



25 TON SCREW-TYPE SUPPORT JACK

OWNER'S MANUAL



WARNING:

Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item# 46247

Thank you very much for choosing a Strongway product! For future reference, please complete the owner's record below:

Model: _____ Purchase Date: _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This machine is designed for certain applications only. The distributor cannot be responsible for issues arising from modification. We strongly recommend this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted the distributor to determine if it can or should be performed on the product.

For technical questions please call **1-800-222-5381**.

INTENDED USE

Screw jacks lift and precisely position a variety of loads. Upright or inverted, these jacks operate at full capacity in tension or compression. Mechanical jacks offer increased precision and travel speed required to level or lift loads needing rigorous detail or load stabilization. Use this jack on house leveling, bridge stabilization, machinery, oil field maintenance or steel fabrication and construction. Can also be used as an external locking device to hold position. Multi-axis, cleated saddle positions accommodate and assist in leveling the load. This product is tested for reliability and safety to meet ASME B30.1 Standards.

TECHNICAL SPECIFICATIONS

Item	Capacity	Bar Hole Size	Min. Height	Lifting Range	Max. Height	Net Weight
46247	25 Ton	1 inch	16-3/4 inch	9-3/4 inch	26-1/2 inch	40.31 lbs.

GENERAL SAFETY RULES



WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in serious injury.



CAUTION: Do not allow persons to operate or assemble this jack until they have read this manual and have developed a thorough understanding of how the jack works.



WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY CONSIDERATIONS

JACK USE AND CARE

- **Do not modify the jack in any way.** Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. There are specific applications for which the **jack** was designed.
- **Always check of damaged or worn out parts before using the jack.** Broken parts will affect the **jack** operation. Replace or repair damaged or worn parts immediately.
- **Store idle jack.** When **jack** is not in use, store it in a secure place out of the reach of children. Inspect it for good working condition prior to storage and before re-use.
- **Inspect work area.** Ensure work area is free and clear of any hazards before operating jack.
- **Keep children away.** Ensure that all children are at a safe distance when operating jack.
- **Not for use by children, people with reduced mental capacity, or people under the influence of drugs and alcohol.**

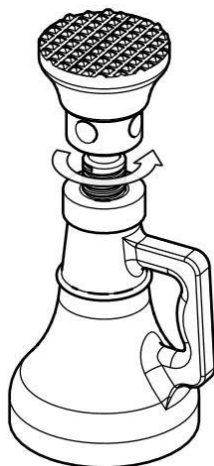


WARNING:

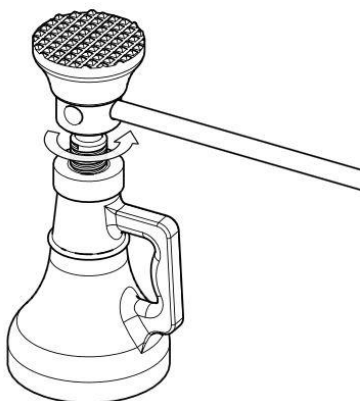
- Always inspect the jack before using, replace if damaged or malfunctioning. Do not remove any of the labels from the jack.
- Always ensure the jack is used on a hard flat and level surface
- Never lift any load over the rated capacity.
- Always center jack under load.
- Never allow load to tilt on the jack as the jack may kick out causing injury to the operator and/ or cause the load to fall.
- When using more than one jack to lift a load, each jack must have the same lifting capacity of the entire load being lifted.
- Never force the lifting screw past its safety stop, as the screw may come out of the jack and result in personal injury and property damage.
- Always keep the screw lubricated for ease of operation and prevent against rust.
- Study, understand, and follow all instructions before operating this device.
- No alterations shall be made to this product.
- Support only on areas of a vehicle as specified by the vehicle manufacturer.
- Only attachments and/or adapters supplied by the manufacturer shall be used.
- Use wheel chocks or other blocking device on opposing wheels before using jack.
- Do not use if damaged in any way.
- Failure to heed these markings may result in personal injury and/or property damage.

