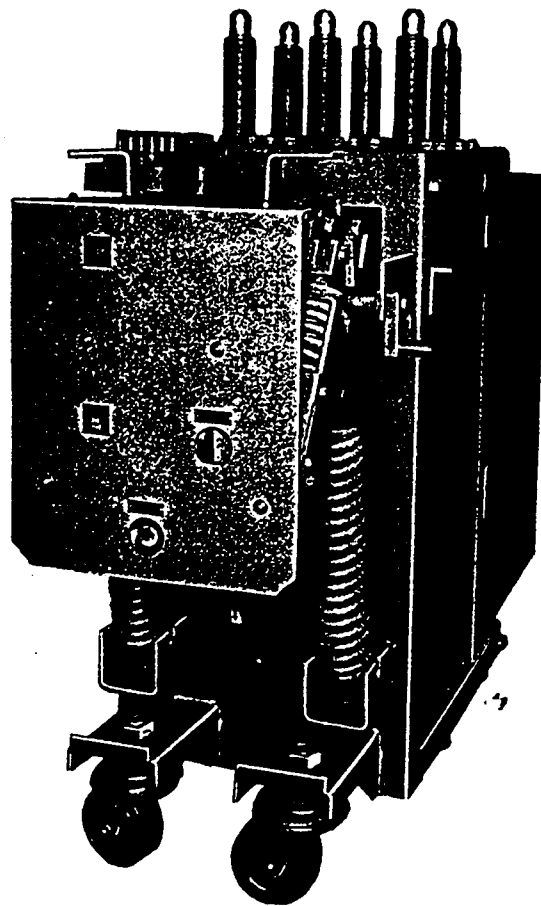


RENEWAL PARTS**ML-13 STORED ENERGY MECHANISM**

ing renewal parts, give quantity, catalog number, description of each item required, and complete nameplate reading.

GENERAL  **ELECTRIC**

ML-13 STORED ENERGY MECHANISM

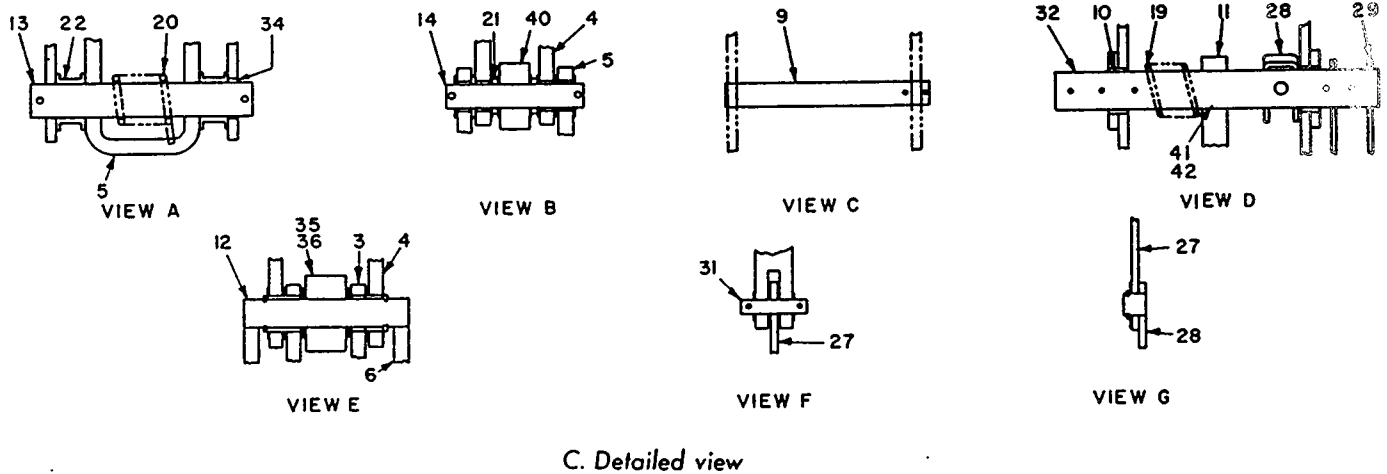
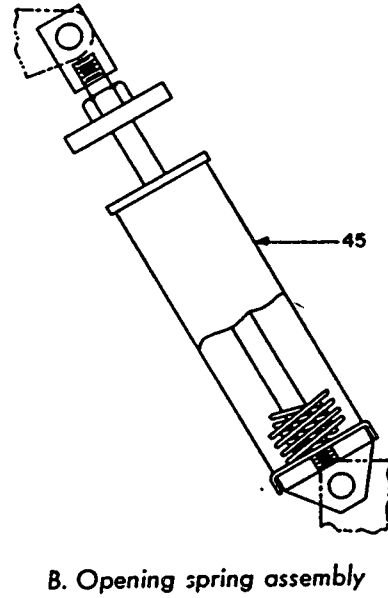
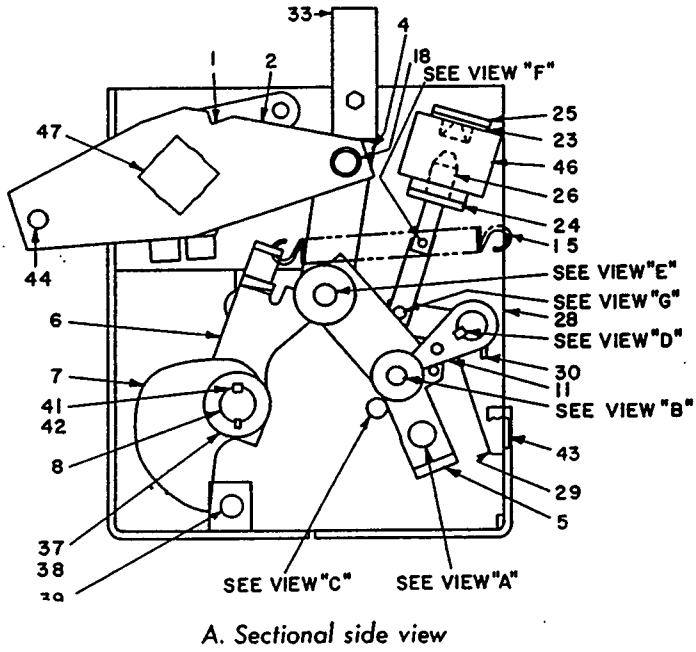


