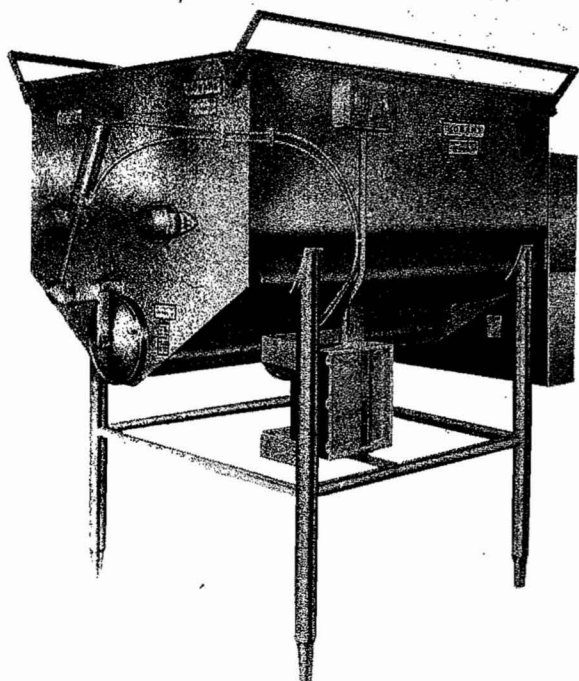


HOBART

INSTRUCTION MANUAL

... with Replacement Parts



MODELS BL-20 & BL-30 BLENDERS

BL-20

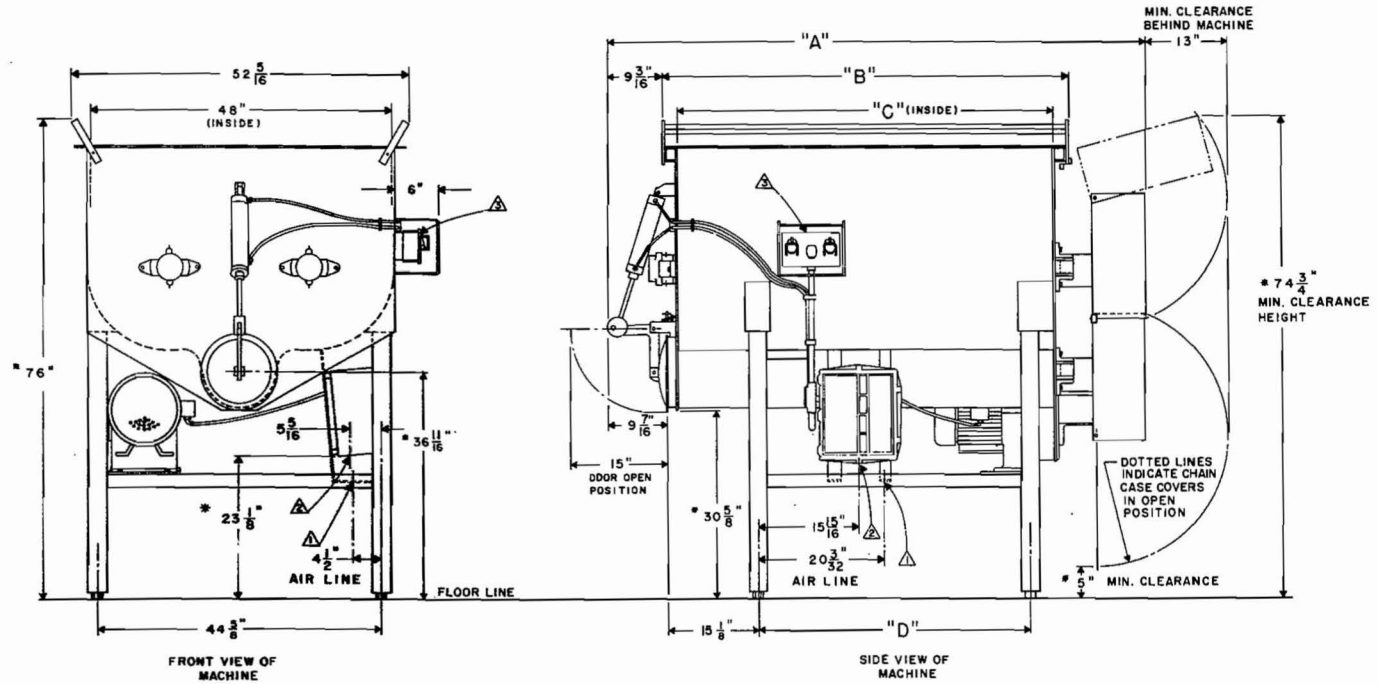
ML-18619 R.H. MOUNTED CONTROLS
ML-19153 L.H. MOUNTED CONTROLS

BL-30

ML-19154 R.H. MOUNTED CONTROLS
ML-19155 L.H. MOUNTED CONTROLS

MODEL NO.	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"
BL-20	86-9/16"	65-1/4"	60"	43-3/8"
BL-30	110-9/16"	68-1/4"	84"	67-3/8"

INSTALLATION DIAGRAM



NOTES:

- ▲ FURNISHED WITH A 1/4" NPT. FITTING FOR AIR SUPPLY CONNECTION. AIR SUPPLY MUST BE DRY AND CLEAN. PRESSURE MUST BE BETWEEN 40 PS.I. AND 125 PS.I.
- ▲ FURNISHED WITH 1-5/16" DIA. HOLE IN BOTTOM OF CONTROL BOX FOR 1" CONDUIT FITTING.

- ▲ R.H. MACHINE SHOWN. FOR L.H. MACHINE THE SWITCH BOX IS THE SAME LOCATION ON OPPOSITE SIDE OF MACHINE.

- * LEG ADJUSTMENT IS PROVIDED TO COMPENSATE FOR UNEVENNESS OF FLOOR. (DIMENSIONS CAN INCREASE 1"). HEIGHT MAY BE INCREASED 3", 6", 9", OR 12" WITH OPTIONAL LEG EXTENSIONS.

PL-15722

E-121742

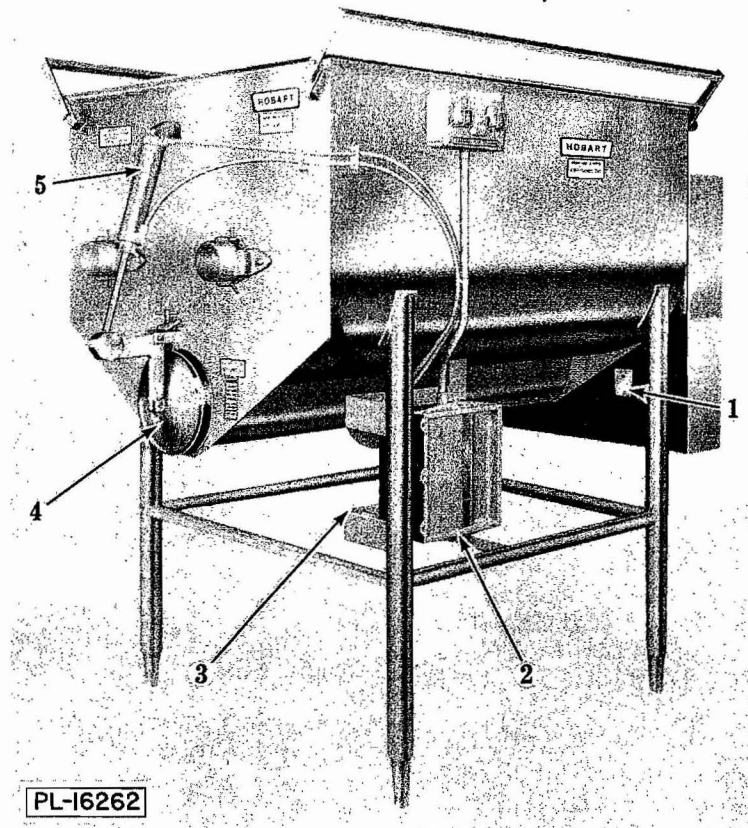


Fig. 1

Instructions for Operation and Care of MODELS BL-20 AND BL-30 BLENDERS

I GENERAL

The blenders are used to blend ground meat, poultry or fish products, pet foods, wiener and bologna type formulations, dry and semi-moist products. The usable hopper volume is 44 cubic feet in the BL-20 and 62 cubic feet in the BL-30. This provides a weight capacity of approximately 2000 pounds in the BL-20 and 3000 pounds in the BL-30 of a product with a density of 45 pounds per cubic foot. After blending, the product may be discharged into an emulsifier, pump, conveyor or truck.

The conveyor screw in the bottom of the hopper operates in a reverse direction on the "Mix" cycle to raise or lift the product into the path of the revolving arms. The two interlocking revolving arms rotate in opposite directions. This blending

arm action, along with the reverse conveyor screw rotation, provides thorough mixing or blending.

After the product has been blended, it is discharged through the door opening in the front end of the hopper. The discharge door covering the opening is air operated. The product is kept in a continuous mixing motion by the blending arms as the conveyor transfers the product out of the door opening.

II SAFETY PRECAUTIONS

CAUTION: Do not put hand in discharge opening unless machine is disconnected from air and electrical power source. Never put hand in hopper unless machine is disconnected from electrical power source.

A watertight interlock switch is provided for the safety rails of the hopper.

The spring loaded rails are hinged at the hopper ends. If either rail is bumped, it will pivot, open the interlock, and stop the blender. The spring will return the safety rail to its operating position closing the interlock. However, the blender cannot be restarted until start button is pushed.

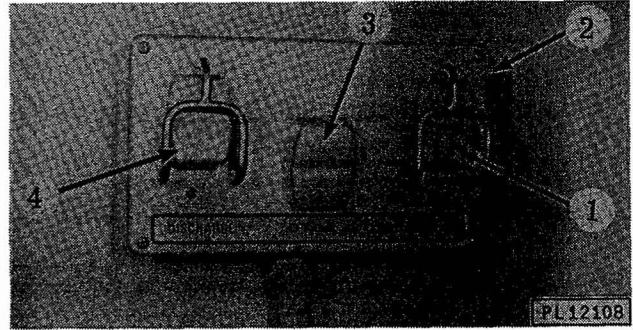


Fig. 3

III INSTALLATION

Place the machine in its operating location. Level it by adjusting the four threaded feet.

