



Wood Panel Products

Operations Procedures



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1.0 Purpose

This document recommends wood panel products stockpiling and handling practices with the intention to minimize the risk of injury and product damage.

2.0 Overview

Squamish Terminals handles dimensional wood panel products (i.e., plywood/OSB, lumber, MDF) which comes in uniform packages and from time-to-time we handle custom cut wood panel products. The wood panel products we currently handle is delivered to us pre-packaged, pre-stickered (dunnage) and secured by with strapping. By following the appropriate procedures regarding storing and handling, wood panel products present a low risk of injury and remain free from damage. If units of wood panel products are handled or stored improperly, cargo damage can occur and stockpiles can collapse resulting in inefficient productivity and potential serious injuries.

The primary potential hazard in wood panel products stockpiling is pile instability. Some products, like wood panel products, are inherently stable. Other commodities, like pipe, have a rounded surface that allows it to roll. Regardless, employees must use extra caution at all times. Even a pile of the most stable product could fail if the center of gravity is high, off-center, or suddenly shifts. Consequently, these guidelines focus on maintaining pile stability and protecting a worker in the event the product moves unexpectedly. A risk analysis should be undertaken to determine if the potential for movement of a stockpile exists. If so, workers on foot in the vicinity should be protected from unintentional movement of the commodity. Of course, any strategies to prevent unintentional movement or collapse will also protect the product from damage.

3.0 Legislation and Literature

Part XIV of the Canadian Occupational Safety and Health (COSH) Regulations addresses Materials Handling, which requires operators of motorized equipment to be protected from falling objects (section 14.4), restricts non-authorized workers from a materials handling area (section 14.38), and most importantly, requires that, "...all materials...must be stored in a manner so that there is no risk to the health and safety of any employee" (section 14.50 (f)). Of course, COSH regulations, Part XIX, (Hazard Prevention Programs) require employers to implement and monitor a program to prevent hazards.

4.0 Receiving and Stockpiling

4.1. Dunnage

Typically made from wood, dunnage allows the commodity, when sitting on the ground, to be accessed by a lift truck, and separates tiers of commodities in a pile. Dunnage also unitizes and distributes the load of individual pieces. Each layer of dunnage must support the distributed load of all commodities above it, which might total many tonnes. Consequently, dunnage should be well supported and of substantial quality and size.

The wood panel products we currently handle is delivered to us pre-packaged, pre-stickered (dunnage) and secured by with strapping. Generally no additional dunnage is required.

Guidelines If Additional Dunnage Is Required.

- Dunnage should be free from rot, cracks, splits and crushed areas. Inspect regularly and dispose of any suspect material
- For structural strength, dunnage should be high quality structural grade and species. Dunnage should be #2 and better Hem/Fir, or ideally, #2 and better Douglas Fir. Avoid softwood, like cedar, and utility or landscape grade wood
- Each piece of dunnage should be level and fully supported by the ground or the commodities it rests upon. Fill voids with short longitudinal pieces so that the dunnage is in effective contact with the ground or commodity below it.

4.2. Stockpiling

Each commodity has its own safe stockpiling requirements. Generally, each tier above the bottom tier must be supported by a tier of equal or greater width. Piles must be level and straight.

All products are very susceptible to damage, be cautious when handling.

Products should be stored inside whenever possible due to their susceptibility to damage from moisture.

In the winter, piles or tiers should not be built upon snow or ice covered surfaces as the pile might slip or shift as the snow or ice melts.

Squamish Terminals stores pre-packaged and pre-stickered (dunnage) wood panel products by similar length (e.g., all 12-foot lengths go together). This is also how it is stored on the vessel when the wood panel products depart our site. Maximum height of a stockpile is six packages high. Step down back tier to a max of 4 packages high, as many as 6 packages high in between, and step down to four packages high in front.

Package dimensions vary by shipper and each shipper's wood panel products is stored separately on site.

