

Robin Blower

MODEL FL411

INSTRUCTION MANUAL

- Assembly
- Maintenance
- Operation
- Repair Parts

CAUTION:

**Read Rules for Safe Operation and
Instructions Carefully**



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Tokyo-Japan

INTRODUCTION

The ROBIN BLOWER MODEL FL411 is a lightweight, high performance 2 cycle two stroke gasoline powered blower, which is designed for autumn leaves, driveway and sidewalk sweeping, gutter cleaning, and light snow and debris removal. The blower works faster and more efficiently than rakes or brooms. Excellent balance, a vibration damping system, and light weight ensure comfortable, safe, and fatigue-free operation.

This manual provides instructions for assembly, operation, and maintenance of your unit. Be sure to read this manual before operation.

IMPORTANT

RULES FOR SAFE OPERATION

1. Gasoline

- (1) Handle gasoline with care. It is highly flammable.
- (2) Use proper gasoline-oil fuel mixture.
- (3) Refuel before starting work.
- (4) Do not refuel a hot engine.
- (5) Avoid spilling fuel or oil. Always wipe unit dry before using.
- (6) Move at least 3 meters (10 feet) away from the fueling point before starting engine.
- (7) Always store gasoline in an approved container.

2. Operation

- (1) Do not operate in an unventilated area.
- (2) Do not allow bystanders in work area.
- (3) Always wear light clothing.
- (4) Always wear safety glasses and a face filter mask.
Wear ear protectors where possible.
- (5) Do not touch muffler, spark plug and rotating parts.
- (6) Do not run the machine without flexible corrugated pipe and spout pipe or the engine may be damaged.

3. Check

- (1) Always check periodically for efficient and safe operation.
- (2) Before Storing, drain fuel tank and carburetor.
- (3) Wash air cleaner element with neutral detergent and dry it well.
- (4) Remove dust from blower.
- (5) Tighten bolts if they are loose.
- (6) Replace damaged parts.
- (7) Always use proper parts for replacement.

I. TECHNICAL SPECIFICATIONS Model FL411

Dimensions	:	L x W x H = 370 x 550 x 465 mm (14.6 in. x 21.7 in. x 18.3 in.)
Weight, dry	:	8 kg (17.6 lbs.)
Fuel capacity	:	2.9 litre (0.766 gal.)
Engine Type	:	Air cooled two stroke
Displacement	:	40.2 cc (2.5 cu.in.)
Ignition system	:	Solid State Ignition
Carburetor	:	Float type
Spark plug	:	NGK BPM7A
Spark plug gap	:	0.6 – 0.7 mm (.024 – .028")
Starter	:	Automatic recoil
Max. air volume	:	11 m ³ /min. (385 cu.ft./min.)
Max. air speed	:	83 m/sec. (273 ft/sec.)
Fuel	:	Fuel-Oil Mix Between 20 and 25 to 1
		For the first twenty hours, use the mixing ratio of between 15 and 20 to 1

*Specifications are subject to change without notice.