All internal wiring of the machine is completed before machine is shipped. Before making any electrical supply connections, CHECK THE SPECIFICATIONS ON THE SERIAL PLATE (1, Fig. 1) TO MAKE SURE THEY AGREE WITH THOSE OF YOUR ELECTRICAL SERVICE.

Electrical Service:

Electrical connections should be made by qualified workmen who will observe all applicable Safety Codes and the National Electrical Code.

SUGGESTED WIRE AND FUSE SIZES FOR INDIVIDUAL BRANCH CIRCUIT

Volts	Ph.	Maximum Dual Element Fuse Size	Minimum Conductor Ampacity	60°C Cu Wire Size
200	3	80 Amp.	55	#6
230	3	70 Amp.	55	#6
460	3	45 Amp.	30	#10

NOTE: More than 150 ft. from Meter Service, wire size may be increased by one gauge.

Connect the individual branch electrical power supply lines to the terminal block (1, Fig. 2) inside the contactor box. (See wiring diagram attached inside of contactor box lid). A 1-5/16" dia. hole (for 1" conduit) is provided in the bottom of the contactor box (2, Fig. 1) for this connection. Circuit conductors and fuse protection should conform to local as well as national code requirements.

With "Discharge" switch (4, Fig. 3) actuated, conveyor screw should rotate counterclockwise when operator is facing the discharge door end of hopper (4, Fig. 1). If rotation is not counterclockwise, interchange any two power supply leads to the terminal block (1, Fig. 2).

NOTE: The special printed circuit board in the contactor box is part of the thermal motor protection system. It requires special test equipment for servicing it. Call your Hobart service technician for these services.

An electric heater in the contactor box is provided to eliminate moisture condensation in the box. This is necessary when a machine operates in cold, wet environment.

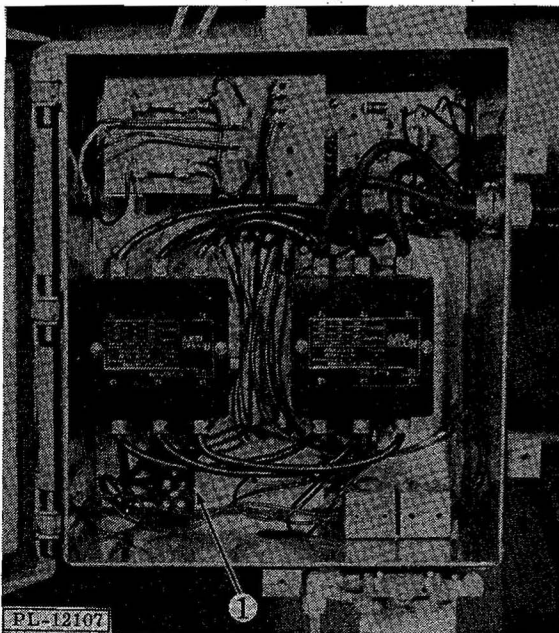


Fig. 2

Connect the air supply line to 1/4" pipe fitting (3, Fig. 1). Air supply must have a 40 p.s.i. minimum for proper operation of air cylinder for discharge door. Air supply should not exceed 125 p.s.i. and be clean and dry.

IV CONTROLS

The switches (1, 3 & 4, Fig. 3) for starting and stopping machine, are located on the control box (2, Fig. 3). The "Mix" switch (1, Fig. 3) provides mixing with the discharge door sealed.

A two step operation is required to change from "Mix" to "Discharge".

1. Press "Stop" switch (3, Fig. 3).
2. Actuate "Discharge" switch (4, Fig. 3).

When the "Discharge" switch is actuated, the discharge door is automatically opened and the product is emptied from the hopper.

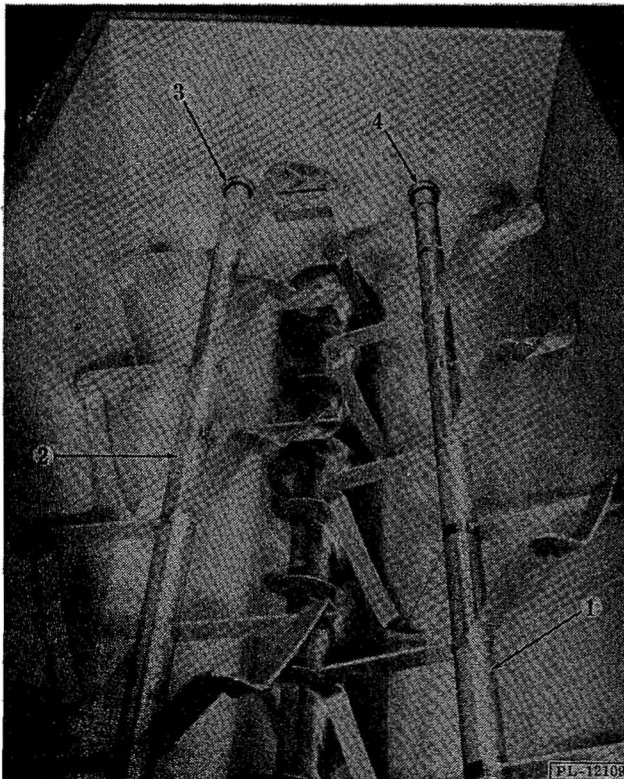


Fig. 4

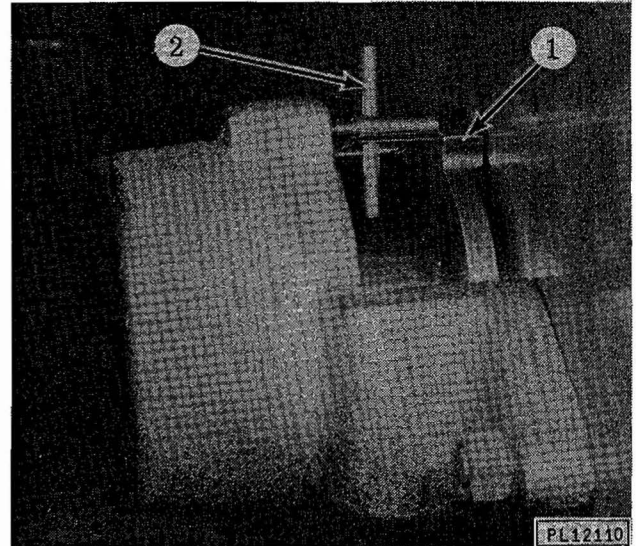


Fig. 5

An electrically operated valve controls the air flow from the air cylinder (5, Fig. 1). The discharge door automatically opens when the "Discharge" switch is actuated and automatically closes during mixing operations.

MIXING ARMS:

The mixing arms (1 & 2, Fig. 4) must be in proper relation ("time") with each other to avoid interference. When changing or removing chain, drive sprocket relationship can change. To check mixing arm "time", with power supply "off", remove chain (3, Fig. 7). Manually turn sprocket (4, Fig. 7) until arms rotate a complete 360° cycle. Observe mixing arms for interference. If interference does exist, contact your Hobart service technician.

Two types of mixing arms are available. One is the standard helical (used for sausage and liquid or viscous products) and the other is an interrupted helical arm (used for blending fresh and frozen beef, powdered, or granulated products). Either type arm may be ordered to suit your operation.

V OPERATION

Check air pressure (40 p.s.i. minimum, 125 p.s.i. maximum) at air regulator/air filter (supplied by customer). Load product to be blended into

hopper. Press "Mix" switch. Operate for the desired time.

Discharge the product directly into an emulsifier, pump, conveyor or truck by first pressing "Stop" switch, then pressing "Discharge" switch. Discharge may be halted at anytime by pressing "Stop" switch which automatically closes door. Press "Mix" switch to restart blending action (product will continue to blend until again stopped) or press "Discharge" switch to resume discharge of product.

VI LUBRICATION

The motor bearing brackets are equipped with grease fittings for periodic lubrication.

The motor transmission is lubricated at the factory. A dip stick (1, Fig. 6) is provided for

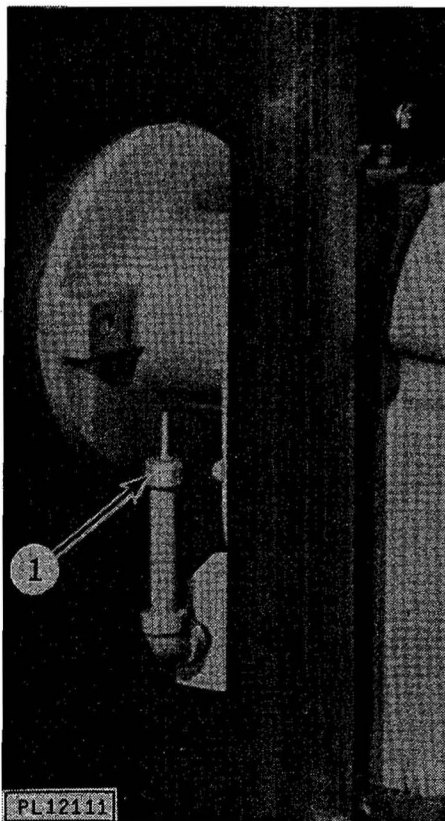


Fig. 6

checking oil level. Drain and refill the transmission annually with Texaco Multigear EP-90 (or equiv.).

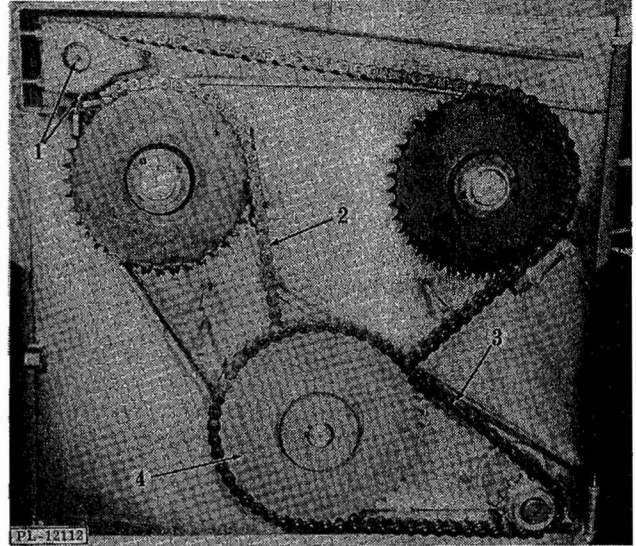


Fig. 7

Lubricate the idler sprocket at both fittings (1, Fig. 7) with Shell Alvania #2 grease (or equiv.).

