

Part Catalogue No. 6231-1

July, 1926

For prices refer to Catalogue 10-A or apply to nearest District Office

PARTS OF

Westinghouse

Type CF Motor Operating Mechanisms

For Oil Circuit Breakers

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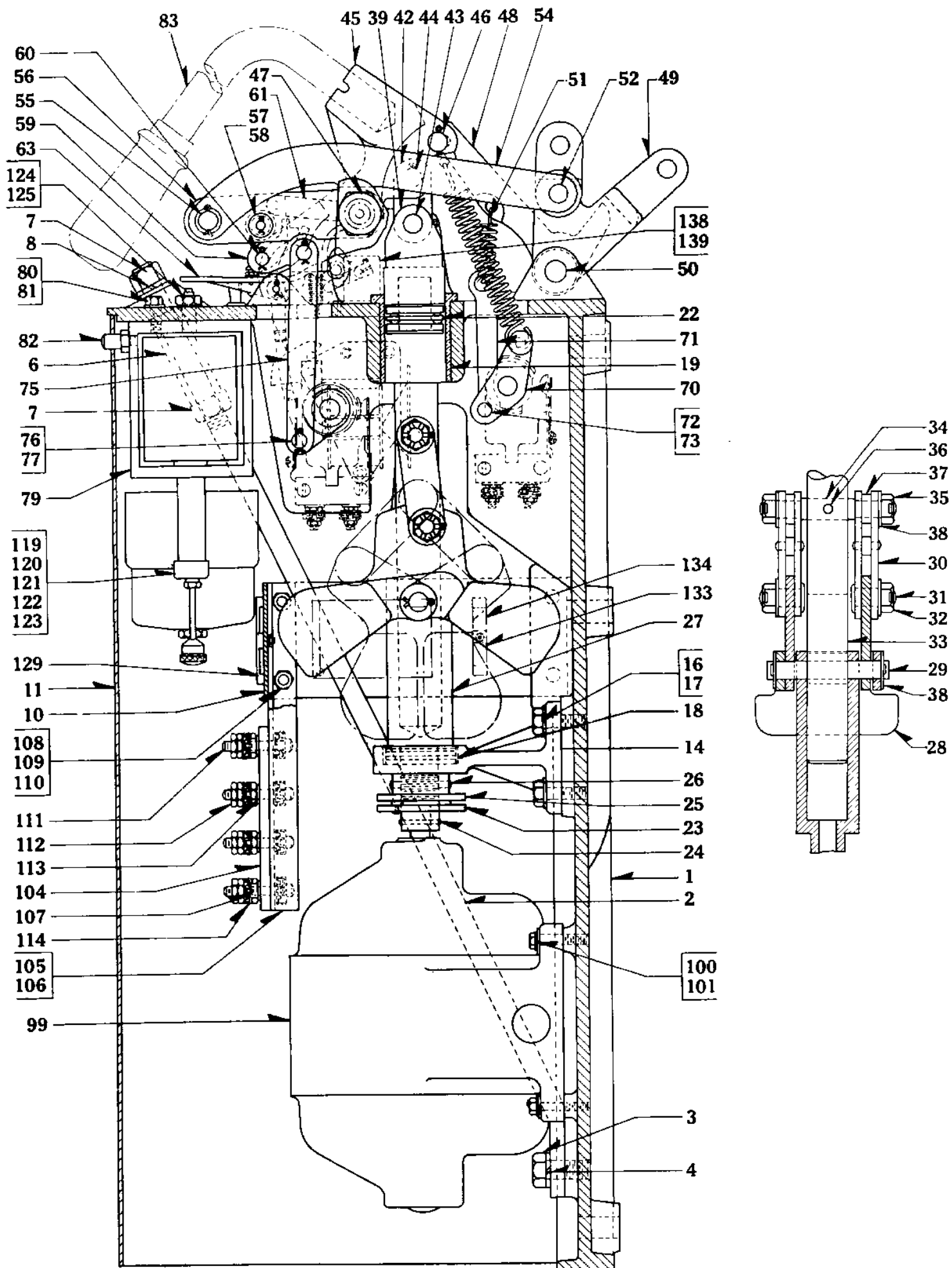
WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY
East Pittsburgh, Pa.

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FRAME AND DETAILS



FRAME AND DETAILS—Continued

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	478994	1	Frame
2	479018	2	Brace
3	.....	2	Tap bolt, $\frac{1}{2}$ "-13x1 $\frac{1}{4}$ " (standard hardware), to fasten lower end of brace to frame
4	.....	2	Lock washer, $\frac{1}{2}$ " (standard hardware) for bolt
5*	478997	2	Dowel for brace and frame
6	479021	2	Spacer for upper end of brace
7	.....	4	Hexagon iron nut, $\frac{1}{2}$ "-13 (standard hardware), for upper end of brace
8	.....	4	Lock washer, $\frac{1}{2}$ " (standard hardware), for brace
9†	.....	4	Iron washer, $\frac{1}{2}$ " (standard hardware), for brace
10	479022	1	Guard
11	479023	1	Cover
12*	.....	1	Name plate No. 6017 for cover
13*	.....	2	Escutcheon pin, No. 16x $\frac{3}{8}$ " (standard hardware), to fasten name plate to cover
14	478999	1	Bearing bracket for weight shaft
15*	479003	2	Dowel for bracket
16	.....	4	Tap bolt, $\frac{5}{16}$ "-18x1" (standard hardware), to fasten bearing bracket to frame
17	.....	4	Lock washer, $\frac{5}{16}$ " (standard hardware) for bolt
18	479019	1	Lower thrust bearing for weight shaft
19	479017	1	Bushing for upper thrust bearing
20*	.....	4	Fillister head brass machine screw, No. 10-32x $\frac{1}{2}$ " (standard hardware), to fasten bushing in frame
21*	.....	4	Lock washer, (standard hardware) for No. 10-32 screw
22	240417	1	Upper thrust bearing
23	479029	1	Coupling for weight shaft, motor end
24	479040	1	Taper pin for coupling and shaft
25	479028	1	Coupling for weight shaft, shaft end
26	479042	1	Taper pin for coupling and shaft
27	479031	1	Shaft for weights
28	483514	2	Weight for shaft
29	483513	1	Connection pin for weights and shaft
30	479027	2	Toggle link for weights and sliding shaft
31	479030	2	Shoulder screw to connect toggle links to weights
32	479043	2	Nut for shoulder screw
33	479033	1	Sliding shaft
34	479035	1	Connection pin for toggle links and sliding shaft
35	479043	2	Nut for connection pin
36	479040	1	Taper pin for connection pin and sliding shaft
37	479020	2	Spacing tube between toggle links
38	3223	6	Washer for shoulder screw and connection pins
39	479001	1	Clevis for upper end of sliding shaft
40*	479032	1	Retaining collar for clevis
41*	.....	1	Taper pin, No. 2 x 1" (standard hardware), for collar
42	479014	1	Link to connect clevis to operating lever
43	483515	1	Connection pin for links and clevis
44	48946	1	Connection pin for links and operating lever
45	479009	1	Operating lever
46	48946	1	Pin to engage main latch
47	479012	2	Shoulder screw used as bearing pin for operating lever
48	479015	1	Main latch
49	478998	1	Closing lever with pin for spring and link
50	48947	1	Bearing pin for closing lever
51	479016	1	Spring for main latch and closing lever
52	117198	1	Connection pin for closing lever and link
53	479039	1	Retrieving spring
54	479024	2	Closing link
55	117198	1	Connection pin for closing link and trip free link
56	479025	1	Trip free link assembly
57	479034	1	Roller for latch
58	82515	1	Bearing pin for roller
59	479011	1	Latch for trip free links
60	88904	1	Bearing pin for latch
61	479010	2	Link from latch to trip lever
62*	70126	2	Connection pin for latch, links and trip lever
63	479008	1	Trip lever
64*	.....	1	Fillister head iron machine screw, No. 10-32x $\frac{3}{4}$ " (standard hardware), for trip lever
65*	.....	1	Lock nut, No. 10-32 (standard hardware) for screw
66†	63595	1	Right hand bearing pin for trip lever
67*	483518	1	Left hand bearing pin for trip lever
68†	3217	3	Washer for bearing pins

*Not illustrated

†Not indicated

FRAME AND DETAILS—Continued

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
69†	198075	1	Spring for trip lever
70	479005	1	Retrieving spring link with pin for spring
71	479026	1	Link for closing lever and retrieving spring link
72	479037	1	Connection pin for link
73	.....	1	Hexagon iron nut, $\frac{5}{16}$ "-18 (standard hardware), for connection pin
74*	479013	1	Connection pin for operating lever and auxiliary switch link
75	479036	1	Link to connect operating lever to motor cutout switch
76	479037	1	Connection pin for motor cutout switch link and operating lever
77	.....	1	Hexagon iron nut, $\frac{5}{16}$ "-18 (standard hardware), for connecting pin.
78*	479002	1	Link for motor cutout switch shaft
79	479000	3	Bracket for trip mechanism
80	.....	6	Tap bolt, $\frac{1}{4}$ "-20x $\frac{3}{4}$ " (standard hardware), to fasten bracket to frame
81	.....	6	Lock washer, $\frac{1}{4}$ " (standard hardware), for bolt
82	479007	1	Stud for cover
83	446201	1	Hand closing lever
84*	440055	†	Type 33-AB Motor, 6 Volts d-c.
84*	440056	†	Type 33-AB Motor, 12 volts d-c.
85*	483519	1	Supporting bracket for 6 volt and 12 volt d-c motors
86*	.....	4	Tap bolt, $\frac{5}{16}$ "-18x1 $\frac{1}{4}$ " (standard hardware), to fasten supporting bracket to frame
87*	.....	4	Lock washer, $\frac{5}{16}$ " (standard hardware), for bolt
88*	.....	3	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten motor to supporting bracket
89*	.....	3	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
90*	.....	3	Hexagon iron nut, $\frac{3}{8}$ -16 (standard hardware), for bolt
91*	440053	†	Type CDH Motor, 50 volts d-c.
91*	440054	†	Type CDH Motor, 115 volts d-c.
92*	483520	1	Adapter plate for 50 and 115 volt d-c. motors
93*	.....	2	Flat head iron machine screw, (upper), $\frac{5}{16}$ "-18x $\frac{7}{8}$ " (standard hardware), to fasten adapter plate to frame
94*	.....	2	Tap bolt, (lower), $\frac{5}{16}$ "-18x1" (standard hardware), to fasten adapter plate to frame
95*	.....	2	Lock washer, $\frac{5}{16}$ " (standard hardware), for bolt
96*	.....	4	Tap bolt, $\frac{5}{16}$ "-18x1" (standard hardware), to fasten motor to adapter plate
97*	3413	4	Washer for bolt
98*	.....	4	Lock washer, $\frac{5}{16}$ " (standard hardware), for bolt
99	440051	†	Type RV Motor, 110 volts a-c, 60 cycle
99	474912	†	Type ARS Motor, 220 volts a-c, 25 cycle
99	440050	†	Type ARS Motor, 220 volts a-c, 60 cycle
100	.....	4	Tap bolt, $\frac{5}{16}$ "-18x1 $\frac{1}{4}$ " (standard hardware), to fasten motor to frame
101	.....	4	Lock washer, $\frac{5}{16}$ " (standard hardware), for bolt
102*	.....	1	Fillister head iron machine screw, No. 8-32x $\frac{3}{4}$ " (standard hardware), for trip lever adjustment and spring
103*	.....	1	Lock nut, No. 8-32 (standard hardware), for screw
104	483521	1	Terminal board
105	483522	1	Support, left hand, for terminal board
106	483523	1	Support, right hand, for terminal board
107	.....	4	Fillister head iron machine screw, No. 14-24x $\frac{3}{4}$ " (standard hardware), to fasten terminal board to supports
108	.....	4	Flat head iron machine screw, No. 14-24x $\frac{1}{2}$ " to fasten supports to guard
109	.....	8	Lock washer, $\frac{1}{4}$ " (standard hardware), for screws
110	.....	8	Hexagon iron nut, No. 14-24 (standard hardware), for screws
111	.....	24	Fillister head brass machine screw, No. 10-32x1 $\frac{1}{2}$ " (standard hardware), for terminal leads
112	40662	72	Hexagon brass nut for terminal screw
113	7453	48	Washer for terminal screw
114	148425	96	Crimp washer for terminal screw
115*	439414	†	Undervoltage trip attachment with coil, 110 volts 60 cycle (for details see page 7)
115*	439415	†	Undervoltage trip attachment with coil, 220 volts 60 cycle, 110 volts 25 cycles (for details see page 7)
115*	439416	†	Undervoltage trip attachment with coil, 440-550 volts 60 cycle, 220 volts 25 cycle (for details see page 7)
115*	439417	†	Undervoltage trip attachment with coil, 550 volts 25 cycle (for details see page 7)
116*	.....	3	Fillister head iron machine screw, No. 14-24x $\frac{3}{8}$ " (standard hardware), to fasten undervoltage trip attachment to frame
117*	.....	3	Lock washer, $\frac{1}{4}$ " (standard hardware), for screw
118*	483517	1	Trip lever for undervoltage trip attachment
119	439419	**	Overload trip attachment with 5 ampere coil (for details see page 10)
120	446203	**	Shunt trip attachment with coil, 12 volts d-c (for details see page 10)
120	446204	**	Shunt trip attachment with coil, 110 volts 60 cycle, 50 volts d-c (for details see page 10)
120	446205	**	Shunt trip attachment with coil, 110 volts 25 cycle, 220 volts 60 cycle, 125 volts d-c (for details see page 10)