II. COMPONENT IDENTIFICATION

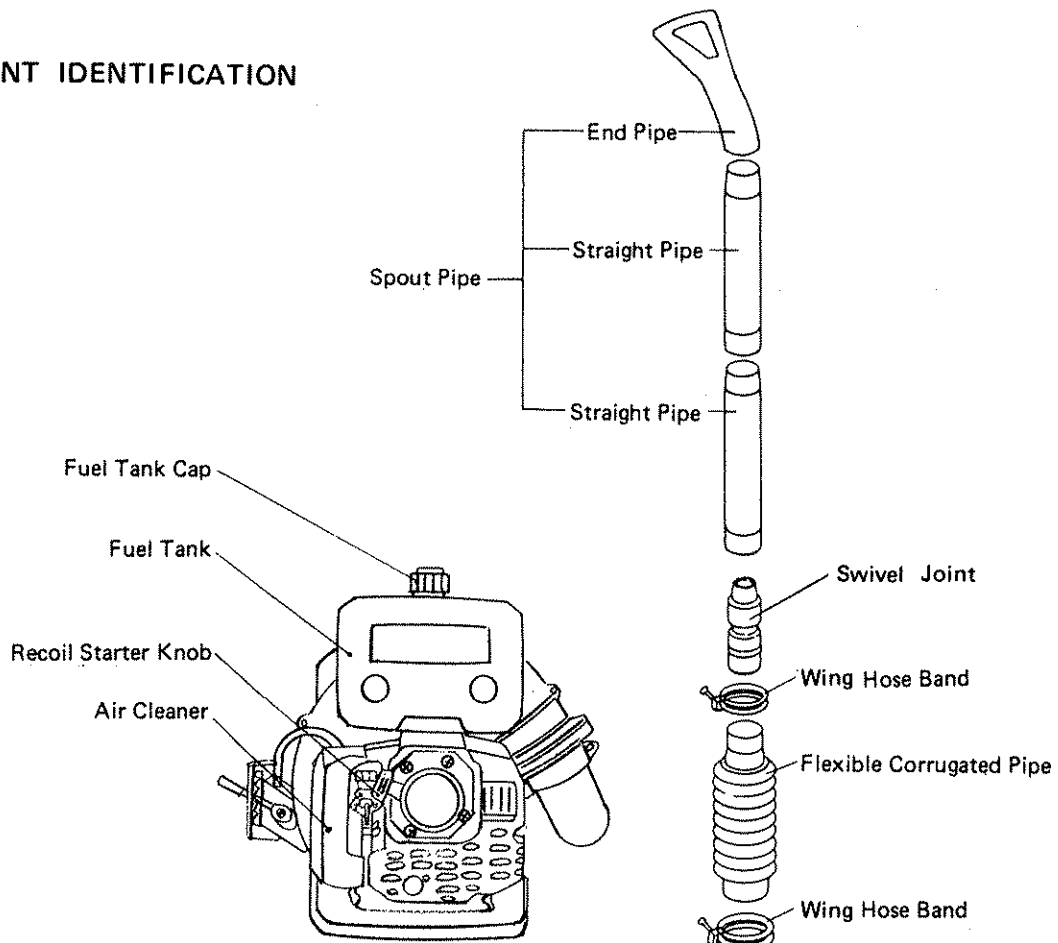


Figure 1

III. ASSEMBLY INSTRUCTIONS

1. Attach throttle lever to the machine. (Fig. 2)
Note: Ensure that the lever can be operated normally.

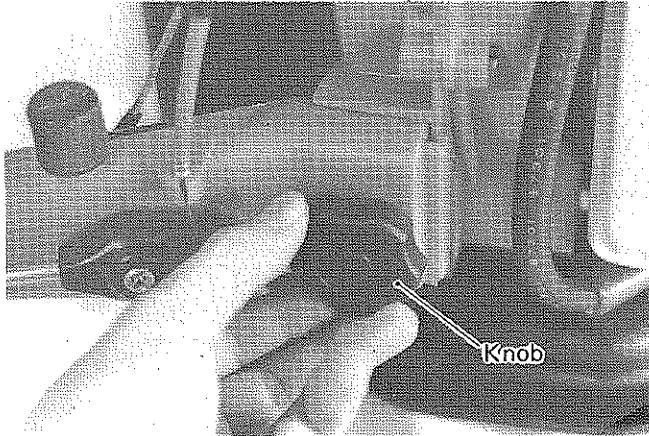


Figure 2

2. Attach shoulder straps to the machine. (Fig. 3)
Note: Adjust the straps to fit your body.

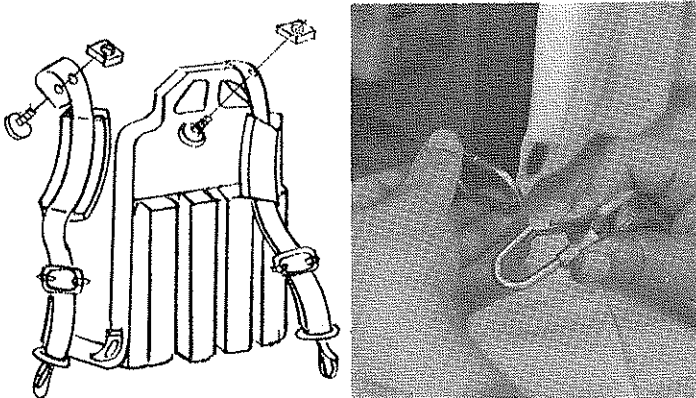


Figure 3

3. Assemble blower pipes. (Fig. 1)
Note: Assemble pipes securely or they may separate while operating.

IV. PREPARATION FOR USE

1. Ensure again that all parts are assembled correctly and that all nuts and bolts are properly tightened.
CAUTION: Attach flexible corrugated-pipe and spout pipe.
2. Adjust shoulder straps to fit your body so that pads rest comfortably on your shoulder.
3. Fuel and oil mixing
 - (1) Mixing ratio of fuel and oil: 20 – 25 : 1
Example: 20 : 1 = gasoline 1 gal. : oil 7 oz.
25 : 1 = gasoline 1 gal. : oil 6 oz.
 - (2) Pour half the gasoline into the container, add oil and shake to ensure thorough mixing. Now add the remainder of gasoline and shake again.

WARNING! **WARNING!** **WARNING!**
WHEN MIXING GASOLINE WITH TWO CYCLE ENGINE OIL, USE ONLY GASOLINE WHICH CONTAINS NO ETHANOL OR METHANOL (TYPES OF ALCOHOL), THIS WILL

HELP TO AVOID POSSIBLE DAMAGE TO ENGINE FUEL LINES AND OTHER ENGINE PARTS.

CAUTION:

- Do not use fuel mixture that has been stored longer than two (2) months. Fuel mixture stored longer than this will cause hard starting and poor performance. If fuel mix has been stored longer than this time it should be removed and replaced with a fresh mixture.
 - Use only a good grade of regular gasoline.
 - Use only a reputable brand of 2-cycle, air cooled engine oil.
 - For the first twenty hours, use the mixing ratio of between 15 and 20 to 1.
4. Fill the tank with fuel without spilling.
 - (1) Do not over fill the fuel tank.
 - (2) Wipe all spilled fuel with a dry cloth.
 - (3) Always attach the fuel strainer. (Fig. 10)
 - (4) Tighten fuel cap securely.

V. STARTING THE ENGINE (Fig. 4 & 5)

1. Open fuel cock. (Fig. 4)
2. Close choke lever. (Fig. 4)
Note: In winter, close fully, but in summer or when the engine is warm, open partly or fully.

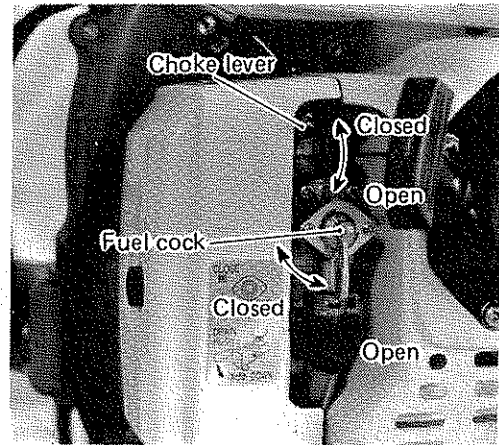


Figure 4

3. Push up throttle lever. (Fig. 6)
4. Holding the machine with your left hand and putting your left foot on the machine frame, give a strong and straight pull to the recoil starter with your right hand. (Fig. 5)

CAUTION

Do not release the rope quickly, but return it gently with care.

5. After the engine fires, open choke lever gradually to reduce engine speed.
6. Warm up the engine at low speed.
Note: winter: about 5 min. summer: 2 – 3 min.



Figure 5

VI. STOPPING THE ENGINE

1. Push down throttle lever to reduce engine speed.
2. Stop the engine by pushing stop button. (Fig. 6)
3. Put the machine down on the ground and close fuel cock.

