OWNER'S MANUAL

Assembly & Operating Instructions

BBT WATER PUMP

MODEL NO.: BBT-WP10A
BBT-WP10B

N23701

PREFACE

Dear users:

Thank you very much for purchasing engine pump. Before using, please read this instruction manual carefully to know well about the machine's performance, so as to operate the machine safety and correctly. Please keep carefully to consulting it later. Transfer or lend the instruction manual following the machine if transferring or lending this machine. Interpret receiver fully if necessary so as not to damage the machine or be injured because of incorrect operation. By the way, due to changes of specifications, all details of your machine may not agree with this manual. Please understand accordingly.

Thank you again for having choosed our products.

CONTENTS

MAIN SPECIFICATIONS

Name		SELF-SUCTION TYPE CENTRIFUGAL PUMP		
MODEL		WP-10A	WP-10B	WP-10C
Dimensions(L×W×H)		380×290×380mm	420×280×370mm	380×290×380mm
Weight		7.5kg	8.5kg	7kg
PUMP	Suction port diameter	25mm	25mm	25mm
	Discharge port diameter	25mm	25mm	25mm
	Discharge(Max.)	8m^3/h	8m^3/h	8m^3/h
	Total water head (Max.)	30m	30m	30m
	Suction water head (Max.)	8m	8m	8m
	Self-suction time(3m)	≤80s	≤80s	≤80s
	SHAFT SEALANT	Mechanical seal(ceramic carbon)		
ENGINE	Type	Air-cooled two cycle engine	Air-cooled four cycle engine	Air-cooled two cycle engine
	Model	1E40F-6	139F	1E36F-2A
	Power(Max.)	1.45kW/7000r/min	0.7kW/6500r/min	0.9kW/6500r/min
	Total displacement	40.2cc	31cc	32.6cc
	Way of ignition	Electronic ignition (CDI)		
	Ignition system	L6(LD)		
	Fuel applicable	Gasoline mixture(gasoline20～25:oil 1)		
	Tank capacity	0.95L	1.0L	0.95L

Specifications are subject to change without notice.

PREPARATIONS PRIOR TO OPERATION

● Inspection

1. Check every part, such as fuel tank cap, spark plug, etc., to confirm that they are not loose nor have fallen off.
2. Make sure that cooling air inlet and outlet are not clogged with dirt or dust. A clogged air passage will overheat the air-cooled engine during operation.

3. Take notice of air cleaner. If it is stained, conduce to irregular service and addition of fuel-consumption.
4. Check spark plug. If it is stained, fully clean the spark plug and adjust spark plug gap. (An appropriate spark gap is 0.6 to 0.7mm.)

● Installing pump

1. Install your pump at a flat place where is as near as the water source.
2. Remove self-suction plug and pour water in your pump until water overflows. After that tighten the plug firmly.

⚠ **Fully tighten self-suction plug, suction hose and others connections. If they are loose; air will enter into your pump, which may not self-suck.**

Fuel supply

1. Pour the clean fuel to the fuel tank.
   Fuel is a mixture of branded 70 octane or higher gasoline and approved two-cycle engine oil, the mixture ratio is 20～25:1.Ensure gasoline and oil are of good quality.
2. Don't refuel your pump without completely stopping engine. Refueling during operation involves the possibility of catching on fire.

STARTING

⚠ **Never start your pump without any water there in.**

1. Move the fuel cock to the open position. Move the choke lever to the closed position.
2. Move the throttle lever to the starting position.
3. Pull recoil starter at a sharp stroke.

⚠ **Never pull the entire rope or never let the rope return by freeing the rope.**

4. Once engine has fired, move choke lever gradually to the open position.

⚠ **If fuel sucked in too much, close fuel cock and fully open throttle lever and choke lever.Then pull the recoil starter.**

5. After engine has started confirm the water in suction hose rises up to pump and adjust the quantity of water by opening throttle lever.

⚠ **Pump may fail to suck up water initially, if a valve connected on the discharge side is closed or hose is doubled.**

PRECAUTIONS IN OPERATION

- Should water fall short during operation, engine should be stopped immediately.

⚠ **Running your pump with no water in it will considerably shorten the life of engine and pump. Never put your pump in operation, without any water there in.**

- Do not refuel your pump without completely stopping engine.

⚠ **Refueling during operation involves the possibility of catching on fire.**

⚠ **Never smoke nor make a fire around your gasoline-engine pump.**

ADJUSTMENT OF IDLING

- Idling rpm is factory adjusted by us , but readjust if requires.
- Turning idling adjustment screw.Clockwise will heighten engine speed and counterclockwise will lower engine speed.

