

Front-End Loader Safety Fundamentals

Professional downloadable safety training

TRAINING OUTCOME

Recognize rollover, struck-by, blind-spot and load hazards

AUDIENCE

Loader operators & spotters

TIME

30-40 min

REFERENCE

29 CFR 1926.602 / applicable ROPS requirements + manufacturer instructions

USE NOTE

General formal instruction. Employer must provide model-specific hands-on training, manufacturer requirements and task/worksite evaluation.

Start with the hazard. Build the safe decision.

Use this slide to connect the topic to what employees actually see, touch, drive or do.

Machine stability

Bucket/load changes the center of gravity.

Pre-use inspection

Check tires/tracks, steering, brakes, hydraulics, bucket/attachment, pins, lights, horn/back-up alarm/camera and safety devices.

Visibility and people

Large blind areas exist around loaders.

ASK THE ROOM

01

Where could this go wrong here?

02

What control keeps us safe?

03

What should make us stop?

What employees should be able to do

Keep the session practical: recognize the hazard, choose the control, know when to stop.

01

Recognize rollover, struck-by, blind-spot and load hazards

02

Inspect loader, attachment and work area before use

03

Travel, load, dump and park with stable bucket position and controlled speed

04

Coordinate safely with spotters, pedestrians, trucks and slopes

Machine stability

Start with what the employee is exposed to.

- Bucket/load changes the center of gravity.
- Slopes, uneven ground, sharp turns, raised loads and speed increase rollover risk.
- Use ROPS and seat belt/restraint as equipped and required.

FIELD DECISION

01

Where could this fail?

02

What control do we use?

03

What makes us stop?

Pre-use inspection

Tie every point to a visible action or decision.

- Check tires/tracks, steering, brakes, hydraulics, bucket/attachment, pins, lights, horn/back-up alarm/camera and safety devices.
- Walk the area for drop-offs, soft ground, overhead lines and traffic.

FIELD DECISION

01

What changes the risk?

02

What must the employee do?

03

Who needs to know?

Visibility and people

Tie every point to a visible action or decision.

- Large blind areas exist around loaders.
- Use cameras/mirrors as aids, not substitutes for looking and site controls.
- Use a trained spotter when required and establish clear signals.

FIELD DECISION

01

Where could this fail?

02

What control do we use?

03

What makes us stop?

Travel and load position

Tie every point to a visible action or decision.

- Carry the bucket/load low for stability and visibility.
- Avoid sudden turns/braking and travel at a speed suitable for ground conditions.
- Do not travel with people in the bucket.

FIELD DECISION

01

What changes the risk?

02

What must the employee do?

03

Who needs to know?

Loading and dumping

Tie every point to a visible action or decision.

- Approach piles/trucks squarely and maintain stable ground.
- Do not undercut unstable material or work below unsupported loads.
- Keep people clear of bucket swing/dump zones.

FIELD DECISION

01

Where could this fail?

02

What control do we use?

03

What makes us stop?

Slopes, parking and maintenance

Tie every point to a visible action or decision.

- Follow manufacturer slope limits and travel orientation.
- Park on stable ground, lower attachment, neutralize controls, set brake and shut down.
- Block/support raised components before maintenance; never rely only on hydraulics.

FIELD DECISION

01

What changes the risk?

02

What must the employee do?

03

Who needs to know?

These are the moments to slow down and regain control.

01

Traveling with bucket high

02

Person enters blind spot without positive communication

03

Working near edge/soft ground or excessive slope

04

Maintenance under a raised bucket without approved blocking/support

What would you do next?

Give the group 30-60 seconds before revealing the recommended response.

A loader operator needs to drive across uneven ground with a full bucket. What bucket position is generally safest?

RECOMMENDED RESPONSE

Carry the load as low as practical while maintaining safe ground clearance, use controlled speed and follow the manufacturer/site procedure.

DISCUSS

01

What is the hazard?

02

What control is missing?

03

What is the safest next action?

04

What is our site rule?

This is where generic training becomes your program.

Replace examples with your actual equipment, procedures, hazards and expectations.



Actual loader controls, attachment and manufacturer manual



Site traffic plan, spotter signals and backing controls



Slope/edge/ground conditions and overhead clearances



Hands-on loading/dumping and workplace evaluation

BEFORE WORK

01

Show the actual procedure

02

Show the actual
equipment/task

03

Confirm questions are
answered

04

Complete required evaluation

Can the employee apply it?

Written knowledge matters. Safe performance in the real workplace matters more.

☐ Performs walk-around/pre-use inspection

☐ Uses seat belt/restraint

☐ Checks blind areas and work zone

☐ Maintains low travel load

☐ Controls speed/turns

☐ Coordinates with spotter

☐ Loads/dumps without exposing people

☐ Parks/lowers attachment safely

Use the included evaluation form when hands-on demonstration or workplace verification is appropriate or required.

Knowledge check 1-5

Use the printable test in the course package for employee responses.

1 A raised loader bucket generally:

2 A loader operator should normally travel with the bucket:

3 Blind spots are best controlled with:

4 Before operating, inspect:

5 On slopes the operator should:

Knowledge check 6-10

Use the printable test in the course package for employee responses.

6

People should be:

7

Maintenance under a raised attachment requires:

8

ROPS and operator restraint:

9

A spotter should use:

10

This course alone qualifies an operator on every loader model.

Know the hazard. Use the control. Stop when it is not right.

- 01 Recognize rollover, struck-by, blind-spot and load hazards
- 02 Traveling with bucket high
- 03 Actual loader controls, attachment and manufacturer manual

NEXT STEPS

- 01 Answer questions
- 02 Complete site-specific training
- 03 Complete required hands-on evaluation
- 04 Document attendance/completion

Use this package as a strong training foundation.

Always align the material to current requirements, manufacturer instructions and your own procedures.

Primary reference

29 CFR 1926.602 / applicable ROPS requirements + manufacturer instructions

Training use note

General formal instruction. Employer must provide model-specific hands-on training, manufacturer requirements and task/worksite evaluation.

BEFORE YOU DELIVER

- ✓ Confirm current OSHA/state-plan requirements
- ✓ Insert your procedures and equipment information
- ✓ Use qualified/competent trainers where required
- ✓ Complete practical/workplace evaluation where required
- ✓ Keep training and authorization records

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.602>