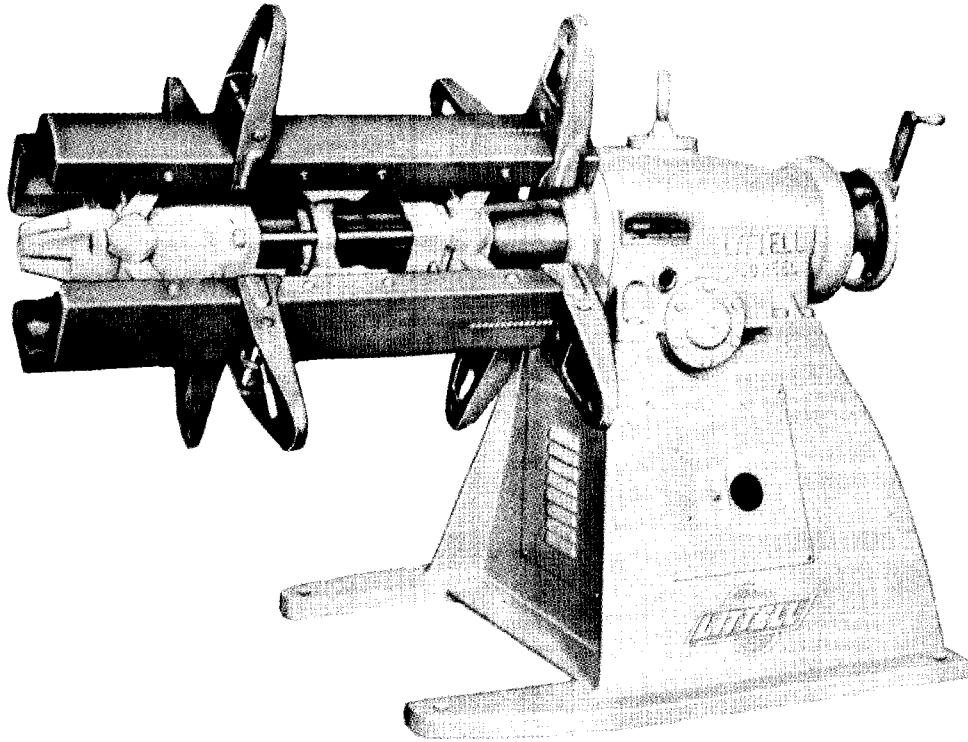


**PARTS LIST AND OPERATING INSTRUCTIONS
FOR
NUMBER 60 AND NUMBER 90 SINGLE AUTOMATIC
CENTERING REEL WITH ELECTRIC BRAKE**



