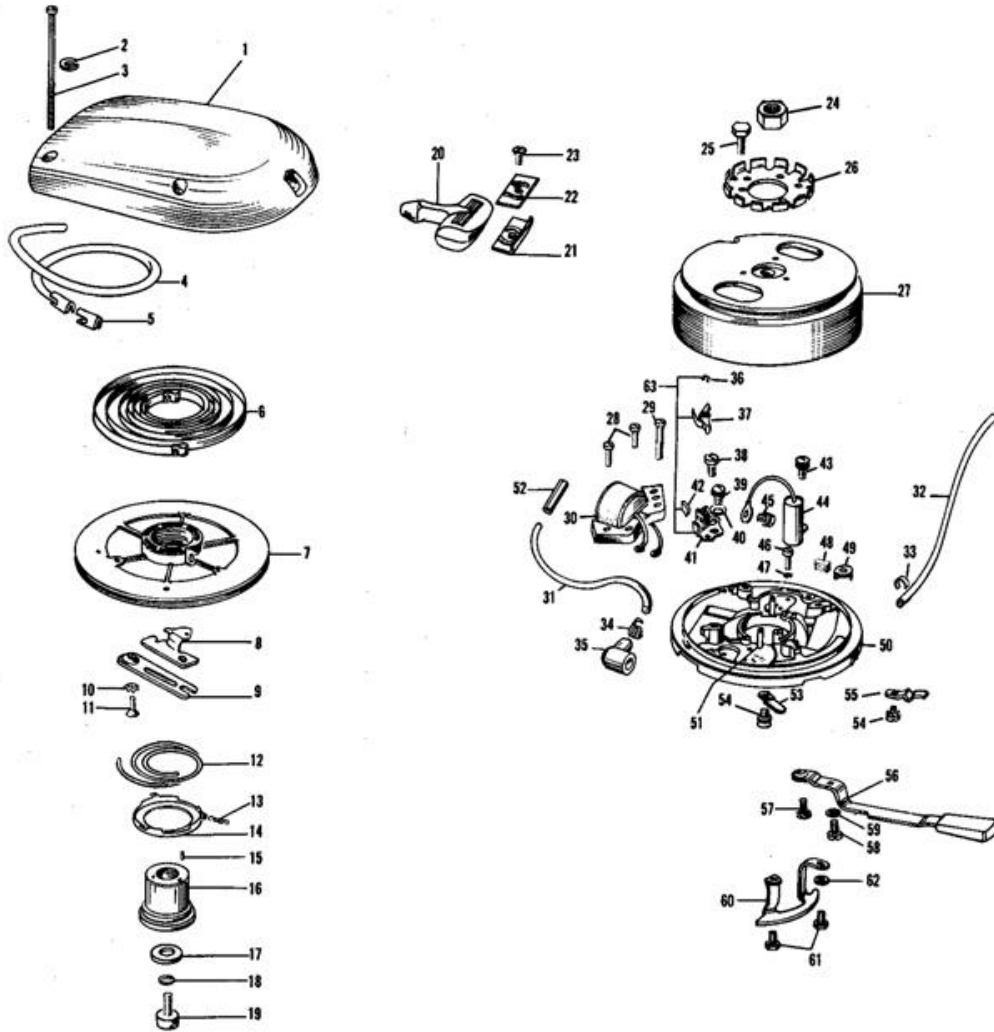


# LIGHTWIN STARTER—ARMATURE PLATE—FLYWHEEL



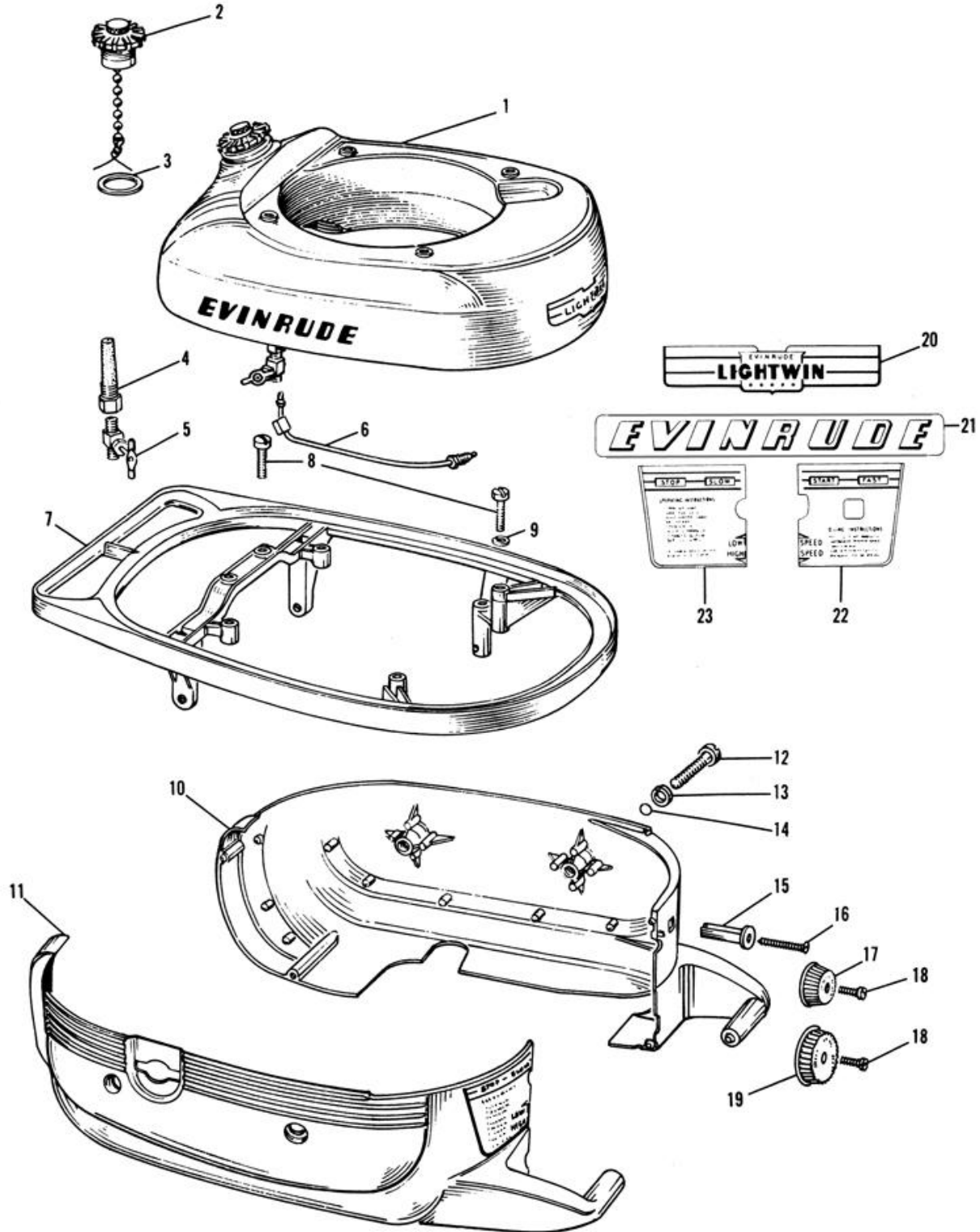
LIGHTWIN STARTER - ARMATURE PLATE - FLYWHEEL

PHOTO NO.	PART NO.	NAME OF PART	QUAN.	PHOTO NO.	PART NO.	NAME OF PART	QUAN.
*	580120	Armature base assembly. . . . .	1	29	510191	Armature plate mounting screw . . . . .	2
*	277215	Starter assembly. . . . .	1	30	580118	Coil and lamination assembly. . . . .	2
*	580134	H.T. lead assembly, upper . . . . .	1	31	510203	H.T. lead, lower. . . . .	1
*	580135	H.T. lead assembly, lower . . . . .	1	32	510202	H.T. lead, upper. . . . .	1
*	580148	Breaker assembly. . . . .	2	33	120783	Marker. . . . .	1
1	277185	Starter housing and anchor. . . . .	1	34	510231	Spark plug lead spring terminal . . . . .	2
2	19X124	Starter housing and fuel mounting screw lockwasher . . . . .	4	35	510232	Spark plug rubber cover . . . . .	2
3	203199	Starter housing and fuel tank mounting screw. . . . .	4	36	71A1052	Spring clip . . . . .	2
4	44A19	Starter rope and anchor . . . . .	1	37	580123	Rocker armature assembly. . . . .	2
5	43A144	Starter rope anchor . . . . .	1	38	510185	Breaker eccentric screw . . . . .	2
6	41B197	Starter spring. . . . .	1	39	130255	Breaker mounting screw. . . . .	2
7	276589	Starter pulley. . . . .	1	40	510208	Bow washer. . . . .	2
8	202470	Starter pawl. . . . .	3	41	580122	Breaker base assembly . . . . .	2
9	202317	Pawl pawl retainer . . . . .	3	42	510204	Breaker spring clip . . . . .	2
10	71X1026	Pawl retaining screw lockwasher . . . . .	3	43	510193	Condenser mounting screw. . . . .	2
