

Senators of the Colorado Senate of Agriculture Committee.

I would like them opportunity to share a story about one of the most progressive farmers during his era who lived in eastern Colorado, Washington County, my dad, Elburn Guy.

My dad grew up like his father, a farmer and rancher. When the time came, he served proudly during WWII. During his campaign in Europe and other countries he increased his mechanic talents and was one of the top WWII mechanics. He was there for the Normandy Beach invasion and used his skills to keep the tanks, etc. operational. So, when he returned from the war, he picked up farming raising dry land wheat in the Akron, Arickaree area.

The reason I give you a little history is I remember as one of his “employees” on the farm, when dad’s machinery would break down, he would be the one to repair it. He had 3-inch binder books on each piece of machinery and once he took apart the broken machinery, he would pull out one of the books, look up the part and call the dealer or supply store and “reserve” it. Then off to Akron, Yuma, Wray, Sterling, or even St. Francis, Kansas one of us girls would go to retrieve that part. During the time we were on the “parts run”, dad would get the machinery ready for installation of the new part and make sure it would be greased and field ready when repaired. Most times we would return with that part, dad would fix the machinery, and it and he would be back in the field the same day. He did not have to schedule a repair person and hope it would not hail or rain while waiting to “get an appointment”. He could continue with his job just like we all do. With all the necessary tools and supplies we need to get the job done efficiently and on time.

This generation is no different than my dad’s. There are savvy and capable individuals who need fair access to parts and software to repair the equipment that they already own. Yes, equipment has become more sophisticated but so have our farmers, ranchers, and independent mechanics. We only ask as Elburn did, to be productive in our jobs.

Thank you for your time.

Sincerely,

Colleen Guy Pepler

Peppler Farms. LLC

Platteville, Colorado – Weld County

Chairperson of the Colorado Department of Agriculture Commission

Outdoor Power Equipment Institute

March 7, 2023

The Honorable Senator Dylan Roberts
Chair, Agriculture & Natural Resources
Committee
200 E. Colfax, Room 346
Denver, CO 80203

The Honorable Senator Nick Hinrichsen
Vice-Chair, Agriculture & Natural Resources
Committee
200 E. Colfax, Room 346
Denver, CO 80203

re: Opposition to CO HB 1011 – Consumer Right to Repair Agricultural Equipment

Dear Chair Roberts and Vice-Chair Hinrichsen:

I write on behalf of our member companies to express our opposition to HB 1011 as it is the wrong approach for outdoor power equipment and creates the potential for harm to Colorado's consumers and businesses alike.

OPEI is an international trade association representing the manufacturers and their suppliers of non-road gasoline powered engines, personal transport & utility vehicles, golf cars and consumer and commercial outdoor power equipment ("OPE"). OPE includes lawnmowers, garden tractors, trimmers, edgers, chain saws, snow throwers, tillers, leaf blowers and other related products. OPEI member companies and their suppliers contribute approximately \$16 billion to US GDP each year. OPEI members currently distribute their products across all 50 states, through a diversity of retail outlets including independent dealers who are authorized to sell and service their equipment through a contractual arrangement.

Our concern with HB 1011 is the potential it would create for the improper modification of and/or tampering with the safety and emission controls of outdoor power equipment, rather than addressing legitimate repair needs. In this case the concern is OPE, including engines, motors, and attachments, used on farms and in farming operations, or ranches and ranching operations. I have attached further details about the OPE industry, including its effective approach to product repair & service, and details about the undue risks created by this legislation.

Thank you for the consideration of these comments, and I would be happy to address any questions you might have.

Best regards,



Daniel J. Mustico
Senior Vice President, Government & Market Affairs
dmustico@opei.org

cc: Members of the Senate Agriculture & Natural Resources Committee



Outdoor Power Equipment Institute

WHY Outdoor Power Equipment (OPE) Manufacturers OPPOSE “Right to Repair” Legislation

Current legislation is overly broad with unintended consequences for consumers of outdoor power equipment (“OPE”). The OPE industry is instead committed to the consumer’s right to repair where it does not risk modifications to products which compromise consumer safety, product performance, and environmental protection.

