

Part Catalogue No. 6192-17

April, 1925

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

PARTS OF

Westinghouse

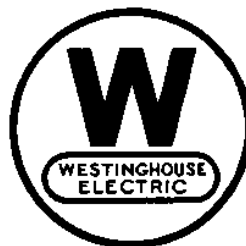
Type E-17 Oil Circuit-Breakers

Manually and Electrically Operated
Automatic and Non-Automatic
Single Throw, Pipe Mounting
For Indoor Service

25 Cycles, 750 to 2250 Amperes, 15,000 to 25,000 Volts
60 Cycles, 600 to 2000 Amperes, 15,000 to 25,000 Volts

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When ordering repair parts give the complete Name Plate Reading. Always give the name of the part wanted and the Style Number or Stock Order Number of the breaker on which the part is to be used.

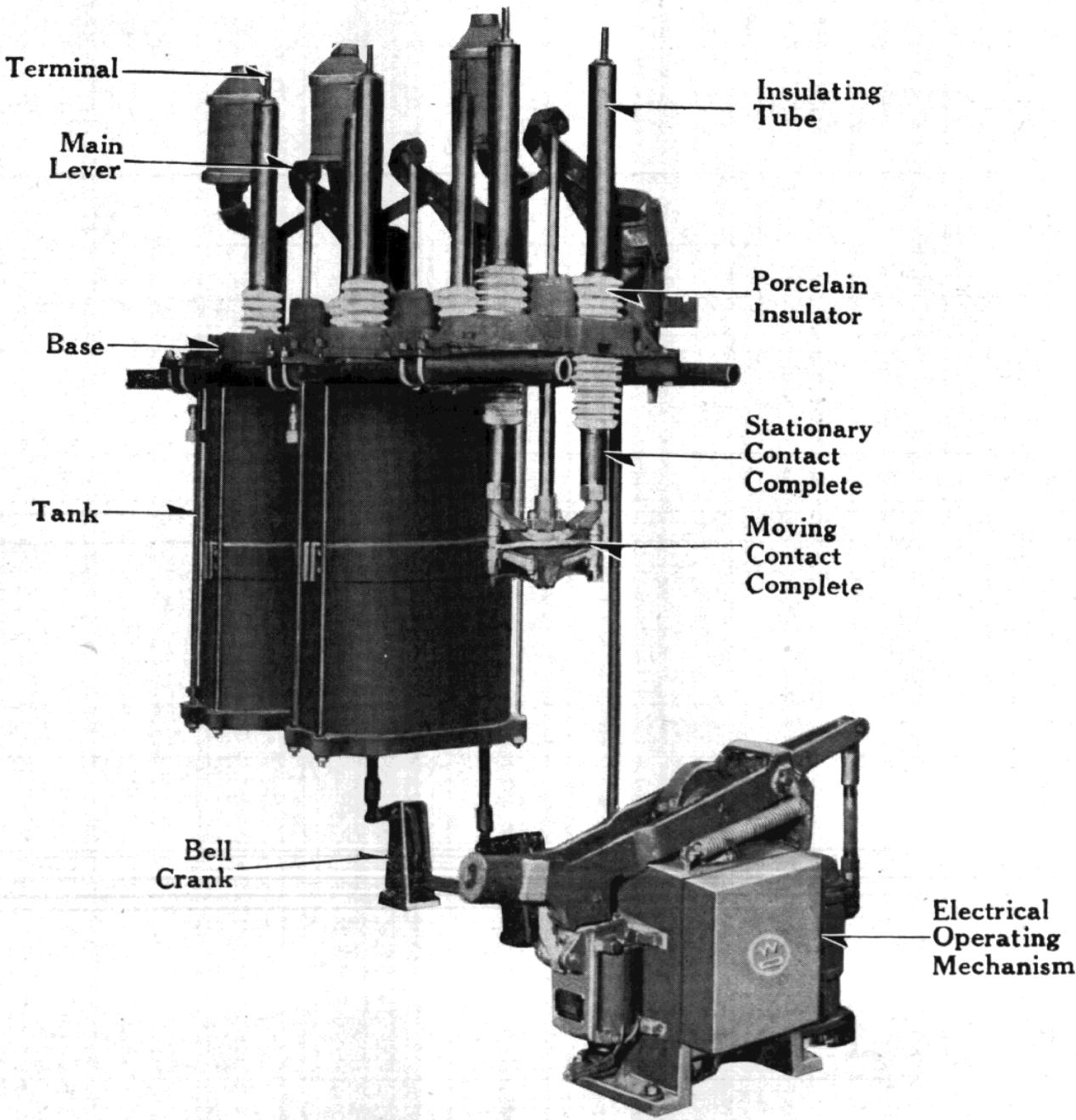


WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY
East Pittsburgh, Pa.

Printed in U.S.A.

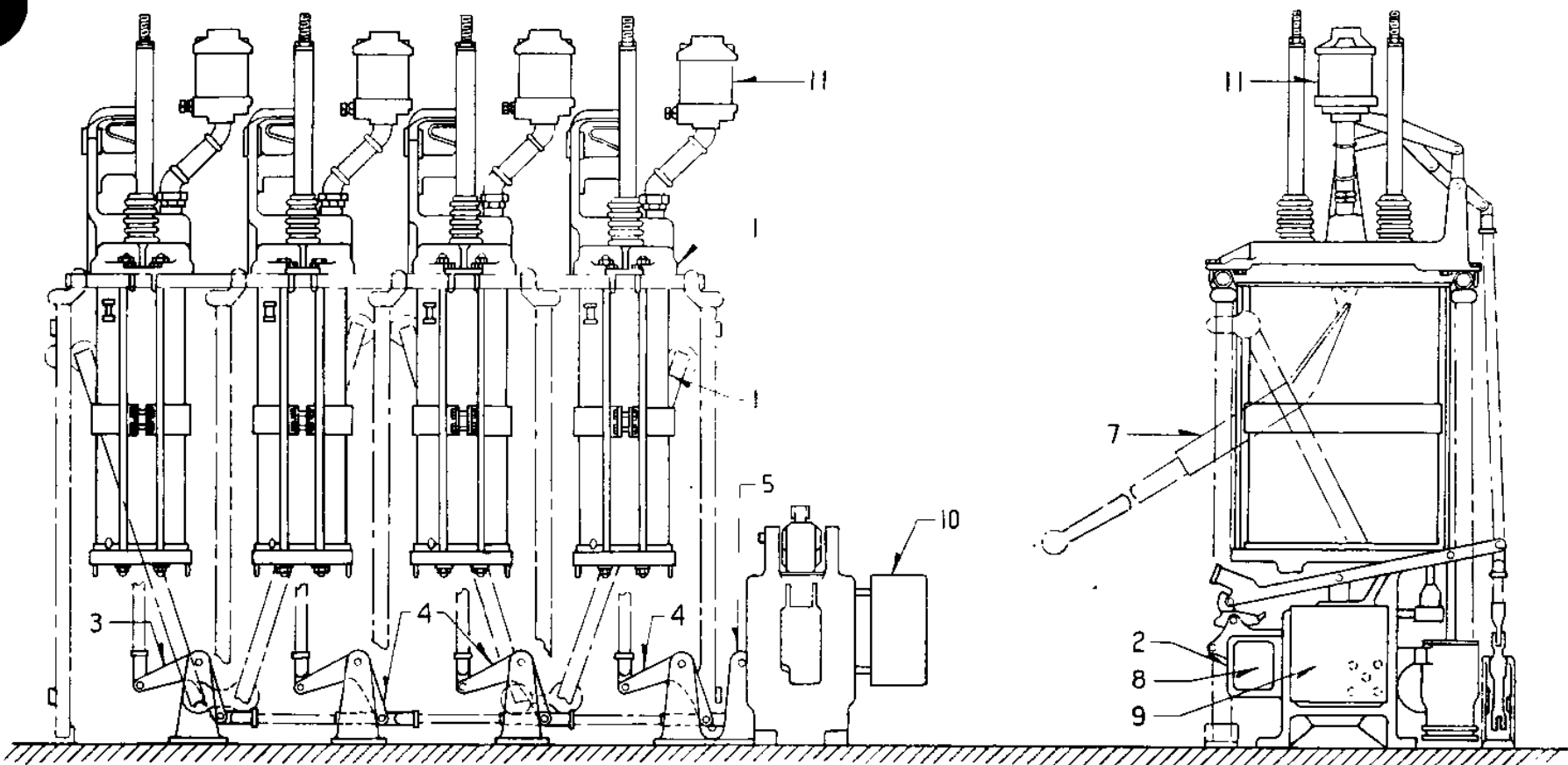
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TYPE E-17 OIL CIRCUIT-BREAKER
PIPE MOUNTING, THREE POLE, SINGLE THROW, ELECTRICALLY OPERATED
WITH ONE TANK REMOVED

MAIN ASSEMBLY DETAILS
For Electrically Operated, Non-Automatic, Shunt Trip Breakers



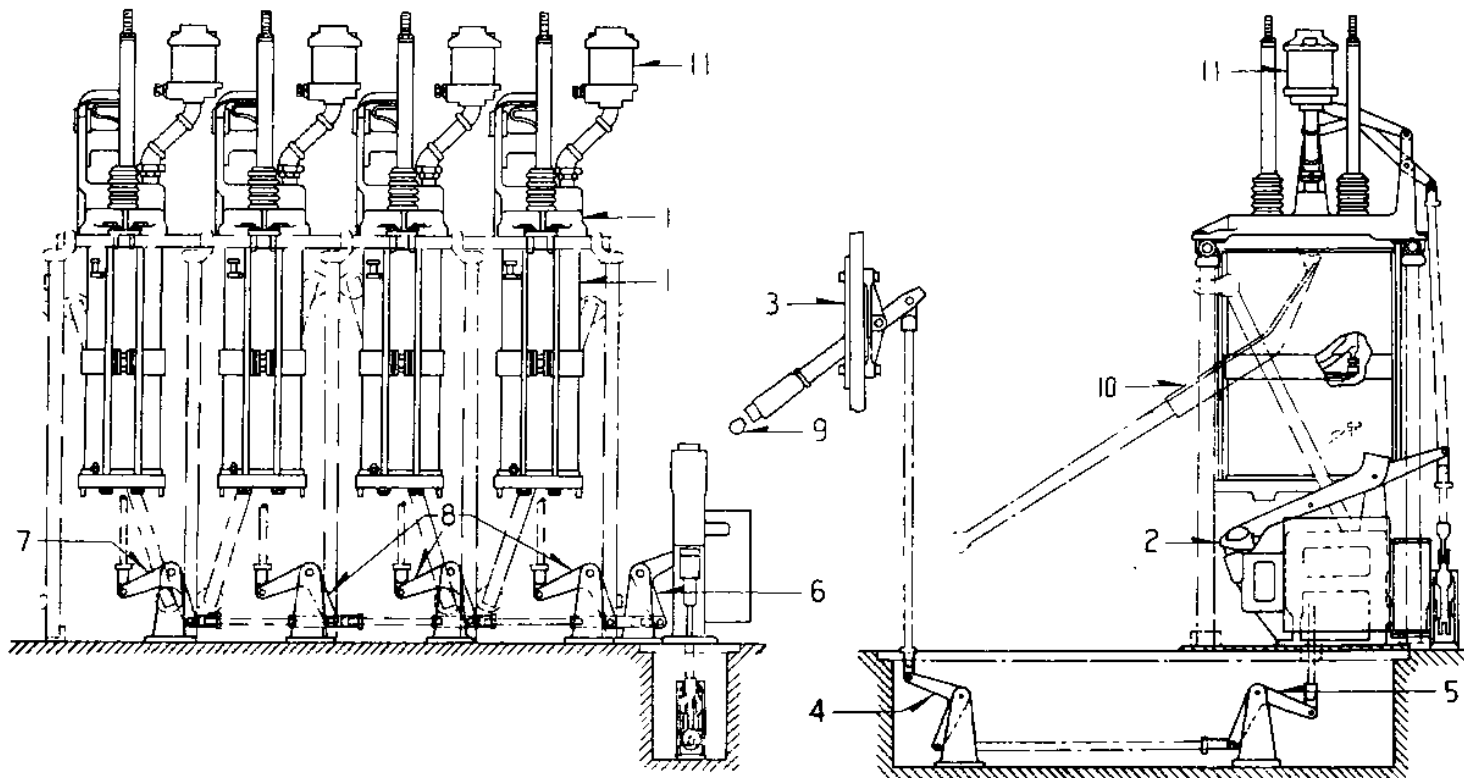
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Complete Breakers Style No.	Amperes		Volts	Poles	Ref. No. 1 Breaker Units Complete		Ref. No. 2 Operating Mechanisms Complete		Ref. No. 3 Bell Cranks		Ref. No. 4 Bell Cranks	
	60 Cycles	25 Cycles			No. Req.	Style No.	One Required	Style No.	One Required	Style No.	No. Req.	Style No.
372066	600	750	25000	2	2	408204		408214		270454	1	270456
372067	600	750	25000	3	3	408204		408214		270454	2	270456
372068	600	750	25000	4	4	408204		408214		270454	3	270456
372069	1200	1350	25000	2	2	408205		408214		270454	1	270456
372070	1200	1350	25000	3	3	408205		408214		270454	2	270456
372071	1200	1350	25000	4	4	408205		408216		270454	3	270456
372072	1600	1800	15000	2	2	408206		408214		270454	1	270456
372073	1600	1800	15000	3	3	408206		408215		270454	2	270456
372074	1600	1800	15000	4	4	408206		408217		270454	3	270456
372075	2000	2250	15000	2	2	408207		408214		270454	1	270456
372076	2000	2250	15000	3	3	408207		408215		270454	2	270456
372077	2000	2250	15000	4	4	408207		408217		270454	3	270456

