

# Section Seven: Machines and Vehicles

## Machines and Vehicles

- Safe machine and vehicle use requires knowing how to inspect, operate, and maintain your equipment.
- It also requires knowing its limitations, your limitations and not taking risks!

## General Safety for Machines

- Machines must be maintained, inspected beginning each shift, and not used if defect affects operations.
- Manufacturer's instructions in each vehicle and followed by operators and mechanics.
- Started and operated by designated employees.
- Seats securely fastened and belts used.
- Tools being transported secured.
- Vehicles used to transport employees must meet requirements.
- Operators of machines with ROPS, FOPS or overhead guards must wear seat belts.
- Must have a fire extinguisher.

## **Inspections are Important**

- Inspections should be done at the beginning of each shift.
- Report problems to your supervisor.
- Defects that affect safe operation must be corrected.
- Defective machines can kill!

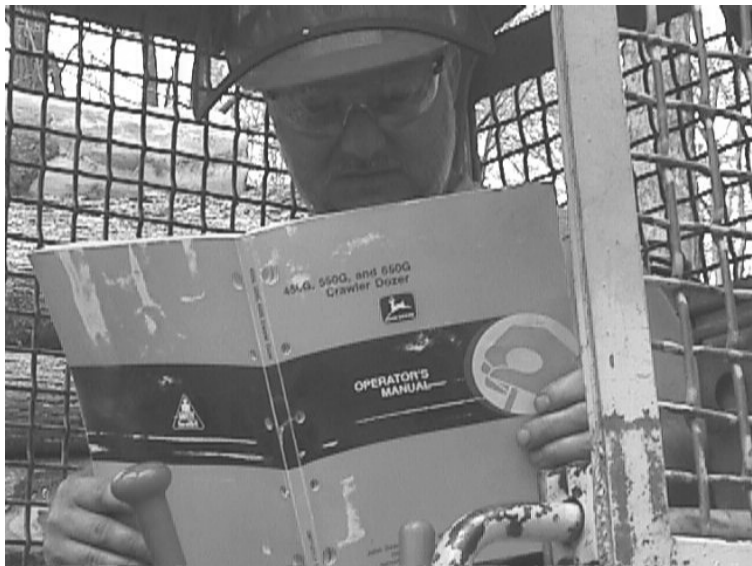
*“This operator begins his day with a thorough inspection. If he identifies a problem which could affect operation or safety he will red tag the piece of equipment and the owner will pull it from service until it is repaired.”*



## What Should You Inspect?

- Manufacturers will have pre-start inspection lists.
- Having a laminated copy on each piece of equipment is a good idea.
- Start at the same point each time and work your way around.
- Look for any defect which could affect the operation or safety.
- If you find a problem, correct it or tell someone about it.

*Following the  
equipment*



## Seat Belts, Make it a Habit!

- Operators of machines with ROPS, FOPS or overhead guards must wear seat belts.
- Each year many workers are crushed due to roll-overs without belt use.
- There's no time to jump or hang on!

*“ This  
simply task  
my just save  
your life  
when you  
least expect  
it.”*





## Visibility and Safety

- All vehicle and machine glass must be kept clean.
- Free from scratches.
- Broken, missing or cracked glass must be replaced.
- Visibility and safety to hand in hand!

## Fire Prevention

- Each piece of equipment must have its own extinguisher must be fully charged.
- Extinguishers should be inspected at the beginning of each shift.

## Machine Operation

- Machines must be operated so no hazards are created for other workers while maintaining a two tree length safety distance.
- **Before leaving a machine**, operator must secure it by setting parking brake, placing transmission in park, placing each moving part to the ground, and discharging stored energy.

## Brake and Exhaust Systems

- Each machine must have working primary and secondary brakes.
- Brakes must hold machine in all situations.
- Must have parking brakes.
- Exhaust pipes must be located to direct exhaust away from the operator.
- Exhaust must be guarded to protect work burns.
- Exhaust must be equipped with spark arrester.

## **Getting In And Out**

- Each machine or vehicle must have two safe means of getting in and out of.
- Climbing and working surfaces must be slip resistant.
- Surfaces must be kept free of material that could causes slipping and falling.

## **Moving Parts and Flying Debris**

- Factory guards in place at all times.
- Guards must protect worker from moving parts.
- Guards must protect the worker from flying debris.

## Protective Structures for Operators

- Protective structures are cabs, FOPS, and ROPS.
- Must meet OSHA standards.
- Must be used to protect workers from rollovers and falling objects.
- Must provide maximum visibility.
- Must be used with seat belt!

## **Know Your Equipment Limitations**

- Knowing limitations can prevent mishaps.
- Follow manufacturers's instructions.
- Don't take unnecessary risks by pushing your equipment to the limit.
- Ask yourself, What If?

## **What About Equipment Loading?**

- Loading and unloading heavy equipment safely takes an effort.
- Workers have been killed before the job starts.

## Stabilized Equipment

- Incomplete or poorly stabilized equipment is dangerous.
- Follow manufacturer's instructions and use your head.
- Weather may also change stability.
- You may need mud sills.

## Machines Check List

- Are machines inspected at the beginning of each shift?
- Are machines with defects that affect operation or safety, tagged and pulled from service until repaired?
- Are the manufacturer's instructions in each piece of equipment and are they followed?
- Are machines operated only by designated workers?
- Are machines with ROPS, FOPS or overhead guards equipped with seat belts?
- Are they worn by the operators?
- Does each piece of equipment have its own fully charged fire extinguisher?
- Are machines operated so no hazards are created for other workers while maintaining a two tree length safety zone?
- Before leaving a machine, does the operator set the parking brake, placing the transmission in park and grounding each moving part?
- Are cabs free from unsecured tools and other loose items?