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NorthStar 1131

NorthStar 37-Ton Horizontal/Vertical Log Splitter with 270cc Honda GX270 Engine Instruction Manual

Model: 1131

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, maintenance, and assembly of your NorthStar 37-Ton Horizontal/Vertical Log Splitter. Please read and understand all instructions before operating the equipment. Proper use and maintenance will ensure optimal performance and longevity of your log splitter.



Figure 1: Overall view of the NorthStar 37-Ton Horizontal/Vertical Log Splitter.

2. SAFETY INFORMATION

Your safety and the safety of others are paramount. Always follow these safety guidelines:

- Read and understand the entire manual before operating the log splitter.
- Wear appropriate personal protective equipment (PPE), including safety glasses, hearing protection, gloves, and steel-toed boots.
- Never operate the log splitter under the influence of alcohol or drugs.
- Keep hands and feet clear of the splitting wedge and ram at all times.
- Ensure the work area is clear of bystanders, children, and pets.
- Operate the log splitter on a level, stable surface.
- Do not attempt to split logs larger than the recommended capacity.
- Always use two hands to operate the control lever to prevent accidental activation.
- Regularly inspect the log splitter for damaged or worn parts.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (Proposition 65 warning).

3. SETUP AND ASSEMBLY

Proper assembly is crucial for safe and effective operation. Refer to the detailed instructions below and consult the provided video for visual guidance.

3.1 Unpacking and Component Identification

Carefully unpack all components and verify against the packing list. Ensure all parts are present and undamaged. Place the shipping crate on a solid, flat surface and cut the shipping bands to disassemble the crate. Identify the main components:

- Beam with wedge and hydraulic cylinder
- Hydraulic tank
- Engine and pump (Honda GX270)
- Wheels and fenders
- Log catchers (small and large)
- Tow bar and support leg
- High-pressure hoses and clear oil hose
- Hardware kit



Figure 2: NorthStar Log Splitter in horizontal operating position.

3.2 Assembly Steps (General Guide)

The following steps provide a general overview of the assembly process. Always refer to your specific product manual for detailed instructions and torque specifications. For visual assistance, a general log splitter assembly video is provided below.

- 1. Install the Oil Filter:** Using a 27mm wrench, install the oil filter into the corresponding port of the hydraulic tank. Tighten to 60 N·m (a tolerance of $\pm 5^\circ$ is allowed).
- 2. Install the Tow Bar:** Remove bolts, washers, and lock nuts from the hydraulic oil tank. Rotate the support leg to a vertical position and lock it with the lock pin, ensuring the tow bar is approximately level with the ground. Attach the tow bar to the bracket on top of the hydraulic tank using the appropriate bolts, nuts, and washers.
- 3. Install the Wheels:** Remove the cotter pin and castle nut from the axle of the hydraulic oil tank. Remove plastic shipping caps, ensuring the tire valve stem faces out, and slide the wheel onto the axle. If the wheel bearing is accidentally knocked out, reinstall it. Thread the castle nut onto the axle and tighten by hand. Adjust the castle nut to align the holes, making sure not to overtighten. Insert the cotter pin and bend with pliers. Install the axle cap using a soft mallet. Repeat for the other wheel.
- 4. Install the Beam:** Stand the beam vertically on the foot plate (recommended by 2 people). Remove the hitch pin and R pin. Roll the tank into position so pivot holes on the tank and beam are aligned. Secure the beam with the hitch pin and R pin. Block the wheels to prevent rolling and pivot the beam into the horizontal position. Check that the lock pin aligns and inserts smoothly into the corresponding hole on the tow bar.
- 5. Install the Engine:** Place the engine and gear pump assembly onto the engine mounting plate of the hydraulic oil tank. Secure it with appropriate hardware as specified in your manual. You will need a 13mm or 14mm wrench.
- 6. Install the Hoses:** Remove the red shipping plug from the gear pump. Using provided hose clamps, connect one end of the clear oil hose to the pump inlet and the other end to the hydraulic tank. Ensure the two high-pressure hoses are connected to the correct positions. Remove the white shipping plug from the gear pump, install the O-ring into the outlet fitting, then attach the hydraulic hose assembly's A-end to the pump outlet connector, tightening to 50-60 N·m (using a 27mm or adjustable wrench). Screw the B-end nut of the return hydraulic hose into the oil filter inlet connector, tightening to 70-80 N·m (using a 27mm or adjustable wrench).
- 7. Install the Log Catchers:** Attach the large log catcher to the engine side of the beam using a 16mm wrench and