Complete Breakers Style No.	Ref. No. 5 Bell Cranks		Ref. No. 6* Removable Hand Closing Levers†		Ref. No. 7 Tank Lifters‡		Ref. No. 8 Tripping Coils for 125V. D-C.		Ref. No. 9 Closing Coils for 125V. D-C.		Ref. No. 10 Control Panels‡		Ref. No. 11 Mufflers Complete	
	One Required	Style No.	One Required	Style No.	One Required	Style No.	One Required	Style No.	One Required	Style No.	One Required	Style No.	No. Req.	Style No.
372066		270455		233229		276684		184037		422326		375085	2	408218
372067		270455		233229		276684		184037		277602		375085	3	408218
372068		270455		233229		276684		184037		315872		375085	4	408218
372069		270455		233229		276684		184037		277602		375085	2	408218
372070		270455		233229		276684		184037		422326		375085	3	408218
372071		270455		233229		276684		184037		422329		375085	4	408218
372072		270455		233229		276684		184037		277602		375085	2	408218
372073		270455		233229		276684		184037		315872		375085	3	408218
372074		270455		233229		276684		184037		422329		375085	4	408218
372075		270455		233229		276684		184037		277602		375085	2	408218
372076		270455		233229		276684		184037		434737		375085	3	408218
372077		270455		233229		276684		184037		422328		375085	4	408218

*Not illustrated.
†Not part of breaker style number, usually one per station required.
‡Mounting details are required, see Ref. Nos. 73 to 77 on Page 13.

MAIN ASSEMBLY DETAILS
For Hand Operated, Full Automatic, Transformer Trip Breakers



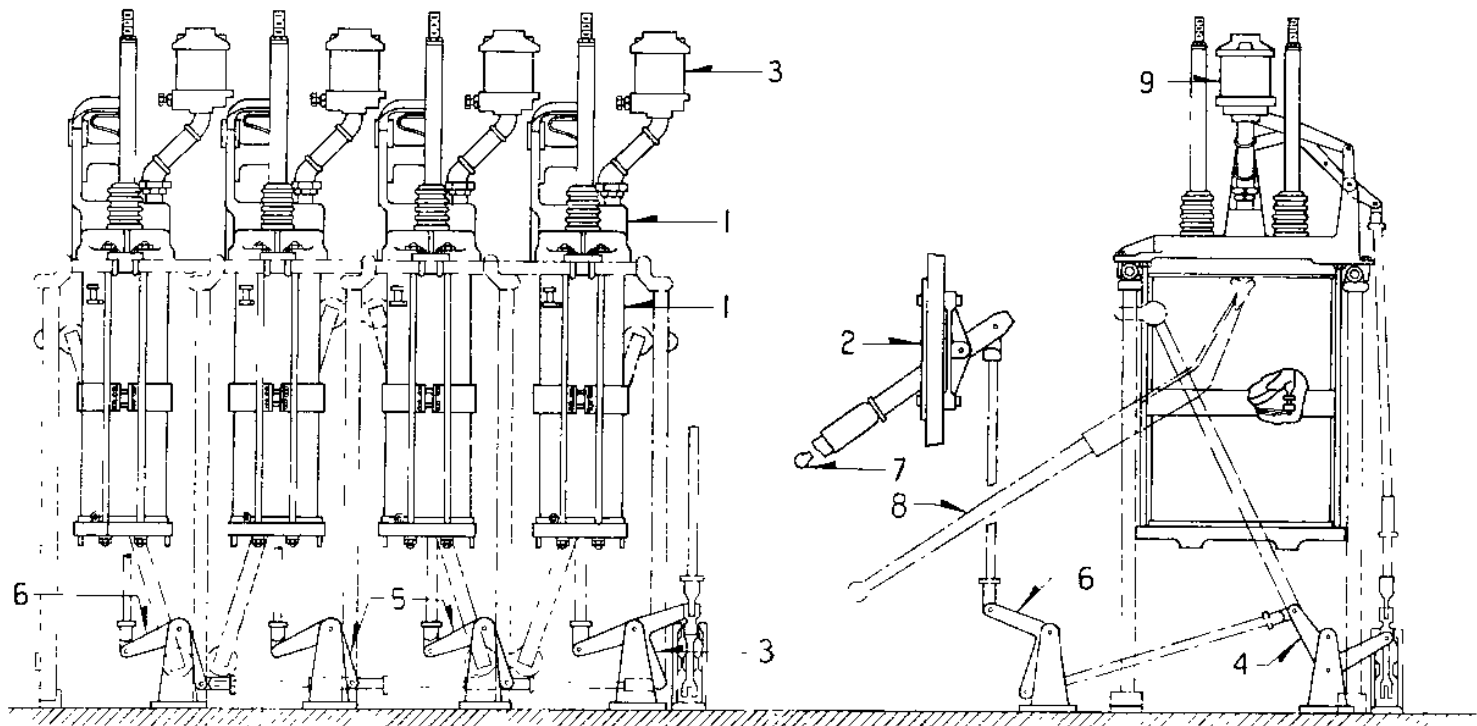
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Complete Breakers	Amperes			Poles	Ref. No. 1 Breaker Units Complete		Ref. No. 2 Hand Operating Mechanisms		Ref. No. 3 Cover Plates for Handles		Ref. No. 4 Bell Cranks	
	60	25	Volts		No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.
	Cycles	Cycles										
372042	600	750	25000	2	2	408204	1	277428	1	277469	1	270454
372043	600	750	25000	3	3	408204	1	277429	1	277469	2	270454
372044	600	750	25000	4	4	408204	1	277429	1	277469	3	270454
372045	1200	1350	25000	2	2	408205	1	277428	1	277469	1	270454
372046	1200	1350	25000	3	3	408205	1	277429	1	277469	2	270454
372047	1200	1350	25000	4	4	408205	2	277428	2	277469	3	270454
372048	1600	1800	15000	2	2	408206	1	277428	1	277469	1	270454
372049	1600	1800	15000	3	3	408206	1	277429	1	277469	2	270454
372050	1600	1800	15000	4	4	408206	2	277428	2	277469	3	270454
372051	2000	2250	15000	2	2	408207	1	277428	1	277469	1	270454
372052	2000	2250	15000	3	3	408207	1	300290	1	277469	2	270454
372053	2000	2250	15000	4	4	408207	2	277428	2	277469	3	270454

Complete Breakers	Ref. No. 5 Bell Cranks		Ref. No. 6 Bell Cranks		Ref. No. 7 Bell Cranks		Ref. No. 8 Bell Cranks		Ref. No. 9 Removable Hand Closing Levers†		Ref. No. 10 Tank Lifters† One Required		Ref. No. 11 Mufflers Complete	
	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.
372042	1	270454	1	270455	1	270454	1	270456	200874	276684	2	408218		
372043	1	270454	1	270455	1	270454	2	270456	200874	276684	3	408218		
372044	1	270454	1	270455	1	270454	3	270456	200874	276684	4	408218		
372045	1	270454	1	270455	1	270454	1	270456	200874	276684	2	408218		
372046	1	270454	1	270455	1	270454	2	270456	200874	276684	3	408218		
372047	2	270454	2	270455	2	270454	2	270456	200874	276684	4	408218		
372048	1	270454	1	270455	1	270454	1	270456	200874	276684	2	408218		
372049	1	270454	1	270455	1	270454	2	270456	200874	276684	3	408218		
372050	2	270454	2	270455	2	270454	2	270456	200874	276684	4	408218		
372051	1	270454	1	270455	1	270454	1	270456	200874	276684	2	408218		
372052	1	270454	1	270455	1	270454	2	270456	200874	276684	3	408218		
372053	2	270454	2	270455	2	270454	2	270456	200874	276684	4	408218		

†Not part of breaker style number, usually one per station required.

MAIN ASSEMBLY DETAILS
For Hand Operated, Non-Automatic Breakers



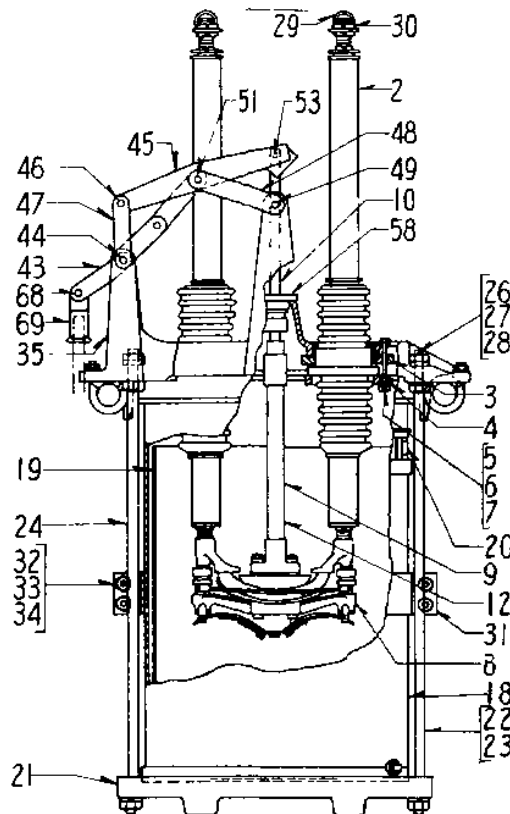
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Complete Breakers Style No.	Amperes		Volts	Poles	Ref. No. 1 Breaker Units Complete		Ref. No. 2 Cover Plates for Handle Levers		Ref. No. 3 Bell Cranks	
	60	25			No.	Style No.	No.	Style No.	No.	Style No.
	Cycles	Cycles			Req.		Req.		Req.	
372054	600	750	25000	2	2	408204	1	277469	1	272830
372055	600	750	25000	3	3	408204	1	277469	1	272830
372056	600	750	25000	4	4	408204	1	277469	1	272830
372057	1200	1350	25000	2	2	408205	1	277469	1	272830
372058	1200	1350	25000	3	3	408205	1	277469	1	272830
372059	1200	1350	25000	4	4	408205	2	277469	2	272830
372060	1600	1800	15000	2	2	408206	1	277469	1	272830
372061	1600	1800	15000	3	3	408206	1	277469	1	272830
372062	1600	1800	15000	4	4	408206	2	277469	2	272830
372063	2000	2250	15000	2	2	408207	1	277469	1	272830
372064	2000	2250	15000	3	3	408207	1	277469	1	272830
372065	2000	2250	15000	4	4	408207	2	277469	2	272830

Complete Breakers Style No.	Ref. No. 4 Bell Cranks		Ref. No. 5 Bell Cranks		Ref. No. 6 Bell Cranks		Ref. No. 7 Removable Hand Closing Levers†		Ref. No. 8 Tank Lifters†		Ref. No. 9 Mufflers Complete	
	No.	Style No.	No.	Style No.	No.	Style No.	One Required	Style No.	One Required	Style No.	No.	Style No.
	Req.		Req.		Req.						Req.	
372054	1	270455	..	None	2	270454	200874	276684	2	408218	2	408218
372055	2	270455	1	270456	2	270454	200874	276684	3	408218	3	408218
372056	3	270455	..	None	2	270454	200874	276684	4	408218	4	408218
372057	1	270455	..	None	2	270454	200874	276684	2	408218	2	408218
372058	2	270455	1	270456	2	270454	200874	276684	3	408218	3	408218
372059	3	270455	..	None	4	270454	200874	276684	4	408218	4	408218
372060	1	270455	..	None	2	270454	200874	276684	2	408218	2	408218
372061	2	270455	1	270456	2	270454	200874	276684	3	408218	3	408218
372062	3	270455	..	None	4	270454	200874	276684	4	408218	4	408218
372063	1	270455	..	None	2	270454	200874	276684	2	408218	2	408218
372064	2	270455	1	270456	2	270454	200874	276684	3	408218	3	408218
372065	3	270455	..	None	4	270454	200874	276684	4	408218	4	408218

†Not part of breaker style number, usually one per station required.

