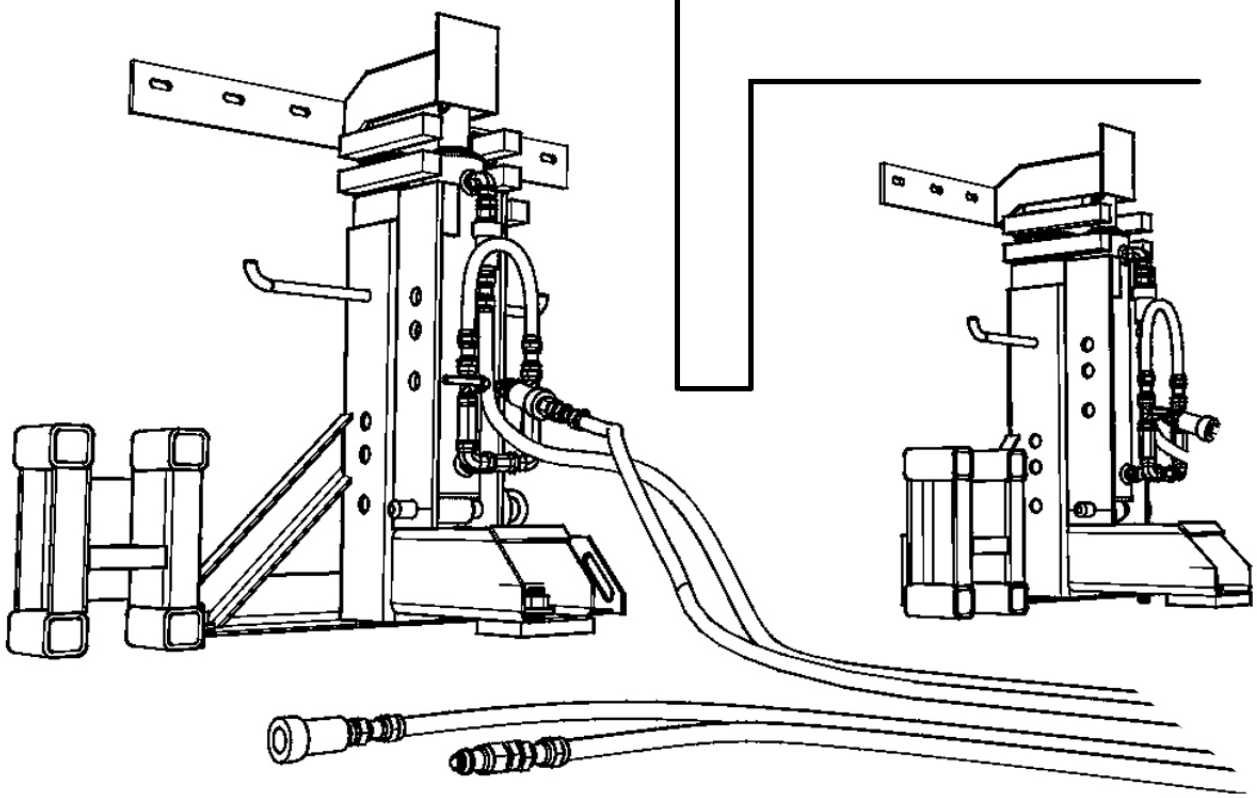
revised Jan 4th 2016

Bainter 7.5K Capacity Hydraulic Bin Jacks

US Patent Numbers: 6,299,137 - 6,311,952 - D461,651



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STOP!

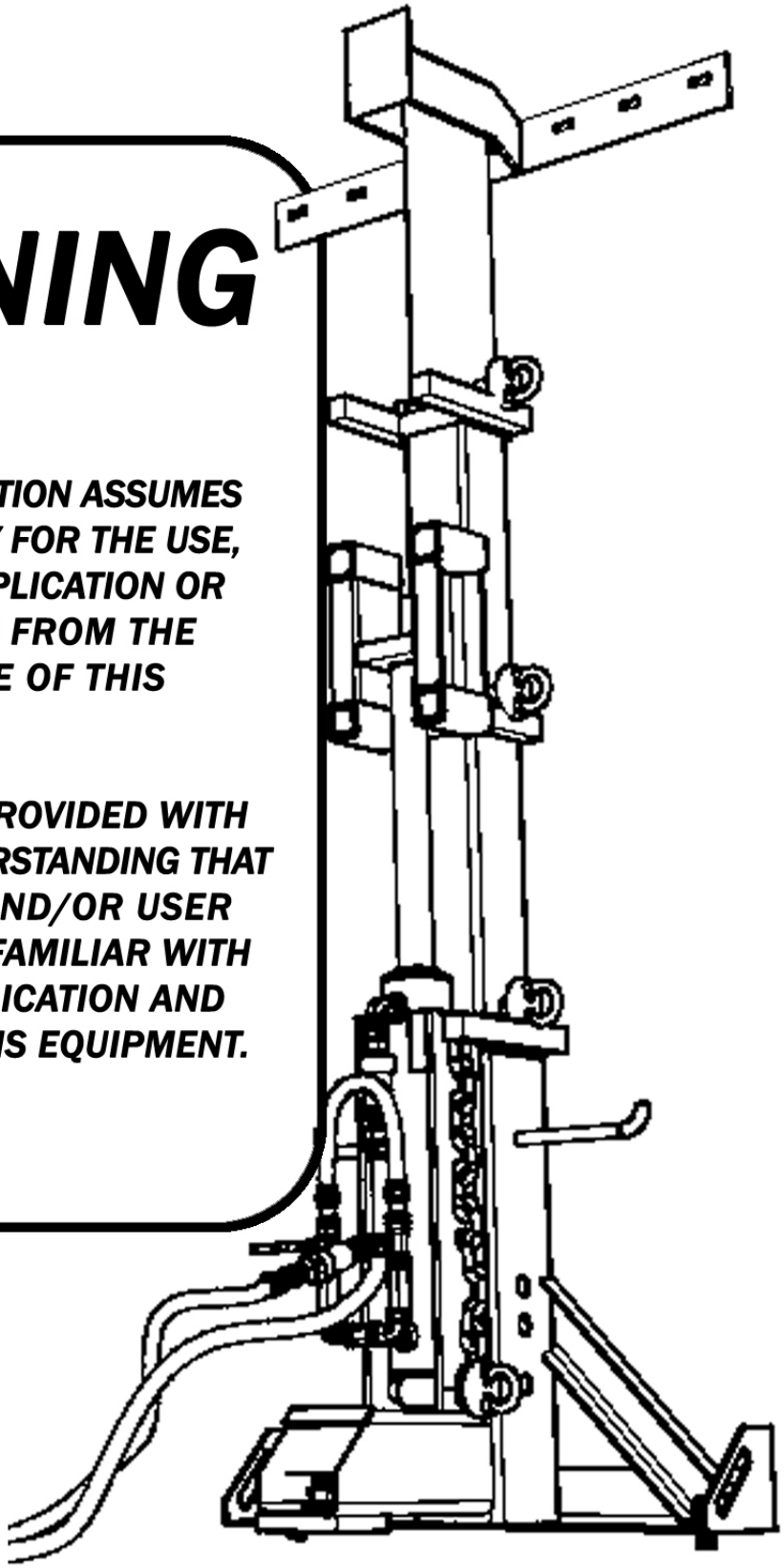
These jacks must be greased before use. Remove all three lift tubes and grease the entire length of each tube prior to use.

BAINTER 7.5K JACK

WARNING

BAINTER CONSTRUCTION ASSUMES NO RESPONSIBILITY FOR THE USE, OPERATION, MISAPPLICATION OR INJURY RESULTING FROM THE OPERATION OR USE OF THIS EQUIPMENT.

THIS PRODUCT IS PROVIDED WITH THE EXPRESS UNDERSTANDING THAT THE PURCHASER AND/OR USER ARE THOROUGHLY FAMILIAR WITH THE CORRECT APPLICATION AND PROPER USE OF THIS EQUIPMENT.



IMPORTANT SAFETY NOTES

1. In order to ensure safe operation the jacks must be firmly anchored through all three anchor points.

2. Make sure that the jacks are pushed firmly to the inside of the bin. This is essential to proper operation and stability.

3. Before operating the equipment read this manual. If you have any questions please contact us.

Thank you for your purchase of the Bainter Hydraulic Grain Bin Jacking System. We are here to serve your grain bin construction needs with equipment that makes your work easier, faster, and safer.

