INSTALLATION and MAINTENANCE INSTRUCTIONS SZ-32 DIRECT DRIVE HAZARDOUS DUTY ELECTRIC CABLE REELS

All units are provided with right hand rotation unless otherwise specified. This means that cable is pulled off spool top left or bottom right (spool rotates clockwise to wind cable) **when viewing spring end of reel.** See diagram on parts page.

Clock-type springs provide power for automatic cable take-up. **Spring must be pretensioned at time of installation** to insure that tension is applied to cable at all times. A tension adjustment spanner wrench is provided with each reel.

Some reels with large or multiple springs are equipped with a ratcheted adjustment wrench. Follow separate instructions for its use. Failure to use ratcheted wrench, on reels so equipped, could result in serious personal injury.

Do not attempt to relieve spring tension using spanner wrench. Doing so may result in personal injury.

INSTALLATION

- 1. Insure that machinery to be serviced by reel is at position closest to reel.
- Securely mount reel in desired position using 3/8"(M10) bolts. Be sure spool is aligned with cable run.
- 3. Position optional cable guide, if reel is so equipped.
- Connect free end of cable to junction box on machine or adjust cable stop so that desired length of cable extends from reel.
- 5. Remove cover plate on spring housing to expose shaft and spring hub. (See Figure 1).
- Insert spanner wrench into holes in spring hub (Fig 2). Rotate wrench counterclockwise (for standard rotation). Number of 360° turns should match last digit in model number on serial plate. *If model number includes an "R", reel is reverse rotation and wrench must be rotated clockwise.* (See EXPLANATION on parts list page.)



Do not exceed number of turns indicated on serial plate. Over-tensioning can cause a broken spring, sheared shaft or other damage.

NOTE: If reel is equipped with ratcheted adjustment wrench, follow instructions on separate sheet. NOTE: On reels containing more than one spring, the hubs are connected at the factory. Therefore, by tightening the outer spring, the inside spring(s) will be tightened.

 Remove collector cover and connect individual supply conductors to collector terminals.

MAINTENANCE

Periodically: A. Use compressed air to clean collector assembly and inside of collector housing. Inspect collector assembly for brush wear and pitted slip rings.

B. Inspect cable for wear and check mounting bolts and



other hardware for tightness. C.Check for broken springs by pulling about 2/3 cable off reel and observing "Broken Spring Indicators" on sides of spring canisters. See Fig. 3. **NOTE:** Bearings and springs are prelubricated and require no periodic maintenance.

SPRING REPLACEMENT

Do not attempt to remove spring from its housing. Clocktype 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 and hub 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 machine junction box.
- 3. Wind all cable onto reel to relieve all spring tension.
- 4. Remove inspection cover from face of spring housing.
- Rotate spool clockwise and observe inner shaft. Shaft should rotate clockwise and hub (with spring attached) should remain stationary.
 - NOTE: Do not attempt to remove spring if resistance is met or hub tends to rotate with shaft. Continue to rotate spool and strike end of shaft
 - several sharp blows with a lead hammer or rubber mallet until shaft rotates freely and hub remains stationary.
- 6. Remove (4) nuts which secure spring motor(s) to frame.
- 7. Slide spring motor(s) off shaft and discard.
- **NOTE:** On multi-spring reels, be sure to remove and **save** dowel pins which connect one spring hub with another. Also remove snap rings on shaft between spring housings.
- Install replacement spring motor(s), pawls and pawl springs.
 NOTE: Pawl springs must be located between the pawls and the deepest section of the shaft grooves. Make sure that pawls and pawl springs are inserted flush with ends of shaft and hub or they may rub against inspection cover

shaft and hub or they may rub against inspection cover.



- 9. Tighten nuts (and extension bolts) securing spring housing(s) to reel frame.
- Connect free end of cable to junction box on machine or adjust cord stop so that desired length of cord extends from reel.
- 11. Tension spring with spanner wrench. Refer to **INSTALLATION** section.
- 12. Replace inspection cover.

ILLUSTRATED PARTS LIST SZ-32 DIRECT DRIVE HAZARDOUS DUTY ELECTRIC CABLE REELS



SZ-32 DIRECT DRIVE HAZARDOUS DUTY CABLE REEL REPLACEMENT PARTS LIST

NOTE: Applicable mounting hardware included with each kit.