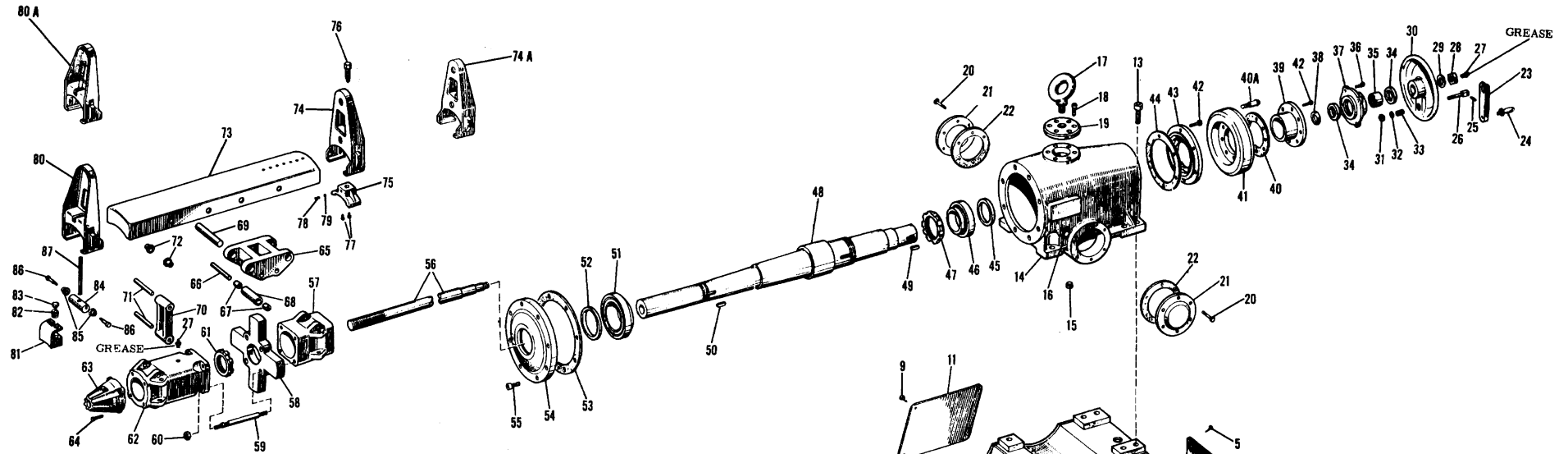
CAPACITIES

SIZE OF REEL	60-24	60-30	60-36	90-30	90-36	90-48
MAX WEIGHT OF COIL	6000 lbs	6000 lbs	6000 lbs	10000 lbs	10000 lbs	10000 lbs
INSIDE DIA.	20''-24'' or 16''-20''	20''-24'' or 16''-20''	20''-24'' or 16''-20''	20''-24'' or 16''-20''	20''-24'' or 16''-20''	20''-24'' or 16''-20''
MAX OUTSIDE DIA.	48''	48''	48''	48''	48''	48''
MAX WIDTH	24''	30''	36''	30''	36''	48''

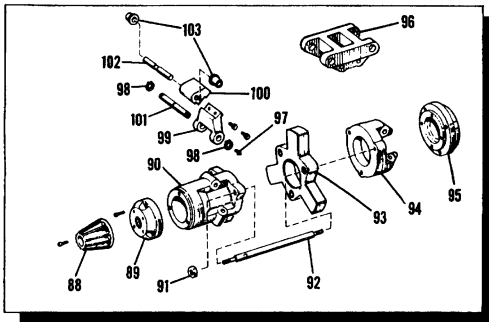
F. J. LITTELL MACHINE CO.

4101 N. RAVENSWOOD AVENUE

CHICAGO, ILLINOIS 60613



SPINDLE PARTS FOR 3-ARM REEL



IMPORTANT

When ordering repair parts, specify part number plus serial number, code number and size of machine. Send all repair parts orders to the Chicago factory.

