HEDGE TRIMMER

HT200L 20.3cc

INSTRUCTION MANUAL

ASSEMBLY • MAINTENANCE
OPERATION • REPAIR PARTS

FUJIROBIN INDUSTRIES LTD.
Tokyo-Japan

Thank you very much for your patronage in your purchasing ROBIN HEDGE TRIMMER. We are proud of and much confident in recommending our ROBIN HEADGE TRIMMER as the result of our long development and ample knowledge and experiecnes. This booklet refers to the essence which you should learn in order to demonstrate its outstanding performance.

We wish that you will have sufficient knowledge from this booklet before operating ROBIN HEDGE TRIMMER and make the best use of it for ever.

SAFETY RULES AND PRECAUTIONS

1. Before each operation, make sure that the screws are not loose or missing, that the components are not damaged, and that the blades are not chipped off or cracked. If a blade is chipped or cracked replace it with a new one.
2. Do not attempt engine or blade adjustments or refueling before allowing the engine and muffler to cool.
   a. Do not remove the fuel tank cap while the engine is running or when it is still hot.
   b. Clean off fuel tank cap area before refueling. Do not smoke while refueling.
   c. Take care not to spill any fuel. If it is spilled, wipe it off.
   d. Never operate on gasoline only. As this engine is of 2-cycle type, use mixed fuel whose mixture ratio is 16:1 (1 gal. gasoline to 8 oz. oil) and a proper lubrication oil.
3. Do not operate the machine when your physical condition is not good. Never touch the plug cap during operation to protect yourself from electric shock.
4. Never operate the machine wherever ventilation is not enough.
5. Before starting the engine, make sure that the blade does not touch anything. In startup of the engine, be careful not to turn the blade toward bystranders. Position HEDGE TRIMMER securely, (In startup, place HEDGE TRIMMER in a level place so as to prevent the blade from moving.)
6. Wear safe clothes (safety shoes, goggles, earmuffs, gloves, etc.). Never wear loose clothing or jewelry while operating your HEDGE TRIMMER.
7. Do not admit any persons or animals within the working area (30 feet or less from the site). When plural operators work together in the same place, maintain at least a 30 feet distance from each other and exchange warning shouts if necessary. Pay special attention to keep bystanders, especially children away from the working site.
8. Stop the engine and pay special attention to the blades whenever you carry the HEDGE TRIMMER from one place to the next before and after operation.
9. Never let any child handle the machine.
10. Use HEDGE TRIMMER only for cutting of young trees, grass, etc. of which diameter is 0.2" or less. Never use HEDGE TRIMMER to cut metals or other hard materials.
11. Never operate HEDGE TRIMMER in a bad weather condition (rain, snow, strong wind, abnormal atmospheric temperature, etc.)
12. Keep this manual in place so that one can refer to it repeatedly for safety operation and to teach possible users how to operate the machine.

KNOW YOUR HEDGE TRIMMER

Your new HEDGE TRIMMER has been carefully packed at the factory to prevent damage during shipping and storage, however, even with the best of preventative measures, damage does sometimes occur. It is recommended that you follow the check out procedures listed below:

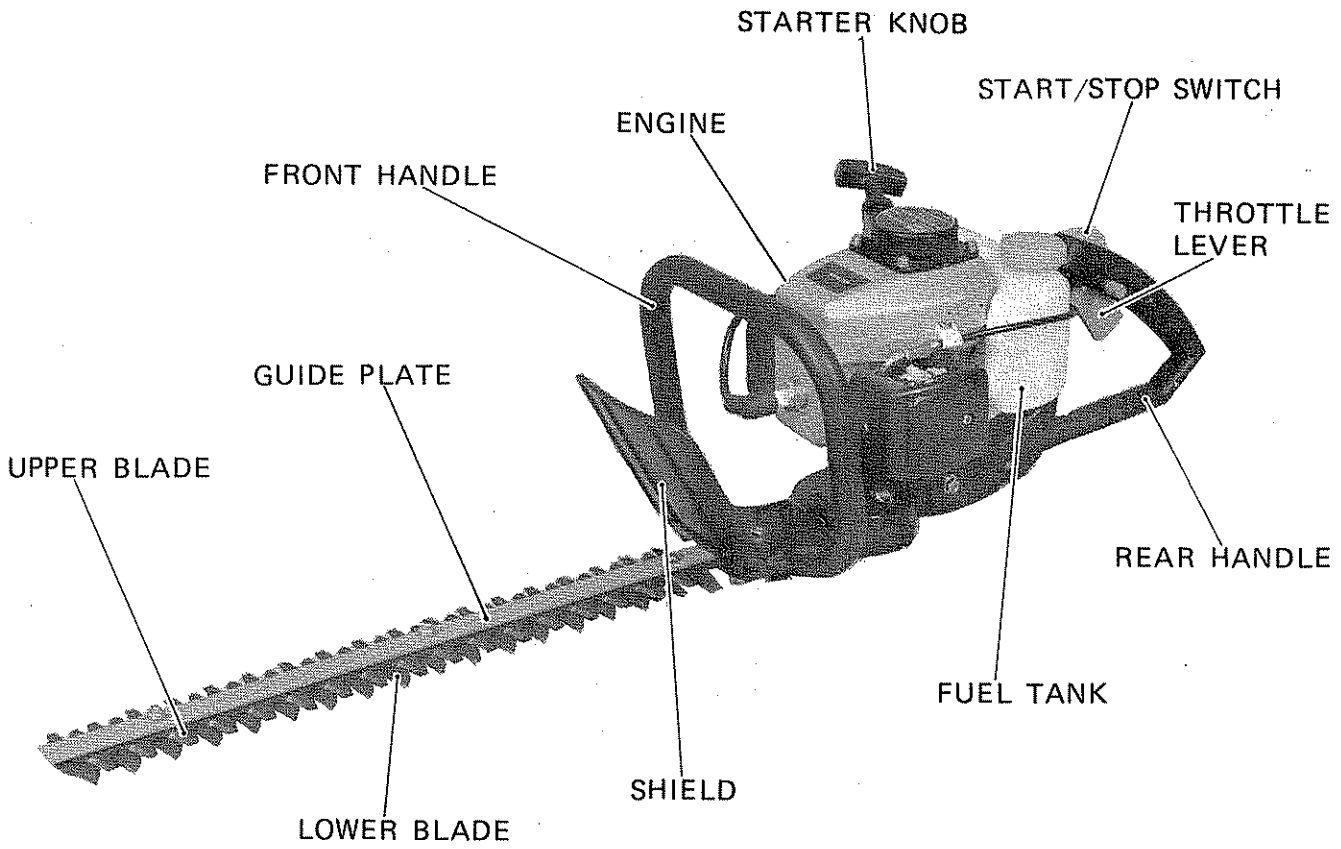
Remove all items from the carton, lay them out and check the parts to be sure that you have everything required for assembly. Also check carefully for any visible damage.

