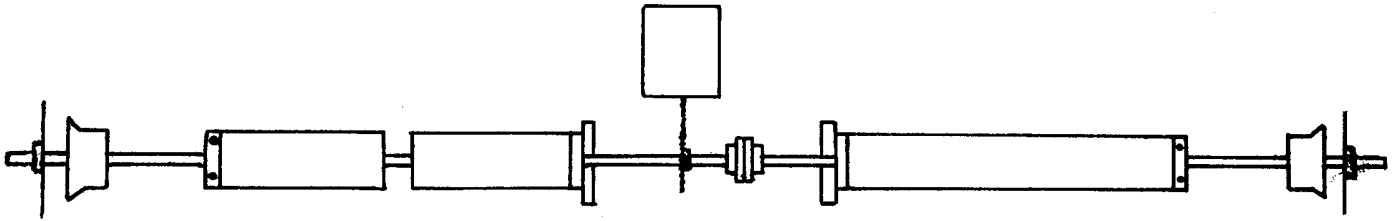


DDM ENTERPRISES OVERHEAD DOOR REPAIRS



Spring Replacement 3

© 1983

A. Prepare

IMPORTANT

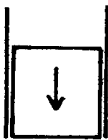
These are general guidelines and specific details may differ in the repair of your doors. You are responsible for working safely, and you assume all risk involved in installing or repairing the door and operator equipment. DDM Enterprises disclaims all liability regarding installation or repair of the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

1

GATHER TOOLS:

ratchet wrench 1/2" drive	torch & shield
6 pt. sockets: 3/4, 9/16	safety glasses
8 pt. sockets: 1/2, 3/8	gloves
adjustable wrench	hammer
open end wrenches: 7/16, 1/2	large screwdriver
vise grips 10" curved jaws (6)	strap wrench
winding bars	comealong
flat file 10" or larger	cable chokers
marking crayon or paint	allen wrench set
ladders or scaffold	rope 10 ft.
oil can	

2



Close door.

3

Vise grip tracks above 3rd rollers on both sides.

4



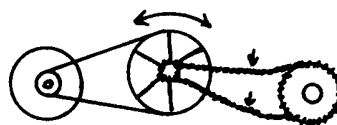
Turn off power.

5



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

6



Manually turn operator belt pulley until drive chain is relaxed on top & bottom.

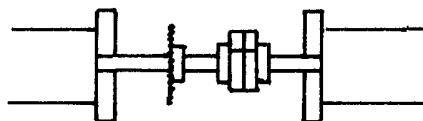
7



Remove drive chain.

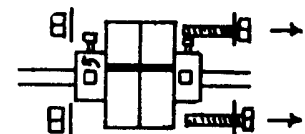
B. Remove Old Spring.

8



Mark coupler.

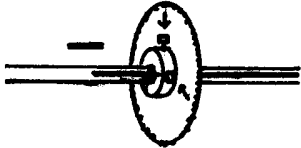
9



Loosen set screws & remove bolts.

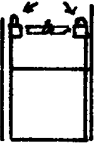
DDM ENTERPRISES

10



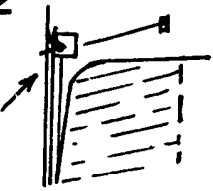
Loosen set screws & remove key from sprocket.

11



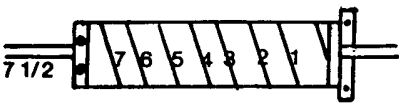
Inspect cables on drums. Reinstall if needed.

12



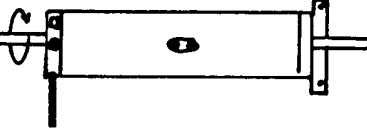
Vise grip shaft just outside headplate.

13




Count No. winds & record.

14



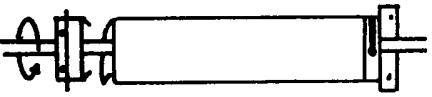
Carefully unwind spring if clamped & wound earlier.

15



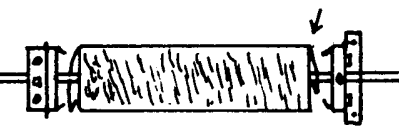
Heat spring wire 4" from end. Pry end out of plug.

16




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

17



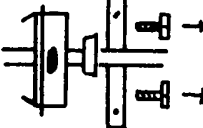
Free other end of spring in same way.

18




Cut spring into 3 parts.

19



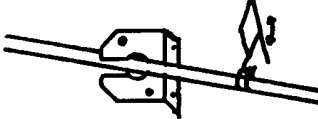
Remove bolts. Slide plug & bearing away from bracket.