ITEM	KIT NO.	DESCRIPTION	QTY.	ITEM	KIT NO.	DESCRIPTION	QTY.
1	04103301	Frame Assembly	1	12	012425	Pawl Kit (35, 60 Springs)	ar
2	041034	Discs (Set of two)	1			(Includes 2 pawls and springs)	
3	04103501	Main Shaft Assembly	1	12	012426	Pawl Kit (62, 75, 80 Springs)	ar
0	01100001	(Includes drive pin and retaining rings)	•	12	012427	Pawl Kit (100 Springs)	ar
4	012402	Bearing Kit–2" Bore	1	13	017190	Spanner Wrench (35 – 80 Springs)	1
-	012402	(Includes housing and gasket)		13	017191	Spanner Wrench (100 Springs)	1
5	012401	Bearing Kit–1.75" Bore	1	14	032805	Ratchet Wrench Kit (75, 80 Springs)	1
5	012401	(Includes housing and gasket)	'			(Includes mounting bolts)	
6	012456	Drive Stud Kit	1	14	032804	Ratchet Wrench Klt (100 Springs)	1
				15	017054	Extension Bolts (35 – 80 Springs)	ar
7 7	012208	Stub Shaft, Std. Rotation (351, 601)	1 1	10	011001	(4 bolts per kit–less hardware)	a
7	01220801 012209	Stub Shaft, Rev. Rotation (351, 601) Stub Shaft, Std. Rot. (621, 751, 801)	1	15	017055	Extension Bolts (100 Springs)	ar
7	01220901	Stub Shaft, Rev. Rot. (621, 751, 801)	1	16	016182	Carriage Bolt, .50–13 x 1.5	ar
7	012210	Stub Shaft, Std. Rot. (622, 752, 802)	1	17	021291		
7	01221001	Stub Shaft, Rev. Rot. (622, 752, 802)	1			Lockwasher, .56 Med., Z.P.	ar
7	012211	Stub Shaft, Std. Rot. (623, 753, 803)	1	18	100959	Hex Nut, .50–13, Z.P.	ar
7	01221101	Stub Shaft, Rev. Rot. (623, 753, 803)	1	19	101211	Flat Washer, .50	ar
7	012212	Stub Shaft, Std. Rot. (624, 754, 804)	1	20	P06-03	ESNA Lock Nut, .50–13, Z.P.	ar
7 7	01221201 012213	Stub Shaft, Rev. Rot. (624, 754, 804) Stub Shaft, Std. Potation (1001)	1 1	21	021762	Hub Lock Pins (100 Springs)	ar
7	012213	Stub Shaft, Std. Rotation (1001) Stub Shaft, Rev. Rotation (1001)	1	21	021761	Hub Lock Pins (100 Springs) Hub Lock Pins (All Other Springs)	ar
7	01221301	Stub Shaft, Std. Rotation (1001)	1	22	012285	Collector Assembly, 2 Pole, 35 Amp	1
7	01221401	Stub Shaft, Rev. Rotation (1002)	1	22	012285	Collector Assembly, 3 Pole, 35 Amp	1
7	012371	Stub Shaft, Std. Rotation (1003)	1	22	012287	Collector Assembly, 4 Pole, 35 Amp	1
7	01237101	Stub Shaft, Rev. Rotation (1003)	1	22	012288	Collector Assembly, 6 Pole, 35 Amp	1
7	014619	Stub Shaft, Std. Rotation (1004)	1	22	012289	Collector Assembly, 8 Pole, 35 Amp	1
7	01461901	Stub Shaft, Rev. Rotation (1004)	1	22	012290	Collector Assembly, 10 Pole, 35 Amp	1
8	012418	Wrapper Kit-7" Wide, 8" to 14" Dia.	1	22	012291	Collector Assembly, 12 Pole, 35 Amp	1
		(Includes 4 wrapper sections)		22	012292	Collector Assembly, 14 Pole, 35 Amp	1 1
8	012419	Wrapper Kit-7" Wide, 15" to 20"Dia.	1	22 22	012293 012294	Collector Assembly, 16 Pole, 35 Amp Collector Assembly, 20 Pole, 35 Amp	1
		(Includes 8 wrapper sections)		22	012295	Collector Assembly, 24 Pole, 35 Amp	1
9	012444	Cable Clamp Kit .38–.74 Dia. Cable	1	22	012296	Collector Assembly, 30 Pole, 35 Amp	1
		(U-bolt with lockwashers and hex nuts)		22	012297	Collector Assembly, 36 Pole, 35 Amp	1
9	012445	Cable Clamp Kit .75–1.11 Dia. Cable	1	22	012298	Collector Assembly, 2 Pole, 75 Amp	1
9	012446	Cable Clamp Kit 1.12–1.50 Dia. Cable	1	22	012299	Collector Assembly, 3 Pole, 75 Amp	1
