

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**WESTPORT FUEL SYSTEMS  
CANADA INC.,**

**Plaintiff,**

**v.**

**FCA USA LLC D/B/A FCA GROUP US  
LLC**

**Defendant.**

**Civil Action No. 2:21-cv-00457**

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Westport Fuel Systems Canada Inc. (“Westport”) files this Complaint for patent infringement against Defendant FCA US LLC D/B/A FCA Group US LLC (“Defendant” or “FCA”) and alleges as follows:

**THE PARTIES**

1. Plaintiff Westport is a British Columbia Corporation, having a principal place of business at 1750 West 75<sup>th</sup> Avenue, Suite 101, Vancouver, British Columbia, Canada V6P 6G2.
2. Defendant FCA US LLC D/B/A FCA Group US LLC (“Defendant”) is a corporation organized and existing under the laws of the State of Delaware with a principal place of business at 1000 Chrysler Drive, CIMS:485-12-30, Auburn Hills, MI 48326-2766. Defendant may be served with process through its registered agent, CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201.

**NATURE OF THE ACTION**

3. This is a civil action for infringement of Westport’s U.S. Patent No. 6,298,829 (“the ’829 Patent”), a true and correct copy of which is attached as Exhibit 1, and U.S. Patent No. 6,575,138 (“the ’138 Patent”), a true and correct copy of which is attached as Exhibit 2

(collectively, “the Westport Patents”). This action arises under the Patent Act of the United States, 35 U.S.C. § 101 *et seq.*

4. Each of the Westport Patents was fully examined by the United States Patent and Trademark Office (“PTO”) and issued after such examination. The Westport Patents are valid and enforceable.

5. The ’829 Patent was duly and legally issued on October 9, 2001.

6. The ’138 Patent was duly and legally issued on June 10, 2003.

7. Each of the named inventors assigned the Westport Patents to Westport Research Inc. Westport Research Inc. later assigned the Westport Patents to Westport Power Inc., which later changed its name to Westport Fuel Systems Canada Inc. Westport owns the right, title and interest in each of the Westport Patents, including the right to sue for past infringement.

#### **JURISDICTION AND VENUE**

8. This Court has original jurisdiction over the subject matter of this patent litigation action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Defendant because Defendant has minimum contacts with the State of Texas, has purposefully availed itself of the privileges of conducting business in the State of Texas, and the exercise of jurisdiction over Defendant does not offend traditional notions of fair play and substantial justice. In particular, on information and belief, Defendant has sold or offered to sell infringing products in the State of Texas and this Judicial District, or has manufactured accused vehicles and provided them to intermediaries for distribution throughout the country, including Texas and this Judicial District, with knowledge of this distribution. In doing so, Defendant has placed the accused products into the stream of commerce with knowledge that, through its established distribution to other entities, the accused vehicles will be sold in Texas. Westport’s claims and damages arise from or relate to those

activities.

10. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b) on the grounds that Defendant has committed acts of infringement in and has a regular and established place of business in this Judicial District. Specifically, upon information and belief, (a) Defendant conducts its business of the distribution of new automobiles to the consuming public in this District through authorized dealers in this District, which Defendant holds out to the public as its own (including, for example, Peters Chrysler Jeep Dodge Ram FIAT located at 4181 N US Highway 259, Longview, Texas 75605; and (b) Defendant conducts its business of the provision of new purchase warranties and service pursuant to those warranties to the consuming public in this Judicial District through its authorized dealership(s) located in this Judicial District.

11. Upon information and belief, each of the authorized FCA dealerships in this Judicial District are regular, continuous, and established physical places of business of FCA, being established, ratified, and/or controlled by FCA as authorized dealers, which are the places of business at which FCA offers for sale, sells, and provides authorized maintenance, warranty, and recall services for the FCA automotive vehicles and components that infringe the Westport Patents.

12. Defendant is subject to this Court's general and specific personal jurisdiction pursuant to the Texas Long Arm Statute and due process because Defendant conducts substantial business in this forum, including: (i) making, using, selling, offering for sale, and/or importing vehicles with technology, components, and/or features that infringe the Westport Patents; and (ii) regularly conducting and soliciting business, engaging in other persistent courses of conduct, and deriving substantial revenue from goods and services provided to citizens and residents in Texas and in this District via relationships with its authorized dealers and providing warranty and services to the consuming public.

