

#481XN25DF400, 481XN25DF520, 481XN25DF, 481XN25DF1600, 481XN25DF1800

Manual Pallet Jack

5,500 lb. Capacity

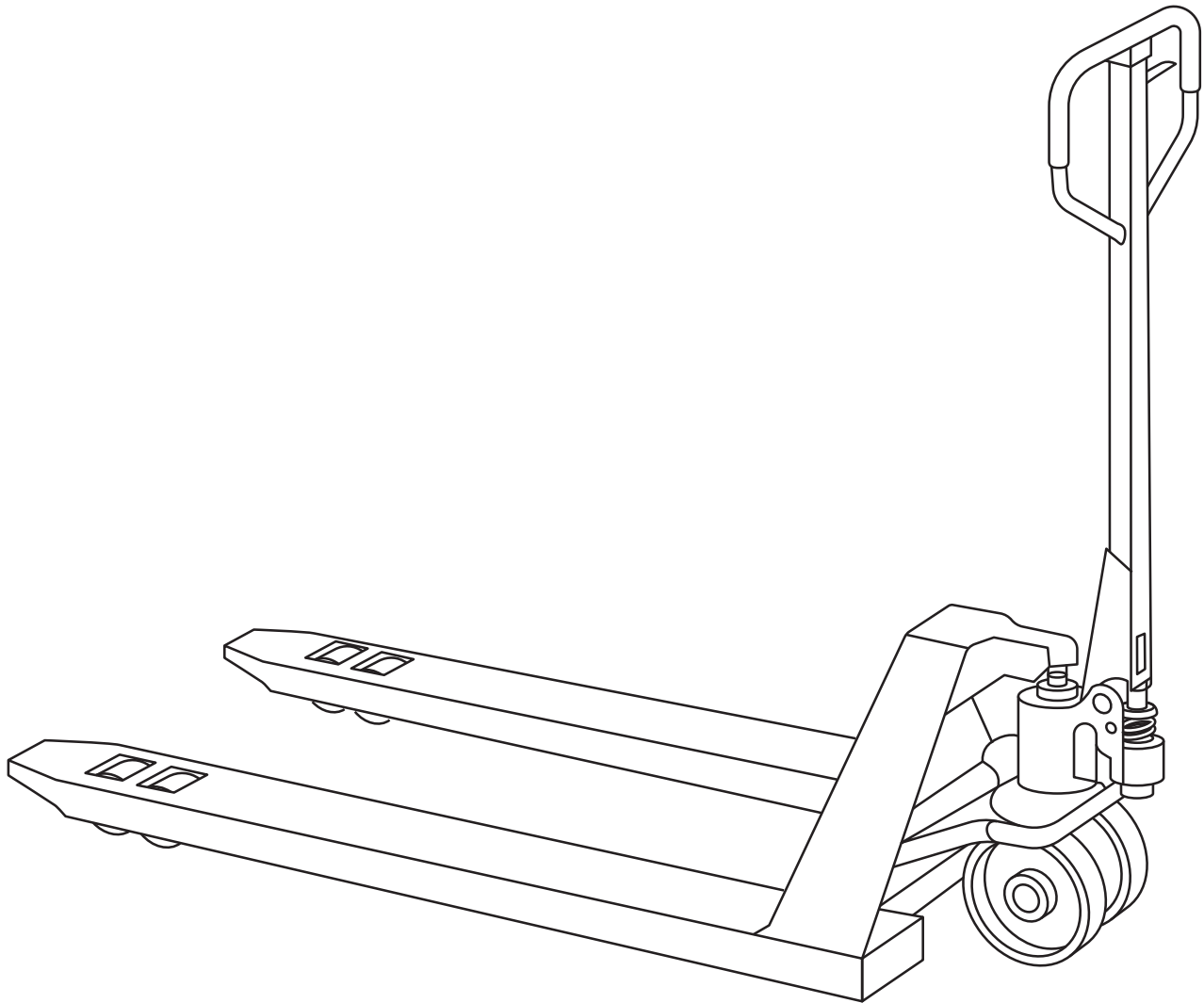


Table of Contents

Hazard Statements	3
Initial Setup.....	5
Assembly	6
Operation	9
Maintenance.....	9
Troubleshooting.....	10
Replacement Parts.....	10

Hazard Statements

WARNING – Read Manual Thoroughly

- Operating equipment without proper understanding can lead to accidents and equipment damage.
- Read and understand the entire operator's manual before using the pallet jack.
- Do not operate the pallet jack without first reviewing all operational instructions and safety procedures.
- Improper operation or inadequate product knowledge can cause accidents and equipment damage.

