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**IN THE COURT OF CLAIMS
FOR THE STATE OF OHIO**

WILLIAM ANDREW CAMPBELL	:	CASE NO. 2013-00502
	:	Judge Patrick M. McGrath
Plaintiff	:	Magistrate Anderson M. Renick
vs.	:	PLAINTIFF'S RESPONSE TO
	:	DEFENDANT'S MOTION FOR
THE OHIO DEPARTMENT OF	:	SUMMARY JUDGMENT
NATURAL RESOURCES	:	
	:	
Defendant	:	Oral Argument Requested
	:	

I. INTRODUCTION

This case concerns the flagrant disregard of safety exercised by the Ohio Department of Natural Resources (hereinafter referred to as ODNR) which resulted in tragic injuries sustained by their employee, William Andrew Campbell, which occurred on August 29, 2011.

This disregard of safety is manifested by the deliberate removal and tampering of safety guarding devices which if properly installed would have prevented this incident from ever occurring. The fact that safety guarding devices were removed and tampered with is not in dispute. After this incident occurred, an internal investigation was performed by Patrick Brown on behalf of ODNR. (See Plaintiff's Exhibit 12 to Deposition of Patrick Brown) His report and findings have been attached to his Deposition. His report verifies that the deliberate actions taken on the part of ODNR and its employees included the following:

- A. The deliberate bypass of the operator presence system on the John Deere 1070 tractor

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that William Campbell was operating at the time he sustained his injury. Specifically, ODNR bypassed the seat switch so that the power to the tractor and PTO shaft would not be cut off when an operator of the tractor stood up from the seat. The tractor was originally manufactured by John Deere so that when an operator stood up from the seat, power to the tractor and PTO would automatically be shut off. (See also Plaintiff's Exhibit 13 to Patrick Brown Deposition which verifies the system's bypass from John Deere dealer)

- B. Removal of the barrier guard over the right angle gear box of the 548 aero-blade aerator. As noted by Plaintiff's expert, Tom Huston, Professor of Mechanical Engineering at the University of Cincinnati, this could only have been performed with deliberate intent insofar as it requires the use of tools to remove the barrier guard. If this guard were present, it would have prevented William Andrew Campbell's arm from being caught in the PTO shaft. (See Huston Deposition at Page 64) In fact, this guard had a safety decal warning to keep guards in place. (See Plaintiff's Exhibit 14 to Patrick Brown Deposition)
- C. Removal of the shield that covered the universal joint at the back end of the PTO shaft that was connected to the gear box.
- D. Removal of a guard covering the sprocket and chain that supplied the mechanical power to the seeder attachment.

As will be explained further, the deliberate removal of the safety devices, which proximately caused the injuries sustained by William Andrew Campbell, creates a presumption that there did exist a deliberate intent to injury as codified in R.C. 2745.01(C). Accordingly, Defendant's Motion

for Summary Judgment must be denied and this case should proceed to trial on the issue of liability.

II. FACTUAL BACKGROUND

At the time of this incident, William Andrew Campbell was 37 years of age. Mr. Campbell had previously worked for ODNR at Shawnee State Park Golf Course in 1996-1997. He began a second course of part-time employment beginning in March of 2011. Mr. Campbell's job duties primarily focused on general golf course maintenance. He cut greens, raked traps and performed other related tasks assigned to him by his supervisor, Matthew Bourne.

At the time of the incident, Mr. Campbell was operating a John Deere 1070 tractor which was attached to a Jacobsen Model 548 aero-blade aerator. The aerator, in turn, was equipped with the Jacobsen Model 548-100 seeder attachment. The seeder attachment had a seed bin which dispensed seed from its bottom side via the power driven feed shaft. The power driven feed shaft was powered by the PTO which was connected to the John Deere tractor.

At the time of this incident, William Andrew Campbell was instructed to seed certain portions of the Shawnee State Park Golf Course by his supervisor, Matthew Bourne. Mr. Campbell had only been on the tractor approximately 20-25 hours prior to this assignment. He had only used the seeder attachment one day before the incident. (See Campbell Deposition at Page 30-31)

Mr. Campbell was seeding the 9th fairway near the green with the intention of progressing back along the fairway towards the tee. After a few passes across the fairway, Mr. Campbell had a brief discussion with his supervisor, Mr. Bourne. After that discussion, Mr. Campbell again began re-seeding the fairway. He made a pass up and down the fairway and then stopped the tractor for the purpose of checking the seed in the seed bin. (See Campbell Deposition at Page 42-43)

When Mr. Campbell stopped the tractor, the engine continued to run as a result of the seat

safety switch having been bypassed by ODNR. Insofar as the tractor continued to generate power, the PTO remained powered and engaged as well. Mr. Campbell exited the tractor on his left side and proceeded to walk around to the back side of the aerator. He then opened the lid to the seed bin and smoothed the level of the seed in the bin.

After checking the seed, Mr. Campbell started to clean chunks of sod off the aerator. During this process, Mr. Campbell positioned himself in between the right rear of the tractor and the front right portion of the aerator. While reaching with his right hand to retrieve a chunk of sod, Mr. Campbell's left sleeve was caught by a protruding bolt on the rotator universal joint that connected the drive shaft and the right angle gear box. (See Defendant's Exhibit C to Campbell Deposition) This is the precise area where the aforementioned barrier guard had been removed by ODNR. As a result of his left sleeve becoming entangled in the rotating universal joint, Mr. Campbell sustained severe physical injuries to his left arm, including the amputation of his left hand.

As noted earlier, if the barrier guard over the right angle gear box had been in place, Mr. Campbell's left sleeve would not have been caught by a protruding bolt on the rotating universal joint and this incident would have been avoided in its entirety.

It is important to note that with respect to Mr. Campbell's operation of the tractor in conjunction with the aerator/seed slitter, Mr. Campbell received no formal training whatsoever. He essentially learned how to use the machinery by observing other employees. Mr. Campbell denies that Mr. Bourne ever told himself to disengage the PTO when leaving the seat of the tractor to inspect the aerator/seed slitter. When Mr. Bourne was asked what kind of training was provided to William Andrew Campbell, Mr. Bourne replied, "I can't remember" (See Bourne Deposition at Page 28)

The only training documents produced by ODNR consisted of a tractor training sheet which is signed by Mr. Campbell, but whose check marked areas have been left totally blank. Matthew Bourne, Mr. Campbell's supervisor, testified in his Deposition that the checkmarks would serve to verify that the training was actually performed. He was then asked if there was any way to determine on May 23, 2011, who might have been training Mr. Campbell based on this document. Mr. Bourne's answer was "no documentation of who trained." (See Bourne Deposition at Page 57)

Accordingly, there is no verification at all that Mr. Campbell was actually trained on the John Deere 1070 tractor. Mr. Campbell denies having any formal training and denies ever having been told to shut off the PTO shaft when performing his job duties. It is further important to note that Matthew Bourne was in visual sight of Mr. Campbell at the time he was performing his job activities right before he sustained his injuries. Mr. Bourne never made any effort to correct any of the job task Mr. Campbell was doing prior Mr. Campbell sustaining his injuries.

III. DEFENDANT'S MOTION FOR SUMMARY JUDGMENT NOT ONLY OMITTS KEY FACTS, BUT ALSO DISTORTS THE FACTUAL EVIDENCE CONTAINED IN THE RECORD OF THIS CASE.

1. Defendant's Motion for Summary Judgment never mentions that the safety feature on the seat of the John Deere 1070 tractor which powered the PTO shaft, upon which Mr. Campbell was injured, had been deliberately bypassed by ODNR. Incredibly, ODNR's Motion for Summary Judgment seeks to blame Mr. Campbell for failing to disengage the PTO shaft after ODNR had previously disabled this disengagement feature. With regard to the three safety guards which were removed from the Jacobsen Model 548-100 seeder attachment, Defendant's Motion for Summary Judgment briefly refers to the removal of the barrier guard over the right angle gear box, (See Defendant's

Motion at Pg. 6) but never mentions the fact that two other guards were removed.

IV. DEFENDANT'S MOTION FOR SUMMARY JUDGMENT MAKES NO MENTION OF THE FACT THAT THERE IS A COMPLETE ABSENCE OF MAINTENANCE AND REPAIR RECORDS WITH REGARD TO ALL MAINTENANCE EQUIPMENT AT THE SHAWNEE STATE PARK GOLF COURSE UP UNTIL THE TIME OF WILLIAM ANDREW CAMPBELL'S TRAGIC ACCIDENT.

In Patrick Brown's internal investigation, he interviewed Tim Clark, who was the employee in charge of maintenance at the Shawnee State Park Golf Course. Mr. Clark had been in this position for approximately 6-7 years at the time of Mr. Campbell's incident. Mr. Brown concluded that Mr. Clark had no procedure whatsoever for completing maintenance and fixing broken equipment. It was found that there was no documentation of repairs requested and, in fact, during his formal interview with Mr. Brown, Tim Clark signed a statement which stated in part as follows:

"Before and after the Andrew Campbell accident I requested to meet with supervisors to work on policies and directives as relate to my job as a mechanic (making operations safer and more efficient. Example, employees using equipment that they were not familiar with or making repairs that they were not qualified to do). I've not yet had a meeting with the past or new supervisors. Supervisors do not have the time to have a meeting with me." (See Clark Deposition Exhibits 9 and 10)

One of the arguments set forth by ODNR is that there is no evidence that ODNR intentionally caused the incident insofar as there is no direct testimony linking any employees of ODNR to the removal of the safety devices in question. This assertion is without merit. There is no evidence in the record whatsoever that the John Deere 1070 tractor or the Jacobsen aero-blade aerator was ever

taken out of the possession of ODNR. There were absolutely no maintenance records and repair records with regard to any of its machines and equipment. This failure to retain records represents a patten of deliberate ignorance with regard to the safety and maintenance of ODNR's equipment. This willful lack of any safety protocol is further evidence of a mindset creating a situation where significant injury was substantially certain to occur to one of its employees. It just so happened that William Andrew Campbell was the unfortunate employee who was at the wrong place at the wrong time.