The roller chains (2 & 3, Fig. 7) should be lubricated with a good chain lubricant, such as LPS #3, after each 20 hours of operation.

Proper lubricants and lubrication information can be obtained by contacting your local Hobart servicing office.

VII CLEANING

Disconnect the electrical power supply. Release the seal retainers (1, Fig. 5) at each end of the two mixing arms and at the drive end of the conveyor screw by loosening seal clamp screw (2, Fig. 5). Withdraw the seals (3 & 4, Fig. 4) from their seats by rotating and sliding back onto the shaft.

Remove conveyor screw support (2, Fig. 8) by turning retainer clamp screw (1, Fig. 8) counter-clockwise, then pushing conveyor screw support

towards conveyor, out of bayonet slot at bottom and withdrawing it.

The blender can now be washed down with hot water or steam as is customary in meat processing operations. AVOID DIRECT HIGH PRESSURE FLUSHING OF THE CONTROL BOX AND ALL OTHER ELECTRICAL COMPONENTS.

NOTE: Use care in removing, cleaning and replacing seals and seal retainers. Seals must be thoroughly cleaned to assure maximum life. When relocating seal retainers, apply only light pressure to seal clamp screws. Overtightening seal clamp screws will misalign seals and cause leakage.

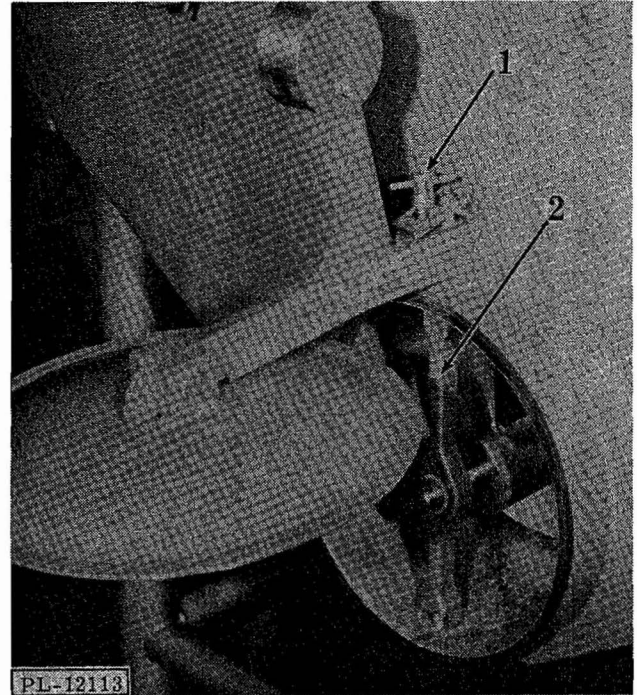
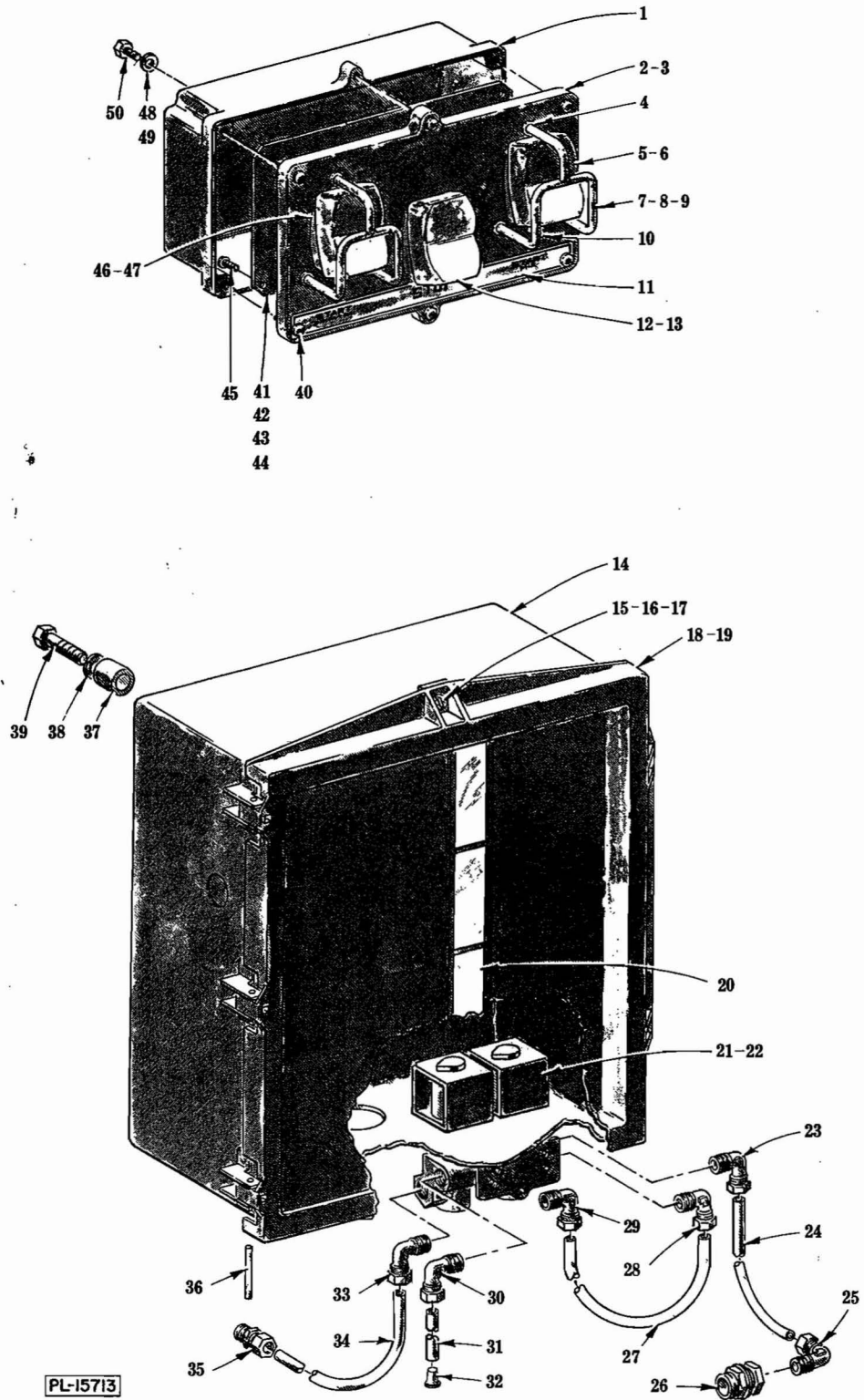


