

FRONT END LOADER SAFETY... OPERATING AND SPOTTING FOR FRONT-END LOADERS

COURSE OUTLINE

- **You may be eager to get started on your project.**
 - But there are a few things you should always do before operating a front-end loader that will help to keep you and others on your jobsite safe.
- **First, you need to be mentally as well as physically ready to operate such a heavy piece of equipment.**
 - This means making sure you get enough sleep, food, and water beforehand.
 - If you're fatigued or dehydrated, the likelihood that you'll make a mistake while operating any equipment increases significantly.
- **The same thing can happen if you're not mentally "balanced".**
 - If you're feeling angry, sad, or just distracted, you should take time to "cool down and focus" before you operate a front-end loader.
- **Once you are ready to go, you should read and understand everything in the front-end loader's operator's manual.**
 - It should be in the machine at all times.
- **You can then begin your "pre-shift inspection," to confirm that all of the front-end loader's parts are working correctly.**
- **First, you should check out anything that you can look at when the motor is turned off. This includes...**
 - Fluid and oil levels.
 - Potential leaks in the hydraulic cylinders.
 - Loose, worn or damaged parts in the cab, or with the bucket or tires.
 - Damaged labels.
- **Remember to wear protective equipment.**
 - Gloves are especially important when you're checking for hydraulic leaks.
- **Never use your hands to look for leaks within hydraulic cylinders.**
 - Instead, use the "cardboard test", running a piece of cardboard along the cylinder to see if it comes back wet or dry.

- **Then, with the motor on, verify that your controls are working correctly.**
 - Exercise them one at a time and make sure that you can lift and tilt the bucket smoothly.
- **Next check that your lights and signals all turn on and can be seen clearly.**
 - You may need another worker to help you with this.
 - If your front-end loader has a “back-up” alarm, make sure that it works and can be heard above the noise of your construction site.
- **Last, check your parking brake by putting your front-end loader in “park” and trying to move forward or backward.**
- **If any part of the loader fails your inspection, do not use it.**
 - Notify your supervisor immediately and tag it “OUT OF SERVICE”.
- **If your front-end loader passes inspection, you can move on to surveying the site you’ll be working on. Look around the general area and note any...**
 - Debris.
 - Potholes.
 - Structures.
 - Overhead obstructions.
 - Marked underground utilities.
 - Vehicles, pedestrians, or other workers in the area.
- **Once you’re familiar with your jobsite and feel that you and the front-end loader are ready to go, you can get to work.**
- **Front-end loaders can weigh up to 100,000 pounds.**
 - Their size is what allows them to work so efficiently, but it’s also what can make them so dangerous.
- **When you have that kind of power in your hands, it comes with responsibility.**
 - You have to know how to operate the machine safely to keep yourself, your jobsite, and everyone around you safe.
- **Because front-end loaders are so large, they can be difficult to mount.**
 - If you rush, you could slip and fall.
 - Falling from that height could cause serious injuries.

- **So take your time and maintain “three points of contact”.**
 - At least two hands and a foot or two feet and a hand, on the loader at all times.
- **Once you have a good grip, pull yourself up and slowly rotate your body into the cab.**
 - Never use controls as step stools or handles.
- **Adjust your seat so that you can comfortably reach the controls.**
 - If you’re not comfortable, it could very well lead to some type of ergonomic injury.
- **Don’t forget to fasten your seatbelt.**
 - In the event of a collision or tip-over, it could save your life.
- **When you are ready to go, slowly move to your destination.**
 - Keep the bucket low to the ground to make sure you can see your path.
- **If you are going to be moving dirt, gravel or similar material, approach it with the loader’s bucket parallel to the ground.**
 - Make sure there is about a foot between the ground and the bottom of the bucket.
- **Next, carefully cut into the pile and start raising the loader’s arms.**
 - Continue “creeping” into the pile until your tires are almost on it.
- **To lift the material, curl the bucket back and start slowly reversing.**
 - Remember to check behind you and use your back-up alarm if you have one.
 - As you back away, start lowering the bucket.
 - Continue keeping an eye out for other workers and anything else you could hit.
- **Once you have your load secured, you can start traveling to the drop-off point.**
 - As you approach it, slowly raise the front-end loader’s arms again.
 - Then, uncurl the bucket to dump the load.
- **Some things, like wet or soft material, may stick to the bucket.**
 - You should avoid “jerking” the bucket to get it “unstuck”. Instead, scrape it out with a shovel.