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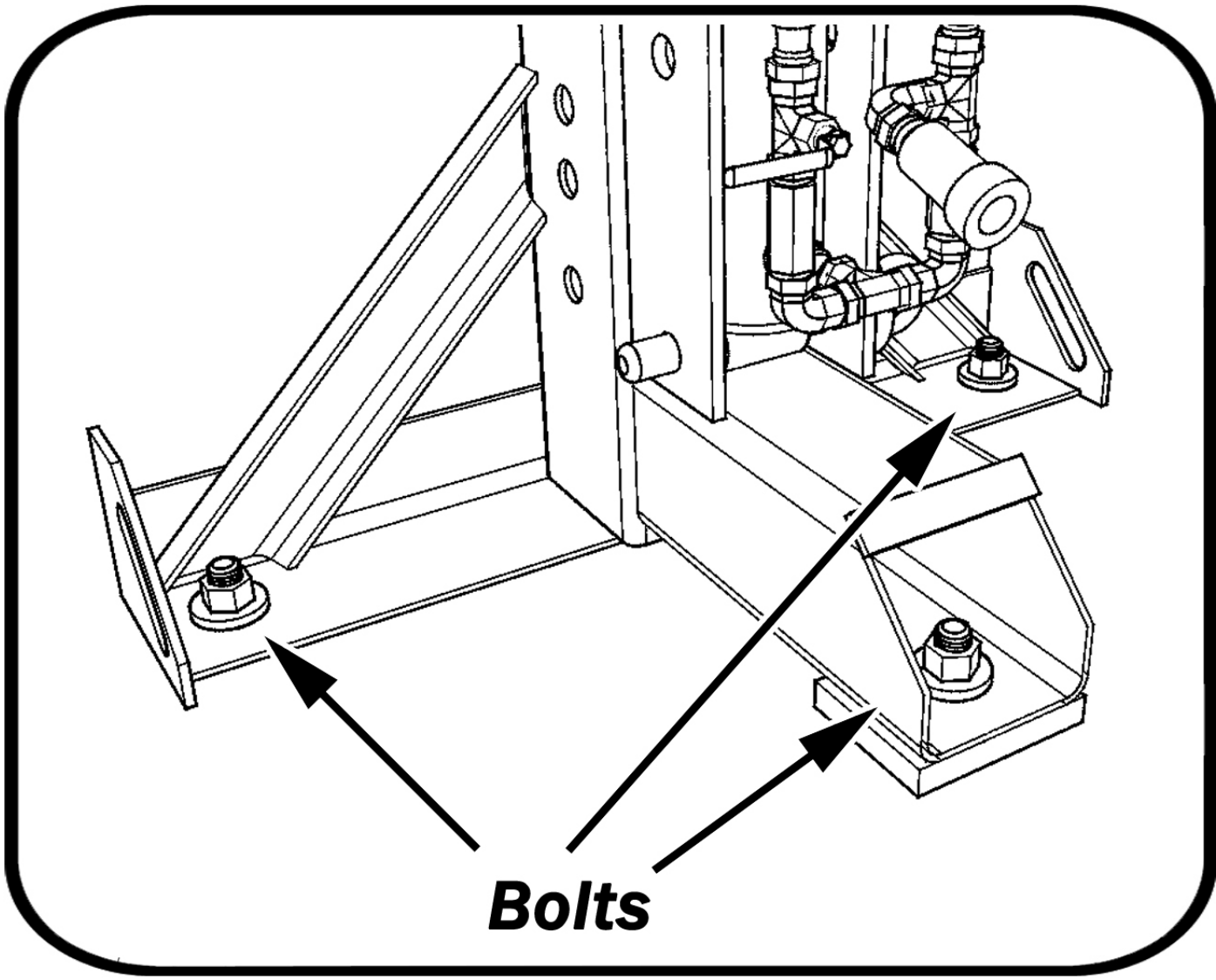
CAUTION

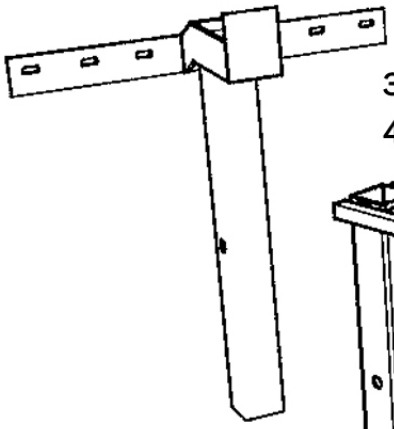


THESE BIN JACKS MUST BE BOLTED TO THE FOUNDATION OR STEM WALL BEFORE USE.

BAINTER 7.5K HYDRAULIC BIN JACK PARTS

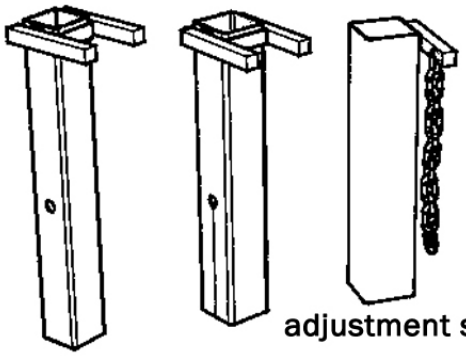
16" x3 1/2"
hydraulic cylinder
with valve assembly

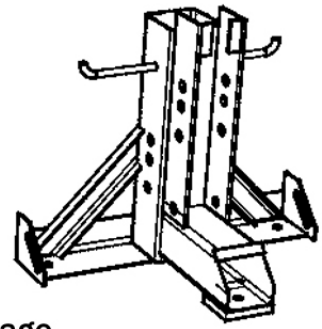
1st stage lifting tube
3 1/2" x 3 1/2" x 3/16"



3rd stage lifting tube
4 1/2" x 4 1/2" x 3/16"

Jack base

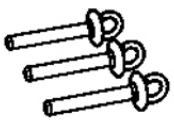


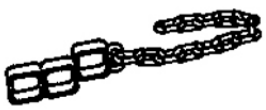


adjustment stage
5" x 5" x 3/16"

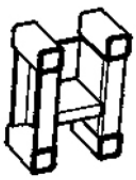
2nd stage lifting tube
4" x 4" x 3/16"

(2) 35' 1/4" dia
hoses with
quick couplers





Tube retaining bracket

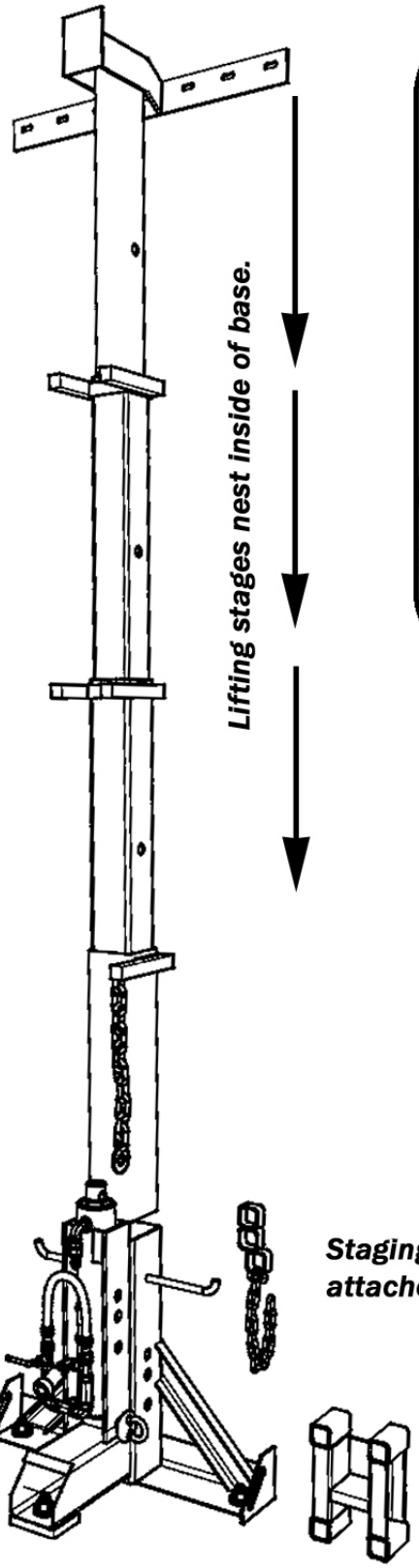


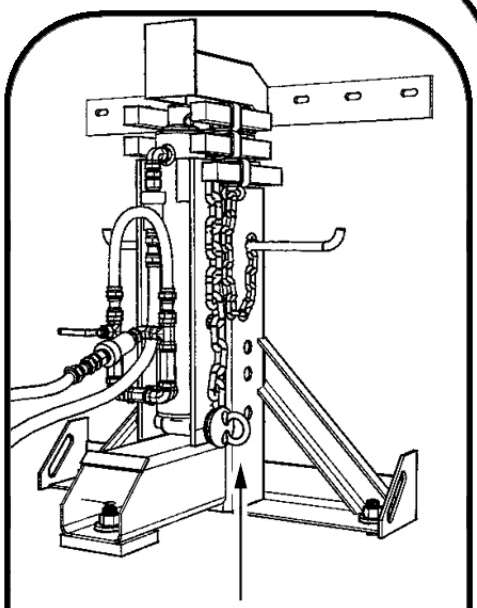
Lifting Bracket

BAINTER BIN JACK

ASSEMBLY:

Fully remove and grease all jack tubes before using equipment. It is especially important to grease the bottom edges of the tubes.





Retaining chain fastened with pin

BAINTER BIN JACK

SAFETY FEATURE

CHECK VALVE SYSTEM PREVENTS SILO FROM FALLING IN THE EVENT OF A LINE BREAK OR OTHER HYDRAULIC FAILURES.