20



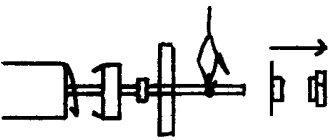
Cut 1 1/4" slot out of bracket if not done earlier. Do not cut anchor holes or bearing.

21



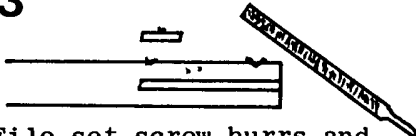
Connect comealong. Raise shaft until free to remove from bracket.

22



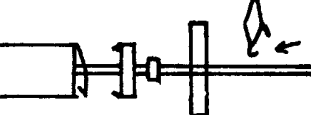
Remove coupler & sprocket. Do not loose key.

23



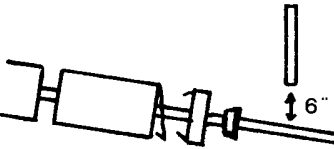
File set screw burrs and any other rough spots on shaft or key.

24



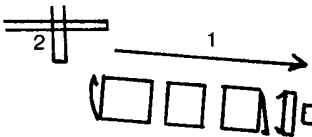
Disconnect bottom of comealong.

25



Lower shaft NO MORE THAN 6" below bracket.

26

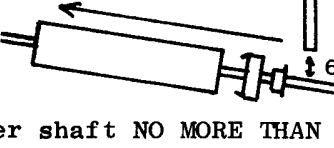


Remove bearing, winding plug & spring. Reposition shaft in bracket.

C.

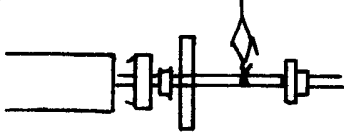
Install New Spring.

27



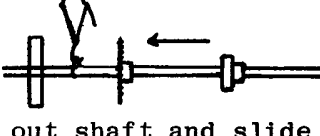
Lower shaft NO MORE THAN 6" Slide on new spring, plug, & bearing.

28



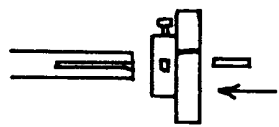
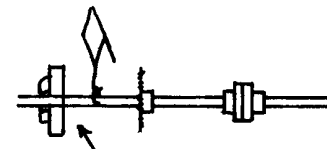
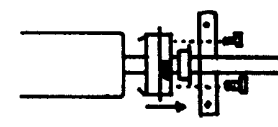
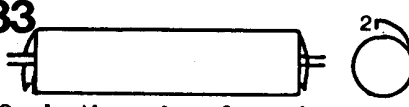
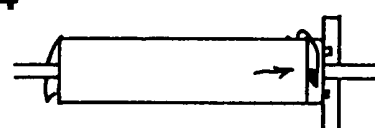
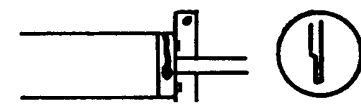
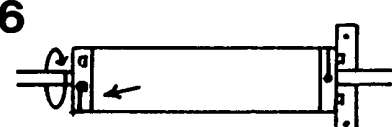
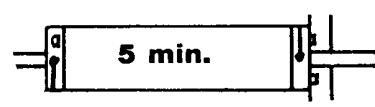

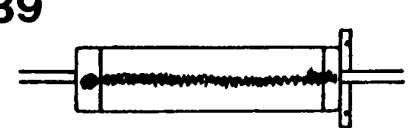
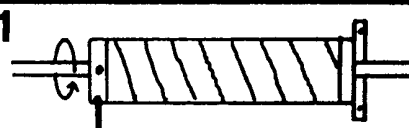
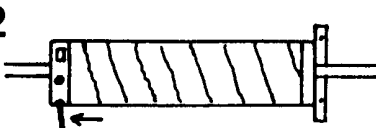
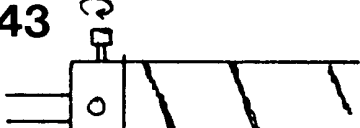
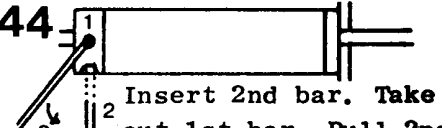
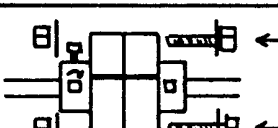
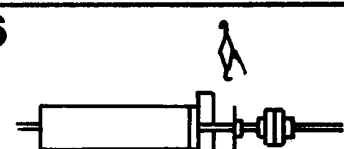


Position shaft in bracket. Reconnect comealong.

