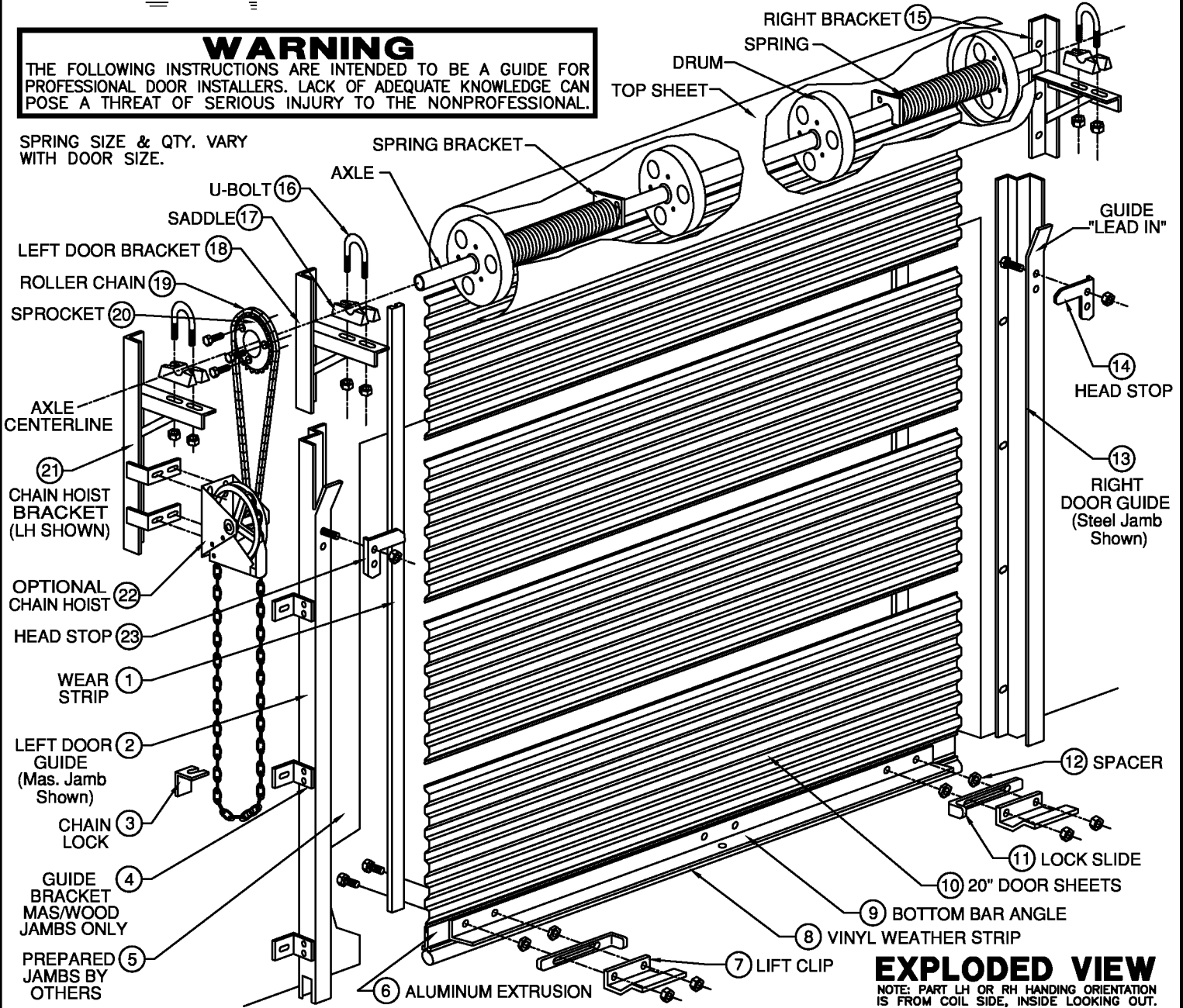


WARNING

THE FOLLOWING INSTRUCTIONS ARE INTENDED TO BE A GUIDE FOR PROFESSIONAL DOOR INSTALLERS. LACK OF ADEQUATE KNOWLEDGE CAN POSE A THREAT OF SERIOUS INJURY TO THE NONPROFESSIONAL.

