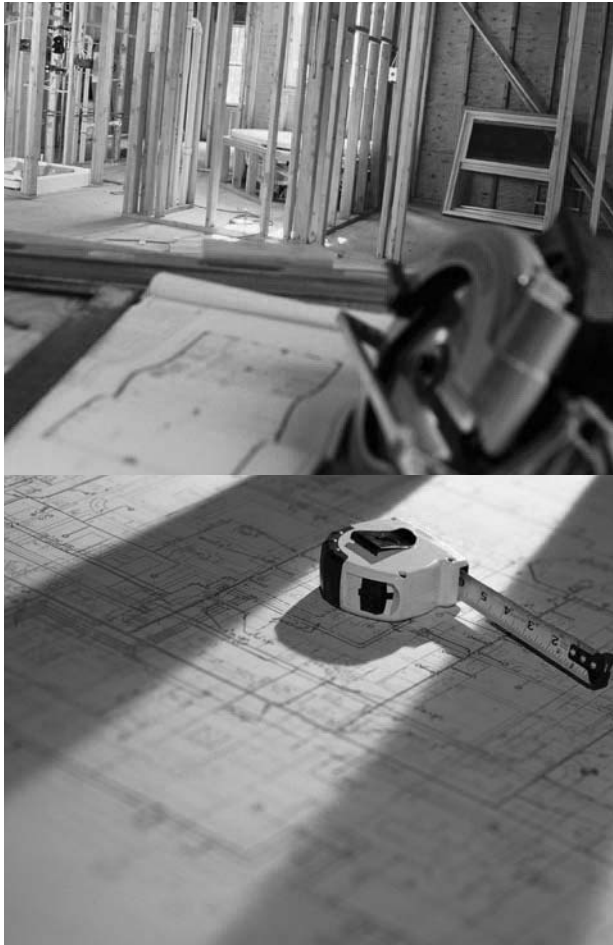


CARPENTRY



One of the keys to working in any industry is the safety and health of the workers. The carpentry industry can be a dangerous industry in which to work if you do not observe safety standards. The tools and materials that you will use on a daily basis can be dangerous if not used properly, but if you observe safety rules carpentry can be a safe occupation. It is very important to pay attention to safety standards in order to be a successful worker.

Objectives _____

1. Describe safety issues related to the carpentry industry
2. State guidelines for personal safety
3. State rules for working safely.
4. Identify sources of accidents and possible injuries in the workplace.
5. Identify personal safety equipment.

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Objective 1: _____ Describe Safety Issues Related to the Carpentry Industry

Safety should be one of the top concern for workers in any job. Almost every workplace can contain hazards and unsafe conditions. This is especially true in the construction and carpentry industries. The location of most carpentry jobs, the equipment and materials used, and the nature of carpentry tend to increase the possibility for serious accidents.

People can also do things in a way that can lead to injury and even death. Every year, millions of people suffer non-fatal workplace injuries. Thousands of people in the United States die every year from injuries suffered on the job. Workplace accidents can range from minor cuts to potentially life threatening situations. The key to handling such an



accident is your ability to analyze the situation and decide what must be done.

Some of the materials used by carpenters are dangerous because they are **combustible**. This means that they are capable of bursting in to flames. Gasoline and paint thinners are examples of combustible materials.

Many of the materials are flammable. **Flammable** materials are capable of being easily ignited or burning very rapidly. May untreated wood products and paints are flammable.

Some of the equipment used by carpenters is powered by **pressurized** or **compressed** air. This means that the air is stored or used at a greater pressure than the atmosphere. Pressurized equipment and air is another source of danger.



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As a worker you have responsibilities and there are consequences if you do not follow through with those responsibilities. In relation to safety study the responsibilities and consequences below.

Responsibilities:

- You have the responsibility to yourself to prevent personal injury.
- You have a responsibility to your family members to continue providing for them and to keep them safe.
- You have a responsibility to your co-workers to prevent accidents and injuries to them. This means being concerned with their safety and encouraging them to be safety conscious.

