Chapter 10: Struck By

- Backing Vehicles and Equipment
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- Loading Equipment (Onto Trailers)
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- Walking/Working Around Equipment/Vehicles
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AGC Tool Box Safety Talk

BACKING VEHICLES AND EQUIPMENT

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Every year there are many accidents resulting in injury and damage due to carelessness when backing vehicles. Incidents involving backing vehicles are not uncommon among worker-on-foot fatalities. Backing accidents are preventable. Whether you are a driver or a pedestrian, always stay alert to what is going on around you.

- When backing up, make sure you have an unobstructed view. Visibility is all-important to safely completing the maneuver. If you do not have an unobstructed view, use a flag person.

- Keep the windows clean and remove obstructions from your sight line.

- Ensure that your intended path is clear.

- Back up slowly. It's easier to control a vehicle when moving at a speed of less than 3 mph.

- Pay extra attention to blind spots. Adjust mirrors to eliminate blind spots before you start the engine.

- If you are a pedestrian, never position yourself between moving and fixed objects.

- Wear high-visibility clothes near equipment and vehicles.

- Make sure back-up alarms are operating.

AGC Tool Box Safety Talk

COMPRESSED GAS CYLINDERS

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Compressed gas cylinders can be hazardous. Sudden release of the gas can cause a cylinder to become a missile-like projectile, destroying everything in its path. To prevent such a dangerous situation, follow procedures for safe handling:

- Store cylinders in an area specifically designated for that purpose. Ensure that the area is well ventilated, away from sources of heat, and protect cylinders from being struck by another object.

- Do not drop cylinders or allow them to fall. Secure them in an upright position during use and storage.

- Move cylinders with a compressed gas cylinder cart designed for that purpose.

- When moving a cylinder, even for a short distance, ensure that all the valves are closed, the regulator is removed, and the valve cap is installed.

- Do not remove a cylinder cap until the cylinder is secured in place and ready to use. Cylinder caps protect the valve on the top of the cylinder from damage if it is knocked over. Also, if gas is accidentally released through the valve, the cap will vent the gas out of both sides, minimizing the likelihood that the cylinder will topple.

- Before using the gas, install the proper pressure-reducing regulator on the valve and verify that the regulator is working, that all gauges are operating correctly, and that all connections are tight to ensure that there are no leaks.

- When you are ready to use the gas, open the valve with your hands. Never use a wrench or other tool. If you cannot open it with your hands, do not use it.

AGC Tool Box Safety Talk

EQUIPMENT ROLLOVER

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Any piece of heavy equipment can tip over under extreme conditions or if used improperly; i.e., at a high speed, especially going down an incline, or being too near an unstable edge. To help prevent accidents, make sure you are properly trained to operate the equipment and follow these safe work practices:

- Ensure that all equipment used in a location where there is a danger of overturn is equipped with a Rollover Protective Structure (ROPS).

- Always wear the seat belt to take advantage of ROPS protection. To survive an equipment rollover, the operator must remain inside the protective structure.

- Learn to identify those areas where a rollover could happen. Use extra caution when using heavy equipment on steep or hilly terrain.

- Keep in mind that equipment outfitted with ROPS can still roll over. Be prepared to take appropriate control measures.

- Do not try to jump away in a rollover. You could become a victim and be crushed by the ROPS.

- Do not operate equipment in ways for which it was not designed. This could increase the likelihood of a rollover.

AGC Tool Box Safety Talk

FALLING OBJECTS (HARDHATS)

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Among the most common causes of serious work injuries are accidents involving falling objects. You are at risk from falling objects when you are adjacent to cranes, scaffolds etc., or where overhead work is being performed. Injuries can range from minor abrasions to concussions, blindness, or death. Take these precautions to prevent injury:

- Wear a hard hat when operations are being conducted adjacent to and overhead of your work area, or wherever the potential exists for injuries due to falling objects.

- Choose the right hard hat for the job. Hard hats are classified according to protection against impact and penetration hazards, as well as electrical hazards.

- Choose the appropriate hard hat for your application. (Class A, B or C.).

- Wear the hat properly. Follow manufacturer information on how to tighten the suspension to achieve a proper fit.

