

2019 HOUSE INDUSTRY, BUSINESS AND LABOR COMMITTEE

HB 1305

2019 HOUSE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee Peace Garden Room, State Capitol

HB 1305
1/30/2019
31843

- Subcommittee
 Conference Committee

Committee Clerk: Ellen LeTang by Kathleen Davis

Explanation or reason for introduction of bill/resolution:

Relating to product repair practices; and to provide a penalty

Minutes:

Attachment 1, 2, 3, 4, 5, 6, 7

Chairman Keiser: Opens the hearing on HB 1305.

Rep M Nelson: Attachment 1.

11:45

Rep P Anderson: Is this similar model legislation from state to state?

Rep M Nelson: We took the model legislation and put it in ND Century Code.

Rep Richter: Is this going to compel other people who aren't certify to be able to work on it?

Rep M Nelson: Yes.

Rep D Ruby: Page 4, line 17, this is upon reasonable terms but Page 3 at the bottom & top of page 4, under the manufacturer shall make available to independent repair providers and owners of products, one area it's free the other is reasonable. Why is this being given?

Rep M Nelson: That computer wouldn't be given. It's the firmware and software. It doesn't include the computer.

Rep D Ruby: We pay for all that software. Why would that information be free?

Rep M Nelson: They bundle it. A dealer doesn't pay a charge every time they get an update to the software.

Chairman Keiser: It does happen on occasion.

Rep D Ruby: It's asking a lot for proprietary information.

Rep Bosch: How does this bill handle the specialize training?

Rep M Nelson: They don't have to provide training to everyone. People would choose who they go to instead of the manufacturer choosing for you.

Chairman Keiser: What about warranty work? Is it excluded?

Rep M Nelson: Yes. Nothing requires the manufacturer to allow anybody to do warranty work. It's an incentive for manufacturers to extend the warranty periods.

Rep D Ruby: I want to get a better definition for manufacturers. Is it all encompassing of all manufacturers other than as you stated automobiles?

Rep M Nelson: Yes.

Chairman Keiser: support, opposition to HB 1305.

Matt Gardner~Representing the Greater North Dakota Chamber: Attachment 2.

Rep P Anderson: I think it could hinder business if we don't have enough qualified properly trained technicians. Can you guarantee that those will always be available?

Matt Gardner: No we can't.

Rep P Anderson: Living in small town, there isn't going to be qualified people.

Matt Gardner: There are other people in the audience here to testify to that.

Matthew Larsgaard~Behalf of ND Implement Dealers Association: Attachment 3.

38:45

Rep D Ruby: Who gets access, like Case IH could request John Deere their repair tools & software?

Matthew Larsgaard: Yes, they could have that information.

Rep M Nelson: Are you aware of the auto sector?

Matthew Larsgaard: No, I am not.

Rep M Nelson: How did fair and reasonable cost turn into dealer cost?

Matthew Larsgaard: Pg 2 Lines 1-2, fair and reasonable terms mean the net cost to the authorized repair provider or dealer for similar information obtained from manufacturers less any discounts, rebates, or other incentive programs.

Chairman Keiser: That is intellectual property that belongs to the company. For me to be able to gain, basically at no charge, the value of that intellectual property, the unintended consequence would be the manufacturer has to double triple the price because of the investment they've invested to get the intellectual property. Is that one of the problems?

Matthew Larsgaard: That's exactly correct. Development would be devastated.

Don Larson who introduces Adam Mauch:

Adam Mauch~Director of Service for Doosan Bobcat North America: Attachment 4

52:15

Rep C Johnson: What happens to the machines that get to be 20 years old? Do you repair them?

Rep Adam: Yes. We and our dealers support machines as far back as when we initially made them.

Rep Richter: How do you are guaranteed that your certified repairman isn't engaging or doing this on the side or in the store?

Adam: We have certain systems that they have to log in. If they leave we change the software.

Rep P Anderson: How much of the repair can be done remotely?

Adam: The majority can be done remotely.

Rep P Anderson: I should be less concerned because it can be done remotely/

Adam: Many of our dealerships that are located remotely have remote service trucks for that purpose.

Chairman Keiser: If someone did a repair, how does Bobcat know who did the repair?

Adam: That's correct.

56:17

Mike Rud~ND Retail Association: We ask for a do not pass.

Gary Knudtson~ ND Agriculture Association: We need precision, qualified technicians on equipment. We are in opposition.

Pete Hanebutt, ND Farm Bureau: We can't help the well-intended by opening a can of worms by the ill intended. This bill gives us some concerns

Chairman Keiser: Neutral? Closed the hearing on HB 1305.

Rep. D. Ruby: I move a Do Not Pass.

Rep Bosch: Second.

Chairman Keiser: This bill has some merit but the risk is significant. I'm going to support the motion.

Rep P Anderson: I'm going to also support the motion.

Rep M Nelson: The equipment dealers have come a long way but many industries haven't. The appliance dealers are not following along. This is a pressure for manufactures. I will resist the motion.

Rep D Ruby: I buy what I can get service locally. This is too broad.

