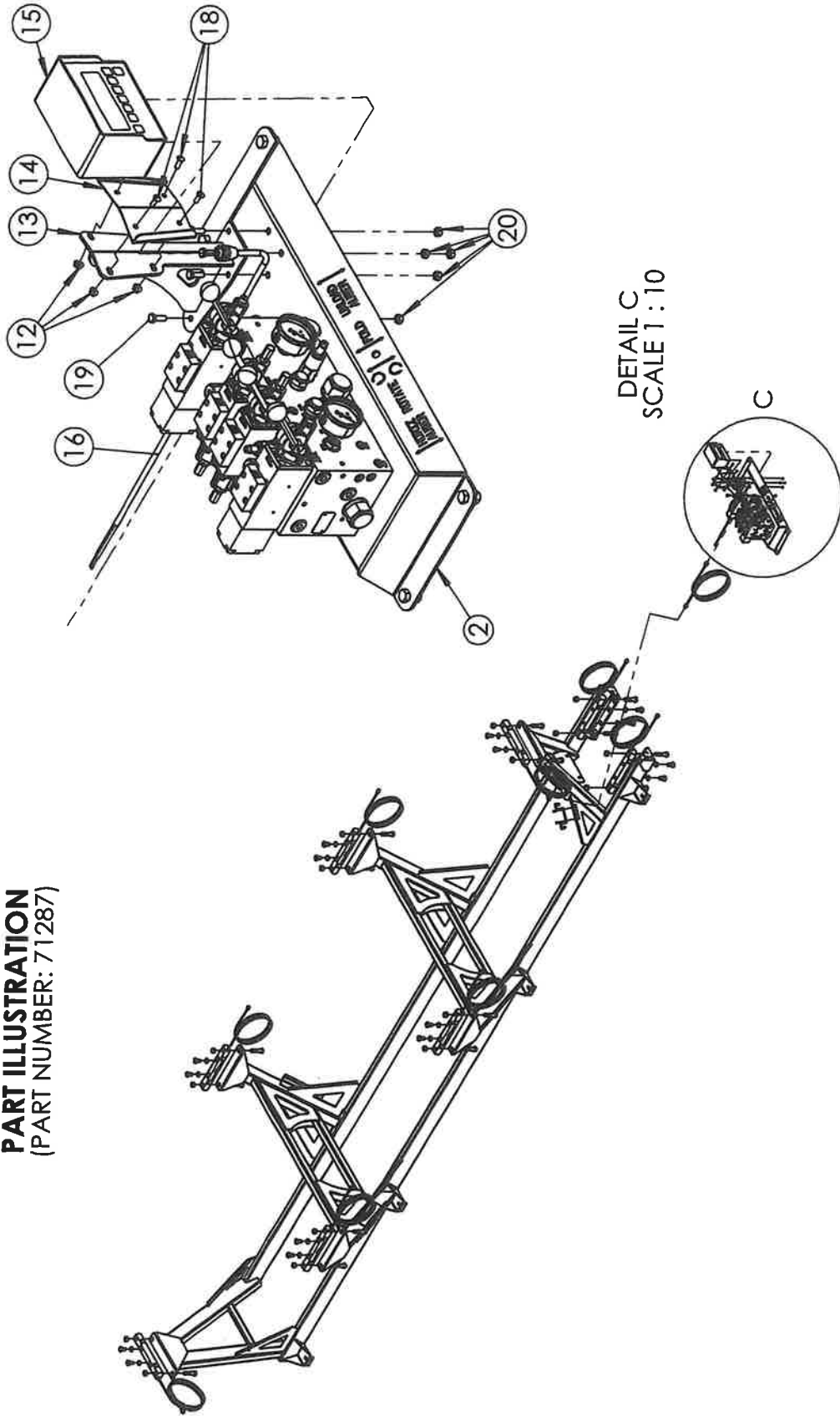


DETAIL B  
SCALE 1 : 15

(SCALES INSTALLED UPSIDE  
DOWN FOR VPA ROTOR)



**VPA1000 SCALE PACKAGE**  
**PART ILLUSTRATION**  
(PART NUMBER: 71287)

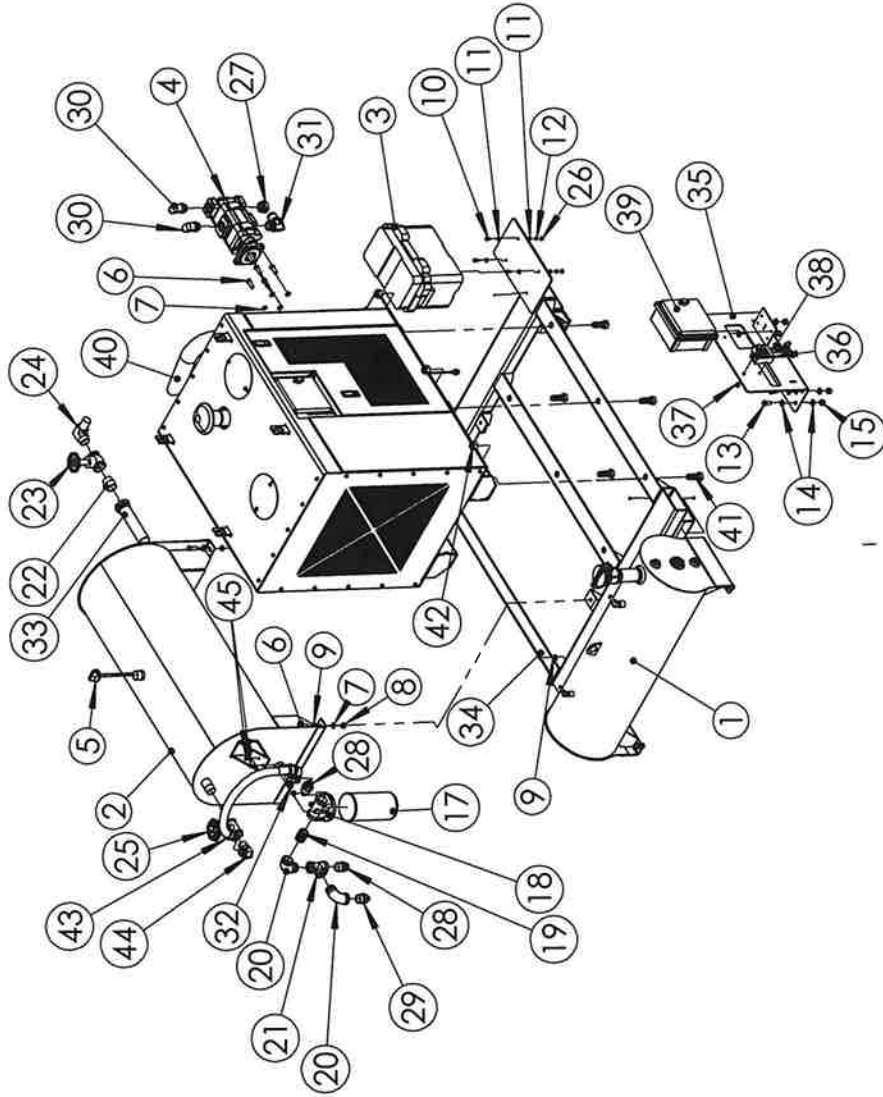


# DEUTZ 74.2 HP ENGINE SKID

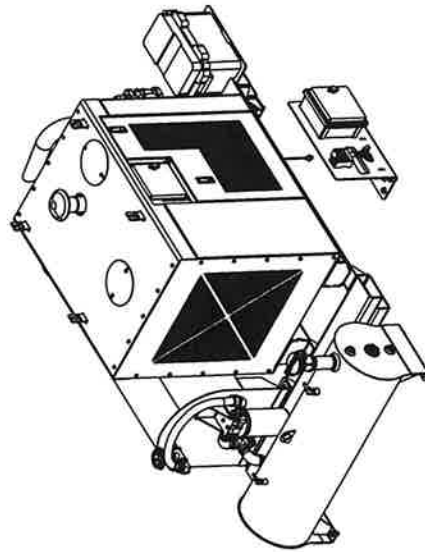
## ILLUSTRATION

PART #: 48300385  
2021 AND BEYOND

BILL OF MATERIAL - PAGES 61-62  
ENGINE SKID DETAIL - PAGE 63  
CONTROL PANEL DETAIL - PAGE 64  
FUEL TANK DETAIL - PAGE 65  
OIL TANK DETAIL - PAGE 66



EXPLODED VIEW



NORMAL VIEW

# DEUTZ 74.2 HP ENGINE SKID

BILL OF MATERIAL - PART #: 48300385

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

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

**NOTES:**

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

**ITEMS ALSO INCLUDED BUT NOT SHOWN**

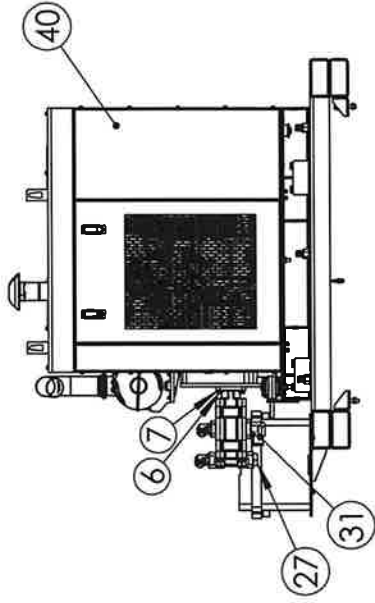
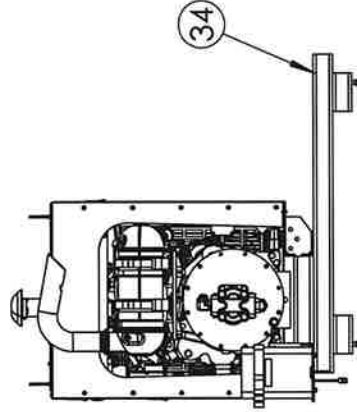
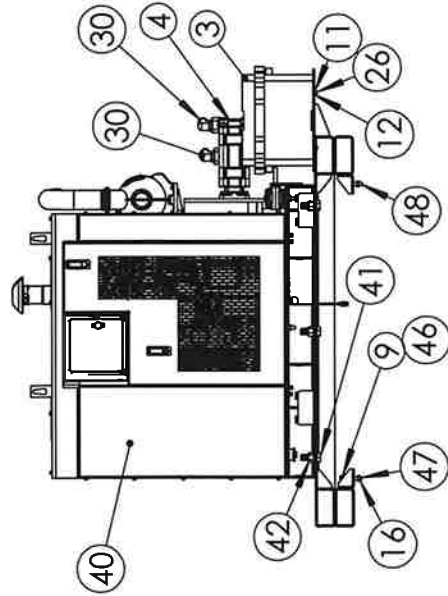
<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QTY</b>
FBA12684100	FUEL LINE CLIPS	8
FBA12683100	HOSE LINE CLAMPS	2
12003501	SUCTION HOSE	1
71092	2 GA BATTERY CABLE 48" RED	1
71093	2 GA BATTERY CABLE 38" BLACK	1
31-7237	GROUP 27 BATTERY	1
4050	HYDRAULIC OIL	56
H178	1/2 FUEL LINE	6'
H177	3/8 FUEL LINE	7'
43082316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

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

# DEUTZ 74.2 HP ENGINE SKID ENGINE SKID DETAIL

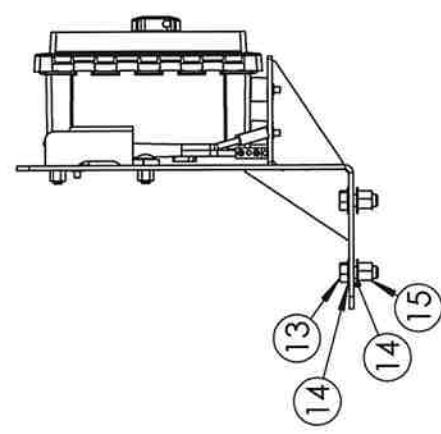
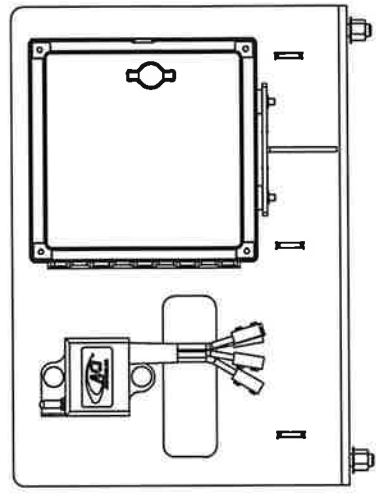
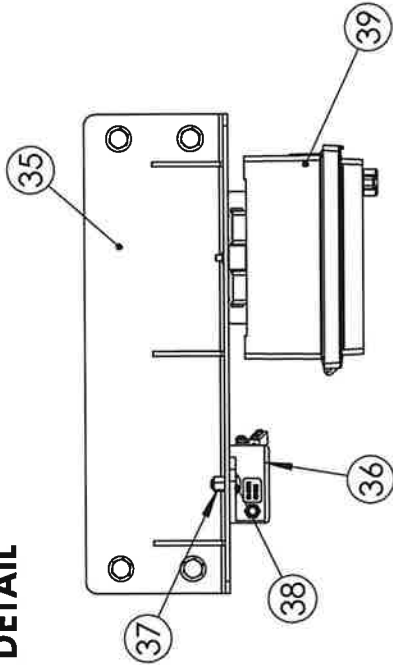
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
3	01353	BATTERY BOX W/ LID	1
4	MT900TAPUMP	HYDRAULIC PUMP	1
6	18057426	BOLT, HX CAP 1/2-13 X 1 1/2 LG	4
7	18891400	WASHER, 1/2 LOCK ZC	4
9	18811400	WASHER, FLAT 1/2 ZC	4
10	18706421	BOLT, HX CAP 5/16-18 X 3/4 LG SS	3
11	18991100	WASHER, FLAT 5/16 SS	6
12	18991110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

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



# DEUTZ 74.2 HP ENGINE SKID CONTROL PANEL DETAIL

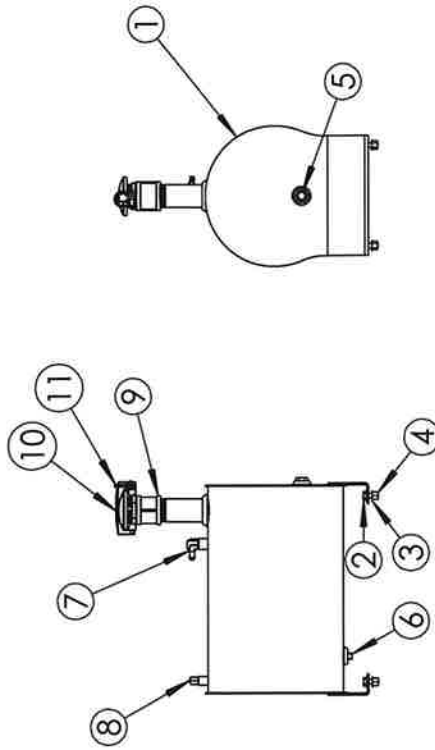
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
13	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
14	18824800	WASHER FLAT 1/2 SS	8
15	18567400	NUT SS NYLOCK 1/2	4
35	71024	CONTROL BOX WELDT	1
36	AGRICOVER CONTROL	AGRICOVER CONTROL (INCLUDED WITH TARP)	1
37	18566400	NUT SS NYLOCK 3/8	2
38	18176450	BOLT, CARRIAGE,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



# DEUTZ 74.2 HP ENGINE SKID FUEL TANK DETAIL

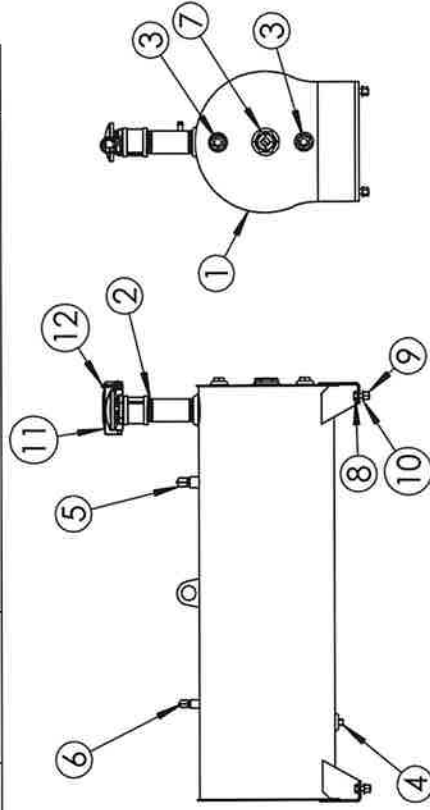
14 GALLON  
PART NUMBER: 71718  
(PRIOR TO FALL 2023)  
  
(MT900TA UP TO S/N 1119 )  
(VPA1000 UP TO S/N 1015)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71082	FUEL TANK 14 GALLON, T4	1
2	18475240	BOLT HX CAP 1/2-13 X 1 1/4 LG SS	4
3	18824800	WASHER FLAT 1/2 SS	8
4	18567400	NUT SS NYLOCK 1/2	4
5	1091809	FLUID LEVEL SIGHT GLASS	1
6	72220	DRAIN PLUG 3/4 NPT	1
7	71088	ADAPTER ELBOW, 1/2 HOSE, 1/2 NPT MALE	1
8	71089	ADAPTER ELBOW, 3/8 HOSE, 3/8 NPT MALE	1
9	71631	FILLER PIPE WITH BAFFLE	1
10	60002	CAP PREVENT CASTING AND FILL CAP	1
11	71761	WIRE LOCK CLEVIS PIN W/ LOOP 3/8 DIA 2 LG	1



28 GALLON  
PART NUMBER: 71638  
(FALL 2023 AND BEYOND)  
  
(MT900TA S/N 1120 AND BEYOND)  
(VPA1000 S/N 1016 AND BEYOND)

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

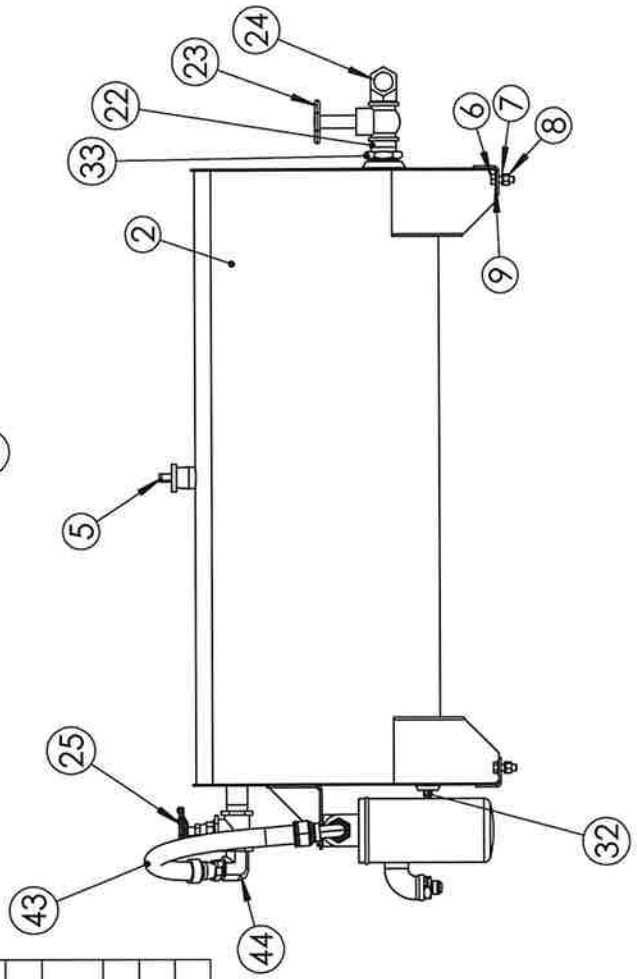
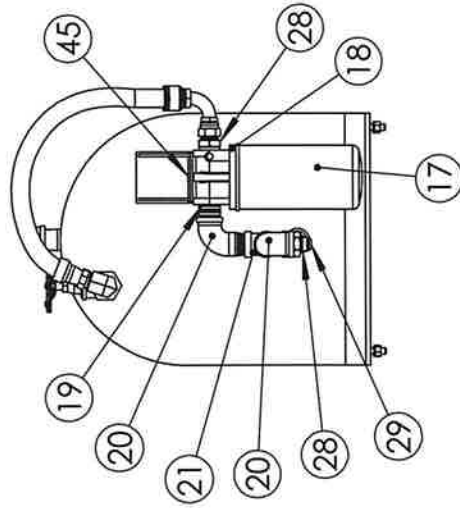


**NOTE: APPLY THREAD SEALANT TO ALL THREADED FITTINGS**



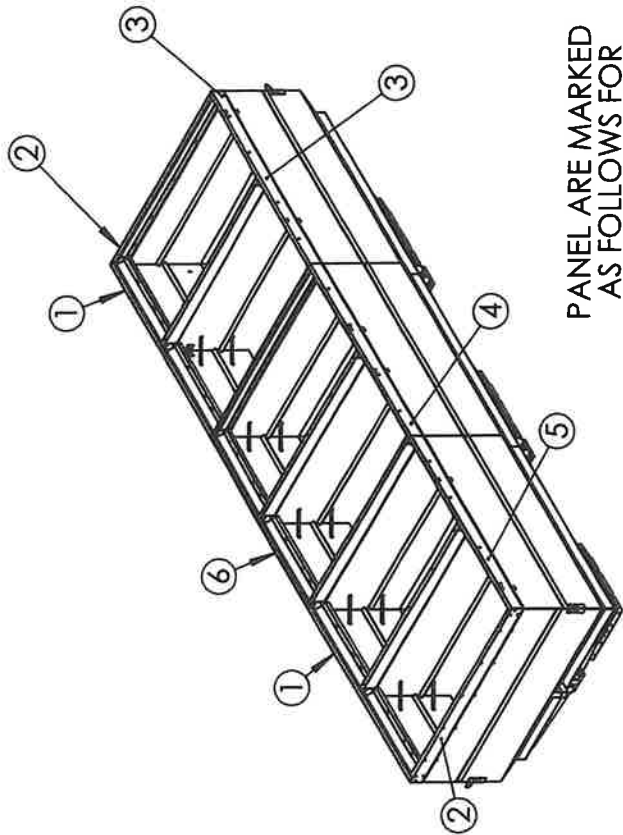
# DEUTZ 74.2 HP ENGINE SKID OIL TANK DETAIL

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



# VPA1000 EXTENSION KIT

**PART LISTING**  
(PART NUMBER: 71030)



PANEL ARE MARKED  
AS FOLLOWS FOR  
EASE OF ASSEMBLY

- 71388 - PE
- 71035 - E
- 71036 - DR
- 71038 - DC
- 71040 - DF
- 71029 - PC
- 71042 - M
- 71390 - F
- 71393 - FL

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71388	EXTENSION PANEL WELDMENT (PASSENGER ENDS)	2
2	71035	EXTENSION PANEL (FRONT/REAR)	2
3	71036	EXTENSION PANEL WELDMENT (DRIVER REAR)	1
4	71038	EXTENSION PANEL WELDMENT (DRIVER CENTER)	1
5	71040	EXTENSION PANEL WELDMENT (FRONT DRIVER)	1
6	71029	EXTENSION PANEL WELDMENT (PASSENGER CENTER)	1
7	71042	CENTER EXTENSION	5
8	18706621	SCREW, SLOTTED TRUSS HEAD 3/8 X 3/4 SS	68
9	18987900	NUT SER FLG SS 3/8	157
10	18026822	BOLT, HEX HD 3/8 X 1 NC SS	89
11	71390	FILLER PANEL WELDMENT	8
12	71393	FILLER (LONG) WELDMENT	4
13	18991200	WASHER FLAT 3/8 SS	89

- NOTES:**
1. HOPPER SHOWN FOR REFERENCE ONLY
  2. APPLY SILICONE CAULK TO JOINTS AS WELL AS FILLER WELDMENTS UPON ASSEMBLY.

