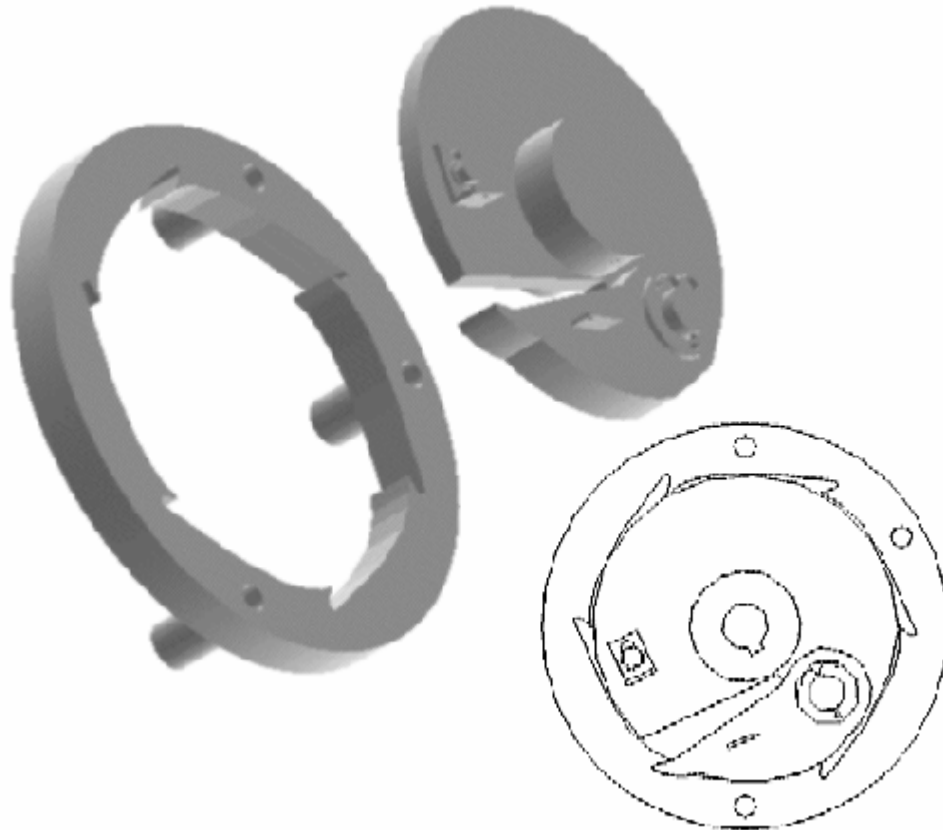




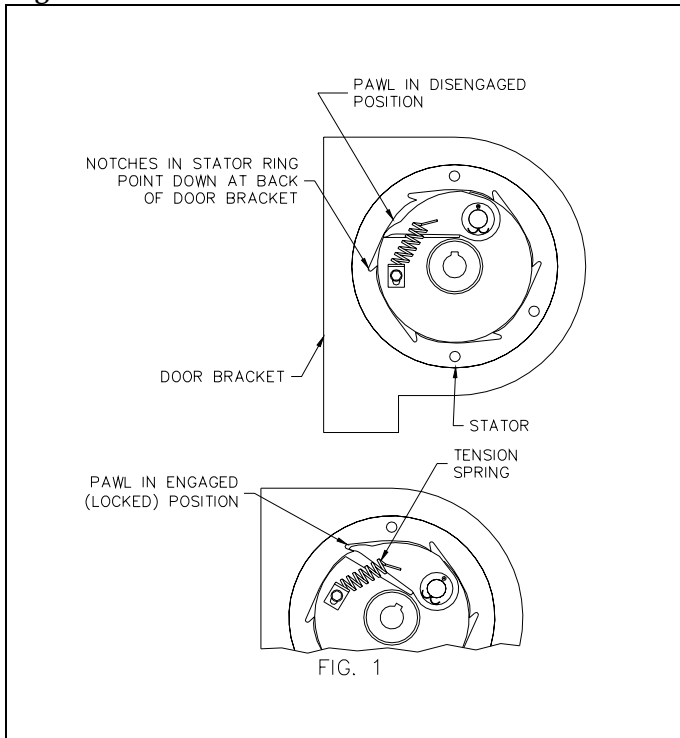
Drop Stop Device

Installation Instructions and Drop Test Procedure



Installation of DSD to Bracket/Pipe Assembly

Fig 1



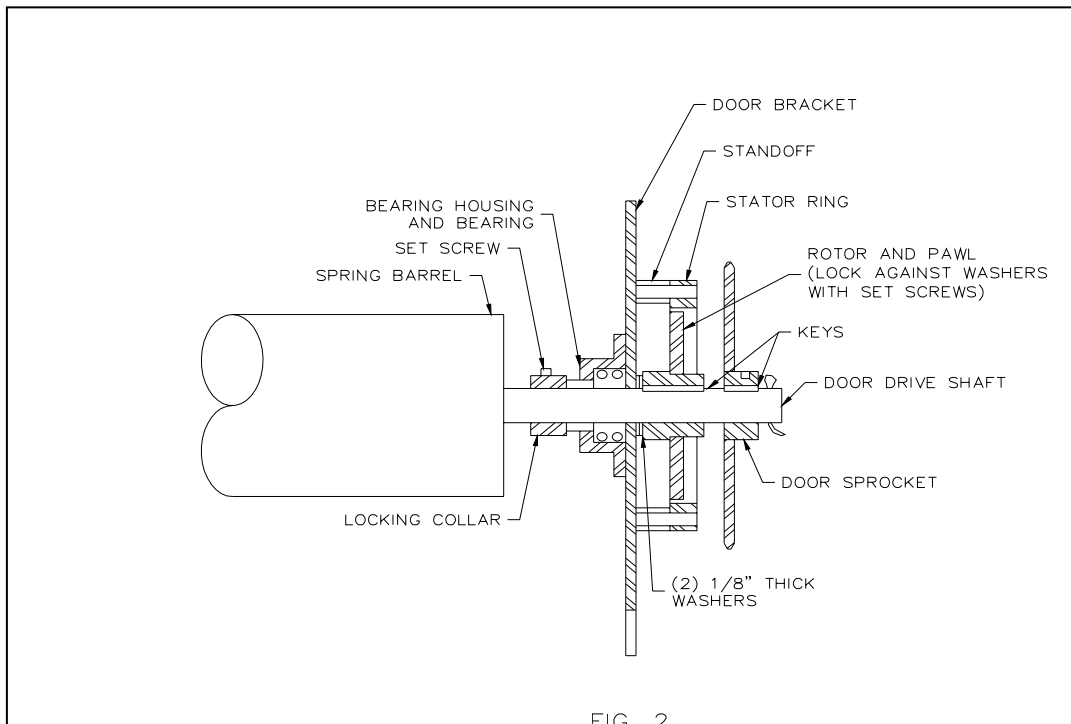
The stator assembly is bolted to the bracket assembly with (3) 1/2" flat socket head screws with hex nuts at the factory. Note that the points in the stator are always pointed down at the back (between the center of the bracket and the wall-see Fig 1).

The stator must be removed to allow the power unit support to be installed on smaller brackets where the bolts are covered by the stator ring. The three standoffs welded to the stator ring are used to provide clearance for the attachment bolts. The stator ring must be reattached in the same position as removed.

The locking collar provided on the drive shaft must be securely locked in place against the bearing inner race

(see Fig 2).

Fig 2



Install the (2) 1/8" thick washers next to the bracket plate. Slide the rotor on the drive shaft with set screws and the spring OUT, with the key in the keyway.

CAUTION TIGHTEN THE SET SCREW SECURELY IN PLACE. BE SURE THAT THE 1" THICK PAWL LINES UP WITH BOTH THE INSIDE AND OUTSIDE FACE OF THE STATOR RING. THE DRIVE SHAFT MUST NOT BE ABLE TO SLIDE BACK AND FORTH. MAKE SURE THAT THE SPRING ON THE PAWL IS ADJUSTED SO THAT THE PAWL WILL NOT SAG WHEN IT IS AT THE BOTTOM (see Fig 3).

