CABLE REMOVAL

Use the following procedure to remove worn or damaged cable from reel prior to installation of new cable.

1. Move machine serviced by reel to a position closest to reel. Spring will still be under pre-tension at this point.
2. Turn off all electric power.
3. Disconnect cable from machine or other fixtures.
4. Wind cable onto spool to relieve all spring tension. NOTE: Once all tension is removed from spool, spool cannot rotate further. Forcing spool to rotate could damage spring.
5. Remove four screws holding spring assembly and gently slide assembly off main shaft.
6. Locking and hoist duty reels only, remove slip ring cover.
7. Unwind cable from spool. Remove cable clamp.
8. Disconnect leads: On locking and hoist duty reels, disconnect leads from junction block on spool. On watertight reels, pull cable out of hole in spool, exposing slip ring leads. Disconnect.
9. Install new cable following directions below.

CABLE INSTALLATION

Use the following procedure to replace cable or if reel was ordered without cable. Refer to CABLE INSTALLATION REFERENCE DRAWINGS, below.

1. Unspool new cable from shipping spool and lay out to eliminate twist. NOTE: This step is not essential, but will aid in winding operation of the reel and prolong cable life.
2. Install slip ring cover.
3. Remove four screws holding spring assembly and gently slide spring assembly off main shaft.
4. Connect cable leads: On locking and hoist duty reels, feed one end of the cable through opening in spool and connect cable leads to junction box on spool. (See drawing below).
5. On watertight reels, connect cable leads to slip ring leads (slip ring leads should extend thru hole in spool). Following connection, tuck leads and cable inside spool.
7. Wind the cable onto the reel spool by hand rotating spool in counter-clockwise direction (when viewed from slip ring side).
8. Slide spring assembly onto shaft and secure with four screws.
9. Replace slip ring cover, if removed.
10. Complete cable installation using steps 5 thru 10 under INSTALLATION on page one.

SPRING ADJUSTMENT

INCREASE TENSION:
A. If outer end of cable has not been connected, hold cable end next to spool and rotate in clockwise direction (when viewed from slip ring side) until desired tension is achieved. Refer to Page 1, Figure 1.
B. If outer cable has been connected, remove the four spring housing screws and rotate the entire spring housing clockwise.

DECREASE TENSION:
1. Remove as much spring tension as possible by retracting cable to cable stop or by moving machinery to position closest to reel.
2. Remove four spring housing screws and rotate entire spring housing counterclockwise (when viewed from spring side).

CABLE INSTALLATION REFERENCE DRAWINGS

LOCKING & HOIST DUTY REELS

PAYOFF

SPRING

SPOOL

LOCKING BASE

CABLE GUIDE

MOUNTING BLOCK

SUPPLY CABLE-CONNECT TO LEADS FROM SLIP RING AT TERMINAL BLOCK

SLIP RING ASSEMBLY

SPRING MOTOR

INSTALL CABLE THIS DIRECTION. CONNECT TO JUNCTION BLOCK ON SPOOL

SPINDLE

INSTALL CABLE THIS DIRECTION. CONNECT TO JUNCTION BLOCK ON SPOOL

SPRING MOTOR

LINE ENTRANCE (NPT)

TERMINAL BLOCK

SLIP RING LEADS

SLIP RING ASSEMBLY

JUNCTION BLOCK

SLIP RING ASSEMBLY

SPINDLE

SLIP RING COVER

SPINDLE

SPINDLE

SPINDLE

SPINDLE

CABLE GUIDE LOCATIONS

PAYOFF DIRECTION - OPTIONAL CABLE GUIDE LOCATIONS

Pivoting Mounting Base

Supplementary Mounting Base

WATERTIGHT REELS

SPRING MOTOR

INSTALL CABLE THIS DIRECTION. CONNECT TO SLIP RING LEADS

SLIP RING COVER

SLIP RING ASSEMBLY

LINE ENTRANCE (NPT)

