

NORTH AMERICAN ROLLING DOOR
FIRE DOOR
RESET INSTRUCTIONS

Manual (Push-up) Operation

- 1). Return the weighted governor drop arm located in front of the hood to the horizontal position. Tension the sash chain attached to the weight to keep the drop arm in a horizontal position. This will disengage the governor from the cast star wheel and allow the door to be raised to the open position (Item 15, Figure 1).

- 2). Raise the door to the open position and hold or support the curtain. A large percentage of the precharge was taken off when the door was dropped, therefore it is necessary to support the curtain in the open position until the total precharge is regained.

CAUTION: The adjusting wheel is charged by the torsion springs at this time.

- 3). Secure the adjusting wheel hub with a pipe wrench or other suitable means and turn clockwise if the adjuster is on the left side when facing the hood and counter clockwise if it is located on the right side when facing the hood. Turn the adjusting wheel until the swing stop bolt (item 32, Figure 2) is returned to its original position prior to the door drop. If the original position is not known, see steps 6-9.

- 4). While holding the adjusting wheel, rotate the drop out weight (Item 14, Figure 2) to engage the pawl weight (Item 9, Figure 2) into the notch on the adjusting wheel. Tension the sash chain attached to the drop out weight. This will secure the adjusting wheel and maintain the appropriate precharge to keep the door in the open position without the use of any support. It is suggested that the support system be kept intact until the fuse link or other drop out devices are reinstalled to the drop out sash chains.

- 5). Maintain tension in the governor drop arm and adjuster drop out sash chains. The sash chains for the governor and the adjuster must be linked together so that both drop at the same time. Reinstall fuse link, holder/release device or electro thermo link. Replace the fuse link in the hood baffle if necessary. Check entire installation to insure that no obstructions exist which would keep the drop outs on both adjuster and governor sides from functioning properly. The reset is now complete.

Alternate procedure if the location of the swing stop bolt (Item 32, Figure 2) prior to the door drop is unknown:

CAUTION: The adjusting wheel is charged by the torsion springs at this time.

- 6). The door is in the open position. Secure the adjusting wheel hub with a pipe wrench or other suitable means and apply downward pull to counteract the torque of the torsional springs. Unscrew the swingstop bolt (Item 32, Figure 2) to avoid contact with the swingstop (Item 29, Figure 2). Turn the adjusting wheel until the torsion springs are totally uncharged. Approximately $3/4$ to $1-1/2$ full turns should totally uncharge the adjuster. Engage the pawl weight into the notch on the adjusting wheel (Item 9, Figure 2) to hold the adjuster in place while the pipe wrench is removed when a full 360 rotation cannot be achieved.
- 7). Turn the adjusting wheel and add tension until the bottom bar makes light contact with the stops. Normally $1-1/2$ to 2 turns will be sufficient. While holding the adjusting wheel, rotate the drop out weight (Item 14, Figure 2) to engage the pawl weight (Item 9, Figure 2) into the notch on the adjusting wheel. Tension the sash chain attached to the drop out weight. This will secure the adjusting wheel and maintain the appropriate precharge to keep the door in the open position without the use of any support. It is suggested that the support system be kept intact until the fuse link or other drop out devices are re-installed to the drop out sash chains.
- 8). Place the swing stop bolt (Item 32, Figure 2) at the 12 o'clock position on the adjusting wheel. Make sure the swing stop bolt is screwed in far enough to pick up the swing stop (Item 29, Figure 2) when the precharge is released in the drop mode. If the swing stop bolt does not contact the swing stop, the torsion springs will not be charged as the door drops. This results in very rapid door descent.
- 9). Test drop the door by releasing the tension in the sash chains to the adjusting wheel and governor drop outs. If the test was acceptable, simply reset the door. If the door dropped too fast, move the swing stop bolt to the next tapped hole in the adjuster which would lessen the amount of precharge taken off. If the door did not reach the floor, position the swing stop bolt so that more precharge is taken off. Reposition the swing stop bolt one increment at a time. Reset the door after an acceptable drop. Maintain tension in the governor drop arm and adjuster drop out sash chains. The sash chains for the governor and the adjuster must be linked together so that both drop at the same time. Re-install fuse link, holder/release or electro thermo link. Replace the fuse link in the hood baffle if necessary. Check entire installation to insure that no obstructions exist which would keep the drop outs on both adjuster and governor sides from functioning properly. The reset is now complete. Document the precharge and swing stop bolt locations in the maintenance log or another suitable place.

Chain or Crank Operation

- 1). Return the weighted governor drop arm located in front of the hood to the horizontal position. Tension the sash chain attached to the weight to keep the drop arm in a horizontal position. This will disengage the governor from the cast star wheel and allow the door to be raised to the open position. (See Figure 1).
- 2). Swing the drive gear plate assembly back to its original position by pushing upward until the plate hits the upper fork on the main bracket plate assembly (Item 37, Figure 3). Figure 3 represents compound chain operation. Single chain and crank operation drives are slightly different, but reset in a similar manner. Swing the large drop out weight under the drive gear plate assembly until the drop out contacts the stop angle. Tension the drop out sash chain to secure the crank or chain drive assembly. The drive gears are now meshed.
- 3). Raise the door to the open position and hold or support the curtain. A large percentage of the precharge was taken off when the door was dropped, therefore, it is necessary to hold the curtain in the open position until the total precharge is regained.

CAUTION: The adjusting wheel is charged by the torsion springs. at this time.

- 4). Secure the adjusting wheel hub with a pipe wrench or other suitable means and turn to add tension until the swing stop bolt (Item 32, Figure 2) is returned to its original position prior to the door drop. If the original position is not known, see steps 6-9 in the Manual (Push-up) Operation section.
- 5). While holding the adjusting wheel, rotate the drop out weight (Item 14, Figure 2) to engage the pawl weight (Item 9, Figure 2) into the notch on the adjusting wheel. Tension the sash chain attached to the drop out weight. This will secure the adjusting wheel and maintain the appropriate precharge to keep the door in the open position without the use of any support. It is suggested that the support system be kept intact until the fuse link or other drop devices are reinstalled to the drop out sash chains.
- 6). Maintain tension in the governor drop arm and adjuster drop out sash chains. The sash chains for the governor and the adjuster must be linked together so that both drop at the same time. Reinstall the fuse link, holder/release device or electro thermo link. Replace the fuse link in the hood baffle if necessary. Check entire installation to insure that no obstructions exist which would keep the drop outs on both adjuster and governor sides from functioning properly. The reset is now complete.