Chairman Keiser: We have a motion for a Do Not Pass and a second on HB 1305 with 10 yes, 1 no, 3 absent & Rep Johnson is carrier.

Additional testimony submitted:

Attachment 5: Cheryl Riley, Northern Plains States for AT&T

Attachment 6: AHRI, AHAM, CompTia, CTA, CTIA, ESA, ITI, Internet Coalition, NEMA, NetChoice, PRBA, SIA, State Privacy & Security Coalition, Inc., TechNet, TIA, The Toy Association.

Attachment 7: AEM

Date: Jan 30, 2019

Roll Call Vote #: 1

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. 1305

House _____ Industry, Business and Labor _____ Committee

Subcommittee

Amendment LC# or Description: _____

Recommendation

- Adopt Amendment
- Do Pass Do Not Pass Without Committee Recommendation
- As Amended Rerefer to Appropriations
- Place on Consent Calendar

Other Actions Reconsider _____

Motion Made by Rep Ruby Seconded By Rep Bosch

Representatives	Yes	No	Representatives	Yes	No
Chairman Keiser	X		Rep O'Brien	X	
Vice Chairman Lefor	AB		Rep Richter	X	
Rep Bosch	X		Rep Ruby	X	
Rep C Johnson	X		Rep Schauer	X	
Rep Kasper	AB		Rep Adams	X	
Rep Laning	X		Rep P Anderson	X	
Rep Louser	AB		Rep M Nelson		X

Total (Yes) 10 No 1

Absent 3

Floor Assignment Rep Johnson

REPORT OF STANDING COMMITTEE

HB 1305: Industry, Business and Labor Committee (Rep. Keiser, Chairman)
recommends **DO NOT PASS** (10 YEAS, 1 NAYS, 3 ABSENT AND NOT VOTING).
HB 1305 was placed on the Eleventh order on the calendar.

2019 TESTIMONY

HB 1305

Chairman Keiser and members of the House IBL committee

I am Representative Marvin Nelson from District 9

HB 1305 is what is referred to as a Right to Repair or Fair Repair bill. It follows the model legislation from the Repair Association.

The need is largely produced from the myriad of machinery that mix hardware and software. Your car won't run without a computer program. If you can't access or fix the computer, your car is fit only for parts.

The concept is simple. The digital electronics within automobiles are the same parts used in thousands of other devices, suffer the same types of failures, are controlled by the same types of firmware, and are repaired using the same information, parts, and tools. Since repair is the same, the rules for repair should also be the same.

And automobiles are where this type of legislation started. In 2012 Massachusetts passed right to repair legislation for cars. As a result, car and truck manufacturers have signed memorandums of understanding in which they agree to do what this legislation would require and is the reason why they are exempt from the legislation. Others can also sign and be exempt.

Right now the Association of Equipment Manufacturers and the Equipment Dealers Association, representing most of the major agricultural equipment manufacturers have agreed to most provisions and are getting pretty close. They will probably be asking for an amendment to make them exempt, but I would note they would be if they fulfill all requirements and no special treatment would be necessary.

This is really the reason why your local mechanics and not just dealerships can fix your car. They have access to the tools necessary to do so. Other industries have not been as open. For instance, Apple computer had the rather famous public relations problem when it was found they had decided for consumers to downgrade their phone's performance as it aged. They also had public relation problems when they wanted rather high prices to replace the battery.

Resulting from difficulties and expenses of repair are that things are replaced, not repaired, not reused. Waste is increased.

One area of concern is copyright. Recently (October, 2018) the Librarian of Congress ruled that circumventing locks on electronic devices in order to repair them does not the Digital Millennium Copyright Act of 1998, and act to make it illegal for people to circumvent locks to steal digital books, movies, games, and software.

Right to Repair is not right to modify or right to steal, only to fix what you bought. Farm machinery costs hundreds of thousands of dollars, yet, the manufacturers potentially could downgrade its performance or cease supporting it and you really just have a very big paperweight. You will likely hear how some today chip their tractors or modify machinery. This bill is not about that. Note those are not stopped by

the manufacturer's blocking most consumers from being able to repair. Those things are happening today, and I would argue that they are promoted through the difficulty of repairing.

This isn't about just one type of product though. I think one of the biggest areas would be home appliances. Companies want you to call for the authorized repairman. Often in ND that is over 100 miles away and you pay time and mileage and for the repairs unless you buy the very profitable extended warranties. Consumers often just give up and throw away perfectly good, easily fixable appliances. The United States Public Interest Group conducted a survey of 50 appliance manufacturers and 45 of them said your warranty was void if repairs were done by anyone except authorized repairmen. This is actually a violation of the Magnusson Moss Warranty Act which prohibits warrantors from conditioning warranties on the consumer's use of a replacement product or repair service identified by brand or name.

Today, many houses are being built as "smart" houses. Guess what, the same sort of exclusions cover many of the things being built into homes. Furnaces, air conditioners, lighting, even windows and window coverings. At this point, you really have no right to repair your home.

This hybridization of hardware and software isn't going to stop or slow down. Now is the time to let everyone know the rules and let consumers fix their property. The rules of repair need to be consistent.

