HOBART

INSTRUCTION MANUAL

... with Replacement Parts



MODEL 4346 MIXER-GRINDER

STANDARD HOPPER (W/O Feed Opening)
ML-17891 R.H.
ML-17892 L.H.

OPTIONAL HOPPER (With Feed Opening)
ML-17893 R.H.
ML-17894 L.H.

A product of HOBART CORPORATION TROY, OHIO 45374

FORM 10690E (Rev. 2-77) (Supsds. F. 10690D, 5-75)

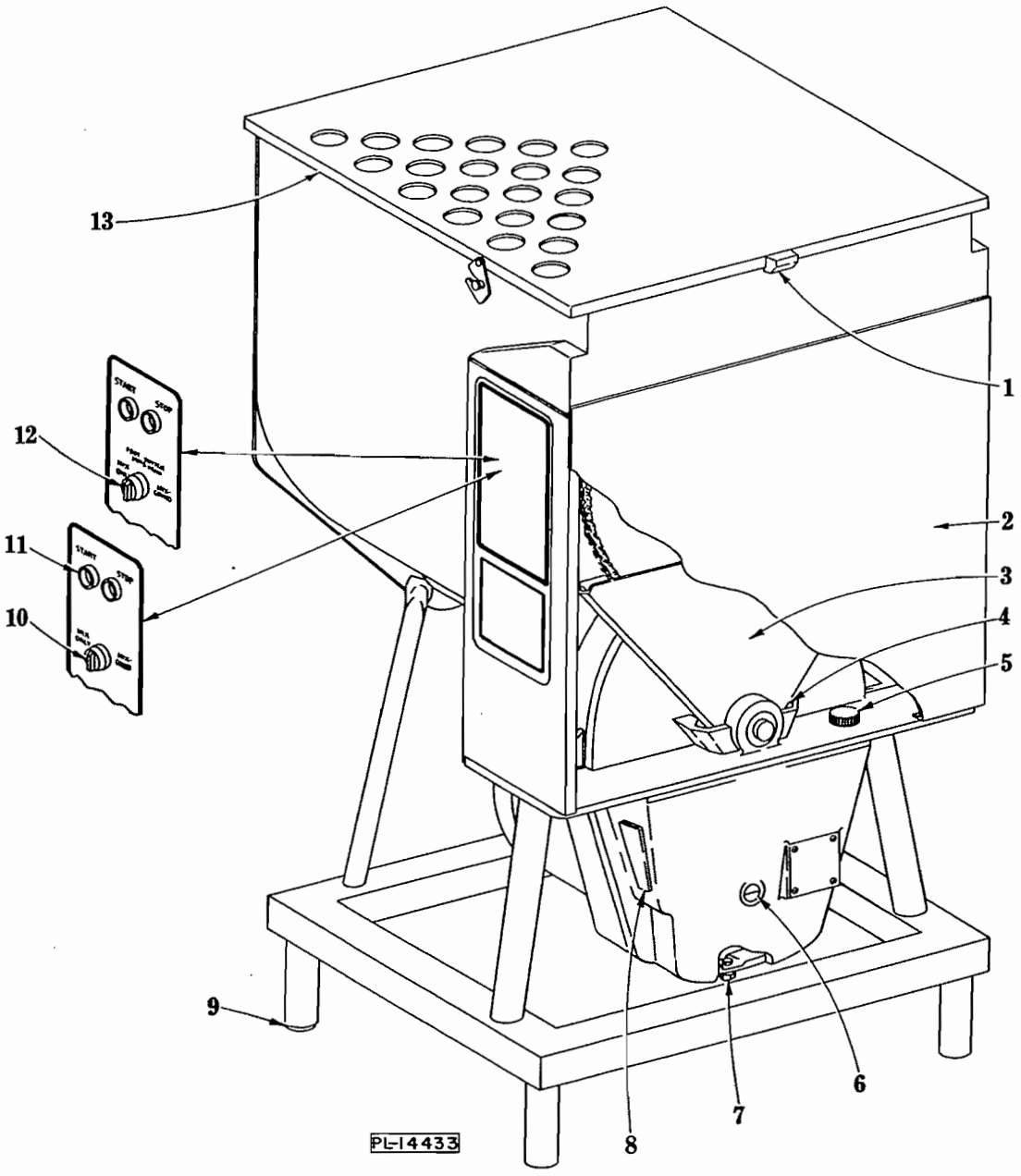


Fig. 1

Installation, Operation and Care of MODEL 4346 MIXER-GRINDER

DESIGN:

The model 4346 Mixer-Grinder is designed to use any standard #32/46 size knife and plate. This model is equipped with a 7-1/2 H.P. motor which drives both the mixing arm and the grinder. The mixing arm rotates at 29 R.P.M. and the grinder conveyor screw at 222 R.P.M.

This Mixer-Grinder may be ordered (at extra cost) with any of the following options:

1. Flexible Power Supply Cord (w/plug) and receptacle (or pendent type connector).

2. Casters and Adjustable Leg Assembly - for mobility. Also includes: power supply cord

(w/plug) & receptacle (or pendent type connector).

3. Foot Switch - Used for intermittent grinding operations.

4. Electric Air Heater for Control Box. Used to minimize moisture condensation in control box. Necessary when machine operates in cold environment.

5. Reduced Voltage Pilot Circuit Transformer when 120 V. control circuit is desired.

6. Side-Inlet Hoppers are available with R.H. or L.H. side inlet hole. This allows the product, from a companion first cut grinder, to be fed directly into the hopper. A plug assembly is available for use when the inlet hole is not being used.

   NOTE: With the proper adapter ring, the mixer-grinder will adapt to a Hobart 4146 or 4152 grinder.

INSTALLATION:

Unpack the machine and place it in its operating position. Use the leveling foot (9, Fig. 1) to level the machine. All internal wiring of the machine is complete before machine is shipped.

Before making any electrical supply connections CHECK THE SPECIFICATIONS ON THE SERIAL PLATE (7, Fig. 2) TO MAKE SURE THEY AGREE WITH THOSE OF YOUR ELECTRICAL SERVICE.

Electrical connections should be made by a licensed electrician who will observe all applicable Safety Codes and the National Electrical Code.

SUGGESTED WIRE AND FUSE SIZES

Volts	Phase	Line Fuse	Wire Size
LESS than 125 ft. from Meter Service			
200 Volts	3 Ph.	35 Amp.	#10 Wire
230 Volts	3 Ph.	30 Amp.	#10 Wire
460 Volts	3 Ph.	15 Amp.	#14 Wire
MORE than 125 ft. from Meter Service			
200 Volts	3 Ph.	35 Amp.	#8 Wire
230 Volts	3 Ph.	30 Amp.	#8 Wire
460 Volts	3 Ph.	15 Amp.	#12 Wire

Connect the individual branch electrical power supply to the leads in the junction compartment (8, Fig. 1). The compartment has a tapped hole for 3/4" conduit. Circuit conductors and fuse fault protection should conform to local as well as national code requirements.

With the grinder attachment (4, Fig. 2) in place and the hopper guard (13, Fig. 1) closed, make an instantaneous, worm motion check before making a permanent electrical connection, by placing the selector switch (10, Fig. 1) in the "Mix-Grind" position and then press the start button (11, Fig. 1).

If there is no worm rotation but mixer arm turns, pull main power disconnect switch to cut off electrical power then interchange any two power supply leads to the machine or receptacle.

GEAR CASE OIL:

The oil is drained from the gear case before the machine is packed for shipment. This oil MUST be replaced before the machine is placed in operation. The proper amount of gear case lubricant is shipped with the machine. To add this lubricant to the gear case, withdraw the retaining screws and remove the rear panel (2, Fig. 1). Then remove the oil fill plug (5, Fig. 1) and pour in the entire contents from the oil container labeled "Mobil D.T.E. Heavy Medium". This will bring the oil level to the center of the oil level gage (6, Fig. 1).

After filling the gear case add oil to the chain lubricating reservoir. To do this, remove the outside oil splash plate (3, Fig. 1), then pour the entire contents from the small oil container (labeled "MPO-30 Multi-Purpose Oil") into the chain oil reservoir (4, Fig. 1).

CONTROLS:

SELECTOR SWITCH (Standard)

A rotating type selector switch (10 or 12, Fig. 1) is furnished as standard equipment on all 4346 Mixer-Grinders and is located in the control panel cover. The switch (10, Fig. 1) has two positions "Mix Only" and "Mix-Grind".

To select an operation, turn selector switch to desired position. Next press the "Start" button (11, Fig. 1) of the push button station. When changing from one position to the other at the selector switch wait a few seconds for the motor to stop before pushing the "Start" button.

NOTE: (See below) also see Operation section.

