

# Operator's Manual



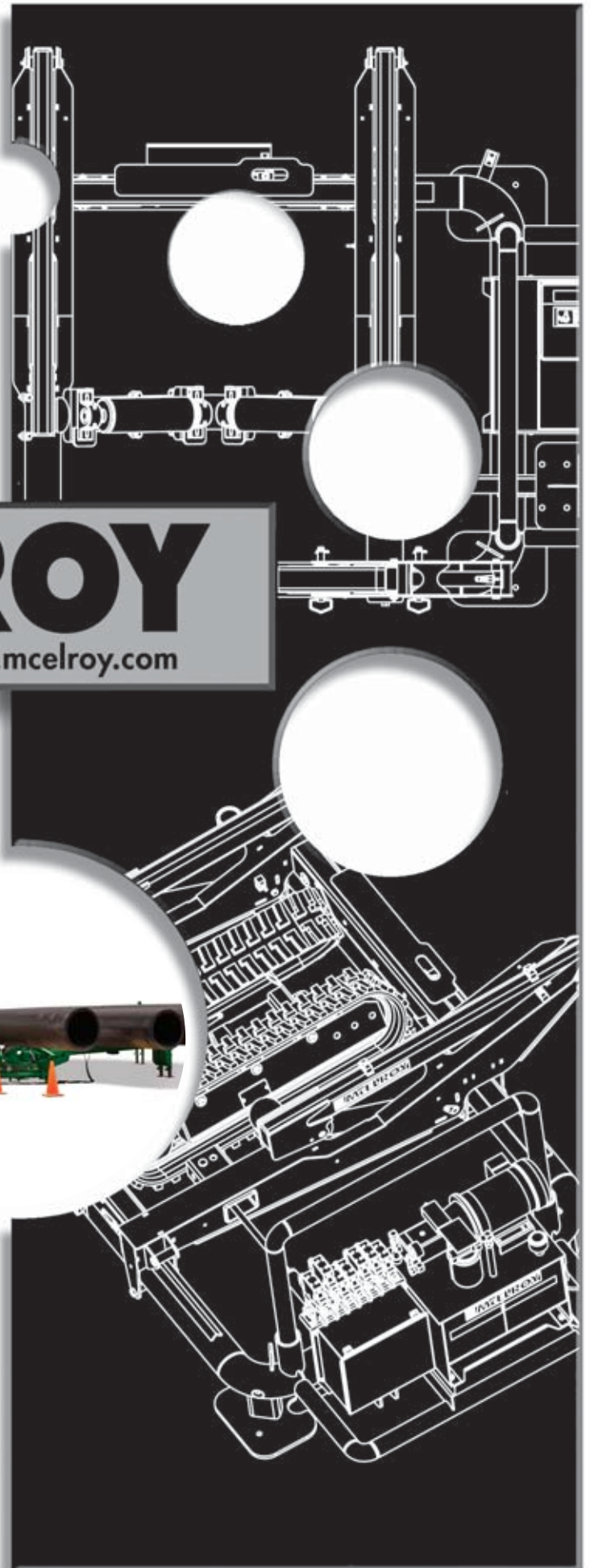
# McELROY

[www.mcelroy.com](http://www.mcelroy.com)



## MegaMc<sup>®</sup> PolyHorse<sup>®</sup>

Manual: 4839401 Revision: Rev D 3/19  
Original Language: English





**WARNING**

Cancer and Reproductive Harm -  
[www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

8165361

This product and other products  
could be protected by patents or  
have patents pending. All the latest  
patent information is available at  
[patent.mcelroy.com](http://patent.mcelroy.com)

# Introduction

## Thank you for purchasing this McElroy product.

The MegaMc® PolyHorse® is a pipe-handling system designed to boost productivity on 20" to 48" IPS (500mm to 1,200mm) polyethylene pipe jobsites. The polyhorse has a weight capacity of 10,500 lbs. per stick and 70,000 lbs. total for the racks.

The productivity tool consists of a series of pipe racks and powered pipe stands that hold enough pipe for a day's worth of fusion work. With the pipe stored in a single location and ready for use, the MegaMc PolyHorse allows heavy machinery to work in other places on the jobsite. A single operator can dispense pipe onto the stands, maneuver the pipe into alignment, and insert pipe into the fusion machine with the use of a remote control.

With reasonable care and maintenance, this machine will give years of satisfactory service.

Before operating this machine, please read this manual thoroughly, and keep a copy with the machine for future reference. This manual is to be considered part of your machine.



TX04334-2-18-14

## McElroy University

For more than 30 years, McElroy has been the only pipe fusion machine manufacturer to continuously offer advanced training. Course offerings are meant to enhance your efficiency, productivity and safety in the proper use of McElroy machines. McElroy University classes are structured so that the skills learned and the machines used in each class closely match the machines found on pipelining jobsites. We offer training at our facility or yours. Our uniquely qualified McElroy University course instructors offer years of industry experience.

Tuition for each course includes lunches, course materials and a certificate of completion. Online registration, as well as up-to-date course offerings and dates, is available at [www.mcelroy.com/university](http://www.mcelroy.com/university)

This manual is intended as a guide only and does not take the place of proper training by qualified instructors. The information in this manual is not all inclusive and can not encompass all possible situations that can be encountered during various operations.



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# Warranty

## LIMITED WARRANTY

McElroy Manufacturing, Inc. (McElroy) warrants all products manufactured, sold and repaired by it to be free from defects in materials and workmanship, its obligation under this warranty being limited to repairing or replacing at its factory and new products, within **5 years** after shipment, with the exception of purchased items (such as electronic devices, pumps, switches, etc.), in which case that manufacturer's warranty applies. Warranty applies when returned freight is prepaid and which, upon examination, shall disclose to have been defective. This warranty does not apply to any product or component which has been repaired or altered by anyone other than McElroy or has become damaged due to misuse, negligence or casualty, or has not been operated or maintained according to McElroy's printed instructions and warnings. This warranty is expressly in lieu of all other warranties expressed or implied. The remedies of the Buyer are the exclusive and sole remedies available and Buyer shall not be entitled to receive any incidental or consequential damages. Buyer waives the benefit of any rule that disclaimer of warranty shall be construed against McElroy and agrees that such disclaimers herein shall be construed liberally in favor of McElroy.

## RETURN OF GOODS

Buyer agrees not to return goods for any reason except upon the written consent of McElroy obtained in advance of such return, which consent, if given, shall specify the terms and conditions and charges upon which any such return may be made. Materials returned to McElroy, for warranty work, repair, etc., **must have a Return Material Authorization (RMA) number**, and be so noted on the package at time of shipment. For assistance, inquiry shall be directed to:

McElroy Manufacturing, Inc.  
P.O. Box 580550  
833 North Fulton Street Tulsa, Oklahoma 74158-0550  
PHONE: (918) 836-8611, FAX: (918) 831-9285.  
EMAIL: [fusion@McElroy.com](mailto:fusion@McElroy.com)

**Note:** Certain repairs, warranty work, and inquiries may be directed, at McElroy's discretion, to an authorized service center or distributor.

## DISCLAIMER OF LIABILITY

McElroy accepts no responsibility of liability for fusion joints. Operation and maintenance of the product is the responsibility of others. We recommend qualified joining procedures be followed when using McElroy fusion equipment.

McElroy makes no other warranty of any kind whatever, express or implied; and all implied warranties of merchantability and fitness for a particular purpose which exceed the aforesaid obligation are hereby disclaimed by McElroy.

## PRODUCT IMPROVEMENT

McElroy reserves the right to make any changes in or improvements on its products without incurring any liability or obligation to update or change previously sold machines and/or the accessories thereto.

## INFORMATION DISCLOSED

No information of knowledge heretofore or hereafter disclosed to McElroy in the performance of or in connection with the terms hereof, shall be deemed to be confidential or proprietary, unless otherwise expressly agreed to in writing by McElroy and any such information or knowledge shall be free from restrictions, other than a claim for patent infringement, is part of the consideration hereof.

## PROPRIETARY RIGHTS

All proprietary rights pertaining to the equipment or the components of the equipment to be delivered by McElroy hereunder, and all patent rights therein, arising prior to, or in the course of, or as a result of the design or fabrication of the said product, are exclusively the property of McElroy.

## LAW APPLICABLE

All sales shall be governed by the Uniform Commercial Code of Oklahoma, U.S.A.

**Register your product online to activate your warranty:**  
**[www.McElroy.com/fusion](http://www.McElroy.com/fusion)**

(Copy information listed on the machine nameplate here for your records).

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date Received \_\_\_\_\_

Distributor \_\_\_\_\_





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Tulsa, Oklahoma, USA

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# Equipment Safety

## Safety Alerts



This hazard alert sign appears in this manual. When you see this sign, carefully read what it says. YOUR SAFETY IS AT STAKE.

You will see the hazard alert sign with these words: DANGER, WARNING, and CAUTION.



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

In this manual you should look for two other words: **NOTICE** and **IMPORTANT**.

**NOTICE:** can keep you from doing something that might damage the machine or someone's property. It may also be used to alert against unsafe practices.

**IMPORTANT:** can help you do a better job or make your job easier in some way.



WR00051:11:30-92

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## Read and Understand

Do not operate this equipment until you have carefully read, and understand all the sections of this manual, and all other equipment manuals that will be used with it.

Your safety and the safety of others depends upon care and judgment in the operation of this equipment.

Follow all applicable federal, state, local, and industry specific regulations.

McElroy Manufacturing, Inc. cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the machine are therefore not all inclusive. You must satisfy yourself that a procedure, tool, work method, or operating technique is safe for you and others. You should also ensure that the machine will not be damaged or made unsafe by the method of operation or maintenance you choose.



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# Equipment Safety

## General Safety

Safety is important. Report anything unusual that you notice during set up or operation.

**LISTEN** for thumps, bumps, rattles, squeals, air leaks, or unusual sounds.

**SMELL** odors like burning insulation, hot metal, burning rubber, hot oil, or natural gas.

**FEEL** any changes in the way the equipment operates.

**SEE** problems with wiring and cables, hydraulic connections, or other equipment.

**REPORT** anything you see, feel, smell, or hear that is different from what you expect, or that you think may be unsafe.

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## Wear Safety Equipment

Wear a hard hat, safety shoes, safety glasses, and other applicable personal protective equipment.

Remove jewelry and rings, and do not wear loose fitting clothing or long hair that could catch on controls or moving machinery.

Do not wear gloves when operating rotating equipment.



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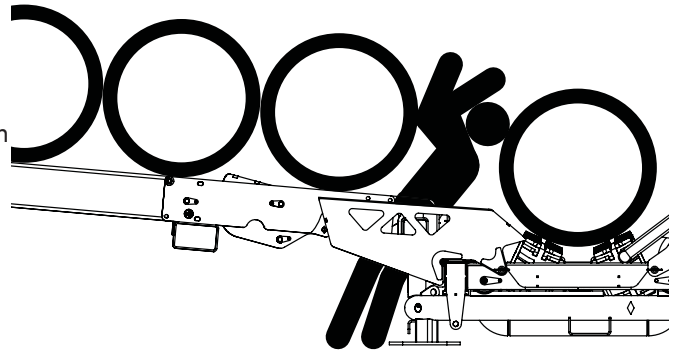
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# Equipment Safety

## Hazard Zone

**⚠ DANGER**

This machine is designed to move large pieces of heavy pipe. When the pipe is moving, it will crush causing seriously injuring or death. Do not enter in the hazard zone while pipe is on the rack or when handling pipe. Use the hazard cones to block off the hazard zone of the MegaMc PolyHorse.

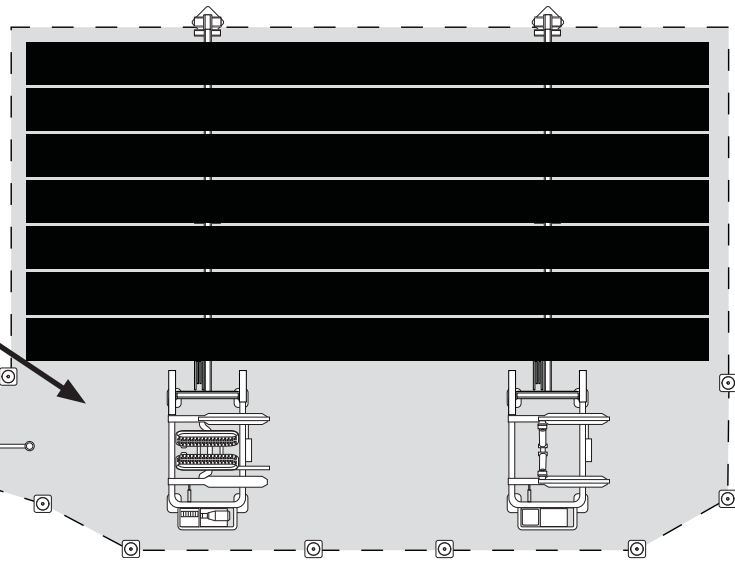


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### SETUP A

**HAZARD ZONE**

**OPERATOR**

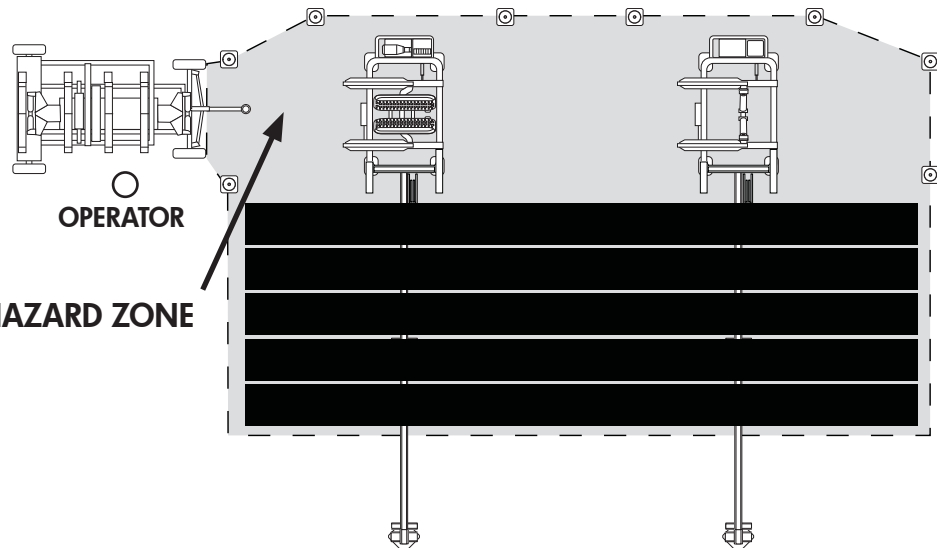


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### SETUP B

**HAZARD ZONE**

**OPERATOR**



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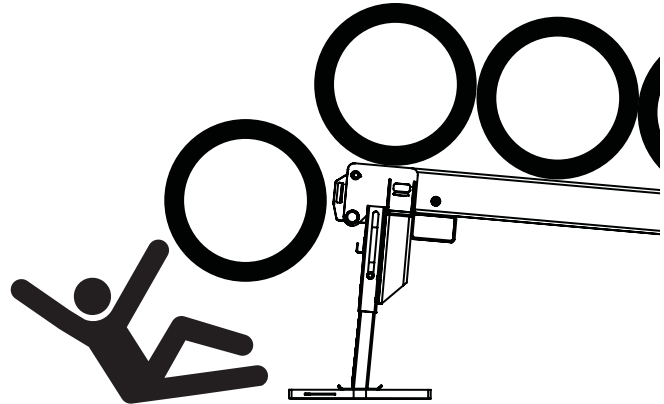


# Equipment Safety

## Use Stanchions

### DANGER

Use stanchions at all times. Do not stack pipe. Failure to do so will result in death or serious injury from falling pipe.



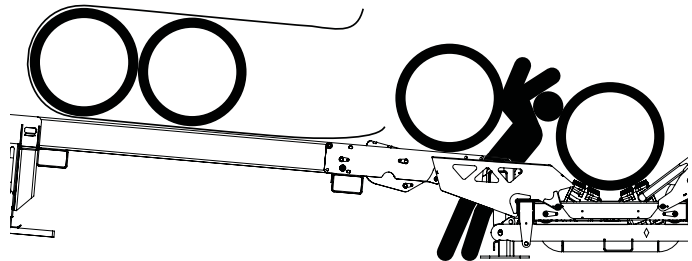
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## Cutting Pipe Bands

### DANGER

Do not stand in the hazard zone while cutting pipe bands. Do not stand between pipe when cutting pipe bands. Cut bands from the stanchion side of the racks. Cutting pipe bands could cause the pipe to move uncontrolled. Uncontrolled pipe will cause serious injury or death.



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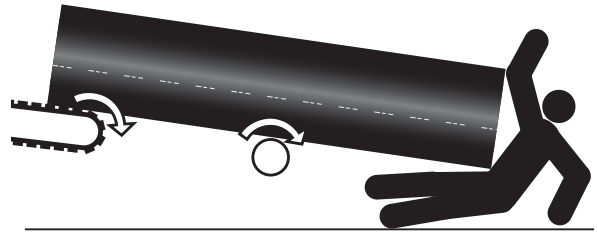
# Equipment Safety

## Axial Pipe Movement

**⚠ WARNING** Keep pipe level, unlevel pipe could move uncontrolled on the rollers, tracks, or racks in either direction and cause serious injury or death.

In order to minimize the potential for the pipe to travel uncontrolled, keep the pipe level when it is placed on the rollers and on the tracks of the PolyHorse. Adjust the height of the roller and tracked units to maintain the pipe level.

**NOTICE:** Do not leave PolyHorse unattended while HPU is running. When not operating the PolyHorse, turn off the HPU to prevent accidental or unintentional powered movement.



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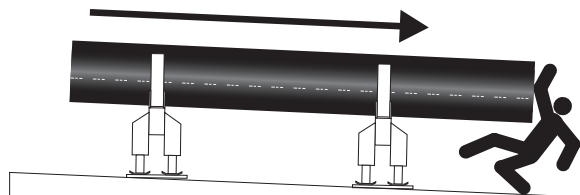
## Level and Stable Ground

**⚠ WARNING** Place the PolyHorse on as level and stable ground as possible. Operating on unlevel ground could cause the pipe to move uncontrolled causing serious injury or death.

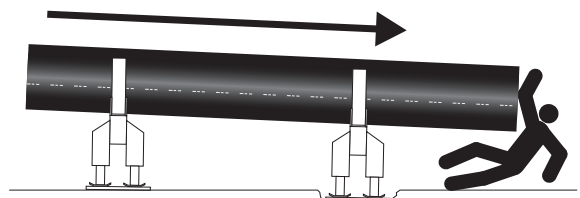
The racks of the PolyHorse will need to be adjusted while empty to make the pipe level across the racks to prevent pipe from sliding off of the racks.

If it is necessary to operate machine on unlevel grade, make sure that the ground is stable. Some unstable conditions include ice, snow, mud and loose gravel. Block up the roller or tracked units to make them level. Adjust the racks height to make them level to each other.

**NOTICE:** Do not use the MegaMc PolyHorse in icy conditions. Ice on the racks can cause the pipe to slide uncontrolled on the racks.



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# Equipment Safety

## Lifting Safety

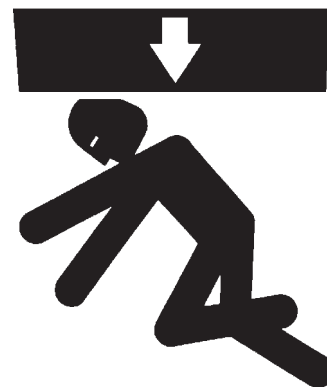
Follow all applicable federal, state, local, and industry specific regulations when lifting.

### **⚠️WARNING**

#### **Safety warnings:**

1. Read and understand this operator's manual before using the lifting device.
2. Do not exceed rated load or lift loads other than the McElroy MegaMc PolyHorse with the lifting device.
3. Do not operate a damaged or malfunctioning lifting device or one missing parts.
4. Do not lift persons.
5. Do not lift a suspended load over persons.
6. Do not leave a suspended load unattended.
7. Stay clear of the suspended load.
8. Lift loads only as high as necessary.
9. Do not alter or modify the lifting device.
10. Employ generally accepted safe lifting practices.
11. Do not shock or impact load the lifting device.
12. Components are heavy, use proper lifting equipment on all components.
13. Do not remove or obscure warning labels.

