

JAMES ZIMMERMAN	:	IN THE SUPERIOR COURT OF
	:	PENNSYLVANIA
Appellant	:	
	:	
v.	:	
	:	
ALEXANDER ANDREW, INC. T/D/B/A	:	No. 662 WDA 2017
FALLTECH	:	

Appeal from the Order Entered April 5, 2017
 In the Court of Common Pleas of Elk County Civil Division
 at No(s): No. 2010-266

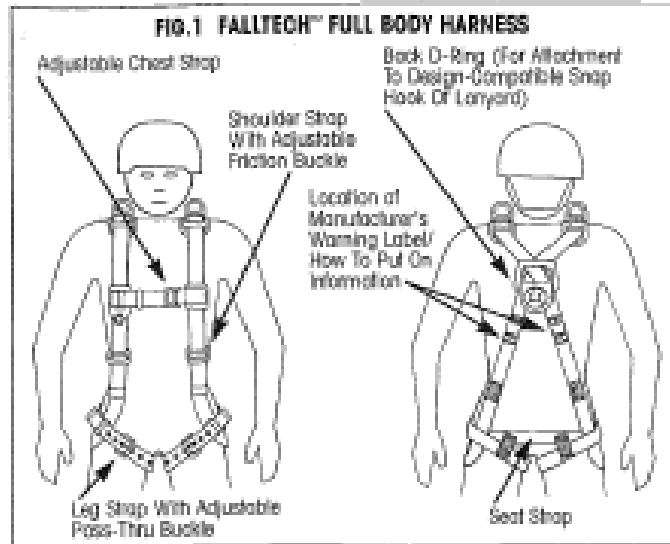
BEFORE: BOWES, J., PANELLA, J., and STABILE, J.

OPINION BY BOWES, J.:

FILED JUNE 1, 2018

James Zimmerman appeals the order granting summary judgment in favor of Alexander Andrew, Inc. t/d/b/a FallTech ("FallTech"). We reverse and remand for further proceedings consistent with this opinion.

In April 2008, Mr. Zimmerman went to the home of his friend, Jim Shanks, to cut down a dead tree at Mr. Shanks's request. When Mr. Zimmerman arrived, Mr. Shanks presented him with a FallTech safety harness to use during the process. Mr. Shanks had obtained the harness from a mutual friend who had purchased it but never used it. For ease of discussion, we include from the record a photograph of the harness at issue and a drawing from its instruction manual.



The harness's packaging included an instruction paper. Mr. Zimmerman scanned, but did not thoroughly read, the instructions and noted that the harness was intended to hold more than the combined weight of his body and the chain saw he intended to use on the tree. There was also a warning label on the harness itself, which Mr. Zimmerman saw but did not read completely. Mr. Zimmerman, from limited personal experience using a harness in construction work and seeing them used on television programs featuring people cutting trees, thought the use of the harness was self-explanatory.

Mr. Shanks helped Mr. Zimmerman into the harness, putting it on backwards such that the harness's back D-ring was on Mr. Zimmerman's chest. Mr. Zimmerman climbed the tree and strapped himself to it, using the D-rings on the sides of the harness to bear his weight, rather than anchoring himself to a point above his head from the D-ring that the instructions indicated was to be on his back. When the wind suddenly began blowing, Mr.

Zimmerman attempted to change position and caused his full weight to be borne by the harness. The harness failed, and Mr. Zimmerman fell thirty-five feet to the ground. As a result, Mr. Zimmerman suffered a collapsed lung and numerous fractured bones, and ultimately required the amputation of his right leg below the knee.

In March 2010, Mr. Zimmerman filed a complaint stating claims of strict products liability, negligence, and breach of warranty against FallTech.¹ Specifically, Mr. Zimmerman contended as follows as to strict liability:

- a) The safety harness was sold with component parts that were of insufficient strength and durability;
- b) The safety harness was designed and manufactured with weak and faulty component parts, making it unreasonably dangerous;
- c) The safety harness was distributed and sold with inadequate warnings regarding the use and maintenance of it and the hazards associated with its proper use; and
- d) The safety harness was not stable enough for routine and regular use.