- Modification is not repair. Modifications are outside the scope of recommendations for repair made by the manufacturer.
- Providing access to embedded software may result in modifications, not repair.

WHO WE ARE, AND IMPORTANT UNIQUE ASPECTS OF THE OPE INDUSTRY

- \$16 billion U.S. industry
- 110 U.S. manufacturer members
- U.S. OPE industry employs 150,000 workers
- OPE includes: lawn mowers, snow throwers, chain saws, generators and more.
- OPE product use is ubiquitous in American households and businesses of all sizes, totaling approximately 250 million legacy products in use and new shipments of nearly 40 million products annually.
- OPE industry has a long history of consumer safety and environmental protection through the development of safety standards and engagement with government, including compliance with all regulations.

ABOUT OPE PRODUCTS

- Most OPE manufactured today relies on electronics and software code for various functions – including safety and environmental compliance.
- OPE product offerings are increasingly electrifying with lithium-ion battery technology – this results in the necessary use of software to control safety and operation of the machines.
- Depending on the type of power source of the OPE (e.g., gas, diesel, battery, AC), the proposed legislation can create very unique risks of product modification to products, whether intentional or not.
- Different from many of the other products impacted by this broad scope legislation, many types of OPE have significant service lives and markets for re-use, re-manufacture, and recycling.
- For OPE with shorter service lives, serviceability options are diverse and based on manufacturer consideration of price, service life, potential for consumer repair, and the complexity of the anticipated repairs.
- To effectively provide for these diverse repair needs, OPE is serviced (when applicable) through a diversity of channels including independent authorized dealers, independent service providers, and retailers.
- OPE manufacturers already provide tools necessary for the proper diagnosis, maintenance and repair of products, where safe and applicable.
- In cases where additional maintenance, diagnostic, and repair tools are still required or preferred for applicable products, effective 2023 manufacturers of residential and commercial lawn & garden equipment will offer such additional resources for purchase [for information see www.opei.org/right-repair-solutions/].

WHY “RIGHT TO REPAIR” LEGISLATION IS THE WRONG APPROACH, AND FAILS TO SERVE CONSUMERS AND HARMS MANUFACTURERS

- The legislation creates risks of improper repair and modification, whether intentional or not, which poses risks to consumer safety, product performance, and environmental protection.
- OPE maintenance, diagnostic, and repair needs cannot be equated with other equipment and products such as consumer electronics.
- Broad scope legislation is impractical for the OPE industry as products are significantly diverse according to price, service life, retail channel, potential for consumer repair and the complexity of anticipated repairs.



- For products with significant service life, improper/faulty repair and/or modification can shorten the service life and/or negatively impact the re-sale value of the product.
- Improper/faulty repair and/or modification can void the product’s warranty.
- In some cases, legislation may infringe upon OEM intellectual property protections provided for under U.S. Federal law. Examples of areas where preemptive federal law may apply are copyright¹, trade secrets², fraud and abuse³, and air emission regulations⁴.

WHY “RIGHT TO REPAIR” LEGISLATION RISKS IMPAIRMENT OF PRODUCT SAFETY CONTROLS AND CREATES POTENTIAL FOR UNSAFE PRODUCTS

- Improper modification of software or hardware risks making products non-compliant with applicable safety standards, and as such unsafe. For example:
 - Modification creates the potential to impair Operator Presence Controls (OPC) which protect against injury by disabling powered components when an operator is not actively controlling equipment.
 - The integrity of the OPC of consumer pedestrian-controlled lawnmowers is required under law by a federal standard (U.S. Consumer Product Safety Commission)⁵.
 - Modifications to other controls of OPE may impair control mechanisms for speed, direction, steering, and braking.
- These safety risks apply not only to the OPE user, but commercial workplace employees and bystanders including vulnerable pedestrians where products are used in public settings for both residential and commercial purposes.
- Modifications may also result in the potential to expose OPE users to unsafe engine emission levels of carbon monoxide due to improper emission control modification.
- Where applicable to OPE, lithium-ion batteries are not amenable to any form of repair. For more information on batteries and their chargers see www.opei.org/battery-basics/.

