

## **Hi-Hog Farm & Ranch Equipment Ltd.**

# **Hydraulic Squeeze Chute**



## **Congratulations!**

On the purchase of your New Hi-Hog Hydraulic Squeeze Chute.

Before you introduce family, friends, and livestock to your new chute, take a moment to familiarize yourself with the best practices for safe and efficient operation of your new Hi-Hog hydraulic squeeze chute.

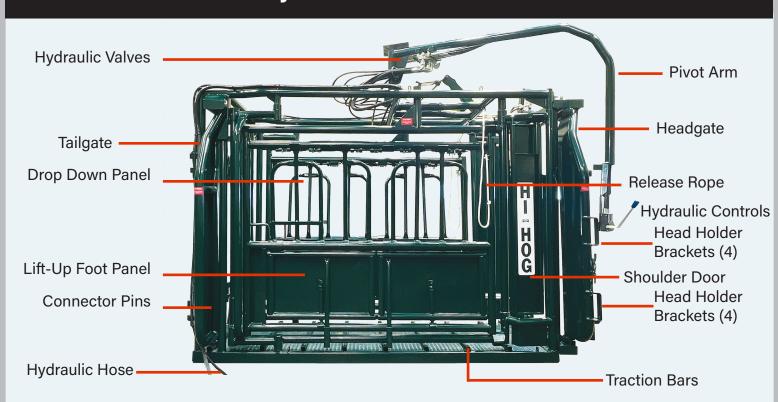
From our family to yours, thank you for your patronage.

If you have any questions please call us
toll free anywhere in mainland North America

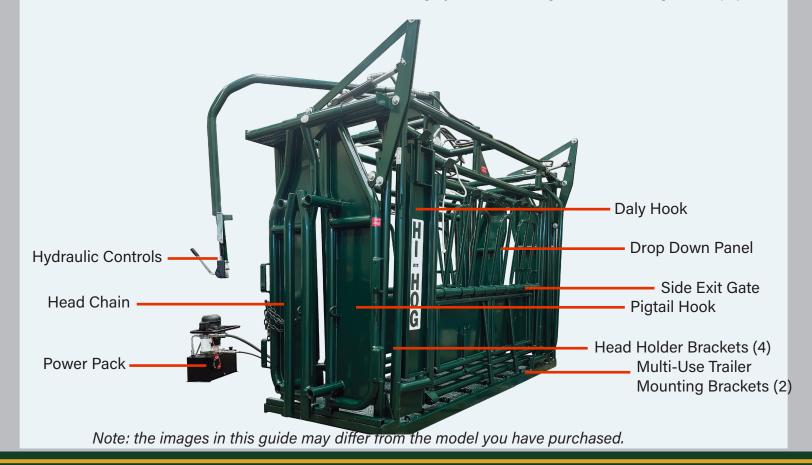
1-800-661-7002

For inquiries outside of North America, call 1-403-280-8300

# **Hydraulic Chute Terms**



If you are using the optional Hi-Hog Multi-Use Transport Trailer (#1574) please follow the instructions that come with the trailer. Before Each Use, check all functions thoroughly before running livestock through the equipment.



# **Safety / Pre-Operation Preparation**

Note: The term 'operator' will be used in this guide to refer to anyone who is working with, or assisting with, the operation of the chute.

#### Safety

WARNING: DO NOT repair the chute or go into the chute when the Hydraulic Pump is operating. This can result in injury to the Operators. Disconnect the power source before performing any necessary repairs or inspection. DO NOT Re-Wire the Electric Power Pack if you are not a Certified Electrician.

Foryour safety, electric power packs must be connected and wired by a fully certified electrician.

If you have one person running the hydraulic controls and another person working the chute please ensure that both individuals have a clear strategy for communicating when it is safe to be near the chute and when it is safe to operate the hydraulics.