Motor Operation

- 1). Push the close button on the control station until the motor operator stops when reaching the down limit switch setting. When the door dropped, the motor operator drive was disconnected and the limit switch shaft did not rotate as the door closed. The motor operator control circuit is in the open position but the door is closed. Pushing the close button and running the motor operator until the down limit switch is reached places both the motor operator and the door in the closed position.
- 2). Return the weighted governor drop arm located in front of the hood to the horizontal position. Tension the sash chain attached to the weight to keep the drop arm in a horizontal position. This will disengage the governor from the cast star wheel and allow the door to be raised to the open position (See Figure 1).
- 3). Reassemble the motor release device as shown in the enlarged detail and the applicable mounting A-E on figure 4. Push the open button on the control station and raise the door

CAUTION: The adjusting wheel is charged by the torsion springs at this time.
- 4). Secure the adjusting wheel hub with a pipe wrench or other suitable means and turn clockwise if the adjuster is on the left side when facing the hood and counter clockwise if it is located on the right side when facing the hood. Turn the adjusting wheel until the swing stop bolt (Item 32, Figure 2) is returned to its original position prior to the door drop. If the original position is not known, see steps 6-9 in the Manual (Push-up) Operation section.
- 5). While holding the adjusting wheel, rotate the drop out weight (Item 14, Figure 2) to engage the pawl weight (Item 9, Figure 2) into the notch on the adjusting wheel. Tension the sash chain attached to the drop out weight. This will secure the adjusting wheel and maintain the appropriate precharge to keep the door in the open position without the use of any support.
- 6). Maintain tension in the release device, governor drop arm and adjuster drop out sash chains. The sash chains for the governor and the adjuster must be linked together so that both drop at the same time. Reinstall the fuse link, holder/release device or electro thermo link. Replace the fuse link in the hood baffle if necessary. Check entire installation to insure that no obstructions exist which would keep the drop outs on both adjuster and governor sides from functioning properly. The reset is now complete.

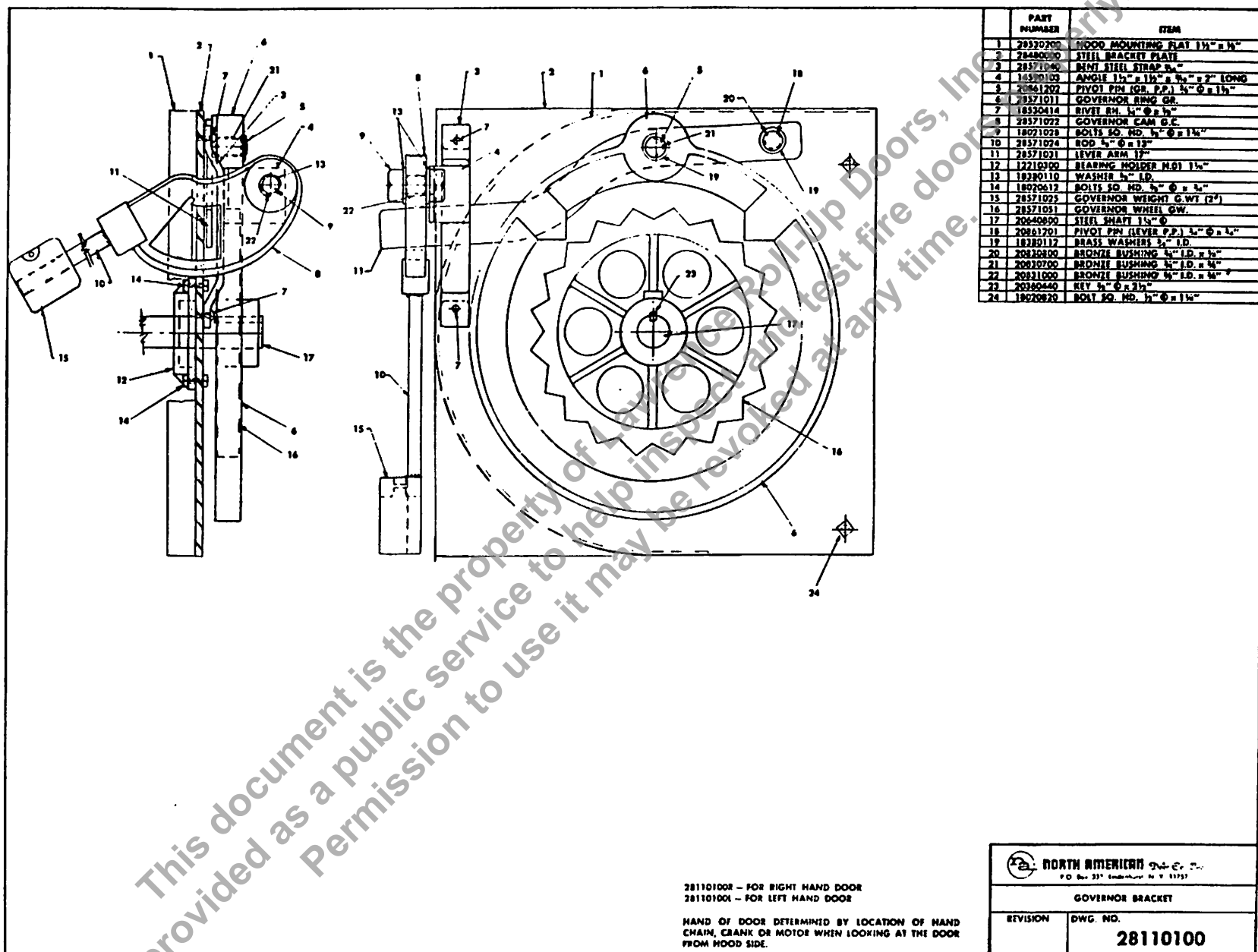
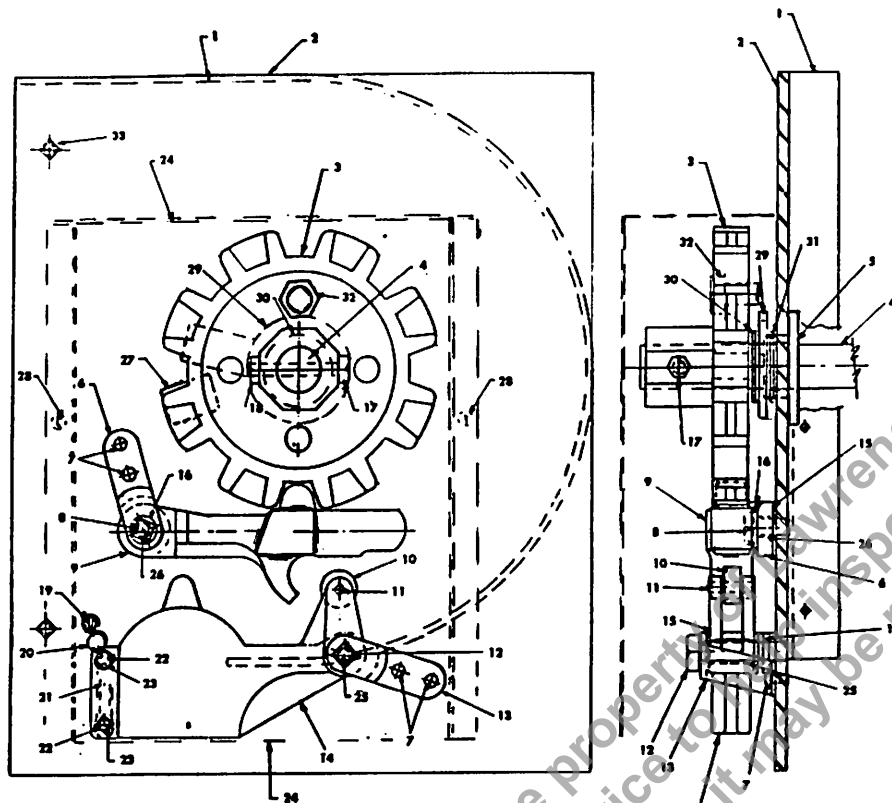