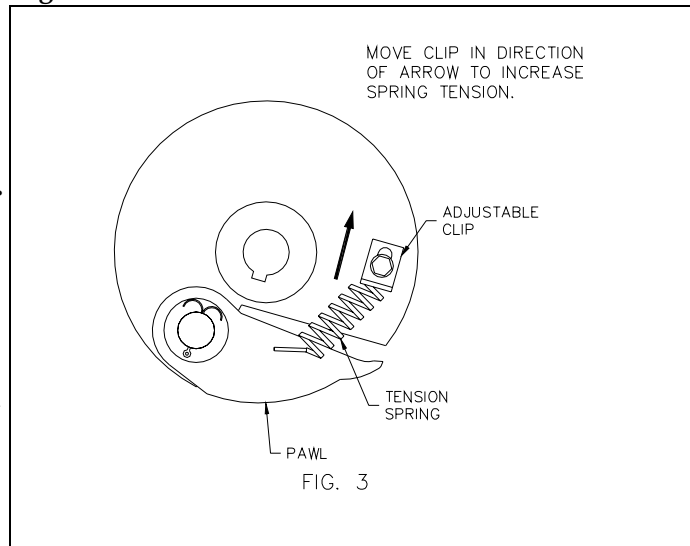
Install the main shaft drive sprocket with the sprocket toward the rotor hub. Lock in place with set screws.

Line up the motor sprocket with the main drive sprocket on the drive shaft.

Fine Tuning the DSD

Even though the DSD is adjusted at the factory, the following steps should be followed to assure its proper operation. Close the door with the hand chain making sure that the pawl does not engage in the stator.

Fig 3



WARNING IF THE DSD AND THE NOTOR IS NOT STOPPED IMMEDIATELY THE FOLLOWING DAMAGE MAY OR WILL OCCUR TO THE DOOR.

C BEND POWER UNIT SUPPORT AND/OR BRACKET PLATE.

C BREAK ROLLER CHAIN AND/OR SHEAR KEY.

C DAMAGE OR DESTROY POWER UNIT IF THERMAL OVERLOAD DOES NOT KICK-OUT FIRST.

CAUTION THE DOOR INSTALLER SHOULD BE PRESENT WHEN THE DOOR IS FIRST RUN ELECTRICALLY. KEEP YOUR FINGER READY TO PUSH THE STOP BUTTON IN THE EVENT THAT THE PAWL ENGAGES THE STATOR.

Operate the power unit several times electrically to be sure that the pawl does not engage in the stator.

If the pawl engages, stop the door immediately. Reversing the door to the open position will disengage the pawl from the rotor. Next remove the roller chain and drive sprocket from the door.

⚠WARNING YOU MUST SECURE THE DOOR BEFORE REMOVING THE ROLLER CHAIN. IF THE DOOR IS NOT SECURED AND FALLS DURING THIS STEP, INJURY AND/OR DEATH MAY OCCUR.

To properly secure the door follow these two steps:

A) Block the guides directly under the bottom bar so that the curtain cannot come down.

B) Tie a rope sling around each end of the curtain as a safeguard to prevent the door from free falling in the event that the blocking doesn't hold the door. Leave the blocking and rope slings on the door until the spring tension on the pawl has been adjusted and the roller chain has been installed.

The spring tension should be set so that the pawl can flip out, but when in the 6:00 position doesn't droop down.

Increase the spring tension on the pawl by loosening the bolt on the adjustable clip. Move the clip away from the pawl and retighten (see Fig 3).

Now remove the blocking and rope slings and test the door again following the above steps listed in Fine Tuning the DSD.

DSD Function and Reset Instructions

When the door accelerates downward, the increased speed of the rotation of the rotor causes the pawl to engage in the teeth of the stator ring. This can be brought about by the roller chain coming off the sprockets, roller chain breaking, or the key shearing in the roller chain sprocket hub. These things in turn may be caused by the spring breakage or loss of spring tension.