⚠ **Idling should be adjusted five minutes after engine start.**

STOP OF ENGINE

1. Move the throttle lever to the slow speed position, and operate the engine for its cooling at time 2 or 3 minutes.

2.Close fuel cock.

3.Keep pressing the stop button until the engine stops completely.

⚠ **The sudden stoppage of the engine during high-speed operation may cause the engine trouble; there-fore, avoid it except for the emergency case.**

MAINTENANCE

The Water Pump has a life expectancy dependent upon the quality of maintenance. It is recommended to inspect your unit before and after operation.

- Maintenance after operation

1. After operation, remove dirt and dust entirely from engine.
2. Check engine to confirm that no fuel is leaking.
3. Check every tightened part for possible looseness.
4. When water mixed with soil and sand has been pumped, pass fresh water through your pump to clean the internal parts of pump, (suction and discharge pipes, etc.)

⚠ **When it is extremely cold in winter, the pump may be damaged due to freezing of water inside the pump case. After finishing the day work, make sure to drain water inside the case and the hose.**

- Maintenance every 30 hours Remove and clean spark plug and adjust spark gap. (An appropriate spark gap is 0.6 to 0.7mm.) Plug used: L6(LD)
- Maintenance every 50 hours

1. Remove air cleaner and flush it well with gasoline.
2. After flushing air cleaner, firmly squeeze and install it.

STORING FOR A LONG PERIOD

1. Drain water out of pump, sucking and discharge pipes.
2. Drain fuel out of fuel tank and carburetor float chambers.
3. Store it at dry and no dust place

TROUBLE SHOOTING

- **Cannot start engine**

Trouble		**Causes**	**Remedies**
The sparking Plug miss fire	Sparking plug	1. Firing device wetted	Dry it out
		2. The carbon lay down on the sparking plug	Clean the carbon
		3. The spark gap is too big or too small	Adjust gap at 0.6～0.7mm
		4. The poles of sparking plug burned	Replace it
		5. The insulation damaged	Replace it
	Magneto	1. The junction of wire drop off or broken	Tighten or replace it
		2. The insulation of coil bad	Change
		3. The gap between stator and rotor is too big	Adjust gap at 0.4mm
The sparking plug works normal	Compression ratio is fine and fuelling normally	1. The fuel suck in excess	Reduce the fuel
		2. The quality of fuel is bad and mix with water and dirty	Change the fuel
	Fueling well but compression ratio bad	Cylinder and piston ring wore or tore	Replace them
	Carburetor no fueling	1. No fuel in the tank	Feed the fuel
		2. Fuel cock is not open	Open it
		3. The air hole of the tank clogged	Clean

- THE ENGINE OUTPUT IS INSUFFICIENT

Trouble	Causes	Remedies
The compression ratio is fine and the fire has not gone out	1. The union of fuel pipe suck in the air	Tighten it
	2. The connection of carburetor suck in air	Change seal and tighten it
	3. The fuel mix with water	Change the fuel
	4. The filter plate clogged	Clean
	5. The carbon clogs muffler, cylinder	Clean
Engine overheats	1. Mixed gas thin	Adjust the carburetor

	2. Cylinder covered with carbon	Clean
Engine noisy or knocking	1. Fuel bad	Replace
	2. Firing chamber covered with carbon	Clean
	3.The running parts wore and tore	Check and replace

● Engine stops while running

Trouble	Cause	Remedies
Engine stops suddenly	The piston bitten	Change the piston or remedy it
	1. The sparking plug laid down the carbon and short circuited	Clean out the carbon
	2. Magneto is bad	Check and remedy
The engine stops slowly	1. Fuel is short	Feed the tank
	2. Carburetor clogged	Clean
	3. Water in fuel	Refill with fresh fuel

● Engine hard to stop

Trouble	Cause	Remedies
Engine	Cylinder and piston overheat conduce to self ignition	Clean carbon
Correlative circuit	1. Plug pole overheats	Clean the plug and check the gap
	2. Stop button is bad	Check and remedy

● Trouble and remedy of pump

Trouble	Cause	Remedy
Can not self-suck	1. No water or water shortage in pump	Feed water
	2. Sealing of junction damaged or junction loosened make the suction hose suck in air	Change or tighten
	3. Suction hose broken up make the air is sucked in	Change the pipe
	4. The valve connected on the discharge side is closed or doubled	Check and adjust
	5. The gap of impeller and volute shell is incorrect	Adjust
	6. The pump clogged by foreign body	Clean
Water outlet is insufficient and pressure is too low	1. The strainer of sucking pipe clogged	Clean
	2. The suction hose doubled and clogged	Clean
	3. The pump clogged by foreign body	Clean
	4. Impeller and volute shell wore out	Change
	5. The position of discharge port is too high	Change the installing of pump
Can not pull the starter	1. Impeller and volute shell rusting	Clean
	2. The pump clogged	Clean
Leaking water	1. Mechanical seal wore out	Change
	2. O-sealing ring of pump shaft damaged	Change

