

HARRINGTON SNER020L-20

Harrington SNER020L-20 Series SNER Electric Chain Hoist User Manual

Model: SNER020L-20

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Harrington SNER020L-20 Series SNER Electric Chain Hoist. Please read this manual thoroughly before attempting to install, operate, or perform any maintenance on the hoist. Retain this manual for future reference.

The Harrington SNER020L-20 is a single-phase electrical hook mount chain hoist designed for demanding industrial applications, featuring a 2-ton capacity and a 20-foot lift. Its robust construction and H4 duty-rated motor ensure reliable performance in various environments.

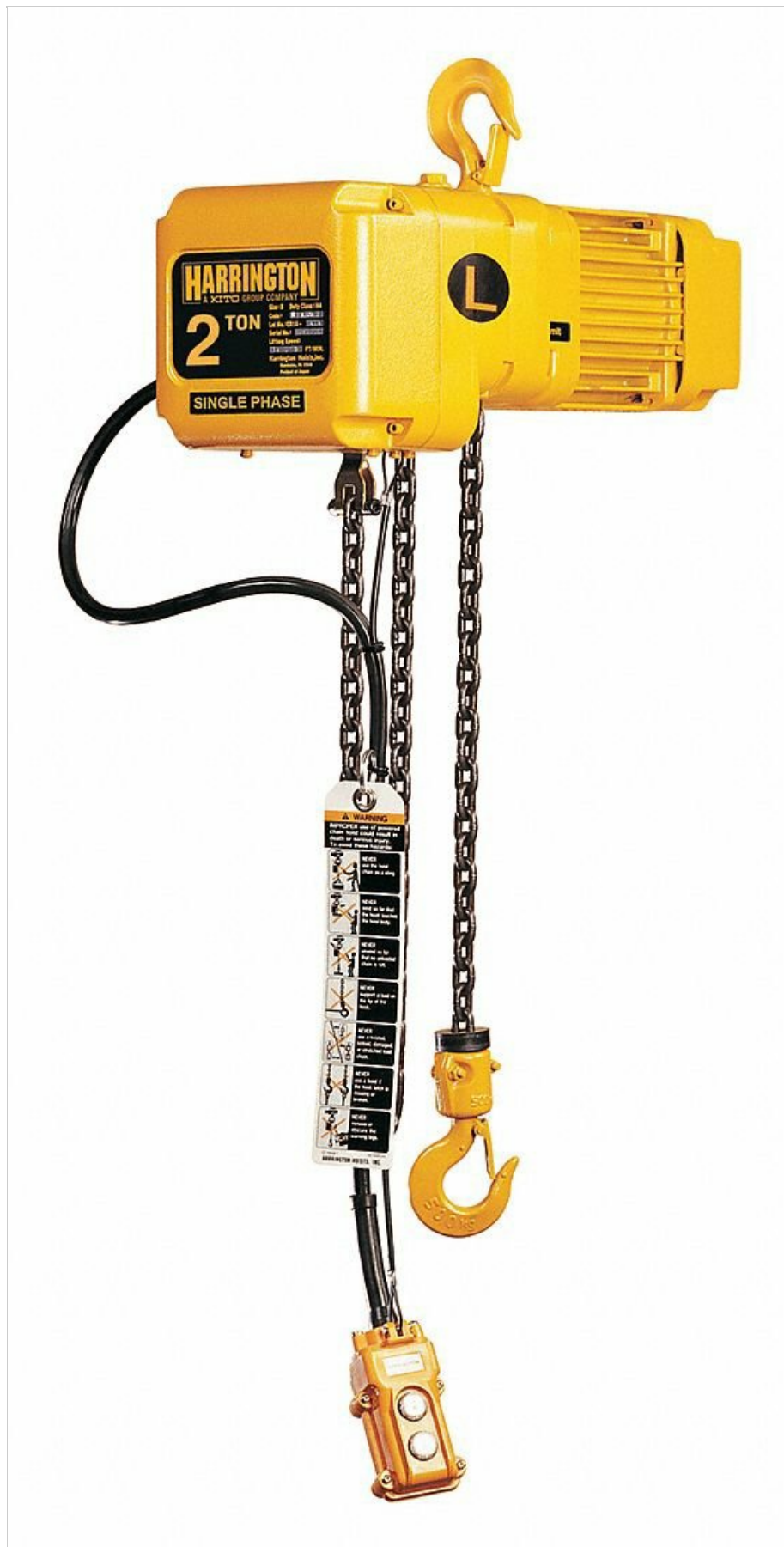


Figure 1: Harrington SNER020L-20 Electric Chain Hoist. This image shows the main body of the hoist, including the motor housing, chain, and hook, ready for installation.

