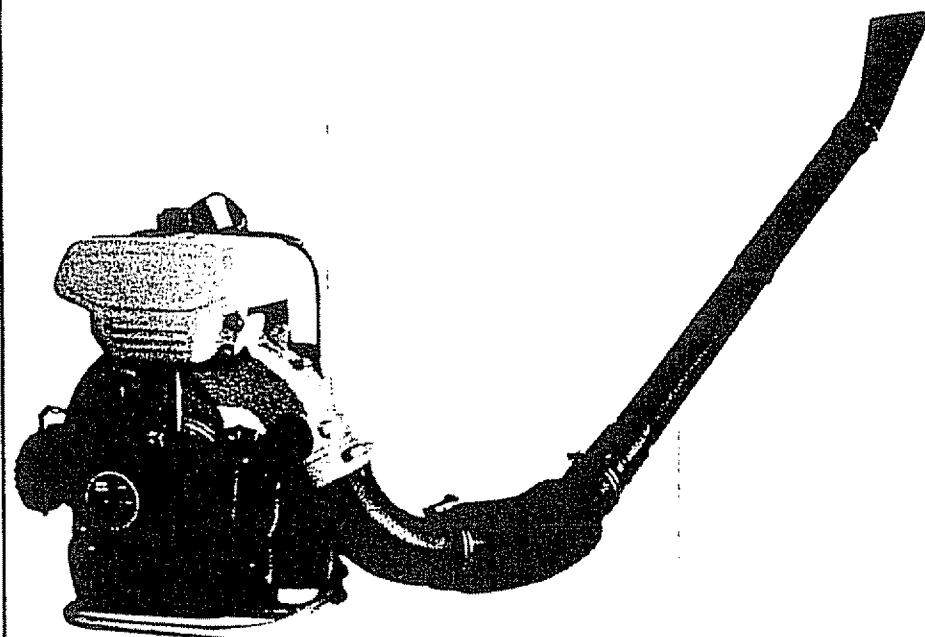


**SEARS**

owner's  
manual

MODEL NO.  
636.796912

CAUTION:  
Read Rules for  
Safe Operation  
and Instructions  
Carefully



# **CRAFTSMAN**

## **37.7 cc GAS POWER BLOWER**

- Assembly
- Maintenance
- Operation
- Repair Parts

6619501201

Sears, Roebuck and Co., Chicago, Ill. 60684 U.S.A.

6619501201 7/88

PRINTED IN JAPAN



**TWO YEAR LIMITED WARRANTY ON CRAFTSMAN  
POWER BLOWER 636.796912**

For two years from date of purchase, when this POWER BLOWER is maintained, lubricated, and tuned up according to the operating and maintenance instructions in the owner's manual, Sears will repair free of charge any defect in material or workmanship.

This warranty excludes blower pipes, spark plug, and air cleaner: which are expendable parts and become worn during normal use.

If this POWER BLOWER is used for commercial or rental purposes, this warranty applies for only 30 days from the date of purchase.

WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES. This warranty applies only while this product is in use in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SEARS, ROEBUCK AND CO.  
DEPT. 698/731A  
SEARS TOWER  
CHICAGO, ILLINOIS 60684

## INTRODUCTION

The Sears Power Blower, Model 636.796912 is a lightweight, high performance 2 cycle two stroke, gasoline powered blower, which is designed for autumn leaves, driveway and sidewalk sweeping, gutter cleaning, 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 for your unit. Be sure to read this manual before operation.

## IMPORTANT

### RULES FOR SAFE OPERATION

1. Gasoline
  - (1) Handle gasoline with care. It is high inflammable.
  - (2) Use proper gasoline-oil fuel mixture. See P. 4.
  - (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 approved container.
2. Operation
  - (1) Do not operate in 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 spent pipe or the engine may be damaged.
  - (7) Do not use the machine in such a way that the end of spout pipe may be covered.
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 further if they are loose.
  - (6) Replace damaged parts.
  - (7) Always use proper parts for replacement.

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I. TECHNICAL SPECIFICATIONS Model 636.796912

Dimensions	:	L x W x H = 450 x 490 x 495 mm (17.7 in. x 19.3 in. x 19.5 in.)
Weight, dry	:	8 kg (17.6 lbs.)
Fuel capacity	:	2.4 litre (0.634 gal.)
Engine Type	:	Air cooled two stroke
Displacement	:	37.7 cc (2.3 cu in.)
Ignition system	:	Solid State Ignition
Carburetor	:	Float type
Spark plug	:	S.T.D. 360942
Spark plug gap	:	0.6 – 0.7 mm (.024 – .028")
Starter	:	Automatic recoil
Max. air volume	:	11 m <sup>3</sup> /min. (385 cu.ft./min.)
Max. air speed	:	83 m/sec. (273 ft/sec.)
Muffler	:	Spark arrester
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

