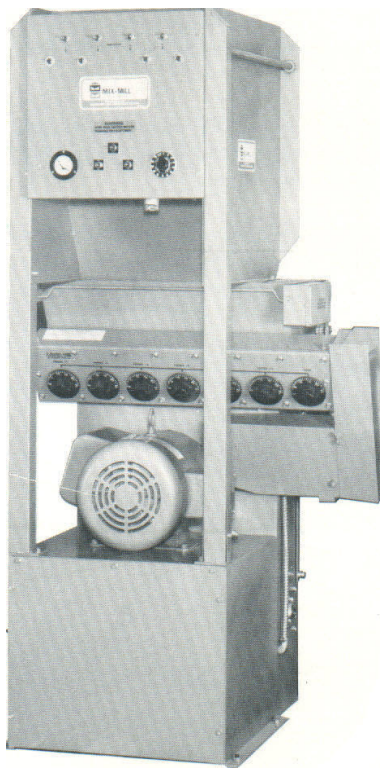


MIX-MILL
INSTRUCTION MANUAL
MODEL CX MILL
GRAVITY AND GROUND LEVEL



"CX" GROUND LEVEL MILL

**Replacement
Parts Lists
and Wiring
Diagrams**

SECTION VI

REPLACEMENT PARTS

1. **Replacement Part Ordering Instructions.**

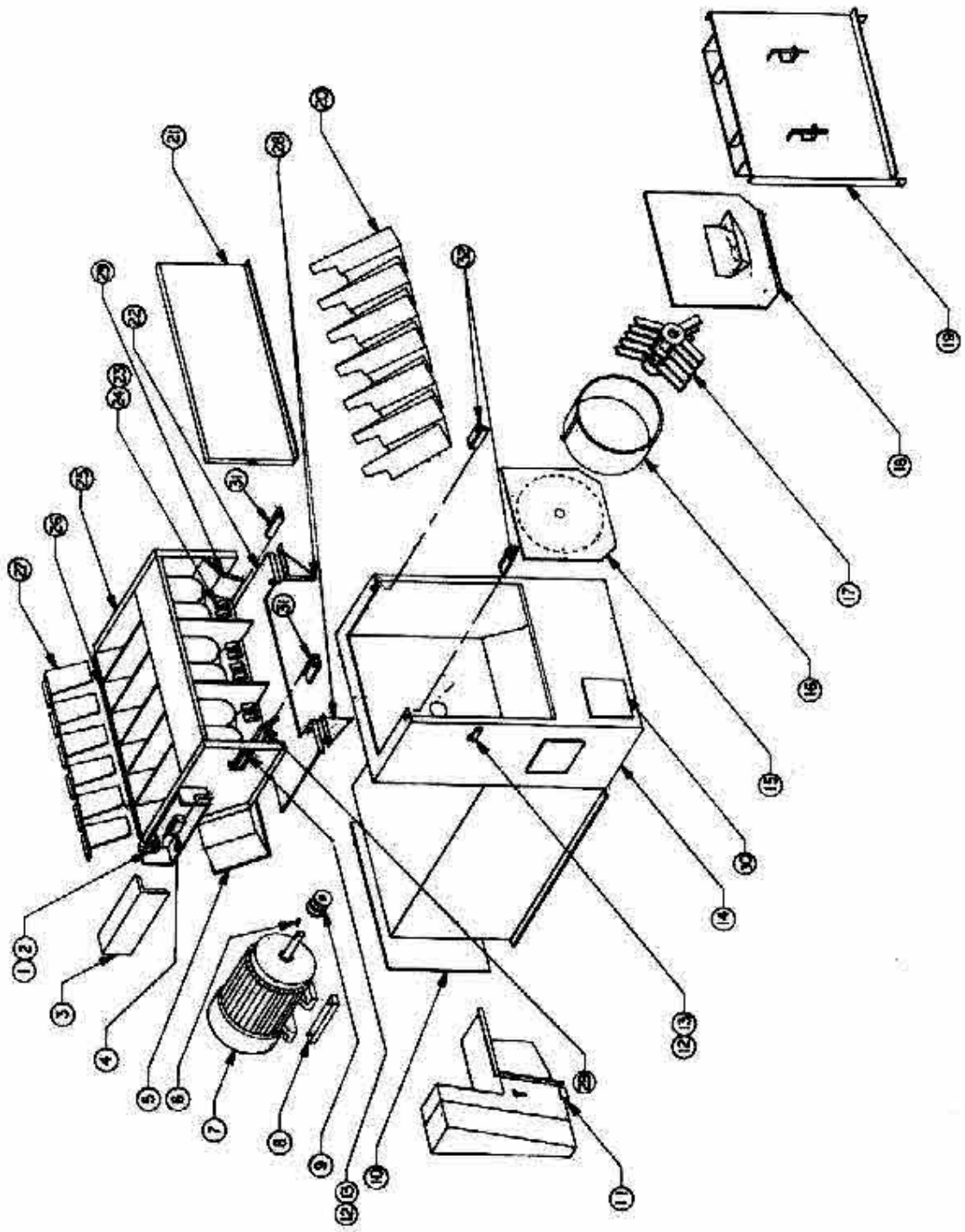
To insure receipt of correct items when ordering replacement parts, use the following procedure:

- a. Furnish the serial number and model number of mill from mill nameplate. This identifies your mill as a certain design with various type accessories. This information is needed regardless of type or parts being ordered.
- h. If a replacement motor or motor part is desired, specify complete data from motor nameplate.
- c. If a replacement proportioner or proportioner part is desired, specify model number of proportioner. To identify the proportioner model number, examine the top right corner of proportioner and furnish Mix-Mill® Mfg. Co. with the three characters stamped on this corner.

INPUT POWER WIRING

Electrical input wiring should be done by a qualified electrician following NEC and local standards. Each machine should be grounded to a ground rod driven at least 8 feet into moist soil.

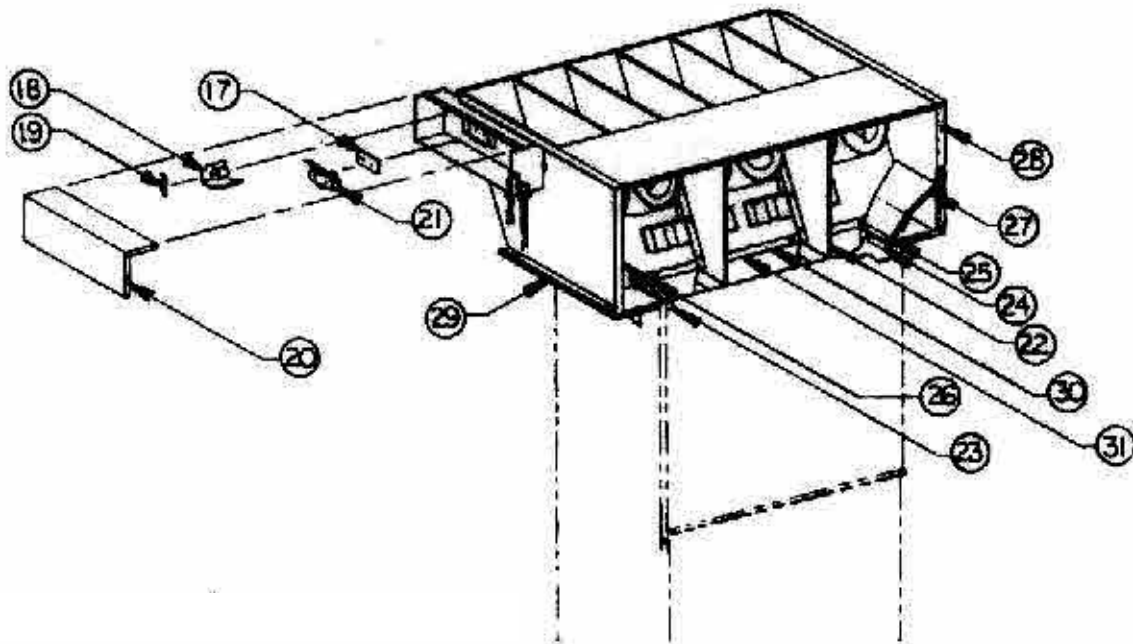
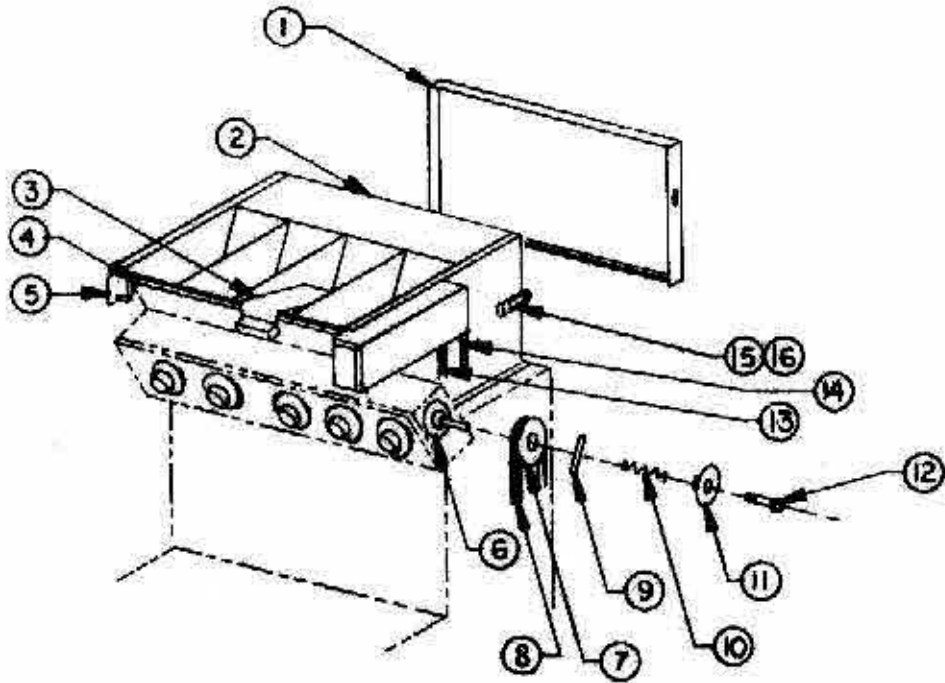
"CX" GRAVITY MILL REPLACEMENT PARTS



" C X " G R A V I T Y M I L L REPLACEMENT PARTS

Item	Description	4 COMPARTMENT		6 COMPARTMENT	
		Qty.	Part No.	Qty.	Part No.
1	Trip Assy.—Micro Switch	1	90000123	1	90000123
2	Spring—Micro Switch	1	70008003	1	70008003
3	Cover—Switch Box	1	11195901	1	11195901
4	Micro Switch Complete	1	31008001	1	31008001
5	Proportioner	1	93112554	1	93112566
6	Key—Straight (1/4" Sq. x 2-5/8" Lg.)	1	49000642	1	49000642
7	Motor 7 1/2 H.P.-1\$	1	33000401	1	33000401
	Motor 5 H.P.-10	1	33000402	1	33000402
	Motor 3 H.P.-1P1	1	33000403	1	33000403
	Motor 5 H.P.-30	1	33000405	1	33000405
	Motor 7 1/2 H.P.-3O	1	33000406	1	33000406
	Motor 10 H.P.-30	1	33000407	1	33000407
8	Bar—Motor Mounting (Used on #184 Frame Motors)	2	10615500	2	10615500
9	Sheave—Mill Motor	1	10634001	1	10634001
10	End—Mill Housing	1	10607800	1	10607800
11	Belt Guard & Idler Pulley Assy.	1	93063071	1	93063072
12	Latch Assy.—Mill Back	4	10627700	4	10627700
13	Pop Rivet—Open End (5/32" Dia. x 3/8")	8	70007001	8	70007001
14	Mill Housing Assy.	1	93071420	1	93071420
15	Wear Plate—Housing	1	10610300	1	10610300
16	Screen (See Page 54 for replacement no.)	—	—	—	—
17	Beater Assy. Complete	1	93000972	1	93000972
18	Wear Plate—Back	1	93061020	1	93061020
19	Back Assy.	1	93079040	1	93079040
20	Sampling Chute	1	93078960	1	93078970
21	Cover Proportioner Hopper	1	10783300	1	10783500
22	Adapter Plate	—	—	1	10719700
23	Magnet Mill	4	80008001	6	80008001
24	Spacer Hammer	4	80013503	4	80013503
25	Proportioner Body Assy.	1	93060861	1	93072111
26	Trip Rod	1	10856901	1	10856902
27	Switch Paddle Assy.	4	90000131	6	90000131
28	Support Bracket—Right	—	—	1	10854201
	Support Bracket—Left	—	—	1	10854202
29	Deflector—Right	—	—	1	10783001
	Deflector—Left	—	—	1	10783002
30	Bank Plate	1	10148301	1	10148301
31	Deflector Retainer	—	—	2	10786000
32	Seal Retainer Assy.—Right	1	93072011	1	93072011
	Seal Retainer Assy.—Left	1	93072012	1	93072012

