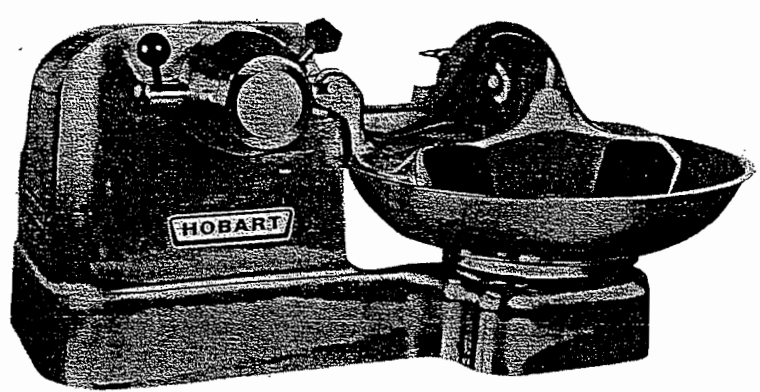




INSTRUCTION MANUAL

... with Replacement Parts



MODELS 8181 & 84181 FOOD CUTTERS

(INCLUDES MOTOR PARTS)

ML-16926 – 8181
ML-16927 – 8181-D
(Without Gear Attach.)

ML-16928 – 84181
ML-16929 – 84181-D
(With Gear Attach.)

Instructions for Operation and Care of MODELS 8181 and 84181 FOOD CUTTERS

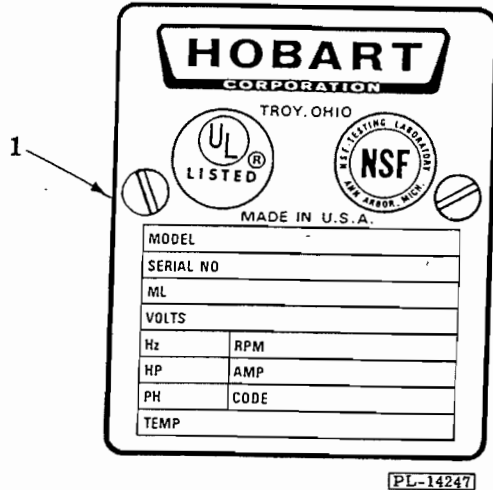


Fig. 1

A. INSTALLATION:

A.1 Before making any electrical connections, CHECK THE SPECIFICATIONS ON THE NAME PLATE (1, Fig. 1) TO MAKE SURE THEY AGREE WITH THOSE OF YOUR ELECTRICAL SERVICE. Connect multiphase motors so bowl will turn clockwise (see arrow) (3, Fig. 2). Knives will then turn downward (viewed from the front of the machine). (See arrow on knife shaft (3, Fig. 6)). The cord connector hole is tapped (3/4") and can be used for conduit connection.

A.2 The machine has sufficient lubrication when it leaves the factory. Careless handling in shipment (such as inverting the machine) may cause loss of lubricant. Check for evidence of grease leakage on carton of the machine. Check lubricants before placing the machine in operation (see section C.9).

On model 84181 before operating machine, remove thumb screw and withdraw hub cover (1, Fig. 10). Then pull out plastic plug from air vent screw (3, Fig. 10) (used to prevent oil leakage during shipment). Replace hub cover and thumb screw.

B. OPERATION AND SAFETY INTERLOCK:

B.1 The knives should be correctly mounted in place on the shaft (section C.2). The comb (3, Fig. 5) should be placed on the locking adapter before locking the bowl cover. If your food cutter has an attachment drive (Model 84181) its control should be disengaged by raising control handle, (1, Fig. 8) when not in use.

B.2 Press down and turn (clockwise) the locking knob (2, Fig. 5) on top of the bowl cover. Turn the switch control knob to the "ON" position (1, Fig. 3). The bowl cover is locked (see section C.5) when the switch is "ON". If the bowl cover is removed or in the raised position, the switch cannot be turned "ON".

B.3 Food cutter knives are extremely sharp. **WARNING: KEEP HANDS FROM UNDER BOWL COVER.** Caution plate (1, Fig. 2) is attached to the bowl cover (2, Fig. 2) as a reminder. AFTER switch has been turned "OFF" be sure to wait until knives have stopped turning before unlocking bowl cover.



Fig. 2

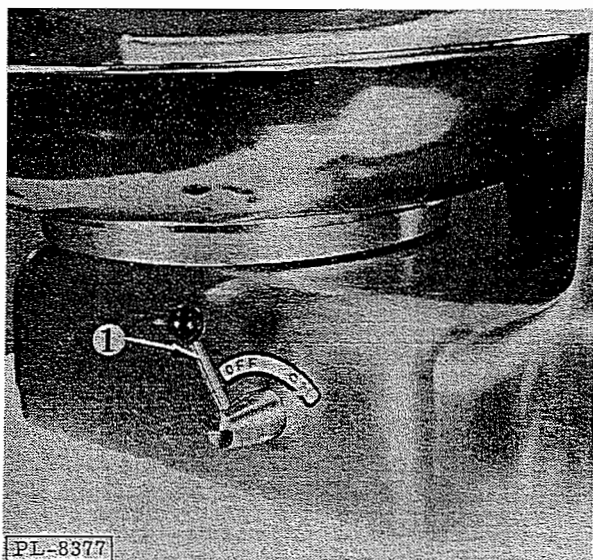


Fig. 3

B.4 The shape of the food cutter bowl cover rolls or turns the material. This provides mixing action. It is NEVER necessary to reach beneath the bowl cover. Material can be discharged while the machine is in operation. Should inspection be necessary ALWAYS shut off the motor — wait for the knives to stop. Then unlock and lift the bowl cover to remove any obstruction.

B.5 On a food cutter, with attachment drive (Model 84181), it is good practice to remove the knife unit when only the attachment is used. Disengage the attachment drive when only the bowl is used. It is not necessary to take the attachment from the machine in order to use the bowl. Many operators prefer to do so since more working space is provided in this way.

B.6 The attachment drive will power any #12 size HOBART attachment. These include Chopping End, 9" Vegetable Slicer, Dicer, Juice Extractor, Spice Grinder or Knife and Tool Sharpener.

B.7 The types of products that may be processed in the HOBART food cutter are almost unlimited. Meats, vegetables, fruits, crackers and bread crumbs are cut fine or coarse depending on the length of time they are left in the bowl.

B.7.1 Material is fed directly to the food cutter bowl. Various products can be cut separately or blended.

B.8 Many products are first put through the attachment, then finished in the food cutter bowl. One operator may alternately use the bowl or the attachment. Always observe all safety suggestions.

C. KNIVES:

C.1 The knife assembly (1, Fig. 4) should be removed as a unit, for cleaning, sharpening, etc. Stop machine, wait for knives to STOP turning, unlatch and raise bowl cover, remove hand knob (2, Fig. 4) and carefully slide unit from shaft.

C.2 The knives are properly placed and adjusted when shipped from the factory. The clearance between the knife (at the closest point) and the bowl should be .020" to .030". The leader knife (beveled on one side only) is on the side next to the motor. Knives are directly opposite each other and are set to cut downward when viewed from the hand knob (2, Fig. 4) end.

