



S44TB SWEEPER OPERATOR AND PARTS MANUAL

MANUFACTURED BY:
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INTRODUCTION

Thank you for choosing a **Smyth Welding** 44TB sweeper. This machine is perfect for clearing your yard of stones, twigs, pine cones and other debris. It is easy to operate behind your garden tractor or ATV, then simply pull the tailgate release rope to dump materials into a pile for composting or removal. We are confident this equipment will meet your requirements in terms of quality, performance and reliability. Not recommended for use on pavement.

Please read this manual completely before operating your sweeper and keep it for future reference. It contains important information and was made to assist you in the safe operation of your new sweeper and to ensure it performs to its fullest capabilities.

Before using the 44TB sweeper any person who will be operating the sweeper must be familiar with the safety recommendations and the operating instructions. Please read carefully and be sure to understand and follow all recommendations and procedures.

If you require additional information on your sweeper, please contact your **Smyth Welding** 44TB Sweeper dealer.

Information needed for warranty and ordering parts:

Date of purchase: _____

Serial Number: _____

Model Number: _____

Special Options: _____

Warranty Information

Smyth Welding & Machine Shop Ltd. products are warranted for a period of 1 year from the date of original purchase, by the original purchaser, to be free from defects in material and workmanship under correct and normal use and proper applications.

Smyth Welding & Machine Shop Ltd. obligations under this warranty shall be limited to the repair or exchange at **Smyth Welding's** option, of any **Smyth Welding** product or part which proves to be defective as provided. The customer will return his unit to his dealer where it was purchased and if the dealer agrees with the warranty, they must then notify **Smyth Welding** to get authorization.

The equipment must be installed, operated and maintained in accordance with **Smyth Welding's** instructions.

This warranty does not extend to goods damaged or subject to accident, abuse or misuse after shipment from **Smyth Welding**, nor to goods altered or repaired by anyone other than an authorized **Smyth Welding** representative.

Smyth Welding shall in no event be responsible for any consequential damages of any nature whether special or general, direct or indirect.

Any warranty or claim which differs from that set out is unauthorized by **Smyth Welding & Machine Shop Ltd.** and is the warranty only of the party making it. **Smyth Welding & Machine Shop Ltd.** makes no other warranty, expressed or implied and the original user's sole remedy for breach thereof is as set forth.

To obtain warranty a copy of original bill of sale is required and all claims must be submitted within a 30 days from date of equipment failure.

Safety Information

This operator's manual along with the Honda Engine manual should be regarded as part of the sweeper. Suppliers of both new and secondhand sweepers are advised to keep documentation indicating that this manual was provided with the sweeper.

Obey all safety instructions listed in this section and throughout this manual. Failure to do so could result in serious injury or death.

- Know all your controls and know how to quickly stop all power unit movement and the sweeper movement.
- Know and follow good work practices when assembling, mounting, maintaining, repairing, removing and storing this product.
- All shields and guards are to be in place before operation of sweeper.
- Wear appropriate personal protection equipment.
- Do not wear loose clothing, loose or uncovered hair, or any accessories that can catch in moving parts.
- Never allow anyone, except the operator, to be around the power unit on this product when it is in use.
- Do not start up unless others are clear of the work area.
- Do not allow riders on this product or the power unit.
- Do not stand or climb on this unit when operating.
- Do not place any part on your body under any part of this product unless the product is turned off and securely resting on adequate blocking or on the ground.
- Never leave equipment unattended with the engine running or with this product raised.
- Ensure all safety warning decals are legible. Contact **Smyth Welding & Machine Shop Ltd.** for replacement of missing or damaged safety decals.

Safety Alert Symbol



Maintenance

Stop the unit and disengage all power before doing any adjustments or service to your 44TB sweeper. See your Smyth Welding sweeper dealer to replace any worn or damaged parts.

Chain: Use-#50 roller chain

Carefully check the teeth on the sprocket, if they are worn to a hooked shape, the sprockets should be replaced to assure full capacity performance and a satisfactory life from the new chain.

Tight chain causes an additional load which increases wear on chain joints, sprockets and shaft bearings.

Slack chain produces vibration, which may result in excessive chain wear, noise or shock loading.

Tighten chain allowing 1/4" sag in the bottom span as the chain wears.

Sprocket: Use- 5010 w/ 3/4" bore and 5020 w/ 1" bore

Inspect sprockets for problems which lead to replacement.

- Wear on the sides, which is due to misalignment
- Tooth wear (indicated by hooking)
- Broken teeth
- Cracks that might lead to failure
- Wobbling of sprockets on shaft

Bearings: Use- (2) UCFL-205 for broom. UCP 204-12 for cross shaft

-grease every 8 working hours

Broom: Use 18 x 44 Gravelly poly broom with welded-in shaft.