Going through the bill.

Section 1 Definitions. I would point to 5. "Fair and reasonable terms" as an area people normally are concerned.

Starting on page 3 is the requirements and is really the heart of the bill.

Page 5 note there is no requirement to divulge trade secrets, it also protects contracts and repair people have no right to get software not needed for the repair.

Starting line 24 page 5 is the remedy available a repairperson and at the end we see the penalty of \$1000 and reasonable fees and expenses.

The thing to remember is this is all already in place for cars and trucks and it works.

**Greater North Dakota Chamber
HB 1305
House – Industry, Business and Labor
Representative Keiser - Chair
January 30, 2019**

Mr. Chairman and members of the committee, my name is Matt Gardner and I am here today representing the Greater North Dakota Chamber. The Greater North Dakota Chamber is the largest statewide business advocacy organization in the state. We are also the state affiliate for the National Association of Manufacturers. We stand in opposition of HB 1305 and ask for a do not pass.

This bill would affect numerous business sectors in North Dakota but digital electronic equipment and agriculture and industrial equipment would be the most impacted.

- This bill would have an unintentional chilling effect on innovation, given the fact that this bill would freely share hard earned proprietary information and diagnostic tools.
- Program code could be easily manipulated causing unsafe operations. This is true for both electronics and equipment. Consider adding additional horsepower and the affects that would have on safe operation. Or accidentally removing the safeguards on consumer information on our devices.
- This practice would also lead to voided warrantees, costing consumers.

GNDC's perspective, is this bill does more to hinder business and consumers than help. It is important to encourage qualified, properly trained technicians to diagnose and repair our most trusted electronics and equipment. It is also important to foster a business climate that encourages investment and innovation. The GNDC urges a do not pass on HB1305.

House Bill 1305
Testimony before House Industry, Business & Labor Committee
Matthew C. Larsgaard, MBA
North Dakota Implement Dealers Association
2:30 p.m., January 30, 2019

1/28/19

Mr. Chairman and members of the committee, my name is Matthew Larsgaard and I am appearing in OPPOSITION to House Bill 1305 on behalf of the North Dakota Implement Dealers Association which represents our state's farm equipment dealers.

The issue contemplated within this bill is commonly labeled and misrepresented as "Right to Repair" legislation. Proponents are typically after more than the information necessary to complete repairs. "Right to Repair" legislation is usually an attempt to gain access to otherwise unavailable software, control codes, and information that would allow them to modify computers, equipment, and more. To be clear, we are not suggesting that this is the intent of the Prime Bill Sponsor. We are simply providing some background on this issue as this type of legislation is not unique; it has been introduced in legislatures around the nation over the last many years. In 2018 alone, similar legislation was introduced in 20 states; none of it was passed.

Right to Repair advocates have repeatedly lobbied for overly-broad laws that allow access to the software that governs on-board technology on equipment. Much of the legislation seems to require manufacturers to provide information that could create access to equipment source code. We are concerned that these characteristics are also embodied in the legislation that is before you today.

There is no question that the owners of farm equipment have the Right to Repair their equipment. However, neither our dealers nor our customers should be allowed to modify source code. Modifying the embedded software can create problems, such as the equipment failing to meet customer expectations, exceeding acceptable emissions levels, or possibly creating an unsafe environment for those operating the equipment and those near the equipment. Modifications also create unknown liability issues for the individuals modifying the code, dealers who take in trade modified equipment for resale, and the subsequent owners of a modified unit.

HB 1305 applies to all manufacturers who sell or lease new products or parts in this state and who are involved with *the diagnosis, service, maintenance, or repair* of the product (page 2, lines 23-25).

This bill would allow any individual who claims to be involved in service and repair (page 2, lines 17-19) to have access to electronic diagnostic and service information. This unfettered access may create new and unnecessary cybersecurity risks. Those individuals may attempt to access this information through network systems that may be less secure than those of manufacturers and authorized repair providers. More widespread, and less secure, access also increases opportunities for hackers to improperly obtain—or even tamper with—such information.

Most new tractors and combines have some level of autonomous capability; some can drive themselves with limited human interaction. Providing access to the source code risks both intentional harm and accidental harm. Several years ago, a pair of expert hackers were given a federal grant to determine if they could “hack” into a modern automobile and take control of certain components like braking, acceleration, windows and more; the hackers were successful. Another group of hackers took control of a car’s computers through cellular telephone and Bluetooth connections. Regarding farm equipment, a worst case scenario might be one of a hacker being able to take control of a 500 horsepower tractor and drive it wherever or into anything they wish. Compromised source code could also result in the unintentional movement or malfunction of equipment without any malignant human actor involved. Compromised or defective source code was one of the contributing factors in the deaths that resulted from the “unintended acceleration” of Toyota vehicles several years ago.