†Only one required per mechanism
**As required
*Not illustrated

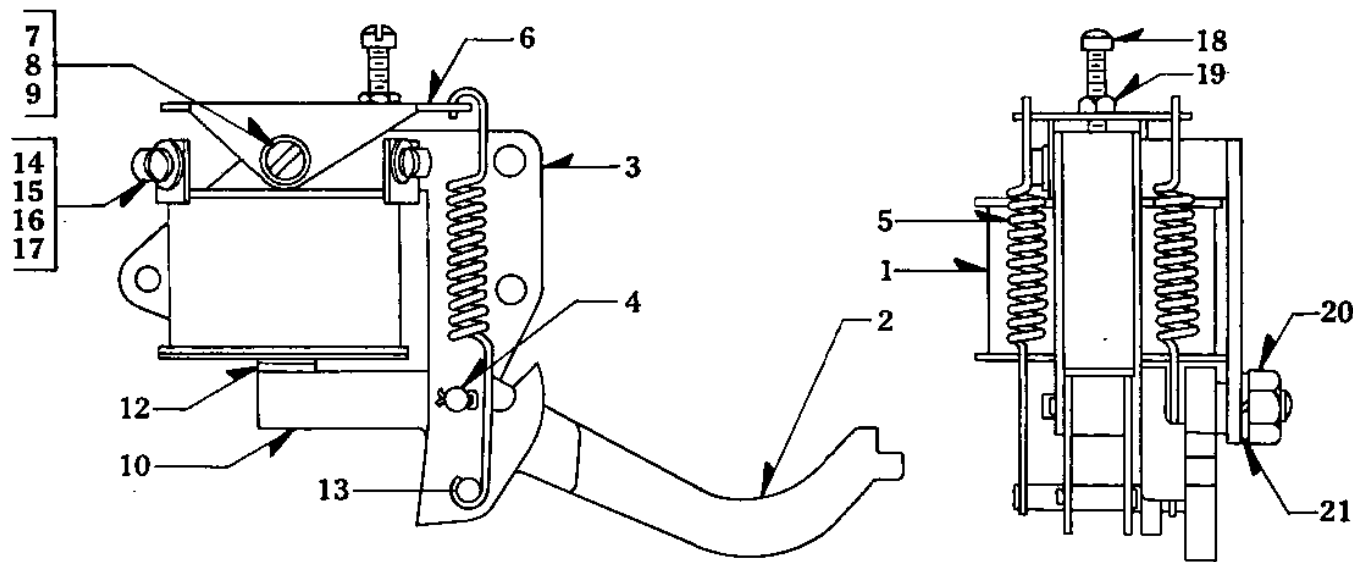
FRAME AND DETAILS—Continued

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
120	446206	**	Shunt trip attachment with coil, 220 volts 25 cycle, 440-550 volts 60 cycle, 250 volts d-c (for details see page 10)
120	446207	**	Shunt trip attachment with coil, 440-550 volts 25 cycle, 500 volts d-c (for details see page 10)
121	439421	**	Inverse time limit attachment with 5 ampere coil (for details see page 11)
122	439420	**	Direct trip attachment with coils (for details see page 9)
123	483553	††	Electric lock-out attachment with coil, 110 volts 60 cycle (for details see page 7)
123	483554	††	Electric lock-out attachment with coil, 220 volts 60 cycle, 110 volts 25 cycle (for details see page 7)
123	483555	††	Electric lock-out attachment with coil, 440-550 volts 60 cycle, 220 volts 25 cycle (for details see page 7)
123	483556	††	Electric lock-out attachment with coil, 440 volts 25 cycle, (for details see page 7)
123	483557	††	Electric lock-out attachment with coil, 550 volts 25 cycle (for details see page 7)
124	.....	‡	Lock nut, 3/8"-16 (standard hardware), to fasten electric lock-out attachment to frame
125	.....	‡	Lock washer, 3/8" (standard hardware), for nut
126*	478996	2	Cleat for motor leads
127*	.....	2	Fillister head iron machine screw, No. 10-32x5/8" (standard hardware), to fasten cleat to frame
128*	.....	2	Lock washer, (standard hardware), for No. 10-32 screw
129	413230	3	Eight-wire cleat
130*	.....	3	Fillister head iron machine screw, No. 8-32x1/2" (standard hardware), to fasten cleat to weight guard
131*	.....	3	Hexagon iron nut, No. 8-32 (standard hardware), for screw
132*	.....	3	Lock washer, (standard hardware), for No. 8-32 screw
133	413231	2	Six-wire cleat
134	413232	2	Four-wire cleat
135*	.....	4	Flat head iron machine screw, No. 8-32x1/2" (standard hardware), to fasten cleats to weight guard
136*	.....	4	Hexagon iron nut, No. 8-32 (standard hardware), for screw
137*	.....	4	Lock washer, (standard hardware), for No. 8-32 screw
138	478060	1	Veeder counter
139	.....	4	Fillister head iron machine screw, No. 4-40x5/8" (standard hardware), to mount counter
140*	479041	1	Key for coupling and motor shaft
141*	.....	..	Connections, use ".064 R. I. B. C. wire, P. D. S. 1501

‡One required per attachment
**As required ††One required per mechanism *Not illustrated

ELECTRIC LOCK-OUT AND UNDERVOLTAGE TRIP ATTACHMENTS



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Parts for Electric Lock-Out Attachment Only

Ref. No.	Style No.	No. Per Attachment	Description
..	483553	..	Electric lock-out attachment with coil, 110 volts, 60 cycle
1	259035	1	Coil for attachment Style No. 483553
..	483554	..	Electric lock-out attachment with coil, 110 volts 25 cycle, 220 volts 60 cycle
1	259034	1	Coil for attachment Style No. 483554
..	483555	..	Electric lock-out attachment with coil, 440-550 volts 60 cycle, 220 volts 25 cycle
1	259033	1	Coil for attachment Style No. 483555
..	483556	..	Electric lock-out attachment with coil, 440 volts 25 cycle
1	259032	1	Coil for attachment Style No. 483556
..	483557	..	Electric lock-out attachment with coil, 550 volts 25 cycle
1	259031	1	Coil for attachment Style No. 483557
2	483551	1	Locking lever for electric lock-out attachments

Parts for Undervoltage Trip Attachment Only

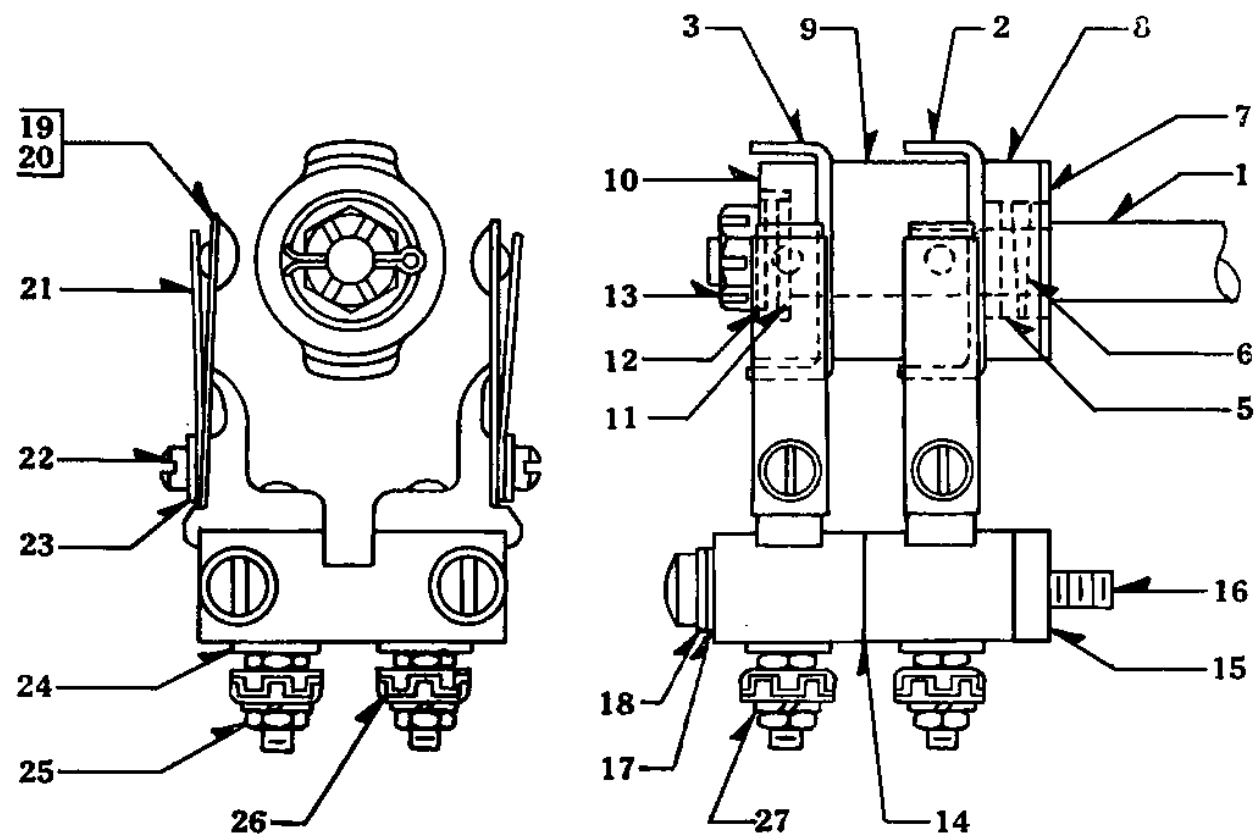
..	439414	..	Undervoltage trip attachment with coil, 110 volts 60 cycle
1	259035	1	Coil for attachment Style No. 439414
..	439415	..	Undervoltage trip attachment with coil, 220 volts 60 cycle, 110 volts 25 cycle
1	259034	1	Coil for attachment Style No. 439415
..	439416	..	Undervoltage trip attachment with coil, 440-550 volts 60 cycle, 220 volts 25 cycle
1	259033	1	Coil for attachment Style No. 439416
..	439417	..	Undervoltage trip attachment with coil, 440 volts 25 cycle
1	259032	1	Coil for attachment Style No. 439417
..	439418	..	Undervoltage trip attachment with coil, 550 volts 25 cycle
1	259031	1	Coil for attachment Style No. 439418
2	483516	1	Locking lever for undervoltage trip attachments