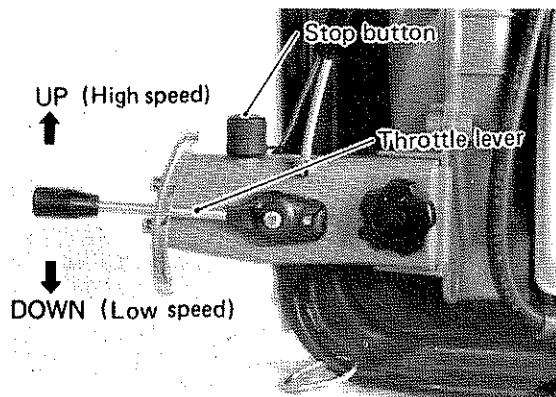


Figure 6

VII. OPERATING THE BLOWER

1. Adjust shoulder straps correctly to make the machine fit your body.
2. After the engine starts, put the machine on your back without inclining.
3. The velocity of air stream can be controlled from a gentle breeze to a high-speed blast by the throttle lever.
4. Select the best speed for each application of the blower. Example: low speed for blowing dry leaves from lawn and high speed for moving gravel or dirt from driveway. (Fig. 7 & 8)

CAUTION

- Do not point the blower pipe in the direction of people or animals.
- Always wear safety glasses and use a dust mask.
- Do not operate in unventilated area.

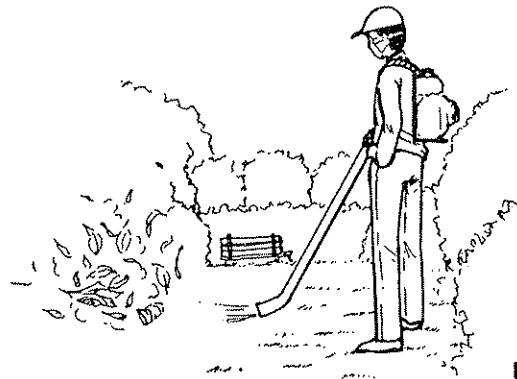


Figure 7

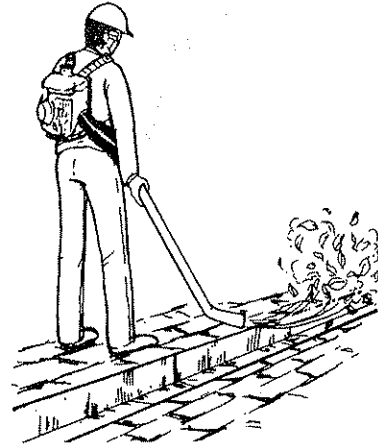


Figure 8

VIII. CHECK AND MAINTENANCE

1. Air cleaner (Fig. 9)
 - (1) Remove air cleaner cover and take out air filter.
 - (2) Accumulated dust on the air filter will reduce engine efficiency and increase fuel consumption.
 - (3) Wash air filter and dry it well.

CAUTION

Do not use gasoline and inflammable solvent to clean the filter. (Assemble in such a manner that the slit faces downward and a brush portion comes inside.)

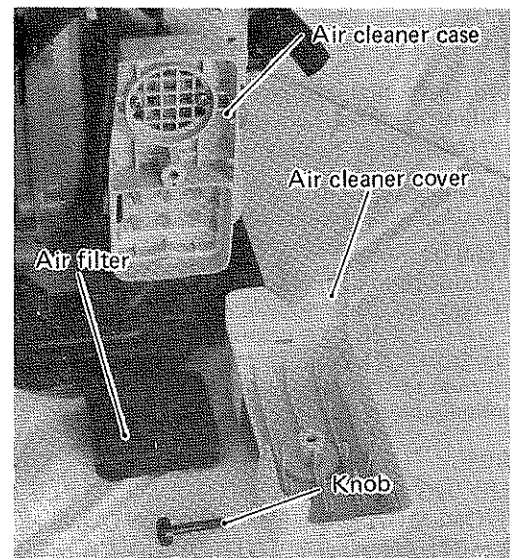


Figure 9

2. Fuel strainer (Fig. 10)
 - (1) Fuel tank is fitted with a fuel strainer located under filler cap. Do not remove this strainer when filling the tank.
 - (2) The strainer should be removed and cleaned at regular intervals.

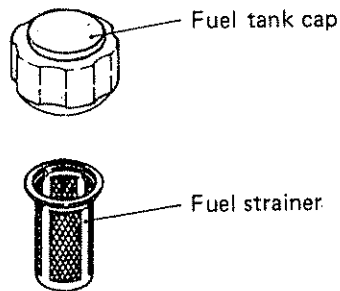


Figure 10

3. Spark plug (Fig. 11)
 - (1) Clean or replace the plug if fouled with oily black deposits.
 - (2) Replace the plug if the center electrode is rounded at the end or if the ground electrode is worn.
 - (3) Adjust the gap 0.6 – 0.7 mm (.024 – .028”).

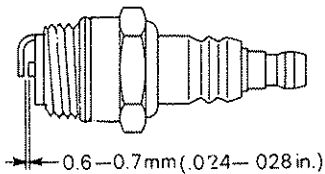


Figure 11

4. Carburetor (Fig. 12)
 - (1) Carburetor has been correctly adjusted at the factory for optimum performance.
 - (2) To adjust idling speed, turn the throttle stop screw (turning it clockwise increases engine speed and turning it counterclockwise reduces the speed).
 - (3) Idling speed must be adjusted to the minimum constant speed.

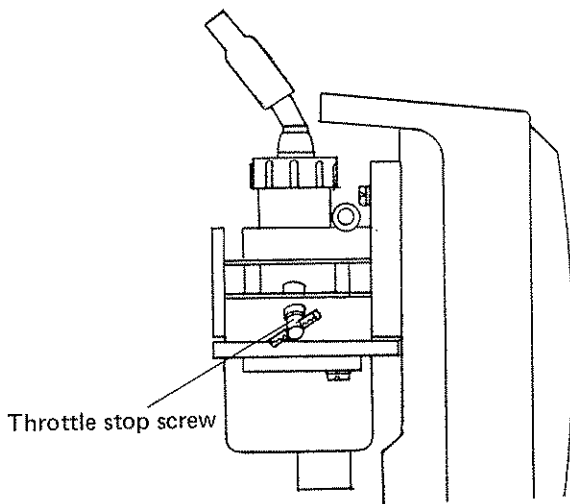


Figure 12

5. MUFFLER AND EXHAUST PORT

In the event that the engine should lose power and overheat, the muffler should be removed and checked for excessive deposits. Carbon build up in the exhaust port should be removed with a piece of wood, removing particles of carbon deposits from the muffler flange area and wash the complete unit in a suitable solvent.