PROPORTIONER HOPPER ASS'Y. REPLACEMENT PARTS

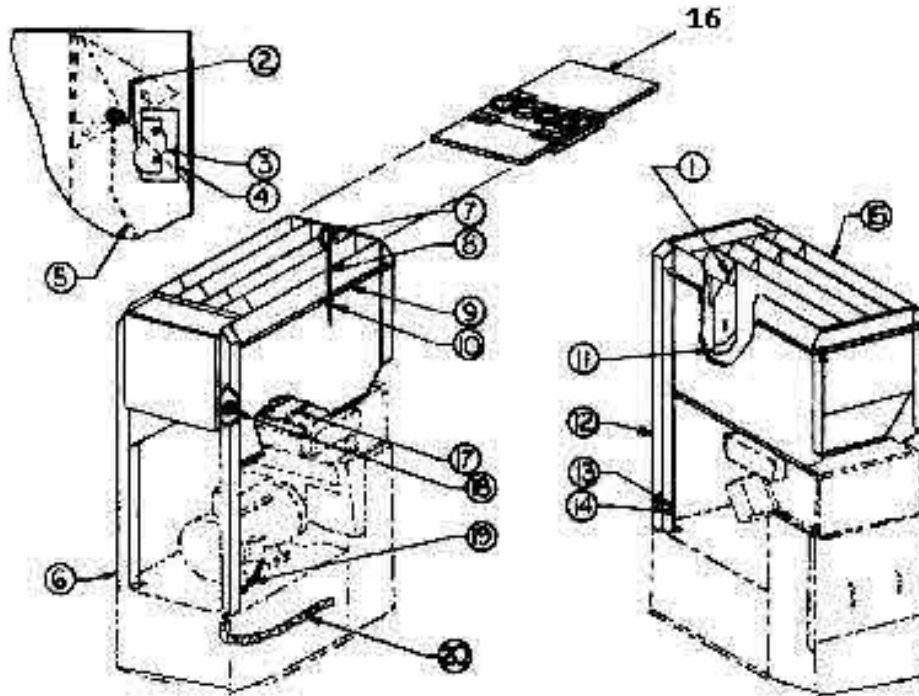


PROPORTIONER HOPPER ASS'Y REPLACEMENT PARTS

Item	Description	4 COMPARTMENT		6 COMPARTMENT	
		Qty	Part No.	Qty.	Part No.
1	Cover—Proportioner Hopper	1	10783300	1	10783500
2	Proportioner Body Assy.	1	93060861	1	93072111
3	Switch Paddle Assy.	4	90000131	6	90000131
4	Trip Rod	1	10856901	1	10856902
5	Push on Fastener	1	70006002	1	70006002
6	Retainer—Ball Bearing	1	40000027	1	40000027
7	Sheave—Special (Bushing only 80000503)	1	93033351	1	93033351
8	Proportioner Belt	1	45000057	1	45000065
9	Clutch—Safety Wire	1	80009501	1	80009501
10	Spring—Proportioner	1	70008001	1	70008001
11	Disk Assy.	1	93061390	1	93061390
12	Bolt—Hex Head (114 - 20 - 1 114)	1	70010505	1	70010505
13	Wire Harness—Belt Guard	1	93063161	1	93063161
14	Wire Harness—Grain Flow	1	93063162	1	93063162
15	Cover Latch	2	10627700	2	10627700
16	Pop Rivet—Open End (5132" Dia. x 3/8")	4	70007001	4	70007001
17	Insulation--Micro Switch	1	11195950	1	11195950
18	Actuator Assy.	1	90000123	1	90000123
19	Spring—Actuator	1	70008003	1	70008003
20	Cover—Switch Box	1	11195901	1	11195901
21	Micro Switch	1	31008001	1	31008001
22	Divider Assy.	2	93078420	2	93078420
23	Seal Retainer	1	93072011	1	93072011
24	Seal Retainer	1	93072012	1	93072012
25	Deflector Retainer	2	10786000	2	10786000
26	Grain Deflector	—	—	1	93113321
27	Grain Deflector	—	—	1	93113322
28	Polyurethane Tape	38'	80014001	46	80014001
29	Adapter Plate	—	—	1	10719700
30	Retaining Strap	1	10844000	1	10844000
31	Neoprene Seal	1	11205310	1	11205310

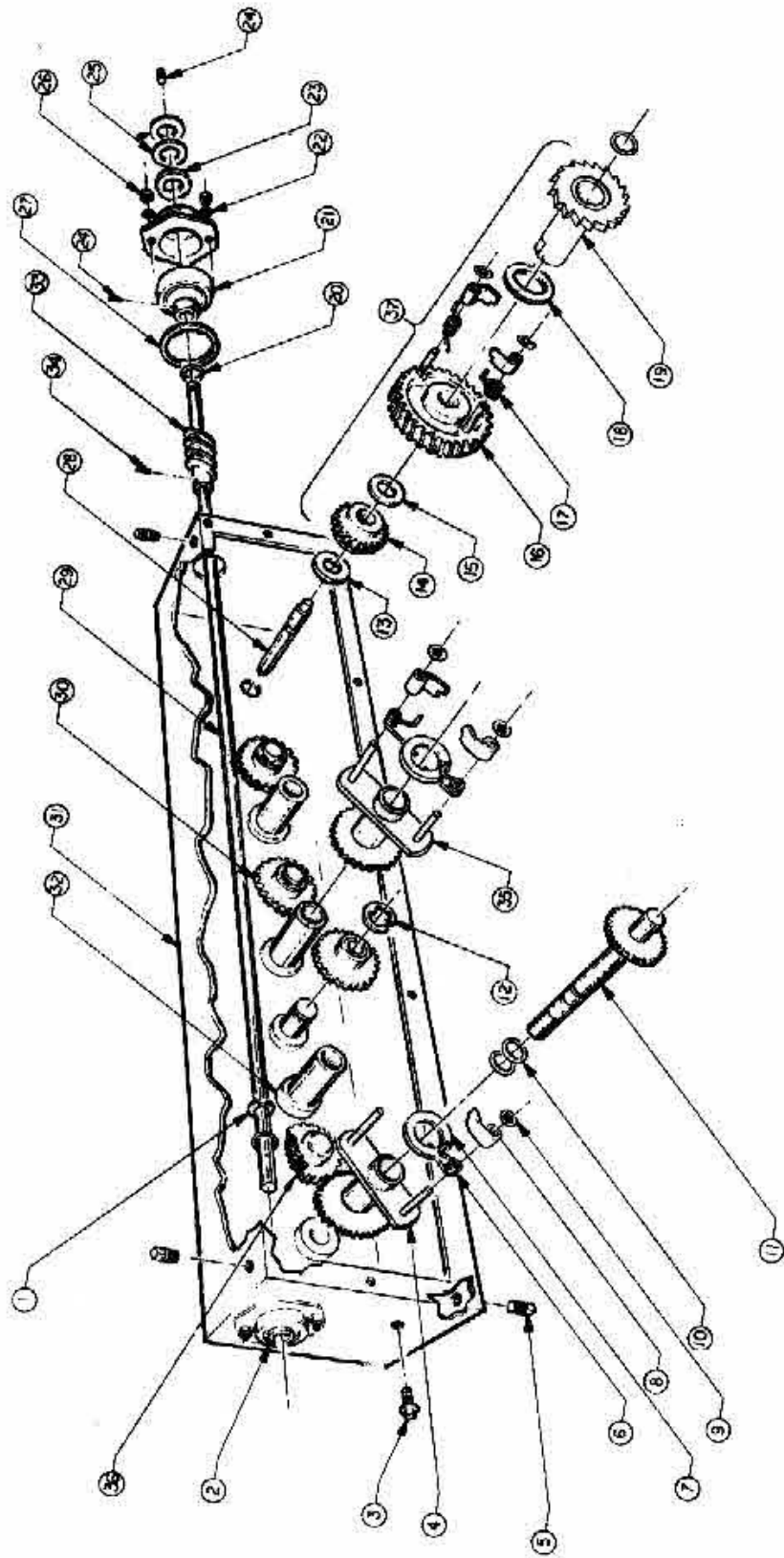
GROUND LEVEL HOPPER REPLACEMENT PARTS

SWITCH MOUNTING DETAIL



ITEM	Description	4 COMPARTMENT		6 COMPARTMENT	
		Qty.	Part	Qty.	Part No.
1	Baffle—Control Hopper	4	106119	4	10611900
2	Actuator—Switch	4	104245	4	10424500
3	Micro Switch	4	310080	4	31008001
4	Insulation—Switch	4	111959	4	11195950
5	Paddle Assy.	4	930424	4	93042421
6	Leg Assy.—Left Hand	1	930612	1	93061202
7	Clamp Assy.	4	930044	4	93004481
8	Support Rod—Vertical	4	930114	4	93011410
9	Support Rod—Horizontal	3	102985	3	10298502
10	Clamp Assy.	6	930123	6	93012391
11	Adjustable Deflector	4	930611	4	93061180
12	Leg Assy.—Right Hand	1	930612	1	93061201
13	Cover—Panel Support	1	106134	1	10613400
14	Snap-In—Blank	1	800105	1	80010501
15	Control Hopper	1	930611	1	93061101
18	Dust Cover	1	930680	1	93068001
17	Polyurethane Tape	70"	800140	70	80014001
18	Grommet	1	800050	1	80005005
19	Wire Harness	1	931012	1	93101286
20	Wire Harness	1	930750	1	93075072

**OIL FILLED PROPORTIONER
INTERNAL REPLACEMENT PARTS**

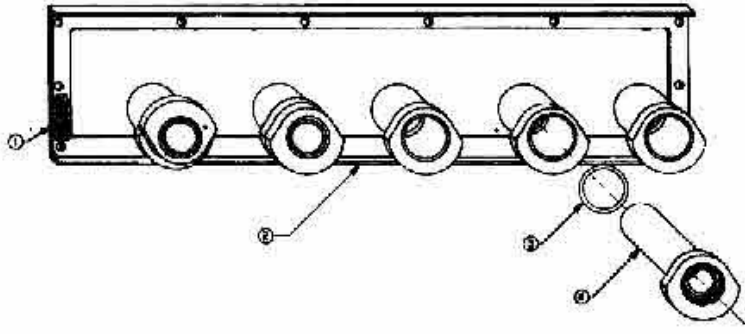


OIL FILLED PROPORTIONER INTERNAL REPLACEMENT PARTS

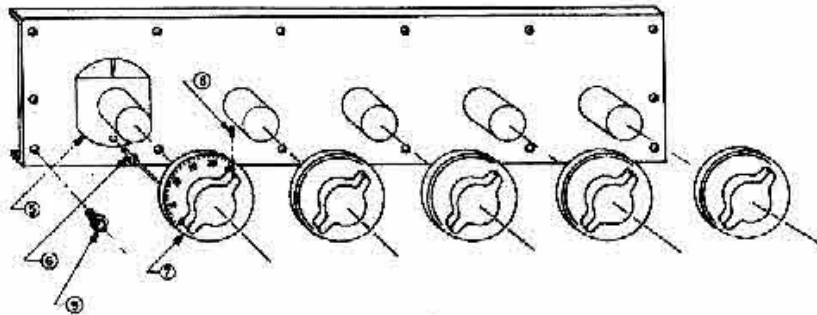
Item	Description	4 COMPARTMENT		6 COMPARTMENT	
		Qty.	Part No.	Qty.	Part No.
1	Retaining Ring (1/2" Dia. Shaft)	4	70006502	4	70006502
2	Retainer—Ball Bearing	2	40000027	2	40000027
3	Washer Head Bin Bolt Assy.	2	70000501	2	70000501
4	Pawl Carrier Assy. w/Push On Fasteners	1	93034521	1	93034521
5	Pipe Plug	3	51713002	3	51713002
6	Spring—Drive Pawl	7	70008002	11	70008002
7	Washer—Thrust	4	80014501	6	80014502
8	Drive Pawl	9	11195820	13	11195820
9	Push-on Fastener	9	70006002	13	70006002
10	Roto Seal	9	80008501	13	80008501
11	Shaft & Ratchet Assy.	4	93037691	6	93037691
12	Retaining Ring	4	70006501	6	70006501
13	Thrust Washer 5/8" x 1 1/4" x 1/8"	1	80014503	1	80014503
14	Idler Gear Assy.	1	93010470	1	93010470
15	Thrust Washer—I.D. 1 1/2" O.D. 1/8"	1	80014505	1	80014505
16	Worm Wheel Assy. —Helical	1	93114730	1	93114730
17	Spring—Drive Pawl	2	70008005	2	70008005
18	Thrust Washer 1" x 1 9/16" x 1/16"	1	80014504	1	80014504
19	Ratchet & Tube Assy.	1	93057410	1	93057410
20	"O" Ring	2	80008503	2	80008503
21	Bearing Assy.—Worm Shaft	2	93057970	2	93057970
22	Washer—Lock (1/4")	4	66443300	4	66443300
23	Flat Washer (1/2" S.A.E.)	1	70011004	1	70011004
24	Set Screw (1/4" - 20 x 1/4")	2	61663305	2	61663305
25	Flat Washer (Special 1/32" Thk.)	2	70011005	2	70011005
26	Nut—Hex (1/4" - 20)	4	66083300	4	66083300
27	Gasket	2	80004508	2	80004508
28	Shaft—Worm Wheel	1	80010009	1	80010009
29	Shaft	1	10377700	1	10599600
30	Idler Gear Assy, (80000501 Bushing Only)	3	93010171	5	93010171
31	Wrapper Gear Box	1	93037700	1	93059920
32	Bearing—Auger Shaft	4	40000014	6	40000014
33	Worm Gear	1	40004502	1	40004502
34	Spring Pin	1	70008502	1	70008502
35	Pawl Carrier Assy. w/Push On Fasteners	3	93037551	5	93037551
36	Idler Gear Assy,	1	93022910	1	93022910
37	Worm Wheel Subassembly	1	93011133	1	93011133