V. THE ASSERTION BY THE DEFENDANT THAT MR. CAMPBELL PLACED HIS HAND IN AN AREA THAT WAS UNGUARDED AND WOULD HAVE BEEN UNGUARDED IF ALL SAFETY GUARDS WERE IN PLACE IS BLATANTLY FALSE.

This assertion, in Defendant's Motion for Summary Judgment, is supported by references to Page 23 of William Andrew Campbell's Deposition, as well as Pages 57 and 58 of Patrick Brown's Deposition. The problem is that neither of these references supports the assertion that ODNR is making in this regard.

William Andrew Campbell testified that his left arm sleeve was caught by a protruding bolt on the rotating universal joint that connected the drive shaft and the right angle gear box. (See Campbell Deposition at Page 24-25) Mr. Campbell further circled the area of the bolt in a photograph presented to him during his Deposition which has been marked as Defendant's Exhibit C to the Campbell Deposition. While Patrick Brown testified that he remained unclear as to where the actual entanglement occurred, his investigation report specifically reads as follows:

"One of the guards would have partially covered an area that Mr. Campbell had become entangled during the accident." (See Exhibit 22 to Brown

Deposition, copy attached hereto)

In fact, it was Mr. Brown's report that contained a photograph of the extruding bolt that is holding the universal joint to the gear box. The caption to the photograph stated:

"This is the area that it was reported most of Andrew Campbell's clothes were found after the accident." (See Plaintiff's Exhibit 24 to Patrick Brown's Deposition)

Thomas Huston has been an Associate Professor of Mechanical Engineering for over 27 years at the University of Cincinnati. His report and testimony concludes that Mr. Campbell's sleeve became entangled at the point of the protruding bolt which would have been inaccessible if the barrier guard had not been deliberately removed. (See Huston Deposition at Page 42, Exhibit 28 attached hereto) Accordingly, the assertion that Plaintiff placed his hand in an area that was unguarded and would have been unguarded if all the safety guards were in place is deliberately misleading and false.

VI. LAW AND ARGUMENT

In Ohio, intentional tort claims filed by employees against their employers are governed by R.C.2745.01. This statute became effective on April 7, 2005. The statute has been found to be constitutional by the Ohio Supreme Court.

R.C. 2745.01(C) reads as follows:

"(C) Deliberate removal by an employer of an equipment safety guard or deliberate misrepresentation of a toxic or hazardous substance creates a rebuttable presumption that the removal or misrepresentation was committed with intent to injure another if any injury or an occupational disease or condition occurs as a direct result."

In the case of Hewitt v. L.E. Myers Co., 134 Ohio St.3d 1999, 2012-Ohio-5317, the Ohio

Supreme Court developed a definition of “equipment safety guard” insofar as the statute did not directly define the term. The Ohio Supreme Court defined equipment safety guard as a “device designed to shield the operator from exposure to or injury by a dangerous aspect of the equipment, and the deliberate removal of an equipment safety guard occurs when an employer makes a deliberate decision to lift, push aside, take off or otherwise eliminate that guard.” It should be noted that the word “shield” does not refer to an actual physical shield, but rather used as a synonym for the word protect. This is evident by the Ohio Supreme Court holding in Beary v Larry Murphy Dump Truck Serv., Inc., 134 Ohio State 3d 359, 2012-Ohio-5626. This case, which was decided three weeks after the Hewitt decision, remanded an intentional tort case back to the trial court to determine whether a backup alarm is an equipment safety guard under the Hewitt definition. If the Ohio Supreme Court had construed the word shield to simply be a physical protective cover, they would have simply held that the backup alarm was not an equipment safety guard within the context of the Hewitt decision.

In the case at bar, there is no question that both the operator presence system on the John Deere tractor, as well as the barrier guard over the right angle gear box had been deliberately removed.

With regard to the tractor seat, Investigator Patrick Brown, contacted an individual named David Gampp from Gampp’s John Deere Store in Portsmouth. Mr. Gampp inspected the tractor safety seat and found that the neutral safety start switch had been bypassed with a jumper wire. Mr. Gampp found that the wire had been on the tractor long enough for the wire exterior to be faded from a red color to a pink color. Mr. Gampp found that because the jumper wire was in place, the safety switch did not function and allowed Mr. Campbell to get off the tractor while the PTO drive was still

engaged. (See Exhibit 13 to Brown Deposition)

With regard to the barrier guard on the Jacobsen aerator, Plaintiff's expert Tom Huston, who inspected the machines and had access to the machines schematic drawings, testified that the guard had to have been removed by deliberate action insofar as the guard was retained on the machine by four screws and bolts. Accordingly, both requirements of Hewitt are met in this case. Both of these guards constitute equipment safety guards and both of these guards were deliberately removed by ODNR. Further, this incident never would have occurred but for the removal of these guards.

It is important to note that ODNR's contention that the decision to remove the safety guards in question must have arisen from some type of management decision and is not supported by either the statute nor the applicable case law.

The unambiguous terms of R.C. 2745.01(C) require only that the "employer" deliberately removes a safety guard, not necessarily a company official or manager. Under the familiar doctrine of *respondent superior*, the employer is charged with legal responsibility for the tortuous acts and omissions of the employee. Cleveland, C.& C.R. Co v. Keary, 3 Ohio St. 201, 210-211 (1854); Tucker v. Kroger Co., 133 Ohio App. 3d 140, 247, 726 N.E.2d 111, 1116 (10th Dist. 1999) (*citations omitted*); Calhoun v. Middletown Coca-Cola Bottling Co., 43 Ohio App.2d 10, 13-14, 332 N.E.2d 73, 76-77 (1st Dist. 1974). The master who places a servant in position to cause harm to others will be liable for the foreseeable consequences that follow: Posin v. A.B.C. Motor Court Hotel, Inc., 45 Ohio St.2d 271, 279, 344 N.E.2d 334, 340 (1976).

Consistent with these venerable principles, employers can be held legally responsible even for the intentional torts of low-level employees. Stranahan Bros. Catering Co. v. Coit, 55 Ohio St. 398, 409-412, 45 N.E. 634, 6378-639 (1896); Tucker, 133OhiApp.3d at 147;Calhoun, 43 Ohio

App.2d at 13-14. Over a century ago, this Court squarely recognized that:

A master is liable for the malicious acts of his servants, whereby others are injured, if the acts are done within the scope of the employment, and in the execution of the service for which he was engaged by the master.

Stranahan, 55 Ohio St. 398, paragraph one of the syllabus; *see also* Osborne v. Lyles, 63 Ohio St. 3d 326, 329-330, 587 N.E.2d 825, 829 (1992).

In Thomas v. Ohio Dept. of Rehab & Corr., 48 Ohio App.3d 86, 548 N.E.2d 991 (10th Dist. 1988), the Tenth District upheld a determination of vicarious liability against an employer, where the employer-prison guard was found to have used unreasonable force in restraining an inmate. The Thomas court noted that:

[A]ppellant empowered [the officer] with the discretionary authority to use nondeadly force in limited circumstances. Appellant also assigned him the necessary instrumentalities to carry out his assigned duties. Appellant cannot now attempt to disavow responsibility for [the officer]'s unjustified use of force carried out in the performance of his assigned duties. Contrary to appellant's argument, the fact that [the officer]'s use of force was determined unjustified does not automatically take his actions outside the scope of this employment.***

Id., 48 Ohio App.3d at 89-90. The question of whether an agent was acting within the scope of his/her agency is typically one of fact. Posin, 45 Ohio St. 2d 271, 279-280, 344 N.E. 2d 344, 340-341; GNFH, Inc. v. West Am. Ins. Co., 172 Ohio App.3d 127, 148-149, 2007-Ohio-2722, 873 N.E. 2d 345, 361-362 (2nd Dist. 2007).

A specific directive from management was not required under similar circumstances in McKinney, 2011-Ohio-3116. A press operator had lost several fingers while she was attempting to remove a part from a mold. *Id.*, ¶2. The apparatus had been equipped with a "light curtain" that was supposed to prevent the mechanism from

activating when the worker's hands were in the danger zone. *Id.* The ensuing investigation revealed that an unidentified employee had failed to properly program the safety device. *Id.*, ¶21-28. Nevertheless, the appellate court unanimously concluded that a triable issue of fact existed over whether the statutory presumption had been satisfied. *Id.*, ¶28-29.