Any odd shaped or uneven packages must be stored separately to avoid an uneven pile.

5.0 Cargo Description

Squamish Terminals handles dimensional wood panel products (i.e. plywood/OSB, lumber, MDF) which comes in uniform packages and from time-to-time we handle custom cut wood panel products. The wood panel products we currently handle is delivered to us pre-packaged, pre-stickered (dunnage) and secured by with strapping. Lengths and widths of each bundle will vary.

6.0 Receiving from Truck

6.1. Safety Precautions

- 1) **Speed Limit** - Is posted on North Wall of #2 Warehouse (20km/hr on site).
- 2) **Security** - Upon arrival all trucks are to report to our Security Guard to obtain a numbered card for first in, first out unloading/loading.
- 3) **Designated Parking** – The Security Guard will direct trucks to where to park. The parking information will be provided by the Operations Superintendent or Foreman. If it is the truck driver's 1st visit to SQT, they must also be provided with our Site Health & Safety Orientation brochure.
- 4) **Straps** – All truck drivers will be directed by the Foreman overseeing the operation when and where to undo their straps securing the load. When doing so, the truck driver is to be sure there is no one in the vicinity (especially on the other side of truck) when de-strapping.
- 5) **Getting In and Out of Truck** – All truck drivers must wear hi-visibility vest and steel toed boots when they are out of their truck on our site. They are to stay in the vicinity of their truck and are not permitted to wander around our site.
- 6) **Reversing Truck On Site** – If it is necessary for a truck driver to have to reverse their truck on our site, they are to make sure there is no one behind them as they back up. They must sound their horn intermittently while backing up. The use of a point person is necessary.
- 7) **During Truck Unloading** – Truck driver is to remain in the cab of their truck once all straps are removed and our crews begin unloading of wood panel products. Once wood panel products unloading is completed, the truck driver may come out of their cab to complete paperwork or any other requirements to complete the process (keeping in mind Step #5 above).

6.2. Preparation

Ensure all equipment is operational and ready, including:

- Various capacity forklifts with wood panel products forks
- Utility forklifts for moving dunnage (if required)
- Personal Protection Equipment (PPE) – minimum requirement includes safety vests and steel toed boots

Organize materials and documentation, including:

- Site Map (See **Appendix A** for Sample)
- Various Forms (Check Sheets, Damage Reports, Summaries)
- Wood panel products Receiving Line Up (distributed from Traffic).

6.3. Handling Wood panel products

- 1) Crew is dispatched to “starting area” and Foreman discuss wood panel products receiving operational plan with crew to ensure Longshore understand operation, safety and PPE.

Depending on volume of wood panel products being offloaded there may be several “starting areas”.

- 2) Staging area for truck checking and tagging is identified and set up.
- 3) Truck Driver directed where to go by Checker or Foreman.
- 4) Checker checks wood panel products and advises laborer which port tag to attach to each wood panel products package.
- 5) Truck Driver is directed to pull ahead and unstrap load (***must leave at least one strap per lift while truck is being checked and tagged and in transit on site***).
- 6) Drivers use forklifts to remove wood panel products from truck to their assigned “starting area” on site. Amount of wood panel products taken by forklift is generally two packages at a time. ***Bottom of top package must not be higher than back rest of forklift or it may slide back.***
- 7) Driver lifts wood panel products, tilts back and lowers load, delivers the wood panel products to their assigned “starting area”.
- 8) ***During truck unloading, truck driver must remain in cab of truck, no workers on foot in the unloading area.***
- 9) If Driver needs guidance to start stow the Foreman, Checker or Labourer will assist.
- 10) Squamish Terminals stores pre-packaged and pre-stickered (dunnage) wood panel products by similar length (e.g. all 12 foot lengths go together). This is also how it is stored on the vessel when the wood panel products departs our site. Maximum height of a stockpile is six packages high. Step down back tier to a max of 4 packages high, as many as 6 packages high in between, and step down to four packages high in front.
- 11) Package dimensions vary by shipper and each shipper’s wood panel products is stored separately on site.
- 12) Any odd shaped or uneven packages must be stored separately to avoid an uneven pile.