Fig. 8

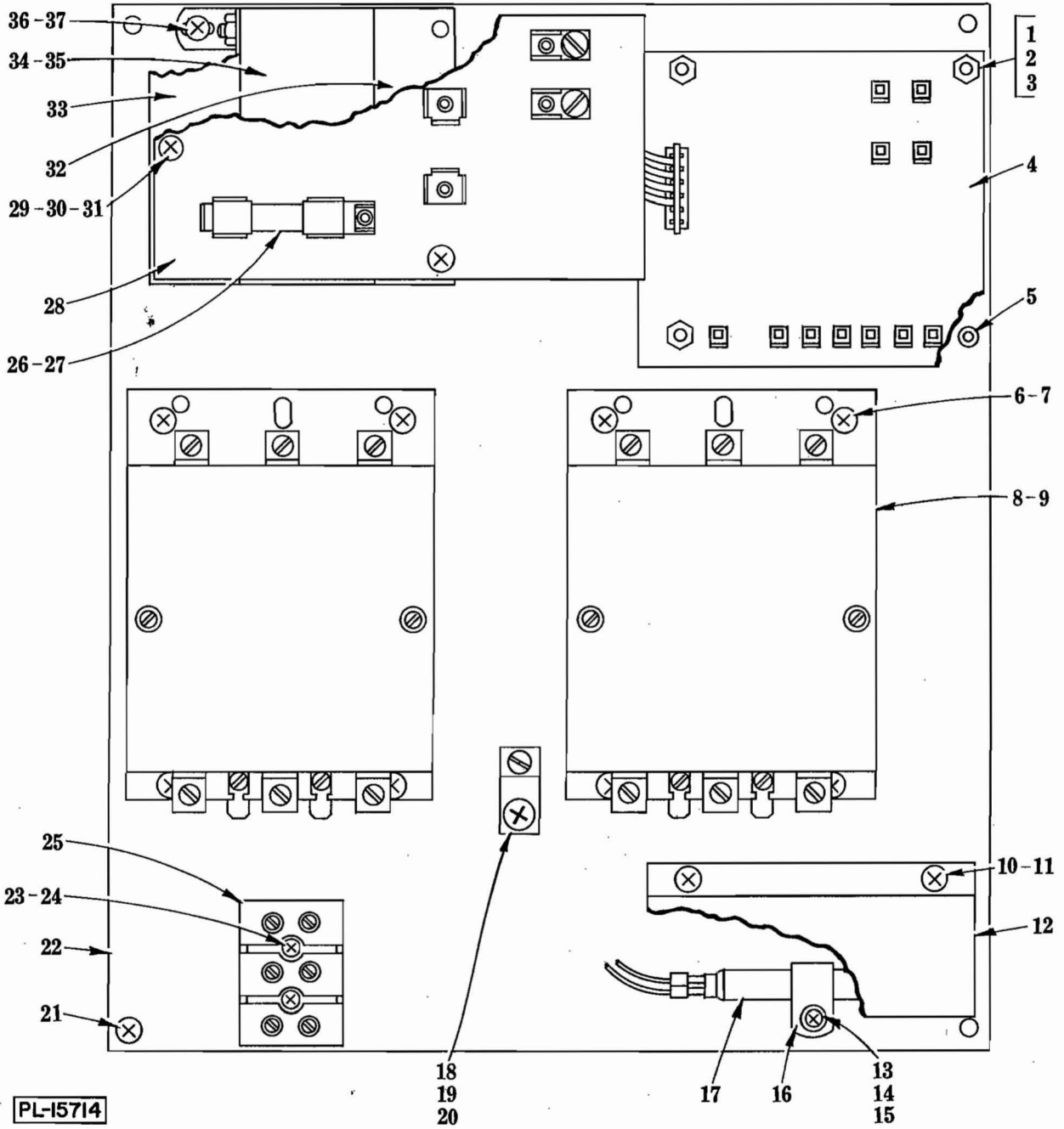
BL-20/30 REPLACEMENT PARTS



CONTROL BOX UNIT

CONTROL BOX UNIT

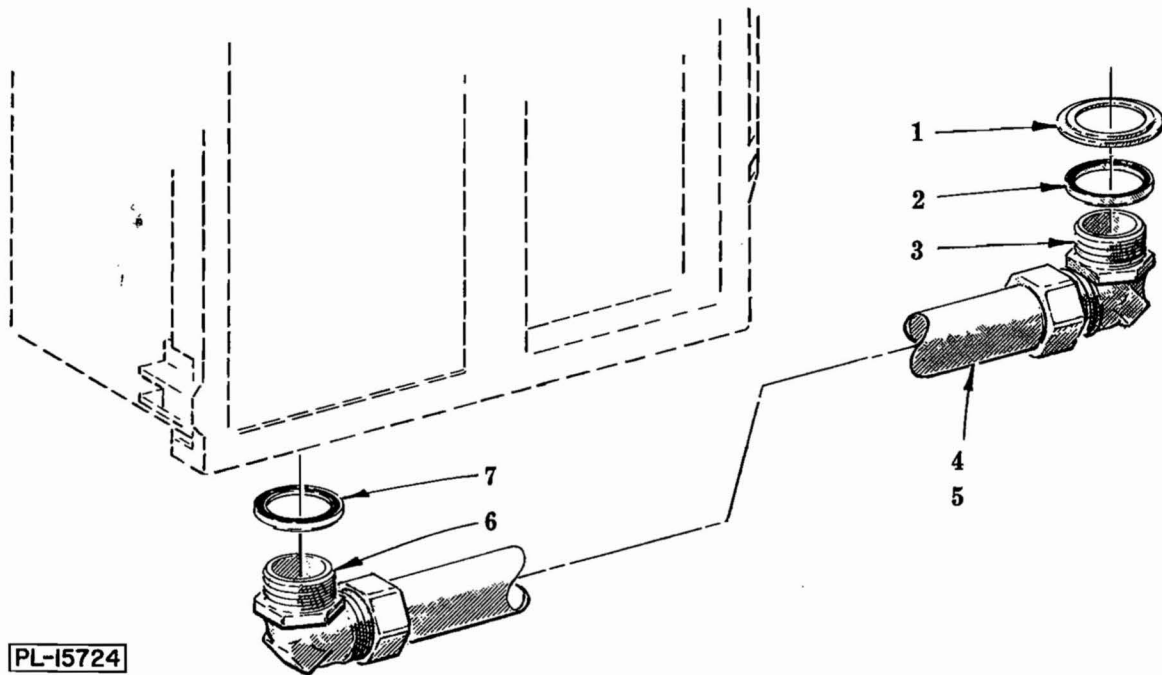
ILLUS. PL-15713	PART NO.	NAME OF PART	AMT.
1	D-119853-1	Box - Switch	1
2	A-119912	Switch Box Lid & Gasket Sub-Assy. (Incls. items #3 & 11)	1
3	C-112005	Gasket - Switch Box Lid	1
4	WS-28-3	Washer	6
5	D-120872-2	Switch Assy. (Mix)	1
6	SD-32-3	Self-Tapping Screw - #6-19 x 3/8" Phil. Pan Hd. "Plastite"	2
7	C-115090	Switch Guard Assy	2
8	WS-23-44	Washer	6
9	SC-21-8	Mach. Screw - #6-32 x 3/8" Rd. Hd	6
10	B-111936	Pilot Light Assy. (Solid State)	2
11	B-119591	Plate - Switch Function	1
12	D-120872-4	Stop Switch Assy. (Stop)	1
13	SD-32-3	Self-Tapping Screw - #6-19 x 3/8" Phil. Pan Hd. "Plastite"	2
14	E-120553	Box - Control	1
15	B-112129	Screw - Captive	4
16	B-112169	Spacer - Lid	4
17	B-112016	Retainer - Captive Screw	4
18	A-116827	Control Box Lid & Gasket Assy. (Incls. items #19 & 20)	1
19	C-112068	Gasket - Control Box Lid	1
20	B-276875	Plate - Blank Identification	4
21	C-116501-1	Control Valve & Terminal Assy. (120 V., 60 Hz.)	1
22	B-117183	Washer - Sealing	2
23	C-114454-1	Connector - 90° (1/4" Male Thd. x 1/4" Tube)	1
24	C-114456-3	Hose - Air (16" Lg.)	1
25	C-114454-1	Connector - 90° (1/4" Male Thd. x 1/4" Tube)	1
26	C-115180-1	Connector - Straight (3/4" Male Thd. x 1/4" Female Thd.)	1
27	C-114456-2	Hose - Air (101" Lg.)	1
28	C-114454-1	Connector - 90° (1/4" Male Thd. x 1/4" Tube)	1
29	C-114454-1	Connector - 90° (1/4" Male Thd. x 1/4" Tube)	1
30	C-114454-1	Connector - 90° (1/4" Male Thd. x 1/4" Tube)	1
31	C-114456-4	Hose - Air (3-1/2" Lg.)	1
32	B-117008	Insert - Hose End	7
33	C-114454-1	Connector - 90° (1/4" Male Thd. x 1/4" Tube)	1
34	C-114456-1	Hose - Air (93" Lg.)	1
35	C-114455-1	Connector - Straight (1/4" Male Thd. x 1/4" Tube)	1
36	B-112022	Pin - Lid Hinge	3
37	B-115233	Spacer - Control Box	4
38	WL-6-23	Lock Washer - 5/16" x .125" x .078"	4
39	SC-41-17	Fin. Bolt - 5/16"-18 x 1-1/2" Hex Hd	4
40	SD-29-13	Self-Tapping Screw - #8-32 x 5/8" Phil. Pan Hd., Type F	6
41	D-119584	Reed Mounting Board Assy. (Incls. item #42)	1
42	C-111964	Switch - Reed	3
43	B-111889	Relay	2
44	C-112118	Clip - Relay Retainer	2
45	SD-12-30	Self-Tapping Screw - #6-32 x 5/16" Phil. Pan Hd., Type 23	4
46	D-120872-2	Switch Assy. (Discharge)	1
47	SD-32-3	Self-Tapping Screw - #6-19 x 3/8" Phil. Pan Hd. "Plastite"	2
48	WL-6-7	Lock Washer - #10 x .062" x .047"	4
49	WS-19-10	Washer	4
50	SC-67-6	Mach. Screw - #10-24 x 1/2" Trimmed Hex Hd	4



