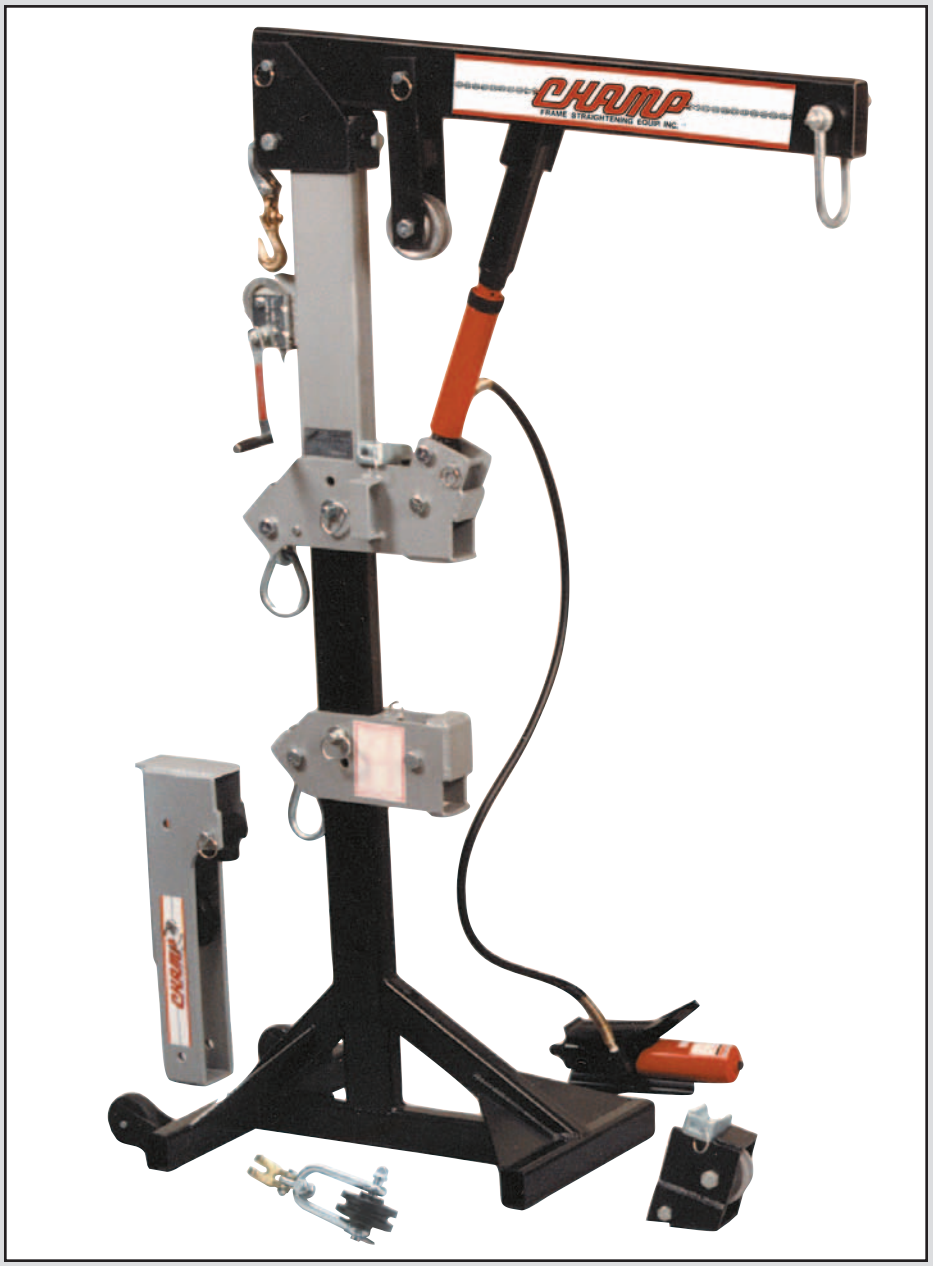
CHAMP FRAME STRAIGHTENING EQUIP. INC.®

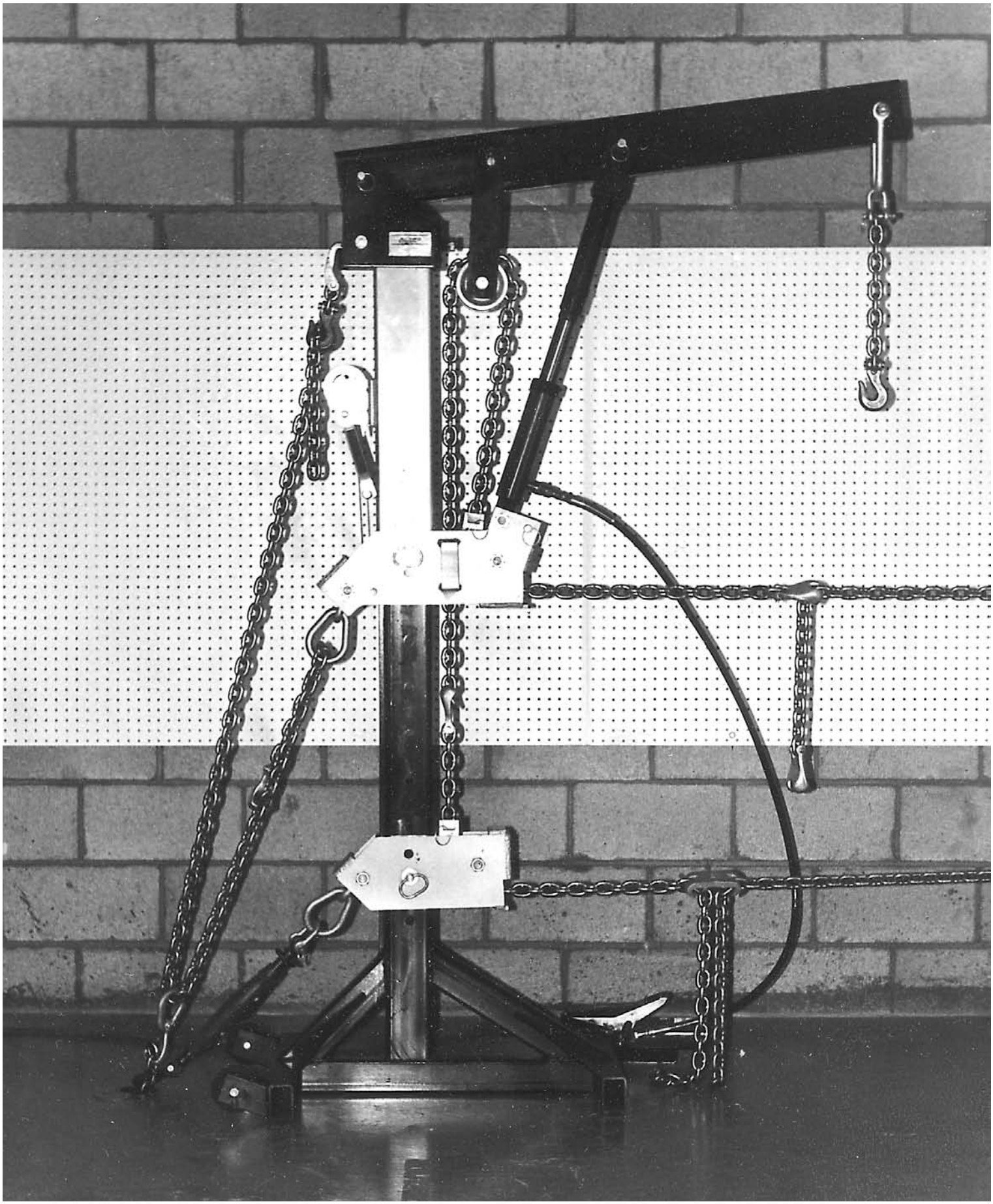
Instruction Manual For **The Big Champ** Powered Post



Patent Pending

2545 MILLENIUM DRIVE, SUITE B, ELGIN IL 60124 (800) 382-1200
11178 PENROSE, UNITS 1 & 2, SUN VALLEY, CA 91352 (818) 768-9800

TRIPLE PULL SET-UP



THE BIG CHAMP POWERED POST

THE MOST MODERN PULLING MACHINE EVER DEVELOPED

Congratulations on your recent purchase of the BIG CHAMP POWERED POST. You can be confident that you have the best powered post that will probably ever be developed. This machine was in development for over two years. Countless hours, concepts, and drawings were poured over during this time as well as the construction of different prototypes. After this period a final prototype was built, and only then did CHAMP consider it for production. But after its initial tests, it performed so well and was so sturdy that the decision was made not to make any of the usual changes to cut costs which could result in a lowering of quality. CHAMP chose not to compromise its design so that you would have a state of the art pulling machine. This production version, with a ram, weighs over 250 pounds. That's about a full 100 pounds over some competitor's posts. This is a post elevated to a fine art ... and here we will explain.

Only after extensive field use in actual shop conditions did we discover the extent of its capabilities. Not only is it capable of fully independent, automatically equalized double pulls, but it also has built-in 5 and 10 ton power selections. With the addition of our model 4002 power pulley assembly, the power can be boosted to 20 tons. A third pull can be achieved with the addition of our models 4003 and 4005 skyhook and triple pull kit. Three pulls on a single post! That's unheard of! The following is a brief explanation of each of its capabilities:

FEATURES

INDEPENDENT DOUBLE PULLS — Using the model 4001 double pull kit accessory, this versatile post will do two SEPARATE pulls. This is accomplished by splitting the ram travel via a system of pulleys, thereby achieving two independent pulls.

INDEPENDENTLY ADJUSTABLE DOUBLE PULLS — Unlike some other double pull posts, the distance between the pulls is variable — every two inches (not four inches as with some posts).

AUTOMATICALLY EQUALIZED DOUBLE PULLS - This means as the pressures change between each separate pull, they are compensated for by a unique system of anchoring. This is a CHAMP innovation.

VARIABLE TONNAGE ON TWO PULLS — Each pulling position is capable of either 10 tons or 20 tons of pull — again completely independent of each other. Many combinations are possible.

VERTICAL PULLS — Using the model 4003 Skyhook Assembly, the post can do vertical pulls.

TRIPLE PULLS — No other post we know of can make this claim. With the model 4005 Triple Pull Kit, a third pull can be made while two other pulls are locked off under tension. This is unbelievable control and versatility.

BUILT-IN 5 AND 10 TON PULLS — With the single pull alone and no attachments, the post will pull both 5 or 10 tons.

CONSTANT HOLDING — Unlike dozer-type pullers, continuous tension on the chains is maintained with chain locks. This feature applies to the double pulling capabilities as well. Either of the two pulls can be locked off at any time while the other pull can be continued, locking it off between strokes of the ram. Continuous tension is always maintained.

We at CHAMP hope you utilize this post to the fullest.
Use this manual to learn everything you can about it.
We think you will agree that you have made the right choice for a pulling post.

IMPORTANT

PLEASE READ THE FOLLOWING INFORMATION

The Big Champ Powered Post incorporates a few innovations most likely unfamiliar to repair technicians trained in the use of conventional pulling post designs. It is for this reason that this manual has been prepared. Keep this manual handy near the repair stall so when you have to make a hookup, just turn to the appropriate section and follow the step by step instructions.

Before operating the post, though, it will help if you first read the first few pages containing the NOMENCLATURE of the post so you won't become confused later when trying to make a hookup.

Also, spend a few minutes learning the CHAIN THREADING PATTERNS, CHAIN LOCK POSITIONS, and the basic hookups showing AUTOMATICALLY EQUALIZED DOUBLE PULLS. This is a feature that only CHAMP has. Equalization of back chain pressures on the double pull will ensure proper distribution of forces between the two pulls and will prevent uneven loading of the post during a pull.

Only use chain by the manufacturer when using the post. Observe safety precautions at all times. The operator must always be prepared for the event of a breakaway. If safety chains are not used, the post could tip over backwards and cause possible property damage, injury, or death. Safety chains should be used on all hookups. Only qualified, trained personnel should be permitted to operate this equipment. The author and manufacturer assume no liability for any incidental or consequential damages.

MIKE DOUGHTY
Author

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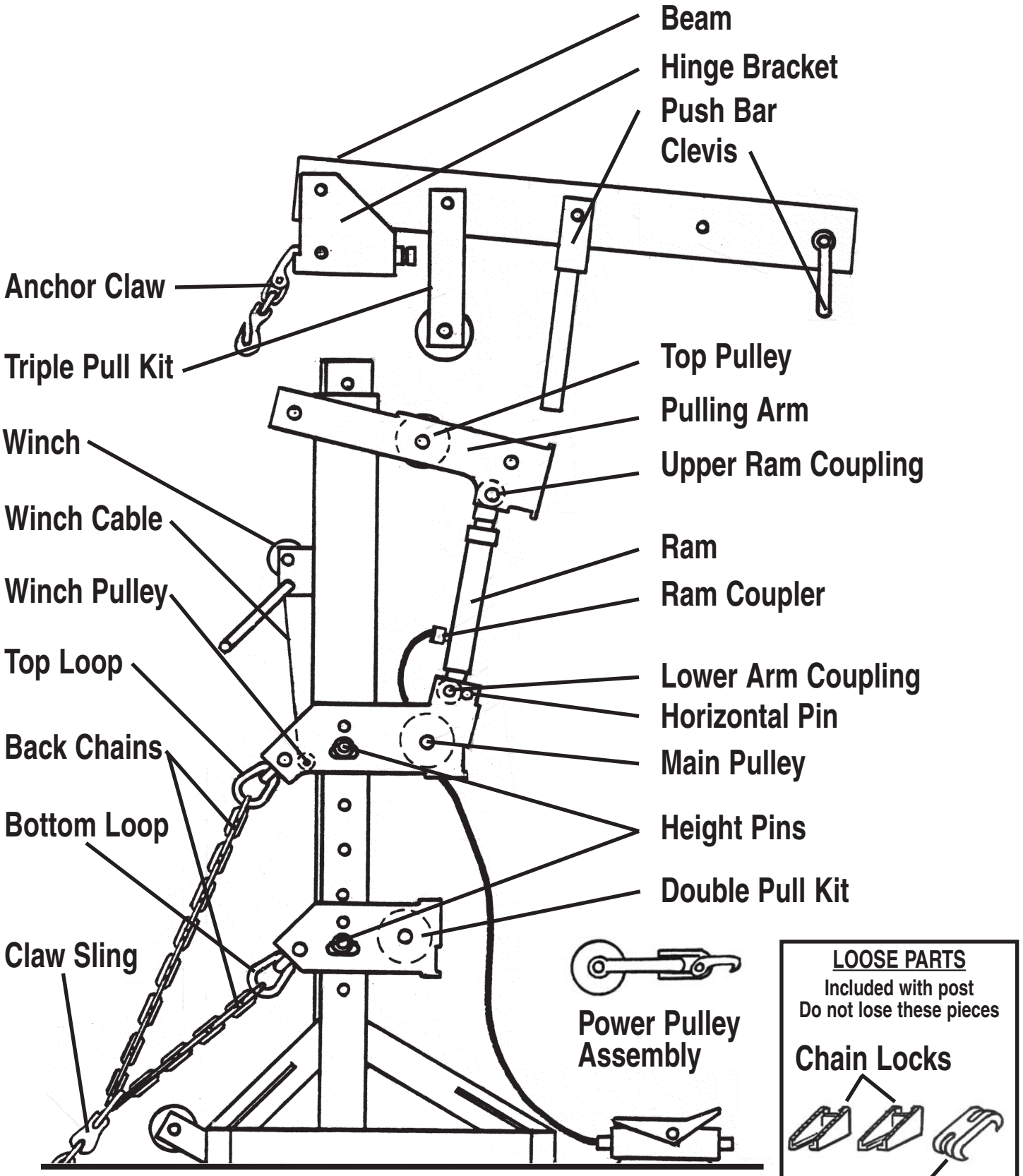
TOPIC **PAGE**

NOMENCLATURE

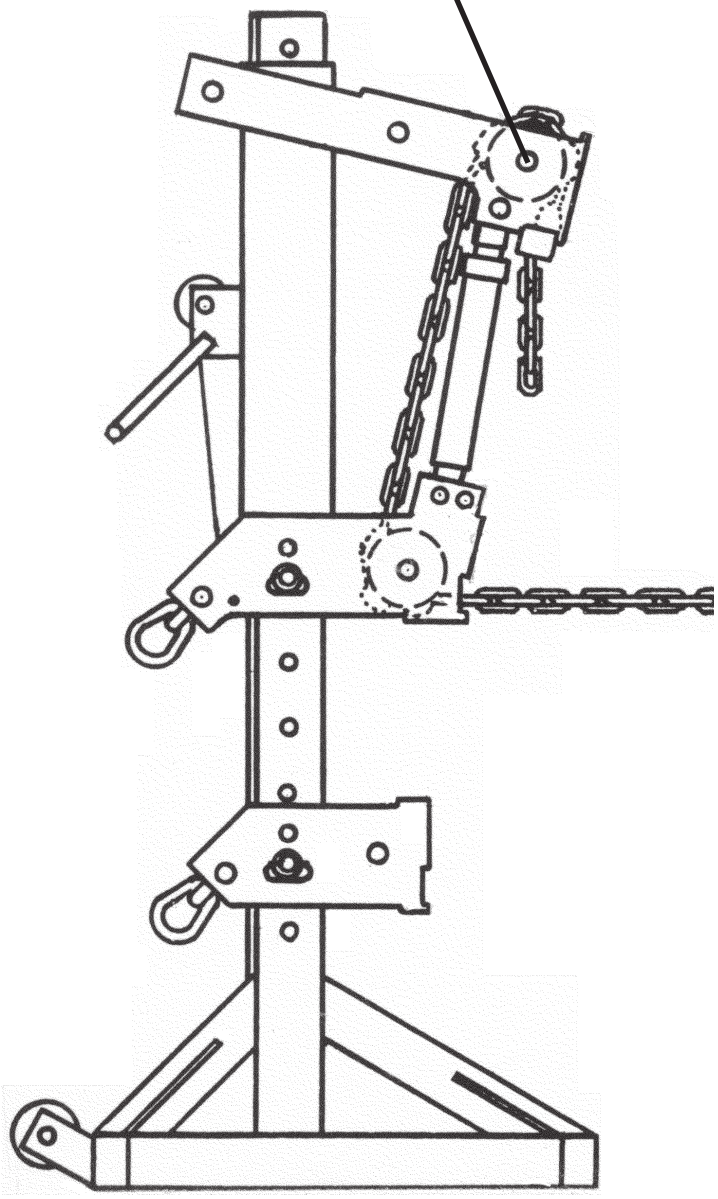
Below is a diagram showing the various words used in the text. Familiarize yourself with these words so that when you read the sections containing them you won't become confused during making a hookup.



CHAIN THREADING PATTERNS

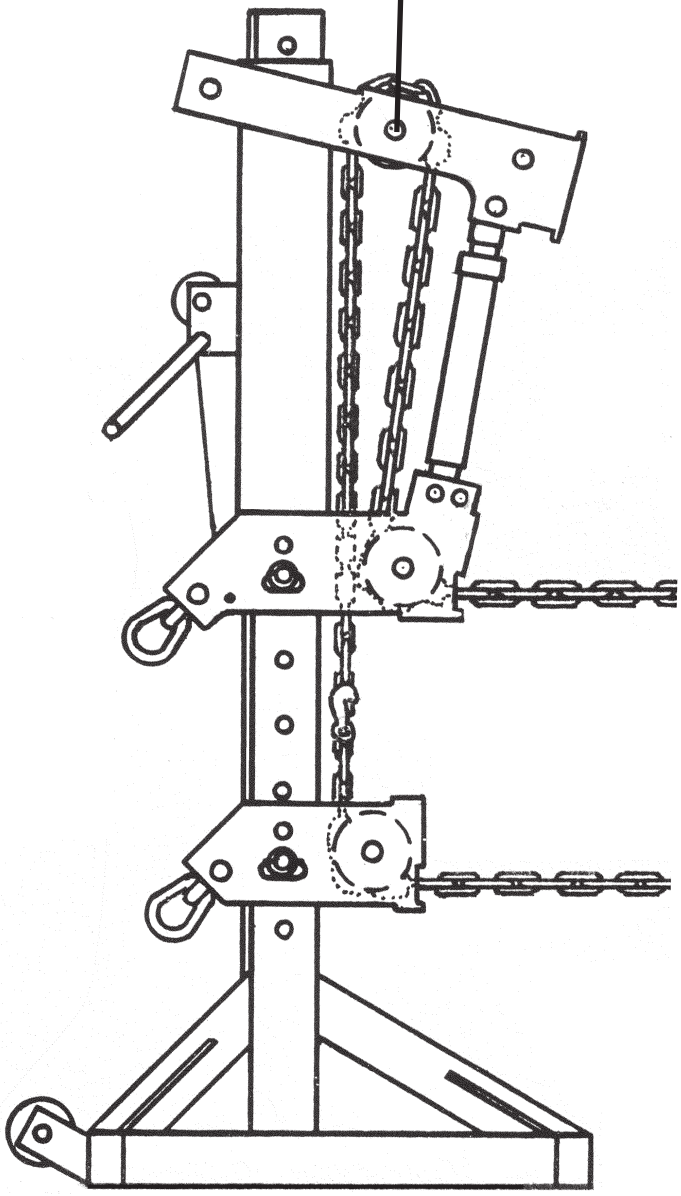
Shown below are diagrams for the two basic chain threading patterns for the pulling chains. Please note that there are two set-ups - one for single pulls and one for double pulls. Also, please note that there are two corresponding positions for the top pulley on the pulling arm.

TOP PULLEY POSITION FOR SINGLE PULLS



SINGLE PULLS

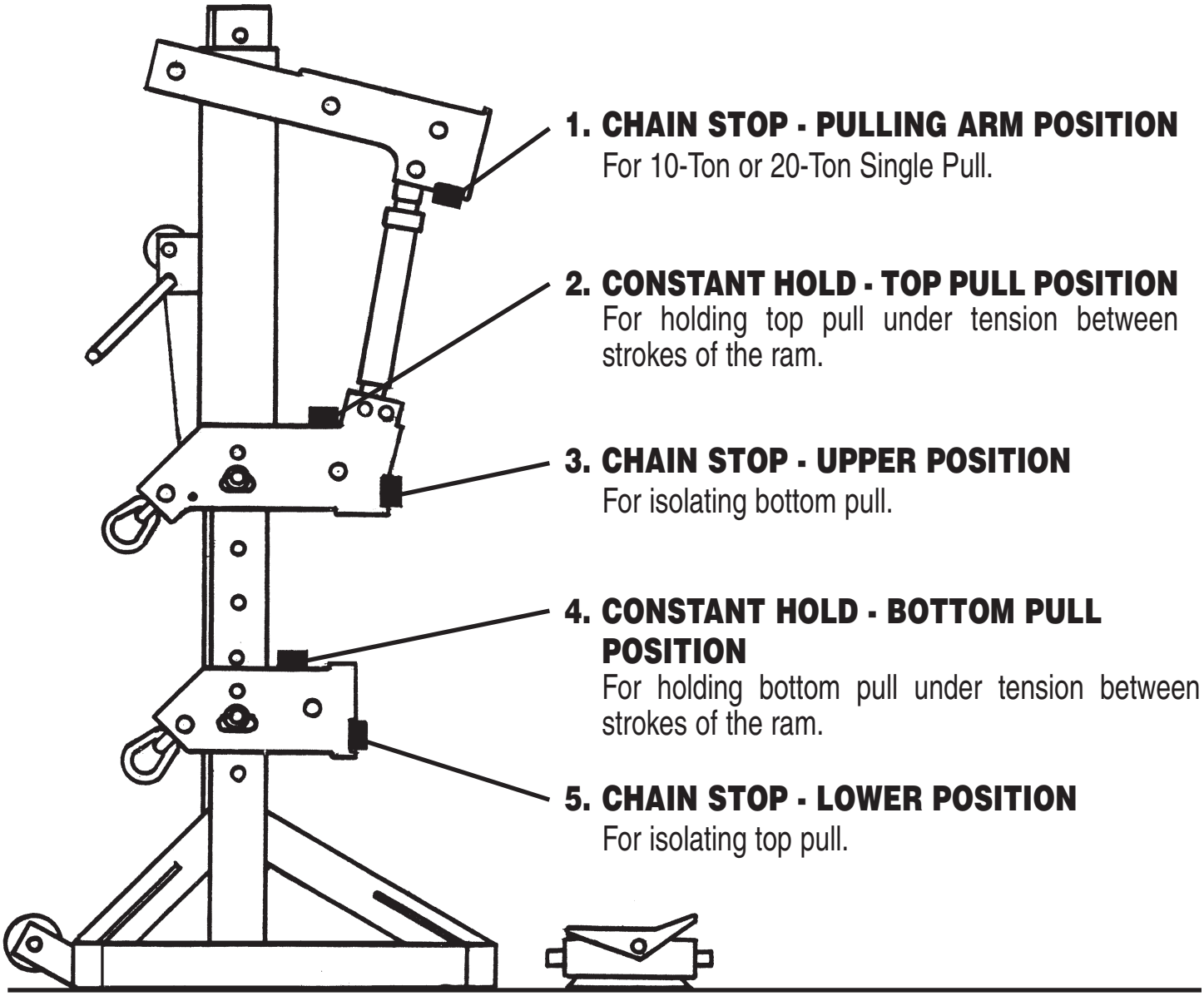
TOP PULLEY POSITION FOR DOUBLE PULLS



DOUBLE PULLS

CHAIN LOCK POSITIONS

TWO CHAIN LOCKS ARE SUPPLIED WITH EACH POST. BELOW IS A DIAGRAM SHOWING ALL THE DIFFERENT POSITIONS FOR THEM AND A BRIEF DESCRIPTION OF EACH POSITION. COMPLETE EXPLANATIONS OF THE USE OF CHAIN LOCKS ARE IN THE TEXT.



1. CHAIN STOP - PULLING ARM POSITION
For 10-Ton or 20-Ton Single Pull.

2. CONSTANT HOLD - TOP PULL POSITION
For holding top pull under tension between strokes of the ram.

3. CHAIN STOP - UPPER POSITION
For isolating bottom pull.

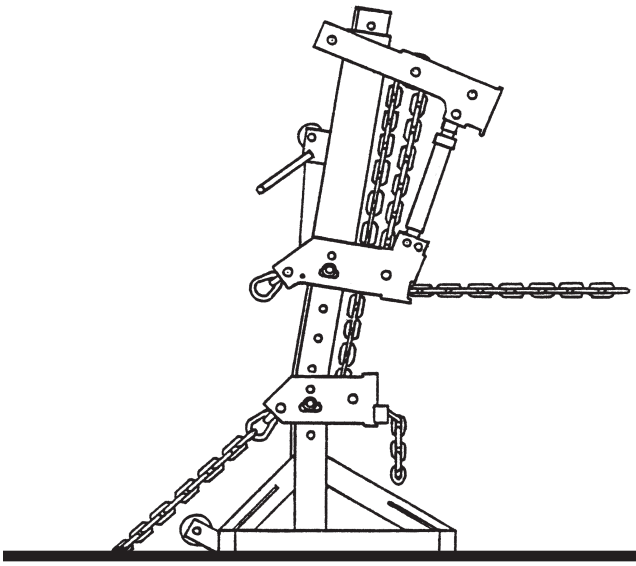
4. CONSTANT HOLD - BOTTOM PULL POSITION
For holding bottom pull under tension between strokes of the ram.

5. CHAIN STOP - LOWER POSITION
For isolating top pull.

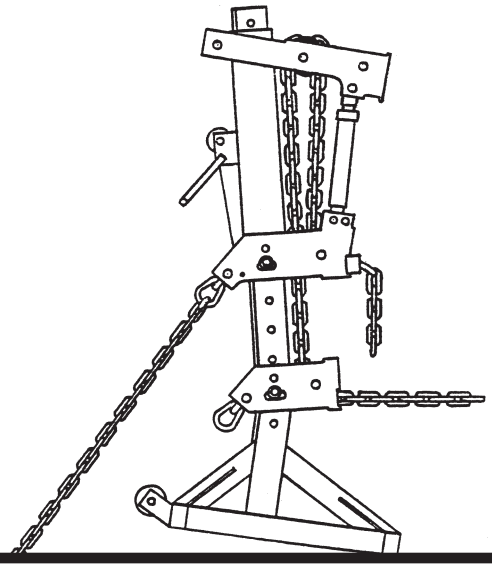
WARNING

WHEN MAKING SINGLE PULLS AND DOUBLE PULL KIT IS INSTALLED ON POST, AVOID POSSIBLE DAMAGE TO POST

1. ALWAYS ATTACH BACK CHAIN AT THE SAME LEVEL AS THE PULL. *NEVER NEVER NEVER* ATTACH BACK CHAIN AT DIFFERENT LOOP THAN THE LEVEL AT WHICH THE PULL IS BEING MADE. TO DO SO WILL LIKELY BEND THE POST.

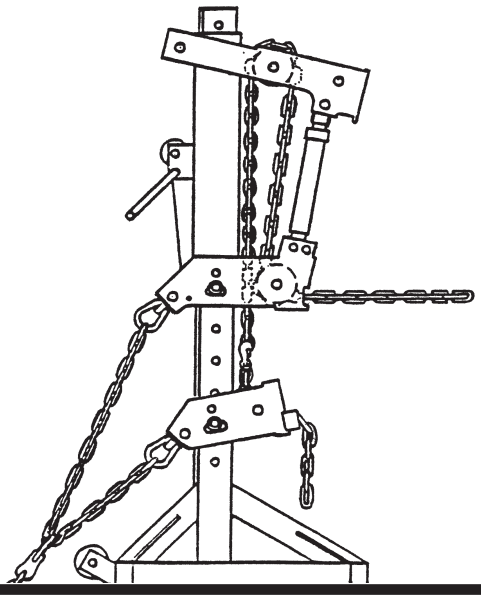


Incorrect



Incorrect

2. WHEN MAKING A HEAVY SINGLE PULL, DO NOT LOCK THE CHAIN ON THE DOUBLE PULL KIT AND PULL FROM THE MAIN PULLING MECHANISM ALONE. PULL *FROM* THE DOUBLE PULL KIT. FORWARD PRESSURE IS NEEDED TO STABLIZE IT.



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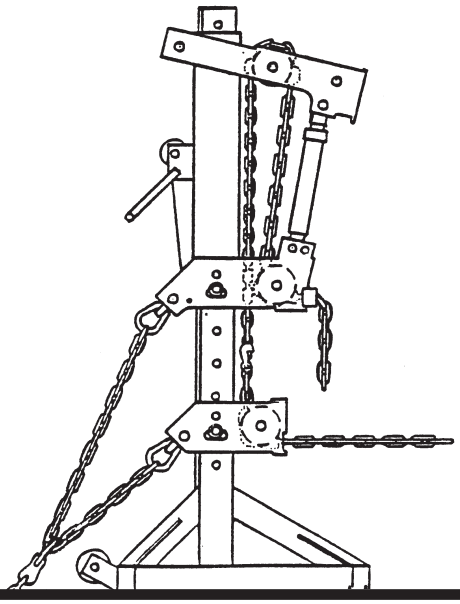
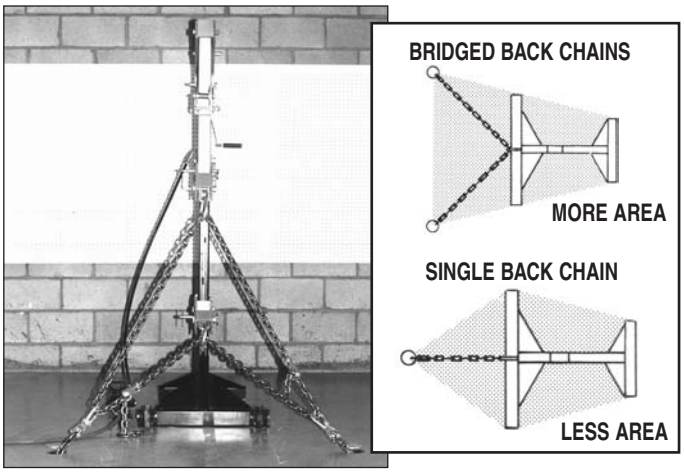


Correct

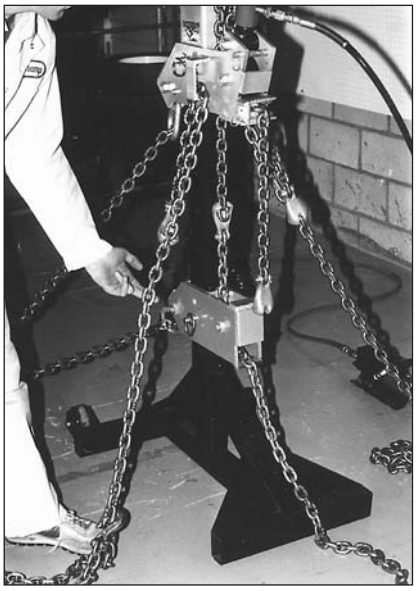
SAFETY

USE BRIDGED BACK CHAINS



Shown here is a double back chain bridge. This is a very important hookup. Use it wherever possible. Please note carefully that the two chains form a continuous loop and that these chains pass through a series of slings. Diagram above illustrates greater area of support when bridge is used.

USE BRIDGED BACK CHAINS



Note how safety chains are set up slack. Complete explanation is in text. Use safety chains to guard against bodily or property damage in the event of a breakaway.

BEFORE MAKING ANY PULL MAKE SURE WINCH CABLE IS SLACK

This is necessary because during the force of a pull, down pressure is created. If cable is taut, the pressure on the pulling mechanism will stretch it. Repeated stretching of the cable will cause permanent failure.

CORRECT

Note how pulling mechanism rests fully onto height pin.

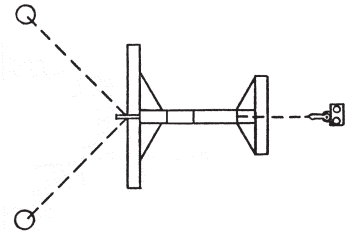
INCORRECT

Note how pulling mechanism is not resting on height pin. Pin slides freely through hole.

SAFETY

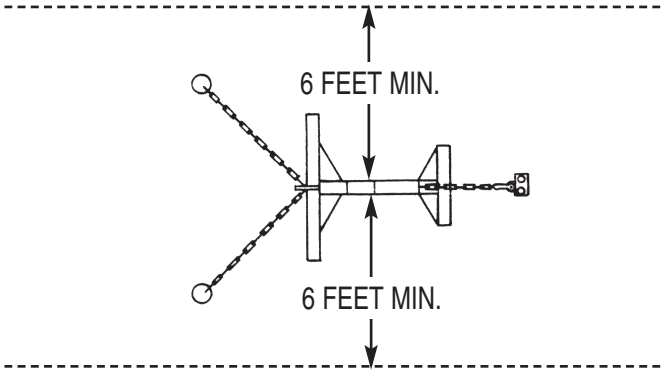
POSITION POST IN LINE WITH HOOKUP AND ACNHORS

Make sure the post is directly in line with hookup, back chain anchors, AND ANCHORS HOLDING THE AUTOMOBILE. Prevent shifting of car.



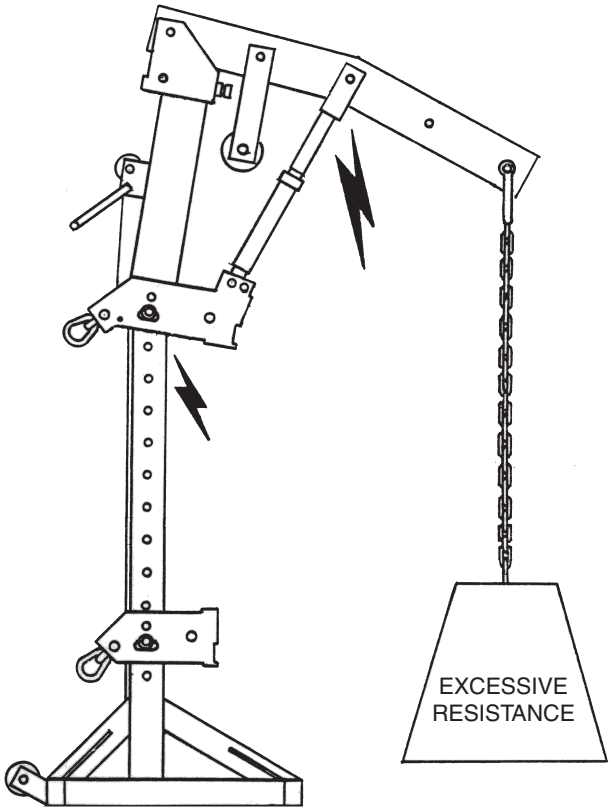
DO NOT STAND NEAR THE POST DURING A PULL

Always stand a minimum of six feet away from post during a pull. NEVER STAND DIRECTLY BEHIND POST DURING A PULL.



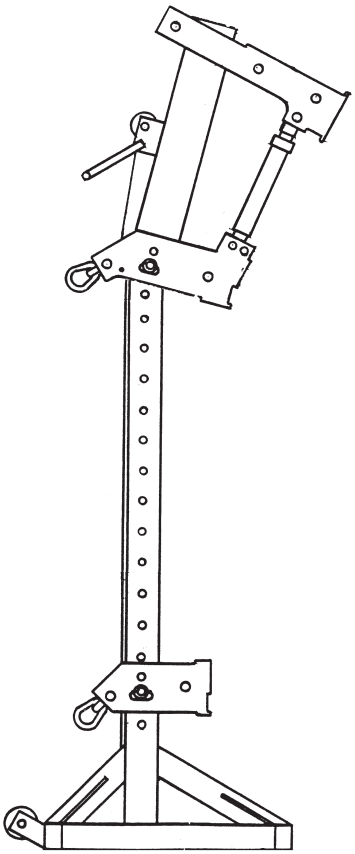
DO NOT OVERLOAD SKYHOOK DURING VERTICAL PULL

Exercise care and good judgement when making a vertical pull. Excessive loading may damage post and/or skyhook beam.