FIGURE 1



PART NUMBER	ITEM
1 2810100	WOOD MOUNTING PLAT 1 1/2" x 1 1/2"
2 28480000	STEEL BRACKET PLATE
3 28500601	AUTOMATIC ADJUSTING GEAR U6
4 20640800	STEEL SHAFT 1 1/2"
5 20830100	BRONZE BUSHING WITH FLANGE 1 1/2" UIS
6 28510101	STUD STRAP PAWL USA
7 18570414	RIVET 8H 1/2" x 1/2"
8 18050818	TAP BOLT SQ. HD. 1/2" x 1 1/2"
9 28510501	PAWL WEIGHT USE (28510701 FOR US) PAWL
10 20831800	BRASS ROLLER 1"
11 20160420	ROLL PIN 1/2" x 1 1/2"
12 18050840	TAP BOLT SQ. HD. 1/2" x 2 1/2"
13 28550700	WEIGHT STUD STRAP U4A
14 28570100	SMALL WEIGHT AUTOMATIC DROPOUT U4
15 18340108	STEEL WASHERS 1" I.D.
16 18350108	LOCK WASHER 1" I.D.
17 18030752	BOLT HEX HD. 3/4" x 3 1/2"
18 18640507	LOCK NUT HEX HD. 3/4" x 3 1/2"
19 18170514	TAP BOLT RH. 3/4" x 1"
20 20151003	S HOOKS 1 1/2" x 1/2" (2 REQ'D.)
21 20940100	FUSIBLE LINK 100°
22 18040104	NUT SQ. HD. 1/2" x 1"
23 18070416	MACHINE BOLT 1/2" x 1" SQ. HD.
24 28540100	COVER 24 GA. GALV. 9 1/2" x 14 1/2" x 4 1/2"
25 20830400	BRONZE BUSHING 1/2" I.D. x 1 1/2"
26 20830500	BRONZE BUSHING 1" I.D. x 1 1/2"
27 20703501	STEEL FLAT 1 1/2" x 1" x 1/4"
28 18170306	TAP BOLT RH. 3/4" x 1 1/2"
29 28540100	SWING STOP US 1 1/2" I.D. x 2 1/2" O.D. x 4 1/2" LONG
30 18380704	BRASS WASHER 1 1/2" I.D.
31 18380401	BRONZE WASHER 2" I.D. x 3 1/2" O.D.
32 18031220	MACHINE LOCK BOLT HEX HD. 1/2" x 1 1/2"
33 18070820	BOLT SQ. HEAD 1/2" x 1 1/2"

28100100R - FOR RIGHT HAND DOOR
28100100L - FOR LEFT HAND DOOR

HAND OF DOOR DETERMINED BY LOCATION OF HAND
CHAIN, CRANK OR MOTOR WHEN LOOKING AT THE DOOR
FROM HOOD SIDE.


