

## PENNSYLVANIA

### PHILADELPHIA COUNTY

#### PRODUCTS LIABILITY

Design Defect — Failure to Warn — Industrial Machinery

## Worker's hand crushed on allegedly defective machinery

**SETTLEMENT** \$1,175,000

**CASE** Osvaldo Rivera and Maria Rivera v. Westport Axle Corp., American Crane & Equipment Corp., Terex Corp., Zenmar Pneumatic Tools Inc., Harrington Hoists Inc., Mack Trucks Inc., Gorbel Inc., ROI Industries Group Inc., Crane 1 Services Inc., RNM Holdings Inc., Crane America Services and Terex Utilities Inc.  
No. 151002422

**COURT** Philadelphia County Court of Common Pleas  
**JUDGE** Linda A. Carpenter  
**DATE** 4/4/2018

**PLAINTIFF ATTORNEY(S)** Kenneth F. Fulginiti, Duffy + Partners, Philadelphia, PA

**DEFENSE ATTORNEY(S)** William P. Barrett, Law Offices, Philadelphia, PA (ROI Industries Group Inc.)  
Vlada Tasich, Marshall Dennehey Warner Coleman & Goggin, P.C., Philadelphia, PA (Mack Trucks Inc.)  
None reported (Westport Axle Corp., American Crane & Equipment Corp., Crane 1 Services Inc., Crane America Services, Gorbel Inc., Harrington Hoists Inc., RNM Holdings Inc., Terex Corp., Terex Utilities Inc., Zenmar Pneumatic Tools Inc.)

**FACTS & ALLEGATIONS** On March 12, 2014, plaintiff Osvaldo Rivera, 43, a line supervisor at a truck factory in Breinigsville, suffered a crush injury to his right hand while using a driveshaft manipulator.

Rivera worked at Westport Axle Corp., which assembles Mack trucks. A driveshaft manipulator is used to install driveshafts into truck chassis. Rivera, while assisting a co-worker with the machine, attempted to adjust the right outer mechanical arm by depressing it. When the arm collapsed and went all the way in, it pinched his right thumb and hand against the sleeve of the right outer arm.

Rivera sued ROI Industries Group Inc., the designer of the driveshaft manipulator, alleging products liability claims, including design defect, failure to warn and breach of warranty. Rivera also sued Mack Trucks Inc., as the purchaser and owner of the drive shaft manipulator, alleging negligence.

A number of other companies were named as defendants but those claims were either dismissed or concluded by dispositions involving undisclosed terms, prior to trial.

One defendant, Zenmar Pneumatic Tools Inc., settled with Rivera for \$200,000. Mack Trucks had contacted Zenmar to assist with all the machinery and operational needs necessary to set up Westport's facility.

The suit proceeded against ROI Industries Group and Mack Trucks. Following plaintiffs' counsel's case-in-chief, Mack Trucks motioned for a compulsory non-suit, which the court granted, and it was dismissed from the case.

Rivera testified that he did not place his hand into the pinch point while pushing the machine's outer arm, but that his hand slipped into the pinch point. He was wearing gloves, as he was required to.

According to Rivera's expert in mechanical engineering, the drive shaft manipulator's design was defective, because it allowed sticking of the telescoping parts, creating a pinch point. Specifically, the sticking and the sudden release of the arm assembly created the pinch point and carried Rivera's hand to the pinch point. Rivera had no time to react and avoid the pinch point, the expert testified.

The expert maintained that ROI Industries was aware of the pinch point, but failed to eliminate it during development of the machine. According to the expert, ROI Industries was also aware of the tendency of the sliding parts to stick but failed to incorporate available design features that would aid the operator if sticking were to occur. The expert recommended using dual rods and self-lubricating linear bearings to support the inner arms of the machine, instead of the telescoping tube arrangement.

The expert further opined that there should have been a warning placed on the driveshaft manipulator itself regarding pinch points, specifically in the form of a photograph indicating that the machine contained pinch points.

The defense counsel maintained that there were no defects with the drive shaft manipulator.

ROI Industries' expert in mechanical engineering determined that the design accorded to all industry standards, and that pinch points did not render the machine defective. According to the expert, ROI Industries, in developing the drive shaft manipulator, had evaluated multiple alternative designs to try to eliminate pinch-point hazards, but it was deemed technically infeasible at the time.



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The expert faulted Westport for failing to provide Rivera with appropriate personal protective equipment. Specifically, the expert suggested that gloves with suitable grip features would have prevented his hand from slipping, which directly contributed to injuries to his thumb during the incident. The expert also faulted Rivera's employer for failing to train Rivera and for not properly maintaining the machine. The expert maintained that ROI Industries designed the machine following the instructions and specifications of Mack Truck.

