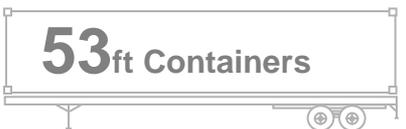


**NOT TO SCALE**

For use on Union Pacific Railroad only

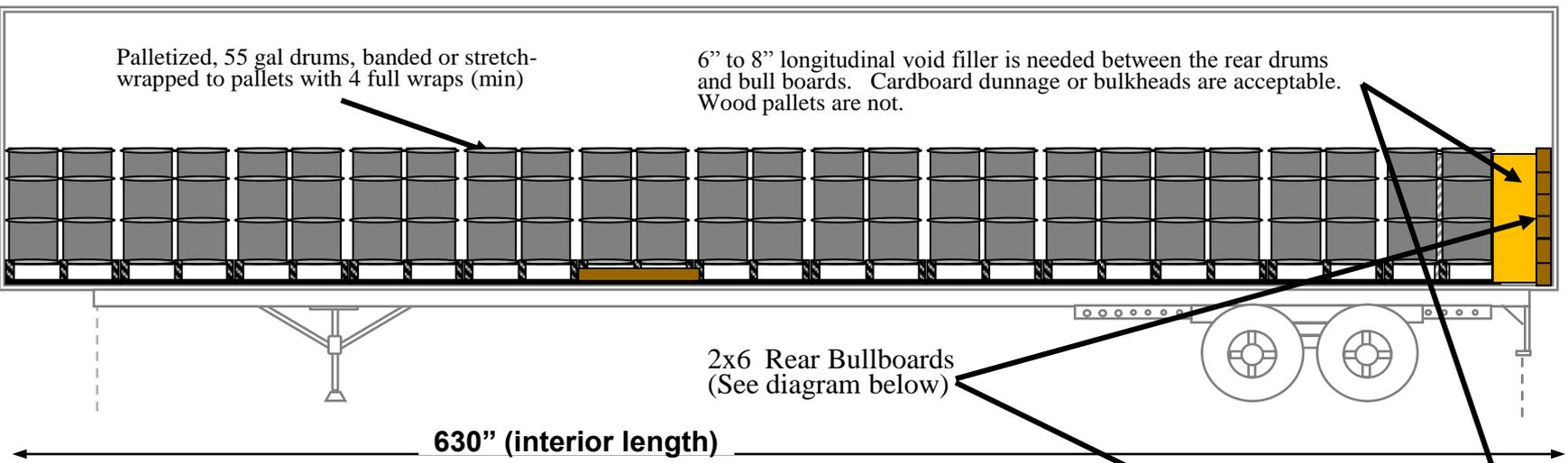
# 100 – 24” Non Hazmat Drums on 48”x48” Pallets Stretch Wrapped to Pallets and Bullboard Application