Parts common to all Electric Lock-out and Undervoltage Trip Attachments

3	483540	1	Base with stud
4	483541	1	Shaft
5	483542	2	Spring
6	483543	1	Adjusting lever
7	402286	2	Spacer for adjusting lever
8	.....	1	Fillister head iron machine screw, No. 10-32x1¼" (standard hardware), to fasten adjusting lever to base
9	3410	1	Washer for screw
10	300770	1	Armature
11*	300771	1	Core
12	253429	2	Clip
13	483552	1	Pin for springs
14	.....	2	Fillister head brass machine screw, No. 8-32x¾" (standard hardware) for coil terminal
15	119326	2	Nut for terminal screws
16	269741	2	Washer for terminal screws
17	.....	2	Lock washer, (standard hardware) for No. 8-32 screw
18	.....	1	Fillister head iron machine screw, No. 10-32x¾" (standard hardware), for adjusting lever
19	.....	1	Hexagon iron nut, No. 10-32 (standard hardware), for screw
20	.....	1	Hexagon iron nut, ⅝"-18 (standard hardware), for locking lever shaft
21	.....	1	Lock washer, ⅝" (standard hardware), for shaft

*Not illustrated

MOTOR CUTOUT SWITCH AND AUXILIARY SWITCH DETAILS



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Parts for Motor Cutout Switch (Single) Only

Ref. No.	Style No.	No. Per Switch	Description
1	483526	1	Shaft for moving contacts
1A*	479038	1	Retaining collar for shaft
1B*	479040	1	Taper pin for collar and shaft
2	483535	1	Moving contact, rear
3	483535	1	Moving contact, front

Parts for Motor Cutout Switch (Double) Only

1	483524	1	Shaft for moving contacts
1A*	479038	1	Retaining collar for shaft
1B*	479040	1	Taper pin for collar and shaft
2	483535	1	Moving contact, rear
3	483535	1	Moving contact, front

Parts for Auxiliary Switch Only

1	483530	1	Shaft for moving contacts
2	483535	2	Moving contact, rear
3	483529	2	Moving contact, front

Parts Common to all Motor Cutout and Auxiliary Switches

Ref. No.	Style No.	No. Per Cutout Switch	No. Per Auxiliary Switch	Description
4*	479040	1	1	Taper pin to connect operating link to shaft
5	483531	1	2	Hexagon collar for shaft
6	.....	1	2	Taper pin, No. 0x7/8" (standard hardware) to fasten collar to shaft
7	483536	1	2	Washer for shaft
8	483532	1	2	Spacing collar for rear of moving contacts
9	483534	1	2	Spacing collar between moving contacts
10	483533	1	2	Spacing collar for front of moving contacts
11	3413	1	2	Iron washer for shaft
12	.....	1	2	Lock washer, 5/16" (standard hardware) for shaft
13	483538	1	2	Nut for shaft
14	483527	2	4	Support for stationary contacts

*Not illustrated

MOTOR CUTOUT AND AUXILIARY SWITCH DETAILS—Continued

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

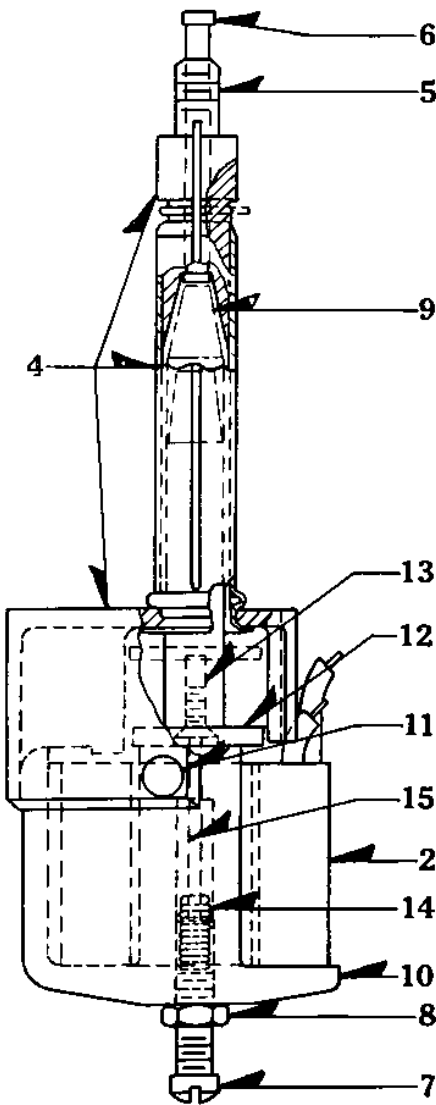
Parts Common to all Motor Cutout and Auxiliary Switches—Continued

Ref. No.	Style No.	No. Per Cutout Switch	No. Per Auxiliary Switch	Description
15	483528	1	2	Spacer between support and frame
16	.....	2	4	Fillister head iron machine screw, No. 14-24x2¾" (standard hardware) to fasten support to frame
17	7443	2	4	Washer for screw
18	.....	2	4	Lock washer, ¼" (standard hardware) for screw
19	483539	4	8	Contact finger with base and terminal stud
20	483525	4	8	Contact finger
21	483537	4	8	Pressure spring for contact finger
22	.....	4	8	Fillister head brass machine screw, No. 10-32x¾" (standard hardware) to fasten pressure spring and contact finger to base
23	7453	4	8	Washer for screw
24	3421	4	8	Washer for terminal stud
25	40662	8	16	Nut for terminal stud
26	148425	8	16	Crimp washer for terminal stud
27	.....	4	8	Lock washer, (standard hardware) for No. 10-32 stud

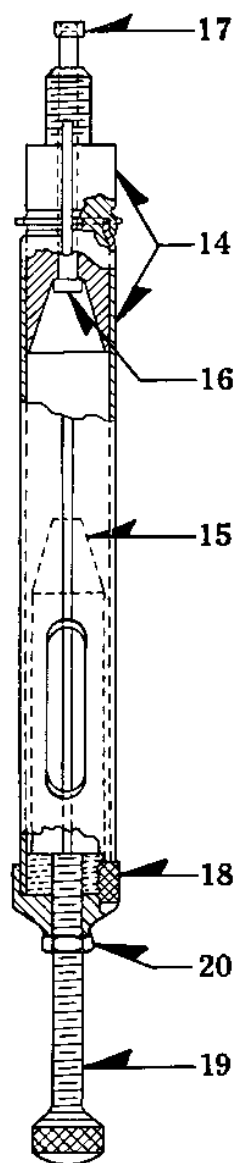
DIRECT TRIP ATTACHMENT AND DETAILS

Ref. No.	Style No.	No. Per Attachment	Description
1*	439420	..	Direct Trip Attachment with coils
2	483549	1	Coil for direct trip
3*	408305	1	Overload coil, 5 amperes
4	483550	1	Sleeve with stationary core and bracket for magnetic circuit
5	483545	1	Trip rod
6	393404	1	Nut for trip rod
7	317593	1	Adjusting screw
8	317592	1	Lock nut for adjusting screw
9	317590	1	Moving core
10	317589	1	Magnetic circuit
11	.....	2	Flat head iron machine screw, No. 10-32x ½" (standard hardware), to fasten magnetic circuit to bracket
12	300785	1	Armature
13	.....	1	Flat head iron machine screw, No. 10-32x ½" (standard hardware), to fasten armature to moving core
14	483558	1	Adjusting spring
15	317591	1	Adjusting pin

*Not illustrated



OVERLOAD AND SHUNT TRIP ATTACHMENTS AND DETAILS



Reference No. 13

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Attachment	Description
1*	439419	..	Overload Trip Attachment with 5 ampere coil
2*	408305	1	Coil for overload trip attachment, 5 amperes
3*	446203	..	Shunt Trip Attachment with coil for 12 volts d-c
4*	300774	1	Coil for shunt trip attachment, 12 volts d-c
5*	446204	..	Shunt Trip Attachment with coil, for 110 volts 60 cycle and 50 volts d-c
6*	483546	1	Coil for shunt trip attachment, 110 volts 60 cycle and 50 volts d-c
7*	446205	..	Shunt Trip Attachment with coil for 110 volts 25 cycle, 220 volts 60 cycles and 125 volts d-c
8*	300873	1	Coil for shunt trip attachment, 110 volts 25 cycles, 220 volts 60 cycles, 125 volts d-c
9*	446206	..	Shunt Trip Attachment with coil for 220 volts 25 cycle, 440-550 volts 60 cycle and 250 volts d-c
10*	300870	1	Coil for shunt trip attachment, 220 volts 25 cycles, 440-550 volts 60 cycle and 250 volts d-c
11*	446207	..	Shunt Trip Attachment with coil for 440-550 volts 25 cycle and 500 volts d-c
12*	300871	1	Coil for shunt trip attachment, 440-550 volts 25 cycle and 500 volts d-c

Parts Common to all Overload and Shunt Trip Attachments

13	439422	1	Overload or shunt trip attachment without coil
14	483544	1	Stationary core with sleeve
15	306792	1	Moving core
16	483545	1	Trip rod
17	393404	1	Nut for trip rod
18	300791	1	Cap for lower end of sleeve
19	88829	1	Adjusting screw
20	46868	1	Hexagon brass nut for screw