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## Electrical Safety

### **⚠️WARNING**

Always ensure equipment is properly grounded. It is important to remember that you are working in a wet environment with electrical devices. Proper ground connections help to minimize the chances of an electric shock.

Frequently inspect electrical cords and unit for damage. Have damaged components replaced and service performed by a qualified electrician.

**NOTICE:** Always connect units to the proper power source as listed on the unit, or in the owner's manual.

**NOTICE:** Disconnect the machine from the power source before attempting any maintenance or adjustment.

### **⚠️WARNING**

Disconnect the machine from the power source before attempting to service the control panel. Failure to disconnect the power could result in serious injury or death due to electric shock. Refer service to a qualified technician.



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# Equipment Safety

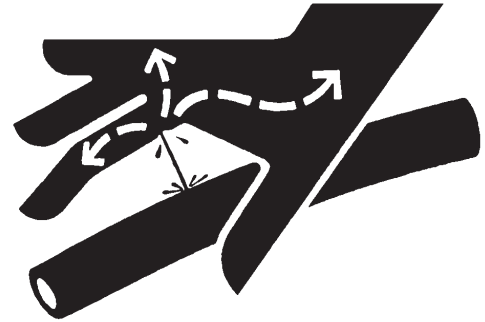
## Units With Hydraulics

For hydraulically operated equipment, it is important to remember that a sudden hydraulic oil leak can cause serious injury, or even be fatal if the pressure is high enough.

**WARNING** Escaping fluid under pressure can penetrate the skin causing serious injury. Keep hands and body away from pinholes which eject fluid under pressure. Use a piece of cardboard or paper to search for leaks. If any fluid is injected into the skin, it must be immediately removed by a doctor familiar with this type of injury.

**NOTICE:** Wear safety glasses, and keep face clear of area when bleeding air from hydraulic system to avoid spraying oil into eyes.

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## Crush Points

**WARNING** Hydraulically operated equipment is operated under pressure. Anything caught in the machine will be crushed. Keep fingers, feet, arms, legs, and head out of the machine during operation. Lower the booms, remove pipe, and turn off HPU before performing any maintenance or inspection.

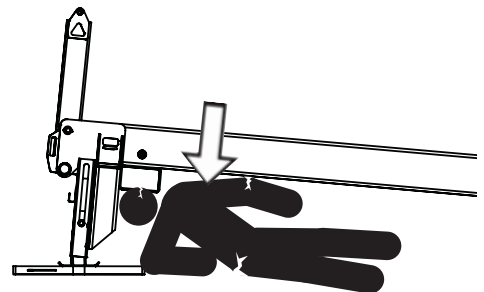
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## Rack Jacks

**WARNING** Never attempt to move pull pin when the jack is supporting weight. Lift the jack feet off the outrigger pad before pulling the drop leg pin. Failure to do so could cause the racks to fall with the load on them causing serious injury or death.



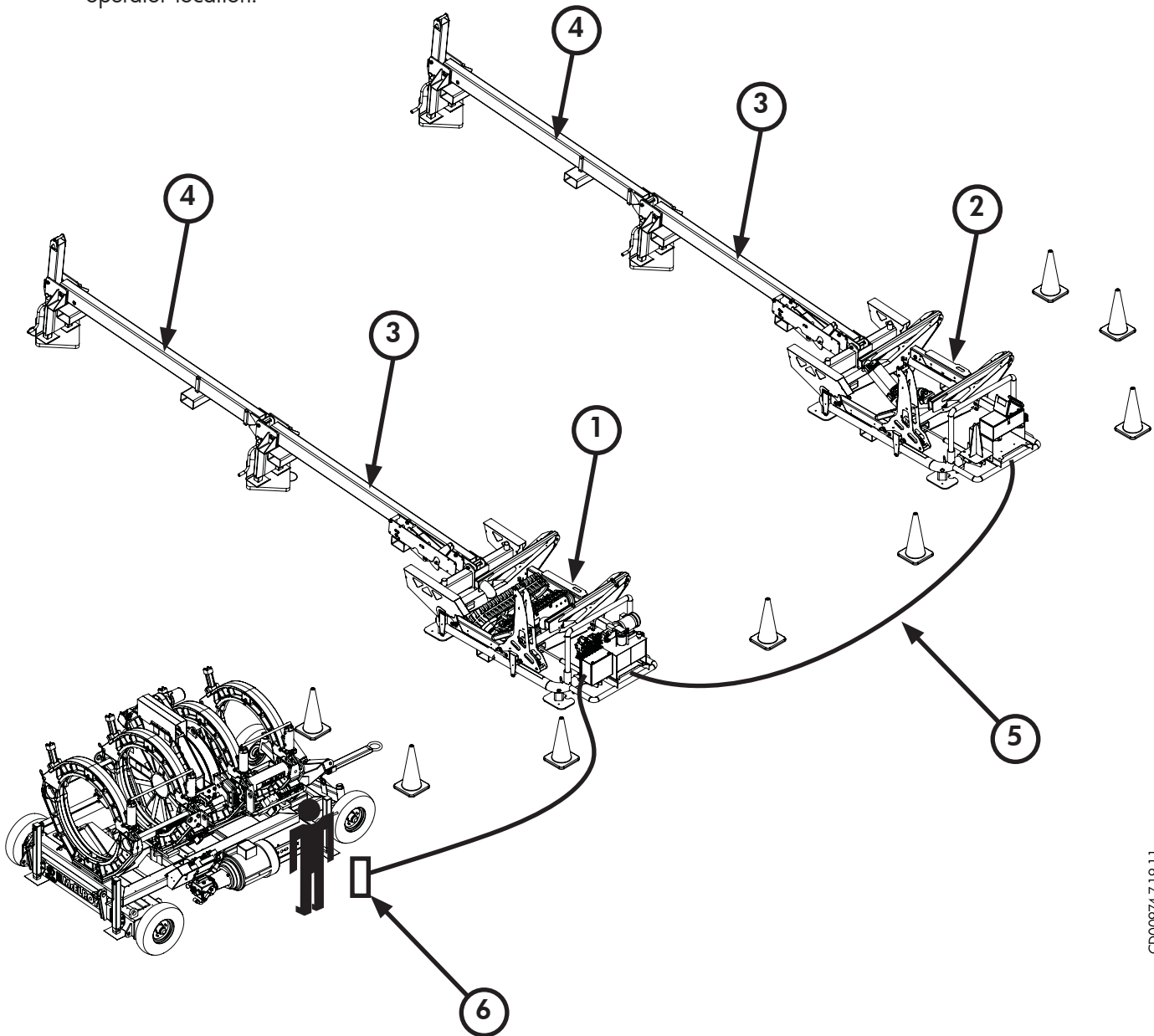
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# Overview

## MegaMc PolyHorse

1. **Tracked Pipe Stand** – supports the pipe and has tracks to move the pipe toward the fusion machine.
2. **Roller Pipe Stand** – supports the pipe and has rollers to allow the pipe to move toward the fusion machine.
3. **Front Rack** – two front racks that support and store the pipe until it is dispensed into the pipe stands.
4. **Rear Rack** – two rear racks that support and store the pipe until it moves into the front rack.
5. **Extension Hoses** – hydraulic hoses that connect the tracked and roller pipe stands.
6. **Control Pendant** - controls all the functions of the MegaMc PolyHorse and has extension cable to reach the operator location.



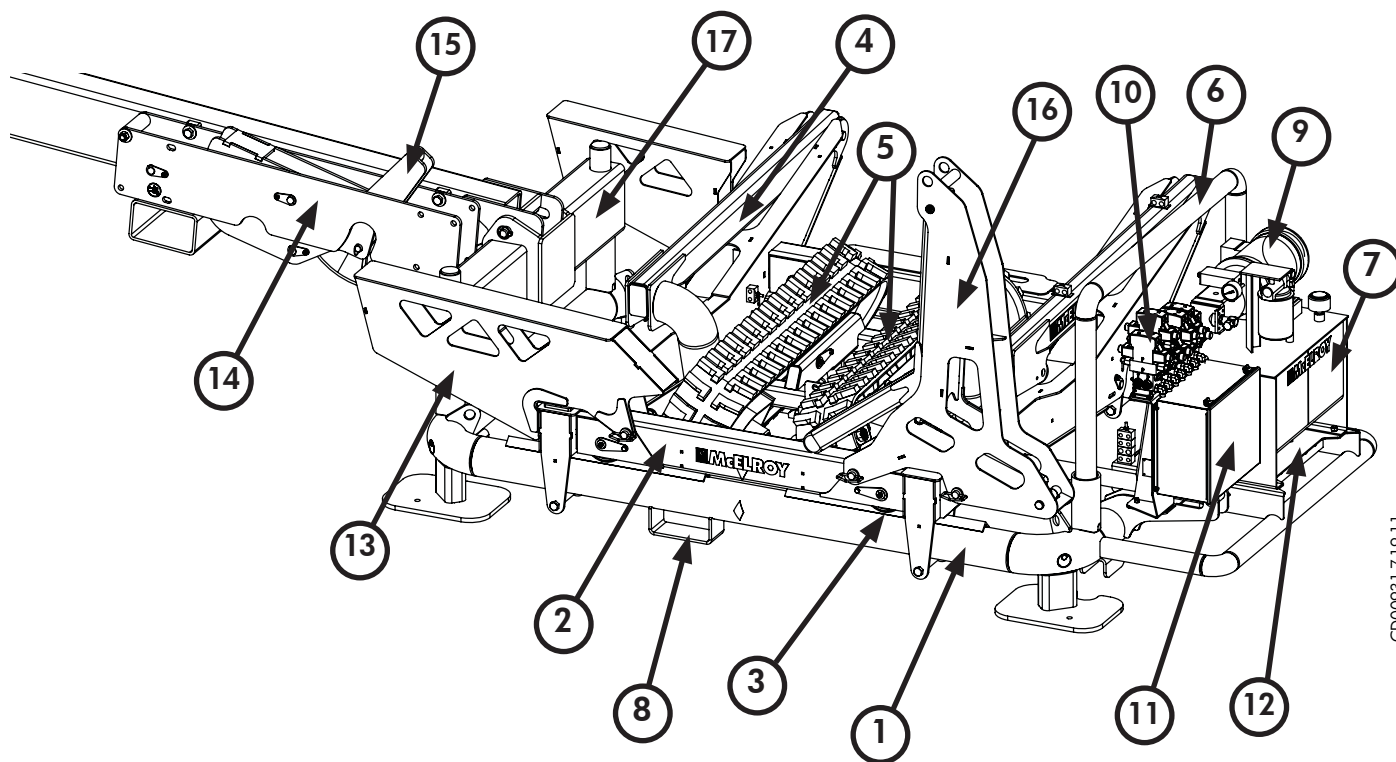


# Overview

## MegaMc PolyHorse Tracked Pipe Stand

### Parts of the Tracked Pipe Stand

1. **Base Frame** – supports the machine and rests on the ground.
2. **Trolley** – moves transversely and supports the boom.
3. **Wheels** – support trolley and allows transverse movement.
4. **Boom** – moves vertically and supports the tracks.
5. **Tracks** – support pipe and allow powered axial movement.
6. **Guard Rail** - guards the HPU and is used for stacking pipe stands.
7. **Hydraulic Reservoir** - stores the hydraulic fluid for the system.
8. **Fork Pocket** - used when lifting the pipe stand with forked lifting equipment.
9. **Hydraulic Power Unit (HPU)** - supplies hydraulic power to the pipe stands and dispensers.
10. **Hydraulic Manifold** - motion control valves that control the hydraulic functions.
11. **Electrical Box** - contains electrical components and has the reverse switch, hour meter, and pendant connection.
12. **Electrical Cord Storage** - stores electrical cord for the HPU under the hydraulic reservoir.
13. **Pipe Ramps** - two ramps on each side of the stands to transition pipe from rack to stand.
14. **Dispenser** - dispenses pipe into the pipe stand.
15. **Dispenser Arm** - releases a single stick of pipe into the pipe stand.
16. **Lowering Arm Assembly** - Lowers the pipe from the rack into the pipe stand.
17. **Rack Attachment** - Connects the rack to the pipe stand.



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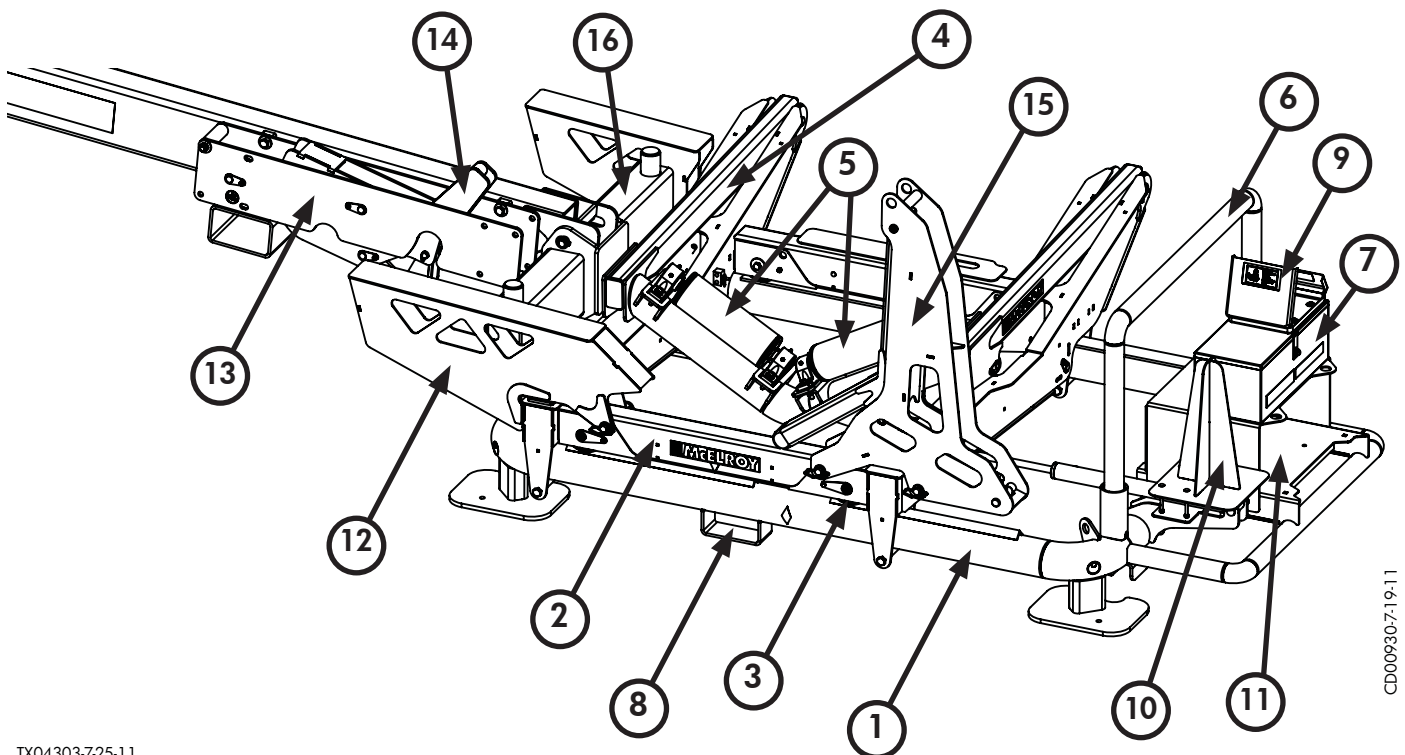


# Overview

# MegaMc PolyHorse Roller Pipe Stand

## Parts of the Roller Pipe Stand

1. **Base Frame** – supports the machine and rests on the ground.
2. **Trolley** – moves transversely and supports the boom.
3. **Wheels** – support trolley and allows transverse movement.
4. **Boom** – moves vertically and supports the rollers.
5. **Rollers** – support pipe and allow axial movement.
6. **Guard Rail** - guards toolbox and cones storage and is used for stacking pipe stands.
7. **Tool Box** - used to store the operator pendant and lifting sling.
8. **Fork Pocket** - used when lifting the pipe stand with forked lifting equipment.
9. **Literature Compartment** - stores manuals.
10. **Hazard Cone Storage** - stores hazard cones when not in use.
11. **Outrigger Pad Storage** - stores outrigger pads and hydraulic hoses.
12. **Pipe Ramps** - two ramps on each side of the stands to transition pipe from rack to stand.
13. **Dispenser** - dispenses pipe into the pipe stand.
14. **Dispenser Arm** - releases a single stick of pipe into the pipe stand.
15. **Lowering Arm Assembly** - Lowers the pipe from the rack into the pipe stand.
16. **Rack Attachment** - Connects the rack to the pipe stand.



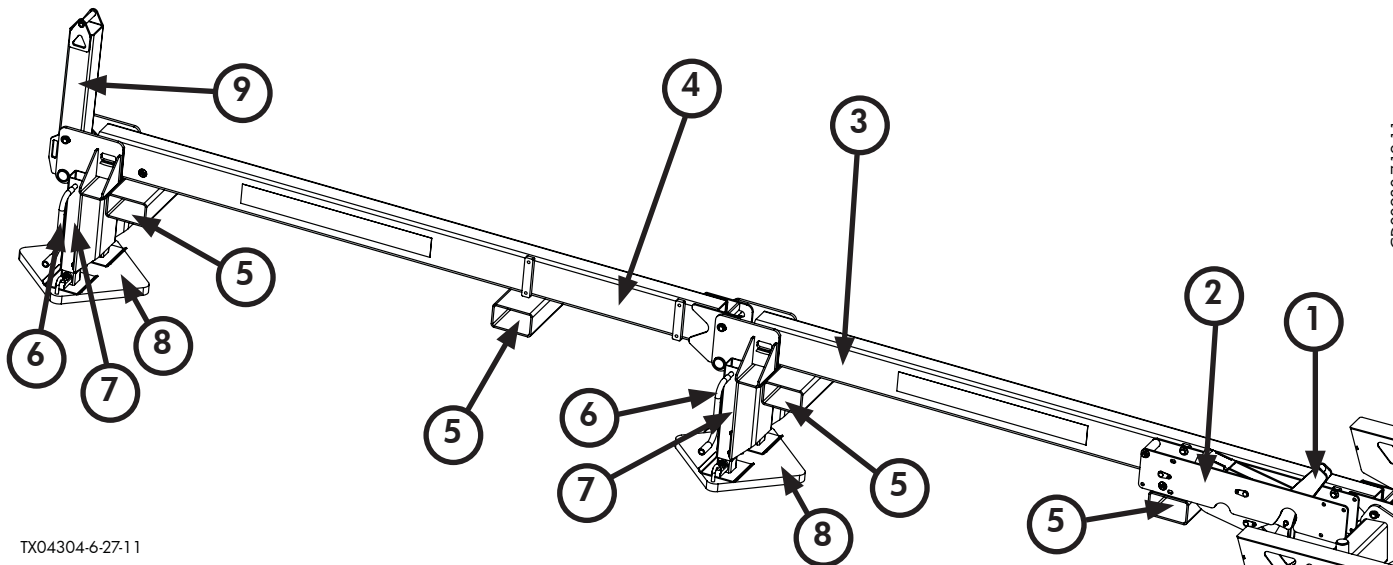
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# Overview

## MegaMc PolyHorse Pipe Rack

### Parts of the Pipe Rack

1. **Dispenser Arm** – releases a single stick of pipe into the pipe stand.
2. **Dispenser** – dispenses pipe into the pipe stand.
3. **Front Pipe Racks** – stores and supports the pipe to be dispensed into the pipe stands and includes the dispenser.
4. **Rear Pipe Racks** - stores and supports the pipe to be dispensed into the pipe stands.
5. **Fork Pocket** – used when lifting the pipe rack with forked lifting equipment.
6. **Jack Handle** – used to make fine adjustments to the jack legs height.
7. **Rack Jack** – has two jack legs on each that can be used to set the height of the pipe racks.
8. **Outrigger Pad** – gives the jack legs a firm platform to rest on by spreading the load.
9. **Stanchion** – contains the pipe on the racks and prevents pipe from falling from the back of the racks.



