UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,
U.S. Department of Justice
Antitrust Division
450 Fifth Street, N.W., Suite 8700
Washington, DC 20530,

Plaintiff,

v.

EATON CORPORATION plc
Eaton House, 30 Pembroke Road,
Dublin 4
Ireland

and

DANFOSS A/S,
Nordborgvej 81
DK-6430v Nordborg
Denmark

Defendants.

Civil Action No.: 1:21-cv-1880

COMPLAINT

The United States of America ("United States"), acting under the direction of the Attorney General of the United States, brings this civil antitrust action against Defendants Eaton Corporation plc ("Eaton") and Danfoss A/S ("Danfoss") to enjoin Danfoss's proposed acquisition of Eaton's hydraulics business. The United States complains and alleges as follows:

I. NATURE OF THE ACTION

1. Pursuant to a Transaction Agreement dated January 21, 2020, Danfoss intends to acquire Eaton's hydraulics business for approximately $3.3 billion. The hydraulic power components that Danfoss and Eaton manufacture make it possible to steer, propel, and operate equipment used to pave roads, harvest produce, construct buildings, and perform other heavy industrial and agricultural tasks across the United States every day.

2. Danfoss and Eaton are two of only three suppliers of hydraulic orbital motors ("orbital motors") and hydraulic steering units ("steering units") used in tractors, wheel loaders, lifts, and other types of mobile off-road equipment in the United States. Orbital motors, also called "low-speed, high-torque" motors, are a low-cost way to move heavy loads in a slow, and thus controlled, way. Steering units direct hydraulic fluid in response to commands from equipment operators and are necessary for any hydraulic steering system to function. Three of every four orbital motors and four of every five steering units purchased in the United States are supplied by either Danfoss or Eaton.

3. Competition between Danfoss and Eaton has driven prices down and spurred the production of new and better orbital motors and steering units. The proposed merger would eliminate this competition, leading to higher prices, lower quality, and diminished innovation.

4. As a result, the proposed acquisition would substantially lessen competition in the market for the design, manufacture, and sale of orbital motors and steering units for mobile off-road equipment in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

II. DEFENDANTS AND THE TRANSACTION

5. Danfoss is a global corporation headquartered in Nordborg, Denmark that specializes in the manufacturing of components and engineering technologies for, *inter alia*,

hydraulics for off-road machinery. Danfoss's Power Solutions division produces hydraulic pumps, motors, valves and steering solutions, as well as electronic components, software, motors, and converters. The Power Solutions division accounted for 35% of Danfoss's €6.3 billion in revenue in 2019.

6. Eaton is a global corporation headquartered in Dublin, Ireland that focuses on power management solutions for electrical, hydraulics, aerospace, and vehicle applications. Eaton Hydraulics, based in Eden Prairie, Minnesota, consists of a Fluid Conveyance Division that sells hoses and other fluid conveyance products and a Power & Motion Controls Division offering hydraulic motors, power units, valves, and steering units. The Power & Motion Controls division had sales of $2.2 billion in 2019.

7. On January 21, 2020, Danfoss and Eaton signed an agreement under which Danfoss will acquire Eaton's hydraulics business in exchange for $3.3 billion.

III. JURISDICTION AND VENUE

8. The United States brings this action under Section 15 of the Clayton Act, 15 U.S.C. § 25, to prevent and restrain Defendants from violating Section 7 of the Clayton Act, 15 U.S.C. § 18.

9. Defendants design, manufacture, and sell orbital motors and steering units for mobile off-road equipment throughout the United States, and their activities in these areas substantially affect interstate commerce. This Court therefore has subject matter jurisdiction over this action pursuant to Section 15 of the Clayton Act, 15 U.S.C. § 25, and 28 U.S.C. §§ 1331, 1337(a), and 1345.

10. Defendants have consented to venue and personal jurisdiction in this judicial district. Venue is therefore proper in this district under Section 12 of the Clayton Act, 15 U.S.C. § 22, and under 28 U.S.C. § 1391(b) and (c).

IV. INDUSTRY BACKGROUND

A. Hydraulic Systems

11. Most heavy industrial and agricultural operations rely on specialized equipment to perform work "off-road" (*e.g.*, in a construction site, a field, a forest, a mine, or on a golf course). The predominant drive technology for this equipment is a hydraulic system, which uses hydraulic fluid to generate power.