WHY “RIGHT TO REPAIR” LEGISLATION RISKS IMPAIRMENT OF PRODUCT EMISSION CONTROLS, ENVIRONMENTAL HARM AND VIOLATION OF FEDERAL LAWS

- Where applicable, OPE is subject and compliant to product air emission regulations, which is governed by the machine’s electronic / software controls. “Right to Repair” legislation risks potential product modifications which compromise air emissions and compliance with the law.
- “Right to Repair” legislation potentially inhibits federal (and state where applicable) jurisdiction over the regulation of engine emissions.
- The legislation further inhibits federal (and state where applicable) statutory anti-tampering provisions and may infringe upon protections of OEM intellectual property rights.
- Also where applicable (for battery-powered OPE), the legislation may inhibit federal (and state where applicable) jurisdiction over the regulation of battery and battery charger efficiency. For more information on batteries and their chargers see www.opei.org/battery-basics/.

Learn more at www.opei.org/right-repair-solutions/

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¹ The Copyright Act and Digital Millennium Copyright Act (DMCA)

² Defend Trade Secrets Act (DTSA)

³ Computer Fraud and Abuse Act (CFAA)

⁴ Clean Air Act (CAA)

⁵ U.S. Code of Federal Regulations, Part 1205, Safety Standard for Walk-Behind Power Lawn Mowers

To the members of the Colorado Senate Agriculture and Natural Resources Committee,

My name is Robert McCall and I farm with my dad in Yuma, Colorado. My father and I are also trained mechanics that are familiar with how to fix our own equipment, but we are currently restricted on the repairs we can make due to the prohibition by the equipment manufacturers.

I am writing to you to urge you to vote yes on HB23-1011. We are not asking for the moon when we ask that you pass the Right to Repair bill. We don't want access to all of the technology that is used to run our equipment. We want to be able to check sensors or get ahold of a service manual to diagnose and fix our equipment quickly and efficiently. It really should not be as complicated as it is.

I wanted to provide you with an example of how complicated it is to diagnose and fix equipment right now due to the restrictions put in place by the manufacturers. In 2018, my dad and I moved to all John Deere equipment. In the second season, the baler that we use wouldn't make a good bale. We called the dealership and they sent out a technician. The technician came out and tried to fix it, but a couple days later it wouldn't work again. This happened a few times and we had to keep paying for them to come out each time. They couldn't figure out what the real issue was, so they tried printing out the manual to allow us to work through some of the issues while we were baling. They were locked out of doing this after they tried printing a few sections. Finally, we had to call someone higher up at John Deere with the dealer, so that they could help us figure out what was going on. By this point we had spent approximately \$6,000 on service calls for them to replace a \$500 part.

Overall, we ended up losing about \$10,000-\$20,000 between the service calls and the downtime. We also almost lost a contract to supply hay to an organic dairy farm that, at the time, accounted for about half of our income. We already have really slim margins. Our bottom lines are getting tighter and tighter every year. These repair bills are getting outrageous too and at the end of the year they really add up when we are calculating our bottom line.

We just want to be able to fix the simple things. We are very capable of doing some of these repairs ourselves. If we were able to do some of the diagnostics, then it wouldn't require two trips on the service calls, since the technician could bring the stuff that they need to the call instead of having to go back and charge for another service call. We want to be able to do what you can already do with a car, which is use a code reader to read a code, look it up, and figure out what is going on. If it was a simple fix, then we would also like to be able to repair it ourselves.

As another example, we had a small tractor that would flip a code every once in a while. We knew what was going on, but the tractor wouldn't work until the code was reset. The technician from the dealer was driving 90 miles round trip to just reset the code. In the end, we could save the dealership time from having to do this, which could help their shops run a little better. They are already short staffed and shouldn't have to be coming out just to reset a code.

Please vote yes on this Right to Repair bill.