TERMINAL BLOCK

SUPPLY CABLE-CONNECT TO LEADS FROM SLIP RING AT TERMINAL BLOCK

SLIP RING LEADS

SLIP RING ASSEMBLY

JUNCTION BLOCK

SLIP RING ASSEMBLY

SLIP RING ASSEMBLY

CABLE GUIDE LOCATIONS

PAYOFF DIRECTION - OPTIONAL CABLE GUIDE LOCATIONS

SPRING MOTOR

SUPPLY CABLE-CONNECT TO LEADS FROM SLIP RING AT TERMINAL BLOCK

SLIP RING LEADS

SLIP RING ASSEMBLY

JUNCTION BLOCK

SLIP RING ASSEMBLY

SLIP RING ASSEMBLY

CABLE GUIDE LOCATIONS

PAYOFF DIRECTION - OPTIONAL CABLE GUIDE LOCATIONS

SPRING MOTOR

SUPPLY CABLE-CONNECT TO LEADS FROM SLIP RING AT TERMINAL BLOCK

SLIP RING LEADS

SLIP RING ASSEMBLY

JUNCTION BLOCK

SLIP RING ASSEMBLY

SLIP RING ASSEMBLY

CABLE GUIDE LOCATIONS

PAYOFF DIRECTION - OPTIONAL CABLE GUIDE LOCATIONS

CABLE INSTALLATION REFERENCE DRAWINGS

SPRING OPERATED ELECTRIC CABLE REELS

NOTE: These instructions are written for machine pull reels. If installing or servicing hand pull reel, use only those steps marked with • hand.
<table>
<thead>
<tr>
<th>ITEM</th>
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<td>Frame, Spring End—Includes Decals</td>
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<td>Horizontal Pay-out Cable Guide (optional)</td>
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**ILLUSTRATED PARTS LIST**

LOCKING AND HOIST DUTY ELECTRIC CABLE REELS

ILLUSTRATED PARTS LIST

WATERTIGHT ELECTRIC CABLE REELS

Always specify SERIAL NUMBER & MODEL NUMBER when ordering parts.
CABLE REMOVAL

Use the following procedure to remove worn or damaged cable from reel prior to installation of new cable.

1. **Turn off all electric power.**
2. **Disconnect cable from machine or other fixtures.** Wind cable onto spool to relieve spring tension.

**NOTE:** Once all tension is removed from spool, spool cannot rotate further. Forcing spool to rotate could damage spindles.

3. **Remove four screws holding spring assembly and gently slide assembly off main shaft.**
4. **Locking and hoist duty reels only,** remove slip ring cover.
5. **Unlock cable from spool. Remove cable clamp.**
6. **Disconnect cable leads:** On locking and hoist duty reels, disconnect leads from junction block on spool. On watertight reels, pull cable out of hole in spool, exposing slip ring leads. Disconnect.
7. **Slide spring assembly off main shaft.**
8. **Inspect new cable following directions below.**

CABLE INSTALLATION

Use the following procedure to replace cable or if reel was ordered without cable. Refer to CABLE INSTALLATION REFERENCE DRAWINGS below.

1. **Unspool new cable from shipping spool and lay out to eliminate twist.**

**NOTE:** This step is not essential, but will aid in winding operation of the reel and prolong cable life.

2. **Remove slip ring cover.**
3. **Remove four screws holding spring assembly and gently slide assembly off main shaft.**
4. **Connect cable leads:** On locking and hoist duty reels, feed one end of the cable through opening in spool and connect cable leads to junction box on spool. (See drawing below.)

**On watertight reels,** connect cable leads to slip ring leads (slip ring leads should extend thru hole in spool). Following connection, tuck leads and cable inside spool.

5. **Secure cable using cable clamp on spool.**
6. **Wind the cable onto the reel spool by hand rotating spool in counter-clockwise direction (when viewed from slip ring side).**
7. **Slide spring assembly onto shaft and secure with four screws.**
8. **Replace slip ring cover, if removed.**
9. **Complete cable installation using steps 5 thru 10 under INSTALLATION on page one.**

SPRING ADJUSTMENT

**INCREASE TENSION:**

A. If outer cable has not been connected, hold cable end next to spool and rotate in clockwise direction (when viewed from slip ring side) until desired tension is achieved. Refer to Figure 1.

B. If outer cable has been connected, remove the four spring housing screws and rotate the entire spring housing clockwise.

**DECREASE TENSION:**

1. Remove as much spring tension as possible by retracting cable to stop or by moving machinery to position closest to reel.
2. Remove four spring housing screws and rotate entire spring housing counterclockwise (when viewed from spring side).