12. The basic architecture of a hydraulic system includes a reservoir for hydraulic fluid; a pump to move that fluid; valves to control the liquid in various ways (*e.g.*, pressure, flow, or direction); a motor to convert hydraulic pressure into mechanical energy; and components that accomplish the intended task, such as cylinders.

13. Mobile off-road equipment often has multiple hydraulic systems. Each system serves one of three functions: to carry out the steering commands given by a driver, to propel equipment forward, or to make the equipment perform its intended work function (*e.g.*, to operate the forks on a forklift or raise a scissor lift's platform).

14. Original Equipment Manufacturers ("OEMs") of mobile off-road equipment select components of hydraulic systems individually, considering the performance requirements of the equipment at issue, price, and the space available to house the components selected. To determine components for a new platform, OEMs may solicit bids, seek the services of a distributor, collaborate with a preferred provider, or use in-house engineers as experts.

B. Orbital Motors

15. While all hydraulic motors turn hydraulic pressure into mechanical energy, there are different designs that can be used for mobile equipment: gear motors, orbital motors, vane motors, and piston motors. Each design presents a different value proposition in terms of power, pressure, fluid displacement, torque, and rotational speed. OEMs consider each of these performance characteristics, as well as price and physical size, when selecting a motor to be used in a particular hydraulic system.

16. There is a direct relationship between a motor's power metrics and its price. In addition to being more expensive, a motor that is more powerful than necessary for the job has less operating efficiency. Thus, OEMs prefer products that meet, but do not exceed, their desired performance specifications. Once selected, it is difficult and expensive for an OEM to switch motor designs because of the need to retrofit the equipment to the new motor.

17. Orbital motors have a rotating gear design consisting of an external gear ring and an inner gear star. When the internal gear star rotates in a planetary-type movement, fluid that has been inserted by a pump is displaced between every gear tooth. The result is a high torque output at a low rotational speed. For this reason, orbital motors are also referred to as "low-speed, high torque" motors.

18. Orbital motors are in the "low-to-medium" power category of motors, generating fewer than 100 kilowatts of power. However, an orbital motor is efficient and generates high output levels of torque at low rotational speeds, which makes it easier to control the movement of heavy loads. Orbital motors are also uniquely attractive to OEMs because they come in a standard compact size, which OEMs can count on when designing mobile off-road equipment.

19. Because orbital motors are more commoditized and thus less expensive than other motors that produce similar amounts of torque, they are considered a "workhorse" motor for many OEMs that design mobile off-road equipment, and can be used for the "work" or "propel" functions for a long list of mobile off-road equipment, including potato harvesters, wheel loaders, skid steer loaders, aerial lifts, asphalt pavers, rollers, salt spreaders, harvesters, and street sweepers.

20. In contrast to orbital motors, piston motors are higher powered, higher priced, larger, and often inefficient for an application that is appropriate for an orbital motor. Similarly, gear and vane motors fail to meet an orbital motor's performance metrics for torque.

C. Hydraulic Steering Units

21. An OEM designing a power steering system for mobile off-road equipment can choose from three different steering technologies: hydraulic, electrohydraulic, and electric. Hydraulic steering systems—by far the most common technology used in off-road equipment—use commands from a driver to turn a vehicle's wheels using hydraulic fluid. Electrohydraulic steering systems build on hydraulic steering systems by adding electronically-controlled components that make steering with a joystick or GPS-guided steering function possible. Electric steering does not require hydraulics components and instead generates the power assist needed for steering through electric motors.

22. Hydraulic steering systems move pressurized hydraulic fluid through a circuit to control cylinders connected to the wheels of mobile off-road equipment. The piece of a hydraulic steering system that determines the direction that the fluid moves and provides pressure control is called a steering unit.

23. All hydraulic steering systems—even those with some electronic components—require a steering unit. If an OEM wished to design around a steering unit for mobile off-road equipment, it would have to shift the entirety of the steering system from hydraulic technology to the more expensive electric technology.

V. THE RELEVANT MARKETS THREATENED BY THE ACQUISITION

A. Relevant Product Markets

24. An OEM in need of an orbital motor's performance characteristics for a mobile off-road vehicle design would not simply substitute an alternative motor technology. No other motor offers the same combination of (1) efficiency (*i.e.*, operating power necessary for the intended use), (2) torque output, and (3) low price. Vane and gear motors do not meet the torque output performance metrics of an orbital motor, and piston and electric motors are more expensive and less efficient than an orbital motor. In order for a customer to switch to any of these alternative technologies, that customer would need to downgrade its performance expectations, engage in a costly redesign, or spend significantly more money.