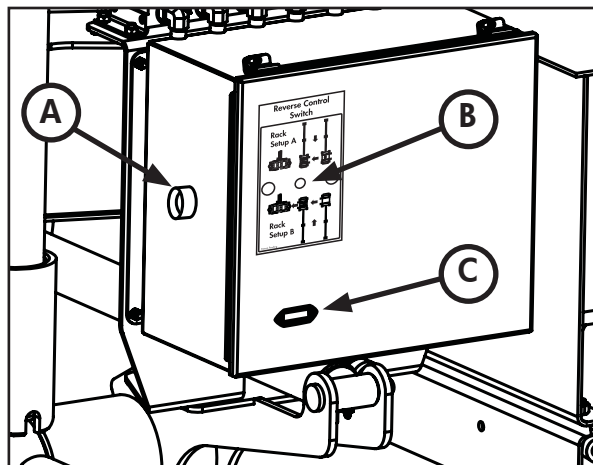
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## Electrical Box

- (A) Receptacle for operator pendant.
- (B) Reverse control switch for changing the controls from rack setup A to setup B.
- (C) Hour meter records hours of operation.

The reverse phase relay is contained inside the electrical box and prevents reverse rotation and damage to the pump.



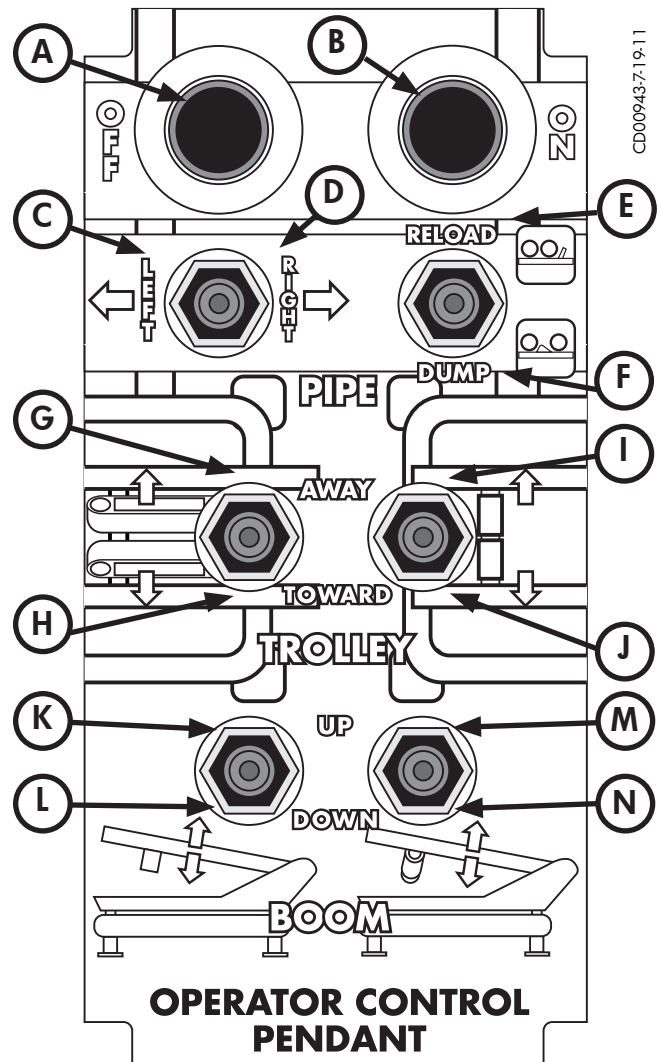
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# Overview

## Pendant Controls

- (A) **OFF** - Turns the HPU off.
- (B) **ON** - Turns the HPU on.
- (C) **PIPE LEFT\*** - Moves the pipe toward the fusion machine.
- (D) **PIPE RIGHT\*** - Moves the pipe away from the fusion machine.
- (E) **PIPE RELOAD** - Places a stick of pipe into the dispenser.
- (F) **PIPE DUMP** - Dispenses a stick of pipe into the pipe stand.
- (G) **TRACKED TROLLEY AWAY\*** - Moves the tracked trolley away from the operator.
- (H) **TRACKED TROLLEY TOWARD\*** - Moves the tracked trolley toward the operator.
- (I) **ROLLER TROLLEY AWAY\*** - Moves the roller trolley away from the operator.
- (J) **ROLLER TROLLEY TOWARD\*** - Moves the roller trolley toward the operator.
- (K) **TRACKED BOOM UP** - Moves the tracked boom up, lifting the pipe.
- (L) **TRACKED BOOM DOWN** - Moves the tracked boom down, lowering the pipe.
- (M) **ROLLER BOOM UP** - Moves the roller boom up, lifting the pipe.
- (N) **ROLLER BOOM DOWN** - Moves the roller boom down, lowering the pipe.



\* If the function is opposite of what is expected, change the Reverse Control Switch to the opposite position.

**NOTICE:** Do not operate more than two pendant switches at once. Doing so may cause the control circuit breaker to trip (pump will stay on). The breaker will automatically reset when the switches are released.

# Setup

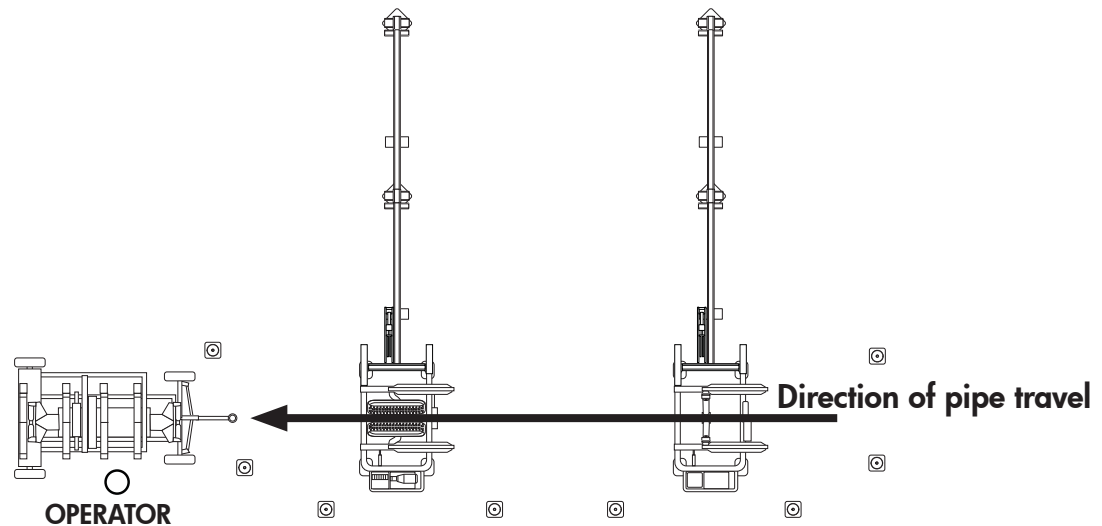
## Determine MegaMc PolyHorse Setup Location

There are several factors in determining a setup location and setting up the MegaMc PolyHorse.

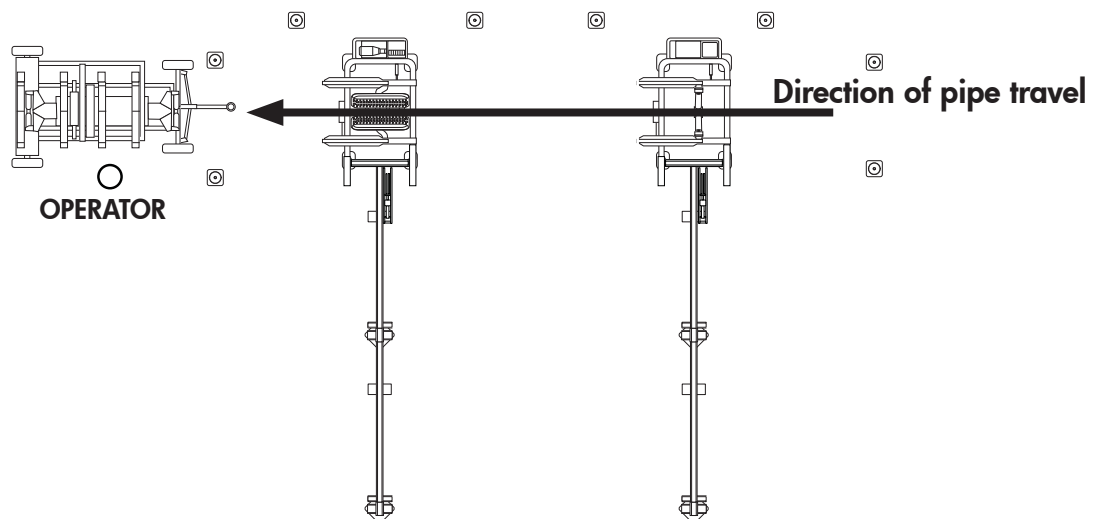
- 1) Terrain of job site
- 2) Direction pipeline is being pulled
- 3) Obstacles on job site (roads, trees, etc.)
- 4) Accessibility to load racks.

After determining the location for the MegaMc PolyHorse, you must also determine whether to setup the MegaMc PolyHorse with the racks going away from the operator (Setup A) or toward the operator (Setup B). Setting up with the (Setup A) configuration is preferred for access to storage locations and visibility, but (Setup B) can be used if the job site doesn't allow for operation in the (A) configuration.

### SETUP A



### SETUP B



Setup of the MegaMc PolyHorse must be done on ground that is as level and stable as possible.



Place the PolyHorse on as level and stable ground as possible. Operating on unlevel ground could cause the pipe to move uncontrolled causing serious injury or death.



# Setup

## Handling MegaMc PolyHorse Components

Handling of the components can be done using overhead lifting equipment or forked lifting equipment.

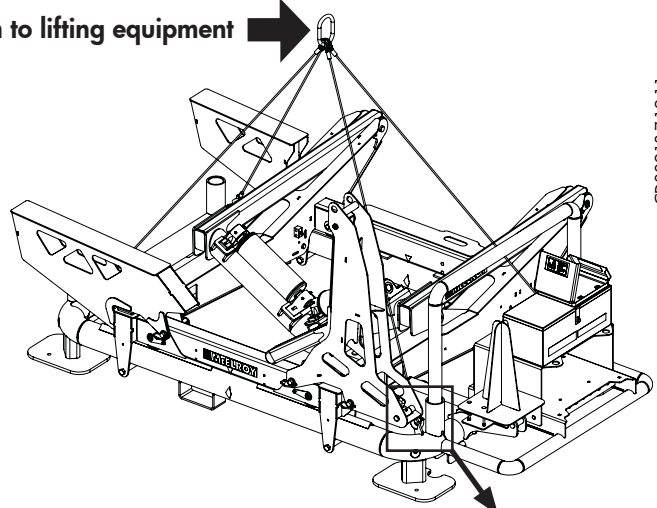
**⚠ WARNING** Stand clear of loads being lifted. Loads can swing or fall causing serious injury or death.

### Overhead Lifting Equipment

When using overhead lifting equipment, a four leg cable lifting sling is provided in the toolbox for lifting of the pipe stands only. The sling is for one stand only. Center the trolley with the base frame and lower the boom before lifting. To lift the racks, use a lifting strap (not provided).

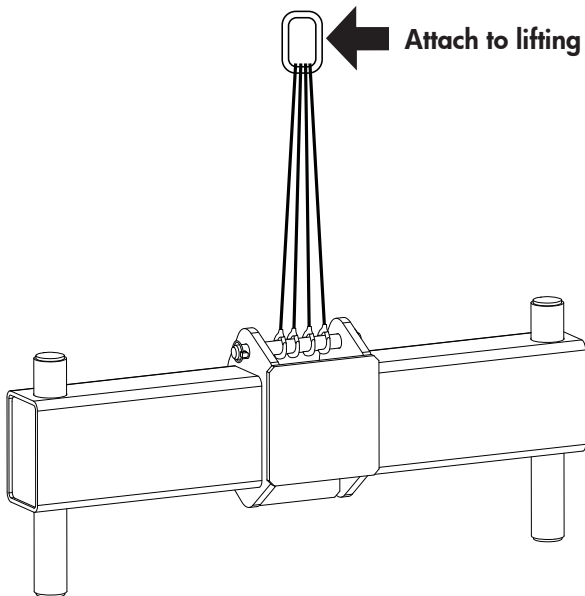
To lift the attachment beam, remove rack pin and reinsert it through all four of the hooks of the lifting sling. Insert the retaining pin on the rack pin.

Attach to lifting equipment →

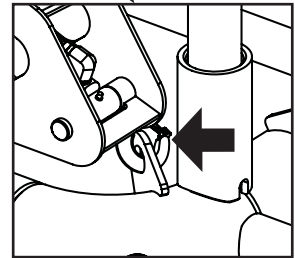


CD00913-7:19-11

← Attach to lifting equipment



CD00975-7:19-11



# Setup

## Handling MegaMc PolyHorse Components (continued)

### Forked Lifting Equipment

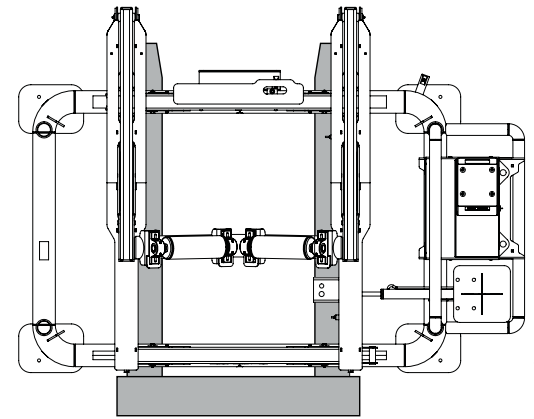
When forking the tracked pipe stand, the boom must be raised slightly so it is clear of the forks path. The pipe stands should only be forked from the side as shown. When using forked lifting equipment, the forks of the equipment must be 6 feet or longer. Place the forks under the main tubular frame with the left fork going through both fork loops.

**NOTICE:** When inserting the forks ensure not to damage any hydraulic hoses.

**NOTICE:** Ensure the stand stays against the mast of the forked lifting equipment so it does not slip off the tips of the forks, damaging the machine.

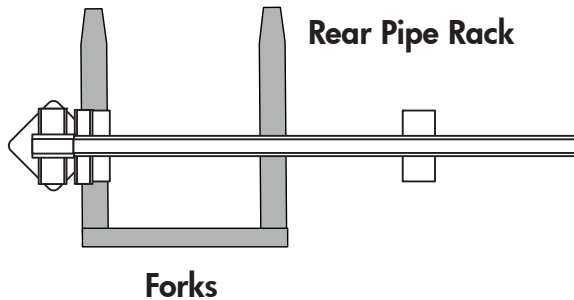
To lift the front racks using forked lifting equipment, place one fork into the fork tube near the dispenser. The other fork will support the rack toward the jack legs.

To lift the rear racks using forked lifting equipment, place one fork into the fork tube near the jack legs. The other fork will support the rack.



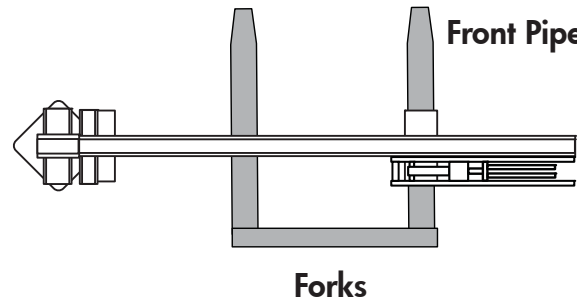
Forks

CD00914:7:19:11



Forks

Rear Pipe Rack



Forks

Front Pipe Rack

CD00912:7:19:11

# Setup

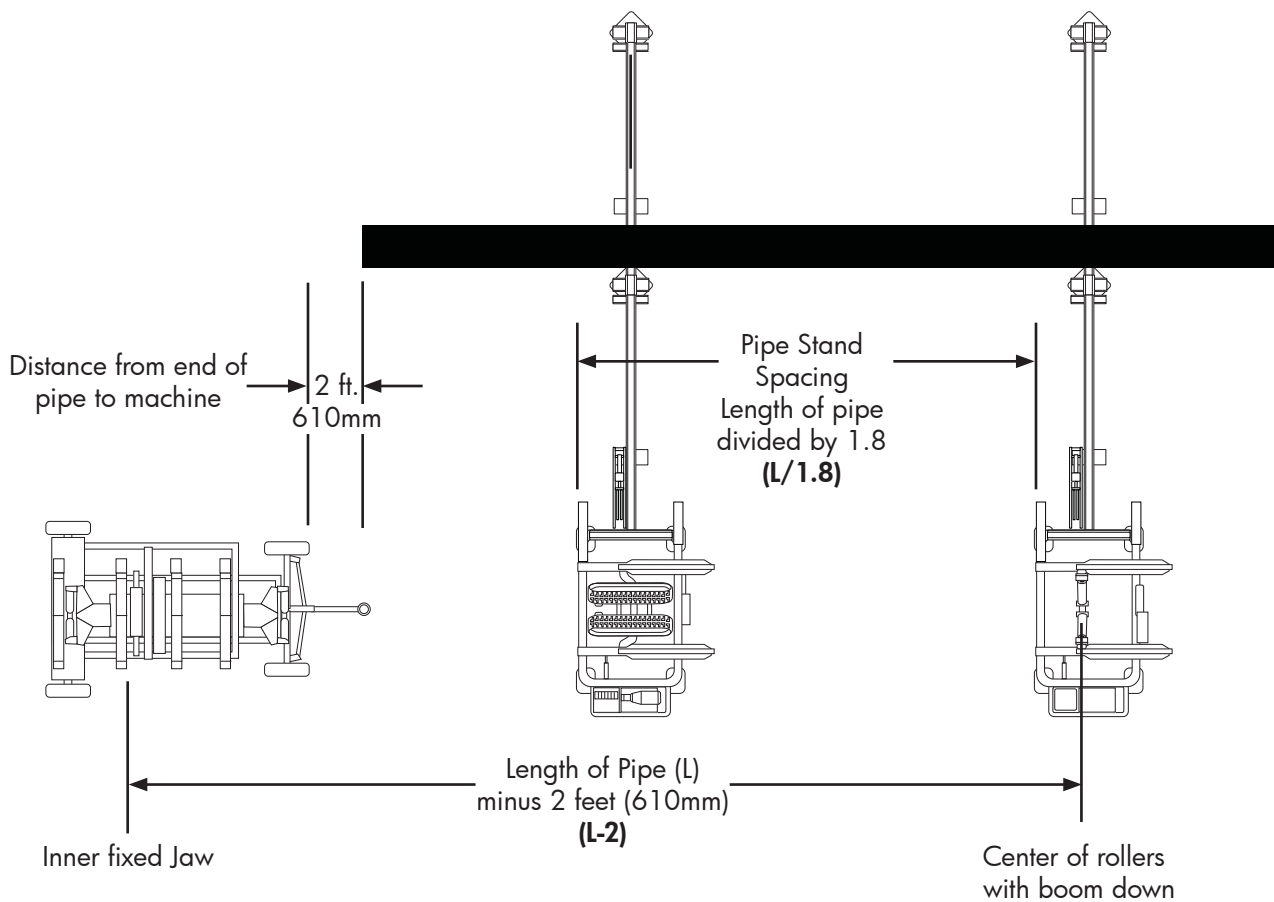
## Position MegaMc PolyHorse Pipe Stands

Proper spacing of the pipe stands and racks is important. The racks must be spaced far enough apart to provide stability but close enough that the pipe is supported by both stands when inserted into the fusion machine. The spacing is dependent on pipe length and the model of the fusion machine. For some combinations the pipe is not centered on the two racks but offset.

For the pipe stand spacing, the stands will be placed the length of the pipe (L) divided by 1.8. The tracked pipe stand will be placed at this distance from the roller pipe stand.

The fusion machine will be placed with the inner fixed jaw at the length of the pipe (L) minus 2 feet (610mm) from the rollers of the pipe stand. The 2 foot allowance is to ensure the pipe stays on the rollers of the roller pipe stand when fed into the fusion machine.

The pipe will be loaded with the ends of the pipe closest to the fusion machine, 2 feet (610mm) from the fusion machine.



CD009477-19-11

# Setup

## Position MegaMc PolyHorse Pipe Stands (cont'd)

The pipe stands must be set with their base frames centered on and square with the same line as where the fused pipe string will be. It is the base frame that must be centered and not the center of the V of the rollers and tracks.

