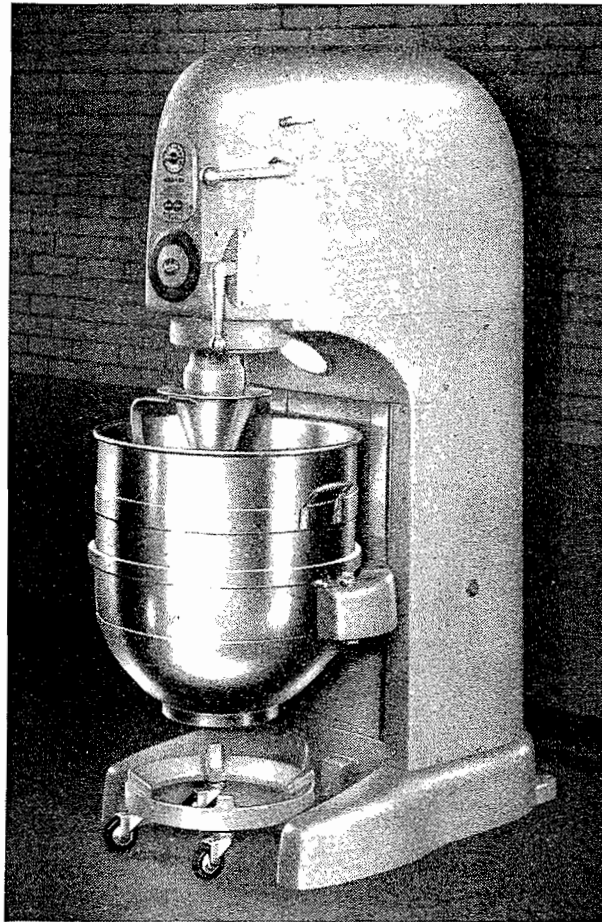


INSTRUCTION MANUAL

with Catalog of Replacement Parts



HOBART MODEL
V-1400 MIXER
SPECIFICATIONS 4231



THE HOBART MANUFACTURING CO.
TROY, OHIO, U. S. A.

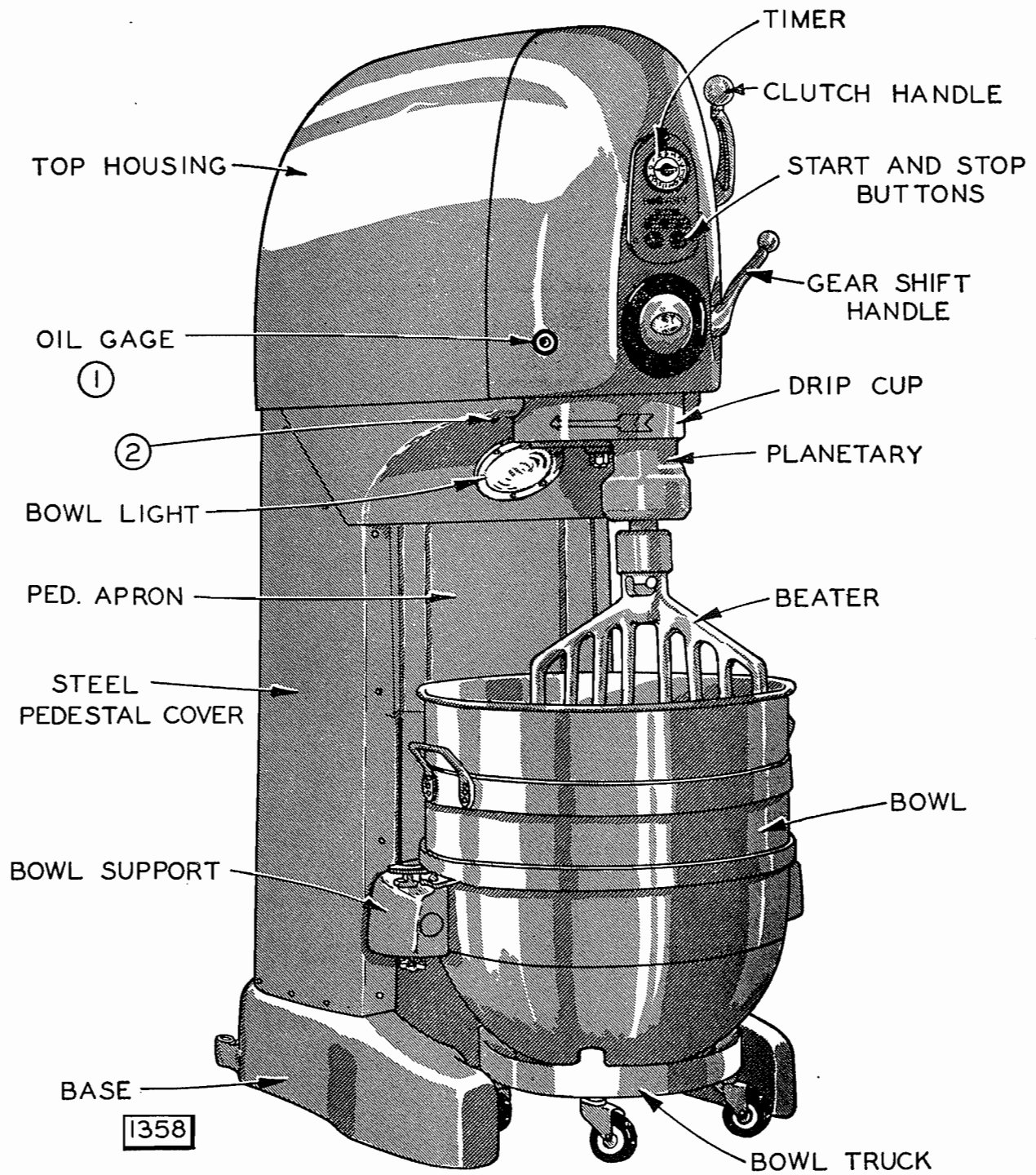


Fig. 1

INSTRUCTIONS

for MODEL V-1400 MIXER

INSTALLATION:

Place the mixer in a location that will save as many steps as possible, and allow ample working room around it. Do not set it with the base touching the wall at the back, but allow at least eight inches clearance to permit removal of the steel pedestal covers and the main drive gear case. It will not be necessary to bolt the machine to the floor, but it should be set level and shimmed if necessary to prevent rocking on an uneven floor. Levelling is particularly important if the machine is equipped with an attachment socket, in which case the front face of the socket may be used as the levelling surface. For better protection in shipment, the top housing is taken off and packed in a separate carton. After the machine is set and the lubrication attended to, this top may be easily installed in its proper place. Slip it down over the cone-topped dowel pins and insert the two screws (2) that will be found attached to the machine at that point.

ELECTRICAL CONNECTION:

A competent electrician should be employed to install the wiring and all rules of local power companies should be observed, as well as the Underwriters' Code. Multiphase motors must be so connected that the planetary runs in the direction indicated by the arrow in Fig. 1.

To start the motor, turn the timer hand to "HOLD" and push the green button that is marked "START".

LUBRICATION:

A - When the machine is prepared for shipment, the oil is drained from the transmission case and the main drive gear case, and they must be refilled before the machine is operated. Do this before putting on the top housing. See Fig. 2. Take off the cover 3 and pour in about 7 pints of oil from the can labelled "OIL FOR GEAR CASE" that is supplied for this purpose. After putting in this much oil, start the motor and let it run for ten minutes. Oil will thus be pumped out of the main drive gear case and be distributed through the transmission gear case. Then if, with the motor running and the gears in neutral position, the oil level does not come up to the line in the sight gage (1), add some more oil. If the machine has an Attachment Hub, the oil level must

never rise above the line in the gage. Additional oil may be added from time to time if the level falls in the gage.

Oil need not be changed more often than every 2000 hours of operation unless it becomes contaminated with moisture condensing inside the transmission case. The oil supplied by the factory for the transmission has a viscosity of 65-67 Saybolt universal seconds at 210° F. Use Standard Oil Co. GEAREP #65, or equivalent for the transmission. It contains an extreme pressure additive, also rust and oxidation inhibitors. If it becomes necessary to use some other oil, care should be taken to secure a high quality extreme pressure transmission oil with a comparable viscosity.

To drain the transmission case, remove plug (4) Fig. 2. To drain the main drive gear case, take out plug (5).

B - The motor has two ball bearings that run in grease. Three turns of the grease cups (6) and (7) will usually be sufficient for a year. Too much grease will sometimes cause heating, so do not turn the cups the first six months.

C - Grease cup (8) supplies grease to the teeth of the internal gear. Use only graphite grease like that supplied with the mixer. Three cups of grease once a year will be adequate for normal service.

D - The bowl support slideways may be greased if they become dry. Raise the bowl support to its top position and apply grease lightly to the exposed portion of the slideways. If lubrication is required for the upper part of the slideways, it will be necessary to remove the right-hand pedestal cover and the pedestal apron.

MOTOR:

If your machine has a single-phase motor, have a service man inspect and clean the commutator every six months and replace the carbon brushes when necessary.

OVERLOAD RELEASE:

The starting switch is equipped with a thermal release with an automatic reset. When an overload causes the switch to throw out and stop the motor, it is only necessary to wait two minutes until the thermal element cools, and then start again by pressing the green button as usual. The conditions that have caused the overload should of course, be remedied before starting again.

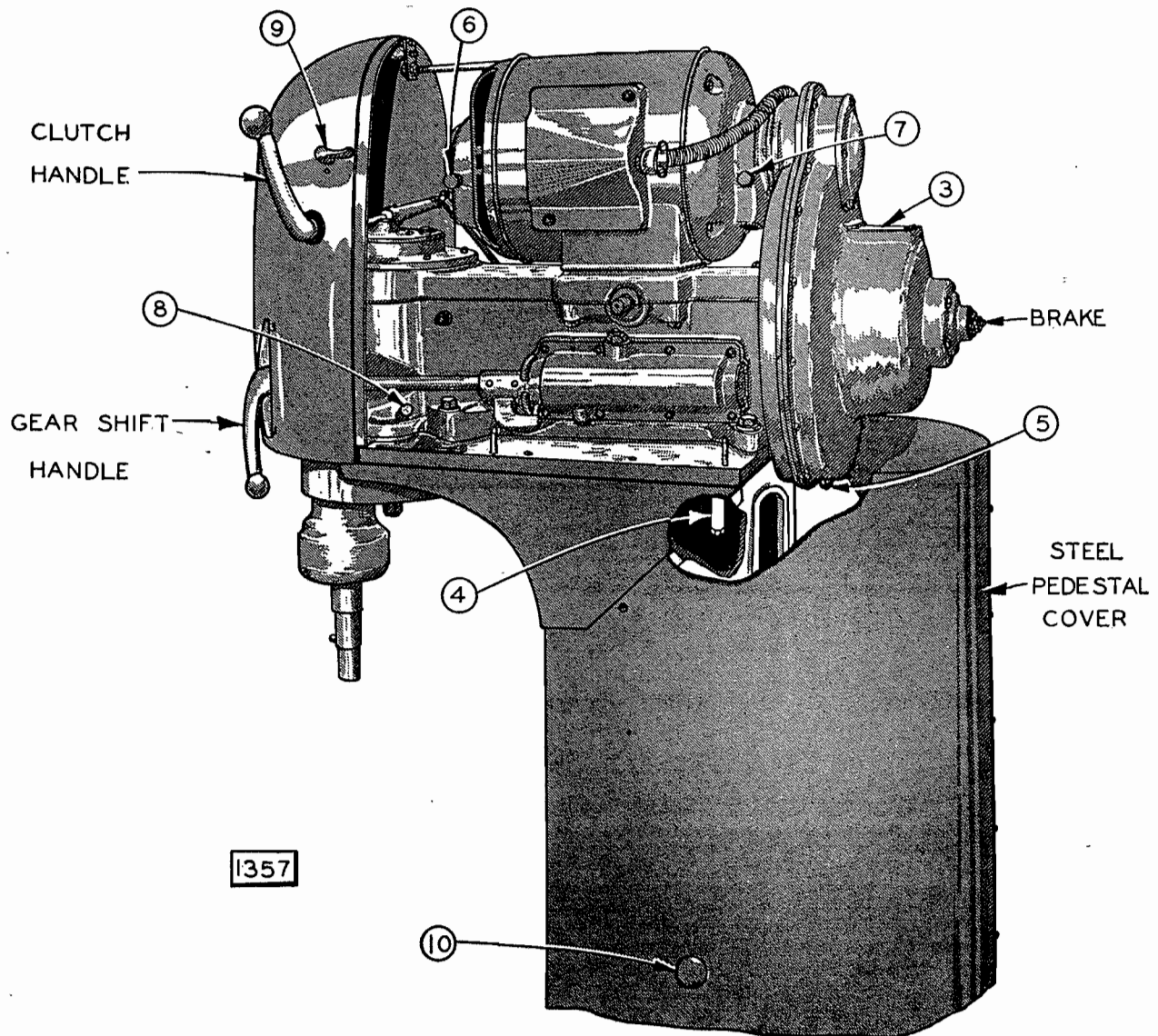


Fig. 2 — The Machine with Top Housing Removed.