11	302104	Pawl retainer screw . . . . .	3	44	510173	Condenser . . . . .	2
12	302222	Starter friction spring . . . . .	1	45	510194	Breaker terminal screw. . . . .	2
13	202155	Equalizer spring. . . . .	3	46	510192	Armature plate mounting screw . . . . .	2
14	202114	Equalizer cup . . . . .	1	47	3X28	Lockwasher. . . . .	2
15	202156	Starter spindle pin . . . . .	1	48	510189	Oiler wick. . . . .	1
16	276643	Starter spindle and pin . . . . .	1	49	510188	Oiler clip. . . . .	1
17	202356	Starter spindle washer. . . . .	1	50	580121	Armature plate and post assembly. . . . .	1
18	202349	Starter retainer screw lockwasher . . . . .	1	51	510178	Rocker armature post. . . . .	2
19	131991	Starter retaining screw . . . . .	1	52	510233	H.T. lead insulating sleeve . . . . .	2
20	202479	Starter handle. . . . .	1	53	510190	H.T. lead clamp . . . . .	1
21	551204	Starter rope clamp (flanged). . . . .	1	54	510193	H.T. lead clamp mounting screw. . . . .	2
22	551205	Starter rope clamp (countersunk). . . . .	1	55	510218	High tension lead clamp . . . . .	1
23	551206	Starter rope clamp screw. . . . .	1	56	277164	Armature plate handle assembly. . . . .	1
24	302458	Crankshaft nut. . . . .	1	57	202924	Armature plate to handle screw. . . . .	1
25	302468	Starter ratchet screw . . . . .	3	58	43X147	Armature plate to handle screw. . . . .	1
26	202111	Starter ratchet . . . . .	1	59	3X28	Armature plate handle washer. . . . .	1
27	580149	Flywheel. . . . .	1	60	203147	Throttle control cam. . . . .	1
28	510195	Lamination mounting screw . . . . .	4	61	302750	Armature plate to cam screw . . . . .	2
				62	300154	Armature plate to cam screw washer. . . . .	1

