

KMS FURNITURE HANDLING 101 COURSE

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Furniture Handling Basics

Handling furniture is at the heart of what we do. Because moving has a high risk for back injuries, we want to ensure that all employees learn how to properly handle all types of furniture. In addition, if employees disregard properly handling furniture, there is a high likelihood of damaging customer furniture. Although moving is a relatively simple concept, it requires using proper lifting techniques and proper equipment for safely and efficiently handling furniture. In this basic course, you will learn the following:

- General guidelines
- Proper lifting techniques
- Proper use of moving equipment

I. General Guidelines

A. Take your time and pay attention.

1. Never move too quickly. Scratches, dents, and gouges to doorways, walls, and other furniture usually happen when a mover is in a hurry. Make sure you have enough help to move the furniture.
2. When possible, use dollies or carts to move heavy furniture pieces.
3. Never slide or drag furniture along the floor without thoroughly evaluating the furniture and the floor. The floor can be damaged by dragging or sliding furniture, and the vibration caused by sliding furniture can loosen or break furniture parts.

B. Evaluate the furniture.

1. Never pick up a piece of furniture without looking it over; evaluate the piece of furniture before picking it up.
2. Assess whether there are detachable or removable parts.
3. Assess the best place to lift the piece; this is generally along the base.

C. Examine the room and the path you plan to take.

1. Be aware of your surroundings so you know where everything is.
2. Look for a clear route, which is away from clutter, narrow doorways, and hanging lights.
3. Look around and make sure you know where everything is.

II. Introduction

A. Lifting techniques

1. Solo lifting involves properly lifting and carrying small to medium-sized items weighing 0-50 lbs. Typical items include boxes, chairs, end tables, etc.

2. Team lifting involves 2 crew member working together to properly lift and to carry medium to large items weighing 50-300 lbs. Typical items include dressers, chest of drawers, bookcases, desks, etc.

B. Moving Equipment

1. Hand trucks (commonly referred to as 2-wheeler)

- a) This is our most commonly used piece of equipment. It is ideal for moving cartons and some furniture items.
- b) They are constructed of steel (or aluminum), have 2 pneumatic tires, and are approximately 4.5 ft. tall.
- c) Most hand trucks have a load capacity of 300-400 lbs. and can be operated by 1 person.



2. Piano carts

- a) They are constructed of wood, have 4 rubber casters, and are approximately 30" L x 18" W x 8" H.
- b) There are 2 types of piano carts, and both are ideal for moving large heavy furniture and should be operated by 2 people.
 - (1) High rise piano cart
 - (2) H-piano cart (commonly referred to as flat 4-wheeler)



3. Appliance dollies

- a) This is a specialized 2-wheel dolly that is constructed of aluminum (or steel), has 2 hard rubber wheels, a retractable ratchet strap and is approximately 5 ft. tall.
- b) Because its design allows items to be securely strapped to the cart, it is ideal for handling large and bulky furniture like washers, dryers, refrigerators, and file cabinets.
- c) It should be operated by 2 people.



4. Hump straps

- a) Hump straps are made of cotton (or burlap) and are approximately 4" x 96".
- b) There are two types of hump straps: cotton hump straps (smaller and softer) and burlap hump straps (wider and stronger.)
- c) This item is commonly used for lifting bulky items like mattresses or items located in or moved through difficult areas.
- d) Typically, these straps function best when operated by 2 people.



5. Ramps (also referred to as walk boards)
 - a) Ramps are made of wood, steel, or fiberglass and range in length from 2' – 14' and a width of 30"-52".
 - b) There are two types of ramps.
 - (1) Single ramps are available in lengths of 2 ft., 4 ft., 6 ft., and 8 ft.
 - (2) Split ramps are available in lengths of 12 ft. and 14 ft.
 - c) Ramps are commonly used to provide access into areas that are not ground level, such as home entryways and moving trucks.
 - d) Ramps allow for easy movement of all of our wheeled moving equipment.



