

NorthStar NorthStar Belt-Driven Generator Head

NorthStar Belt-Driven Generator Head Instruction Manual

Model: NorthStar Belt-Driven Generator Head (Part Number: 171205)

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your NorthStar Belt-Driven Generator Head. Please read this manual thoroughly before installation or use to ensure proper function and to prevent injury or damage.



Image 1.1: The NorthStar Belt-Driven Generator Head. This image displays the main unit of the generator head, showcasing its robust black casing and the output shaft, along with the product label indicating specifications.

2. SAFETY INFORMATION

Always observe the following safety precautions to reduce the risk of injury or damage.

- **Electrical Hazard:** This generator head produces high voltage. Ensure all connections are secure and properly insulated. Never operate in wet conditions.
- **Rotating Parts:** Keep hands, hair, and clothing clear of all rotating parts, including the belt and shaft, during operation.
- **Ventilation:** Ensure adequate ventilation when operating the generator head, especially when connected to an internal combustion engine, to prevent carbon monoxide buildup.
- **Grounding:** Always properly ground the generator head according to local electrical codes.
- **Read Manuals:** Refer to the engine manufacturer's manual for safety and operating instructions related to the power source.

3. PRODUCT OVERVIEW

The NorthStar Belt-Driven Generator Head is designed to convert mechanical energy from an external engine into electrical power. It features 100% copper windings for efficient power generation and durability.

Key Features:

- 2,900 Surge Watts / 2,600 Rated Watts
- Two 15 Amp 120V receptacles (NEMA 5-15R)
- Two 15 Amp 240V receptacles (NEMA 6-15R)
- Output: 21.7 Amps at 120 Volts, 10.8 Amps at 240 Volts
- 100% Copper windings

4. SETUP AND INSTALLATION

Proper installation is crucial for the performance and safety of your generator head.

4.1 Mounting the Generator Head

1. Select a stable, level surface for mounting the generator head and the external engine.
2. Securely fasten the generator head to a sturdy frame or base using appropriate bolts and hardware. Ensure there is no movement or vibration.
3. Align the generator head's shaft with the engine's drive shaft. Use a belt and pulley system that is correctly sized and tensioned according to the engine and generator head specifications.

4.2 Electrical Connections

1. Ensure the generator head is properly grounded. Connect a grounding wire from the generator head's grounding lug to an approved earth ground.
2. Connect the output receptacles to your electrical loads using appropriate extension cords and wiring. Ensure all connections are tight and free from damage.
3. Verify that the total load connected does not exceed the rated wattage of the generator head.

5. OPERATING INSTRUCTIONS

Follow these steps for safe and effective operation.

5.1 Pre-Operation Checklist

- Check all mechanical connections, including belts and mounting hardware, for tightness.
- Inspect all electrical connections and cords for damage or wear.
- Ensure the external engine is in good working order and has sufficient fuel and oil.
- Confirm the generator head is properly grounded.

5.2 Starting the Generator Head

1. Start the external engine according to its manufacturer's instructions.
2. Allow the engine to reach its operating speed, which should correspond to the required RPM for the generator head to produce the correct frequency (e.g., 3600 RPM for 60 Hz).
3. Once the generator head is producing stable voltage and frequency, you may connect your electrical loads.

5.3 Connecting Loads

- Connect loads one at a time, starting with the largest load.
- Monitor the generator's output to ensure it is not overloaded. Overloading can damage the generator head and connected appliances.

5.4 Shutting Down

1. Disconnect all electrical loads from the generator head.
2. Shut down the external engine according to its manufacturer's instructions.
3. Allow the generator head to cool down before storage or maintenance.

6. MAINTENANCE

Regular maintenance ensures longevity and reliable performance.

- **Cleaning:** Keep the generator head clean and free of dust, dirt, and debris. Use a dry cloth or compressed air.
- **Inspections:** Periodically inspect the windings and electrical connections for signs of wear, corrosion, or damage.
- **Belt and Pulley:** Check the drive belt for proper tension and wear. Replace worn belts promptly. Ensure pulleys are clean and aligned.
- **Fasteners:** Verify that all mounting bolts and fasteners are tight.
- **Storage:** Store the generator head in a dry, clean environment when not in use.

7. TROUBLESHOOTING

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
No power output	Engine not running at correct RPM Overload condition Faulty wiring/connections Internal generator fault	Adjust engine speed Reduce connected load Check and secure all wiring Consult qualified technician
Low power output	Engine RPM too low Excessive load Worn drive belt	Increase engine speed Reduce load Check and replace drive belt
Excessive vibration	Loose mounting bolts Improper belt tension/alignment Unbalanced load	Tighten all mounting hardware Adjust belt tension and alignment Distribute loads evenly
Overheating	Insufficient ventilation Overload condition Accumulated dirt/debris	Ensure adequate airflow Reduce connected load Clean generator head vents

8. SPECIFICATIONS

Technical specifications for the NorthStar Belt-Driven Generator Head.

Specification	Value
Brand	NorthStar
Model Name	NorthStar Belt-Driven Generator Head
Part Number	171205
Surge Wattage	2900 Watts
Rated Wattage	2600 Watts
Voltage	120 Volts / 240 Volts
120V Amperage	21.7 Amps
240V Amperage	10.8 Amps
Receptacles	Two 15A 120V (NEMA 5-15R), Two 15A 240V (NEMA 6-15R)
Total Power Outlets	4
Windings Material	100% Copper
Item Weight	37.2 Pounds
Package Dimensions	19.5 x 12.7 x 9 inches

9. WARRANTY AND SUPPORT

For warranty information or technical assistance, please contact NorthStar customer support. Keep your purchase receipt and model number handy when contacting support.

NorthStar Customer Support: Refer to the official NorthStar website or your purchase documentation for current contact information.