NorthStar 282785

NorthStar Tow-Behind Trailer Boom Broadcast and Spot Sprayer User Manual

Model: 282785

1. Introduction

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your NorthStar Tow-Behind Trailer Boom Broadcast and Spot Sprayer. This 31-gallon capacity sprayer features a 2.2 GPM, 12 Volt DC pump, designed for efficient application of various liquids across lawns, gardens, and fields.

2. Safety Information

Adhering to safety guidelines is crucial for preventing injury and equipment damage. Always read and understand all instructions before operating the sprayer.

- Always wear appropriate protective gear when handling chemicals.
- Keep the sprayer away from heat sources and open flames.
- Follow proper disposal procedures for any remaining chemicals in the tank.
- Be aware of electrical hazards and maintain the sprayer regularly to prevent mechanical failures.
- Ensure the sprayer is securely hitched to the towing vehicle before operation.
- Do not exceed the recommended towing speed.

3. Product Overview

The NorthStar Tow-Behind Sprayer is engineered for reliable performance in various spraying applications. Key components include:

- **12V 2.2 GPM NorthStar NSQ Series On-Demand Pump:** Provides faster priming and longer life with a 70 PSI max pressure.
- **31-Gallon Capacity Tank:** Features extra-thick, UV-resistant walls compatible with most pesticides.
- **Boom Broadcast and Spot Sprayer Capabilities:** Offers versatility for wide area coverage or targeted application.
- **Heavy-Duty Steel Cart:** Designed for durability and stability over various terrains.
- **Molded Gallon Marks:** For easy monitoring of tank contents.



Figure 3.1: NorthStar Tow-Behind Trailer Boom Broadcast and Spot Sprayer. This image shows the complete sprayer unit with its white 31-gallon tank, red steel frame, wheels, pump assembly, and spray wand.



Figure 3.2: Close-up of the NorthStar NSQ Series commercial-grade pump. This image highlights the pump unit mounted on top of the tank, showing the pressure gauge and control knobs.



Figure 3.3: Detail of the heavy-duty steel cart hitch. This image focuses on the robust red steel hitch mechanism, designed for secure attachment to a towing vehicle.

4. Setup

4.1 Assembly

Assembly typically takes about an hour. Refer to the detailed assembly instructions provided with your product. Ensure all components are present and securely fastened. Pay close attention to the orientation of the boom arms and the pump connections.

4.2 Connecting to Power

The sprayer operates on 12V DC power. Connect the provided power cables to a compatible 12V battery source on your towing vehicle (e.g., lawn tractor, ATV). Ensure proper polarity (red to positive, black to negative) to avoid damage.

4.3 Filling the Tank

Open the wide tank lid to fill the 31-gallon tank with water and your desired chemical solution. The wide opening allows for easy filling and mixing. Use the molded gallon marks on the tank for accurate measurement.



Figure 4.1: Easy monitoring of tank contents using molded gallon marks. This image shows the top of the sprayer tank with the lid open, revealing the large opening for filling and the visible gallon markings on the side.

4.4 Boom Arm Deployment

The boom arms are hinged and spring-loaded for convenience and durability. To deploy, pull the pin on each arm, allowing them to spring outwards. This design prevents damage if the arms encounter an obstruction during operation.



Figure 4.2: NorthStar Sprayer with boom arms folded for storage or transport. This image displays the sprayer from a side angle, showing the boom arms neatly folded inwards.

5. Operating Instructions

5.1 Broadcast Spraying

For wide area coverage, ensure both boom arms are deployed. Use the remote switch to activate the pump. Adjust the pressure using the control knob on the pump assembly, monitoring the pressure gauge for desired output. The sprayer is designed to be towed by an ATV or lawn tractor, providing efficient coverage for large areas.



Figure 5.1: NorthStar Sprayer being towed by a tractor for broadcast spraying. This image shows the sprayer attached to the rear of a tractor, actively spraying a wide swath of liquid onto a grassy area.

5.2 Spot Spraying

For targeted application, close the individual valves on the boom arms. Detach the spot spray wand from its clips. The wand features a long hose, allowing you to spray areas up to 20 feet away from the sprayer. This is ideal for weeds, fence lines, or other isolated areas.

5.3 Agitation Feature

The pump system allows for fluid agitation within the tank. This feature helps to keep chemical mixtures thoroughly blended, preventing settling and ensuring consistent application. Consult the pump controls for specific agitation settings.

5.4 Official Product Video



Video 5.1: NorthStar Tow-Behind Trailer Boom Broadcast and Spot Sprayer in action. This video demonstrates the sprayer's features,

including its towing capabilities, boom spraying, and spot spraying functions, providing a visual guide to its operation.

6. Maintenance

6.1 Cleaning and Storage

After each use, thoroughly clean the tank, hoses, and nozzles. Flush the system with distilled water to prevent chemical residue buildup. For winter storage in colder climates, ensure all water is drained from the system, especially the spot sprayer wand, which is vulnerable to freezing. The tank features a convenient drain cap for easy emptying.



Figure 6.1: Close-up of the sprayer's drain cap. This image shows the black drain cap located at the bottom of the tank, designed for easy and complete drainage of liquids.

6.2 General Care

Regularly inspect all hoses, connections, and the pump for any signs of wear or damage. Replace worn parts promptly to maintain optimal performance and prevent leaks. Keep the pneumatic tires properly inflated for smooth towing.

7. Troubleshooting

Problem	Possible Cause	Solution
No spray or low pressure	Clogged nozzle, low liquid in tank, kinked hose, pump issue, low battery.	Clean nozzles, refill tank, straighten hose, check pump connections, ensure battery is charged.
Leaks from connections	Loose fittings, damaged O-rings/gaskets, cracked hoses.	Tighten all connections, inspect and replace worn seals or hoses. Teflon tape may be used on threaded connections.

Problem	Possible Cause	Solution
Pump sputtering	Low liquid level, uneven terrain causing liquid to slosh away from intake.	Refill tank, operate on more level ground or ensure sufficient liquid for terrain.
Boom arms not deploying/folding correctly	Pin obstruction, bent hinge.	Clear any obstructions, inspect hinges for damage.

8. Specifications

Feature	Detail
Brand	NorthStar
Model Number	282785
Tank Volume	31 Gallons
Pump Type	12V 2.2 GPM NSQ Series On-Demand Pump
Maximum Pressure	70 PSI
Hose Length	360 Inches (30 feet)
Power Source	Battery Powered (12 Volt DC)
Item Weight	54 Pounds
Product Dimensions	42"W x 28.5"H
Material	Alloy Steel (frame), UV-resistant Plastic (tank)

9. Warranty & Support

For detailed warranty information and customer support, please refer to the official NorthStar website or contact Northern Tool + Equipment, the seller of this product. A comprehensive User Manual (PDF) is also available for download from the product's Amazon page for additional guidance.

- **User Manual (PDF):** Download User Manual
- **NorthStar Store:** Visit NorthStar Store on Amazon
- **Customer Support:** Contact Northern Tool + Equipment for assistance.

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