NO. 60 AND NO. 90 SINGLE AUTOMATIC CENTERING REEL WITH ELECTRIC BRAKE



PARTS LIST

INDEX NO.	DESCRIPTION	PART NUMBER	
		#60 REEL	#90 REEL
1	Base	46D 35806	46D 35883
2	"Littell" Serial Name Plate	24B 34003	24B 34003
3	Self-Tapping Flat Head Screw (Phillips)	1/4"-20	1/4"-20
4	Rear Cover Plate	46A 35885	46A 35885
5	Round Head Screw	1/4"-20	1/4"-20
6	Front Cover Plate	46A 35886	46A 35886
7	Round Head Screw	1/4"-20	1/4"-20
8	Cover Plate (Cutout for Power Pack)	46 44874	46 44874
9	Round Head Screw	5/16"-18	5/16"-18
10	D. C. Power Pack	95 90586	95 90586
11	Brake Dial Cover Plate	46 51397	46 51397
12	Deleted		
13	Hollow Head Cap Screw	1"-8 Soc Hd.	1"-8 Soc Hd.
14	Gear Case	46C 35838	46C 35907
15	Taper Plug	3/4" Pipe	3/4" Pipe
16	Oil Gauge - "GITS" - #4044	46 90849	46 90849
17	Shoulder Type Eye Bolt	46A 37698	46A 37698
18	Hollow Head Cap Screw	1/2"-13 Soc Hd.	1/2"-13 Soc Hd.
19	Gear Case Cover	46A 35882	46A 35882
20	Hex. Bolt	1/2"-13 Soc Hd.	1/2"-13 Soc Hd.
21	Cover Gear Case	43 90972	46A 35887
22	Gasket	43 90902	14506-11-1
23	Handle Bar	46A 35818	46A 35879
24	Handle	42 90392	42 90392
25	Handle Hinge Pin	46 91989	46 91989
26	Handle Spring Pin	46A 35881	46A 35881
27	Grease Fitting	1/8"	1/8"
28	Hex. Full Jam Nut	1-1/2"-12	1-3/4"-5
29	Washer	10 23492	10 34146
30	Handwheel	46B 35844	46B 35914
31	Hex. Full Elastic Stop Nut	1/2"-20	1/2"-20
32	Washer	C.	C.
33	Spring (Danly)	46 90007	46 90007
34	Bearing (Aetna)	41 90114	43 90115
35	Needle Bearing	46 90993	43 90199
36	Hollow Head Cap Screw	3/8"-16	1/2"-20
37	Adjusting Screw Bearing Retainer	46B 35840	46B 35913
38	Bearing Collar	46A 12003	43A 13662
39	Brake Hub	46A 35849	46B 35918
40	Gasket (Warner Electric)	C.	C.
40A	Brake Pin	24871	24871
41	Brake (Warner Electric)	46 90855	46 90856
42	Hollow Head Cap Screw	1/2"-20	1/2"-20
43	Rear Bearing Retainer	46B 35842	46B 35915
44	Gasket (Warner Electric)	C.	C.
45	Oil Seal	46 90996	43 90743
46	Roller Bearing (Timken)	46 90155	46 90155
47	Nut	46 90456	46A 21955
48	Spindle Shaft**	46C 35807	46C 35901
49	Key Brake Hub	46A 35829	46A 35829
50	Key	46A 35877	46A 35877
51	Roller Bearing (Timken)	46 90157	43 90158
52	Oil Seal	46 90708	42 90709
53	Gasket	LITTELL	LITTELL
54	Front Bearing Retainer	46B 35843	46B 35908
55	Hollow Head Cap Screw	1/2"-20	5/8"-11
56	Adjusting Screw**	46B 35812	46B 35864

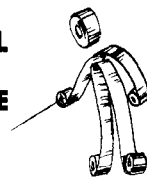
INDEX NO.	DESCRIPTION	PART NUMBER	
		#60 REEL	#90 REEL
*57	Rear Spindle Sleeve	46B 35841	46B 35911
*58	Spider	46B 35817	46B 35863
*59	Connecting Rod**	43A 23416	46A 35873
60	Nut	3/4"-16	3/4"-16
61	Locknut (Timken)	43 90452	43 90455
*62	Front Spindle Sleeve	46C 35837	46C 35910
*63	Adjusting Screw Nut	46B 35839	46B 35912
64	Hollow Head Cap Screw	3/8"-16	1/2"-16
*65	Roller Bracket	46C 35836	46C 35917
66	Roller Pin	46A 35819	46A 35870
67	Oilite Bushing	43 90342	16 90377
68	Roller	46A 35820	46A 35868
69	Roller Bracket Pin	46A 35872	46A 35872
*70	Link	46B 35845	46B 35916
71	Link Pin	46A 35871	46A 35871
72	Superoilite Bushing	46A 35869	46A 35869
73	Spindle Arm*	46 40637	46 40637
74	Rear Keeper	46 35855	46 35855
74A	Rear Keeper Assembly	46C 35923	46C 35923
75	Shoe	46B 35919	46B 35919
76	Adjusting Screw	46A 35891	46A 35891
77	Cap Screw	1/4"-20	1/4"-20
78	Set Screw	5/16"-18	5/16"-18
79	Detent Ball	1/4" Dia.	1/4" Dia.
80	Front Keeper Frame	46C 24064	46C 24064
80A	Front Keeper Assembly	46C 35922	46C 35922
81	Shoe	46B 34390	46B 34390
82	Spring (Danly)	42 90032	42 90032
83	Spring Button	46A 34943	46A 34943
84	Cam	46A 34891	46A 34891
85	Bushing	46A 35857	46A 35857
86	Bolt - Stripper Soc Hd. (Danly)	1/2" x 1"	1/2" x 1"
87	Handle	46A 35856	46A 35856