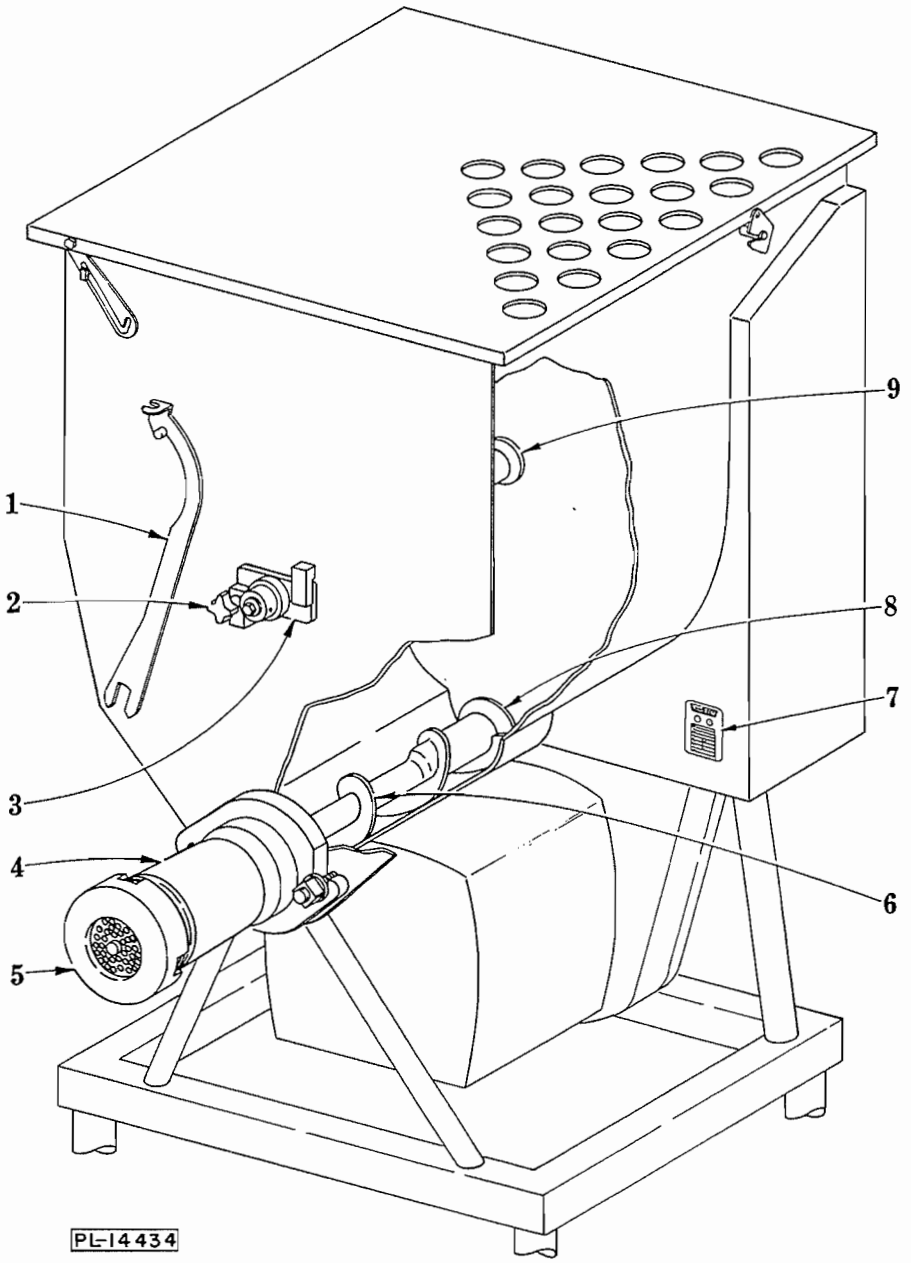


Fig. 2

FOOT SWITCH (OPTIONAL):

A rotating type selector switch (12, Fig. 1) is used on models equipped with a foot switch. It is located in the control panel cover. This switch has three positions. 1. "Mix Only", 2. "Foot Switch-Mix & Grind", and 3. "Mix-Grind".

Turn the selector switch to the "Foot Switch-Mix & Grind" position. A pilot light then signals that the foot switch has control. The operator can then use the foot switch as a "Start/Stop" device for the mix-grind operation. Turn the selector switch to either of the other two positions for a hand operated control, as in the standard operation, the "Start" or "Stop" buttons then are needed to operate the machine.

NOTE: When the selector switch is turned from one position to another the motor stops and must then be re-started. Also see Operation section.

SAFETY INTERLOCK:

This meat grinder has a magnetic actuated type interlock in the hopper (1, Fig. 1). The hopper guard must be in a closed position before the machine can be operated. Raising the guard breaks the electrical control circuit and makes the machine inoperative.

GRINDER ATTACHMENT:

The grinder attachment is easily cleaned (see cleaning instructions). Use the spanner wrench (1, Fig. 2) to loosen the adjusting ring (5, Fig. 2) and to withdraw the worm (6, Fig. 2). When the cylinder (4, Fig. 2) is to be removed, first remove the adjusting ring, plate, knife and conveyor screw. Next loosen, but do not remove the two nuts, using the spanner wrench. Rotate the cylinder clockwise and remove. At re-assembly make sure cylinder nuts are tight before assembling conveyor screw and adjusting ring.

A heavy duty tapered roller bearing, which is lubricated by transmission oil, takes the worm thrust. Double seals prevent entrance of moisture or loss of lubricant.

Before using the grinder attachment take it apart and wash it thoroughly. The knife and plate need some preliminary lubrication: rub tallow over the cutting faces of these parts. When assembling the knife be sure to turn the cutting side out toward the perforated plate. See that the notch on the circumference of the plate fits over the pin in the cylinder. Knives and plates must be sharp and true for proper cutting action. Keep the grinder attachment in a clean and sanitary condition.

MIXING ARM:

When removing the mixing arm, make sure grinder "Stop" button is pressed and machine disconnected from electrical power. Next loosen the thumb screw (2, Fig. 2), then rotate and remove the bushing retainer (3, Fig. 2). Raise hopper guard, pull mixing arm from drive slot and lift arm from hopper.

OPERATION:

The model 4346 has a normal hopper capacity of: 200 pounds when using 80% fresh and 20% frozen chips; 215 pounds using 100% fresh trimmings; or a maximum of 240 pounds of second grind through a 1/8" plate. The maximum capacity is reached when with the mixing arm turning in the mix/grind operation the product just touches but does not raise the hopper guard.

Meat may be mixed in the hopper for any desired length of time. During the "Mix Only" period the mixing arm operates in a reverse direction from that in the "Mix-Grind" operation and the hopper conveyor screw does not rotate. Continuous mixing occurs along with grinding in the "Mix-Grind" operation.

Operating Instructions:

A. First Grind:

A.1 Fill hopper and close hopper guard. Overfilling will raise guard and may cause interlock to break electrical circuit.

A.2 Set selector switch at "Mix-Grind".

A.3 Push "Start" button to operate machine.

B. Second Grind:

B.1 Fill hopper and close hopper guard.

B.2 Set selector switch at "Mix Only".

B.3 Push "Start" button to operate machine.

B.4 After desired mixing, turn selector switch to "Mix-Grind" or to "Foot Switch" position.

B.5 Push "Start" button or hold down"Foot Switch" to operate machine.

LUBRICATION:

Both motor bearings are pre-lubricated and sealed. No further lubrication is required.

To check oil in gear case, turn off the machine switch, wait at least one minute (for all oil to drain down) and check the oil level in the sight gauge (6, Fig. 1). Add oil (as described in installation section) if required. Remove the drain plug (7, Fig. 1) and drain the gear case oil annually. Re-fill with approx. 84 oz. of the same type oil that was originally supplied by Hobart.

CLEANING:

The model 4346 Mixer-Grinder is designed for easy cleaning. Turn the grinder "Off" and disconnect from electrical power source. Then remove the following components when cleaning; mixing arm, grinder adjusting ring, knife, plate and worm (also side feed hopper plug (when used)). The method for removing these components has already been described.