IX. STORAGE AFTER USE

1. Correctly preparing your ROBIN BLOWER for extended storage will be amply rewarded by an increased service life and trouble-free performance.
2. Drain fuel tank and carburetor thoroughly. Drain carburetor through drain cock.
3. Remove spark plug, pour one teaspoon of engine oil into cylinder and pull recoil starter gently to distribute the oil. Replace spark plug securely.
4. Thoroughly clean the unit and coat unprotected surfaces with oil to prevent rust.
5. Store the unit in a dry atmosphere to prevent rust.

X. TROUBLE SHOOTING

Refer to the chart to locate the problem and take the appropriate action.

Table 1

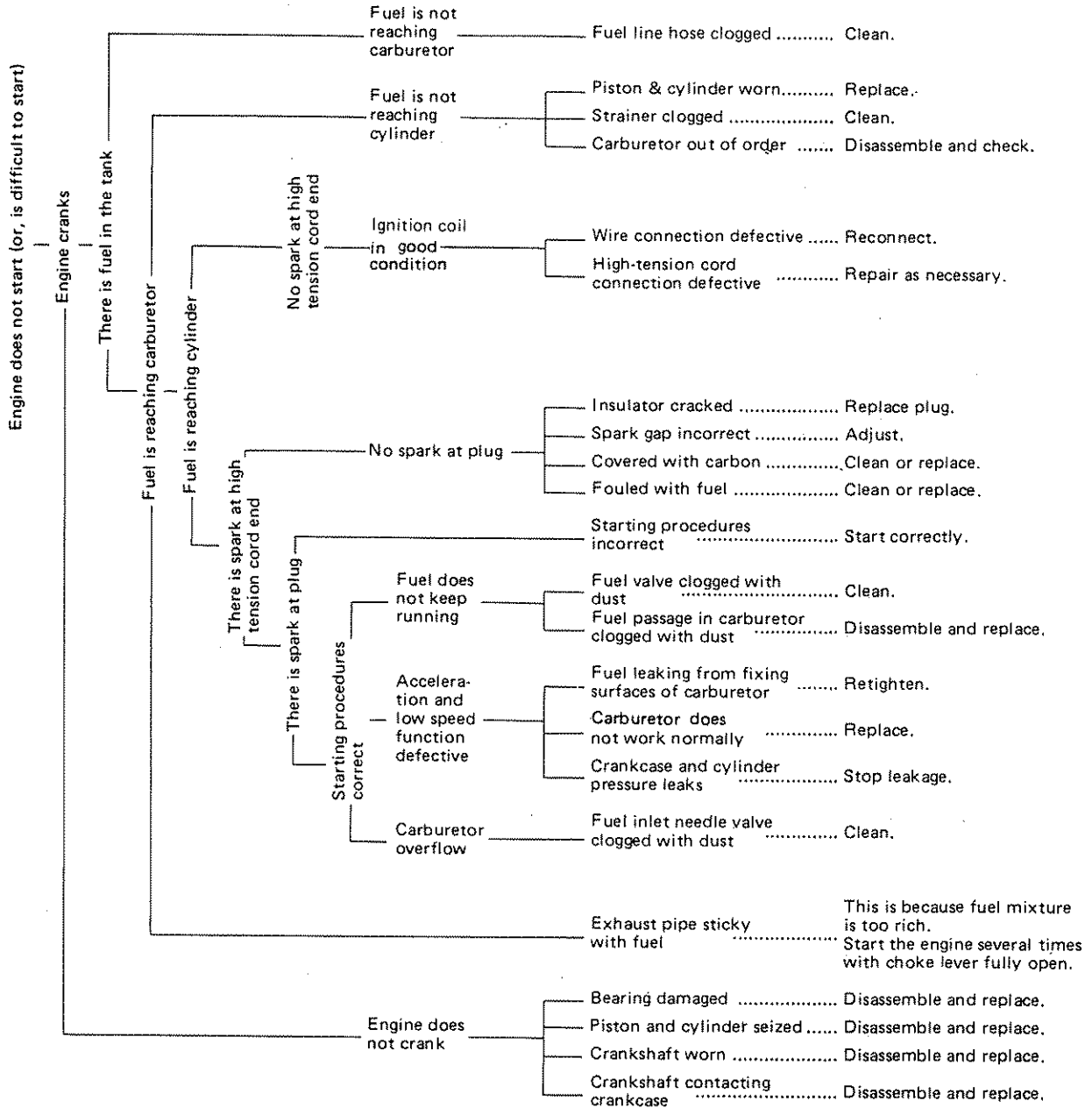
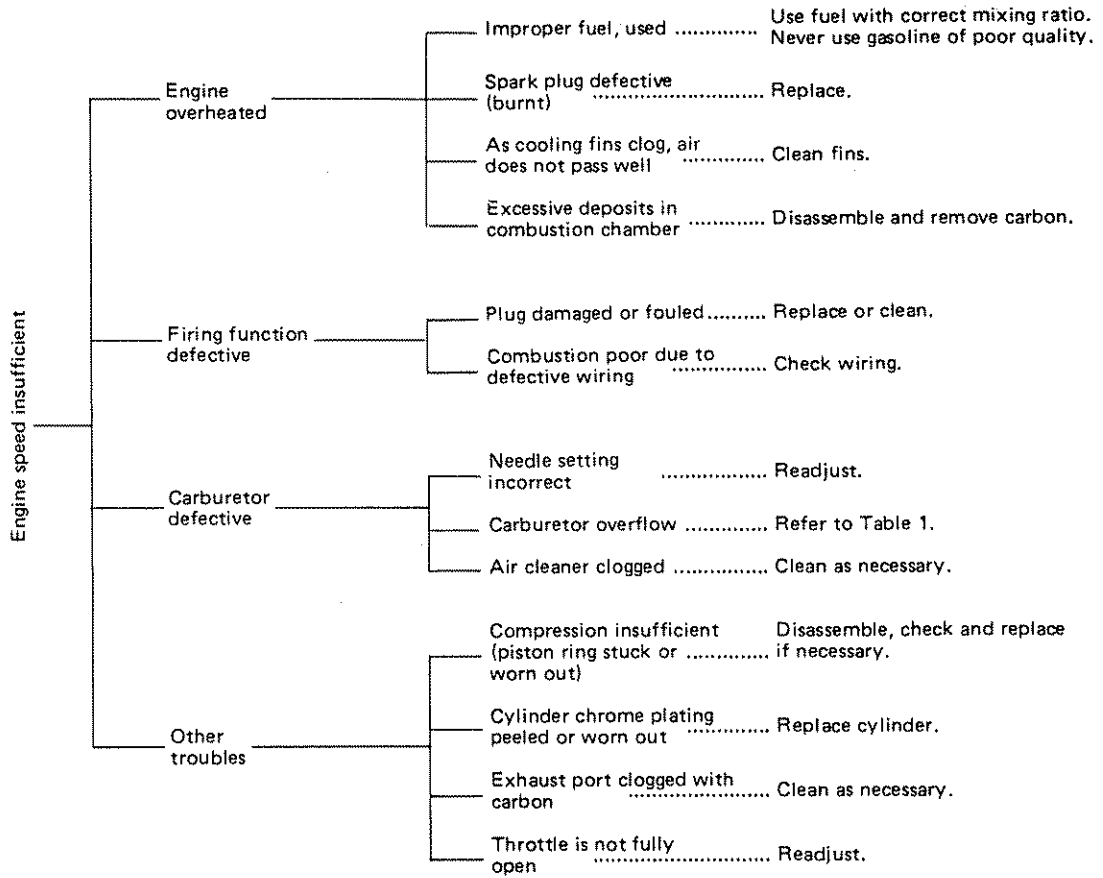
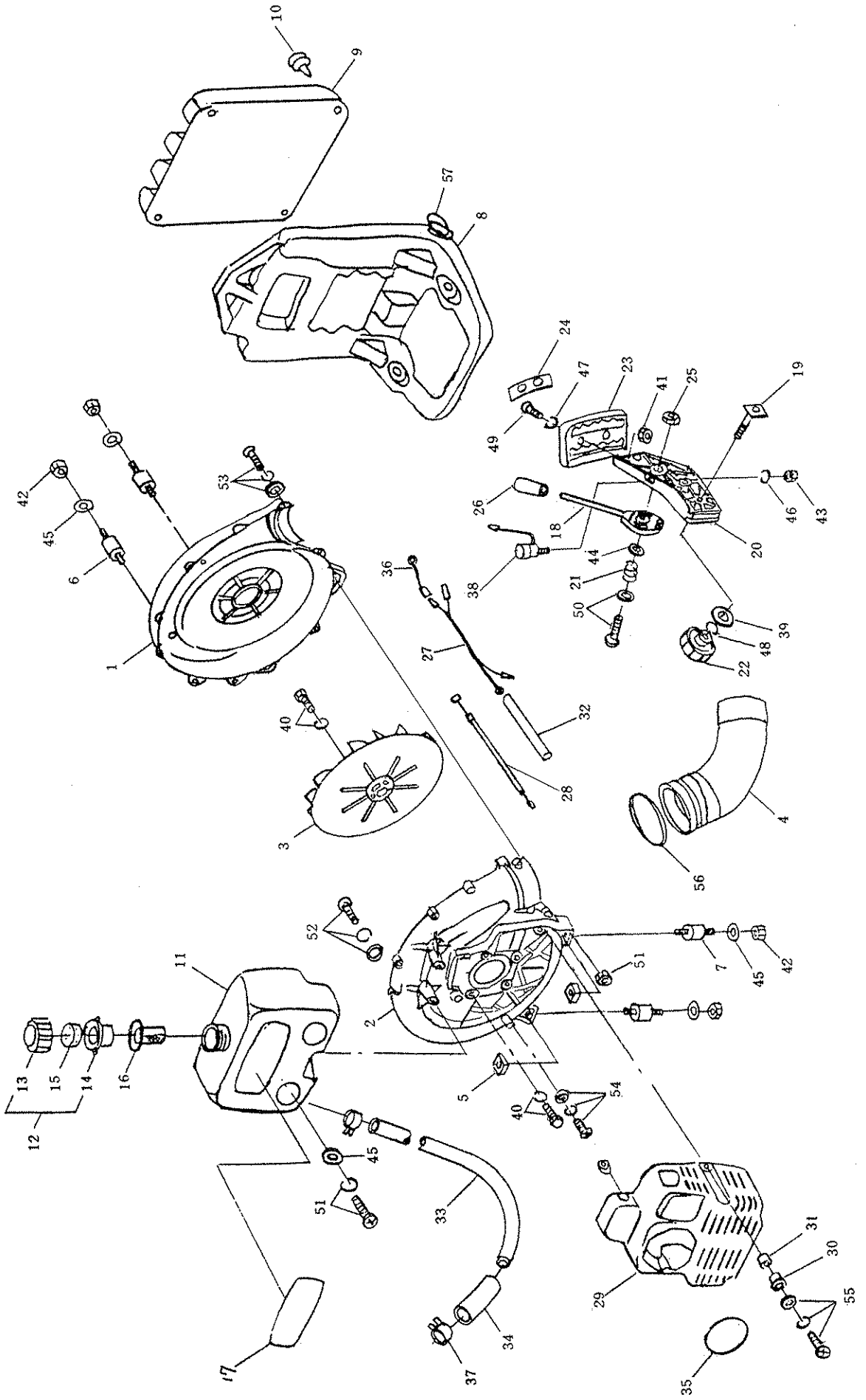


