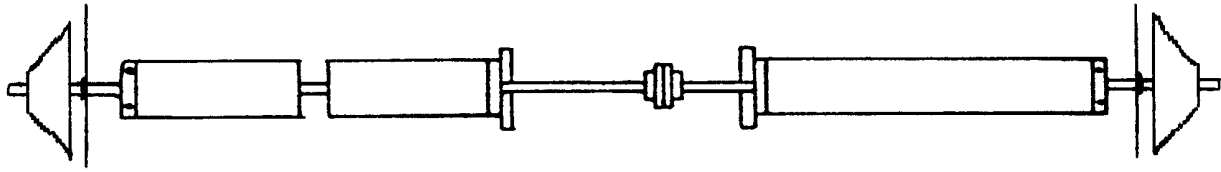


# DDM ENTERPRISES

## OVERHEAD DOOR REPAIRS



### Spring Replacement 2

Copyright, 1984.

#### A. Prepare

##### IMPORTANT

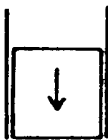
These are general guidelines and specific details may differ in the repair of your doors. You are responsible for working safely, and you assume all risk involved in installing or repairing the door and operator equipment. DDM Enterprises disclaims all liability regarding installation or repair of the equipment. These instructions do not create a warranty for either parts or instructions.

**1**

#### GATHER TOOLS

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>Ratched wrench 1/2" drive</li> <li>6 pt. sockets: 3/4, 9/16</li> <li>8 pt. sockets: 1/2, 3/8</li> <li>Adjustable wrench</li> <li>Open end wrenches: 7/16, 1/2</li> <li>Vise grips 10" curved jaws (6)</li> <li>Winding bars</li> <li>Flat file 10" or larger</li> <li>Marking crayon or paint</li> <li>Ladders or scaffold</li> <li>Oil can</li> </ul> | <ul style="list-style-type: none"> <li>Torch &amp; shield</li> <li>Safety glasses</li> <li>Gloves</li> <li>Hammer</li> <li>Large Screwdriver</li> <li>Strap wrench</li> <li>Cable chokers</li> <li>Allen wrench set</li> <li>Rope 10 ft.</li> </ul> |
|---|---|

**2**



Close door.

**3**



Vise grip tracks above 3rd rollers on both sides.

**4**



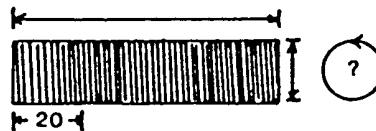
Disengage operator.

**5**



Turn off power.

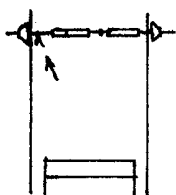
**6**



Double-check measurements & winds of old springs against new springs.

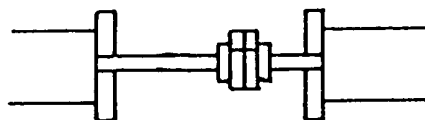
#### B. Remove Old Spring.

**7**



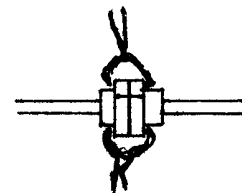
Vise-grip shaft just inside headplate.

**8**



Mark coupler.

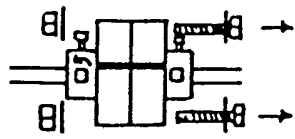
**9**



Vise-grip coupler.

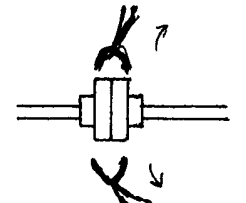
DDM ENTERPRISES

**10**



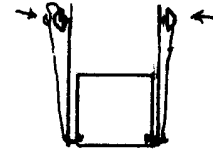
Loosen set screws & remove bolts.

**11**



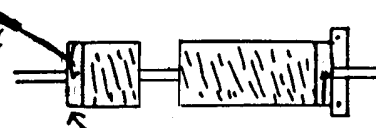
Remove vise-grips.

**12**



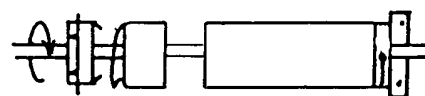
Inspect cables on drums. Reinstall if needed.

**13**



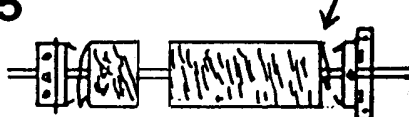
Heat spring wire 4" from end. Pry end out of plug.

**14**



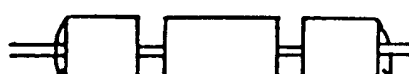
Twist plug until free from spring. Hammer end of spring if needed.

**15**



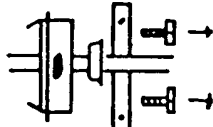
Free other end of spring in same way.

**16**




Cut spring into 3 parts.