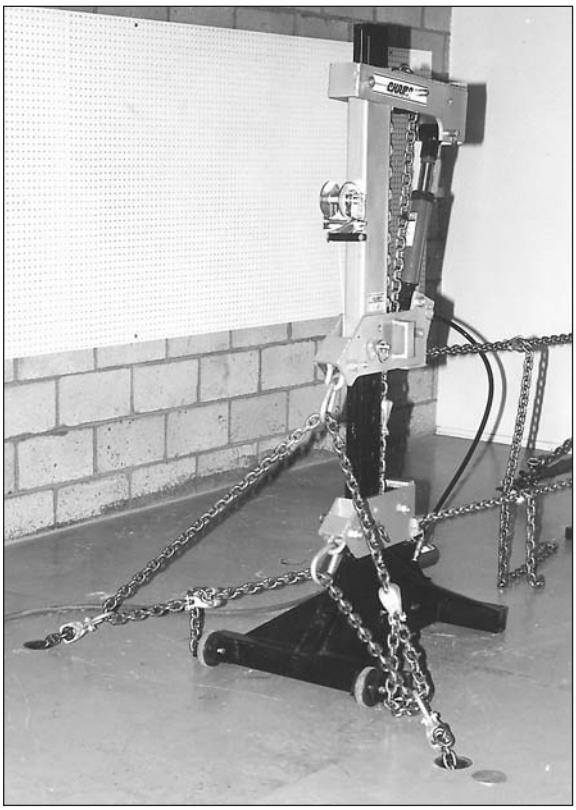


DO NOT OVER-EXTEND HEIGHT OF POST

Pulling mechanism does not have a built-in stop at end of pulling height.



AUTOMATICALLY EQUALIZED DOUBLE PULLS LEARN THESE BASIC HOOKUPS

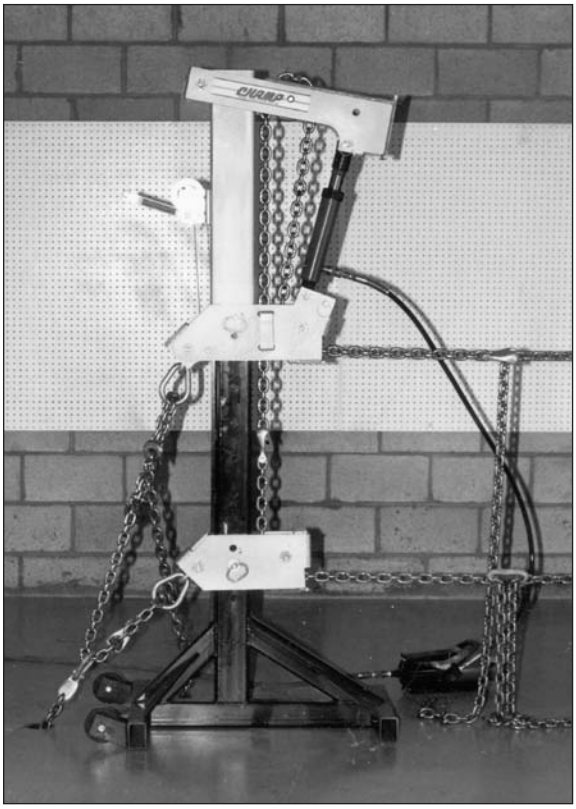


DOUBLE BACK CHAINS
(STRONGEST)

SHOWN HERE IS A BRIDGE BETWEEN TWO ANCHORS. IT IS THE STRONGEST METHOD OF ANCHORING THE POST AND SHOULD BE USED MOST OFTEN. YOU WILL ENCOUNTER THIS SITUATION MOST OFTEN BECAUSE MORE PULLS WILL OCCUR *BETWEEN* THE ANCHORS AROUND THE PERIMETER OF THE STALL THAN WILL OCCUR DIRECTLY IN FRONT OF THEM.

NOTE WELL THAT THE CHAINS HOLDING THE POST ARE CONNECTED TOGETHER TO FORM A CONTINUOUS LOOP THROUGH THE SLINGS LOCATED ON THE POST AND ON THE ANCHORS (TWO CLAW SLINGS ARE ATTACHED TO THE ANCHORS.)

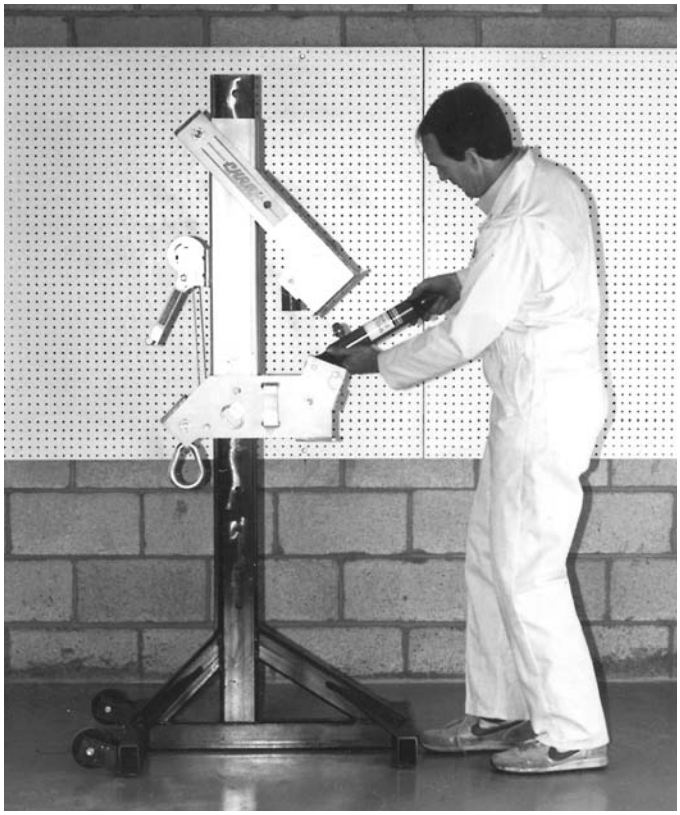
AUTOMATIC EQUALIZATION OF DOUBLE PULLS IS A CHAMP INNOVATION.



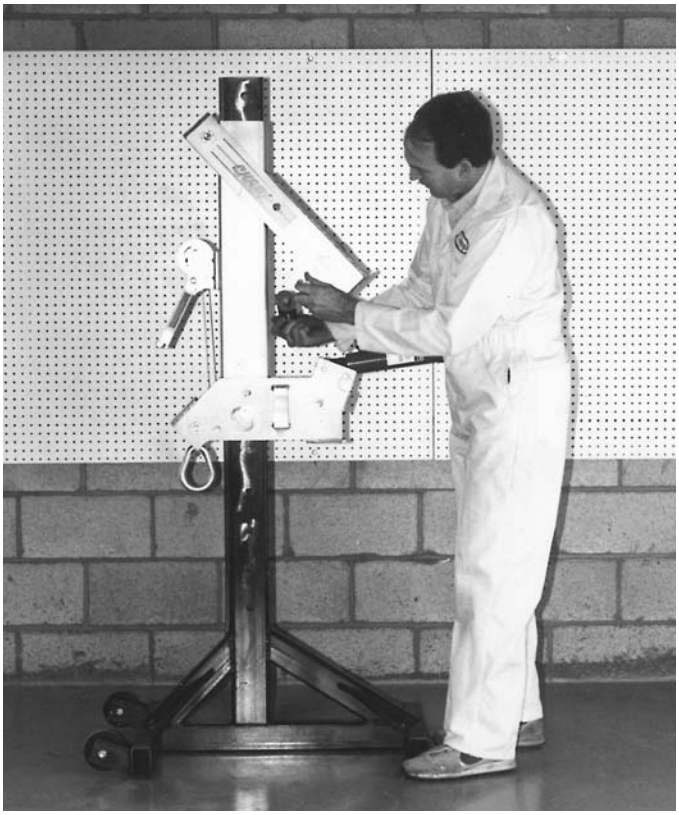
SINGLE BACK CHAINS
(USED WHEN PULL IS DIRECTLY IN FRONT OF ONE ANCHOR)

SHOWN HERE IS THE HOOKUP FOR DOUBLE PULLS WHERE THE POST IS LOCATED DIRECTLY IN FRONT OF A SINGLE ANCHOR. IT IS NOT AS STRONG AND SHOULD BE USED FOR LIGHT PULLS ONLY. THE POST HAS GREATER LATERAL STABILITY WHEN DOUBLE BACK CHAINS ARE USED.

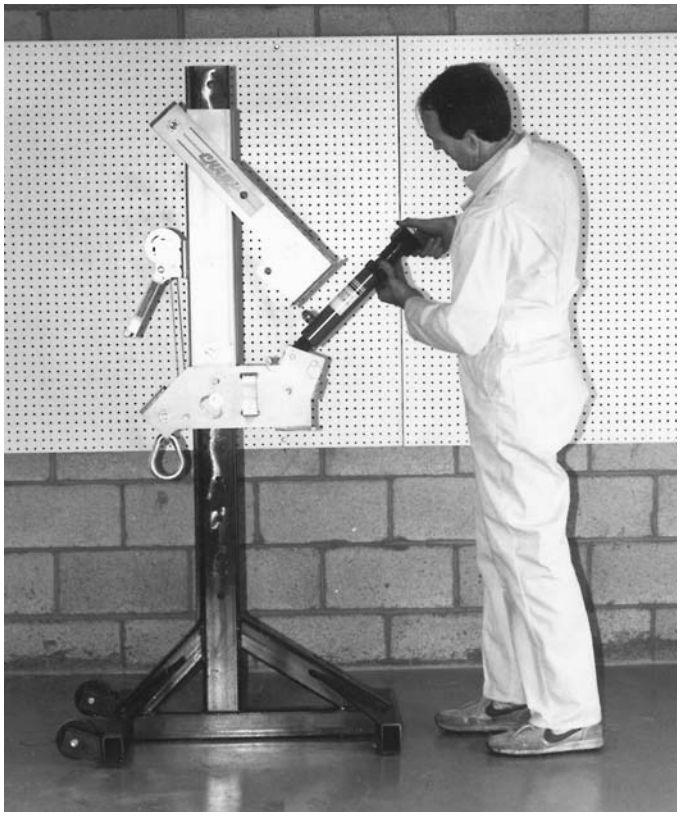
INSTALLING RAM



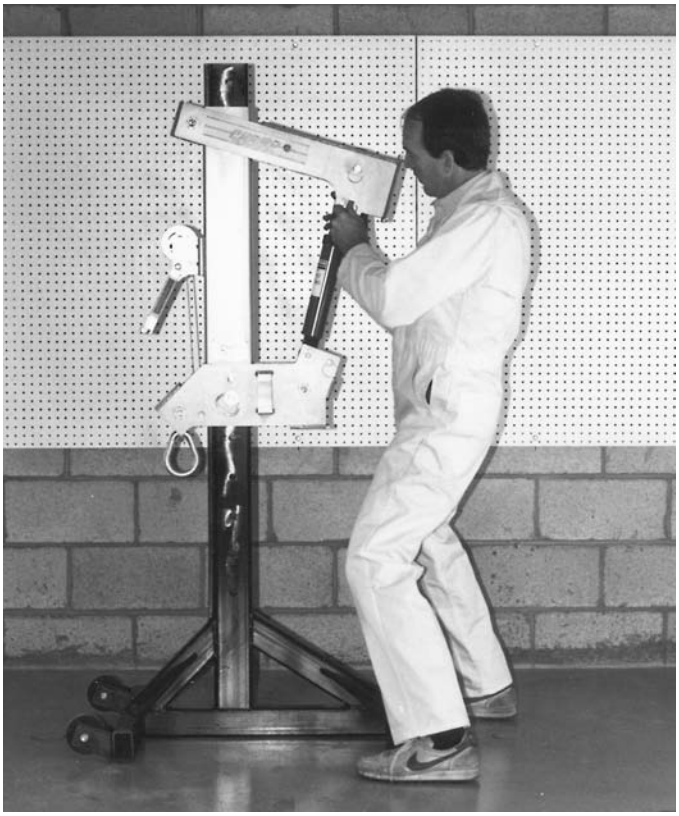
1. Screw ram into lower coupling.



2. Remove upper coupling pin, then remove upper coupling from pulling arm.



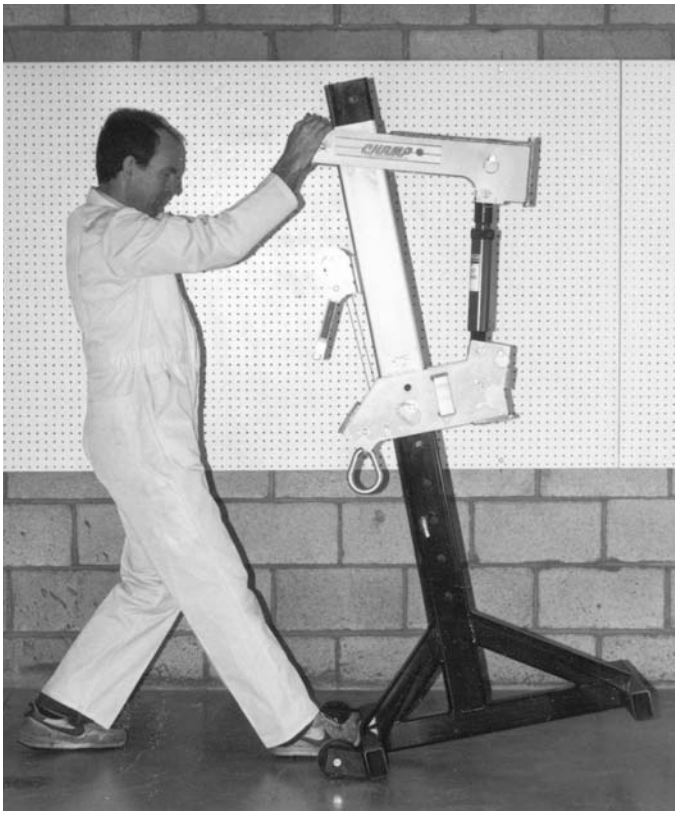
3. Thread upper coupling onto ram.



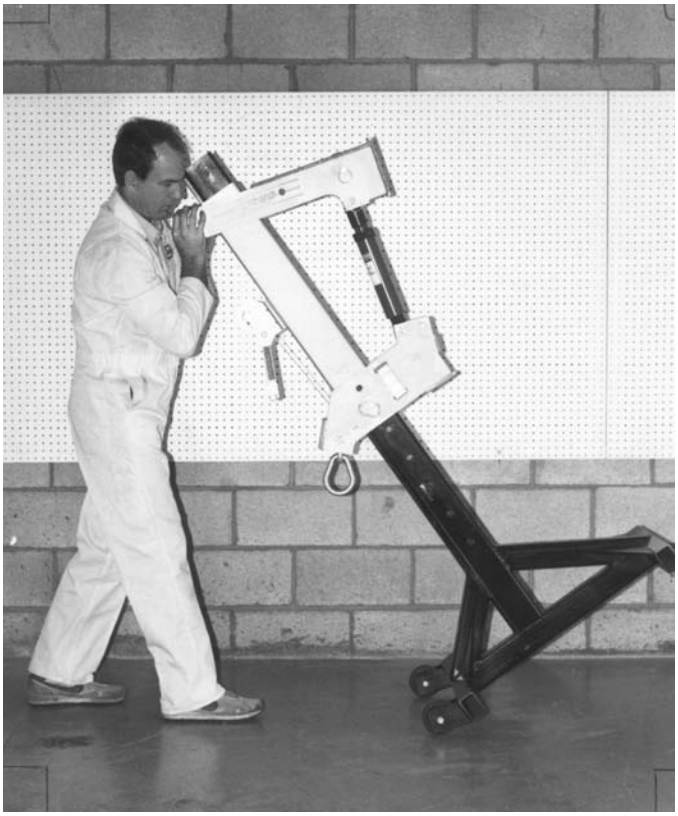
4. Lift pulling arm and install upper coupling into pulling arm with pin. Removal is reverse sequence of steps 1 to 4.

POSITIONING THE POST

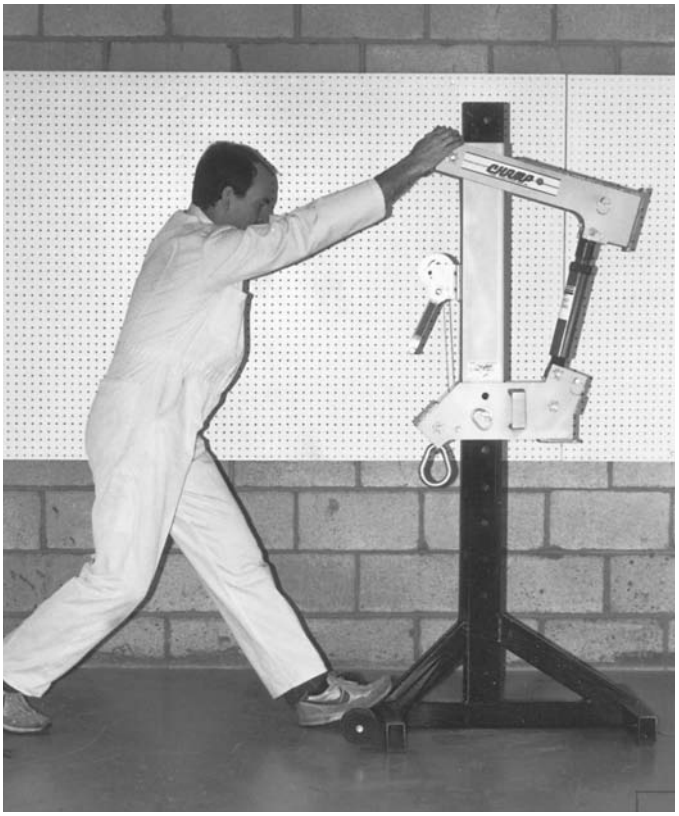
1. Grasp top of machine with hands as shown.



2. Place foot at base and pull back top of post until weight of machine is on its wheels.

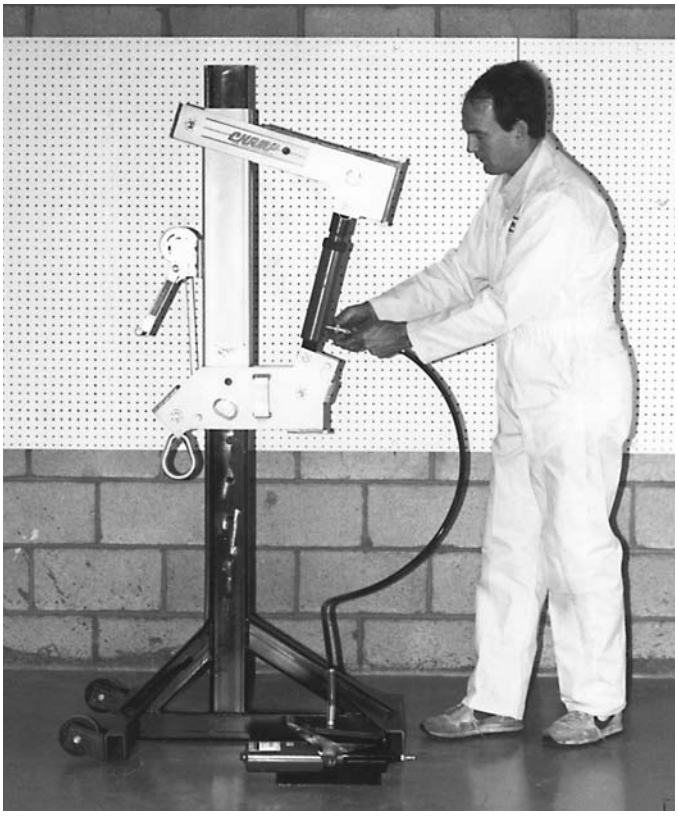


3. Move the post into the desired position. Maintain balance and continue to grasp the top of the post firmly.

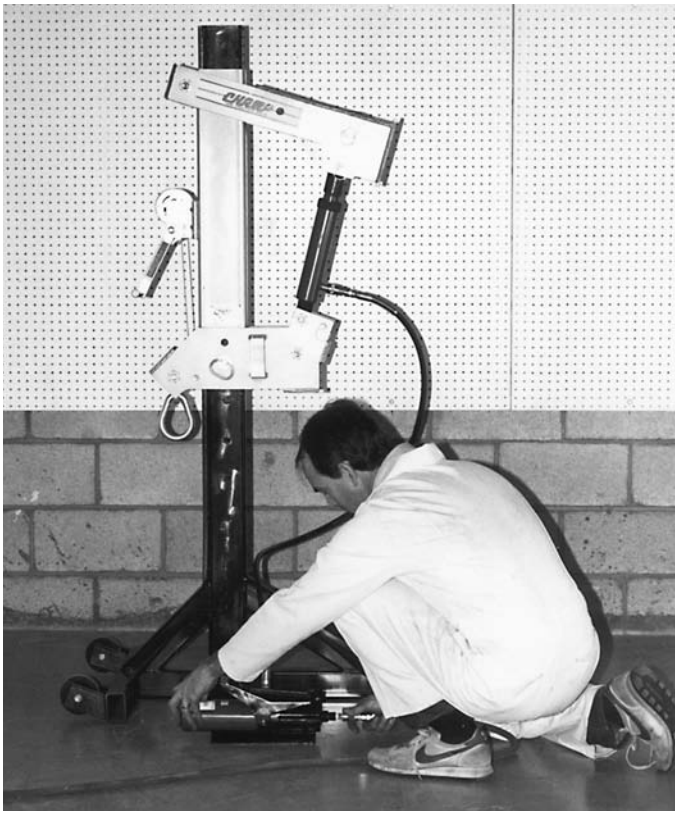


4. When post is in the desired position, place foot at base to steady it and GRADUALLY let the weight of the post pull itself down to the floor.

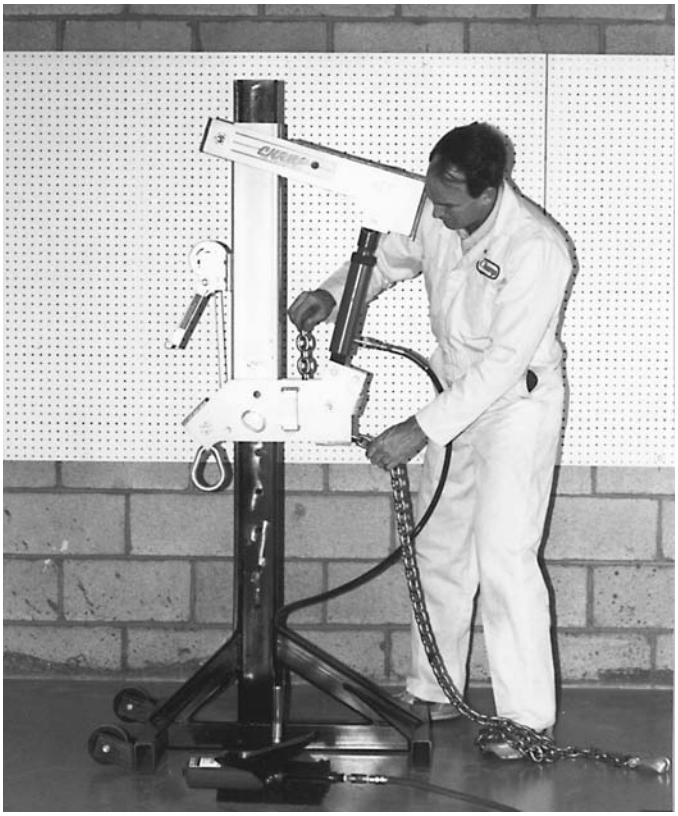
SETTING UP POST AND THREADING CHAIN



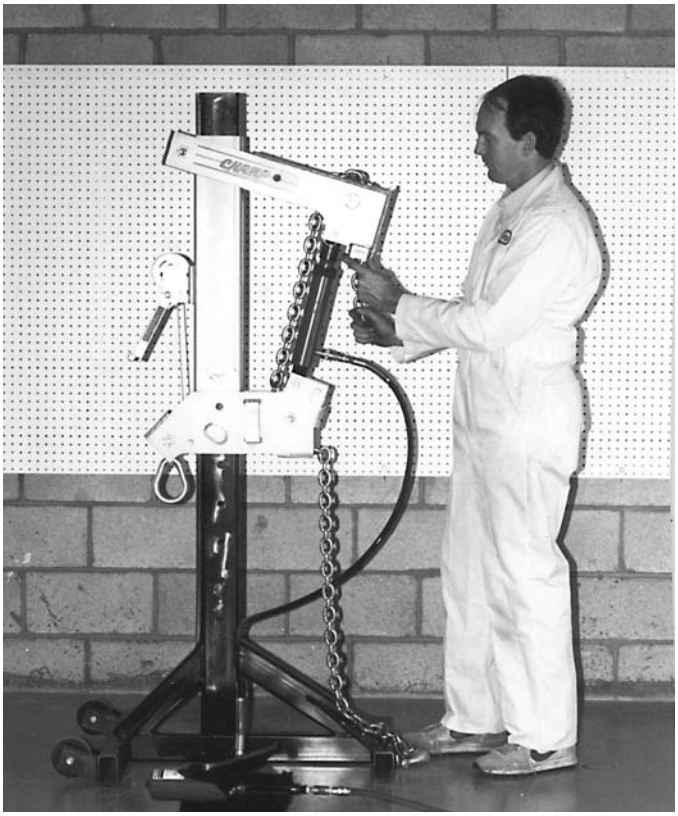
1. Screw hydraulic hose fitting into ram coupler and tighten until snug. Make sure connections are clean and free of dirt.



2. Attach air line to foot pump. Be sure to oil air motor in pump as in all air tools to lubricate motor.

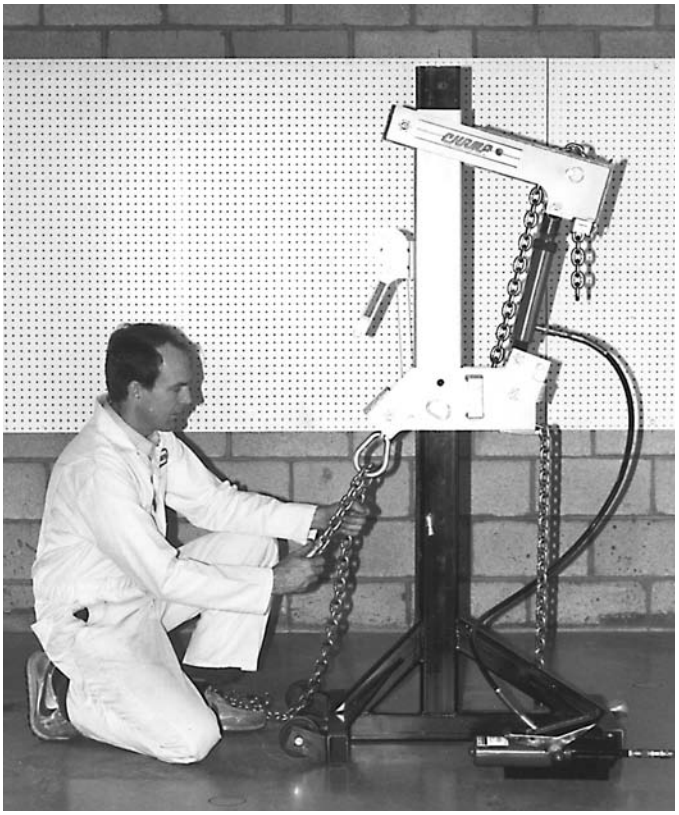


3. Thread pulling chain through lower pulley of pulling mechanism.

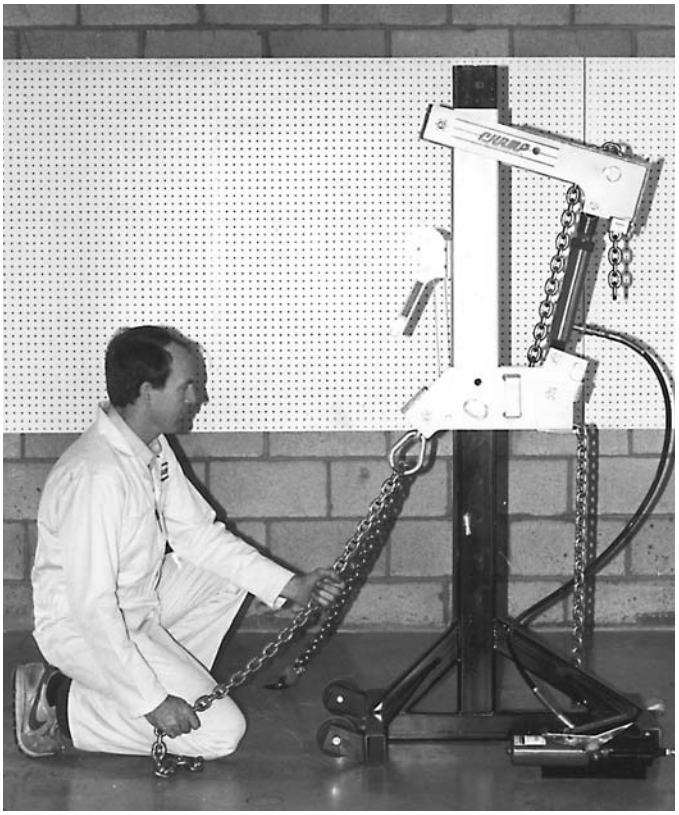


4. Continue threading chain over top of upper pulley and insert chain lock as shown. This is the single pull set up.

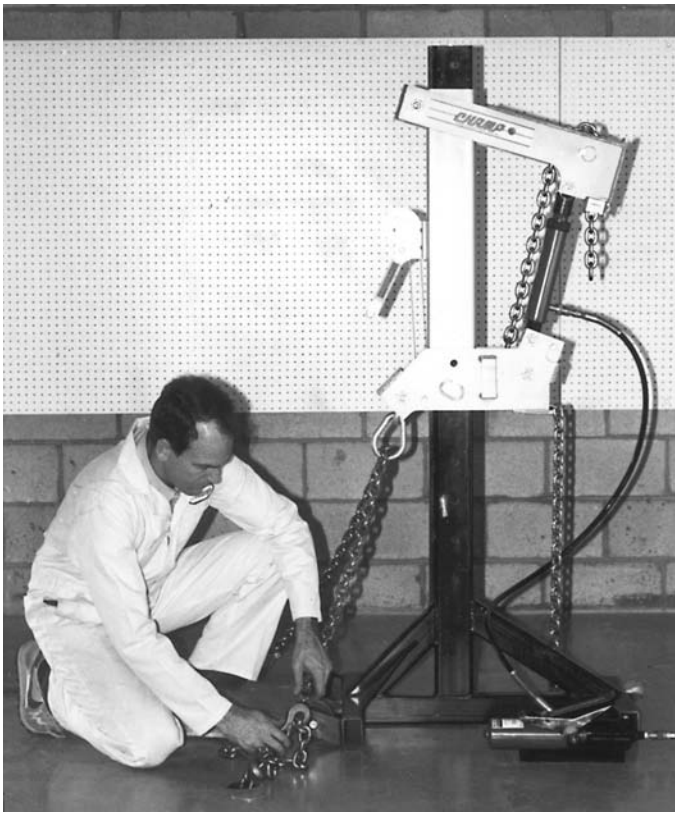
SETTING UP FIRST PULL



1. Attach back chain to anchor and thread chain through loop at rear of pulling mechanism on post.



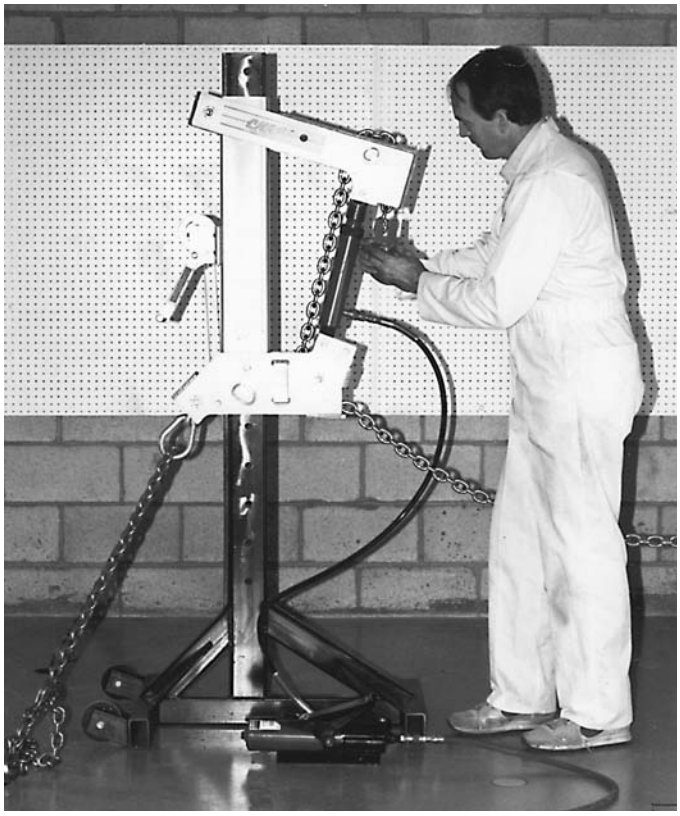
2. Pull chain through loop.



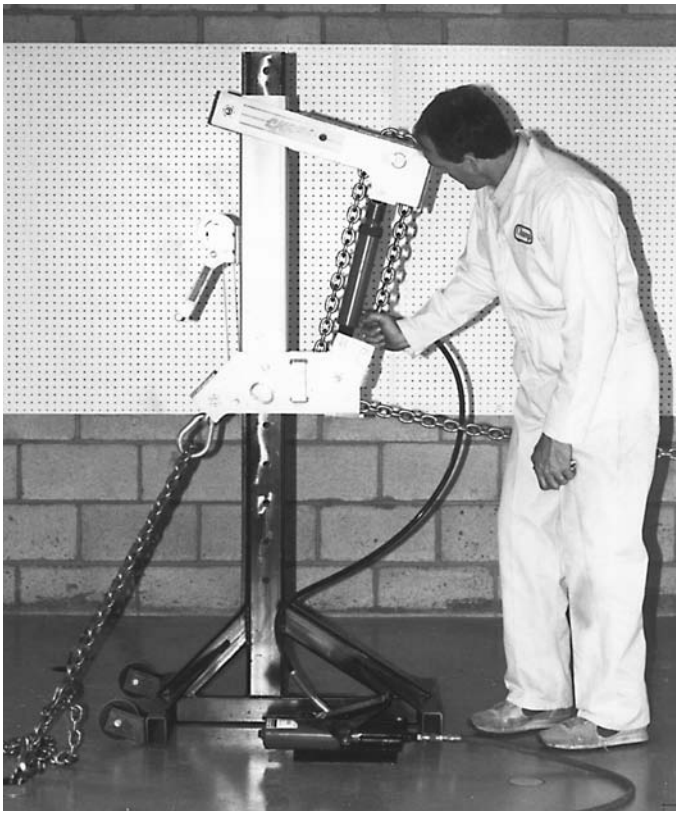
3. Attach other end of back chain to second anchor with chain shortener. This is a “BRIDGE” set up and gives maximum support. Use it most often.

4. Push post forward to take up slack. This is important to keep initial pull from straining front of base brace under load.

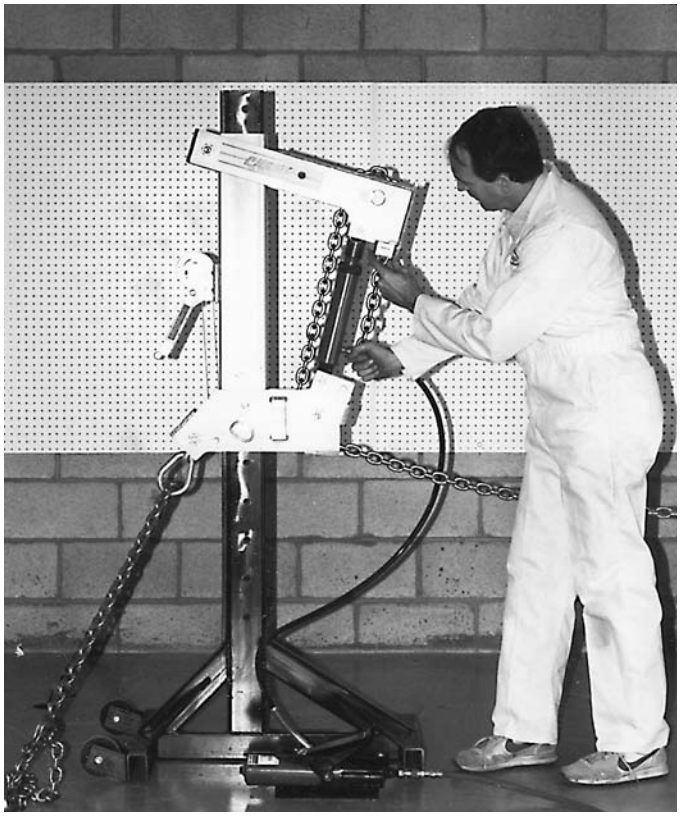
STARTING FIRST PULL (SINGLE)



1. Release chain lock at pulling arm and grasp chain end.



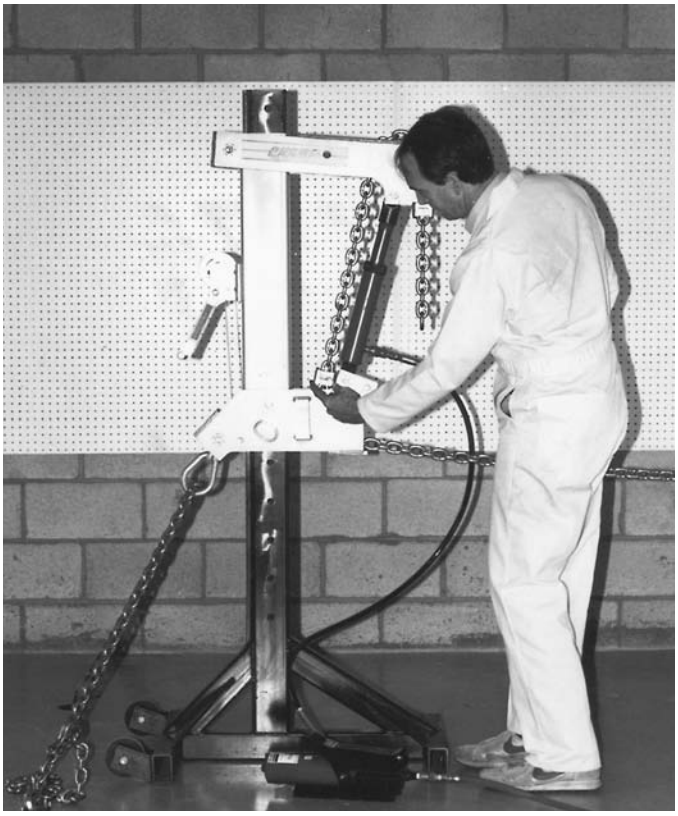
2. With chain hooked up to damaged area, pull on chain end to take up slack.