OIL FILLED PROPORTIONER EXTERNAL REPLACEMENT PARTS

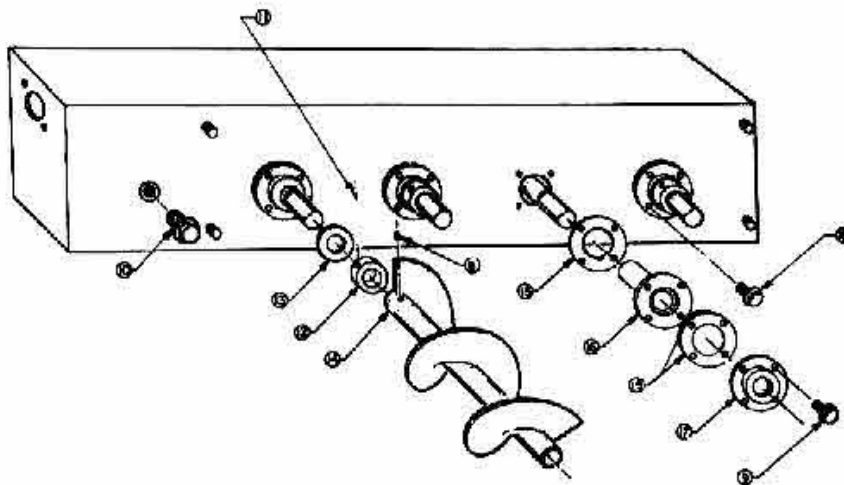
INSIDE VIEW OF PROPORTIONER COVER



FRONT VIEW OF PROPORTIONER COVER



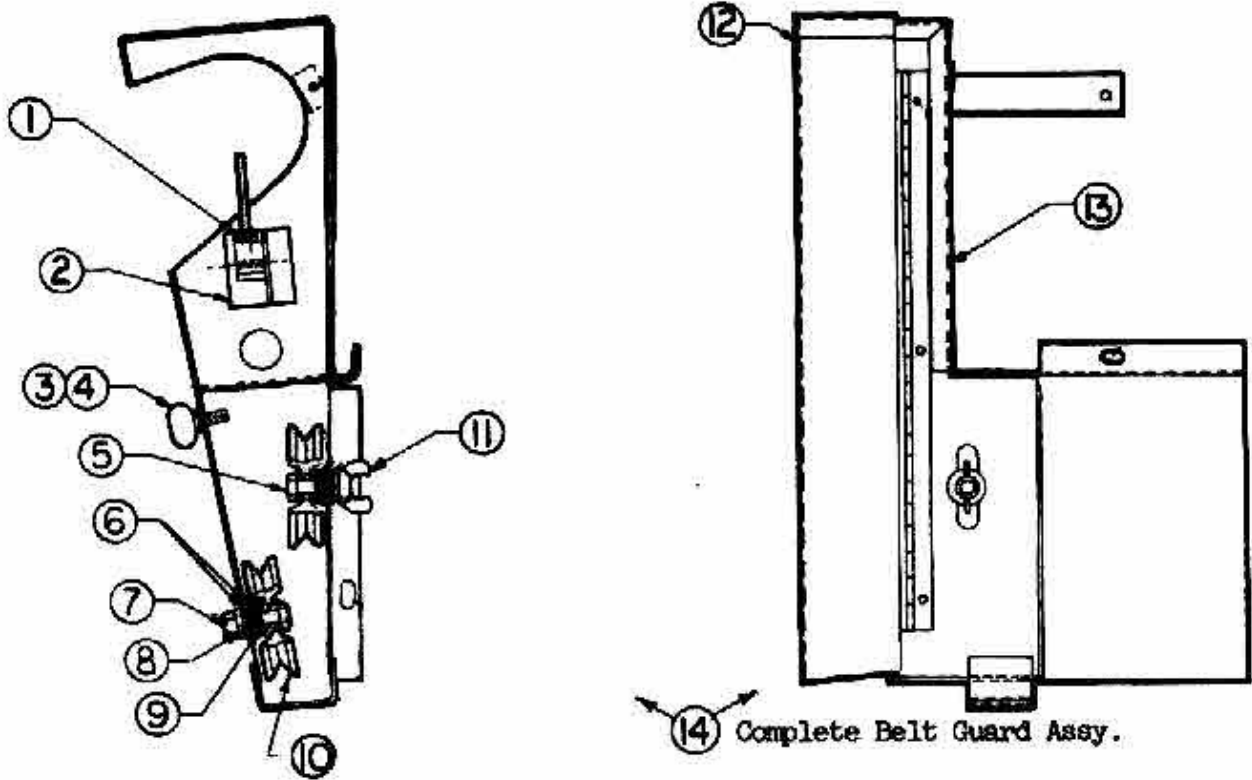
BACK VIEW OF PROPORTIONER



OIL FILLED PROPORTIONER EXTERNAL REPLACEMENT PARTS

Item	Description	4 COMPARTMENT		6 COMPARTMENT	
		Qty.	Part No.	Qty.	Part No.
1	Gasket—Gear Box Cover	1	80004507	1	80004509
2	Cover Assy.—Proportioner	1	93036670	1	93059950
3	"0" Ring	5	80008502	7	80008502
4	Cam & Sleeve Assy. (80000501 Bushing Only)	5	90000119	7	90000119
5	D—Prop. Knob Spring	5	11195780	7	11195780
6	Pop Rivet 5/32" Dia.	5	70007001	7	70007001
7	Knob Assy.	5	92000235	7	92000235
8	Set Screw	9	61663305	13	61663305
9	Screw Hex Hd. S.T. (1/4 - 20 x 5/8" Swage Form)	26	70000504	38	70000504
10	Bin Bolt Assy.	2	70000501	2	70000501
11	Set Screw (# ¹⁰ - 32 x 1/4)	4	61662705	6	61662705
12	Set Collar 5/8" x 1" x 5/16"	4	80012001	6	80012001
13	Washer—Rulon	4	70011503	6	70011503
14	Auger & Tube Assy.	4	93056330	6	93056330
15	Gasket—Bearing (Auger Shaft)	12	80004502	18	80004502
16	Bearing—Auger Shaft	4	40000014	6	40000014
17	Bearing Cap Assy.	4	92000232	6	92000232
18	Screw Hex Hd. S.T. (1/4 - 20 x 1/2" Swage Form)	4	70000502	4	70000502

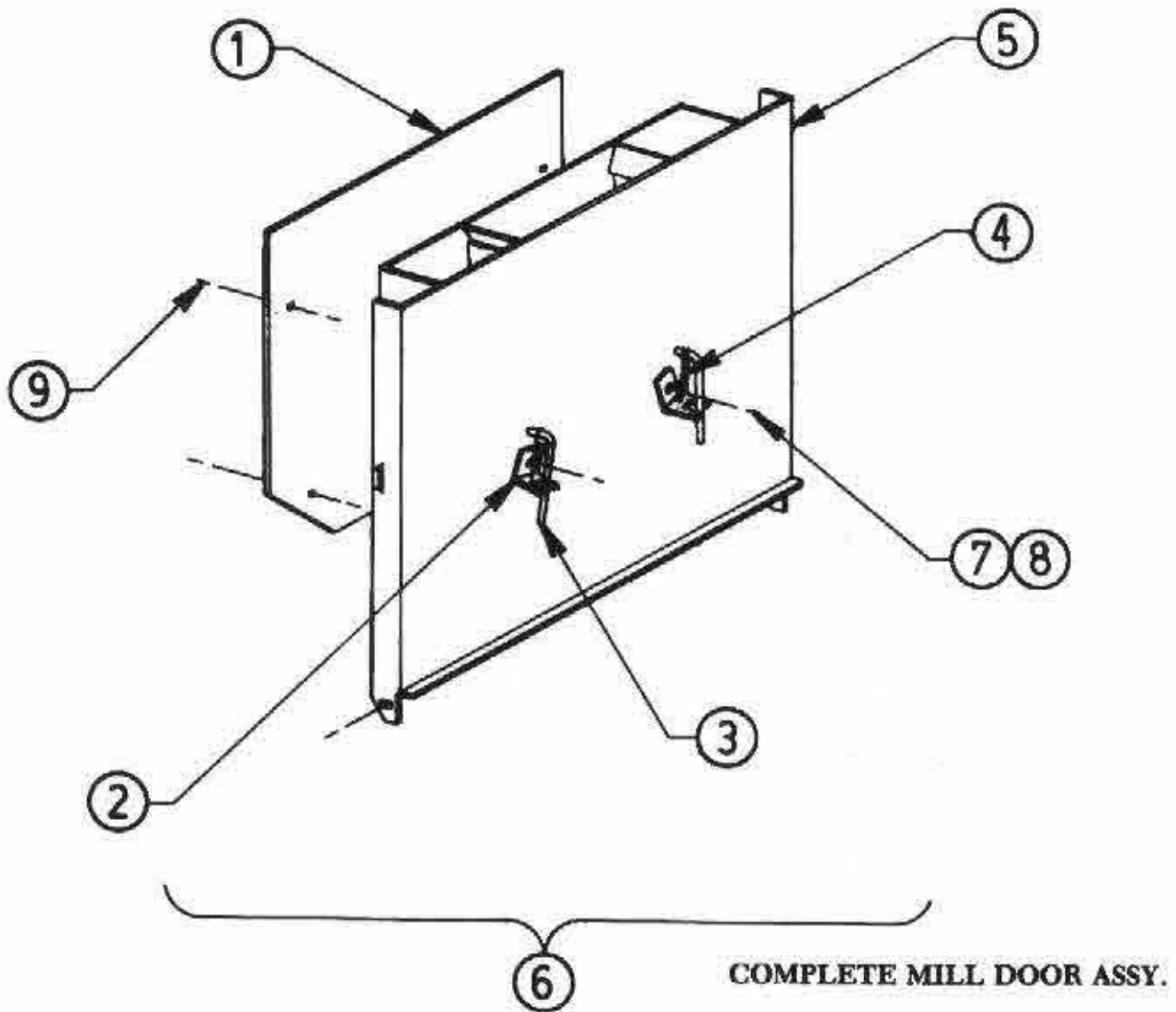
BELT GUARD ASSY. REPLACEMENT PARTS



COMPLETE BELT GUARD ASSY.

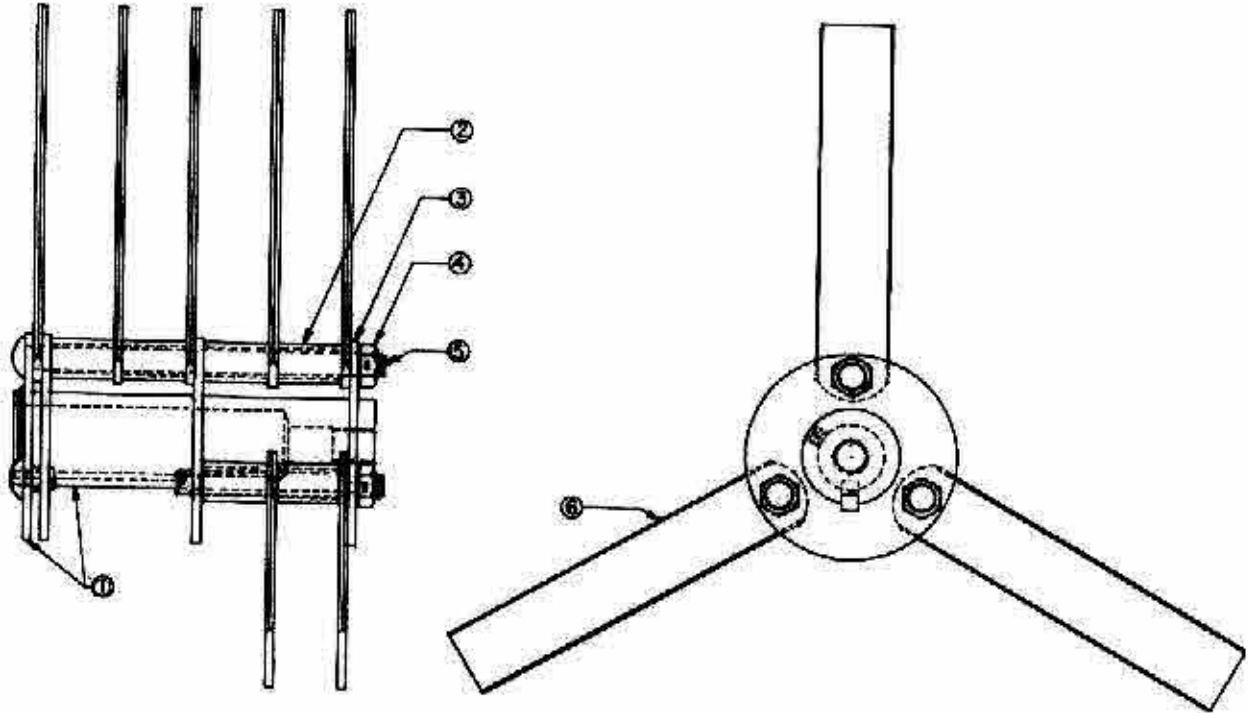
Item	Description	4 COMPARTMENT		6 COMPARTMENT	
		Qty.	Part No.	Qty.	Part No.
1	Micro Switch	1	10614200	1	10614200
2	Liner—Armité	1	10614300	1	10614300
3	Wing Bolt (1/4" - 20)	1	66843312	1	66843312
4	Washer—Flat (1/4")	1	66403300	1	66403300
5	Screw—Hex Head (3/8" - 16 x 1 - 1/2")	2	62584428	2	62584428
8	Washer—Flat (3/8")	10	66404400	10	66404400
7	Nut—Hex (3/8" - 16)	1	66084400	1	66084400
8	Washer—Lock (3/8")	2	86444400	2	66444400
9	Washer—Flat (3/8") Special	2	70011501	2	70011501
10	Sheave—Idler Assy.	2	40005004	2	40005004
11	Nut—Wing (3/8" - 16)	1	66364400	1	86364400
12	Belt Guard	1	93063050	1	93063050
13	Belt Guard & Idler Bracket Assy.	1	93061250	1	93072120
14	Belt Guard & Idler Pulley Assy.	1	93063071	1	93063072