DO NOT operate the chute unless you know that all help is safely clear of the chute. Improper use may result in injury or death. For humane animal treatment ensure you have a clear view of the animals whenever you operate any of the hydraulic controls. DO NOT over-squeeze the chute.

Whenever you leave the chute unattended we recommend the hydraulics should be detached from the equipment to prevent accidental operation.

FAMILIARIZE all operators with the Pinch Points on the Hydraulic Squeeze Chutes;

Including the Head Gate, Tail Gate, Drop Down Panels, Side Exit Gate, Shoulder Panels and All Areas Between the Steel and the Body of the Animal inside the Squeeze Chute.

Please exercise caution when working with the equipment to avoid injury to the operator and livestock

**FAMILIARIZE** yourself and other operators with the basics of Livestock Behaviour.

https://www.hi-hog.com/resources/livestock-behavior/

#### PREPARATION OF THE WORKING ENVIRONMENT

- -To minimize livestock stress ensure the area around the chute is well lit. Livestock will hesitate if they can't see well enough to distinguish if the chute presents a threat. While this usually happens when the chute is too dark it can also happen if the lighting in the chute is too bright. Lighting that points directly at the headgate for example can make it difficult for the animal to see their way forward (for the same reason this can also be caused if the animal is walking directly towards a setting or rising sun).
- -Remove all tripping Hazards. The surface should be clean, dry, level, and clear of any obstacles or hazards.
- -If an animal is able to get into the operator's working area ensure that the operator can quickly and safely escape the area. Ensure that you always have a clear exit route behind you.
- -Ensure that the chute can be opened without obstruction to quickly and safely release a troubled animal.
- -While the chute can be set directly on the ground you can extend the life of the chute by mounting it on timbers, setting it on a concrete pad, installing a paddock slab base, or providing a similar dry stable environment.
- -Individuals who are not operating the squeeze chute should stay clear of the squeeze working area.
- -Keep the working environment clear of items/elements that may stress your livestock. These items could be the sound of a barking dog, the movement of a plastic bag blowing around the working alley. Unfamiliar elements in their environment will raise cattle's stress levels.
- -If you have cell phone service ensure you have a fully charged cell phone with you. If possible have someone with you when you work your cattle.

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# **Pre-Operation Set-Up**

## **Chute Preparation**

Inspect the chute before processing animals to ensure all components are working properly. All gates and latches should be inspected to ensure they function correctly and are latched securely before animals are introduced into the chute.

The chute will perform better when the hydraulic fluid has been warmed up. To warm the hydraulic fluid, simply run all the hydraulic controls to circulate the fluid. The duration required to warm up the fluid is dependent on the temperature of the working environment. In cold climates this may take approximately half an hour.

**Do not** operate any of the hydraulics while an operator is in the chute.

Keep the chute clean. While using the chute, one should periodically inspect the interior of the chute to ensure it is safe for livestock to enter the chute. Build up of manure can create dangerous footing conditions. These conditions will slow down processing as livestock will be more cautious when entering the chute and, if an animal slips in the chute, you will be required to take time to secure their safety.

## Transporting your chute - CAUTION: ALWAYS CHECK FOR OVERHEAD LINES

When you are preparing to move your hydraulic chute, position the hydraulic controls so they will be protected from accidental damage. The best place to lift the hydraulic chute is under the top horizontal rail. In addition to the primary lifting methods described above, we recommend you use additional ties/straps to secure your chute so that it does not shift or slide during transport.

**Caution:** Before you lift the chute, ensure that it is not attached to any other items.

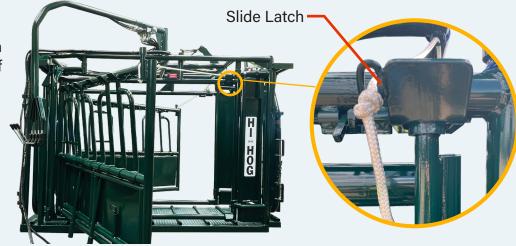
# **Squeeze Chute Animal Accessibility**

Your chute comes with exceptional access. Each of the access gates comes with a large gravity slam latch. All latches and locks are designed to be safely and easily operated, even while wearing gloves.