III. Lifting techniques

A. Solo lifting technique

1. Do not attempt to lift a piece of furniture alone if the item is too heavy or is awkward.
2. To ensure proper balance, set your feet approximately shoulder width apart.
3. Maintain a firm grip with both hands the entire time.
4. Lift with your legs and not your back, as much as possible. If this is not possible, try to keep your back straight while lifting and carry the item as close to your body as possible.
5. Resist twisting your body while carrying the load.
6. Walk as smoothly and evenly as you can.
7. Carry as much as you can without risking damage to the home, the item, or yourself.
8. Plan your path carefully; make sure you can see well enough to avoid tripping or running into something.
9. Be keenly aware that loose items, drawers, and doors may fall out or may come open and cause damage.
10. Pay attention to the condition of the ramps; they can become very slippery during rainy or winter conditions.

B. Team lifting technique

1. Use team lifting techniques with furniture items that are too large or too bulky to handle by yourself.
2. Allow one crew member to be responsible for the control of the action. If one crew member lifts too soon, shifts the load, or lowers it improperly, it may cause injury.

3. Partners should mirror each other as they lift and move furniture.
 4. One crew member carries walking forward; the other, backwards. Make sure that the person walking backwards is experienced in doing so.
 5. Make sure you have a good grip on the item the entire time you are carrying it.
 6. Hold the item as close to your body as possible and at waist high.
 7. Communicate with your partner when navigating difficult corners, tight doorways, low overhangs, and the like.
 8. Carry with good balance. Partners should try to match the amount of weight in each of their hands to minimize the possibility of strain.
 9. When walking up or down steep inclines, steps, or ramps, move slowly and allow the crew member who is walking backwards to set the pace.
 10. Carry and walk smoothly; both crew members should match each other's rhythm and pace. This is not an easy technique for some individuals. If you feel the item bouncing or is continually bumping into your body, either you or your partner is not walking smoothly. A good mover will walk smoothly and effortlessly.
11. Common team lifting methods
- a. Tilt team lift
 - a. This method is preferred by many movers because it keeps the person from having to bend down to ground level to lift the item.
 - b. Each crew member positions himself at each end of the item and tilts the item to the back by about 30-45 degrees.
 - c. Then each crew member lifts from the front bottom corner and the top rear corner of their end of the item.
 - d. Once the item is lifted to waist height, both crew members should readjust and move the hand positions so both hands are at the bottom corners of the unit.
 - e. When setting the item down, crew members complete the process in reverse.
 - b. 45 degree team lift
 - a. Each crew member positions himself at each end of the item.
 - b. One crew member lifts his end of the item to 45 degrees towards the other crew member.
 - c. The first team member lifts the item on the high end of the item; the other team member lifts from the low side of the item.
 - d. This method is helpful on stairs or ramps because the angle of the item carried will match the angle of the stairs; it also often gives you more leg room.

IV. Moving Equipment

A. Hand trucks

1. General information
 - a. Hand trucks are extremely practical and can protect you from straining your body.
 - b. Use for moving cartons and most furniture. Most hand trucks have a load capacity of up to 300-400 lbs., but they should not be overloaded.
 - c. Our company uses hand trucks constructed of steel or aluminum. Most movers prefer the aluminum construction because it is light weight.
 - d. Each hand truck has padding on the back rack to protect furniture from damage.
2. Loading and unloading
 - a. Properly position the item(s) when loading to make sure the item is stable. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
 - b. You may need to reposition an item by hand before you load it onto a hand truck. Place the load so that it will not slip, shift, or fall.
 - c. Load the item onto the hand truck by gently tipping the item forward and carefully sliding the hand truck plate under the item.
 - d. Make sure the load is located on the middle of the hand truck and is well balanced.
 - e. If you are loading on a finished floor, use caution so you do not scratch the floor while you slide the hand truck under the load.
 - f. Reverse the process when unloading the hand truck.
3. Operating tips
 - a. To easily and safely operate the hand truck, push rather than pull the hand truck. However, if you are going up a flight of stairs, pull the hand truck.
 - b. If you are moving up a ramp, going backwards is the safest method.
 - c. For optimum performance, make sure the hand truck tires are properly inflated.
4. Damage control
 - a. The best way to avoid damage to the customer's home is to protect the floors before using the hand truck. (Refer to the **Job Preparation Course**.)