2. SAFETY INFORMATION

Always prioritize safety when working with lifting equipment. Failure to follow these safety guidelines can result in

serious injury or death.

2.1 General Safety Warnings

- Only qualified and trained personnel should operate or maintain this hoist.
- Never exceed the rated load capacity of 2 tons.
- Inspect the hoist, chain, and hook before each use for any signs of wear, damage, or malfunction.
- Do not operate a damaged hoist. Tag it out of service and report the issue immediately.
- Keep hands, feet, and clothing clear of moving parts.
- Ensure the load is properly balanced and secured before lifting.
- Never lift people or loads over people.
- Avoid sudden starts or stops when lifting or lowering a load.
- Do not use the hoist for purposes other than lifting.

2.2 Electrical Safety

- Ensure the power supply matches the hoist's requirements (single phase, 230V, 60 Hz).
- All electrical connections must be made by a qualified electrician in accordance with local codes.
- Always disconnect power before performing any maintenance or inspection.
- Protect electrical components from moisture and extreme temperatures. The hoist is IP55 rated, but proper care is still necessary.

3. COMPONENTS AND FEATURES

The Harrington SNER020L-20 hoist is comprised of several key components designed for durability and performance:

- **Motor:** 60-minute, H4 duty-rated, fan-cooled motor for demanding applications.
- **Brake:** Self-adjusting, virtually maintenance-free pull-rotor electric brake.
- **Chain:** Durable load chain, designed for a 20-foot lift.
- **Hook:** Heavy-duty hook with safety latch.
- **Chain Guide:** Unique design for smooth chain operation and reduced wear.
- **Control Panel:** Hinged for easy access and maintenance.
- **Housing:** Completely sealed body (IP55 rated) suitable for harsh indoor or outdoor environments.
- **Load Sheave:** Durable design for long service life.

4. SETUP AND INSTALLATION

Proper installation is crucial for the safe and reliable operation of your hoist.

4.1 Mounting the Hoist

1. Identify a suitable overhead support structure capable of safely supporting the hoist's weight plus the maximum rated load (2 tons) with an adequate safety factor. Consult with a structural engineer if unsure.
2. Attach the hoist's hook mount securely to the designated support point. Ensure all fasteners are tightened to the manufacturer's specifications.
3. Verify that the hoist hangs plumb and is free from any obstructions throughout its intended range of motion.

4.2 Electrical Connection

1. Ensure the main power supply is OFF and locked out before making any electrical connections.
2. Connect the hoist to a single-phase, 230V, 60 Hz power source. Refer to the wiring diagram located inside the control panel for specific connections.
3. Ensure proper grounding of the hoist.
4. All electrical work must be performed by a licensed electrician and comply with all applicable local and national electrical codes.

4.3 Pre-Operation Checks

- Confirm all mounting hardware is secure.
- Inspect the load chain for twists, kinks, wear, or damage.
- Verify the hook and safety latch are in good condition and operate freely.
- Test the emergency stop function.
- Perform a no-load test run to check for smooth operation in both directions.

5. OPERATING INSTRUCTIONS

Familiarize yourself with the hoist controls and operating procedures before lifting any loads.

5.1 Controls

The hoist is typically operated via a pendant control with 'UP', 'DOWN', and 'Emergency Stop' buttons.

- **UP Button:** Press and hold to lift the load.
- **DOWN Button:** Press and hold to lower the load.
- **Emergency Stop Button:** Press to immediately cut power to the hoist in an emergency. This button must be manually reset before operation can resume.