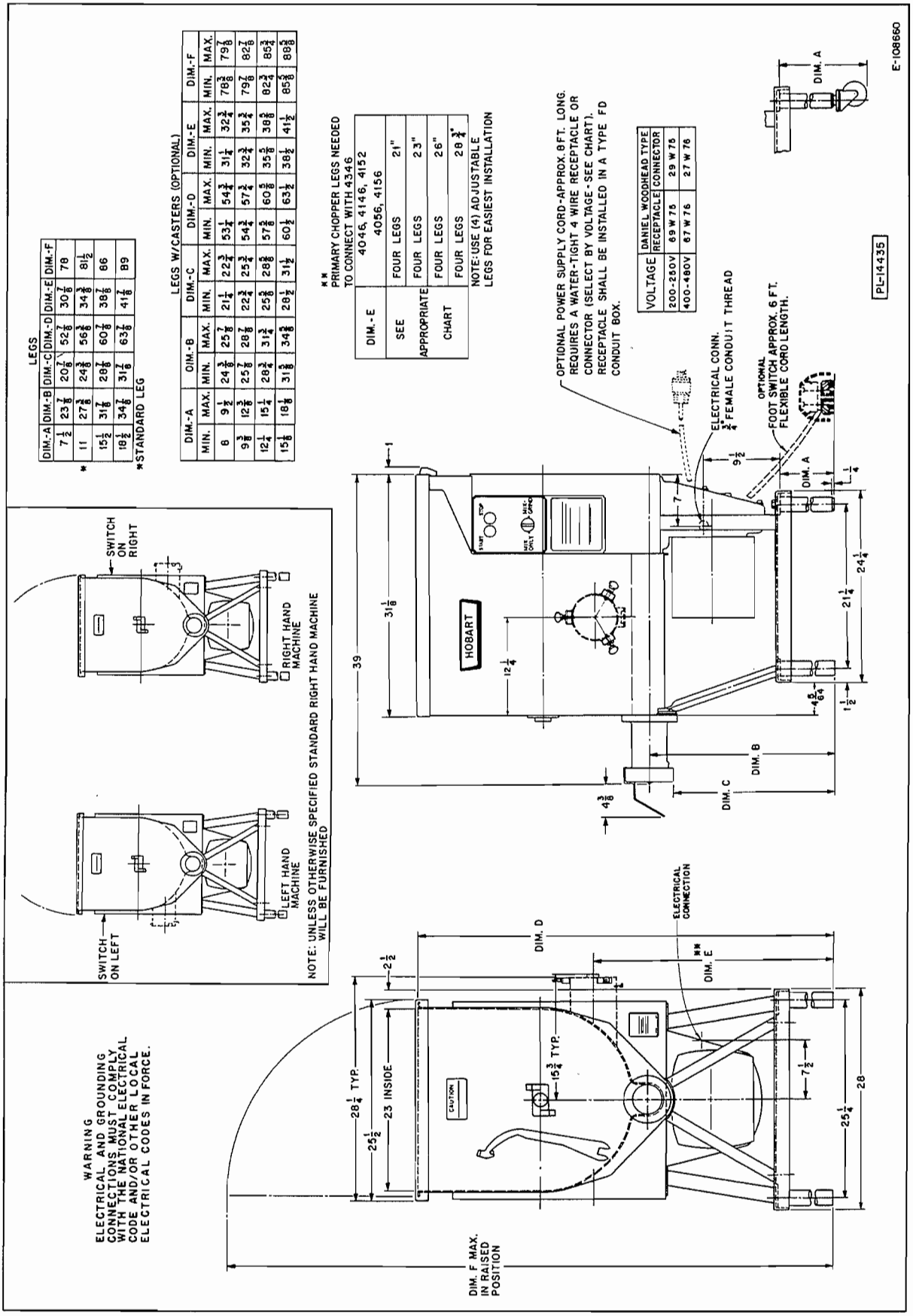
A rubber outer seal (8 & 9, Fig. 2) at the drive end of the mixing arm and the worm (inside the hopper) should be removed by hand for cleaning. Grasp the outer flange or use a dull screwdriver tip and pull the seal out.

The machine can be washed down with hot water or steam as is customary in meat processing operations.

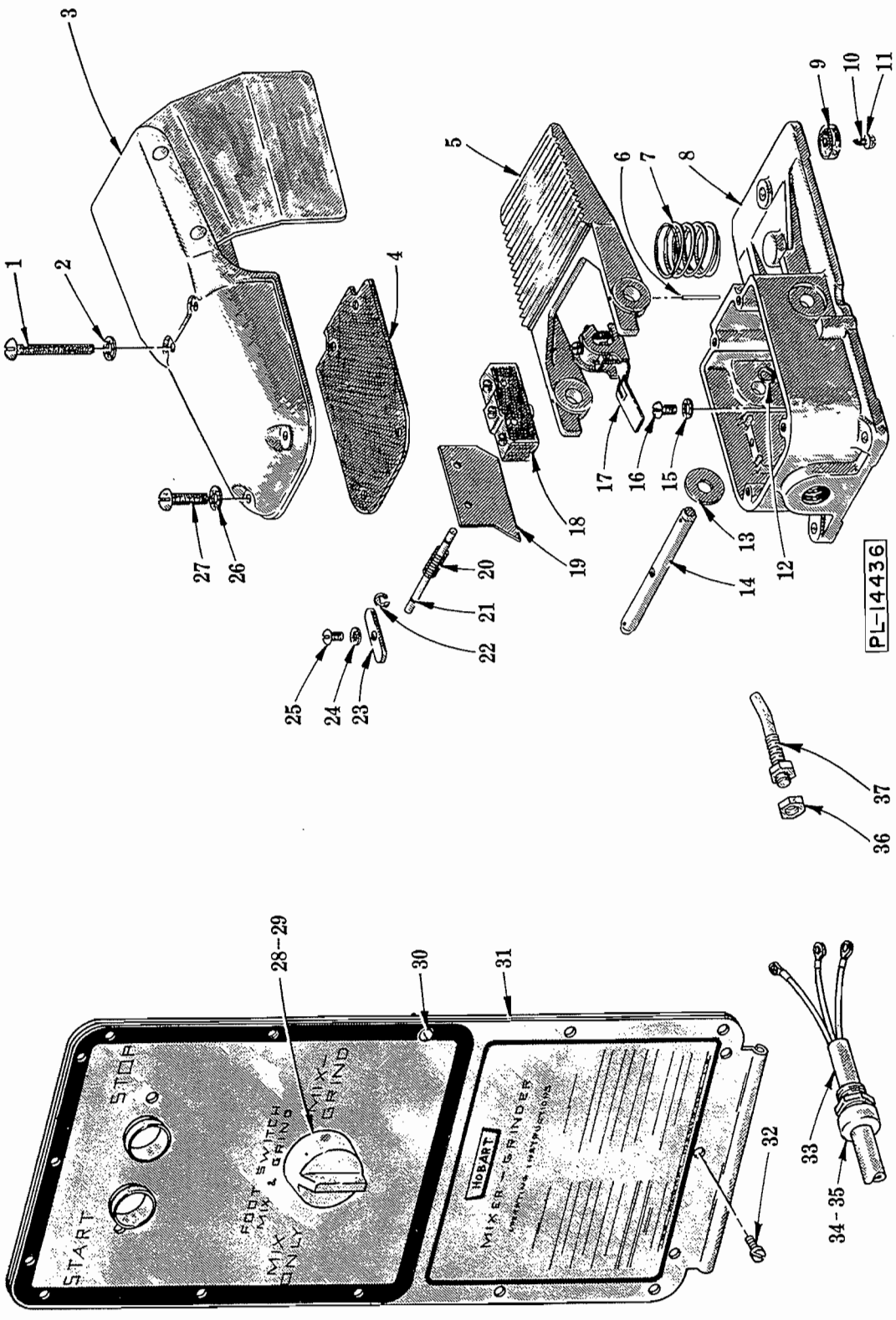
In any cleaning operation with a machine equipped with the optional power supply cord, which has had this cord disconnected from its receptacle, the receptacle must be sealed. To make this seal, place the cover cap into position then turn the screw type sealing ring clockwise.

HEATER (OPTIONAL):

The mixer-grinder has a heater in the control box to keep the controls dry. It is automatically "On" when the machine is electrically connected. The mixer-grinder should always be connected except when cleaning or disassembling unit. After cleaning, reconnect to electrical power supply.