13. Upon information and belief, Defendant is the exclusive manufacturer, importer and distributor of Ram and Jeep branded vehicles in this Judicial District. Upon information and belief, Defendant manufactures and assembles, both in the United States and internationally, Ram and Jeep branded vehicles, and distributes them through FCA dealerships throughout the United States and in this District.

14. Defendant is registered to do business in Texas with the Secretary of State since May 22, 2009 (Texas Taxpayer Number 32039586972). The Texas Business Organizations Code (TEX. BUS. ORG. § 9.001) requires all entities formed outside of the State of Texas to complete such registration in order to transact business in Texas. Defendant is registered as a taxable entity with the Texas Comptroller of Public Accounts in connection with its marketing and distribution activities, and its sales of Ram and Jeep branded vehicles through its relationships with authorized Ford dealerships across Texas and in this Judicial District.

15. Defendant engages in sales and service of products that infringe the Westport Patents at numerous vehicle dealerships in the Eastern District of Texas, including, for example, Peters Chrysler Jeep Dodge Ram FIAT located at 4181 N US Highway 259 Longview, TX 75605.

16. Upon information and belief, Defendant manages the marketing, sales, and service of Ram and Jeep branded vehicles to existing and/or potential customers located in Texas and in this Judicial District. Upon information and belief, each FCA dealership permitted to sell and service new FCA vehicles in this District must be authorized by Defendant.

17. Upon information and belief, Defendant's employees work with FCA dealerships in this Judicial District on issues related to sales, marketing, technical training, warranties, and the service of parts and accessories. Upon information and belief, Defendant reimburses these employees for travel and personal expenses related to their job responsibilities.

18. Upon information and belief, FCA dealerships located within this Judicial District have executed dealer sales and service agreements (“FCA dealership agreements”) with Defendant (*see e.g.* [https://www.sec.gov/Archives/edgar/data/1019849/000095012402000556/k66280ex10-2\\_10.txt](https://www.sec.gov/Archives/edgar/data/1019849/000095012402000556/k66280ex10-2_10.txt), last visited December 3, 2021). Upon information and belief, these FCA dealership agreements set forth standards and requirements enumerated by Defendant with which FCA dealerships are required to comply. These standards and requirements are directed to at least the FCA dealerships’ facility, space, appearance, layout, and equipment.

19. Upon information and belief, Defendant regularly, continuously, and systematically provides support to and control over the FCA dealerships located in this Judicial District. Upon information and belief, Defendants employees regularly and systematically work at FCA dealerships in this Judicial District to educate FCA dealership employees regarding features of the accused products sold in this Judicial District.

20. Upon information and belief, Defendant’s employees regularly travel to the FCA dealerships in this Judicial District in order to provide support and exercise control over the sales, marketing, and service of Ram and Jeep branded automobiles in this Judicial District. As examples of Defendant’s support and control over the FCA dealerships, upon information and belief, Defendant’s employees travel to the FCA dealers located in this District to ensure compliance with FCA dealership standards; to ensure that advertising is consistent with FCA corporate message and branding guidelines; to train FCA dealership personnel on new products; to assist FCA dealerships with problem solving; to diagnose technical concerns; to provide on-site assistance; to assist FCA dealerships with sales, marketing, business development and business plans; to ensure FCA dealership orders meet market demand; to manage monthly vehicle allocation; to review and analyze FCA dealership financial statements; and to consult with FCA dealerships to improve their

operations and retail business.

21. Upon information and belief, while Defendant's employees are working at FCA authorized dealerships in this Judicial District, they have access to communication devices (cell phones, laptops, etc.) provided by Defendant on which they conduct business on behalf of Defendant. Upon information and belief, Defendant's employees have access to their FCA e-mail accounts while they are present in FCA dealerships in this District.

22. Upon information and belief, through its exclusive agents, instrumentalities and representatives, Defendant provides new car warranty services within this Judicial District on vehicles including the vehicles with technology, components, and/or features that infringe the Westport Patents. Upon information and belief, Defendant warrants to the original and each subsequent owner of new Ram and Jeep branded vehicles that any FCA authorized dealership will make any repairs or replacements necessary to correct defects in material or workmanship arising during the warranty period. Upon information and belief, such warranty work is paid for by Defendant. Upon information and belief, there are numerous authorized FCA dealerships performing warranty work in this Judicial District, at the service departments at, for example, Peters Chrysler Jeep Dodge Ram FIAT as noted above. Upon information and belief, service technicians employed at these FCA dealerships participate in Defendant sponsored training programs and events.

