

# Inventory Storage

## Expectation

Inventory is our second most valuable asset, after our people. In our fast paced environment, it is essential to keep the inventory area clean and well organized.

Keeping the inventory area clean means:

- Keeping racks/shelves in good condition
- Following racking and rack spacing guidelines
- Stacking products safely
- Storing heavy/large products close to the ground
- Keeping aisles, exits, and safety equipment clear

Keeping the inventory area clean **reduces the risk of injury**.

Keeping inventory well organized means:

- Keeping the top sellers in a convenient location
- Sorting products so that they are easy to find and easy to pull accurately

Keeping the inventory well organized **saves time and steps** and **increases pull accuracy**.

### QUESTIONS:

**Why do we care about keeping inventory areas clean?**

**Why does it matter if we organize inventory to save time and steps?**

**Why is pull accuracy so important?**

Keeping our inventory area  
clean and well organized supports us  
**To be the BEST!**

## Instructions

1. Print this document. Several activities require you to answer questions and take notes.
2. Make sure that you can answer the review questions before you take the assessment.
3. Identify inventory storage opportunities and possible solutions for your store, and discuss with your 5S assistant manager.
4. If you have any questions, talk with your manager, senior assistant, or 5S assistant manager.

## What You Will Learn

In this course, you will learn:

- Why it is important to keep the inventory area clean and well organized
- How to improve your store's inventory layout
- How to organize inventory to increase pull accuracy and save time and steps

## Tasks

<b>Tire Storage.....</b>	<b>3</b>
Tire Racking Guidelines - All stores.....	3
Tire Rack Spacing Guidelines .....	4
ACTIVITY WORKSHEET .....	5
Audit Your Inventory Layout .....	5
Organizing Tires .....	6
<b>Practice Exercise – Organizing Tires .....</b>	<b>8</b>
<b>Wheel Storage.....</b>	<b>9</b>
Wheel Storage Guidelines .....	9
Wheel Shelf Spacing Guidelines.....	9
Organizing Wheels .....	9
<b>Accessories Storage and Organization .....</b>	<b>10</b>
<b>TPMS Storage and Organization .....</b>	<b>10</b>
<b>Wheel Weights Organization .....</b>	<b>11</b>
<b>Valve Stems Organization.....</b>	<b>11</b>
<b>Handling Overstock Situations.....</b>	<b>11</b>
<b>Review Questions .....</b>	<b>12</b>

## Tire Storage

To reduce the risk of injury, it is extremely important for us to store tires safely.

Some of the potential safety issues include:

- Reduce fire risk by **always** keeping sprinklers, fire extinguishers, and electric panels clear.
- Make it easy to exit in emergency situations by keeping aisles, walkways, and exits clear.
- Store tires safely to reduce possibility of falling tires.

Review these Tire Racking and Tire Rack Spacing guidelines:

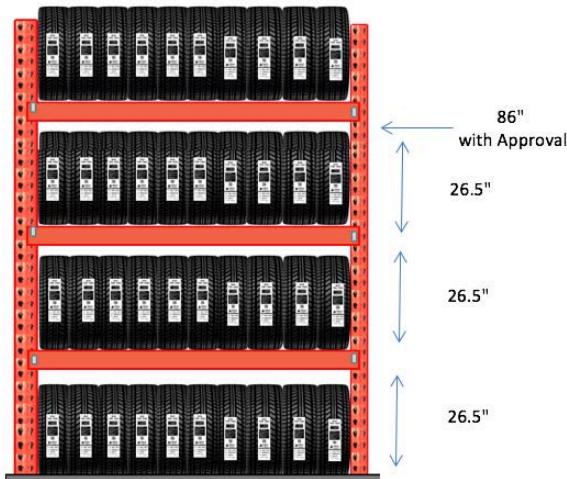
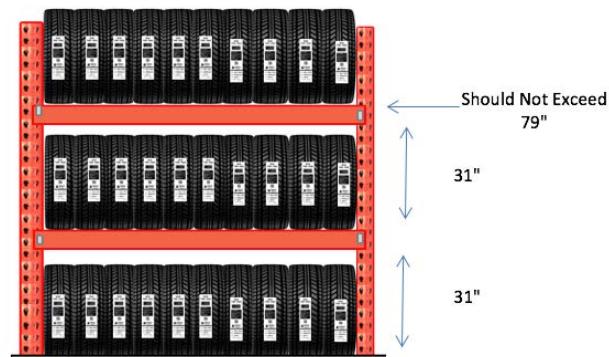
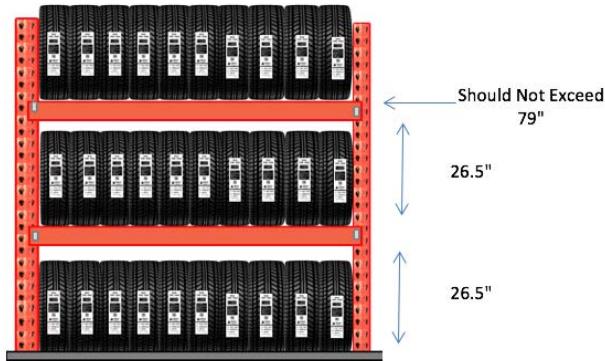
### Tire Racking Guidelines - All stores