Side Exit Gates

The chute comes standard with a side exit gate on both sides of the chute.

Each gate comes with a slide latch if you wish to secure a side exit gate. With the slide latch in the unlocked position, the side exits can be released from either side of the chute with the control rope.



# **Squeeze Chute Animal Accessibility**

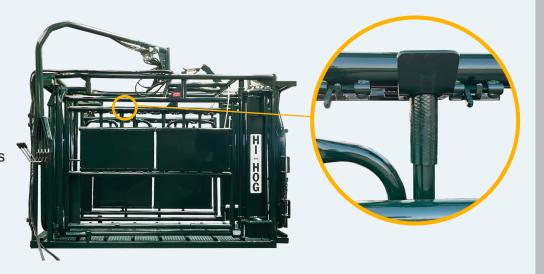
## **Side Drop Gates**

Each side of the chute includes four drop down panels. Each panel can be lowered flat against the bottom half the side exit panel. The panels can then be swung back up where they engage automatically with the gravity slam latch. Each drop gate comes with a safety lock equipped to prevent accidental un-latching.



### Side Hoof Access Panels

Each side of the chute includes two foot access panels. Each panel can be raised independently and latched and locked to ensure safe full access to the lower half of the animal.



#### Side Shoulder Gate

Each side of the chute includes a full height, removable, shoulder access gate. Each gate includes a fast action gravity slam latch.

All Latches are equipped with rubber sleeves, to reduce latch noise during operation.





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**Familiarize Yourself with the Basics of Low-Stress Animal Handling** 

https://www.hi-hog.com/resources/livestock-handling-tips/tips-for-herding-cattle/

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# **Accessibility**

## Side Back-up Slots

The rear two drop down panels, in each of the squeeze sides, include slots to slide in a back-up bar. (Back-up bar not included)

## Tailgate

The tailgate and the headgate work the same way. The two sides of the tailgate operate simultaneously ensuring the stanchions remain parallel as they open and close. Because each side only needs to travel a short distance, they can be opened or closed very quickly. The tailgate can also be used like the headgate, to hold an animal.

## Headgate

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The parallel stanchions minimize the risk of choking. The full width opening ensures livestock can enter and exit the chute efficiently, calmly and safely.

#### **Neck Extension Bars**

The neck extender holds the head away from the headgate to provide a safe area for neck injections. The extender is bolted on to the chute. If you do not need or want it on your chute, you can easily remove it. The connecting sleeve includes several optional bolt locations so you can set the depth of the neck extender to fit your needs.



## **Maintenance**

### **Lubrication Instructions**

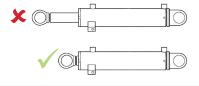
To extend the life of your chute ensure the greased pivot points remain greased. The chute includes 26 greased pivots complete with grease zirks. Clean grease zirks to remove any dust or debris prior to injecting new grease. After injecting grease, remove any excess grease as the excess grease can attract contaminants. Chevron Delo EP2 grease is installed at the factory. This grease provides extreme pressure high load carrying capacity, excellent corrosion and wear protection, excellent water resistance, excellent high temperature stability, and outstanding low temperature pump-ability. Operating temperature -40c min, 40c max. (-40F to 104F)



## Storage

When you are not using your hydraulic chute, you can do a few simple tasks to help extend the life of your chute.