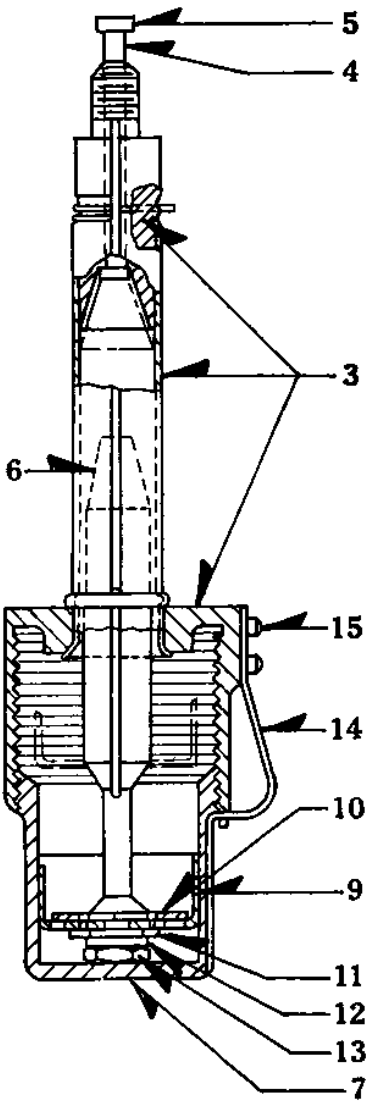
*Not illustrated

INVERSE TIME LIMIT ATTACHMENT AND DETAILS

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Attachment	Description
1*	439421	..	Inverse Time Limit attachment with coil
2*	408305	1	Coil, 5 amperes
3	483547	1	Dash pot cover with sleeve and stationary core
4	483545	1	Trip rod
5	393404	1	Nut for trip rod
6	300793	1	Moving core
7	483548	1	Dash pot
8*	229296	1	Can of oil for dash pot
9	266597	1	Piston
10	247441	1	Valve for piston
11	242090	1	Adjusting washer for piston
12	.....	1	Lock washer, 1/4" (standard hardware), for piston
13	.....	1	Hexagon iron nut, No. 14-24 (standard hardware), to fasten piston to moving core
14	300795	1	Clamp for dash pot
15	.....	2	Fillister head iron machine screw, No. 4-40x1/4" (standard hardware), to fasten clamp to dash pot; cover

*Not illustrated

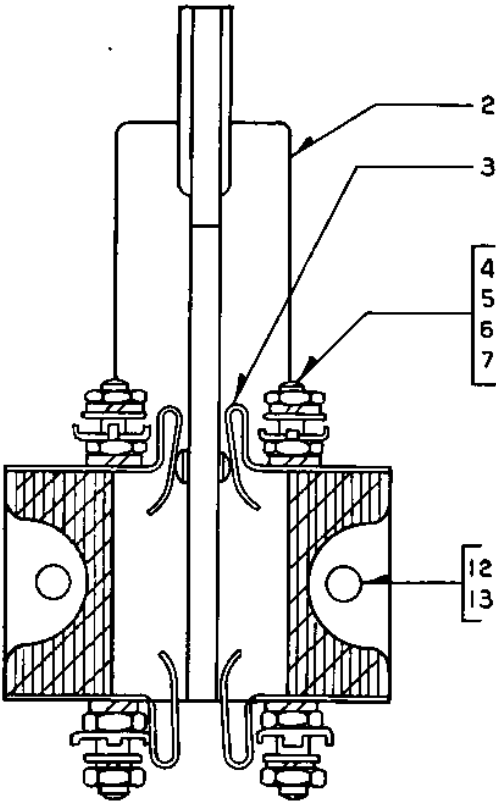


SIGNAL SWITCH AND DETAILS

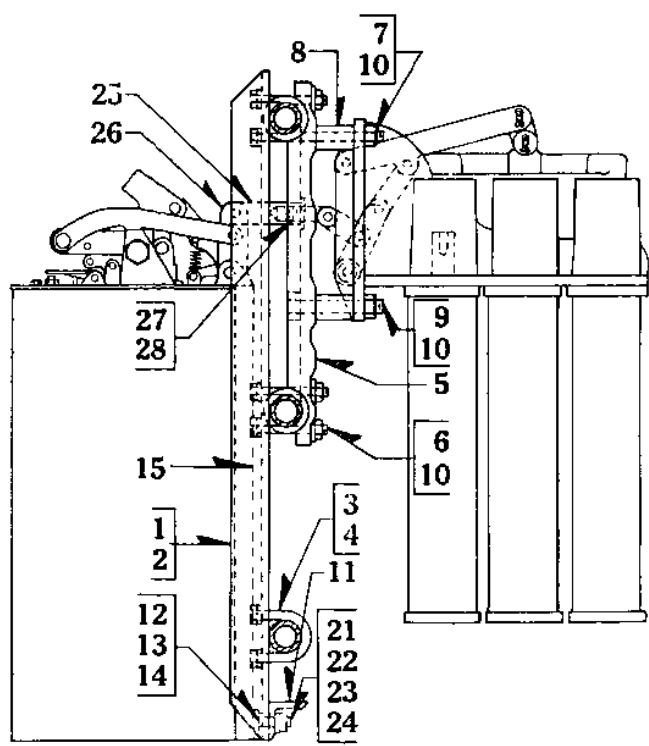
Used Only On Mechanisms Supplied After November, 1925

Ref. No.	Style No.	No. Per Switch	Description
..	437769	..	Heavy type signal switch complete
1*	437772	1	Switch body complete with screws
2	437776	1	Switch plunger complete with studs
3	220999	8	Contact
4	7443	8	Washer for contact screw
5	.....	16	Lock washer (standard hardware), for No. 10-32 contact screw
6	40662	16	Nut for screw
7	148425	8	Crimp washer for screw
8*	464966	2	Signal switch link
9*	464967	2	Stud for signal switch link
10*	.....	4	Nut, 1/4" (standard hardware), for stud
11*	.....	4	Lock washer, 1/4" (standard hardware), for stud
12	.....	4	Fillister head iron machine screw, No. 14-24x1 3/8" (standard hardware), to mount signal switch
13	.....	4	Lock washer, 1/4" (standard hardware), for screw

*Not illustrated



MOUNTING DETAILS
FOR TYPE BA CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600 AMPERES,
HORIZONTAL PULL, PIPE MOUNTING



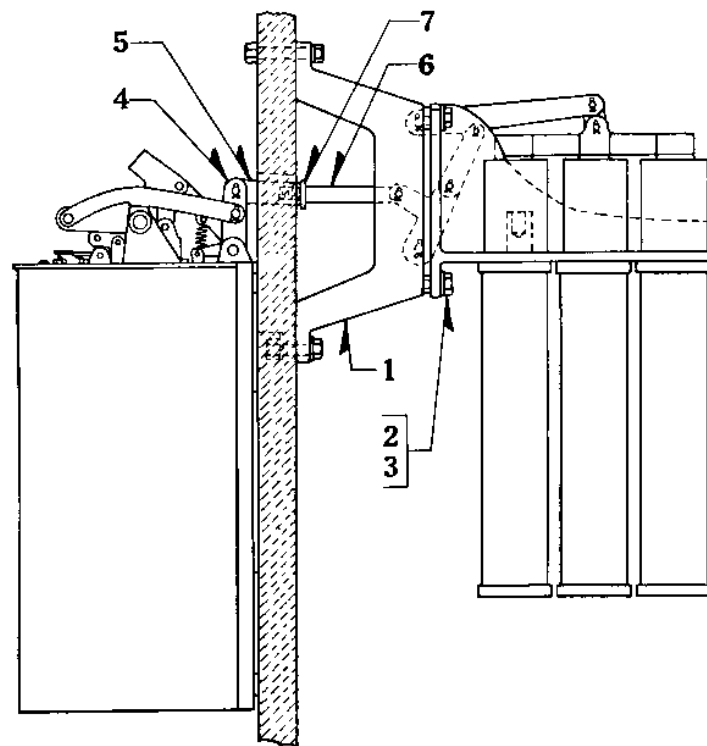
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	483559	1	Vertical angle iron support, right hand, for mechanism
2	483562	1	Vertical angle iron support, left hand, for mechanism
3	127933	6	"U" bolt to fasten supports to pipe frame
4	.....	12	Hexagon iron nut, 3/8"-16 (standard hardware), for "U" bolt
5	380183	2	Pipe mounting bracket for circuit-breaker
6	124586	2	"U" bolt for pipe mounting bracket and pipe frame
7	483560	2	"J" bolt for pipe frame, pipe mounting bracket and circuit-breaker
8	483565	4	Spacer for "J" bolt and tap bolt
9	.....	2	Tap bolt, 1/2"-13x4 1/2" (standard hardware), for pipe mounting bracket and circuit-breaker
10	.....	8	Hexagon iron nut 1/2"-13 (standard hardware) for "J" bolt and tap bolt
11	483567	1	Horizontal angle iron support, for mechanism
12	.....	2	Tap bolt, 3/8"-16x1 1/4" (standard hardware), to fasten horizontal support to vertical support
13	.....	2	Hexagon iron nut, 3/8"-16 (standard hardware), for bolt
14	.....	2	Lock washer, 3/8" (standard hardware), for bolt
15	483566	1	Mounting plate for mechanism
16*	.....	4	Tap bolt, 3/8"-16x1 1/4" (standard hardware), to fasten mounting plate to angle iron supports
17*	.....	4	Hexagon nut, 3/8"-16 (standard hardware), for bolt
18*	.....	4	Lock washer, 3/8" (standard hardware), for bolt
19*	.....	4	Tap bolt, 1/2"-13x1 1/2" (standard hardware), to fasten mechanism to mounting plate
20*	.....	4	Hexagon nut, 1/2"-13 (standard hardware), for bolt
21	.....	2	Tap bolt, 1/2"-13x3" (standard hardware), to fasten mechanism to horizontal support
22	.....	2	Spacer, 1/8" of 1" iron pipe (standard hardware), for bolt
23	.....	2	Lock washer, 1/2" (standard hardware), for bolt
24	.....	2	Hexagon nut, 1/2"-13 (standard hardware), for bolt
25	483564	1	Operating lever for mechanism
26	72281	1	Rod end for mechanism operating lever
27	270295	1	Eye bolt for circuit-breaker operating lever
28	.....	1	Pipe nut, 3/4" (standard hardware), for eye bolt

*Not illustrated

MOUNTING DETAILS—Continued

FOR TYPE BA CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600 AMPERES,
HORIZONTAL PULL, WALL MOUNTING



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	399578	2	Wall mounting bracket for circuit-breaker
2	.....	4	Tap bolt, $\frac{1}{2}$ "-13x2 $\frac{1}{4}$ " (standard hardware), to fasten circuit-breaker to bracket
3	.....	4	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
4	483564	1	Operating lever for machanism
5	72281	1	Rod end for mechanism operating lever
6	483569	1	Eye bolt for circuit-breaker operating lever
7	.....	1	Pipe nut, $\frac{3}{4}$ " (standard hardware), for eye bolt

FOR TYPE B-2 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW 300-600 AMPERES,
HORIZONTAL PULL, WALL MOUNTING

1	380182	1	Wall mounting bracket for circuit-breaker
2	.....	4	Tap bolt, $\frac{1}{2}$ "-13x2 $\frac{1}{2}$ " (standard hardware), to fasten circuit-breaker to bracket
3	.....	4	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
4	483564	1	Operating lever for mechanism
5	72281	1	Rod end for mechanism operating lever
6	483569	1	Eye bolt for circuit-breaker operating lever
7	.....	1	Pipe nut, $\frac{3}{4}$ " (standard hardware), for eye bolt

