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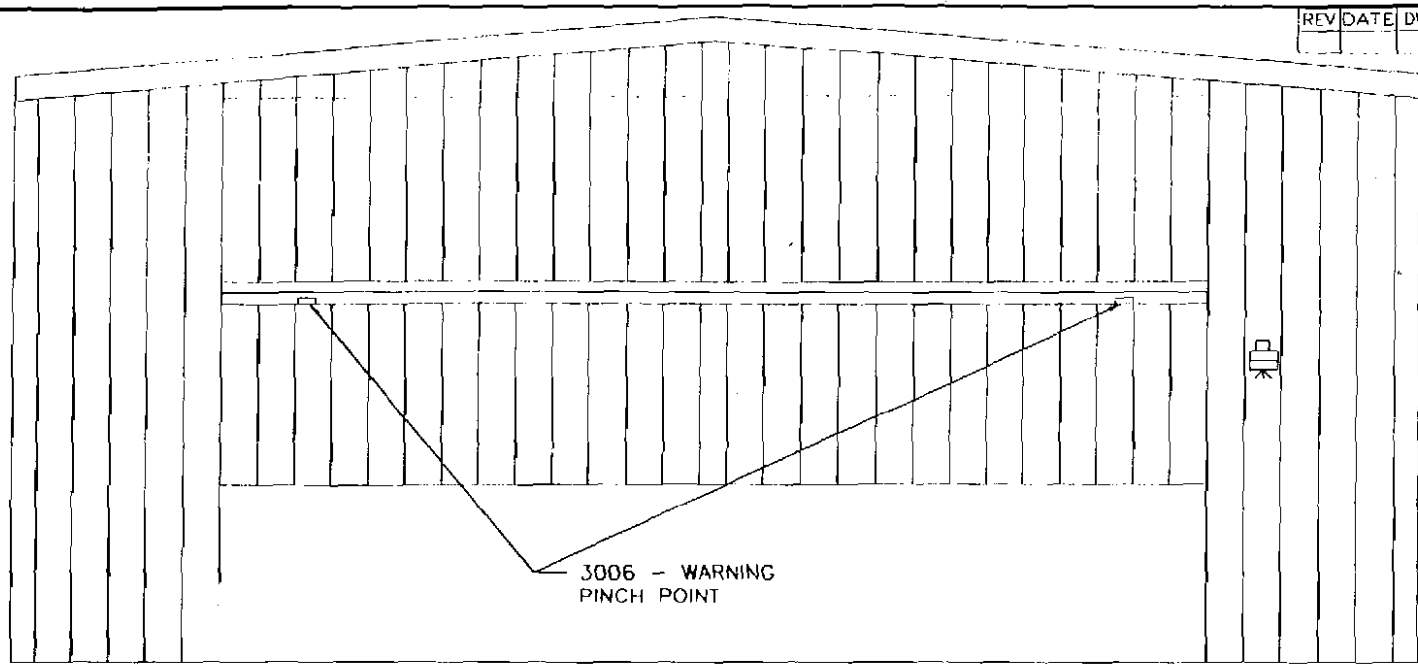
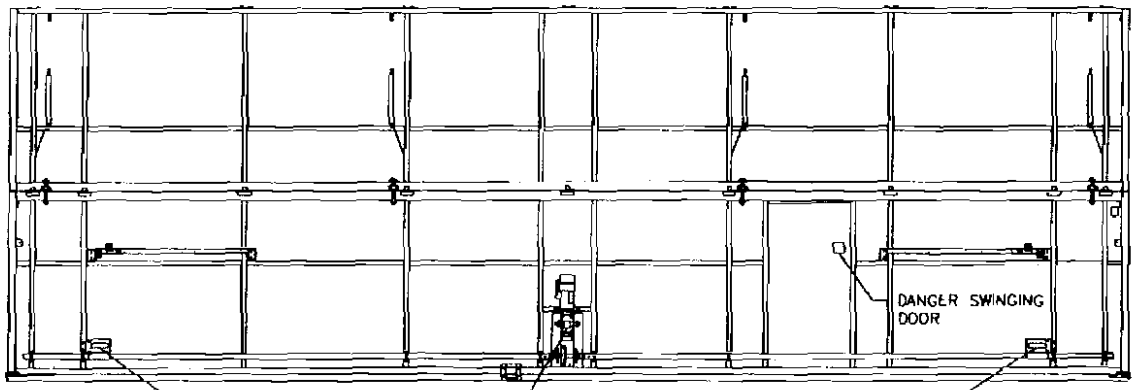
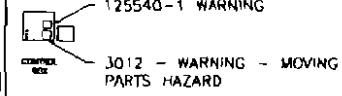
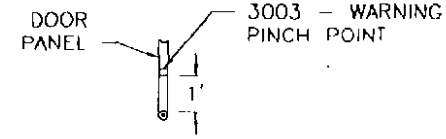








ITEM NO.	PART NO.	QTY.	DESCRIPTION

WILSON DOORS INC.
3380 E. AIRPORT ROAD
EL DORADO SPRINGS, MO 64744
(417) 876-6508 / FAX (417) 876-6506

WARNING LABEL LOCATION

DATE	DRAWN BY	JOB NO.	SCALE	DRAWING NO.
02/04/03	STAUFFER		NONE	INS - WARNING

WILSON DOORS INC.

America's *Finest* Bi-Fold
Canopy Door

3380 E. Airport Road
El Dorado Springs, Missouri 64744
(417) 876-6508 Fax (417) 876-6506

DOOR OPERATING GUIDE

1. Prior to opening the doors, be sure that there is no equipment or objects parked along the outside of the door.

2. While opening the doors, observe the operation of the up cycle making sure that doors are operating smoothly and quietly. Continue to observe the operation until the doors are stopped.

"CAUTION"

DO NOT LEAVE THE DOOR UNSUPERVISED WHILE DOOR IS IN MOTION.

3. While lowering the doors, observe the operation of the down cycle making sure that the doors are operating smoothly and quietly. If any unusual sound or abnormal condition occurs, stop the doors and try to determine the cause.

4. Extreme caution must be exercised during the lowering cycle as not to allow the door to come in contact with any object. If the door is lowered onto an object, check for cables that may have become loose, are not wrapping properly on the line shaft, or may have fallen off a pulley.

5. If any of the above conditions occur, correct the problem before continuing to operate the doors or serious damage may occur. If the problem cannot be corrected, call your service representative.

'CAUTION'

DO NOT GET UNDER THE DOOR WHILE DOOR IS BEING OPERATED.

WILSON DOORS INC.

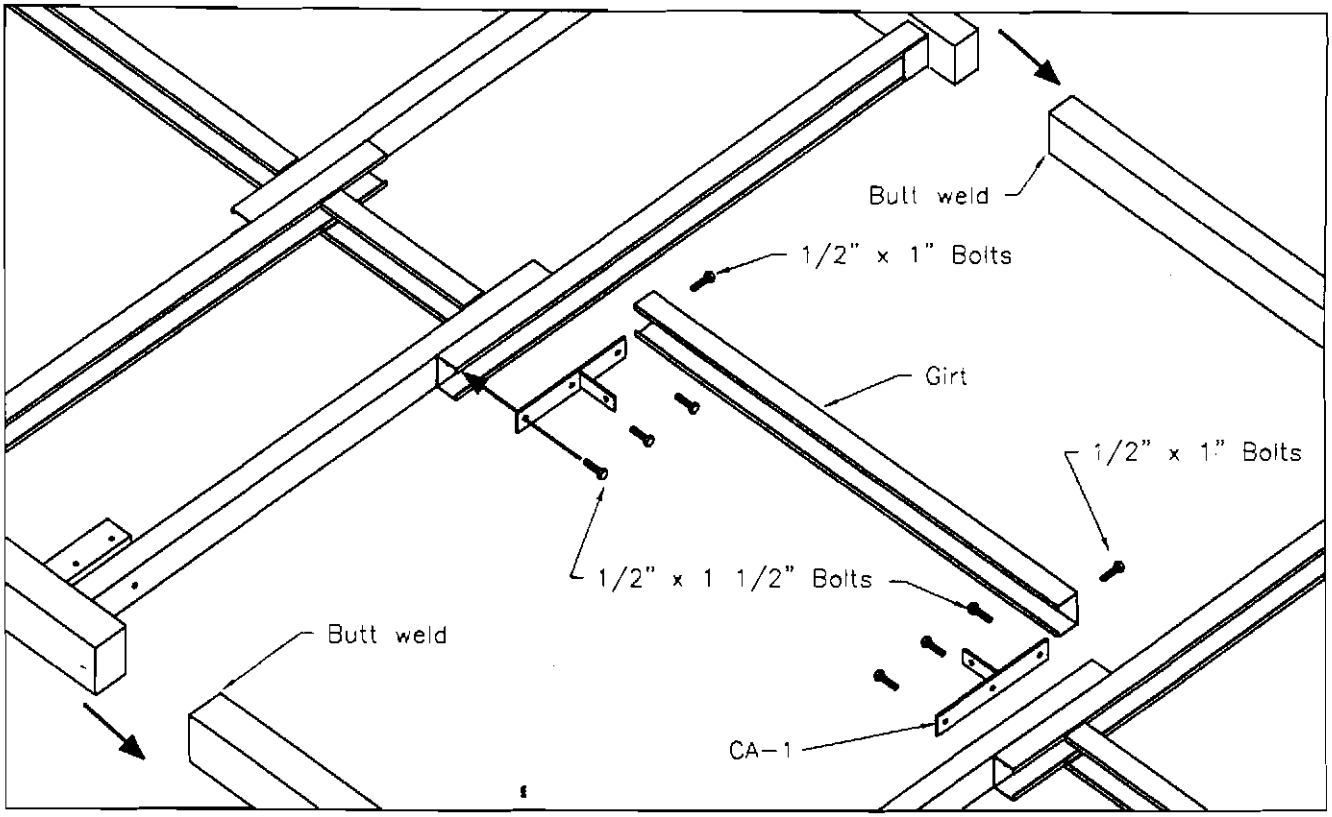
TABLE OF CONTENTS

STEP 1:

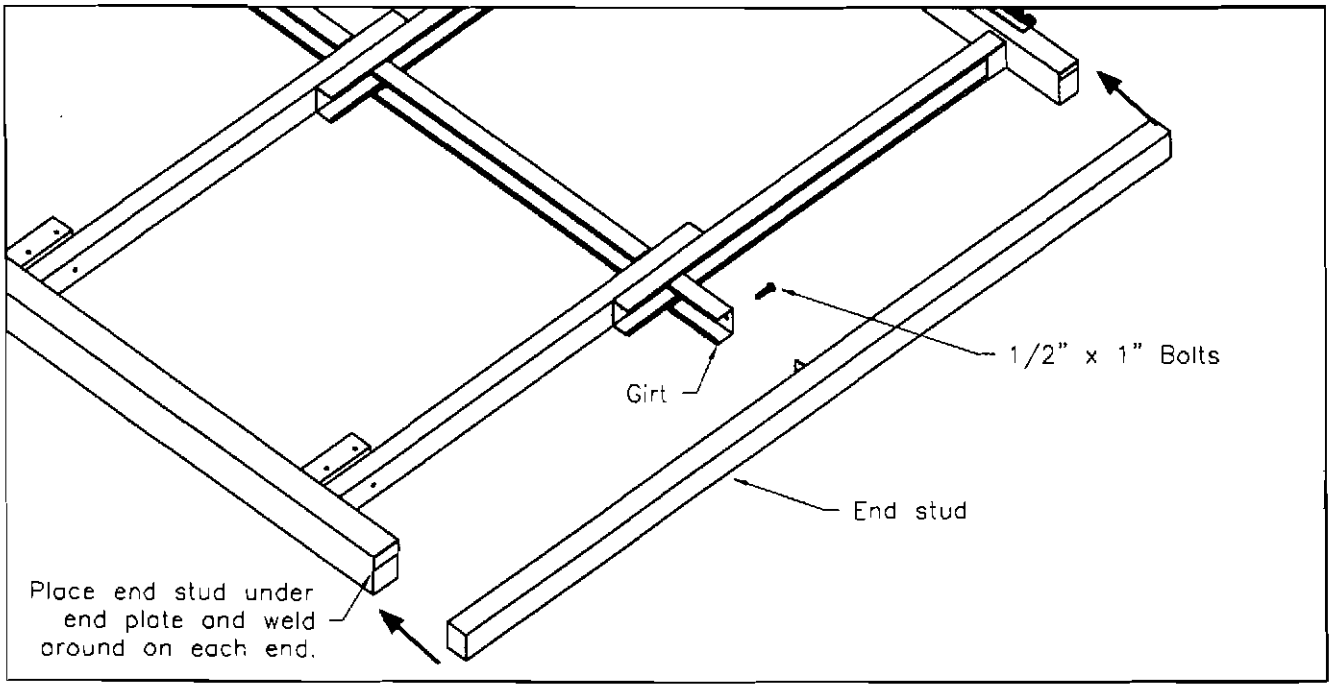
Check door opening frame to be sure height and width are correct. Header must be straight and level. Jambs must be plumb

STEP 2:

Place the bottom two panels out on a flat level surface with the bottom of the door against the door col, unbolt and spread panels out. Then rebolt using CA-1 clips. Install girts between studs of CA-1 clips as shown in detail 1. Weld end tube studs in position at end of each panel as shown in detail 2. Line the panels up straight and level and butt weld the tubes together as shown in detail 1.



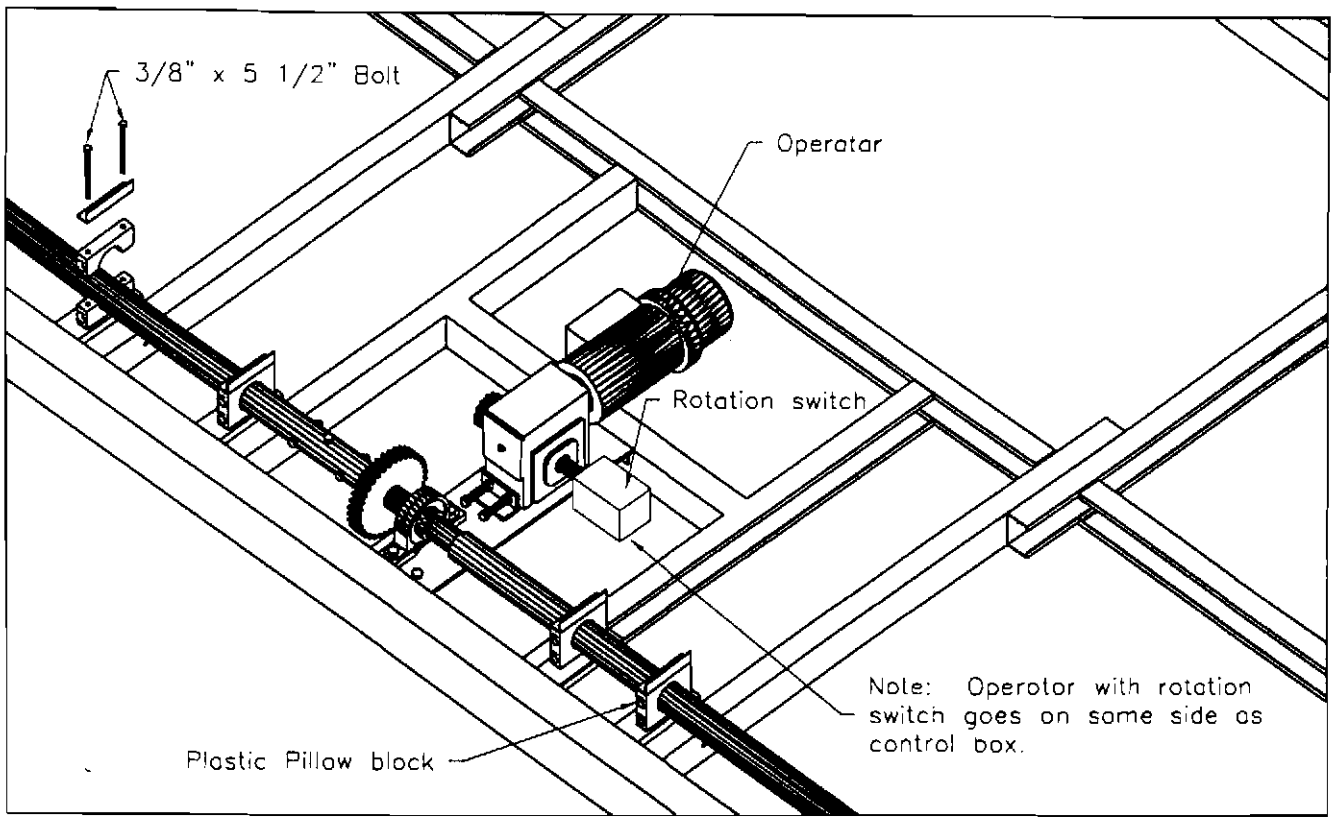
Detail 1



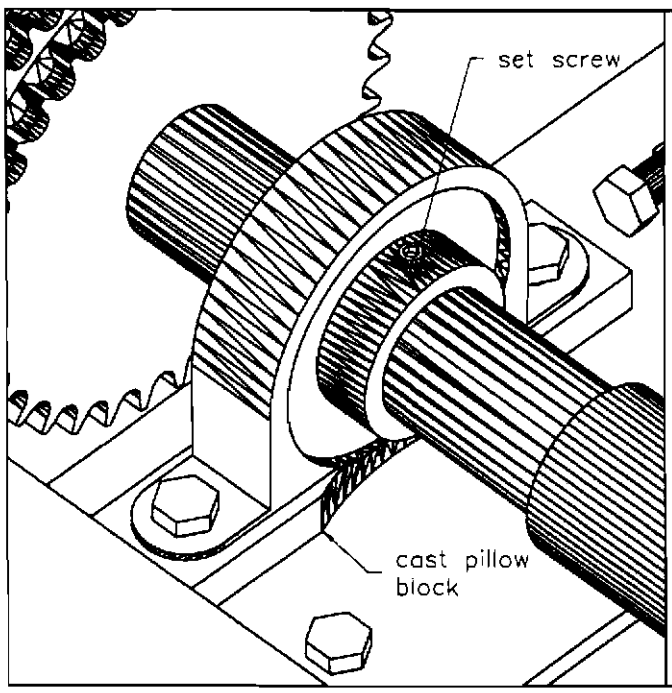
Detail 2

STEP 3:

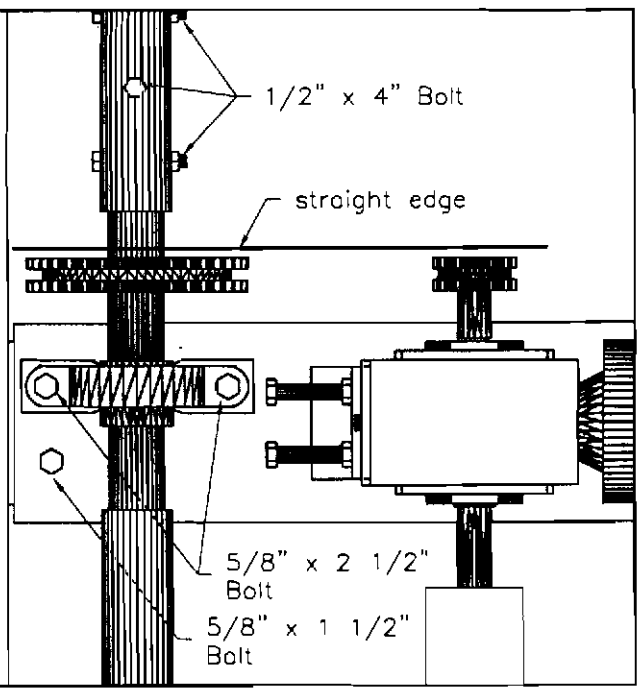
Install and bolt operator in place, next place the driveshaft with the cast iron pillow block in place. Put 1/2 of the poly-plastic pillow block in place, keeping the numbers on the side of the blocks match. Place lineshafts in and align lifting eyes to the top of the door. Tighten set screws on cast pillow block. (See Detail 4) Put other half of pillow blocks on and tighten. Line up both sprockets with a straight edge and tighten the bushing and set screws (See Detail 5) Place chain on. Do not weld lineshaft at this time.