WARNING – Observe Load Capacity

- Exceeding weight limits can cause equipment failure and serious injury.
- Do not load pallet jack beyond rated capacity of 5,500 lb. for standard models and 6,600 lb. for heavy-duty models.
- Avoid loading the pallet jack with weights that exceed the manufacturer's specified capacity ratings.
- Overloading beyond rated capacity can cause equipment failure and serious injury.

WARNING – Secure Load Before Transport

- Unsecured loads can shift during transport and cause accidents.
- Secure load before transporting.
- Avoid moving loads that are not properly secured or stabilized on the pallet.
- Transporting unsecured materials can cause load shifting accidents and injury.

WARNING – Keep Load Centered

- Off-center loads can cause instability and tipping hazards.
- Keep the load centered on the pallet.
- Do not place loads that extend beyond the pallet edges or create unbalanced weight distribution.
- Off-center or unbalanced loads can cause instability and tipping hazards.

WARNING – Avoid Ramps and Inclines

- Operating loaded pallet jacks on slopes creates serious stability and control hazards.
- Do not operate loaded pallet jack on ramps or inclines.
- Avoid using the pallet jack on any sloped surfaces while carrying loads.
- Operating on ramps or inclined surfaces can lead to loss of control and serious accidents.

DANGER – Wear Safety Footwear

- Improper footwear increases risk of slips, falls, and foot injuries.
- Always wear appropriate safety shoes.
- Do not operate the pallet jack while wearing sandals, open-toed shoes, or other inappropriate footwear.
- Inadequate safety footwear can cause slips, falls, and foot injuries.

WARNING – Lower Loads When Unattended

- Leaving loads in raised position creates instability and safety hazards.
- Never leave a loaded pallet jack unattended in the raised position, always lower load to the floor.
- Do not walk away from the pallet jack while loads remain in the elevated position.
- Unattended raised loads can cause instability hazards and potential accidents.

WARNING – Check Equipment Condition

- Operating damaged or defective equipment can lead to accidents and injuries.
- Do not operate a hand pallet jack until you have checked its condition, giving special attention to the wheels, handle, forks, lift and lower control, and brakes (if equipped).
- Avoid using equipment that shows signs of damage, wear, or malfunction.
- Operating damaged or defective equipment can cause equipment failure and accidents.

WARNING – Report Defects Immediately

- Report defects immediately and do not delay.
- Do not continue to use equipment with known defects or delaying maintenance reports.
- Unreported or delayed defect reporting can cause accidents and equipment failure.

WARNING – Use Qualified Repair Personnel

- Improper repairs can compromise equipment safety and function.
- Do not attempt repairs unless you are trained and authorized to do so.
- Avoid DIY repairs or modifications without proper training and authorization.
- Improper repairs may cause safety compromises and equipment malfunction.

OPERATIONAL SAFETY

WARNING – Maintain Safe Operating Position

- Operate hand pallet jacks only from positions that do not place any part of your body in the lift mechanism or under the forks or load. Do not carry passengers.
- Avoid placing any body parts near moving mechanisms or under loads; never allow passengers on the equipment.
- Improper positioning or carrying passengers may cause crushing injuries and accidents.

WARNING – Handle Stable Loads Only

- Unstable loads can shift and cause serious injuries. Do not handle unstable or loosely stacked loads.
- Use extra care when handling long, high, or wide loads to avoid losing the load or striking overhead obstructions or persons.
- Avoid transporting loads that are not properly secured, stacked, or within safe dimensional limits.
- Handling unstable or oversized loads may cause load shifting accidents and injuries.