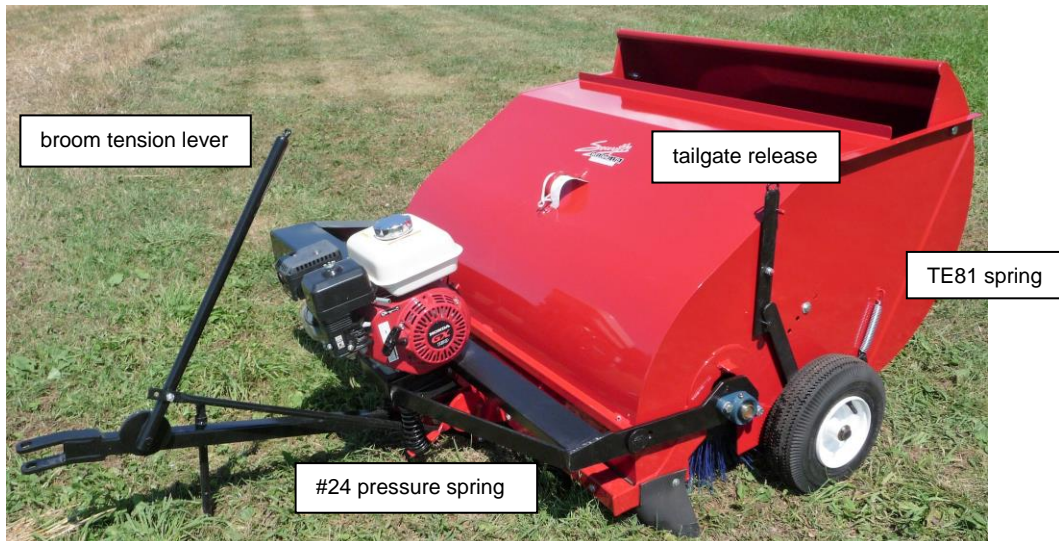
-replace your broom when the filament length reaches 1/2 of the original outside diameter.

Tires: Use: 10" Sawtooth

-inflate to 50 psi. Max

Honda Engine: Use gasoline only and SAE 30HD oil

-refer to the provided Honda Manual.



Operation Information

For best results, lawns should be dry and the soil firm.

On a level surface, attach your tow vehicle to the sweeper hitch.

Drawbar height on your tow vehicle should be between 8" - 15" from ground level.

Loosen the two bolts in shown in FIG. A, by sliding the first bolt up or down through its slotted hole to adjust the position of the sweeper.

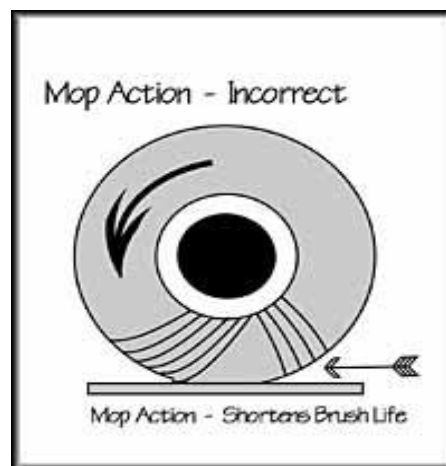
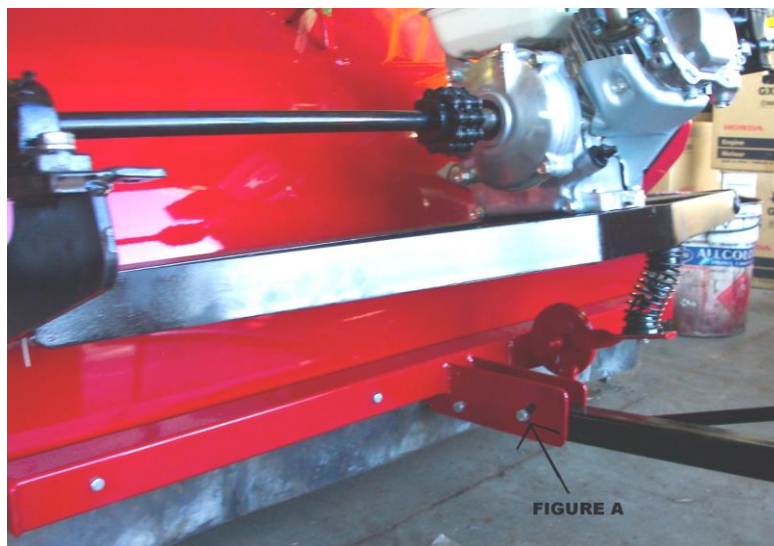
The rubber skirt across the front of the sweeper should be $\frac{1}{2}$ " - $\frac{3}{4}$ " off the ground level.

Once this is achieved, tighten both bolts securely.

Check fuel and oil levels in the motor. (refer to Honda manual)

Ensure that the broom is in the lift position.

Move to the area to be swept, set the throttle to the $\frac{3}{4}$ full position, pull the broom tension lever toward you and move forward slowly.



A broom sweeps with the tips of its bristles. When too much down pressure is applied, the broom is working with the sides of the bristles limiting the flicking action, the effectiveness of the sweeper and shortening the broom life.