Detail 3



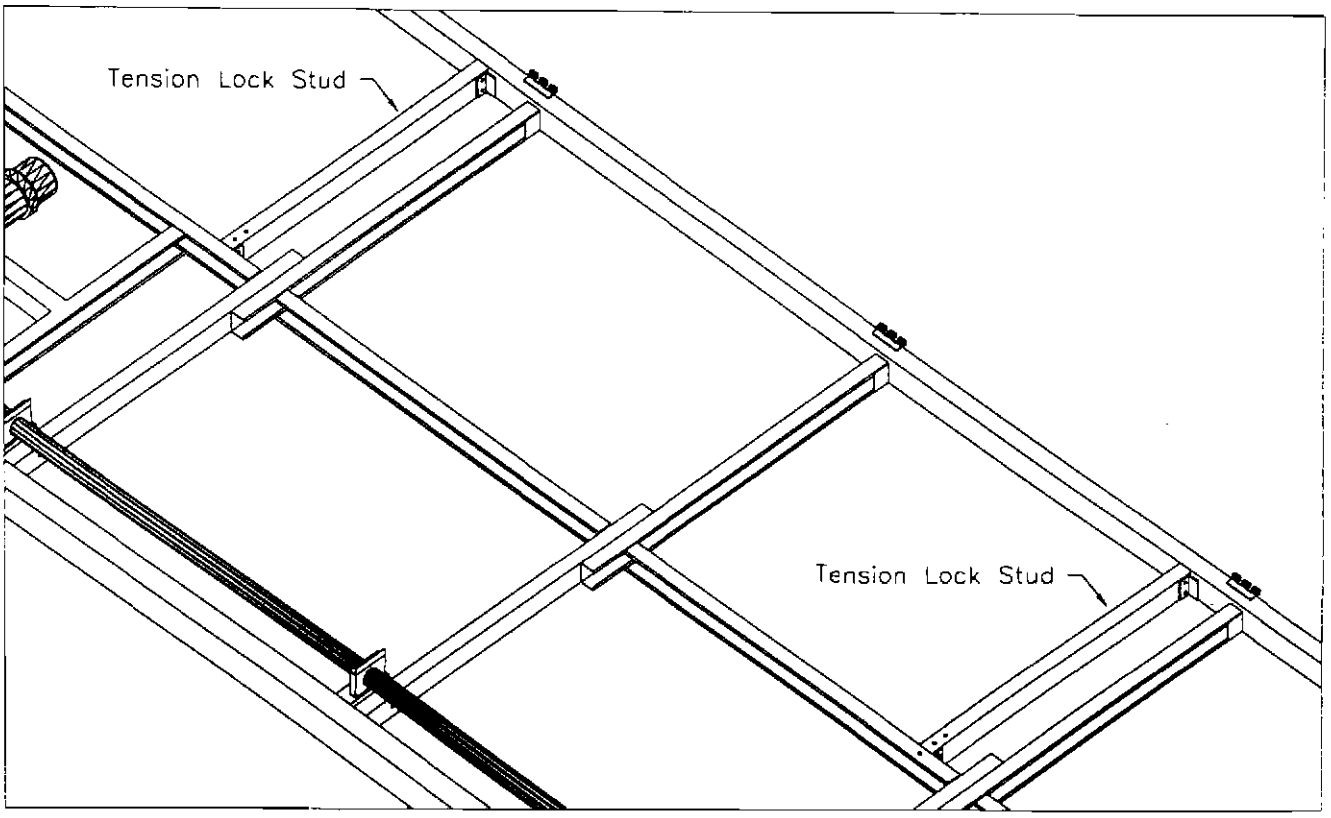
Detail 4



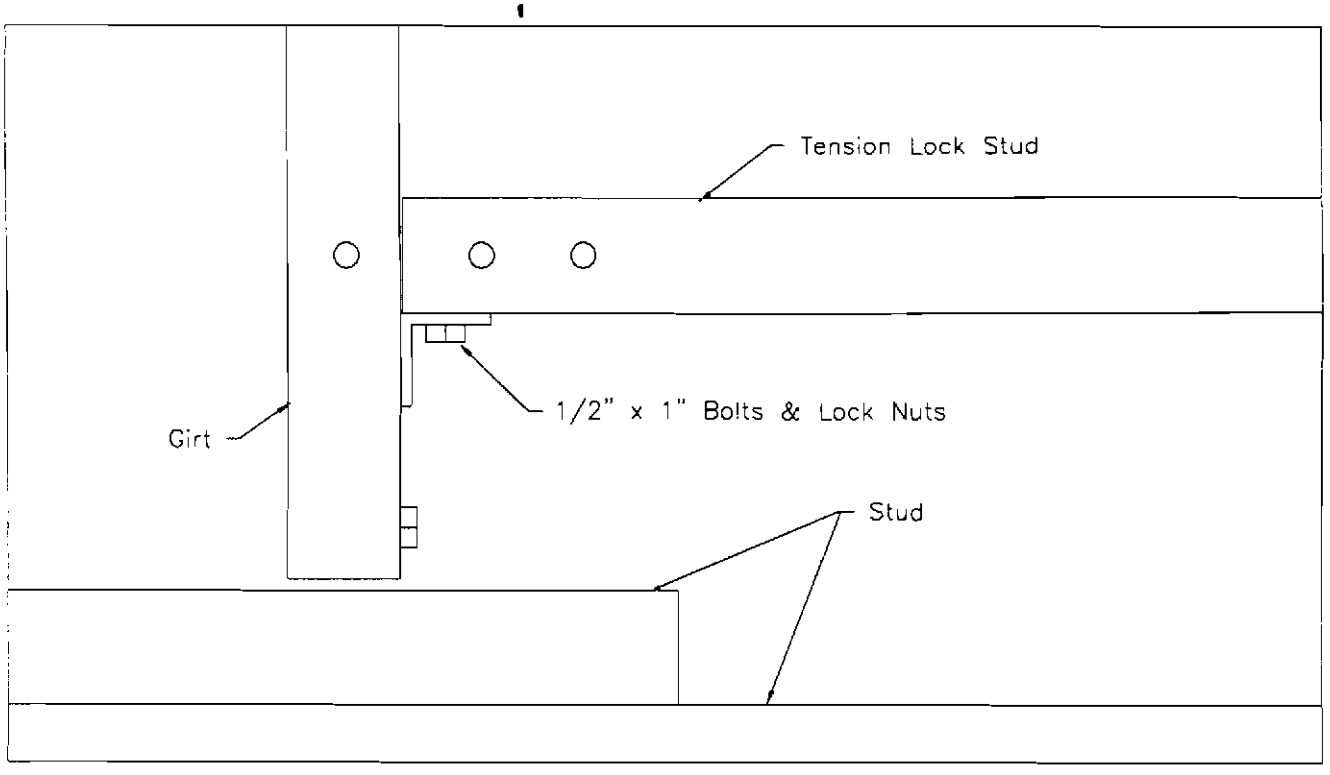
Detail 5

STEP 4:

Install Tension Lock Studs (rights and lefts)



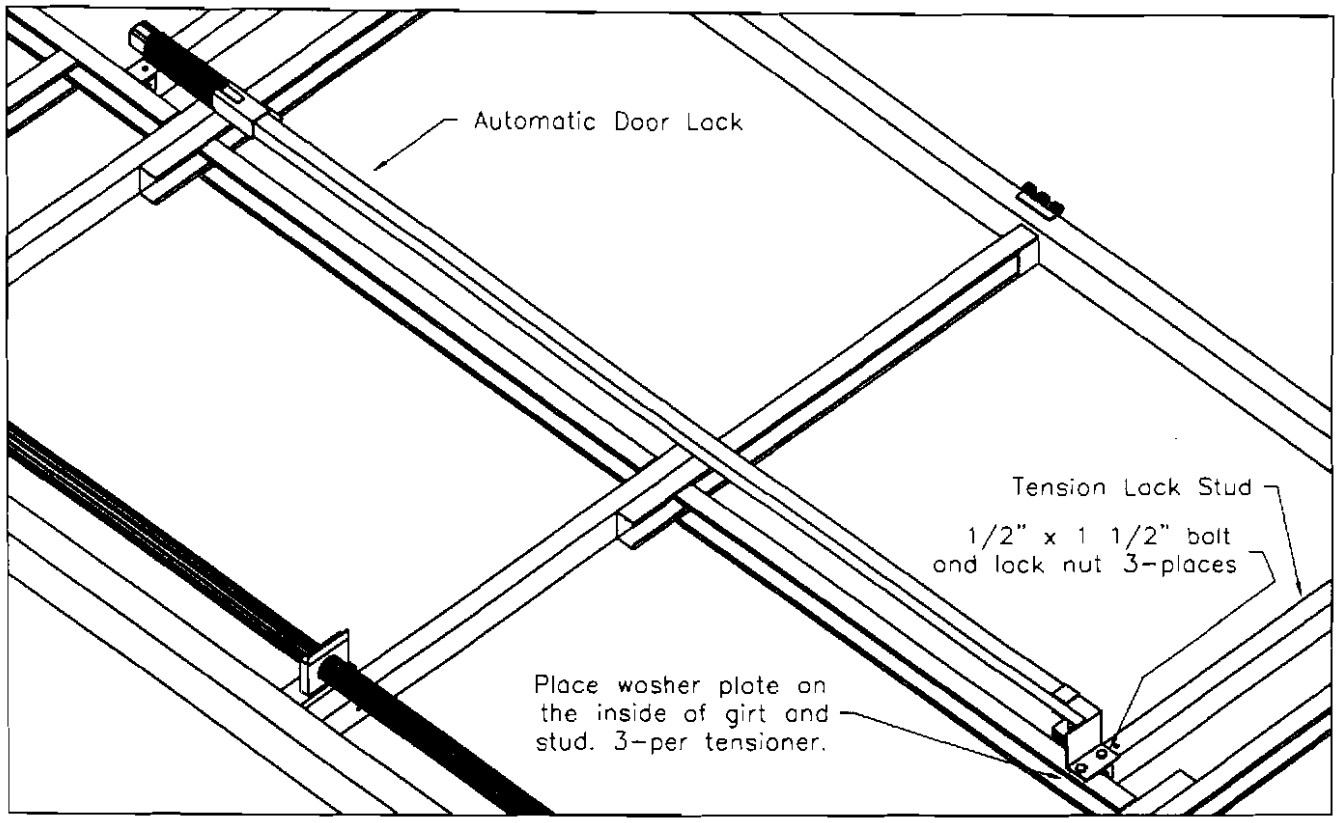
Detail 6



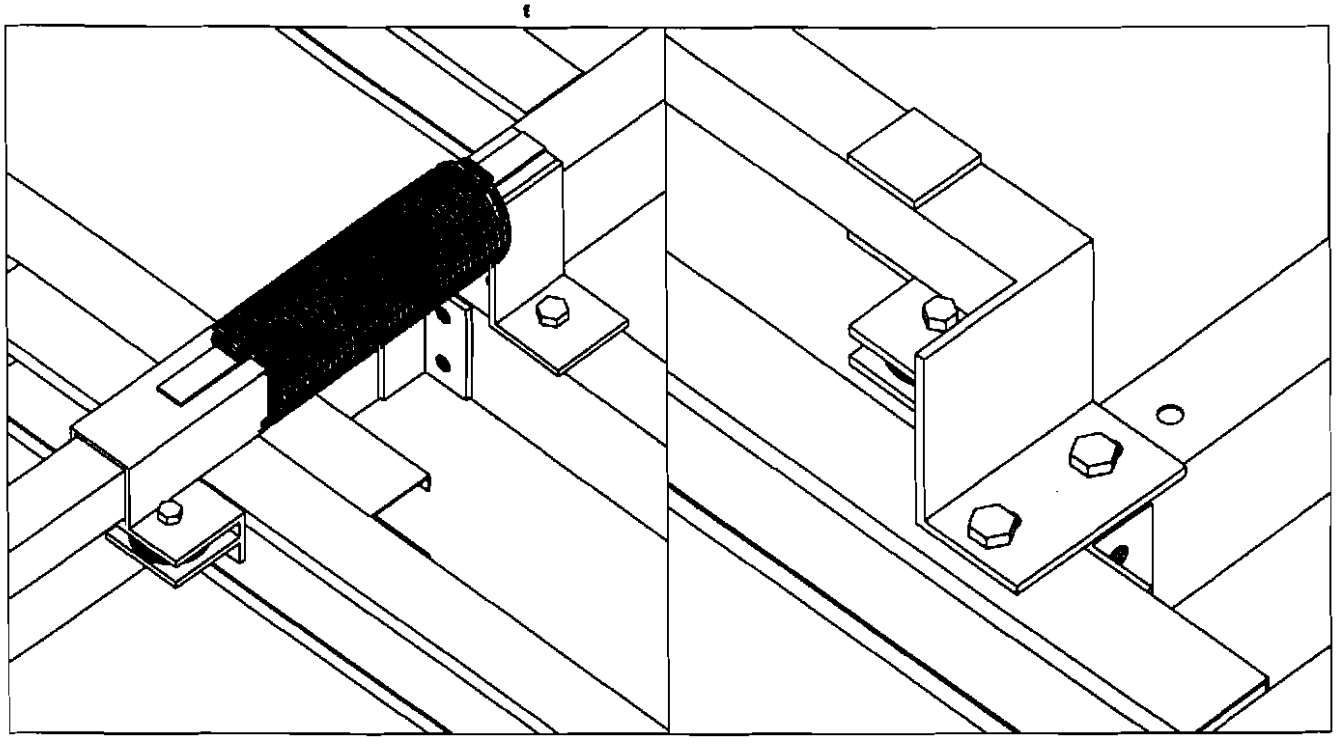
Detail 7

STEP 5:

Place Automatic Door Lock in place and tighten.



Detail 8

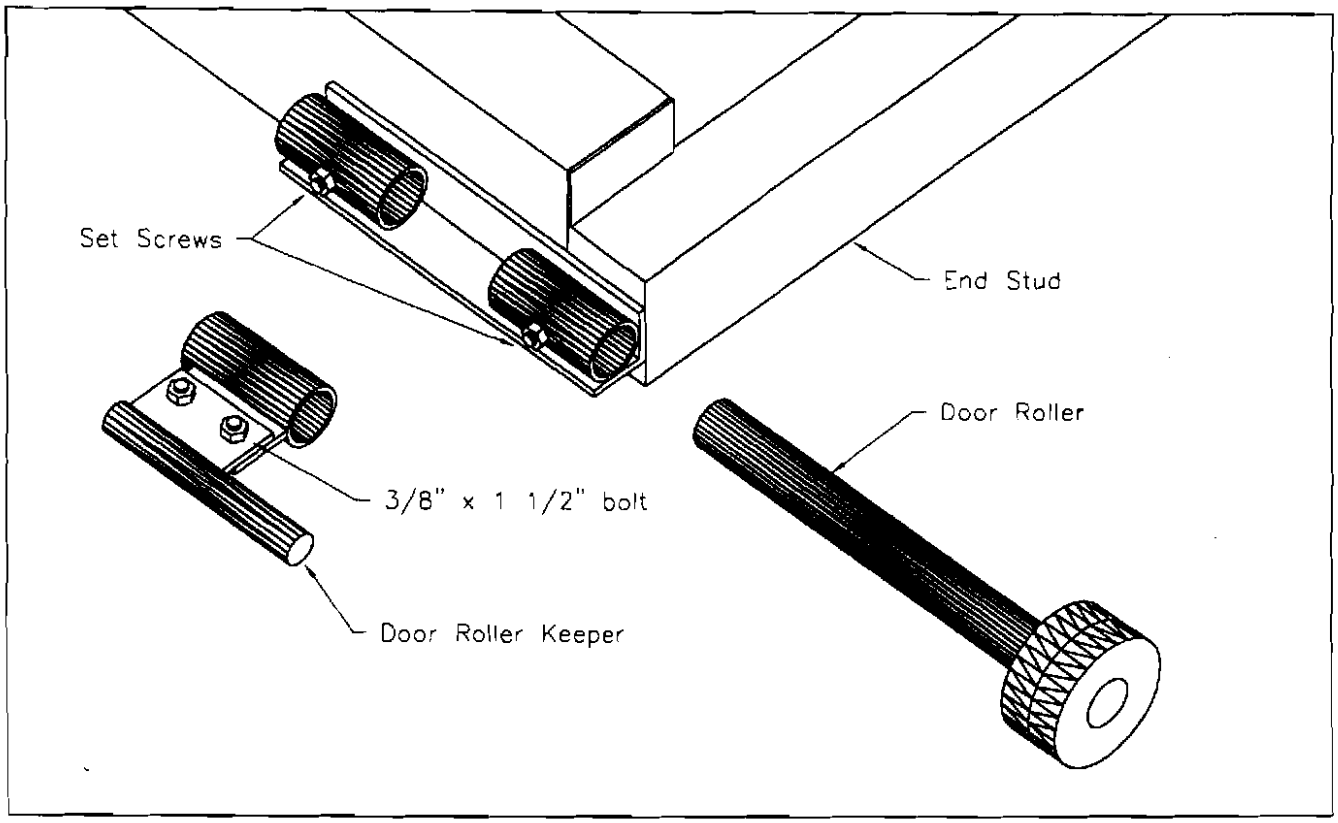


Detail 9

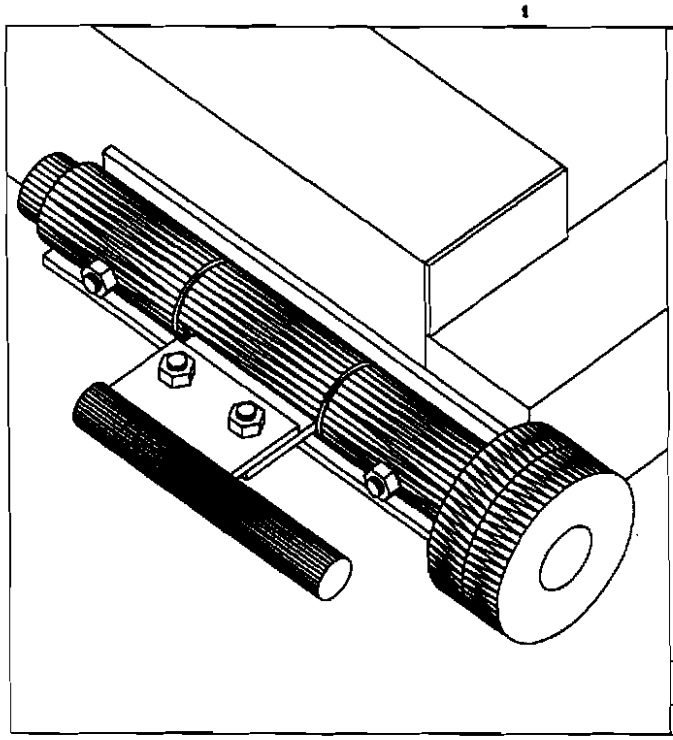
Detail 10

STEP 6:

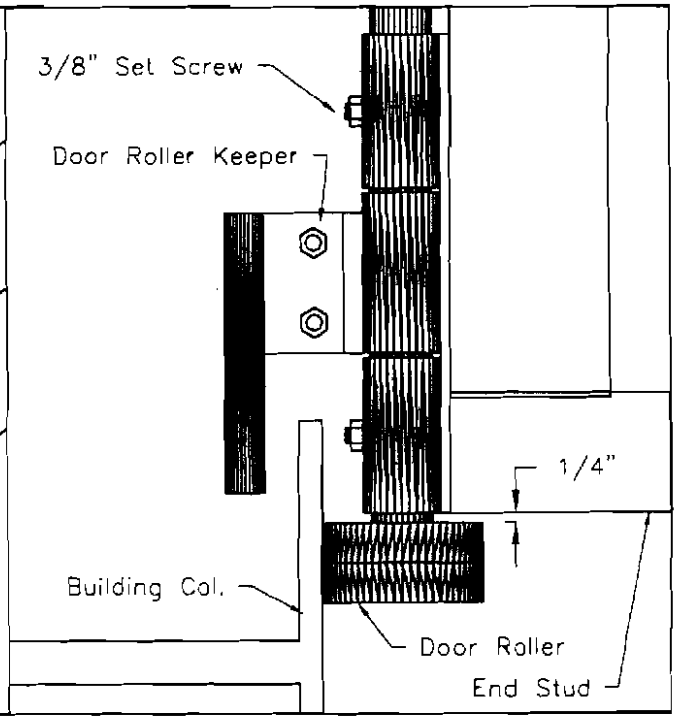
Install door roller and door roller keeper as shown in detail 11. Place around building col. as in detail 13 Besure to leave 1/4" between roller and end stud on door. Then tighten the set screws to hold door roller in place.