DRIP CUP:

Should moisture due to atmospheric conditions or the type of work being done, condense in the upper planetary, the drip cup will prevent it from reaching the bowl. Take out the two screws that hold the cup, pull it off and wipe it out occasionally.

BOWL LIFT:

Switch (9) controls the operation of the bowl support. To raise the bowl, move the lever up and hold it there; to lower the bowl, hold the lever down. When the lever is released it will return to the middle or "OFF" position.

The bowl-lift motor is permanently lubricated, and although the pulley shaft is provided with oilers, frequent lubrication will not be required.

In the event of power failure, remove the cover (10) and use the crank to lower the bowl.

A large hexagon head screw on the bottom of the bowl support acts as a stop and adjusts the height of the bowl in relation to the beater.

It may be necessary to tighten the belt on the bowl lift after a period of time. If the bowl support stops intermittently when it should be rising, the belt needs attention. To tighten the belt, loosen the four screws which hold the motor in place and lower the motor slightly.

Since the belt functions as a slip clutch when the bowl support is at the end of its travel, care must be taken not to tighten the belt to the point where it will completely stall the motor.

BOWL LIFT BRAKE:

The lift brake is designed to bring the bowl lift motor to a quick stop. This allows accurate stopping of the bowl and speeds the reversal of direction, should a single phase lift motor be used.

BOWL LIFT BRAKE (Cont.)

The brake solenoid is energized when the lift switch is engaged; this releases the brake. Then when the lift switch is returned to the "OFF" position, the brake is applied.

Extra holes are provided in the brake adjusting link. These are for later adjustment to give added spring tension or to compensate for wear of the brake belt.

When properly adjusted, the bowl lift can be operated by the hand crank with the brake engaged. Any additional spring tension will tend to overload the solenoid. If the solenoid chatters, the spring is too tight.

SPEEDS:

Change of speed is accomplished by shifting gears, much the same as in an automobile. The motor should be running when gears are shifted, but the clutch should be out. Push the clutch handle up to release the clutch; pull down to engage it. When the gear-shift handle is in a horizontal position the gears will be in neutral and while in this position the handle can be slid back or forward. When in the back position pull the handle down for No. 1 or slow speed. Push up to get No. 3 speed. When in the forward position, pull down for No. 2 speed or up for No. 4. Speeds are marked on the front housing near the shift handle.

After selecting the desired speed, throw in the clutch and the beater will start. When changing from one speed to another, it is not necessary to pass through intermediate speeds; you can change directly from one speed to any other.

BOWLS:

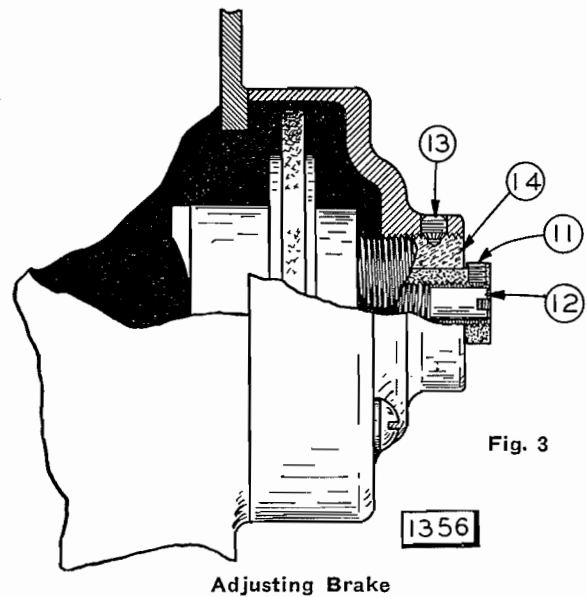
The standard bowl for this mixer has a liquid capacity of 140 quarts. By using adapters, a 100-qt, 80-qt, or 40-qt bowl can be used without other change in the machine. These smaller bowls are the same as are used on Hobart Mixers of the M or T series, and take the same beaters.

To use a 40-qt. bowl, put an 80-qt. adapter on the bowl support and then place the 40-qt. adapter on top of that. An anti-splash cover is available for the 80-qt and 140-qt bowls.

TIMER AND BOWL LIGHT:

If you wish to have the mixer operate for a specified time and then stop, set the timer hand to the desired time before pushing the starting button. When the proper time has elapsed, the switch will throw out, stopping the motor. When automatic timing is not desired, set the timer to "HOLD".

The bowl light burns only when the motor is running. It will come on when the motor is started and will go out when the timer shuts off the motor, thus serving as an indicator that can be seen at a distance.



If you wish to use the light for a momentary inspection without starting the motor, press the START button while the timer is at "0" and the light will remain on until you release the button.

BRAKE:

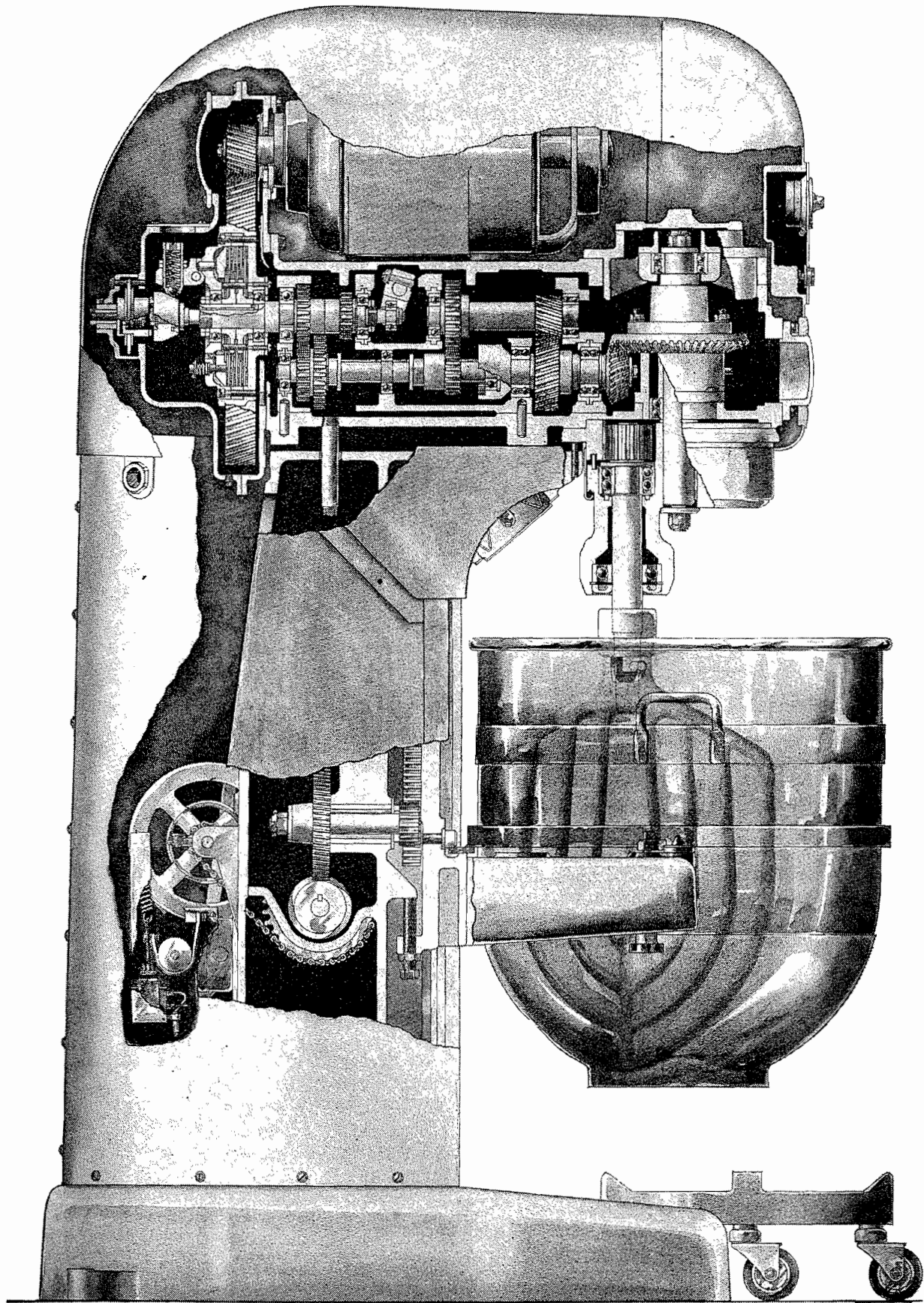
The brake is an automatic device that brings the mixer to a stop when the clutch is released. On the V-1400 Mixer, the brake is adjustable. To increase the braking action so that the beater comes to rest more quickly, loosen set screw (11) fig. 3 and turn the slotted stud (12) counter-clockwise one full turn at a time, so that the set screw engages only the flat side of the stud. Turning the stud in a clockwise direction will ease the braking action. Tighten the set screw (11) when the adjustment is satisfactory. Be sure that you adjust the right parts. **DO NOT** disturb set screw (13) or sleeve (14); they are correctly set at the factory.

ATTACHMENTS:

An attachment drive can be supplied as special equipment on the V-1400 mixer, and any Hobart attachment of the No. 22 size can be used on machines so equipped. The attachment drive operates at four different speeds, selection of which is made by the gear shift handle.

BEATERS:

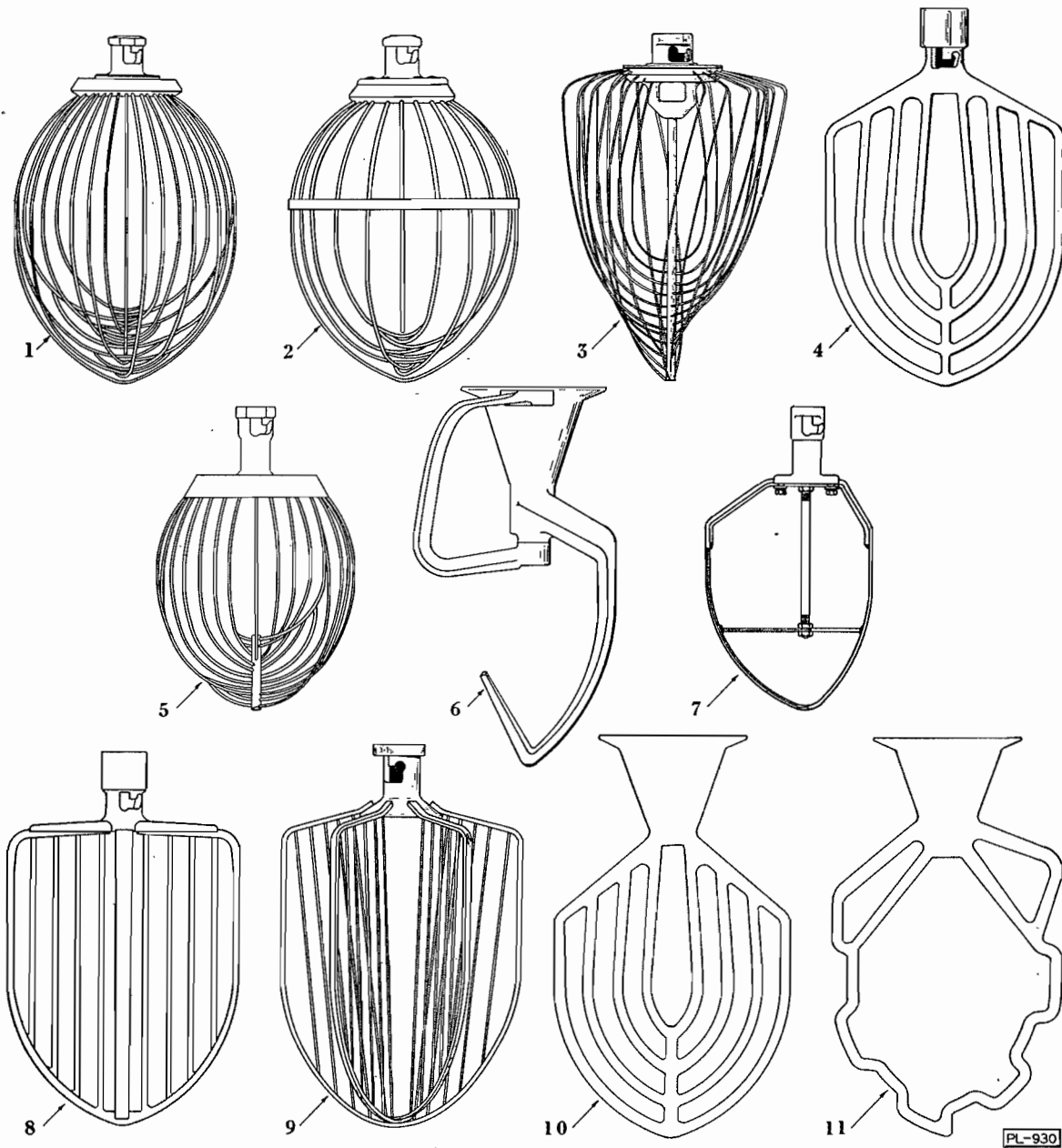
Beaters and whips of many styles are available, each suited to some particular job. See illustrations on page (7). When putting on a beater, the bowl must be in the down position. Slip the beater up on the shaft and turn it around until the drive pin on the shaft reaches the end of the L-shaped slot in the beater.