# VPA1000 EXTENSION KIT

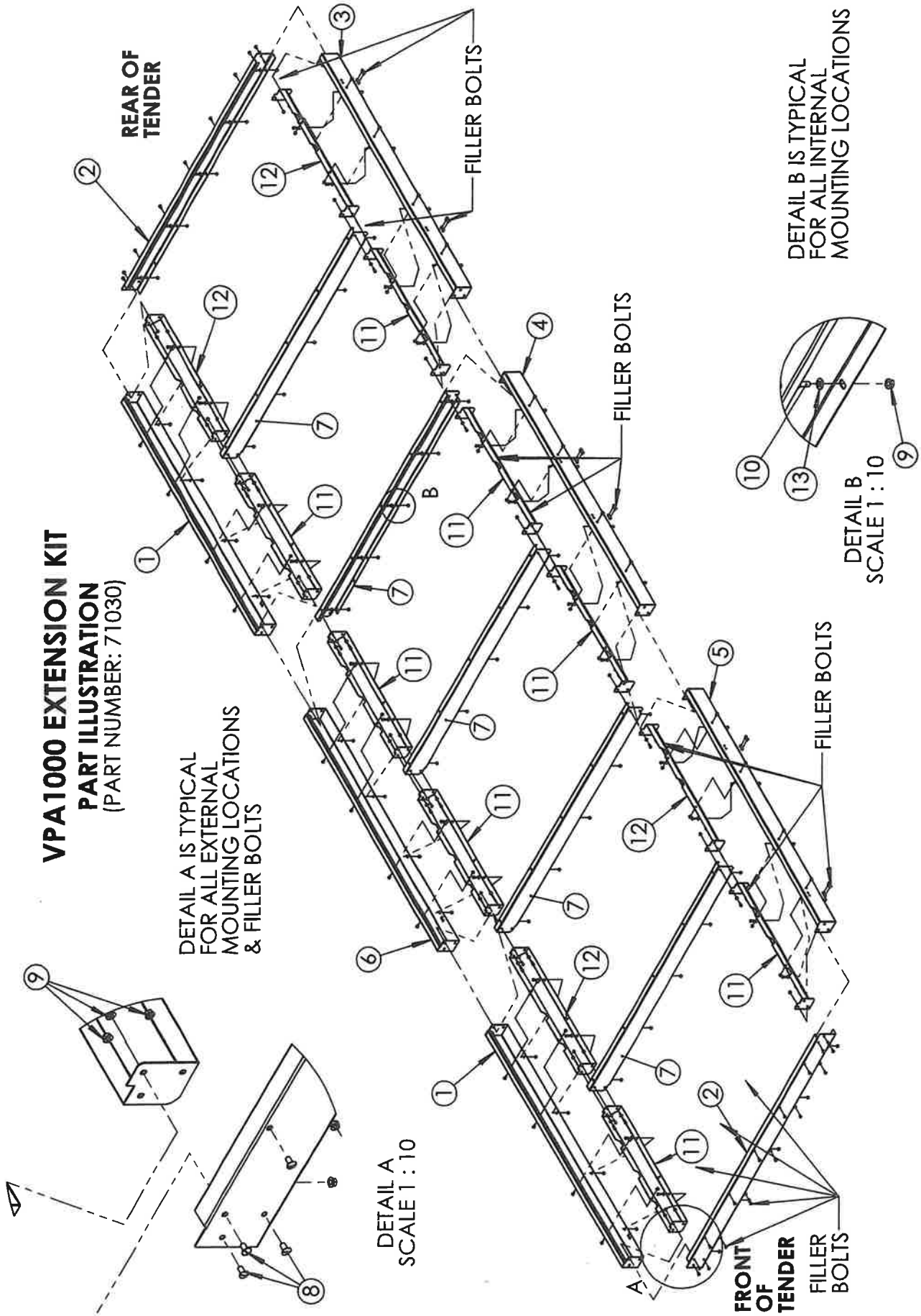
**PART ILLUSTRATION**  
(PART NUMBER: 71030)

DETAIL A IS TYPICAL  
FOR ALL EXTERNAL  
MOUNTING LOCATIONS  
& FILLER BOLTS

DETAIL B IS TYPICAL  
FOR ALL INTERNAL  
MOUNTING LOCATIONS

DETAIL B  
SCALE 1:10

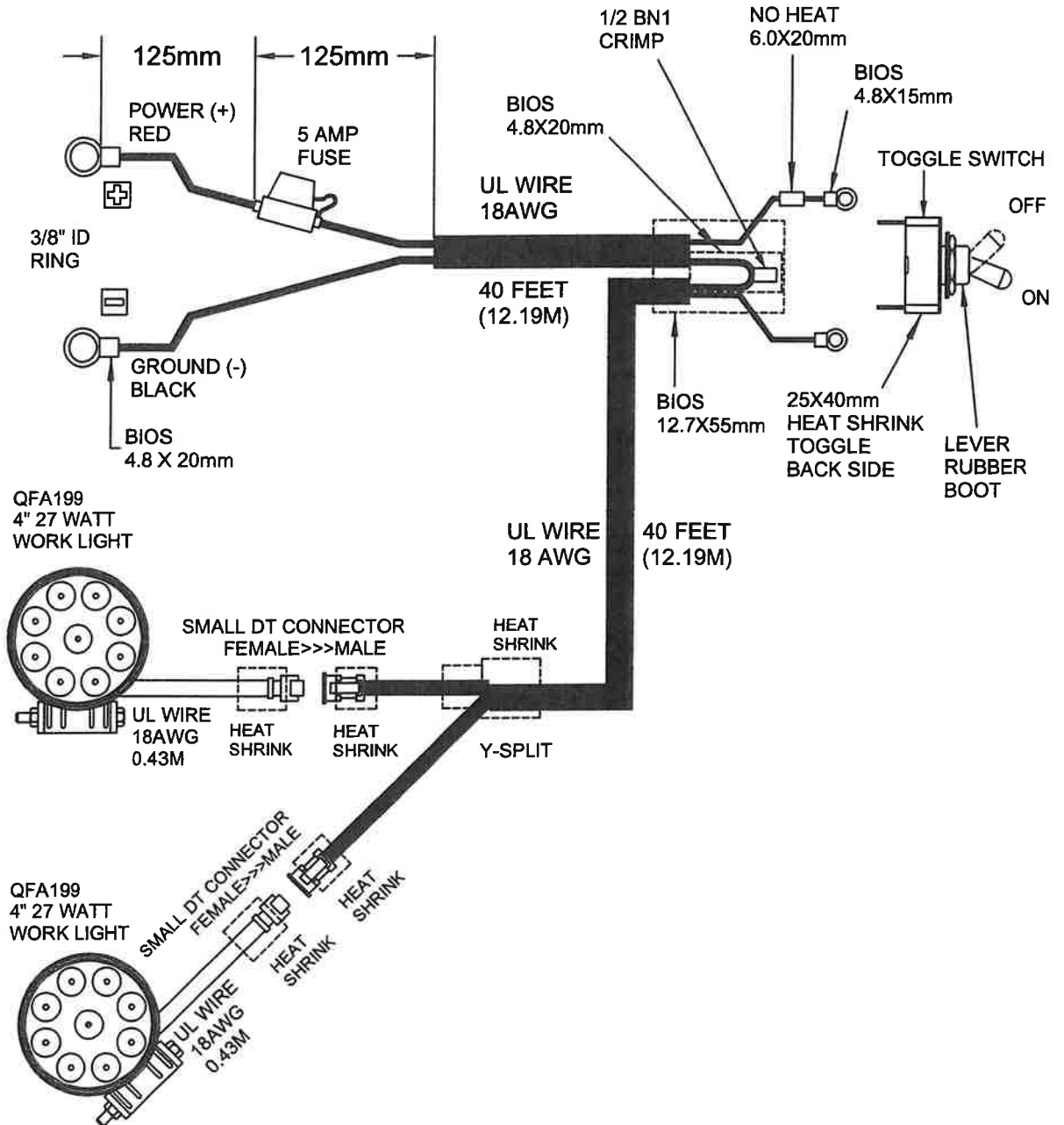
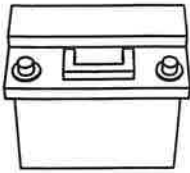
DETAIL A  
SCALE 1:10



# VPA1000 LIGHT WIRING DIAGRAM

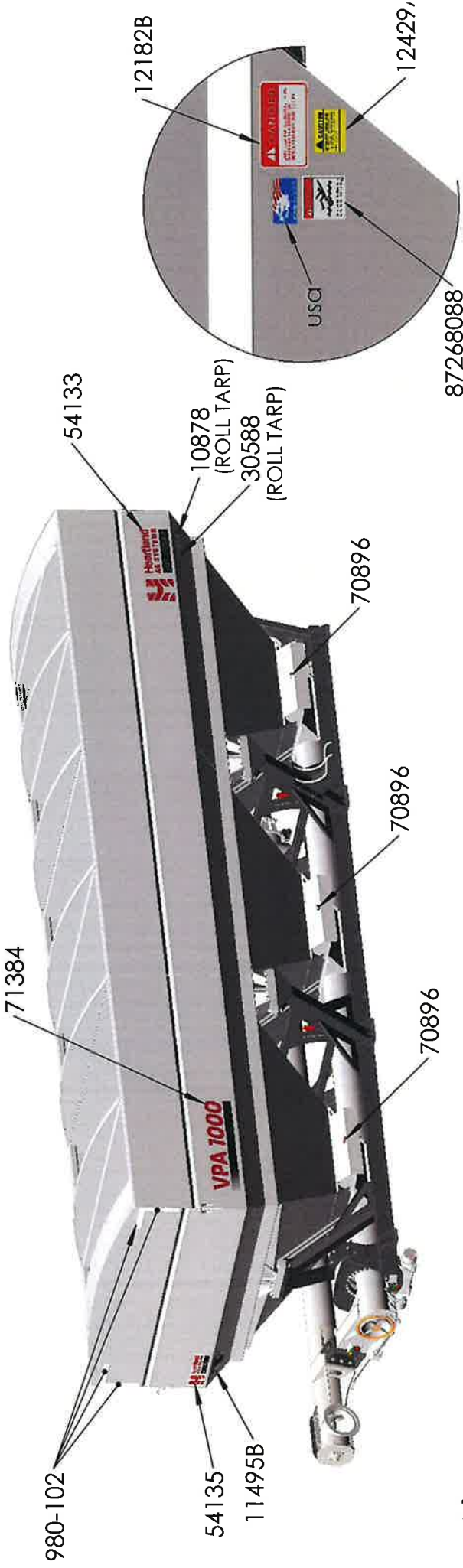
P/N: 71286

(INCLUDES WIRING HARNESS AND LIGHTS)

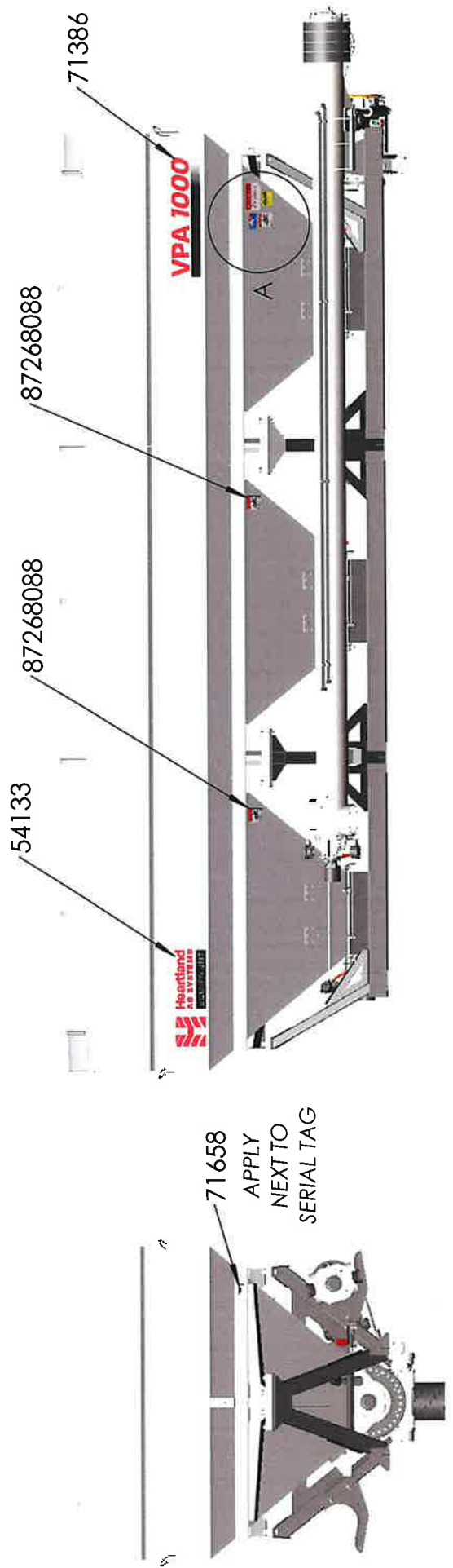


-WIRE HARNESS DIAGRAM IS FOR ILLUSTRATION ONLY  
 -ACTUAL WIRE HARNESS LENGTHS AND WIRE GAUGE ARE NOT TO SCALE  
 -ACTUAL WIRE HARNESS COMPONENTS ARE NOT TO SCALE

# VPA1000 DECAL LAYOUT (KIT P/N: VPA1000DECALS)



DETAIL A  
SCALE 1:15



**VPA 1000 DECALS (KIT P/N: VPA1000DECALS)**

PART NUMBER	QTY	DESCRIPTION
54133	2	HEARTLAND AG SYSTEMS DECAL (XLG)
54135	1	HEARTLAND AG SYSTEMS DECAL (LARGE)
71384	1	VPA1000 DECAL (DITCH SIDE)
71386	1	VPA1000 DECAL (DRIVER SIDE)
11495B	1	WATCH FOR OVERHEAD CLEARANCE CAUTION
12182B	1	DANGER, STAY CLEAR OF MOVING PARTS
USA	1	MADE IN USA
12429A	1	CAUTION READ SERVICE MANUAL
87268088	3	DANGER DO NOT ENTER FERTILIZER TANK
70896	3	DANGER, PINCH POINT
276534	1	HYDRAULIC OIL
980-102	4	REFLECTIVE TAPE WHITE 1'
71658	1	VPA PATENT DECAL
		(INCLUDED WITH THE ROLL TARP)
10878	1	CAUTION AGRICOVER TENSION
30588	1	IMPORTANT ADJUSTMENT OF RATCHETS
60814	1	STOP UNLOAD W/ CLOSED TARP

P/N: 71384

**VPA 1000**

P/N: 71386

**VPA 1000**

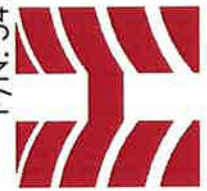
P/N: 11495B



P/N: 12182B



P/N: 54133



**Heartland  
AG SYSTEMS**  
EQUIPMENT

P/N: 54135



**Heartland  
AG SYSTEMS**  
EQUIPMENT



# VPA1000 DECALS (KIT P/N: VPA1000DECALS)

P/N: USA



INCLUDED WITH THE ROLL TARP

P/N: 30588

**! IMPORTANT**

ADJUSTING OF RATCHETS IS FOR SET-UP ONLY! RELEASING OF RATCHETS MAY CAUSE IMPROPER TENSIONING OF TARP.

P/N 30588\_A

P/N: 60814



P/N: 12429A

**! CAUTION**

SERVICE & PARTS MANUAL MUST BE READ & UNDERSTOOD BEFORE OPERATING UNIT. FAILURE TO DO COULD RESULT IN SERIOUS INJURY

7/01 12429A

P/N: 70896

**! DANGER**

**PINCH POINT**

P/N: 10878

**! CAUTION**

DO NOT WALK OR STAND ON END CAPS.  
DO NOT OPERATE THE VEHICLE AT HIGHWAY SPEEDS. WHILE TARP SYSTEM IS IN THE OPEN POSITION.  
DO NOT LOAD OR UNLOAD WITH TARP SYSTEM IN CLOSED POSITION.  
STAY CLEAR OF MOVING PARTS

**SRT-2™ ELECTRIC TARP OPERATION PROCEDURE**

TO OPEN TARP PUSH AND HOLD SWITCH TO THE OPEN POSITION. RELEASE SWITCH WHEN TARP IS FULLY OPENED. TO CLOSE TARP PUSH AND HOLD SWITCH TO THE CLOSE POSITION. RELEASE WHEN TARP IS FULLY CLOSED.

**CORRECT TENSION ADJUSTMENT**

TENSION CHANNEL MUST BE LEVEL AT BOTTOM FOR PROPER TENSION

RATCHET HANDLE MUST BE IN LOCKED DOWN POSITION TO HOLD TENSION

**AGRI-COVER® PH 10878 E**

AGRI-COVER, INC.  
P.O. Box 509  
Jamesdawn, ND 58402-9508  
701-267-1427 www.agricover.com

SER.#D.

P/N: 276534

**HYDRAULIC OIL**

276534

P/N: 87268088

**! DANGER**

Do not enter fertilizer tank when machine is running.

087268

**EATON MOTORS SUBSTITUTED FOR PARKER MOTORS  
BEGINNING FALL OF 2023**

**SERIAL # BEGINNING**

**MT600 – S/N: 1023**

**MT900 – S/N: 1120**

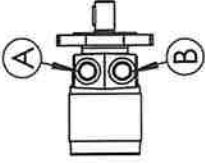
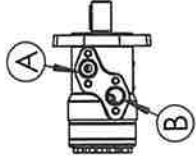
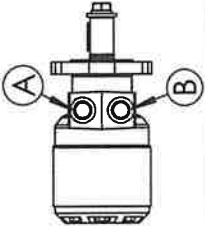
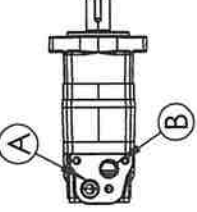
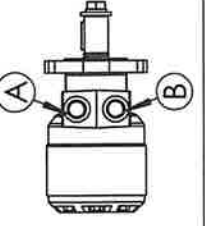
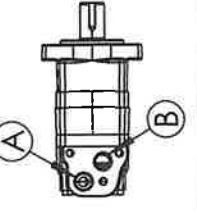
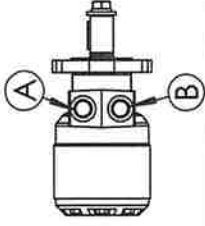
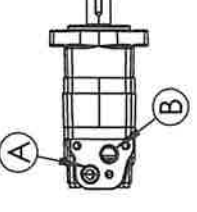
**MT700 – S/N: 1005**

**VPA1000 – S/N: 1012**

***(UPDATED HYDRAULIC LAYOUT PAGES MARKED WITH E)***



# PARKER AND EATON HYDRAULIC MOTOR CROSS REFERENCE INFORMATION

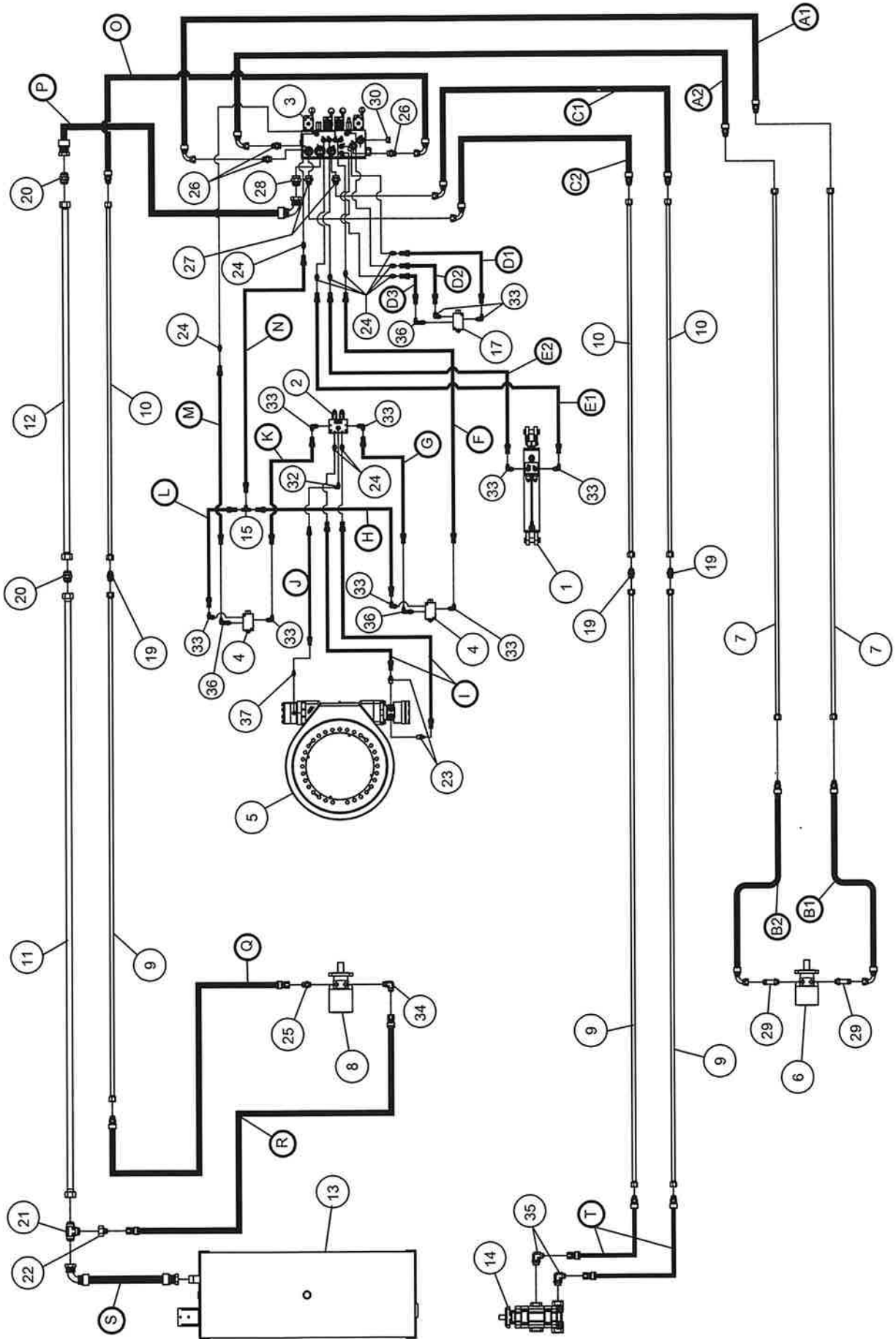
MOTOR FUNCTION	PARKER PART NUMBER	PARKER PORTS	PARKER PRESSURE PORT (FLOW IN)	EATON PART NUMBER	EATON PORTS	EATON PRESSURE PORT (FLOW IN)
ROTATE (GEARBOX)	1028801		A	71891		A
LOWER AUGER	1040020		A	71892		A
VERTICAL AUGER	1116558		A	71893		A
DISCHARGE AUGER	1040045		A	71894		B

**CONVERSION INSTRUCTIONS:**

WHEN CONVERTING BETWEEN PARKER AND EATON MOTORS PLUMB SUCH THAT THE FLOW ENTERS THE PRESSURE PORT NOTED IN THE TABLE ABOVE TO ENSURE CORRECT AUGER ROTATION.