The same sound result had been reached in Dudley, 2011-Ohio-1975. In that case, the employer had acquired a hydraulic press that could be activated only when the operator pressed two buttons with both hands. *Id.*, ¶9. The device was then modified so that the dual palms buttons were replaced with an optical sensor. *Id.*, ¶10. On his first day on the job, a poorly trained operator lost his left hand when he inadvertently activated the optical sensor while reaching inside the press. *Id.*, ¶12. The trial judge entered summary judgment on the grounds that the cause of the injury had not been the "removal" of the dual palm buttons, but the installation of the sensor. *Id.*, ¶15. In reversing this determination, the unanimous Sixth District held that a triable issue of fact existed over whether the equipment safety guard presumption was applicable. *Id.*, ¶20. Significantly, for purposes of the instant action, the court did not require any proof that a manager had made a deliberate decision to detach the safety guard. *Id.*

There are two cases cited by ODNR in its motion which can easily be distinguished from the facts in this matter. The first case, Shanklin v. McDonald USA LLC, 2009-Ohio-251, is cited for the proposition that the removal of a safety guard does not constitute an intentional tort when the employee was not required to expose himself to the potential hazard as part of his job duties. First of all, in this case, there is no

question that William Andrew Campbell was performing his required job task at the time that he sustained his injuries. He was instructed to seed the 9th green using the John Deere tractor with the aerator and attached seed slitter. He had never received any training whatsoever as to the use of the aerator/seed slitter. The fact that he was cleaning sod off the aerator at the time that he sustained his injuries is totally consistent with him performing his job task. Further the Shanklin decision does not stand for the proposition cited by ODNR. In Shanklin, an employee was electrocuted when the cover of a microwave oven had been removed to make a repair. The Fifth District, noting that the removal of the cover was only for the purposes of making a repair and that the cover had been placed back on the microwave after the repair, found that the cover did not constitute a safety guard as contemplated by R.C. 2745.01(C). This case had nothing to do with the proposition that an employee cannot maintain an intentional tort action by virtue of exposing himself to a hazard outside his normal job duties.

The second case cited by ODNR is a decision from this court in the case of Higgins v. Oracle Elevator, Case No. 2013-00134. In Higgins, an employee died while removing the handrails on the interior of an elevator car. The employee, Higgins, went to investigate an issue on the exterior of the elevator when an elevator car inadvertently fell on top of Higgins, causing his death.

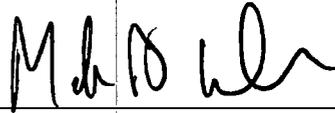
In granting summary judgment on behalf of Higgins employer, this court held that a pit stop switch is not an equipment safety guard as defined under the Hewitt decision. Further, this court found that there was no evidence that Oracle had deliberately removed or tampered with the pit stop switch.

In the case at bar, there is no question that the two safety devices at issue constitute safety guards as defined by Hewitt. Further, there is no question that the tampering and/or removal of these guards occurred as a result of the deliberate action and conduct of ODNR.

VI. CONCLUSION

In its Motion for Summary Judgment, ODNR gratuitously states that Mr. Campbell's injury is unfortunate. The fact of the matter is that not only was Mr. Campbell's injury unfortunate, it was totally unnecessary and it was proximately caused by the deliberate misconduct of ODNR. The facts are clear. ODNR deliberately bypassed the seat safety switch and deliberately removed the safety guard. If **either** of these devices had been in place as of August 29, 2011, this incident would never have occurred. Further, ODNR's conscious decision not to keep and maintain maintenance and repair records of its dangerous machinery constitutes a pattern of deliberate ignorance whereby ODNR's management could claim, as they most certainly are here, that they had no knowledge of the removal of these safety devices.

Quite candidly, if ODNR is allowed to prevail on this Motion for Summary Judgment, there simply will not exist a viable intentional tort claim in Ohio. It is clear that the Ohio Legislature, in enacting R.C. 2745.01(C) chose to restrict intentional tort cases. The Legislature, however, set forth a presumption of deliberate misconduct when an employer removes a safety guard/device. This is exactly what has occurred in this case. Accordingly, Defendant's Motion for Summary Judgment must be overruled and this matter should be allowed to proceed to trial.



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CERTIFICATE OF SERVICE

I hereby certify that a copy of this pleading was sent to the following by U.S. mail service this
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CASE REPORT SUMMARY

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Andrew Campbell, ODNR Division of Parks Natural Resources Specialist – Shawnee State Park

It was found that Andrew Campbell had a partially completed training form on the Operation and Safety of Large Tractor (ODNR Parks Safety Manual) for John Deere 1070 and 5310 tractors. Mr. Campbell stated that he did receive training for the operation and safety of the John Deere 1070. Mr. Bourne also stated that Mr. Campbell had received training and completed the check off for Large Tractors. Mr. Bourne stated the cause for the incomplete form was the instructor, employee Josh Thurman would not completed the document because he was not comfortable signing as an instructor. The Operation and Safety of Large Tractor checklist states that under pre operation of equipment the operator is to read the operators manual completely, have a familiarization of operational controls, and a familiarization of tractor implement controls. In the John Deere owner's manual OMM79651 on page 4 there is a pictograph showing and explaining the dangers of rotating drivelines. Also on page 81 are instructions and pictographs of the procedure to check the functionality of the safety interlock system which includes the seat safety switch. Mr. Campbell stated that prior to the accident he had operated the John Deere 1070 approximately 20 to 25 hours. Mr. Campbell also stated that he personally owns a John Deere 4210 tractor. (John Deere 4210 tractor is smaller in size but equipped with a PTO drive similar to the John Deere 1070) It was found that there were no check off sheets or instruction given to Mr. Campbell for the operation of the Jacobsen Slit Seeder. Mr. Campbell stated that he had only operated the Jacobsen Slit Seeder approximately 8 hours. Mr. Campbell stated that he did place his hand near the spinning drive shaft of the Jacobsen slit seeder. Mr. Campbell stated that he was removing dirt from the machine when he became entangled on the driveshaft of the Slit Seeder.

John Deere 1070 tractor (Manufactured around year 2000), assigned to ODNR Division of Parks - Shawnee State Golf Course

It was found that the John Deere 1070 tractor was not taken out of service for evaluation of safe operation after the Campbell accident. It was also found that the seat switch was not functioning as it should, and was not in the condition that it would have been from the manufacturer. It was found that the tractor seat switch had been tampered with and partially bypassed with a secondary wire making the seat switch not function properly. If the seat safety switch had been in proper operation the tractor would have shut off when Mr. Campbell got off of the tractor with the PTO still engaged.

Jacobsen Model 548 Aero Blade (Slit Seeder) with attached 548100 Seeder (Manufactured 1976), assigned to ODNR Division of Parks - Shawnee State Golf Course

It was found that the slit seeder was immediately taken out of service after Mr. Campbell's accident. It was found that the Jacobsen slit seeder was missing three safety guards. One of the guards would have partially covered the area that Mr. Campbell had become entangled during the accident. Mr. Campbell stated that he had operated the slit seeder less than 8 hours prior to his accident on August 29th.

Martin McAllister, ODNR Division of Parks and Preserve Manager (Acting Regional Park Manager) – Shawnee State Park

It was found that Mr. McAllister at the time of the accident had been in his position of acting Regional Park Manager for approximately 3 months. It was found that Mr. McAllister had little knowledge of the golf course equipment maintenance program but stated Mr. Bourne had told him that he had found equipment safety devices tampered with, and not functioning properly. Mr. McAllister stated that he did not have knowledge if the safety devices were fixed or not. It was found that Mr. McAllister was the only commissioned officer present during the accident of Mr. Campbell. Mr. McAllister had completed no reports of investigation or any preliminary documents of the accident.

Matthew Bourne, ODNR Division of Parks and Recreation Golf Course Superintendent – Shawnee State Park

At the time of Mr. Campbell's accident Mr. Bourne had been in his position as Superintendent for approximately 1 year and 4 months. It was found that Mr. Bourne had minimal employee training and safety records at the time of the accident. Mr. Bourne stated that prior to his employment as Superintendent of Shawnee Golf Course there were no documented employee training and safety records. Mr. Bourne stated that he does complete some of the training and the completion of the check off sheets from the Parks Safety Manual only when he feels qualified to do so. Mr. Bourne stated that he utilizes Shawnee Golf Course employees that have been employed at the golf course longer than him, and have more experience and knowledge than he does. It was found that Mr. Bourne had determined that safety devices on golf course equipment were faulty in the fall of year 2010. Mr. Bourne stated that he instructed park Auto Mechanic Tim Clark to check and fix any faulty safety device to the golf course equipment. Mr. Bourne also stated that during a staff meeting he advised employees not to tamper with any of the safety devices to golf course equipment. Mr. Bourne stated that he assumed prior to the Campbell accident all faulty safety devices were repaired by Mr. Clark.

Tim Clark, ODNR Division of Parks and Recreation Auto Mechanic 2 – Shawnee State Park

At the time of Mr. Campbell's accident Mr. Clark had been in his position for 6 to 7 years. It was found that Mr. Clark has no consistent procedure for completing maintenance and fixing broken equipment. It was also found that Mr. Clark keeps no documentation of repairs requested or repairs completed of equipment. Mr. Clark stated that he did not recall Mr. Bourne telling him to check and repair the safety devices of the golf course equipment. Mr. Clark stated that to his knowledge the Jacobsen slit seeder and John Deere 1070 had in place, and functioning properly all safety devices. Mr. Clark stated that he did not put the bypass wire on the John Deere 1070 seat switch, and that he did not know who did. Mr. Clark also stated that safety switches are often found disabled because employees find them as an inconvenience. Mr. Clark stated that when he finds a disabled switch he fixes it and notifies his supervisor. Mr. Clark stated that he is not the only Shawnee State Park employee to make repairs to equipment. Mr. Clark stated that other Shawnee State Park employees often make repairs to equipment as well. Mr. Clark stated that he has been attempting to have a meeting with management since year 2009 to create procedures for the repair and maintenance of park equipment.