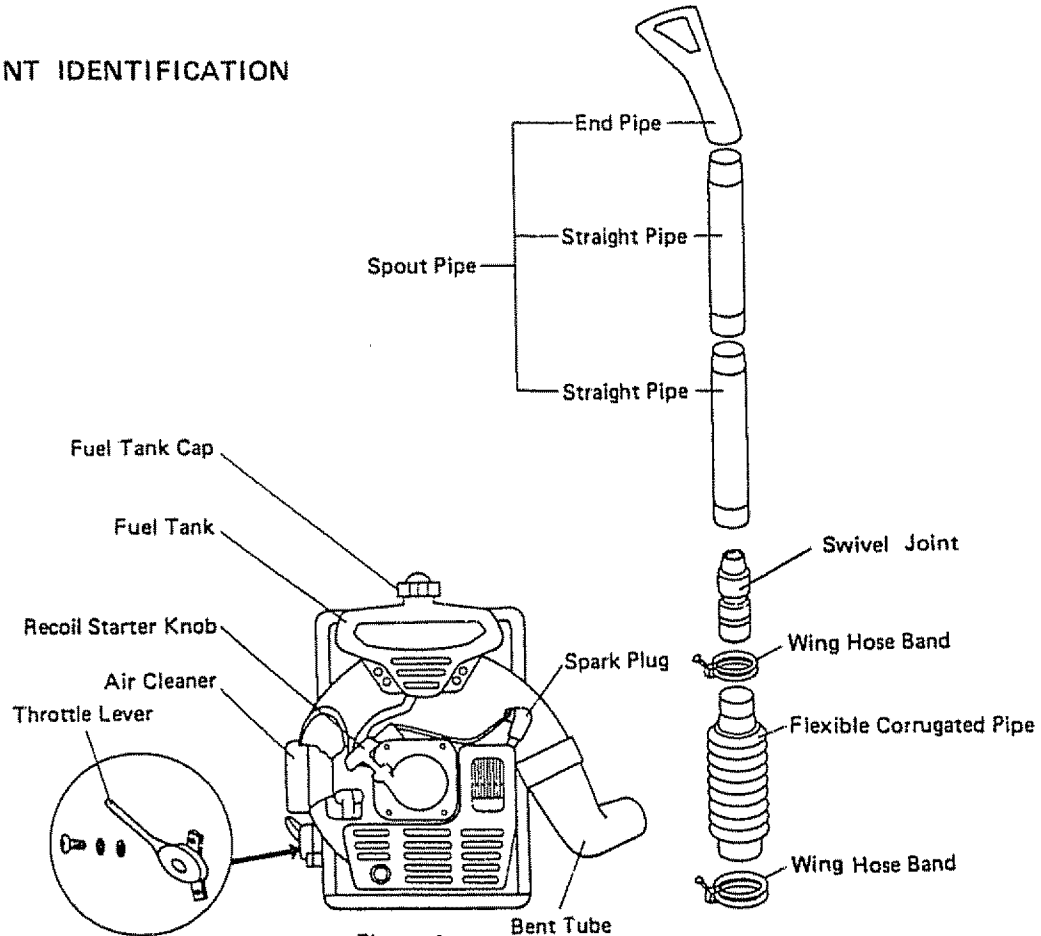


Figure 1

### III. ASSEMBLY INSTRUCTIONS

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

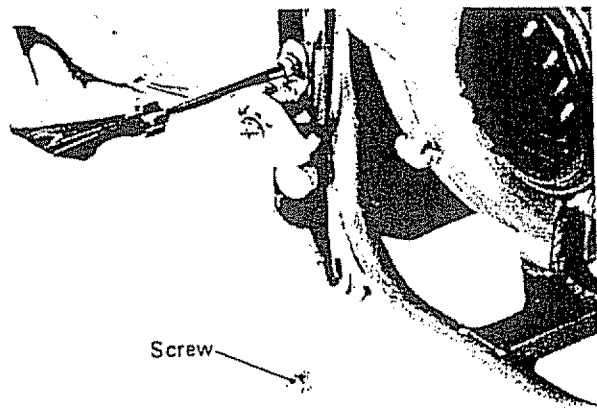


Figure 2

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

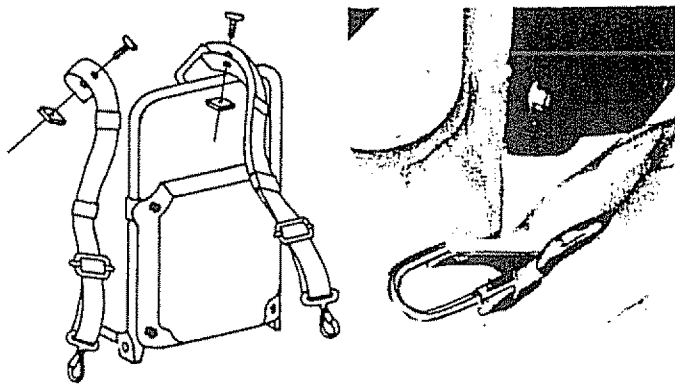


Figure 3

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 normally and that all nuts and bolts are properly tightened
2. Adjust shoulder straps to fit your body so that pads rest comfortably on your shoulder or you will be tired.
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:** Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

To avoid engine problems, the fuel system should be emptied before storage for 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information.

Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

#### CAUTION:

- When preparing fuel mixture, mix only the amount needed for the job you are to do. 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 filled with a fresh mixture.
  - Use only a good grade of regular gasoline.
  - Use only a reputable brand of 2-cycle, air cooled engine oil. Sears Chain Saw Oil is especially suited to this engine.
  - 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 fill fuel above fuel limit level. (Fig. 4)
    - (2) Wipe all spilled fuel with a dry cloth.
    - (3) Always attach the fuel strainer. (Fig. 11)
    - (4) Tighten fuel cap securely.

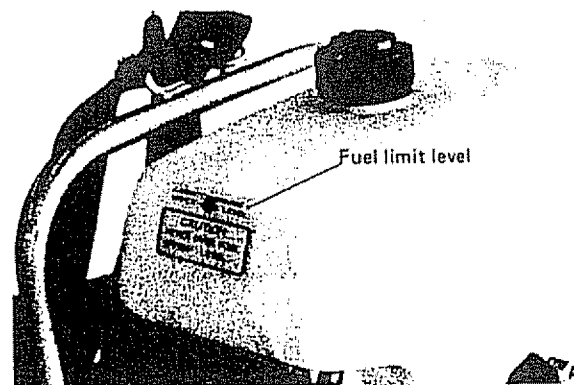


Figure 4

### V. STARTING THE ENGINE (Fig. 5 & 6)

1. Open fuel cock. (Fig. 5)
2. Close choke lever. (Fig. 5)  
Note: In winter, close fully, but in summer or when the engine is warm, open partly or fully.

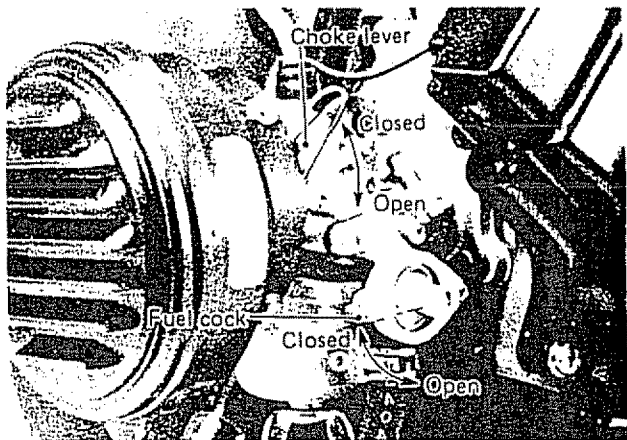


Figure 5

3. Push up throttle lever. (Fig. 7)
4. Holding the machine by your left hand and putting your left foot on the machine frame, give a strong and straight pull to recoil starter by your right hand. (Fig. 6)

**CAUTION**

Do not pull off rope, but return it gently with care.

