

Introduction

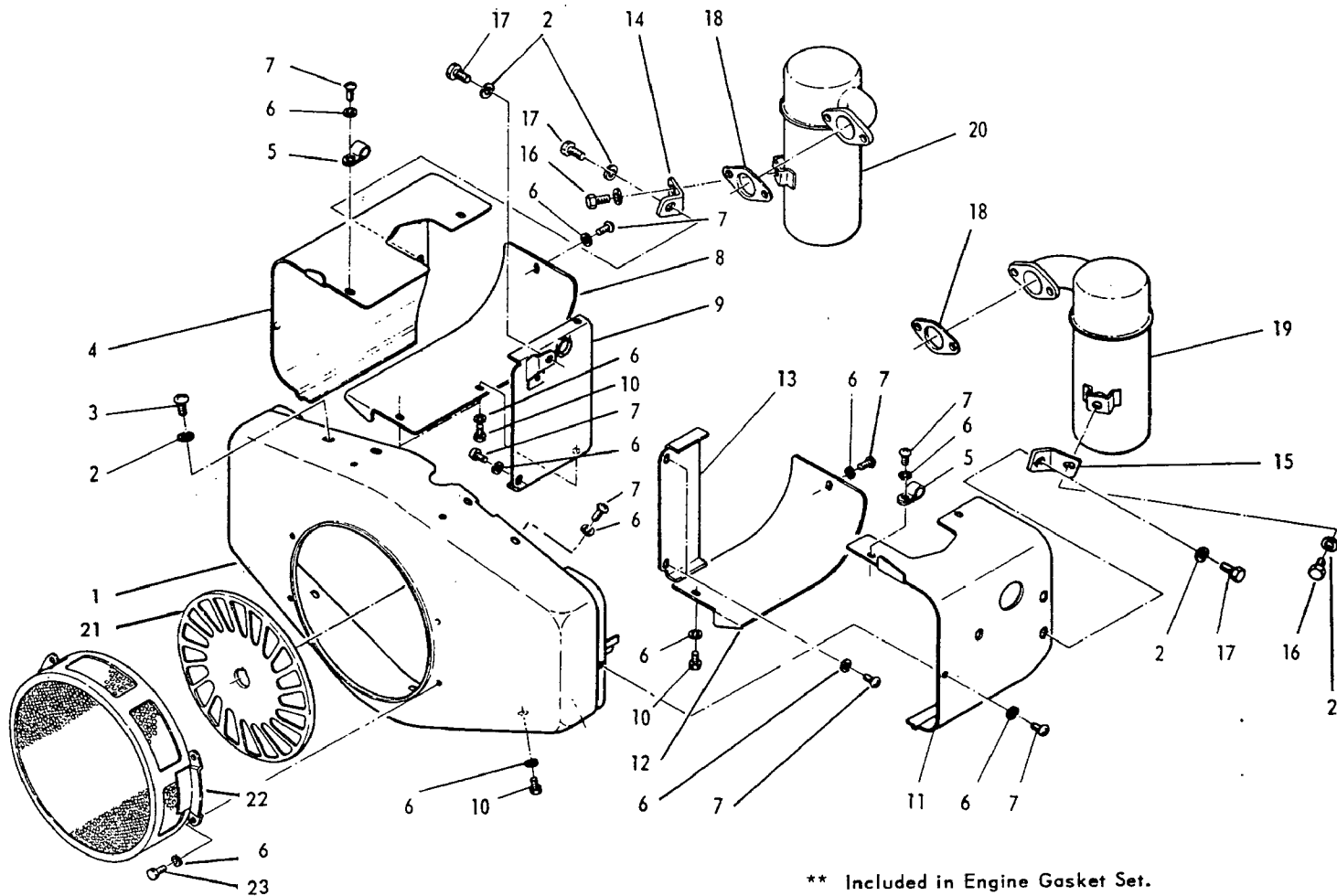
This catalog is designed to identify **Wisconsin Robin** parts.

When ordering parts, it is always advisable to list the engine model, specification number and serial number. With this information, we can check your order for any incorrect part numbers. Use your Service Parts List to ensure proper part number and nomenclature identification.

TELEDYNE TOTAL POWER reserves the right to modify, alter and improve engines and parts. Part numbers and the structure of parts may change from those shown in this catalog.

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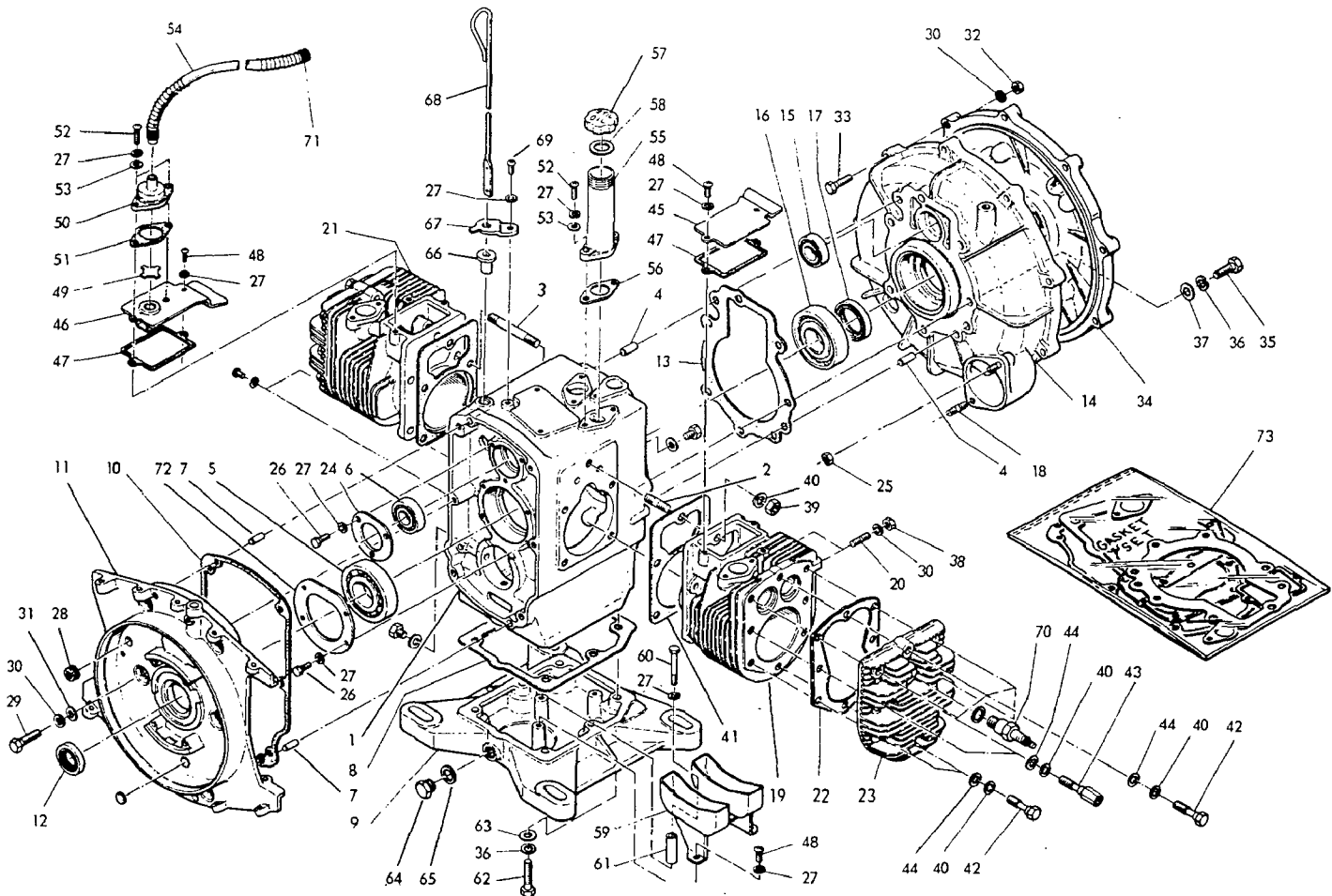
** Included in Engine Gasket Set.

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
1	EY2105115841X	BLOWER HOUSING	1	10	EY0016506080	SCREW, 6 mm x 8 mm long, hex hd. 3-for lower cylinder shrouds 3-for blower housing	6
2	EY0032008000	WASHER, 8 mm, spring lock	6	11	EY2105285801X	COVER, cylinder head, R.H. side	1
3	EY0043108160	SCREW, blower housing mounting 8 mm x 16 mm long, pan head	1	12	EY2105265801X	SHROUD, lower cylinder, R.H. side	1
4	EY2105315801X	COVER, cylinder head, L.H. side ..	1	13	EY2105270101	HEAT DEFLECTOR, cyl., R.H. side	1
5	EY0566100021	CLAMP, spark plug wire	2	14	EY2103530101	BRACKET, muffler, L.H. side	1
6	EY0032006000	WASHER, 6 mm, spring lock	22	15	EY2103530201	BRACKET, muffler, R.H. side	1
7	EY0017006120	SCREW, 6 mm x 12 mm long, hex head 4-for cylinder head covers 2-for lower cylinder shrouds 2-for cylinder heat deflectors 2-for spark plug wire clamp 1-for blower housing	11	16	EY0016508120	SCREW, muffler bracket to muffler .. 8 mm x 12 mm long, hexagon head	2
8	EY2105295801X	SHROUD, lower cylinder, L.H. side	1	17	EY0016508160	SCREW, 8 mm x 16 mm long, hex hd. 2-for muffler bracket to cylinder hd. 1-for heat deflector, L.H. side	3
9	EY2105300121	HEAT DEFLECTOR, cyl., L.H. side	1	18	EY2083500101	** GASKET, exhaust muffler	2
				19	EY2103011511YA	MUFFLER, right hand side	1
				20	EY2103021511YA	MUFFLER, left hand side	1
				21	EY2105530111	DUST PLATE, blower housing	1
				22	EY2105440301	PULLEY GUARD	1
				23	EY0016506120	SCREW, pulley guard mounting	4
						6 mm x 12 mm long, hex head	

When ordering parts: Always give Model, Specification and Serial Numbers of engine.

Fig. 2

CRANKCASE and CYLINDER Group For Model EY21W



NOTE: Items without a part number are not sold separately.
 ** Included in Engine Gasket Set.