You should familiarize yourself with the various parts of your HEDGE TRIMMER before attempting to assemble or operate the unit. Refer to drawing below.

SPECIFICATIONS

ENGINE	TYPE	2 cycle air-cooled
	DISPLACEMENT	20.3 cc (1.24 Cu. In.)
	CARBURETOR	Diaphragm type
	FUEL TANK CAPACITY	17.5 U.S. fl. oz. (0.5ℓ)
	SPARK PLUG	NGK BM7A
	LUBRICATION	Fuel oil Mixed 16 to 1 (1 gal. gasoline to 8 oz. oil)
DRY WEIGHT		10.5 lbs (4.8 kg)
DIMENSION		847x220x210(mm)

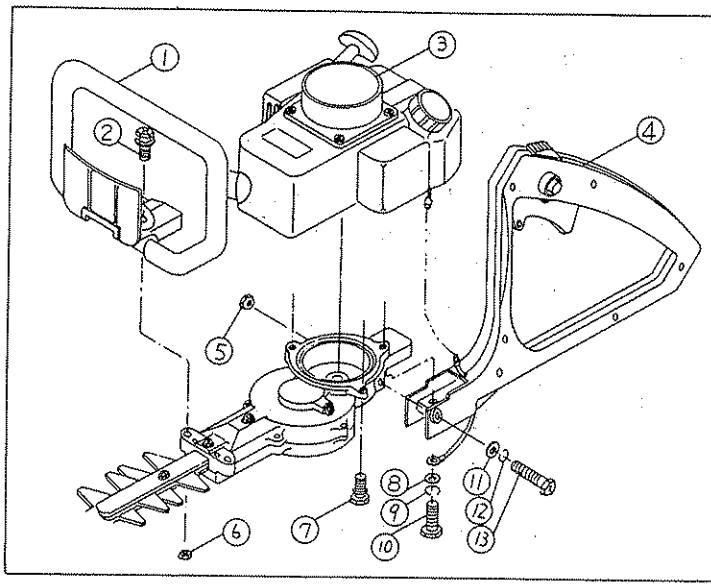
BLADE	OVERALL LENGTH	600mm
	TOOTH PITCH	35mm
	ENGINE RPM	8000 rpm
	CUTTING STROKES PER MINUTE	32.2 times/sec (8000 rpm)
DRIVE SYSTEM		
	CLUTCH TYPE	Dry Centrifugal
	CLUTCH ENGAGEMENT	3800 rpm ±200 rpm
	BLADE DRIVE	Double cam drive



* Specifications are subject to change without notice.

ASSEMBLY PROCEDURE

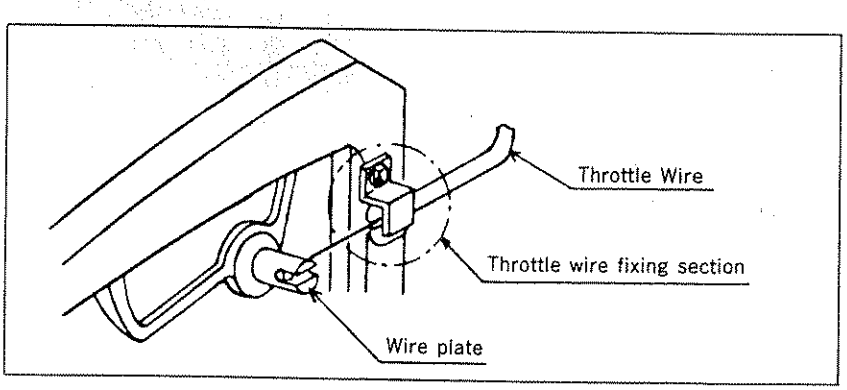
1. Fix the front handle with two hexagon bolts M6 x 30 (for both SW and PW) and two hexagon nuts M6.
2. Loosely settle the engine with two hexagon bolts M6 x 15 (for SW also).
3. Connect the engine ground wire with the rear handle ground wire, and fasten the rear handle with a hexagon bolt M6 x 40 (for both SW and PW), a hexagon nut M6. The ground wire terminal is tightened jointly with M6 x 40.
4. Tighten the loosely fixed point securely.



Ref. No.	Part Name	Quantity	Description
1	FRONT HANDLE	1	
2	BOLT M6×30	2	(W/SW & PW)
3	ENGINE (ROBIN)	1	EC02ER
4	REAR HANDLE ASSY	1	
5	HEXAGON NUT M6	1	
6	HEXAGON NUT M6	2	
7	BOLT M6×15	2	(W/SW)
8	WASHER,plain M6	1	
9	WASHER,spring M6	1	
10	BOLT M6×40	1	
11	WASHER,plain M6	1	
12	WASHER,spring M6	1	
13	BOLT M6×50	1	

THROTTLE CABLE ASSEMBLY PROCEDURE

1. Pass the throttle cable through the throttle cable-fixing section of the rear handle, hook one cable end with the other and engage it with the groove.
2. Screw the throttle adjustor piece into the engine, engage the wire end with the carburetor throttle groove.
3. Regulate the adjustor piece so there will be a certain allowance on the throttle wire.
   * Please ascertain that the blades come to a complete standstill when the engine is idling.