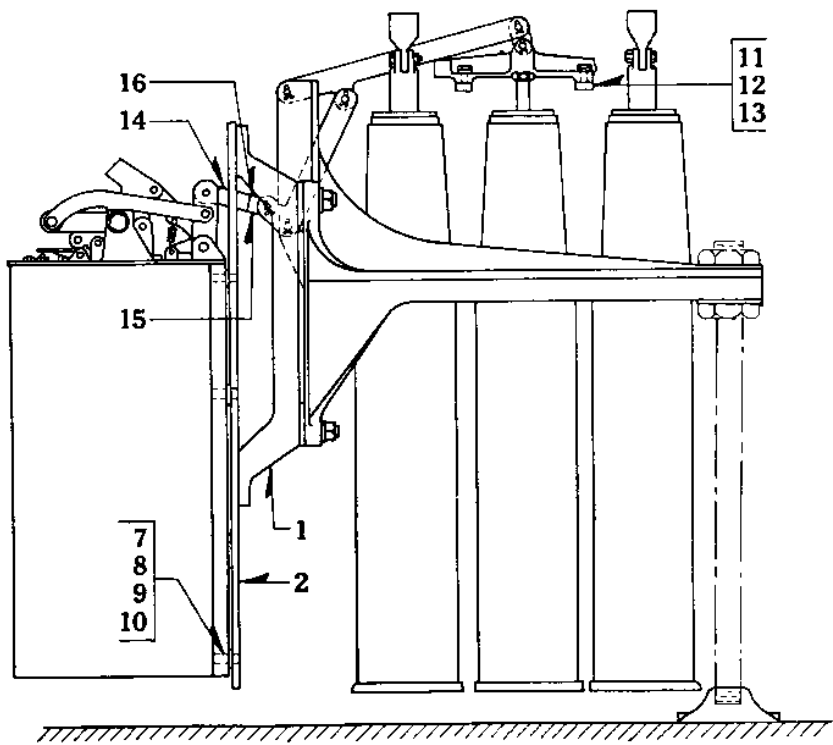
FOR TYPE B-13 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600 AMPERES,
HORIZONTAL PULL, WALL MOUNTING

1	380410	2	Wall mounting bracket for breaker
2*	.....	4	Machine bolt, $\frac{3}{4}$ "-10x3" (standard hardware), to fasten breaker to mounting bracket
3	.....	..	Not used
4	483564	1	Operating lever for mechanism
5	72281	1	Rod end for mechanism operating lever
6	483569	1	Eye bolt for circuit-breaker operating lever, 300 amperes only
6	483571	1	Eye bolt for circuit-breaker operating lever, 600 amperes only
7	.....	1	Pipe nut, $\frac{3}{4}$ " (standard hardware), for eye bolt
8*	483576	2	Stop block for circuit-breaker cross bar, 600 amperes only
9*	.....	4	Tap bolt, $\frac{3}{8}$ "-16x2" (standard hardware), to fasten stop block to cross bar, 600 amperes only
10*	.....	4	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt, 600 amperes only

*Not illustrated

MOUNTING DETAILS—Continued

FOR TYPE B-13 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600 AMPERES,
HORIZONTAL PULL, TRUCK MOUNTING



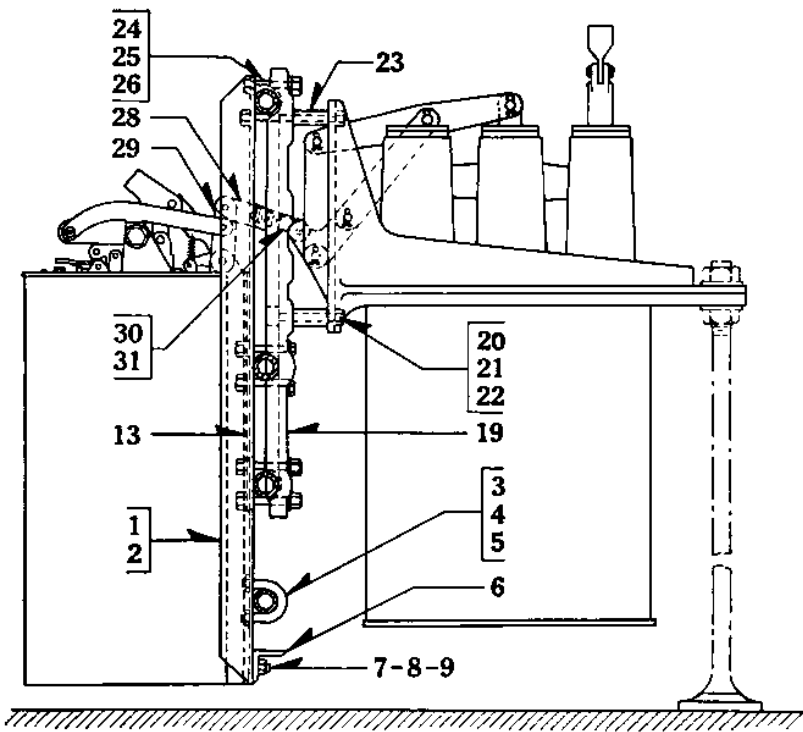
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	483625	1	Wall bracket to mount circuit-breaker
2	483627	1	Mounting plate for mechanism, 300 amperes only
2	483624	1	Mounting plate for mechanism, 600 amperes only
3*	.....	4	Tap bolt, 5/8"-11x2 3/4" (standard hardware), to fasten wall bracket to mounting plate
4*	.....	4	Hexagon nut, 5/8"-11 (standard hardware), for bolt
5*	.....	4	Iron washer, 5/8" (standard hardware), for bolt
6*	.....	4	Lock washer, 5/8" (standard hardware), for bolt
7	.....	6	Tap bolt, 1/2"-13x2 1/2" (standard hardware), to fasten mechanism to mounting plate
8	.....	6	Hexagon nut, 1/2"-13 (standard hardware), for bolt
9	.....	6	Iron washer, 1/2" (standard hardware), for bolt
10	.....	6	Lock washer, 1/2" (standard hardware), for bolt
11	483576	2	Stop block for circuit-breaker cross bar, 600 amperes only
12	.....	4	Tap bolt, 3/8"-16x2" (standard hardware), to fasten stop block to cross bar, 600 amperes only
13	.....	4	Lock washer, 3/8" (standard hardware), for bolt, 600 amperes only
14	241492	1	Rod end for mechanism operating lever
15	483572	1	Eye bolt for circuit-breaker operating rod
16	.....	1	Pipe nut, 3/4" (standard hardware), for eye bolt

*Not illustrated

MOUNTING DETAILS—Continued

FOR TYPE B-2 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600 AMPERES,
HORIZONTAL PULL, PIPE MOUNTING



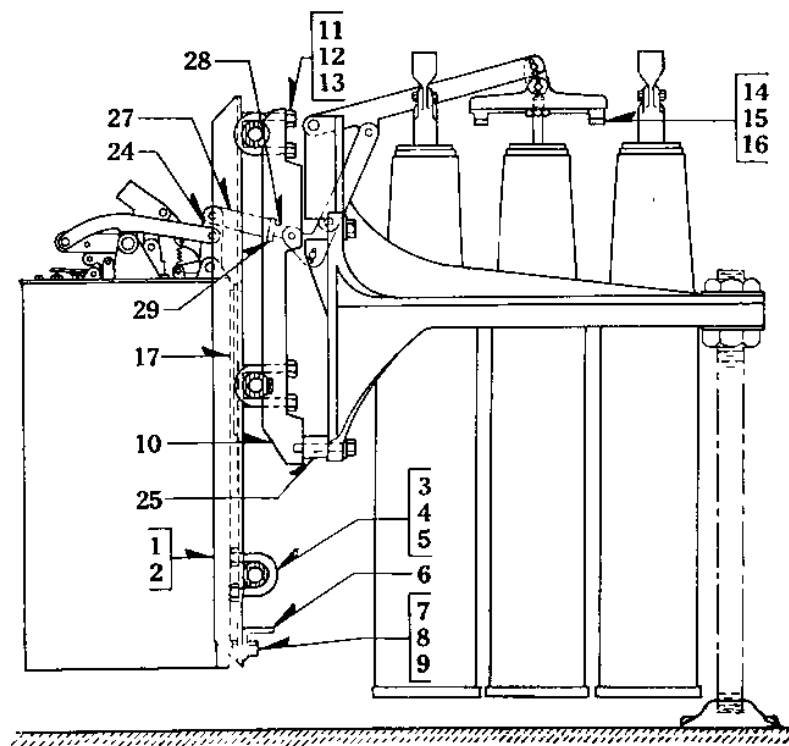
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	483620	1	Vertical angle iron support, right hand, for mechanism
2	483621	1	Vertical angle iron support, left hand, for mechanism
3	127800	2	"U" bolt for supports and pipe frame
4	.....	4	Hexagon nut, 1/2"-13 (standard hardware), for bolt
5	.....	4	Lock washer, 1/2" (standard hardware), for bolt
6	483622	1	Horizontal angle iron support for mechanism
7	.....	2	Tap bolt, 1/2"-13x1 1/4" (standard hardware), to fasten horizontal support to vertical supports
8	.....	2	Hexagon nut, 1/2"-13 (standard hardware), for bolt
9	.....	2	Lock washer, 1/2" (standard hardware) for bolt
10*	.....	2	Tap bolt, 1/2"-13x3" (standard hardware), to fasten mechanism to horizontal support
11*	.....	2	Hexagon nut, 1/2" (standard hardware), for bolt
12*	.....	2	Lock washer, 1/2" (standard hardware), for bolt
13	483623	1	Mounting plate for mechanism
14*	.....	4	Tap bolt, 3/8"-16x1 1/4" (standard hardware), to fasten mounting plate to supports
15*	.....	4	Hexagon nut, 3/8"-16 (standard hardware), for bolt
16*	.....	4	Lock washer, 3/8" (standard hardware), for bolt
17*	.....	4	Tap bolt, 1/2"-13x1 1/2" (standard hardware), to fasten mechanism to mounting plate
18*	.....	4	Hexagon nut, 1/2"-13 (standard hardware), for bolt
19	377699	2	Mounting bracket for circuit-breaker
20	.....	4	Tap bolt, 1/2"-13x6 1/2" (standard hardware), to fasten circuit-breaker to mounting bracket
21	.....	4	Hexagon nut, 1/2"-13 (standard hardware), for bolt
22	.....	4	Lock washer, 1/2" (standard hardware), for bolt
23	.....	4	Spacer, 2 1/4" of 1" iron pipe (standard hardware), between circuit-breaker and mounting bracket
24	.....	10	Tap bolt, 1/2"-13x3 1/4" (standard hardware), for angle iron supports and circuit-breaker mounting bracket
25	.....	10	Hexagon nut, 1/2"-13 (standard hardware), for bolt
26	.....	10	Lock washer, 1/2" (standard hardware), for bolt
27*	.....	2	Spacer, 7/8" of 1" iron pipe, (standard hardware), for tap bolt that fastens mechanism to horizontal support
28	72281	1	Rod end for mechanism operating lever
29	483564	1	Operating lever for mechanism
30	241492	1	Eye bolt for circuit-breaker operating lever
31	.....	1	Pipe nut, 3/4" (standard hardware), for eye bolt

