



March 8, 2021

The Repair Association Testimony in Favor of Right to Repair of Agricultural Equipment - S.67 (Pearson)

The Repair Association is a 501c6 Trade Association of repair professionals. Our more than 450 members repair, refurbish, resell and recycle electronics. While we aren't farmers, we are experts in repair of electronics --- which are the elements within farm and ranch equipment that are most likely to be impossible to repair by anyone other than the OEM or the dealer. We hope that our perspective on repair of electronics is useful to you when considering this legislation.

Summary of Right to Repair Principles

Right to Repair bills are necessary to restore the right of the owner to fix 100% of their purchases. The manufacturer sold it, was paid in full, and transferred ownership at the point of purchase. "Right to Repair" has nothing to do with the technology, size, shape, price or software application. Hardware is tangible property. Licenses are not. Farm businesses must have the ability to keep their equipment up and running to stay in business with or without help from the original manufacturer.

Independence from the manufacturer is critical. OEMs are businesses that can merge, fail, or be bought out. Relying on a promise today for a future that might include better access to repair, as in a voluntary agreement, is tenuous at best. We've seen many examples in the tech world of products where repairs are available one day and not the next when ownership changes.

Rural locations are more likely to be underserved not only for repair technicians, but for electricity, telephone, and internet services. The more repair services are tied to the full functioning of utilities or other businesses, the greater the risk. A tornado, as an example, can easily cripple internet service, which under these monopolized programs, will prevent local repair. Right to repair will make it possible for agriculture to be more resilient.

Farm Equipment is designed to be repaired, but the equipment owner is left out of the repair process. This bill returns the owner to their rightful role as owners and not renters. The only requirement of this bill is for manufacturers to make available the same service materials that they created for their own repair technicians to their customers and independent repair businesses.

There are no mandates in this bill on formats, pricing, design, parts availability or method of delivery as we see coming out of Europe. The costs of compliance should be minimal as manufacturers (through their dealers) will be selling to a broader audience rather than a relatively small number of dealers.

Impacts of Repair Monopolies:

Total reliance on repair from the manufacturers and their dealer network is not only anti-competitive, but results in significant delays in farming with no advantage to the producer.

Manufacturers benefit most when farmers buy new equipment and trade it frequently for newer models. Dealers benefit most when farmers must come to them exclusively for any form of repair -- because they make many times more money on repairs (5X) than on equipment sales.

Farmers have totally opposite interests. They want to buy equipment that they can keep using for decades, and at the lowest possible price. Repair monopolies have enormous value to the monopolist -- and everyone should expect they will not willingly agree to allow competition for these valuable services without statute.

It took state law passed first in 2012 Massachusetts to restore competition to repair of automobiles. The reason you can take your Toyota or your Ford to your neighborhood mechanic is because of state legislation. Commercial trucks came to a similar agreement in 2015 -- leading to the absurd situation where a Cummins engine in an over-the-road truck is easily repairable but the same engine in a tractor is not.

The bodies of these products are definitely different, but the electronics are the same. Repairing a broken wire or replacing a burnt out sensor is the same task regardless of the product. Farmers should have the same legal access to repair when buying a pickup truck or a manure spreader.

Active Statute: Unfair and Deceptive Acts and Practises (UDAP)

States have control of general business law, and not the federal government. The auto industry successfully used state consumer protection statutes (UDAP) to address the imbalance of negotiating power between manufacturers and auto buyers. Farmers need the same protections for the same reasons for their off-road purchases.

Farmers are not able to negotiate terms and conditions as equals and are helpless when forced to accept unfair and deceptive contracts such as "End User License Agreements" (EULA). EULA are the contracts that change the original rights to repair inherent in ownership law, and modify them to remove those rights. EULA are written to be ignored, and if read, are written to confuse and obfuscate. Further, farmers are "deemed to have accepted" these contracts by turning on the ignition.

There is no escaping these terms and conditions. This is why legislation is needed to prevent the farmer from losing important rights of ownership removed unfairly and deceptively in EULA or similar contracts.

Absence of Competitive Options

It is no longer possible for farmers to avoid repair monopolies with their wallets. There has been enormous consolidation and mergers of brands, to the point where 3 brands now share 85% of the market and they are using the same types of policies to monopolize repair. We expect that as a result of statute, manufacturers will compete again in the free market for the quality of their service, as has happened with motor vehicles.

Opposition Positions

We have attended multiple hearings over the past few years where opposition from the Association of Equipment Manufacturers (AEM) and the Equipment Dealers Association (EDA) has been provided in both written and verbal form. There are 7 assertions commonly made, none of which apply to the actual legislation.

1. Lost of Proprietary Rights

The first claim we often hear in opposition to Right to Repair (regardless of product) is that manufacturers will lose their "Proprietary" rights. This is demonstrably not true and we see these claims made less frequently. But each state is a new audience so we expect these claims may pop up at any time.