CONTROL UNIT

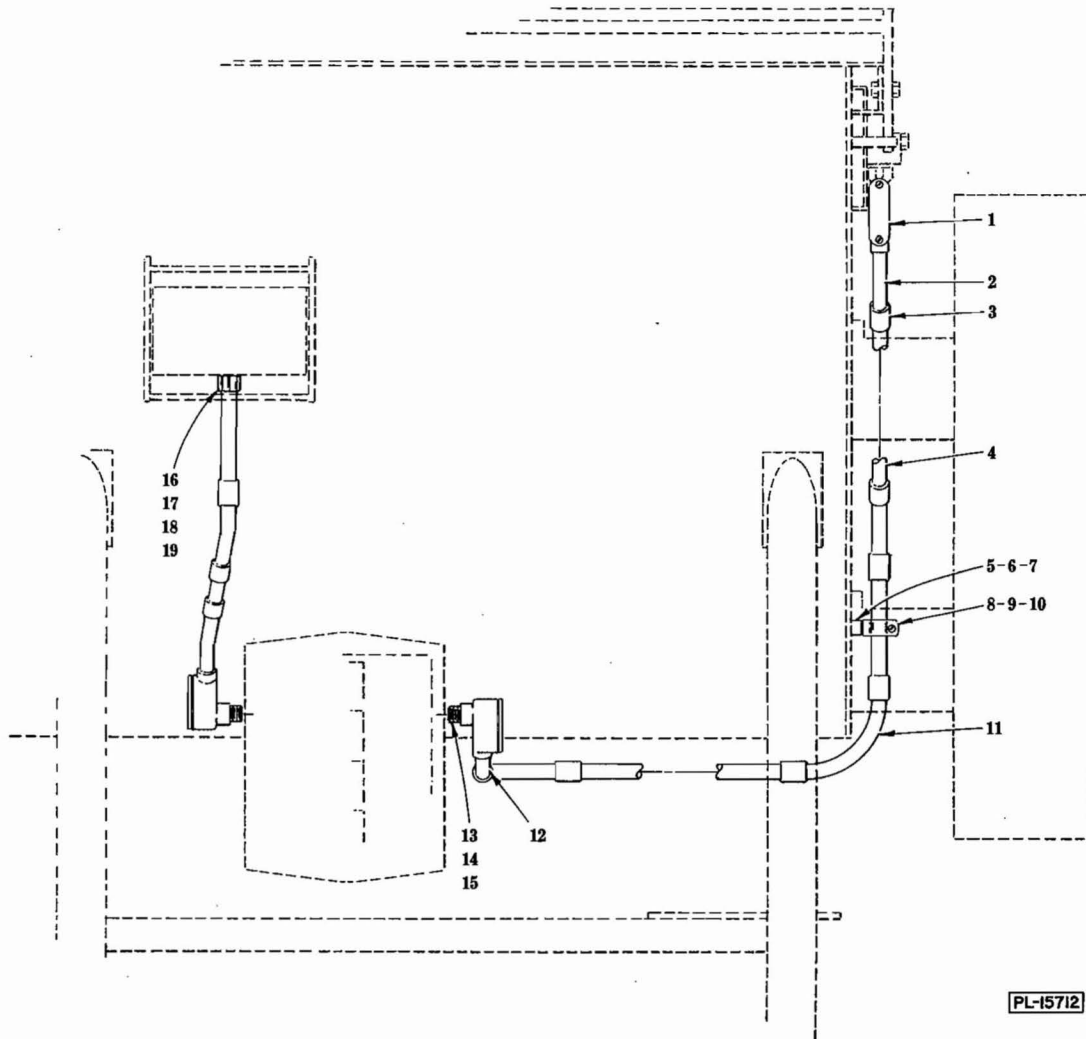
CONTROL UNIT

ILLUS. PL-15714	PART NO.	NAME OF PART	AMT.
1	SD-29-11	Self-Tapping Screw - #6-32 x 1" Phil. Pan Hd., Type F	4
2	WL-6-42	Lock Washer - #6 x .047" x .031"	4
3	NS-9-8	Mach. Nut - #6-32 Hex	8
4	E-119990	Motor Protector Board Assy	1
5	B-119994	Spacer	4
6	SD-9-43	Self-Tapping Screw - #10-32 x 3/8" Phil. Pan Hd., Type F	8
7	WL-14-7	Lock Washer - #10 Ext. Shakeproof	8
8	D-87713-31-1	Contactactor (60 Hz.)	2
9	D-87713-31-2	Contactactor (50 Hz.)	2
10	SD-9-39	Self-Tapping Screw - #8-32 x 3/8" Phil. Pan Hd., Type F	2
11	WL-6-1	Lock Washer - #8 x .047" x .031"	2
12	C-115071	Shield - Heater	1
13	SD-9-39	Self-Tapping Screw - #8-32 x 3/8" Phil. Pan Hd., Type F	1
14	WS-23-44	Washer	1
15	WL-6-1	Lock Washer - #8 x .047" x .031"	1
16	C-108199-1	Clamp - Air Heater	1
17	B-108202-5	Heater & Terminal Assy	1
18	C-118544-1	Lug - Solderless	1
19	SD-9-43	Self-Tapping Screw - #10-32 x 3/8" Phil. Pan Hd., Type F	1
20	WL-14-7	Lock Washer - #10 Ext. Shakeproof	1
21	SC-93-23	Mach. Screw - #10-24 x 3/8" Phil. Pan Hd	4
22	D-115070	Panel - Control Mounting	1
23	SD-9-44	Self-Tapping Screw - #8-32 x 1-1/4" Phil. Rd. Hd., Type F	2
24	WL-6-1	Lock Washer - #8 x .047" x .031"	2
25	C-111995	Terminal Block	1
26	FE-16-29	Fuse (1 Amp.) (60 Hz. Mach.)	2
27	FE-16-30	Fuse (2 Amp.) (50 Hz. Mach.)	2
28	C-112398	Terminal & Mtg. Board Assy	1
29	SC-18-34	Mach. Screw - #8-32 x 1/2" Phil. Pan Hd	3
30	WL-7-7	Lock Washer - #8 Ext. Shakeproof	3
31	NS-9-12	Mach. Nut - #8-32 Hex	3
32	C-115069	Bracket - Fuse Board Mounting	1
33	C-115068	Bracket - Fuse Board Mounting	1
34	C-111983-6	Power Input Board Assy. (460 V. to 115 V.) (Pilot Circuit)	1
35	C-111983-8	Power Input Board Assy. (415 V. to 115 V.) (Pilot Circuit)	1
36	SD-9-43	Self-Tapping Screw - #10-32 x 3/8" Phil. Pan Hd., Type F	4
37	WL-14-7	Lock Washer - #10 Ext. Shakeproof	4



CONDUIT (MOTOR TO CONTROL BOX)

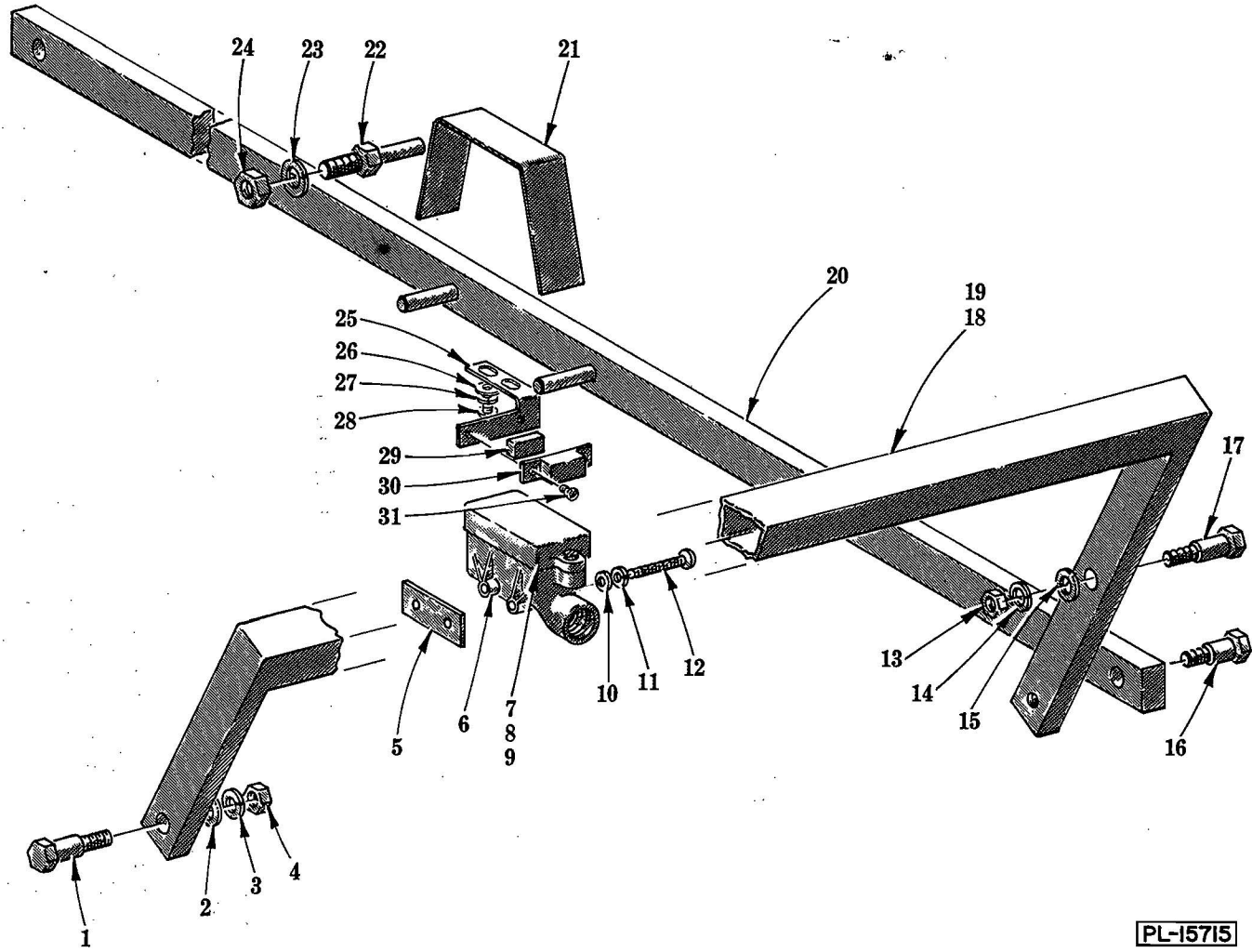
ILLUS. NO.	PART NO.	NAME OF PART	AMT.
1	FE-8-2	Washer - 1-1/4" to 3/4" Cupped Reducing	2
2	FE-8-11	3/4" Gasket Assy	1
3	FE-8-25	Connector - 90° "Sealtite" (3/4" Male Thd. x 3/4" Flex. Cnd.)	1
4	P-77657-24	Conduit - 3/4" x 42" (Waterproof) (BL-20)	1
5	P-77657-31	Conduit - 3/4" x 110" (Waterproof) (BL-30)	1
6	FE-8-25	Connector - 90° "Sealtite" (3/4" Male Thd. x 3/4" Flex. Cnd.)	1
7	FE-8-11	3/4" Gasket Assy	1



CONDUIT UNIT

ILLUS. NO.	PART NO.	NAME OF PART	AMT.
1	FE-20-14	Access Ell- 90° (PVC 1/2")	3
2	FE-20-11	Elbow - 1/2" x 45° (PVC)	5
3	FE-20-10	Coupling (PVC 1/2")	16
4	522021	Conduit (PVC 1/2")	AR
5	B-120353	Spacer - Conduit Hanger	1
6	WL-6-17	Lock Washer - 1/4" x .109" x .062"	1
7	SC-21-47	Mach. Screw - 1/4"-20 x 1" Rd. Hd	1
8	FE-21-2	Hanger - 1/2" Conduit	1
9	SC-21-40	Mach. Screw - 1/4"-20 x 3/4" Rd. Hd	1
10	NS-15-1	Full Nut - 1/4"-20 Hex Fin	1
11	FE-20-13	Elbow - 1/2" x 90° (PVC)	4
12	FE-20-12	Elbow - 1/2" x 30° (PVC)	5
13	B-118535	Nipple (PVC 1/2")	3
14	FE-8-10	1/2" Gasket Assy	2
15	FE-6-7	Lock Nut - 1/2" Conduit	2
16	FE-17-45	Adapter - Terminal (PVC 1/2")	3
17	FE-8-10	1/2" Gasket Assy	1
18	WS-12-39	Washer	3
19	FE-6-7	Lock Nut - 1/2" Conduit	1
	B-120458	Conduit Kit (Incls. items #1 thru 4 & 11 thru 19)	1