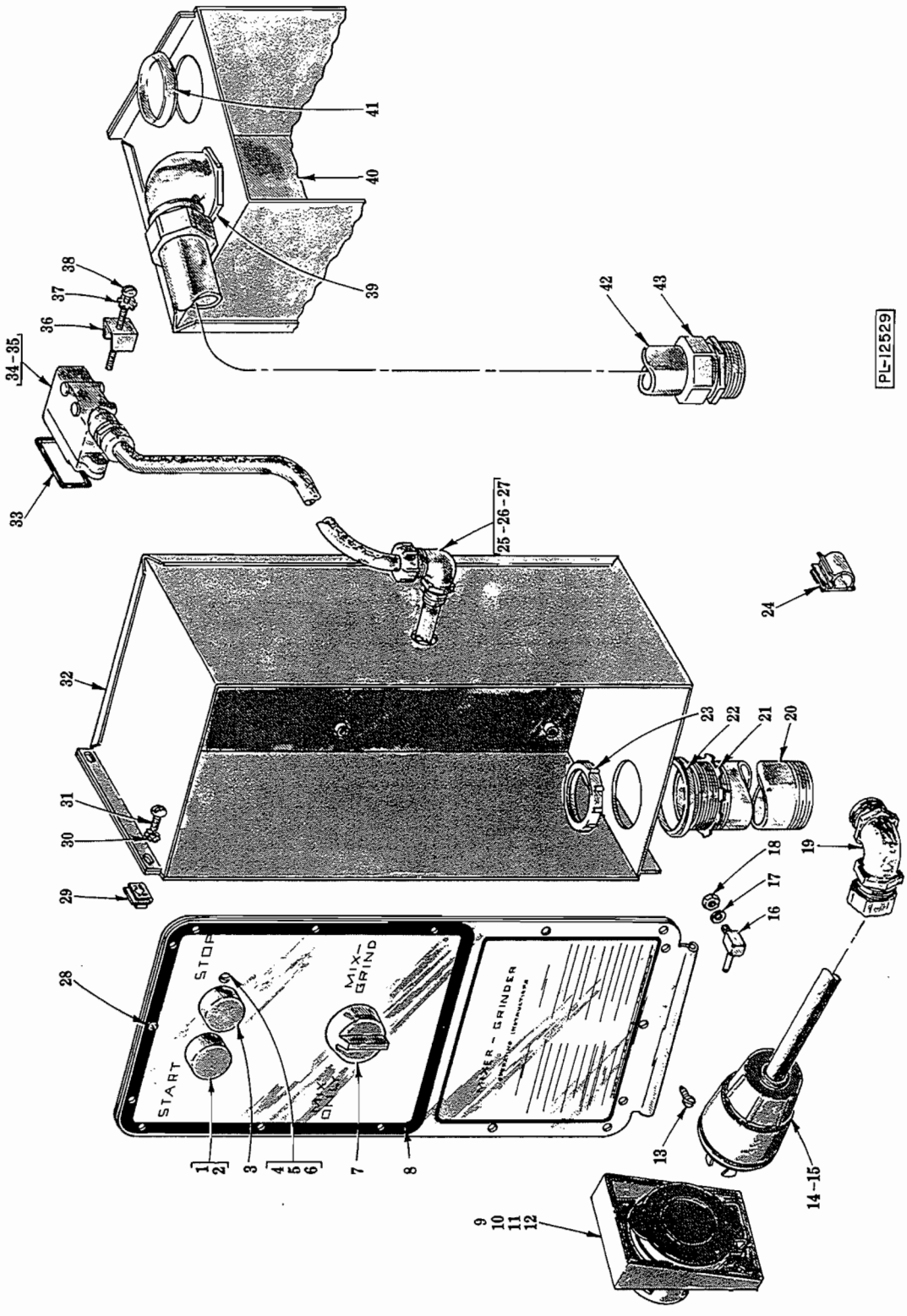
INSTALLATION DIAGRAM



FOOT SWITCH UNIT

FOOT SWITCH UNIT

ILLUS. PL-14436	PART NO.	NAME OF PART	AMT.
1	R-81997-1	Screw - Cover (Long)	2
2	R-81997-2	Washer - Cover & Guard Screw	2
3	R-81997-3	Cover Guard Assy.	1
4	R-81997-6	Gasket - Cover	1
5	R-81997-9	Treadle	1
6	R-81997-10	Spirol Pin	2
7	R-81997-11	Spring - Treadle (Main)	1
8	R-81997-12	Base	1
9	R-81997-13	Foot - Rubber	4
10	R-81997-14	Screw - Rubber Foot	4
11	R-81997-15	Washer - Rubber Foot Screw	4
12	R-81997-16	"O" Ring	2
13	R-81997-17	Spacer	2
14	R-81997-18	Rod - Pivot	1
15	R-81997-19	Washer - Ground Screw	1
16	R-81997-20	Screw - Ground	1
17	R-81997-33	Actuating Mech. Sub-Assy.	1
18	R-81997-23	Switch	1
19	R-81997-24	Insulation	2
20	R-81997-25	Spring - Spacing	4
21	R-81997-26	Rod - Interior	2
22	R-81997-27	Retaining Ring	4
23	R-81997-28	Clamp - Interior Rod	2
24	R-81997-29	Washer - Interior Rod Clamp Screw	2
25	R-81997-30	Screw - Interior Rod Clamp	2
26	R-81997-2	Washer - Cover & Guard Screw	2
27	R-81997-31	Screw - Cover (Short)	2
28	B-108918-1	Switch Selector & Label Assy. (115 V. Pilot Circuit)	1
29	B-108918-2	Switch Selector & Label Assy. (208-230 V.)	1
30	SD-29-14	Self-Tapping Screw - #10-24 x 5/8" Pan Hd., Type F (Black)	9
31	E-105438-2	Cover - Control Box	1
32	SD-29-15	Self-Tapping Screw - #10-24 x 5/8" Pan Hd., Type F	7
33	R-80828-2	Cord	1
34	FE-15-38	Connector - Strain Relief (3/4") (Transmission Case)	1
35	FE-6-49	Connector - Strain Relief (1/2") (Switch)	1
36	NS-18-6	Jam Nut - 5/16"-18 Hex Fin.	2
37	B-113117	Hanger - Foot Switch	1
	P-87711-62-1	Foot Switch Assy. (Incls. items #1 thru 27)	1

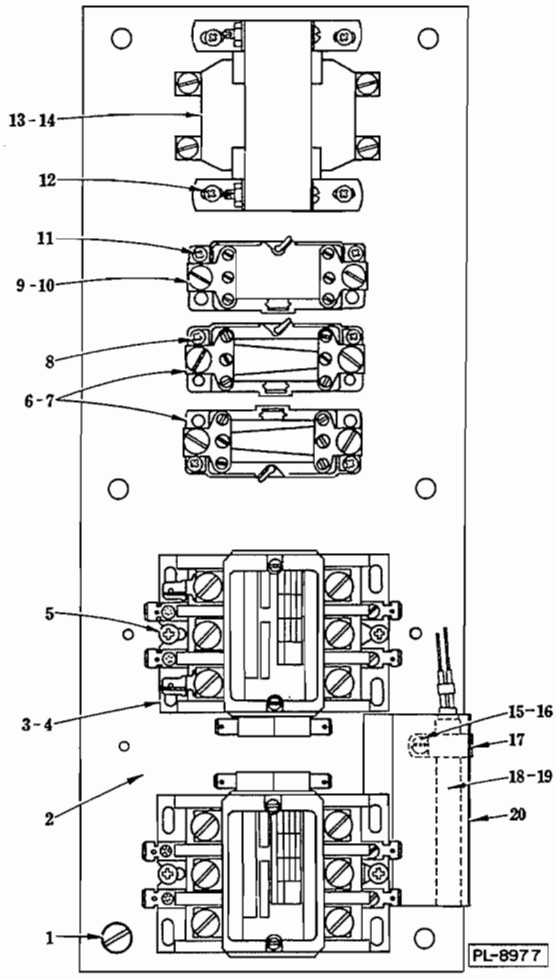


CONTROL BOX AND INTERLOCK UNIT

CONTROL BOX AND INTERLOCK UNIT

ILLUS. PL-12529	PART NO.	NAME OF PART	AMT.
1	B-105385	Push Button & Label Assy.	1
2	M-68984-1	Cap - Push Button (Black)	1
3	M-68984-2	Cap - Push Button (Red)	1
4	SC-18-38	Mach. Screw - #8-32 x 1/2" Pan Hd.	2
5	NS-9-12	Mach. Nut - #8-32 Hex	2
6	WL-7-7	Lock Washer - #8 Ext. Shakeproof	2
7	B-108919	Switch Selector & Label Assy.	1
8	E-105438-1	Cover - Control Box	1
9	C-117631-1	Receptacle (200-250 V.)	1
10	C-117631-2	Receptacle (400-480 V.)	1
11	C-117625-1	Connector - Pendent (200-250 V.)	1
12	C-117625-2	Connector - Pendent (400-480 V.)	1
13	SD-29-15	Self-Tapping Screw - #10-24 x 5/8" Pan Hd., Type F	7
14	C-117612-3	Cord & Plug Assy. (200-250 V.) (Use with items #9, 11 & 19)	1
15	C-117612-4	Cord & Plug Assy. (400-480 V.) (Use with items #10, 12 & 19)	1
16	A-107368	Hinge Pin & Retainer Assy.	2
17	WL-3-20	Lock Washer - #10 x .055" x .040"	2
18	NS-9-30	Mach. Nut - #10-32 Hex	2
19	FE-15-12	Connector - 90° Strain Relief (3/4")	1
*20	B-106043-1	Conduit (Junction Box to Control Box)	1
*21	FE-9-7	Lock Nut - 1-1/4" Cnd.	1
*22	FE-8-26	Gasket Assy. (1-1/4")	1
*23	FE-9-6	Bushing - Conduit (1-1/4")	1
24	B-106825-1	Clip - Wiring	4
25	FE-15-10	Connector - 90° Strain Relief (1/2")	1
26	FE-6-7	Lock Nut - 1/2" Cnd.	1
27	FE-8-10	1/2" Gasket Assy.	1
28	SD-29-14	Self-Tapping Screw - #10-24 x 5/8" Pan Hd., Type F (Black)	9
29	A-106540	Speed Nut	3
30	WL-7-12	Lock Washer - #10 Ext. Shakeproof	3
31	SC-8-17	Mach. Screw - #10-32 x 3/8" Rd. Hd.	3
*32	E-105377-1	Control Box Assy.	1
33	D-67500-71	"O" Ring	1
*34	C-108964-1	Interlock Switch Assy.	1
**35	C-108964-2	Interlock Switch Assy.	1
36	A-107341	Retainer - Switch	1
37	WL-7-12	Lock Washer - #10 Ext. Shakeproof	1
38	SC-12-72	Mach. Screw - #10-24 x 1-3/4" Fil. Hd.	1
**39	FE-15-9	Connector - 90° "Sealtite" (1-1/4" Male Thd. x 1-1/4" Flex. Cnd.)	1
**40	E-105377-2	Control Box Assy.	1
**41	B-106827-2	Caplug	1
**42	B-106044	Conduit - 1-1/4" "Sealtite"	1
**43	FE-15-8	Connector - Straight "Sealtite" (1-1/4" Male Thd. x 1-1/4" Flex. Cnd.)	1
	B-117659-3	Cord & Strain Relief Assy. (Incls. items #14 & 19)	1
	B-117659-4	Cord & Strain Relief Assy. (Incls. items #15 & 19)	1