Detail 11



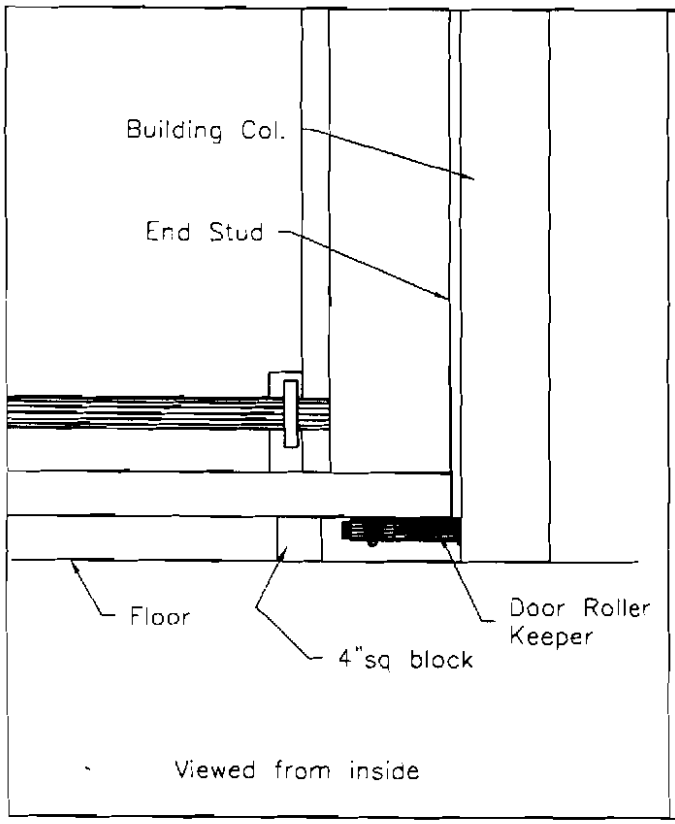
Detail 12



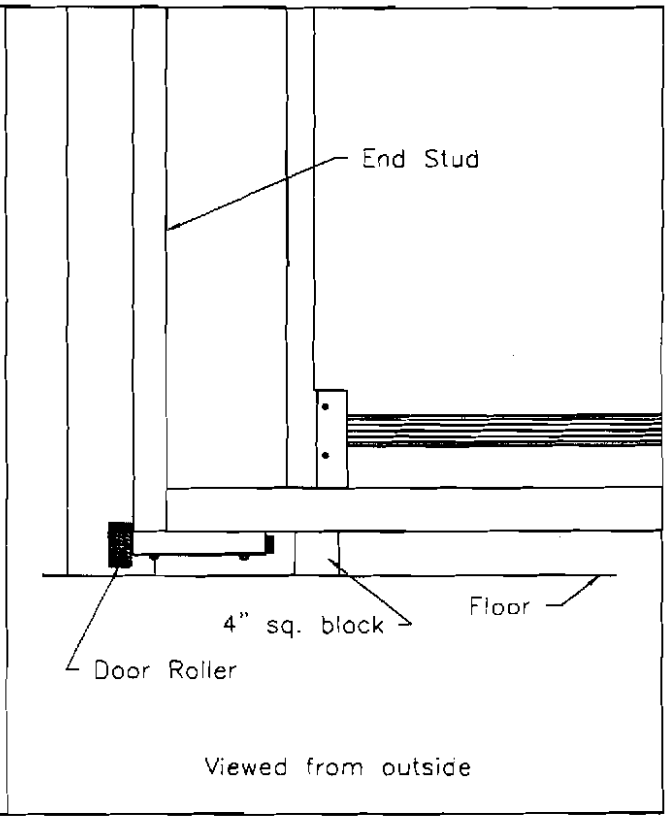
Detail 13

STEP 7:

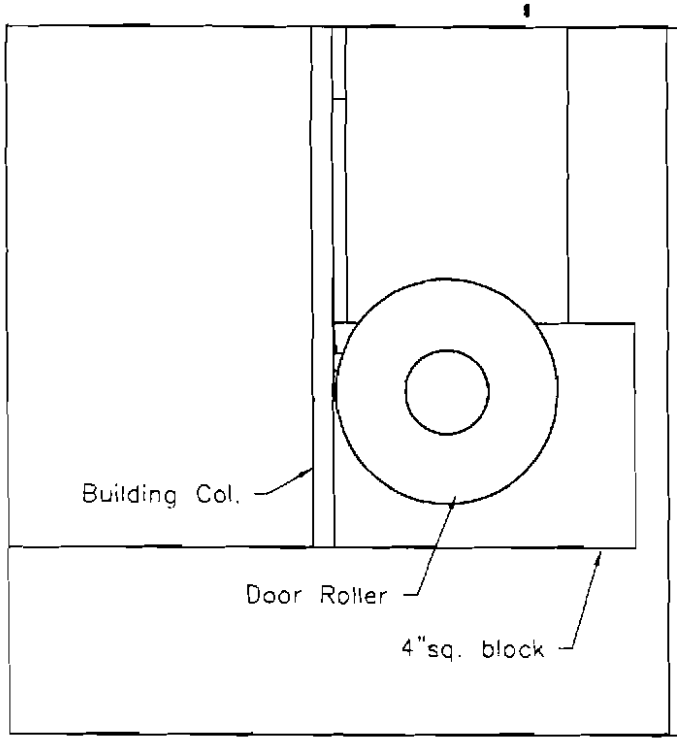
Now set door in opening putting door on top of blocks 4" above finished floor. Be sure door is centered in opening and that door panel is level. Clamp or tack weld panel to building columns.



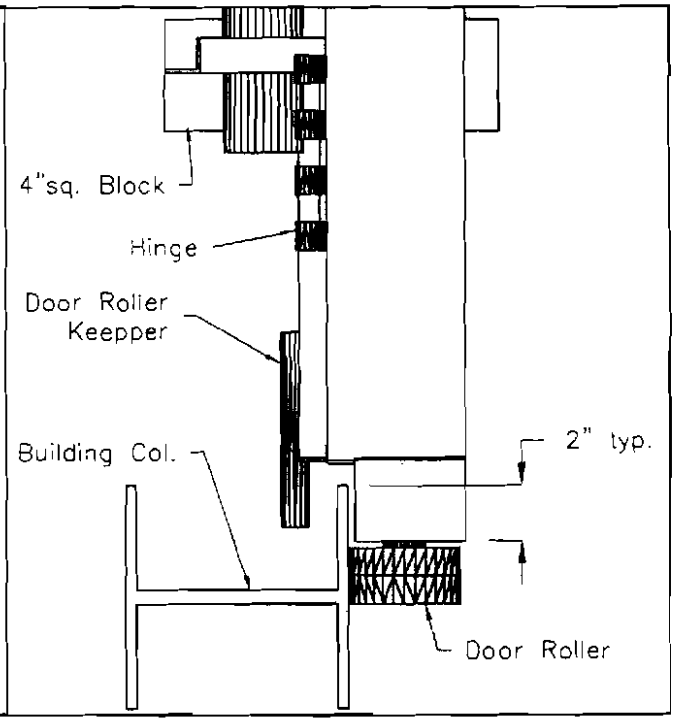
Detail 14



Detail 15



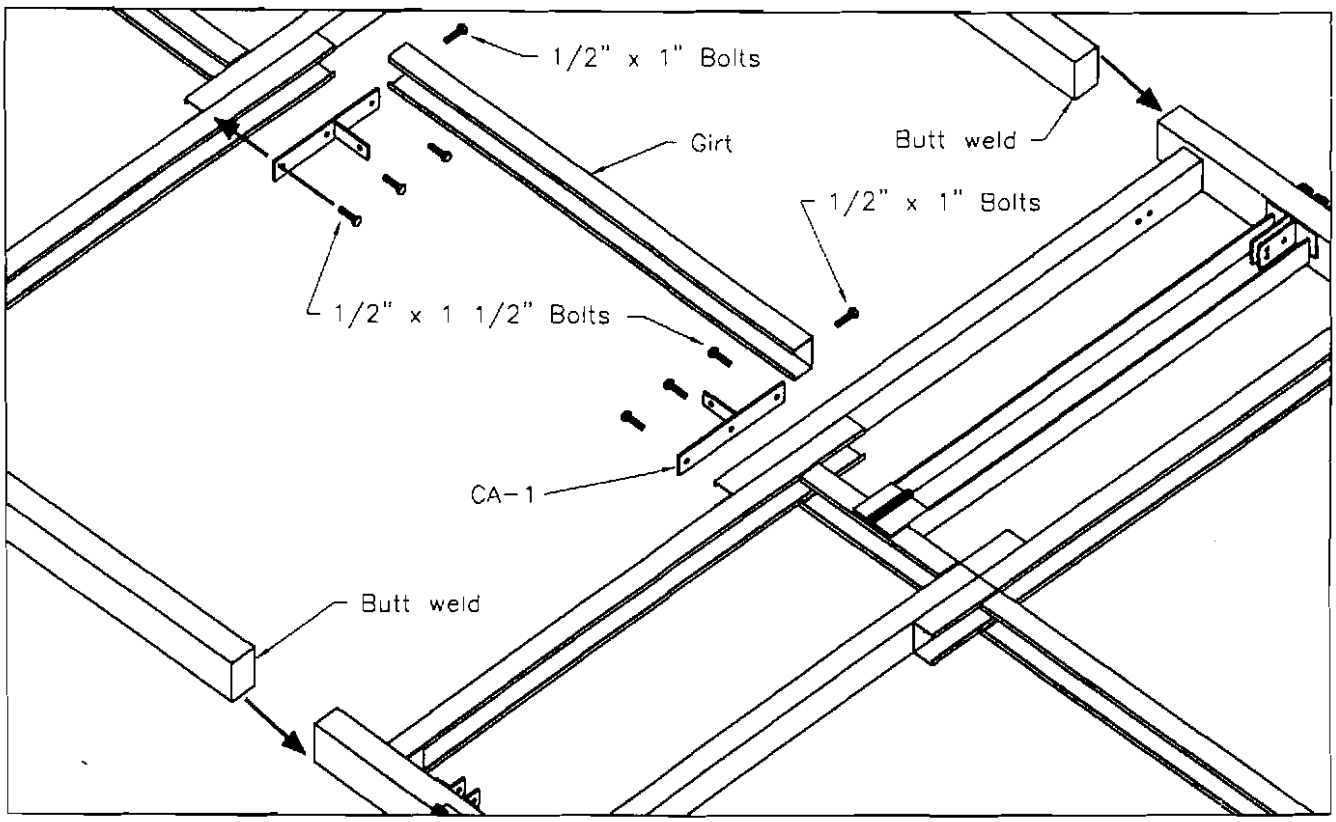
Detail 16



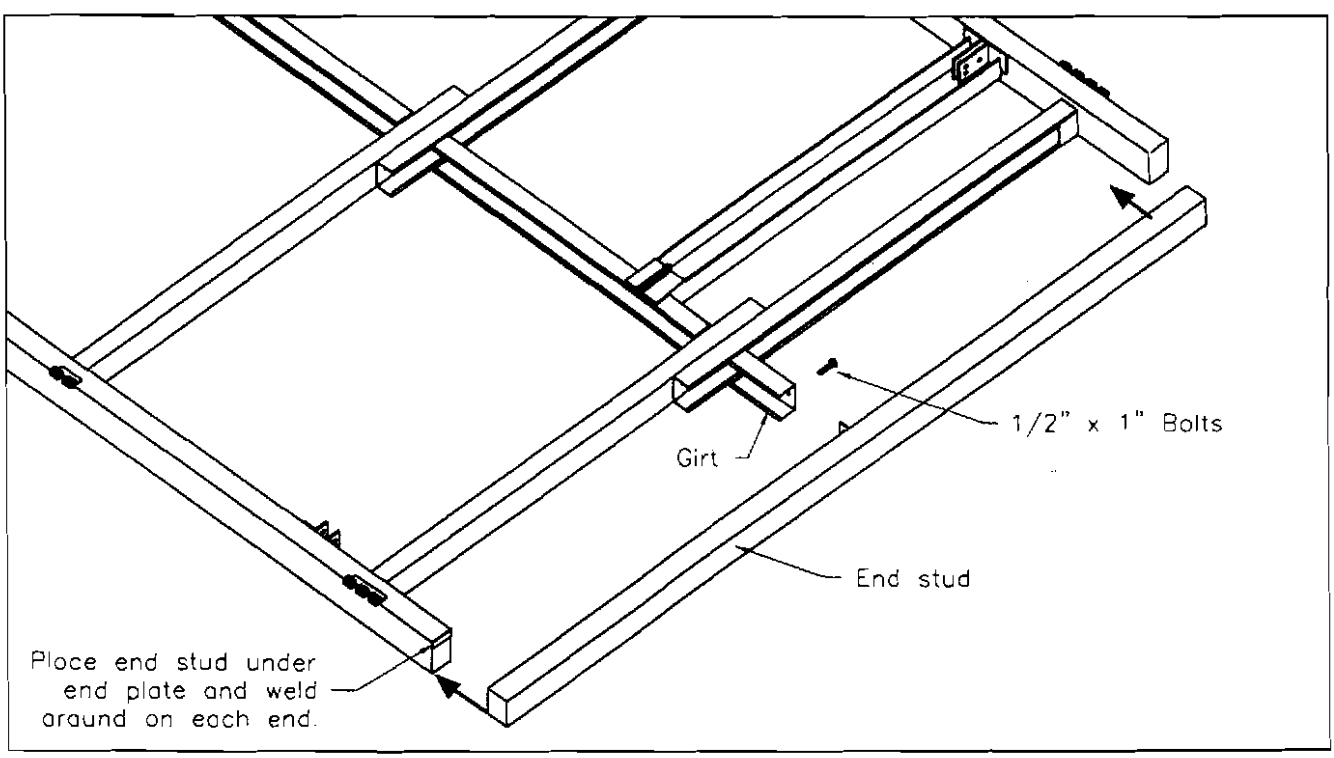
Detail 17

STEP 8:

Place the top two panels out on a flat level surfoce with the bottom of the panels closer to the building, unbolt ond spread panels out. Then rebolt using CA–1 clips. Install girts between studs ot CA–1 clips as shown in detail 18. Weld end tube studs in position ot end of each ponel as shown in detail 19. Line the ponels up straight and level and butt weld the tubes together at center of door as shown in detail 18.



Detail 18

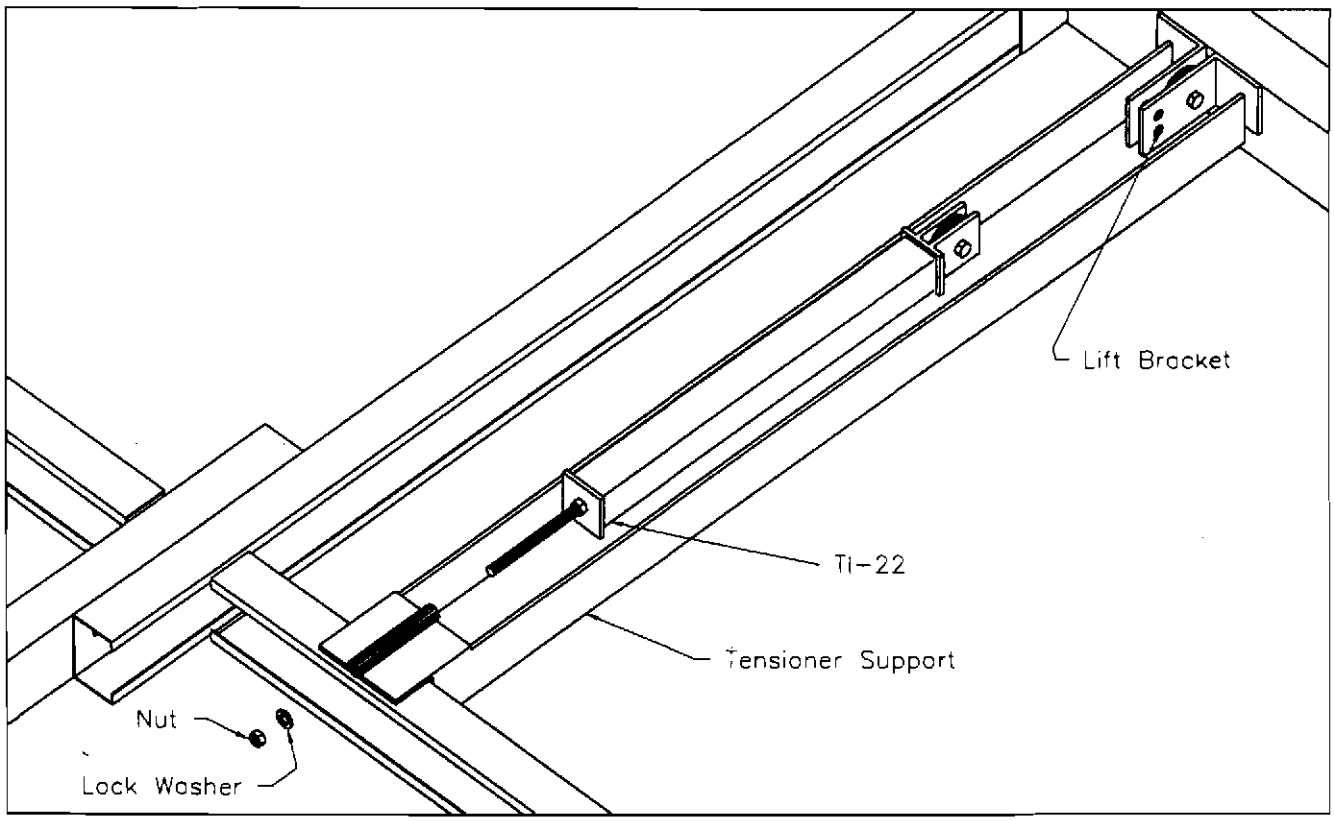


Detail 19

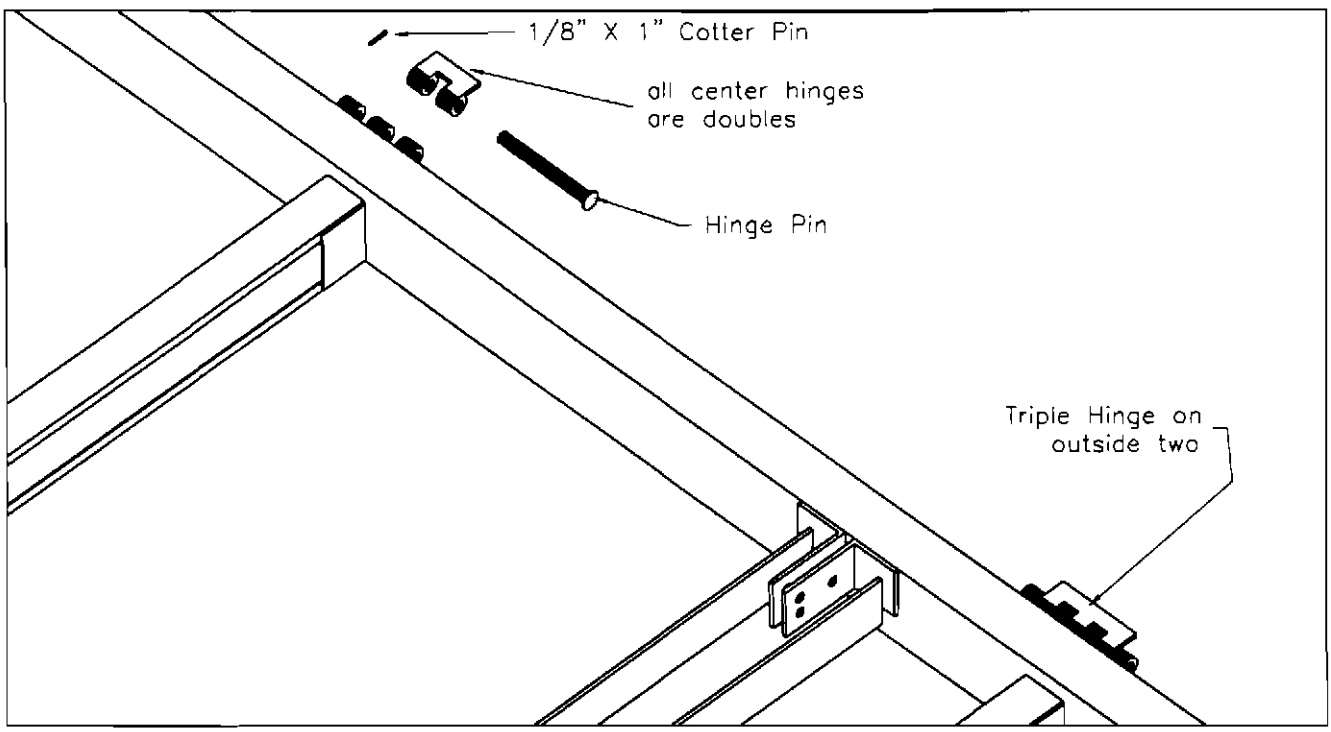
STEP 9:

Installing the TI–22 in the tensioner support as followed. With the Cable Tensioner (TI–22) under no tension run one nut up to the bottom of the Tensioner. Slide Tensioner (TI–22) into the bracket at the bottom of the tensioner support and place lock washer and other nut on and tighten. See detail 20.

