

BUSH CUTTER

MODEL / MBC-310

OWNER'S MANUAL

1. MAJOR PARTS

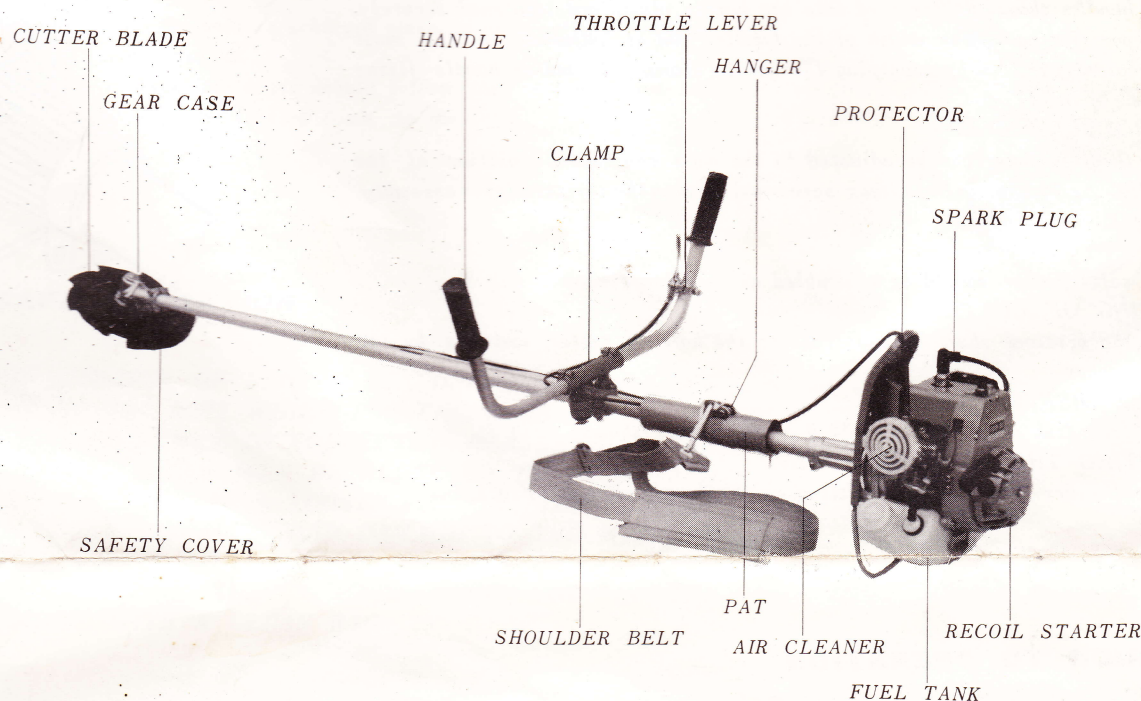


Fig. 1

2. SPECIFICATIONS

MODEL		MBC-310
Body	Connecting Method	Direct Connection to Engine
	Oil Containing Metal	Oil Containing Bearing using Anti-Vibration Rubber
	Gear Case Lubrication	with Grease
	Control Handle	Common Control & Anti-Vibration of Right & Left side
	Method of Carrying	by Shouldering Band
	Cutter r.p.m.	8,000 r.p.m.
	Weight (without Blade & Safety Cover)	3.7 Kg
Engine	Model	TCD-31
	Displacement	31 c.c.
	Max. Out Put	1.7 HP
	Ignition Plug	NGK. BM 6-A
	Carburetor	TK. Diaphragm
	Fuel Tank Capacity	0.6 l
	Lubrication System	Fuel 25: Oil 1
	Starting	Recoil Starter
	Transmission	Automatic Centrifugal Clutch
	Weight	3.3 Kg
TOTAL LENGTH (with Engine)		1.850m.m.
TOTAL WEIGHT		7.0 Kg

CAUTION:

DO NOT START THE ENGINE UNLESS THE CLUTCH HOUSING IS FITTED OR SOME PRECAUTION TAKEN TO LOCK THE CLUTCH SHOES CLOSED.

3. ASSEMBLING THE UNIT

The machine consists of three major parts.

1. POWER HEAD
2. POWER TRANSMISSION SHAFT
3. CUTTER

The machine should be assembled as follows:

1. ENGINE HEAD AND POWER TRANSMISSION SHAFT

Attach the clutch housing on the power transmission shaft to the mounting plate on the engine, with four bolts provided. At the same time the protector should be secured on the clutch housing. (Fig. 2)

2. HANDLE

The handles should be inserted into the handle clamp and tightened securely. The positioning and/or width of the handles can be adjusted to the most convenient position by loosening the handle clamp bolt and/or handle fixing bolts. (Fig. 1)

3. THROTTLE LEVER

The throttle lever can be adjusted to the most convenient position of the handle, by loosening the clamp screw and turning the throttle lever assembly. (Fig. 1)

4. SAFETY COVER

The safety cover should be assembled as the figure shows. (Fig. 3)

5. FIXING OF CUTTER

Put the vertical shaft of gear case to the hole of cutter and fix by nut and washer.

