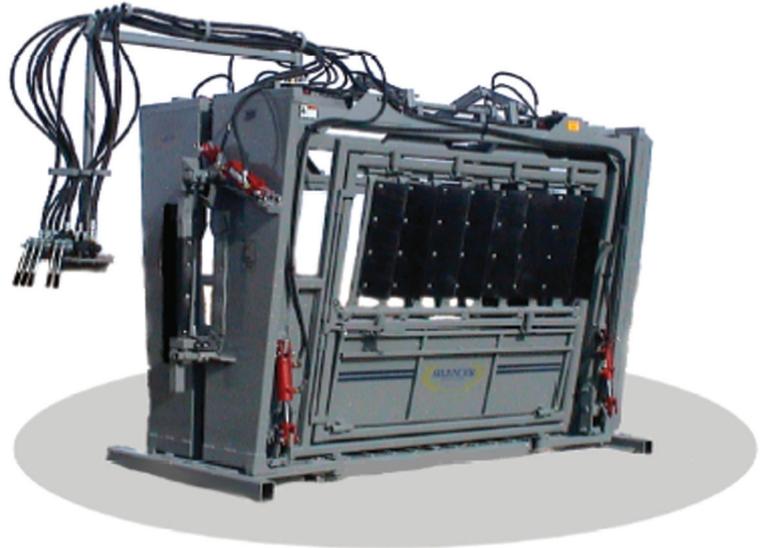


# OPERATOR'S MANUAL



**M**oly Manufacturing, Inc.

2435 10<sup>th</sup> Road

Lorraine, Kansas 67459 U.S.A.

785-472-3388

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



**MOLY MANUFACTURING, INC.  
2435 TENTH ROAD  
LORRAINE, KANSAS 67459 U.S.A.**

**READ ENTIRE MANUAL AND WARRANTY  
CAREFULLY BEFORE OPERATING EQUIPMENT.**

**For your records:**

**Serial #** \_\_\_\_\_

**Description of equipment purchased:** \_\_\_\_\_

**Purchased from:** \_\_\_\_\_

**Purchased from address:** \_\_\_\_\_

**Date purchased:** \_\_\_\_\_

**RETURN WARRANTY CARD**

**Must be returned within 10 days of purchase for warranty to be honored!**

Name of purchaser: \_\_\_\_\_

Company name of purchaser: \_\_\_\_\_

Purchaser's address: \_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

Purchaser's phone: Office: \_\_\_\_\_

Home: \_\_\_\_\_

Other: \_\_\_\_\_

Serial #: \_\_\_\_\_

Description of equipment purchased: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Purchased from address: \_\_\_\_\_

Date purchased: \_\_\_\_\_



Place  
Stamp  
Here

**MOLY MANUFACTURING, INC.**  
**2435 TENTH ROAD**  
**LORRAINE, KANSAS 67459 U.S.A.**

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# !! IMPORTANT !!

You will find the following **⚠ WARNING** symbols throughout the manual. Pay careful attention to these segments to ensure your safety. The **⚠ WARNING** symbol means that failure to heed and obey the safety instructions can cause serious injury.

**⚠ WARNING**

1. Use extreme caution when working with cattle in the SILENCER.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use should the need arise, and know how to use it.
4. Moly Mfg., Inc. Power Units are designed to deliver 9-10 gallons per minute (gpm) at 1000-1300 psi. If tractor or other hydraulics are used, with written permission from Moly Mfg., Inc., take care to match flow and pressure specifications.

4.2 Bank of SILENCER Control Levers

**⚠ WARNING**

The designated SILENCER controls operator must check operating area to see that all personnel are clear of the unit each time before operating any control levers.

3.2 Storage

**⚠ WARNING**

Disconnect all power sources.  
Store in an area away from human activity.  
Do not allow children to play on or around the stored equipment.

4.2 Additional optional controls per customer request

**⚠ WARNING**

NOTE: Optional dual controls with the same functions on both sides of chute require additional and careful communication between chute operators to assure safe operation.  
Pivot Controls - Keep pivot controls clear of headdoors when releasing animals to exit chute.  
Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via Remote Control.

4. Operating Instructions

**⚠ WARNING**

1. Use extreme caution when working with cattle in the SILENCER. Cattle behavior is unpredictable.
2. Clear the area of by-standers, especially children, before starting.
3. Secure loose clothing and long hair so that it will be kept from moving parts.

5. Routine Maintenance Instructions

**⚠ WARNING**

Disconnect all power sources.  
Clear area of by-standers, especially children.

Operating SILENCER Tilt Chute

**⚠ WARNING**

1. Keep clear of SILENCER Tilt Chute when operating.
2. Animal must remain fully restrained when animal is tilted, and return tilted.
3. When tilted and floor is open, use caution when snaring legs; keep body parts & clothing clear from area.
4. Use caution when releasing legs.
5. Check for any debris before returning animal to upright position.
6. Before tilting animal upright, make sure floors are latched, Hydraulic Leg Pull is retracted in home position, check for any debris under the SILENCER.

Operating Hydraulic Neck Extender Bars

**⚠ WARNING**

1. Keep clear of Hydraulic Neck Extender Bars when operating.
2. Do not remove shields for any reason (rubber belting).
3. Keep all objects out of belted area.

Operating Hydraulic Head Restraint

**⚠ WARNING**

1. Check Shear Pin before operating; replace, if needed.
2. Keep clear of Hydraulic Head Restraint when operating.
3. Return Hydraulic Head Restraint to home position before releasing animal.

Operating De-Horner Head Restraint

**⚠ WARNING**

1. Keep clear of De-Horner Head Restraint when operating.
3. Return De-Horner Head Restraint to home position before releasing animal.

Operating Hydraulic Kick Bar

**⚠ WARNING**

1. Kickbar must be in retracted position before animal enters.
2. Rotate kickbar into rotated position behind animal before humans enter.
3. Do not operate kickbar when operator is inside of chute.

Operating Chute Carriers

**⚠ WARNING**

1. Clear area of by-standers, especially children; clear area of livestock.
2. Check for adequate clearance, check overhead clearance.
3. Make sure hydraulic lines will not interfere with loading & unloading of chute.
4. Do not transport carrier with pump in operation.
5. Observe all traffic laws.

Operating Overhead Carrier

**⚠ WARNING**

1. Stand clear when operating.
2. Check hitch coupler.
3. Check safety chain.
4. Check tire wear & pressure.
5. Check wheel bearings.
6. Check hydraulic cylinder & hose for leaks.
7. Check chains for wear & tear.
8. Check hooks for wear.
9. Pin Adjustable Slide Tube.
10. Check hydraulic pump is secure.

Operating Carry-All Carrier

**⚠ WARNING**

1. Stand clear when operating.
2. Check hitch coupler.
3. Check safety chain.
4. Check tire wear & pressure.
5. Check wheel bearings.
6. Check hydraulic cylinder & hose for leaks.
7. Check chains for wear & tear.
8. Check hooks for wear.
9. Chains are free of any components or equipment other than top frame.
10. Check hydraulic pump is secure.
11. Do not pick up chute from SILENCER side with hydraulic hoses.

Operating Yoke Carrier

**⚠ WARNING**

1. Stand clear when operating.
2. Check hitch coupler.
3. Check safety chain.
4. Check tire wear & pressure.
5. Check wheel bearings.
6. Make sure winch brake is operational.
7. Check cable for frays & strain.
8. Check clamps & hook before operating.
9. Check rear frame hooks for cracks.

**Operating Electric Hydraulic Pump**

**⚠ WARNING**

1. Motor must be grounded in accordance with the National Electric Code and Local Codes, by trained personnel to prevent serious electric shocks.
2. To service motor, disconnect power source from motor and any accessory devices and allow motor to come to a complete stand still.

**Operating Gas Powered Hydraulic Pump**

**⚠ WARNING**

1. Gasoline is highly flammable and explosive. Turn engine off and let cool before refueling.
2. The engine emits toxic carbon monoxide. Do not run in an enclosed area.
3. Read Operator's Manual before operation.

**Operating Overhead Scales**

**⚠ WARNING**

1. Use extreme caution when working with cattle in the SILENCER.
2. Clear the area of bystanders, especially children, before starting.
3. Raise or lower SILENCER ONLY when empty - Not for lifting people, animals, or other items.
4. No portion of body should be allowed under the SILENCER at any time.

**⚠ WARNING**

It is advised that all equipment received by the customer during winter months be immediately washed off with water to ascertain that any potential salt residue during freight transportation from road treatments has been cleared from the equipment. Moly Mfg., Inc. is not responsible for any potential salt damage to equipment due to salt during freight transportation.

**Polyethylene Quick-Action Slam Shut Side Exit**

**⚠ WARNING**

1. Before operating, make sure safety lock is in down or lock position to ensure safety to prevent possibility of the opening of quick-action side exit latches.
2. Pull on cable making sure the side exit pin is locked.
3. As gate is opening, the operator must quickly move away from gate and exiting animal.

# 1. SAFETY



Look for this Safety Box throughout the manual for tips to ensure your safety. The  **WARNING** symbol means that failure to heed and obey the safety instructions can cause serious injury.



1. Use extreme caution when working with cattle in the SILENCER.
2. Clear the area of by-standers, especially children, before starting.
3. Have a first-aid kit available for use should the need arise, and know how to use it.
4. Moly Mfg., Inc. Power Units are designed to deliver 9-10 gallons per minute (gpm) at 1000-1300 psi. If tractor or other hydraulics are used, with written permission from Moly Mfg., Inc., take care to match flow and pressure specifications.

Safe, efficient, and trouble free operation of your SILENCER requires that you, and everyone else who will be using or maintaining the SILENCER, read and understand the Safety and Maintenance information contained within the Operator's Manual.

Remember, you are the key to safety. Only authorized, trained operators should be allowed to operate the equipment described. Good safety practices protect you and the people around you. Operators should read and be familiar with the complete operation present, service procedures, maintenance procedures, and follow all safety precautions. Do not risk injury or death by ignoring good safety practices.

Keep this manual handy for frequent reference and to pass on to new users or owners. Call your SILENCER manufacturer if you need assistance, or for additional copies of the manual at 785-472-3388.

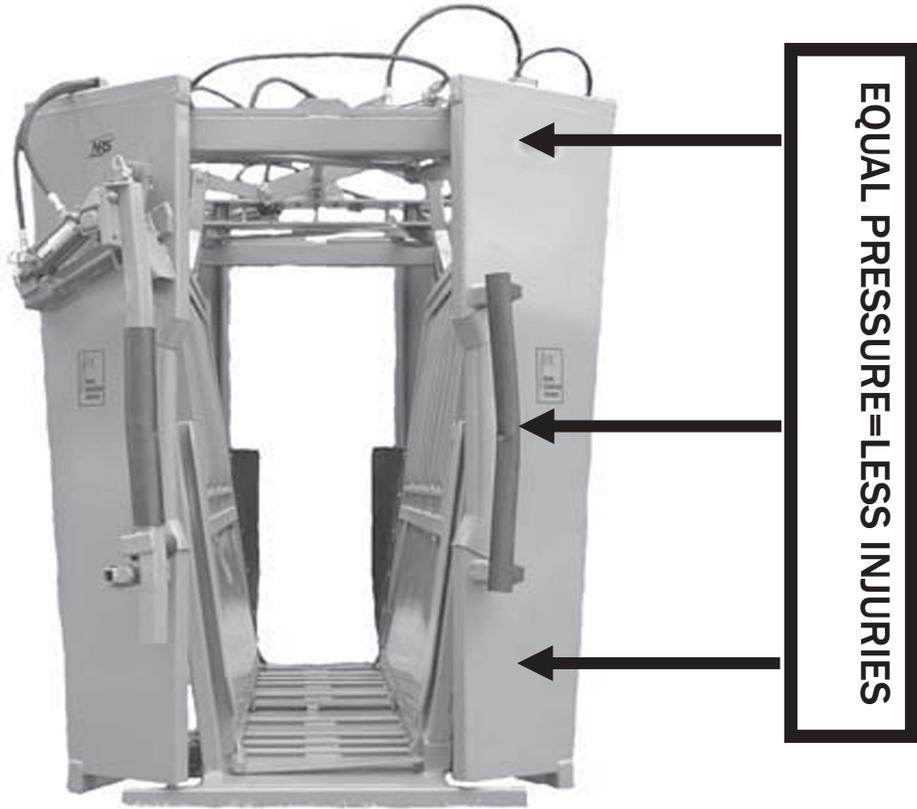
Read this manual carefully to learn how to use the equipment safely and for maximum efficiency. By following the instructions, and utilizing a good maintenance program, your SILENCER will provide many years of use.

MOLY MANUFACTURING, INC.  
WARRANTY

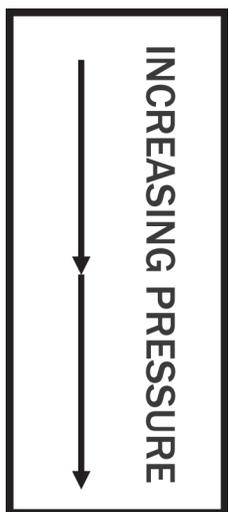
Please Read Carefully

This livestock working equipment is warranted to the original purchaser to be free from defects in material and workmanship under normal use and service for a period of one year (12 months) from date of delivery of the unit to the original purchaser. Any and all warranties regarding this unit are for the benefit of the original purchaser only and are non-transferable and limited to the replacement or repair of any parts found, upon inspection by Moly Mfg., Inc., to be defective. The sole obligation of Moly Mfg., Inc., will be to make this unit capable of being operated for the ordinary purpose for which this product is manufactured for use subject to the following conditions:

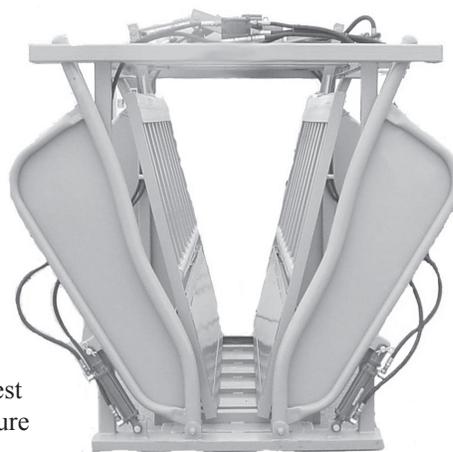
1. The malfunction must be proved attributable to a defect in material or workmanship, including repairs performed under this warranty. Malfunctions that are for any other reasons will not be remedied, including but not limited to reasons of misuse, negligence, accident, tampering with parts, or any repairs, or modifications made other than by Moly Mfg., Inc.
2. All warranty repairs or part replacements are F.O.B. the Moly Mfg., Inc. factory. The original purchaser must bear all packing, shipping, insurance costs, and other costs, except parts that are necessary to make repairs under this warranty.
3. This warranty does not apply to any malfunction arising out of any application of the unit other than to normal use. **WARRANTY VOID IF SILENCER CHUTE OR OTHER MOLY MFG., INC. EQUIPMENT IS OPERATED BY OTHER THAN A MOLY MFG., INC. POWER UNIT AND/OR OTHER THAN MOLY MFG., INC. ADVISED LUBRICATION USED WITHOUT PRIOR WRITTEN PERMISSION FROM MOLY MFG., INC. HEADQUARTERS, LORRAINE, KANSAS U.S.A. 785-472-3388.**
4. This warranty is in lieu of all other express warranties that now or may hereafter arise. Any and all Implied Warranties, including warranties of merchantability and fitness for particular purpose, shall have no greater duration than the duration above stated for the express Limited Warranty. Some states do not allow limitation on length of an Implied Warranty.
5. Component parts, equipment, accessories, PAINT, and other items not manufactured by Moly Mfg., Inc. are warranted only to the extent such items are warranted by the original manufacturer of such items. **This includes but is not limited to hydraulic pumps, motors, cylinders, hoses, remote controls, tires, belting, poly sheeting, and wheel bearings.**
6. Incidental and consequential damages caused by malfunction, defect, or otherwise, and in respect to breach of any express or implied warranty, are not the responsibility of Moly Mfg., Inc. and to the extent permitted by law are hereby excluded both as to property damage and, to the extent not unconscionable, as to personal injury damage. Some states do not allow limitation or exclusion of incidental or consequential damage.
7. The provisions of this warranty are severable and if any provision shall be declared invalid, the remaining provisions shall remain in full force and effect. The purchaser claiming under this warranty shall submit a warranty claim in writing to Moly Manufacturing, Inc. for inspection by an authorized Company Representative.
8. Additional Valves added to operate other than Moly Mfg., Inc. equipment can void all warranties. Any changes made to Moly Mfg., Inc. Hydraulic Systems without written permission will void all warranties.
9. Warranty Card must be filled out in its entirety and returned to Moly Mfg., Inc., 2435 Tenth Road, Lorraine, Kansas 67459 within 10 days of purchase.