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
1	EY2101020101	CRANKCASE assembly..... Includes:	1	11	EY2101150101	CRANKCASE COVER assembly, fan end..... Includes:	1
		EY2106710113 OIL SPRAY NOZZLE (not illustrated)	2	12		EY0440270010 OIL SEAL.....	1
2		EY0105100042 STUD, cyl. block..... 10 mm x 38 mm long	9	13	**	GASKET, bearing cover.....	1
3		EY0105100031 STUD, cyl. block..... 10 mm x 83 mm long	1	14	EY2101100111	MAIN BEARING COVER assembly, take-off end..... Includes:	1
4		DOWEL PIN, crankcase cover.....	2	15		EY0600200010 BEARING, camshaft	1
5		EY0600350020 BEARING, crankshaft main.....	1	16		EY0601350010 BEARING, crank- shaft main.....	1
6		EY0600200020 BEARING, camshaft main.....	1	17		EY0440350020 OIL SEAL, crankshaft.....	1
7		DOWEL PIN, crankcase cover mtg.	2	18		EY0105080044 STUD, starting motor mounting.....	2
8	**	GASKET (BASE).....	1			(Not illustrated)	
9	EY2101340123	ENGINE BASE.....	1		EY0600400010	BEARING, take-off shaft..... used with flange adapter (ref. 34)	1
10	**	GASKET, crankcase cover.....	1				

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CRANKCASE and CYLINDER Group
For Model EY21W

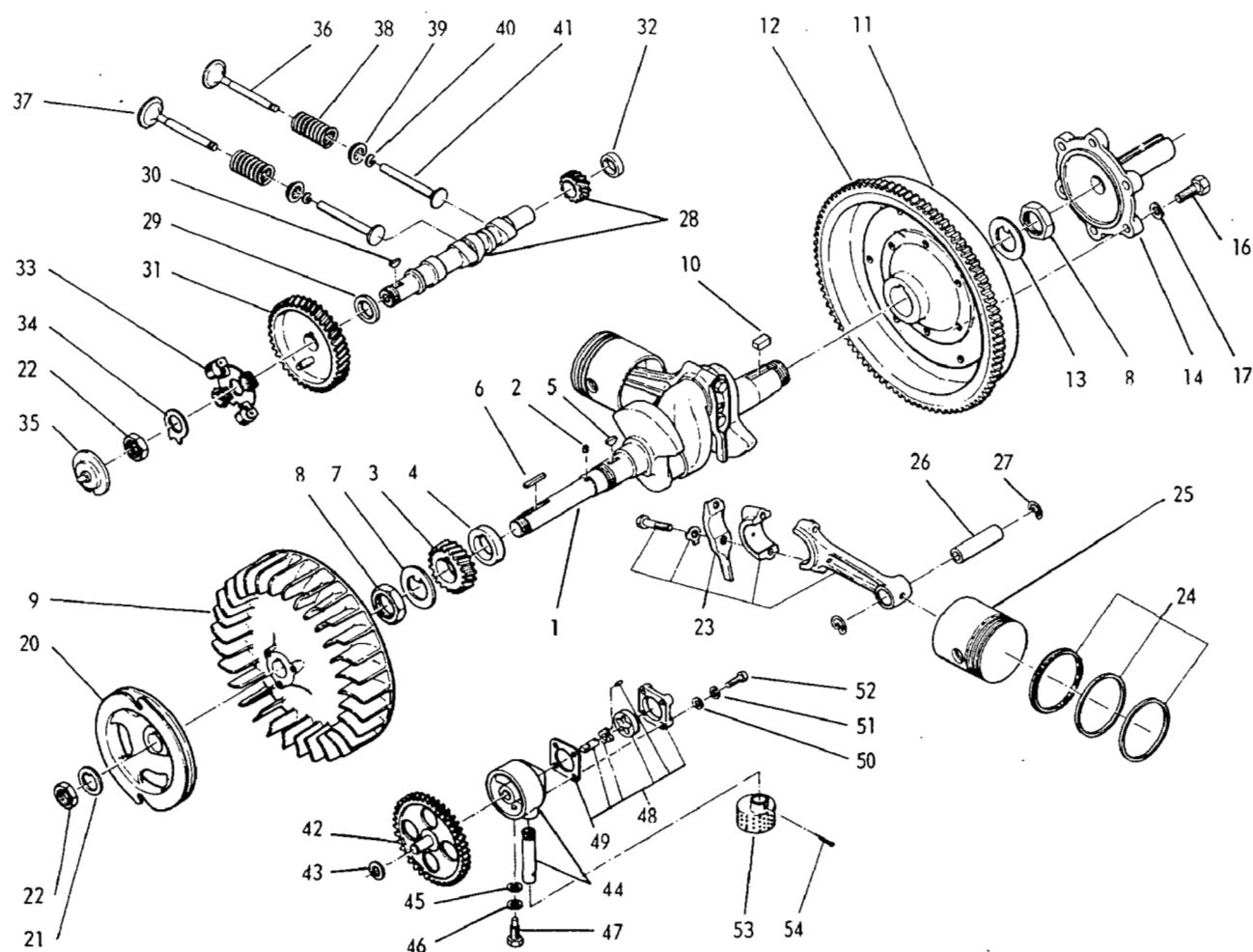
Fig. 2

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
19	EY2101250141	CYLINDER BLOCK asse'y, R.H. side Includes:	1	41	**	GASKET, cylinder base	2
20		EY0013108301 STUD, muffler mtg. ... 8 mm x 30 mm long	2	42	EY0103100020	SCREW, cylinder head mounting 10 mm x 46 mm long, hexagon head	12
21	EY2101240141	CYLINDER BLOCK asse'y, L.H. side Includes:	1	43	EY0103100010	SCREW, cylinder head mtg. (special) 10 mm x 63.2 mm long	4
	**	STUD (Ref. 20)		44	EY0200100040	WASHER, cylinder head	16
22	EY2101510101	GASKET, cylinder head	2	45	EY2101440101	TAPPET COVER, right hand side	1
23	EY2101320103	CYLINDER HEAD	2	46	EY2101430111	TAPPET COVER, left hand side	1
24	EY2101700403	BEARING RETAINER, camshaft, fan end	1	47	**	GASKET, tappet cover	2
25	EY0021708000	NUT (self-locking) starting motor mtg.	2	48	EY0043106140	SCREW, 6 mm x 14 mm long, pan head 3-for tappet covers 2-for oil trough	5
26	EY0016606160	SCREW, 6 mm x 16 mm long, hex. hd. 3-for camshaft brg. retainer (fan end) 4-for main bearing retainer (fan end)	7	49	EY2101600203	BREATHER VALVE	1
27	EY0032006000	WASHER, 6 mm, spring lock	18	50	EY2101600103	ADAPTER, breather valve	1
		7-for bearing retainers 3-for tappet covers 2-for breather adapter 1-for dip stick seal retainer 2-for oil filler adapter 3-for oil trough		51	**	GASKET, breather adapter	1
28	EY0241100010	GROMMET, alternator wire, fan end	1	52	EY0043106200	SCREW, 6 mm x 20 mm long, pan head 2-for breather adapter 2-for oil filler adapter	4
29	EY0016608350	SCREW, crankcase cover, fan end 8 mm x 35 mm long, hexagon head	6	53	EY0031006000	WASHER, breather adapter	4
30	EY0032008000	WASHER, 8 mm, spring lock	18			6.4 mm I.D. x 11.5 mm O.D., plain steel	
		6-for crankcase cover 8-for flange adapter, take-off end 4-for muffler mounting		54	EY0850100011	BREATHER TUBE	1
31	EY0031008000	WASHER, 8.4 mm I.D. x 16 mm O.D., plain steel, crankcase cover, fan end	6	55	EY2106370103	ADAPTER, oil filler - dip stick	1
32	EY0021708000	NUT, flange adapter mounting	8			Includes:	
33	EY0016508550	SCREW, flange adapter mounting	8	56	**	GASKET	1
34	EY2101540201	FLANGE ADAPTER	1	57	EY2109900907	OIL FILLER CAP	1
35		SCREW, main brg. cover T.O. end				Includes:	
	EY0100100010	10 mm x 32 mm long, hexagon head ..	1	58	**	GASKET, oil filler cap	1
	EY0100100090	10 mm x 40 mm long, hexagon head ..	6	59	EY2106380121	OIL TROUGH	1
36	EY0032010000	WASHER, 10 mm, spring lock	13	60	EY0016606500	SCREW, oil trough mounting	1
		7-for main bearing cover, T.O. end 6-for engine base				6 mm x 50 mm long, hexagon head	
37	EY0031010000	WASHER, main brg. cover, T.O. end 10.5 mm, plain steel	7	61	EY2106700503	SPACER, oil trough mounting	1
38	EY0021908000	NUT, muffler mounting	4	62	EY0016610400	SCREW, engine base mounting	6
		8 mm thread, hexagon steel				10 mm x 40 mm long, hexagon head	
39	EY0021810000	NUT, cylinder block mounting	10	63	EY0031010000	WASHER, engine base mounting	6
		10 mm thread, hexagon steel				10.5 mm I.D. x 18 mm O.D., plain steel	
40	EY0032010000	WASHER, 10 mm, spring lock	26	64	EY0400160010	PLUG, oil drain	1
		16-for cylinder head mounting 10-for cylinder block mounting		65	**	GASKET, oil drain plug	1
				66	EY2106700313	SEAL, oil dip stick	1
				67	EY2106540101	RETAINER, dip stick seal	1
				68	EY2106360101	OIL DIP STICK	1
				69	EY0043106120	SCREW, dip stick seal retainer	1
						6 mm x 12 mm long, pan head	
				70	EY0650140010 (Optional)	SPARK PLUG with gasket	2
						NGK-B4, Champion J-8, AC 45	
				71	EY2101530103	PROTECTOR, breather tube	1
				72	EY2101700313	BEARING RETAINER, fan end	1
				73	EY2109900107	ENGINE GASKET SET	1
						Consisting of:	
						CRANKCASE COVER gasket	1
						BASE gasket	1
						MAIN BEARING COVER gasket	1
						MANIFOLD FLANGE gasket	2
						CYLINDER gasket	2
						CYLINDER HEAD gasket	2
						TAPPET COVER gasket	2
						BREATHER HOUSING gasket	1
						OIL FILLER ADAPTER gasket	1
						OIL FILLER CAP gasket	1
						DRAIN PLUG gasket	1
						MUFFLER gasket	2
						DRAIN FITTING gasket	1

When ordering parts: Always give Model, Specification and Serial Numbers of engine.

Fig. 3

CRANKSHAFT, CAMSHAFT, PISTON, ROD, VALVE and DRIVE END Group For Model EY21W



NOTE: Items without a part number are not sold separately.

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
1	EY2102020101	CRANKSHAFT assembly	1	8	EY0173300010	LOCKNUT, 30 mm thread, hex. steel 1 for crankshaft gear 1 for flywheel mounting	2
2		Includes: EY0310040010 DOWEL PIN, alternator mounting	1	9	EY2105410121	COOLING BLOWER	1
3	EY2102230103	CRANKSHAFT GEAR	1	10	EY0320100010	KEY, flywheel mounting	1
4	EY2102600113	SPACER, crankshaft	1			10 mm wide x 8 mm high	
5	EY0323050010	WOODRUFF KEY, crankshaft gear mounting	1	11	EY2102240111	FLYWHEEL assembly	1
		12 mm wide x 6.5 mm high		12		Includes: EY2107100103 RING GEAR	1
6	EY0320050020	KEY, blower mounting	1	13	EY0205300010	LOCKWASHER, flywheel mounting 31 mm I.D. x 50 mm O.D., plain steel	1
		5 mm wide x 5 mm high		14	EY2102440223	TAKE-OFF SHAFT	1
7	EY0033630000	LOCKWASHER, crankshaft gear (special)	1	16	EY0016610300	SCREW, take-off shaft mounting	6
		31 mm I.D. x 4.6 mm O.D., plain steel				10 mm x 30 mm long, hexagon head	

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CRANKSHAFT, CAMSHAFT, PISTON, ROD, VALVE and DRIVE END Group
For Model EY21W