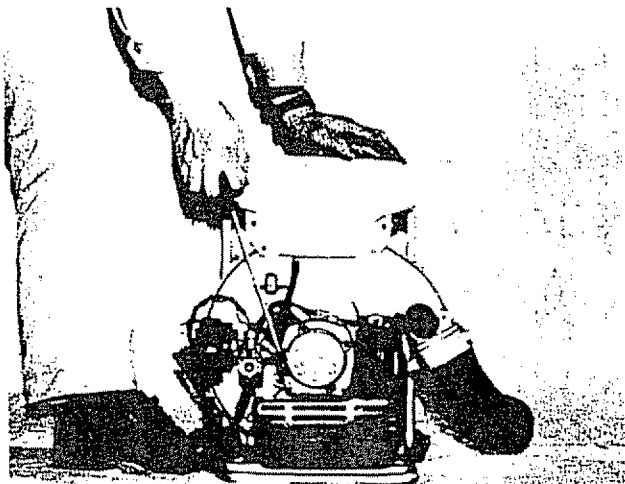


Figure 6

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.

**VI. STOPPING THE ENGINE**

1. Push down throttle lever to reduce engine speed.
2. Stop the engine by pushing stop button. (Fig. 7)
3. Put the machine down on the ground and close fuel cock.

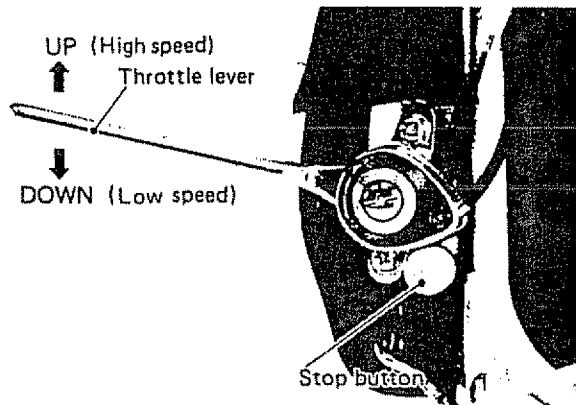


Figure 7

**VII. OPERATING THE POWER BLOWER**

1. Adjust shoulder straps correctly to make the machine fit your body.
2. After the engine fires, 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 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. 8 & 9)

**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.

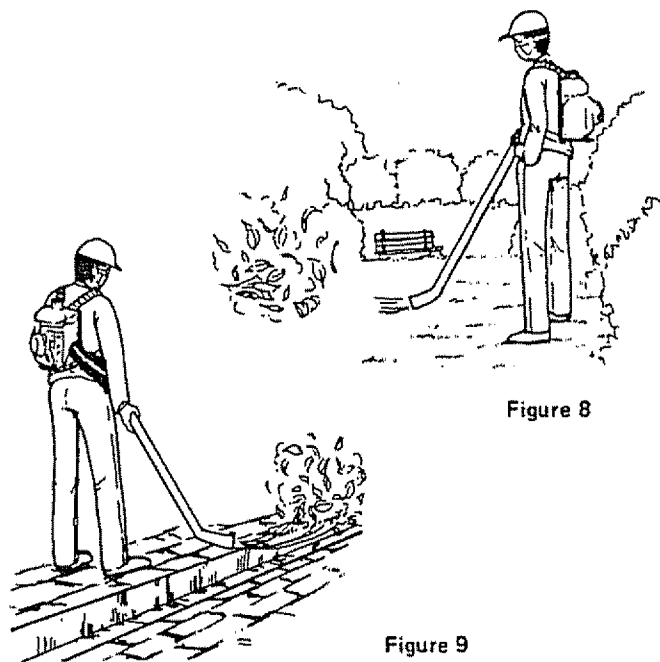


Figure 8

Figure 9

## VIII. CHECK AND MAINTENANCE

### 1. Air cleaner (Fig. 10)

- (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.

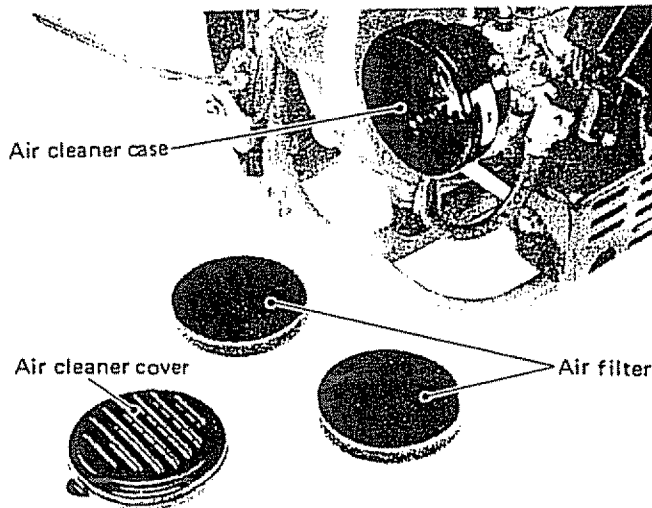


Figure 10

### 2. Fuel strainer (Fig. 11)

- (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.

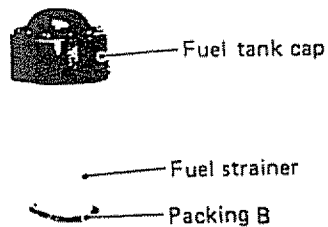


Figure 11

### 3. Spark plug (Fig. 12)

- (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").