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Fig. 4—Phantom View of Machine

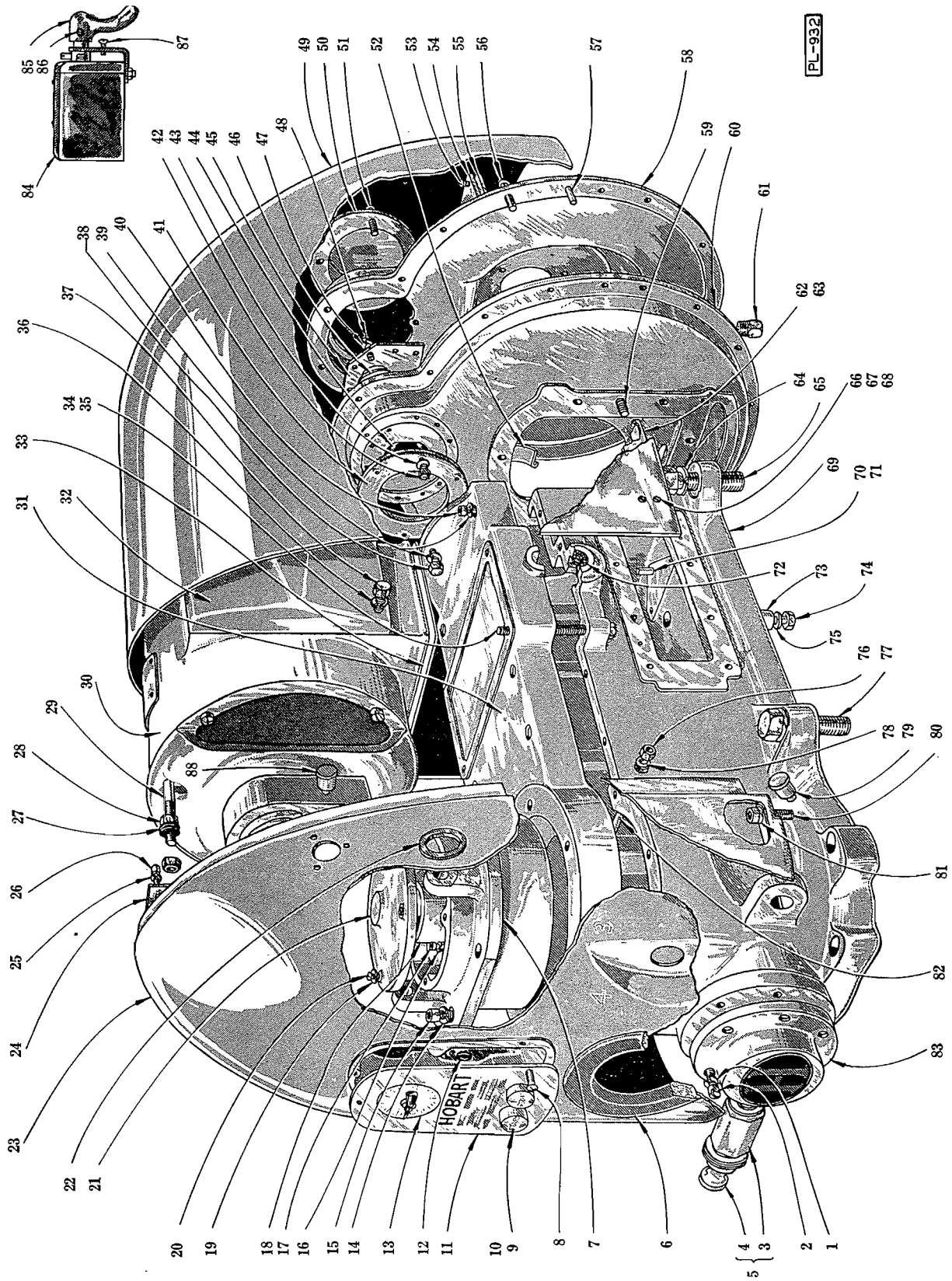
HOBART REPLACEMENT PARTS



BEATERS

ILLUS. NO.	PART NUMBER	PART NUMBER	NAME OF PART	AMOUNT
1	S-24647	S-23522	"D" Beater	1
2	T-23544	S-60429	"T" Beater	1
3	T-19220	-----	"Q" Beater	1
4	T-21016	S-23490	"E" Beater	1
5	-----	R-16418	"KB" Beater	1
6	S-19641	S-21657	"EC" Beater	1
7	-----	R-9705	"PK" Beater	1
8	S-24705	R-15320	"J" Beater	1
9	T-23198	S-22467	"C" Beater	1
10	T-60480	-----	Butter Beater	1
11	T-60025	S-9875	"S" Beater	1