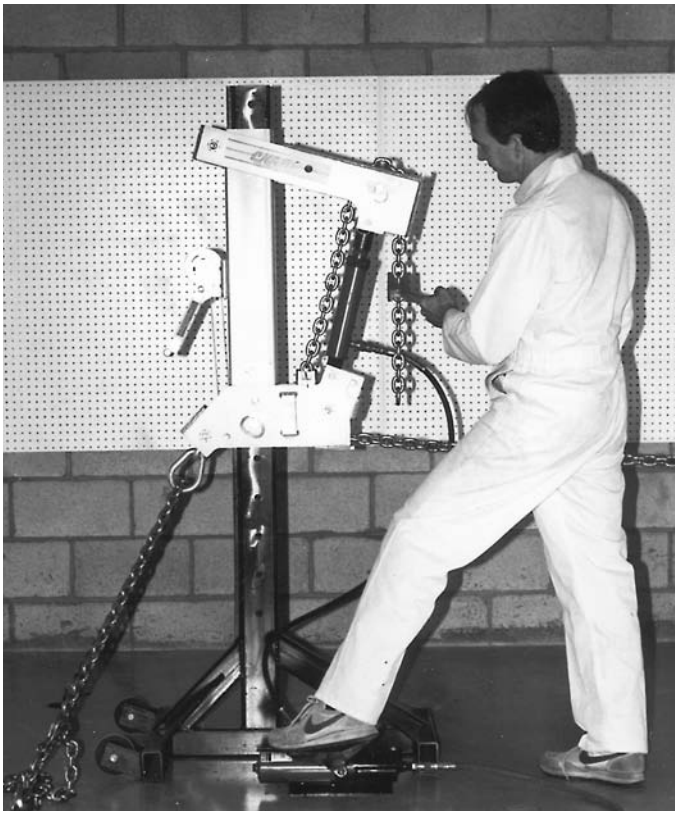
3. Re-install chain lock at pulling arm.

4. Depress pump pedal to start pull.

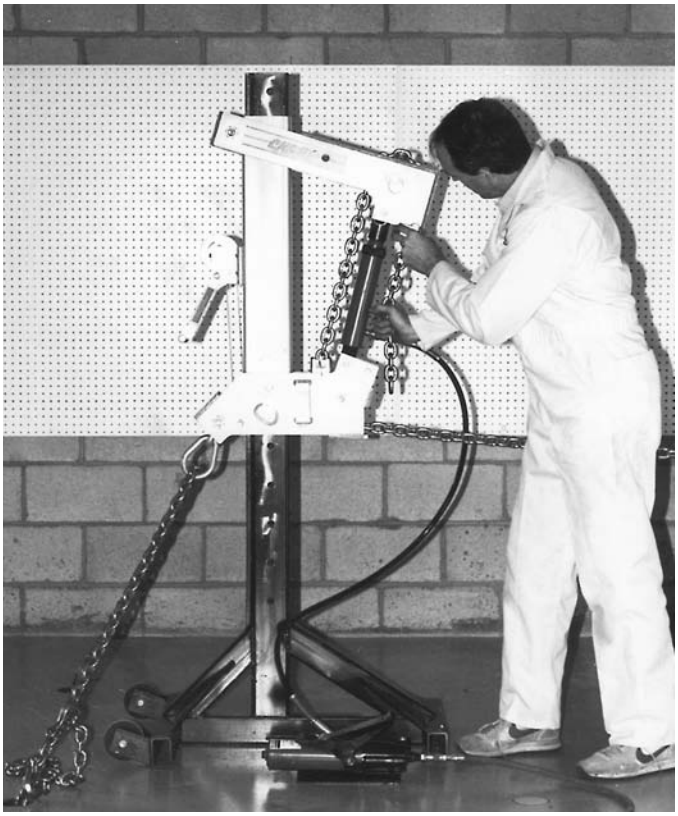
CONSTANT HOLD (SINGLE)



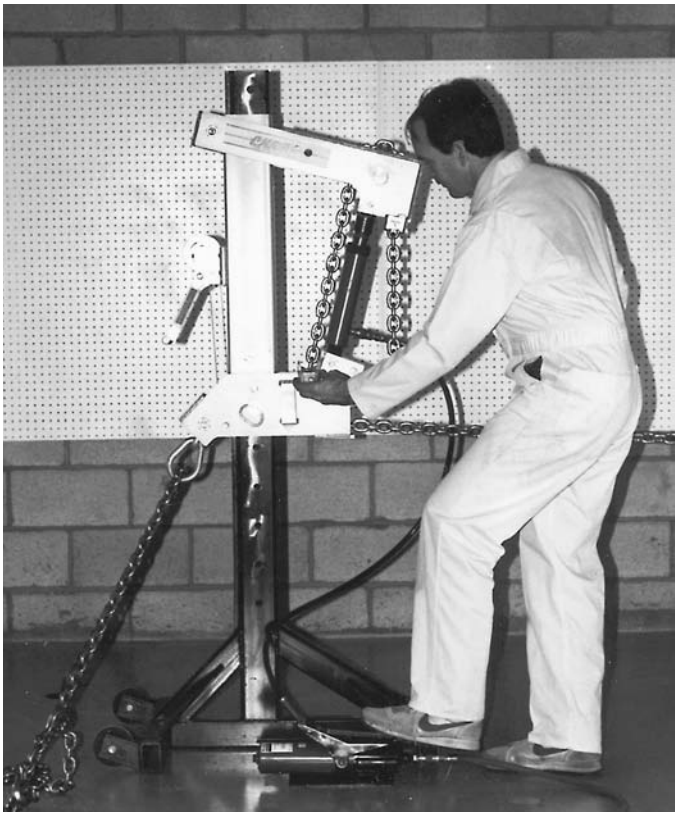
1. After first pull with ram extended, install second chain lock as shown. This is the constant holding chain lock.



2. Release pressure on ram. First chain lock will go slack and second chain lock will hold the pulling pressure.

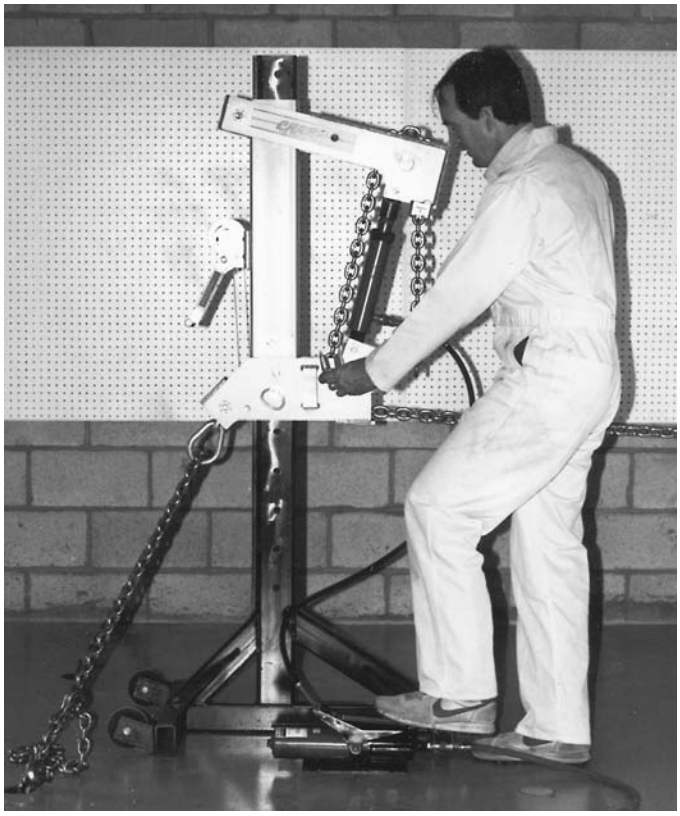


3. Pull slack out of chain in machine and re-install top chain lock.

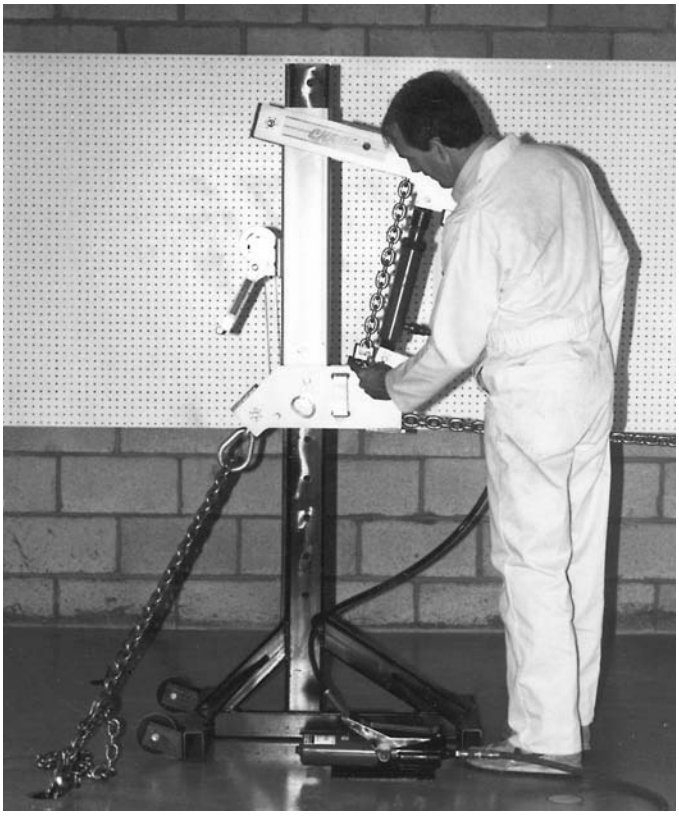


4. Depress pump pedal and remove constant hold chain lock. Continue pulling procedure in this fashion.

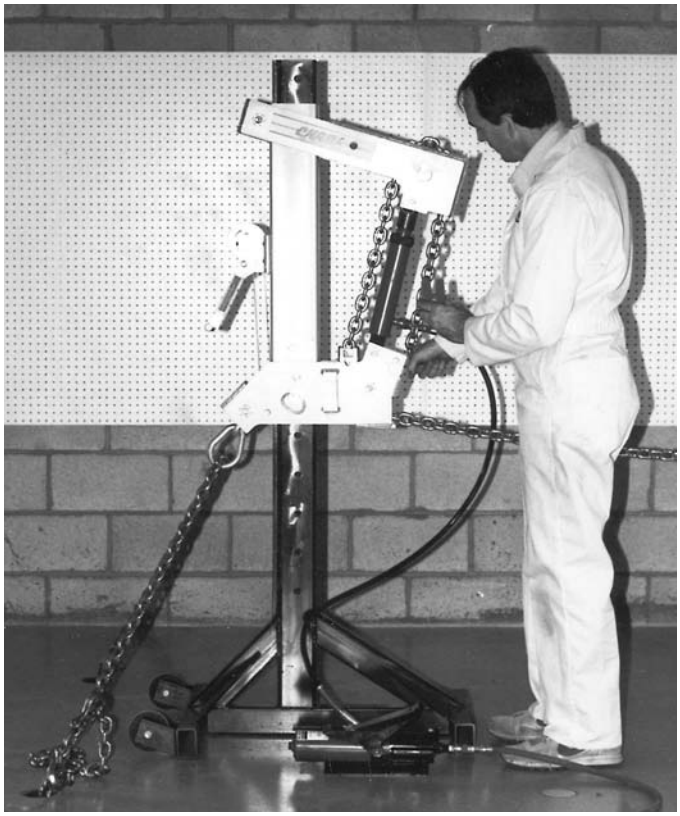
RELEASING CHAIN PRESSURE



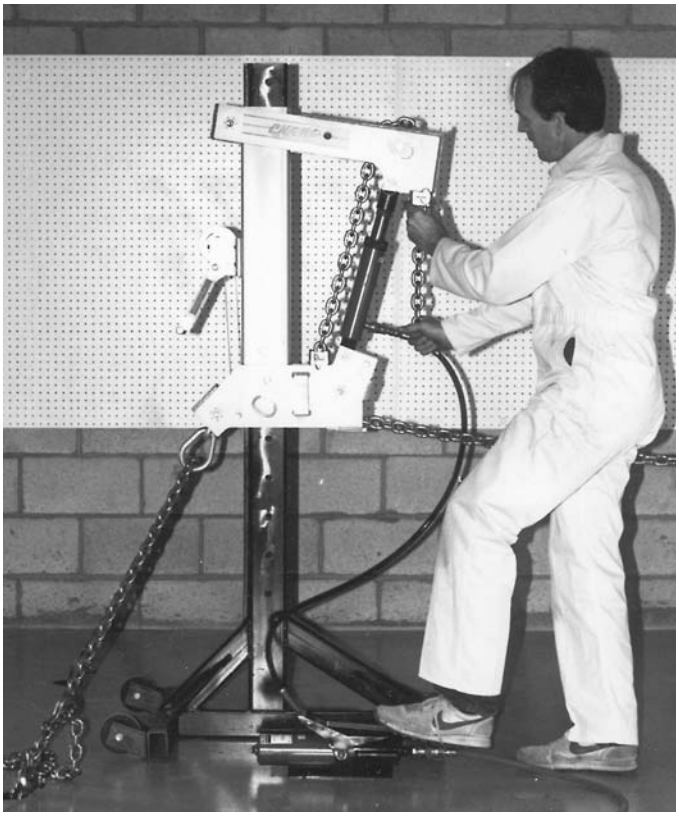
1. If releasing ram fails to allow chain to go slack, depress pump pedal and raise chain to previously locked position.



2. Re-install chain lock.

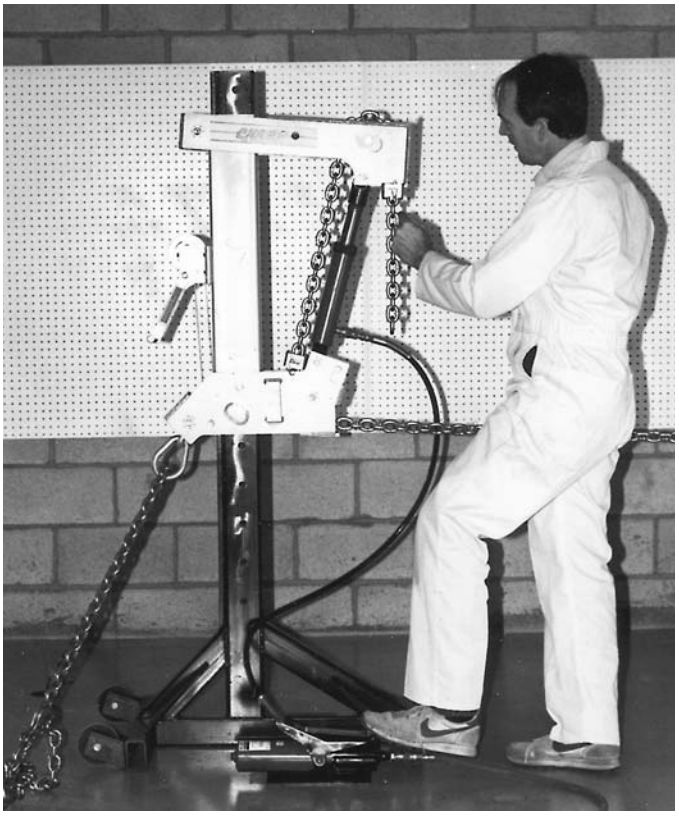


3. Release pressure on ram and remove top chain lock on pulling arm. Grasp chain to keep it from falling loose.

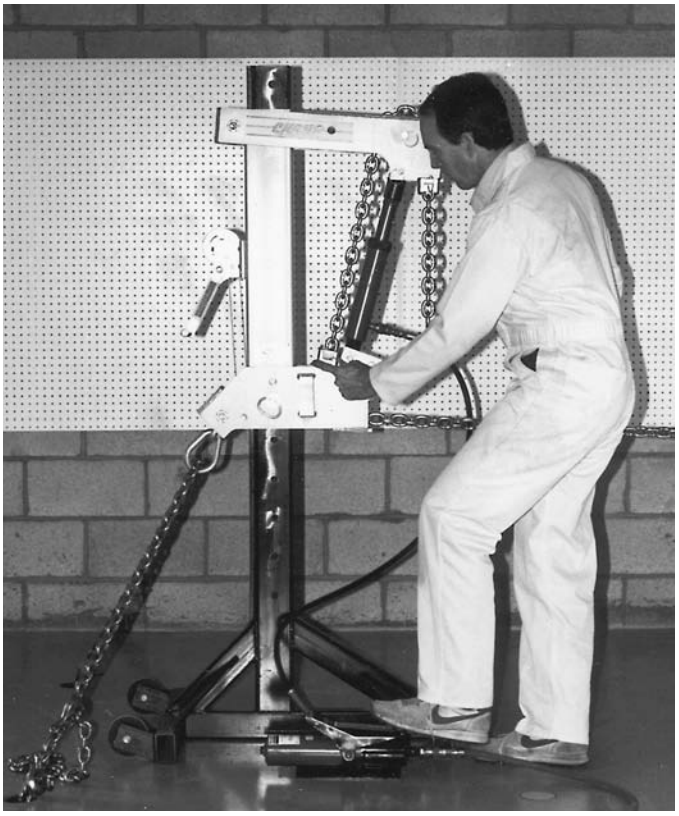


4. Depress pump pedal and raise ram ¾ length and re-install chain lock at pulling arm as shown.

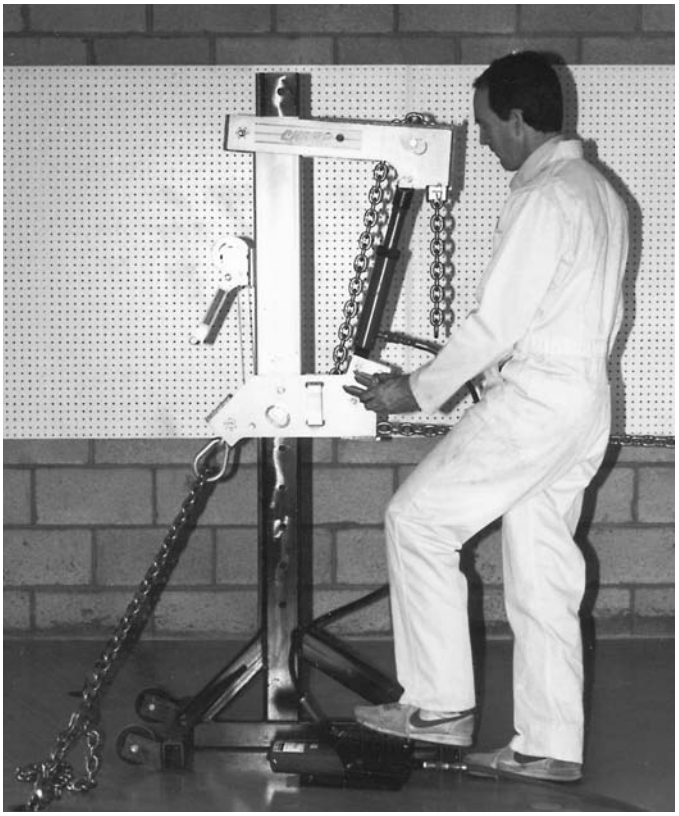
RELEASING CHAIN PRESSURE (cont.)



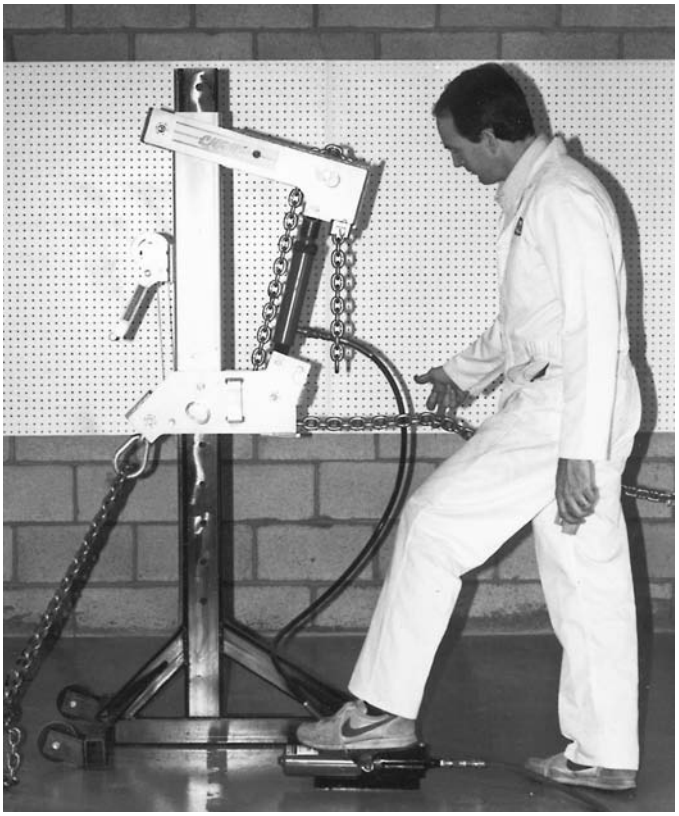
5. Holding top chain lock in place, continue raising ram until pressure holds it in place.



6. As ram continues to extend, pressure will come off bottom chain lock.

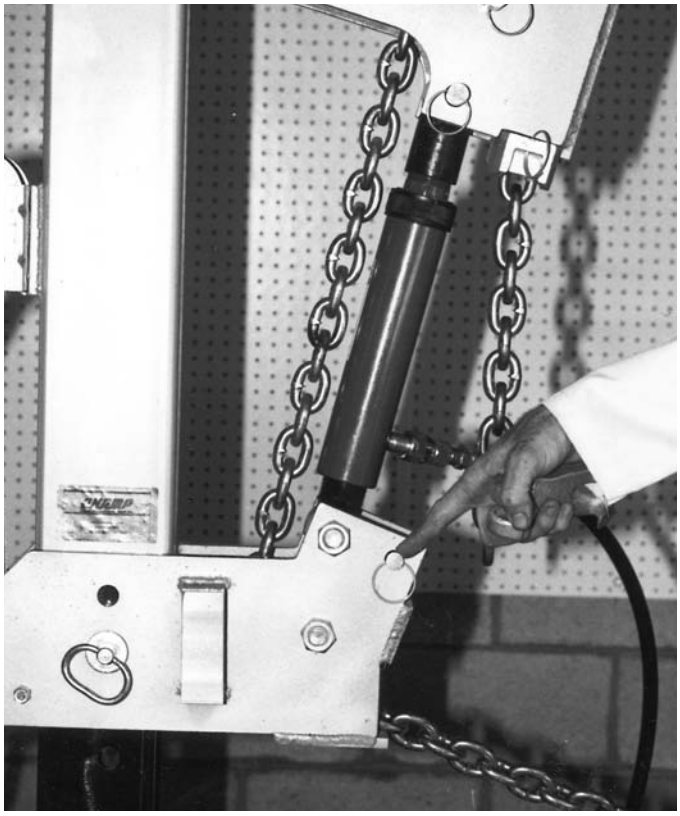


7. When pressure is off bottom chain lock, remove it.

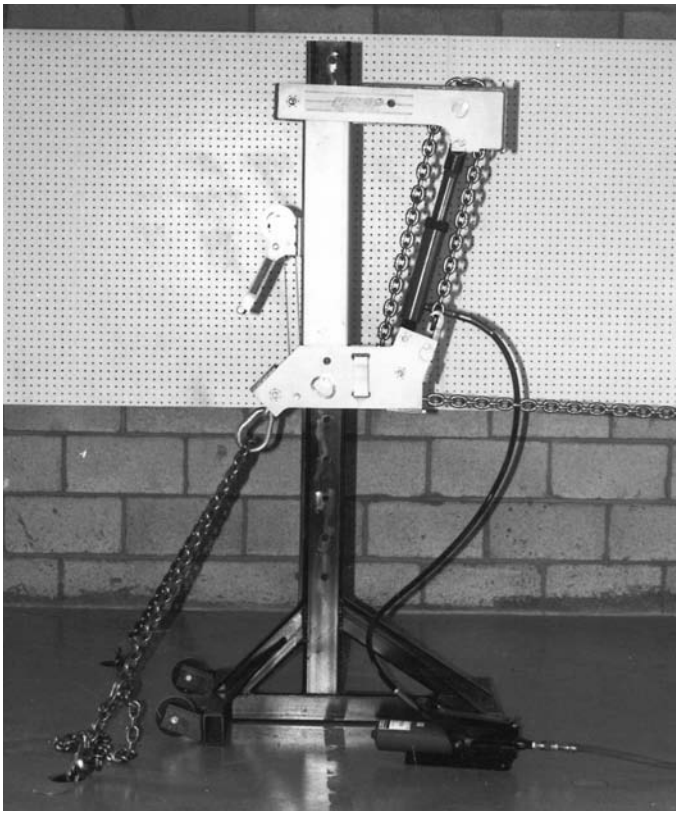


8. Release pressure on ram until chain goes slack. Repeat if necessary.

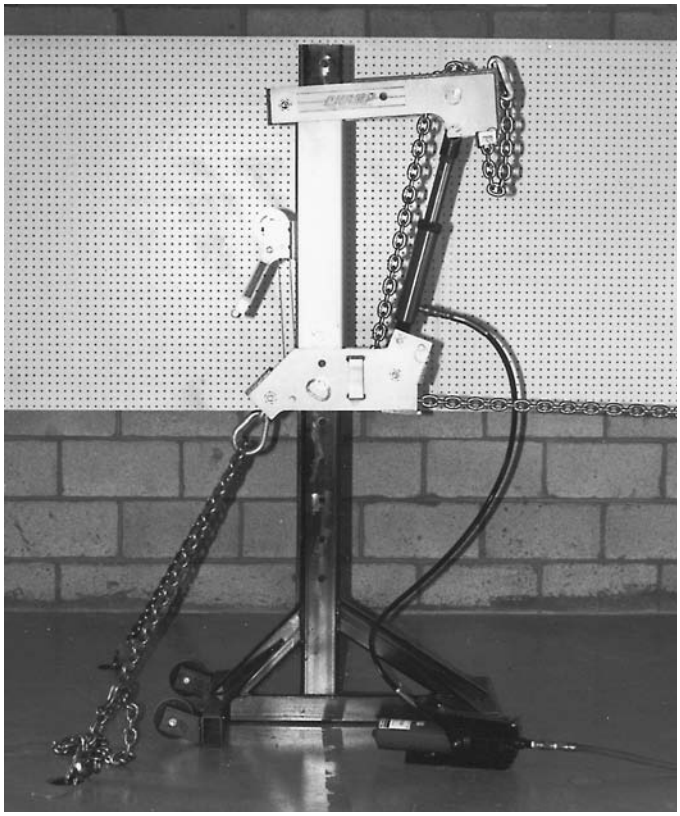
5 - 10 - 20 TON PULLS



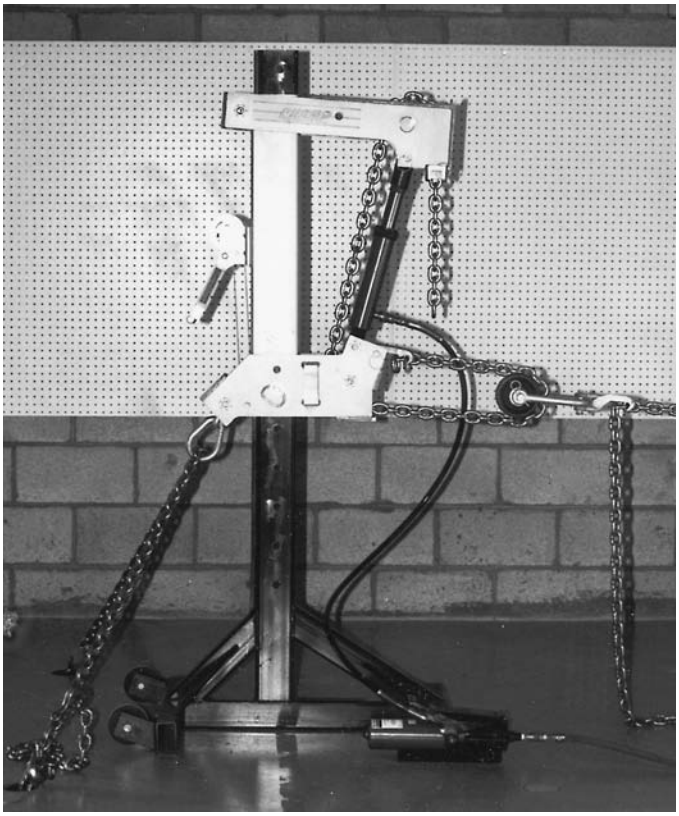
1. Pulling mechanism has a horizontal pin located in front.



2. Thread chain around top pulley as shown and hook to this pin with double claw. This is a 5 ton pull.



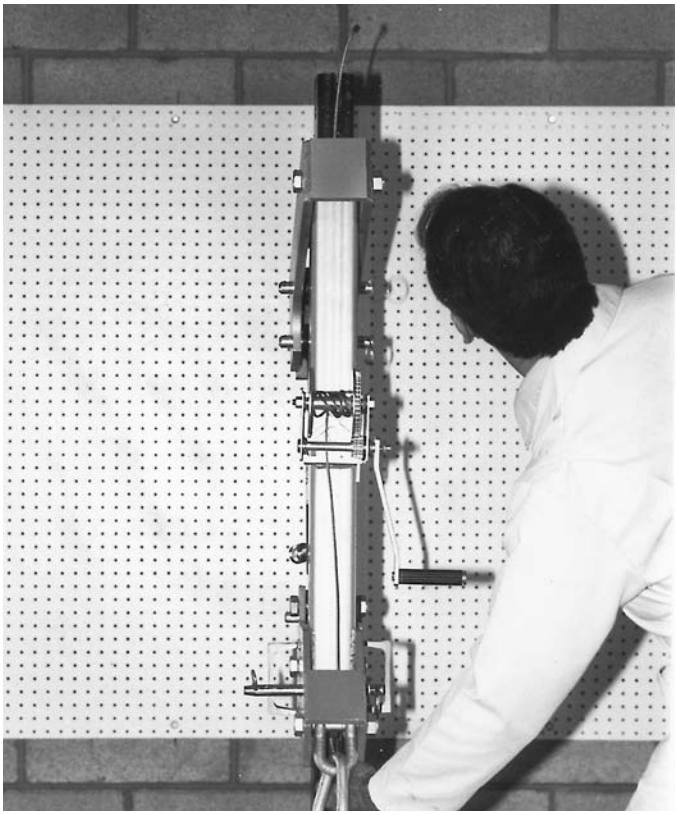
3. When top chain lock is installed, the pull is 10 tons. Double claw can be used to hang slack out of the way.



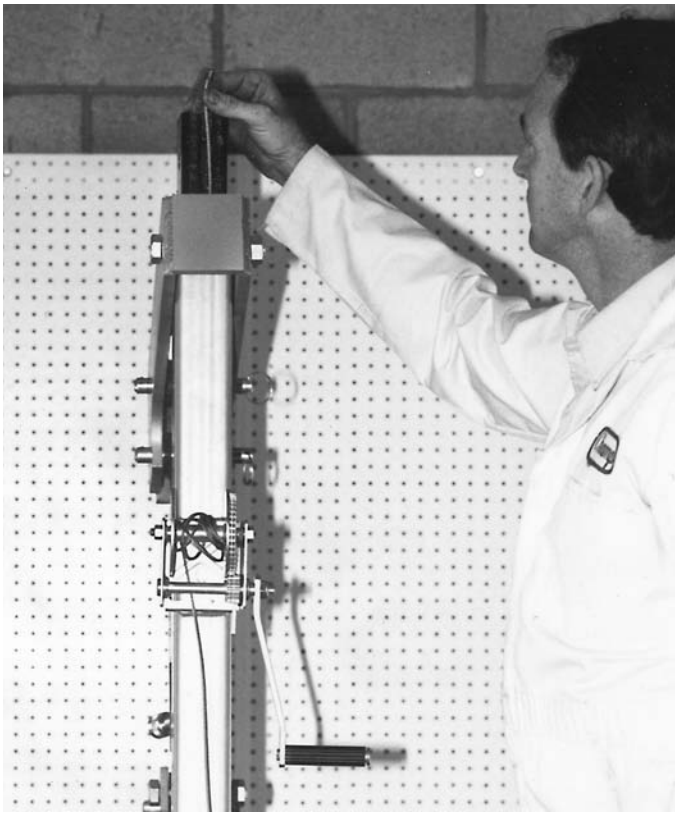
4. Hook power pulley assembly and double claw to horizontal pin. This is a 20 ton pull.

INSTALLING DOUBLE PULL KIT

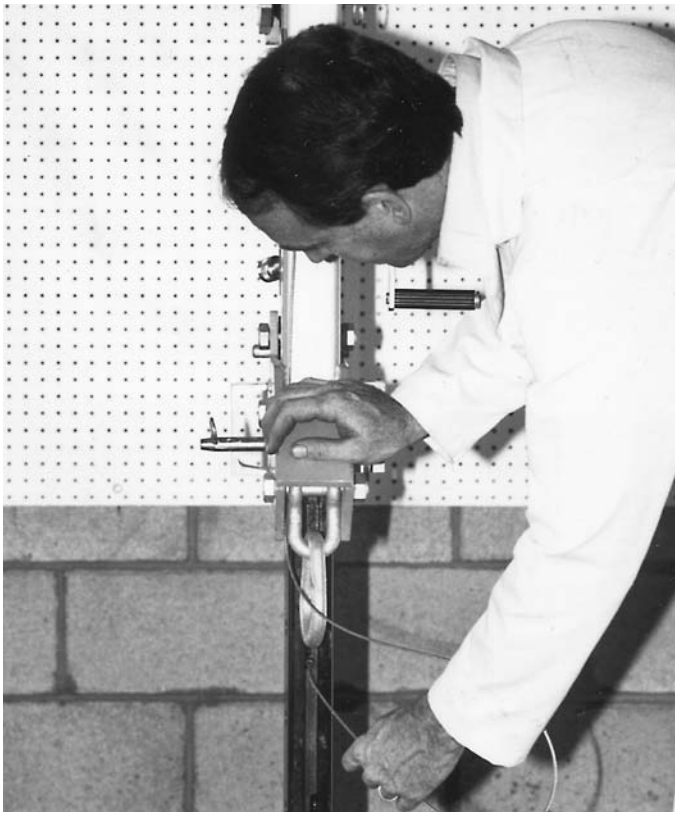
1. Place height pin in post and loosen winch cable by unwinding winch handle.



2. Push cable upwards from bottom of winch pulley at base of pulling mechanism until end of cable disengages from notch at top of post.

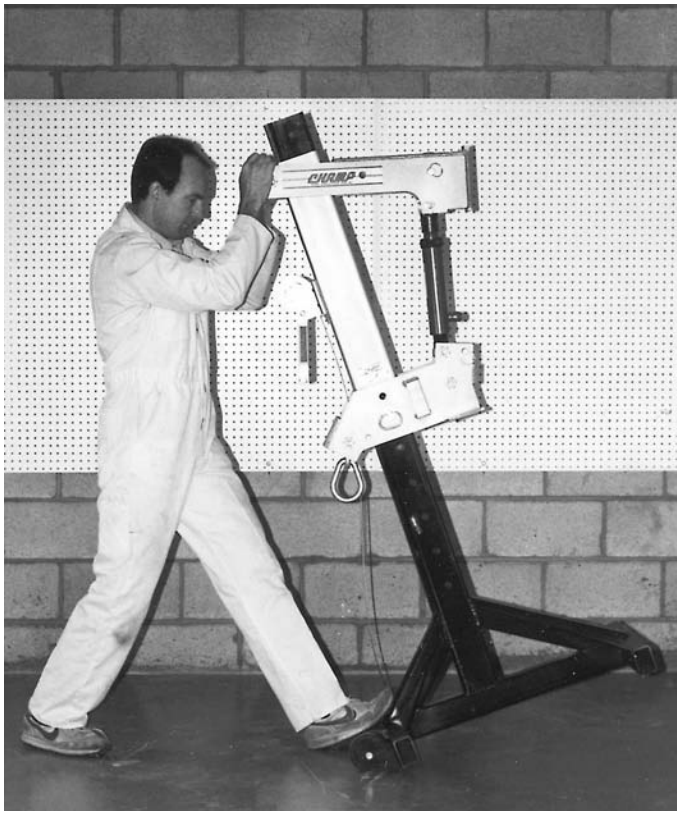


3. Grasp end of cable and free it from notch.



4. Pull cable completely out through pulling mechanism and cable guides at rear of post.

INSTALLING DOUBLE PULL KIT (cont.)



5. Grasp top of post and tip backwards while bracing the base with foot.

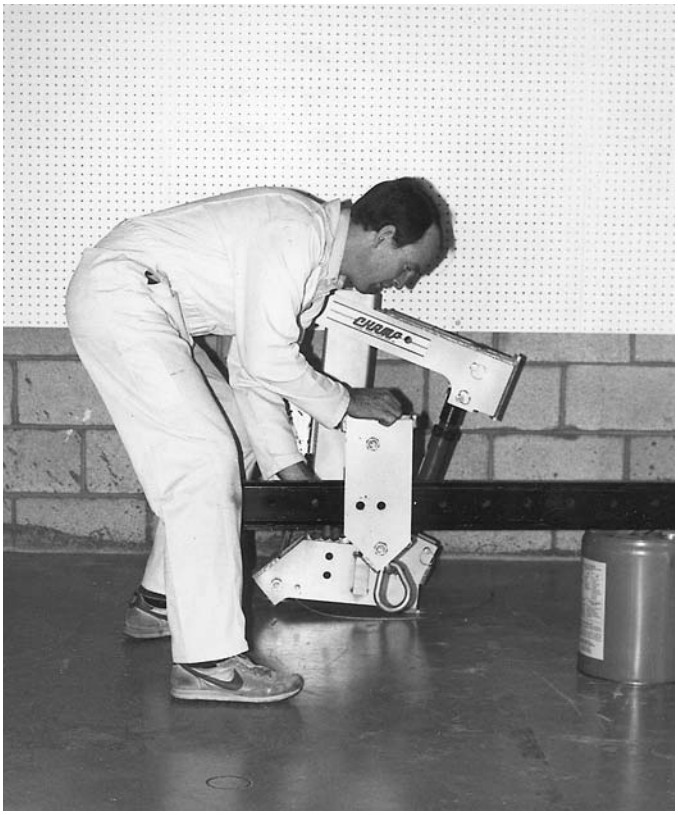
6. Lower the post carefully and rest it on a convenient object to be used as a support.