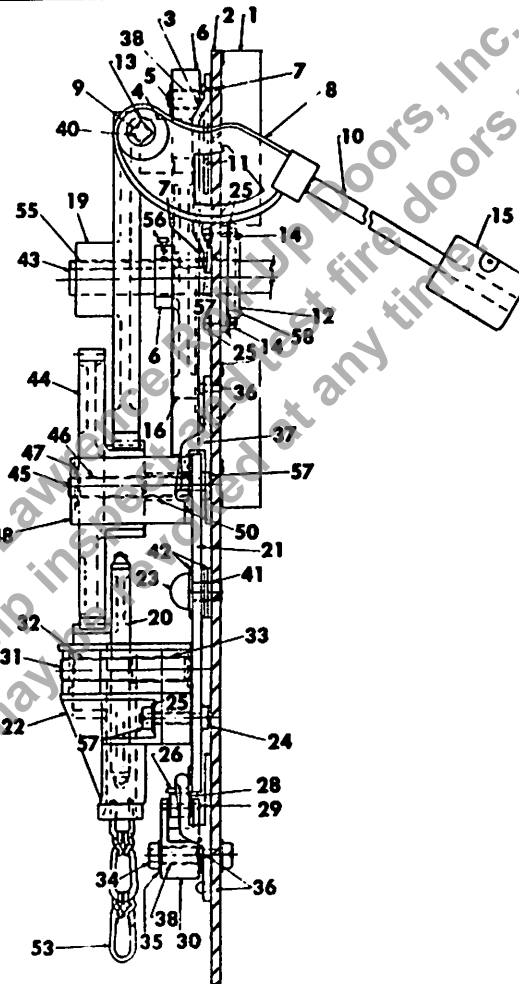
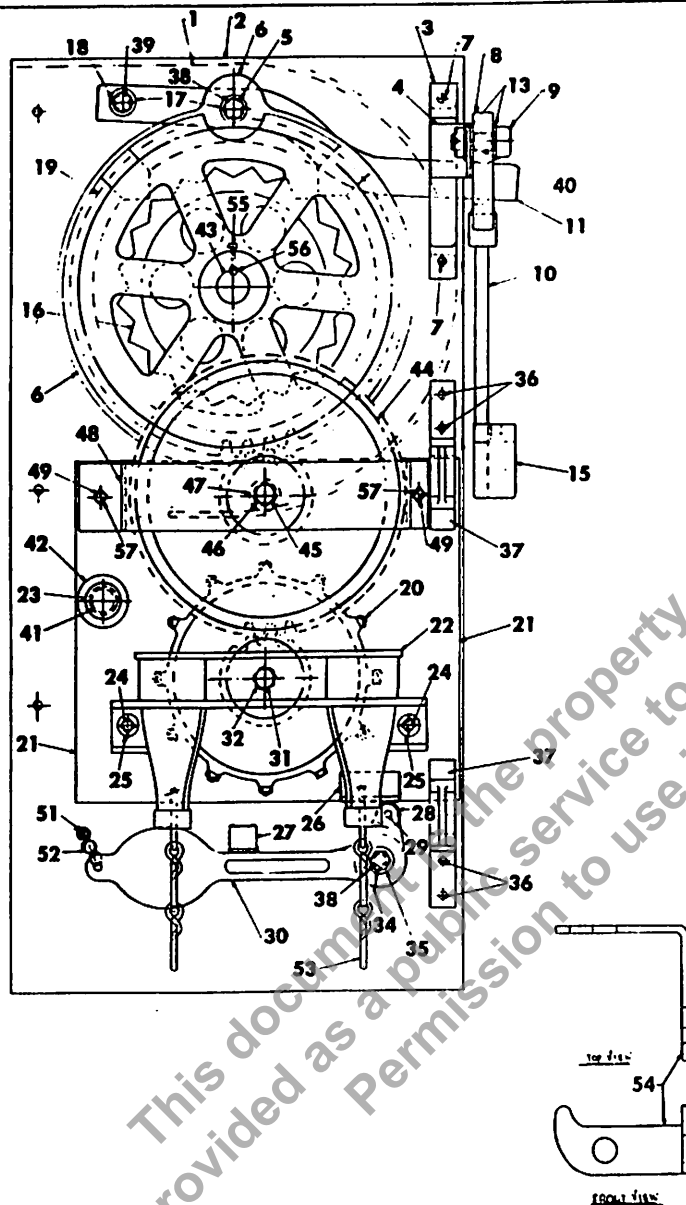
 NORTH AMERICAN Corp., Inc. P.O. Box 337, Lindbergh, MO 63170	
ADJUSTING BRACKET WITH AUTOMATIC DROPOUT	
REVISION	DWG. NO. 28100100