BREAKER UNITS, MUFFLERS AND DETAILS



Ref No 1

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Per Mechanism	Description
1	408204	1	Breaker unit complete for 60 cycles, 600 amperes and 25 cycles, 750 amperes, 25,000 volts
1	408205	1	Breaker unit complete for 60 cycles, 1200 amperes and 25 cycles, 1350 amperes, 25,000 volts
1	408206	1	Breaker unit complete for 60 cycles, 1600 amperes and 25 cycles, 1800 amperes, 15,000 volts
1	408207	1	Breaker unit complete for 60 cycles, 2000 amperes and 25 cycles, 2250 amperes, 15,000 volts
2	408211†	2	Stationary contact for Style No. 408204. For details see page 10
2	277342†	2	Stationary contact for Style No. 408205. For details see page 10.
2	408209†	2	Stationary contact for Style No. 408206. For details see page 10
2	277346†	2	Stationary contact for Style No. 408207. For details see page 10
3	277354	2	Adjusting ring for contacts for Style Nos. 277432 and 408211
4	233256	2	Clamp ring for contact for Style No. 408211
4	277347	2	Clamp ring for contact for Style No. 277432
4	277356	2	Clamp ring for contact for Style No. 408209
5	.....	6	Machine bolt, $\frac{3}{8}$ "x4" (standard hardware), to fasten stationary contacts to base for Style Nos. 277342 and 408211
5	.....	6	Machine bolt, $\frac{3}{8}$ "x3 $\frac{1}{2}$ " (standard hardware), to fasten stationary contacts to base for Style No. 409209
5	.....	6	Machine bolt, $\frac{3}{8}$ "x3 $\frac{3}{4}$ " (standard hardware), to fasten stationary contacts to base for Style No. 277346
6	.....	6	Wrought iron washer, $\frac{3}{8}$ " (standard hardware), for bolts
7	.....	6	Lock washer, $\frac{3}{8}$ " (standard hardware), for bolts
8	277331	1	Moving contact complete for Style No. 408204. For details see page 8
8	277332	1	Moving contact complete for Style No. 408205. For details see page 8
8	277333	1	Moving contact complete for Style No. 408206. For details see page 8
8	277334	1	Moving contact complete for Style No. 408207. For details see page 8
9	277335	1	Lifting rod assembled complete for Style No. 277333
9	277336	1	Lifting rod assembled complete for Style No. 277334
10	277358	1	Steel rod only for Style Nos. 277331 and 277332
11*	301691	1	Steel pin to fasten steel lifting rod to rod end

*Not illustrated.

†Westinghouse cement No. 18 is used to seal cracks around bushing after assembling.

BREAKER UNITS, MUFFLERS AND DETAILS—Continued

Illustrated on Page 6

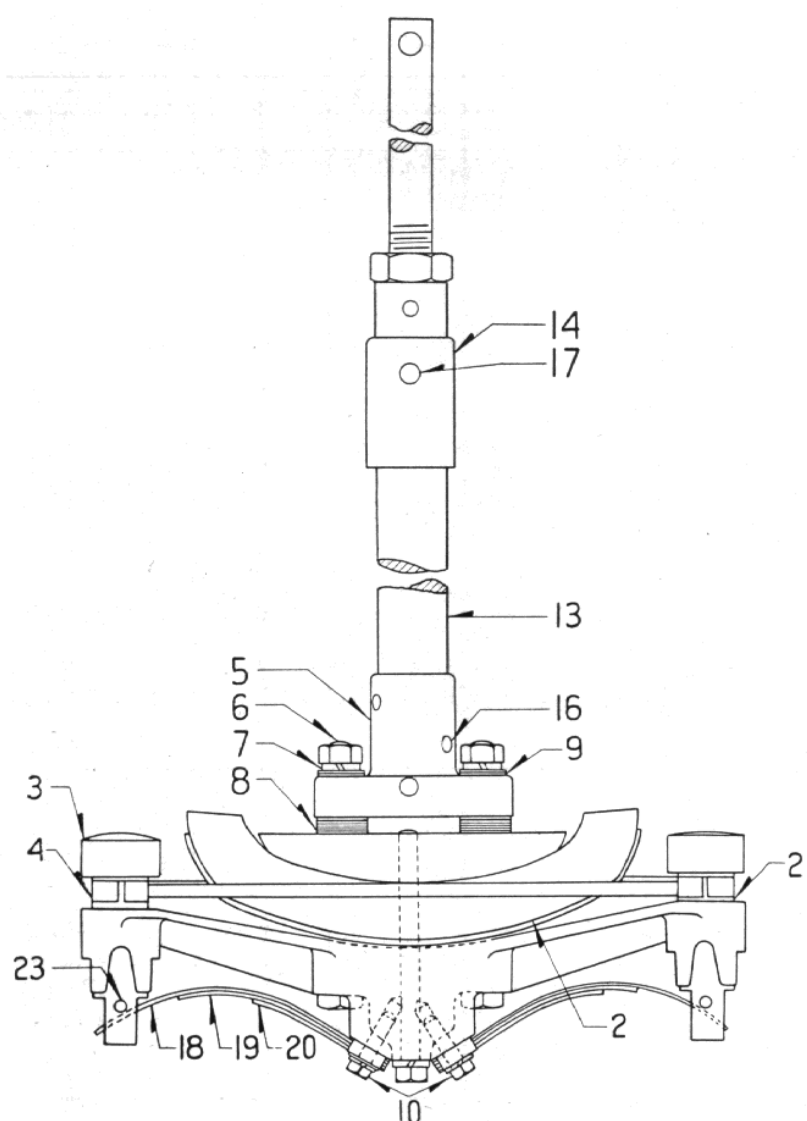
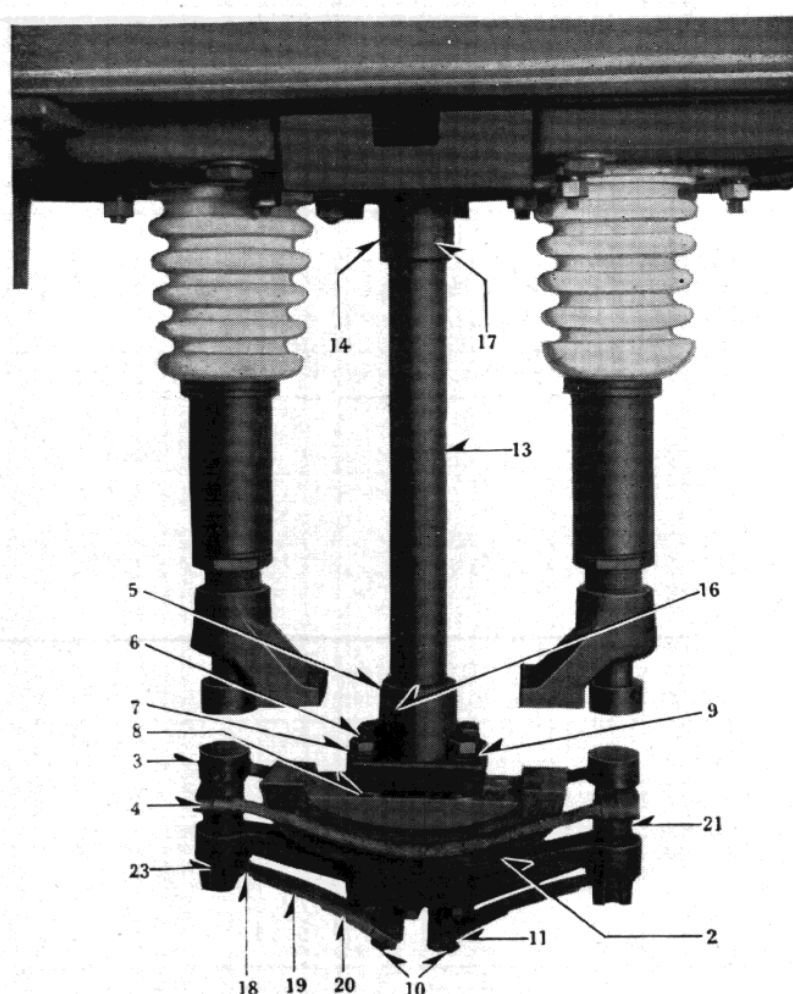
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Per Mechanism	Description
12	384859	1	Wood lifting rod with rod ends for Style No. 277335
12	384858	1	Wood lifting rod with rod ends for Style No. 277336
13*	277473	1	Stud to fasten wood rod to contacts
14*	.....	2	Taper pin, No. 2x1 1/2" (standard hardware), to fasten wood rod to steel rod and stud
15*	88907	1	Lock washer for stud
16*	.....	1	Lock nut, 3/4"-10 (standard hardware), for stud
17*	.....	1	Spring cotter, 3/8"x1 1/2" (standard hardware), for stud
18	425600	1	Tank complete without lining or gauge. Requires bolted tank bands
18	422669	1	Tank complete with lining and gauge, with welded on tank bands
19	425601	1	Tank lining
20	41477	1	Oil gauge for tank
21	411817	1	Tank cradle to support tank
22	425591	2	Swivel bolt for front tie rod
23	425592	2	Hinge bolt used as front tie rod for tank
24	407072	2	Rear tie rod for tank
25*	63621	2	Pin to fasten hinge bolt in swivel bolt
26	.....	10	Hexagon iron nut, 3/4"-10 (standard hardware), for tie rod
27	.....	8	Lock washer, 3/4" (standard hardware), for tie rod
28	.....	8	Wrought iron washer, 3/4" (standard hardware), for tie rod
29	229774	2	Terminal for Style No. 408204
30	7545	2	Terminal nut for Style No. 408204
31	425590	2	Tank reinforcing band
32	.....	4	Machine bolt, 1/2"x2 1/2" (standard hardware), to fasten tank reinforcing band to tank
33	.....	4	Wrought iron washer, 1/2" (standard hardware), for bolt
34	.....	4	Hexagon nut, 1/2"-13 (standard hardware), for bolt
35	422283	1	Support frame for Style No. 408204
35	422331	1	Support frame for Style No. 408205
35	422332	1	Support frame for Style Nos. 408206 and 408207
36*	408218	1	Muffler and connections complete, consisting of Ref. Nos. 37 to 42 incl.
37*	393556	1	Muffler only
38*	.....	1	Set screw, 3/4"-10x1 1/2" (standard hardware), to fit in base
39*	.....	1	Lock nut, 3/4"-10 (standard hardware), for set screw
40*	.....	1	Forty-five degree malleable iron street elbow, 1 1/2" long, for bottom of muffler
41*	.....	1	Forty-five degree street elbow, 1 1/2" long
42*	.....	1	W. I. pipe nipple, 5/8"x1 1/2" (standard hardware), to connect elbows
43	384883	1	Closing lever
44	247350	2	Bearing shaft for closing lever and guide
45	233244	1	Main lever
46	247350	1	Bearing shaft for main lever and guide
47	384885	1	Guide to mount main lever and guide
48	273900	1	Guide link to connect bracket and main lever
49	63619	1	Shaft to fasten guide link to bracket
50	273902	1	Toggle link to connect closing lever and main lever
51	425586	1	Shaft to fasten toggle link to guide and main lever
52	63620	1	Shaft to fasten toggle link to closing lever
53	300281	1	Shaft to fasten lifting rod to main lever
54*	.....	1	Set screw, 3/8"x1 3/4" (standard hardware), used as stop in main lever guide
55*	.....	1	Hexagon iron nut, 3/8"-16 (standard hardware), for set screw
56*	.....	1	Lock nut, 3/8"-16 (standard hardware), for set screw
57*	.....	1	Lock washer, 3/8" (standard hardware), for set screw
58	412149	1	Adjusting plate
59*	425589	3	Felt washer for adjusting plate
60*	425587	1	Cap nut for adjusting plate
61*	425588	1	Anchor packing for adjusting plate
62*	.....	1	Set screw, 1/4"x1 1/2" (standard hardware), for cap nut
63*	58789	1	Steel washer for bumper
64*	101039	2	Leather washer for bumper
65*	114143	10	Felt washer for bumper
66*	.....	2	Tap bolt, 1/4"x7/8" (standard hardware), to mount adjusting plate
67*	.....	2	Lock washer, 1/4" (standard hardware), for bolt
68	83813	1	Shaft to fasten pull rod to closing lever
69	72281	1	Rod end

