SAIA LTL Freight

PACKAGING GUIDE FOR SHIPPERS

CLAIMS-FREE SERVICE TAKES A TEAM EFFORT.

How to properly package freight and prevent damage in transit

In the LTL shipping environment, freight is transported across regions or across the country through a systematic network of docks, terminals and trailers. While Saia is always focused on streamlining operations and minimizing the handling of freight in our care, it's sometimes unavoidable that shipments will be handled multiple times —requiring proper packaging, labeling and processes to be more important than ever.

WHAT WE'RE DOING TO PROTECT YOUR SHIPMENTS

You can count on Saia to do everything in our power to load your freight with care. Here are just a few examples of what we're doing to help ensure safe, on-time, claims-free service:

IN OUR TRAILERS

- Cargo straps are used in all trailers to secure freight from movement during transit.
- Logistics posts are used in trailers to prevent shipments from being double-stacked.
- Inflatable air bags are inserted in side-to-side gaps to prevent movement.
- Dunnage is used to protect your shipment.

ON THE ROAD

- Saia hires only the safest drivers to protect our customers' freight on the road.
- More than 300 trainers take all drivers through extensive training.
- Weekly pre-shift meetings held for all dock and driver employees.

AT THE TERMINAL

- Using proprietary tablets and specialized software, our dockworkers scan every shipment they handle — making every employee accountable and part of the supply chain solution for your shipment.
- Our supervisors inspect, photograph and document every trailer at midpoint and closing — before it leaves our facility.
- All employees involved in handling freight are trained by dock mentors.
- Dockworkers' tablets load shipper-specific handling instructions when a PRO number is entered.
- Consignee-specific handling instructions are also loaded into the library of instructions for team members to help your freight arrive on-time and per your instructions.

WHAT CAN YOU DO TO HELP PROTECT YOUR SHIPMENTS?

While Saia remains committed to ensuring the right people, processes and technology are in place to prevent damaged or misplaced freight, there's little we can do to prevent the necessary handling, or control the often unpredictable environment of highway driving.

COMMON HAZARDS OF DISTRIBUTION

HAZARDS

- Packages shifting on the pallet, if not properly secured
- Compression due to wrong packaging, improper stack pattern, excessive void space and/or excessive weight
- Shock and vibration caused by normal rigors of over-the-road transportation
- High and low humidity resulting in condensation or corrosion, weakening corrugated fiber boxes by as much as 60%, which limits stacking strength
- Temperature extremes, as trailers for general commodities are not climate-controlled
- Environmental exposures such as dirt, dust and other contaminants

With these potential hazards in mind, shippers can play a significant role in ensuring smooth transit through proper packaging and clear, secure labeling. This guide will walk you through some key best practices for preparing your freight for LTL shipping.

COMMITTED TO CLAIMS-FREE SERVICE

Since the creation of our quality assurance program, Saia has reduced overall claims by more than 35% — and today, we're proud to average a 99%+ claims-free service level.

PROPER PACKAGING FROM THE START

At the root of every consideration about proper packaging is how individual products have been initially packaged for consumers — that is, how the consumer will take the product off the shelf. This can play a major role in the appearance and condition of the product after shipping.

PRODUCT PACKAGING STANDARDS

Every day, our goal at Saia is to deliver each shipment on-time and damage-free. In order for us to succeed, each shipment must be properly packaged to withstand the normal rigors of transport. When followed, these guidelines will help us achieve our goal of claims-free service.

Across the transportation industry, standard packaging guidelines are critical to ensuring safe transportation of freight when handled with ordinary care. These standards are set by the National Motor Freight Classification (NMFC), which is published by the National Motor Freight Traffic Association (NMFTA). The NMFC sets an internationally recognized minimum standard for packaging requirements to "ensure that goods are adequately protected and can be handled and stowed in a manner that is reasonably safe and practicable so as to withstand the normal rigors of the less-than-truckload environment."

These packaging provisions fall into three basic categories:

- General packing requirements for commonly used packages, such as bags, crates, drums and fiberboard boxes
- Packaging for specific commodities, which are essentially exceptions to the general packaging definitions and specifications for unique protection needs
- Performance-based packaging, allowing new package designs to be used immediately upon the successful completion of NMFC laboratory tests

Saia encourages all of our customers to refer to the NMFC for a detailed list of all packaging requirements. To ensure your packaging meets NMFC standards, there are dozens of testing labs that work with manufacturers to design and test packaging. For a list of options, visit the NMFTA's website at www.nmfta.org and find the "Packaging" page within the NMFC section.

BOXES OR CRATES?

Beyond the way an individual product is packaged, it's important to determine how best to ship the product itself. The two most common types of shipping containers are boxes and crates. In most cases, the size and weight of the item(s) being shipped will determine the appropriate method.