<b>Tire storage</b>	<ul style="list-style-type: none"> <li>• ALL tires on top cross beams are to be stored on tread (upright, soldiered).</li> <li>• The top of any tire should be 36 inches below the sprinkler head and 18 inches from the main line.</li> <li>• Tires can be barrel stacked in the racks from the floor up only (No barrel stacking on racks).</li> <li>• Barrel stacks no higher than shoulder level</li> </ul>
<b>Cross beams</b>	<ul style="list-style-type: none"> <li>• All cross beams are to be locked or screwed to the upright.</li> <li>• Locking mechanisms are in good working order.</li> <li>• All tires must be enclosed by rack ends and must be of sufficient height to secure soldiered tires on the top rack.</li> <li>• <b>Non-Mezzanine stores:</b> Additional custom cross beams can be used to add more storage space above the aisles with approval from your regional VP.</li> </ul>
<b>Keep clear</b>	<ul style="list-style-type: none"> <li>• All aisles should have a 28 inch clearance.</li> <li>• Not blocked: Aisles, walkways, exits, fire extinguishers, and electric panels.</li> </ul>

Tire Rack Spacing Guidelines	Non-mezzanine store	Mezzanine store	
		Downstairs	Upstairs
Floor to bottom of 1 <sup>st</sup> beam	26.25 in	31 in	26.25 in
From bottom of each beam to bottom of next beam	26.25 in	31 in	26.25 in
<b>Top cross beam: Max height</b>	<b>79 in</b>	<b>79 in</b>	<b>79 in</b>
Max height w/ VP approval	86 in		
Max height w/ VP approval (4 ft platform ladder required)	120 in		

**Notes:**

- 1) Tire spacing can vary, depending on the size of the tires.
- 2) If platform ladders are required, a ladder should be placed at the end of every aisle way.

**1 Non-Mezzanine Store****2 Mezzanine Store - Bottom****3 Mezzanine Store - Top**

## ACTIVITY WORKSHEET

**Audit Your Inventory Layout**

OK, it's time to get up and go to the backroom. Bring along a tape measure, if you have one.

Look at your store's inventory layout.

- As you inspect your tire inventory, compare your store's layout to these guidelines. Fill out the checklists below and take notes of any differences from the guidelines.
- After your audit, discuss any differences you have identified with your manager, senior assistant, or 5S assistant manager. How will you resolve them?

**Tire Racking Guidelines**

Yes	No
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All tires stored on top racks are stacked upright (soldiered).		
The top of all tires is 36 inches below sprinkler head and 18 inches from main line.		
All barrel stacked tires are on the floor, <b>NOT</b> on the racks.		
Barrel stacks are no higher than shoulder level		

All cross beams are locked or screwed to the upright.		
Locking mechanisms are in good working order.		
All tires are enclosed by rack ends.		
Rack ends high enough to secure soldiered tires on the top rack.		

All aisles are at least 28 inches wide.		
All aisles, walkways, exits, fire extinguishers, and electric panels are clear.		

On a scale of 1 to 10, how clean is your tire inventory area? (10 = perfect, no improvement possible)		
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NOTES:

**Tire Rack Spacing Guidelines**

# inches
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Measure from the floor to the bottom of the first rack.	
Measure from bottom of each shelf to the bottom of the next shelf.	
Height of the top cross beam	

If platform ladders are needed, is there a ladder at the end of each aisle way?	
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NOTES:

After you complete your inspection, schedule a good time to discuss what you've learned with your manager, senior assistant, or 5S assistant manager.

## Organizing Tires

So far, we have been focusing on creating a clean environment. Now, let's look at strategies for organizing tires to make it easy to pull tire products accurately and to save time and steps.

### QUESTIONS:

Answer these questions before continuing:

1. Why does it matter how you organize tires?
2. What are some of the things you can do to organize tire inventory in your store to:
  - Increase pull accuracy?
  - Save time and steps?
  - Reduce risk of injury?

After you have answered these questions:

1. Compare your answers to the Best Practices list below.
2. Circle the recommendations on the Best Practice list you didn't think about. Make sure you understand how each one helps achieve its goal.
3. Did you have other suggestions that aren't on the list?
4. Talk with your 5S assistant manager if you have any questions or have other suggestions to consider.

