Tracking Accidents for 20 Years Helps Develop Safer Lifts

Mayville Engineering Company’s Distributors Provided the Data That Resulted in Industry-wide Actions in the Manufacture of Aerial Work Platforms

Turn to page 30 to find out more.
Twenty years ago, when the aerial work platform industry was still in its infancy, Mayville Engineering Company, Mayville, Wis., made its entry by purchasing the scissor-lift line of a manufacturer in nearby West Bend, Ind.

A decade earlier, the first machine from that company was designed to serve local mausoleum staff as an easy, time-saving method of getting caskets to resting places above floor level. Today, the elevating of “real live bodies,” notes Mayville’s technical director, Ken Zimmer, dictates safe, modern-day designs of scissor lifts from all manufacturers.

Since 1976, his company has collected and studied accident data submitted by MEC distributors, who are continuously encouraged to provide such information for numerous purposes, including product development. The data given special consideration at MEC, according to its technical director, relate to tipovers of machines under a variety of conditions.

Why Does This Happen?

“Prevention of tipovers has always been a matter of concern to us,” Zimmer says, “going back to the manual outriggers we had on our early machines. Unfortunately, these outriggers weren’t always employed by the operator, and as a result, the machine would be unstable when coming in contact with a hole or depression in the floor.

“Accident data coming in from the field,” Zimmer adds, “helped direct us toward the automatic pothole protection system we introduced in 1982 on MEC models with base widths up to 42 inches. The wisdom of adding such an automatic feature—something many other manufacturers are now recognizing—is borne out by relative statistics before and after 1982.”

Since 1976, he points out, a total of 98 incidents have been reported by MEC dealers, including 29 machine tipovers. Twenty-four of the tipovers occurred from 1976 to 1981, when manual outriggers were the safety mechanism on Mayville machines. Just five occurred in the 15 years since, when the MEC pothole protection system became a major selling point in the company’s worldwide dealer organization.

Among the five tipovers reported since 1981, here’s what happened, according to Zimmer:

- One scissor lift was driven off a board used to level the machine.
- Another was driven off an incline.
- Another was driven off a curb.
- One had no pothole protection because the complete system was removed.
- The fifth machine that tipped over was driven into a trench.

Changes Result

Sales and rental people involved with scissor lifts and other aerial work platforms are increasingly concerned about such accidents, Zimmer states, because of the high costs of litigation from both time and dollar standpoints. “And what they specifically are asking us to do, as equipment manufactur-
ers, is design out hazards, guard against hazards, warn of them through decals on the machines and provide training about them.”

Previous and updated ANS/SNA standards for self-propelled work platforms are reflections of such requests from equipment dealers and users, Zimmer says. Standard A92.6-1990 was developed five years ago to clarify for the first time “the specific responsibilities of manufacturers, dealers, owners and users to keep workplace accidents at a minimum—just as individual companies like Mayville have sought over the years.”

The present standard, he notes, picks up extra strength when new recommendations appear in a revised standard now being researched and assembled. A member of the development committee, Zimmer says it is likely to reflect on the importance of automated pothole protection systems that are now being incorporated in models of a number of U.S. manufacturers.

Is safety a key issue of the 1990s, and into the 21st century, among scissor lift producers, sellers, renters, owners and users?

“It simply has to be,” Zimmer claims, “when you consider how the universe of aerial work platforms is expanding so rapidly. With sales of scissors up an average 32 percent per year over the past four years, there are thousands of new operators on our machines every day at heights up to 40 feet and more.

“Think of the expanded possibilities for foolish mistakes, like setting up a leveling board for a two-ton machine to be driven on,” Zimmer notes. “If manufacturers are to take the lead in accident prevention—which all MEC staff think we should do—there must be an increasingly strong focus on safety starting at the individual company level and continuing through the ‘safety chain of concerned and involved parties to the issue.”