\* Not shown.

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# LIGHTWIN FUEL TANK—MOTOR COVERS



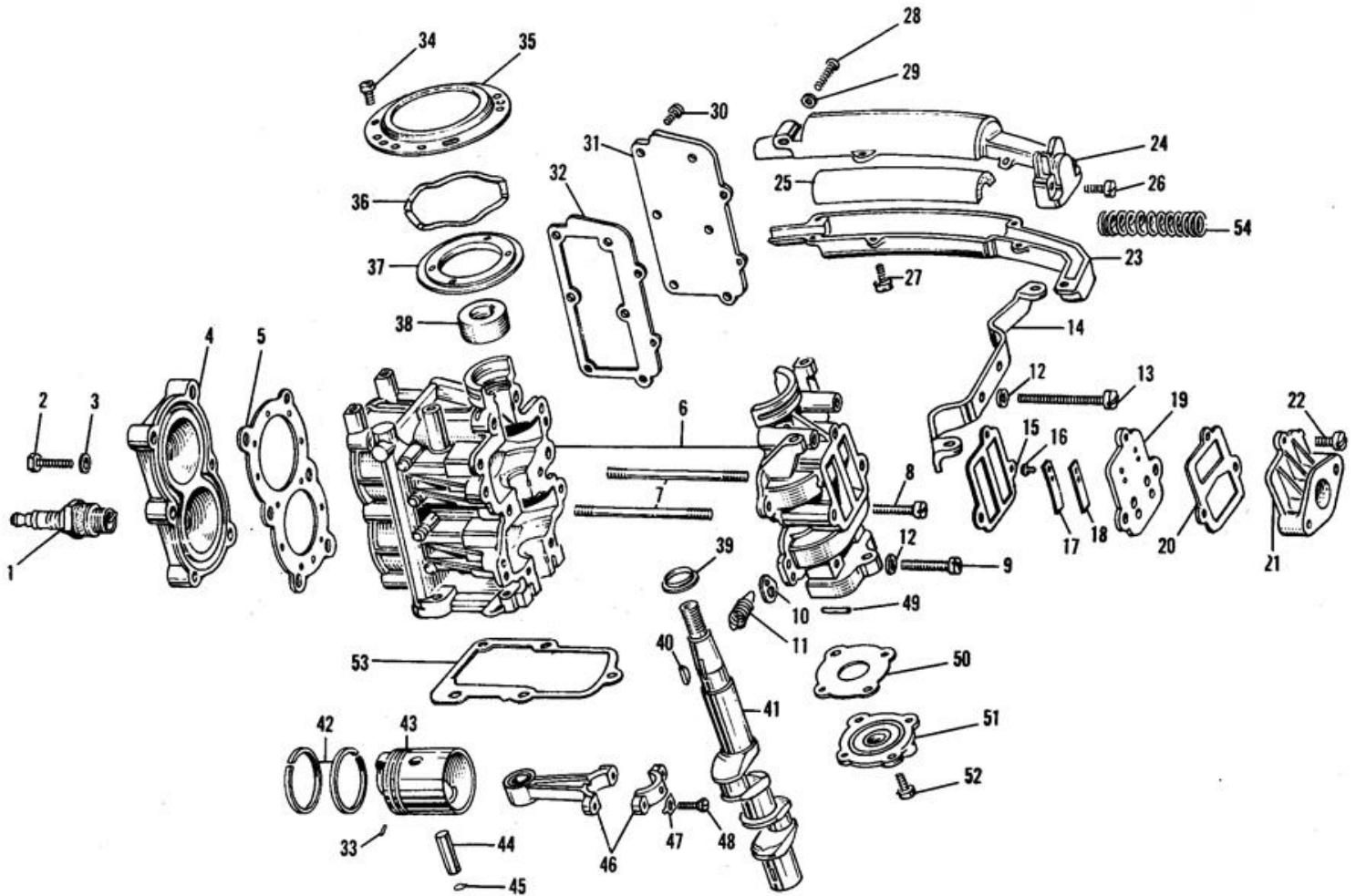
LIGHTWIN FUEL TANK - MOTOR COVERS

PHOTO NO.	PART NO.	NAME OF PART	QUAN.	PHOTO NO.	PART NO.	NAME OF PART	QUAN.
*	43A128	Feeler gauge. . . . .	1	12	203202	Motor cover mounting screw. . . . .	4
*	277178	Tool kit assembly. . . . .	1	13	19X124	Motor cover mounting screw lockwasher . . . . .	4
1	277179	Fuel tank assembly. . . . .	1	14	121019	Motor cover mounting screw lock ring. . . . .	4
2	375514	Filler cap assembly. . . . .	1	15	203189	Choke control knob. . . . .	1
3	5A48	Filler cap gasket. . . . .	1	16	303060	Choke control knob screw. . . . .	1
4	277187	Fuel tank connector and filter assembly. . . . .	1	17	203201	Low speed control knob. . . . .	1