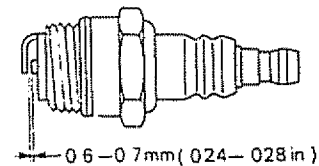


Figure 12

### 4. Carburetor (Fig. 13)

- (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.

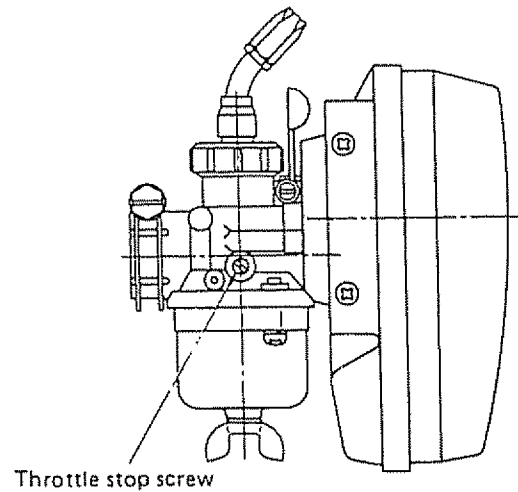


Figure 13

### 5. MUFFLER AND EXHAUST PORT (Fig. 14)

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 that particles of carbon deposits from the muffler flange area and wash the complete unit in a suitable solvent.

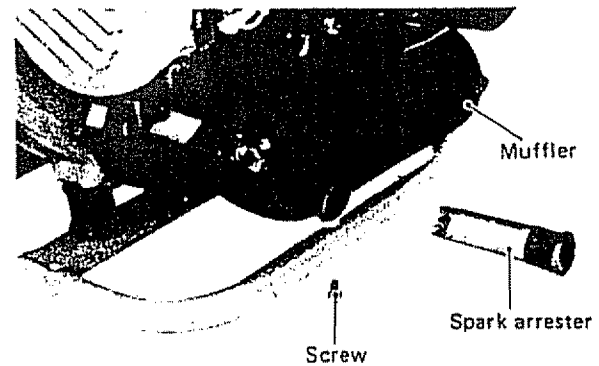


Figure 14