DECOMPOSITION·ASSEMBLY·REPAIR

- **Please operate according to following methods if decompose imperatively**

1. Loose screw and take down the handle and pump case in turn.

⚠ **Remember the position of installing volute shell in pump case.**

2. The screw of impeller is clockwise,laevorotation will take down the impeller.

⚠ **Please attend not to lose the probable adjusting shim between the impeller and shaft .**

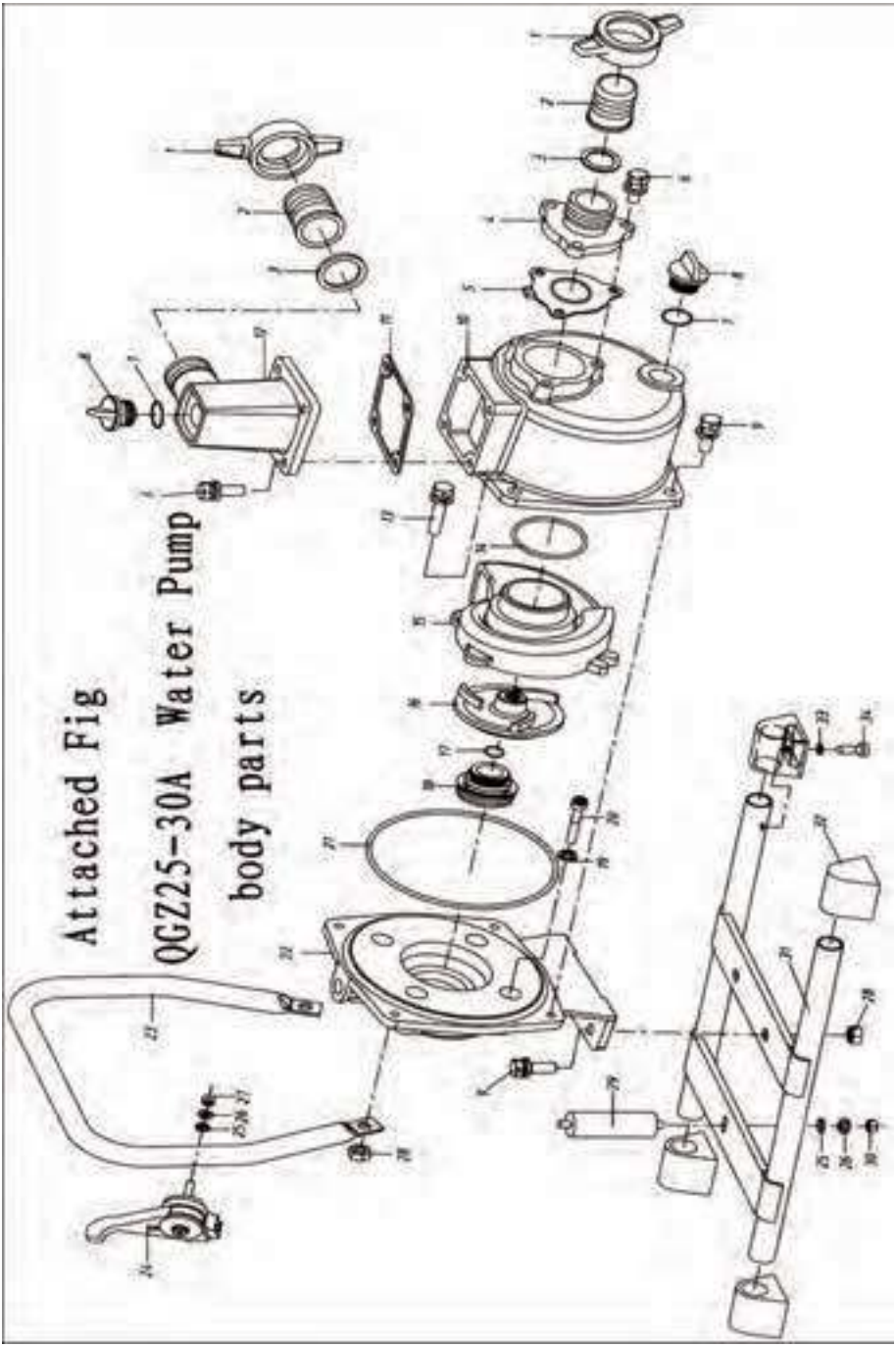
- **Please assemble according to follow-ing methods**

1) If change impeller and volute shell,please adjust the gap at 0.8mm th-rough adding or reducing the adjust-ing shim.