SPRING REPLACEMENT

**WARNING**

Do not attempt to remove spring from its housing. Clock-type springs can be dangerous to handle. Removal of spring from housing could result in personal injury.

The unique SAFETYCHANGE® spring motor consists of a spring sealed within a housing. A replacement spring is supplied sealed in its housing and the old unit should be discarded completely.

1. **Turn off all electric power.**
2. **Disconnect cable from working connections.**
3. **Wind cable onto reel to relieve all spring tension.**
4. **Remove four screws holding spring assembly and gently slide spring assembly off main shaft.**
5. **Slide new spring assembly onto shaft and reassemble reel by reversing above steps.**
6. **Adjust spring tension. Refer to INSTALLATION, Step 5.**
7. **Adjust and attach cable stop. Complete cable working end connections.**

CABLE INSTALLATION REFERENCE DRAWINGS

LOCKING & HOIST DUTY REELS

1. **Supply cable-connect to leads from slip ring at terminal block.**
2. **Pivot mounting base.**
3. **Supply cable-connect to leads from slip ring at terminal block.**
4. **Install cable this direction, connect to junction block on spool.**
5. **Install cable this direction, connect to junction block on spool.**

WATERTIGHT REELS

1. **Supply cable-connect to leads from slip ring at terminal block.**
2. **Supply cable-connect to leads from slip ring at terminal block.**
3. **Line entrance (NPT).**
4. **Install cable this direction, connect to slip ring leads.**

SPRING REPLACEMENT

1. **Turn off all electric power.**
2. **Disconnect cable from input wiring.**
3. **Engage ratchet lock to prevent spool from rotating.**
4. **Remove four screws holding spring assembly and gently slide spring assembly off main shaft.**
5. **Slide new spring assembly onto shaft and reassemble reel by reversing above steps.**
6. **Adjust spring tension. Refer to INSTALLATION, Step 5.**

SLIP RING REPLACEMENT

1. **Turn off all electric power.**
2. **Disengage ratchet lock.**
3. **Remove screw holding spring assembly and gently slide spring assembly off main shaft.**
4. **Remove four screws holding spring assembly and gently slide spring assembly off main shaft.**
5. **Remove new slip ring assembly on shaft and re-assemble reel by reversing above steps.**

INSTALLATION and MAINTENANCE INSTRUCTIONS

SPRING OPERATED ELECTRIC CABLE REELS

**NOTE:** These instructions are written for machine pull reels. If installing or servicing hand pull reel, use only those steps marked with hand arrow.

1. **If reel is supplying power to a machine, insure that machine is at position closest to reel.**

**CAUTION**

If mounting overhead, provide safety chain between reel base and mounting surface to prevent accidental reel drop.

2. **Securely mount reel in desired position using 3/8” (M10) bolts. If reel is not equipped with a mounting block, be sure spool centerline is aligned with cable run.**

3. **Position cable guide (optional). Guide must be oriented so cable pays off reel in a straight line without bends. Refer to GENERAL ARRANGEMENT drawing on back page.**

4. **Install cable not included with reel. Refer to CABLE INSTALLATION section on back page.**

All units are provided with right hand rotation unless otherwise specified. This means that spool rotates counter-clockwise to wind cable when viewing reel from slip ring side. Clock-type springs provide power for cable take-up. Spring tension must be adjusted at time of installation to insure that cable will rewind completely at all times.

**SLIP RING REPLACEMENT**

1. **Remove slip ring cover and connect individual supply conductors to terminal block. Replace cover.**
2. **Turn on power to reel.**

**RATCHET LOCK**

If reel is equipped with ratchet lock, reel is shipped with ratchet lock “engaged.” If constant spring tension is required, lock may be disengaged by moving the selector lever, located beneath the spring assembly, to “OFF.”

**MAINTENANCE**

Periodically oil the bronze flange-bushing located on the slip ring side of the reel.

The self-aligning bushing located on the spring side of the reel is made of a self-lubricating, wear-resistant material that needs no further lubrication.

Periodically inspect brushes on the slip ring assembly. Replace if badly worn. Remove the slip ring side frame half to gain access to brushes.