SAFETY RAIL

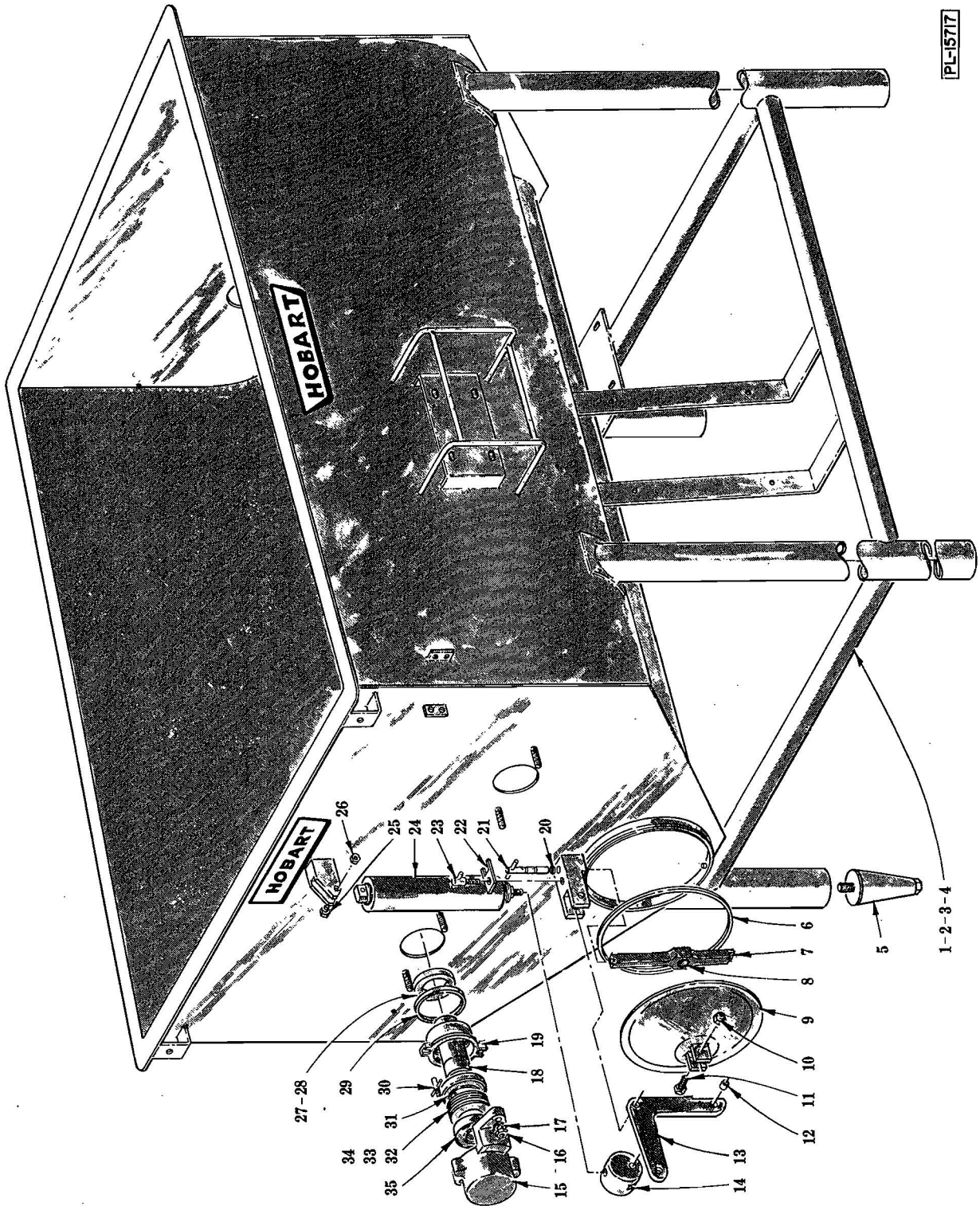


PL-15715

SAFETY RAIL

ILLUS. PL-15715	PART NO.	NAME OF PART	AMT.
1	B-120874	Bolt - Safety Rail Pivot	2
2	WS-29-2	Washer	2
3	WL-6-28	Lock Washer - 3/8" x .141" x .094"	2
4	NS-15-13	Full Nut - 3/8"-16 Hex Fin	2
5	B-120917	Plate - Nut (Interlock Switch)	1
6	D-124486	Housing - Interlock Switch	1
7	B-114922	Interlock Switch & Cover Assy	1
8	B-106803	Gasket - Interlock Switch & Cover	1
9	SD-25-12	Self-Tapping Screw - #8-18 x 1/2" Phil. Pan Hd. Shakeproof	2
10	WS-19-20	Washer	2
11	WL-6-7	Lock Washer - #10 x .062" x .047"	2
12	SC-93-29	Mach. Screw - #10-24 x 1-3/4" Phil. Pan Hd	2
13	NS-15-13	Full Nut - 3/8"-16 Hex Fin	2
14	WL-6-28	Lock Washer - 3/8" x .141" x .094"	2
15	WS-29-2	Washer	2
16	B-120873	Bolt - Transverse Bar Pivot	2
17	B-120874	Bolt - Safety Rail Pivot	2
18	C-120877-2	Safety Rail Assy. (BL-20)	2
19	C-120877-3	Safety Rail Assy. (BL-30)	2
20	C-120882-2	Transverse Bar Assy	1
21	C-120926	Spring - Safety Rail	1
22	C-121608	Retainer - Spring	3
23	WL-4-11	Lock Washer - 1/2" x .171" x .125"	3
24	NS-13-33	Full Nut - 1/2"-13 Hex Fin	3
25	C-120928	Bracket - Magnet Mounting	1
26	WS-19-20	Washer	2
27	WL-6-7	Lock Washer - #10 x .062" x .047"	2
28	SC-18-4	Mach. Screw - #10-24 x 1/2" Pan Hd	2
29	B-111941	Magnet	1
30	C-120332	Retainer - Magnet	1
31	SC-21-3	Mach. Screw - #4-40 x 3/8" Rd. Hd	2
	C-124494	Interlock Switch Assy. (Incls. items #6, 7, 8 & 9)	1

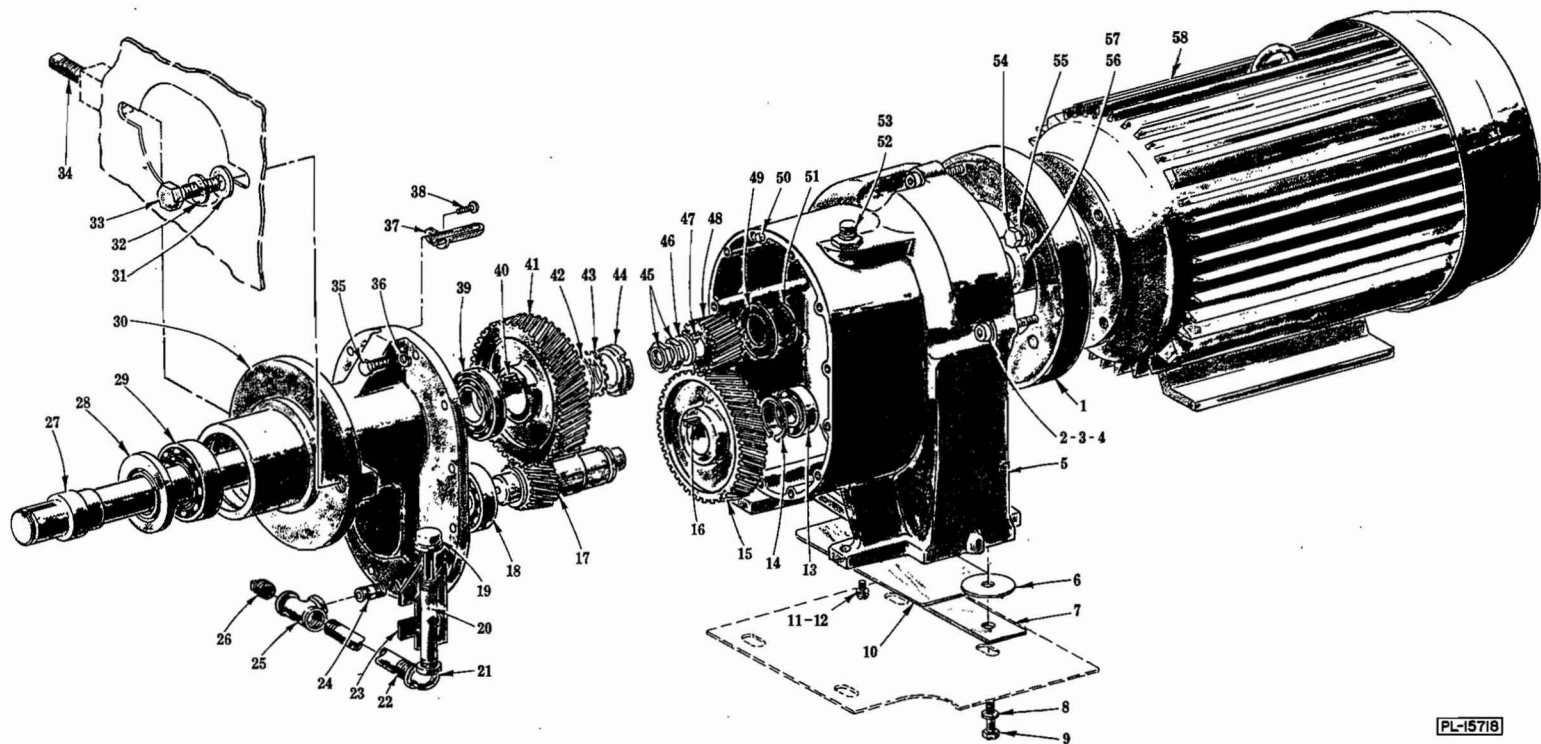
PL-15717



HOPPER UNIT

HOPPER UNIT

ILLUS. PL-15717	PART NO.	NAME OF PART	AMT.
1	E-114184	Frame & Hopper Assy. (BL-20, R.H. Control)	1
2	E-114232	Frame & Hopper Assy. (BL-20, L.H. Control)	1
3	E-116962	Frame & Hopper Assy. (BL-30, R.H. Control)	1
4	E-116963	Frame & Hopper Assy. (BL-30, L.H. Control)	1
5	B-109994	Foot - Adjustable	4
6	C-114298-3	Seal - Square Ring (Hi Fluid)	1
7	C-114446	Support & Bearing Assy. (Incls. item #8)	1
8	B-112925-4	Bearing - Conveyor Front	1
9	D-114414	Door & Ear Assy	1
10	NS-46-10	Stop Nut - 1/2"-13 "Elastic"	3
11	SC-41-60	Fin. Bolt - 1/2"-13 x 2" Hex Hd	3
12	A-109799	Bushing - Hinge	3
13	B-110013	Hinge - Door	1
14	B-110087	Clevis - Cylinder	1
15	C-114434	Front Mixing Arm Bearing Carrier Assy	2
16	NS-15-20	Full Nut - 1/2"-13 Hex Fin	4
17	WL-6-36	Lock Washer - 1/2" x .171" x .125"	4
18	D-114158	Shaft - Front Mixing Arm	2
19	D-114401	Retainer - Front Mixing Arm Seal	2
20	C-114298-1	Seal - Square Ring	2
21	B-114427	Support Retainer Assy	1
22	B-114384	Clamp - Support Retainer	1
23	B-114426	Retainer Clamp Screw Assy	1
24	B-109809	Cylinder - Air	1
25	SC-41-33	Fin. Bolt - 3/8"-16 x 1-3/4" Hex Hd	1
26	NS-46-9	Stop Nut - 3/8"-16 "Elastic"	1
27	C-114500	Seal - Shaft (Hi Fluid)	2
28	C-117715	Seal - Shaft (Low Fluid)	2
29	C-114298-2	Seal Square Ring (Hi Fluid)	2
30	B-114302-1	Seal Clamp Screw Assy	4
31	B-110058	Seal - Bearing Oil	2
32	B-113025-1	Shim - Mixing Arm (.060" Thk.)	AR
33	B-113025-2	Shim - Mixing Arm (.020" Thk.)	AR
34	B-113025-3	Shim - Mixing Arm (.010" Thk.)	AR
35	BB-6-51	Ball Bearing - Fafnir #210PP	2