**Patented complete opening – action headgate** maintains equal pressure on animal, top to bottom, reducing animal stress and injury and putting more \$\$\$ in your pocket.



Low Pressure



Highest Pressure

**Old Style  
Scissor gate**

**Uneven pressure of old type – scissor gates** increase choking and shoulder and leg damage due to highest pressure being located at bottom of headgate.

# Specifications

(See Page 9 for SILENCER MAXX Specifications)

	<b>Ranch</b>	<b>Heavy-Duty</b>	<b>Commercial Pro</b>	<b>Extended</b>
*Weight without pump Most brands specify chute weight including pump	<b>2260 lbs.</b>	<b>2860 lbs.</b>	<b>3780 lbs.</b>	Extended Ranch 3215 lbs. Heavy Duty 3910 lbs. Commercial Pro 4660 lbs.
Silencer Pump Weight	<b>235 lbs.</b>	<b>235 lbs.</b>	<b>235 lbs.</b>	<b>235 lbs.</b>
Overall Height	<b>93"</b>	<b>93"</b>	<b>93"</b>	<b>93"</b>
Head & Tailgate Height	<b>67 ½"</b>	<b>67 ½"</b>	<b>67 ½"</b>	<b>67 ½"</b>
Inside Chute Height	<b>67 ½"</b>	<b>67 ½"</b>	<b>67 ½"</b>	<b>67 ½"</b>
Overall Outside Length	<b>100"</b>	<b>100"</b>	<b>102"</b>	Ranch & Heavy Duty 130 ½" Commercial Pro 132 ½"
Overall Inside Length	<b>91"</b>	<b>91"</b>	<b>91"</b>	<b>120 ½"</b>
Total Width Doors Open	<b>67"</b>	<b>67"</b>	<b>67"</b>	<b>67"</b>
Total Width Doors Closed (including hydraulic levers)	<b>59"</b>	<b>59"</b>	<b>59"</b>	<b>59"</b>

Headgate Opens to 27" and Closes to 3" Space

Lower Squeeze Panels Adjust from 18" - 6" (manual or hydraulic bottom)

\*Weight will vary per chute options selected

## Specifications

<b>SILENCER MAXX</b>	
*Weight without pump Most brands specify chute weight including pump	<b>4405 lbs.</b>
Silencer Pump Weight	<b>235 lbs.</b>
Overall Height	<b>103"</b>
Head & Tailgate Height	<b>77 ½"</b>
Inside Chute Height	<b>77 ½"</b>
Overall Outside Length	<b>132 ½"</b>
Overall Inside Length	<b>120 ½"</b>
Total Width Doors Open	<b>69"</b>
Total Width Doors Closed (including hydraulic levers)	<b>59"</b>

Headgate Opens to 29" and Closes to 3" Space

Lower Squeeze Panels Adjust from 22" - 7" (manual or hydraulic bottom)

\*Weight will vary per chute options selected

## OPTIONAL FEATURES

(See Page 11 for SILENCER MAXX Optional Features)

- Controls.....Left, Right, Dual Controls, or Pivot
- Side Exit.....Left, Right, Both, or Front Pivot Gate
- Short Yearling Sidegate.....Left, Right, or Both
- Bottom.....Mechanical or Hydraulic
- Hydraulic Neck Extender Bars
- Hydraulic Head Restraint.....Left or Right
- De-Horner/Head Restraint.....Left or Right
- Hydraulic Kick Bar
- Brisket Bar
- Rubber Belted Louvers
- Extra Neck Access Side gates.....Left, Right, or Both
- High Test Re-Bar Slotted Floor
- Rear Walk Thru Door.....Left, Right, or Both
- Tilt
- Pump.....
  - 5HP Electric Hydraulic Pump
  - 1 PH or 3 PH
  - Honda 6.5 Gas Powered Pump
- Electronic Scales.....Platform or Overhead
- SILENCER Chute Transports.....Yoke, Heavy Yoke, Commercial Pro Yoke, Carry-All, or Overhead Carrier

OPTIONAL FEATURES -- SILENCER MAXX

- Controls.....Left, Right, or  
Side-to-Side Pivot
- Side Exit.....Both
- Bottom.....Hydraulic
- Hydraulic Neck Extender Bars
- Brisket Bar
- Rubber Belted Louvers
- Extra Neck Access Side gates.....Left, Right,  
or Both
- Rear Walk Thru Door.....Both
- Easy Access Lower Leg Door.....Both
- Rebar Floor
- Hydraulic Kick Bar
- Pump.....
  - 5HP Electric Hydraulic Pump
  - 1 PH or 3 PH
  - Honda 6.5 Gas Powered Pump
- Electronic Scales.....Platform or  
Overhead

## 2. INTRODUCTION

Your SILENCER Hydraulic Squeeze Chute has been designed and manufactured for the efficient processing of livestock. SILENCER is one part of your entire livestock handling system which works together to handle and process livestock efficiently.

For the best performance, leave at least 6-feet of straight alley at the entrance to the SILENCER Hydraulic Squeeze Chute (because turning animals tend to slip sideways if there is a turn at the chute entrance).

## 3. INTRODUCTORY SERVICE, MAINTENANCE, AND PREPARATION

### 3.1 Pre-Start Checklist:

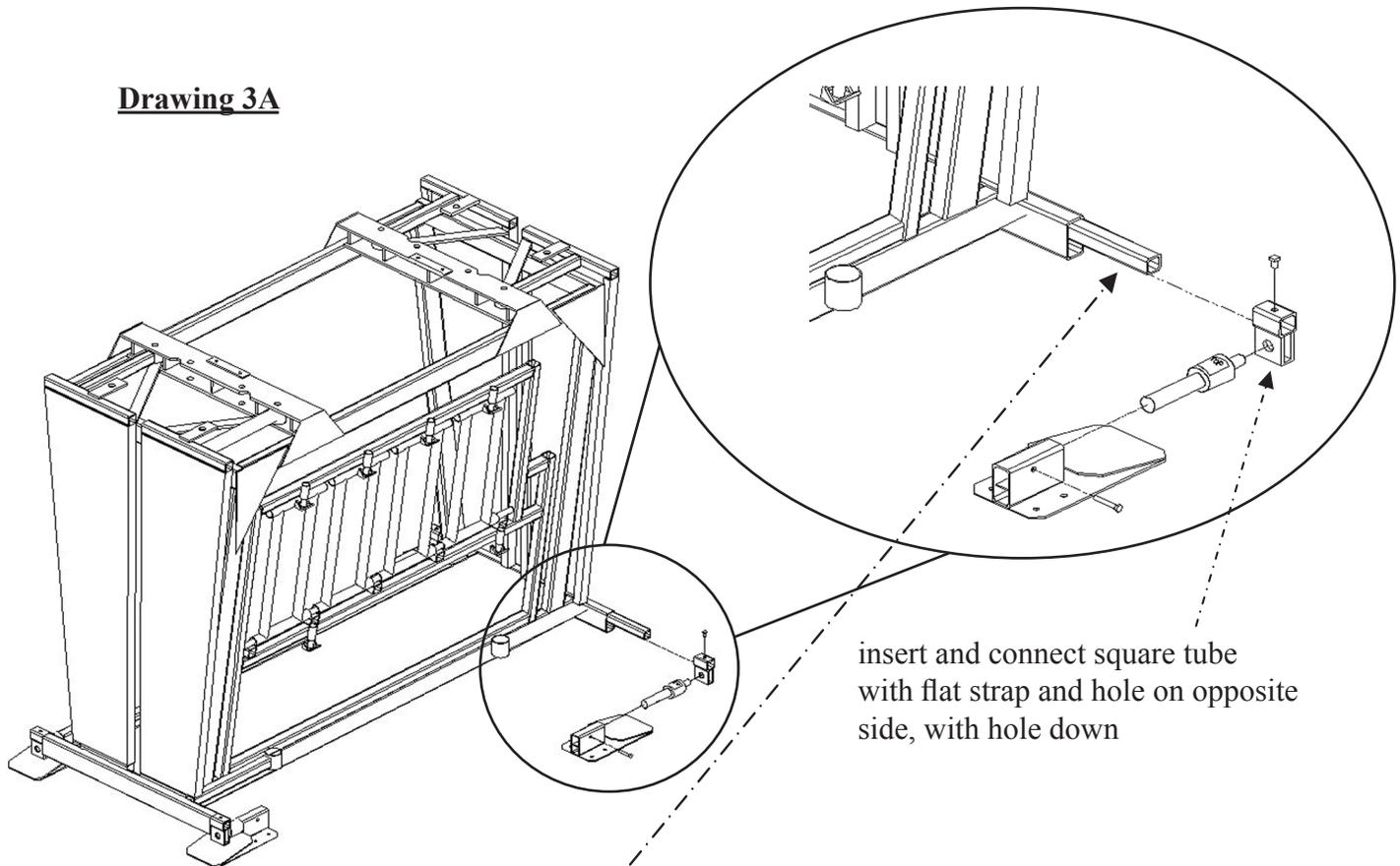
Efficient and safe operation of the SILENCER requires that each user reads and understands all related safety items. This checklist should be followed for personal safety and good mechanical condition of the equipment:

1. Check SILENCER for loose nuts or bolts.  
(Do not over-tighten linkage bolts or linkage stover nuts).
2. Check unit for pinched hydraulic lines, loose hydraulic fittings, cracks in hydraulic cylinder housings and cracks in hydraulic valve bodies. Stay clear of any high pressure hydraulic fluid if leak is detected. Turn off and then disconnect power source before making repairs. Consult Moly Mfg., Inc.'s Technical Support Team (785-472-3388) for recommendations before extending the length of Pump Feed Lines.
3. DO NOT re-adjust hydraulic pressure on pressure relief valves without written permission from Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief could potentially injure livestock. Failure to obtain written permission will void warranty.
4. Contact a certified electrician for installment of a switch and electric hydraulic pump. Switch should be easily accessible to operator for emergency shutdown of unit. \*\*\*Care should be taken when mounting pump on a stand. Bolting or tying down of pump unit on uneven surface can damage pump, causing misalignment of pump and motor shafts.
5. When using a generator to operate a SILENCER electric power unit, visit with your generator supplier to make certain your generator will properly operate the SILENCER power unit. Kilowatt ratings on generators vary between manufacturers. Moly Mfg., Inc. warranty does not cover damage caused by the use of an insufficient generator.
6. Connect 1 phase electric motor to power source.  
(Electrical connections should follow the motor specifications located on plate on motor).  
\*\*\*Hydraulic quick couplers used with SILENCER pump may cause damage if pump is turned on while the quick couplers are disconnected; may lead to hydraulic motor failure. Contact Moly Mfg., Inc. (785-472-3388) to get the necessary bypass valve if quick couplers are installed.
7. OR Connect 3-phase electric motor to power source.  
(Electrical connections should follow the motor specifications located on plate on motor).
8. Start motor; operate chute. If doors do not open and close, 3-phase motor is running in wrong direction. Contact electrician. Looking from rear of motor to shaft, motor should run clockwise (See Drawing 3F).
9. Polyethylene side exit lock must be rotated in down or locked position. Pull on cable making sure the side exit top pin is locked.

### 3.2 Mounting Platform Scales:

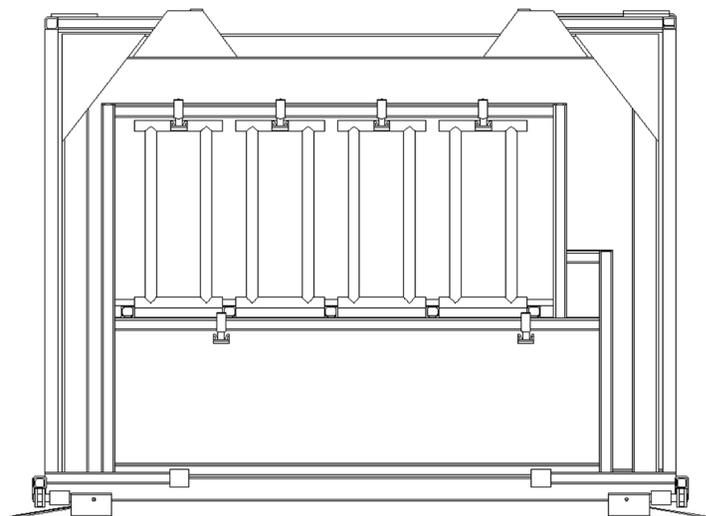
1. Mounting scales requires a somewhat level spot with all 4 load cell pads setting firmly on surface.
2. All four corners of scale pads must be free of rocks and debris to assure solid footing on all 4 corners of chute. Plate shims may be needed to shim chute corner.

**Drawing 3A**



insert and connect square tube with flat strap and hole on opposite side, with hole down

slide square tubes through front and back main frame of squeeze chute (welded flat strap with hole facing down)



Each load cell must be installed with "top"



designation facing up

Lift chute up enough so load cell shaft will insert into flat iron holes.

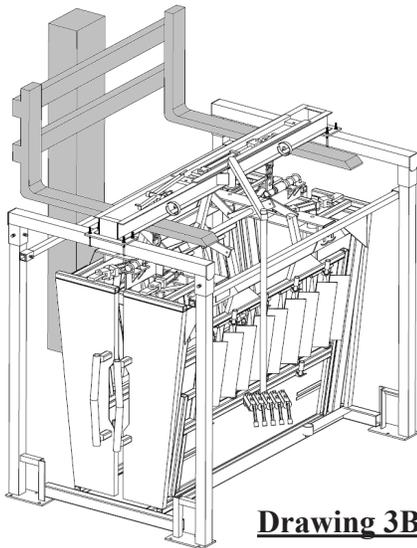
Operating Overhead Scales

**▲ WARNING**

1. Use extreme caution when working with cattle in the SILENCER.
2. Clear the area of bystanders, especially children, before starting.
3. Raise or lower SILENCER ONLY when empty - Not for lifting people, animals, or other items.
4. No portion of body should be allowed under the SILENCER at any time.

3.3 Installing SILENCER Chute with Overhead Scales:

1. Overhead Scale and Overhead Scale Frame are designed to be installed on a level, concrete pad. Note – To assemble and install the Overhead Scale Frame, refer to the Overhead Scale Setup Manual for detailed assembly instructions.



**Drawing 3B**

SILENCER models with Overhead Frame vary in weight from 3400 lbs. to 5900 lbs. Check weight of shipment prior to unloading in order to use forklift, hoist, etc...with adequate capacity. Use care to stabilize unit while unloading.

When lifting or lifted, make sure ALL is clear from area. Proceed carefully with slow, steady movement.

Be sure hydraulic hoses and loadbar wires are clear from possible crushing, pinching, or pulling.