Amended Complaint, 6/4/10, at ¶ 22. Mr. Zimmerman made similar allegations regarding his negligence claims, couched in terms of FallTech's failure to use reasonable care. *Id.* at ¶ 25. Finally, Mr. Zimmerman claimed that his injuries were caused by FallTech's breach of the implied warranty of

¹ Mr. Zimmerman also sued electric and gas companies that he claimed should have maintained the tree from which he fell. Those counts were dismissed on preliminary objections, and Mr. Zimmerman does not challenge their dismissal on appeal.

merchantability. *Id.* at ¶ 28. FallTech, *inter alia*, asserted in its new matter the affirmative defenses of misuse of the product and comparative negligence. Answer and New Matter, 2/22/11, at ¶¶ 39, 46.

Following discovery, FallTech moved for summary judgment as to all claims based upon the manner in which Mr. Zimmerman used the harness. Specifically, FallTech contended that the harness was intended for use on construction projects by workers trained in how to use it, and Mr. Zimmerman's use of it in a tree without training was misuse, not an intended use, and further was not foreseeable. Motion for Summary Judgment, 1/19/17, at 3-5. Mr. Zimmerman responded with the expert report of James L. Glancey, Ph.D., P.E., who opined that Mr. Zimmerman used the harness for a foreseeable application, and that the proximate cause of his injuries was "the obvious design, manufacturing and warnings defects present in the subject harness[.]" Brief in Opposition to Motion for Summary Judgment, 2/15/17, at page 5 of Exhibit F.

The trial court entertained oral argument on the motion, at the conclusion of which it granted summary judgment to FallTech. Order, 4/5/17. The trial court opined that "[t]here is absolutely nothing that would make a manufacturer think that" someone would use the product as Mr. Zimmerman did, and "it would be a waste of time to take this to a jury" because the jury would have to find in favor of FallTech if they followed the court's instructions as to the law. N.T., 4/5/17, at 34-35.

Mr. Zimmerman filed a timely notice of appeal, and both he and the trial court complied with Pa.R.A.P. 1925. Mr. Zimmerman presents the following questions for our consideration.

1. Did the trial court err in finding that [Mr. Zimmerman's] use of the at[-]issue harness was unforeseeable misuse?
2. Did the trial court err in finding that [Mr. Zimmerman] should have been able to discern from the incomplete user instructions that he was not using the at[-]issue harness properly?
3. Did the trial court err in finding as a matter of law that no juror could find that [Mr. Zimmerman] acted as a reasonable and prudent person under the circumstances?
4. Did the trial court err in finding that a jury could not find in favor of [Mr. Zimmerman] based on the evidence of record?

Appellant's brief at 5.

We begin our review with the applicable legal principles.

[S]ummary judgment is appropriate only in those cases where the record clearly demonstrates that there is no genuine issue of material fact and that the moving party is entitled to judgment as a matter of law. When considering a motion for summary judgment, the trial court must take all facts of record and reasonable inferences therefrom in a light most favorable to the non-moving party. In so doing, the trial court must resolve all doubts as to the existence of a genuine issue of material fact against the moving party, and, thus, may only grant summary judgment where the right to such judgment is clear and free from all doubt.

An order granting summary judgment will be reversed if the trial court committed an error of law or abused its discretion. The decision relating to whether there are no genuine issues as to any material fact presents a question of law, and therefore, on that question our standard of review is *de novo*. This means we need not defer to the determinations made by the lower tribunals. It is settled that, [i]f there is evidence that would allow a fact-finder to

render a verdict in favor of the non-moving party, then summary judgment should be denied.

Malanchuk v. Sivchuk, 148 A.3d 860, 865-66 (Pa.Super. 2016) (*en banc*) (internal citations and quotation marks omitted).

