

Thatcher Operating Information

The Benefits of Combing a Lawn

A healthy lawn requires adequate water, an exchange of oxygen and nutrients and a level of microbial activity in its soil. A thatch layer (an accumulation of roots, crowns and grass clippings that creates a dense mat of vegetation at the soil level) of ½ inch acts as an insulator, keeping soil temperatures low and helping to retain moisture. However, when thatch build-up exceeds ½ inch, it can prevent the exchange of water and vital nutrients from the atmosphere to the soil, decreasing the turf's ability to thrive and fight disease and dehydration.

Dethatching, also known as combing or power raking, removes unwanted thatch. However, some care needs to be taken when dethatching to prevent damage to the roots. It is important to choose a time of year when the grass is in full growth, such as the late spring, summer or fall. This will offer the lawn a better chance of recovery after combing. It is also important to ensure that the blades are not set too deeply.

Operation Tips

Before you begin:

- Review all manufacturer's operation instructions and consult the owner's manual.
- Check the engine oil and ensure that it is at the engine manufacturer's recommended level.
- Mow the lawn to its normal height and allow the lawn to dry.
- Set the flail/tine depth so the blades just touch the surface of a flat area, such as a driveway or sidewalk.

Dethatching on slopes:

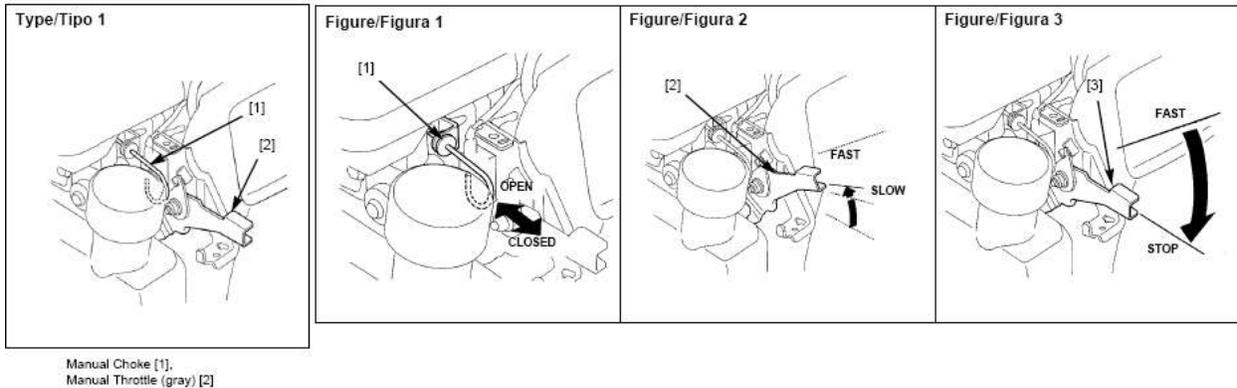
- On sloping ground, it is easier to dethatch going downhill, rather than across the hill.

Lawn conditions:

- To avoid damage, lawns should be cut to normal height and free of moisture.
- Thatch build up should be ½" before using the Comber, and no more than ¾". If thatch is more than ¾" do two light combings, one in the spring and one in the fall.

Safety Tips

- Prior to working, inspect the turf and remove any rocks, string, wire, or other objects that may cause an obstruction
- Prior to working, identify and mark all in-ground objects to be avoided, such as sprinkler heads, stakes, water valves, clothes line anchors, etc.
- Use Combers on turf only
- Operate on slopes of a 35% grade or less
- Keep hands and feet away from moving parts
- Always run the engine in a well ventilated area only



OPERATION

SAFE OPERATING PRECAUTIONS

Before operating the engine for the first time, please review the *SAFETY MESSAGES* and the *BEFORE OPERATION CHECKS*. For your safety, do not operate the engine in an enclosed area such as a garage. Your engine's exhaust contains poisonous carbon monoxide gas that can collect rapidly in an enclosed area and cause illness or death.

Review the instructions provided with the equipment powered by this engine for any safety precautions that should be observed with engine startup, shutdown, or operation.

Do not operate the engine on slopes greater than 20°.

STARTING/STOPPING THE ENGINE

- **Manual choke:** Place the choke lever/rod [1] in the CHOKE position when starting a cold engine. Move the choke lever/rod to the OFF position as soon as the engine fully warms up and runs smoothly without use of the choke, or for restarting a warm engine.
- **Engine speed:** For best engine performance, it is recommended the engine be operated with the throttle in the FAST (or high) position.
- **Starter grip:** Pull the starter grip lightly until resistance is felt, and then pull briskly.

NOTICE

Do not allow the starter grip to snap back against the engine.

Return it gently to prevent damage to the starter.

OIL ALERT® SYSTEM (APPLICABLE ENGINE TYPES)

The Oil Alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert system will automatically stop the engine [the throttle lever (ignition switch lever) will remain in a run position]. If the engine stops and will not restart, check the engine oil level before troubleshooting in other areas.

Type 1: Manual Choke, Manual Throttle STARTING THE ENGINE

1. Move the choke rod [1] to the CLOSED position (cold engine) (see Figure 1,).
2. Move the throttle lever (gray) [2] to the SLOW position, about 1/3 of the way toward the FAST position (see Figure 2,).
3. Pull the starter grip lightly until resistance is felt; then pull briskly.
4. If the choke rod was pulled to the CLOSED position to start the engine, push it to the OPEN position as soon as the engine warms up enough to run smoothly.
5. Position the throttle control lever (gray) for the desired engine speed.

STOPPING THE ENGINE

1. Move the throttle control lever (gray) to the SLOW position.
2. Allow the engine to idle for a few seconds; then move the throttle control lever to the STOP position.