

THE COOKSON COMPANY



ERECTION INSTRUCTIONS FOR FIRE DOOR MODEL FD DUAL SPRING

JOB NO. _____ DOOR MARK _____

JOB NAME _____ ARCHITECT'S MARK _____

READ AND FOLLOW THESE INSTRUCTIONS THOROUGHLY.

- 1) UPON ARRIVAL OF THE SHIPMENT, CHECK THE MATERIALS AGAINST THE PACKING LIST. INSPECT THE MATERIALS FOR VISIBLE OR CONCEALED FREIGHT DAMAGE. SHOULD OMISSIONS OR DAMAGE TO THE MATERIAL BE FOUND, PLEASE FILE A FREIGHT CLAIM.
- 2) IF YOU HAVE RECEIVED MORE THAN ONE DOOR, YOU WILL FIND THAT ALL MAJOR PARTS AND PIECES FOR ANY ONE DOOR ARE MARKED WITH CORRESPONDING NUMBERS; A COMPLETE DOOR SHOULD BE COMPOSED OF PARTS BEARING ALL THE SAME NUMBERS.
IMPORTANT: DO NOT INTERCHANGE PARTS FROM ONE DOOR TO ANOTHER !!!!
- 3) BEFORE LEAVING THE JOB SITE, MAKE CERTAIN THAT YOU HAVE READ AND ADHERED TO THE SAFETY CHECK LIST.

SAFETY CHECK LIST

- 1) THE TORSION SPRING(S) HAS BEEN TENSIONED PROPERLY.
- 2) THE TENSION WHEEL(S) HAS BEEN SECURED PROPERLY.
- 3) KEYS HAVE BEEN INSTALLED IN SPROCKETS OR GEARS AND ALL SET SCREWS TIGHTENED.
- 5) ALL FASTENERS HOLDING GUIDES TO STRUCTURE ARE TIGHTENED.
- 6) ALL FASTENERS USED IN ASSEMBLING DOOR COMPONENTS ARE TIGHTENED.
- 7) DOOR HAS BEEN TEST DROPPED AND RESET ACCORDING TO THE INSTRUCTIONS.

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FD DUAL SP INST

PAGE 1

DSPAGE1

FACE MOUNTED FIRE DOOR(S) GUIDE ERECTION INSTRUCTION

DEPENDING ON YOUR SPECIFIC JOB CONDITIONS, YOU HAVE RECEIVED GUIDES THAT APPEAR AS TYPE 1 OR TYPE 2.

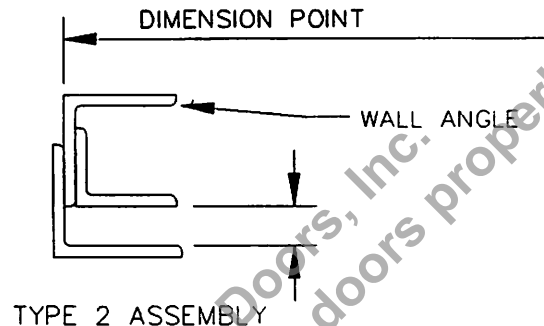
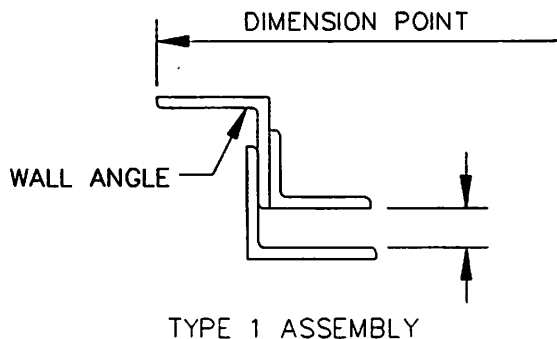


FIGURE 1

NOTE: TYPE 2 GUIDES MUST BE DISASSEMBLED BEFORE INSTALLATION.

1. IN EITHER CASE, LOCATE THE CENTER OF THE OPENING. FROM CENTERLINE LOCATE THE EDGES OF EACH GUIDE BY LAYING OFF A DISTANCE FROM CENTER AS SHOWN IN FIG. 2.
2. THROUGH THIS MARK, SCRIBE A PLUMB LINE ON THE WALL.
3. PLACE GUIDES AGAINST THE SCRIBED LINE AND, WITH TOPS OF GUIDES LEVEL, MARK THE LOCATION OF THE MOUNTING HOLES.

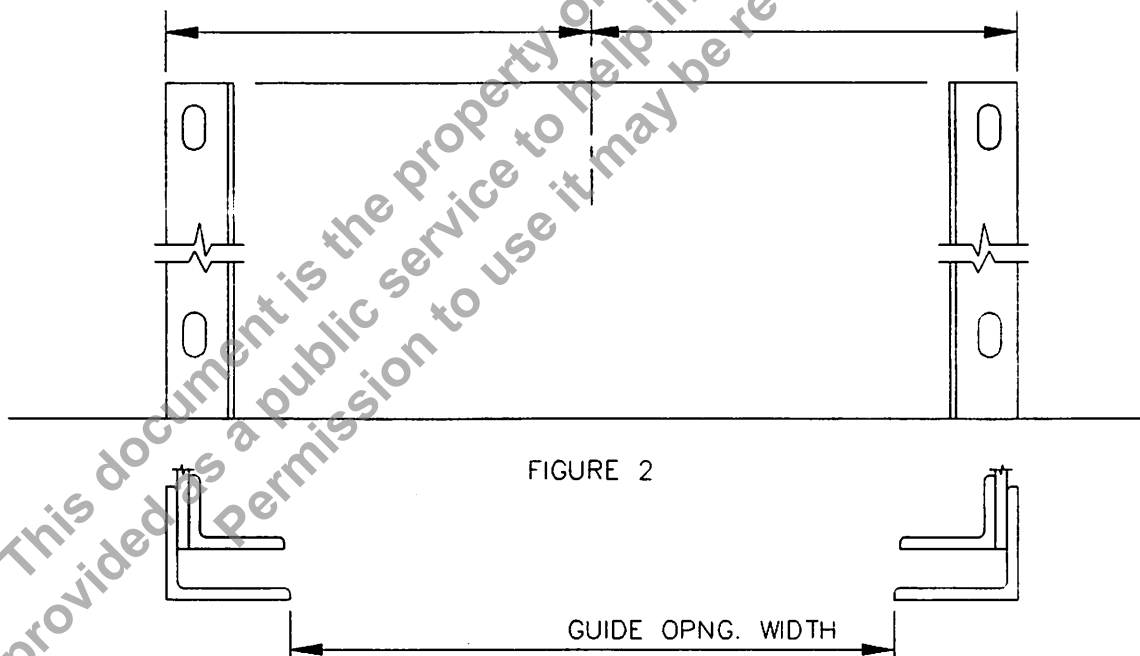


FIGURE 2

NOTE: CHECK THE GUIDE OPENING WIDTH.

4. DRILL THE HOLES ACCORDING TO PAGE 3.
5. IF GUIDES ARE TYPE 2 MAKE SURE WHEN REASSEMBLING SAME THAT THE WIDTH OF THE GUIDE GROOVE IS EQUAL TO THE MEASUREMENT SHOWN IN FIG. 1.

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FD DUAL SP INST.

PAGE 2

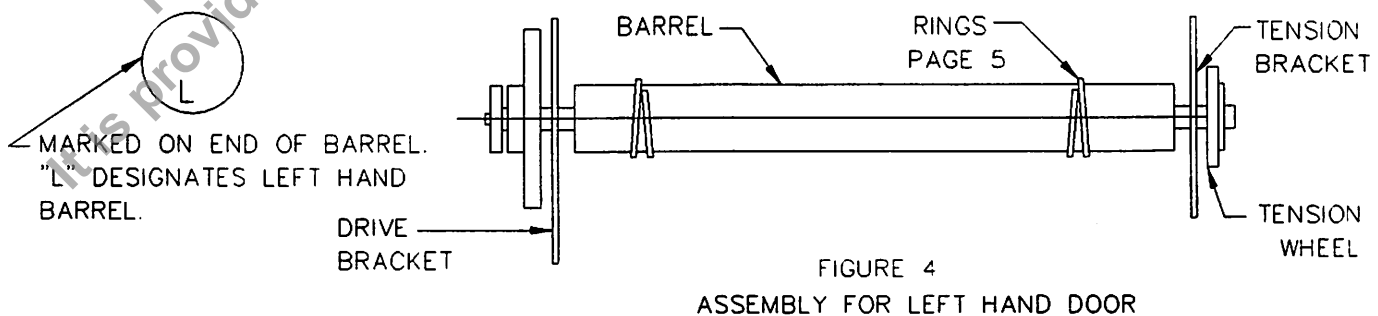
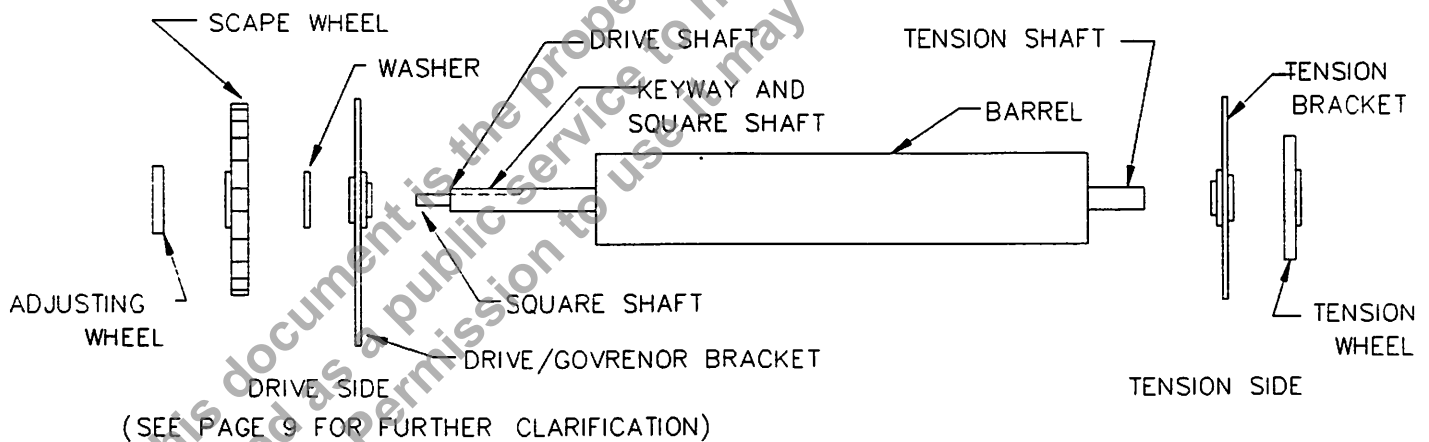
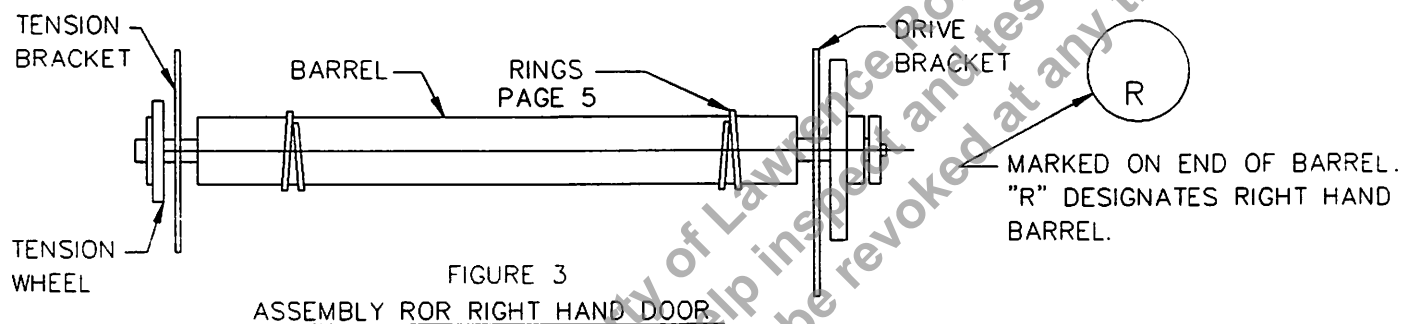
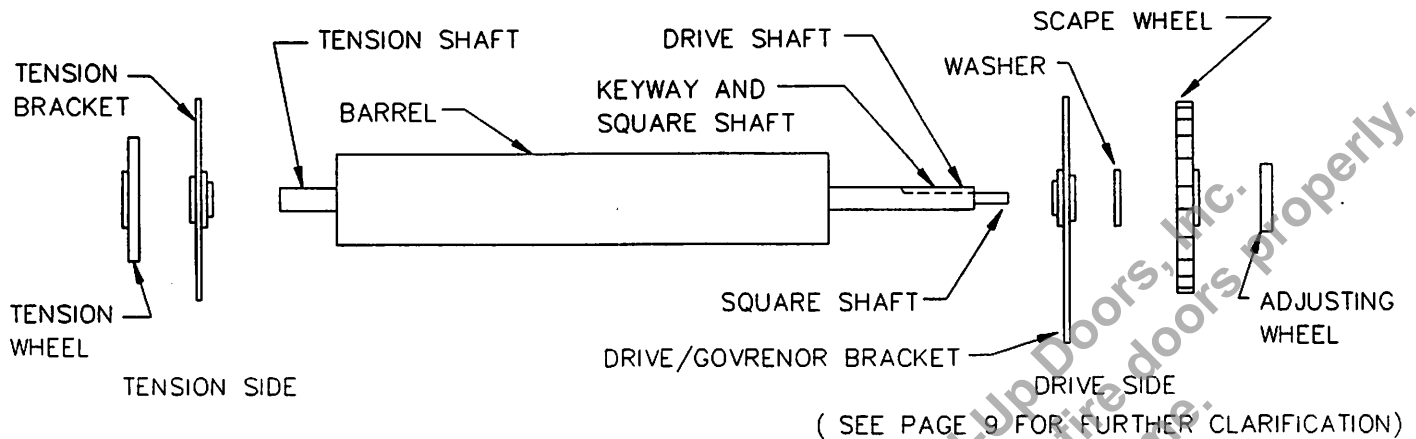
DSPAGE2