Mr. Zimmerman's primary cause of action is a claim of strict products liability under § 402A of the Restatement (Second) of Torts. "To prevail in an action under § 402A, the plaintiff must prove that the product was defective, the defect existed when it left the defendant's hands, and the defect caused the harm." ***Barton v. Lowe's Home Centers, Inc.***, 124 A.3d 349, 354 (Pa.Super. 2015).

The plaintiff may prove defective condition by showing either that (1) the danger is unknowable and unacceptable to the average or ordinary consumer, or that (2) a reasonable person would conclude that the probability and seriousness of harm caused by the product outweigh the burden or costs of taking precautions. The burden of production and persuasion is by a preponderance of the evidence.

. . . Whether a product is in a defective condition is a question of fact ordinarily submitted for determination to the finder of fact; the question is removed from the jury's consideration only where it is clear that reasonable minds could not differ on the issue.

Tincher v. Omega Flex, Inc., 104 A.3d 328, 335 (Pa. 2014).

Mr. Zimmerman also claimed that FallTech was negligent. "Negligence is the absence of ordinary care that a reasonably prudent person would exercise in the same or similar circumstances." ***Schemberg v. Smicherko***, 85 A.3d 1071, 1075 (Pa.Super. 2014). To prove a negligence claim, "the plaintiff must prove the following four elements: (1) a legally recognized duty

that the defendant conform to a standard of care; (2) the defendant breached that duty; (3) causation between the conduct and the resulting injury; and (4) actual damage to the plaintiff.” **Reason v. Kathryn’s Korner Thrift Shop**, 169 A.3d 96, 101 (Pa.Super. 2017) (citation omitted).

Under Pennsylvania law, Mr. Zimmerman’s use of the harness in an unforeseeable or highly-reckless manner could serve to defeat his § 402A claim. Our Supreme Court has recognized that product misuse and highly-reckless conduct are affirmative defenses to a strict liability claim. **Reott v. Asia Trend, Inc.**, 55 A.3d 1088, 1097 (Pa. 2012). The differences between them are as follows.

To establish misuse of the product, the defendant must show that the use was “unforeseeable or outrageous.” Highly reckless conduct is akin to evidence of misuse and requires the defendant to prove that [the plaintiff would have been injured despite the curing of the alleged product defect, or that] the use was so extraordinary and unforeseeable as to constitute a superseding cause.

Id. at 1096 (citation omitted).

Similarly, Mr. Zimmerman cannot recover on his negligence claim under the comparative negligence statute if his fault in causing his injuries was greater than that of FallTech. **See Rekun v. Pelaez**, 976 A.2d 578, 581 (Pa.Super. 2009); 42 Pa.C.S. § 7102(a).

As noted above, FallTech contended that it was entitled to judgment as a matter of law because Mr. Zimmerman misused the harness. Specifically, FallTech argued that Mr. Zimmerman’s misuse was so reckless that it defeated

the causation elements of his claims. **See** Appellee's brief at 29-30. The trial court agreed with FallTech, concluding that the questions could "be resolved simply by common sense without regard to case law or statute." Trial Court Opinion, 8/15/17, at unnumbered 1. The trial court held as a matter of law that it was impossible for FallTech to have anticipated that Mr. Zimmerman would have failed to use the product in full compliance with its instructions and warnings, reasoning as follows.

The instruction sheet provided all the information needed in the use of the harness. [Mr. Zimmerman] ignored its instructions (in words and diagrams): to attach the harness to a secure anchor point above him, "directly above the user"; to attach the harness to a D-ring on the back of the harness ("back-up fall arrest"); to ensure that the anchor point be capable of supporting a load of 5,000 pounds; to be aware that a properly selected anchorage point was "critical to the success of a personal fall arrest system"; to limit free fall to nine and a half feet; to "not work above the anchorage point"; to use "Side D-Rings (if present) for work positioning only, and not be used for fall arrest"; and that "instructions, labels and warnings supplied with this full body harness . . . must be read and followed before using" and that "failure to do so could result in serious injury or death."