HOBART REPLACEMENT PARTS



GEAR CASE UNIT

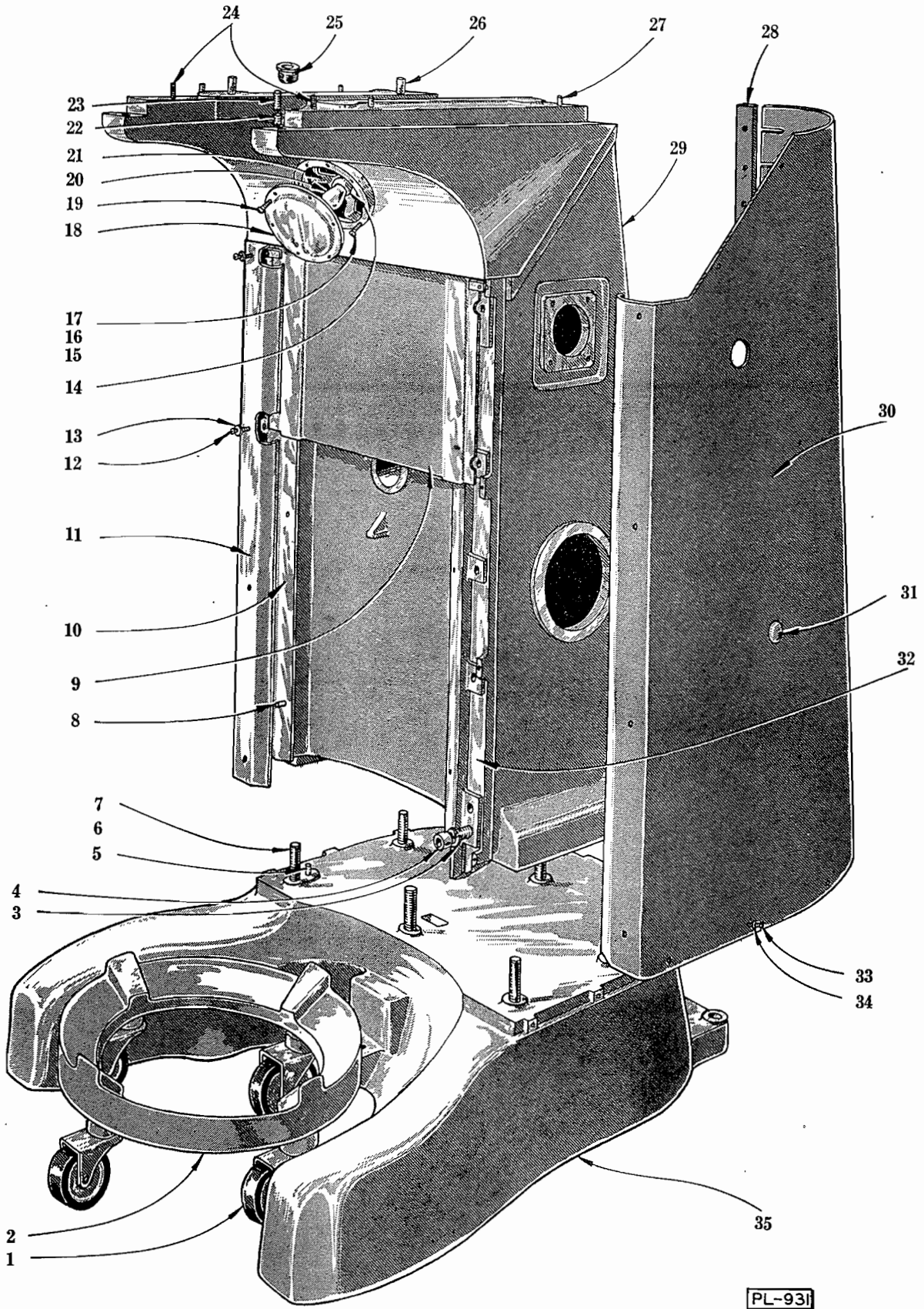
HOBART REPLACEMENT PARTS

GEAR CASE UNIT

ILLUS. PL-932	PART NUMBER	NAME OF PART	AMOUNT
1	WL-4-1	Lock Washer - 3/8" x .078" x .125"	6
2	SC-12-15	Mach. Screw - 3/8"-16 x 3/4" Fil. Hd.	6
3	M-23147	Body - Oil Level Gage	1
4	M-21252	Gage - Oil Level	1
5	P-23148	Gage Assembly - Oil Level	1
6	P-21270	Grommet - Hub Opening	1
7	R-22139	Bracket - Planetary Bearing	1
8	SC-15-22	Mach. Screw - #8-32 x 1/2" Oval Ctsk. Hd.	3
9	M-24581	Button - "Start-Stop" Push	1
10	SC-7-41	Mach. Screw - #8-32 x 3/8" Rd. Hd.	2
11	R-21039	Front Panel & Name Plate	1
12	M-23334	Grommet - Rubber	1
13	M-24582	Switch - Timer (Marktime #5215)	1
14	WL-4-1	Lock Washer - 3/8" x .078" x .125"	6
15	SC-40-29	Cap Screw - 3/8"-16 x 3" Socket Hd.	6
16	WL-3-42	Lock Washer - 5/16" x .047" x .078"	4
17	SC-40-14	Cap Screw - 5/16-18 x 3/4" Soc. Hd.	4
18	M-19150	Retainer - Bearing	1
19	WL-3-43	Lock Washer - 5/16" x .117" x .056"	4
20	SC-8-91	Mach. Screw - 5/16"-18 x 7/8" Rd. Hd.	4
21	R-19149	Cover - Planetary Bearing Bracket	1
22	M-21334	Grommet - Rubber	2
23	T-21019	Housing - Front	1
24	M-22190	Brace - Strip Housing	1
25	WL-3-36	Lock Washer - 1/4" x .107" x .047"	2
26	SC-40-10	Cap Screw - 1/4"-20 x 3/4" Socket Hd.	2
27	M-23334	Grommet - Rubber	1
28	NS-17-23	Jam Nut - 7/16"-14 Hex	2
29	M-19259	Rod - Housing Brace (Give Type Motor)	1
30	-----	Motor - (Give Elec. Spec.)	1
31	S-22250	Cover - Transmission Case	1
32	R-21042	Cover - Switch Pad	1
33	V-9007	Shim - Motor	As reqd.
34	SC-37-9	Cap Screw - 1/2"-13 x 3-1/2" Hex Hd.	4
35	WL-4-12	Lock Washer - 1/2" x .170" x .099"	4
36	WL-4-2	Lock Washer - 3/8" x .136" x .070"	2
37	SC-36-52	Cap Screw - 3/8"-16 x 3/4" Hex Hd.	2
38	SC-36-56	Cap Screw - 3/8"-16 x 1-1/8" Hex Hd.	1
39	WL-4-2	Lock Washer - 3/8" x .136" x .070"	7
40	SC-36-62	Cap Screw - 3/8"-16 x 2" Socket Hd.	6
41	P-14963	Cover - Gear Case Back	1
42	SC-36-3	Cap Screw - 1/4"-20 x 5/8" Hex Hd.	6
43	M-17000-3-5	Washer	6
44	M-22264	"O" Ring	1
45	P-21761	Retainer - Baffle Washer	1
46	M-21760	Washer - Baffle	1
47	WL-3-15	Lock Washer - #8 x .047" x .031"	9
48	SC-9-9	Mach. Screw - #8-32 x 3/8" Bind. Hd.	9
49	S-21299	Housing & Angle Assembly - Top	1
50	P-7322	Cover - Pinion Hole	1
51	SC-8-70	Machine Screw - 1/4"-20 x 3/4" Rd. Hd.	4
52	P-21762	Return - Oil	1
53	SC-8-82	Machine Screw - 1/4"-20 x 1/2" Rd. Hd.	6
54	M-22810	Cover - Inspection Hole	1
55	M-19613	Gasket	1
56	SC-8-87	Machine Screw - 5/16"-18 x 5/8" Rd. Hd.	16
57	P-11800-90	Dowel	2
58	S-20420	Case - Front Gear	1
59	SC-12-15	Machine Screw - 3/8"-16 x 3/4" Fil. Hd.	10
60	S-20419	Case - Back Gear	1
61	FP-28-2	Pipe Plug - 1/8"	1
62	R-21289	Angle - R.H. Top Housing	1
63	R-21290	Angle - L.H. Top Housing	1
64	WL-4-25	Lock Washer - 3/4" x .233" x .153"	4
65	SC-37-47	Cap Screw - 3/4"-10 x 2" Hex Hd.	2
66	SC-18-4	Machine Screw - #10-24 x 1/2" Pan Hd.	12
67	NS-9-21	Nut - #10-24 Hex	12
68	WL-3-22	Lock Washer - #10 x .055" x .040"	12
69	M-60463	Trans. Case Sub-Assembly - With Dowels	1
70	V-7757	Dowel	1
71	P-11800-143	Dowel	1
72	M-23964	Felt - Clutch Shaft Seal	2

(Concluded on Page 11)

HOBART REPLACEMENT PARTS



BASE AND PEDESTAL UNIT

PL-93i

HOBART REPLACEMENT PARTS

BASE AND PEDESTAL UNIT

ILLUS. PL-931	PART NUMBER	NAME OF PART	AMOUNT
1	P-21833	Caster -----	4
2	R-21922	Bowl Truck Assembly -----	1
3	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	10
4	SC-40-36	Cap Screw - 1/2"-13 x 1-3/4" Soc. Hd. -----	10
5	P-11800-142	Dowel -----	2
6	SC-37-33	Cap Screw - 5/8"-11 x 2-1/2" Hex Hd. -----	6
7	WL-4-18	Lock Washer - 5/8" x .201" x .126" -----	6
8	P-11800-208	Dowel -----	2
9	P-21030	Pedestal Apron Assembly -----	1
10	S-19178-1	Slideway (L.H.) -----	1
11	S-21294	Cover - Left Pedestal -----	1
12	SC-15-40	Mach. Screw - #10-24 x 1" Oval Ctsk. Hd. -----	8
13	WC-4-10	Ctsk. Washer - #10 -----	8
14	FE-6-13	Receptacle -----	1
15	WL-3-15	Lock Washer - #8 x .047" x .031" -----	2
16	NS-9-10	Nut - #8-32 Hex -----	2
17	SC-13-39	Mach. Screw - #8-32 x 1-1/4" Flat Hd. -----	2
18	P-19306	Lens - Bowl Light -----	1
	P-24687	Gasket for Lens -----	1
19	SC-26-1	Mach. Screw - #8-32 x 5/16" Philips Bind. Hd. -----	6
20	BL-2-2	Bulb - 10W - 230 V. -----	1
21	P-19227	Reflector - Bowl Light -----	1
22	SC-46-81	Set Screw - 1/2"-13 x 3/4" Cup Pt. Hdless -----	1
23	SC-46-84	Set Screw - 1/2"-13 x 1-1/4" Cup Pt. Hdless -----	1
24	SC-19-21	Mach. Screw - 1/4"-20 x 2-3/4" Oval Bind. Hd. -----	2
25	V-7138	Bushing - Insulating -----	1
26	P-11800-208	Dowel -----	2
27	V-21347	Pin - Top Housing Locating -----	4
28	P-21296	Strip - Reinforcing -----	1
29	T-19174	Pedestal -----	1
30	S-21295-1	Cover - Right Pedestal -----	1
31	M-22237	Button - Plug -----	1
32	S-19178-2	Slideway - R.H. -----	1
33	SC-15-36	Mach. Screw - #10-24 x 5/8" Oval Ctsk. Hd. -----	20
34	WC-4-10	Ctsk. Washer - #10 -----	20
35	T-19176	Base -----	1

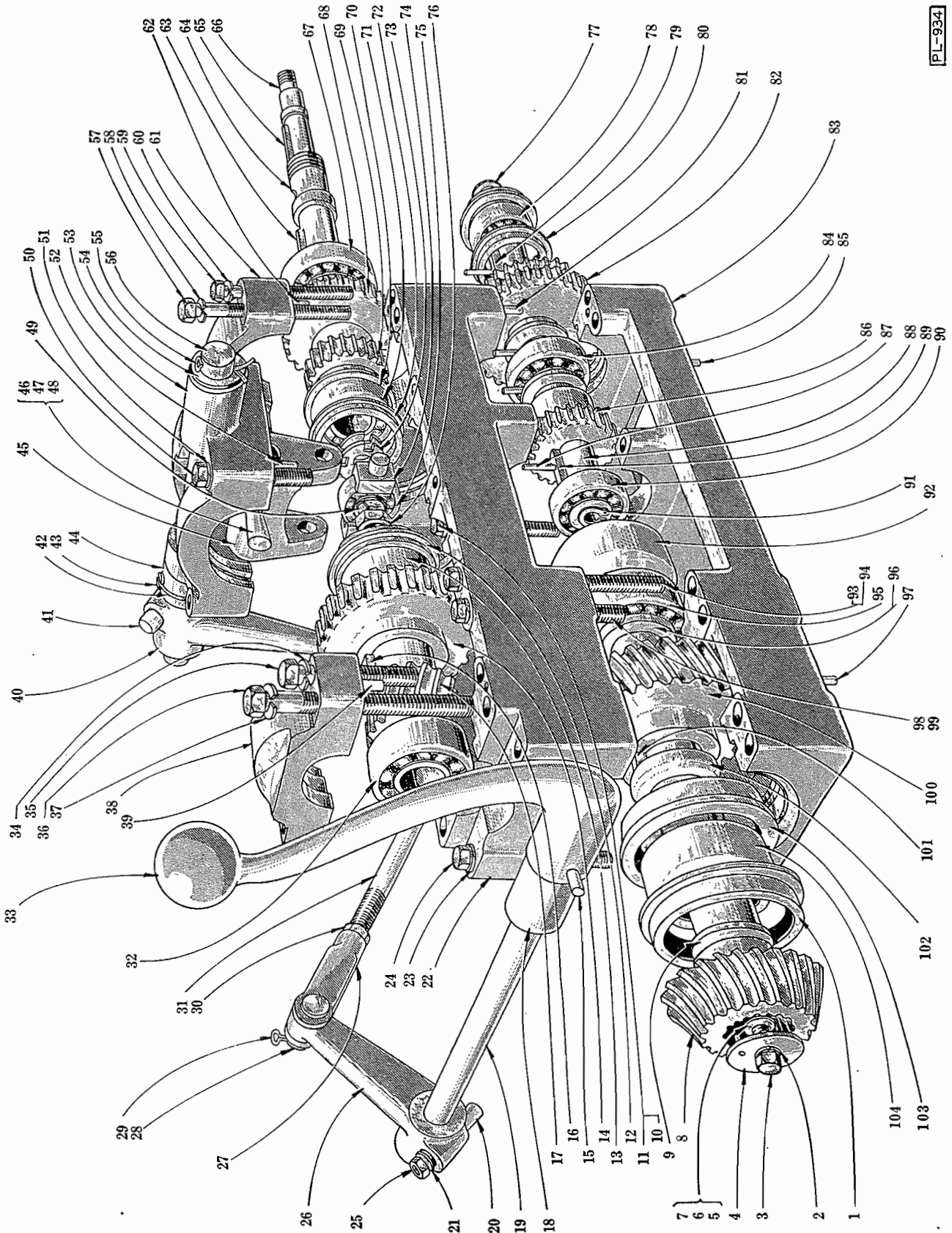
GEAR CASE UNIT (Cont'd)

(Concluded from Page 9)

ILLUS. PL-932	PART NUMBER	NAME OF PART	AMOUNT
73	M-19261	Pipe - Oil Drain -----	1
74	SC-37-26	Cap Screw - 1/2"-20 x 1" Hex Hd. -----	1
75	GR-2-1	Gasket - Copper Asbestos -----	1
76	NS-13-22	Nut - 3/8"-16 Hex -----	2
77	SC-37-49	Cap Screw - 3/4"-10 x 2-1/2" Hex Hd. -----	2
78	M-17000-6-10	Washer -----	2
79	OG-3-16	Grease Cup -----	1
80	SC-40-20	Cap Screw - 3/8"-16 x 3/4" Socket Hd. -----	2
81	WL-4-2	Lock Washer - 3/8" x .136" x .070" -----	2
82	M-22283	Rod - Tie -----	1
83	P-20748	Cover - Attach. Hub Hole -----	1
84	P-23478	Switch - Lift Motor -----	1
85	M-23485	Handle - Switch -----	1
86	SC-47-9	Set Screw - 1/4"-20 x 1/4" Cup Pt. Soc. Hdless -----	1
87	SC-30-15	Mach. Screw - #8-32 x 1/2" Oval Ctsk. Hd. -----	3
88	OG-3-16	Grease Cup - Motor -----	2

