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 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

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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. 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. 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.

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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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