C.2.1 To check clearance or make adjustment, disconnect the power supply (make sure knives are not turning) unlatch and raise bowl cover (1, Fig. 5). Loosen hand knob (2, Fig. 4) slightly (without removing knife unit from machine), hold a wrench on the flats of sleeve (1, Fig. 6) to keep sleeve from turning and slightly loosen nut (2, Fig. 6) with a second wrench. Gently tap loosened knives with a block of wood until the proper clearance is reached. Retighten nut.

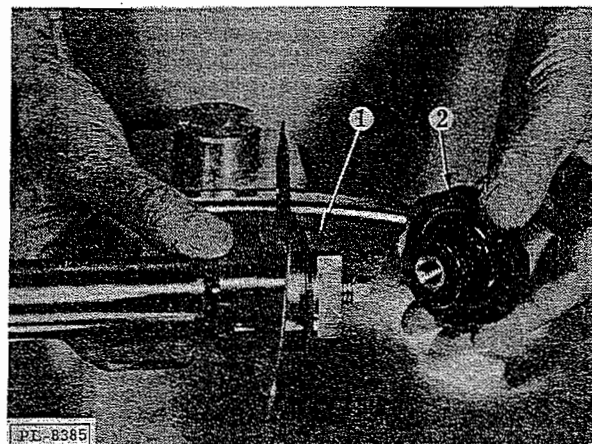


Fig. 4

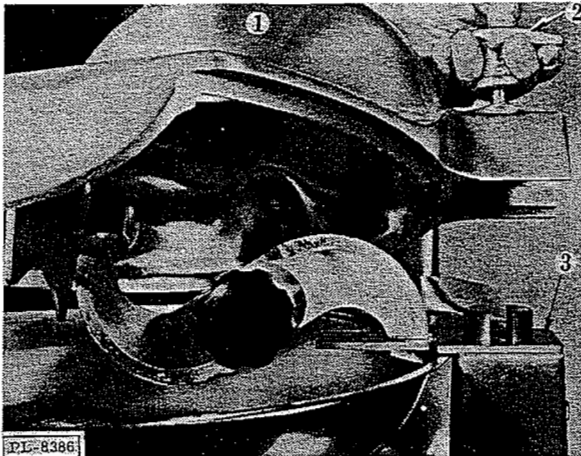


Fig. 5

C.3 Knives should be sharp, but should not have a razor edge. An extremely thin edge dulls quicker than the sturdy bevel that knives have, when received from the factory. For ordinary touch-up, use a carborundum stone, without disassembling the knife unit assembly (C.1). If a knife becomes nicked and it is necessary to grind it deeply, the knives should then be disassembled, re-adjusted and perhaps re-balanced (C.2.1). The knives must be close to the same weight to maintain proper balance because of the high speed operation. Knives are paired and balanced at the factory. Spare knives should be kept in pairs.

C.4 BOWL:

C.4.1 Bowl Removal.

C.4.1.1 Turn off the power supply, wait for the knives to stop turning, unlatch and lift the bowl cover. Carefully, to avoid the sharp edges, turn the knives to a horizontal position. Turn bowl clockwise, the short travel to its stop and then lift off bowl. It is necessary to remove the comb when removing the bowl.

C.4.1.2 A special sanitary cover disc covers the bowl drive retaining screws and may easily be removed by turning counter-clockwise with the palm of the hand.

C.4.1.3 To re-assemble bowl, place into position and rotate bowl counter-clockwise to the stop.

C.5 BOWL COVER:

C.5.1 The bowl cover has a special shape that turns the product over in the revolving bowl. This eliminates the need for a separate deflector.

C.5.2 Bowl Cover Removal.

C.5.2.1 Turn off motor—releasing interlock. Wait for knives to stop.

C.5.2.2 Turn bowl cover locking knob (2, Fig. 5) at right angles to machine and lift knob.

C.5.2.3 Raise bowl cover (1, Fig. 7) to clear knives and bowl. Lift bowl cover off. To reassemble, slide hinge over hinge pins and lower bowl cover into position.

C.5.3 To lock (or latch) the bowl cover, the switch must be in the “OFF” position. Press the knob down and turn it to a position parallel with the knife shaft.

C.5.4 The knife comb may be lifted off when the bowl cover is in the raised position. A dowel in the comb (3, Fig. 5) positions it for assembly and the bowl cover holds it in place.

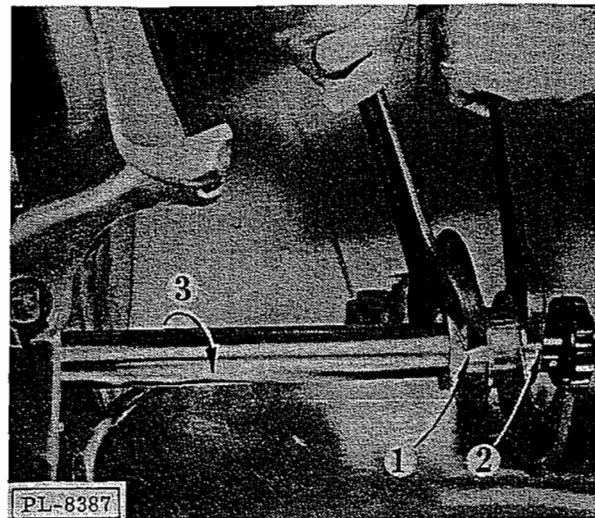


Fig. 6

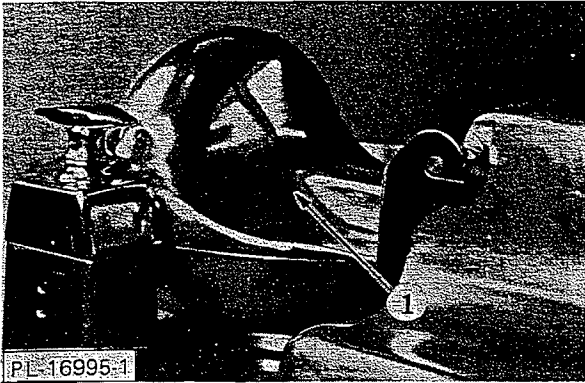


Fig. 7

C.6 ATTACHMENT DRIVE:

C.6.1 The attachment drive is for a #12 attachment. Various #12 attachments may be driven by this food cutter. The Chopping End, 9" Vegetable Slicer and the Dicer are the most popular attachments. A Speed Drive attachment which would triple the speed of the 9" Slicer is also available (cannot be used with chopper or dicer attachment).

C.6.2 This food cutter has a special clutch which allows the operator to throw the attachment drive in or out of gear, eliminating the need for removing an attachment not in use. Push the clutch handle (1, Fig. 8) to "up" position to disengage the clutch, or pull it down for engagement (may be necessary to jog machine for engagement). The machine should be running when shifting the clutch.

C.7 MOTOR:

C.7.1 Single phase motors on this food cutter are of the capacitor type, so do not have brushes.

C.7.2 Motor parts are listed on separate Motor Parts Sheet.

C.8 CLEANING:

C.8.1 This food cutter has been designed for easy cleaning and maximum sanitation. The base is totally enclosed, the knives have closed slots (for adjustment), the scraper has been eliminated by the special bowl cover, the bowl is of one piece stainless steel (easily removed by turning clockwise) and the attachment hub is covered with a stainless

steel cover (which slides off for cleaning by removing thumb screw). To clean this machine, unplug electrical supply cord and use a damp cloth.