SPRING SIZE & QTY. VARY WITH DOOR SIZE.



EXPLODED VIEW
NOTE: PART LH OR RH HANDING ORIENTATION IS FROM COIL SIDE, INSIDE LOOKING OUT.

IMPORTANT REMARKS

DO NOT CUT THE BANDS WHICH HOLD DOOR IN A ROLL, YOU WILL BE INSTRUCTED AT A LATER TIME EXACTLY WHEN TO CUT THEM. NO GUARANTEE WILL BE GIVEN, OR RESPONSIBILITY ACCEPTED BY MANUFACTURER IF DOOR IS NOT ERECTED AS INSTRUCTED. FOLLOW ALL OF THE INSTRUCTIONS GIVEN FOR PROPER DOOR OPERATION. PLEASE REVIEW ALL INSTRUCTIONS PRIOR TO STARTING ACTUAL WORK.

PARTS LIST. GIVE ROUGH OPENING SIZE WHEN ORDERING

ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	U240004-XXX	WEAR STRIP, ATTACHED TO ONE SIDE OF CURTAIN	13	U390072-XXXR	DOOR GUIDE STEEL JAMB RH, BY DOOR HGT.
2	U390077-XXXL	DOOR GUIDE MAS. JAMB LH, BY DOOR HGT.	-	U390072-XXXL	DOOR GUIDE STEEL JAMB LH, BY DOOR HGT.
-	U390077-XXXR	DOOR GUIDE MAS. JAMB RH, BY DOOR HGT.	14	U320022	HEAD STOP, RH
3	N.A.	CHAIN LOCK (INCLUDED WITH CHAIN HOIST)	15	U320018	DOOR MOUNTING BRACKET, NON HOIST, R.H.
4	U220004	GUIDE BRACKET	-	U320014	DOOR MOUNTING BRACKET, HOIST SIDE, R.H.
5	N.A.	PREPARED BUILDING JAMBS, 6" MINIMUM	16	U310001	3/8" U-BOLT
6	U240001-XXX	ALUMINUM EXTRUSION	17	U320002	SADDLE CASTING
7	U320023-C	LIFT CLIP	18	U320017	DOOR MOUNTING BRACKET, NON HOIST, L.H.
8	U240002-XXX	VINYL WEATHER STRIP, BULB ASTRAGAL	19	U320019	#41 ROLLER CHAIN (INCLUDED WITH HOIST)
9	U280004-XXX	BOTTOM BAR ANGLE 1 1/2 x 1 1/2 x 1/8"	20	U320012	40 TOOTH SPROCKET for #41 CHAIN
10	U230100-20	CORRUGATED SHEET BY LENGTH & COLOR	21	U320013	DOOR MOUNTING BRACKET, HOIST SIDE, L.H.
11	U320024-C	SLIDE BOLT LOCK	22	U320007	REDUCED DRIVE CHAIN HOIST, COMPLETE
12	U210004	5/16"-18 HEX HEAD NUT SPACER	23	U320021	HEAD STOP, LH

ALL FASTENERS SUPPLIED: NUTS, BOLTS AND WASHERS ARE STANDARD SIZE.

STEP 1 CHECK DOOR OPENING

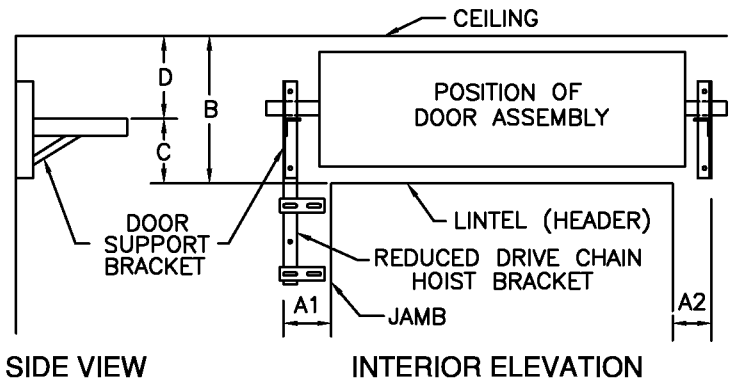
- 1A CHECK THE WIDTH AND HEIGHT OF THE DOOR OPENING AND VERIFY THE MEASUREMENTS AGAINST THE SIZES SHOWN ON THE DOOR PACKING SLIP.
- 1B CHECK BOTH DOOR JAMBS FOR PLUMB.
- 1C CHECK HEADER AND FLOOR FOR LEVEL.
- 1D CHECK TO BE SURE THAT THERE IS SUFFICIENT CLEARANCE AT THE JAMBS AND AT THE HEAD (SEE TABLE AT RIGHT).