CAUTION TO CREW:

- Always stand to side of pile; no one should be standing in front or behind pile. If a crew member has to work in front or behind pile there should be no machines operating in the vicinity.

6.4. Checker Duties

The Checker performs the following duties for their gang/crew and records information on the Package Wood panel products Arrival Summary Check Sheet:

- Counts & Records wood panel products based on size, length and customer.
- Records Storage Location.
- Checks for broken, damaged or insufficient banding and has suspect bundles set aside.
- Record Any Damage.
- Report Any Damage (to Foreman proactively during shift to prevent further damage from occurring).
- Submit Check Sheet to Traffic Department.

Types of damage the Checker should look for includes, but is not limited to the following:

- Missing or broken pieces of wood panel products.
- Water damage
- Damaged or insufficient banding.

7.0 Delivery to Truck

7.1. Handling Wood panel products

- 1) Crew is dispatched to “starting area” and Foreman discuss wood panel products delivery operational plan with crew to ensure Longshore understand operation, safety and PPE. Depending on volume of wood panel products being loaded there may be several “starting areas”.
- 2) Truck Driver directed where to go by Checker or Foreman.
- 3) Checker checks wood panel products and advises drivers which product to load
- 4) Drivers use forklifts to remove wood panel products from bin to truck loading area on site.
- 5) Amount of wood panel products taken by forklift is generally two packages at a time. **Bottom of top package must not be higher than back rest of forklift or it may slide back.**
- 6) Driver lifts wood panel products, tilts back and lowers load, delivers the wood panel products to truck bed.
- 7) Truck is loaded as per drivers required specifications.
- 8) **During truck loading, truck driver must remain out of the bight, no workers on foot in the loading area.**
- 9) Truck Operator secures load prior to leaving site.

CAUTION

- If direction is to be given to the Forklift Operator it is to be given from a safe position.
- Truck Driver is not to be on deck of truck while loading.

8.0 Receiving from Barge

8.1. Safety Precautions

When unloading pulp from a barge at Squamish Terminals the following General Safety Procedures apply:

- Foreman must ensure all workers in his crew are aware of all safety procedures and that all procedures are performed correctly;
- All workers must ensure all procedures are followed;
- If any safety hazard exists on the barge, do not proceed with unloading until hazard is clear;
- Always be aware of additional safety hazards in the immediate area which may result in slips, trips and falls;
- All workers must be wearing the proper PPE, including the Foreman;
- All barge workers and anyone working near the berth edge must wear a Personal Floatation Device (PFD);
- Foreman must ensure the barge access is secured for safe access to the barge;

- Due to constant changing tides, the barge tie up must be adjusted as required to avoid damage to the barge, berth, equipment or injury to employees. The drivers are responsible for observing the lines, and determine when to adjust. Lines must be left loose at shift end unless another shift directly follows.
- The barge driver must observe the list of the barge at all times and discharge cargo to ensure barge stays even.
- The use of Proper Ladder Access or the use of our barge extender stairway is required, including save-all.
- All doors, if any on the barge, are to be properly secured when in the open position;
- Lighting and ventilation must be adequate inside the barges. If not, then the labourers must use the appropriate equipment available from Squamish Terminals;
- All drivers must obey the posted speed limits at all times and is posted on North Wall of #2 Warehouse (20km/hr on site, 10km/hr in warehouses).

8.2. Preparation

Day before arrival of barge:

- Set out barge lines on Berth.
- Bull rail needs to be removed from Berth face where door to be positioned (Berth 2 only). For Berth 1 cones will be placed where door is to be positioned (bull rail is not removable on Berth 1).
- Place hi-visibility cones on dock where bull rail has been removed to guide barge to correct position for door access.
- If no forklift placed on barge by shipper for our use, then we must prepare one/two of our own forklifts with wood panel products forks.