One other issue is within the used equipment market. Regarding some farm equipment, there is not the ability to track or create a history of modifications made to that specific equipment. For example, a person could “tune” a tractor’s engine from 400 h.p. to 475 h.p., run it for several hundred hours, tune it back to 400 h.p., and then trade it in to a dealer. That engine was operated well outside of reasonable, manufacturer specifications, and the integrity of the engine and other machine components could be severely compromised. As a result, the farmer that ends up purchasing that equipment from a dealer could have the engine “blow up” or experience a different catastrophic failure due to the unknown modification. In addition, the warranty on the engine and drivetrain components would have become void because of the modification....and the farmer who purchased that equipment may have no clue that there is no longer a warranty on that machine. That unsuspecting farmer would then be stuck with paying for a new engine that could cost up to \$70,000.

We have several other questions and concerns regarding this bill:

Page 3, lines 28-31 and page 4, lines 1-3. Manufacturers must provide *repair technical updates, diagnostic software, service access passwords, updates and corrections to firmware and related documentation* all **“free of charge”** to independent repair providers and owners of products. We do not believe it is reasonable for the government to require private businesses to provide goods or services “free of charge” to the public.

Page 4, lines 4-6. This language seems to require manufacturers to provide all repair parts to equipment owners at dealer cost! This provision essentially strips dealers of their ability to make any meaningful profit on parts and would likely crush that portion of their business. This would be especially devastating during downturns in the Ag economy when there is little to no money in equipment sales.

Page 4, Lines 17-20. *Manufacturers shall make available for purchase...all diagnostic repair tools...that the manufacturer makes available to its own repair or engineering staff.* Does this mean that a manufacturer could be required to turn over proprietary “diagnostic repair tools” that may have been developed exclusively for testing procedures for new, innovative products that have not even been introduced into the market?

NDIDA supports customers' right to repair their equipment and is actively working in support of our industry's commitment to make available the tools equipment owners need to navigate onboard technology. As farm equipment becomes more sophisticated, most major manufacturers support the customer's right to repair and either have or will build advanced diagnostic capabilities into equipment that will be available to the owner, dealers, and others. Soon, owners will have access to on-board diagnostics tools via in-cab display or wireless interface, electronic diagnostic service tools, and training on how to use both. You can learn more at: <http://www.r2rsolutions.org/>. And for those customers who require even greater diagnostic capabilities, some manufacturers, like John Deere, provide subscription access to a specialized diagnostic tool (*Customer Service Advisor*) similar to the tools dealers use to support their customers. The fact is, manufacturers and dealers currently make available almost all of the repair information customers would need via manuals, product guides, and product service information. Thus, this legislation is wholly unnecessary for farm equipment if the goal is simply to gain access to the information and tools necessary to repair equipment.

An equipment dealer's success is tied directly to both the manufacturer's and the customer's success. As I described, we believe that the unintended consequences of this bill will negatively affect manufacturers, our dealers, farmers, and ranchers.

Mr. Chairman, thank you for the opportunity to testify.

Matthew C. Larsgaard, MBA
North Dakota Implement Dealers Association



January 30, 2019

The Honorable George Keiser
Chair, House Industry, Business and Labor Committee
North Dakota House of Representatives

Re: Doosan Bobcat's Opposition to House Bill 1305

Dear Chairman Keiser:

Good afternoon, my name is Adam Mauch. I hold the position of Director of Service for Doosan Bobcat North America. We are North Dakota's largest manufacturer with facilities in Bismarck, Gwinner, West Fargo, and Wahpeton. We employ over 3,000 people in the state of North Dakota and produce equipment right here in North Dakota that is sold all over the world. We are concerned the Right to Repair legislation could impact our ability to be competitive in the global marketplace which in turn could impact our ability to continue to employ the number of people we do in the state and our ability to keep our customers safe.

At Doosan Bobcat, we pride ourselves on delivering high-performing, long-lasting and safe equipment to our customers. We started the compact equipment industry in 1958 and have built a strong customer base and a dealer network that includes over 550 dealerships in North America and more globally.

In my role as Director of Service, I work with our service technicians and dealers to keep our customers' machines up and running so I have a direct connection to the individuals who service our equipment and understand what it takes to properly maintain equipment that continues to grow in complexity.

And although our equipment continues to grow in complexity, it's in our best interest to provide information to our customers to diagnose and repair equipment on their own. We are continually looking to provide more of this information to customers through error code details, troubleshooting manuals, on-board diagnostics, connected machine (telematics) and others. Providing more of this maintenance and repair information to our customers gives us a competitive advantage.

However, there are certain repairs that require qualified technicians to complete. Allowing un-qualified technicians to complete these repairs presents several risks, including:

- **Safety**
 - Allowing access to manufacturers' software could allow a user to override required safety features.
 - Future features such as remote control and autonomous are also at risk if unqualified individuals had access to machine software.
- **Environmental implications**
 - By law, equipment must comply with various environmental and emissions standards. If passed, this bill would potentially allow customers to change or manipulate the equipment to put them outside of these standards.

- We are required to report and control engine emissions for our equipment to the EPA and CARB (California Air Resource Board).
- **Theft and Security**
 - As we continue to develop more and more software features and connected machines, theft and security through viruses will become an issue. Machine software could be changed remotely.
- **Diminished Competitive Advantage**
 - We invest in developing cutting-edge technology that sets us apart from the competition. Granting access to software would jeopardize our intellectual property and competitive advantage. Our software is specifically developed by Bobcat engineers for Bobcat products – the way we control our machines is competitive information and critical intellectual property.