FASTENERS FOR FIRE DOORS

WALL CONSTRUCTION	TYPE OF FASTENER TO USE	HOLE SIZE (DRILL ϕ)	TAP SIZE IF REQ'D.	DEPTH OF HOLE
CONCRETE/MASONRY	1/2" ϕ THRU BOLTS	5/8" ϕ	_____	THRU WALL
	5/8" ϕ THRU BOLTS	3/4" ϕ	_____	THRU WALL
	3/4" ϕ THRU BOLTS	7/8" ϕ	_____	THRU WALL
CONCRETE EXTRA WIDE WALL	1/2" ϕ X 5-1/2" WEDGE ANCHOR	1/2" ϕ	_____	4" MIN.
	5/8" ϕ X 6" WEDGE ANCHOR	5/8" ϕ	_____	5" MIN.
	3/4" ϕ X 8-1/2" WEDGE ANCHOR	3/4" ϕ	_____	6" MIN.
BRICK/MASONRY EXTRA WIDE WALL	5/8" ϕ X 4-1/4" SLEEVE ANCHOR (1/2" ϕ BOLT)	5/8" ϕ	_____	4" MIN.
	3/4" ϕ X 6-1/4" SLEEVE ANCHOR (5/8" ϕ BOLT)	5/8" ϕ	_____	5" MIN.
STEEL	1/2" ϕ BOLT	27/64 ϕ	1/2" X 13 N.C.	_____
	5/8" ϕ BOLT	17/32" ϕ	5/8" X 11 N.C.	_____
	3/4" ϕ BOLT	21/32" ϕ	3/4" X 10 N.C.	_____

BARREL AND BRACKET ASSEMBLY FOR FIRE DOORS MODEL FD

DEPENDING ON WHETHER YOU HAVE A RIGHT OR LEFT HANDED DOOR ASSEMBLE BARREL AND BRACKET AS SHOWN BELOW.



WIRE RING INSTALLATION INSTRUCTION

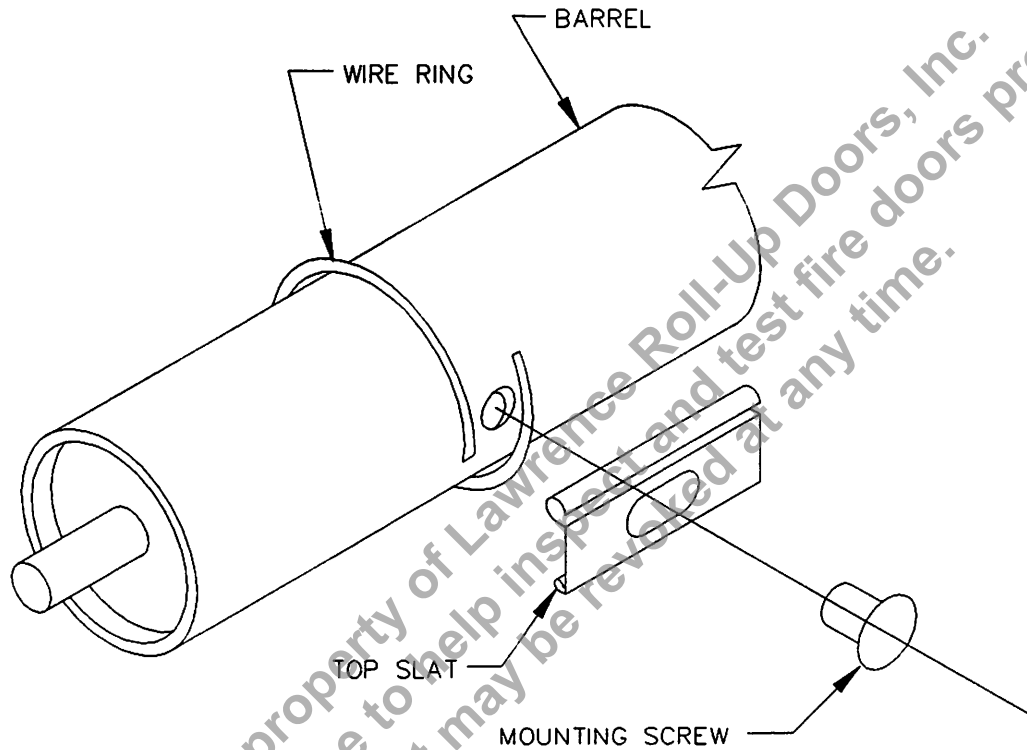


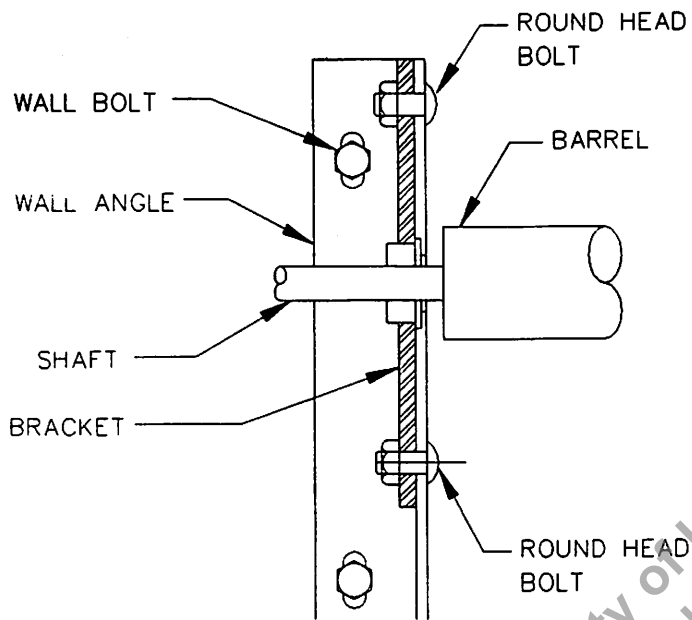
FIGURE 5

PRIOR TO INSTALLING BRACKETS TO BARREL

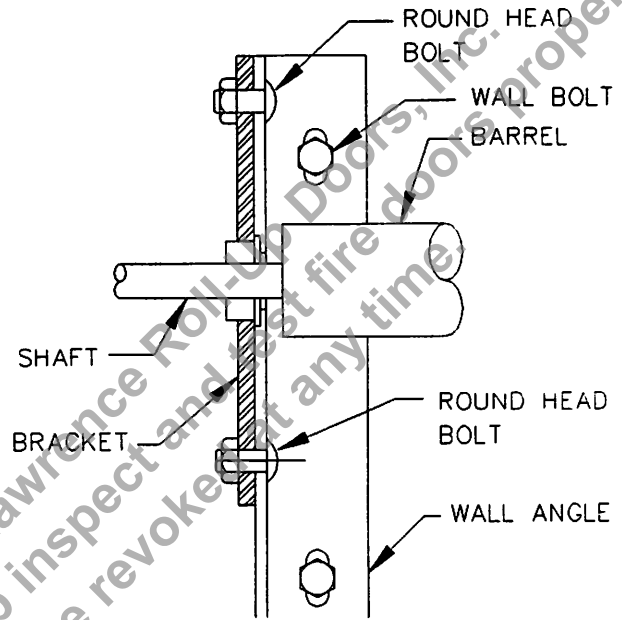
1. SLIDE WIRE RINGS OVER END OF BARREL AND ALIGN WITH SLAT MOUNTING SCREW HOLE AS SHOWN ABOVE.
2. INSTALL BARREL AND CURTAIN AS PER ERECTION INSTRUCTIONS.

BARREL AND BRACKET ASSEMBLY FOR FIRE DOORS MODEL FD

1. USING THE ROUND HEAD CARRIAGE BOLTS FURNISHED WITH THE DOOR SHIPMENT, RAISE THE BRACKET AND BARREL ASSEMBLY, AND BOLT THE BRACKETS TO THE WALL ANGLE.



TYPE 1 GUIDE



TYPE 2 GUIDE

FIGURE 6

CURTAIN INSTALLATION

IMPORTANT: BE SURE THE TENSION SHAFT(S) IS FREE TO ROTATE AND THAT THE TENSION WHEEL(S) IS NOT RESTRAINED SUCH THAT IT PREVENTS ROTATION OF THE SHAFT(S).

1. PLACE THE ROLLED CURTAIN ON THE FLOOR SO THAT WHEN IT IS ROLLED ONTO THE BARREL, IT APPEARS AS FOLLOWS:

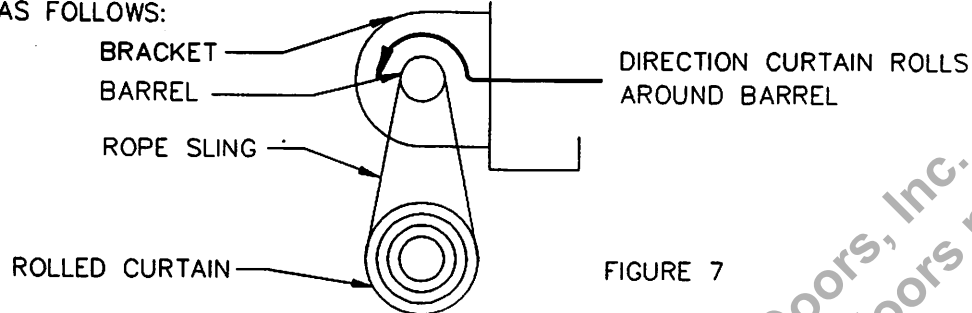


FIGURE 7

2. HOIST THE CURTAIN 2 TO 4 FEET BELOW THE BARREL AND SUSPEND IT THERE BY MEANS OF THREE OR MORE ROPE SLINGS, AS SHOWN. (CAUTION: ROPE SLINGS MUST BE OF ADEQUATE SIZE TO SAFELY CARRY THE WEIGHT OF THE CURTAIN)

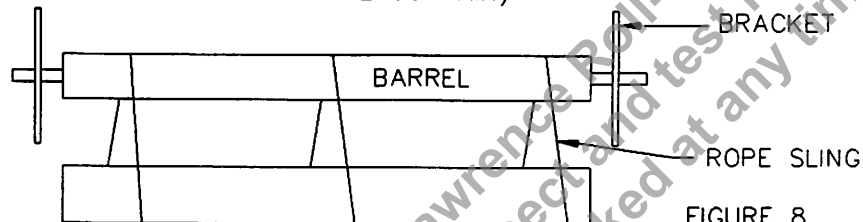


FIGURE 8

3. USING A ROPE TIED THROUGH THE CENTER HOLE OF THE TOP SLAT OF THE CURTAIN AND WRAPPED AROUND THE BARREL IN THE DIRECTION OF COILING UP ROTATION, PULL THE TOP SLAT UP AROUND THE BARREL.
4. BE SURE THE ENDS OF THE CURTAIN ARE EQUIDISTANT FROM THE INSIDE FACES OF THE BRACKETS.
5. FASTEN THE TOP SLAT TO THE BARREL USING THE SCREWS FURNISHED WITH THE BARREL.
6. IF YOUR DOOR HAS A MEANS OF MANUALLY OPERATING SAME, USE IT TO ROLL THE REMAINDER OF CURTAIN ONTO THE BARREL.
7. IF YOUR DOOR IS PUSH UP, USE A TENSIONING BAR INSERTED INTO THE TENSION WHEEL TO ROTATE THE BARREL WHILE ROLLING THE CURTAIN ONTO THE BARREL. ROTATE THE TENSION WHEEL IN THE SAME DIRECTION THE BARREL TURNS WHEN THE CURTAIN COILS.
8. WITH THE CURTAIN COMPLETELY ROLLED ONTO THE BARREL, FEED THE BOTTOM BAR INTO THE GUIDES AND ATTACH THE STOPS AS SHOWN.