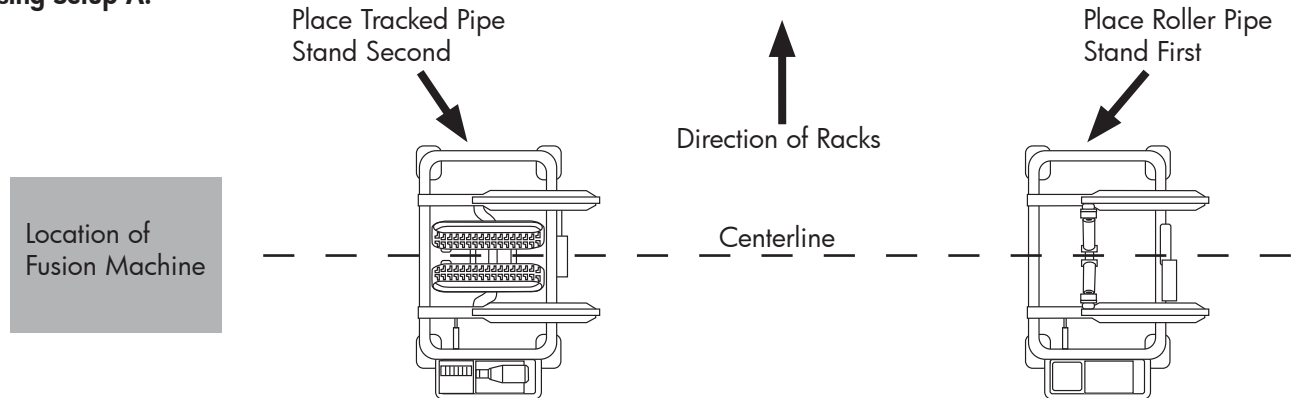
The base frames are marked with an indicator on their centers.

**IMPORTANT:** Place a string line on the ground, marking the desired fused pipe path. Then center the pipe stands and fusion machine on the string line.

Move the pipe stands into place using overhead lifting equipment or forked lifting equipment. If using forked lifting equipment, the forks must be at least 6 feet or longer to be able to reach across the entire stand.

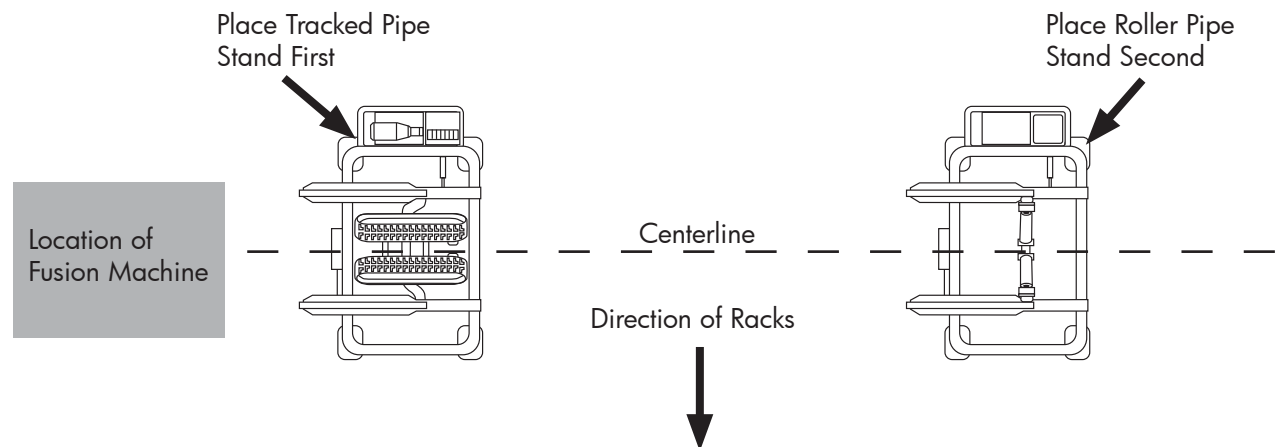
The fusion machine will be positioned later after the rack spacing has been determined.

### Using Setup A:



CD00915:7:19:11

### Using Setup B:



CD00916:7:19:11

# Setup

## Connect Pipe Racks to Pipe Stands

The front racks with the dispenser bolted to them connect to the pipe stands. Move the rack into position using overhead lifting equipment or forked lifting equipment. Lower the rack into the two large holes in the pipe stand.



**CAUTION** Machine has parts that assemble and have points that can pinch. Use caution guiding the rack into position. Failure to do so could result in minor or moderate injury.

### To set rack legs:

Lift the leg end of the rack to the desired angle of incline, place the outrigger pad under the legs of the rack. Grasp the handle on the drop leg and pull the pin out and twist it 90 degrees to lock it out. Lower the drop leg down to the outrigger pad. Turn the pin 90 degrees to allow it to go in. Move the drop leg up until the pin fully engages a hole in the drop leg. Set the other foot to the same height. Use the crank handle to further adjust the height of the rack using the screw jacks. Use the bubble inclinometer near the jack handle to set the rack angle to 4° - 6°, more if the pipe is curved to allow pipe to roll easier. Do not exceed 10° of rack angle to prevent pipe from rolling over the dispenser. If the indicator is not visible on the inclinometer, you have exceeded maximum angle.

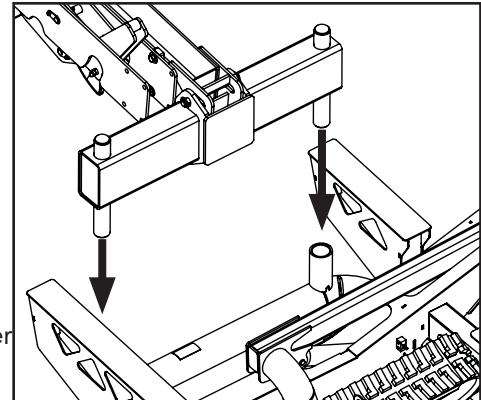


**WARNING** Never attempt to move pull pin when the jack is supporting weight. Lift the jack feet off the outrigger pad before pulling the drop leg pin. Failure to do so could cause the racks to fall with the load on them causing serious injury or death.

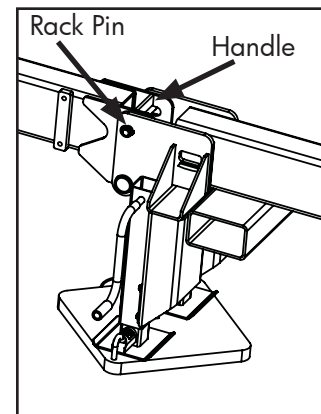
Attach the second front rack to the other pipe stand repeating the instructions above.

The two rear racks attach to the leg end of the front racks with a pin. Move the rear racks into position. Use the handle on the rack to guide the rear rack into place. Once the rack is engaged with the front rack, insert the pin and attach its retaining pin. Set the incline of the rear racks to match the incline of the front racks.

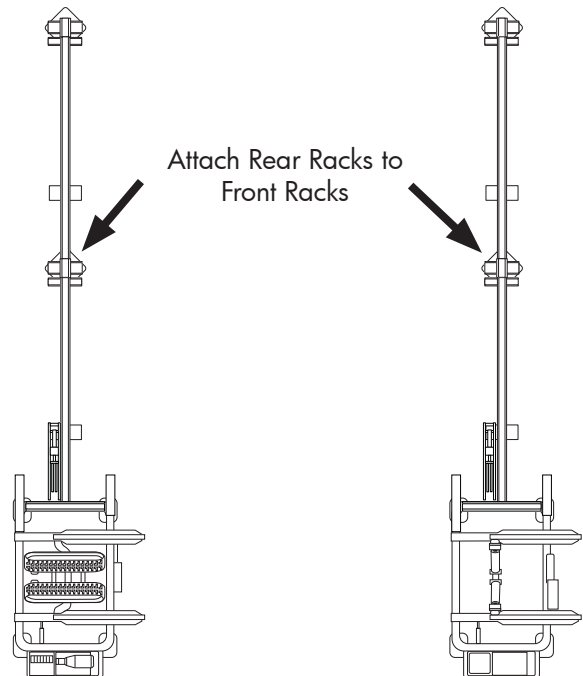
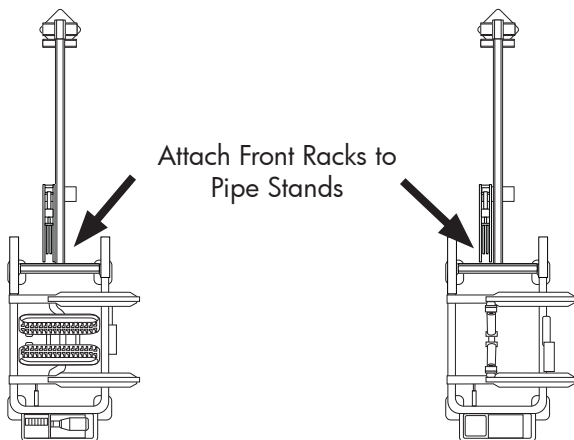
Install the stanchions on the last set of pipe racks.



CD00976-7:19:11



CD009717:19:11



CD00918:7:19:11

TX04309-7:29:11



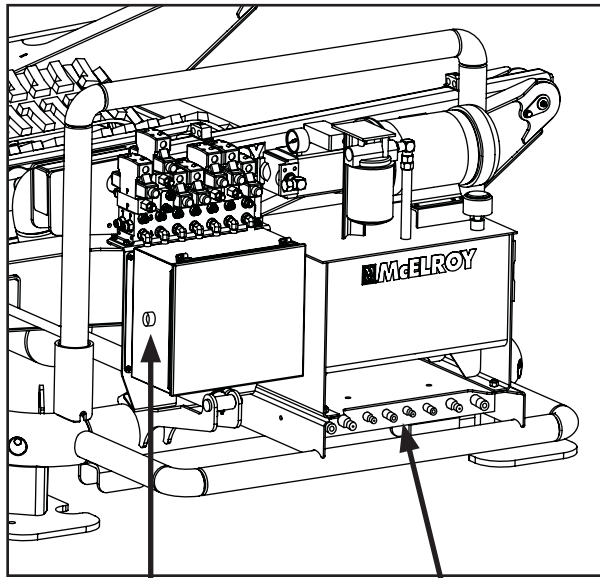
# Setup

## Connect Hydraulic Hoses and Operator Pendant

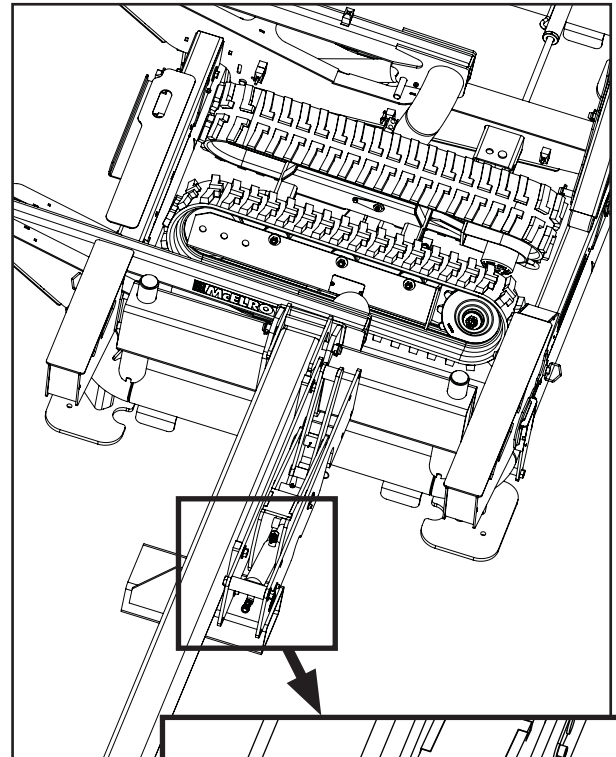
Connect the extension hoses between the pipe stands. The extension hose bundle is stored under the toolbox. The connections are below the HPU on the tracked pipe stand and below the outrigger pad storage on the roller pipe stand. Wipe any dirt or debris off the quick disconnects before connecting them to the stands.

Both the tracked pipe stand and roller pipe stand have two hoses that connect to the dispenser of the front racks. Connect the hoses to the dispensers.

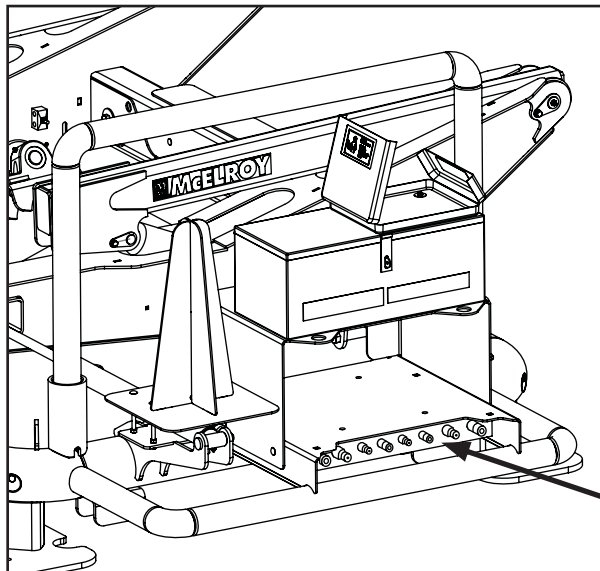
The operator's pendant and its cable are stored in the toolbox. The cable end with pins connects to the side of the electrical box on the tracked pipe stand. The other end connects to the pendant. Line up the keyway (red dot) on the connector and push it in while turning the locking nut clockwise until it locks. Hang the pendant on the clamp cylinder cross bar of the fusion machine.



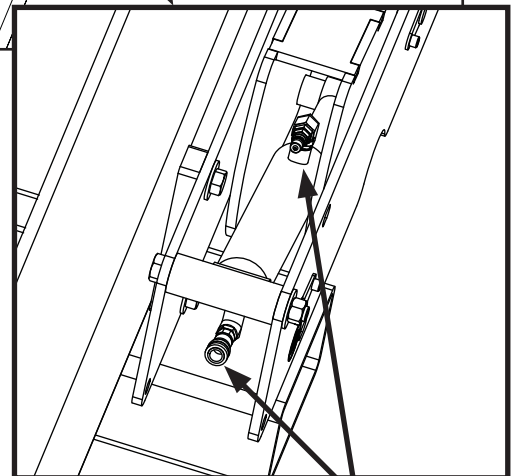
CD009197:19-11



CD009217:19-11



CD009207:19-11



Connect Dispenser Hoses from Pipe Stands Here

TX04310-7-19-11

# Setup

## Attach Lowering Arm Assembly

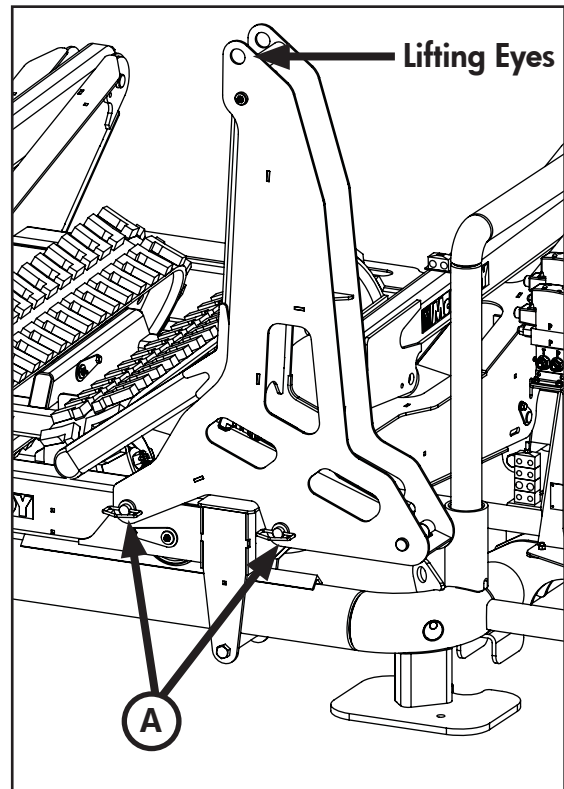
The lowering arm assemblies are removed when stacking the pipe stands for transport or storage. There are two identical lowering arm assemblies, one on each pipe stand.

Use lifting equipment to lower the assembly onto the pipe stand using the lifting eyes at the top of the assembly.

Use the two large pins (A) to secure the assembly to the pipe stand. Install the retaining pins to the large pins.

Connect the two hydraulic hoses from the trolley to the quick disconnects of the lowering arm assembly hydraulic cylinder.

Repeat for the second assembly.



TX04311-7-19-11

## Connect Tracked Pipe Stand to Power

The power cord is stowed coiled beneath the HPU.

**NOTICE:** Low voltage will damage unit.

Connect unit to an adequate electrical power source. Ensure proper ground for electrical system.

With the power on, press the start button on the pendant and see if the motor starts.

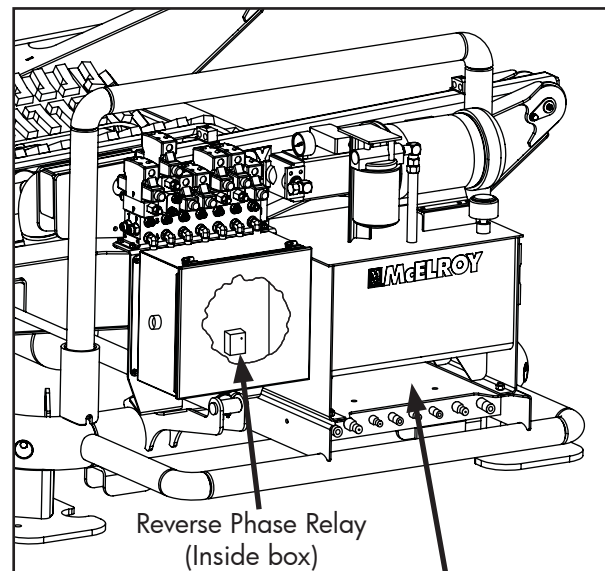
If unit fails to start, check to see if the light on the reverse phase relay inside the electrical box is on, indicating correct phasing. Do not touch components inside the electrical box when visually inspecting the reverse phase relay.

If the reverse phase relay light is not on, disconnect the power source and switch any two incoming power leads and try again. If the unit still doesn't start and the light is on, call qualified service personnel for assistance.



**WARNING** Disconnect the machine from the power source before attempting to service the electrical box. Failure to disconnect the power could result in serious injury or death due to electric shock. Refer service to a qualified technician.

Actuate all the functions back and forth a few times to purge any air from the hydraulic lines. Then put both booms down and both trolleys centered with the base frames of the pipe stand. Set the dispenser arms to the reload position.



TX04299-6-27-11

# Setup

## Set and Position Dispenser Mechanism

The dispenser mechanisms are adjustable for three different ranges of pipe sizes. The location of the adjustment pin determines the range. Adjustments must be made without pipe on the racks.

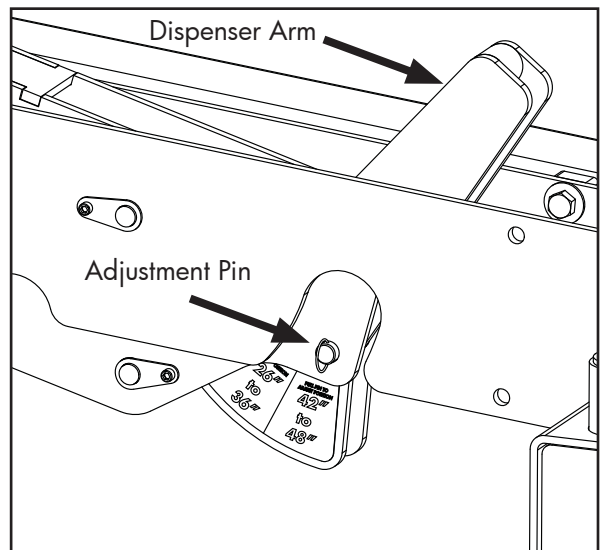
To change the range, turn off the machine. Firmly grip the end of the dispenser arm, pull the adjustment pin out, rock the arm to the desired range and reinsert the pin fully.

### **⚠ WARNING**

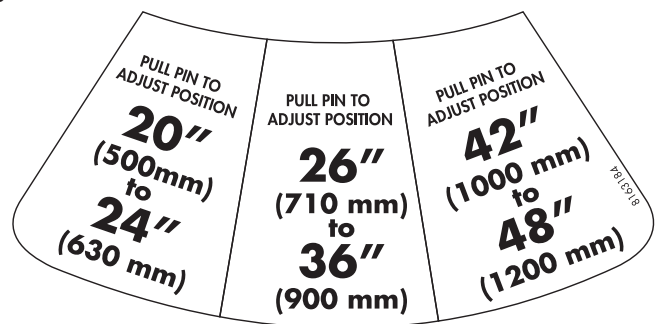
Do not make adjustments with pipe on the racks. Adjustments made with pipe on the racks could cause pipe to move uncontrolled and could cause serious injury or death.

