Owner's Manual

This Manual Must Be Read Before Operating The Equipment



INNOVATIVE TURF SOLUTIONS







Madison Heights, Michigan 48071 866-5-TURFEX www.turfexproducts.com **CUSTOMER COPY**

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Introduction



This manual is intended to help you to get to know your RS7200E Spread-N-Spray and how to operate it safely, correctly and economically. If you observe these instructions, you will prevent hazards, reduce repair costs and breakdown times, and increase the reliability and service life of the machine.

- The manual must be read and used by every person who will be working with or on the machine for:
- Operation (including preparation, repair during operation, & clean-up)
- · Repairs (maintenance, inspection, overhaul), and/or
- Transport.

All regulations for safety and proper working practice must be observed in addition to this manual and any applicable regulations for the prevention of accidents. Should you lose your Owner's Manual or would like extra copies, they can be obtained from your TurfEx dealer or retrieved from the TurfEx website - www. turfexproducts.com.

SAFETY ALERT DEFINITION



Madal

This Safety Alert Symbol is used to pinpoint characteristics that, if not carefully followed, can create a safety hazard. When you see this symbol in this manual or on the machine itself, BE ALERT - your safety and the safety of others is involved.



An accident will occur, resulting in Serious Injury or Death if the instructions are not followed.

An accident may occur, resulting in Serious Injury, perhaps Death, if the instructions are not followed.

An accident may occur, resulting in Minor or Moderate Injury if the instructions are not followed.

Important Information; Property or Equipment Damage may result if not followed.

IMPORTANT EQUIPMENT INFORMATION

Record important machine information here for quick reference. The RS7200E Serial Number is found on the Serial Number Plate, located underneath the dashboard on the right-hand side. The Engine Serial Number is located on the side of the engine, by the pull-start coil.

Serial #	_
Engine Serial #	
Date Purchased	
Dealer where purchased	

Example

	Madison Heights, MI 48071 U.S.A. 1-800-725-8377 trynexfactory.com
Model No. RS7200E	
Serial No. 1403033000	
SNOWEX TURFEX	M Sweep X CE Manuf. 2014

Safety

Safety Labels





Always have safety switch lanyard attached to Operator.



WARNING OWNER'S RESPONSIBILITY

The owner is responsible for training himself and all other operators and mechanics. Before starting the engine and/or operating the machine, each operator must read and understand the Owners Manual. Training must include supervised driver's training with adequate time to practice for the Operator to become competent in operating the machine in all conditions.

It is the Owner's responsibility to perform the maintenance as described in the Maintenance Instructions. The Owner/Operator can prevent, and is responsible, for accidents or injuries occurring to themselves, other people or property.

A warning SUPERVISED DRIVER'S TRAINING IS REQUIRED FOR ALL OPERATORS AND MECHANICS

An untrained operator or mechanic can cause an accident, resulting in serious injury to himself or bystanders.

- All operators and mechanics must be trained. The owner is responsible for training the users.
- Driver's Training should be conducted under the direct supervision of an experienced operator.
- The Driver's Training section provides a step by step outline of what shall be covered during training.
- The trainer shall supplement the training procedures provided in the Driver's Training and Operation section with any additional instruction he deems necessary to ensure the safe operation of the RS7200E. The trainer should add additional instruction as necessary to provide the Trainee with additional useful information.
- The trainer should supplement the presentation of material in the Driver's Training and Operation section with instruction and references to all warning messages that appear in the Safety pages and Safety Labels.
- At each point where the trainee is to learn a new phase of driving the machine, the trainee must be provided adequate practice time to demonstrate the ability to satisfactorily control the machine while starting, stopping, turning, getting on and off, or other tasks described in that point before proceeding to the next phase.
- Initial training should take place on a flat open area free of obstructions with the RS7200E in 1st gear.
- As the trainee progresses to more advanced phases of training the degree of difficulty may be increased, but at each phase the initial training must begin on terrain that has a low degree of difficulty. This is particularly important to keep in mind when learning how to operate on inclines and slopes.
- The trainer shall demonstrate the principles covered in each phase.

WARNING MINIMUM OPERATOR QUALIFICATIONS

AN OPERATOR OF THIS MACHINERY MUST MEET THE FOLLOWING QUALIFICATIONS:

• The operator must be an experienced professional lawn care technician with a demonstrated ability to apply fertilizer and pesticide products correctly.

- The operator must meet all state Pesticide Applicator Certification requirements.
- The operator must be at least 18 years old.
- The operator must be physically fit and able to lift 50 pounds with ease.
- The operator must weigh between 120 and 300 pounds.
- Has read and understands the information contained in this manual. Never let children or untrained persons operate or service the equipment. Local regulations may restrict the age of the operator.

A WARNING OPERATOR CLOTHING AND PROTECTIVE EQUIPMENT (PPE)

- Always read and follow Product labels and MSDS sheets requirements for Personal Protection Equipment
- Wear substantial water proof footwear and tightly secure all laces and straps.
- Do Not wear shorts. Instead always wear close fitting clothing and jackets to prevent clothing from getting caught on the handle bars and other control levers.
- Wear appropriate clothing including hard hat, safety glasses and hearing protection. Long hair, loose clothing, straps, shoelaces or jewelry may get caught in moving parts.

WARNING SAFETY DEVICES

Do not Operate machine unless all safety devices are in place and in good working condition.

SAFETY DEVICES INCLUDE:

- Machine Safety Labels.
- Operator Presence Control/Throttle/Centrifugal Clutch. Letting go of the Throttle lever disengages power to the drive wheels.
- Front Brakes with lock. Front Brake has a spring to limit the force applied to reduce possibility of lock-up. Locked brakes are parking brakes.
- Safety Kill Switch wire is attached to operator.
- · Slip Resistant footpad.
- Belt guard securely fastened.
- Neutral Safety Switch which prevents the RS7200E from starting in gear.
- Fluid filled tires which provide ballast for a lower center of gravity.

Safety



warning OPERATION

Avoid Serious Injury!

- Do Not change the engine governor setting or over speed the engine. The top engine speed when the machine is in Neutral is 3450 RPM. Use the electronic multifunction display to monitor the top speed and make adjustments as necessary.
- Never shift gears while the machine is moving as this may cause a rapid slowdown or stop the front wheels causing loss-of-control or a tip over. Always, stop the machine before shifting gears.
- Only operate in good visibility conditions. Avoid holes and inspect work area for hidden hazards before starting machine engine.
- Be sure the machine is in neutral and all brakes are locked before starting engine.
- Use caution stepping on or off the sulky to avoid tripping. Never use machine without sulky or operate on wet grass.
- Use extra care when operating this machinery on inclines or slopes. Be sure to refer to the Operator's Manual for specific instructions regarding operating the machinery on slopes and/or inclines. Turf conditions can affect the machine's stability. Use caution while operating near drop-offs or other hazards.
- Never operate with the guards not securely in place. Be sure all interlocks are attached, adjusted properly, and functioning properly before starting the engine.
- Stop on level ground, lock all brakes, shut off engine and shift into neutral before leaving the operators position for any reason.
- . Keep hands, feet, clothing and loose objects away from moving parts and pinch points.
- Never carry passengers. Keep a safe distance between the machine and all third parties.
- Slow down and use caution when making turns and/or crossing roads and sidewalks.
- Do not operate the machine under the influence of alcohol or drugs.
- Use care when loading or unloading the machine into a trailer or truck.
- Avoid distractions, including but not limited to cell phones and mp3 players, while operating this machine. Operators must concentrate and focus on the safe use of this machinery at all times.
- Keep a firm hold on the handle bars at all times.
- Do Not touch hot muffler while running or after shutdown.
- Wear eye protection and necessary Personal Protection Equipment (refer to Pesticide Label) when using compressed air or water to clean the machine.

WARNING INSPECTING WORK AREA

PRIOR TO OPERATING, CAREFULLY INSPECT THE WORK AREAS FOR HAZARDS OR UNEVEN GROUND THAT MAY BE HIDDEN IN THE GRASS.

- Clear the work area of move-able objects such as branches, wires, rocks, glass etc. That may interfere with the machine.
- Mark the location of all immovable objects or irregular areas.
- Avoid hitting obstacles such as holes, abrupt changes in ground contour, branches, stumps, roots, protruding pipes, paving edges, etc. that could unexpectedly turn, stop, or upset the machine possibly throwing you off, into or over the handle bars causing serious injury or death. *The faster you are moving, the more potential there is for injury.*
- . Keep away from drop-offs, the edges of ponds, streams, pools, etc., especially at the bottom of slopes.

EVALUATE THE TERRAIN.

- Determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Study the terrain and plan a safe operating pattern. If no safe operating pattern exists Do not attempt to drive the RS7200E in that area.

If hills are present, refer to additional Warnings in "Hillside Operation" in this section.

EVALUATE THE TURF CONDITIONS.

- Do Not operate if conditions are wet
- Do Not Operate in dim/low light.

WARNING FUEL SAFETY

Use extra care when handling gasoline and other fuels. They are flammable and vapors are explosive.

- Always shut off fuel valve when transporting or storing the machine.
- Never remove gas cap or add fuel when engine is running or hot. Allow it to cool first.
- Do Not smoke and stay clear of any sparks or open flames.
- Never refuel or drain the machine indoors. Move machine out doors instead.
- Clean up fuel spills immediately. Do Not attempt to start the machine near a fuel spill. If fuel is spilled on clothing; Do Not attempt to start the machine, stay away from open flames, sparks or other sources of ignition, and change clothing.

The engine gives off carbon monoxide, a poisonous gas. Do not run engine in an enclosed area or indoors.

PREVENT FIRES.

- Keep engine clean and free from debris.
- Clean up spilled fuel.
- Check and repair leaking fuel lines, fittings and cap.
- Do Not park near an open flame or other source of ignition, such as a furnace or water heater.