STEP 2 INSTALL SUPPORT BRACKETS

- 2A FROM DIMENSION ON TABLE AT RIGHT, MARK THE LOCATION FOR DOOR SUPPORT BRACKET, IF THE DOOR WAS SUPPLIED WITH A CHAIN HOIST USE THE DIMENSIONS SHOWN FOR A1 ON THE SIDE HOIST IS TO BE INSTALLED.
- 2B IF OPENING IS GREATER OR LESS THAN SHOWN ON THE PACKING SLIP, ADJUST THE A1 AND A2 DIMENSIONS TO COMPENSATE FOR THE DIFFERENCE. IF OPENING IS MORE THAN 1/2" WIDER THAN SHOWN ON PACKING SLIP THE DOOR WILL NOT WORK. THE EDGE OF THE GUIDES WILL EXTEND INTO THE DOOR OPENING.
- 2C MARK FOR HEIGHT LOCATION OF DOOR SUPPORT BRACKETS BY USING DIMENSION "C". VERIFY THAT THERE IS AMPLE CLEARANCE ABOVE THE BRACKET, DIMENSION "D". IF CLEARANCE IS NOT AVAILABLE, YOU CAN LOWER THE BRACKET TO OBTAIN THE REQUIRED SPACE. THE DOOR WILL HANG IN THE HEAD WHATEVER DISTANCE YOU LOWER THE BRACKETS. IT WILL BE NECESSARY TO CUT THE SAME AMOUNT OFF THE BOTTOM OF BOTH GUIDES AND RE-NOTCH FOR SLIDE BOLT LOCK CLEARANCE.
- 2D FASTEN DOOR SUPPORT BRACKETS TO BUILDING WITH FASTENERS SUPPLIED. USE A FASTENER IN ALL HOLES OF THE SUPPORT BRACKETS.
 STEEL JAMBS USE: 3/8"x 1 1/2" HEX HEAD BOLTS.
 MASONRY JAMBS USE: 3/8"x 1 7/8" SLEEVE ANCHOR.
 NOTE: 3/8" DIAMETER THROUGH BOLTS (NOT SUPPLIED) ARE REQUIRED WHEN MOUNTING TO SOFT BRICK OR BLOCK. IF STEEL MOUNTING PLATES (OPTIONAL) ARE TO BE USED, ATTACH MOUNTING PLATE TO BUILDING AS SHOWN IN FIGURE 1.

DOOR SUPPORT BRACKET LOCATION TABLE

MDL 551	MINIMUM SIDE ROOM		MINIMUM HEADROOM		
	A1	A2	B	C	D
DOOR HEIGHT HAND OPERATED—PULL ROPE					
UP TO 8'-0" HIGH	4.5"	4.5"	16"	7"	9"
8'-1" TO 10'-0" HIGH	4.5"	4.5"	17"	7"	10"
10'-1" TO 12'-0" HIGH	4.5"	4.5"	18"	7"	11"
DOOR HEIGHT CHAIN OPERATOR—REDUCTION GEAR					
UP TO 8'-0" HIGH	6"	4.5"	16"	7"	9"
8'-1" TO 10'-0" HIGH	6"	4.5"	17"	7"	10"
10'-1" TO 12'-0" HIGH	6"	4.5"	18"	7"	11"



NOTE:
 REDUCED DRIVE CHAIN HOIST MAY BE ON EITHER SIDE. VERIFY WITH DOOR ASSEMBLY.