- You have a responsibility to your employers to prevent accidents so they are not shorthanded, their job progress is not slowed or stopped, and their insurance rates are not increased, making them less competitive.

Consequences of accidents and unsafe behavior:

- Accidents and injuries.
- Causes you to be tardy or absent.
- Causes you to be less productive.
- May affect your health and your ability to work.



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Objective 2: _____ State Guidelines for Personal Safety

As a worker in any industry there are general safety guidelines to follow in order to avoid the consequences described in the previous objective. Study and following general guidelines for personal safety.



- Comply with all of the employer's safety rules and posted signs.
- Know the proper way to perform any procedure or use any tool or piece of equipment.

- Never operate, adjust, or repair equipment without proper training.
- Do not use defective tools and equipment. Report them to your supervisor immediately.
- Report all accidents on the job immediately.
- Get first aid immediately!
- Correct or report any unsafe conditions immediately.
- Stay alert to possible hazards all the time.
- Work safely and help others work safely. Never misuse or play around with tools or equipment. Never distract your co-workers while they are working.
- Never carry tools or sharp objects in your pockets.
- Dress safely at all times:
 - ❑ Wear close-fitting clothing that is appropriate for the job.
 - ❑ Remove rings and other jewelry before you start work each day.
 - ❑ Confine long hair before using power tools or machines and before working around moving parts.
 - ❑ Wear the appropriate personal protective equipment.

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Objective 3:— State Rules for Working Safely

General Safety

- Know the location of fire-fighting and first-aid equipment on the job site.
- Be alert and conduct yourself in a safe manner.
- Be conscious of others' safety and encourage others to do the same.
- Report all accidents, regardless of their nature or severity, to the supervisor immediately.
- Be aware of OSHA, NIOSH, MSHA, and job-related safety rules.



Equipment and tool safety

- Obey all safety rules and observe limitations on equipment.
- Maintain all tools in safe working order. Properly store tools when not in use.
- Shut off all power equipment when finished using it.
- Do not leave equipment until it has stopped completely.
- Operate equipment only after receiving instructions on how to operate it safely.
- Disconnect power from equipment before changing accessories and before performing service or maintenance.
- Use the correct tool for the job.

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- Clean chips from grinders and other equipment with a brush. CAUTION: Do not clean equipment with your hands or with a rag; do not clean equipment while it is running.

Work-area safety

- Arrange equipment to allow for safe, efficient work practices and ease of cleaning.
- Store materials and supplies safely in their proper places.
- Store tools and accessories safely in cabinets, on racks, or in suitable storage areas.
- Keep work area clear of debris and other hazards.
- Always remove nails from wood before storing or disposing of it.
- Clean floors of obstructions and slippery substances; clean up spills immediately.
- Keep aisles, exits, and traffic areas free of materials and debris.



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- Dispose of combustible materials properly.
- Keep brooms, brushes, waste containers, and other housekeeping equipment readily available.

- Always know the location of the appropriate fire extinguisher.
- Stop, drop, and roll to smother a fire; never run.

Gasoline-powered-equipment safety

- Prevent contact with hot manifolds and hoses.

Flammable-liquid safety

- Read the labels on all flammable liquids.
- Use flammable liquids only in open, well-ventilated areas.
- Be sure that all flammable liquids are marked correctly for storage.
- Store all flammable liquids properly and only in approved safety containers.
- Oily rags and flammable materials should be stored in metal containers with self-sealing lids. When your clothing is soaked by a flammable liquid, immediately change clothing and clean your body with appropriate cleaner.
- Use flammable liquids only for their intended purpose. **EXAMPLES;** Never use gasoline as a cleaner.
- Do not use flammable liquids near fire or flame.



- Be sure that equipment is out of gear before starting it.
- Keep the appropriate fire extinguisher near by when starting and operating gasoline-powered equipment.
- Never pour gasoline into a fuel tank when the engine is hot or when the engine is running.
- Do not operate equipment that is leaking gasoline.
- Stop, drop, and roll to smother a fire; never run.