FIGURE 2



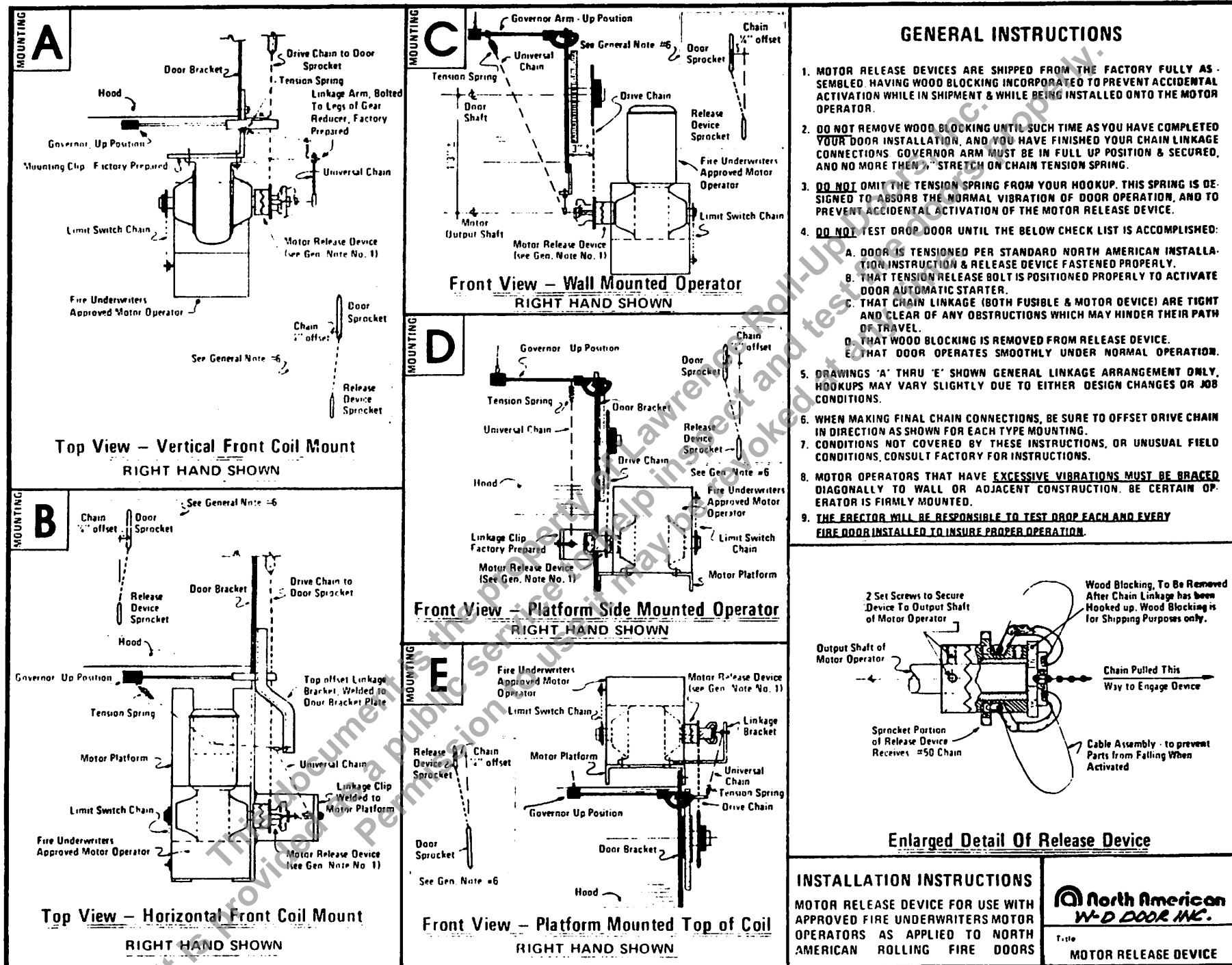
ITEM	PART NUMBER	DESCRIPTION
1	28130000	HOOD MOUNTING PLAT
2	28480000	BRACKET PLATE
3	28371040	STEEL STRAP
4	14990103	ANGLE - 1 1/2" x 1 1/2" x 1/4" x 3"
5	20841202	PIVOT PIN - 1/4" DIA. x 1 1/4"
6	28371011	GOVERNOR RING - GR
7	18330414	RIVET R.H. - 1/4" DIA. x 1/2"
8	28371027	GOVERNOR CAM - OC
9	18021028	BOLTS SQ. HD. 1/4" DIA. x 1 1/4"
10	28371024	ROD - 1/4" DIA. x 1 1/2"
11	28371031	LEVER ARM - 17"
12	12210000	BEARING HOLDER
13	18180110	WASHER - 3/4" I.D.
14	18070812	BOLTS SQ. HD. - 1/4" DIA. x 1/4"
15	28371024	WRIGHT GWT
16	28371051	GOVERNOR WHEEL GW
17	18380112	WASHER - I.D. 1/4"
18	20841201	PIVOT PIN - 1/4" DIA. x 1/4"
19	28480101	GEAR HOUS
20	20140100	CHAIN SPROCKET AND 3" P.D. GEAR - H1
21	28470802	PLATE
22	28410300	CHAIN GUARD WITH EXTENSION - H1
23	18331016	RIVET RH - 1/4" DIA. x 1"
24	18020844	BOLTS SQ. HD. - 1/4" DIA. x 3/4"
25	18340108	WASHER - 1/4" I.D.
26	14990108	ANGLE - 1" x 1" x 1/4" x 2 1/2"
27	14990109	ANGLE - 1" x 1" x 1/4" x 1"
28	20830000	BRASS ROLLER - 1" DIA. x 1/4"
29	20140100	ROLL PIN - 1/4" DIA. x 1 1/4"
30	28371024	LONG WIPER - U20
31	20830504	STEEL SHAFT - 1/4" DIA. x 3"
32	20830400	BUSHING - 1/4" I.D. x 1"
33	20170100	PIPE SPACER - 1/4" I.D. x 1"
34	18031744	BOLTS - HEX HD. 1/4" DIA. x 3/4"
35	18340112	WASHER - I.D. 1/4"
36	18330514	RIVET RH - 1/4" DIA. x 1/4"
37	28400100	KORK - U21
38	20830700	BUSHING - 1/4" DIA. x 1/4"
39	20830400	BUSHING - 1/4" DIA. x 1/4"
40	20831000	BUSHING - 1/4" DIA. x 1/4"
41	20830900	BUSHING - 1/4" DIA. x 1/4"
42	18340110	WASHER I.D. 1/4"
43	20840000	SHAFT STEEL
44	28490700	GEAR - M10
45	20830703	SHAFT - STEEL - 1" DIA. x 3"
46	20831100	BUSHING - I.D. - 1" x 2 1/2"
47	18340116	WASHER - 1" I.D.
48	28350300	STRAP
49	18020816	BOLTS SQ. HD. - 1/4" DIA. x 1"
50	20170200	PIPE SPACER
51	18170517	TAP BOLT - RH - 1/4" DIA. x 1/4"
52	20151000	HOOKS - 5 - 1 1/2" x 1/2"
53	20580200	CHAIN - GALV. LOCK LPMK
54	16170200	CHAIN LOCK
55	20240400	KEY - 1/4" x 4 1/4"
56	18221616	SET SCREW - SQ. HD. - 1/4" DIA. x 1"
57	18440106	NUT - SQ. HD. - 1/4" I.D.
58	20720000	BEARING

28133000R - FOR RIGHT HAND DOOR
28133000L - FOR LEFT HAND DOOR

HAND OF DOOR DETERMINED BY LOCATION OF HAND CHAIN, CRANK OR MOTOR WHEN LOOKING AT THE DOOR FROM HOOD SIDE.