Installing the header hinges to the hinges welded to the top of the door. Be sure to grease the hinge pins before assembly. Use 1/8" x 1" cotter pins in the end of hinge pin. As in detail 21.



Detail 20

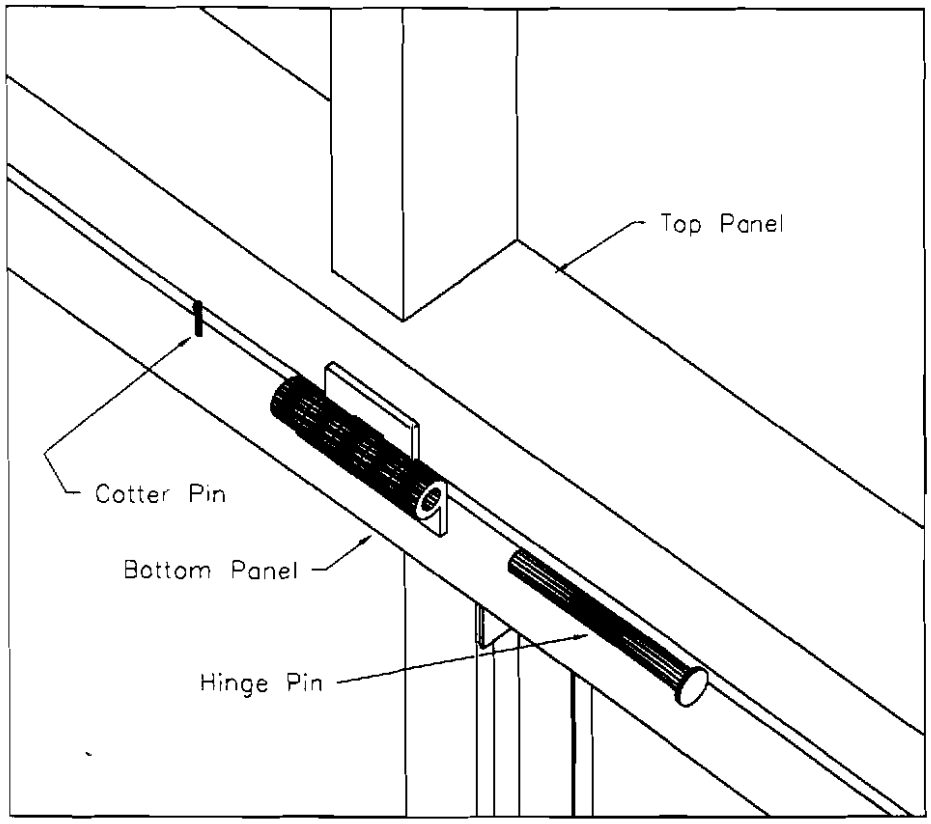


Detail 21

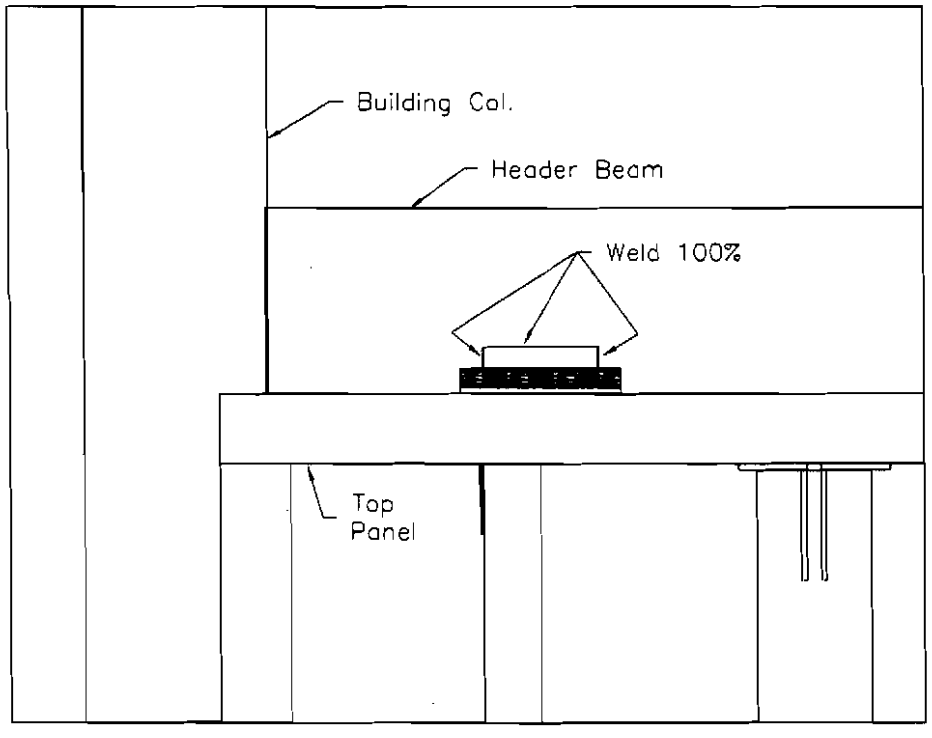
ins2508

STEP 10:

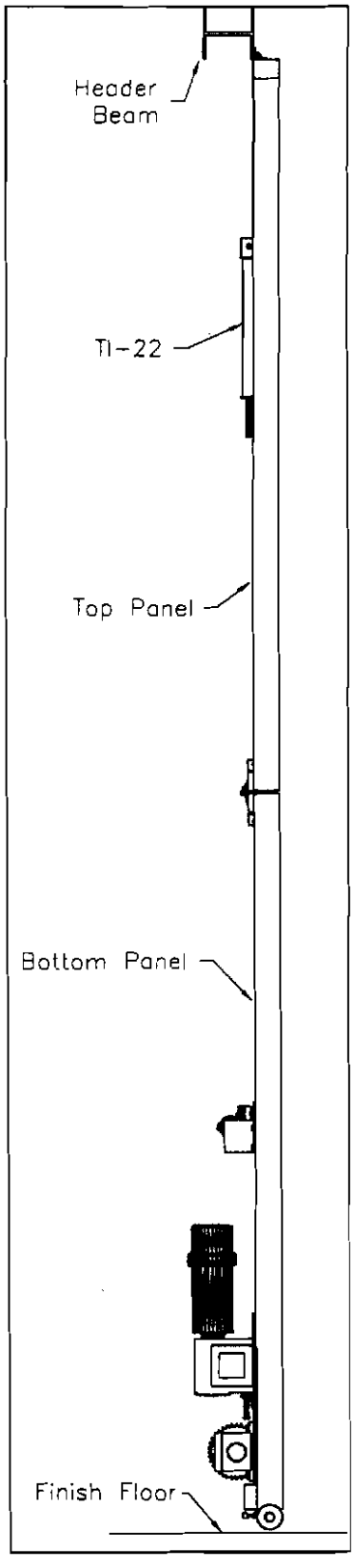
After top panel is assembled tip up and lift into position on top of bottom panel. Install hinge pins and cotter pins at all center door hinges as in detail 22. Be sure to grease hinge pins before installing. Check door to be sure it is centered in the opening and that it is level. The door should be 4" off the finish floor. After checking to be sure that the door is centered and level, field weld header hinges to the header beam as shown in detail 23.



Detail 22



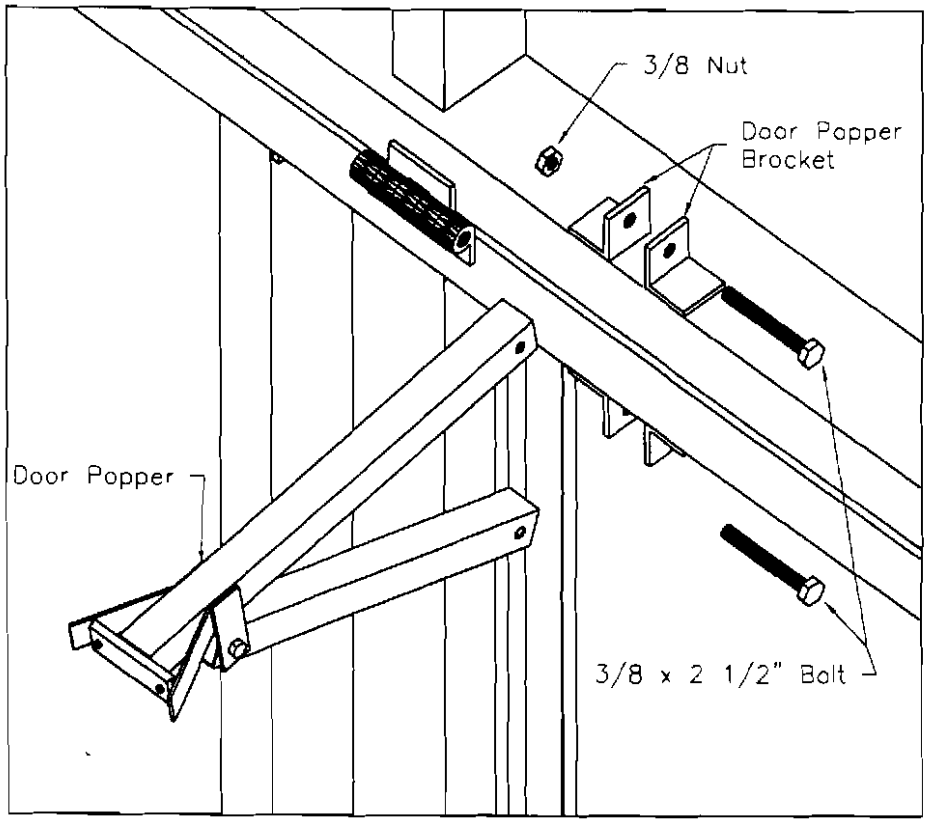
Detail 23



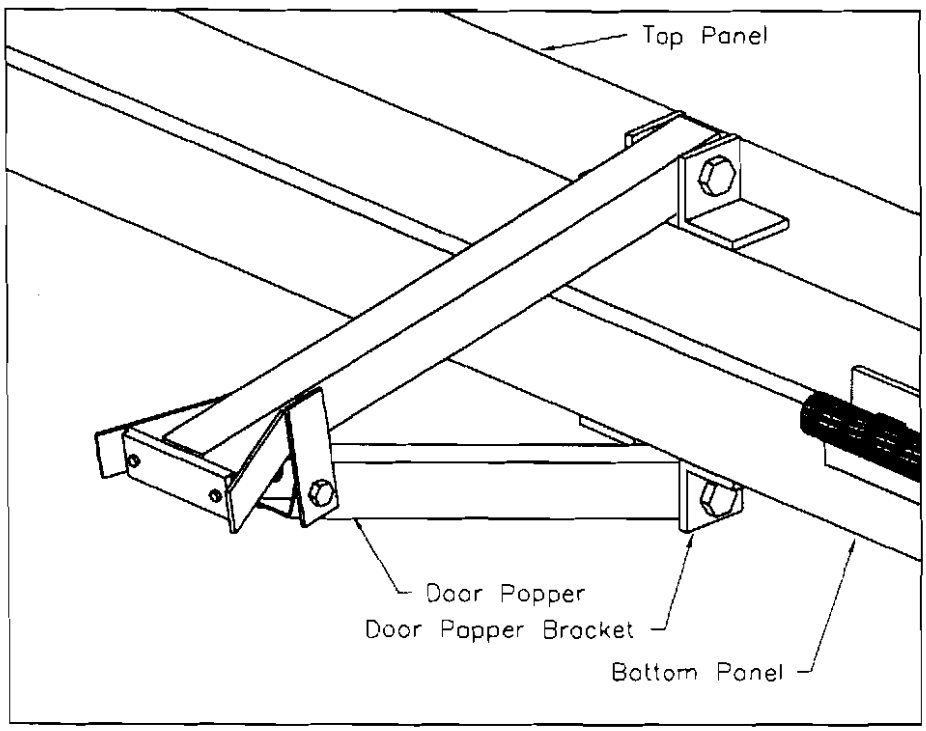
Detail 24

STEP 11:

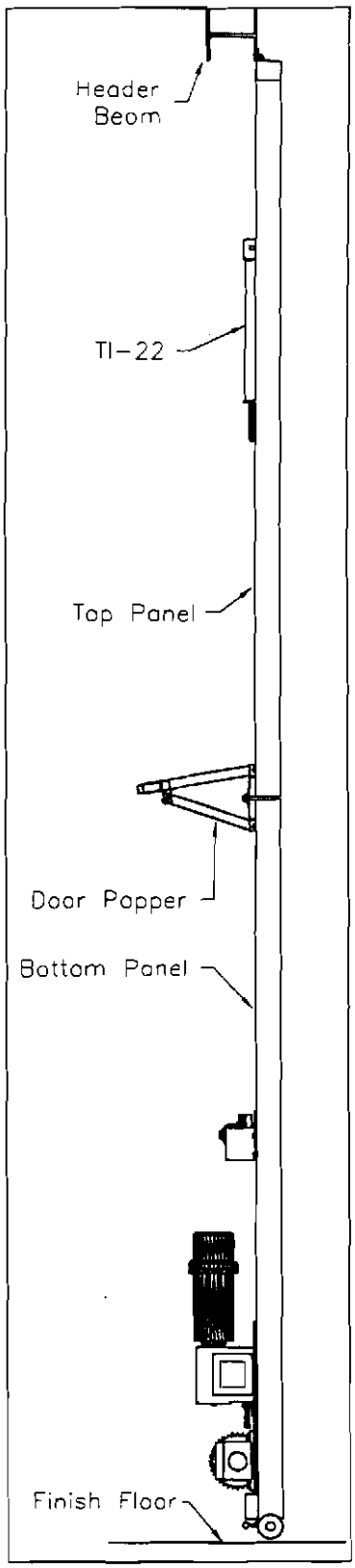
Install Door Poppers as shown.



Detail 25



Detail 26

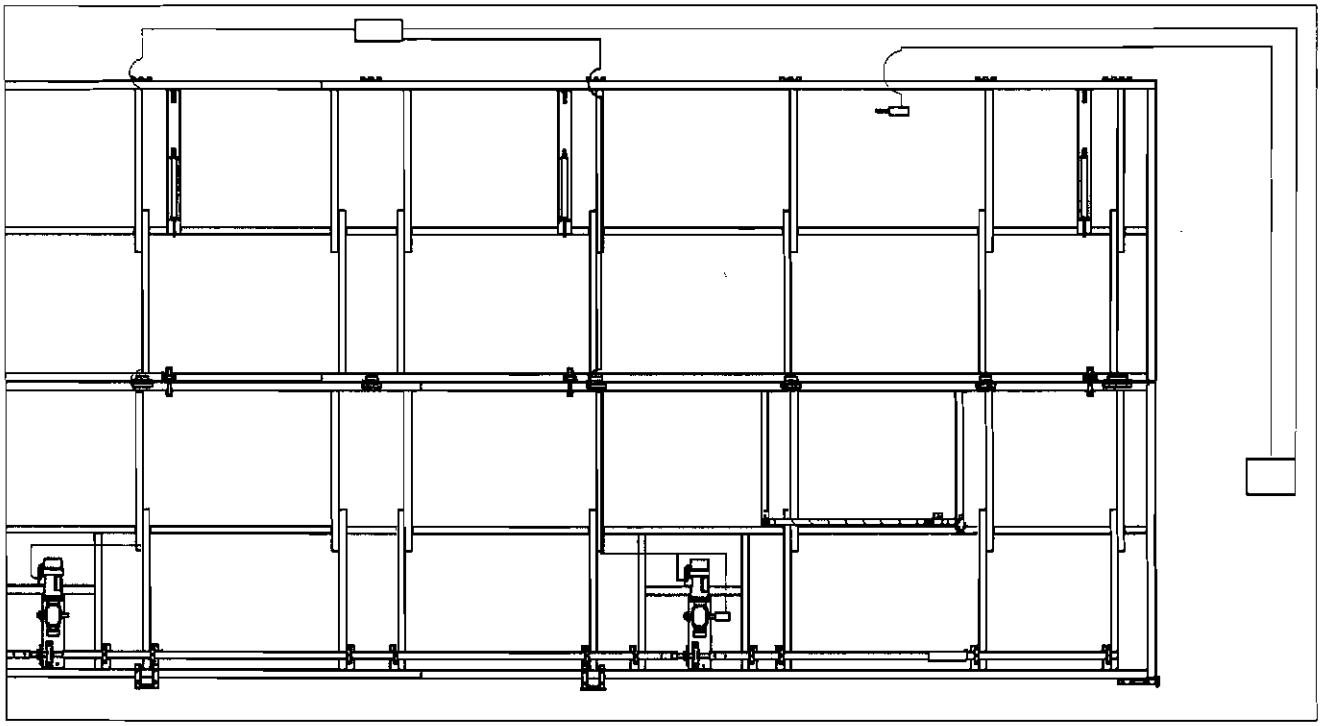


Detail 27

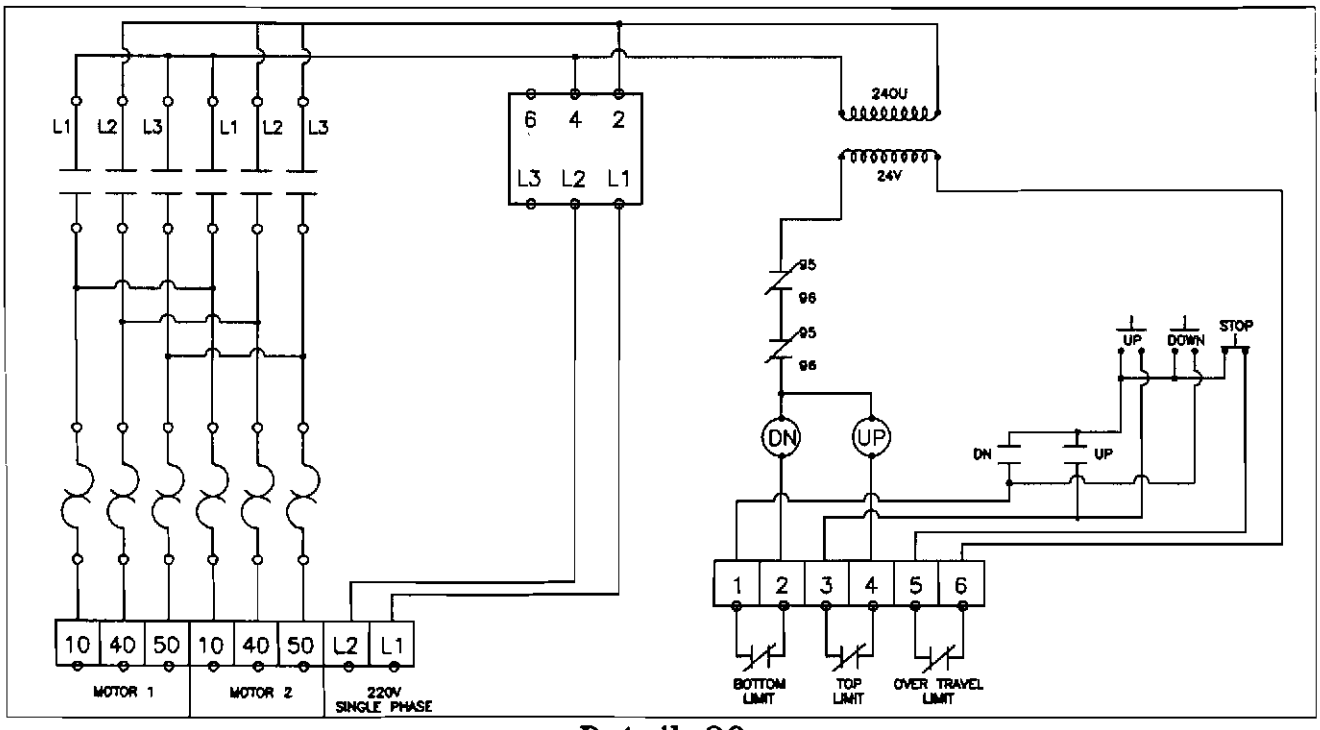
NOTE: If your door is equipped with miller edge. See page 19 for step 12.
If your door is equipped with radio remote. See page 20 for step 12.
If your door is equipped with bath radio remote & miller edge. See page 21 for step 12.