FITTINGS AND HOSES ARE THE SAME - THE HOSES FOR THE DISCHARGE AUGER WILL NEED TO BE ADJUSTED TOWARD THE MOTOR APPROXIMATELY 6".

# VPA1000 HYDRAULIC LAYOUT (PARKER)



## VPA1000 HYDRAULIC PARTS LISTING (PARKER)

ITEM	PART NUMBER	DESCRIPTION	QTY
32	6801-04-04	ELBOW 90 DEG #4 MJIC X #4 MORB	1
33	6801-06-06	ELBOW 90 DEG #6 MJIC X #6 MORB	10
34	6801-12-10	ELBOW 90 DEG #12 MJIC X #10 MORB	1
35	6801-12-16	ELBOW 90 DEG #12 MJIC X #16 MORB	2
36	6801-LL-06-06	ELBOW 90 DEG EXTRA LONG #6 MJIC X #6 MORB	3
37	7400-04-10	FITTING #4MJIC X 10 MM	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	71645	3 X 14 WELDED CYL W/ DUAL CB KIT	1
2	F1437A1	BRAKE VALVE, DUAL CB SHUTTLE MANIFOLD	1
3	F14489A2	TENDER CONTROL MANIFOLD ASSY	1
4	F14487A1	CAM VALVE ASSY	2
5	70857	SLEW DRIVE ASSY	1
6	1040045	MOTOR HYDRAULIC (DISCHARGE)	1
7	51643	HYDRAULIC TUBE 3/4 OD X 184" LG	2
8	1040020	MOTOR HYDRAULIC (LOWER AUGER)	1
9	76966	HYDRAULIC TUBE 3/4 OD X 216.5" LG	3
10	53592	HYDRAULIC TUBE 3/4 OD X 138" LG	3
11	71204	HYDRAULIC TUBE 1 1/4 OD X 211.13" LG	1
12	71197	HYDRAULIC TUBE 1 1/4 OD X 144.25" LG	1
13	48300310	58 GALLON OIL TANK	1
14	MT900TAPUMP	HYDRAULIC PUMP	1
15	2603-06-06-06	TEE #6 MJIC X #6 MJIC X #6 MJIC	1
16	OMITTED	--	--
17	F14488A1	CAM VALVE ASY	1
18	OMITTED	--	--
19	51676	UNION (2403-12-12)	3
20	2403-20-20	UNION #20 MJIC X #20 MJIC	2
21	2406-20-12	REDUCER #20 FJIC X #12 MJIC	1
22	2603-20-20-20	TEE #20 MJIC X #20 MJIC X #20 MJIC	1
23	6400-06-10	CONNECTOR#6 MJIC X #10 M O-RING	2
24	6400-06-06	ADAPTER #6 MJIC X #6 MORB	10
25	6400-12-10	ADAPTER #12 MJIC X #10 MORB	1
26	6400-12-12	ADAPTER #12 MJIC X #12 MORB	3
27	6400-12-16	ADAPTER #12 MJIC X #16 MORB	2
28	6400-20-20	ADAPTER #20 MJIC X #20 MORB	1
29	6400-L-12-10	ADAPTER LONG #12 MJIC X #10 MORB	2
30	6408-HHP-12	PLUG, HOLLOW HEX #12 MORB	1
31	OMITTED	--	--

HOSE LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
A	612240	3/4 HOSE X 240" LG, #12 JICFS 90° X #12MJIC	2
B	612058	3/4 HOSE X 58" LG, #12 MJIC X #12 JICFS 90°	2
C	612028	3/4 HOSE X 28" LG, #12 MJIC X #12 JICFS 90°	2
D	606162	3/8 HOSE X 162" LG, #6 JICFS EA END	3
E	606134	3/8 HOSE X 134" LG, #6 JICFS EA END	2
F	606108	3/8 HOSE X 108" LG, #6 JICFS EA END	1
G	606030	3/8 HOSE X 30" LG, #6 JICFS EA END	1
H	606038	3/8 HOSE X 38" LG, #6 JICFS EA END	1
I	606060	3/8 HOSE X 60" LG, #6 JICFS EA END	2
J	604032	1/4 HOSE X 32" LG, #4 JICFS EA END	1
K	626050	3/8 HOSE X 50" LG, #6 JICFS EA END	1
L	606058	3/8 HOSE X 58" LG, #6 JICFS EA END	1
M	606138	3/8 HOSE X 138" LG, #6 JICFS EA END	1
N	606080	3/8 HOSE X 80" LG, #6 JICFS EA END	1
O	622040	3/4 HOSE X 40" LG, #12 JICFS 90° X #12 MJIC	1
P	620044	1 1/4 HOSE X 44" LG, #20 JICFS X #20 JICFS 90°	1
Q	612036	3/4 HOSE X 36" LG, #12 MJIC X #12 JICFS	1
R	622028	3/4 HOSE X 28" LG, #12 JICFS EA END	1
S	620144	1 1/4 HOSE X 144" LG, #20 JICFS 90° X #20 JICFS	1
T	622084	3/4 HOSE X 84" LG, #12 MJIC X #12 JICFS	2

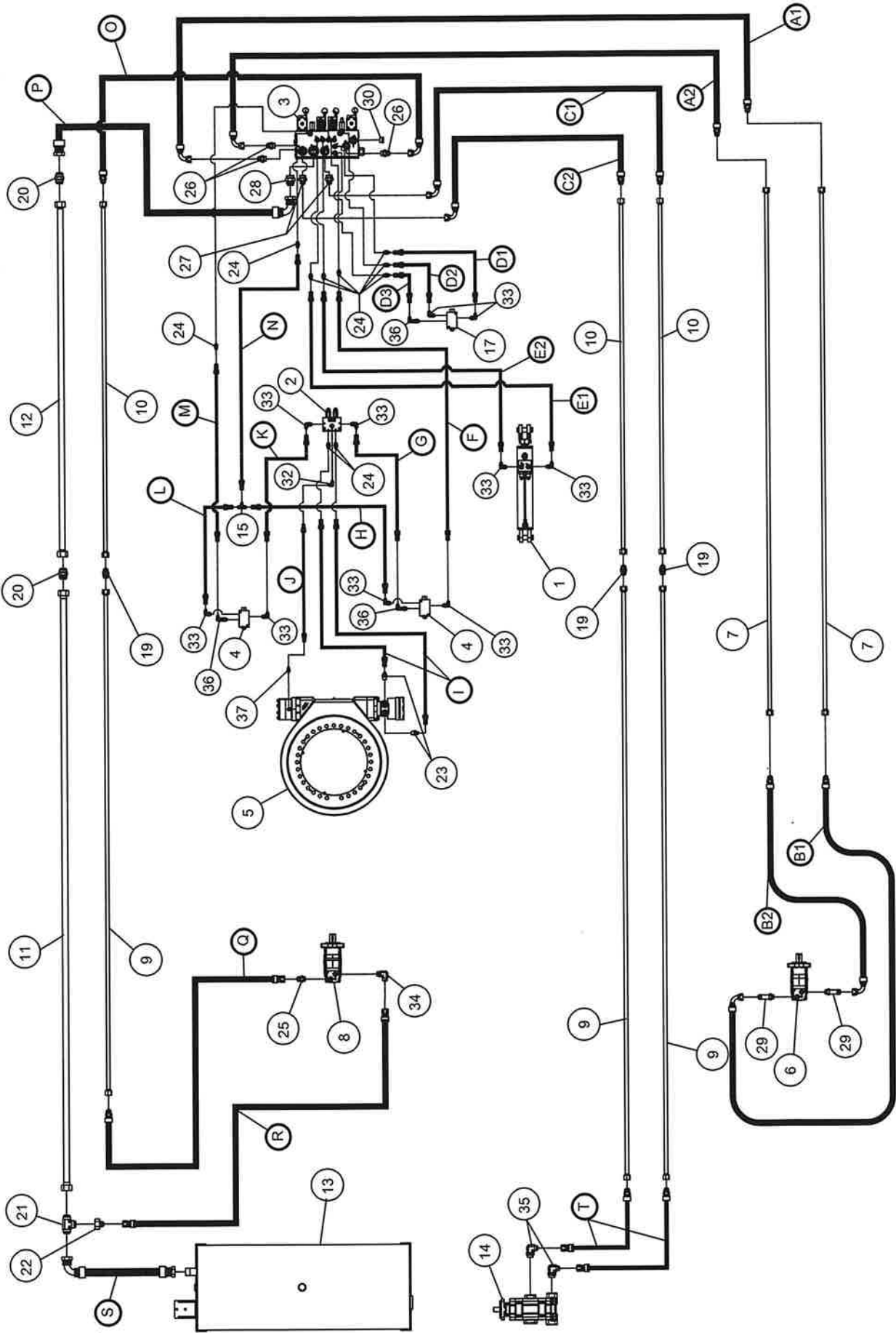
FITTING KIT P/N: 71398, INCLUDES ITEM #15 & ITEMS 19-37

HOSE KIT P/N: 71399, INCLUDES HOSES A - T

HOSE AND FITTING KIT P/N: 71285, INCLUDED 71398 & 71399

ITEMS #1 - 14 AND ITEM #17 SHOWN FOR REFERENCE ONLY

# VPA1000 HYDRAULIC LAYOUT (EATON)



73E

EATON MOTORS SUBSTITUTED FOR PARKER STARTING FALL 2023 SERIAL NUMBER 1012

## VPA1000 HYDRAULIC PARTS LISTING (EATON)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	71645	3 X 14 WELDED CYL W/ DUAL CB KIT	1
2	F14347A1	BRAKE VALVE, DUAL CB SHUTTLE MANIFOLD	1
3	F14489A2	TENDER CONTROL MANIFOLD ASSY	1
4	F14487A1	CAM VALVE ASSY	2
5	70857	SLEW DRIVE ASSY	1
6	71894	MOTOR HYDRAULIC (DISCHARGE)	1
7	51643	HYDRAULIC TUBE 3/4 OD X 184" LG	2
8	71892	MOTOR HYDRAULIC (LOWER AUGER)	1
9	76966	HYDRAULIC TUBE 3/4 OD X 216.5" LG	3
10	53592	HYDRAULIC TUBE 3/4 OD X 138" LG	3
11	71204	HYDRAULIC TUBE 1 1/4 OD X 211.13" LG	1
12	71197	HYDRAULIC TUBE 1 1/4 OD X 144.25" LG	1
13	48300310	58 GALLON OIL TANK	1
14	MT900TAPUMP	HYDRAULIC PUMP	1
15	2603-06-06-06	TEE #6 MJIC X #6 MJIC X #6 MJIC	1
16	OMITTED	--	--
17	F14488A1	CAM VALVE ASY	1
18	OMITTED	--	--
19	51676	UNION (2403-12-12)	3
20	2403-20-20	UNION #20 MJIC X #20 MJIC	2
21	2406-20-12	REDUCER #20 FIJC X #12 MJIC	1
22	2603-20-20-20	TEE #20 MJIC X #20 MJIC X #20 MJIC	1
23	6400-06-10	CONNECTOR#6 MJIC X #10 M O-RING	2
24	6400-06-06	ADAPTER #6 MJIC X #6 MORB	10
25	6400-12-10	ADAPTER #12 MJIC X #10 MORB	1
26	6400-12-12	ADAPTER #12 MJIC X #12 MORB	3
27	6400-12-16	ADAPTER #12 MJIC X #16 MORB	2
28	6400-20-20	ADAPTER #20 MJIC X #20 MORB	1
29	6400-L-12-10	ADAPTER LONG #12 MJIC X #10 MORB	2
30	6408-HHP-12	PLUG, HOLLOW HEX #12 MORB	1
31	OMITTED	--	--

ITEMS #1 - 14 AND ITEM #17 SHOWN FOR REFERENCE ONLY

ITEM	PART NUMBER	DESCRIPTION	QTY
32	6801-04-04	ELBOW 90 DEG #4 MJIC X #4 MORB	1
33	6801-06-06	ELBOW 90 DEG #6 MJIC X #6 MORB	10
34	6801-12-10	ELBOW 90 DEG #12 MJIC X #10 MORB	1
35	6801-12-16	ELBOW 90 DEG #12 MJIC X #16 MORB	2
36	6801-LL-06-06	ELBOW 90 DEG EXTRA LONG #6 MJIC X #6 MORB	3
37	7400-04-10	FITTING #4MJIC X 10 MM	1

HOSE LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
A	612240	3/4 HOSE X 240" LG, #12 JICFS 90° X #12MJIC	2
B	612058	3/4 HOSE X 58" LG, #12 MJIC X #12 JICFS 90°	2
C	612028	3/4 HOSE X 28" LG, #12 MJIC X #12 JICFS 90°	2
D	606162	3/8 HOSE X 162" LG, #6 JICFS EA END	3
E	606134	3/8 HOSE X 134" LG, #6 JICFS EA END	2
F	606108	3/8 HOSE X 108" LG, #6 JICFS EA END	1
G	606030	3/8 HOSE X 30" LG, #6 JICFS EA END	1
H	606038	3/8 HOSE X 38" LG, #6 JICFS EA END	1
I	606060	3/8 HOSE X 60" LG, #6 JICFS EA END	2
J	604032	1/4 HOSE X 32" LG, #4 JICFS EA END	1
K	626050	3/8 HOSE X 50" LG, #6 JICFS EA END	1
L	606058	3/8 HOSE X 58" LG, #6 JICFS EA END	1
M	606138	3/8 HOSE X 138" LG, #6 JICFS EA END	1
N	606080	3/8 HOSE X 80" LG, #6 JICFS EA END	1
O	622040	3/4 HOSE X 40" LG, #12 JICFS 90° X #12 MJIC	1
P	620044	1 1/4 HOSE X 44" LG, #20 JICFS X #20 JICFS 90°	1
Q	612036	3/4 HOSE X 36" LG, #12 MJIC X #12 JICFS	1
R	622028	3/4 HOSE X 28" LG, #12 JICFS EA END	1
S	620144	1 1/4 HOSE X 144" LG, #20 JICFS 90° X #20 JICFS	1
T	622084	3/4 HOSE X 84" LG, #12 MJIC X #12 JICFS	2

FITTING KIT P/N: 71398, INCLUDES ITEM #15 & ITEMS 19-37

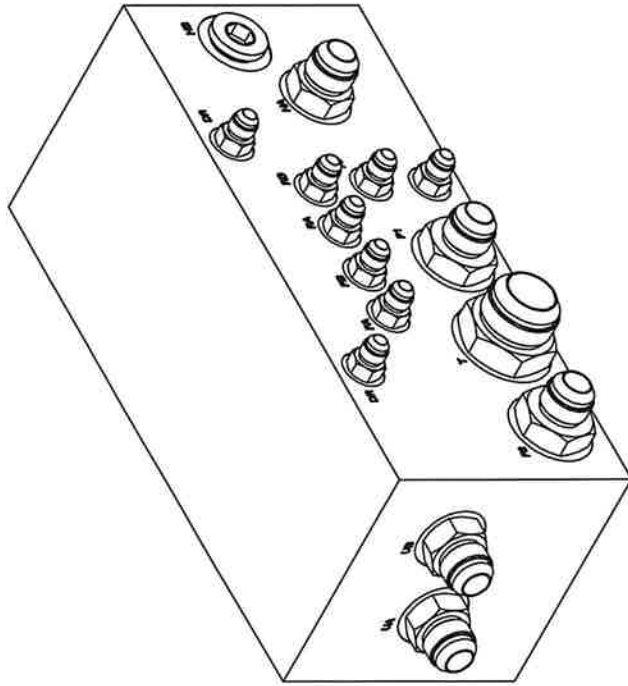
HOSE KIT P/N: 71399, INCLUDES HOSES A - T

HOSE AND FITTING KIT P/N: 71285, INCLUDED 71398 & 71399

15

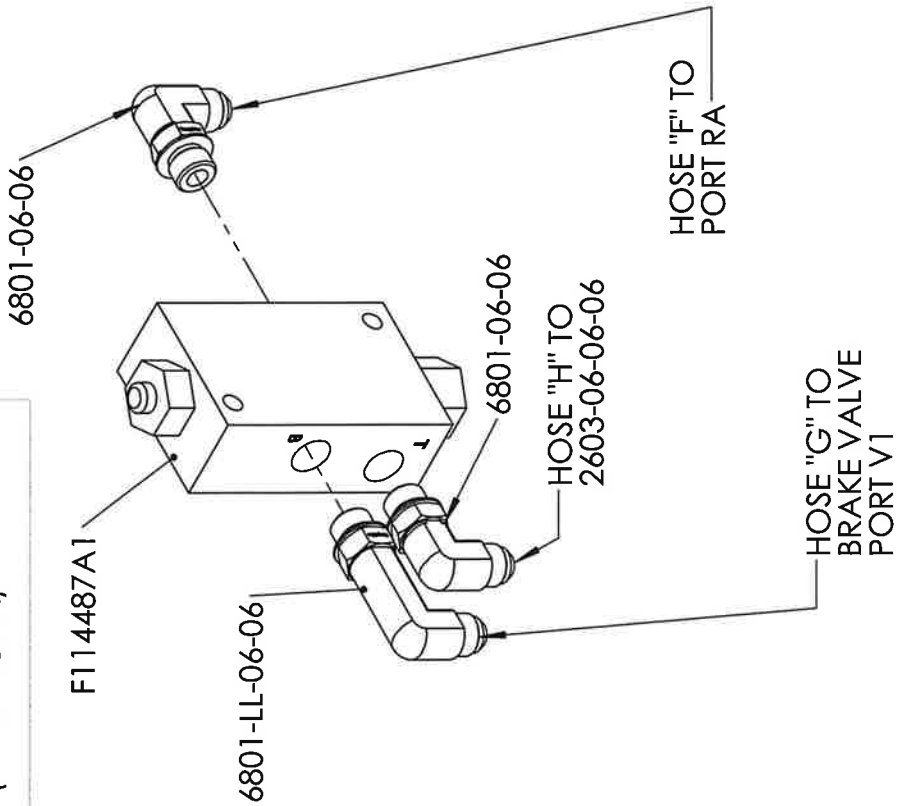
# VPA 1000 HYDRAULIC LAYOUT

## CONTROL DETAIL

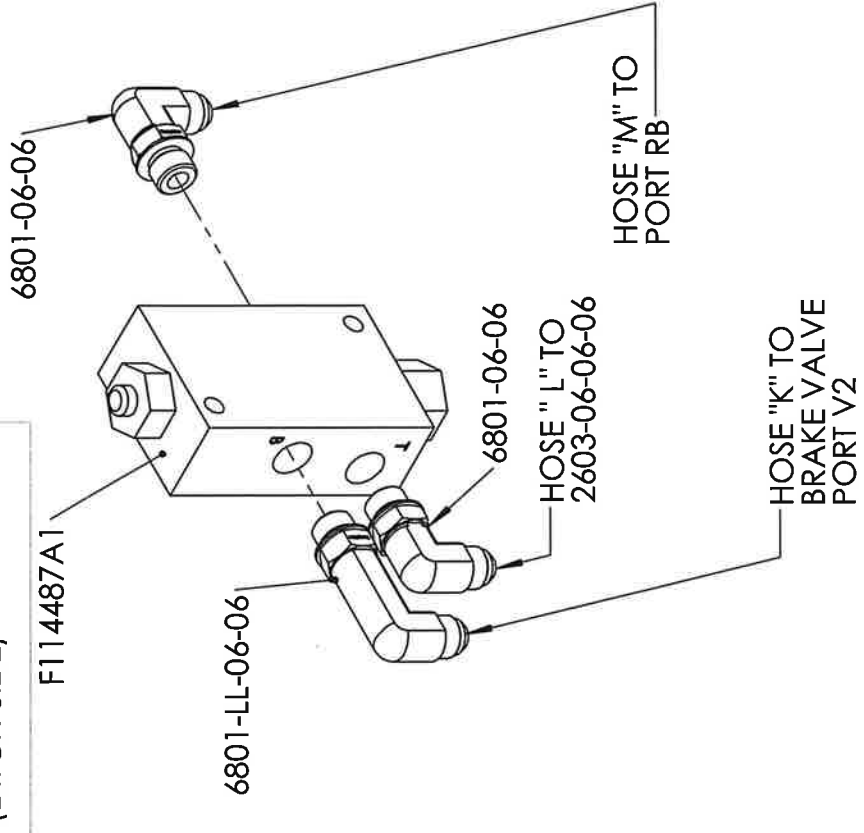


# VPA 1000 HYDRAULIC LAYOUT

F14487A1 ROTATE LIMIT 1  
(DRIVER SIDE)