### Best Practices for Organizing Tires

Goal	Best Practice
<b>Increase pull accuracy</b>	<ul style="list-style-type: none"> <li>• Organize tires according to Brand, Size, then by Load Range or Speed Rating.</li> <li>• Align tires so that product tags are lined up, facing out.</li> <li>• If needed, print replacement product tags.</li> </ul>
<b>Save time and steps</b>	<ul style="list-style-type: none"> <li>• Identify the top ten tire sizes and place them in the most convenient location.</li> <li>• Review the Top Sizes and Stocking Levels report regularly to identify current top ten tire sizes.</li> </ul>
<b>Reduce risk of injuries</b>	<ul style="list-style-type: none"> <li>• For mezzanine stores, keep large truck tires downstairs.</li> </ul>

## Top sizes

Save time and steps by placing the top ten sizes in the most convenient location.

Sort top sizes by size first (details below), then by brand.

## Other sizes

1. First sort tires by brand. For example, keep all Michelin together.
2. Within each brand, organize like sizes together:
  - **First:** Diameter, e.g. all 16" together
  - **Next:** Aspect ratio, e.g. for each diameter, all 70 series together
  - **Last:** Section width
3. For each size, organize by:
  - **Load Range (for LT truck tires), or**
  - **Speed Rating (for PLT truck or passenger tires)**

## Visual Organizing Techniques

Whenever it will add value, provide visual organizing cues to make it easier to identify specific tire products. Here are some ideas:

**Stagger** With all labels facing out, slightly shift some articles a little up, and  
**tire tags:** neighbors a little down. This way it's easy to see where products change.

**Write load range on tire:** Use a tire crayon to write the load range on the tread of truck tires to easily distinguish similar products.

**Reprint missing tire tags:** Always make sure every product has a good tire tag.

## Practice Exercise – Organizing Tires

Here's a chance to practice organizing tires. Follow the instructions for each exercise to sort the tires in the correct sequence:

### Exercise 1 - Organize by Diameter

*(smallest to largest)*

- 235/75-15
- 245/45-18
- 255/50-17
- 285/65-20
- 175/70-13
- 225/70-14
- 225/60-16

### Exercise 4 - Organize by Speed Rating

*(lowest to highest)*

- 225/60-16 T
- 225/60-16 H
- 225/60-16 S
- 225/60-16 V

### Exercise 2 - Organize by Aspect Ratio

*(smallest to largest)*

- 255/45-18
- 235/50-18
- 245/40-18
- 265/70-18
- 285/60-18

### Final Exercise - Put it all together

- 225/60-16 V
- 235/75-15
- 235/50-18
- 175/70-13
- 225/60-16 T
- 285/60-18
- 225/70-14

### Exercise 3 - Organize by Section Width

*(smallest to largest)*

- 225/75-15
- 215/75-15
- 235/75-15
- 205/75-15

*The answer key is on the last page.*

## Wheel Storage

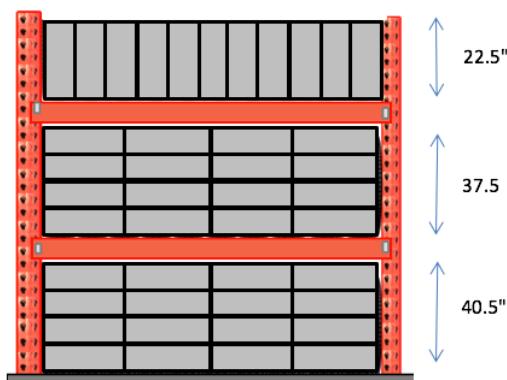
To reduce risk of injury, follow these wheel storage and wheel shelf spacing guidelines:

### Wheel Storage Guidelines

- Store larger wheels close to the floor.
- Do not stack wheels more than 4 boxes high in the racks.
- Do not stack wheels more than shoulder high on the floor.
- Total height of wheels in racks should not exceed 100 inches from the floor.



Wheel Shelf Spacing Guidelines	# inches
Floor to bottom of 1 <sup>st</sup> beam	40.5 in
From bottom of each beam to bottom of next beam	37.5 in
Top shelf	22 in
<b>Total max height of wheels</b>	<b>100 in</b>



If needed, take another inspection tour and discuss opportunities for improvement with your manager, senior assistant, or 5S assistant manager.

## Organizing Wheels

To make it easier to find and pull wheels, sort them by:

- **First:** Diameter
- **Next:** Brand
- **Last:** Style and finish

## Accessories Storage and Organization

### Installation Kits and Hub Rings

#### Storage Guidelines

- All installation kits are label out.
- Racks have stickers for placement.
- All rows labeled with kit article; most rows will have one kit size.
- Black version should be next to the zinc version.
- Bins are labeled and located at the bottom for loose lug nuts.
- Hub ring kits are sorted by size, with label out, in bins or hanging brackets.
- Loose lug nuts are added to open bin.

