

Slide Set of Jobs Involved in Various Manual Materials Handling (MMH) Tasks: Brought to you by EASE !



Many of the jobs in the following set of slides illustrate workers performing MMH that could be improved, made more efficient, and potentially-- reduced the risk of an overexertion injury that could sideline an important and valued employee.

**What solutions can you think of?**

## Disclaimer on Slide set

The following set of slides depicting various manual material handling (MMH) postures were provided by different individuals for use at MODEX MMH Workshop to illustrate various job related postures.

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Any other use of the postures depicted here requires approval from the person or persons who provided them.

# Categories of Material Moving to Consider

1. Loading trucks:
  - A. Containers
  - B. Pallets
  - C. Wheeled racks
2. Unloading trucks:
  - A. Containers
  - B. Pallets
  - C. Wheeled racks
3. Stocking shelves:
  - A. U boats
  - B. Small items
  - C. Large bulk items

## Matrix of Lifting Jobs: Panel 1: Loading Trucks

<b>Panel 1</b>	Loading trucks	Task Detail/ MMH Issues	Where	Possible solution
<b>1a</b>	Containers	These are plastic, metal, etc non-wheeled containers loaded by (order pickers) hand to fill orders going to stores	DC or Warehouse	
<b>1b</b>	Pallets	These are wood or plastic pallets loaded by hand to fill orders going to stores performed by order pickers.	DC or Warehouse	
<b>1c</b>	Wheeled Racks	These are carts, racks, platform trucks, dollies, etc. loaded by hand to fill orders going to stores	DC or Warehouse	

**[Refer to your folder for the “Matrix of MMH Tasks”]**



# 1 b c Warehouse distribution center: Order picking





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# 1 a b c Storage area for bags of materials ready for loading





# 1 a Loading Container with uniform sizes boxes

High cube 9'x 6"





# 1 b Order picker in distribution center (DC)



# 1 b Order picker pulling cartons pallet jack





# 1 a b c Order picker large box warehouse carry (7)



## 1 b Pulling product from low tier/slot rack







**What are the primary issues in loading trucks?**

## Matrix of Lifting Jobs : Panel 2: Unloading

Panel 2	Un-loading trucks	Task Detail and MMH Issues	Location		Possible solution
2a	Containers	These are full or partial truckloads. The store has a loading dock	Retail Store – back room		
2b	Pallets	These are full or partial truckloads. The store has a loading dock	Retail Store – back room		
2c	Wheeled Racks	These are full or partial truckloads. The store has a loading dock	Retail Store – back room		



## 2 a b c Two men unloading a truck conveyor



## 2 a Man unloading truck large containers above shoulders





## 2 c Unloading truck using 2 wheel dolly





2 a b Two men unloading truck, conveyor and stool



## 2 a Man rolling barrel out of truck





## 2 a Women unloading boxes from truck





## 2 a Unloading truck large boxes



## 2 a Truck unloading conveyor: Reaching above head





2 a b Back room in storage area showing products to be moved, heavy and bulky





## 2 b Overhead heavy lifts in warehouse or back room



## 2 b Man lifting box from a skid on forklift





## 2 Man reaching to lift box from stack from pallet (5)





## 2 b Man load/unloading pallet low lift



## 2 b Man picking large white box from pallet





## 2 b Reach low- high risk lift- feet behind pallet



2 c Women in back room grocery unloading large boxes at or above shoulder height with help from 2<sup>nd</sup> person





## 2 c Back room high lifts stocking messy



## 2 a b Lift from crouch posture in warehouse large box





## 2 c Man lifting box of paper from skid on floor



## 2 b Man unpacking items from large carton





## 2 a b c Women carrying box down ladder



2 c Man reaching for box above shoulder off of 2<sup>nd</sup> tier. Flat cart wheeled





## 2 a b c Pulling Stock from back room



## 2 b Lifting box from tier storage





## 2 a b c Lift box from open top storage racks (9)



## 2 c Unloading box from wheel cart to skid (6)





## 2 a b c Lift crouch positions unstable load box (3)



## 2 Man carrying beef box at waist (2)





2 a b c Women on ladder reaching over head to pull product. Top step of ladder. High risk



## 2 a b c Man picking up box of beef (1)





## 2 b Man lift box from skid botton



## 2 a b Women pulling large bags using pull bar





2 a 2 b Man pulling from top tier of rack warehouse work environment



## 2 a Lifting container from skid





## 2 c Back room food preparation containers lift carry



## 2 a b Narrow storage areas in back room





## 2 b Man pulling pallet jack with load of fertilizer





**What are the primary issues in unloading trucks?**



# Matrix of Lifting Jobs RWW: Panel 3

		Task Details & MMH Issues			
<b>Panel 3</b>	Stocking Shelves	Task Detail and MMH Issues	Location		Possible solution
<b>3a</b>	Loading carts/U boats	Breaking down pallets or containers and reloading the items on flat carts or U boats to take to out to the store floor for shelving	Retail store		
<b>3b</b>	Small items	Small packages, containers, jars or bottles taken from cases and individually placed on the shelves	Retail store		
<b>3c</b>	Large bulk items	These are large heavier goods, batteries, TV's, paint (pails & gallons) tile, small appliances, lumber, etc.	Retail store		

### 3 b Man stocking shelves with box on knee





# 3 c Women moving milk cartons 40 lb



### 3 c Women carrying milk container to load dairy case





# 3 a Man stocking from U boat retail food store



### 3 a Man stocking flat cart in retail store bent over





### 3 a b c Man lifting reaching cartons of soda bottles





**3 b Man stocking paint cans**



### 3 c Women stocking shelves paint 2-wheeler dolly



### 3 c. Man bending loading dairy case





3 c Carrying materials down from ladder top shelf  
large retail store or warehouse



## 3 b Stocking taking container from pallet jack





3 b Man stocking top shelf holding box in left hand



3 b Retail floor: Stocking: Bending at waist to lift off near floor level





### 3 a Man back view picking up box reaching and bending



## 3 C Man picking up 5 gal paint pail





### 3 b Man stocking shelves holding and placing



## 3 b Stocking taking container from pallet jack





## 3 a Stocking shelves dog food mid-level lift



3 a Man picks up box from a flat cart bending at waist





### 3 c Man pulling sack of sand from floor level on skid



### 3 c Maneuvering pallet jack into place in store





3 c Women on ladder reaching overhead to pull large box down



## 3 c Two men moving items TV on pallet carrying





# Methods for Reducing MMH Overexertion related Hazards

Engineering



Reduces the MMH  
Hazard To:

0%

20%

40%

60%

80%

100%

**The only way you are going to eliminate or reduce the hazards associated with MMH is to “Engineer” the problem out. Find the appropriate tool or design a new tool or device.**

FOR FURTHER INFORMATION CONTACT



Ergonomic Assist Systems and Equipment (EASE) is the resource for trends, information, practices, equipment, and organizations that focus on ergonomics and improving the working interface between people and the materials they must move and use to reduce injury, increase productivity while providing a significant return on investment.

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