- b. Make sure the wheels are free of dirt, moisture, or mud before entering the customer's home because this can cause damage to carpet.
- c. When working on wood floors do not slide the base of the hand truck on the floor because it will scratch or gouge the floor.
- d. If you use the hand truck on a flight of stairs, use caution to prevent damage to the stairs.
- e. Use caution in tight areas as the hand truck can easily bump and damage walls.
- f. Avoid damage to the items being transported by the hand truck.
 - (1) When loading boxes be careful to not gouge the side of the box.
 - (2) When hauling furniture NEVER put a finished edge against the metal base plate of the hand truck.
 - (3) When transitioning over thresholds or onto ramps, move slowly and do not jolt the loaded items.
 - (4) To keep the item well balanced on the truck, use your free hand to stabilize the item as it is being loaded, moved, and unloaded.

B. Piano carts

- 1. General information
 - a. Piano carts have four - 360 degree rotating casters and have a load capacity of 1,000 lbs.
 - b. Because of the 360 degree wheel rotation, piano carts are difficult to steer. As a result, they are best used in a team application; however, a solo experienced mover can use them effectively.
 - c. Use piano carts for large, heavy furniture such as pianos, hutches, dressers, and similar items.
 - d. There are two types of piano carts.
 - (1) The high rise piano cart has two rubber caps at each end of the cart that are approximately 2 inches high; this cart is ideal for moving pianos.
 - (2) An H-piano cart (or flat 4-wheeler) has rubberized gripping that covers the entire length of the surface of the cart; this cart is ideal for moving items with finished surfaces.
 - e. Maneuvering around tight corners is significant advantage to using the piano cart.
 - f. Operate piano carts only on stable surfaces such as carpet, hard floors, concrete, etc.
 - g. Using a ramp system allows for efficient use of piano carts.

2. Loading and unloading
 - a. Loading the piano cart typically takes 2-3 crew members.
 - (1) When using 3 crew members; two crew members lift the item while the third places the piano cart underneath.
 - (2) When using 2 crew members to load the piano cart, there are 2 different methods.
 - (a) In the first method, both crew members dead lift the item and carry to the cart for placement.
 - (b) In the second method, one crew member tilts the item approximately 45 degrees while the other crew member positions the cart underneath the item. After the cart is in position, both crew members work together to tip the furniture item onto the cart.
 - (3) When using one crew member to load the cart the furniture item can be lifted onto the cart or tilted onto the cart. CAUTION: Only experienced movers with more than one year of experience should attempt to load piano carts by themselves.
 3. Operating tips
 - a. In most cases the weight of the item ensures that the piano cart remains firmly in place as the item is moved.
 - b. When transitioning over thresholds, be careful so the cart doesn't shift out of place.
 - c. When transitioning up or down ramps, make sure the item doesn't drag on the ground or on the ramp. In such cases, gently lift on the item until you have proper clearance.
 4. Damage control
 - a. The best way to avoid damage to the customer's home is to protect the floors before using the piano cart. (Refer to the **Job Preparation Course**.)
 - b. Make sure that the wheels are free of dirt, moisture, or mud before it goes into the customer's home because this can cause damage to carpet.
 - c. When working on wood floors, make sure no debris (small rocks, etc.) are embedded in the rubber casters because it will scratch or gouge the floor.
 - d. Use caution in tight areas as the cart can easily bump and damage walls.
 - e. Avoid damage to the items being transported by the piano cart.