OPERATION

1. Select the appropriate lifting capacity mechanical bottle screw jack.
2. Place the jack on a hard and level surface beneath the load that is to be lifted.



3. Use hand to turn the lifting screw (counter-clockwise) out until the adjustable floating head support makes contact with the surface to be lifted.
4. Insert steel handle-turning bar (not supplied) into hole under lifting support.



5. Rotate steel handle bar counter-clockwise to raise the lifting support until the desired height is reached.



WARNING: Do not exceed the rated load of the mechanical jack.

JACKING PRACTICES

- (a) All mechanical jacks shall be used according to the manufacturer's recommendations.
- (b) A plan should be developed and communicated to affected personnel before the jacking operation begins. The plan should include load-handling procedures and communication methods.
- (c) A piece of wood or other compressible material should be used between the jack load point and the load surface to promote the mating of the two surfaces and to increase friction.
- (d) Off-center loading of the primary load point should be avoided.
- (e) When jacking, ensure that the load avoids contact with any obstructions.
- (f) When jacking, ensure that the primary or auxiliary load point is properly positioned under the load to avoid the jack from tipping over.
- (g) When jacking one side or end of a load, ensure the opposing side or end is-stabilized with sufficient blocking.
- (h) When jacking a load, it should be raised in stages Jack one side or end, insert blocking, and lower the load down to the blocking. Jack from the opposite side or end, insert blocking, and then lower down to blocking.
Reverse this process when lowering the load.
- (i) The jack handle, primary and auxiliary load points, and the jack base should be free of slippery material or fluids.
- (j) When jacking, a load should be raised or lowered in a limited range. Avoid jacking the side or end of the load on more than a 3% grade.
- (k) When lifting one side of an object with a high center of gravity, personnel should be on the side of the load that is being lifted.
- (l) After the raising or lowering operation is completed, remove the jack handle from the socket to avoid accidental dislocation of the jack and to reduce the tripping hazard. (Excluding Farm Jacks and High Lift Jacks)
- (m) A load shall not be left unattended while supported by jacks. Blocking should be used to support unattended loads.
- (n) The load weight and center of gravity shall be determined prior to selecting and placing jacks and blocking.
- (o) Before jacking a load, consideration shall be given to fluids or other shifting materials that can change the location of the center of gravity.
- (p) The base of the jack should be supported by a hard level surface (such as concrete, steel, or wood blocking) capable of supporting the load.
- (q) The force of the jack's load point should be placed or distributed to prevent damage to the load.
- (r) A jack handle of the size and length specified by the manufacturer shall be used. Never use an over length jack handle, extender, or "cheater pipe" over the handle.
- (s) Ensure there is adequate range of motion for the jack handle to completely engage the operating linkage of the jack.

Communication

- (a) Communication between personnel involved in the lift operation shall be maintained continuously during all jack movement. If at any time communication is disrupted, the jack operator(s) shall stop all movements until communication is restored.
- (b) Signals to the jack operator should be in accordance with the ASME B30.1. If special signals are required, they shall be agreed upon by the load-handling personnel prior to jacking operations. Signals shall be discernible or audible at all times. No action shall be taken unless signals are clearly understood.
- (c) Jack operators shall obey any stop signal.

Synchronized Lifts

- (a) When using jacks to lift the entire load in a synchronized lift, uneven raising and lowering can cause cross loading, instability, and overloading.
- (b) Some loads may require multiple lifting points and complex lifting procedures. A qualified person shall analyze the operation and instruct all personnel involved in the proper selection and positioning of the jacks and the movements to be made.
- (c) When using multiple ratchet jacks simultaneously, ensure they are identical type (manufacturer, make, model, and capacity), or lifting rate to ensure they are evenly loaded during jacking.
- (d) Unsynchronized lowering can cause an overload to a jack and may result in kickback of the jack handle or instability of the load.