[FallTech] could not have foreseen that [Mr. Zimmerman] would act totally contrary to all the above instructions. Nor could [FallTech] have imagined that [Mr. Zimmerman] would use the harness in cutting limbs from a tree; swing the harness support strap over the stump of a cut-off limb 35 feet above the ground and make himself the anchor; wear the harness backwards, placing the back D-Ring on his chest rather than his back; step off the branch that was supporting his weight and swing around the cut-off branch with only feet against the tree as support in imitation of woodsmen he had watched on a television reality show (that had warned untrained persons not to attempt to duplicate their actions), all the above while acting in defiance of warnings on printed and sewn-in instructions for use and without any training or assistance from anyone who was experienced in using the harness.

Id. at unnumbered 2.

We first consider the propriety of the trial court's analysis as to Mr. Zimmerman's § 402A claim. "It is well-settled that a plaintiff's misuse of a product cannot be grounds for granting summary judgment in favor of the manufacturer under a design defect theory unless it is established that the misuse **solely** caused the accident while the design defect did not contribute to it." **Smith v. Yamaha Motor Corp.**, 5 A.3d 314, 321 (Pa.Super. 2010) (emphasis added).

Mr. Zimmerman contends that the evidence before the trial court was sufficient to survive summary judgment, pointing to this Court's decision in **Smith v. Yamaha Motor Corp., supra**. In that case, the plaintiff was injured when his leg became stuck in the wheel well of his ATV after the fender collapsed, causing the vehicle to roll on top of him. He sued Yamaha, asserting claims of strict product liability and negligence. Yamaha moved for summary judgment, arguing that Smith misused the ATV by ignoring an instruction booklet that "warned that operators should not use drugs or alcohol or allow the vehicle to roll backwards on a hill." **Id.** at 317. The trial court granted the motion, concluding that Smith did not use the ATV as intended.

We reversed, distinguishing cases such as **Pennsylvania Dep't of Gen. Servs. v. U.S. Mineral Prod. Co.**, 898 A.2d 590 (Pa. 2006) (holding manufacturer of building products could not be strictly liable for PCB contamination that followed a fire in the building because the incineration of

the products was not an intended use), and ***Phillips v. Cricket Lighters***, 841 A.2d 1000 (Pa. 2003) (ruling trial court properly entered summary judgment in favor of manufacturer of cigarette lighter in strict liability claim for a fire started by a toddler who took a lighter from his mother's purse, as the product was intended for use only by adults), by explaining as follows.

In the present case, the trial court erred in concluding that Mr. Smith was not using the ATV as intended. An ATV is an off-road vehicle and its intended utilization is to be driven in an off-road setting. The ATV at issue herein clearly was being used for that purpose at the time of this accident. Mr. Smith was operating the ATV on a trail in a wooded area when the accident occurred. This case bears no resemblance to either ***Pennsylvania Department of General Services*** or ***Phillips***. Building materials are intended to be installed in structures and not to be incinerated. Similarly, lighters are manufactured so that adults may ignite cigarettes, candles or fires; they are not designed to be utilized by children as a toy or plaything. However, ATVs are designed to be driven in an off-road setting, and Mr. Smith was utilizing the ATV in that capacity when the accident occurred. . . .

In the present case, the trial court conflated the doctrine of unintended use with the concept of misuse. Yamaha's defense was that Mr. Smith was not using the ATV in accordance with the instructions that he received with that vehicle. Those instructions provided that the ATV should not be used under the influence of drugs or alcohol and that the ATV should not be backed down a hill. Mr. Smith had taken OxyContin for pain associated with a pre-existing back injury in accordance with his prescription for that drug. In addition, he had imbibed a small amount of beer. Finally, he was backing his ATV down a hill in first gear in order to avoid striking other ATV users who were over the hill and out of his sightline. These actions relate to the defense of misuse of the product in that the ATV was not being used in accordance with the manufacturer's instructions. It is well-settled that a plaintiff's misuse of a product cannot be grounds for granting summary judgment in favor of the manufacturer under a design defect theory unless it is established that the misuse solely caused the accident while the design defect did not contribute to it.