- (1) When loading finished surfaced items, remove any debris on the piano cart that could cause gouges or scratches (for example a small pebble).
- (2) Keep the item well balanced on the cart; both crew members should use both hands to stabilize the item as it is being loaded, moved, and unloaded.
- (3) When transitioning over thresholds or onto ramps, move slowly and do not jolt the loaded items.

C. Appliance dolly

1. General information

- a) The appliance dolly is rarely used but can be a useful tool because of its ability to handle extra heavy/bulky items; for example, refrigerators, washers, dryers, gun safes, entertainment centers, etc.
- b) Appliance dollies are designed to handle up to 800 lbs. and have a retractable winch strap that can firmly secure items to the dolly.
- c) Another helpful feature is the "stair climber," which is located on the bottom rear side of the dolly; this feature helps to maneuver up and down stairs smoothly.

2. Loading

- a) Two crew members are needed to operate the dolly.
- b) Properly position the item in the middle of the cart and ensure that it is well balanced.
- c) Secure the item to the cart by using the winch strap that is built into the cart.
- d) When maneuvering a loaded dolly, one crew member should operate the dolly while the other crew member should steer and stabilize.
- e) It is best to push the dolly when on level surfaces, going down stairs, and going down ramps. However, we recommend that you go backwards when going up the ramp or stairs.
- f) If you use the appliance dolly on a flight of stairs, follow these instructions:
 - (1) Use two people to properly operate it.
Caution: Only an experienced mover should navigate an appliance dolly on the stairs by himself and only if the item is not too heavy.
 - (2) Go very slowly and make sure you maintain full control as you go down. Stairs can be very hard on a load so take each step with ease and control to avoid jarring the item.
 - (3) The crew member on top should be in control of the movement.

- (4) The spotter needs to help lift some of the weight as it comes down each step. However, the spotter needs to be very careful to not over lift because over lifting tends to shift more weight to the crew member on the top.
 - (5) Maintain good communication throughout this process. Let your teammate know of any potential problems or concerns before a problem arises.
3. Operating tips
 - a) Make sure that the person operating the cart is leading the other crew member.
 - b) Because a loaded appliance cart can be bulky and difficult to manage, make sure that another crew member assists in guiding, pulling, pushing, and stabilizing.
 - c) Maintain good communication throughout this process. Let your teammate know of any potential problems or concerns before a problem arises.
 4. Damage control
 - a) The best way to avoid damage to the customer's home is to protect the floors before using the appliance dolly. (Refer to the **Job Preparation Course**.)
 - b) Make sure the wheels are free of dirt, moisture, or mud before it goes into the customer's home because this can cause damage to carpet.
 - c) When working on wooden floors make sure no debris (small rocks, etc.) are embedded in the rubber casters because it will scratch or gouge the floor.
 - d) Use caution in tight areas as the cart can easily bump and damage walls.
 - e) Avoid damage to the items being transported by the by the appliance dolly.
 - (1) When loading finished surfaced items, make sure they are properly padded because the winch strap can damage the surface.
 - (2) When transitioning over thresholds or onto ramps, move slowly and do not jolt the loaded items.

D. Hump straps

1. General information
 - a. There are two types of hump straps: a cotton hump strap (which is smaller, softer, and is used most often) and the burlap hump strap (which is wider and stronger).