OPTIONAL CHAIN HOIST

IF DOOR IS TO BE CHAIN HOIST OPERATION, INSTALL SPROCKET ON APPROPRIATE END OF DOOR BEFORE LIFTING DOOR INTO POSITION ON BRACKETS (SEE FIGURE 2).

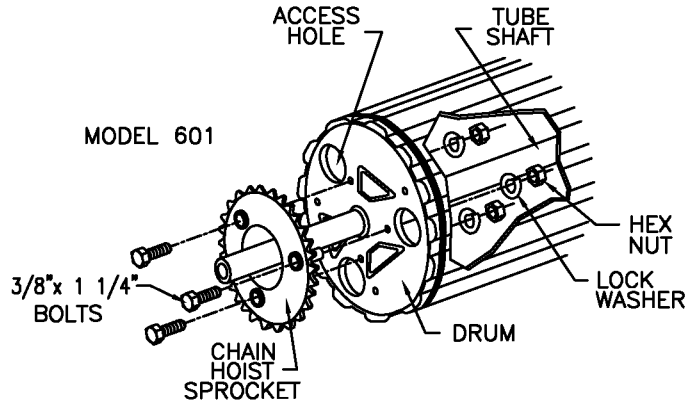


FIGURE 2

DO NOT CUT BANDS WHICH HOLD DOOR IN A ROLL. YOU WILL BE TOLD AT A LATER TIME EXACTLY WHEN TO CUT THEM (STEP 6). NO GUARANTEE WILL BE GIVEN OR RESPONSIBILITY ACCEPTED BY MANUFACTURER IF DOOR IS NOT ERECTED AS INSTRUCTED. FOR PERFECT OPERATION FOLLOW INSTRUCTIONS GIVEN. PLEASE REVIEW ALL INSTRUCTIONS BEFORE STARTING ACTUAL WORK.

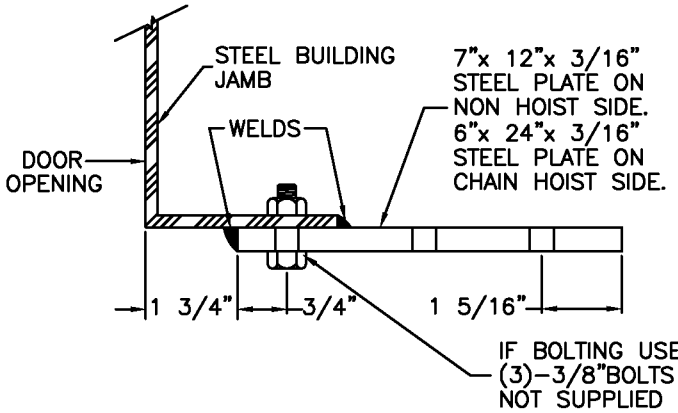


FIGURE 1

STEP 3 LIFTING THE DOOR ASSEMBLY

IT IS RECOMMENDED TO USE A FORKLIFT WITH ADEQUATE PADDING TO PREVENT DAMAGE TO THE DOOR (SEE FIGURE #3 BELOW).

- 3A CENTER DOOR IN OPENING, LIFT DOOR UP ONTO SADDLE CASTINGS (AXLE SHOULD SIT IN BOTTOM OF SADDLE CASTINGS).
- 3B CENTER DOOR IN OPENING, IF SIDEWAYS MOVEMENTS ARE NECESSARY, MAKE SURE DOOR AND DOOR AXLE MOVE TOGETHER WHEN REPOSITIONING.
- 3C POSITION DOOR AS CLOSE AS POSSIBLE TO THE BACK OF BUILDING HEADER. DOOR ASSEMBLY MUST BE ABLE TO ROTATE DOOR FULLY WITHOUT CONTACTING OR SCRAPING BACK OF BUILDING HEADER.

DO NOT CUT THE BANDS

YOU WILL BE TOLD AT A LATER TIME EXACTLY WHEN TO CUT THEM.