*Not illustrated.

MOVING CONTACTS AND DETAILS



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Req.	Description
1	277331†	..	Moving contact complete
1	277332†	..	Moving contact complete
1	277333†	..	Moving contact complete
1	277334†	..	Moving contact complete
2	215153	1	Brush complete, for two arcing tips, for Style Nos. 277331 and 277333
2	215154	2	Brush complete, for one offset arcing tip, for Style Nos. 277332 and 277334
2	215155	2	Brush complete, without arcing tip, for Style Nos. 277333 and 277334
3	233226	2	Arcing tip
4	275052	2	Shunt complete, for Style Nos. 277331 and 277333
4	275053	2	Shunt complete, for Style Nos. 277332 and 277334
5	272012	1	Lifting rod foot, to connect lifting rod to brush, for Style No. 277331
5	277604	1	Lifting rod foot, to connect lifting rod to brush, for Style No. 277332
5	277437	1	Lifting rod foot, to connect lifting rod to brush, for Style No. 277333
5	277436	1	Lifting rod foot, to connect lifting rod to brush, for Style No. 277334
6	.....	2	Machine bolt, $\frac{3}{8}$ "x4 $\frac{1}{4}$ " (standard hardware), to connect lifting rod foot to brush, for Style No. 277331
6	.....	4	Machine bolt, $\frac{3}{8}$ "x4 $\frac{1}{2}$ " (standard hardware), to connect lifting rod foot to brush, for Style No. 277332
6	.....	6	Machine bolt, $\frac{3}{8}$ "x4 $\frac{1}{2}$ " (standard hardware), to connect lifting rod foot to brush, for Style No. 277333
6	.....	8	Machine bolt, $\frac{3}{8}$ "x4 $\frac{1}{2}$ " (standard hardware), to connect lifting rod foot to brush, for Style No. 277334

†See page 6 for application of the Style number.

MOVING CONTACTS AND DETAILS—Continued

Illustrated on Page 8

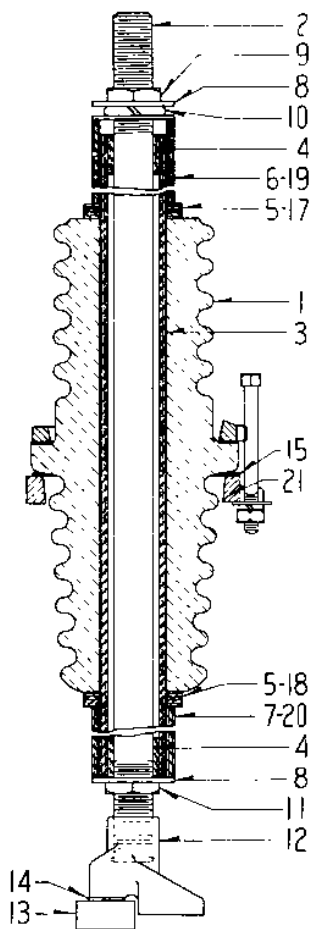
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Req.	Description
7	.....	2	Lock washer, $\frac{3}{8}$ " (standard hardware), for machine bolt, for Style No. 277331
7	.....	4	Lock washer, $\frac{3}{8}$ " (standard hardware), for machine bolt, for Style No. 277332
7	.....	6	Lock washer, $\frac{3}{8}$ " (standard hardware), for machine bolt, for Style No. 277333
7	.....	8	Lock washer, $\frac{3}{8}$ " (standard hardware), for machine bolt, for Style No. 277334
8	178397	8	Spacer, used between brush block and lifting rod foot, for Style No. 277331
8	178397	16	Spacer, used between brush block and lifting rod foot, for Style No. 277332
8	178397	24	Spacer, used between brush block and lifting rod foot, for Style No. 277333
9	101681	4	Washer, for machine bolt, for Style No. 277331
9	101681	12	Washer, for machine bolt, for Style No. 277332
9	101681	18	Washer, for machine bolt, for Style No. 277333
9	101681	16	Washer, for machine bolt, for Style No. 277334
10	.....	2	Tap bolt, $\frac{1}{4}$ "x1" (standard hardware), to fasten arcing plunger spring to brush
11	.....	2	Lock washer, $\frac{1}{4}$ " (standard hardware), for tap bolt
12	107315	2	Lock washer, for arcing tip, for Style Nos. 277331, 277333 and 277334
12	.....	2	Lock washer, $\frac{1}{2}$ " (standard hardware), for arcing tip, for Style No. 277332
13	276951	1	Wood lifting rod, for Style No. 277331
13	277439	1	Wood lifting rod, for Style No. 277332
14	273346	1	Rod end, to connect wood rod to steel rod for Style No. 277331
14	233253	1	Rod end to connect wood rod to steel rod, for Style No. 277332
15	193681	6	Steel pin, to fasten wood rod to rod end, for Style No. 277331
15	379987	3	Steel pin, to fasten wood rod to rod end, for Style No. 277332
16	275986	3	Steel pin, to fasten wood rod to foot, for Style No. 277332
17	247362	6	Arcing plunger spring (long)
18	247363	4	Arcing plunger spring (intermediate)
19	247364	4	Arcing plunger spring (short)
20	233044	2	Arcing plunger
21*	226539	2	Clip washer, for arcing plunger
22	246428	2	Steel pin, used as spring bearing

*Not illustrated.

STATIONARY CONTACTS AND DETAILS



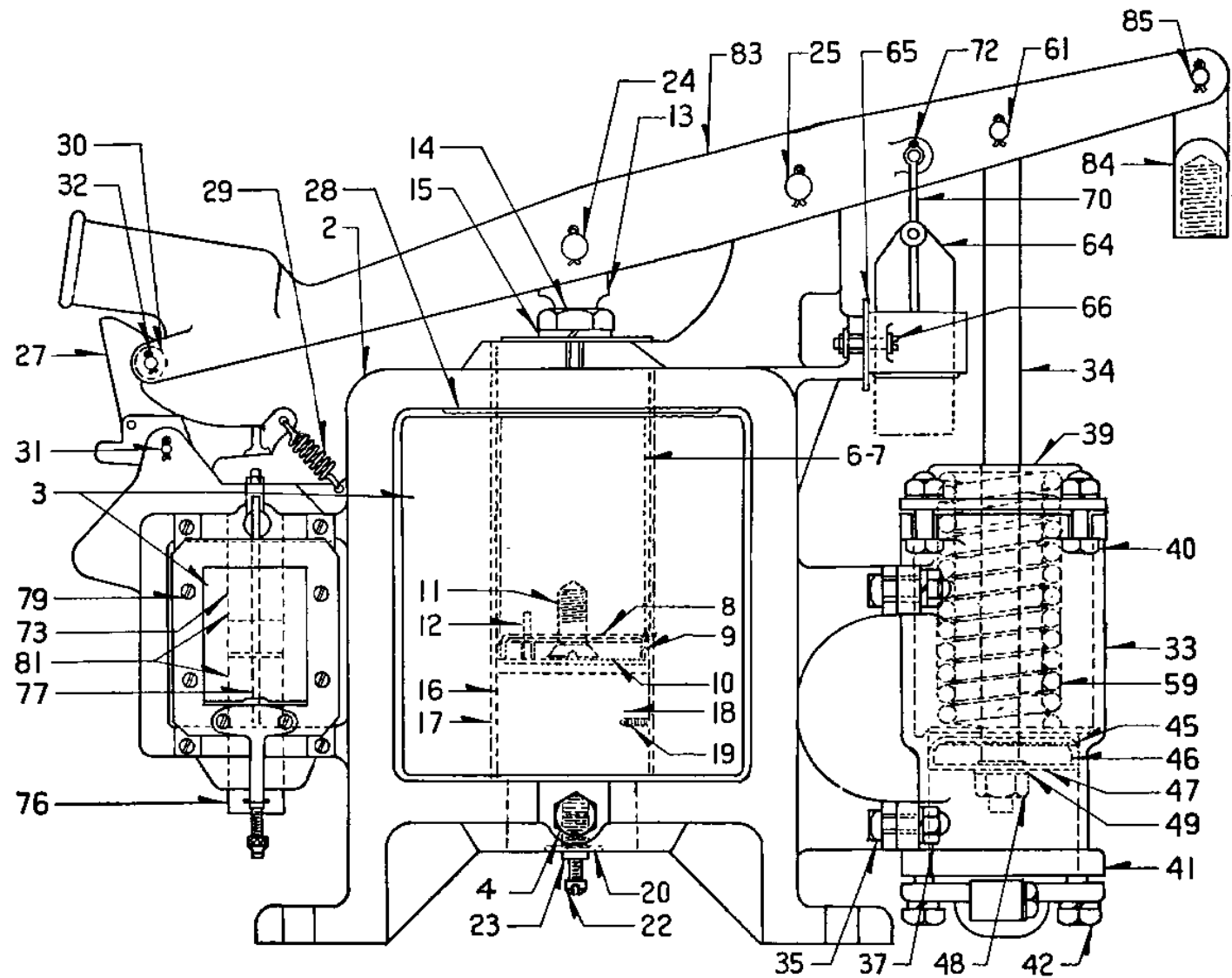
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Complete Stationary Contacts†	Ref. No. 1 Porcelain Insulator	Ref. No. 2 Terminal Rod	Ref. No. 3 Insulating Tube	Ref. No. 4 Spacing Tube	Ref. No. 5 Fibre Washer	Ref. No. 6 Outside Top Tube
	One Per Contact	One Per Contact	One Per Contact	No. Per Contact	Four Per Contact	One Per Contact
Style No.	Style No.	Style No.	Style No.	Style No.	Style No.	Style No.
408211	116597	277462	384865	3 215160	401174	215165
277342	116597	277458	384868	.. None	401174	215165
408209	247655	277476	None	1 220981	None	384875
277346	247655	277448	None	.. None	None	384878
	Ref. No. 7 Outside Bottom Tube	Ref. No. 8 Brass Clamp Washer	Ref. No. 9 Nut for Top of Terminal Rod	Ref. No. 10 Lock Washer for Terminal Rod	Ref. No. 11 Nut for Bottom of Terminal Rod	
Complete Stationary Contacts†	One Per Contact	Three Per Contact	One Per Contact	One Per Contact	One Per Contact	One Per Contact
Style No.	Style No.	Style No.	Style No.	Style No.	Style No.	Style No.
408211	247836	184410	211911	203604	296801	
277342	247836	277430	211915	211850	211915	
408209	247836	277121	211913	257812	211913	
277346	247836	239038	211914	201341	211914	
	Ref. No. 12 Contact Foot	Ref. No. 13 Arcing Tip	Ref. No. 14 Lock Washer for Arcing Tip	Ref. No. 15 Fullerboard Washer	Ref. No. 16* Spacing Tube for Terminal Rod	
Complete Stationary Contacts†	One Per Contact	One Per Contact	One Per Contact	Two Per Contact	One Per Contact	
Style No.	Style No.	Style No.	Style No.	Style No.	Style No.	
408211	277433	233225	107315	380380	None	
277342	262945	233225	107315	380380	None	
408209	277474	233225	107315	300874	221008	
277346	277435	233225	None	300874	None	
	Ref. No. 17 Fibre Washer for Top of Insulator	Ref. No. 18 Fibre Washer for Bottom of Insulator	Ref. No. 19 Insulating Tube for Top of Insulator	Ref. No. 20 Insulating Tube for Bottom of Insulator	Ref. No. 21 Clamp Ring	
Complete Stationary Contacts†	One Per Contact	One Per Contact	One Per Contact	One Per Contact	One Per Contact	
Style No.	Style No.	Style No.	Style No.	Style No.	Style No.	
408211	None	None	None	None	425596	
277342	None	None	None	None	None	
408209	384871	384871	384874	384872	425596	
277346	384871	384871	384879	384876	277356	

*Not illustrated

†See page 6 for application of the Style Number.