6. FREE DISK (OPTION)

The free disk should be assembled as the figure shows. (Fig. 3)

7. FITTING THE SHOULDER BELT.

The shoulder belt should be fitting as the figure shows. (Fig. 1)

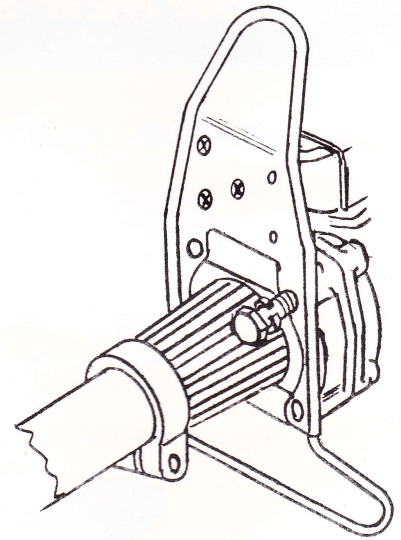


Fig. 2

4. PRIOR TO OPERATION

1. Check that all nuts, bolts and screws are securely tightened, and double check the blade fixing nut.
2. The engine requires a fuel mix of 25 parts regular gasoline and 1 part two cycle oil. The fuel should be premixed prior to pouring into the fuel tank.

5. OPERATION

1. STARTING THE ENGINE

- a. Turn the throttle lever from half open to full open.
- b. Pull out the choke lever of the carburetor.
- c. **Pushing button A of carburetor, please be sure to push Pump Boot B of fuel-line 2~3 times lightly until fuel over-flow from carburetor.**
- d. Pull the recoil starter cord 3-4 times gently. (Fig. 1)
- e. After fuel reached to the carburetor pull the recoil starter cord vigorously to start the engine.
- f. When the engine has started, set the choke lever gradually to fully opened position.

IF TOO MUCH FUEL HAS SUCKED IN AND COMBUSTION DOES NOT TAKE PLACE, KEEP THE CHOKE LEVER AT FULLY OPENED POSITION AND PULL THE RECOIL STARTER CORD REPEATEDLY UNTIL THE ENGINE STARTS.

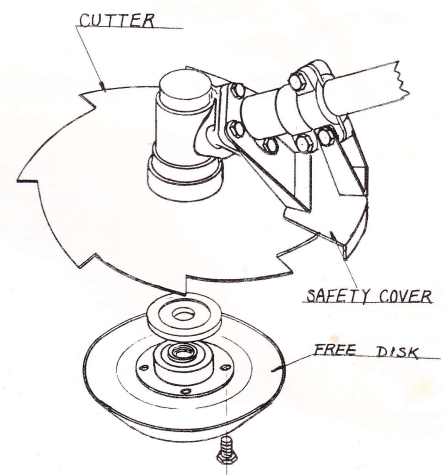


Fig. 3

2. ENGINE SHUTDOWN

- When the engine is to be stopped, do not give a sudden deceleration, but to allow gradual deceleration and give idling for about 3-5 seconds before stopping.
- Close the throttle lever.
- Push the stop button until stop the engine.

3. HOW TO CARRY

- Put your right hand under the belt and hold shaft.
- Hold belt by left hand and carry it on operator's left shoulder over the head so that it can be in right side against operator.
- Hold handles with both hands.

4. OPERATION OF THE MACHINE

- Keep the engine speed sufficiently high to keep the clutch engaged at all times.
- Most efficient use of the unit is achieved when an even cutting rhythm of right to left is maintained.
- When working on a slope, the blade should follow the contour from top to bottom, with the operator looking down, to the left.

6. FOR SAFE OPERATION

- ALWAYS BE CAREFUL OF PEOPLE STANDING NEARBY.
- NEVER REFUEL THE UNIT WHILE THE ENGINE IS RUNNING.
- CARE SHOULD BE TAKEN TO CORRECTLY REASSEMBLE THE FLANGE AS THIS CAN EASILY BE REVERSED IN ERROR AND THEN THE SAW BLADE IS A LOOSE FIT ON THE COLLAR AND WILL CAUSE VIBRATION AND DAMAGE TO THE MACHINE.
- THE CLUTCH SHOULD OCCASIONALLY BE CHECKED, AND ANY FOREIGN MATERIAL ON THE CLUTCH SHOES OR IN THE HOUSING WIPED WITH A CLEAN RAG.