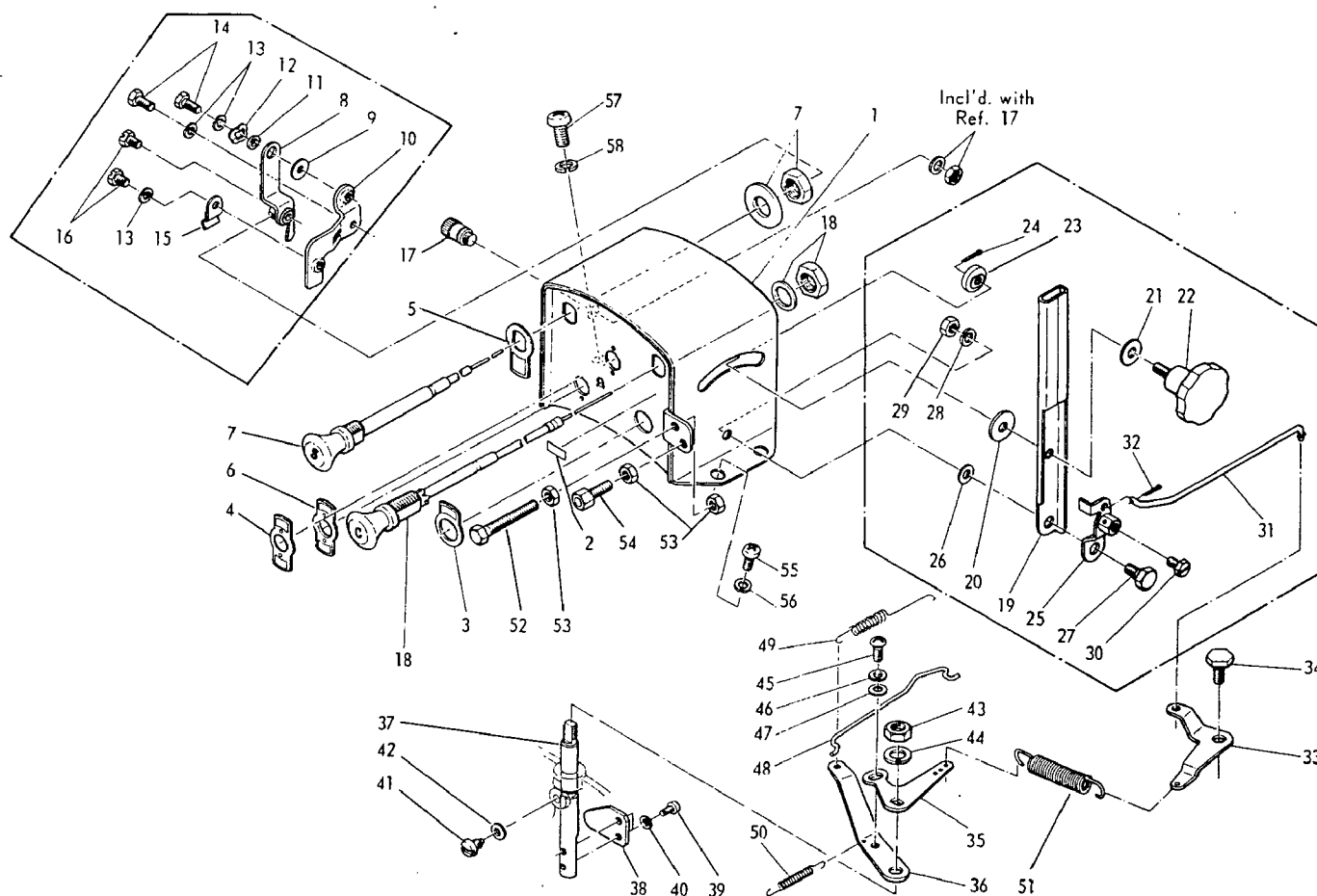
Fig. 3

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
17	EY0032010000	WASHER, take-off shaft mounting 10 mm spring lock	6	36	EY2103340103	INTAKE VALVE	2
20	EY2105420403	STARTING PULLEY, rope	1	37	EY2103350133	EXHAUST VALVE	2
21	EY0205200010	LOCKWASHER, starter pulley mtg.	1	38	EY2083360113	VALVE SPRING	4
22	EY0173200010	NUT, 20 mm thread, hexagon steel .. 1 for starting pulley 1 for camshaft mounting	2	39	EY2103370103	RETAINER, valve spring	4
23	EY2102250110	CONNECTING ROD assembly	2	40	EY2083380103	LOCK, valve spring	4
		Includes:		41	EY2103330123	VALVE TAPPET	4
		EY2102310123 OIL SCRAPER	2	42	EY2106410101	GEAR, oil pump drive	1
		EY0205080031 LOCKWASHER	4	43	EY0200120010	WASHER, oil pump gear	1
		EY2102300113 ROD BOLT	4			12.5 mm I.D. x 21 mm O.D., plain steel	
	EY2102250210	CONNECTING ROD assembly .010" undersize		44	EY2106400151	ADAPTER ASSEMBLY, oil pump	1
24	EY2102350107	RING SET, standard size	1	45	EY0031008000	WASHER, oil pump adapter	1
		Consisting of:				8.4 mm I.D. x 16 mm O.D., plain steel	
		COMPRESSION RING	2	46	EY0032008000	WASHER, oil pump adapter mounting 8 mm, spring lock	1
		SCRAPER RING	2	47	EY2106701503	SET SCREW, oil pump adapter mtg. .. 8 mm x 24 mm long, hexagon head	1
		OIL RING	2	48	EY2106390100	OIL PUMP assembly	1
	EY2102351207	.010" oversize Ring Set				Includes:	
	EY2102351307	.020" oversize Ring Set		49		EY2106390107 GASKET	1
25	EY2102340113	PISTON, standard size	2	50	EY0031005000	WASHER, oil pump mounting	4
	EY2102340213	.010" oversize Piston				5.5 mm I.D. x 10 mm O.D., plain steel	
	EY2102340313	.020" oversize Piston		51	EY0032005000	WASHER, oil pump mounting	4
26	EY2102330103	PISTON PIN	2			5 mm, spring lock	
27	EY0565200030	SNAP RING, piston pin	4	52	EY0043105200	SCREW, oil pump mounting	4
28	EY2103160111	CAMSHAFT with pinion gear	1			5 mm x 20 mm long, pan head	
29	EY0230220011	SPACER, camshaft gear	1	53	EY2106430101	STRAINER, oil pump	1
30	EY0053204200	WOODRUFF KEY, camshaft gear mtg. 4 mm wide x 5 mm high	1	54	EY0051030250	COTTER PIN, oil pump strainer mtg. 3 mm x 25 mm long	1
31	EY2103320121	CAMSHAFT GEAR	1				
32	EY0230200050	SPACER, camshaft	1				
33	EY2104170111	GOVERNOR PLATE and flyweight assembly	1				
34	EY2103540103	LOCKWASHER, camshaft gear	1				
		20.5mm I.D. x 32 mm O.D., plain steel					
35	EY2104500111	THRUST PLATE, governor	1				

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Fig. 4

THROTTLE, GOVERNOR and CONTROL BOX Group For Model EY21W



NOTE: Items without a part number are not sold separately.

Ref. No.	Part Number	Description	Qty.
1	EY2104065801X	CONTROL BOX assembly	1
2		(Includes ref. 2) LABEL (CHOKE)	1
3	EY0732000410	LABEL (START SWITCH)	1
4	EY0732000390	LABEL (ENGINE SWITCH)	1
5	EY0732000361	LABEL (START LEVER)	1
6	EY0732000530	LABEL (CHARGE SWITCH)	1
7	EY2104530101	START CONTROL assembly	1
●	EY2109900407	START CONTROL LEVER SET	1
8		(Includes Items 8 thru 16)- START LEVER	1
9		FRICTION WASHER, start lever	1
10		CLAMP LEVER, start wire	1

Ref. No.	Part Number	Description	Qty.
11		SPACER, start lever	1
12		FRICTION WASHER, start wire screw	1
13		WASHER, start lever & start wire mtg. 5 mm, spring lock	3
14		SCREW, start lever & start wire mtg. 5 mm x 12 mm long, hexagon head	2
15		CLAMP, start wire	1
16		SCREW, start lever & clamp lever .. 5 mm x 8 mm long, hexagon head	2
17	EY0664000010	TERMINAL, accessory lamp	1
18	EY2104400101	CHOKE CONTROL assembly	1
●	EY2109900507	THROTTLE (SPEED) CONTROL LEVER SET	1
		(Includes Items 19 thru 32)	

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THROTTLE, GOVERNOR and CONTROL BOX Group For Model EY21W