Sincerely,

Robert McCall

I'm Roy Pfaltzgraff and I farm with my wife and parents. Recently, we have also offered a position to my stepson. The farm was originally purchased by my grandfather in 1950. We have a very unique operation that is focused on implementing soil health practices in our arid regions. We farm 2,200 acres south of Haxtun in the northeast corner of the state. This last year we raised 14 different crops and this year we will have at least 11. The most unique of these is dryland rice, which, as far as I know, is a first for Colorado.

We are seeding or harvesting crops 8 months of the year with our diverse operation. We have had issues with local dealers being able to respond with service calls during those seasons. In some cases we are shut down for repairs for a couple days and, in agriculture, timing is 90% of having a successful harvest. Sometimes timing is more important than rain. If we are waiting for local repair technicians, we can be significantly effected financially because of our inability to repair vital pieces of equipment. We have the ability to repair equipment but we don't have the ability to check codes to troubleshoot equipment. We have a mechanic on the farm that served our country by fixing helicopters for the Army. He has tremendous experience and knowledge but he can't fix things as simple as farm equipment since we don't have the tools to do it ourselves.

You might ask about if we have other options. We do in the form of a former mechanic from a local equipment company. He didn't like how he were treated by the dealer and how they treated their customers, so he went out in his own. He is doing a great job as long as he can troubleshoot the problems without codes. He is a talented mechanic and most of the time he figures out the problem without codes but it takes him a lot longer, which costs us more. That being said, his service calls are cheaper than the manufacturer technicians, since he charges half the hourly rate as the manufacturer. His services would be greatly improved and less expensive if he had all the tools that his competition has.

I ask that you to support this bill, so my family has the ability to farm without the undue burden caused by the monopoly that the manufacturers have over repairing our equipment. If you have questions, Dan Waldvogle, Director of Rocky Mountain Farmers Union, has my contact information.

3/9/2023

The Honorable Dylan Roberts
Chair, Senate Agriculture & Natural Resources Committee
State Capitol
Denver, CO

RE: Support for HB 1011, Agricultural Right to Repair

Dear Chair Roberts and members of the committee,

As someone who knows as much as anybody can know about fixing farm equipment, I want to urge you to pass the Right to Repair legislation in front of you.

I worked as a John Deere dealership technician for some 30 years in my home state of Montana, fixing farmers' equipment and overseeing other technicians doing the same. Eventually, my small local family-owned dealer was bought out by a much bigger chain, and my work wasn't the same. Not only did the new chain restrict us from sharing important information from farmers, they didn't want to share information with our own technicians, fearing these techs would leave and become competitors. It became an assembly line, and the best and brightest took jobs in other fields. Now, there is a technician shortage. Worse, I didn't like the way they overcharged customers for even simple repairs. These were my loyal customers, my neighbors.

Before being bought out by a large dealership, the customer came first and we worked hard to repair equipment as quickly as possible to get customers working again. We loaned out special tools. We sent computers home to customers to allow them to complete their own repairs. We pulled parts of unsold used and new equipment to get them back up and running as quickly as possible. This is no longer the case. The company tries to force customers to buy new equipment and ask customers to be fine with "we will fix your old stuff when we get to it" attitude combined with resisting the right to repair to ensure this happens.

I have now started my own business, and I can tell you exactly what the manufacturers refuse to share with a shop like mine. It has nothing to do with protecting the safety or emissions systems on equipment. It's entirely about monopolizing aspects of repair.

When working at the dealership, I had access to a repair software tool called Service ADVISOR. This tool allows you to install what Deere calls a payload file, a special file that allows a part to communicate with the rest of the equipment's computer system. I now have a copy of the redacted version of that software Deere makes available to non-dealership technicians, which is called Customer Service ADVISOR. It is similar to the software I used before, but this version of the software has removed the ability to update or install payload files.