5	277183	Fuel tank shut-off valve. . . . .	1	18	551517	Control knob screw. . . . .	2
6	277213	Fuel pipe assembly. . . . .	1	19	203200	High speed control knob. . . . .	1
7	203196	Fuel tank mounting plate. . . . .	1	20	203203	Fuel tank Medallion transfer. . . . .	1
8	21X167	Fuel tank mounting plate screw. . . . .	4	21	202651	Fuel tank transfer. . . . .	2
9	19X124	Fuel tank mounting plate screw lockwasher, front. . . . .	2	22	203204	Motor cover transfer - Medallion - Port . . . . .	1
10	277193	Motor cover assembly, port. . . . .	1	23	203205	Motor cover transfer - Medallion Starboard. . . . .	1
11	277192	Motor cover assembly, Starboard. . . . .	1				

\* Not shown.

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# LIGHTWIN POWER HEAD — CRANKCASE — CRANKSHAFT



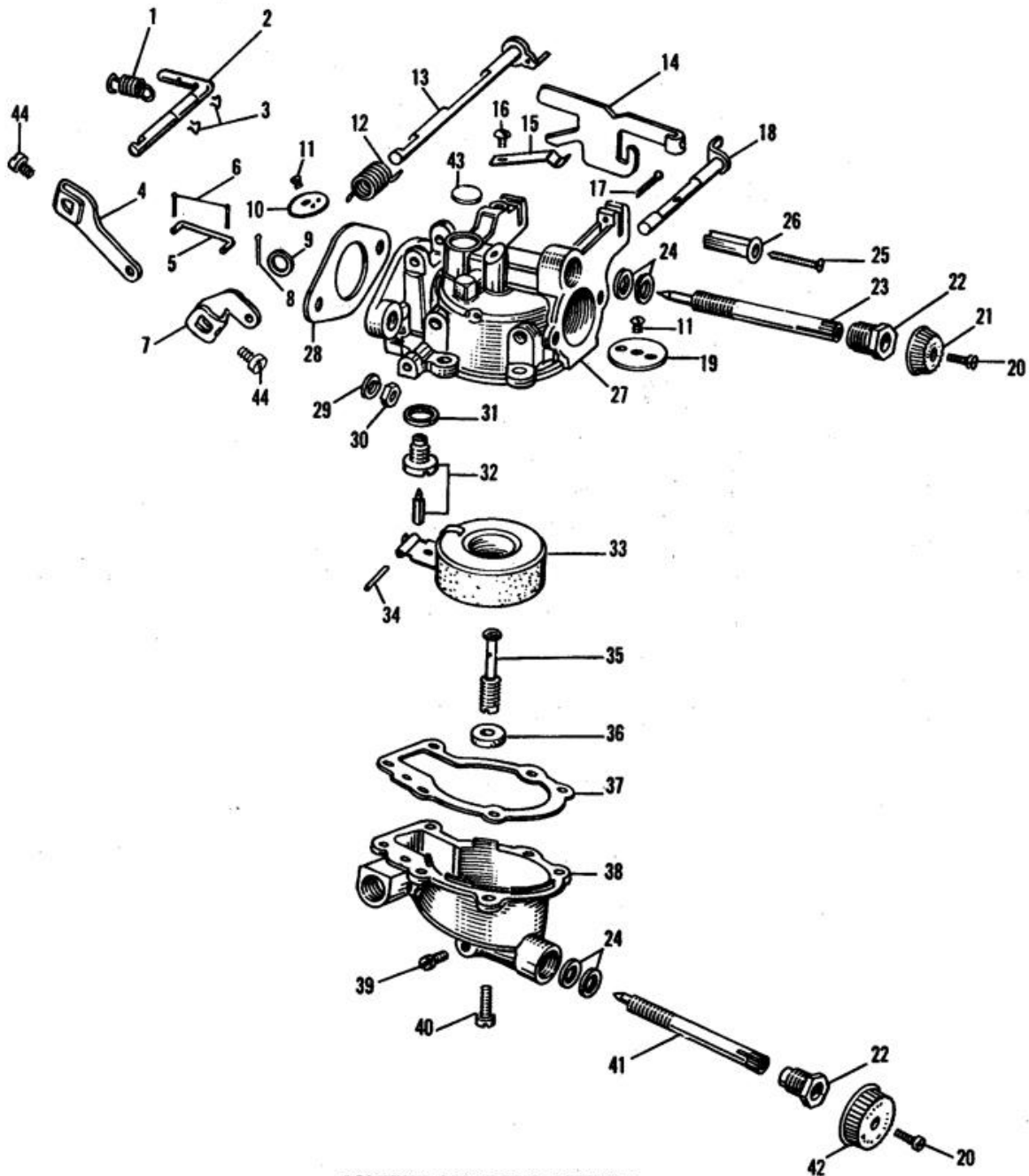
LIGHTWIN POWER HEAD - CRANKCASE - CRANKSHAFT