PREPARING FOR OPERATION

Fuel and oil mixture

Inspect the fuel tank and fill with clean, fresh fuel of the proper mixture. This engine requires a mixture of 16 parts gasoline to 1 part oil (1 gal. gasoline to 8 oz. oil). Use a high grade two cycle engine oil.

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

DO NOT MIX GASOLINE AND OIL DIRECTLY IN THE ENGINE FUEL TANK.

IMPORTANT: Failure to follow proper fuel mix instructions could result in serious damage to the engine.

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 replaced and filled with a fresh mixture.

CAUTION! NEVER over Fill Fuel Tank
NEVER add fuel to the tank in a closed un-ventilated area.
DO NOT add fuel to this unit near an open fire or sparks.
BE SURE to wipe off spilled fuel before attempting to start the engine.
DO NOT attempt to refuel an extremely hot engine.

Check points before operation

CHECK for loose bolts, nuts and fittings.

Clean the air filter of all dirt, etc. before the operation.

PRECAUTIONS DURING OPERATION

1. If the blades have stopped on account of a branch caught during the trimming, be sure to stop the engine and eliminate the branch. Refrain from cutting too hard or too thick a branch (over ¼" in diameter).
2. When the machine is running, never touch the blades. Never point the blades toward a person.
3. Hold HEDGE TRIMMER firmly with both hands.
4. The engine speed must not be excessive but just enough to do the cutting.
5. To avoid a burn, do not touch the engine during the operation or immediately after stopping the engine. Handle the engine after it is completely cooled.
6. Never operate HEDGE TRIMMER on unstable ground or standing on tiptoe. Never use it while climbing a ladder.
7. Do not use the HEDGE TRIMMER continuously for a long time. It is normal to take a break of 10 to 20 minutes after every 50-minute operation.
8. Never leave the HEDGE TRIMMER running unattended.
9. If there is any trouble during operation, be sure to stop the engine first. (Move the switch to STOP.)

STARTING AND STOPPING

1. When starting the engine, set the switch to START. (Figure 1)

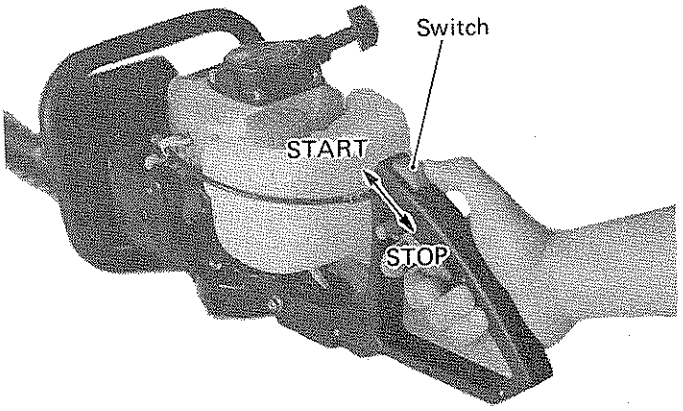


Figure 1

2. The choke control is a "Lever" type. (See. Figure 2). To choke the engine, push the choke lever to "Close" position. NOTE: If the engine is warm, it may be started with the choke lever mid-way between "OPEN" and "CLOSE", depending on the individual engine.

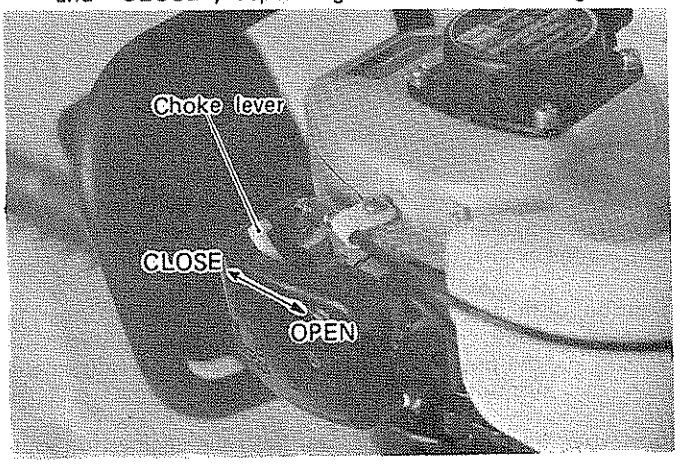


Figure 2

3. Pull the throttle lever a little, push the throttle knob and lock the throttle lever at the starting position. (Figure 3)

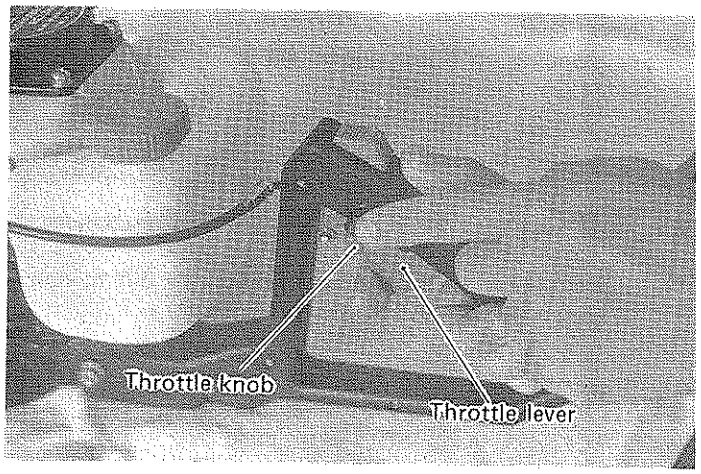


Figure 3

4. Pull the recoil starter several times. (At this time, hold the machine securely so as to keep it fixed.) (Figure 4)

The carburetor is not filled with fuel. Pull the starter 7 to 8 times to feed up fuel from tank to carburetor.

Caution: – Never let go of the starter rope from its fully extended state. Return the starter rope to its original position while holding it securely.
– Be careful not to break the starter rope.