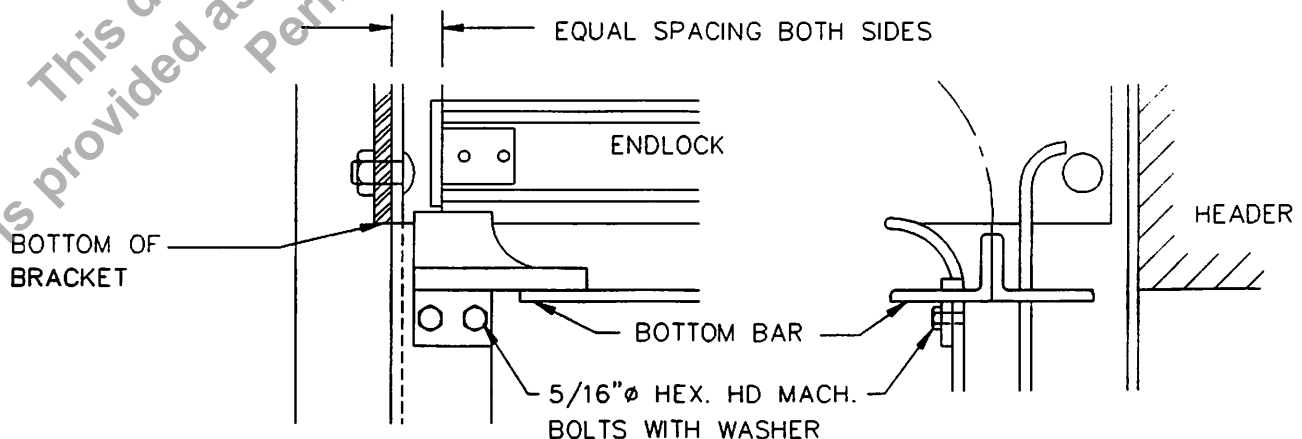


FIGURE 9

SPRING TENSION INSTRUCTION FOR FIRE DOORS MODEL FD DUAL SPRING

DOOR(S) MARKED _____

1. TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS. NOW, PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2. NOW APPLY TENSION TO THE TENSION SIDE COUNTERBALANCING SPRING. ROTATE THE TENSION WHEEL IN THE DIRECTION THE CURTAIN NORMALLY WINDS ONTO THE BARREL. THE TENSION WHEEL IS TO BE ROTATED _____ TURNS. NOW LOCK THE TENSION WHEEL IN PLACE TO THE TENSION BRACKET.
3. NEXT, APPLY TENSION TO THE DRIVE/GOVERNOR COUNTERBALANCING SPRING. RAISE THE RELEASE ARM TO THE ENGAGED POSITION, ROTATE THE ADJUSTING WHEEL IN THE DIRECTION THE BARREL ROTATES WHEN COILING THE CURTAIN ON THE SAME. THE ADJUSTING WHEEL IS TO BE ROTATED UNTIL THE BOTTOM BAR RAISES UP TO THE GUIDE STOPS AND REMAINS IN THAT POSITION. FOR OPTIMUM OPERATION YOU MAY FIND MORE TURNS ARE REQUIRED OR, IN SOME CASES, LESS TURNS ARE REQUIRED ON THE DRIVE/GOVERNOR COUNTERBALANCE SPRING. IMPORTANT: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT REQUIRED TO HOLD CURTAIN'S BOTTOM BAR AT THE GUIDE STOPS.
4. NOW, TEST THE DOOR FOR NORMAL OPERATION.
5. AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:
6. WITH THE DOOR IN FULL OPEN POSITION, DROP THE RELEASE ARM. THE CRADLE ARM WILL DROP, ALLOWING THE "PALLET" TO ENGAGE THE "SCAPE WHEEL" AND, AT THE SAME TIME, DISENGAGING THE "YOKE" FROM THE ADJUSTING WHEEL, RELEASING THE DRIVE/GOVERNOR COUNTERBALANCE SPRING. THE DOOR SHOULD NOW DESCEND TO FULLY CLOSED POSITION.
7. THE CLOSING TIME SHOULD APPROXIMATE AN AVERAGE CLOSING SPEED OF 2 FEET PER SECOND.
8. IF THE CLOSING VELOCITY GREATLY EXCEEDS THE AVERAGE SPEED OF 2 FEET PER SECOND, AND AFTER COUNTERBALANCE SPRING ADJUSTMENTS HAVE BEEN MADE CONTACT THE COOKSON COMPANY FOR FURTHER INSTRUCTION. WHEN CONTACTING US, BE SURE TO ADVISE THE TIME IT TOOK, IN SECONDS, FOR THE DOOR TO CLOSE AND, THE NUMBER OF TURNS OF INITIAL TENSION APPLIED.
9. TO RESET THE DOOR REENGAGE THE RELEASE ARM, APPLY TENSION TO THE DRIVE/GOVERNOR COUNTERBALANCE SPRING AS PREVIOUSLY DESCRIBED TO ASSIST IN RAISING THE DOOR TO THE FULLY OPEN POSITION, THEN PROCEED TO RETENSION THE SPRING AS DESCRIBED IN PARAGRAPHS 1 AND 3.
10. CONNECT FUSE LINK SYSTEM TO RELEASE ARM AS SHOWN ON PAGE 10.

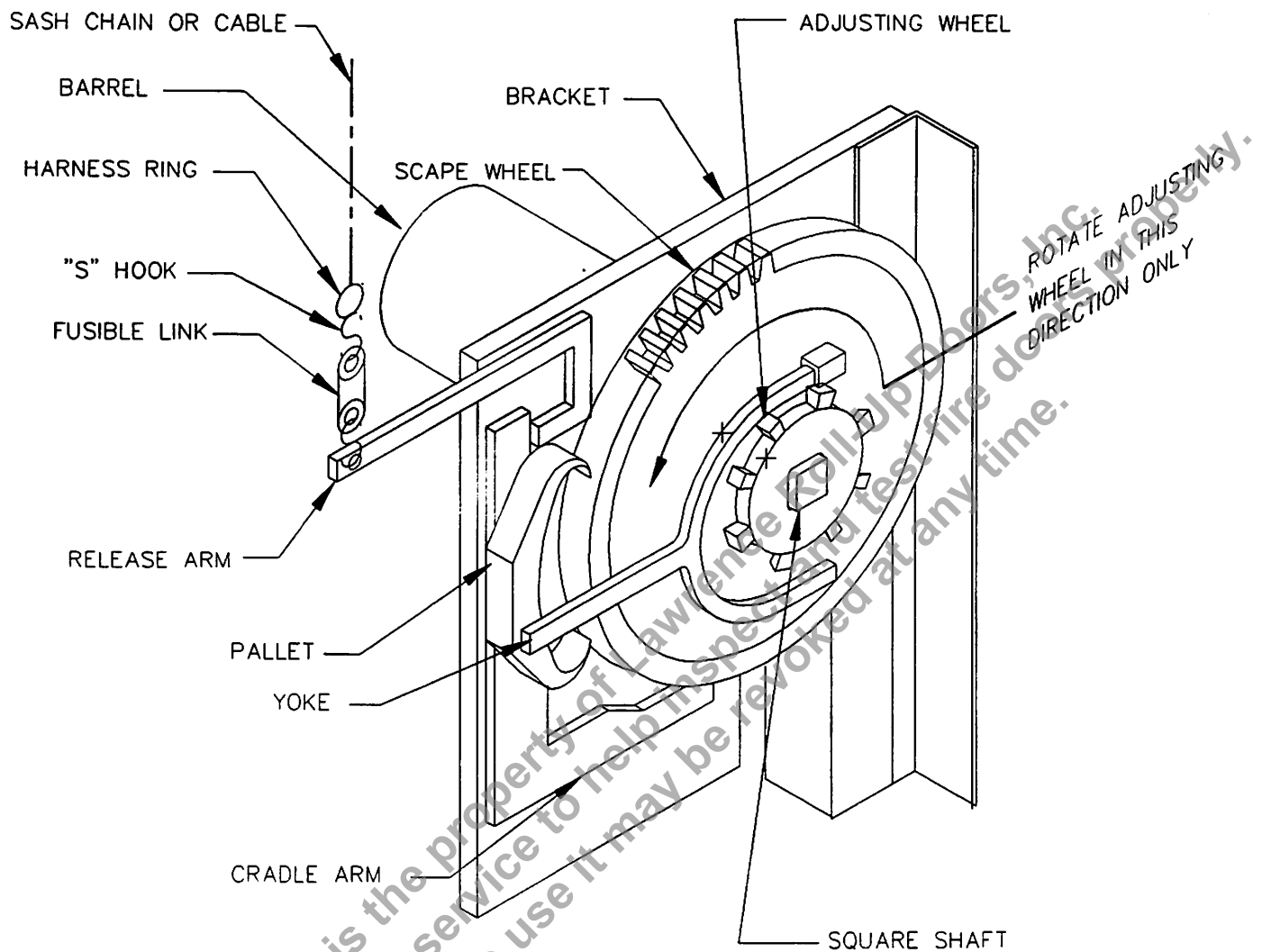


FIGURE 10

NOTE:
GOVERNOR HAS BEEN FACTORY ADJUSTED.
MAKE NO CHANGES PRIOR TO CONTACTING
THE COOKSON COMPANY.
WASHERS BETWEEN BRACKET PLATE AND
SCAPE WHEEL NOT SHOWN.