appropriate bolts, nuts, and washers. Attach the small log catcher on the opposite side with appropriate bolts, nuts, and washers. You will need a 17mm wrench and 6mm Allen wrench.

8. **Install the Fenders:** Attach the first fender to the side of the hydraulic oil tank using a 16mm wrench and appropriate bolts, nuts, and washers. The safety reflector should face the back of the hydraulic tank. Repeat for the second fender.
9. **Complete Installation:** Remove the pins from the control valve lever, then secure the lever by reinserting the pins once it has been raised to the proper position.

Your browser does not support the video tag.

Video 1: General Log Splitter Assembly Guide (Note: This video is a general guide and may not feature your specific NorthStar model. Always refer to your product's manual for exact instructions).

4. OPERATING INSTRUCTIONS

Your NorthStar log splitter is designed for efficient wood processing. Follow these steps for safe and effective operation:

4.1 Pre-Operation Checklist

- Check engine oil level and fuel level.
- Verify hydraulic fluid level.
- Inspect all hoses and connections for leaks or damage.
- Ensure all nuts, bolts, and pins are securely fastened.
- Clear the work area of any obstacles or debris.
- Confirm the log splitter is on a stable, level surface.

4.2 Starting the Engine

Follow the engine manufacturer's instructions for starting the 270cc Honda GX270 engine. Typically, this involves:

1. Turn the fuel valve to the 'ON' position.
2. Move the choke lever to the 'CLOSED' position (for cold starts).
3. Move the throttle lever to the 'FAST' position.
4. Turn the engine switch to the 'ON' position.
5. Pull the starter rope firmly until the engine starts.
6. Once the engine is running, gradually move the choke lever to the 'OPEN' position.

4.3 Splitting Logs

The NorthStar log splitter can operate in both horizontal and vertical positions. The horizontal position is ideal for smaller, lighter logs, while the vertical position is suitable for larger, heavier logs that are difficult to lift.



Figure 3: NorthStar Log Splitter in vertical operating position.

Horizontal Splitting:

1. Place the log securely on the beam against the wedge.
2. Using both hands, engage the control lever to extend the ram and push the log into the wedge.
3. Once the log is split, release the control lever. The ram will automatically retract.

Vertical Splitting:

1. Carefully pivot the beam to the vertical position and secure it according to the manual.
2. Roll a log onto the base plate.
3. Using both hands, engage the control lever to extend the ram and push the log down onto the wedge.

- Once the log is split, release the control lever. The ram will automatically retract.