WARNING INSPECT MACHINE BEFORE EACH USE

EXAMINE THE MACHINE PRIOR TO EACH USE. DO NOT USE THE MACHINE IF ANY PARTS ARE NOT IN GOOD WORKING CONDITION.

- Check for worn tires, cracks in parts, loose or missing bolts, cotter pins, etc. and replace or repair before operating.
- Make sure all safety devices are present and in good working order, including all the safety labels, Shields, Brakes, the Neutral Safety Switch System, and Throttle/Clutch which disconnects the power to the drive wheels when released. (To test the Brakes, Neutral Safety Switch System, and Throttle/clutch, follow instructions in the Driver's Training and Operating Instructions section of this manual.)
- Make any necessary repairs or adjustments before starting the engine and/or operating the machine.

WARNING ENGINE STARTING SAFETY

DO NOT ATTEMPT TO START THE MACHINE IF ANY OF THE FOLLOWING APPLY:

- You are in a confined space.
- You or someone else could be trapped between the machine and a solid obstacle should the machine unexpectedly move upon startup. Remember to check for low hanging obstacles such as tree branches, clotheslines, etc.
- You are not certain of firm, dry, level footing to prevent loss of balance

BEFORE ATTEMPTING TO START ENGINE:

- You must move the machine to a solid, level, dry, open area before starting the engine.
- Verify the machine is in Neutral. The machine rolls forward easily in neutral.
- Lock front brake and apply the sulky brake.
- Do not operate the Throttle.

DO NOT ATTEMPT TO START OR OPERATE THE MACHINE IF:

- The Neutral Safety Switch System or any other safety device is not working.
- The Throttle/Clutch does not move freely and automatically and rapidly return to the idle position.
- The idle engine speed exceeds 1650 RPM upon starting.
- The machine unexpectedly moves upon starting or when shifting gears.

AVOIDING SLIPPING OR TRIPPING INJURY

- Use caution when riding on, and getting on and off the RS7200E.
- Keep a firm grip on the handles with both hands.
- Stand only on the footpads. .
- Keep footpads clean.
- Replace worn or damaged footpads.

warning FORWARD OPERATION

Loss-of-control may cause death or serious injury.

- · Always keep a firm grip on the handlebars with both hands.
- Operate the machine in 1st Gear until you become familiar with it.
- · Never operate the machine at a greater speed than is reasonable in light of the conditions presented.
- · Only operate in 1st Gear on slopes, inclines, bumpy ground, or high grass.
- Avoid sudden starts, stops and turns as they may cause you to lose your balance and be thrown from the machine.

WARNING REVERSE OPERATION

Loss-of-control may cause death or serious injury.

- Always keep a firm grip on the handlebars with both hands.
- Do Not back up if there is a possibility you or a bystander could become trapped between the machine and an immovable object or barrier.
- Always look behind and down before backing up to be sure of a clear path.
- Always look behind and up before backing up to be sure the path is clear of low hanging obstacles such as tree branches, clothes lines, and low doorways.
- Use extra caution backing up when in an enclosed area.
- Backup slowly, until you become familiar with how the machine handles.
- Never coast backwards. Instead, back up under power and in Reverse with the Throttle engaged using the brakes as necessary.
- Use extra caution backing from an awkward location or position.
- Keep both feet firmly on the footpads whenever possible.
- Backing up while in the walking position is hazardous and in most cases can and should be avoided. However, when backing up from the walking position is unavoidable (such as when unloading the machine from a trailer), use extreme caution.

Safety



WARNING TO AVOID LOSS-OF-CONTROL, TIP-OVER, AND ROLLOVER

Loss-of-control, tip-over or rollover may cause death or serious injury. This machine has a high center of gravity and turf conditions affect stability. Slopes are a major factor in loss-of-control, tip-over, and rollover accidents.

- Never shift gears while the machine is moving as this may cause a rapid slowdown or stop the front wheels causing loss-of -control or a forward tip over. Instead, bring the machine to a complete stop before shifting gears.
- Study the terrain before beginning work and plan a safe operating pattern. If the area at issue will not accommodate a safe operating pattern, Do Not attempt to drive the RS7200E in that area.
- Do not operate on slopes or inclines where traction and stability are doubtful.
- Do not ride on slopes exceeding 15 Degrees.
- Never operate on wet slopes.
- Look for holes, ruts, rocks, and other hidden hazards in the work area before starting work. Uneven terrain can overturn the machine. Tall grass can hide hazards.
- Do not operate near drop-offs, ditches, or bodies of water.
- Keep a firm grip of the handlebars with both hands at all times.
- Slow down and lean into turns for better balance and to transfer your weight to the inside wheels to prevent loss-of-control, tip over, or rollover.
- Tires with excessively worn tire tread are dangerous on slopes or inclines. Replace tire(s) with less than 1/4" of tread remaining. Only use liquid filled tires supplied by TurfEx. Maintain tire pressure at 12 PSI. Higher pressures will cause the tires to lose traction and under inflated tires will cause instability.
- Do Not attempt to climb over curbs and parking blocks while operating the RS7200E at a high speed as this may cause a forward tip-over.

TO HELP AVOID LOSS-OF-CONTROL, TIP OVER, AND ROLLOVER, USE EXTREME CAUTION ON INCLINES, AND SLOPES:

- Use 1st Gear to provide improved traction and a slower ground speed.
- Travel across the grade. Begin at the bottom of the slope and work your way up.
- Avoid traveling straight down a slope. When descending a slope, zigzag or slalom across the grade gradually downwards using the brakes to slow the machine.
- Lean uphill at all times to provide better balance and to transfer weight to the uphill tires.
- Slow down and avoid sharp turns and sudden starts and stops.
- Reduce the amount of granular and liquid products carried.
- Apply rear brakes first and then front brakes.

Operate the RS7200E as a walk-behind unit in situations where loss -of-control, tip-over, or rollover is possible.

When traveling up a slope, be aware that the drive tires have reduced traction and there is greater risk that the machine could tip backwards. RECOMMENDATIONS FOR DRIVING UP AN INCLINE OR SLOPE:

- RECOMMENDATIONS FOR DRIVING UP AN INCLINE OR SLOPE:
- Lean forwards to provide better balance and to transfer more weight to the front drive wheels. Refer to the driver's position illustrations in Driver's Training and Operation section of this Manual for details.
- Accelerate gently. Accelerate slowly. Accelerating too quickly may result in a loss of traction.
- Do not make sharp or quick turns. Making sharp or quick turns may cause you to lose your balance and be thrown off the machine or cause a side rollover.
- In areas of poor traction, operate the machine as a walk behind unit.
- If you experience a loss of control while driving the machine on an upward slope, step backwards off the operator's platform and apply the brakes. Once the brakes are applied, take corrective action.
- Backing down a slope is a hazardous maneuver which should be avoided. To avoid backing down a slope; stop the machine, apply the brakes, step off the Driver's platform, steer the front of the machine across the grade, and gradually engage the Throttle/Clutch. If backing down a slope is unavoidable (such as when unloading the machine from a trailer), use extreme caution. *Read Warning, "Reverse Operation" for details on backing up.*

When pointing downhill, the weight and traction is transferred to the front drive wheels. Avoid driving the machine at this angle as the machine may tip over. RECOMMENDATIONS FOR DRIVING DOWNHILL:

- Lean backwards as you travel downhill to provide better balance for you and transfer more weight to the rear wheels. If necessary, extend your arms and squat down backwards with arms extended to transfer more weight further to the rear.
- Do not change speed suddenly. Do Not accelerate. Decelerate gently by applying the rear brakes first, followed by the front brakes.
- Use extreme caution when turning. Do Not make sharp turns as you may lose your balance and/or be thrown from the machine or lose control. When making turns, slow down and make gradual turns.
- Zigzag or slalom slowly and gradually downhill traveling across the grade using both brakes to slow your speed. The steeper the slope the more gradual the slaloms should be between the switchbacks.
- · Avoid any obstacles that could suddenly stop the front wheels causing a tip over.
- If you ever lose control while driving down a slope, let go of the handles and jump off to the rear, if necessary.
- Backing uphill is a risky maneuver which should be avoided. To avoid backing uphill; stop the machine, apply the brakes, step off the Driver's platform, steer the front of the machine across the grade, and gradually engage the Throttle. When backing uphill is unavoidable, use caution.

When pointing across an incline, slope or hill sideways, the weight distribution between the front drive wheels and the rear wheels is similar to level ground. However, more weight is transferred to the lower wheels which may cause the machine to rollover towards the downhill side. This is the preferred angle for



WARNING TO AVOID LOSS-OF-CONTROL, TIP-OVER, AND ROLLOVER [CONTINUED]

driving on gentle slopes.

RECOMMENDATIONS FOR DRIVING ACROSS A HILLSIDE:

- Lean uphill to provide better balance for you and transfer more weight to the uphill wheels.
- Do Not change speed suddenly.
- Do Not make sharp turns as you may lose your balance and be thrown off the machine or lose control. When making turns, slow down and make gradual turns. The machine also has a tendency to rollover when performing this maneuver.
- Avoid making downhill turns as the machine will accelerate through the turn making it more difficult for you to keep your balance and control over the machine so as to prevent rollover.
- · Avoid any obstacles that could suddenly pitch the front uphill wheel upwards causing a rollover towards the downhill side.
- If you ever lose control while driving across a slope let go of the handles and jump off to the uphill side of the machine, if necessary.

Backing up across the grade is a maneuver which in should be avoided. To avoid backing up; stop the machine, apply the brakes, step off the Driver's platform, steer the front of the machine in the desired direction, and gradually engage the Throttle. When backing up is unavoidable, use caution. Read Warning "Reverse Operation", for details on backing up.

warning TRANSPORTING

Driving up and down ramps is hazardous. The risks include tip-over, rollover, loss-of-control, and back-over.