MILL BACK ASSY. REPLACEMENT PARTS



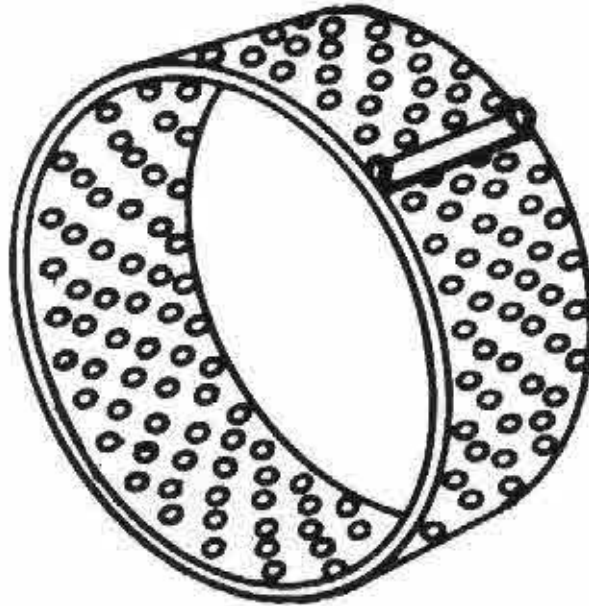
Item	Description	4 & 6 COMPARTMENT	
		Qty.	Part No.
1	Wear Plate—Back	1	93061020
2	Bracket—Valve Handle Toggle	2	11196270
3	Valve & Rod Assy.	2	93080710
4	Spring—Valve Handle Toggle	2	70008004
5	Back Assy.	1	93079040
6	Mill Back Assy.—Complete	1	93079031
7	Screw—Slot Hex Hd. T.C. (1/4" - 20 x 1/2")	4	65483312
8	Washer—Flat (1/4")	4	66403300
9	Screw—Hex Hd. T.F. (5/16" - 18 x 1/2")	4	65683812

BEATER HUB ASSY. REPLACEMENT PARTS



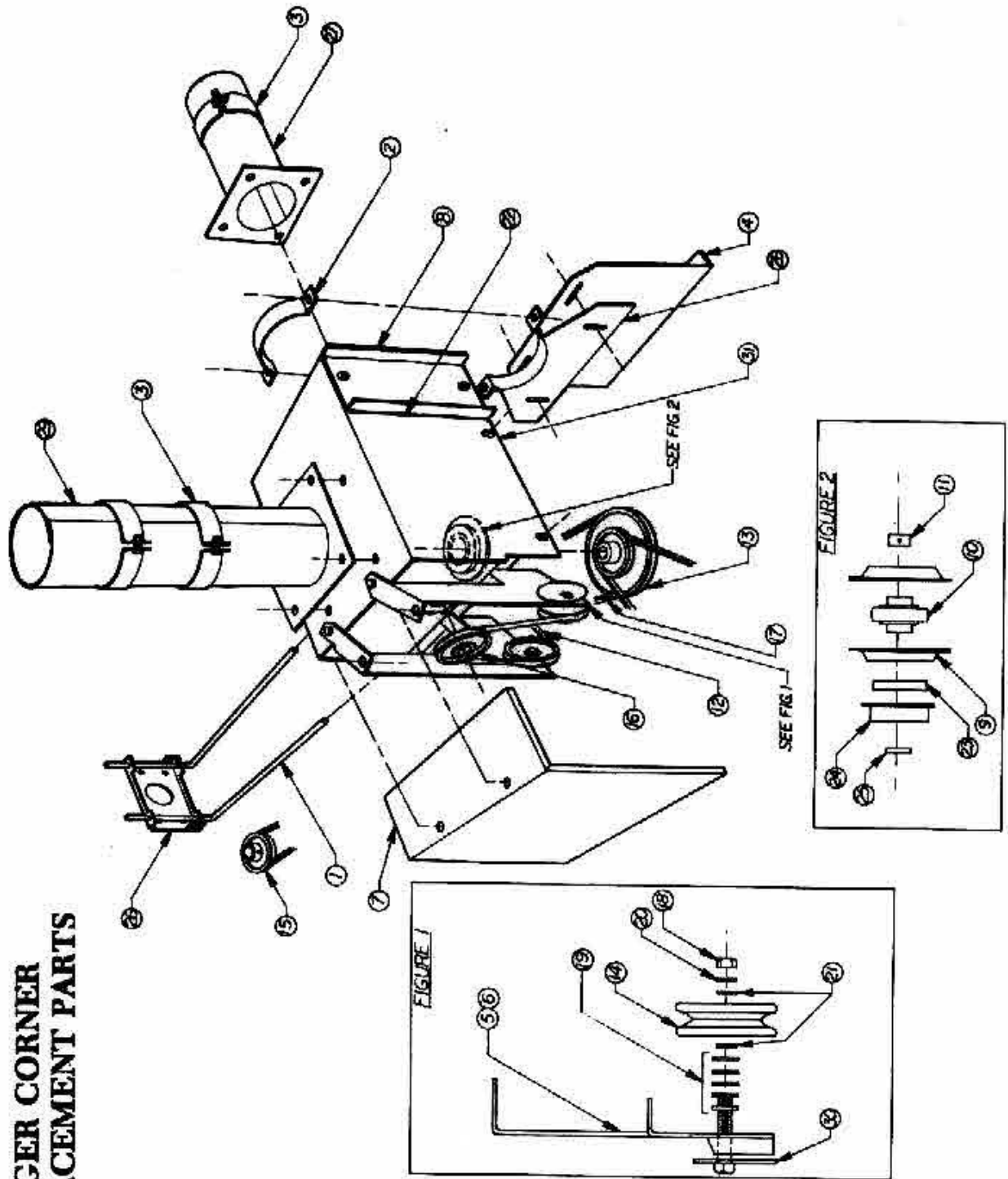
Item	Description	4 & 6 COMPARTMENT	
		Qty.	Part No.
1	Beater Hub Assy.	1	93055440
2	Spacer—Hammer	12	80013503
3	Washer—Beater Hub	3	70011506
4	Hex Jam Lock Nut (3/8" - 24)	3	66754500
5	Bolt—Beater Hub	3	70011508
6	Hammers (Set of 15)	1	92000278
7	Beater Hub Complete	1	93000972

MODEL "CX" MILL REPLACEMENT SCREENS



PART NUMBER	DESCRIPTION
93056702	1/8" CX Screen
93056703	3/16" CX Screen
93056704	1/4" CX Screen
93056705	5/16" CX Screen
93056706	3/8" CX Screen
93056708	1/2" CX Screen
93056709	5/8" CX Screen
93056710	3/4" CX Screen
93056712	3/32" CX Screen
93056713	5/32" CX Screen
93056714	7/32" CX Screen*

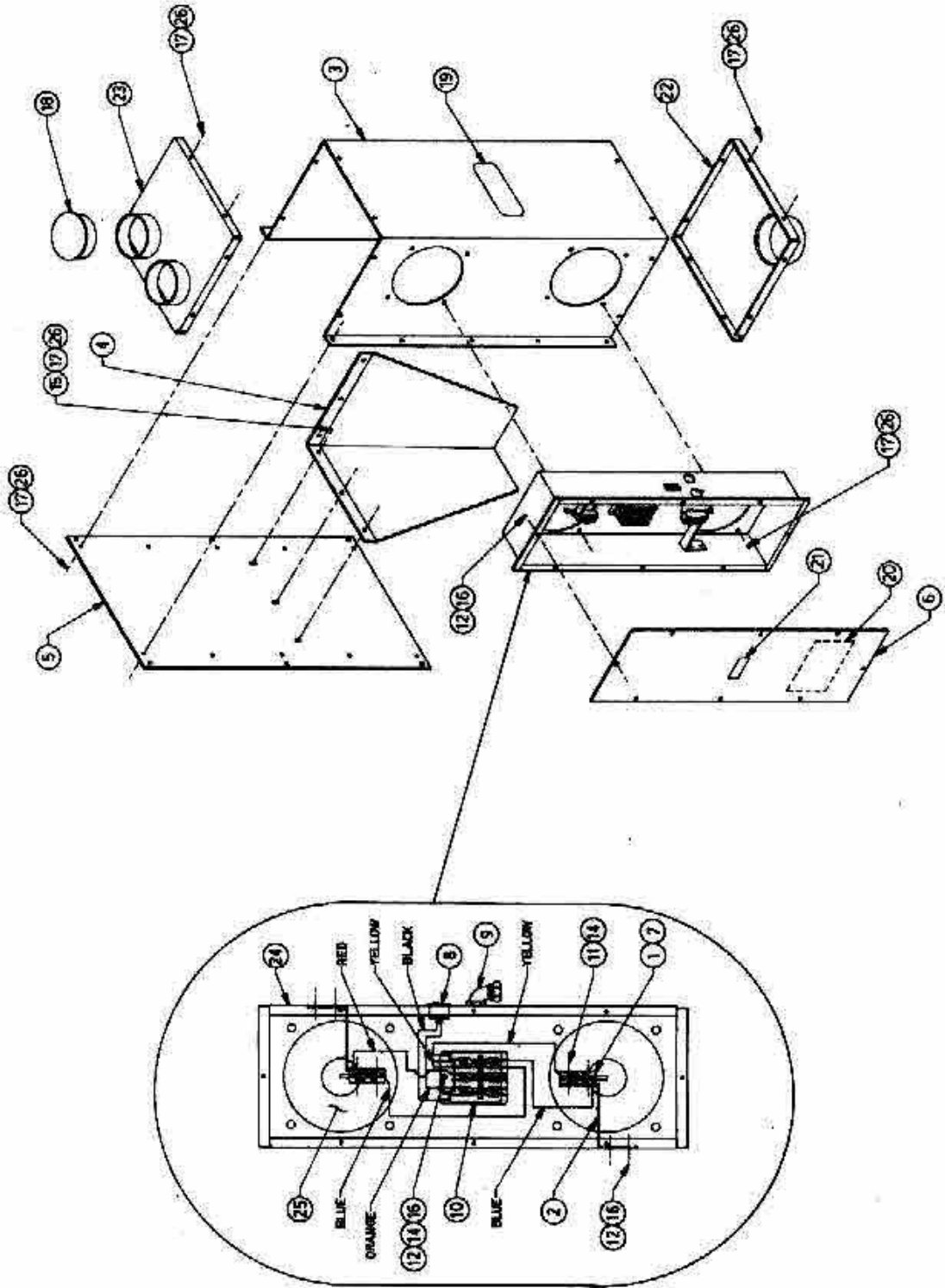
AUGER CORNER REPLACEMENT PARTS



AUGER CORNER REPLACEMENT PARTS

		4 & 6 COMPARTMENT	
Item	Description	Qty.	Part No.
1	Motor Mounting Rod	2	10045800
2	Half Clamp	1	10215901
3	Clamp Ring	3	10322902
4	Plate—Adjustable	1	10637900
5	R.H. Idler Bracket	1	10722701
6	L.H. Idler Bracket	1	10722702
7	Guard—Belt	1	10722800
8	Cover—Clean Out	1	10971301
9	Stamping for 5/8" Bearing	4	40000016
10	Bearing Cartridge-5/8"	2	40000017
11	Lock Collar	2	40000018
12	Belt—Round (7/16" Dia.)	1	40000502
13	Sheave—Step (5/8" Bore)	1	40003508
14	Idler Pulley (3" O.D.)	2	40005001
15	Sheave (3" x 5/8" Bore)—Motor	1	40003508 4120 1304
16	5" Sheave-5/8" Bore	1	42104604
17	Belt—V (41 ")	1	45001041
18	Nut—Hex (3/8" - 16)	2	66084400
19	Washer—Flat (3/8 ")	10	66404400
20	Washer—Lock (3/8")	2	66444400
21	Washer—Special (3/8 ")	4	70011501
22	Gasket—Clean Out	1	80004511
23	Bearing Seal	2	80011506
24	Seal Retaining Cup	2	80011507
25	Thrust Washer	2	80014502
26	Head Plate Assy.	1	93004552
27	Tube & Plate Assy.	1	93030371
28	Support Clamp—Welded	1	93063801
29	Tube & Plate Assy. w/Stop	1	93072321
30	Belt Tightener	2	93078621
31	Gearless Auger Corner—Welded	1	93094141