## IX. STORAGE AFTER USE

1. Correctly preparing your Sears Power 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 and keep out dust.

It is important to prevent gum deposits from forming in essential fuel system parts such as the carburetor, fuel filter, fuel hose, or tank during storage. Also, experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Follow these instructions:

## X. TROUBLE SHOOTING

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

Table 1

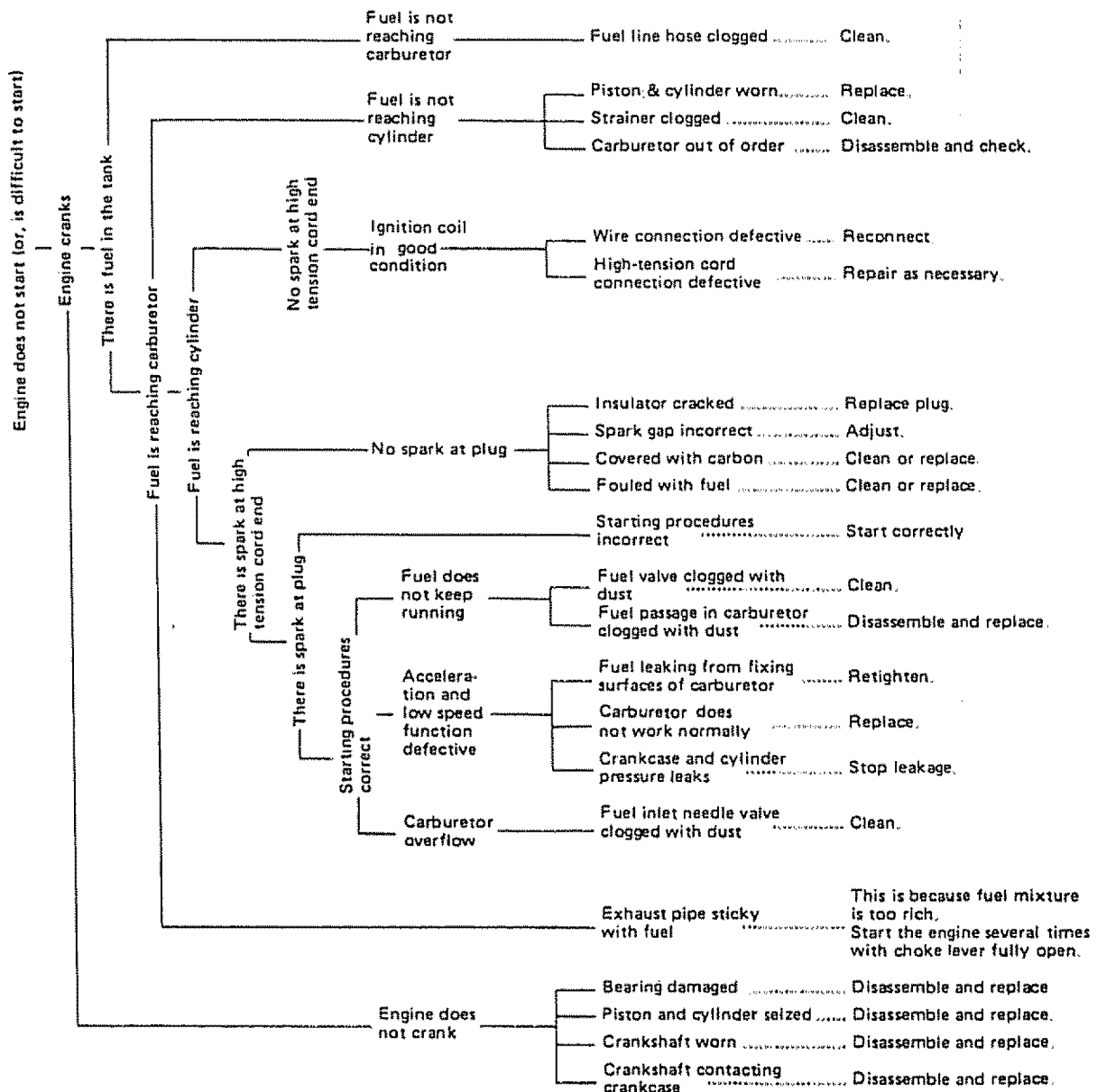
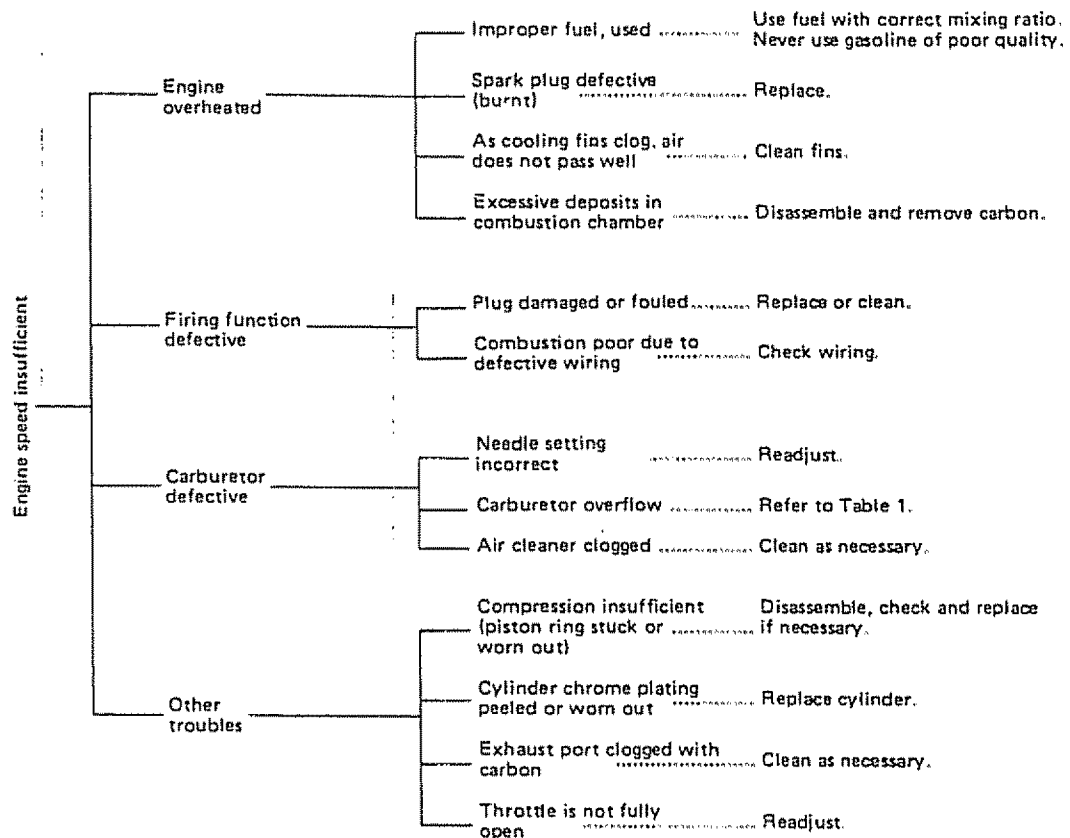