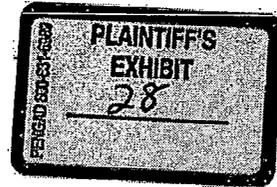

Signature

10/20/11
Date

INVESTIGATING OFFICER: Staff Officer Patrick R. Brown
ODNR – Office of Law Enforcement

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SAFETY ANALYSIS

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May 15, 2014

Introduction

This report provides a safety analysis of the incident where Mr. William Campbell was injured while employed by the Ohio Department of Natural Resources (hereinafter "ODNR") as a Parks and Recreation Natural Resources Specialist. On August 29, 2011, Mr. Campbell was directed by his supervisor, Mr. Matthew Bourne, to reseed fairways at the Shawnee State Park golf course near Portsmouth, Ohio. While engaged in this task, Mr. Campbell operated a John Deere model 1070 tractor that was hitched to a Jacobsen model 548 Aero-Blade aerator with a seeder attachment. The 548 Aero-Blade aerator was a pulled, power-take-off (hereinafter "PTO") driven implement.

While working on the ninth fairway, Mr. Campbell stopped the tractor in order to check the seed contained in the seed bin of the seeder attachment on the 548 Aero-Blade aerator. He left the tractor's engine running and its PTO engaged as he descended from the seat of the tractor. After checking the seed, Mr. Campbell observed a chunk of sod atop of the apparatus. While, Mr. Campbell reached with his right hand to remove the sod, the left sleeve of his sweatshirt was entangled in a nearby exposed rotating universal joint at the end of the drive shaft on the 548 Aero-Blade aerator. As a result, Mr. Campbell sustained physical injuries.

A basis for this safety analysis was this investigator's review of several documents. These documents include:

- Deposition transcript of William Andrew Campbell (dated December 17, 2013)
- Deposition transcript of Joshua Thurman (dated January 24, 2014)
- Deposition transcript of Tim Clark (dated January 24, 2014)
- Deposition transcript of Matthew Bourne (dated January 24, 2014)
- Deposition transcript of Patrick Brown (dated February 28, 2014)
- Case Report by Officer Patrick Brown
- Jacobsen Model 548 Aero Blade Owner's Manual and Parts List
- Jacobsen Technical Manual 548 Aerator/Seeder
- John Deere 870, 970, and 1070 Tractors Operators Manual
- *Accident Prevention Manual*, 2nd edition. Chicago, Illinois: National Safety Council, 1951
- 29 CFR Part 1910, Occupational Safety and Health Standards
- Assorted photographs

Another basis for this analysis was an inspection of the associated model 548 Aero-Blade aerator by this investigator. The inspection occurred April 29, 2014. The 548 Aero-Blade aerator had been disassembled prior to the inspection. The subject 1070 tractor was not available for viewing by this investigator during his inspection. Note that during the inspection, Mr. Campbell was present.

The opinions set forth in this report are stated to a reasonable degree of engineering certainty. These opinions and conclusions are founded upon this investigator's education, training, and experience in the fields of Safety Engineering, Human Factors Engineering, Industrial Engineering, and Mechanical Engineering. It is this investigator's understanding that discovery is on-going. Should additional information become available, then these opinions may be enhanced or modified.

Equipment Description

One machine involved in this incident was a tractor. A tractor is a wheeled off-highway vehicle that is self-propelled and operator controlled. Tractors are designed to haul implements and also to provide a source of power for those implements that are mechanized. Tractors are typically used for agricultural, construction, and landscaping tasks.

The subject tractor was a model 1070 that was designed and manufactured by Deere & Company of Moline, Illinois. The 1070 tractor was reportedly a model year 2000 machine. The ODNR purchased the tractor brand new and retained ownership and control of the tractor from the time of the purchase through the date of the incident. Examine Photograph #1.

The 1070 tractor was equipped with a PTO output shaft that was located on the rear side of the tractor. The PTO output shaft is a rotating shaft that is driven by the tractor's engine which can be connected to the PTO input shaft of an implement. Hence, the connection of the PTO shafts provides a means of transferring power from the tractor's running engine to an attached implement. Examine Photograph #2.

The PTO output shaft on the 1070 tractor was engaged by utilizing the tractor's clutch pedal and the PTO control lever that was positioned below and to the left of the operator's seat. To engage the PTO, the PTO lever would be moved to its upward setting. In its downward setting, the PTO control lever would disengage the PTO. Examine Photograph #3.

The design of the 1070 tractor also included an operator presence system that was wired to a seat switch. As originally designed, if the tractor's engine was running with its PTO output shaft engaged and the operator vacated the seat, then the tractor's engine would stop. Similarly, if the

PTO shaft was engaged with the tractor's engine running without the operator in the seat, then the engine would stop. It was noted that at the time of the incident, the seat switch had been bypassed which disabled the operator presence system.

A model 548 Aero-Blade aerator was the other machine involved in this incident. The subject machine was manufactured circa 1977 by the Jacobsen Manufacturing Company located in Racine, Wisconsin. It was assigned the serial number 16321. Examine Photographs #4-6.

The model 548 Aero-Blade aerator was an implement designed to be hitched to a tractor and then hauled by a tractor. The 548 Aero-Blade aerator featured a series of power-driven cutting discs that could be lowered into a position to create slits in the turf. The subject 548 Aero-Blade aerator was equipped with a Jacobsen model 548100 seeder attachment. The seeder attachment was mounted to the frame of the 548 Aero-Blade aerator at a location directly above the series of cutting discs. The seeder attachment had a seed bin which dispensed seed from its bottom side via a power-driven feed shaft. The dispensed seeds would then flow from the bottom of the seed bin through tubes located above the cutting discs. In turn, the seed would fall into the slits in the turf that had been cut by power-driven discs. Examine Photographs #7-8.

The power to operate the 548 Aero-Blade aerator and its seeder attachment was obtained from the 1070 tractor. Specifically, the fore end of the PTO shaft of the aerator was connected to the PTO output shaft at the rear of the 1070 tractor. The aft end of the PTO shaft was joined to a right-angle gearbox. Examine Photograph #9.

The right-angle gearbox was also connected to one end of a horizontal drive shaft via a universal joint. The universal joint had a bolt fastener that protruded to a height of about 0.70 inches beyond the surface the joint. Examine Photographs #10-11. The axis of the horizontal drive shaft was oriented such that it ran left and right when viewed from the front of the 548 Aero-Blade aerator. Two sprockets were affixed to the other end of drive shaft. Mechanical power was then transmitted to other portions of the aerator through a series of chains and sprockets. The drive shaft was nominally 1-¼ inches in diameter.

As originally designed and manufactured, the 548 Aero-Blade aerator had a barrier guard over the right-angle gear box. This barrier guard extended to a position that it covered the universal joint which joined the one end of the drive shaft to the gear box. Examine Figure #1. This barrier guard was not present on the day of the incident.

It was also noted that two other barrier guards were not present at the time of the incident. One was the shield that covered the universal joint on the machine (aft) end of the PTO shaft that was connected to the gear box. The other missing guard covered the sprocket and chain that supplied mechanical power to the seeder attachment.

Incident Description

On the morning of August 29, 2011 Mr. William Campbell reported for work as an ODNR Parks and Recreation Natural Resources Specialist at the Shawnee State Park golf course. When Mr. Campbell arrived at work, he was directed to reseed fairways by his supervisor Mr. Matthew Bourne. [Bourne deposition p. 47:15-20] To complete this task, he was assigned to operate the subject model 1070 John Deere tractor that was hitched to the subject model 548 Aero-Blade aerator with its seeder attachment.

Mr. Campbell then started reseeding the ninth fairway near the green with the intention of progressing back along the fairway towards the tee. [Campbell deposition p. 35:21-24] After a few passes across the fairway, Mr. Campbell interrupted his work for a brief discussion with his supervisor. After the discussion, Mr. Campbell again began reseeding the fairway. He made a pass up and down the fairway and then stopped the tractor for the purpose of checking the seed in the seed bin. [Campbell deposition p. 5:11-24]

When Mr. Campbell stopped the tractor, he left the engine running and its PTO engaged. [Campbell deposition p. 9:21-24] He exited the tractor on its left side and proceeded to walk around to the back side of the 548 Aero-Blade aerator. There he opened the lid to the seed bin and smoothed the level of the seed in the bin. [Campbell deposition p. 19:13-19]

After checking the seed, Mr. Campbell started to clean chunks of sod off the 548 Aero-Blade aerator. During this process, Mr. Campbell positioned himself at a location in between the right rear of the tractor and the front right portion of the aerator. He observed a chunk of sod atop the implement. Mr. Campbell reached with his right hand to retrieve the chunk of sod. While he was reaching, his left sleeve was caught by a protruding bolt on the rotating universal joint that connected the drive shaft and the right-angle gear box. [Campbell deposition pp. 24:21-25:1] As a result of his left sleeve becoming entangled in the rotating universal joint, Mr. Campbell suffered physical injuries to his left arm and hand.

Analysis

The relative safety of a workplace is dependent upon the identification and the effective control of any hazards associated with the workplace. It is the responsibility of an employer to identify and control hazards within the workplace. The duty of an employer to identify and control hazards within the worksite is well established and has been disseminated to the public through

publication. Indeed, employers are required by OSHA to provide employees with a workplace that is free from recognized hazards that are likely to cause death or serious physical injury.

On August 29, 2011, Mr. Campbell as a Parks and Recreation Natural Resources Specialist was required by the ODNR to reseed fairways at the Shawnee State Park golf course. The ODNR provided the equipment to Mr. Campbell to perform this job assignment. In short, the ODNR supplied the subject model 1070 tractor and the subject model 548 Aero-Blade, a pulled PTO driven implement.