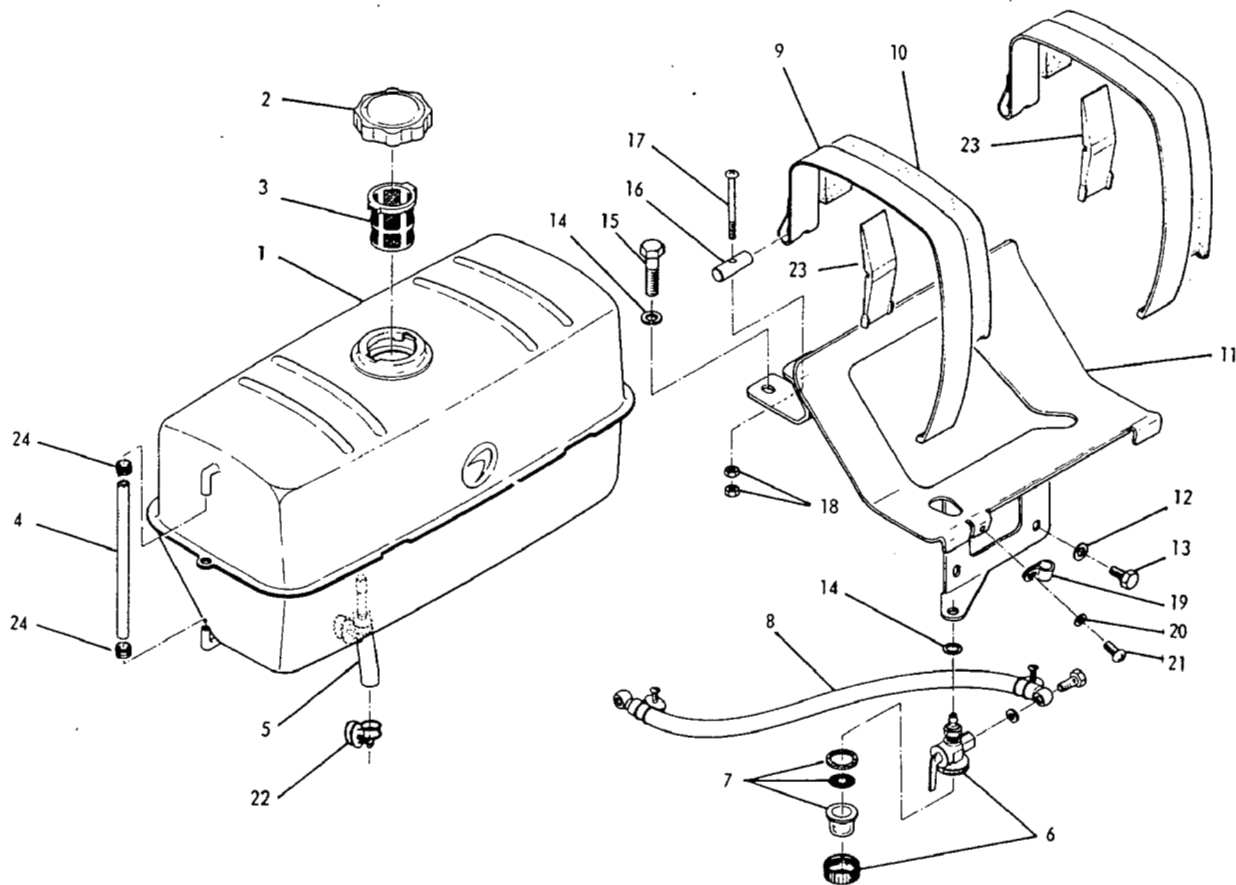
Fig. 4

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
19	EY0637000202	LEVER, throttle control	1	43	EY0022708000	NUT, governor shaft mounting 8 mm thread, hexagon steel	1
20		FRICITION WASHER, control lever (inner)	1	44	EY0032008000	WASHER, governor shaft mounting .. 8 mm, spring lock	1
21		FRICITION WASHER, control lever (outer)	1	45	EY0043105120	SCREW, control link mounting 5 mm x 12 mm long, pan head	1
22		KNOB, throttle lever	1	46	EY0032005000	WASHER, control link mounting 5 mm, spring lock	1
23		SCREW SEAT, knob	1	47	EY0031005000	WASHER, control link mounting 5.5 mm I.D. x 10 mm O.D., plain steel	1
24		COTTER PIN, knob 1.6 mm x 10 mm long	1	●	EY2104250107	GOVERNOR SPRING and LINK SET (Includes Items 48 thru 51)	1
25		WIRE LEVER	1	48		GOVERNOR ROD	1
26		SPACER, control lever	1	49		ROD SPRING, governor rod	1
27		FULCRUM SCREW, wire lever	1	50		ROD SPRING, governor rod	1
28		WASHER, wire lever mounting 6 mm, spring lock	1	51		GOVERNOR SPRING	1
29		NUT, wire lever mounting 6 mm thread, hexagon steel	1	52	EY0016506450	SCREW, speed adjustment stop 6 mm x 45 mm long, hexagon head	1
30		SCREW, wire lever mounting 5 mm x 10 mm long, hexagon head	1	53	EY0022706000	NUT, 6 mm thread, hexagon steel 1 for speed adjustment screw 1 for bowden wire adapter 1 for control box mounting	3
31		CONTROL ROD, wire lever	1	54	EY0149060011	ADAPTER, bowden wire	1
32		COTTER PIN, control rod 1.2 mm x 8 mm long	1	55	EY0043106120	SCREW, control box mounting 6 mm x 12 mm long, pan head	3
33	EY2104290201	CONTROL LINK (spring to control rod).....	1	56	EY0032006000	WASHER, control box mounting 6 mm, spring lock	3
34	EY2104310111	FULCRUM SCREW, control link	1	57	EY0043108160	SCREW, control box mounting 8 mm x 16 mm long, pan head	1
●	EY2104230117	GOVERNOR LEVER and SHAFT SET (Includes Items 35 thru 47)	1	58	EY0032008000	WASHER, control box mounting 8 mm, spring lock	1
35		CONTROL LINK (gov. lever to spring)	1				
36		GOVERNOR LEVER	1				
37		GOVERNOR SHAFT	1				
38		GOVERNOR YOKE	1				
39	EY0043104080	SCREW, governor yoke mounting 4 mm x 8 mm long, pan head	2				
40	EY0032004000	WASHER, governor yoke mounting .. 4 mm, spring lock	2				
41		SCREW, governor shaft setting	1				
42		WASHER, governor shaft setting	1				

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Fig. 5

FUEL TANK Group For Model EY21W



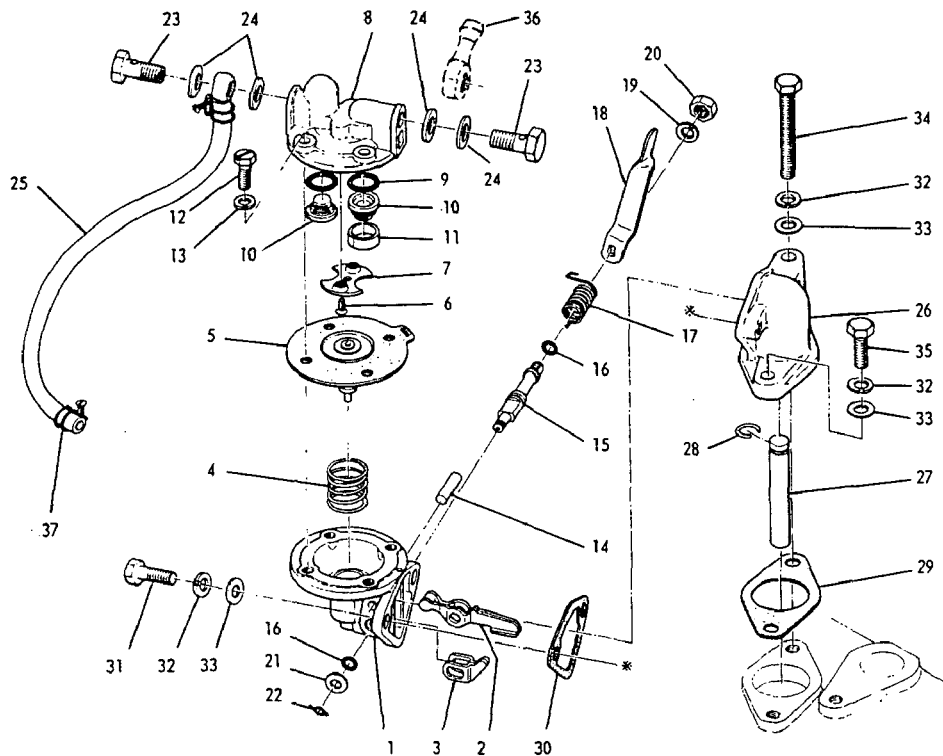
Ref. No.	Part Number	Description	Qty.
1	EY2106011220X	FUEL TANK assembly	1
2		Includes:	
3		EY0430430014 CAP with gasket ..	1
4		EY0641360010 FILTER SCREEN	1
5		EY0850050180 SIGHT GAUGE	1
5	EY0851060230	FUEL LINE assembly	1
		Tank to fuel strainer	
6	EY0642002100	FUEL STRAINER	1
7	EY2109900617	REPAIR KIT, fuel strainer	1
8	EY2106260711	FUEL LINE assembly	1
		Strainer to pump	
9	EY2106515811	FUEL TANK STRAP	2
10	EY2106701113	FELT BAND, fuel tank strap	2
11	EY2106165811X	FUEL TANK BRACKET	1
12	EY0032008000	WASHER, fuel tank bracket mtg.	2
		8 mm, spring lock	
13	EY0016508160	SCREW, fuel tank bracket mounting	2
		8 mm x 16 mm long, hexagon head	

Ref. No.	Part Number	Description	Qty.
14	EY0032010000	WASHER, tank bracket and strainer	3
		10 mm, spring lock	
15	EY0016510200	SCREW, fuel tank bracket mounting	2
		10 mm x 20 mm long, hex head	
16	EY2106550101	TENSION PIN, fuel tank strap	2
17	EY0140060010	SCREW, fuel tank strap tension	2
		6 mm x 65 mm long, round head	
18	EY0022706000	NUT, fuel tank strap tension screw	4
		6 mm thread, hexagon steel	
19	EY0566100021	CLAMP, fuel line	1
20	EY0032006000	WASHER, clamp mounting	1
		6 mm, spring lock	
21	EY0043106120	SCREW, clamp mounting	1
		6 mm x 12 mm long, pan head	
22	EY0091712000	HOSE CLAMP, tank fuel line.....	2
23	EY2106702303	STRAP GUIDE, fuel tank.....	2
24	EY0561080010	HOSE CLAMP, sight gauge.....	2

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FUEL PUMP Group For Model EY21W

Fig. 6

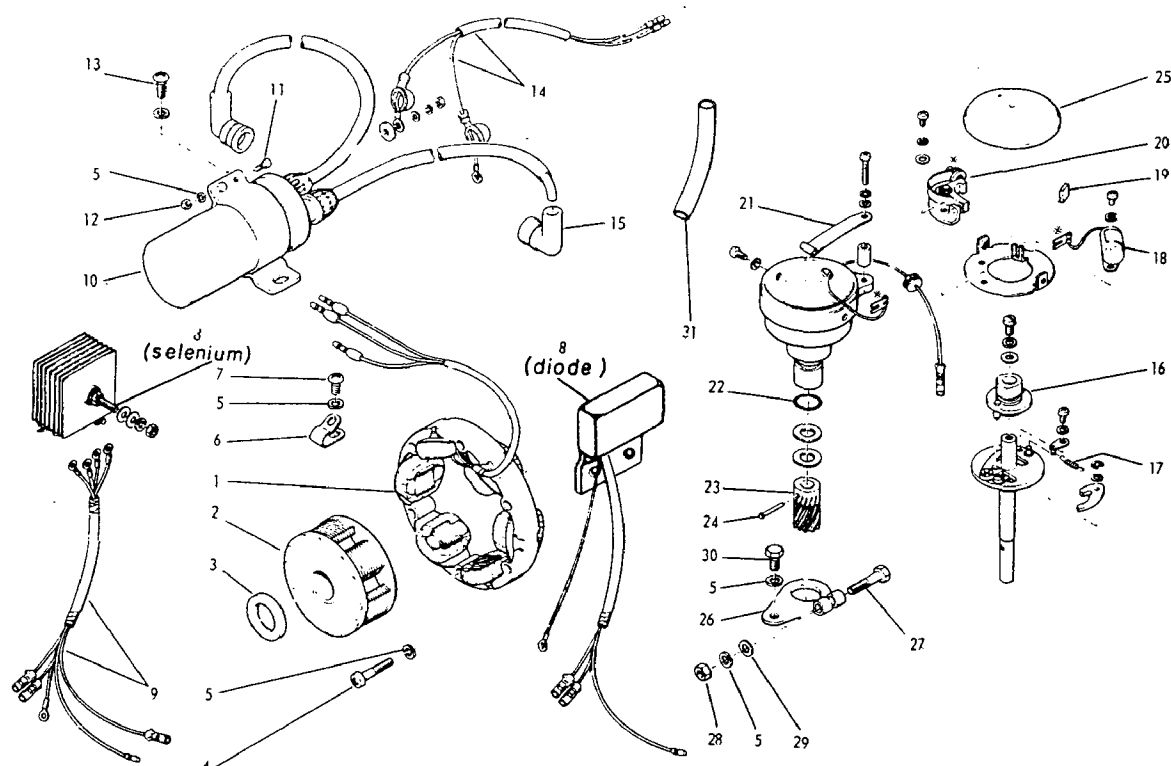


NOTE: Items without a part number are not sold separately.

Ref. No.	Part Number	Description	Qty.
●	EY2106220110	FUEL PUMP, complete	1
		(Includes Items 1 thru 22)	
1		BODY, bottom half	1
2		ROCKER ARM	1
3		PRIMING ARM	1
4		DIAPHRAGM SPRING	1
5	EY2106220118 †	DIAPHRAGM, complete	1
6		SCREW	2
7		VALVE RETAINER	1
8		BODY, top half	1
9		VALVE SEAT	2
10	EY2106220218 †	VALVE CAGE, complete	2
11		COLLER, valve cage	1
12		SCREW, body attaching	4
13		WASHER, body screw	4
14		SHAFT, rocker arm	1
15		SHAFT, primer lever	1
16	EY2106221618 †	"O" RING, primer shaft	2
17		SPRING, primer return	1
18		PRIMING LEVER	1
19		WASHER, priming lever	1
20		NUT, priming lever	1
21		WASHER, 'O' ring retainer	1
22		CLIP, primer shaft retainer	1
23	EY0530080010	BANJO BOLT, fuel line fitting	2

Ref. No.	Part Number	Description	Qty.
24	****	GASKET, banjo bolt mounting	4
25	EY2106280711	FUEL LINE assby., pump to carb.	1
26	EY2106700823	ADAPTER, fuel pump mounting	1
27	EY2106700603	PUSH ROD, fuel pump	1
28	EY0565100010	CLIP, push rod retainer	1
29	****	GASKET, adapter flange	1
30	****	GASKET, fuel pump flange	1
31	EY0016506160	SCREW, fuel pump to adapter	2
		6 mm x 16 mm long, hexagon head	
32	EY0032006000	WASHER, 6 mm, spring lock	4
		2-for fuel pump to adapter	
		2-for fuel pump adapter mounting	
33	EY0031006000	WASHER, 6.4 mm I.D. x 11.5 mm O.D., plain steel	4
		2-for fuel pump to adapter	
		2-for fuel pump adapter mounting	
34	EY0100060060	SCREW, fuel pump adapter mtg.	1
		6 mm x 48 mm long, hexagon head	
35	EY0016606200	SCREW, fuel pump adapter mtg.	1
		6 mm x 20 mm long, hexagon head	
36	EY0521070010 Optional	BANJO FITTING, fuel line	1
		Engine less tank - for 1/4" I.D. plastic fuel line furn'd. by cust.	
37	EY0091712000	HOSE CLAMP, fuel line	2
●	EY2106220117	REPAIR KIT, fuel pump	1
		† parts included in kit.	
●	EY2106220217	GASKET SET, fuel pump	1
		**** parts included in set.	