C.9 LUBRICATION:

C.9.1 Only two places require a periodic lubricant check, they are; the bowl drive gear case and the attachment drive gear case (on machines with attachment drive only). The frequency of checking of course will be in relation to usage. A twelve month check by your Hobart service technician is recommended.

C.9.1.1 To check the bowl drive gear case:

C.9.1.1.1 Turn off the power supply and remove the bowl (C.4.1).

C.9.1.1.2 Remove the bowl drive cover disc (C.4.1.2) and then the bowl drive retaining screws. Lift off bowl drive disc.

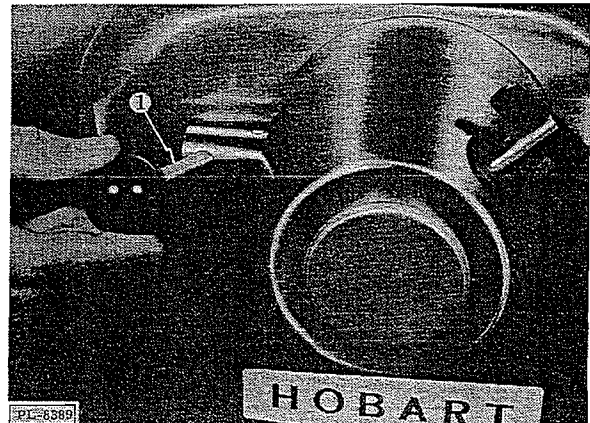


Fig. 8

C.9.1.1.3 Remove the pipe plug (1, Fig. 9), and using a small rod (approximately 1/8") as a dip-stick check the amount of lubricant. When using the dip-stick, make sure you clear the worm wheel. (It is approximately 2-7/16" from the top face to the bottom of the cavity). The measurement from the top surface down for a minimum of lubrication should be 2-1/8" and for a maximum the measurement should be 1-3/4". Use "Texaco Multigear EP-140" (Texaco, Inc.) (or equivalent) lubricant for replenishment.



Fig. 9

C.9.1.2 To check the attachment drive gear case:

C.9.1.2.1 Turn off the power supply.

C.9.1.2.2 Remove thumb screw and withdraw hub cover (1, Fig. 10).

C.9.1.2.3 Remove the six hex head screws (2, Fig. 10) and withdraw the attachment hub (with worm wheel).

C.9.1.2.4 The lubricant should be at the gasket line, where the lower gear case cover attaches to the gear case. Note: No lubricant is used in this cavity on machines without the attachment drive. Use "Gearep #65" (Standard Oil Co., Ohio) or medium weight transmission oil with a Saybolt viscosity of 60 to 90 @ 210° F. if additional lubricant is needed.

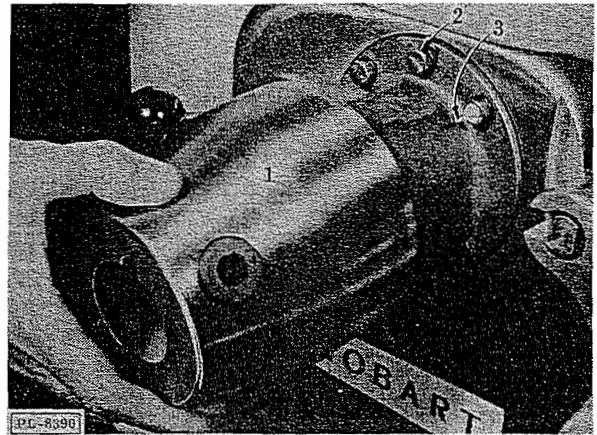
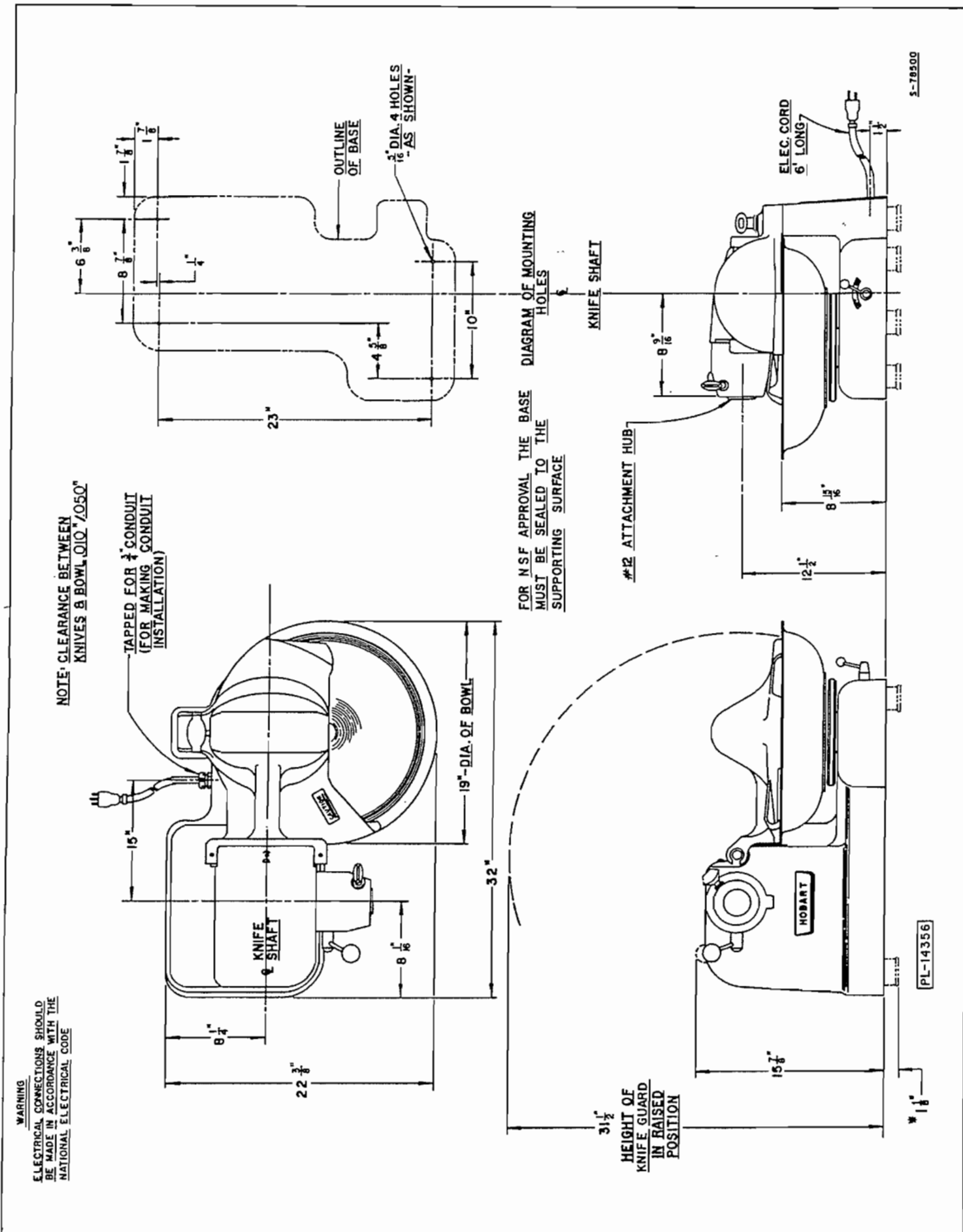
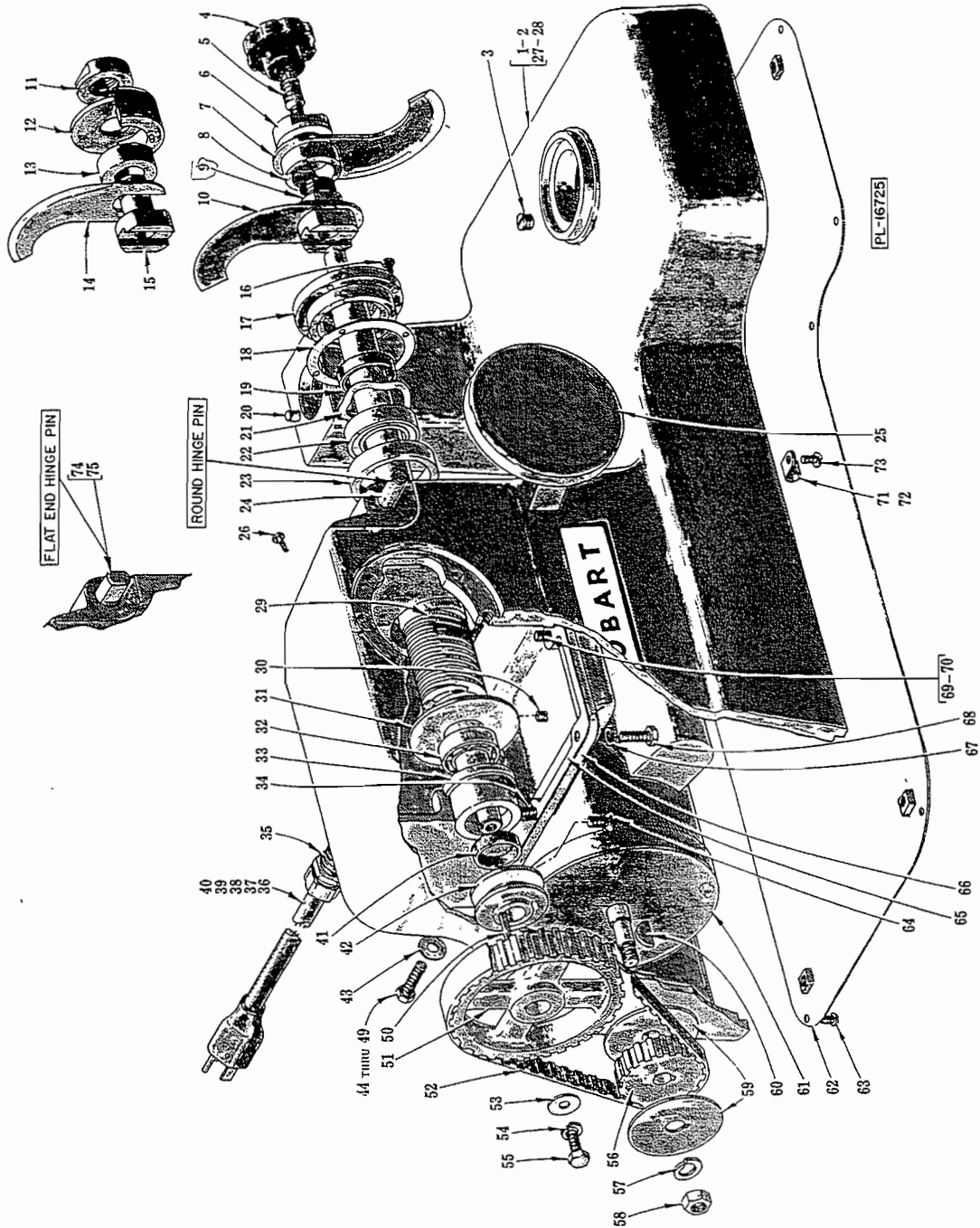