Fig. 1.

ML-13 STORED ENERGY MECHANISM

GE 4379

Ref. No.	Number Required for Type AM-						Catalog Number	Description
	4.16 KV		7.2 KV	13.8 KV				
	250 MVA	350 MVA	500 MVA	500 MVA	750 MVA	1000 MVA		
1	4	4	4	4	4	4	134C3588P1	Crank
2	2	2	2	2	2	2	213X702G11	Crank
3	1	1	1	1	1	1	213X702G12	Link
4	2	2	2	2	2	-	213X702G20	Link
4	-	-	-	-	-	2	134C3585P3	Link
5	1	1	1	1	1	2	213X702G21	Link
5	-	-	-	-	-	1	213X702G19	Link
6	1	1	1	1	1	1	213X702G13	Prop
7	1	1	1	1	1	1	129C2575P1	Cam
8	1	1	1	1	1	1	134C3585P4	Cam shaft
9	1	1	1	1	1	1	105C9304P3	Stop pin
10	2	2	2	2	2	2	456A885P21	Bushing
11	1	1	1	1	1	1	105C9302G2	Latch
12	1	1	1	1	1	1	105C9302P4	Pin
13	1	1	1	1	1	1	105C9301P7	Pin
14	1	1	1	1	1	-	105C9301P8	Pin
14	-	-	-	-	-	1	134C3585P1	Pin
15	1	1	1	1	1	1	137A9252P1	Prop spring
ΔA16	Δ	1	1	-	1	1	6071231P1	Prop spring No. 2
ΔA17	Δ	1	1	-	1	1	108B5466G1	Support
18	1	1	1	1	1	1	105C9308P4	Shaft
19	1	1	1	1	1	1	137A9262P1	Latch spring
20	1	1	1	1	1	1	137A9261P1	Reset spring
21	2	2	2	2	2	-	456A876P134	Spacer
22	2	2	2	2	2	2	456A876P136	Spacer
23	1	1	1	1	1	1	114C5347P6	Pole piece
24	1	1	1	1	1	1	114C5347G1	Coil support (tripping)
25	1	1	1	1	1	1	105C9316P2	Coil support (tripping)
26	1	1	1	1	1	1	114C5347P4	Armature
27	1	1	1	1	1	1	105C9316P5	Link
28	1	1	1	1	1	1	105C9316G1	Crank
29	1	1	1	1	1	1	105C9316P8	Crank
30	1	1	1	1	1	1	105C9316P9	Paddle
31	1	1	1	1	1	1	6076402P5	Pin
32	1	1	1	1	1	1	114C5324P8	Trip shaft
33	1	1	1	1	1	1	161A4287G1	Handle
34	2	2	2	2	2	2	456A885P206	Bushing
35	1	1	1	1	1	1	414A112P52	Bearing (O.R.)
36	1	1	1	1	1	1	414A112P53	Bearing (I.R.)
37	2	2	2	2	2	2	414A112P94	Bearing (O.R.)
38	2	2	2	2	2	2	414A112P95	Bearing (I.R.)
39	2	2	2	2	2	2	414A112P61	Bearing (O.R.)
40	1	1	1	1	1	-	414A112P1	Bearing (O.R.)
40	-	-	-	-	-	1	414A112P54	Bearing (O.R.)
41	3	3	3	3	3	3	N3401P808	Woodruff key
42	1	1	1	1	1	2	105C9310P7	Square key
ΔΔ43	1	1	1	1	1	1	132C9317G1	Mechanism cover
44	3	3	3	3	3	3	619C478P19	Pin
45	ø1	-	-	-	-	-	213X505G17	Opening spring
45	†1	-	-	-	-	-	213X341G7	Opening spring
45	-	1	1	1	-	-	213X341G23	Opening spring
45	-	-	-	-	1	*1	213X341G24	Opening spring
45	-	-	-	-	-	ø1	213X341G3	Opening spring
46	1	1	1	1	1	1	6275070G1	Trip coil, 24 Vdc
46	1	1	1	1	1	1	6275070G3	Trip coil, 32 Vdc
46	1	1	1	1	1	1	7174582G34	Trip coil, 48 Vdc
46	1	1	1	1	1	1	6174582G1	Trip coil, 110-125 Vdc
46	1	1	1	1	1	1	6174582G15	Trip coil, 220 Vdc
46	1	1	1	1	1	1	6174582G2	Trip coil, 250 Vdc
46	1	1	1	1	1	1	6174582G13	Trip coil, 115 Vac
46	1	1	1	1	1	1	6174582G3	Trip coil, 230 Vac
47	1	-	-	-	-	-	6443518P2	Square shaft
47	-	1	1	1	1	†1	6443518P1	Square shaft
ΔΔ48	1	††1	-	-	-	-	161A4283G1	Square shaft spacer
ΔΔ48	-	-	1	1	1	1	161A4283G2	Square shaft spacer