STEP 12:

Run electric cord from the motors to top of door into junction box (by others). Be sure to leave a loop at the center of the door and a longer loop at the top of the door. Run wires (by others) from juction box to control box and hook wires into box. Run motors and check direction of the rotation. To check the rotation, place right shoulder on the inside of the door. The line shaft should turn clockwise for down and counterclockwise for up. Make wiring changes if incorrect. CAUTION: CONTACT HANGAR DOOR CO. BEFORE MAKING ANY WIRING CHANGES TO AVOID VOIDING OF FACTORY WARRANTY ON THE ELECTRICAL EQUIPMENT.



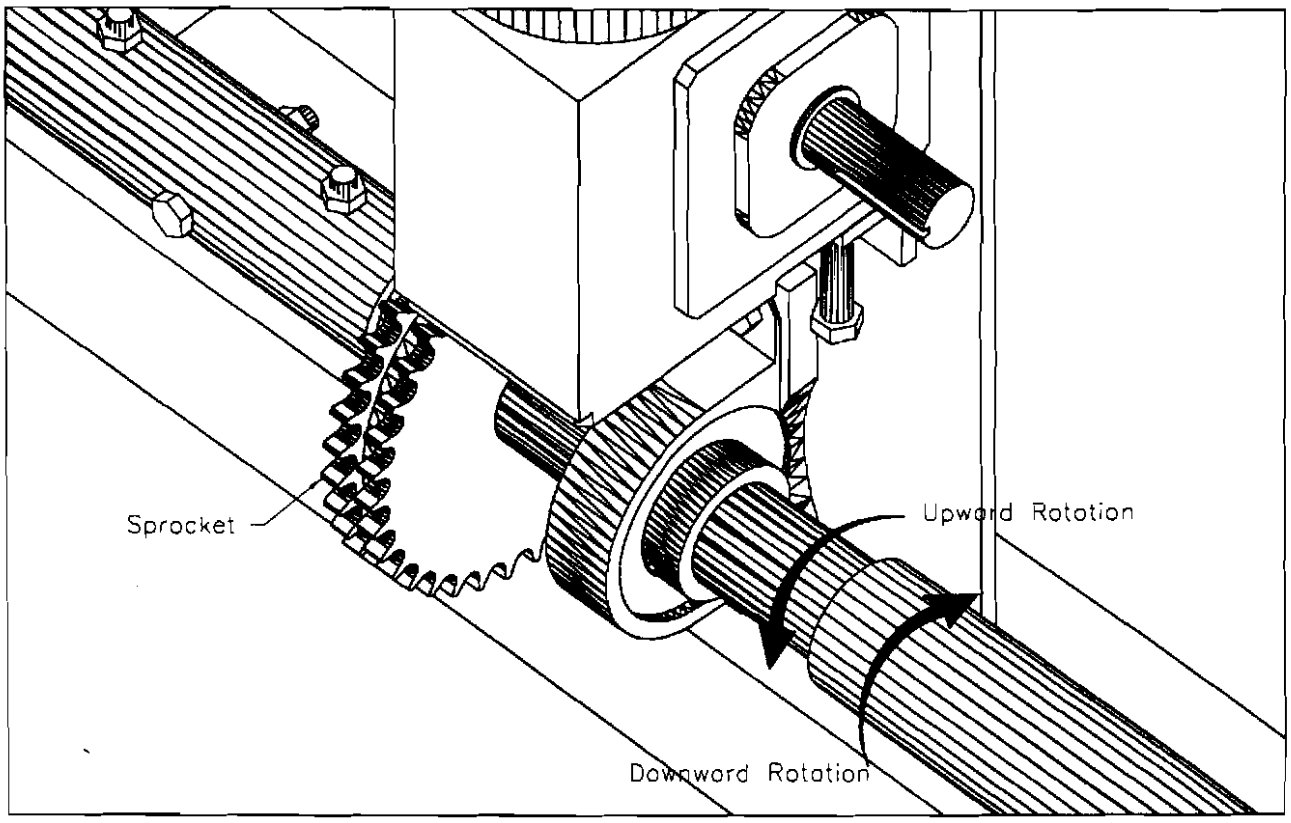
Detail 28



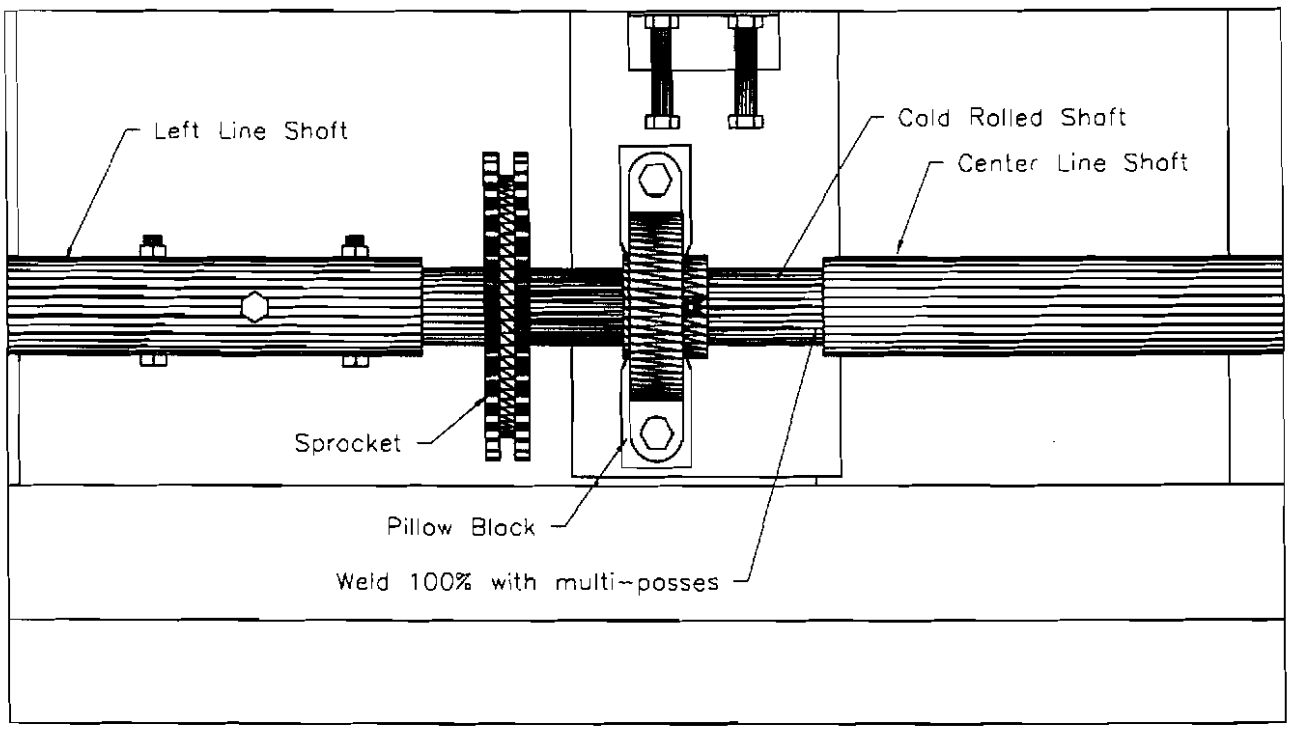
Detail 29

STEP 13:

After lineshoft is assembled and gear units have been hooked up and before installing any door cables run motors to be sure both units are driving lineshaft in the same direction as shown in detail 30. Then field weld lineshaft where it is slipped over cold rolled shaft. After shaft is field welded run operators until they shut off automatically at full down position.



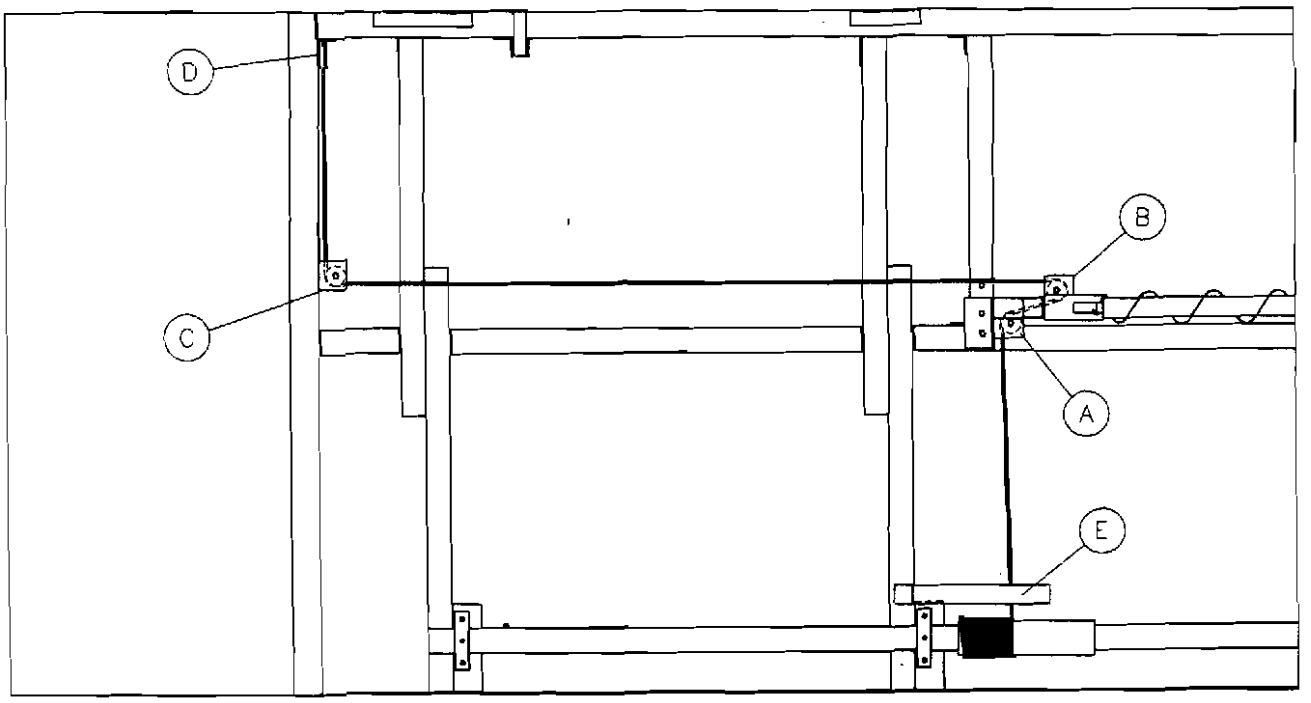
Detail 30



Detail 31

STEP 14:

Install closing Tensioner cables.



Detail 32

Important Note Prior to installing door lock cables; be sure door is at full closed position and that the down limits switch has automatically shut off.

Automatic Jamb Lock Installation Instructions

Step A: Field weld pulley bracket "C" to inside edge of end stud so that the cable will travel straight from pulley bracket "B" to the bottom edge of pulley "C". Weld pulley bracket "d' to the inside corner of the end stud as shown. When installing pulley "C", angle it slightly to direct the cable to the back of pulley "D".

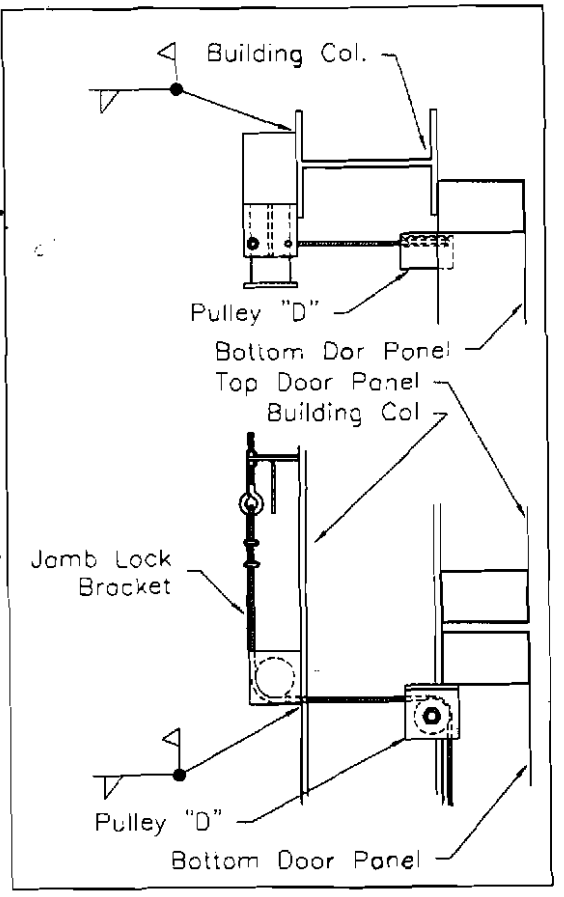
Step B: Install Jamb Lock bracket on inside surface of the jamb column as shown. Line up the eye bolt with the top edge of pulley "D". Weld to Jamb column.

Step C: Install locking cable. Pass thru pipe sleeve welded on locking cable drum on line shaft. Make correct number of wraps on the line shaft drum (see chart for correct number of wraps for your specified door height & opening clearance.) Keep cable wraps neat & tight on drum. Be sure that the cable feeds off the line shaft between the shaft & the door.

Step D: Take cable around pulley "A" then around pulley "B" on tube sleeve, around pulley "C", around pulley "D", and straight back & clamp to the eyebolt using two cable clamps.

Door Clear Opening	Number of Wraps on Drum
14'–0"	21 Full Wraps
16'–0"	24 Full Wraps
18'–0"	27 Full Wraps
20'–0"	29 Full Wraps

Step E: Install ALS guardat location "E" on both sides of door approximately 1/2" above pillow block.



Detail 33

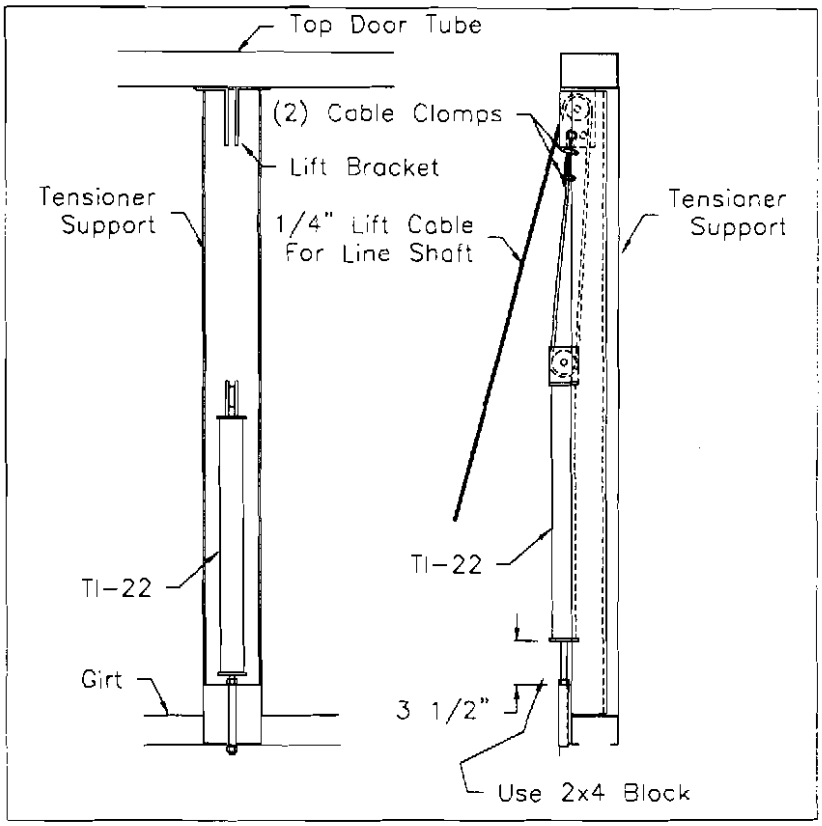
STEP 15:

Install lift cables.

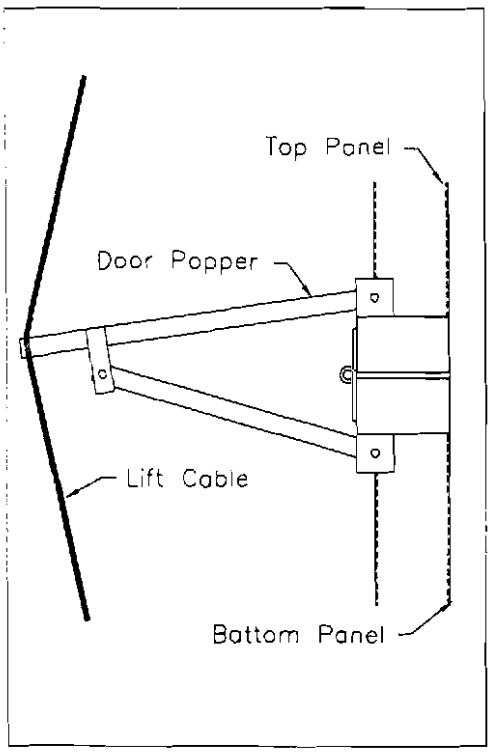
Step A: With cable Tensioner (TI-22) under no tension run one nut up to the bottom of the tensioner. Slide the TI-22 in to the bracket ol the bottom of the tensioner support & place a lonc washer & o 2nd nut on and tighten.

Step 2: When door is ready for cabling, pull up on the TI-22 and insert a 2x4 block under it. This will provide the 3 1/2" spoce needed. Next run the cable thru the cable catch on the line shaft & around the shaft to make 2-full wraps, thru the cable guard, over the door popper, thru the pulley in the lift bracket, down to the cable tensioner (TI-22), thru the pulley & back up to the lift bracket. Work the slack out of the coble, BE SURE NOT TO LIFT THE TENSIONER OFF THE BLOCK. Clamp using (2) cable clamps, remove the block from under the TI-22.