BRACKET ASSEMBLY

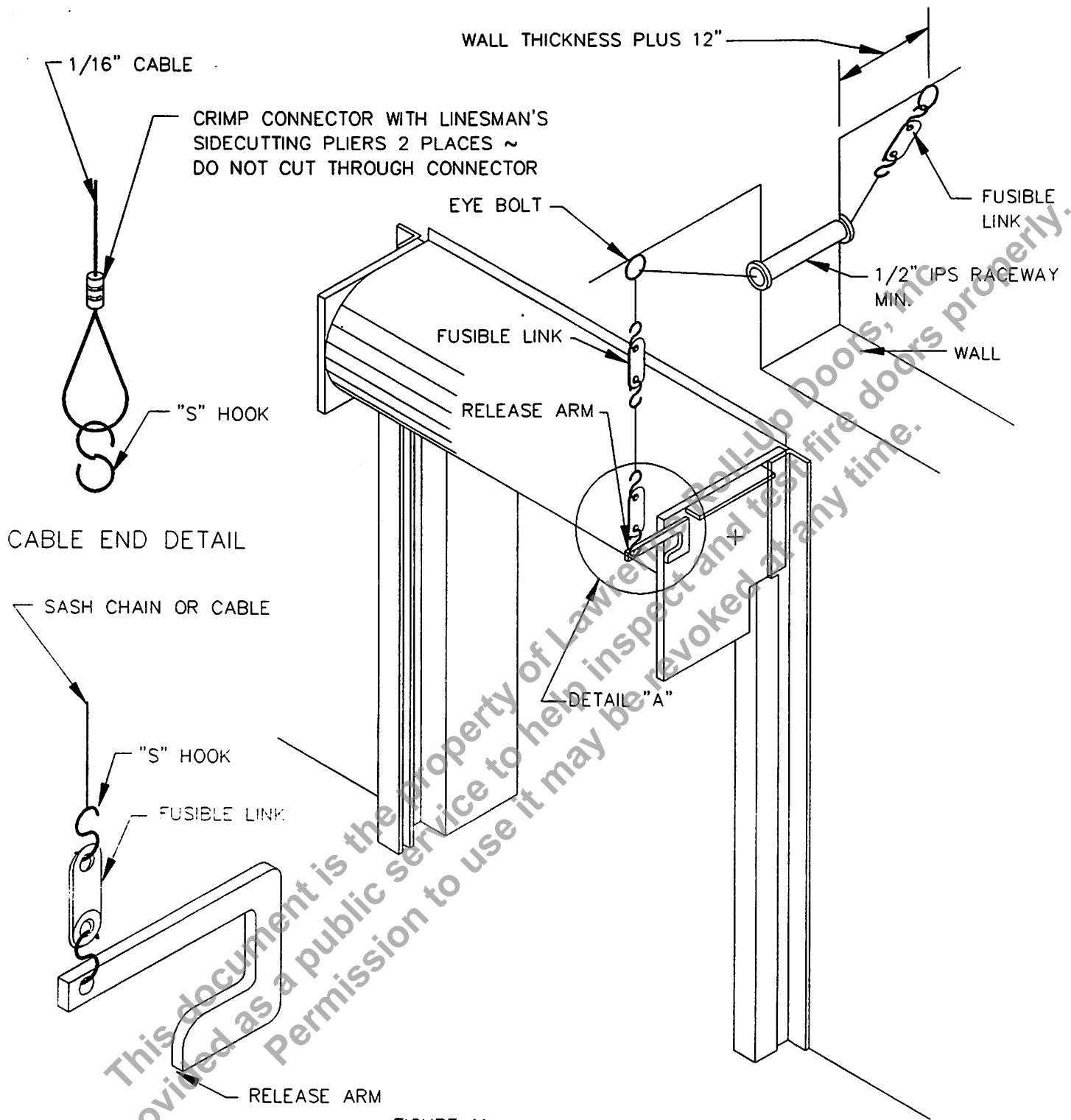


FIGURE 11

FUSIBLE LINK ARRANGEMENT FOR SINGLE FIRE DOORS WITH ONE RELEASE ARM.
CONSULT N.F.P.A. BULLETIN 80 FOR ADDITIONAL INFORMATION.

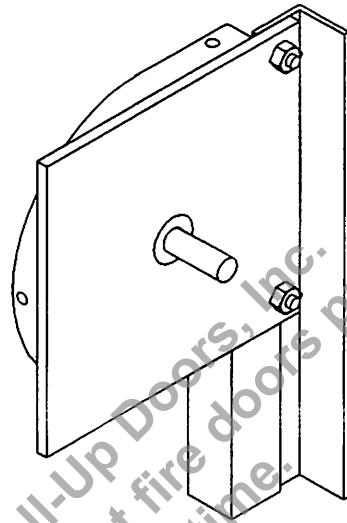
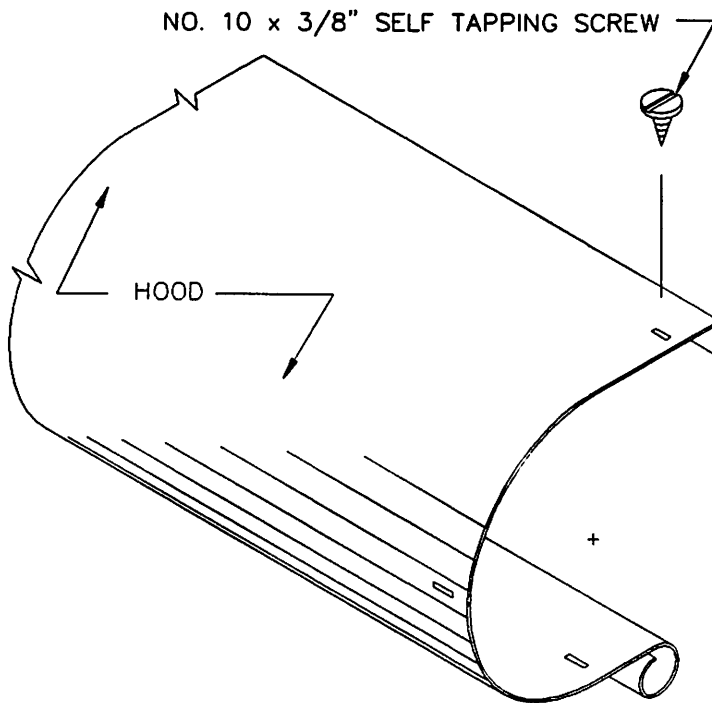


FIGURE 12

FIRE DOORS WITH HOOD FLANGE TURNED DOWN

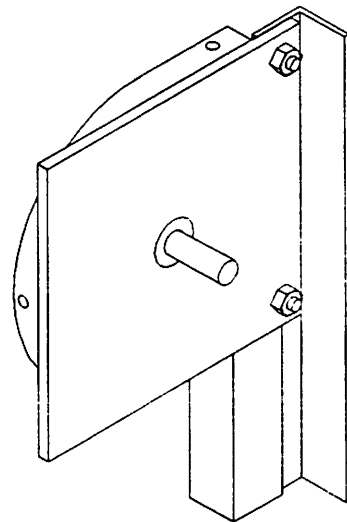
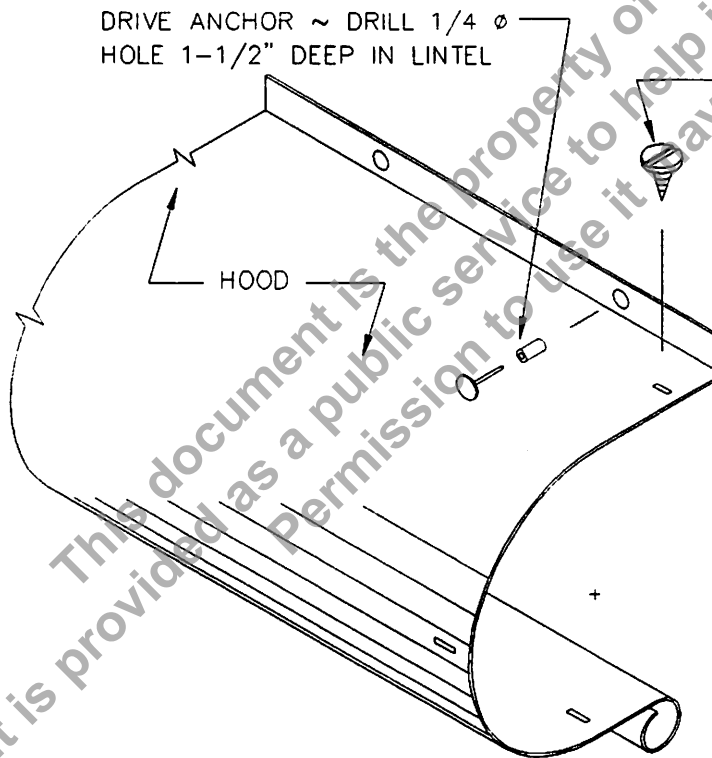


FIGURE 13

FIRE DOORS WITH HOOD FLANGE TURNED UP

THE COOKSON COMPANY



Rolling Doors

ERECTION INSTRUCTIONS FOR FIRE DOOR MODEL FD MOTOR OPERATED

JOB NO. _____ DOOR MARK _____

JOB NAME _____ ARCHITECT'S MARK _____

READ AND FOLLOW THESE INSTRUCTIONS THOROUGHLY.

- 1) UPON ARRIVAL OF THE SHIPMENT, CHECK THE MATERIALS AGAINST THE PACKING LIST. INSPECT THE MATERIALS FOR VISIBLE OR CONCEALED FREIGHT DAMAGE. SHOULD OMISSIONS OR DAMAGE TO THE MATERIAL BE FOUND, PLEASE FILE A FREIGHT CLAIM.
- 2) IF YOU HAVE RECEIVED MORE THAN ONE DOOR, YOU WILL FIND THAT ALL MAJOR PARTS AND PIECES FOR ANY ONE DOOR ARE MARKED WITH CORRESPONDING NUMBERS; A COMPLETE DOOR SHOULD BE COMPOSED OF PARTS BEARING ALL THE SAME NUMBERS.
IMPORTANT. DO NOT INTERCHANGE PARTS FROM ONE DOOR TO ANOTHER !!!!
- 3) BEFORE LEAVING THE JOB SITE, MAKE CERTAIN THAT YOU HAVE READ AND ADHERED TO THE SAFETY CHECK LIST.

SAFETY CHECK LIST

- 1) THE TORSION SPRING(S) HAS BEEN TENSIONED PROPERLY.
- 2) THE TENSION WHEEL(S) HAS BEEN SECURED PROPERLY.
- 3) KEYS HAVE BEEN INSTALLED IN SPROCKETS OR GEARS AND ALL SET SCREWS TIGHTENED
- 5) ALL FASTENERS HOLDING GUIDES TO STRUCTURE ARE TIGHTENED.
- 6) ALL FASTENERS USED IN ASSEMBLING DOOR COMPONENTS ARE TIGHTENED.
- 7) DOOR HAS BEEN TEST DROPPED AND RESET ACCORDING TO THE INSTRUCTIONS.

FACE MOUNTED FIRE DOOR(S) GUIDE ERECTION INSTRUCTION

DEPENDING ON YOUR SPECIFIC JOB CONDITIONS, YOU HAVE RECEIVED GUIDES THAT APPEAR AS TYPE 1 OR TYPE 2.

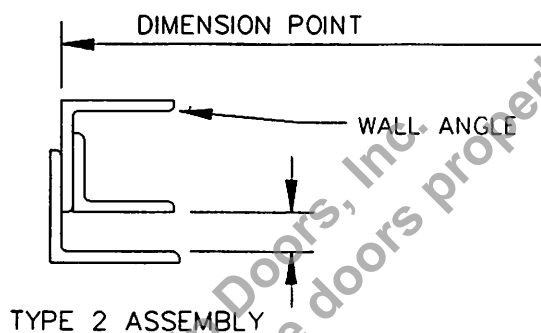
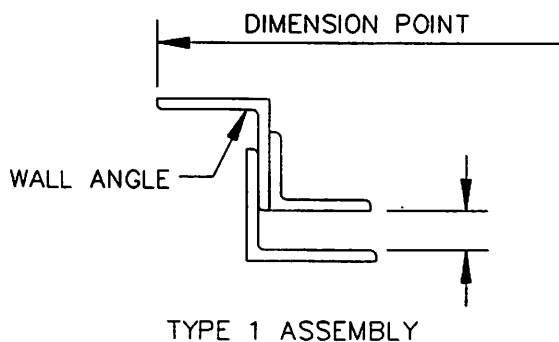


FIGURE 1

NOTE: TYPE 2 GUIDES MUST BE DISASSEMBLED BEFORE INSTALLATION.

1. IN EITHER CASE, LOCATE THE CENTER OF THE OPENING. FROM CENTERLINE LOCATE THE EDGES OF EACH GUIDE BY LAYING OFF A DISTANCE FROM CENTER AS SHOWN IN FIG. 2.
2. THROUGH THIS MARK, SCRIBE A PLUMB LINE ON THE WALL.
3. PLACE GUIDES AGAINST THE SCRIBED LINE AND, WITH TOPS OF GUIDES LEVEL, MARK THE LOCATION OF THE MOUNTING HOLES.