Fig. 10



INSTALLATION DIAGRAM



MOTOR AND BASE UNIT

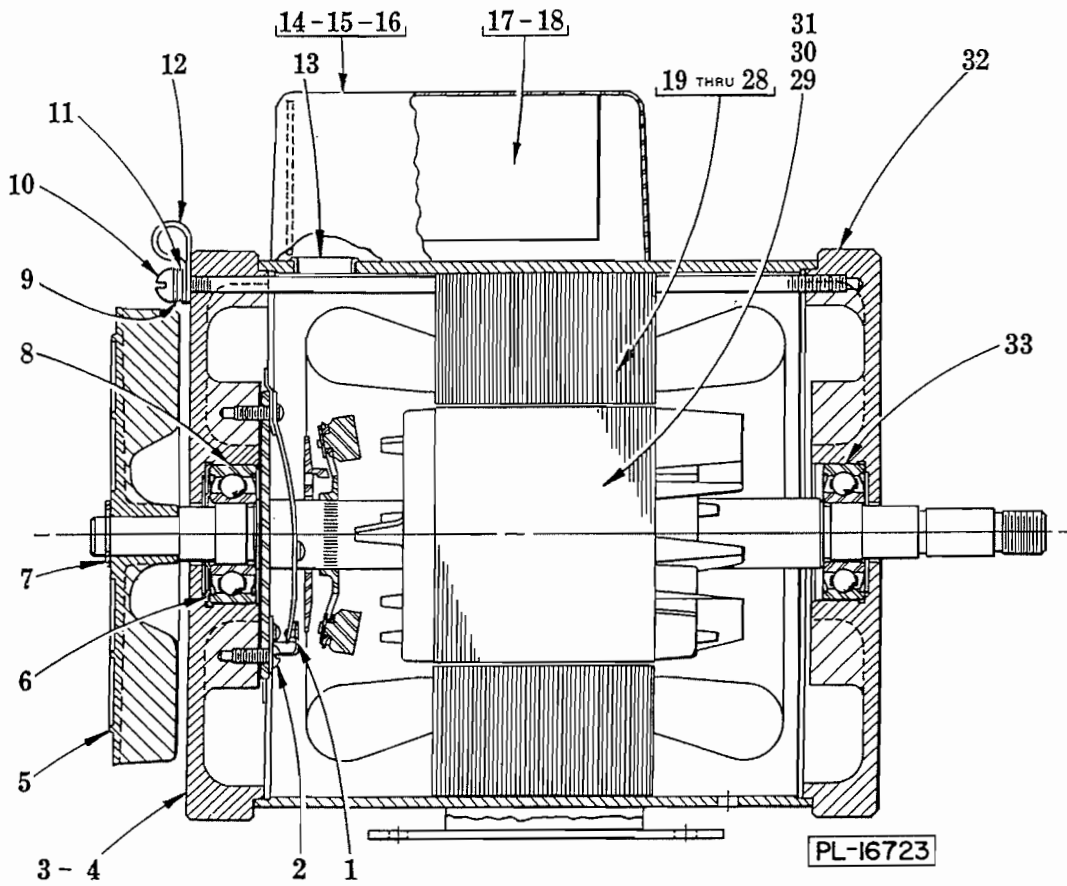
ILLUS.	PART NO.	NAME OF PART	AMT.
PL-16725	1	<i>ECH 23208 5/27/62</i> Base & Decal Assy. (60 Hz.) (Incls. item #20) (Give all machine data listed on name plate) . . .	1
	2	Base & Decal Assy. (60 Hz.) (Incls. item #20) (Deluxe Model) (Give all machine data listed on name plate) . . .	1
	3	Plug - Inspection . . .	1
	4	Knob - Fluted . . .	1
	5	Insert - Knife Shaft . . .	1
	6	Collar - Locking . . .	1
	7	Knife - Follower . . .	1
	8	Collar - Knife Retainer Bushing . . .	1
	9	Bushing - Knife Retaining . . .	1

MOTOR AND BASE UNIT (Cont.)