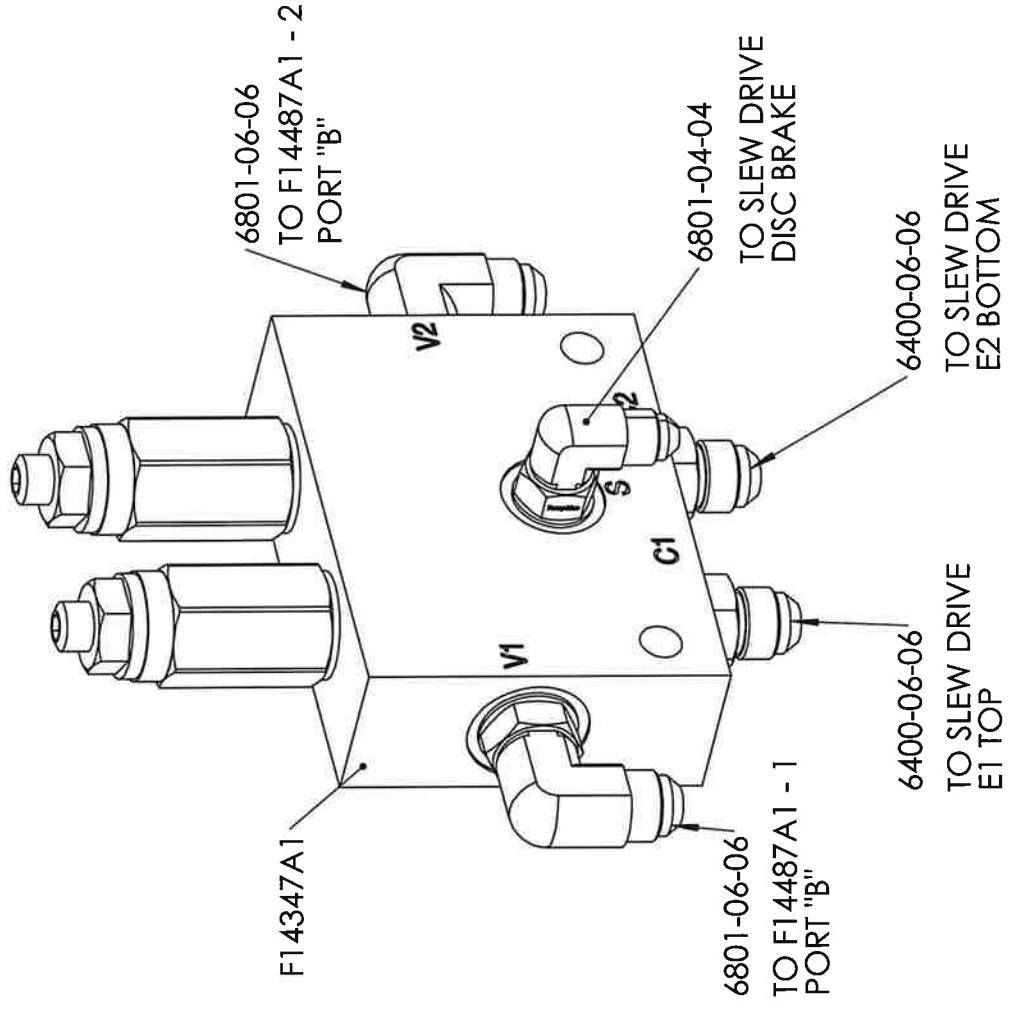


F14487A1 ROTATE LIMIT 2  
(DITCH SIDE)

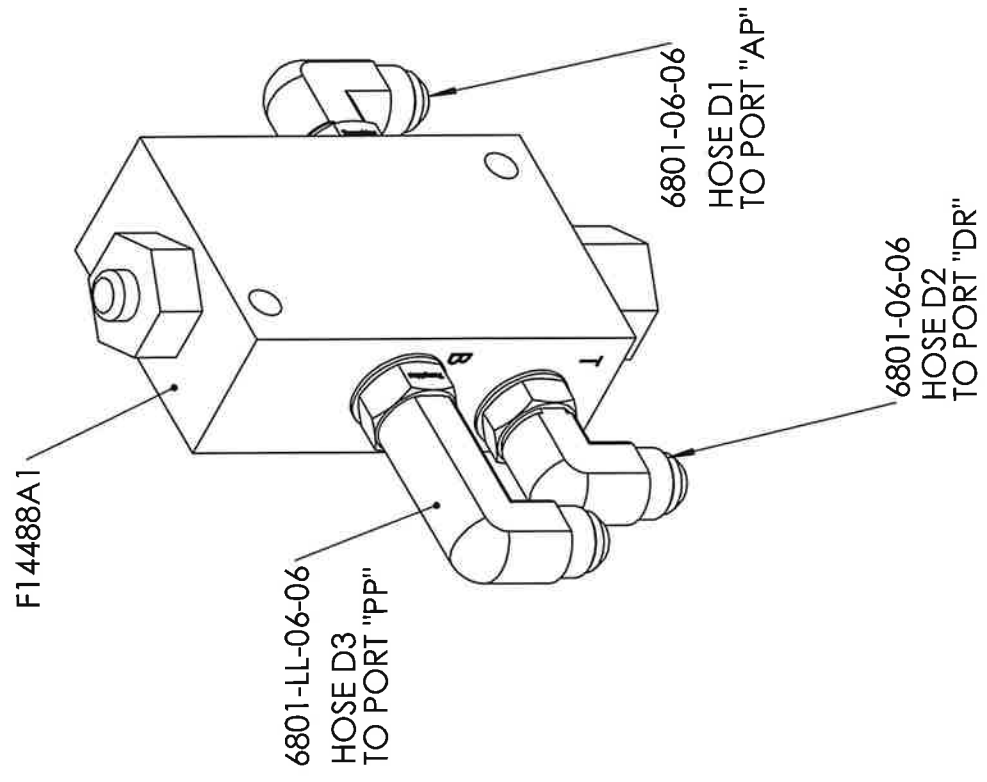


# VPA1000 HYDRAULIC LAYOUT

F14347A1 BRAKE VALVE



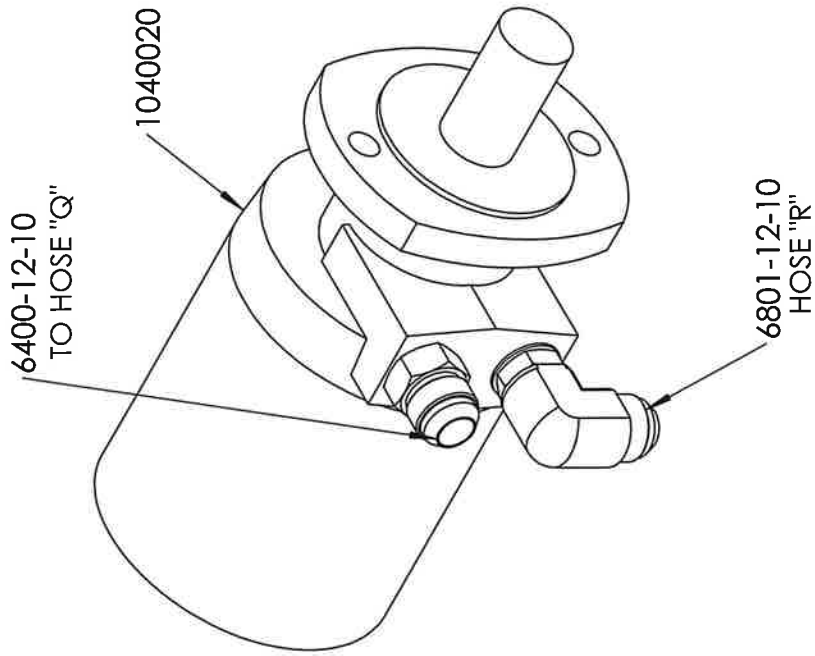
F14488A1 - FOLD STOP NORMALLY CLOSED



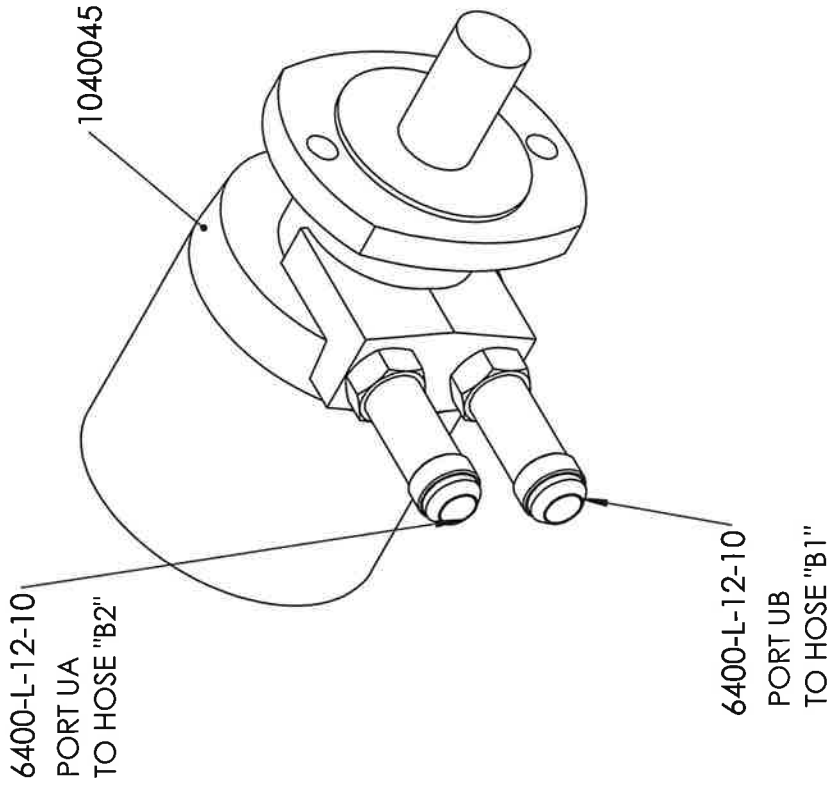


# VPA1000 HYDRAULIC LAYOUT

LOWER AUGER MOTOR

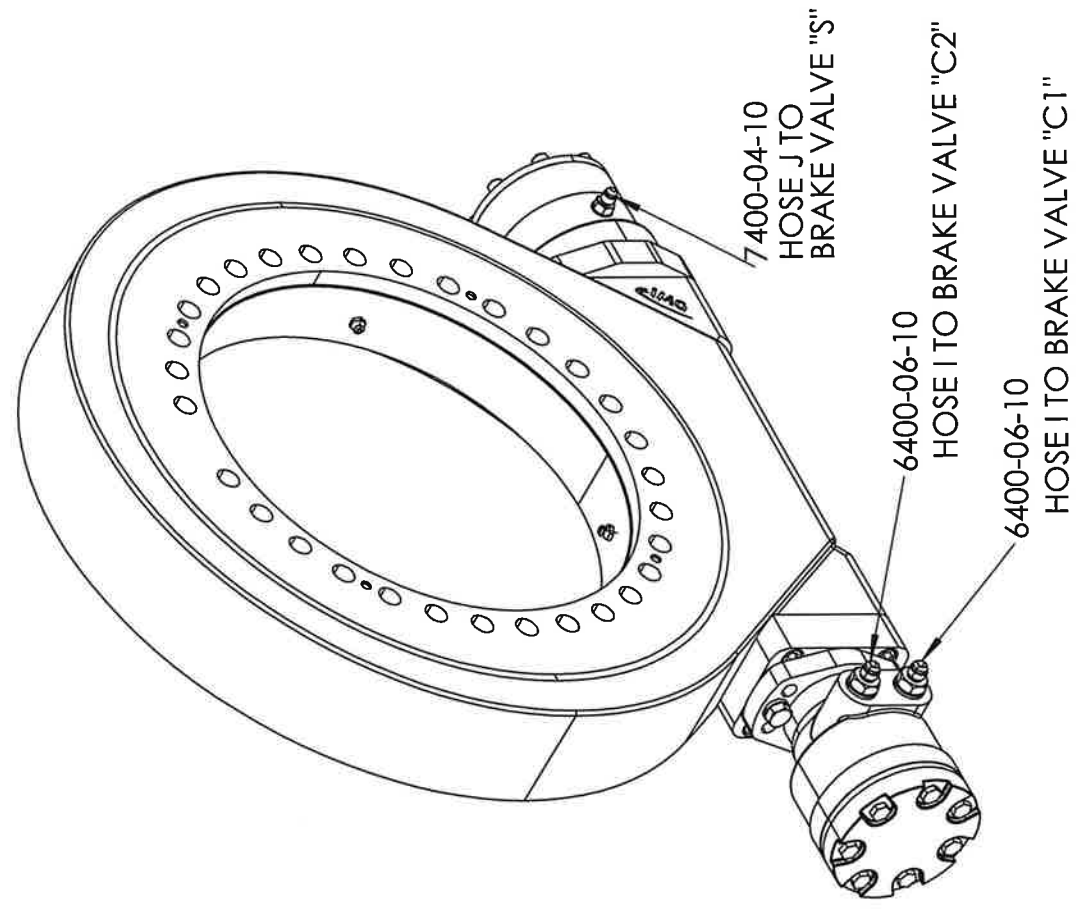


UNLOAD AUGER MOTOR

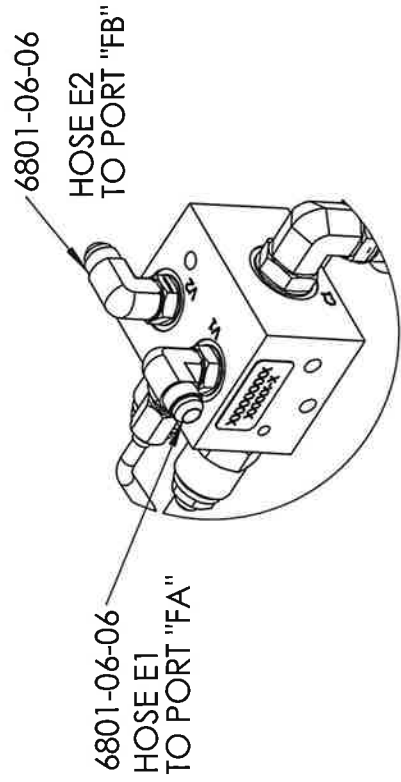


# VPA1000 HYDRAULIC LAYOUT

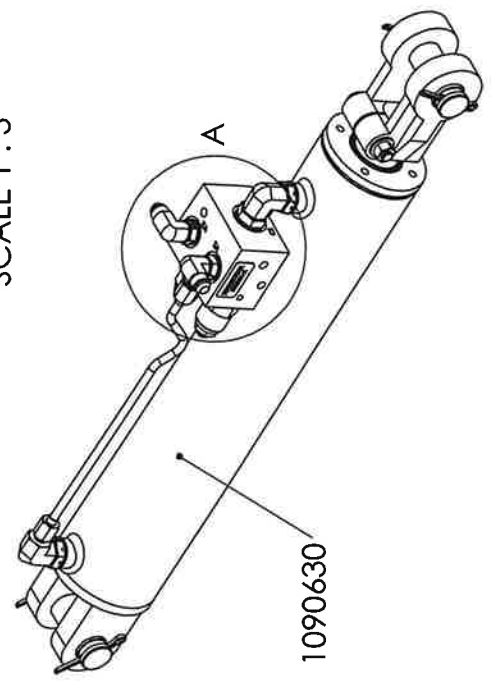
SLEW DRIVE



1090630 - HYDRAULIC CYLINDER

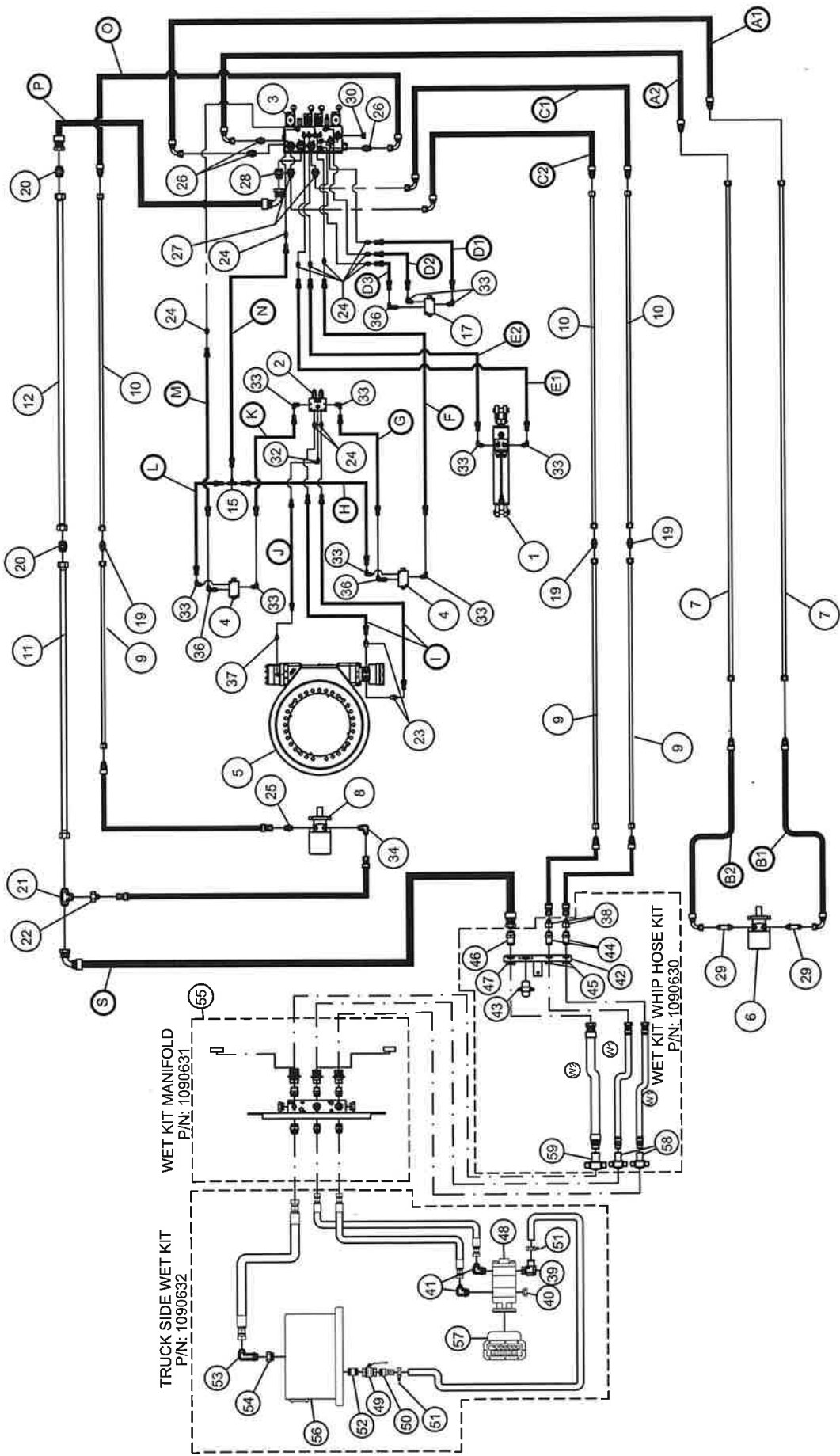


DETAIL A  
SCALE 1 : 3





# VPA1000 HYDRAULIC PLUMBING (WET KIT)(PARKER)



73 WET

# VPA1000 HYDRAULIC (WET KIT) PARTS LISTING (PARKER)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	71645	3 X 14 WELDED CYL W/ DUAL CB KIT	1
2	F14347A1	BRAKE VALVE, DUAL CB SHUTTLE MANIFOLD	1
3	F14489A2	TENDER CONTROL MANIFOLD ASSY	1
4	F14487A1	CAM VALVE ASSY	2
5	70857	SLEW DRIVE ASSY	1
6	1040045	MOTOR HYDRAULIC (DISCHARGE)	1
7	51643	HYDRAULIC TUBE 3/4 OD X 184" LG	2
8	1040020	MOTOR HYDRAULIC (LOWER AUGER)	1
9	76966	HYDRAULIC TUBE 3/4 OD X 216.5" LG	3
10	53592	HYDRAULIC TUBE 3/4 OD X 138" LG	3
11	71204	HYDRAULIC TUBE 1 1/4 OD X 211.13" LG	1
12	71197	HYDRAULIC TUBE 1 1/4 OD X 144.25" LG	1
13	--	--	--
14	--	--	--
15	2603-06-06-06	TEE #6 MJIC X #6 MJIC X #6 MJIC	1
16	--	--	--
17	F14488A1	CAM VALVE ASSY	1
18	--	--	--
19	51676	UNION (2403-12-12)	3
20	2403-20-20	UNION #20 MJIC X #20 MJIC	2
21	2406-20-12	REDUCER #20 FJIC X #12 MJIC	1
22	2603-20-20-20	TEE #20 MJIC X #20 MJIC X #20 MJIC	1
23	6400-06-10	CONNECTOR #6 MJIC X #10 M O-RING	2
24	6400-06-06	ADAPTER # 6 MJIC X #6 MORB	10
25	6400-12-10	ADAPTER #12 MJIC X #10 MORB	1
26	6400-12-12	ADAPTER #12 MJIC X #12 MORB	3
27	6400-12-16	ADAPTER #12 MJIC X #16 MORB	2
28	6400-20-20	ADAPTER #20 MJIC X #20 MORB	1
29	6400-L-12-10	ADAPTER LONG #12 MJIC X #10 MORB	2
30	6408-HHP-12	PLUG, HOLLOW HEX #12 MORB	1
31	--	--	--
32	6801-04-04	ELBOW 90 DEG #4 MJIC X #4 MORB	1
33	6801-06-06	ELBOW 90 DEG #6 MJIC X #6 MORB	10
34	6801-12-10	ELBOW 90 DEG #12 MJIC X #10 MORB	1
35	--	--	--
36	6801-LL-06-06	ELBOW 90 DEG EXTRA LONG #6 MJIC X #6 MORB	3
37	7400-04-10	FITTING #4 MJIC X 10 MM	1
38	2406-16-12	ADAPTER #16 FJIC X #12 MJIC	2
39	4601-24-20	HOSE BARB 90 DEG	1
40	6408-20	#20 ORING PLUG	1
41	6801-12-16	ELBOW #12 MJIC X #16 M O-RING	2
42	76704	WET KIT MOUNTING ANGLE	1
43	82-1041	SOCKET, TRAILER 2 POLE FEMALE	1
44	2700-16-16	BULK HEAD UNION #16	2
45	306-16	NUT, LOCK BULK HEAD #16	2
46	2700-20-20	BULK HEAD UNION #20	1
47	306-20	NUT, LOCK BULK HEAD #20	1
48	1037666	HYDRAULIC PUMP	1