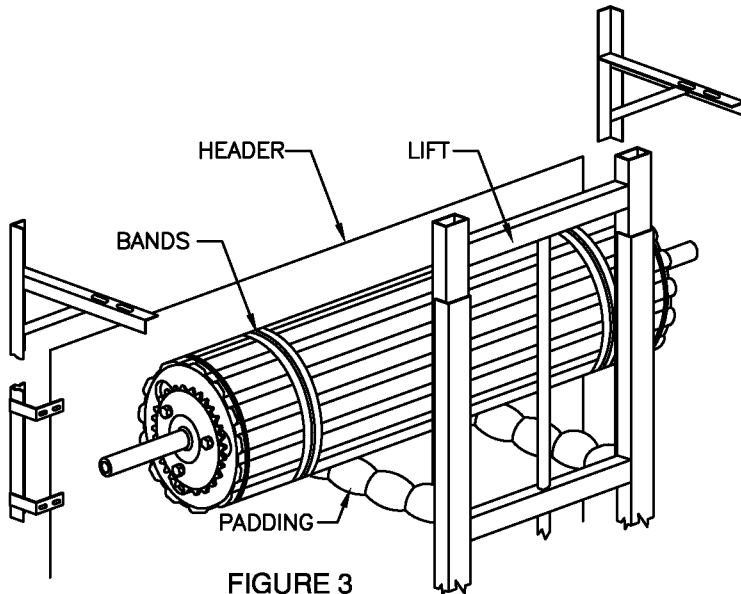


FIGURE 3

STEP 4

SECURE AXLE SADDLES AND CHAIN HOIST (if supplied)

- 4A PLACE SADDLE CASTING ON DOOR SUPPORT BRACKET. LAY AXLE IN SADDLE CASTING AND PLACE U-BOLT OVER AXLE AND THROUGH SADDLE CASTING AND BRACKET AS SHOWN IN FIGURE 4.
- 4B INSTALL PLATE, WASHER AND NUTS AS SHOWN IN FIGURE 4 AND TAKE VERY GREAT CARE TO TIGHTEN BOTH NUTS VERY TIGHTLY TO A TORQUE OF 40 FOOT POUNDS. (THIS IS A 40 POUND PULL AT THE END OF A 12" WRENCH.)
- 4C ATTACH CHAIN HOIST (IF SUPPLIED) TO DOOR SUPPORT BRACKET USING (4) - 3/8" DIAMETER HEX HEAD BOLTS. POSITION ROLLER CHAIN ON PERIMETER OF BOTH SPROCKETS. ADJUST HEIGHT OF HOIST BRACKET SO CHAIN IS TAUNT (NO SLACK) AND TIGHTEN THE MOUNTING BOLTS. NOW INSTALL THE HAND CHAIN ON THE CHAIN WHEEL.

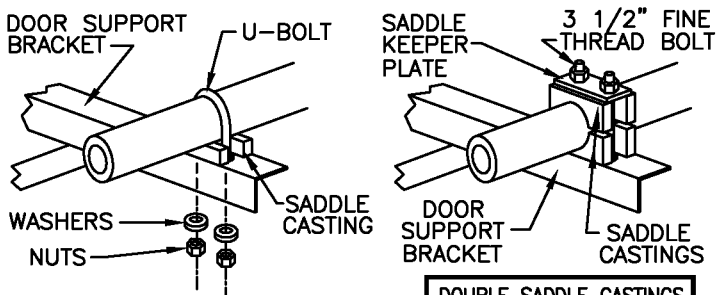


FIGURE 4

DOUBLE SADDLE CASTINGS USED ONLY FOR DOORS GREATER THAN 100 SQ. FT.

STEP 5 PRETENSION THE DOOR SPRINGS

- 5A APPLY TENSION TO SPRINGS BY ROTATING DOOR TWO (2) COMPLETE TURNS IN A FORWARD DIRECTION (SEE FIGURE 5). BOTTOM ANGLE SHOULD BE IN A DOWN POSITION (6 O'CLOCK).
- 5B THE AMOUNT OF TENSION REQUIRED TO PROPERLY COUNTERBALANCE DOOR WILL VARY. THE FINAL ADJUSTMENT OF SPRINGS WILL BE MADE LATER IN STEP 9.