ELECTRICAL MECHANISMS AND DETAILS
Style Nos. 408214, 408215, 405216 and 408217



REFERENCE NO. 1

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION
All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Per Mechanism	Description
1	408214†	..	Electrical operating mechanism complete
1	408215†	..	Electrical operating mechanism complete
1	408216†	..	Electrical operating mechanism complete
1	408217†	..	Electrical operating mechanism complete
2	277580	1	Magnet frame, for Style Nos. 408214 and 408215
2	277581	1	Magnet frame, for Style Nos. 408216 and 408217
3*	.....	..	Operating and tripping coils. When ordering give complete name plate reading and control voltage
4	.....	2	Tap bolt, 3/4"x3 1/2" (standard hardware), to fasten magnet in frame, for Style Nos. 408214 and 408215
4	.....	2	Tap bolt, 1"x3 1/4" (standard hardware), to fasten magnet in frame, for Style Nos. 408216 and 408217
5*	.....	2	Lock washer, 3/4" (standard hardware), for tap bolt
5*	85635	2	Lock washer, for 1" tap bolt
6	225439	1	Moving core, used as piston, for Style Nos. 408214 and 408215
7	277572	1	Moving core, used as piston, for Style Nos. 408216 and 408217
8	333085	1	Leather for bottom of moving core, for Style Nos. 408214 and 408215
8	384893	1	Leather for bottom of moving core, for Style Nos. 408216 and 408217
9	189929	1	Expander for leather, for Style Nos. 408214 and 408215
9	277546	1	Expander for leather, for Style Nos. 408216 and 408217
10	271438	1	Steel follower for expander, for Style Nos. 408214 and 408215
10	277570	1	Steel follower for expander, for Style Nos. 408216 and 408217
11	117211	1	Screw to clamp leather expander and follower to core

*Not illustrated.

†See page 3 for application of the Style Number.

ELECTRICAL MECHANISMS AND DETAILS—Continued**Style Nos. 408214, 408215, 408216 and 408217**

Illustrated on Page 11

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION**All Parts Are Interchangeable Unless Otherwise Specified**

Ref. No.	Style No.	No. Per Mechanism	Description
12*	151006	1	Dowel for bottom of core through follower and core, for Style Nos. 408214 and 408215
12*	116941	1	Dowel for bottom of core through follower and core, for Style Nos. 408216 and 408217
13	253488	1	Eye bolt, for top of moving core, for Style Nos. 408214 and 408215
13	277571	1	Eye bolt, for top of moving core, for Style Nos. 408216 and 408217
14	255993	1	Nut, for eye bolt Style No. 253488
14	.....	1	Lock nut, 1 1/4" (standard hardware), for eye bolt Style No. 277571
15	85635	1	Lock washer for eye bolt Style No. 253488
15	.....	1	Lock washer, 1 1/4" (standard hardware), for eye bolt Style No. 277571
16	273334	1	Steel stationary core complete with brass tube and assembling details for Style Nos. 408214 and 408215
16	277573	1	Steel stationary core complete with brass tube and assembling details for Style Nos. 408216 and 408217
17*	333083	1	Brass tube, part of stationary core, Style No. 273334
17*	384895	1	Brass tube, part of stationary core, Style No. 277573
18*	264230	1	Steel core for Style No. 273334
18*	384894	1	Steel core for Style No. 277573
19	.....	1	Fillister head iron machine screw, No. 14-24x1/2" (standard hardware), to fasten core to tube
20	185454	1	Brass plug, for stationary core
21*	184519	1	Brass ball, for plug
22	277826	1	Brass adjusting screw, No. 20-18x1", for brass ball
23	.....	1	Iron machine screw nut, for No. 20-18 screw (standard hardware)
24	63634	1	Shaft for main lever and magnet plunger, for Style Nos. 408214 and 408215
24	277576	1	Shaft for main lever and magnet plunger, for Style Nos. 408216 and 408217
25	276860	1	Shaft for main lever and magnet frame, for Style Nos. 408214 and 408215
25	277575	1	Shaft for main lever and magnet frame, for Style Nos. 408216 and 408217
26*	.....	1	Square flax packing, 3/16" square x 28" long, for stationary core Style No. 277573
27	273087	1	Steel trigger complete with brass latch lever and rivet for trip, for Style Nos. 408214 and 408215
27	277566	1	Steel trigger complete with brass latch lever and rivet for trip, for Style Nos. 408216 and 408217
28*	333086	3	Fullerboard washer used between coil and frame, for Style Nos. 408214 and 408215
28*	384902	3	Fullerboard washer used between coil and frame, for Style Nos. 408216 and 408217
29	140362	1	Spring, for trigger, for Style Nos. 408214 and 408215
29	199287	1	Spring, for trigger, for Style Nos. 408216 and 408217
30	271427	1	Roller, for trigger, for Style Nos. 408214 and 408215
30	277549	1	Roller, for trigger, for Style Nos. 408216 and 408217
31	109229	1	Bearing shaft, for trigger, for Style Nos. 408214 and 408215
31	277561	1	Bearing shaft, for trigger, for Style Nos. 408216 and 408217
32	63603	1	Shaft, for main lever and trigger roller, for Style Nos. 408214 and 408215
32	63609	1	Shaft, for main lever and trigger roller, for Style Nos. 408216 and 408217
33	250114	1	Cast iron dash pot cylinder, for Style Nos. 408214 and 408215
33	277563	1	Cast iron dash pot cylinder, for Style Nos. 408216 and 408217
34	273372	1	Piston rod for dash pot, for Style No. 408214
34	283043	1	Piston rod for dash pot, for Style No. 408215
34	277564	1	Piston rod for dash pot, for Style No. 408216
34	384896	1	Piston rod for dash pot, for Style No. 408217
35	.....	3	Machine bolt, 1/2"x1 3/4" (standard hardware), to mount dash pot on frame Style No. 277580
36*	.....	3	Tap bolt, 5/8"x2" (standard hardware), to mount dash pot on frame Style No. 277581
37	.....	3	Lock washer, 1/2" (standard hardware), for machine bolt
38*	107316	3	Lock washer, 5/8" (standard hardware), for tap bolt
39	277560	1	Cast iron cover, for dash pot Style No. 250114
39	277553	1	Cast iron cover, for dash pot Style No. 277563
40	.....	4	Machine bolt, 1/2"x1 3/4" (standard hardware), to fasten cover to dash pot Style No. 250114
40	.....	4	Machine bolt, 1/2"x2" (standard hardware), to fasten cover to dash pot Style No. 277563
41	230342	1	Cast iron bottom, for dash pot
42	.....	5	Tap bolt, 1/2"x1 3/4" (standard hardware), to fasten head to dash pot Style No. 250114
42	.....	4	Machine bolt, 1/2"x2 3/4" (standard hardware), to fasten head to dash pot Style No. 277563

*Not illustrated.