Δ For Type "B" only

ΔΔ Not illustrated

ø 1200 amp. only

† 2000 and 2500 amp. only

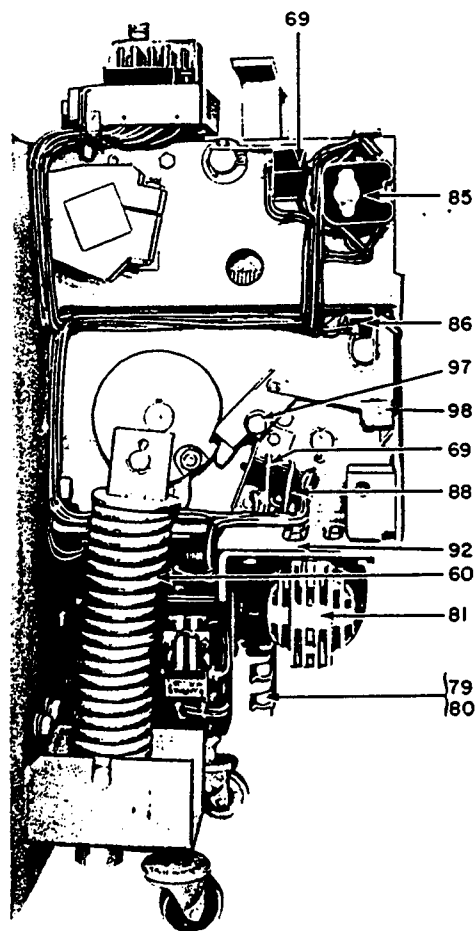
* 1200 and 2000 amp. only

ø 3000 and 3750 amp. only

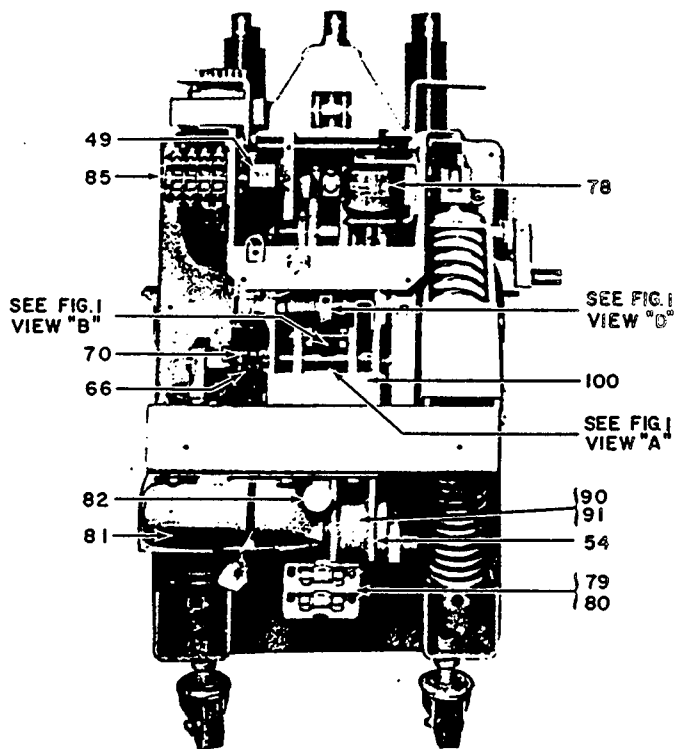
† For 3000 and 3750 amp. order Cat. No. 6443518P3