- Inspect the hard hat before each use. Look for signs of wear, cracks, dents, cuts, holes, burns, or other material damage. Inspect the webbing, headband, and suspension attachment points for signs of cuts, tears, and frayed material.

AGC Tool Box Safety Talk

LOADING EQUIPMENT (ONTO TRAILERS)

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Loading equipment onto trailers can cause serious injuries if the equipment slips or falls. Often, the equipment will be just as wide as the trailer and there will be little room for error. No matter what type of equipment you are loading or what type of trailer you are using, follow these general rules:

- Make sure all non-essential personnel are removed from the loading area.
- Secure the truck or trailer to prevent movement. Use chocks or wheel blocks.
- Verify that the equipment is in line with the trailer. Make sure the trailer is level.
- If you're driving equipment onto a trailer, watch and follow your guide.
- Do not steer sharply.
- Before transit, make sure the weight is evenly distributed on the trailer and the equipment is secured.

AGC Tool Box Safety Talk

MAINTENANCE HAZARDS

INTRODUCTION

1. Review any accidents or “near accidents” from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Workers doing maintenance on machinery and equipment are at risk of being struck by machine and or equipment parts and misused tools. Injuries can range from minor cuts and lacerations to serious fractures; puncture wounds, amputations, and fatalities. Take these precautions when performing maintenance:

- Lock out equipment and machinery to render it inoperable during maintenance and repair.
- Wear appropriate protective equipment; i.e. safety goggles, hard hat etc.
- Block and prevent the movement of all equipment being repaired.
- Never tamper with machine guards.
- Always replace guards after making repairs or adjustments to equipment.
- Be sure potential energy is rendered harmless.
- When moving equipment use proper lifting techniques.

AGC Tool Box Safety Talk

MATERIAL HANDLING EQUIPMENT

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Operating heavy construction equipment for moving dirt and other materials can be dangerous. Not only is there a risk of rollover, there is also the potential for hitting or running over other employees. Follow these guidelines to help ensure safety:

- Maintain all safety devices such as ROPS (Rollover Protective Structures) to prevent unintentional lowering of buckets on front-end loaders and other similar equipment.
- Always wear a seat belt.
- Make sure other workers are clear of the loading area and visible to the operator at all times.
- Load the bucket evenly and avoid overloading to prevent turnovers. Check your operator's manual for load capacity.
- Watch where you are going. Avoid holes, rocks, loose fill, or other obstacles which could upset the trailer.
- If working inside buildings, watch for low ceiling beams and doorways to prevent being pinned or crushed between them and the tractor.
- Use the loader only for its specific purpose. Never use it to tow an object or to knock something down. Never allow people to ride in the bucket.

AGC Tool Box Safety Talk

NAIL GUNS

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Nail guns can be lethal weapons. With the squeeze of a trigger, they can drive anything from a small finishing nail into a Nail guns have the capacity to fire several nails per second at a velocity over 1,000 feet per second. With the squeeze of a trigger, they can drive anything from a small finishing nail into a piece of plywood to a three-inch nail into wood and concrete block. When this projectile strikes a human body, the resulting damage can be severe, and sometimes fatal. Exercise extreme caution whenever using a nail gun.

- Always wear safety glasses when operating pneumatic tools including nail guns. Make sure your helpers wear them too.

- NEVER dismantle or bypass safety devices such as triggers, guards, or bumpers.

- Do not hold the trigger down unless you're purposely firing the tool. Do not fire the tool unless the nose is firmly pressed against a work piece.

- Never point the tool at anyone. Treat a nail gun like a firearm. Always assume it is loaded and ready to fire.

- Always point the gun away from you when nailing materials. Never back-nail materials with the tip of the gun pointing toward your body.

- Always disconnect the air hose or power supply before clearing jams or adjusting the tool.

- Make sure the area behind the nailing is clear and or protected from a nail enetrating through.

AGC Tool Box Safety Talk

RIGGING FAILURES

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Every year, workers lose their lives as a result of improper rigging or rigging failure that allowed a load to fall while being hoisted. Some deaths occur when the load slips from the rigging, when the rigging breaks and allows the load to fall, and when the load breaks into pieces and falls while being lifted. Always exercise caution when working around cranes.