Id. at 321 (citation omitted). We went on to consider the record in the light most favorable to Smith, noting that he testified that his use of the vehicle was not affected by his drug and alcohol use, and his expert opined that Smith was not negligent; rather, a design defect in the ATV's fender was the cause of Smith's injuries. **Id.** at 321-22. Upon this, we concluded that the entry of summary judgment on Smith's strict liability claim was erroneous. We also held that the trial court erred in deciding the negligence claim as a matter of law, because Smith's expert sufficiently identified safer alternate designs for the fender that would have prevented the accident. **Id.** at 323.

Mr. Zimmerman likens the instant case to **Smith**, in that he was using the harness in a foreseeable application consistent with its intended use (to stop someone working above ground from falling), and that FallTech failed to establish that any misuse of the harness by Mr. Zimmerman was the one and only cause of the accident. Appellant's brief at 17-19.

Mr. Zimmerman also highlights the following facts of record not accounted for by the trial court. The instructions supplied with the harness Mr. Zimmerman used were not specific to that model number, but instead applied to several different harness models. The diagrams in the instruction manual provided with the harness used by Mr. Zimmerman do not depict the side D-rings that were on the harness in question. Those side D-rings are identical in material and appearance to the back D-ring to which the harness is designed to be attached. There were warnings sewn into the material where

the side rings were attached to the harness indicating that the side D-rings were not to be used for "fall arrest," but it did not explain that term or specify that the load carrying capabilities of the side D-rings were different than the identical-looking back ring. Appellant's brief at 15-24.

Mr. Zimmerman further points to the report of his engineering expert, Dr. Glancey, who observed that the instruction manual "provides no instruction or guidance for the use of the subject harness. Specifically, the manual fails to instruct a user regarding the purpose of the side D[-]rings or the proper use of the side D[-]rings." Brief in Opposition to Motion for Summary Judgment, 2/15/17, at page 4 of Exhibit F. Dr. Glancey also addressed FallTech's "assertion that the subject harness was never intended to be used by an arborist or in the tree industry," by observing that "the subject instruction manual never articulates the intended uses or, by contrast, explains the applications not appropriate for this design." **Id.** This failure to explain the appropriate use, or identify inappropriate uses, "constitutes a significant warnings defect" in Dr. Glancey's opinion. **Id.** Based upon his review of the discovery materials, his examination of the harness itself and the instructions FallTech identified as accompanying that harness model, as well as his inspection of the site and chainsaw Mr. Zimmerman was using when he fell, Dr. Glancey offered the following opinions within a reasonable degree of engineering certainty:

1. Mr. Zimmerman was using the subject harness for a foreseeable application based on the instructions provided in the manual for this harness.
2. The size and weight rating of the subject harness indicate that it was compatible with the weight of Mr. Zimmerman and the tools he was using at the time of the incident.

. . . .
6. The use of the identical steel D-ring for both the dorsal ring and the side rings suggests that these components perform similar functions and possess the same load carrying capabilities. This constitutes a design defect.
7. FallTech failed to design the subject harness in a manner to resist foreseeable loads exerted on the harness and harness subsystems.
8. FallTech failed to design their products to insure proper attachment of various FallTech systems. Specifically, color coding of D-rings and snaphooks to indicate to a user the correct assembly of harnesses and lanyards.
9. FallTech failed to design their products to insure proper connect of D-rings and snaphooks so that only compatible components were connected by a user. Specifically, the mechanical attributes and features of the D-rings and snaphooks were lacking in order to prevent unintended connection of these components, namely lanyards to side D-rings.
10. Had the subject harness and lanyard incorporated color coding on the connecting components in order to insure proper connect these systems, the serious risk to Mr. Zimmerman would have been significantly reduced.
11. Had the subject harness and lanyard incorporated "mechanical compatibility" into the connecting components in order to insure proper connect these systems, the serious risk to Mr. Zimmerman would have been significantly reduced.