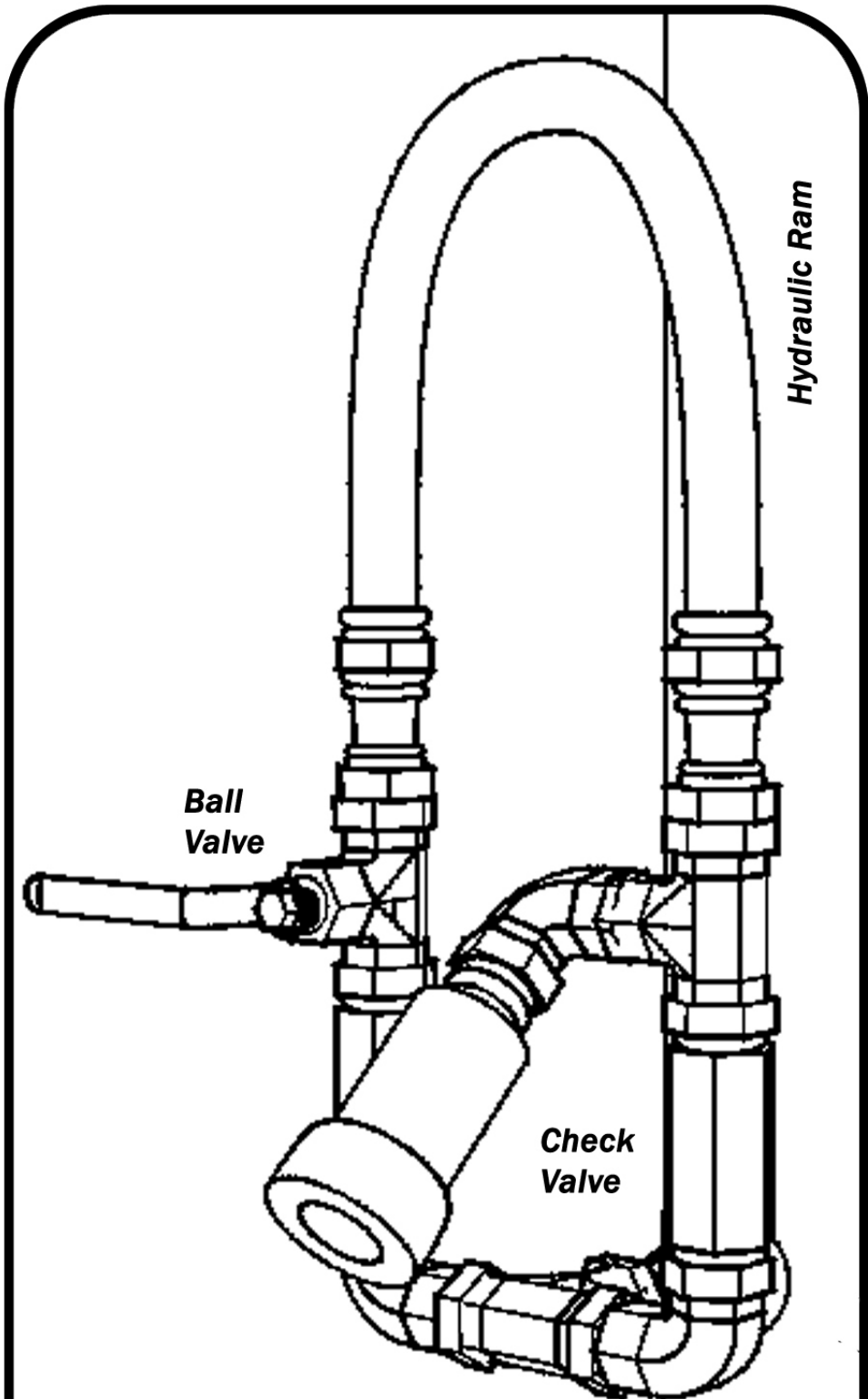
OPERATION DETAILS

Always make sure needle valve is closed when raising silo.

When the needle valve is closed the check valve allows the hydraulic fluid to flow though it into the cylinder in only one direction.In the event of a hydraulic failure, the oil is locked in the cylinder and this will prevent the silo from falling.

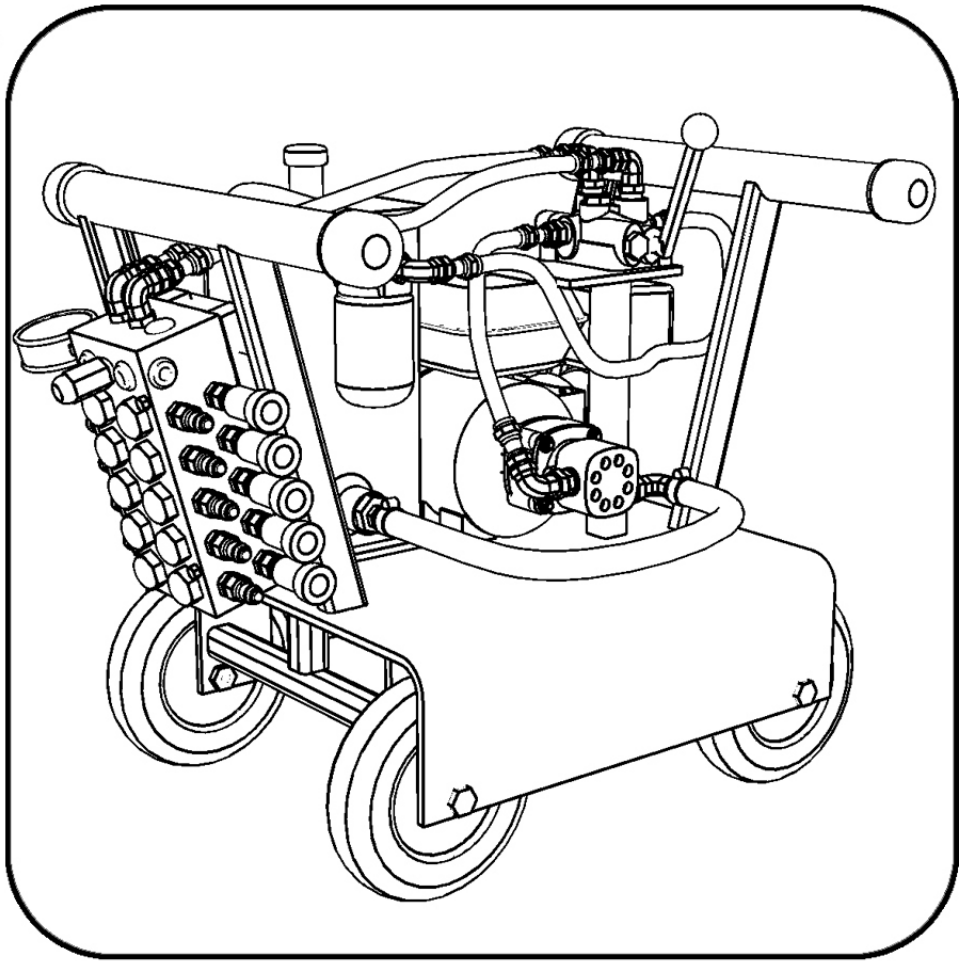
In order to lower hydraulic ram open needle valve 2 to 3 turns.

SUMMARY: Close valves when going up. Open valves to lower the Hydraulic Cylinders.



BAINTER HYDRAULIC BIN JACK SYSTEM

10 jack capacity power unit



This power unit is powered by a 6.5 hp Honda 4 stroke engine. When in use it is located in the center of the grain bin. There are 10 pair of 1/4" quick connectors which enable you to use a maximum of 10 jacks with this power unit.

The 10 jack capacity power unit allows automatic flow equalization. The manifold block located on the end of the cart is designed to provide an equal 1/2 gpm to each jack.

When using a small number of jacks the bypass pressure on the control valve may need to be lowered. This can be adjusted by removing the cap next to the control handle and turning the allen-head screw.

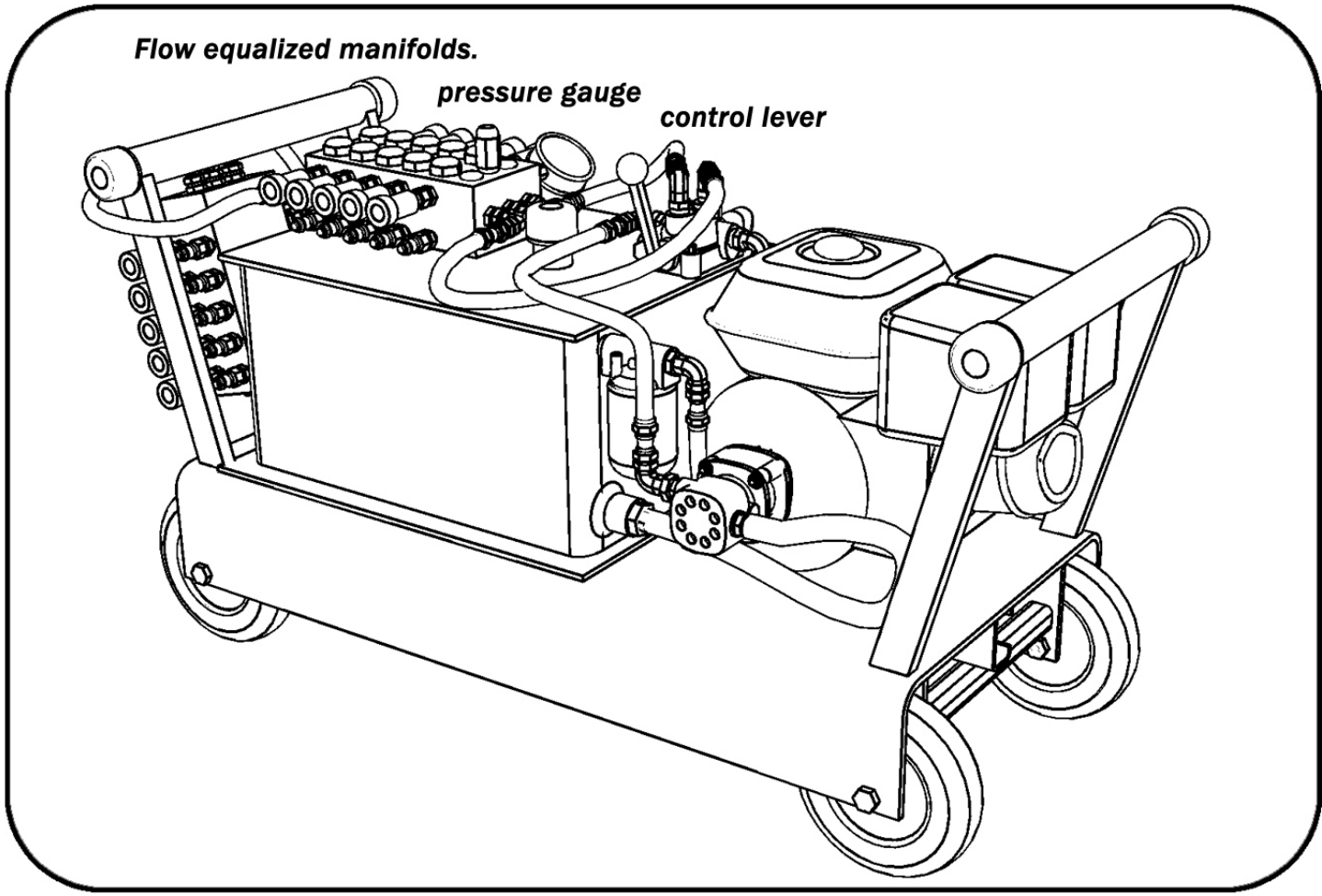
Tips to help the power unit operate at it's best efficiency:

1. *Pressure gauge should read 1200-1500 psi when jacks are being used*
2. *Always connect the two quick connectors from each jack to two side-by-side quick connectors. cross connections will interfere with automatic leveling.*
3. Change filter/ hydraulic fluid at least once a season
4. Maintain Honda motor as per included Honda manual.