WARNING – Distribute Load Properly

- Position the center of the load at the midway point between the forks.
- Avoid placing loads that create uneven weight distribution or center of gravity outside the recommended zone.
- Improper load distribution can cause instability and equipment stress.

WARNING – Match Fork Length to Pallet

- Make sure that the length of the forks matches the size of the pallet.
- Avoid using forks that are too short or too long for the pallet being handled.
- Mismatched fork length can cause load instability and accidents.

WARNING – Lower Forks When Not in Use

- Raised forks create tripping hazards and equipment damage risks.
- Lower the forks to lowest height when the jack is not to be used.
- Avoid leaving forks in raised position when equipment is parked or unattended.
- Leaving forks in the raised position can cause tripping hazards and equipment damage.

SURFACE AND GRADE RESTRICTIONS

WARNING – Use on Appropriate Surfaces

- Hand pallet jacks are designed for level, flat, and hard surfaces only. Operate hand pallet jacks only on level, flat, and hard surfaces.
- If ramps are encountered, the jack can be stopped by lowering the load to the ground.
- Avoid using the unit on uneven, soft, or inappropriate surface conditions.
- Loss of control and accidents may occur from operating on inappropriate surfaces.

WARNING – Ensure Operator Capability

- Hand pallet jacks require adequate physical capability for safe operation.
- Since these are manually operated units, they should only be used by operators that are physically capable of safely handling the jacks with a load.
- Avoid allowing operators who lack the physical strength or capability to safely control loaded equipment to operate the hand pallet jack.
- Accidents and injuries may occur from operators lacking adequate physical capability for safe operation.

WARNING – Exercise Caution on Grades

- Operating on grades with heavy loads can result in loss of control.
- If the jack must be stopped on a grade, care should be taken so that no part of your body is near or under the load.
- It is important not to operate a hand pallet jack on a grade with loads that are too heavy to be safely handled by the operator.
- Avoid operating on grades with loads beyond the operator's physical capability to safely control.
- Loss of control and crushing injuries may occur from operating beyond operator capabilities on grades.

Initial Setup

1. **Inspect the Packaging:** Examine the unit's packaging for any signs of damage that may have occurred during shipping.
2. **Unboxing:** Open the packaging with care.
 - Use scissors or a box cutter to cut open the box.
 - Ensure you do not damage the unit or its components.
 - If any damage is noticed, contact customer service immediately.
3. **Missing Components:** Confirm that all components are included. Contact customer service immediately if any components are missing.

Assembly

Tools Required

- Hammer
- Flathead screwdriver
- 14 mm wrench}
- C-clamp (optional, for spring pin adjustment)

Step-by-Step Assembly

Step 1: Safety Pin Check

Note: Before assembly, check that the spring safety pin is properly seated in the holes on both sides of the pump housing (Fig. 1).

- If the pin is not seated correctly, use a C-clamp to gently compress the pump stem (Fig. 2).
- Once tension is relieved, reposition the safety pin into the holes, then slowly remove the clamp.

Step 2: Insert Handle Pin (One Side Only)

- Align the handle pin with the holes above the safety pin on the pump housing (Fig. 3).
- Without attaching the handle yet, use a hammer to drive one spring pin into one side of the handle pin.

Step 3: Check Handle Pin Orientation

- The center hole on the handle pin must face straight up and down (Fig. 4).
- If the hole runs horizontally, remove the pin and insert it from the opposite side.

Note: The chain for the up / down lever passes through this center hole. If installed incorrectly, the chain will twist into an "S" shape, causing tension and malfunction.

Step 4: Position the Chain

- Feed the chain around the outside of the piston stem roller (Fig. 5).

Note: If the chain is left in its normal position (inside the roller), you will not be able to insert the handle pin properly and it may cause chain breakage.

