

Right to Repair: Impact on Competitiveness of Agricultural Machinery Firms

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The right to repair (RTR) has become a prominent issue facing the agricultural machinery sector globally, with farmers concerned about their ability to repair newer equipment without the assistance of dealerships or original equipment manufacturers (OEMs), who oppose revealing their source code due to concerns of patent protection, emission compliance, and safety. This EBOT discusses the perspectives of various stakeholders on RTR, the competitiveness issues that RTR raises for equipment manufacturers, and the actions government and industry have taken in response to certain aspects of farmers’ RTR concerns.

What is right to repair? RTR is a movement to allow third-party repair or self-repair of items, including agricultural equipment, for which manufacturers have otherwise placed restrictions on repair options. These limits include warranties requiring repair by the manufacturer, product designs sometimes based on proprietary technology that complicate or prevent repair, and the unavailability of parts and repair information, among other things.

Agricultural equipment manufacturers and markets: In 2021, the global agricultural equipment market was valued around \$130 billion and is expected to grow to \$234 billion by 2030. The western and central European market was valued at \$50 billion in 2021, while the U.S. market was valued at \$42 billion, and

Figure 1. Size of major agricultural equipment markets



the Indian market was valued at around \$12 billion in 2022 (see figure 1). China’s agricultural machinery market was valued at \$24 billion with five major state-owned manufacturers while the agricultural machinery sector in Canada totaled \$4 billion in 2022. The number of players in each market varies. Deere holds over half the total

North American market, and the U.S. market is one of the most consolidated.

How governments are responding: Via pressure from farmers and other advocacy groups, agricultural machinery RTR has recently gained traction in the United States at the state and federal levels, as well as internationally (see table 1). At the international level, major agricultural equipment markets, with the exception of China, have considered and/or passed legislation reinforcing the RTR on those products. As

of July 2021 in the EU, new tractors manufactured with a standardized vehicle communication interface must allow for diagnosis and repair with generic diagnostic tools accessed via an on-board diagnostic port.

Farmer and OEM positions on agricultural equipment RTR: Unlike other industries impacted by RTR legislation—like consumer electronics, where OEM-

mediated access to product manuals and spare parts is at issue—the agricultural equipment market has made parts and product specifications relatively accessible to users. As a result, farmers have grown accustomed to repairing their equipment themselves. However, the technological progression of agricultural equipment has made the latest models more opaque. Farmers now claim that restrictions on

Table 1. Agricultural equipment RTR legislation/rulemaking in major markets

| Market | Status of agricultural equipment RTR legislation/rulemaking |
|--------|---|
| EU | Commission Delegated Regulation 1322/2014 passed in Sept. 2014; clarified in Sept. 2020 minutes of Working Group on Agricultural Tractors |
| US | EO 14036 issued to encourage FTC to engage in rulemaking and FTC vote to ramp up enforcement against repair restrictions in July 2021; Bill introduced in Congress Feb. 2022 (S.3549) |
| China | No RTR regulations, see note* |
| India | Department of Consumer Affairs committee convened to develop legislative RTR framework in July 2022 |
| Canada | Bill C-272 introduced in 2021, died with fall 2021 election |

* Repair obligations of manufacturers, sellers, and repairers of agricultural equipment to users are specified in [Regulations on Liability for Repair, Replacement and Return of Agricultural Machinery Products](#) which entered into force June 2010. Modification and disassembly of equipment by the user is prohibited in order for the above stakeholders to remain liable for equipment repairs. Articles 35, 38(2).

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access to software-based diagnostics is limiting their ability to perform repairs on newer equipment models, as these tools are largely only available to certified dealerships. Many farmers have cited certified dealerships as being too far away and/or too expensive, the former of which may be a consequence of OEMs having consolidated their repair networks into large chain stores. Farmers claim this new reliance on and distance from dealerships poses delays compared to self-repair, which in-turn impacts farmers' ability to plant, tend, and harvest on time.