CONNECTING THE HYDRAULIC LINES

The sets of hydraulic lines coming from jack are quick connected together by 1/4" quick connectors. Disconnect one pair of these lines and quick connect one to each of the manifolds. The manifold has 10 identical pairs of quick connectors. Likewise, one of each pair of lines from the jack has female connections and the other has male. Connect male to female and female to male. Always make sure the quick connectors are fully snapped together to have complete hydraulic fluid circulation.

20 Jack Capacity Power Unit



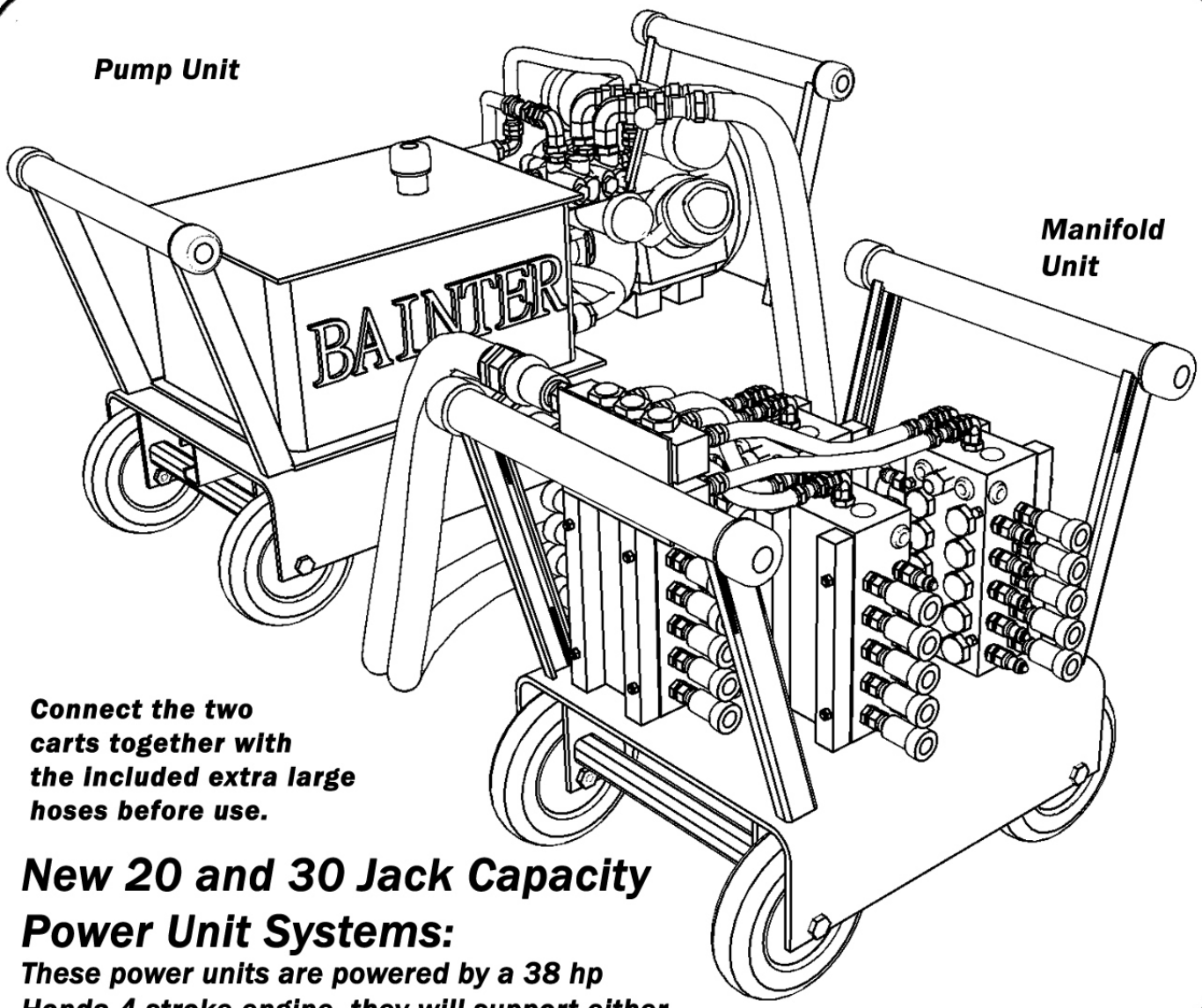
The 20 jack capacity hydraulic power unit is powered by a 13 hp 4 stroke Honda Engine. This power unit uses manifolds with integrated flow equalizers to keep the bin level automatically. The manifold is set to provide an equal flow of 1/2 gpm to each jack.

Tips to help the new power unit operate at it's best efficiency:

1. ***Pressure gauge should read 1500 psi when jacks are being used***
2. ***Always connect the two quick connectors from each jack to two side-by-side quick connectors. cross connections will interfere with automatic leveling.***
3. *Change filter/ hydraulic fluid at least once a season*
4. *Maintain Honda motor as per included Honda manual.*

Note: to achieve best results the power unit may need to be operated at less than full throttle when a small number of jacks are used. As an alternative do not fully engage the control lever- this will compensate for the decreased flow necessary in situations were fewer jacks are used.

30 and 40 Jack Capacity Hydraulic Power Units



Connect the two carts together with the included extra large hoses before use.

New 20 and 30 Jack Capacity Power Unit Systems:

These power units are powered by a 38 hp Honda 4 stroke engine. they will support either up to 30 or up to 40 jacks (depending on how they were equipped when ordered) These power units are set to provide an equal flow of 1/2 gpm to each jack, allowing for level lifting.

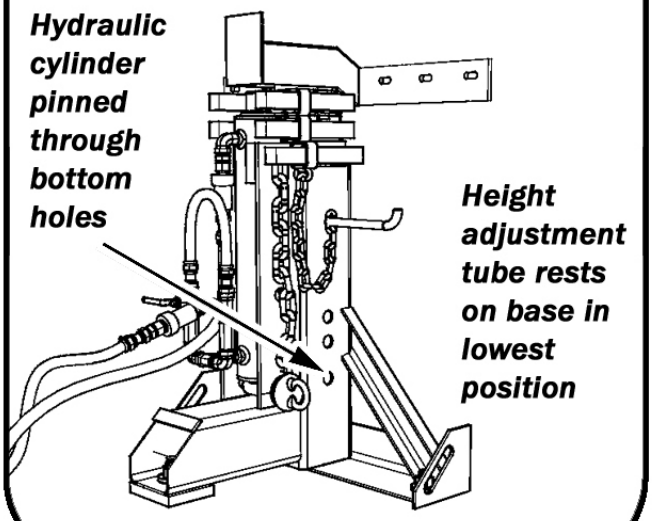
Tips to help the new power unit operate at it's best efficiency:

1. ***Pressure gauge should read 1500 psi when jacks are being used***
2. ***Always connect the two quick connectors from each jack to two side-by-side quick connectors. cross connections will interfere with automatic leveling.***
3. ***Change filter/ hydraulic fluid at least once a season***
4. ***Maintain Honda motor as per included Honda manual.***

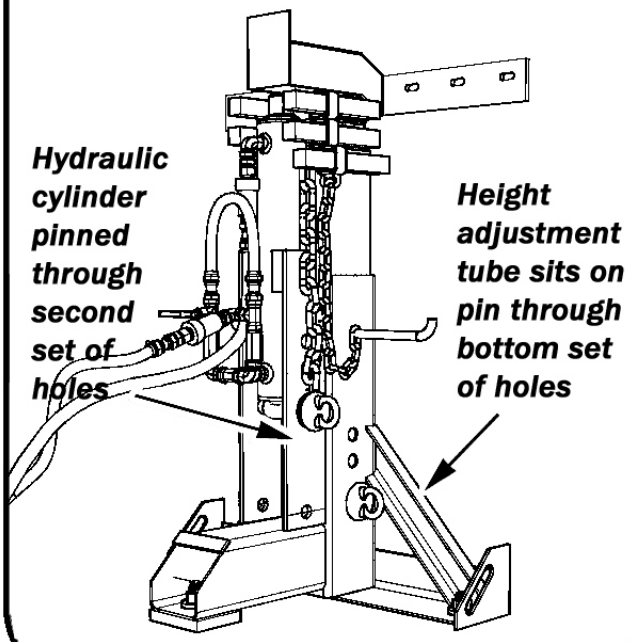
NOTE: If the power unit is used with fewer than 20 jacks the motor may need to be idled down