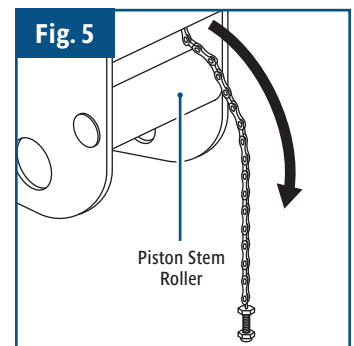
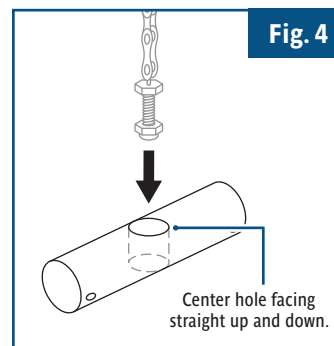
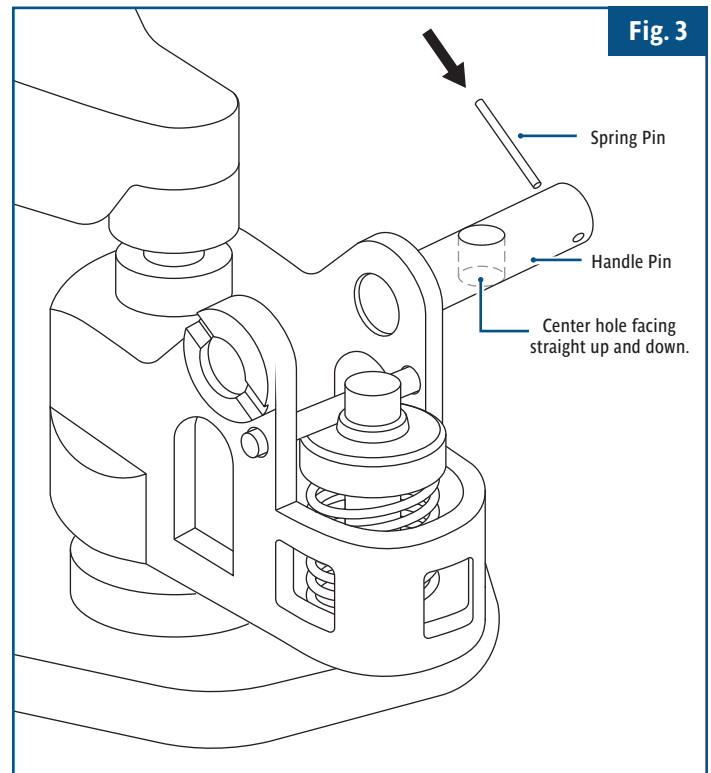
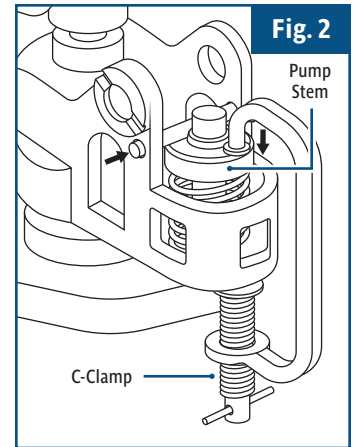
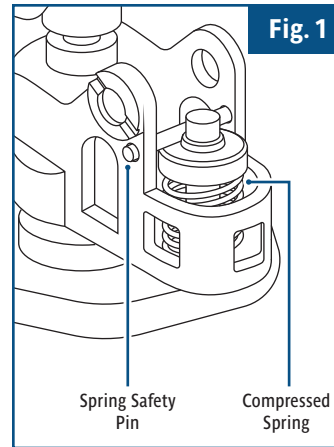