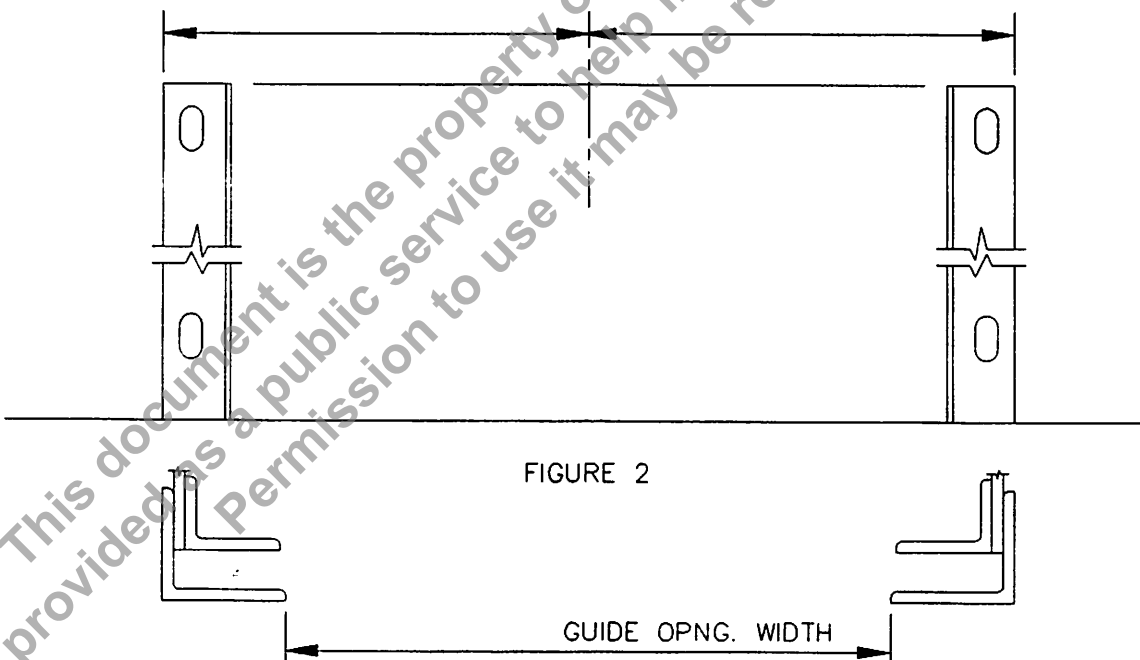


FIGURE 2

NOTE: CHECK THE GUIDE OPENING WIDTH.

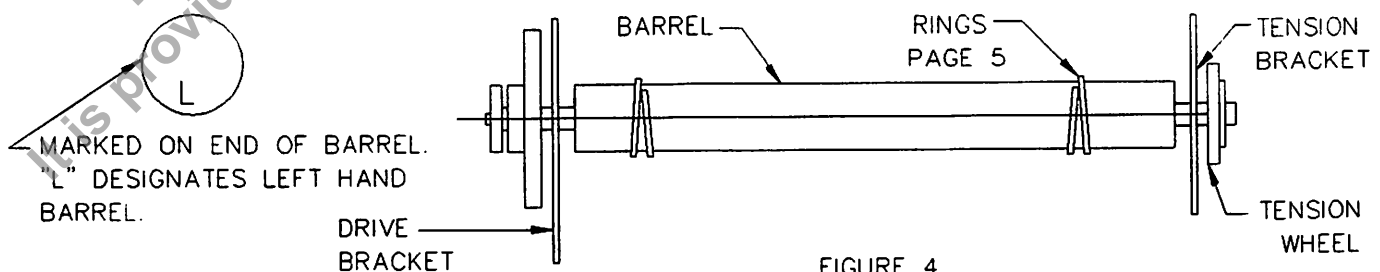
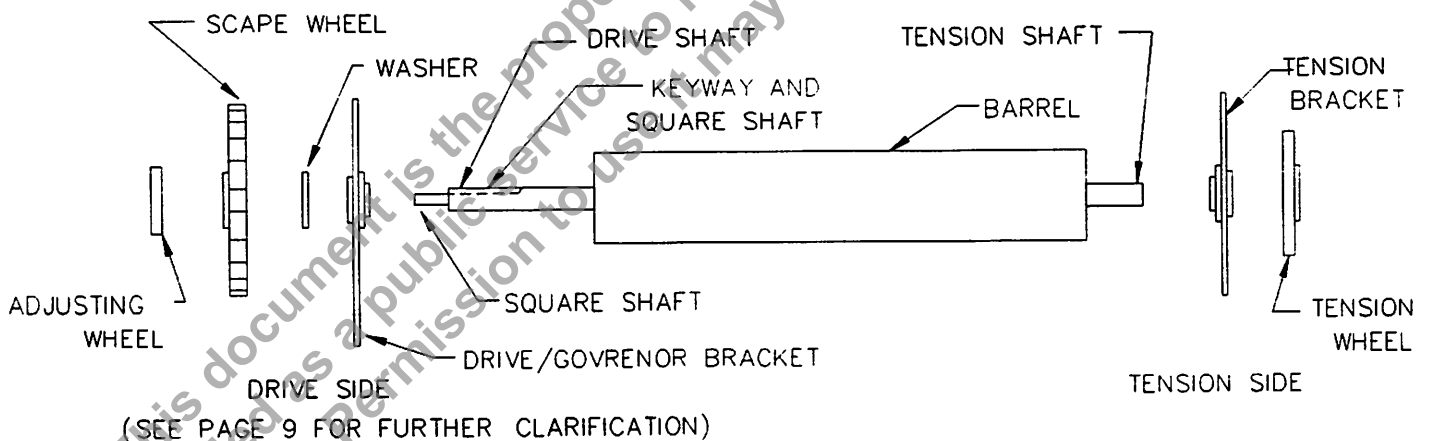
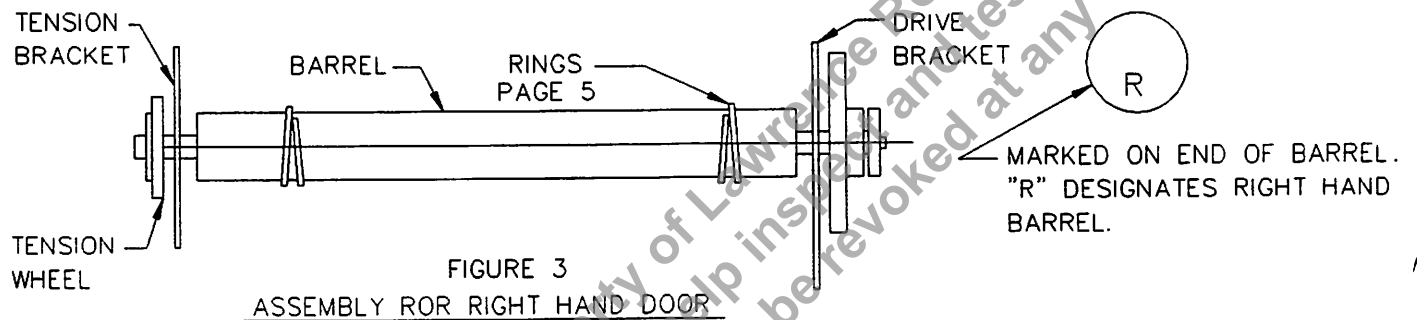
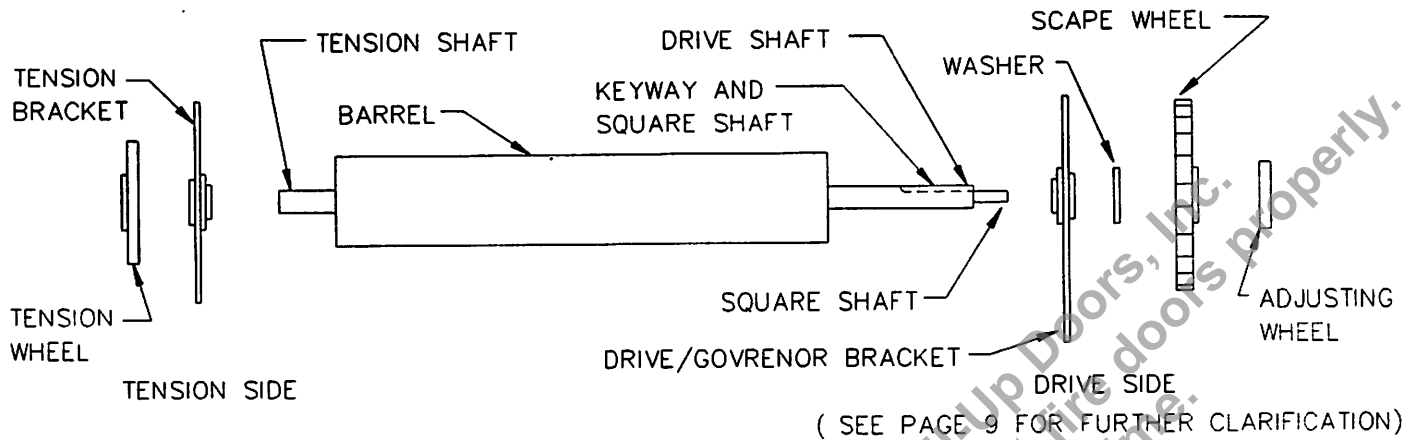
4. DRILL THE HOLES ACCORDING TO PAGE 3.
5. IF GUIDES ARE TYPE 2 MAKE SURE WHEN REASSEMBLING SAME THAT THE WIDTH OF THE GUIDE GROOVE IS EQUAL TO THE MEASUREMENT SHOWN IN FIG. 1.

FASTENERS FOR FIRE DOORS

WALL CONSTRUCTION	TYPE OF FASTENER TO USE	HOLE SIZE (DRILL ϕ)	TAP SIZE IF REQ'D.	DEPTH OF HOLE
CONCRETE/MASONRY	1/2" ϕ THRU BOLTS	5/8" ϕ	_____	THRU WALL
	5/8" ϕ THRU BOLTS	3/4" ϕ	_____	THRU WALL
	3/4" ϕ THRU BOLTS	7/8" ϕ	_____	THRU WALL
CONCRETE EXTRA WIDE WALL	1/2" ϕ X 5-1/2" WEDGE ANCHOR	1/2" ϕ	_____	4" MIN.
	5/8" ϕ X 6" WEDGE ANCHOR	5/8" ϕ	_____	5" MIN.
	3/4" ϕ X 8-1/2" WEDGE ANCHOR	3/4" ϕ	_____	6" MIN.
BRICK/MASONRY EXTRA WIDE WALL	5/8" ϕ X 4-1/4" SLEEVE ANCHOR (1/2" ϕ BOLT)	5/8" ϕ	_____	4" MIN.
	3/4" ϕ X 6-1/4" SLEEVE ANCHOR (5/8" ϕ BOLT)	5/8" ϕ	_____	5" MIN.
STEEL	1/2" ϕ BOLT	27/64 ϕ	1/2" X 13 N.C.	_____
	5/8" ϕ BOLT	17/32" ϕ	5/8" X 11 N.C.	_____
	3/4" ϕ BOLT	21/32" ϕ	3/4" X 10 N.C.	_____

BARREL AND BRACKET ASSEMBLY FOR FIRE DOORS MODEL FD

DEPENDING ON WHETHER YOU HAVE A RIGHT OR LEFT HANDED DOOR ASSEMBLE BARREL AND BRACKET AS SHOWN BELOW.