25. Because of these factors, in the event of a small but significant increase in price by a hypothetical monopolist of orbital motors, substitution away from orbital motors would be insufficient to render the price increase unprofitable. Orbital motors for mobile off-road equipment are therefore a line of commerce, or relevant product market, for purposes of analyzing the effects of the acquisition under Section 7 of the Clayton Act, 15 U.S.C. § 18.

26. Similarly, an increase in the price of hydraulic steering systems would not cause OEM customers to replace a hydraulic steering system in mobile off-road equipment with electric steering technology. Electric steering technology—the only alternative steering system that does not require a hydraulic steering unit—is largely unproven and more expensive than

hydraulic steering technology. Electric steering, for example, is vulnerable in wet terrains and often lacks the power necessary to move cylinders connected to the wheels of large off-road equipment. Finally, the switching costs from hydraulic steering to electric steering are high and would require a costly redesign by OEMs.

27. Because of these factors, in the event of a small but significant increase in price by a hypothetical monopolist of steering units, substitution away from steering units would be insufficient to render the price increase unprofitable. Steering units for mobile off-road equipment are therefore a line of commerce, or relevant product market, for purposes of analyzing the effects of the acquisition under Section 7 of the Clayton Act, 15 U.S.C. § 18.

B. Geographic Markets

28. OEMs located in the United States cannot reasonably turn to suppliers without a U.S. presence for the supply of orbital motors or steering units for mobile off-road equipment. Long lead times due to international shipping and unexpected delays in the delivery of products can cause significant business disruption. Customers similarly require that suppliers warehouse new and replacement parts to avoid costly delays or interruptions to business operations and expect local service and support from suppliers.

29. A hypothetical monopolist of orbital motors or steering units sold in the United States could profitably impose a small but significant non-transitory increase in price for orbital motors or steering units without losing sufficient sales to render the price increase unprofitable. Nor would the price increase be defeated by arbitrage, *e.g.*, by OEMs purchasing through subsidiaries located outside the United States. Accordingly, the relevant geographic market for the purposes of analyzing the effects of the acquisition on orbital motors and steering units for

mobile off-road equipment under Section 7 of the Clayton Act, 15 U.S.C. § 18, is the United States.

VI. DANFOSS'S PROPOSED ACQUISITION OF EATON'S HYDRAULICS BUSINESS IS LIKELY TO RESULT IN ANTICOMPETITIVE EFFECTS

30. The proposed transaction would lessen competition and harm customers for orbital motors and steering units for mobile off-road equipment in the United States by eliminating the substantial head-to-head competition that currently exists between Danfoss and Eaton. Customers would pay higher prices and receive lower quality and service for orbital motors and steering units as a result of the acquisition.

31. In the United States, Danfoss and Eaton are the two largest suppliers of orbital motors for mobile off-road equipment, with market shares of approximately 53% and 24%, respectively. The only other major supplier of orbital motors for mobile off-road equipment has a 9% share of the market. Together, Danfoss and Eaton would account for over 75% of sales of orbital motors in United States.

32. In the United States, Danfoss and Eaton are the two largest suppliers of steering units for mobile off-road equipment, with market shares of approximately 43% and 41%, respectively. The only other major supplier of steering units for mobile off-road equipment has a considerably smaller market share of less than 1%. Together, Danfoss and Eaton would account for approximately 84% of sales of steering units in United States.

33. As articulated in the Horizontal Merger Guidelines issued by the Department of Justice and the Federal Trade Commission (the "Horizontal Merger Guidelines"[1]), the Herfindahl-Hirschman Index (or "HHI," as described in Appendix A) is a widely used measure

[1] U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines, *available at* https://www.justice.gov/atr/file/810276/download (Aug. 19, 2010).

of market concentration. Market concentration is often a useful way of measuring the likely anticompetitive effects of an acquisition. The more concentrated a market, the higher the likelihood that a transaction will result in a meaningful reduction in competition and harm customers. Markets in which the HHI exceeds 2,500 points are considered highly concentrated, and transactions that result in highly concentrated markets and increase the HHI by more than 200 points are presumed to be likely to enhance market power.