Some practical examples of what could happen:

- Changing the serial number for a machine to behave like a different machine. This could impact safety, operational, environmental settings. It would also impact our ability to track machines for recalls and product improvements.
- A machine isn't tuned to support a certain attachment and a component fails as a result.
- Changing the horsepower on a machine could impact the ability of the machine to perform as designed which could impact the structural integrity, cooling system performance, and expected life of the machine.
- Changing the joystick parameters could impact the safe operation of the machine.
- Modifying software could jeopardize warranty and the reliability for future owners and resale of the machine. Used equipment sales could be negatively impacted. Is the machine what the potential buyer thinks it is?

Our dealer network employs highly-trained staff to ensure our products operate safely and will stand the test of time. The high standards we hold ourselves to could be in jeopardy due to Right to Repair legislation.

If passed, this bill would allow anyone to manipulate how the software performs on machines, which means that even those without proper training could modify equipment. This proposed legislation impacts our entire industry and poses risks to both Doosan Bobcat as a manufacturer and to our dealers. The current language of the bill calls for all machine owners and any independent repair businesses to be given access to all service information and replacement parts.

Manufacturers understand that customers want to make repairs on their own and all manufacturers are looking for ways to make that easier for the customer. However, repairs made by customers must be those that do not impact the safety or the environmental performance of the machine. Legislation is not needed to incentivize manufacturers to make routine repairs easier for their customers.

If there are more technical questions, I have with me today our Engineering Manager, Spencer Mindeman, from our embedded software team.

Sincerely,

Doosan Bobcat North America



Cheryl Riley
President, External Affairs
Northern Plains States

AT&T Services, Inc.
3709 W. 41st St.
Sioux Falls SD 57106

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Attachment 5
Jan 30, 2019

January 18, 2019

Oppose House Bill 1305

Hon. George Keiser, Chair

House Industry, Business and Labor Committee

Mr. Chairman and Members of the Committee,

My name is Cheryl Riley and I am President, Northern Plains States for AT&T.

AT&T would like to express concern over House Bill 1305, the "right to repair" legislation that would mandate manufacturers make available their products' diagnostic tools and repair information to independent repair facilities and owners of their products.

Today, consumers have access to a vast network of authorized repair providers, including the manufacturer, mail-in repair services and authorized repair retail stores, all of which offer a variety of quality options and prices from properly trained and vetted repair professionals. Consumers are also able to open, edit, fix, adjust and manipulate their own devices. If a consumer wants to fix the screen on his or her smartphone or other device, they can.

Authorized repair shops work under contract with Original Equipment Manufacturers (OEMs) to provide protection and quality assurance for customers. H.B. 1305 would render null the hard work and training of those authorized repair shops, and effectively undermine the relationship between manufacturers and authorized repair facilities.

The biggest concern here is the danger to North Dakota consumers from unauthorized repairs, which would provide no protection or quality assurance to consumers. When repairs are made outside of an OEM's authorized repair network, the changes made to a device could threaten its compatibility with current technology and the networks on which it operates. Unauthorized repairs may also introduce safety and security vulnerabilities, which could endanger consumers' privacy or even allow a remote takeover of a device.

In today's connected world and the age of cybercriminals threatening data security, identity theft, fraud and safety, the government should not be encouraging its citizens to give unauthorized people access to their most sensitive and intimate devices. H.B. 1305 is ostensibly sending a message to North Dakota residents that unauthorized repairs are not only safe, but sanctioned by the government.



In summary, we feel this bill has the potential to threaten consumer security and safety and weaken the privacy and security of the network. By mandating the disclosure of protected intellectual property and proprietary information from manufacturers, H.B. 1305 also allows unwarranted state intervention into the marketplace. Notably, similar legislation was proposed and defeated in 19 other states in 2018.

Taking into consideration these things, we respectfully ask that the bill receive a "do not pass" recommendation from this committee.

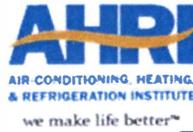
Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Cheryl Riley".

Cheryl Riley

AT&T President External Affairs, Northern Plains States



State Privacy and Security Coalition, Inc.



TECHNET
THE VOICE OF THE INNOVATION ECONOMY



January 23, 2019

The Honorable George Keiser
Chair, House Industry, Business and Labor Committee
North Dakota House of Representatives
422 Toronto Drive
Bismarck, North Dakota 58503-0276

Re: Electronics Manufacturers Opposition to House Bill 1305 ("Fair Repair Act")

Dear Chairman Keiser:

On behalf of the hundreds of manufacturers and businesses our organizations represent, we respectfully oppose House Bill 1305, legislation which would mandate original equipment manufacturers (OEMs) of digital electronic equipment or a part for the equipment sold in North Dakota to provide independent repair providers with diagnostic and repair information, software, tools, and parts.