When ordering parts: Always give Model, Specification and Serial Numbers of engine.



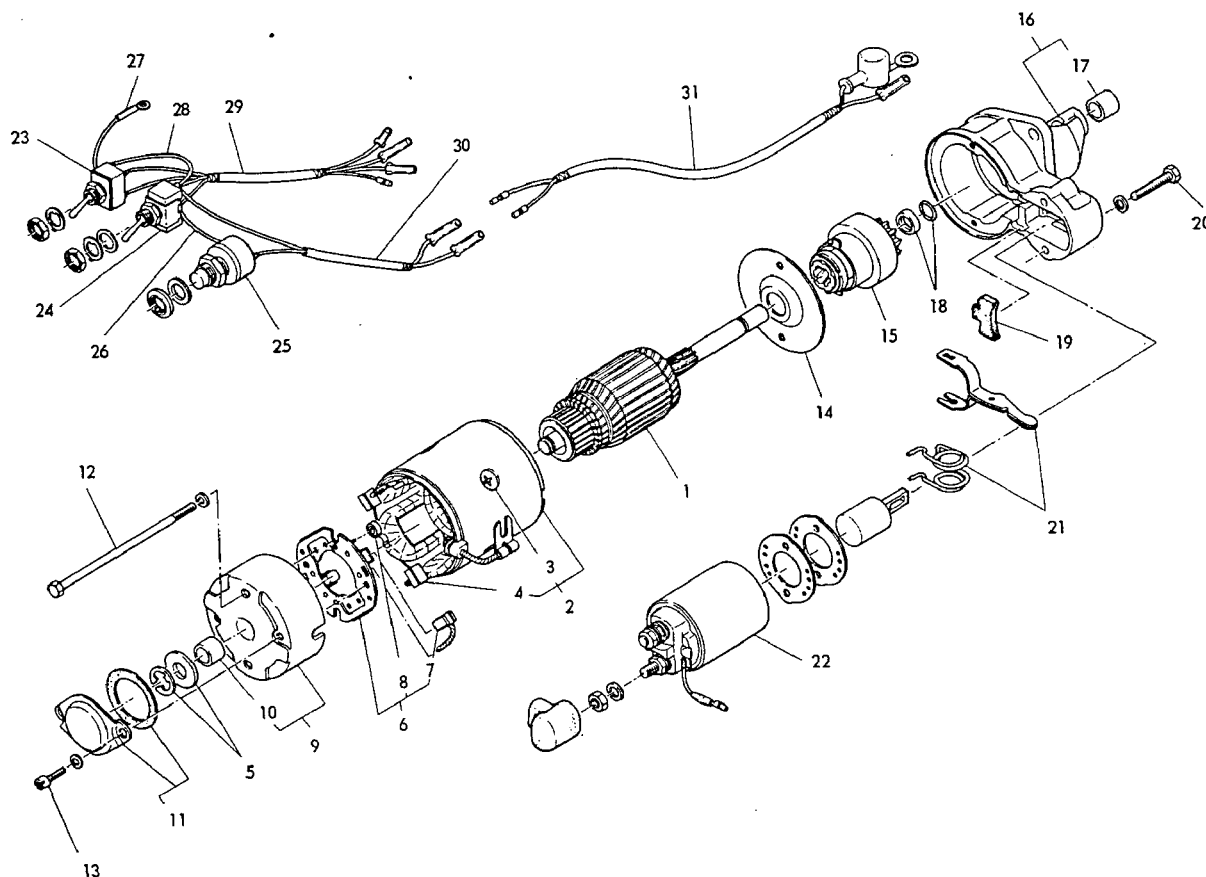
NOTE: Items without a part number are not sold separately.

**Used previous to engine serial No. Z4355

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
●	EY2107030110	ALTERNATOR assembly	1	15	EY0655000050	CAP, spark plug	2
1		Includes:		●	EY2107070120	IGNITION TIMER assembly	1
2		EY2107031508 STATOR	1			(Includes Items 16 thru 25)	
3	EY0230220020	SPACER, alternator	1	16		CAM	1
4	EY0043106300	SCREW, stator mounting	4	17		GOVERNOR SPRING	2
5	EY0032006000	WASHER, 6 mm, spring lock	8	●	EY2107070127	POINT & CONDENSER KIT	1
		4 for stator mounting				(Includes Items 18, 19, 20)	
		1 for clamp mounting		18		CONDENSER	1
		1 for ignition coil		19		OIL FELT	1
		2 for breaker bracket mounting		20		CONTACT BREAKER	1
6	EY0566100021	CLAMP, stator wire	1	21		EY2107070628 SPRING, cover	
7	EY0043106120	SCREW, stator wire clamp	1			retainer	1
8	EY2107130201	DIODE RECTIFIER assembly	1	22		EY2107070728 "O" RING, timer body	1
**9	EY2107310611	WIRE HARNESS, rectifier	1	23		EY2107070828 GEAR, driven	1
10	EY2107120120	IGNITION COIL assembly, with		24		EY2107070928 GEAR RIVET	1
		spark plug cables	1	25	EY2107071028	BREAKER COVER	1
		Includes:		26	EY2107080111	ADVANCE ARM	1
11		EY2107120228 SCREW	2	27	EY0016606300	SCREW, advance arm clamp	1
		5 mm x 12 mm long, hexagon head				6 mm x 30 mm long, hexagon head	
12		EY2107120328 NUT	2	28	EY0022706000	NUT, advance arm clamp	1
		5 mm thread, hexagon steel				6 mm thread, hexagon steel	
13	EY0043108140	SCREW, ignition coil mounting	2	29	EY0031006000	WASHER, advance arm clamp screw	
		8 mm x 14 mm long, pan head				6.4 mm I.D. x 11.5 mm O.D., pl. steel	
14	EY2107120128	WIRE HARNESS, ignition coil	1	30	EY0016506120	SCREW, advance arm mounting	1
						6 mm x 12 mm long, hexagon head	
				**31	EY0850100020	VINYL TUBE, wire protect	1

When ordering parts: Always give Model, Specification and Serial Numbers of engine.

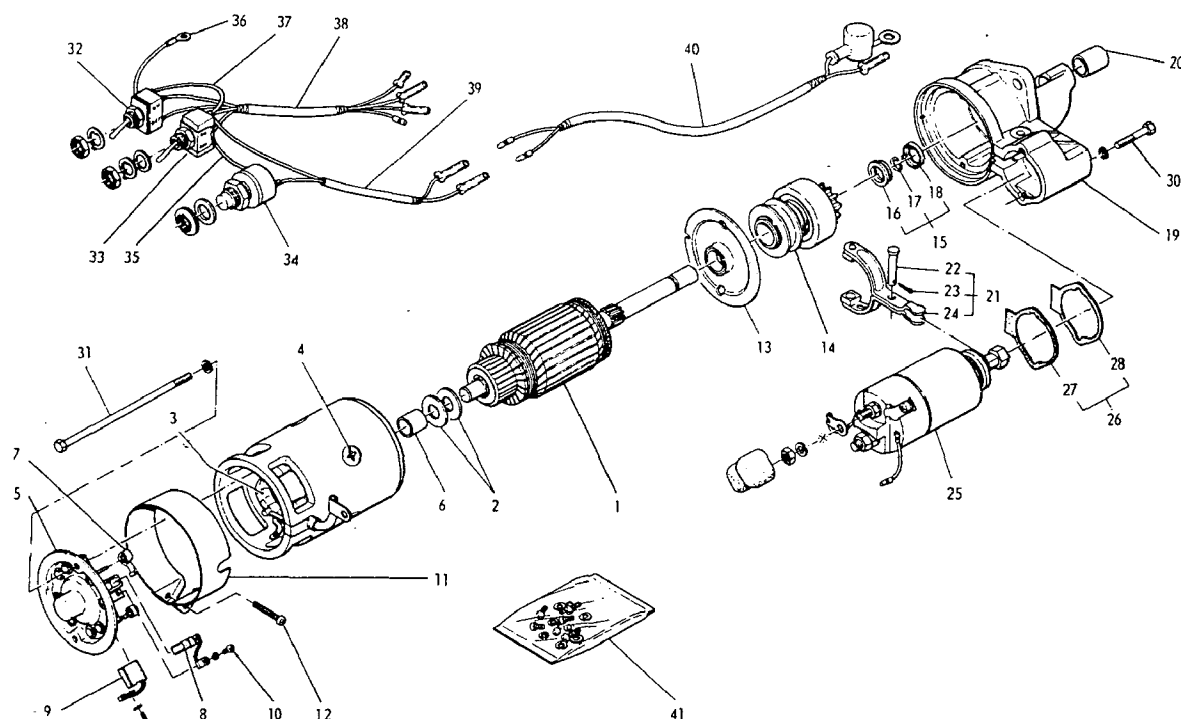
Beginning with engine Serial No. 97198, this DUST PROOF starting motor replaces EY2107050140 starting motor on page 11, and is interchangeable as a complete unit.



NOTE: Items without a part number are not sold separately.

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
●	EY2107050210	STARTING MOTOR assembly	1	16	EY2107050607	DRIVE END HEAD assembly	1
1	EY2107053208	(Includes items 1 thru 22) ARMATURE assembly	1	17		Includes:	
2	EY2107053508	FIELD COIL assembly	1	18		EY2107054708 BEARING, drive end	1
3		Includes:		19		EY2107053408 PINION STOP SET ..	1
4	†	EY2107050808 CORE SCREWS	4	20		DUST COVER	1
		BRUSH (+)	2			SCREW, magnetic switch mounting ..	2
●	EY2107050507	BRUSH HOLDER KIT	1	21	EY2107054608	SHIFT LEVER KIT	1
5		Includes:		22	EY2107054808	MAGNETIC SWITCH assembly	1
6		EY2107053308 KIT, thrust washer ..	1	●	EY2107310721	SWITCH and wire harness assembly	1
7		EY2107053808 HOLDER, brushassy.	1			(Includes Items 23 thru 30)	
8	†	Includes:		23	EY0660000020	SWITCH, charge select	1
9		BRUSH (-)	2	24	EY0660000030	SWITCH, ignition	1
10		EY2107054108 BRUSH SPRING	4	25	EY0663000010	SWITCH, starter	1
11		REAR COVER assembly	1	26		WIRES (yellow, red) ignition switch	
12		Includes:				to starter switch	1
13		EY2107054208 BEARING	1	27		WIRE 3, to light terminal	1
		EY2107055008 KIT, dust cover	1	28		WIRE 5 (red) ignition switch to	
		EY2107054908 THROUGH BOLT	2			charge switch	1
		SCREW, dust cover	2	29	EY2107310212	WIRE HARNESS 2, alternator	1
14	EY2107054308	CENTER PLATE	1	30	EY2107310902	WIRE HARNESS 9, ignition -	
15	EY2107054408	PINION assembly	1			starter switch	1
				31	EY2107310121	WIRE HARNESS 1, to starting motor	1
				●	EY2109900717	BRUSH SET for service	1
						† Included in brush set	

When ordering parts: Always give Model, Specification and Serial Numbers of engine.



NOTE: Items without a part number are not sold separately.