ITEM	PART NUMBER	DESCRIPTION	QTY
49	1084356	BALL VALVE, 1 1/2 NPT	1
50	1063538	NIPPLE, 1 1/2 NPT UNPLATED KING	1
51	1090239	CLAMP, 1 1/2" HOSE	2
52	1030868	HEX BUSHING	1
53	6801-L-16-16	ELBOW EXTRA LONG #16 M O-RING X #16 MJIC	1
54	6410-20-16FRG-SHORT	ADAPTER #20 M O-RING X #16 F O-RING	1
55	1090631	WET KIT MANIFOLD (SEE NOTE)	1
56	113724	OIL TANK	1
57	TBD	PTO ADAPTER (DETERMINED BY TRUCK)	1
58	FA6125-16	WING COUPLER #16	2
59	FA6125-20	WING COUPLER #20	1

HOSE	PART NUMBER	DESCRIPTION	QTY
A	612240	3/4 HOSE X 240" LG, #12JICFS 90 DEG X #12 MJIC	2
B	612058	3/4 HOSE X 58" LG, #12 MJIC X #12 JICFS 90 DEG	2
C	612028	3/4 HOSE X 28" LG, #12 MJIC X #12 JICFS 90 DEG	2
D	606162	3/8 HOSE X 162" LG, #6 JICFS EA END	3
E	606134	3/8 HOSE X 134" LG, #6 JICFS EA END	2
F	606108	3/8 HOSE X 108" LG, #6 JICFS EA END	1
G	606030	3/8 HOSE X 30" LG, #6 JICFS EA END	1
H	606038	3/8 HOSE X 38" LG, #6 JICFS EA END	1
I	606060	3/8 HOSE X 60" LG, #6 JICFS EA END	2
J	604032	1/4 HOSE X 32" LG, #4 JICFS EA END	1
K	626050	3/8 HOSE X 50" LG, #6 JICFS EA END	1
L	606058	3/8 HOSE X 58" LG, #6 JICFS EA END	1
M	606138	3/8 HOSE X 138" LG, #6 JICFS EA END	1
N	606080	3/8 HOSE X 80" LG, #6 JICFS EA END	1
O	622040	3/4 HOSE X 40" LG, #12JICFS 90 DEG X #12 MJIC	1
P	620044	1 1/4 HOSE X 44" LG, #20 JICFS X #20 JICFS 90 DEG	1
Q	612036	3/4 HOSE X 36" LG, #12 MJIC X #12 JICFS	1
R	622028	3/4 HOSE X 28" LG, #12 JICFS EA END	1
S	620144	1 1/4 HOSE X 144" LG, #20 JICFS 90 DEG X #20 JICFS	1
T	622084	3/4 HOSE X 84" LG, #12MJIC X #12 JICFS	2
W1	622132	3/4 HOSE X 132" LG, #16 JICFS X #16 MNPT	2
W2	620132	1 1/4 HOSE X 132" LG, #20 JICFS X #20 MNPT	1

ITEMS #1-12 AND #17 ARE SHOWN FOR REFERENCE ONLY

VPA HOSE AND FITTING KIT P/N: 71285 CONTAINS P/NS 71398 & 71399

VPA FITTING KIT P/N: 71398 INCLUDES ITEMS #15 AND ITEMS #19-37

VPA HOSE KIT P/N: 71399 CONTAINS HOSES A-I

WET KIT WHIP HOSE KIT P/N: 1090630 INCLUDES HOSES W1-W2 AND ITEMS 38, 42-47, & 58-9 (FITTINGS 6500-16-16 / 2406-20-16 / AND 6602-16-16-16 ARE INCLUDED BUT NOT USED)

WET KIT MANIFOLD P/N: 1090631 CONTAINS THE FOLLOWING:

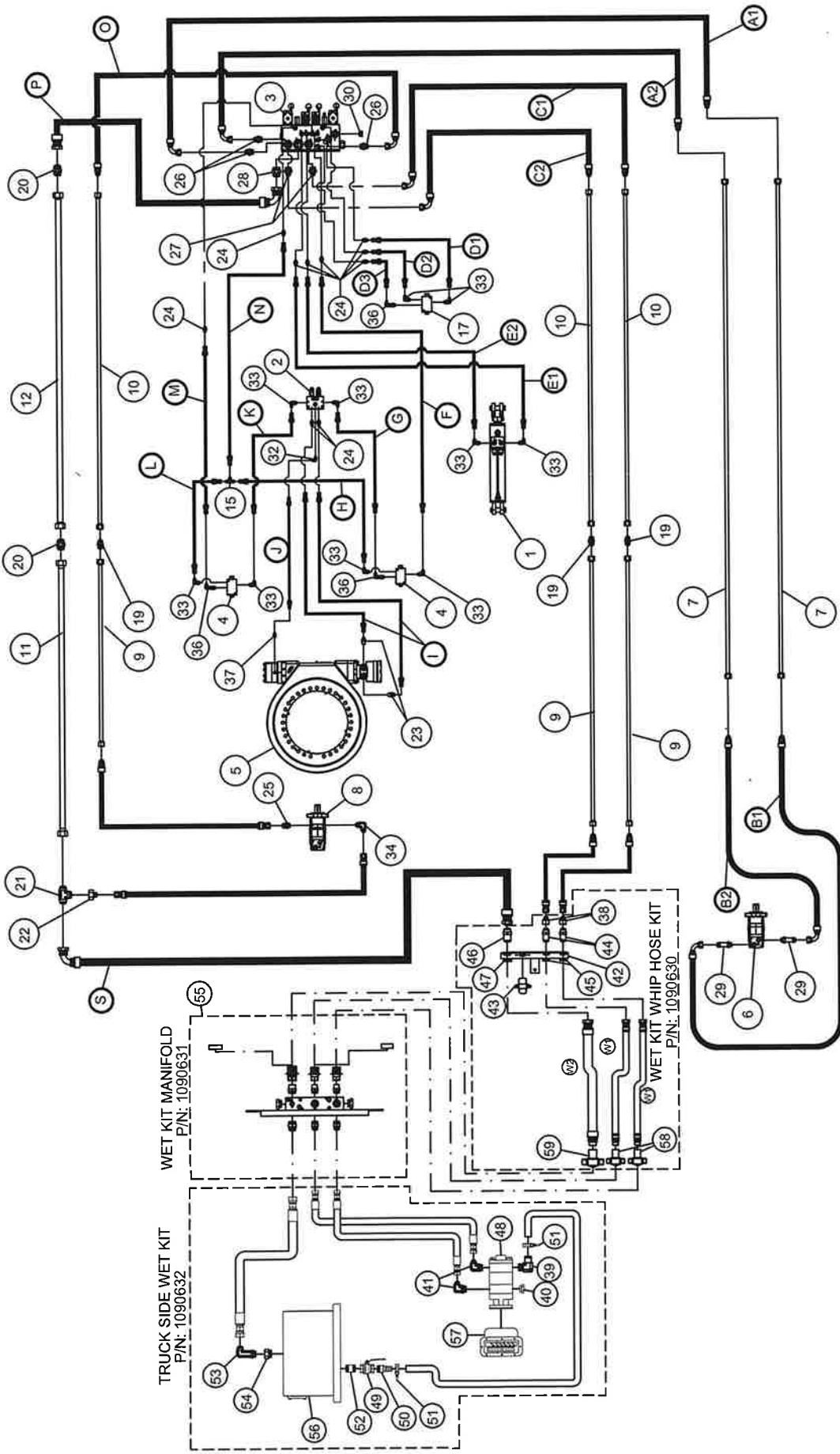
1 EA OF: C11516 (MANIFOLD) / 6401-2-20 / 6400-20-20 / FA6105-20 / FA6108-20 /

FAM-WM-A-0001 (MTG BRKT)

2 EA OF: 6408-16 / 6401-16-16 / 6400-16-16 / FA6105-16 / FA6108-16

TRUCK SIDE WET KIT OPTION P/N: 109632 INCLUDES ITEMS 39-41, 48-54, & 56-57

# VPA1000 HYDRAULIC PLUMBING (WET KIT) (EATON)



73 WET E

EATON MOTORS SUBSTITUTED FOR PARKER STARTING FALL 2023 SERIAL NUMBER 1012

# VPA1000 HYDRAULIC (WET KIT) PARTS LISTING (EATON)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	71645	3 X 14 WELDED CYL W/ DUAL CB KIT	1
2	F14347A1	BRAKE VALVE; DUAL CB SHUTTLE MANIFOLD	1
3	F14489A2	TENDER CONTROL MANIFOLD ASSY	1
4	F14487A1	CAM VALVE ASSY	2
5	70857	SLEW DRIVE ASSY	1
6	71894	MOTOR HYDRAULIC (DISCHARGE)	1
7	51643	HYDRAULIC TUBE 3/4 OD X 184" LG	2
8	71892	MOTOR HYDRAULIC (LOWER AUGER)	1
9	76966	HYDRAULIC TUBE 3/4 OD X 216.5" LG	3
10	53592	HYDRAULIC TUBE 3/4 OD X 138" LG	3
11	71204	HYDRAULIC TUBE 1 1/4 OD X 211.13" LG	1
12	71197	HYDRAULIC TUBE 1 1/4 OD X 144.25" LG	1
13	--	--	--
14	--	--	--
15	2603-06-06-06	TEE #6 MJIC X #6 MJIC X #6 MJIC	1
16	--	--	--
17	F14488A1	CAM VALVE ASSY	1
18	--	--	--
19	51676	UNION (2403-12-12)	3
20	2403-20-20	UNION #20 MJIC X #20 MJIC	2
21	2406-20-12	REDUCER #20 FIJC X #12 MJIC	1
22	2603-20-20-20	TEE #20 MJIC X #20 MJIC X #20 MJIC	1
23	6400-06-10	CONNECTOR #6 MJIC X #10 M O-RING	2
24	6400-06-06	ADAPTER #6 MJIC X #6 MORB	10
25	6400-12-10	ADAPTER #12 MJIC X #10 MORB	1
26	6400-12-12	ADAPTER #12 MJIC X #12 MORB	3
27	6400-12-16	ADAPTER #12 MJIC X #16 MORB	2
28	6400-20-20	ADAPTER #20 MJIC X #20 MORB	1
29	6400-L-12-10	ADAPTER LONG #12 MJIC X #10 MORB	2
30	6408-HHP-12	PLUG, HOLLOW HEX #12 MORB	1
31	--	--	--
32	6801-04-04	ELBOW 90 DEG #4 MJIC X #4 MORB	1
33	6801-06-06	ELBOW 90 DEG #6 MJIC X #6 MORB	10
34	6801-12-10	ELBOW 90 DEG #12 MJIC X #10 MORB	1
35	--	--	--
36	6801-L-06-06	ELBOW 90 DEG EXTRA LONG #6 MJIC X #6 MORB	3
37	7400-04-10	FITTING #4 MJIC X 10 MM	1
38	2406-16-12	ADAPTER #16 FIJC X #12 MJIC	2
39	4601-24-20	HOSE BARB 90 DEG	1
40	6408-20	#20 ORING PLUG	1
41	6801-12-16	ELBOW #12 MJIC X #16 M O-RING	2
42	76704	WET KIT MOUNTING ANGLE	1
43	82-1041	SOCKET, TRAILER 2 POLE FEMALE	1
44	2700-16-16	BULK HEAD UNION #16	2
45	306-16	NUT, LOCK BULK HEAD #16	2
46	2700-20-20	BULK HEAD UNION #20	1
47	306-20	NUT, LOCK BULK HEAD #20	1
48	1037666	HYDRAULIC PUMP	1

ITEM	PART NUMBER	DESCRIPTION	QTY
49	1084356	BALL VALVE, 1 1/2 NPT	1
50	1063538	NIPPLE; 1 1/2 NPT UNPLATED KING	1
51	1090239	CLAMP, 1 1/2" HOSE	2
52	1030868	HEX BUSHING	1
53	6801-L-16-16	ELBOW EXTRA LONG #16 M O-RING X #16 MJIC	1
54	6410-20-16FRG-SHORT	ADAPTER #20 M O-RING X #16 F O-RING	1
55	1090631	WET KIT MANIFOLD (SEE NOTE)	1
56	113724	OIL TANK	1
57	TBD	PTO ADAPTER (DETERMINED BY TRUCK)	1
58	FA6125-16	WING COUPLER #16	2
59	FA6125-20	WING COUPLER #20	1

HOSE	PART NUMBER	DESCRIPTION	QTY
A	612240	3/4 HOSE X 240" LG, #12JICFS 90 DEG X #12 MJIC	2
B	612058	3/4 HOSE X 58" LG, #12 MJIC X #12 JICFS 90 DEG	2
C	612028	3/4 HOSE X 28" LG, #12 MJIC X #12 JICFS 90 DEG	2
D	606162	3/8 HOSE X 162" LG, #6 JICFS EA END	3
E	606134	3/8 HOSE X 134" LG, #6 JICFS EA END	2
F	606108	3/8 HOSE X 108" LG, #6 JICFS EA END	1
G	606030	3/8 HOSE X 30" LG, #6 JICFS EA END	1
H	606038	3/8 HOSE X 38" LG, #6 JICFS EA END	1
I	606060	3/8 HOSE X 60" LG, #6 JICFS EA END	2
J	604032	1/4 HOSE X 32" LG, #4 JICFS EA END	1
K	626050	3/8 HOSE X 50" LG, #6 JICFS EA END	1
L	606058	3/8 HOSE X 58" LG, #6 JICFS EA END	1
M	606138	3/8 HOSE X 138" LG, #6 JICFS EA END	1
N	606080	3/8 HOSE X 80" LG, #6 JICFS EA END	1
O	622040	3/4 HOSE X 40" LG, #12JICFS 90 DEG X #12 MJIC	1
P	620044	1 1/4 HOSE X 44" LG, #20 JICFS X #20 JICFS 90 DEG	1
Q	612036	3/4 HOSE X 36" LG, #12 MJIC X #12 JICFS	1
R	622028	3/4 HOSE X 28" LG, #12 JICFS EA END	1
S	620144	1 1/4 HOSE X 144" LG, #20 JICFS 90 DEG X #20 JICFS	1
T	622084	3/4 HOSE X 84" LG, #12MJIC X #12 JICFS	2
W1	622132	3/4 HOSE X 132" LG, #16 JICFS X #16 MNPT	2
W2	620132	1 1/4 HOSE X 132" LG, #20 JICFS X #20 MNPT	1

ITEMS #1-12 AND #17 ARE SHOWN FOR REFERENCE ONLY

VPA HOSE AND FITTING KIT P/N: 71398 INCLUDES ITEMS #15 AND ITEMS #19-37

VPA HOSE KIT P/N: 71399 INCLUDES HOSES A-T

WET KIT WHIP HOSE KIT P/N: 1090630 INCLUDES HOSES W1-W2 AND ITEMS 38, 42-47, & 58-9

(FITTINGS 6500-16-16 / 2406-20-16 / AND 6602-16-16-16 ARE INCLUDED BUT NOT USED)

WET KIT MANIFOLD P/N: 1090631 CONTAINS THE FOLLOWING:

1 EA OF: C11516 (MANIFOLD) / 6401-2-20 / 6400-20-20 / FA6105-20 / FA6108-20 /

FAM-WM-A-0001 (MITG BRKT)

2 EA OF: 6408-16 / 6401-16-16 / 6400-16-16 / FA6105-16 / FA6108-16

TRUCK SIDE WET KIT OPTION P/N: 109632 INCLUDES ITEMS 39-41, 48-54, & 56-57

74 WET M





**VPA1000 HYDRAULIC PARTS LISTING** (ALTERNATE PLUMBING S/N: 1000-1009)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	47005491	CYLINDER	1
2	F14347A1	BRAKE VALVE, DUAL CB SHUTTLE MANIFOLD	1
3	F14489A2	TENDER CONTROL MANIFOLD ASSY	1
4	F14487A1	CAM VALVE ASSY	2
5	70857	SLEW DRIVE ASSY	1
6	1040045	MOTOR HYDRAULIC (DISCHARGE)	1
7	51643	HYDRAULIC TUBE 3/4 OD X 184" LG	2
8	1040020	MOTOR HYDRAULIC (LOWER AUGER)	1
9	76966	HYDRAULIC TUBE 3/4 OD X 216.5" LG	3
10	53592	HYDRAULIC TUBE 3/4 OD X 138" LG	3
11	71204	HYDRAULIC TUBE 1 1/4 OD X 211.13" LG	1
12	71197	HYDRAULIC TUBE 1 1/4 OD X 144.25" LG	1
13	48300310	58 GALLON OIL TANK	1
14	MT900TAPUMP	HYDRAULIC PUMP	1
15	2603-06-06-06	TEE #6 MJIC X #6 MJIC X #6 MJIC	1
16	OMITTED	--	--
17	F14488A1	CAM VALVE ASY	1
18	OMITTED	--	--
19	51676	UNION (2403-12-12)	3
20	2403-20-20	UNION #20 MJIC X #20 MJIC	2
21	2406-20-12	REDUCER #20 FIJC X #12 MJIC	1
22	2603-20-20-20	TEE #20 MJIC X #20 MJIC X #20 MJIC	1
23	6400-06-10	CONNECTOR#6 MJIC X #10 M O-RING	2
24	6400-06-06	ADAPTER #6 MJIC X #6 MORB	10
25	6400-12-10	ADAPTER #12 MJIC X #10 MORB	1
26	6400-12-12	ADAPTER #12 MJIC X #12 MORB	3
27	6400-12-16	ADAPTER #12 MJIC X #16 MORB	2
28	6400-20-20	ADAPTER #20 MJIC X #20 MORB	1
29	6400-L-12-10	ADAPTER LONG #12 MJIC X #10 MORB	2
30	6408-HHP-12	PLUG, HOLLOW HEX #12 MORB	1
31	OMITTED	--	--
32	6801-04-04	ELBOW 90 DEG #4 MJIC X #4 MORB	1