- Use extreme caution when driving the RS7200E onto and off of a Transport, (such as a vehicle, carrying rack, or trailer).
- When loading and unloading, park the Transport on level pavement well away from puddles, obstacles, and curbs that may cause the operator to lose his
 footing or become entrapped. Allow adequate room for the ramps to be deployed and the machine and operator to come straight on or off the Transport
 platform and ramps.
- To prevent a ramp from slipping out from under the machine, make sure the ramp is securely fastened to the Transport platform and the ramp and machine wheels are properly aligned with each other.
- Never unload a RS7200 by shifting it into Neutral and allowing it to freewheel backwards down a ramp. Rather, the driver must start the RS7200E while on the Transport platform, shift the engine into Reverse, and inch the machine down the ramp under power using the brakes as necessary. *Read Warning "Reverse Operation", for required precautions while operating the RS7200E in reverse.*

• If there is not adequate standing room for the operator on the Transport platform, the machine should be started while the operator is standing on the ground.

• If an enclosed Transport is used, use extra caution starting and operating the RS7200E inside the enclosure.

Transporting the machine over the road can be hazardous. The risks include but not limited to traffic accidents, failure of Transport system, and ejection of the machine from the Transport.

Transporting the RS7200 requires a heavy duty Transport capable of safely carrying a fully loaded RS7200 weighing 700 lbs plus the weight of all materials carried on the transport.

- Follow Transport manufacturer's precautions and always use all safety devices provided.
- DO NOT overload or unbalance the Transport or hitch.
- Use only heavy duty ramps with a minimum width of 8.5 inches and an anti-slip surface capable of supporting 1000 lbs. or the combined weight of the machine and driver whichever is greater. The ramp angle must be 15 degrees or less.
- To prevent the machine from being thrown from the transport, always secure the machine to the Transport's platform. Use securing devices provided by the manufacturer or securing devices each securing device or all securing devices together must have a minimum load rating of 1,400 lbs. Elastic straps and similar devices are not to be used.
- Check Transport, ramps, hitch, and securing devices each time they are used.
- Check carefully for cracked welds or cracked parts, loose or missing hardware, excessive wear or damage, or missing or nonworking safety and securing devices.
- When a carrying rack is used, check for damage caused by the rear edge dragging or bottoming out on the pavement. This can result in structural failure of the rack, hitch and vehicle frame or hardware.
- Do Not use the Transport if it is not in good working condition. Make necessary repairs or replacements before using.

WARNING CHECK WHEEL FASTENERS

If wheel fasteners are not tight, a serious accident may occur.

- Check wheel fastener tightness frequently during the first 10 hours of operation.
- After loosening any wheel fasteners, frequently check their tightness for the next 10 hours of operation.



WARNING PARKING

ANY TIME YOU LEAVE THE OPERATOR POSITION, YOU MUST:

- Stop on Level Ground
- Turn off the engine.
- Lock Brake Lever.
- Shift into Neutral
- Never leave the machine unattended on an incline or slope where someone could disengage the brakes and the machine could roll.
- When leaving the machine unattended, close fuel shut off valve.

WARNING TIRE SAFETY

Tires are filled with pressurized windshield washer solution to provide ballast for a lower center of gravity. Explosive separation of rim and tires may cause serious injury.

- D0 N0T remove fluid from tires.
- All replacement tires must be fluid filled.
- Wear a face shield when checking, filling, and repairing fluid filled tires.
- Do not attempt to check, repair or replace fluid fill tires without the proper equipment.
- Use a clip-on chuck and extension hose. Stand to the side of the tire when filling.
- Always maintain tire pressure at 12 PSI. Do not under or over inflate tires.
- Rear tires have split rims. Release tire pressure prior to loosening any nuts or bolts.
- Never weld or heat the tire/rims as this could cause a tire explosion or structural damage to the rim.
- Check tires often for cuts, wear, bubbles and missing or loose lug nuts. Check pressure often.
- Fix or replace worn or damaged tires, rims, and hardware.
- Always replace tires with genuine TurfEx liquid-filled tires and rims.

WARNING MAINTENANCE AND SERVICE

Improper maintenance can cause serious injury.

- Lock brakes, stop engine and disconnect spark plug wire. Wait for all movement to stop before adjusting, cleaning or repairing .
- Clean grass and debris from drives, mufflers, and engine to help prevent fires. Clean up oil or fuel spillage.
- Let engine cool before storing and do not store near flame.
- Shut off fuel while storing or transporting. Do not store fuel near flames or drain indoors.
- Park machine on level ground. Never allow untrained personnel to service machine.
- Use jack stands to support components when required.
- Carefully release pressure from tires and spray system.
- Remove spark plug wire before making any repairs.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Keep all parts in good working condition and all hardware tightened.
- Replace all worn or damaged Machine Safety Labels.
- Replace worn or damaged footpads.
- Perform all scheduled maintenance as directed in the Service Manual

WARNING PESTICIDE SAFETY

The improper use, handling, application, and disposal of pesticide products applied by this machine may cause death or serious injury.

- Read and follow product label and Material Safety Data Sheet (MSDS) precautions for handling, mixing, applying, and disposing of pesticides applied by this machine. Some materials may present health hazards that will require the use of Personal Protective Equipment (PPE). Always wear required PPE.
- Keep required PPE available for use by the operator or mechanic at all times.
- Keep pesticide labels and MSDS available for the operator or mechanic at all times.

A WARNING HANDLING AND DISPOSAL OF HAZARDOUS WASTE PRODUCTS

Dispose of all hazardous waste products properly.

- Clean up hazardous waste spills immediately.
- Refer to the Pesticide Label for proper handling and disposal instructions.
- Refer to MSDS for proper handling and disposal instructions.
- Wear the Personal Protective Equipment specified on MSDS and Pesticide Labels.
- · Before disposing of hazardous waste check with your local regulatory agency.

Driver Training

ADDING GASOLINE.

- Move the machine outdoors.
- Emphasize fuel handling safety.
- Add gasoline/fill tank.

Read Warning "Fuel Safety" before adding gasoline. Use extra care when handling gasoline.

INSPECT THE MACHINE BEFORE EACH USE.

IN ADDITION TO THE STEPS IN "INSPECT MACHINE BEFORE EACH USE":

- Check the Spray Nozzle alignment and pattern; adjust as necessary.
- Check the Spreader Control settings; adjust as necessary.

Read Warnings: "Inspect Machine Before Each Use", "Check Wheel Fasteners", "Tire Safety" before starting or operating the machine.

STARTING, STOPPING, AND PARKING THE MACHINE.

Read Warnings: "Engine Starting Safety"; "Parking", before starting or operating the machine.

TO START ENGINE:

- Locate machine on a flat, level area free from obstacles and bystanders.
- Shift into Neutral.
- Lock Brake Lever.
- Make sure safety switch lanyard is attached.
- Choke engine if necessary.
- D0 NOT pull Throttle Lever while starting.
- Pull Starter/Turn Key.

TO STOP ENGINE:

- Lock front Brake Lever
- Shift into Neutral
- Push Kill Switch.
- TO PARK MACHINE:
- Stop on level ground.
- Lock Brake Lever
- Shift into Neutral
- Push Kill Switch.
- When leaving the machine unattended, close Fuel Valve.

PROPER SHIFTING TECHNIQUES.

IMPORTANT: Excessive force applied to the Shift Lever can cause internal Transaxle damage and other damage which is not covered by Warranty. WARNING: Never shift gears while the machine is moving as this may cause a tip-over or loss-of control.

TO CHANGE GEARS:

- Release Throttle.
- Bring the machine to a complete stop.
- Shift into the desired gear. If the machine does not shift easily, move the front of the machine angling it right or left until the Transaxle gears shift easily.

IMPORTANT: Emphasize the necessity of not forcing the Shift Lever.

SAFELY STEPPING ON AND OFF THE SULKY.

Read Warning "Avoiding Slipping or Tripping Injury" before starting or operating the RS7200E

DEMONSTRATE AND INSTRUCT THE TRAINEE IN THE FOLLOW-ING PHASES.

Read Warnings: "Operator Clothing and Protective Equipment (PPE)"; "Operation"; "Inspecting Work Area"; and "Forward Operation" before starting or operating the RS7200E.

PHASE I: DRIVING THE MACHINE IN 1ST GEAR

Initial training should take place outdoors in a flat open area free of obstructions with the machine in 1st Gear and the Hopper and Tanks empty. Initial training should include the following:

TO DRIVE FORWARD:

- Safely start the machine.
- Safely step onto the operator platform.
- Shift into 1st Gear.
- Unlock Brake
- Pull the Throttle.

TO STOP:

- Release the Throttle.
- Step on Sulky Brake Pedal then Pull the Front Brake Lever.

TO TURN RIGHT:

- Pull back on the right handle while simultaneously pushing forward on the left handle. A Stop prevents the machine from jack-knifing.
- Always lean into the turns by shifting your body weight to the inside of the turn.

TO TURN LEFT:

- Pull back on the left handle while simultaneously pushing forward on the right handle. A Stop prevents the machine from jack-knifing.
- Always lean into the turns by shifting your body weight to the inside of the turn.

PHASE II: DRIVING THE MACHINE IN 2ND GEAR.

Repeat Phase I training using 2nd Gear.

PHASE III: DRIVING WITH A LOAD.

- Repeat 1st and 2nd Gear Training outlined in Phase I and Phase II with a partially filled Hopper and Tanks
- Gradually increase the weight as the trainee demonstrates his ability to control the machine with the increased weight.

PHASE IV: OPERATING THE MACHINE AS A WALK-BEHIND UNIT. *Read Warning "Avoiding Slipping or Tripping Injury".*

Stop, shift into 1st Gear or Reverse, and keeping a firm grip on both handles and while operating the machine as a walk behind unit, perform the training procedures outlined in Phases I through IV.

PHASE V: DRIVING THE MACHINE ON HILLSIDES.

Initial hillside training should take place on a slightly hilly open area free from obstructions with the machine in 1st Gear and the Hopper and Tanks empty.