7. Remove height pin to remove pulling mechanism from post.

8. Carefully slide pulling mechanism off post and set upright on work floor.

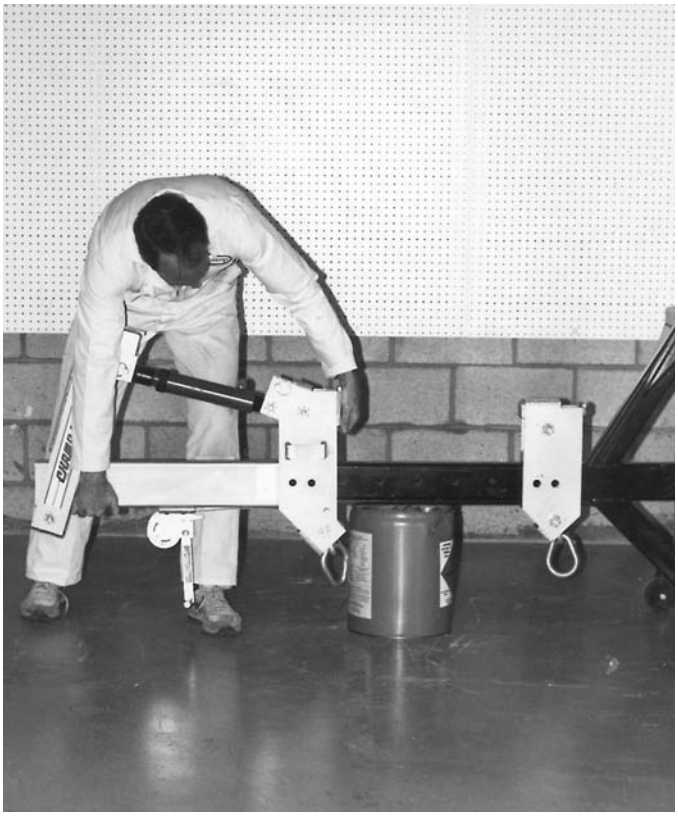
INSTALLING DOUBLE PULL KIT (cont.)

9. With the double pull kit in the position shown, install it on the post.



10. Slide the double pull kit onto the post through the box section opening.

11. Continue sliding double pull kit all the way to the end of the post.

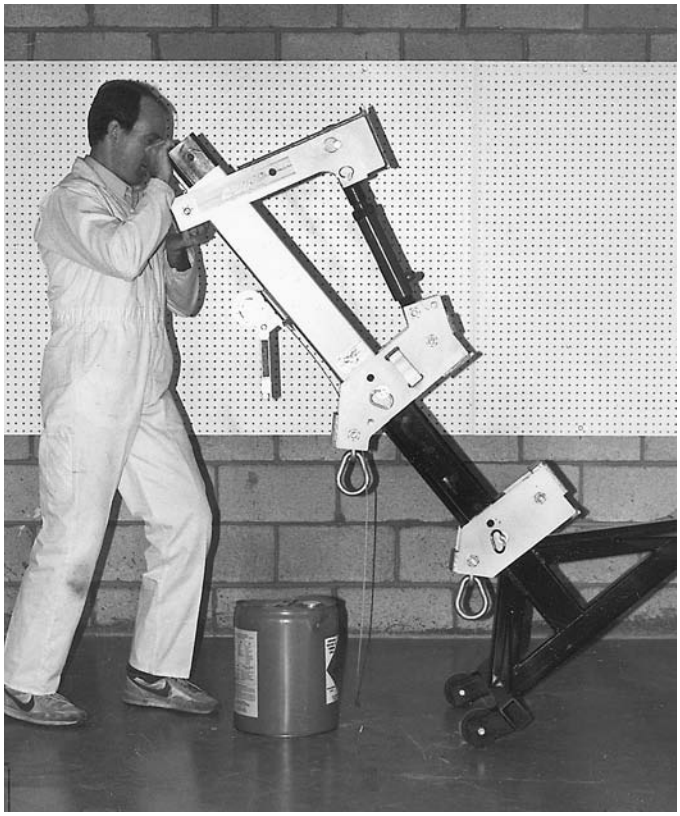


12. Re-install pulling mechanism the same way it was removed.

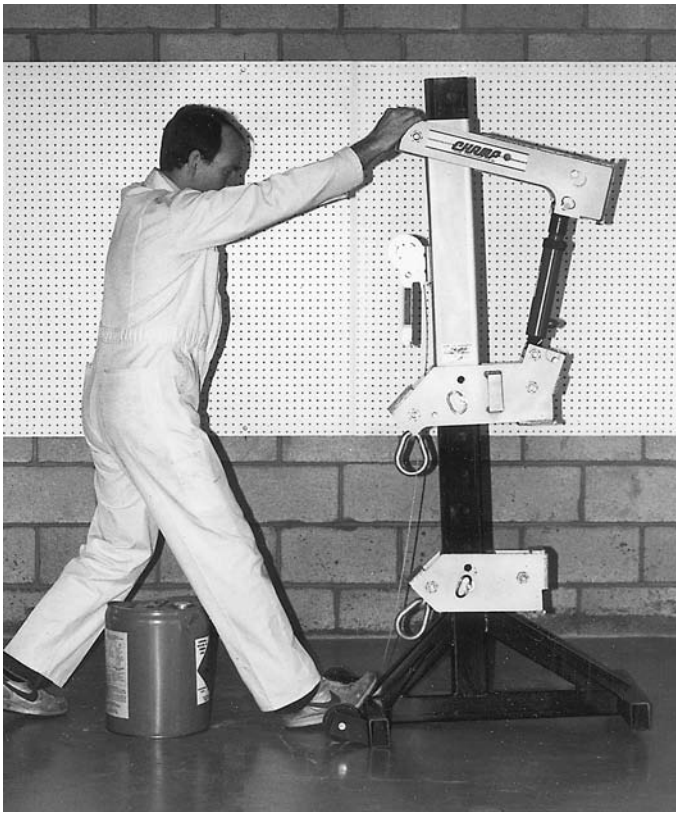
INSTALLING DOUBLE PULL KIT (cont.)

13. Insert height pin for double pull kit securing it to the post.

14. Insert second height pin into pulling mechanism securing it to post. Allow approximately 2 inches of post to be exposed over it.

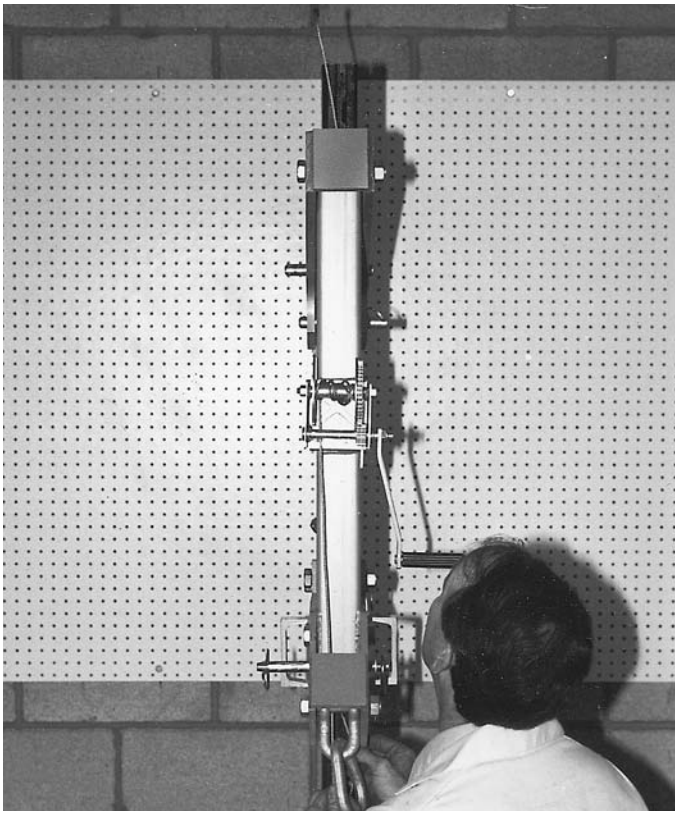


15. Carefully lift post back into upright position.

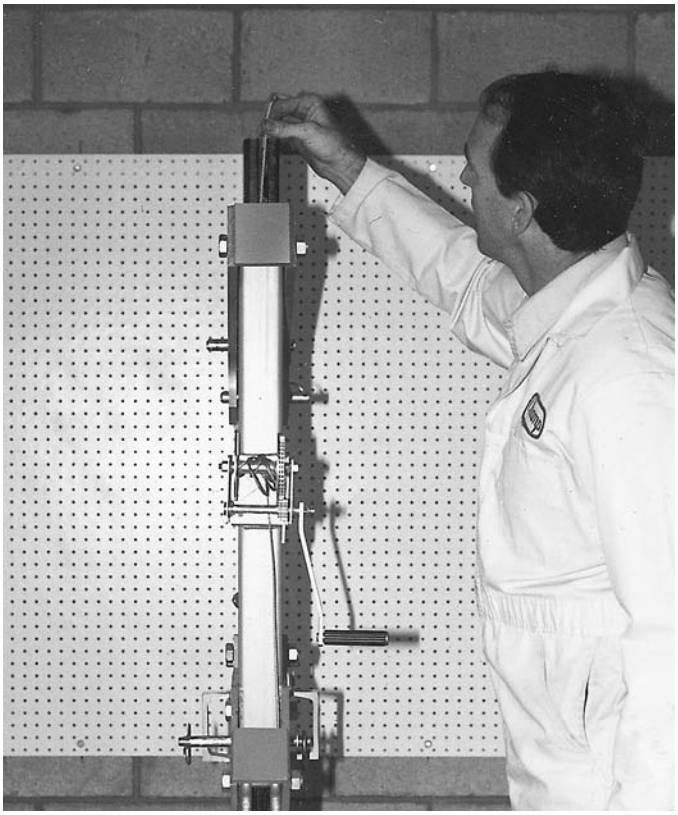


16. Allow weight of machine to pull post forward and down.

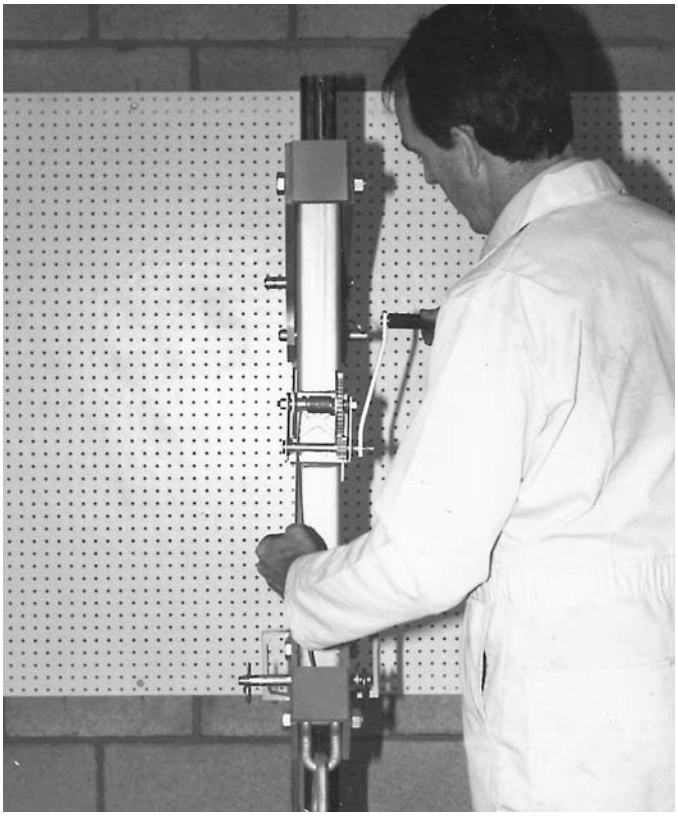
INSTALLING DOUBLE PULL KIT (cont.)



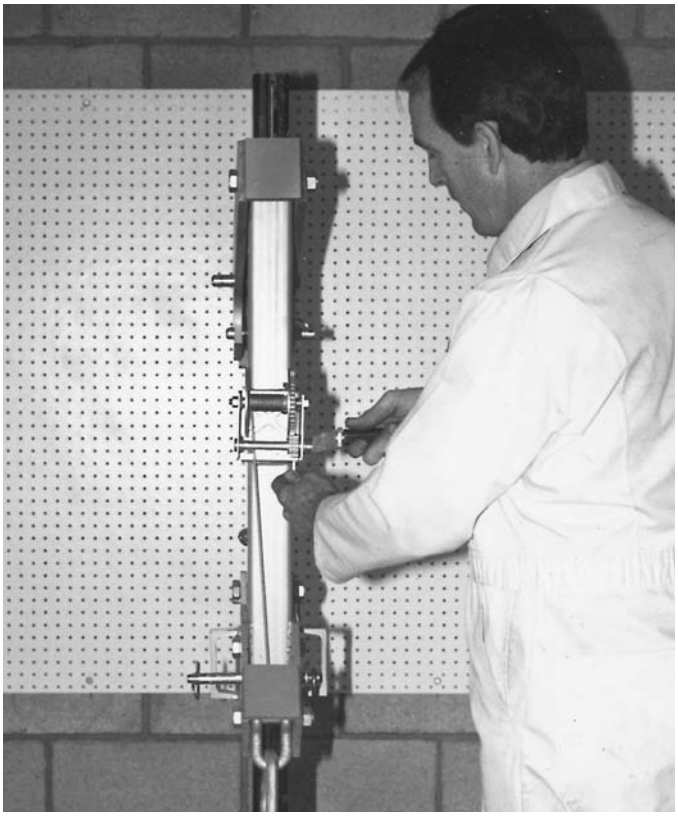
17. Thread winch cable up through cable guides at rear of post and around winch pulley. Push cable end all the way through the top of the post.



18. Insert end of cable through notch at top of post.

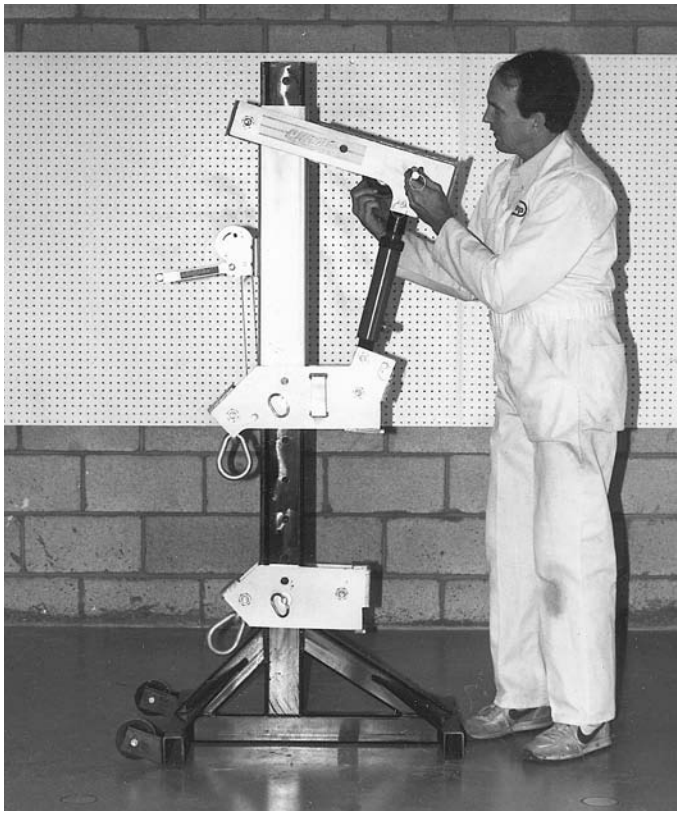


19. Pull slack out of cable and wind evenly around winch.



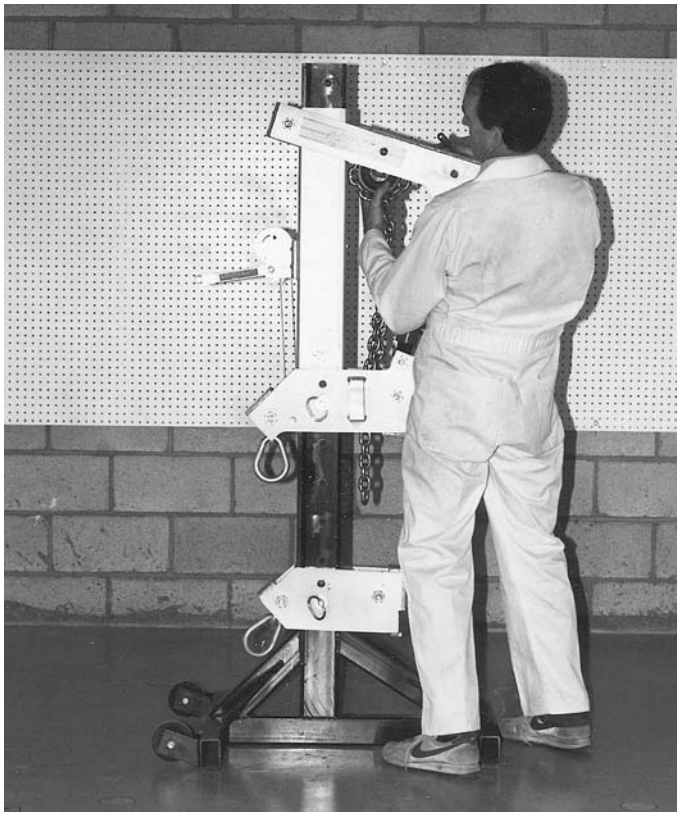
20. Continue winding winch until cable is fully taut. Double pull kit is now completely installed.

RETHREADING CHAIN FOR DOUBLE PULL

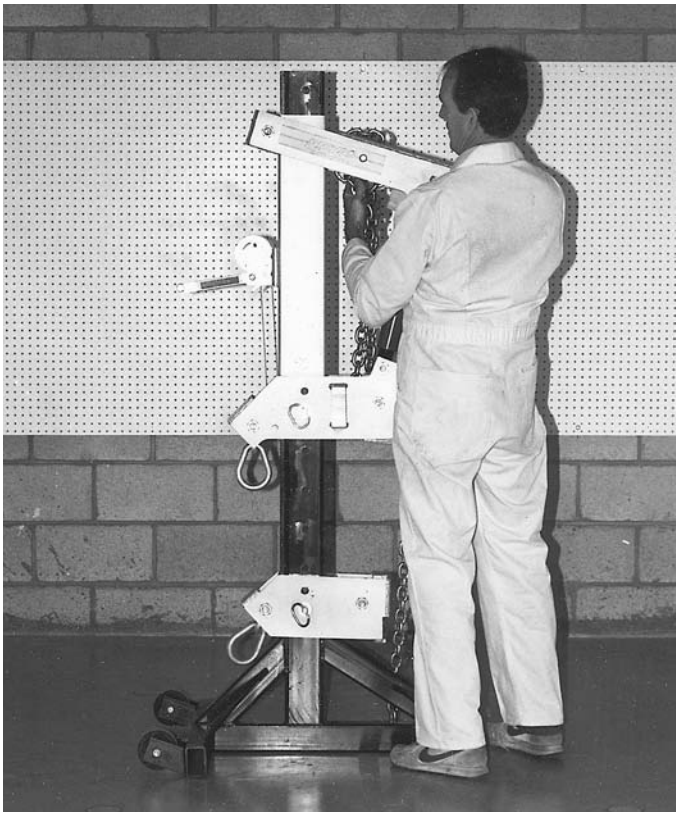


1. When switching from single to double pulls, upper pulley needs to be repositioned and chain rethreaded. Start by removing pin holding upper pulley.

2. Wrap chain around pulley and hold the two portions of the chain in one hand underneath pulley as shown.

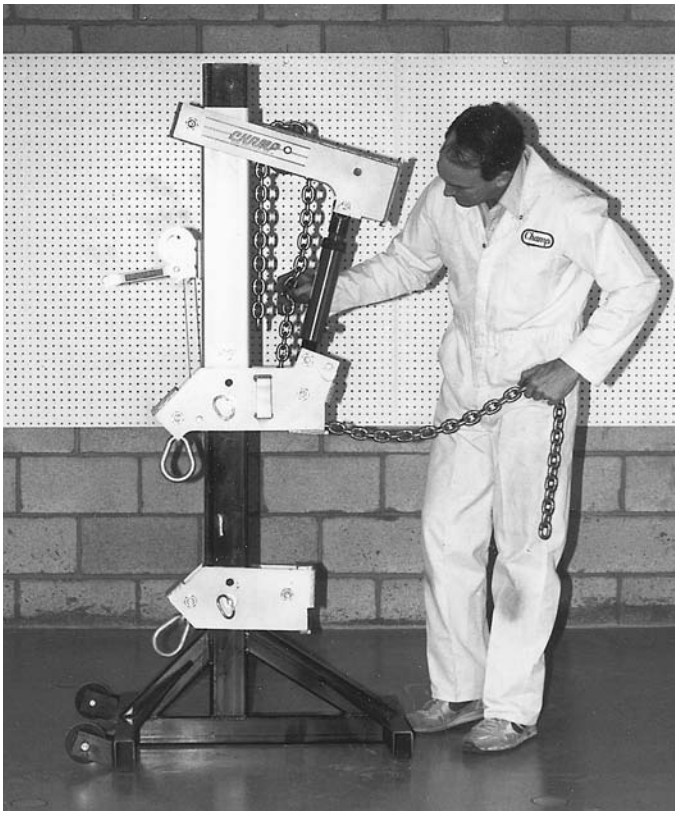


3. Grasping the pulley and chain in this fashion, position the pulley in the rear slot of the pulling arm as shown.

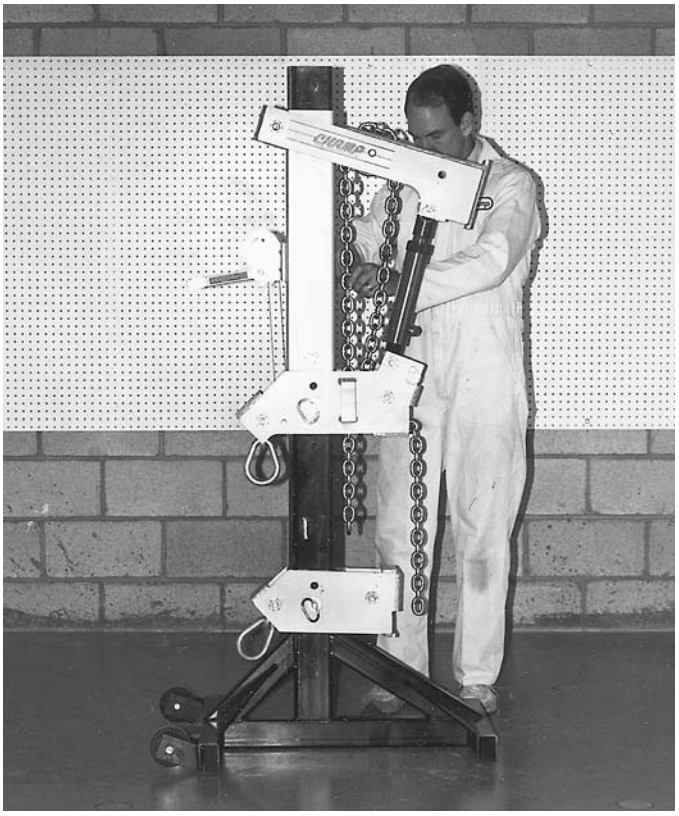


4. With free hand, replace the pin securing the pulley to the pulling arm.

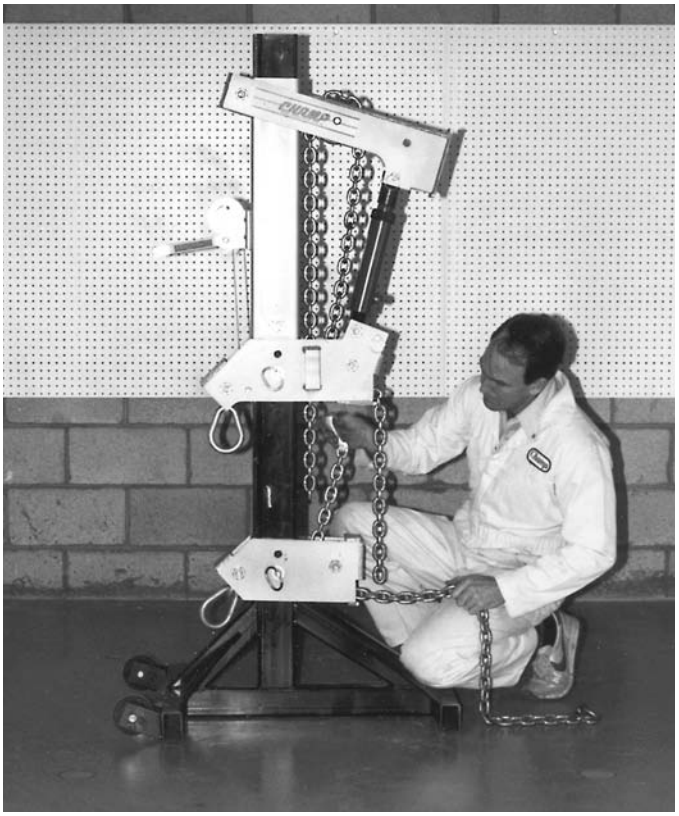
RETHREADING CHAIN FOR DOUBLE PULL (cont.)



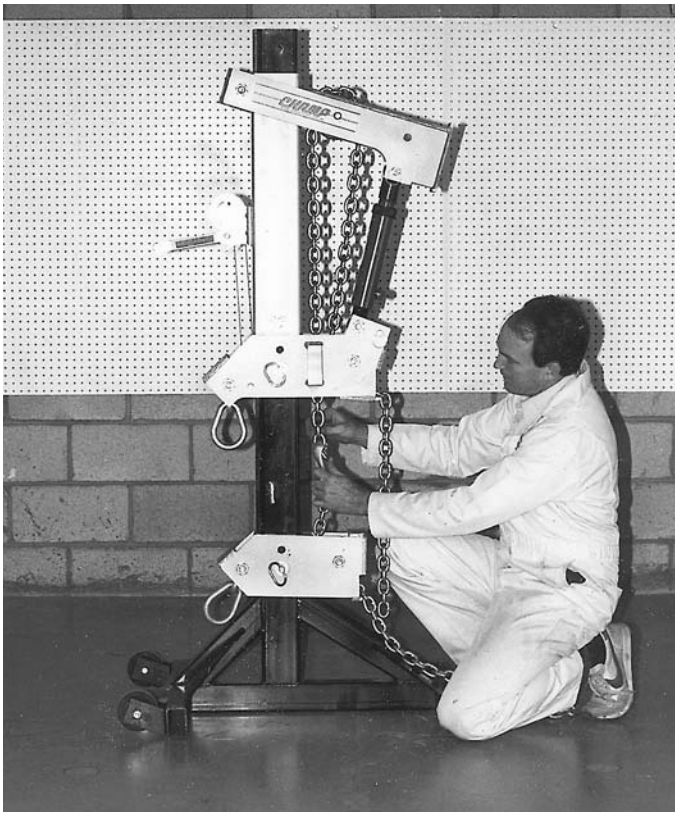
5. Thread one end of chain through main pulley in pulling mechanism. Make sure chain is straight. Avoid twisting chain.



6. Lower other end of chain through pulling mechanism toward double pull kit. Two chains will be joined at this point.



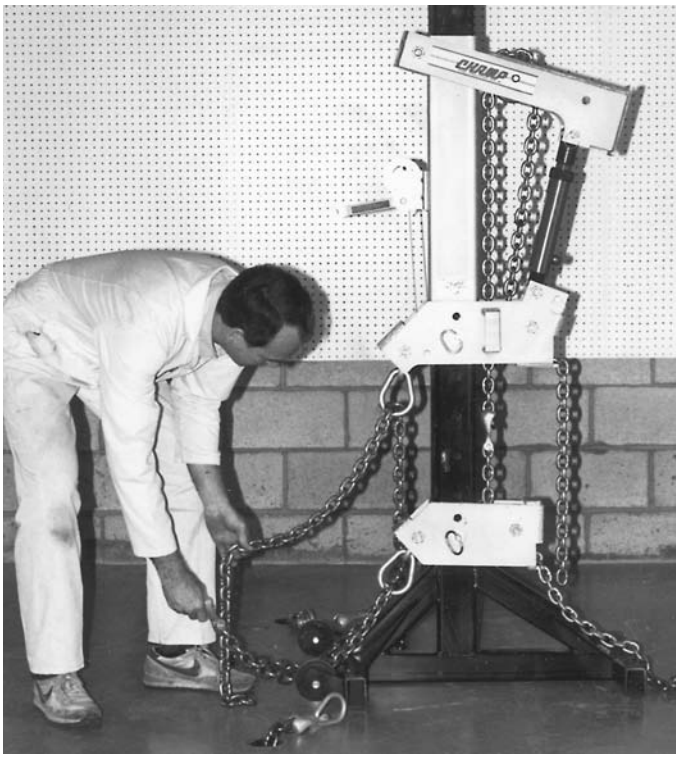
7. Insert lower second chain through opening in front of double pull kit.



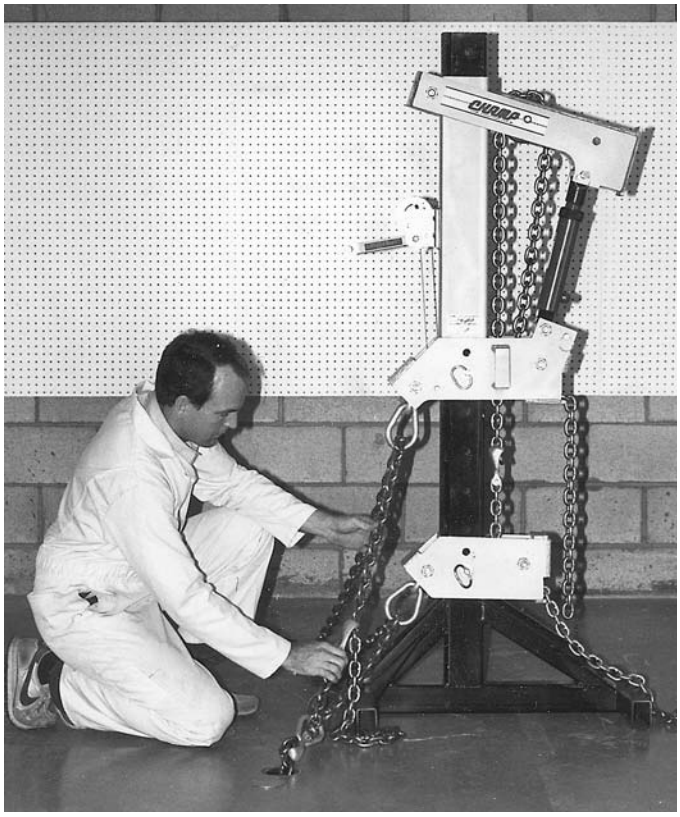
8. Join the two chains together as shown using claw on end of one of the chains.

EQUALIZING PRESSURES WITH DOUBLE BACK CHAIN BRIDGE - DOUBLE PULL

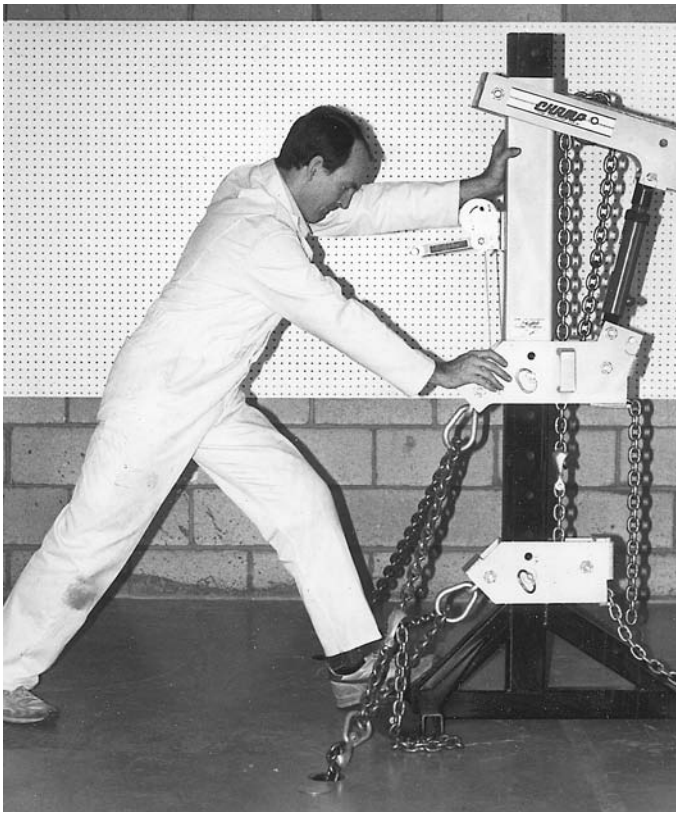
1. Remove two anchor lids and install two claw slings as shown.



2. Select two chains with claw. Thread one through each loop at rear of post.

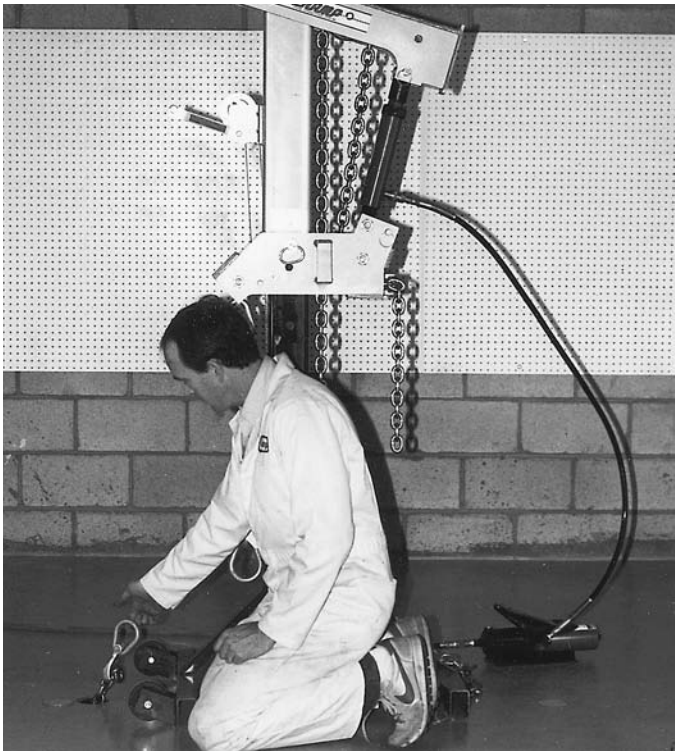


3. Thread chain through each claw sling and join both chains together at ends to form a continuous loop brigde.

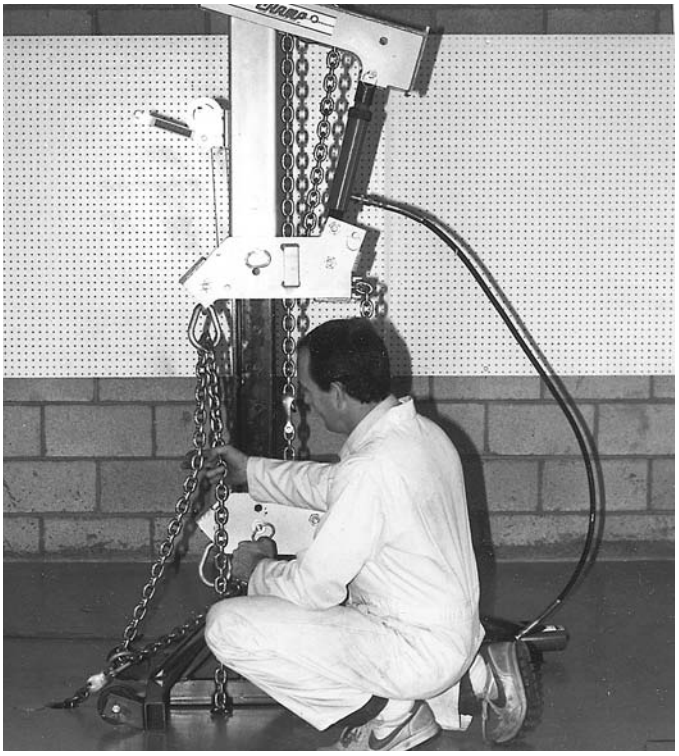


4. Push post forward to take slack out of chains.

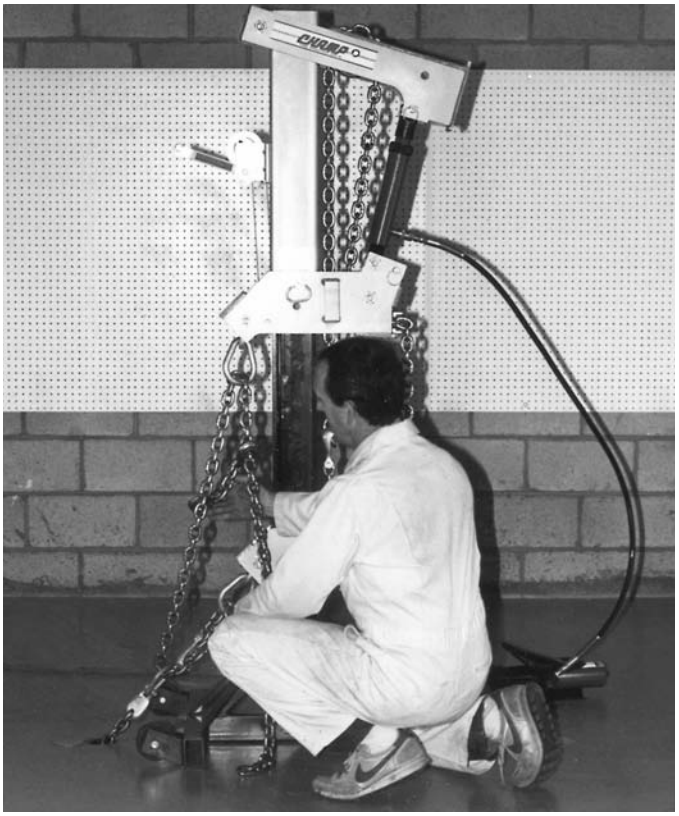
EQUALIZING PRESSURES WITH SINGLE BACK CHAIN
- DOUBLE PULL -



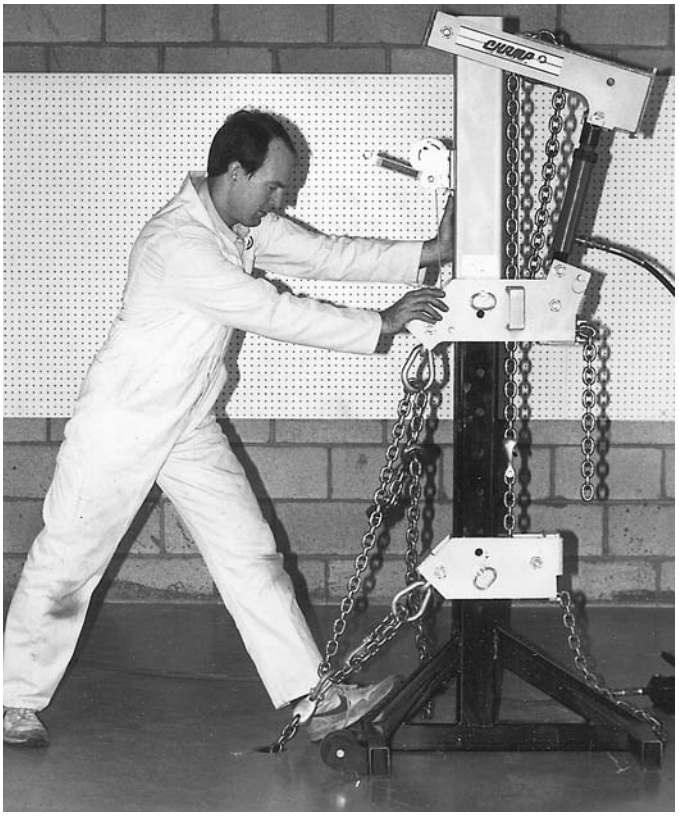
1. Install claw sling on anchor. Use this hookup when double pull is located directly in front of single anchor.