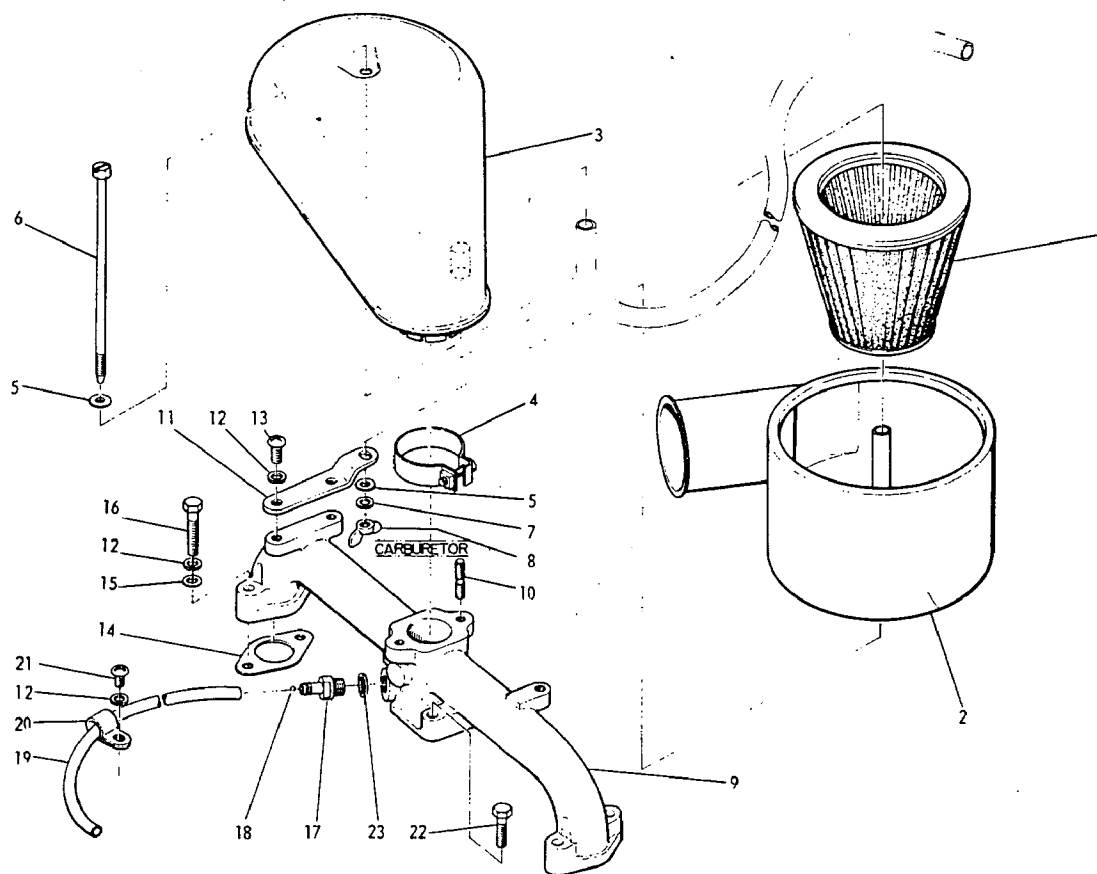
Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
●	EY2107050140	STARTING MOTOR assembly	1	21	EY2107050207	SHIFT LEVER SET	1
1	EY2107050108	(Includes Items 1 thru 31) ARMATURE assembly	1	22		Includes:	
2	EY2107050208	THRUST WASHER	2	23		PIN, shift lever	1
3	EY2107050708	FIELD COIL assembly	1	24		COTTER PIN	1
4		Includes:				SHIFT LEVER	1
5	EY2107050908	EY2107050808 CORE SCREWS.....	4	25	EY2107052208	MAGNETIC SWITCH assembly	1
6		REAR COVER assembly	1	26	EY2107050307	DUST PROOF KIT	1
7		Includes:				Includes:	
8		EY2107051008 BEARING	1	27		PACKING	1
9		EY2107051308 BRUSH SPRING	4	28		DUST PLATE.....	1
10		BRUSH (+)	2	30		SCREW, magnetic switch mounting	2
11		BRUSH (-)	2	31		THRU BOLT	2
12		SCREW, brush	4	●	EY2107310714	SWITCH and wire harness assembly	1
13	EY2107051408	BRUSH COVER assembly	1			(Includes Items 32 thru 40)	
14	EY2107051508	Includes:		32	EY0660000020	SWITCH, charge select	1
15	EY2107050107	SCREW, brush cover	1	33	EY0660000030	SWITCH, ignition	1
16		CENTER BEARING	1	34	EY0663000010	SWITCH, starter	1
17		PINION assembly	1	35		WIRES (yellow, red) ignition switch	
18		PINION STOPPER SET	1			to starter switch	1
19		(Includes Items 16, 17, 18)		36	EY2107310212	WIRE HARNESS 2, alternator	1
20		PINION STOPPER	1	37	EY2107310902	WIRE HARNESS 9, ignition -	
		CLIP, pinion stopper	1			starter switch	1
		WASHER, pinion stopper	1	40	EY2107310121	WIRE HARNESS 1, to starting motor	1
		DRIVE END HEAD assembly	1	41	EY2107050407	SCREW KIT	1
		Includes:				* Included in kit (Ref. 10, 12)	
		EY2107051708 BEARING, drive end	1	●	EY2109900707	BRUSH SET for service	1
						† Included in brush set	

When ordering parts: Always give Model, Specification and Serial Numbers of engine.

Fig. 9

AIR CLEANER and INTAKE MANIFOLD Group

For Model EY21W



NOTE: Items without a part number are not sold separately.

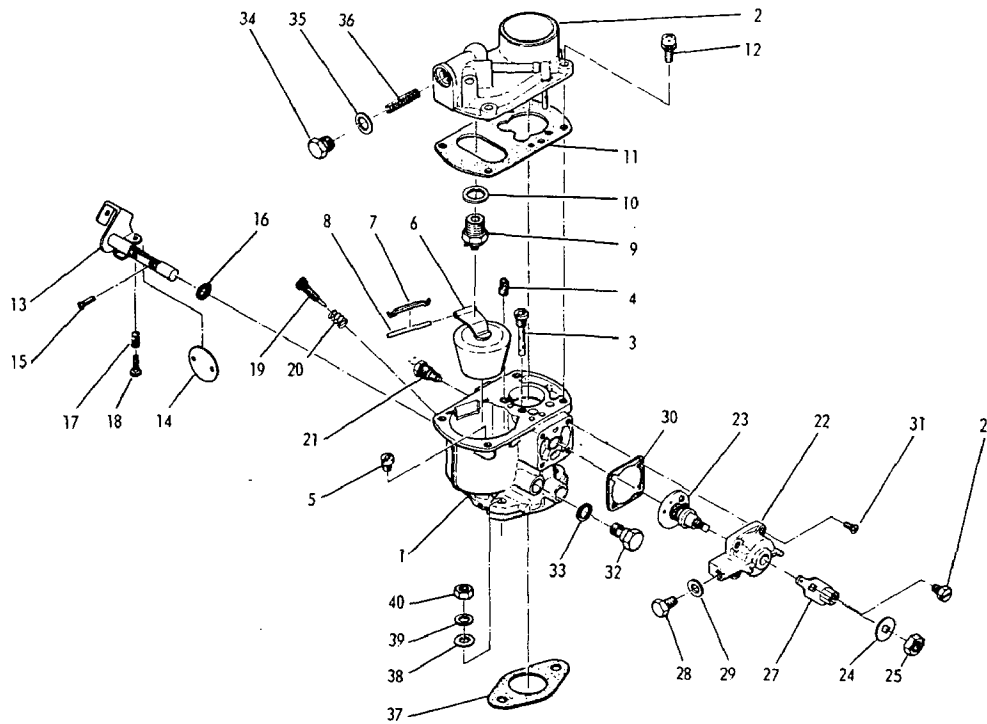
** Included in Engine Gasket Set.

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
●	EY2103260240	AIR CLEANER assembly	1	12	EY0032006000	WASHER, 6 mm, spring lock	7
1		Consisting of:				2-for bracket mounting	
2		EY2103260128 ELEMENT	1			4-for manifold mounting	
3		BODY	1			1-for drain clamp mounting	
4		COVER	1	13	EY0043106140	SCREW, air cleaner bracket mounting	2
5		with EY2103272008 Bushing			**	6 mm x 14 mm long, pan head	
6		CLAMP	1	14	EY2103600403	GASKET, manifold	2
7		WASHER, cover and bracket mt'g. ...	2	15	EY0031006000	WASHER, manifold mounting	4
8		6 mm, plain steel				6.4 mm I.D. x 11.5 mm O.D.,	
9		BOLT, air cleaner cover mounting...	1			plain steel	
10		6 mm x 165 mm long, hexagon head		16	EY0016606350	SCREW, manifold mounting	4
11		WASHER, body mounting	1			6 mm x 35 mm long, hexagon head	
12		6 mm, spring lock		17	EY2106530101	DRAIN FITTING, assembly	1
13		NUT, air cleaner bracket mounting ..	1			Includes:	
14		6 mm thread, hexagon steel, wing		18		EY0069010800 STEEL BALL	1
15	EY2103310121	INTAKE MANIFOLD assembly	1	19	EY0850050100	TUBING, manifold drain, vinyl	1
16		Includes:		20	EY0566120010	CLAMP, manifold drain tubing	1
17		EY0013106281 STUD, carb. mt'g.	2	21	EY0043106140	SCREW, clamp mounting	1
18		6 mm x 28 mm long				6 mm x 14 mm long, pan head	
19	EY2103520111	BRACKET, air cleaner support	1	22	EY0016506250	SCREW, manifold mounting	2
20						6 mm x 25 mm long, hexagon head	
21				23	**	GASKET, drain fitting	1

When ordering parts: Always give Model, Specification and Serial Numbers of engine.

CARBURETOR Group For Model EY21W

Fig. 10



NOTE: Items without a part number are not sold separately.

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
●	EY2106230800	CARBURETOR assembly	1	22	EY2106230208	STARTING VALVE assembly	1
1		(Includes Items 1 thru 36)		23		(Includes Items 22 thru 29)	
2		BODY, lower	1	24		STARTING VALVE	1
3		BODY, upper	1	25		WASHER, lever	1
4		NOZZLE	1	26		NUT, lever	1
5		IDLE AIR JET	1	27	†	SCREW, lever mounting	1
6		MAIN JET	1	28		STARTING LEVER assembly	1
6	EY2106250508	"High Altitude" Jets are available		29		SCREW, starting valve	1
7		FLOAT	1	30	† *	WASHER, starting valve	1
8	†	RETAINER, float pin	1	31		GASKET, starting valve	1
9		FLOAT PIN	1	32		SCREW, valve mounting	4
9	EY2106230308 †	FUEL VALVE assembly	1	33		STARTING JET	1
10	† *	WASHER, jet mounting	1	34		WASHER, screen retainer	1
11	† *	GASKET, fuel valve	1	35	*	PLUG, screen retainer	1
12		GASKET, carburetor body	1	36		GASKET, screen plug	1
13		SCREW - WASHER, body attaching	4	37	† *	SCREEN, fuel filter	1
14		THROTTLE SHAFT	1	38		FLANGE GASKET, carburetor	1
15		THROTTLE VALVE	1	39	EY0031006000	WASHER, carburetor mounting	2
16		SCREW, throttle shaft and valve	2	40	EY0032006000	WASHER, carburetor mounting	2
17		SEAL, throttle shaft	1			6 mm, spring lock	
18		SPRING, throttle stop screw	1	40	EY0022706000	NUT, carburetor mounting	2
19	†	SCREW, throttle stop	1			6 mm thread, hexagon steel	
20	†	IDLE SCREW	1	●	EY2106230107	REPAIR KIT, carburetor	
21	†	SPRING, idle screw	1			† Parts included in kit.	
		IDLE JET	1	●	EY2106230207	GASKET SET, carburetor	
						* Parts included in set.	

When ordering parts: Always give Model, Specification and Serial Numbers of engine.