Nose

## Side Wall Cutaway View

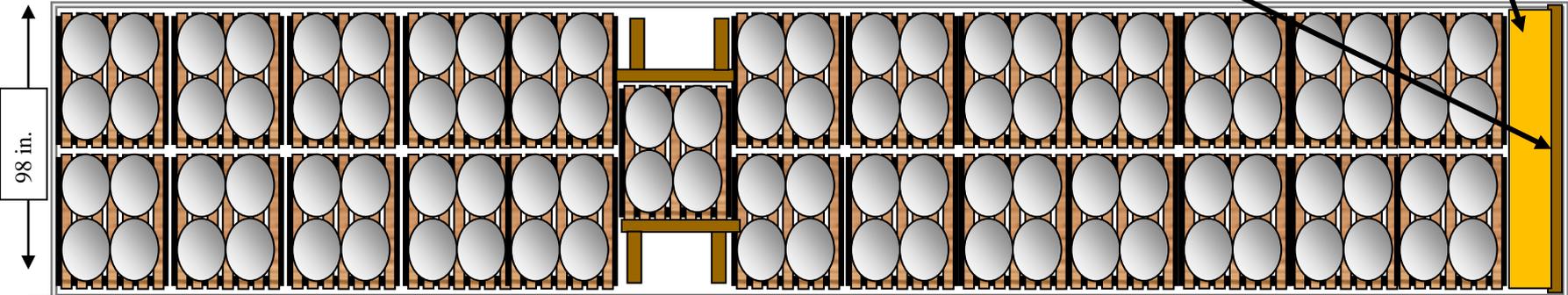
Rear



Nose

## Overhead View

Rear



All drums must be secured to the pallet to prevent lateral or longitudinal movement. Union Pacific Railroad will not be responsible for damages due to improper packaging

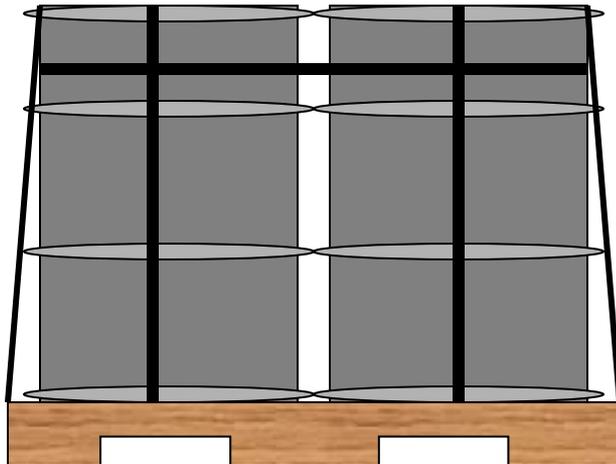
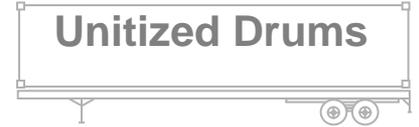
This loading plan assumes pallet size is 48x48. If not a void filler may be required to eliminate crosswise void.



Union Pacific Damage Prevention  
File 100 Palletized drums  
Date: 4/9/2010 By: TJP

# Unitized Drums on Pallets

Unitized Drums



## DRUMS ON PALLETS

DRUMS MUST BE UNITIZED TOGETHER.  
EACH ROW MUST BE BANDED TO THE  
PALLET LONGITUDINALLY AND  
LATERALLY WITH MINIMUM 1.25" STEEL  
BANDING

This load plan is intended for general information purposes only and is not recommended for any specific cargo. Other Carriers are not required to accept this load plan or any plan suggested by Union Pacific Railroad. This information is offered to shippers to assist in understanding the rail environment, the shipper is ultimately responsible for choosing how best to package, block and brace its cargo to avoid damage to the cargo and rail equipment.