ILLUS. PL-16725	PART NO.	NAME OF PART	AMT.
10	C-77372	Knife - Leader	1
*11	V-103904	Collar - Locking	1
*12	C-118150	Balance & Pin Assy	1
*13	V-103903	Collar & Knife Retaining Bushing	1
*14	C-117675	Knife - Rotary (Follower)	1
*15	P-7157	Bushing - Knife Retaining	1
16	SC-67-9	Mach. Screw - #10-32 x 5/8" Timmmed Hex Hd	4
17	P-77364-2	Cap - End (Knife Shaft) <i>C. 1.13 7.80</i>	1
18	M-77365	Gasket (End Cap)	1
19	M-77482-1	Seal - Knife Shaft (Knife End)	1
20	D-11800-244	Dowel	1
21	SL-3-10	Loading Spring - Wavy	1
22	BB-18-31	Ball Bearing - Fafnir #9107KD	1
23	M-77362	Insert (Knife End)	1
24	B-116644	Pin - Bowl Cover Hinge	1
25	P-78242	Trim Cap Assy. (For 8181 & 8181D)	1
26	SD-5-32	Drive Screw - #10 x 3/8" Rd. Hd., Type U	1
27	A-290091-3	Base & Decal Assy. (50 Hz.) (Incls. item #20) (Give all Machine data listed on name plate)	1
28	A-290091-4	Base & Decal Assy. (50 Hz.) (Incls. item #20) (Deluxe Model) (Give all Machine data listed on name plate)	1
*29	T-80695	Shaft - Knife (5T Worm) <i>2.90590 04101</i>	1
30	SC-46-27	Set Screw - 1/4"-20 x 1/4" Hdls., Cup Pt. (Retains item #31)	1
*31	P-77366	Flinger Assy	1
*32	BB-18-30	Ball Bearing - Fafnir #H9105KD	1
33	P-77363	Insert - Pulley End	1
34	SC-47-14	Set Screw - 1/4-20 x 1/2" Soc. Hdls., Cup Pt	1
35	FE-8-20	Connector - Strain Relief (1 Ph.)	1
36	B-117542-7	Cord & Plug (3 Cond., Under 150 V.)	1
37	B-117542-12	Cord & Plug (3 Cond., 200-250 V.)	1
38	B-117542-18	Cord Assy. (I.E.C.)	1
39	SD-24-13	Self-Tapping Screw - #8-32 x 3/8" Pan Hd. "Taptite" (Ground to Base) (1 Ph.)	1
40	WL-10-1	Lock Washer - #8 Ext. Shakeproof (Ground to Base) (1 Ph.)	1
*41	M-77483	Seal - Knife Saft (Pulley End)	1
42	P-77361	Pulley - "V" Drive	1
43	WS-5-32	Washer	6
44	WL-3-44	Lock Washer - 5/16" Medium	2
45	SC-41-17	Fin. Bolt - 5/16"-18 x 1-1/2" Hex Hd	4
46	NS-13-11	Full Nut - 5/16"-18 Hex Fin	2
47	M-77442	Bar - Motor Mounting	1
48	M-80541-1	Shim - Motor (.018")	AR
49	M-80541-2	Shim - Motor (.010")	AR
50	R-12430-91	Key	1
51	R-77360	Driven Gear (36T)	1
52	P-77370	Flexa-Gear	1
53	WS-6-18	Washer	1
54	WL-4-2	Lock Washer - 3/8" Light	1
55	SC-36-53	Fin. Bolt - 3/8"-16 x 7/8" Hex Hd	1
56	P-77357	Drive Gear (18T)	1
57	WL-4-13	Lock Washer - 1/2" Medium	1
58	NS-13-35	Full Nut - 1/2"-20 Hex Fin	1
59	P-77358	Flange - Flexa-Gear	2
60	KW-3-10	Key - #606 Woodruff	1
61	ML-18755	Motor (Give Elec. Spec.)	1
62	S-77409	Bottom Cover Plate Assy <i>use 290576 & 290574 as assembly</i>	1
63	SD-24-13	Self-Tapping Screw - #8-32 x 3/8" Pan Hd. "Taptite"	9
64	SC-13-85	Mach. Screw - 1/4"-20 x 3/4" Flat Hd	3
65	P-77408	Gasket - Cover	1
66	S-77407	Cover - Lower Gear Case	1
67	WL-3-37	Lock Washer - 1/4" - Medium	4
68	SC-37-82	Fin. Bolt - 1/4"-20 x 7/8" Hex Hd	4
69	SC-62-39	Fin. bolt - 1/4"-20 x 1-3/4" Hex Hd	1
70	WL-3-37	Lock Washer - 1/4" Medium	1
71	M-78752-3	Clamp - Motor Lead (3 Ph.)	1
72	M-78752-6	Clamp - Motor Lead (1 Ph.)	1
73	SD-24-13	Self-Tapping Screw - #8-32 x 3/8" Pan Hd. "Taptite"	1
74	D-67500-7	"O" Ring	2
75	P-77416	Pin - Bowl Cover Hinge	1
	*D-117677	Single Knife & Knife Balance Assy. (Incls. items #11 thru 15)	1

*NOT NSF APPROVED.