2. Set the SILENCER Chute with Overhead Scale Frame attached at installation site.
3. Insert 3/8” thick shims between the floor end tubing of the SILENCER and the vertical angle irons of the scale frame – on all four corners of the SILENCER.
4. Pay close attention in checking that all Nuts, Bolts, U-bolts, Quick-Links, and chain connections are tight and secure.
5. Stand clear when lifting and lowering SILENCER. Using SILENCER Valve Lever, hydraulically lift SILENCER inside the Overhead Frame. Depending on the model of SILENCER Chute, the Overhead Scale Valve Lever location can vary on the Sectional Body (Refer to Page 19). Check legs of scale frame to make sure each one is solid and supporting weight (shim if necessary – Frame must be level and plumb).
6. Remove 3/8” shims from corners of SILENCER. If SILENCER hangs crooked due to off-balance load, set SILENCER down and adjust load-bars side-to-side to compensate. (Point the chain-end of load-bars toward the low side of the SILENCER) Re-tighten and lift again to check until satisfactory.

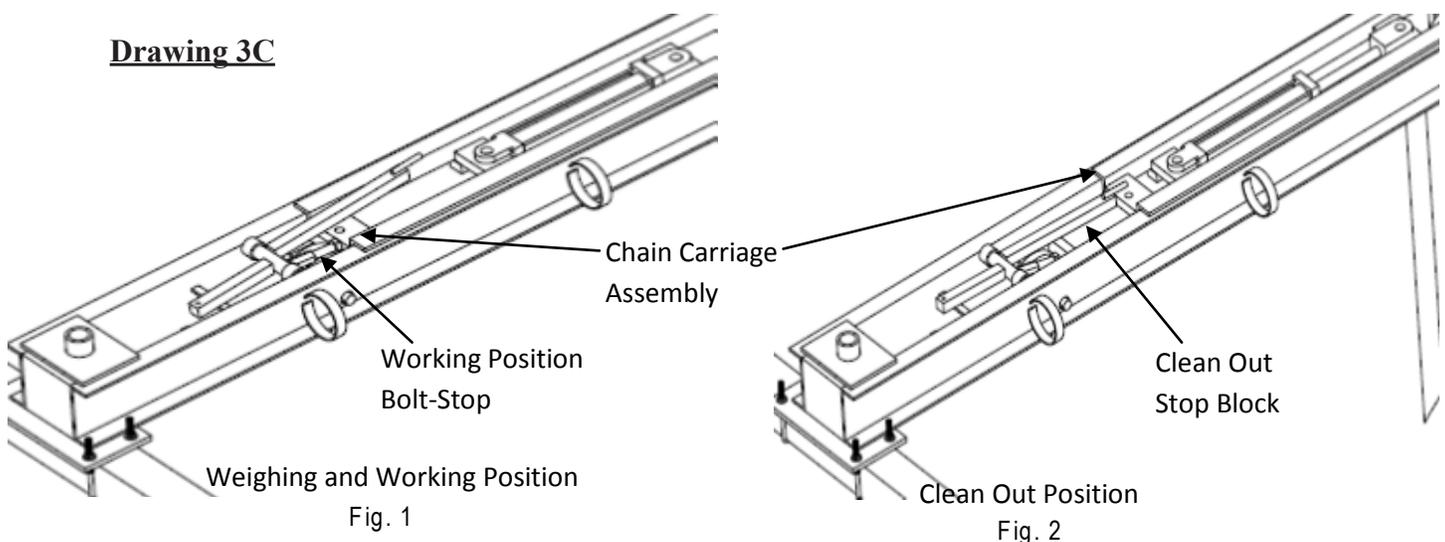
- Carefully select location to attach indicator and connect load-bar wires and power cord. Check scales for accuracy. After scales and lifting mechanism are operating correctly, anchor scale frame to concrete with 5/8" anchor bolts (x12).

### 3.4 Operating Overhead Scales:

- Before each use, check that Nuts, Bolts, U-Bolts, Quick-Links, and chain connections are tight and secure. Before each use, check chains, Quick-Links and load-bar attachments for stretching and/or cracking. Any loose or worn Fasteners, Chains, Brackets, etc. must be addressed or replaced before use. (Moly Mfg., Inc. 785-472-3388).
- Overhead Scales System is designed for use in 3 lift positions.
  - Floor Position – SILENCER lowered all the way to floor. SILENCER should be at Floor Position when SILENCER is not in use. Also used for working cattle when weigh-mode is not necessary.
  - Working Position – 1 to 2 inches above floor position, for weighing and working animals.
  - Clean Out Position – High Lift position – use only for cleaning out under SILENCER. Not to be used for working animals. No portion of body should be allowed under the SILENCER at any time.

### 3.5 How to Operate Overhead Scales:

#### **Drawing 3C**



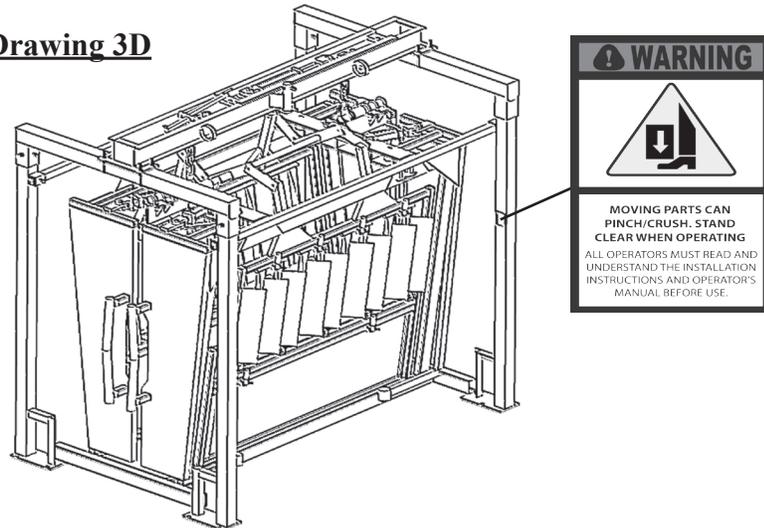
- Starting from Floor Position: Stand clear when lifting or lowering SILENCER. Pull the spool-valve lever to extend the hydraulic cylinder and lift the SILENCER. Continue lifting chute until the pre-set Working Position Bolt-Stop drops behind the chain carriage assembly (figure 1). Gently push the spool-valve lever to retract the hydraulic cylinder and lower the SILENCER until the chain carriage assembly contacts the Bolt-Stop, and the SILENCER stops moving. The SILENCER is now at the working/weighing position.

2. To get to the Clean Out Position: Stand clear when lifting or lowering SILENCER. Pull the spool-valve lever to extend the hydraulic cylinder and lift the SILENCER. Continue lifting chute until the Clean Out Stop Block has dropped behind the chain carriage assembly (figure 2). Gently push the spool-valve lever to retract the cylinder and lower the chute until the chain carriage assembly contacts the Stop Block, and the chute stops moving. The chute is now at the Clean Out position. Use only for cleaning out under chute. No portion of body should be allowed under the SILENCER at any time.
3. To lower the SILENCER from Clean Out or Working Positions: Stand clear when lifting or lowering SILENCER. Pull the spool-valve lever to extend the hydraulic cylinder and lift the SILENCER, which will take the load off of the Bolt/Stop. Pull and hold the Lock Cable, which will raise the stops out of the way of the chain carriage. Lower the chute to the floor, and then release the cable.

### 3.6 Symbols on Overhead Scale Frames:

One  **WARNING** Moving Parts Can Pinch. Stand Clear When Operating Cylinders. All Operators Must Read and Understand the Installation Instructions and Operator's Manual Before Use decal located on each leg of the Overhead Scale Frame.

**Drawing 3D**



1. Inspect all safety decals on Overhead Scale Frame. See Manual Section 3.6 Symbols on Overhead Scale Frames for diagram of decal location. All decals should be legible. Call Moly Mfg., Inc. (785-472-3388) for replacement decals. To re-place decals, clean surface of old decal material, dirt, and moisture. Smooth on new, self-adhering replacement decal, smoothing out trapped air from behind decal.

### 3.7 Storage



Disconnect all power sources.  
Store in an area away from human activity.  
Do not allow children to play on or  
around the stored equipment.

Steps to follow when equipment will not be used for a long period of time or when preparing the equipment for storage:

1. Disconnect all power sources.
2. Store in an area away from human activity.
3. Do not allow children to play on or around the stored equipment.
4. Hydraulic pump and/or scale systems should be protected from elements, including moisture, rodents, and other animals.

### 3.8 Lubricants:

Use a SAE Multi-Purpose Lithium based grease or one with higher performance specifications. It is important to use only clean lubricants. Use only a hand-held grease gun for all greasing. Wipe grease fittings with clean cloth before greasing. Replace and repair broken fittings immediately. If fittings will not take grease, remove and clean the fitting and lubricant passageway. Replace fitting, if necessary.

### 3.9 Assembly Site:

Always select a site that is as level and even as possible, with good drainage to assure a dry working area.

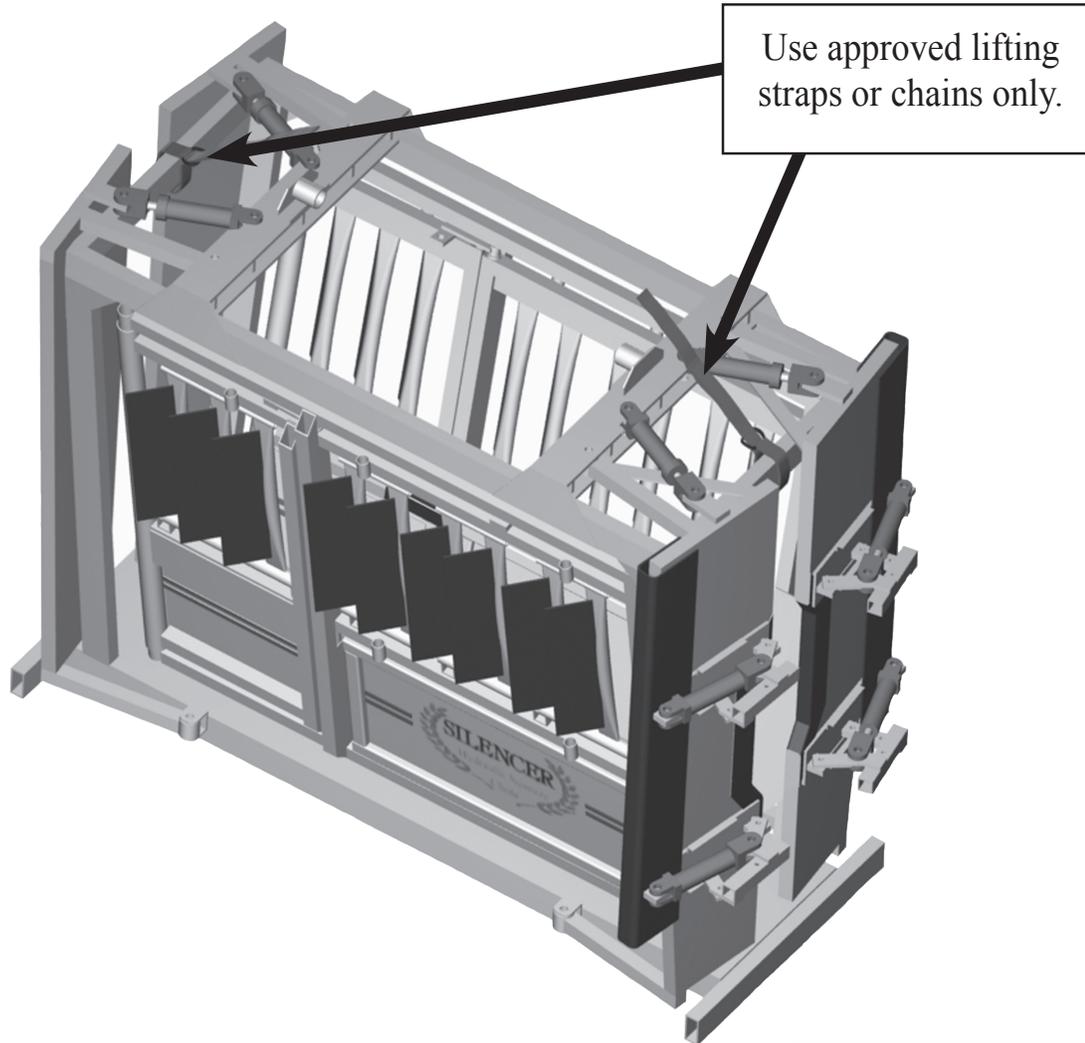
### 3.10 Unloading/Re-locating Chute:

Lift chute by chain connected **only to main frame**. SILENCER models vary in weight from 2200 lbs. to 4700 lbs. Check weight of shipment prior to unloading in order to use forklift, hoist, etc...with adequate capacity. Use care to stabilize unit while unloading.

### 3.11 Final Adjustments:

Your SILENCER was serviced and operated at the factory. **DO NOT** re-adjust hydraulic pressures on pressure relief valves without specific written permission from Moly Manufacturing, Inc. (785-472-3388). Tampering with pressure relief could potentially injure livestock. Failure to obtain written permission will void warranty.

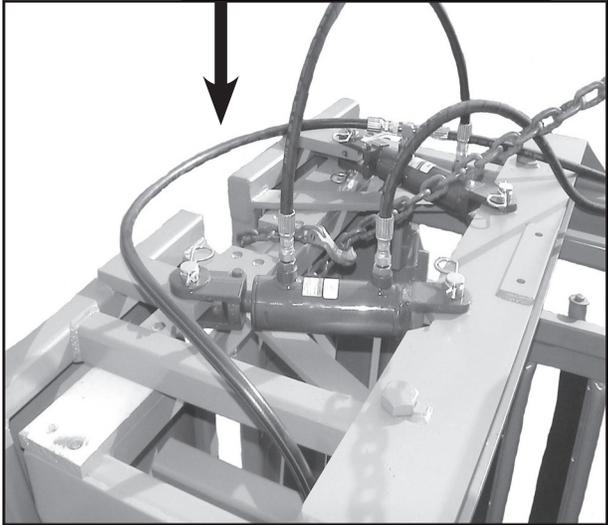
Check to make sure headdoor and taildoors are clearing existing alley, walls, or fences.



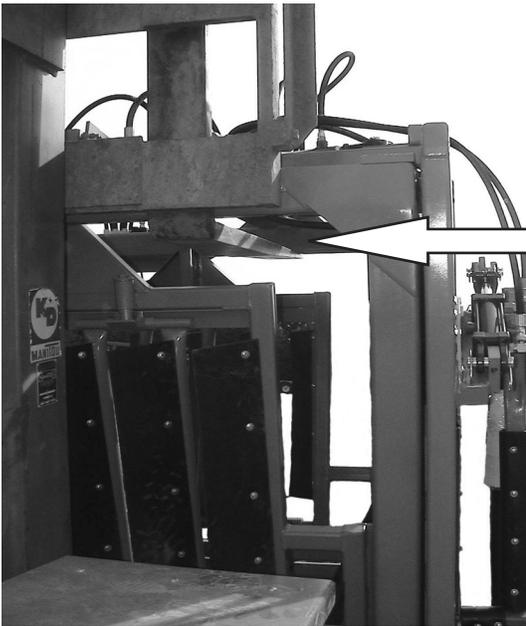
When lifting or lifted, make sure ALL is clear from area. Proceed carefully with slow, steady movement.

Be sure hydraulic hoses are clear from possible crushing, pinching, or pulling.

**Drawing 3E**



## Drawing 3E

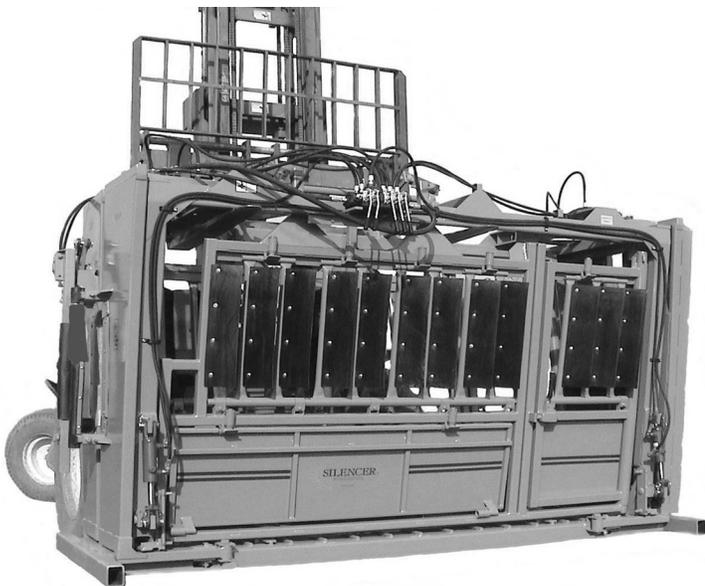


Forklift is under both horizontal main frames of SILENCER.