PHOTO NO.	PART NO.	NAME OF PART	QUAN.	PHOTO NO.	PART NO.	NAME OF PART	QUAN.
*	277174	Leaf plate assembly . . . . .	1	28	132123	Silencer to cylinder screw . . . . .	1
1	200322	Spark plug . . . . .	2	29	300154	Silencer to cylinder screw washer . . . . .	1
2	21X358	Cylinder head screw . . . . .	6	30	43X147	Exhaust cover plate screw . . . . .	7
3	43X302	Cylinder head screw washer . . . . .	6	31	203172	Exhaust cover plate . . . . .	1
4	203176	Cylinder head . . . . .	1	32	203171	Exhaust plate cover gasket . . . . .	1
5	203130	Cylinder head gasket . . . . .	1	33	300846	Piston dowel pin . . . . .	4
6	277171	Cylinder and crankcase assembly . . . . .	1	34	41X223	Armature plate support screw . . . . .	3
7	203159	Cylinder and crankcase stud . . . . .	2	35	302599	Armature plate support . . . . .	1
8	25X238	Crankcase to cylinder screw, short . . . . .	4	36	552029	Armature plate wave washer . . . . .	1
9	27X17	Crankcase to cylinder screw, medium . . . . .	2	37	302442	Armature plate retaining ring . . . . .	1
10	202171	Clamp, where needed . . . . .	1	38	510167	Magneto cam . . . . .	1
11	302827	High tension leads spring . . . . .	1	39	301781	Oil slinger . . . . .	1
12	300399	Crankcase to cylinder washer . . . . .	7	40	120395	Flywheel key . . . . .	1
13	39X72	Crankcase to cylinder screw, long . . . . .	2	41	203177	Crankshaft . . . . .	1
14	203148	Fuel tank mounting plate support . . . . .	1	42	203152	Piston ring . . . . .	4
15	203180	Leaf plate to crankcase gasket . . . . .	1	43	277166	Piston, less rings . . . . .	2
16	302667	Leaf mounting screw . . . . .	4	44	203151	Piston pin . . . . .	2
17	203173	Leaf back-up plate . . . . .	2	45	120960	Piston pin spring ring . . . . .	4
18	203175	Leaf . . . . .	2	46	277167	Connecting rod assembly . . . . .	2
19	203174	Leaf plate . . . . .	1	47	43A17	Connecting rod screw lockplate . . . . .	4
20	203228	Leaf plate to manifold gasket . . . . .	1	48	43A44	Connecting rod screw . . . . .	4
21	203144	Carburetor manifold . . . . .	1	49	300402	Taper pin . . . . .	2
22	13X558	Manifold to crankcase screw . . . . .	1	50	203161	Inner flange gasket . . . . .	1
23	203225	Air silencer, lower half . . . . .	1	51	203145	Inner flange . . . . .	1
24	203224	Air silencer, upper half . . . . .	1	52	13X558	Inner flange mounting screw . . . . .	4
25	203226	Air silencer insert . . . . .	2	53	203160	Exhaust housing to motor head gasket . . . . .	1
26	13X558	Silencer to carburetor screw . . . . .	2	54	203298	Air silencer spring . . . . .	1
27	43X156	Silencer screw . . . . .	7	*	203320	Air silencer to carb. screen . . . . .	1

\* Not shown.

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# LIGHTWIN CARBURETOR ASSY.



