



Worker fatally injured in tractor rollover

July 17, 2021

The contents of this report

This document reports the Alberta Occupational Health and Safety (OHS) investigation of a fatal incident that occurred in July 2021. It begins with a short summary of what happened. The rest of the report covers this same information in greater detail.

Incident summary

A worker was operating a Ford New Holland bidirectional tractor pulling a 26-foot gooseneck trailer with a 2500-gallon water tank on it. While travelling down the steep sloped driveway into the farmyard, the worker lost control of the tractor resulting in the tractor rolling and causing the worker to be ejected from the cab. Other workers at the farm that witnessed the incident quickly attended the scene and administered first aid to the seriously injured worker. Emergency Medical Services (EMS) was contacted and pronounced the worker deceased at the incident scene.

Background information

Owner

Peony Farms Ltd. (Peony Farms) was established in 1978. Their main activity was raising Piedmontese breeding stock and beef for their customers. There were approximately 2400 acres. They also grew some feed for the cows.

Farmhand

The Farmhand (deceased worker) had worked a little less than a year at Peony Farms as a farmhand starting on August 1, 2020. They were a paid worker.

Co-owner 1

The Co-owner 1 was a co-owner of Peony Farms when it was started in 1978. Their main activity was raising Piedmontese breeding stock and beef for their customers. They also did some harvesting when required.

Co-owner 2

The Co-owner 2 had joined on July 1, 2015, as a co-owner of Peony Farms. Their main activity was raising Piedmontese breeding stock and beef for their customers. They also grew feed for the cows. Co-owner 2 would normally give the Farmhand their working duties.

Labourer/mechanic

The Labourer/Mechanic had started with Peony Farms approximately five months prior to the incident. Their duties were to work on and repair farming equipment.

Equipment and materials

Tractor

The Ford New Holland bidirectional 9030 tractors were built in Winnipeg between the years of 1990 and 1997 (Figure 1). They were mostly used on farms for multi-use, whether as a loader tractor, forklift, etc. They would use the hydrostatic transmission to slow/stop the tractor.

A bidirectional tractor featured a turnabout console that rotated the seat and the control 180° so the tractor could be operated from front or back.



Figure 1. Ford New Holland 9030 Versatile bidirectional tractor. Photo obtained from the web showing the type of tractor involved in the incident.

Hydrostatic

Many fluid systems are designed to transport fluid from one location to another at a specified flow rate, velocity and elevation difference, and the system may generate mechanical work in a turbine, or it may consume mechanical work in a pump. A pump transfers mechanical energy to a fluid by raising its pressure, and a turbine extracts mechanical energy from a fluid by dropping its pressure. Mechanical energy can be defined as the form of energy that can be converted to mechanical work completely and directly by an ideal mechanical device such as an ideal turbine.

Gooseneck trailer

The gooseneck trailer measured at 21 feet and with the deck, 26 feet (Figure 2). There was a 2500-gallon water tank on the front of the third axle with an unknown quantity of water in it (Figure 3). There were also three smaller water bins on the trailer, and it was unknown if they contained water (Figure 4).



Figure 2. Represents what a gooseneck trailer would look like. Photo obtained from the web showing the type of trailer involved in the incident.

<https://www.diamondc.com/trailers/gooseneck/>



Figure 3. Represents what a 2500-gallon water tank would look like. Photo obtained from the web showing the type of water tank involved in the incident.



Figure 4.

A. One of the smaller water bins that was on the trailer

Sequence of events

On July 17, 2021, the Farmhand was driving a bidirectional tractor pulling a 26-foot gooseneck trailer and was coming from a pasture 1.5 miles from the south pasture away from the main farm. It was unknown how much water was remaining in the water tank. The driveway into the farm was measured at 6° downgrade from the main highway.

The Farmhand was facing the trailer (fork side of the tractor) which was attached to the 2 5/16-inch trailer hitch. There were no forks or bucket attached to the tractor. There were no indications of the safety chains, or the breakaway cable being attached to the tractor.

Co-owner 2 and the Labourer/Mechanic were in a barn fixing equipment and saw the tractor and trailer coming down the driveway at a high rate of speed. When one of the tires hit a rut in the gravel road, the tractor completely flipped over ejecting the Farmhand out of the tractor cab.

The tractor came to rest adjacent to the livestock corrals. The tractor landed on its side partially trapping the Farmhand's leg.

Workers working on the pipeline reclamation came to assist the Farmhand who was trapped under a wheel of the tractor. A call was made to 911, and the Farmhand was pronounced deceased on scene by EMS.

Completion

A review for enforcement action was completed on December 9, 2021, and it was determined that the file would be referred to Alberta Justice for review. The entire file was sent to Alberta Justice on February 28, 2022. After a thorough review, Alberta Justice advised OHS on October 21, 2022, charges were not recommended.

This investigation was completed on February 23, 2023.

Signatures

ORIGINAL REPORT SIGNED

Lead Investigator

February 23, 2023

Date

ORIGINAL REPORT SIGNED

Manager

March 7, 2023

Date