23. Upon information and belief, the FCA dealerships located within this Judicial District are Defendant's authorized agents, instrumentalities, and representatives within this Judicial District for the provision within this Judicial District of all new warranty service for FCA branded vehicles sold both inside and outside this Judicial District. Upon information and belief, if a FCA customer located within this Judicial District needs to have new car warranty repairs

performed within the Judicial District on a FCA vehicle they purchased, Defendant requires the customer to have the work performed at one of their authorized FCA dealerships within the Judicial District.

24. Upon information and belief, Defendant controls the provisioning of warranty service and work at the FCA dealerships in this Judicial District. Upon information and belief, Defendant requires the authorized FCA dealerships to perform warranty work. Upon information and belief, technicians employed by Defendant provide direct supervision and assistance within this Judicial District on a regular, ongoing, and continuous basis in connection with warranty repairs being performed at FCA dealerships within this Judicial District.

25. Upon information and belief, Defendant regularly engages in marketing activities that promote the sale of FCA branded products to customers and/or potential customers located in Texas and in this Judicial District. Upon information and belief, Defendant maintains interactive commercial websites, accessible to residents of Texas and this Judicial District, through which Defendant promotes its vehicles with technology, components, and/or features that infringe the Westport Patents. Upon information and belief, these interactive commercial websites direct customers as to where to buy FCA branded vehicles, including vehicles with technology, components, and/or features that infringe the Westport Patents, including directing them to the FCA dealerships within this Judicial District.

26. Defendant's interactive commercial websites allow a customer to see FCA dealership locations in this Judicial District through its "Find a Dealer" functions (*see, e.g.* <https://www.fiatusa.com/find-dealer.html>, last accessed on December 3, 2021). These interactive commercial websites direct customers as to where to service their Ram and Jeep branded vehicles based on the desired location and needed service at the FCA dealerships within this Judicial

District. Defendant's interactive websites also provide service and care information, and materials about Defendant's products, including vehicles with technology, components, and/or features that infringe the Westport Patents. Upon information and belief, Defendant attempts to sell their branded vehicles within this Judicial District, which vehicles include the technology, components, and/or features that infringe the Westport Patents, by causing advertisements for their vehicles to appear on television and radio programs broadcast into this Judicial District and in local newspapers distributed within this Judicial District.

27. Upon information and belief, Defendant owns or controls all trademarks related to the FCA brands, in the United States. Upon information and belief, the building exteriors of Defendant's dealers in this Judicial District are branded with FCA's trademarked logos, and the FCA dealership names include FCA's trademarks.

### **FACTUAL BACKGROUND**

28. Plaintiff Westport has been in the business of developing technology to use natural gas, and other alternative fuels, as fuel to reduce emissions from internal combustion engines since the 1990s. At the time of the invention, Westport was developing technology around gaseous fuel systems and in particular the use of those systems in medium and light duty internal combustion engines. One goal was to provide a gaseous fuel system that could provide power, efficiency and performance comparable to liquid fuel engines.

29. To meet these performance standards, a fuel injection valve was needed that was capable of injecting a precise amount of fuel at high pressure into a combustion chamber at a very rapid rate. The injection valve needed to minimize fuel leakage when closed and remain securely closed when the valve thermally expanded and contracted during fluctuations in temperature typically found in an internal combustion engine.

30. In or around 1999, Alan B. Welch, Irawan Rahardja, and Mike Hebbes



(collectively, the “Inventors”) developed a new fuel injection valve and described the features of that valve in U.S. Provisional Application 60/159,791 (the “’791 Provisional), which was filed on October 15, 1999 and later assigned to Westport Research Inc. Through extensive research and development efforts, the Inventors found that direct actuation of a valve allowed for a rapid and controlled opening of that valve. To achieve the desired direct actuation, the Inventors conceived of a passive hydraulic link that transfers actuation force when the valve actuator is activated, but also compensates for thermal effects by allowing adjustment when the valve actuator is not activated.

31. The first use of a Westport fuel injection valve having the features described in the ’791 Provisional was in a project with a major U.S. automobile manufacturer in the early 2000s to develop a small car engine powered by compressed natural gas. This project lasted 3-4 years but did not, to Westport’s knowledge, result in any commercial applications.