BAINTER BIN JACK ADJUSTS TO 4 DIFFERENT HEIGHTS TO ACCOMMODATE VARYING BIN RING HEIGHTS

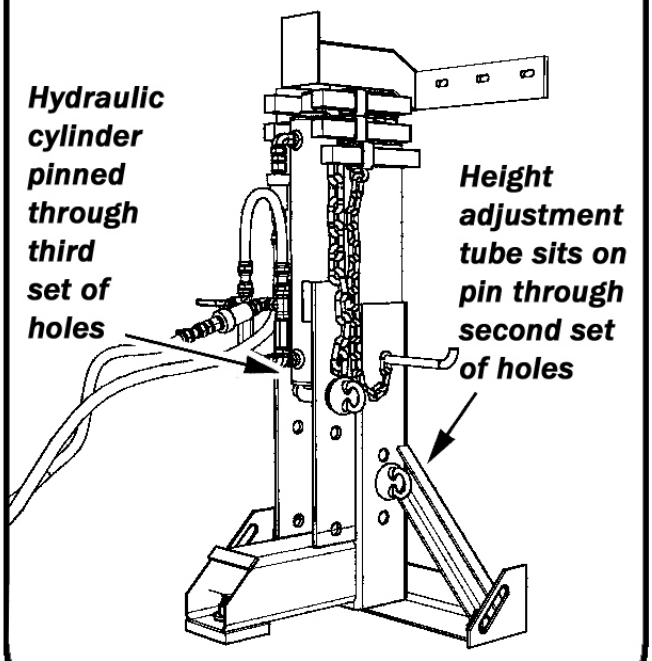
CONFIGURED FOR A 32" RING



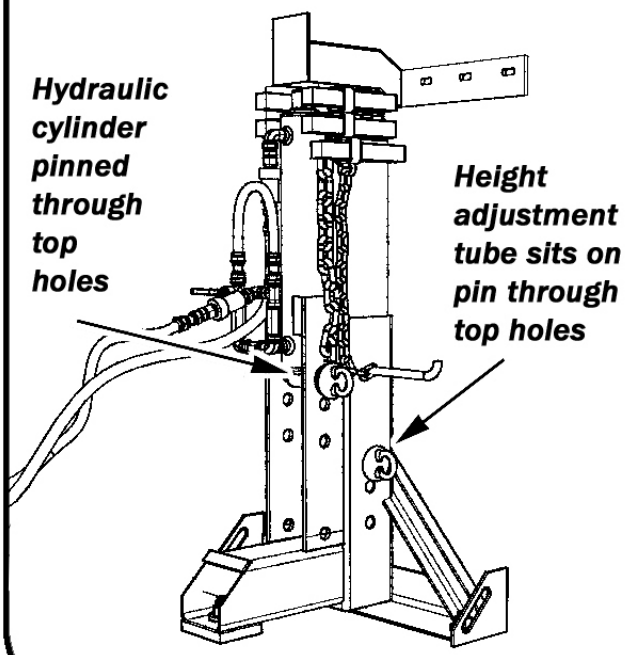
CONFIGURED FOR A 39" RING



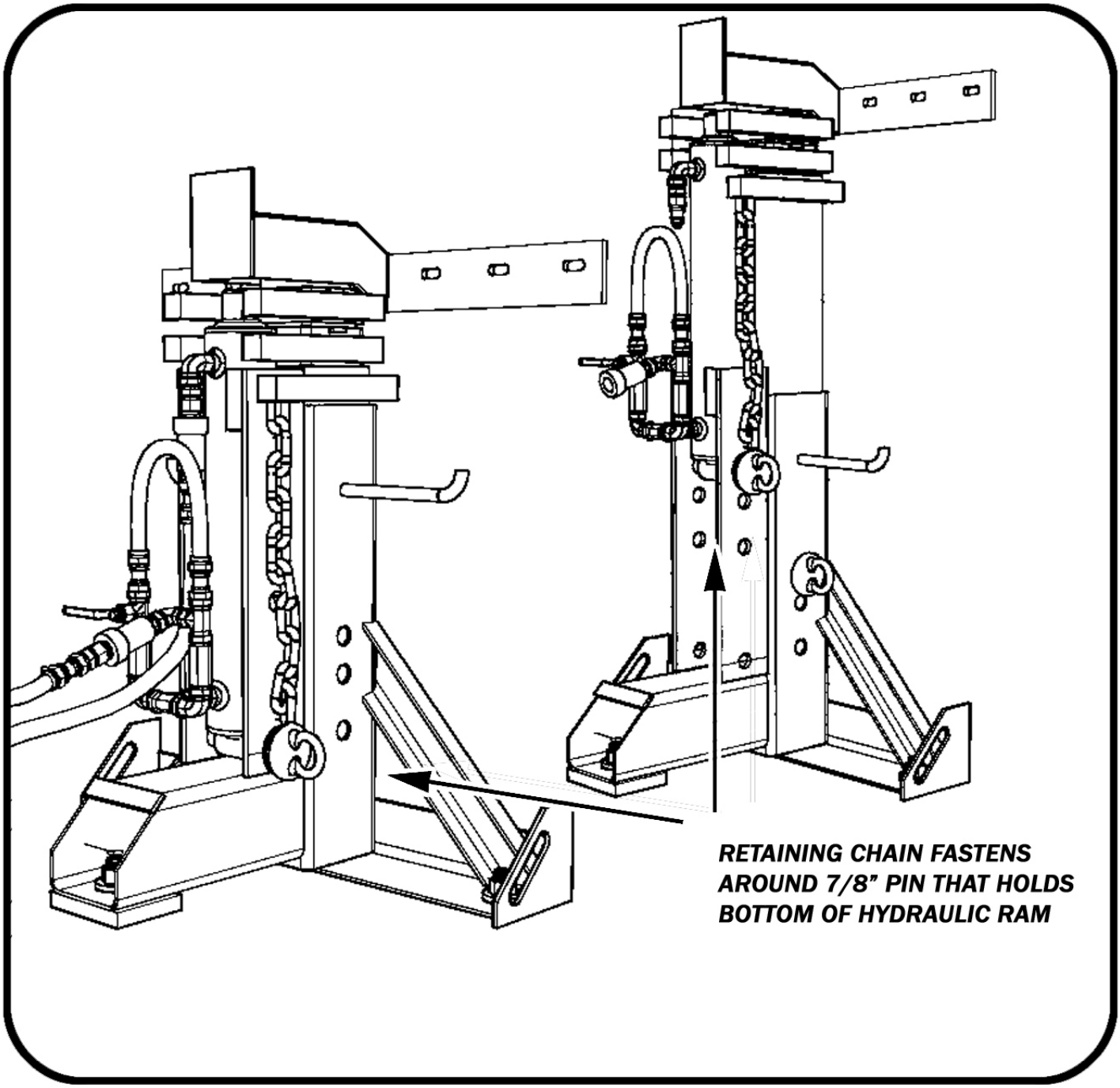
CONFIGURED FOR A 42 1/2" RING



CONFIGURED FOR A 44" RING



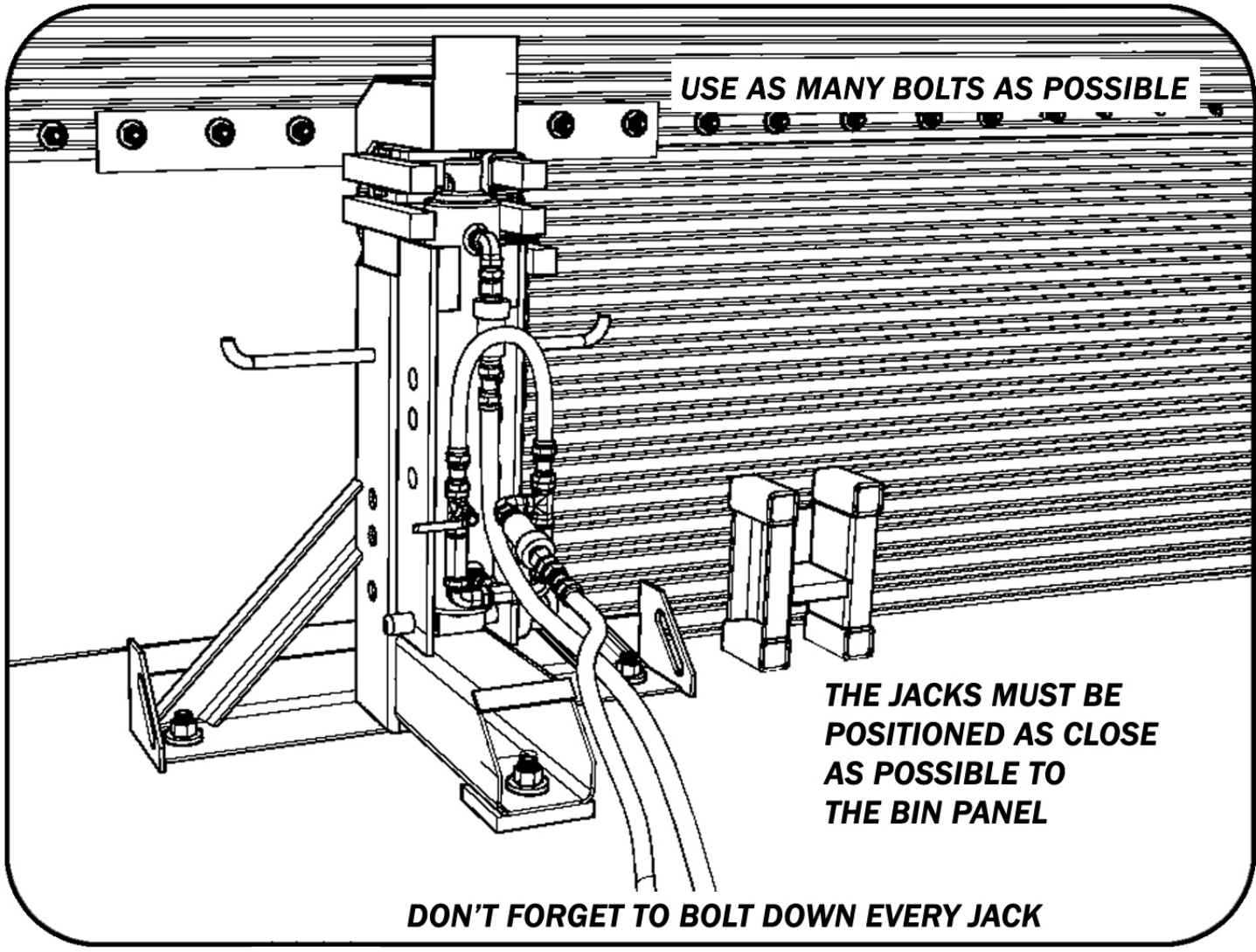
BAINTER BIN JACK SYSTEM



RETAINING CHAIN

The retaining chain welded to the height adjustment tube prevents the tube from rising due to friction when the other stages are raised. The washer welded to the free end of the chain is placed around the pin that holds the bottom of the hydraulic ram.

When the jack is adjusted for a different ring height the chain is moved with the pin to the new height.



POSITIONING THE BAINTER BIN JACK

The jack is connected to the grain bin at the horizontal seam between the upper and lower vertical seams.