2. Thread chain through top loop at rear of post and through claw sling.



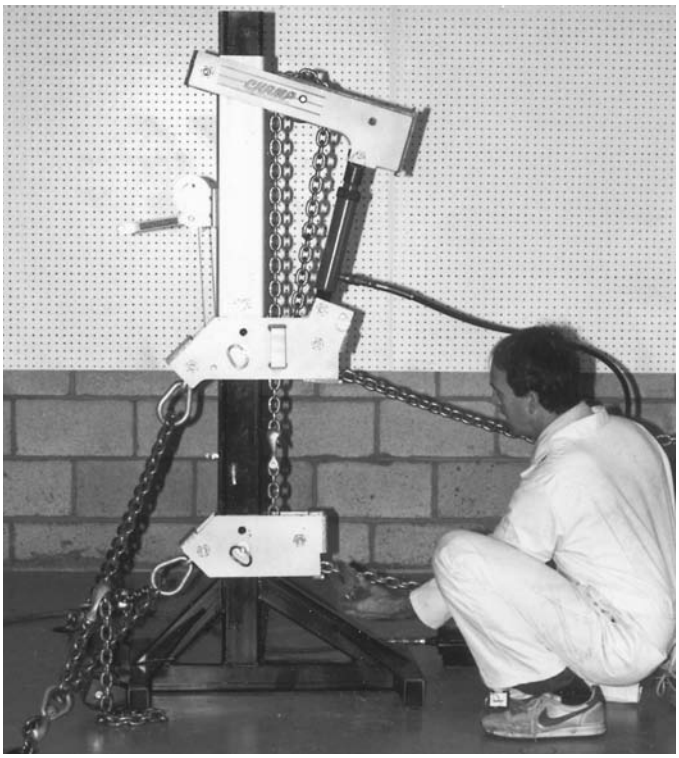
3. Attach claw end of chain to itself and other end of chain to itself with a chain shortener.



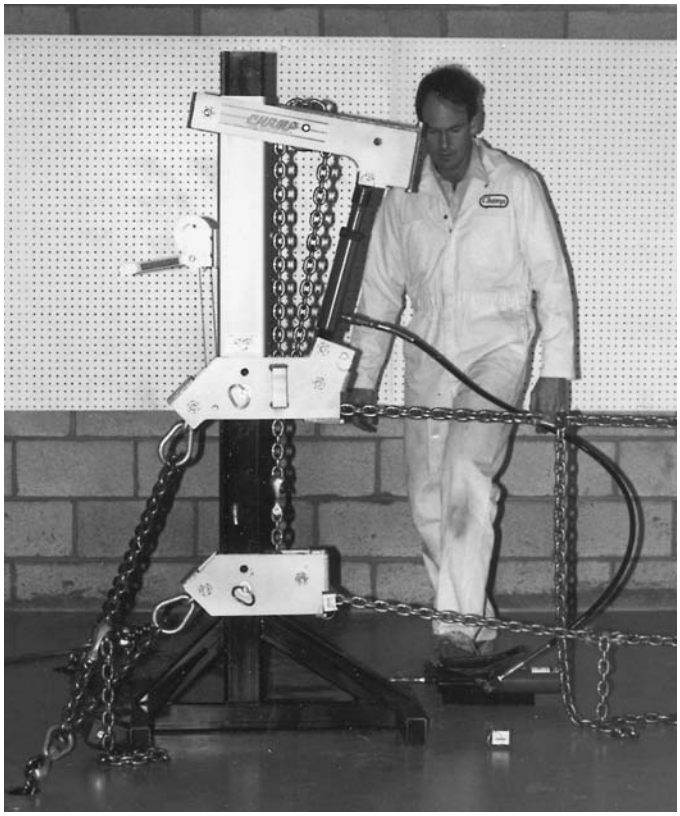
4. Push post forward to take up slack.

SETTING UP AND CONTROLLING DOUBLE PULLS
- FIRST TOP PULL -

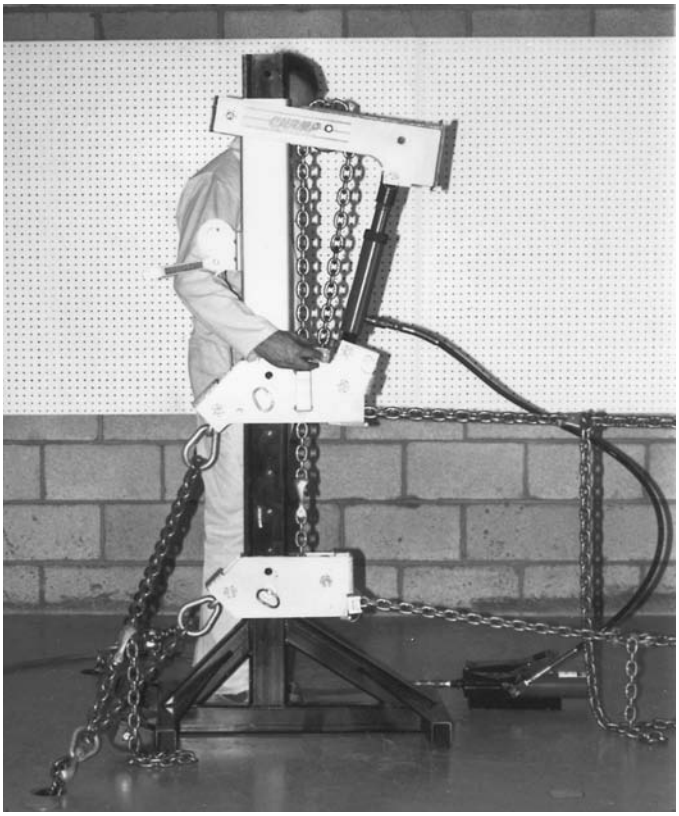
1. Attach pull chains to top and bottom areas to be pulled.



2. Install chain lock in front of double pull kit. This locks the bottom chain and isolates the top pull.
REFER TO PAGE 9 FOR THIS SET UP. TOP PULL MUST NOT BE HEAVY WHEN BEGINNING.

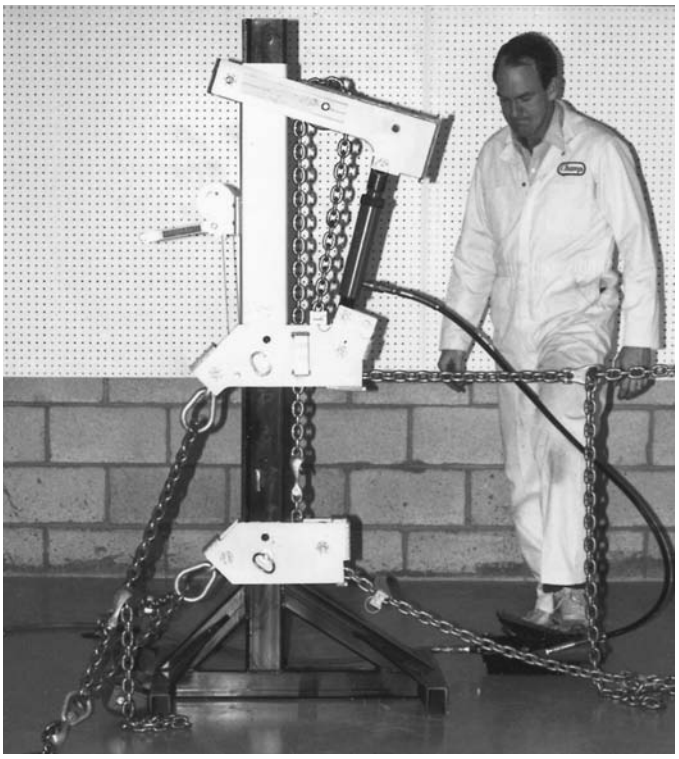


3. Depress the pump pedal and put desired pressure on the top pull.
DO NOT OVERLOAD THIS FIRST PULL.
SEE PAGE 9.

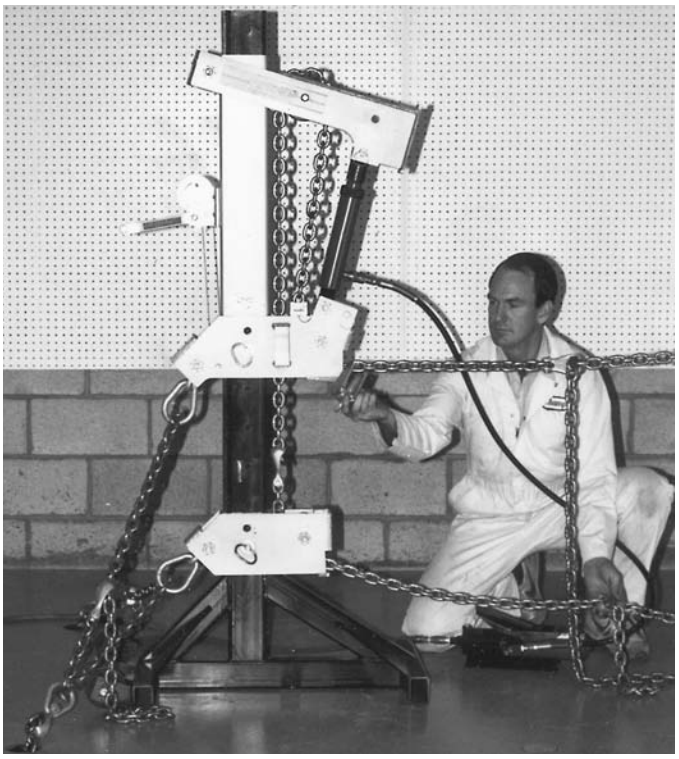


4. When desired amount of pull is made, install chain lock on upper pull. This completes first top pull.

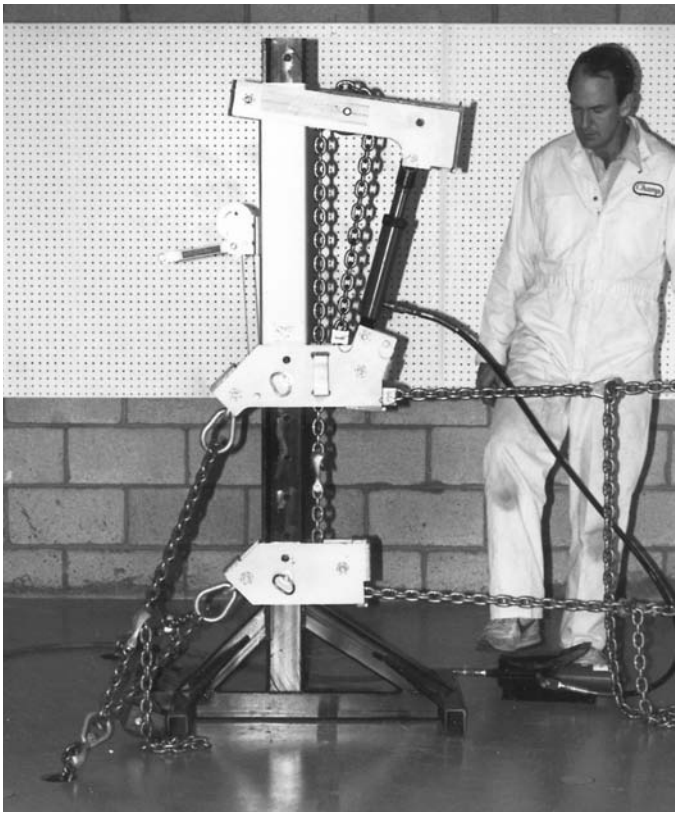
SETTING UP AND CONTROLLING DOUBLE PULLS
- FIRST BOTTOM PULL -



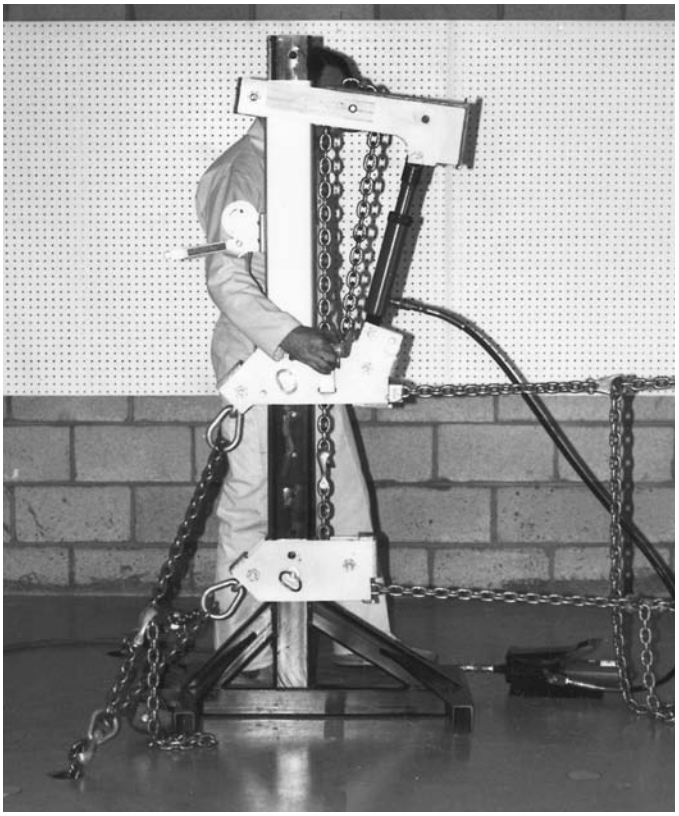
1. Release pressure on ram. Bottom chain will fall slack while top chain holds top pull in place.



2. Take up slack in bottom chain and install the slackened chain lock (that was in front of the double pull kit) in front of the pulling mechanism. This will lock the top chain and isolate the next bottom pull.

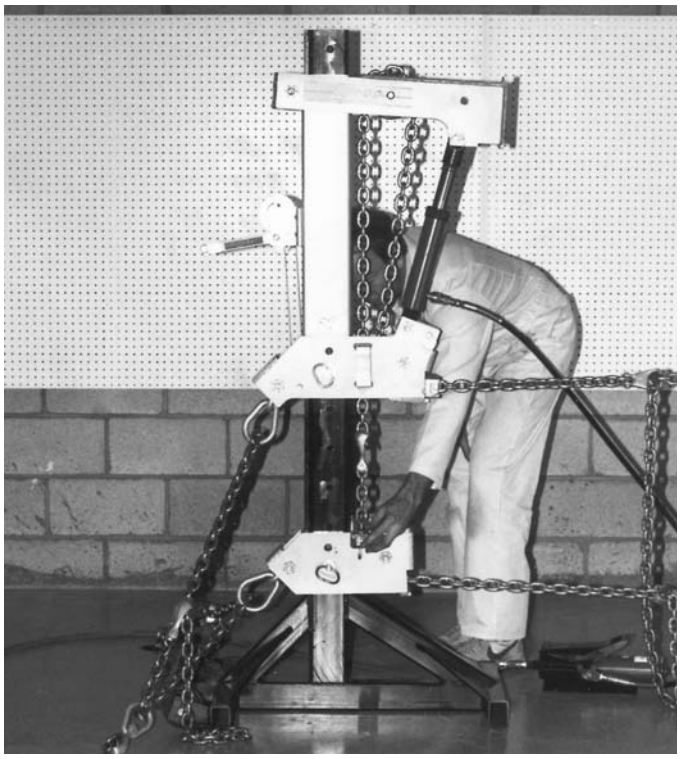


3. Depress the pump pedal and now the bottom chain will pull. Top chain lock for constant hold will now release.

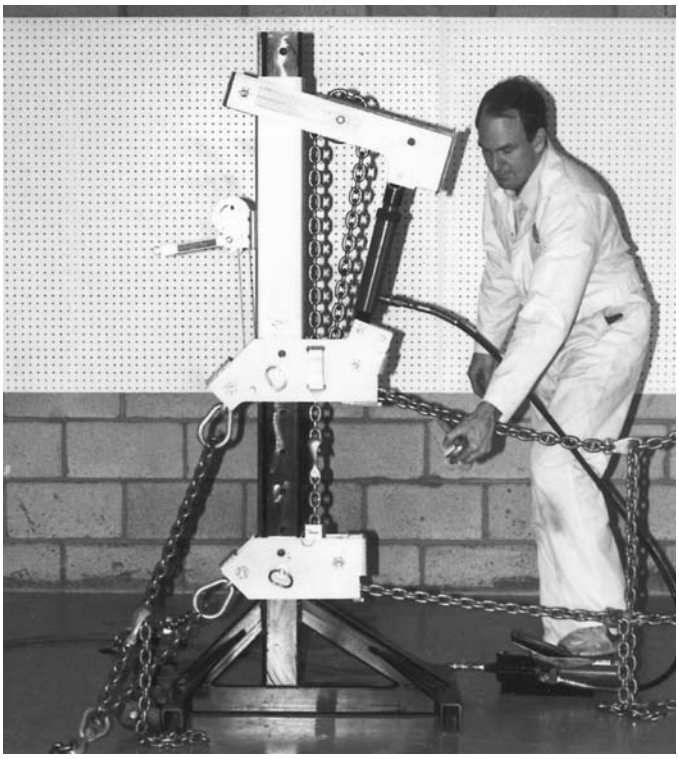


4. Remove constant hold chain lock at top.

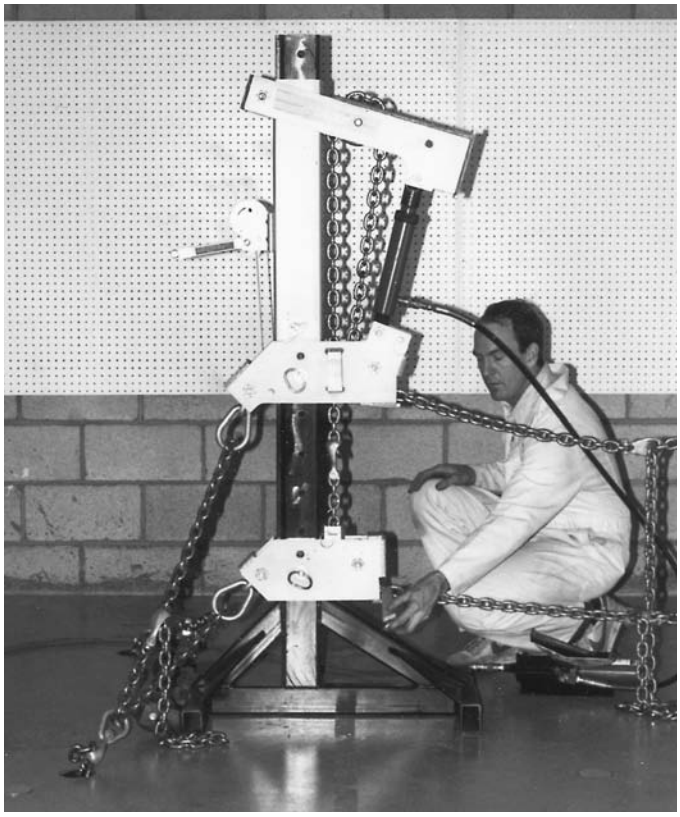
SETTING UP AND CONTROLLING DOUBLE PULLS
- SECOND TOP PULL -



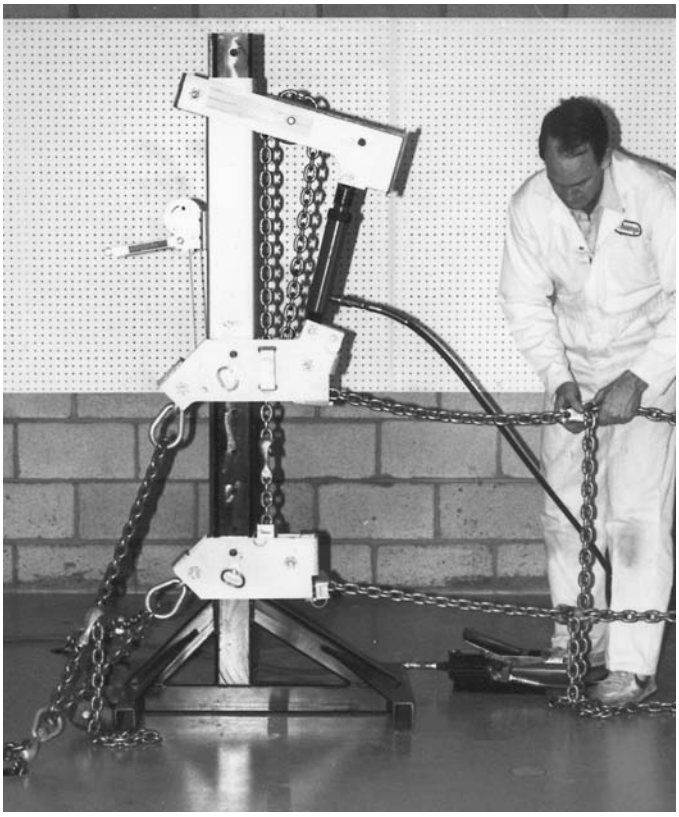
1. Install chain lock (that was constant hold for top pull) on top of double pull kit. This is now constant hold for bottom pull.



2. Release pressure on ram. Top chain will now go slack releasing chain lock in front of pulling mechanism. Remove chain lock. Bottom pull stays taut.

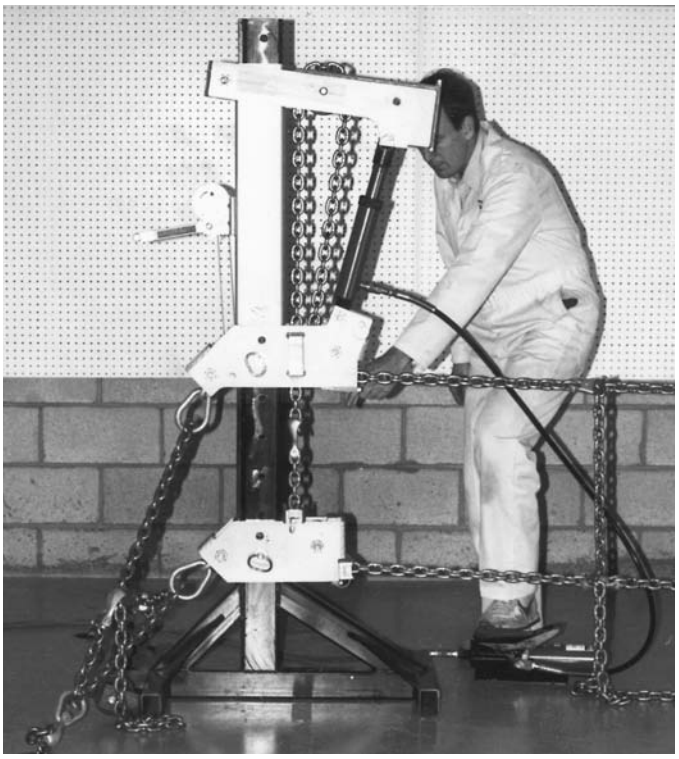


3. Place chain lock in front of double pull kit for next top pull. Use the chain lock removed in step 2.

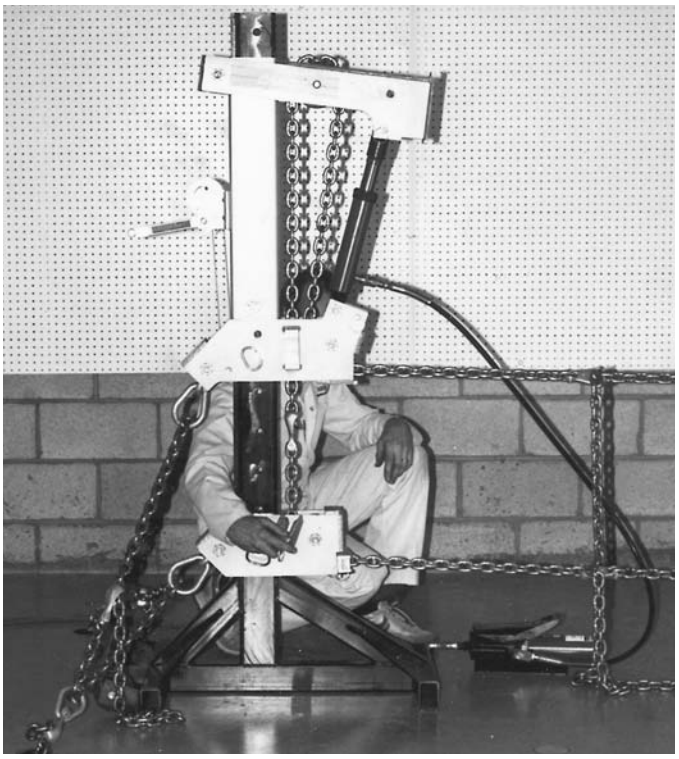


4. Take slack out of top chain.

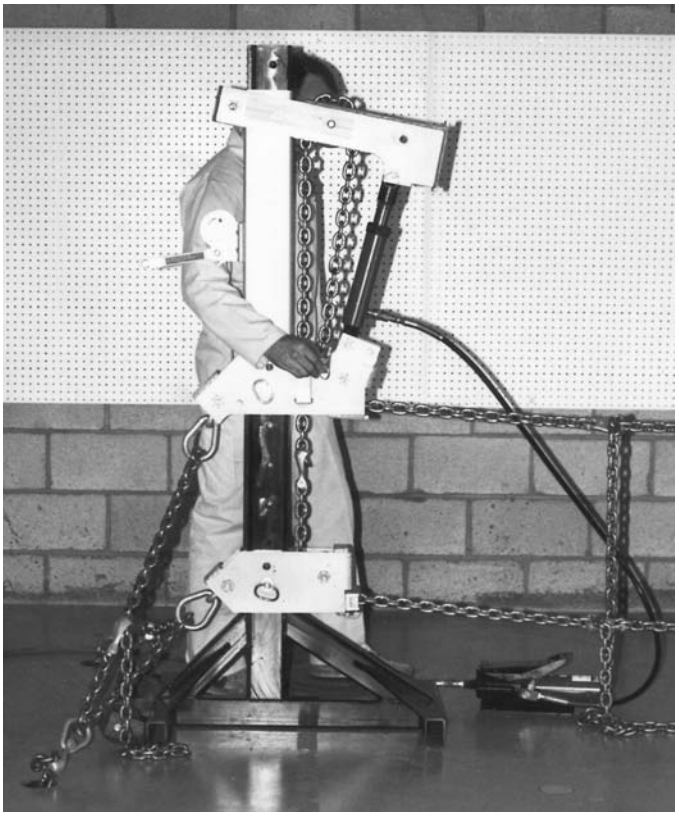
SETTING UP AND CONTROLLING DOUBLE PULLS
- SECOND TOP PULL (cont.) -



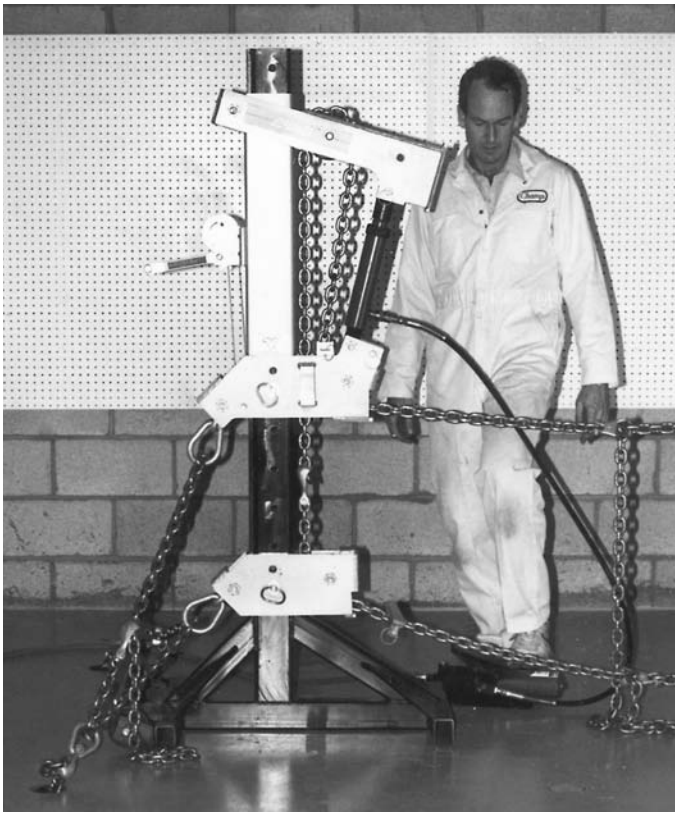
5. Depress pump pedal and top chain will pull. Bottom chain lock for constant hold will now release.



6. Remove constant hold chain lock at bottom.

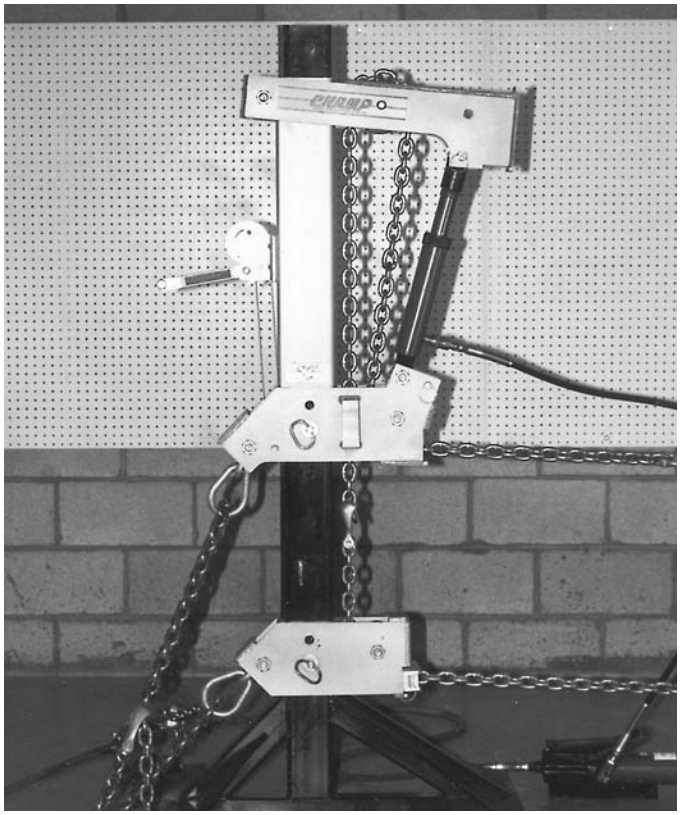


7. Install this chain lock on top of pulling mechanism for constant hold-top pull.

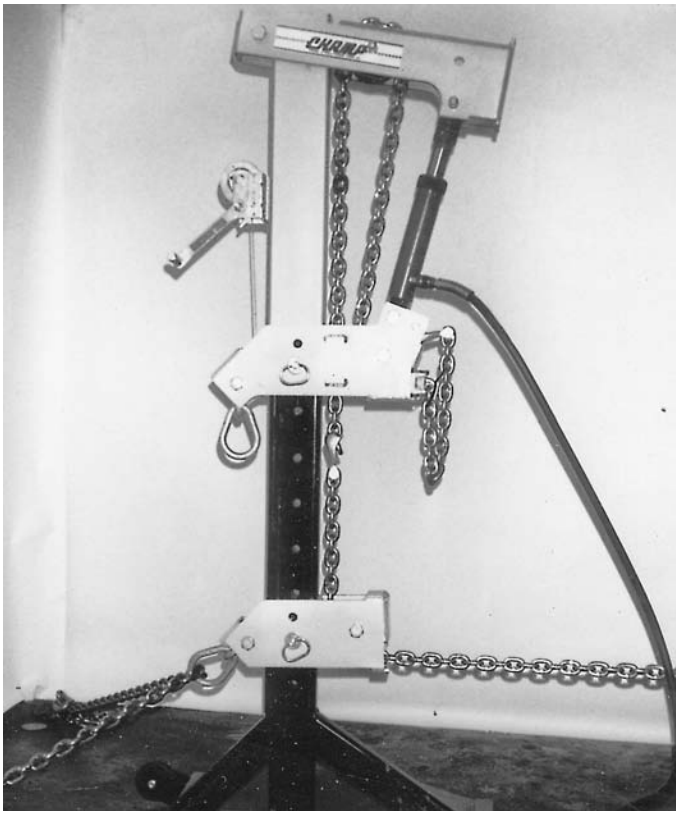


8. Release ram. Bottom chain will go slack. Repeat this process on top and bottom pulls until desired pull is achieved.

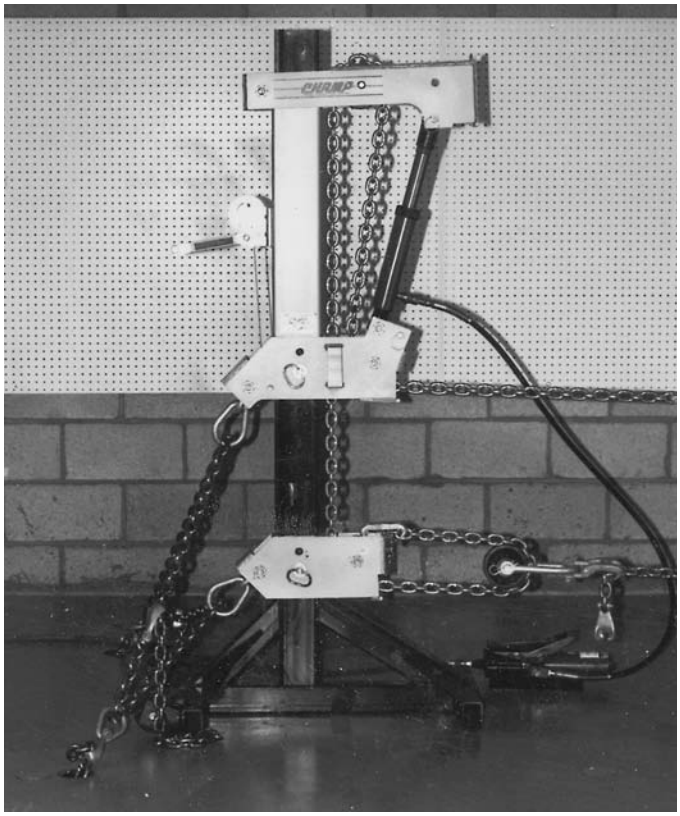
VARIATIONS OF PULLING COMBINATIONS



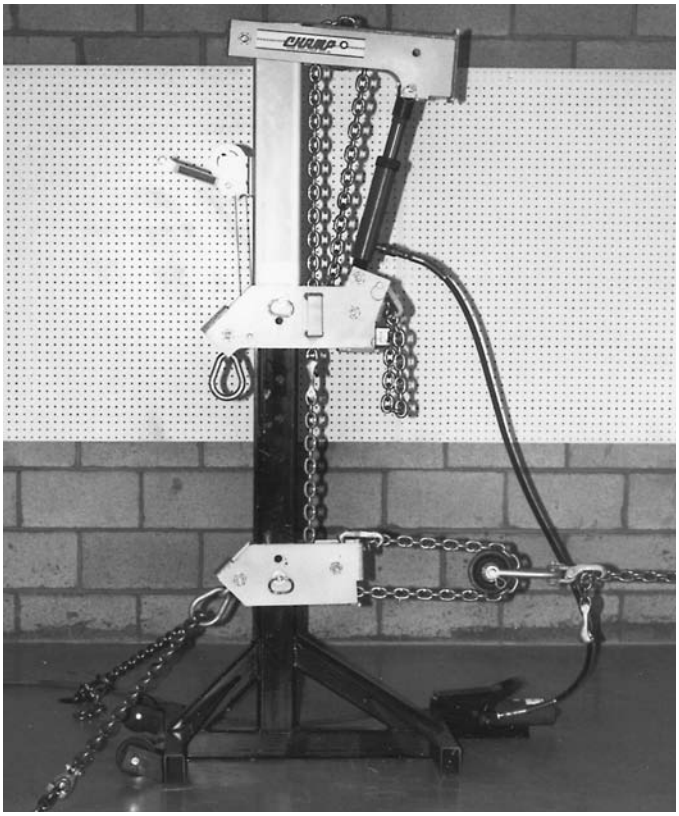
1. Using double pull kit, this is a 10 ton top pull and a 10 ton bottom pull. Note double back chain bridge set up.