32. Non-provisional U.S. Patent Application No. 09/522,130 (the “’130 Application”) was filed on March 9, 2000 and claimed priority to the ’791 Provisional. The ’130 Application was duly examined by the Patent Office and issued as the ’829 Patent, entitled “Directly Actuated Injection Valve,” on October 9, 2001. The ’829 Patent expired on March 9, 2020. The ’829 Patent includes 32 claims.

33. On May 23, 2001, non-provisional U.S. Patent Application No. 09/863,187 (the “’187 Application”) was filed as a continuation-in-part of the ’130 Application. The ’187 Application also claimed priority to the ’791 Provisional. The ’187 Application was duly examined by the Patent Office and issued as the ’138 Patent on June 10, 2003. The term of the ’138 Patent was adjusted by 107 days under 35 U.S.C. § 154(b) and expired on June 24, 2020. The ’138 Patent includes 41 claims.

34. Westport continued to develop injectors utilizing the now-patented passive hydraulic link and, around 2006, engaged with a major U.S. automobile manufacturer on a new project to develop a fuel system for a hydrogen-powered engine. This project ended in or around 2008 and, to Westport's knowledge, did not result in any commercial products.

35. Modern liquid fuel engine design has focused on many factors, including fuel efficiency, pollution control, noise reduction, and performance improvements. Many of these design factors depend on how liquid fuel is supplied to the combustion chambers in the engine. In particular, successfully meeting these design factors involve directly injecting a precise amount of fuel at high pressure into a combustion chamber at a very rapid rate. Although the fuel being injected is liquid fuel (gasoline or diesel), many of the technical challenges faced are the same faced by the Inventors in developing fuel injection valves for gaseous fuel engines. Therefore, it is not surprising that modern liquid fuel engines employ technology developed for use in gaseous fuel engines, including the technology claimed in the Westport Patents.

#### **SUBJECT MATTER OF THE WESTPORT PATENTS**

36. The Westport Patents disclose and claim high pressure fuel injection valves for automobile combustion engines.

37. In general, the Westport Patents are directed to high pressure fuel injection valves that include a passive hydraulic link that provides a load path between an actuator and valve that does not rely on a change in hydraulic pressure to generate an actuation force. *See, e.g.*, Exhibit 1, '829 Patent at 7:10-42. The passive hydraulic link also operates without any mechanical connection between the actuator and the valve, which allows for the correction for differential thermal expansion, wear, and dimensional variability and tolerance. *Id.* at 7:43-51.

38. The technology disclosed and claimed in the Westport Patents was developed to

address challenges faced with the direct injection of high pressure gaseous fuel into the combustion chamber of an internal combustion engine. *See id.* at 1:20-55. These challenges include preventing leakage of fuel between injection events, operating at higher opening and closing forces, and actuating in a rapid and controllable manner. *See id.* at 1:38 to 2:24.

39. The claimed inventions of the Westport Patents resolve the technical problems related to rapid, high pressure fuel injection by providing, among other features, a passive hydraulic link that transfers actuation forces through a hydraulic fluid that has a substantially constant thickness during actuation, but between actuations, the thickness can adjust to changes in the dimensional relationship between components. *Id.* at 17:32-43 and Exhibit 2, '138 Patent at 17:43-53.

40. The claimed elements and claimed combinations of the Westport Patents were not well understood, routine, or conventional to a skilled artisan in the relevant field at the time of their invention.

#### **COUNT I: INFRINGEMENT OF THE '829 PATENT**

41. Paragraphs 1-40 are incorporated by reference as if fully set forth herein.

42. On information and belief, Defendant has directly infringed, literally and/or by the doctrine of equivalents, individually and/or jointly, the '829 Patent, by making, using, performing, testing, leasing, selling, offering for sale and/or importing into the United States vehicles that embody products that infringe the '829 Patent including, but not limited to, Ram 1500, Jeep Grand Cherokee, and Jeep Wrangler when equipped with the 3.0L V6 EcoDiesel engine (collectively "FCA Diesel Vehicles").