SAFETY NOTE:

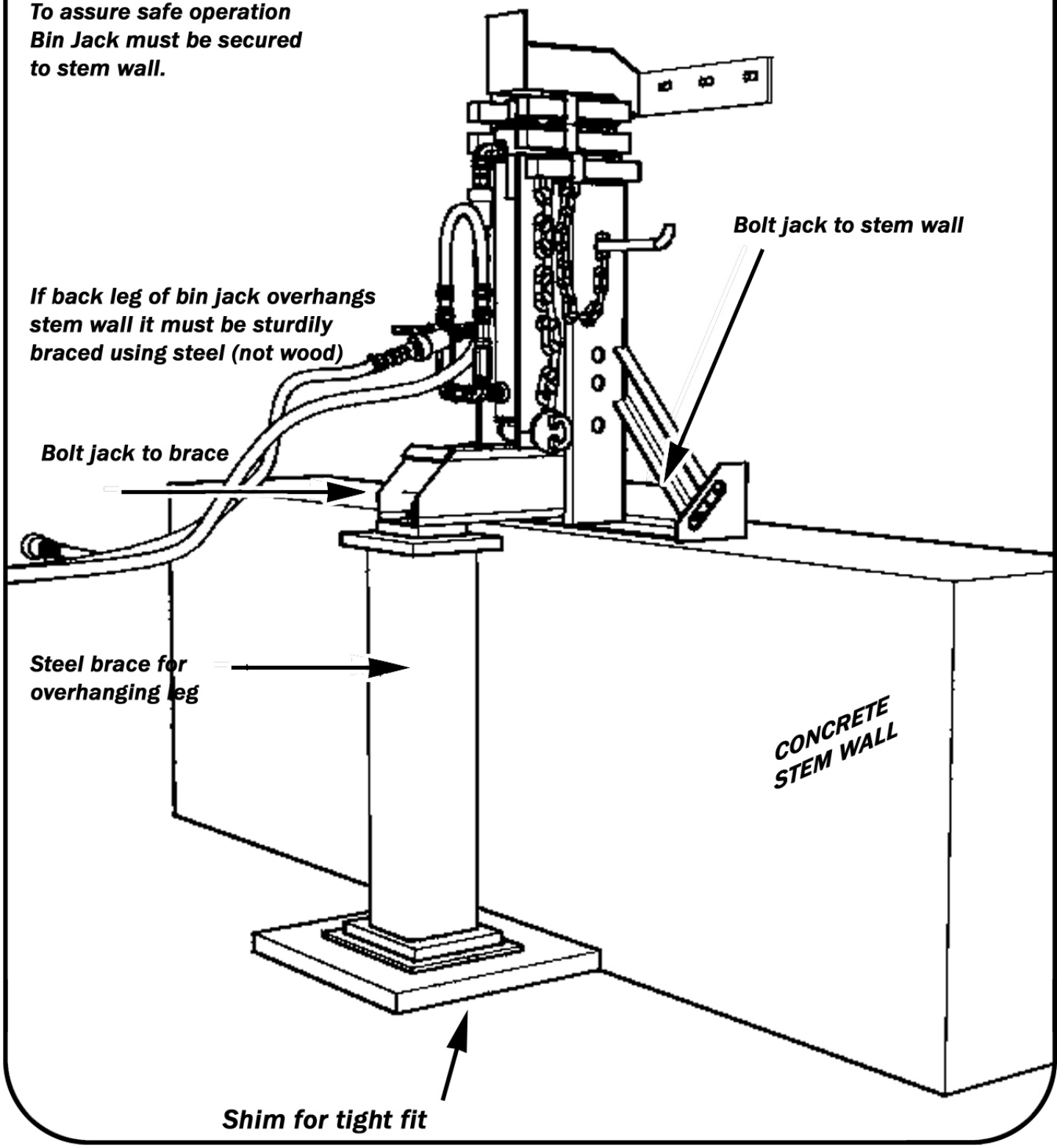
Always fasten the bin to the jack's mounting bracket with as many bolts as possible.

IMPORTANT: The base of the jack must be as close to the bin panels as possible. The shorter front leg should be no more than 1/4 inch away from the panel. Placing the the jack improperly will decrease the life of the equipment and cause uneven lifting.

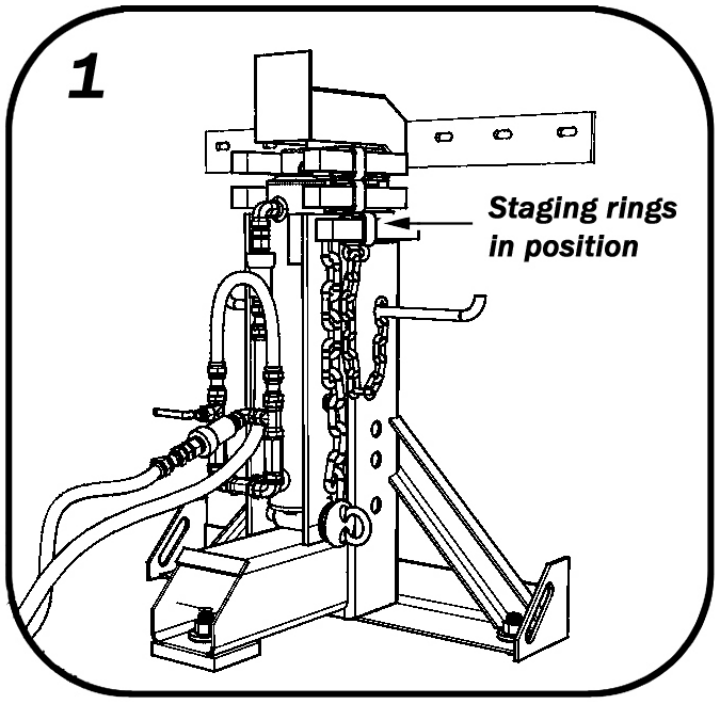
POSITIONING THE BAINTER BIN JACK IN A STEM WALL SITUATION

SAFETY NOTICE:

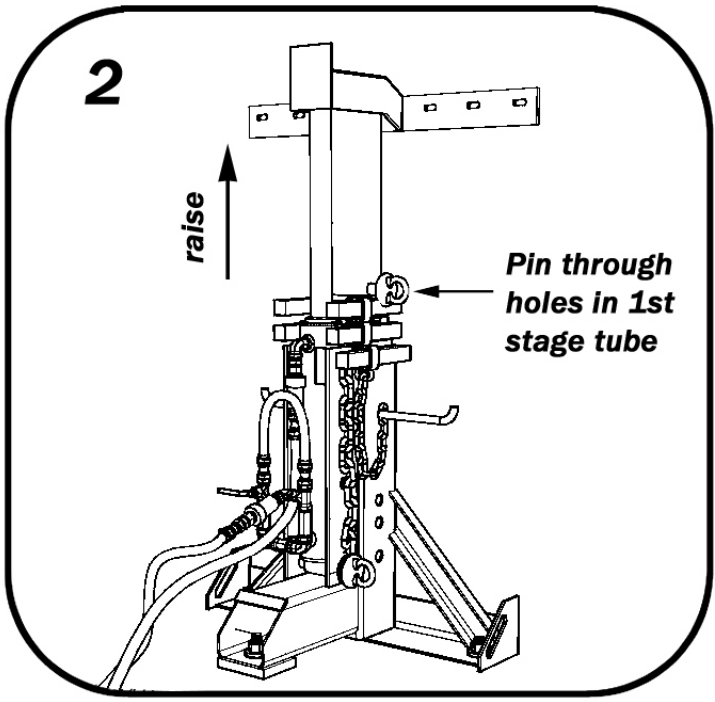
To assure safe operation Bin Jack must be secured to stem wall.