The word "Proprietary refers to a suite of rights that include Copyrights, Patents and Trade Secrets. All of these rights are **federal**, and as such, off limits to changes in state legislation. Copyrights are rights of distribution, and repair is not distribution. Copyrighted materials are not secret, as is often assumed. You buy a copyrighted book to read it. You cannot make copies and sell those copies. Repair documentation is often copyrighted, which means that the author (manufacturer) controls rights of distribution. Firmware may also be copyrighted, but under copyright law is fully legal to backup and restore for purposes of repair.

Patents are rights of production, and repair is not manufacturing.

Trade Secrets are of no use to repair, and are specifically disclaimed. Manufacturers lose the protection of trade secret law when distributing materials. No manufacturer puts trade secrets, or any other kind of secret, into repair documentation.

Since manufacturers are legally entitled to control distribution of copyrighted materials -- only the manufacturer provides essential repair materials. Legislation is necessary to make it possible for farmers to acquire this information.

2. Repair is complex -- only the OEM has the skills to make repairs

All computerized products are complex -- but repair is not complex. We know this as experts in complex repairs from mainframes to cell phones. Manufacturers design diagnostics, parts, tools,

firmware and documentation to make their own technicians efficient as complex repairs are labor intensive. Without the same materials designed by manufacturers to be used to make repairs. Independent or self-repair is impossible and impractical. The impact is that competition is blocked resulting in repair monopolies.

3. Repair materials will enable hackers and nefarious bad actors to do bad things.

This is not possible unless the manufacturer included back doors or other cyber-security holes in their products. Since this is highly unlikely, over the past 7 years we have repeatedly asked opposition for examples so that we can work with our cyber experts to make legislation better, but have never been provided a single example.

4. OEMS will be forced to divulge "Source Code"

This is a very confusing statement since the only code necessary for repair is created by the manufacturer for purposes of repair. Most commonly this means restoring firmware (embedded software) that may have been lost during the repair process or the permissions necessary to match spare parts to the system. There is nothing in this legislation that requests source code.

5. Farmers just want to hack their tractors to avoid emissions requirements

The bill doesn't change anything about emissions tampering which is already illegal. Emissions laws and regulations are **federal**, and state legislation cannot pre-empt federal law. With or without Right to Repair, tampering is a real issue but it is not an issue of repair.

Furthermore, farmers are subject to fines and penalties for illegal tampering by the EPA, which has separate requirements for manufacturers or dealers selling equipment which is not approved for purchase in the US. Once sold, the farmer is responsible for her own fines, just as automobile owners are responsible for their own fines.

6. Farmers will be unsafe if allowed to make repairs.

This is highly unlikely as repairs of electronics are far less dangerous in a physical sense than mechanical repairs. Farmers know about safety and personal risk as a part of daily life. With electronics, manufacturer provided diagnostics are created to make problems easier to diagnose. The same diagnostics are used to confirm repairs are complete -- eliminating the worry about an incompletely repaired product running out of spec and wreaking harm.

In the world of complex electronics -- the technician doesn't determine if the repair is complete -- the diagnostics make that determination. If problems persist even after diagnostics state the repair is complete - that is a serious support defect that can only be resolved by the manufacturer.

For some brands, such as John Deere, there is an additional step for making a complete repair which puts Deere back in control of the repair, even if the repairs have been made by the farmer or an

independent technician. Deere, and only Deere, can provide the updated embedded software (firmware) that tells the main computer that a new part has been installed. Without that final download from Deere -- the parts don't work and the repair isn't functional. This bill only asks that equipment owners be given the means to request the firmware change -- not to make that change themselves.

7. Farmers will "chip", "mod", "hack" their engines to gain more horsepower

Farmers do this already. This bill has no impact on these practices and makes no attempt to encourage or discourage changes to engine performance. This bill has no impact on how trade-in values are determined, nor how private contracts between used sellers and buyers are constructed. The only purpose of this bill is to restore the option of repair to the owner.

Summary

Repair monopolies in agriculture are real, they are dangerous, and if left to proliferate -- will not disappear on their own. Businesses won't be able to treat their investments as assets, won't be able to borrow against them as collateral, and won't be able to put them on the books. Everything that was owned will now be a piece of software wrapped in metal -- and will have to be expensed.

This is not what we expect when we buy, rather than rent, things. Manufacturers have not offered any reasons that they alone should be allowed to monopolize the use of their product post-purchase, despite all the obvious impacts of such complex and convoluted repair systems. We do not ask for manufacturers to change their systems, only to cease preventing customers from accessing those systems on fair and reasonable terms.

Respectfully,
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Attachment - Supporter List from The Repair Association