On the day of arrival ensure all equipment and barge is operational and ready, including:

- Labourer or Maintenance employee places gooseneck equipment in position on dock as well as barge access ladders and save alls (safety net).
- Various capacity forklifts with wood panel products forks
- Utility forklifts for moving dunnage (if required)
- Personal Protection Equipment (PPE) – minimum requirement includes safety vests and steel toed boots
- Note: Tug will have brought in barge to berth and tug crew ties up barge to dock.

Organize materials and documentation, including:

- Site Map (See **Appendix A** for Sample)
- Various Forms (Check Sheets, Damage Reports, Summaries)
- Wood panel products Receiving Line Up (distributed from Traffic)

8.3. Handling Wood panel products

- 1) Crew is dispatched to “starting area” and Foreman discuss wood panel products receiving operational plan with crew to ensure Longshore understand operation, safety and PPE. Depending on volume of wood panel products being offloaded there may be several “starting areas”.
- 2) Tractor trailers are brought out to Berth.
- 3) Barge lines are taken from bollards and attached to tractor trailers (to keep barge snug to dock for unloading wood panel products).
- 4) Barge ladder and save all put in place to by Labourer/Dock Driver.
- 5) Barge Driver and Labourer access the barge and remove unloading door (if present).
- 6) If not already present on barge install safety stop to prevent barge forklift from driving off barge accidentally.
- 7) Dock Driver to put gooseneck system in place (see picture below).
- 8) Barge Driver removes wood panel products from barge to gooseneck. Usually two packages are moved at a time, but is dependent on stow and weight of packages (as labeled). The barge driver must observe the list of the barge at all times and discharge cargo to ensure barge stays even.

IMPORTANT NOTE: Weight cannot exceed safe workload of gooseneck as stamped on plate of gooseneck.

- 9) Dock Driver removing wood panel products from gooseneck to use either standard wood panel products forks or 8 foot forks depending on the reach required. Dock Driver removes wood panel products from gooseneck with forklift, tilts back and delivers wood panel products to assigned “starting area”. **Bottom of top package must not be higher than back rest of forklift or it may slide back.**
- 10) If goose neck cannot be used (e.g. due to tides), a direct pass off/pass on procedure is used, the barge driver passes wood panel products packages directly to dock fork lift which uses 8ft forks to lift package off barge forklift. Wood panel products is placed on dock and drivers with wood panel products forks pick up wood panel products and store where directed.
- 11) If Dock Driver needs guidance to start stow the Foreman, Checker or Labourer will assist.
- 12) Squamish Terminals stores pre-packaged and pre-stickered (dunnage) wood panel products by similar length (e.g., all 12-foot lengths go together). This is also how it is stored on the vessel when the wood panel products depart our site. Maximum height of a stockpile is six packages high. Step down back tier to a max of 4 packages high, as many as 6 packages high in between, and step down to four packages high in front (see photos in of correctly stockpiled wood panel products in previous section).
- 13) Package dimensions vary by shipper and each shipper’s wood panel products is stored separately on site.
- 14) Any odd shaped or uneven packages must be stored separately to avoid an uneven pile.

8.4. Dock & Barge Labourer Duties

- Place dunnage as required (e.g. on gooseneck).

- Re-strap any broken bundles with portable strapping gear located in the white containers.
- At end of shift, if another shift is not starting immediately, lines are disconnected from tractor trailers and tied securely to bollards allowing enough slack for tide fluctuation.
- Assist with installation (at start) and dismantling/storage (at end) of access ladders and save all.
- Assists with removal or opening of barge door (at start) and installation (at end).

8.5. Maintenance Duties

- Removes (at start) and replaces (at end) bull rails (on berth 2 only), hi-visibility cones and barge lines at each unloading.