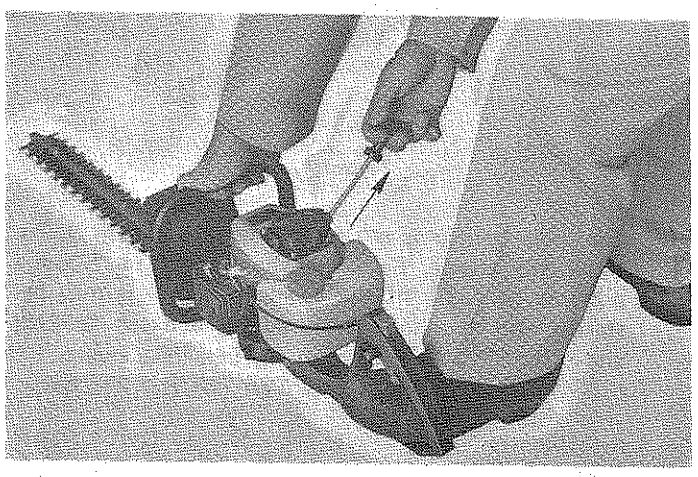


Figure 4

5. After starting, open the choke lever by degrees to the full and reset the throttle lever to the low speed, while checking the engine operating state.

Caution: – In starting of the engine and during operation, be fully careful to keep bystanders or obstacles off the operating side and confirm safety requirements for operation.

6. After starting the engine, warm up the engine (for about 5 minutes at medium speed). Immediately after starting, speed up the engine slowly. Never open the throttle fully without a load, otherwise the engine will run at a high speed reducing engine life.

Stopping the Engine

1. Reduce the engine rpm to idle by releasing the throttle.
2. Set the stop switch to stop. (Figure 1)

Blade sharpening

If the edges are rounded and do not cut well any more, grind off only the shaded portions. Do not grind the contact surfaces (sliding surfaces) of the top and bottom edges. (Figure 5)

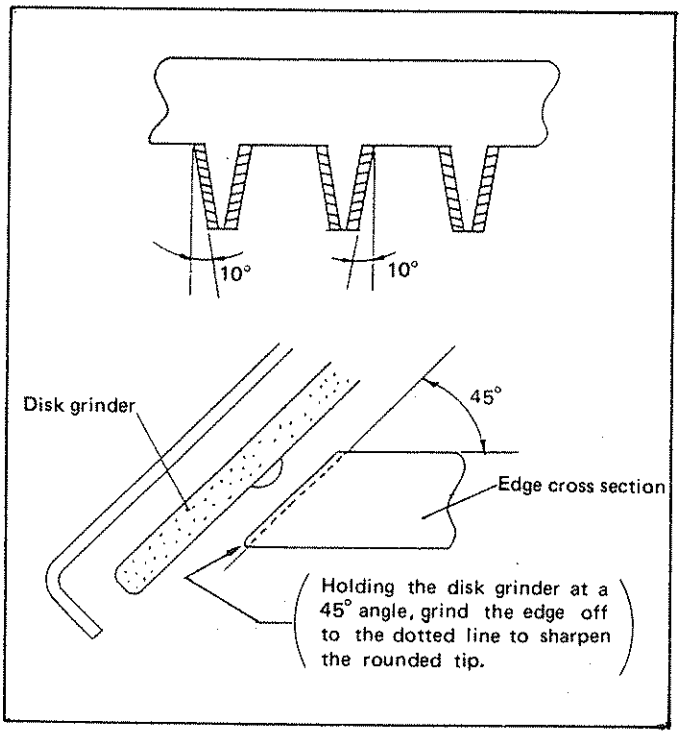


Figure 5

Note: 1) Before grinding, be sure to secure the blade firmly
2) Wear gloves, protective glasses, etc.
3) An edge ground too much at a time or ground many times will loose its hardened layer. It becomes rounded and dull very quickly in use.

Adjustments

SPARK PLUG MAINTENANCE – If the spark plug electrode area has an excess of carbon buildup, the efficiency of the plug will be seriously reduced. REMOVE THE CARBON WITH A SPARK PLUG CLEANER OR WIRE BRUSH.

After cleaning the spark plug RESET THE ELECTRODE GAP TO .024"-.028".

Carburetor

Proper adjustment of the carburetor is very important to the operation of this engine. The carburetor has been carefully adjusted at the factory and therefore should not require any further adjustment.

Adjustment of Engine Idling

If the blade happens to run in idling, adjust the cable adjuster of the throttle wire to stop blade movement in idling.

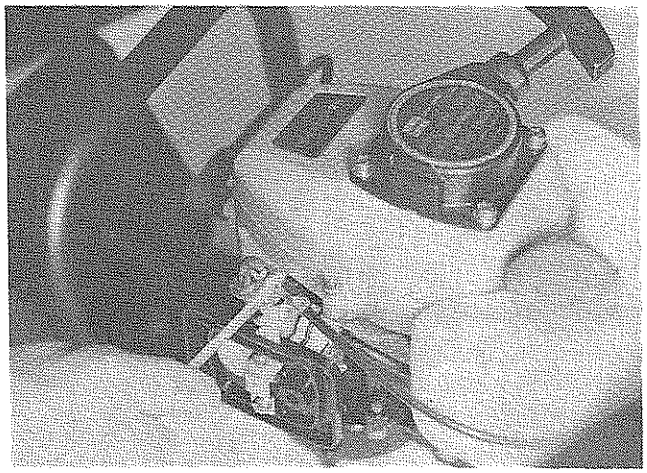


Figure 6

STORAGE AFTER OPERATION

1. Clean every part, repair faulty sections, and apply a thin coat of oil on metal parts to prevent rust. In cleaning the machine, always use a clean cloth. Never use strong solvents, such as gasoline.

2. If the HEDGE TRIMMER will not be used for a long period of time, drain the fuel from the tank, then start the engine and keep the engine running until it consumes all the fuel left in the carburetor.

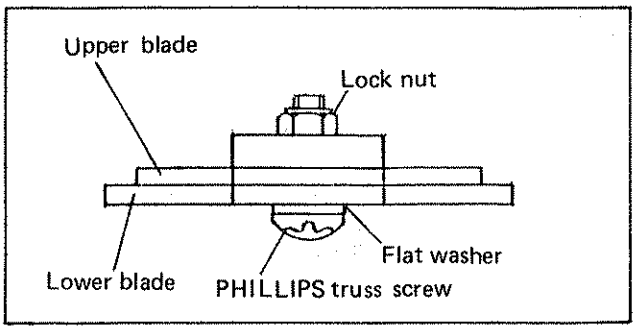
3. Store the HEDGE TRIMMER in a clean and dry place. Always keep children away from the machine.