- 1. Clean the chute of any manure or debris prior to storing.
- 2. Ensure all hydraulic rams are left in a closed, protected, position. When the hydraulic rams are in the correct storage position, the headgate and the tailgate will be open and the squeeze sides will be open to the full width of the chute.
- 3. Detach your hydraulic pump, cap the hydraulic lines, and relocate the pump to a warm, dry environment. Avoid storing in environments where rodents or other animals may chew on the hydraulic lines.
- 4. Ensure the hydraulic controls are positioned and/or protected from potential animal contact. Animals may chew or rub up



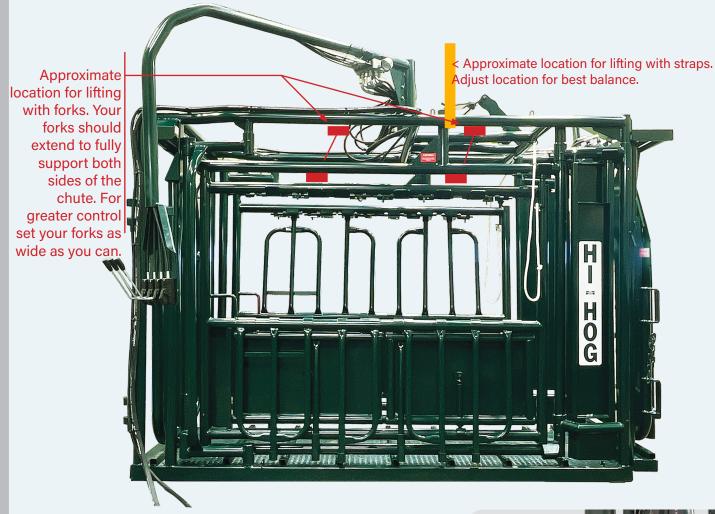
against the hydraulic lines and controls, which could potentially damage the equipment. 5. If the chute is in a damp or wet environment, consider moving it to a dry location for storage.

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## **Maintenance**

## Transporting Your Hi-Hog Hydraulic Squeeze Chute

When you are preparing to move your hydraulic chute, try to position the hydraulic controls so they will be protected from accidental damage. The best place to lift the hydraulic chute is under the top horizontal rail. In addition to the primary lifting methods described above, we recommend you use additional ties/straps to secure your chute so that it does not shift or slide during transport.



Caution: Before you lift the chute, ensure that it is not attached to any other items, and that it will not get hung up on the lifting equipment or any other structure.

#### Caution: always check for overhead lines

If you are using the optional Hi-Hog squeeze chute trailer, please follow the instructions that come with the #1574 Multi-Use Transport Trailer.

After transport check all functions thoroughly before running livestock through the equipment.



# **Hydraulic Controls**

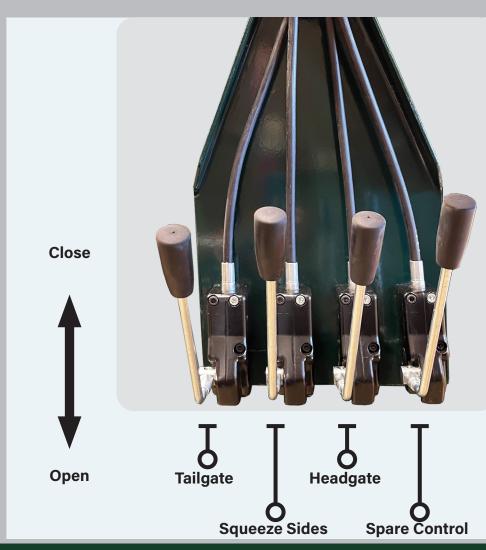
## **Install Handles**

Hi-Hog's hydraulic chutes are shipped with the control handles removed. These handles are strapped to the chute as shown on the right.

Remove the three handles from the control arm and install them into the three left hydraulic controls. If you intend to use the spare hydraulic control remove it from the control arm and install it the fourth hydraulic control at the right end of the control station.

# Spare Hydraulic Control Handle

## **Hydraulic Controls**



The set up shown here is Hi-Hog's standard set up for our hydraulic chute. This set up is practical for right hand operation.

If you wish to change the location of the controls simply unscrew the controls from the control station and re-install the controllers in the order you want.

Lift the hydraulic control handle up to close the headgate and tailgate, or narrow the chute sides.

Push the hydraulic control handle down to open the headgate and tailgate or widen the chutes sides.