†† For 3000 amp. order Cat. No. 161A4283G4

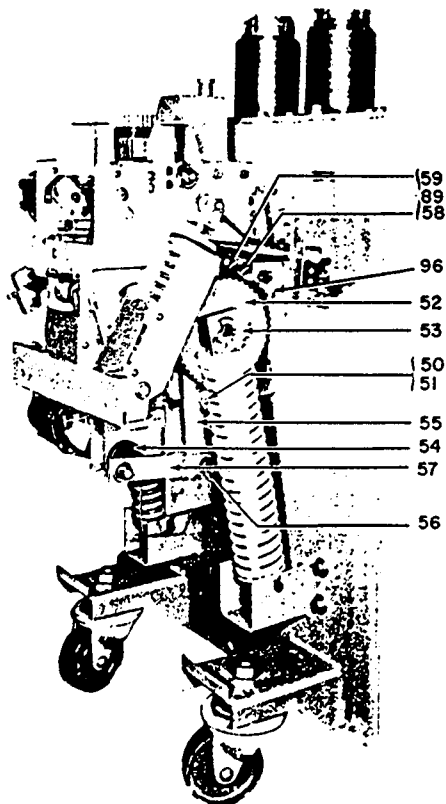
ML-13 STORED ENERGY MECHANISM



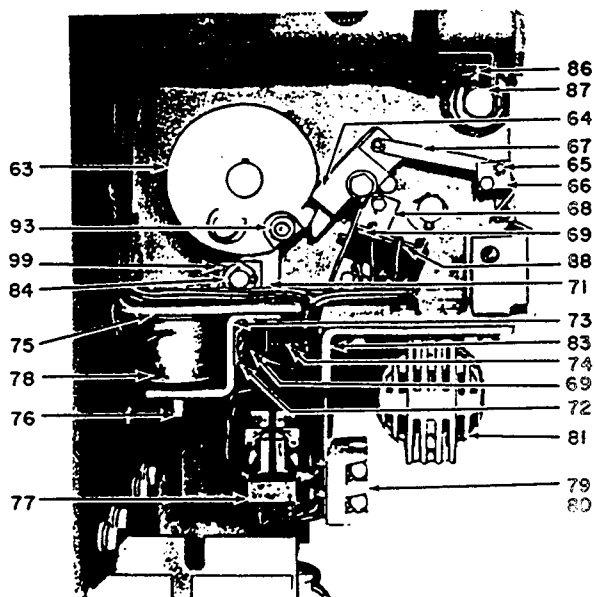
A. Left side view



B. Front view



C. Right side view



D. Left side (bottom) view

Fig. 2.

ML-13 STORED ENERGY MECHANISM

GEF-4379

Ref. No.	Number Required for Type AM-						Catalog Number	Description
	4.16 KV		7.2 KV	13.8 KV				
	250 MVA	350 MVA	500 MVA	500 MVA	750 MVA	1000 MVA		
49	1	1	1	1	1	1	105C9308G2	Indicator
50	1	1	1	1	1	1	213X702G16	Pawl
51	1	1	1	1	1	1	161A4241P1	Pawl spring
52	1	1	1	1	1	1	105C9310G1	Ratchet wheel
53	2	2	2	2	2	2	213X702G22	Bearing block
54	1	1	1	1	1	1	165B7926P1	Eccentric
55	1	1	1	1	1	1	213X702G17	Crank
56	1	1	1	1	1	1	105C9314P3	Pin
57	1	1	1	1	1	1	213X702G18	Link
58	1	1	1	1	1	1	213X702G14	Pawl (outside)
59	1	1	1	1	1	1	213X702G15	Pawl (inside)
60	2	-	-	2	-	-	114C5393G1	Closing spring ¹
60	2	-	-	-	-	-	114C5393G2	Closing spring ²
60	-	-	2	2	2	-	114C5393G3	Closing spring ³
60	-	-	-	-	2	2	114C5393G4	Closing spring ⁴
60	-	-	-	-	-	2	114C5393G5	Closing spring ⁵
60	-	-	-	-	-	2	114C5393G6	Closing spring ⁶
60	-	2	2	-	2	-	114C5393G7	Closing spring ⁷
60	2	-	-	-	-	-	114C5393G9	Closing spring ⁸
60	-	-	-	-	2	-	114C5393G11	Closing spring ⁹
63	1	1	1	1	1	1	105C9311G2	Cam
64	1	1	1	1	1	1	105C9311G3	Striker
65	1	1	1	1	1	1	6076402P10	Pin
66	1	1	1	1	1	1	105C9306G2	Indicator
67	1	1	1	1	1	1	105C9306P7	Link
68	1	1	1	1	1	1	105C9306P5	Switch plate
69	3	3	3	3	3	3	456A866P5	Switch (N.O.)
70	1	1	1	1	1	1	161A4230P1	Indicator spring
71	1	1	1	1	1	1	114C5342G1	Latch
72	1	1	1	1	1	1	105C9309P5	Switch plate
73	1	1	1	1	1	1	114C5347G2	Coil support
74	1	1	1	1	1	1	161A4231P1	Closing latch spring
75	1	1	1	1	1	1	114C5347P7	Pole piece
76	1	1	1	1	1	1	114C5347G3	Armature
77	1	1	1	1	1	1	††137A7575P4	Relay, 48 Vdc
77	1	1	1	1	1	1	††137A7575P1	Relay, 110-125 Vdc
77	1	1	1	1	1	1	††108B5565G1	Relay, 220-250 Vdc
77	1	1	1	1	1	1	††137A7575P5	Relay, 115 Vac
77	1	1	1	1	1	1	††137A7575P2	Relay, 230 Vac
78	1	1	1	1	1	1	6174582G34	Closing coil, 48 Vdc
78	1	1	1	1	1	1	6074582G1	Closing coil, 110-125 Vdc
78	1	1	1	1	1	1	6174582G15	Closing coil, 220 Vdc
78	1	1	1	1	1	1	6174582G2	Closing coil, 250 Vdc
78	1	1	1	1	1	1	6174582G10	Closing coil, 115 Vac
78	1	1	1	1	1	1	6174582G14	Closing coil, 230 Vac
79	1	1	1	1	1	1	456A864P121	Fuse block
80	2	2	2	2	2	2	456A864P111	Fuse, 48 Vdc
80	2	2	2	2	2	2	456A864P123	Fuse, 110-125 Vdc
80	2	2	2	2	2	2	456A864P124	Fuse, 220-250 Vdc
80	2	2	2	2	2	2	456A864P123	Fuse, 115 Vac
80	2	2	2	2	2	2	456A864P124	Fuse, 230 Vac
81	1	1	1	1	1	1	105C9393P1	Motor, 48 Vdc
81	1	1	1	1	1	1	105C9393P2	Motor, 110 Vdc
81	1	1	1	1	1	1	105C9393P2	Motor, 125 Vdc
81	1	1	1	1	1	1	105C9393P3	Motor, 220 Vdc
81	1	1	1	1	1	1	105C9393P3	Motor, 250 Vdc
81	1	1	1	1	1	1	105C9393P2	Motor, 115 Vac
81	1	1	1	1	1	1	105C9393P3	Motor, 230 Vac
82	1	1	1	1	1	1	105C9306G1	Trip rod
83	1	1	1	1	1	1	105C9313G1	Motor mount