Blocking

- (a) While jacking, blocking should follow the load up or down to serve as an arresting device if the load falls.
- (b) Wedges or shims should be used as necessary to ensure the load is completely supported at its blocking points.
- (c) Blocking shall be of sufficient thickness, width, and length to prevent shifting, toppling, or excessive settlement of the load.
- (d) Blocking shall be of sufficient strength to prevent crushing, bending failure or shear failure, and to adequately transmit the load's weight to the supporting surface.

Horizontal Jacking

- (a) Applications may arise where jacks are used in a position other than vertical. These applications, referred to as horizontal jacking, require special attention.
- (b) Horizontal jacking shall comply with the requirements of, Operating Practices, as applicable
- (c) A plan shall be developed and communicated to affected personnel before horizontal jacking operations begin. The plan shall consider but not be limited to the following:
 - 1. Load weight
 - 2. Effects of friction
 - 3. Angle from horizontal plane
 - 4. Load stability and control
 - 5. Obstructions
 - 6. Jack base support
 - 7. Jack support
 - 8. Load contact point
 - 9. Handle clearance
 - 10. Center of gravity of the load
 - 11. Personnel safety
- (d) When jacking horizontally, the base of the jack should be perpendicular to the direction of load movement.
- (e) If multiple jacks are used, maintain parallel lines of force to prevent side loading of the jacks.

Note:

- (a) No alterations, or modifications shall be made to this product.
- (b) All replacement parts including pins, bolts, caps, and keepers shall meet or exceed the original equipment manufacturer's specifications.

**WARNING: Crush Hazard**

- (a) Personnel shall not place any part of their body between the jack and the load during lifting and lowering of the load.
 - (b) Personnel shall not place any part of their body under a load supported by a jack.
 - (c) Personnel should not place any part of their body under blocking that is positioned to support the load, when the load is supported by a jack.
 - (d) Personnel shall not straddle the handle of the jack.
 - (e) Personnel should ensure there is sufficient swing area to avoid pinch points while using the jack handle.
 - (j) Personnel should not be on a load supported by jacks.
 - (g) The jack operator should have firm footing and handle control while operating the jack.
 - (h) Unsynchronized operation of multiple ratchet jacks may produce increased or uncontrollable handle force.
 - (i) Personnel should avoid placing their head in the swing arc of the handle. Ratchet jack handles may produce sudden kickback while lifting or lowering the load.
- Ensure the handle load has been transferred to the jack before releasing the handle.

MAINTENANCE

- **Maintain your jack.** It is recommended that the general condition of any **jack** be examined before it is used. Keep your **jack** in good repair by adopting a program of conscientious repair and maintenance. Have necessary repairs made by qualified service personnel.
- Follow the maintenance instructions carefully to keep your equipment in good working condition. Never perform any maintenance on the equipment while it is under a load.
 - a. All moving parts of the jack should be regularly cleaned.
 - b. Lubricate parts as required by the manufacturer's specifications. The type of lubricant should be as specified by the manufacturer or a qualified person. Lubrication systems should be checked to verify proper operation.
 - c. If additional maintenance is required, it should be completed in accordance with the instructions of the manufacturer or qualified person.

Inspection

You should inspect the product for damage, wear, broken or missing parts (e.g.: pins) and that all components function before each use. Follow lubrication and storage instructions for optimum product performance. Check the climbing pins to make sure that they are not worn or damaged. Check that everything is good working condition and that nothing is blocking the holes. Do not use the jack unless it is in good working condition.

Binding

If the product binds while under a load, use equipment with equal or a larger load capacity to lower the load safely to the ground. After un-binding; clean, lubricate and test that equipment is working properly. Rusty components, dirt, or worn parts can be causes of binding Clean and lubricate the equipment as indicated in the lubrication section. Test the equipment by lifting without a load. If the binding continues, contact Customer Service.