5.2 Lifting a Load

1. Ensure the load is within the hoist's 2-ton capacity.
2. Attach the load securely to the hoist hook, ensuring the safety latch is closed. Use appropriate rigging (slings, shackles) for the load.
3. Clear the area of all personnel and obstructions.
4. Slowly press the 'UP' button to take up slack and gently lift the load a few inches off the ground.
5. Pause and check the load's balance and security. If stable, continue lifting to the desired height.
6. Avoid swinging the load. If horizontal movement is required, use an appropriate trolley system.

5.3 Lowering a Load

1. Ensure the landing area is clear and prepared to receive the load.
2. Slowly press the 'DOWN' button to lower the load.
3. Guide the load carefully to its destination, avoiding sudden drops.
4. Once the load is fully supported, release the 'DOWN' button and detach the rigging.

6. MAINTENANCE

Regular maintenance is essential for extending the life of your hoist and ensuring safe operation. Always disconnect power before performing maintenance.

6.1 Daily/Shift Inspections

- Inspect the load chain for wear, damage, twists, or foreign material.
- Check the hook and safety latch for deformation, cracks, or damage.
- Verify proper function of the pendant control and emergency stop.
- Listen for unusual noises during operation.

6.2 Monthly Inspections

- Perform a thorough inspection of the entire hoist, including the motor housing, electrical connections, and mounting hardware.
- Check the brake for proper operation and adjustment (though it is self-adjusting, visual inspection is still recommended).
- Inspect the chain guide and load sheave for wear.
- Lubricate the load chain according to manufacturer recommendations (refer to specific lubricant type in the full service manual).

6.3 Annual Inspections

A comprehensive annual inspection should be performed by a qualified technician. This typically includes:

- Disassembly and inspection of critical components.
- Measurement of chain wear and replacement if necessary.
- Detailed inspection of the motor, gearbox, and electrical system.
- Load testing.

7. TROUBLESHOOTING

This section provides solutions to common operational issues. For problems not listed here or if solutions do not resolve the issue, contact qualified service personnel.

Problem	Possible Cause	Solution
Hoist does not operate	No power supply Emergency stop engaged Motor overload protection tripped Faulty control circuit	Check power connection and circuit breaker Reset emergency stop button Allow motor to cool; reduce load Contact qualified electrician
Hoist operates slowly or with reduced power	Overload condition Low voltage Motor issue	Reduce load to within rated capacity Verify power supply voltage Contact qualified service personnel
Unusual noise during operation	Lack of lubrication Worn gears or bearings Foreign object in chain path	Lubricate chain and inspect gearbox Contact qualified service personnel Inspect chain path and remove obstruction (with power off)
Brake not holding load	Worn brake components Electrical issue to brake	Immediately cease operation and secure load. Contact qualified service personnel.

8. SPECIFICATIONS

Key technical specifications for the Harrington SNER020L-20 Electric Chain Hoist:

- **Model Number:** SNER020L-20
- **Capacity:** 2 Tons
- **Lift:** 20 feet
- **Power:** Single Phase, 230V, 60 Hz
- **Motor Duty Rating:** H4, 60-minute
- **Ingress Protection (IP) Rating:** IP55 (sealed body)
- **Mounting Type:** Hook Mount
- **Item Weight:** 174 pounds
- **Package Dimensions:** 30 x 21 x 21 inches
- **Manufacturer:** Harrington Hoists, Inc.

9. WARRANTY INFORMATION

Specific warranty terms and conditions for the Harrington SNER020L-20 hoist are typically provided with the product documentation at the time of purchase. For detailed warranty information, please refer to the official warranty card included with your hoist or visit the Harrington Hoists, Inc. official website. Keep your purchase receipt as proof of purchase for any warranty claims.

10. SUPPORT AND CONTACT

For technical assistance, parts, or service inquiries regarding your Harrington SNER020L-20 Electric Chain Hoist, please contact Harrington Hoists, Inc. or an authorized service dealer. Contact information can typically be found on the manufacturer's website or in the documentation provided with your product.

When contacting support, please have your hoist's model number (SNER020L-20) and serial number readily available.