*Not illustrated

MOUNTING DETAILS—Continued

FOR TYPE B-13 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600 AMPERES,
HORIZONTAL PULL, PIPE MOUNTING



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	483577	1	Vertical angle iron support, right hand, for mechanism, 300 amperes only
1	483574	1	Vertical angle iron support, right hand, for mechanism, 600 amperes only
2	483578	1	Vertical angle iron support, left hand, for mechanism, 300 amperes, only
2	483575	1	Vertical angle iron support, left hand, for mechanism, 600 amperes only
3	127933	2	"U" bolt for support and pipe frame
4	.....	4	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for "U" bolt
5	.....	4	Lock washer, $\frac{3}{8}$ " (standard hardware), for "U" bolt
6	483579	1	Horizontal angle iron support for mechanism
7	.....	2	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten horizontal supports to vertical supports
8	.....	2	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
9	.....	2	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
10	380345	2	Mounting bracket for circuit-breaker
11	.....	8	Tap bolt, $\frac{1}{2}$ "-13x4" (standard hardware), for mechanism support and circuit-breaker mounting bracket
12	.....	8	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
13	.....	8	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolt
14	483576	2	Stop block for cross bar
15	.....	2	Tap bolt, $\frac{3}{8}$ "-16x2" (standard hardware), to fasten stop block to cross bar
16	.....	2	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
17	483580	1	Mounting plate for mechanism, 300 amperes only
17	483619	1	Mounting plate for mechanism, 600 amperes only
18*	.....	4	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten mounting plate to angle iron support
19*	.....	4	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
20*	.....	4	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
21*	.....	4	Tap bolt, $\frac{1}{2}$ "-13x2 $\frac{1}{4}$ " (standard hardware), to fasten mechanism to mounting plate
22*	.....	4	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
23*	.....	4	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolt
24	483564	1	Operating lever for mechanism
25	.....	4	Spacer, 1 $\frac{1}{2}$ " of 1" iron pipe (standard hardware), between circuit-breaker and mounting bracket
26*	.....	2	Spacer, $\frac{7}{8}$ " of 1" iron pipe (standard hardware), between mechanism and mounting plate
27	72281	1	Rod end for mechanism operating lever
28	241492	1	Eye bolt for circuit breaker operating lever
29	.....	1	Pipe nut, $\frac{3}{4}$ " (standard hardware), for eye bolt

*Not Illustrated.

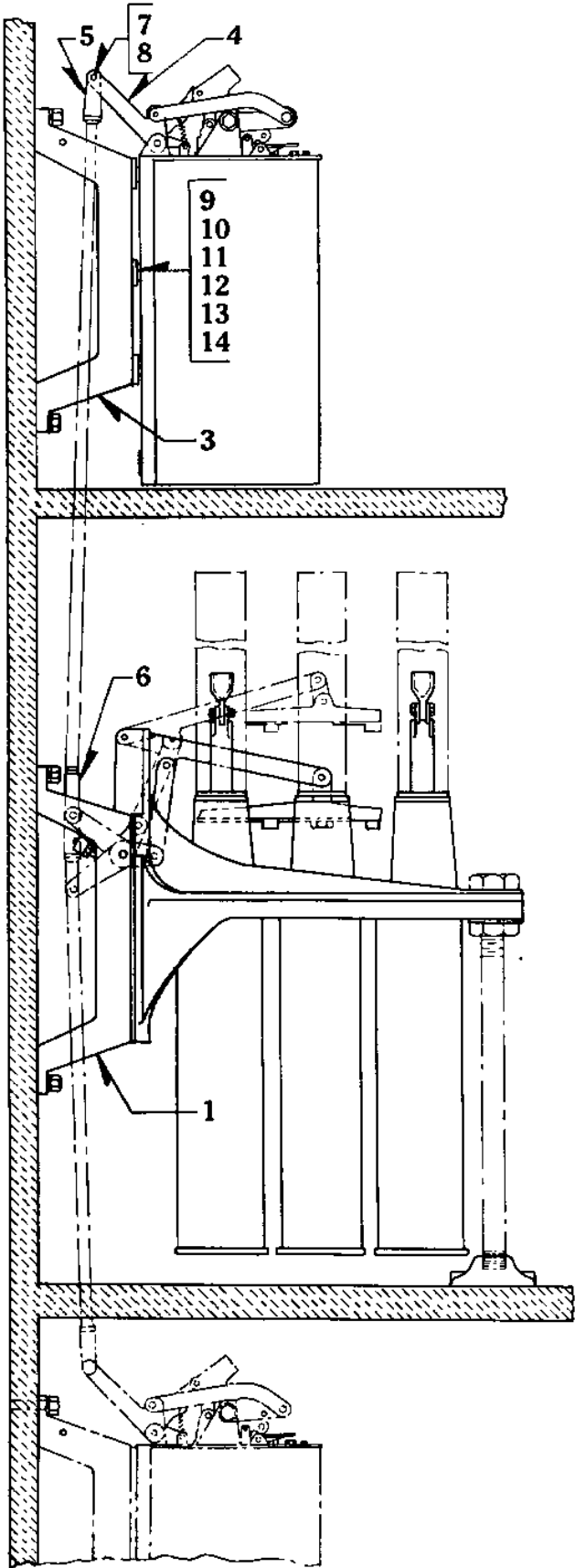
MOUNTING DETAILS—Continued

FOR TYPE B-13 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600-1200 AM-
PERES, UPWARD OR DOWNWARD PULL, WALL MOUNTING

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	380410	2	Wall mounting bracket for circuit-breaker
2*	.....	4	Machine bolt, $\frac{3}{4}$ "-10x3" (standard hardware), to fasten circuit-brea- ker to mounting brac- ket
3	483573	2	Wall mounting bracket for mechanism
4	483570	1	Operating lever for mech- anism
5	447574	1	Rod end for mechanism operating lever
6	83129	1	Rod end for circuit breaker operating lever
7	63615	1	Connection pin for rod end and mechanism operat- ing lever
8	.....	2	Spacer, $\frac{3}{8}$ " of 1" iron pipe (standard hardware), for rod end on mechan- ism operating lever
9	.....	2	Tap Bolt, $\frac{1}{2}$ "-13x2 $\frac{1}{2}$ " (standard hardware), to mount mechanism on wall bracket
10	.....	2	Tap bolt, $\frac{1}{2}$ "-13x3" (stan- ard hardware), to mount mechanism on wall bracket
11	.....	4	Spacer, $\frac{3}{8}$ " of 1" iron pipe (standard hardware), for bolts
12	.....	4	Hexagon nut, $\frac{1}{2}$ "-13 (stan- dard hardware), for bolts
13	.....	4	Lock washer, $\frac{1}{2}$ " (stand- ard hardware), for bolt
14	.....	2	Iron washer, $\frac{1}{2}$ " (standard hardware), for bolts

*Not illustrated



MOUNTING DETAILS—Continued

FOR TYPE B-2 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 300-600 AMPERES, UPWARD PULL, WALL MOUNTING

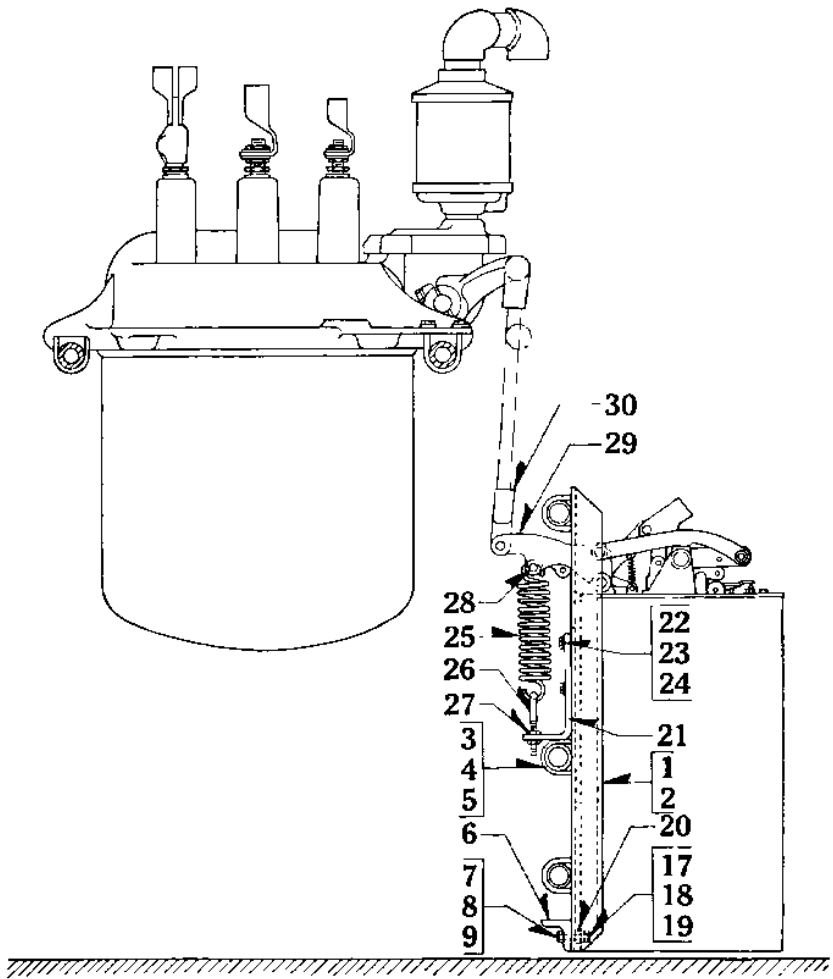
Illustrated on Page 17

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
1	380182	2	Wall mounting bracket for circuit-breaker
2*	.....	4	Tap bolt, 1/2"-13x2 1/2" (standard hardware), to fasten circuit-breaker to mounting bracket
2A*	.....	4	Hexagon nut, 1/2"-13 (standard hardware), for bolt
3	483573	2	Wall mounting bracket for mechanism
4	.....	..	Not used
5	447574	1	Rod end for mechanism operating lever
6	83129	1	Rod end for circuit-breaker operating lever
7	63615	1	Connection pin for rod end and mechanism operating lever
8	.....	2	Spacer, 3/8" of 1" iron pipe (standard hardware), for connection pin
9	.....	2	Tap bolt, 1/2"-13x2" (standard hardware), to mount mechanism on wall bracket
10	.....	2	Tap bolt, 1/2"-13x2 1/2" (standard hardware), to mount mechanism on wall bracket
11	.....	..	Not used
12	.....	4	Hexagon nut, 1/2"-13 (standard hardware), for bolts
13	.....	4	Lock washer, 1/2" (standard hardware), for bolts
14	.....	4	Iron washer, 1/2" (standard hardware), for bolts

*Not illustrated

FOR TYPES B-16 AND B-20 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 400-600-800 AMPERES, DOWNWARD PULL, PIPE MOUNTING



1	483586	1	Vertical angle iron support, right hand, for mechanism
2	483587	1	Vertical angle iron support, left hand, for mechanism
3	127933	6	"U" bolt for support and pipe frame
4	.....	12	Hexagon nut, 3/8"-16 (standard hardware), for bolt
5	.....	12	Lock washer, 3/8" (standard hardware), for bolt
6	483589	1	Horizontal angle iron support for mechanism
7	.....	2	Tap bolt, 3/8"-16x1 1/4" (standard hardware), to fasten horizontal support to vertical supports