2) The tightening torque of screws on the pump refer to following list.

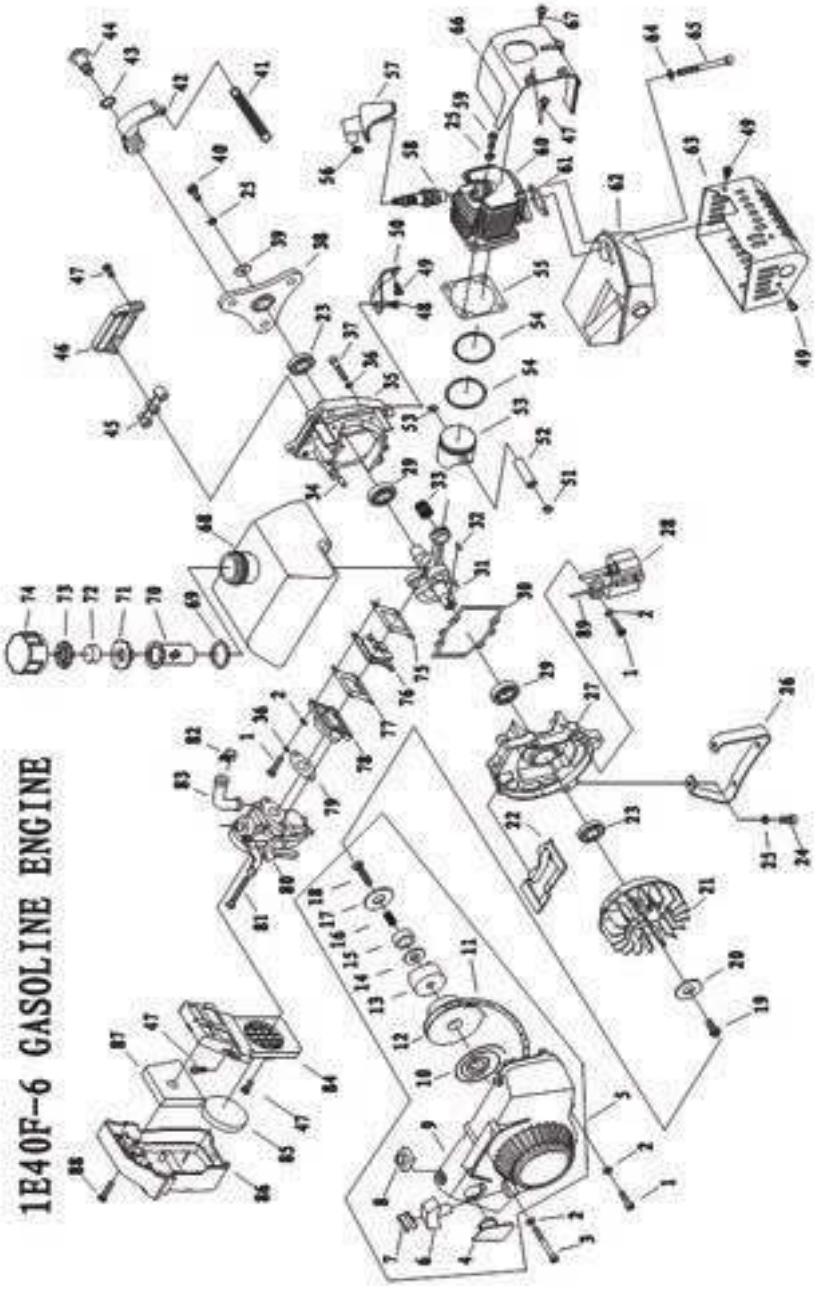
Screws	Tightening torque (N.m)
M5 Screw	2.5～3.5
M6 Screw	4～6
M8 bolt	9～11
M6 Socket bolt	9～11

⚠ Attention: Please do not decompose engine anyhow. If necessary, please contact our local dealer or service station we designated.