LIGHTWIN CARBURETOR ASSEMBLY

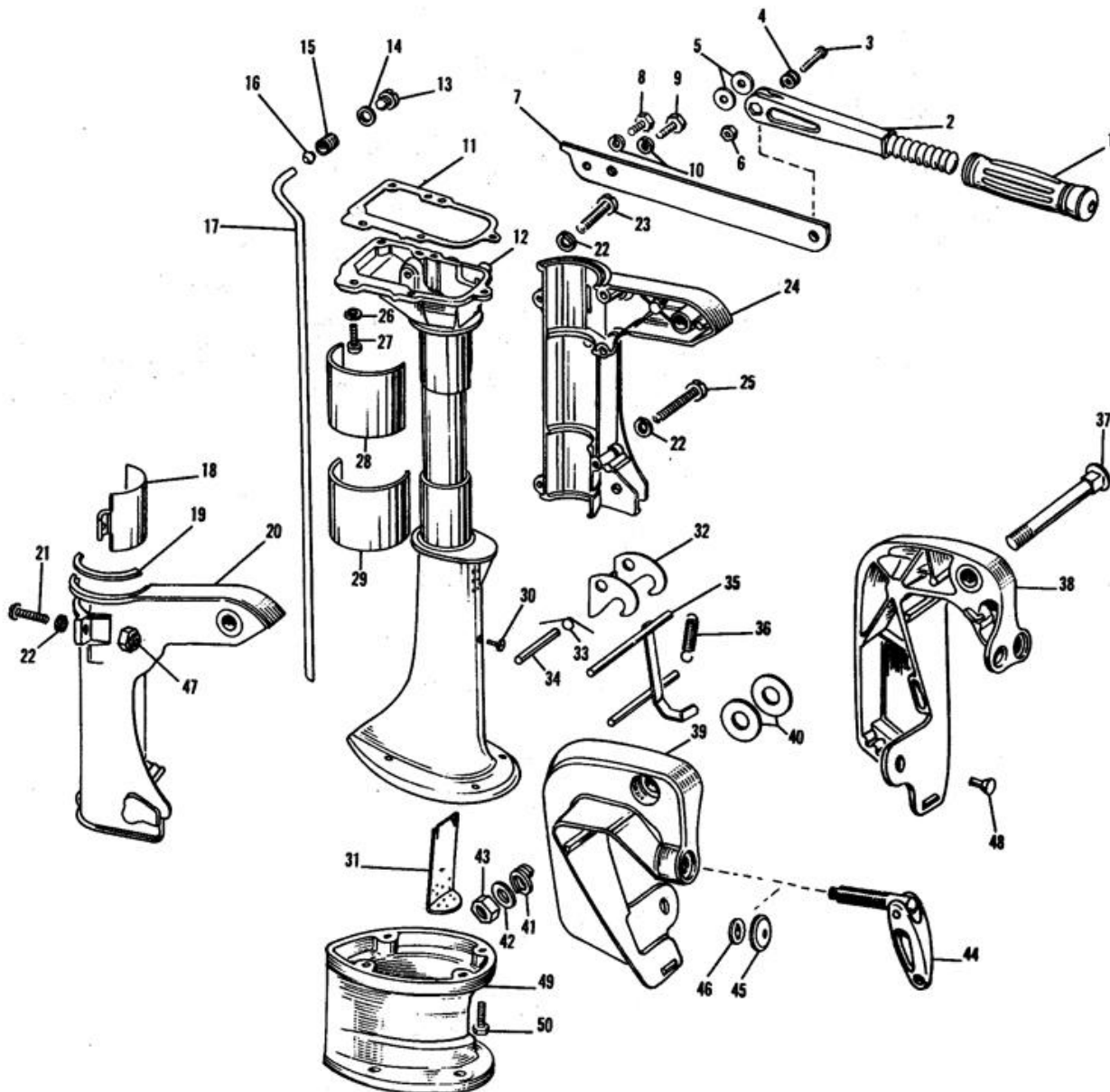
PHOTO NO.	PART NO.	NAME OF PART	QUAN.	PHOTO NO.	PART NO.	NAME OF PART	QUAN.
*	376013	Carburetor assembly . . . . .	1	23	302991	Low speed needle valve. . . . .	1
1	203166	Cam follower spring . . . . .	1	24	43A123	High and low speed valve packing. . . . .	4
2	203162	Throttle cam follower . . . . .	1	25	303060	Choke control knob screw. . . . .	1
3	71A1052	Cam follower clip . . . . .	2	26	203189	Choke control knob. . . . .	1
4	203163	Cam follower lever. . . . .	1	27	375973	Carburetor body and plug. . . . .	1
5	203164	Throttle lever to cam follower link . . . . .	1	28	303003	Carburetor to manifold gasket . . . . .	1
6	53X409	Cam follower link cotter pin. . . . .	2	29		Not Used	
7	302978	Cam follower to throttle shaft lever. . . . .	1	30	19X136	Carburetor nut. . . . .	2
8	303049	Throttle shaft cotter pin . . . . .	1	31	301996	Float valve seat washer . . . . .	1
9	303048	Throttle shaft washer . . . . .	1	32	375918	Float valve and seat. . . . .	1
10	302983	Throttle valve. . . . .	1	33	375919	Float and float arm . . . . .	1
11	302667	Throttle and choke valve screw. . . . .	2	34	300096	Float arm hinge pin . . . . .	1
12	302996	Throttle shaft spring . . . . .	1	35	302986	High speed nozzle . . . . .	1
13	375922	Throttle shaft and lever assembly . . . . .	1	36	302984	Float chamber to carburetor boss gasket . . . . .	1
14	302997	Choke control rod . . . . .	1	37	302994	Carburetor body to float chamber gasket . . . . .	1
15	302977	Choke control rod spring. . . . .	1	38	302985	Float chamber . . . . .	1
16	302430	Carburetor body to spring screw . . . . .	1	39	303041	Float chamber drain screw . . . . .	1
17	21X163	Choke control rod cotter pin. . . . .	1	40	300181	Float chamber to carburetor body screw. . . . .	5
18	375921	Choke shaft and lever assembly. . . . .	1	41	302992	High speed needle valve . . . . .	1
19	302979	Choke valve . . . . .	1	42	203200	High speed control knob . . . . .	1
20	551517	Control knob screw. . . . .	2	43	27X309	Expansion plug. . . . .	1
21	203201	Low speed control knob. . . . .	1	44	71X1038	Throttle and cam follower screw . . . . .	2
22	300179	High and slow speed needle valve nut. . . . .	2				

\* Not shown.