Our organizations represent a broad spectrum of manufacturers of consumer electronics, home appliances, HVACR, security equipment, medical devices, toys, lithium ion batteries, and other connected electronic products as well as companies that rely on the secure operation of these devices such as entertainment software publishers. All of these companies stand behind the quality of their products. Our members develop products and services for a wide range of commercial, government, and consumer users that are often highly regulated. Their customers depend on these products to operate safely, securely, and accurately, whether they are being used to support banking and commercial transactions, transmit and store sensitive personal data, support industrial operations, medical applications, or securely deliver entertainment and other services. As businesses, government agencies, and consumers continue to increase their reliance on connected devices to help deliver efficiency, convenience, and services, it is important to remain vigilant and focused on mitigating the risks associated with the safe and secure operation of those products.

House Bill 1305 mandates that OEMs provision any independent repair provider in much the same way as authorized network providers, but without any protections, requirements, or restrictions, and in doing so, places consumers and their data at risk, undermines the business of North Dakota companies that are part of OEM-authorized networks, and stifles innovation by putting hard earned intellectual property in the hands of hundreds if not thousands of new entities. Further, the bills fail to account for the wide range of repair and refurbishment options currently available to North Dakota consumers from both OEM-authorized and independent repair sources as well as advancements in sustainability by electronic product manufacturers. For these reasons, we urge the Legislature against moving forward with this legislation.

Electronic Products Manufacturers Opposition to House Bill 1305

House Bill 1305 threatens consumer security and safety

One of our chief concerns with this legislation is its potential to weaken the privacy and security features of various electronic products. The security of user information on these products is of the utmost importance to consumers that rely on them. Industrial equipment, home appliances, smartphones, computers, servers, consumer electronics, medical devices, and other connected devices are at risk of hacking, and weakening of the privacy and security protections of those products will increase risks to consumers. With access to technical information, criminals can more easily circumvent security protections, harming not only the product owner but also everyone who shares their network. In an era of sophisticated cyber attacks, we should not make it easier for criminals to hack security provisions.

Consumers, businesses of all sizes, public schools, hospitals, banks, and industrial manufacturers all need reasonable assurance that those they trust to repair their connected products will do so safely, securely, and correctly. State law should not mandate that all manufacturers must provide a “how to” manual for any product and provide it to anyone who asks.

Manufacturers offer authorized repair networks to provide consumers with assurance that their products are serviced by properly trained and vetted repair professionals that have the necessary skills to safely and reliably repair electronic products. Some types of repairs can be extremely detailed, complicated, performed in someone’s home, and, in some cases, dangerous to perform for those without proper training. It is particularly important that products containing high-energy lithium ion batteries are repaired only by trained professionals who understand the hazards associated with these batteries.

Manufacturers want to ensure that their products are serviced by professionals who understand the intricacies of their products and have spent time procuring the knowledge necessary to safely repair the product and return it to the consumer without compromising those standards or undermining the safety and security of their products. Authorized repair networks not only include training requirements, but also ensure that only the correct parts and procedures will be used. Consumers can be protected by warranties or other means of recourse. The legislation provides no such protections for consumers, repair shops or manufacturers.

When an electronic product breaks, consumers have a variety of repair options, including using an OEM’s authorized repair network, which often include local repair service providers as well as mail-in, and even in-house repair options for some categories of products. Consumers may also choose to use one of many independent repair service providers; although they do so without the quality assurance provided by using a manufacturer’s authorized network provider. The point is that the free market economy already provides a wide range of consumer choice for repair with varying levels of quality, price and convenience without the mandates imposed by this legislation.

Manufacturer authorized networks of repair facilities guarantee that repairs meet OEM standards. If an OEM’s brand and warranty are to stand behind repair work and assume product liability, it is only reasonable that the repair facility demonstrates competency and reliability. Without the training and other quality assurance requirements of authorized service providers – implemented through enforceable legal contracts that ensure compliance and accountability that protect consumers – manufacturers would not be able to stand behind their work, warranties, technical support, ongoing training, and business support.

Electronic Products Manufacturers Opposition to House Bill 1305

House Bill 1305 mandates the disclosure of protected proprietary information

Manufacturers make significant investments in the development of products and services, and the protection of intellectual property is a legitimate and important aspect of sustaining the health of the vibrant and innovative technology industry. However, HB 1305 puts at risk the intellectual property that manufacturers have developed.

Consumer electronics use on-board software (i.e., firmware) to help control the product. That firmware is subject to copyright under federal law, and Section 1201 of the Digital Millennium Copyright Act, a related federal law, ensures that bad actors cannot tamper with the digital rights management that copyright owners use to protect this software. The problem is that making repairs to hardware components may necessitate modifying the firmware so that the product will work again.

Importantly, however, firmware controls many other product functions, and opening it up for repair purposes exposes to potential tampering other, more sensitive functions, such as security features. Given the scope of products covered and what must be provided under the legislation – including diagnostics, tools, parts, and updates to software – it is highly likely some of that information would be proprietary. Providing unauthorized repair facilities and individuals with access to proprietary information without the contractual safeguards currently in place between OEMs and authorized service providers places OEMs, suppliers, distributor and repair networks at risk.