HOBART REPLACEMENT PARTS

PL-934



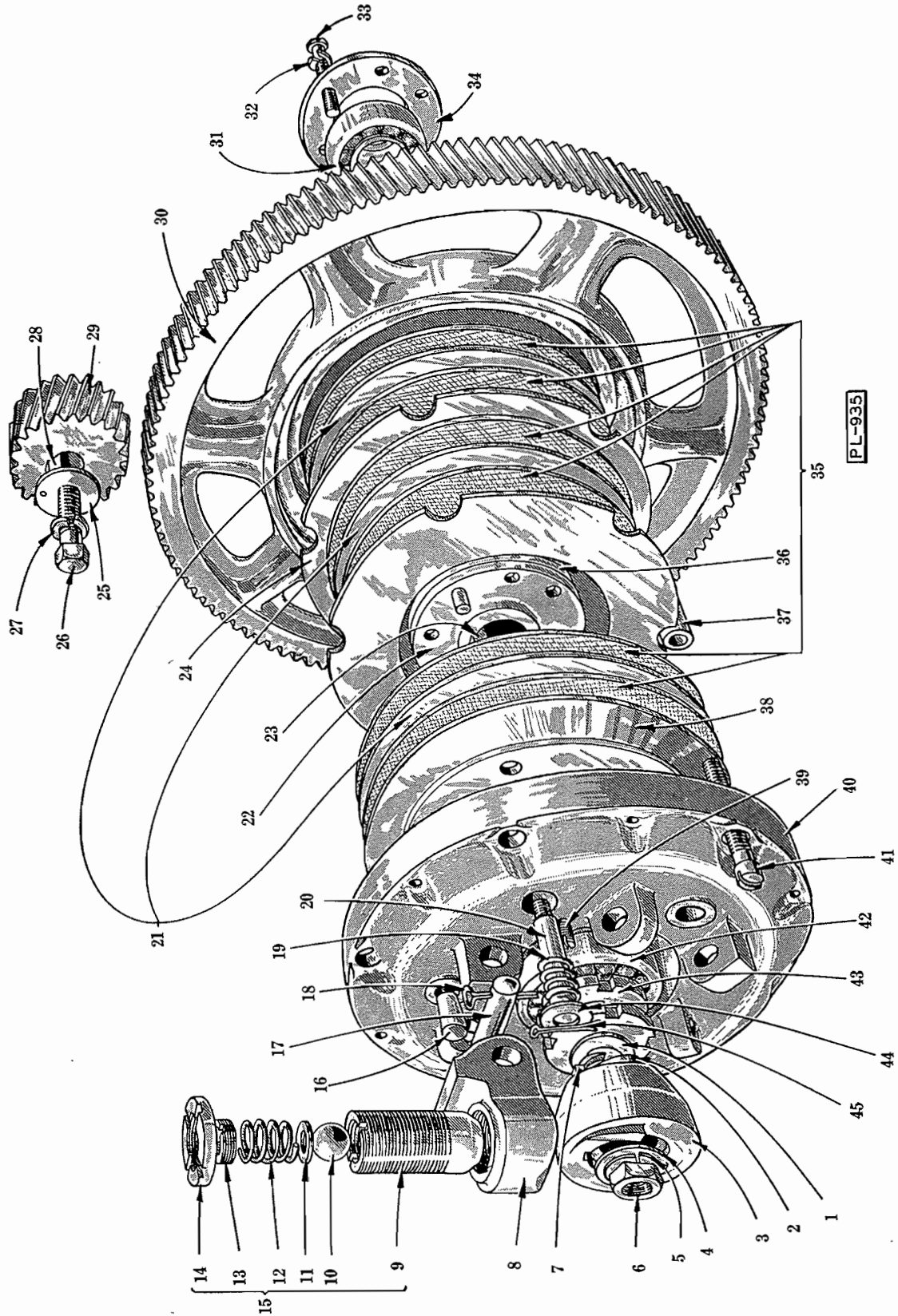
TRANSMISSION GEAR UNIT

HOBART REPLACEMENT PARTS

TRANSMISSION GEAR UNIT

ILLUS. PL-934	PART NUMBER	NAME OF PART	AMOUNT
1	M-22186	Retainer - Lower Front Bearing -----	1
2	WL-4-2	Lock Washer - 3/8" x .136" x .070" -----	1
3	SC-36-57	Cap Screw - 3/8"-16 x 1-1/4" Hex Hd. -----	1
4	V-7301-1	Washer - Bevel Pinion Retaining -----	1
5	M-17000-6-47	Washer -----	As reqd.
6	M-17000-6-48	Washer -----	As reqd.
7	M-17000-6-36	Washer -----	As reqd.
8	P-22001	Pinion - Spiral Bevel -----	1
9	M-22179	Washer - Shim -----	1
10	WL-4-2	Lock Washer - 3/8" x .136" x .070" -----	2
11	SC-36-63	Cap Screw - 3/8"-16 x 2-1/4" Hex Hd. -----	2
12	M-22185	Retainer - Bearing -----	1
13	BB-6-26	Ball Bearing - #3206-X1A-PI -----	1
14	P-7308	Gear - Upper Front Trans. Shaft -----	1
15	PT-3-60	Taper Pin - #4 x 1-1/4" Lg. -----	1
16	R-12430-155	Key -----	1
17	R-22322	Shaft & Pinion - Upper Front Trans. -----	1
18	M-21022	Spacer - Clutch Shaft -----	1
19	P-19170	Shaft - Front Clutch -----	1
20	V-5233	Pin - Wedge -----	1
21	M-17000-3-20	Washer -----	2
22	S-22285	Cradle - Upper -----	1
23	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
24	SC-36-68	Cap Screw - 1/2"-13 x 3-1/2" Hex Hd. -----	2
25	V-5234	Nut - Hex -----	2
26	P-19171	Lever - Front Clutch -----	1
27	M-19173	Yoke End - Adjustable -----	2
28	M-19256	Pin - Yoke & Rod End -----	2
29	PC-3-58	Cotter Pin - 1/8" x 3/4" -----	2
30	NS-18-28	Jam Nut - 1/2"-20 Hex -----	2
31	M-19172	Link - Clutch Adjusting -----	1
32	BB-9-7	Ball Bearing - #5206-X1A-PI -----	1
33	R-19616	Handle - Clutch -----	1
34	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
35	SC-37-2	Cap Screw - 1/2"-13 x 1-3/4" Hex Hd. -----	2
36	SC-37-16	Cap Screw - 1/2"-13 x 7-1/4" Hex Hd. -----	2
37	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
38	R-22286	Cap - Front Cradle -----	1
39	P-11800-118	Pin -----	2
40	P-19144	Lever - Back Clutch -----	1
41	V-5233	Pin - Wedge -----	1
42	M-24143-4	Wire -----	1
43	V-7002	Set Screw - Hdless. Dog Point -----	1
44	M-7347	Stop - Clutch Handle -----	1
45	P-7353	Fork - Clutch -----	1
46	V-5233	Pin - Wedge -----	1
47	M-17000-3-20	Washer -----	1
48	V-5234	Nut - Hex -----	1
49	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	4
50	SC-37-5	Cap Screw - 1/2"-13 x 2-1/2" Hex Hd. -----	4
51	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	4
52	P-11800-118	Dowel -----	2
53	R-7312	Cap - Upper Center Cradle -----	1
54	M-17000-12-24	Washer -----	1
55	PC-3-58	Cotter Pin - 1/8" x 1-1/4" Lg. -----	1
56	P-19238	Shaft - Clutch Lever -----	1
57	SC-37-14	Cap Screw - 1/2"-13 x 7-3/4" Hex Hd. -----	2
58	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
59	SC-37-13	Cap Screw - 1/2"-13 x 5-1/2" Hex Hd. -----	2
60	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
61	M-7309	Cap - Upper Rear Cradle -----	1
62	P-11800-118	Dowel -----	2
63	R-12430-189	Key -----	1
64	P-20546	Shaft - Upper Rear Transmission -----	1
65	R-12430-157	Key -----	1
66	P-20665	Rod - Clutch Pull -----	1
67	BB-8-13	Ball Bearing - #1207-X1A-PI -----	1
68	M-7286	Gear - Upper Rear Transmission - 22T -----	1
69	M-7287	Gear - Upper Rear Transmission - 16T -----	1
70	M-7281	Retainer - Bearing -----	1
71	BB-8-10	Ball Bearing - #1206-X1A-PI -----	1
72	M-22187	Retainer - Bearing -----	1

(Concluded on Page 15)



CLUTCH UNIT

HOBART REPLACEMENT PARTS

CLUTCH UNIT

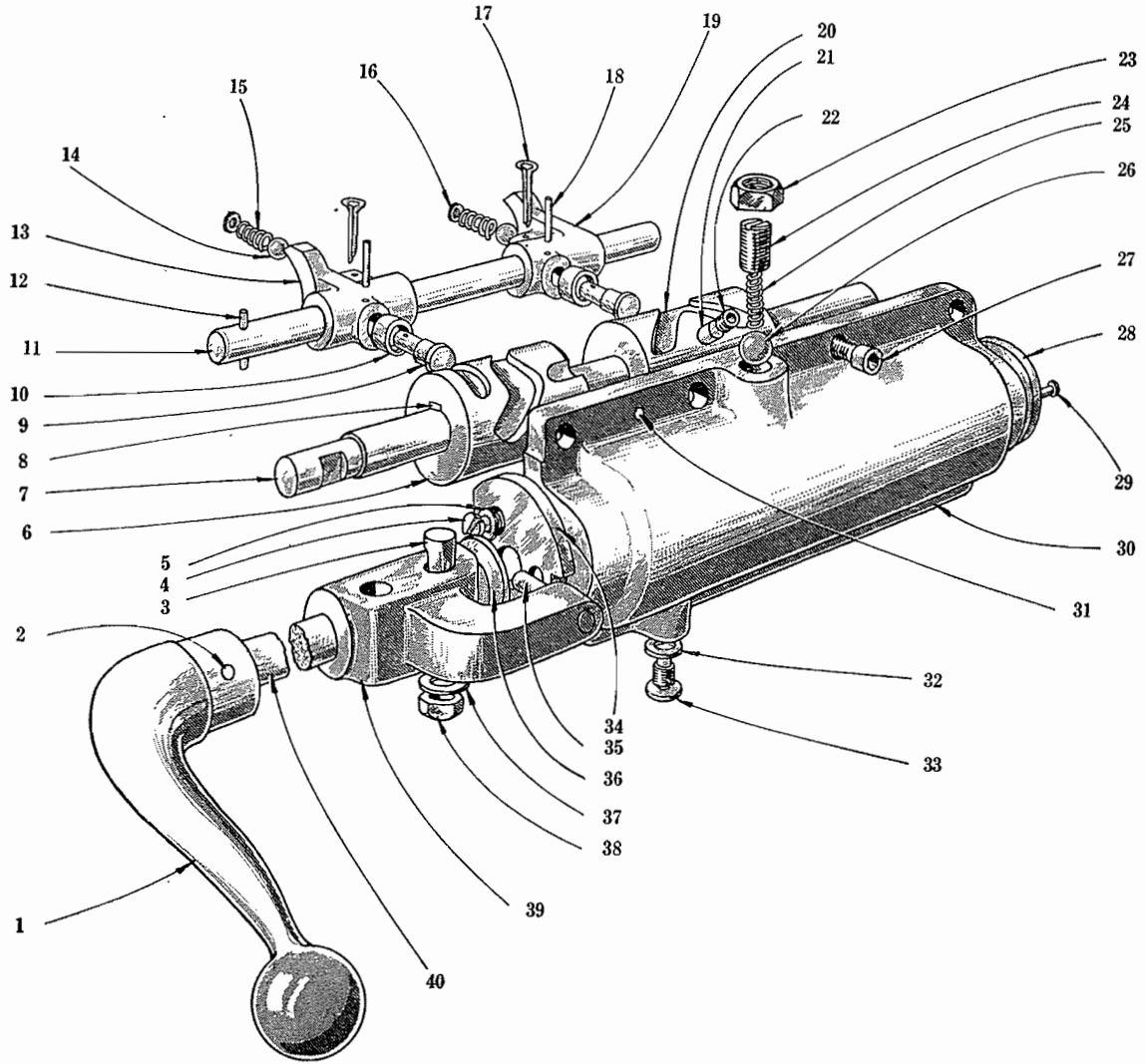
ILLUS. PL-935	PART NUMBER	NAME OF PART	AMOUNT
1	M-17000-11-24	Washer -----	1
2	M-20412	Spring - Clutch Cone -----	1
3	M-20413	Cone - Clutch -----	1
4	M-17000-8-20	Washer -----	1
5	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	1
6	NS-17-27	Jam Nut - 1/2"-13 Hex -----	1
7	R-12430-61	Key -----	1
8	M-20769	Arm - Clutch -----	3
9	P-20773	Screw - Clutch Spring -----	3
10	BA-2-28	Ball - 5/8" dia., Steel -----	3
11	M-20771	Washer - Spring -----	3
12	M-20772	Spring - Clutch Compression -----	3
13	M-20913	Plug - Spring -----	3
14	M-20770	Nut - Clutch Spring Screw -----	3
15	M-24697	Screw Sub-Assem. - Clutch Spring ----- (Includes items 9, 10, 11, 12, 13 & 14)	3
16	V-10301	Pin - Clutch -----	3
17	V-7339	Pin - Clutch Arm -----	3
18	PC-3-34	Cotter Pin - 3/32" x 3/4" -----	3
19	V-7431	Spring - Clutch Release -----	3
20	V-7338	Pin - Clutch Release -----	3
21	P-10293	Disc - Inner Clutch -----	3
22	P-20664	Spider - Rear Clutch -----	1
23	R-12430-162	Key -----	1
24	P-10292	Disc - Outer Clutch -----	2
25	V-14777	Washer - Pinion Retaining -----	1
26	SC-36-54	Cap Screw - 3/8"-16 x 1" Hex Hd. -----	1
27	WL-4-2	Lock Washer - 3/8" x .136" x .070" -----	1
28	R-12430-67	Key - Motor Pinion -----	1
29	M-19132-2	Pinion - Motor (24T) -----	1
30	S-20668-2	Gear - Main Drive (152T) -----	1
31	BB-6-41	Ball Bearing - #7507-X1C-PI -----	1
32	WL-3-36	Lock Washer - 1/4" x .107" x .047" -----	6
33	SC-8-70	Machine Screw - 1/4"-20 x 3/4" Rd. Hd. -----	6
34	M-7342	Ring - Clutch Bearing Retaining -----	1
35	P-22711	Disc - Clutch -----	6
36	M-60406	Spider - Front Clutch Sub-Assembly -----	1
37	V-21038	Disc - Driving -----	6
38	P-10298	Ring - Clutch -----	1
39	SC-46-53	Set Screw - 5/16"-18 x 3/8" Hdless Flat Pt. -----	3
40	R-10295	Plate - Clutch -----	1
41	SC-38-17	Cap Screw - 5/16"-18 x 1-3/4" Fil. Hd. -----	6
42	BB-6-38	Ball Bearing - #3207-X1A-PI -----	1
43	V-7348	Nut - Clutch Shaft -----	2
44	M-17000-7-11	Washer -----	3
45	PC-3-34	Cotter Pin - 3/32" x 3/4" -----	6