43. As an exemplary claim, Claim 1 of the '829 Patent is reproduced below:

1. An injection valve for injecting fuel into a combustion chamber of an internal

combustion engine, said injection valve comprising:

(a) a valve housing comprising:

a fuel inlet port;

an interior chamber fluidly connected to said fuel inlet port;

a nozzle comprising a nozzle orifice providing a fluid passage from said interior chamber to said combustion chamber;

(b) a valve needle disposed within said valve housing wherein said valve needle is movable between a closed position at which a sealing end of said valve needle contacts a valve seat to fluidly seal said interior chamber from said nozzle orifice, and an open position at which said sealing end of said valve needle is spaced apart from said valve seat whereby said interior chamber is fluidly connected with said nozzle orifice, wherein valve needle lift equals the distance traveled by said sealing end away from said valve seat;

(c) a needle spring associated with said valve needle, wherein said needle spring applies a closing force to said valve needle for biasing said valve needle in said closed position;

(d) an actuator assembly associated with said valve needle, wherein said actuator assembly may be activated to apply an opening force to said valve needle stronger than said closing force, for moving said valve needle to said open position; and

(e) a hydraulic link assembly comprising a passive hydraulic link having a hydraulic fluid thickness through which said opening and closing forces are transmitted, whereby said hydraulic fluid acts substantially as a solid with said thickness being substantially constant while said actuator assembly is activated and

wherein said thickness of said hydraulic link is adjustable while said actuator is not activated in response to changes in the dimensional relationship between components of said injection valve to maintain a desired valve needle lift upon activation of said actuator assembly.

44. Upon information and belief, each FCA Diesel Vehicle utilizes six fuel injection valves (the “Accused Instrumentalities”) having a form factor as shown below in Figure 1:

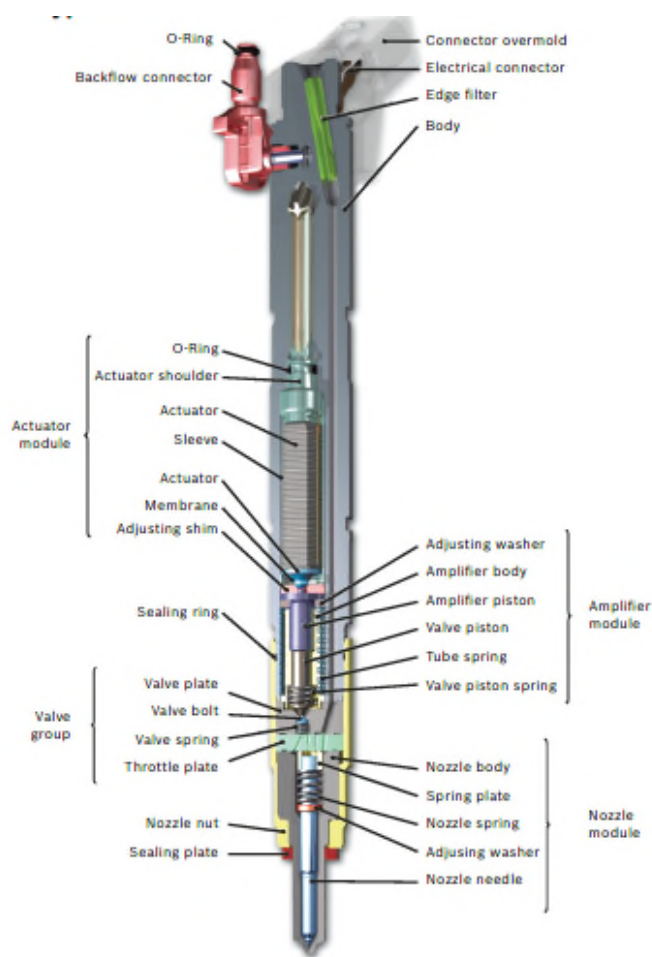


Figure 1

45. An exemplary claim chart detailing the correspondence of every element of claim 1 of the '829 Patent with features of the Accused Instrumentalities used in the FCA Diesel Vehicles

is attached hereto as Exhibit 3 and is incorporated herein by reference.

46. Defendant was not licensed or otherwise authorized by Westport to make, use, import, sell, or offer to sell any products covered by the '829 Patent, and Defendant's conduct is, in every instance, without Westport's consent.

47. Westport reserves the right to modify its infringement theories as discovery progresses in this case and is not to be estopped for purposes of its infringement contentions or any claim construction, express or implied, set forth within the attached claim chart. Westport intends the claim chart for the '829 patent (Exhibit 3) only to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rules of Civil Procedure. The claim chart does not represent Westport's preliminary or final infringement contentions or preliminary or final claim construction positions.