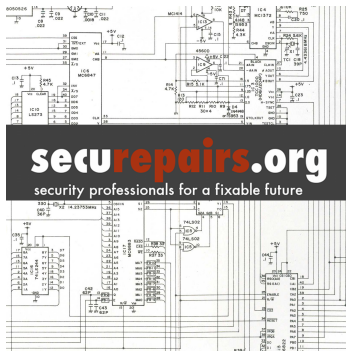
A common required step in troubleshooting a malfunctioning component is to reinstall the latest payload file. This step is required to address problems with nearly all controllers of equipment components, including air conditioning, hydraulics, transmissions, GPS guidance, engine systems, and many others. It is similar to how when you have audio issues on your computer, Microsoft will suggest downloading and reinstalling the audio driver. Oftentimes, that resolves the issue without any need for additional repair. Because you can't get that file without the dealer-level Service ADVISOR, independents can't resolve basic issues. Continuing down the list of troubleshooting steps without the reinstalled/updated payload file can lead to a solution, but it leads to unnecessary time and cost.

Being on both sides of the industry -- as manufacturer authorized and now on my own -- I have more examples of some of the very basic repair materials that farmers are prevented from obtaining. The equipment is designed to require certain software tools to fix, tools that you can't buy or access. I think it's the wrong way to do business.

Right to Repair would bring more competition back to the repair markets for this equipment. It would help farmers get repairs more quickly with more options. If these basic tools needed for repairs were available, more technicians would stay doing the work needed to get farmers back to work. It makes sense.

Sincerely,

Brad Sage
Sage Equipment Repair
Florence, MT



Paul Roberts

Founder

SecuRepairs
54 Cross Street
Belmont, MA 02478
617 817 0198
paul@securepairs.org

Mar 9, 2023

The Honorable Members of the Agriculture & Natural Resources Committee, Colorado General Assembly Denver, Colorado 80203

Chair Roberts, Vice Chair Hinrichsen and members of the Agriculture and Natural Resources Committee:

My name is Paul Roberts and I am the founder of Secure Repairs (securepairs.org). I am speaking today to express our members' support for HB 23-1011, an act to establish a "Consumer Right To Repair Agricultural Equipment."

My organization is a group of [more than 300](#) of the country's top information technology and information security experts. Our members include leading executives, academics, security researchers and information security professionals. We constitute some of the brightest minds in cybersecurity, and *we support a digital right to repair.*

Right to repair laws like HB 23-1011 will **improve**, not impede the reliability, serviceability and cyber security of agricultural equipment operated in Colorado. For this reason, we urge you to vote favorably on this important piece of legislation. Passage of HB 23-1011 will help to foster a healthy marketplace for the service, maintenance and repair of agricultural equipment and address harmful distortions in the current marketplace -distortions that adversely impact Colorado farmers as we speak.

No Cyber Risk In Ag Equipment Repair

As you read this, you have likely heard from agricultural equipment manufacturers, their authorized dealers and industry lobbyists representing the industry that HB 23-1011 will create cyber security risks that will lead to hacks, data theft and other undesirable outcomes for farmers.

Let me be blunt: these claims *are simply not true.*

They are not true, first, because, HB 23-1011 does not create any cybersecurity or data privacy risks that do not already exist. The bill you are considering simply asks manufacturers to supply the owners of the equipment - farmers - and local, independent repair providers with the same tools and information that they *already* provide to their authorized repair providers. It also asks them to provide that information - embedded software, firmware, tools, or documentation- at a reasonable price.

If the information covered by this law is so volatile and sensitive as to require the utmost security, then manufacturers would not already be distributing it to hundreds of technicians across Colorado working for- or subcontracted to

authorized service providers. And yet, that is exactly what they do.

To explain this seeming contradiction, manufacturers lean on the idea that their authorized agricultural repair providers are simply more reliable and cyber secure than the equipment owners or independent repair providers who might compete with them. But there is **no evidence** to support these claims.

Note that, in preparing its [2021 Nixing the Fix](#) report to Congress, the FTC explicitly asked manufacturers and device makers to provide the Commission with any empirical data that supported their claims that authorized repair was of superior quality or security. Industry groups were *unable to provide any such data to the Commission*. In response, the FTC concluded in its report that there was “scant evidence” to back up manufacturers’ claims about the superior quality or security of authorized repair.

Agriculture: a cybersecurity laggard

Second, while cyber attacks on agricultural equipment are a real concern, hackers interested in targeting agricultural equipment do not need access to schematic diagrams, diagnostic software or replacement parts to carry out successful hacks of farm equipment.