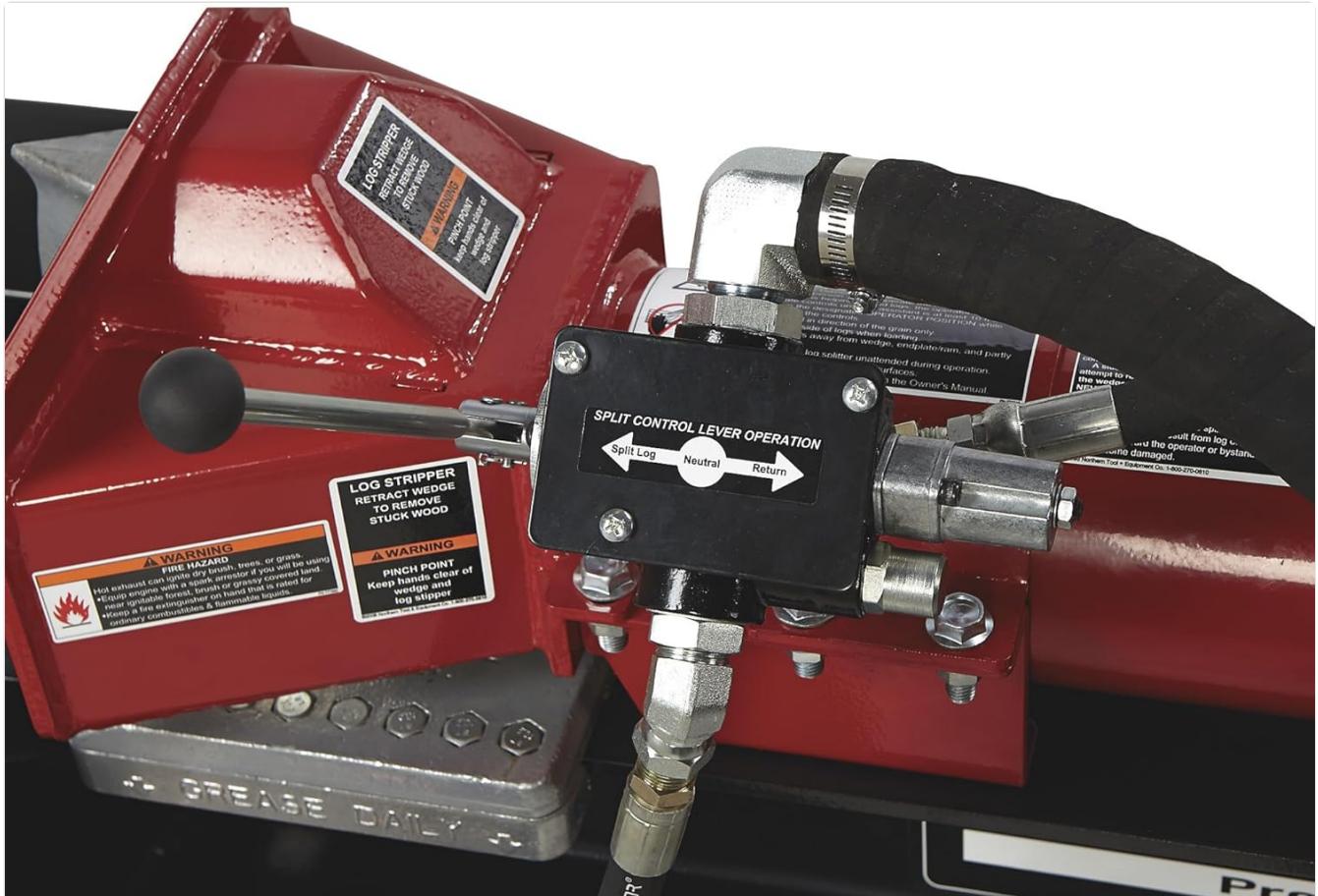


Figure 4: Close-up of the split control lever, showing forward, neutral, and return positions.

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Video 2: NorthStar Horizontal/Vertical Log Splitter in operation, demonstrating splitting capabilities.

5. MAINTENANCE

Regular maintenance is essential for the longevity and safe operation of your log splitter.

5.1 Engine Maintenance

Refer to the Honda GX270 engine manual for specific maintenance schedules. General tasks include:

- Check engine oil level before each use and change as recommended.
- Clean or replace the air filter regularly.
- Inspect and clean the spark plug.
- Check fuel lines and fuel filter.



Figure 5: Close-up view of the Honda GX270 engine, highlighting key maintenance areas.

5.2 Hydraulic System Maintenance

- Check hydraulic fluid level before each use. Use recommended hydraulic fluid.
- Inspect hydraulic hoses and fittings for leaks or damage.
- Replace the hydraulic filter as recommended in the manual.
- Bleed the hydraulic system if air is present (refer to manual).

5.3 General Maintenance

- Keep the log splitter clean and free of debris.
- Lubricate all moving parts as specified in the manual.
- Inspect the wedge for sharpness and damage.
- Check tire pressure and condition.