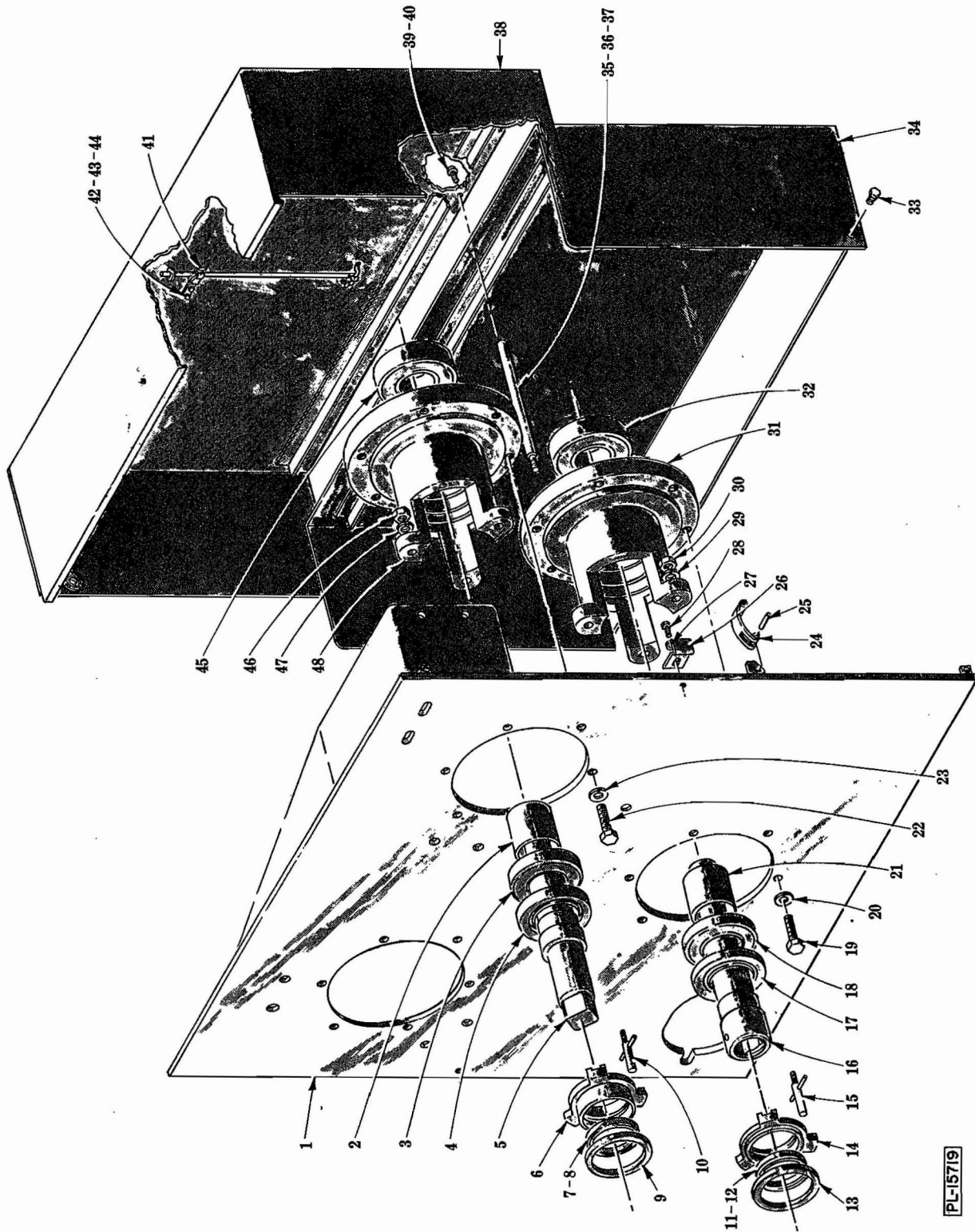


PL-15718

GEAR CASE UNIT

GEAR CASE UNIT

ILLUS. PL-15718	PART NO.	NAME OF PART	AMT.
1	E-113885	Bracket - Motor Adapter	1
2	SC-92-50	Cap Screw - 5/16"-18 x 2-1/4" Soc. Fil. Hd	3
3	SC-92-49	Cap Screw - 5/16"-18 x 2" Soc. Fil. Hd	1
4	WL-3-47	Lock Washer 5/16" x .125" x .078"	4
5	T-85852-2	Case - Gear	1
6	WS-6-44	Washer	AR
7	B-113741-1	Spacer - Motor Mtg	4
8	WL-4-6	Lock Washer - 3/8" x .141" x .094"	4
9	SC-62-46	Fin. Bolt - 3/8"-16 x 1-1/2" Hex Hd	4
10	C-110006	Cover - Air Inlet	1
11	SC-60-21	Mach. Screw - #10-24 x 1/4" Rd. Hd	2
12	WL-3-20	Lock Washer - #10 x .055" x .040"	2
13	BB-18-33	Ball Bearing - Fafnir #205K	1
14	RR-6-14	Retaining Ring	1
15	C-68954-1	Gear - Main Drive (65T)	1
16	R-12430-214	Key	1
17	D-68951	Pinion - Countershaft (19T)	1
18	BB-7-21	Ball Bearing - Fafnir #207K	1
19	B-118026	Dip Stick & Fill Cap Assy	1
20	FP-45-58	Nipple - 3/8" x 5" Lg. (T.B.E.)	1
21	FP-14-1	Elbow - 3/8" x 90°	1
22	FP-45-58	Nipple - 3/8" x 5" Lg. (T.B.E.)	1
23	P-86972	Bracket - Oil Pipe Support	1
24	FP-37-5	Nipple - 1/4" x 1" Lg. (T.B.E.)	1
25	M-70677	Tee - 3/8" x 3/8" x 1/4" Reducing	1
26	FP-28-9	Plug - 3/8" Sq. Hd. Pipe	1
27	E-114186	Shaft - Chain Drive	1
28	B-110058	Seal - Bearing Oil	1
29	BR-2-30	Roller Bearing - Cone & Cup Assy	1
30	E-118677-1	Hub - Attachment	1
31	WS-10-40	Washer	2
32	WL-6-37	Lock Washer - 5/8" x .201" x .126"	2
33	SC-62-23	Fin. Bolt - 5/8"-11 x 2" Hex Hd	2
34	B-117058	Screw - Motor Adjusting	1
35	SC-62-24	Fin. Bolt - 5/16"-18 x 1-1/2" Hex Hd	12
36	WL-3-45	Lock Washer - 5/16" x .143" x .108"	12
37	B-116775	Oil Conveyor	1
38	SC-69-2	Mach. Screw - #10-32 x 5/8" Phil. Pan Hd. "Nylok"	1
39	BR-2-19	Roller Bearing - Cup & Cone Assy	1
40	M-69572	Key	1
41	D-68953	Gear - Drive (56T)	1
42	B-123431	Washer - Tongue	1
43	WL-17-9	Lock Washer - T.W. #107	1
44	NS-34-8	Lock Nut - N.D. #N-07	1
45	V-6566	Lock Nut	2
46	WS-11-24	Washer	1
47	R-12430-67	Key	1
48	C-85812-1	Gear - Motor Pinion (24T)	1
49	M-72536	Flinger - Oil	1
50	D-11800-239	Dowel	2
51	M-72537	Spacer - Oil Flinger	4
52	M-83805	Vent - Air	1
53	M-83804	Bushing - Air Vent	1
54	SC-37-19	Fin. Bolt - 1/2"-13 x 1-3/4" Hex Hd	4
55	WL-4-11	Lock Washer - 1/2" x .171" x .125"	4
56	C-113893	Shaft - Motor Adapter	1
57	PS-4-25	Spirol Pin - 1/2" Dia. x 3" Lg	1
58	ML-18876	Motor (See Separate Motor Parts Sheet)	1