WIRE RING INSTALLATION INSTRUCTION

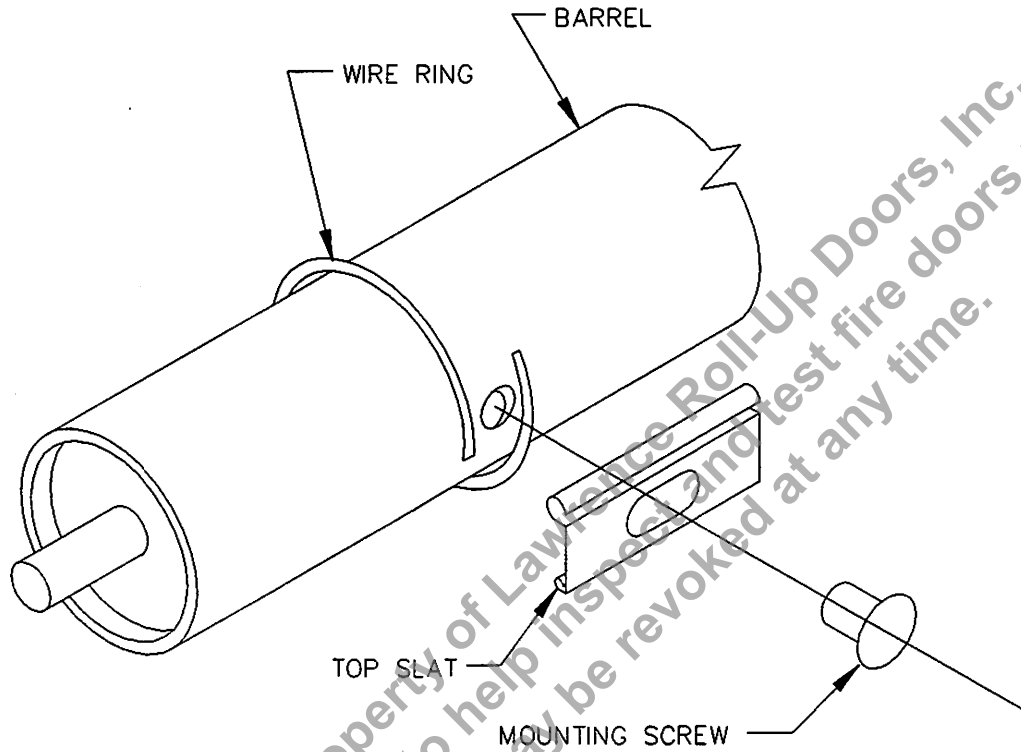


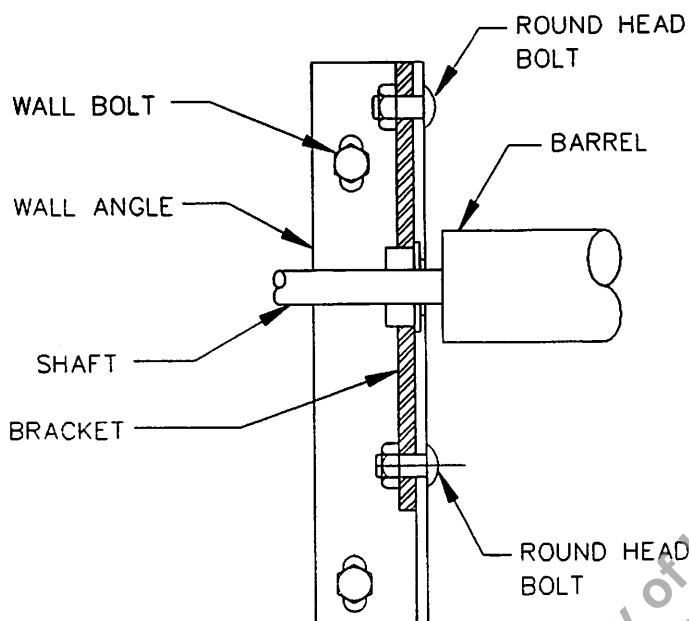
FIGURE 5

PRIOR TO INSTALLING BRACKETS TO BARREL

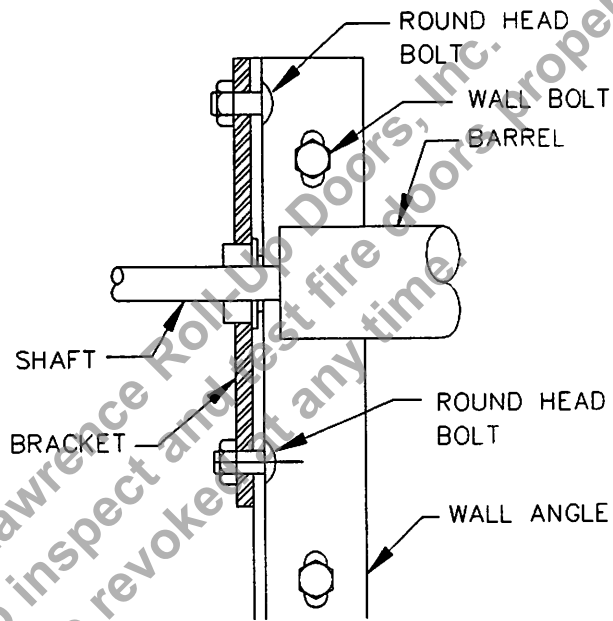
1. SLIDE WIRE RINGS OVER END OF BARREL AND ALLIGN WITH SLAT MOUNTING SCREW HOLE AS SHOWN ABOVE.
2. INSTALL BARREL AND CURTAIN AS PER ERECTION INSTRUCTIONS.

BARREL AND BRACKET ASSEMBLY FOR FIRE DOORS MODEL FD

1. USING THE ROUND HEAD CARRAIGE BOLTS FURNISHED WITH THE DOOR SHIPMENT, RAISE THE BRACKET AND BARREL ASSEMBLY, AND BOLT THE BRACKETS TO THE WALL ANGLE.



TYPE 1 GUIDE



TYPE 2 GUIDE

FIGURE 6

CURTAIN INSTALLATION

IMPORTANT: BE SURE THE TENSION SHAFT(S) IS FREE TO ROTATE AND THAT THE TENSION WHEEL(S) IS NOT RESTRAINED SUCH THAT IT PREVENTS ROTATION OF THE SHAFT(S).

1. PLACE THE ROLLED CURTAIN ON THE FLOOR SO THAT WHEN IT IS ROLLED ONTO THE BARREL, IT APPEARS AS FOLLOWS:

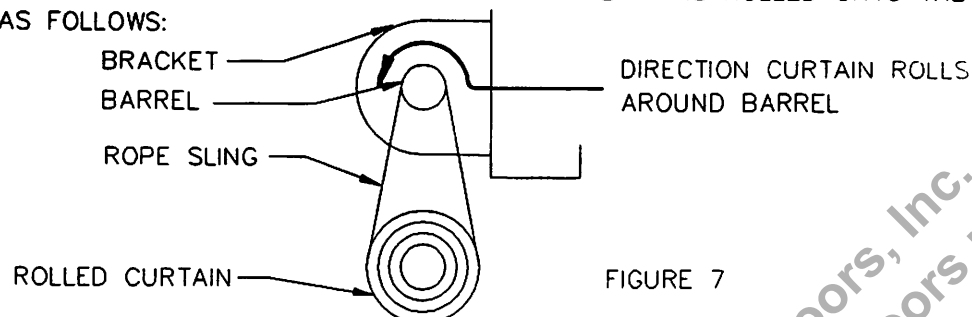


FIGURE 7

2. HOIST THE CURTAIN 2 TO 4 FEET BELOW THE BARREL AND SUSPEND IT THERE BY MEANS OF THREE OR MORE ROPE SLINGS, AS SHOWN. (CAUTION: ROPE SLINGS MUST BE OF ADEQUATE SIZE TO SAFELY CARRY THE WEIGHT OF THE CURTAIN)

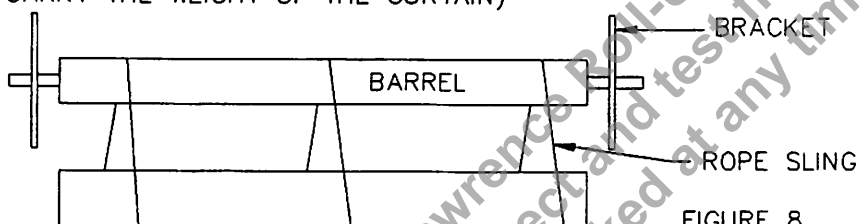


FIGURE 8

3. USING A ROPE TIED THROUGH THE CENTER HOLE OF THE TOP SLAT OF THE CURTAIN AND WRAPPED AROUND THE BARREL IN THE DIRECTION OF COILING UP ROTATION, PULL THE TOP SLAT UP AROUND THE BARREL.
4. BE SURE THE ENDS OF THE CURTAIN ARE EQUIDISTANT FROM THE INSIDE FACES OF THE BRACKETS.
5. FASTEN THE TOP SLAT TO THE BARREL USING THE SCREWS FURNISHED WITH THE BARREL.
6. IF YOUR DOOR HAS A MEANS OF MANUALLY OPERATING SAME, USE IT TO ROLL THE REMAINDER OF CURTAIN ONTO THE BARREL.
7. IF YOUR DOOR IS PUSH UP, USE A TENSIONING BAR INSERTED INTO THE TENSION WHEEL TO ROTATE THE BARREL WHILE ROLLING THE CURTAIN ONTO THE BARREL. ROTATE THE TENSION WHEEL IN THE SAME DIRECTION THE BARREL TURNS WHEN THE CURTAIN COILS.
8. WITH THE CURTAIN COMPLETELY ROLLED ONTO THE BARREL, FEED THE BOTTOM BAR INTO THE GUIDES AND ATTACH THE STOPS AS SHOWN.