- b. Hump straps are approximately 8 ft. long and offer movers another option for lifting items, such as mattresses, washers, dryers, fragile antiques, and more.
 - c. Typically these straps function best in a team lifting situation.
- 2. Loading and unloading
 - a. To load an item onto the hump strap, you can lift the item and set it on the strap or tilt the item back and slide the strap underneath.
 - b. The hump strap needs to be well balanced under the item.
 - c. Each crew member can then grip his end of the strap and lift the item while using his other hand to stabilize the item.
 - d. Mirror your partner's position and pace, and keep your movements smooth and controlled.
 - e. Another method for carrying an item with a hump strap is the "loop around method."
 - (1) One crew member places the hump strap underneath the item and grips both ends of the strap while the other crew member directly lifts the item with their hands.
 - (2) This method is helpful when moving large items on a flight of stairs because it gives the person on the topside a better gripping point.
- 3. Operating tips
 - a. Gripping the hump strap with heavier items can be challenging so it's helpful to know the "double grip technique."
 - (1) Grip the strap approximately 2 feet above the ground, wrap it 2-4 times around your wrist, and grip it again; and then you are ready to lift.
 - (2) When you lift, your arm should be fully extended and the item should be 6-8 inches off of the ground.
 - b. Using a hump strap allows an item to remain lower to the ground while being carried. This is very helpful with taller items so make sure to adjust the length of your strap to keep the item close to the ground and keep an eye on height clearances.
- 5. Damage control
 - a) Avoid damage to the items being transported by making sure the hump strap is in good condition and not ripped or weakened from previous wear and tear.
 - b) Make sure the strap isn't soiled as the soil can transfer to fabric items like mattresses.

- c) Always make sure the strap is holding its grip as you are moving an item. If a strap slips out during a carry, then the item will drop and will potentially get damaged or damage the customer's house.
- d) Light fixtures can also be easily damaged when carrying taller items so make sure you are aware of their location.

E. Ramps

1. General information

- a. Ramps are also referred to as walk boards.
- b. There are 3 different types of ramps.
 - (1) Split ramps
 - (a) They are constructed of fiberglass.
 - (b) These ramps are comprised of two parts that can be separated to load items like vehicles, or they can be attached and used to load household goods.
 - (c) They have a 5,000 lb. capacity and are 14' L x 36" W.
 - (d) The primary purpose of these ramps is to transition from ground level to the truck.
 - (2) Standard ramps
 - (a) They are constructed of wood and steel.
 - (b) These ramps have a load capacity of 600lbs and come in 4 sizes (2' x 30", 4' x 30", 6' x 30" and 8' x 30").
 - (c) The primary purpose of these ramps is to transition from ground level to the home entrance.
 - (3) Aluminum ramps
 - (a) These ramps have a load capacity of 1000lbs and are used to transition from the ground to the truck.
 - (b) These ramps are primarily used on our straight trucks and vary in size depending on the height of the truck.
 - (c) Aluminum ramp sizes range from 7' x 32" to 10' x 32".

2. Loading and unloading

- a. Each truck/trailer is equipped with several sizes of ramps. Typically each truck/trailer will contain a variety of smaller ramps (to transition from ground level to an entryway) and at least one longer ramp (to transition from the ground level to the truck/trailer.)
- b. Some trucks are equipped with storage compartments specially designed for ramps and some are not. If not, the ramps are secured inside the truck/trailer.

- c. When placing large ramps (8 ft. or longer) into position, use 2 crew members.
 - d. Smaller ramps can usually be positioned with 1 crew member.
 - e. Always make sure the top edge of the ramps adequately extend onto the landing point and isn't too close to the edge.
 - f. When ramps are reloaded onto the truck/trailer, make sure they are secured and cannot shift or fall.
3. Operating tips
 - a. In most cases, ramp weight capacities are adequate for household items.
 - b. Inspect the ramps prior to placement to ensure there is no damage or weakness.
 4. Damage control
 - a. Never step off ramps. It's critical to know where you are when walking on a ramp. Injury to yourself and/or the customer's property are probable if you go over the edge of the ramp.
 - b. Check that ramps maintain their position. Throughout the course of a move, ramps can begin to shift and can split out of place causing damage or injury.
 - c. Place pads under edges. Because ramps have metal plates on each end they can cause damage to doorway bases, decorative tile, wooden steps, and even concrete. Evaluate each home and when there is a concern, place a furniture pad or cardboard under the area of the ramp that might damage these areas.

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