- The Trainee must be familiar with the Balance Zone principles and Driving Techniques before operating on slopes.
- The Trainee must pass the Phases I, II and IV and be totally familiar with all the WARNINGS and the hillside driving techniques and principles set forth in the Driver's Training and Operating Manual before operating the machine on a slope or incline. Trainee must never ride the RS7200E on any slopes or inclines greater than 15 degrees.
- As the Trainee is able to demonstrate his ability to control the machine on hills as well as his understanding of hillside driving principles and

...Continued on Next Page



Driver Training

Continued From Previous Page ...

- proper techniques; gradually increase the slope.
- As the Trainee progresses, gradually add weight to the Hopper and Tanks.

Read Warning "To Avoid Loss-of-Control, Tip-Over, and Rollover" before operating the RS7200E on an incline or slope.

PHASE VI: DRIVING OVER CURBS.

Never attempt to jump a curb at high speed as this may cause a forward tip-over.

- Approach the curb or parking block straight on;
- Stop the machine 12 inches away from the curb;
- Shift into 1st gear
- Gradually accelerate up and over curb.
- If machine is unable to climb over a curb:
- Look for a lower section of curb;
- If one is not available, approach the curb on an angle and attempt to climb over one wheel at a time;
- Use ramps to get over the curb. IMPORTANT: Avoid high curbs and bottoming out as this can cause machine damage that is not covered by the Warranty .

PHASE VII: BACKING UP.

TO BACK UP:

- Stop, shift into Reverse, look behind to make sure the path is clear, and keeping both feet on the operator's platform and a firm 2 handed grip on the handles gradually pull the Throttle.
- TO TURN RIGHT:
 - Pull the right Handle toward you and push the left handle away from you simultaneously.

TO TURN LEFT:

Reverse the procedure.

TO STOP BACKING UP:

• Release Throttle and apply one or both Brake Levers to stop. *Read Warning "Reverse Operation" now.*

PHASE VIII: COMPLETING DAILY SERVICE CHECKLIST.

Adjust and Repair any irregularities discovered – report them to your supervisor.

- Clean machine in a designated area. IMPORTANT: DO NOT powerwash machine. High pressure water will force corrosive fertilizer residue into bearings, linkages, and other parts. Corrosion damage is not covered by the Warranty. Instead use low pressure air regulated to 25 PSI Once a week, or as necessary, use low pressure water regulated to 29 PSI to wash machine. Start and run machine and blow dry to remove any water.
- Empty Hopper. NOTE: Use a dedicated pail or wet /dry vacuum to remove fertilizer so that it can be recycled.

CLEAN:

- Spinner Plate.
- Footpads.
- Nozzles and Nozzle Strainers, If necessary.
- Hopper opening plate, Auxiliary Gate Slide plate and linkage.
- Engine cooling fins, Blower housing inlet (Starter), carburetor, governor linkage, Honda Throttle Lever, Throttle Lever and cable.

LUBRICATE AND PROTECT THE FOLLOWING, USING WD-40 OR EQUIVALENT:

- Operating controls and cables.
- Hopper Opening Plate and Auxiliary Gate Plate.
- · Carburetor and all linkages and springs.

• Exposed aluminum.

CHECK AND RECORD:

- Engine Idle Speed (Must not exceed 1650 RPM).
- Engine Top Speed (Must be 3,450 RPM).

GAUGE, RECORD, AND ADJUST HOPPER CONTROL SETTINGS AS NECES-SARY, INCLUDING:

- Auxiliary Gate Adjustment Plate.
- Hopper opening.
- Rate Adjustment Knob

OTHER CHECKS AND ADJUSTMENTS:

- Check and adjust the Spray Nozzle alignment as necessary.
- Check and top off engine oil.
- Check and top off clutch oil.

• Check for loose or missing fasteners or parts, cracks in metal or welds. *Read Warning "Maintenance and Service" now before starting or operating machine.*

PHASE IX: LOADING AND UNLOADING THE MACHINE ON A TRANSPORT.

Trainee must be instructed how to safely load and unload the RS7200E from a transporting vehicle.

Read Warning "Transporting" before attempting to load or unload the RS7200E from a transport.

PHASE X: ADDITIONAL SERVICE TRAINING

Trainee should be instructed on any additional service he will be required to perform on the RS7200E such as, changing Engine and Clutch oil, greasing, etc. Refer to Service Manual for scheduled service requirements and details.

PHASE XI: TESTING SAFETY DEVICES.

Read Warning "Maintenance and Service" before starting or operating the RS7200E.

Read Warning "Safety Devices" before starting or operating the RS7200E. If any Safety Device fails a test, adjust, repair or replace the component before operating the machine.

1. THROTTLE CONTROL

Components: Throttle Lever, Throttle Cable, Auxiliary Throttle Return Spring, Multifunction Display (Tachometer), Drive Belt, Idler Pulley, Idler Tension Spring, Transaxle, Honda Engine and components: Honda carburetor and linkage, Honda Governor Spring, Honda Throttle Spring, Honda Throttle Return Spring, and Honda Clutch. All components must be in place and functioning normally.

- Park on level ground free from obstructions and bystanders. Lock front Brake Lever.
- Pull and release Throttle Lever several times. Ensure that the lever moves smoothly and easily and snaps back when released.
- Start engine and verify that the engine speed increases and decreases rapidly and the clutch engages and disengages quickly.
- Engine idle. Ensure the engine idles smoothly without dying and the idle speed on the Multifunction Display does not exceed 1650 RPM.
- Engine Top end speed. Pull and hold Throttle Lever. Confirm that the top end speed is 3450 RPM.
- Clutch engagement. Shift into 1st Gear and gradually accelerate engine. Confirm that the machine does not move when shifted, or creep at Idle speed. The Clutch shall engage smoothly as the engine is accelerated and propel the machine forward at 3.5 MPH at full acceleration. No unusual noise should be detected.



Driver Training



2. NEUTRAL SAFETY SWITCH SYSTEM (NSSS)

Components: NSSS Module, Kill Switch, Neutral Switch, Honda Kill Wire, Ground wire, Wire Harness and terminals.

- Park on level ground free from obstructions and bystanders.
- Lock Front Brake Lever, shift into Neutral and start engine.
- Turn Engine off with Kill Switch. Confirm that the engine starts and Kill Switch works.
- Shift into 1st Gear and repeat the previous test. Confirm that the engine does not start in gear.

3. BRAKE SYSTEMS

Front Brake System:

Components: Brake Lever with Lock, Front Brake Cable 1, Brake Drum, Band Tension Spring, Sheath Brake pin, Rod Brake pin, 1 washer, Lock Nut.

- Park a fully loaded machine on level ground free from obstructions and bystanders. Start engine.
- While in NEUTRAL, push the machine forward. No unusual drag should be felt.
- Pull and release the Front Brake Lever several times. Ensure that the lever operates smoothly and snaps back completely when released The operating force on the Lever must not exceed 25 pounds of force.
- Shift into High Gear, accelerate to full speed., and pull the Front Brake Lever. Confirm that the machine stops smoothly in less than 8 feet and the Brake does not lock up.

Rear Brake System:

- Push and release the Sulky Brake Pedal several times. Confirm that the pedal operates smoothly and snaps back completely when released. The operating force on the Lever must not exceed 25 pounds of force.
- While in NEUTRAL, push the machine forward. No unusual drag should be felt. Shift into 2nd Gear, accelerate to full speed, and push Sulky Brake Pedal. Confirm that the machine stops smoothly in less than 8 feet. Confirm that both Brakes drag equally without causing a change of course, left or right. Brake band must not over heat nor cause unusual drag.

Both Front and Sulky Brake Systems

• Shift into 2nd gear, accelerate to full ground speed and apply both brakes. Confirm that the machine stops in less that the length of the machine.

Parking Brake System.

Components: Front Brake System.

- Drive the fully loaded machine up a 17 degree slope, stop and lock Front Brake Lever. Confirm that brakes hold the machine in place.
- Drive the fully loaded machine down a 17 degree slope, stop and lock Front Brake Lever. Confirm that the brakes hold the machine in place.

4. FLUID-FILLED TIRE.

Components: Front tires (2) and Rear Tires (2).

- Read Warning "Tire Safety" before starting or operating the RS7200E.
- Examine all tires for wear and damage. Confirm that tires are free from visible damage and tread depth exceeds 1/4 inch.
- Rotate each tire so the valve stem is in the 12 o'clock position and check pressure. Confirm that tire pressure is 12 PSI and fluid is visible

5. MACHINE SAFETY LABEL VISUAL TEST.

• Confirm that all Labels are in place and legible.

6. MACHINE GUARD VISUAL TEST.

• Confirm that Transmission Shroud and Belt Guard are securely fastened in place.

- 7. SLIP RESISTANT FOOTPAD VISUAL TEST.
 - Confirm that Footpad is not worn or damaged and is securely fastened in place.



Machine Diagrams



KEY	PART	DESCRIPTION
1	Tank Lid	Vented Lid with Fill-Gauge
2	Tank	Capacity: 17 gallons
3	Deflector	For use when spreading along the edge of the grass
4	Liquid-Filled Tires	Tires are filled with Windshield Washer Solution to provide ballast. Maximum inflation 12 PSI.
5	Hopper Cover	Use to protect material in the hopper from rain
6	Hopper	Capacity: 3 cubic feet
7	Transmission Shroud	Protects the drive components from spreading material
8	Broadcast Nozzle	Broadcast Nozzle connects here
9	Trim Nozzle	Trim Nozzle connects here

Operating Instructions Machine Diagrams





KEY	PART	DESCRIPTION
1	Throttling Valve	Controls the spray pressure
2	Pump	Self-priming electric pump services the spray system with 5.0 GPM @ 10-40 PSI
3	Drive Belt Shroud	Protects the operator from accidental contact with the drive belt.
4	Manual Storage	Store Owner's Manual here for quick and easy reference
5	Steering Stops	Limits the range-of-motion of the sulky for safe cornering
6	Spot Spray Wand	Use for spot treating or hard to reach areas; feeds from the tank – no filling separate containers
7	Deflector Rod	Actuate the deflector by pushing forward and turning
8	Shift Lever	Shifts the transmission, easily accessible by either foot or hand.
9	Sulky Brake	Supplements the Front Brake, for use on inclined surfaces for enhanced control



Dashboard Controls



Do Not attempt to start or operate this machine until you have read and are thoroughly familiar with this Owner's Manual. **Read it now before Beginning**. All operators and mechanics must be trained before operating this Machine.