48. Defendant's infringement has damaged Westport and Westport is entitled to damages adequate to compensate for the infringement, but in no event less than a reasonable royalty as provided for in 35 U.S.C. § 284.

## **COUNT II: INFRINGEMENT OF THE '138 PATENT**

49. Paragraphs 1-48 are incorporated by reference as if fully set forth herein.

50. On information and belief, Defendant directly infringed, and continues to directly infringe, literally and/or by the doctrine of equivalents, individually and/or jointly, the '138 Patent, by making, using, performing, testing, leasing, selling, offering for sale and/or importing into the United States vehicles that embody products and/or services that infringe the '138 Patent including, but not limited to, the FCA Diesel Vehicles.

51. As an exemplary claim, Claim 1 of the '138 Patent is reproduced below:

1. An injection valve for injecting fuel into a combustion chamber of an internal combustion engine, said injection valve comprising:

- (a) a valve housing comprising:
  - a fuel inlet port;
  - an interior chamber fluidly connected to said fuel inlet port; and
  - a valve seat for cooperating with a valve member to seal said interior chamber from said combustion chamber when said injection valve is closed;
- (b) said valve member having one end disposed within said valve housing and an opposite end extendable from said valve seat toward said combustion chamber, wherein said valve member comprises a sealing surface that fluidly seals against said valve seat when said injection valve is closed and that is liftable away from said valve seat when said injection valve is open;
- (c) a biasing mechanism associated with said valve member, said biasing mechanism applying a closing force to said valve member when said valve member is in said closed position;
- (d) an actuator assembly associated with said valve member, wherein said actuator assembly may be actuated to apply an opening force to said valve member stronger than said closing force, for moving said valve member to said open position; and
- (e) a hydraulic link assembly comprising a passive hydraulic link having a hydraulic fluid thickness through which said opening and closing forces are transmitted, whereby said hydraulic fluid acts substantially as a solid with said thickness being substantially constant while said actuator assembly is actuated and wherein said thickness of said hydraulic link is adjustable while said actuator assembly is not actuated in response to changes in the dimensional relationship between components of said injection valve to maintain a desired valve lift upon

actuation of said actuator assembly.

52. An exemplary claim chart detailing the correspondence of every element of claim 1 of the '138 Patent with features of the Accused Instrumentalities used in the FCA Diesel Vehicles is attached hereto as Exhibit 4 and is incorporated herein by reference. Upon information and belief, each FCA Diesel Vehicle utilizes the Accused Instrumentalities having a form factor as shown above in Figure 1.

53. Defendant was not licensed or otherwise authorized by Westport to make, use, import, sell, or offer to sell any products covered by the '138 Patent, and Defendant's conduct is, in every instance, without Westport's consent.

54. Westport reserves the right to modify its infringement theories as discovery progresses in this case and is not to be estopped for purposes of its infringement contentions or any claim construction, express or implied, set forth within the attached claim chart. Westport intends the claim chart for the '138 patent (Exhibit 4) only to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rules of Civil Procedure. The claim chart does not represent Westport's preliminary or final infringement contentions or preliminary or final claim construction positions.

55. Defendant has been aware of the '138 Patent since at least the filing date of this Complaint. Defendant's infringement has damaged and will continue to damage Westport. Westport is entitled to damages adequate to compensate for the infringement, but in no event less than a reasonable royalty as provided for in 35 U.S.C. § 284.

#### **DEMAND FOR JURY TRIAL**

Westport Fuel Systems Canada, Inc. respectfully requests a trial by jury of all triable issues.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff Westport Fuel Systems Canada, Inc. respectfully requests that the



Court enter judgment in its favor against Defendant, granting the following relief:

- A. A judgment that Defendant infringes, directly and/or indirectly, one or more claims of each of the Westport Patents;
- B. An order awarding Westport all damages caused by Defendant's infringement of each of the Westport Patents (but in no event less than a reasonable royalty) pursuant to 35 U.S.C. §§ 154(d) and 284;
- C. A judgment and order requiring Defendant to pay Westport pre-judgment and post-judgment interest to the fullest extent allowed under the law, as well as their costs; and
- D. Such other and additional relief as this Court deems just and proper.

Dated: December 15, 2021

Respectfully submitted,

/s/ Jonathan M. Pierce

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