House Bill 1305 fails to account for advancements in sustainability by electronic products manufacturers

These bills are partly based on an inaccurate assumption that the bill will aid in the reduction of electronic waste in the state. According to the Rochester Institute of Technology Golisano Institute of Sustainability, in the U.S. e-waste generation peaked in 2013-2014 and is in a period of extended decline¹. This trend is corroborated by the most recent data from U.S. EPA².

Electronic products manufacturers have developed robust policies and programs to ensure that they are continuously improving the sustainability of their products for their whole lifecycle, from design, to material sourcing, product performance, reuse, and responsible end of life management. This has led to continued innovation and the use of new technologies which provide consumers improved devices while simultaneously reducing the overall amount of e-waste generated – all under the existing product repair environment. And with new technologies like OLED and additional light-weighting across the electronics industry, additional declines in e-waste generation are expected to continue during the coming decades.

Repair and reuse are important elements of electronics manufacturers sustainability efforts. Not only is repair and reuse in the OEM's best interest so that consumers can continue to use and enjoy their products, but many OEMs are returning still-useful electronic products to active service to get the maximum benefits out of the resources used to make them. Additionally, under revised "green" procurement standards, federal agencies and other purchasers will be required to purchase computers

¹ Rochester Institute of Technology Golisano Institute of Sustainability (July 2017). *Sustainable Materials Management for the Evolving Consumer Technology Ecosystem*. Accessed at: <https://www.rit.edu/gis/ssil/docs/Sustainable%20Materials%20Management%20for%20the%20Evolving%20Consumer%20Technology%20Ecosystem.pdf>

² Office of Resource Conservation Recovery, U.S. Environmental Protection Agency (December 2016). *Electronic Products Generation and Recycling in the United States, 2013 and 2014*. Accessed at https://www.epa.gov/sites/production/files/2016-12/documents/electronic_products_generation_and_recycling_2013_2014_11282016_508.pdf

Electronic Products Manufacturers Opposition to House Bill 1305

that meet certain environmental performance criteria under the Electronic Product Environmental Assessment Tool (EPEAT) rating system. These existing policies and programs promote repair and reuse without the consumer safety, security, or business concerns raised by the bills.

Conclusion

Thank you for your consideration of our perspective on this complicated issue. Our members bear a significant responsibility to the businesses, governments, and individual consumers that depend on us to protect the safety and security of their electronic products, as well as the sensitive data they contain. We are committed to working with you to promote digital privacy and security, while resisting unwarranted state intervention in the marketplace with one-size-fits-all mandates that compromise consumer safety and protection. For these reasons, we oppose House Bill 1305.

Sincerely,

Air Conditioning, Heating and Refrigeration Institute (AHRI)
Association of Home Appliance Manufacturers (AHAM)
Computing Technology Industry Association (CompTIA)
Consumer Technology Association (CTA)
CTIA – The Wireless Association
Entertainment Software Association (ESA)
Information Technology Industry Council (ITI)
Internet Coalition
National Electrical Manufacturers Association (NEMA)
NetChoice
PRBA – The Rechargeable Battery Association
Security Industry Association (SIA)
State Privacy and Security Coalition, Inc.
TechNet
Telecommunications Industry Association (TIA)
The Toy Association



ASSOCIATION OF
EQUIPMENT MANUFACTURERS



EquipmentDealers
ASSOCIATION

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Jan 30, 2019
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Farm Equipment Manufacturers and Dealers are Committed to Providing Maintenance, Diagnostic, and Repair Tools to End Users

The "Right to Repair" is not the Right to Modify

The Association of Equipment Manufacturers (AEM), the Equipment Dealers Association (EDA), and their members are dedicated to supporting farmers and their equipment needs, reducing downtime and maximizing productivity. Therefore, AEM and EDA reiterate their joint commitment to provide end users with the information and tools needed to maintain, diagnose, and repair their equipment.

To the extent not already available, the maintenance, diagnostic and repair information listed below will be made available to end users through authorized agricultural dealers at fair and reasonable terms, beginning with tractors and combines put into service on or after January 1, 2021. End users will also be able to purchase or lease diagnostic tools through authorized agricultural dealers. Certain information and tools may be available earlier.

Manufacturers, through authorized agricultural dealers, are committed to provide access to:

- Manuals (Operator, Parts, Service)
- Product Guides
- Product Service Demonstrations, Training, Seminars, or Clinics
- Fleet Management Information
- On-Board Diagnostics via diagnostics port or wireless interface
- Electronic Field Diagnostic Service Tools, and training on how to use them
- Other publications with information on service, parts, operation, and safety