Generally speaking, crates are ideal for large singular items in need of additional stability and protection. More specific guidelines are included below, but be sure to refer to the NMFC guidelines for full details.

INNER PACKAGING

Inner packaging is just as important as outer packaging. For most commodities, there will be specific requirements for inner packaging listed in the NMFC, but as a general rule, protective packaging forms or other materials must be used where necessary to afford adequate protection against damage to the commodity being shipped. Options include:

- Bubble wrap
- Corner guards
- Foam cushioning
- Honeycomb
- Loose fill
- Paper pads
- Air pillows
- Corner posts
- Styrofoam peanuts
- Plastic bags
- Form-fitting Styrofoam and fiberboard

BOXES

Corrugated Fiberboard Box (CFB) type	Max weight/ Max outside dimension (length, width & depth added)
Singlewall	120 lbs 105"
Doublewall	180 lbs 120"
Triplewall	300 lbs 125"
All boxes must comply with item 222 in the NMFC and bear a legible certificate of a box manufacturer on the outside surface.	

CRATES

When the weight of the item exceeds 300 lbs and/ or the size of the item does not fit within the max allowable size per the NMFC, a crate should be used.

While crates can be constructed from many different materials or a combination of materials, if the weight of the commodity exceeds 500 lbs, a standard wooden crate must be used.

According to the NMFC guidelines, wooden crates must be constructed as follows:

(1) Lumber must be seasoned, reasonably sound, and free from cross grain and knots which would interfere with nailing or stapling, or knots which are greater than 1/3 the width of the lumber.

(2) Crates must be constructed with outer framework consisting of upright and horizontal members and with additional diagonal upright and horizontal members where necessary to provide proper strength and rigidity.

(3) Crates must be constructed with three-way locking corners, where members will be joined with nails or staples driven into the side grain of joining members.

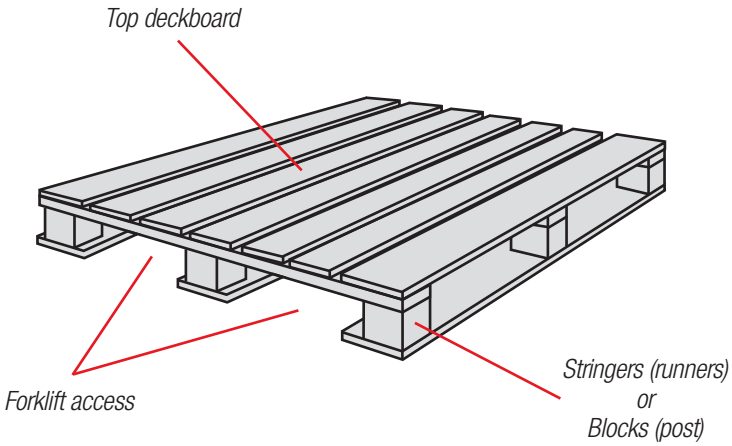
PALLETS, SKIDS AND PLATFORMS

Pallets, lift truck skids and platforms are portable, generally having rectangular or square dimensions, with the purpose of supporting and transporting freight.

Top decks (surfaces) provide a flat load-bearing area and are attached to and supported by multiple stringers (runners) or blocks (posts) sufficient to support the load. All must be of sufficient design, size and strength to support a double-tiered load of equal weight and distribution, and to prevent underside damage to the article(s) caused by forklift handling equipment. All pallets must have good access for forklifts in all directions. If there is limited forklift access for any reason, it must be made very clear by the graphics on the packaging.

Pallets should be constructed so that there is no overhang, and it is critical that pallets longer than 6' completely support the entire length of the freight. Poorly constructed pallets, skids and platforms can further deteriorate in the shipping process.

Non-lift truck skids are longitudinal runners made of wood or metal that are firmly attached to the bottom of an article being shipped, allowing the skid and attached article to be handled as a unit. As with other methods, the design and construction of the skid, as well as the materials used, must be of sufficient strength and dimensions.



REMEMBER: *If there is limited forklift access for any reason, it must be made very clear by the graphics on the packaging.*

PALLETIZING AND STACKING

There are two acceptable methods for stacking boxes: column stack and interlock stack.

Be sure to stack boxes with the flap side (the side of the box that's taped or glued shut) facing up. This ensures the corrugation can support more weight from boxes stacked above. For assistance in determining the better stacking method for your freight, contact your Saia account executive.