10	03303901	Enclosure Assembly	1	22 22	012300	Collector Assembly, 4 Pole, 75 Amp	1 1
40		2, 3, 4 pole/35 Amp collectors		22	012376 012377	Collector Assembly, 6 Pole, 75 Amp Collector Assembly, 8 Pole, 75 Amp	1
10	03303902	Enclosure Assembly	1	22	037194	Collector Assembly, 2 Pole, 125 Amp	1
		4,6 p/35A; 2,3,4p/75A; 2p/125A; 2p/200A collectors		22	037294	Collector Assembly, 3 Pole, 125 Amp	1
10	03303903	Enclosure Assembly	1	22	037295	Collector Assembly, 4 Pole, 125 Amp	1
		10, 12p/35A; 6p/75A; 3p/125A col	lectors	22	012304	Collector Assembly, 2 Pole, 200 Amp	1
10	03303904	Enclosure Assembly	1	23	012440	Brush Kit (35 Amp)	ar
		14, 16p/35A; 8p/75A; 4p/125A col				(Each kit includes 4 brushes and 4 fingers)	
10	03303905	Enclosure Assembly	1	23	012441	Brush Kit (75 Amp)	ar
40	0000000	20, 24pole/35Amp collectors	4	23	012443	Brush Kit (125 Amp/200 Amp)	ar
10	03303906	Enclosure Assembly	1		02180901	Seal Kit (Use to install cable)	1
		30, 36 pole/35 Amp collectors		n.s.	02100901	Sear Kit (Use to install cable)	1
11	017041	Spring Motor Kit, Std Rot.–35	, ar				
11	(Includes 017042	pawl, pawl springs, cover, gaskets, and snap i					
11 11	017042	Spring Motor Kit, Rev. Rot.–35 Spring Motor Kit, Std. Rot.–60	ar ar				
11	017043	Spring Motor Kit, Rev. Rot.–60	ar		Failure to	carefully follow instructions in Seal k	Kit
11	017045	Spring Motor Kit, Std. Rot.–62	ar			I result in reel that does not meet	
11	017046	Spring Motor Kit, Rev. Rot62	ar				
11	017047	Spring Motor Kit, Std. Rot75	ar		F	lazardous Duty Certification.	
11	017048	Spring Motor Kit, Rev. Rot.–75	ar				
11	017049	Spring Motor Kit, Std. Rot.–80	ar			NOTE:	
11 11	017050 017051	Spring Motor Kit, Rev. Rot.–80 Spring Motor Kit, Std. Rot.–100	ar	Please	consult factory	y for optional accessories: roller guides, ratche	t lock, ;lim
11	017051	Spring Motor Kit, Rev. Rot.–100	ar ar			spool lock, and swivel base. If Collector Ass	
	011002	opining motor rat, rev. rot. rot		´		oved, so advise factory when ordering parts	

MODEL NUMBER EXPLANATION

AMPACITY



INDICATES **REVERSE ROTATION.** NO LETTER INDICATES STANDARD ROTATION.

CABLE INSTALLATION & REMOVAL

Use the procedure detailed on HAZARDOUS DUTY CABLE REEL SEALING INSTRUCTIONS (bulletin 039789) which comes with sealing kit (available separately).

Carefuly read and follow instructions supplied with separate sealing kit as well as instructions for sealing compound. Failure to properly follow those instructions could result in damage to equipment, personal injury or death.

CABLE REMOVAL

Always open all breakers and disconnect electrical power to reel. Failure to turn off electrical power could lead to serious injury or death.

- 1. Move machine serviced by reel to a position closest to reel. Springs will still be under pre-tension at this point.
- 2. Turn off all power to reel.
- 3. Remove collector cover and gasket.
- 4. Disconnect electric leads to and from collector.
- 5. Follow Steps 3–9, REMOVING OLD CABLE, on bulletin 039789.

CABLE INSTALLATION REFERENCE DRAWING





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