Attached Fig
QGZ25-30A Water Pump
body parts

Appendix. list of Pump Parts

Ser.NO	Part NO	Part Name	Qty	Ser.NO	Part NO	Part Name	Qty
1	QGZ25-30.4-1	HOSE JOINT	2	24	QGZ40-35.10	THROTTLE LEVER	1
2	QGZ25-30.4-3	HOSE COUPLING	2	25	GB 97.1	WASHER	2
3	QGZ25-30.4-2	PACKING(PLUG)	2	26	GB 93	WASHER SPRING	2
4	QGZ25-30-6	VALVE CASE	1	27	GB 889	NUT M5	1
5	QGZ25-30.2	CHECK VALVE	1	28	GB 6170	NUT M8	4
6	GB 9074.15	BOLT W/S.W M6X20	7	29	QGZ40-35A.3	RUBBER PILLAR	1
7	GB 3452.1	O-SEALING RING	2	30	GB6170	NUT M5	1
8	QGZ25-30-9	PLUG	2	31	QGZ40-35A.1	BASE	1
9	GB 9074.15	BOLT W/S.W M8X20	4	32	QGZ40-35-5	UNTI VIBRATION RUBBER	4
10	QGZ25-30-3	PUMP CASE	1	33	GB 96	WASHER	4
11	QGZ25-30-8	PACKING	1	34	GB 845	SCREW ST4.2X13	4
12	QGZ25-30-7	BEND	1				
13	GB 9074.15	BOLT W/S.W M8X30	2				
14	GB 3452.1	O-SEALING RING	1				
15	QGZ25-30-5	VOLUTE SHELL	1				
16	QGZ25-30-4	IMPELLER	1				
17	GB 3452.1	O-SEALING RING	1				
18	QGZ40-35.4	MECHANICAL SEAL	1				
19	QGZ40-35-8	SEAL PACKING	4				
20	GB 70	SCREW M6X40	4				
21	GB 3452.1	O-SEALING RING	1				
22	QGZ25-30-2	CASING COVER	1				
23	QGZ25-30-10	HANDLE	1				


1E40F-6 GASOLINE ENGINE

1E40F-6 GASOLINE ENGINE

SER. NO.	PART NO.	PART NAME	QTY.	SER. NO.	PART NO.	PART NAME	QTY.	SER. NO.	PART NO.	PART NAME	QTY.	SER. NO.	PART NO.	PART NAME	QTY.
1	GB/T70.1	SCREW M5×20	8	24	GB/T70.1	SCREW M6×14	2	47	GB9074.4	SCREW M5×14	6	70	BG305.10.1	FILTER NET	1
2	GB97.1	WASHER 5	9	25	GB/T 93	WASHER 6	6	48	GB9074.13	BOLT M6×12	1	71	BG305.10.2-2	INNER LID	1
3	GB/T70.1	SCREW M5×50	1	26	1E40F-6-5	SUPPORT	1	49	GB9074.13	BOLT M5×10	3	72	BG-328.7-4	CLEANER ELEMENT	1
4	1E40F-6.6-1	CORD GROMMET	1	27	1E40F-6.4.1-1	REAR HALF CRANKCASE	1	50	1E40F-6-11	SUPPORT	1	73	BG305.10.2-3	INNER LID	1
5	1E40F-6.6.1	STARTER	1	28		STATOR	1	51	1E40F-03.02.01	PISTON RING CIRCLIP	2	74	BG305.10.2-1	FUEL TANK CAP	1
6	1E40FP-3Z.4-2	STARTER HANDLE	1	29	GB/T276	BALL BEARING 6201/P6	2	52	1E46FP.6-3	PISTON PIN	1	75	1E40F-6.4-1	INNER WASHER	1
7	1E40FP-3Z.4-10	PIPE	1	30	1E40F-6.4.1-2	TANK CAP GASKET	1	53	1E40F-6.3-1	PISTON	1	76	1E40F-6.4.3	AIR INLET VALVE	1
8	GB39	NUT M5	1	31	1E40F-6.3.1	CRANK SHAFT COMP.	1	54	1E40FP-3Z.3-5	PISTON RING	2	77	1E40F-6.4-2	OUTER WASHER	1
9	1E40F-6.6.1.1	STARTER COVER ASS'Y	1	32	1E40F-3Z.3-1	KEY	1	55	1E40F-6-2	CYLINDER WASHER	1	78	1E40F-6.4.2	INLET MANIFOLD	1
10	1E40FP-3Z.4-7	RECOIL SPRING	1	33	1E46FP.6-2	NEEDLE BEARING	1	56		CLICK SPRING	1	79	1E40F-6-8	SEALING WASHER	1
11	1E40F-6.6.1-1	ROPE	1	34	GB119	PIN B5×12	2	57		PLUG CAP	1	80	1E40F-6.10	CARBURETOR ASS'Y	1
12	1E40F-6.6.1-2	STARTER ROPE REEL	1	35	1E40F-6.4.1-3	FRONT HALF CRANKCASE	1	58	L7T(LD)	PLUG	1	81	GB9074.4	SCREW M5×58	2
13	1E40F-6.6.1-7	STARTER REEL	1	36	GB93	WASHER 5	8	59	GB/T0.1	SCREW M6×20	4	82	3WF-3.19-1	CLICK RING	1
14	1E40F-6.6.1-5	WASHER	1	37	GB/T70.1	SCREW M5×30	4	60	1E40F-6-3	CYLINDER	1	83	1E40F-6-7	FUEL PIPE	1
15	1E40F-6.6.1-6	ROPE GUIDE	1	38	1E40F-6.11-2	CHASSIS	1	61	1E40F-6-9	SEALING WASHER	1	84	1E40F-6.8.1	CLEANER SHROUD	1
16	1E40F-6.6.1-3	PRESS SPRING	1	39	GB96	WASHER 6	1	62	1E40F-6.12	MUFFLER COMP.	1	85	1E40F-6.8-2	CLEANER ELEMENT(-)	1
17	1E40F-6.6.1-4	WASHER	1	40	1E40F-6-4	BOLT	1	63	1E40F-6-10	MUFFLER COVER	1	86	1E40F-6.8-1	CLEANER SHROUD	1
18	GB67	SCREW M5×12	1	41	1E40F-6.11-1	CLUTCH SPRING	3	64	GB97.1	WASHER 6	2	87	1E40F-6.8-3	CLEANER ELEMENT(=)	1
19	GB9074.15	SCREW M6×16-10.9	1	42	1E40F-6.11.1	CLUTCH SHOE	3	65	GB/T70.1	SCREW M6×60-12.9	2	88	GB9074.4	SCREW M5×25	1
20	1E40F-6-1	WASHER	1	43	1E34F-13	WASHER	3	66	1E40F-6.2	CYLINDER SHROUD	1	89		STOP WIRE	1
21		ROTOR	1	44	1E40F-6.11-3	CLUTCH STEP SCREW	3	67	GB9074.4	SCREW M5×20	1				
22	1E40F-6-6	RUBBER WASHER	1	45	1E40F-6.7-1	RUBBER WASHER	1	68	1E40F-6.5-1	FUEL TANK	1				
23	1E40FP-3Z-11	OIL SEAL	2	46	1E40F-6.7.1	SUPPORT	1	69	BG305.10-2	SEALING WASHER	1				