29

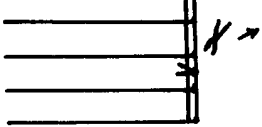
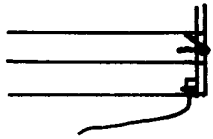
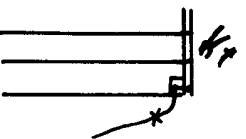
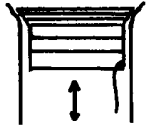
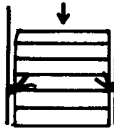
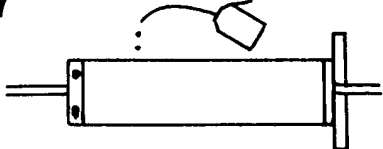
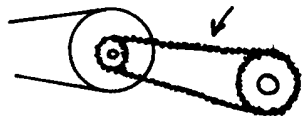
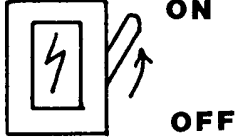
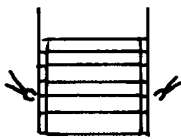
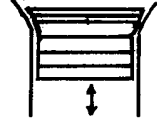


Swing out shaft and slide on sprocket. Position sprocket & key in place.

DDM ENTERPRISES

<p>30</p>  <p>Reinstall coupler and key. File or replace key if necessary.</p>	<p>31</p>  <p>Reposition shaft in bracket.</p>	<p>32</p>  <p>Fasten anchor plug to anchor bracket, with hole facing front.</p>
<p>33</p>  <p>On both ends of spring, heat & bend spring wire 4" from end. Shape ends of wire like ends on old springs.</p>	<p>34</p>  <p>Twist spring onto anchor plug.</p>	<p>35</p>  <p>Heat where bent earlier. Hammer end of spring into plug. Trim end of wire if too big for hole.</p>
<p>36</p>  <p>Twist winding plug into spring. Heat & hammer end of spring into plug.</p>	<p>37</p>  <p>Allow spring to cool for 5 minutes.</p>	<p>38</p>  <p>Wind spring up 3/4 turn. Unwind just until there is no more tension.</p>
<p>39</p>  <p>Mark spring lengthwise with crayon or spray paint.</p>	<p>40</p> <p>Determine No. winds as recorded earlier, or count No. winds on other spring.</p>	<p>41</p>  <p>Wind spring up to number of turns determined before.</p>
<p>42</p>  <p>Carefully stretch spring the width of 2 coils.</p>	<p>43</p>  <p>Carefully tighten both set screws.</p>	<p>44</p>  <p>Insert 2nd bar. Take out 1st bar. Pull 2nd bar down carefully to see if set screws are tight enough.</p>
<p>45</p>  <p>Line up coupler marks, insert & tighten coupler bolts. Tighten set screws last.</p>	<p style="text-align: center;">D.</p> <p style="text-align: center;">Complete Final Adjustments.</p>	<p>46</p>  <p>Remove comealong from bar-joint & shaft.</p>
<p>47</p>  <p>Remove vise grip on shaft just outside headplate.</p>		<p>48</p>  <p>Remove vise grip on left track.</p>

DDM ENTERPRISES

<p>50</p>  <p>Remove vise grip above 3rd roller. See WARNING.</p>	<p>51</p> <p>WARNING: IF SPRING IS WOUND TOO TIGHT, DOOR MAY JUMP OFF THE FLOOR. BE PREPARED!</p>	<p>52</p>  <p>Attach rope to bottom of door.</p>
<p>53</p>  <p>Hold rope and remove vise grip.</p>	<p>54</p>  <p>While holding rope, raise door and check balance. Close door.</p>	<p>55</p> <p>Adjust spring tension 1/4 turn at a time if:</p> <ol style="list-style-type: none"> 1. Door is heavy at floor & at head. Add tension 2. Door is light & goes up by itself. Remove tension.
<p>56</p>  <p>Close door & vise grip tracks above 3rd rollers.</p>	<p>57</p>  <p>Oil spring by squirting 3 streams across top.</p>	<p>58</p>  <p>Reinstall drive chain.</p>
<p>59</p>  <p>Turn on power.</p>	<p>60</p>  <p>Remove vise grips.</p>	<p>61</p>  <p>Check electrical operation. Adjust operator if needed.</p>
<p>62</p> <p>Put away tools, discard old springs, and take a coffee break.</p>		