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Materials-handling safety

- Avoid contact with your skin. EXAMPLE: Use proper gloves.
- Wear the appropriate protective clothing. EXAMPLES: Wear close-fitting clothing with snug wristbands, ankle bands, and neckband.
- Wear properly maintained and approved safety equipment. EXAMPLES: Respirator, goggles, face shield, hard hat, safety harness
- Use good work practices to reduce dust in the air when handling cement and concrete. EXAMPLES: Do not shake out cement bags unnecessarily
- Stand upwind when dumping cement bags; wet concrete before cutting or grinding; do not use compressed air to blow cement dust off clothing or work surfaces.
- Have adequate ventilation when using epoxy resins, organic solvents, and other toxic substances.
- Never use solvents to clean your skin.
- Immediately remove epoxy, organic solvents, and other substances from skin; use appropriate cleansing agent to remove these substances.

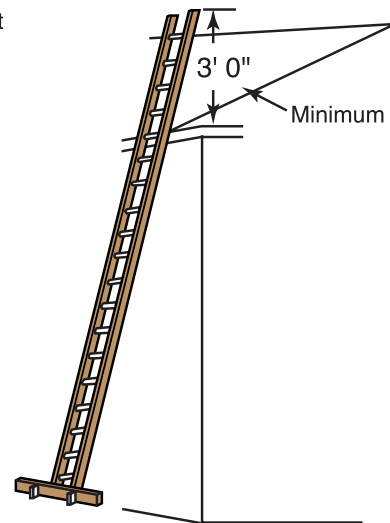
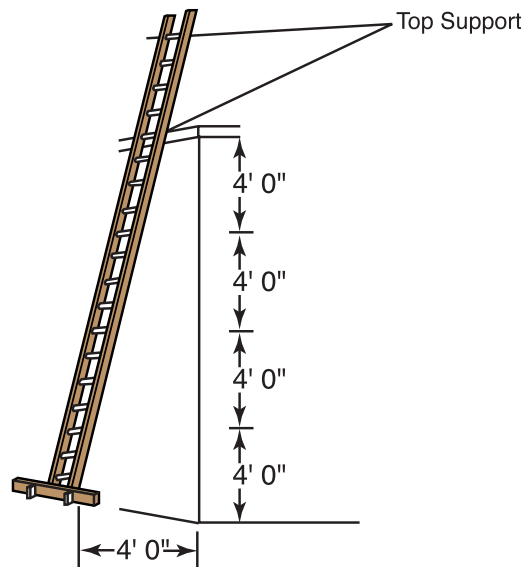
Ladder Safety

- Fully spread and lock stepladders before using.
- Do not use ladders that are not equipped with safety shoes.
- Place ladders with approximately one-quarter of their support length away from vertical plane of top support, and extend ladders at least three feet above top support.



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- Secure ladders at both top and bottom to prevent displacement. Brace long ladders at intermediate points to prevent spring.
- Never overreach from a ladder.
- Never work from the top step of a ladder.
- Never use ladders as makeshift scaffolds.



- Do not climb a ladder that is occupied by someone else.
- Consult manufacturer's specifications for load-bearing limits.
- Never use a metal ladder around wires and conductors.
- Inspect all ladders before use for worn safety shoes, broken or loose rungs, broken extension locks, or other defects.

- Always face and ladder and use a 3-point position when ascending and descending.
- Remove and store the ladder properly when finished using it.

Scaffold safety

- Observe OSHA regulations.
- Read and follow all manufacturer's instructions and use only approved scaffolding.
- Inspect scaffolds regularly.
- Install anchors and guy wires on freestanding scaffolds as required.
- Be careful not to overload scaffolds.
- Ask an experienced co-worker, instructor, or your supervisor to inspect an assembled scaffold before use.