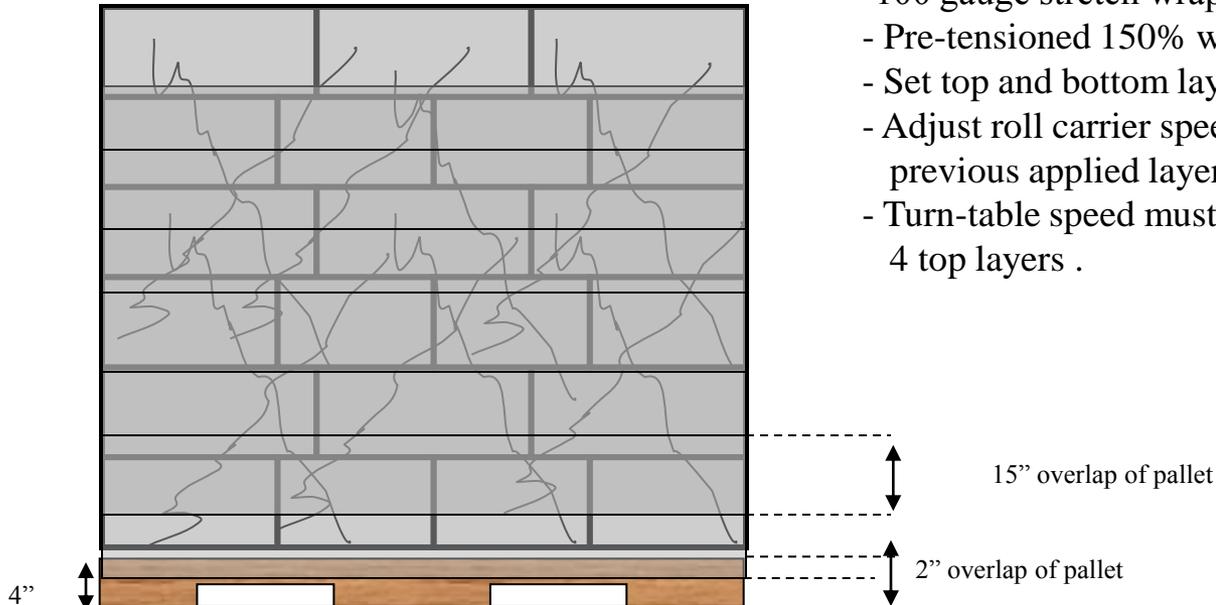


Union Pacific Damage Prevention  
File: Unitized Drums on Pallets  
Date:06/20/06 By:EOW

# Recommendation for Stretch Wrap



- 100 gauge stretch wrap, 30” wide
- Pre-tensioned 150% with four full wraps per stack.
- Set top and bottom layer count to four wraps
- Adjust roll carrier speed to allow film wrap to overlap the previous applied layer by 15 inches.
- Turn-table speed must be adjusted to allow application of 4 top layers .



**Four full wraps per pallet**  
with 2” overlap to the pallet and top of the load

Intended for use on Union Pacific Railroad only

# Double Laminated Floor Blocking for Non Hazmat Loads

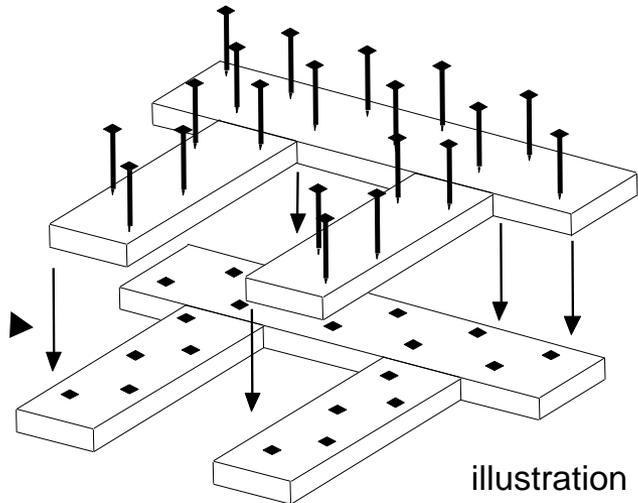


illustration 1



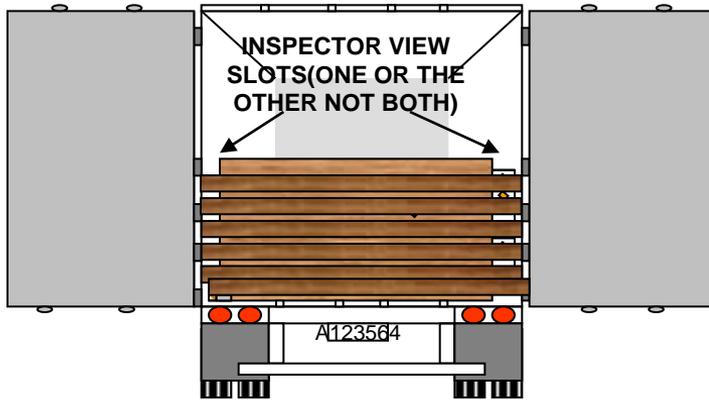
**Floor blocking should be constructed with double 2x4 lumber with backup cleats, at least 18 inches long. Floor blocking needs to be as long as the pallet or unit it is supporting. Nails should be staggered and spaced approximately 4 to 5 inches apart. 16d nails (or larger) are required.**