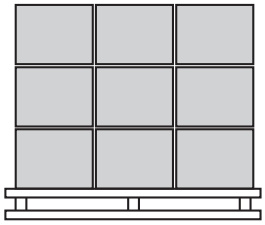
WRAPPING PALLETS

Keeping shipments secure on the pallet often comes down to how they're wrapped. The most effective means of securing cartons to a pallet is with stretch wrap. Not to be confused with shrink wrap (which is wrapped loosely and shrinks tightly with heat), stretch wrap (or stretch film) is a low-density polyethylene plastic film that is highly stretchable to wrap around items. The elastic recover keeps the items tightly bound.

Stretch wrap comes in a variety of widths and thicknesses. The more weight and height on the pallet, the heavier the thickness should be. A stretch wrap machine can make wrapping pallets more efficient and effective, but when hand-wrapping, Saia recommends the following steps:

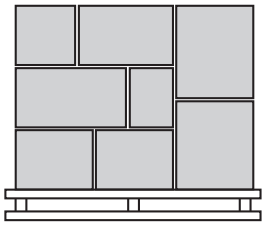
1. Tie the end of the stretch wrap around a pallet corner for an anchor. For additional stability, corner boards should be placed on each corner.
2. Begin walking around the load and tightly securing the wrap across both the pallet and the load. Make sure the stretch wrap grasps the corners of the pallet. Wrap the bottom of the load three or more times.
3. Begin wrapping up the palletized load. Each new layer should overlap the last by 50%. Be liberal with the stretch wrap — apply more layers depending on the weight of the products on the pallet.
4. Once you have reached the top of the load, layer the stretch film so that it pulls down on the product, reducing the chance of load shifting.
5. Begin working your way back down the load, again overlapping each layer by 50%.
6. Stretch wrap the pallet and bottom product at least two more times.
7. Cut the stretch wrap from the roll and secure it against the side of the load by pressing it firmly so that it sticks.

REMEMBER: *Not using enough wrap or applying it incorrectly can result in the wrap shaking loose, causing the potential for damaged or misplaced freight.*



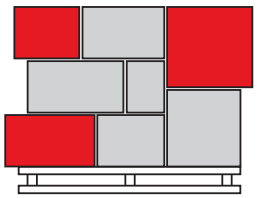
COLUMN STACK

Probably the most common, column stack provides the most stacking strength. Lab tests have established that vertical edges (corners) of a corrugated container contributes approximately two-thirds of the compression strength of the box. For this reason, column stacking is recommended unless there are stability issues.



INTERLOCKING STACK

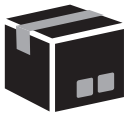
One of the problems when stacking in a vertical configuration is keeping the load intact during transit. One way to prevent this is to interlock the boxes. It will increase the stability but can also destroy up to 50% of the compression strength.



REMEMBER: *Regardless of the method used, there should be no pallet overhang. Allowing cartons to overhang the pallet edge not only reduces compression strength up to 40%, but also exposes the cartons to undesirable impact and damage during normal handling and transportation.*

SECURE ATTACHMENT

The most common cause of lost freight is when labels come off. Securely attached labels or tags can prevent this. Labels must be securely attached with glue or equally good adhesive or metal straps, while tags must be made of cloth, leather, metal or tagboard (See NMFC Item 580 for more detail).



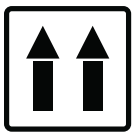
CLEAR, SECURE LABELING

Proper labeling not only helps carriers ensure freight is routed correctly, but it also communicates if your cargo should be handled in a specific way. Clear communication is critical — be sure to remove or completely mark out old shipping and PRO number labels, keeping in mind that dockworkers are handling hundreds of pallets per shift.

Make sure every palletized/skidded unit, bundle or loose piece is clearly labeled with the shipper and consignee name and address, along with any needed special handling or precautionary markings (See NMFC Items 580 and 682 for full details).

Some of the most common precautionary markings include:

"FRAGILE – HANDLE WITH CARE"
for packages containing articles such as glass or earthenware



DIRECTIONAL ARROWS
to indicate that a specific orientation must be maintained

"TOP HEAVY"
for articles which exhibit a high center of gravity in their normal orientation

"PROTECT FROM FREEZING"
for freight that must be protected from freezing in the winter

As per NMFC Item 580 Sec 2, there are different options for labeling freight with special handling requirements. Regardless of what label(s) are used, it's important to remember that markings must be clear and legible using inks or paints which are both waterproof, and they must contrast in color to the product. Boxes printed with advertising or other matter must provide a clear area no less than 10 square inches and must contrast in color from product packaging.

SAIA LTL Freight

Driven to a higher standard. *Yours.*

At Saia, we value our partnerships with all of our customers — and we hope this packaging guide is a helpful resource in the future. If you have any further questions about how we can work together to prevent claims, please contact your local account executive, or connect with our customer service team at 1-800-765-7242.

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