TRANSMISSION GEAR UNIT (Cont'd)

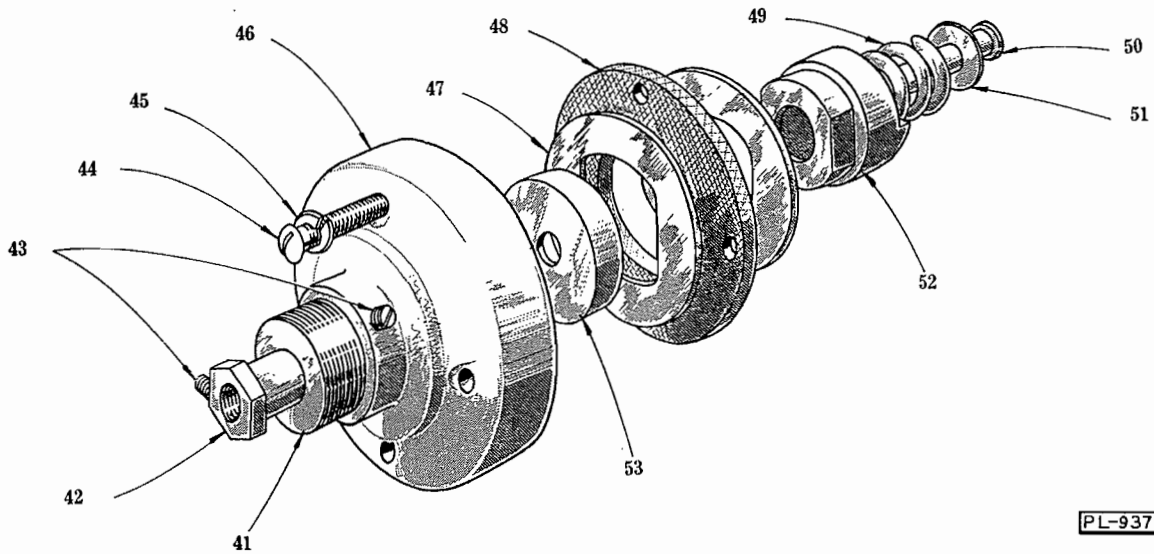
(Concluded from Page 13)

ILLUS. PL-934	PART NUMBER	NAME OF PART	AMOUNT
73	M-20414	Nut - Clutch Shaft -----	2
74	V-7352	Retainer - Clutch Bearing -----	2
75	BB-5-21	Ball Bearing - #3302-X1A-PI -----	1
76	NS-17-27	Jam Nut - Hex 1/2"-13 -----	1
77	RR-4-7	Ring - Retaining -----	1
78	BB-6-1	Ball Bearing - #3304-X1A-PI -----	1
79	M-22184	Key -----	1
80	V-7279	Retainer - Bearing -----	2
81	P-11800-118	Dowel -----	2
82	P-7316	Gear - Double Sliding -----	1
83	S-22026	Cradle - Lower -----	1
84	BB-8-10	Ball Bearing - #1206-X1A-PI -----	1
85	P-7757	Dowel -----	1
86	M-7317	Pinion - Single Sliding -----	1
87	P-11800-6	Dowel -----	4
88	P-22183	Shaft - Lower Rear Transmission -----	1
89	M-22184	Key -----	1
90	BB-6-1	Ball Bearing - #3304-X1A-PI -----	1
91	RR-4-7	Ring - Retaining -----	1
92	R-21997	Shaft - Lower Front Transmission -----	1
93	SC-37-15	Cap Screw - 1/2"-13 x 6-1/4" Hex. Hd. -----	2
94	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
95	BB-9-16	Ball Bearing - Fafnir #5207 -----	1
96	M-22182	Collar - Rear Thrust -----	1
97	P-11800-143	Dowel -----	1
98	SC-37-11	Cap Screw - 1/2"-13 x 4" Hex Hd. -----	2
99	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
100	P-22180	Gear - Lower Front Transmission -----	1
101	R-12430-168	Key -----	1
102	M-22181	Collar - Front Thrust -----	1
103	M-7280	Retainer - Lower Front Bearing -----	1
104	BB-9-16	Ball Bearing - Fafnir #5207 -----	1

HOBART REPLACEMENT PARTS



SHIFTING UNIT



BRAKE UNIT

PL-937

HOBART REPLACEMENT PARTS

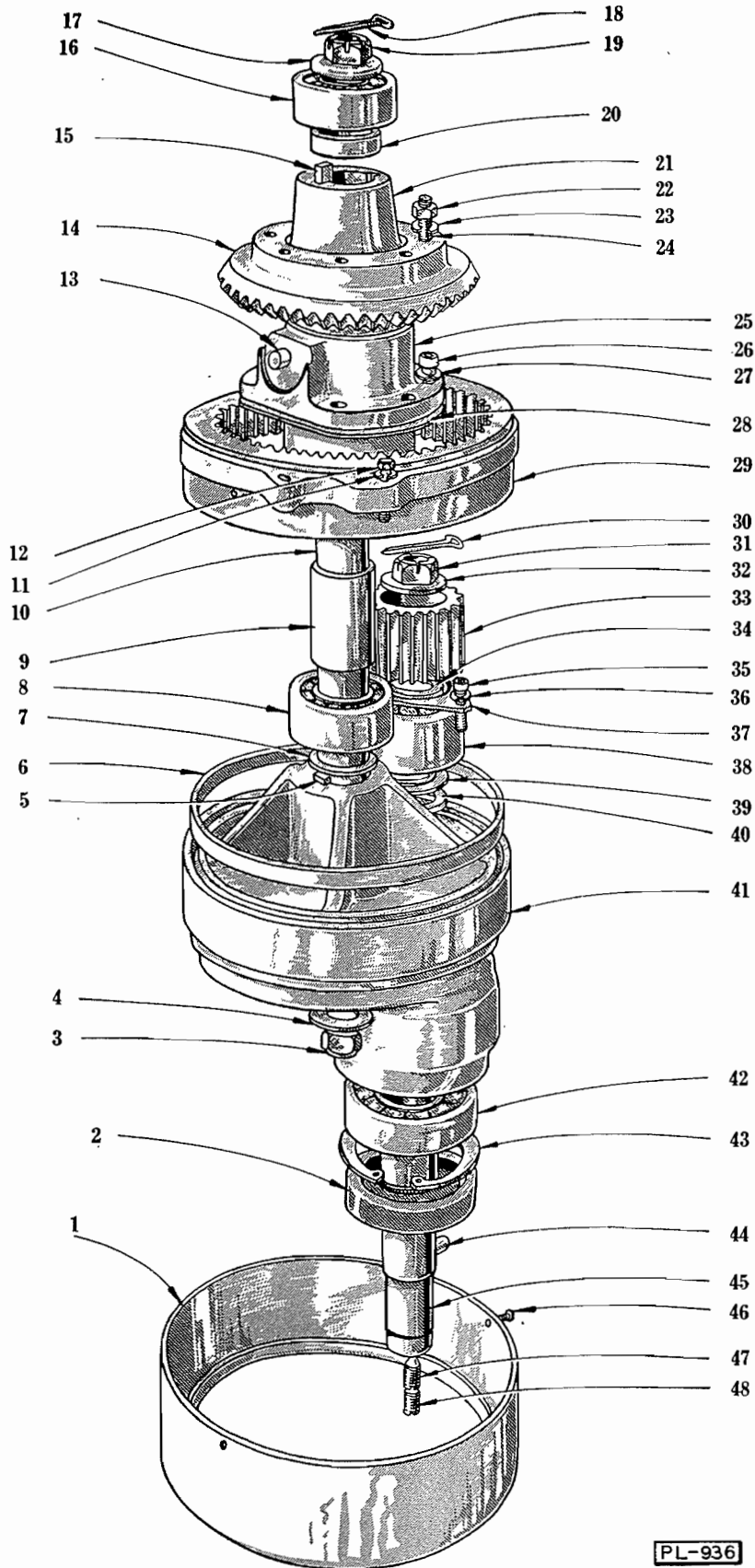
SHIFTING UNIT

ILLUS. PL-937	PART NUMBER	NAME OF PART	AMOUNT
1	R-19636	Handle - Gear Shift -----	1
2	PT-4-60	Taper Pin - #4 x 1-1/4" Lg. -----	1
3	V-5233	Pin - Wedge -----	2
4	SC-14-16	Machine Screw - 5/16"-18 x 7/8" Flat Hd. -----	3
5	WL-9-14	Lock Washer - 5/16" Ctsk. Shakeproof -----	3
6	R-22799	Cam - Single Speed Shifting -----	1
7	P-22804	Shaft - Gear Shift Handle -----	1
8	KW-3-12	Key - Woodruff #607 -----	2
9	V-7377	Pin - Roller -----	2
10	V-7378	Roller - Shifter -----	2
11	P-22801	Rod - Shifting Fork -----	1
12	PT-3-62	Taper Pin - #4 x 1-1/2" Lg. -----	1
13	P-8823	Fork - Front Shifting -----	1
14	BA-2-23	Ball - 1/2" dia. -----	2
15	V-7433	Spring - Detent -----	2
16	M-17000-2-8	Washer -----	2
17	PC-3-58	Cotter Pin - 1/8" dia. x 1-1/4" Lg. -----	2
18	P-11800-43	Pin -----	2
19	P-7376	Fork - Rear Shifting -----	1
20	R-22797	Cam - Butterfly Speed Shifting -----	1
21	PT-3-73	Taper Pin - #6 x 1-3/4" Lg. -----	1
22	SC-47-66	Set Screw - 1/2"-20 x 3/8" Soc. Hd. Flat Pt. -----	1
23	NS-17-37	Jam Nut - 5/8"-11 Hex -----	1
24	M-21333	Screw - Spring Compression -----	1
25	M-21300	Spring - Detent -----	1
26	BA-2-23	Ball - 1/2" dia. -----	1
27	SC-40-14	Cap Screw - 5/16"-18 x 3/4" Soc. Hd. -----	8
28	V-7383	Cover - Gear Shift Housing End -----	1
29	SC-7-41	Machine Screw - #8-32 x 3/8" Rd. Hd. -----	3
30	R-7388	Housing - Gear Shift -----	1
31	P-11800-83	Dowel -----	2
32	GR-2-1	Gasket - Copper Asbestos -----	1
33	V-7386	Screw - Cam Retaining -----	1
34	M-7379-2	Cover - Gear Shift Housing End -----	1
35	V-22837	Pin - Guide Lever -----	1
36	M-17000-11-34	Washer -----	1
37	M-17000-3-20	Washer -----	2
38	V-5234	Nut - Hex -----	2
39	P-19145	Guide - Gear Shift -----	1
40	P-19146	Extension - Gear Shift Handle Shaft -----	1

BRAKE UNIT

41	M-22492	Screw - Adjusting -----	1
42	M-23779	Bushing - Thrust -----	1
43	SC-47-24	Set Screw - 1/4"-28 x 1/4" Soc. Hdless Cup Pt. -----	2
44	SC-8-96	Machine Screw - 5/16"-18 x 1-3/4" Rd. Hd. -----	4
45	WL-3-43	Lock Washer - 5/16" x .117" x .056" -----	4
46	M-19134	Cap - Support -----	1
47	M-22489	Disc - Friction -----	2
48	M-22490	Washer - Friction -----	1
49	M-12724	Spring -----	1
50	M-23778	Stud - Adjusting -----	1
51	M-17000-8-21	Washer -----	1
52	P-22487	Stop - Clutch Cone -----	1
53	M-22491	Plate - Pressure -----	1