Refer to footnotes 1 thru 9

Refer to footnotes 1 thru 9

- †† If tropical finish is required, add "TF" after the catalog number
- 1 4.16-250 STD. MOM., 2000-2500 amp., 13.8-250/500 STD. MOM.
- 2 4.16-150/250 STD. MOM., 1200 amp.
- 3 7.2-500 STD. MOM., 13.8-500 HI. MOM., 13.8-750-5 STD. MOM.
- 4 13.8-750-2,3,4, HI. MOM., 13.8-1000-4, 1200-2000 amp.
- 5 13.8-1000-3, 1200-2000 amp., 13.8-1000-4-300-3750 amp.
- 6 13.8-1000-3, 3000-3750 amp.
- 7 4.16-350, 7.2-500 HI. MOM., 13.8-750-2,3,4 STD. MOM.
- 8 4.16-250 HI. MOM.
- 9 13.8-750-5 HI. MOM.

ML-13 STORED ENERGY MECHANISM

No.	Number Required for Type AM-						Catalog Number	Description
	4.16 KV		7.2 KV	13.8 KV				
	250 MVA	350 MVA	500 MVA	500 MVA	750 MVA	1000 MVA		
84	1	1	1	1	1	1	105C9309P4	Shaft
85	1	1	1	1	1	1	††137A9192G11	Auxiliary switch
86	1	1	1	1	1	1	161A4282G1	Latch checking switch
87	1	1	1	1	1	1	105C9311P2	Striker
88	1	1	1	1	1	1	456A866P6	Switch (N.C.)
89	2	2	2	2	2	2	161A5909P1	Pawl spring
90	2	2	2	2	2	2	414A112P59	Bearing
91	2	2	2	2	2	2	414A112P60	Bearing
92	1	1	1	1	1	1	456A864P138	Terminal board
93	1	1	1	1	1	1	414A112P58	Follower
94	1	1	1	1	1	1	161A4289P2	Thrust race
95	1	1	1	1	1	1	161A4289P3	Thrust race
96	1	1	1	1	1	1	105C9307P17	Spring support
97	1	1	1	1	1	1	456A876P141	Spacer
98	1	1	1	1	1	1	456A876P139	Spacer
99	1	1	1	1	1	1	456A876P140	Spacer
100	1	1	1	1	1	1	105C9304P13	Cover

†† If tropical finish is required, add "TF" after the catalog number

94 Not illustrated

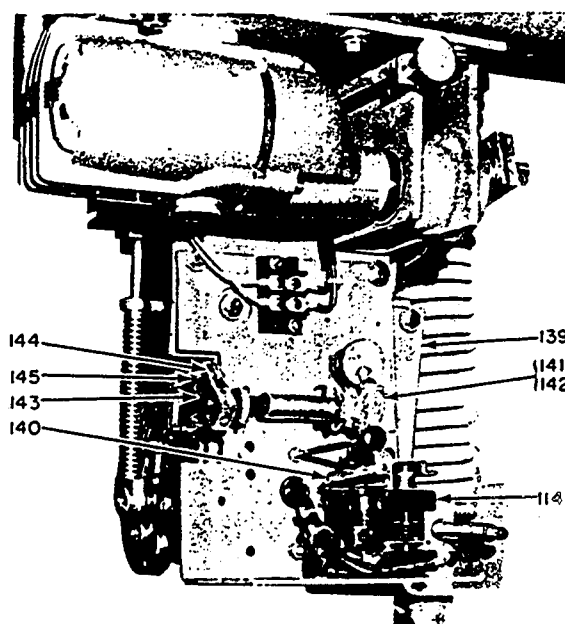
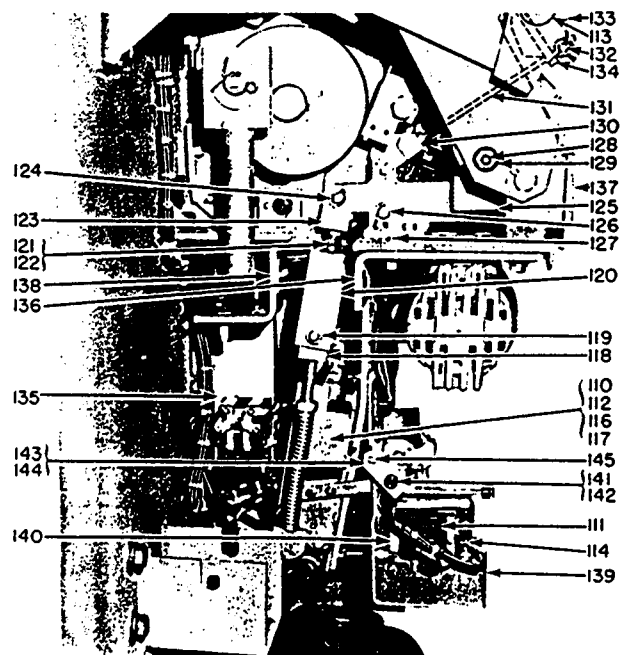