Fig. 6

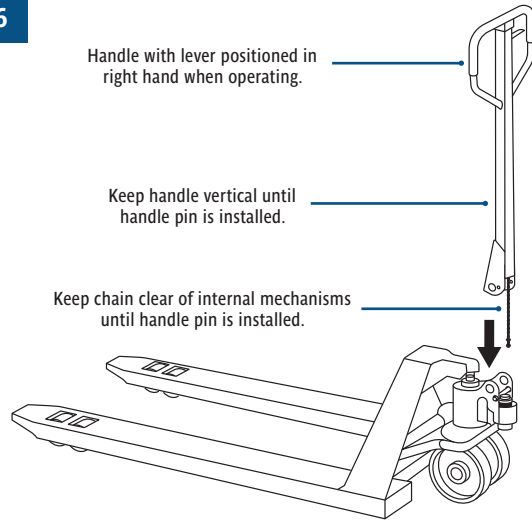
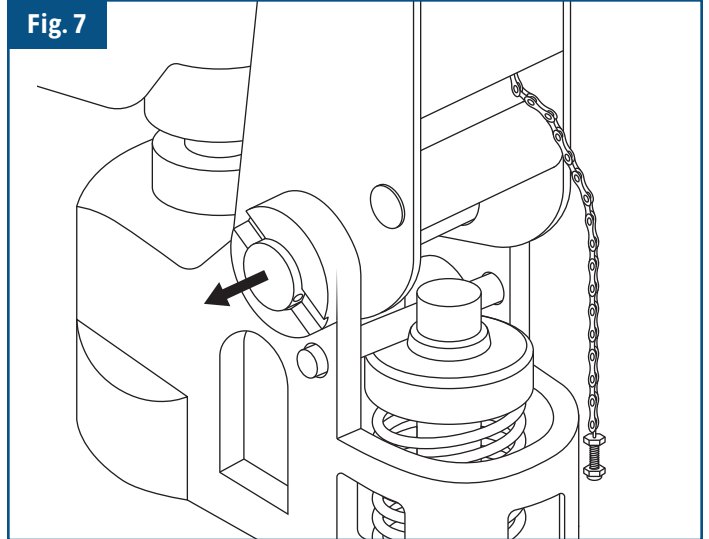


Fig. 7



Step 5: Install the Handle

- Align the handle's holes with the pump housing holes (Fig. 6).
- Insert the handle pin (with the correct orientation) through the handle and pump housing on the other side (Fig. 7).

Step 6: Verify Handle Pin Position

- Make sure the handle pin is fully inserted and visible on both sides of the handle (Fig. 7).

Step 7: Remove Safety Pin (Fig. 8)

- Gently pull down on the handle to release tension on the spring pin.
- Carefully remove the spring safety pin.

Step 8: Feed Chain Through Handle Pin

- Feed the chain and nut end through the center hole of the handle pin (Fig. 9).

Note: Set the up / down lever to its lowest position to make this easier.

Step 9: Check Chain Movement

- Ensure the chain moves freely and is not obstructed inside the housing.

Step 10: Attach Chain to Valve Cam

- Using both hands, press the valve cam to raise the internal hook (Fig. 9).
- Feed the end of the chain into the hook inside the pump housing (Fig. 10).
- Adjust the nut/bolt assembly to be snug/hand tight, sandwiching the internal hook between them.