SPINDLE PARTS FOR 3-ARM REEL			
88	Nose Cone	46C 21687	46C 21687
89	Adjusting screw Retainer	46 21684	46B 21683
90	Front Spindle Sleeve	46D 21681	46D 21680
91	Nut	3/4"-16	3/4"-16
92	Connecting Rod**	46B 35864	46B 35864
93	Spider	46 21677	46C 21676
94	Rear Spindle Sleeve	46D 21675	46D 21674
95	Adjusting Screw Retainer	46 21686	46B 21685
96	Roller Bracket	46C 21678	46C 21678
97	Roll Pin - "ESNA" - #59-048-250-1875	C.	C.
98	Tru-ARC Ring #5100-87	33 90009	33 90009
99	Lower Link	43B 21987	43B 21987
100	Upper Link	43B 21988	43B 21988
101	Lower Link Pin	46A 21682	46A 21682
102	Upper Link Pin	46A 21957	46A 35871
103	Special Bushing	46A 35869	46A 35869

*Used on 4-Arm Reels only.
 **Specify whether for 24", 30", 36" or 48" wide Reel.



NO. 60 AND NO. 90 SINGLE AUTOMATIC CENTERING REEL WITH ELECTRIC BRAKE



OPERATING INSTRUCTIONS

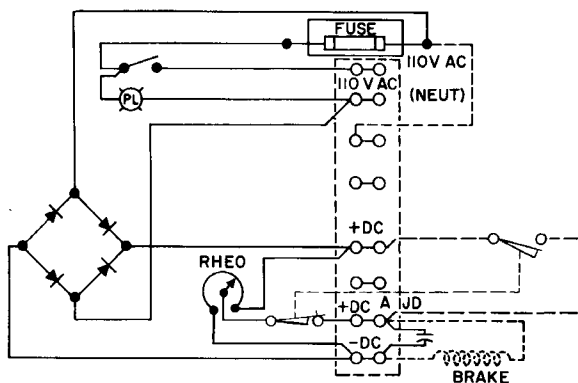
A. ELECTRICAL CONNECTION. Connect the reel to the correct electrical voltage.

WIRING DIAGRAM



CAUTION

Be sure power source is correct for reel by checking voltage requirement on brake reel nameplate.



B. REMOVE KEEPERS. Release keeper catch and remove keeper (80) from arms.

C. COLLAPSE ARMS.

(1) Turn crank handle (23) in a counter-clockwise direction to collapse arms. The arms should be collapsed so that they are at least 1 or 2 inches smaller than the inside diameter of the coil to be loaded.

(2) Fold handle (23) in to prevent breakage.

D. LOAD COIL.

(1) Load coil using a coil loading hook. Suspend hook from a hoist and insert in coil.

(2) Raise coil to proper height and slide onto the arms.

(3) Remove loading hook.

(4) Or load with a coil loading car.

E. ATTACH KEEPERS. Slide keeper (80) into position on the arm (73) so that the coil is tight against the back keeper (74).

F. EXPAND ARMS.

(1) Unfold crank.

(2) Turn hand crank in a clockwise direction. Turn crank until arms are fully extended against the coil.

G. ADJUST BRAKE TENSION. Adjust the rheostat to obtain the desired amount of drag.

H. EMERGENCY STOPS. Wire the electric brake into the stop button of the production line. In doing so, full brake will automatically be applied when the balance of line is shut down.

MAINTENANCE INSTRUCTIONS

All Littell Reels are of very rigid construction and, if the capacities are not exceeded, will give years of trouble-free service. Proper lubrication is the only maintenance required. Medium heavy #40 oil should be used in gear case. Remove eye bolt (17) and bring oil level up to the middle of sight gage (16). Apply grease to fittings on spindle and on end of handwheel.