8.6. Checker Duties

The Checker performs the following duties for their gang/crew and records information on the Wood panel products from Barge Check Sheet:

- Counts & Records wood panel products based on size, length and customer.
- Records Storage Location.
- Checks for broken, damaged or insufficient banding and has suspect bundles set aside.
- Record Any Damage.
- Report Any Damage (to Foreman proactively during shift to prevent further damage from occurring).
- Submit Check Sheet to Traffic Department.

Types of damage the Checker should look for includes, but is not limited to the following:

- Missing or broken pieces of wood panel products.
- Damaged or insufficient banding.

9.0 Receiving from Vessel

9.1. Handling Wood panel products

- 1) Crew is dispatched to “starting area” and Foreman discuss wood panel products receiving operational plan with crew to ensure Longshore understand operation, safety and PPE. Depending on volume of wood panel products being offloaded there may be several “starting areas”.
- 2) Cargo is delivered to dockside
- 3) Drivers use forklift with lumber forks remove cargo from shipside to assigned storage area
- 4) Usually two packages are moved at a time, but is dependent on stow and weight of packages (as labeled).
- 5) ***Bottom of top package must not be higher than back rest of forklift or it may slide back.***
- 6) Labourer re-bands if necessary

- 7) Squamish Terminals stores pre-packaged and pre-stickered (dunnage) wood panel products by similar length (e.g., all 12-foot lengths go together). Maximum height of a stockpile is six packages high. Step down back tier to a max of 4 packages high, as many as 6 packages high in between, and step down to four packages high in front.
- 8) Package dimensions vary by shipper and each shipper's wood panel products is stored separately on site.
- 9) Any odd shaped or uneven packages must be stored separately to avoid an uneven pile.

10.0 Delivery to Vessel

10.1. Safety Precautions

When delivering pulp to vessel at Squamish Terminals the following General Safety Procedures apply:

- Foreman must ensure all workers in his crew are aware of all safety procedures and that all procedures are performed correctly;
- All workers must ensure all procedures are followed;
- If any safety hazard exists on or around the vessel, do not proceed with loading until hazard is clear;
- Always be aware of additional safety hazards in the immediate area which may result in slips, trips and falls;
- Machine operators and labourers/checkers must keep in eye contact and all employees including the Foreman must wear appropriate PPE;
- All drivers must obey the posted speed limits at all times and is posted on North Wall of #2 Warehouse (20km/hr on site, 10km/hr in warehouses).

10.2. Delivering Cargo to Vessel “Under Hook”

10.2.1. Preparation

Ensure all resources and equipment are prepared and operational, including:

- Lift truck capable of lifting at least 1 package of wood panel products and is equipped with a set of forks, preferably wood panel products forks.
- Banding equipment for re-strapping.

10.2.2. Steps

- 1) Head checker confirms cargo for quantity & location prior to vessel arrival against Loading Lineup.
- 2) If port tags were not used when the wood panel products was received, Head Checker will mark up each tier of wood panel products with vessel name and port.
- 3) The shipping company will inform Squamish Terminals as to which hatches of cargo will be loaded into before the vessel arrives.

- 4) Drivers operating lift trucks will take wood panel products packages and deliver directly to underhook. The attachments will be free of dirt, grease, rust and other contaminants and be in good working condition. **Caution: do not set load down alongside ship while crane is still lifting. All workers to stay out of the bight.**
- 5) Foremen and/or Operations Superintendent discuss the loading rotation with Port Captain.
- 6) The ship foreman will direct the dock foreman on the loading sequence.
- 7) Dock Foreman distributes the Loading Lineup marked with the loading rotation to the Checker.
- 8) Finally, the Checker confirms the cargo quality and quantity against the loading lineup before the cargo is delivered to vessel

10.3. Unitizing

Any package that requires re-unitizing may be identified by any dock personnel during deliver to underhook and shall be re-unitized prior to lifting onto vessel.