A	Brake Lever
В	Pump Switch
С	Calibration Gauge
D	Main Gate Control
E	Main Gate Lock
F	Safety Switch Lanyard
G	Safety Switch / Kill Switch
Н	Pressure Gauge
Ι	Hour Meter / Tachometer
J	Spray Control Knob
K	Auxiliary (3rd Hole) Gate Control
L	Throttle Lever

Machine Usage



Read and fully understand the Safety and Driver's Training sections of this manual before operating. Refer to the Machine Diagrams and Operator Controls pages for component names and locations.

SPEED

The Throttle controls the engine speed, which is shown by the hour meter/tachometer. The Shift Lever selects the transaxle gear, choosing from Reverse, Neutral, First, and Second. With the Throttle Lever pulled fully, the speed in First Gear is 3.5 MPH, and 5 MPH in second gear.

PUMP SWITCH

The Pump Switch turns the pump on and off. When it is on, a blue light will illuminate. Operate this switch with your thumb while driving to turn the spray on or off as needed. To prevent the battery from discharging, turn the pump off when parked.

PRESSURE

The Throttling Valve adjusts pressure in the spray system. Tightening the knob increases pressure. Lock the setting with the nut. Refer to the Pressure Gauge when setting the valve to obtain the desired setting. Tighten the nut against the knob to prevent loosening from machine vibration, ensuring calibration is maintained. Set pressure only while parked on pavement in the spray mode you will be using.

SPRAY SETTINGS

Spray modes are chosen using the Spray Control Knob, with the options Trim, Broadcast, and Spray Wand. To change spray modes: Switch the pump off, come to a complete stop, turn the Spray Control to the desired setting, begin moving, and turn the spray back on. (This way you will avoid moving with only one hand on the handlebars.)

When using chemicals that require agitation, turn the Spray Control Knob to Spray Wand, then turn the pump on: this is because the liquid will be bypassed through the Throttling Valve and into the Tank. Lower pressure increases agitation.

The Spray Wand is used for cutting-in, parking lot weeds, and spot treating. Replace the wand to the holder when not in use. Come to a complete stop before using the wand.

Trim Spray is adjustable up to 3 feet in width. Trim is used for spot-treating lawns when the Spray Wand is impractical, and for cutting-in around landscape beds and trees.

Broadcast sprays from 6 to 12 feet. Broadcast is used when blanket spraying, or when spreading and spraying simultaneously.

SPRAY WIDTH

The spray width is adjusted by pivoting the Nozzle Bracket up or down to get the desired results. Tighten the wing nut to lock the spray width. Changing spray width is a part of the calibration procedure; see Calibration Instructions.

Broadcast spray width is adjustable from 6 to 12 feet. Set the spray width for the application rate required. The Working Spray Width, which is equal to the distance between the centerline of parallel wheel tracks, is used for calculation when calibrating. Set the total spray width greater than the working width so even coverage is achieved.

Trim spray width is adjustable up to three feet. It is intended for spot spraying and cutting in.

GATE CONTROLS

The Main Gate Lever opens and closes the hopper gate, controlling the material flow to the spinner. Only open the gate once operating speed has been reached. Use the Gate Stop to maintain consistent application.

The Auxiliary Gate opens and closes the third hole in the main gate. It is operated by the Auxiliary Gate Lever; it should remain open, except when using the Deflector.

DEFLECTOR

The Deflector is useful when cutting in or in situations where one full swath is not needed. When the Deflector is in the down position, close the Auxiliary Gate to prevent over-application.

To operate the deflector: push the Deflector Rod forward, then rotate and release.

SPREADING AND SPRAYING: RECOMMENDED PRACTICES

Read and understand the Safety section of this manual before operating in order to avoid unsafe terrain, conditions, and weather.

Spread and spray at full throttle and in the gear used in calibration calculations to apply according to calibration. Shut off the spray and close the gate once you have reached the already fertilized area at the end of the pass before turning to avoid over-application. Turn the spray on and open the gate again as you head into the next pass.

Spreading with 7 foot turns requires cutting-in: with the deflector-side toward the edge, the deflector down, and the auxiliary gate closed make a pass that covers up to the edge of the spread area. Cutting-in along all the edges of the property may be necessary so you will have room to turn at the end of each pass.

When spreading with 7-foot turns, the edge of the spread pattern should be coincident with the centerline of the previous wheel tracks.



Read and fully understand the Safety and Driver's Training sections of this manual before operating.

Refer to the Machine Diagrams and Operator Controls pages for component names and locations.

Information provided in this manual regarding calibration is provided as a reference. The Operator is solely responsible for the calibration of the spreader. This section is intended only to assist the operator in obtaining the information needed to calibrate and set up the RS7200E to fulfill the required application constraints. All materials, regardless of visual and dimensional similarities, flow and spread differently, affecting spread pattern and output. Liquids also have variances which affect spray patterns. Charts given in this section are provided as a reference only.

Calibration should take place on a level surface, away from vegetation, animals, streams and drains.

Spending a few extra minutes to properly calibrate will not only save on wasted materials and time but also protect turf and other vegetation.

MATERIALS NEEDED

To calibrate your spreader, you will need: Notepad, Stopwatch, Tape Measure, Scale, Plastic Tub, Graduated Container, and an area for measuring spread width

COLLECTING DATA

Here is the equation used:

lbs/ft²

Desired Application Rate = Output ÷ (Speed x Width)

lbs/min ft/min

oz/min

When calculating, the desired application rate needs to be converted to pounds-per-square-foot.

To Convert...

Pounds-per-Acre, multiply by 43,600

Pounds-per-Thousand-Square-Feet, multiply by 1000

Output is measured in pounds per minute or ounces per minute.

Pounds per minute is found by putting a known amount of material into the hopper (after setting the gate with the gate stop) and measuring how long it takes for the material to flow out of the hopper. To convert this time into pounds per minute, divide the pounds by the time (minutes). Seconds should be converted to minutes (the result is a decimal fraction).

Ounces per minute is found by collecting the liquid that comes out of the nozzle in one minute and measuring it.

ft

The speed is required in feet-per-minute. 1 mile per hour is equal to 88 feet per minute. To maintain a consistent application rate, you will need to walk at a speed that you can maintain across the whole spreading area.

Width can be found by spreading or spraying on pavement and measuring the resulting width

If the Spinner needs removed to measure output rates, follow the steps below:

Step 1 : Knock roll pin out of Spinner

Step 2 : Loosen Shaft Coupler

Step 3 : Remove Spinner

Step 4 : Reattach Shaft Coupler

To reattach spinner perform steps 1 - 4 in reverse.



GROUND SPEED

At full throttle, First Gear is 3.5 MPH and Second, 5 MPH. Choose the speed at which you can safely operate given the conditions, terrain, and obstacles; adjust your settings accordingly.

CONFIGURATION

Choose the nozzle and pressure that will meet your output needs; reference the calibration charts. Three nozzle pairs are supplied with the machine; additional nozzles are available in BNK-020 Broadcast Nozzle Kit and TNK-020 Trim Nozzle Kit.

The Gate Stop position dictates the flow rate of the spreader. Adjust the gate stop by loosening the knob; moving the gate lever to the required position; and setting the stop at this position by tightening the knob.



SPREADING

The spread width is fixed at 14 feet. You will need to apply with a turn diameter of 14 feet. Set the Gate to the setting required by your application rate for your ground speed.

SPRAYING

The spray width is adjustable up to 12 feet. Set the spray width for the application rate required. The Working Spray Width, which is equal to the distance between the centerline of parallel wheel tracks, is used for calculation when calibrating. Set the total spray width greater than the working width so even coverage is achieved.

SPREADING AND SPRAYING

Spreading and spraying can be performed together. It will require 7-foot-diameter turns.

Spreading will double up because the spread width is double the turn diameter. You will need to use 7 feet in your calculations to achieve the correct application rate.

The spray width needs set for a working width of 7 feet.



Reference Charts – Spread

Gate	lho /min	lbs./100)0 sq. ft.
Setting	IDS./IIIIII.	3.5 MPH	5 MPH
1	1.8	0.42	0.29
2	2.4	0.56	0.39
3	3	0.7	0.48
4	3.8	0.88	0.61
5	4.2	0.98	0.68
6	6.4	1.5	1
7	8.6	2	1.4
8	10.8	2.5	1.7
9	13	3	2.1
10	15.2	3.5	2.5
11	19.3	4.5	3.1
12	23.3	5.4	3.8
13	27.5	6.4	4.4
14	31.6	7.3	5.1
15	35.7	8.3	5.8
Open	37.8	8.8	6.1

THIS CHART IS PROVIDED AS A REFERENCE ONLY. RESULTS OBTAINED USING 18-24-12 FERTILIZER.