At this point in time, Mr. Campbell had previously operated the 1070 tractor only about 20 to 25 hours. [Campbell deposition pp. 30:24-31:3] His experience with the 548 Aero-Blade aerator was even less. Mr. Campbell first used this aerator the previous day. He did not receive any formal training regarding the aerator but instead learned to operate it from observing other workers. [Campbell deposition pp. 33:24-34:3]

There are inherent mechanical hazards associated with the PTO method of transmitting power from a running engine to an attached implement. Specifically, a series of rotating shafts and associated universal joints are used to transmit the power: the tractor's PTO rotating output shaft, the PTO shaft of the 548 Aero-Blade aerator, and the horizontal drive shaft of the model 548 Aero-Blade aerator. Rotating shafts and joints are hazardous because the surface of the shaft or joint can grasp an individual's clothing or hair and subsequently pull an individual into the moving parts of a machine. Exposure to such a hazard has led to severe physical injuries including but not limited to crushing, broken bones, amputations, paralysis, and death. The danger from a rotating part increases when there are exposed projections such as set screws, bolts, keys, or rivets.

These mechanical hazards cannot be eliminated because the rotating shafts and associated universal joints are needed to transmit the power. Instead, these hazards must be effectively controlled through safeguarding.

The employer, ODNR, is responsible for safeguarding the mechanical hazards associated with the aforementioned rotating shafts and universal joints. This responsibility is set forth in the 2010 edition of the OSHA regulations for all machines in 29 CFR §1910.212 (a)(1):

One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. Examples of guarding methods are—barrier guards, two-hand tripping devices, electronic safety devices, etc.

The guarding of rotating shafts is further addressed in the OSHA regulations in 29 CFR §1910.219 (c)(1)(i):

All exposed parts of horizontal shafting seven (7) feet or less from floor or working platform, excepting runways used exclusively for oiling, or running adjustments, shall be protected by a stationary casing enclosing shafting completely or by a trough at sides and bottom of shafting as location requires.

Recall that the design of both the 548 Aero-Blade aerator and the 1070 tractor utilized safeguarding to prevent potential human exposure to the mechanical hazards associated with the rotating PTO shafts and universal joints. On the 548 Aero-Blade aerator, this safeguarding included the barrier guard over the right-angle gear box which covered the universal joint that joined the one end of the drive shaft to the gear box. The 1070 tractor featured an operator presence system interlocked with a seat switch that would shut off the tractor's engine should the operator vacate the seat with its PTO engaged.

Prior to August 29, 2011, the barrier guard over the right-angle gear box had been removed on the 548 Aero-Blade aerator and the operator presence system on the tractor had been disabled. The removal of the barrier guard over the right-angle gear box and the operator presence system created an unreasonably and needlessly dangerous worksite for Mr. Campbell. The safety benefit from the effective safeguarding of machinery has long been recognized. For example, the National Safety Council's *Accident Prevention Manual for Industrial Operations* (2nd edition) indicates:

It is illogical and an evasion of responsibility by management to expect the most reliable worker always to be alert when working close to unguarded, moving machinery. In such cases, if the condition is allowed to continue, an accident is virtually certain.¹

As designed, neither the barrier guard over the right-angle gearbox nor operator presence system on the tractor could be removed inadvertently. The barrier guard over the right-angle gear box was secured in position by a series of screws and its removal of the barrier guard would require the application of tools. On the tractor, the operator presence system was wired to a seat switch. Similarly, the removal of the operator presence system through bypassing of the seat switch would involve the use of tools. In short, the removal of the barrier guard over the right-angle gear box and the disabling of the operator presence system on the tractor would have been deliberate acts.

The discovery evidence also revealed that both the 1070 tractor and the 548 Aero-Blade aerator had been under the control of the ODNR since the time the equipment was purchased. Further, the maintenance and repair of this equipment was done in-house by the mechanics of ODNR. [Clark deposition p. 8:8-11; Bourne deposition p. 13:13-15] Also, before August 29, 2011, there was not a record keeping system to track the repairs and maintenance of the equipment at the Shawnee State park. Absent any evidence to the contrary that the subject equipment was ever

¹ *Accident Prevention Manual for Industrial Operations*, Second edition. Chicago, Illinois: National Safety Council, 1951, p. 6-2.

under the possession or control of any entity other than the ODNR, it was reasoned that the previously discussed safeguarding of the equipment was modified and removed by the ODNR.

From a safety perspective, the removal of safeguarding from equipment is unacceptable and is substantially certain to lead to the injury of personnel. Indeed, on August 29, 2011, Mr. Campbell while in the scope of his employment was injured due to the removal of equipment safeguarding including the barrier guard over the right-angle gearbox and the disabling of the interlocked switch on operator presence system of the tractor.

Conclusion

It is this investigator's opinion that the ODNR had a duty to establish and maintain a worksite that was free from recognized hazards likely to lead to death or physical injury of employees. On August 29, 2011, the ODNR failed to meet this duty.

In addition, it is this investigator's opinion that on August 29, 2011, the model 548 Aero-Blade aerator and the model 1070 tractor used at the Shawnee State Park golf course were in an unnecessarily dangerous configuration because the inherent, recognized, mechanical hazards associated with the PTO method of transmitting power were not effectively controlled. In brief, the rotating universal joint connected to the drive shaft at the right-angle gear box was not guarded to protect against employee contact.

Further, the manufacturers of the subject equipment incorporated safeguarding to combat the inherent mechanical hazards associated with the PTO method of transmitting power. Jacobsen Manufacturing equipped the model 548 Aero-Blade with a barrier guard over the right-angle gear box and a shield over its PTO shaft. Whereas, Deere and Company installed an interlocked operator presence system on the model 1070 tractor. Prior to August 29, 2011, the barrier guard over the right-angle gear box was removed and the interlocked operator presence system on the tractor was bypassed. It is this investigator's opinion that the aforesaid safeguarding on this equipment was robust and would not become detached from the equipment unintentionally.

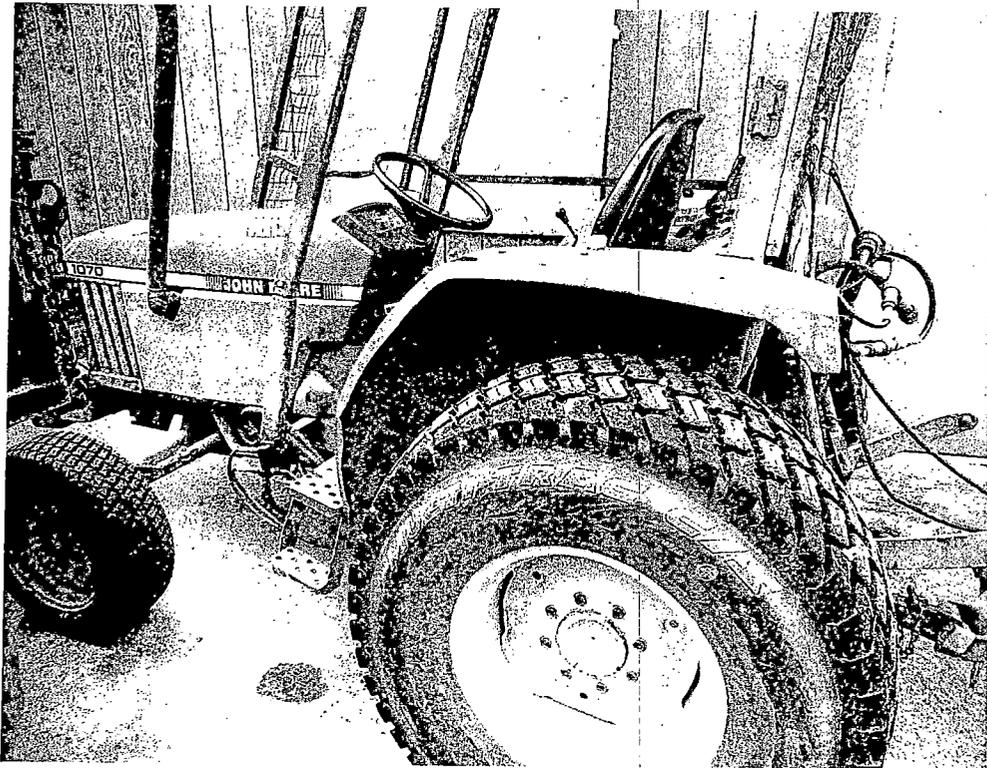
Moreover, the discovery evidence showed that the ODNR had purchased the 548 Aero-Blade aerator and the 1070 tractor as new equipment and had thereafter retained possession of this equipment. Maintenance and repair of this equipment was done in-house by ODNR. Given the absence of any contrary evidence that the equipment was controlled by another entity, it is probable that the ODNR modified and removed the aforementioned safeguarding.