Forks are under both horizontal main frames and are clear of any hydraulic hoses.



When lifting or lifted, make sure ALL is clear from area. Proceed carefully with slow, steady movement.



**Performance Data: Catalog=CL1410TM Spec. Number=36F4848W903 Baldor Electric Company**

1 Phase Motor Specifications Below  
Frame: 184TC

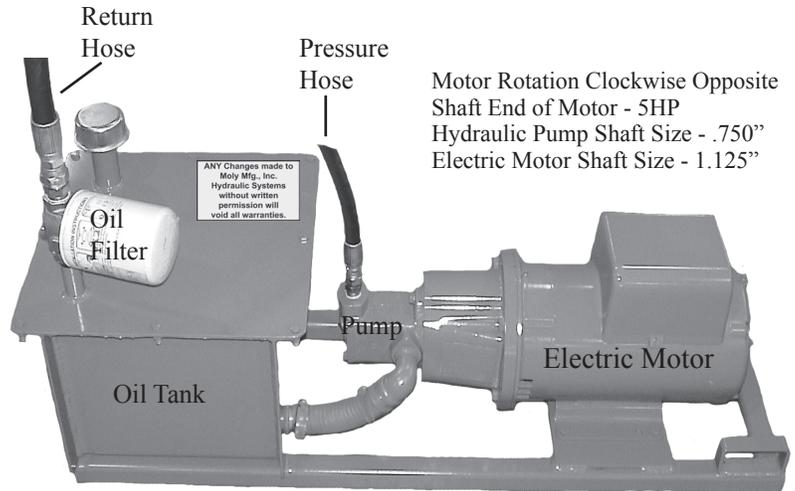
RATING-NOMINALS	
Rated Output	5
Volts	230
Full Load Amps	25-23
Speed	1725
Hertz	60
Phase	1
NEMA Design Code	L
LR KVA Code	G
Efficiency	82.5
Power Factor	87
Service Factor	1.15
Rating-Duty	40C AMB-CONT

**CHARACTERISTICS**

Full Load Torque	15 LB-FT
Break Down Torque	34 LB-FT
Locked-Rotor Torque	41
Starting Current	140
No-Load Current	8.4
Line-line Resistance @ 25 Degrees C	0.45
Temperature Rise, in degrees C @ F.L.	90

**LOAD CHARACTERISTICS-TESTED**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	60	78	86	89	91	91	0
Efficiency	67.2	79.2	82.7	83	81.5	78.5	0
Speed (rpm)	1786	1772	1756	1739	1718	1691	0
Line Amperes	10.1	13.2	17.2	21.9	27.4	34	25.2



Motor Rotation Clockwise Opposite  
Shaft End of Motor - 5HP  
Hydraulic Pump Shaft Size - .750"  
Electric Motor Shaft Size - 1.125"

Electric  
Pump

Dimensions: Length: 43"  
Width: 15.5"  
Height: 20"  
Weight: 250 lbs.

**Operating Electric Hydraulic Pump**

**WARNING**

1. Motor must be grounded in accordance with the National Electric Code and Local Codes, by trained personnel to prevent serious electric shocks.
2. To service motor, disconnect power source from motor and any accessory devices and allow motor to come to a complete stand still.

Drawing 3F

**Performance Data: Catalog=CM3615T Spec. Number=36F484W903 Baldor Electric Company**

3 Phase Motor Specifications Below  
Frame: 184TC

RATING-NOMINALS	
Rated Output	5HP
Volts	208-230/460
Full Load Amps	13.8-13.4/6.7
Speed	1750
Hertz	60
Phase	3
NEMA Design Code	B
LR KVA Code	J
Efficiency	87.5
Power Factor	79
Service Factor	1.15
Rating-Duty	40C AMB-CONT

**CHARACTERISTICS**

Full Load Torque	15.1 LB-FT
Break Down Torque	94 LB-FT
Locked-Rotor Torque	31
Starting Current	52
No-Load Current	3.6
Line-line Resistance @ 25 Degrees C	2.44
Temperature Rise, in degrees C @ F.L.	78

**LOAD CHARACTERISTICS-TESTED AT 230 VOLTS**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	38	60	72	79	83	84	0
Efficiency	80.4	87	88.2	87.8	86.6	84.9	0
Speed (rpm)	1786	1773	1756	1743	1726	1706	0
Line Amperes	7.8	9.2	11	13.4	16.2	19.4	15

**ELECTRICAL REQUIREMENTS**

	1PH	3PH
<b>Breaker</b>	<b>40-Amp</b>	<b>35-Amp</b>
<b>Wire</b>	<b>4-gauge up to 300-foot 6-gauge up to 150-foot</b>	<b>8-gauge up to 300-foot</b>

**QUICK COUPLER USE:**

**CONNECT:**

1. Relieve pressure on hydraulic hoses by moving spool valve handle forward and reverse, returning handle to neutral position.
2. Make sure all connection points are clean.
3. Move collar on female coupler, insert male coupler tip, release female collar ensuring a firm connection.

**DISCONNECT:**

1. Relieve pressure on hydraulic hoses by moving spool valve handle forward and reverse, returning handle to neutral position.
2. Move collar on female coupler, move male coupler tip, release female collar.

**TRACTOR HYDRAULIC USE:**

Moly Mfg., Inc. Power Units are designed to deliver 9-10 gallons per minute (gpm) at 1000-1300 psi. If tractor or other hydraulics are used, with written permission from Moly Mfg., Inc., take care to match flow and pressure specifications.

**GENERATOR USE:** 12,000-15,000 Watts or 12-15 Kilowatts

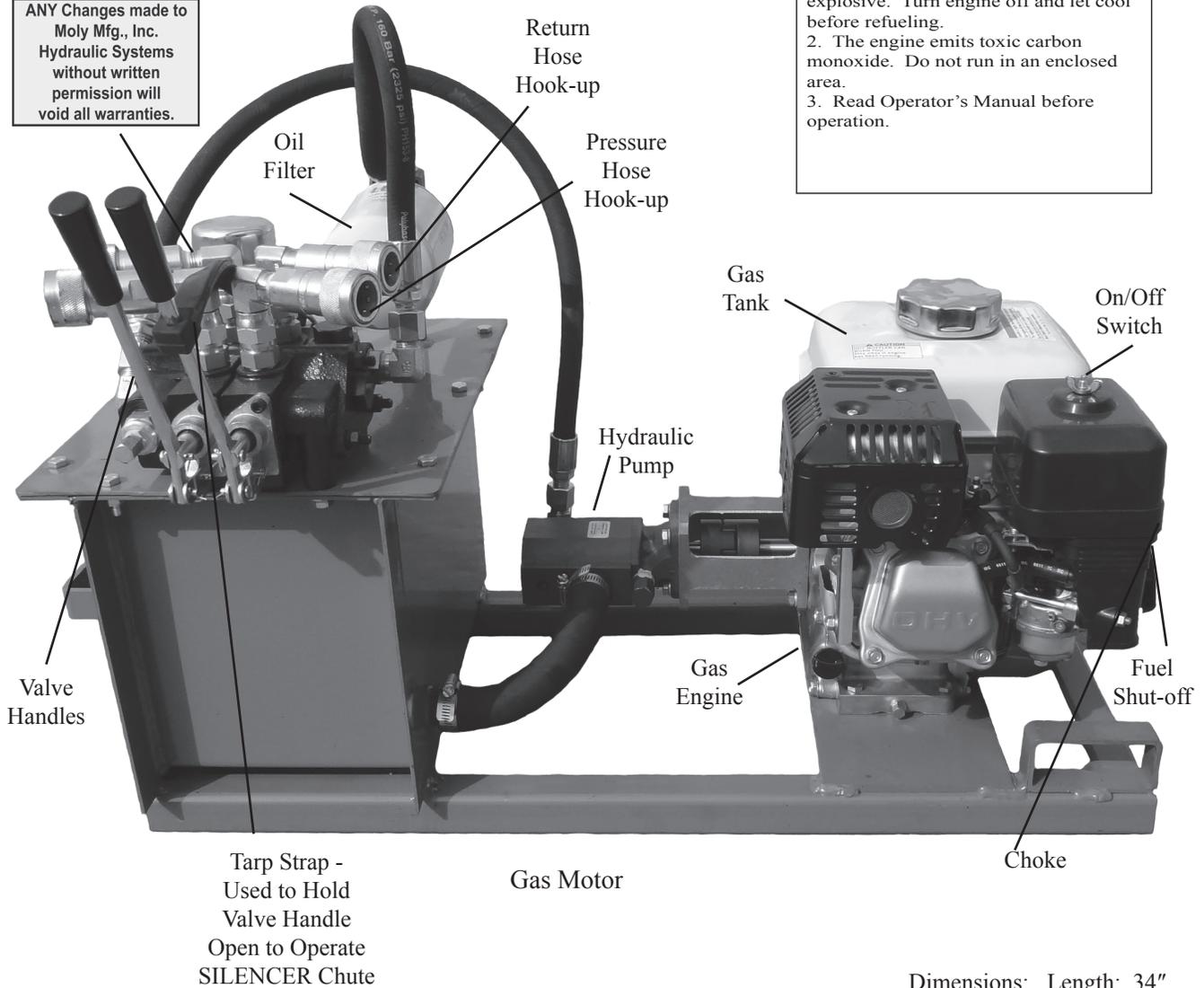
## Gas Powered Hydraulic Pump - Honda GX200

Refer to <http://engines.honda.com/models/model-detail/gx200>.

### Operating Gas Powered Hydraulic Pump

#### **WARNING**

1. Gasoline is highly flammable and explosive. Turn engine off and let cool before refueling.
2. The engine emits toxic carbon monoxide. Do not run in an enclosed area.
3. Read Operator's Manual before operation.



Drawing 3G

Dimensions: Length: 34"  
 Width: 21"  
 Height: 24"  
 Weight: 200 lbs.  
 Gas Engine Shaft Size - .750"  
 Hydraulic Pump Shaft Size - .500"

#### 4. OPERATING INSTRUCTIONS



1. Use extreme caution when working with cattle in the SILENCER.
2. Clear the area of by-standers, especially children, before starting.
3. Secure loose clothing and long hair so that it will be kept from moving parts.

##### 4.1 Operator Responsibility:

Your SILENCER hydraulic squeeze chute has been designed and manufactured for the efficient processing of livestock. SILENCER is one part of your entire livestock handling system which works together to handle and process livestock.

You and everyone else who will be using or maintaining the unit are required to read and understand the Safety and Maintenance information contained within the Operator's Manual. Read this manual carefully to learn how to: (1) use the equipment safely; (2) operate within the recommended flow and pressure ratings; and (3) maximize efficiency. Call your SILENCER manufacturer if you need assistance at 785-472-3388.

##### 4.2 Bank of SILENCER Control Levers



The designated SILENCER controls operator must check operating area to see that all personnel are clear of the unit each time before operating any control levers.

##### **Standard Controls:**

- 1 Lever Control for Headdoors
- 1 Lever Control for Taildoors
- 1 Lever Control for Side Squeeze

##### **Optional Controls:**

- 1 Lever Control for Hydraulic Bottom (Lower Squeeze)
- 1 Lever Control for Hydraulic Head Restraint
- 1 Lever Control for De-Horner/Head Restraint
- 1 Lever Control for Overhead Scales
- 2 Lever Controls for Hydraulic Neck Extender Bars
- 1 Lever Control for Hydraulic Kick Bar
- 1 Lever Control for Hydraulic Calf Puller
- 1 Lever Control for Hydraulic Leg Puller
- 1 Lever Control for Tilt

\*Additional Valves added to operate other than Moly Mfg., Inc. equipment can void all warranties.

## Additional optional controls per customer request



### NOTE:

Optional dual controls with the same functions on both sides of chute require additional and careful communication between chute operators to assure safe operation.

Pivot Controls – Keep pivot controls clear of headdoors when releasing animals to exit chute.

Use extreme caution when using wireless remotes. The designated controls operator must check area to see all personnel are clear of the equipment each time before operating any control levers directly or via Remote Control.

### 4.3 Operating SILENCER Controls:

#### 1. Steps for animal to enter chute:

- 1.1 Open taildoor for animal to enter. Excessive wear can occur when needlessly slamming doors wide open. Avoid slamming.
- 1.2 Open headdoor no wider than width of animal's shoulders.
- 1.3 Use top, side squeeze to slow animal before entering headdoor.
- 1.4 Catch head with headdoor; close headdoor.
- 1.5 Close taildoor.
- 1.6 Finish putting side squeeze on animal, if necessary.

#### 2. Steps for animal to exit chutes:

- 2.1 Open headdoor.
- 2.2 When animal moves forward in chute, release side squeeze.
- 2.3 Using these exit steps in proper order will prevent animal from backing up to rear of chute, balking at forward movement needed to exit the chute.

### 4.4 Symbols on Chute:

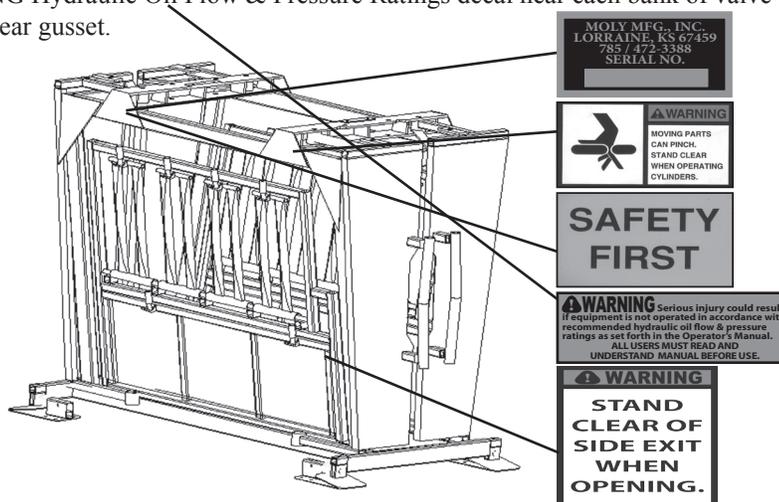
One  WARNING Moving Parts Can Pinch. Stand Clear When Operating Cylinders decal located each side of chute at front gusset; One SAFETY FIRST decal located each side of chute at rear gusset. One Side Exit Decal on each Side Exit. One WARNING Hydraulic Oil Flow & Pressure Ratings decal near each bank of valve controls. Serial plate located at rear gusset.

Drawing 4A

Remote Control

Use extreme CAUTION. Check area to see all personnel are clear of the equipment each time before operating any control levers via Remote Control.

ALL OPERATORS MUST READ & UNDERSTAND OPERATOR'S MANUAL BEFORE USE.



The designated SILENCER controls operator must check operating area to see that all personnel are clear of the unit each time before operating any control levers.