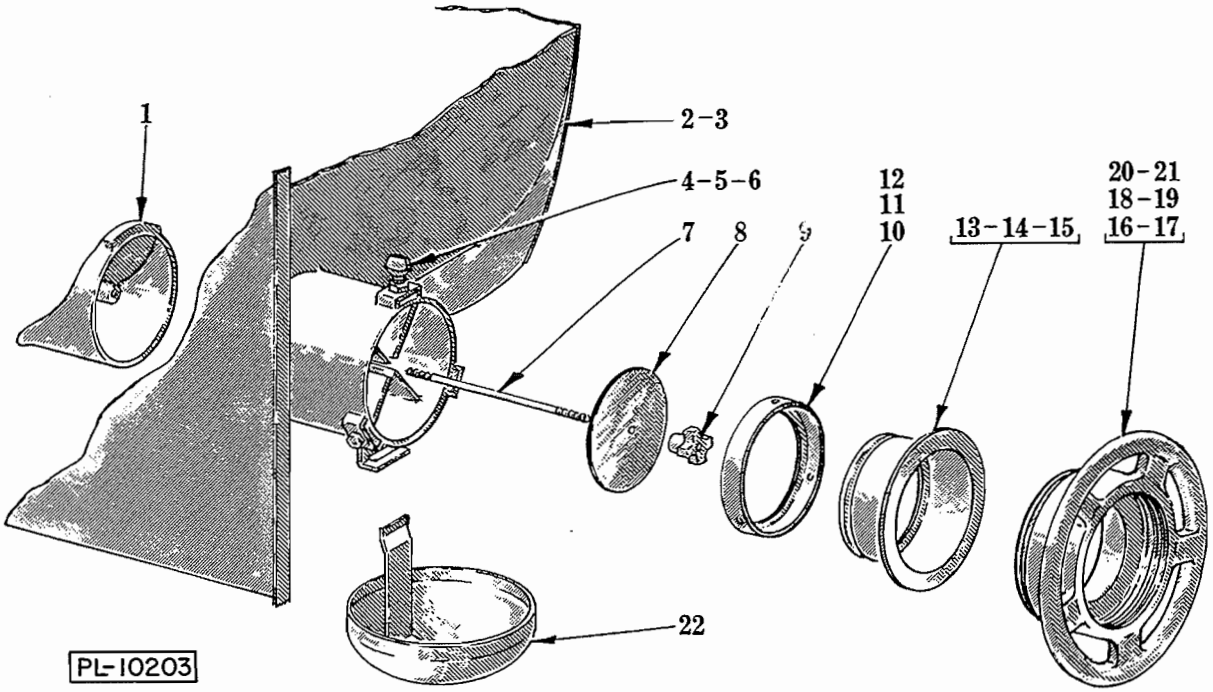
*R. H. Control Box.
**L. H. Control Box.



CONTROL PANEL UNIT

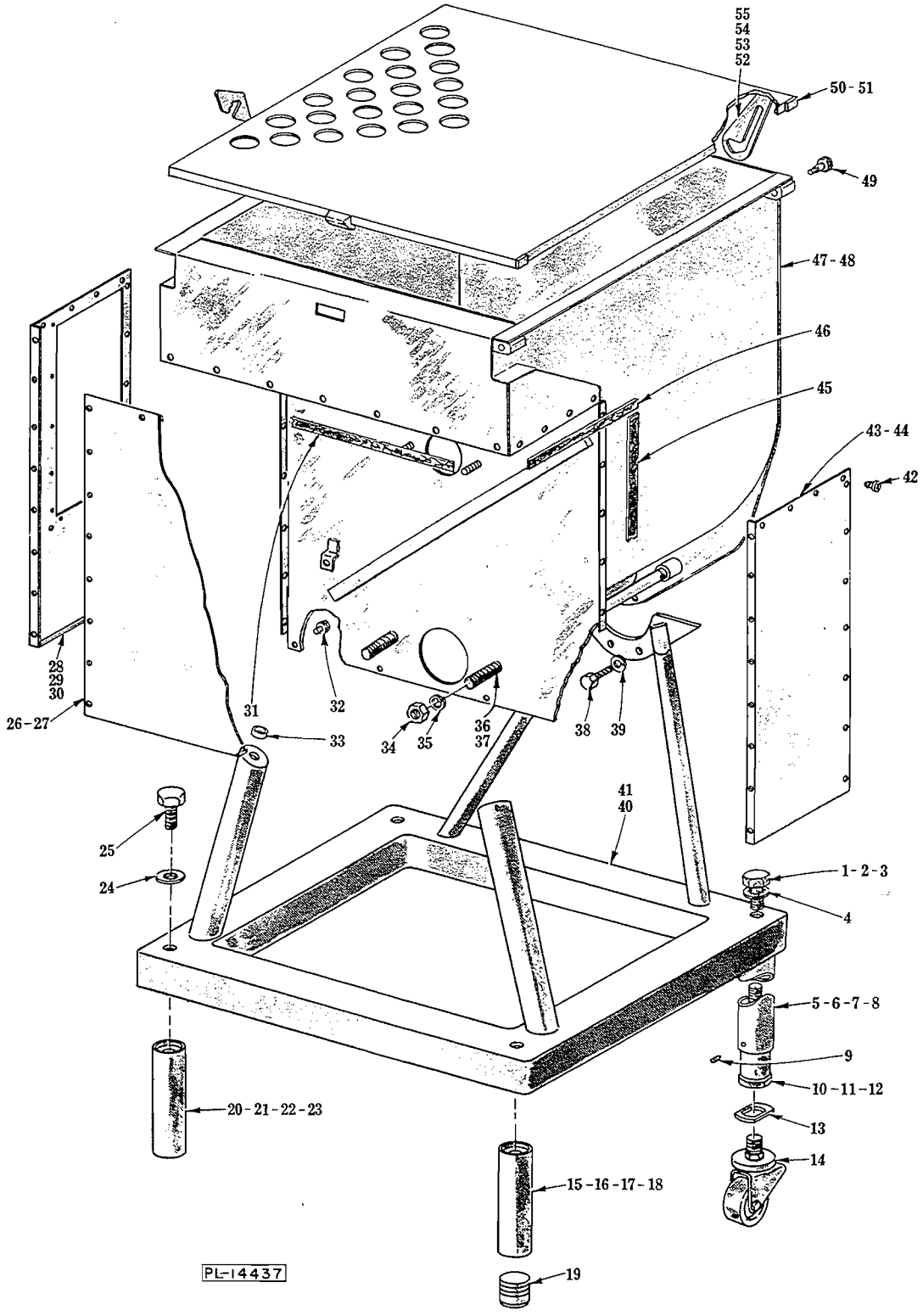
ILLUS. PL-8977	PART NO.	NAME OF PART	AMT.
1	SC-8-9	Mach. Screw - #10-24 x 3/8" Rd. Hd.	6
2	C-105285	Panel - Control Box	1
3	B-87713-10-1	Contactor - Magnetic (200-230 V., 50/60 Hz., 3 Ph.)	2
4	B-87713-10-2	Contactor - Magnetic (115 V., 50/60 Hz., 3 Ph.) (Pilot Circuit)	2
5	SD-9-19	Self-Tapping Screw - #10-32 x 5/16" Phil. Rd. Hd., Type F	4
6	P-88196-2-1	Relay - Thermal Overload (3 Ph.)	2
7	*	Heater Element - Overload Relay	As Reqd.
8	SD-8-36	Self-Tapping Screw - #8 x 7/8" Phil. Rd. Hd., Type B	4
9	A-106789	Overload Relay & Lead Assy. (3 Ph.)	As Reqd.
10	*	Heater Element - Overload Relay	As Reqd.
11	SD-8-36	Self-Tapping Screw - #8 x 7/8" Phil. Rd. Hd., Type B	As Reqd.
12	SD-9-19	Self-Tapping Screw - #10-32 x 5/16" Phil. Rd. Hd., Type F	4
13	B-101935	Transformer (200 V., 230 V., to 115 V.)	1
14	A-102728	Transformer & Label Sub-Assy. (380 V. to 115 V.)	1
15	SD-8-33	Self-Tapping Screw - #8 x 5/16" Rd. Hd., Type B	1
16	WS-23-44	Washer	1
17	C-108199-1	Clamp - Air Heater	1
18	B-108202-1	Air Heater Sub-Assy. (115 V., W/Pilot Circuit)	1
19	B-108202-2	Air Heater Sub-Assy. (200-230 V.)	1
20	B-108101	Shield - Air Heater	1

*Give Elec. Spec., Mach. Model & Motor Type.