Fig. 8

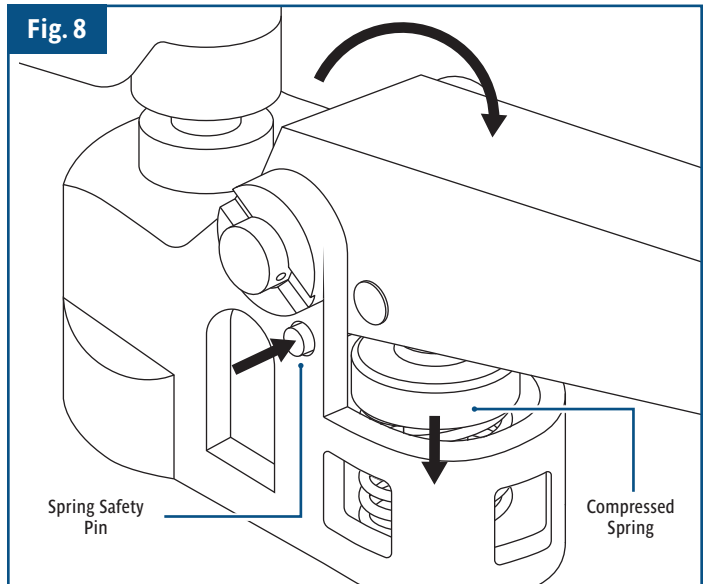


Fig. 9

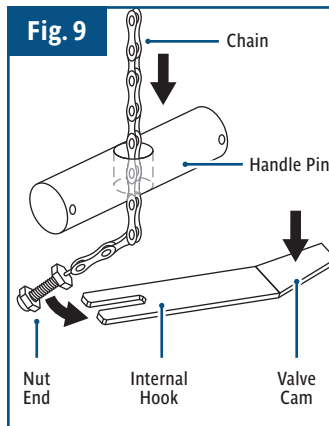
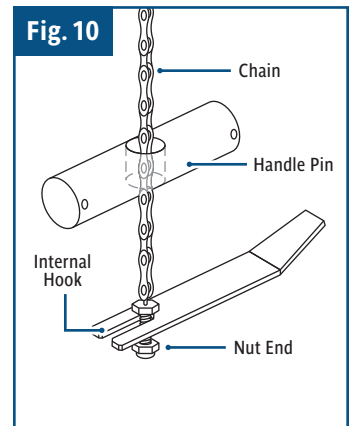


Fig. 10



Step 11: Adjust Neutral Position (Fig. 11)

1. Pump the handle a few times to raise the forks.
 2. Set the up / down lever to its NEUTRAL position.
 3. Use a 14 mm wrench and flathead screwdriver to adjust the valve cam.
- In NEUTRAL, the forks should not raise or lower when the handle is pumped.

Step 12: Final Check

- Fully test the pallet jack:
- Pump the handle with full strokes to prime the hydraulic system.
- Check the up / down lever—especially in the lowest position (this puts maximum tension on the chain).
- If everything works correctly, use a hammer to drive in the second spring pin on the handle pin (Fig. 12).

Assembly Complete

- Double-check all components before use.
- Ensure smooth operation of the handle, chain, and lever mechanisms.
- If anything feels tight or unresponsive, recheck alignment and chain routing.

Fig. 11

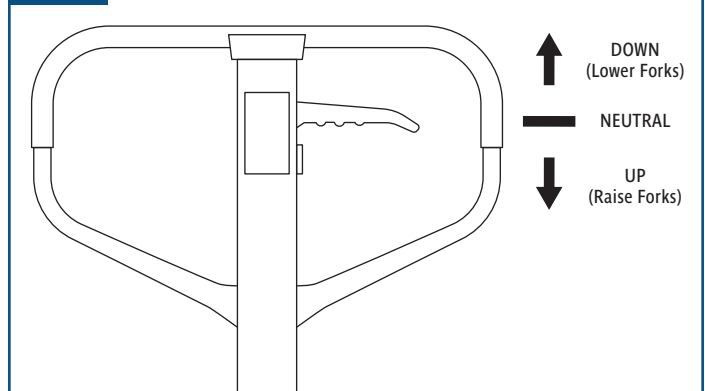
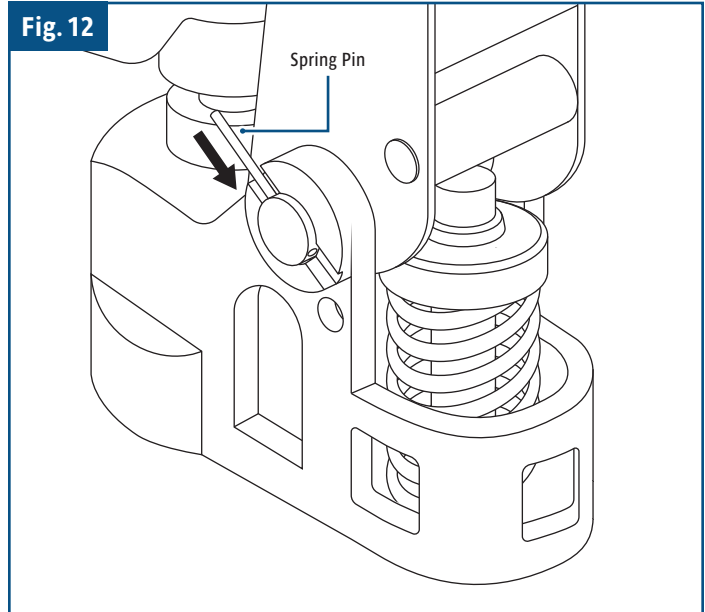