6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your log splitter.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Engine won't start	No fuel, old fuel, low engine oil, spark plug issue, choke setting	Check fuel level, replace old fuel, add oil, clean/replace spark plug, adjust choke
Low splitting force	Low hydraulic fluid, air in hydraulic system, worn pump, dull wedge	Check/add hydraulic fluid, bleed system, inspect pump, sharpen/replace wedge
Ram not extending/retracting	Control lever issue, hydraulic fluid level, air in system, valve malfunction	Check lever linkage, check fluid, bleed system, inspect valve
Log stuck on wedge	Log too large, knot in wood, dull wedge	Reverse ram, remove log carefully, do not force, sharpen wedge

7. SPECIFICATIONS

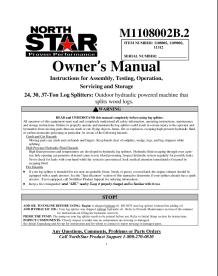
Key technical specifications for the NorthStar 37-Ton Horizontal/Vertical Log Splitter:

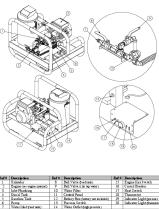
- **Splitting Force:** 37 Tons
- **Engine:** Honda GX270, 270cc
- **Operation:** Horizontal/Vertical
- **Hydraulic Pump:** American-made Concentric pump
- **Hydraulic Valve:** Brand valve
- **Hydraulic Cylinder:** NorthStar with premium Halite seals
- **Hose:** Heavy-duty steel-reinforced
- **Engine Features:** Cast iron cylinder sleeve, low oil shutdown, steel fuel tank, auto throttle control
- **Product Dimensions:** 90 x 45 x 45 inches
- **Item Weight:** 625 pounds
- **Model Number:** 1131

8. WARRANTY AND SUPPORT

For warranty information, customer support, or to order replacement parts, please contact NorthStar directly or refer to the warranty documentation included with your purchase. You can also visit the [NorthStar Store](#) for additional resources.

Related Documents - 1131

	<p>NorthStar Log Splitter Owner's Manual: Assembly, Operation, and Maintenance</p> <p>Comprehensive owner's manual for NorthStar 24, 30, and 37-ton log splitters, covering assembly, testing, operation, servicing, storage, and safety guidelines.</p>
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 <p>M165601A1 Owner's Manual Instructions for Installation, Operation, Servicing, & Storage Portable Gasoline Generator</p> <p>NorthStar M165601A1 Owner's Manual: Setup, Operation, and Storage</p> <p>Comprehensive owner's manual for the NorthStar M165601A1 portable gasoline generator. Provides detailed instructions for installation, setup, operation, servicing, and storage. Covers safety precautions, power load management, and maintenance.</p>	
 <p>Limited Warranty</p> <p>NorthStar Products</p> <p>The NorthStar products you purchased are new and are warranted to be free from defects in material and workmanship for the period of time indicated. The original owner of the product is entitled to the warranty period. The warranty period begins on the date of original purchase. The warranty period is non-transferable.</p> <p>NorthStar Limited Warranty</p> <p>NorthStar warrants any new item of equipment purchased from NorthStar for a period of one (1) year from the date of original purchase. This warranty covers all parts and labor.</p> <p>Northstar 10 kW Radar Installation Manual: Marine Navigation System Setup Guide</p> <p>Detailed installation manual for the Northstar 10 kW Radar system, covering setup, wiring, calibration, and troubleshooting for Northstar 6000i, 6100i, and 8000i marine navigation systems.</p>	
 <p>Northstar 10 kW Radar Installation Manual</p> <p>NORTHSTAR www.northstarusa.com</p>	
 <p>Component Identification</p> <p>NorthStar 157595 Pressure Washer Component Identification and Safety</p> <p>Detailed component identification and safety labeling for the NorthStar 157595 Professional 4000 PSI Gas - Hot Water Trailer Pressure Washer with Wet Steam, Cat Pump, and Honda GX630 Engine.</p>	
 <p>M157471A Owner's Manual Pressure Washer: Machine that cleans dirty surfaces with high pressure water.</p> <p>NorthStar M157471A Pressure Washer Owner's Manual</p> <p>Owner's manual for the NorthStar M157471A pressure washer, detailing safety instructions, operation, maintenance, and troubleshooting.</p>	