*Not illustrated

MOUNTING DETAILS—Continued

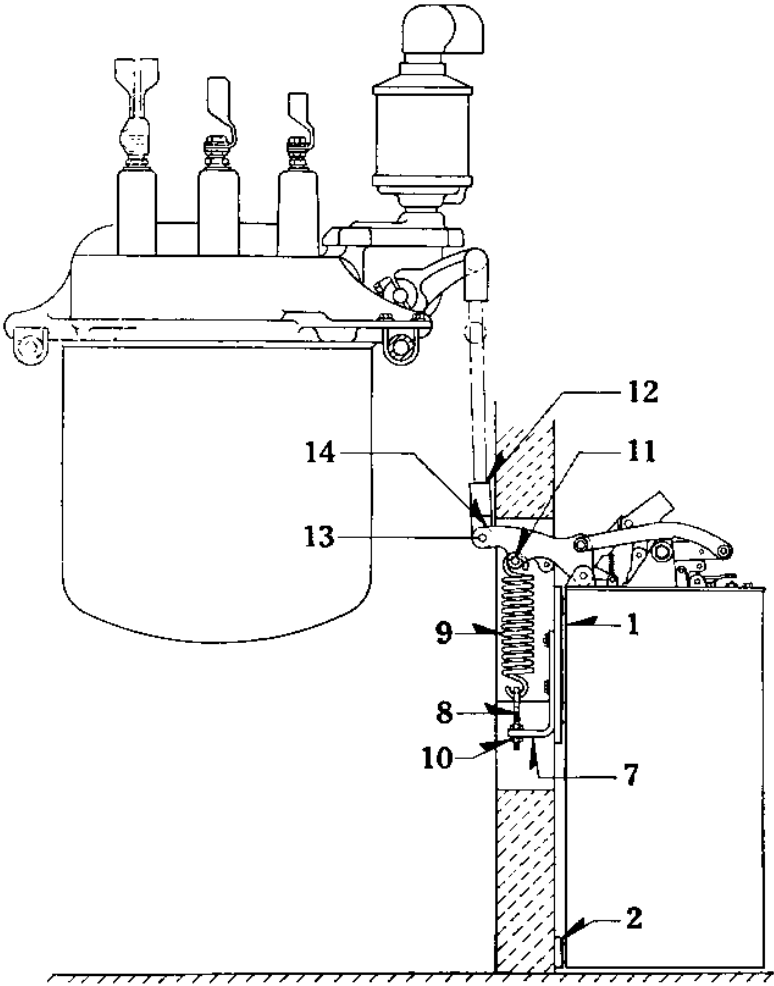
FOR TYPES B-16 AND B-20 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 400-600-800 AMPERES, DOWNWARD PULL, PIPE MOUNTING—Continued

ORDER BY PARTS STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	
8	.....	2	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
9	.....	2	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
10*	483588	1	Mounting plate for mechanism
11*	.....	4	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten mounting plate to supports
12*	.....	4	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
13*	.....	4	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
14*	.....	4	Tap bolt, $\frac{1}{2}$ "-13x1 $\frac{1}{2}$ " (standard hardware), to fasten mechanism to mounting plate
15*	.....	4	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
16*	.....	4	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolt
17	.....	2	Tap bolt, $\frac{1}{2}$ "-13x3" (standard hardware), to fasten mechanism to horizontal support
18	.....	2	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
19	.....	2	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolt
20	.....	2	Spacer, $\frac{1}{8}$ " of 1" iron pipe (standard hardware), for bolt
21	483654	1	Bracket for accelerating spring
22	.....	4	Tap bolt, $\frac{5}{16}$ "-18x1 $\frac{1}{2}$ " (standard hardware), to fasten bracket to mounting plate
23	.....	4	Hexagon nut, $\frac{5}{16}$ " (standard hardware), for bolt
24	.....	4	Lock washer, $\frac{5}{16}$ " (standard hardware), for bolt
25	483655	1	Accelerating spring
26	483656	1	Eye bolt for spring
27	.....	2	Lock nut, $\frac{3}{8}$ "-16 (standard hardware), for eye bolt
28	85531	2	Connection pin for mechanism operating lever, and spring
29	483581	1	Operating lever for mechanism
30	483563	1	Rod end for mechanism operating lever

*Not illustrated

FOR TYPE B-20 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 400-600-800 AMPERES, DOWNWARD PULL, WALL MOUNTING



1	483628	1	Mounting plate for spring bracket
2	483629	1	Spacing plate for bottom of mechanism
3*	.....	6	Tap bolt, $\frac{1}{2}$ "-13x6 $\frac{1}{2}$ " (standard hardware), to fasten plates to wall
4*	.....	6	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
5*	.....	6	Iron washer, $\frac{1}{2}$ " (standard hardware), for bolt
6*	.....	6	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolt

*Not illustrated

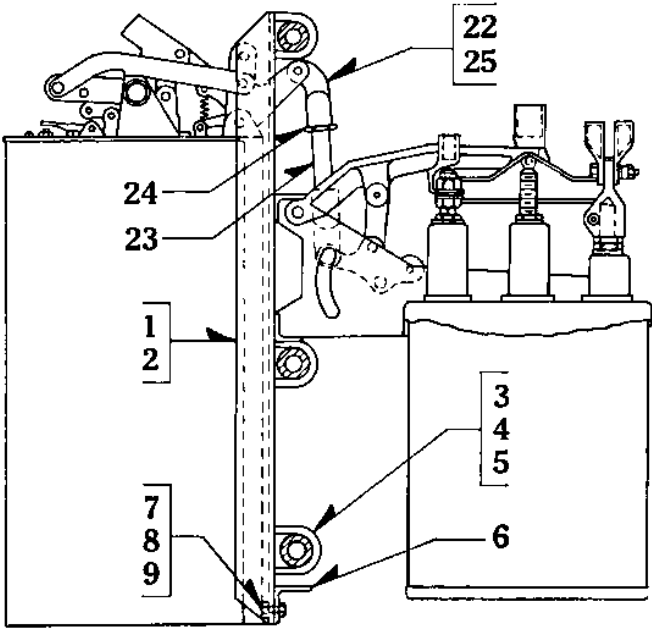
MOUNTING DETAILS—Continued
FOR TYPE B-20 CIRCUIT-BREAKERS, 3 POLE, SINGLE THROW, 400-600-800
AMPERES, DOWNWARD PULL, WALL MOUNTING—Continued

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism	Description
7	483654	1	Spring bracket
8	483656	1	Eye bolt for spring
9	483655	1	Spring
10	.....	1	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
11	85531	1	Connection pin for spring and mechanism operating lever
12	483562	1	Rod end for mechanism operating lever
13	85531	1	Connection pin for rod end and mechanism operating lever
14	483581	1	Operating lever for mechanism
15*	.....	4	Tap bolt, $\frac{5}{16}$ "-18x1 $\frac{1}{2}$ " (standard hardware), to fasten spring bracket to mounting plate
16*	.....	4	Hexagon nut, $\frac{5}{16}$ "-18 (standard hardware), for bolt
17*	.....	4	Lock washer, $\frac{5}{16}$ " (standard hardware), for bolt

*Not illustrated

FOR TYPE F-22 CIRCUIT-BREAKERS, 2, 3 AND 4 POLE, COMMON FRAME, 400-600-800 AMPERES, PIPE MOUNTING

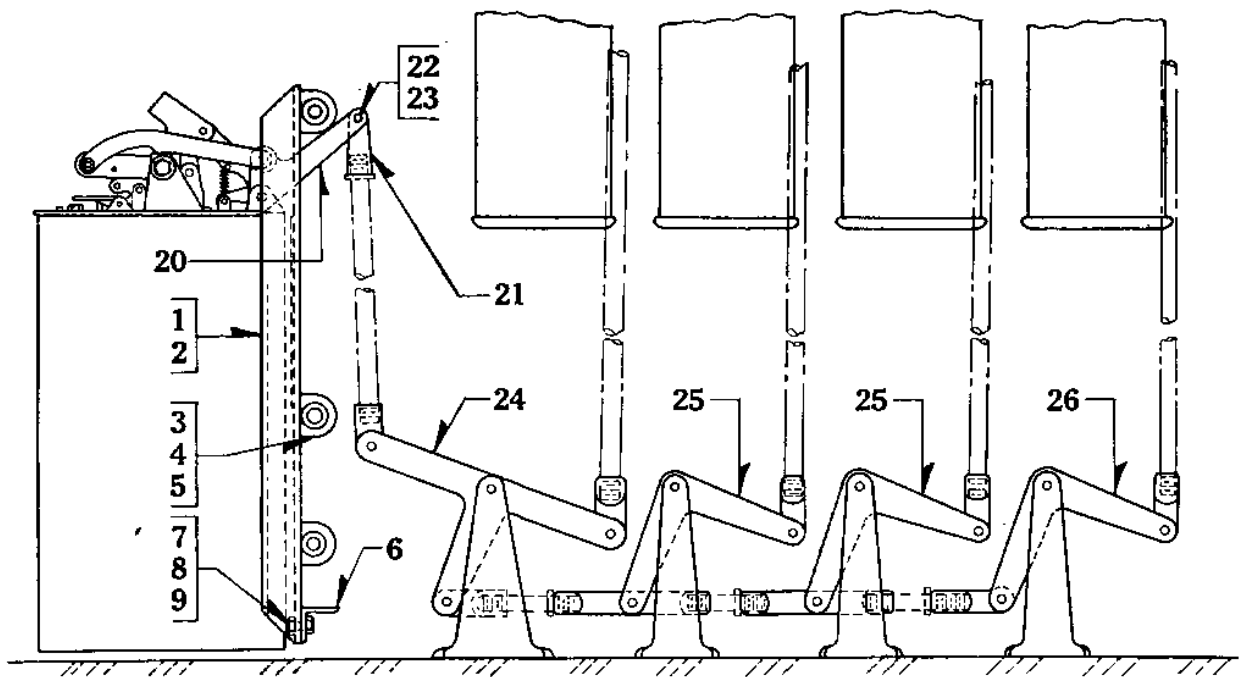


1	483586	1	Vertical angle iron support, right hand, for mechanism
2	483587	1	Vertical angle iron support, left hand, for mechanism
3	.....	6	"U" bolt to fasten supports to pipe frame
4	.....	12	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
5	.....	12	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
6	483589	1	Angle iron support for mechanism
7	.....	2	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten horizontal support to vertical supports
8	.....	2	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
9	.....	2	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
10*	.....	2	Tap bolt, $\frac{1}{2}$ "-13x3" (standard hardware), to fasten mechanism to horizontal support
11*	.....	2	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
12*	.....	2	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolt
13*	.....	2	Spacer, $\frac{1}{8}$ " of 1" iron pipe (standard hardware), for bolt
14*	483610	1	Mounting plate for mechanism
15*	.....	4	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten mounting plate to angle iron supports
16*	.....	4	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
17*	.....	4	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
18*	.....	4	Flat head iron machine screw, $\frac{3}{8}$ "-16x1" (standard hardware), to fasten bracket to mounting plate
19*	.....	4	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for screw
20*	.....	4	Tap bolt, $\frac{1}{2}$ "-13x1 $\frac{1}{2}$ " (standard hardware), to fasten mechanism to mounting plate
21*	.....	4	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
22	483611	1	Rod end for mechanism operating lever
23	483561	1	Connection rod from mechanism to breaker
24	.....	1	Pipe nut, $\frac{3}{4}$ " (standard hardware), for rod
25	483612	1	Rod end for mechanism operating lever, for panel mounting only

*Not illustrated

MOUNTING DETAILS—Continued

FOR TYPE F-33 CIRCUIT-BREAKERS, 2, 3 AND 4 POLE MULTIPLE SINGLE POLE,
400-600-800 AMPERES. CIRCUIT-BREAKER, WALL OR PIPE MOUNTING;
MECHANISM, PIPE MOUNTING