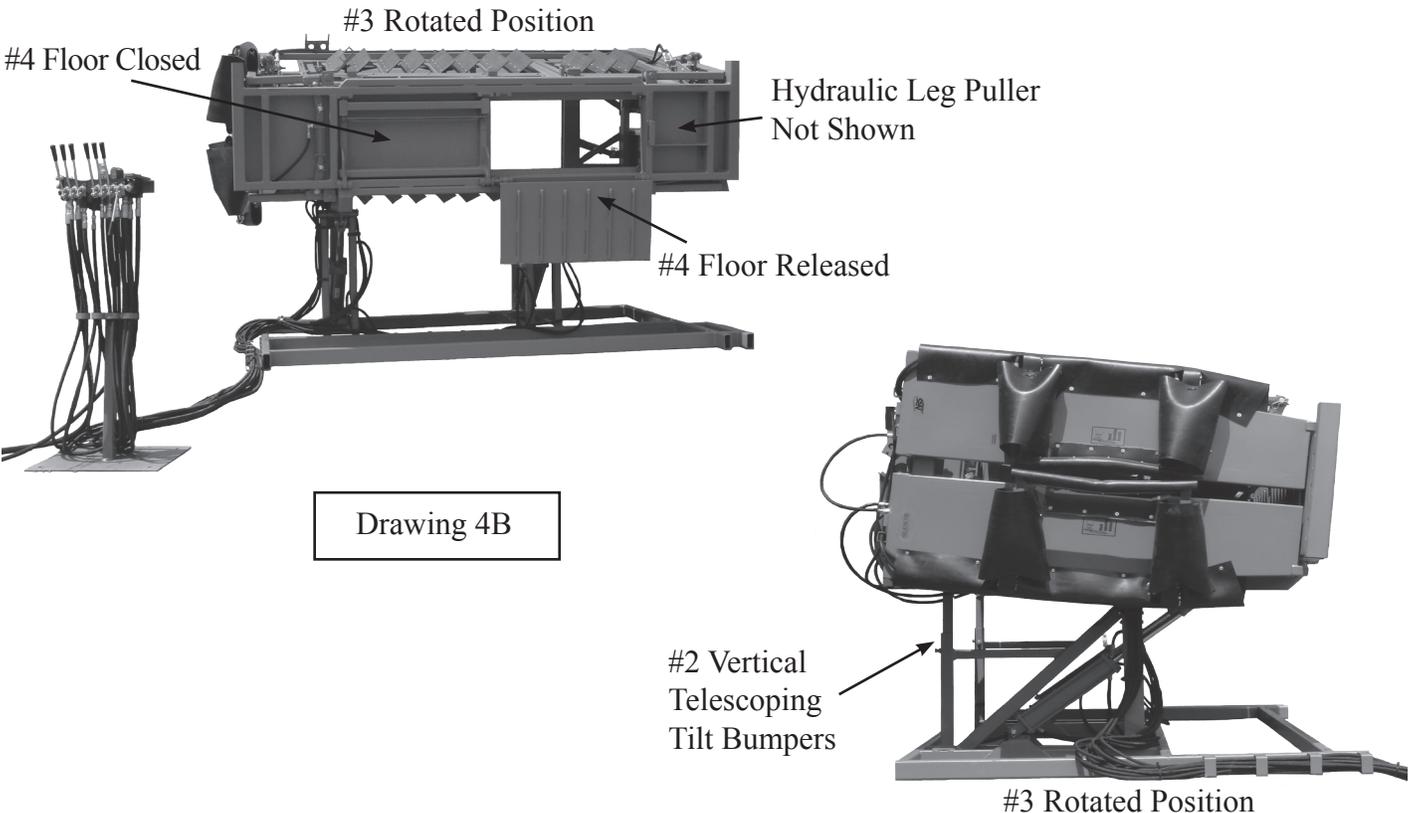
**Operating SILENCER Tilt Chute**

**⚠ WARNING**

1. Keep clear of SILENCER Tilt Chute when operating.
2. Animal must remain fully restrained when animal is tilted, and return tilted.
3. When tilted and floor is open, use caution when snaring legs; keep body parts & clothing clear from area.
4. Use caution when releasing legs.
5. Check for any debris before returning animal to upright position.
6. Before tilting animal upright, make sure floors are latched, Hydraulic Leg Pull is retracted in home position, check for any debris under the SILENCER.

**4.5 Operating SILENCER Tilt Chute:**

1. Secure animal in SILENCER using upper and lower squeeze.
2. Adjust vertical telescoping tilt bumpers for the amount of tilt needed.
3. Rotate animal over to position needed, resting on the telescoping bumpers.
4. Release the floor latch(es).
5. Snare leg, hydraulically move leg to needed position using Hydraulic Leg Puller, and do Animal Health Procedure.
6. Release Hydraulic Leg Pull.
7. Return Hydraulic Leg Pull into home position.
8. Close floor panel(s).
9. Tilt animal upright.
10. Open headdoor, release sidegate squeeze, release animal.



#### 4.6 Routine Pre-Start Checklist Before Operating Unit Each Time:

1. Check SILENCER for loose nuts or bolts.  
(DO NOT over-tighten linkage bolts or linkage stover nuts).
2. Check unit for pinched hydraulic lines, loose hydraulic fittings, cracks in hydraulic cylinder housings, and cracks in hydraulic valve bodies. Stay clear of any high-pressure hydraulic fluid if leak is detected. Turn off and then disconnect power source before making repairs.
  - DO NOT re-adjust hydraulic pressure on pressure relief valves without written permission from Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief could potentially injure livestock. Failure to obtain written permission will void warranty.
3. Check structural welds, structural tubing, and sheet metal for cracks.  
Contact Moly Mfg., Inc. for welding instructions before making repairs.
4. Scales: all four corners of scale pads must be free of rocks and debris to assure solid footing on all 4 corners of chute.

#### 4.7 Emergency Shut-down:

The electrician-installed switch at the power source of hydraulic pump should be readily accessible for emergency shutdown of unit. Before making adjustments or repairs to SILENCER unit or hydraulic pump, all power sources should be disconnected.

#### 4.8 Adjustments:

Disconnect power sources before making adjustments. Clear area of by-standers, especially children. Drop bar latches and drop pan latches are adjustable.  
(See Drawing 6A)

#### 4.9 Paint

Due to environmental factors and the results of animal processing and processing products on livestock handling equipment, no warranty is available on paint. In the future, should touch-up paint be desired, Krylon Smoke Gray Gloss #51608 Spray Paint can be readily found at discount stores such as Wal-mart, etc.

# QUICK-ACTION SLAM SHUT SIDE EXIT

## Polyethylene Quick-Action Slam Shut Side Exit

### **⚠ WARNING**

1. Before operating, make sure safety lock is in down or lock position to ensure safety to prevent possibility of the opening of quick-action side exit latches.
2. Pull on cable making sure the side exit pin is locked.
3. As gate is opening, the operator must quickly move away from gate and exiting animal.

#### 4.10 Operating Quick-Action Slam Shut Side Exit:

1. Rotate Polyethylene Side Exit Lock in the up or unlock position (Refer to Drawing 4C).
2. Pull plastic covered cable approximately an equal distance between top and bottom spring loaded latches (Refer to Drawing 4D).
3. As the gate is opening, the operator must quickly move away from gate and exiting animal.
4. Close gate until both top and bottom spring shut latches are returned with pins completely extended.
5. Rotate Polyethylene Side Exit Lock in the down or lock position (Refer to Drawing 4E).
6. Pull on plastic covered cable to ensure the side exit pin is locked.



**Drawing 4C**



**Drawing 4D**



**Drawing 4E**

# HYDRAULIC NECK EXTENDER BARS

## **WARNING**

1. Keep clear of Hydraulic Neck Extender Bars when operating.
2. Do not remove shields for any reason (rubber belting).
3. Keep all objects out of belted area.

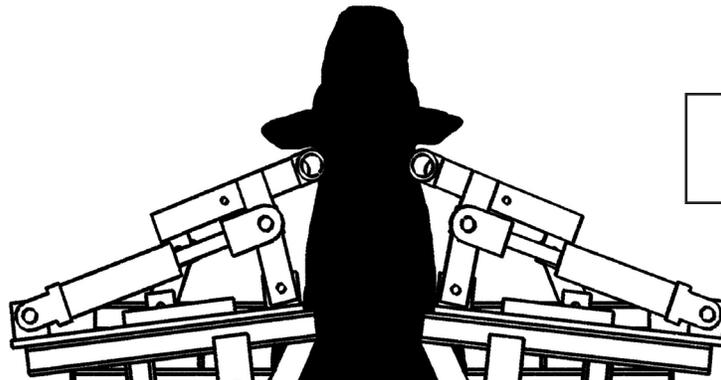
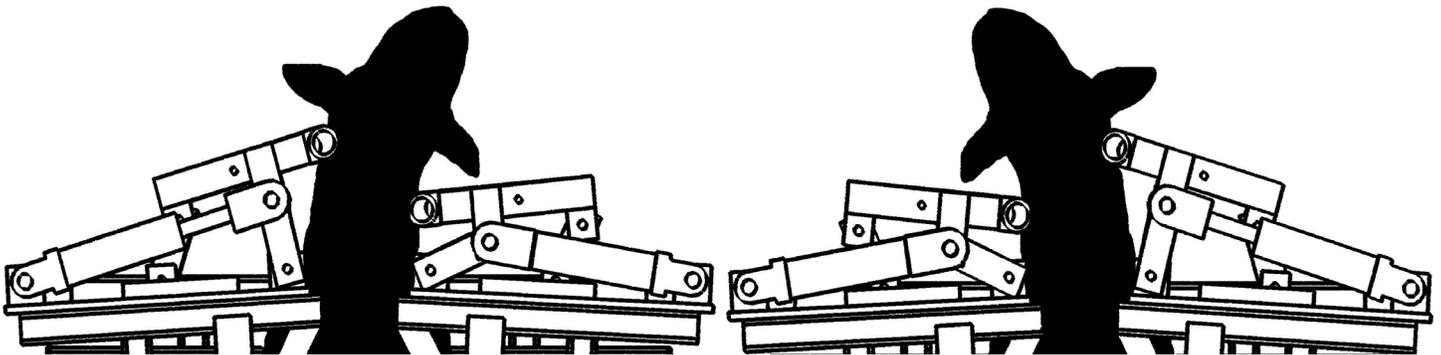


**Drawing 4F**

### 4.11 Operating Hydraulic Neck Extender Bars:

1. Pre-set Hydraulic Neck Extender Bars to preferred position.
2. Secure animal in chute.
3. Apply Top Squeeze (and, Bottom Squeeze, if needed).
4. Operate Hydraulic Neck Extender Bars. Move head to desired direction (left, right, or straight).

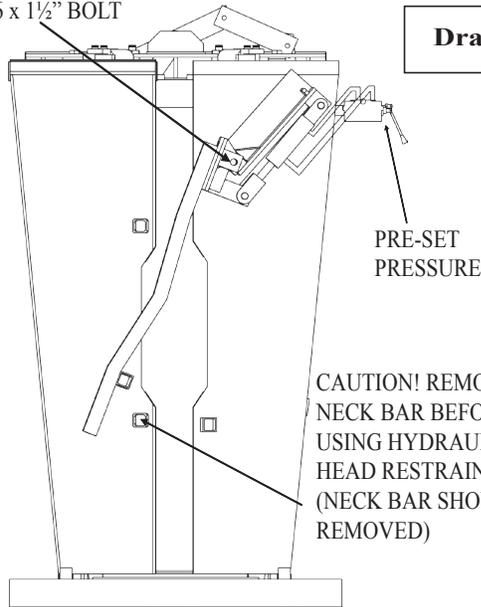
## Move Head Left, Move Head Right, Extend Both Bars



**Drawing 4G**

# HYDRAULIC HEAD RESTRAINT

SAFETY SHEAR PIN  
5/16 x 1 1/2" BOLT



Drawing 4H

CAUTION! REMOVE NECK BAR BEFORE USING HYDRAULIC HEAD RESTRAINT (NECK BAR SHOWN REMOVED)

## Operating Hydraulic Head Restraint

**WARNING**

1. Check Shear Pin before operating; replace, if needed.
2. Keep clear of Hydraulic Head Restraint when operating.
3. Return Hydraulic Head Restraint to home position before releasing animal.

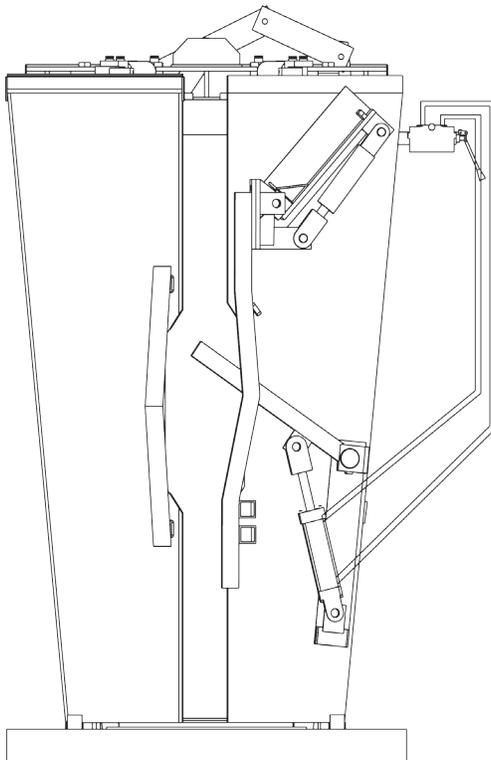
**\*\* IF HYDRAULIC HEAD RESTRAINT IS NOT IN USE, MAKE CERTAIN TO RE-INSTALL NECK BAR.**

**\*\*SILENCER CHUTES ARE DESIGNED TO BE USED WITH BOTH NECK BARS IN PLACE OR 1 NECK BAR AND HYDRAULIC HEAD RESTRAINT BAR IN PLACE WHEN HYDRAULIC HEAD RESTRAINT IS NOT USED.**

### 4.12 Operating Hydraulic Head Restraint:

1. Secure Animal in Chute.
2. Apply Top Squeeze (and, Bottom Squeeze, if needed).
3. Operate Hydraulic Head Restraint, if animal's head does not move to side, open headdoor slightly, allowing more room for neck to turn.

# DE-HORNER HEAD RESTRAINT



Drawing 4I

## Operating De-Horner Head Restraint

**WARNING**

1. Keep clear of De-Horner Head Restraint when operating.
3. Return De-Horner Head Restraint to home position before releasing animal.

### 4.13 Operating De-Horner Head Restraint:

1. Secure Animal in Chute.
2. Apply Top Squeeze (and, Bottom Squeeze, if needed).
3. Lower De-Horner Head Restraint until animal's head is restrained.
4. Do Animal Health Procedure.
5. Lift De-Horner Head Restraint until it is removed to home position.
6. Release Animal.

\*\*De-Horner Head Restraint Partially Lowered.

