



# **Bulk Bag Handling & Safety**

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# Discussion Topics

- ⇒ Bulk Bag Construction/Features
- ⇒ Trailer Unloading
- ⇒ Visual Bag Inspection
- ⇒ Safe Patching/Repair
- ⇒ Forklift Safety
- ⇒ Storage and Fire Safety Guidelines
- ⇒ Bulk Bag Emptying
- ⇒ Additional Resources



# **Flexible Intermediate Bulk Containers**

## **Bulk Bags**

## **Super Sacks**

# So, what is an FIBC?

⇒ A container constructed of flexible fabric, which...

- Cannot be handled manually when filled
- Is intended for shipping solid materials in particulate form
- Does not require further packaging
- Is designed to be lifted from the top via integral, permanently attached loops or straps

# Bag Construction/Features

- ⇒ Durable fabric and stitching
- ⇒ Variety of top (fill) and bottom (discharge) spout designs
- ⇒ Reinforced loops (or sleeves) at each top corner
- ⇒ Dirt flap
- ⇒ Pentane-resistant liner

# Trailer Unloading

- ➔ Allow trailer to ventilate for at least 15 minutes prior to unloading
- ➔ Watch for debris on trailer floor



Scrap metal

Nails, screws, nuts,  
bolts

Broken pallets

# Trailer Unloading

➔ Avoid contact with trailer walls and floors



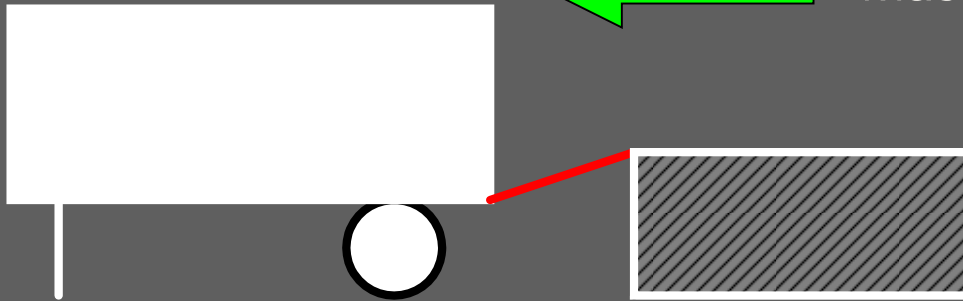
Framing supports



Damaged walls

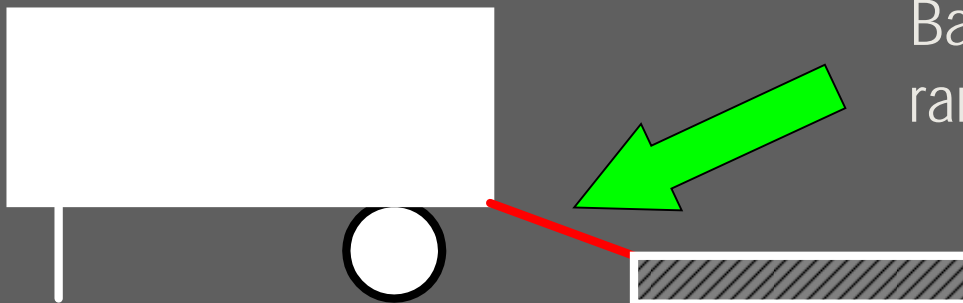
# Not all trailers are built alike...

⇒ Ramp down to trailer



Mast contacts trailer roof

⇒ Ramp up to trailer



Bag contacts trailer floor,  
ramp, or dock

# Visual Bag Inspection



## ⇒ Loops:

- Inspect for torn seams on stitching that connects loops to bag
- Check for fraying or excessive wear on loops themselves

# Inspection of the Bags – cont.



⇒ Corners:

- Ensure that all corner seams are intact

# Inspection of the Bags – cont.



## ⇒ Dirt Flap

- Ensure that it is fastened securely closed (to avoid dragging)

# Inspection of the Bags – cont.



## ⇒ Overall Bag

- Check for any leaking material due to punctures
- Ensure bag is upright and not leaning to any particular side

# Bulk Bag Repair

⇒ Repair only when:

- Bottom of bulk bag is resting on solid floor
- There is no load (e.g., another bag) on top of it
- The risk of instability is at a minimum

⇒ Clean-up all spills immediately



# Additional Considerations

- ⇒ Use a sling to right a fallen container
  - Through EACH loop
- ⇒ Avoid “swaying”
- ⇒ Patched bulk bags may be less stable than those that are intact
  - Patches are not permanent
- ⇒ Single stacking ONLY for patched bulk bags

# Forklift Safety

- ⇒ Ensure fork truck is rated for the load
- ⇒ Ensure proper fork length
  - Some bulk bags require 48" forks
  - Consider fork extensions
- ⇒ Check condition of the forks
  - Inspect blades for sharp edges

# Forklift Safety – cont.

- ⇒ Caution when entering the loops
  - Don't drag forks along loops
- ⇒ Loads should be moved in reverse
  - Even though you may be able to see over the top when driving in forward
- ⇒ Always ensure that the fork truck has come to a complete stop before raising/lowering forks

# Forklift Safety – cont.



## **Forklift Safety – cont.**

*Always consult with your fork truck vendor before making modifications to the forks or mast*

# Forklift Safety – cont.



- ➔ Make sure all four loops are securely resting on the forks.

# Forklift Safety – cont.



- ⇒ Check dirt flap before moving
- ⇒ It should only be unfastened when the bag is to be unloaded

# Forklift Safety – cont.



- ⇒ Use extra care when stacking in the warehouse
- ⇒ Stack second course squarely
- ⇒ Avoid leaning

# Storage and Fire Safety

- ⇒ Cool, dry, well-ventilated area
- ⇒ Protect from UV exposure
- ⇒ Away from ignition sources
- ⇒ Strict “No Smoking” policy



# Storage and Fire Safety

- ⇒ Proper bonding/grounding of process equipment
- ⇒ Fire protection in accordance with applicable codes
- ⇒ Do not block means of egress



# Unloading Bags for Processing



- ⇒ Lift waist high to detach the dirt flap
- ⇒ Make sure flap swings away from forklift


# Unloading Bags for Processing - cont.



- ➔ Position bag over unloading bin before untying discharge spout
- ➔ Prop forklift rack with brace
- ➔ Never stand directly under bag

# For Additional Information

- ⇒ [www.fibca.com](http://www.fibca.com)
- ⇒ [www.efibca.com](http://www.efibca.com)
- ⇒ Bulk bag vendor literature
- ⇒ Bulk bag handling equipment vendor literature
- ⇒ Resin supplier literature



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