Material Handling – Placement

The tradition of lifting objects by hand with a straight back and bent knees was a simplistic explanation for complicated body mechanics. That tradition also assumed there was a clean and neat working area with room for moving hands-on material. But workers are too smart for that simple explanation; they can think of more adaptable procedures for such situations. What you will hear about now are basic principles for lifting that apply to you, the equipment you are using and the product that you are moving.

Prepare for Placement:
Before you pick it up, you must be ready to set it down. This applies to picking up a pencil or to picking up a 200-ton boiler in a power plant. Likewise, if you are not ready to set it down, you are not ready to lift it up.

Preparing for placement is the first rule for any kind of material handling. If you are handling material, you do not want to hold it any longer than necessary. You must have a place to set it down.

Plan Your Route:
Has anyone here ever had a box in their hands or a load on their forklift and discovered a door was locked; the floor was wet; or had to deal with ramps, inclines or stairs?

Always look at least 10 feet ahead in the direction you are traveling when carrying a load and try to visualize the path of at least two corners ahead of you. Create a carrying space ahead of you whether you are walking or operating equipment to move materials.

Walk-behind and ride-on type pallet movers must have clear paths and good surfaces to roll across. The wrong surfaces (floors that have cracks, dips, holes, or slippery and bumpy areas) can cause an injury when the pallet mover suddenly stops or shifts its load.

Ramps and inclines must be anticipated when manually or mechanically moving a load. With the exception of walk-behind pallet jacks, pallets should be on the uphill side of the equipment so the material will not slide off. Plan where you will make turns in order to position mobile equipment for the ramp.

Prepare the Mover:
Whether you are moving materials manually or mechanically, you must be prepared. Warm-up time is important because an engine wears out more quickly, when put to work immediately after you turn it on.

Your muscles also need a warm-up period. The greatest number of sports injuries occurs when athletes do not warm up properly. Even with years of training, the moment for exhibition can be destroyed when there is no warm-up period. Speakers warm up their throats and their minds, race car drivers warm up their engines and their mental attitudes, and ovens are warmed for proper use. Similarly, we must learn to warm up our muscles before we use them to lift. Without warming up, we are more likely to incur an injury or cause one for someone close by.

Mechanical equipment must be properly inspected before every shift. Forklifts and other mechanical moving equipment have inspection checklists; however, the only checklist for your body is in your mind. For best results, use your mental checklist before lifting.
Taking proper care of your body is important for lifting tasks in the same way it is necessary to take care of a crane, forklift or two-wheeled dolly. Ask yourself if you are physically ready to perform a task just as you would ask if a forklift is ready for a job.

**Keep Your Body Moving:**
The longer you stand in one place while lifting, the more likely your muscles are to resist change. Under tension, muscles relax and accept a certain strain limit.

When handling material, always turn your entire body when changing directions. Turning only the upper part of your body when handling a load causes severe strain on these muscles.

There is more than one way to lift, but one rule that remains the same whether you're handling materials manually or using equipment is that the load must be balanced. Some people will do this with straight backs and bent knees. Some will do it by looking like a crane by using one leg as a counter lever and bending completely at the waist. Others will stand erect and then squat down as if their back was directly against the wall. And others will lift equal weights in each hand for balance. Without balance, your muscles will overcompensate by themselves and you will suffer from overexertion.

Overexertion of a muscle translates into pain and takes a long time to heal properly. A sprained ankle is one type of overexertion injury caused by trying to keep your foot straight when you step on an uneven surface or because your foot is unbalanced and cannot support your body.

Be prepared for material handling instead of reacting to the strain of lifting. Create a safe-lifting-space cushion around you when handling materials.