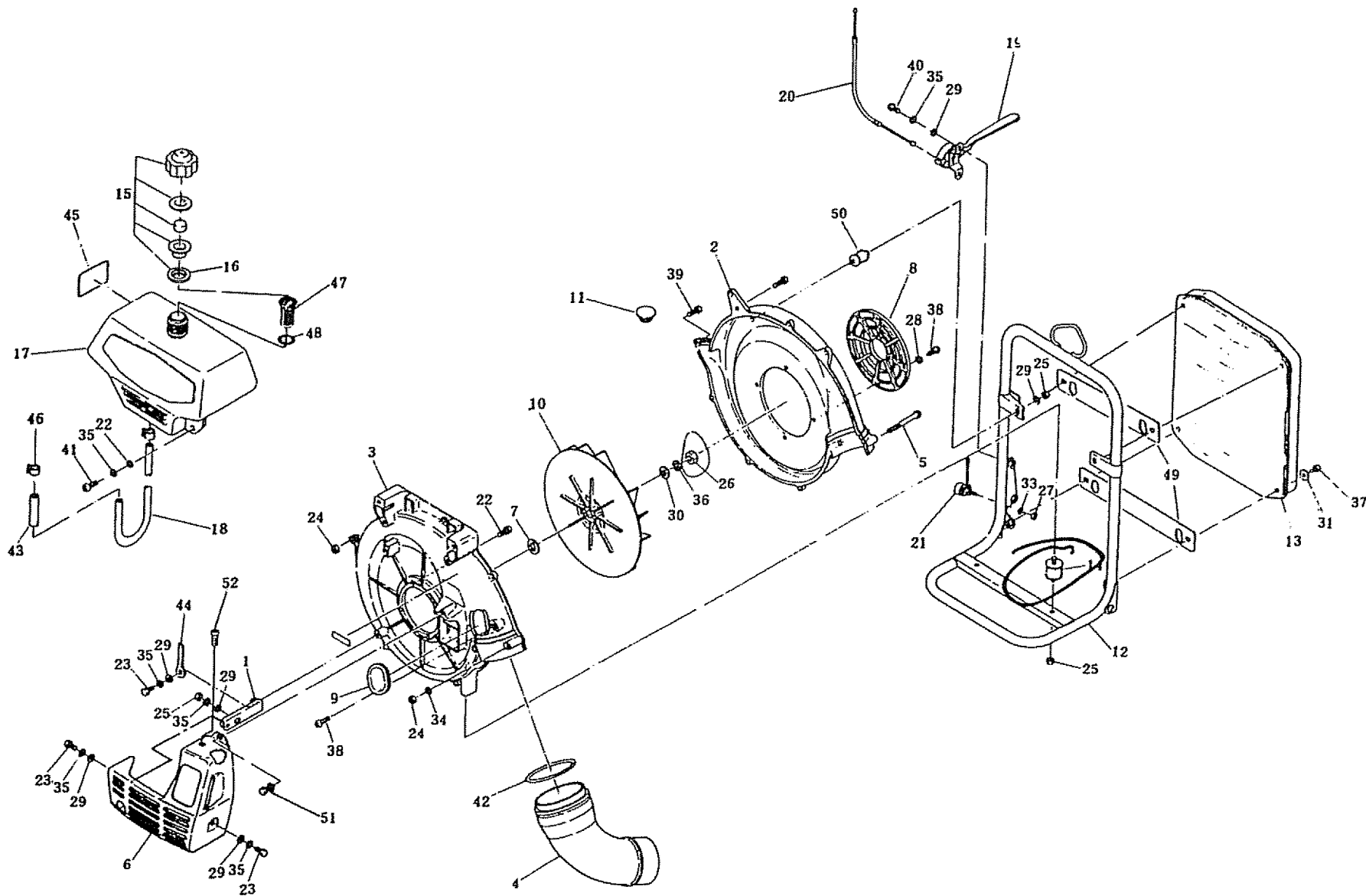


Table 2



### SEARS POWER BLOWER PARTS LIST - MODEL 636.796912

Figure 15



## SEARS POWER BLOWER PARTS LIST - MODEL 636.796912

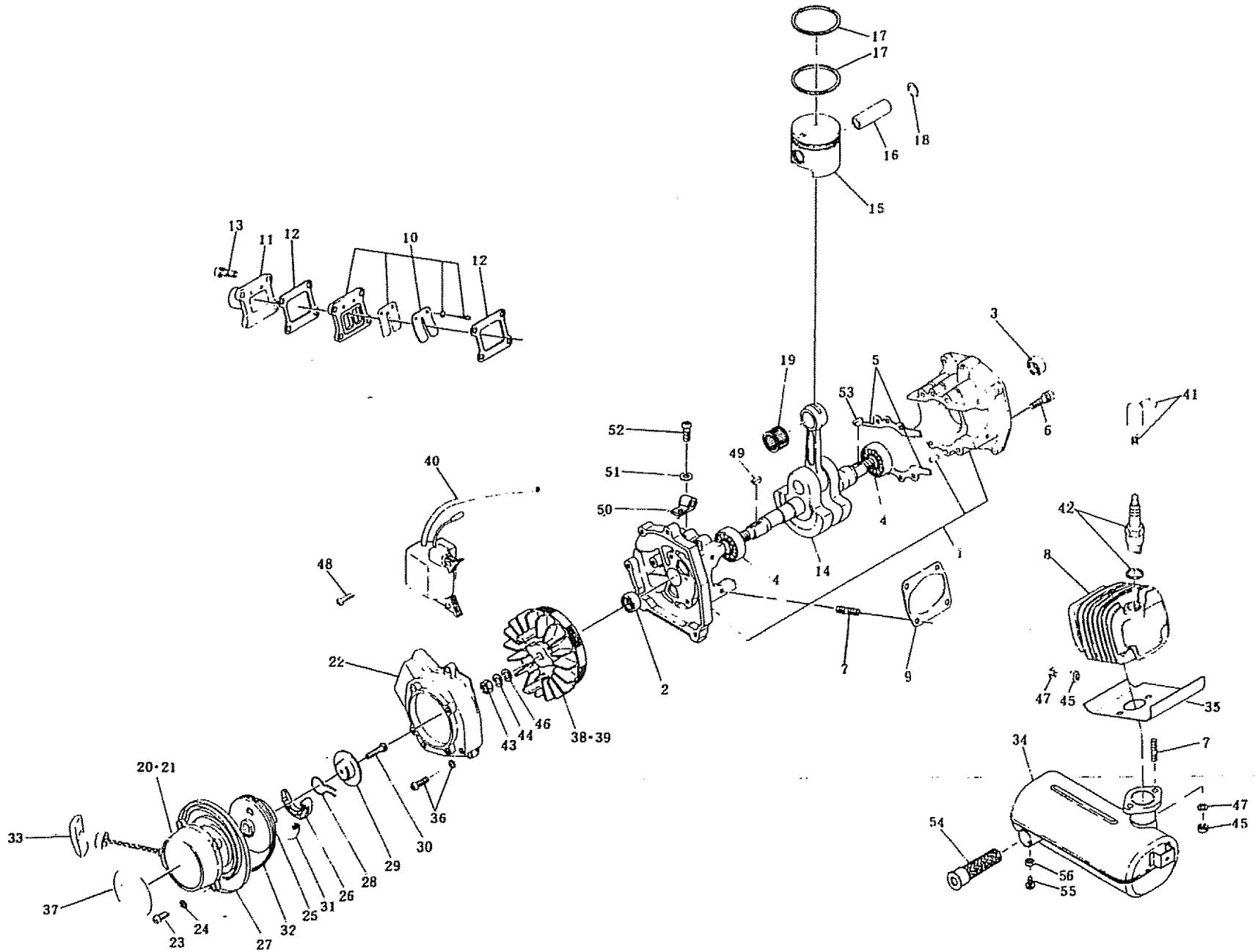
Figure 15

KEY NO.	PART NO.	QTY.	DESCRIPTION	KEY NO.	PART NO.	QTY.	DESCRIPTION
1	NF04S-0150A	1	Muffler mounting plate ass'y	40	00431 0610 0	2	Screw (pan head) (M6 x 10)
2	NF04S-1101-RB	1	Volute case (front)	41	00431 0616 0	4	Screw (pan head) (M6 x 16)
3	NF04S-1102-RB	1	Volute case (rear)	42	00626 3085 0	1	O ring
4	NF04S-1104F	1	Bent tube	43	EC03-6103	1	Fuel-line hose protection tube
5	NF04S-1107A	2	Screw (M5 x 67)	44	FL40-3103	1	Plate
6	FL40-1109B-PB	1	Engine cover	45	FL40-9106	1	Label
7	NF04S-1114	1	Impeller spacer	46	0561 13998 2	2	Clamp (Hose)
8	NF04S-1115	1	Cover	47	0641 27999 0	1	Fuel strainer
9	FH04S-1104	1	Plug	48	EC05A-6111	1	Packing
10	FL40-1110	1	Impeller	49	RS0211-202B-RB	2	Plate
11	0420 22998 0	1	Plug (rubber)	50	NB30K-6103	2	Vibration-proof rubber
12	FL40-2011A-RB	1	Frame compl.	51	P503-5111	1	Plug (rubber)
13	FL40-2012 A	1	Shoulder pad compl.	52	00436 0512 0	1	Screw ass'y
14	NF40-2101A	2	Vibration-proof rubber				
15	EC02-083	1	Fuel tank cap ass'y (Incl. 16)				
16	EC02-644	1	Packing A				
17	FL40-3101A	1	Fuel tank				
18	FL40-3102	1	Fuel-line hose				
19	FL40-5011	1	Throttle lever				
20	FL40-5012	1	Throttle wire				
21	EC02-720	1	Stop button				
22	00113 0618 0	4	Bolt (M6 x 18)				
23	00165 0612 0	3	Bolt (M6 x 12)				
24	00218 0500 0	9	Nut (M5)				
25	00218 0600 0	5	Nut (M6)				
26	00218 1000 0	1	Nut (M10)				
27	00227 0400 0	1	Nut (M4)				
28	00310 0500 0	4	Washer (M5)				
29	00311 0600 0	8	Washer (M6)				
30	00311 1000 0	1	Washer (M10)				
31	00312 0500 0	4	Washer (M5)				
32	00312 0600 0	4	Washer (M6)				
33	00320 0400 0	1	Spring washer (M4)				
34	00320 0500 0	2	Spring washer (M5)				
35	00320 0600 0	10	Spring washer (M6)				
36	00320 1000 0	1	Spring washer (M10)				
37	00431 0514 0	4	Screw (pan head) (M5 x 14)				
38	00431 0512 0	1	Screw (pan head) (M5 x 12)				
39	00435 0518 0	7	Screw ass'y (M5 x 18)				

6821500000 ←

# SEARS POWER BLOWER PARTS LIST - MODEL 636.796912

Figure 16