F. J. LITTELL MACHINE CO.

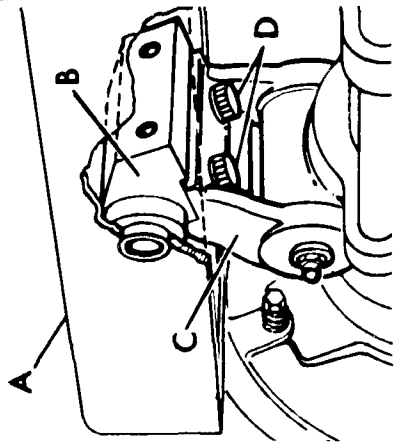
4101 N. RAVENSWOOD AVENUE

CHICAGO, ILLINOIS 60613

FOR 3 ARM 60 AND 90 REELS

INSTRUCTIONS FOR CHANGING RANGE OF REEL DIAMETERS

16"-18" INSIDE COIL DIAMETER

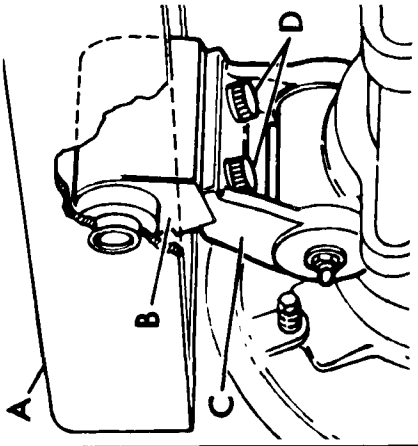


POSITION NO. 1

TO ACCOMMODATE 16"-18" OF 18"-20" INSIDE COIL DIAMETERS:

1. Expand arms fully by turning hand-wheel clockwise.
2. Rotate arm (A) to 12 o'clock position (top of reel).
3. Remove two screws (D) using $\frac{3}{8}$ " Allen wrench.
4. Lift arm (A) and rotate upper link (B) to desired position (No. 1 or No. 2).
5. Secure lower link (C) to upper link (B) with two screws (D).
6. Repeat procedure for links at other end of arm.
7. Repeat steps (2) through (6) for other two arms.

18"-20" INSIDE COIL DIAMETER



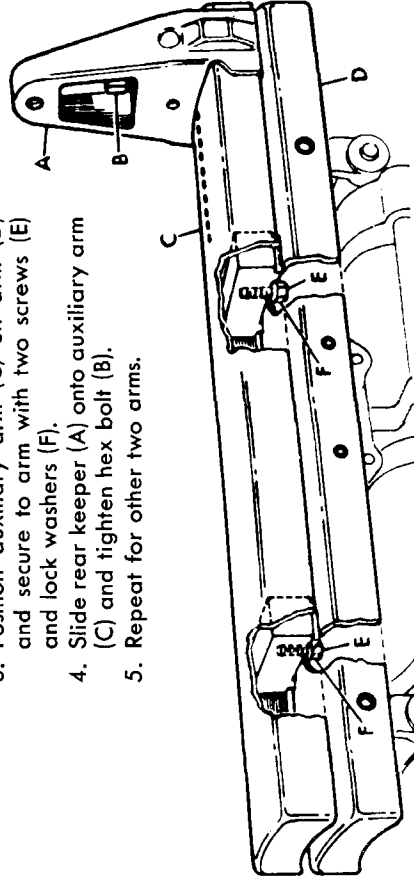
POSITION NO. 2

TO ACCOMMODATE 22"-24" INSIDE COIL DIAMETER INSTALL AUXILIARY ARMS*

TO INSTALL AUXILIARY ARMS*

TO ACCOMMODATE 24"-26" INSIDE COIL DIAMETER INSTALL AUXILIARY ARMS*

1. Rotate arm to 12 o'clock position.
2. Loosen hex bolt (B) and slide rear keeper (A) off arm (D).
3. Position auxiliary arm (C) on arm (D) and secure to arm with two screws (E) and lock washers (F).
4. Slide rear keeper (A) onto auxiliary arm (C) and tighten hex bolt (B).
5. Repeat for other two arms.



*Not supplied on standard reel. Available for large I.D. at additional cost.