4. Remove the spark plug, inject a small amount of engine oil through the spark plug hole. Then pull the recoil starter a few times to put a thin coat of oil on the cylinder. Install the spark plug again when the piston has stopped at a top dead center.

BLADE ADJUSTMENT

(Performed with engine stopped.)

The blades wear with use when you notice a decrease in cutting performance adjust the blades as follows.



Cross-sectional view of blades

(1) Loosen lock nut.

(2) Tighten truss head screw lightly until it stops turning. Then turn it back one-fourth to one half turn.

(3) Tighten lock nut. Lubricate the blades after adjustments.

(4) Start the engine and operate the blades at high the speed for a minute or so.

(5) Stop the engine and carefully feel the blades with your hand. If they are just warm to the touch, you have made the proper adjustments, but if they are too hot for you to keep touching them, repeat steps #1, #2 and #3 above backing off slightly more on the screw.

Note: Never fail to stop the engine before making the adjustments.

PREVENTATIVE MAINTENANCE CHECK LIST AND STORAGE TIPS

Be sure the engine and all other parts are clean.

Check all nuts, bolts, screws, etc. making sure they are tightened and secured as they should be.

Inspect carefully for any fuel or oil leaks.

Check the air cleaner assembly for excessive dust or dirt. If the filter requires cleaning, use the following procedure: Remove the filter and wash in soap and water or blow off with compressed air. DO NOT clean filter in gasoline or other flammable solvent.

Inspect the muffler exhaust port (tail pipe). If there is any clogging, remove carbon particles adhering to it.

MAINTENANCE

1. In every 10–20 hours, inject one or two ounces of grease through a grease nipple installed in the gear case of the HEDGE TRIMMER. Be sure the engine is stopped while greasing the gear case.

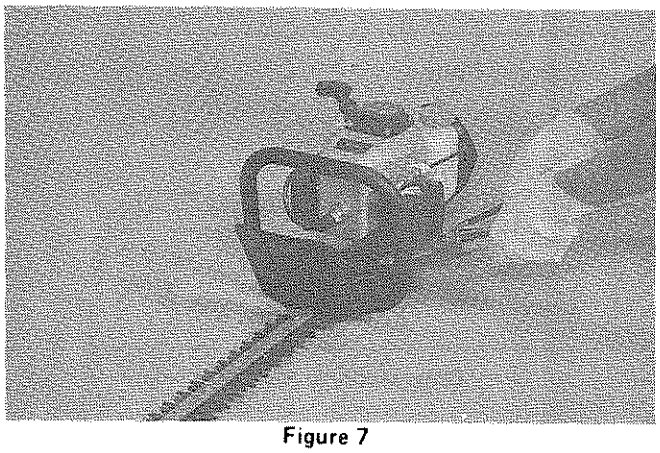


Figure 7

2. Stop the engine before lubricating the blades during the cutting operation. Frequent lubrication using a light weight oil during cutting will greatly add to blade life.

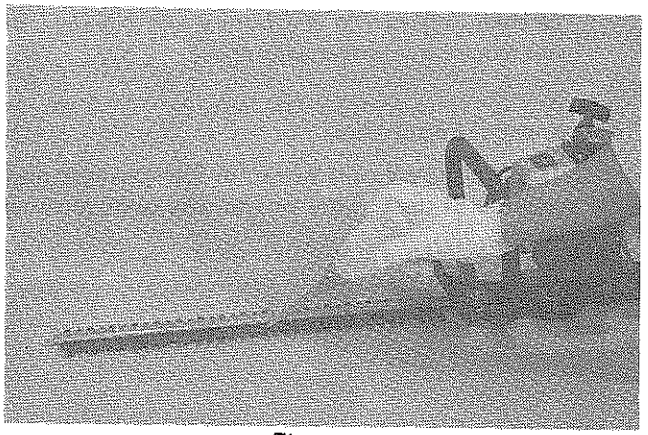
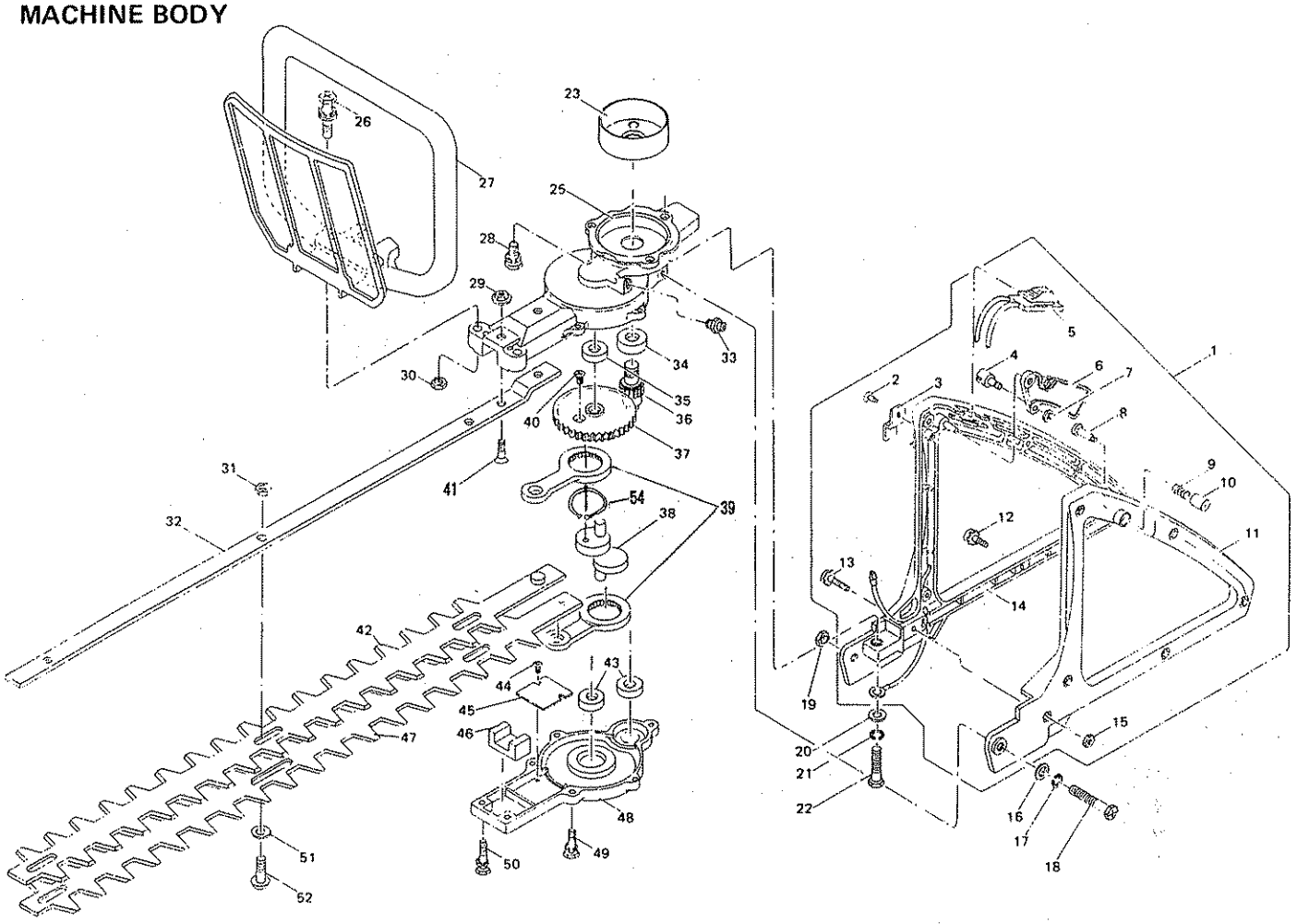