Fig. 12



Operation

Load Lifting Process

- **Lower Forks:** Position forks to lowest position before slotting into a pallet. To lower forks, pull the lever upwards and hold until the forks are lowered completely.
- **Insert Forks Properly:** Place forks under load and make sure the wheels are exposed to the floor. It may take some adjustments for proper lift.
- **Set Lever to UP:** Move lever down from neutral, center position, to lift function in the down position.
- **Pump to Desired Height:** Using the handle as a pump, pivot the handle up and down until the load moves freely.

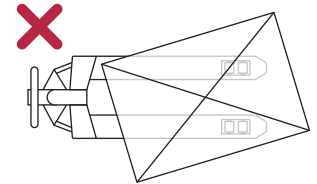
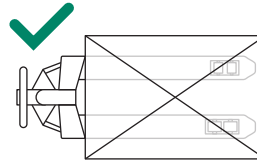
Load Moving Process

- **Set Lever to NEUTRAL:** Place lever in NEUTRAL position (center notch of slot) for safe transport.
- **Transport Load Safely:** Pull or push pallet jack to desired location while maintaining control.

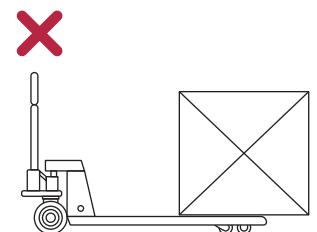
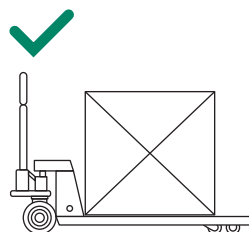
Load Lowering Process

- **Set Lever to DOWN:** Pull lever to DOWN position (upper part of slot) to enable lowering function.
- **Remove Forks Safely:** Pull forks away from load after lowering to ground level.

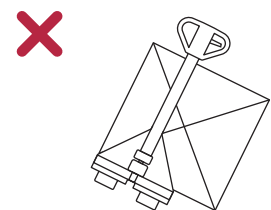
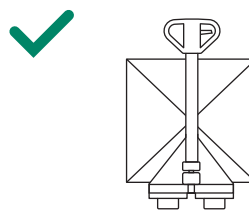
Keep load straight and parallel to the forks at all times.



Keep load tight against the body of the pallet jack.



Keep load centered with the handle to avoid tipping.



Maintenance

- **Clogged Valve:** Clean relief valve when it becomes clogged with debris and fails to work properly.
- **Flush Hydraulic System:** Pump handle quickly to raise pallet jack to full extent for system flushing.
- **Complete Flush Cycle:** Quickly release pumping action to complete hydraulic system flush and clear debris.

Troubleshooting

Problem	Possible Cause	Solution
Hydraulic unit does not lift.	Oil low.	Make sure there is no oil leakage from valve and add oil.
	Steel ball not seated in hydraulic unit.	Follow instructions in Maintenance section.
	Worn O-ring in ram cylinder.	Consult authorized service center.
Once lifted, jack lowers by itself.	Steel ball not sealed in hydraulic unit.	Contact customer service.
	Worn O-ring in ram cylinder.	Follow instructions in Maintenance section.
	Relief valve not sealed properly.	Follow instructions in Maintenance section.
	Relief valve not adjusted properly.	Reload jack within load capacity and adjust valve by pressure adjustment screw.
	Oil leakage from each valve.	Tighten plug of each valve.
Fork does not lower.	Cam broken.	Replace cam chain.
	UP-DOWN cam nut out of adjustment.	Refer to Assembly section to ensure unit is properly assembled.
	Broken fork rods and linkage.	Replace broken parts.
Lever does not set at NEUTRAL position.	UP-DOWN cam nut out of adjustment.	Refer to Assembly section to ensure unit is properly assembled.

Replacement Parts

Item #	Description
48110100C	Replacement Handle
48110113S	Replacement Seal Rings
48110113W	Wheel Replacement Kit
48120300A	Replacement Pump Assembly