



LoPro – Pushback Operation Instructions

⚠ WARNING

Failure to read and follow all instructions in this manual can result in serious injuries or death.

⚠ ADVERTENCIA

Falta de leer y seguir todas las instrucciones en este manual puede ocasionar graves lesiones o la muerte. Si no se puede leer este manual, por favor notificar a su supervisor y solicitar una traducción.

A. Standard Cart Loading Procedures

1) Inspect Pallet Condition

- **Examine the bottom of the pallet before placing in the system. All boards should be free of splits and cracks, with no broken boards, and no fasteners exposed. Only pallet configurations or styles approved for use with the system by Advance should be used in the system. If the pallet is defective in any way, place the load on an acceptable pallet before loading into the system. There should not be any overhang from a pallet which could cause the cart to hang up (Slip sheets, carton flaps, improperly stacked boxes or cartons, loose shrink wrap, etc.). All boxes or other items must be properly secured (shrink wrapped) or unitized with the pallet. **WARNING! Failure to inspect and prepare pallets as instructed could cause improper operation of the Pushback System resulting in loose boxes being jarred from the pallet and falling, resulting in an injury or death****

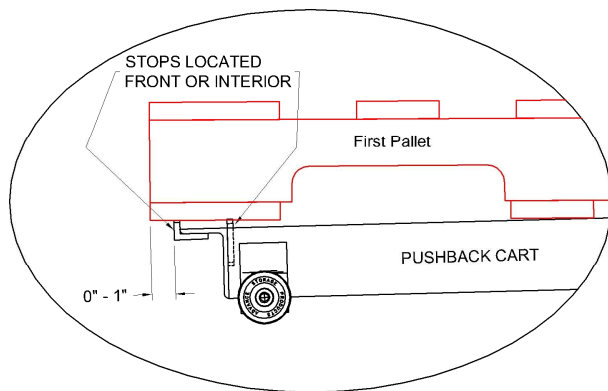
2) First Pallet Insertion

- **Lift the pallet approximately 3 to 4 inches above the top cart, centering the pallet over the cart, and tilting the forks of the lift truck slightly rearward (see diagram) to match the slope of the system.**

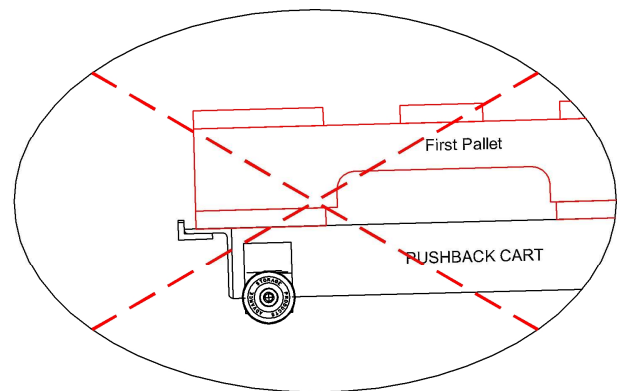


- Insert the pallet into the system until it contacts the rear vertical support of the top cart.
- Lower the pallet slowly onto the cart. The operator should locate the pallet flush with the front of the cart or overhang the front of the cart by no more than 1". In this position the pallet front bottom board will rest on top of the serrated skid stop. If the pallet is placed behind the stop, the next pallet may catch on the stop when inserted. Do not drop the pallet onto the cart. The bottom boards may break. **WARNING! Loose boxes can be jarred from the pallet and fall, resulting in an injury or death.**

Correct Pallet Placement



NOT correct Pallet Placement



- Remove the forks from the pallet slowly. Do not tilt the forks forward. The system slopes uphill and this action may damage the pallet or the pushback system. **WARNING! Loose boxes can be jarred from the pallet and fall, resulting in an injury or death.**

3) Inserting Additional Pallets

- Insert the remaining pallets into the system by the following steps:
 - **Step 1: Lift the pallet to the system as before, but raise it to a position where the bottom of the pallet is positioned to contact the pallet already loaded about 4 inches above the cart. This allows**

the lift truck operator to push pallet against pallet eliminating cart loading hang-up. (fig. 1)

- **Step 2: Push the pallet into system until the front of the pallet is flush with the front of the cart or overhanging the front of the cart by no more than 1". (fig. 2)**
- **Step 3: Slowly lower the pallet into position and remove the forks from the pallet as above. (fig.2)**

Back of pallet

Front of pallet

Correct: Pallet will slide down correctly to next cart or bed frame.