According to ROI Industries' expert in mechanical engineering, the company was under no duty to warn a user of every danger that may exist during the operation of the drive shaft manipulator, especially if it is open and obvious. The expert noted that Rivera should have been aware of the pinch point when he attempted to adjust the machine's outer arm by pushing it into the lower chassis frame. One way a pinch point can be created is when two components contact one another, and it was obvious that a pinch point occurred when the outer arm was retracted fully into the lower chassis frame, the expert maintained. The expert likened it to closing a drawer. He concluded that a warning label placed on the drive shaft manipulator was not necessary because the pinch-point hazard is open and obvious.

**INJURIES/DAMAGES** *arthrodesis; contracture; crush injury, hand; decreased range of motion; fracture, phalanx; fracture, thumb; hardware implanted; internal fixation; neuritis; open reduction; physical therapy; pins/rods/screws; sutures; swelling; ulnar collateral ligament, tear*

Following the accident, Rivera presented to a first-aid station at his workplace and was then driven by a co-worker to an emergency room. He underwent imaging studies and was diagnosed with a crush injury to his right, dominant hand. His injuries included a right thumb proximal phalanx fracture, an ulnar collateral ligament tear, metacarpophalangeal joint contracture and right thumb dorsal ulnar sensory nerve arthritis. Rivera received stitches and was released.

In the ensuing months, Rivera consulted with a workers compensation physician and treated with physical therapy. By June, with his condition not improving, Rivera presented to a hand specialist, who determined that he required surgery. On June 25, Rivera underwent a reconstruction of the ulnar collateral ligament and right thumb metacarpophalangeal joint. Rivera was then placed in a short-arm spica splint.

Rivera eventually had a course of occupational therapy and consulted with his surgeon. In October, he had another surgery, which included a right thumb revision ulnar collateral ligament repair, a metacarpophalangeal joint contracture release and open reduction and internal fixation of the metacarpophalangeal joint. Following the surgery, Rivera continued with occupational therapy.

In March 2015, Rivera was diagnosed with post-traumatic arthritis to his right thumb. He underwent a metacarpophalangeal joint arthrodesis with autograft. For the next two years, Rivera treated with occupational therapy and consulted with his surgeon. In May 2017, with his pain worsening, Rivera had a fourth surgery to remove the surgical hardware. He continued rehabilitation through Nov. 30, 2017, and no further treatment was administered. Rivera sought to recover \$38,355 in past medical costs.

Rivera's surgeon causally related his injuries and treatment to the accident, and opined that he has permanent stiffness and restricted motion in his right hand. The expert recommended future medical care,

including occupational therapy and potential surgical intervention. Rivera sought to recover a stipulated amount in future medical costs.

Rivera's expert in vocational rehabilitation determined that he is unable to return to his prior job and that he is only capable of performing certain sedentary jobs due to his limited hand function. The expert cited possible vocations in security monitoring, a security guard, a crossing guard, a gate guard, an identification checker, a ticket taker, an usher and a parking-lot attendant. Rivera's economics expert calculated \$588,316 to \$1,552,102 in past and future lost wages, and \$135,166 to \$310,420 in lost fringe benefits.

Rivera and his wife testified about his limitations. Rivera stated that his fused thumb prevents him from gripping objects, and therefore he solely relies on his non-dominant left hand. He is unable to perform any household duties, can no longer play sports, cannot play with his children and sometimes relies on his wife to dress himself. He sought damages for past and future pain and suffering, and his wife sought damages for her claim for loss of consortium.

ROI Industries' expert in orthopedic surgery testified that Rivera had suffered a right thumb distal phalanx fracture in the accident, and that he had recovered from the injury. The expert noted that Rivera had pre-existing injuries, which were the cause of his ongoing problems.

Rivera's counsel cited his medical records to argue that he had no pre-existing problems with his right hand.

**RESULT** The parties negotiated a settlement, during the seventh day of trial. ROI Industries agreed to pay a total of \$975,000, from an insurance policy that provided \$1 million of coverage.

**INSURER(S)** Nationwide Mutual Insurance Co. for ROI Industries Group

**PLAINTIFF EXPERT(S)** David L. Hopkins, A.S.A., economics, King of Prussia, PA  
Scott H. Jaeger, M.D., orthopedic surgery, Philadelphia, PA (did not testify)  
Jeffrey Ketchman, P.E., mechanical, Westport, CT  
B.A. McGettigan, R.N., life care planning, Downingtown, PA (did not testify)  
Irene C. Mendelsohn, M.S., vocational rehabilitation, Penn Valley, PA  
Mark S. Rekant, M.D., hand surgery, Cherry Hill, NJ (treating doctor)

**DEFENSE EXPERT(S)** Jaimo Ahn, M.D., orthopedic surgery, Philadelphia, PA  
William H. Daley III, P.E., mechanical, Annapolis, MD (did not testify)  
Jason M. Mattice, P.E., mechanical, Columbus, OH

**EDITOR'S NOTE** This report is based on information that was provided by plaintiffs' counsel and ROI Industries Group's counsel. Mack Trucks' counsel did not respond to the reporter's phone calls, and the remaining defendants' counsel were not asked to contribute.

—Aaron Jenkins