### **⚠ CAUTION**

Dispenser arm rotates and can pinch. Hold the end of the dispenser arm when making pipe size adjustments. Failure to do so could cause moderate or minor injury.



CD00923-7:19-11



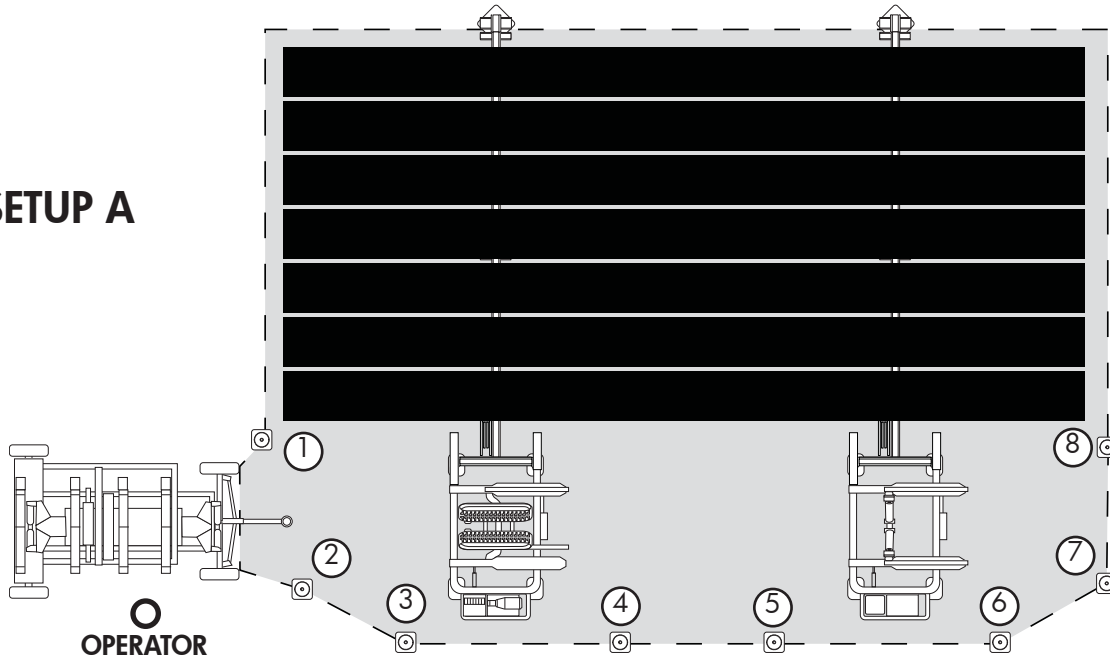
CD00924-7:19-11

# Setup

## Place Hazard Cones

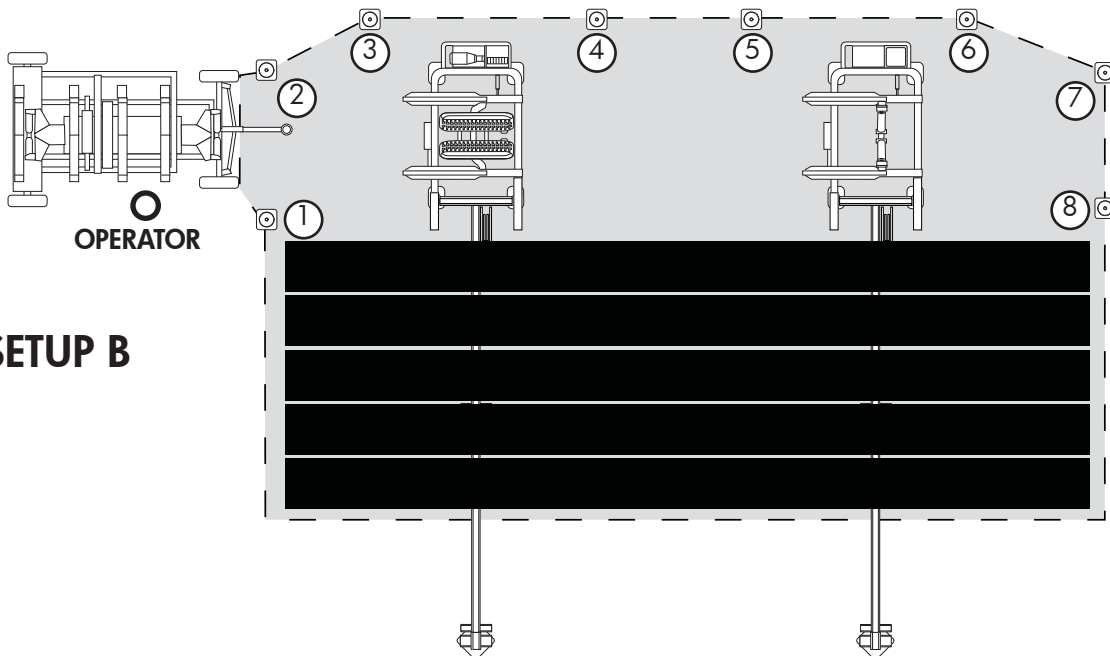
Eight hazard cones are stored on the roller pipe stand. Place them around the perimeter of where the pipe will be moving from rack to pipe stands approximately as shown.

### SETUP A



CD00906-7:19-11

### SETUP B



CD00909-7:19-11



This machine is designed to move large pieces of heavy pipe. When the pipe is moving, it will crush causing seriously injuring or death. Do not enter in the hazard zone while pipe is on the rack or when handling pipe. Use the hazard cones to block off the hazard zone of the MegaMc PolyHorse.

TX04300-6-27-11

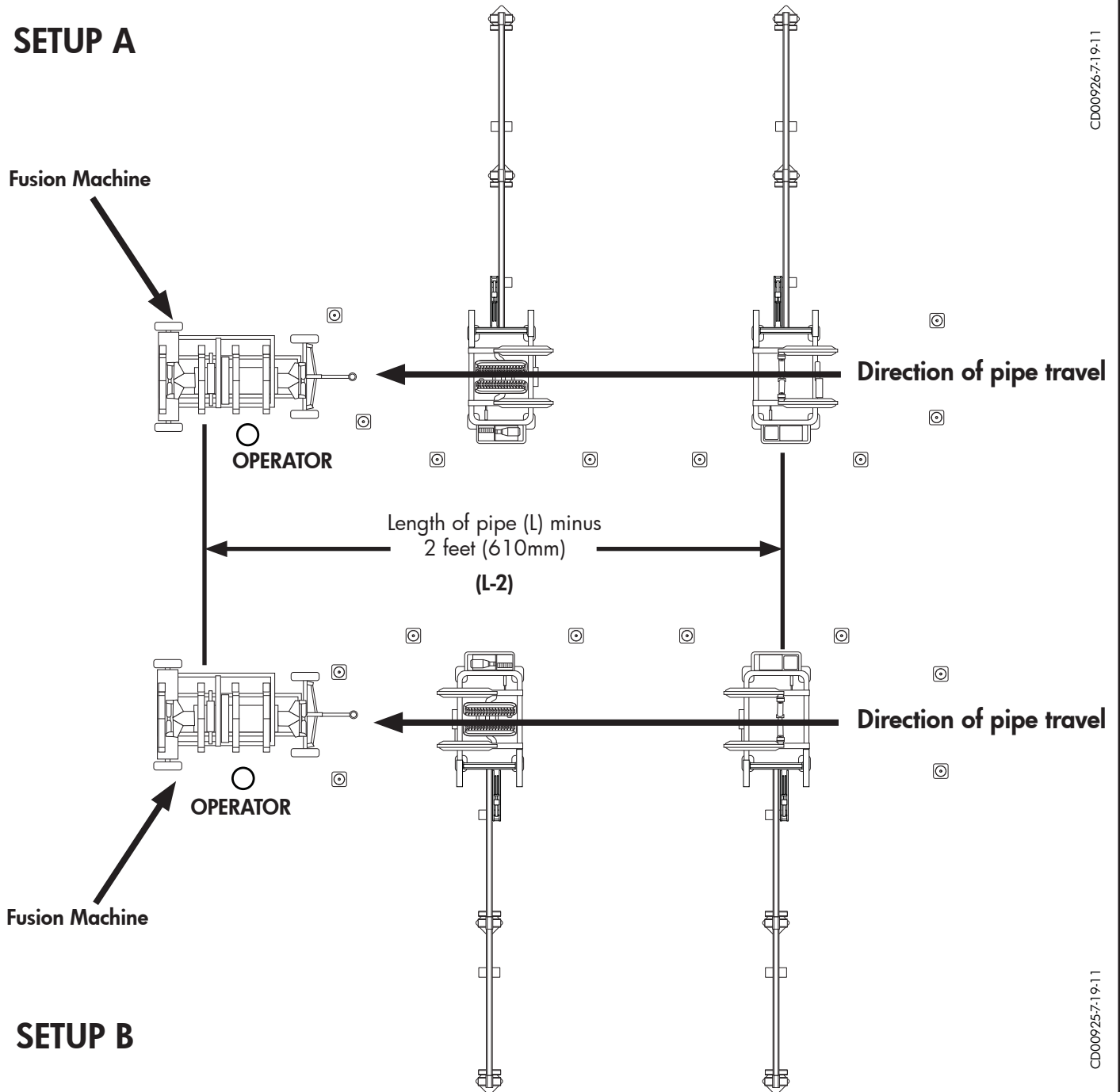
# Setup

## Position Fusion Machine

The fusion machine should have its movable jaws toward the tracked pipe stand. Place the fusion machine so that its inner fixed jaw is the length of the pipe minus 2 feet (610mm) from the rollers of the roller pipe stand. This is to keep the pipe on the rollers when the pipe is fed into the fusion machine.

TX04297-7-25-11

## SETUP A



CD00926-7-19-11

CD00925-7-19-11

# Setup

## Load Pipe on Racks

Before loading pipe onto the racks of the machine, ensure the dispenser arms are both set to the correct pipe size. Set the dispenser arms to the dump position for loading by using the dump switch on the pendant.

Load the pipe onto the racks from the stanchion end of the racks using proper lifting equipment. Load the pipe with the pipe end 2 feet (610mm) from the fusion machine. The pipe to not be centered on the racks.

### **⚠ DANGER**

This machine is designed to move large pieces of heavy pipe. When the pipe is moving, it will crush causing seriously injuring or death. Do not enter in the hazard zone while pipe is on the rack or when handling pipe. Use the hazard cones to block off the hazard zone of the MegaMc PolyHorse.

### **⚠ WARNING**

Do not stand near lifting equipment when moving or transporting pipe. Pipe could swing or fall, seriously injuring or killing you.

Pipe can be loaded onto the racks as single sticks of pipe or as a single layer bundle of pipe.

A stick of pipe can be loaded directly into the pipe stands, ensure the booms are at the same height.

For loading single sticks of pipe, load the pipe from the stanchion end of the racks. Place the first stick close to the dispensers by moving the lifting equipment in between the racks. Load each subsequent stick close to the previous one.

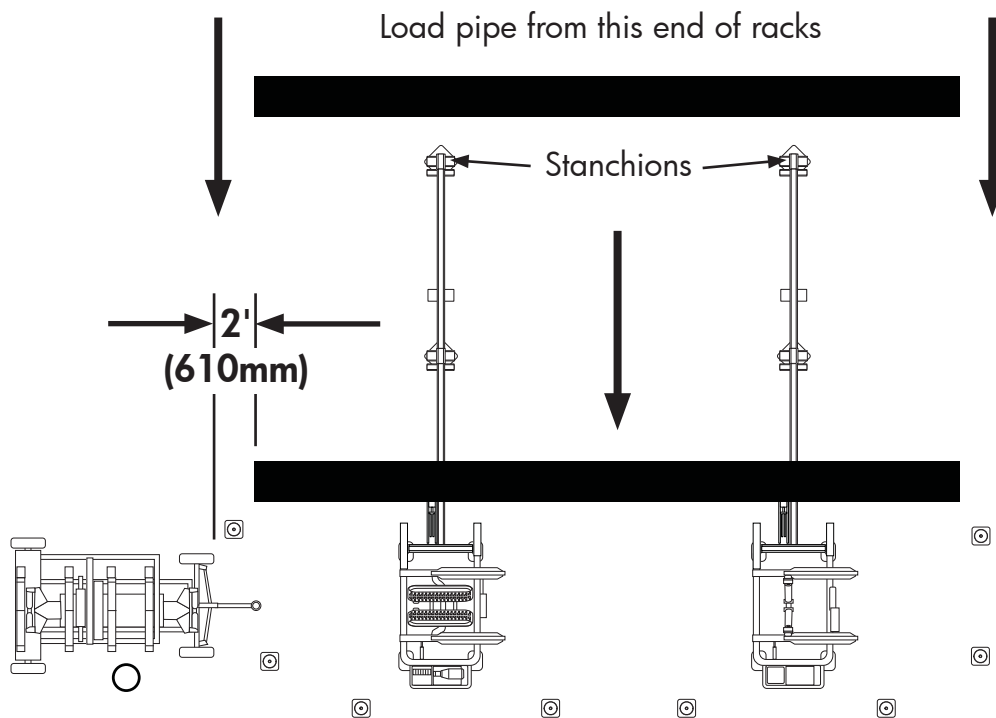
For loading of bundled pipe, load the pipe bundle to the back of the racks close to the stanchions. With the bundle on the racks and still contained by the lifting equipment, cut the pipe bands to free the pipe. Only cut the bands from the stanchion side of the racks and do not enter the hazard zone to cut pipe bands. After the pipe bundle bands are cut, move the bundle close to the dispensers and release the pipe from the lifting equipment and allow the pipe to settle against the dispensers.

### **⚠ DANGER**

Use stanchions at all times. Do not stack pipe. Failure to do so will result in death or serious injury from falling pipe.

### **⚠ DANGER**

Do not stand in the hazard zone while cutting pipe bands. Do not stand between pipe when cutting pipe bands. Cut bands from the stanchion side of the racks. Cutting pipe bands could cause the pipe to move uncontrolled. Uncontrolled pipe will cause serious injury or death.



CD009277-19-11

# Operation

## Read Before Operating

Before operating this machine, please read this manual thoroughly and keep a copy available for future reference.

Return manual to the protective storage box when not in use. This manual is to be considered part of your machine.



Stop-1228-95

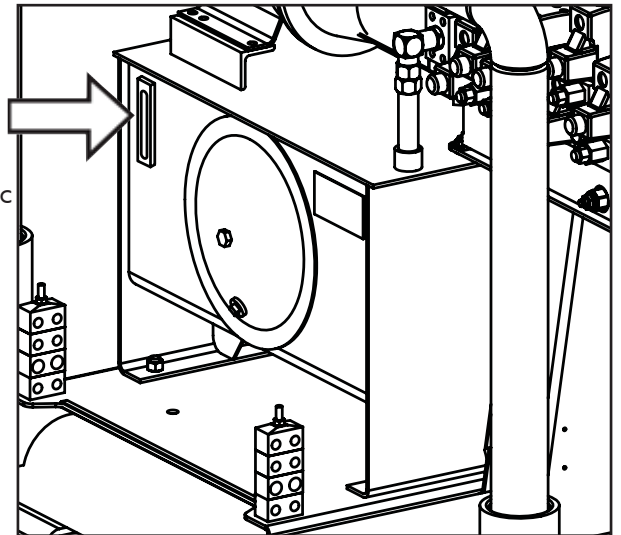
TX00401-9-15-94

## Check Hydraulic Fluid

Periodically check the hydraulic fluid level in reservoir. All hydraulic cylinders must be retracted (boom down and trolley toward HPU) before checking fluid to get an accurate level. Maintain fluid at HIGH Level.

Never allow dirt or foreign matter to enter the open tank.

Refer to the "Hydraulic Fluids" section of this manual for hydraulic oil recommendations.



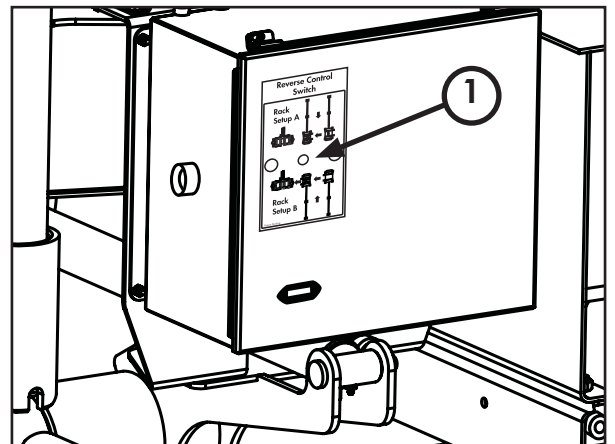
CD009337-19-11

TX0431-7-19-11

## Set Pendant Mode

Set the Reverse Control Switch (1) on the electrical box to Rack Setup A or Rack Setup B.

The Pipe Left/Right and Trolley Away/Toward are reversed between Rack Setup A and Rack Setup B. Setting the pendant mode matches the movements to the label on the Reverse Control Switch (1).



CD009327-19-11

TX04314-7-19-11



# Operation

## Dispense Pipe

### **⚠ DANGER**

This machine is designed to move large pieces of heavy pipe. When the pipe is moving, it will crush causing seriously injuring or death. Do not enter in the hazard zone while pipe is on the rack or when handling pipe. Use the hazard cones to block off the hazard zone of the MegaMc PolyHorse.

Start with pipe in the racks and no stick of pipe on the pipe stands (A). The operator stands at the fusion machine and operates the pendant.

Lower both booms to the lowest position.

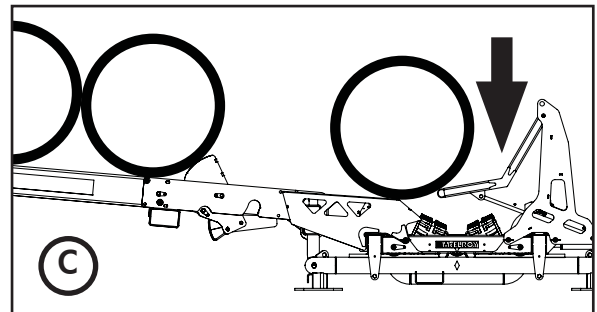
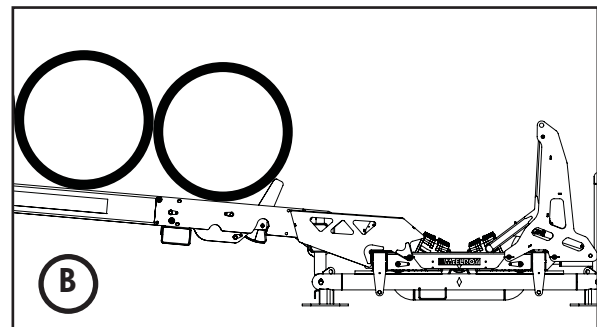
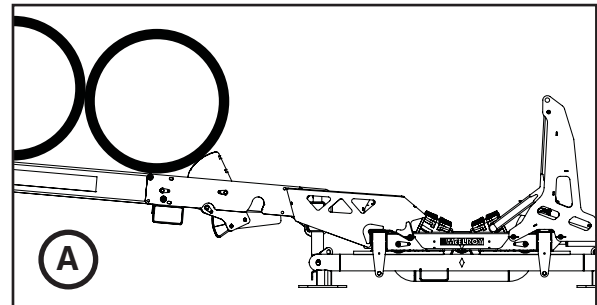
Align the center marks of both trolleys to the center marks of the base frames.

To load a stick of pipe into the dispenser, hold the dispenser switch in the Reload position until the dispenser arms are both fully raised and the pipe is positioned against the arms (B).

To dispense a stick of pipe, hold the dispenser switch in the Dump position until the dispenser arms are lowered and the pipe is dispensed to the pipe stands (C). The lowering arms will both raise automatically to receive the dispensed pipe and lower it into the stands.

**IMPORTANT:** As the stick is released and before the stick reaches the lowering arms, release the dump switch to allow lowering arms to lower.

**NOTICE:** Do not leave pipe stored against the dispenser arm in the reload position. Leave the dispenser in the dump position when machine is not in use.