Fig. 1

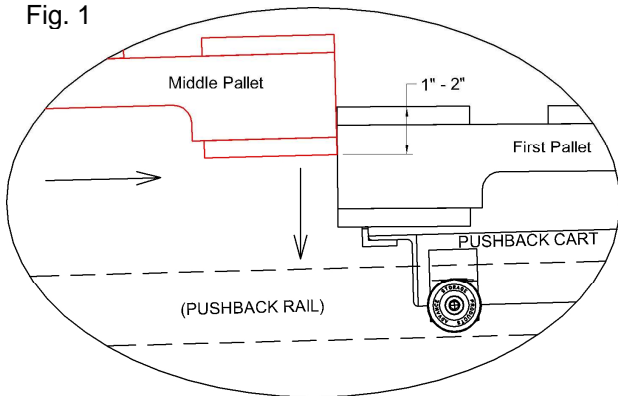
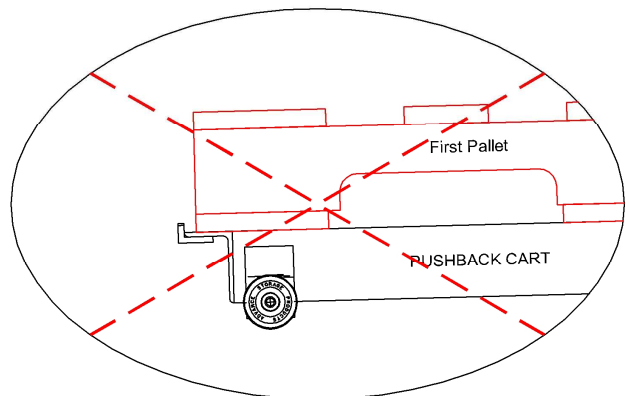
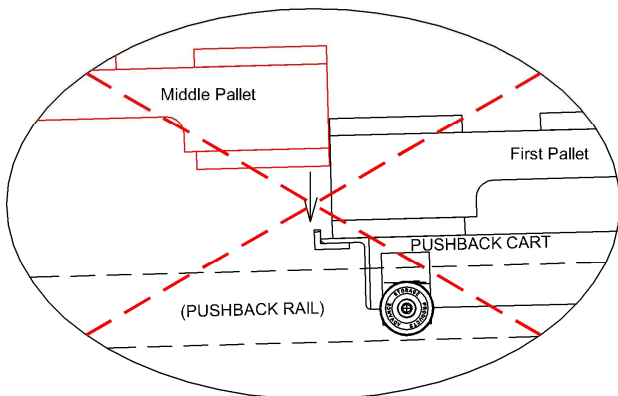
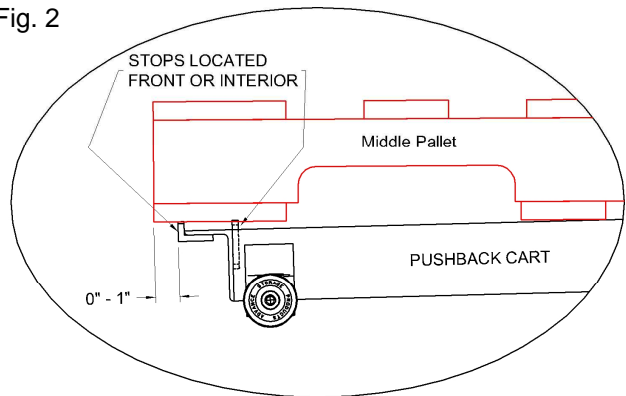