Fig. 3. Current trip and undervoltage device

ML-13 STORED ENERGY MECHANISM

GEF-4379

CURRENT TRIP AND UNDERVOLTAGE DEVICE (See Fig. 3)

Ref. No.	Number Required for							Catalog Number	Description
	Current Trip	Current Trip and U. D. (Time/Delay)	U. D. 48 Vdc (Inst.)	U. D. 125 Vdc (Inst.)	U. D. 250 Vdc (Inst.)	U. D. 230 Vac (Inst.)	U. D. 230 Vac (Time/Delay)		
110	3	3	-	-	-	-	-	6174599G2	Coil, 3A
111	-	-	1	-	-	-	-	6275017G45	Coil, 48 Vdc
111	-	-	-	1	-	-	-	6275017G15	Coil, 125 Vdc
111	-	-	-	-	1	-	-	WSF3241202	Coil, 250 Vdc
111	-	-	-	-	-	1	1	6275017G12	Coil, 230 Vac
111	-	-	-	-	-	-	1	6275017G16	Coil, 115 Vac
112	3	3	-	-	-	-	-	6116449G1	Instantaneous trip solenoid
113	1	1	1	1	1	1	1	114C5400P12	Shaft trip
114	-	-	1	1	1	-	-	6275259G2	Cutoff switch, dc
114	-	1	-	-	-	1	1	6275259G1	Cutoff switch, ac
AA115	-	-	1	-	-	-	-	161A5937G3	Resistor, 48 Vdc
AA115	-	-	-	1	-	-	-	161A5937G1	Resistor, 125 Vdc
AA115	-	-	-	-	1	-	-	161A5937G2	Resistor, 250 Vdc
116	1	-	-	-	-	-	-	114C5434G1	Current trip
116	-	1	1	1	1	1	1	114C5434G2	Current trip
117	1	1	1	1	1	1	1	6116526G2	Latch checking switch
118	1	1	1	1	1	1	1	134C3598P4	Head
119	1	1	1	1	1	1	1	6076403P17	Pin
120	1	1	1	1	1	1	1	134C3598P2	Yoke
121	1	1	1	1	1	1	1	134C3598P1	Piston
122	1	1	1	1	1	1	1	208A8097P1	Spring
123	1	1	1	1	1	1	1	114C5399P8	Clevis
124	1	1	1	1	1	1	1	114C5401P4	Pin
125	1	1	1	1	1	1	1	114C5399G4	Crank
126	1	1	1	1	1	1	1	6076404P9	Pin
127	1	1	1	1	1	1	1	114C5401P3	Bearing
128	1	1	1	1	1	1	1	114C5401P5	Pin
129	1	1	1	1	1	1	1	114C5400P10	Roller
130	1	1	1	1	1	1	1	114C5400P4	Clevis
131	1	1	1	1	1	1	1	114C5400G1	Rod
132	1	1	1	1	1	1	1	6076402P17	Pin
133	1	1	1	1	1	1	1	114C5400P7	Crank
134	1	1	1	1	1	1	1	114C5400P8	Paddle
135	1	1	1	1	1	1	1	108B5595G1	Plate relay mounting
136	1	1	1	1	1	1	1	114C5401G1	Motor mount
137	1	1	1	1	1	1	1	114C5399P1	Mechanism frame
138	1	1	1	1	1	1	1	114C5347G4	Coil support
139	-	-	1	1	1	1	1	114C5402P1	Undervoltage frame
139	-	1	-	-	-	-	1	114C5402P7	Undervoltage frame
140	-	-	1	1	1	1	-	6316605G23	Undervoltage device (dc instantaneous)
140	-	1	-	-	-	-	1	6316605G24	Undervoltage device (ac time delay)
141	-	-	1	1	1	1	-	114C5402G1	Crank and shaft
142	-	1	-	-	-	-	1	114C5402G2	Crank and shaft
143	-	1	1	1	1	1	1	114C5399P4	Clevis
144	-	1	1	1	1	1	1	414A112P40	Bearing
145	-	1	1	1	1	1	1	114C5399P5	Pin
AA146	-	1	-	-	-	-	1	114C5402G3	Cover