OEMs have pushed back on certain aspects of RTR in the agricultural equipment sector. In the U.S. market, OEMs have expressed concerns that certain proposed state or federal legislation would demand that equipment users have unfettered access to critical on-board software and information pertaining to performance in compliance with Tier 4 diesel emissions standards. Such access, they claim, would allow for data and source codes to be manipulated or shared, which could have serious implications on the environment, the safety of equipment operators, and intellectual property. Recently, CNH Industrial opposed Vermont S. 180: Vermont Fair Repair Act expressing concerns over these issues.

RTR competitiveness issues for the aftermarket: Independent repair shops also stand to benefit from the passage of RTR laws as limited access to diagnostic software tools can impact competition in the aftermarket by curbing the ability of these shops to participate. Currently, several agricultural equipment manufacturers have a large presence in the aftermarket parts and repair markets for the machinery they produce. Dealerships tend to draw 70 percent of their sales by value from equipment, 20 percent from parts, and 10 percent from services and labor.¹ Profits are more heavily skewed towards parts and labor, however – for one major U.S.-based company and its dealerships, parts and repair services end up being three to six times more profitable than the original sales of equipment.² An international trade association of dealerships has claimed that this increase in competition in the parts aftermarket would reduce the incentive for dealerships to stock parts, which it claims would lead to a reduction in local supply.

How firms are responding: In response to pressure from the RTR movement, U.S. companies have begun to offer diagnostic tools to the public. One such company, AGCO, now provides customers a web-based diagnostic application to rent from authorized dealers who sell and service the customer's particular brand. Deere made its consumer-facing diagnostic service tool available for sale at its online store in 2022, and committed to releasing additional tools for self-repair in 2023, including a mobile device user interface and a direct download of secure software updates in select equipment. Deere formalized these and other commitments in a MOU with American Farm Bureau Federation (AFBF) on January 8, 2023. In it, Deere agreed to provide through sale or subscription the tools, software, documentation, and diagnostic codes for its equipment to farmers and independent repair shops on "Fair and Reasonable Terms." In exchange, AFBF agreed to discourage its state farm bureau affiliates from "introducing, promoting, or supporting" federal or state RTR legislation that would impose commitments on Deere beyond those in the MOU. Both parties may withdraw from the MOU if such legislation is enacted.

Sources: Abbott, ['Right to Repair'](#), 9/15/22; AED, [Statement by Ken Taylor](#), 9/14/22; AFBF and Deere, [MOU](#), 1/8/23; AGCO, ["AGCO Maintenance, Diagnostic,"](#) accessed 11/9/22; ACCC, [Agricultural Machinery Market](#), 5/21; Bloomberg, ["Farmers Fight,"](#) 3/5/20; CNH Industrial, [Vermont S. 180: Vermont Fair Repair Act](#), accessed 11/29/22; Farm Equipment, ["Manufacturer Consolidation,"](#) 8/29/18; FTC, ["Nixing the Fix,"](#) 5/21; GlobeNewswire, ["Agriculture Equipment,"](#) 8/14/22; IBISWorld, [Tractors & Agricultural Machinery Manufacturing in the US](#), 8/30/22; IBISWorld, [Farming Machinery](#), 6/24/22; IBISWorld, [Tractors & Agricultural Machinery Manufacturing in Canada](#), 4/11/22; Mordor Intelligence, [North American, India, Europe Agricultural Machinery Market](#), accessed 11/9/22; Sen. Tester, ["Right to Repair,"](#) 2/1/22; Paul, ["Why Right,"](#) 8/2/21; PIRG, ["Deere in the Headlights,"](#) 2/5/21; PRNewswire, ["India Agricultural,"](#) 7/15/22; PRNewswire, ["Western and Central,"](#) 9/6/22; Schmidt, ["A Dealer's Ideal,"](#) 4/10/15; Tractor House, ["Deere Makes,"](#) 3/24/22.

¹ At the company level, parts sales comprised around 15-19 percent of all sales in 2021 among major U.S. firms. AGCO, [10-K](#), 2021; John Deere, [WW Part Fact Book](#), 12/18/21.

² A report by the Associated Equipment Distributors found that the gross profit margin on parts sales was around 26-27 percent annually from 2014 to 2020. AED, [Statement by Ken Taylor](#), 9/14/22.

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