TX04315-7-9-26-12

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CD009347:19-11

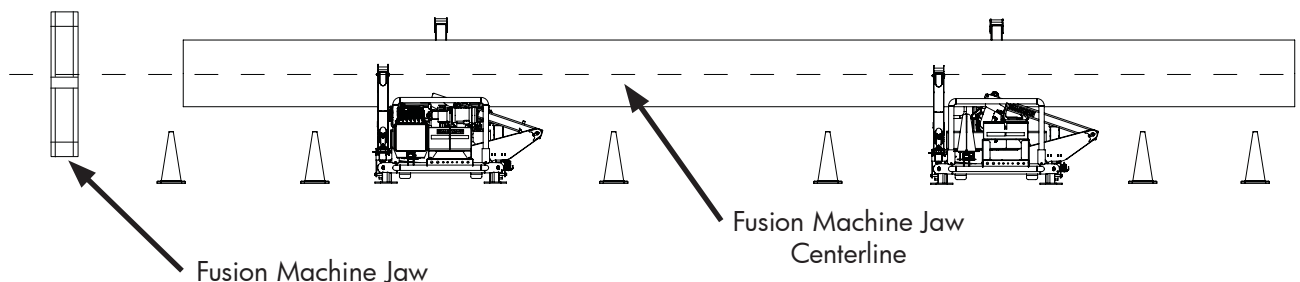
CD009367:19-11

## Align Pipe

### **⚠ WARNING**

Do not position yourself under supported or raised pipe or in the hazard zone. Keep pipe level, unlevel pipe could move uncontrolled. Pipe could travel uncontrolled on the rollers, tracks, or racks in either direction and cause serious injury or death.

Use the operator pendant to move the trolleys and to raise both booms. Both booms should be raised at the same time to keep the pipe level. Adjust the pipe until the end of the pipe closest to the fusion machine is in line and slightly above the fusion machine jaw centerline.



TX04316-7-19-11

CD009377:19-11

# Operation

## Insert Pipe

Actuate the Pipe switch to left to move the pipe towards the fusion machine. As the pipe moves to the jaws, ensure that the pipe will clear the jaws of the fusion machine. If necessary, stop the pipe and make adjustments to the booms and trolleys to align the pipe to the jaws. After adjustments, continue to move the pipe toward the fusion machine until the pipe end is extending past the inner movable jaw the correct distance for face off.

**IMPORTANT:** The pipe will move at one speed. To move the pipe in slower, repeatedly actuate (bump) the switch.

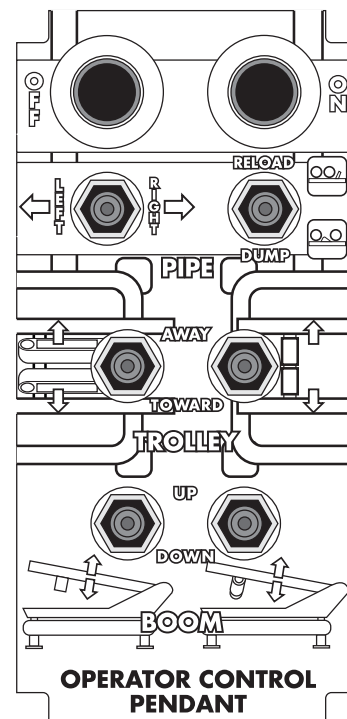
Lower the pipe end into the jaws by lowering the booms and adjusting the trolleys as needed. Align the near side of the pipe so it touches the jaw inserts.

Close the upper jaws and clamp the pipe.

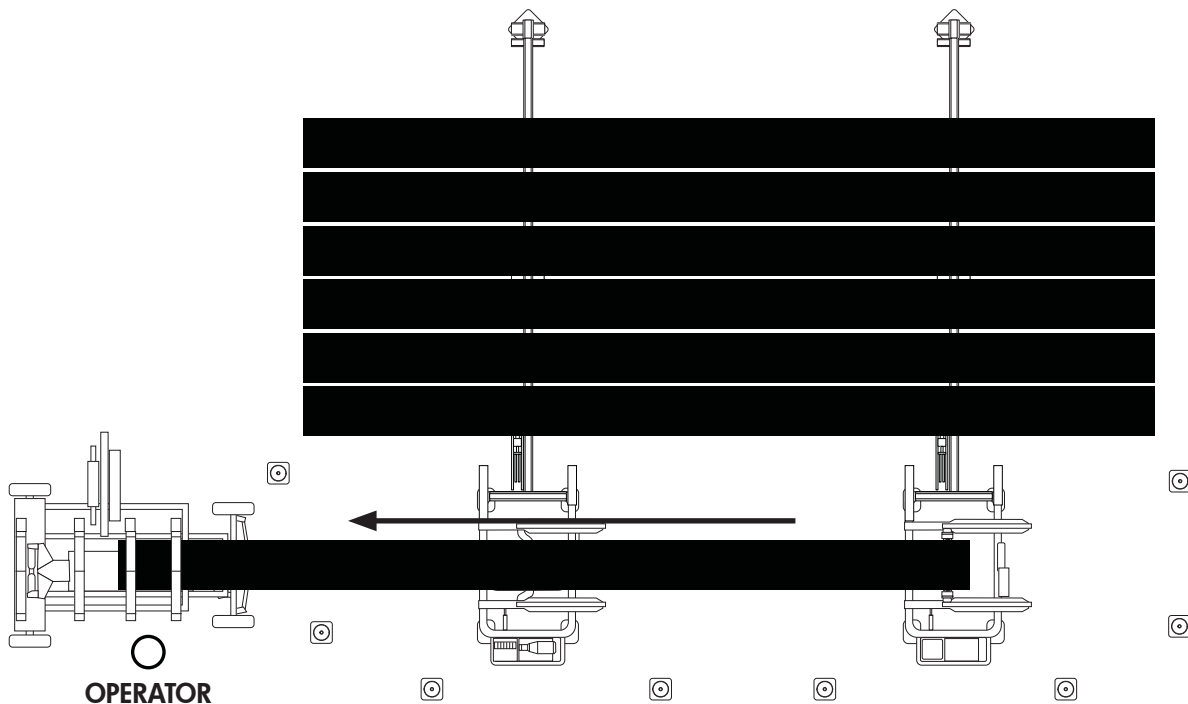
Lower pipe lifts on the fusion machine.

Measure the drag to ensure you have the correct drag pressure with the pipe resting on the pipe stands.

Perform the pipe fusion procedures per manufacturer's recommendation or appropriate joining standard.



CD009437:19:11



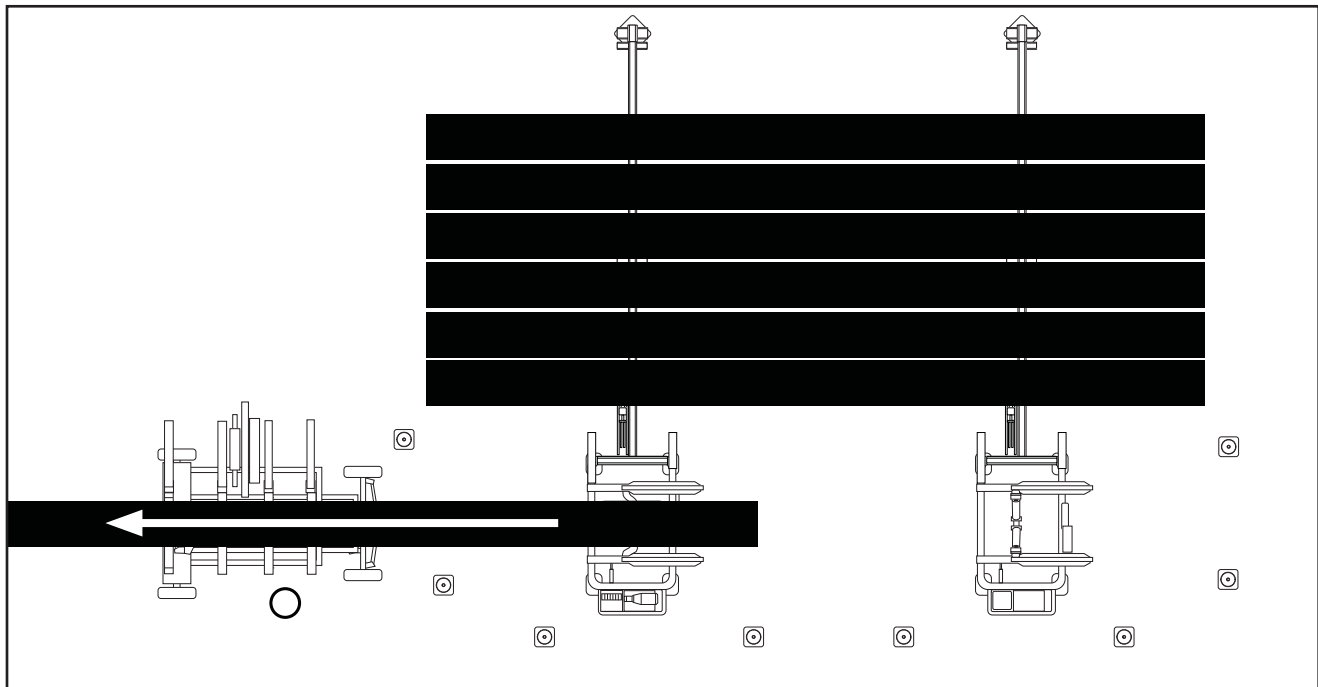
CD009617:19:11



# Operation

## Position Pipe for Next Joint

Once the fusion joint is complete, unclamp the pipe and open the jaw clamps on the fusion machine. Lower the roller pipe stand. Raise the tracked pipe stand. Raise the pipe lifts on the fusion machine to allow the pipe to be pulled through to position for the next fusion joint.



CD009817-19-11

TX04336-7-19-11

# Special Operation - Rotating Pipe

## Rotating Pipe

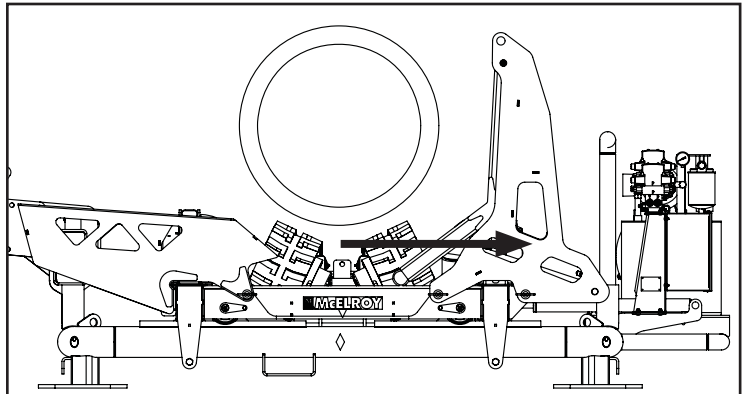
The MegaMc PolyHorse can rotate the pipe stick to match ovality, match print lines, or orient a bow.

The pipe will need to be in the pipe stands before it is inserted into the fusion machine.

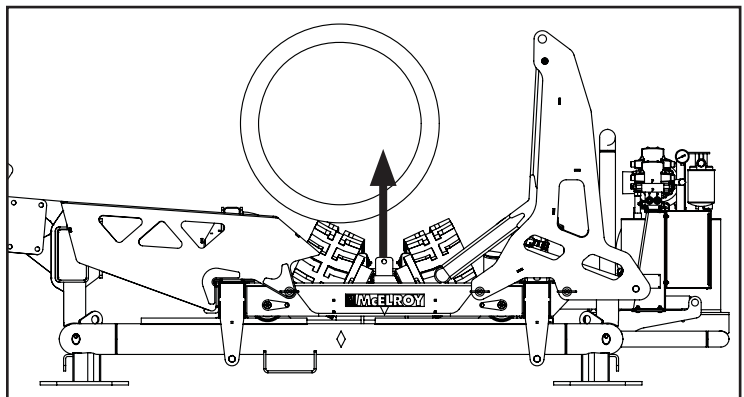
Move the pipe toward the fusion machine and position the end of the pipe above the pipe lift of the fusion machine. Lower the boom of the tracked pipe stand so the pipe rests on the pipe lift of the fusion machine and the rollers of the roller pipe stand. Keep the pipe level on the rollers and pipe lifts.

Move the tracked pipe stand trolley in the direction the pipe is to be rolled. Raise the tracked pipe stand boom until the pipe rolls back into the V of the tracks. The pipe will rotate as it rolls back into the V of the tracks.

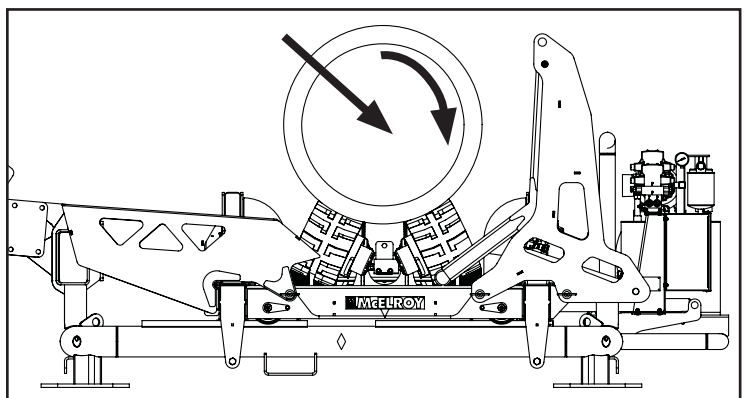
Move the trolley back to the center of the base frame and repeat the process to continue rotating the pipe until it reaches the desired position.



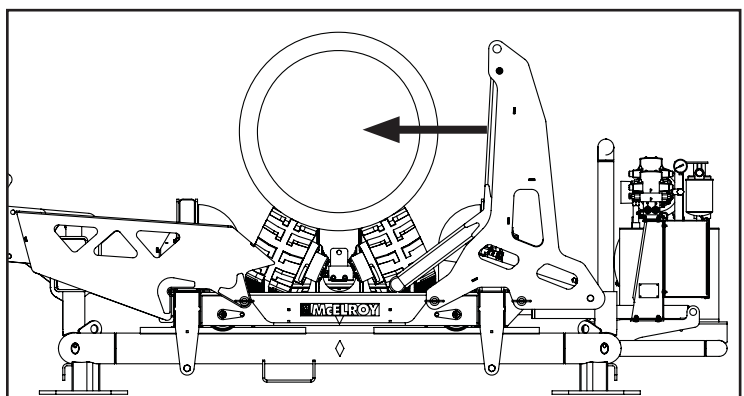
CD00938-7:19:11



CD00939-7:19:11



CD00941-7:19:11



CD00942-7:19:11

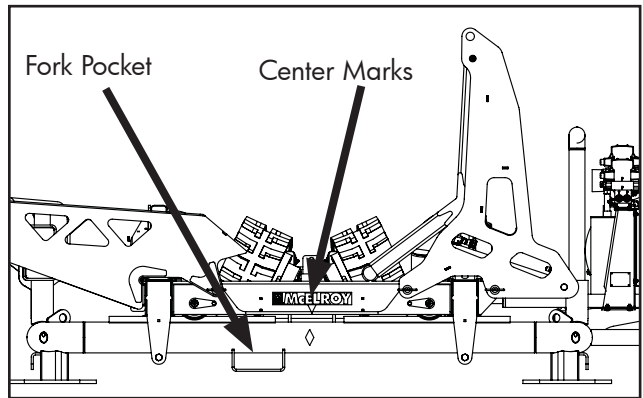
# Disassembly

## Position for Disassembly

Before disconnecting the unit from power, the components need to be properly positioned.

Turn on the HPU and use the pendant to center both trolleys aligning the center marks of the trolley and the base frame. Lower both booms on the pipe stands and then raise the tracked pipe stand boom enough that it clears the fork pocket's path. Place both pipe dispensers in the reload position which also lowers the lowering arms.

TX04319-7-19-11



## Disconnect Hydraulic Hoses

Turn off the HPU and leave the machine connected to power.

To prevent trapping pressure, making quick disconnects hard to release, disconnect hoses in this order.

- 1) Disconnect dispenser quick disconnects.
- 2) Disconnect the extension hose quick disconnects on the roller pipe stand.
- 3) Disconnect the extension hose quick disconnects on the tracked pipe stand.

**IMPORTANT:** If the quick connects are hard to release, actuate the switches on the pendant with the HPU OFF.

Wipe off any debris and attach the quick disconnect dust caps.

Coil the pipe dispenser hoses and hang them on the trolley boom arms.

TX04320-7-19-11

# Disassembly

## Detach Pipe Racks

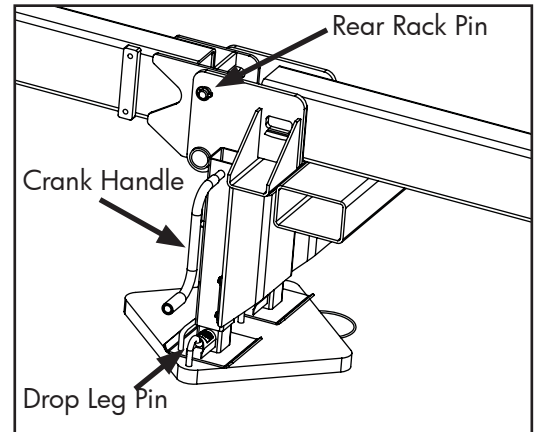
Lift the rear rack at the jack leg end and retract the legs to the shortest position using the crank handle. Pull the drop leg pin to retract the drop legs. Pull the rear rack pin connecting the rear rack to the front rack. Return the pins to their holes and secure them with the retaining pin.



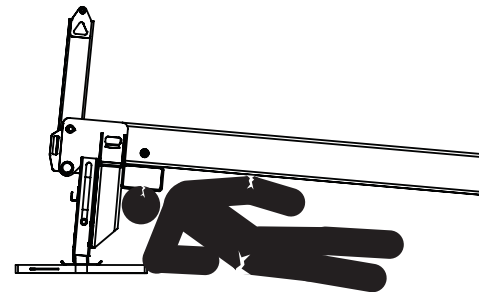
**WARNING** Never attempt to move pull pin when the jack is supporting weight. Lift the jack feet off the outrigger pad before pulling the drop leg pin. Failure to do so could cause the racks to fall with the load on them causing serious injury or death.

Lift the front rack from the pipe stand. Retract the legs to the shortest position using the crank handle. Pull the drop leg pin to retract the drop legs.

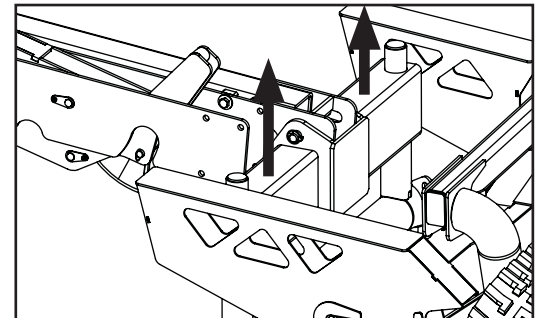
Repeat the process for the other racks.



CD009317:19-11



CD009057:19-11



CD009317:19-11

# Disassembly

## Store Components

Disconnect the pendant cable at the control box and pendant. The cable, lifting sling, and pendant can be stored in the toolbox, but the pendant should be stored on top to prevent damage. Coil the cable and store in the toolbox (A) on the roller pipe stand. A lock can be placed on the toolbox for security.

Unplug the power cord from the power source and coil the cord. Store the power cord under the HPU (D). One end of the cord will stay connected to the electrical box.

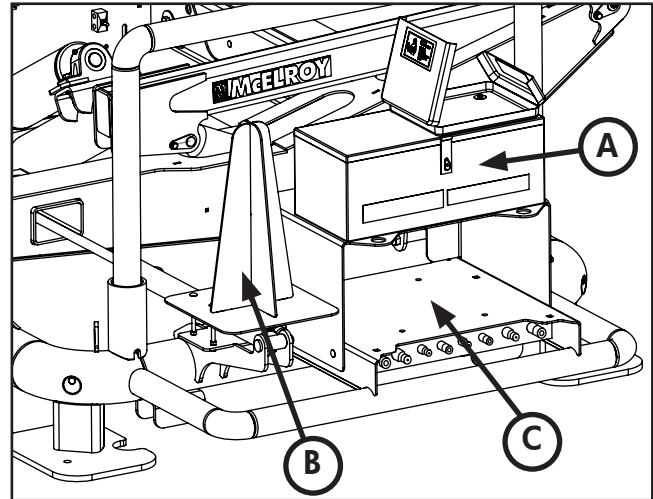
Stack all the hazard cones on the holder (B) next to the toolbox on the roller pipe stand.