AA Not illustrated

ML-13 STORED ENERGY MECHANISM

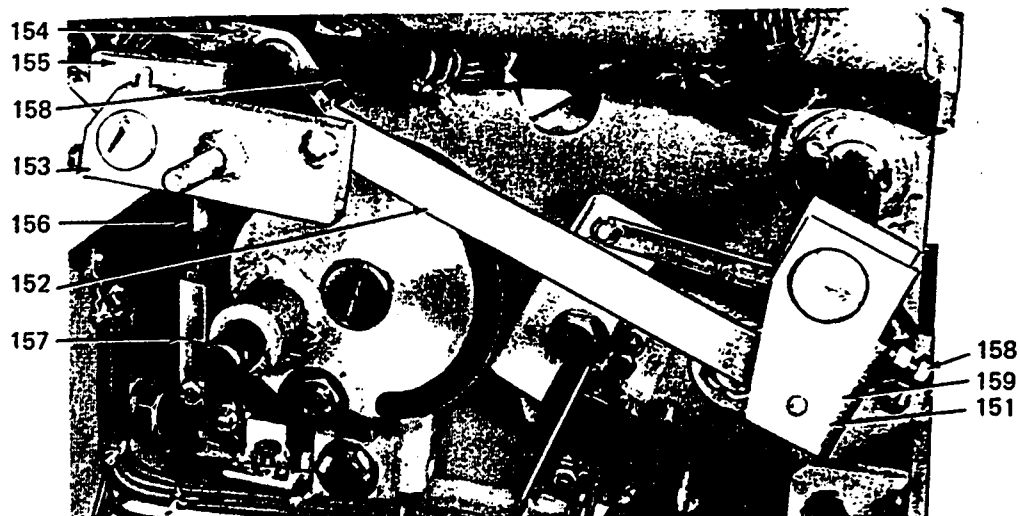


Fig. 4. Spring release

SPRING RELEASE (See Fig. 4)

Ref. No.	Ampere Rating	No. Required for Type AM-						Catalog Number	Description
		4.16 KV		7.2 KV	13.8 KV				
		250 MVA	350 MVA	500 MVA	500 MVA	750 MVA	1000 MVA		
150	1200A	1	-	-	-	-	-	114C5413G1	Spring discharge assembly, complete
	2000A								
150	1200A	-	-	1	1	1	1	114C5413G2	Spring discharge assembly, complete
	2000A								
150	3000	-	-	-	-	-	1	114C5413G3	Spring discharge assembly, complete
150	1200	-	1	-	-	-	-	114C5413G4	Spring discharge assembly, complete
150	3000	-	1	-	-	-	-	114C5413G5	Spring discharge assembly, complete
151	All	1	1	1	1	1	1	114C5341P2	Crank
152	1200	1	1	-	-	-	-	114C5341P11	Link
	2000								
152	3000	-	-	-	1	-	-	114C5341P11	Link
152	1200	-	-	1	1	1	1	114C5341P9	Link
	2000								
152	3000	-	1	-	-	-	-	114C5341P10	Link
153	All	1	1	-	-	-	-	114C5343G2	Crank
153	All	-	-	1	1	1	1	114C5343G3	Crank
154	All	-	-	1	1	1	1	114C5343G2	Crank
155	All	1	1	1	1	1	1	114C5324P6	Clevis
156	All	1	1	1	1	1	1	114C5343P11	Rod
157	All	1	1	1	1	1	1	114C5342G4	Clevis
158	All	1	1	1	1	1	1	208A8068P1	Crank
*159	All	1	1	1	1	1	1	114C5341P8	Paddle

* Part not illustrated (position only indicated)

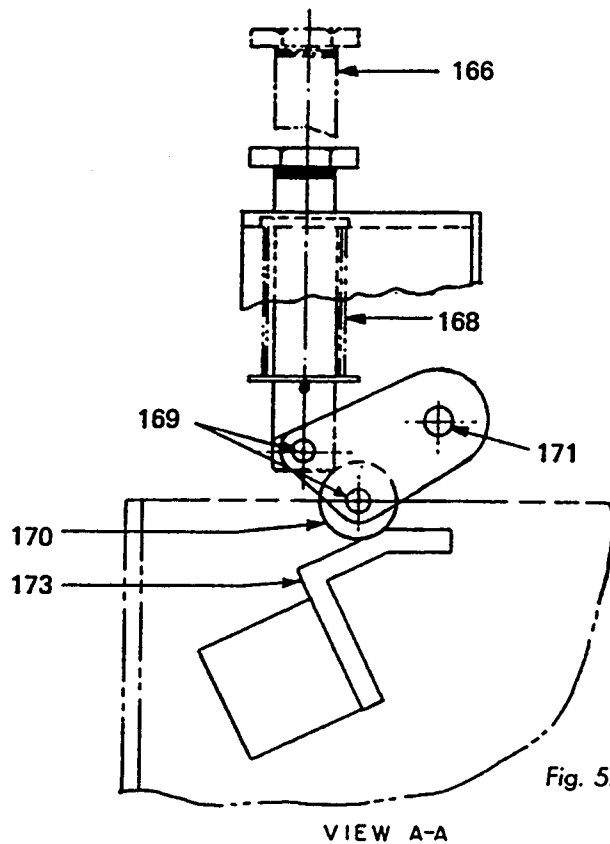
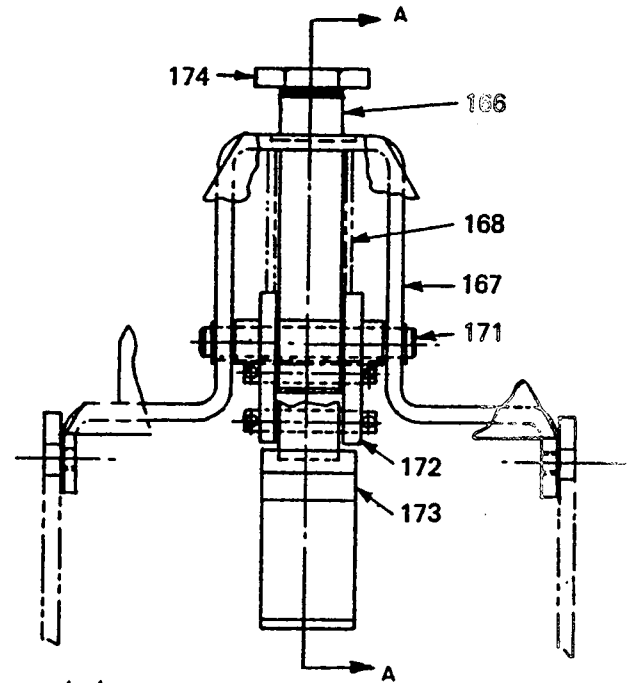