In conclusion, the removal of safeguarding from equipment is inexcusable as it creates unreasonably dangerous working conditions. In turn, the exposure of workers to such working

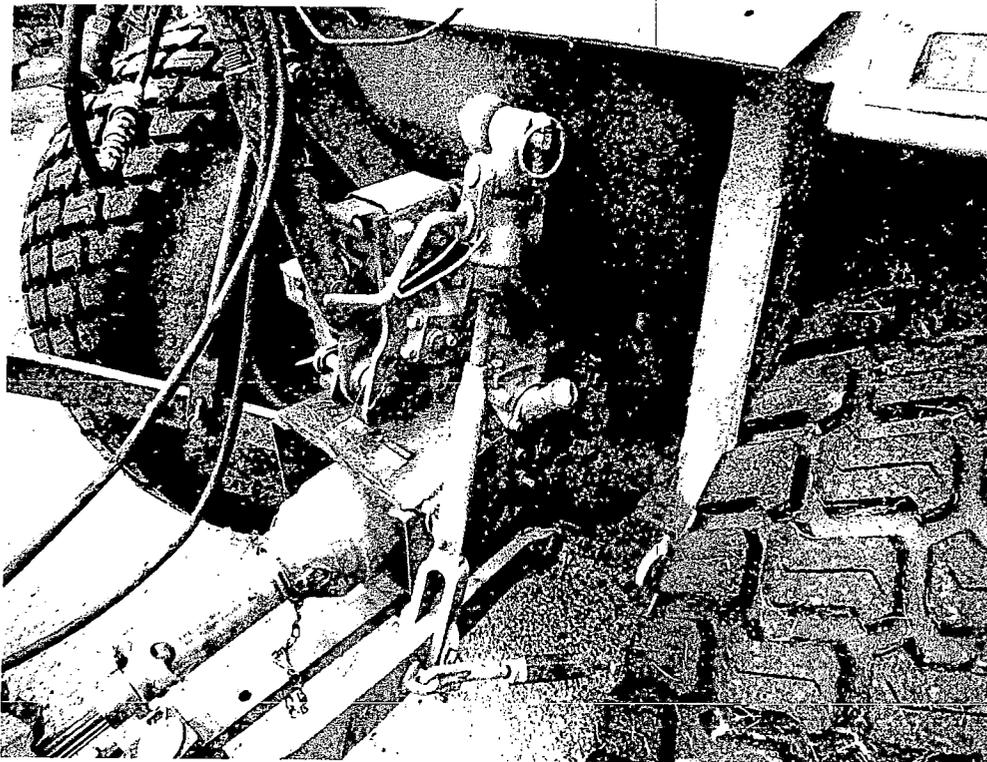
conditions is substantially certain to lead to injuries. Finally, it is this investigator's opinion that the acts of the ODNR as set forth in this report were a proximate cause of Mr. Campbell's injuries.



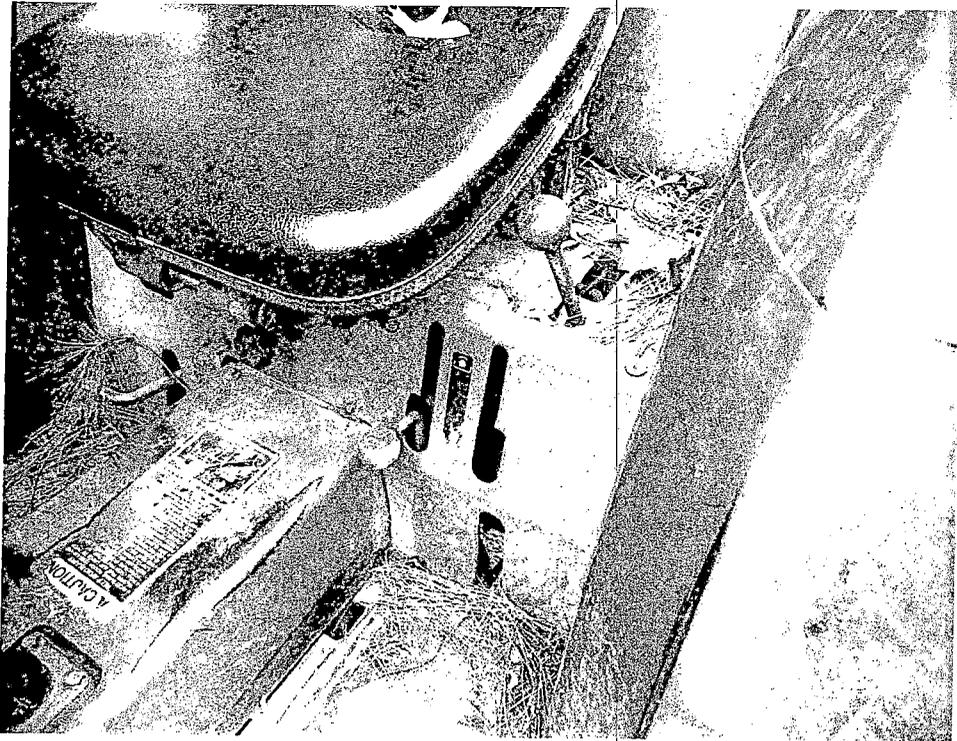
Thomas R. Huston, PhD, PE



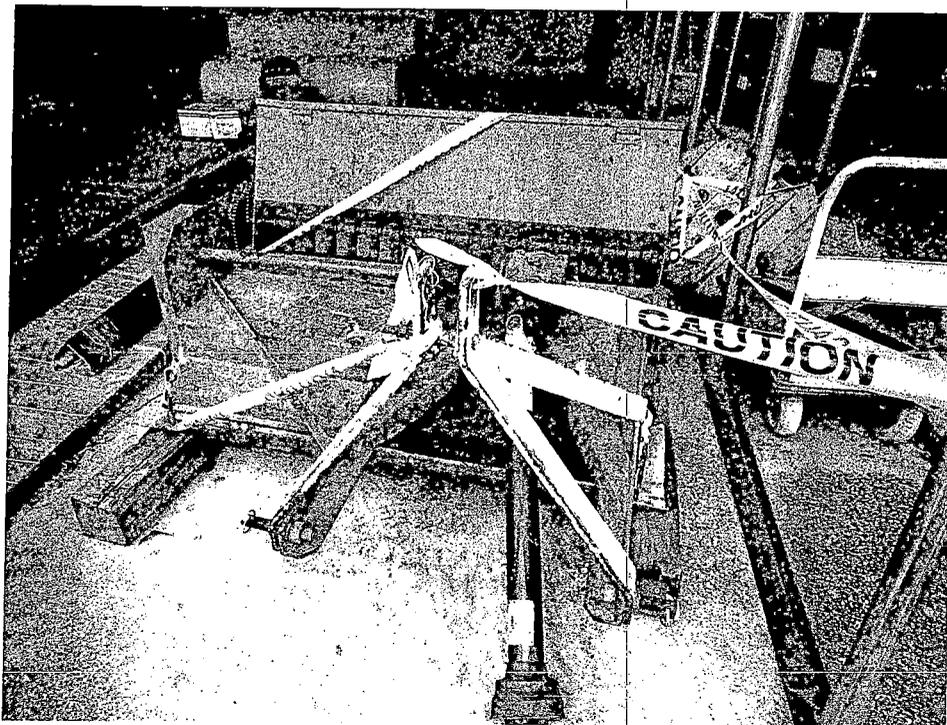
Photograph #1. Side view of 1070 tractor. [Reproduced from photographs taken by Patrick Brown]



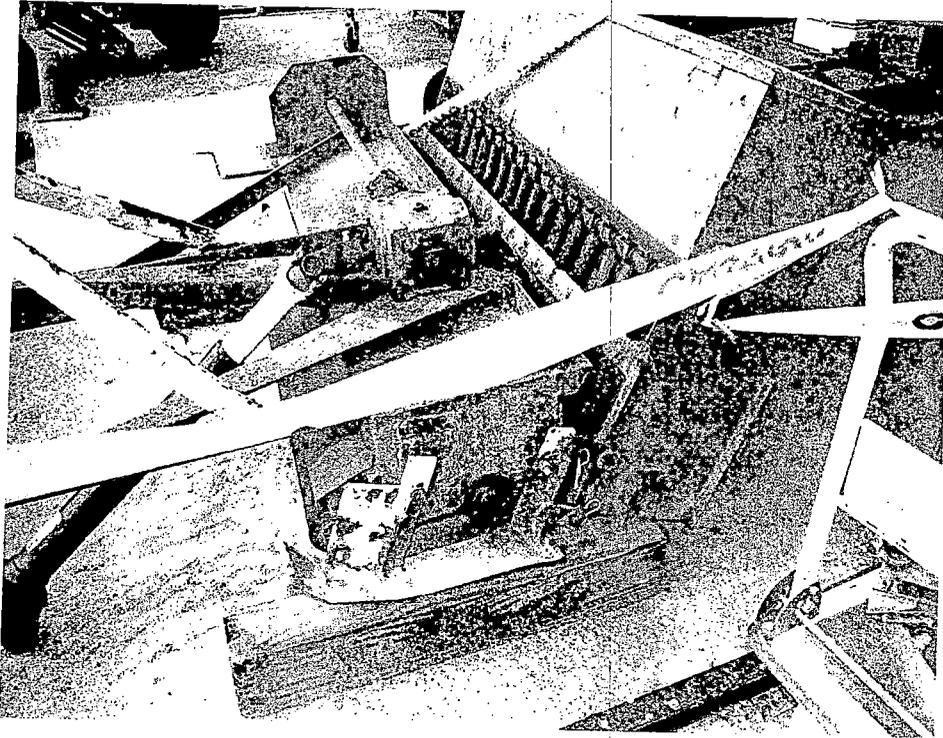
Photograph #2. View of PTO shaft coupled to rear of 1070 tractor. [Reproduced from photographs taken by Patrick Brown]