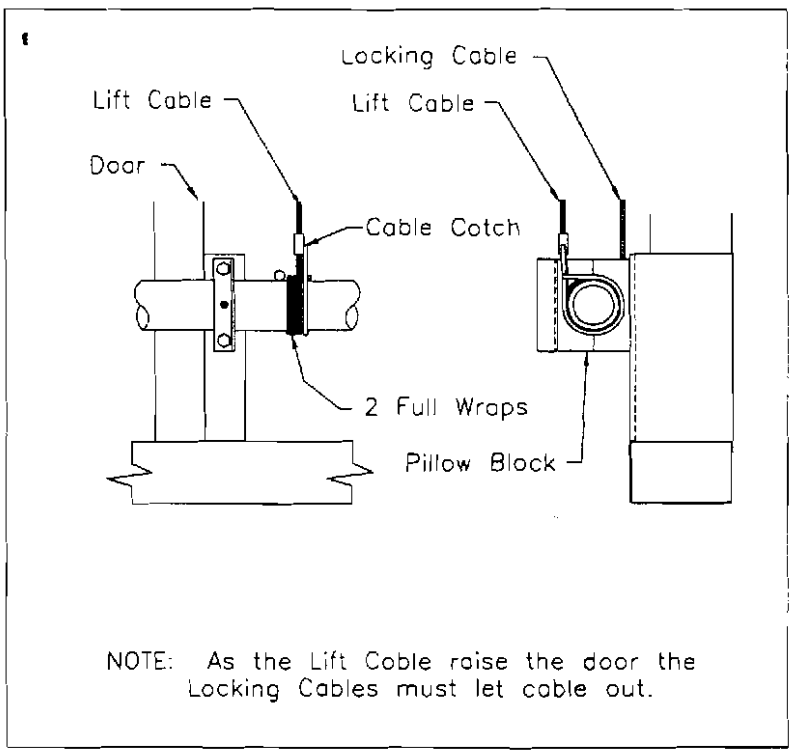
(Follow this procedure for the other tensioner. When done all the TI-22 should be 3 1/2" off the tensioner support brackets.)



Detail 34



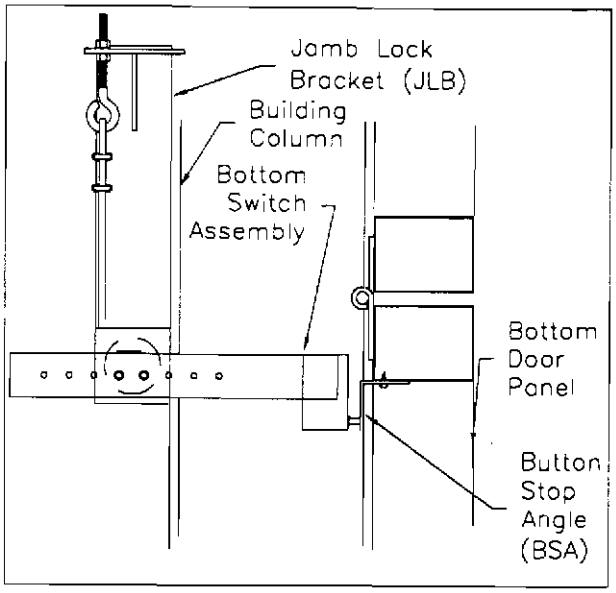
Detail 35



Detail 36

STEP 16:

After cables ore installed, be sure to take clamps off or brake tack welds. Adjust the lack coble so that the door is fairly snug. Install Bottom Limit Switch assembly os shown in Detail 37. Attach the Bottom Switch Angle (BSA) to the door with two (SMS) sheet metol screws. Place Switch Assembly so that the switch plunger is approximately 1/2 way depressed when the door is fully closed. Attach switch ossembly to the Jamb Lock Brocket with sheet metol screws ond the stitch weld in place. If it is necessory for additionol adjustment, move the Bottom Stop Angle ond tack weld in ploce.

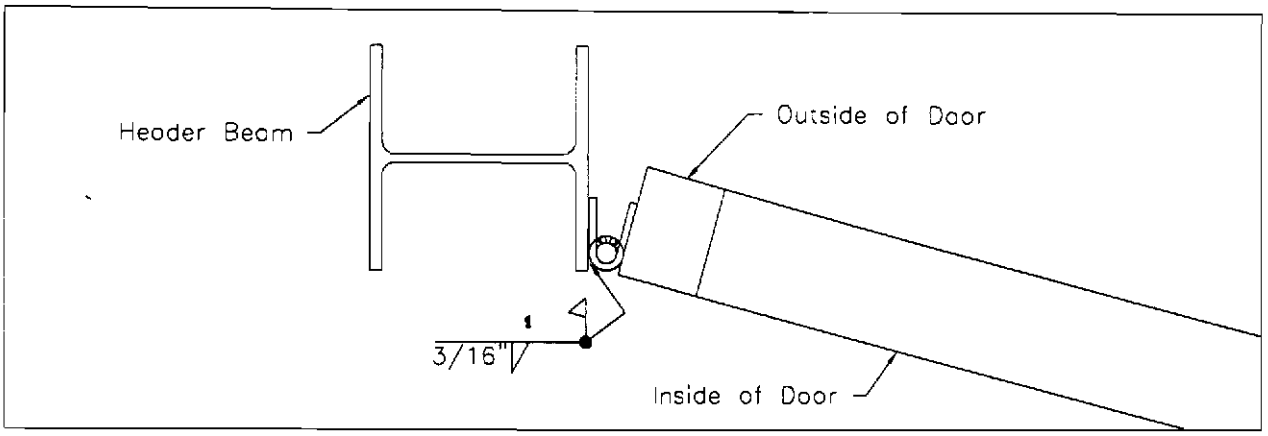


Detail 37

STEP 17:

IMPORTANT:

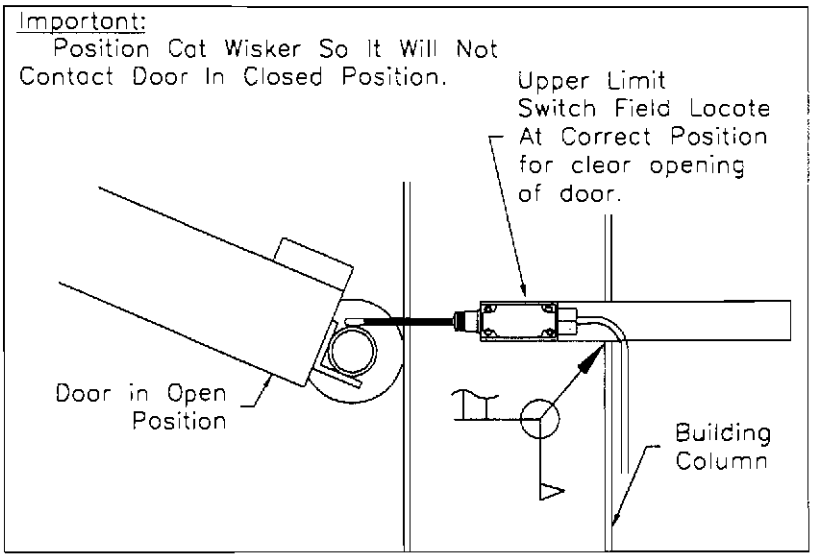
Open door ond weld olong the bottom edge of the ninges on the heoder beam.



Detail 38

STEP 18:

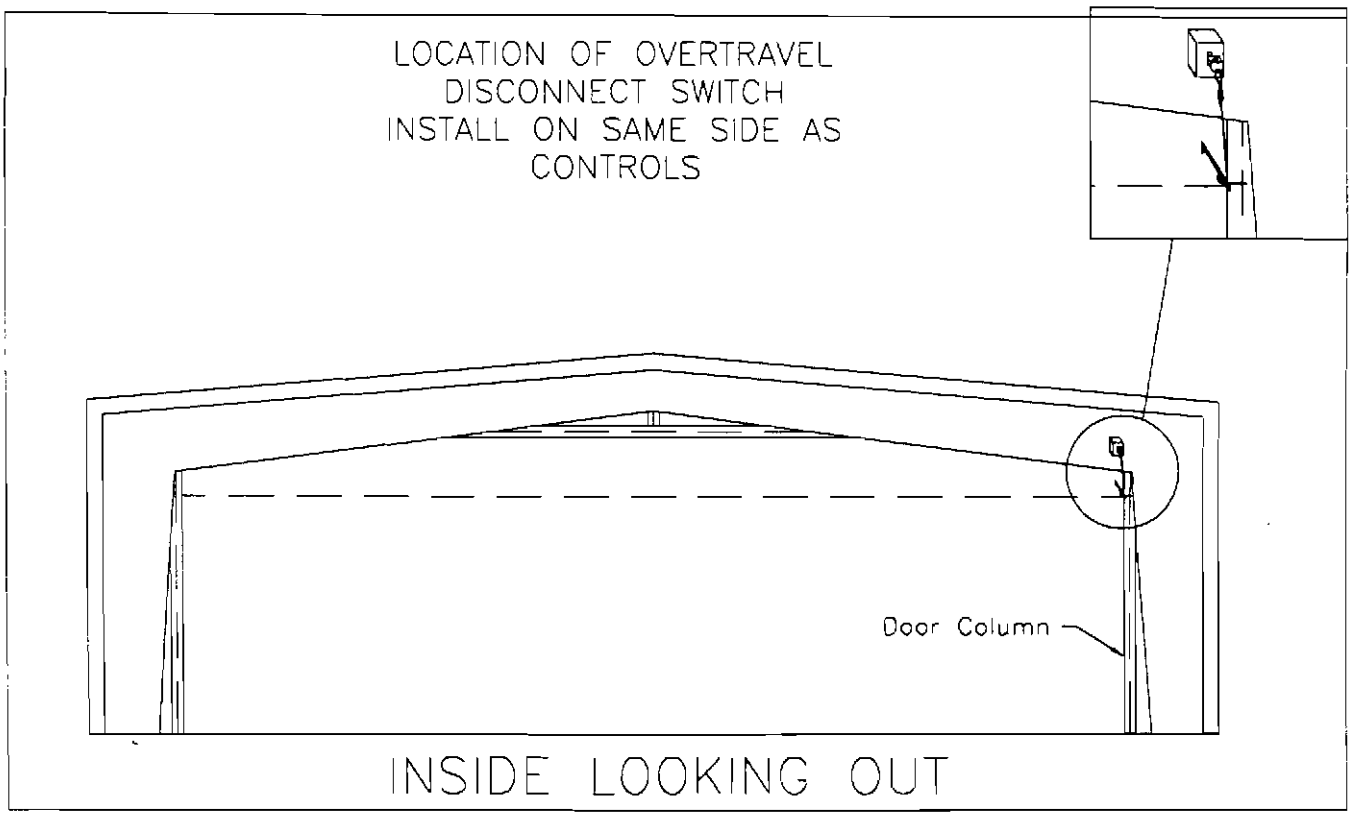
Install Top Limit Switch Assembly (TSA) Clamp switch ossembly to door column so switch contacts the door roller brocket ond is clear of door keeper rod. Raise the door to the full open position (NOTE: Do not go over the full open height for the door, becouse this will domage the door.) Position the switch so that the top limit switch will strike the door roller bracket ond is clear of the door keeper rod. When in ploce be sure the switch is level and weld the switch ossembly to the door column. Then work door up ond down several times to a height of 8 to 12 feet to check coble wrop ond to see thot cables ore lifting even. If some cobles ore loose tighten cable tensioner bolt slightly to get on even lift.



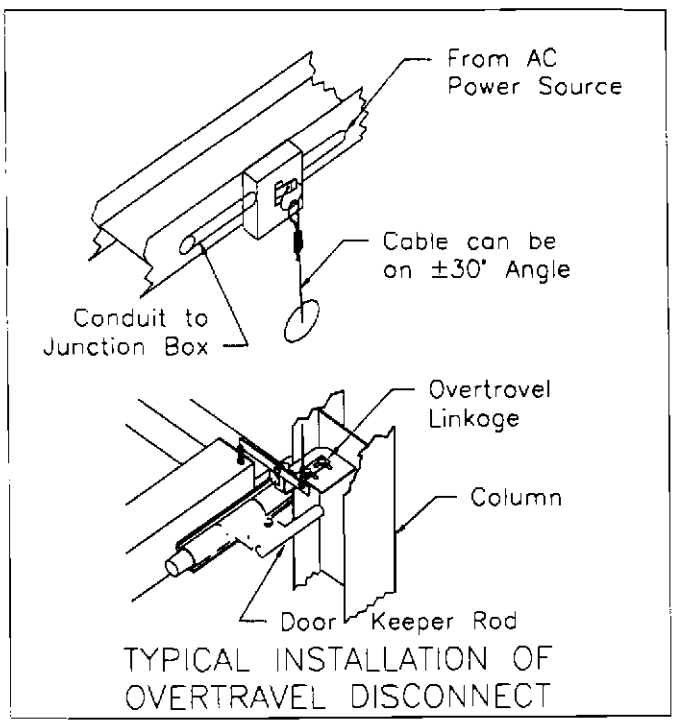
Detail 39

STEP 19: OVERTRAVEL DISCONNECT SWITCH

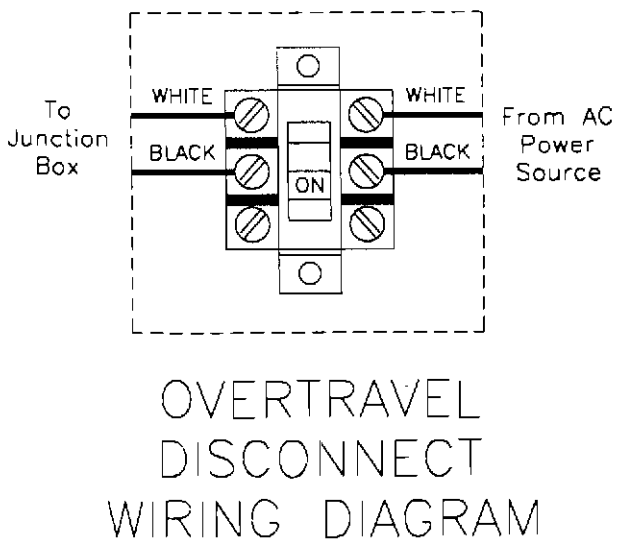
This switch is activated mechanically by the door if it travels over the set clear opening height. The mechanical part is designed to be mounted on the interior of the column and welded in place. The activator arm makes contact with the bottom door cord or roller bracket and pulls on the disconnect switch. See figures below. Make sure that the arm doesn't stick out so far that it hits the door sheeting.



Detail 40A



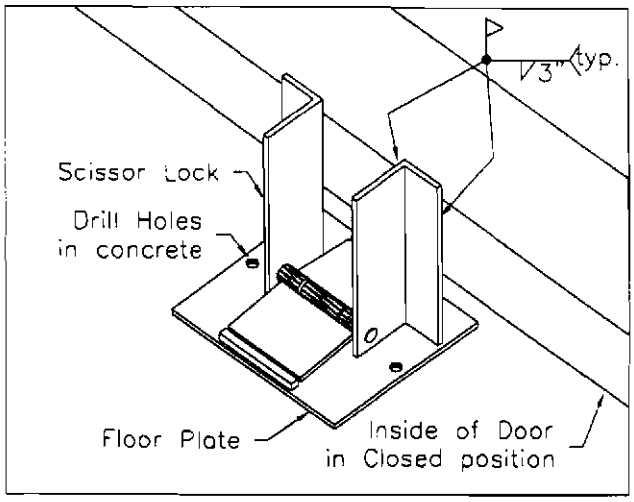
Detail 40B



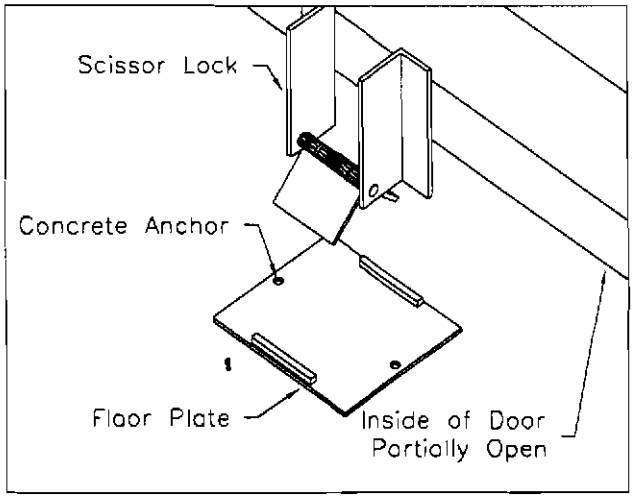
Detail 40C

STEP 20:

Install door base automatic scissor locks on bottom inside of door. Field weld scissor lock angles to bottom door tube. Field drill floor plate for concrete anchors.



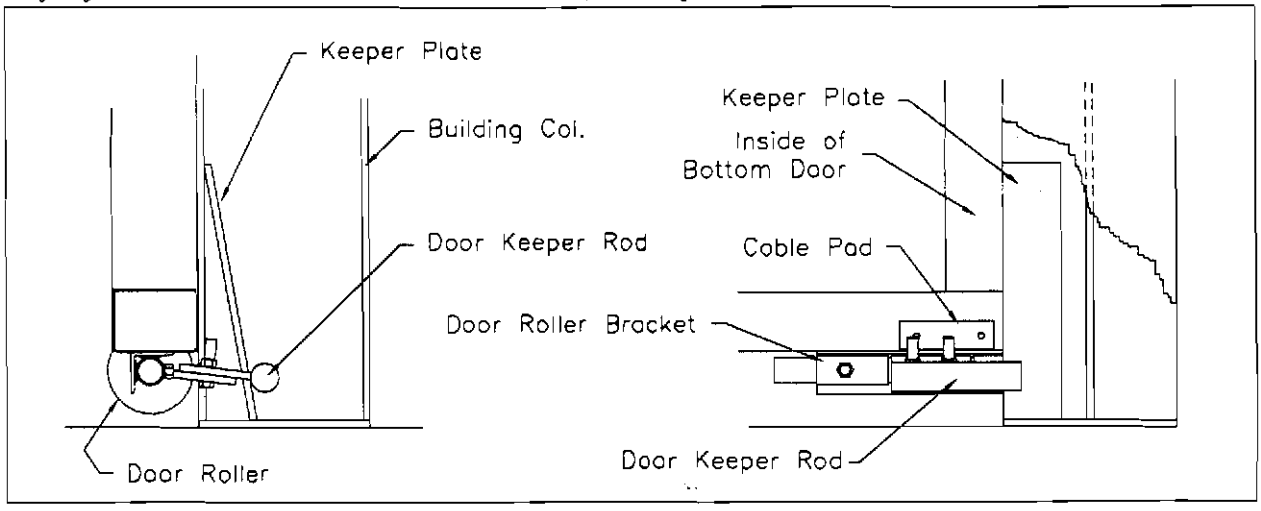
Detail 41



Detail 42

STEP 21:

Place keeper plate in position as shown below. tack into place. Then open door & check to make sure that door keeper doesn't bind on keeper plate. If not weld in place. Open door to locate where the cable is going to run on bottom tube and add a cable pad using sheet metal screws.