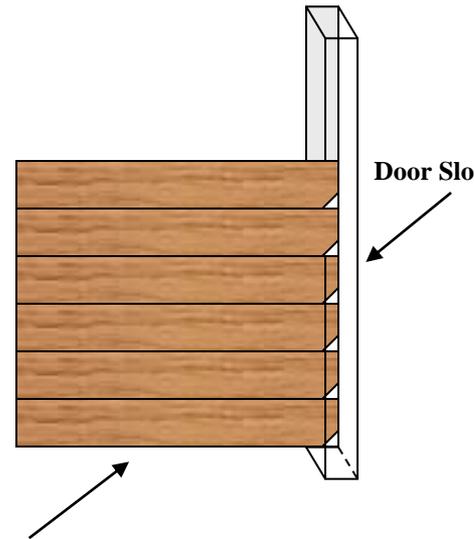
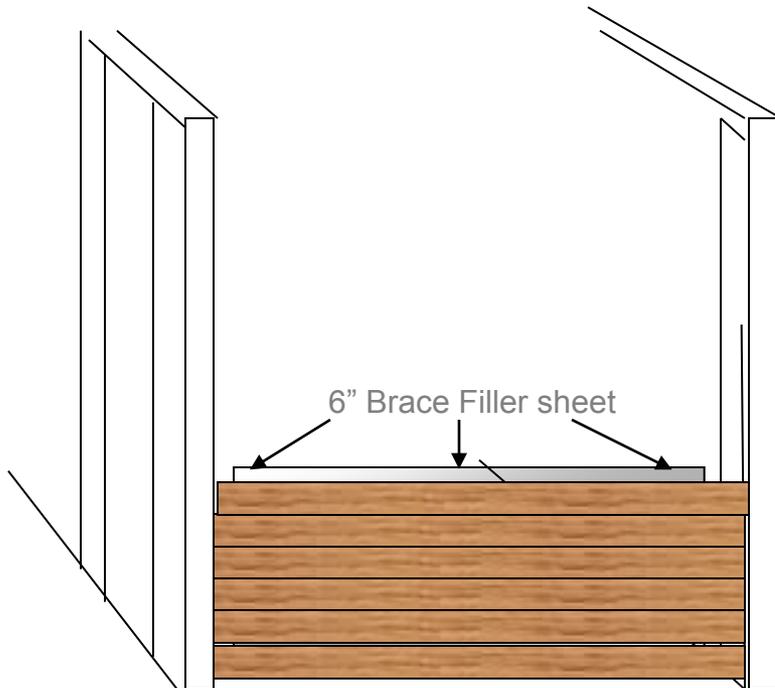
Union Pacific Damage Prevention  
File:Double laminated floor blocking

Date: 01/21/10 By: TJP

# Bull-Board Installation



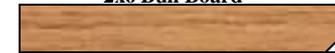
2x6 lumber has a holding strength of 8,000 pounds. Six (6) 2x6 boards need to be used in the application to hold back the entire load of 100 drums. The doors CAN NOT be used to support the longitudinal weight.



## Installation of Bull Boards

- 1) measure length from inside door slot to inside door slot
- 2) Cut 2x6 1/16 inch Longer then length measure in #1 above
- 3) Cut bevel into bottom corner of 2x6 for installation into the door slot.

2x6 Bull Board



- 4) Hammer 2x6 into door slot
- 5) repeat steps 1 thru 4



Union Pacific Damage Prevention  
File: Misc

Date: 4/9/2010 By: TJP