

Cargo Tank Risk Management Committee

Minimum suggested standards for driver training to reduce the potential for falls while climbing cargo tank motor vehicles.



Why Slips & Falls Deserves Management and Driver's Attention?

- Workers perform essential tasks on the top of rolling stock tank trailers
- Falls from tankers can be fatal
- Exposure to wind and other weather conditions creates unique injury potential
- Falls are #1 cause of worker injuries for trucking companies*
- Tankers have higher potential for snow and ice build up compared to tractors and can involve higher heights potentially making falls more severe

*Source Liberty Mutual 2010 Trucker Survey based on injury frequency

Training Program Elements

- Have documented training outlines
- Document and verify training completion
- Adopt processes to verify that tasks are performed as expected
- Develop written policies that outline climbing and working on tanker task expectations
- Provide training based on type of equipment being used and tasks drivers, tank wash workers, maintenance personnel and others are expected to perform
- Verify worker abilities to perform the tasks as expected
- Conduct evaluations to verify tasks are being performed as expected on an on-going basis
- Have management oversight and program review

Task Performance Issues

- Have proper footwear that is in good condition and clean
- Be trained on the equipment and tasks to be performed
- Inspect the area and equipment prior to climbing or working on rolling stock tank trailers
- Use 3- Point System when climbing
- Always face the tank when climbing up or down
- Don't carry things while you climb
- Get a firm grip on rails and hand holds
- Have proper foot placement
- Use proper attire to reduce potential for injuries (slip resistant gloves, high visibility clothes when working in yards or around moving motor vehicles and task specific protection as needed based on cargo)

What is the Three Point System

Two Hands & One Foot

or

Both Feet & One Hand

**In constant contact with the equipment
while climbing or descending**

Hazard Assessment

- Does tank contain pressure (can build up even in non-pressurized tanks)
- Do you have the proper tools (non sparking, proper length, etc.)
- Do you understand forces and weights to be encountered
- Should tasks be done in a shop with fall arrest/protection
- Evaluate weather conditions (ice, wind, snow, driving rain, etc.)
- Are you properly trained
- Is adequate Lighting available
- Do you have necessary personal protective equipment based on the tasks (gloves, eye protection, chemical suits)
- Do you have a plan for taking tools to top of tank

Pre Trip Ladders and Equipment



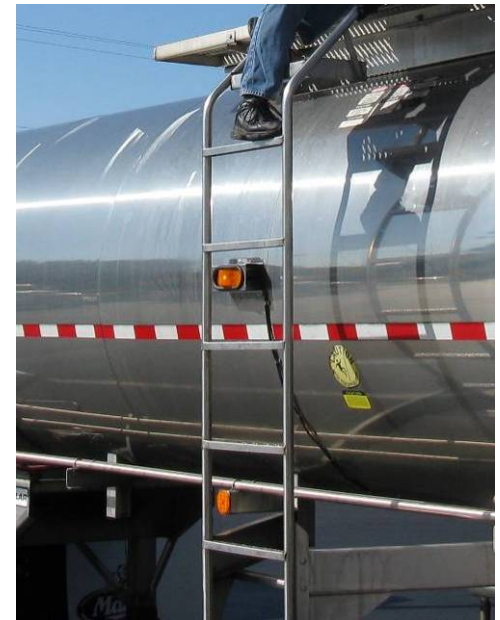
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- Check ladder and trailer condition prior to climbing
- Do not climb damaged ladders or work on equipment with defects
- Check the ground area prior to climbing for surface defects that could contribute to falls when descending the ladder
- Report defects so they can be repaired
- Make sure gloves are clean and no build-up exists on the ladder rungs or rails

Be Familiar with Equipment

Most fleets have multiple makes and models of rolling stock tank trailers. Address variations and unique features in work expectations to reduce the potential for injuries when climbing and working. Make sure drivers and others working with equipment understand unique features of equipment being used on a temporary basis (rentals and short term leases).



Start with Clean Well Maintained Equipment and Proper Footwear



Slip resistance gloves for better grip

High visibility clothing when working at night or in areas with traffic

Work boots with slip resistance, arch support, properly fitting, with heels and laces in good condition and tied

Job specific PPE and other equipment based on tasks to be performed, cargo or previous tank contents

Hand Grip



Trailer ladders have different styles of side rails. No matter what style you have get a firm grip on them. If only the finger tips are used it is easy for your hand to slip. Use your whole hand to grasp the rails when climbing. Make sure your gloves are clean and free of build up that can contribute to slipping.