NORTH AMERICAN Door Co. Inc. P.O. Box 510 Lindbergh, Mo. 63177	
COMPOUND GEAR BRACKET WITH DROP-OUT	
REVISION	DWG. NO.
	28123000

FIGURE 3



ERECTION PROCEDURE FOR UF1 & UF2
PUSH UP & CHAIN OPERATED FIRE DOORS

- Step 1 - Disassemble guide angles. Mount wall angles (identified by vertical slotted holes). Be sure they are set plumb and spaced so that the proper "distance between brackets" (back of angles' dimension indicated on your drawing "BB" is obtained - See Sketch #1.
- Step 2 - Assemble shaft and bracket plates at floor level. Proceed as follows, referring to Sketch #2.
Remove steel cover #9 from Automatic bracket plate.
Remove bolt holding weight arm #8 in locked position.
Remove automatic gear #5 from shaft.
Remove locking bolt #6 from automatic gear #5.
Remove all washers and swing stop #3 from shaft.
Now slip automatic dropout plate, with riveted brass bushing, onto shaft end next to the starter. Complete this assembly as shown on Sketch #2 & 3, leaving locking bolt #6 off and weight arm #8 in open position.
Mount governor plate onto welded and keyed shaft end as shown on Sketch #4 & 5.
Make certain that taperpins, keys and set screws are in place and securely locked.
- Step 3 - Hoist this assembly up and fasten bracket plates to wall angles. Make sure shaft is level. The slot holes are provided on wall angles for adjustment up or down.

IMPORTANT: Automatic gear #5 and governor gear #11 must be unlocked and be able to turn properly.

CHAIN & GEAR OPERATED DOORS ONLY: Engage handchain sprocket into drive gear by raising lever.

- Step 4 - Raise coiled curtain to about 1'-6" below the pipe shaft. Depending on curtain weight, hang several rope slings over pipe shaft, forming a cradle in which the curtain will hang. Tie the top slat to cradle line by means of wire. Top slat should rise between wall and shaft hollow of slat faces inside.

PUSH UP DOORS: Twist pipe shaft by hand until entire curtain is rolled on to it.

CHAIN OPERATED DOORS ONLY: Using the hand chain operator, turn the door shaft in the direction of raising the door to bring the top slat to barrels. Now secure top slat. Continue turning the shaft until the entire curtain is coiled around the shaft. Tie handchain to wall angle.

- Step 5 - Erect guide angles after first removing door stops. Guide curtain into tracks and insert the door stops.
- Step 6 - With the curtain fully raised, the holt removed from the tension gear #5 and weight arm #8 in open position, turn tension gear in direction shown on Sketch #6. Raise weight arm #8 to lock tension temporarily while changing position of charging wrench. Apply just enough tension to hold curtain from moving downward. Lock weight arm #8.
- Step 7 - Lower and raise door to try operation. Adjust spring tension to obtain best door operation.
- Step 8 - Mark position of tension wheel by means of crayon, so that after test dropping door, tension gear can be brought back to the same position. Have swing stop #3 hanging down vertically and try first to insert the special 3/4" Hex Head bolt in location to obtain a 1-1/8 take off turn on the springs. (See Sketch #6). Engage governor by dropping lever #14 as shown on Sketch #4 & 5.

CHAIN OPERATED DOORS:

DIS-ENGAGE GEARING.

Now make certain that door opening is clear of any obstruction or tools.

Test drop door by lowering weightarm #8.

In all cases, raise curtain again to fully open position and set tension gear back to original position.

Depending whether descent of curtain was too slow or too fast, increase or decrease the amount of turns to be taken off by changing position of locking bolt, shown on Sketch #3 & 6.

After having found proper setting raise door and set proper tension again. With lever #8 in locked position and lever #14 raised to unlock governor (on chain operated doors have gearing engage) connect universal chain between levers #8 and #14 with suitable links inserted as shown on field drawing. (Also see Sketch #7)

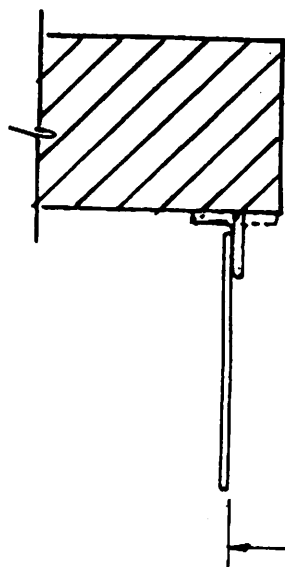
Mount cover over automatic dropout and install hood. (5/16" exp. bolts and 1/4" RH Mach bolts provided).

Eye bolt wired onto hood should be bolted into provided hole in the hood and locked between the two nuts.

Tighten chain to hold flame stop closely to hood. (Sketch #7)

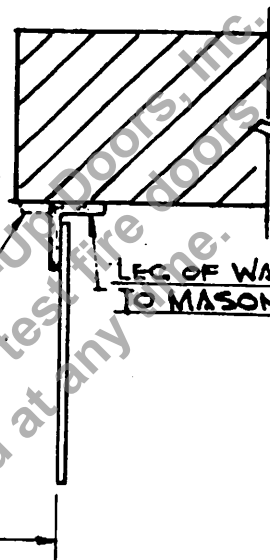
Maintenance:

North American doors are designed to require a minimum of attention. Your door has sealed quality bearings lubricated for "lifetime" and require no care. Clean tracks periodically. On chain operated doors clean drivegears and apply grease to it every few months. With this little care the door will operate trouble free for many years.