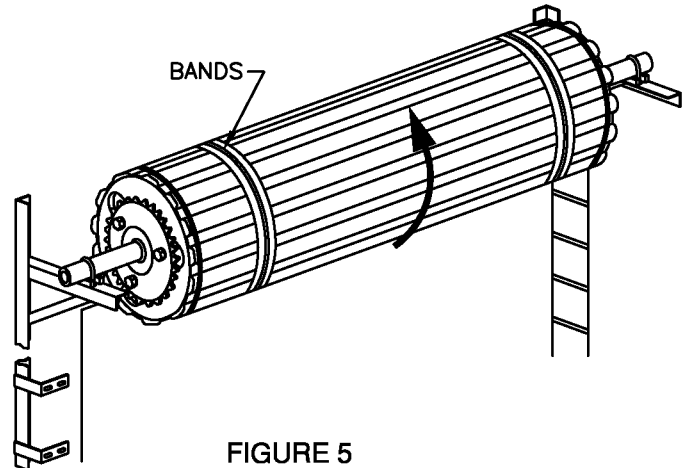


FIGURE 5

STEP 6 CUTTING THE BANDS

- 6A CUT THE BANDS THAT HOLD CURTAIN, THEN LOWER THE DOOR NO FURTHER THAN HALF WAY (SEE FIGURE 6). ON THE BOTTOM OF THE DOOR (DO NOT LET GO OF DOOR).

CAUTION: SPRINGS ARE UNDER TENSION AND DOOR COULD UNWIND IF LET GO. MAINTAIN COMPLETE CONTROL OF DOOR.

- 6B THE DOOR MAY HAVE A STRONG TENDENCY TO RAISE AND CAUSE DAMAGE. THEREFORE, IT MUST BE SECURELY HELD FROM TURNING UNTIL GUIDES AND HEAD STOPS ARE INSTALLED. THE DOOR MAY BE HELD BY A PROP AS SHOWN IN FIGURE 6.

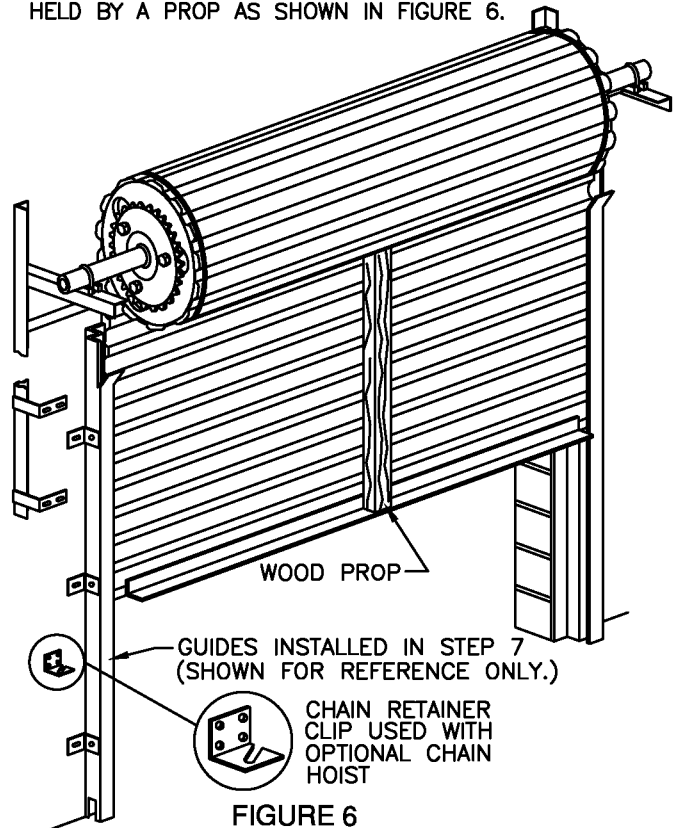


FIGURE 6

STEP 7 INSTALLING GUIDES

SLIDE STEEL GUIDE OVER THE EDGES OF THE CURTAIN AND POSITION AGAINST THE DOOR OPENING ALLOWING 1/4" CLEARANCE ON EACH SIDE OF CURTAIN. CHECK THE GUIDES FOR PLUMB USING A SPIRIT LEVEL.