Stack the four outrigger pads underneath the toolbox on the roller pipe stand (C).

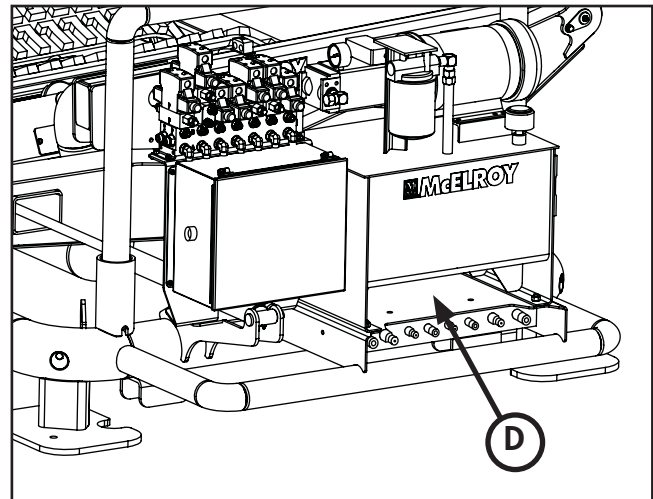
Coil the extension hose set and store under the toolbox on top of the outrigger pads.

**IMPORTANT:** The top outrigger pad can be used like a drawer to assist in loading the extension hoses under the toolbox.

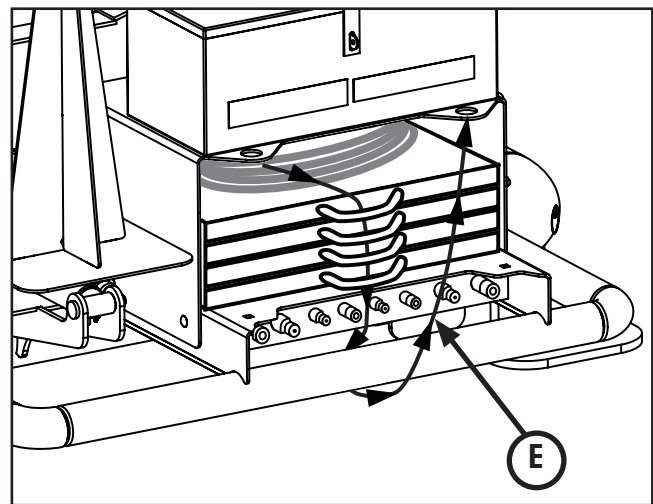
Use the ratchet strap (E) to secure the pads and hose coil. Hook one end of the strap in the eye at the left of the toolbox, pass it down through the outrigger pad handles, under the frame and back up to the hook in the eye at the right of the toolbox. Tighten the ratchet.



CD009207:19-11



CD009197:19-11



CD009627:19-11



# Storage and Transport

## Remove Lowering Arm Assemblies

The lowering arm assemblies are removed when stacking the pipe stands for transport or storage. There are two lowering arm assemblies, one on each pipe stand.

Disconnect the two hydraulic hose quick disconnects from the lowering arm assembly hydraulic cylinder.

Use lifting equipment to support the lowering arm assembly before removing the pins.

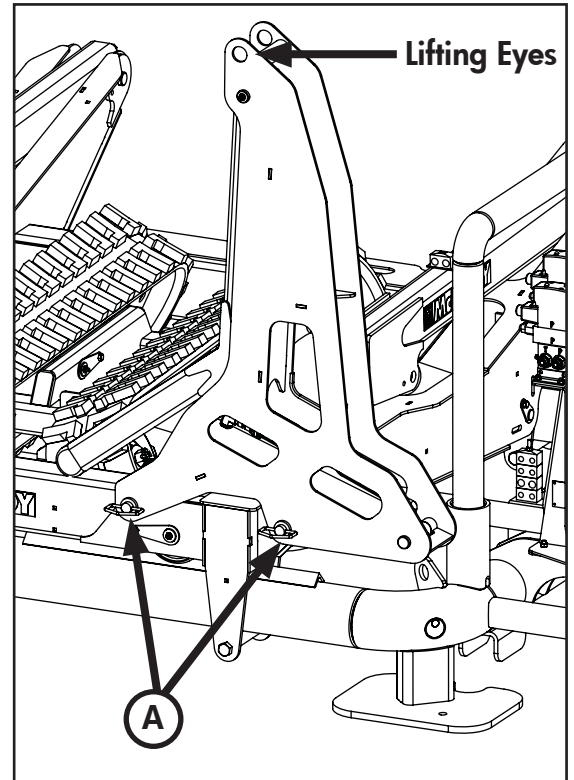
Pull the two large pins (A) to unsecure the assembly from the pipe stand.

Use lifting equipment to lift the assembly from the pipe stand using the lifting eyes at the top of the assembly.

Replace the pins in the trolley and secure with retaining pins.

Repeat for the second assembly.

For stacking, only the lowering arm assembly on the tracked pipe stand, needs to be removed.



CD00960-7:19-11

# Storage and Transport

## Stacking Stands

Pipe stands can be stacked a maximum two high to reduce the floor space needed for storage or shipping.

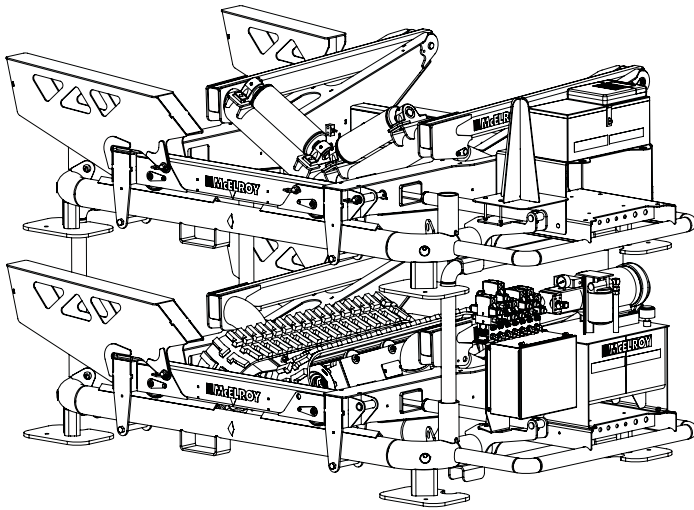
First lower the boom on both units and move the trolley to center it with the base frame of the pipe stand. Lift the tracked boom enough to allow clearance through the fork pockets.

Remove the guard rail from the roller pipe stand by lifting up on the rail and pulling it out of its sockets on the base frame. Place the guard rail in the tracked pipe stand in the sockets on the end of the frame opposite the HPU. The bottom pipe stand will have two guard rails and the top pipe stand will have none as shown.

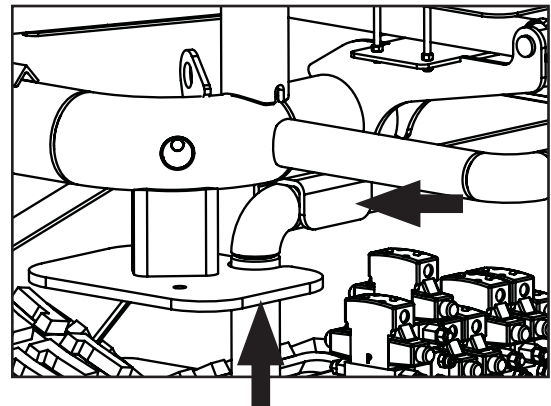
Attach the lifting sling to or fork, the top pipe stand. Place it on top of the bottom unit so that both guard rails engage the notches in the feet and the U brackets on the bottom of the frame.

**NOTICE:** For shipping, the top unit must be securely held down by straps so it won't slip off in transit.

Two stacked pipe stands that are securely strapped or banded together may be lifted with a fork truck by forking the bottom pipe stand. Do not exceed the lifting capacity or tipping capacity of the fork truck. The sling is for lifting one stand only.



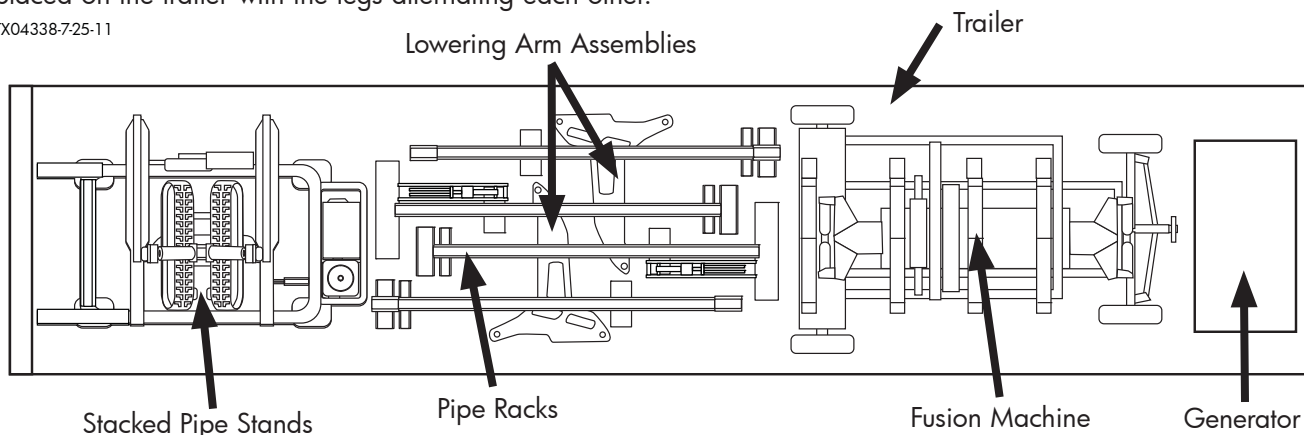
TX04324-7-25-11



## Transport

All of the components of the MegaMc PolyHorse will fit on a trailer, leaving enough room for the fusion machine and generator. The pipe stands are stacked on top of each other. The pipe racks should be placed on the trailer with the legs alternating each other.

TX04338-7-25-11



# Maintenance

## Preventative Maintenance

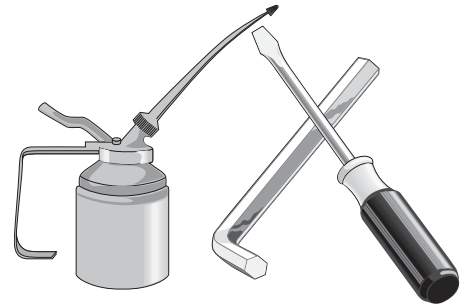
To insure optimum performance, the machine must be kept clean and well maintained.

With reasonable care, this machine will give years of service. Therefore, it is important that a regular schedule of preventive maintenance be kept.

Store machine inside, out of the weather, whenever possible.

Service intervals are approximate for average service and may need to be done more frequently in severe service conditions or can be done less frequently if used minimally.

TX03068-1-25-10



CD00142:11-2-94

## Washing the Machine

An important factor in the service life of this machine is cleanliness. The machine should be cleaned with soap and water as needed.

When exposed to dust and mud in a field location, the machine should be washed at the end of each days work.

TX00601-8-10-95



CD00178-9:15-95

## Check Hydraulic Fluid

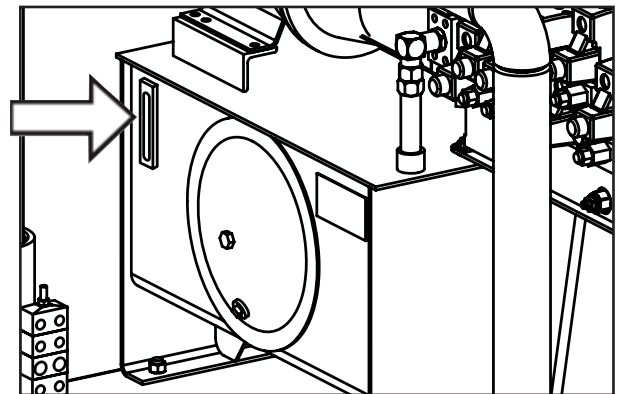
Periodically check the hydraulic fluid level in reservoir. All hydraulic cylinders must be retracted (Boom down and trolley toward HPU) before checking fluid to get an accurate level. Maintain fluid at HIGH Level.

Never allow dirt or foreign matter to enter the open tank.

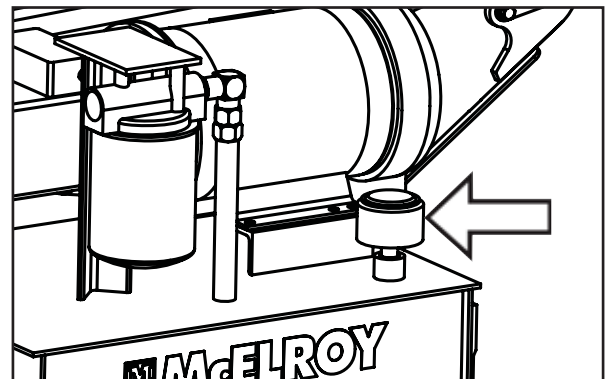
Unscrew the breather to add hydraulic fluid.

Fill the reservoir from a clean container.

Refer to the "Hydraulic Fluids" section of this manual for hydraulic oil recommendations.



CD00933:7:19-11



CD00919:7:19-11

TX04325-7-19-11

# Maintenance

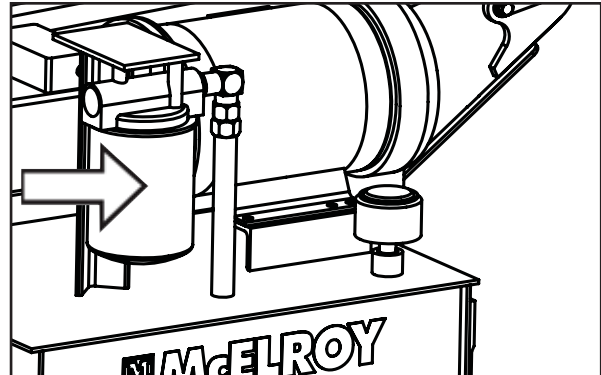
## Change Hydraulic Filter and Fluid

The hydraulic filter and breather should be replaced every year.  
The hydraulic fluid should be replaced every two years.  
Hydraulic fluid drain plug is located in the rear of the hydraulic reservoir.

Unscrew the breather to add hydraulic fluid.

Fill the reservoir from a clean container.

Refer to the "Hydraulic Fluids" section of this manual for hydraulic oil recommendations.



CD009197:19-11

TX04326-7:19-11

## Pipe Stand Lubrication

- Use a grease gun to grease the following parts:

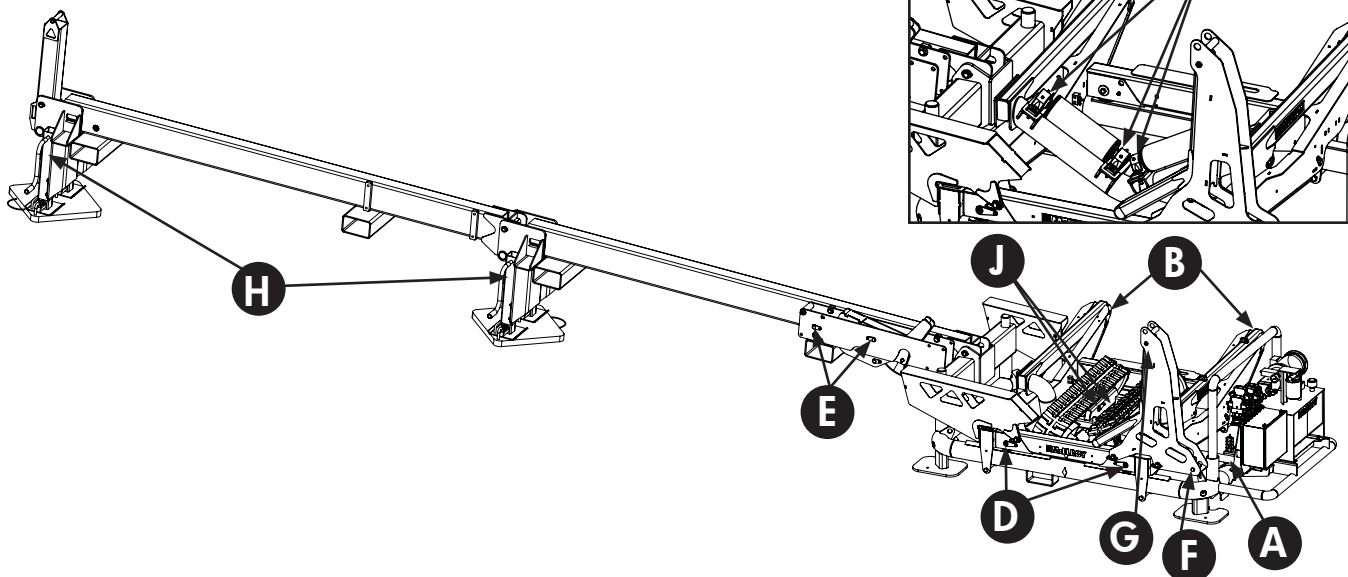
- A) Transverse cylinder pins (4 points)
- B) Boom Pins (8 points)
- C) Roller Bearings (4 points)
- D) Wheels (8 points)
- E) Dispenser cylinder pins (4 points)
- F) Lowering arm cylinder pins (4 points)
- G) Lowering arm pivot pin (2 points)
- H) Rack Jacks (16 points)
- J) Track mounting pins (2 points)

- Check that the pillow block bearings (Rollers) rotate freely.

- Check that the trolley wheels rotate freely.



PH040633:3-10



CD009307:19-11

CD009317:19-11

TX04327-7:25-11

# Maintenance

## Adjusting Track Tension



### WARNING

The grease in the hydraulics of the track is pressurized. If the grease valve is loosened too much, grease can be expelled at high pressure and cause serious injury. Injury could also result if the grease nipple is loosened. Never loosen the grease nipple.

Remove screws and cover to access the adjustment system.

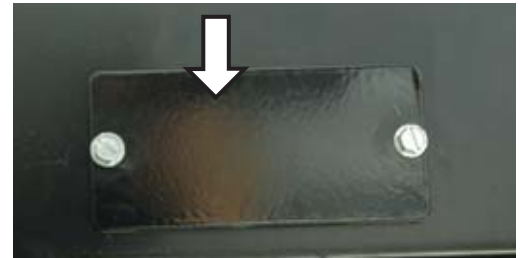
Set the track tension to 1/2" of space between the inner face of the track and the track return guide.

To tighten the track, connect a grease gun to the nipple and add grease to the system. When the track stretches to the correct tension, stop adding grease. Clean off any excess grease.

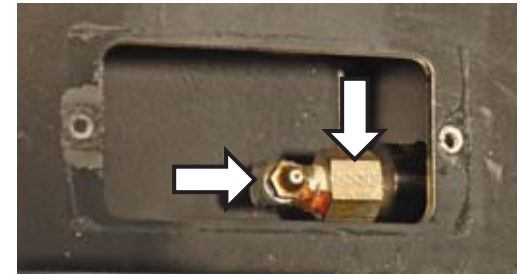
To loosen the track, turn hex shaped valve counterclockwise until grease comes out. When correct track tension is obtained, turn valve clockwise and tighten it. Clean off any expelled grease.

Replace access cover and tighten down with screws.

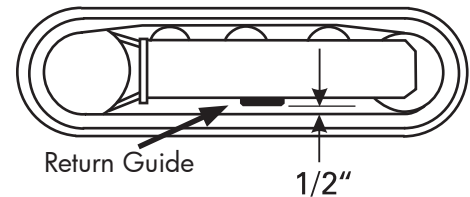
TX04339-7-25-11



PH03300-9-18-06



PH03301-9-18-06



## Inspect Hydraulic Hoses

Inspect the hoses for damage or leaks.

Inspect the quick disconnect seals on the hoses and also on the pipe stands. If the seals are damaged, replace quick disconnect.

TX04328-7-25-11

## Adjust Flow Controls

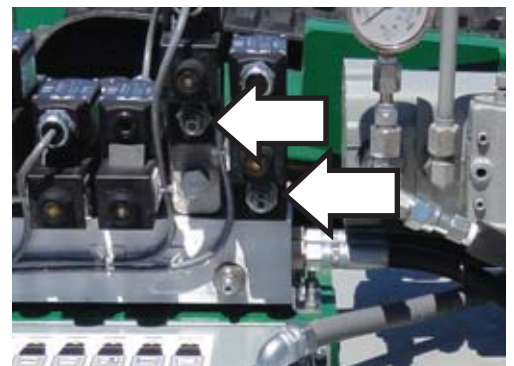
To change the speed of the MegaMc PolyHorse, adjust the flow controls located in the valve stack on the hydraulic manifold.