Hand Position



Ladders may have side bars. Either can be used for climbing. Maintain 3 points of contact and have a firm grip when you climb.

Footwear



Have clean footwear that is in good condition and place your foot squarely on the steps. Just the tip of the shoe or boot on the step makes it easy for your foot to slip. Boots should have slip resistant soles and cover the ankles. Western style boots should be avoided.

keep Your Hands Free and Get a Firm Grip on the Ladder



Never carry things as you climb



Check Tank Top Area



- Once you have a view of the upper areas check them prior to leaving the ladder
- Look for damage such as missing pieces, broken welds or uneven surfaces on the catwalk, spill dam and related parts
- Check for spilled product or other materials that could be hazardous or contribute to slips and falls
- Plan out where you will grab and step prior to leaving the ladder

Maintain 3 Points of Contact as You Climb



Most work will require use of your hands making 3 points of contact much more difficult. Do your work from the platform and not the ladder.

Stay Low Once You Reach the Top



Avoid standing once you are in position to perform your assigned tasks

Non Routine Tasks

- Perform hazard assessment as previously discussed
- Take time to plan out tasks and conduct them properly
- Do not make repairs or modifications unless you are qualified
- Do not leave ladders or catwalks or stretch from these work areas to conduct routine or non routine tasks
- Some tasks should only be performed when fall protection or fall arrest systems are available

Descending the Ladder

- Check the ground or floor area before you climb
- Know what the ground or floor conditions are before you take the last step off the ladder
- Use the 3 Point Contact system
- Place your feet squarely on the steps and get a firm grip on the hand rails

Know the Ground Conditions Before You Step Off the Ladder



Know what is on the ground or floor surface before you take the final step off the ladder. If you are not aware of where you will step you can easily turn an ankle or fall. Check the area and remove obstacles prior to climbing the ladder.

Transition From Ladder to Platform



Most tankers will have hand holds or loops at the top. Use the loops or hand holds as you transition from the ladder to the platform or the platform to the ladder.

Climb Down Facing The Trailer



Face the equipment. If you face away, falls are much more likely and three points of contact may not be possible. **NEVER** climb down the ladder facing away. Turn and be in position to climb with good hand grips prior to descending the ladder.

Keep Three Points of Contact



3 Keep three points of contact as you climb down. Watch where you place your feet and keep a firm grip on the ladder. Check the ground prior to taking the last step off the ladder.

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Keep Three Points of Contact



Keep both hands on the ladder until you have both feet firmly on the ground. Ice under a layer of snow, loose gravel, uneven pavement or other hazards can make falls more likely.

Different Trailers



Not all trailers have the same step and ladder configuration. Don't rush or take shortcuts. Keeping three points of contact and watching where you step and grab can keep you from falling.

Different Trailers



Some trailers have side bars on the ladders and platforms. Use the same three points of contact when using these trailers.

Stop and Think

- Make last minute checks or corrections
- Avoid non-routine tasks
- Use the correct tools
- Conduct your risk assessment before starting
- Follow recommended procedures

Preventing Falls : DO's

- Keep equipment clean (steps, catwalks, handrails, etc.)
- Take extra precaution in bad weather (rain, snow, ice, wind, hail, etc.)
- Use your whole hand not just the fingertips, get a good grip and avoid carrying things when you climb
- Place your feet squarely on the steps
- Know the ground or floor conditions before taking the last step off the trailer
- Management should become aware of and ensure equipment is in compliance with TTMA (Truck Trailer Manufacturers Association) RP #59
- Those climbing or working on cargo tank motor vehicles should know and follow the proper procedures for climbing, working on and descending equipment

Preventing Falls : Don'ts

Don't jump off ladders

Don't climb ladders with ice, product or other material build up on them

Don't use equipment with defects

Remember : You Are the Most Responsible for Your Own Safety

- **Follow your company procedures**
- **Report damaged or malfunctioning equipment**
- **Beware of weather conditions**
- **Don't take chances**
- **Work like others depend on you because they do**

Please Work and Drive Safely



**Your family needs you to come home
the same way you left them**

Our recommendations and suggestions are advisory only. We assume no responsibility for management or control of their safety activities nor for implementation of recommended or best practice corrective measures. This report is based on general rolling stock tank trailer information supplied by various sources. We have not tried to identify all hazards. We do not warrant that requirements of any federal, state, or local law, regulation or ordinance have or have not been met.

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