Fig. 2



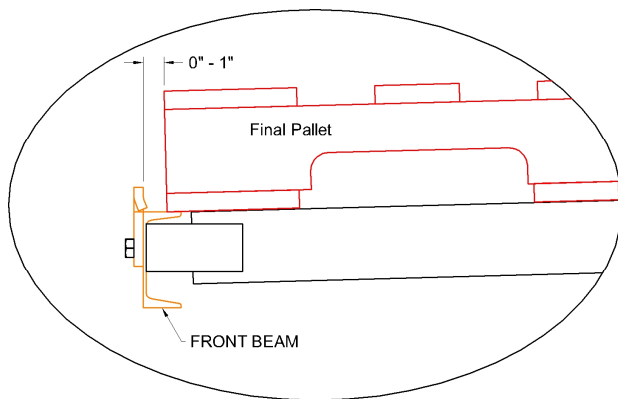
NOT Correct: If first pallet was loaded improperly, pallet will slide down on top of aft cart, causing double loading and additional *forward tilt*.

- **Do not side shift the pallet while it is resting on the cart, as this may damage the system. **WARNING! Loose boxes can be jarred from the pallet and fall, resulting in an injury or death.****

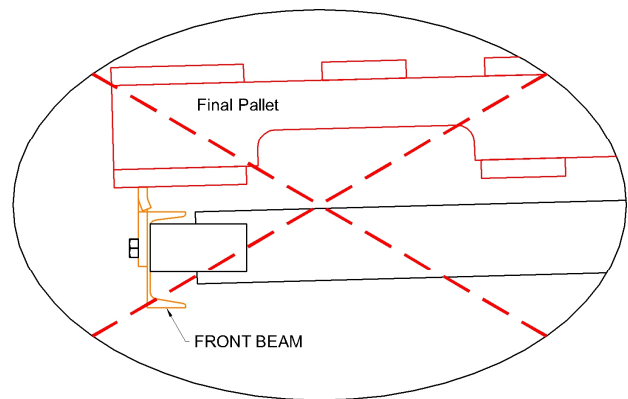
- If you have a problem adding the middle pallets because the first pallet is improperly placed, do not add any additional pallets until the first one is properly placed, see step 2 on page 3 for first pallet placement instructions.
- If there is any resistance while loading, stop and find out what is causing the issue before proceeding. Make sure the pallet is properly centered, not hitting the rack system, not hitting the cart system, etc. **WARNING! Loose boxes can be jarred from the pallet and fall, resulting in an injury or death.** If necessary, back out, reposition the load, and start again.

4) Inserting Final Pallet

- The final pallet will rest on the pushback system rails. If a beam pallet stop is attached to the load beam, the pallet should be placed behind the beam pallet stop (not on top of it).



Correct



Not correct

5) Cart Unloading Procedures

- Raise the forks up to the level of the pallet to be unloaded. Tilt the forks slightly rearward to match the slope of the system, and insert the forks slowly into the pallet.
- **OPERATOR CONTROLLED REMOVAL.** When using a pushback system, the operator must always control the speed of all of the loads in the



system. Never allow the pallets to roll forward in an uncontrolled manner. Control the speed with the lift truck. The appropriate speed to remove a pallet from the system is never faster than the speed of the remaining pallets flowing down the system. If the remaining pallets are allowed to flow faster than “Controlled Removal” (i.e. by quickly exiting the system), the remaining loads may impact the front of the Pushback System hard enough to dislodge the product. **WARNING! Loose boxes can be jarred from the pallet and fall, resulting in an injury or death.** It is critical to use the forklift and always practice “OPERATOR CONTROLLED REMOVAL”.

- Raise the pallet about 4 inches off the cart, and then slowly back out of the system. Be sure to watch the rear of the forklift as to not run into obstructions. **WARNING! Loose boxes can be jarred from the pallet and fall, resulting in an injury or death.** Once clear of the system, lower the pallet safely and exit the area.