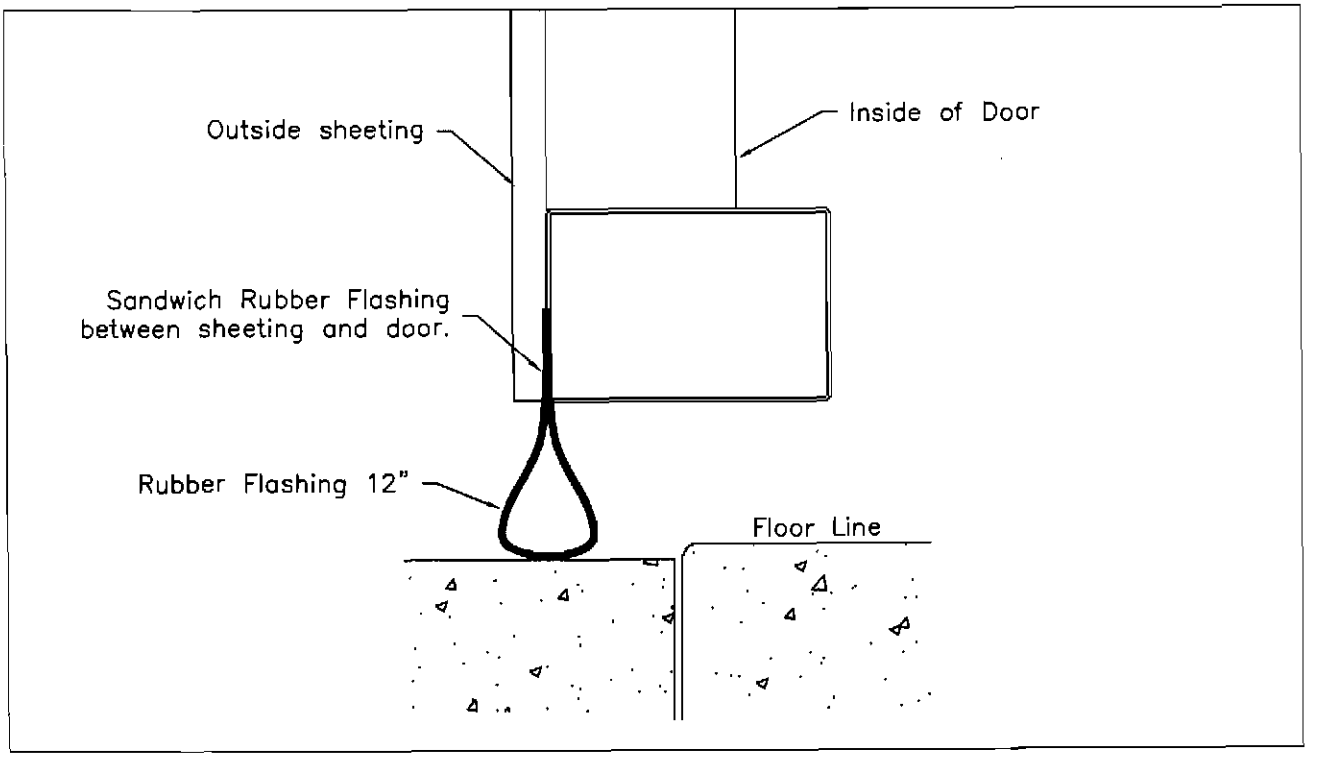


Detail 43

NOTE: If your door is equipped with a miller edge, See page 23 for step 24.

STEP 22:

Base seal installation.

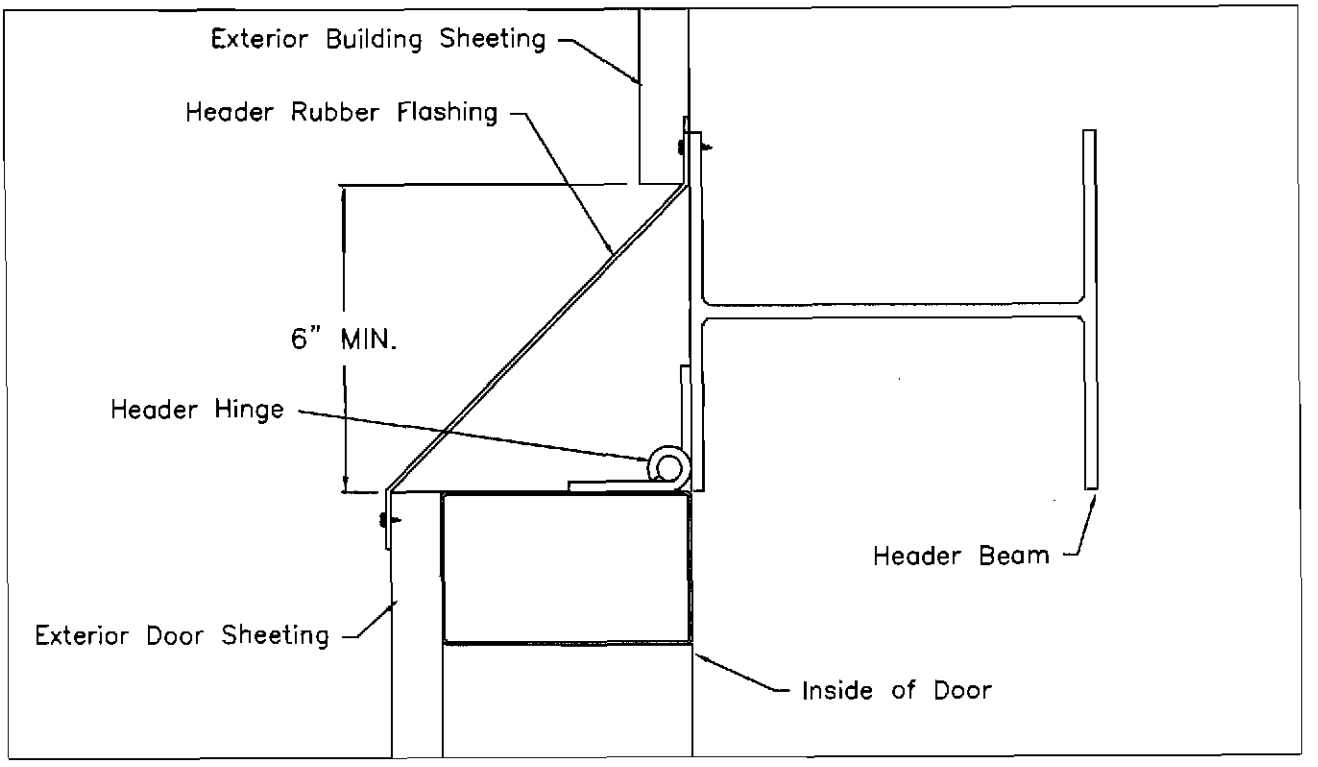


Detail 44

NOTE: If your door is equipped with a pass door, See page 17 before continuing.

STEP 23:

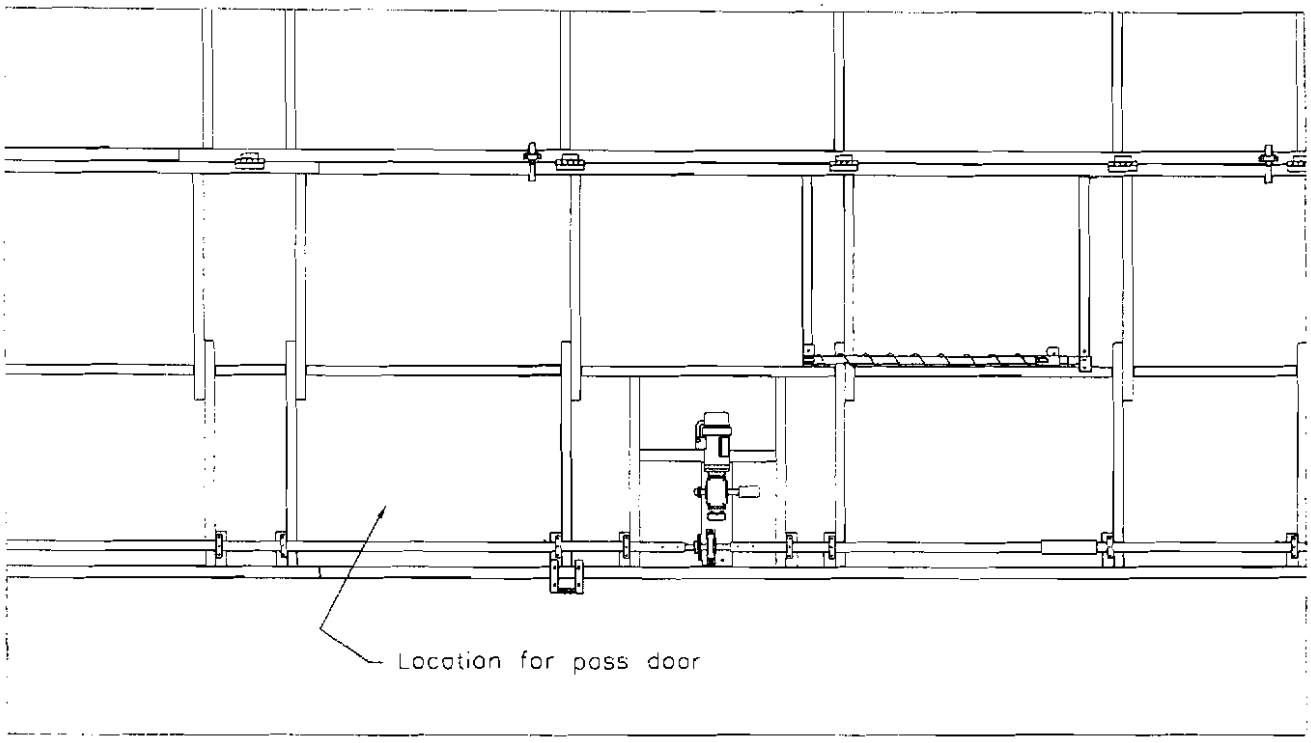
Door is now ready for exterior sheeting and header rubber flashing, installed at the same time.



Detail 45

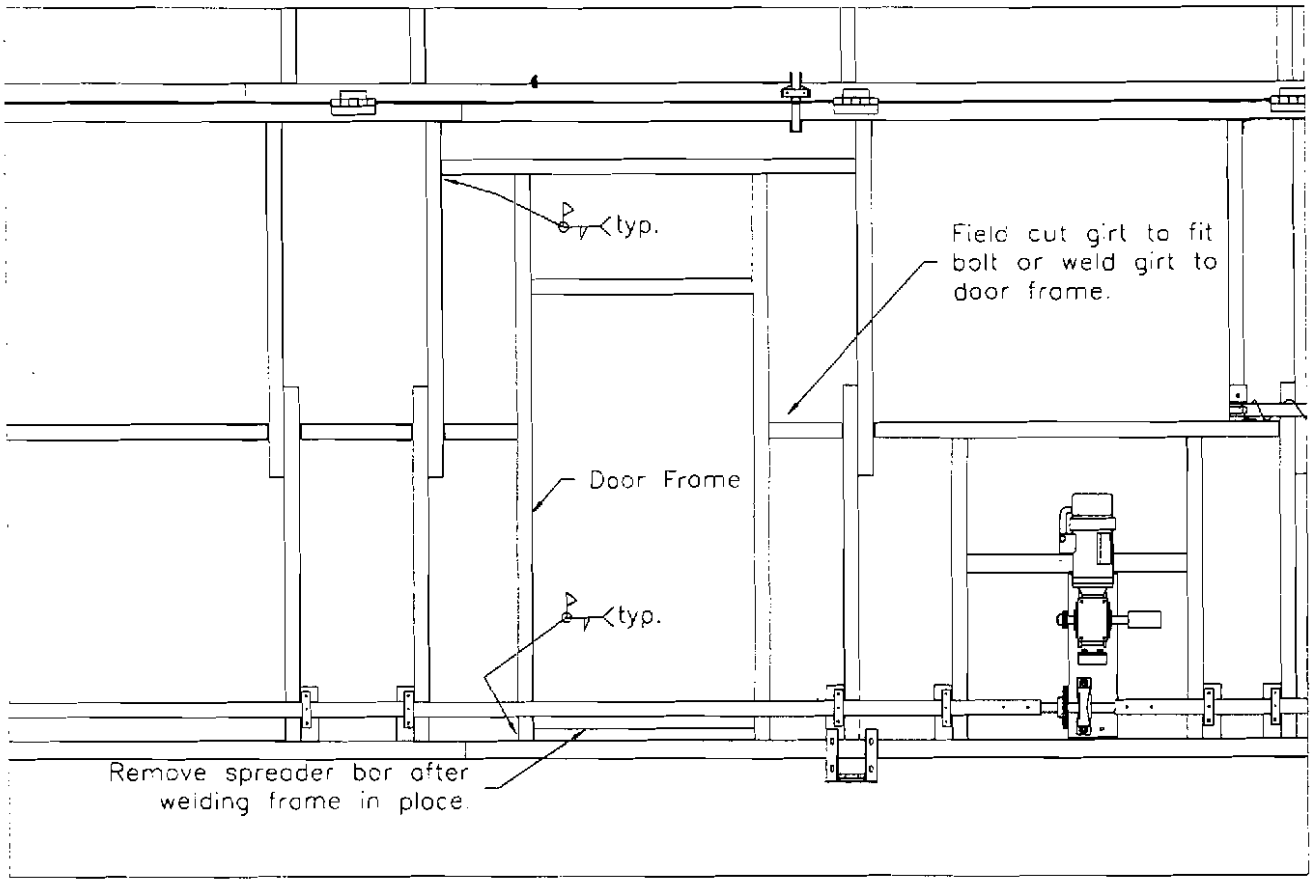
PASS DOOR INSTALLATION

Look at the elevation drawing to locate the poss door location.



Detail 46

Installation door frame and door.



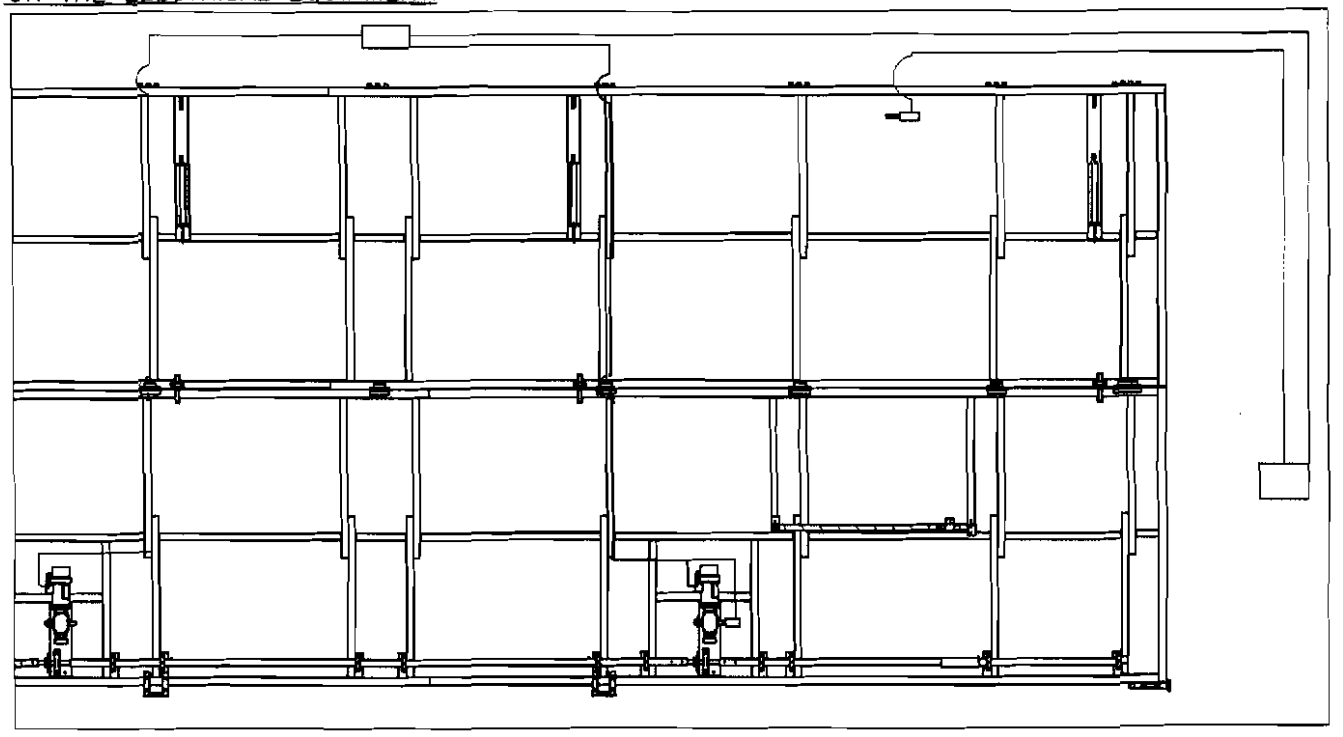
Detail 47

ins2519

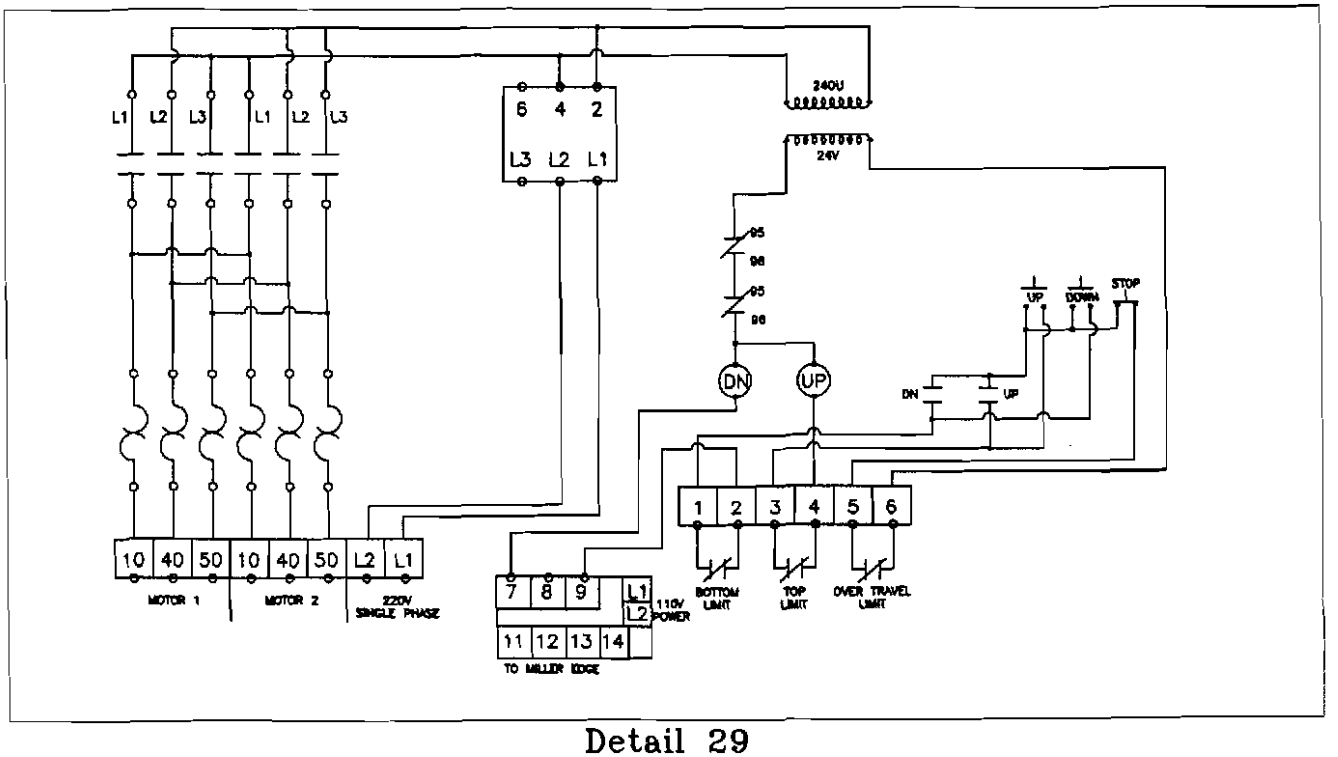
NOTE: If your door is equipped with miller edge. See page 19 for step 12.
If your door is equipped with radio remote. See page 20 for step 12.
If your door is equipped with both radio remote & miller edge. See page 21 for step 12.

STEP 12:

Run electric cord from the motors to top of door into junction box (by others). Be sure to leave a loop at the center of the door and a longer loop at the top of the door. Run wires (by others) from juction box to control box and hook wires into box. Run motors and check direction of the rotation. To check the rotation, place right shoulder on the inside of the door. The line shaft should turn clockwise for down and counterclockwise for up. Make wiring changes if incorrect. CAUTION: CONTACT HANGAR DOOR CO. BEFORE MAKING ANY WIRING CHANGES TO AVOID VOIDING OF FACTORY WARRANTY ON THE ELECTRICAL EQUIPMENT.