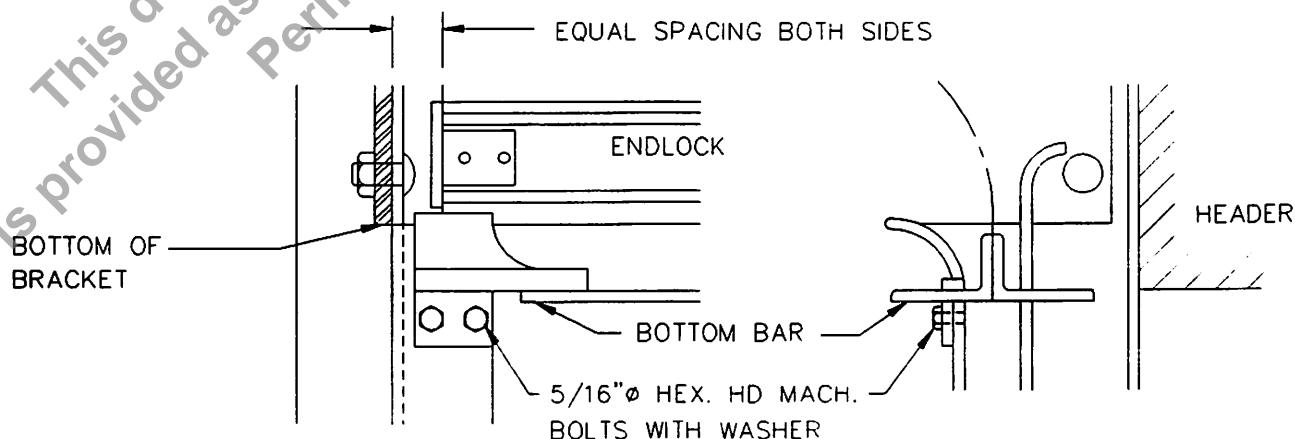


FIGURE 9

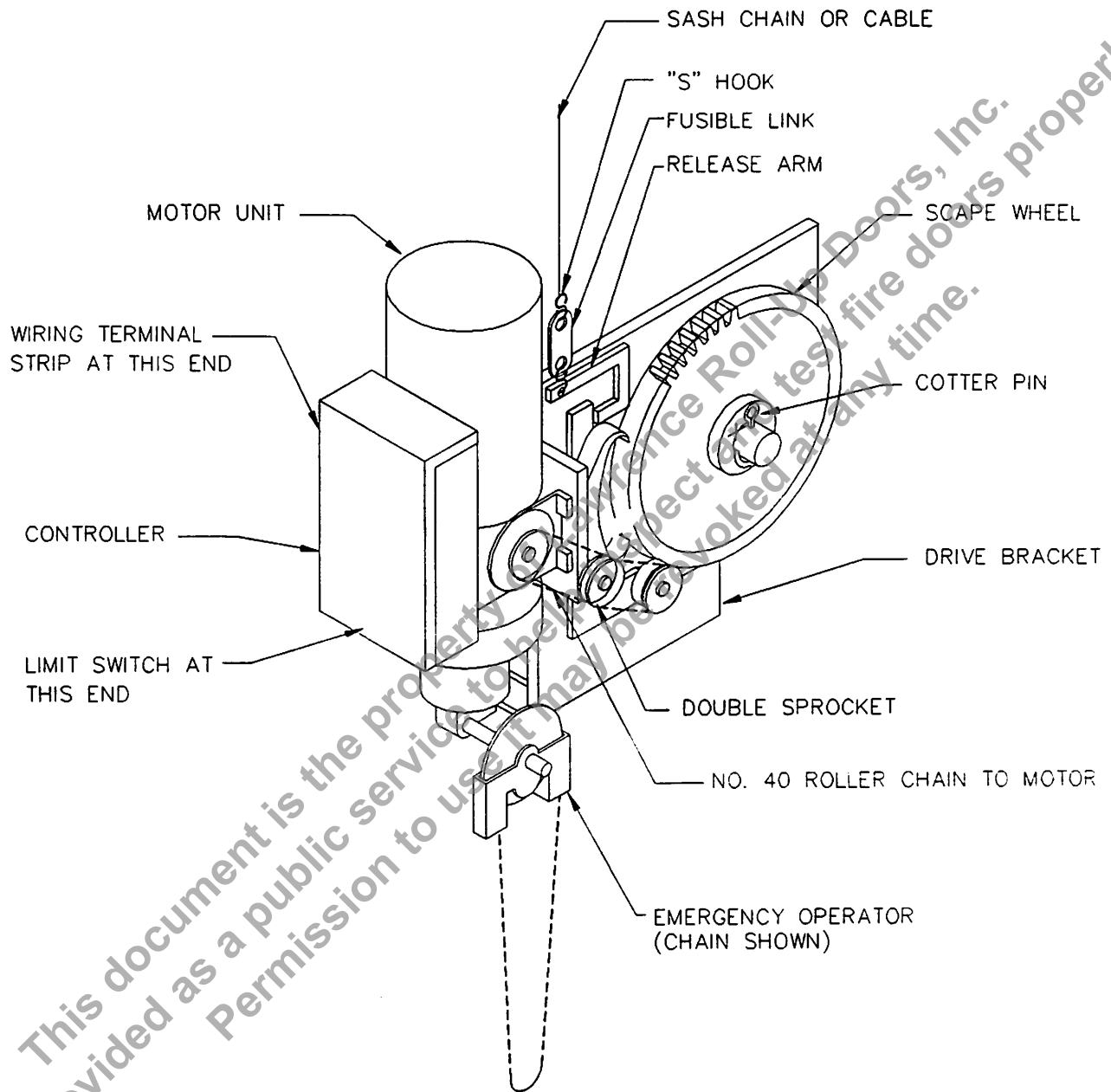
SPRING TENSIONING INSTRUCTION FOR FIRE DOORS MODEL FD MOTOR OPERATED

INSTRUCTIONS:

DO NOT ATTEMPT TO MAKE ANY ADJUSTMENT TO THE TENSION ASSEMBLY WITH THE CURTAIN IN ANY POSITION OTHER THAN FULLY COILED ON BARREL.

1. TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS. NOW PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2. ROTATE THE TENSION WHEEL IN THE DIRECTION THE CURTAIN NORMALLY WINDS ONTO THE BARREL. THE TENSION WHEEL IS TO BE ROTATED _____ TURNS NOW LOCK THE TENSION WHEEL IN PLACE TO THE BRACKET.
3. NOW, TEST THE DOOR FOR NORMAL OPERATION.
4. AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:
5. WITH THE DOOR IN THE FULL OPEN POSITION DROP THE RELEASE ARM. THE PALLET ARM WILL DROP. ALLOWING THE "PALLET" TO ENGAGE THE "SCAPE WHEEL" AND DISENGAGE THE MOTOR FROM THE DRIVE SYSTEM, DOOR WILL NOW DESCEND TO FULLY CLOSED POSITION.
6. THE CLOSING TIME SHOULD APPROXIMATE AN AVERAGE CLOSING SPEED OF 2 FEET PER SECOND.
7. IF THE CLOSING VELOCITY GREATLY EXCEEDS THE AVERAGE SPEED OF 2 FEET PER SECOND, AND AFTER COUNTERBALANCE SPRING ADJUSTMENTS HAVE BEEN MADE CONTACT THE COOKSON COMPANY FOR FURTHER INSTRUCTION. WHEN CONTACTING US, BE SURE TO ADVISE THE TIME IT TOOK, IN SECONDS, FOR THE DOOR TO CLOSE AND, THE NUMBER OF TURNS OF INITIAL TENSION APPLIED.
8. TO RESET THE DOOR, SEE RESET INSTRUCTION ON PAGE 12.
9. CONNECT FUSE LINK SYSTEM TO RELEASE ARM AS SHOWN ON PAGE 13.

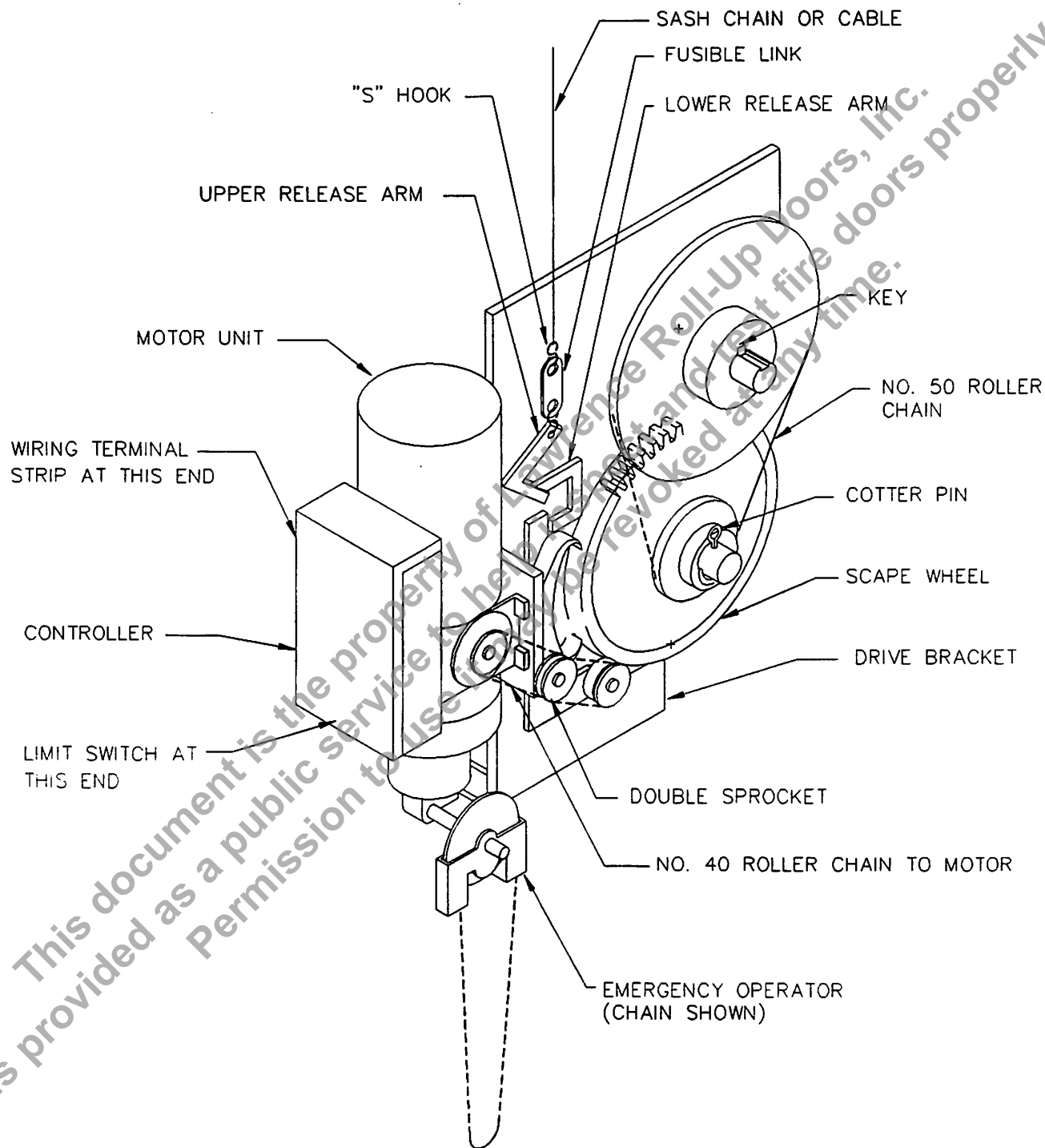
MOTOR BRACKET ASSEMBLY



NOTE:
LIMIT SWITCH SPROCKET AND THE NO. 35 ROLLER CHAIN ON OPPOSITE SIDE OF MOTOR NOT SHOWN.

FIGURE 10

MOTOR BRACKET ASSEMBLY COMPOUND



NOTE:
LIMIT SWITCH SPROCKET AND THE NO. 35 ROLLER
CHAIN ON OPPOSITE SIDE OF MOTOR NOT SHOWN.

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FIGURE 11

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MOTOR OPERATED FIRE DOORS
INSTRUCTIONS FOR SETTING ROTARY LIMIT SWITCH

CAUTION: ONLY ADJUST THE ROTARY LIMIT SWITCH WITH THE POWER "OFF"

1. USING THE MANUAL HAND CHAIN, LOWER OR RAISE THE CURTAIN TO THE MIDPOINT OF THE OPENING. PLACE A "C" CLAMP ACROSS THE THROAT OF THE GUIDES TO HOLD DOOR IN PLACE.
2. OPEN THE LIMIT SWITCH BOX AND IDENTIFY ALL PARTS. (A) DETENT PLATE, (B) CAM NUT (C) BASIC SWITCHES.
3. DE-PRESS THE SPRING LOADED DETENT PLATE AND ROTATE EACH CAM NUT APPROXIMATELY 1/8" FROM THE BASIC SWITCHES AS SHOWN BELOW.