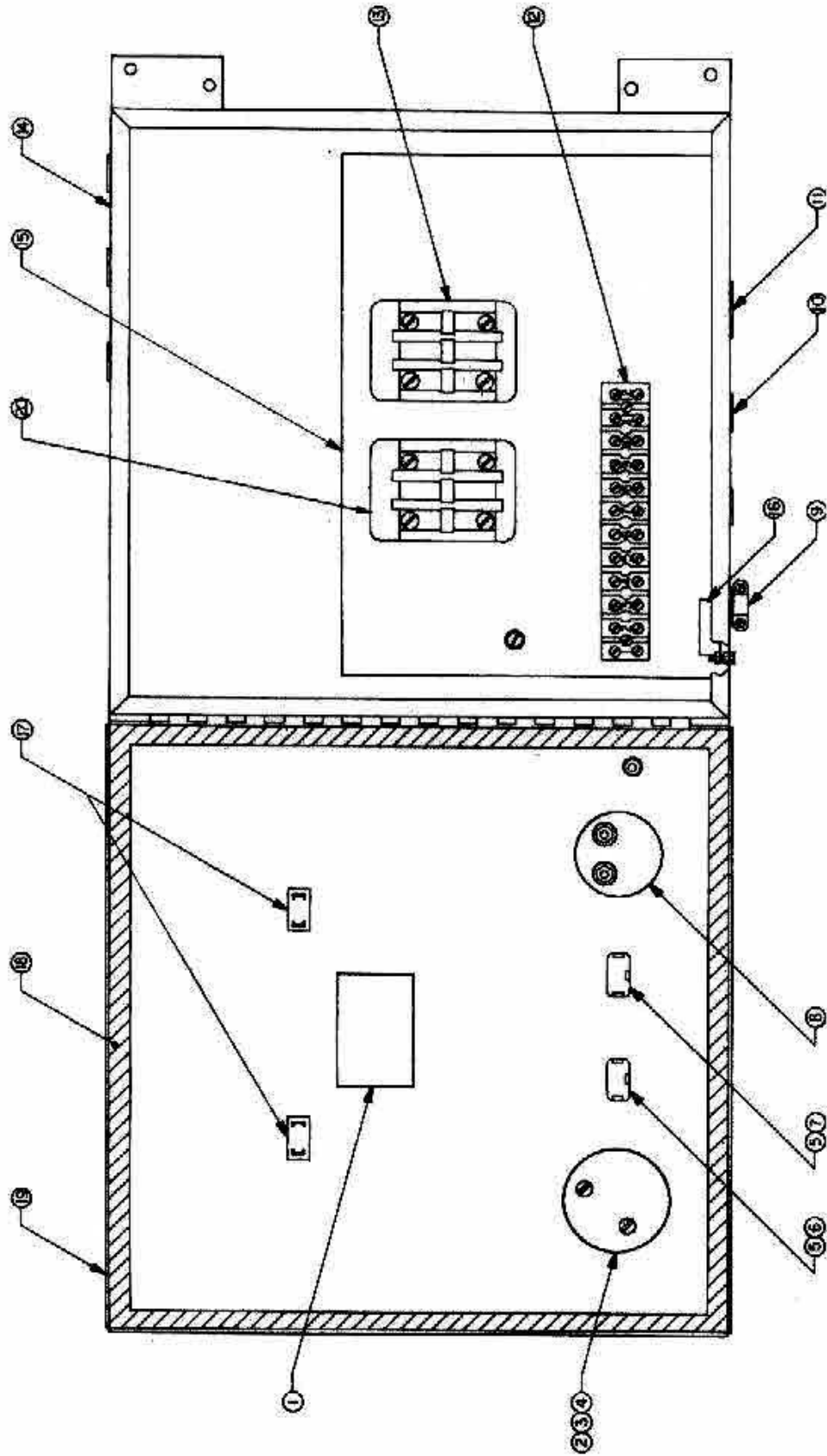
DOUBLE DIAPHRAM CONTROL HOPPER



DOUBLE DIAPHRAM CONTROL HOPPER REPLACEMENT PARTS

Item	Description	Qty.	Part No.
1	Double Diaphragm Control Hopper		9310-4831
2	Micro Switch	2	1079-3000
2	Mounting Bracket	2	1104-7900
3	Wrapper	1	1119-0010
4	Transition	1	1119-0020
5	Back Plate	1	1119-0040
6	Cover—Switch Box	1	1119-0050
7	Insulation	2	1119-5950
8	On & Off Switch—SPST	1	3100-8018
9	3/8" 90° Conduit Connector	1	3100-2621
10	Relay	1	3241-1240
11	#6 - 32 x 1"—S.T. Pan Head Screws	4	6468-1822
12	#8 - 32 x 1/2"—S.T. Slotted Hex Screws	12	6548-2212
13	#8 - 32 Hex Nut	4	6608-2200
14	#8 Flat Washer	6	6640-2200
15	1/4" Flat Washer	6	6640-3300
16	#8 Lock Washer	14	6644-2200
17	1/4" Lock Washer	40	6644-3300
18	Cap Plug 4" I.D.	1	8000-1001
19	Decal—Mix-Mill®	1	8000-3502
20	Decal—Control Hopper	1	8000-3513
21	Decal—Warning Label	1	8000-6506
22	End Plate Assembly—Bottom	1	9000-0001
23	End Plate Assembly—Top	1	9000-0002
24	Switch Box Assembly	1	9200-0001
25	Diaphragm Assembly	2	9310-4800
26	1/4" - 20 x 1/4"—Thread Cutting Screws	40	6548-3312

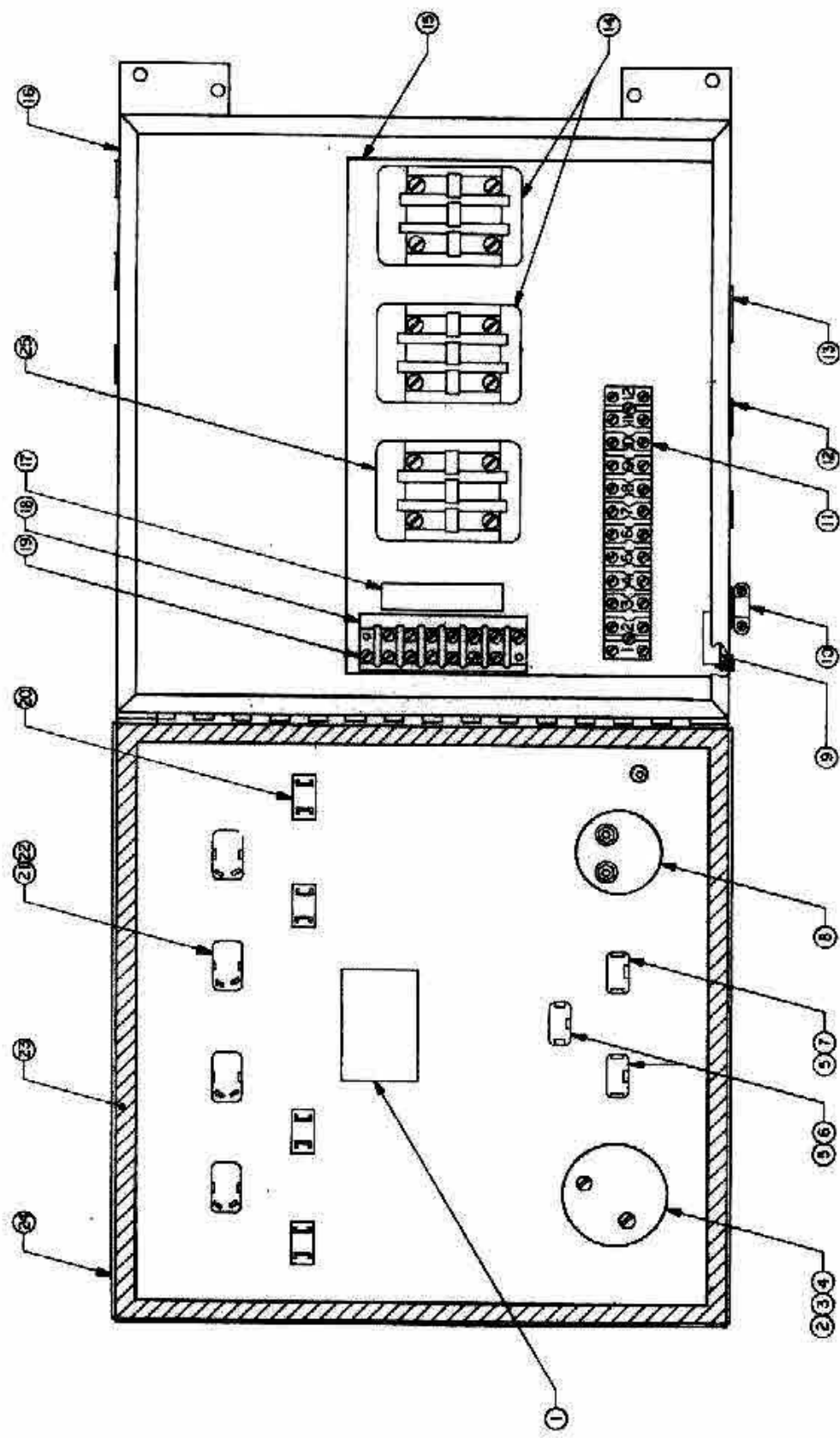
**PANEL COMPONENT PARTS-GRAVITY
REPLACEMENT PARTS**



**"CX" GRAVITY MILL PANEL
REPLACEMENT PARTS**

Item	Description	Qty.	Part No.
1	Label—Electrical Rating	1	80006505
2	Timer (2-Hour)	1	31011001
3	Timer Knob	1	31011005
4	Dial-2-Hour Timer	1	31011006
5	Switch—Toggle	2	31008004
6	Switch Plate—Auger	1	31008016
7	Switch Plate—Mill	1	31008017
8	Panel Meter (0-50 Amp) 5-7 1/2 H.P.-10 Gravity Panel	1	31000001
	Panel Meter (0-30 Amp) 5-10 H.P.-30 Gravity Panel	1	31000002
9	Straight Cable Connector (3/4 ")	1	31002503
10	Snap-In-Blank (7/8" Hole)	5	80010501
11	Snap-In-Blank (1 1/8" Hole)	1	80010502
12	Pressure Contact Terminal Block	1	31009001
13	Relay (30 Amp) 5 H.P.-10 Gravity Panel	1	32231240
	Relay (30 Amp) 7 1/2 H.P.-10 Gravity Panel	1	32231240
	Relay (30 Amp) 5-10 H.P.-30 Gravity Panel	1	32431240
14	Housing Assy. —Panel	1	93061210
15	Panel—Auxiliary	1	10626600
16	Label—Ground Connection	1	80006501
17	Circuit Breakers	2	31001001
18	Tape (Polyurethane Adhesive Backing)	63"	80014001
19	Panel Cover Assy. (Gravity)	1	93062883
20	Relay (30 Amp) 5 H.P.-10 Gravity Panel	1	32231240
	Relay (40 Amp) 7 1/2 H.P.-10 Gravity Panel	1	32241260
	Relay (30 Amp) 5-10 H.P.-30 Gravity Panel	1	32431240