* ON MODEL 8181 USE 290259 Shaft
 8315-8 Bearings



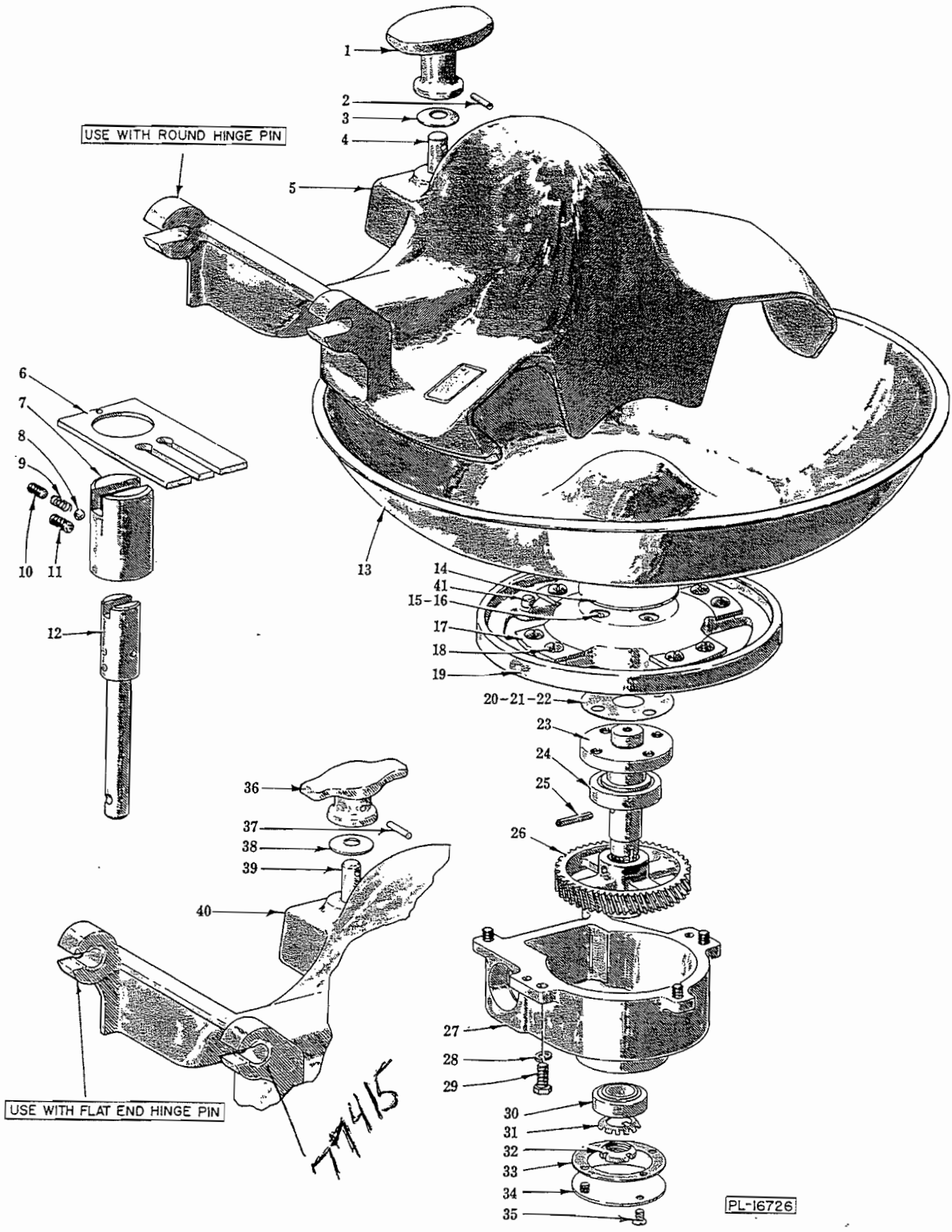
MOTOR UNIT

MOTOR UNIT

ILLUS. PL-16723	PART NO.	NAME OF PART	AMT.
*1	C-119858-2	Switch - Starting (Stationary Part)	1
*2	SC-9-49	Mach. Screw - #6-32 x 3/8" Rd. Hd	2
*3	D-114379-3	Bracket - Bearing (Fan End)	1
**4	D-114379-2	Bracket - Bearing (Fan End)	1
5	D-111493-1	Fan - Ventilating 292466-1 <i>FCM 24674 5/23/5</i>	1
6	SL-2-4	Loading Spring - N.D. #S-17	1
7	RR-4-17	Retaining Ring	1
8	BB-5-30	Ball Bearing - N.D. #Z99503	1
9	WL-8-13	Lock Washer - #10 Int. Shakeproof	4
10	SC-60-68	Mach. Screw - #10-24 x 7-1/2" Rd. Hd	4
11	WS-19-24	Washer	1
12	M-78752-4	Clamp - Motor Lead	1
*13	M-80369	Bushing - Snap (Field Ring)	1
*14	B-104725	Capacitor Cover & Insulator Assy	1
*15	SD-15-3	Self-Tapping Screw - #10-24 x 1/4" Pan Hd. "Taptite"	2
*16	WS-2-15	Washer (Shims Screws to Prevent Bottoming)	2
*17	M-89258	Retainer - Capacitor	1
*18	D-70487-6	Capacitor	1
19	P-65477-53-1	Stator Assy. (115 V., 60 Hz., 1 Ph.)	1
20	P-65477-53-2	Stator Assy. (200 V., 60 Hz., 1 Ph.)	1
21	P-65477-53-3	Stator Assy. (230 V., 60 Hz., 1 Ph.)	1
22	P-65477-53-4	Stator Assy. (115 V., 50 Hz., 1 Ph.)	1
23	P-65477-53-5	Stator Assy. (220 V., 50 Hz., 1 Ph.)	1
24	P-65478-56-1	Stator Assy. (200 V., 60 Hz., 3 Ph.)	1
25	P-65478-56-2	Stator Assy. (230 V., 60 Hz.; 220 V., 50 Hz.) (3 Ph.)	1
26	P-65478-56-3	Stator Assy. (460 V., 60 Hz., 3 Ph.)	1
27	P-65478-56-4	Stator Assy. (380 V., 50 Hz., 3 Ph.)	1
28	M-79118	Bushing - Snap (Field Ring)	1
*29	P-22275-182	Rotor Assy. (60 Hz.)	1
*30	P-22275-183	Rotor Assy. (50 Hz.)	1
**31	C-15747-279	Rotor Assy	1
32	D-114379-4	Bracket - Bearing (Pulley End)	1
33	BB-5-30	Ball Bearing - N.D. #Z99503	1

*1 Ph.