Table 2



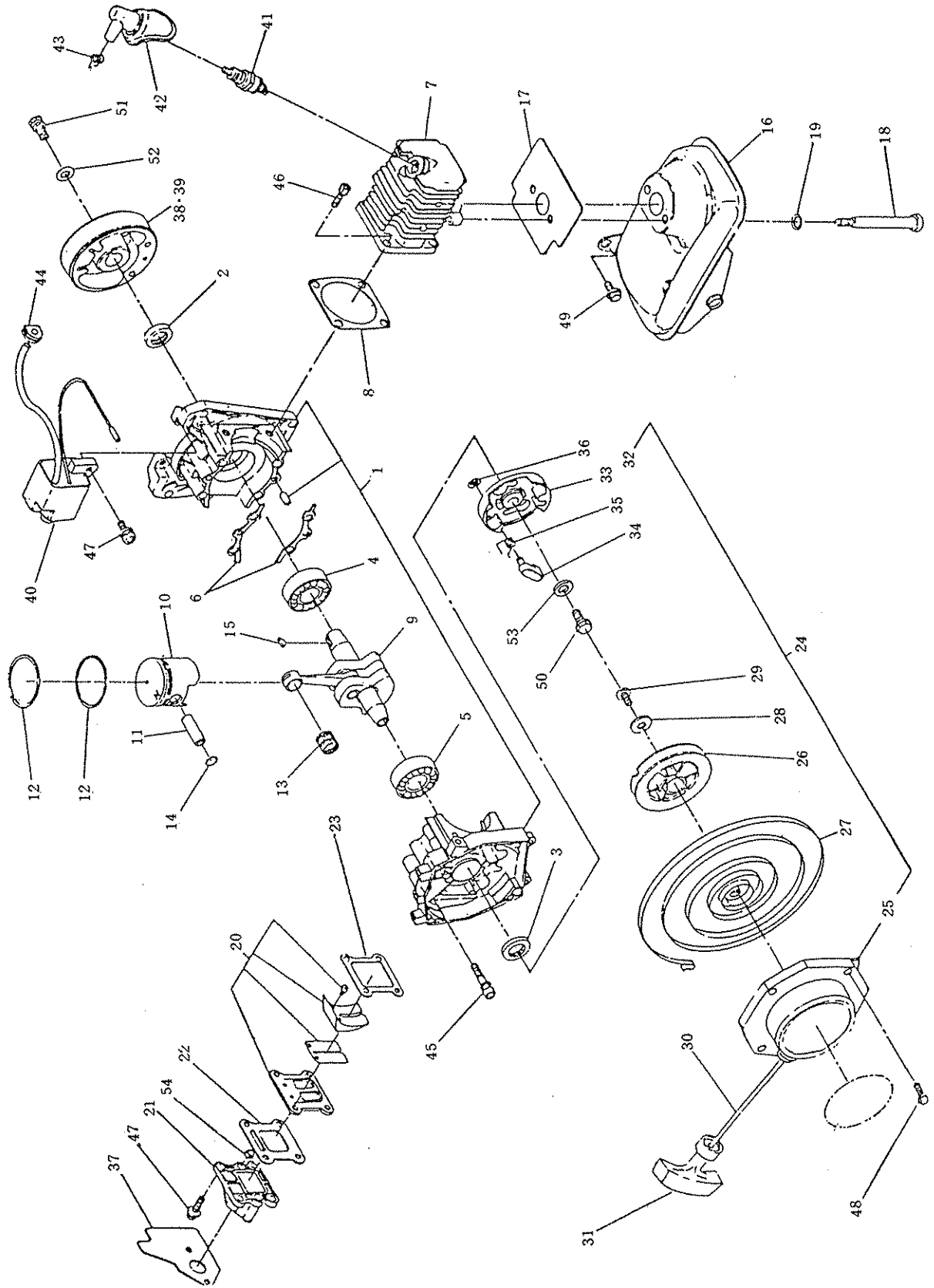
ROBIN BLOWER PARTS LIST MODEL FL411



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KEY NO.	PART NO.	QTY.	DESCRIPTION	KEY NO.	PART NO.	QTY.	DESCRIPTION
1	6821500001	1	Volute case (front)	41	00218 0500 0	14	Nut
2	6621001000-1	1	Volute case (rear)	42	00217 0600 0	4	Nut
3	6821500200	1	Impeller	43	00227 0400 0	1	Nut
4	6621500000	1	Bent tube	44	00316 0600 0	1	Washer
5	6821500800	2	Nut (square)	45	00312 0600 0	6	Washer
6	6116500300	2	Vibration-proof rubber (A)	46	00320 0400 0	1	Spring washer
7	6116500400	2	Vibration-proof rubber (B)	47	00320 0500 0	2	Spring washer
8	6622001000-1	1	Frame compl. (Incl. 57)	48	00320 0600 0	1	Spring washer
9	6622002000-1	1	Shoulder pad compl.	49	00431 0512 0	2	Screw
10	6622500200	4	Lock rivet	50	00433 0630 0	1	Screw ass'y
11	6623001000	1	Fuel tank	51	00435 0620 0	2	Screw ass'y
12	6813001000	1	Fuel tank cap ass'y	52	00436 0616 0	2	Screw ass'y
13	5106502600	1	Fuel tank cap	53	00436 0525 0	12	Screw ass'y
14	6983500001	1	Packing	54	00437 0520 0	1	Screw ass'y
15	0641209990	1	Fuel filter	55	00437 0620 0	3	Screw ass'y
16	0641279990	1	Fuel strainer	56	00626 3085 0	1	O ring
17	6629500000	1	Label (tank)	57	6822500300	2	Ring
18	6825001000	1	Throttle lever				
19	6825004000	1	Bolt compl.				
20	6825500100-1	1	Lever stay				
21	6825500500-1	1	Spring (throttle lever)				
22	6824501400	1	Clamp nut (Guard)				
23	6625500000	1	Gauge plate				
24	6629500200	1	Label (gauge plate)				
25	6825500700	1	U nut				
26	6985501600	1	Knob				
27	6828001001	1	Lead compl. (A)				
28	6828002001	1	Throttle wire				
29	6828500000-1	1	Engine cover				
30	6828500100	3	Vibration-proof rubber				
31	6828500200	3	Spacer				
32	6828500300-1	1	Vinyl tube				
33	6623500001	1	Fuel-line hose				
34	6823500100	1	Fuel-line hose protection tube				
35	6629500100	1	Label (model)				
36	6828004000	1	Lead compl. (B)				
37	0561139982	2	Calmp (hose)				
38	0662009810	1	Stop button				
39	0203069980	1	Spring washer				
40	00113 0625 0	7	Bolt				