- Inspect all rigging prior to use to minimize the possibility of rigging failure. Look for hazardous conditions such as wire rope deformation, strain, binding, or kinking.
- Do not wrap hoist lines around the load.
- Know the rated capacities of rigging and slinging and use the proper size.
- Ensure that loads are rigged to minimize the potential for dropped loads.
- Do not exceed the load chart capacity while making lifts.
- Determine a safe location to stand to avoid being struck by the load if rigging fails, or the load shifts while making lifts.
- Do not walk or work under overhead loads.
- Watch sharp corners on loads when using synthetic slings.
- Do not tie knots in synthetic slings.

AGC Tool Box Safety Talk

SLING INSPECTION

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

The slings that cranes use to hold suspended loads are a key element in crane operation. If the sling is damaged or defective, the load could drop and strike workers beneath it. Inspect each sling and its fastenings and attachments for damage or defects each day before use. Remove damaged or defective slings from service.

- Ensure that alloy steel chain slings have permanently affixed, durable identification stating size, grade, rated capacity, and reach.

- Inspect slings before each use.

- If synthetic slings show signs of wear such as deep frays or red warning threads are exposed, take the sling from service.

- When inspecting wire rope slings, check the twists or lay of the sling. If ten randomly distributed wires in one lay are broken, or five wires in one strand of a rope lay are damaged, do not use the sling.

- Check for wear or scraping; kinking, crushing, bird caging or any other damage resulting in distortion of the wire rope.

- Look for evidence of heat damage. Remove a sling from use if it's exposed to temperatures of 200 degrees F or higher or there's evidence of heat or wire rope structure damage.

AGC Tool Box Safety Talk

STACKING/STORING MATERIALS

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Stacking materials can be dangerous if workers do not follow safety guidelines. Falling materials and collapsing loads can crush or pin workers, causing injuries or death. To help prevent injuries when storing and stacking materials, take the following precautions:

- In buildings under construction, avoid placing stored materials near a hoist-way or floor opening, or an exterior wall that doesn't extend above the top of the material.

- Observe height limitations. Stack lumber no higher than needed to handle manually.

- Remove all nails from used lumber before stacking.

- Make sure that stacks are stable and self-supporting.

- Stack bags and bundles in interlocking rows to keep them secure.

- Stack bagged material by stepping back the layers and cross-keying the bags at least every ten layers. To remove bags from the stack, start from the top row first.

- Do not lean material against a vertical surface.

- Do not store pipes and bars in racks that face main aisles to avoid creating a hazard to passersby when removing supplies.

- Make sure the floor/ deck is capable of supporting the weight of the stacked materials.

AGC Tool Box Safety Talk

USE OF TAGLINES

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Hundreds of people are injured or killed as a result of crane accidents in the United States every year. Many accidents happen as a result of failure to control the load. To help eliminate this risk, use taglines for controlling awkward loads and maneuvering them into difficult positions. For safe use, follow these procedures:

- Use taglines to control loads when their use is practical and will not create additional hazards.
- After securing a load with taglines, stay clear of the path of the load and well forward of the load.
- If it's necessary to guide the load, stay well away from the wheels or tracks of the crane.
- When guiding a load, remain clearly visible to the crane operator at all times.
- Never walk between the suspended load and the crane.
- When working around electrical equipment or lines, make sure the tagline stays clear of the equipment or lines.

AGC Tool Box Safety Talk

TRANSPORTING/UNLOADING MATERIALS

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

There are hundreds of thousands of material handling accidents every year, from small splinters, cuts or scrapes, to crushed fingers, hands and feet, even deaths. Whether moving materials manually or mechanically, help prevent accidents by following these safety guidelines:

- When manually moving materials, attach handles and holders to loads to reduce the chances of getting fingers pinched or smashed.

- Place support blocks in a manner that keeps your hands from under the load.

- Wear appropriate protective equipment, such as gloves, eye protection, and steel-toed safety shoes.

- When mechanically moving materials, avoid overloading. All materials handling equipment has rated capacities that determine the maximum weight the equipment can safely handle and the conditions under which it can handle those weights.

- When picking up items with a powered industrial truck, ensure that the load is centered on the forks and as close to the mast as possible to minimize the potential for the truck tipping or the load falling.