**3 Ph.



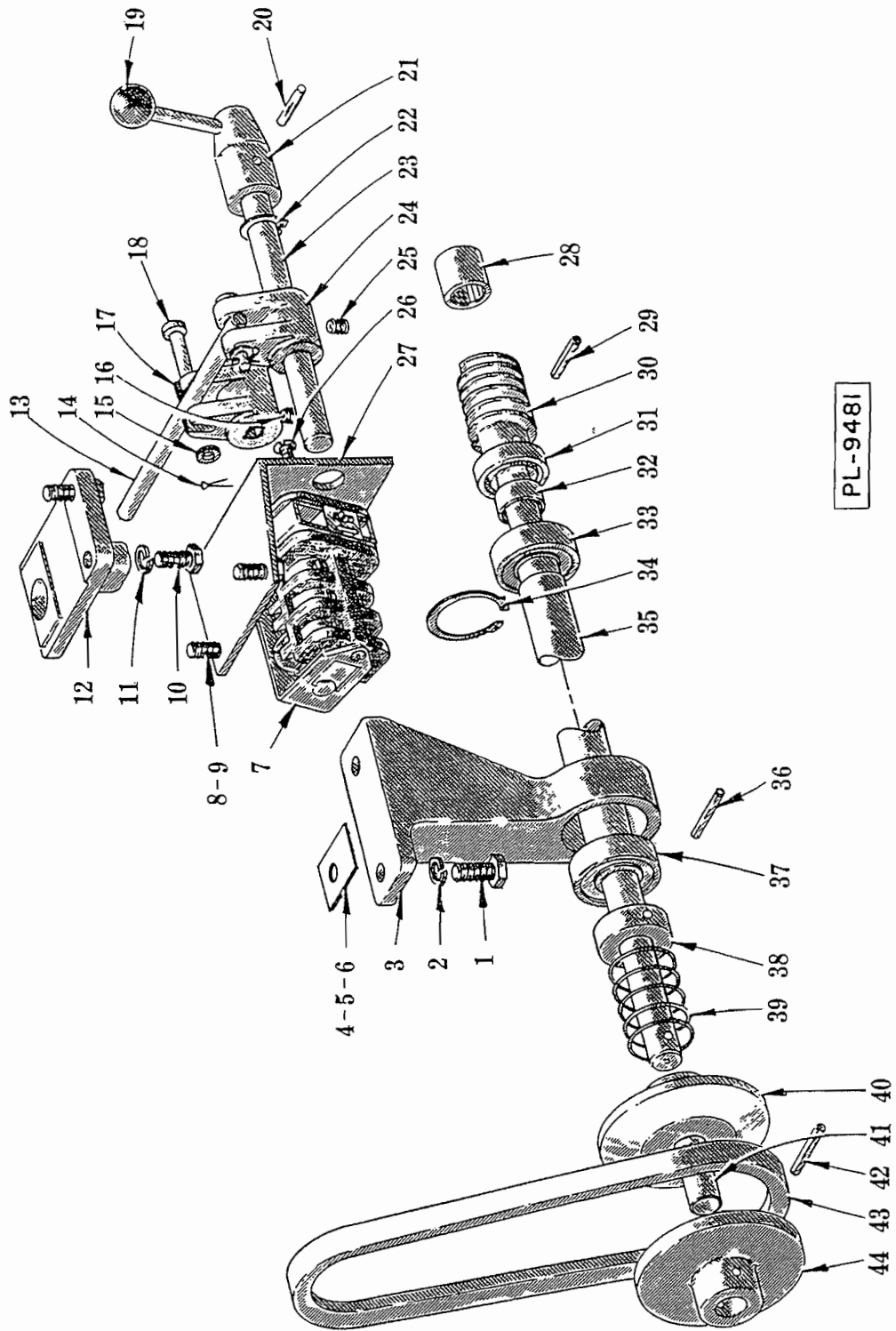
BOWL UNIT

per plotting new work

BOWL UNIT

ILLUS. PL-16726	PART NO.	NAME OF PART	AMT.
1	C-116814	Handle - Locking	1
2	PG-3-27	Groov-Pin - Type A, 3/16" x 7/8"	1
3	M-77374	Washer - Belleville	1
4	B-117168	Bolt - Interlock	1
5	E-290308	Bowl Cover & Plate Assy 290570 18"	1
6	C-123934	Comb	1
7	P-77376	Adapter - Locking	1
8	BA-2-10	Ball - 1/4" Dia	1
9	M-77381	Spring - Ball Detent	1
10	SC-64-23	Set Screw - 5/16"-18 x 3/8" Soc. Hdls., Oval Pt. "Nylok"	1
11	SC-64-13	Set Screw - 5/16"-18 x 3/4" Soc. Hdls., Cup Pt. "Nylok"	1
12	M-77377	Interlock Control Shaft Assy	1
13	S-88729	Bowl & Adapter Assy <i>290239</i>	1
14	M-78424	Bowl Support Cover & Stud Assy <i>124976 ECN 20470</i>	1
15	SC-40-80	Cap Screw - 5/16"-24 x 5/8" Soc. Fil. Hd	4
16	WL-3-48	Lock Washer - 5/16" High Collar	4
17	M-78061	Clamp - Bowl Support	4
18	SC-5-3-9	Mach. Screw - 1/4"-28 x 1/2" Truss Hd	8
19	P-78419	Bowl Support & Pin Assy. (Incls. items #17, 18 & 41)	1
20	M-77441-1	Shim - Bowl Adjusting (.005" Thk., Blue)	AR
21	M-77441-2	Shim - Bowl Adjusting (.010" Thk., Brown)	AR
22	M-77441-3	Shim - Bowl Adjusting (.020" Thk., Yellow)	AR
23	P-77398	Shaft - Vertical Bowl Drive <i>C. 290369.9 124976</i>	1
24	BR-2-24	Roller Bearing - Cone & Cup Assy. (Upper)	1
25	PS-4-17	Spirol Pin - 1/4" Dia. x 1-3/8" Lg	1
26	D-77399	Gear - Vertical Bowl Drive (62T)	1
27	S-77395	Case - Gear	1
28	WL-3-37	Lock Washer - 1/4" Medium	5
29	SC-62-54	Fin. Bolt - 1/4"-20 x 3/4" Hex Hd	5
30	BR-2-23	Roller Bearing - Cone & Cup Assy. (Lower)	1
31	WL-12-4	Lock Washer - N.D. #W-03	1
32	NS-34-4	Lock Nut - N.D. #N-03	1
33	M-77397	Gasket - Gear Case	1
34	M-77396	Plate - Gear Case	1
35	SC-13-14	Mach. Screw - #6-32 x 3/8" Flat Hd	4
36	P-12635-4	Knob - Locking	1
37	PG-3-28	Groov-Pin - Type A, 3/16" x 1"	1
38	M-77374	Washer - Belleville	1
39	M-77375	Bolt - Interlock	1
40	M-78246	Bowl Cover & Decal Assy <i>USE 290035 NLP</i>	1
41	M-88417	Pin - Bowl Stop	1
	P-290062	Bowl Cover & Locking Knob Assy. (Incls. items #1 thru 5)	1