Fig. 5. Plunger interlock



Plunger Interlock for ML-13 Mechanism (See Fig. 5)

Ref. No.	Cat. No.	No. Reqd.	Description
165	0105C9305G001	1	Plunger interlock, complete
166	0236C0787P012	1	Plunger
167	0105C9305G002	1	Bracket assembly
167	0105C9305P003	1	Bracket
168	006509728P001	1	Spring
169	0137A6085P023	2	Pin
170	0236C0787P014	1	Roller
171	0414A0110P006	1	Pin
172	0105C9305P006	2	Crank
173	0105C9305P007	1	Clip
174	0161A5948P001	1	Bolt

†For Type AM13.8-1000, 1200, and 2000 amps., order Cat. No. 0236C0787P27

Secondary Disconnect Device (See Fig. 6)

Ref. No.	Cat. No.	No. Reqd.	Description
180	0108B1931P005	1	Secondary disconnect device complete, 16 points
181	006319964P002	16	Contact plug
183	006505244P001	1	Contact socket, 16 point
184	0366A0234P001	†	Contact nut for No. 8 wire
184	0366A0234P002	†	Contact nut for No. 14 wire
184	0366A0234P003	†	Contact nut for No. 12 wire

† Total of 16 required. Order size and quantity to correspond with size and quantity of wires entering the secondary disconnect device.

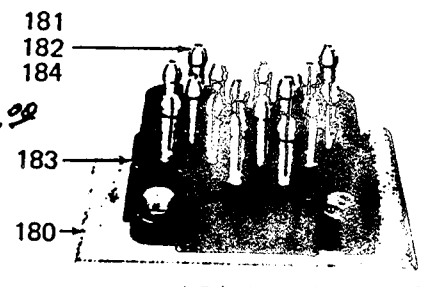


Fig. 6. Secondary disconnect device

ML-13 STORED ENERGY MECHANISM**PARTS RECOMMENDED FOR NORMAL MAINTENANCE**

Ref. No.	Catalog Number	No. Req'd	Description
46	6275070G1	1	Trip coil, 24 Vdc
46	6275070G3	1	Trip coil, 32 Vdc
46	6174582G34	1	Trip coil, 48 Vdc
46	6174582G1	1	Trip coil, 110-125 Vdc
46	6174582G15	1	Trip coil, 220 Vdc
46	6174582G2	1	Trip coil, 250 Vdc
46	6174582G13	1	Trip coil, 115 Vac
46	6174582G3	1	Trip coil, 230 Vac
77	137A7575P4	1	Relay, 48 Vdc
77	137A7575P1	1	Relay, 110-125 Vdc
77	108B5565G1	1	Relay, 220-250 Vdc
77	137A7575P5	1	Relay, 115 Vac
77	137A7575P2	1	Relay, 230 Vac
78	6174582G34	1	Closing coil, 48 Vdc
78	6074582G1	1	Closing coil, 110-125 Vdc
78	6174582G15	1	Closing coil, 220 Vdc
78	6174582G2	1	Closing coil, 250 Vdc
78	6174582G10	1	Closing coil, 115 Vac
78	6174582G14	1	Closing coil, 230 Vac
81	105C9393P1	1	Motor, 48 Vdc
81	105C9393P2	1	Motor, 110 Vdc
81	105C9393P2	1	Motor, 125 Vdc
81	105C9393P3	1	Motor, 220 Vdc
81	105C9393P3	1	Motor, 250 Vdc
81	105C9393P2	1	Motor, 115 Vac
81	105C9393P3	1	Motor, 230 Vac
51	161A4241P1	1	Driving pawl spring
69	456A866P5	3	Switch (N.O.)
74	161A4231P1	1	Closing latch spring
85	137A9192G11	1	Auxiliary switch
88	456A866P6	1	Switch (N.C.)
89	161A5909P1	2	Latching pawl spring