- **When you are finished delivering the load, check behind you before slowly moving back and lowering the bucket.**
- **The process will be similar if you are using other attachments.**
 - For instance, if you're using pallet forks, you should approach the object you are picking up just like you would a pile with a bucket.
- **Slide the forks underneath the load, making sure it's stable.**
 - Gently raise the forks, keeping the back of the load against the fork's frame.
- **Once you have the load secured, you can travel to the drop-off site.**
 - Set it down carefully and back away until the forks are clear of the load.
 - When you're traveling without a load, remember to keep the forks low to the ground.
- **Regardless of what attachment you're using, you should never let someone crawl or walk under it when your loader's arms are raised.**
- **Whether you're traveling on your jobsite or on the road...**
 - Follow any posted speed limits.
 - Never try to "race" with a front-end Loader or rush to your destination.
- **Remember, accidents are more likely to occur when you're traveling in reverse.**
 - So always make sure your backup alarm is working, check your mirrors, and use your horn.
- **When you're ready to "call it a day", it's important to park and shut down your front-end loader safely.**
 - First, find an open, level place.
 - You want to avoid parking anywhere that will block fire hydrants, exits or entrances, or emergency equipment routes.
- **Once you are positioned, lower and uncurl your bucket so it's resting on the ground.**
 - Make sure all the controls are in "neutral" and set the parking brake.
 - Wait a few minutes while you let the loader cool down.

- **Then turn the front-end loader off and dismount.**
 - Keep both hands and a foot or both feet and a hand on the machine at all times.
 - Move slowly, and be especially careful if the machine has gotten muddy or slippery.
- **Front-end loaders aren't just potentially dangerous for the person operating them.**
 - They can hurt people on the ground, too... especially "spotters".
- **When operators have limited visibility, they will sometimes use a "spotter".**
 - It's the spotter's responsibility to safely guide the operator to where they need to go.
- **If you're the "spotter", before the operator mounts the loader you should have an agreed-upon "action plan".**
- **Be sure to discuss...**
 - Where the loader's blind spots are.
 - Any hazards in the area.
 - The planned movement and positioning of the loader.
 - The hand signals you're going to use.
- **Common hand signals that spotters use include...**
 - "Stop".
 - "Continue" ("Keep Moving").
 - "Move Right".
 - "Move Left".
 - "Slow Down".
- **To signal "Stop", most spotters will hold up one or both hands with closed fists, or with an open palm held forward.**
 - So you need to discuss which version of the signal you're going to use with the operator.
- **To signal the operator to "Keep Moving", you should...**
 - Raise your arm with a bent elbow.
 - Then wave the top part of the arm in a motion away from the machine.

- **In instances where the front-end loader won't be moving in a straight line, you'll have to know the "Move Right" and "Move Left" hand signals.**
 - The most common way to do this is to hold your arm out straight, with a finger pointing in the direction the operator should move.
 - Then, use the other hand to signal that they should "Keep Moving".
- **To help prepare the operator to stop smoothly, you will need a motion that tells them to "Slow Down".**
 - Here, you hold one arm out and move your hand up and down while keeping your palm face down.
- **Everyone should know the universal "Emergency Stop" signal.**
 - Repeatedly pointing both hands toward your chest to form an "X", then away from you, and back in again.
- **When you're acting as a spotter, you need to wear high-visibility clothing.**
 - You should also stay out of the front-end loader's "blind spots".
 - Don't position yourself directly behind or in front of it, either.
- **Keep a safe distance away and stay in the operator's line of sight.**
 - Watch your step as you're moving.
 - If you're so focused on the loader that you forget to look where you're walking, you could trip on a rut or some debris.
- **It's also critical that you pay attention to what's going on around you.**
 - Construction sites are busy places, and if you allow your mind to wander it could have serious consequences for you and the front-end loader operator.

*** * * SUMMARY * * ***

- **To prepare to use a front-end loader, make sure you are physically and mentally ready to operate heavy machinery.**
- **Always do a pre-shift inspection to make sure your loader is safe to operate.**
- **Be careful when you are mounting or dismounting**
- **a front-end loader. Use the “three-point contact” approach and ease yourself in.**
- **When you’re operating a front-end loader, move slowly and carefully through your jobsite, with the bucket low to the ground.**
- **If you’re a spotter for a front-end loader operator, discuss what hand signals you will use before you start to work.**
- **Now that you know how a front-end loader works and the hazards that can be associated with operating one, you can use them on your jobsite... and feel confident that you can keep yourself and your coworkers safe!**