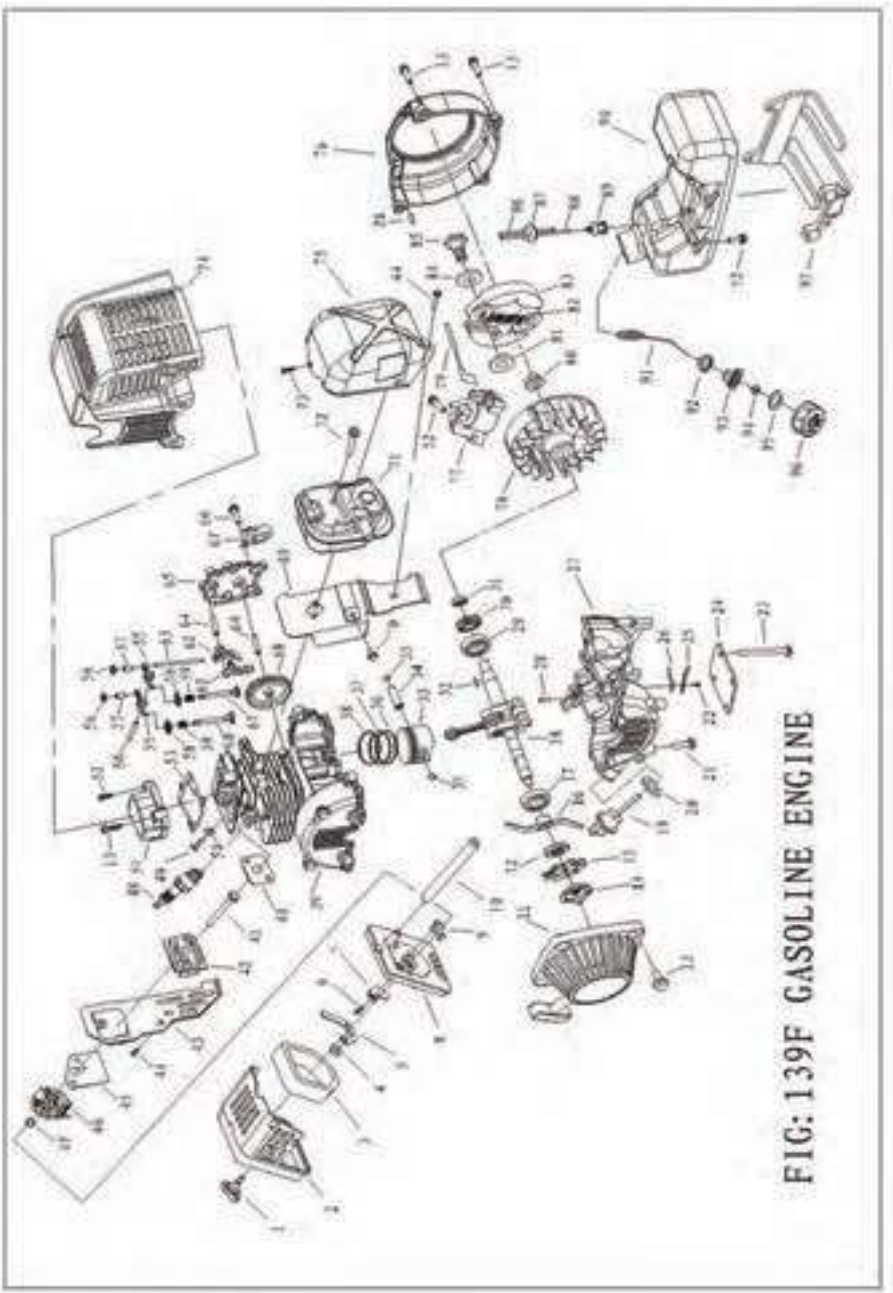
