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The Honorable Zack Stephenson
Chairman, House Commerce Finance and Policy Committee
509 State Office Building
St Paul, MN 55155

February 1, 2022

Dear Chairman Stephenson:

The Association of Equipment Manufacturers (AEM) is the North American-based international trade group representing off-road equipment manufacturers and suppliers, with more than 1,000 member companies and more than 200 product lines in the agriculture and construction-related industry sectors worldwide. The equipment manufacturing industry supports 85,500 jobs in Minnesota and contributes \$8.7 billion to the state GDP each year.

AEM opposes HF 1156, Digital Fair Repair. While our industry supports customers' right to repair their own equipment, this legislation will not accomplish its stated goal of reducing the time and expense for equipment repair. It will, however, open the door to unintended safety, environmental, and economic consequences.

Today's heavy-duty, off-road agriculture and construction equipment has evolved significantly from the tractors of yesteryear. Thanks to American ingenuity and innovation, modern agriculture and construction equipment allows farmers and contractors to be more productive than ever. It reduces the environmental footprint of these sectors through the efficient use of inputs such as fuel, pesticides, water, and fertilizer. These highly complex machines safely enable Americans to build, power, and feed the world and protect the planet.

Equipment manufacturers have always supported customers' right to repair their own equipment and remain committed to providing them with the tools and information needed to reduce downtime and maximize productivity. Equipment manufacturers do not, however, condone modifications that are illegal, unsafe, and harmful to the public and the environment.

Equipment manufacturers empower their customers to perform most repairs on their equipment. In some extremely rare cases, where access to operating software is necessary, a trained and certified service technician may need to perform the repairs. There is a difference between consumers seeking to repair their own equipment—which they can do today—and those who seek access to the source code or operating software so they can circumvent safety and emissions standard or access proprietary intellectual property. Access to the source code or operating software embedded inside equipment is simply not necessary to successfully diagnose and repair problems that might arise.

When proponents of “right to repair” cite cases where customers are unable to repair their equipment, it is almost always due to underlying workforce shortages, poor wireless broadband coverage, the complexity of the repair needed, and/or supply chain issues. Proponents use these anecdotes to purposefully spread misinformation that farmers and contractors are unable to diagnose, repair, and maintain their equipment. If they understood the real issue and were interested in being true partners to address it, they would be joining in our calls to invest more in workforce training efforts for repair technicians, enhance wireless broadband connectivity in rural areas, or to tackle the root causes for why U.S. supply chains are in such crisis. Instead, they propose counterproductive, unnecessary legislative solutions that distract from the critical issues facing U.S. farmers and contractors. Thankfully, the tools and information provided by equipment manufacturers today ensure farmers and contractors can overcome these deep-seated issues on their own, without government intervention, and successfully carry out nearly all repairs on their own.

Regretfully, this misinformation continues to be purposefully circulated in capitals and the media to drum up support for “right to repair” laws at the state and federal level. As the committee considers legislation to require equipment manufacturers to allow unfettered access to the source code and operating software of equipment, we respectfully provide the following counterpoints:

Equipment manufacturers already provide the tools and information needed for diagnosis, repair, and maintenance.

“Right to repair” advocates claim equipment manufacturers do not make parts, manuals, and diagnostic software/tools available to customers. This is incorrect.

In February 2018, the Association of Equipment Manufacturers and the Equipment Dealers Association announced a new industry commitment to provide a comprehensive set of service information tools to customers to further empower them to perform diagnosis, repair, and maintenance of equipment. These tools are now widely available to customers and independent repair shops through authorized dealers. Customers can use these tools to diagnose issues in the field, troubleshoot problems, and clear error codes. In some cases, where adequate broadband is available, trained and licensed service technicians can access the onboard computer remotely to assist the owner/operator with the repairs or make sure the right tools and parts are ready for field service or pickup at an authorized dealer. Most parts and components are sold directly to customers or independent repair technicians and are not installed by a trained and licensed service technician.