12. The unusual orientation of the laminated straps as well as the stitches used to form the side D-ring stitched eyes in the subject harness may reflect a manufacturing defect that can be confirmed once the engineering design drawings, specification, and manufacturing records are produced by FallTech for the . . . subject harness.
13. The instructions designed and published by FallTech for the subject harness failed to warn a user that the harness design was not intended for use in the arborist industry. This constitutes a warnings defect.
14. The instructions design and published by FallTech for the subject harness failed to explain in any way the intended uses of the side D-rings incorporated into the subject harness design. This constitutes a warnings defect.
-
16. Taking all of the above in to consideration, the obvious design, manufacturing and warnings defects present in the subject harness that was worn by Mr. Zimmerman were the proximate cause of his severe and substantial injuries.

Id. at 4-5. Thus, Dr. Glancey identified several design and warnings defects in light of safer alternative designs available to FallTech.

Upon review of the record and application of the legal principles discussed above, we conclude that Mr. Zimmerman tendered sufficient evidence that, if accepted by the fact finder, would establish that the harness was defective, that FallTech was negligent in the product's design and instructions, and that these deficiencies were a proximate cause of Mr. Zimmerman's injuries. Therefore, it was error for the trial court to rule, on the record before it, that Mr. Zimmerman's misuse of the harness "solely

caused the accident while the design defect did not contribute to it.”² **Smith, supra** at 321.

We next consider the trial court’s determination that Mr. Zimmerman’s negligence claim fails because his misuse of the product was unforeseeable. We first note that “the concept of foreseeability means the likelihood of the occurrence of a **general** type of risk rather than the likelihood of the occurrence of the precise chain of events leading to the injury.” **Charlie v. Erie Ins. Exch.**, 100 A.3d 244, 256 (Pa.Super. 2014) (quoting **Huddleston v. Infertility Ctr. of Am., Inc.**, 700 A.2d 453, 460 (Pa.Super. 1997)) (emphasis in original).

If the actor’s conduct has created or increased the risk that a particular harm to the plaintiff will occur, and has been a substantial factor in causing that harm, it is immaterial to the actor’s liability that the harm is brought about in a manner which no one in his position could possibly have been expected to foresee or anticipate.

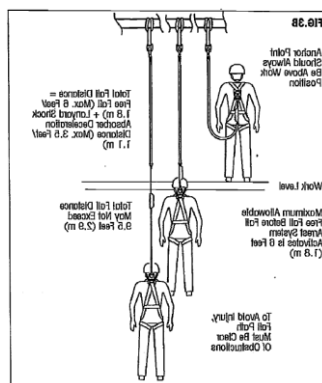
Ford v. Jeffries, 379 A.2d 111, 115 (Pa. 1977) (quoting Restatement (Second) of Torts § 442B cmt. b). Thus, in examining the impact that foreseeability has on the causation components of Mr. Zimmerman’s negligence claim, the question before us is not whether a user would have

² Indeed, despite seeking judgment as a matter of law based upon causation, FallTech did not produce an expert to opine that Mr. Zimmerman’s conduct was the sole or primary cause of his injuries.

done precisely what Mr. Zimmerman did, but whether FallTech’s conduct caused or increased the risk of Mr. Zimmerman’s injuries.

FallTech contends that Mr. Zimmerman cannot prevail on his negligence claim because “reasonable minds cannot differ in coming to the conclusion that Mr. Zimmerman did not act as a reasonably prudent person” in, *inter alia*,³ not reading completely the label sewn onto the harness, wearing it backwards, and using it as he had seen harnesses used by woodsmen

³ FallTech contends that one of the ways Mr. Zimmerman misused the harness was by using it thirty-five feet above ground, and thus “exceeding the maximum free-fall allowed by 25 feet.” Appellee’s brief at 49. The argument that the harness was not intended to be used by people who are more than ten feet above ground is nonsense. The instruction manual indicates that the harness must be anchored such that the user’s weight is not borne by the harness after a free-fall of more than six feet. **See** Motion for Summary Judgment, 1/19/17, at Exhibit D, § 5. In other words, the user is not supposed to work above the anchor point such that he falls a distance greater than the length of the line connecting the harness to the anchor before the fall is arrested. **Id.** The illustration provided is as follows.