Figure 8

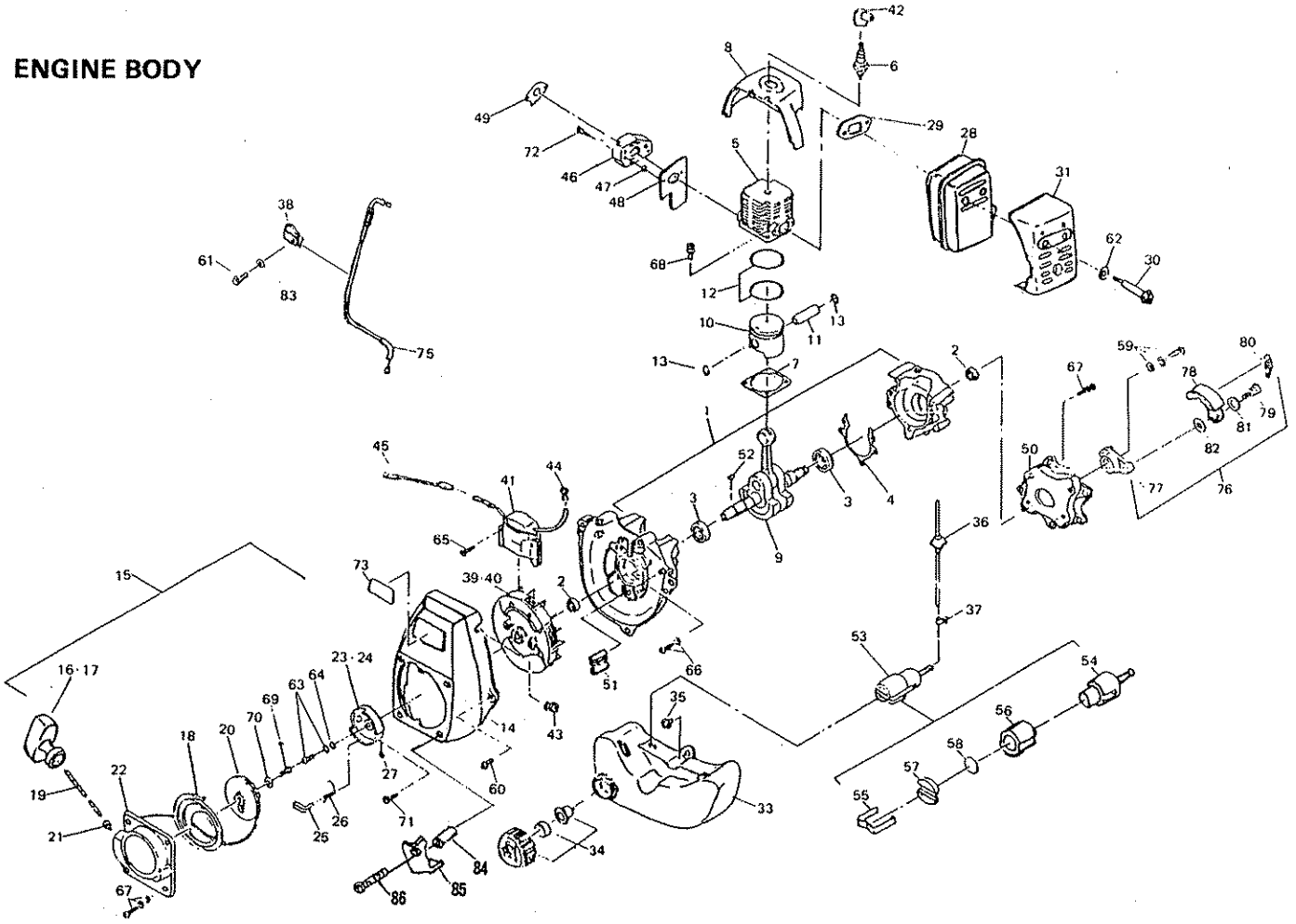
MEMO

MACHINE BODY



KEY NO.	PART NO.	QTY	DESCRIPTION
1	118-110	1	Rear handle ass'y (incl. 2~15)
2	900-140	1	Screw (M4 x 10)
3	118-121	1	Holder, cable
4	118-111	1	Plate, wire
5	118-001	1	START/STOP switch
6	118-115	1	Throttle lever
7	902-050	1	Snap ring
8	118-112	1	Pin, lever
9	118-114	1	Spring
10	118-113	1	Fixing knob
11	118-109	1	Rear handle (L)
12	900-141	5	Screw (M4 x 16)
13	900-142	1	Screw (M4 x 30)
14	118-108	1	Rear handle (R)
15	900-100	6	Hexagon nut (M4)
16	900-321	1	Plain washer (M6)
17	900-320	1	Spring washer (M6)
18	900-348	1	Bolt (M6 x 50)
19	900-301	1	Hexagon nut (M6)
20	900-321	1	Plain washer (M6)
21	900-320	1	Spring washer (M6)
22	900-347	1	Bolt (M6 x 40)
23	136-136	1	Drum
25	118-103	1	Upper case
26	900-349	2	Bolt (M6 x 30) (Washer/Spring washer & washer)
27	118-107	1	Front handle (incl. shield)
28	900-340	2	Bolt (M6 x 15) (Washer/Spring washer)
29	900-203	2	Flange nut (M5)
30	900-301	2	Lock nut (M6)
31	900-300	4	Hexagon U-nut (M6)
32	118-126	1	Guide plate
33	902-001	1	Nipple, grease (M6)
34	901-101	1	Bearing
35	901-061	1	Bearing
36	118-102	1	Pinion
37	118-105	1	Gear, crank
38	118-143	1	Crank
39	118-100	2	Rod ass'y
40	900-256	1	Screw (M5 x 10)
41	900-255	2	Screw (M5 x 16)
42	077-106	1	Upper blade
43	901-061	2	Bearing
44	900-040	2	Screw (M3 x 5)
45	030-110	1	Plate, rod slide
46	118-101	1	Felt
47	077-107	1	Lower blade
48	118-104	1	Lower case
49	900-257	5	Bolt (M5 x 16) (Washer/Spring washer)
50	900-258	2	Bolt (M5 x 20) (Washer/Spring washer)
51	008-250	4	Washer
52	008-247	4	Screw
54	K283-026000	1	Snap ring