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# **Hydraulic Controls and Fluids**

## **Hydraulic Controls**

Hi-Hog uses Co-op IHMV ISO 22 hydraulic fluid. This hydraulic fluid is formulated with antiwear additives, oxidation and corrosion inhibitors, foam and aeration suppressants, and a shear stable viscosity index improver.

Do not use in high pressure systems in the vicinity of flames, sparks, and hot surfaces. Use only in well ventilated areas. Keep container closed.

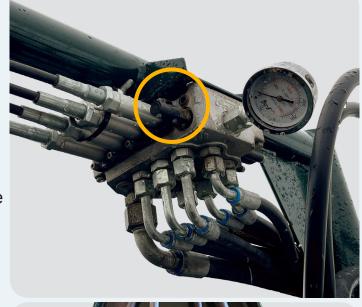
## **Adjusting Hydraulic Pressure**

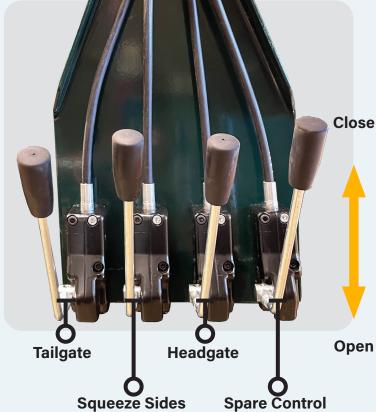
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The pressure can be adjusted at the hydraulic/cable junction located on top of the chute mounted on the central control mast.

Pressure Setting, The pressure relief valve is set at the factory for a hydraulic fluid pressure of between 1100 PSI and 1300 PSI.

If you have questions about your hydraulics call 1-800-661-7002





# **General chute operation**

## A: Prepare chute to receive animal

Set headgate width for the head size of the next animal. (12" to 15")



Set opening width of the chute for the next animal.



## **B:** Catch animal

1 Open Tailgate

Open tailgate to full width to let animal into the squeeze chute.

See Note below\*

**2** Close Headgate

Operator may have to widen the headgate opening to entice animal forward. Close the headgate when the animal's head passes by the stanchion.

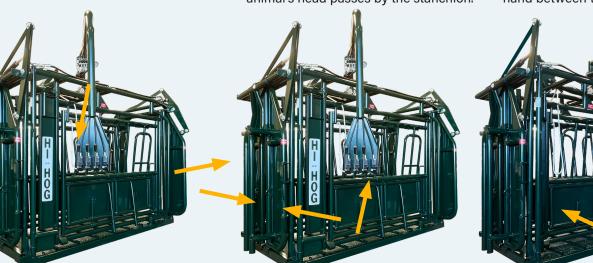
Squeeze the sides of the chute so they

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are snug to the animal but not tight.

Operator should be able to slide their hand between the side and the animal.

Squeeze Sides



\*Note: After the animal has entered the squeeze chure you will close the tailgate. The speed or me entering animal will determine if this step is performed before, during, or after step 2. Closing the tailgate will prevent the animal in the chute from backing out of the chute and prevent additional animals from attempting to enter the chute.

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SIDES

# **General chute operation**

#### C: Release animal





## **Emergency response**

1 Assess Situation

Despite the care taken to make the chute as safe as possible, livestock may find themselves in need of help.

See Note below\*\*

**2** Give animal space

Often all an animal needs is a little extra space to get itself out of trouble. This could be as simple as opening the chute to its full width to stand up. Release Animal

If the animal needs more room, the headgate, tailgate and two side exits can be opened up to give the animal plenty of room to sort themselves.



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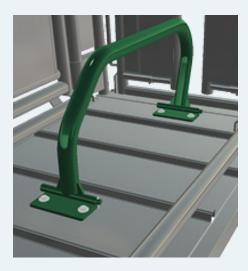




\*\*Note: Quickly assess situation. Before adjusting the squeeze chute evaluate if your actions may endanger operator or animal. If there is no risk you can proceed to adjust the chute to provide room for the animal to remove themselves from danger. If the animal is highly stressed you should release the animal as soon as possible.