Suggested Nozzle Pairs



F50499 PURPLE TRIM F50135 BLUE BROADCAST



F50500 DARK BLUE TRIM F50136 GREEN BROADCAST



F50501 RED TRIM F50507 BLACK BROADCAST

> SPRAY TIP CAP: D6957 NOZZLE GASKET: D6961



Reference Charts – Broadcast Spray

F50135 BLUE @ 10 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	64	64	64	64	64	64	64	64	64	64	64	64
GPM	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	17.32	12.12	18.89	13.22	20.78	14.55	23.09	16.16	25.97	18.18	29.68	20.78
gal./1000	0.135	0.095	0.148	0.103	0.162	0.114	0.180	0.126	0.203	0.142	0.232	0.162
gal./acre	5.90	4.13	6.43	4.5	7.08	4.95	7.86	5.51	8.85	6.19	10.11	7.08

F50135 BLUE @ 20 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	91	91	91	91	91	91	91	91	91	91	91	91
GPM	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	24.62	17.23	26.86	18.8	29.55	20.68	32.83	22.98	36.93	25.85	42.21	29.55
gal./1000	0.192	0.135	0.21	0.147	0.231	0.162	0.256	0.18	0.289	0.202	0.33	0.231
gal./acre	8.39	5.87	9.15	6.4	10.06	7.04	11.18	7.83	12.58	8.81	14.38	10.06



Reference Charts – Broadcast Spray

F50135 BLUE @ 30 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	111	111	111	111	111	111	111	111	111	111	111	111
GPM	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	30.03	21.02	32.76	22.93	36.04	25.23	40.04	28.03	45.05	31.53	51.48	36.04
gal./1000	0.235	0.164	0.256	0.179	0.282	0.197	0.313	0.219	0.352	0.246	0.402	0.282
gal./acre	10.23	7.16	11.16	7.81	12.28	8.59	13.64	9.55	15.34	10.74	17.54	12.28

F50135 BLUE @ 40 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	128	128	128	128	128	128	128	128	128	128	128	128
GPM	1	1	1	1	1	1	1	1	1	1	1	1
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	34.63	24.24	37.78	26.45	41.56	29.09	46.18	32.32	51.95	36.36	59.37	41.56
gal./1000	0.271	0.189	0.295	0.207	0.325	0.227	0.361	0.253	0.406	0.284	0.464	0.325
gal./acre	11.8	8.26	12.87	9.01	14.16	9.91	15.73	11.01	17.69	12.39	20.22	14.16



Reference Charts – Broadcast Spray

F50136 GREEN @ 10 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	96	96	96	96	96	96	96	96	96	96	96	96
GPM	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	25.97	18.18	28.34	19.83	31.17	21.82	34.63	24.24	38.96	27.27	44.53	31.17
gal./1000	0.203	0.142	0.221	0.155	0.244	0.17	0.271	0.189	0.304	0.213	0.348	0.244
gal./acre	8.85	18.18	28.34	19.83	31.17	21.82	34.63	24.24	38.96	27.27	44.53	31.17

F50136 GREEN @ 20 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	136	136	136	136	136	136	136	136	136	136	136	136
GPM	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	36.8	25.76	40.14	28.1	44.16	30.91	49.06	34.34	55.19	38.64	63.08	44.16
gal./1000	0.287	0.201	0.314	0.22	0.345	0.241	0.383	0.268	0.431	0.302	0.493	0.345
gal./acre	12.53	8.77	13.67	9.57	15.04	10.53	16.71	11.7	18.8	13.16	21.49	15.04



Reference Charts – Broadcast Spray

F50136 GREEN @ 30 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	166	166	166	166	166	166	166	166	166	166	166	166
GPM	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	44.91	31.44	49	34.3	53.9	37.73	59.88	41.92	67.37	47.16	76.99	53.9
gal./1000	0.351	0.246	0.383	0.268	0.421	0.295	0.468	0.327	0.526	0.368	0.602	0.421
gal./acre	15.3	10.71	16.69	11.68	18.36	12.85	20.4	14.28	22.95	16.06	26.23	18.36

F50136 GREEN @ 40 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	192	192	192	192	192	192	192	192	192	192	192	192
GPM	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	51.95	36.36	56.67	39.67	62.34	43.64	69.26	48.48	77.92	54.55	89.05	62.34
gal./1000	0.406	0.284	0.443	0.31	0.487	0.341	0.541	0.379	0.609	0.426	0.696	0.487
gal./acre	17.69	12.39	19.3	13.51	21.23	14.86	23.59	16.52	26.54	18.58	30.33	21.23



Reference Charts – Broadcast Spray

F50507 BLACK @ 10 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	128	128	128	128	128	128	128	128	128	128	128	128
GPM	1	1	1	1	1	1	1	1	1	1	1	1
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	34.63	24.24	37.78	26.45	41.56	29.09	46.18	32.32	51.95	36.36	59.37	41.56
gal./1000	0.271	0.189	0.295	0.207	0.325	0.227	0.361	0.253	0.406	0.284	0.464	0.325
gal./acre	11.8	8.26	12.87	9.01	14.16	9.91	15.73	11.01	17.69	12.39	20.22	14.16

F50507 BLACK @ 20 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	180	180	180	180	180	180	180	180	180	180	180	180
GPM	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	48.7	34.09	53.13	37.19	58.44	40.91	64.94	45.45	73.05	51.14	83.49	58.44
gal./1000	0.38	0.266	0.415	0.291	0.457	0.32	0.507	0.355	0.571	0.4	0.652	0.457
gal./acre	16.59	11.61	18.1	12.67	19.91	13.93	22.12	15.48	24.88	17.42	28.44	19.91



Reference Charts – Broadcast Spray

F50507 BLACK @ 30 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	221	221	221	221	221	221	221	221	221	221	221	221
GPM	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	59.79	41.86	65.23	45.66	71.75	50.23	79.73	55.81	89.69	62.78	102.5	71.75
gal./1000	0.467	0.327	0.51	0.357	0.561	0.392	0.623	0.436	0.701	0.491	0.801	0.561
gal./acre	20.37	14.26	22.22	15.55	24.44	17.11	27.16	19.01	30.55	21.39	34.92	24.44

F50507 BLACK @ 40 PSI



Working Width	12	12	11	11	10	10	9	9	8	8	7	7
Speed	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5	3.5	5
oz./min.	256	256	256	256	256	256	256	256	256	256	256	256
GPM	2	2	2	2	2	2	2	2	2	2	2	2
ft./min.	308	440	308	440	308	440	308	440	308	440	308	440
sq. ft./min.	3696	5280	3388	4840	3080	4400	2772	3960	2464	3520	2156	3080
oz./1000	69.26	48.48	75.56	52.89	83.12	58.18	92.35	64.65	103.9	72.73	118.74	83.12
gal./1000	0.541	0.379	0.59	0.413	0.649	0.455	0.722	0.505	0.812	0.568	0.928	0.649
gal./acre	23.59	16.52	25.74	18.02	28.31	19.82	31.46	22.02	35.39	24.77	40.45	28.31

Reference Charts – Trim Spray

F50499 PURPLE @ 10 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	17	17	17	17
GPM	0.13	0.13	0.13	0.13
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	18.08	12.66	27.12	18.99
gal./1000	0.141	0.099	0.212	0.148
gal./acre	6.16	4.31	9.24	6.47

F50499 PURPLE @ 20 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	23	23	23	23
GPM	0.18	0.18	0.18	0.18
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	24.89	17.42	37.34	26.14
gal./1000	0.194	0.136	0.292	0.204
gal./acre	8.48	5.94	12.72	8.9





Reference Charts – Trim Spray

F50499 PURPLE @ 30 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	28	28	28	28
GPM	0.22	0.22	0.22	0.22
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	30.3	21.21	45.45	31.82
gal./1000	0.237	0.166	0.355	0.249
gal./acre	10.32	7.23	15.48	10.84

F50499 PURPLE @ 40 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	32	32	32	32
GPM	0.25	0.25	0.25	0.25
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	34.63	24.24	51.95	36.36
gal./1000	0.271	0.189	0.406	0.284
gal./acre	11.8	8.26	17.69	12.39

Reference Charts – Trim Spray

F50500 DARK BLUE @ 10 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	20	20	20	20
GPM	0.15	0.15	0.15	0.15
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	21.19	14.84	31.79	22.25
gal./1000	0.166	0.116	0.248	0.174
gal./acre	7.22	5.05	10.83	7.58

F50500 DARK BLUE @ 20 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	27	27	27	27
GPM	0.21	0.21	0.21	0.21
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	29.22	20.45	43.83	30.68
gal./1000	0.228	0.16	0.342	0.24
gal./acre	9.95	6.97	14.93	10.45





Reference Charts – Trim Spray

F50500 DARK BLUE @ 30 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	33	33	33	33
GPM	0.26	0.26	0.26	0.26
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	35.71	25	53.57	37.5
gal./1000	0.279	0.195	0.419	0.293
gal./acre	12.17	8.52	18.25	12.77

F50500 DARK BLUE @ 40 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	38	38	38	38
GPM	0.3	0.3	0.3	0.3
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	41.13	28.79	61.69	43.18
gal./1000	0.321	0.225	0.482	0.337
gal./acre	14.01	9.81	21.01	14.71

Reference Charts – Trim Spray

F50501 RED @ 10 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	26	26	26	26
GPM	0.21	0.21	0.21	0.21
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	28.64	20.05	42.97	30.08
gal./1000	0.224	0.157	0.336	0.235
gal./acre	9.76	6.83	14.64	10.24

F50501 RED @ 20 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	36	36	36	36
GPM	0.28	0.28	0.28	0.28
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	38.96	27.27	58.44	40.91
gal./1000	0.304	0.213	0.457	0.32
gal./acre	13.27	9.29	19.91	13.93





F50501 RED @ 30 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	45	45	45	45
GPM	0.35	0.35	0.35	0.35
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	48.7	34.09	73.05	51.14
gal./1000	0.38	0.266	0.571	0.4
gal./acre	16.59	11.61	24.88	17.42

F50501 RED @ 40 PSI



Working Width	3	3	2	2
Speed	3.5	5	3.5	5
oz./min.	51	51	51	51
GPM	0.4	0.4	0.4	0.4
ft./min.	308	440	308	440
sq. ft./min.	924	1320	616	880
oz./1000	55.19	38.64	82.79	57.95
gal./1000	0.431	0.302	0.647	0.453
gal./acre	18.8	13.16	28.2	19.74





IMPORTANT:

Keeping the RS7200E Spread-N-Spray operating reliably requires attention to maintenance. Proper maintenance prevents damage to your machine and preventable malfunctions. Proper maintenance is required for the safe operation of the machine.