ITEMS #1 - 14 AND ITEM #17 SHOWN FOR REFERENCE ONLY

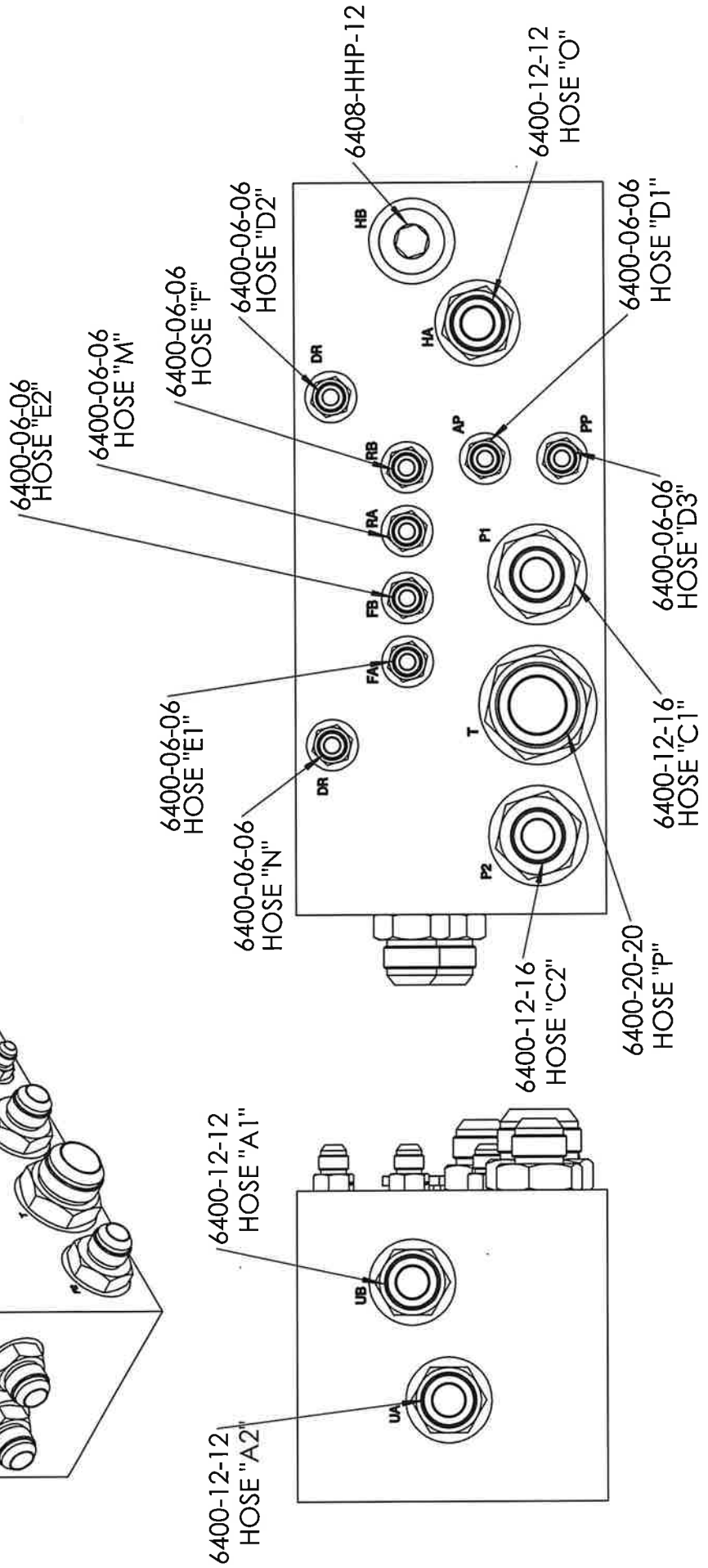
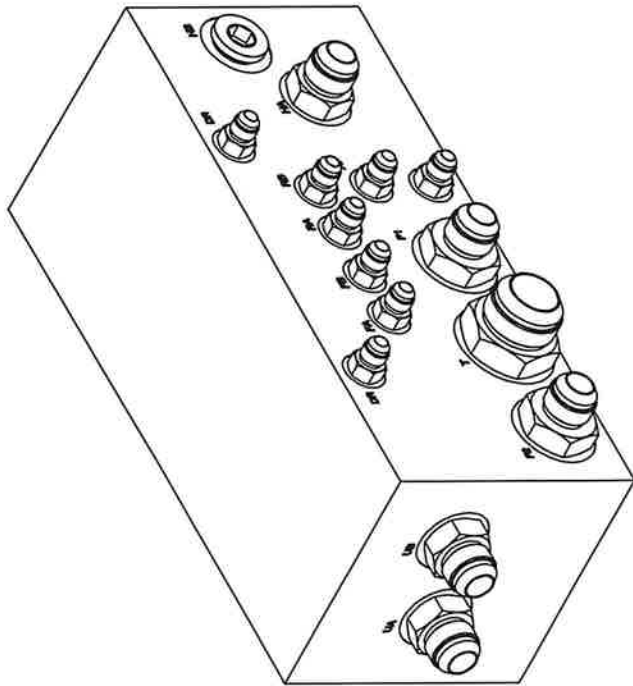
ITEM	PART NUMBER	DESCRIPTION	QTY
33	6801-06-06	ELBOW 90 DEG #6 MJIC X #6 MORB	12
34	6801-12-10	ELBOW 90 DEG #12 MJIC X #10 MORB	1
35	6801-12-16	ELBOW 90 DEG #12 MJIC X #16 MORB	2
36	6801-LL-06-06	ELBOW 90 DEG EXTRA LONG #6 MJIC X #6 MORB	3
37	7400-04-10	FITTING #4MJIC X 10 MM	1
38	6801-06-08	ELBOW #6 MJIC X #8 M O-RING	2
39	1012762	DUAL COUNTER BALANCE VALVE	1
<b>HOSE LIST</b>			
ITEM	PART NUMBER	DESCRIPTION	QTY
A	612240	3/4 HOSE X 240" LG, #12 JICFS 90° X #12MJIC	2
B	612058	3/4 HOSE X 58" LG, #12 MJIC X #12 JICFS 90°	2
C	612028	3/4 HOSE X 28" LG, #12 MJIC X #12 JICFS 90°	2
D	606162	3/8 HOSE X 162" LG, #6 JICFS EA END	3
E	606134	3/8 HOSE X 134" LG, #6 JICFS EA END	2
F	606108	3/8 HOSE X 108" LG, #6 JICFS EA END	1
G	606030	3/8 HOSE X 30" LG, #6 JICFS EA END	1
H	606038	3/8 HOSE X 38" LG, #6 JICFS EA END	1
I	606060	3/8 HOSE X 60" LG, #6 JICFS EA END	2
J	604032	1/4 HOSE X 32" LG, #4 JICFS EA END	1
K	626050	3/8 HOSE X 50" LG, #6 JICFS EA END	1
L	606058	3/8 HOSE X 58" LG, #6 JICFS EA END	1
M	606138	3/8 HOSE X 138" LG, #6 JICFS EA END	1
N	606080	3/8 HOSE X 80" LG, #6 JICFS EA END	1
O	622040	3/4 HOSE X 40" LG, #12 JICFS 90° X #12 MJIC	1
P	620044	1 1/4 HOSE X 44" LG, #20 JICFS X #20 JICFS 90°	1
Q	612036	3/4 HOSE X 36" LG, #12 MJIC X #12 JICFS	1
R	622028	3/4 HOSE X 28" LG, #12 JICFS EA END	1
S	620144	1 1/4 HOSE X 144" LG, #20 JICFS 90° X #20 JICFS	1
T	622084	3/4 HOSE X 84" LG, #12 MJIC X #12 JICFS	2
U	606034	3/8 HOSE X 34" LG #6 JICFS EA END	2

FITTING KIT P/N: 71398, INCLUDES ITEM #15 & ITEMS 19-37

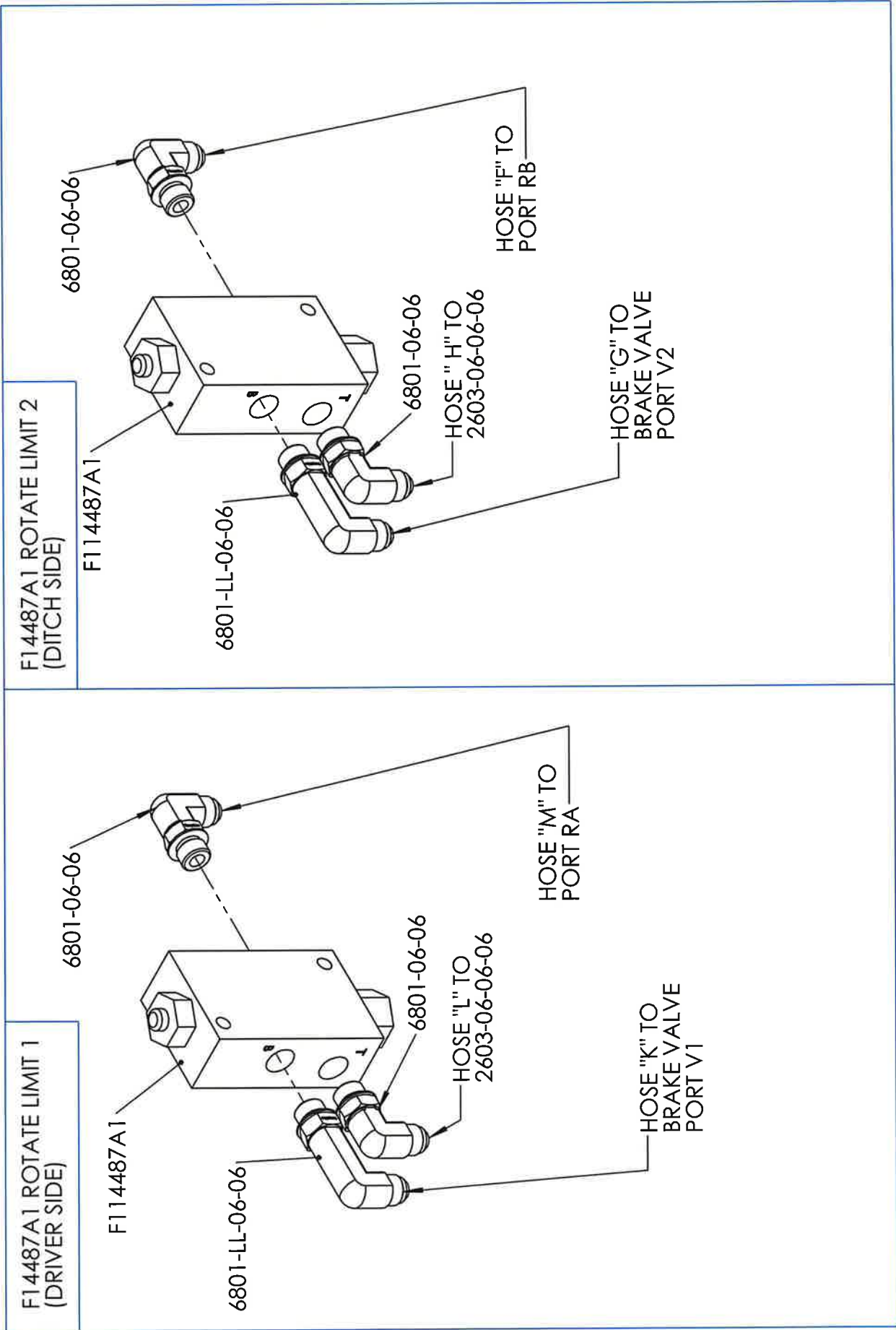
HOSE KIT P/N: 71399, INCLUDES HOSES A - T

