Personnel Lifts and Rough Terrain Vehicles

Often we see regular forklifts and in the case of construction sites, rough terrain vehicle forklifts (RTV) being used to elevate workers and equipment for the purpose of performing various construction tasks. All too often this practice is being accomplished at the expense of worker safety. Yes, rough terrain vehicles or lifts may be used for this purpose however; the preferred method would be the use of an aerial lift. After all, aerial lifts are designed for the purpose of elevating the worker.

In order for an RTV to be used as a personnel lift a number of criteria need to be met. Items that must be considered should include but not be limited to the following:

- The manufacturer must permit such use. The RTV or forklift is primarily designed for the lifting of materials and not all manufacturers will permit use to elevate workers. However, in some cases the manufacturer may permit such use but, with restrictions.
- If permitted, the forklift must have a properly designed platform that attaches to the forklift.
- When a platform is provided it must have appropriate fall protection in the form of guardrails or other adequate protection provided and should also include the use of a full body harness and lanyard.
- Floor dimensions which shall not exceed two times the load center distance listed on the rough terrain forklift truck nameplate, measured parallel to the longitudinal center plane of the truck,
- Space for each person on the platform shall not be less than 18 in. in either direction.
- The width of the platform must not be wider than 10" beyond the tires on either side.
- The weight of the empty platform and the maximum working load is required to be indicated on the platform.
- The platform must be secured to the forks and forklift to prevent the platform from sliding off the forks.
- A trained operator must also be at the controls and have the forklift in neutral and the parking brake set.
- The weight of the platform, load and personnel shall not be greater than one-third of the capacity at the related load center position.
- A platform floor having a slip resistant surface located not more than 8 in. above the normal load supporting surface of the fork.
- The RTV operator should be trained and familiar with the lift and the controls. In addition they should remain in the lift while work is being performed.
- Never use the lateral leveling control (also called stabilizers, sway controls or frame leveling system on some lifts) feature to make lateral adjustments of a raised load. All lateral leveling adjustments should be made before lifting.
It goes without saying that in addition to the items above the daily use and testing and inspection procedures recommended by the manufacturer should be followed. The operating instructions for the lift should be readily accessible and need to be reviewed with a full inspection of the equipment (platform, fall protection, lift) prior to use. Consider checking for cracks, leaks, damaged, worn or stressed parts, etc. However the best procedure is one of following the manufacturer's pre-use tests and inspection procedures. Many of the same rules that apply to scaffolding or other elevated work surfaces apply here.

An evaluation of the immediate hazards and work area should also be completed prior to use. Items to consider should include but not limited be limited to:

- An evaluation of overhead or nearby electrical hazards.
- Work platform condition i.e. slippery, wet, snow packed or covered.
- Weather conditions i.e. Wind, rain snow, sleet.
- Terrain i.e. level, stable, slippery,
- Intended equipment loads and use.
- Other jobsite activities and work performed in the area that may put the worker, operator or both at risk.

Standards commonly referenced in citations include but are not limited to:

- 1926.451(c)(2)(iv): Front end loaders and similar pieces of equipment shall not be used to support scaffold platforms unless they have been specifically designed by the manufacturer for such use.
- 1926.451(c)(2)(v): Fork-lifts shall not be used to support scaffold platforms unless the entire platform is attached to the fork and the forklift is not moved horizontally while the platform is occupied.
- 1926.451(g)(1): Each employee on a scaffold more than 10 feet above a lower level shall be protected from falling to that lower level.
- 1926.451(a)(1): Except as provided in paragraphs (a)(2), (a)(3), (a)(4), (a)(5) and (g) of this section, each scaffold and scaffold component shall be capable of supporting, without failure, its own weight and at least 4 times the maximum intended load applied or transmitted to it.
- 1926.451(a)(6): Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.
- ANSI B56.6a-1994 5.15(t): The combined mass (weight) of the platform, load and personnel shall not exceed one-third of the capacity at the related load center position as indicated on the information plate(s) of the rough terrain forklift truck on which the platform is used.
- ANSI B56.6a-1994 5.15(l): Place rough terrain forklift truck control(s) in neutral and set parking brake.
- ANSI B56.6a-1994 8.25 Platforms for Elevating Personnel

Note: The Industrial Truck Standards Development Foundation (ITSDF) takes a rather negative view regarding the use of rough terrain lifts for this purpose. Section 5.15.1 of ANSI/ITSDF B56.6-2005, Safety Standard for Rough Terrain Forklift Trucks, specifies that “a rough terrain forklift truck shall not be used to lift people unless there is no other practical option.”

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