Use the following checklist to perform routine maintenance at the specified intervals.

ENGINE SERVICE INTERVALS:

Refer to Engine Manual included with this machine for Engine service intervals.

IMPORTANT:

Change engine and clutch oil every 100 hours.

DAILY SERVICE CHECKLIST.

IMPORTANT:

Adjust, repair, replace, and report any irregularities discovered during these checklist inspections to your supervisor.

- Clean machine in a designated area. IMPORTANT: DO NOT power wash machine. High pressure water will force corrosive fertilizer residue into bearings, linkages, and other parts. Corrosion damage is not covered by the Warranty. Instead use low pressure air regulated to 29 PSI. Once a week, or as necessary, use low pressure water regulated to 29 PSI to wash machine. Start and run machine and blow dry to remove any water.
- Empty Hopper. NOTE: Use a dedicated pail or wet /dry vacuum to remove fertilizer so that it can be recycled
- Clean:
- Spinner Platter.
- Footpads.
- Nozzles and Nozzle Strainers, If necessary.
- Hopper opening plate, Auxiliary Gate Slide plate and linkage.
- Engine cooling fins, Blower housing inlet (Starter), carburetor, governor linkage, Honda Throttle Lever, Throttle Lever and cable.
- Lubricate and protect the following, using WD-40 or equivalent:
- Operating controls and cables.
- Hopper Opening Plate and Auxiliary Gate Plate.
- Carburetor and all linkages and springs.
- Exposed aluminum.
- Check and record Engine Idle Speed (Must not exceed 1650 RPM).
- Check and record Engine Top Speed (Must be 3,450 RPM).
- · Gage, record, and adjust Hopper control settings as necessary, including:
- Auxiliary Gate Adjustment Plate.
- Hopper opening.
- Rate Adjustment Knob
- Check and adjust the Spray Nozzle alignment as necessary.
- Check and top off engine oil.
- Check and top off clutch oil.

• Check for loose or missing fasteners or parts, cracks in metal or welds. Read WARNING "Maintenance and Service" before starting, operating, repairing or performing maintenance on the RS7200E.

BREAK-IN SERVICE (FIRST 10 HOURS) CHECKLIST

- Change engine oil
- Change Clutch oil
- Grease all fittings
- Check tire pressure
- Check wheel lug nut tightness
- Check tightness of Pivot Bolts and Nuts
- Test Safety Devices

- Check Drive belt tension
- Check Spinner/Pump belt tension

EVERY 50 HOURS (OR EVERY 2 WEEKS) CHECKLIST

Perform more frequently if operating in wet or dusty conditions

- Grease all fittings
- Clean air filter
- Check tire pressure
- Check wheel bolt lug nut tightness
- Check tightness of Pivot Bolts and Nuts
- Test Safety Devices
- Check drive belt and spinner/clutch belts

EVERY 100 HOURS (OR MONTHLY) CHECKLIST

Perform more frequently if operating in wet or dusty conditions

- Change engine oil
- Change Clutch oil
- Clean or replace air filter
- Check engine manual for additional service required
- Grease all fittings
- Check tire pressure
- Check wheel lug nut tightness
- Check tightness of Pivot Bolts and Nuts
- Test Safety Devices
- Check drive belt and Spinner/Pump belts, replace if necessary
- Flush and clean Spray tanks
- Calibrate Spray System
- Calibrate Spreader System

YEAREND CHECKLIST

- Read Safety Manual Warnings
- Change engine oil
- Change Clutch oil Clean or replace air filter
- Check engine manual for additional service required
- Grease all fittings
- Check tire pressure
- · Check wheel lug nut tightness
- Check tightness of Pivot Bolts and Nuts
- Test Safety Devices
- Check drive belt and spinner/clutch belts, replace if necessary
- Flush and clean Spray tanks
- Run RV anti-freeze or Windshield washer solution through spray system
- Calibrate Spray System
- Calibrate Spreader System

MAINTENANCE AND SERVICE

Improper maintenance can cause serious injury.

- Lock brake, stop engine and disconnect spark plug wire. Wait for all movement to stop before performing any adjustments, cleaning or repairs.
- Clean grass and debris from drives, mufflers, and engine to help prevent fires. Clean up oil or fuel spillage.
- Let engine cool before storing and do not store near flame.
- Shut off fuel while storing or transporting. Do not store fuel near flames or drain indoors.
- Park machine on level ground. Never allow untrained personnel to service machine.
- Use jack stands to support components when required.
- Carefully release pressure from tires and spray system.
- Remove spark plug wire before making any repairs.
- . Keep hands and feet away from moving parts. If possible, do not make

Maintenance



adjustments with the engine running.

- Keep all parts in good working condition and all hardware tightened.
- Replace all worn or damaged Machine Safety Labels.
- Replace worn or damaged footpads.

• Perform all scheduled maintenance as directed in the Service Manual. *Read Warning "Safety Devices" now.*

CHECK ENGINE AND CLUTCH OIL

Refer to your Honda Engine Manual that is provided with your RS7200E for any Engine maintenance.

IMPORTANT: Low oil level can cause serious engine or clutch damage. Check oil level regularly. Check before operating. Keep oil level between "full" and "add" marks. Do not operate engine if oil levels in engine or clutch are below the add marks or above the full marks.

• Use SAE 30 weight oil in the Gear-Reducing Clutch.

REPLACING THROTTLE LEVER

- Remove Handgrip
- Loosen Lever tensioning Screw
- Remove cable
- Replace Throttle Lever in reverse order

REPLACING THROTTLE CABLE

- Remove Handgrip
- Loosen Lever tensioning Screw
- Remove cable
- Replace Throttle Lever in reverse order

Read Warning "Safety Devices" before starting or operating the RS7200E. • Engine speed is part of the Throttle/Clutch Safety Device. Keep the top

- speed at 3450 RPM. (Adjust max speed with the idle screw).
- Do not over-speed engine.

SPINNER SHAFT COUPLER

Loosen and Remove bolts.

Remove Coupler.

Assemble new coupler over shafts with bolts.

Tighten evenly

After adjusting, Conduct the Safety Device Test "Brake Systems",

in the "Driver's Training and Operation" section of this Manual.

Read Safety Manual WARNING "Safety Devices" before starting or operating the RS7200E.

ADJUSTING PRESSURE IN FLUID-FILLED TIRES

On a level open area free from obstructions and bystanders: lock Front Brake, shift into Neutral, and start engine.

Tires are filled with pressurized liquid to provide ballast for a lower center of gravity. Explosive separation of rim and tires may cause serious injury.

- Do not remove fluid from tires.
- All replacement tires must be fluid filled.
- Wear a face shield when checking, filling, and repairing fluid-filled tires.
- Do not attempt to check, repair or replace fluid fill tires without the proper equipment.
- Use a clip-on chuck and extension hose. Stand to the side of the tire when filling.
- Always maintain tire pressure at 12 PSI. Do not under or over inflate tires.
- Rear tires have split rims. Release tire pressure prior to loosening any nuts or bolts.
- Never weld or heat the tire rims as this could cause a tire explosion or structural damage to the rim.
- . Check tires often for cuts, wear, bubbles and missing or lose lug nuts.

Check pressure often.

• Fix or replace worn or damaged tires, rims, and hardware. Read Warning "Tire Safety" before starting, operating or performing repairs or maintenance on the RS7200E. Fluid-filled tires are Safety Devices. Keep pressure at 12 PSI. Do not operate machine without liquid-filled tires. Replace any lost fluid.

DRAINING, FLUSHING, AND WINTERIZING

Perform this procedure away from plants, animals, streams, and drains; and wearing appropriate PPE. Refer to Warning "Operator Clothing and Protective Equipment (PPE)", "Maintenance and Service", "Pesticide Safety", and "Handling and Disposal of Hazardous Waste Products".

Drain and flush the tank at the end of the season, or when the machine will not be used for the next 2 weeks. If storing where there is any possible risk of freezing, store with antifreeze solution in the tank.

DRAINING

• If the product in the tank is safe to let run off, open the valve on the bottom of the tank until the tank is empty.

FLUSHING

• Fill the tanks with approximately 5 gallons of water. Turn the pump on and run each of the spray system components for at least 15 seconds: Trim, Broadcast, Agitation, and Spray Wand.

WINTERIZING

- Once you are finished flushing, add RV Antifreeze to the tank and, if needed, more water. Avoid over-dilution. Run the pump and each of the spray system options (Trim, Broadcast, Agitation, Spray Wand) long enough to fill up all of the hoses with the antifreeze solution [only a few seconds, depending on the pressure].
- · Before use, the antifreeze will need drained, and the system flushed.

CLEANING

Refer to the Daily Service Checklist.