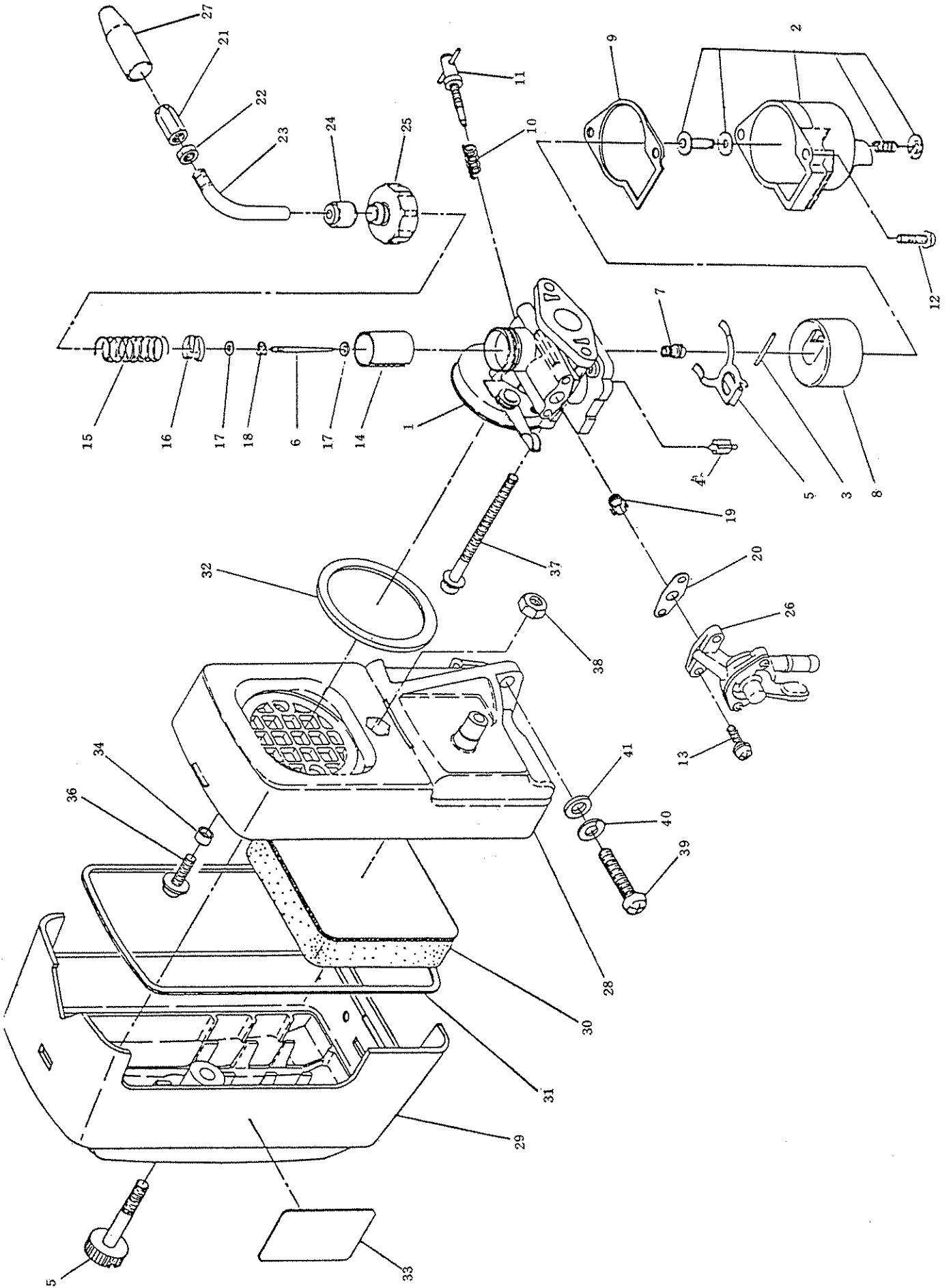
ROBIN BLOWER PARTS LIST MODEL FL411



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KEY NO.	PART NO.	QTY.	DESCRIPTION	KEY NO.	PART NO.	QTY.	DESCRIPTION
1	5411007000	1	Crank case ass'y (Incl. 2~6)	41	0650 14971 0	1	Spark plug NGK BPM 7A equivalent
2	0440 17993 0	1	Oil seal (rear) TC17286	42	5417500200	1	Spark plug cap
3	0440 15997 1	1	Oil seal (front) TC15257	43	0654 00995 2	1	Plug cap spring
4	0600 17983 0	1	Ball bearing 6203 C 3	44	0241 05997 0	1	Grommet
5	0600 15988 0	1	Ball bearing 6202 C 3	45	0119 05994 0	4	Bolt (socket head) (M5 x 30)
6	5411006000	1	Crank case packing	46	0119 06999 0	4	Bolt (socket head) (M6 x 18)
7	5411500300	1	Cylinder	47	00436 0520 0	6	Screw ass'y (M5 x 20)
8	5411500500	1	Cylinder packing	48	0140 06994 0	4	Screw (M6 x 20)
9	5412003000	1	Crank shaft ass'y	49	00115 0616 0	1	Bolt ass'y (M5 x 16)
10	5412500800	1	Piston	50	00113 0626 0	1	Bolt ass'y (M6 x 16)
11	5412500300	1	Piston pin	51	00113 0816 0	1	Bolt ass'y (M8 x 16)
12	5402500600	2	Piston ring	52	00311 0800 0	1	Washer
13	5412501300	1	Needle bearing	53	0200 06992 0	1	Washer
14	0565 09999 0	2	Clip	54	00217 0500 0	2	Nut
15	00532 0310 1	1	Woodruff key				
16	5323001000	1	Muffler compl.				
17	5413501700	1	Muffler gasket				
18	5413502000	2	Muffler bolt				
19	0200 09999 0	2	Washer				
20	5413008000	1	Reed ass'y				
21	5413501800	1	Insulator				
22	5413501200	1	Insulator packing				
23	5413502800	1	Reed bracket packing				
24	5415002000	1	Recoil starter compl. (Incl. 25~36)				
25	5415003000	1	Recoil starter ass'y (Incl. 26~31)				
26	5415003010	1	Reel				
27	5415003020	1	Spiral spring				
28	5415003030	2	Washer				
29	5105015110	2	Set screw				
30	5415001140	1	Starter rope				
31	5305002110	1	Starter knob				
32	5415011000	1	Pulley ass'y (Incl. 33~36)				
33	5415500200	1	Starter pulley				
34	5415011010	1	Ratchet				
35	5415011020	1	Return spring				
36	5215003040	1	E-ring				
37	5416502000	1	Packing (carburetor)				
38	5417002000	1	Magneto compl. (Incl. 39, 40)				
39	5417002010	1	Flywheel				
40	5417002020	1	Ignition coil				