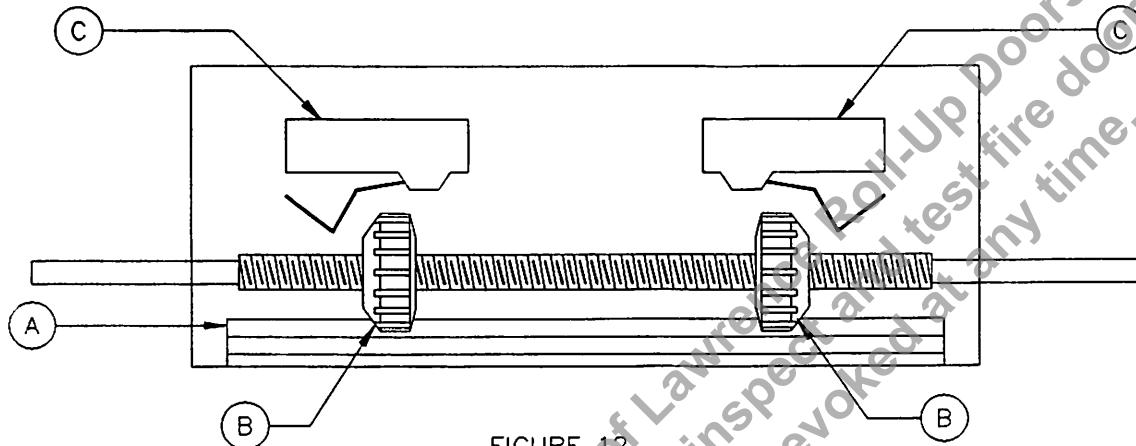


FIGURE 12

4. NOW, REMOVE THE "C" CLAMP AND APPLY POWER TO THE MOTOR AND TEST THE OPERATION OF THE DOOR. AS THE DOOR IS OPENING THE "OPEN" CAM NUT SHOULD BE TRAVELING TOWARDS THE "OPEN" BASIC SWITCH. AS THE DOOR IS CLOSING THE "CLOSE" CAM NUT SHOULD BE TRAVELING TOWARDS THE "CLOSE" BASIC SWITCH. THE CAM NUTS ARE DESIGNED TO ACTIVATE THE BASIC SWITCHES AND TERMINATE THE TRAVEL OF THE DOOR.
5. **IMPORTANT:** CHECK THAT THE MOTOR IS CORRECTLY WIRED IN REGARDS TO ROTATION AND DIRECTION. OPERATE THE OPEN AND CLOSE FUNCTIONS. IF THE MODE OF OPERATION IS INCORRECT (WHEN THE "OPEN" FUNCTIONS OF THE CONTROL STATION MAKES THE DOOR CLOSE OR THE "CLOSE" FUNCTION OF THE CONTROL STATION MAKES THE DOOR OPEN) OR THE ROTATION DIRECTION OF THE CAM NUT IS INCORRECT (CAM NUT TRAVELS TOWARD THE "OPEN" BASIC SWITCH WHEN CLOSING AND THE "CLOSE" BASIC SWITCH WHEN OPENING) DISCONTINUE OPERATION OF THE DOOR AND CHECK THE WIRING. ALL WIRING MUST BE CORRECT BEFORE PROCEEDING.
6. ONCE THE CORRECT ROTATION AND ORIENTATION OF THE CONTROL FUNCTIONS AND BASIC SWITCHES HAS BEEN DETERMINED, PROCEED WITH THE FINALIZED SETTING OF THE ROTARY LIMIT SWITCH.
7. TURN POWER OFF. WITH THE MANUAL HAND CHAIN OPERATOR LOWER THE DOOR TO THE FULLY CLOSED POSITION. ROTATE THE "CLOSE" CAM NUT TOWARD THE "CLOSE" BASIC SWITCH UNTIL THE SWITCH CLICKS. THE "CLOSE" BASIC SWITCH IS NOW SET. RAISE THE DOOR TO THE FULLY OPEN POSITION. ROTATE THE "OPEN" CAM NUT TOWARD THE "OPEN" BASIC SWITCH UNTIL THE SWITCH CLICKS. THE "OPEN BASIC SWITCH IS NOW SET.
8. MAKE SURE THAT THE DETENT PLATE IS FULLY ENGAGED IN THE SLOTS OF EACH CAM NUT. REPLACE THE COVER ON THE LIMIT SWITCH AND APPLY POWER TO THE MOTOR OPERATOR TEST THE OPERATION OF THE DOOR. IF FURTHER FINE TUNING ADJUSTMENTS ARE REQUIRED MAKE SURE THAT THE POWER IS OFF BEFORE ADJUSTMENTS ARE MADE.

RESETTING INSTRUCTION FOR COOKSON MODEL FD FIRE DOORS MOTOR OPERATION

CAUTION: ONLY TRAINED PERSONNEL SHOULD RESET FIRE DOORS.

1. With door closed, activate "close" control and allow motor to run until it is stopped by down limit switch.
2. Re-engage drive bracket release arm by lifting up on arm to maximum position (parallel to floor) and secure.
3. Activate "open" control and allow door to start up. Manually stop door by activating "stop" control when bottom bar of door is approximately 12" below stops at top of door.
4. Using emergency hand operator, manually raise door to approximately 3" below stops.
5. The up limit switch can now be identified as the one with the nut closest to it. Depress the locking plate and rotate nut toward limit switch until a "click" is heard. The up limit is now set.
6. Activate "close" control and allow door to start down. Manually stop door by activating "stop" control when bottom bar is approximately 12" above floor.
7. Using emergency hand operator, manually lower door to approximately 3" above floor.
8. The down limit switch can now be identified as the one with the nut closest to it. Depress the locking plate and rotate nut toward limit switch until a "click" is heard. The down limit switch is now set.
9. Test door operation at top and bottom and fine adjust as desired, but do not allow motor to force bottom bar against stops or floor.
10. Test entire door motor operation.

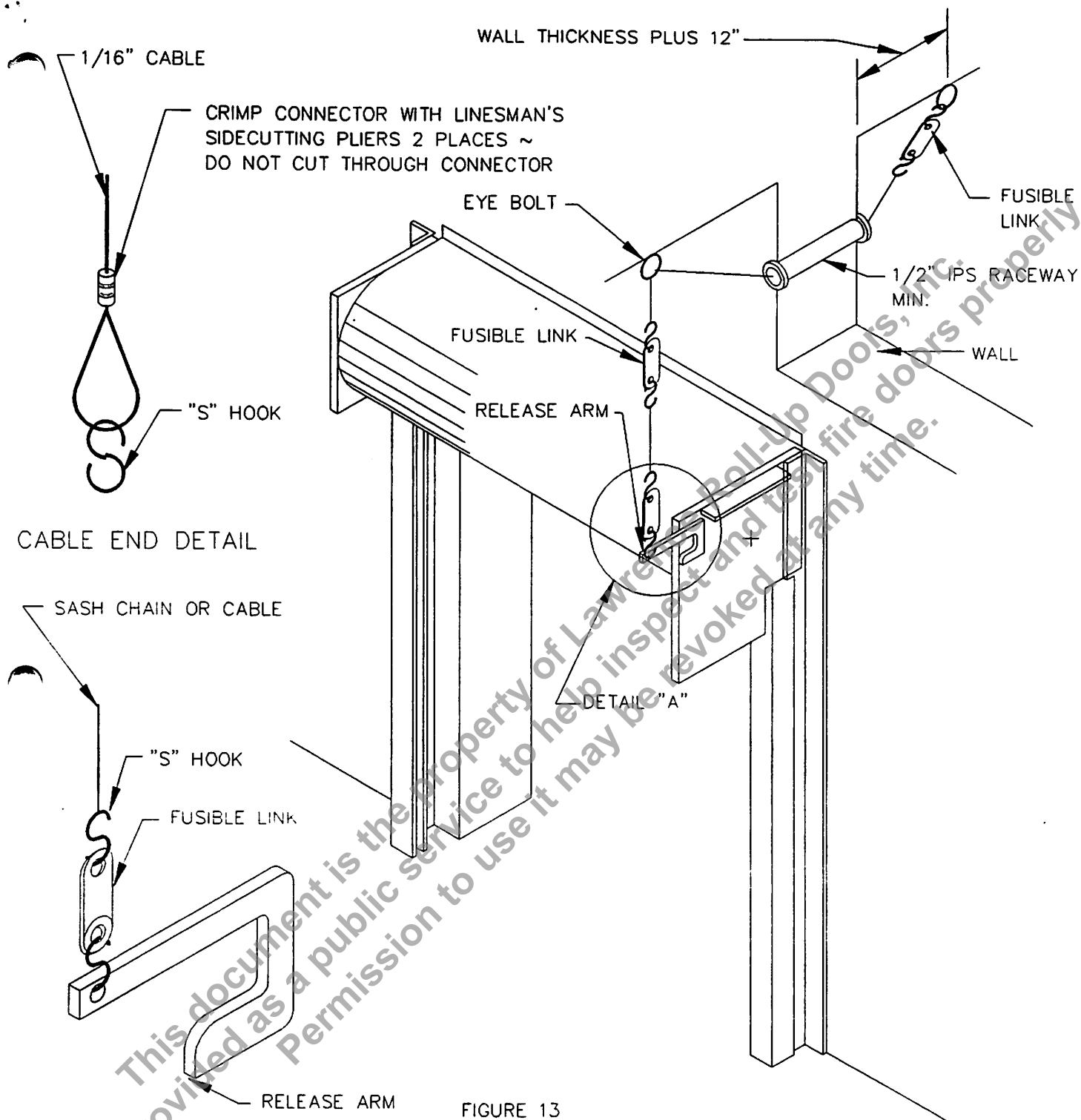


FIGURE 13

FUSIBLE LINK ARRANGEMENT FOR SINGLE FIRE DOORS WITH ONE RELEASE ARM.
CONSULT N.F.P.A. BULLETIN 80 FOR ADDITIONAL INFORMATION.

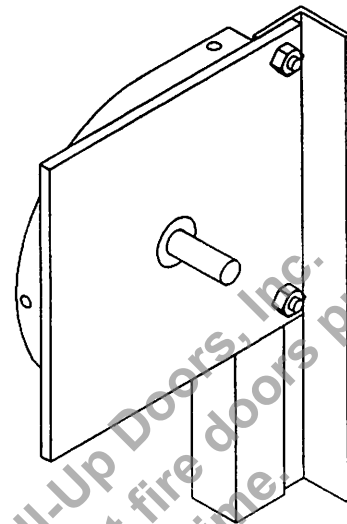
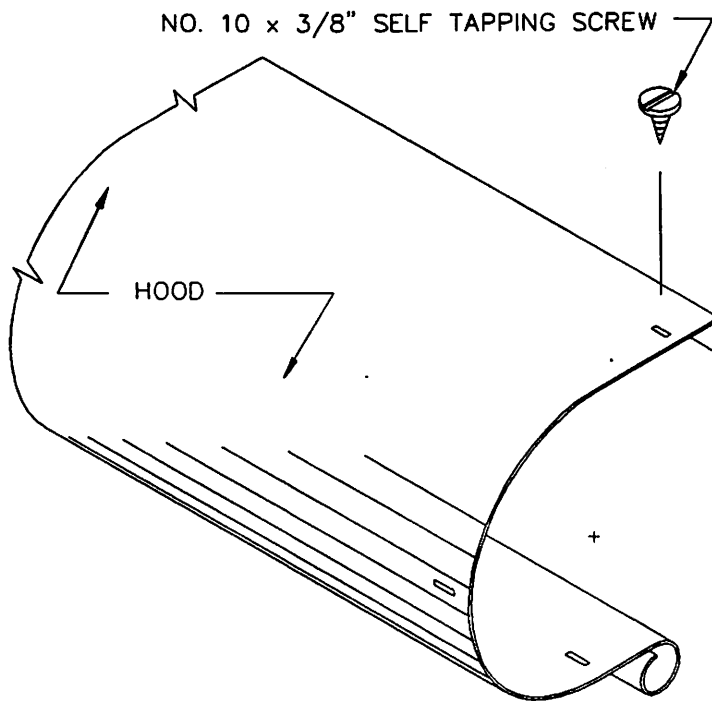
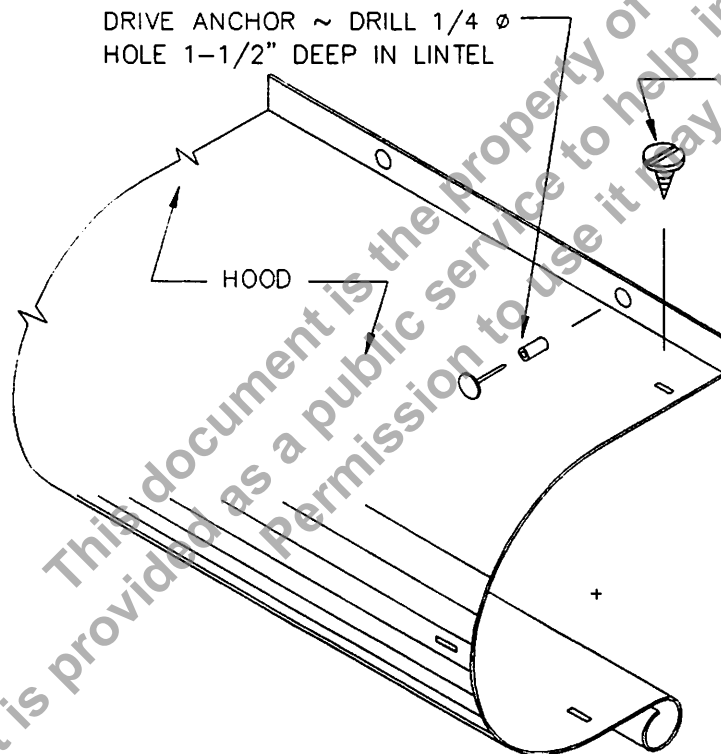


FIGURE 14

FIRE DOORS WITH HOOD FLANGE TURNED DOWN



NO. 10 x 3/8" SELF TAPPING SCREW

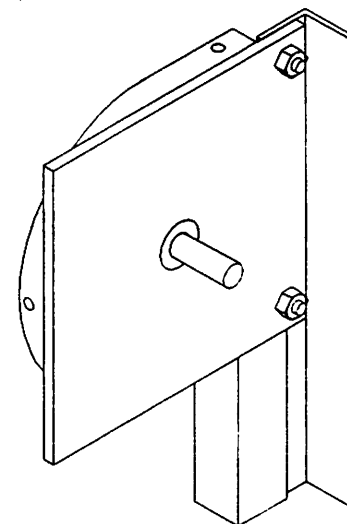


FIGURE 15

FIRE DOORS WITH HOOD FLANGE TURNED UP