ELECTRICAL MECHANISMS AND DETAILS—Continued

Style Nos. 408214, 408215, 408216 and 408217

Illustrated on Page 11

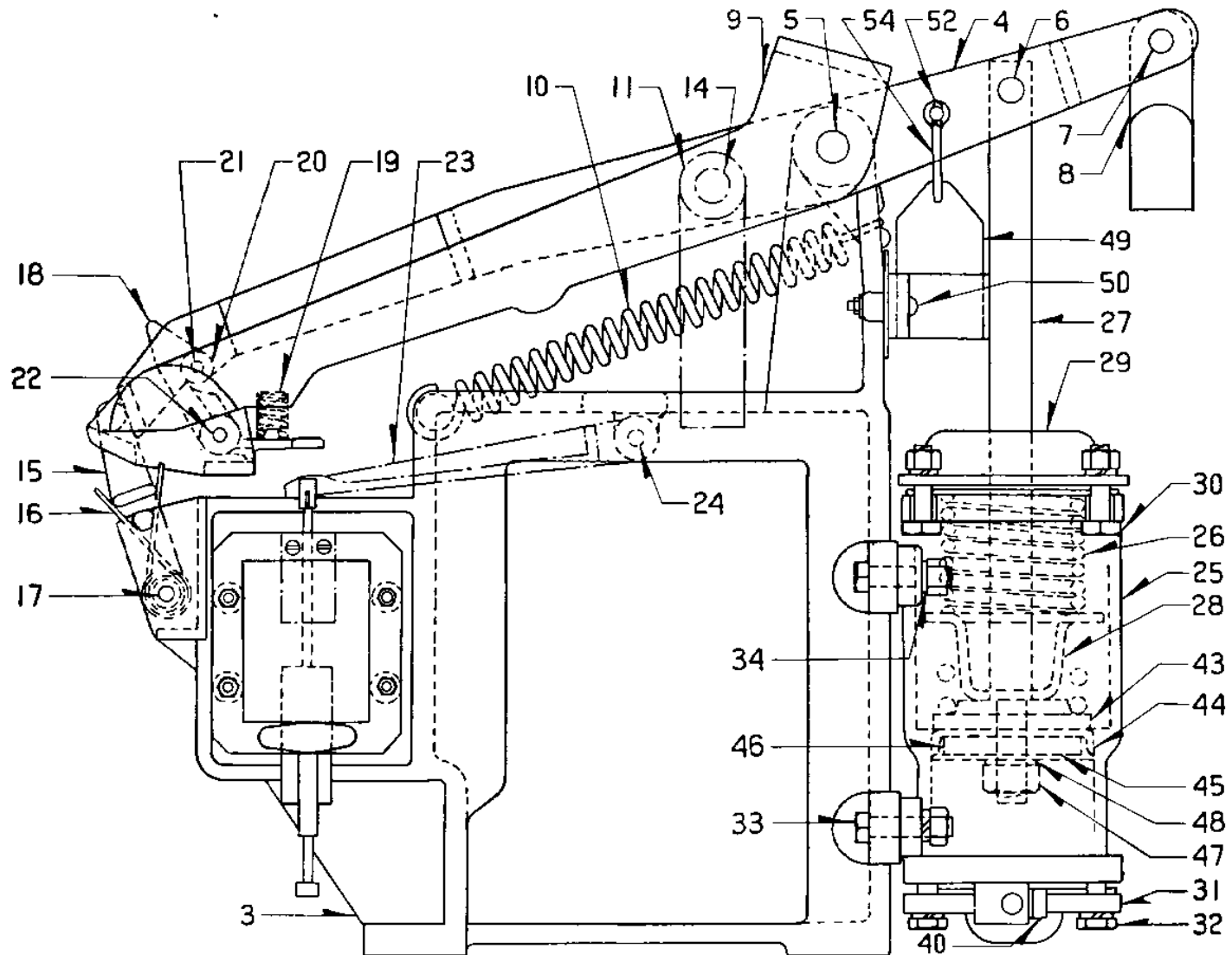
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Per Mechanism	Description
43*	.....	5	Lock washer, 1/2" (standard hardware), for tap bolt
43*	107315	4	Lock washer for tap bolt
44*	272649	1	Piston leather seating washer
44*	277577	1	Piston leather seating washer
45	112506	1	Piston leather
46	187120	1	Phosphor bronze expander
47	277547	1	Piston follower for expander
48	.....	1	Nut, 3/4" (standard hardware), to fasten follower to expander
49	.....	1	Lock washer, 3/4" (standard hardware), used between nut and follower
50*	214139	1	Brass valve bushing for dash pot head
51*	185236	1	Brass valve for head
52*	198929	1	Spring for valve
53*	68776	1	Cap nut for valve
54*	187761	1	Pin for valve
55*	.....	1	Fillister head iron machine screw, No. 10-32x1 1/2" (standard hardware), to adjust pin
56*	40662	1	Nut for screw
57*	275056	1	Brass plug for head of dash pot
58*	122532	2	Gasket for head of dash pot
59	272917	1	Spring for dash pot for Style No. 408214
59	122525	1	Spring for dash pot for Style Nos. 408215 and 408217
59	240518	1	Spring for dash pot for Style No. 408216
60*	277554	1	Spring holder in dash pot for Style No. 408215
60*	277556	1	Spring holder in dash pot for Style Nos. 408216 and 408217
61	117200	1	Shaft for dash pot piston rod for Style Nos. 408214 and 408215
61	277574	1	Shaft for dash pot piston rod for Style Nos. 408216 and 408217
62*	277550	2	Collar for dash pot piston rod for Style No. 408215
62*	277557	2	Collar for dash pot piston rod for Style No. 408217
63*	277548	2	Pin for collar and plunger rod for Style No. 408215
63*	277565	2	Pin for collar and plunger rod for Style No. 408217
64	216071	1	Signal switch complete. For details see page 20
65	263046	1	Fullerboard shield used between switch and frame
66	.....	2	Fillister head iron machine screw, No. 14-24x1 3/4" (standard hardware), to mount signal switch
67*	.....	2	Lock washer, 1/4" (standard hardware), for screw
68*	.....	2	Iron machine screw nut, 1/4"-20 (standard hardware), for screw
69*	7443	2	Washer for screw
70	380235	1	Link for signal switch and main lever for Style Nos. 408214 and 408215
70	277567	1	Link for signal switch and main lever for Style Nos. 408216 and 408217
71	323744	1	Stud for signal switch link for Style Nos. 408214 and 408215
71	277578	1	Stud for signal switch link for Style Nos. 408216 and 408217
72	3272	2	Washer for studs
73*	394500	1	Mounting strap for control panel
74*	394498	1	Spacer, short
74*	394499	2	Spacer, long
75*	.....	1	Tap bolt, 5/16"x2 1/4" (standard hardware), to fasten support to mechanism frame
75*	.....	1	Tap bolt, 5/16"x1 1/4" (standard hardware), to fasten support to control panel
75*	.....	2	Tap bolt, 5/16"x3" (standard hardware), to fasten control panel to mecha- nism frame
76*	.....	4	Lock washer, 3/8" (standard hardware), for bolts
77*	3272	3	Washer for bolts
81	184889	1	Tripping core
82	.....	1	Locking nut, 1/2"-13 (standard hardware), for auxiliary switch stud in main lever
83	277582	1	Main lever for Style Nos. 408214 and 408215
83	277585	1	Main lever for Style Nos. 408216 and 408217
84	248949	1	Rod end for main lever and pull rod for Style Nos. 408214 and 408215
84	248948	1	Rod end for main lever and pull rod for Style Nos. 408216 and 408217
85	87679	1	Shaft for main lever and rod end for Style Nos. 408214 and 408215
85	277562	1	Shaft for main lever and rod end for Style Nos. 408216 and 408217

*Not illustrated.

HAND MECHANISMS AND DETAILS, FULL AUTOMATIC **Style Nos. 277428, 277429 and 300290**



REFERENCE NO. 1

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION **All Parts Are Interchangeable Unless Otherwise Specified**

Ref. No.	Style No.	No. Per Mechanism	Description
1	277428†	..	Mechanism complete
1	277429†	..	Mechanism complete
1	300290†	..	Mechanism complete
2	277539	1	Overload release mechanism complete with coils, for Style No. 277428
2	277540	1	Overload release mechanism complete with coils, for Style Nos. 277429 and 300290
3	277586	1	Cast iron frame
4	274856	1	Main lever
5	127688	1	Bearing shaft, for main lever
6	63614	1	Shaft, for main lever and dash pot plunger rod
7	105265	1	Shaft, for main lever and rod end
8	248949	1	Rod end, for main lever
9	277587	1	Cast iron closing lever
10	272177	1	Main spring, for closing lever
11	273394	1	Cast steel slotted closing yoke
12*	.....	1	Tap bolt, $\frac{5}{16}$ "x1 $\frac{1}{4}$ " (standard hardware), for yoke
13*	.....	1	Hexagon iron nut, $\frac{5}{16}$ " (standard hardware), for tap bolt
14	119879	1	Shaft, for yoke and closing lever
15	273391	1	Cast iron dog
16	277569	1	Spring, for dog
17	140734	1	Shaft, for dog
18	277541	1	Trigger complete

*Not illustrated.

†See page 4 for application of the Style Number.

HAND MECHANISMS AND DETAILS, FULL AUTOMATIC—Continued
Style Nos. 277428, 277429 and 300290

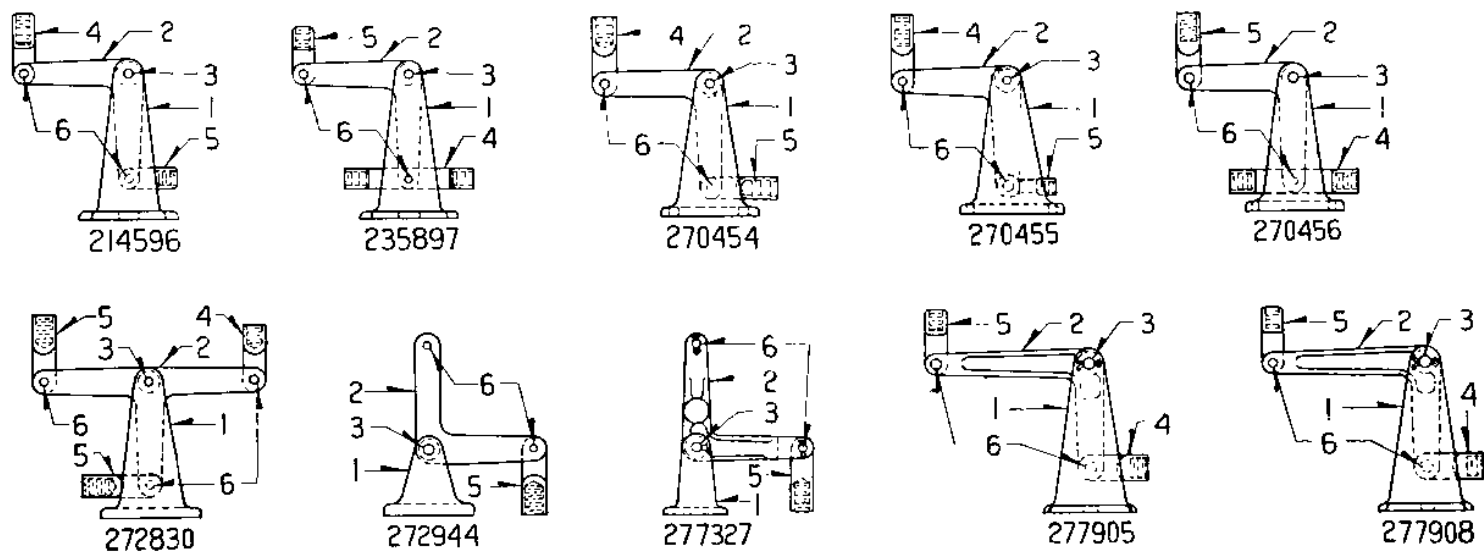
Illustrated on Page 14

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION
All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Per Mechanism	Description
19	199287	1	Spring, for trigger
20	145393	1	Roller, for trigger
21	63601	1	Shaft, for roller
22	107356	1	Shaft, for trigger
23	273392	1	Malleable iron tripping lever
24	63604	1	Shaft, for tripping lever
25	250114	1	Cast iron dash pot
26	272917	1	Spring, for dash pot cylinder, for Style Nos. 277428 and 277429
26	122525	1	Spring, for dash pot cylinder, for Style No. 300290
27	273372	1	Plunger rod, for dash pot, 1"x18 ⁵ / ₁₆ "
28	277554	1	Spring holder in dash pot, for Style No. 300290
29	277560	1	Cast iron dash pot cover
30	.....	4	Machine bolt, 1/2"x1 3/4" (standard hardware), to fasten dash pot cover
31	230342	1	Cast iron dash pot bottom
32	.....	4	Tap bolt 1/2"x1 3/4" (standard hardware), to fasten dash pot head
33	.....	3	Machine bolt, 1/2"x2" (standard hardware), to mount dash pot frame
34	.....	11	Lock washer, 1/2" (standard hardware), for bolt
35*	214139	1	Brass valve bushing, for valve assembly
36*	185236	1	Brass valve
37*	198929	1	Spring, for valve
38*	187761	1	Pin, for valve
38-A*	68776	1	Cap nut, for valve on dash pot bottom
39*	.....	1	Fillister head iron machine screw, No. 10-32x1 1/2" (standard hardware), to adjust valve
40	40662	1	Hexagon brass nut, for screw
41*	275056	1	Brass plug, for side of valve casting
42*	122532	2	Gasket, for bottom of dash pot cylinder
43	272649	1	Cast iron washer used as spring seat
44	112506	1	Piston leather
45	187120	1	Piston leather expander
46	277547	1	Cast iron follower, for piston leather and expander
47	.....	1	Hexagon iron nut, 3/4" (standard hardware), to clamp follower to expander
48	.....	1	Lock washer, 3/4" (standard hardware), used between nut and follower
49	216071	1	Signal switch, for details see page 20
50	.....	2	Round head stove bolt, 1/4"x1 1/2" (standard hardware), to mount signal switch
51*	.....	2	Lock washer, for stove bolt
52	323744	1	Stud, in main lever, for signal switch link
53*	3272	1	Washer, for stud
54	277559	1	Signal switch link
55*	384892	1	Extension lever
56*	.....	2	Tap bolt, 3/8"x1" (standard hardware), to mount extension lever
57*	3428	2	Washer, for tap bolt
58*	.....	2	Lock washer, 3/8" (standard hardware), for tap bolt
59*	.....	3	Tap bolt, 3/8"x2 1/2" (standard hardware), to mount overload release mechanism
60*	283038	3	Brass tube spacer, for bolt
61*	3428	3	Washer, for bolt
62*	.....	3	Lock washer, 3/8" (standard hardware), for tap bolt
63*	.....	3	Washer, 3/8" (standard hardware), for bolt and spacer

*Not illustrated.