ORDER YOUR PARTS FROM YOUR DISTRICT SERVICE STATION.



# LIGHTWIN STERN BRACKET—SWIVEL BRACKET—STEERING HANDLE



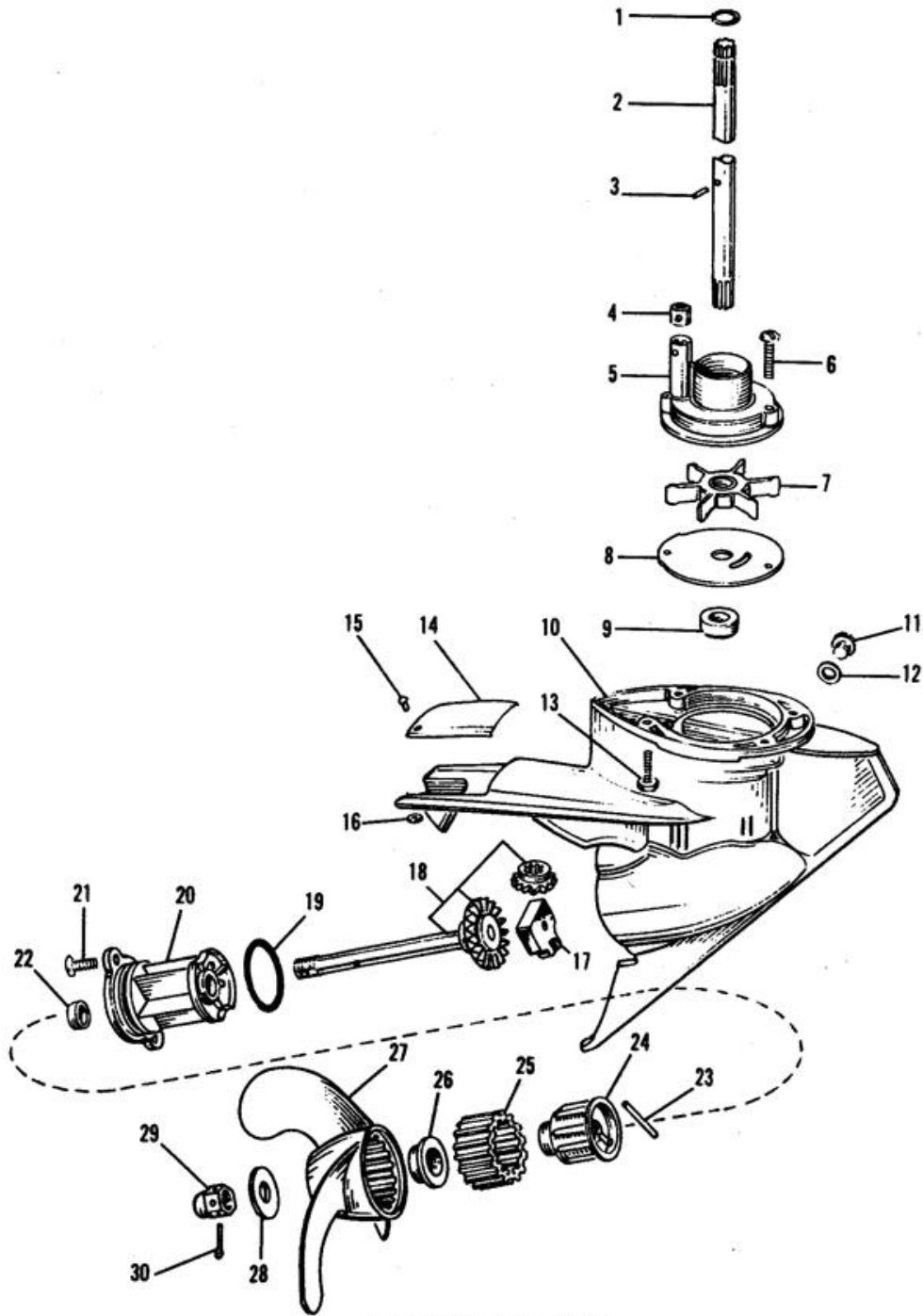
LIGHTWIN STERN BRACKET - SWIVEL BRACKET - STEERING HANDLE

PHOTO NO.	PART NO.	NAME OF PART	QUAN.	PHOTO NO.	PART NO.	NAME OF PART	QUAN.
*	277176	Stern bracket assembly. . . . .	1	26	302376	Exhaust housing to motor head lockwasher. . . . .	5
1	203125	Steering handle grip. . . . .	1	27	25X238	Exhaust mounting to motor head screw. . . . .	5
2	203122	Steering handle - less grip. . . . .	1	28	203135	Swivel bracket shock absorber, upper. . . . .	1
3	132124	Steering handle screw. . . . .	1	29	203134	Swivel bracket shock absorber, lower. . . . .	1
4	71A1085	Steering handle spring. . . . .	1	30	203302	Exhaust relief baffle screw. . . . .	1
5	300026	Steering handle washer. . . . .	2	31	203191	Exhaust relief baffle. . . . .	1
6	15X254	Steering handle nut. . . . .	1	32	203158	Reverse lock. . . . .	1
7	203124	Steering handle support. . . . .	1	33	200672	Reverse lock spring. . . . .	1
8	300646	Steering lever support screw. . . . .	1	34	203127	Reverse lock pin. . . . .	1
9	302288	Steering lever support screw. . . . .	1	35	276417	Tilting lever assembly. . . . .	1
10	19X124	Steering lever support screw lockwasher. . . . .	2	36	202021	Tilting lever spring. . . . .	1
11	203160	Exhaust housing to motor head gasket. . . . .	1	37	203179	Tilting bolt. . . . .	1
12	203153	Drive shaft and exhaust housing. . . . .	1	38	277177	Stern bracket and clamp screw, Port. . . . .	1
13	43A39	Water tube terminal plug. . . . .	1	39	277078	Stern bracket and clamp screw, Starboard. . . . .	1
14	300043	Water tube plug washer. . . . .	1	40	202026	Tilting bolt washer. . . . .	2
15	43A129	Water inlet tube nut. . . . .	1	41	202027	Tilting bolt spring. . . . .	1
16	13X304	Water inlet tube gland. . . . .	1	42	202036	Tilting bolt friction washer. . . . .	2
17	203142	Inlet water tube. . . . .	1	43	130743	Tilting bolt nut. . . . .	1
17	203217	Inlet water tube 5" longer. . . . .	1	44	375744	Clamp screw assembly with button and retainer. . . . .	2
18	203143	Swivel bracket clamp. . . . .	1	45	41A48	Clamp screw button. . . . .	2
19	203188	Swivel bracket thrust washer. . . . .	2	46	302420	Clamp screw button retainer. . . . .	2
20	203155	Swivel bracket, Starboard. . . . .	1	47	203157	Swivel bracket clamp screw nut. . . . .	1