INSTALLATION FOR STEEL BUILDINGS: FASTEN GUIDES TO JAMB USING #14 SELF-TAPPING TEK SCREWS. INSTALL CHAIN RETAINER CLIP (IF SUPPLIED) APPROXIMATELY 4 FEET ABOVE FLOOR.

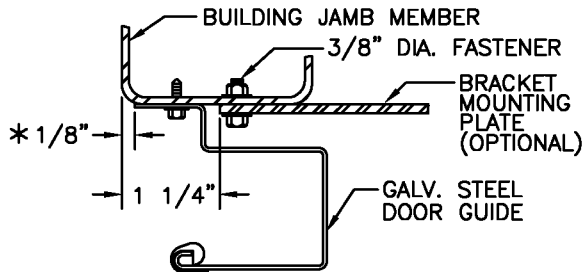


FIGURE 7A STEEL JAMBS

INSTALLATION FOR MASONRY, WOOD OR CONCRETE BUILDINGS: FASTEN GUIDES TO JAMB WITH 5/16" FASTENERS. INSTALL CHAIN RETAINER CLIP (IF SUPPLIED) APPROXIMATELY 4 FEET ABOVE FLOOR. * DIMENSION VARIES IF OPENING WIDTH IS DIFFERENT THAN DOOR.

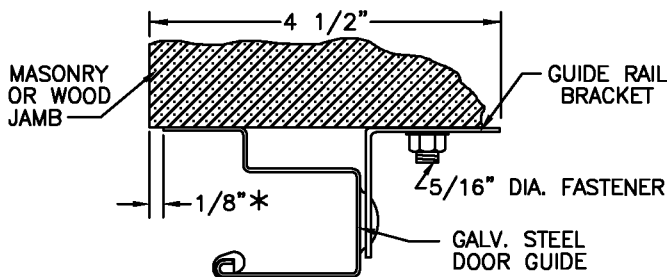


FIGURE 7B MASONRY JAMBS

STEP 8 INSTALLING HEAD STOPS

INSTALL HEAD STOPS ON BOTH GUIDES AS SHOWN IN FIGURE 8.

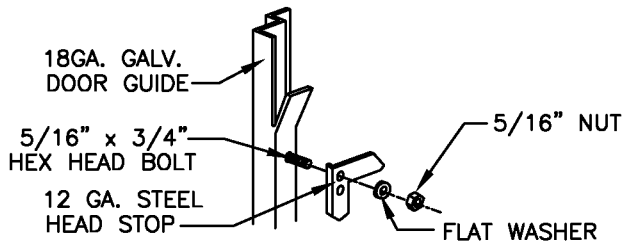


FIGURE 8

STEP 9 CHECK AND ADJUST BALANCE

9A IF DOOR LOWERS EASY AND RAISES HARD, MORE TENSION IS REQUIRED.
IF DOOR LOWERS HARD AND RAISES EASY, LESS TENSION IS REQUIRED.

WARNING: BEFORE ADJUSTING THE SPRINGS BE SURE THE DOOR IS IN FULL UP POSITION.

9B SECURE DOOR IN FULL TOP POSITION BY ONE OF THE FOLLOWING METHODS TO PREVENT THE DOOR FROM FALLING IF THE WRENCH SLIPS.

1. TIE A ROPE AROUND THE DOOR ROLL.
2. PLACE A CLAMP IN THE GUIDE AT THE TOP.

STEP 9 cont.

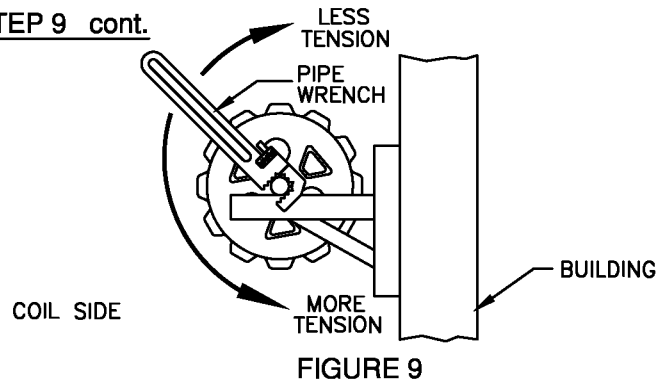


FIGURE 9

WARNING: WHEN SADDLES ARE LOOSENED, HOLD TIGHT; SPRINGS WILL BE VERY STRONG.