BELL CRANKS AND DETAILS

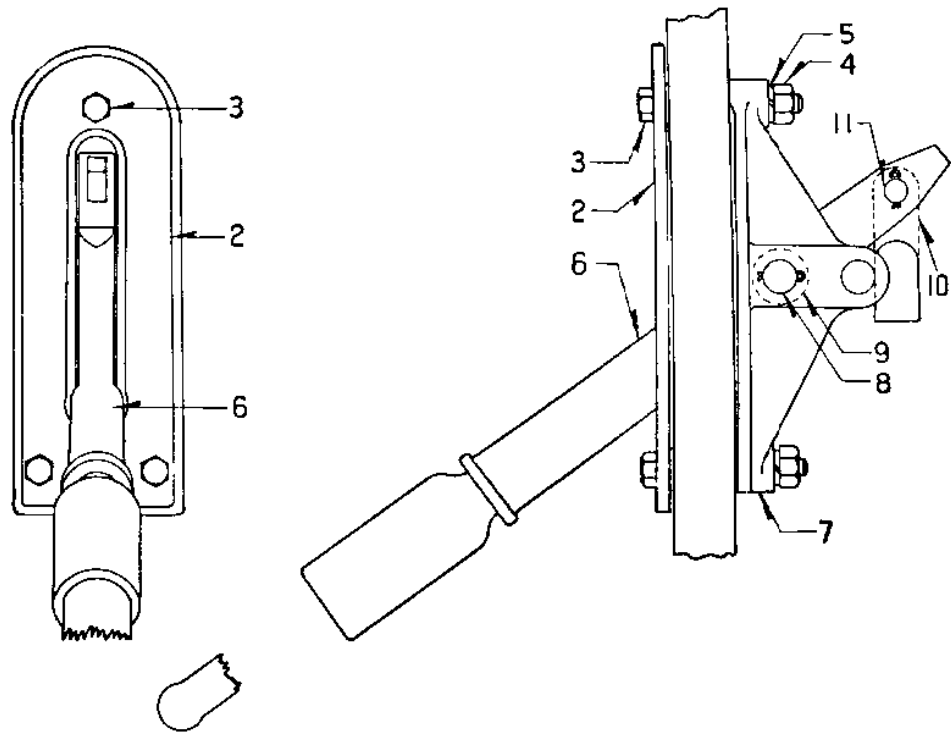


ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Complete Bell Crank Style No.	Ref. No. 1 Bracket		Ref. No. 2 Bell Crank		Ref. No. 3 Shaft		Ref. No. 4 Adjustable Rod End		Ref. No. 5 Non-Adjustable Rod End		Ref. No. 6 Shaft	
	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.	No. Req.	Style No.
214596†	1	272857	1	272856	1	125685	1	72281	1	83129	2	83813
235897†	1	272857	1	272856	1	125685	1	235962	1	83129	2	83813
270454*	1	289443	1	283040	1	88354	1	248949	1	248949	2	105265
270455*	1	289443	1	283040	1	88354	1	248949	1	277888	2	105265
270456*	1	289443	1	283040	1	88354	1	296361	1	248949	2	105265
272830*	1	289443	1	287270	1	88354	1	239919	2	248949	3	105265
272944†	1	283039	1	283040	1	88353	..	None	1	248949	2	105265
277327†	1	272858	1	272856	1	125685	..	None	1	72281	2	83813
277905†	1	384928	1	384927	1	125685	1	83129	1	72281	2	83813
277908†	1	277857	1	283042	1	125685	1	83129	1	72281	2	83813

*See pages 3, 4 and 5 for application of these Style Numbers.
†Used only on special mountings.

COVER PLATE, HAND OPERATING LEVER PARTS AND MOUNTING DETAILS

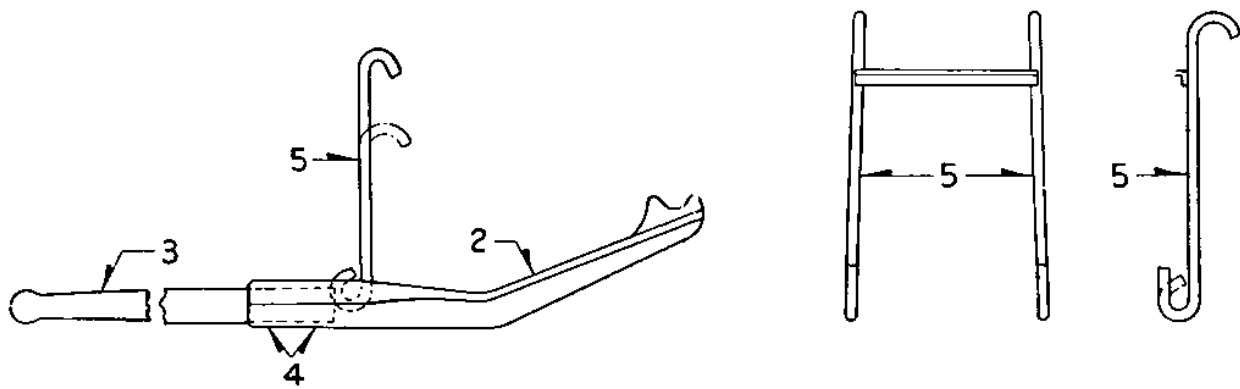


REFERENCE NO. 1

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Req.	Description
1	277469†	1	Cover plate, complete
2	312432	1	Cover plate casting
3	.....	3	Tap bolt, 5/8"x4 3/4" (standard hardware), to mount cover plate
4	.....	3	Hexagon nut, 5/8" (standard hardware), for tap bolt
5	.....	3	Lock washer, 5/8" (standard hardware), for tap bolt
6	384919	1	Handle lever
7*	312431	1	Handle lever bearing bracket
8	283061	1	Shaft, to fasten handle lever to bearing bracket
9	3359	2	Washer, for handle bearing shaft
10	233252	1	Rod end, for handle lever
11	92712	1	Shaft, to fasten rod end to handle lever

TANK LIFTER AND DETAILS

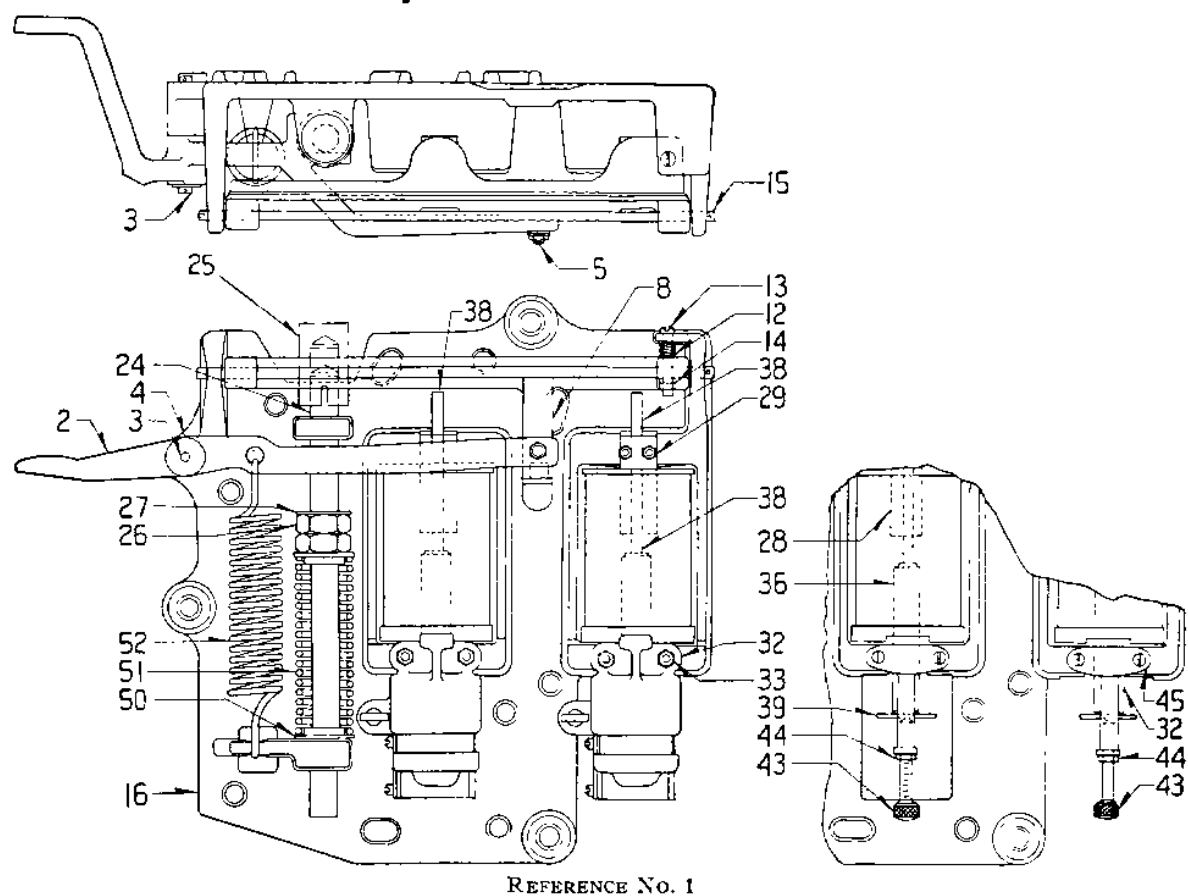


REFERENCE NO. 1

Ref. No.	Style No.	No. Per Lifter	Description
1	276684†	..	Tank lifter complete
2	384920	1	Tank lifter casting
3	199488	1	Wood handle
4	384921	2	Pin, to fasten handle to casting
5	384923	1	Two links, and cross bar assembled

*Not illustrated.
†See pages 3, 4 and 5 for application of these Style Numbers.

OVERLOAD RELEASE MECHANISMS AND DETAILS
Style Nos. 277539 and 277540



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION
All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Req.	Description
1	277539†	..	Overload release mechanism complete, with one overload coil
1	277540†	..	Overload release mechanism complete, with two overload coils
2	384929	1	Cast steel tripping lever
3	63605	1	Shaft, for tripping lever
4	3272	1	Washer, for shaft
5	220349	1	Square head screw, for tripping lever
6*	.....	1	Lock washer, 1/4" (standard hardware), for screw
7*	.....	1	Lock nut, 1/4" (standard hardware), for screw
8	333474	1	Malleable iron trigger
9*	220349	1	Square head screw, for trigger
10*	.....	1	Lock washer, 1/4" (standard hardware), for screw
11*	.....	1	Lock nut, 1/4" (standard hardware), for screw
12	72065	1	Spring for trigger
13	.....	1	Fillister head iron machine screw, No. 10-32x1 3/4" (standard hardware), for trigger spring
14	.....	2	Hexagon iron machine screw nut, No. 10-32 (standard hardware), for screw
15	380237	1	Shaft, for trigger
16	333472	1	Cast iron mechanism frame
17*	283060	3	Spacing rod, for cover
18*	.....	3	Tap bolt, 5/8"-18x3/4" (standard hardware), for spacing rod
19*	.....	3	Tap bolt, 3/8"-16x1" (standard hardware), for spacing rod
20*	333473	1	Cast iron cover for frame
21*	.....	3	Tap bolt, 3/8"x2 1/2" (standard hardware), to mount mechanism frame
22*	3428	3	Washer, for bolt
23*	.....	3	Lock washer, 3/8" (standard hardware), for tap bolt
24	283056	1	Plunger rod, for tripping lever and retrieving lever
25	283057	1	Steel cap, for plunger rod
26	.....	2	Lock nut, 5/8" (standard hardware), for plunger rod
27	3429	1	Washer, for plunger rod

*Not illustrated.
†See page 14 for application of these Style Numbers.