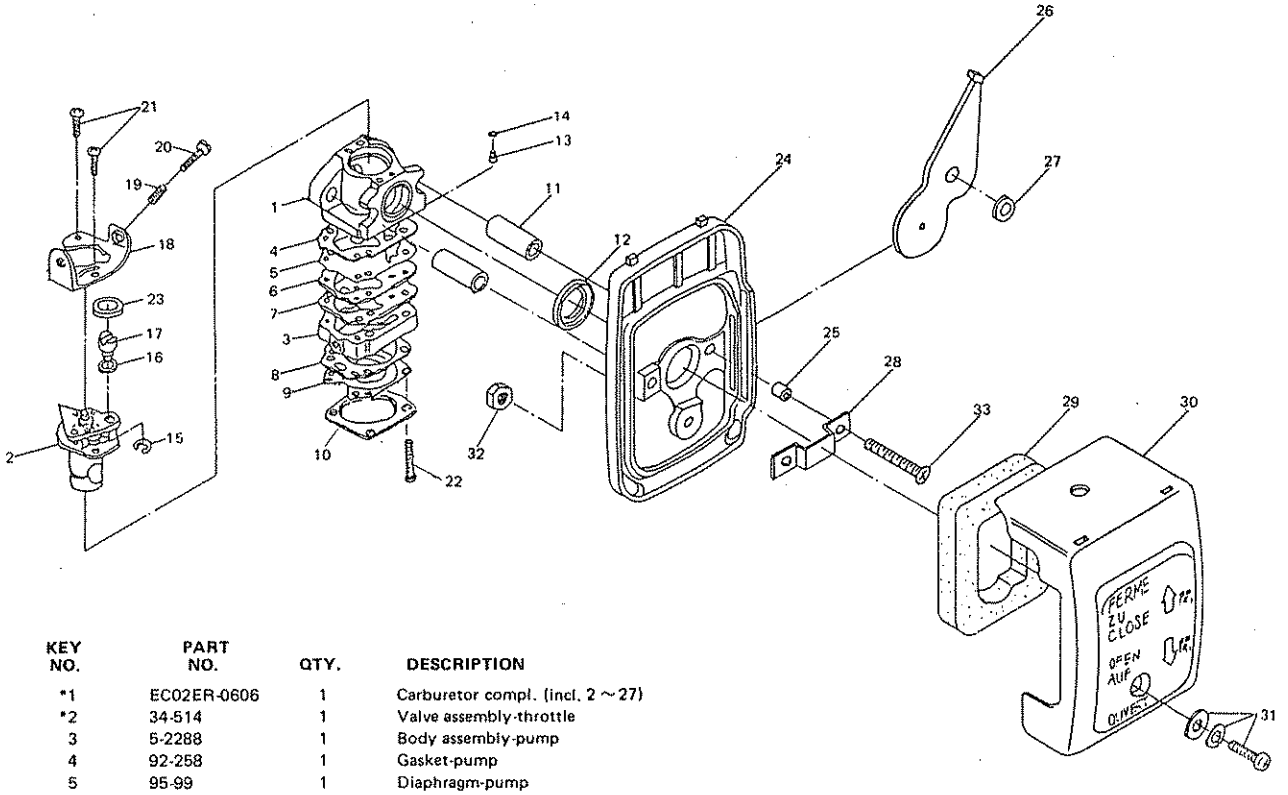
ENGINE BODY



KEY No.	PART No.	QTY.	DESCRIPTION
1	EC02E-50120A	1	Crank case compl.(incl.2~4)
2	0440-12999-1	2	Oil seal
3	0600-12992-0	2	Ball bearing
4	EC02E-1103A	1	Crank case packing
5	EC02ER-1107B	1	Cylinder
6	0650-14981-0	1	Spark plug(NGK BM7A)
7	523 15013 00	1	Cylinder packing
8	EC02ER-5116A-EA	1	Cylinder cover
9	503 20010 00	1	Crank shaft compl.
10	EC02E-2104B	1	Piston
11	EC02E-2106	1	Piston pin
12	EC02E-2107	2	Piston ring
13	0565-07999-0	2	Clip
14	EC02ER-5119-EA	1	Fun cover
15	EC02E-0501C	1	Recoil starter compl.(incl.16~27,69,70)
16	EC02E-0504A	1	Recoil ass'y(incl.17~22,69,70)
17	A57202700000	1	Starter knob
18	A60001000000	1	Spiral spring
19	A57100890000	1	Starter rope
20	A54101000000	1	Reel
21	A50403100001	1	Rope guide
22	A50001010900	1	Starter case
23	EC02E-0505/1	1	Starter pulley compl.(incl.24~27)
24	A70001000501	1	Starter pulley
25	A55001000000	1	Ratchet
26	A60501010000	1	Return spring
27	500040600612	1	E ring
28	EC02ER-0312	1	Muffler ass'y
29	EC01A-3020	1	Muffler gasket
30	EC02EF-3164	2	Muffler clamping bolt
31	EC02ER-3133A-TA	1	Muffler cover
33	EC02ER-6106B	1	Fuel tank
34	EC02-0666	1	Fuel tank cap compl.
35	EC01R-6501	1	Spacer
36	EC02ER-0610	1	Rubber tube
37	EC01A-6070	1	Hose clamp
38	EC06A-0412	1	Clamp
39	503 70050 00	1	Magneto compl.(incl.40,41)
40	503 70050 10	1	Fly wheel
41	503 70050 20	1	Ignition coil
42	EC02-090B	1	Plug cap compl.(incl.44)
43	EC01A-7001	1	Gromet
44	0654-00998-2	1	Plug cap spring

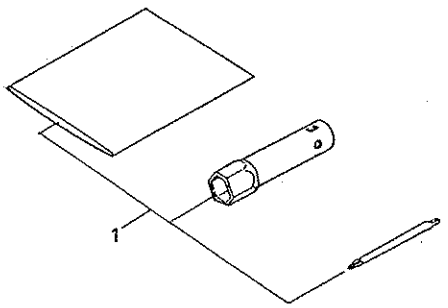
KEY No.	PART No.	QTY.	DESCRIPTION
45	EC06A-0726	1	Lead compl.(B)
46	EC02E-0309A	1	Heat insulator(incl.47)
47	00217-0500-0	2	Nut(M5)
48	EC02ER-3128A	1	Heat insulator packing
49	EC02E-3112A	1	Gasket(WY)
50	118-124	1	Spacer
51	EC02E-5111/1	1	Plate
52	00532-0310-1	1	Woodruff key
53	EC01A-6040	1	Filter
54	5-2328	1	Body ass'y filter
55	43-53	1	Clip filter
56	125-59	1	Filter felt
57	108-147	1	Retainer filter
58	106-17	1	Packing filter