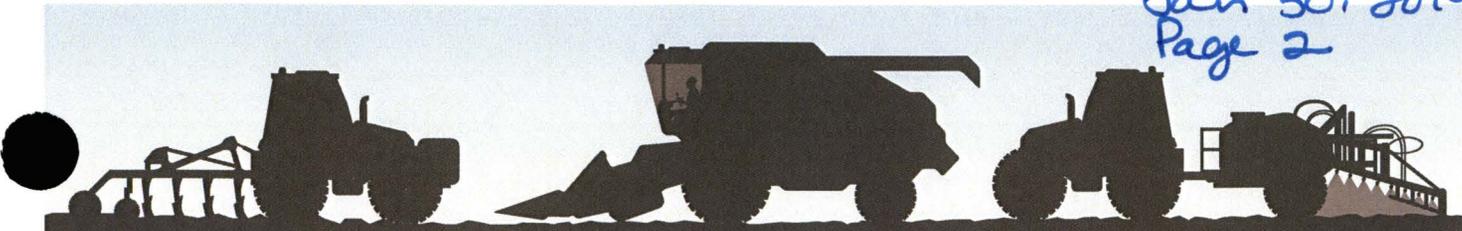
Using this information and these tools, which will be available for purchase, lease, or subscription through authorized dealers, end users will be able to identify and repair numerous problems they may encounter with their equipment.

The industry supports equipment users' ability to maintain, diagnose, and repair their machinery. However, the ability to diagnose and repair does not mean the right to modify. For safety, durability, environmental, and liability reasons, diagnostic and repair information and tools will not permit consumers to do the following:

- Reset an immobilizer system or security-related electronic modules,
- Reprogram any electronic processing units or engine control units,
- Change any equipment or engine settings negatively affecting emissions or safety compliance,
- Download or access the source code of any proprietary embedded software or code

This commitment to providing maintenance, diagnostic and repair tools is a reaffirmation of the importance of seeking commonsense solutions to meet users' needs. The industry is eager to continue working with end users to provide the most innovative and high-quality equipment to meet the needs of modern production agriculture.

Learn more at <http://www.R2RSolutions.org>



MANUFACTURERS AND DEALERS SUPPORT COMMONSENSE REPAIR SOLUTIONS

Farm equipment manufacturers and their dealers support their customers by working to maximize productivity and reduce downtime for machinery.

That is why farm equipment manufacturers and dealers are **making a commitment** to make available a comprehensive toolkit of maintenance, diagnostic and repair information for tractors and combines by 2021.

While much of this information is already available, manufacturers and dealers are going the extra step to provide end users with **commonsense solutions** to perform basic maintenance and repairs, or determine when to involve a dealer in more complex repairs.

By model year 2021, manufacturers and dealers will make available:

- Manuals (Operator, Parts, Service)
- Product Guides
- Product Service Demonstrations, Training, Seminars, or Clinics
- Fleet Management Information
- On-Board Diagnostics via in-cab display or telematics interface
- Electronic Diagnostic Service Tools, and training on how to use them
- Other publications with information on service, parts, operation, and safety

RIGHT TO REPAIR ≠ RIGHT TO MODIFY

This commitment ensures that farmers and ranchers have the tools they need – and have asked for – to perform basic service, maintenance and repairs. Overly-broad “Right to Repair” legislation is not only unnecessary – it would risk the safety, durability and environmental sustainability of equipment.

To encourage innovation and ensure regulatory compliance, manufacturers and dealers will not allow for:

- Resetting immobilizer systems or other security-related electronic modules;
- Reprogramming electronic control units or engine control units;
- Changing equipment or engine settings that affect emissions or safety compliance;
- Downloading or accessing the source code of any proprietary embedded software or code

LEARN MORE. VISIT WWW.R2RSOLUTIONS.ORG



RIGHT TO REPAIR LEGISLATION

TOO COSTLY FOR FARMERS AND RANCHERS

Farmers and ranchers have access to cutting-edge agricultural equipment to help them maximize productivity in operations. Recently, industry outsiders have begun asking farmers and ranchers to support “right to repair” legislation. Here are the top five reasons why farmers and ranchers should oppose so called “right to repair” legislation:

1. SAFETY

Dealers provide qualified technicians to service and repair the rapidly-evolving technologies inherent in today’s agriculture equipment. These technicians are trained to handle major repairs safely and efficiently while ensuring the safety of equipment operators.

2. COSTLY REPAIR BILLS

When equipment is improperly modified, the warranty is jeopardized and the cost of normal warranty work may fall directly to the owner. Further, dealers will not repair chipped equipment until the equipment is reset to OEM settings due to liability concerns.

3. LEGAL LIABILITY

Illegally modifying equipment can lead to significant enforcement penalties. For example Derive Systems, which manufactures the “Bully Dog” and “SCT” chipping software systems, was fined \$300,000 and will have to pay more than \$6,000,000 to make sure that any future products it creates are compliant with the Clean Air Act.

4. REDUCED EQUIPMENT LIFE AND TRADE-IN VALUES

Running equipment outside of design specifications causes accelerated engine wear, potential overheating and excessive stress on key system components. Purchasers will pay less for improperly modified equipment with a shortened lifespan because it was operated out of manufacturer specifications.

5. INDUSTRY NOT GOVERNMENT SOLUTIONS

The Industry has promised technology to provide enhanced diagnostic and repair information by 2021. Because of this commitment, farmers and ranchers will have unprecedented access to the service information they need to run their major equipment. To date, 19 states have said “NO” to Right to Repair legislation.

WE ASK THAT YOU OPPOSE RIGHT TO REPAIR LEGISLATION