10.3.1. Preparation

Ensure all resources and equipment are prepared and operational, including:

- Steel straps approved by Transport Canada
- Seals
- Crimper
- Lift truck for stacking wood panel products

10.3.2. Steps

- 1) Any wood panel products packages that have broken wires or strapping will require re-strapping.
- 2) Labourer wraps the package with banding, and places strap clips (seals) on the strap's overlapping ends and tightens onto the strap with a crimper.
- 3) Secure clip properly by using crimper until it reaches its full stop. These clips are to be attached to the strap at the side of the wood panel products package (not the top or bottom).
- 4) For all packages we are to put one strap around each end of the package using banding.

Caution

- Wear eye protection and gloves when unitizing wood panel products.

10.4. Duties in this Process

10.4.1. Checker

- Checks cargo for quality and quantity on delivery to vessel (Wood panel products to Vessel Check Sheet.

- Back tallies wood panel products storage area/piles to ensure correct quantity is loaded.
- Verifies the Check Sheet is complete.
- Turns check sheets into the Foreman.

10.4.2. Foreman

- Throughout process, Foreman is responsible for ensuring the correct cargo is loaded from bins directly to the vessel.
- Back tallies wood panel products piles to ensure correct quantity is loaded.
- Confirms that all tallies on check sheet are correct, initials the sheet and places it in the vessel file in Operations.

10.4.3. Operations

- Turns all sheets into the Traffic department to be entered into the computer system.
- Once sheets are returned, they are placed in the Vessel file.

10.4.4. Superintendent

- After the Vessel is loaded, reviews the Vessel file to ensure the cargo was loaded correctly, initials the file and takes it to the Traffic department.

10.5. Handling during Winter Conditions

- Reduce driving speed accordingly (wood panel products packages can slide off forks)
- Before stowing packages in the yard, clear snow/ice from packages.
- Before loading to vessel, clear snow/ice from packages.
- Ensure laydown areas are clear of snow and ice.

10.6. Hazards

The following have been determined through the Hazard Management Program as being the main hazards for the Wood panel products procedures.

Hazards
<ul style="list-style-type: none"> • Slips, Trips, Falls on slippery / uneven surfaces • Pedestrians exposure to being struck by site traffic • Site vehicles / materials handling equipment striking other vehicles or stationary obstacles / equipment • Slips/falls from accessing/exiting machines/equipment • Barge work – falls from height, fall into water • Vessel – falls from ship ladders • Gangway - slips, trips, falls • Poor ergonomics while rigging, lifting, banding, pulling, pushing, removing straps, building packs – overexertion, musculoskeletal injuries • Falling objects/jolts – improper handling of load on forklift • Falling objects (equipment, cargo, debris, broken equipment, tools) – risk of being struck or crushed • Positioning poly/paper wrapping – slips, trips falls, overexertion • Materials handling equipment - unstable load – tipping/rolling • Unstable cargo stockpiling – crush • Unstable cargo loading onto truck – crush • Flat strap – overexertion, struck by strap, • Overhead hazards – hook, frame, slings, cargo, equipment, gear • Pinch Points while rigging, lifting, banding, pulling, pushing • Sharp edges / slivers • Exposure to elements (wind, sunburn, heat index, cold) • Dust

11.0 Appendices

- A. Sample Site Map
- B. Photo Gallery

Appendix A – Site Map



Appendix B –Photo Gallery





Wood Panel Products



12.0 Revision Record

Document	Rev	Date	Originator	Details of Change
PRO -011	1.0	11-June-2012	SQT	Original
PRO -011	2.0	15-July-2020	SQT	Added strapping requirements to receiving from truck, removed appendix checking sheets, removed flow charts, added hazards, added site map
PRO -011	3.0	18-Aug-2021	SQT	Changed name to wood products (to allow of plywood etc. products); added delivery to truck, added receiving from vessel