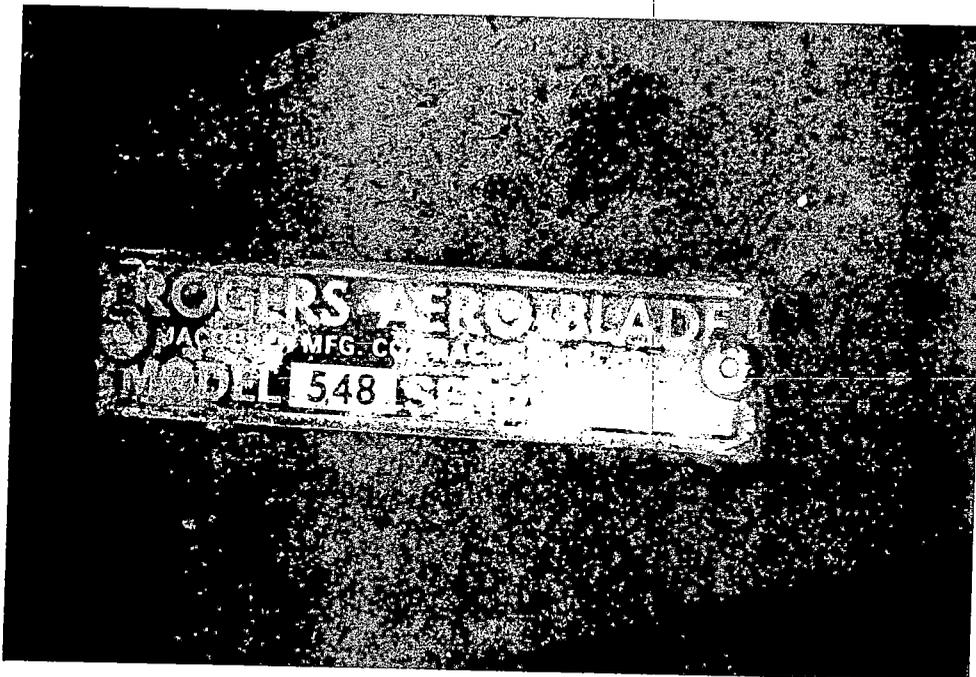
Photograph #3. View of the PTO lever located beneath the operator's seat. [Reproduced from photographs taken by Patrick Brown]



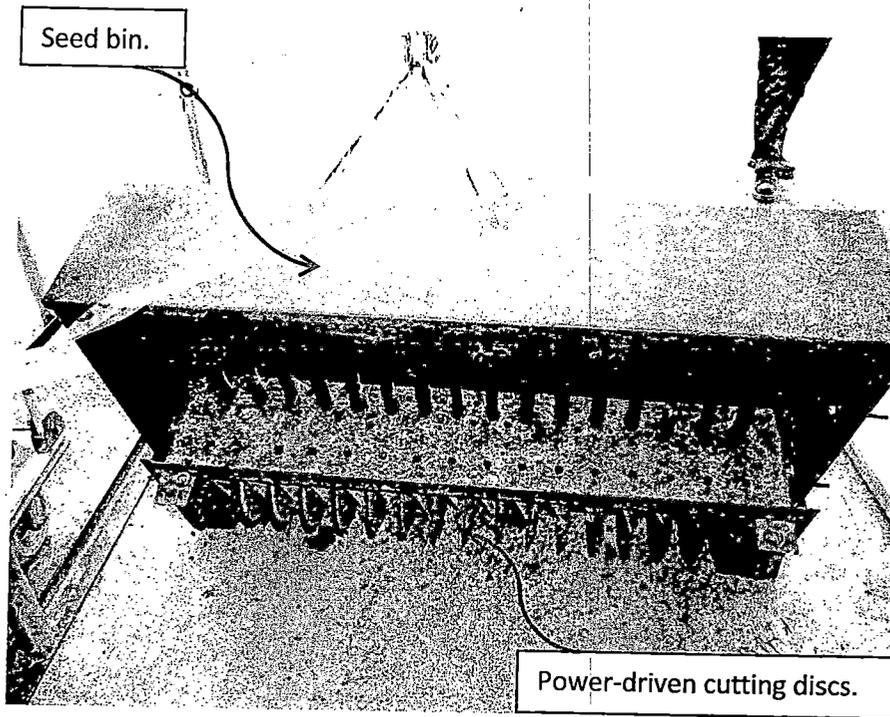
Photograph #4. Front view of 548 Aero-Blade. [Reproduced from photographs taken by Patrick Brown]



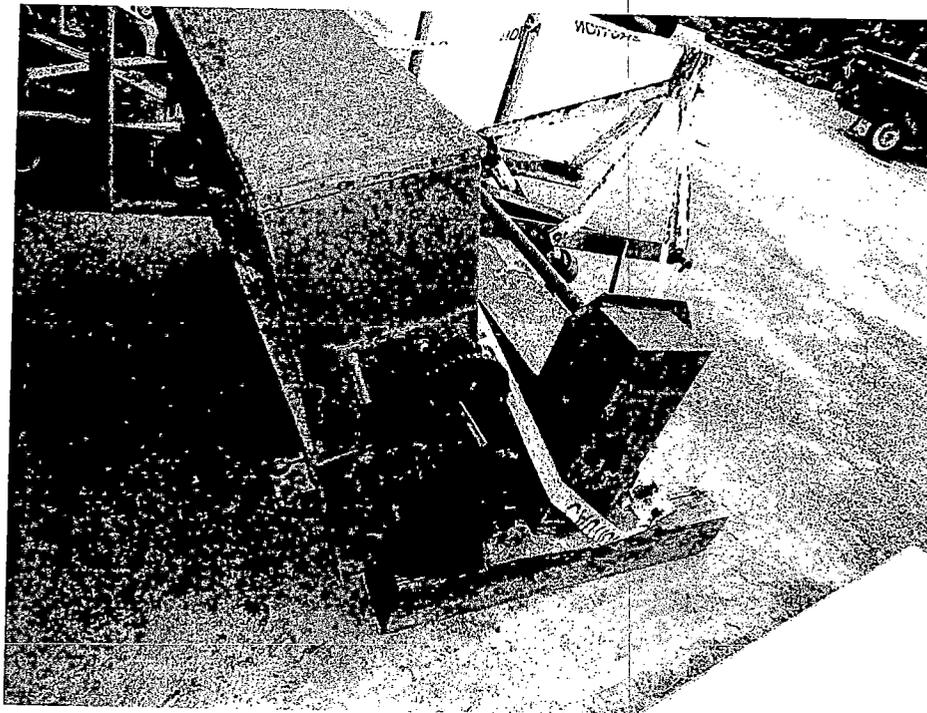
Photograph #5. Side view of 548 Aero-Blade. [Reproduced from photographs taken by Patrick Brown]



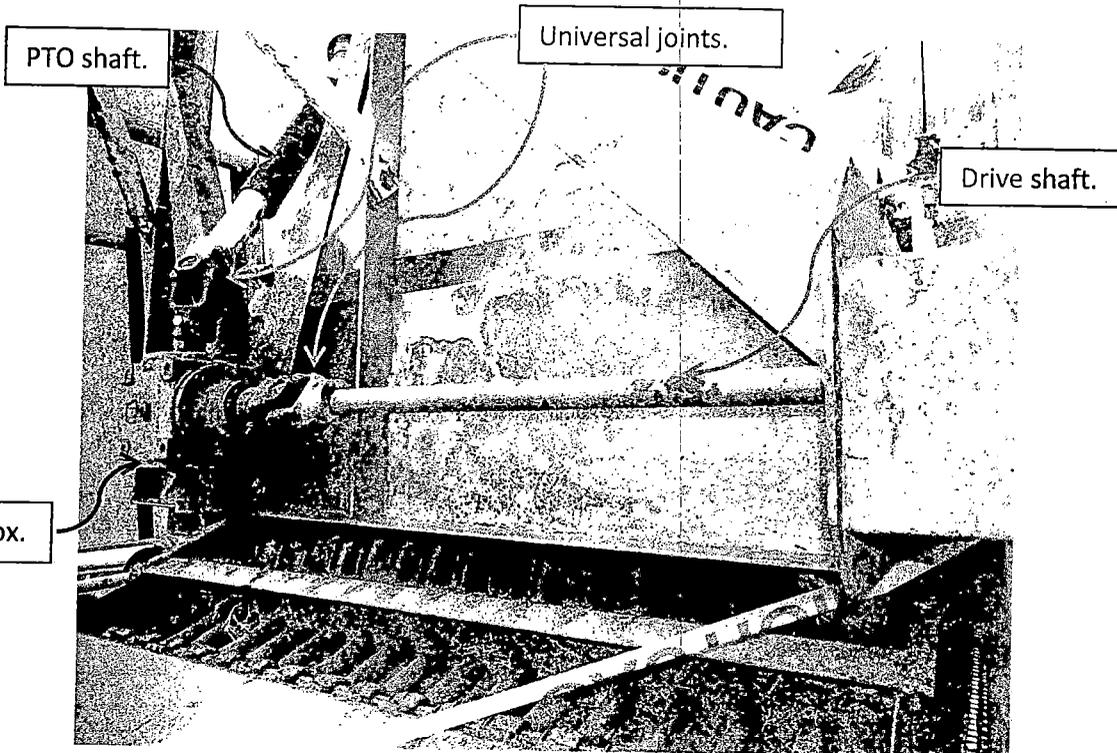
Photograph #6. Name plate from 548 Aero-Blade.