Visit the OSHA website to view images and read about safe and unsafe uses of scaffolding:

<http://www.osha.gov/SLTC/etools/scaffolding/slides/index.html>

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Objective 4: _____ Identify Sources of Accidents and Possible Injuries in the Workplace

Sources of accidents are common in most workplaces and especially in the workplace of carpenters. Study the following list of accident sources and the possible injuries associated with each source. Discuss with your instructor other sources and injuries that might occur in the workplace.

- **Horseplay** - May cause others to fall against sharp objects or moving machinery
- **Air hose** - One blast may rip clothing or skin
- **Moving parts** - May catch fingers or clothing
- **Loose clothing** - May catch in rotating parts
- **Tools** - Sharp edges may puncture skin
- **Electrical power tools** - May cause shock if not grounded
- **Lack of or improper supporting device under heavy objects** - A fall may cause a fatal injury
- **Lifting heavy objects** - May cause severe back injury
- **Pneumatic tools** - High air pressure may seriously damage eyes and skin
- **Spills on floor** - May cause falls

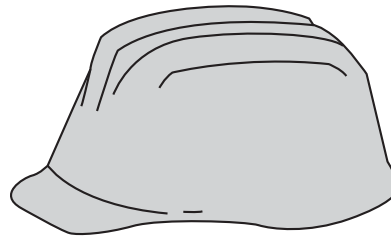


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Objective 5: _____ Identify Personal Safety Equipment

The proper use of personal safety equipment is extremely important all occupations. Study the equipment listed below and discuss with your instructor situations in which you would use each piece of safety equipment.

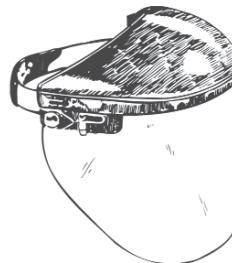
- **Hardhat**- Head protection is required on all jobs and is used to protect individuals from possible head injury.



- **Goggles or safety glasses** - Eye protection is necessary whenever there is a possibility of eye protection.



- **Face shield** - Face shield should be used whenever there is a potential danger of face injury.

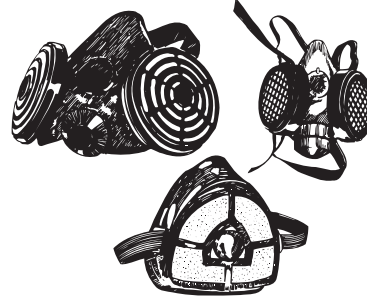


- **Hearing protection** - Hearing protective devices should be used when working near extreme noise levels.

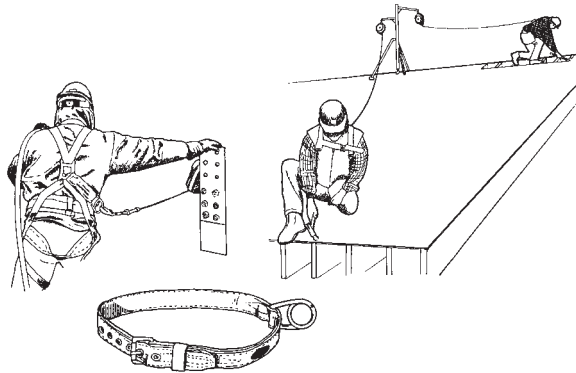


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- **Respirators-** Respirators should be used when the air at the worksite carries hazardous and irritating material such as dust, paint, and gas fumes.



- **Fall protection equipment -** Fall protection equipment is necessary when working on scaffolds, highrise building, elevated workspaces, and roofs.



- **Gloves -** Gloves are used to protect your hands from hazardous or irritating material. You should use the correct type of glove for the job. Use rubber gloves when working with materials such as concrete and epoxies. Leather gloves can be used with working with dry, rough, and sharp material and tools.



- **Boots or shoes -** Steel toe/shank heel boots and shoes should be used to protect your feet. The proper boot/shoe will help prevent slips as well as protect your feet from wet material or from being crushed by heavy material and tools.