Use a 3/4" open end wrench to loosen the lock nut. Use a 1/4" hex key to adjust the flow control. Adjust the flow control 1/8 of a turn at a time. Screw it in (clockwise) to slow down and out (counterclockwise) to speed up the movement.

Make adjustment to match the following parameters:

- Track trolley to 16 seconds for full toward and away cycle.
- Track boom - same up/down speed as roller boom.
- Dispenser mechanism to 8 seconds for full dump and reload cycle.
- Roller trolley to 16 seconds for full toward and away cycle.

TX04331-7-25-11



PH04556-7-19-11

# Maintenance

## Lifting Slings

Before each lift of the machine, inspect the lifting sling for damage. Do not use a damaged sling. In addition, a thorough yearly inspection should be done by a qualified person per ASME Standard B30.9. In severe service it should be inspected more frequently than yearly.

TX03072-3-2-10



PH04052-2-10

## Fasteners Must Be Tight

Check all nuts and bolts to make certain they are secure and in place.

TX04329-7-19-11

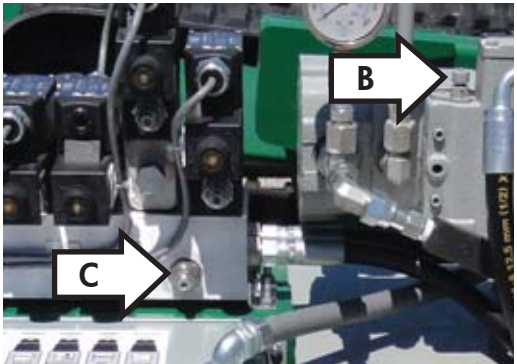


PH04054-3-2-10



# Maintenance

## Troubleshooting

Problem	Action
Load Lowers	<p>A) May need to increase the counterbalance valve setting. Proper counterbalance valve setting is 1-1/4 turns clockwise from fully counter clockwise position.</p> <p>B) May need to replace counterbalance valve.</p> <ul style="list-style-type: none"> <li>• <b>If counterbalance valve requires replacement:</b> <ol style="list-style-type: none"> <li>1. Remove pipe from pipe stand.</li> <li>2. Lower pipe stand completely.</li> <li>3. Turn valve adjustment fully clockwise.</li> <li>4. Remove valve cartridge from valve body.</li> </ol> </li> </ul> <p>C) May need to replace lift cylinder seals.</p>
HPU will not start	<p>A) If unit fails to start, check to see if the light on the reverse phase relay inside the electrical box is on, indicating correct phasing. Do not touch components inside the electrical box when visually inspecting the reverse phase relay.</p> <p>If the reverse phase relay light is not on, disconnect the power source and switch any two incoming power leads and try again. If the unit still doesn't start and the light is on, call qualified service personnel for assistance.</p> <p><b>⚠WARNING</b> Disconnect the machine from the power source before attempting to service the electrical box. Failure to disconnect the power could result in serious injury or death due to electric shock. Refer service to a qualified technician.</p> <p>B) Check Fuses.</p>
Load Will Not Raise	<p>A) Check fluid level in hydraulic reservoir.</p> <p>B) Check gauge to see if you are reading 2500 psi. Adjust pump as needed.</p> <p>C) May need to increase relief valve setting on HPU.</p> <p>D) May need to replace counterbalance valve.</p> <p><b>To adjust relief valve:</b></p> <p>Using a 3/16 hex key and a 11/16 open end wrench, turn the relief valve adjustment clockwise all the way in to achieve a 3000 psi setting. Tighten the lock nut.</p> 

PH04556-7-19-11



# Maintenance

## Troubleshooting

Problem	Action
<b>Dispensers out of synchronization</b>	Hold or repeatedly actuate the switch to either the dump or the reload position until the lagging dispenser arm catches up with the other.
<b>Air in extension hoses</b>	<p>Air in the extension hoses can cause erratic movement and out of synchronization movement of the dispenser mechanism and lowering arms.</p> <p><b>To purge air:</b></p> <p>Disconnect the roller pipe stand extension hose quick disconnect pairs and connect them together. Hold the corresponding pendant switch one way and then the other to purge the lines. Reconnect the quick disconnects.</p> <p>For the dispenser mechanisms and lowering arms, connect the quick disconnects at the cylinders together, rather than at the extension hose ends.</p>
<b>Slow Operation</b>	For slow operation, refer to the "Adjust Flow Controls" in the Maintenance section of this manual for instructions on adjusting the flow controls.
<b>Pipe Will Not Roll</b>	<p>Use lifting equipment to push the pipe.</p> <p>When the racks are empty, increase the inclination angle. Do not exceed the maximum angle indicated by the inclinometer.</p>
<b>Operation Is Reversed</b>	If the Pipe Left/Right and Trolley Toward/Away movement is reversed from that of the pendant switch label, flip the reverse control switch to the opposite setup on the control box.

TX04333-725-11

# Maintenance

## Troubleshooting

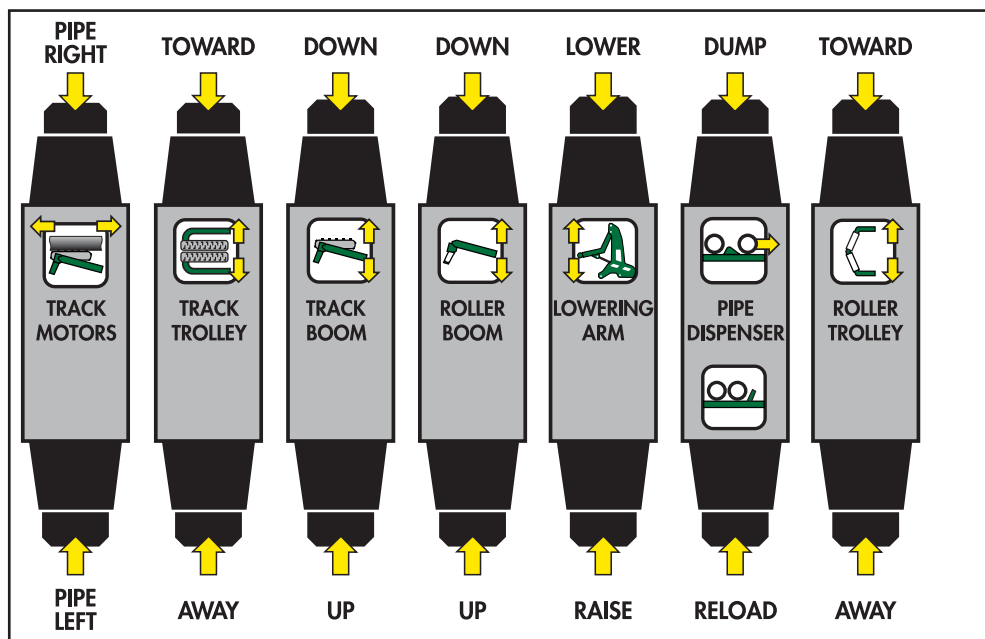
### Manually Operate Solenoid Valves

During maintenance or troubleshooting it may be necessary operate manually the MegaMc PolyHorse using the solenoid valves.

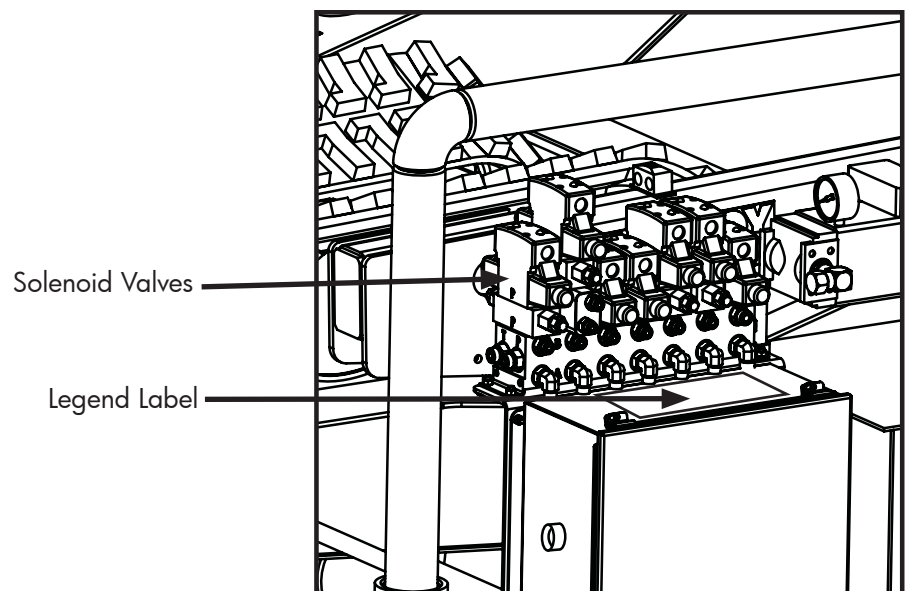
Using the legend on the top of the electrical box, determine which valves control the operation you are wanting to operate. Use a small diameter tool to press the center brass button on the valve to actuate the valve. There are two functions per valve controlled by a brass button on the outboard and on the inboard ends of the valve.



**WARNING** Standing inside the machine while actuating the solenoid valves could cause the components to crush. Do not stand inside the machine while actuating the solenoid valves. Failure to do so could cause severe injury.



CD009487:19-11



CD009197:19-11

# Hydraulic Fluids

## Hydraulic Fluids

The use of proper hydraulic oil is mandatory to achieve maximum performance and machine life. Use a clean, high quality, anti-wear hydraulic oil with a viscosity index (VI) of 135 minimum. It should have a maximum viscosity of 500 cSt (2000 SSU) at startup (ambient temperature) and a minimum viscosity of 13 cSt (65 SSU) at the maximum oil temperature (generally 80°F above ambient). Using hydraulic oils that do not meet these criteria may cause poor operation and/or damage to the hydraulic components.

The following table specifies the oil temperature at various viscosities. Temperature rise of the hydraulic oil can vary from 30° F to about 80° F over the ambient temperature depending on the pressure setting, age of the pump, wind, etc. Mobil Univis N46 hydraulic oil is installed at our factory. The advantage of this oil is a wider temperature range, however, this oil should not be used for continuous operation below 24°F.

NOTE: The Mobil DTE 10 Excel series replaced the DTE 10M Series. The Exxon Univis N series are now Mobil Univis N.

Hydraulic Fluids Characteristics																	
Manufacturer	Fluid Name	cSt 100F	cSt 210F	V.I.	-20F	-10F	0F	10F	30F	50F	70F	90F	110F	130F	150F	Range °F	Range °C
Mobil	10 Excel 15	15.8	4.1	168		*****	*****	*****	*****	*****	*****	*****	*****			-16 - 113	-27 - 45
	10 Excel 32	32.7	6.6	164				*****	*****	*****	*****	*****	*****	*****	*	12 - 154	-11 - 68
	10 Excel 46	45.6	8.5	164					*****	*****	*****	*****	*****	*****	*****	23-173	-5 - 78
	10 Excel 68	68.4	11.2	156						*****	*****	*****	*****	*****	*****	37-196	3 - 91
	Univis N-32	34.9	6.9	164					*****	*****	*****	*****	*****	*****		12-150	-11 - 66
	Univis N-46	46	8.5	163						*****	*****	*****	*****	*****	*****	24-166	-4 - 74
	Univis N-68	73.8	12.1	160							*****	*****	*****	*****	*****	39-193	4 - 89

TX030822-23-10

NOTE: This chart is based on pump manufacturer recommendations of 13 to 500 cSt.

NOTE: Temperatures shown are fluid temperatures. – NOT ambient temperatures.

# Specifications

## MegaMc PolyHorse

### Dimensions:

**Tracked or Roller Pipe Stand with Trolley Centered, Transfer Ramps on, and Lowering Arm Assembly attached:**

Length: 130" (3302 mm)  
Width: 91" (2311 mm)  
Height: 65" (1651 mm)

### Rear Rack (each)

Length: 173" (4394 mm)  
Width: 30" (762 mm)  
Height: 65" (1651 mm)

### Front Rack (each)

Length: 173" (4394 mm)  
Width: 30" (762 mm)  
Height: 38" (965 mm)

### Weight:

Tracked Pipe Stand: 3,810 lbs. (1,728 kg)  
Roller Pipe Stand: 3,180 lbs. (1,442 kg)  
All Four Racks: 4,700 lbs. (2,132 kg)

### Capacity:

Pipe: 20" to 48" OD (500mm to 1200mm)  
Maximum Load: 70,000 lbs. (31,751 Kg)  
Maximum Load Per Pipe Stick: 10,500 lbs. (4,763 Kg)

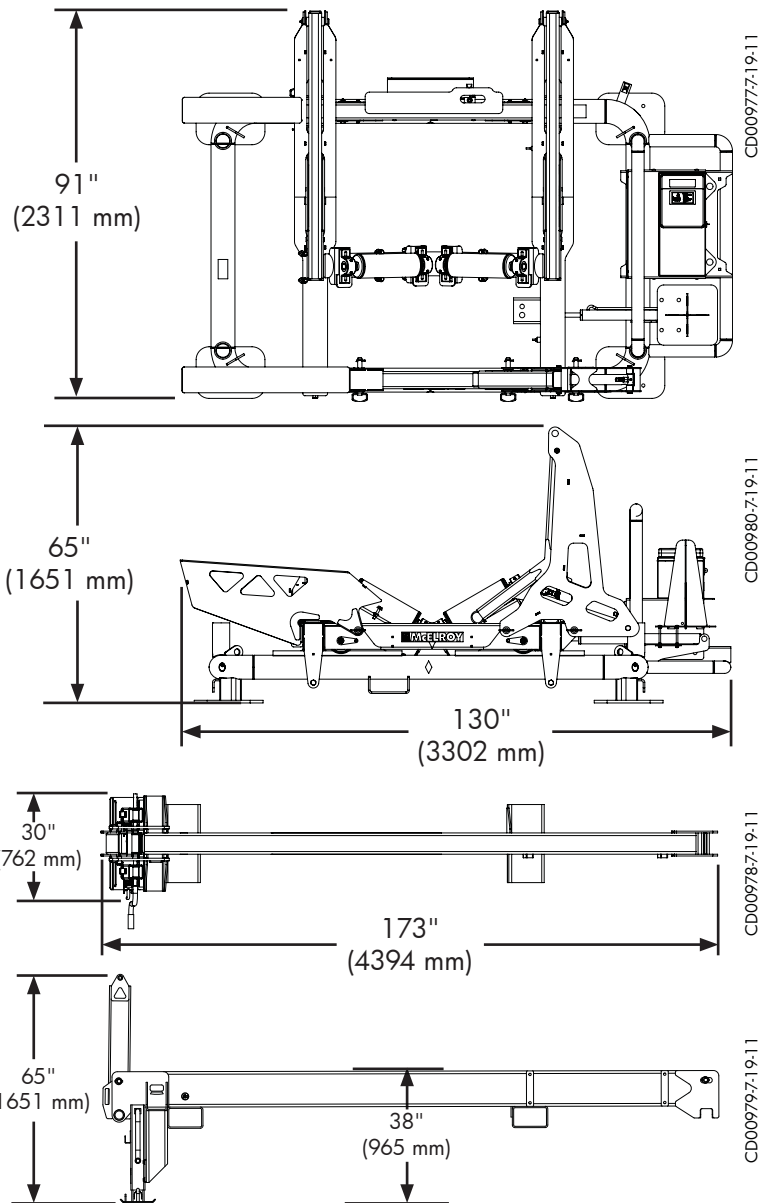
### Power:

Power: 220V-240V, 50/60Hz, 3Ph  
Power Requirements: 7.5 KVA/6.4KW

**Reservoir Capacity:** 20 gal

**Flow:** 3 GPM @ 2,500 psi

**Hydraulic Fluid:** See Hydraulic Fluids Section



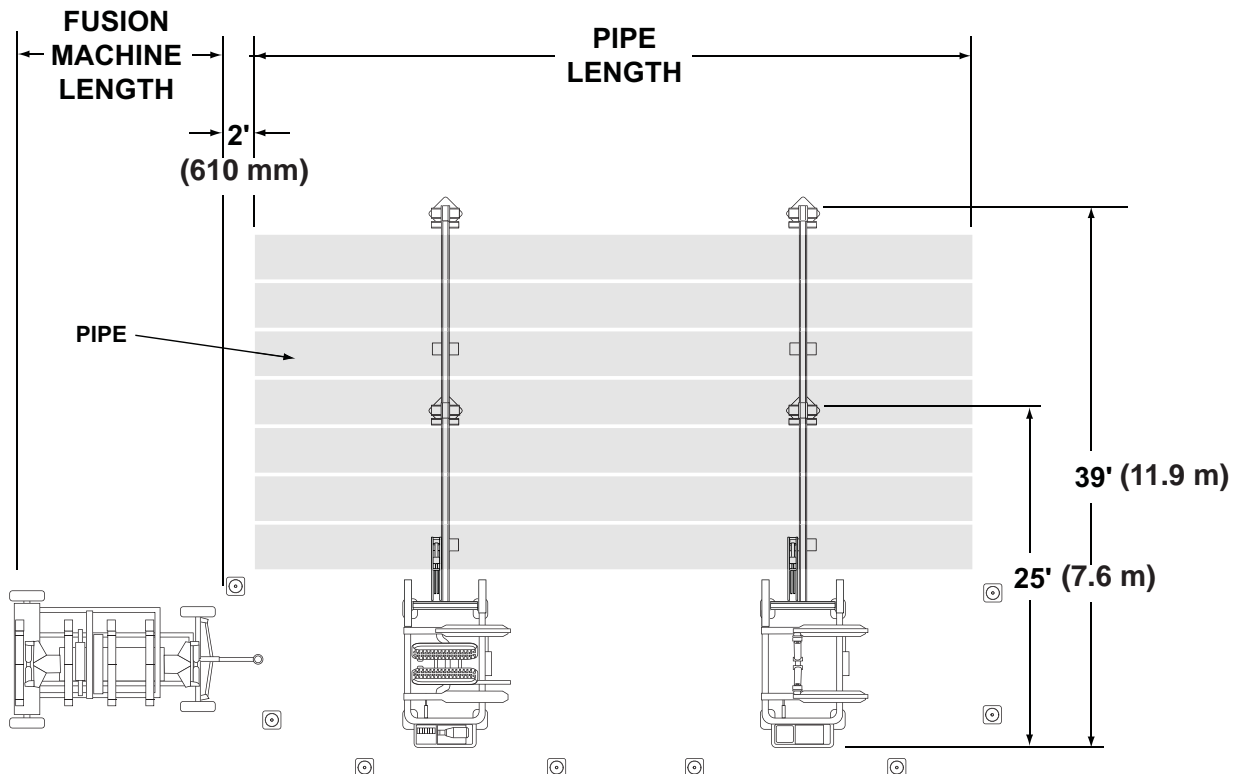
# Specifications

## MegaMc PolyHorse

Mega PolyHorse Pipe Rack Capacity				
Pipe OD (mm)	Pipe OD (inches)	Number of Pipe Sticks		
		"Single Racks"	"Double Racks"	Truckload
500	20	6	14	20
560	22	5	13	16
	24	5	12	16
630	26	4	11	9
710	28	4	10	9
	30	4	9	9
800	32	3	9	9
	34	3	8	6
900	36	3	8	4
	42	3	6	4
1200	48	2	6	4

### Notes:

1. An additional pipe can be loaded directly into the pipe stands.
2. Pipe counts are theoretical and egged or bowed pipe may cause actual loading to be one less.
3. Pipe sizes are not direct conversions, but will hold the same numbers of pipe sticks on the racks.



CD00973-719-11

## About this manual . . .

McElroy Manufacturing continually strives to give customers the best quality products available. This manual is printed with materials made for durable applications and harsh environments.

This manual is waterproof, tear resistant, grease resistant, abrasion resistant and the bonding quality of the printing ensures a readable, durable product.

The material does not contain any cellulose based materials and does not contribute to the harvesting of our forests, or ozone-depleting constituents. This manual can be safely disposed of in a landfill and will not leach into ground water.

TX001660-8-19-99



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