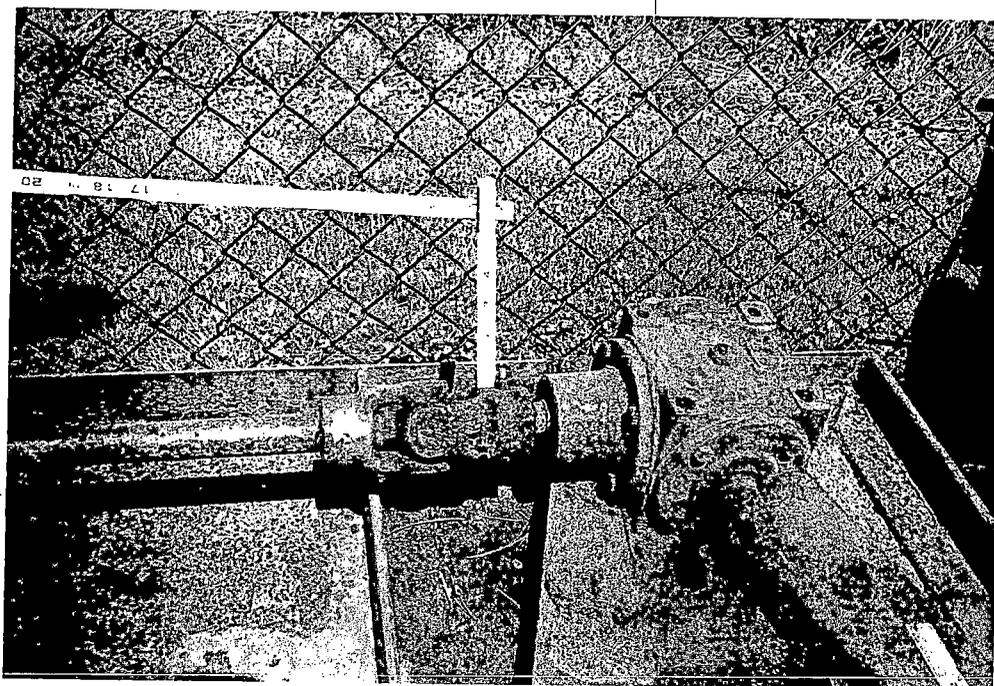
Photograph #7. Rear view of 548 Aero-Blade with seeder attachment. Note the seed bin at the top and power-driven cutting discs at the bottom. [Reproduced from photographs taken by Patrick Brown]



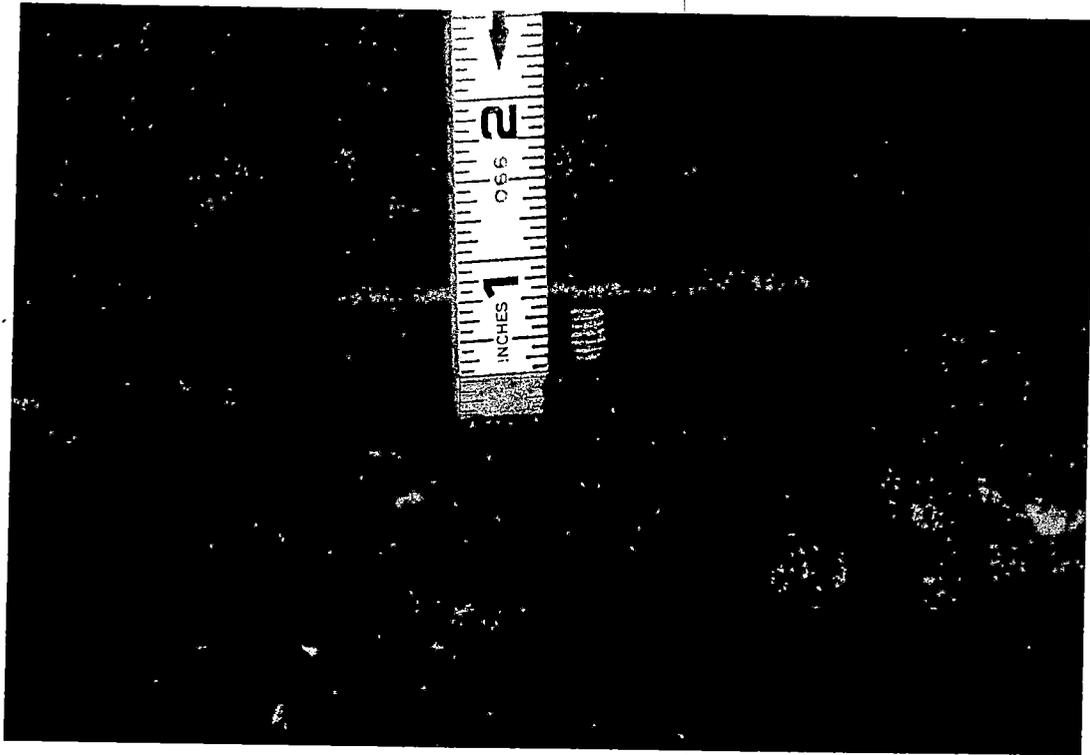
Photograph #8. Side view of 548 Aero-Blade with seeder attachment. [Reproduced from photographs taken by Patrick Brown]



Photograph #9. Top view of 548 Aero-Blade. Note right-angle gear box, universal joints, drive shaft, and PTO shaft. [Reproduced from photographs taken by Patrick Brown]



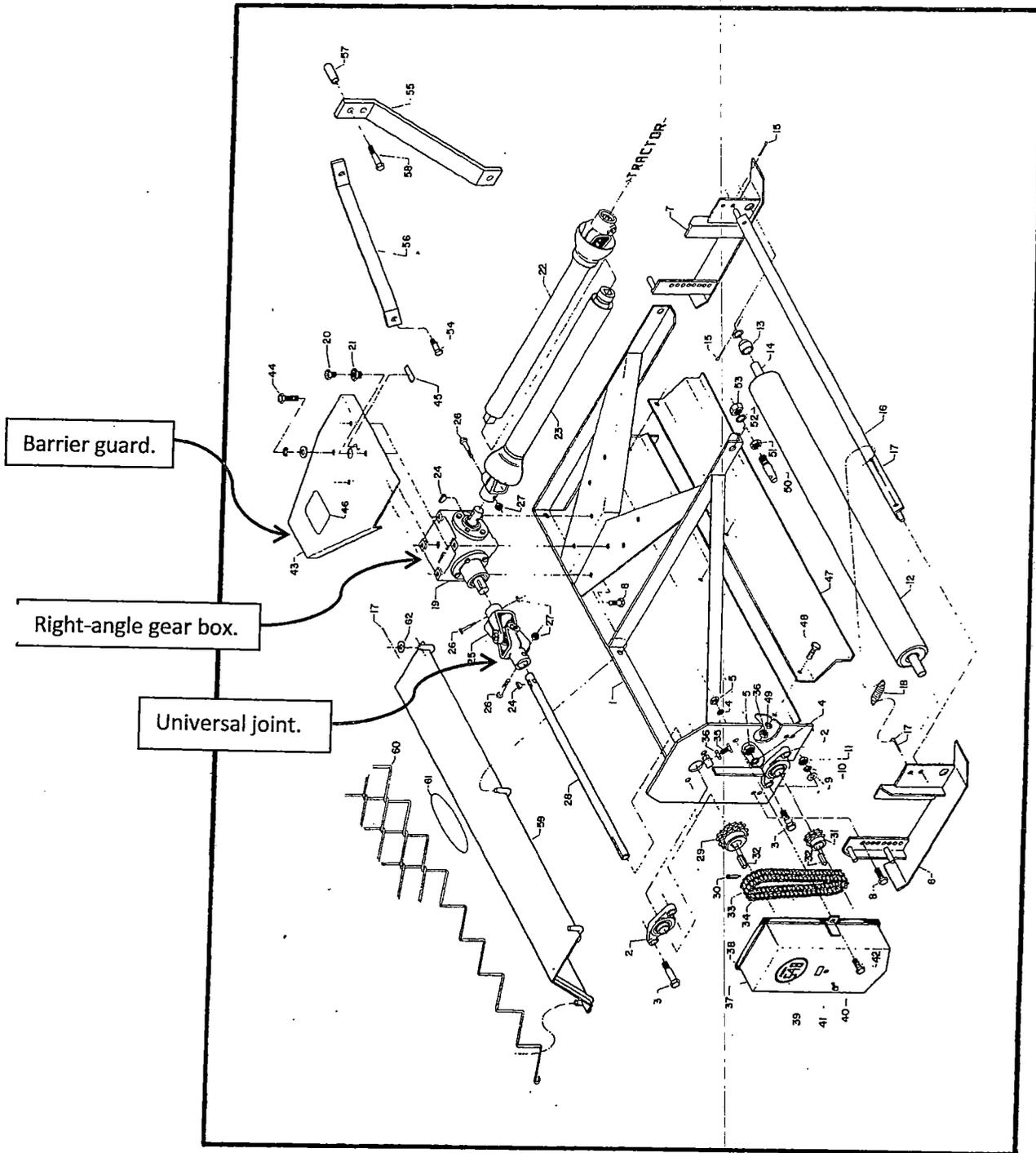
Photograph #10. View of right-angle gear box, universal joint, and horizontal shaft. Note the bolt protrudes about 0.70 inches.



Photograph #11. Close-up view of bolt protruding from universal joint.



**PROD. NO. 82548
MAIN FRAME ASSEMBLY**



JACOBSEN MANUFACTURING COMPANY
OLATHE DIVISION, OLATHE, KANSAS 66061

Figure #1. Exploded view of parts from 548 Aero-Blade Owner's Manual. Note barrier guard over right-angle gear box.