Detail 28



Detail 29

NOTE: If your door is equipped with miller edge. See page 19 for step 12.
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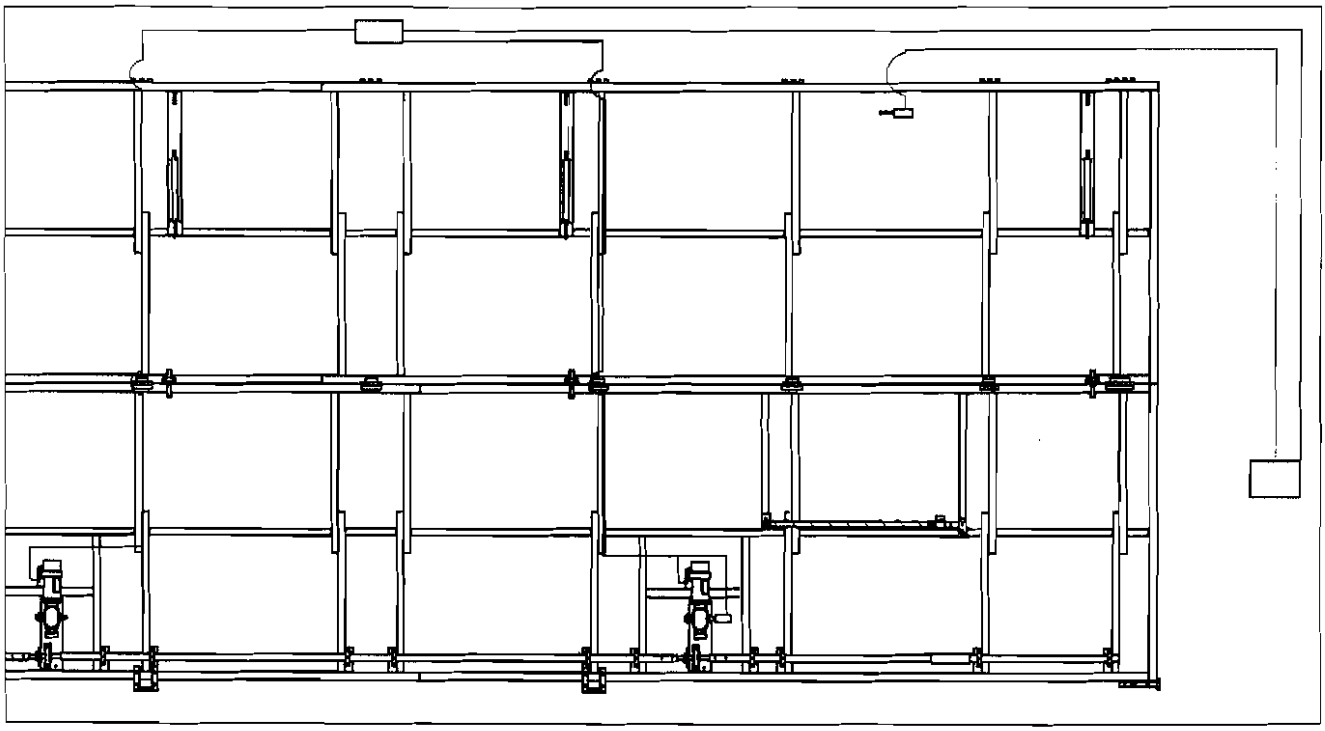
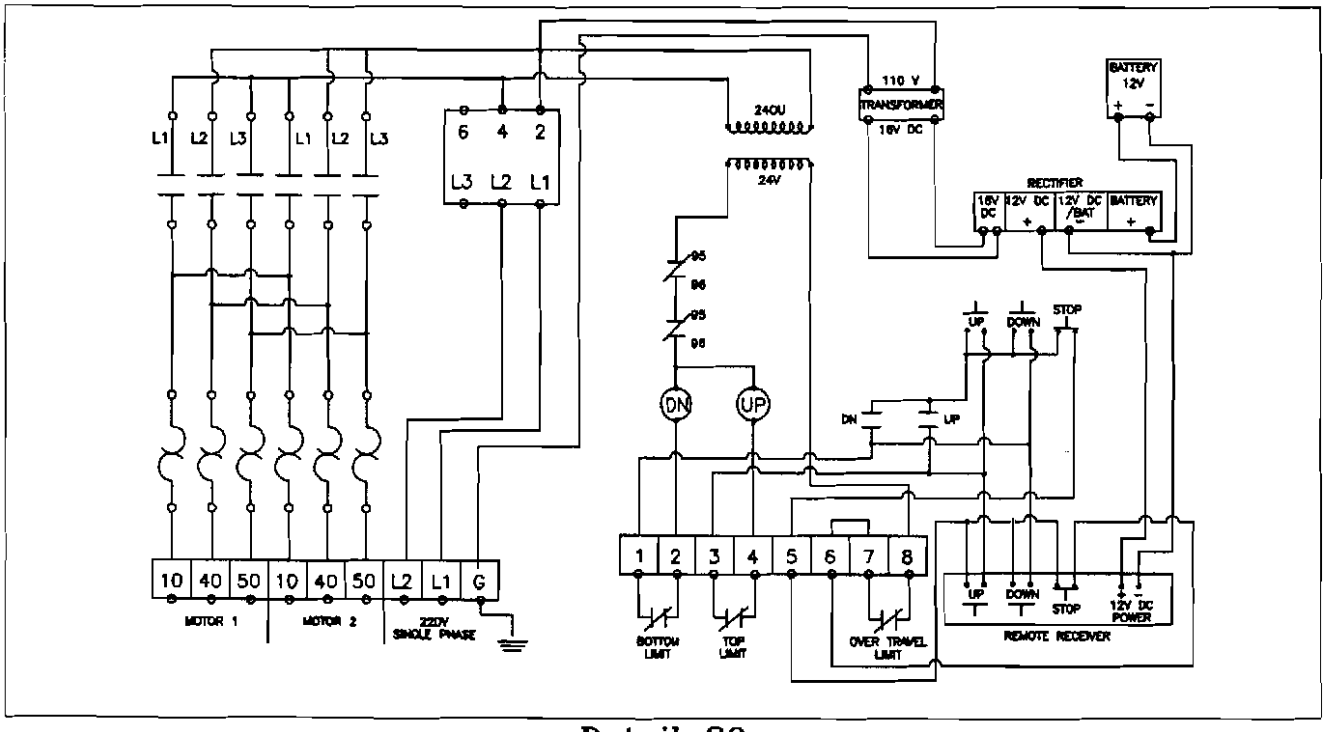


Detail 28



Detail 29

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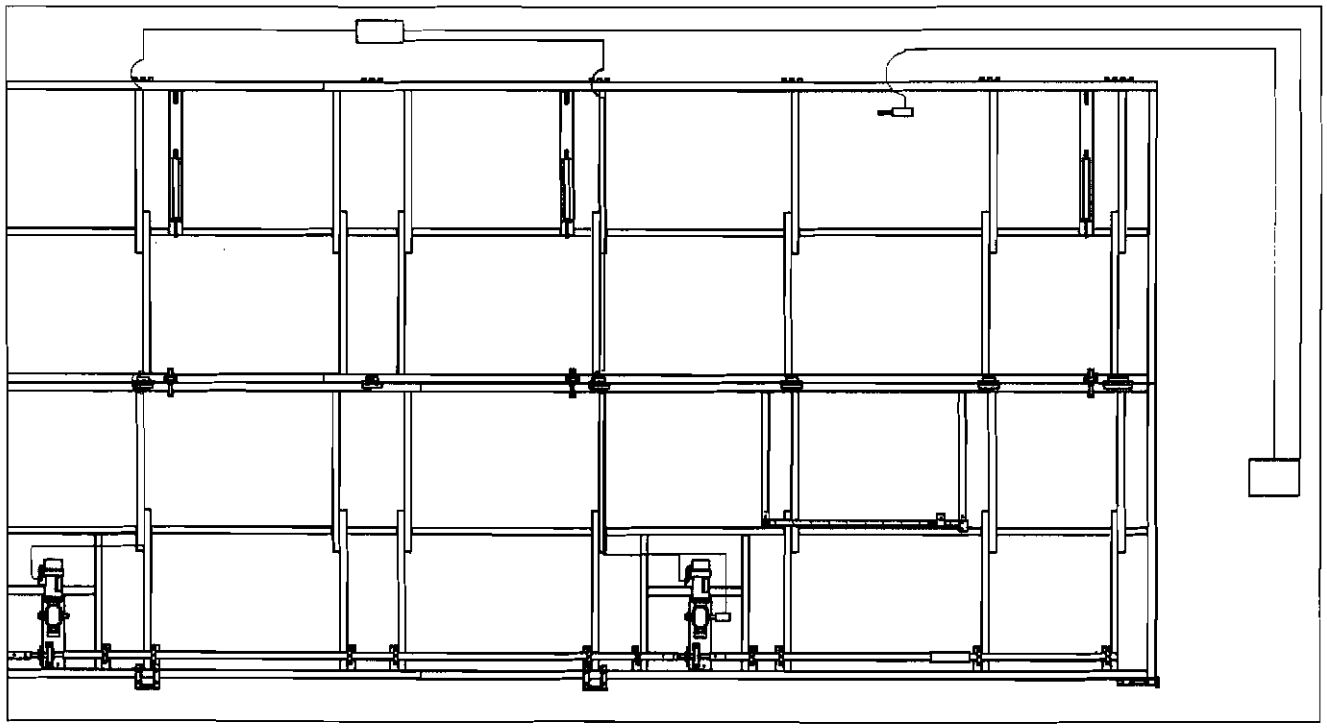
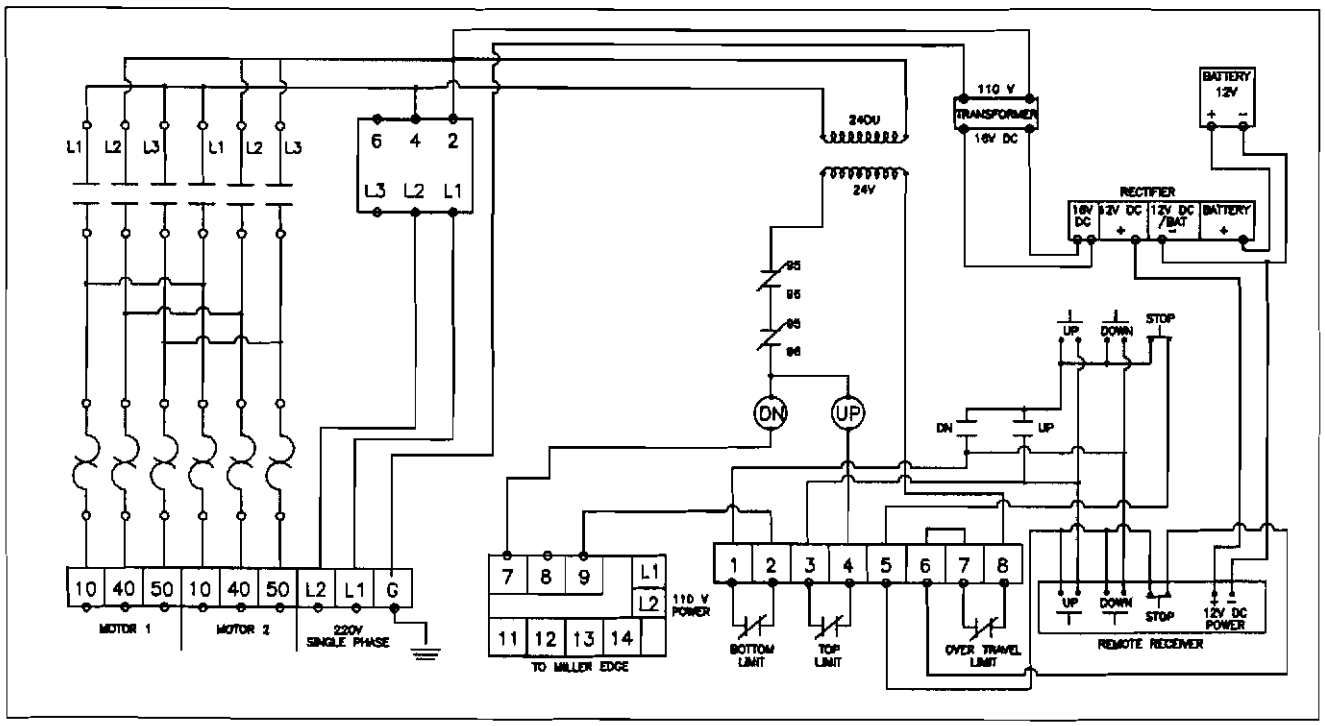


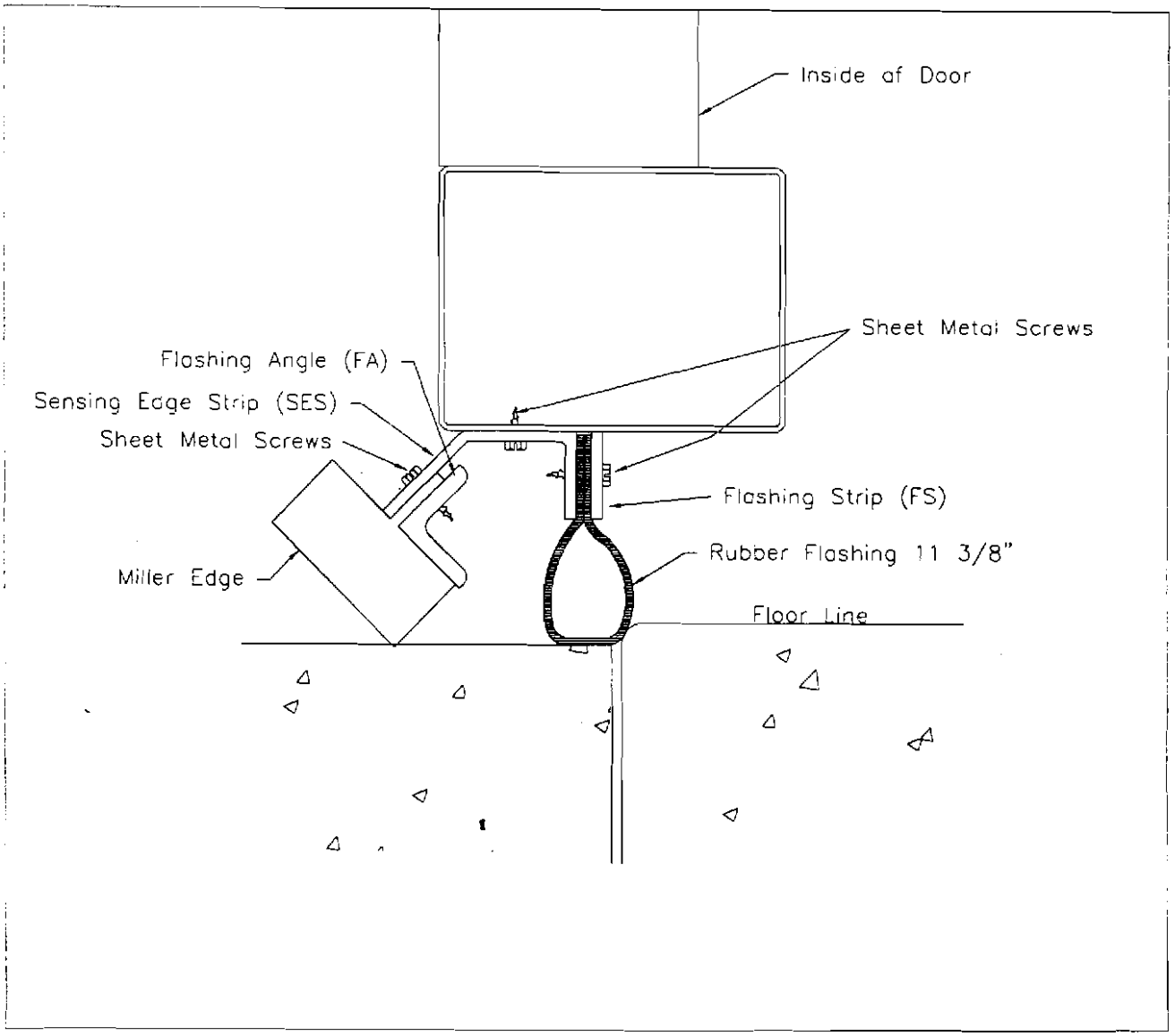
Detail 28



Detail 29

STEP 24:

Base seal & Miller Edge installation.



Detail 48

WILSON DOORS INC.

3380 E. Airport Road
El Dorado Springs, Missouri 64744
(417) 876-6508 Fax (417) 876-6506

2500 SERIES MAINTENANCE AND SERVICE LIST

These service checks should be performed a minimum of once a year and are suggested every six months. Always inspect the door structure for any damage or stress cracks. The header system should also be inspected for loose bolts, cracks, and any bent or damaged members.

1. Grease line shaft pillow blocks through grease zerk.
2. Oil center hinge at all hinge locations, check cotter pins. Replace if needed.
3. Check sprockets and chain at operator:
   A. If sprockets have shifted, loosen mounting bolts and realign using a straight edge.
   B. If chain is loose, adjust by using the tensioning bolts on the gear reducer. Loosen the four bolts on the back of the gear reducer, tighten the tensioning bolts until the chain has from 1/4" to 1/2" of play. Re-tighten all the bolts that were used. Oil chain thoroughly.
4. Lubricate all the lift cables using an old rage and gear oil. As the rag is passed over the cables, watch and feel carefully for frays in the cables. Any cables excessively frayed should be replaced.
5. Check adjustment of the locking cables which should be tight enough to close the door gently. Over tightening of these cables will lead to premature cable failure.
6. With the door in full closed position, check door rollers for excessive wear. Check to see that the door is tracking straight. This can be seen by the marks left by the door rollers on the outside of the jamb.
7. Check that all switches and wiring are undamaged and in good working order. Check that all mounting brackets are tight.
8. Check the top and bottom seals for tears. Replace if necessary.

3380 E. Airport Road
El Dorado Springs, MO 64744
(417) 876-6508
Fax (417) 876-6506
www.wilsondoors.com

ONE YEAR LIMITED WARRANTY

Wilson Doors, Inc. (Wilson) Doors (Product) should not be installed or operated before you (Buyer) read the Product Manuals explaining the proper methods of installing, operating and maintaining the Product.

Wilson guarantees its products to be free of defects in material and workmanship for one year from date of shipment. Electrical components are not a product manufactured by Wilson and are guaranteed by their manufacturer for one year through Wilson Doors, Inc.

All defective parts must be returned, shipping prepaid, for our evaluation before replacement parts will be sent out.

If you are unable to return defective parts immediately, we will ship new parts UPS-COD and refund your money for the part when it is returned. WE MUST HAVE DEFECTIVE PARTS BACK FOR EVALUATION.

Any description of Wilson's products, whether in writing or made orally by Wilson or Wilson's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering or similar materials used in connection with the Buyer's order are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by Wilson or Wilson's agents regarding use, application or suitability of the Product shall not be construed as an express warranty unless confirmed by Wilson in writing.

This is a limited warranty subject to the items listed. Wilson is not responsible for any other obligations or liabilities, whether arising out of breach of contract, warranty, tort (including negligence and strict liability) or any other law with respect to product sold or services rendered by Wilson, or any undertaking, acts or omissions relating thereto. Wilson specifically disclaims any liability for property or personal injury damages, penalties, special or punitive damages, damages for lost profits or revenue, services, down time, or any other types of economic loss, and for claims of Buyer's customers or any third party for any such damages. Wilson shall not be liable for and disclaims all consequential, incidental and contingent damages whatsoever.

This warranty shall be void in its entirety if failure of any products is caused by any installation, operation or maintenance of the Product which does not conform with the requirements set forth by Wilson in the applicable product manuals or is the result of any cause other than a defect in the material or workmanship of the Product.