Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

NorthStar 282780

NorthStar Tow-Behind Trailer Boom Broadcast and Spot Sprayer

MODEL 282780 USER MANUAL

1. Introduction

This manual provides essential instructions for the safe assembly, operation, and maintenance of your NorthStar Tow-Behind Trailer Boom Broadcast and Spot Sprayer, Model 282780. Please read this manual thoroughly before using the product to ensure proper function and to prevent injury or damage. Keep this manual for future reference.
The NorthStar sprayer is designed for efficient application of various liquids, including herbicides, pesticides, and fertilizers, across lawns, gardens, and agricultural areas. It features a 21-gallon tank, a 2.2 GPM 12V DC pump, and offers both boom broadcast and spot spraying capabilities.

2. Safety Information

General Safety:

- Always wear appropriate personal protective equipment (PPE), including eye protection, gloves, and protective clothing, when handling chemicals and operating the sprayer.
- Read and follow all chemical manufacturer's instructions and safety warnings for the products being sprayed.
- Do not operate the sprayer near open flames or ignition sources, especially when using flammable chemicals.
- Ensure the sprayer is securely attached to the towing vehicle (ATV, lawn tractor, etc.) before operation.
- Do not exceed the recommended towing speed.
- Keep children and pets away from the operating area.

Electrical Safety:

- Connect the 12V DC power cord directly to a compatible 12V battery using the alligator clamps.
- Ensure connections are secure and free from corrosion.
- Do not immerse the pump or electrical components in water.
- Disconnect power before performing any maintenance or cleaning.

3. Package Contents

Verify that all components are present and undamaged upon unpacking. If any parts are missing or damaged, contact NorthStar customer support.

- 21-Gallon Tank Assembly with Wheels
- 12V DC Diaphragm Pump (2.2 GPM)
- Boom Assembly
- Spray Wand with Hose
- Hitch Assembly
- Pressure Gauge and Regulator
- Wiring Harness with On/Off Switch and Alligator Clamps
- Hardware Kit

4. Assembly and Setup

Follow these steps for proper assembly. Refer to the diagrams for visual guidance.

1. **Attach Hitch Assembly:** Secure the hitch assembly to the sprayer frame using the provided bolts and nuts. Ensure it is oriented correctly for towing.
2. **Install Wheels:** Attach the wheels to the axle using the washers and cotter pins. Ensure wheels spin freely.
3. **Mount Pump and Manifold:** The pump and manifold with pressure gauge and regulator are typically pre-mounted. Verify all connections are tight.
4. **Connect Hoses:** Connect the pump outlet hose to the manifold. Connect the boom hose and spray wand hose to their respective ports on the manifold. Ensure all hose clamps are secure.
5. **Assemble Boom:** Attach the boom arms to the sprayer frame. The boom is designed to fold for storage. Ensure nozzles are properly installed and oriented.
6. **Secure Spray Wand:** Place the spray wand in its designated holder on the side of the tank.



Figure 4.1: Fully assembled NorthStar Tow-Behind Sprayer. This image shows the complete unit with the tank, wheels, pump, boom, and hitch assembly.



Figure 4.2: A person connecting the sprayer's hitch to an ATV. This illustrates the process of preparing the sprayer for towing.

5. Operating Instructions

Before Each Use:

- Inspect all hoses, connections, and electrical wiring for wear or damage.
- Ensure the tank is clean and free of debris.
- Verify the towing hitch is securely fastened to your vehicle.

Filling the Tank:

1. Remove the tank lid.
2. Carefully pour the desired chemical solution into the 21-gallon tank. Do not overfill.
3. Replace the tank lid securely.



Figure 5.1: A person filling the sprayer tank with water using a garden hose. This demonstrates the process of preparing the tank for chemical solution.

Connecting Power:

1. Connect the red alligator clamp from the wiring harness to the positive (+) terminal of a 12V battery.
2. Connect the black alligator clamp to the negative (-) terminal of the battery.
3. Ensure the in-line switch is in the OFF position before connecting.

Broadcast Spraying (Boom):

1. Ensure the boom arms are extended and locked into position.
2. Turn the pump ON using the in-line switch.
3. Adjust the pressure regulator to achieve the desired spray pattern and coverage. The boom provides a 120-inch

overall spray width.

4. Begin towing the sprayer at a consistent speed across the area to be treated.



Figure 5.2: The NorthStar sprayer being towed by an ATV, actively performing broadcast spraying. This shows the sprayer in operation across a grassy area.

Spot Spraying (Wand):

1. Remove the spray wand from its holder.
2. Turn the pump ON.
3. Aim the wand at the target area and depress the trigger to spray.
4. Adjust the nozzle on the wand for different spray patterns (e.g., stream or cone).



Figure 5.3: A person utilizing the spray wand for targeted spot treatment. This highlights the versatility of the sprayer for precise applications.

6. Maintenance

Proper maintenance ensures the longevity and performance of your sprayer.
After Each Use:

- **Rinse Thoroughly:** After each use, especially when changing chemicals, rinse the tank, pump, hoses, and nozzles with clean water. Operate the pump with clean water for several minutes to flush the system.
- **Drain Tank:** Completely drain any remaining liquid from the tank.



Figure 6.1: A person draining liquid from the bottom of the sprayer tank. This demonstrates a crucial step in post-use cleaning and preparation for storage.

Winterization (for cold climates):

- Completely drain all water from the tank, pump, and hoses.
- Run RV antifreeze through the pump and system to prevent freezing and damage.
- Store the sprayer in a dry, protected area.

Pump Care:

- The 12V 2.2 GPM NorthStar NSQ Series on-demand pump features a Santoprene diaphragm and Viton valves for chemical resistance. Regular flushing helps maintain its performance.
- If the pump loses prime or pressure, check for clogs in the intake filter or nozzles.

7. Troubleshooting

Problem	Possible Cause	Solution
Pump does not run	No power to pump; Loose electrical connection; Blown fuse; Faulty switch	Check battery connection; Tighten connections; Replace fuse; Test/replace switch
Low or no pressure	Clogged nozzle(s); Clogged intake filter; Air leak in suction line; Low fluid level; Worn pump components	Clean nozzles; Clean filter; Check hose connections; Refill tank; Contact support for pump repair
Inconsistent spray pattern	Partially clogged nozzle; Incorrect pressure setting	Clean nozzle; Adjust pressure regulator
Leaking connections	Loose fittings; Damaged O-rings or seals	Tighten fittings; Replace O-rings/seals

8. Specifications

- **Brand:** NorthStar
- **Model Number:** 282780
- **Tank Volume:** 21 Gallons
- **Pump Type:** 12V DC, 2.2 GPM Open Flow, NorthStar NSQ Series On-Demand
- **Max Pressure:** 70 PSI
- **Boom Spray Width:** 120 inches (overall), 80 inches (effective)
- **Hose Length (Wand):** 360 Inches
- **Material:** Alloy Steel (frame), UV-resistant proprietary tank
- **Item Weight:** 53 Pounds
- **Product Dimensions:** 42"W x 25"H
- **Color:** Black, Red, White

9. Warranty and Support

NorthStar products are designed for durability and performance. For specific warranty details, please refer to the documentation included with your purchase or visit the official NorthStar website. For technical assistance, replacement parts, or further inquiries, please contact NorthStar customer support.
You can also refer to the officialUser Manual (PDF) for additional information.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B00YEQ45PC

More documents and user manuals: **https://manuals.plus/**