# HYDRAULIC KICK BAR

## Operating Hydraulic Kick Bar

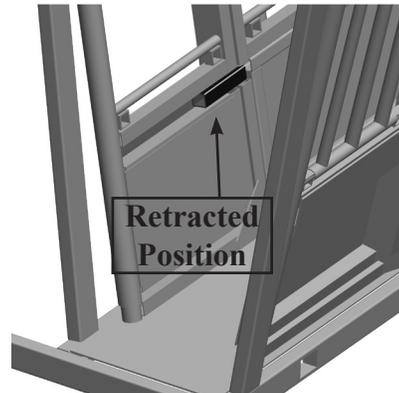
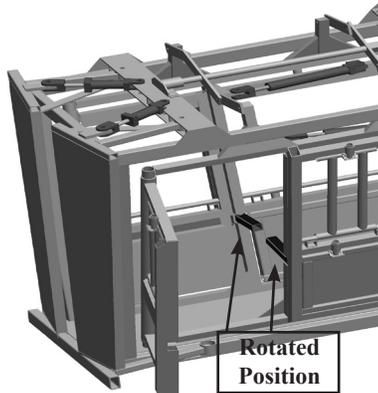
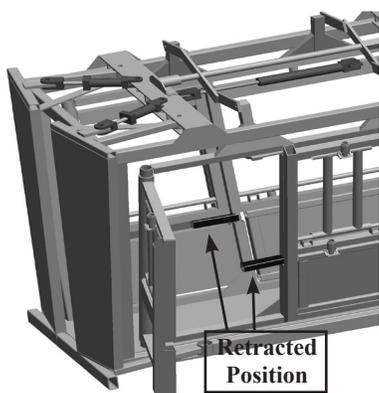
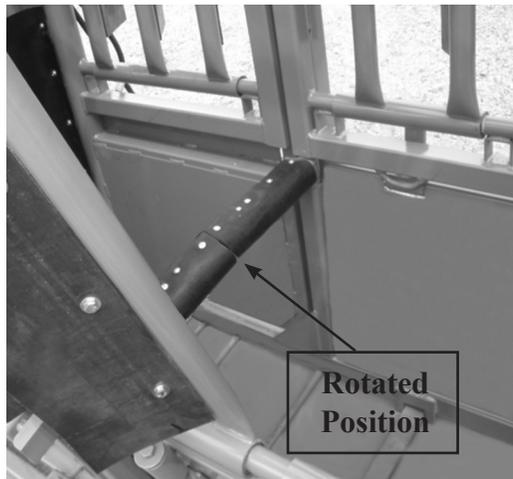
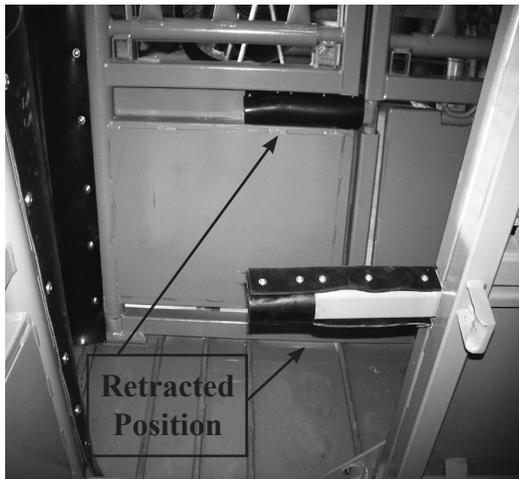
**⚠ WARNING**

1. Kickbar must be in retracted position before animal enters.
2. Rotate kickbar into rotated position behind animal before humans enter.
3. Do not operate kickbar when operator is inside of chute.

### 4.14 Operating Hydraulic Kick Bar:

1. Walk-Thru Door must be closed before operating Hydraulic Kick Bar, and all drop bars, droppans, and side exits must be closed; Kick Bar must be in retracted position before animal enters.
2. When the animal is securely caught in the headdoor, adjust the squeeze panels holding the body securely.
3. Rotate the kick bars into rotated position behind the animal.
4. Open Walk-Thru Door, do Animal Health Procedure.
5. Exit Walk-Thru Door, close Walk-Thru Door.
6. Open headdoors, release side squeeze panels.
7. After animal exits, rotate kick bars into retracted position.
8. Open taildoor to let the next animal enter.

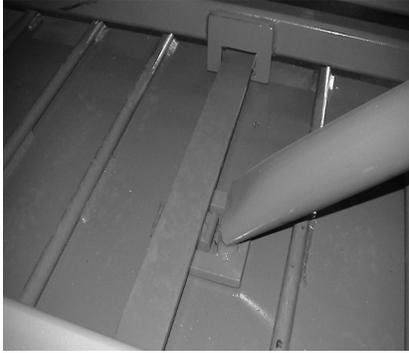
**Drawing 4J**



# BRISKET BAR

## 4.15 Installing Brisket Bar

1. To install the Brisket Bar, secure the back end of the Brisket Bar to the chute floor by hooking the hold down plates of the Brisket Bar under the hold down rail of your SILENCER. The style of Brisket Bar will differ depending on chute model.



2. Bolt the front mounting bracket in place using acorn nuts.

**Drawing 4K**

3. **NOTE:** When the Brisket Bar is not installed, replace and tighten acorn nuts onto mounting bolts to protect bolt threads and prevent injury to animal hoofs.



**Drawing 4L**

\*\*Brisket Bar is designed to be used for large or mature animals.

### Operating Chute Carriers

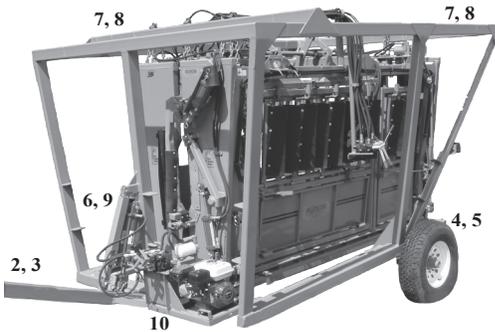
## WARNING

1. Clear area of by-standers, especially children; clear area of livestock.
2. Check for adequate clearance, check overhead clearance.
3. Make sure hydraulic lines will not interfere with loading & unloading of chute.
4. Do not transport carrier with pump in operation.
5. Observe all traffic laws.

### Drawing 4M

# CHUTE CARRIERS

\*Refer to Page 20 for Quick Coupler Use



Overhead Carrier

### Operating Overhead Carrier

## WARNING

1. Stand clear when operating.
2. Check hitch coupler.
3. Check safety chain.
4. Check tire wear & pressure.
5. Check wheel bearings.
6. Check hydraulic cylinder & hose for leaks.
7. Check chains for wear & tear.
8. Check hooks for wear.
9. Pin Adjustable Slide Tube.
10. Check hydraulic pump is secure.

### 4.16 Operating Overhead Carrier:

1. Ensuring Safety Chain is also attached to vehicle, connect Overhead Carrier to vehicle using Hydraulic Cylinder on Pivoting Tongue, with the pin removed from the Adjustable Slide Tube.
2. 3-Chains at the rear of the carrier should be secured in their hangers, 3 chains on the front of the carrier should hang down vertically. Back the carrier towards the chute.
3. Back the carrier until the chute is up under the framework, stopping when the front 3 chains reach the front face of the headdoors.
4. Using cylinder on Pivoting Tongue, lower back of carrier to back of chute. Chain 3 rear chains around top mainframe of chute, passing chains between taildoors & mainframe.
5. Using cylinder on Pivoting Tongue, lower front of carrier all the way to ground. In doing so, back of chute will raise. Chain 3 front chains around top mainframe of chute, passing the chain between head doors & the mainframe.
6. Using cylinder on Pivoting Tongue, raise front of carrier to desired transport position height. Insert pin into Adjustable Slide Tube. Remove pressure from cylinder, so that Adjustable Slide Tube is carrying load.
7. To unload chute from Overhead Carrier, reverse the procedure.

### Drawing 4N



Carry-All Carrier

\*Refer to Page 20 for Quick Coupler Use

### Operating Carry-All Carrier

## WARNING

1. Stand clear when operating.
2. Check hitch coupler.
3. Check safety chain.
4. Check tire wear & pressure.
5. Check wheel bearings.
6. Check hydraulic cylinder & hose for leaks.
7. Check chains for wear & tear.
8. Check hooks for wear.
9. Chains are free of any components or equipment other than top frame.
10. Check hydraulic pump is secure.
11. Do not pick up chute from SILENCER side with hydraulic hoses.

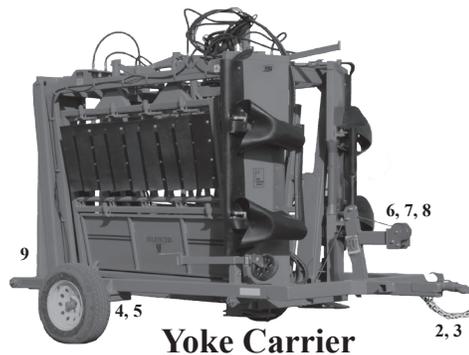
### 4.17 Operating Carry-All Carrier:

1. With Carry-All Carrier hooked to vehicle, and safety chain also attached to vehicle, hydraulically stand Hydraulic Tilt Panel up vertically.
2. Back carrier against the chute side where no hoses are located, centering tilt panel between headdoors & taildoors of chute. Make sure tilt panel is against the mainframe of chute.
3. Using 2 chains attached to top of tilt panel, chain around top horizontal mainframe of chute.
4. Lower tilt panel until it rests fully on vertical supports. In doing so, chute will lift from ground. Attach tilt panel safety chain before traveling.
5. Reverse procedure to unload chute from Carry-All Carrier.

# CHUTE CARRIERS (CONT.)

\*Refer to Page 20 for Quick Coupler Use

**Drawing 40**



## Operating Yoke Carrier

### **⚠ WARNING**

1. Stand clear when operating.
2. Check hitch coupler.
3. Check safety chain.
4. Check tire wear & pressure.
5. Check wheel bearings.
6. Make sure winch brake is operational.
7. Check cable for frays & strain.
8. Check clamps & hook before operating.
9. Check rear frame hooks for cracks.

## 4.18 Operating Yoke Carrier:

1. To load chute, do not hook Yoke Carrier to vehicle. Manually wheel the carrier to straddle the front of the chute. Note: Hydraulic Power Supply can be transported secured inside chute or secured in bed of pickup.
2. Attach cable and hook to Overhead Bar protruding forward between headdoors.
3. Use winch to raise the front & lower the back of the Yoke Carrier.
4. With front of carrier suspended by cable, hook 2 hook plates on back of carrier to the round crossbar at the back of the chute floor.
5. Remove the hook & cable from Overhead Bar, and attach to the lifting loop at center front of chute floor.
6. Wind cable onto winch, lowering front of Yoke Carrier, and raising back of chute. When carrier jack reaches the ground, continue to wind cable onto the winch, raising the front of the chute.
7. When front of chute is high enough, slide Square Crossbar through rectangular tubing at front of chute floor. Use Washer and Latch Pin to lock the Square Crossbar into place. Lower front of chute so that Square Crossbar is carrying load.
8. Hook Yoke Carrier to vehicle ensuring safety chain is also attached. To unload chute from Yoke Carrier, reverse this procedure.

## Operating Chute Carriers

### **⚠ WARNING**

1. Clear area of by-standers, especially children; clear area of livestock.
2. Check for adequate clearance, check overhead clearance.
3. Make sure hydraulic lines will not interfere with loading & unloading of chute.
4. Do not transport carrier with pump in operation.
5. Observe all traffic laws.

4.19 Troubleshooting:

All power sources should be disconnected before making any adjustments. Clear area of by-standers, especially children.

- SILENCER chutes are designed to be used with neck bars.
- **SPECIAL NOTICE:** The cylinders on SILENCER Hydraulic Squeeze Chutes are designed and built for specific SILENCER chute operations. Therefore, **cylinders on the chute are NOT interchangeable.** Please call Moly Mfg., Inc. at 785-472-3388 for cylinder information.

**Headdoors not holding animal tightly**

**Ranch, Heavy Duty, & Commercial Pro**

**Models:** Check for wear or breakage on cylinder pins, pivot bolts, door bushings, and lower cylinder bolts; replace as needed. Cylinders are not interchangeable. Call Moly Mfg., Inc. 785-472-3388.

**Drop bars pop open**

Adjust drop latches; (see Drawing 6A).

**Side squeeze gates not closing tightly**

Check for broken or worn bolts on top linkage; replace bolts.

**Hydraulic pump doesn't run**

Check breaker; call certified electrician.

**No hydraulic power at chute**

Check oil in hydraulic reservoir; oil level should be 2 inches from top of reservoir; (see Drawing 5A).

**Hydraulic pump vibrates excessively or is noisy**

Check electric motor to hydraulic pump coupler; (see drawing 5A); replace Coupler, if worn. Check oil in hydraulic reservoir.

**Cylinders run erratically or slowly**

Check oil in hydraulic reservoir; change hydraulic oil filter.

**Hydraulic head restraint arm moves parallel with chute**

Replace shear pin; re-tighten large pivot bolt.

**Hydraulic bottom squeeze does not move in and out**

Clean floor of chute; clean linkage area.

**Difficulty moving head with Hydraulic Head Restraint**

See Page 28

5. ROUTINE MAINTENANCE INSTRUCTIONS

**⚠ WARNING**

Disconnect all power sources. Clear area of by-standers, especially children.

1. Grease all roller bearings, cylinder pins, and greaseable linkage points using 1 pump only on a standard grease gun (Heavy Duty & Commercial Pro Models). See LUBRICANTS 3.8 for more information. \*\*\* Grease maintenance must be completed each time 1200 cumulative head of livestock pass through chute.
2. Inspect hydraulic pump for oil leaks.
3. Check pump reservoir oil level. Oil level should be within 2" of top of reservoir; total capacity 4.5 gal. (See Drawing 5A). Texaco MERCON/DEXRON III is used widely in industrial equipment because of its superior flexibility. Your Moly Mfg., Inc. hydraulic pump is filled with MERCON/DEXRON III at the factory. Oil changes are needed only every 25,000 hours.
4. Replace hydraulic oil filter each 500 hours of use or annually (See Drawing 5B).
5. Inspect all safety decals on SILENCER. See Manual Section 4.4 Symbols on Chute for diagram of decal location. All decals should be legible. Call Moly Mfg., Inc. (785-472-3388) for replacement decals. To re-place decals, clean surface of old decal material, dirt, and moisture. Smooth on new, self-adhering replacement decal, smoothing out trapped air from behind decal.

**SAFETY  
FIRST**

**⚠ WARNING**  
**STAND  
CLEAR OF  
SIDE EXIT  
WHEN  
OPENING.**

**⚠ WARNING**  
  
**MOVING PARTS  
CAN PINCH.  
STAND CLEAR  
WHEN OPERATING  
CYLINDERS.**

**⚠ WARNING** Serious injury could result if equipment is not operated in accordance with recommended hydraulic oil flow & pressure ratings as set forth in the Operator's Manual.  
**ALL USERS MUST READ AND UNDERSTAND MANUAL BEFORE USE.**

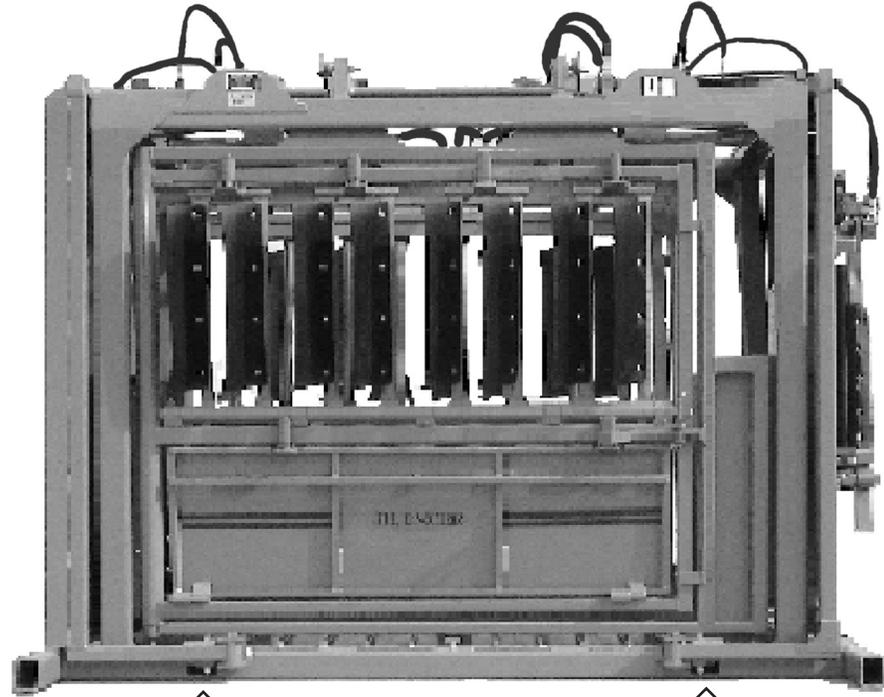
**ANY Changes made to  
Moly Mfg., Inc.  
Hydraulic Systems  
without written  
permission will  
void all warranties.**

6. Inspect for loose nuts or bolts. (Do not over-tighten linkage bolts or linkage stover nuts).
7. Inspect unit for pinched hydraulic lines, loose hydraulic fittings, cracks in hydraulic cylinder housings, and cracks in hydraulic valve bodies. Stay clear of any high-pressure hydraulic fluid if leak is detected; turn off and then disconnect power source before making repairs.
8. DO NOT re-adjust hydraulic pressure on pressure relief valves without written permission from Moly Mfg., Inc. (785-472-3388). Tampering with pressure relief could potentially injure livestock. Failure to obtain written permission will void warranty.
9. The cylinders on SILENCER Hydraulic Squeeze Chutes are designed and built for specific SILENCER chute operations. Therefore **cylinders on the chute are NOT interchangeable**. Please call Moly Mfg., Inc. (785-472-3388) for cylinder information.
10. Inspect structural welds, structural tubing, and sheet metal for cracks. Contact Moly Mfg., Inc. (785-472-3388) for welding instructions before making repairs.