**PANEL COMPONENT PARTS-GROUND LEVEL
REPLACEMENT PARTS**



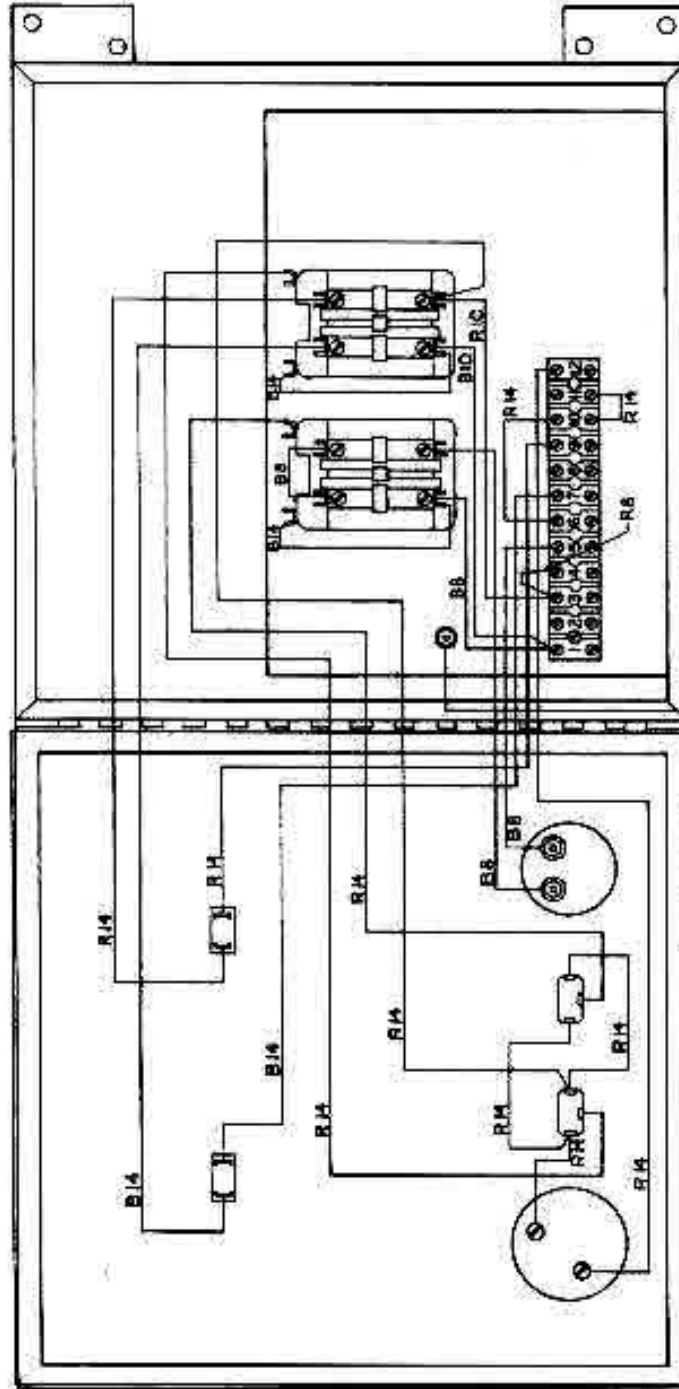
**"CX" GROUND LEVEL MILL PANEL
REPLACEMENT PARTS**

Item	Description	Qty.	Part No.
1	Label—Electrical Rating	1	80006505
2	Timer (2-Hour)	1	31011001
3	Timer Knob	1	31011005
4	Dial-2-Hour Timer	1	31011006
5	Switch—Toggle	3	31008004
6	Switch Plate—Auger	2	31008016
7	Switch Plate—Mill	1	31008017
8	Panel Meter (0-50 Amp) 5-7 ¹ / ₂ H.P.—10 G.L. Panel	1	31000001
	Panel Meter (0-30 Amp) 5-10 H.P.-30 G.L. Panel	1	31000002
9	Label—Ground Connection	1	80006501
10	Straight Cable Connector (3/4")	1	31002503
11	Pressure Contact Terminal Block	1	31009001
12	Snap-In-Blank (7/8" Hole)	5	80010501
13	Snap-In-Blank (11/16" Hole)	1	80010502
14	Relay (30 Amp) 5 H.P.—10 G.L. Panel	2	32231240
	Relay (30 Amp) 7 ¹ / ₂ H. P. —10 G L. Panel	2	32231240
	Relay (30 Amp) 5-10 H.P.-30 G.L. Panel	2	32431240
15	Panel—Auxiliary	1	10626600
16	Housing Assy.—Panel	1	93061210
17	Identification Tape	1	80006502
18	Fiber Marker	1	31005001
19	Terminal Block	1	31009002
20	Circuit Breakers	4	31001001
21	Switch—Toggle	4	31008002
22	Switch Plate On-Off	4	31008015
23	Tape (Polyurethane Adhesive Backing)	63"	80014001
24	Panel Cover Assy. (Ground Level)	1	93062884
25	Relay (30 Amp) 5 H.P.-10 G.L. Panel	1	32231240
	Relay (40 Amp) 7 ¹ / ₂ H.P.-10 G.L. Panel	1	32241260
	Relay (30 Amp) 5-10 H.P.-30 G.L. Panel	1	32431240

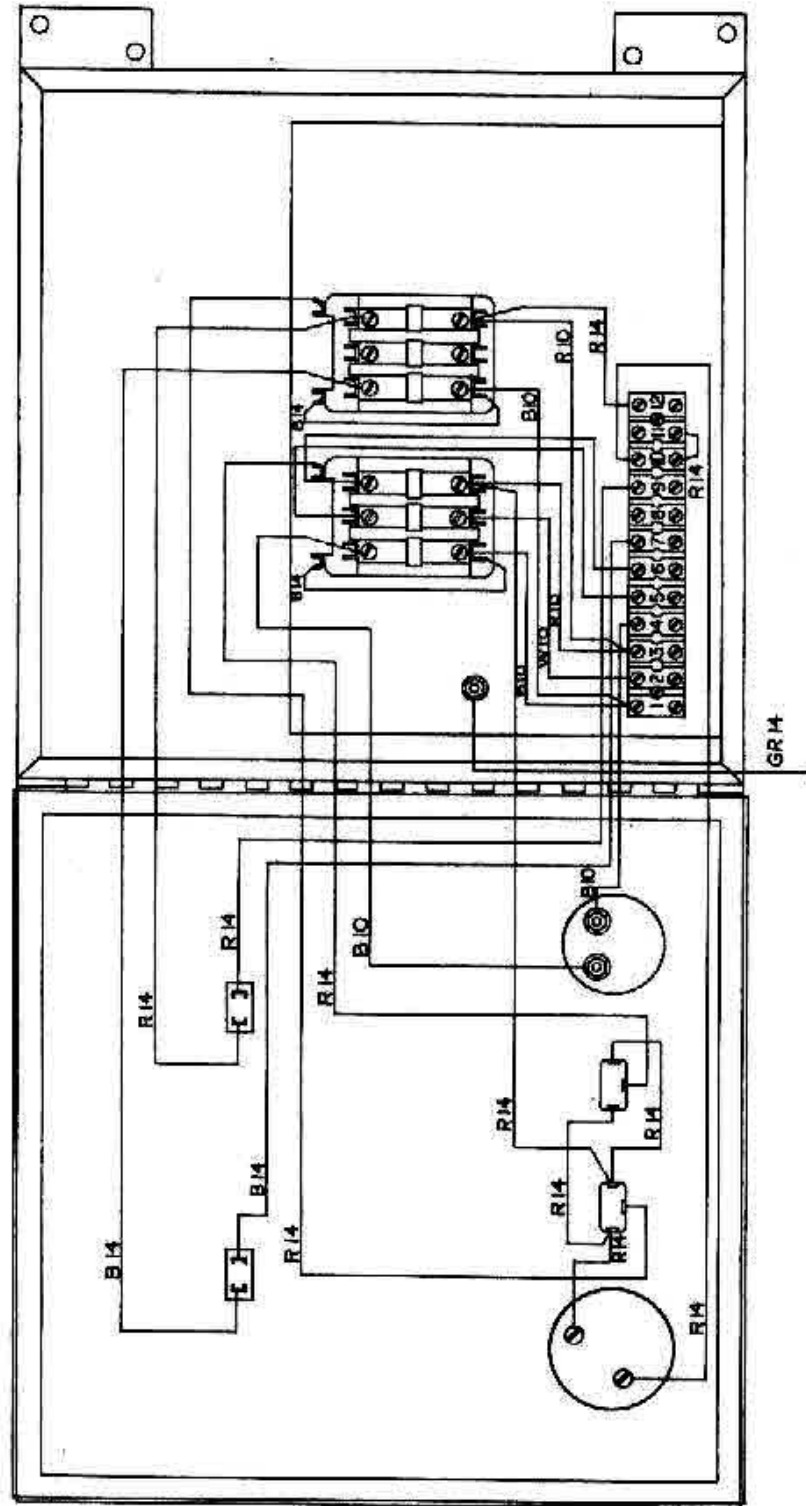
SECTION VII

WIRING DIAGRAMS

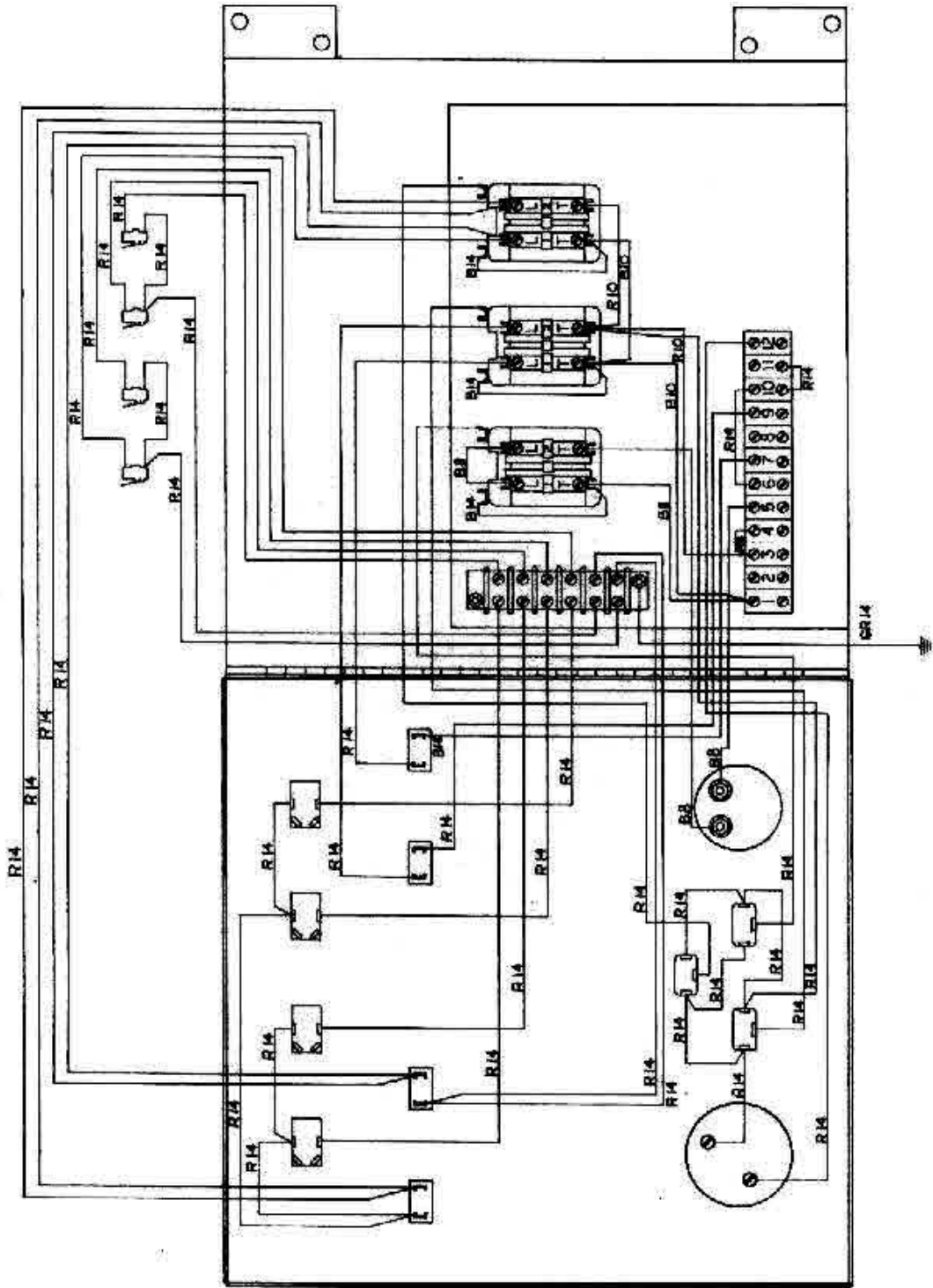
**10 GRAVITY CX-MILL
INTERNAL WIRING DIAGRAM**



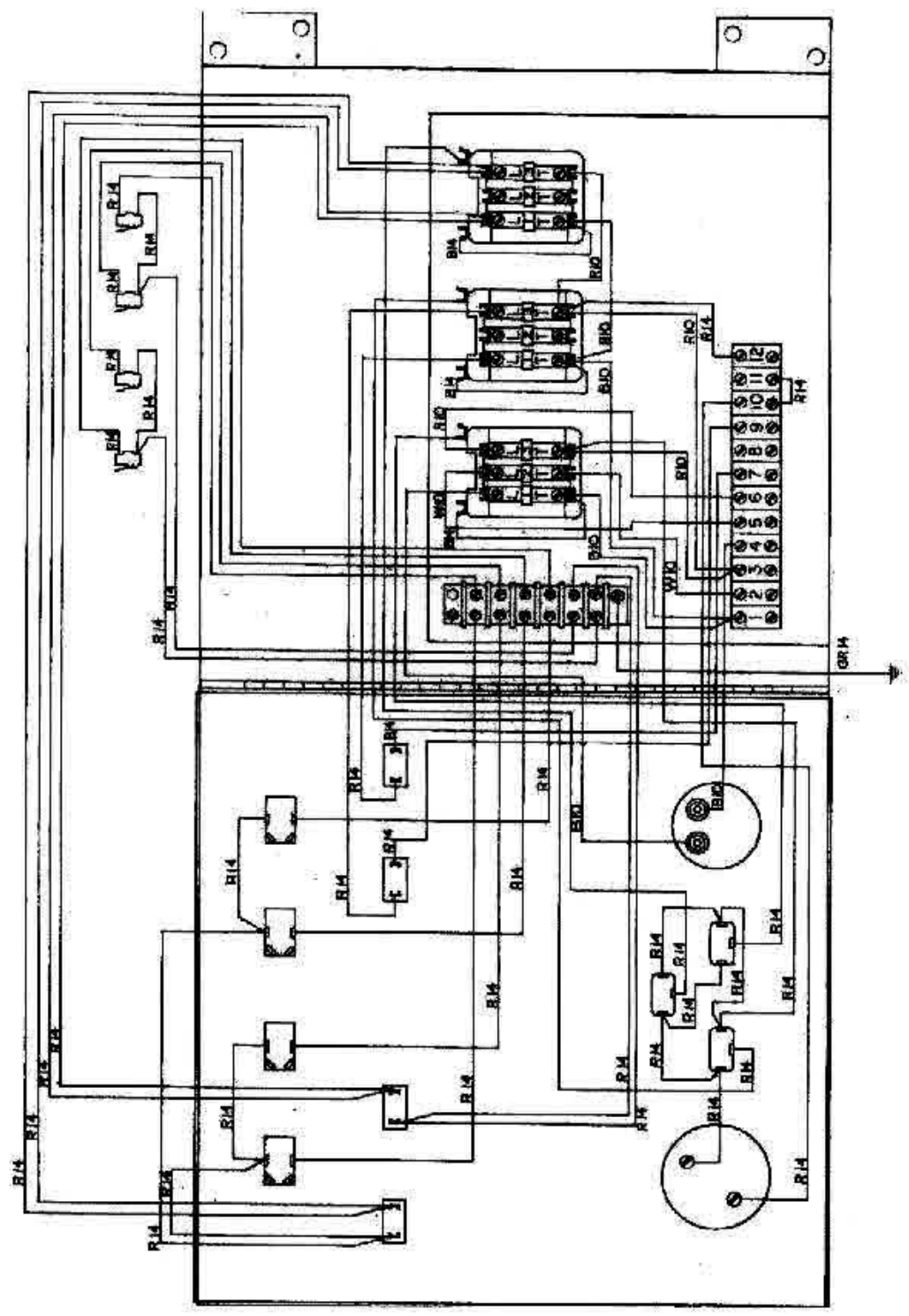
30 GRAVITY CX-MILL INTERNAL WIRING DIAGRAM