# Add-on options

Sternum Bar, Item 1554







Hydraulic Head Sweep, Item 1561



The sternum bar option can be installed into either the hydraulic or manual squeeze chutes. Two base plates are bolted to the floor of the squeeze chute (as shown at left). The sternum bar is attached to these brackets with a pin connection. To remove the sternum bar simply remove the pins from the floor plates.

The sternum bar can be removed in seconds by simply removing the two hinge pins that secure the bar to the floor brackets.

When you first receive your sternum bar you will need to bolt the floor brackets to the squeeze chute floor. All Hi-Hog chutes built after 2016 include pre-drilled mounting holes

For the safety of your livestock Hi-Hog's sternum bar:

- 1. Is gently sloped on the entry end of the bar
- 2. Does not extend through the head gate on the exit end of the bar

While most squeeze trailers require the operator to manually lift and strain to connect the trailer to the squeeze chute, Hi-Hog's Multi-Use Transport Trailer can remain connected to your vehicle at all times.

To make transport easier, the trailer is tapered at the back end to guide the trailer around the squeeze body. Once aligned, simply attach the Chains and Slip Hooks to the lifting tabs on your Hi-Hog chute and use the included 2000 lb auto-locking winch to lift the chute into position. (If you are using this trailer on a Hi-Hog squeeze chute built prior to 2024, the lifting tabs will need to be welded on to your existing chute).

The Towing Capacity is 5,000 Lbs. Which is based on the Class #3 Trailer Hitch.

Once your chute has been lifted into position, simply secure your chute with two tie-down ratchet straps and you're ready to go.

The hydraulic head sweep provides an alternative to the Neck Extender or Head Holder on Hi-Hog's hydraulic squeeze chute.

Extend your head control and neck access with Hi-Hog's optional Hydraulic Head Sweep.

- -Hi-Hog's hydraulic cattle chute includes an extra hydraulic control that can be used to run the head sweep.
- -The head sweep arm is long enough to prevent livestock from ducking under the sweep.
- -Provides excellent control for head work.

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# **Hydraulic pump options**

## Gas Power Pack, Item 1562



The gas powered hydraulic pump features a Honda 5.5 horse power 163cc engine providing 7.59 ft-lb of torque. The pump is a 2-stage hydraulic pump which provides faster cycle times and higher pressure with small engine requirements. Max continuous flow, low pressure 15.2 gpm / high pressure 3.3 gpm, with continuous pressure of 3000 psi

Compact combustion chamber, overhead cam design, and uni-block construction reduce fuel consumption

Powerful torque across a wide RPM range helps reduce engine speed drop from sudden load increases.

Internal timing belt provides quiet operation

Valve train and gear noise is minimized

Precision engineered and machined components result in lower vibration The motor is mounted in a wheeled frame for easy handling 147 lbs with a full tank.

### Electric Power Pack, Item 1559

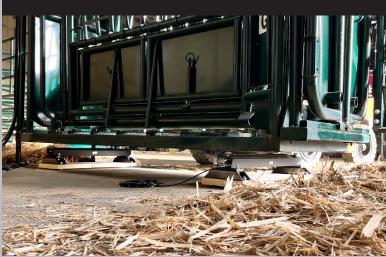


Hi-Hog's 2 horsepower electric hydraulic pump is set at the factory to pump 1.5 gallons/minute at 1000 psi. The electric pump can run on either 110 V or, for best performance, 220 V.

Unless otherwise reuested, all pumps come wired for 220V power from the factory.

127 lbs with a full tank.

# Load bars / cells



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The load bars / load cells of most scale manufacturers can be mounted on Hi-Hog's hydraulic squeeze chute.

The side rails of the squeeze floor are made with 2"w x 3"h rectangular tubing with a distance of 36" in between the rails. Consult with manufacture for proper mounting instructions.