To check for correct down pressure, operate the broom on the ground and rotate at normal speed with the machine remaining stationary. Stop and lift the sweeper, the correct sweeping path of a properly adjusted broom will clear a 2"- 4" wide pattern

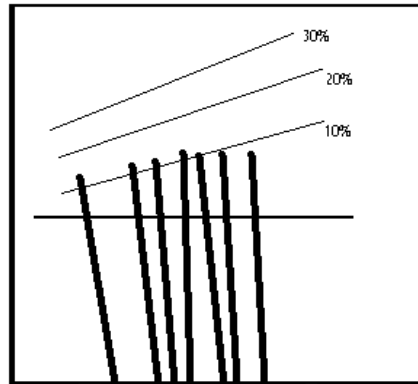
Operation Information continued

If your travel speed is too fast debris will pile up in front of the broom causing you to bulldoze instead of sweep. This can damage not only the broom, but also the core, chains, sprockets, drive lines and frame.

Checking the broom level adjustment every use will help with even, side to side broom wear and extend the broom life.

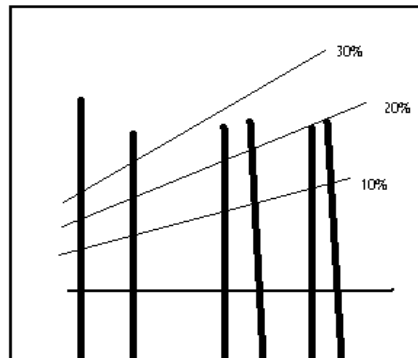
Normal Bristle Wear

- 10% - 20% tip wear
- Bristles cleanly & evenly worn



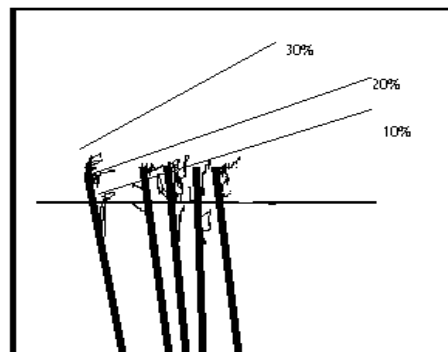
Heavy Broom Wear

- 35% - 40% tip wear
- Bristles worn along side



Abrasive Wear

- Frayed tips
- Bristles chewed



Trouble Shooting

ITEM	POSSIBLE CAUSE	CORRECTIVE ACTION
<p>Honda Engine will not operate</p> <p>Take engine to an authorized Honda servicing dealer or refer to shop manual</p>	<ul style="list-style-type: none"> -The motor has failed -Fuel valve OFF -Choke open -Engine switch OFF -Engine oil level low (Oil alert models) -Out of fuel -Bad fuel; engine stored without treating or draining fuel, or refueled with bad fuel -Spark plug faulty, fouled or improperly gapped -Spark plug wet with fuel (flooded engine) -Fuel filter is restricted, carburetor malfunction, ignition malfunction, valves stuck, etc. -Filter elements restricted 	<ul style="list-style-type: none"> -Replace the motor -Move lever to ON position -Move lever to CLOSED position unless the engine is warm -Turn engine switch to ON position -Fill with the recommended oil to the proper level (See Honda manual) -Add fuel -Drain fuel tank and carburetor. Refuel with fresh fuel -Gap or replace spark plug -Dry and reinstall spark plug. Start engine with throttle lever in MAX. position -Replace or repair faulty components as necessary -Clean or replace filter elements
Sluggish broom operation	-Insufficient power	-Increase engine RPM
The motor runs but the broom does not run	-Motor shaft has sheared key	-Replace key
-Oil leaks in the motor	<ul style="list-style-type: none"> -One or more of the seals have failed -Seals on the fittings are damaged 	<ul style="list-style-type: none"> -Replace seals -Tighten fittings or replace seals
Brush slows or stops when sweeping	<ul style="list-style-type: none"> -Brush pattern too wide -Travel speed too fast -Trying to sweep too much material at once -Filter plugging 	<ul style="list-style-type: none"> -Adjust brush pattern -Reduce travel speed -Reduce amount of material being swept, make more passes -Change or clean filter
Brush wears very quickly	<ul style="list-style-type: none"> -Brush pattern is too wide -Brush downward pressure is too much 	<ul style="list-style-type: none"> -Adjust brush pattern -Adjust downward pressure
Brush head bounces during sweeping	<ul style="list-style-type: none"> -Travel speed too fast and/or brush speed too low -Core is bent -Height adjustment is incorrect 	<ul style="list-style-type: none"> -Find correct combination of ground and brush speeds. -Replace broom. -Change height adjustment
Brush wears into cone shape	<ul style="list-style-type: none"> -Sweeper is not level -Tires on power unit at different pressures or are different sizes 	<ul style="list-style-type: none"> -Level sweeper before each use -Check tire sizes and rating: make corrections as necessary



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