

A **28 year old male** employee was **crushed by** a mobile home when it shifted off cribbing while in the process of installing vapor barrier underneath it during set up on a private lot.

The employer was contracted to install the mobile home on its permanent foundation. When the crew arrived on site, the mobile home was still on its wheels but was in the location where it was to be set and did not have to be repositioned. To set the mobile home, the employees used a CSI Platypus 115 home mover. The Platypus is a gasoline powered industry tool that lifts and moves manufactured housing units. The Platypus was equipped with excavator-type tracks and controlled at the rear of the machine. Once in position under a mobile home the Platypus uses hydraulics to elevate its platform, lifting the home. The Platypus can also be equipped with a digging tool that can be used for creating small depressions and grading.

With the wheels and axles still in place on the mobile home, the Platypus was used to lift the east end (on the south side) of the home in order to construct wood cribbing under the tongue of the mobile home. The wood cribbing consisted of three, 16" x 6" x 2" thick base boards. On top of the base boards were six, 3' x 4.5" boards stacked alternating to form a square with two, 16" x 6" x 2" boards on top. After the cribbing was in place the mobile home was lowered onto it. Once the home was resting on the cribbing the employees used a shop fabricated water level to ensure that the mobile home was level and at approximately 28 inches above the ground.

Once the tongue of the trailer was resting on the cribbing and level, the Platypus home mover was then transported to the rear of the home, on the west side and positioned behind the wheels and axles of the trailer. The wheels and axles were located near the 1/3 point of the home from west side. The Platypus was located under the home on the south side. While positioning the Platypus, an employee was asked to lift the hose for the water level over the platypus so it could enter under the home. Instead, the employee lifted the entire water reservoir which affected the reading for the level. Without readjusting the level, the platypus lifted the home suspending it above the ground. While suspended, the employees built a total of four temporary cinder block piers. Two piers were installed on both the north and south side of the home with piers in front and behind the wheels and axles of the mobile home. Once the piers were constructed, the home was lowered onto the piers, resting on its steel frame.

After lowering the mobile home onto the temporary foundation, the Platypus was removed from under the home and equipped with the digging tool. The Platypus was used to dig holes for the placement of the permanent cinder block piers. In each hole was placed an ABS pier pad plastic footer for the permanent pier foundation. After the holes were dug, and footers in place, the digging tool was removed from the Platypus. The Platypus was then repositioned near the rear of the mobile home on the west side of the work site. The home was again lifted by the Platypus and the temporary piers were disassembled and removed by hand. From this point on the mobile home was only suspended by the Platypus at the rear of the trailer on the west side and the wood cribbing on the east side, under the tongue of the home.

Employees realized that the mobile home had to re-level. To do so, an employee and the foreman began to re-level the east side of the home where the wood cribbing supported the home. At the same time the other employees continued working to set the home. One employee began to remove the wheels and axles from the mobile home while the victim started installing the plastic vapor barrier underneath the mobile home.

The victim was working under the home on the northeast side approximately 8' from the employee and foreman re-leveling the home at the tongue and 54 feet from the Platypus. The employee and foreman re-leveling the home used a Pittsburgh Heavy Duty 12 ton bottle jack placed on a wood 1" thick board to attempt to lift the home off of the wood cribbing. The foreman told the victim to get out from underneath the home. Without the victim moving from underneath the home, the employee and foreman began using the bottle jack to lift the home from its cribbing. The bottle jack started to sink into the ground without lifting the mobile home. Once again, the foreman told the victim to exit from underneath the mobile home. The jack was lowered back down, and the employee working with the foreman went to go get a 2" thick board from the work truck to place under the jack to prevent it from sinking into the ground. It was at this moment the home began to shift while resting on the wood cribbing, falling completely from its cribbing and crushing the employee beneath the home, resulting in the fatality.

### **Citation(s) as Originally Issued**

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

#### **Citation 1 Item 1**

**Type of Violation: Serious**

**\$7,000**

**TCA 50-3-105(1):** The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees.

In that an employee was working under a single wide mobile home while it was being leveled when the home shifted, falling onto the employee, resulting in the death of the employee.

Among other things, a feasible and acceptable method of abatement would include:

- a) Writing, training, implementing, and enforcing a work procedure prohibiting employees to work under the trailer while still setting the mobile home.
- b) Implementing a verbal and visual confirmation system to ensure that no employee is under the mobile home prior to performing work on the mobile home.