NOTE:
SEE CONTRACT DRAWING'S
FOR TYPE OF MOUNTING

LEG OF WALL &
TO STEEL



LEG OF WALL &
TO MASONRY

BB

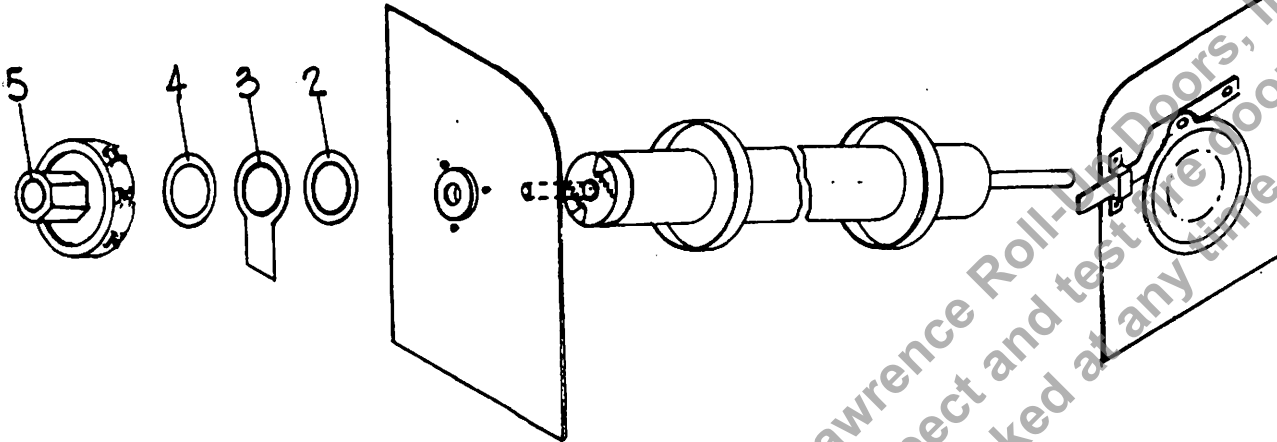
PLAN OF OPENING

1

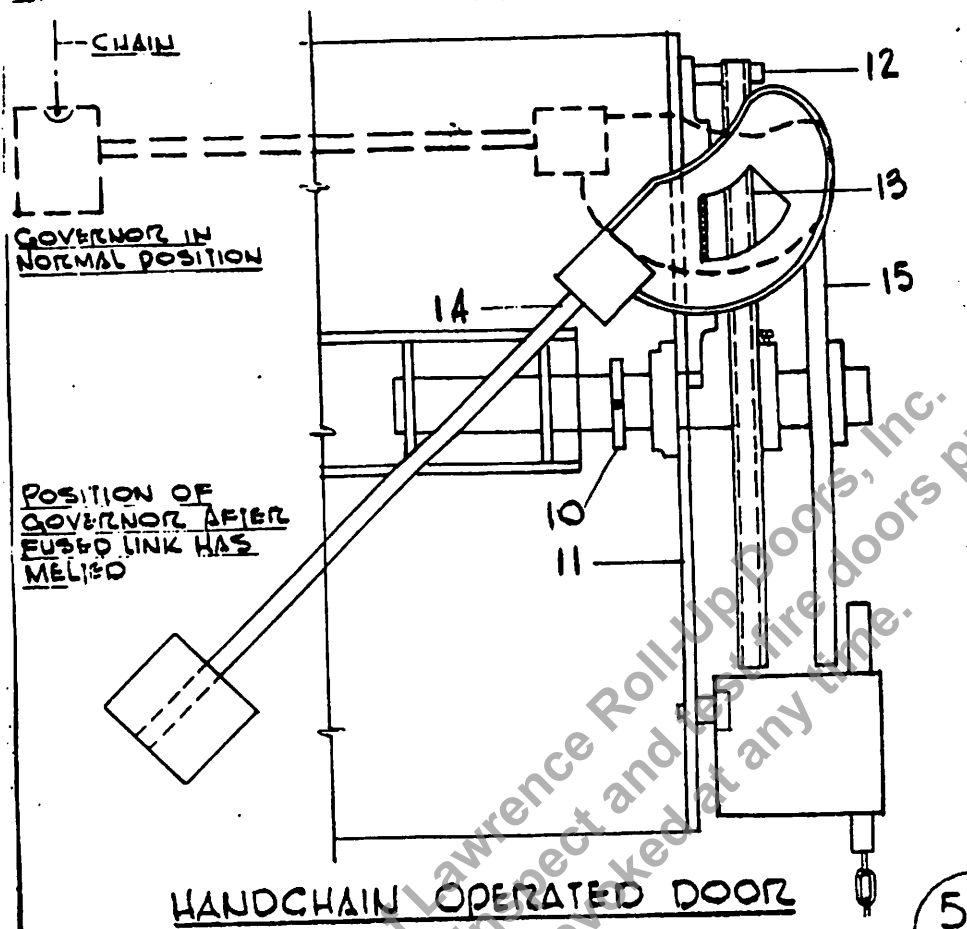
This document is the property of Lawrence Roll-Up Doors, Inc.
It is provided as a public service to help inspect and test fire doors properly.
Permission to use it may be revoked at any time.

AUTOMATIC PLATE

GOVERNOR PLATE



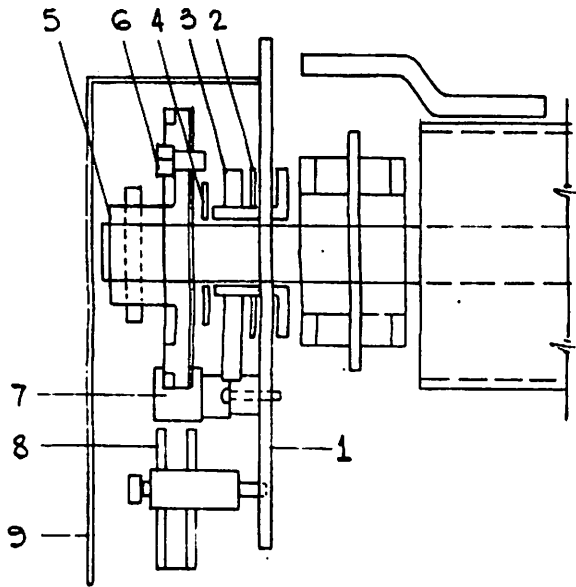
SHAFT & BRACKET PLATE ASSEMBLY



LEGEND

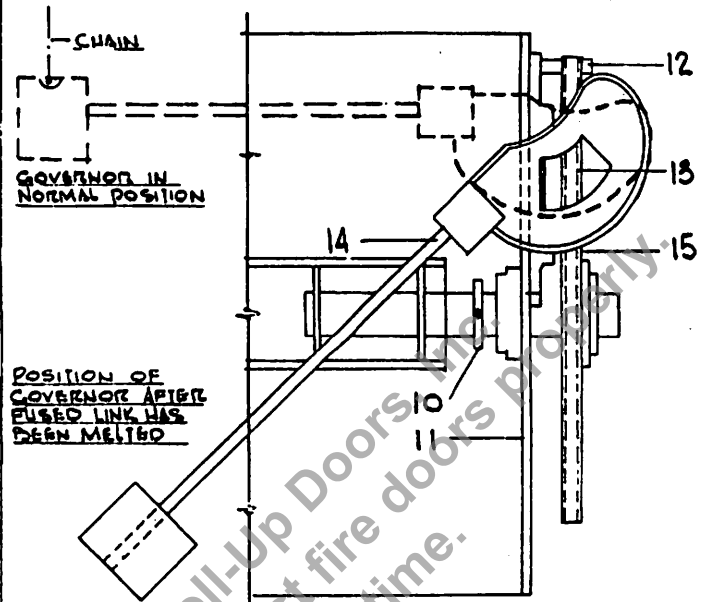
1. AUTOMATIC DROPOUT
2. 1/8 I.D. BRASS WASHER
3. SWINGSTOP U.S.
4. 1/4 I.D. BRASS WASHER
5. AUTOMATIC GEAR UG
6. LOCKING BOLT
7. PAWL
8. WEIGHT ARM
9. STEEL COVER
10. COLLAR
11. GOVERNOR BRACKET PLATE
12. GOVERNOR
13. GOVERNOR GEAR
14. GOVERNOR RELEASE ARM
15. DRIVE GEAR