HOSE AND FITTING KIT P/N: 71285, INCLUDED 71398 & 71399

# VPA1000 HYDRAULIC LAYOUT CONTROL DETAIL

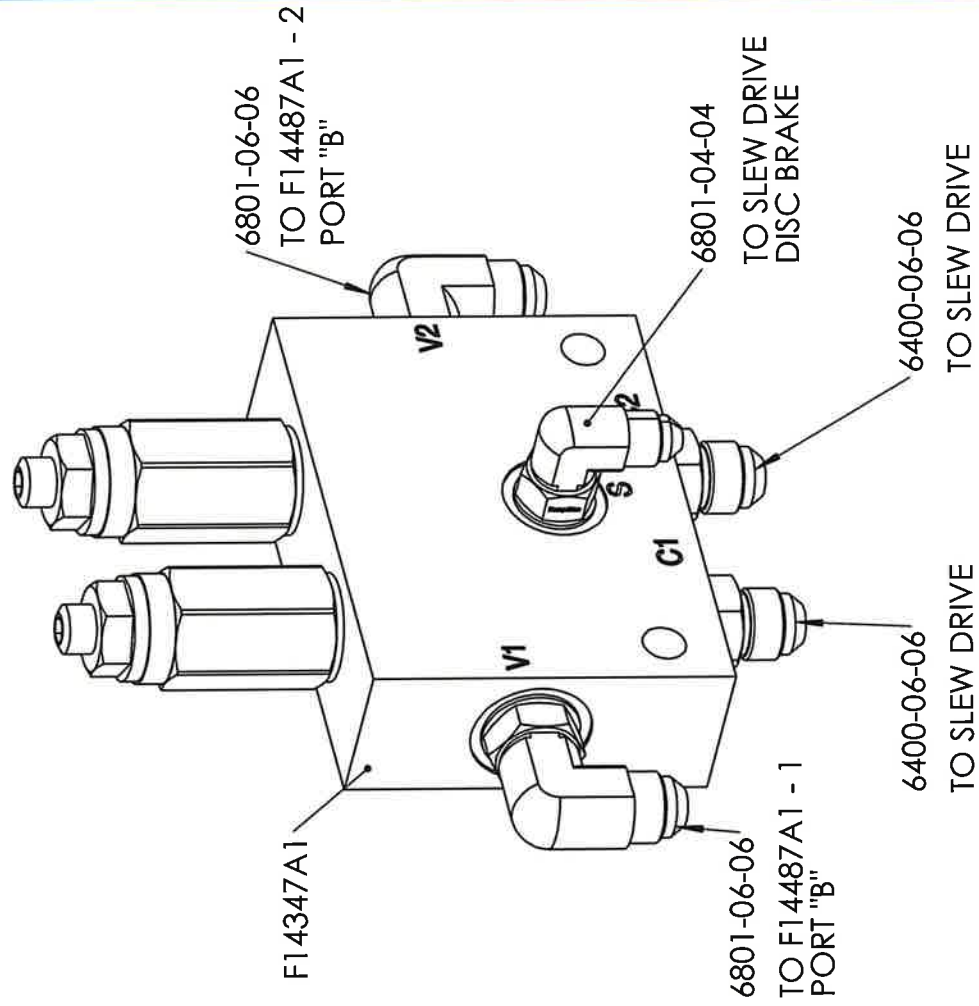


# VPA1000 HYDRAULIC LAYOUT

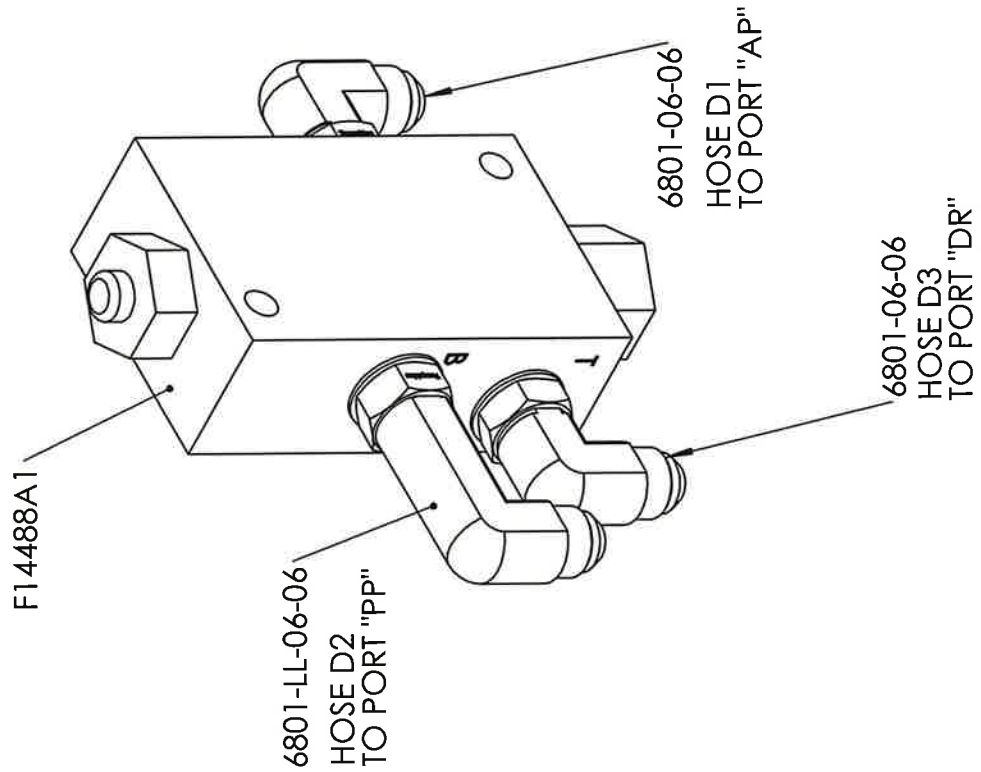


# VPA1000 HYDRAULIC LAYOUT

F14347A1 BRAKE VALVE

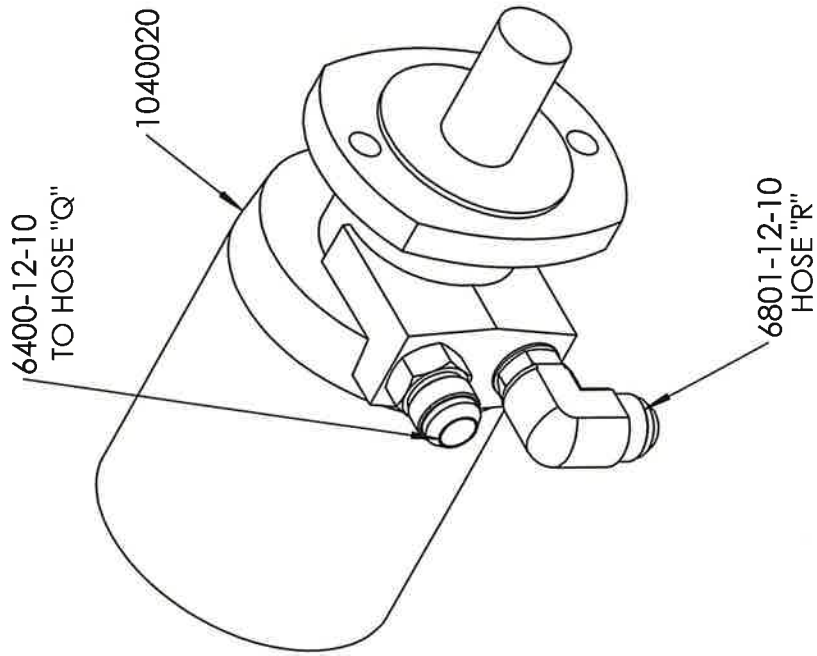


F14488A1 - FOLD STOP NORMALLY CLOSED

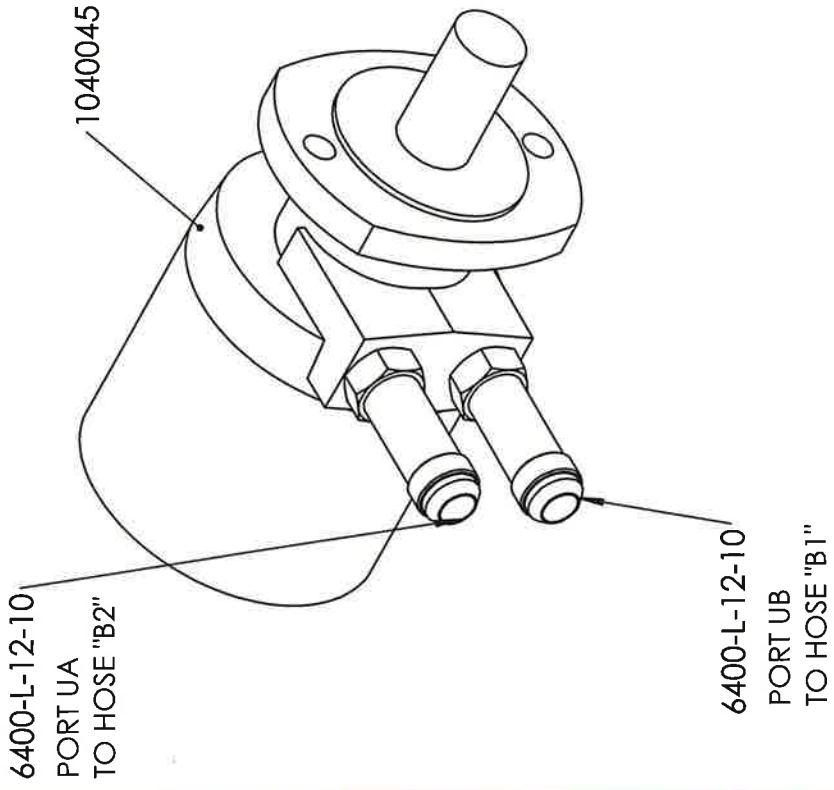


# VPA1000 HYDRAULIC LAYOUT

LOWER AUGER MOTOR

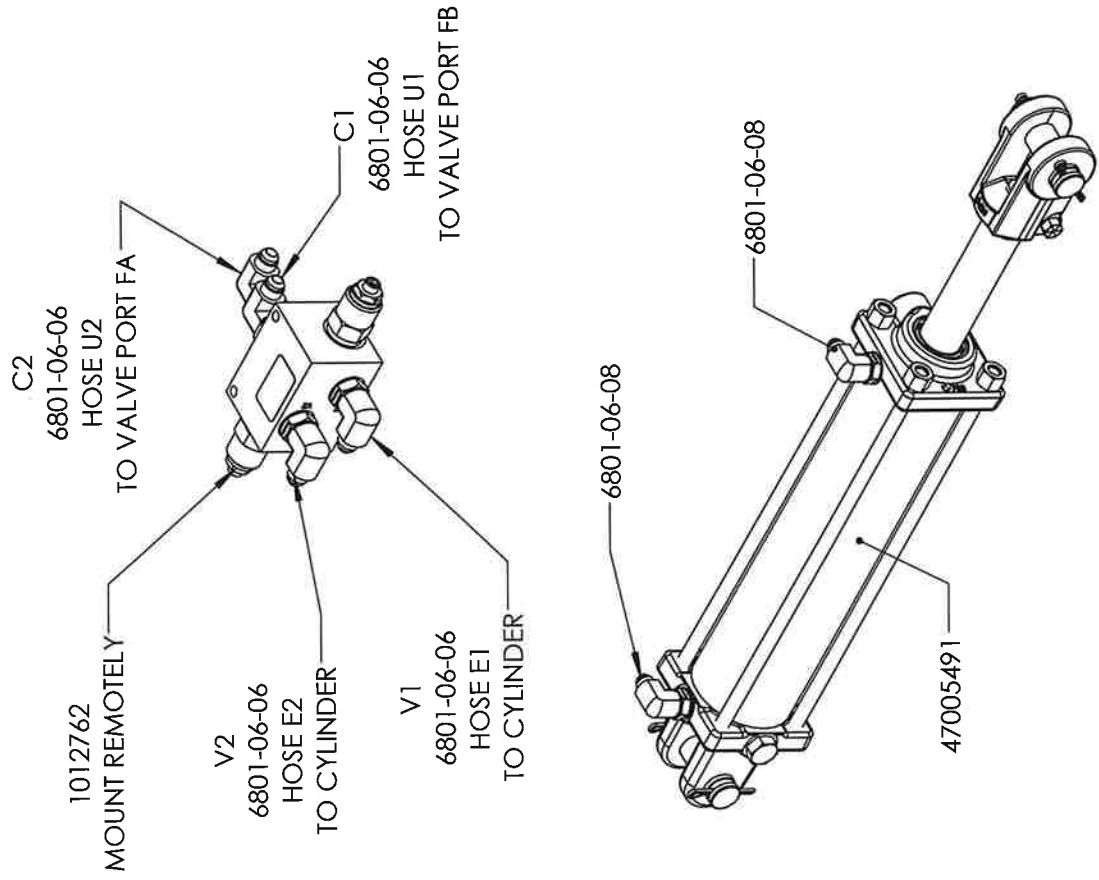


UNLOAD AUGER MOTOR

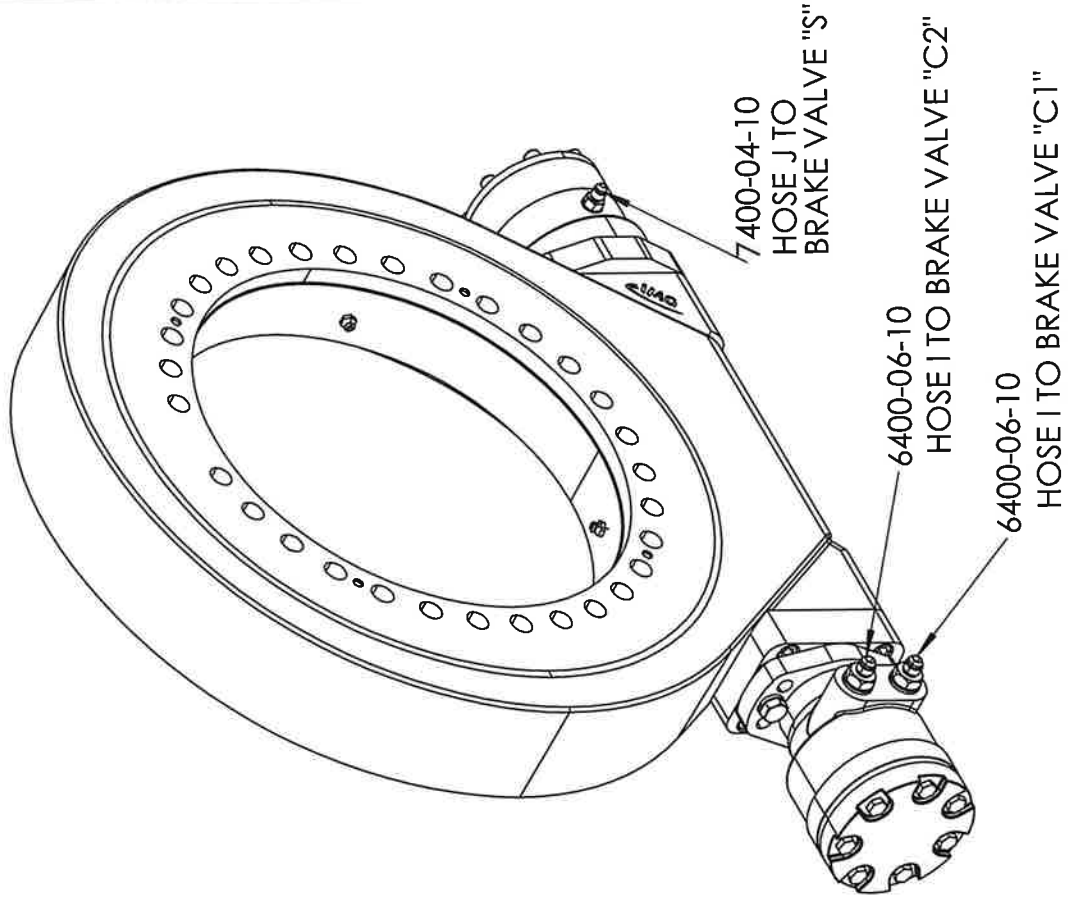


# VPA 1000 HYDRAULIC LAYOUT

## HYDRAULIC CYLINDER



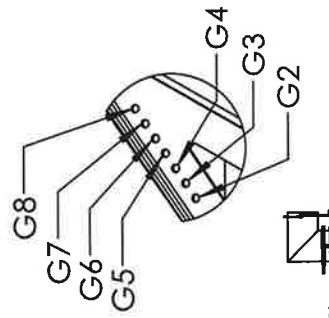
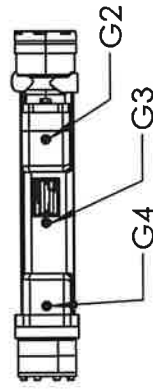
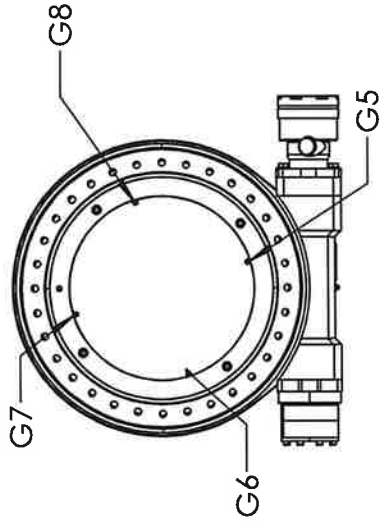
## SLEW DRIVE



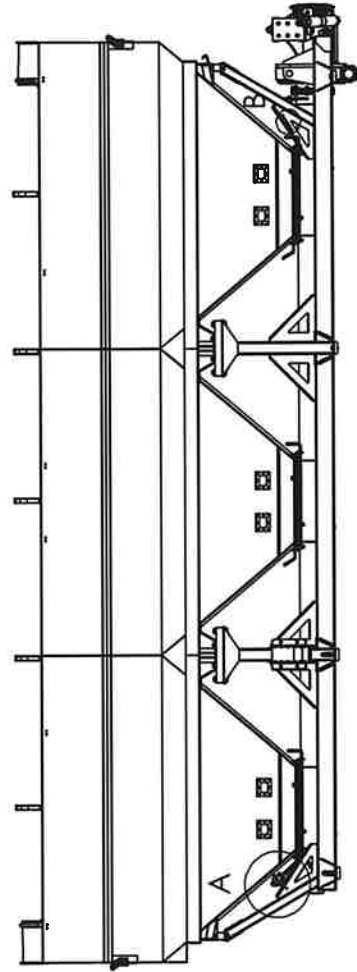
# VPA1000 GREASE LINE KIT

(P/N: 71288)

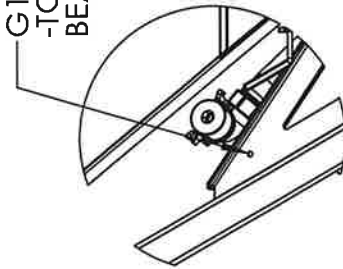
GREASE LINE ID	
<b>G1</b> - 24" LG	-1/8" GREASE LINE 3000 PSI
-1/8" GREASE LINE 3000 PSI	-1/8-27 MNPT SWIVEL CRIMP ONE END
-1/8-27 MNPT SWIVEL CRIMP ONE END	-INTEGRATED GREASE ZERK CRIMP END
-INTEGRATED GREASE ZERK CRIMP END	-BULKHEAD LOCKNUT
-BULKHEAD LOCKNUT	-1/4-28 GREASE ZERK
-1/4-28 GREASE ZERK	-1185419 GREASE FITTING ADAPTER MALE M10X1 X FEMALE 1/4-28 UNF CS ZC
-1/4-28 M SAE-LT TAPER X 1/8 FNPT	-1183504 1/4-28 MALE SAE-T TAPER X 1/8" FNPT 90° STEEL GREASE FITTING
STRAIGHT STEEL FITTING	



DETAIL B  
SCALE 1 : 10



G1  
-TO FRONT  
BEARING

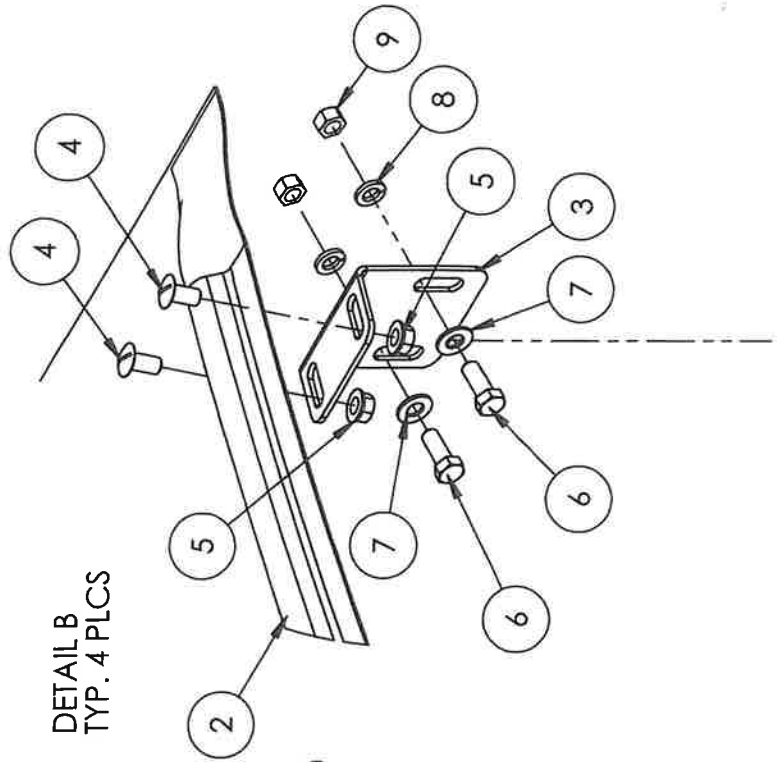
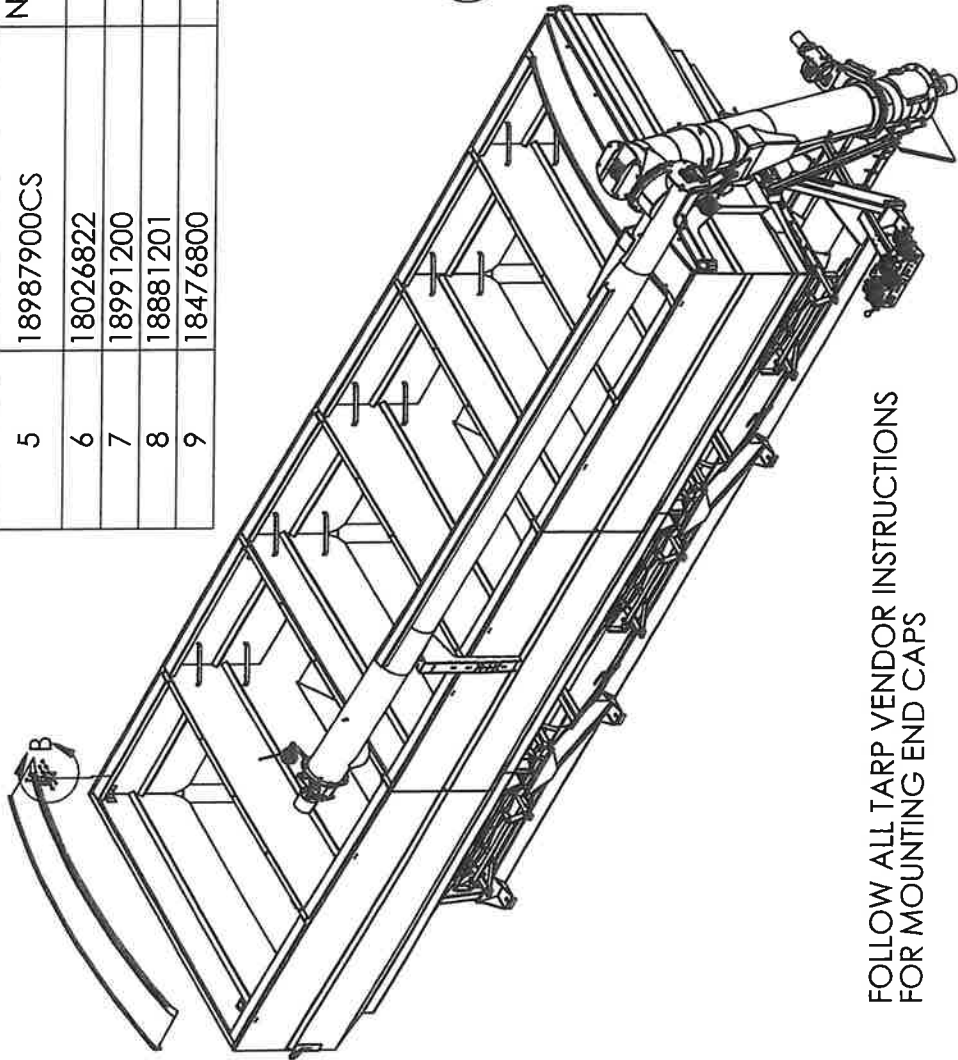


DETAIL A  
SCALE 1 : 15



# TARP END CAP SUPPORT MOUNTING ILLUSTRATION

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
2	WJ100X0	TARP END CAP (SUPPLIED W/ TARP)	2
3	76747	CAP SUPPORT	4
4	18706621CS	SCREW, SLOTTED TRUSS HEAD 3/8 X 3/4 SS(SUPPLIED WITH TARP)	8
5	18987900CS	NUT SER FLG SS 3/8 (SUPPLIED WITH TARP)	8
6	18026822	BOLT, HEX HD 3/8 X 1 NC SS	8
7	18991200	WASHER FLAT 3/8 SS	8
8	18881201	WASHER LOCK 3/8 SS	8
9	18476800	NUT 3/8 SS	8



FOLLOW ALL TARP VENDOR INSTRUCTIONS FOR MOUNTING END CAPS



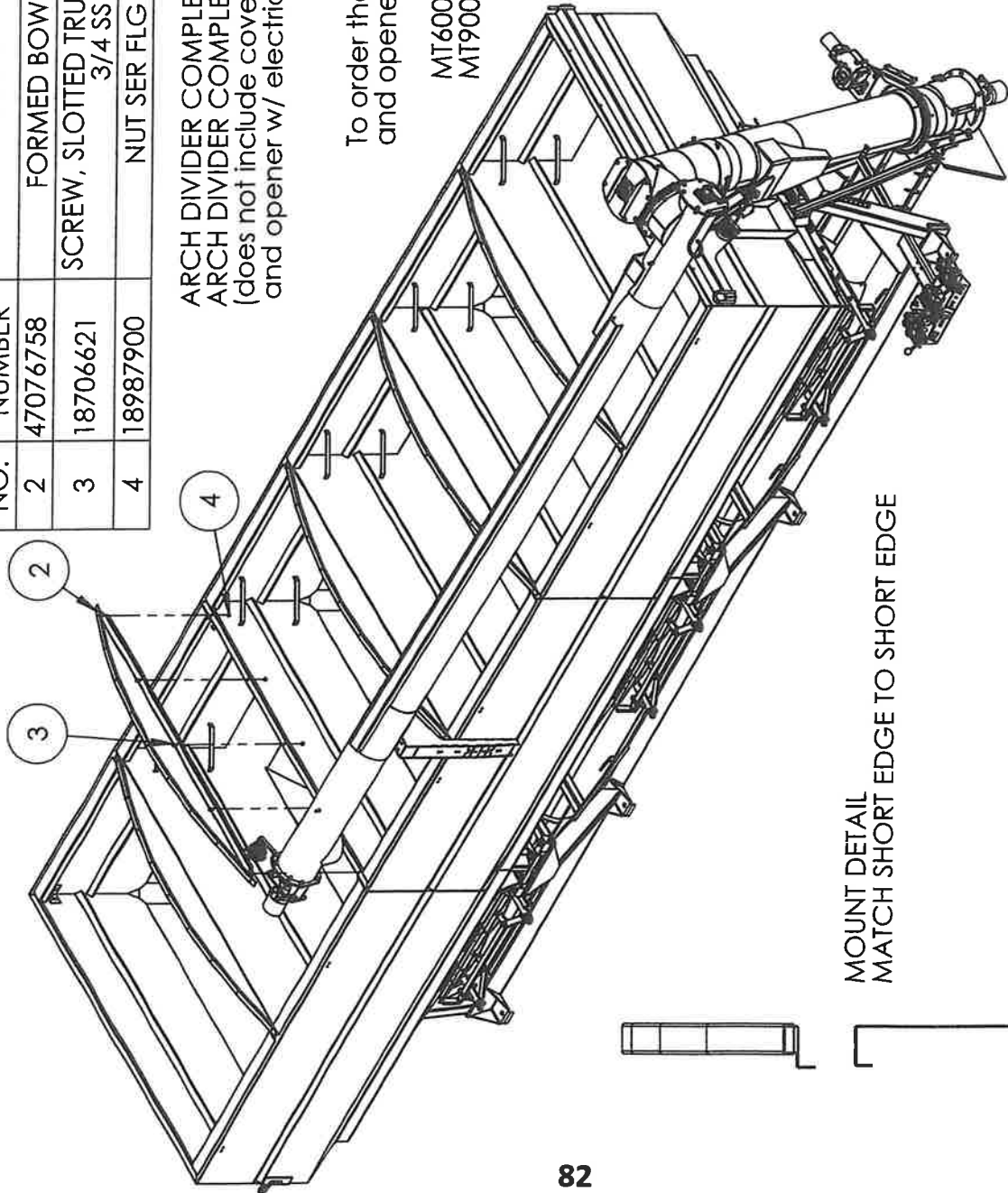
# ARCH DIVIDER LAYOUT & PARTS LISTING

ITEM NO.	PART NUMBER	DESCRIPTION	MT900 QTY	MT600 QTY
2	47076758	FORMED BOW WLDMT	5	3
3	18706621	SCREW, SLOTTED TRUSS HEAD 3/8 X 3/4 SS	25	15
4	18987900	NUT SER FLG SS 3/8	25	15

ARCH DIVIDER COMPLETE KIT MT600 P/N: **47986758**  
 ARCH DIVIDER COMPLETE KIT MT900 P/N: **47996758**  
 (does not include cover, end caps, stationary tubes and opener w/ electric motor)

To order the cover, end caps, stationary tubes, and opener w/ electric motor, use the following:

MT600 - P/N: **SRT-AGS 4002854**  
 MT900 - P/N: **SRT-AGS 4002855**



Agri-Cover Inc

SRT-2® SPOOL ROLL TARP COMPONENTS

10/16/2017

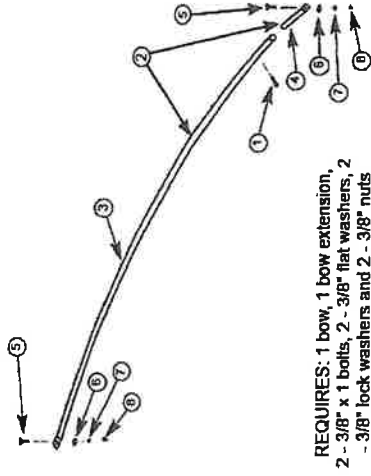
Ag Systems MT-900

**TARP**    **BOX SIZE**    **FINISHED TARP WIDTH AND LENGTH**  
 100" x 25' (300")    FTW 114" X FTL 288" Black, 7" rise

**Serial Number**    SB 012466 Black

**BOWS AND HARDWARE (TOP MOUNT)**

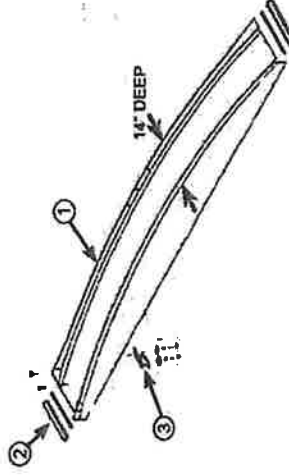
Item	Part #	Description	Qty
		Max. Box Width (all 7" rise)	
1	JL100202	100" Bow Assy w/ Extension, Stainless Steel, Std Rise	6
3	HN100202	100" Bow, Stainless Steel, Std Rise	6
4	30660	Bow Extension Stainless Steel	6
5	10927	Bolt, 3/8" x 1" Gr 5, Stainless Steel, (3) Required per Bow	18
6	10930	Washer, Flat 3/8" Stainless Steel, (2) Required per Bow	12
7	10929	Washer, Lock 3/8" Stainless Steel, (2) Required per Bow	12
8	10928	Nut, 3/8" Stainless Steel, (2) Required per Bow	12
	50585	Bow Hardware Kit Stainless Steel (bolts, nuts & washers), (1) per Bow	6



REQUIRES: 1 bow, 1 bow extension,  
 2 - 3/8" x 1 bolts, 2 - 3/8" flat washers, 2  
 - 3/8" lock washers and 2 - 3/8" nuts

**END CAP (TOP MOUNT 7" RISE)**

Item	Top Mount Part #	Description	Qty
1	WK10020	100" End Cap, Stainless Steel, Std Rise	2



**END CAP HARDWARE**

Item	Part #	Description	Qty
2	60242	End Cap Seal, 60" Long (for 2 end caps)	1
3	30689	End Cap Bracket Kit 7" Rise Stainless Steel (for 2 end caps)	2

**CABLES**

Item	Part #	Description
1	10941	Cable 139" Stainless Steel (up to 102" wide box)

Qty  
2

**SPOOLS**

Item	Part #	Description
2	20547	Spool, Left Front 3" Nylon (up to 120" wide box) (Greased)
3	20548	Spool, Right Rear 3" Nylon (up to 120" wide box) (Greased)
	30655	Spool Grease (3/4 oz. tube, Teflon Grease)
4	30553	O-Ring Kit (includes 2 rubber rings)

Qty  
1  
1  
1  
1

**SPRINGS**

Item	Part #	Description
5	40983	Spring Front Powder Coated Black (for stainless steel kits)
6	40982	Spring Rear Powder Coated Red (for stainless steel kits)