SPROCKET DRIVE CASE UNIT

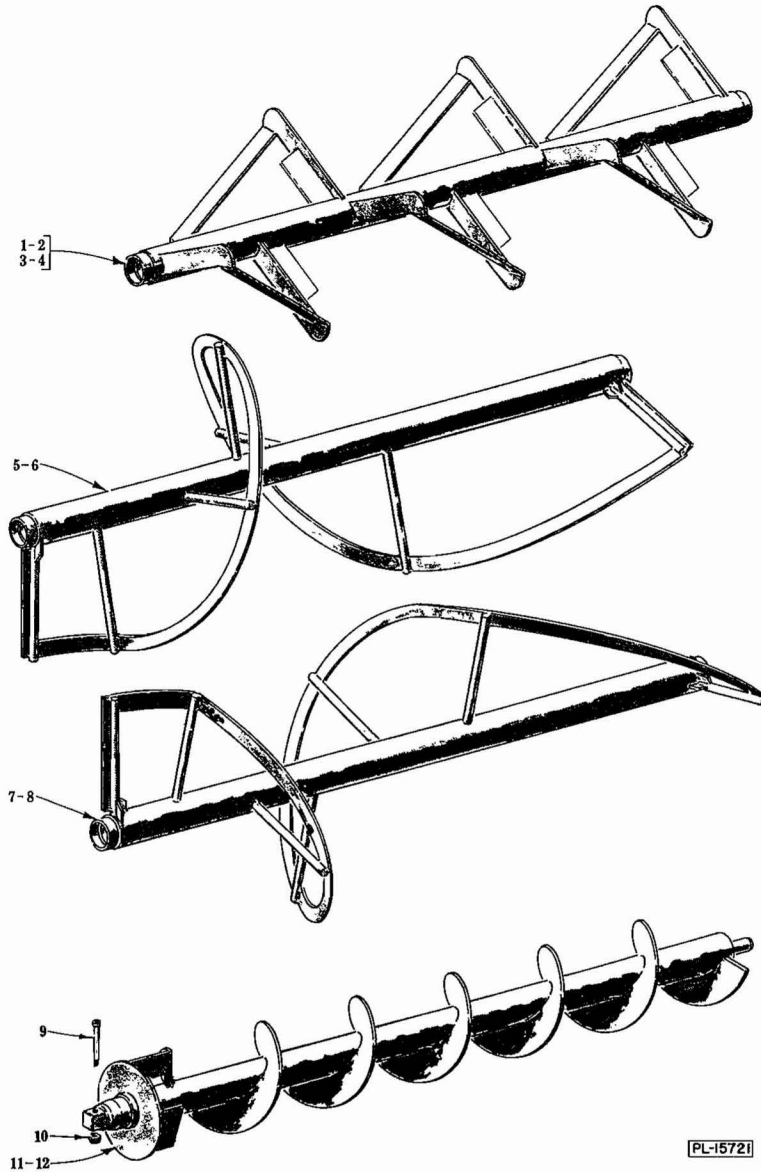
PL-15719

SPROCKET DRIVE CASE UNIT

ILLUS. PL-18719	PART NO.	NAME OF PART	AMT.
1	E-114226	Plate - Drive Mounting	1
2	B-113900	Spacer - Bearing	2
3	BB-6-57	Ball Bearing - Fafnir #212NPP	2
4	C-114064	Seal - Shaft	2
5	D-119593	Shaft - Mixing Arm Drive	2
6	D-114400	Retainer - Rear Mixing Arm Seal	2
7	C-114500	Seal - Shaft (Hi Fluid)	2
8	C-117715	Seal - Shaft (Low Fluid ONLY)	2
9	C-114298-2	Seal - Square Ring (Hi Fluid)	2
10	B-114302-2	Seal Clamp Screw Assy	6
11	C-114500	Seal - Shaft (Hi Fluid)	1
12	C-117715	Seal - Shaft (Low Fluid ONLY)	1
13	C-114298-2	Seal - Square Ring (Hi Fluid)	1
14	D-114399	Retainer - Conveyor Shaft Seal	1
15	B-114302-2	Seal Clamp Screw Assy	3
16	E-119605	Shaft - Conveyor Drive	1
17	B-120347	Seal - Shaft	1
18	BB-6-57	Ball Bearing - Fafnir #212NPP	1
19	SC-97-44	Fin. Bolt - 1/2"-13 x 1-3/4" Hex Hd	6
20	WL-6-36	Lock Washer - 1/2" x .171" x .125"	6
21	B-113900	Spacer - Bearing	1
22	SC-97-44	Fin. Bolt - 1/2"-13 x 1-3/4" Hex Hd	12
23	WL-6-36	Lock Washer - 1/2" x .171" x .125"	12
24	P-62234-3	Spring - Clamp	1
25	PG-7-17	Groov-Pin - Type #5, 3/16" x 1"	1
26	B-114089	Clip - Alignment	2
27	WL-6-16	Lock Washer - 1/4" x .107" x .047"	2
28	SC-41-50	Fin. Bolt - 1/4"-20 x 1/2" Hex Hd	2
29	WL-6-36	Lock Washer - 1/2" x .171" x .125"	3
30	NS-15-20	Full Nut - 1/2"-13 Hex Flt	3
31	A-116816	Rear Bearing Carrier Sub-Assy	1
32	BB-6-63	Ball Bearing - Fafnir #312NPP	1
33	B-109804	Pivot - Cover	4
34	E-109848	Bottom Cover Assy	1
35	B-120642	Support - Cover	2
36	WL-6-28	Lock Washer - 3/8" x .141" x .094"	2
37	NS-18-14	Jam Nut - 3/8"-16 Hex Flt	2
38	E-119551	Top Cover Assy. (Incls. Items #41, 42, 43 & 44)	1
39	SC-93-20	Mach. Screw - 1/4"-20 x 3/4" Phil. Pan Hd	3
40	WL-6-16	Lock Washer - 1/4" x .107" x .047"	3
41	M-68176	Clip - Spring	1
42	SC-53-5	Mach. Screw - #10-24 x 3/8" Truss Hd	2
43	NS-11-18	Mach. Nut - #10-24 Hex	2
44	WL-6-7	Lock Washer - #10 x .062" x .047"	2
45	BB-6-63	Ball Bearing - Fafnir #312NPP	2
46	NS-15-20	Full Nut - 1/2"-13 Hex Flt	6
47	WL-6-36	Lock Washer - 1/2" x .171" x .125"	6
48	A-116816	Rear Bearing Carrier Sub-Assy	2
	D-120344	Conveyor Bearing Carrier Assy. (Incls. Items #16, 17, 18, 21, 31 & 32)	1
	D-114106	Mixing Arm Bearing Carrier Assy. (Incls. Items #2, 3, 4, 5, 45 & 48)	1

SPROCKET AND DRIVE UNIT

ILLUS. PL-15720	PART NO.	NAME OF PART	AMT.
1	SC-97-44	Fin. Bolt - 1/2"-13 x 1-3/4" Hex Hd	2
2	WL-6-36	Lock Washer - 1/2" x .171" x .125"	2
3	C-113826-1	Plate - Idler	1
4	BN-2-29	Needle Bearing (Torrington #M-24201)	1
5	SC-64-18	Set Screw - 1/2"-13 x 1/2" Soc. Hdls., Cup Pt. "Nylok"	1
6	C-119852	Sprocket - Idler (10T)	1
7	E-114004	Support - Idler Sprocket	1
8	B-117629	Screw - Chain Adjusting	2
9	WS-24-1	Washer	2
10	NS-17-59	Jam Nut - 1/2"-13 Hex Fin	2
11	OG-3-49	Oiler - 1/8" Pipe Thd	1
12	C-114005	Shaft - Idler Sprocket	1
13	BN-2-32	Needle Bearing (Torrington #J-2420-OH)	1
14	OG-3-49	Oiler - 1/8" Pipe Thd	1
15	B-118830-2	Bushing - Taperlock (Q1) (Incls. Screws)	1
16	B-119848-7	Sprocket - Taperlock (30T)	1
17	B-119848-3	Sprocket - Taperlock (32T) (BL-20)	1
18	B-119848-4	Sprocket - Taperlock (45T) (BL-30)	1
19	B-118830-1	Bushing - Taperlock (Q1) (Incls. Screws) (Use with item #17)	1
20	B-119849-1	Bushing - Taperlock (R1) (Incls. Screws) (Use with item #18)	1
21	R-12430-226	Key (2-1/2" Lg.) (BL-20)	1
22	R-12430-229	Key (2-7/8" Lg.) (BL-30)	1
23	D-119915-10	Chain Assy. #100 (60" Lg.) (Incls. item #25) (BL-20)	1
24	D-119915-11	Chain Assy. #100 (70" Lg.) (Incls. item #25) (BL-30)	1
25	B-119923	Link - Connecting (#100)	1
26	RR-9-16	Retaining Ring	1
27	WS-15-50	Washer (Shim) (1/16" Thk.)	AR
28	R-12430-225	Key	1
29	D-119850-6	Sprocket (11T) (Motor Drive) (Incls. item #32)	1
30	B-124230	Washer (Shim) (1/16" Thk.)	AR
31	B-119928	Spacer	1
32	SC-47-60	Set Screw - 1/2"-13 x 1/2" Soc. Hdls., Cup Pt	1
33	C-114185-2	Spacer - Sprocket	1
34	R-12430-225	Key	1
35	SC-47-42	Set Screw - 3/8"-16 x 1/2" Soc. Hdls., Cup Pt	1
36	D-119850-5	Sprocket (9T) (Conveyor Drive Shaft) (Incls. item #35)	1
37	WS-15-49	Washer - Shim (1/16" Thk.)	AR
38	B-114045	Spacer	1
39	B-119848-7	Sprocket - Taperlock (30T)	1
40	B-118830-2	Bushing - Taperlock (Q1) (Incls. Screws)	1
41	WS-15-46	Washer (Shim) (1/16" Thk.)	AR
42	B-114045	Spacer	1
43	WS-15-46	Washer (Shim) (1/16" Thk.)	AR
44	B-114045	Spacer	1
45	SC-97-35	Fin. Bolt - 5/8"-11 x 4-1/2" Hex Hd	6
46	B-114231	Spacer	6
47	C-119833	Block - Chain Guide	3
48	WL-6-37	Lock Washer - 5/8" x .201" x .126"	6
49	NS-13-44	Full Nut - 5/8"-11 Hex Fin	6
50	D-119915-8	Chain Assy. #100 (103-3/4" Lg.) (Incls. items #51 & 52)	1
51	B-119923	Link - Connecting (#100)	1
52	B-119924	Link - Offset (#100)	1
	C-119854-2	Sprocket & Bushing Assy. (Incls. items #18 & 20)	1
	C-119854-3	Sprocket & Bushing Assy. (Incls. items #17 & 19)	1
	C-119854-9	Sprocket & Bushing Assy. (Incls. items #15 & 16 or 39 & 40)	2
	D-120133	Idler Assy. (Incls. items #4, 5, 6, 7, 11, 12, 13 & 14)	1



BLENDING ARMS

ILLUS. NO.	PART NO.	NAME OF PART	AMT.
1	E-115038	R.H. Interrupted Helical Mixing Arm Assy. (BL-20)	1
2	E-116957	R.H. Interrupted Helical Mixing Arm Assy. (BL-30)	1
3	E-116820	L.H. Interrupted Helical Mixing Arm Assy. (BL-20)	1
4	E-116958	L.H. Interrupted Helical Mixing Arm Assy. (BL-30)	1
5	E-114387	L.H. Helical Mixing Arm Assy. (BL-20)	1
6	E-116956	L.H. Helical Mixing Arm Assy. (BL-30)	1
7	E-114396	R.H. Helical Mixing Arm Assy. (BL-20)	1
8	E-116955	R.H. Helical Mixing Arm Assy. (BL-30)	1
9	NS-31-33	Stop Nut - 3/8"-16 "Elastic"	2
10	SC-86-29	Shoulder Screw - 1/2" x 3" Soc. Hd	1
11	E-120416-1	Conveyor Screw Assy. (BL-20)	1
12	E-120416-2	Conveyor Screw Assy. (BL-30)	1