NOTE: DROP-TEST
BEFORE LEAVING



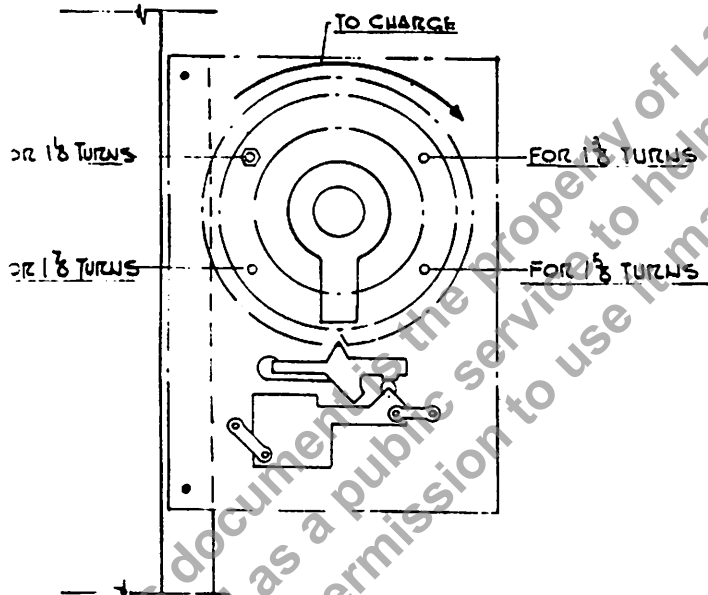
AUTOMATIC DROPOUT

3



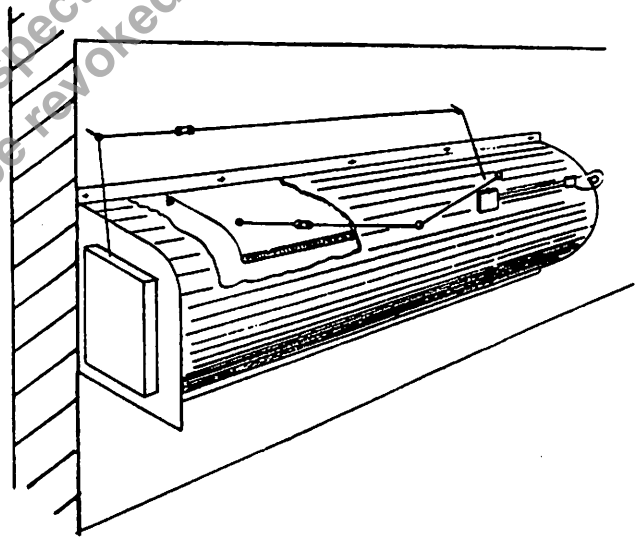
PUSH UP DOOR

4



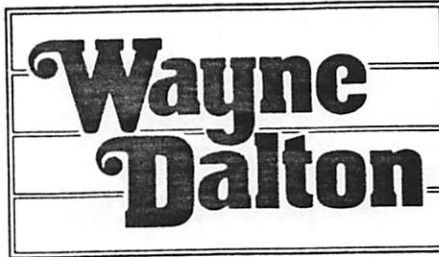
SIDE VIEW OF AUTOMATIC DROPOUT

6



HOOD & FLAME PANEL

7



NOTICE

FIRE DOOR PERIODIC TEST REQUIREMENT

This door has been installed and tested for proper operation according to procedures recommended by North American Rolling Door Division that it performs as designed at time of installation.

DATE: _____ INSTALLER _____

NORTH AMERICAN
Contract No. _____ PHONE _____

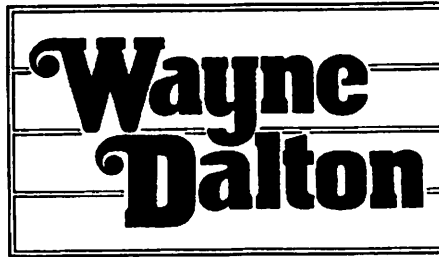
TO POSSESSOR OF THE PREMISES:

The Installer has certified that this door has been properly installed, that it has been tested, and that it performs as designed at time of installation. From now on, you should have it inspected regularly and tested periodically for any subsequent damage or wear which might preclude it from closing properly in an emergency.

DATE: _____ TESTED BY: _____

For further information, contact the installer.

Maintain a copy for your files and return one copy to
NORTH AMERICAN ROLLING DOOR DIVISION, P.O. Box 500, Dalton, Ohio
44618.



ROLLING FIRE DOOR TEST DROP RELEASE FORM

JOB NAME _____ DATE _____

JOB LOCATION _____ NORTH AMERICAN
CONTRACT NO. _____

The Rolling Fire Door (s) installed on the above project by
_____ have been properly tested
in my presence and in accordance with NORTH AMERICAN DOOR
BULLETIN #2. The door(s) release automatically and come down
to a fully-closed position.

Quantity of Fire Doors on Job _____

Door Marks _____

Tests Perfomed
By: _____

Test Witnessed
By: _____

Title: _____

Company: _____

Date: _____

Maintain a copy for your files and return one copy to NORTH
AMERICAN ROLLING DOOR DIVISION, P.O. Box 500, Dalton, Ohio
44618.