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

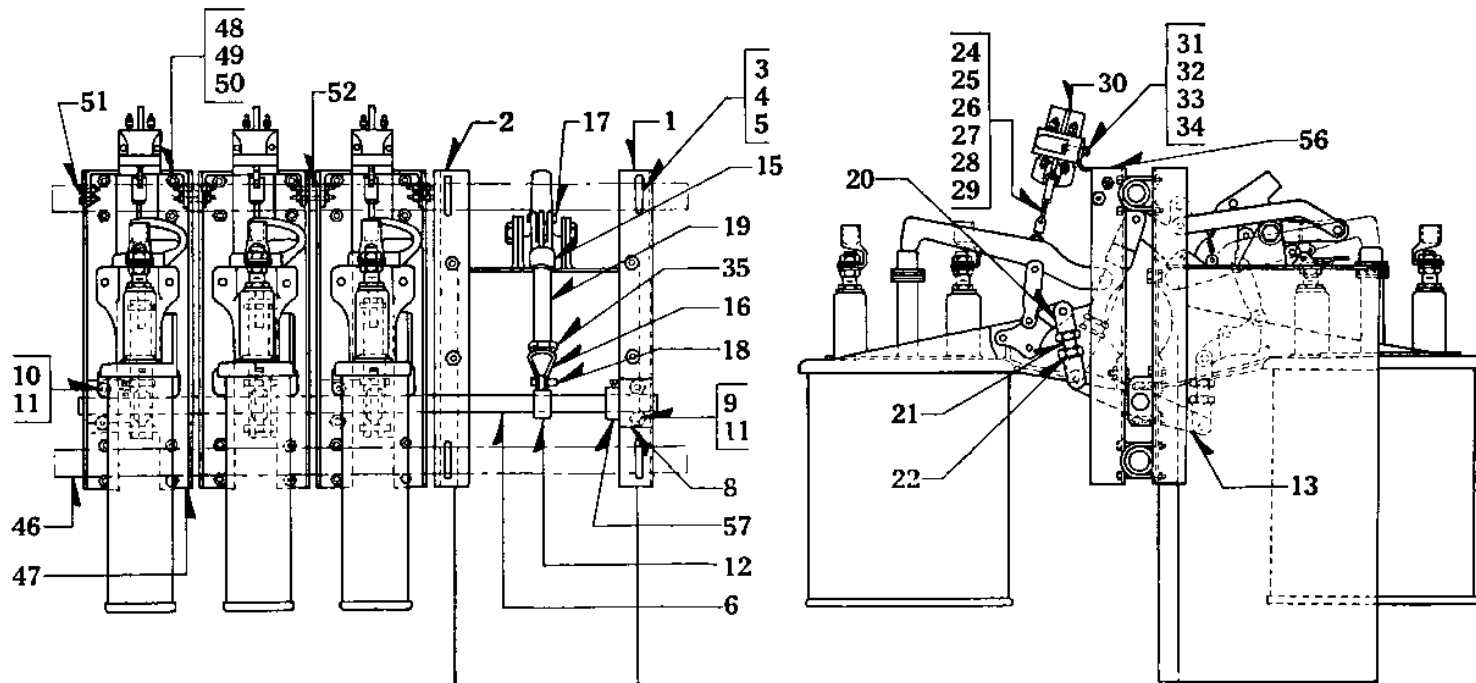
Ref. No.	Style No.	No. Per Mechanism	Description
1	483586	1	Vertical angle iron support, right hand, for mechanism
2	483587	1	Vertical angle iron support, left hand, for mechanism
3	127933	6	"U" bolt for support and pipe frame
4	.....	12	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
5	.....	12	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
6	483589	1	Horizontal angle iron support for mechanism
7	.....	2	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten horizontal support to vertical supports
8	.....	2	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
9	.....	2	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
10*	.....	2	Tap bolt, $\frac{1}{2}$ "-13x3" (standard hardware), to fasten mechanism to horizontal support
11*	.....	2	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
12*	.....	2	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolt
13*	.....	2	Spacer, $\frac{7}{8}$ " of 1" iron pipe (standard hardware), for bolt
14*	483616	1	Mounting plate for mechanism
15*	.....	4	Tap bolt, $\frac{3}{8}$ "-16x1 $\frac{1}{4}$ " (standard hardware), to fasten mounting plate to angle iron support
16*	.....	4	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
17*	.....	4	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
18*	.....	4	Tap bolt, $\frac{1}{2}$ "-13x1 $\frac{1}{2}$ " (standard hardware), to fasten mechanism to mounting plate
19*	.....	4	Hexagon nut, $\frac{1}{2}$ "-13 (standard hardware), for bolt
20	483568	1	Operating lever for mechanism
21	447574	1	Rod end for operating lever
22	63615	1	Connection pin for lever and rod end
23	.....	1	Spacer, $\frac{3}{8}$ " of 1" iron pipe (standard hardware), for pin
24	315559	1	Bell crank and bracket
25	240513	2	Bell crank and bracket
26	210526	1	Bell crank and bracket

*Not illustrated

MOUNTING DETAILS—Continued

ASSEMBLY "A"—FOR TYPE F-22 CIRCUIT BREAKERS, 2 AND 3 POLE, SINGLE THROW, 400 AMPERES, 7500 VOLTS, PIPE MOUNTING

ASSEMBLY "B"—FOR TYPE F-22 CIRCUIT-BREAKERS, SIX POLE, MULTIPLE SINGLE POLE, SINGLE THROW, 400 AMPERES, 7500 VOLTS, PIPE MOUNTING



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	No. Per Mechanism		Description
	Style No.	Assembly "A" Assembly "B"	
1	483590	1 1	Vertical angle iron support, left hand, for mechanism
2	483591	.. 1	Vertical angle iron support, right hand, for mechanism
2	483592	1 ..	Vertical angle iron support, right hand, for mechanism
3	127933	4 4	"U" bolt for supports and pipe frame
4	.....	8 8	Hexagon nut, $\frac{3}{8}$ "-16 (standard hardware), for bolt
5	.....	8 8	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolt
6	483604	.. 1	Operating shaft for circuit-breakers
6	483617	1 ..	Operating shaft for circuit-breakers
7*	483603	.. 4	Key for shaft and levers
7*	483618	2 ..	Key for shaft and levers
8	483594	3 3	Bearing for shaft
9	.....	6 2	Tap bolt, $\frac{1}{2}$ "-13x1 $\frac{1}{2}$ " (standard hardware), to fasten bearing to supports
10	.....	.. 4	Tap bolt, $\frac{1}{2}$ "-13x $\frac{3}{4}$ " (standard hardware), to fasten bearing to angle iron support and circuit-breakers
11	.....	6 6	Lock washer, $\frac{1}{2}$ " (standard hardware), for bolts
12	483606	1 1	Lever for operating shaft and mechanism
13	483607	1 3	Lever for operating shaft and circuit-breaker
14*	.....	2 4	Taper pin, No. 3x1 $\frac{3}{4}$ " (standard hardware), for levers
15	83129	1 1	Rod end for mechanism operating lever
16	300747	1 1	Rod end for operating shaft lever
17	63612	1 1	Connection pin for mechanism operating lever and rod end
18	63613	1 1	Connection pin for operating shaft lever and rod end
19	483605	1 1	Connection rod from mechanism operating lever to operating shaft lever
20	483593	4 12	Link for operating shaft lever and circuit-breaker operating lever
21	483597	2 6	Connection rod for links
22	.....	4 12	Hexagon lock nut, $\frac{3}{4}$ "-10 (standard hardware), for rod
23*	63613	4 12	Connection pin for links and levers
24	483595	1 3	Eye bolt for signal switch
25	465109	1 3	Clevis to connect signal switch to eye bolt
26	.....	1 3	Lock nut, $\frac{1}{4}$ "-20 (standard hardware), for eye bolt
27	483613	1 3	Link to connect eye bolt to circuit-breaker main lever
28	.....	1 3	Lock nut, $\frac{1}{4}$ "-20 (standard hardware), for link
29	483614	2 6	Connection pin for eye bolt, link and clevis
30	437769	1 3	Signal switch (for details see page 11)
31	.....	2 6	Fillister head iron machine screw, No. 14-24x1 $\frac{1}{2}$ " (standard hardware), to fasten signal switch to bracket

*Not illustrated

MOUNTING DETAILS—Continued

ASSEMBLY "A" — FOR TYPE F-22 CIRCUIT BREAKERS, 2 AND 3 POLE, SINGLE THROW, 400 AMPERES-7500 VOLTS, PIPE MOUNTING—Continued

ASSEMBLY "B"—FOR TYPE F-22 CIRCUIT-BREAKERS, SIX POLE, MULTIPLE SINGLE POLE, SINGLE THROW, 400 AMPERES, 7500 VOLTS, PIPE MOUNTING—Continued

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Mechanism		Description
		Assembly "A"	Assembly "B"	
32	7443	2	6	Iron washer for screw
33	.....	2	6	Hexagon iron nut, No. 14-24 (standard hardware), for screw
34	.....	2	6	Lock washer, 1/4" (standard hardware), for screw
35	.....	1	1	Pipe nut, 3/4" (standard hardware), for connecting rod
36*	483608	..	1	Mounting plate for mechanism
36*	483609	1	..	Mounting plate for mechanism
37*	.....	4	4	Tap bolt, 1/2"-13x1 1/4" (standard hardware), to fasten mechanism to mounting plate
38*	.....	4	4	Hexagon nut, 1/2"-13 (standard hardware), for bolt
39*	.....	4	4	Lock washer, 1/2" (standard hardware), for bolt
40*	.....	4	4	Tap bolt, 3/8"-16x1 1/2" (standard hardware), to fasten mounting plate to angle iron supports
41*	.....	4	4	Hexagon nut, 3/8"-16 (standard hardware), for bolt
42*	.....	4	4	Lock washer, 3/8" (standard hardware), for bolt
43*	483598	1	3	Angle iron support for right hand side of right hand circuit-breakers
44*	483599	1	2	Angle iron support, drilled for operating shaft bearing, for left hand side of right hand circuit-breakers
45*	483600	..	1	Angle iron support, without drilling for operating shaft bearing, for left hand side of right hand circuit breaker
46	483601	1	3	Angle iron support for right hand side of left hand circuit-breaker
47	483602	1	3	Angle iron support for left hand side of left hand circuit-breaker
48	.....	8	24	Tap bolt, 3/8"-16x2 3/4" (standard hardware), to fasten angle iron supports to pipe frame
49	.....	8	24	Hexagon nut, 3/8"-16 (standard hardware), for bolt
50	.....	8	24	Lock washer, 3/8" (standard hardware), for bolt
51	.....	4	4	Tap bolt, 3/8"-16x1" (standard hardware), to mount signal switch bracket on angle iron support
52	.....	..	4	Tap bolt, 3/8"-16x1 3/4" (standard hardware), to mount signal switch bracket on angle iron support
53*	3428	4	8	Iron washer for bolt
54*	.....	4	8	Lock washer, 3/8" (standard hardware), for bolt
55*	.....	4	8	Hexagon nut, 3/8"-16 (standard hardware), for bolt
56	483596	1	3	Bracket to mount signal switch
57	144299	2	2	Collar for operating shaft
58*	483615	..	6	Spring for main lever of circuit-breaker

*Not illustrated

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