Id. Mr. Zimmerman described attaching one end of the line to one D-ring of the harness, wrapping it around the tree, and attaching the other end to another D-ring. As such, Mr. Zimmerman intended zero feet of free fall. The only reason there was any free fall at all is because the side D-ring ripped away from the harness, causing Mr. Zimmerman to fall to the ground.

although “he was wearing a harness not intended to be used for climbing trees.” Appellee’s brief at 48-49.

The law is clear that “[t]he issue of contributory negligence may be removed from the jury where the evidence is so clear and palpable that there is no room for fair and reasonable persons to differ in their conclusions”

McDole v. Bell Tel. Co. of Pennsylvania, 656 A.2d 933, 936 (Pa.Super. 1995). “[W]here there is any evidence which alone could justify an inference of a disputed fact [regarding a plaintiff’s negligence], such dispute must go to the jury, no matter how strong or persuasive may be the countervailing proof.”

McCullough v. Monroeville Home Ass’n, Post 820, Inc., 411 A.2d 794, 795–96 (Pa.Super. 1979). “[T]he burden to establish the plaintiff’s conduct as a contributing factor in his injury rests with the defendant, who must show both the negligence of the conduct alleged and the causal relationship of that conduct to the injuries for which damages are sought.” ***Angelo v. Diamontoni***, 871 A.2d 1276, 1280 (Pa.Super. 2005).

There is no question that Mr. Zimmerman did not completely read and follow the instructions provided by FallTech. However, Mr. Zimmerman produced evidence to suggest FallTech’s negligence was a proximate cause of his injuries. Specifically, as detailed above, Dr. Glancey opined that Mr. Zimmerman used the harness for a foreseeable application, that its design was defective, and that its warnings were inadequate. Therefore, the record shows a material issue of fact as to the relative negligence of Mr. Zimmerman

and FallTech. The question of FallTech's role in causing Mr. Zimmerman's injuries "must go to the jury, no matter how strong or persuasive may be the countervailing proof." **McCullough, supra** at 795-96. Therefore, we hold that the trial court erred in granting judgment in favor of FallTech on Mr. Zimmerman's negligence claim.

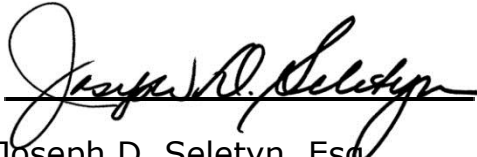
The trial court did not address Mr. Zimmerman's breach of warranty claim specifically in explaining its ruling. We presume that its decision to grant judgment in favor of FallTech on that claim was also based on its finding that Mr. Zimmerman unforeseeably misused the harness, as abnormal use of a product also may be a defense in a breach of warranty action. **Speyer, Inc. v. Goodyear Tire & Rubber Co.**, 295 A.2d 143, 145 (Pa.Super. 1972). Based on our conclusion that there is an issue of fact for the jury to determine as to product misuse, we also reverse the trial court's dismissal of the warranty claim.

For the above reasons, the trial court erred in resolving the question of causation at summary judgment. Therefore, the trial court order granting FallTech's motion for summary judgment is reversed.

Order reversed. Case remanded for further proceedings consistent with this opinion. Jurisdiction relinquished.

J-S85013-17

Judgment Entered.

A handwritten signature in black ink, reading "Joseph D. Seletyn", written over a horizontal line.

Joseph D. Seletyn, Esq.
Prothonotary

Date: 6/1/2018