AUTOMATIC CHOKE CARBURETOR

For WISCONSIN-ROBIN Model EY21W Engine

OPERATION

The choke assembly is a component part of the carburetor that automatically closes the carburetor choke valve for starting and regulates the degree of opening as the engine warms up. Its operation is dependent on current to heat a *thermostat spring* and manifold vacuum for the *choke diaphragm*.

While the engine is cold and inoperative the thermostat spring will hold the carburetor choke valve in a closed position. When engine is started, manifold vacuum opens the diaphragm operated choke valve, against the thermostat spring tension, a predetermined amount for warm-up. By the time the engine is sufficiently warmed up, electric current connected to an element in the choke cover heats up the thermostat spring causing it to completely lose its tension. This enables the manifold vacuum to rotate the choke valve to a full open position for normal engine operation.

Refer to the following *Figs. 1, 2 and 3* for detailed information and illustrations of the choke position for *Starting*, *Warm-up* and *Running*.

STARTING

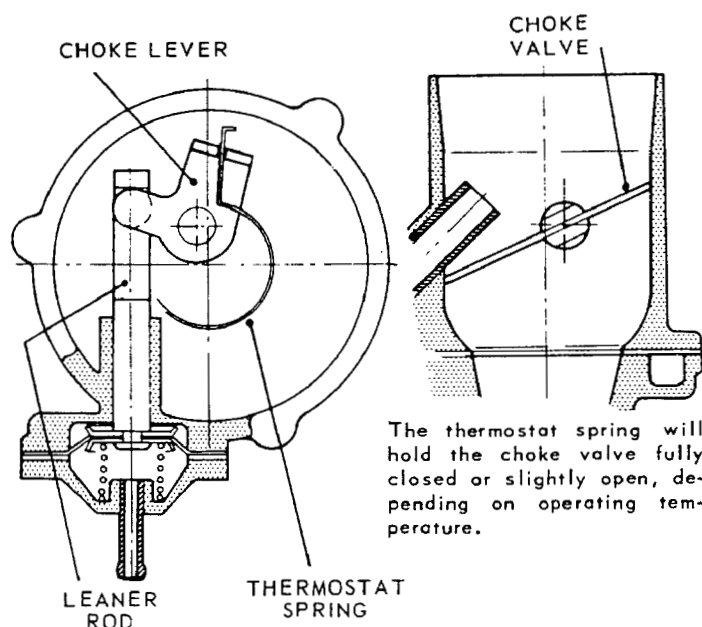


Fig. 1

WARM-UP

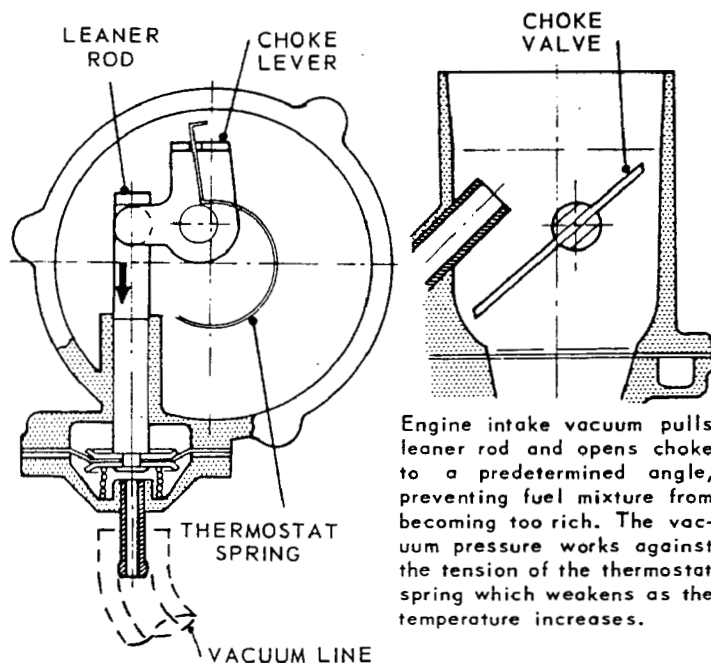


Fig. 2

RUNNING (After Warm-up)

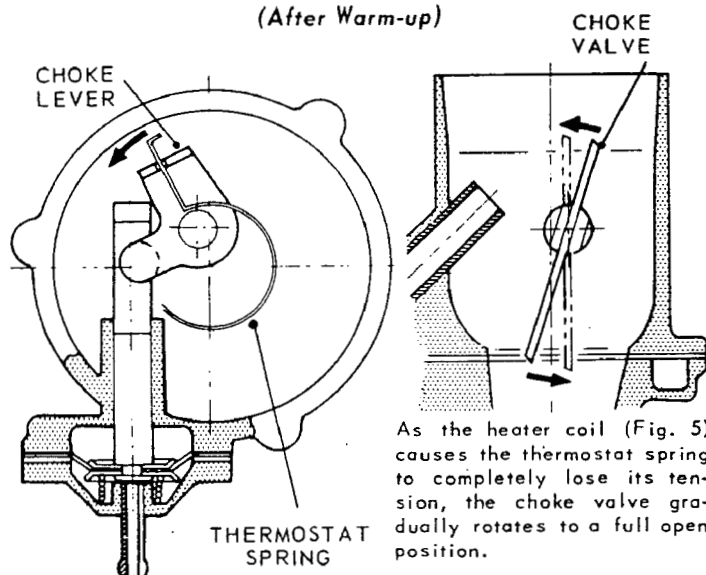


Fig. 3

SERVICE

With reference to *Fig. 4*, check choke valve opening when automatic leaner is fully activated, **engine cold**. If the appropriate angle is not obtained, check diaphragm assembly and thermostat spring. Replace complete cover and thermostat assembly if heating coil or thermostat spring are defective.

In reassembly of choke, mount components as illustrated in *Fig. 5* and *Fig. 7*. Be sure that choke shaft and choke valve operate freely, and that the choke lever engages end of thermostat spring.

When servicing carburetor parts other than the automatic choke, refer to the carburetor overhaul instructions in the *Engine Repair Manual* for Model EY21W.

Caution: Do not lubricate inside of thermostat spring cover and housing. Clean with automatic choke spray cleaner and blow out with compressed air.

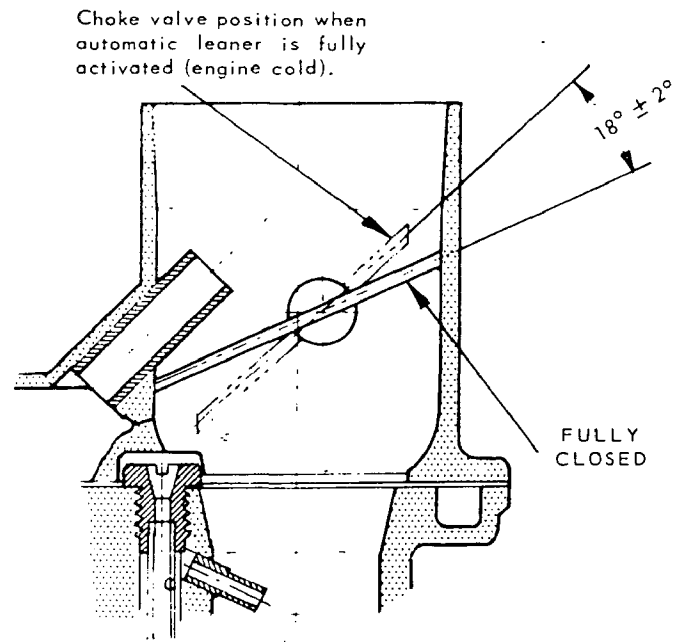


Fig. 4

Insert end of thermostat spring into slot in choke lever.

CHOKE VALVE

HEATER COIL
(12 Volt, 14 Watt)

THERMOSTAT
SPRING

VACUUM LINE

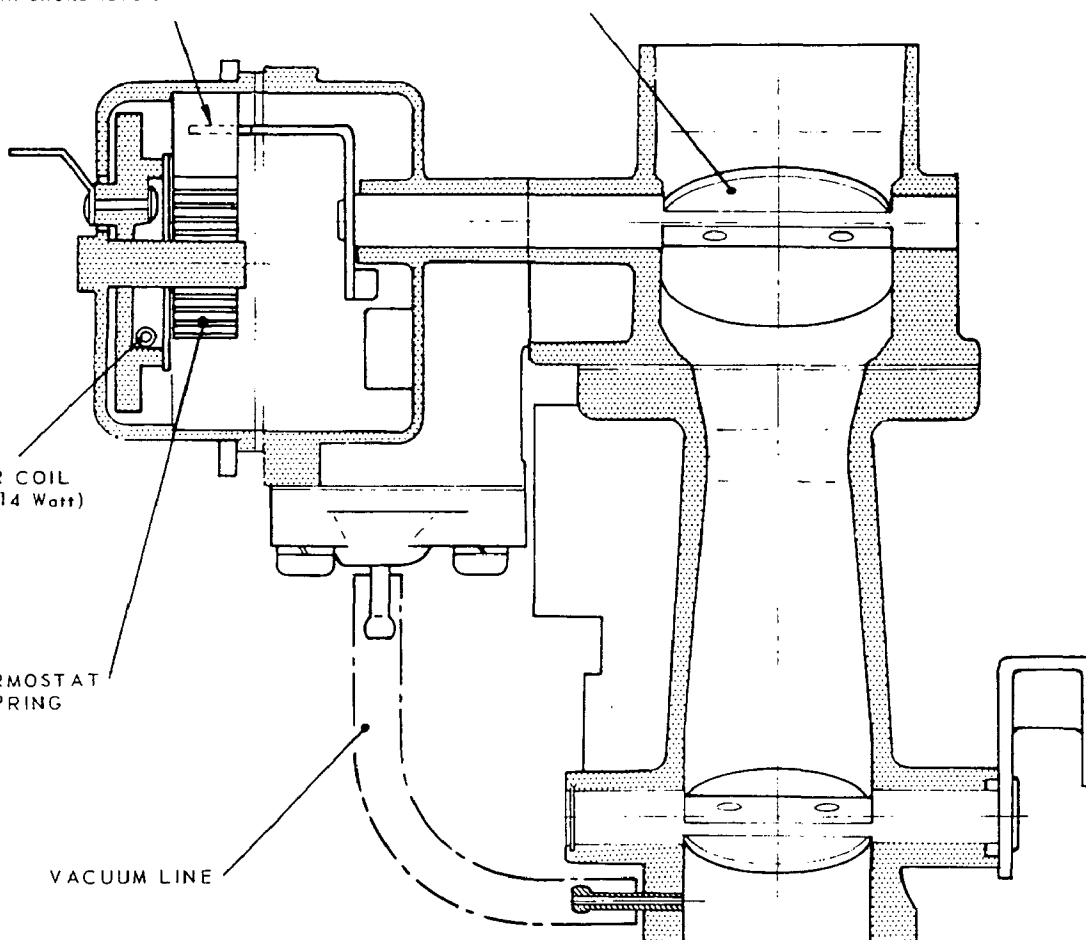


Fig. 5

CHOKE ADJUSTMENT

The automatic choke is adjusted by the manufacturer to satisfy all normal running conditions and therefore should not immediately be tampered with. In the event of repair or abnormal conditions, adjustment can be made in the following manner and with reference to Fig. 6 and Fig. 7.

1. Initially, slip end of *thermostat spring* into slot in *choke lever* when mounting choke cover, see Fig. 6.

At an ambient temperature of 73°F (23°C), and the choke valve closed, there should be *no spring tension* between the thermostat spring and choke lever.

2. Mount lock ring and three screws but do not tighten.
3. To obtain initial tension on thermostat spring, turn choke cover clockwise about 60° or until *dash (-) mark* on cover *aligns with point* of cast notches on choke body. Tighten lock ring screws and connect ignition wires.
4. If further adjustment is required after engine has been tested, slightly loosen lock ring screws and turn choke cover one notch at a time — *clockwise* to delay choke valve opening (richer fuel mixture), *counter-clockwise* to advance choke valve opening (leaner starting mixture). Tighten lock ring screws.