2. When single low pull only is desired, lock off top chain to isolate lower pull. Double pull kit is left installed on post at all times.



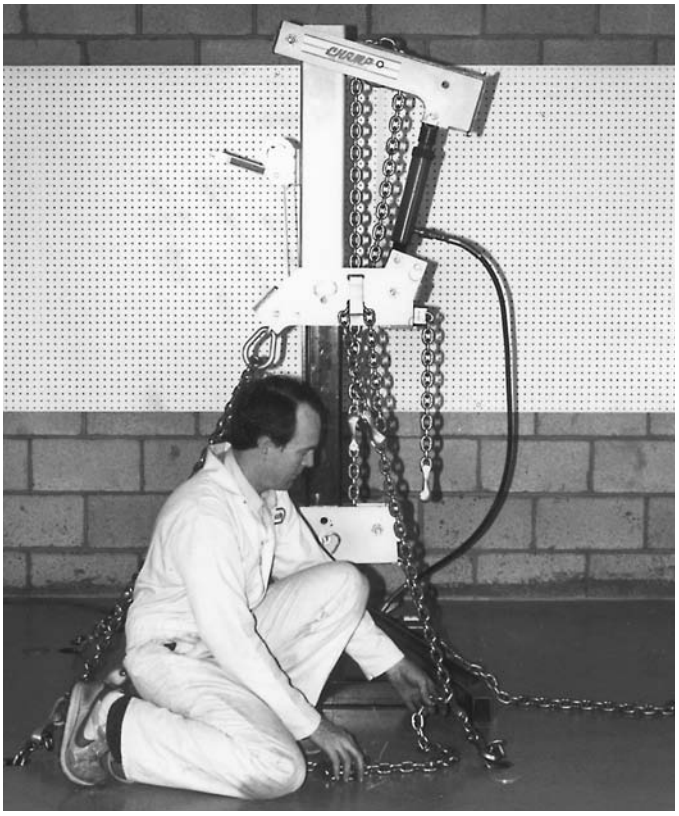
3. Shown here is a 10 ton top pull and a 20 ton bottom pull.



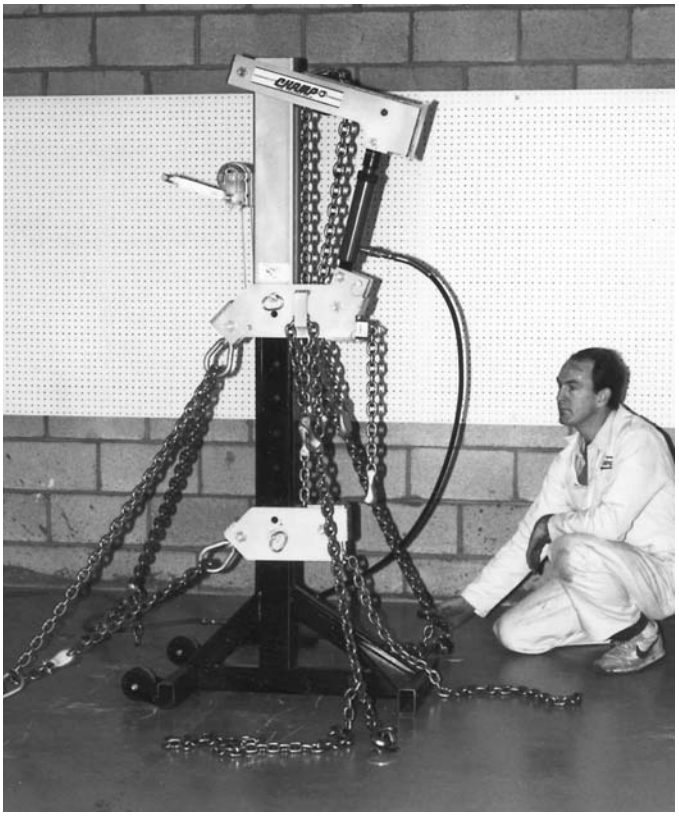
4. Shown here is a 20 ton bottom pull single. Top chain is locked off to isolate bottom pull and single back chain bridge is used.

SETTING UP SAFETY CHAINS

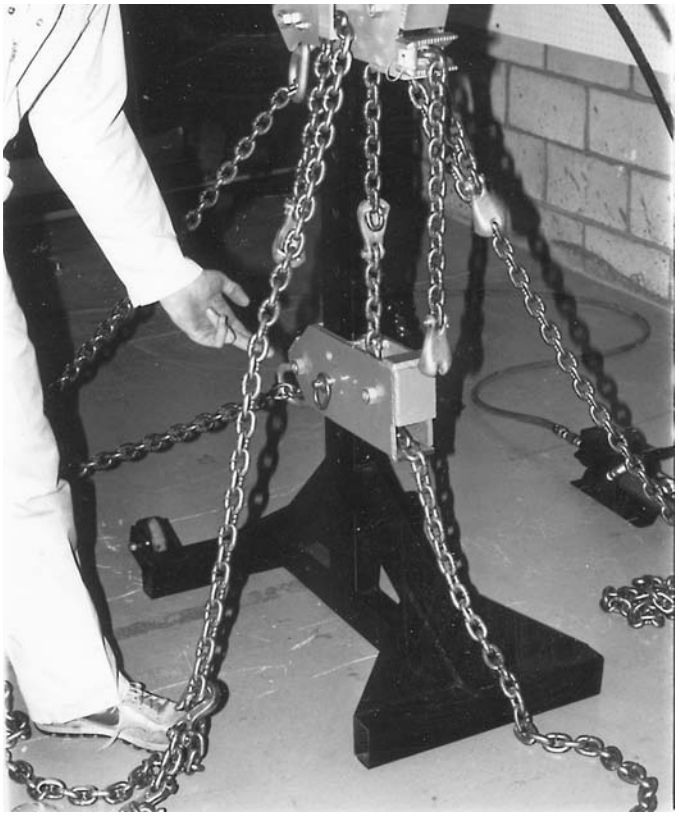
1. Thread chain through loop on side of pulling mechanism. Attach claw to chain.



2. Attach end of chain to anchor with chain shortener.

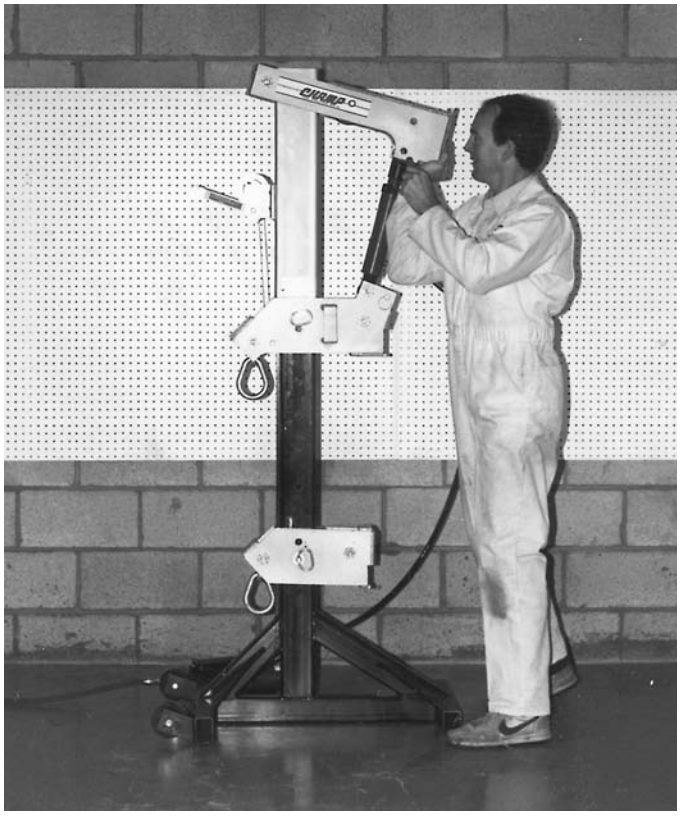


3. Repeat for other side of post.

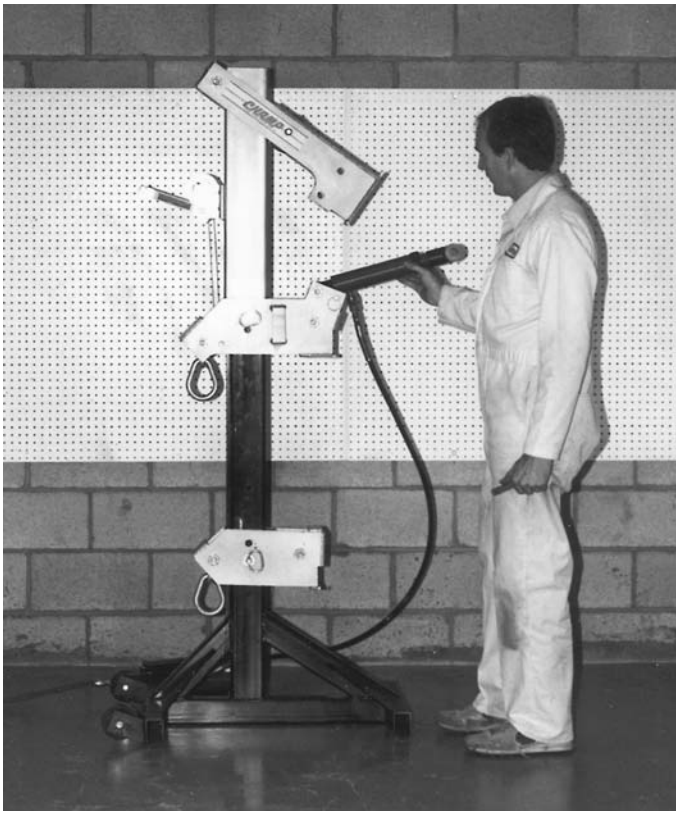


4. These chains remain slack during pull. In the event of breakaway, post will not fall over.

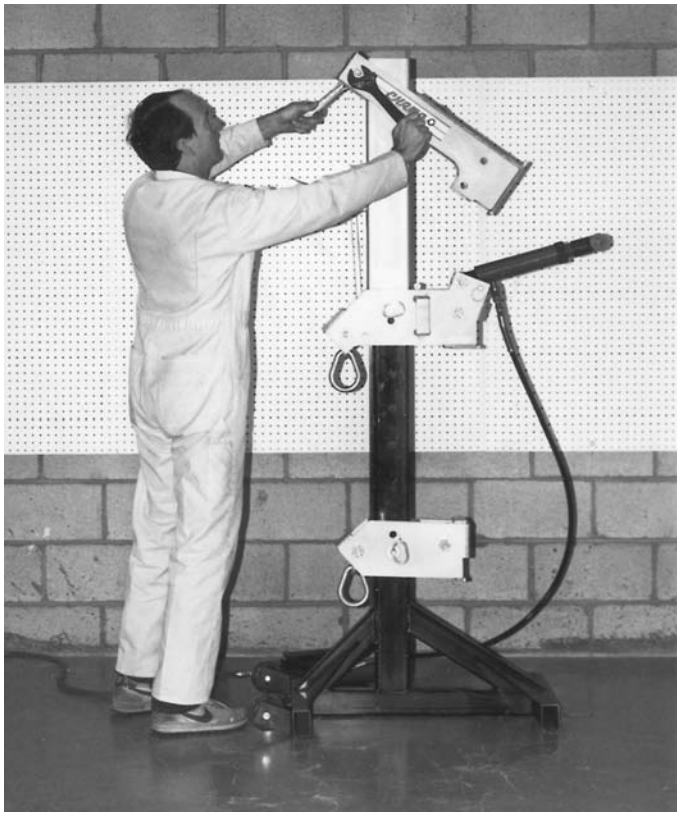
INSTALLING SKYHOOK HINGE BRACKET



1. Remove pin securing upper ram coupling to pulling arm. Support the end of the pulling arm at the same time.



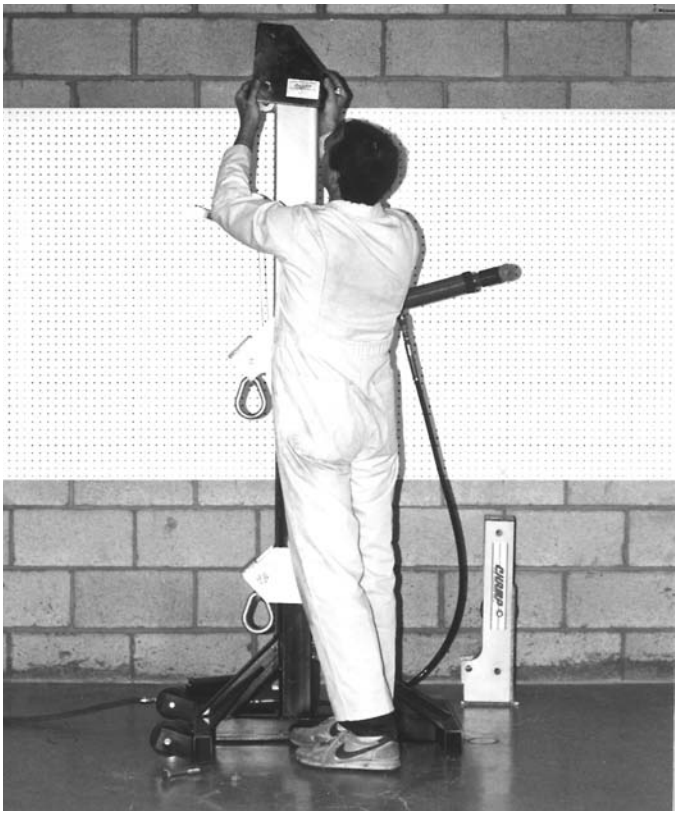
2. Allow ram to rest on the pulling mechanism.



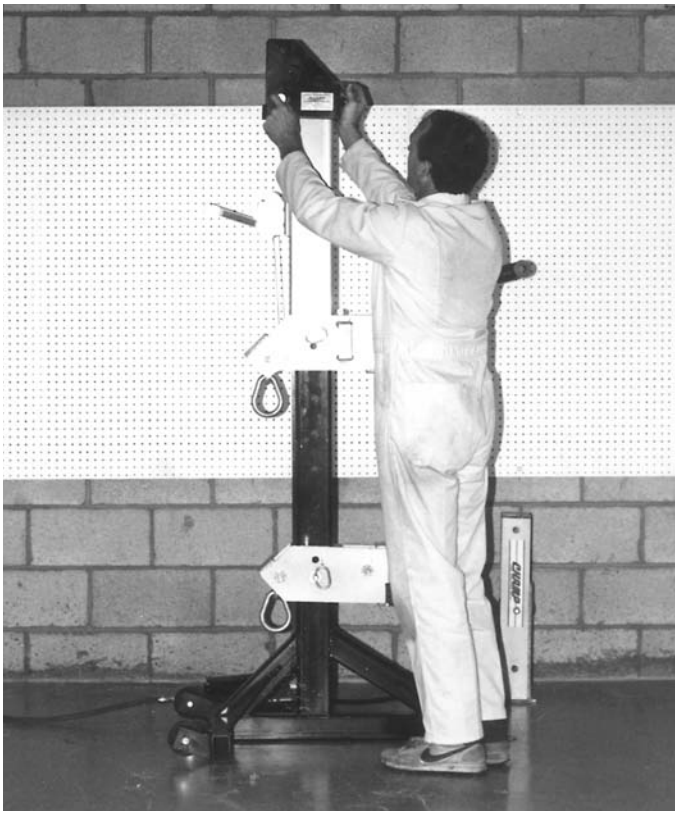
3. Using two wrenches, loosen bolt and nut securing pulling arm on pulling mechanism. Remove bolt and nut.

4. Carefully lift pulling arm off the post.

INSTALLING SKYHOOK HINGE BRACKET (cont.)

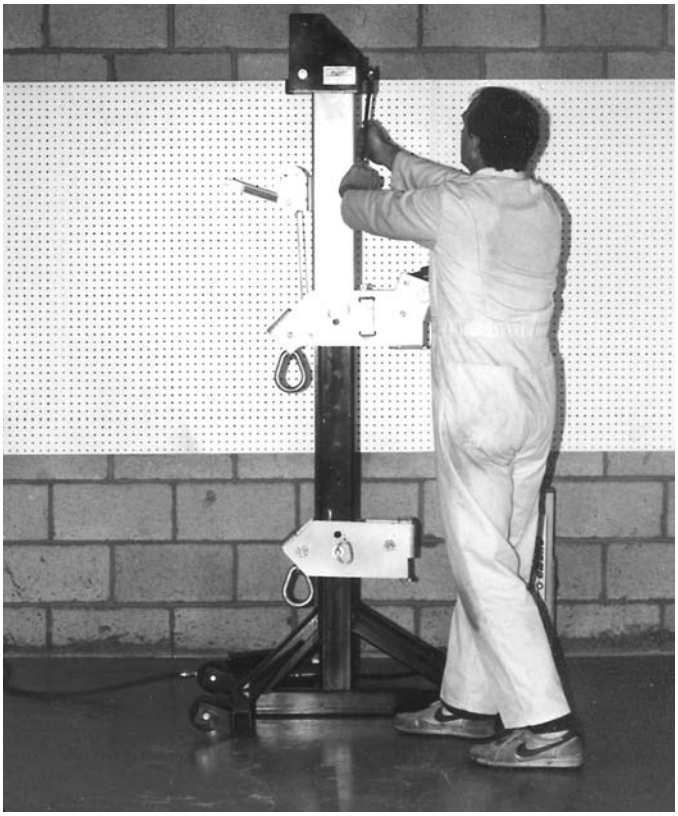


5. Position hinge bracket over top of post and line up hole on bottom of bracket with pivot at rear of post.



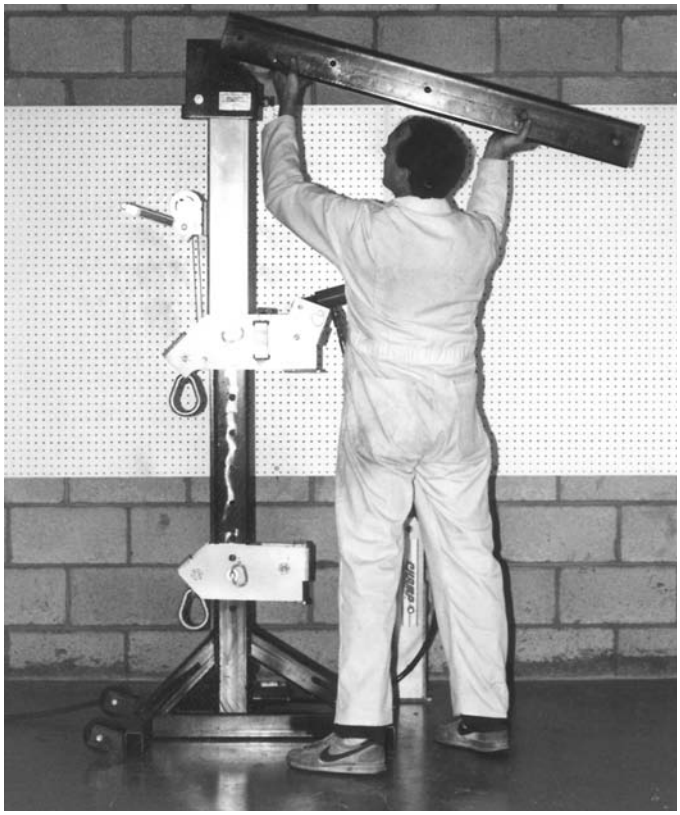
6. Insert bolt and nut through this hole. Use the same bolt and nut removed in step 3

7. Using the same two wrenches as in step 3, tighten the bolt and nut securely in place.

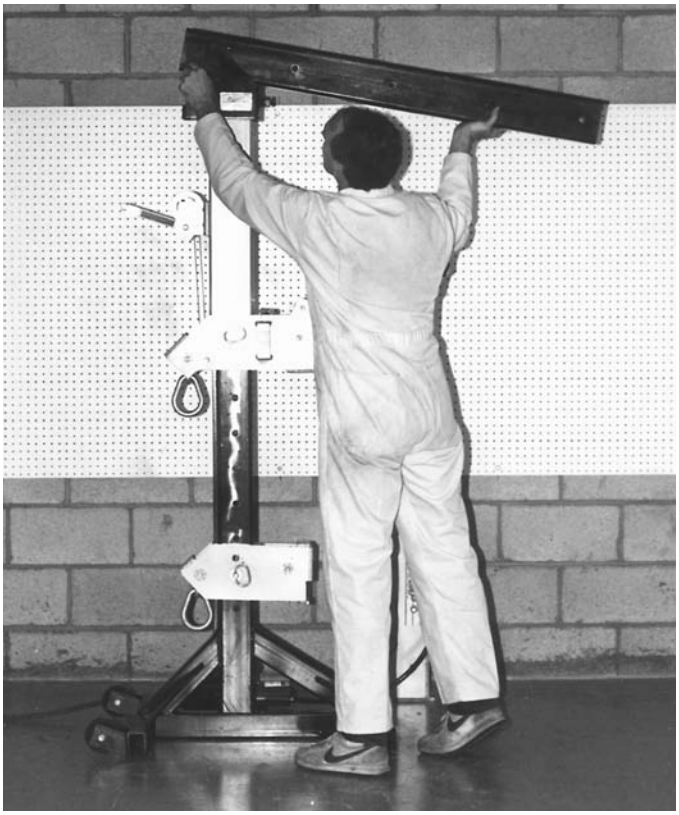


8. Tighten the bolt located on the front of the hinge bracket securely. The bracket is now installed.

SETTING UP SKYHOOK ASSEMBLY

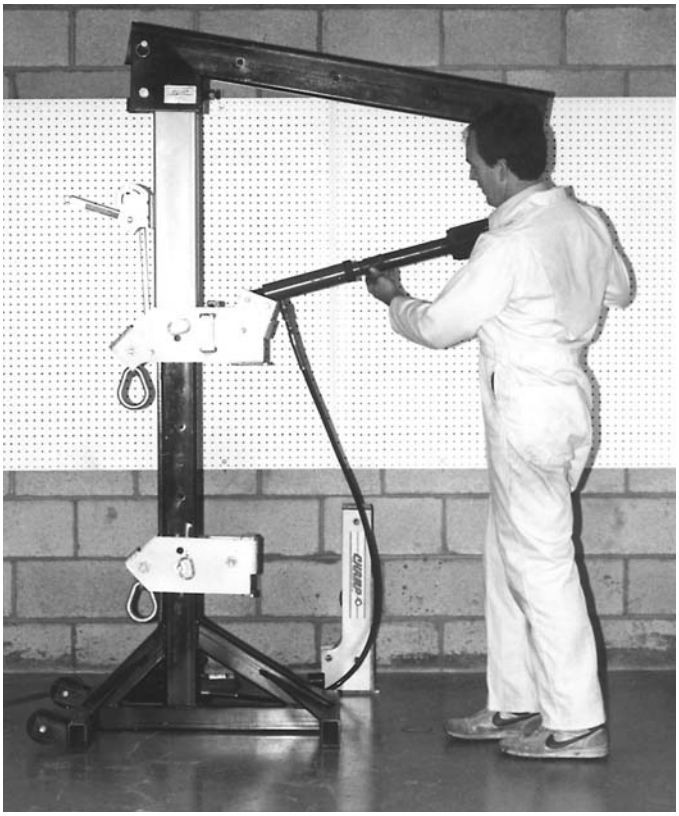


1. Position beam as shown into the hinge bracket.



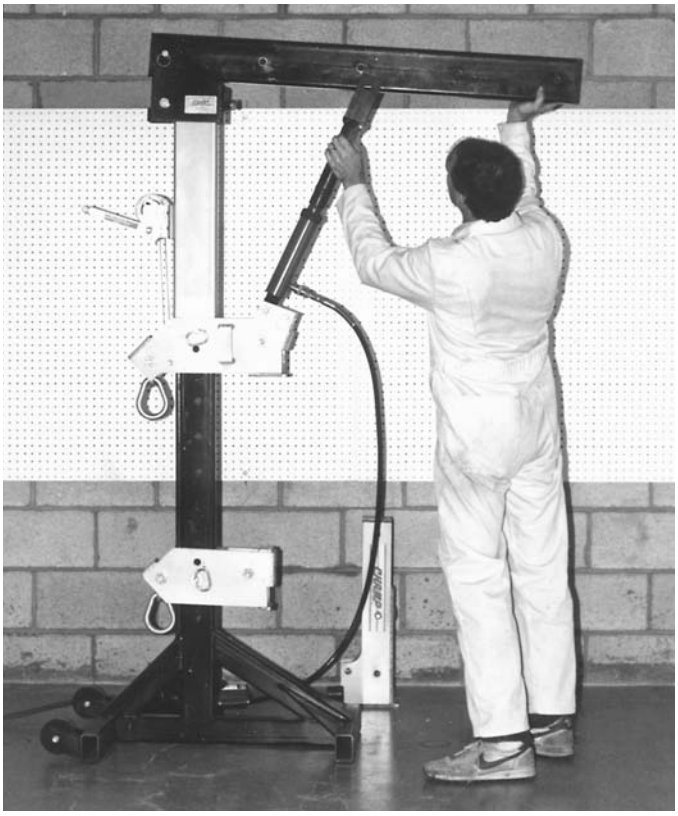
2. Using a quick pin, secure the beam to the post in the hole provided on the hinge bracket.

3. Unscrew the upper ram coupling and remove it.

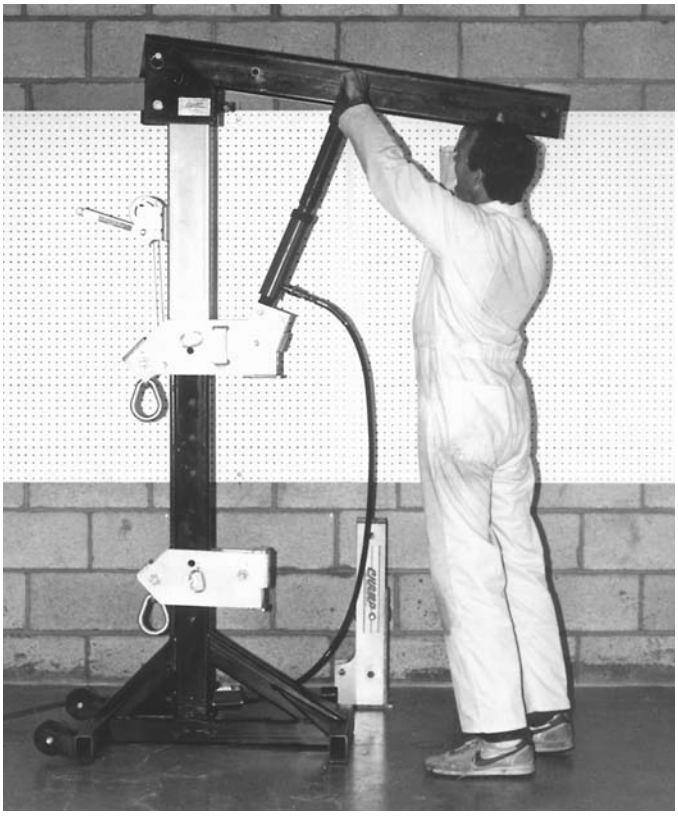


4. Install the skyhook pushbar onto the male threads of the ram.

SETTING UP SKYHOOK ASSEMBLY (cont.)



5. Position the pushbar over the middle hole of the beam.



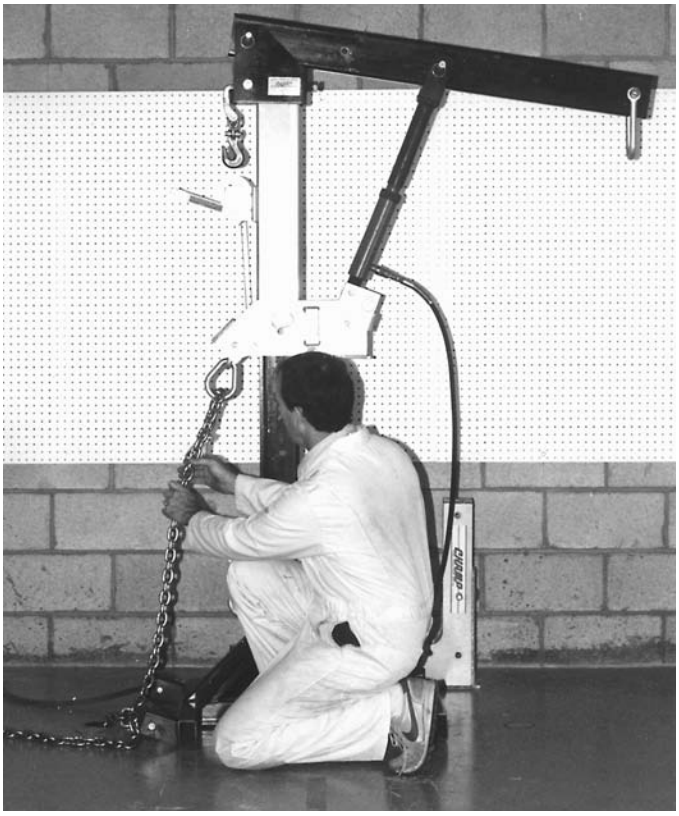
6. Secure the pushbar to the beam with a quick pin.

7. Install the large clevis onto the beam with the pin.

8. Install anchor claw onto rear of hinge bracket as shown. Post is now ready to tie down.

ANCHORING POST WITH SKYHOOK ASSEMBLY

1. Position post in front of anchor and install claw sling on anchor chain.



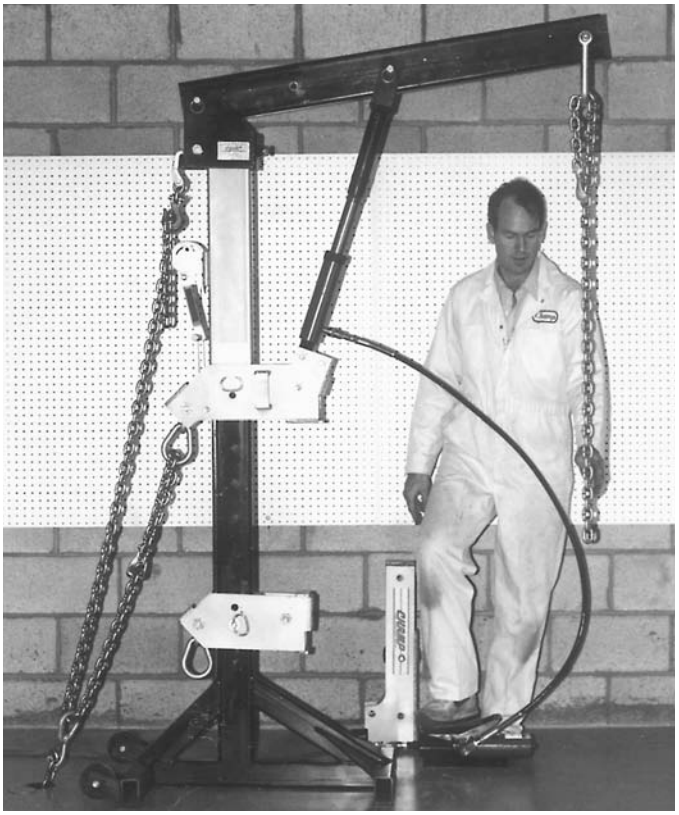
2. Install chain through claw sling and through loop at rear of pulling mechanism. Attach claw end of chain to itself.

3. Install opposite end of chain onto hook on end of anchor claw at rear on hinge bracket.

4. Push post forward to take slack out of chains.

MAKING PULLS WITH SKYHOOK

1. Attach chain to clevis at end of beam. Depress air pump.

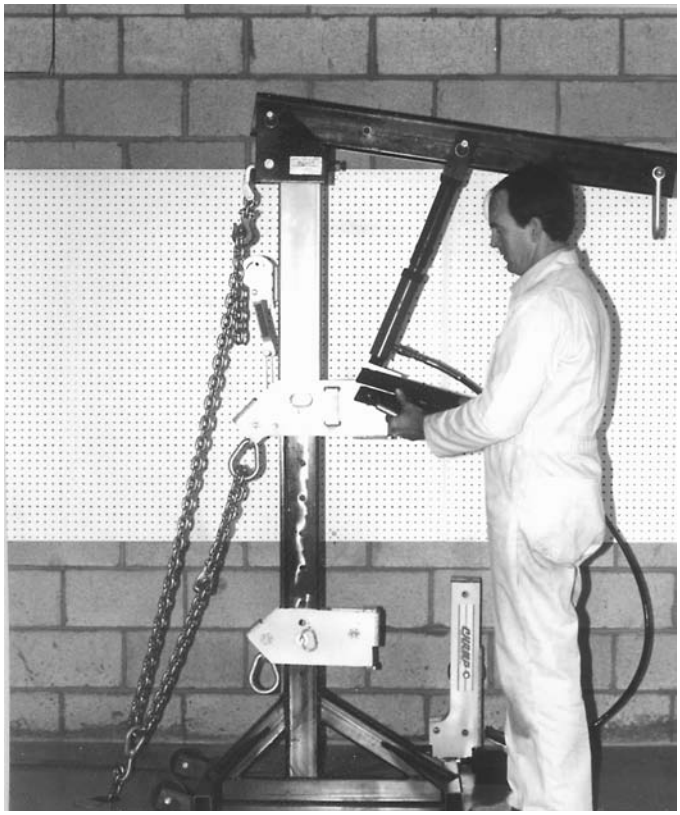


2. With ram in fully extended position, this set up will produce 13 inches of stroke.

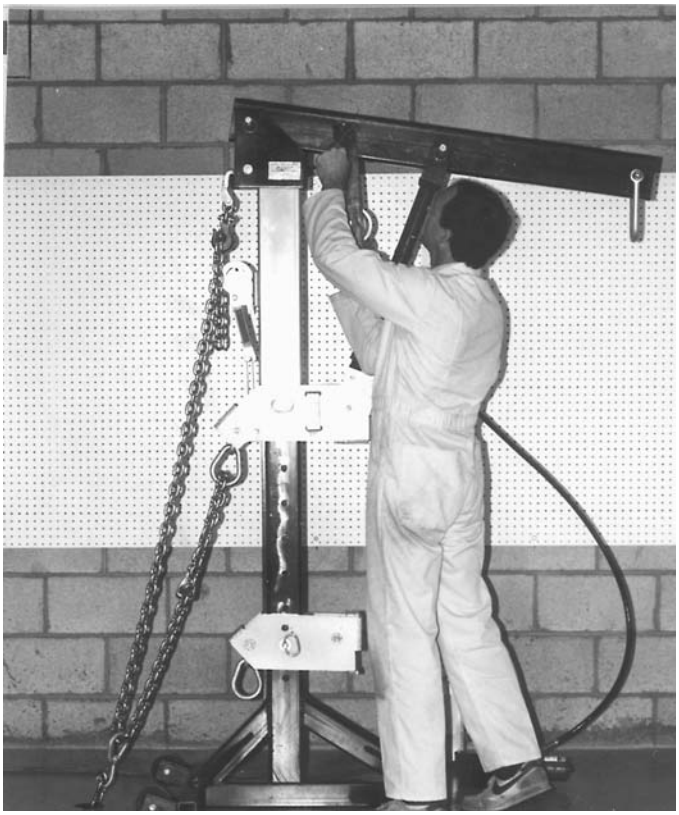
3. Using triple pull kit attachment in the fashion shown, attach chain to horizontal pin with double klaw.

4. Depress air pump. With ram in fully extended position, this set up will produce 22 inches of stroke.

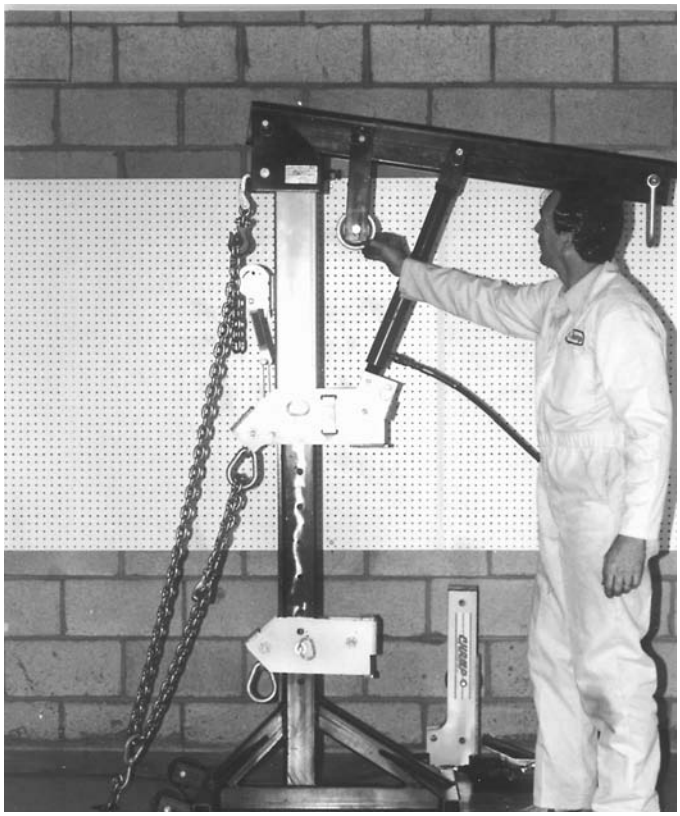
INSTALLING TRIPLE PULL KIT



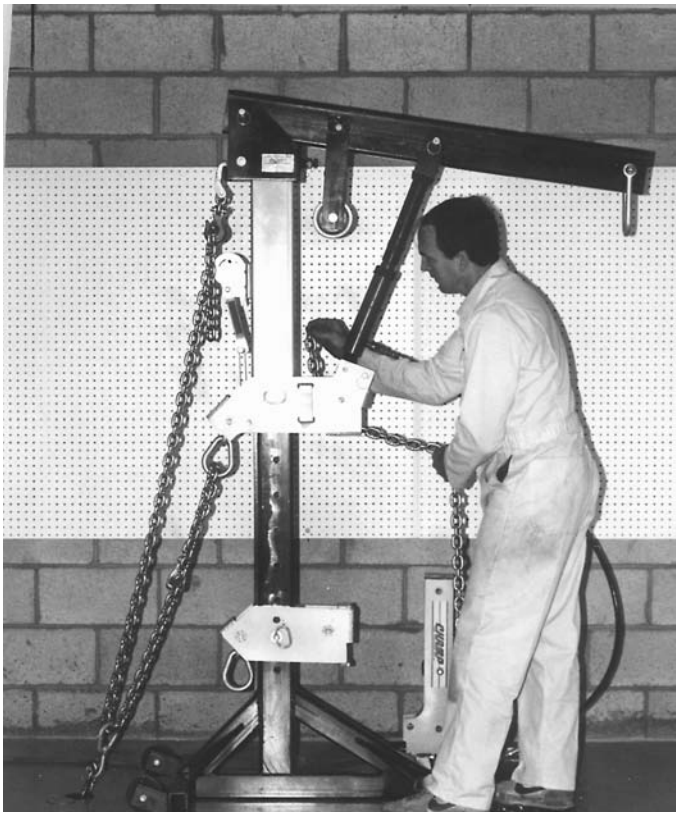
1. Grasp triple pull kit in one hand and quick pin in other hand.