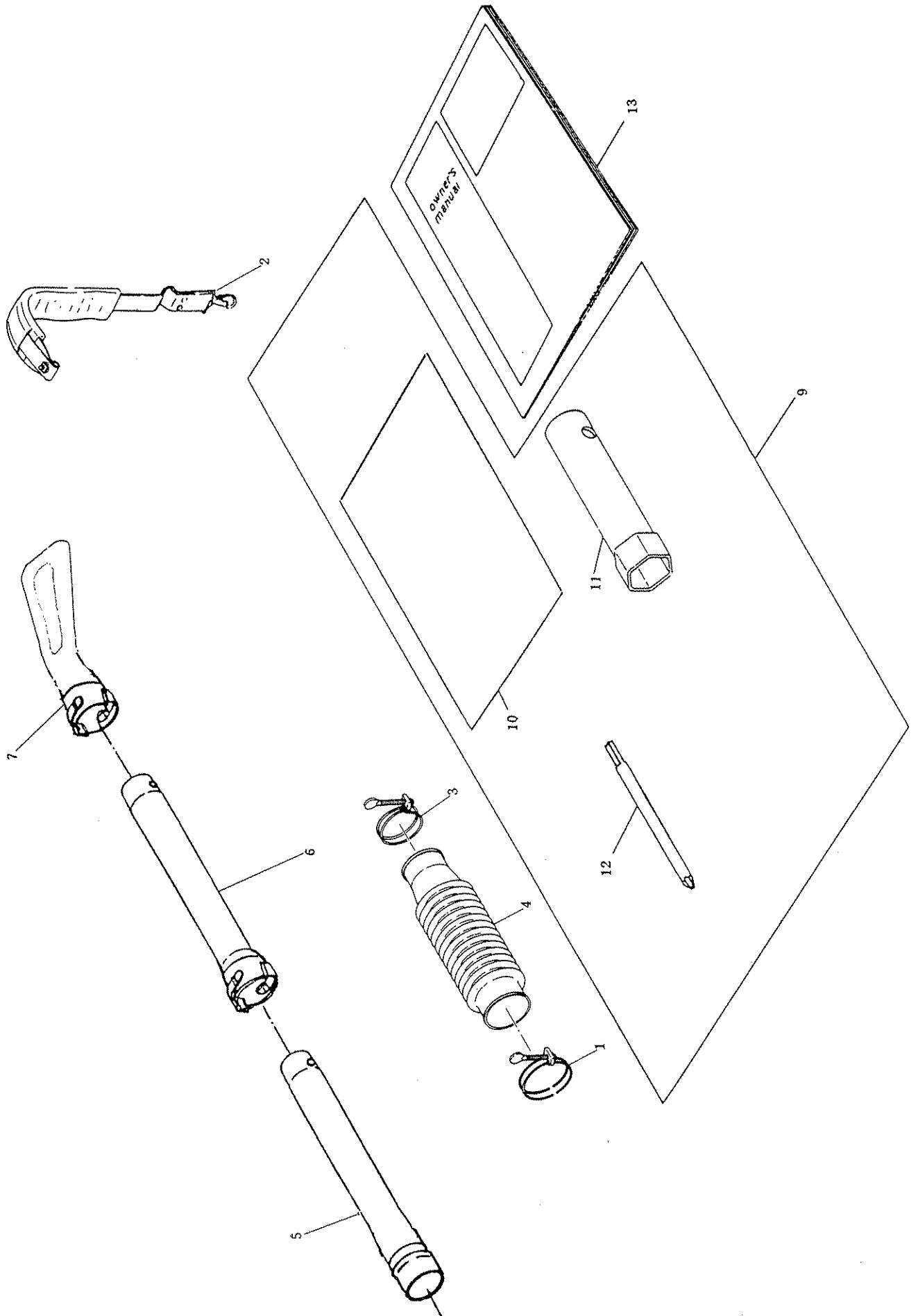
ROBIN BLOWER PARTS LIST MODEL FL411



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KEY NO.	PART NO.	QTY.	DESCRIPTION
1	5416003000	1	Carburetor compl. (Incl. 2~27)
2	5326001010	1	Float chamber body
3	5306009160	1	Float pin
4	5306009150	1	Needle ass'y
5	5306009230	1	Float arm
6	5306009410	1	Jet needle
7	5416003010	1	Main jet (#85)
8	5306009020	1	Float
9	5306009220	1	Gasket
10	5416001110	1	Spring
11	5326001110	1	Adjusting screw
12	5306009510	2	Screw
13	8046001530	2	Screw
14	5416003020	1	Piston valve (#1.0)
15	5306009240	1	Spring
16	5306009120	1	Spring seat
17	5416001040	2	Packing
18	5306009450	1	E-ring
19	5306009050	1	Filter
20	5306009210	1	Gasket
21	5306009310	1	Cable adjuster
22	5306009460	1	Nut
23	5306009340	1	Cable guide
24	5306009250	1	Cap
25	5306009260	1	Top
26	5326001050	1	Cock body ass'y
27	5416001010	1	Cap
28	5413501300	1	Cleaner body
29	5413501500	1	Cleaner cover
30	5413501600	1	Element
31	5413502600	1	Packing
32	5413503100	1	Packing
33	5419500100	1	Label
34	0230 05999 0	2	Spacer
35	5413501900	1	Bolt (cleaner)
36	00434.0516 0	2	Screw ass'y (M5 x 16)
37	00436.0565 0	2	Screw ass'y (M5 x 65)
38	0170 06996 0	1	Nut
39	0140 06998 0	1	Screw (M6 x 20 SUS)
40	0203 06998 0	1	Spring washer (SUS)
41	0200 06993 0	1	Washer (SUS)

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KEY NO.	PART NO.	QTY.	DESCRIPTION
1	6989016000	1	Wing hose band (big)
2	6829004000	2	Shoulder band ass'y
3	6989017000	1	Wing hose band
4	6989506900	1	Corrugated pipe
5	6829022000	2	Pipe compl.
6	6829502900-2	1	Straight pipe (B)
7	6629501300	1	End pipe
9	5019001000	1	Tool kit (Incl. 10~12)
10	0700 00500 0	1	Tool bag
11	0713 19990 0	1	Box wrench
12	0715 06990 0	1	Plus driver
13	6629500400	1	Owner's manual