OVERLOAD RELEASE MECHANISMS AND DETAILS—Continued
Style Nos. 277539 and 277540

Illustrated on Page 18

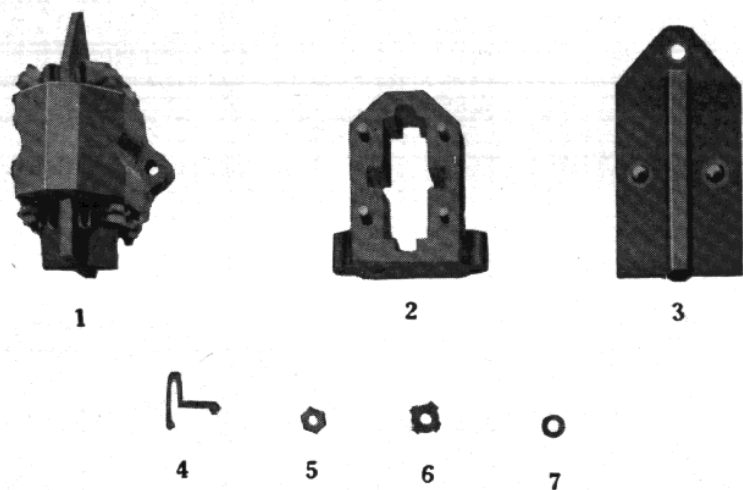
ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

All Parts Are Interchangeable Unless Otherwise Specified

Ref. No.	Style No.	No. Req.	Description
28	116760	1	Stationary core complete, for Style No. 277539
28	116760	2	Stationary core complete, for Style No. 277540
29	.....	2	Fillister head iron machine screw, No. 10-32x2½" (standard hardware), to mount stationary core, for Style No. 277539
29	.....	4	Fillister head iron machine screw, No. 10-32x2½" (standard hardware), to mount stationary core, for Style No. 277540
30*	4000	2	Lock washer, for screw
30*	4000	4	Lock washer, for screw
31*	.....	2	Iron machine screw nut, No. 10-32 (standard hardware), for screw
31*	.....	4	Iron machine screw nut, No. 10-32 (standard hardware), for screw
32	88828	2	Bracket for coil, for Style No. 277539
32	88828	4	Bracket for coil, for Style No. 277540
33	.....	2	Fillister head iron machine screw, No. 10-32x1¾" (standard hardware), to mount coil bracket, for Style No. 277539
33	.....	4	Fillister head iron machine screw, No. 10-32x1¾" (standard hardware), to mount coil bracket, for Style No. 277540
34*	4000	2	Lock washer, for screw
34*	4000	4	Lock washer, for screw
35	.....	2	Iron machine screw nut, No. 10-32 (standard hardware), for screw
35	.....	4	Iron machine screw nut, No. 10-32 (standard hardware), for screw
36	126283	1	Moving core and plunger rod complete
36	126283	2	Moving core and plunger rod complete
37*	116761	1	Moving core assembled
38	148509	1	Plunger rod, for core
39	116763	1	Guide washer, for bottom of core and plunger rod
40*	3423	1	Washer between guide washer and core
41*	.....	1	Dowel, ".086x $\frac{7}{16}$ ", to fasten guide washer to core
42*	233098	1	Washer, for top of core
43	88829	1	Adjusting screw
43	88829	2	Adjusting screw
44	.....	1	Iron machine screw nut, No. 14-24 (standard hardware), for adjusting screw
44	.....	2	Iron machine screw nut, No. 14-24 (standard hardware), for adjusting screw
45	219614	1	Core guide
45	219614	2	Core guide
46*	384892	1	Extension lever
47*	.....	2	Tap bolt, ⅜"x1" (standard hardware), to mount lever
48*	3428	2	Washer for bolt
49*	.....	2	Lock washer, ⅜" (standard hardware), for bolt
50	333476	2	Spring seat, for compression spring, for retrieving lever
51	283058	1	Compression spring, for retrieving lever
52	283059	1	Tension spring, for retrieving lever

*Not illustrated.

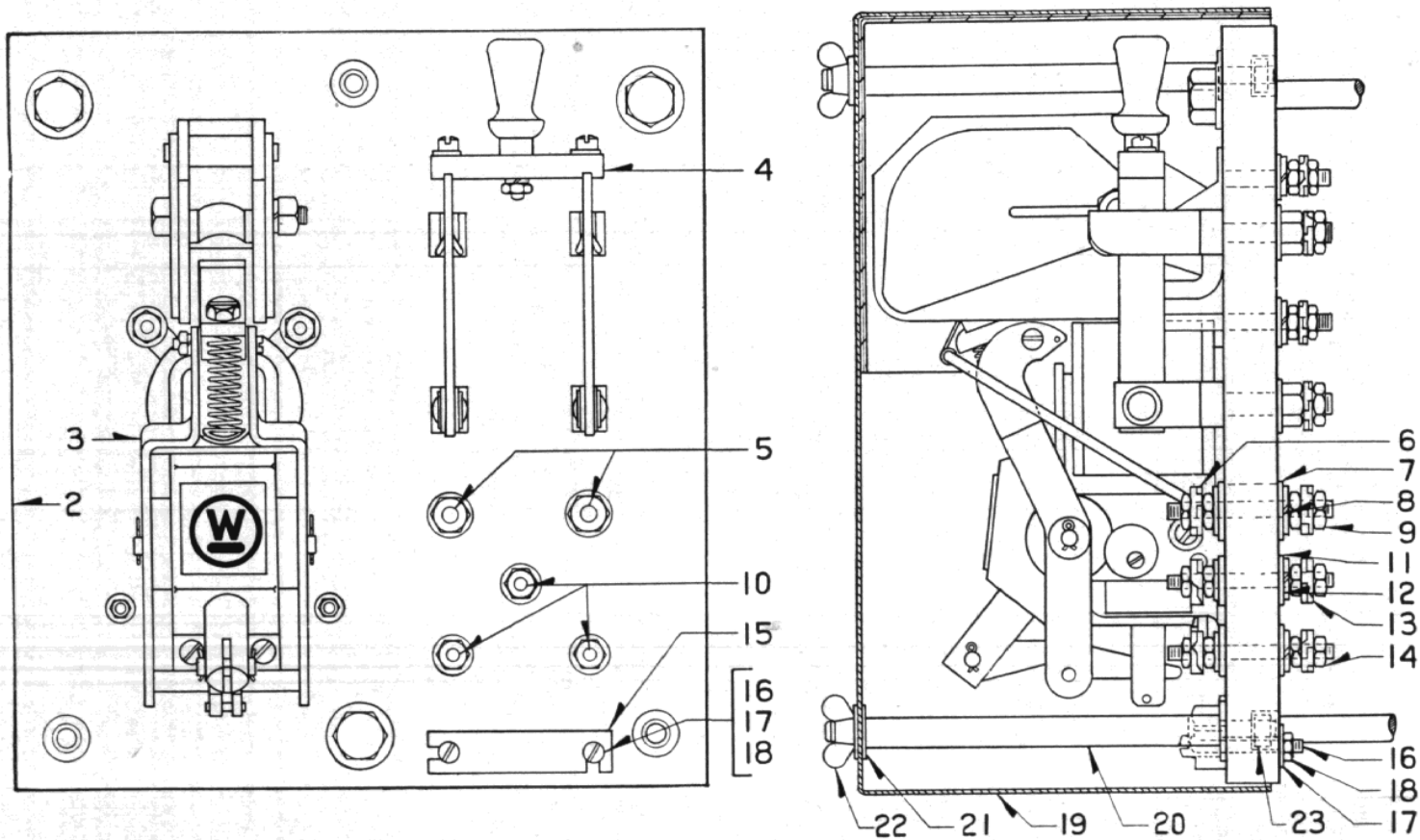
SIGNAL SWITCH AND DETAILS



ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Switch	Description
1	216071	..	Signal switch complete
2	377723	1	Moulded composition switch body and studs
3	220996	1	Moulded composition plunger with contact pieces
4	220999	8	Phosphor bronze contact finger
5	40662	16	Hexagon brass contact nut
6	148425	8	Crimp washer, used with nut Ref. No. 5
7	.....	8	Lock washer, 1/8" (standard hardware), used with nut Ref. No. 5

CONTROL PANEL AND DETAILS



REFERENCE No. 1

Ref. No.	Style No.	No. Per Panel	Description
1	375085†	..	Control panel complete, with 125 volt coils

*Not illustrated.
†See page 3 for application of this style number.

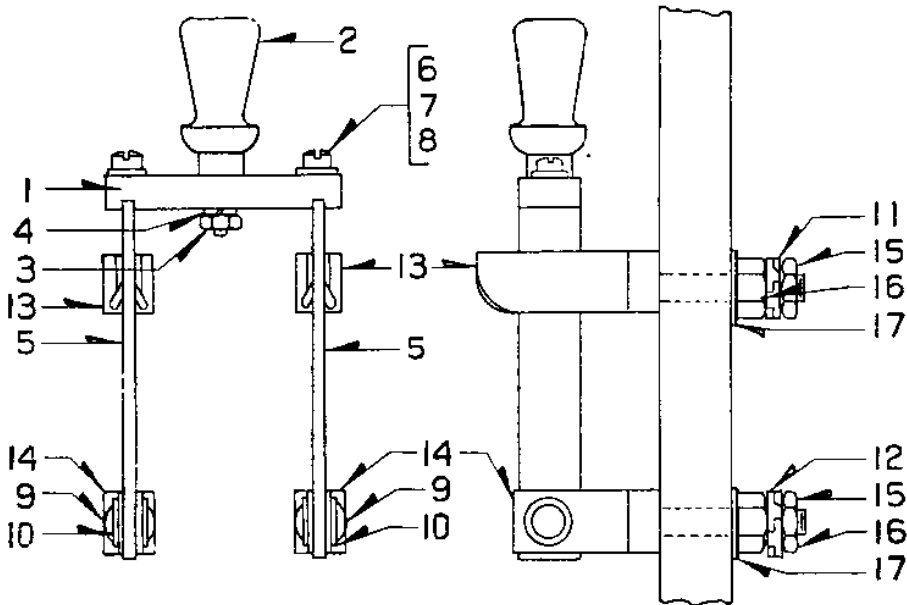
CONTROL PANEL AND DETAILS - Continued

Parts Illustrated on Page 20

ORDER PARTS BY STYLE NUMBER AND DESCRIPTION

Ref. No.	Style No.	No. Per Panel	Description
*	384953	1	Operating coil, 125 volts
*	375628	1	Releasing coil, 125 volts
2	385048	1	Slate panel
3	398300	1	Type S-1 control relay. For details see Part Catalogue No. 6221
4	398301	1	Type A knife switch, 2-pole, single-throw, 100 amperes, 250 volts, direct-current
5	361711	2	Copper terminal stud, large
6	163424	8	Iron washer, for terminal stud
7	7458	4	Iron washer, for terminal stud
8	.....	10	Lock washer, 1/4" (standard hardware), for terminal stud
9	46868	8	Hexagon brass nut, for terminal stud
10	361706	3	Copper terminal stud, small
11	3421	6	Washer, for terminal stud
12	4000	6	Lock washer for terminal stud
13	148425	12	Crimped brass washer, for terminal stud
14	40662	12	Hexagon brass nut, for terminal stud
15	199656	1	Fibre wire cleat
16	.....	2	Fillister head iron machine screw, No. 10-32x1 1/2" (standard hardware), to fasten wire cleat to slate panel
17	3410	2	Washer, for machine screw
18	.....	2	Hexagon iron nut, No. 10-32 (standard hardware), for machine screw
19	385051	1	Cover complete
20	385049	3	Stud, for cover
21	7444	12	Washer, for stud
22	197938	3	Wing nut, for stud
23	.....	3	Hexagon iron nut, 1/4" (standard hardware), for stud

TYPE A KNIFE SWITCH, STYLE NO. 398301, AND DETAILS



Ref. No.	Style No.	No. Per Switch	Description
..	398301	..	Type A knife switch, 2-pole, single-throw, 100 amperes, 250 volts, direct-current
1	385050	1	Cross bar
2	293081	1	Handle complete
3	40662	1	Hexagon iron nut, to fasten handle to cross bar
4	4000	1	Lock washer, used under hexagon iron nut
5	189777	2	Switch blade
6	.....	2	Fillister head iron machine screw, No. 10-32x3/4" (standard hardware), to fasten switch blade to cross bar
7	40662	2	Hexagon iron nut, for machine screw
8	3410	2	Washer, to fit between hexagon iron nut and cross bar
9	.....	2	Copper rivet, 1/8"x1/2" (standard hardware), used as a hinge pin for switch blade
10	230883	4	Washer, for rivet
11	23216	4	Terminal clip, for break jaw
12	194512	8	Terminal clip, for hinge jaw
13	189769	2	Break jaw complete
14	189768	2	Hinge jaw complete
15	369094	4	Contact nut, for hinge and break jaws
16	15309	4	Hexagon brass nut, to fasten hinge and break jaws to base
17	3272	4	Iron washer, used under hexagon brass nut

*Not illustrated.

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