SIDE FEED UNIT

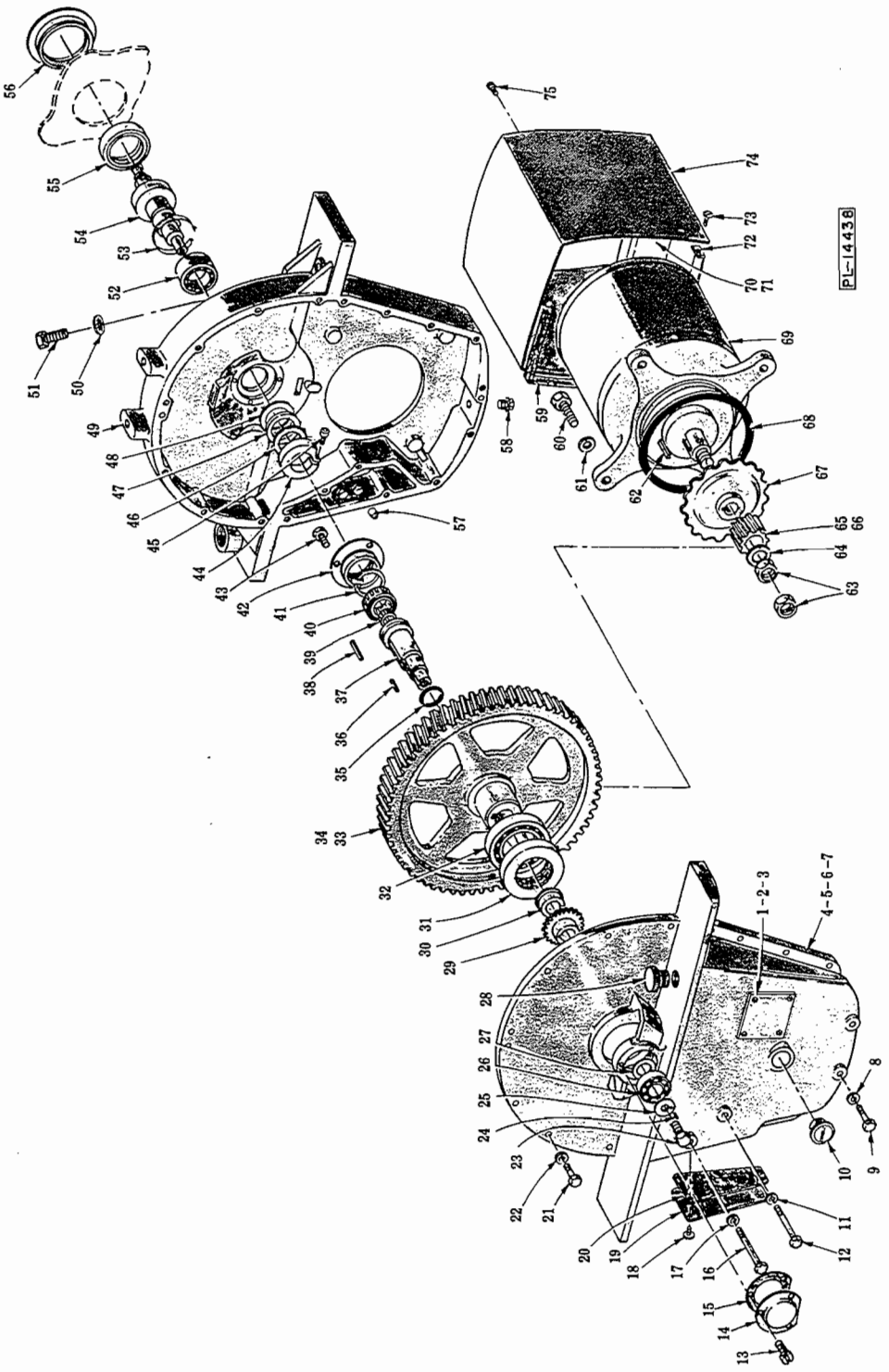
ILLUS. PL-10203	PART NO.	NAME OF PART	AMT.
1	D-107092	Plug - Side Feed Hopper	1
2	E-107230-2	R.H. Hopper Assy. (R. H. Side Inlet Feed) (Incls. items #36 & 37 on Page 15)	1
3	E-107229-2	L.H. Hopper Assy. (L. H. Side Inlet Feed) (Incls. items #36 & 37 on Page 15)	1
4	C-108197-6	Thumb Screw (2" Lg.)	3
5	C-108197-7	Thumb Screw (1-7/16" Lg.)	3
6	C-108197-8	Thumb Screw (2-9/16" Lg.)	3
7	A-107236	Rod - Tie	1
8	B-107237	Cap - Hopper Feed	1
9	A-108829	Knob Assy.	1
10	P-86111	Retainer - Adapter (#56 Size)	1
11	R-82153	Retainer - Adapter (#32 Size)	1
12	R-82154	Retainer - Adapter (#52 Size)	1
13	P-86110	Adapter (#56 Size)	1
14	P-82146	Adapter (#32 Size)	1
15	P-82149	Adapter (#52 Size)	1
16	R-80879-1	Ring - Adapter Adj. (4532, 4046, 4346 & 4146 "V" Thread)	1
17	R-80879-2	Ring - Adapter Adj. (4532, 4046 "Stub" Thread)	1
18	R-81374-1	Ring - Adapter Adj. (#52F "V" Thread)	1
19	R-81374-2	Ring - Adapter Adj. (#52-46 "Stub" Thread)	1
20	D-109738-1	Ring - Adapter Adj. (#56 "Stub" Thread)	1
21	D-109738-2	Ring - Adapter Adj. (#56 "V" Thread)	1
22	P-81531	Drippings Cup Assy.	1
	A-107238	Hopper Feed Plug Sub-Assy. (Incls. items #1, 7, 8 & 9)	1
	A-109369-2	#56 Adapter Sub-Assy. (Incls. items #5, 10 & 13) (Non-Hobart)	1
	A-109370-2	#52 Adapter Sub-Assy. (Incls. items #4, 12 & 15) (Non-Hobart)	1
	A-109371-2	#32 Adapter Sub-Assy. (Incls. items #6, 11 & 14) (Non-Hobart)	1



HOPPER AND FRAME UNIT

HOPPER AND FRAME UNIT

ILLUS. PL-14437	PART NO.	NAME OF PART	AMT.
1	SC-97-56	Fin. Bolt - 5/8"-11 x 3-1/2" Hex Hd. (Use with item #5)	4
2	SC-97-57	Fin. Bolt - 5/8"-11 x 5" Hex Hd. (Use with item #6)	4
3	SC-62-51	Fin. Bolt - 5/8"-11 x 1-1/2" Hex Hd. (Use with items #7 & 8)	4
4	WL-8-37	Lock Washer - 5/8" Int. Shakeproof	4
5	B-107240-1	Leg & Anchor Nut Sub-Assy. (3-1/4" Lg.)	4
6	B-107240-2	Leg & Anchor Nut Sub-Assy. (4-3/4" Lg.)	4
7	C-107246-1	Leg & Anchor Nut Sub-Assy. (7-13/16" Lg.)	4
8	C-107246-2	Leg & Anchor Nut Sub-Assy. (10-11/16" Lg.)	4
9	SC-46-4	Set Screw - #8-32 x 3/16" Hdls., Cup Pt.	4
10	B-107242-1	Foot - Adj. (3-1/8" Lg.) (Use with item #5)	4
11	B-107242-2	Foot - Adj. (4-9/16" Lg.) (Use with item #6)	4
12	B-107244	Stud & Foot Sub-Assy. (Use with items #7 & 8)	4
13	M-80957	Washer	4
14	C-107993	Caster	4
15	B-105348-1	Adjustable Leg & Foot Assy. (7-1/2" Lg.) (Incls. item #19)	1
16	B-105348-2	Adjustable Leg & Foot Assy. (11" Lg.) (Std.) (Incls. item #19)	1
17	B-105348-3	Adjustable Leg & Foot Assy. (15-1/2" Lg.) (Incls. item #19)	1
18	B-105348-4	Adjustable Leg & Foot Assy. (18-1/2" Lg.) (Incls. item #19)	1
19	M-89247	Foot - Leg	1
20	B-105347-1	Leg & Expansion Plug Assy. (7-1/2" Lg.)	3
21	B-105347-2	Leg & Expansion Plug Assy. (11" Lg.) (Std.)	3
22	B-105347-3	Leg & Expansion Plug Assy. (15-1/2" Lg.)	3
23	B-105347-4	Leg & Expansion Plug Assy. (18-1/2" Lg.)	3
24	WL-8-37	Lock Washer - 5/8" Int. Shakeproof	4
25	SC-62-51	Fin. Bolt - 5/8"-11 x 1-1/2" Hex Hd.	4
26	D-108362	Rear Panel & Gasket Assy. (Incls. item #31)	1
27	SD-15-16	Self-Tapping Screw - #10-24 x 5/8" Pan Hd. "Taptite"	21
28	D-108361-1	R.H. Side Panel & Gasket Assy. (W/Control Opening) (Incls. items #45 & 46)	1
29	D-108360-1	L.H. Side Panel & Gasket Assy. (W/Control Opening) (Incls. items #45 & 46) (Not Shown)	1
30	SD-29-2	Self-Tapping Screw - #10-24 x 1/2" Pan Hd., Type F	3
31	B-108359	Gasket - Rear Panel	1
32	SC-100-12	Mach. Screw - 5/16"-18 x 3/4" Hex Flange Hd. "Whiz-Lock"	4
33	A-108765	Spacer - Rear Support	2
34	NS-13-43	Full Nut - 5/8"-11 Hex Fin.	2
35	WL-4-18	Lock Washer - 5/8" x .201" x .126"	2
36	C-106546-2	Rod - Tie	2
37	NS-15-17	Full Nut - 5/8"-11 Hex Fin.	4
38	SC-37-83	Fin. Bolt - 5/16"-18 x 5/8" Hex Hd.	2
39	WL-3-47	Lock Washer - 5/16" x .125" x .078"	2
40	E-105329-2	Frame & Support Leg Assy.	1
41	B-106827-1	Caplug	4
42	SD-29-2	Self-Tapping Screw - #10-24 x 1/2" Pan Hd., Type F	11
43	D-108361-2	R.H. Side Panel & Gasket Assy. (W/O Control Opening) (Incls. items #45 & 46) (Not Shown)	1
44	D-108360-2	L.H. Side Panel & Gasket Assy. (W/O Control Opening) (Incls. items #45 & 46)	1
45	B-108357	Gasket - Housing (Side Panel) (Long)	2
46	B-108358	Gasket - Housing (Side Panel) (Short)	2
47	E-105354-2	R.H. Hopper Assy. (Incls. items #36 & 37)	1
48	E-106012-2	L.H. Hopper Assy. (Incls. items #36 & 37) (Not Shown)	1
49	B-113357	Screw - Shoulder	2
50	B-107541-1	Hopper Guard Sub-Assy. (R.H. Mach.)	1
51	B-107541-2	Hopper Guard Sub-Assy. (L.H. Mach.) (Not Shown)	1
52	B-120431-1	Latch (R.H. Mach.)	1
53	B-120431-2	Latch (L.H. Mach.) (Not Shown)	1
54	B-120432	Screw - Latch	1
55	NS-25-4	Acorn Nut - 1/4"-20	1
	B-107135-1	Adj. Leg & Caster Sub-Assy. (8" Lg. Min.) (Incls. items #1, 4, 5, 9, 10, 13 & 14)	4
	B-107135-2	Adj. Leg & Caster Sub-Assy. (9-3/8" Lg. Min.) (Incls. items #2, 4, 6, 9, 11, 13 & 14)	4
	D-107243-1	Adj. Leg & Caster Sub-Assy. (12-1/4" Lg. Min.) (Incls. items #3, 4, 7, 9, 12, 13 & 14)	4
	D-107243-2	Adj. Leg & Caster Sub-Assy. (15-1/8" Lg. Min.) (Incls. items #3, 4, 8, 9, 12, 13 & 14)	4