HOBART REPLACEMENT PARTS



PL-936

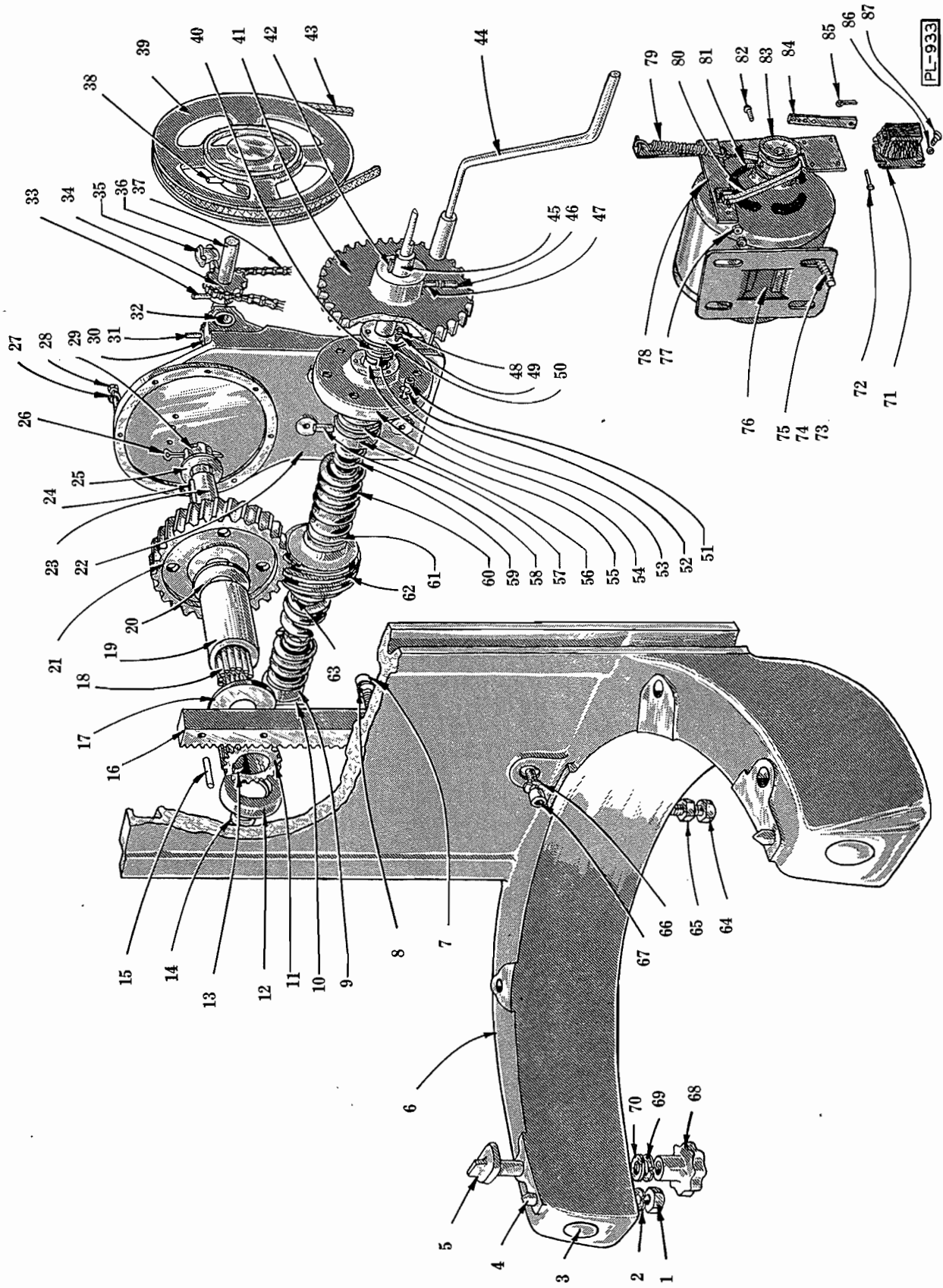
PLANETARY UNIT

HOBART REPLACEMENT PARTS

PLANETARY UNIT

ILLUS. PL-936	PART NUMBER	NAME OF PART	AMOUNT
1	R-22220	Cup - Drip	1
2	M-23638	Seal - Grease	1
3	NS-31-41	Stop Nut - 3/4"-16 Elastic	1
4	M-19153	Washer	1
5	M-23549	Key	1
6	P-19180	Ring - Seal	1
7	M-22191	Spacer	1
8	BB-9-30	Ball Bearing - Fafnir #5209-D-FS-115	1
9	M-19152	Spacer	1
10	R-19151	Vertical Planetary Shaft	1
11	WL-4-12	Lock Washer - 1/2" x .170" x .099"	4
12	SC-37-3	Cap Screw - 1/2"-13 x 2" Hex Hd.	4
13	P-11800-198	Dowel	1
14	P-18546-1	Gear - Spiral Bevel	1
15	M-23548	Key	2
16	BB-9-23	Ball Bearing - Fafnir #5208-D	1
17	V-7419	Washer	1
18	PC-3-37	Cotter Pin - 3/32" dia. x 1-1/8" Lg.	1
19	NS-20-23	Castle Nut - 3/4"-16	1
20	M-22800	Spacer	1
21	R-19154	Hub - Ring Gear	1
22	NS-13-26	Hex Nut - 3/8"-24	8
23	WL-4-2	Lock Washer - 3/8" x .136" x .070"	8
24	SC-36-78	Cap Screw - 3/8"-24 x 2" Hex Hd.	8
25	R-19159	Carrier - Planetary Head Bearing	1
26	SC-40-23	Cap Screw - 3/8"-16 x 1-1/4" Soc. Hd.	6
27	WL-4-1	Lock Washer - 3/8" x .078" x .125"	6
28	M-19161	Gasket	1
29	R-22152	Gear - Internal	1
30	PC-3-37	Cotter Pin - 3/32" dia. x 1-1/8" Lg.	1
31	M-10104	Nut - Special	1
32	M-17000-11-24	Washer	1
33	P-22003	Pinion - Special	1
34	M-22284	Collar - Special	1
35	SC-40-21	Cap Screw - 3/8"-16 x 7/8" Socket Hd.	2
36	WL-4-2	Lock Washer - 3/8" x .136" x .070"	2
37	M-22195	Plate - Thrust	1
38	BB-9-19	Ball Bearing - Fafnir #5307-D-FS-115	1
39	M-22194	Plate - Seal	1
40	M-22193	Ring - Felt	1
41	T-22199	Planetary	1
42	BB-8-26	Ball Bearing - Fafnir #309W	1
43	RR-4-15	Retaining Ring	1
44	M-24784	Pin - Beater Shaft (Give Mach. Serial No.)	1
45	R-24785	Shaft - Beater (Give Mach. Serial No.)	1
46	SC-13-25	Machine Screw - #8-32 x 5/16" Flat Hd.	2
47	V-7744	Set Screw - Cone Pt.	1
48	SC-46-64	Set Screw - 3/8"-16 x 3/8" Hdless Cup Pt.	1
49	M-24788	Beater Shaft Sub-Assembly Unit (Includes items 44, 45, 47 & 48) (Give Mach. Serial No.)	1

HOBART REPLACEMENT PARTS



BOWL LIFT UNIT

HOBART REPLACEMENT PARTS

BOWL LIFT UNIT

ILLUS. PL-933	PART NUMBER	NAME OF PART	AMOUNT
1	NS-13-30	Nut - 1/2"-13 Hex	2
2	WL-4-12	Lock Washer - 1/2" x .170" x .099"	2
3	M-22237	Plug - Bowl Support	2
4	M-19195-1	Stud - Bowl Locating	2
5	M-22157	Stud - Bowl Clamping	2
6	T-19193	Support - Bowl	1
7	SC-12-19	Machine Screw - 3/8"-16 x 1-1/4" Fil. Hd.	5
8	WL-4-1	Lock Washer - 3/8" x .078" x .125"	5
9	M-19184	Collar - Lift Thrust	1
10	P-11800-115	Pin	1
11	M-19185	Pinion - Lift (16T)	1
12	BB-13-4	Ball Bearing	1
13	M-22615	Key - Woodruff	1
14	BN-2-2	Needle Bearing	1
15	P-11800-142	Dowel	1
16	R-19194	Rack	1
17	M-17000-14-8	Washer	1
18	V-8058	Roller - Shaft	17
19	M-8079	Liner - Bearing	1
20	M-17000-14-8	Washer	1
21	P-19186-1	Gear - Worm (48T)	1
22	S-22231	Support - Power Lift Motor	1
23	P-8056	Shaft - Lift	1
24	R-12430-165	Key - Lift Shaft	1
25	V-7419	Washer - Shaft	1
26	PC-3-38	Cotter Pin - 3/32" x 1-1/8"	1
27	WL-3-36	Lock Washer - 1/4" x .107" x .047"	8
28	SC-36-6	Cap Screw - 1/4"-20 x 1" Hex Hd.	8
29	NS-20-23	Castle Nut - 3/4"-16	1
30	M-21749	Collar - Co-Shaft	1
31	PT-3-31	Taper Pin - #1 x 1-1/4" Lg.	1
32	M-22233	Bushing - Power Lift Support	2
33	PT-3-31	Taper Pin - #1 x 1-1/4" Lg.	1
34	P-21750	Sprocket - Drive (9T)	1
35	V-9502	Oiler - Gits	2
36	M-22234	Co-Shaft	1
37	M-24109	Roller Chain	1
38	PT-3-31	Taper Pin - #1 x 1-1/4" Lg.	1
39	R-21206	Pulley - Driven	1
40	M-20421	Washer - Felt	1
41	R-21754	Sprocket - Driven (30T)	1
42	KW-3-12	Key - Woodruff #607	1
43	BV-3-1	"V" Belt	1
44	P-21756	Crank Assembly - Hand	1
45	P-22235	Shaft - Worm	1
46	SC-47-12	Set Screw - 1/4"-20 x 3/8" Hdless Cup Pt.	1
47	SC-47-12	Set Screw - 1/4"-20 x 3/8" Hdless Cup Pt.	1
48	SC-7-33	Mach. Screw - #8-32 x 3/8" Rd. Hd.	3
49	WL-7-6	Lock Washer - #8 External Shakeproof	3
50	M-19204	Plate - Retaining	1
51	SC-12-11	Machine Screw - 5/16"-18 x 5/8" Fil. Hd.	6
52	WL-3-42	Lock Washer - 5/16" x .047" x .078"	6
53	M-17000-12-11	Washer	1
54	BN-2-1	Needle Bearing - Torrington	1
55	R-19182	Hub - Gear Case	1
56	M-17000-11-25	Washer	1
57	M-8053	Collar - Worm Shaft	1
58	P-11800-122	Pin	1
59	M-8002	Spring - Worm Shaft (Small)	2
60	M-9733	Spring - Worm Shaft (Large)	2
61	M-17000-11-36	Washer	2
62	P-23898-2	Worm - Shaft	1
63	R-12430-168	Key	1
64	M-21582	Screw - Bowl Support Stop	1
65	NS-17-38	Jam Nut - 5/8"-11 Hex	1
66	WL-4-18	Lock Washer - 5/8" x .201" x .126"	1
67	M-22715	Screw - Special Socket Hd.	1
68	M-22156	Knob - Lower Clamping Stud	2
69	WL-4-12	Lock Washer - 1/2" x .170" x .099"	2
70	M-17000-8-9	Washer	2
71	P-23926	Solenoid - Lift Brake (Give Elec. Spec.)	1
72	M-23977	Pin - Solenoid Clevis	1