not avail per EA 3/31

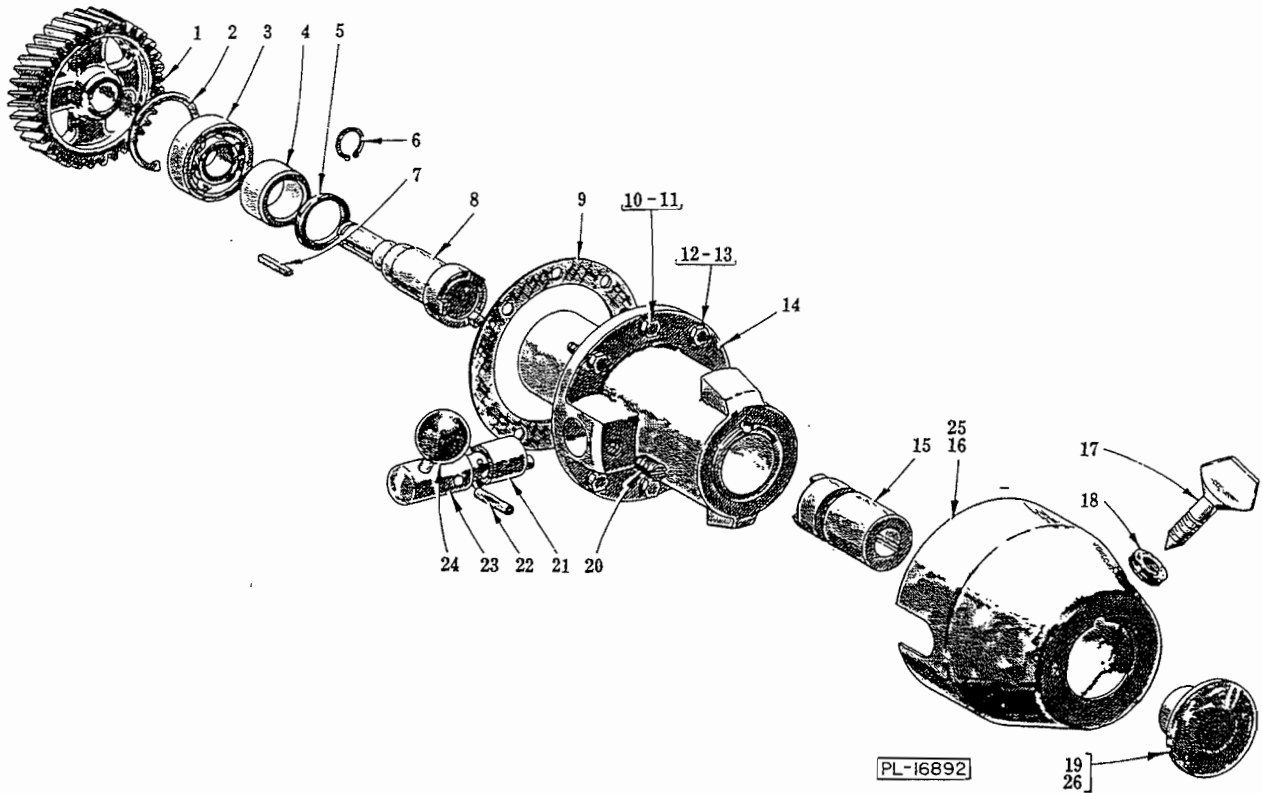


PL-9481

SWITCH AND BOWL DRIVE UNIT

SWITCH AND BOWL DRIVE UNIT

ILLUS. PL-9481	PART NO.	NAME OF PART	AMT.
1	SC-62-54	Fin. Bolt - 1/4"-20 x 3/4" Hex Hd	2
2	WL-3-37	Lock Washer - 1/4" Medium	2
3	R-87321	Support - Bearing	1
4	M-77353-1	Shim - Brg. Support (.005" Thk., Blue)	AR
5	M-77353-2	Shim - Brg. Support (.010" Thk., Brown)	AR
6	M-77353-3	Shim - Brg. Support (.020" Thk., Yellow)	AR
7	P-87711-83-1	Switch	1
8	SC-110-12	Fin. Bolt - 1/4"-20 x 5/8" Hex Hd	2
9	WL-3-37	Lock Washer - 1/4" Medium	2
10	SC-62-54	Fin. Bolt - 1/4"-20 x 3/4" Hex Hd	2
11	WL-3-37	Lock Washer - 1/4" Medium	2
12	P-77393	Bracket - Control Shaft	1
13	M-77389	Shaft - Switch Interlock	1
14	PC-3-23	Cotter Pin - 1/16" x 1/2"	2
15	WS-2-12	Washer	2
16	SC-111-5	Set Screw - 1/4"-20 x 1/4" Soc. Hlds., Cup Pt. "Nylok" <i>Wp 9.47-?</i>	1
17	M-83778	Clevis - Switch Control	1
18	M-77390	Pin - Clevis	2
19	M-77401	Knob - Switch Control	1
20	PG-7-35	Groov-Pin - Type E, 1/4" x 1"	1
21	M-78177	Switch Shaft Hub & Handle Assy <i>290388</i>	1
22	RR-7-9	Retaining Ring	1
23	M-77385	Shaft - Switch Control <i>290388</i>	1
24	M-77387	Clevis - Control Rod <i>290392</i>	1
25	SC-111-5	Set Screw - 1/4"-20 x 1/4" Soc. Hlds., Cup Pt. "Nylok" <i>TSB 8/11</i>	1
26	SC-13-24	Mach. Screw - #8-32 x 5/16" Flat Hd	2
27	P-77394	Bracket - Switch	1
28	BN-2-17	Needle Bearing - Torrington #M-10121	1
29	RP-2-10	Rollpin - 3/16" Dia. x 1" Lg	1
30	P-77349	Worm - Horizontal Bowl Driver Shaft (1T)	1
31	M-77484	Seal - Horizontal Bowl Drive	1
32	M-77350	Spacer - Bearing	1
33	BB-5-30	Ball Bearing - N.D. #Z99503	1
34	RR-7-8	Retaining Ring	1
35	S-77348	Shaft - Horizontal Bowl Drive	1
36	RP-3-10	Rollpin - 3/16" Dia. x 1-1/4" Lg	1
37	BB-5-30	Ball Bearing - N.D. #Z99503	1
38	M-77354	Collar - Horizontal Shaft	1
39	M-111183	Spring - Driven Pulley <i>891193 EcN 22894</i>	1
40	M-77356	Right Hand Flange & Brg. Assy. (Incls. item #41) <i>79610 + 79741 EcN 22894 107E/87</i>	1
41	M-79610	Bearing - R.H. Flange	1
42	RP-3-10	Rollpin - 3/16" Dia. x 1-1/4" Lg	1
43	BV-3-46 12-12	"V" Belt <i>EcN 22894 107E/87</i>	1
44	P-77355	Flange - Left Hand	1
	M-77382	Switch Control Shaft Assy. (Incls. items #20, 21 & 23) <i>290389</i>	1



ATTACHMENT DRIVE UNIT

ILLUS. NO.	PART NO.	NAME OF PART	AMT.
1	C-77339	Gear - Attachment Hub (35T)	1
2	RR-7-7	Retaining Ring	1
3	BB-18-27	Ball Bearing - Fafnir #H204P	1
4	M-83440	Bearing (Oil-less)	1
5	P-70090	Seal - Oil	1
6	RR-6-20	Retaining Ring	1
7	R-12430-60	Key - Attachment Hub	1
8	P-77337	Shaft - Attachment Hub	1
9	P-77347	Gasket - Attachment Hub	1
10	SC-62-47	Fin. Bolt - 5/16"-18 x 1" Hex Hd	5
11	WL-3-44	Lock Washer - 5/16" Medium	5
12	M-79742	Bolt - Air Vent	1
13	WL-3-44	Lock Washer - 5/16" Medium	1
14	S-77336	Hub - #12 Attachment	1
15	P-77338	Clutch - Attachment	1
16	R-77100	Cap - #12 Hub Trim (50 Hz.)	1
17	C-108197-3	Thumb Screw Assy	1
18	M-79537	Grommet - Thumb Screw	1
19	C-114824-5	Plug - Attachment Hole (Deluxe Model)	1
20	M-77419	Ball Plunger - "Vlier"	1
21	M-77342	Shifter Shaft & Pin Assy	1
22	PG-7-35	Groov-Pin - Type E, 1/4" x 1"	1
23	M-77341	Shifter Hub & Handle Assy	1
24	M-60468	Knob	1
25	D-290209	Trim Cap & Plate Assy. (60 Hz.)	1
26	C-114824-3	Plug - Attachment Hole	1
	M-77340	Shifter Hub & Shaft Assy. (Incls. items #21, 22, 23 & 24)	1
	M-78472-1	Attachment Drive Assy. (60 Hz.) (Incls. items #1 thru 15, 17, 18 & 20 thru 26)	1
	M-78472-2	Attachment Drive Assy. (50 Hz.) (Incls. items #1 thru 18, 20 thru 24 & 26)	1