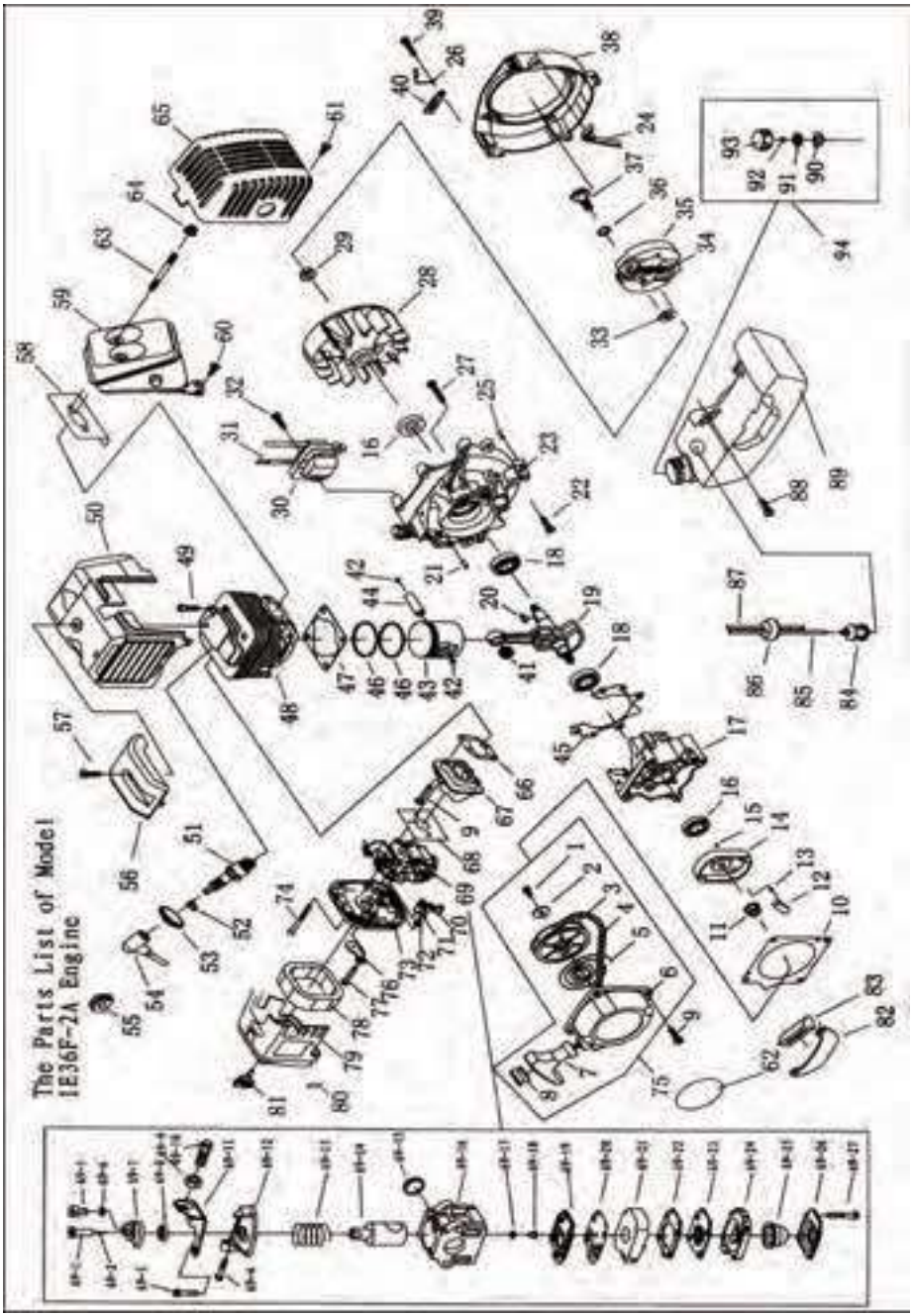