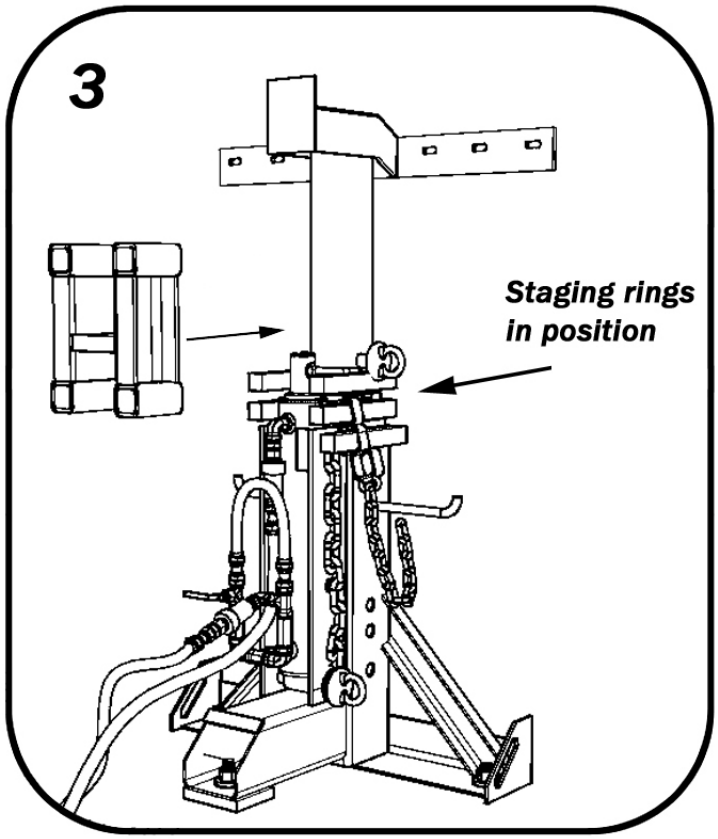
BAINTER BIN JACK - JACK OPERATION



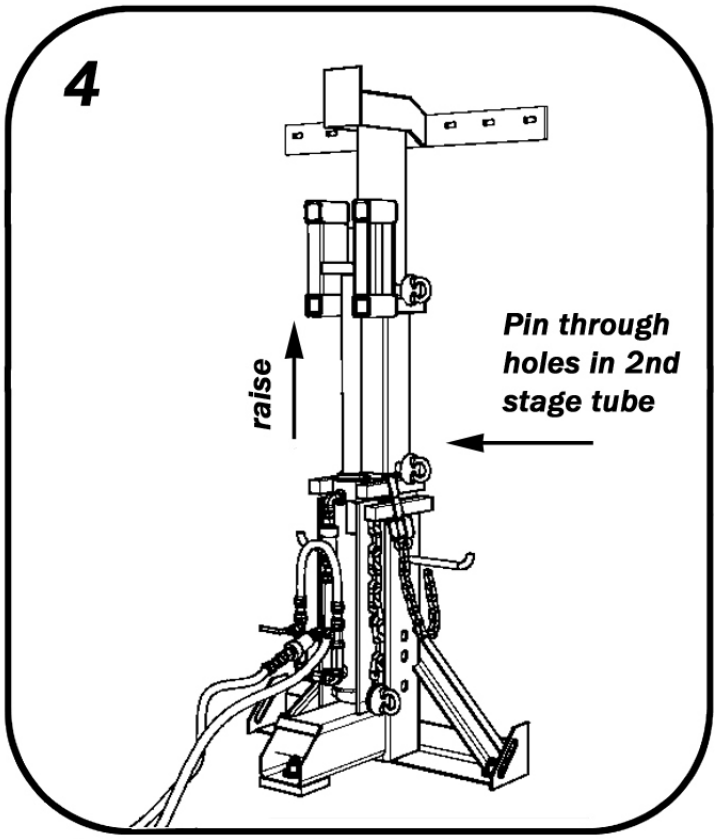
Place jack in position. Hook up hydraulic lines. Slide staging rings over arms on lifting stages and base.



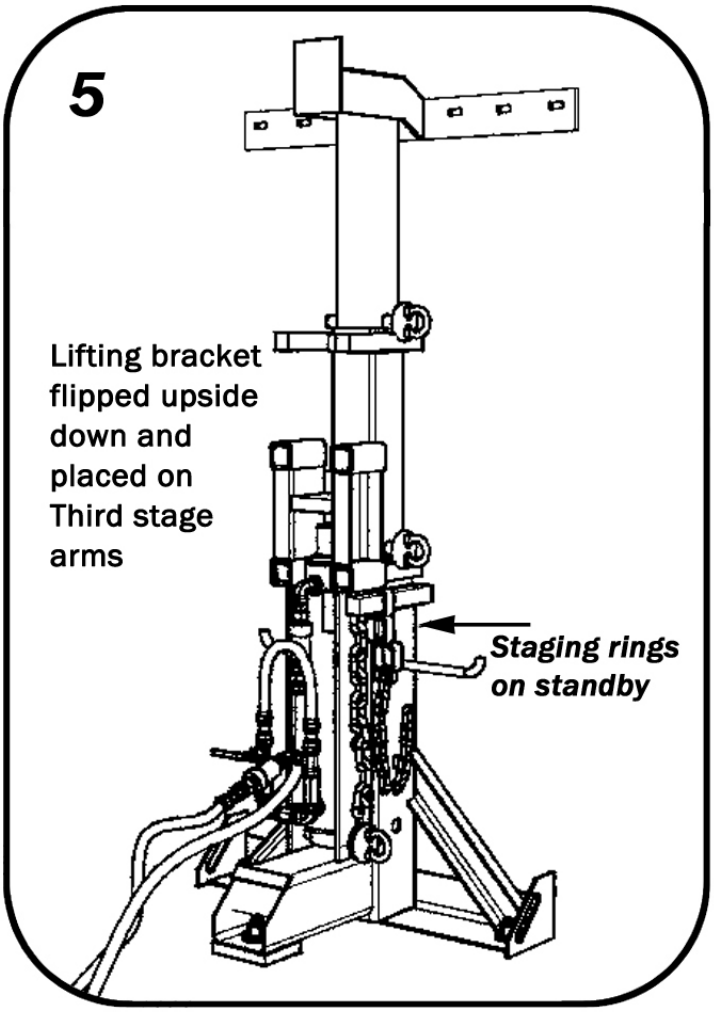
Raise first stage with hydraulic ram. Hold in position with pin through holes in 1st stage tube.

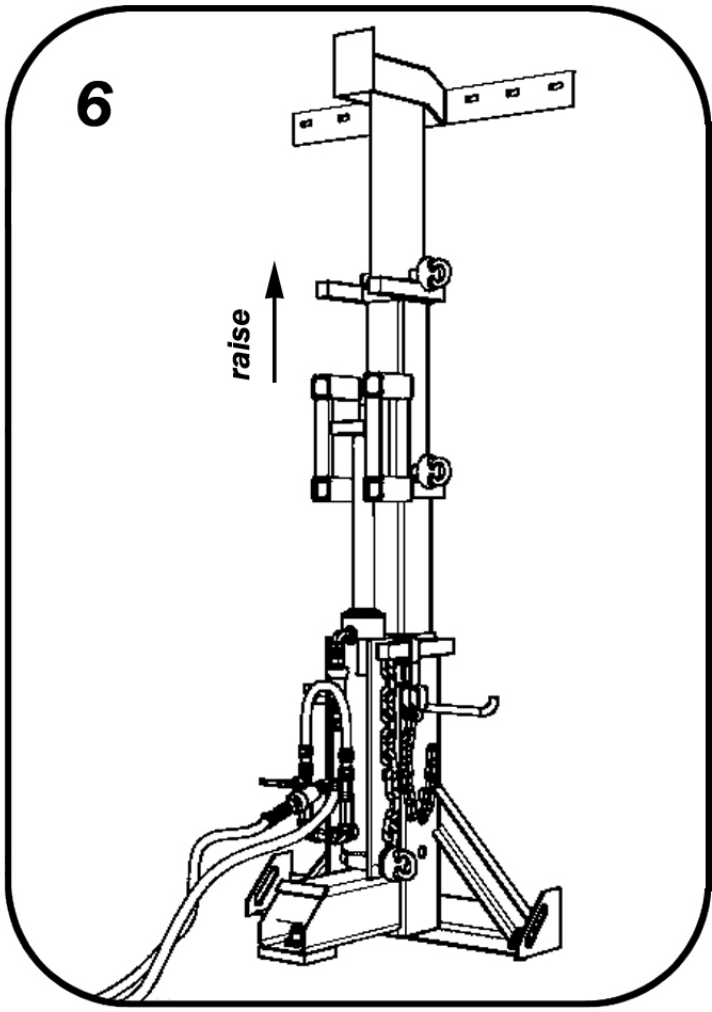


Move staging rings onto 3rd stage and base arms. Slide lifting bracket onto 2nd stage arms.



Raise 2nd stage with hydraulic ram. Hold in position with pin through holes in 2nd stage tube.





Remove staging rings from 3rd stage and base arms.

Remove lifting bracket from 2nd stage arms. Flip lifting bracket upside down and slide onto 3rd stage arms.

Raise 3rd stage with hydraulic ram.

For added safety:
Hold in position with pin through holes in 3rd stage tube.

BAINTER BIN JACK GUIDELINES

IMPORTANT:

EACH JACK HAS A MAXIMUM SAFE LIFTING CAPACITY OF 7,500 LBS.

The table below indicates the number of jacks needed for a typical bin with an eaves height of less than 35'. (One jack is attached to every 2nd wall panel around the circumference of the bin.)

36' DIAMETER BIN - 6 JACKS
42' DIAMETER BIN - 7 JACKS
48' DIAMETER BIN - 8 JACKS
54' DIAMETER BIN - 9 JACKS
60' DIAMETER BIN - 10 JACKS

If your side wall is taller than 35' but shorter than 50' you will need one jack on every 1.5 panels.

If your Sidewall is taller than 50' you will need 1 jack on every panel.

10 jacks are the maximum that can be operated by the small power unit. The larger power unit is required for applications needing more than 10 jacks.

If the instructions above do not describe your application, or you have any other questions please contact us before proceeding.

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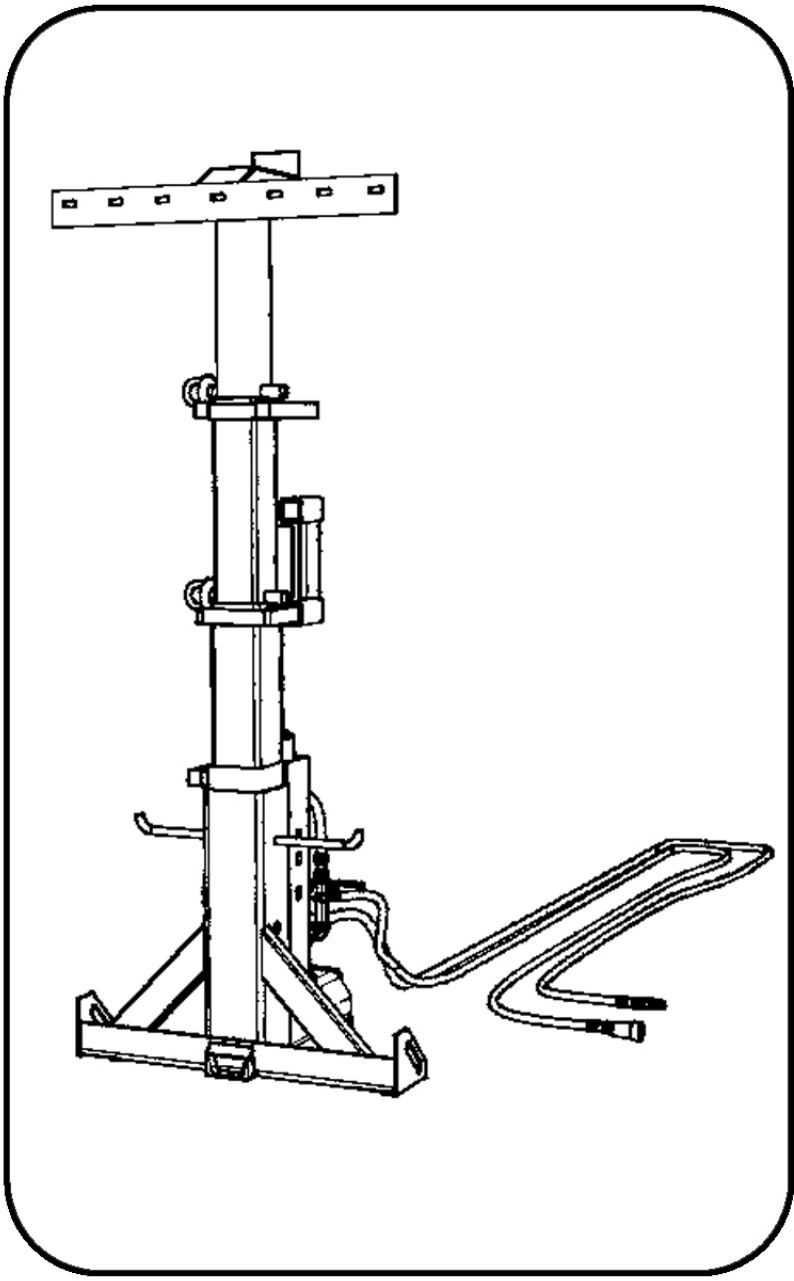