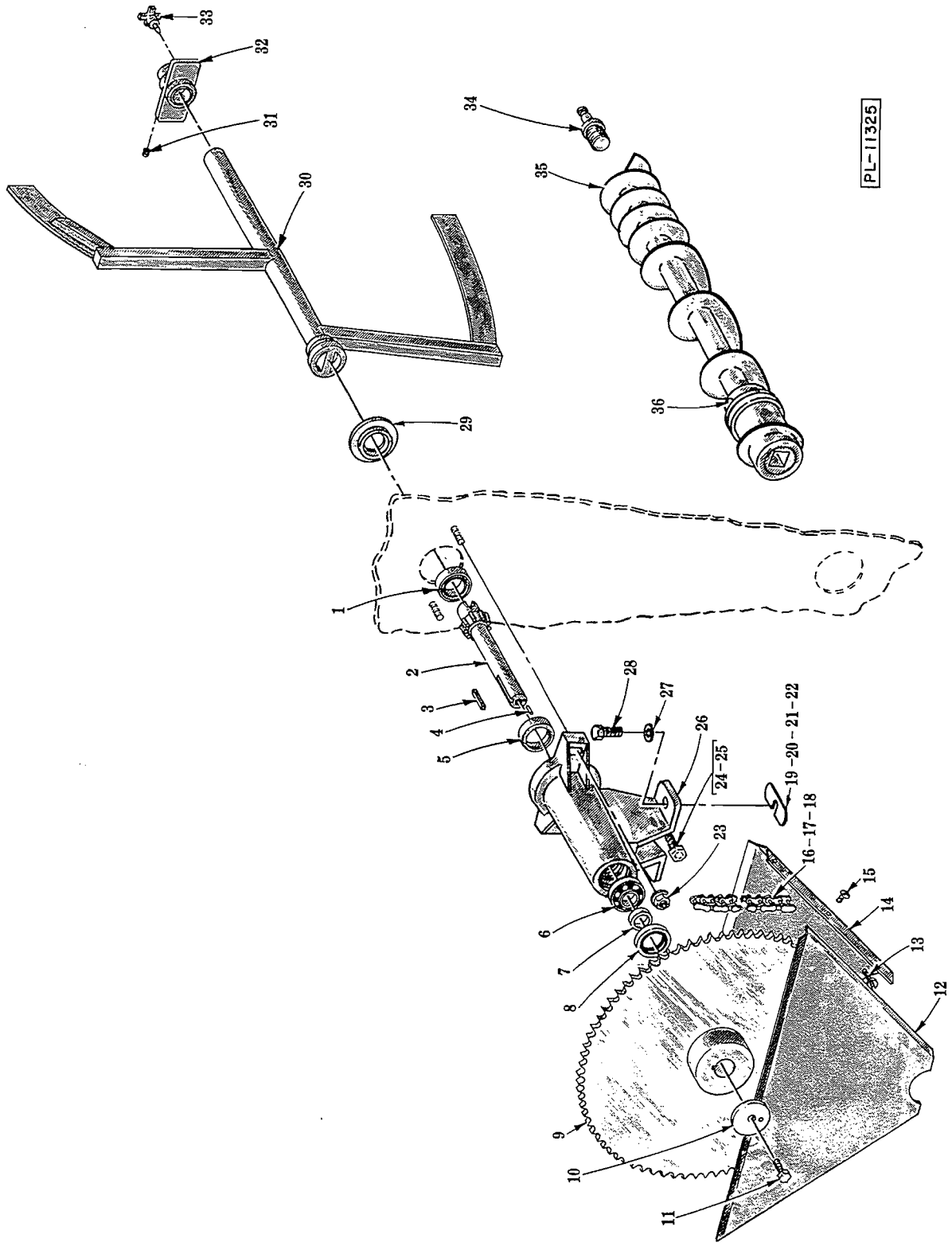


MOTOR AND GEAR CASE

ILLUS. PL-14438	PART NO.	NAME OF PART	AMT.
1	B-116464	Cover - Window	1
2	B-116465	Gasket - Window Cover	1
3	SD-24-44	Self-Tapping Screw - #10-24 x 1/2" Phil. Pan Hd. "Taptite"	4
4	E-105243	Cover - Gear Case	1
5	C-118544-1	Lug - Solderless	1
6	SC-27-41	Mach. Screw - #10-24 x 3/8" Rd. Hd.	1
7	WL-10-6	Lock Washer - #10 Ext. Shakeproof	1

MOTOR AND GEAR CASE (Cont.)