- Never overload a lift truck. This could make the truck hard to control and put it at risk of a tip over.

- Take care when off-loading from a flat trailer with a crane. Make sure you have a means of getting away from the load should it shift or fade. Have proper access to the back of a truck. Use a ladder.

AGC Tool Box Safety Talk

WATCH YOUR HEAD (LOW CLEARANCE)

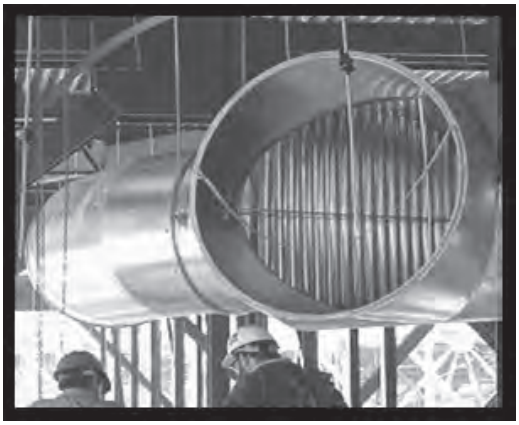
INTRODUCTION

1. Review any accidents or “near accidents” from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Overhead obstructions such as low clearance pipes, valves, hangers, or beams can cause bumping hazards. Take precautions when entering low-clearance areas, whether to work or to access equipment/materials.



- Be alert to fixed objects, such as exposed pipes and beams and protruding bolts, pipes and valves.

- Place warning signs to alert workers of low clearance areas.

- Always wear head protection when on the jobsite.

- When selecting head protection, consider the exposure hazards. Wear only hardhats that meet ANSI standards.

- To maximize protection provided by your hardhat, the liner must always be worn in the proper direction. Only turn the hardhat around with the bill in the back if approved by the manufacturer and your employer.

AGC Tool Box Safety Talk

WALKING/WORKING AROUND EQUIPMENT/VEHICLES

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

The second highest cause of construction-related deaths is being struck by an object. If vehicle safety practices are not observed at your site, you risk being pinned between construction vehicles and walls, struck by swinging backhoes, crushed beneath overturned vehicles, or other similar accidents. If you work near public roadways you risk being struck by trucks or cars. Follow these safety tips to help protect yourself and, if you're driving a vehicle, other workers:

- Drive vehicles or equipment only on roadways or grades that are safely constructed and maintained. Obey all project speed limits.
- Do not drive a vehicle in reverse gear with an obstructed rear view unless it has an audible reverse alarm, or another worker signals that it is safe.
- Make sure that you and all other personnel are in the clear before using dumping or lifting devices.
- Lower or block bulldozer and scraper blades, end-loader buckets, dump bodies, etc., when not in use, and leave all controls in neutral position.
- Set parking brakes when vehicles and equipment are parked, and chock the wheels if they are on an incline.
- Use traffic signs, barricades and flaggers when construction takes place near public roadways.
- If you're working near roadways, make sure you're highly visible in all levels of light. High visibility clothing is required; and if worn for night work, must be of reflective material.

AGC Tool Box Safety Talk

WORKING WITH CRANES

INTRODUCTION

1. Review any accidents or "near accidents" from the past week.

2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.

3. Give the TOOL BOX SAFETY TALK

Crane accidents are one of the leading causes of death and injury in the construction industry today. Fatalities and serious injuries can occur if cranes are not inspected and used properly. Many fatalities can occur when the crane boom, load line or load contact power lines and electrically energize the equipment. Other incidents happen when workers are struck by the load, are caught inside the swing radius, or fail to assemble/disassemble the crane properly. Use safe work practices to help reduce accidents when working with or around this potentially dangerous equipment.

- Make sure the crane is on a firm/stable surface and level.
- Inspect cranes, rigging and hoists before use to see that all components, such as wire rope, lifting hooks, chains, etc., are in good condition.
- Fully extend outriggers and barricade accessible areas inside the crane's swing radius.
- Watch for overhead electric power lines and maintain a safe working clearance from the lines.
- Use the correct load chart for the crane's current configuration and setup, the load weight and lift path.
- Do not exceed the load chart capacity while making lifts.
- Do not move loads over workers.
- Be sure to follow signals and manufacturer instructions while operating cranes.