9C PLACE LARGE PIPE WRENCH IN POSITION SHOWN. LOOSEN AXLE SADDLES AND PULL DOWN FOR MORE TENSION, LET UP FOR LESS TENSION (FIGURE 9).

9D TIGHTEN AXLE SADDLES TO 40 FOOT POUNDS AS PER STEP 4, THEN TEST DOOR FOR PROPER BALANCE. REPEAT IF FURTHER ADJUSTMENT IS REQUIRED.

9E INSTALL CHAIN HOIST IF REQUIRED.

STEP 10 INSTALL SLIDE BOLT LOCKS

INSTALL SLIDE BOLT LOCK AND LIFT CLIP AS INDICATED.

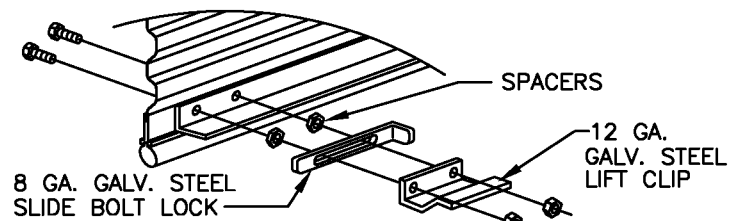


FIGURE 10

STEP 11 INSTALL LIFT CLIP (Manual Operation Only)

INSTALL CENTER LIFT CLIP AND PULL ROPE AS INDICATED.

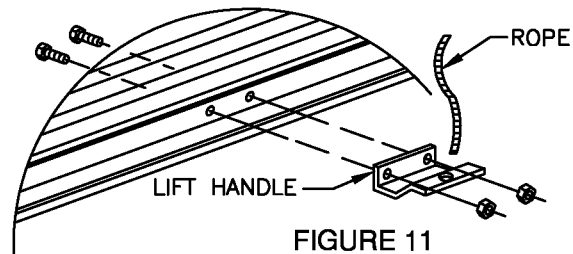


FIGURE 11

STEP 12 CHECK OPERATION OF DOOR

OPERATE DOOR THROUGH SEVERAL COMPLETE CYCLES. IF DOOR DOES NOT OPERATE CORRECTLY, SEE TROUBLE SHOOTING GUIDE BELOW.

IF DOOR DOES NOT OPERATE PROPERLY (WITH GUIDES INSTALLED)

1. CHECK THE DOOR GUIDES FOR TWIST OR BOW. REPAIR OR REPLACE.
2. CHECK BOTH DOOR GUIDES FOR PLUMB. ADJUST AS REQUIRED.
3. CONFIRM THE MOUNTING SURFACE IS FLAT AND SQUARE TO OPENING.
4. ADJUST THE "LEAD IN" ON TOP OF EACH GUIDE; BEND OUT AT A 30° ANGLE.
5. ARE GUIDES SET TO WIDE OR TO NARROW? THERE SHOULD BE A 1/4" SPACE BETWEEN END OF CURTAIN AND BACK OF TRACK. IF NOT; LOOSEN GUIDE AND MOVE IN SLOTTED HOLES.

IF CURTAIN DOES NOT ROLL TRUE (WITHOUT GUIDES INSTALLED)

1. VERIFY THAT THE BRACKETS ARE LEVEL WITH A WATER LEVEL OR LASER LEVEL. MOVE BRACKETS AS REQUIRED.
2. CONFIRM THAT THE BRACKETS ARE MOUNTED THE CORRECT HEIGHT AND WIDTH FROM DOOR OPENING. SEE PAGE 2 OF THIS INSTRUCTION BOOKLET, MOVE AS REQUIRED.