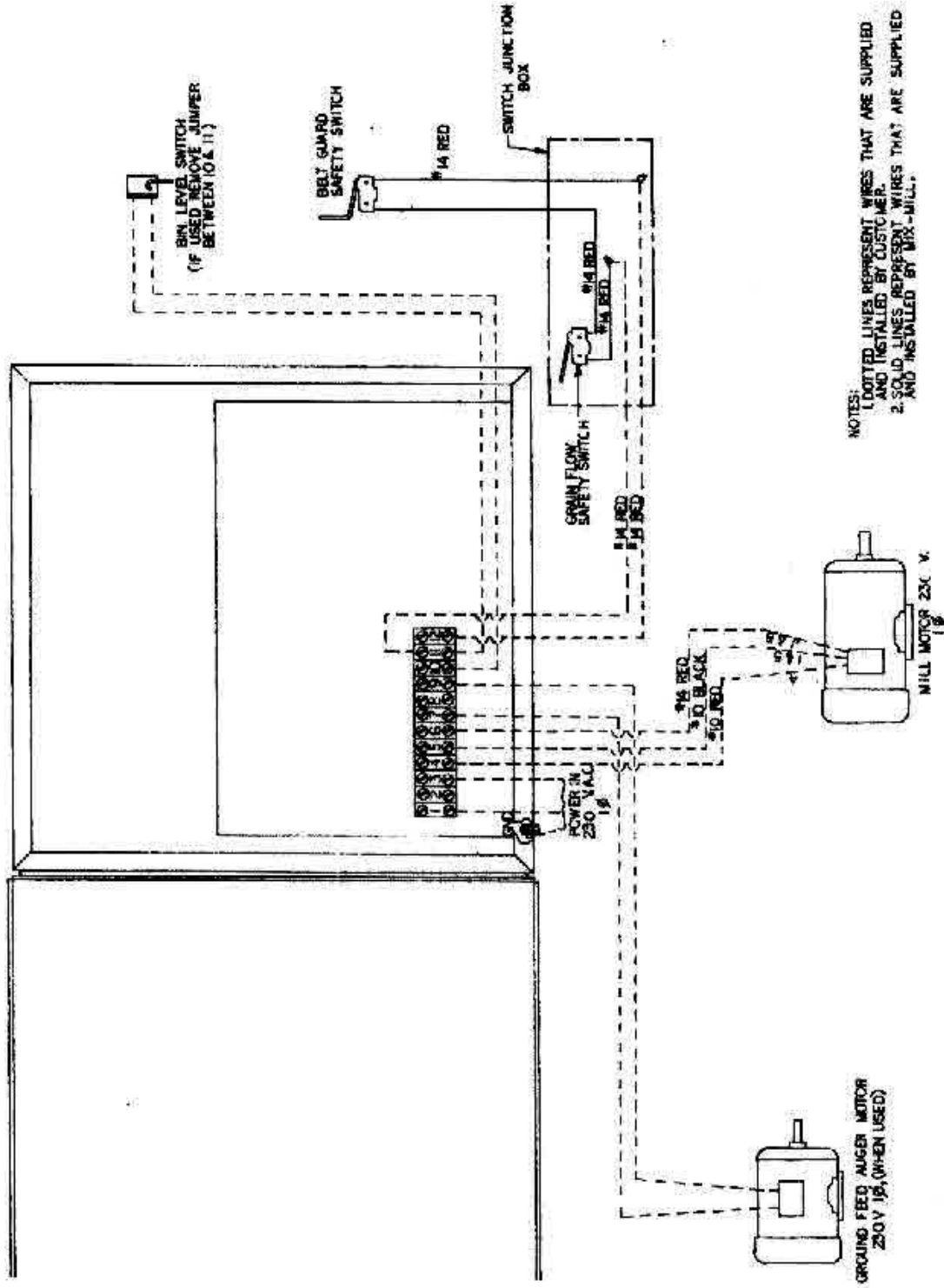
10 GROUND LEVEL CX-MILL INTERNAL WIRING DIAGRAM



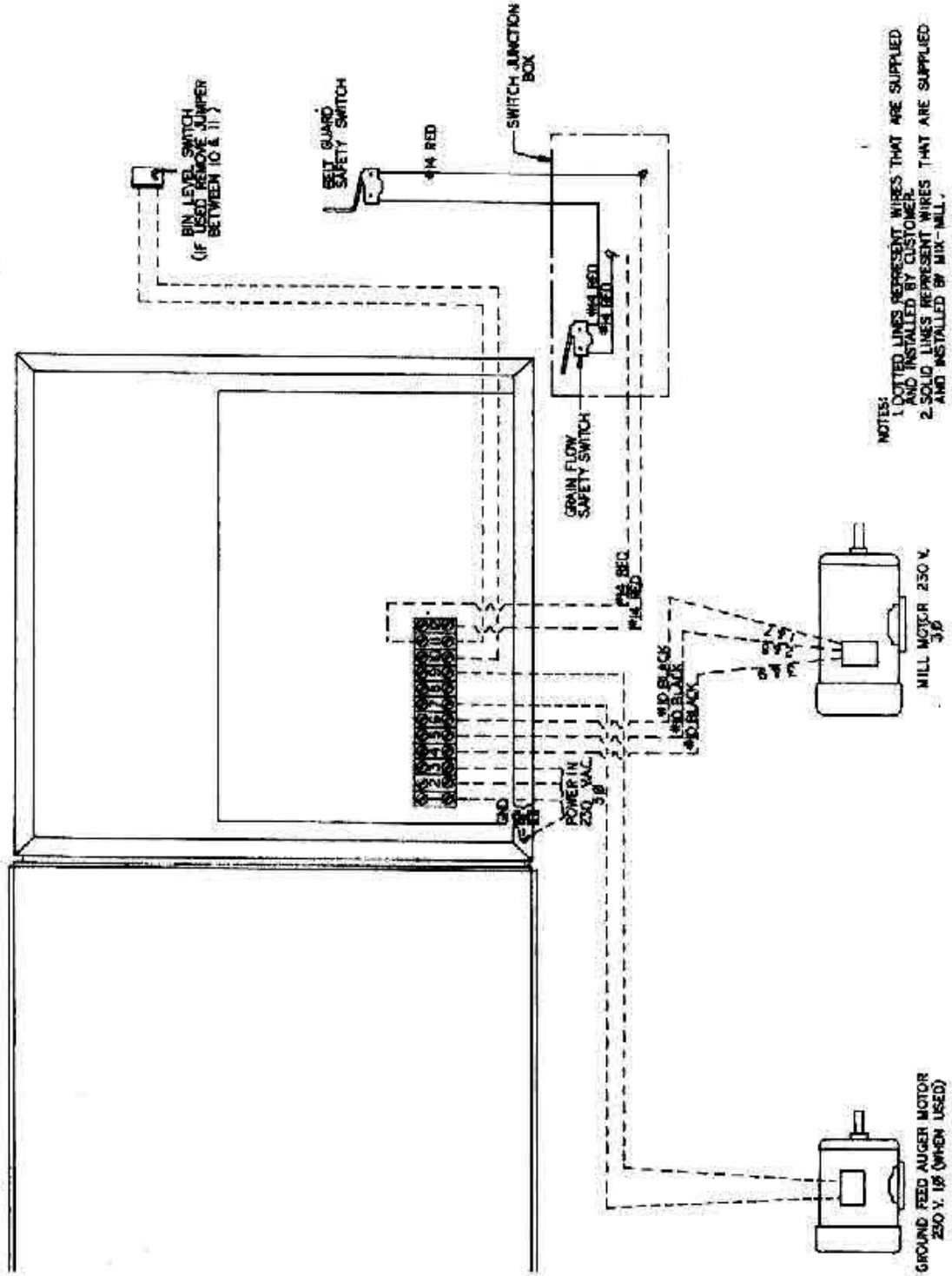
36 GROUND LEVEL CX-MILL INTERNAL WIRING DIAGRAM



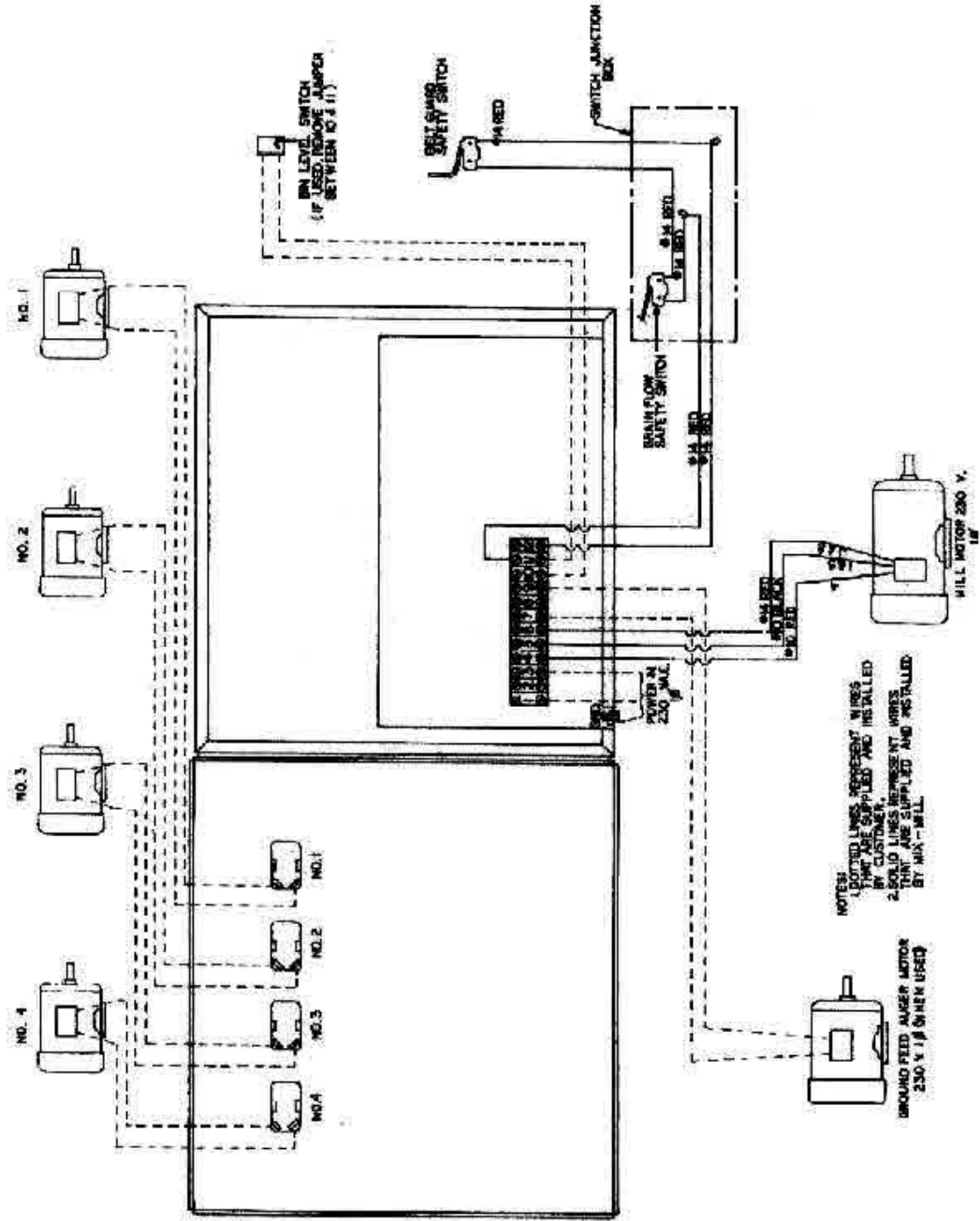
10 GRAVITY CX-MILL EXTERNAL WIRING DIAGRAM