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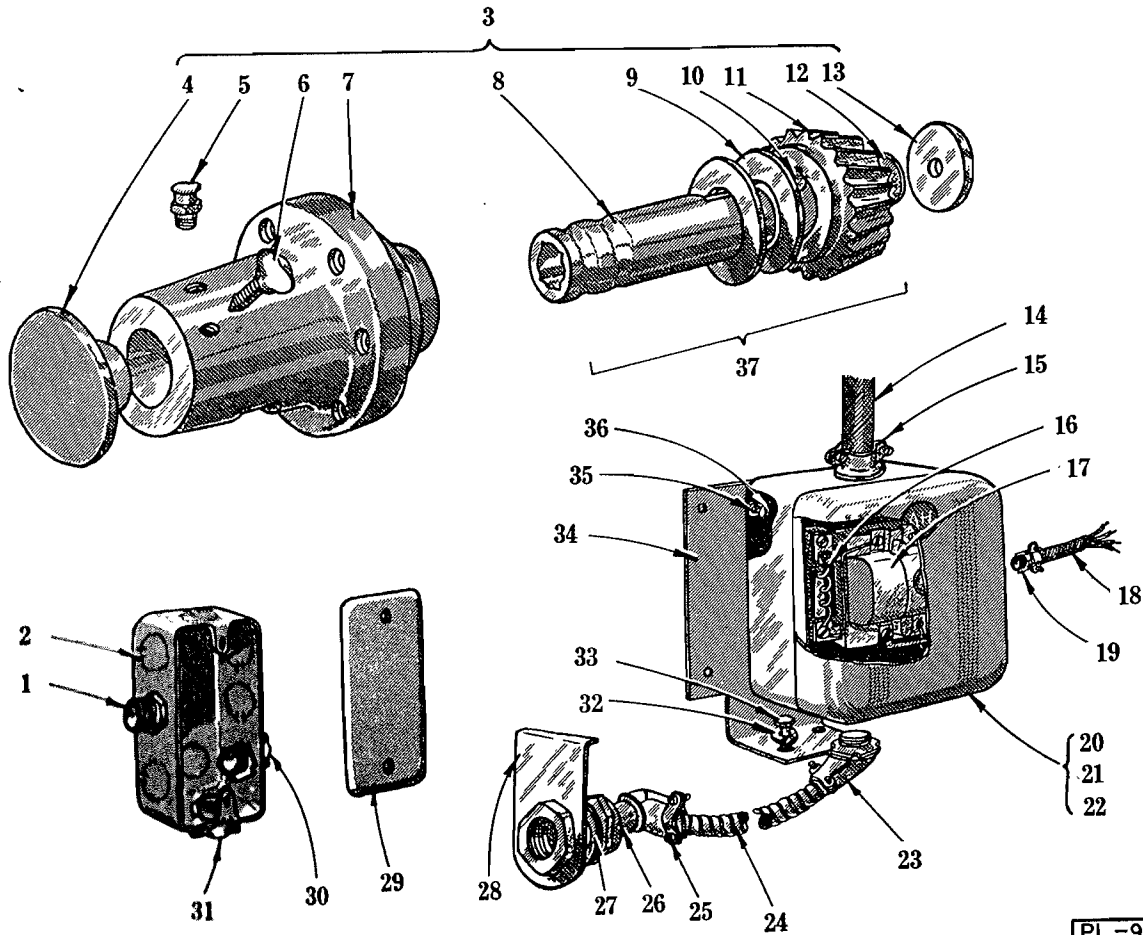
HOBART REPLACEMENT PARTS

BOWL LIFT UNIT (Cont'd)

(Concluded from Page 21)

		NAME OF PART	AMOUNT
73	SC-36-24	Cap Screw - 5/16"-18 x 5/8" Hex Hd. -----	4
74	WL-3-43	Lock Washer - 5/16" x .117" x .056" -----	4
75	M-17000-4-25	Washer -----	4
76	-----	Motor - Bowl Lift (Give Elec. Spec.) -----	1
77	NS-9-9	Nut - #8-32 Hex -----	4
78	P-23737	Support Assembly - Lift Brake -----	1
79	M-23783	Spring - Brake -----	1
80	M-24159	Belt - Brake -----	1
81	SC-47-10	Set Screw - 1/4"-20 x 5/16" Sock. Hdless, Cup Pt. -----	2
82	SC-9-39	Machine Screw - #8-32 x 3/4" Rd. Hd. -----	2
83	P-23782	Pulley - Brake -----	1
84	M-23744	Link - Adjusting -----	1
85	PC-3-16	Cotter Pin - 1/16" dia. x 3/8" Lg. -----	1
86	WL-7-6	Lock Washer - #8 External Shakeproof -----	4
87	SC-7-37	Machine Screw - #8-32 x 1/4" Rd. Hd. -----	4
88	R-24166	Brake Lift Assembly (Includes items 71, 72, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86 and 87) -----	1

HOBART REPLACEMENT PARTS



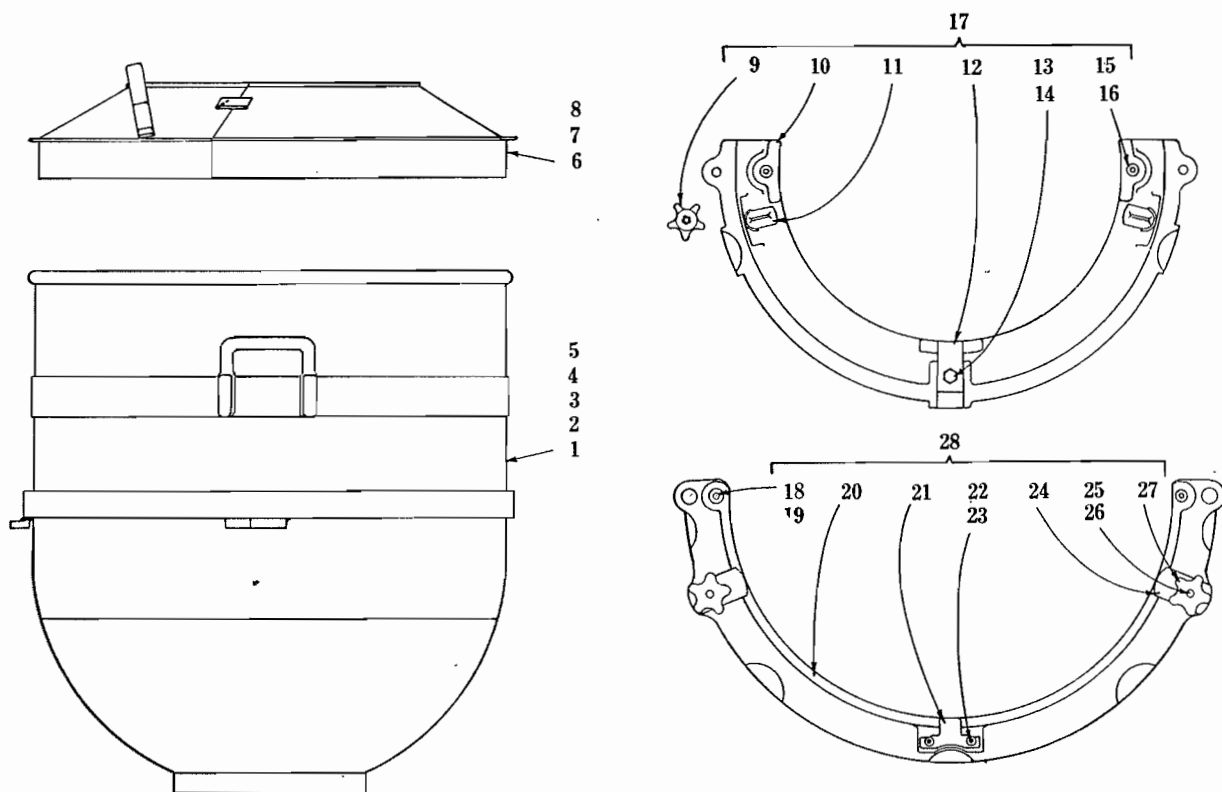
ATTACHMENT HUB AND ELECTRICAL FITTINGS

PL-939

ILLUS. PL-939	PART NUMBER	NAME OF PART	AMOUNT
1	FE-2-25	Connector (Less Gland Nut) -----	1
2	FE-3-3	Junction Box -----	1
3	S-22324	Attach. Hub Assem. Unit (Includes Items 4, 5, 6, 7, 8, 9, 10, 11, 12, 13) -----	1
4	M-3144	Plug - Attachment Hub -----	1
5	OG-3-21	Oiler -----	1
6	M-4202-1	Thumb Screw -----	1
7	R-19157	Attachment Hub -----	1
8	M-11729	Sleeve - Square Drive -----	1
9	M-11091	Washer - Thrust -----	As reqd.
10	KW-3-15	Woodruff Key - #807 -----	1
11	P-18547	Pinion - Spiral Bevel -----	1
12	PL-3-22	Expansion Plug (Presses in M-11729) -----	1
13	V-18597	Washer - Thrust -----	As reqd.
14	P-60665-63	Conduit - 3/4" Non-Met. Flex. 24-1/2" Lg. -----	1
15	FE-2-37	Connector - 3/4" Squeeze -----	2
16	-----	Element - Starter (Give number stamped on Part) -----	As reqd.
17	-----	Starter (Less Enclosure) (Give Elec. Spec.) -----	1
18	S-22359	Wiring Harness -----	1
19	FE-2-20	Connector - 3/8" Straight Squeeze -----	1
20	R-23758	Starter - 3 Ph. (Give Elec. Spec.) -----	1
21	R-23979	Starter - 2 Ph. (Give Elec. Spec.) -----	1
22	R-23757	Starter - 1 Ph. (Give Elec. Spec.) -----	1
23	FE-2-38	Connector - 3/4" x 45° Squeeze -----	1
24	P-24127-17	Conduit - 3/4" Flex. 10" Lg. -----	1
25	FE-2-10	Connector - 3/4" x 90° Squeeze -----	1
26	FE-2-28	Union - 3/4" Conduit -----	1
27	M-17000-15-35	Washer -----	As reqd.
28	M-22320	Cover - Line Inlet Opening -----	1
29	FE-4-1	Cover - Junction Box -----	1
30	FE-2-24	Connector - Squeeze -----	1
31	FE-2-24	Connector - Squeeze -----	1
32	WL-3-36	Lock Washer - 1/4" x .107" x .047" -----	2
33	SC-36-2	Cap Screw - 1/4"-20 x 1/2" Hex Hd. -----	2
34	R-23983	Support - Switch Box -----	1
35	WL-3-22	Lock Washer - #10 x .055" x .040" -----	4
36	SC-8-16	Machine Screw - #10-32 x 3/8" Rd. Hd. -----	4
37	M-24691	Bevel Pinion & Sq. Drive Sleeve Sub-Assembly -----	

(Consists of items 8, 10, 11 & 12)

HOBART REPLACEMENT PARTS



PL-938

BOWLS AND ADAPTERS

ILLUS. PL-938	PART NUMBER	NAME OF PART	AMOUNT
1	S-22141	Bowl - 140 Qt. -----	1
2	S-60045	Bowl - 110 Qt. (Use with 80 Qt. Adapter) -----	1
3	S-60043	Bowl - 100 Qt. (Use with 80 Qt. Adapter) -----	1
4	S-23727	Bowl - 80 Qt. (Use with 80 Qt. Adapter) -----	1
5	R-23717	Bowl - 40 Qt. (Use with 80 & 40 Qt. Adapters) -----	1
6	S-23298	Anti-Splash Ring (140 Qt.) -----	1
7	R-7580	Anti-Splash Ring (80 Qt.) -----	1
8	R-8038	Anti-Splash Ring (40 Qt.) -----	1
9	M-22156	Knob - Clamp Stud -----	2
10	R-7841	Adapter - (80 to 40 Qt.) -----	1
11	M-8100	Stud - Clamp -----	2
12	V-7624	Retainer - Bowl -----	1
13	SC-36-97	Cap Screw - 1/2"-13 x 1" Hex Hd. -----	1
14	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	1
15	V-7629	Stud - Bowl Locating -----	2
16	WL-4-18	Lock Washer - 5/8" x .201" x .126" -----	2
17	M-24653	Adapter Sub-Assem. Unit - 40 Qt. Bowl -----	1
(Includes items 9, 10, 11, 12, 13, 14, 15 & 16)			
18	V-7629	Stud - Bowl Locating -----	2
19	WL-4-18	Lock Washer - 5/8" x .201" x .126" -----	2
20	S-22153	Adapter (140 to 80 Qt.) -----	1
21	M-21020	Retainer - Bowl -----	1
22	SC-40-15	Cap Screw - 5/16"-18 x 1-1/4" Sock. Hd. -----	2
23	WL-3-43	Lock Washer - 5/16" x .117" x .056" -----	2
24	M-22197	Clamp - Bowl Adapter -----	2
25	M-22196	Bolt - Bowl Lock -----	2
26	WL-4-12	Lock Washer - 1/2" x .170" x .099" -----	2
27	M-8101	Knob - Clamp Stud -----	2
28	M-24654	Adapter Sub-Assem. Unit - 80 Qt. Bowl -----	1
(Includes items 18, 19, 20, 21, 22, 23, 24, 25, 26, 27)			