Qty  
1  
1

**CARTRIDGES**

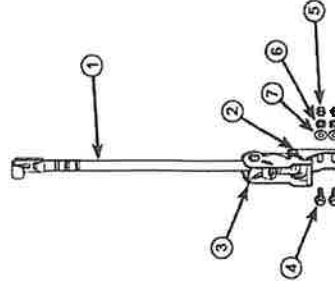
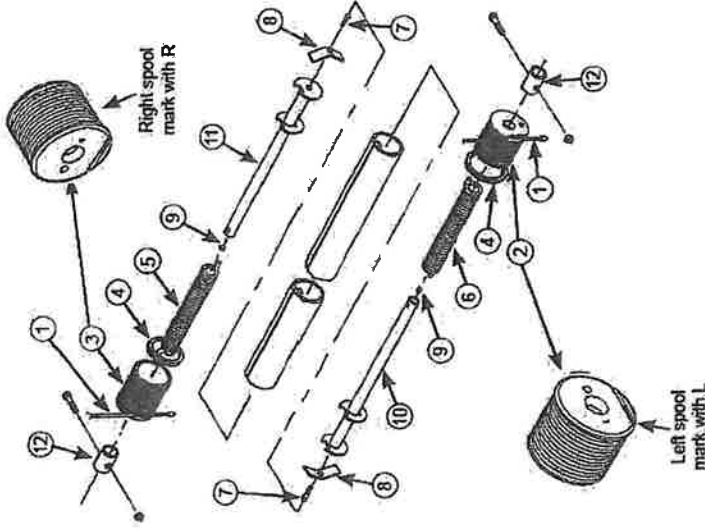
Item	Part #	Description
7	40961	Bolt, Carriage 5/16" x 1" Zinc Plated
8	10331	Carriage Clamp (for Galvanized & Stainless Steel Systems)
9	60067	Nut, Hex Nyloc 5/16" Zinc Plated
10	10607	Powder Coated Cartridge (front left)
11	10608	Powder Coated Cartridge (rear right)
12	50600	PVC Spacer, Bolt & Nut Kit (for stainless steel)

Qty  
2  
2  
2  
1  
1  
2

**CABLE RATCHET AND STRAP (1" WIDE)**

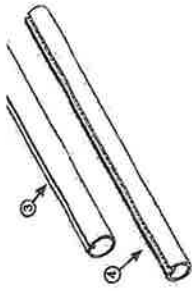
Item	Part #	Description
1	70989	Ratchet Strap Short w/ Stainless Steel Hook (1")
2	71004	Bracket Adjustable Stainless Steel
3	80033	Ratchet Only Stainless Steel
4	10927	Bolt, 3/8" x 1" Gr 5, Stainless Steel, 2 Required
5	10928	Nut, 3/8" Stainless Steel
6	10929	Washer, Lock 3/8" Stainless Steel
7	10930	Washer, Flat 3/8" Stainless Steel

Qty  
2  
2  
2  
4  
4  
4  
4



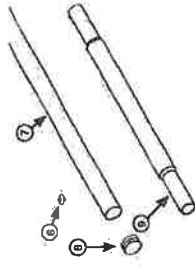
### 3" ROLL TUBE AND SPLICE (ALUMINUM)

Item	Part #	Description	Qty
3	10263	Roll Tube 3" Dia. Aluminum (price per lin. inch)	294"
4	50064	Splice Tube, 24" Long Aluminum (for 3" dia. roll tube)	0
	60786	Drive Rivet, 3/16" x 1/4" (black, attaches tarp to roll tube)	2
5	60640	Screw, Phillips Head Self Drilling, 1/4" x 3/4"	1



### 1" STATIONARY TUBE (STEEL)

Item	Part #	Description	Qty
6	60793	Drive Rivet, 3/16" x 1/8" (silver, attaches tarp to stationary tube)	2
7	20905	1" Dia. Stationary Tube Stainless Steel (price per lin. inch)	289"
8	50555	Tube End Plug 1" Dia. (2 pcs.) Stainless Steel	1
9	60976	1" Dia. Stationary Tube Splice	0



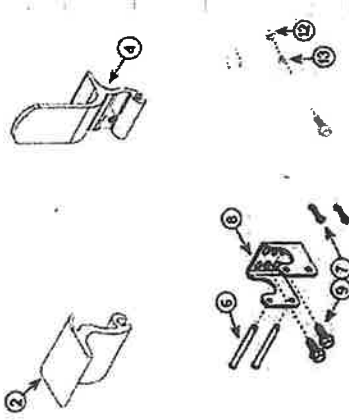
### RIDGE STRAP ASSEMBLY (1" WIDE)

Item	Part #	Description	Qty
	70557	Ridge Strap Kit, Stainless Steel up to 36' Long Box	1



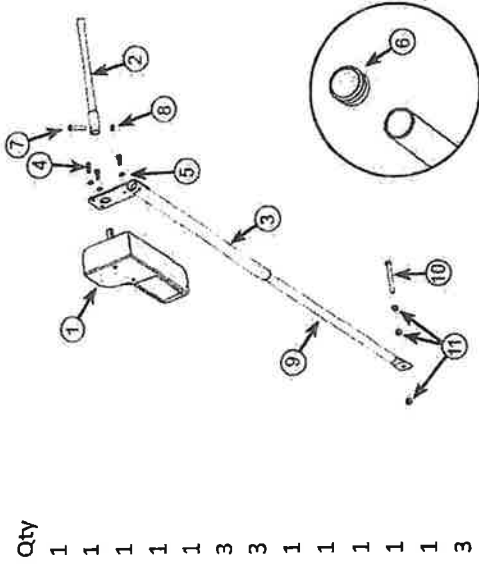
### TARP STOP (STAINLESS STEEL)

Item	Part #	Description	Qty
2	70334	Powder Coated Quick Release Tarp Stop No Leg Only (for stainless steel kits)	2
4	70332	Powder Coated Quick Release Tarp Stop (tall leg w/ set screw)	2
6	90241	Clevis Pin, Stainless Steel	8
7	90248	Bow Tie Pin, Stainless Steel	8
8	70282	Stainless Steel Base for Quick Release Tarp Stop	4
9	10927	Bolt, 3/8" x 1" Gr 5, Stainless Steel, 2 Required	12
12	10928	Nut, 3/8" Stainless Steel	12
13	10929	Washer, Lock 3/8" Stainless Steel	12
	10930	Washer, Flat 3/8" Stainless Steel	12



**ELECTRIC MOTOR, SRT-2 (STAINLESS STEEL)**

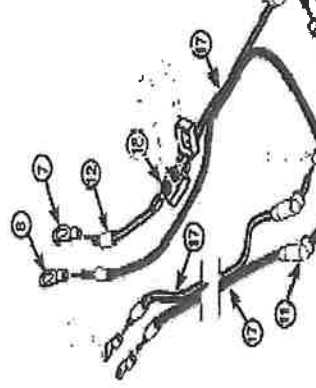
Item	Part #	Description
1	50676	Motor, 12V w/ Cover (SRT-2)
	4000540	Motor Switch Box Kit
	90161	Motor Cover (w/ hardware)
2	10333	Motor Extension Shaft, 14" Powder Coat (SRT-2)
3	10774	Pivot Arm Top, 30" w/ Motor Mount
4	40941	Bolt, 5/16" x 3/4" Stainless Steel (requires 3 for motor mount)
5	10922	Washer, Lock 5/16" Stainless Steel (requires 3 for motor mount)
6	10124	Plug, Nylon
7	10925	Bolt, 5/16" x 1-3/4" Hex, Stainless Steel
8	10924	Nut, 5/16" Hex Rev-Lock Stainless Steel
9	40989	Pivot Arm, Bottom Stainless Steel (60")
10	4000083	Bolt, 3/8" x 4" Hex, Stainless Steel
11	60451	Nut, 3/8" Hex Stainless Steel



Qty
1
1
1
1
1
3
3
1
1
1
1
1
3

**ELECTRIC WIRING**

Item	Part #	Description
7	30314	Eyelet Terminal Ring 6 Ga. 1/2" for Battery Post (+)
8	30313	Eyelet Terminal Ring 6 Ga. 3/8" for Battery Post (-)
11	70278	Terminal Boots, Lug Type 8 - 2 Ga.
12	30649	Heat Shrink Kit 10 Pcs.
17	20046	Wire, 6 Ga. 2 Strand (price per lin. ft.)
18	30647	Eyelet Terminal Ring 6 Ga. #10 (for automatic breaker)



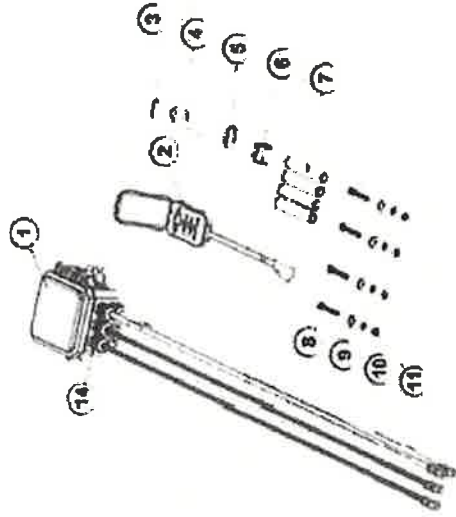
Qty
1
1
2
10
30
2

**AGRI-COVER SWITCH AND REMOTE CONTROL**

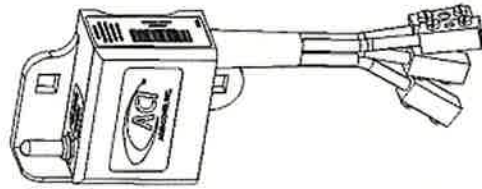
Item	Part #	Description
1	4000703	AGRI-COVER Switch and Remote Control Kit
2	4000702	Wireless Switch Control Receiver
3	4000711	AGRI-COVER Remote Control
4	4000715	A23 Battery, 12V
5	70929	Dielectric Grease Packet
6	4000542	Butt Connector
7	80285	Circuit Breaker, Automatic 12V 50 Amp
8	4000535	Adhesive Lined Heat Shrink
9	4000543	Bolt, Hex, 1/4-20 X 1 3/4, SST 18-8, Full Thread
10	60987	Washer, Flat 1/4", Stainless Steel
11	50615	Washer, Lock 1/4", Stainless Steel
14	80909	Nut, Hex 1/4-20", Stainless Steel
	4000532	Strain Relief

**QUANTITY**

- 1
- 1
- 1
- 1
- 1
- 4
- 1
- 4
- 4
- 4
- 4
- 4
- 4
- 4



**2018 AND NEWER SWITCH KIT  
PART NUMBER 4003597**









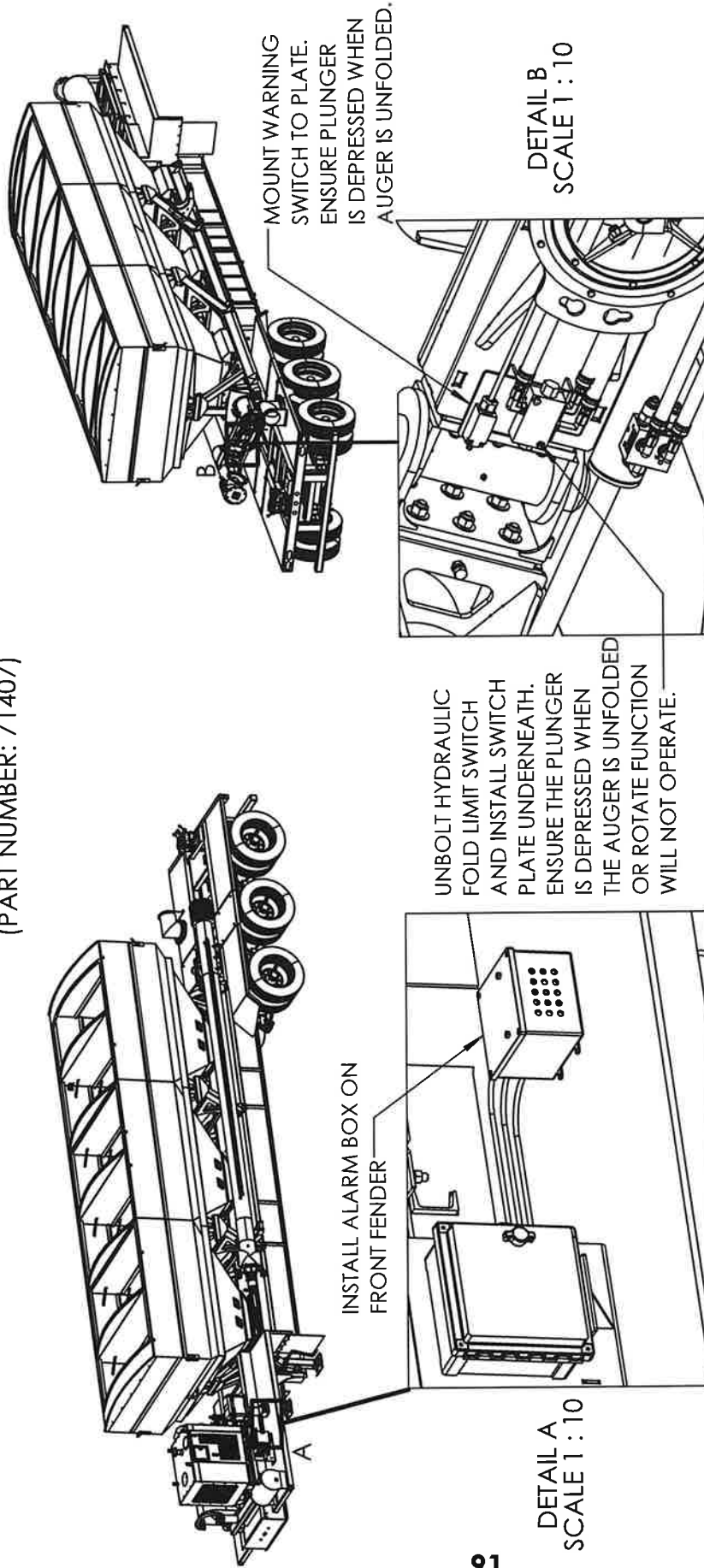
# VPA1000 AUGER WARNING SYSTEM

(PART NUMBER: 71407)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70875	ALARM BOX	1
2	70878	CORDGRIP	3
3	70877	FEMALE BULKHEAD CONNECTOR WITH NUT	1
4	70876	STOP LIGHT SWITCH	1
5	70879	1/4" X 1" SELF TAPPING SCREW, SS, DRILL TIP	4
6	70880	UNION TEE, 3/8	1
7	71408	LIMIT SWITCH	1
8	70656	RING TERMINAL, HEAT SHRINK, 16-14 GA AND #10 SCREW SIZE	2
9	70882	IN LINE FUSE HOLDER	1
10	70883	RING TERMINAL, HEAT SHRINK, 16-14 GA AND 3/8" SCREW SIZE	2
11	70884	AIR BRAKE TUBING	1
12	70886	SPLICE CONNECTOR, 16-14 GA, HEAT SHRINK	3
13	70887	ALARM	1
14	70875-2	ALARM BOX COVER (INCLUDED W/ ALARM BOX)	1
15	18055718	BOLT HX 1/4 X 3/4	2
16	18881001	WASHER FLAT 1/4 SS	2
17	18569200	NUT 1/4 NYLOCK SS	2
18	70888	FUSE, 7.5A	1
19	70885	PORTABLE CORD	1
20	70658	ADHESIVE BACKED CABLE TIE HOLDER, OUTDOOR USE	12
21	71043	NUT, NYLOCK, 10-24, SS	2
22	71044	SCREW, PAN HEAD, 10-24 X 1-3/4", SS	2
23	70659	CABLE TIE, 7-1/2 LONG, OUTDOOR, BLACK	12
24	71406	LIMIT SWITCH MOUNT PLATE	1

# VPA1000 AUGER WARNING SYSTEM

(PART NUMBER: 71407)



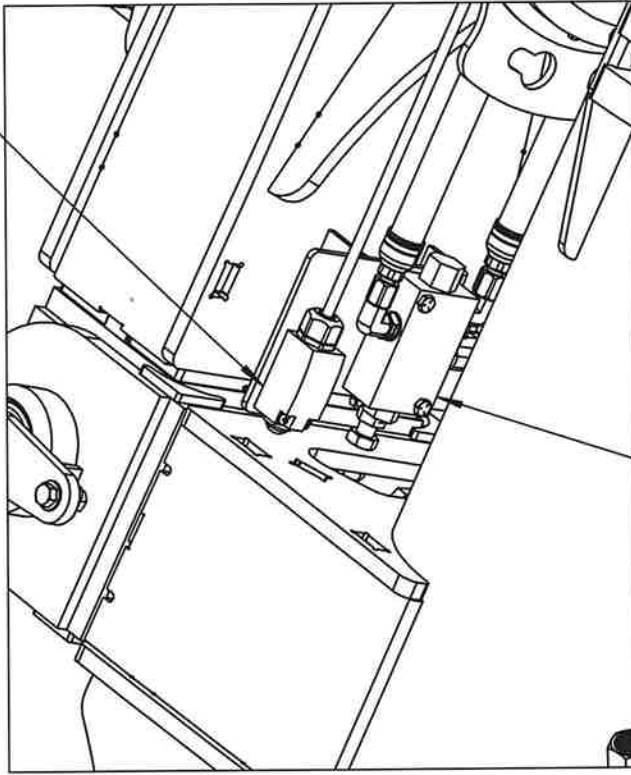
## VPA INSTALLATION INSTRUCTIONS:

1. SECURE ALARM BOX USING SELF TAPPING SCREWS OR BOLTS TO THE TRAILER IN APPROX AREA SHOWN ON FRONT DRIVERS SIDE FENDER.
2. CONNECT BATTERY LEADS - BLACK WIRE TO POSITIVE (+) AND WHITE WIRE TO NEGATIVE (-). SECURE WIRE AS NEEDED AND REMOVE SLACK.
3. ROUTE AIR LINE INTO THE TRAILER FRAME RAIL AND SPLICE INTO THE RED AIR LINE OF THE TRAILER. SHORTEN AND SECURE AS NEEDED.
4. ROUTE LIMIT SWITCH ALONG TRAILER AND INSTALL AS SHOWN. SECURE WIRE AND REMOVE SLACK AS NEEDED.
5. START ENGINE AND FOLD OUT AUGER, THE ALARM SHOULD SOUND WHEN THE AIR BRAKES ARE RELEASED.
6. FOLD AUGER BACK INTO CRADLE ON EITHER SIDE OF THE TENDER, THE ALARM SHOULD NOT SOUND WHEN THE AIR BRAKES ARE RELEASED.

# VPA1000 AUGER WARNING SYSTEM

(PART NUMBER: 71407)

AUGER WARNING SWITCH BUTTON  
DEPRESSED WHEN AUGER IS  
UNFOLDED IN DISCHARGE POSITION.

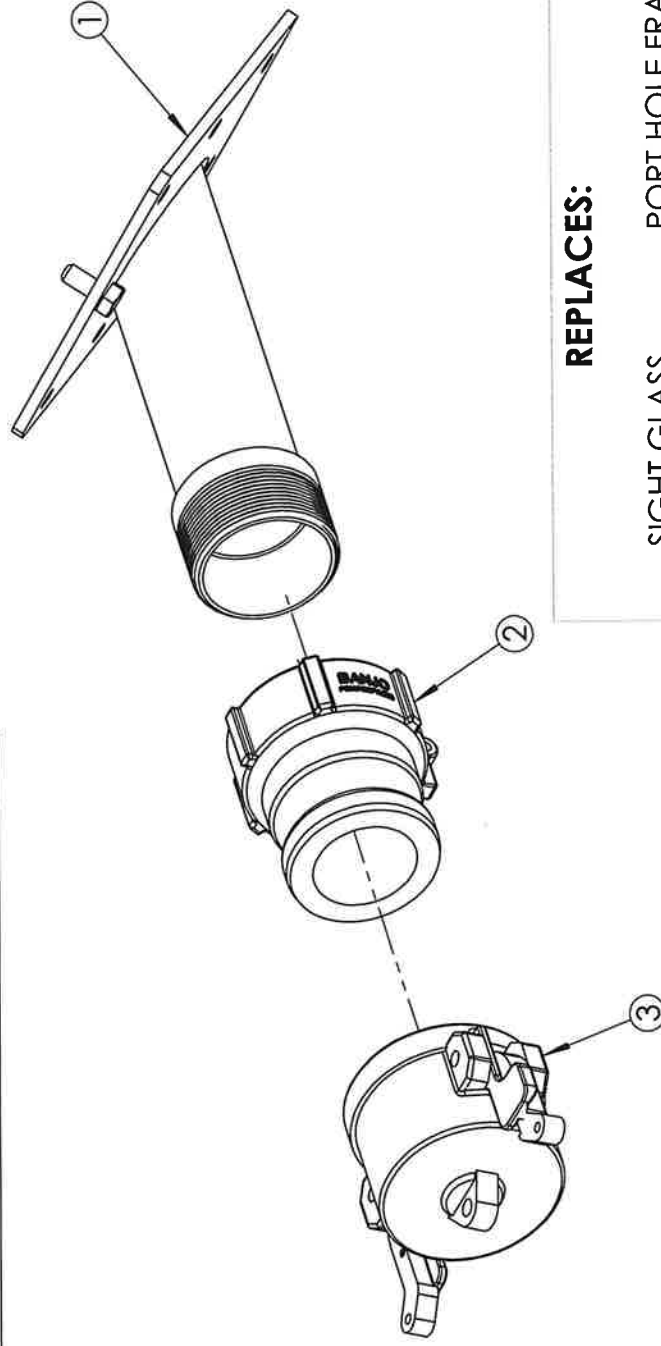


AUGER FOLD LIMIT SWITCH BUTTON  
DEPRESSED WHEN AUGER IS  
UNFOLDED IN DISCHARGE POSITION.

GUSSET HIDDEN

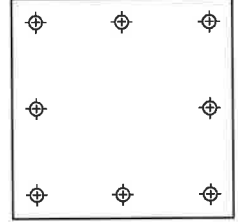
# OPTIONAL BOLT ON POKE HOLE & FLUSH TUBE P/N: 71850

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

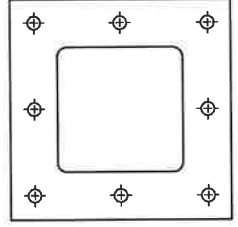


**REPLACES:**

SIGHT GLASS  
P/N: 76608



PORT HOLE FRAME  
P/N: 76609



**ORDER 1 PER WINDOW TO BE REPLACED**

SECURE USING THE HARDWARE REMOVED FROM WINDOWS

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