**17**



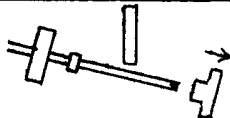
Remove bolts. Slide plug & bearing away from bracket.

**18**



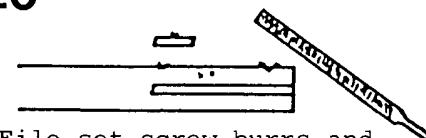
Cut 1 1/4" slot out of bracket if not done earlier. Do not cut anchor holes or bearing.

**19**



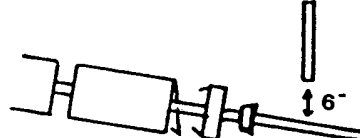
Pull shaft just out of bracket. Remove coupler, insert shaft back in bracket.

**20**



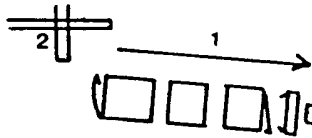
File set screw burrs and any other rough spots on shaft or key.

**21**



Lower shaft NO MORE THAN 6" below bracket.

**22**

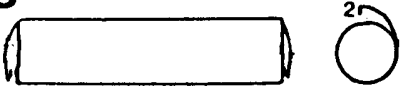


Remove bearing, winding plug & spring. Reposition shaft in bracket.

**C.**

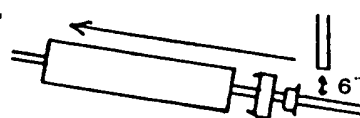
**Install New Spring.**

**23**



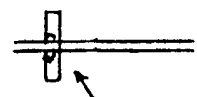
On both ends of spring, heat & bend spring wire 4" from end. Shape ends of wire like ends on old spring.

**24**



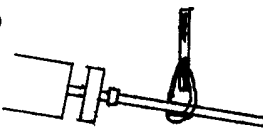
Lower shaft NO MORE THAN 6" Slide on new spring, plug, & bearing.

**25**



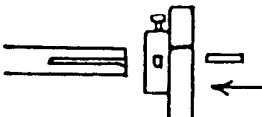
Reposition shaft in bracket.

**26**




Lower shaft 6" and suspend with choker.

**27**



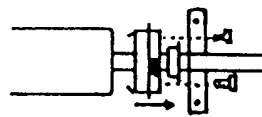
Reinstall coupler and key. File or replace key if necessary.

**28**



Reposition shaft in bracket.

**29**



Fasten anchor plug to anchor bracket, with hole facing front.

DDM ENTERPRISES

**30**

Twist spring onto anchor plug.

**31**

Heat where bent earlier. Hammer end of spring into plug.

**32**

Twist winding plug into spring. Heat & hammer end of spring into plug.

**33**

Allow spring to cool for 5 minutes.

**34**

Wind spring down 3/4 turn. Unwind just until there is no more tension.

**35**

Mark spring lengthwise with crayon or spray paint.

**36**

Count No. winds on other spring.

**37**

Wind down correct number of turns.

**38**

Carefully stretch spring the width of 2 coils.

**39**

Carefully tighten both set screws.

**40**

Insert 2nd bar. Take out 1st bar. Pull 2nd bar up carefully to see if set screws are tight enough.

**41**

Align coupler marks, insert & tighten coupler bolts. Tighten set screws last.

**D.**

**Complete Final Adjustments.**

**42**

Remove vise-grip on shaft just inside headplate.

**43**

Remove vise grip on left track.

**44**

Vise grip right track between 2nd & 3rd rollers.

**45**

Remove vise grip above 3rd roller. See WARNING.

**WARNING: IF SPRING IS WOUND TOO TIGHT, DOOR MAY JUMP OFF THE FLOOR. BE PREPARED!**

**46**

Attach rope to bottom of door.

**47**

Hold rope and remove vise grip.

**48**

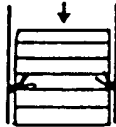
While holding rope, raise door and check balance. Close door.

DDM ENTERPRISES

**49** Adjust spring tension 1/4 turn at a time if:

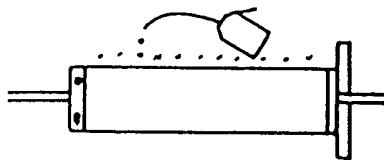
1. Door is heavy at floor & at head. Add tension
2. Door is light & goes up by itself. Remove tension

**50**



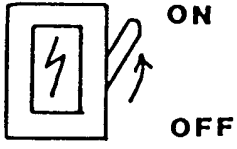
Close door & Vise grip tracks above 3rd rollers.

**51**



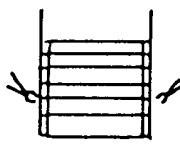
Oil spring by squirting 3 streams across top.

**52**




Turn on power.

**53**



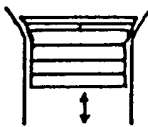
Remove vise grips.

**54**



Reengage operator.

**55**



Check electrical operation. Adjust operator if needed.

**56**

Put away tools, discard old springs, and take a coffee break.