## SEARS POWER BLOWER PARTS LIST - MODEL 636.796912

Figure 16

KEY NO.	PART NO.	QTY.	DESCRIPTION	KEY NO.	PART NO.	QTY.	DESCRIPTION
1	EC04-072	1	Crank case ass'y (Incl. 2 thru 7)	40	11400331000	1	Ignition coil
2	0440 12999 1	1	Oil seal (front)	41	KM61-088c	1	Plug cap
3	0440 15997 1	1	Oil seal (rear)	42	0650 14995 0	1	Spark plug
4	0600 15988 0	2	Ball bearing	43	0170 08996 0	1	Nut (left) (M8)
5	EC03-071	1	Crank case packing	44	0203 08999 0	1	Spring washer (M8)
6	0119 05994 0	4	Bolt (socket head) (M5 x 30)	45	00218 0600 0	6	Nut (M6)
7	0105 06994 0	6	Stud (M6)	46	00310 0800 0	1	Washer (M8)
8	EC04-0125	1	Cylinder compl. (Incl. 7)	47	00320 0600 0	6	Spring washer (M6)
9	EC03-109A	1	Cylinder packing	48	00434 0420 0	2	Screw ass'y (M4 x 20)
10	EC04-091A	1	Reed ass'y	49	00532 0310 0	1	Woodruff key
11	EC04-104c	1	Carburetor bracket	50	0566 05998 0	1	Clamp
12	EC03-115	2	Reed bracket packing	51	00310 0500 0	1	Washer (M5)
13	0119 05995 0	4	Bolt (socket head) (M5 x 18)	52	00431 0510 0	1	Screw (pan head) (M5 x 10)
14	EC04-0222	1	Crank shaft ass'y	53	00532 0320 0	1	Woodruff key
15	EC04-206/2B	1	Piston	54	EC04-0379ATA	1	Spark arrester
16	EC04-207A	1	Piston pin	55	0043104100	1	Screw (pan head) (M4 x 10)
17	EC04-210A	2	Piston ring	56	0022704000	1	Nut (M4)
18	0565 11999 0	2	Clip				
19	0610 12996 1	1	Needle bearing				
20	EC04-0516A	1	Recoil starter compl. (Incl. 21 thru 24)				
21	EC04-0513A	1	Recoil starter ass'y (Incl. 25 thru 33)				
22	A50103212700	1	Starter case B				
23	243051821009	4	Screw (M5 x 18)				
24	451050800009	4	Washer (M5)				
25	A54103200100	1	Reel				
26	A55003210001	1	Ratchet				
27	A60003200000	1	Spiral spring				
28	A60102600000	1	Friction spring				
29	A56002600291	1	Friction plate				
30	141051251002	1	Bind screw (M5 x 12)				
31	A60503210000	1	Return spring				
32	A57120950000	1	Starter rope				
33	A57202700000	1	Starter knob				
34	EC04-0378	1	Muffler compl.				
35	EC04-3122	1	Muffler gasket				
36	00433 0520 0	3	Screw ass'y (M5 x 20)				
37	FL40-9105/2A	1	Label (model)				
38	EC04-0718A	1	Magneto compl. (Incl. 39, 40)				
39	11100100100	1	Flywheel				