The vast majority of attacks on Internet connected devices - from tractors to home routers - exploit flaws and vulnerabilities in the manufacturer’s embedded software. Alternatively, hackers exploit weak equipment configurations: administrative interfaces for web based servers that are secured with weak and crack-able usernames and passwords or that use default passwords that are widely known. Alternatively, the equipment is deployed with insecure communications ports that are wide open and give remote hackers access to the devices.

Despite their protestations to you about the seriousness with which they take cybersecurity and data privacy, agricultural equipment makers are cybersecurity laggards: years behind companies like Microsoft, Apple and Google when measured by the security of their wares; their investment in secure development practices; and in their awareness of and attention to cyber risks.

I wrote about [this desperate game of “catch up” that the industry is playing](#) in Forbes. That article may be worth a read as it reveals the sad truth of agricultural OEMs’ empty cybersecurity claims and posturing.

At long last, policymakers like yourself are waking up to this reality. In its recently released [Cybersecurity National Strategy](#), the Biden-Harris Administration noted that “too many vendors ignore best practices for secure development, ship products with insecure default configurations or known vulnerabilities, and integrate third-party software of unvetted or unknown provenance.” The [record will show](#) that this criticism applies equally well to firms that make tractors and balers as to those that make home smart speakers and webcams.

Repair: Pro-Consumer, Pro-Competition, Pro-Environment

In a world that is increasingly run on Internet-connected, software powered

objects - the so-called “Internet of Things” - a digital right to repair is a vital tool that will extend the useful lives of the critical equipment that powers agriculture, food production and manufacturing. Right to repair will also end the charade of manufacturer “security through obscurity” and make it easier to ensure the safety, security and integrity of these vital machines.

Yes, modern agricultural equipment sports wonderful software-based features. We all want and benefit from the conveniences offered by such “smart,” connected products. But the price of these new features and conveniences cannot be *manufacturer monopolies on service and repair* that impose undue costs on Colorado farmers, stifle Colorado small businesses in favor of multi-billion dollar out of state corporate giants and deny farmers and equipment owners their due property rights.

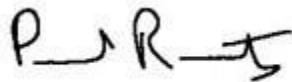
HB 23-1011 will greatly improve the quality of life of farmers and farming communities in Colorado, while promoting healthy market competition in communities throughout the state. I urge you to pass it.

Secure Repairs: answer your repair and cybersecurity questions

Finally, I want to make you and other Committee members aware of our group of cybersecurity experts who would be happy to brief you, your staff and colleagues and answer any questions you might have related to cybersecurity risk and agricultural equipment or other connected devices.

Above, I provided my contact information on this testimony and would be happy to facilitate meetings with our experts, who have briefed lawmakers across the country and provided expert testimony on issues related to cyber risks and connected devices.

Sincerely,

A handwritten signature in black ink, appearing to read "P. Roberts". The signature is stylized with a large "P" and "R" and a horizontal line extending from the "R".

Paul Roberts | paul@securepairs.org | 617.817.0198

My name is Cynthia L. Wasson and I am against this bill. The passage of this bill is not going to help the consumer; it is going to hurt the dealerships.

Providing the consumer with the same technology and diagnostic tools used by the licensed and trained technicians is going to do more harm than good. The consumer does not have the knowledge or training to perform repairs and maintenance on their equipment per manufacture guidelines and recommendations.

At the John Deere dealership I work at, we have trained service writers that can assist in helping a customer troubleshoot certain issues. Our trained and educated service technicians repair a wide variety of equipment from lawn mowers, lawn tractors, and snow blowers to heavy duty tractors for Government agencies, golf courses, city municipalities, farmers, ranchers and the everyday customer.

If you have an illness you go to the doctor, if you have a tooth ache you go the dentist, if your vehicle breaks down you take it to a car mechanic. The same is true with machinery and farm equipment. Leave the repairs and maintenance to an expert professional!

If this bill passes it not only hurts the consumer, it hurts the service writers, and service technicians will become a thing of the past, leaving these employees and their families without a source of income, and it's not as if these employees will be able to find another job in their specialized field because this will eventually trickle down and put dealerships out of business!