## Grease Fitting Placement (cont...)

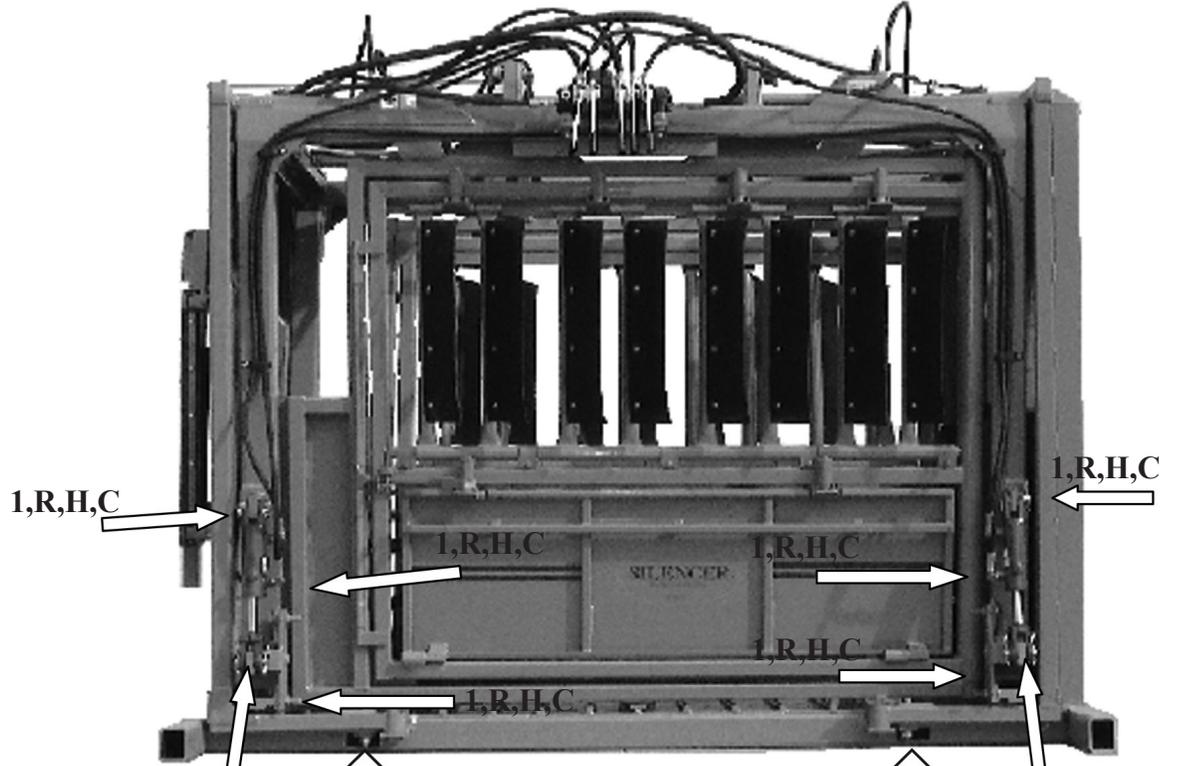
Key:  
 1 Grease Zerk - 1  
 3 Grease Zerks - 3  
 Ranch - R  
 Heavy Duty - H  
 Commercial Pro - C



**Right Side**

1, H, C

1, R, H, C



**Left Side**

3,R,H,C

1,R,H,C

1, H, C

3,R,H,C

**\*\*ALL GREASE ZERKS NEED 3 PUMPS ON A STANDARD GREASE GUN EVERY 1200 HEAD\*\***

## 5.1 Texaco MERCON/DEXRON III

1854 Havoline MERCON/DEXRON III hydraulic and automatic transmission fluids are formulated from selected highly refined base oils blended with a specially balanced additive combination. They have outstanding high temperature oxidation resistance, dispersancy, and detergency; offer excellent protection against corrosion, wear, and rust; and are compatible with the various automatic transmission components such as elastomeric seals and plastic parts. In addition, their high viscosity index characteristics permit use over a wide temperature range by providing excellent low temperature fluidity and, at the same time, retaining the desired viscosity at high temperature conditions. Special friction modifiers provide the smooth lock-ups required by the DEXRON III and MERCON specifications.

### Benefits

In service, Havoline hydraulic and automatic transmission fluid MERCON/DEXRON provides:

- Excellent low temperature fluidity for good cold-start shifting
- Protects against rust, corrosion, and wear
- Excellent shift quality throughout service life
- Cleaner transmissions by minimizing sludge and varnish deposits
- Compatibility with all transmissions and hydraulic seal materials
- Multiple approvals for lower inventory requirements

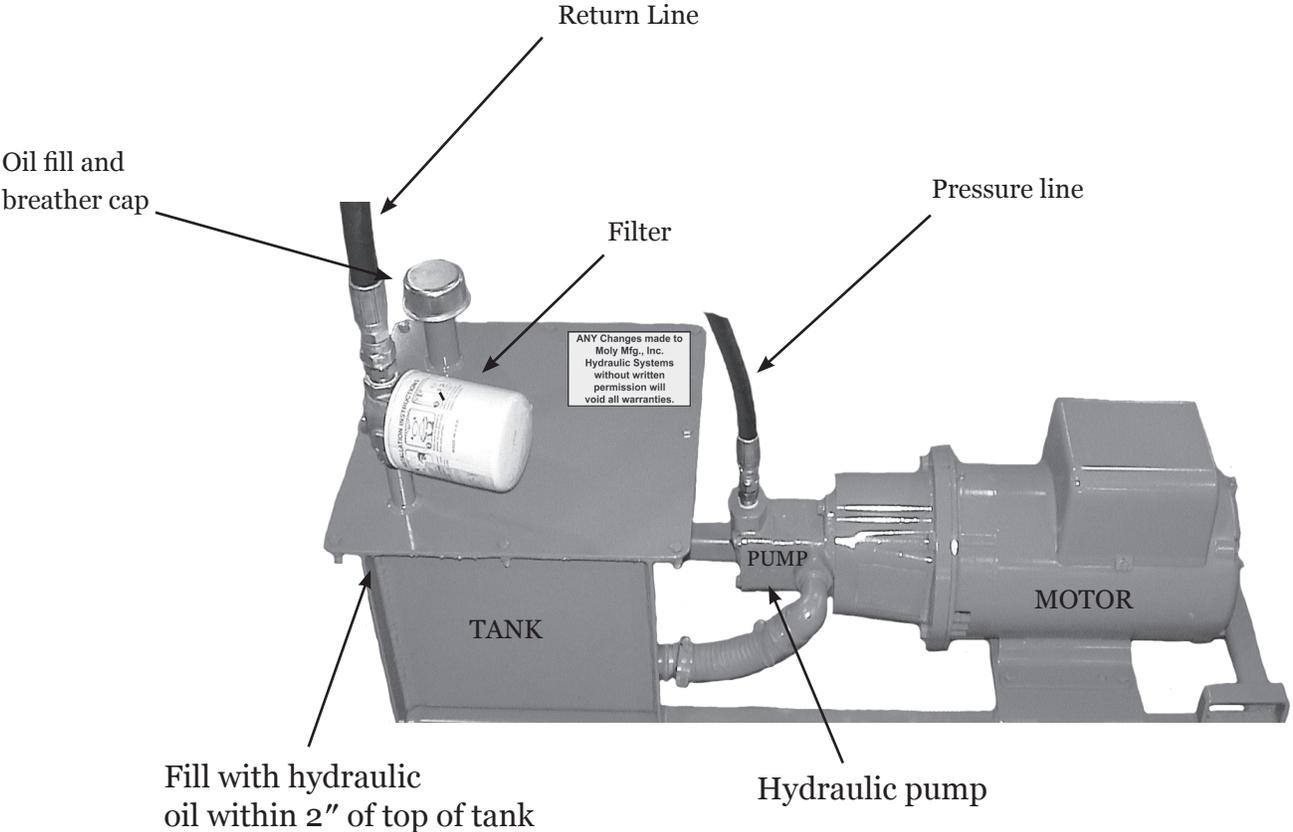
HMIS:           Health: 1  
                  Reactivity: 0  
                  Flammability: 1

Special:--

Health Emergency: 914-831-3400   WARNING: Escaping fluid under pressure may penetrate skin causing serious injury. If an accident occurs, see a doctor immediately.

# MAINTENANCE

Change hydraulic oil filter each 500 hours of use or annually.



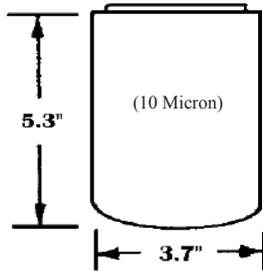
\*\*Texaco MERCON/DEXRON III is used widely in industrial equipment because of its superior flexibility.

Empty tank 4.5 gallons

**Drawing 5A**

# SPIN-ON FILTER ELEMENTS

FOR USE WITH ZINGA "ZAF" SERIES FILTER HEADS (AE-10) OR  
LENZ (CP-752-10) OR NAPA (1551)



**Drawing 5B**

INTERNAL MTG. THREAD	1" - 12
FILTRATION RATING (NOMINAL)	10 MICRON
AVERAGE BETA 10	4.0
FILTER MEDIA AREA	547 SQ. IN.
DIRT HOLDING CAPACITY	11.5 GRAMS
WATER HOLDING CAPACITY	_____
PART NUMBER	AE-10

## APPLICATION DATA:

MAXIMUM OPERATING PRESSURE: 250 P.S.I.  
(WARNING: 80 P.S.I. AP MAX. WITHOUT BY-PASS VALVE IN FILTER HEAD)

OPERATING TEMPERATURES: -65 TO +250° F.

APPLICATION: PETROLEUM BASE FLUIDS ONLY.  
CONSULT FACTORY FOR SYNTHETIC FLUIDS.

ELEMENT REMOVAL: STRAP OR CHAIN WRENCH

## NOTICE:

CAUTION: DO NOT USE "AE" SERIES FILTER ELEMENTS ON INTERNAL COMBUSTION ENGINES, AS THEY DO NOT CONTAIN AN INTERNAL RELIEF VALVE.

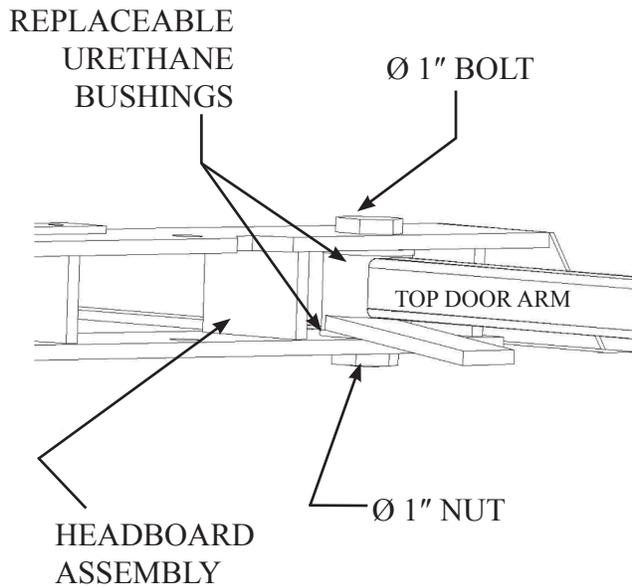
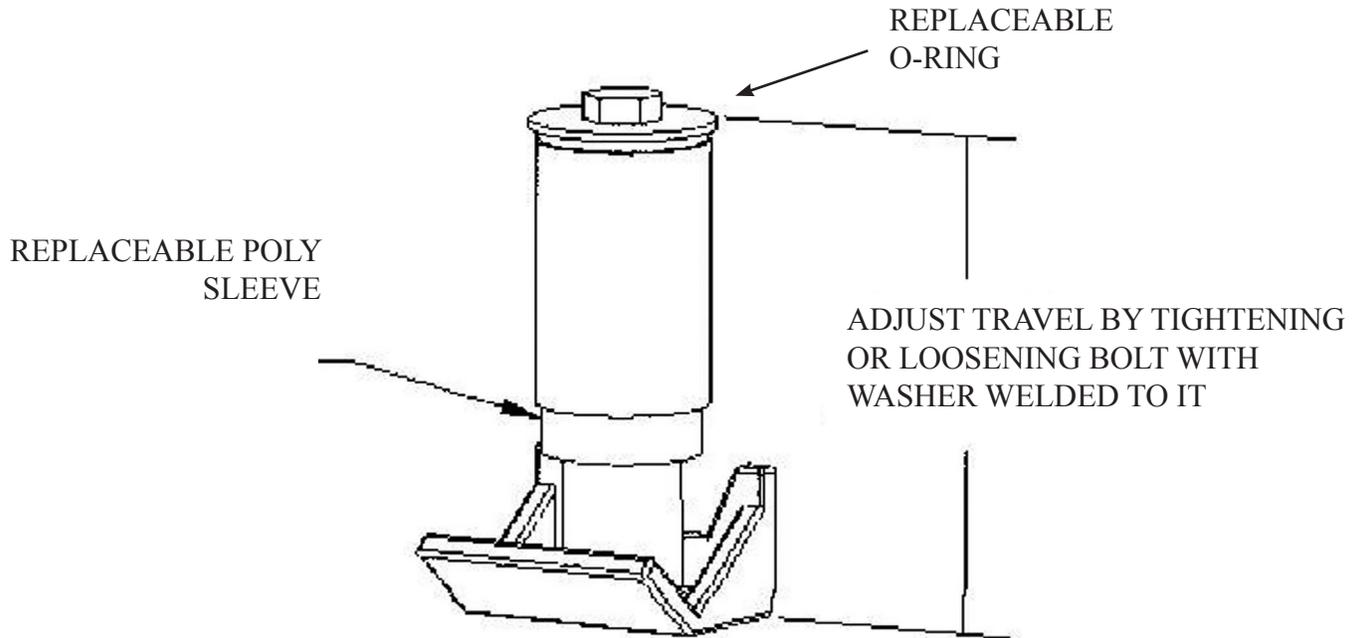
VITON GASKET PART NO. FG-3V CAN BE ORDERED FOR USE WITH ANY OF THE "AE" SERIES ELEMENTS. VITON GASKET IS IDENTIFIED BY A *WHITE STRIPE* ON THE OUTSIDE DIAMETER.

CONSULT FACTORY OR LOCAL DISTRIBUTOR FOR INTERCHANGEABILITY OF ZINGA "AE" SERIES FILTER ELEMENTS WITH THOSE OF OTHER MANUFACTURERS.