#### Organizing Best Practices

- Organize installation kits and hub rings by size.
- Organize caps by manufacturer.
- Organize loose lug nuts by size and seat.



## TPMS Storage and Organization

Organizing and storing TPMS kits and sensors according to guidelines and best practices is critical to ensure the customer receives the correct TPMS product.

#### Storage Guidelines

- Store the top five TPMS sensors in the most convenient location.
- Note:** Contact your Inventory Analyst for a copy of your Top Size report.
- The sensor cabinet is readily accessible.
- Sensor shelves are marked with labels.
- Most popular kits and sensors are at the top; no open boxes.
- Bands and brackets are stored next to, or on top, of the cabinet.
- Store the most common rebuild kits in bins at each tire changer.
- Label bins with product description and article number.

#### Organizing Best Practices

Organize TPMS by:

- **First:** Sensor or rebuild kit
- **Next:** Manufacturer
- **Last:** Part Number



## Wheel Weights Organization

Wheel weights are part of Goods to Consumption and should be restocked daily. It is important to maintain well-stocked and well-labeled cabinet and wheel weight carts.

### Storage Guidelines

#### **Cabinet:**

- Heavy weights are stored on the middle shelves; not the top or very bottom.
- Shelves are labeled for each weight type.
- No open boxes; each box is scanned out of stock upon opening.

#### **Cart:**

- Store open boxes on the cart after they have been scanned out of stock.



### Organizing Best Practices

Organize wheel weights by:

- **First:** Color/type
- **Next:** Weight

## Valve Stems Organization

Valve stems are part of Goods to Consumption and should be restocked daily. A well-stocked and well-labeled valve stem inventory ensures that valves get restocked in a timely manner.

### Storage Guidelines

- Boxes of valves are stored on a shelf, marked and labeled for valve placement.
- There are no open boxes; each box is scanned out of stock upon opening.

### Organizing Best Practices

Organize valve stems by:

- **First:** Size
- **Next:** Type



## Handling Overstock Situations

If your store is overstocked, your manager will need to work through the product mix with your Inventory Analyst at the corporate office.

## Examples of Excellence

This course helps you assess your inventory layout and organization. For more details and information, please refer to Inventory Storage Examples of Excellence on the Knowledge Center.



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## Review Questions

What are some things we can do to reduce the risk of injury? (select all that apply)

- Keep aisles, walkways, exits, sprinklers, fire extinguishers, and electric panels clear.
- Organize tires by brand, size, then by Load Range or Speed Rating.
- Store large wheels close to the floor.
- Make sure all cross beams are locked or screwed to the upright.

What is the maximum height of the cross beam for tire racks (without VP approval)?

- 60 inches
- 79 inches
- 86 inches
- 100 inches
- 120 inches

Order this list: How should you organize other tires, not the top ten? (first, next, last)

- Size
- Load Range or Speed Rating
- Brand

Order this list: How should you organize each tire size? (first, next, last)

- Section width
- Aspect ratio
- Diameter

What are some things we can do to increase pull accuracy? (select all that apply)

- Align tires so that product tags are lined up, facing out.
- Make sure every product has a good tire tag.
- Organize tires by brand, size, then by Load Range or Speed Rating.
- Store the top ten tire sizes in the most convenient location.

What is the maximum height permitted for wheel storage racks?

- 26.5 inches
- 79 inches
- 86 inches
- 100 inches
- 120 inches

Which of the following represent Best Practices for organizing accessories?

(select all that apply)

- Provide stickers on each rack to illustrate placement.
- All hub ring kits are sorted by size and label out.
- All rows are labeled with kit article; most rows have one kit size.
- Loose lug nuts are thrown into a large bucket.

Why is it important to keep the inventory area clean and well organized?

- A clean inventory area helps reduce risk of injury
- A well-organized inventory area increases pull accuracy
- A well-organized inventory area saves time and steps
- It supports us To be the BEST!
- All of the above

## Answer Key for Practice Exercises

### Exercise 1 - Organize by Diameter

1. 175/70-13
2. 225/70-14
3. 235/75-15
4. 225/60-16
5. 255/50-17
6. 245/45-18
7. 285/65-20

### Exercise 2 - Organize by Aspect Ratio

1. 245/40-18
2. 255/45-18
3. 235/50-18
4. 285/60-18
5. 265/70-18

### Exercise 3 - Organize by Section Width

1. 205/75-15
2. 215/75-15
3. 225/75-15
4. 235/75-15

### Exercise 4 - Organize by Speed Rating

1. 225/60-16 S
2. 225/60-16 T
3. 225/60-16 H
4. 225/60-16 V

### Final Exercise - Put it all together

1. 175/70-13
2. 225/70-14
3. 235/75-15
4. 225/60-16 T
5. 225/60-16 V
6. 235/50-18
7. 285/60-18