Maintenance



Important Grease the following points daily. Figure 1: Transaxle Grease Points Figure 2: Pivot Grease Points Figure 3: Sulky Grease Points





Figure 2





Troubleshooting



FAULT	POSSIBLE CAUSE	SOLUTION
	ENGINE	
Engine does not start.	Transaxle in gear.	Shift to Neutral
	Kill switch engaged.	Attach Lanyard to Switch
	Gas tank empty.	Fill with unleaded gasoline.
	Fuel shut off valve closed.	Switch valve to open.
	Spark Plug wire disconnected.	Attach Spark Plug wire.
	Throttle Spring broken.	Replace.
	Bad fuel.	Drain tank; fill with fresh fuel.
	Water in gas tank.	Drain tank; fill with fresh fuel.
	Air Filter plugged.	Clean or replace Air Filter.
	Spark Plug damaged.	Replace.
	Idle adjustment.	Adjust idle screw.
	NSSS Starting Module failed.	Replace.
	NSSS wire short.	Look for bare wire, repair or replace.
	NSSS Transaxle switch failed.	Take to authorized Peerless mechanic.
Poor Engine performance.	Fuel shut off valve closed.	Switch valve to open.
	Choke on.	Turn choke off.
	Bad fuel.	Drain tank; fill with fresh fuel.
	Water in fuel.	Drain tank; fill with fresh fuel.
	Dirty carburetor fuel bowl.	Drain fuel bowl; Clean.
	Fuel line plugged.	Unclog.
	Air Filter plugged.	Clean or replace Air Filter.
	Spark Plug damaged.	Replace.
	Carburetor linkage stuck.	Lubricate. Take to authorized Honda mechanic.
	Governor spring broken.	Replace.
	Governor out of adjustment.	Take to authorized Honda mechanic.
Engine stalls or lacks power	Choke on.	Turn choke off.
	Gas tank empty.	Fill with unleaded gasoline.
	Fuel shut off valve closed.	Switch valve to open.
	Air Filter plugged.	Clean or replace Air Filter.
	Throttle Spring broken.	Replace.
	Spark Plug damaged.	Replace.
	Bad fuel.	Drain tank; fill with fresh fuel.
	Oil low.	Fill with oil to correct level.
Engine knocks.	Oil low.	Fill with oil to correct level.
Engine runs too fast.	Governor out of adjustment.	Take to authorized Honda mechanic.
	Throttle Lever/Cable mis-adjusted.	Adjust to the correct tension.
	Throttle Lever/Cable damaged.	Replace.
	Throttle Lever/Cable sticking	Lubricate or Replace.
Engine starts in gear.	NSSS Starting Module failed.	Replace.
	Ground Wire not connected.	Connect Ground Wire.
Engine will not idle.	Idle adjustment.	Adjust idle screw.
	Throttle Spring broken.	Replace.



	Bad fuel.	Drain tank; fill with fresh fuel.
	Air Filter plugged.	Clean or replace Air Filter.
	Spark Plug damaged.	Replace.
Engine will not return to idle.	Throttle Lever/Cable damaged.	Replace Throttle Lever/Cable
	Throttle Lever/Cable sticking.	Lubricate or Replace.
	Throttle Spring broken.	Replace.
	Carburetor linkage stuck.	Lubricate/Take to authorized Honda mechanic.
	Governor spring broken.	Replace.
	Governor out of adjustment.	Take to authorized Honda mechanic.
	DRIVE SYSTEM	
Machine will not move with engine running.	Front Brake locked.	Pull Brake Lever to unlock.
	Drive Belt worn/damaged.	Replace.
	Idler tensioning spring broken/missing.	Replace.
	Clutch out of oil.	Fill clutch with oil.
	Shift arm bolt loose/missing.	Tighten/Replace.
	Idler Pulley loose.	Tighten.
	Drive Pulley loose.	Align and Tighten.
	Transaxle Pulley loose.	Align and Tighten.
	Front axle shaft key missing.	Replace.
	Transaxle - Low oil.	Fill transaxle with oil.
	Transaxle - bent Axle.	Replace. Take to authorized Peerless mechanic.
	Transaxle - Shift Linkage bent/broken.	Replace.
	Transaxle - other internal damage.	Take to TurfEx dealer for diagnostics.
Transaxle locked.	Front Brake locked.	Pull Brake Lever to unlock.
	Axle Bearing - low grease.	Grease.
	Internal Damage.	Take to TurfEx dealer for diagnostics.
Machine creeps/continues moving with engine running.	Idle speed too high.	Adjust idle screw.
	Throttle Lever/Cable damaged.	Replace.
	Throttle Lever/Cable sticking.	Lubricate/Replace.
	Throttle Spring broken.	Replace.
	Carburetor linkage stuck.	Lubricate/Take to authorized Honda mechanic.
Excessive vibration.	Drive belt slipping/tensioned improperly.	Check Idler Pulley and Spring.
	Loose engine bolts.	Tighten.
	Motor Plate cracked.	Replace.
	Fasteners loose/missing.	Tighten/Replace.
	Cracked Welds/Frame.	Replace affected components.
Ground Speed incorrect.	Engine RPMs too high.	Adjust Throttle Lever/Cable or Idle Screw.
	Engine RPMs too low.	Adjust Throttle Lever/Cable or Idle Screw.
	Belt slipping worn or damaged.	Replace.
	Transaxle in Low Gear.	Shift to High Gear.
	Refer to "Machine will not move with engine running".	
	BRAKES	•
Stops too fast.	Front Brake cable too tight.	Adiust.



	Brake Dirty.	Clean/Dry off.
	Object caught in Sulky Brake.	Remove object.
	Rear Wheel Hub low on grease.	Grease.
Stops too slow.	Front Brake cable too loose.	Adjust.
	Brakes wet/contaminated.	Clean/Dry off.
	Brake Cable broken.	Replace.
	Brake worn/damaged.	Replace.
Pulls to one side when braking.	Rear Wheel Hub low on grease.	Grease.
	One Sulky Brake Band or Drum worn/damaged.	Replace affected components.
Squeal.	Front Brake cable too tight.	Adjust.
	Brakes dirty, worn, or damaged.	Clean/Replace affected components.
	Object caught in Sulky Brake.	Remove object.
Brakes chatter.	Front Brake cable too loose.	Adjust.
	Brakes dirty, worn, or damaged.	Clean/Replace affected components.
	Object caught in Sulky Brake.	Remove object.
Hot brakes.	Front Brake cable too tight.	Adjust.
	Brakes dirty, worn, or damaged.	Clean/Replace affected components.
Spinner		
Steering is difficult.	Sulky Brakes locked up.	Check spring/replace.
	Sulky Joint damaged/corroded.	Grease/Replace.
	Rear Wheel Hub low on grease.	Grease.
	Low tire pressure.	Set Pressure to 12 PSI.
	SPREAD SYSTEM	
Spinner does not turn.	Roll pin missing.	Replace.
	Coupling loose.	Tighten.
	Coupling screws broken/missing.	Replace.
	Spinner/Pump Belt worn/damaged.	Replace.
	Spinner Trans Pulley loose.	Tighten.
	Pump Pulley loose.	Tighten.
	Transaxle Pulley loose.	Tighten.
Hopper Gate does not move.	Gate jammed/dirty.	Clean/Lubricate.
	Hardware too tight.	Loosen hardware until gate will move.
	Gate damaged.	Replace.
	Cable Loose/Damaged.	Adjust/Replace.
Material does not flow from hopper.	Material blocking one or more holes.	Remove obstructions.
	Agitator worn/damaged.	Replace.
	Hopper Gate does not move.	See "Hopper Gate does not move".
Auxiliary Gate does not move.	Cable/Lever damaged.	Fix/Replace.
	Jammed with material.	Remove obstructions.
	Stuck.	Clean/Lubricate.
		See "Hopper Gate does not move".
Spread Pattern uneven.	Spinner Plate dirty/damaged.	Clean/Replace.
_ ·	Engine RPM in correct.	Adjust RPMs. See Specifications page.
	SPRAY SYSTEM	
	Engine RPM in correct. SPRAY SYSTEM	Adjust RPMs. See Specifications page.



No spray output.	Tank Empty.	Fill Tank.
	Suction Valve closed.	Open Valve.
	Nozzle Strainer clogged.	Remove Obstruction.
	Tank Strainer clogged.	Remove Obstruction.
	Nozzle Tip clogged.	Remove Obstruction.
	Pump clogged.	Remove Obstruction.
	Hose clogged.	Remove Obstruction.
	Pump worn, damaged, or dirty.	Clean/Repair/Replace.
	Spray Mix too thick or viscous.	Dilute mix/use a lower gear.
Sprayer output low.	Nozzle Strainer clogged.	Remove Obstruction.
	Tank Strainer clogged.	Remove Obstruction.
	Nozzle Tip clogged.	Remove Obstruction.
	Pump clogged.	Remove Obstruction.
	Hose clogged.	Remove Obstruction.
	Pump worn, damaged, or dirty.	Clean/Repair/Replace.
	Spray Mix too thick or viscous.	Dilute mix/go slower.
Narrow Spray Pattern.	Nozzles improperly aligned.	Adjust nozzle pivot.

Specifications



ENGINE

- Engine Model: Subaru EX210E5022
- RPM: Full speed: 3450 rpm (no load); Idle: 1400 rpm
- Centrifugal wet clutch with 2:1 reduction.
- Speed: 3.5 mph (1st Gear) 5.0 mph (2nd Gear)
- Fuel tank: Engine-Mounted, Top
- Type of fuel: Regular unleaded gasoline.
- Fuel shutoff valve: Located below tank.

TRANSMISSION

• Transmission Model: Peerless 855-001C. (Reverse, Neutral, and 2 Forward Gears)

TIRES AND WHEELS

- Front tires: 18 x 950 8, Liquid added for ballast and traction.
- Rear tires: $13 \times 650 6$, Liquid added for ballast and traction.

SPREADER

Capacity: 150 lb.

SPRAYING SYSTEM

- Spray Pump: REMCO[®] 5500 Series Electric Diaphragm Pump; 5.3 GPM @ 60PSI
- Tank: 17.0 gallon (64.4 L) capacity.
- Nozzles (Trim/Broadcast):
 - 0.4 GPM [F50501]/2.0 GPM [F50507];
 - 0.3 GPM [F50500]/1.5 GPM [F50136];
 - 0.25 GPM [F50499]/1.0 GPM [F50135]
- Spray Patterns: 6' to 12' wide pattern for general spraying, 2-3' narrow pattern for trim spraying.
- Spray Pressure: Adjustable, 10-40 PSI.
- Spray Rate: Adjustable from 0.095 to 0.928 gallons per thousand square feet. Optional Nozzle Kits and Spray Booms provide additional application options, up to 1 gallon per thousand square feet.

DIMENSIONS

- Overall length: 60.0".
- Overall width: 35.5".
- Overall height: 55.0".
- Weight: 465 lb. dry, 755 lb. full, 955 lb. full with 200 lb. rider

ELECTRICAL SYSTEM

• Safety interlock system: This machine is equipped with a neutral safety start module. To start the engine, the transmission must be in the neutral (N) position and the safety lanyard attached to the switch.