2. Install triple pull kit into hole on beam as shown. Secure it to the beam with quick pin.

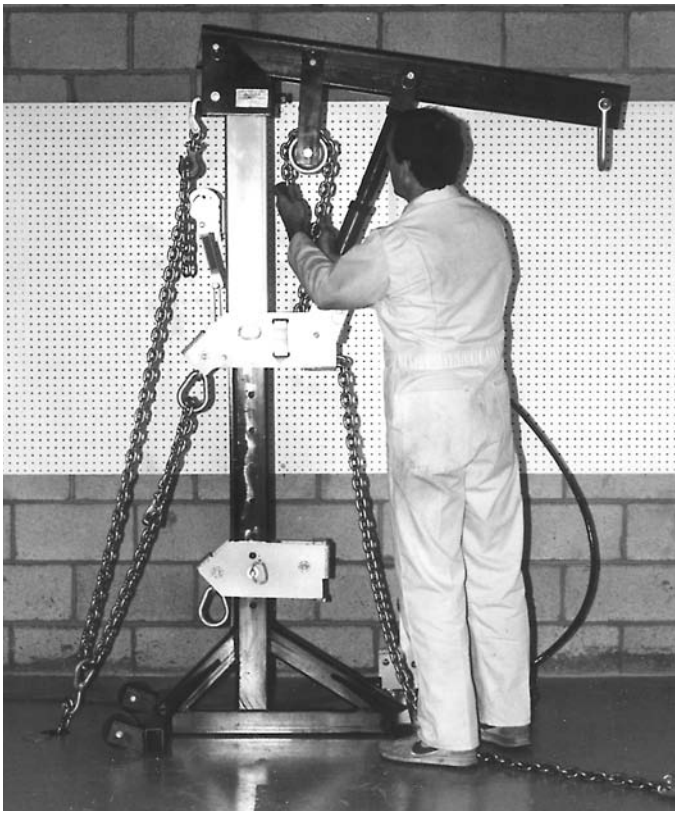


3. This photo illustrates the proper installation of the triple pull kit.

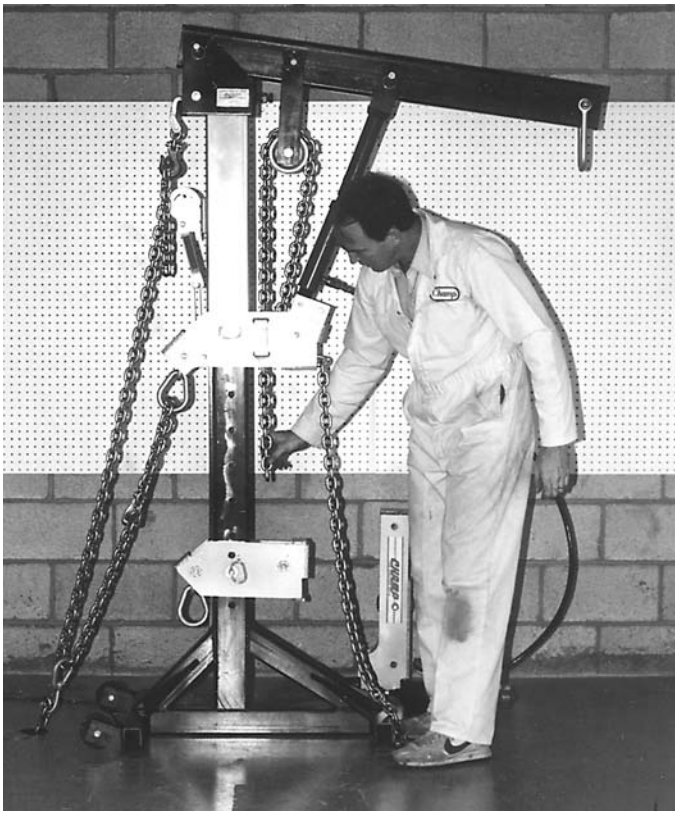


4. Thread chain through main pulley of pulling mechanism.

INSTALLING TRIPLE PULL KIT (cont.)



5. Thread chain over pulley in triple pull kit.

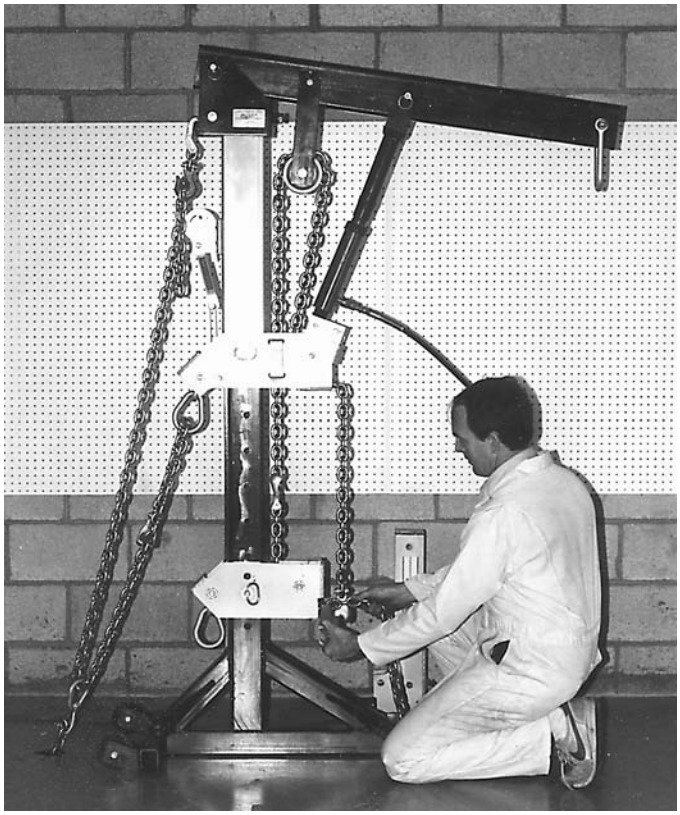


6. Lower chain through pulling mechanism toward double pull kit as shown. Two chains will be joined at this point.

7. Thread a second chain through double pull kit as shown.

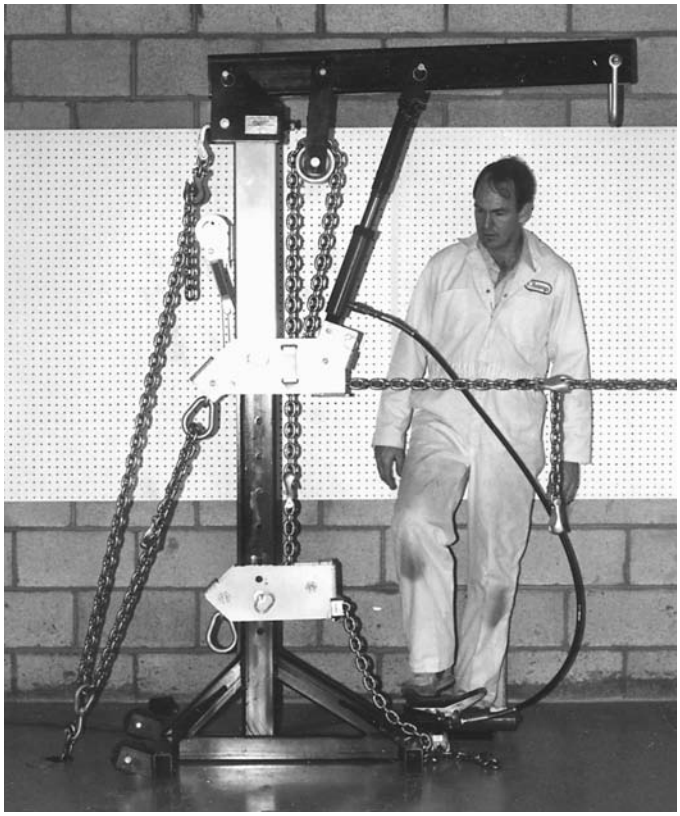
8. Join the two chains together with claw.

MAKING TRIPLE PULLS - FIRST PULL

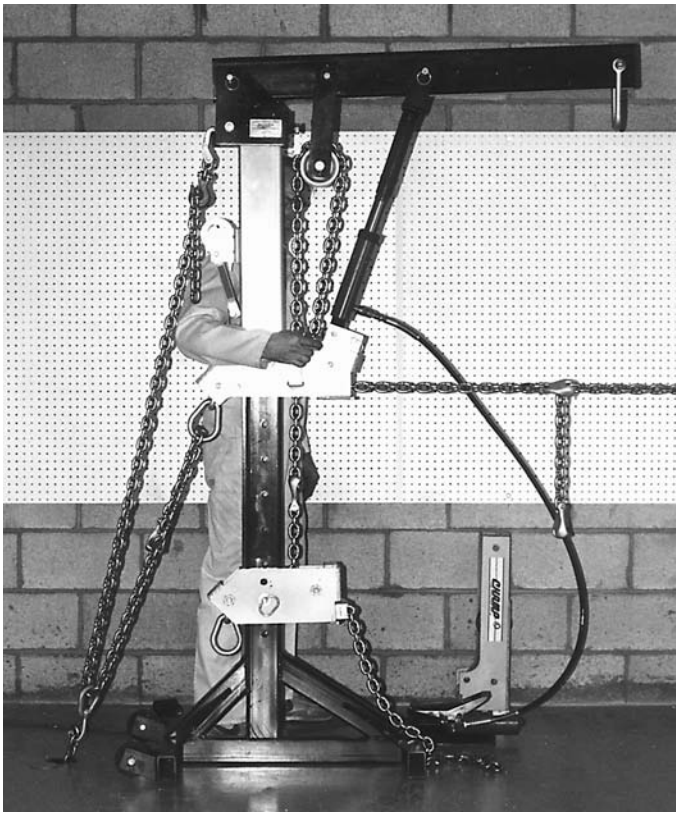


1. Install chain lock onto double pull kit.

2. Attach chain to damage as shown.

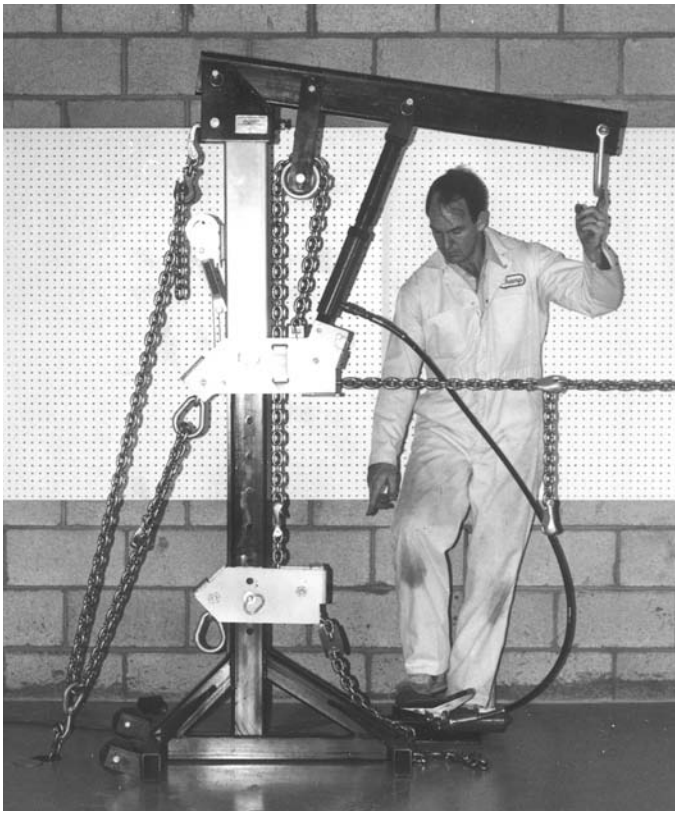


3. Depress pump pedal and begin first pull. Make sure this is a light pull because the double pull kit is not anchored yet nor is there any forward pressue upon it. **SEE PAGE 9.**

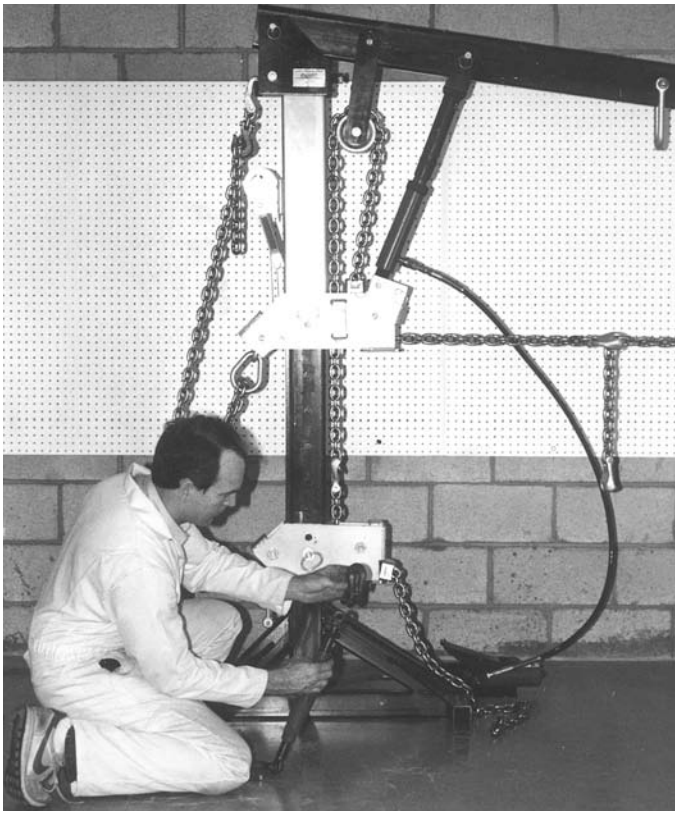


4. Install chain lock to hold first pull.

MAKING TRIPLE PULLS - SECOND PULL

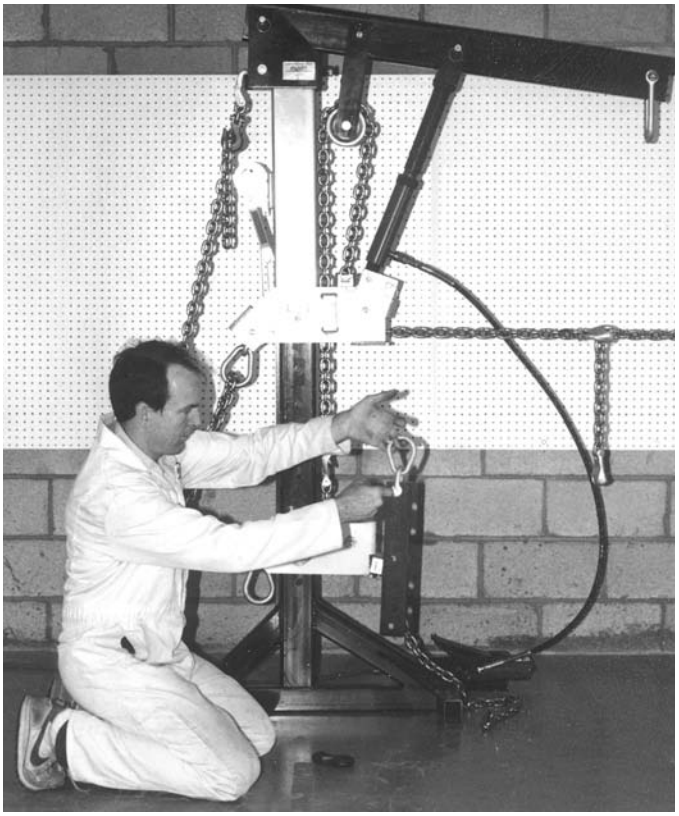


1. Release ram pressure. At this step, first pull is locked under tension.

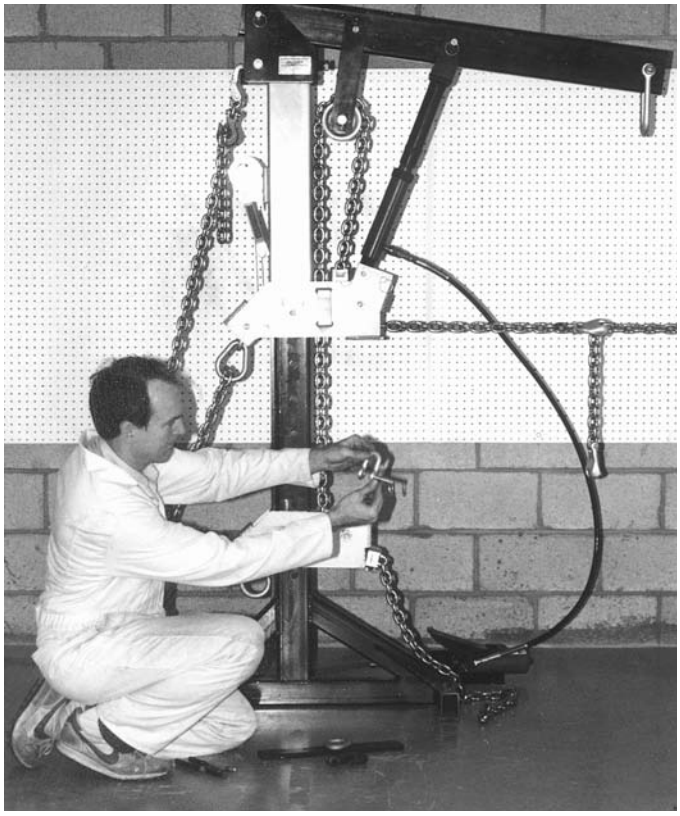


2. Using wrench binder from CHAMP UNIBODY REPAIR SYSTEMS ACCESSORY BOARD, remove hook from one end by withdrawing cotter pin that secures it.

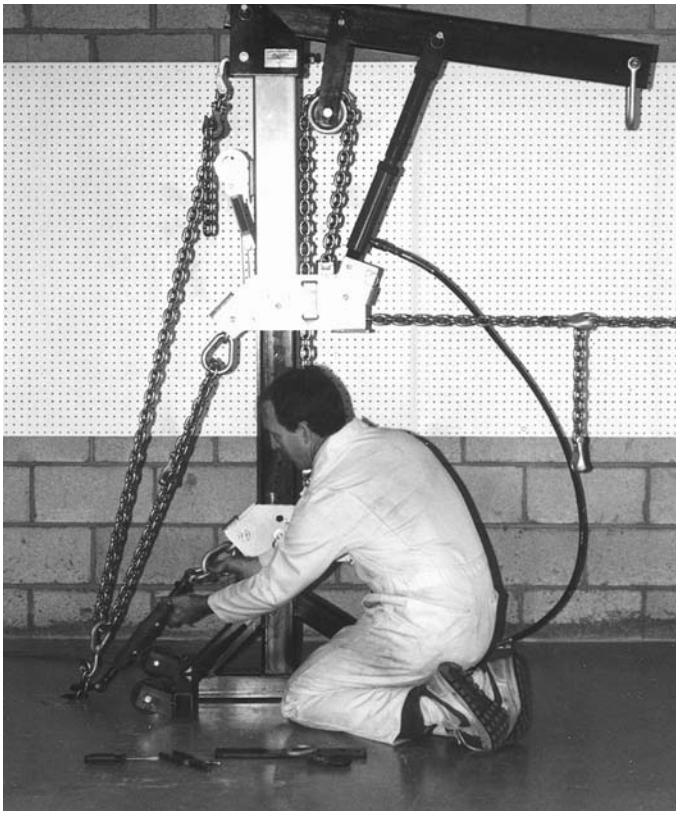
3. Attach remaining hook on wrench binder to excess chain of floor anchor underneath claw sling.



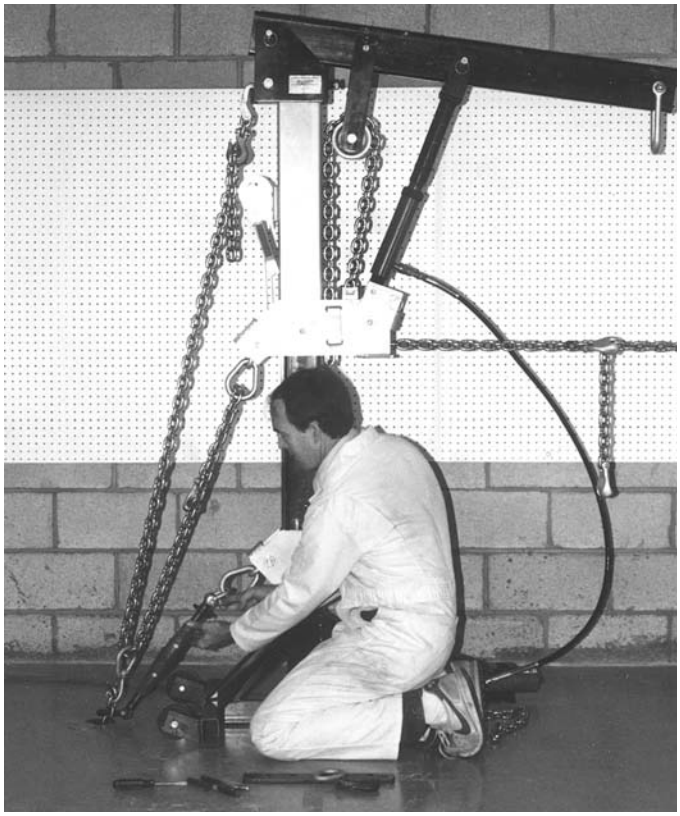
4. Obtain frame draw bar from accessory board.



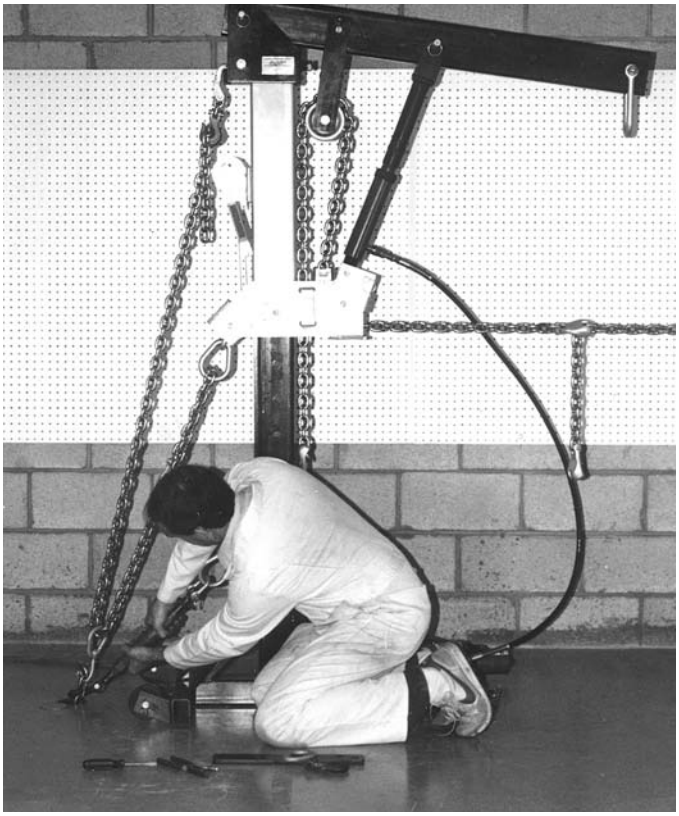
5. Remove ½ inch shackle and pin from frame draw bar.



6. Remove pin from shackle and loop the shackle through the bottom loop at the double pull kit. Line up the holes on the shackle with the hole on the wrench binder.

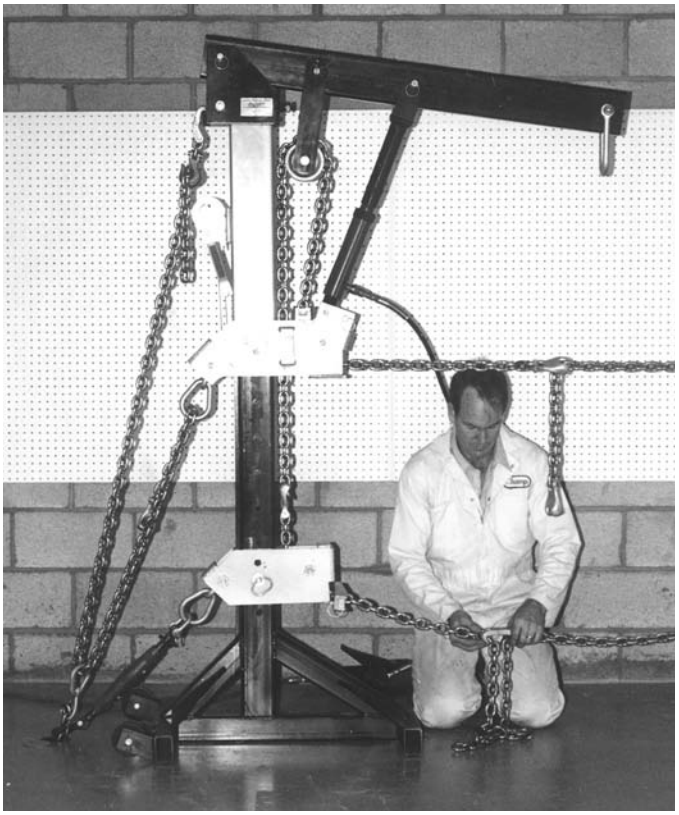


7. Install the ½ inch pin into the holes securing the wrench binder to the post.

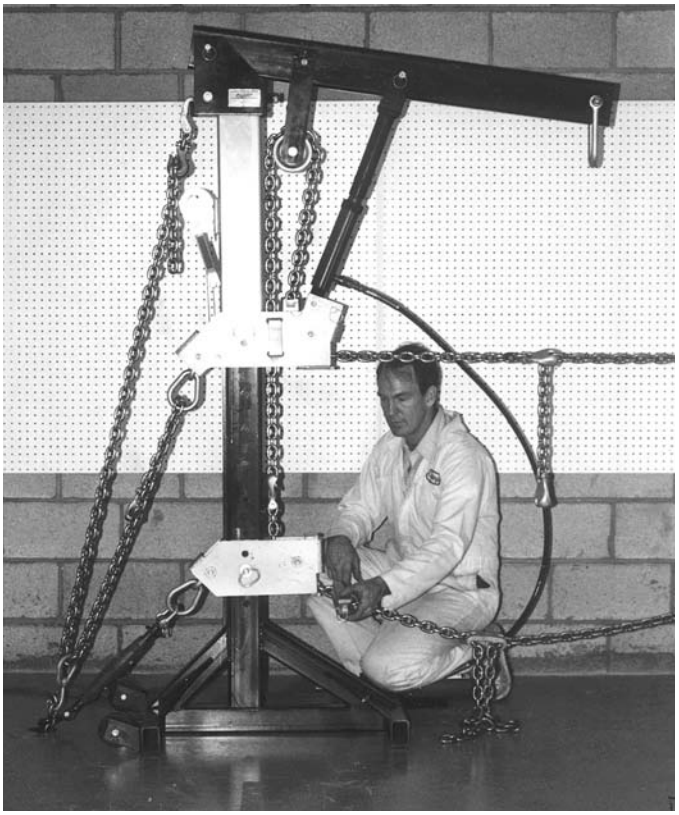


8. Tighten the wrench binder thoroughly. This hookup provides relatively equal pressure for three chains into one anchor.

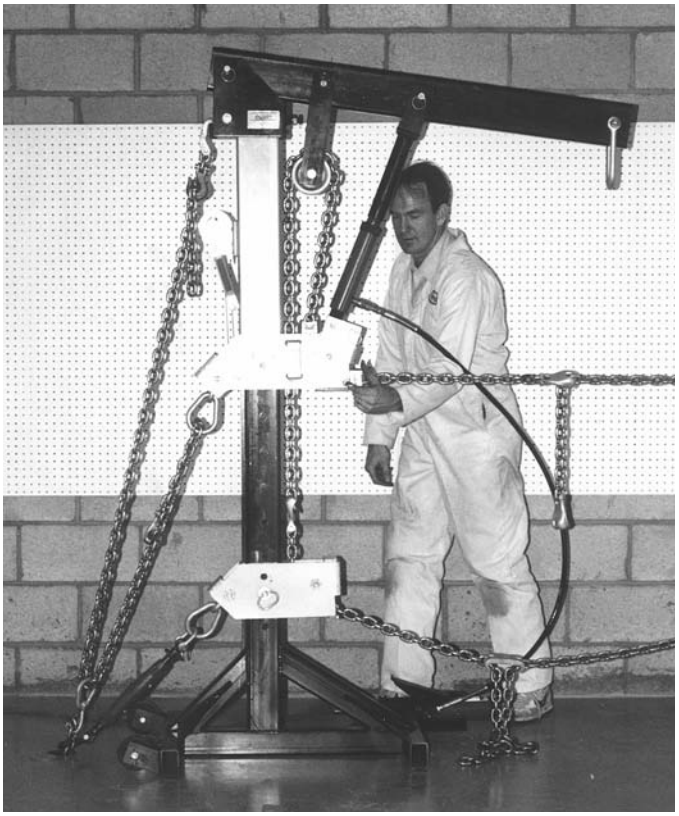
MAKING TRIPLE PULLS - SECOND PULL (cont.)



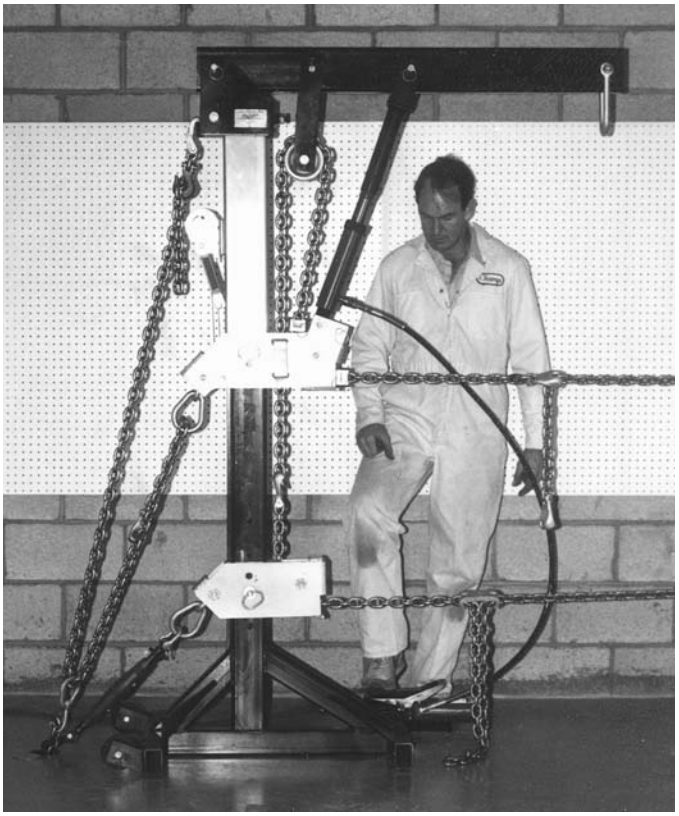
9. Attach second chain to damage.



10. Remove chain lock from front of double pull kit. This chain lock will be loose because first pull is under pressure.

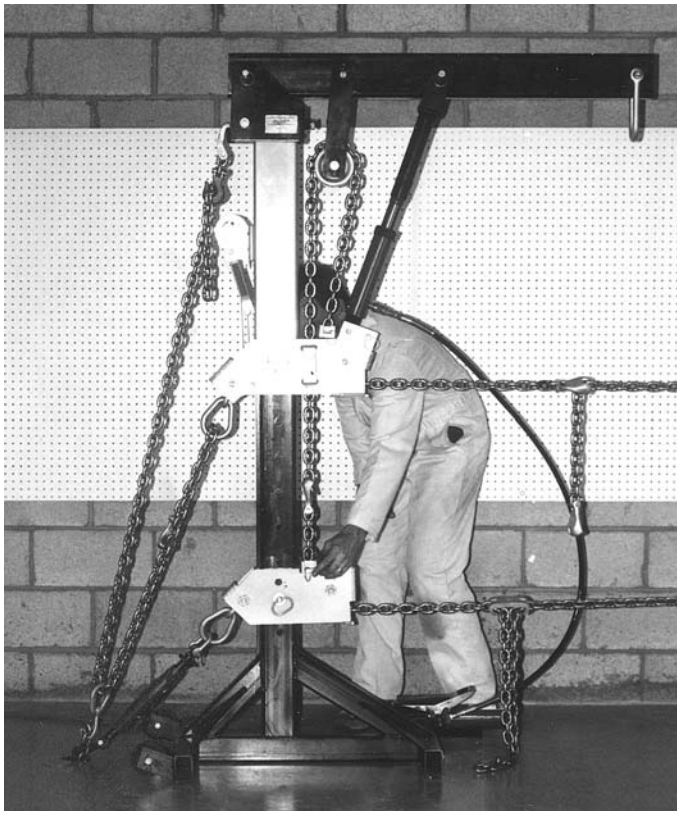


11. Install chain lock onto front on pulling mechanism to isolate lower pull.



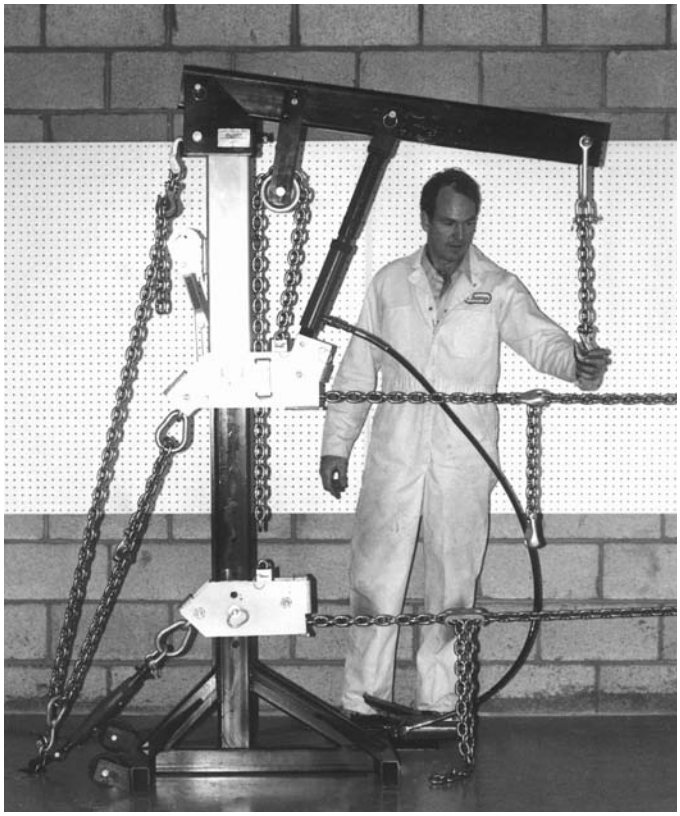
12. Depress air pump pedal. Second pull is now made.

MAKING TRIPLE PULLS - THIRD PULL

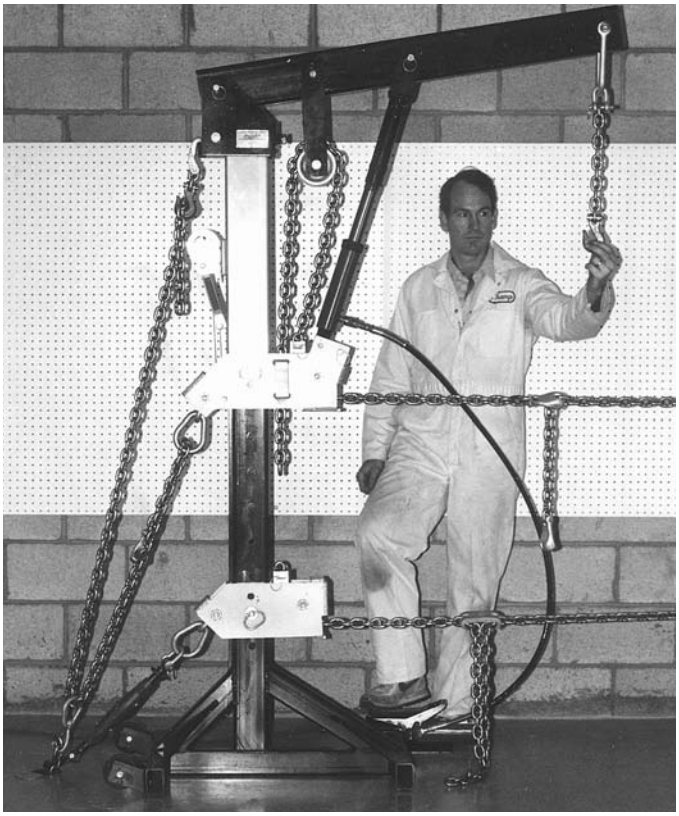


1. Install chain lock over double pull kit for constant hold of lower pull.

2. Release ram pressure and disconnect two chains at joint. Both horizontal pulls now are locked under tension. More pulls can be made if desired before beginning vertical pull.