59	NB23-2001	1	Holder clamping bolt ass'y (M6×14)
60	EC02E-5102	2	Tapping screw(A) (M5×16)
61	EC02E-5113	1	Tapping screw(B) (M5×20)
62	EC03F-3995	2	Washer
63	00113-0616-0	1	Bolt ass'y (M6×16)
64	00312-0600-0	1	Washer(M6)
65	00431-0516-0	2	Screw(M5×16)
66	00435-0525-0	3	Screw(M5×25)
67	00436-0518-0	8	Screw ass'y(M5×18)
68	0119-05987-0	2	Bolt(Socket head)(M5×18)
69	A60702600010	1	Set screw
70	A60201000010	1	Washer
71	00411-0620-0	2	Screw(M6×20)
72	EC02-9522	2	±Screw ass'y(M5×22)
73	EC02E-5117A	1	Label
75	EC02ER-0903	1	Throttle wire
76	NB16-2051	1	Clutch compl.(incl.79~83)
77	NB02A-201A	1	Holder
78	NB26-2102	2	Clutch shoe
79	NB26-2103	2	Clutch bolt
80	NB16F-2104	1	Spring(Clutch)
81	NB02A-206	2	Washer(A)
82	NB02A-207	2	Washer(B)
83	00312-0500-0	1	Washer(M5)
84	0230 05991 0	1	Spacer
85	520 65005 00	1	Plate, tank
86	0150 05996 0	1	Tapping screw

CARBURETOR



KEY NO.	PART NO.	QTY.	DESCRIPTION
*1	EC02ER-0606	1	Carburetor compl. (incl. 2 ~ 27)
*2	34-514	1	Valve assembly-throttle
3	5-2288	1	Body assembly-pump
4	92-258	1	Gasket-pump
5	95-99	1	Diaphragm-pump
6	157-280	1	Plate-pump
7	92-257	1	Gasket-plate
8	92-146	1	Gasket-metering diaphragm
9	95-526	1	Diaphragm assembly-metering
10	21-158	1	Cover-metering diaphragm
11	122-211	2	Sleeve-mounting
12	16-103	1	Ring-packing
13	112-183	1	Jet (#44)
14	16-104	1	Ring-"O"
15	16-71	1	Ring-spring retaining
16	136-90	1	Washer
17	52-30	1	Swivel
18	167-91	1	Braket-idle adjust
19	98-323	1	Spring idle adjust
20	96-314	1	Screw-idle adjust
21	96-323	2	Screw-collar throttle
22	96-325	4	Screw-metering cover
23	EC02E-3123	1	Wire holder
24	EC02E-3104B	1	Air cleaner plate
25	EC02E-3108	2	Spacer
26	EC02E-3141A	1	Choke lever
27	EC02E-3114A	1	Rubber seat
28	EC01A-3072A	1	Prevent plate
29	EC02E-3106	1	Element
30	EC02ER-3130	1	Air cleaner cap
31	00436-0512-0	1	Screw assembly (M5x12)
32	00217-0500-0	1	Nut (M5)
33	00431-0555-0	2	Screw assembly (M5x55)

ACCESSORIES



KEY NO.	PART NO.	QTY.	DESCRIPTION
1	EC01A-0904	1	Tool kit