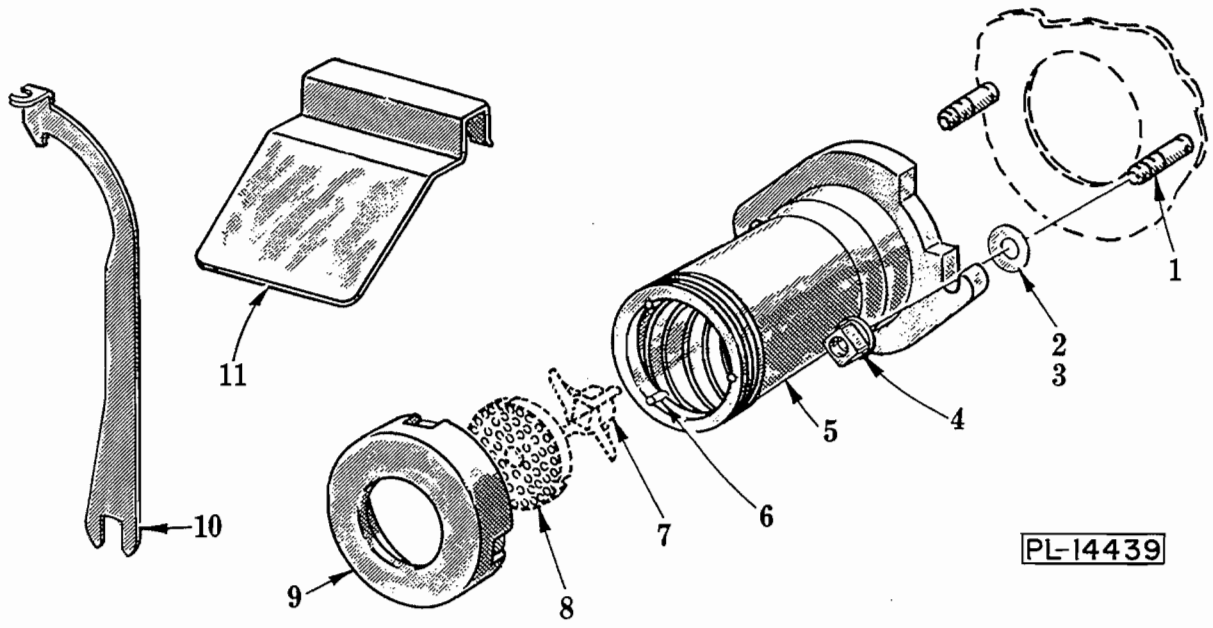
ILLUS. PL-14438	PART NO.	NAME OF PART	AMT.
8	WL-3-47	Lock Washer - 5/16" x .125" x .078"	2
9	SC-37-69	Fin. Bolt - 5/16"-18 x 1-3/4" Hex Hd.	2
10	M-22793	Gauge - Oil Level	1
11	WL-3-47	Lock Washer - 5/16" x .125" x .078"	1
12	SC-62-28	Fin. Bolt - 5/16"-18 x 3-1/2" Hex Hd.	1
13	SC-18-38	Mach. Screw - #8-32 x 1/2" Pan Hd.	3
14	B-106810	Cap - Bearing	1
15	A-106823	Gasket - Bearing Cap	1
16	SC-97-11	Fin. Bolt - 5/16"-18 x 4" Hex Hd.	1
17	WL-3-47	Lock Washer - 5/16" x .125" x .078"	1
18	SC-18-11	Mach. Screw - #10-24 x 3/8" Pan Hd.	6
19	B-120429	Cover - Junction Box	1
20	B-120430	Gasket - Junction Box Cover	1
21	SC-36-40	Fin. Bolt - 5/16"-18 x 1-1/4" Hex Hd.	14
22	WL-3-47	Lock Washer - 5/16" x .125" x .078"	14
23	SC-99-10	Cap Screw - 5/16"-18 x 3/4" Hex Hd. "Eslok"	1
24	RP-2-16	Rollpin - 1/8" Dia. x 11/16" Lg.	1
25	A-105384	Washer - Shaft Retaining	1
26	BB-18-23	Ball Bearing - ND #Z99605	1
27	A-107255	Spacer - Drive Sprocket (Front)	1
28	A-108963-2	Plug - Oil Fill	1
29	B-120207	Sprocket - Drive (11T)	1
30	B-105226	Spacer - Drive Sprocket	1
31	A-105355	Seal - Oil	1
32	BR-2-11	Roller Bearing - Cone & Cup Assy.	1
33	E-105178-1	Gear - Driven (163T) (60 Hz.)	1
34	E-105178-2	Gear - Driven (159T) (50 Hz.)	1
35	D-67500-47	"O" Ring	1
36	R-12430-141	Key	1
37	D-108666	Shaft - Sprocket	1
38	R-12430-216	Key	1
39	BN-2-24	Needle Bearing - Fafnir #INA SCE-1012	1
40	B-105400	Clutch - Sprag	1
41	RR-9-8	Retaining Ring	1
42	B-105204	Race - Outer Clutch	1
43	SC-99-10	Cap Screw - 5/16"-18 x 3/4" Hex Hd. "Eslok"	4
44	B-105184	Collar - Thrust Bearing	1
45	SC-92-31	Cap Screw - 1/4"-20 x 1-1/2" Soc. Fil. Hd.	1
46	A-105379	Race - Thrust Bearing	1
47	BN-5-1	Needle Bearing - Torrington #FA39575	1
48	A-105379	Race - Thrust Bearing	1
49	C-106444	Gear Case Sub-Assy.	1
50	WL-8-37	Lock Washer - 5/8" Int. Shakeproof	2
51	SC-62-25	Fin. Bolt - 5/8"-11 x 2-1/4" Hex Hd.	2
52	BR-2-28	Roller Bearing - Cone & Cup Assy.	1
53	C-108539	Spacer - Oil Seal	1
54	C-105195	Shaft - Square Drive	1
55	B-108591	Seal - Oil (Square Drive)	1
56	B-105196	Seal - Outer (Conveyor)	1
57	FP-28-17	Plug - 3/4" Sq. Hd. Pipe	1
58	A-118303	Caplug - 7/16"-20	1
59	B-108267	Seal - Motor Shroud	1
60	SC-62-58	Fin. Bolt - 3/8"-24 x 1-1/4" Hex Hd.	4
61	WL-4-6	Lock Washer - 3/8" x .141" x .094"	4
62	R-12430-165	Key	1
63	V-6566	Nut	2
64	A-105218	Washer - Pinion	1
65	C-105189-1	Pinion - Motor (21T) (60 Hz.)	1
66	C-105189-2	Pinion - Motor (25T) (50 Hz.)	1
67	C-105161	Flinger Assy.	1
68	D-67500-24	"O" Ring	1
69	---	Motor (See separate Motor Parts Sheet)	1
70	C-108365	Shroud Reinforcement Assy.	1
71	SC-21-10	Mach. Screw - #6-32 x 1/2" Rd. Hd.	2
72	B-107378	Bracket - Shroud Support	1
73	SD-19-14	Self-Tapping Screw - #8 x 1/2" Pan Hd., Type B	2
74	E-108184	Motor Shroud Assy.	1
75	SC-18-4	Mach. Screw - #10-24 x 1/2" Pan Hd.	2



CONVEYOR AND MIXING ARM UNIT

CONVEYOR AND MIXING ARM UNIT

ILLUS. PL-11325	PART NO.	NAME OF PART	AMT.
1	A-105359	Seal - Oil	1
2	A-111693	Mixing Arm Drive Shaft Assy. Unit (Incls. items #1, 4 & 8)	1
3	A-111471	Key	1
4	RP-2-16	Rollpin - 1/8" Dia. x 11/16" Lg.	1
5	BR-2-34	Cup - Roller Bearing	2
6	BR-2-27	Roller Bearing - Cone & Cup Assy. (Incls. item #5)	2
7	A-105386	Spacer - Sprocket	1
8	A-105359	Seal - Oil	1
9	D-105187	Sprocket - Driven (84T)	1
10	A-105380	Washer - Sprocket Retaining	1
11	SC-62-48	Fin. Bolt - 3/8"-16 x 1-1/8" Hex Hd.	1
12	E-107122	Panel - Oil Splash (Outside)	1
13	SC-18-38	Mach. Screw - #8-32 x 1/2" Pan Hd.	2
14	E-107123	Panel - Oil Splash (Inside)	1
15	SD-19-15	Self-Tapping Screw - #8 x 1/2" Pan Hd., Type B	4
16	B-105193-1	Chain - Mixing Drive (Incls. items #17 & 18)	1
17	B-107540	Link - Offset (#50)	As Reqd.
18	B-107539	Link - Connecting (#50)	As Reqd.
19	A-105781-1	Shim (.005" Thk.) (Blue)	As Reqd.
20	A-105781-2	Shim (.010" Thk.) (Brown)	As Reqd.
21	A-105781-3	Shim (.020" Thk.) (Yellow)	As Reqd.
22	A-105781-4	Shim (.030" Thk.) (Coral)	As Reqd.
23	NS-38-10	Lock Nut - 3/8"-16 Flange "Whiz-Lock"	2
24	B-108951	Support Screw & Nut Assy.	1
25	NS-17-25	Jam Nut - 1/2"-13 Hex Fin.	2
26	D-105258	Carrier - Bearing	1
27	WL-4-6	Lock Washer - 3/8" x .141" x .094"	2
28	SC-62-42	Fin. Bolt - 3/8"-16 x 1" Hex Hd.	2
29	B-105266	Seal - Outer (Mixing Arm)	1
30	E-111030	Mixing Arm Assy.	1
31	SC-103-6	Set Screw - #10-24 x 1/4" Soc. Hdls., Kn. Cup Pt.	1
32	A-110342	Bushing Retainer Assy. (Incls. item #31)	1
33	A-106830	Thumb Screw Assy.	1
34	C-110576	Stud - Plate	1
35	E-111840	Worm Assy. (Incls. items #34 & 36)	1
36	A-106457	Pin - Shear	1



#46 GRINDER UNIT

ILLUS. PL-14439	PART NO.	NAME OF PART	AMT.
1	B-118266	Stud - Cylinder	2
2	B-108515-1	Shim - Cylinder (.015" Thk.)	As Reqd.
3	B-108515-2	Shim - Cylinder (.031" Thk.)	As Reqd.
4	M-69862	Nut - Cylinder	2
5	C-111700	Grinder Cylinder Assy. (Incls. item #6)	1
6	A-105806	Pin - Plate	3
7	*	Knife - Grinder	1
8	*	Plate - Grinder	1
9	R-86050	Ring - Adjusting	1
10	R-88187	Wrench - Spanner (#46)	1
11	R-86124	Deflector - Meat	1

* Sharp, high quality knives and plates should be purchased or rented for this grinder.