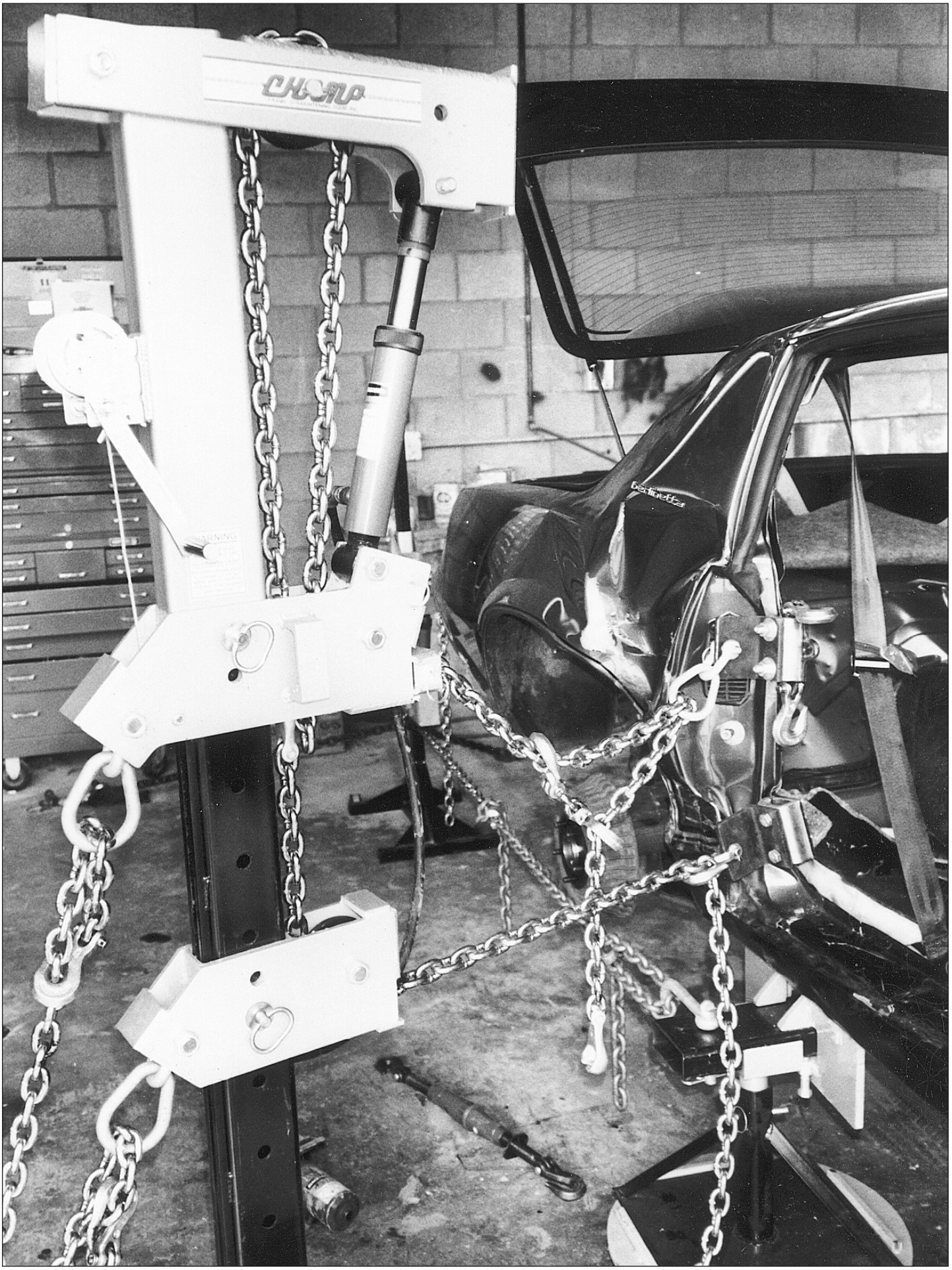


3. Depress air pump pedal to begin third pull.

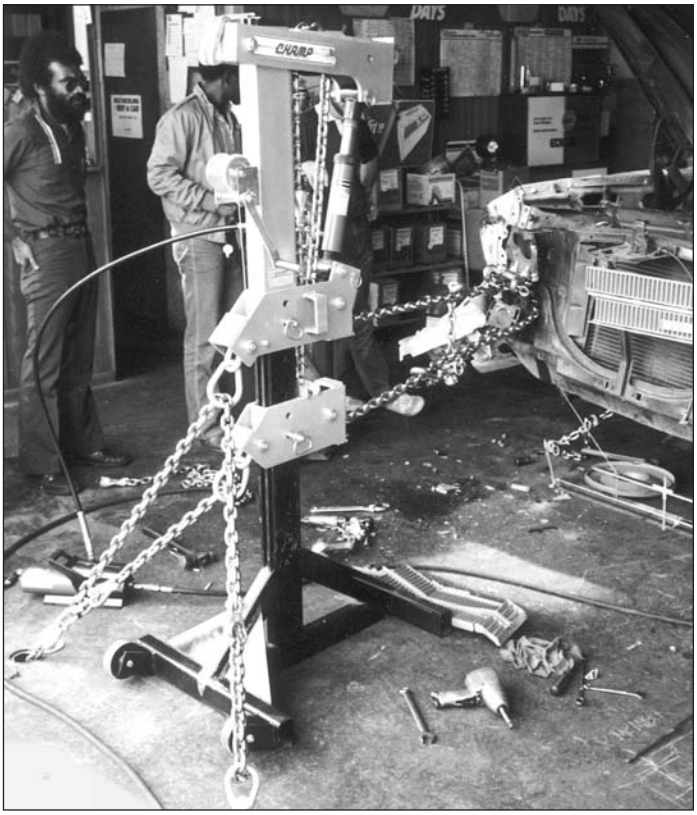


4. Third pull is now completely extended. Pressure on middle pull tends to strengthen post. However, exercise good judgement when using skyhook. Do not overload beam or post.

DOUBLE PULL ON CAMARO SIDE DAMAGE

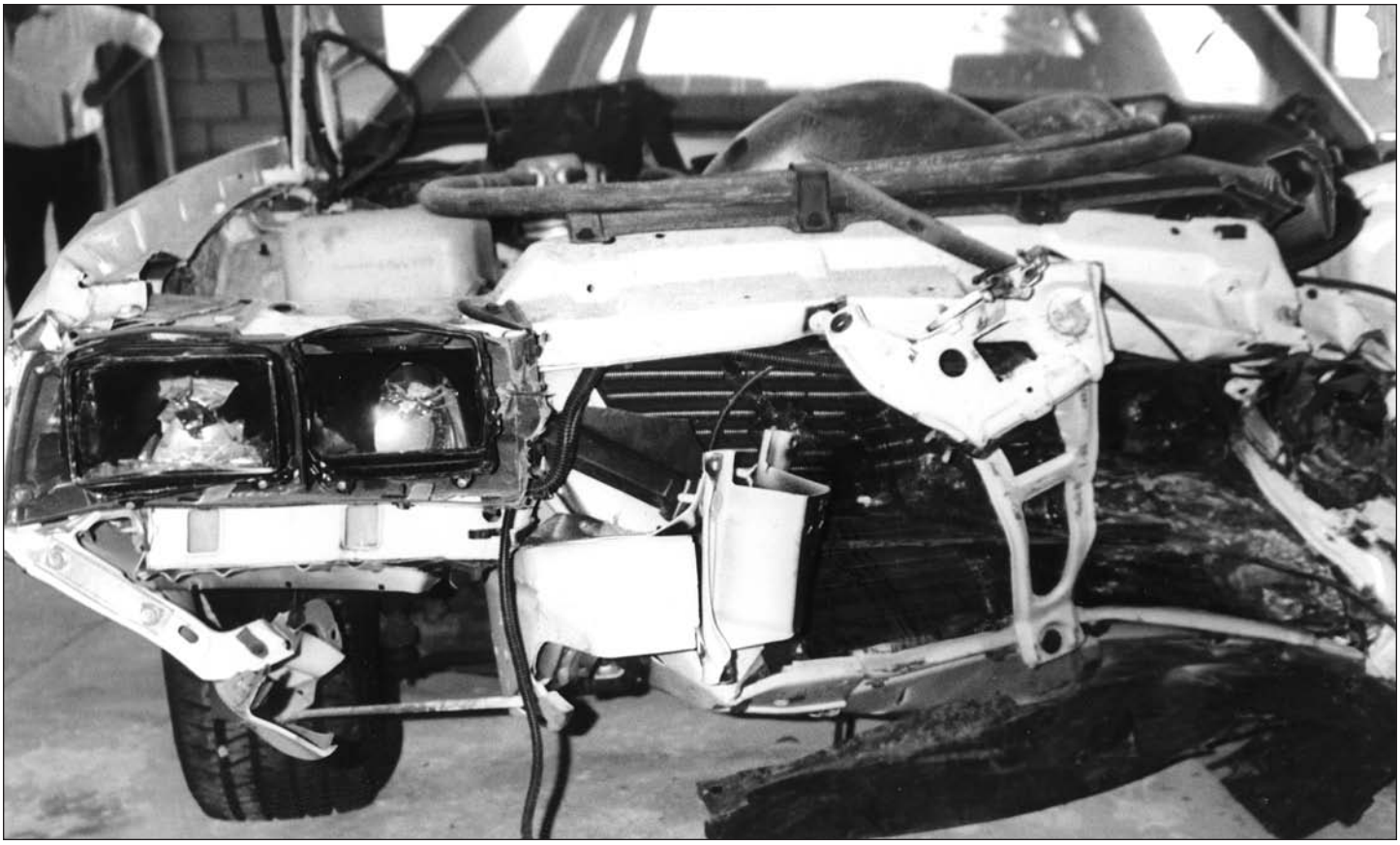


DOUBLE PULL ON ‘75 BUICK

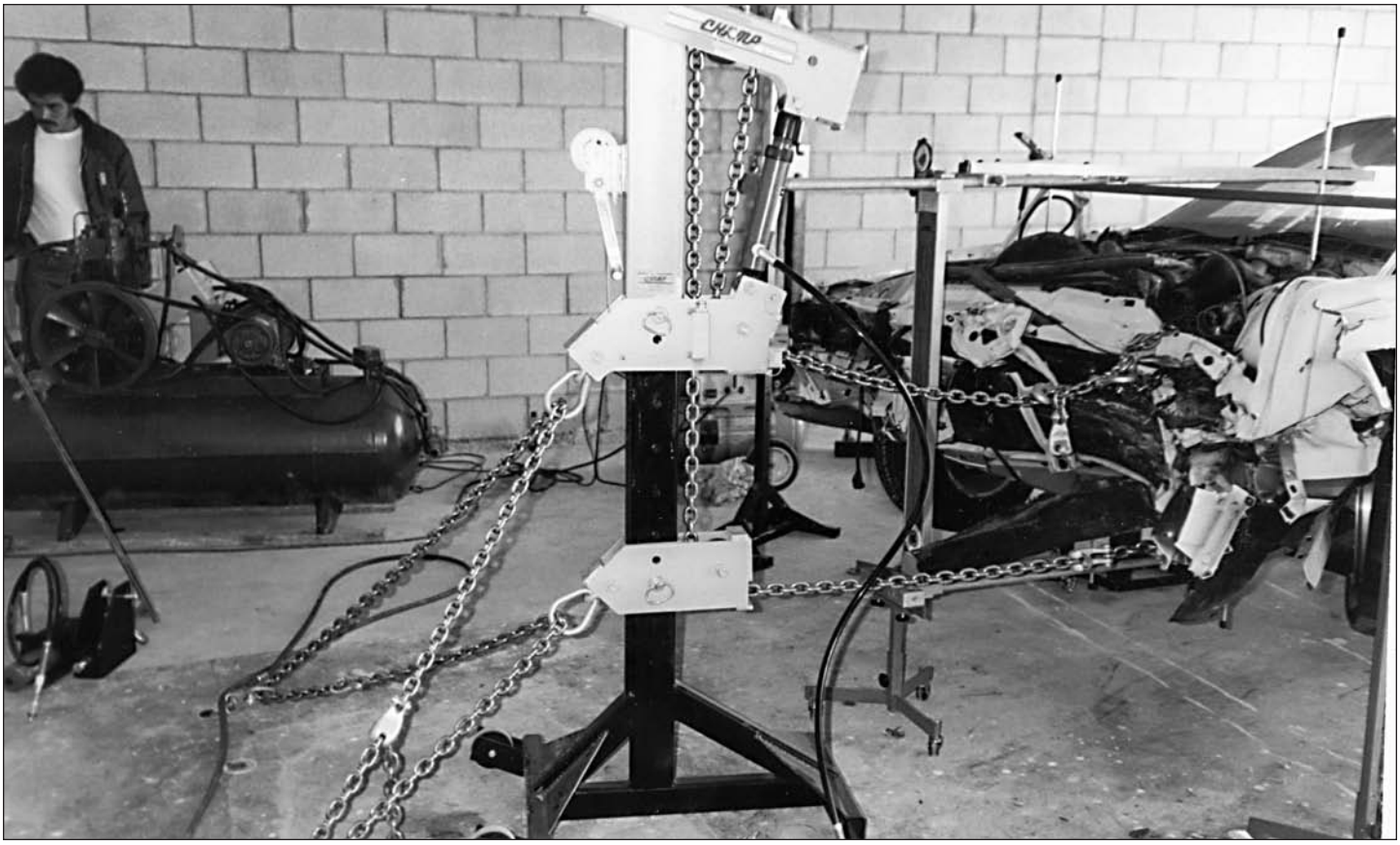


TOP PULL ON SHEET METAL
BOTTOM PULL ON FRAME

HEAVY DAMAGE ON CAMARO



DOUBLE PULL ON FRONT END

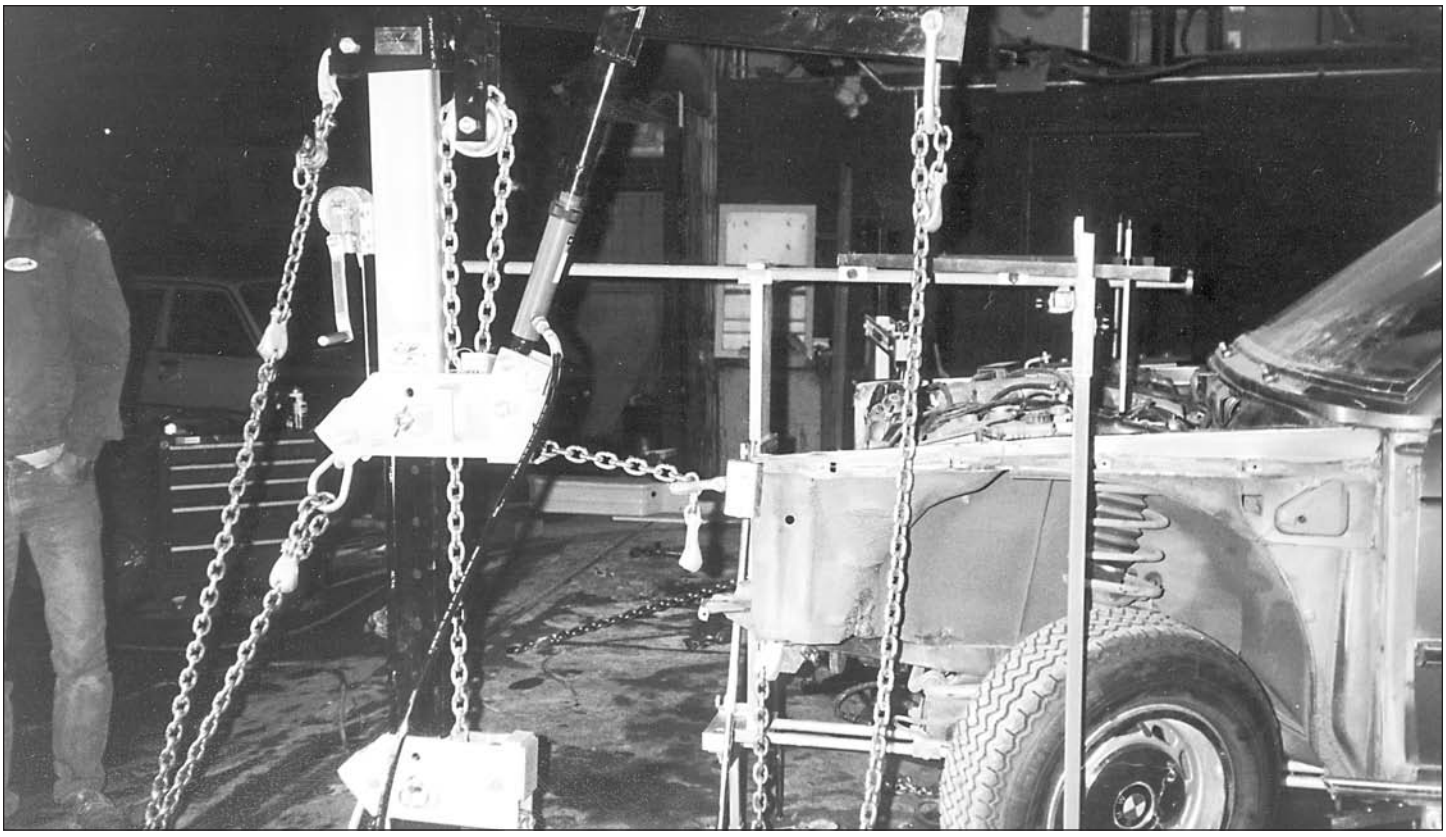


FINISHED JOB

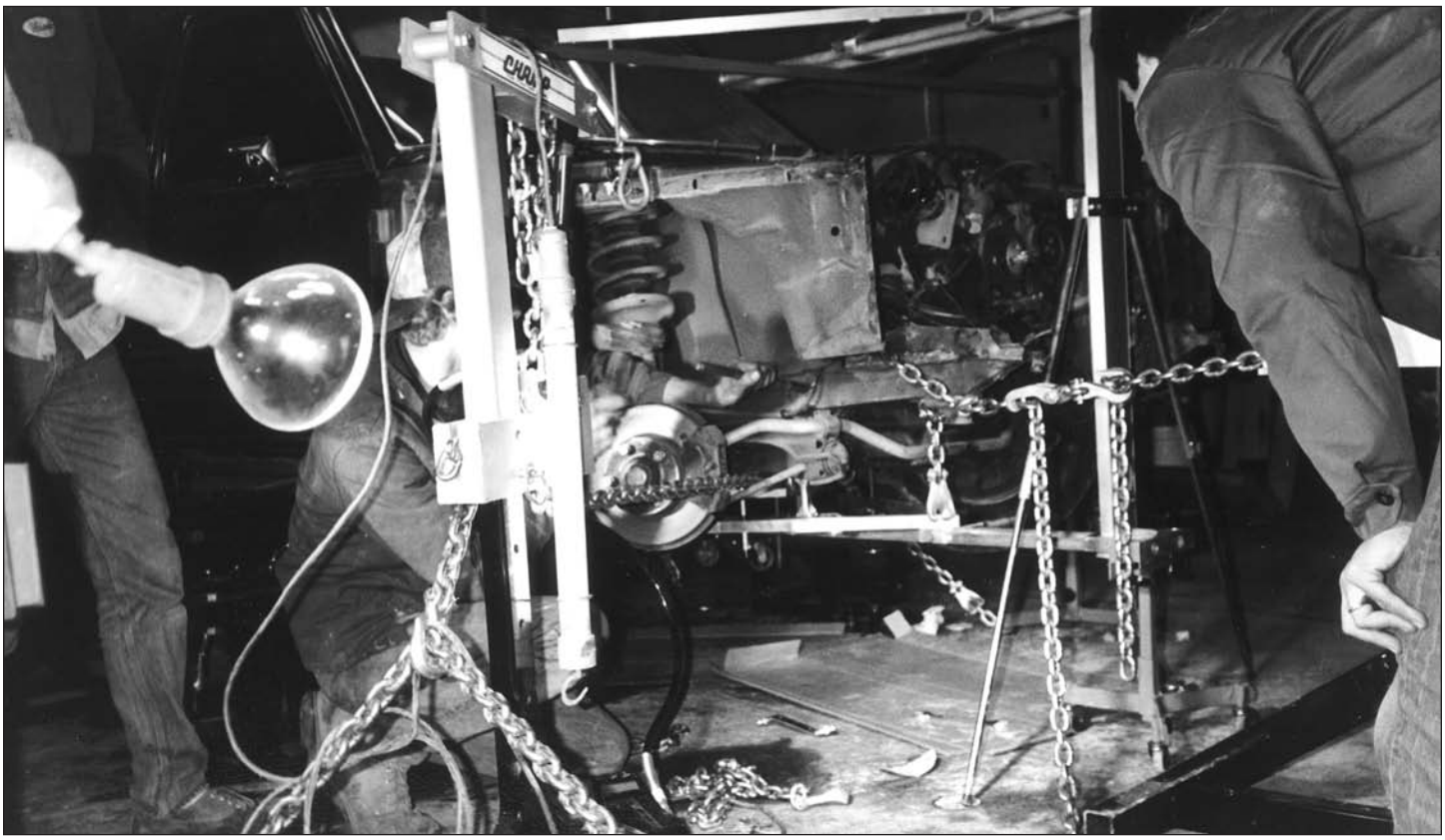
NOTE MULTIPLE PULL SET UP. DOWN PULL ON RAIL WITH LITTLE CHAMP. SIDE PULL ON TOWER WITH BIG CHAMP. MINI-RACK HOLDS CAR SECURELY IN PLACE.

DOOR OPENING CLAMP INSTALLED TO PREVENT DOOR OPENING FROM DISTORTION DURING PULLING PROCEDURE.

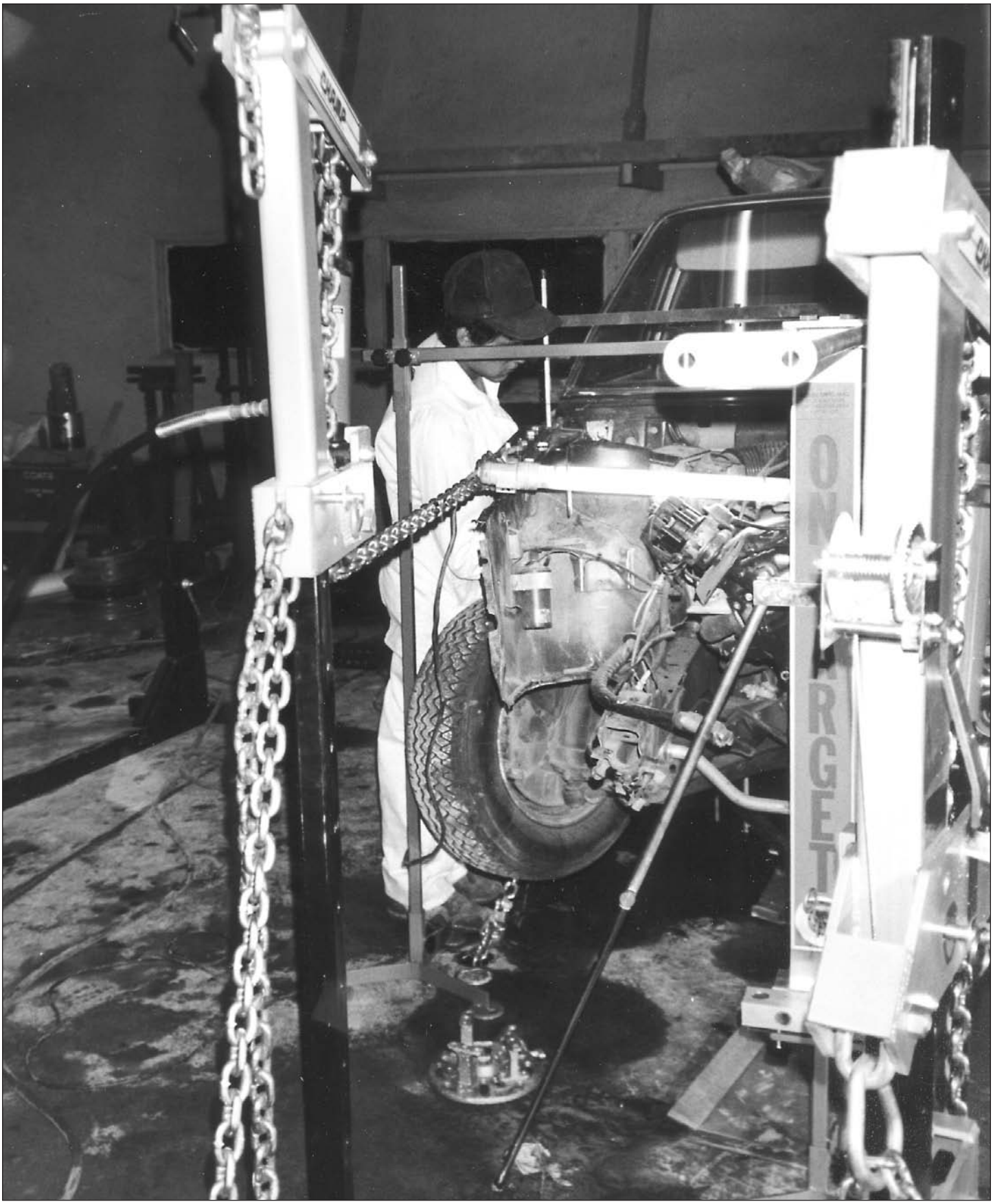
OWNER AND METALMAN EXAMINE PROGRESS OF REPAIR.



SKYHOOK AND TRIPLE PULL KIT HOOKUP PULLS LEFT APRON OUT AND UP.



MULTIPLE PULL ON FRONT END. LITTLE CHAMP PULLS CROSSMEMBER BACK TO CENTER AND BIG CHAMP RESTORES LENGTH TO RIGHT RAIL. TECHNICIAN STRESS - RELIEVES BUCKLE IN RAIL WITH BOTH POSTS UNDER TENSION.



ROCKER PANEL CLAMP IS IDEAL HOOKUP FOR PULLING APRONS FORWARD. TECHNICIAN EXAMINES PROGRESS OF PULL.

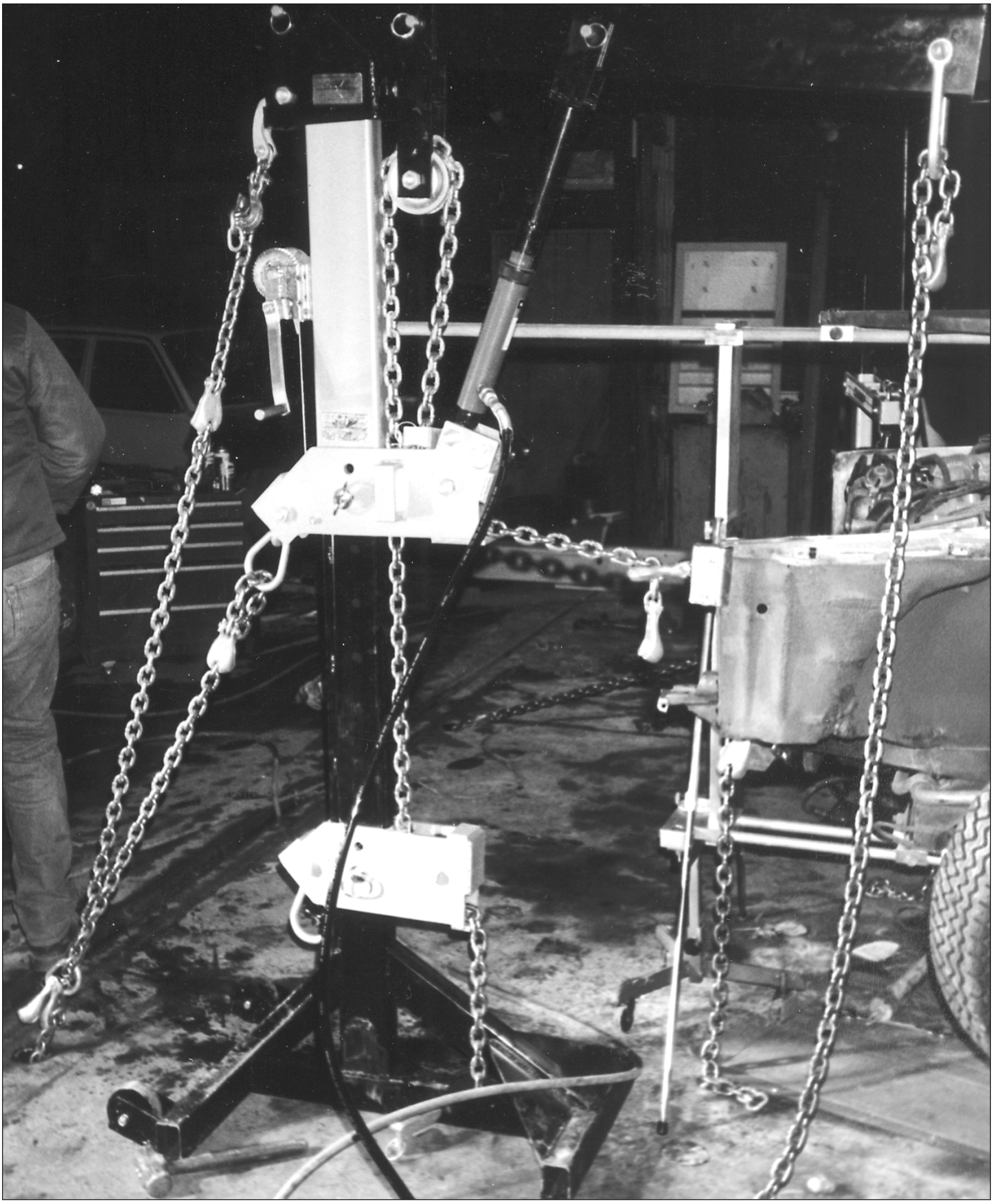
ROLLOVER COLLISION CAUSES WINDSHIELD OPENING TO BE SEVERLY DISTORTED.

HOOKUP WITH CHAMP 3-WAY CLAMP. TECHNICIAN READY TO PULL.

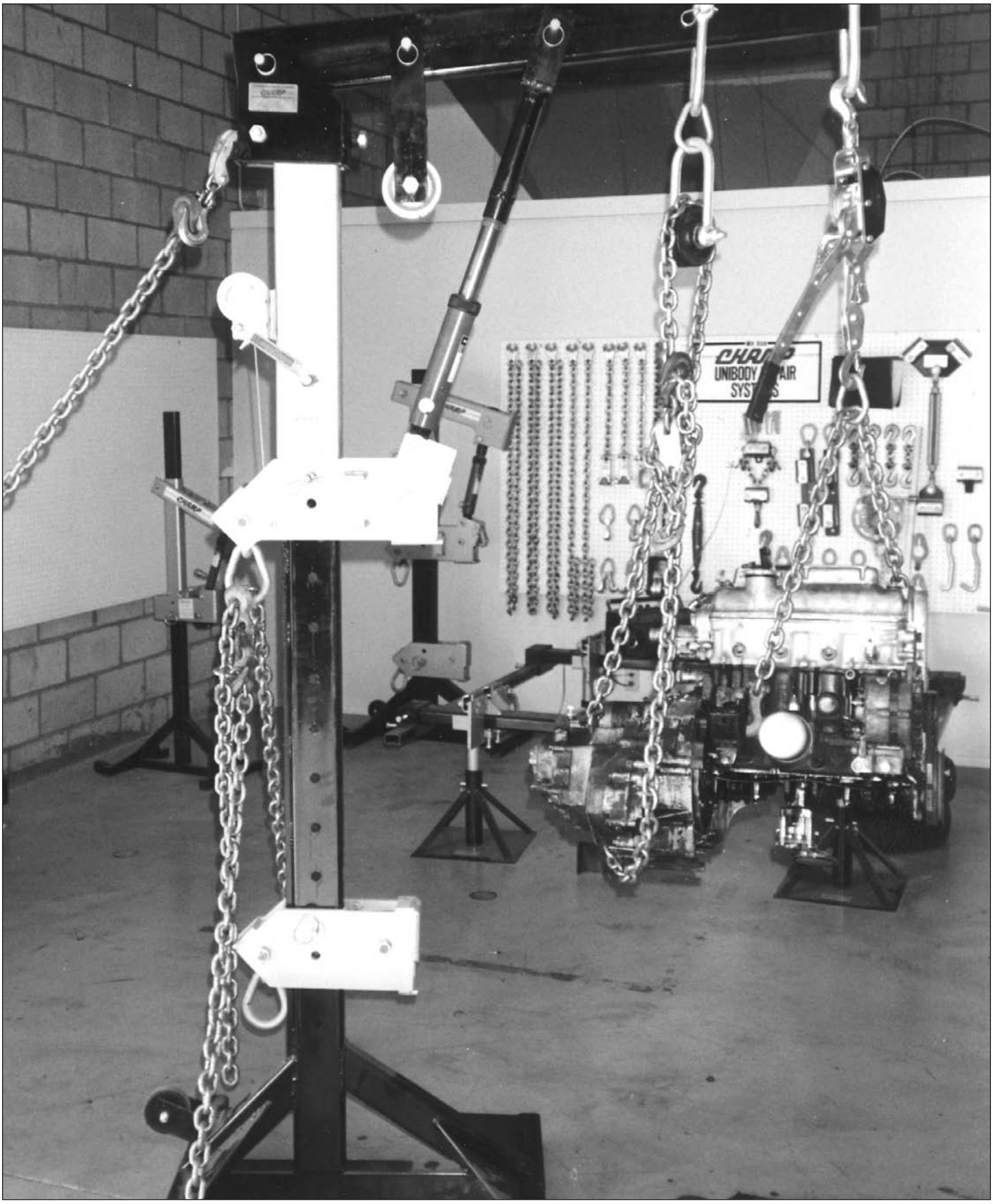
TECHNICIAN STRESS-RELIEVING DAMAGE UNDER TENSION.

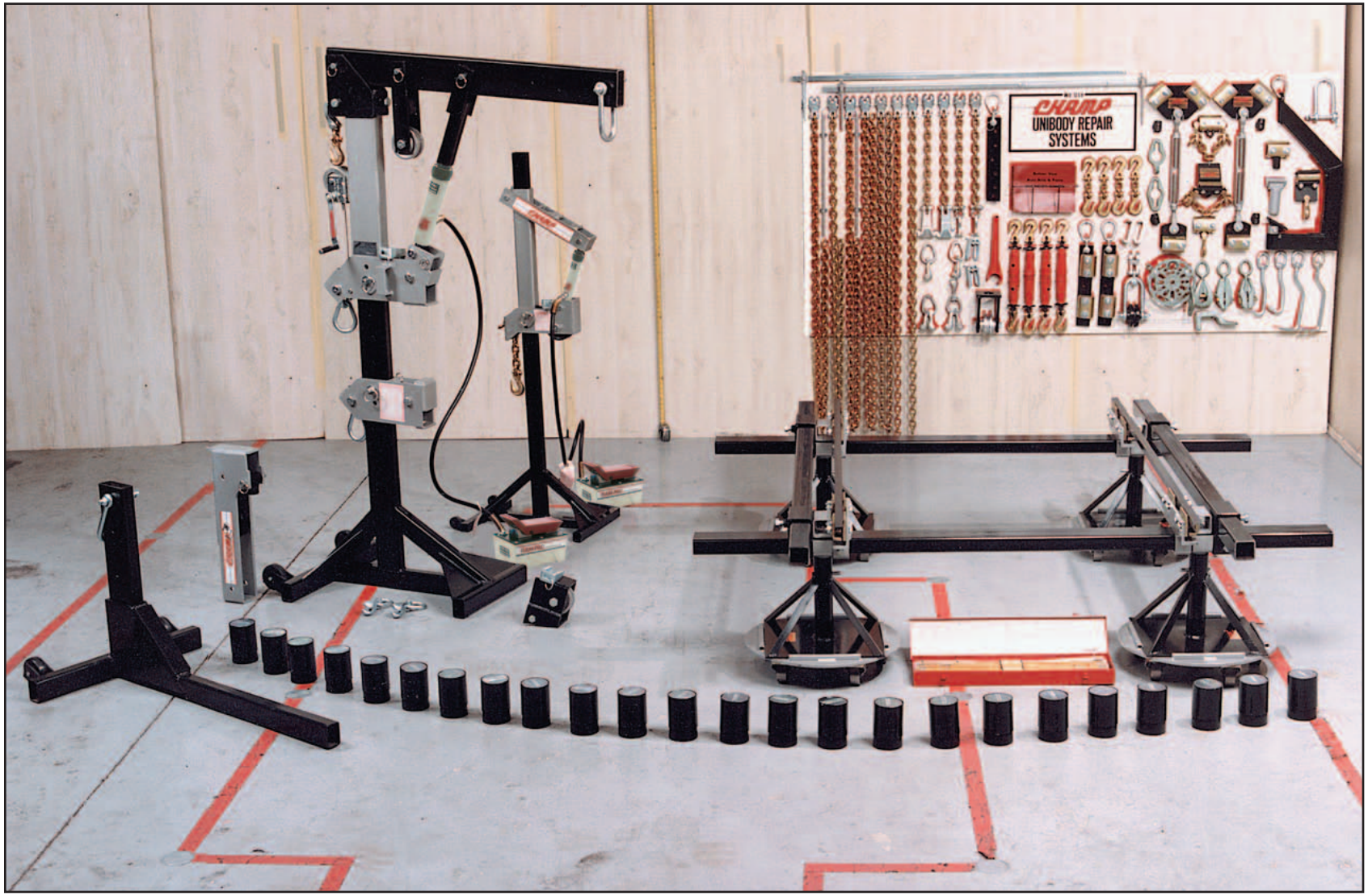
FINISHED PULL RESTORES WINDSHIELD OPENING.

SKYHOOK SET-UP
SHEET METAL PULL



SKYHOOK SET-UP
ENGINE PULL





LEVEL THREE - ADVANCED SYSTEM

CHAMP FRAME STRAIGHTENING EQUIPMENT, INC.