21	302964	Swivel bracket clamp screw. . . . .	1	48	202008	Stern bracket rivet. . . . .	1
22	19X124	Swivel bracket screw lockwasher. . . . .	5	49	203216	Gear case extension, 5" longer. . . . .	1
23	21X167	Swivel bracket screw, short. . . . .	2	50	300630	Gear case to gear case extension screw, 5" longer. . . . .	4
24	203154	Swivel bracket, port. . . . .	1				
25	41X178	Swivel bracket screw, long. . . . .	3				

\* Not shown.

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# LIGHTWIN GEAR HOUSING



LIGHTWIN GEAR HOUSING

PHOTO NO.	PART NO.	NAME OF PART	QUAN.	PHOTO NO.	PART NO.	NAME OF PART	QUAN.
*	277216	Gear case assembly. . . . .	1	15	203190	Exhaust cover rivet . . . . .	2
1	202893	Drive shaft to crankshaft "O" ring. . . . .	1	16	303068	Exhaust cover rivet washer. . . . .	2
2	203137	Drive shaft . . . . .	1	17	203140	Propeller shaft thrust bearing. . . . .	1
2	203215	Drive shaft 5" longer . . . . .	1	18	277214	Propeller shaft and gear and pinion . . . . .	1
3	300771	Impeller pin. . . . .	1	19	301917	Propeller shaft bearing housing seal. . . . .	1
4	203131	Water tube grommet. . . . .	1	20	277234	Propeller shaft bearing housing assembly. . . . .	1
5	203119	Impeller housing. . . . .	1	21	302974	Propeller shaft bearing housing screw . . . . .	2
6	302963	Impeller housing to gear case screw . . . . .	2	**22	300599	Propeller shaft seal. . . . .	1
7	277181	Pump impeller assembly. . . . .	1	23	203230	Propeller shear pin . . . . .	1
8	203132	Water pump plate. . . . .	1	24	277163	Propeller clutch hub assembly . . . . .	1
9	300599	Drive shaft seal. . . . .	1	25	300565	Propeller clutch ring . . . . .	1
10	277235	Gear case and exhaust cover . . . . .	1	26	300619	Propeller clutch bushing. . . . .	1
11	27A283	Oil and drain plug screw. . . . .	2	27	203120	Propeller . . . . .	1
12	27X284	Oil and drain screw washer. . . . .	2	28	300573	Propeller hub washer, outer . . . . .	1
13	300630	Gear case to exhaust housing screw. . . . .	4	29	43A71	Propeller nut . . . . .	1
14	203121	Exhaust cover . . . . .	1	30	302804	Propeller nut cotter pin. . . . .	1

\* Not shown.

\*\* On motors numbered 3012-3013 to 03940 when Propeller Shaft Seal needs replacing use 277234 Propeller Shaft Bearing Housing Assembly.

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