IF YOUR JACK BINDS

As your jack becomes older, the threads may start binding. This will prevent the jack from operating properly and safely. Rusty threads, dirty threads, or a worn threads can cause binding. Clean and lubricate the lifting mechanism. Test the jack by jacking it up without a load. If the binding continues, refer to the after sale parts and service. If your jack binds while under a load, use a jack with equal or larger load capacity to lower the load safely to the ground. Repeat the steps in this paragraph to the binding jack.

Cleaning

If the moving parts of the equipment are obstructed, use cleaning solvent or another good degreaser to clean the equipment. Remove any existing rust, with a penetrating lubricant.

Lubrication

If the moving parts of the jack or if the steel screw is clogged, use air pressure, water pressure, or a stiff brush to clean. Use a non-flammable cleaning solvent or another good de-greaser to clean the jack. Remove any existing rust, preferably with a penetrating lubricant. Then lubricate the jack using white lithium grease, light penetrating oil, or a silicon or Teflon spray at the following points:


- Use a good lubricant on all moving parts.
- For light duty use, lubrication is needed once a month.
- For heavy and constant use, lubrication is recommended every week.

Do not use motor oil or grease to lubricate the jack

Rust Prevention:

-Check daily for any signs of rust or corrosion.

Without a load lift the equipment as high as it goes and look under and behind the lifting points. If signs of rust are visible clean as needed.

 **WARNING:** Jack is not self-lubricating. It will not operate safely without proper lubrication.

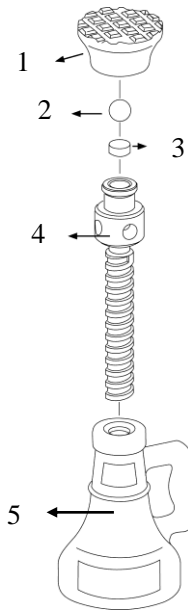
Storing the Jack

1. Store in a dry location, recommended indoors.
2. Mechanical jacks should be stored in an area where they will not be subjected to damage.
3. If extreme temperatures or chemically active or abrasive environments are involved, the guidance provided in shall be followed.
4. Temperature - When mechanical jacks are to be used at temperatures above 140°F (60°C) or below -20°F (-29°C), the jack manufacturer or a qualified person should be consulted.
5. Chemically Active Environments -The strength and operation of mechanical jacks can be affected by chemically active environments such as caustic or acid substances or fumes. The jack manufacturer or a qualified person should be consulted before mechanical jacks are used in chemically active environments.
6. Other Environments - The internal workings of jacks can be affected by high moisture, gravel or sand, silt, grit, or other dust-laden air. Jacks subject to these environments should have their inner components frequently cleaned, inspected, and lubricated.

Note: If the jack is stored outdoors, be sure to lubricate all parts before and after use to ensure the jack stays in good working condition.

ASSEMBLY

Equipment components are not available for replacement.
Contact Customer Service for equivalent component.



PARTS LIST

Equipment component part numbers are only for reference use only.

Part#	Description	Item#	Qty.
1	Support	SJ20-01	1
2	Steel Ball	SJ20-02	1
3	Shim	SJ20-03	1
4	Screw	SJ25-04	1
5	Base	SJ25-05	1

Safe Operating Temperature is between 40°F – 105°F (4°C - 41°C)

REPLACEMENT PARTS

For replacement parts Customer Service at **1-800-222-5381**. Not all equipment components are available for replacement; illustrations provided are a convenient reference of location and position in the assembly sequence. When ordering parts the following will be required: Model Number, Serial Number and Description. **The distributor reserves the rights to make design changes and or improvements to product lines and manuals without notice.**

For replacement parts and technical questions, please call 1-800-222-5381.

Limited Warranty

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Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Strongway product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of one year from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your trailer incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights, which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



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Burnsville, Minnesota 55306
NorthernTool.com
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