Note: Carburetor settings other than automatic choke adjustment can be found on Page 23 of the EY21W Repair Manual.

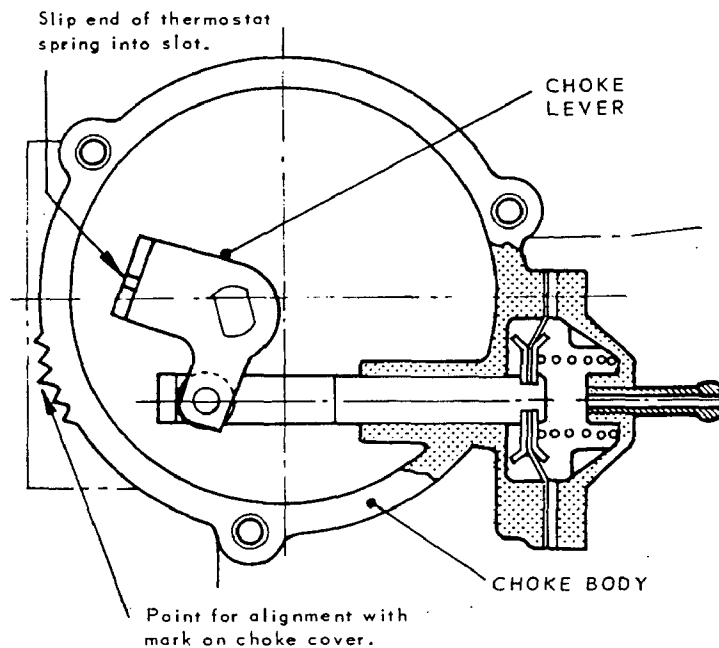


Fig. 6

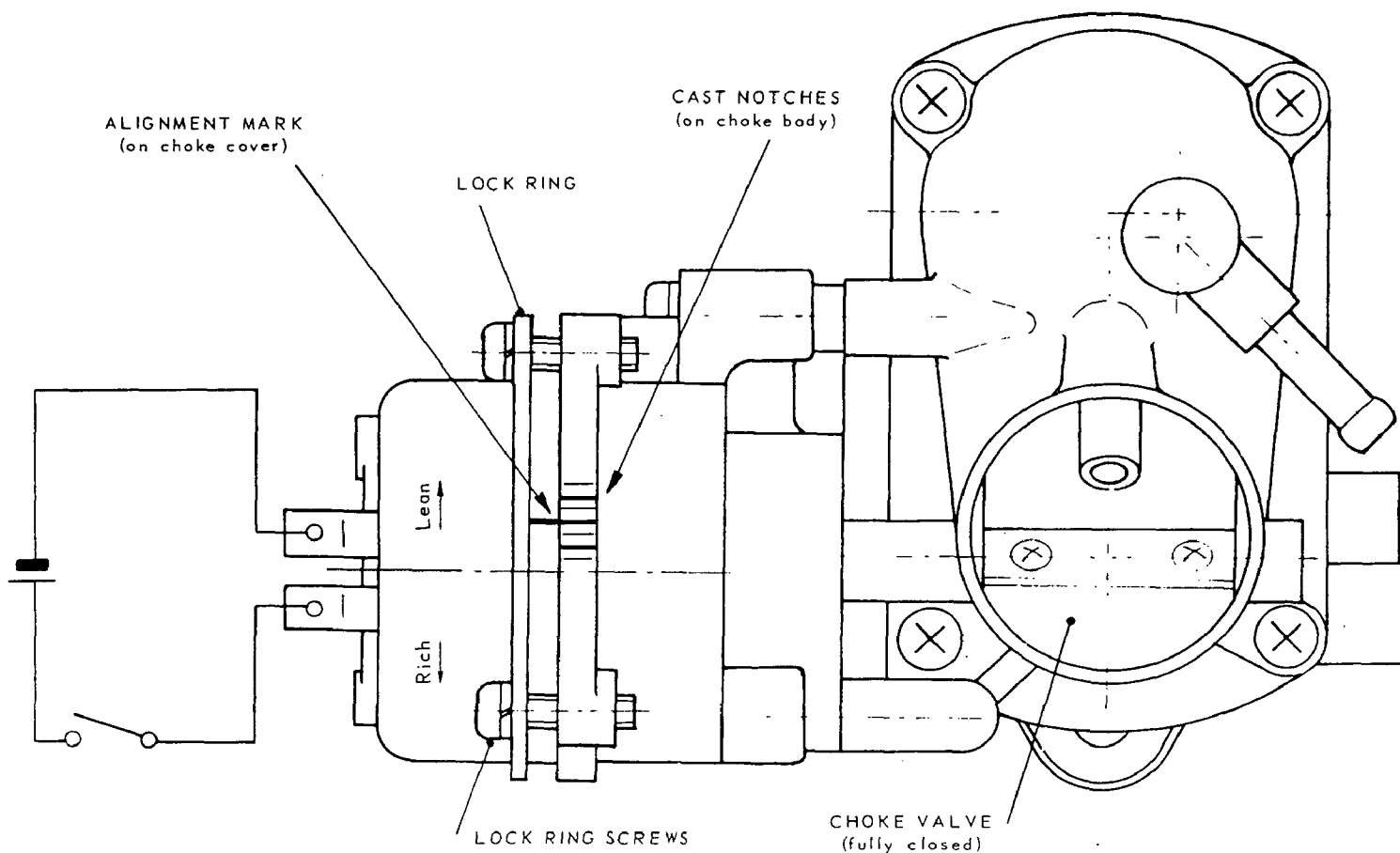
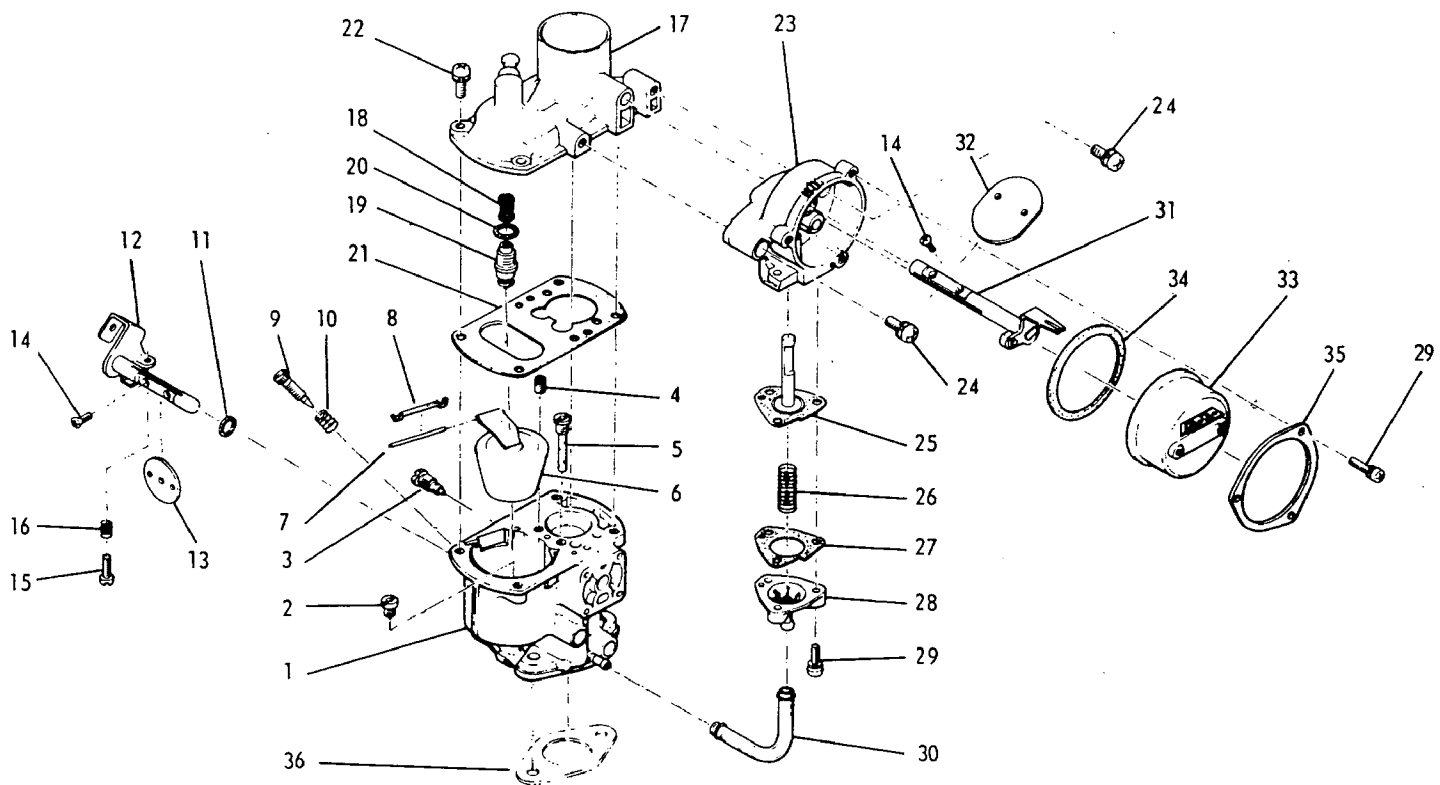


Fig. 7

AUTOMATIC CHOKE CARBURETOR

For Engine Model EY21W



NOTE: Items without a part number are not sold separately.

Ref. No.	Part Number	Description	Qty.	Ref. No.	Part Number	Description	Qty.
	EY2106230530	CARBURETOR assembly	1	22	EY2016231308	SCREW-WASHER, body attaching 5 mm x 14 mm long	4
1		BODY, lower	1	23		CHOKE HOUSING	1
2		MAIN JET	1	24	EY1306237308	SCREW-WASHER, choke housing mt'g 5 mm x 16 mm long	2
3	EY2106232208†	IDLE JET	1	25	EY2106235208†	DIAPHRAGM, choke	1
4		JET, idle air	1	26		SPRING, choke diaphragm	1
5		MAIN NOZZLE	1	27	EY2106255008†*	GASKET, choke diaphragm	1
6	EY2106250508	FLOAT	1	28		COVER, choke diaphragm	1
7	EY2106231008	FLOAT PIN	1	29	EY1076235708	SCREW-WASHER, choke covers	6
8		RETAINER, float pin	1	30	EY2106235408	HOSE, vacuum	1
9	EY2106232008†	IDLE SCREW	1	31		CHOKE SHAFT and LEVER	1
10	EY2106244608†	SPRING, idle screw	1	32		CHOKE VALVE	1
11	EY2106231708†*	SEAL, throttle shaft	1	33	EY2106236208	CHOKE COVER assembly	1
12		THROTTLE SHAFT and LEVER	1	34	EY2106235508†*	GASKET, choke cover	1
13		THROTTLE VALVE	1	35		LOCK RING	1
14	EY1306235808	SCREW, throttle and choke valve 3 mm x 7 mm long, round head	4	36	EY2106700703†*	FLANGE GASKET, carburetor	1
15	EY2096235208	SCREW, throttle stop, 4 mm x 12 mm	1		EY2106230307	REPAIR KIT, carburetor	
16		SPRING, throttle stop screw	1			† Parts included in kit.	
17		BODY, upper	1		EY2106230407	GASKET SET, carburetor	
18	EY2106236108†	STRAINER, fuel	1			* Parts included in set.	
19	EY2106250108†	FUEL VALVE assembly	1				
20	EY2076254508†*	GASKET, fuel valve	1				
21	EY2106231208†*	GASKET, carburetor body	1				

When ordering parts: Always give Model, Specification and Serial Numbers of engine.