Unfettered access to the source code and/or operating software, which is what repair advocates are after, is simply not necessary for 98 percent of the work required to keep agriculture and construction equipment up and running. Despite this fact and in recognition of the need to help customers reduce downtime and maximize productivity, equipment manufacturers make the following tools and information available to customers and independent repair shops through purchase or subscription:

- 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

But it is important to note, even armed with these tools (or even the source code), repairing heavy, technologically advanced equipment is not quick or easy, nor is there any way to make repair quick or easy. Owners/operators must have a degree of technical experience and expertise to turn error codes into diagnoses, and appropriately remedy the problem. Oftentimes, do-it-yourself repair becomes an exercise in trial and error that lasts hours, or even days.

For those owners/operators who do not have the time, inclination, or comfort to make their own repairs, authorized independent dealers employ trained and certified service technicians to diagnose, repair, and maintain the equipment in a shop or in the field. Experienced dealer technicians are usually more efficient in diagnosing and repairing equipment, because of their training, expertise, and real-world practice.

Modern equipment is highly sophisticated and complex.

As a result of technological innovations that have greatly reduced emissions, improved safety, and increased efficiency, modern agriculture and construction equipment is highly sophisticated and complex. Many pieces of modern equipment have more lines of code than the original space shuttle. They are built to maximize productivity while carefully complying with federal (and sometimes state) mandates for emissions and safety controls. These machines run as a system; when something is changed, it has cascading impacts down the line. For example, if a farmer wants to increase the horsepower of his or her tractor, the emissions also increase, bringing the machine out of compliance with the Clean Air Act.

In an April 2019 survey of 770 equipment dealers, 33 percent reported seeing modified equipment brought in for service in the 24 months prior. Some dealers saw up to 50 percent of equipment brought in for service had been modified. Common examples of modifications were engine tuning or chipping and changes to hydraulic systems or safety mechanisms.

Equipment manufacturers support hundreds of thousands of family-sustaining jobs in rural areas through authorized dealer networks.

Virtually all agriculture and construction equipment in the United States is distributed via authorized dealer networks. Manufacturers and dealers offer scholarships, stipends, and other incentives to support aspirations to become trained technicians. These dealers are small business owners who employ nearly 300,000 trained workers in stable, high-paying jobs across America.

While repair advocates focus on the potential job growth for independent service technicians, they ignore hundreds of thousands of existing trained and licensed service technicians who take pride in the work they do to support consumers and provide a vital service to their communities. It is inaccurate to assume that trained and licensed service technicians in rural areas will simply open their own repairs shops if they lose their jobs. Repair advocates callously disregard the role that trained and licensed service technicians play in the diagnosis, repair, and

maintenance of agriculture and construction equipment and demonstrate a disturbing lack of awareness of how this sector operates.

“Right to repair” laws will not make repairs faster or less expensive.

The equipment manufacturing industry, like many domestic industries, is in the midst of both a workforce crisis, and a global supply chain crisis. For several generations, secondary schools have pushed students into a “college at any cost” path, instead of educating them about the benefits of a career in technical trades. Coupled with an ongoing pandemic, school and business closures, and occupancy restrictions, our industry simply cannot get enough workers in manufacturers’ factories or dealers’ shops to meet demand.

Additionally, global supply chain disruptions have made it difficult for anyone to get specialty tools and parts. Due to crumbling infrastructure, our ports are clogged, and our roads and railroads are not adequate to get products to market. It is not a situation of manufacturers and dealers withholding access to these items; these items are simply not arriving in our distribution centers in a timely manner.

“Right to repair” legislation does not solve workforce problems, nor does it address supply chain issues. It doesn’t even promote reliable, wireless rural broadband infrastructure that would allow dealers to “remote on” to a machine in the field or on a jobsite, to diagnose, and offer repair assistance. While these issues are outside of the scope of this committee, legislators wishing to solve repair-related issues should lean on their fellow state and federal legislators to find solutions to state and federal infrastructure, workforce, and trade problems.

In summary, while the equipment manufacturing industry has always supported our customers repairing their own equipment, we do not support “digital right to repair” legislation. These bills will not solve the problem they claim to, and present serious environmental, safety, and rural economic impact consequences. We urge the committee to once again reject this legislation.

Sincerely,



Kip Eideberg
Senior Vice President, Government and Industry Relations

Cc: Members of the Commerce Finance and Policy Committee