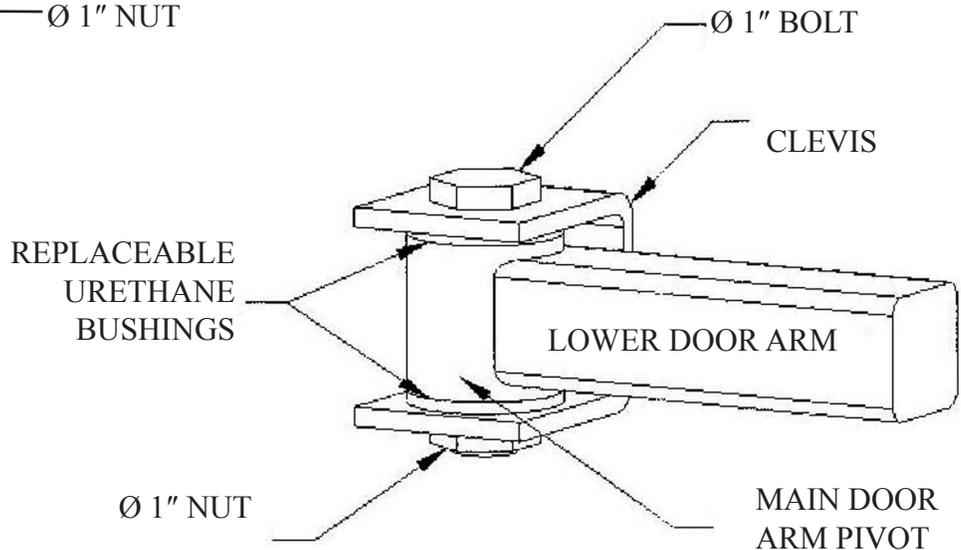
**Drawing 5C**



# DROP LATCH ASSEMBLY

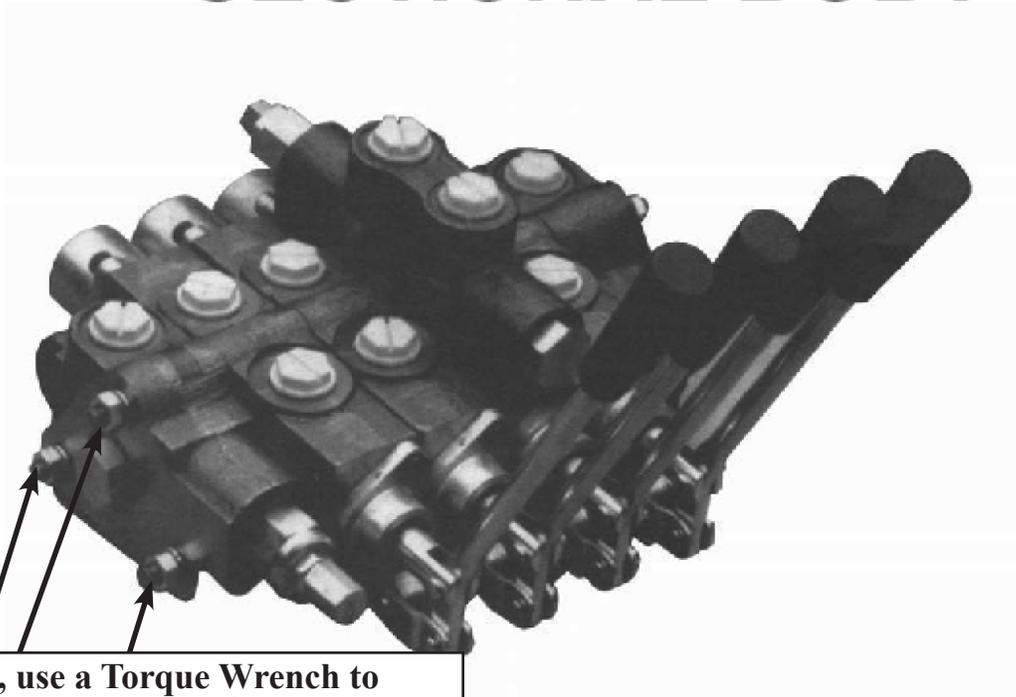


**Drawing 6A**



## 6.1 Directional Control Valves

# SECTIONAL BODY



If required, use a Torque Wrench to progressively tighten Tie-Rod Nuts to 150 +/- 6 in.-lbs.. Call Moly Mfg., Inc. Technical Support (785-472-3388) for all service inquiries.

*Model SV*

### STANDARD FEATURES

- 1 - 10 Sections Per Valve Bank
- Load Checks On Each Section
- Hard Chrome Plated Spools
- Compact Construction
- Enhanced Metering Section Available in both the High and Low Sections
- Differential Poppet Style Relief, Adjustable from 1500 to 3000 psi (Also available in Low Pressure Version Adjustable from 500 to 1500 psi)
- Power Beyond Capability
- Reversible Handle
- Mid-Inlet and Lock Valve Section available

### SPECIFICATIONS

#### Parallel or Series Circuit Construction

#### Pressure Rating

Maximum Operating Pressure-----3000 psi

Maximum Tank Pressure-----500 psi

Nominal Flow Rating-----12 GPM

Refer to Pressure Drop Curves.

**Filtration:** Fluid cleanliness should meet the ISO 4406 17/14 level. As a minimum, 10 micron filtration is recommended

#### Foot Mounting

Maximum Operating Temp-----180° F

#### Weight Per Section

Inlet Section-----Approx. 3.75 lbs.

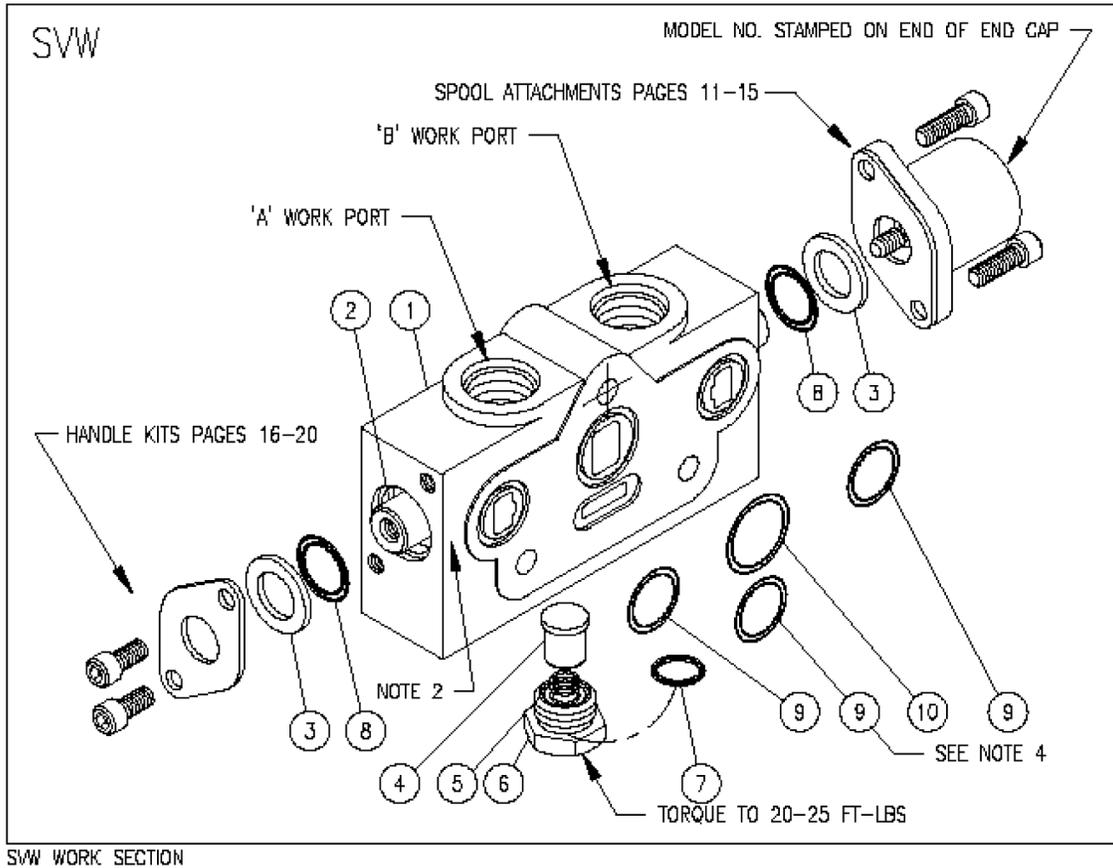
Outlet Section-----Approx. 3.75 lbs.

Work Section (Standard)-----Approx. 5.50 lbs.

Work section (High)-----Approx. 8.00 lbs.

# 6.2

# Control Valve Breakdown



### SVW WORK SECTION

ITEM	QTY	PART NO.	DESCRIPTION
1	1		VALVE BODY
2	1	SEE NOTE 1	SPOOL
3	2	670500045	SPOOL BACKUP WASHER
4	1	670100008	LOAD CHECK POPPET
5	1	670300029	SPRING
6	1	671600049	LOAD CHECK PLUG
7	1	240000908	908 O-RING
8	2	240000208	208 O-RING
9	3	240000018	018 O-RING
10	1	240000021	021 O-RING

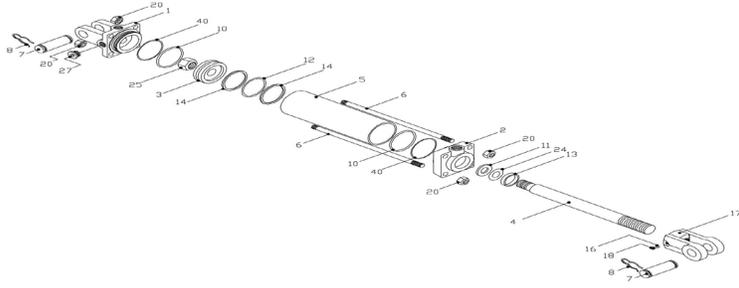
} These are matched parts and are not sold seperately.  
 } LOAD CHECK KIT, NO. 660180052  
 } SWW REPLACEMENT SEAL KIT NO. 660580001  
 } REPLACEMENT SEAL KIT, NO. 660580004

#### NOTES:

1. SEE SPOOL IDENTIFICATION CHART ON PAGE 9
2. C-575 CAST ON SIDE OF BODY INDICATES SVW SECTION
3. 3 WAY SECTIONS, SPOOL OPTION 'A', HAVE STEEL PLUG PART NO. 200300040 IN 'A' WORK PORT.
4. THIS O-RING GOES INTO THE OVAL COUNTERBORE IN THE SIDE OF THE VALVE BODY.

# Cylinder Breakdowns

## TIE-ROD CYLINDER REPAIR PARTS LIST



Cylinder Data	
Cylinder Model:	20TC06-112
Customer:	MOLY
Customer Number:	
Monarch Number:	648393
Bore:	2.00
Stroke:	06.00
Rod Diameter:	1.125

FOR REFERENCE ONLY

CYLINDER PARTS			
Item	Description	Qty	Monarch No.
1	Clevis Cap	1	292672
2	Rod Cap	1	292665
3	Piston	1	292948
4	Rod	1	492850
5	Tube	1	491606
6	Tie Rod	4	492216
7	Clevis Pin	2	134953
8	Clevis Pin Clip	4	134952
16	Nylon Thread Protector	1	148000
17	Rod Clevis	1	492650
18	Set Screw		
20	Tie Rod Nut	8	128230
25	Piston Nut	1	130556
27	Port Plug	1	186562

REPAIR KIT PARTS			
Item	Description	Qty	Monarch No.
10	End Cap O-ring	2	
11	Rod O-ring Seal	1	
13	Rod Dirt Wiper	1	
12	Piston O-ring Seal	1	
14	Piston Seal Backup Washer	1	
24	Rod Seal Backup Washers	1	
40	End Cap Backup Washers	2	
	Monarch Repair Kit (includes all above parts)	1	639572

All seals and wear rings must be purchased in complete repair kits. Seals will not be sold separately.

PISTON NUT		TORQUE	
NUT 3/4-16 UNF. LOCKNUT		130 FT. LB	
NUT 1-14 UNS. LOCKNUT		300 FT. LB	
NUT 1 1/8-12 UNF. LOCKNUT		350 FT. LB	
NUT 1 1/4-12 UNF. LOCKNUT		525 FT. LB	
NUT 1 1/2-12 UNF. LOCKNUT		750 FT. LB	

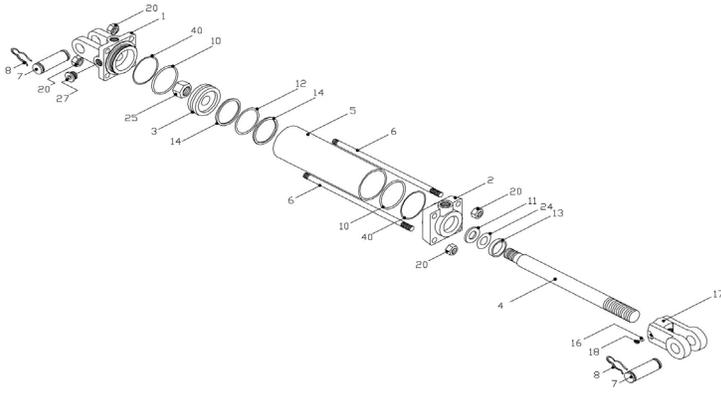
TIE ROD NUT		TORQUE	
NUT 3/8-16 UNC		30 FT. LB	
NUT 1/2-13 UNC		80 FT. LB	
NUT 5/8-11 UNC		140 FT. LB	
NUT 5/8-18 UNF		160 FT. LB	
NUT 3/4-18 UNF		250 FT. LB	

ROD CLEVIS SET SCREW		TORQUE	
NUT 3/8-16 UNC		20 FT. LB	

### WARNING

MECHANICAL FASTENERS MUST BE TORQUED TO RECOMMENDED SPECIFICATIONS DURING REPAIR TO PREVENT PERSONAL INJURY OR EQUIPMENT DAMAGE.

## TIE-ROD CYLINDER REPAIR PARTS LIST



Cylinder Data	
Cylinder Model:	20TC06-112
Customer:	MOLY
Customer Number:	
Monarch Number:	648393
Bore:	2.00
Stroke:	06.00
Rod Diameter:	1.125

FOR REFERENCE ONLY

CYLINDER PARTS			
Item	Description	Qty	Monarch No.
1	Clevis Cap	1	292672
2	Rod Cap	1	292665
3	Piston	1	292948
4	Rod	1	492850
5	Tube	1	491606
6	Tie Rod	4	492216
7	Clevis Pin	2	134953
8	Clevis Pin Clip	4	134952
16	Nylon Thread Protector	1	148000
17	Rod Clevis	1	492650
18	Set Screw		
20	Tie Rod Nut	8	128230
25	Piston Nut	1	130556
27	Port Plug	1	186562

REPAIR KIT PARTS			
Item	Description	Qty	Monarch No.
10	End Cap O-ring	2	
11	Rod O-ring Seal	1	
13	Rod Dirt Wiper	1	
12	Piston O-ring Seal	1	
14	Piston Seal Backup Washer	1	
24	Rod Seal Backup Washers	1	
40	End Cap Backup Washers	2	
	Monarch Repair Kit (includes all above parts)	1	639572

All seals and wear rings must be purchased in complete repair kits. Seals will not be sold separately.

PISTON NUT		TORQUE	
NUT 3/4-16 UNF. LOCKNUT		130 FT. LB	
NUT 1-14 UNS. LOCKNUT		300 FT. LB	
NUT 1 1/8-12 UNF. LOCKNUT		350 FT. LB	
NUT 1 1/4-12 UNF. LOCKNUT		525 FT. LB	
NUT 1 1/2-12 UNF. LOCKNUT		750 FT. LB	

TIE ROD NUT		TORQUE	
NUT 3/8-16 UNC		30 FT. LB	
NUT 1/2-13 UNC		80 FT. LB	
NUT 5/8-11 UNC		140 FT. LB	
NUT 5/8-18 UNF		160 FT. LB	
NUT 3/4-18 UNF		250 FT. LB	

ROD CLEVIS SET SCREW		TORQUE	
NUT 3/8-16 UNC		20 FT. LB	

### WARNING

MECHANICAL FASTENERS MUST BE TORQUED TO RECOMMENDED SPECIFICATIONS DURING REPAIR TO PREVENT PERSONAL INJURY OR EQUIPMENT DAMAGE.









**M**oly Manufacturing, Inc.

**2435 10<sup>th</sup> Road**

**Lorraine, Kansas 67459 U.S.A.**

**785-472-3388**

**[www.molymfg.com](http://www.molymfg.com)**