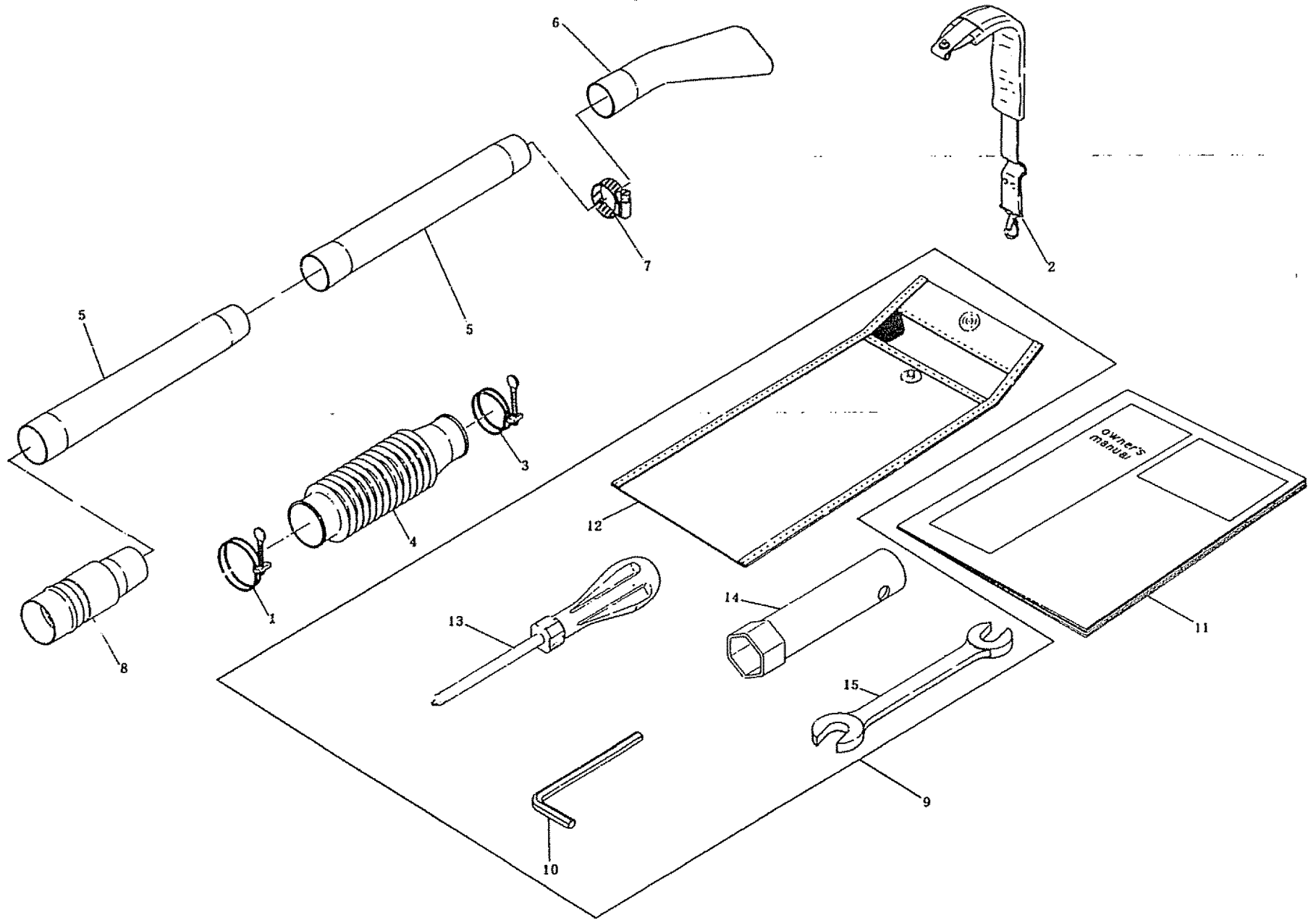
## SEARS POWER BLOWER PARTS LIST - MODEL 636.796912

Figure 17

KEY NO.	PART NO.	QTY.	DESCRIPTION
1	EC04-0682A	1	Carburetor compl. (Incl. 2 thru 31)
2	CK/31	1	Cock body ass'y
3	832-16001	1	Piston valve (#1.0)
4	J8-3N05	1	Jet needle
5	MD14/40	1	E ring
6	VM14c1/38b	1	Spring seat
7	VM15/24A	1	Spring
8	VM16/200	1	Top
9	VM12/43	1	Cap
10	MD13/44	1	Cable guide
11	M21/15	1	Cable adjuster lock nut
12	VM24/148	1	Cable adjuster
13	N102-221	1	Main jet (#77.5)
14	VM15/173	1	Needle ass'y
15	VM15/353	1	Float arm
16	VM15/264	1	Float pin
17	VM15/351	1	Gasket
18	VM13/139	1	Float
19	852-00031	1	Float chamber body
20	EC03-S0010	1	Guide screw ass'y
21	VM13/68A	1	O ring
22	VM13/326	1	Clip
23	B2-0630	1	Bolt
24	B34/83	1	Washer
25	VM13/215	1	Nut
26	VM15/331	1	Spring
27	VM18/164A	1	Throttle stop screw
28	CW2-0416	2	Spring washer cross screw
29	VM15/348	1	Gasket
30	VM13/210	1	Filter
31	CW2-0414	2	Spring washer cross screw
32	EC04-0335B	1	Air cleaner ass'y (Incl. 33, 35, 36)
33	0736 36998 0	1	Label
34	00436 0410 0	4	Screw ass'y (M4 x 10)
35	EC04-3304A	1	Air cleaner cap
36	EC04-3305	2	Element

# SEARS POWER BLOWER PARTS LIST - MODEL 636.796912

Figure 18





## SEARS POWER BLOWER PARTS LIST - MODEL 636.796912

Figure 18

KEY NO.	PART NO.	QTY.	DESCRIPTION
1	NF04S-0903/1	1	Wing hose band (big)
2	FL40-9001	1	Shoulder band ass'y
3	NF31-097B	1	Wing hose band
4	NF04S-9121	1	Corrugated pipe
5	FL40-9120	2	Straight pipe
6	FL40-9121	1	End pipe
7	NF40-7120	1	Hose clamp
8	FL40-9012	1	Swivel joint
9	FL40-9014	1	Tool kit (Incl. 10,12 thru 15)
10	0717 04999 0	1	Wrench (socket head)
11	6619501201	1	Owner's manual (FL40-9107/4)
12	0700 00994 0	1	Tool bag
13	0715 06999 0	1	Plus driver
14	0713 21999 0	1	Box wrench(21 M/M)
15	0710 08999 0	1	Double-end wrench (8 x 10 M/M)

# SEARS

## OWNER'S MANUAL

MODEL NO.  
636.796912

## HOW TO ORDER REPAIR PARTS

## SEARS POWER BLOWER

1. The model number of your power blower is located on the label on recoil starter of the engine.  
The serial number of your power blower is located on the label on the fan housing.
2. When ordering repair parts, always give the following information:
  - (1) Model number: 636.796912
  - (2) Name of item: 37.7 cc GAS POWER BLOWER
  - (3) Part number
  - (4) Part description
3. All parts listed may be ordered from any Sears Service Center or most Sears stores.
  - (1) If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

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