Note: The capacity of your load bars must be able to handle the combined weight of both the chute and the livestock being weighed.

# Item #1535 Head Holder for Hydraulic Squeeze Chute



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Head Holder #1535 LH Below. LS = Left Hand Side of the Animal



Calm your livestock with Hi-Hog's Head Holder. With Hi-Hog's Head Holder, you can safely and comfortably secure the animal's head, ensuring minimal movement during procedures.

2024 Hydraulic Squeeze Chutes come with Left and Right Mounting Brackets welded onto the Squeeze

Pre-2024 Hydraulic Squeeze Chutes need the Mounting Brackets welded on. (Please Request When Ordering)

2025 Model will have the option of being fully Hydraulic.

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# **Troubleshooting**

#### HYDRAULIC SQUEEZE CHUTE TROUBLE SHOOTING, CHECK PRIOR TO EACH USE FOR:

#### 1. Insufficient fluid level

Lack of oil in a system may not stop it from operating, but it may result in increased contamination, increased temperatures and poor oil lubrication.

#### 2. Oil Contamination

Hydraulic filters must be monitored in an effective manner so not to either waste money by changing them too early or risk contaminating the system by changing them too late. Filters that are clogged will stop holding any dirt particles; this allows dirt to circulate in the system. This will then decrease the life of each

#### 3. Fluid leakage

Where oil escapes from a system, air or other contamination can enter. As we have said contamination causes many early failures.

#### 4. Wrong fluid type or viscosity

The quality of the oil is vital to the operation of the hydraulic system as it not only transfers the power; it also lubricates the entire system. The viscosity and therefore, effectiveness will depend upon whether the system is running at the correct parameters. Poor oil selection can result in premature degradation of oil properties and in turn excessive wear of the system components.

#### 5. The presence of air in the system

A sure sign of this is foam and air entrained in the oil. Air dissolved in the darkened oil will cause oxidation of the oil and foam will often be evident in the reservoir. Both of these cause failure of oil lubrication performance.

#### 6. Excessive temperatures

Excessively high running temperatures can be easily detected in engines or electric motors, but not so in many hydraulic systems. Quite often there is no method of recognising overheating, but this is the single most effective way of damaging hydraulic oil and the system components. Constant high temperature lowers oil performance and diminishes lubrication. Premature wear is often a result of poor lubrication.

#### **HYDRAULIC SQUEEZE TROUBLE SHOOTING:**

#### 1. PUMP WILL NOT RUN

-Check supplied power from breaker to the pump assembly.

#### 2. PUMP RUN HAS NO PRESSURE

- -Check Oil Levels. Oil Levels should be 1/2 to 3/4 in the sight glass.
- -Check the rotation of the motor. It should be turning clockwise.

#### 3. PUMP RUNS BUT SQUEALS WHEN I LOAD IT UP

-Check the pressure relief valve on the pump. It may be set too high.

#### 4. PUMP IS RUNNING, BUT THE CONTROL PRESSURE IS TOO LOW AT GUAGE

- -Check to see if the spool relief valve is properly set.
- -If the settings are correct adjust the main control valve. Factory settings are between 1200-1300 PSI
- -Check t see if the Spool Relief Valve is properly set.

#### 5. SQUEEZE RUNS GOOD, THEN THE FUNCTION BECAME ERRATIC AND SLOW

- -Your Squeeze may have AIR in the system. You will have to bleed the air out of the system.
- 1. Start from the control valve Loosen each fitting to allow the trapped air to escape.
- 2. Moving through each connection until you bleed each side of the cylinders.
- 3. Do this to the Headgate, Squeeze and Tailgate Cylinders.

#### -DON'T FORGET TO CHECK THE OIL LEVEL PERIODICALLY

If you have any questions please contact the factory and one of our technichians will assist you. (toll free 1-800-661-7002 Monday to Friday from 8:00 am to 4:00 pm MST)