POWER UNIT MAINTENANCE

Change oil in Honda/Kohler motor as per mfg's recommendations

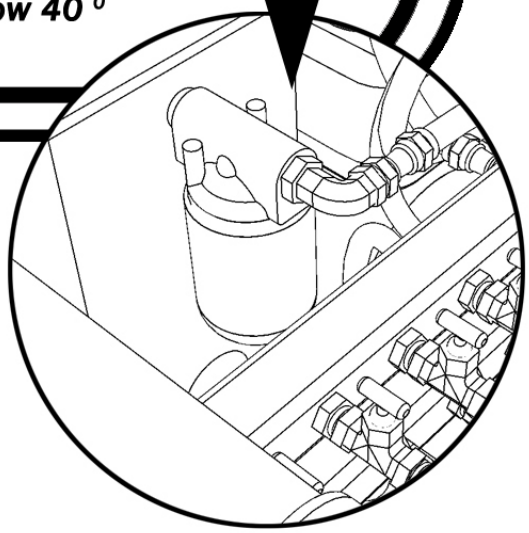
change and flush hydraulic oil system at least once per year and change oil filters at this time as well as check the screen on the reservoir tank outlet.

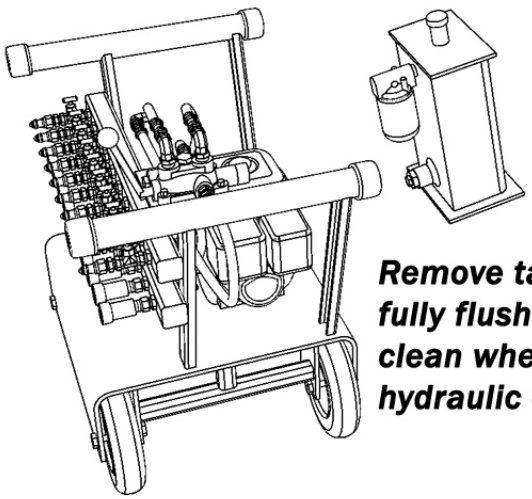
replace oil filter with 10 micron filter.

for 10 and 20 jack capacity power units use:
Fleet Guard HF6510 - Baldwin BT839-10 - Wix 51259

for 30, 40, 50, and 60 jack capacity power units use:
Wix 51759 Baldwin BT 28710 F5068-10c

Use 30 weight. hydraulic oil in reservoir. Fill reservoir (when jacks are retracted) to 1" below top of tank. If jacks are being used in weather below 40 ^{o} 10 weight oil should be used.





Remove tank to fully flush out and clean when changing hydraulic oil.

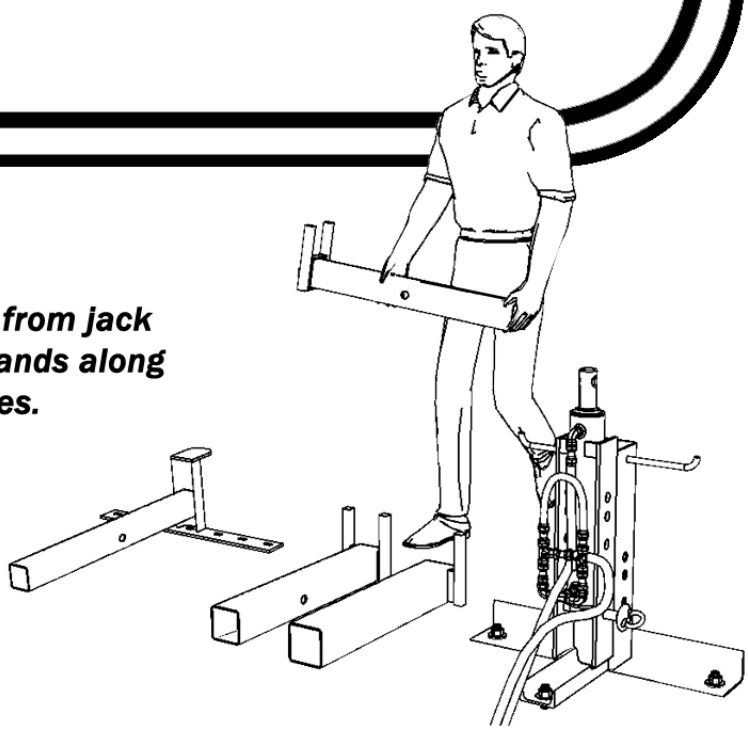
HYDRAULIC JACK MAINTENANCE

Thoroughly grease lifting tubes before use. recheck grease before the start of each bin and reapply grease as needed.

As needed (at least once per season) strip off grease and reapply.

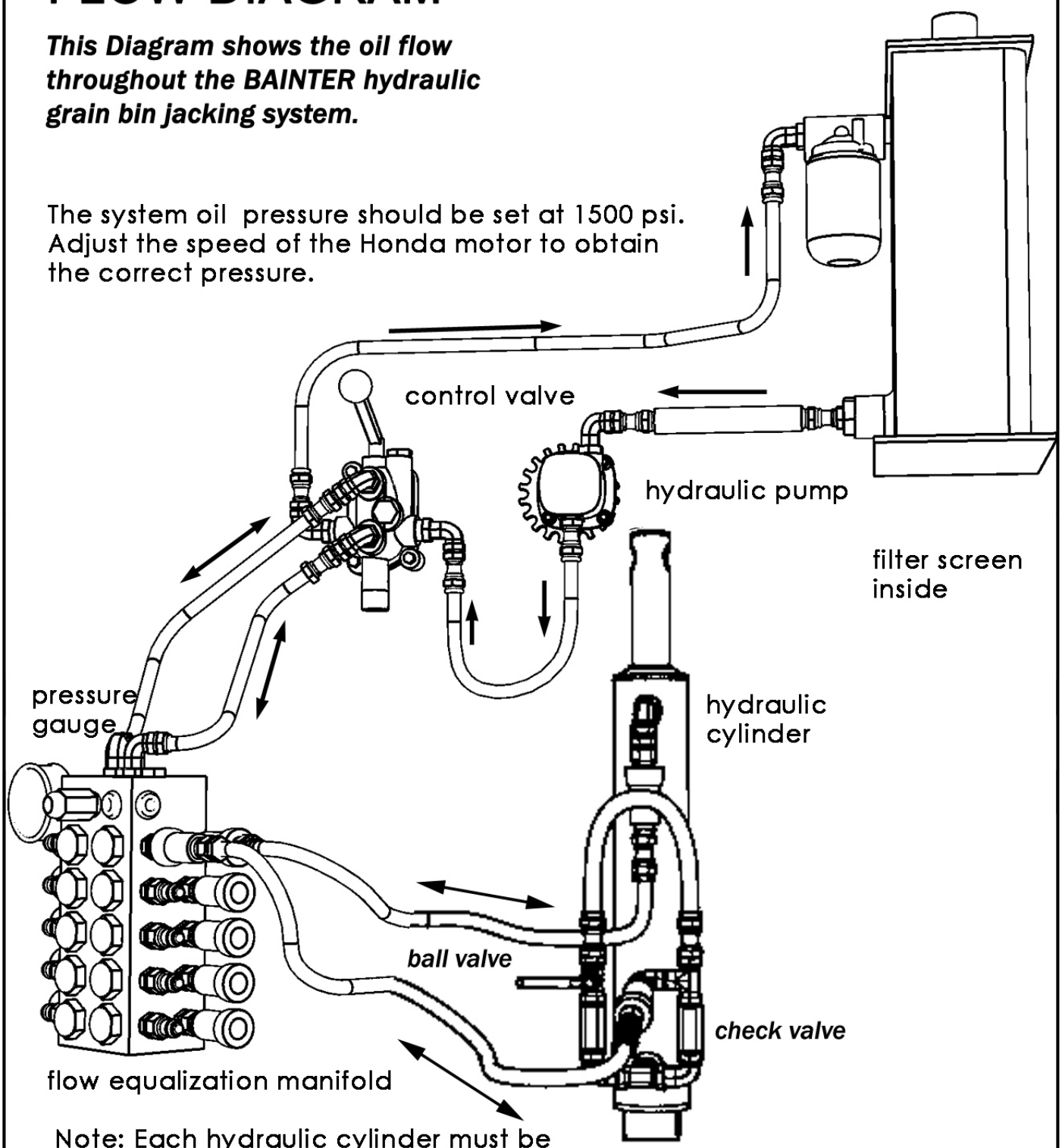
periodically check hoses for cracks or wear that would indicated potential leaks.

To grease tubes remove from jack and apply grease with hands along full length of all four sides.



HYDRAULIC OIL FLOW DIAGRAM

This Diagram shows the oil flow throughout the BAINTER hydraulic grain bin jacking system.



Note: Each hydraulic cylinder must be connected to adjacent male and female quick connectors to allow the manifold to work correctly.