⚠WARNING IF THE PROBLEM IS NOT IDENTIFIED AND CORRECTED BEFORE PAWL IS DISENGAGED, THE DOOR MAY DROP CAUSING DAMAGE, INJURY, AND/OR DEATH.

Once the pawl engages in the stator notches the door will not move down until the pawl is disengaged. Before attempting to disengage the pawl, the problem must be identified and corrected. Proper steps must be followed to prevent a drop recurrence. The door must then be reversed to disengage the pawl from the stator, at which time the door is ready to be closed.

⚠CAUTION IF DUE TO THE NATURE OF THE PROBLEM THE DOOR HAS TO BE CLOSED BEFORE PROPER REPAIRS CAN BE MADE, USE EXTREME CARE TO KEEP CONTROL OF THE DOOR WHILE CLOSING.

Drop Test Procedures

⚠CAUTION The extreme forces encountered in a catastrophic failure of a large rolling steel door are of such a great magnitude it is not recommended to drop the door in the worst possible condition to test the drop stop device. Although the device is designed to stop the door in the event of free-fall and still be resettable, other components of the door may be damaged. Wayne-Dalton does not recommend that the device be tested for these reasons. If, however, the owner of the building requires testing, use the following procedures to minimize potential damage to the product.

⚠CAUTION WAYNE -DALTON WILL NOT BE RESPONSIBLE FOR ANY DAMAGE INCURRE TO THE DOOR DUE TO TESTING THIS EMERGENCY DEVICE.

A-1.) To test the door simulating roller chain breakage or key failure with spring tension still applied.

- Raise the door to the fully open position and apply the initial tension required to counterbalance the door. If the door must be dropped from a position lower than the stop height, do not lower more than 25% of the clear opening height.

⚠CAUTION EVEN THOUGH THE DOOR STILL HAS SPRING TENSION, BE CAREFUL TO ENSURE NO ONE GETS HURT FROM DOOR FALLING.

A-2.) To test the door simulating roller chain breakage or key failure with loss of spring tension.

- Raise the door to the fully open position and remove the initial tension required to balance the door. The door MUST be dropped from the fully open position.

⚠CAUTION THE DOOR HAS NO SPRING TENSION SO BE CAREFUL TO ENSURE NO ONE GETS HURT FROM DOOR FALLING

B) Next block the door so it cannot come down (ex: you can physically block the track or use a tow motor to hold the door up).

⚠WARNING IF YOU CHOOSE TO PHYSICALLY BLOCK THE TRACK, USE EXTREME CARE TO ENSURE THAT THE DOOR DOES NOT FALL AND INJURE SOMEONE.

IMPORTANT!! THIS NEXT STEP IS VERY IMPORTANT AND MUST BE FOLLOWED TO ENSURE A SAFE AND SUCCESSFUL TEST.

C) Once the door has been blocked, take a wood or metal block of the same width as the guide and with a pair of C clamps block the guides 24" below where the door will be dropped. This step is very important and must be done to ensure that if the spring on the rotor pawl has too much tension, the door will not fall to the ground and be damaged.

D) After completing the procedure outlined in Installation of DSD to Bracket/Pipe Assembly pertaining to adjusting the spring tension on the rotor pawl, remove the roller chain from the operator. Make sure that the door is securely blocked so that the barrel DOES NOT MOVE when the roller chain is removed.

E) Upon making sure that there is nothing in the way of the door and that everyone is standing clear, drop the door either by removing the blocking or backing out the tow motor.

F) Once the door has been dropped, it can be reset by installing the roller chain, raising the door enough to rotate the pawl out of the notch, and removing the C clamps and blocking from the guides.

⚠CAUTION BE CAREFUL WHEN INSTALLING ROLLER CHAIN TO ENSURE YOU DO NOT GET FINGERS CAUGHT DUE TO DOOR MOVING.

G.) After drop testing the door , due to the fact that the door moved without the roller chain hooked up, it will be necessary to reset the limits on the motor.