34. In the market for orbital motors for mobile off-road equipment, the pre-merger HHI is 3,605 and the post-merger HHI is 6,087, representing an increase in the HHI of 2,482. In the market for steering units for mobile off-road equipment, the pre-merger HHI is 4,155 and the post-merger HHI is 8,273, representing an increase in the HHI of 4,118. Under the Horizontal Merger Guidelines, the proposed acquisition will result in highly concentrated markets for both orbital motors and steering units for mobile off-road equipment and is thus presumed likely to enhance market power.

35. The HHI indicators of highly concentrated markets and enhanced market power are consistent with historical head-to-head competition between Danfoss and Eaton to supply orbital motors and steering units for mobile off-road equipment. Danfoss and Eaton compete directly on price, quality, product innovation, delivery, and technical service, and the competition between them has benefited U.S. customers of orbital motors and steering units for mobile off-road equipment. Danfoss and Eaton have a reputation for high-quality orbital motors and steering units, product developments that benefit OEMs, an extensive network of distributors throughout the United States, and localized customer support and service. As a result, Danfoss and Eaton are considered to be the two primary—and sometimes the only two—suppliers of orbital motors and steering units to customers in the United States.

36. For all of these reasons, the proposed transaction between Danfoss and Eaton likely would substantially lessen competition in the design, manufacture, and sale of orbital motors and steering units for mobile off-road equipment sold to customers in the United States and lead to higher prices, decreased quality of delivery and service, and diminished innovation.

VII. ABSENCE OF COUNTERVAILING FACTORS

37. Entry into the design, manufacture, and sale of orbital motors and steering units for mobile off-road equipment sold in United States is unlikely to be timely, likely, or sufficient to prevent the harm to competition caused by Danfoss's acquisition of Eaton's hydraulics business. A new entrant must have the technical capabilities necessary to design, manufacture, and sell orbital motors and steering units that meet customer requirements for quality, performance, and reliability. Additionally, a new entrant must have the requisite scale, an established reputation, and an extensive network of distributors to supply to all customers throughout the United States.

38. As a result of these entry barriers, entry into the market for the design, manufacture, and sale of orbital motors and steering units for mobile off-road equipment sold to customers in United States would not be timely, likely, or sufficient to defeat the substantial lessening of competition that likely would result from Danfoss's acquisition of Eaton's hydraulics business.

VIII. VIOLATIONS ALLEGED

39. Danfoss's proposed acquisition of Eaton's hydraulics business likely would substantially lessen competition in the design, manufacture, and sale of orbital motors and steering units for mobile off-road equipment in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

40. Unless enjoined, the proposed acquisition would likely have the following anticompetitive effects, among others, related to the relevant market:

1. a substantial lessening of competition generally;
2. an elimination of actual and potential head-to-head competition between Danfoss and Eaton; and
3. a likely increase in prices and decrease in quality and innovation.

IX. REQUEST FOR RELIEF

41. The United States requests that this Court:

1. adjudge and decree that Danfoss's acquisition of Eaton's hydraulics business would be unlawful and violate Section 7 of the Clayton Act, 15 U.S.C. § 18;
2. preliminarily and permanently enjoin and restrain Defendants and all persons acting on their behalf from consummating the proposed acquisition of Eaton's hydraulics business by Danfoss, or from entering into or carrying out any other contract, agreement, plan, or understanding which would combine Eaton's hydraulics business with Danfoss;
3. award the United States its costs for this action; and
4. award the United States such other and further relief as the Court deems just and proper.

Dated: July 14, 2021

Respectfully submitted,

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APPENDIX A
DEFINITION OF THE HERFINDAHL-HIRSCHMAN INDEX

"HHI" means the Herfindahl-Hirschman Index, a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of 30 percent, 30 percent, 20 percent, and 20 percent, the HHI is 2,600 ($30^2 + 30^2 + 20^2 + 20^2 = 2{,}600$). The HHI takes into account the relative size distribution of the firms in a market and approaches zero when a market consists of a large number of small firms. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases. Markets in which the HHI is above 2,500 are considered to be highly concentrated. *See* Horizontal Merger Guidelines § 5.3. Transactions that increase the HHI by more than 200 points in highly concentrated markets are presumed to be likely to enhance market power under the guidelines issued by the U.S. Department of Justice and Federal Trade Commission. *See id.*