6) Procedure should the carts jam in the system:

- Carts may become jammed in the system due to these or other causes:
 - Rear pallet misalignment
 - Product overhang from the pallet
 - Debris on the pushback rails
 - Shrink wrap around the wheels
 - Improper stacking on the rear pallet position
 - Adjacent pallet misalignment

Never climb into the lane in front of the jammed pallet. **WARNING! The pallets may release at any time without warning, and may result in the user being struck by the pallet, or thrown from the rack resulting in serious injury or death.**

- Remove all pallets with a lift truck from the adjacent pushback lane.
- Position a lift truck to hold the jammed lane in position while repairs are made.



- **With a man-lift, enter into the adjacent open lane and free the rear position load, or unload the product from the jammed pallet to safely remove it. Follow safety instructions regarding the man-lift usage. If the person needs to be tied off to a separate structure, make sure that he is properly tethered to the racking. We recommend tethering to the load beams and vertical upright post. **WARNING! Do not tether to the upright bracing, because these supports may not be sufficient to support a person. It could result in the user falling, resulting in an injury or death. Do not step in front of the jammed load. WARNING! The pallets may release at any time without warning, and may result in the user being struck by the pallet, or thrown from the rack resulting in serious injury or death.****
- **Unload the jammed lane with a lift truck.**
- **Check the pushback rails for debris and clean as necessary.**

B) Special Applications

1) Pushback Systems in Freezers

- **All pushback systems in a freezer are required to have beam pallet stops installed to prevent pallets from sliding into the aisle. **WARNING! Failure to install beam pallet stops may cause the pallet to slide forward off of the cart and cause serious injury or death.****

2) Case Picking from Pushback Systems

- **Required Pushback System Modifications:**
 - **In all cases Advance must be notified by the customer when the customer plans to case pick product from a pushback system, either in an existing system or a new system. This notification must occur before picking actually begins, and preferably before a new system is quoted. Beam pallet stops must be installed to make the system safe. Beam pallet stops must be added to each level where picking is to happen. In normal full pallet operations the**



friction of the front pallet is sufficient to resist the back pressure from the rear pallets so that the pallet will not slide forward. **WARNING! If product is removed from a pallet and no pallet stops are in place, it may cause empty pallets to slide forward pushed by the loaded pallets behind them, striking or pinning the user.** Cases can be removed from the front pallet in 2 & 3 deep systems as long as beam mounted pallet stops are in place to hold the pallet in position.

- **Pitch on 2 deep systems will remain standard. Pitch on 3 deep systems should be reduced to 3/16" per foot to reduce pallet back pressure. Advance does not recommend case picking from Four (4), Five (5) and Six (6) Deep Systems. WARNING! Failure to properly prepare a system for case picking may result in pallets sliding forward pushed by the loaded pallets behind them striking or pinning the user.**
- **Removing an empty pallet from a picking location:**
 - **Fork Lift removal when Case Picking**
 - ✓ **Advance recommends removal of empty pallets by lift truck to prevent personal injury. When removing the empty pallet, lift the pallet slowly to a point above the pallet stop. When removing it from the system, use the lift truck to control the speed of the descending pallets ("controlled removal"). WARNING! Do not let the descending pallets roll forward in an uncontrolled manner as loose boxes can be jarred from the pallet and fall, resulting in an injury or death.**
 - **Hand removal of empty pallets when Case Picking:**
 - ✓ **Insure the lane behind the operator is completely clear of any obstructions or forklifts. WARNING! If a lift truck or other obstruction is directly behind the operator the empty pallet can potentially pin the operator (refer to the attached drawing).**
 - ✓ **To remove the empty pallet (refer to attached drawing): lift the front of the empty pallet so that it is above the pallet stop; gradually walk backward into the aisle letting the empty pallet**



control the speed of the descending load. **WARNING! Do not let the loads roll freely, as it could strike or pin the user.** Gradually ease the loaded pallet forward until it is with 12" of the front load beam and pallet stop; at this point it is acceptable to pull the empty pallet completely out of the system.

- ✓ **WARNING! If the cart becomes stuck, never step into the lane to pull it forward. Use either a hook device or a forklift to free the cart and allow it to descend in a controlled manner. Failure to do so could result in the load suddenly releasing without warning, causing the user to be struck or pinned.**