7. MAINTENANCE AND ADJUSTMENT

1. CLUTCH

The clutch should occasionally be checked, and any foreign material on the clutch shoes or in the housing wiped with a clean rag.

2. CONTACT-BREAKER POINTS

Remove the flywheel and the point cover and check the gap of the contact-breaker points. Examine the breaker gap if it allows the points the maximum separation of 0.35 mm as measured by a thickness gauge. If the gap falls short of this standard, tighten or slacken off the adjusting screws for rectification as illustrated. If the points are badly burnt (i.e., the face is pitted as if worm-eaten) they should be dressed flat with the aid of a point file or a fine grain sand paper. Oil on the points should be cleaned off. (Fig.5)

3. SPARK PLUG

A hot type 14mm spark plug is fitted. The standard gap is 0.6mm. Under the best running condition note that the electrode is dry and tan colored. If the electrode is constantly found wet, this indicates an over-rich fuel/air mixture; If the gray deposit is formed on the burnt electrode, this indicates poor fuel/air mixture, then it needed an adjustment on the carburetor. If sludgy deposits are found on the spark plug, same should be cleaned. (Fig.6)

4. MUFFLER

When the exhaust port of the cylinder and the muffler are found carbonized and narrowed after lengthy servicing the engine tends to give insufficient power. It is very important that the exhaust port of the cylinder and the muffler are cleaned with utmost care.

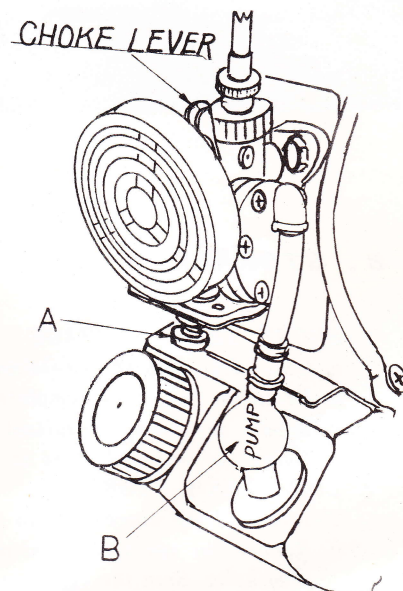


Fig. 4

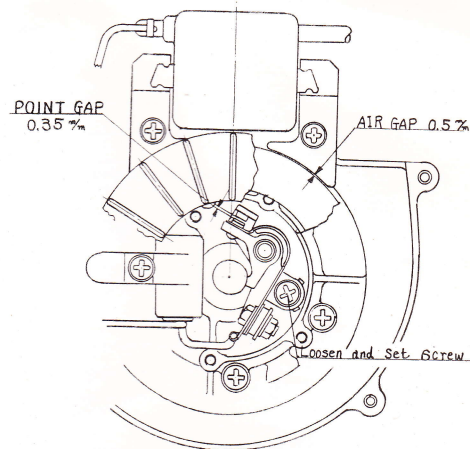


Fig. 5

5. AIR CLEANER

If the air cleaner is excessively dirty the engine is not able to draw the air necessary for the maximum power. If the engine is operating in a dusty atmosphere the air cleaner must have absorbed and hold dust.

Under these conditions it is necessary to wash the air cleaner more frequently than in a relatively dust-free atmosphere. When the air cleaner has come clogged with dust, that will prevent the engine from getting enough air for proper combustion of fuel mixture it must be cleaned to wash with gasoline or soap solution and replace it after it is dried.

The air cleaner service is necessary at least once in every 30 hours.

8. STORAGE

1. SHORT TERM STORAGE

- Carefully clean the whole unit.
- Drain the fuel tank completely.
- Repair any damage resultant from use.
- Cover the unit and store it in a dry area.

2. LONG TERM STORAGE

Observe all the procedures in the above, as well as:

- Remove the spark plug and put a few drops of engine oil down the spark plug hole. Spin the engine over several times to distribute the oil, and reinstall the spark plug.
- Cover all plated or bare parts with a light coating of oil to prevent corrosion.
- Remove the blade, and wrap it securely in waxed paper, after having liberally applied a light grease to its surface.

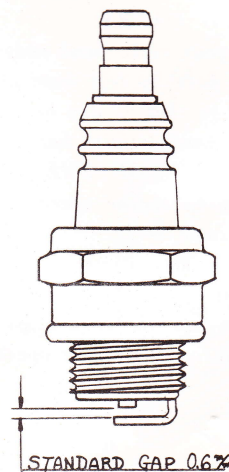


Fig. 6