FIG: 139F GASOLINE ENGINE

NO.	PART NO.	PART NAME	QTY.	NO.	PART NO.	PART NAME	QTY.
1	1E34F.1.2	Screw	1	50	139F.7-13	Gasket	1
2	139F.2.1-2	Outside Cover	1	51	139F.11	Cylinder Cover	1
3	139F.3.1-1	Filter Net	1	52	GB/T9074.13	Screw M5×16	7
4	GB/T6177.1	Nut M5	2	53	139F-5	Cylinder Cover Gasket	1
5	139F.2.1.1-3	Baffler	1	54	139F.7-8	Rocker Pin	1
6	GB/T845	Screw ST4.2×12-F-Z	1	55	139F.7-7	Rocker	2
7	139F.3.1.1-2	Choke	1	56	139F.7-5	Adjust Nut	2
8	139F.3.1.1.1	Inside Cover	1	57	139F.7-6	Jib Seat	2
9	139F.2.1.1-1	Choke Handle	1	58	142F.9-2	Spring Seat	2
10	139F.2-4	Windpipe	1	59	139F.7-10	Spring	2
11	139F.10	Starter	1	60	139F.7-12	Input Valve	1
12	139F.8	Seal	1	61	139F.7-11	Output Valve	1
13	GB/T9074.13	Screw M5×20	10	62	139F.7-3	Below Rocker	2
14	139F.9-4	Start Reel	1	63	139F.7-4	Jib	2
15	139F.9-3	Pan	1	64	139F.7-2	Pin	2
16	139F.9-2	Oil Flexiram	1	65	139F.7-1	Cover	1
17	GB/T276	Bearing 6201-RS/P5	1	66	GB/T9074.4	Screw M6×16	5
18	139F.9.1	Crank Shaft	1	67	139F.7-15	Board	1
19	142F-9	Rigatick	1	68	139F.7.2	Cam Wheel	1
20	142F-10	Seal	1	69	139F.12	Board	1
21	GB/T9074.13	Screw M5×20	6	70	GB/T9074.3	Screw M5×8	1
22	GB/T9074.4	Screw M3X8	1	71	139F.4	Muffle	1
23	GB/T9074.13	Screw M5×55	4	72	GB/T9074.13	Screw M5×50	2
24	139F-4	Board	1	73	GB/T9074.4	Screw M5×16	1
25	139F.7-18	Board	1	74	139F.3	Cylinder Cover	1
26	139F.7-19	Rood	1	75	139F-1	Muffle Cover	1
27	139F.7-16	Crank Case	1	76	139F-3	Fly Wheel Cover	1
28	GB119.1	Pin 84×8	3	77		Coil	1
29	GB/T276	Bearing 6002-RS/P5	1	78		Fly Wheel	1
30	139F.9-1	Gear	1	79	139F.5.1	Parking	1
31	139F.6	Seal	1	80	GB/T6177.2	Nut M10×1.25	1
32	GB1099	Key 3×3×13	1	81	1E36F-3	Gasket	2
33	139F.9.2	Piston	1	82	1E40F-5.6-1	Spring	1
34	139F.9-5	Piston Pin	1	83	1E40F-5.6.1	Expander	2
35	1E31F.4-3	Ring	2	84	1E40F-5-11	Washer	2
36	139F.9.3	Oil ring	1	85	1E40F-5-12	Screw Pin	2
37	139F.9-7	Second Piston Ring	1	86	139F.1-1	Fuel Pipe	1
38	139F.9-6	First Piston Ring	1	87	1E36FP.8.1-1	Plug	1
39	139F.7.1	Cylinder	1	88	139F.1-2	Fuel Pipe	1
40	139F.2-3	Admitting Gasket	1	89	1E34F.9.2-3	Cleaner	1
41	GB1788	Screw M5×75	2	90	139F.1-3	Fuel Tank	1
42	139F.2-2	Admitting Pipe	1	91	1E32FL.6.2-4	Chain	1
43	139F-6	Board	1	92	1E32FL.6.2-5	End Cover	1
44	GB/T9074.5	Screw M5×8	2	93	1E32FL.6.2-2	Inside Cover	1
45	139F.3-1	Gasket	1	94	BB-415.4.1.1-1	Inlet	1
46	139F.2.2	Carburetor	1	95	CG420.1.3.1-2	Gasket	1
47	GB2452.1	O Ring 3×2.65	1	96	139F.1.1-1	Fuel Tank Lid	1
48	CR5HSB	Spark Plug	1	97	139F-18	Fuel Tank Nog	1
49	139F.7-14	Localizer Screw	1				


The Parts List of Model
1E36F-2A Engine

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