36 GRAVITY CX-MILL EXTERNAL WIRING DIAGRAM

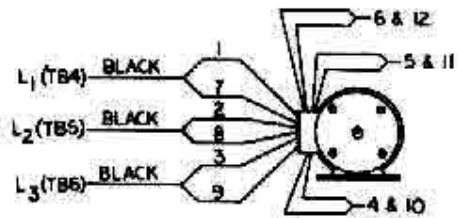


16 GROUND LEVEL CX-MILL EXTERNAL WIRING DIAGRAM



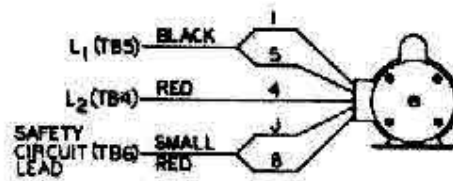
1Ø & 3Ø MILL MOTOR LEAD CORRELATION

BALDOR ELECTRIC MOTORS



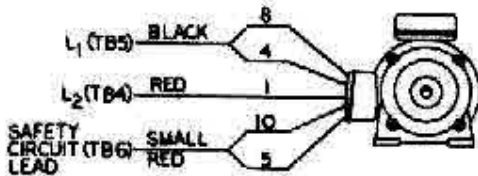
230 VOLT - 3Ø

BALDOR ELECTRIC MOTORS



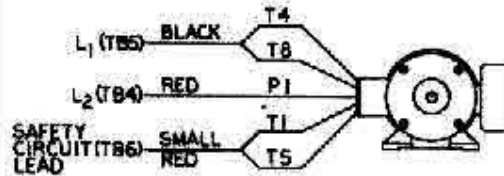
230 VOLT - 1Ø

GENERAL ELECTRIC MOTORS



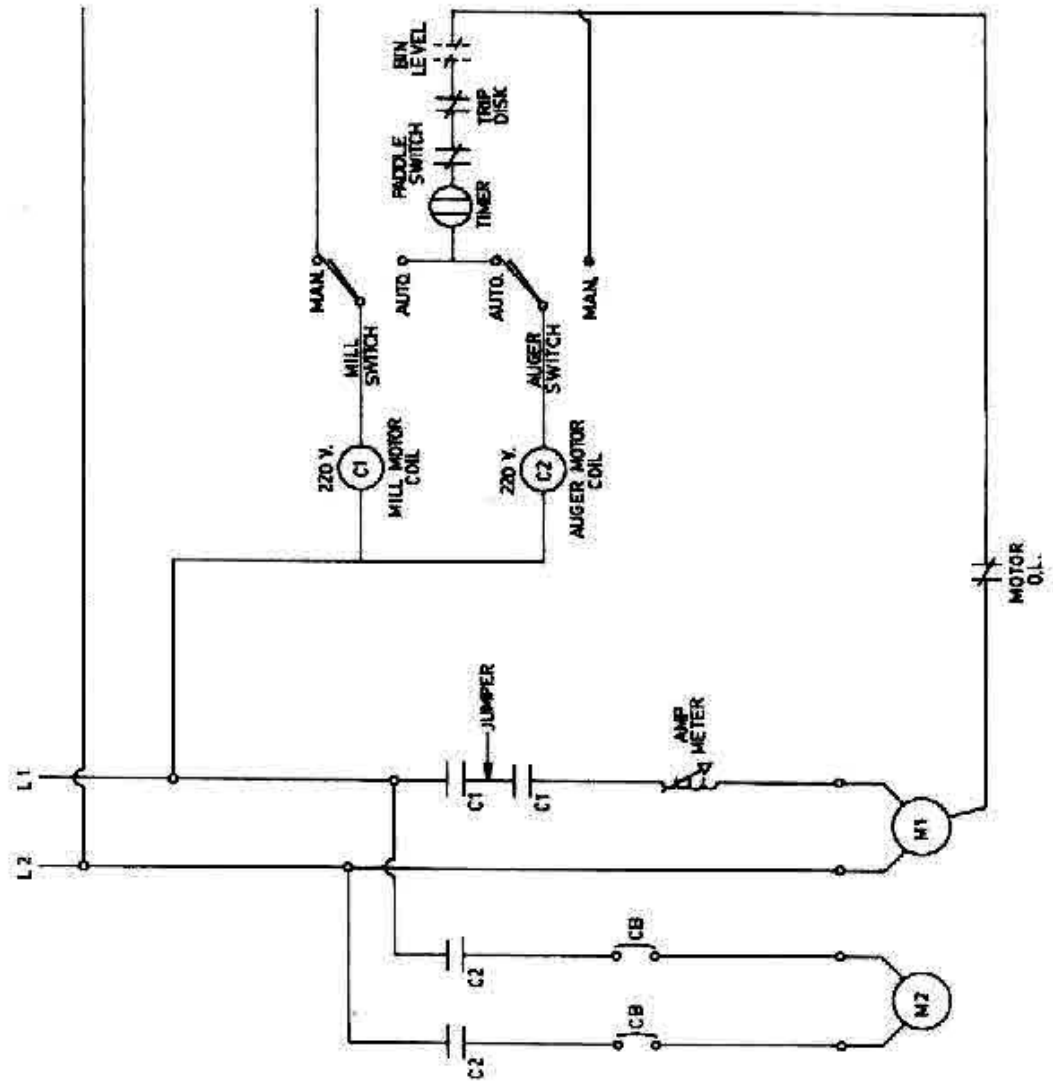
230 VOLT - 1Ø

DOERR ELECTRIC MOTORS

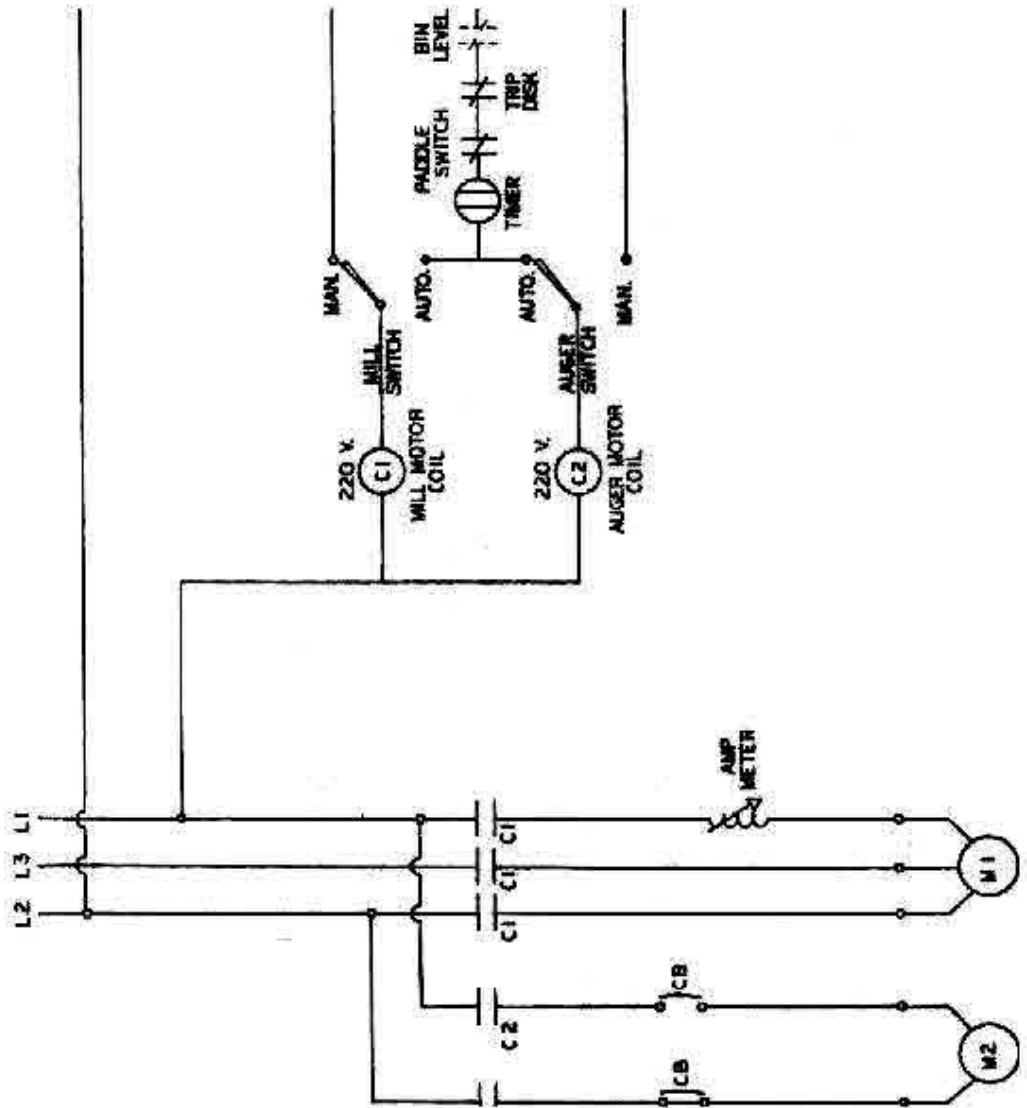


230 VOLT - 1Ø

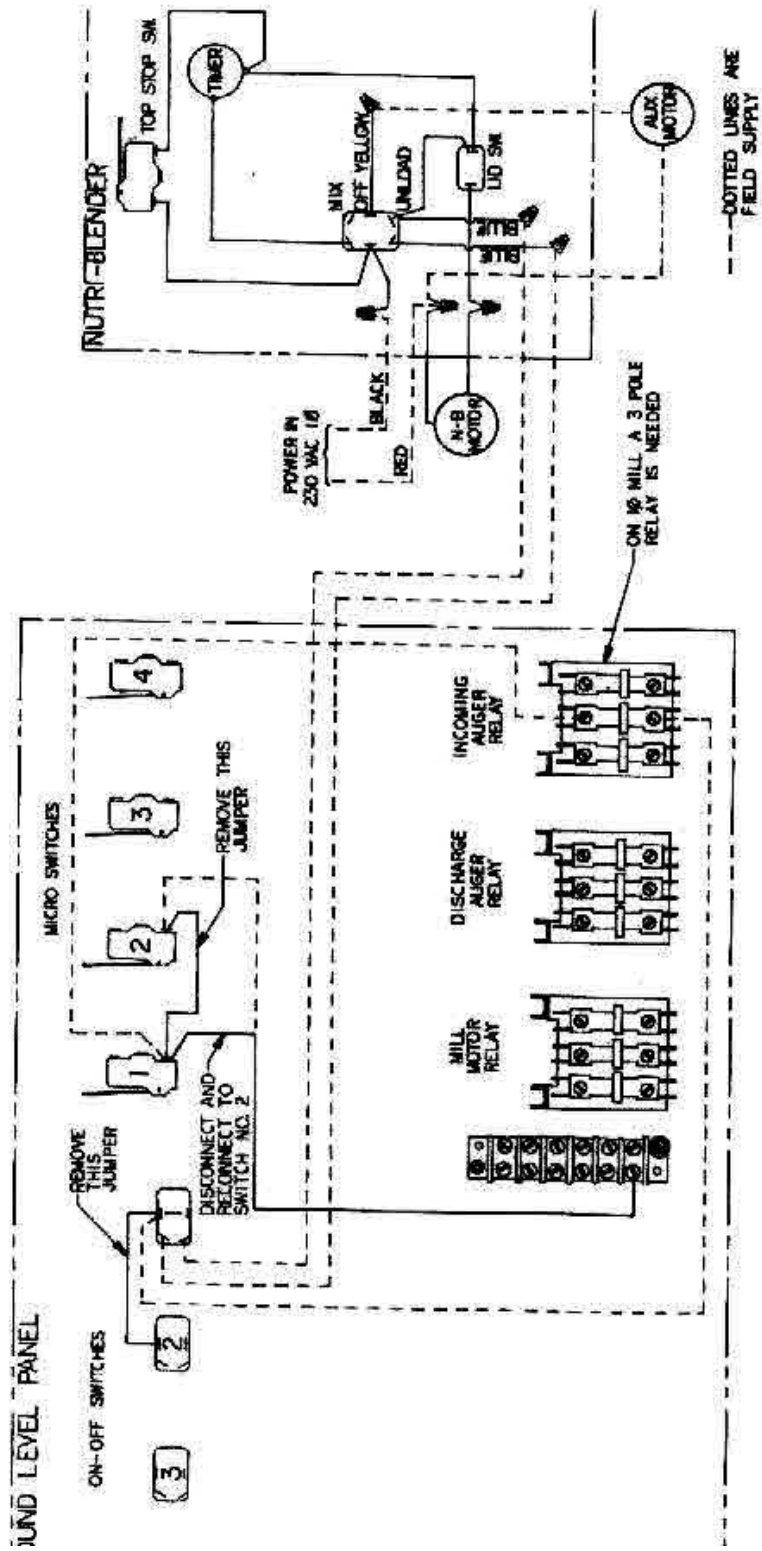
SCHEMATIC DIAGRAM 1Ø CX-MILL



SCHEMATIC DIAGRAM 30 CX-MILL



CX GROUND LEVEL MILL WIRING DIAGRAM WITH NUTRI-BLENDER



CX GRAVITY MILL WIRING DIAGRAM WITH NUTRI-BLENDER AND DBL. DIA. CONTROL HOPPER

